JANUARY, 1905. No. 1



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MONTHLY REVIEW

OF THE

Iowa Weather and Crop Service.

VOLUME XVI. JANUARY, 1905. No. 1.

JANUARY WEATHER AND CROPS.

The weather records for the state at large show but one colder January, and that was January, 1893, when the mean for the state was 9.3°. This year the mean was 11.2°, which is 7.0° below normal. Since the first day of the month there has been practically no temperature high enough to lessen the height of the massive snowdrifts, and the fields in all parts of the state have been well protected from damaging effects of the extreme cold. Winter grain and grasses have suffered no material damage as yet. Generally sleighing has been good in all parts of the state. This has been favorable for hauling produce to the markets, and usual farm work of the winter season. The snow has prevented grazing stock in the corn fields and winter pastures, but on the whole the conditions have been favorable for the farmers.

ORIGIN OF COLD WAVES.

[New York Tribune.]

The cold waves which affect the United States generally enter this country from the northwest, appearing first in Montana and the Dakotas, but almost immediately being felt in Minnesota. They then push southward and eastward, their path following that of the last preceding barometric depression. When the low area travels along the Great Lakes eastward, the cold wave is not severely felt in the South. If the depression crosses Texas and Louisiana or moves up along the South Atlantic coast, the Gulf States suffer. The most intense cold, it should be added, is observed near the center and in the eastern half of an area of very high barometer which follows the low area or storm. All of this is an old story. Much less is known about the development of these visitors before they invade the United States.

Telegraphic reports from Edmonton, in British America, almost invaribly indicate the presence of extraordinary pressures and low temperatures about two days before the boundary is crossed, and Winnipeg, Manitoba, is affected almost simultaneously with North Dakota. Edmonton and Winnipeg are about fifteen hundred miles apart. What happens before Edmonton discovers a cold wave is a question that has been much discussed. Once it was thought that cold waves entered Canada from Hudson Bay. The impression has also prevailed th t they came down from regions north of the Arctic Circle. There can be no question, moreover, that Dawson, which is situated on the upper Yukon, occasionally has extremely cold as well as boisterous weather. *The Cœur d' Alene* (*Idaho*) *Sun* remarked a year or two ago that it had noticed that cold waves reached Havre, Mont., about three weeks after their appearance in the Klondike country (around Dawson).

Commenting on that statement, "The United States Weather Review" expressed the opinion that a cold wave might, and probably did very often, originate in the vicinity of Edmonton, independently of regions further north. It was suggested that the primary cause was radiation of the earth's heat through clear and nearly motionless air. That phenomenon would naturally occur near the centre of the continent. All oceans, including the polar sea, exercise a modifying influence on the cold experienced on adjacent coasts. The lowest temperatures are not recorded on the Artic Ocean, but in the interior. However, the editor of "The Weather Review," Professor Cleveland Abbe, wrote to Dr. Stupart, who is at the head of the Dominion service, and asked for an opinion regarding the statements of the Idaho paper.

In his reply, Dr. Stupart said that the matter needed further investigation and he was making a fresh study of the subject. Still, he had already discovered that some of the cold waves felt at Dawson never reach Edmonton and Winnipeg. It also happens now and then that Dawson and Edmonton are affected at the same time. The two places are so far apart that this fact would indicate that separate causes were occasionally at work. Again, other cold waves really did seem to travel from Dawson to Edmonton and Winnipeg, but the time required for the movement was only about five or six days, not three weeks. The third class of instances was numerous enough, Dr. Stupart thought, to warrant the expectation that a cold wave would be felt in Manitoba five days after it was reported from the Klondike. Considering its source, this verdict is not without value, but further study by meteorologists may lead to the conclusion that very few cold waves come to the United States from districts north of the Artic Circle, and that the majority develop in the neighborhood of Edmonton.

WHAT THE WEATHER BUREAU DOES.

[Marshalltown Times-Republican.]

When the weather bureau was created the results expected by the promoters of the bill were confined to warning the shipping interests of the seaboard and the Great Lakes of the approach of dangerous storms. The service has grown, however, as most good purposes grow, until its value and assistance touches and is appreciated by nearly all classes. It forecasts rain, snow and frost, and the information thus furnished is invaluable to crop raisers. The work of the bureau has become so closely allied with climate and agriculture that one can scarcely be considered apart from the other.

Statistics prove that one storm traversing our eastern coast in the absence of danger signals would leave not less than three million dollars' worth of wreckage. This is simply the money value of the property placed in a position of safety as a result of the

warnings furnished vessel owners and masters, but does not represent the value of property saved. A few years ago a severe storm from the west Indies swept up the Atlantic coast. Warnings of its approach were sent to every city along the Atlantic seaboard from Key West Fla., to Portland, Me., fully forty-eight hours before it reached the coast of Florida. After the passage of this storm it was estimated by the officials of the Savannah and Charlestown boards of trade that more than three million dollars' worth of property had been saved to those two cities alone, to say nothing of the loss of life which might have resulted, had the many vessels kept in harbor put to sea. This one forecast proved a saving to two cities alone of nearly as much money as is required to maintain the entire weather service for three years. The people of Georgia were given timely warning of the severe cold wave of Februrary, 1899, twenty-four to thirty-six hours before its arrival, and in and immediately around Atlanta fully a quarter of a million dollars' wo th of property was saved.

Sugar cane, the most important product of Louisiana, is peculiarly sensitive to low temperature, and is easily destroyed by frost. Whenever frost warnings are received from the weather bureau, all available labor is utilized in cutting the cane and placing it in a position of saf ty. In this way heavy losses are averted by the planters annually. Some years ago it was estimated by the Governor of the state that nearly the entire crop would have been destroyed, but for the timely receipt of a frost warning issued by the weather bureau. Wisconsin tobacco raisers forewarned of frost saved their crop by huge bonfires a few years ago.

Hundreds of thousands of dollars are saved to the orange and truck growers of Florida and the raisin interests of California every year. The warnings are of untold value to the commerce on the Great Lakes, rivers and oceans, to say nothing of the overland transportation. The saving of perishable goods in transit benefits commerce, and these benefits revert directly to the producer. Any damage occurring to goods en route from the producer to the consumer is at the cost of the producer. In the early autumn and spring, timely warnings of frost are sent to the rural districts and disseminated as widely as conditions will permit, and the confidence of the people in these warnings is evidenced by the fact that hundreds of dollars are spent by individual owners in the various methods of protecting their plants or fruits against frost.

THE COLOR OF CORN.

Several days ago a prominent Chicago grain merchant remarked that the "prejudice relative to the color of corn is even more marked than that of the white against the black people of our country, and that while there was some cause for drawing the color line between the races, the question as applied to corn is purely one of sentiment."

The above statement started a discussion upon this ever-fruitful topic. It is a well-known fact that in the Southern States white corn is grown almost exclusively; the Southern farmers will not accept anything but white corn for feeding purposes, and their good wives must have the white corn meal for their old-fashioned "pones" and "butter-cakes." In the Northern and Eastern States, farmers, grain dealers and the queen of the kitchen insist on the yellow grain and the cornmeal made therefrom, claiming that it is stronger and more nutritious than the white varieties, but in the great corn belt of the West, where the bulk of the corn crop is produced, the farmer seeks to plant the varieties that will net him the largest returns from his investment.

At the Illinois experiment station, Iowa College of Agriculture, and other government institutions, the subject of corn breeding by selection and chemical analysis has been taught for the last ten years, the idea being to improve the varieties best adapted to the soil upon which they are to be grown. Some types of corn are bred to yield a high percentage of oil, some for high starch and low oil content, and others for high protein and low starch, etc. In this work of breeding, prolificacy and early-maturing qualities are an important consideration and the results are decidedly in favor of the white varieties.

The feeding value of corn is determined by its chemical analysis, and color does not have anything to do with it. If the farmer is feeding corn or cornmeal for meat or milk production, he wants in his grain all the protein he can get. White corn is equally as valuable for feeding purposes as yellow unless proven otherwise by chemical analysis.

The western farmer who feeds to his own livestock nearly 80 per cent of the corn produced on his farm, long ago ceased to regard the color question as an important factor. He is growing more white corn every year, because in several of the white varieties he has types that yield a larger number of bushels per acre than the yellow varieties, and, at the same time, produce more fodder. It is not a great while since that the farmer could sell his white corn at a premium, because the bulk of the crop of the country was yellow, and the demand from starch factories and hominy mills was for white corn, but today this condition is reversed and there is a scarcity of yellow corn. The demand for this yellow grain can not be supplied, and as a result, it is sold at a premium over white. This premium, however, does not justify the corn grower in switching back to the yellow, because the increased yield of the white varieties more than offsets any premium he might be able to obtain.

It is the belief of well posted farmers and grain dealers that it is only a question of time before the entire country is on a white corn basis. This will, undoubtedly, be the condition in the corn belt of the future unless the yellow varieties are bred up and otherwise improved to such an extent that they will yield just as many bushels per acre as the most prolific of the white varieties.

Some feeders contend that yellow corn is stronger than white; it would be equally as logical to claim that a yellow shelled egg contains more nutriment than that of the white shell. Our agricultural experiment stations, which have given this subject careful study, never make any distinction as regards color. These experts have had every opportunity to test this matter thoroughly, and thus far no experiment has ever been conducted, either in feeding livestock or by chemical analysis, to prove that yellow corn is more nutritious than white, or vice versa. It is wholly a question of chemical analysis, and the time may come when corn will be sold on this basis. It is false economy for eastern feed dealers and farmers to pay a premium for yellow corn on the theory that it is more valuable as a feed, just because it is yellow.—*Roy B. Simpson in Flour & Feed.*

EARLY YEARS AT RIDGEWAY, IOWA.

BY ARTHUR BETTS, VOLUNTEER OBSERVER.

1866—We had a snowy winter; huge drifts covered the fences. July was very arm. June and August rather cool. Crops good. Very mild October, with beautiful Indian summer. Nice corn crop. Very late fall.

1867—Another snowy wi ter, and much drifting. All crops good. Very late fall. October uncommonly warm, and much Indian summer. The summer season was warm.

1868—July was excessively warm. A good corn year. Delightful summer. All crops did well. Much drouth in July and August. 104° in July. October 2d first snow of the season, and earliest I ever saw in Iowa; nice Indian summer later. Warm March. Terrific thunderstorms from the north August 8th.

1869—Summer quite cool and wet. Crops generally good. In July a spot on the sun could be seen by the naked eye when near the horizon. October was uncommonly cold and unpleasant; so was November.

1870—October and November very mild; Indian summer long and delightful. Summer was warm, so was September, frost held off well. Crops fair to good.

1871—Spring opened very early. A warm March—mean about 40°—wonderfully mild and pleasant. Lilacs blossomed unusually early. Vegetation too forward, for in April and early May came damaging frosts in many localities. Lovely Indian summer in October. Very cold November.

1872—A good year. A fine summer. Plenty of everything. Seeding in April. March cold and wintry. The coming winter a hard one, and it commenced early.

1873—Awful snows in January and February. Terrible blockades. Winter very cold. Late spring. June uncommonly warm, and the summer was fine. Crops of all kinds bountiful.

1874—July and August warmer than usual. Coggie's Comet during those months a splendid sight, the tail at one time covering a large portion of the northern heavens. A good harvest of all crops. Indian summer from October 7th to the 28th, and the sky, atmosphere, and sun were gorgeous. October was wonderfully mild, with severe thundershower the 25th. First frost on the 28th of October—latest I ever saw—and it froze the ground. November came in warm; a thundergust on the 8th, and the wind tore up great oak trees. The spring of 1874 was very late. Mercury reached 102° in July. Ridgeway burned in May (27th).

1875—Very backward spring. January and February very cold. Good harvest of small grain. Known as the cold summer. Hard frost on the lowlands August 8th, and it made a good deal of soft corn, shortening the crop greatly. It was a splendid strawberry season. Lots of catching weather in harvest and stacking.

1876—This centennial year opened with a heavy all-day rain on New Years Day, and after it came an ice age, and many trees broke under the weight of ice. Lots of chinch bugs in the summer made havoc with wheat, and we had a general wheat failure—the first ever known here. Corn was a splendid crop. Seeding in April. The winter was not very cold, but a long one. The summer was delightful.

1877—February and December were spring months—unseasonably mild weather. Wheat sowed in February froze to death in March, for March was a cold winter month, making a late spring. Had an excellent wheat crop, and other crops bountiful. September very warm, like a June. November cold and snowy, and we husked corn in the snow. Farmers plowing all the month of December. Venus at greatest brilliancy could be seen in the daytime at all hours, it was so bright, and moonless evenings it cast starlight on the wall through the window. February mean about 33°, March about 24°, December about 38°.

1878—January very open and mild and no snow (mean about 30°). February a spring month, with a maximum temperature of 62° and a mean of about 34°. March was a record breaker—it was so warm, like an ordinary April, and April like May. It was like missing a winter, but there was lots of mud and flowers instead of snow. No damaging spring frosts, though vegetation started so very early. Seeding all done in February and March. Wheat was laid out for an immense crop. July 11 mercury 108° in the shade, and 140° in the sun, cooked the wheat which was in the dough, and made a terrible wheat failure. Lots of fields not harvested, and the grain looked like screenings. It sold for twenty-five cents per bushel. The hot summer made good corn. The year ending November 1878, is known as the year without a winter. Very late fall.

1879—Much snow in December, and it drifted terribly. Wheat no longer a staple—the country had been wheated to death. Very little wheat sowed. Crops were good. October a warm Indian summer month. Spring reasonably early. The winter months were very cold.

1880—Crops good. January had great mountains of snow, piled up in December, 1879. Summer was fine. Much snow. Wet May. Spring floods and washouts. June freshets. November a winter month.

1881—Summer warm. Good crops. Hay was an exceptionally good crop, and clover was beautiful. Mercury was 100° in August. Both September and October were very wet. January was very cold. December almost a spring month.

1882—January a good winter month. February was very mild. Early in May I started for Webster, South Dakota, where I spent fifteen years.

CLIMATOLOGY OF THE MONTH OF JANUARY, 1905.

BAROMETER.—Mean pressure, 30.33 inches; highest observed, 31.09 inches, at Sioux City, on the 25th; lowest observed, 29.12 inches, at Keokuk, on the 1st. The range for the state 1.97 inches.

TEMPERATURE.—The monthly mean temperature for the state, as shown by records of 118 stations, was 11.2°, which is 7.0° below normal. By sections the mean temperatures were as follows: Northern section 7.7°, which is 9.7° below normal; central section 11.2°, which is 7.3° below normal; southern section 14 6°, which is 8.2° below normal. The highest monthly mean was 19.6°, at Keokuk; lowest monthly mean, 4.2°, at Fayette. The highest temperature reported was 56°, at Keokuk, on the 1st; lowest temperature reported was 30°, at Inwood, on the 25th. The average monthly maximum was 43.8°; average monthly minimum, 18.9°. Greatest daily range, 48° at Audubon; average of greatest daily ranges, 35.4°.

PRECIPITATION.—Average precipitation for the state, as shown by records of 125 stations, was .91 of an inch, which is .06 of an inch below normal. The averages by sections were as follows: Northern section, .70 inch, which is .11 inch below normal; central section, 1.07 inches, which is .04 inch above normal; southern section, .97 inch, which is .09 inch below normal. The largest amount reported was 1.82 inches at Lacona; least amount reported, .12 inch, at Storm Lake. The greatest daily rainfall reported was .90 inch, at Lacona, Ridgeway, Northwood, on the 11th and 12th respectively. Average number of days on which .01 of an inch or more was reported, 6.

WIND AND WEATHER.—Prevailing direction of the wind, northwest; highest velocity reported, 38 miles per hour, from the Northwest, at Sioux City, on the 5th. Average number of clear days, 13; partly cloudy, 8; cloudy, 10.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	30.32	30.99	25	29.75	1
Davenport	30.29	30.91	25	29.77	1
Des Moines	30.38	30.04	25	29.79	1
Dubuque	30.31	30.92	25	29.79	1
Omaha, Neb	30.37	30.07	25	29.73	1
Keokuk	30.31	30.95	25	29.12	1
Sioux City	30.36	30.09	25	29.71	1
Means	30.33	30.09	25	29.12	1

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	5.594	33	NW	9
Davenport	5.982	28	NW	9
Des Moines	6.056	32	NW	24
Dubuque	4.870	28	NW	9
Keokuk	6.431	30	NW	24
La Crosse, Wis	4.961	32	NW	9
Omaha, Neb	7 230	36	N	24
Sioux City	8.738	38	NW	5

OBSERVERS' NOTES.

ALTA—*David E. Hadden*. January, 1905, was very cold, the mean temperature being lowest in 15 years, with one exception, January, 1893, which was about half a degree colder. Ground well covered with snow.

ATLANTIC—*J. W. Love*. An ideal winter month; snow enough for good roads; brilliant sun dogs on 24th.

BONAPARTE—*B. R. Vale*. A pleasant and seasonable month; nine days temperature was below zero, the lowest being 11° below on 14th and 25th; frequent light snows.

BRITT—*Geo. P. Hardwick*. Second and fourth weeks were very cold; 7° lower than average of last nine Januaries.

CLINTON—*Luke Roberts*. The mean temperature of the month was 14.7°, being the same as in January 1904, and 3.5° below the normal for past 27 years. The warmest day was the 1st, with a mean of 41.2°; and the coldest day was the 24th, with a mean of 4.5° below zero. There was a stout wind of 26 miles an hour, and blizzard conditions. Precipitation of the month only .79 of an inch of water, coming mainly in form of snow.

GRAND MEADOW—*F. L. Williams*. Month extremely cold; 19 days at zero or below; the 24th was an extremely bad day.

GREENE—*J. L. Cole*. Ice in Shell Rock river 24 inches thick; no thaw in January.

INWOOD—*G. M. Larsen*. Coldest month of the winter; more snow than for many years.

OLIN—*N. Potter*. A real winter month with no general thaw; no loss of stock reported.

PACIFIC JUNCTION—*H. H. McCartney*. Brilliant parhelia near sunset on 24th; snowfall same as in January, 1902, but much colder.

RIDGEWAY—*Arthur Betts*. Coldest January in 7 years, but a very agreeable month; 200 hours of sunshine; no bad storms; sleighing all the month; thawing temperature on 3 days.

SHELDON—*A. W. Beach*. Best sleighing in years; some sunshine every day but 2; splendid winter weather.

WAUKEE—*E. J. Leonard*.—First day of January was above freezing all day; almost steady cold since; 13 days reached zero or lower.

BELATED REPORTS.

FAYETTE—September—Mean temperature 61.2°; highest 89° on the 28th; lowest 32° on the 12th; greatest daily range 43°; total precipitation 6.08 inches; greatest in 24 hours 2.33 inches; prevailing direction, southwest. Number of rainy days, 9.

FAYETTE—October—Mean temperature 50.2°; highest 78° on the 9th; lowest 17° on the 27th; greatest daily range 40°; total precipitation 2.03 inches; greatest in 24 hours 1.04 inches; prevailing direction, northwest; number of rainy days, 6.

FAYETTE—November—Mean temperature 35.9°; highest 70° on the 1st and 2d; lowest 7° on the 30th; greatest daily range 41°; total precipitation, trace; greatest in 24 hours, trace; prevailing direction, southwest; total snowfall, trace; number of rainy days, none.

FAYETTE—December—Mean temperature 18.5°; highest 45° on the 8th and 22d; lowest 20° below zero on the 14th; greatest daily range 37°; total precipitation 2.30 inches; greatest in 24 hours .95 inch; total snowfall 19.5 inches; prevailing direction, northwest; number of rainy days, 6.

ERRATA IN ANNUAL SUMMARY, 1904.

Mean temperature, under climatology of year, 1904, on page 11, recorded as 43.4°, should have been 46.3°. Departure from normal, recorded as 3.3° below normal, should have been 0.4° below normal.

Under Climate and Crop Review, 1904, mean temperature recorded as 43.4°, should have been 46.3°, Departure from normal, recorded 3.3° below normal, should have been 0.4° below normal.

Annual mean temperature recorded as 43.4° on page 16, should have been 46.3°.

ERRATA IN DECEMBER REVIEW.

COLLEGE SPRINGS.—Number of days missing, recorded [a] page 5, should have been [b].

KNOXVILLE.—Mean temperature recorded 26.2° on page 5, should have been 26 7°. Mean maximum temperature recorded 34 8° on page 8, should have been 35.9°.

NEW HAMPTON.—Precipitation on 2d, 3d, 18th and 26th, page 9, recorded as .00, should have been trace.

THURMAN.—Total snowfall not recorded on page 5, should have been 4.5 inches.

TOLEDO.—Total precipitation on page 6, not recorded, should have been 1.58 inches. Greatest amount in 24 hours should have been .80 inch, on page 6. Total snowfall on page 6, not recorded, should have been 20.5 inches.

ZEARING.—Total snowfall recorded 17.3 inches on page 6, should have been 21.8 inches.

CLIMATOLOGICAL DATA FOR JANUARY, 1905.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT. Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	PRECIP., IN INCHES. Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days	SKY. Number clear days.	Number partly cloudy days.	Number cloudy days.	Prevailing direction of wind.	DATES OF THUNDER STORMS.
Algona	Kossuth	1,213	28	8.0	- 8.5	39	4	-20	25	33	1.03	† 73	.65	16.0	6	....	....	....	NW	
Alta	Buena Vista	1,513	14	7.9	- 8.9	44	4	-26	25	28	1.27	†.62	.60	13.7	12	10	14	7	NW	
Alta (near)	Buena Vista	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.25	.....	.45	12.5	6	.....	.....	.....	.....	
Britt	Hancock	1,236	8	7 2	-10.5	39	1	-21	30	39	1.14	†.55	.50	11.8	9	8	16	7	NW	
Charles City	Floyd	1,012	18	4.6	-11.9	37	1	-24	30	37	.86	-.13	.45	10.6	9	10	12	9	NW	
Clear Lake	Cerro Gordo	1,241	....	7.6	.....	41	1	-20	25	32	.30	.....	.10	3.6	3	12	12	7	NW	
Cresco	Howard	.....	31	7.2	- 3.8	39	1	-17	10.30	31	60	-.57	33	6.7	6	15	8	8	NW	
Decorah	Winneshiek	857	12	6.6	- 9.9	34	1	-20	30	35	.91	- 18	.58	9.0	6	....	....	....	.....	
Dows	Wright	1,142	9	7.2	-12.1	40	1	-19	14, 25	33	1.10	†.56	.40	12.0	5	14	2	15	NW	
Elkader	Clayton	727	21	10.2	- 4.2	38	1	-21	30	40	.81	-.54	.40	9.5	4	16	9	6	NW	
Estherville	Emmet	1,298	12	6.6	- 9.7	42	1	-21	25	33	.78	†.43	.30	11.0	8	15	0	16	NW	
Fayette (f)	Fayette	.....	15	4.2	-12.7	38	1	-24	30	33	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Florence	Wright	1,226	..	.....	.....	.....	.....	.....	.....	.....	.73	.....	.31	11.5	7	4	20	7	N	
Forest City	Winnebago	1,226	11	6.4	-11.8	40	1	-19	25	33	.80	†.16	.40	8.0	4	19	3	9	NW	
Grand Meadow	Clayton	1,180	11	7.8	- 8.1	38	1	-18	10	31	.88	-.30	.30	8.8	7	11	10	10	NW	
Greene	Butler	924	8	8.3	-12.0	37	1	-18	13	34	.69	-.02	.23	8.0	6	12	7	12	W	
Hampton	Franklin	1,155	13	8.8	- 6.7	41	1	-17	25	31	.69	-.41	.25	11 7	6	11	18	2	NW	
Hanlontown	Worth	.....	...	6.8	.....	39	1	-21	30	36	1.00	.....	.50	10.0	6	13	6	12	NW	
Humboldt	Humboldt	1,095	16	9 0	- 8.5	45	2	-20	13, 25	35	.60	-.05	.40	6.0	3	16	7	8	NW	
Inwood	Lyon	.....	.....	7.7	.....	50	1	-30	25	33	1 00	.....	.60	10.0	3	16	1	14	NW	
Larrabee (b)	Cherokee	1,266	12	8.6	- 9.3	45	1	-29	25	33	1.30	† 73	.65	13.0	6	12	9	10	NW	
LeMars	Plymouth	1,224	7	9.3	-11 7	45	1	-24	25	32	.88	†.19	.45	11.0	3	16	8	7	N	
Mason City	Cerro Gordo	1,132	8	8.6	- 6.6	38	1	-15	13, 25	28	1.20	†.01	.60	12 0	5	13	10	8	NW	
New Hampton	Chickasaw	1,169	7	7.2	-13.1	38	1	-18	13, 14	33	.47	-.36	.40	4.7	2	2	14	15	N	
Northwood	Worth	1,222	8	7 3	- 9.8	52	1	-19	13	38	1.55	†.90	.90	15.5	4	6	15	10	NW	
Osage	Mitchell	1,184	13	6.6	- 7.4	38	1	-19	13	32	1.03	†.15	.65	10 3	8	14	8	9	NW	
Pocahontas	Pocahontas	1,190	..	9.6	.....	43	4	-21	25	33	1.15	.....	.60	11.5	7	14	11	6	NW	
Plover	Pocahontas	.....	8	7.8	-13.2	42	4	-22	13	40	1.45	†.94	.50	14.5	8	15	4	12	W	
Ridgeway	Winneshiek	1,215	7	10.2	-12.1	40	1	-18	10	35	1.33	-.33	.90	8.8	6	13	16	2	S	
Rock Rapids	Lyon	1,021	7	9.7	- 5.1	50	1	-22	15, 25	44	.70	† 07	.60	7 0	2	....	....	....	.....	
Sheldon	O'Brien	1,422	4	8.2	-13.6	46	1	-27	25	38	1.34	†.95	.55	16.2	7	18	8	5	NW	
Sibley	Osceola	1,212	12	6.0	-10.6	42	1	-26	25	41	.88	†.34	.40	9 0	7	15	5	11	NW	
Sioux Center	Sioux	.....	6	8.9	-12.7	44	1	-27	25	34	1.30	†1.03	.70	13.0	4	10	6	15	NW	
Storm Lake	Buena Vista	1,440	8	6.2	-13.0	44	1, 4,	-26	25	35	.12	-.58	.03	1.5	5	19	0	12	NW	
Washta	Cherokee	1,157	.....	.....	.....	.....	.....	.....	.....	.....	1.15	†.71	.70	12.2	3	20	5	6	.....	
Waverly	Bremer	942	9	7.6	-12.1	36	1	-20	30	35	1.14	†.21	.50	11.4	8	9	12	10	NW	
West Bend	Palo Alto	1,197	12	8.6	- 9.0	42	4	-19	25	33	1.75	†.73	.80	17.5	5	10	8	13	NW	
Average		.....	....	7.7	- 9.7	38.4	.....	-21 4	.....	34.4	.70	-.11	.....	10.5	6	13	9	9	NW	

SOUTHERN SECTION.

Afton	Union	1,212	11	14.5	-8.9	48	1	-17	25	36	1.35	† .54	.60	13.5	6	8	8	15	NW	
Albia	Monroe	957	..	12.3	.....	49	1	-14	24, 25	39	1.04	.....	.35	11.5	8	12	0	19	NW	
Allerton	Wayne	.....	....	15.2	.....	48	1	-15	25	36	1.01	.....	.40	10.1	7	17	3	11	NW	
Atlantic	Cass	1,164	14	11.8	-8.4	46	1	-26	14	40	1.55	† .79	.80	15.5	4	9	7	15	NW	
Bedford	Taylor	.....	....	14.2	.....	50	1	-19	25	36	.95	.....	.80	....	4	17	2	12	NW	
Bonaparte	Van Buren	.....	14	16.2	-7.4	51	1	-11	14, 25	35	.79	- .78	.36	7.5	6	....	....	....	.....	
Burlington	Des Moines	544	....	18.2	.....	54	1	-10	14, 25	34	1.00	.....	.60	....	6	17	4	10	NW	
Chariton	Lucas	1,042	10	13.5	-11.9	47	1	-15	25	35	1.15	† .04	.60	10.0	4	11	11	9	NW	
College Springs	Page	.....	14	15.4	-8.8	47	1	-20	25	34	.90	† .34	.50	9.0	4	18	5	8	NW	
Columbus Junct.	Louisa	586	...	16.4	.....	51	1	-11	14	33	.78	.....	.33	11.2	6	20	8	3	NW	
Corning	Adams	1,127	13	12.8	-9.5	45	1	-19	14, 25	38	.97	† .22	.50	9.8	4	11	9	11	NW	
Corydon	Wayne	992	12	15.4	-6.1	48	1	-15	25	37	1.10	- .51	.67	8.0	8	13	7	11	NW	
Clarinda	Page	.....	15	12.8	-9.9	46	1	-19	25, 26	45	.87	- .10	.77	11 2	4	9	9	13	NW	
Cumberland	Cass	.....	....	.....	.....	.....	.....	.....	.....	.....	1.00	.....	.60	10.0	3	19	6	6	NW	
Earlham (c)	Madison	.....	..	12.7	.....	44	1	-17	25, 26	46	.91	.....	.67	11.0	3	....	....	....	NW	
Ft. Madison	Lee	516	56	.....	.....	....	.....	....	.....	.....	1.37	- .52	.52	10.5	6	9	7	15	N, NW	
Glenwood	Mills	.....	17	15.0	-7.7	54	1	-20	25	33	.75	- .10	.45	7.5	3	6	23	2	NW	
Greenfield	Adair	.....	14	12.4	-9.3	45	1	-20	25	38	.93	† .03	.37	11.5	7	14	9	8	NW	
Hopeville	Clarke	.....	13	13.4	-8.4	46	1	-16	25	35	.46	- .44	.25	....	8	9	11	11	NW	
Indianola	Warren	969		12.6	-6.4	49	1	-17	25	34	1.33	† .18	.58	13.5	9	9	2	20	NW	
Keokuk	Lee	619	34	19.6	-3.6	56	1	-10	24	34	.60	-1.12	.33	4.6	7	14	6	11	NW	
Keosauqua	Van Buren	644	13	15.4	-8.4	52	1	-10	10, 14, 15 25, 26	38	.78	- .14	.23	7.5	7	9	8	14	.....	
Knoxville	Marion	920	12	14.0	-10.4	48	1	-14	25	33	1.65	† .72	.30	18.0	6	10	10	11	NW	
Lacona	Warren	.....	....	....	.....	.....	.....	.....	.....	.....	1.82	.....	.90	18.2	11	5	17	9	.....	
Lenox	Taylor	1,250	10	12.4	-12.5	47	1	-22	25	40	.60	- .03	.30	6.0	3	16	5	10	NW	
Leon	Decatur	1,120	....	15.0	.....	47	1	-15	25	26	.91	.....	.30	9.2	7	12	0	19	N	
Massena	Cass	.....	....	13.2	.....	44	1	-19	25	36	.66	.....	.31	10.0	3	15	4	12	N	
Mt. Ayr	Ringgold	1,236	12	14.8	-9 1	50	1	-17	25	42	1.07	† .04	.65	16.8	6	9	6	16	NW	
Mt. Pleasant	Henry	729	24	15.6	-8.8	52	1	-12	14	36	.88	- .35	.40	9.9	7	17	4	10	NW	
Omaha, Neb.	Douglas	1,113	34	14.3	-4.9	50	4	-18	25	28	1.13	† .44	.77	14.2	10	8	10	13	N	
Oskaloosa	Mahaska	843	22	12.6	-6.4	48	1	-16	10, 14	36	.73	- .15	.22	10.0	8	17	1	13	.....	
Ottumwa	Wapello	649	11	14.9	-9.9	51	1	-12	25	30	.85	- .74	.30	7.5	5	9	9	13	NW	
Pacific Junction	Mills	960	....	13.4	.....	44	1, 4	-22	25	40	.96	.....	.55	9.3	6	11	13	7	N	
Red Oak	Montgomery	1,033	8	16.6	-9.5	45	4	-15	25	35	.65	- .07	.49	6.0	3	13	9	9	NW	
St. Charles	Madison	1,070	....	15.2	.. .	50	1	-16	25	35	1.24	.....	.65	13.4	11	14	4	13	NW	
Stockport	Van Buren	....	....	16.7	.....	51	1	-12	14	36	.94	.....	.45	9.5	7	12	5	14	NW	
Thurman	Fremont	.....	8	13.6	-12.6	49	1	-21	14	42	.91	† .21	.31	....	5	9	11	11	NW	
Wapello (a)	Louisa	588	7	18.4	-8.6	49	1	- 8	25	31	.72	† .01	.23	7.1	6	....	..	....	.....	
Washington	Washington	769	13	14.9	-6.3	47	1	-13	14	35	.82	- .63	.56	....	6	....	....	....	NW	
Winterset	Madison	1,121	14	13.6	-7.9	45	1	-17	25	35	.....	.....	.....	.....	..	18	1	12	.....	
Woodburn	Clarke	961	....	.....	.....	.....	.....	.....	.....	...	1.15	.... .	.40	11.5	7	16	3	12	NW	
What Cheer	Keokuk	....	....	14.9	.....	54	1	-17	10, 14	42	.50	.....	.20	5.0	4	16	7	8	N	
Average		.....	....	14.6	-8.2	48.6	.....	-16.0	.....	36.2	.97	- .09	.....	10.4	6	13	7	11	NW	
Average for State		.....	....	11.2	-7.0	43.8	.....	-18.9	.....	35.4	.91	- .06	.....	11.1	6	13	8	10	NW	

CLIMATOLOGICAL DATA FOR JANUARY, 1905—CONTINUED.

CENTRAL SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Amana	Iowa	721	27	12.0	-3.8	45	1	-15	28,30	33	.89	- .55	.55	7.0	6	12	12	7	NW	
Ames	Story	926	21	14.5	-2.6	47	1	-18	31	42	.64	- .33	.30	7.1	4	8	15	8	NW	
Audubon	Audubon	1,301	9	9.1	-10.3	44	1	-24	14	48	1.08	† .42	.48	10.8	7	13	6	12	NW	
Baxter	Jasper	998	....	10.4	.....	44	1	-17	10, 14, 25	34	1.40	.....	.50	14.0	6	18	0	13	NW	
Belle Plaine	Benton	826	14	10.2	- 8.2	45	1	-18	14	34	1.65	† .13	.40	16.5	8	7	14	10	W	
Boone	Boone	....	....	12.2	....	44	1	-16	25	31	.90	.....	.42	14.5	7	17	4	10	NW	
Buckingham	Iowa	....	....	....	.....	.....	.....	.....	.....	.....	.91	.....	.20	10.5	8	11	19	1	.....	
Carroll	Carroll	1,265	13	10.6	- 9.0	46	1	-20	25	36	1.57	† .71	.60	15.5	7	18	1	12	.....	
Cedar Rapids	Linn	733	23	10.6	- 7.7	44	1	-12	14, 26, 31	36	.74	- .70	.20	13.1	8	14	7	10	NW	
Clinton	Clinton	609	38	14.8	- 4.4	48	1	-10	10	31	.69	-1.16	.16	7.2	7	11	11	9	.....	
Davenport	Scott	606	34	15.7	- 4.3	51	1	- 9	14	30	.63	-1.04	.41	7.2	7	12	7	12	NW	
Delaware	Delaware	1,083	12	9.0	- 6.8	42	1	-15	10, 26, 31	33	.74	- .27	.23	8.5	6	17	7	7	NW	
Denison	Crawford	1,180	9	11.0	-10.1	46	1,4	-24	14	34	1.12	† .56	.38	11.2	7	22	3	6	N	
Des Moines	Polk	861	27	12.8	- 4.7	45	1	-15	25	32	1.03	- .26	.61	14.1	12	8	11	12	NW	
De Soto	Dallas	866	...	12.7	.....	43	1	-19	25	42	1.20	.....	.40	12.0	7	20	2	9	NW	
Dubuque	Dubuque	655	32	12.1	- 5.2	44	1	-12	30	30	.95	- .73	.51	9.6	7	15	6	10	NW	
Fort Dodge	Webster	1,126	....	8.4	.....	41	1,4	-18	25, 26	37	.80	.....	.30	8.0	5	17	4	10	NW	
Galva	Ida	1,290	12	8.8	- 9.7	45	4	-27	25	36	1.53	†1.18	.60	16.8	9	19	4	8	NW	
Gilman	Marshall	1,052	.	.....	.....	.	.....	.....	.....	.....	1.60	.....	.80	16.0	5	13	6	12	N	
Grinnell (a)	Poweshiek	1,023	10	11.3	- 6.2	45	1	-15	25	32	.....	.....		.....	...	11	12	8	NW	
Grundy Center	Grundy	976	12	8.8	- 8.1	38	1	-17	26	38	1.50	† .79	.40	15.0	6	13	4	14	NW	
Guthrie Center	Guthrie	1,077	7	12.8	- 9.2	48	5	-20	25	37	.74	† .21	.44	....	8	16	8	7	NW	
Harlan	Shelby	1,192	....	10.8	.....	43	1,4	-24	14	38	.87	.....	.50	10.5	7	9	8	14	NW	
Independence	Buchanan	921	40	8.2	- 6.5	36	1,2	-19	30	33	1.39	† .02	.47	14.0	6	14	9	8	NW	
Iowa City	Johnson	683	47	11.2	- 7.9	48	1	-16	3.	40	1.22	- .52	.47	17.5	5	8	5	18	N	
Iowa Falls	Hardin	1,170	10	6.5	- 8.9	32	4	-18	30	35	1.10	† .26	.50	13.5	7	18	3	10	NW	
Little Sioux	Harrison	.....	....	11.8	.....	52	4	-27	25	38	1.21	.....	.78	12.4	5	15	7	9	NW	
LeClaire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	.79	.....	.33	10.0	9	....	....		NW	
Logan	Harrison	928	36	13.7	- 5.5	47	4	-21	25	36	1.70	† .58	.60	17.0	7	6	15	10	NW	
Maquoketa	Jackson	688	12	11.7	- 8.4	43	1	-15	10, 30	39	.63	- .69	.33	13.0	5	15	5	11	NW	
Marshalltown	Marshall	947	10	9.4	-10.7	41	1	-16	14, 25	40	.92	- .02	.24	11.1	10	9	9	19	NW	
Muscatine	Muscatine	....	46	.....	.....	.....	.....	.....	.....	.....	.93	- .08	.24	10.0	7	....	....	...	S, NW	
Mt. Vernon	Linn	847	30	12.4	- 6.3	44	1	-17	15	33	1.21	- .10	.65	25.3	9	16	3	12	NW	
Newton	Jasper	944	15	11.4	- 6.3	43	1	-18	25	38	1.46	† .54	.65	17.5	6	11	11	9	NW	
Odebolt	Sac	1,356	8	10.2	-12.4	50	1	-25	25	35	.94	† .62	.60	11.5	5	18	4	9	.....	
Ogden	Boone	1,088	9	10.2	-11.3	43	1	-18	14, 25	33	.95	† .36	.45	9.5	5	12	5	14	NW	
Olin	Jones	760	7	12.3	-10.3	42	1	-17	30	32	.85	- .23	.30	11.0	7	15	7	9	NW	
Onawa	Monona	.....	....	13.0	.....	47	1	-20	25	33	1.43	† .23	.85	14.6	7	20	4	7	NW	
Perry	Dallas	975	...	11.2	.....	42	1	-19	25	40	1.28	.....	.45	12.8	8	...	...		.....	
Rockwell City	Calhoun	.....	8	10.4	-10.8	45	1	-22	25	33	1.25	† .62	.60	12.5	4	18	4	9	.....	
Sac City	Sac	1,278	23	11.4	- 5.1	45	4	-23	25	39	1.17	† .22	.50	11.8	7	19	3	9	W	
Sioux City	Woodbury	1,165	16	10.0	- 6.3	47	1	-25	25	30	.67	† .04	.38	13.4	6	11	6	14	NW	
Tipton	Cedar	807	....	15.4	.....	46	1	-10	14, 15, 25	31	.....	.....	....	....	..	17	10	4	NW	
Toledo	Tama	856	9	10.8	- 8.9	44	1	-17	10, 26	40	.97	† .16	.50	15.5	8	13	6	12	NW	
Vinton	Benton	810	15	11.2	- 7.7	40	1	-19	30	36	.80	- .35	.40	8.0	3	18	0	13	NW	
Waterloo	Black Hawk	862	16	8.2	- 9.6	40	1	-16	13, 30	33	.87	- .08	.37	10.0	6	12	8	11	NW	
Waukee	Dallas	1,039	....	13.2	.....	46	1	-18	25	42	1.65	.....	.60	16.5	9	12	9	10	NW	
Wilton Junction	Muscatine	683	11	14.2	- 8.6	52	1	-14	10	34	.74	.....	.40	9.0	4	17	0	14	NW	
Whitten	Hardin	1,036	..	9.1	-11.2	49	1	-20	13	34	1.30	.....	.40	13.0	4	12	8	11	NW	
Zearing	Story	718	.	9.4	..	39	1	-23	25	35	.76	.....	.35	10.5	4	14	6	11	NW	
Average	.....	.....	...	11.2	- 7.3	44.4	....	-18.2	.....	35.6	1.07	† .04	.....	12.3	7	14	7	10	NW	

† Above normal. ‡ Received too late to be computed with means. *a*. One day missing; *b*. two days, etc. § Not supplied with self-registering instruments.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JANUARY, 1905.

STATIONS.		DATE.																															MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max..	48	37	24	35	34	23	23	24	21	7	16	12	14	8	13	21	36	37	33	36	25	22	30	26	2	23	27	24	22	20	17	23.9
	Min ..	35	22	8	14	17	15	14	7	3	- 7	0	- 3	-12	-10	-10	- 1	13	24	17	18	7	8	13	-10	-17	-10	10	3	- 4	- 5	- 1	5.1
Albia.	Max..	49	32	20	32	33	22	19	27	9	9	17	10	5	11	17	24	36	36	37	42	18	26	- 2	6	25	26	26	13	12	15	..	21.7
	Min ..	38	32	2	5	19	12	16	0	0	-12	- 7	- 1	-13	-13	- 9	- 6	2	15	13	21	11	7	- 6	-14	-14	- 3	0	1	- 1	- 5	0	2.9
Algona. ..	Max..	38	34	22	39	30	21	18	16	16	8	7	5	3	1	11	21	27	30	31	26	18	20	22	14	0	19	18	11	11	10	11	18.0
	Min .	24	6	- 6	7	15	15	7	- 5	- 5	-11	3	- 3	-15	-14	-13	-12	2	5	16	11	2	1	8	-15	-20	-14	2	-13	-14	-16	-14	-2.1
Allerton .	Max.	48	43	26	32	35	26	22	25	22	6	16	15	7	13	19	25	35	36	38	45	35	20	32	27	5	24	29	24	14	14	19	25.1
	Min ..	37	24	5	11	17	12	14	6	5	-10	1	- 2	-13	-13	-11	- 1	8	28	16	19	10	6	16	- 9	-15	-10	10	5	4	- 4	- 1	5.3
Alta.	Max..	43	33	26	44	30	21	18	22	20	6	7	3	0	3	8	18	26	28	30	25	16	12	22	6	- 4	16	19	8	10	10	7	17.2
	Min ..	29	8	5	16	13	13	6	- 5	- 6	-10	3	-12	-20	-16	-16	-10	7	5	14	9	2	4	6	-15	-26	-12	2	-10	- 4	-10	-14	-1.4
Amana. ..	Max..	45	37	19	28	33	27	21	14	26	5	23	19	3	6	16	16	29	38	31	39	35	20	26	23	4	23	22	17	12	13	14	22.1
	Min ..	28	19	6	4	25	8	12	- 2	1	-14	5	3	-11	-14	-13	- 5	- 2	24	11	11	9	1	13	-10	-13	-15	6	- 5	2	-15	- 7	2.0
Ames	Max..	47	41	37	32	43	36	30	29	26	23	30	26	20	26	22	28	28	29	33	41	38	37	31	20	16	24	21	19	4	10	11	27.7
	Min ..	21	19	17	8	1	6	2	- 2	-13	2	4	- 8	-15	- 5	- 2	3	-15	16	13	26	2	18	16	-12	-17	-15	6	- 8	0	-11	-18	1.3
Atlantic..	Max..	46	38	29	41	35	25	24	29	25	7	13	10	7	8	15	23	35	30	34	32	26	18	24	23	- 2	22	35	21	16	17	13	23.2
	Min ..	24	18	5	14	17	15	13	3	2	- 9	3	- 5	-17	-26	-23	-17	3	22	14	8	6	9	14	-11	-21	-18	- 2	4	- 1	-14	-21	0.3
Audubon.	Max..	44	36	27	42	34	22	21	27	24	6	10	6	1	3	15	20	33	28	33	28	23	18	25	19	- 1	19	22	19	10	12	10	20.5
	Min ..	29	17	5	- 6	16	15	13	- 3	- 1	-10	2	- 6	-15	-24	-16	-15	- 3	-14	10	13	5	3	11	-13	-22	-19	- 2	- 5	- 2	-15	-19	-2.3
Baxter. ..	Max..	44	35	29	28	33	25	20	15	25	3	17	15	2	9	15	20	29	35	34	36	26	15	24	21	- 5	20	22	18	15	11	13	20.9
	Min ..	30	15	- 2	4	18	9	12	- 5	0	-17	1	- 5	-16	-17	-13	- 5	3	21	13	11	4	0	10	-12	-17	- 4	4	- 9	- 1	-12	-11	0.0
Bedford ..	Max..	50	37	31	37	35	24	33	25	27	6	15	12	3	9	13	22	37	35	34	37	27	20	28	27	0	23	32	26	15	16	18	24.3
	Min ..	35	22	6	17	18	13	14	7	4	- 9	1	- 5	-16	-18	-16	- 7	1	24	14	15	7	10	15	- 8	-19	-13	4	10	2	- 3	0	4.0
Boone . ..	Max..	44	37	24	36	35	22	22	20	25	8	14	12	6	7	17	21	29	30	32	31	25	14	23	20	1	21	21	19	10	12	14	21.0
	Min ..	34	14	4	10	17	15	13	0	2	- 8	2	- 3	-13	-12	- 9	- 2	8	23	16	17	3	5	10	-11	-16	- 7	7	- 7	3	- 7	- 5	3.3
Belle Pl'e	Max..	45	34	18	30	32	25	21	15	12	6	23	11	2	5	17	16	30	37	33	38	18	21	27	- 5	3	23	25	10	13	12	19	19.9
	Min ..	30	31	1	3	20	5	12	- 6	0	-17	0	0	-15	-18	-17	- 8	1	30	6	11	5	- 2	4	-11	-16	- 9	5	-8	0	-12	-10	0.5
Bonapar'e	Max..	51	40	25	27	36	29	24	24	28	5	23	20	9	11	21	26	34	36	35	44	36	21	28	26	7	26	28	21	15	13	15	25 3
	Min .	39	25	10	16	22	14	16	5	- 1	- 9	4	5	- 6	-11	- 7	3	9	29	18	18	15	6	16	- 9	-11	- 7	14	1	3	- 6	4	7.0
Britt. ...	Max..	39	33	21	38	35	20	18	18	23	12	10	11	3	0	10	14	29	29	32	28	17	22	25	12	- 1	20	15	11	9	18	15	18.9
	Min ..	22	7	- 4	7	6	10	5	- 9	- 7	-12	3	- 9	-18	-14	-20	-18	- 6	1	11	8	0	- 3	3	-14	-20	-14	8	-13	- 5	-21	-20	-4.4
Burling'n	Max..	54	48	29	29	39	29	27	25	29	7	27	24	18	15	24	29	33	37	40	44	35	23	30	25	12	23	32	22	29	15	18	28.1
	Min ..	40	25	12	14	26	14	15	5	1	- 7	- 7	9	- 2	-10	- 5	4	13	32	19	20	18	7	11	- 8	-10	- 6	15	4	7	- 3	8	8.4
Carroll ...	Max..	46	39	44	45	24	24	15	21	10	8	9	5	9	8	18	27	36	31	35	27	17	22	25	- 7	5	19	25	9	14	12	..	20.7
	Min ..	32	21	5	14	17	14	12	- 5	- 2	- 8	2	- 9	-19	-17	-12	- 6	7	10	13	20	1	0	8	-13	-20	-17	1	- 9	0	-10	-12	0.6
Cedar R..	Max..	44	36	18	31	30	21	20	27	13	10	22	12	5	5	16	18	37	37	33	38	19	17	24	- 3	6	22	18	11	14	11	10	20.1
	Min ..	29	33	5	5	19	11	11	0	- 1	-10	-10	2	- 9	-12	-11	-11	- 3	1	15	12	17	2	3	- 4	-10	-12	-11	1	- 2	-10	-12	1.2
Chariton .	Max..	47	46	23	33	32	25	21	22	26	5	16	15	7	10	15	22	34	36	37	42	28	18	27	0	2	23	26	23	14	15	17	22.8
	Min ..	38	22	4	9	15	12	14	0	5	-11	0	- 1	-14	-13	-12	- 2	4	27	16	17	9	5	13	-10	-15	-12	11	2	2	- 6	0	4.2
Charles C.	Max..	37	34	15	29	25	20	19	16	23	3	15	13	- 1	- 2	11	15	22	25	30	26	10	11	19	2	3	18	15	8	9	5	6	15.5
	Min ..	19	0	- 6	1	12	11	3	- 8	-10	-14	2	-14	-21	-23	-12	-11	- 9	8	7	4	- 7	- 6	2	-13	-18	-19	- 1	14	-12	-24	-18	-6.3
Clarinda..	Max..	46	32	30	42	35	35	23	27	13	7	14	7	5	12	17	22	39	34	38	33	20	21	13	- 1	2	25	32	14	16	16	11	22.1
	Min ..	31	28	9	17	18	15	15	6	6	- 4	1	- 5	-15	-17	-16	-12	- 6	10	17	16	7	7	13	- 7	19	-19	2	8	3	- 1	1	3.5
Clear L ..	Max..	41	37	17	32	33	20	33	15	21	6	11	10	1	- 2	7	16	24	24	28	27	22	14	20	15	1	20	17	15	10	9	9	17.8
	Min ..	21	14	1	1	15	13	9	- 7	- 5	-13	2	- 4	-18	-17	-18	-13	2	7	11	11	0	- 2	6	-16	-20	-12	- 3	-10	- 5	-15	-15	-2.6
Clinton ...	Max..	48	40	21	26	33	28	25	12	27	7	26	25	14	6	15	19	29	38	38	40	35	21	28	23	14	22	24	15	17	15	17	24.1
	Min ..	27	20	10	8	20	16	10	0	- 1	-10	6	8	- 2	- 4	- 9	0	3	26	16	16	24	5	13	- 8	- 9	- 8	11	- 2	3	- 8	- 6	5.6
Col. Sprgs	Max..	47	40	31	40	36	26	27	27	27	7	16	11	2	7	15	18	36	36	36	36	21	23	32	26	3	23	32	23	13	21	20	24.5
	Min ..	33	10	10	19	19	14	12	7	4	- 3	3	- 6	-17	-14	-12	- 2	20	26	16	19	6	12	17	- 8	-20	10	10	7	3	1	2	6.4
Colum. J.	Max..	51	41	25	30	34	28	29	18	28	7	23	24	10	9	19	29	32	38	36	44	39	20	29	25	6	25	25	21	15	18	17	25.7
	Min ..	37	24	10	13	25	11	12	2	2	- 9	5	6	- 4	-11	- 8	2	11	30	17	19	14	4	19	- 9	-10	- 8	13	- 1	4	- 5	1	7.0
Corning ..	Max..	45	38	26	38	36	23	22	23	26	6	14	10	3	7	12	18	35	34	42	34	25	19	27	26	1	21	28	23	12	14	13	22.6
	Min ..	36	21	7	16	14	13	13	5	3	- 7	1	- 5	-18	-19	-16	- 7	4	24	11	17	7	8	10	-11	-19	-17	7	3	3	-10	- 5	2.9
Corydon..	Max	48	46	28	34	33	26	22	24	27	9	17	16	6	11	19	27	34	36	38	44	35	35	28	28	9	25	28	26	19	14	17	26.1
	Min ..	37	24	3	9	17	11	12	3	5	-10	0	- 2	-13	-14	-10	- 0	8	28	15	18	9	5	14	- 9	-15	-10	9	3	4	- 5	- 2	4.6
Cresco ...	Max..	39	35	16	30	27	19	18	9	22	1	14	16	4	- 1	9	15	23	24	27	25	25	9	17	10	5	17	17	10	8	7	7	16.3
	Min ..	19	15	- 4	3	13	13	9	- 9	- 7	-17	0	2	-16	-15	-10	- 5	0	17	12	5	2	- 5	5	-13	-15	- 4	4	-11	- 5	-17	-11	-1.8
Davenpo't	Max..	51	35	23	29	32	26	23	29	28	6	27	21	14	8	19	24	34	37	34	41	35	21	25	16	10	24	24	15	16	14	13	24.0
	Min ..	35	19	12	13	26	16	10	1	- 2	- 8	6	3	- 5	- 9	- 6	5	11	29	18	22	11	7	15	- 9	- 9	- 5	14	4	4	- 1	1	7.4
Decorah. .	Max..	34	22	18	28	27	22	18	11	- 2	7	18	13	2	2	12	17	26	28	32	28	14	17	23	- 8	8	18	17	14	12	10	12	16.1
	Min ..	18	11	- 8	- 3	16	11	8	- 7	- 8	-17	1	4	-11	-14	-11	- 6	- 5	13	7	7	4	- 7	6	-12	-10	-17	- 1	-13	- 3	-20	-16	-2.8
Delaware.	Max..	42	34	14	25	29	21	18	10	3	5	20	20	5	0	11	15	26	38	30	31	28	16	24	17	6	16	17	10	10	10	18	18.4
	Min ..	30	12	- 1	- 1	19	11	9	- 7	- 5	-15	0	0	- 8	-14	-13	- 7	1	20	10	10	5	- 4	7	- 1	-13	-15	3	-10	- 2	-13	-15	-0.5
Denison ..	Max..	46	40	28	46	38	23	22	26	25	8	9	7	3	6	16	21	30	29	34	31	26	14	25	20	- 1	19	24	19	11	11	11	21.8
	Min ..	30	17	5	16	16	15	11	- 4	- 1	-10	4	- 6	-18	-24	-15	-13	6	10	10	19	2	4	12	-12	-21	-17	0	- 5	1	- 5	-20	0.2
Des M....	Max..	45	35	21	35	33	24	20	24	27	4	19	10	6	10	18	22	32	35	34	34	20	16	27	15	3	22	23	16	14	13	13	21.6
	Min ..	35	11	6	10	17	17	15	2	2	- 7	3	- 1	-12	-12	-10	- 2	7	23	20	16	8	6	12	-10	-15	-10	11	- 2	- 3	- 7	- 4	4.1
De Soto ..	Max..	43	36	28	37	35	24	22	25	27	4	16	10	3	10	18	28	32	35	35	35	26	19	27	21	1	24	24	19	17	16	16	23.0
	Min .	35	17	6	12	18	16	15	0	2	-10	0	- 4	-15	-14	-10	- 3	4	20	19	16	3	3	12	-12	-19	-18	9	- 6	0	-14	- 8	2.4
Dows. ...	Max..	40	36	32	37	35	19	18	15	23	2	10	9	- 2	- 2	12	16	24	26	32	28	22	13	20	13	- 2	19	17	13	6	3	7	17.1
	Min ..	25	13	- 7	5	15	10	8	- 8	- 2	-13	2	- 4	-18	-19	-13	-10	0	10	8	10	0	- 5	8	-15	-19	-14	2	-12	- 4	-18	-16	- .6
Dubuque.	Max..	44	37	16	25	39	24	22	12	25	4	24	21	9	5	15	19	26	37	35	34	29	17	24	12	9	21	19	11	14	10	16	20.8
	Min ..	30	15	6	3	23	16	10	- 1	- 4	-11	4	7	- 6	11	6	0	0	22	16	12	8	2	11	-10	10	- 9	7	- 6	1	-12	- 5	3.3
Earlham.	Max.	44	34	26	36	33	23	22	26	20	2	13	9	4	..	..	..	43	36	35	38	26	15	27	23	2	29	25	21	13	13	12	23.2
	Min .	34	12	6	9	15	12	11	- 3	0	-14	- 3	- 9	-14	..	..	..	9	18	14	16	6	4	11	-10	- 7	-17	5	- 2	3	-13	-12	2.2
Elkader ..	Max..	38	32	24	26	30	28	22	16	5	3	20	19	9	5	16	24	25	34	37	33	27	20	22	16	10	20	19	16	16	10	16	20.6
	Min ..	17	14	- 8	- 6	13	13	10	- 5	- 4	-16	1	5	-15	-18	-11	-10	-12	17	5	0	5	- 4	8	-10	-11	-20	7	-19	- 6	-21	-16	-0.3
Esthervil.	Max..	42	18	23	41	20	21	14	22	2	5	5	2	3	0	14	22	27	32	31	26	13	14	21	-11	5	13	18	18	10	5	7	15.7
	Min ..	21	17	0	7	18	13	10	- 5	- 5	-10	-10	- 9	-15	-14	- 9	- 5	- 3	7	14	8	2	0	7	-16	-21	-20	0	-12	-13	-18	-14	-2.4
Fayette ..	Max..	38	..	..	..	..	..	..	..	0	4	15	10	2	- 3	10	20	24	33	29	31	26	13	21	10	7	17	14	13	7	9	11	15.0
	Min ..	22	..	..	..	..	..	..	-10	-10	-19	0	- 3	-16	-16	-16	- 8	- 8	17	5	2	0	- 5	5	-14	-15	-14	4	-17	- 6	-24	-16	-8.5
Forest C'y	Max..	40	24	23	38	20	18	13	22	4	10	10	13	7	10	11	12	23	25	34	25	10	12	19	-10	3	18	13	12	10	8	7	15.5
	Min ..	25	23	- 2	2	17	14	10	- 8	- 5	-12	4	- 5	-17	-11	-17	-15	- 8	3	3	7	0	0	5	-14	-19	-17	3	-12	-10	16	-14	-2.8
Ft. Dodge	Max..	41	25	21	41	21	22	15	25	5	4	9	4	2	2	10	18	27	28	31	25	20	13	22	-10	- 2	19	17	9	10	8	...	16.1
	Min ..	26	23	2	7	21	15	12	-2	0	- 8	- 8	- 3	-16	- 7	-10	- 8	- 5	10	10	12	3	8	10	-12	-18	-18	4	- 9	-11	- 5	- 4	0.6
Galva	Max..	44	36	26	45	31	22	19	24	23	10	9	6	0	2	13	19	29	28	29	26	20	20	25	13	8	17	22	13	8	18	5	19.7
	Min ..	26	15	5	17	20	15	9	- 6	- 5	- 9	3	-10	-21	-23	-15	-10	4	3	2	11	1	- 3	10	-15	-27	-17	8	- 9	- 3	-18	-22	-2.1
Glenw'd .	Max.	54	44	30	47	45	25	22	25	29	10	12	7	5	10	17	24	29	35	38	27	16	25	24	- 4	10	23	31	27	14	14	13	23.4
	Min ..	33	22	10	18	19	12	10	7	2	- 4	3	- 3	-13	-12	-12	-18	20	19	27	16	10	15	13	- 9	-20	-10	10	5	4	- 1	- 2	6.7
Grand M.	Max..	38	33	14	26	26	23	23	9	22	3	15	16	4	2	11	15	25	31	30	28	24	11	23	11	6	17	17	8	11	9	10	17.5
	Min .	25	14	- 4	- 2	13	11	8	- 9	- 7	-18	- 1	0	-14	-16	-14	- 6	1	18	18	4	1	- 4	5	-14	-15	-14	4	-12	- 4	-16	-10	-1.9
Greene...	Max..	37	34	18	29	30	21	19	15	23	5	13	13	3	- 1	14	18	24	26	31	27	25	15	21	14	5	19	19	12	11	11	9	18.1
	Min ..	22	16	0	3	19	11	10	- 7	- 1	-12	4	- 2	-18	-13	-11	-10	- 3	12	9	8	2	- 5	6	-11	-15	-13	1	-13	- 3	-16	-13	-1.5
Greenfield. ..	Max..	45	38	28	35	33	25	20	27	25	11	14	10	4	6	15	20	38	35	34	35	25	23	29	24	2	23	30	21	12	20	17	23.3
	Min ..	32	18	4	10	12	12	12	- 2	- 2	- 4	- 2	- 7	-14	-15	-12	- 5	7	22	12	17	3	6	12	-14	-20	-15	- 6	- 4	0	- 7	- 7	1.4
Grinnell .	Max..	45	34	15	28	31	22	20	14	24	5	18	15	3	6	15	7	28	35	31	36	27	14	23	21	4	21	22	12	..	12	13	20.0
	Min ..	33	14	2	8	20	12	12	- 2	1	-13	3	0	-12	-13	-12	- 2	8	19	15	14	6	2	10	-11	-15	-10	8	- 7	..	- 7	- 5	2.6
Grundy C	Max..	38	35	19	29	31	23	20	15	20	2	16	15	2	5	6	17	27	30	33	37	28	16	23	19	5	20	20	16	11	9	12	19.3
	Min ..	30	15	- 1	- 1	22	6	9	- 8	- 1	-16	1	- 2	-15	-16	-15	-11	-11	19	10	12	2	- 2	9	-12	-16	-17	1	-14	- 4	-14	16	-1.8
Guthrie C	Max.	45	39	27	39	48	24	23	25	26	7	12	12	2	6	10	14	38	32	32	32	27	28	26	25	2	22	23	20	10	15	15	22.8
	Min ..	37	27	5	14	18	16	14	- 1	1	- 8	1	- 4	-14	-15	- 9	- 7	7	20	17	17	3	3	11	-12	-20	-11	5	- 7	- 2	-11	-11	2.7
Hampton.	Max..	41	35	24	32	32	22	19	17	11	4	13	11	3	1	17	18	25	29	35	28	20	13	23	9	6	19	16	15	11	9	9	18.2
	Min ..	26	12	1	4	13	12	10	- 5	- 1	-12	1	- 4	-16	-12	-12	- 9	2	13	15	13	2	- 1	7	-13	-17	-12	4	-11	- 3	-13	-11	-0.5
Hanlontown .	Max..	37	36	26	31	31	20	20	15	22	4	10	10	0	1	18	21	21	31	33	25	19	16	21	13	1	18	17	11	10	5	10	17.9
	Min ..	20	10	- 3	1	14	12	8	- 9	- 6	-14	1	- 6	-20	-14	-16	-13	- 3	5	11	2	- 2	- 4	1	-15	-19	-18	1	-14	- 7	-21	-19	-4.4
Harlan....	Max.	43	35	28	43	34	23	21	26	24	9	11	8	2	6	15	21	33	30	34	28	24	20	27	20	0	21	25	20	11	18	15	21.8
	Min ..	23	18	5	17	16	14	10	- 2	- 1	-11	2	- 7	-16	-24	-18	-16	3	10	7	14	4	9	12	-12	-22	-17	- 1	- 3	0	-12	-10	-0.3
Hopeville.	Max..	46	36	27	35	33	22	22	24	26	3	14	10	1	9	15	22	37	36	37	37	24	19	26	21	4	24	27	17	10	15	20	22.5
	Min ..	34	15	7	14	17	15	15	5	1	- 8	0	- 3	-13	-12	-13	- 2	5	22	17	18	8	7	14	-10	-16	-11	9	3	3	- 5	- 3	4.3
Humboldt	Max..	40	45	20	40	36	22	20	30	25	6	10	7	4	2	- 4	18	29	29	30	27	23	15	24	20	0	20	20

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JANUARY, 1905—Continued.

STATIONS.		DATE.																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Iowa F ..	Max..	24	30	18	32	27	20	17	20	4	4	12	2	0	0	15	16	25	27	30	25	17	16	21	-10	4	19	16	5	8	10	9	14.9
	Min ..	23	18	- 1	3	17	8	10	- 5	0	-13	- 5	- 1	-17	-15	-12	-11	-10	16	11	7	1	-10	8	-10	-16	-15	3	-10	- 2	-18	-14	-1.9
Keokuk ..	Max..	56	51	27	33	34	31	24	24	30	7	27	20	13	11	21	27	38	40	38	45	38	22	28	27	11	28	32	26	16	15	18	27.7
	Min ..	46	27	18	18	27	16	18	14	6	- 2	4	9	- 2	- 8	- 3	6	18	32	23	23	21	9	18	- 7	-10	- 3	19	9	9	0	9	11.6
Keosauqua ..	Max..	52	35	23	31	34	24	24	29	17	13	21	18	13	13	20	25	36	37	40	44	25	22	24	7	8	28	29	15	14	15	18	24.3
	Min ..	37	33	10	10	20	15	18	5	17	-10	- 5	5	- 6	-10	-10	- 8	4	14	18	15	19	7	10	- 2	-10	-10	- 4	3	2	7	4	6.4
Knoxville	Max..	48	32	21	34	34	23	21	20	18	3	18	15	3	9	18	24	26	43	37	41	27	18	30	25	4	24	24	20	11	17	14	22 6
	Min ..	35	18	4	15	20	15	15	1	3	-10	0	- 1	-13	-12	- 9	1	7	25	18	19	8	5	14	- 8	-14	- 7	12	- 2	3	- 6	- 3	5.3
Larrabee.	Max..	45	35	26	44	32	23	18	24	22	10	..	5	0	1	12	20	28	..	31	27	18	17	24	9	- 4	21	23	10	11	15	10	19.2
	Min ..	22	10	12	11	13	13	8	- 8	- 5	- 6	..	-12	-21	-18	-19	-13	8	..	13	13	4	0	9	-14	-29	-13	- 2	- 2	- 7	-10	-12	-1.9
Le Mars..	Max..	45	35	26	44	34	34	20	24	21	10	8	6	- 1	- 1	11	19	27	29	30	28	21	18	22	15	- 5	20	21	16	9	12	8	19.5
	Min ..	22	18	5	18	15	12	5	- 3	- 5	- 8	4	-11	-20	-20	-18	-13	8	5	15	12	5	2	11	-13	-24	-12	- 5	- 1	- 1	-14	-16	-0.9
Lenox....	Max..	47	38	25	36	34	23	22	24	26	5	14	11	3	6	12	19	36	35	32	39	25	19	28	26	- 1	23	28	24	10	15	13	22.5
	Min ..	33	19	5	16	17	12	13	3	1	- 7	- 2	- 7	-21	-19	-17	- 6	4	24	13	17	6	8	13	-14	-22	-16	6	3	1	- 4	- 4	2.4
Leon.....	Max..	47	39	26	33	33	26	24	22	26	6	16	15	5	9	15	20	35	36	34	33	33	20	28	27	4	24	28	25	14	15	15	23.5
	Min ..	36	25	8	14	19	14	15	7	5	- 6	1	- 2	-12	-10	-10	1	9	29	18	20	10	9	14	- 8	-15	- 8	12	6	4	- 2	2	6.6
Lit. Sioux	Max..	47	45	32	52	40	25	22	26	25	7	9	8	0	6	16	19	34	35	38	28	24	19	29	22	0	22	24	21	14	15	11	23.1
	Min ..	27	22	7	22	18	13	10	- 2	- 1	-10	4	-12	-20	-26	-18	-19	12	9	3	18	2	12	14	-10	-27	-12	- 1	4	4	-10	-14	0.6
Logan....	Max..	46	44	30	47	37	36	23	27	23	11	13	10	4	- 6	18	23	35	36	35	30	36	26	33	23	- 1	27	29	21	17	22	26	25 2
	Min ..	27	20	- 8	22	15	14	10	4	0	6	4	- 8	-16	-19	-15	-13	7	15	5	16	6	12	12	-11	-21	-12	5	4	5	- 9	-10	2.2
Maquoketa ..	Max..	43	33	23	29	31	29	25	26	19	12	24	19	17	9	11	18	35	35	40	39	28	21	25	2	18	20	23	17	18	12	16	23.0
	Min ..	25	32	5	3	17	17	13	- 2	- 3	-15	-13	10	- 2	-12	-13	- 9	- 4	- 1	12	11	15	2	8	- 6	-11	-14	-12	- 6	- 6	-15	-13	0.4
Marshlt'n	Max..	41	33	21	31	30	23	19	25	8	8	18	11	4	7	17	18	35	35	33	36	18	17	23	- 6	7	22	22	11	15	12	14	19.6
	Min ..	29	30	0	4	19	10	12	- 4	- 3	-15	-14	- 1	-15	-16	-12	- 9	- 5	11	13	11	3	0	4	- 8	-16	-15	- 4	- 8	- 8	-11	- 8	-0.8
Mason C..	Max..	38	32	17	30	30	20	20	15	15	4	10	10	3	- 3	10	12	22	24	30	28	20	12	20	14	3	19	15	12	12	7	9	16.5
	Min ..	25	15	3	10	17	15	10	- 5	0	-12	4	- 2	-15	-12	-11	- 7	3	10	15	8	5	2	8	-10	-15	- 9	5	- 9	- 2	-12	-12	0.7
Massena..	Max..	44	38	28	39	35	23	22	25	25	7	14	10	6	7	14	22	36	34	33	33	25	19	28	24	1	22	25	23	12	18	13	22.7
	Min ..	34	17	7	17	18	14	13	3	1	- 6	1	- 5	-16	- 4	-12	- 5	8	24	15	20	6	10	13	-12	-19	-14	6	- 1	- 1	- 8	-12	3.6
Mt. Ver'n	Max..	44	40	22	27	30	24	20	17	25	9	23	22	3	6	16	18	27	35	33	42	35	20	25	11	16	18	20	18	18	12	15	22 3
	Min ..	39	19	3	6	24	12	10	- 4	- 5	-14	3	3	-12	-15	-17	- 4	3	25	14	16	12	1	11	-14	-14	-14	6	- 6	3	-10	- 8	2.4
Mt. Ayr..	Max..	50	40	29	38	33	24	24	24	25	5	15	12	6	10	15	23	40	37	37	38	27	20	28	30	6	27	29	27	14	14	16	24.6
	Min ..	35	20	8	15	16	13	9	6	3	- 4	0	- 5	-13	-18	-14	- 3	5	25	17	19	9	10	14	-12	-17	-10	10	5	3	- 1	1	4.9
Mt. Pl'snt	Max .	52	42	27	31	32	28	24	20	29	8	24	22	11	11	20	25	32	38	35	42	36	24	30	26	8	26	26	21	16	17	19	25.9
	Min ..	36	25	10	12	24	10	10	2	0	- 9	- 9	5	- 6	-12	- 8	2	10	28	12	19	15	5	6	-10	-11	- 9	12	- 1	2	- 6	3	5.4
New H. ..	Max.	38	35	32	26	28	19	19	14	19	3	14	14	6	- 3	9	10	22	25	22	22	21	11	18	17	4	17	19	14	10	9	7	16.8
	Min .	22	13	8	- 2	13	10	8	- 9	- 6	-15	- 3	- 1	-18	-18	-16	- 8	- 3	14	8	8	2	- 4	7	-13	-16	-16	3	-10	- 5	-15	-14	-2 5
Newton..	Max..	43	37	21	28	32	26	21	16	25	6	18	18	5	6	16	18	29	34	30	34	30	17	25	26	12	22	21	20	11	12	13	21.7
	Min ..	32	18	- 1	4	18	11	12	- 4	1	-14	0	- 3	- 2	-17	-15	- 5	5	21	13	10	4	0	10	-12	-18	-14	5	- 7	1	- 4	-11	1.2
Northw'd	Max.	52	42	20	20	31	21	20	10	18	24	4	11	0	0	5	4	19	8	26	31	25	20	20	15	-10	5	20	15	10	10	- 2	15.9
	Min ..	22	20	- 1	4	15	13	10	- 7	- 3	-14	- 4	- 3	-19	-15	-10	- 2	0	22	12	7	6	- 2	0	-14	-18	-14	4	-11	- 6	-18	-14	-1.3
Odebolt ..	Max.	50	40	27	45	34	22	21	25	24	6	9	7	- 1	3	6	22	29	29	31	26	21	18	25	18	- 4	19	23	16	10	15	10	20 2
	Min ..	30	17	5	15	17	15	10	- 5	- 2	-10	4	-10	-20	-17	-14	- 8	6	9	12	15	3	0	10	-13	-25	-16	2	- 6	2	-11	-12	0.1
Ogden ...	Max..	43	37	23	36	34	21	21	20	20	4	4	11	5	5	15	20	30	29	30	29	27	14	24	22	- 1	20	21	19	14	10	10	19.9
	Min ..	30	14	3	10	18	15	12	- 3	2	- 8	3	- 9	-16	-18	-15	- 6	5	17	12	14	3	0	0	-11	-18	-15	- 2	- 8	0	- 8	-10	0.4
Olin	Max	42	38	25	26	31	27	20	14	26	7	24	24	8	4	13	16	28	35	35	35	34	17	24	20	8	19	20	17	13	14	12	21.8
	Min ..	27	24	7	5	19	17	14	- 1	2	-13	3	7	- 6	-12	-13	- 5	- 4	25	11	11	15	2	12	- 9	-11	-13	7	- 5	0	-17	-13	2.8
Omaha, N	Max..	45	36	31	50	31	24	23	23	28	7	9	5	2	8	18	19	35	32	36	23	18	19	29	17	0	22	28	19	11	15	12	22.1
	Min ..	34	17	15	23	17	13	12	10	1	0	4	- 7	-12	- 8	- 7	- 2	11	20	19	16	7	13	16	-11	-18	- 2	14	6	2	2	- 2	6 5
Onawa ...	Max..	47	39	30	50	36	26	22	26	24	9	11	10	5	10	17	18	32	36	37	29	23	18	28	21	3	22	25	21	15	17	17	23.4
	Min ..	25	20	10	20	17	13	10	2	- 1	- 5	5	- 7	-16	-16	-16	-12	8	12	7	15	5	12	14	- 9	-20	- 8	1	5	5	- 5	- 7	2.7
Osage.....	Max..	38	33	14	27	29	20	19	12	11	4	11	13	0	- 2	11	13	22	24	29	26	24	11	17	15	2	18	17	11	9	6	7	15 8
	Min ..	14	13	- 4	1	16	12	10	- 8	- 4	-15	2	- 3	-19	-15	-13	-10	- 3	11	14	7	1	- 1	6	-15	-18	-14	5	-13	- 5	-17	-14	-2.5
Oskaloosa	Max..	48	36	21	31	32	24	22	20	27	4	19	16	4	- 5	17	26	36	38	33	43	29	20	29	25	5	24	24	20	11	15	15	22.9
	Min ..	36	17	2	4	18	16	16	- 2	- 2	-16	2	- 1	-15	-16	-11	- 1	5	26	14	14	9	8	13	-11	-14	-12	9	- 2	2	-11	-15	2.4
Ottumwa.	Max..	51	32	23	30	33	23	22	24	24	8	19	13	2	12	20	27	32	39	35	47	20	20	27	5	3	26	26	16	8	15	14	22.5
	Min ..	45	12	7	20	25	17	4	4	- 2	- 4	3	3	- 9	-11	- 5	7	11	31	19	22	12	7	17	-10	-12	- 4	12	3	3	- 3	3	7.3
Pacific J'n	Max..	44	40	32	44	37	25	23	27	27	10	12	5	1	8	14	21	37	30	35	28	25	25	32	19	- 2	27	33	23	14	19	18	23.5
	Min ..	28	20	16	19	18	11	10	6	2	- 5	4	- 9	-18	-20	-20	-12	5	21	9	15	5	14	17	-11	-22	-10	4	9	2	- 4	- 4	3.2
Perry.....	Max..	42	36	22	38	34	22	22	21	25	5	17	10	3	7	18	23	32	30	31	30	24	18	27	21	0	22	23	20	11	16	14	21.4
	Min ..	29	15	5	13	16	15	13	- 1	1	- 1	3	- 4	-17	-17	-13	-13	4	18	14	14	3	0	12	-10	-19	-18	4	- 9	0	-14	- 9	1.1
Plover....	Max..	41	34	21	42	35	25	20	20	18	5	9	8	4	0	10	17	30	28	30	25	18	24	26	12	0	17	30	10	9	15	7	18.7
	Min ..	24	12	0	10	15	17	12	- 7	- 4	-10	- 4	- 7	-22	-18	-15	-12	-10	2	7	8	3	1	10	-12	-21	-17	-15	-15	- 2	-15	- 7	-3.0
Pocah'tas	Max..	42	34	25	43	31	23	20	24	20	9	10	8	4	4	13	19	32	30	32	27	18	17	27	8	0	20	20	13	12	16	13	19.8
	Min .	24	10	5	13	11	9	12	- 4	- 2	- 7	3	- 7	-20	-15	-14	- 8	6	9	12	8	4	0	10	-13	-21	-13	1	-12	0	-11	-12	-0.7
Red Oak..	Max..	42	39	40	45	42	24	32	27	29	27	20	17	22	11	14	22	34	31	37	28	33	25	26	27	14	10	25	30	14	19	20	26.8
	Min ..	35	22	17	22	19	16	13	12	4	2	6	- 2	-13	- 8	- 5	- 6	11	6	10	11	9	9	14	- 4	-15	- 6	5	9	6	0	1	6.5
Ridgeway	Max..	40	38	23	50	30	30	20	12	9	8	18	20	12	8	13	21	26	31	34	30	22	21	23	10	17	20	21	21	20	9	16	21 1
	Min ..	24	10	0	2	15	13	9	-10	- 6	-18	0	2	-10	-13	-12	- 7	1	17	14	9	4	0	7	-12	-14	-15	5	- 9	- 1	-13	-10	-0.6
Rock R...	Max..	50	29	40	32	17	26	20	26	2	7	10	- 1	10	0	10	20	32	32	32	37	20	17	20	- 2	- 2	20	10	30	14	18	15	19 1
	Min ..	20	15	10	16	12	14	4	0	- 5	- 5	6	- 9	-20	-17	-22	5	10	15	10	7	8	5	5	-12	-22	- 2	- 2	-14	- 2	- 6	-15	0.3
R. City...	Max..	45	35	25	35	30	25	23	23	21	8	8	9	5	5	13	20	32	33	33	32	25	18	23	13	- 2	20	23	13	10	13	12	20.3
	Min	26	18	6	13	13	14	13	- 2	- 2	- 8	3	- 9	-20	-18	-13	-13	5	12	13	13	2	3	9	-12	-22	-13	2	-11	2	-10	-12	0 1
Sac City..	Max..	44	29	25	45	40	28	25	25	30	11	14	17	3	3	11	19	28	32	31	26	29	21	25	25	2	22	26	20	14	13	12	22.4
	Min ..	28	20	5	15	15	10	12	2	- 1	- 9	3	- 8	-16	-15	-11	- 6	5	8	13	9	2	0	9	-13	-23	-17	3	- 9	2	-12	- 8	0.4
St. Cha'les	Max..	50	37	30	39	35	23	23	30	26	3	16	13	11	16	19	19	34	36	45	45	25	18	27	23	11	25	31	20	22	17	19	25.4
	Min ..	36	20	7	11	19	16	15	2	2	- 6	0	- 1	-13	-11	-10	0	7	26	20	19	6	6	12	-10	-16	-10	11	0	2	- 4	- 2	5.0
Sheldon..	Max..	46	36	36	43	31	25	19	24	22	8	9	4	3	- 1	12	22	30	30	34	27	21	13	23	12	- 3	18	19	12	13	10	6	19 2
	Min ..	24	12	3	14	16	14	9	- 6	- 6	- 9	- 3	-11	-19	-24	-20	-16	4	4	10	12	4	2	8	-13	-27	-17	0	-12	- 3	-16	-20	-2.8
Sibley	Max	42	19	27	41	22	21	13	23	1	7	5	—	3	0	11	19	28	29	32	23	15	14	21	-11	- 2	16	14	9	9	9	7	15.6
	Min ..	24	17	4	8	19	12	9	- 6	- 7	-10	- 6	- 8	-20	-20	-20	-14	-10	4	11	12	4	2	7	-14	-26	-25	- 1	-11	-11	-16	-19	-3.6
Sioux C'r.	Max..	44	34	25	43	32	23	18	23	22	10	6	7	0	- 3	10	18	25	28	30	25	17	14	22	11	- 6	18	18	12	16	16	8	18.3
	Min ..	27	12	6	17	16	13	8	- 4	- 7	- 9	5	-11	-19	-16	-17	- 8	5	10	20	12	5	6	10	-14	-27	-16	0	-12	- 3	-10	-13	-0.5
Sioux C'y.	Max..	47	31	28	47	29	24	20	25	24	8	10	0	0	- 2	14	20	28	31	32	28	17	14	22	4	- 5	20	19	8	9	11	10	18.5
	Min ..	27	12	11	-22	-15	10	6	1	- 3	- 5	0	- 3	-18	-13	-16	- 8	12	11	20	10	7	13	4	-17	-25	- 5	8	- 2	- 2	- 7	- 7	1.4
Stockport	Max..	51	47	27	28	35	29	23	25	29	5	21	21	12	10	21	21	34	37	40	47	37	27	31	27	10	27	29	27	15	18	19	26.8
	Min ..	40	24	10	11	24	10	12	5	5	- 8	5	5	- 7	-12	- 6	5	11	29	18	25	8	5	18	- 8	-11	- 7	- 7	- 2	5	- 5	5	6.6
Storm L..	Max..	44	22	26	44	24	22	10	22	5	5	5	2	0	1	12	20	28	27	30	20	14	20	20	- 4	1	17	17	14	9	7	5	15.8
	Min ..	27	19	4	10	18	12	10	- 4	- 4	-10	- 6	-11	-21	-17	-15	-10	- 5	5	5	4	0	- 1	4	-15	-26	-25	- 3	-14	-12	-14	-13	-3.5
Thurman.	Max..	49	44	30	45	43	25	23	26	29	6	13	8	- 1	9	15	18	33	31	35	29	27	21	32	24	- 1	24	31	26	14	18	14	24.0
	Min	35	21	9	22	17	12	12	6	2	- 5	1	- 5	-16	-21	-17	-15	- 1	23	9	12	8	13	17	-18	-20	-14	2	- 9	3	- 2	0	3 2
Tipton....	Max..	46	38	26	30	32	27	22	17	25	5	22	24	12	8	15	18	28	35	35	40	36	22	24	23	10	20	22	18	20	11	14	23.4
	Min ..	36	25	12	13	25	16	13	2	3	- 8	5	7	- 1	-10	-10	0	7	27	15	21	15	7	15	- 8	-10	- 8	10	1	6	- 1	1	7.3
Toledo....	Max	44	34	20	29	31	23	20	18	25	3	19	15	4	6	17	17	28	36	35	40	29	18	24	21	5	23	21	16	15	12	14	21.4
	Min ..	28	14	1	- 1	23	10	10	- 4	- 1	-17	2	- 1	-14	-16	-12	- 4	2	22	12	10	4	- 2	10	-11	-15	-17	6	- 8	- 1	-15	-10	0 2
Vinton. ..	Max..	40	37	23	28	30	27	20	18	25	5	20	19	5	5	18	19	26	36	35	35	35	19	24	12	6	20	20	16	15	10	14	21 5
	Min ..	28	22	1	- 1	24	9	12	- 4	1	-15	2	1	-15	-14	-10	- 6	2	21	14	11	5	1	10	-10	-14	-16	6	- 8	0	-19	-11	0.9
Wapello..	Max..	49	47	34	27	37	30	29	25	27	9	24	25	18	15	22	27	31	37	39	41	24	26	—	25	13	23	32	23	24	14	17	27.1
	Min .	39	27	21	15	27	16	16	5	4	- 5	7	11	- 2	- 3	- 4	4	11	30	20	15	9	17	—	- 6	- 8	- 6	13	4	8	- 5	5	9.8
Washi'ton	Max..	47	36	24	28	34	26	26	20	28	6	22	20	8	10	21	25	32	36	36	44	32	20	28	23	8	25	25	18	16	14	14	24.4
	Min ..	36	19	9	12	24	10	15	1	- 2	-10	4	4	- 7	-13	-12	1	9	30	16	19	10	4	14	- 8	-11	-10	11	- 2	3	- 7	- 1	5.4
Waterloo.	Max	40	35	21	30	30	23	20	15	13	4	18	11	6	5	18	17	25	32	34	36	16	15	23	- 8	8	21	21	16	15	9	11	18.7
	Min .	23	25	0	0	20	11	12	- 4	0	-12	2	0	-16	-14	-10	- 6	- 3	16	11	11	3	- 1	8	-10	-15	-14	6	-10	0	-16	-12	-2.2
Waukee..	Max..	46	35	34	40	34	22	22	21	26	7	17	12	8	9	22	29	34	34	39	36	25	17	27	20	5	27	25	25	18	17	14	24.2
	Min ..	34	9	5	10	19	15	13	- 1	2	-10	0	- 5	-14	-16	-12	- 5	5	23	22	17	4	3	11	-12	-18	-15	6	- 6	3	-10	- 8	2.2
Waverly..	Max	36	34	14	27	29	23	19	12	14	3	15	15	0	0	14	14	23	28	29	30	25	14	21	16	4	18	18	12	12	8	9	17.3
	Min ..	23	12	- 1	- 3	18	14	9	- 6	- 4	-13	3	- 1	-16	-15	-15	-14	- 6	14	8	7	3	- 2	8	-12	-16	-17	5	-11	- 1	-20	-13	-2.0
What Ch.	Max..	54	42	30	29	37	31	25	25	26	3	21	22	12	15	24	30	31	39	44	49	36	20	30	28	11	27	30	23	22	12	22	27.4
	Min ..	37	20	5	7	20	10	14	1	0	-17	- 2	1	-12	-17	-12	-12	1	21	13	11	12	2	12	-10	-13	10	5	- 4	- 3	-13	-13	2.4
Whitten..	Max..	49	34	17	28	31	23	20	13	21	5	14	13	13	8	16	15	25	28	30	32	26	16	25	20

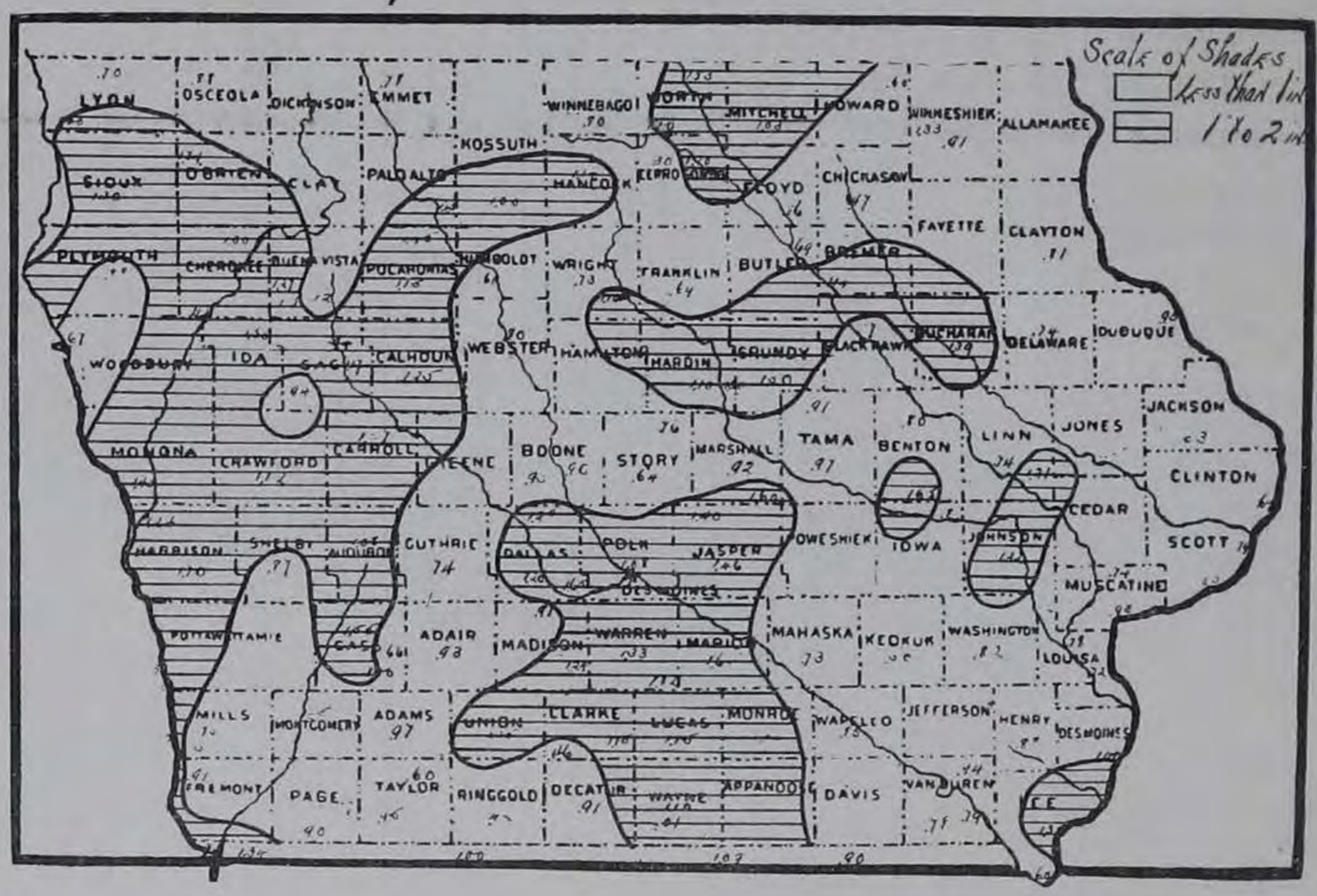
DAILY AND MONTHLY PRECIPITATION FOR JANUARY, 1905.

STATIONS.	DAY OF MONTH.																														TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	....	T	T		...	T	.10	.60	....	..	....	....	....	....	....	....	....	....	.10	.10	....	....	....	....	.05	.	.40	....	1.35
Albia	....	T	.08	....	T	T	T	....	.10	....	.35	.17	....	....	..	....	....	....	....	....	....	.15	....	....	....	..	.05	....	.02	...	.12	1.04
Algona	....	.10	....	....	T	....	....	...	....	T	.65	....	..	....	....	....	....	....	....	....	....	.05	.10	....	....	....	....	.06	....	.07	....	1.03
Allerton	....	.04	..	..	T	T	T		.03	.10	.40	....	..	.	....	..	....	....	....	....	....	.01	.15	....	...	....	....	..	....	28	..	1.01
Alta		.02		....	.01	.02	.01	....	..	.10	.60	....	....	....	....	....	..	....	....	..	..	.30	.01	....	....	....	.02	....	.01	.17	..	1.27
Alta [near]	....	....	....		T	.05	....	....		.10	.40	....	....	....	....		....	..	....	....	....	.45	....	..	..	....	....	....	.05	.20	...	1.25
Amana	....	.03	...	T	T	.01	....	....	.05	...	.5	....	....	....	....	....	....	....	....	....	....	....	.19	....	....	....	....	T	....	.06	....	.89
Ames	....	..	....	....	T	....	....		..	.30		....	....		....	....	....	....	....	....	....	.06	.20	....	....	....	....	T	.	.08	..	.64
Atlantic	....	T	....	..	....	....	....	....		..	.80	....	....		....	....	....	....	..	....	....	.20		....	..	....	....	.05	....	.50	....	1.55
Audubon	....	T	....		T	T	T	...	....	.02	.48	..	....	....	....		....	....	....	....	....	.11	.01	....	....	....	....	.07	.02	.37	T	1.08
Baxter		.10		.05	....		....	.05	....	.50	...		....	....	..	..	..	..	....	....	....	.20	...	....	....	....	....	...	....	.50	....	1.40
Bedford	....	T	....	....	T	T	T		....	T	.80		....	....	....	....	....	....	....	....	....	T	.01	....	..	...	..	....	.02	.12	..	.95
Belle Plaine	....	.05	....	....	.10	.02		...	.20	. ..	.40	....		....	....	....	....	....	....	....	....	....	.40	..	....	....	....	.08		.40	....	1.65
Bonaparte	....	.08	....	....	....	T	T	....	.10	....	.36		....	....	..	....	..	....	....	....	....		.10	....	....	....	....	.07	T	.08	....	.79
Boone	....	.10	....	....	T	.01	T	..	....	T	.42		....		....	....	....	T	...	....	....	.06	.11	....	....	....	....	.08	....	.12	.	.90
Britt	...	.08	...	....	.06	.03	T	....	....	....	50	.02	....	...	..	..	....	...	....	....	....	.12	.18	....	....	....	T	.05	..	.10	....	1.14
Buckingham	....	07		....	.02	.02	T	...	....	.20	.18	...	....		..	..	....	....	....	....	....	.20	.10	....	....	....	....		....	.11	....	.91
Burlington	T	T	....	...	....	.02	....	....	.05	....	.6	....	....	....	....	..	....	T	...	....	....	....	.18	....	....	....	....	.08	...	.07	....	1.00
Carroll	....	.10	....	..	....	.02	....	....		..	.60	....	....	..	....	....	....	..	....	....	....	....	.30	....	..	....	..	.10	.05	.40	....	1.57
Cedar Rapids	..	T	.04	..	.05	.02	....	....	.10	....	.10	2	..	....	....	....	....	....	....	....	..	....	.13	....	....	....	....	T	....	....	.10	.74
Chariton	...	T	..		T	T	T	...	T	.10	60	....	....	..	.	....	..	....	....		....	....	.15	. .	....	....	...	T	T	.30	....	1.15
Charles City	...	.07	....	.04	.02	.04	T	T	T	.06	.40	T	....	....	...	....	T	....	...	T	...	.03	09	....	....	....	....	....	....	.11		.86
Clarinda	...	T	....	...	....	....	T	T		..	.77		..	T	...		....	....	....	...	.	....	T	....	..	....	...	..	.02	.02	.06	.87
Clear Lake	....	.10	....	T	T	T	T	....		....	T	.10	....	....		..		....	..	....	....	....		....	....	....	....	....	....	.10	....	.30
Clinton	T	.15	....	.13	....	.05	....	....	T		.08	..	....		....	....	.01	....	....	....	....	....	.16	....	....	....	....	....		.13	....	.69
College Springs	...		....	..	....	....	..	....	....	.20	.50	....	..	....	....	....	....	....	....	....	..	....		....	....	....	....	....	.05	.15	....	.90
Columbus Junct'n	....	T	..	....	....	.05	....	....	.10		33	....	....		....	....	....	....	....	....	..	....	.15	....	....	....	..	.10	..	.05	T	.78
Corning	....	....	....	....	T	T	T	..	T	.10	.5	....	..	T	..	..	....	....	....	....	....	T	....	....	....	....	..	....	.02	.35	T	.97
Corydon	....	04	....			.01	T	....	.04	..	.67	....	....	....	....	..		T	....	....	....	....	.13	....	....	....	....	.10	03	.08	....	1.10
Creston	.	T		.08	....	T	T	....	.03	....	.33	....	....	....	....	..	..	....	....	....	T	....	.06	....	....	....	....	....	....	.08	.02	.60
Cumberland	....	T	...		T	....		....	..	..	.60	....	....		....	..	..	..	....	....	....	.10	....	....	..	....	..	....	....	.30	....	1.00
Davenport	T	T	..	T	T	.06	T	....	.03	.08	.33	..	....	....	..	....	....	T		....	T	.03	.07	T	...	....	....	..	..	.03	T	.63
Delaware	....	....	....	.01	...	.14	....	....	.06	....	.23	..	....	....	....	....	....	....	....	....	.05	....	.20	....	....	....	....	....	....	.10	..	.74
Decorah	....	.02	....	.09			....	....		....	.58	....	....	....	....	....	....	....	....	....	....	....	.06	....	....	....	....	....	....	.11	....	.91
Denison	....	.02	....	....	T	T	T	....	....	.02	.38	..	....	....	....	....	....	....	....	....	....	.20	.10	....	....	....	..	.05	.05	.30	..	1.12
Des Moines	T	.09	...	....	.02	.01	.01	.03	T	.08	.55	T	..	..	....	..	....	....	....	....	....	.06	.05	T	....	..	.06	T	.01	.11	...	1.08
De Soto	....	T	....	....	T	T	T	....	T	.05	.40	....	....	..	..	..	....	....	....	....	....	.10	.20	....	....	..	....	.20	.05	.20	T	1.20
Dows	....	.05	....	....	.05	T	T	....	....	....	.40	....	....	....	....	....	....	....	....	....	....	....	.30	..	..	..	....	....	....	.30	....	1.10
Dubuque	T	.03		.08	.03	T	....	..	.12	....	.51	....	....	..	....	....	T	T	....	....	....	....	.12	....	....	....	..	....	....	.08	T	.95
Earlham	....	T	....	....	T	T	T	....	T	T	.67	..	....	....	....	....	..	....	....	....	....	T	.15	T	T	....	..	T	T	.09	....	.91
Elkader	....	T	T	T	....	T	....	....	.19	....	.40	....	....	..	....	..	....	....	....	....	T	....	.10	..	....	....	....	....	....	.12	..	.81
Estherville	..	.06	.02	..	T	T	T	.02	..	....	10	.30	....	....	....	....	....	....	....	....	....	T	.10	T	....	....	....	T		.05	.13	.78
Florence	....	.10	....	....	.05	....	....		....	....	.31	....	....	....	....	....	....	....	....	..	....	.04	.09	.	....	....	....	.05	....	.09	....	.73
Forest City	....	....	.20	....	T	T	....	....	..	....	.40	..	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	T	..	.10		.80
Fort Dodge		.10	.	....	....	.10	..	....	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	.20		....	....		T	....	.10	....	.80
Fort Madison	..	T	....	....	....	....	....	....	.20	.20	.52	...	....	....	....	....	....	....	T	....	..	....	....	.20	..	....	.15		....	.10	....	1.37
Galva			T	....	T	.02	....	....	....	.05	.60	.04	....		....	..		....	....		....	.20	.30	....	....	..	.02	.05	.25	..	1.53
Gilman	T	.2.	....	....	T	T	....	....	....	....	.80	-	....	....	....	....	....	....	....	....	....	....	.30	T	....	....	....	.10	....	20	..	1.60
Glenwood	....	....	....	....	T	T	T	....		.45	....	....	....	T	..	....	....	..	T	....	T	....	T	....	....	....	....	T	.05	25	....	.75
Grand Meadow		.10	....	.12	....		T	..	20	....	.30		....		....	....	....	....	....	.02	....	....	.07	....	....	....	....	....	....	.07	....	.88
Greene	....	.07	....	..	T	.02	....	....	....	....	.23	.07	....	....	..	....	....	....	....	....	....	....	.18	....	....	....	....	....	....	.11	..	.69
Greenfield	....	T	..		T	T	T	....	..	.04	.37	.06	....	....		....	....	T	.	....	..	03	.10	....	....	-	....	.02	.02	.25	T	.93
Grundy Center	..	.2.	....	...	.10	T	....	....	....	....	.40		..	....	....	....	....	T	....	....	....	T	.40	....	..	....	....	2.	....	.20	....	1.50
Guthrie Center	..	.0	....	....	....	T	T	..	....	.01	.44		..		....	....	....	....	....	..	..	.08	.10	.	....	..	....	.04	.02	.11	T	.74
Hampton	.02	.08	.	....		..	....	....	....	.25	.15		....	....	..	..	....	....	....	....	....	.08	...	..	....	....	T	....	....	.11	..	.69
Hanlontown	.05	..	..	....	T	T	10	....		....	.50	.10	....	..	....	....	....	....	....	..	....	....	.15	..	....	....	....	....	....	.10	...	1.00
Harlan	....	T	..	....	T	T	T		....	.10	.50	.08	....	....	..	....	....	..	....	....	....	.10	.02	....	..	....	....	T	.02	.05	....	.87
Hopeville	...	....	....	...	T	T	T	.02	....	.03	25		....	....	....	....	..	....	....	....	....	.05	.02	....	....	....	....	.01	.01	.07	..	.46
Humboldt	....	.10	....	....	T	....	....		....	....	.40	..	....	..	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	.60
Independence	..	.1.	....	.04	.08	...	T	...	.30	....	.47	....	....	....	....	....	T	T	....	....	....		.20		....	....	....	.	...	.20	....	1.39
Indianola		.10	...	....	T	T	T		.05	.08	.5.	...	..	..	....	....	....	..	....	....	....	.01	20	....	....	....	....	.08	.03	.2.	T	1.33
Inwood	T	T	T	T	T	T	.	....	....	T	T	.60	..	....	....	....	....	....	....	....	T	.30	....	....	....	....	T	....	..	.10	..	1.00
Iowa City		T	T	..	T	T	....	....	.10	..	.28	.47	..	....	..		....	T	....	....	..	....	.20	T	T	....	..	.02	...	....	.02	1.22
Iowa Falls	....	.10	....	T	T	.05	T	T	....	....	....	.50	....	....	....	....	....	....	....	....	....		2.	.05	....	..	....	.07	....	....	.13	1.10
Keokuk	....	.01		..	....	.02	T	T	.08	T	.33	..	T	..	....	....	....	T		....	....	....	.0.	....	....	..	....	.02	T	.04	.02	.60
Keosauqua	....		.05	..	..	T	T	T	.08	....	.15	.23	.	....	..	..	....	....	....	....	....	....	.12	T	....	..	....	.04	T		.11	.78
Knoxville		.30	....	....	T	T	T	....	.10	T	.70	...	..	..	....	....	....	....	..	.	....	T	.20	....	....	....	....	.10	..	.25	....	1.65
Lacona		.15	....	....	.02	.06	.03	.07	....	.02	.9.	...		....	....	..	....	....	....	....		.19	.12	....	..	..	....	.09	....	.17	....	1.82
Larrabee	....	T	....	....	....	T	T	....	-		.72	....	....	....	....	....	....	..	....	....	....	.42	T	.	....	....	.05	....	02	.09	...	1.30
Lenox	....	T	....	..	T	T	.	....	....	.05	80	....	....	....	....	....	....	....	....	....	....	T	....	....	....	..	....	....	....	.25	....	.60
Le Claire	T	.01	.01		T	.06	.03	....	.03	T	.13	.33	....	....	....	....	....	....	....	....	....	....	.09	T	....	....	....	....		.10	.	.79
Little Sioux	....	....	.	....	....	....	....	....	..	.07	.78	....	....	....	....	....	....	....	....	....	....	.09	....	..	....	....	..	....	.05	.25	...	1.24
Le Mars	....	....	....	....	T	....	....	....	....		.45	....	....	....	....	..	..	....	....	..	....	.18	..	....	....	....	....	....	....	.25	....	.88
Leon	T	.05	....		T	T	T	...	.10	.10	.30	....	....	....	....	.	....	....	....	....	....	.02	.08	....	..	....	....	T	T	.26	...	.91
Logan	....	....	....	..	....	....	...	.10	..	.10	6.	.20	..	T	....	....	....	..	....	....	....	....	....	....	....	....	....	....	.30	.20	.20	1.70
Maquoketa	T	T	....	....	.07	07	....	....	....	....	.0.	....	....	....	..	....	....	....	....	....	....	....	....	.33	....	....	....	....	....	....	.08	.63
Marshalltown	....	.04	.05	....	....	.03	T	....	.05	..	.24	.22	T	....	....	....	....	....	....	....	....	.15	.03	....	....	....	....	.04	....	..	.07	.92
Mason City	...	.06	....	....	.06	T	T	....	....	....	.60	..	....	....	..	....	....	....	..	..			.33		....	..	..	...	....	.15	....	1 20
Massena	....	....	....	....	....		....	....		..	.22	....	....	....	....		....	....	..	....	....	T	.13	....	..	....	....	....	....	.31	...	.66
Muscatine	....	....	....	....	....	.15	.05	....	.15	....	.17	.24	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	.07	.93
Mt. Vernon	..	.04	...	.05	...	.06	...		.07	....	.65	....	....	....	..	....	....	....	....	....	....	....	.20	.06	....	....	....	..	..	.07	.01	1.21
Mount Ayr	....	T	....	....	T	T	T	....	.03	.05	.65	...	....	....	....	....	....	....	....	....	....	T	.10	....	....	..	....	....	.04	.20		1.07
Mt. Pleasant	..	T	....		.05	T	T	....	.05	.03	.40	..	....	..	....	....	.	....	....	....	....	....	.19	....	....	....	....	.06	....	.10	T	.88
New Hampton	....	....	....	T	..	T	T		....	..	.40	....	..	....	....	....	..	....	....	....	..	....	.07	..	...	....	....	....	....	T	....	.47
Newton	....	.15	....	....	....	....	....	....	.17	....	.65		....	....	....	....	....	....	....	....	....	....	.21		....	....	....	.07	..	.21	..	1.46
Northwood	....		....	.10	T	T	T	..	....	...	.40	.90	..	....	T	....	..	....	....	....	....	....	T	....	....	....	..	..	....	.15	....	1.55
Odebolt	....	....	....	....	....	....	....	....	..	....	.60		..	....	..	..	....	....	....	....	....	.05	.10	....	....	....	....	....	....	.04	.15	.94
Ogden	....	....	....	..	T	.05	....	....		....	.45	....	....	....	....	..	....	....	....	....	....	.05	.	.05	....	....	....	T	.	.35		.95
Olin	....	.05	..	.05	T	.10	T	....	.08	....	.30	....	....		....	....	....	....	....	....	....		.15	...	....	....	....	....	....	.12	....	.85
Omaha, Neb	T	T	....	....	.02	T	T	...	....	.28	50	....	....	.01	....		....	T	....	T	.01	03	T	....	....	....	....	.03	.0	.19	.01	1.13
Onawa	....	....		....	.03	....	T	....	..	.10	.85	....	....	....	....	..	..	....	....	....	....	.15	.05	T	....	....	....	....	05	.20	....	1.43
Osage	...	.04	..	.0.	T	.05	.02		....	....	.65		..	....	....	....	....	....	....	....	.01	....	.13	....	..	....	....	..	....	.10	....	1.03
Oskaloosa	.05	....		....	T	T	T	.12	....	.02	.20	....	....	....	....	....	....	....	....	....	....	.08	.13	....	....	....	.06	.	..	.12	....	.73
Ottumwa	....	.10	....	....	....	T	....		.05	....	.20	....	..	....	....	....	....	....	....	..	....	....	.30	....	....	..	....	....	....	.20	....	.85
Pacific Junction	....	T	....	....	T	T	T	....	....	.10	.55	....	....	....	....	..	....	.03	..	...	T	.01	....	T	....	....	....	....	.04	.23	T	.96
Perry	....	T	..	....	.05	.06	T	....	..	T	.45	T	..	....	..	....	....	T	..	.	....	.05	.20	..	T	....	....	.12	.05	.30	..	1.28
Plover	....	....	.10	...	.15		...		....	.10	.50	.10	....	....	....	....	....	....	....	....	....	.20	.20	....		....	....	....	....	.10	..	1.45
Pocahontas	....	.05	....	.	.05	T	T	T	....	.10		.60	....	....	....	....	....	..	....	....	....	....	.20	....	....	....	.10	....	T	.05	....	1.15
Primgher	....	....	....	....	..			....	....	....			..	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Red Oak	....	T	....	....	T	T	T	....	....	T	.49	....	....	T	....	....	..	T	....	....	....	T	.01	..	..	....	....	....	....	.15	....	.65
Ridgeway	....	.03	..	04			T	...	T	....	.90	....	....	....	....	....	....	....	....	....	.04	....	.13	....	....	....	....	....	..	.19		1.33
Rock Rapids	..	T	....	T	T		T	.60	T	....		....	....	....	....	....	..	....	..		....	.10	T	....	..	....	..	....	..	....	....	.70
Rockwell City	....				.05	....	....	....	..		.60	...	..		....	....	....	....	....	....	....	.40	.	....	....	....	....		....	.20	....	1.25
Sac City	..	.02	....		.05	..	....	....	....	.05	.50	...	....	....	....	....	....	....	....	....	....	.20	.15	.	...	....	....	....	....	.20	....	1.17
St. Charles	....	.07		....	T	T	T	T	.04	.05	.65	....	...	....	..	....	....	....	....	....	....	.08	.10	.04	..	....	....	.06	.0	.10	.01	1.24
Sheldon	...	T	...	....	.04	T	T	....	..	....	.55	.05		....	....	....	....	....	....	....	T	25	.12	....	....	....	.02	T	T	.31	..	1.34
Sibley	....	T	....	....	T	.02	....	T	....	....	.12	.40	....	....	....	....	....	....	....	....	....	T	.20	T	T	....	. ..	.02	....	.02	.10	.88

DAILY AND MONTHLY PRECIPITATION FOR JANUARY, 1905--CONTINUED.

STATIONS.	DAY OF MONTH																															TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sioux Center	T	T	....	....	T	T	T	....	..	....	.40	....	....	....		....	....	..	..	..	T	.70	T	....	...	...	.10		T	.10	....	1.30
Sioux City	T	T	....	....	T	T	T			.09	.31	T	....	T	....	....	....	....	....	....	T	.10	T	....	....	....	T	.05	.04	.08		.67
Stockport	T	.24	....	T	..	.02	T		.03	T	.45			..	....	....		....	....	....	....		.11	T	....	....	..	.02	T	.07	T	.94
Storm Lake	....	T	T	....		.01	T	T	....	..	.03	.03	....	..	....	....	....	....		..		T	.03	....	....	...	..	T	T	T	.02	.12
Stuart	....	..	..	....	....	....	..	....	..	....		....	....	....	....	..	....	....	....	....	....	..	....	....	..	..	....	....	....	....	....	.....
Thurman	....	T	..	....	T	T	T	....	....	.28	.08	....	....	T	..	...	....	T	....	T	..	.20	T	T	....	...	....	....	.04	.31	T	.91
Tipton	....	....	....	..	....	....	....	....	....	....	....	....	....	..	....	....	..	....	....	....	....		..	....	....	..	...	....	....	....	....	.....
Toledo	....	.03	..	...	.06	....	....	.03	....	..	.50	....	....	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	....	.15	....	.97
Vinton	..	...	....	....	..	....	..	....	.	....	.40	....		....	....	....	....	....	..	..	....	.16	.30	....	..	....	....	....	....	.10	..	.80
Wapello	....	..	....	....	....	.07	....	....	....	.20	.23	....	..	....	..	....	....	....	....	....	....	....	..	....	....	....	....	.02	....	.04	....	.72
Washington	....	..	....	.	.01		..	....	.06	....	....	.56	....	....	....	....		....	..	....	....	....	.15		....	....	.01		....	....	.03	.82
Washta	...	T	..		T	T	T	....	....	T	.70	.	....	..	....	....	....	....	....		....	.25	.	...	....	....	T	....	....	.20	....	1.15
Waterloo	....	.06	..	T	.04	....	T	....	T	..	.37	....		....	....	....	....	....	....	....	....	.13	.13	...	....	....	....	....	....	14	....	.87
Waukee	....	.05	....	....	T	.05	T	....	.05	.05	.60	....	....	..	..	....	....	....	....	....	....	.10	.20			....	....	.20	.05	.30		1.65
Waverly	....	.07	....	.02	.01	.01	T	....	.05	..	.50	....	....	....	....	....		....	....	..	T	...	.30	....	....	....	..	....	....	.18	....	1.14
Whitten	....	.10	....	....	T	T	T	....		....	.40	....	....		....	....	....	....	....	....	....	T	.40	....	....	....	..	T	....	.40	....	1.30
Wilton Junction	....	....	....	....		....	....	....	.20	....	.40	.	....	....	....	..	....	....	....	....	....	..	.08			....	....	....	....	.06	....	.74
West Bend	....	.10	....	....	T	T	T		....	T	.80	....	....	....	....	....	....	....	..	....	T	.60	T	.	..	....	.05	....	....	.20	....	1.75
Woodburn	...	.05	....	..	T	T	T	....	..	.15	.40	..	.	..	....	....	....	...	....	....	....	.20		...	...	....	....	.05	T	.20	.10	1.15
Zearing	....	T	....	..	.16	....		....		....	.35	....	....	....			....		....	....	...	T	.15	....	....	....	....	..	....	.10	....	.76

Precipitation Chart January 1905.



FEBRUARY, 1905. No. 2



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U. S. DEPARTMENT OF AGRICULTURE—WEATHER BUREAU.

MONTHLY REVIEW

OF THE

Iowa Weather and Crop Service.

VOLUME XVI. FEBRUARY, 1905. No. 2.

FEBRUARY WEATHER AND CROPS.

The month was abnormally cold, the mean temperature for for the state being 12.8°, which is 6.8° below the normal, making it the coldest February since 1890. The first half was a continued period of intense cold weather with more than usual snowfall and strong drifting winds. This rendered ordinary farm work, and especially the care of stock, quite difficult. There was enough snow, however, to serve as a protection to winter grain and grasses. The latter half was milder and at the close of the month the snow had mostly disappeared in the larger part of the state. The frost did not penetrate the ground deeply, and there was but little remaining in the soil on March 1st in the southern districts.

NOTES AND COMMENTS.

Carl Fritz Henning, voluntary observer at Boone, writes that prairie chickens and quails have had a hard time to procure sufficient food to sustain life during the severe winter weather on account of the heavy snowfall. Farmers report finding these birds frozen to death at old strawstacks and in the high grass along prairie streams.

Irrigation is as useful in New York state farming as it is in many places where it is supposed to be more applicable to the conditions, says the *New York World*. The new census bulletin just issued states that artificial provision against drought is used in Maine, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Florida, Alabama and Mississippi. Exceptionally high yields of fruit are reported as made possible by its use.

Although the United States comprised only 5 per cent of the world's population, it produced in 1900, 22 per cent of the world's wheat, 30 per cent of its gold, 32 per cent of its coal, 33 per cent of its silver, 34 per cent of its manufactures, 35 per cent of its iron, 36 per cent of its cattle, 38 per cent of its steel, 50 per cent of its petroleum, 54 per cent of its copper, 75 per cent of its cotton and 84 per cent of its corn—*Exchange.*

The *Australasian Pastoralists' Review* of January 16, says: Rain is badly wanted in many parts of the commonwealth. The past month has been one of bush fires almost everywhere, and a good downpour would not alone remove the heavy anxiety off the shoulders of our stock owners and agriculturists but bring up a fine spring of good feed on the burnt-out country. Good thunderstorms have occurred in parts of Queensland and the country around Tambo, Blackall, Aramac, Longreach and south to the border is reported as looking splendid. Since the bounteous rain which fell over a large part of New South Wales in the middle of December very little has fallen in that state and the coastal district is experiencing a very serious drought indeed. Victoria has been very dry, and only scattered storms are reported. South Australia is also experiencing a dry time. The heat has been terrific almost everywhere and has discounted very largely all the good done by any showers we have had. Almost up to the last report we have received, heavy rains and severe weather have been experienced over a large portion of New Zealand.

On January 1, 1905, Iowa was credited with live stock in numbers and values as follows: Horses, 1,144,456, valued at $85,250,746; mules 44,096, value, $3,529,755; milch cows, 1,335,832, value, $37,269,713; other cattle, 3,467,507, value, $67,348,010; sheep, 698,316, value, $2,652,483; swine, 7,290,625, value, $48,920,094; total, $244,970,801. These figures do not include calves, colts and other young animals under six months old.

Arthur Betts, voluntary observer at Ridgeway, Iowa, considers the past winter very mild and agreeable in comparison with some of the winters he experienced a few years ago, while serving as observer in Webster, Day county, South Dakota. He forwarded a sheet from his record for the month of January, 1887, to sustain his statement, and the figures indicate that it was a "terrible month" in that section. The lowest temperature recorded was 44° below zero, on the 6th. The mean for the month was —12.6°, and the mean of the minimum was —23.6°. On every day but one the temperature fell below zero, and on fifteen days the maximum was below zero. The total snowfall was 17 inches, and there were blinding blizzards on eleven days. On the warmest day of the month the mean was 12°. It was a month to be remembered.

The first number of the *Weekly Crop Bulletin* of the Iowa section, series of 1905, will be issued Tuesday, April 11th.

LONG RANGE FORECASTS.

[From the New York Tribune.]

A comprehensive and judicious review of the most notable attempts to foresee meteorological conditions for weeks or months at a time has just been issued by the United States Weather Bureau. Its author, Professor E. B. Garriott, is a veteran in the government service, and is admirably qualified for the task of writing such a treatise. His essay is probably the safest

guide at present available in reaching conclusions on this subject.

What seems to be the most promising line of work just now is the effort to predict seasonal charecteristics from the behavior of certain semi-permanent tracts of high barometer that have long been familiar features of international charts. These have a curious way of shifting about, and such changes are attended with perceptible local effects on the paths of moving low and high pressure areas and upon temperature and rainfall. For instance, if the western extremity of the one which in summer usually overlies the Atlantic Ocean should extend into the southeastern part of the United States, particularly warm, and perhaps dry, weather would prevail in the northern part of the country. In winter one of these great high areas forms over the continent of Asia. Should the westernmost end cover northern Europe, some of the storms that cross the ocean from America would be deflected toward the Mediterranean, and the progress of others would be checked in such a way as to react on the United States; whereas, if the permanent high pressure covered only the southern part of Europe, the Atlantic storms would travel toward Scotland and Scandinavia. Again, it seems probable that a slight displacement of the high pressure area over the Indian Ocean might simultaneously cause abnormal rains over the upper Nile and drouth in Australia.

Partly because it may afford a premonition of such variations from the average distribution of air over the earth, but for other reasons also, there is an increasing demand for study of the sun. Marked fluctuations in the amount of heat thrown off by the body have been noticed, and it is in the highest degree essential that any connection which may exist between them and meteorological eccentricities shall be detected. Professor Garriott finds much testimony to justify a belief that sunspots are in some sense symp omatic of disturbances in terrestrial conditions; and, while the c se is not yet complete enough to warrant forecasting on that basis, the wisdom of further inquiry by competent experts is apparent.

The government has given careful consideration to a number of suggestions and theories which have been supposed to have a bearing on the weather of the United States. One was the supposition that the Japan current dominated the rainfall of California, and that indications of drouth or precipitation might be obtained by watching the changes in the strength and course of the current along the Aleutian Islands. For this hypothesis the Weather Bureau has not been able to find a rational foundation. The time honored notion that the moon is a potent agent was also considered, and Professor Garriott presents a fine array of quotations from modern authorities regarding it. A rigid comparison of lunar phases with weather changes leads Buchan and other prominent meteorologists to declare that the moon has no discernible influence at all, while Von Bebber concedes that there may possibly be a trifling modification of air pressure, but not one which can be utilized practically. Again, there is a recognizable tendency toward a six or seven day period. Sometimes rain will fall on the same day of the week for several successive weeks. Here is a fact which has been turned to account by one group of amateur weather prophets who contribute to the newspapers, though they sometimes mask their plan under a pretense of faith in lunar control. According to Professor Garriott, however, the periodicity is not regular and continuous enough to be of value to official forecasters.

The Weather Bureau has given much attention to the so-called "planetary" meteorology, and finds it to be sadly vulnerable. One of its devotees makes everything hinge on the movements of Vulcan, a body to which he assigns an orbit inside that of Mercury, but whose existence no astronomer has been able to demonstrate. Another prophet who talks learnedly about the crises which attend the equinoxes of the planets proves to be unable to compute accurately the time when such astronomical phenomena occur. Moreover, there seems to be no reason to believe that even if the dates were properly calculated anything unusual would be observed on them. After all, the real test of this sort of prediction is the extent to which verification is possible. Those who indulge in it are usually so vague in their warnings that it is impossible to tell in advance where the trouble of which they give notice is to be expected. Hence, it is hard to discover whether they are right or wrong. A man who has won some notoriety in the West for such work was persuaded last year to accept the 90th meridan of longitude as representing the locality for which his forecasts were meant. It then proved that his guesses concerning the temperature were incorrect more frequently than they were correct. Professor Willis L. Moore, the present head of the Weather Bureau, in an introduction to Professor Garriott's pamphlet, says of these irresponsible utterances: "They may properly be classed with quack medicine. They are both harmful in the extreme."

FARM GRASSES OF THE UNITED STATES.

It is astonishing that so little in the way of popular treatises on grasses in the way of books have been published in the United States. Of the earlier works the books of Flint, Killebrew, Beal and shaw are valuable. Some of these books are, however, out of date. The Beal book is an excellent and authoritive work. The United States department of agriculture has, of course, published many valuable bulletins which have been of great service to the farmers of this country. Prof. Spillman, agrostologist of the United States department of agriculture is the author of a book on farm grasses of the United States. The book is divided into fifteen chapters, treating the following topics: The grass crop, meadows and pastures, the seed, timothy, blue grasses, millits, two prominent southern grasses, red top and orchard grass, brome grasses, grasses of minor importance, grasses for special conditions, lawns and lawn making. The chapter on lawns and lawn making was prepared by C. R. Ball. The chapter on seeds by Edgar Brown. A grass crop being so important, deserves much more consideration by the average farmer than is usually given it. One is, therefore astonished that so little attention has been given it by our experimental stations. Few of our northern and eastern stations have published anything on the subject. Prof. Spillman thinks it is safe to say that in the United States 120,000,000 acres are devoted to pasture purposes and 59,000,000 acres to hay. The value of the hay crop for 1899 is estimated at $484,256,846. The only crop exceeding this was maize. Prof. Spillman says:

"It is impossible to estimate the value of the feed obtained from the 120,000,000 acres of improved pasture land, but when we add the value of this and the pasture value of the remaining 82 per cent of the total area of the country classed as unimproved land, nearly all of which is grazed, it is probable that the grass crop surpasses in value any other crop. But since hay is too bulky and usually too cheap to bear long distance shipment, comparatively a small portion of it finds its way to the markets. It is fortunate that at least one important crop must, from its very nature, be largely consumed on the land where it is produced. Otherwise we should long ago have reduced the fertility of practically all the farm lands in this country to so low a point as to have rendered farming unprofitable, just as has been done in all the older parts of the country where live stock farming has been neglected. It is a notable fact that in those portions of the country which have enjoyed the most permanent prosperity the grasses and live stock have always occupied an important place. In the New England states, which have felt keenly the competition of the fertile lands of the central west, agriculture has been

able to maintain itself only by devoting the major portion of the improved land to grasses."

Prof. Spillman gives an interesting map on the percentage of improved land devoted to hay and forage.—*Prof. L. H. Pammell in Register and Leader.*

CLIMATOLOGY OF THE MONTH.

BAROMETER.—Mean pressure, 30.28 inches; highest observed, 30.85 inches, at Sioux City, on the 2d; lowest observed, 29.66 inches, at Charles City and Davenport, on the 8th; range for state, 1.19 inches.

TEMPERATURE.—The monthly mean temperature for the state, as shown by records of 115 stations, was 12.8°, which is 6.8° below normal. By sections the mean temperatures were as follows: Northern section 10.6°, which is 5.9° below normal; central section 12.7°, which is 7.6° below normal; southern section 15.1°, which is 6.4° below normal. The highest monthly mean was 18.0° at Keokuk; lowest monthly mean, 8.1° at Forest City. The highest temperature reported was 69° at Glenwood and Onawa on the 28th; lowest temperature reported, 41° below zero at Galva and Ida Grove on the 2d. The average monthly maximum was 57.2°; average monthly minimum—30.6°. Greatest daily range 57° at Sibley; average of greatest daily ranges, 40.0°.

PRECIPITATION.—Average precipitation for the state, as shown by records of 125 stations, was 1.57 inches, which is 0.53 of an inch above normal. The averages by sections were as follows: Northern section, 1.35 inches, which is .46 of an inch above normal; central section, 1.68 inches, which is 0.62 of an inch above normal; southern section, 1 67 inches, which is 0.53 of an inch above normal. The largest amount reported was 2.97 inches at Belle Plaine; least amount reported, 0.44 of an inch, at Sioux City. The greatest daily rainfall reported was 1.10 inches at Ottumwa, on the 24th. Average number of days on which .01 of an inch or more was reported, 7.

WIND AND WEATHER.—Prevailing direction of the wind northwest; highest velocity reported, 49 miles per hour, from the northwest, at Sioux City, on the 14th. Average number of clear days, 14; partly cloudy, 7; cloudy, 7.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	30.26	30.76	2	29.66	8
Davenport	30.25	30.72	2	29.66	8
Des Moines	30.30	30.83	2	29.69	8
Dubuque	30.27	30.75	2	29.67	8
Omaha, Neb	30.31	30.89	1	29.67	8
Keokuk	30.27	30.75	2	29.71	8
Sioux City	30.31	30.85	2	29.87	8
Means	30.28	30.85	2	29.66	8

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	5.555	28	NW	9
Davenport	5.663	26	NW	14
Des Moines	5.857	33	NW	14
Dubuque	4.785	24	NW	14
Keokuk	5.725	28	W	9
La Crosse, Wis	4.664	27	N	14
Omaha, Neb	6 580	38	NW	14
Sioux City	8.356	49	NW	14

PHENOLOGICAL OBSERVATIONS. 1904.

By direction of the Chief of the Weather Bureau, blank forms were seut to a number of voluntary observers in the winter of 1904, with request that they would note thereon the progress of the season as indicated by the earliest appearance of foliage and flowers, the movement of migratory birds and the various stages of growth of cereals, staple farm crops, fruits, etc. At the close of the year reports were received from nine observers whose names and addresses are as follows: Arthur Betts, Ridgeway, Winneshiek county; Fred McCullough, Hartwick, Poweshiek county; M. F. Boyd, Madrid, Boone county, N. W. Rowell, Afton, Union county; H. L. Felter, Washta, Cherokee county; E. S. King, Grundy Center, Grundy county; N. M. Leonard, Waukee, Dallas county; John H. Ver Steeg, Pella, Marion county; Rex Shriver, Allerton, Wayne county.

The averages of the dates recorded at the several stations as to the foliage of forest and shade trees are shown in the following tables:

Kind of Trees.	First Leaves.	Woods Green.	Leaves Coloring.	Leaves Falling.	Woods Bare.
Soft Maple.	May 2....	May 10...	Sept. 25....	Sept. 25....	Nov. 5.
Ash.	May 6....	May 12...	Sept. 30....	Sept. 30....	Nov. 1.
Oak	May 5....	May 20...	Sept. 20....	Sept. 25....	Nov. 4.

FRUIT TREES AND VINES.

Kind.	Leaves Start.	First Bloom.	Harvest Begun.	Character of Yield.
Apple.....	May 1.....	May 6.....	Aug. 1.....	Good to fair.
Peach.....	May 1.....	May 5	Sept. 15	Small.
Plum.....	May 3	May 5.....	Aug. 20	Poor.
Cherry	May 2.... ..	May 7.....	June 22	Fair.
Strawberry...	April 20.....	May 9.....	June 20	Good.
Blackberry...	April 30.....	June 4.....	July 30.....	Fair.
Raspberry	April 30	June 1.....	July 3.....	Good.
Grape..... ..	May 10. ...	May 15.....	Sept. 1.....	Fair.

CEREALS AND OTHER FIELD CROPS.

Kind of Crop.	Preparation of Soil.		Planting.		Harvesting.		Character of Crop.
	Begins.	Ended.	Begins.	Ended.	Begins.	Ended.	
Corn....	April 15	May 30	May 5	June 3	Oct. 15	Nov. 30	Fair in yield and quality.
Spring wheat	April 1	April 15	April 5	April 18	July 25	Aug. 10	Poor—blight and rust.
Oats	April 1	April 20	April 10	April 22	July 15	Aug. 5	Variable—yield and quality.
Barley	April 1	April 18	April 8	April 20	July 20	Aug. 2	Fair.
Hay crop.....	.....	.....	....	.....	July 1	Aug. 10	Excellent in quality.
Potatoes.....	April 2	April 30	April 10	May 20	July 20	Oct. 15	Heavy yield—good.

NOTES.

Corn tassels and silk were quite general in the central section about July 15th to 20th. Roasting ears were noted as early as August 12th and earliest corn was dented about August 20th.

Feeding early corn began August 20th on account of scarcity of old corn in farmers cribs.

First croaking of frogs noted March 28th. Wild geese were observed flying northward April 2d and ducks as early as March 1st.

M. F. Boyd, near Madrid noted first appearance of robins March 24th, bluebirds April 3d, brown thrush April 17th, swallows April 28th and first butterfly April 17th.

The honey crop was excellent in quality.

The peach comes into bloom about the time when apple blossoms appear. The foliage and bloom of the pear also come about the same time. These are minor crops in Iowa.

OBSERVER'S NOTES.

AFTON—*N. W. Rowell.* Latter half of month lifted mean temperature toward normal. Notes of robins heard at close of month.

ALLERTON—*Rex Shriver.* At end of month snow was almost gone, and roads were drying up.

ALTA—*David E. Hadden.* First half of February was intensely cold, latter half pleasant, and closing days were quite springlike; snow thawed rapidly and none remained at end of month.

AMANA—*C. Schadt.* Mercury fell to -32° on 13th; snow fell to depth of 15.7 inches and drifted badly; but little left at close of month.

BOONE—*Carl Fritz Henning.* First robbin heard on 25th; geese flying northward on 26th.

BONAPARTE—*B. R. Vale.* First half incessantly cold, the lowest in many years; last week warm, and roads were muddy.

BRITT—*Geo. P. Hardwick.* First half very cold; snow drifted badly; much ground bare at end of month

CLINTON—*Luke Roberts.* The mean temperature of February was 14.6° which is 7° below normal. There has been one colder February and that was in 1885, with a mean of 8.3°. The coldest day was the 13th, with a mean of 13.7° below zero. The minimum for that day was 27° below zero. This was the coldest registered since February 9, 1899, on which day it was 28° below zero. The total snowfall during the month was 18 inches, giving some good sleighing. The aggregate precipitation was 2.44 inches. Total for the winter 5.98 inches, which is 0.41 of an inch above the normal for past 26 years.

ELKADER—*Chas. Reinecke.* Total snowfall for winter months, 46 inches. Lowest temperature, 30° below zero on February 15th.

FOREST CITY—*J. A. Peters.* Coldest weather of record on the 13th, temperature 31° below zero. Snow drifted badly; the railway traffic was abandoned 3 days; coldest February of record here.

POCAHONTAS—*F. E. Hronek.* First half of February coldest since 1888; muskrat prophet failed again.

RIDGEWAY—*Arthur Betts.* First two weeks quite cold; latter half mild; 210 hours of sunshine, nine days without a cloud.

WAUKEE—*E. J. Leonard.* First half very cold, with a maximum of only 23°, and minimum below zero on twelve days. Latter half much warmer and birds appeared on 27th.

BELATED REPORTS.

SPIRIT LAKE (*c*).—November. Mean temperature 39.8°; highest 74° on the 4th; greatest daily range 46°; total precipitation .10 of an inch; greatest in 24 hours .10 of an inch; total snow fall 1.0 inch. Number of rainy days, 1.

OSCEOLA.—December. Mean temperature 24.4°; highest 65° on the 23d; lowest -6° on the 28th; greatest daily range 55°; total precipitation 1.50 inches; greatest in 24 hours .60 of an inch; total snowfall 15.0 inches; prevailing direction, southwest. Number of rainy days, 4.

OSCEOLA.—January. Mean temperature 12.2°; highest 56° on the 11th; lowest—17° on the 25th; greatest daily range 63°; prevailing direction, northwest.

ERROR IN DECEMBER REVIEW.

ALGONA.—Total precipitation recorded 1.27 inches on pages 5 and 9, should have been 1.37 inches. Precipitation on 3d, blank, should have been .10 of an inch. Total snowfall recorded 11.0 inches on page 5, should have been 12.0 inches.

CLIMATOLOGICAL DATA FOR FEBRUARY, 1905.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Algona	Kossuth	1,213	28	11.0	- 6.0	50	28	-31	13	33	1.60	†.30	.63	22.0	7	16	8	4	NW	
Alta	Buena Vista	1,513	14	11.2	- 8.0	59	28	-33	2	34	1.26	†.51	.40	14.0	8	15	8	5	NW	
Alta (near)	Buena Vista										1.00		.40	10.0	6					
Britt	Hancock	1,236	8	10.8	- 6.2	47	23	-34	13	41	1.84	†.87	.63	17.2	8	9	11	8	NW	
Charles City	Floyd	1,012	18	8.8	- 9.0	43	28	-31	2	41	1.16	†.07	.36	15.3	8	13	7	8	NW	
Clear Lake (c)	Cerro Gordo	1,241	7	8.6	- 4.7			-31	13	33	1.40		.50	14.0	4	15	5	8	NW	
Cresco	Howard		31	10.6	- 4.5	42	28	-27	2, 13	33	1.03	†.10	.50	9.9	6	16	4	8	NW	
Decorah	Winneshiek	857	12	11.2	- 3.8	47	28	-26	2	44	1.18		.39	13.0	5					
Dows	Wright	1,142	9	9.8	- 5.6	49	28	-32	13	36	2.90	†2.00	.70	27.0	7	16	4	8	NW	
Elkader	Clayton	727	21	11.8	- 6.3	51	28	-30	15	45	1.12	†.00	.40	12.0	6	14	8	6	SE	
Estherville	Emmet	1,298	12	9.0	- 7.0	55	28	-28	2, 3, 13	51	1.18	†.56	.30	17.0	6	15	3	10	NW	
Fayette	Fayette		15	9.2	- 8.2	46	28	-30	13, 15	44	1.43	†.27	.56	14.2	7	18	2	8	NW	
Florence	Wright	1,226									2.24		.78	17.5	6	7	12	9	N	
Forest City	Winnebago	1,226	11	8.1	- 6.9	46	23, 25	-31	13	52	1.95	†1.18	.60	18.5	5	14	5	9		
Grand Meadow	Clayton	1,180	11	11.0	- 6.0	46	28	-29	13	33	1.33	†.21	.33	10 0	5	13	6	9	NW	
Greene	Butler	924	8	11.3	- 5.0	46	28	-29	13	36	.94	-.02	.25	16.0	7	12	5	11	W	
Hampton	Franklin	1,155	13	11.4	- 6.1	50	28	-30	13	35	1 48	†.37	.56	21.5	8	12	11	5	NW	
Hanlontown	Worth			9.6		47	21, 28	-31	13	37	1.79		.50	7.5	6	14	7	7	NW	
Humboldt	Humboldt	1,095	16	12.8	- 4.6	54	28	-32	2	40	.75	†.05	.20	7.5	6	16	5	7	NW	
Inwood ‡	Lyon			10.8		62	28	-34	2	46	.70		.30	7.0	4	21	1	6	NW	
Larrabee	Cherokee	1,266	12	11.4	- 6.8	59	28	-36	2	37	1.40	†.65	.67	13 8	8	13	11	4	NW	
LeMars	Plymouth	1,224	7	11.8	- 5.5	61	28	-35	2	36	.60	-.01	.50	7.2	2	16	9	3	S	
Mason City	Cerro Gordo	1,132	8	11.6	- 3.3	45	28	-27	13	31	1.61	†1.05	.50	15.5	5	16	6	6	NW	
New Hampton	Chickasaw	1,169	7	10.5	- 3.4	41	28	-32	13	30	.97	-.10	.35		5	10	8	10	S	
Northwood	Worth	1,222	8	8.4	- 7.0	43	22	-28	2, 3	40	1.47	†.31	.60	14 8	7	11	12	5	NW	
Osage	Mitchell	1,184	13	11.2	- 3.2	43	28	-28	2	33	1.18	‡.00	.38	11.2	7	13	7	8	NW	
Pocahontas	Pocahontas	1,190		12.2		53	28	-30	13	38	1.55		.60	15.5	5	16	4	8	NW	
Plover	Pocahontas		8	10.4	- 6.3	55	28	-35	13	47	1.35	†.70	.50	13.5	5	17	2	9	NW	
Ridgeway	Winneshiek	1,215	7	13.6	- 3.5	47	28	-28	13	32	2.00	-.67	.75	12.5	5	14	12	2	S	
Rock Rapids	Lyon	1,021	7	10.6	- 6.4	64	25	-33	2	40	.60	†.46	.20	6.0	5					
Sheldon	O'Brien	1,422	6	11.0	- 3.2	63	28	-35	2	43	1.30	†.62	.35	9.0	6	22	4	2	NW	
Sibley	Osceola	1,212	12	8.3	- 7.1	58	28	-36	2	57	.60	†.13	.15	6.0	7	14	7	7	NW	
Sioux Center	Sioux		6	11.8	- 3.8	60	28	-32	2	37	.60	-.18	.20	6.0	5	18	1	9	S, NW	
Storm Lake	Buena Vista	1,440	8	8.2	- 6.8	59	28	-34	2, 3	56	1.31	†.66	.55	13.1	6	15	1	12	NW	
Washta	Cherokee	1,157									1.00	†.38	.60	10.0	6	17	7	4	S, NW	
Waverly	Bremer	942	9	10.6	- 7.4	44	28	-28	13, 15	38	1.53	†.41	.50	17.1	7				NW	
West Bend	Palo Alto	1,197	12	12.0	- 4.5	52	28	-32	13	38	2.00	†1.19	.60	20.0	4	12	6	10	NW	
Average				10.6	- 5.9	50.8		-31.0		39.4	1.35	†.46		13.6	6	14	7	7	NW	

SOUTHERN SECTION.

Afton	Union	1,212	11	16.1	-5.7	62	28	-25	2, 13	33	1.35	† .31	.60	13.5	6	10	7	11	SW	
Albia	Monroe	957		12.5	-7.2	64	28	-29	13	47	1.87		.52	23.0	7	15	0	13	NW	
Allerton	Wayne			15.7		64	28	-33	13	34	1.82		.60	14.6	6	15	8	5	SW	
Atlantic	Cass	1,164	14	12.8	-7.9	66	28	-36	2	44	2.10	†1.14	.80	21.0	4	11	6	11	NW	
Bedford	Taylor		5	15.4	-3.6	68	28	-32	13	39	1.56		.60	17.2	8	15	6	7	NW	
Bonaparte	Van Buren		14	15.2	-7.7	62	28	-31	13	35	1.42	† .18	.60	12.0	5					
Burlington	Des Moines	544		17.2		61	28	-27	13	32	2.40		.88		10	16	2	10	SW	
Chariton	Lucas	1,042	10	14.8	-7.4	64	28	-28	13	39	2.03	† .99	.60	15.0	6	16	7	5	NW	
Columbus Junct.	Louisa	586		16.0		55	28	-28	13	33	1.82	† .92	.50	19.0	10	15	9	4	NW	
Corning	Adams	1,127	13	13.3	-8.9	63	28	-32	13	43	2.00	†1.20	.70	20.0	5	12	10	6	SW	
Corydon	Wayne	992	12	15.8	-6.0	66	28	-31	13	37	1.71	† .29	.50	19.5	6	12	6	10	NW	
Clarinda	Page		15	12.4	-10.6	68	28	-29	13, 14	55	1.18	† .16	.43	15.2	6	13	5	10	S	
Cumberland	Cass										2.25		.70	27.0	7	18	4	6	NE	
Earlham (a)	Madison			14.0		63	28	-29	2, 13	40	1.38		.60	18.0	4				SW, NW	
Ft. Madison	Lee	516	56								2.13	† .17	.60	14.0	6	11	4	13	W	
Glenwood	Mills		17	16.1	-7.1	69	28	-29	13	31	1.60	† .92	.50	14.0	7	8	14	6	NW	
Greenfield	Adair		14	14.2	-7.1	63	28	-33	13	53	1.43	† .39	.47	17.4	7	17	6	5	SW	
Hopeville	Clarke		13	14.8	-7.1	64	28	-30	13	34	.68	- .09	.26		8	8	12	8	N, NW	
Indianola	Warren	969		15.2	-7.3	64	28	-28	2	35	1.68	† .93	.50	16.8	8	7	10	11	NW	
Keokuk	Lee	619	34	18.0	-10.8	62	28	-27	13	30	1.37	- .34	.36	13.3	12	14	4	10	SW	
Keosauqua	Van Buren	644	13	13.4	-10.7	62	28	-28	13, 14	54	2.02	† .60	.74	12.3	12	9	4	15		
Lacona	Warren										2.63		.81		8	7	13	8		
Lenox	Taylor	1,250	10	13.6	-8.4	63	28	-37	13	35	1.41	† .76	.50	12.8	6	19	5	4	NW	
Leon	Decatur	1,120		16.0		62	28	-28	13	33	1.85		.70	18.5	5	8	11	9	N	
Massena	Cass			14.4		65	28	-31	2	38	1.03		.36	18.0	4	15	6	7	N, S	
Mt. Ayr	Ringgold	1,236	12	16.2	-5 6	68	28	-28	13	36	1.65	† .49	.40	15.0	7	11	6	11	SW, NW	
Mt. Pleasant (a)	Henry	729	24	15.2	-8.6	58	28	-27	13	40	1.68	† .64	.68	15.5	8	15	6	7	NW	
Omaha, Neb.	Douglas	1,113	34	17.0	-8.0	66	28	-25	2	30	1.36	† .57	.38	16.5	10	9	10	9	N	
Oskaloosa ‡	Mahaska	843	22	13.8	-7.5	60	28	-31	13	43	1.26	† .19	.30	14.8	8	16	0	12	NW	
Ottumwa	Wapello	649	11	16.2	-6.7	60	28	-24	2, 13	38	2.83	†1.59	1.10	16.5	7	10	10	8	NW	
Pacific Junction	Mills	960	6	14.5	-4.5	67	28	-37	13	40	.98		.25	9.8	7	11	16	1	NW	
Red Oak	Montgomery	1,033	8	15.4	-7.4	60	27	-26	13	50	1.47	† .69	.60	18.8	8	17	4	7	NW	
St. Charles	Madison	1,070		16.4		67	28	-27	13	36	1.57		.57	18.8	7	13	8	7	NW	
Sigourney	Keokuk	887	9	15.2	-6.2	54	28	-30	13	42	2.11	† .76	.46	19.0	9	8	15	5	NW	
Stockport	Van Buren			16.8		62	28	-26	13	41	1.63		.62	13.0	9	11	8	9	NW	
Thurman	Fremont	588		14.4	-5.8	66	28	-37	13	55	1.14	- .18	.38	14.1	8	12	8	8	SW	
Wapello (c)	Louisa	769	7	13.3	-7.5			-22	13	44	2.06	† .60	.50	15.0	9				W	
Washington	Washington		13	14.7	-6.7	57	28	-29	13	34	2.14	† .98	.60	7.0	9				NW	
What Cheer (a)	Keokuk	1,129		17.4				-31	12	51	.75		.20	7.0	5				N	
Winterset	Madison	961	14	14.9	-6.7	59	28	-29	2	35	.85	- .04	.35	11.0	3	17	3	8	NW	
Woodburn	Clarke		6	14.8		61	28	-30	13, 15	50	1.87		.66	18.0	5	14	5	9	NW	
Average				15.1	-6.4	65.1		-29.4		40.0	1.67	† .53		15.9	7	13	7	8	NW	
Average for Stat				12.8	-6.8	57.2		-30.6		40.0	1.57	† .53		15.5	7	14	7	7	NW	

†Above normal. ‡Received too late to be computed with means. *a*. One day missing; *b*. two days, etc. §Not supplied with self-registering instruments.

CLIMATOLOGICAL DATA FOR FEBRUARY, 1905—Continued.

CENTRAL SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Amana	Iowa	721	27	12.8	- 7.2	48	28	-32	13	44	1.93	† .66	.46	15.7	10	11	10	7	SW	
Audubon	Audubon	1,301	9	12.3	- 6.9	62	28	-35	2	44	1.79	† .99	.52	17.9	7	14	6	8	NW	
Baxter	Jasper	998	....	11.7	- 5.1	58	28	-32	13	36	1.40	.....	.60	14.0	3	19	0	9	NW	
Belle Plaine	Benton	826	14	10.8	- 9.8	47	28	-32	13	40	2.97	†1.67	1.00	22.8	8	11	8	9	NW	
Boone	Boone	....	....	14.7	.....	60	28	-27	2,13	28	1.37	.....	.32	16 8	10	14	3	11	NW	
Buckingham	Iowa	.....	....	.....	.....	.....	.....	.....	.....	.....	1.23	.....	.31	11.5	8	11	9	8	.....	
Carroll	Carroll	1,265	13	12.7	- 6.3	66	28	-38	2	53	1.75	† .67	.65	17.2	9	15	5	8	.....	
Cedar Rapids	Linn	733	23	10.6	- 9.9	50	28	-27	13	50	1.10	- .45	.41	18.8	7	9	12	7	NW	
Clinton	Clinton	609	38	13.6	- 8.4	49	28	-27	13	38	2.44	† .33	.70	18.0	9	10	10	8	W, NW	
Davenport	Scott	606	34	14.6	-10.7	52	28	-25	13	30	1.99	† .42	.54	15.1	8	13	6	9	W	
Delaware	Delaware	1,083	12	11.0	- 5.2	45	28	-31	13	31	1.34	† .46	.47	12.0	5	13	8	7	NW	
Denison	Crawford	1,180	9	13.2	- 5.4	64	28	-37	2	39	1.52	† .88	.60	12.8	6	19	4	5	N	
Des Moines	Polk	861	27	14.8	- 8.3	63	28	-26	13	38	1.06	† .22	.43	16.5	9	10	10	8	NW	
De Soto	Dallas	866	....	14.0	.....	64	28	-32	13	35	1.85	.....	1.00	18.0	6	17	4	7	SW	
Dubuque	Dubuque	655	32	13.3	- 9.3	49	28	-25	13	32	1.58	† .12	.50	16.6	7	12	8	8	NW	
Fort Dodge	Webster	1,126	....	10.5	.....	58	28	-28	13,14	50	1.50	.....	.40	13.0	7	17	1	10	N,S,W,NW	
Galva	Ida	1,290	12	12.5	- 5.3	59	28	-41	2	48	1.30	† .83	.45	13.0	5	....	....	....	.....	
Gilman	Marshall	1,052	...	....	.....	.....	.....	.....	.....	.....	1.75	.....	.60	15.0	6	13	4	11	N	
Grinnell	Poweshiek	1,023	10	13.5	- 7.6	53	28	-26	13	34	2.03	†1.16	.50	17.5	6	12	10	6	NW	
Grundy Center	Grundy	976	12	10.8	- 6.8	48	28	-34	13	36	2.55	†1.83	.60	27.0	8	13	8	7	NW	
GuthrieCenter	Guthrie	1,077	7	13.8	- 6.1	62	28	-32	2	39	1.15	† .48	.41	....	11	20	4	4	NW	
Harlan	Shelby	1,192	....	12.6	- 3.9	63	28	-37	2,13,15	52	1.16	.....	.45	14.5	7	11	11	6	NW	
Ida Grove†	Ida	1,220	....	12.9	.....	60	27	-41	2	45	1.10	.....	.50	11.0	3	15	8	5	W	
Independence	Buchanan	921	40	10.3	-11.5	48	28	-29	13	38	2.00	† .95	.60	20.0	5	17	4	7	SW	
Iowa City	Johnson	683	47	10.4	-12.5	55	28	-32	13	52	1.90	† .39	.50	21.0	8	14	3	11	N, S	
Iowa Falls	Hardin	1,170	10	10.0	- 5.3	48	28	-32	13	47	1.54	† .59	.50	19.5	9	14	4	10	NW	
Little Sioux	Harrison	.....	....	14.2	.....	66	28	-38	2	40	.89	.....	.22	9.2	6	17	7	4	SW	
LeClaire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	1.56	.....	.58	15.5	7	...	...	....	NW	
Logan	Harrison	928	36	15.2	- 8.4	63	28	-34	2	40	1.40	† .20	.30	14.0	8	11	14	3	NW	
Maquoketa	Jackson	688	12	10.2	-11.4	48	28	-31	13	53	1.61	† .11	.50	21.0	5	13	2	13	NE	
Marshalltown	Marshall	947	10	10.1	- 9.9	57	28	-30	13	52	1.49	† .71	.54	15.2	10	11	3	14	NW	
Muscatine	Muscatine	.....	46	.....	.....	.....	.....	.....	.....	.....	1.37	- .71	.43	13.4	10	....	....	...	NW	
Mt. Vernon	Linn	847	30	13.0	- 8.6	52	28	-30	13	32	2.37	†1.30	.60	25.2	9	15	4	9	NW	
Newton	Jasper	944	15	12.8	- 7.6	55	28	-34	13	39	2.00	† .98	.67	22 0	7	15	7	6	S	
Odebolt	Sac	1,356	8	13.2	- 4.4	60	28	-34	2	38	.88	† .13	.40	12.0	4	18	7	3	.....	
Ogden (a)	Boone	1,088	9	13.6	- 5.8	62	28	-32	2	31	1.67	†1.08	.65	16.5	5	16	4	8	NW	
Olin	Jones	760	7	12.4	- 1.9	43	28	-28	13	41	2.20	† .87	.70	21.5	7	14	7	7	NW	
Onawa	Monona	.....	....	15.9	- 3.6	69	28	-30	2	42	1.10	† .15	.30	10.5	9	18	6	4	NW	
Perry	Dallas	975	...	13.8	.....	61	28	-33	13	37	1.85	.....	.60	18.5	6	6	14	8	.....	
Rockwell City	Calhoun	.....	8	12.8	- 4.0	58	28	-32	12,13	38	1.30	† .79	.60	13.0	3	14	3	11	.....	
Sioux City	Woodbury	1,165	16	13.6	- 5.4	64	28	-30	2	43	.44	† .11	.25	8.9	8	13	9	6	NW	
Tipton	Cedar	807	....	15.2	- 6.2	49	28	-24	13	37	2.60	.....	.80	23.7	8	19	4	5	NW	
Toledo	Tama	856	9	12.2	- 7.4	53	28	-28	2,13	42	1.51	† .82	.50	25.0	5	14	5	9	SW, NW	
Vinton (a)	Benton	810	15	11.3	- 8.6	46	28	-30	13	43	2.10	†1.09	.60	21.0	5	...	...	....	NW	
Waterloo	Black Hawk	862	16	12.0	- 6.2	45	21,25,28	-27	13	39	1.46	† .48	.48	13.0	7	13	5	10	NW	
Waukee	Dallas	1,039	....	15.7	.....	66	28	-32	2	40	2.38	.....	.90	23.5	7	14	8	6	NW	
Wilton Junction	Muscatine	683	11	13.7	- 6.1	49	28	-33	13	47	2.67	.....	.68	21 0	5	18	0	10	W	
Whitten	Hardin	1,036	...	10.7	- 4.4	48	28	-33	13	43	2.10	.....	.50	21.0	6	14	6	8	SW	
Zearing	Story	718	...	11.8	....	55	28	-35	13	36	2.18	.....	.95	18.5	4	17	1	10	NW	
Average				12.7	- 7.6	55.6	....	-31.4	.....	40.7	1.68	† .62	.....	17.0	7	14	6	8	NW	

† Above normal. ‡ Received too late to be computed with means. *a*. One day missing; *b*, two days, etc. § Not supplied with self-registering instruments.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR FEBRUARY, 1905.

STATIONS.		DATE.																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max..	10	- 8	3	14	28	14	23	22	21	10	7	2	3	25	12	35	24	36	36	36	43	40	54	44	49	57	47	62	..	..	..	26.8
	Min ..	-12	-25	-13	-18	5	- 7	-16	14	8	-14	- 3	-18	-25	- 8	-16	7	13	4	12	28	25	25	31	36	30	28	27	38	..	..	..	5.4
Albia*....	Max..	- 1	-11	0	14	16	13	20	22	24	4	7	- 6	11	20	16	32	26	34	34	35	46	40	48	34	34	40	48	64	..	..	..	23.7
	Min ..	- 1	-26	-26	-17	-14	- 7	-16	-10	15	-13	-13	-10	-29	-28	-17	-15	15	2	8	16	25	26	30	34	30	28	22	27	..	..	..	1.3
Algona. ..	Max..	0	-10	1	10	17	7	14	19	17	0	0	- 5	- 4	21	8	33	23	32	32	35	43	36	46	48	46	36	43	50	..	..	..	21.2
	Min ..	-20	-28	-20	-21	4	- 9	-21	9	0	-19	- 5	-22	-31	- 9	-25	5	4	1	16	27	25	26	21	31	26	26	11	22	..	..	..	0.8
Allerton .	Max..	11	- 8	5	16	16	15	20	25	21	15	8	4	1	21	10	35	29	36	35	35	43	48	50	40	50	50	48	64	..	..	..	26.4
	Min ..	-10	-26	-12	-16	9	- 8	-14	14	12	-17	- 1	-13	-33	-11	-20	4	13	3	9	27	21	27	29	36	29	29	28	32	..	..	..	5.0
Alta.	Max..	-12	-12	- 5	4	10	6	15	23	15	- 2	- 1	-12	0	24	12	30	22	32	30	37	42	37	47	45	50	36	51	59	..	..	..	20.8
	Min ..	-27	-33	-17	-17	- 3	- 7	-13	9	- 7	-20	-12	-26	-30	- 8	-18	10	7	4	20	20	26	24	26	32	27	25	17	32	..	..	..	1.5
Amana. ..	Max..	6	- 9	2	14	20	19	20	22	21	7	11	7	- 4	20	5	31	23	31	36	36	42	38	37	37	41	37	40	48	..	..	..	22.8
	Min ..	-14	-26	-16	-22	12	0	-24	13	7	-11	- 2	-14	-32	-12	-22	1	14	- 3	8	29	23	29	19	32	30	24	13	24	..	..	..	2.9
Atlantic..	Max..	- 6	-10	- 3	6	16	16	17	26	20	5	2	- 3	- 4	27	13	33	26	34	33	38	46	41	41	50	53	49	53	66	..	..	..	24.5
	Min ..	-17	-36	-14	-30	4	-19	-30	13	4	-24	- 3	-21	-30	- 4	-31	12	13	- 6	22	30	25	19	22	34	25	24	24	21	..	..	..	1.0
Audubon.	Max..	4	-13	- 4	5	15	10	14	22	16	3	2	- 4	0	26	13	28	25	33	32	37	44	45	48	46	52	33	52	62	..	..	..	23.1
	Min ..	-18	-35	-15	-28	2	-12	-26	12	3	-22	- 5	-19	-30	- 6	-31	10	10	- 1	20	28	26	19	27	33	26	26	24	25	..	..	..	1.5
Baxter. ..	Max..	- 5	- 8	1	9	19	16	15	18	22	8	7	3	- 5	- 2	3	30	26	32	35	33	45	39	43	38	45	35	44	58	..	..	..	21.6
	Min ..	-15	-29	-17	-18	7	-10	-21	12	5	-16	- 4	-20	-32	-20	-20	3	11	0	9	28	21	28	23	30	25	27	14	28	..	..	..	1.8
Bedford ..	Max..	10	-10	- 3	8	18	11	17	23	20	9	5	2	- 1	28	14	34	26	35	35	37	46	56	55	47	53	57	56	68	..	..	..	27.0
	Min ..	-11	-27	-12	-19	4	-14	-10	11	5	-20	0	-20	-32	- 6	-23	11	10	- 1	10	28	27	22	31	36	26	27	26	29	..	..	..	3.9
Belle Pl'e	Max..	-12	-10	2	10	22	12	10	24	24	10	9	2	- 5	23	10	33	23	31	38	35	37	39	39	36	41	35	40	47	..	..	..	21.0
	Min ..	-16	-30	-20	-20	- 9	-15	-20	12	16	-15	- 5	-19	-32	-15	-23	0	12	- 2	- 2	27	21	30	20	32	28	27	11	23	..	..	..	0.6
Bonapar'e	Max..	8	- 8	2	17	17	17	18	24	25	12	16	8	0	22	9	31	28	32	34	35	42	38	47	36	43	41	45	62	..	..	..	25 0
	Min ..	-10	-25	-11	-13	-13	0	-17	14	12	-10	0	-13	-31	-12	-20	0	14	0	9	27	22	29	25	33	31	26	28	31	..	..	..	5.4
Boone . ..	Max..	9	- 5	- 1	7	15	15	12	21	22	9	3	0	- 2	21	10	29	29	34	35	34	45	41	44	43	48	44	49	60	..	..	..	24.0
	Min ..	-16	-27	-15	-15	5	- 6	-15	12	5	-15	- 5	-19	-27	- 6	-18	5	18	10	22	29	28	29	31	32	30	28	25	32	..	..	..	5.4
Britt.	Max..	- 5	-12	- 2	14	17	9	18	28	17	1	3	- 3	- 6	19	8	34	24	32	35	39	43	39	47	42	45	36	40	46	..	..	..	21.7
	Min ..	-20	-31	-22	-18	6	-10	-23	14	- 2	-17	- 6	-23	-34	-11	-27	2	7	- 3	10	27	21	26	18	30	23	26	4	27	..	..	..	-0.2
Burling'n	Max..	11	3	9	21	19	24	22	23	29	14	17	12	1	21	10	28	32	32	34	33	46	38	49	38	37	40	46	61	..	..	..	26.8
	Min ..	-10	-22	-10	- 9	13	5	-10	14	14	- 9	1	- 9	-27	- 9	-15	2	15	7	14	27	24	30	27	32	31	26	27	31	..	..	..	7.5
Carroll* ..	Max..	12	-10	- 4	10	- 2	12	15	17	20	0	4	-12	24	8	20	34	26	34	31	40	47	44	52	49	53	37	56	66	..	..	..	24.5
	Min ..	-17	-33	-27	-25	-10	-13	-24	- 3	7	-21	- 7	-20	-29	- 6	-25	10	10	0	20	26	27	23	27	32	25	30	21	28	..	..	..	0.9
Cedar R*.	Max..	3	- 5	2	17	19	17	22	20	20	3	11	0	9	15	10	29	23	32	35	34	42	36	35	39	42	38	41	50	..	..	..	22.8
	Min ..	- 9	-22	-22	-18	-18	1	-22	-23	13	-10	-11	- 2	-26	-27	-19	-21	9	- 6	- 5	14	26	25	25	24	31	23	15	13	..	..	..	-1 5
Chariton .	Max..	10	- 9	1	14	9	14	17	21	21	13	5	0	- 3	21	8	32	32	33	32	34	45	41	48	43	50	47	45	64	..	..	..	24.6
	Min ..	-10	-26	-12	-19	15	-11	-22	14	8	-14	- 1	-10	-28	- 9	-20	4	14	1	9	28	24	27	36	35	29	25	28	29	..	..	..	5.1
Charles C.	Max..	2	-12	2	9	19	12	14	17	18	- 2	3	- 5	- 2	15	3	30	21	30	33	32	42	35	33	36	41	32	40	43	..	..	..	19 3
	Min ..	-23	-31	-21	-25	1	-23	-27	11	- 6	-15	- 6	-25	-30	-14	-31	3	8	- 3	13	28	27	27	26	29	23	15	6	19	..	..	..	-1.6
Clarinda*.	Max..	- 5	-12	2	10	19	12	10	25	20	6	5	- 9	22	26	18	35	29	35	33	39	49	51	54	49	56	56	57	68	..	..	..	27.1
	Min ..	- 5	-27	-25	-22	-22	-10	-22	-12	-12	-16	-16	-14	-19	-29	-20	-20	10	2	3	15	25	24	25	30	27	27	27	23	..	..	..	-2.2
Clear L ..	Max..	3	-10	4	4	19	11	16	21	17	7	4	- 1	- 5	15	7	30	30	32	33	36	39	36	..	..	..	..	..	..	.	..	..	15.9
	Min ..	-22	-29	-20	-12	5	- 8	-17	10	1	-15	- 7	-21	-31	-10	-25	1	8	10	14	27	27	26	20	29	27	27	4	17	..	..	..	1.3
Clinton ...	Max..	5	- 3	6	17	22	22	21	23	25	5	18	15	- 6	24	8	33	24	31	39	34	38	43	34	38	40	39	38	49	..	..	..	24.4
	Min ..	-14	-22	-12	-14	12	0	-17	4	4	-12	0	-13	-27	-11	-17	- 3	8	- 3	2	26	27	25	22	31	26	21	15	20	..	..	..	2.8
Colum. J.	Max..	10	- 6	5	20	20	19	25	28	27	11	17	10	- 3	24	9	34	28	39	40	38	42	40	44	39	41	41	42	55	..	..	..	26.4
	Min ..	-11	-24	-12	-15	12	4	-13	13	10	-11	- 1	-11	-28	-11	-16	1	9	8	13	27	24	29	26	32	29	27	20	30	..	..	..	5 6
Corning ..	Max..	10	-10	0	6	12	12	15	23	19	7	5	1	- 3	25	13	31	25	32	32	34	42	42	47	46	49	51	49	63	..	..	..	24.2
	Min ..	-13	-30	-15	-26	4	-13	-26	10	5	-19	- 2	-20	-32	- 7	-30	9	10	3	13	28	27	18	28	34	25	30	26	30	..	..	..	2.4
Corydon..	Max..	13	- 4	7	13	17	17	18	23	22	19	8	6	1	22	9	33	31	34	33	36	44	45	50	42	51	46	49	66	..	..	..	26.8
	Min ..	-10	-26	-12	-17	9	19	-19	12	10	-15	- 1	-11	-31	-10	-19	4	12	4	11	27	22	26	30	35	29	28	28	30	..	..	..	4.9
Cresco ...	Max..	3	-11	0	8	17	16	14	17	18	3	6	3	- 7	11	1	26	25	26	32	34	38	36	33	35	38	35	38	42	..	..	..	19.2
	Min ..	-20	-27	-22	-15	6	- 2	-19	10	2	-14	-10	-13	-27	-12	-20	- 2	11	0	16	27	25	26	24	28	24	18	16	28	..	..	..	2.1
Davenpo't	Max..	6	- 6	5	17	19	19	18	21	23	2	16	9	- 5	16	6	30	23	32	35	32	39	38	34	38	42	37	42	52	..	..	..	22.9
	Min ..	-16	-22	-12	- 7	13	0	-12	13	2	- 9	- 2	-18	-25	- 8	-14	4	14	6	17	27	28	27	27	31	31	28	20	30	..	..	..	6.2
Decorah. .	Max..	-12	- 8	8	15	22	17	21	22	20	2	8	- 4	- 8	11	8	32	25	32	31	37	40	37	34	35	40	37	39	47	..	..	..	21.0
	Min ..	-18	-26	-24	-21	7	- 7	23	12	0	-12	- 7	-17	-25	- 9	-24	0	13	12	- 4	17	28	25	29	30	27	18	18	20	.	..	..	1.4
Delaware.	Max..	3	- 9	3	10	19	17	17	19	20	4	7	6	- 7	10	6	28	22	30	35	35	37	36	34	38	37	33	39	45	..	..	..	20.5
	Min ..	-19	-28	-18	-11	7	0	- 9	9	0	-14	- 6	-12	-31	-15	-22	- 2	6	1	10	25	25	26	20	27	21	20	8	20	..	..	..	1.4
Denison ..	Max..	5	-12	- 4	4	13	10	14	20	19	6	0	- 4	0	26	13	30	28	34	30	37	48	46	53	49	55	48	57	64	..	..	..	24.6
	Min ..	-17	-37	-15	-29	0	-12	-25	12	5	-21	- 6	-22	-28	- 5	-26	11	11	4	21	23	27	21	26	23	29	28	23	26	..	..	..	1.7
Des M....	Max..	7	- 7	2	12	19	12	17	20	22	4	8	- 4	2	25	10	31	25	33	34	34	48	39	47	44	51	37	50	63	..	..	..	24.5
	Min ..	-18	-26	-12	-19	7	-10	-21	15	- 1	-13	- 4	-21	-26	- 3	-17	9	12	4	15	29	26	31	31	34	32	29	28	32	..	..	..	5.1
De Soto ..	Max..	5	-10	0	9	17	10	13	23	20	6	4	- 2	0	24	12	30	24	33	35	35	49	42	56	44	55	40	48	64	..	..	..	24.5
	Min ..	-18	-31	-14	-27	6	- 9	-25	13	5	-16	- 4	-20	-32	- 9	-23	5	12	4	13	28	26	30	32	34	30	29	26	30	..	..	..	3 4
Dows.	Max..	0	15	- 2	5	14	12	12	16	15	3	0	- 2	- 6	19	4	28	25	31	32	32	42	37	42	38	45	40	42	49	..	..	..	19.9
	Min ..	-20	-29	-23	-19	4	-12	-24	11	0	-20	- 6	-20	-32	-12	-25	2	9	- 1	15	27	22	26	19	29	25	25	7	16	..	..	..	-0 2
Dubuque.	Max..	3	- 7	3	13	20	18	19	20	23	6	11	7	- 5	16	8	28	22	30	34	34	39	41	33	39	41	35	40	49	..	..	..	22.1
	Min ..	-14	-21	-17	-14	11	0	-13	11	0	- 9	- 4	-17	-25	-11	-15	- 1	14	4	17	28	28	26	24	30	32	23	18	23	..	..	..	4.5
Earlham.	Max..	9	-12	0	6	16	14	13	19	0	8	4	1	- 1	24	10	33	25	32	31	33	43	45	48	43	52	42	48	63	..	..	..	24.4
	Min ..	-14	-29	-15	-26	4	- 8	-27	13	0	-20	- 4	-17	-29	- 7	-26	7	13	7	21	26	31	24	31	33	27	26	26	27	..	..	..	3.5
Elkader ..	Max..	- 6	- 4	10	15	21	24	22	22	24	4	10	3	0	14	10	27	25	36	36	34	38	42	38	35	44	37	39	51	..	..	..	23.1
	Min ..	-15	-28	-25	-25	9	-11	-25	14	4	-12	- 6	-14	-29	-14	-30	0	14	- 6	12	29	27	28	21	30	23	14	9	19	..	..	..	0.5
Esthervil*	Max.	-12	-13	- 3	9	10	10	13	18	14	- 3	- 2	-12	23	1	15	32	23	32	31	37	47	34	50	47	49	31	46	55	..	..	..	20.8
	Min ..	-23	-28	-28	-26	-18	-10	-23	-13	12	-19	-18	-25	-28	-25	-22	-19	10	6	5	20	23	27	25	27	28	26	11	24	..	..	..	-2.9
Fayette ..	Max..	-12	- 8	5	13	20	17	17	18	20	- 2	12	- 5	- 6	14	5	27	24	30	35	35	40	34	34	37	39	35	39	46	..	..	..	20.1
	Min ..	-20	-29	-23	-25	7	-10	-27	11	- 3	-12	- 8	-21	-30	-15	-30	- 5	- 1	- 5	11	23	24	24	20	28	29	20	7	16	..	..	..	-1.8
ForestCy*	Max..	-15	-12	- 2	13	17	8	12	20	15	- 4	2	-15	15	3	17	30	21	30	32	33	42	32	46	41	46	31	42	45	..	..	..	19.5
	Min ..	-21	-29	-26	-17	- 9	- 7	-22	-17	8	-16	-14	-22	-31	-26	-24	-22	10	- 1	4	27	23	24	18	22	26	27	6	16	..	..	..	-3.3
F. Dodge*	Max..	-10	-11	- 8	11	15	5	15	19	16	- 2	2	-14	22	10	19	30	22	33	32	36	42	44	47	42	48	33	49	58	..	..	..	21.6
	Min ..	-18	-27	-27	-21	-16	- 7	-24	-24	12	-18	-18	-18	-28	-28	-22	7	12	6	8	25	27	29	24	25	29	28	19	27	..	..	..	-0.6
Galva	Max..	3	-13	..	8	12	5	22	28	19	3	1	- 6	5	30	14	32	26	33	35	40	43	41	48	45	49	43	53	59	..	..	..	25.1
	Min ..	-22	-41	-17	-31	1	-13	-25	11	3	-20	- 6	-25	-30	-18	-29	9	8	0	21	20	27	20	21	33	26	30	19	25	..	..	..	-0.1
Glenw'd .	Max..	10	-12	- 4	0	15	17	14	22	19	9	1	- 1	1	28	17	34	29	33	32	38	50	50	48	49	55	56	55	69	..	..	..	26.2
	Min ..	-14	-26	-13	-21	0	- 4	-10	12	9	-17	- 3	-17	-29	- 3	-11	10	13	12	10	25	28	28	33	35	28	33	26	33	..	..	..	6.0
Grand M.	Max..	- 1	- 8	3	11	20	16	16	21	21	0	6	2	- 8	15	5	30	20	27	36	36	40	36	36	35	40	38	40	46	..	..	..	20.7
	Min ..	-19	-28	-23	-14	6	- 4	-15	10	0	-16	- 9	-18	-29	-14	-21	- 3	10	0	15	26	25	26	22	28	23	20	14	28	..	..	..	1.4
Greene...	Max..	3	- 9	3	13	18	16	15	21	17	3	5	1	- 2	15	8	30	26	34	35	34	41	37	37	37	42	37	40	46	..	..	..	21.5
	Min ..	-17	-27	-20	-19	7	-10	-21	13	- 1	-14	- 4	-14	-29	-10	-24	0	10	- 1	16	26	27	27	24	30	24	23	8	18	..	..	..	1.1
Greenfield. ..	Max..	7	-15	- 1	11	18	14	22	28	22	12	4	- 2	- 2	25	14	35	25	34	38	39	42	40	51	47	48	47	48	63	..	..	..	25.5
	Min ..	-17	-31	-16	-19	2	-10	-15	12	1	-20	- 4	-18	-33	- 9	-20	6	9	5	15	27	25	21	30	32	27	29	22	29	..	..	..	2.9
Grinnell .	Max..	11	-11	- 2	10	16	16	16	20	22	10	5	2	- 5	19	7	31	29	32	34	33	42	39	41	36	42	38	41	53	..	..	..	22.4
	Min ..	-14	-25	-15	-13	- 2	- 3	-14	13	8	-13	- 3	-17	-26	- 8	-17	- 3	8	8	14	28	23	29	27	31	32	32	18	32	..	..	..	4.6
Grundy C	Max..	5	-10	...	10	17	16	14	19	20	5	7	2	- 3	18	7	27	25	31	35	33	41	33	33	35	43	39	40	48	..	..	..	21.1
	Min ..	-17	-30	-22	-18	- 7	- 8	-22	12	4	-18	- 5	-15	-34	-11	-25	1	11	0	14	28	24	29	19	29	26	26	6	17	..	..	..	0.5
Guthrie C	Max..	6	- 3	- 7	9	16	13	15	24	21	5	5	0	- 1	24	13	29	27	32	34	36	44	40	49	45	49	45	50	62	..	..	..	24.2
	Min ..	-18	-32	-16	-26	3	- 6	-23	10	4	-18	- 5	-20	-29	- 7	-26	9	11	6	21	28	29	26	31	34	29	29	24	29	..	..	..	3 5
Hampton.	Max..	- 2	-10	4	11	19	12	15	18	18	1	5	- 3	0	17	9	32	25	32	35	33	43	36	39	38	44	36	42	50	..	..	..	21.4
	Min ..	-19	-28	-20	-18	5	- 9	-20	4	0	-17	- 5	-20	-30	-11	-21	2	10	5	12	25	26	27	21	29	28	26	10	26	..	..	..	1.4
Hanlontown .	Max..	1	-12	2	7	14	12	10	16	16	2	0	- 2	- 5	16	2	35	26	31	32	33	47	38	36	40	45	35	43	47	..	..	..	20.2
	Min ..	-21	-29	-23	-19	3	-10	-27	- 9	- 1	-16	-10	-22	-31	-10	-26	2	9	- 2	17	27	26	25	17	28	26	25	3	20	..	..	..	-1.0
Harlan....	Max..	5	-12	- 4	7	14	10	16	28	18	5	4	- 4	1	26	15	33	25	33	38	39	46	44	49	47	53	47	54	63	..	..	..	24.8
	Min ..	-19	-37	-15	-27	1	-15	-24	11	2	-21	- 6	-26	-37	- 7	-37	5	8	- 1	15	22	22	20	26	34	27	27	24	26	..	..	..	0.1
Hopeville.	Max..	7	-10	- 1	11	16	9	18	22	20	11	4	- 2	- 2	24	11	32	23	35	36	35	44	45	54	43	52	49	49	64	..	..	..	25.0
	Min ..	-13	-26	-13	-17	6	- 9	-16	14	5	-15	- 2	-21	-30	- 7	-17	5	10	5	9	28	25	25	31	37	29	29	27	32	..	..	..	4.7
Humboldt	Max..	4	-13	- 2	10	16	10	15	40	18	5	- 2	- 3	2	20	10	31	26	34	33	46	42	39	44	42	47	38	47	54	..	..	..	23.7
	Min ..	-19	-32	-20	-24	5	-13	-25	10	5	-21	-21	-30	- 6	- 8	-29	7	10	0	18	30	34	29	20	32	28	30	16	26	..	..	..	1.9
Ida Grove	Max..	6	-14	-14	5	15	14	18	24	22	6	3	- 3	0	26	16	29	26	34	33	39	44	42	45	47	50	50	60	57	..	..	..	24.2
	Min ..	-19	-41	-19	-31	- 4	-19	-25	10	5	-19	- 5	-23	-28	- 5	-30	10	10	5	22	29	26	22	35	32	26	29	27	26	..	..	..	1.6
Independ.	Max..	6	-10	0	10	17	16	14	15	17	12	5	5	9	15	1	24	23	28	33	34	38	34	32	33	38	37	37	48	..	..	..	20.4
	Min ..	-16	-27	-20	-15	7	- 1	-20	12	2	-12	- 6	-10	-29	-18	-24	- 4	- 4	- 5	5	26	24	23	22	28	26	19	9	14	..	..	..	0.3
Indianola.	Max..	8	- 7	3	8	20	14	16	22	22	7	8	3	- 1	23	12	32	25	34	36	35	47	43	50	52	51	40	48	64	..	..	..	25.2
	Min ..	-14	-28	-12	-18	7	-10	-19	14	6	-14	- 2	-19	-27	- 8	-18	5	15	6	13	29	25	31	31

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR FEBRUARY, 1905—CONTINUED.

STATIONS.		DATE.																															MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Keokuk ..	Max..	13	- 4	4	18	18	18	21	25	26	18	16	16	- 2	22	12	28	27	29	35	35	44	38	50	42	46	47	45	62	..	..	..	26.8
	Min ..	- 3	-20	- 9	- 7	12	6	- 7	15	18	- 5	1	- 8	-27	- 8	-12	3	18	6	21	27	25	31	26	38	33	29	30	36	..	..	..	9.3
Keosauqua *	Max..	10	- 7	4	20	20	17	21	25	26	14	17	0	10	26	10	32	27	34	34	36	43	40	50	38	45	45	46	62	..	..	..	26.6
	Min ..	6	-24	-23	-20	-20	0	-24	-22	15	-10	-10	- 5	-28	-28	-17	-17	17	- 7	- 7	21	23	24	25	25	31	23	29	29	..	..	..	0.2
Larrabee.	Max..	-11	-10	- 5	11	11	6	19	26	18	1	- 2	- 8	- 2	10	15	34	23	31	38	42	43	41	48	46	50	38	53	59	..	..	..	22.3
	Min ..	-24	-36	-19	-24	- 6	-20	-16	8	- 2	-24	- 8	-27	-29	- 3	-22	12	8	3	17	20	26	23	23	33	26	29	18	27	..	..	..	0.5
Le Mars..	Max..	5	-13	- 5	5	10	5	15	22	18	2	- 4	- 6	0	27	15	31	27	33	35	36	44	43	43	49	51	45	51	61	..	..	..	28.0
	Min ..	-22	-35	-16	-28	- 1	-15	-25	11	2	-19	-17	-27	-28	- 4	-22	4	8	3	19	19	28	19	24	39	25	31	19	25	..	..	..	0.6
Lenox....	Max..	9	-12	- 3	8	15	11	15	24	18	6	3	0	- 3	2	12	34	22	35	34	38	42	43	49	45	50	52	48	63	..	..	..	24.4
	Min ..	-16	-33	-16	-20	2	-10	-13	12	4	-22	- 9	-24	-37	- 8	-23	3	9	3	11	27	25	25	34	35	26	32	26	29	..	..	..	2.8
Leon.....	Max..	13	- 9	1	13	18	15	20	24	22	12	7	4	- 3	23	10	34	30	35	34	34	43	40	48	44	48	50	47	62	..	..	..	25.7
	Min ..	-10	-24	-12	-13	9	- 6	-13	12	10	-13	- 1	-13	-28	- 8	-16	5	14	5	13	28	23	27	31	36	30	29	28	32	..	..	..	6.2
Lit. Sioux	Max..	9	-12	- 3	2	15	6	14	23	19	6	4	- 4	0	22	17	31	28	38	34	39	42	49	54	44	57	52	59	66	..	..	..	25.9
	Min ..	-16	-38	-13	-28	0	-10	-26	13	5	-23	- 4	-20	-37	-12	-22	12	6	11	23	21	23	18	31	35	24	32	24	30	..	..	..	2.5
Logan....	Max..	8	- 4	6	10	20	14	21	30	21	12	7	4	3	28	18	32	29	38	34	42	48	45	50	48	50	48	53	63	..	..	..	27.8
	Min ..	-15	-34	-13	-26	6	-21	- 4	14	3	-16	-16	-19	-31	- 2	-22	11	11	5	23	20	25	20	20	28	24	29	36	26	..	..	..	2.6
Maquoketa *	Max..	3	4	10	17	20	25	21	19	20	10	12	5	5	20	7	27	26	31	35	32	40	43	34	32	44	32	38	48	..	..	..	23.6
	Min ..	-14	-23	-22	-20	- 2	0	-20	-20	12	-11	-11	- 1	-31	-28	-26	-26	7	- 4	- 5	15	27	27	19	27	28	19	6	4	..	..	..	-3.1
Marshlt'n	Max..	- 6	- 7	1	14	19	15	17	19	21	3	8	- 5	13	20	16	30	24	34	37	33	46	35	45	38	47	34	44	57	..	..	..	23.3
	Min ..	-14	-27	-27	-21	-21	- 6	-23	-20	13	16	-16	-12	-30	-29	-22	-22	13	2	6	15	22	23	21	21	28	26	14	15	..	..	..	-3.1
Mason C..	Max..	5	- 9	3	9	18	14	11	18	15	0	3	0	- 9	15	8	29	25	32	33	33	41	35	33	38	44	35	40	45	..	..	..	20.1
	Min ..	-18	-24	-17	-13	7	- 8	-26	10	0	-12	- 5	-18	-27	- 9	-20	2	12	7	17	25	27	27	22	28	27	27	17	25	..	..	..	3.2
Massena..	Max..	9	-11	- 1	7	17	12	16	25	20	7	4	0	16	25	16	31	26	33	34	38	44	43	50	47	51	51	51	65	..	..	..	25.9
	Min ..	-14	-31	-13	-24	- 5	- 6	-22	14	5	-16	- 3	-16	-30	- 5	-27	10	12	3	18	28	20	21	22	28	25	28	26	30	..	..	..	2.8
Mt. Ayr..	Max..	12	- 7	2	10	17	14	18	22	22	7	6	0	- 1	28	15	32	27	34	37	38	50	52	53	48	58	58	50	68	..	..	..	27.5
	Min ..	-14	-26	-13	-13	6	- 6	- 8	13	5	-15	- 2	-20	-28	- 8	-17	7	11	3	11	25	22	28	30	35	29	30	27	29	..	..	-	5.0
Mt. Pl'snt	Max..	10	- 4	7	20	22	18	23	27	27	13	18	10	- 2	20	8	35	27	34	37	38	42	40	47	39	42	41	44	58	..	..	..	26.5
	Min ..	-11	-26	-11	-12	-12	0	-17	14	11	-11	- 1	-11	-27	-11	-18	0	14	2	11	27	27	28	24	31	29	26	..	..	..	..	..	3.8
Mt. Ver'n	Max..	8	- 3	8	16	20	16	20	19	21	9	11	3	- 2	17	7	27	23	32	34	32	48	41	34	34	46	36	41	52	..	..	..	23.0
	Min ..	-15	-26	-17	-10	10	1	- 9	10	5	-13	- 5	-17	-30	-13	-18	- 2	12	0	7	26	23	23	21	29	27	24	16	28	..	..	..	3.1
New H. ..	Max..	2	-12	1	10	20	17	15	18	18	3	4	1	5	14	2	27	26	27	34	34	38	37	35	35	38	37	38	41	..	..	..	19.8
	Min ..	-20	-28	-21	-12	- 2	- 1	-14	11	0	-15	- 7	-16	-32	-15	-24	- 3	12	- 2	10	27	26	27	25	28	24	23	10	22	..	..	..	1.2
Newton..	Max .	10	-10	- 1	10	18	16	16	21	22	10	8	6	5	20	7	29	27	32	35	33	41	40	42	37	43	42	43	55	..	..	..	23.5
	Min ..	-16	-31	-17	-17	7	- 7	-17	13	8	-18	- 4	-16	-34	-18	-22	0	11	2	2	27	20	29	24	31	27	28	17	28	..	..	..	2.2
Odebolt ..	Max..	4	-12	- 3	7	15	6	19	25	19	4	- 2	- 4	- 1	25	13	29	26	35	32	49	44	43	49	45	50	45	48	60	..	..	..	24.3
	Min ..	-20	-34	-15	-25	1	-13	-19	10	4	-20	- 5	-21	-27	- 4	-24	10	10	4	19	23	29	20	21	33	26	30	20	30	..	..	..	2.2
Ogden....	Max..	3	- 8	3	- 5	17	11	11	18	..	..	4	0	- 9	21	10	25	29	33	35	36	45	38	47	45	49	44	50	62	..	..	..	23.5
	Min ..	-17	-32	-16	-18	5	-11	-21	10	- 8	-18	- 4	-19	-31	-10	- 4	3	15	19	19	28	29	30	21	30	26	29	21	30	..	..	..	3.8
Olin	Max.	12	- 6	3	12	21	19	16	20	22	10	10	10	- 7	21	4	30	25	28	35	35	37	39	34	37	39	36	40	43	..	..	..	22.3
	Min ..	-10	-23	-15	-20	11	1	-25	12	10	-12	- 4	- 7	-28	-17	-24	- 2	15	- 6	5	25	27	27	22	30	29	21	9	19	..	..	..	2.5
Omaha, N	Max.	7	-11	- 4	6	14	10	16	22	18	1	2	- 9	8	29	18	30	28	37	32	39	49	52	50	50	56	53	58	66	..	..	..	26.0
	Min ..	-18	-25	-12	-16	0	- 4	- 8	15	- 2	-12	- 9	-17	-22	0	- 6	13	16	12	26	24	31	32	35	37	33	32	29	38	..	..	..	7.9
Onawa...	Max..	9	-12	1	3	15	9	14	25	19	7	3	- 3	5	26	19	35	33	40	35	40	55	49	49	50	59	54	63	69	..	..	..	27.5
	Min ..	-12	-30	-11	-21	1	- 9	-18	11	7	-15	- 3	-20	-25	- 2	-15	9	10	5	20	20	25	23	29	34	25	30	25	27	.	..	..	4.3
Osage.....	Max..	3	-12	4	9	19	13	14	18	17	2	5	- 1	- 5	14	5	30	27	30	33	33	42	38	34	37	42	38	41	43	..	..	..	20.5
	Min ..	-20	-28	-20	-16	6	- 9	-19	11	2	-13	- 7	-16	-26	-13	-23	- 1	12	- 1	11	24	27	27	25	29	27	23	13	25	..	..	..	1.8
Oskaloosa	Max..	9	-12	0	12	17	14	20	25	23	9	8	4	- 1	10	12	33	26	36	37	37	43	38	48	38	46	37	45	60	..	..	..	24.1
	Min ..	-12	-29	-12	-22	9	- 9	-23	13	9	-14	- 2	-17	..	-10	-22	2	15	2	9	28	24	29	23	33	28	25	21	30	..	..	..	4.5
Ottumwa.	Max..	2	- 9	0	18	16	16	20	24	26	3	12	- 5	- 2	12	9	32	27	36	38	38	42	37	44	38	45	45	46	60	..	..	..	23.9
	Min ..	-11	-24	- 8	-18	14	0	-18	19	6	- 8	2	-16	-24	0	-16	18	16	10	16	31	27	32	30	33	32	32	30	32	..	..	..	8.5
Pacific J'n	Max..	- 6	-10	1	7	16	10	16	28	16	4	3	- 5	3	28	18	36	26	37	36	39	45	48	51	47	54	57	55	67	..	..	..	26.0
	Min ..	-14	-30	-12	-25	4	- 5	-23	14	8	-22	- 5	-22	-37	- 5	-22	10	9	5	20	22	23	20	30	37	24	30	27	28	..	..	..	3.0
Perry.....	Max..	5	-10	0	8	19	12	14	24	21	5	9	- 1	- 1	24	12	31	25	34	34	37	44	39	47	44	49	42	50	61	..	..	..	24.2
	Min ..	-17	-32	-14	-25	5	-13	-23	11	4	-18	- 3	-23	-33	-10	-16	8	13	3	18	29	23	31	24	33	31	31	22	29	..	..	..	3.5
Plover....	Max..	0	-13	0	10	7	7	15	33	17	- 2	1	- 9	2	23	12	33	23	33	35	38	42	39	47	44	45	33	47	55	..	..	..	21.9
	Min ..	-22	-31	-22	-21	-10	- 7	-25	-14	- 2	-22	- 9	-23	-35	- 8	-24	- 3	8	- 2	16	22	22	28	26	32	27	26	13	28	..	..	..	-1.1
Pocah'tas	Max..	-10	- 9	0	10	15	10	16	26	20	2	4	- 7	0	18	14	33	23	35	34	38	43	38	49	45	48	37	47	53	..	..	..	22.6
	Min ..	-20	-28	-17	-20	3	-10	-22	11	2	-21	- 7	-23	-30	- 5	-21	8	9	2	19	25	25	25	24	32	23	26	12	29	..	..	..	1.8
Red Oak..	Max..	17	0	- 5	- 4	10	20	15	19	23	25	12	17	- 9	19	29	19	36	32	38	37	46	56	53	55	52	57	60	57	..	..	..	28.0
	Min ..	- 5	-24	-16	-18	-18	- 3	-18	-12	14	13	-12	-11	-26	-23	-21	-18	14	5	7	20	29	24	25	36	29	29	28	29	..	..	..	2.9
Ridgeway	Max..	- 1	0	12	15	23	25	22	20	23	18	10	3	- 3	18	9	30	26	30	35	36	40	40	36	37	45	34	42	47	..	..	..	24.0
	Min ..	-19	-26	-20	-10	6	0	- 8	14	0	-13	- 7	-17	-28	-14	-20	- 2	12	3	14	28	27	28	24	30	25	21	13	27	..	..	..	3.1
Rock R...	Max..	-14	-20	0	- 6	10	10	18	20	2	0	-10	-18	15	0	7	30	30	25	34	45	49	46	44	54	64	34	55	60	..	..	..	20.9
	Min ..	-24	-33	-20	-24	-14	-16	-18	- 2	-10	-18	-13	-26	-25	- 2	-20	- 7	10	0	25	18	28	28	26	30	28	28	30	28	..	..	..	0.2
R. City...	Max..	-12	-16	0	10	18	10	12	25	20	5	5	0	1	20	20	31	36	34	34	38	43	40	46	46	48	41	50	58	..	..	..	23.7
	Min ..	-19	-32	-19	-20	- 3	-15	-22	8	8	- 4	-22	-32	-32	- 7	-18	7	15	4	20	28	28	29	27	25	26	29	18	29	..	..	..	1.8
St. Cha'les	Max..	- 2	- 3	6	9	18	18	18	23	25	7	6	4	2	23	17	32	30	36	39	36	49	43	55	55	58	42	50	67	..	..	..	27.2
	Min ..	-22	-26	-12	-16	8	- 7	-18	13	5	-13	- 3	-19	-27	- 5	-15	8	14	8	14	28	27	31	31	30	31	29	28	33	..	..	..	5.5
Sheldon..	Max..	0	-11	1	3	12	10	12	23	16	3	0	-12	- 2	7	15	33	28	36	35	38	45	40	48	52	55	48	58	63	..	..	..	23.2
	Min ..	-28	-35	-20	-22	0	-14	-21	-11	0	-25	- 9	-28	-34	- 7	-24	2	8	- 1	16	17	25	27	25	30	26	28	15	29	..	..	..	-1.1
Sibley *...	Max..	-13	-12	- 3	3	7	15	13	18	13	- 1	5	13	25	2	16	31	24	32	28	39	48	41	50	48	54	30	54	58	..	..	..	21.5
	Min	-27	-36	-34	-20	-17	-15	-15	- 7	12	-25	-21	-29	-32	-31	-25	-18	- 1	- 1	4	18	20	26	24	25	25	26	9	27	..	..	..	-4.9
Sigourn'y	Max..	12	- 7	5	16	21	19	24	25	25	16	12	8	0	22	10	37	31	35	38	38	42	40	45	39	41	40	44	54	..	..	..	26.1
	Min ..	-10	-28	-14	-17	11	- 1	-18	14	15	-14	- 1	-10	-30	-11	-20	1	13	1	9	28	21	27	22	31	27	25	19	29	..	..	..	4.2
Sioux C'r.	Max..	4	-10	- 5	4	8	2	14	21	16	- 3	- 8	- 8	0	27	12	32	23	32	34	36	44	41	46	48	51	43	55	60	..	..	..	22.3
	Min ..	-26	-32	-18	-18	- 2	-16	-12	11	- 3	-21	- 8	-28	-27	- 5	-17	5	7	0	16	17	26	22	27	32	28	27	18	30	..	..	..	1.2
Sioux C'y.	Max..	4	-13	- 6	1	10	1	13	19	16	- 2	- 2	-12	19	29	17	31	26	35	36	37	50	47	51	50	56	44	59	64	..	..	..	24.3
	Min ..	-21	-30	-20	-25	- 7	-17	-24	13	- 7	-17	-12	-25	-24	- 4	-13	11	14	7	23	20	32	28	29	35	30	28	26	32	..	..	..	2.9
Stockport	Max..	10	- 7	8	20	18	20	24	24	27	16	12	11	- 1	24	10	30	30	34	33	35	48	42	53	38	47	44	46	62	..	..	..	27.1
	Min ..	- 8	-23	-11	-14	13	1	-17	15	15	- 9	1	- 6	-26	- 8	-15	3	16	1	10	27	23	30	25	33	26	24	28	30	..	..	..	6.6
Storm L*.	Max..	-10	-12	- 4	9	10	6	13	19	6	- 2	- 1	-17	25	6	20	29	22	33	30	36	40	36	45	45	50	33	51	59	..	..	..	20.6
	Min ..	-24	-34	-34	-25	-23	-10	-24	-13	11	-23	-23	-28	-31	-30	-22	-20	6	5	9	20	20	25	26	27	27	28	18	22	..	..	..	-4.3
Thurman.	Max..	10	- 9	- 1	4	17	12	15	25	16	8	4	- 4	3	29	28	34	28	36	34	38	45	46	51	49	53	53	55	66	..	..	..	26.6
	Min ..	-13	-26	-12	-26	3	- 5	-22	- 8	4	-21	- 4	-20	-37	- 5	-27	11	8	- 6	21	28	25	19	30	36	25	28	26	28	..	..	..	2.1
Tipton....	Max..	8	16	5	15	18	23	17	19	22	8	11	11	- 5	17	6	27	25	30	43	32	40	40	34	36	44	37	40	49	..	..	..	23.9
	Min ..	11	-21	-12	- 6	12	5	- 3	13	7	-10	0	-11	-24	-10	-15	0	14	3	12	27	25	30	25	31	29	29	18	29	..	..	..	6.6
Toledo....	Max..	2	- 8	2	10	19	16	18	19	20	5	8	4	- 4	19	7	29	24	35	36	33	46	39	39	37	44	36	42	53	..	..	..	22 5
	Min ..	-15	-28	-19	-22	9	- 7	-24	13	5	-15	- 4	-16	-28	-10	-24	3	13	- 1	12	28	22	29	17	30	29	26	12	22	..	..	..	2.0
Vinton. ..	Max..	10	-14	3	14	19	16	17	18	20	8	8	7	- 5	18	5	28	26	32	35	33	43	39	33	35	..	40	40	46	..	..	..	21.3
	Min ..	-14	-26	-18	-14	9	- 4	-26	12	8	-13	- 4	-12	-30	-12	-23	0	13	1	11	28	22	30	18	30	..	21	7	20	..	..	..	1.3
Wapello..	Max..	12	20	8	18	19	22	24	22	32	23	8	15	15	20	9	28	37	33	32	34	39	36	..	42	43	37	..	..	..	..	..	25.1
	Min ..	- 7	- 1	- 8	-12	-13	- 9	-18	-12	-12	- 9	0	- 5	-22	- 7	-16	- 2	11	1	18	23	26	30	..	31	30	25	..	..	..	..	..	1.5
Washi'ton	Max..	7	- 7	4	17	20	20	20	22	25	8	11	7	5	21	11	34	27	35	35	34	44	37	42	37	44	38	44	57	..	..	..	25 0
	Min ..	-14	-26	-11	-14	12	- 2	-14	18	8	-12	- 1	-15	-29	-10	-18	2	12	2	12	18	23	29	24	32	29	26	19	29	..	..	..	4.4
Waterloo*	Max..	- 3	- 5	4	11	20	17	18	19	22	4	6	- 2	- 2	20	7	27	25	32	35	35	45	36	32	35	45	37	41	45	..	..	..	21.6
	Min ..	-15	-26	-19	-19	8	- 5	-21	13	6	-12	- 3	-12	-27	- 7	-21	0	13	- 3	11	28	25	28	21	29	26	23	7	18	..	..	..	2.4
Waukee..	Max..	8	- 5	9	9	18	14	14	23	21	7	6	2	7	24	20	32	26	39	44	37	49	53	52	45	55	40	52	66	..	..	..	27.4
	Min ..	-14	-32	-14	-20	5	-11	-23	11	7	-18	- 3	-19	-30	- 8	-20	6	13	6	14	29	25	30	31	33	28	30	26	30	..	..	..	4.0
Waverly..	Max..	- 1	-10	1	11	19	16	16	19	19	2	5	1	- 4	16	5	28	24	30	34	34	41	36	35	34	41	35	40	44	..	..	..	20.4
	Min ..	-17	-27	-20	-22	6	- 3	-24	12	2	-13	- 5	-18	-28	-13	-28	- 1	12	- 5	13	28	27	28	23	29	26	20	2	19	..	..	..	0.8
What Ch.	Max..	- 1	7	12	20	25	19	23	27	14	10	9	15	- 2	15	34	32	38	..	40	53	48	39	55	52	62	69	60	..	..	..	..	29.8
	Min ..	-28	-12	-21	1	- 2	-24	12	11	-14	- 1	-16	-31	-10	-25	2	12	- 8	..	3	20	19	32	27	19	34	25	30	29	..	..	..	3.1
Whitten..	Max..	7	-14	- 5	7	18	14	20	24	20	7	7	0	- 8	- 1	3	31	25	31	34	36	42	37	39	38	43	40	41	48	..	..	..	20.9
	Min ..	- 9	-31	-22	-19	5	- 9	-23	11	5	-18	- 6	-18	-33	-13	-26	0	10	- 1	10	25	31	26	19	29	25	27	8	22	..	..	..	0.5
Wilton J.	Max..	9	- 4	5	17	21	18	22	24	24	13	15	12	- 4	24	6	34	28	33	39	38	40	46	38	39	40	38	40	49	..	..	..	25.1
	Min ..	-13	-28	-18	-18	11	1	-25	12	12	-13	- 5	- 7	-33	-14	-22	- 3	12	- 3	8	27	24	22	22	32	27	22	14	21	..	..	..	2.3
Wint'rset	Max..	11	-10	- 1	9	18	15	17	24	21	10	6	2	- 3	23	10	36	28	34	34	34	43	39	47	42	47	46	47	59	..	..	..	24.6
	Min ..	-13	-29	-13	-18	4	-10	-18	-13	10	-17	- 3	-16	-28	- 8	-18	3	13	7	18	23	26	27	31	34	23	34	43	29	..	..	..	5.2
W. Bend.	Max..	0	- 9	1	10	14	7	16	25	17	5	0	- 5	- 5	22	10	33	25	32	34	37	40	41	48	45	46	39	44	52	..	..	..	22.3
	Min ..	-20	-30	-19	-16	6	- 9	-22	11	5	-22	- 5	-21	-32	- 7	-22	6	9	2	17	23	24	23	25	32	25	28	11	27	..	..	..	1.6
Zearing ..	Max.	5	-10	0	10	15	15	14	17	19	7	4	1	- 5	20	6	27	22	32	32	32	43	38	45	38	47	40	43	55	..	..	..	21.9
	Min ..	-16	-27	-19	-18	6	- 8	-22	12	6	-16	- 5	-20	-35	-12	-24

DAILY AND MONTHLY PRECIPITATION FOR FEBRUARY, 1905.

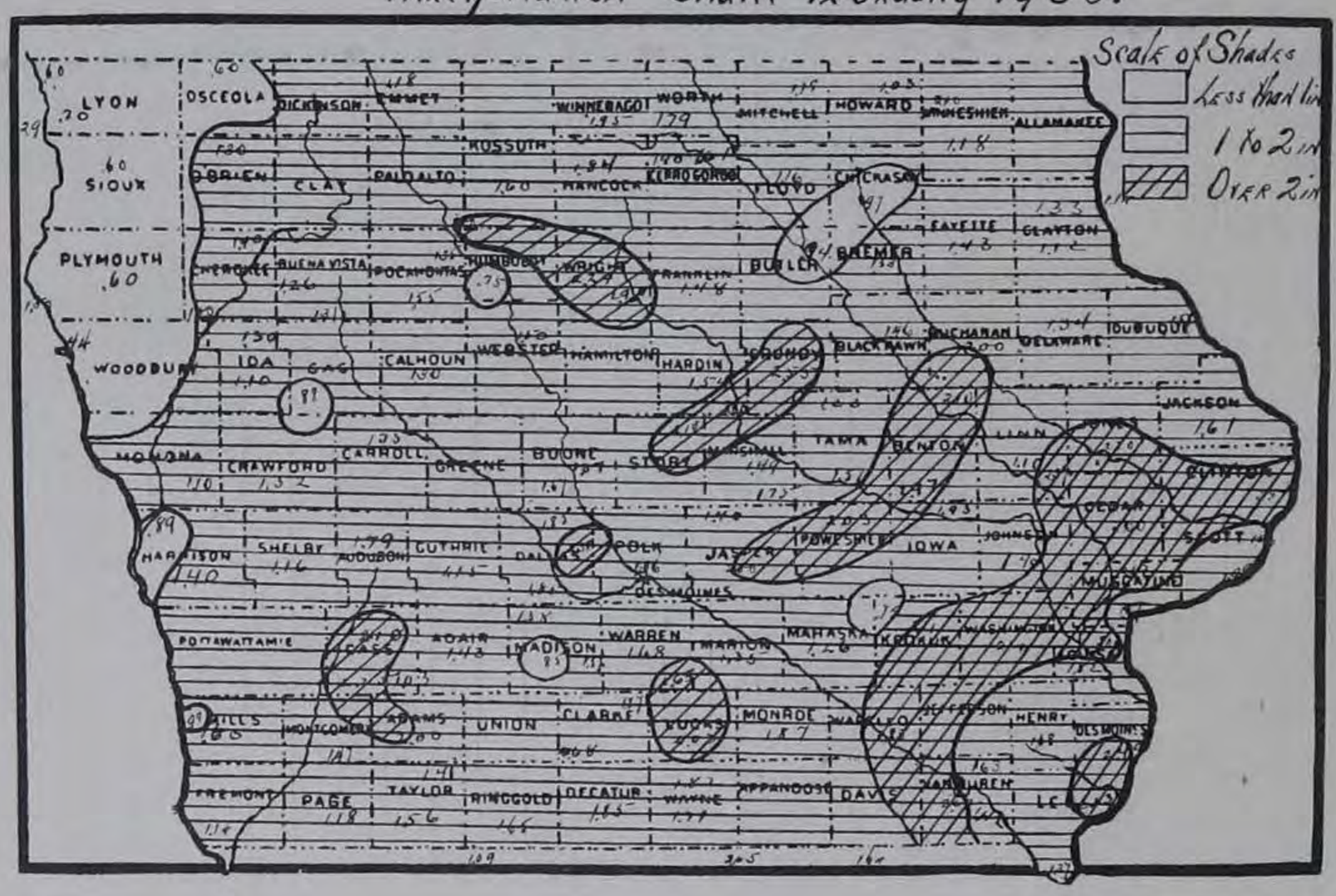
STATIONS.	DAY OF MONTH.																														TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	.10	....	....	....	.60	....	....	.20	.10	....	.30	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	1.35
Albia	.05	....	....	....	.52	.04	....	.45	T	.05	T	.26	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	1.87
Algona	....	..	.06	.24	....	....	.26	.11	....	.20	....	....	.10	....	....	..	....	....	....	....	....	....	....	....	..	.63	T	....	....	....	....	1.60
Allerton	.10	....	T	....	.60	T		.42	.09		.25	....	..	T	....	....	....	....	....	....	....	....	....	.36	....	T	T	....	....	....	....	1.82
Alta	....	....	....	.40	.02		.10	.25	.09	.05	.23	....	....	T	....	....	....	....	....	....	....	....	..	..	....	.12	....	....	....	....	....	1.26
Alta [near]	....	....	....	.40	.10		.10	.20		....	.15	....	....	....	....	..	....	....	....	....	....	....	..	....	....	.05	....	....	....	....	....	1.00
Amana	.01		..	....	.46	T	....	.44	.04	....	.15	.08	....	.02	....	....	....	....	....	....	....	....	....	.36	....	.26	.16	..	....	....	....	1.93
Atlantic	.10	....	....	....	.60	....	....	.60	....	....	.80	..	..	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2.10
Audubon	..		....	.15	.31	....	.17	.38	....	....	.52	....	..	.25	....	....	....	....	....	....	..	..	....	....	....	....	.01	....	....	....	....	1.79
Baxter	....	....	....	....	.60	....		....	....	....	.60	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.40
Bedford	.12	....	.03	....	.60	....	T	.35	.05	....	.20	....	..	.06	..	....	....	....	....	....	....	....	....	.15	....	T	....	....	....	....	....	1.53
Belle Plaine	.05		....	....	.55	....	....	.50	.02	....	.45	.	....	.10	....	....	....	....	....	....	....	....	....	.30	....	1.00	....	..	....	....	....	2.97
Bonaparte	....	....	....	.36	....	....	....	.27	.07	..	....	....	....	T	....	T	....	....	....	....	....	....	....	.60	....	.12	....	....	....	....	....	1.42
Boone	....	....	....	.06	.15	..	.03	.32	.18	....	.19	....	....	.23	....	....	....	....	....	....	....	....	....	.03	....	.10	.08	....	....	....	....	1.37
Britt	....	....	....	.02	.45	..	....	.40	.05	....	.10	..	....	.05	....	....	....	....	....	....	....	....	....	....	....	.63	.14	....	..	....	....	1.84
Buckingham	....	....	....	.10	.14	....	....	.31	.03	....	.17	....	....	.10	....	....	....	....	....	....	....	....	....	.08	....	.30	....	....	....	....	....	1.23
Burlington	.05	....	..	....	.88	....	.	.32	.20	....	.07	.04	....	.07	....	T	....	....	....	....	....	....	....	.55	.09		.13	....	....	....	....	2.40
Carroll	T	....	....	....	.65		....	.50	....	....	.40	....	....	.17	....	....	....	....	....	....	....	....	....	....	....	T	.03	....	....	....	....	1.75
Cedar Rapids	....	....		....	.10	.11	....	.11	.10	T	02	.10	....	....	....	....	....	....	....	....	....	..	....	.15	....	....	.41	....	....	....	....	1.10
Chariton	.30	....	T	...	.60	..	....		T	....	.40	.10	..	.10	....	....	....	....	....	....	....	....	....	.53	....	T	....	....	..	....	....	2.03
Charles City	..	..	...	.12	.20	....	T	.36	.03	T	.16	....	T	.05	....	T	T	....	T	....	..	....	....	.04	...	.20	....	....	....	...	....	1.16
Clarinda	.02	....	.02	....	.30	...	....	.43	....	....	.21	....	T	T	...	....	....	....	....	....	....	....	..	.20	....	....	T	....	....	....	....	1.18
Clear Lake	...	...	....	....	....	....	....	.50	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	T	..	.50	.30	....	....	....	..	1.40
Clinton	....	....	....	....	.59	....	....	.35	.11	..	.14	.20	....	.05	..	....	..	..	....	....	....	....	....	.70	....	.30	.	....	..	....	....	2 44
Columbus Junct'n	.10	....	....	....	.35	.05	...	.31	.05	....	.12	.04	...	.02	..	....	....	....	....	....	....	....	....	.50	....	....	.28	....	....	....	....	1.82
Corning	.10	....	T	.15	.70	....	....	.60	....	....	.75	..	....	....	....	....	....	....	....	....	....	....	....	T	....	T	....	....	....	....	....	2.00
Corydon	.07	....	T	....	.50	....	....	.33	.05	....	....	.34	..	T	..	....	....	....	....	..	....	....	....	.42	....	T	....	....	....	....	....	1.71
Cres o	....	....	....	.. .	.17	..	...	.50	.07	..	.13	....	...	.04	....	T	T	....	T	..	....	....	....	.12	..	....	....	....	....	....	....	1.03
Cumberland	....	....	....	.60	....	....	..	.70	.10	.30	.50	....	.02	.03	....	....	..	....	..	....	....	....	....	....	..	T	....	....	....	....	....	2.25
Davenport	T	..	....	.06	.48	T	....	.33	.07	..	.04	.02	....	T		....	....	....	....	....	....	....	....	.53	....	.46	....	....	..	....	....	1.99
Delaware	....	....	....	..	.28	....	....	.47	....	....	.11	..	....	....	....	....	....	....	....	....	....	....	....	.11	....	.37	....	....	....	....	....	1.34
Decorah	....	....	....	....	.39	....	....	.38	....	....	.12	....	....	.15	..	..	..	..	....	....	....	....	..	.14	....	....	....	....	....	....	....	1.18
Denison	....	....	....	...	.60	....	....	.40	....	....	.25	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	.25	....	....	....	....	....	1.52
Des Moines	T	...	....	.39	.05	T	.04	.20	.01	T	.22	....	T	03	....	....	....	....	....	....	....	....	....	.01	....	.11	..	....	....	....	....	1.06
De Soto	....	....	....	.10	1 00	....	....	.20	.10	...	.40	....	..	T	....	....	....	....	....	....	..	..	..	T	....	.05	....	....	....	....	....	1.85
Dows	..	....	..	....	.50	....	....	.40		....	.40	.40	...	.30	....	....	....	....	....	....	....	....	....	.20	....	.70	....	....	....	....	....	2.90
Dubuque	....	..	....	.04	.37	T	....	.50	.04	..	.36	....	....	T	....	..	T	....	....	....	....	....	....	.25	....	.02	....	....	....	....	....	1.58
Earlham	....	....	T	....	.60	T	....	.30	....	....	.41		..	.07	....	....	..	....		....	....	T	....	T	....	T	T	....	....	....	....	1,38
Elkader	....	....	....	....	.16	....	..	.40	.08	....	.18	....	....	.08	....	....	....	....	....	..	....	....	..	.22	....	....	....	....	....	..	..	1.12
Estherville	....	...	....	....	.28	T	....	.18	.20	T	.12	.10	....	T	T	....	....	....	....	..	....	....	..	....	....	....	.30	....	....	....	....	1.18
Fayette	....	..	..	....	.30	....	....	.56	....	....	.22	....	....	.16	....	..	....	....	....	....	....	....	....	.15	....	.04	....	....	....	....	....	1.43
Florence	..	....	...	....	.45	....	....	.40	.30	....	.23	....	....	....	....	..	....	....	....	....	....	....	....	.08	....	.78	....	....	....	....	....	2.24
Forest City	....	....	....	....	.45	....	....	....	.60	....	....	.20	..	T	....	....	....	....	....	....	....	....	..	.10	....	....	.60	....	....	....	....	1 95
Fort Dodge	....	....	....	....	.30	.10	....	....	.40	....	.10	.30	..	....	....	....	....	....	....	....	....	....	....	....	.20	....	.10	....	....	....	....	1.50
Fort Madison	.10	....	..	....	T	....	....	.60	.60	....	T	.10	....	....	....	....	....	....	T	....	....	....	....	.50	....	.23	....	....	....	....	....	2.13
Galva	....	....	....	.10	.45	....	T	.40	.15	....	.20	..	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	1.30
Gilman	....	..	....	....	.60	....	..	.	.10		.30	..	..	.20	....	....	..	..	....	....	....	....	....	.25	..	.30	....	....	....	....	....	1.75
Glenwood	....	....	....	.25	.15	T	.15	.25	....	....	.50	....	..	.10	..	....	....	....	....	....	....	....	.20	....	....	T	....	....	....	....	....	1.60
Grand Meadow	....	...	....	...	.30	....		.30	....	....	.30	....	....	.10	..	....	....	....	....	....	....	....	....	.33	....	....	....	....	....	....	....	1.33
Greene	....	....	....	....	.18	....	....	.15	.08		.13	..	....	T	...	....	....	....	....	....	....	....	....	.11	....	.25	.05	....	....	....	....	.94
Greenfield	.04	....	....	.04	.47	....	....	.37	....	T	.47	T	....	.02	....	....	....	....	....	....	..	..	....	T	....	T	.02	....	....	....	....	1.43
Grinnell	....	....	..	....	.50	....	....	.59	.10	....	.45	....	..	....	....	....	....	....	....	....	....	....	....	.06	....	.42	....	....	....	....	....	2.03
Grundy Center	....	....	....	....	.40	T		.60	.20	....	.60	....	....	.10	....	....	....	....	....	..	....	....	....	.05	....	.40	.20	..	....	....	....	2.55
Guthrie Center	.02	....	T	.05	.25	....	.02	.41	.03	....	.24	....	....	.06	....	....	....	....	....	....	....	....	....	.02	....	.03	.02	....	....	....	....	1.15
Hampton	....	....	....	.25	.02	....	.12	.27		.12	.07	....	.04		....	....	....	....	....	....	....	....	....	.03	....	.56	....	....	....	....	....	1.48
Hanlontown	..	....	....	..	.50	....	....	.50	.20	..	.20	....	....	T	....	..	T	....	....	....	....	....	....	.04	...	.35		....	....	....	....	1.79
Harlan	..	...	T	.10	.28	....	.10	.19	.02	....	.45	...	..	.02	....	....	....	....	T	....	....	....	....	....	....	T	T	....	....	....	....	1,16
Hopeville	.02	....	.01	....	.15	....	....	.26	.02	....	.09	....	....	.02	....	....	..	..	....	..	....	..	....	.11	....	T	....	....	....	....	....	.68
Humboldt	....	....	....	....	.18	....	T	.20	.01	.12	....	....	.12	....	....	....	..	....	....	....	....	....	....	....	....	.12	....	....	....	....	....	.75
Ida Grove	..	....	....	....	.50	....	....	.50	..		.10	....	....	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	1.10
Independence	....	....	....	....	.30	....	....	.50	..	....	.30	....	....	.30	....	....	....	....	....	....	....	..	....	T	....	.60	....	....	....	....	....	2 00
Indianola	.05	...	T	.10	.45	.05	T	.45	.03		.50	T	...	.05	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	1.68
Inwood	....	....	....	.10	..	....	....	.10	.30	T	.20	....	....	T	..	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	.70
Iowa City	.06	....	..		.50	.12	....	.34	.1		.04	T	..	T	T	....	..	....	....	....	....	....	....	T	.29	....	.40	....	....	....	....	1.90
Iowa Falls	....	....	....	....	.30	.03	....	.07	.30	....	.07	.15	....	.10	....	....	....	....	....	....	....	....	....	....	.02	....	.50	....	..	....	....	1.54
Keokuk	.03	....	.03	.06	.31	..	...	.28	.02		.07	.02	...	.02	..	....	....	....	T	....	....	....	....	.31	....	.14	.08	..	....	....	..	1.37
Keosauqua	.05	....	T	....	.40	.04	....	.30	.14	.05	.05	.15	....	.03	....	..	..	....	....	T	....	....	....	.17	.57	....	.07	....	....	..	....	....	2.02
Lacona	..	....	.03	.08	.70	..		.81	.01	....	.80	....	....	.16	..	....	....	....	....	....	....	....	....	....	....	.04	....	....	....	....	....	2.63
Larrabee	....	....	....	....	.67	....	.09	.12	.20	T	.19	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	.08	..	....	....	....	....	1.40
Lenox	.05	....	..	.03	.50	....	....	.40	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	.13	....	....	....	....	....	....	....	1.41
Le Claire	T	....	....	....	.30	.12	....	.03	.28	T	T	.05	T	T	T	....	....	....	....	....	....	....	....	....	.58	....	.20	....	....	....	....	1.56
Little Sioux	....	....	....	.17	.15	..	.21	.07	.07	....	.22	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.89
Le Mars	....		...	....	.50	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	....	....	....	....	....	....	.60
Leon	....	T	....	T	.70	....	....	.60	.10	....	.40	....	....	.05	....	....	....	....	....	....	....	....	....	T	....	T	....	....	....	....	....	1.85
Logan	.20	....	.10	.20	.10	....	.20	.20	..	. .	.30		....	.10	....	....	..	..	....	....	..	....	....	....	....	..	..	..	..	....	....	1.40
Maquoketa	..	....	....	..	....	.35	....	.	.33	....	....	.18	....	....	....	..	....	..	..	..	....	....	....	....	.50	....	.25	....	....	....	....	1.61
Marshalltown	..	....	....	....	.23	.0	..	.25	.09	....	.13	09	..	.05	.03	....	..	....	....	....	....	....	....	....	.03	....	.54	....	....	..	....	1.49
Mason City	....	....		....	.28	....	....	47	....	....	.20	....	..	.10	....	....	....	....	..	....	....	....	....	.06	....	.50	....	....	....	....	....	1.61
Massena	.11	....	T	....	.31	....	T	.25	T	..	.36	....	....	....	....	....	....	....	....	....	....	....	....	T	.43	....	.18	....	....	....	....	1.03
Muscatine	.01	..	....	....	.25	.06	....	.04	.22	.05	T	.10	....	....	.03	....	....	....	....	....	....	....	....	.45	....	.35	.15	....	....	....	....	2.37
Mt. Vernon	....	....		....	.40	.15	..	.60	.05	.02	.20	....	....	....	....	..	..	.	....	....	....	....	....	.40	....	T	....	....	....	....	....	1.65
Mount Ayr	.05	....	.05	.15	.35	....	.25	....	T	....	.40	....	..	T	....	..	....	....	....	....	....	....	....	.68	..	T	.27	....	....	....	....	1.68
Mt. Pleasant	.05	....	..	....	.30	T	....	.21	.07	..	.08	T	....	.02	....	....	....	....	....	..	....	....	....	.12	....	T	....	....	....	....	..	.97
New Hampton	....	....	....	....	.25	T	....	.85	....	....	.18		....	.07	....	....	....	....	....	....	....	....	....	.21	....	....	....	....	....	....	....	2.00
Newton	....	....	....	....	.67	..	....	.31	.10	.	.35	.19	....	.17	..	....	..	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	.88
Odebolt	....	....	....	.35	....	....	....	.40	....	....	.10	....	....	.	....	....	....	....	T	....	....	....	....	.02	....	T	....	....	....	....	....	1.67
Ogden	....	....	....	....	.40	....	....	.45	....	....	.65	..		.15	....	....	....	....	....	....	....	....	....	.50	....	.35	....	....	....	....	....	2.20
Olin	....	....	..		.30	....	....	.70	.12	....	.15		....	.08	..	....	....	....	..	....	....	....	T	....	....	T	....	....	....	....	....	1.36
Omaha, Neb	.16	T	.06	.17	.11	T	.16	.18	.03	.19	.20	T	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	.08	....	....	....	....	1.10
Onawa	T	....	.02	.10	.30	T	.15	.15	.05	...	.25	..	..	.05	....	....	....	....	....	....	....	....	....	.06	....	.03	....	....	....	....	....	1.18
Osage	....	....	....	....	.33	....	....	.38	.16	....	.12	....	..	.10	....	....	....	....	....	....	....	....	....	.30	....	.07	....	....	....	....	....	1.26
Oskaloosa	.08	....	....	T	.25	....	..	.28	.02	..	.27	....	..	.02	....	....	....	....	....	....	....	....	....	1,10	..	.09	....	....	....	....	....	2.83
Ottumwa	....	....	....	....	.65	....	....	.60	.05	....	....	.32	....	.02	....	....	....	....	....	....	....	....	T	T	....	....	T	....	....	....	....	.98
Pacific Junction	....	....	.04	.15	.08	..	.15	.25	T	T	.21	....	....	.10	....	....	....	....	....	....	....	....	....	T	....	T	.05	....	....	....	....	1.85
Perry	....	....	....	....	.60	....	T	.40	.10	....	.55	....	....	.15	....	....	....	....	....	....	....	....	....	T	....	.20	....	....	....	....	....	1.35
Plover	....	....	....	....	.50	....	.20	.30	....	....	.15	....	..	....	....	....	....	....	....	....	....	....	....	....	....	.25	....	....	....	....	....	1.55
Pocahontas	....	....	....	....	.60	....	....	.40	.10	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.47
Red Oak	.03	...	.01	02	.60	.07	....	.38	....	..	.10	.26	....	T	..	....	....	....	....	....	....	....	....	.08	....	....	....	....	....	....	....	2.00
Ridgeway	..	....	....	....	.70	....	....	.75	....	..	.32	....	....	.15	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	.60
Rock Rapids	....	....	....	....	....	....	....	.10	.20	.10	.10	....	T	T	T	....	....	....	....	....	....	....	....	....	..	T	....	....	....	....	....	1.30
Rockwell City	....	....	....	....	.60	..	..	.40	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	..	.02	.03	....	....	....	....	1.57
St. Charles	....	....	....	.03	.57	....	....	.35	T	....	.32	..	....	.25	....	....	....	..	....	T	..	....	....	T	....	.60	....	....	....	....	....	1.30
Sheldon	....	....	....	.02	.25	....	T	.27	.11	....	.30	....	..	....	..	..	....	....	..	....	....	..	....	....	....	.85	....	....	....	....	....	1.30
Sibley	.10	....	....	....	.10	....	....	.05	10	....	.05	.05	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	....	....	.60
Sigourney	.07	....	....	....	.46	T	....	.40	.07	....	.20	.10	....	.07	....	....	....	....	....	....	....	....	....	.41	....	....	.33	....	....	....	....	2.11
Sioux Center	....	....		..	.20	....	.10	T	.10	....	.15	....	....	T	....	....	....	....	....	....	....	....	....	....	....	T	.05	....	..	....	....	.60
Sioux City	....	....	T	.18	.07	....	.05	.02	.01	.02	.08	....	....	T	....	....	....	....	....	....	....	....	....	....	....	.01	....	....	....	....	....	.44

DAILY AND MONTHLY PRECIPITATION FOR FEBRUARY, 1905--CONTINUED.

STATIONS.	DAY OF MONTH																														TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Stockport	.01	....	T	....	.26	T	...	.22	.03	....	.10	.02	....	.02	....	T	....	....	T	....	....	....	....	.62	....	....	.35	..	....	....	....	1.63
Storm Lake	....	....	....	....	.55	T	....	.31	.15	....	.11	.14	..	....	....	....	....	....	....	T	....	....	....	....	....	....	.05	....	....	....	....	1.31
Thurman	.01	T	T	.14	.12	.02	.10	.32	T	T	.38	T	....	.05	....	....	....	....	T	....	....	....	T	T	..	T	T	....	....	....	....	1.14
Tipton	...	....	....	....	.55	.20	....	.80	.10	....	.20	....	....	....	....	....	....	....	....	....	..	....	..	....	.28	....	.40	.12	....	....	....	2.60
Toledo	....	....	....	....	.40	....	....	.30	....	....	.25	....	....	.06	..	....	....	....	....	....	....	....	....	T	....	.50	....	..	....	..	....	1.51
Vinton	....	....	....	....	.40	....	..	.40	....	....	.50	..	....	.20	....	....	....	....	....	....	....	..	....	....	....	..	.60	....	....	....	....	2.10
Wapello	.07	....	....	....	.50	..	....	.36	.14	....	.07	..	....	.02	..	....	....	..	....	....	....	....	....	.46	.44	....	....	....	....	....	....	2.06
Washington	.03	....	....	....	.60	....	....	.40	.07	....	.03	.02	....	.18	....	....	....	....	....	....	....	....	....	.38	..	.43	....	....	....	....	....	2.14
Washta	....	....	....	.	.60	....	.10	.05	.10	....	.10	....	....	....	. .	..	....	....	....	....	....	..	..	....	....	.05	..	....	....	....	....	1.00
Waterloo	....	....	....	....	.21	..	....	.32	.03	..	.20	....	....	.07	....	....	....	....	....	....	....	....	....	.15	....	.48	....	....	....	....	....	1.46
Waukee	T	....	....	....	.90	....	...	.40	.10	..	.80	....	....	.15	....	....	....	....	....	....	....	..	....	.01	....	.02	....	....	....	....	....	2.38
Waverly	....	..	....	....	.20	....	....	.30	.05	...	.20	....	....	.16	.	...	....	..	....	....	....	....	....	.12	....	.50	....	....	....	....	....	1.53
Whitten	....	....	....	....	.40	....	....	50	.10	....	.40	...	....	.20	....	....	....	....	....	....	....	...	....	T	....	.50	..	..	....	...	....	2.10
Wilton Junction	....	....	....	....	.58	....	....	.55		....	.26	....	..	....	....	....	....	....	....	....	....	....	..	.60	....	.68	....	....	....	....	....	2.67
Winterset	....	....	T	..	....	.30	....	.35	T	....	.20	....	....	T	....	....	....	....	....	....	....	....	..	....	....	T	....	..	..	....	....	.85
West Bend	....	....	....	....	.60	....	....	.60	..		.30	....	....	....	....	....	....	....	....	....	....	....	....	T	..	....	.50	....	....	....	..	2.00
What Cheer	....	....		.20	....	....	.15	.15	....	T	.20	....	....	.	....	....	....	....	....	....	..	.05	....	....	....	....	....	....	....	....	....	.75
Woodburn	...	....	T	..	.66	....	....	.43	T		.56	..	...	.05	...	...	....	....	....	....	....	....	....	.17	....	T	....	....	....	....	....	1.87
Zearing	...	...			.52	....	....	.95		T	.10	....	....	T	....		....	....	....		....		....	T	....	.61	....	....	....	....	....	2.18

T. Amount too small to measure

Precipitation Chart February 1905.



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U. S. DEPARTMENT OF AGRICULTURE—WEATHER BUREAU.

MONTHLY REVIEW

OF THE

Iowa Weather and Crop Service.

VOLUME XVI. MARCH, 1905. No. 3.

MARCH WEATHER AND CROPS

March 1905 was phenomenally warm, breaking all previous records of high average temperature for the state at large. The mean for the month was 41.5°, which is 9.1° above the normal. The spring like conditions were continuous, with the exception of about six days in the second decade. The frost disappeared and the surface dried off with unusual rapidity. Conditions were favorable for much preparatory work the first half of the month, and during the last ten days the bulk of the spring wheat area was seeded, with soil in fine tilth. Considerable oats and barley were also sown during the closing days of the month. A good start was made in plowing for corn, the most of it being in fields recently in meadow or pasture. The reports show some reduction in the acreage of spring wheat. Winter wheat, rye and clover came through the winter in fine condition. There were no indications of injury to fruit buds. The season opened fully a week earlier than the average, and over two weeks in advance of 1904.

BEFORE AND AFTER TAKING.

About the 1st of March the *Cedar Rapids Republican* published in condensed form the prognosis of March weather, issued by a noted long range weather profit as follows:

The irrepressible prophet who made a bad blunder with his predictions for February, is out again with dire predictions for March. According to his lurid dreams there will be one storm close upon another all through the month. He says that the probable result of conditions obtaining on the 3d, 4th and 5th will be a low barometer, warmer weather and southerly winds, culminating in rain, sleet and snowstorm within forty-eight hours of the 5th. Destructive sleet storms will be characteristic of this and the storm period immediately following. He does not anticipate a cold wave.

The second storm period will be from the 7th to the 12th with a low barometer and furious storms of rain, turning to sleet and later to blizzards. Equinoctial tempests are slated to do many and varied stunts.

The third storm period will be from the 15th to the 17th, with reactionary storms, and more decided rain and snowstorms.

The fourth period will be from the 19th to the 24th, at which time the moon will be full, and will be characterized by electrical displays, snow and sleet, winding up progressively with a great cold wave.

The fifth period will be from the 27th to the 29th with snow and rainstorms passing eastwardly.

These conditions are slated to bring high water and local floods of great danger in many localities.

On April 1st the same paper contained the following editorial paragraph relating to the local weather conditions during the past month:

The month of March, which ended at midnight, will go down in the records of the weather bureau as a remarkable month. It has been a great deal more like April than like March. Meantime just for the benefit of common sense it might be well to remember that the Rev. ——— prophesied that March, 1905, would be a month characterized by severe atmospheric disturbances, sleet storms and blizzards.

The editor of the *Republican* should take note of the fact that the long range prophet does not make forecasts for any specified locality or date. His range is broad as to latitude and longitude, as well as time. Give him scope and he can verify everything. The March sleet storms and blizzards may have occurred in Siberia, Finland, Labrador or the Klondike. Wait till the returns are in from all the back districts. The astrologist gave warning that Mercury would pull off a sleet storm during its period of ''perturbation''; but he couldn't tell exactly where the sleet would strike the earth. It's difficult to hit a small spot on a revolving target. Give the almanac-maker a square deal.

Of course such prophecies are worthless; but how much exact science can you expect to buy for 25 cents?

NOTES AND COMMENTS.

According to the *Modern Miller* the condition of winter wheat is quite favorable, except in a few localities.

A co-operative meteorological station has been established in Creston, Union county, in charge of Rev. W. L. Gaston, who is much interested in the service and well qualified to render accurate reports. The elevation of Creston is 1,312 feet above sea level, at the C., B. & Q. R'y track. We hope to maintain a permanent station at that important point.

Secretary Wilson is reported to have said in a recent interview: "The development of the beet sugar industry in this country has been so rapid and attended with such striking success, that it is only a matter of time when the millions of dollars we are now paying for imported sugar will be spent among our own people for American beet sugar."

The fluctuations in the snowfall of the past eight years seem to have affected particular regions with a certain uniformity,

according to figures compiled by the Street Railway *Journal*. New England had less snow in the season of 1904-5 than in the previous year and also less than the average for the six years ending June 30, 1903. The middle states had more snow in 1904-5 than the average for the six years ending 1903 and more than in 1903-4 with the exception of central and western New York, where the fall in 1903-4 was phenomenal. In the middle west, again, the fall was less than the average for the six years ending 1903 and less than the fall in 1903-4. Owing to the steady cold weather the past winter the snow in cities was beaten down until it became solid as a rock and was with difficulty removed.

The provinces of Andalusia, Valencia and Arragon, Spain, are suffering from a serious drought, causing almost total suspension of field work, with much suffering among the poorest classes.

If the season should be dry the value of loose, dry mulch will be appreciated. This method of keeping moisture in the ground is slowly becoming understood. The Department of Agriculture gives the following explanation of its advantages:

"As the moisture from the surface evaporates it is replaced by moisture drawn from greater depths by capillary attraction, just as oil is drawn through the wick of a lamp to replace that which is consumed by the flame. The rapidity with which moisture will evaporate from the ground depends upon the condition of the capillary tubes, or pores, that connect the surface with the deeper soil. Any dry blanket that can be placed between the atmosphere and the damp soil will check this evaporation. The most practical protection is a covering of finely pulverized dry soil two or three inches deep. By thoroughly loosening the surface layer the soil particles are disarranged so that the capillary tubes are not continuous. In this condition the surface soil becomes quite dry, and remains so without absorbing moisture from below, thus acting as a mulch and retaining the moisture within reach of the plant roots. It is necessary that this soil mulch be fine, for if it is composed of clods, air circulates between them and causes evaporation to take place from the soil below the surface. A rain, however, will wet the surface, causing the soil to run together and crust, thus restoring capillarity. This makes another cultivation necessary in order to renew the blanket of fine, loose soil."

THE VERNAL EQUINOX.

[Chicago Chronicle, March 21.]

As announced by the United States branch hydrographic office in this city, the sun will cross the equator and the vernal equinox will occur today at forty-nine minutes and thirty-six seconds past noon.

When we speak of the sun crossing the equator we are using, of course, impressionist language. The sun, it is true, is moving through the universe at an incredible speed around a more glorious sun, perhaps Alcyone, and is at the same time revolving on its axis once in twenty-five days, but with reference to the solar system it is stationary and all the vicissitudes of our little world result from its own tantrums and not from any movement of the sun.

The vernal and autumnal equinoxes and the summer and winter solstices result from the inclination of the earth's axis to the plane of its orbit at an angle of twenty-three and one-half degrees and always practically in the same direction. This causes the equator to cut the plane of the earth's orbit at the same angle. Consequently the sun can not be vertical over the equator except when and where the equator and the plane of the earth's orbit coincide. This happens on March 21st and September 23d.

As long ago as the time of Hipparchus it was discovered that the vernal equinox occurred a few minutes earlier every year and the acceleration of time is now ascertained to be twenty minutes and twenty-three seconds. The inference is that the inclination of the earth's axis to the plane of its orbit is changing slightly from year to year. Indeed, it is established that the earth is wabbling. It can not be said that it is exactly dancing a jig, but we know that its poles describe a circle once in 26,000 years. The consequence is that the vernal equinox will occur at a different hour and minute and second of the day every year for the next 26,000 years and then return to the hour, minute and second at which it will occur today. At present the north pole points to the north star, and poets have made great use of that fact in their business, but the truth is it is only a temporary arrangement

This wabbling or nodding propensity of our earth is credited with being the cause of the glacial epoch. Many thousands of years ago, the theory is, the north pole leaned away from the sun in the winter and toward the sun in the summer much more than at present. The result was that both the cold of winter and the heat of summer were intensified, and this produced immense glaciers in the winter and terrific thaws and floods in the summer.

The vernal equinox has always been celebrated by human beings as a time of great rejoicing, but not always according to knowledge. The church has appropriated it and called it Easter, but having glued it to a shifting calendar Easter and the vernal equinox have now drifted far apart. Some years ago the equinox was celebrated in an amusing dramatical performance in every ship on the ocean. Apparently the more we know about the equinox astronomically the less notice it attracts.

This day should by rights be New Year's day. The equinox is a world wide phenomenon. The day and the night this day are of equal length all over the globe and that never occurs except at the equinoxes. The autumnal equinox is a sad and dreary season and the vernal equinox is the time of birds and flowers and reviving nature.

Everything animate takes a fresh start today and this ought to be the beginning of a new year.

MARCH WEATHER.

Extracts from Weather Crop Bulletin of United States Weather Bureau for March, 1905.

WASHINGTON, D. C., April 1, 1905.

As a whole, March, 1905, was very mild throughout nearly the entire country, the temperature averaging above the normal everywhere, except in extreme northeastern New England and over a limited area in the southern Plateau, where a very slight deficiency is shown. Throughout the northern Rocky Mountain districts, the central valleys, Lake region, and Southern States the temperature excess was marked, the departures from normal ranging from 3° to 12° per day, being greatest in the Missouri and Red River of the North valleys. The first half of the month was decidedly cold in New England and the Middle Atlantic States and over a large part of the Lake region, but over these districts the latter part of the month was very mild. The temperature was above the normal throughout the rest of the country during nearly the whole of the month.

From Texas northward to the central Missouri valley and throughout the southern Rocky Mountain region and California the precipitation during March exceeded the average. There was also more than the average in the northern portion of the upper Lake region, and in portions of the Middle Atlantic States, upper Ohio Valley and portions of the South Atlantic and East Gulf States. In the lower Ohio and central Mississippi valleys, the interior of the central and east Gulf States, and in

the Carolinas, Virginia, and New England the precipitation was below the average, marked deficiencies occurring in the western portion of the Carolinas, Tennessee, and over the northern portion of the east Gulf States. The rainfall in Arizona and southern California was unusually heavy, from 2 to 3 inches more than the monthly average being reported from that region.

Nearly the entire country has experienced exceptionally favorable conditions for farming operations during the month of March. The temperatures were mild throughout the month, with the exception of the Lake region, Middle Atlantic States, and New England, where it was cold during the first half, but mild and favorable during the second half. Portions of the Gulf States suffered from too much rain, and farm work has been considerably delayed in the central and western portions. Throughout the central valleys and generally on the Pacific coast farm work is unusually well advanced, and, while slow progress was made in the Middle Atlantic States and New England during the forepart of the month, operations were active during the latter part.

Winter wheat is very promising, practically all reports indicating that this crop has come through the winter in unusually fine condition in the principal winter wheat states. The outlook on the Pacific coast is also promising, except in portions of southeastern Washington, where considerable was winter-killed.

Good progress was made with seeding of spring wheat and oats, the seeding of oats being nearly completed in Illinois and Missouri, and in the more southerly states the early sown is coming up to good stands. Spring wheat seeding is unusually well advanced over the southern portion of the spring wheat region, and was in progress at the close of the month in the extreme north portion.

Throughout the central valleys the soil was in fine condition for plowing during most of the month and this work is well advanced. Some corn has been planted as far north as Kansas, Missouri, Tennessee and North Carolina, while farther south a considerable part of the crop has been planted and some is up.

Reports indicate that peach buds have been extensively killed in the central valleys and central Gulf States, but in the Atlantic coast districts peaches have been but little injured so far. The reports respecting other fruits are generally encouraging.

CLIMATOLOGY OF THE MONTH OF MARCH, 1905.

BAROMETER.—Mean pressure, 30.03 inches; highest observed, 30.57 inches, at Dubuque, on the 12th; lowest observed, 29.39 inches, at Charles City and Des Moines on the 27th; range for state, 1.18 inches.

TEMPERATURE.—The monthly mean temperature for the state, as shown by records of 122 stations, was 41.5 degrees, which is 9.1° above normal.

By sections the mean temperatures were as follows; Northern section 38.3°, which is 8.7° above normal; central section 41.3°, which is 9.1° above normal; southern section 44.9°, which is 9.0° above normal. The highest monthly mean was 47.2° at College Springs and Sidney; lowest monthly mean, 35.9° at Cresco. The highest temperature reported was 84° at Onawa on the 27th; lowest temperature reported 1°, at Fayette, Grand Meadow, Osage and Ridgeway on the 11th. The average monthly maximum was 75.6°; average monthly minimum, 8.6°. Greatest daily range, 52° at Monticello; average of greatest daily ranges, 38.2°.

PRECIPITATION.—Average precipitation for the state, as shown by records of 132 stations, was 2.04 inches, which is .20 of an inch above normal. The averages by sections were as follows: Northern section, 1.97 inches, which is .31 of an inch above normal; central section, 2.23 inches, which is .35 of an inch above normal; southern section, 1.93 inches, which is .04 of an inch below normal. The largest amount reported was 3.70 inches at Inwood; least amount reported, .39 of an inch, at Glenwood. The greatest daily rainfall reported was 3.00 inches at Inwood on the 18th. Average number of days on which .01 of an inch or more was reported, 8.

WIND AND WEATHER.—Prevailing direction of the wind, south; highest velocity reported, 52 miles per hour, from the south, at Sioux City, on the 27th. Average number of clear days, 8; partly cloudy, 8; cloudy, 15.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	30.03	30.56	12	29.39	27
Davenport	30.04	30.53	12	29.51	25
Des Moines	30.03	30.55	12	29.39	27
Dubuque	30.07	30.57	12	29.51	25
Omaha, Neb	29.99	30.52	12	29.22	27
Keokuk	30.04	30.51	12	29.46	18
Sioux City	30.00	30.55	12	29.40	27
Means	30.03	30.57	12	29.39	27

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	6.216	35	SE	27
Davenport	5.721	25	E	19
Des Moines	6.999	47	S	27
Dubuque	5.486	42	SW	27
Keokuk	6.211	56	SW	25
La Crosse, Wis	5.491	30	SE	27
Omaha, Neb	6.893	38	NW	25
Sioux City	9.972	52	S	27

OBSERVERS' NOTES.

AFTON. *N. W. Rowell.* Season is fully 30 days in advance of last year; nothing like it in years.

ALLERTON. *Rex Shriver.* Pastures and meadows starting nicely; month very mild.

ALTA. *David E. Hadden.* About all precipitation of month fell in the middle decade; balance of month, spring like.

AMANA. *C. Schadt.* Season about three weeks early; seeding wheat and oats well advanced.

ATLANTIC. *J. W. Love.* A very good month for farmers, and well improved; grass growing nicely.

BAXTER. *W. T. Thorp.* Seeding begun on 27th; ground very dry.

BONAPARTE. *B. R. Vale.* Rain 2.03 inches; all fell the last half of month; some sod plowing and very little oats sown last week of the month.

BOONE. *Carl Fritz Henning.* Ice went out of Des Moines river March 2d; seeding spring wheat and oats begun the last week.

BRITT. *Geo. P. Hardwick.* Latter half of March was like April weather with advanced growth of grass and soft maple in bloom. English sparrows devoured buds of apple, plum and cherry trees which will lessen crop.

CHARITON. *C C. Burr.* More than average amount of farm work was done in March; soil in good tilth.

CLINTON. *Luke Roberts.* March temperature 6.5° above normal; rainfall slightly in excess of normal; frost out of ground by the 20th and much plowing was done.

CRESCO. *L. G. Krumm.* Seeding began on the 29th—two weeks earlier than last year.

ELKADER. *Chas. Reinecke.* Ice went out of the Turkey river March 4th.

ELLIOTT. *Henry Barnes.* On 3d, farmers began plowing sod; on 10th, they were seeding wheat; more farm work done in March than in preceding years.

FOREST CITY. *J. A. Peters.* Wheat seeding began on 26th; some oats sown in last week. Robins heard on 20th; frogs on 27th.

POSTVILLE. *F. L. Williams.* Month was warm; snow went off gradually; grass well started; plowing began on 28th; first seeding on 31st.

GRUNDY CENTER. *E. S. King.* Warm month; 8-foot snowdrifts entirely gone on 31st; sod plowing began on 20th; oats seeding on 29th.

HANLONTOWN. *Miss G. M. Paschen.* Wheat seeding on 28th; oats seeding on 31st; pussy willows and lilac bushes in bud; blue grass quite green.

IDA GROVE. *J E. Conn.* An exceptionally fine March; a great deal of plowing and s me seeding done.

INDIANOLA. *J. L. Tilton.* Last of the heavy drifts disappeared on 26th.

LITTLE SIOUX. *Geo. H. Gibson.* Wheat sowing began on 6th.

MASSENA. *F. T. Knott.* Wheat seeding was nearly all done the last ten days, and some oats were sown.

POCAHONTAS. *F. E. Hronek* Old proverb failed; March came and went out like a lamb; seeding begun, and ground in fine condition.

RIDGEWAY. *Arthur Betts.* One of the warmest of Marches; 156 hours of sunshine; spring work began on 27th; snow on 13th and 14th.

SHELDON. *A. W. Beach.* Seeding commenced on the 20th, and wheat, about 75 per cent sown on 31st; soil condition good.

WAUKEE. *E. J. Leonard.* Month unusually fair; seeding done earliest in years.

ERRATA.

STORM LAKE—November, 1903. Total precipitation recorded .52 inch on pages 8 and 12, should have been .61 inch.

Total snowfall recorded 0.1 inch on page 8, should have been 1.0 inch.

STORM LAKE—December, 1903. Total precipitation recorded Trace on pages 4, 6 and 10, should have been 1.3 inch.

Total snowfall recorded 0.1 inch on page 6, should have been 1.3 inches.

STORM LAKE—January, 1904. Total precipitation recorded .02 inch on pages 7 and 11, should have been .41 inch.

Total snowfall recorded 0.4 inch on page 7, should have been 4.1 inches.

STORM LAKE—February, 1904. Total precipitation recorded .08 inch on pages 6 and 11, should have been .86 inch.

Total snowfall recorded 0.9 inch on page 6, should have been 8.6 inches.

STORM LAKE—March, 1904. Total precipitation recorded 1.54 inches on pages 7 and 12, should have been 1.63 inches.

Total snowfall recorded 0.1 inch on page 7, should have been 1.0 inch.

STORM LAKE—November, 1904. Total precipitation recorded .03 inch on pages 9 and 13, should have been .30 inch.

Total snowfall recorded 0.3 inch on page 9, should have been 3.0 inches.

STORM LAKE—December, 1904. Total precipitation recorded .06 inch on pages 5 and 9, should have been .80 inch.

Total snowfall recorded .8 inch on page 5, should have been 8.0 inches.

STORM LAKE—January, 1905. Total precipitation recorded .12 inch on pages 5, 7 and 12, should have been 1.48 inches.

Total snowfall recorded 1.5 inches on page 7, should have been 14.8 inches.

BELATED REPORT.

AMES—February. Mean temperature, 13.5°; highest, 61°, on the 28th; lowest, -31°, on the 13th; greatest daily range, 36°. Total precipitation, .67 inch; greatest in 24 hours, .27 inch; prevailing direction, north and southwest; total snowfall, 11.0 inches. Number of clear days, 17; partly cloudy, 6; cloudy, 5; rainy, 4.

COLLEGE SPRINGS—February. Mean temperature, 14 1°; highest, 62°, on the 28th; lowest, -30°, on the 14th; greatest daily range, 32°. Total precipitation, 1.58 inches; greatest in 24 hours, .35 inch, on the 6th; prevailing direction, northwest; total snowfall, 13.8 inches. Number of clear days, 13; partly cloudy, 7; cloudy, 8; rainy, 8.

KNOXVILLE—March. Mean temper ture, 43.9°; highest, 79°, on the 27th; lowest, -10°, on the 11th; greatest daily range 44°. Total precipitation, 1.40 inches; greatest in 24 hours, .75 inch, on the 23d; total snowfall, 1.0 inch; prevailing direction, northeast. Number of clear days, 8; partly cloudy, 9; cloudy, 14; rainy, 6.

KNOXVILLE—February. Mean temperature, 16.6°; highest, 69°, on the 20th; lowest, -26°, on the 13th; greatest daily range, 33°. Total precipitation, .40 inch; greatest in 24 hours, .20 inch, on the 27th; total snowfall, 2.0 inches; prevailing direction, southwest, northwest. Number of clear days, 15; partly cloudy, 4; cloudy, 9; rainy, 3.

ERRATA IN JANUARY REVIEW.

FAYETTE—Number of days missing recorded [f] should have been [g], on page 7.

ROCKWELL CITY—Mean temperature recorded, 10.4°, on page 8, should have been 10.2°.

WATERLOO—Total precipitation recorded .87 inch, on page 8, should have been .74 inch.

Total snowfall recorded 10.0 inches, on page 8, should have been 8.0 inches.

COLUMBUS JUNCTION—Total snowfall recorded 11.2 inches, on page 7, should have been 10.2 inches.

CLIMATOLOGICAL DATA FOR MARCH, 1905.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT. Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	PRECIP., IN INCHES. Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	SKY. Number rainy days	Number clear days.	Number partly cloudy days.	Number cloudy days.	Prevailing direction of wind.	DATES OF THUNDER STORMS.
Algona	Kossuth	1,213	28	38 4	† 8.4	76	31	2	11	34	2.01	† .45	.53	6.7	8	10	8	13	S	22
Alta	Buena Vista	1,513	14	39.6	†10.2	78	27	7	11	38	1.51	- .31	.54	6.0	12	7	12	12	S	
Alta (near)	Buena Vista										1.47		.50	6.4	12					
Britt	Hancock	1,236	8	38.4	† 9.6	75	31	2	11	38	1.58	† .24	.47	3 6	7	4	15	12	SW, NW	22
Charles City	Floyd	1,015	18	36.2	† 4.9	70	31	4	11	32	1.78	- .07	.42	8.0	14	3	9	19	SE	
Clear Lake	Cerro Gordo	1,241	7	37.2	† 6.0	66	27	5	11	30	1.60	† .38	.50	4.5	6	5	12	14	SE	
Cresco	Howard		31	35.9	† 9.2	67	31	2	11	29	2.12	† .43	.67	9.6	10	5	8	18	SE	22
Decorah	Winneshiek	857	12	36.8	† 6.5	72	31	4	11	38	2.09	† .18	.56	11.5	10					
Dows	Wright	1,142	9	38 4	† 8.5	72	27	5	11	38	1.94	- .05	.40	6.5	11	9	6	16	SE	21, 22
Elkader	Clayton	727	21	38 2	† 7.3	70	27	2	11	32	1 70	- .13	.65	10.0	8	4	12	15	SE	
Estherville	Emmet	1,298	12	37.1	†10.0	74	27,31	2	11	49	2.20	† 79	1.00	3.5	10	9	2	20	SE	
Fayette	Fayette		15	36.8	† 6.6	70	27,31	1	11	42	1.75	- .51	.66	10.0	10	8	7	16	NW	22
Florence	Wright	1,226									1.87		.37	6.2	12	5	18	8	S	22
Forest City	Winnebago	1,226	11	36.6	† 8.2	74	31	3	11	36	1.97	† .49	.70	7.0	6	9	4	18	SW	
Grand Meadow	Clayton	1,180	11	36.6	† 6.4	70	28,31	1	11	24	1.50	- .60	.80	10.0	9	4	8	19	SW, NW	
Greene	Butler	924	8	38 2	† 7.3	70	31	6	11	33	2.06	† .42	.47	12.0	11	4	6	21	NE	
Hampton	Franklin	1,155	13	38.8	†10.2	72	31	4	11	36	2.06	- .20	.65	7.5	7	3	17	11	S, SE	
Hanlontown	Worth			38.8		73	31	2	11	36	2.35		.58	9.0	9	7	2	22	NW	23
Humboldt	Humboldt	1,095	16	40.6	†10.9	75	27	5	11	39	3.40	†1.95	1.10		7	14	5	12	SE	
Inwood	Lyon			38 6		80	27	12	11,12	40	3.70		3 00	4.0	5	10	1	20	S	
Larrabee	Cherokee	1,266	12	39 7	†10.5	80	27	3	11	43	1.61	- .04	1.12	4.0	6	8	9	14	SE, SW, NW	
Lansing	Allamakee			38.8		76	28	2	11	40	1.77		.66		7	9	6	16		
LeMars	Plymouth	1,224	7	40.4	† 8.6	80	27	10	11	40	2.20	† .83	1.20	4.5	4	8	11	12	S	
Mason City	Cerro Gordo	1,132	8	37.2	† 9.3	69	31	8	11	29	1.75	† .41	.52	5.2	6	4	15	12	S	
New Hampton	Chickasaw	1,169	7	37.2	† 6.6	70	31	2	11	33	1.69	† .04	.42		10	8	5	18	E	
Osage	Mitchell	1,184	18	37.0	† 9.6	69	31	1	11	30	2.35	† .78	.58	7.5	14	4	6	21	SE	
Pocahontas	Pocahontas	1,190		40.6		74	27,31	9	11	37	1.75		.44	7.8	12	7	8	16	S	22
Plover	Pocahontas		8	39.4	† 9.0	75	27	5	11	37	1.30	- .08	.23	4.8	10	11	2	18	W	
Ridgeway	Winneshiek	1,215	7	38.0	† 6.4	71	27,31	1	11	35	3.38	† .89	1.27	10.6	13	8	10	13	S	22
Rock Rapids	Lyon	1,021	7	40.8	†11.0	78	27	10	11	35	2.15	† .56	.60	5.5	7	10	6	15	S	31
Sheldon	O'Brien	1,422	6	39.9	†11.1	80	27	?	11	43	2.15	†1.19	.95	6.0	12	9	7	15	S	27
Sibley (b)	Osceola	1,212	12	36.4	† 6.8	75	31	2	11	39	2.58	†1.41	1.25	4.3	9	9	4	18	SW	
Sioux Center	Sioux		6	39 7	† 6.7	78	27	16	10,11,12	35	2.20	† .95	1.02	4.5	6	9	5	17	S	
Storm Lake	Buena Vista	1,440	8	37.6	† 9.5	74	27	7	11	40	1.18	- .20	.36	4.6	7	9	2	20	SW,	
Washta	Cherokee	1,157		41.2		82	27	8	11	45	.73	- .52	.30	4 0	4	13	5	13	NE	
Waverly	Bremer	942	9	37.9	† 6 9	69	31	6	11	32	1.83	- .13	.40	9.0	11	3	9	19	S	22
West Bend	Palo Alto	1,197	12	39.4	†10.2	75	27	4	11	37	1.71	† .07	.63	3.7	9	7	4	20	S	13
Average				38.3	† 8.7	73 4		4.9		36.4	1.37	† .31		6.7	9	7	8	16	S	

SOUTHERN SECTION.

Afton	Union	1,212	11	44 8	† 9.6	78	27	10	11	37	1,87	- .43	.50	.5	7	9	8	14	SW	18
Albia	Monroe	957		43.0	† 5.5	80	27	10	11	45	2.41	† .53	.58	1.0	7	13	0	18	SE	
Allerton	Wayne			45.2		79	27	9	11	43	3.38		1.32	.3	9	14	4	13	SW	17,18,19,23, 25,28
Atlantic	Cass	1,164	14	42.8	† 9.3	78	3	11	11	50	.50	-1.46	.20	1.0	4	6	6	19	S	22
Bedford	Taylor		5	45.4	†10.1	77	27	12	11	43	1.62	- .91	.64	T	7	10	2	19	SW	
Bonaparte	Van Buren		14	44.8	† 7.6	77	27	13	11	42	2.03	- .65	.70		7					
Burlington	Des Moines	544		45.2		75	27	12	11	42	1.82		.49		10	9	9	13	S	19,23
Chariton	Lucas	1,042	10	44.2	† 8.5	77	3,27	9	11	42	3.34	†1.84	.90		6	11	9	11	SE	
College Spr'gs (g)	Page		14	47.2	†11.1	79	27				2.10	† .25	1.12		3					
Columbus Junct.	Louisa	586		44.0		76	31	11	11	33	1.79		.90	1.2	6	13	11	7	NE	19,23,25,27
Corning	Adams	1,127	13	44.8	† 9.1	76	26	11	11	35	1.06	- .69	.47	T	5	8	12	11	SE	18,22,27
Corydon	Wayne	992	12	46.2	†10.1	80	27	9	11	43	2.78	† .71	1 03	.5	9	11	5	15	SW	27
Clarinda	Page		15	44 5	† 9.3	79	3,27	14	11,12	48	1.76	- .14	.75	T	10	9	6	16	SE	
Cumberland	Cass										.90	-1.56	.48	1.0	3	16	5	10	SW	
Earlham	Madison			43.9		78	3	13	10	40	1.78		.52	2.5	6	9	7	15	S	18,23
Elliott	Montgomery			45.8		81	3	13	11	46	.84		.29	0.6	5	4	19	8	SW	17,22
Ft. Madison	Lee	516	56								.94	-2.04	.28		4	8	5	18	SW	
Glenwood	Mills		17	46.6	†10.6	81	27	18	11	37	.39	- .87	.20	T	3	2	18	11	SW	
Greenfield	Adair		14	44.2	†10.3	78	27	7	11	38	1.71	- .53	.48	1.5	10	11	8	12	SW	18,22,28
Hopeville	Clarke		13	44.5	†10.2	77	27	10	11	34	2.63	† .95	.60		11	3	14	14	S, NW	17,18,25,27, 31
Indianola (a)	Warren	969		44.4	† 6.4	79	27	8	11	40	1.90	† .71	1.08	2.4	9	3	9	19	NW	18, 23, 28
Keokuk	Lee	619	34	46.8	† 9.2	78	27	14	11	33	1.78	- .40	.44	T	10	10	8	13	N	23, 25, 26, 27
Keosauqua	Van Buren	644	13	43.4	† 5.4	79	27	12	11	43	2.15	- .33	.46	T	8	4	7	20		
Lacona	Warren										2.92	† .23	.60		11	7	19	5		21, 27
Lenox	Taylor	1,250	10	44.5	† 9.6	77	27	9	11	38	1.40	- .45	.63	0.4	9	11	9	11	S	18,22,27
Leon	Decatur	1,120		45.3		77	27	29	13	37	3.22		.93	3	8	12	2	17	S	16
Massena	Cass			44.6		78	27	10	11	43	1.67		.63	2.0	7	9	6	16	E	
Mt. Ayr	Ringgold	1,236	12	46.6	†11.1	78	3,27	10	11	43	2.26	† .33	.60	0.2	11	6	10	15	SW	18
Mt. Pleasant (a)	Henry	729	24	44.2	† 9.7	75	27	11	11	41	2.31	- .02	.80	0.7	10	8	9	14	SE	19, 25, 28
Omaha, Neb.	Douglas	1,113	34	45.7		82	27	17	11	36	.70		.34	1.5	11	4	6	21	S	27
Oskaloosa	Mahaska	843	22	45.2	†11.0	79	27	10	11	41	3.49	†1.60	1.00	1.0	8	14	1	16	W	22, 27
Ottumwa	Wapello	649	11	45.2	† 7.5	74	3	13	11	40	3 38	†1.48	1.85		4	9	7	15	NE	
Pacific Junction	Mills	960	6	45.2	† 9.1	82	27	15	11	45	.77	- .66	.28	0.7	8	6	16	9	S	22
Red Oak	Montgomery	1,033	8	46.3	† 9.5	81	4	15	11	45	1.28	- .98	.39	T	6	10	7	14	SW	
St. Charles	Madison	1,070		45.1		80	3	9	11	42	1.50		.54	.5	9	8	8	15	NE, SE	
Sidney	Fremont			47.2		83	27	16	11	40	1.02		.59	T	5	12	6	13	S	
Sigourney	Keokuk	887	9	43.8	† 7.9	76	27	9	11	37	3.33	†1.44	1.52	2.8	7	2	20	9	NE, SW, NW	19, 27, 28
Stockport	Van Buren										2.00		.82	T	6	7	7	17	NE, S	18, 25, 27
Thurman	Fremont	588		46.4	† 9.5	82	27	15	11	41	1 39	- .39	.62		7	8	9	14	NW	22, 27
Wapello (b)	Louisa	769	7	42.3		72	26	22	13	32	2.03		.77		6					
Washington	Washington	1,129	13	43.4	† 8.8	76	27	11	11	36	1.79	- .38	.88		6				SW	
Winterset	Madison	961	14	43.6	† 9.5	74	3,27	9	11	37	1.55	- .49	1.10	1.5	3	15	7	9	NE	18
Woodburn	Clarke		6								3.67	†2.15	1.75	0.5	11	11	8	12	SW	19, 27
Average				44.9	† 9.0	78.1		12.2		39.9	1.93	- .04		0.8	7	9	8	14	SW	
Average for State				41.5	† 9.1	75.6		8.6		38.2	2.04	† .20		4.1	8	8	8	15	S	

†Above normal. ‡Received too late to be computed with means. *a*. One day missing; *b*. two days, etc. §Not supplied with self-registering instruments.

CLIMATOLOGICAL DATA FOR MARCH, 1905—CONTINUED.

CENTRAL SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Amana	Iowa	721	27	41.9	†10.5	70	27	9	11	33	2.88	† .88	1.30	5.1	10	5	12	14	SE, NW	18, 27, 28
Ames (c)	Story	926	21	44.0	†11.5	76	27	7	11	46	2.30	† .82	1.30	7.0	8	9	10	12	NE	
Audubon	Audubon	1,301	9	42.7	†10.1	78	27	9	11	43	3.54	†1.76	1.75	3.0	7	6	7	18	E, SE	8, 22
Baxter	Jasper	998	...	42.0	† 5.6	76	27	6	11	44	2.25	† .00	1.10	4.0	6	7	8	16	SE	
Belle Plaine	Benton	826	14	39.9	† 7.4	67	22, 27, 28, 30	8	11	30	2.14	- .46	.45	6.8	12	7	9	15	SE	
Boone	Boone	....	....	41.6	.....	74	27	9	11	38	2.65	.....	.76	4.3	10	9	6	16	SE	18, 21
Buckingham	Iowa	.....	....								3.05	† .86	1.60	5.9	11	5	16	10	.....	
Carroll	Carroll	1,265	13	41.2	† 9.7	80	27	7	11	40	1.87	- .48	.42	5.0	8	11	6	14	.....	18, 22
Cedar Rapids	Linn	733	23	39.9	† 7.1	71	27	10	12	37	2.23	† .05	1.15	....	11	7	11	13	SW	
Clinton	Clinton	609	38	40.3	† 7.5	78	28	10	11	39	3.09	† .07	1.25	7.0	11	7	4	20	SW	18
Davenport	Scott	606	34	42.0	† 7.1	73	31	14	11	32	2.21	† .05	.96	3.6	10	6	9	16	E	18, 19, 27
Delaware	Delaware	1,083	12	37.0	† 6.7	68	28, 31	4	11	34	1.87	† .04	.58	0.0	8	6	12	13	S	
Denison	Crawford	1,180	9	42.2	†10.3	81	27	3	11	47	.58	-1.05	.27	2.0	9	9	13	9	S	18, 21
Des Moines	Polk	861	27	43.5	† 8.8	77	27	11	11	44	2.16	† .70	1.32	2.6	10	4	12	15	S	18, 28
De Soto	Dallas	866	...	43.8	.....	77	3, 27	10	11	41	1.90	.....	.54	2.0	7	9	6	16	SW	
Dubuque	Dubuque	655	32	39.0	† 6.1	73	28	8	11	29	2.27	‡ .00	.73	9.3	11	7	6	18	S	19, 28
Fort Dodge	Webster	1,126	....	39.3		75	27	8	11	36	1.65	.....	.60	4.8	7	10	5	16	S	22
Galva (a)	Ida	1,290	12	41.4	† 8.9	80	27	8	11	37	.99	- .40	.30	3.5	7	...	...	...	.....	
Gilman	Marshall	1,052	..	...	.....	.....	.....	.....	.....	.....	3.35	†1.40	1.60	2.0	7	4	13	14	S	
Grinnell	Poweshiek	1,023	10	41.5	† 8.8	74	27	7	11	36	3.38	†1.59	.98	6.5	10	6	10	15	NE	18, 27
Grundy Center	Grundy	976	12	39.3	† 7.8	74	27	5	11	35	2.71	†1.05	1.46	6.3	11	5	5	21	NE, SE, S	18, 19
GuthrieCenter	Guthrie	1,077	7	43.0	† 9.4	78	27	8	11	34	1.99	† .59	.52		11	10	9	12	NW	18, 22
Harlan	Shelby	1,192	....	42.9	† 8.7	79	27	10	11	44	1.43	- .27	.65	2.0	8	4	9	18	NE, S, SW	19, 22, 27
Ida Grove	Ida	1,220						16	10	.....	1.30	.....	.80	2.0	5	10	11	10	W	22
Independence	Buchanan	921	40	38.2	† 8.3	68	27, 30	5	11	34	1.97	† .28	.60	8.0	8	8	9	14	W	22
Iowa City	Johnson	683	47	39.8	† 6.2	73	27, 31	10	11	39	2.28	- .20	.92	2.0	8	7	1	23	S	
Iowa Falls	Hardin	1,170	10	37.8	† 7.0	73	27	6	11	38	1.47	- .14	.25	5.5	13	7	2	22	SE	22, 23
Little Sioux	Harrison	.....	....	45.0	.....	83	27	14	11	44	.69	.....	.18	1.7	7	9	7	15	NE	18
LeClaire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	2.53	.....	1.10	4.0	8	....	....	....	N, NE, S	
Logan	Harrison	928	36	43.2	† 9.1	80	27	13	11	43	1.20	- .70	.57	2.0	4	6	14	11	NE	
Maquoketa	Jackson	688	12	37.9	† 3.9	73	28	7	11	40	2.94	† .65	1.26	5.0	13	10	5	16	NE	
Marshalltown	Marshall	947	10	39.8	† 7.6	76	27	7	11	41	3.11	†1.18	1.55	6.6	12	9	2	20	SE	
Monticello	Jones	925	....	41.3	† 9.4	79	27	6	11	52	2.71	† .32	1.03	7.2	9	10	3	18	NW	15, 19
Muscatine	Muscatine		46	...	.....	.....	.....	.....	.....	.....	2.20	- .59	.78	1.5	11	...	...	...	S	
Mt. Vernon	Linn	847	30	41.0	†11.1	72	27	6	11	39	2.20	† .17	.61	5.9	11	5	9	17	S	18
Newton	Jasper	944	15	41.2	† 8.0	71	27, 28	7	11	34	2.76	†1.20	1.20	4.0	7	9	11	11	E, S	
Odebolt	Sac	1,356	8	42.0	† 9.0	79	27	8	11	41	1.43	- .56	.40	7.0	7	13	8	10	.....	
Ogden	Boone	1,088	9	41.8	† 8.6	75	27	12	11	42	2.43	† .91	.96	3.5	8	9	7	15	S	17, 19
Olin (b)	Jones	760	7	39.8	† 6.8	69	28, 31	10	11	34	2.52	† .07	1.00	7.0	9	6	12	13	NW	20, 27
Onawa	Monona	.....	....	43.8	† 6.6	84	27	14	11	47	1.09	- .44	.30	7.0	9	15	7	9	SE	
Perry	Dallas	975	..	42.8	.....	77	27	10	11	35	2.49	† .19	1.05	4.0	6	8	5	18	.....	18, 23
Rockwell City	Calhoun	.....	8	40.6	† 9.2	80	3	8	12	36	2.75	†1.10	1.00	8.0	6	9	6	16	.....	
Sac City (f)	Sac	1278	23	41.0	†11.2	77	27	7	11	36	...	.....	....	...	..	....	....	....	.....	
Stuart (c)	Guthrie	.....	....	43.3	†11.6	76	27	10	11	41	.....	.....	....	...	..	....	....	....	.....	
Sioux City	Woodbury	1,165	16	41.8	†10.2	82	27	13	11	34	1.41	† .17	.68	4.1	8	4	8	19	SE	22
Tipton (a)	Cedar	807	....	41.8	† 5.9	68	27, 30, 31	13	11	31	2.63	- .47	1.30	4.0	7	...	....	....	SW	
Toledo	Tama	856	9	41.7	† 9.4	75	27	7	11	38	3.30	†1.55	1.75	4.0	10	5	12	14	NE	17
Vinton (a)	Benton	810	15	41.2	† 9.1	70	22, 27	8	11	36	2.40	† .62	1.60	3.8	6	..	....	...	SW	
Waterloo	Black Hawk	862	16	39.0	† 8.8	72	27	7	11	37	1.96	† .13	.52	6.0	10	1	16	14	.....	
Waukee	Dallas	1,039	....	44.9	...	82	27	9	11	44	2.16	.....	.75	3.0	8	7	13	11	SW	18, 23
Webster City	Hamilton	.....	....	41.7	.....	74	26	5	11	38	1.24	.....	.45	3.0	6	11	0	20	SE	
Wilton Junction	Muscatine	683	11	42.0	† 7.7	74	31	9	11	34	3.40	† .69	1.65	6.5	6	13	3	15	NE, NW	18
Whitten	Hardin	1,036	...	39.4	† 8.4	73	27	5	11	34	1.70	† .76	.75	8.0	5	8	10	13	SE	18, 19, 22
Zearing	Story	718	..	40.7	....	75	27	7	11	36	3.20	.....	1.10	4.5	8	9	7	15	NE	18, 22
Average				41.3	† 9.1	75.3		8.6		38.3	2.23	† .35		4.8	7	8	8	15	S	

† Above normal. ‡ Received too late to be computed with means. *a*. One day missing; *b*. two days, etc. § Not supplied with self-registering instruments.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR MARCH, 1905.

STATIONS.		DATE.																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max..	59	64	74	67	57	39	42	49	51	42	37	31	28	33	64	67	64	68	50	35	45	66	55	68	63	69	78	71	61	71	66	55.9
	Min ..	32	32	37	33	30	33	32	27	31	19	10	24	21	23	28	41	50	48	33	28	31	37	36	34	43	36	47	46	37	37	46	33.6
Albia*....	Max..	46	60	77	51	52	33	40	51	53	41	32	29	28	30	58	69	61	67	36	38	44	68	58	68	69	70	80	63	60	70	60	53.6
	Min ..	32	30	32	34	29	29	30	25	27	16	10	13	22	22	24	40	46	50	36	27	28	33	39	36	37	39	40	52	41	39	43	32.3
Algona...	Max..	45	52	66	55	41	36	35	48	42	26	29	27	24	30	38	45	50	49	37	37	42	62	52	63	59	67	72	67	56	64	76	48.1
	Min .	29	29	32	29	29	25	28	22	25	11	2	12	20	17	23	33	33	35	25	27	31	37	35	30	40	33	48	44	33	32	45	28.8
Allerton .	Max	56	65	78	66	58	40	41	52	55	45	34	31	28	34	67	70	60	67	54	37	44	68	61	69	64	70	79	71	61	69	62	56.6
	Min ..	32	30	35	34	27	32	30	24	31	19	9	24	22	24	29	40	50	50	33	27	32	36	43	34	48	35	50	47	38	37	49	33.9
Alta.	Max..	55	64	71	48	43	35	36	51	39	28	31	26	24	29	38	47	49	55	33	35	53	59	49	65	57	69	78	65	60	67	74	49.5
	Min ..	31	34	38	31	31	26	30	23	22	12	7	16	16	17	24	34	35	33	25	26	30	40	35	30	41	31	51	38	31	37	47	29.7
Amana...	Max..	46	37	55	55	41	38	36	46	46	34	30	32	30	31	42	59	63	66	57	34	45	67	58	63	65	66	70	67	57	68	69	50.7
	Min ..	31	31	30	33	30	30	31	27	30	21	9	23	22	22	27	30	41	48	28	26	32	34	44	33	47	41	48	53	42	35	48	33.1
Ames	Max..	49	60	75	58	41	37	36	50	46	..	..	..	..	..	42	53	63	63	46	35	43	69	60	67	58	69	76	71	59	68	70	56.3
	Min ..	27	30	29	32	28	25	29	26	28	17	7	21	19	20	27	42	42	45	30	27	31	37	40	34	43	34	46	48	38	35	48	31.8
Atlantic..	Max..	58	69	78	51	35	35	41	51	40	40	36	31	27	30	66	60	64	66	60	44	68	69	49	70	69	71	71	60	63	72	68	55.2
	Min ..	24	24	28	33	26	25	32	27	30	17	11	24	21	20	28	36	40	49	30	30	32	41	36	30	28	29	28	47	35	35	49	30.5
Audubon.	Max..	58	73	75	75	42	36	37	50	45	37	34	26	23	28	53	62	64	62	44	37	46	62	58	68	60	70	78	72	61	70	71	54.2
	Min ..	28	30	32	32	25	28	32	25	29	15	9	21	18	20	26	33	43	42	29	28	31	40	37	33	40	33	51	41	34	32	49	31.2
Baxter. ..	Max..	50	54	72	60	45	37	38	48	47	32	30	28	26	29	40	60	64	65	55	35	43	70	59	66	63	69	76	70	60	70	64	52.4
	Min ..	30	30	28	30	29	27	28	24	27	15	6	20	20	20	25	34	40	48	29	26	30	36	41	33	45	36	44	49	38	40	47	31.5
Bedford ..	Max..	58	70	76	64	59	39	43	51	57	45	33	30	31	40	68	71	61	64	54	37	47	65	60	64	67	71	77	72	62	71	66	57.2
	Min ..	26	27	33	34	28	33	34	24	28	20	12	26	23	26	32	46	50	51	34	30	32	39	41	28	45	33	50	44	35	35	44	33.6
Belle Pl'e	Max..	37	42	54	42	42	33	37	36	41	37	29	32	34	33	46	55	63	65	35	35	42	67	58	62	64	66	67	67	58	67	66	48.7
	Min ..	25	30	30	31	29	28	30	25	27	18	8	23	20	20	25	29	40	47	30	25	30	32	38	32	40	38	42	53	40	35	44	31.1
Bonapar'e	Max..	38	53	71	57	51	39	37	49	53	44	33	33	31	30	57	71	65	70	60	35	46	71	59	68	69	68	77	70	59	69	70	54.9
	Min ..	32	31	29	32	28	30	30	29	28	23	13	27	24	27	29	45	49	52	29	27	31	34	46	35	48	40	49	53	43	36	46	34.7
Boone . ..	Max..	53	58	71	62	40	37	35	48	44	33	29	25	24	23	38	52	60	60	45	34	43	65	60	65	63	68	74	71	57	67	70	50.8
	Min .	33	31	36	31	31	27	29	27	27	18	9	21	18	19	26	36	37	44	29	26	29	37	40	36	45	37	48	49	39	40	48	32.4
Britt, ...	Max..	47	45	62	47	53	37	35	47	41	32	31	26	29	32	42	44	54	40	39	43	41	63	53	62	53	68	70	65	57	64	75	48.3
	Min ..	28	29	30	29	28	24	29	22	26	11	2	17	18	18	25	33	34	35	25	25	31	36	34	29	39	30	46	44	32	32	45	28.6
Burling'n	Max..	50	46	72	58	51	39	40	51	55	46	35	31	31	31	60	72	68	70	60	36	50	69	60	70	69	71	75	70	58	69	73	56.0
	Min ..	33	26	30	32	27	30	31	29	31	22	12	26	26	27	29	42	48	53	29	27	31	36	47	36	49	41	50	56	45	40	47	34.5
Carroll* ..	Max..	60	71	78	40	40	35	39	52	49	33	32	31	30	32	40	51	61	65	34	35	46	67	66	59	60	72	80	55	63	70	71	52.2
	Min ..	29	32	36	31	28	25	30	21	30	15	7	21	20	16	25	30	32	47	27	26	30	38	35	30	41	32	41	46	31	37	45	30.1
Cedar R*.	Max..	40	38	55	42	39	33	37	48	46	33	30	31	28	30	42	60	63	66	35	35	44	68	57	65	64	67	71	66	57	69	69	49.3
	Min ..	22	31	30	30	29	30	29	27	26	23	11	10	23	22	21	27	30	41	34	27	27	31	36	35	36	40	41	51	43	41	43	30.5
Chariton .	Max..	48	63	77	55	53	34	40	52	54	43	38	32	29	32	64	68	62	66	50	36	45	66	60	68	68	69	77	68	61	68	62	55.1
	Min ..	30	30	35	34	27	31	27	24	30	17	9	23	21	23	28	39	49	50	32	27	32	37	42	33	48	36	48	46	38	36	49	33.3
Charles C.	Max..	35	36	49	41	39	31	33	44	39	27	24	24	23	27	34	42	50	45	36	35	40	65	50	60	48	65	66	64	54	65	70	43.9
	Min ..	25	30	29	28	28	24	25	23	23	7	4	16	18	17	24	33	36	36	27	27	30	36	34	31	39	34	46	41	34	33	44	28.5
Clarinda*.	Max..	57	70	79	58	56	39	42	54	56	46	33	29	32	42	70	70	68	67	37	39	50	67	55	70	65	74	79	57	64	73	66	56.7
	Min ..	32	29	31	34	28	32	34	26	29	22	14	14	23	23	27	34	45	49	34	31	32	34	40	33	33	37	42	45	33	36	44	32.3
Clear L ..	Max..	38	39	51	48	40	39	35	45	41	28	28	26	27	29	35	43	50	46	41	38	39	60	56	60	57	58	66	64	53	60	61	45.4
	Min ..	28	30	29	27	30	24	28	22	25	13	5	16	18	18	24	33	34	33	25	28	31	35	33	30	42	33	46	45	35	38	43	29.1
Clinton...	Max..	40	40	47	39	40	39	36	45	50	36	31	35	30	31	41	56	55	66	49	33	44	67	55	62	63	65	66	78	58	69	75	49.7
	Min ..	30	27	30	27	28	28	31	27	27	19	20	22	23	20	25	29	33	43	27	25	30	33	43	31	39	40	42	55	41	30	43	30.9
Col. Spgs.	Max..	..	..	80	..	..	..	..	59	51	44	34	32	33	44	68	70	60	59	48	40	50	66	56	68	65	71	79	68	64	71	61	57.6
	Min ..	..	..	..	..	..	..	..	28	30	26	15	26	25	28	35	45	47	47	40	32	35	41	45	34	46	35	50	47	35	39	51	36.8
Colum. J.	Max..	48	41	64	51	44	38	36	48	51	40	33	32	32	32	52	67	64	69	58	35	49	62	58	65	68	67	74	69	58	69	76	53.4
	Min ..	32	30	31	35	30	30	31	28	30	16	11	29	28	28	28	38	46	51	28	26	30	33	44	34	47	40	49	56	48	39	45	34.5
Corning ..	Max..	55	66	74	60	51	39	41	49	52	42	34	31	28	35	64	65	62	63	51	35	65	59	67	63	68	76	70	60	69	70	69	55.9
	Min ..	29	32	36	33	31	33	33	27	30	22	11	24	21	24	30	39	50	50	33	29	33	40	32	45	33	41	45	34	38	39	47	33.7
Corydon..	Max..	57	66	79	72	59	40	42	54	57	57	34	32	29	32	65	69	62	68	61	38	44	67	64	71	72	71	80	75	64	70	64	58.5
	Min ..	31	29	36	34	26	30	30	24	30	19	9	24	22	24	29	43	50	50	33	27	32	36	43	34	49	36	51	47	38	38	50	34.0
Cresco ...	Max..	40	35	44	46	36	34	31	41	39	26	21	24	23	27	34	39	44	44	39	34	37	60	56	56	55	62	66	64	52	64	67	43.2
	Min ..	27	29	28	27	27	21	26	23	25	15	2	15	16	15	22	33	31	35	25	24	29	35	37	32	42	34	47	49	36	35	45	28.6
Davenpo't	Max..	40	37	56	45	40	36	38	46	50	35	32	33	29	29	40	65	62	66	48	33	42	66	55	63	64	65	69	72	55	67	73	50.0
	Min ..	33	30	31	29	29	27	32	30	32	20	14	25	25	23	25	33	36	48	27	27	31	35	45	37	48	42	52	50	43	41	50	33.9
Decorah. .	Max..	40	37	43	42	38	33	33	42	43	28	25	28	27	35	37	45	46	47	33	38	41	61	53	54	53	63	71	54	59	68	72	44.8
	Min ..	29	32	30	29	28	22	28	22	23	15	4	17	19	18	23	24	33	35	26	26	31	35	39	30	41	35	43	37	39	30	50	28.8
Delaware.	Max..	39	37	40	41	37	34	31	40	41	30	27	30	25	25	39	46	52	56	48	31	42	60	54	58	60	63	67	68	56	66	68	45.5
	Min ..	27	28	28	25	25	22	27	20	26	16	4	20	20	16	21	22	33	38	26	21	28	31	40	31	40	36	44	52	38	32	45	28.5
Denison ..	Max..	60	68	78	67	40	38	38	52	46	38	34	25	22	28	44	55	60	64	42	38	52	66	53	69	62	72	81	74	62	72	71	53.9
	Min ..	27	34	36	32	30	22	31	25	29	16	3	20	18	19	26	33	40	41	28	28	22	42	35	32	44	34	34	45	33	38	52	30.6
Des M....	Max..	50	62	77	62	47	35	39	48	47	36	30	27	26	28	49	65	63	66	44	37	44	67	55	67	62	69	77	67	60	69	68	52.7
	Min ..	32	31	33	34	30	30	31	30	29	17	11	22	22	22	27	40	48	44	30	28	33	38	43	37	48	39	54	45	41	42	51	34.3
De Soto ..	Max..	59	65	77	60	46	36	39	50	49	38	32	27	26	28	49	63	67	68	49	35	44	60	60	69	60	70	77	71	64	70	71	54.2
	Min ..	32	31	36	33	29	30	31	26	30	17	10	22	20	21	27	35	46	49	32	28	32	39	41	37	47	31	51	48	39	37	50	33.5
Dows. ...	Max..	44	47	66	55	37	35	34	48	40	27	27	25	23	25	35	45	54	60	43	35	41	66	58	64	60	68	72	69	56	65	68	48.1
	Min ..	25	29	28	28	28	24	27	24	26	14	5	18	13	12	23	32	34	41	26	25	30	35	34	31	40	32	45	48	35	35	45	28.8
Dubuque.	Max..	38	37	43	38	38	37	33	44	46	30	27	34	23	27	39	50	56	59	35	33	41	64	52	60	59	65	68	73	55	66	71	46.5
	Min ..	29	29	30	26	26	27	29	27	29	18	8	21	20	19	24	29	37	35	24	25	31	35	41	36	47	42	51	55	44	39	45	31.5
Earlham.	Max.	56	66	78	66	47	37	39	52	49	37	36	31	26	50	60	66	65	66	48	34	44	68	59	69	52	70	77	70	62	69	68	55.4
	Min ..	27	30	35	32	26	32	30	26	31	13	22	22	20	29	27	26	47	47	32	26	30	38	40	34	45	34	50	34	35	36	48	32.4
Elkader ..	Max..	36	38	43	41	38	35	33	46	44	29	25	34	25	32	37	47	48	46	41	36	39	64	56	62	60	65	70	68	57	68	68	46.2
	Min ..	29	30	30	32	26	25	29	20	29	19	2	20	21	19	24	31	34	36	26	24	30	35	42	30	42	38	40	54	40	29	50	30.2
Elliott ...	Max..	60	76	81	72	49	42	47	49	52	44	42	35	28	36	65	67	66	66	49	40	51	67	52	67	62	68	78	70	59	70	69	57.4
	Min ..	29	30	34	34	29	30	34	25	29	21	13	25	21	23	31	39	51	51	32	31	34	42	38	29	44	33	50	57	32	37	50	34.3
Esthervil*	Max..	53	68	69	45	44	35	38	50	42	38	28	25	22	29	35	40	49	42	32	33	45	60	52	64	58	68	74	52	56	66	74	47.8
	Min ..	27	23	20	23	32	26	25	22	24	13	2	8	17	17	18	28	32	36	23	25	28	37	35	32	35	32	42	46	32	27	34	26.4
Fayette ..	Max..	39	37	43	42	40	35	32	42	36	25	24	28	34	37	38	47	47	50	45	36	49	66	50	59	60	64	70	67	55	69	70	46.3
	Min ..	24	27	26	26	24	21	26	18	25	14	1	18	18	17	25	30	33	32	29	24	28	34	40	28	28	33	45	48	36	27	41	27.3
ForestCy*	Max..	44	44	65	36	40	31	30	39	38	27	25	24	22	28	35	43	50	46	34	38	45	62	49	62	52	68	68	57	63	64	74	45.3
	Min ..	28	30	29	26	26	23	25	22	21	14	3	10	17	17	18	28	34	37	25	26	26	33	33	31	40	34	45	53	35	33	44	27.8
F. Dodge*	Max..	51	59	71	38	37	34	35	50	40	28	31	26	24	29	39	50	55	57	33	34	43	63	50	65	54	69	75	56	57	68	70	48.1
	Min .	30	31	35	31	28	26	29	26	26	18	8	12	19	19	20	29	35	44	29	28	28	33	36	35	38	35	43	53	40	36	45	30.5
Galva	Max..	54	67	70	50	42	39	39	51	41	30	36	28	25	30	44	48	53	64	39	42	59	62	52	66	60	..	80	75	59	70	75	51.7
	Min ..	25	32	46	32	30	23	31	23	26	14	8	18	17	18	25	34	36	39	33	27	32	39	34	30	39	..	48	44	31	33	62	31.0
Glenw'd .	Max..	66	70	80	70	50	40	39	51	54	43	31	30	28	35	68	68	64	63	51	38	55	68	54	69	63	71	81	76	62	75	70	57.5
	Min ..	33	34	41	34	36	29	35	28	32	24	13	25	23	24	31	43	48	29	31	31	35	45	39	36	47	35	59	43	36	51	54	35.6
Grand M.	Max..	36	38	40	43	38	32	33	40	41	30	25	28	25	32	37	45	47	47	40	35	38	60	50	55	57	62	67	70	54	65	70	44.5
	Min ..	27	28	28	27	25	22	26	23	26	15	1	18	18	16	21	29	32	36	25	22	30	34	39	30	40	35	47	50	36	35	47	28.6
Greene...	Max..	40	38	57	48	38	34	33	45	38	30	27	27	27	29	39	44	53	50	42	36	42	65	58	63	60	66	67	63	58	61	70	46.6
	Min ..	32	30	28	28	30	24	28	23	27	18	6	18	20	18	24	32	33	38	28	27	30	36	37	31	40	33	44	49	37	33	44	29.9
Greenfield. ..	Max..	57	66	75	64	50	38	41	48	50	41	37	30	32	30	63	66	66	68	50	35	45	68	59	68	64	68	78	71	64	72	71	56.0
	Min ..	29	30	37	31	30	31	30	25	27	14	7	20	19	21	27	47	48	48	31	28	30	36	39	32	43	32	48	46	34	38	47	32.4
Grinnell.	Max..	48	48	65	58	41	33	36	46	45	33	29	27	26	28	40	59	63	64	47	34	42	67	58	63	59	66	74	70	56	66	60	50.0
	Min ..	31	30	29	33	32	30	30	27	28	19	7	21	21	20	26	37	43	47	29	26	31	36	42	35	48	38	48	49	41	39	49	33.0
Grundy C	Max..	42	42	56	44	39	35	34	45	42	30	26	27	25	27	36	46	58	60	49	35	41	68	59	65	65	69	74	72	57	67	64	48.4
	Min ..	26	30	29	32	28	25	28	23	28	16	5	21	19	19	25	32	35	41	29	22	29	36	39	30	42	34	46	51	35	35	46	30.2
Guthrie C	Max..	54	68	75	65	42	38	39	48	46	31	31	29	25	29	49	61	63	64	53	33	45	67	61	64	61	69	78	73	60	70	64	53.4
	Min ..	32	33	39	32	29	27	31	24	31	15	8	21	20	20	26	26	43	49	31	28	31	40	38	34	45	35	53	47	35	39	50	32.6
Hampton.	Max..	43	39	65	52	38	31	33	50	38	28	30	28	26	28	36	48	54	59	40	38	41	67	55	65	53	70	69	67	57	66	72	47.9
	Min ..	30	30	29	29	28	23	28	26	26	12	4	18	19	17	23	32	34	40	27	25	27	35	35	32	44	36	47	47	36	37	44	29.7
Hanlontown .	Max..	42	38	65	51	39	33	33	47	40	27	25	25	24	24	35	40	50	45	38	35	39	63	54	60	48	66	66	65	55	63	73	45.4
	Min ..	28	30	29	26	30	23	27	23	27	10	2	13	16	16	22	32	32	33	25	27	30	35	33	30	35	32	48	45	35	35	45	28.2
Harlan....	Max..	57	66	77	62	43	36	38	50	48	36	35	28	25	30	57	66	62	64	44	40	52	67	51	67	61	69	79	72	61	72	69	54.3
	Min ..	26	30	33	34	27	26	32	26	28	16	10	21	18	20	27	38	47	44	29	29	32	40	36	28	39	33	48	45	33	33	49	31.5
Hopeville.	Max..	56	63	76	55	54	37	41	51	53	43	33	30	28	32	63	69	63	66	50	33	44	66	56	68	68	69	77	69	61	69	64	55.1
	Min ..	32	31	36	34	29	32	31	25	30	20	10	24	21	23	29	43	50	50	32	28	31	36	42	36	45	36	46	47	38	37	47	33.9
Humboldt	Max.	52	56	69	62	38	36	36	50	44	30	32	30	26	30	38	48	67	56	42	36	44	57	57	65	54	68	75	70	58	68	73	50.5
	Min ..	28	30	30	30	30	24	30	25	28	15

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR MARCH, 1905—Continued.

STATIONS.		DATE.																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Iowa F	Max.	37	45	64	38	39	32	34	45	45	29	28	26	28	29	48	46	56	60	31	37	41	67	52	63	54	63	73	59	56	66	67	47.0
	Min.	25	27	29	30	28	25	26	24	28	15	6	20	18	18	24	27	33	44	29	26	30	31	36	31	35	38	35	47	37	32	34	28.5
Keokuk	Max.	53	56	73	65	57	40	39	47	53	44	34	34	34	33	64	71	68	69	62	35	50	70	61	68	69	67	78	72	58	68	73	56.9
	Min.	35	27	30	32	30	31	31	31	31	26	14	28	28	20	30	46	50	54	30	28	32	37	52	39	53	45	50	56	46	44	47	36.8
Keosauqua *	Max.	42	56	73	56	54	34	39	50	54	46	35	33	31	32	58	71	66	71	37	37	46	72	56	69	71	69	79	65	61	67	70	54.8
	Min.	32	32	30	31	27	27	31	29	29	21	12	14	25	25	28	31	44	51	37	28	28	33	38	25	37	45	40	50	42	36	38	32.1
Lansing	Max.	48	40	44	43	40	34	36	45	47	31	25	31	27	36	34	44	44	48	45	37	40	61	58	60	60	67	74	76	62	69	69	47.6
	Min.	30	32	30	28	25	23	28	20	30	20	2	17	11	18	24	32	34	35	26	25	30	36	43	31	38	40	48	60	38	29	51	30.1
Larrabee	Max.	56	65	70	50	45	40	39	52	42	31	35	37	27	30	39	45	53	46	36	40	48	64	52	68	63	70	80	69	59	69	77	51.5
	Min.	26	30	31	32	33	25	32	23	22	12	3	15	15	16	22	31	34	34	24	26	28	36	32	28	37	27	47	39	29	33	44	27.9
Le Mars	Max.	55	64	70	60	45	37	38	53	48	29	30	25	25	27	38	47	51	48	38	37	61	57	53	67	61	70	80	78	61	70	73	51.5
	Min.	26	32	30	31	26	24	31	23	28	15	10	16	18	19	25	33	33	35	27	28	33	43	29	27	29	31	50	42	30	36	48	29.3
Lenox	Max.	56	66	75	63	53	38	41	49	53	42	34	31	28	35	65	67	63	64	52	34	47	66	59	68	66	69	77	70	62	70	63	55.7
	Min.	32	31	38	33	30	32	32	25	30	19	9	24	20	23	30	42	49	50	31	28	31	37	40	33	42	31	48	45	32	38	46	33.3
Leon	Max.	57	63	74	65	55	40	41	48	53	43	34	32	29	35	66	68	61	65	55	35	45	67	63	66	66	66	77	74	59	69	68	56.1
	Min.	34	31	37	35	28	32	31	25	30	21	10	25	22	24	30	42	50	50	33	28	32	37	43	36	47	38	48	47	38	39	48	34.5
Lit. Sioux	Max.	60	72	81	69	43	41	38	54	51	35	32	29	23	31	53	67	60	65	43	39	61	62	55	72	65	73	83	81	64	76	73	56.5
	Min.	27	29	37	37	35	23	34	24	31	20	14	23	20	22	30	34	41	43	31	32	36	41	34	32	47	31	55	44	30	45	55	38.5
Logan	Max.	55	65	75	55	38	40	46	50	40	33	26	29	26	38	60	64	65	57	38	37	57	70	64	70	60	72	80	76	60	75	70	54.5
	Min.	29	30	35	37	30	25	34	36	29	19	13	22	20	20	21	30	44	31	31	30	35	40	38	29	41	32	46	44	32	32	52	31.8
Maquoketa *	Max.	37	38	43	37	39	32	35	47	51	37	32	35	27	28	40	57	60	66	30	33	42	67	50	63	62	67	67	73	58	68	72	48.2
	Min.	16	26	29	29	26	27	26	23	26	21	7	8	21	19	19	26	27	36	27	23	25	30	37	32	34	41	42	49	43	28	34	27.6
Marshlt'n	Max.	41	50	70	45	41	32	35	50	48	31	30	28	28	30	40	54	64	65	33	37	43	70	57	67	66	70	76	62	60	69	66	50.3
	Min.	25	30	29	31	29	26	28	25	28	17	7	10	19	19	20	27	35	44	30	25	26	31	30	34	39	35	40	52	38	35	43	29.3
Mason C.	Max.	37	38	57	45	39	35	34	46	37	30	25	25	23	27	33	41	49	44	38	41	37	58	54	58	50	64	65	60	56	61	69	44.4
	Min.	30	30	30	28	30	25	27	25	30	17	8	17	18	17	23	32	34	37	26	28	31	35	35	32	40	35	45	45	36	37	44	29.9
Massena	Max.	56	67	76	74	50	46	50	41	50	39	34	31	31	31	65	67	65	67	51	39	46	67	53	68	60	70	78	70	62	72	68	56.3
	Min.	29	31	33	31	32	28	24	32	30	19	10	23	26	22	28	41	49	49	32	29	32	40	39	32	48	30	50	45	38	38	41	32.9
Monticelo	Max.	59	42	50	55	48	42	35	38	65	56	40	41	45	30	32	41	63	61	77	35	36	45	75	55	78	65	79	75	74	75	73	54.4
	Min.	22	29	27	32	26	21	30	21	28	18	6	18	20	17	21	26	34	38	25	22	24	30	43	29	33	37	39	43	30	41	44	28.2
Mt. Ayr.	Max.	68	70	78	63	56	56	45	53	57	45	33	33	30	39	72	71	63	68	54	37	48	69	62	72	68	74	78	73	64	70	62	59.1
	Min.	34	28	35	34	29	31	31	25	27	21	10	25	21	23	30	44	49	50	32	28	30	38	42	33	46	35	56	45	25	39	47	34.0
Mt. Pl'snt	Max.	50	50	68	49	49	39	38	51	52	42	33	35	32	31	55	70	66	69	60	37	50	69	60	65	69	68	75	71	59	68	74	54.9
	Min.	..	33	29	33	28	30	31	29	28	22	11	25	24	25	27	29	48	51	28	26	30	31	44	33	47	39	47	51	43	37	45	33.5
Mt. Ver'n	Max.	44	36	56	52	39	33	35	50	46	30	35	31	29	29	47	60	61	70	65	34	42	67	58	67	62	69	72	64	61	67	65	50.8
	Min.	28	29	28	29	26	28	28	23	30	20	6	20	21	19	24	32	41	46	26	24	29	31	42	32	45	38	45	53	41	34	45	31.1
New H.	Max.	41	37	48	47	39	38	34	42	40	29	24	26	24	27	35	41	48	46	43	35	49	62	58	58	55	63	69	65	53	65	70	45.5
	Min.	22	30	32	28	27	23	27	22	22	17	2	16	18	17	22	33	36	38	26	25	30	35	38	30	40	35	45	52	36	32	44	29.0
Newton	Max.	44	52	63	63	43	41	38	46	47	35	31	30	28	29	42	62	59	61	61	35	42	67	59	57	60	59	71	71	65	61	61	51.1
	Min.	31	30	29	32	29	28	29	25	29	17	7	21	20	20	25	35	44	49	30	26	30	35	41	33	33	35	35	49	43	35	47	31.4
Odebolt	Max.	55	64	73	62	41	38	38	51	47	30	33	29	26	33	42	49	55	62	43	38	52	59	52	73	64	71	79	75	61	72	74	52.9
	Min.	28	34	38	34	30	24	31	25	27	16	8	20	18	19	26	34	37	40	22	26	31	41	35	32	42	31	50	45	33	36	48	31.0
Ogden	Max.	52	62	74	61	40	39	36	50	45	32	31	28	25	27	39	54	62	64	50	35	44	66	60	67	61	68	75	74	60	68	71	52.3
	Min.	30	29	32	30	28	25	26	24	28	16	12	21	18	19	26	35	38	48	30	26	30	37	36	31	41	32	50	50	35	36	49	31.2
Olin	Max.	42	39	45	44	39	37	36	46	46	34	28	33	31	30	42	54	60	..	..	33	44	65	57	65	62	64	66	69	56	66	69	48.3
	Min.	30	30	30	32	28	28	30	24	29	22	10	21	23	20	24	29	37	..	..	25	30	32	44	31	44	40	48	55	43	32	46	31.4
Omaha, N	Max	60	71	79	57	45	40	38	51	51	38	32	31	28	34	63	64	62	62	37	39	56	64	53	69	58	70	82	66	62	74	69	55.0
	Min.	36	38	43	39	34	31	36	31	28	22	17	22	22	25	32	37	46	37	33	32	36	44	42	38	47	40	56	44	39	46	55	36.4
Onawa	Max.	65	72	79	67	45	39	37	56	49	34	32	28	24	34	47	59	59	62	43	39	58	58	52	70	64	74	84	78	67	74	74	55.6
	Min.	29	28	32	36	29	25	33	25	32	20	14	24	20	20	27	33	37	43	30	31	34	42	32	28	42	30	50	43	33	38	51	32.0
Osage	Max.	42	37	51	50	37	35	32	45	40	27	25	24	27	28	35	43	47	45	40	37	40	62	57	59	49	65	66	61	53	66	69	45.0
	Min.	26	31	29	27	28	22	27	24	27	15	1	14	17	16	23	32	34	37	27	27	30	35	36	31	40	35	47	49	36	31	44	29.0
Oskaloosa	Max.	47	54	73	60	48	38	39	49	52	40	33	30	29	30	49	61	65	69	55	37	46	70	59	68	68	69	79	70	58	68	60	57.2
	Min.	30	30	32	35	31	29	30	25	30	19	10	22	21	22	27	34	43	40	31	27	33	37	44	35	52	37	49	50	41	38	48	33.3
Ottumwa	Max.	44	56	74	50	44	37	40	44	52	44	52	32	32	33	54	66	62	68	42	40	45	65	63	57	64	65	70	62	64	70	63	53.4
	Min.	31	33	34	36	32	34	34	30	31	24	13	27	26	27	31	38	53	48	32	30	33	38	50	55	44	48	52	52	45	42	48	37.1
Pacific J'n	Max.	59	67	76	57	46	42	38	50	53	41	34	31	30	35	67	68	66	65	48	39	58	69	54	68	59	72	82	73	62	72	70	56.5
	Min.	28	24	35	35	30	30	35	25	26	21	15	26	23	25	34	40	50	48	33	33	36	42	37	30	45	29	48	44	31	36	55	33.8
Perry,	Max.	52	61	74	57	40	36	38	50	45	37	31	28	27	30	44	59	63	65	49	37	45	68	61	68	60	70	77	73	60	70	71	53.1
	Min.	30	34	31	32	28	27	30	25	30	18	10	23	19	20	28	33	41	49	32	29	32	39	39	33	45	34	51	43	36	35	47	32.4
Plover	Max.	50	59	69	56	36	40	37	47	40	38	35	34	33	30	40	44	52	49	38	36	45	63	50	58	57	67	75	66	58	67	74	49.8
	Min.	27	28	30	28	29	25	29	23	25	18	5	18	17	20	25	35	25	37	25	26	32	35	32	32	37	30	45	42	30	30	55	28.9
Pocah'tas	Max.	51	59	70	53	41	36	37	50	41	30	34	28	28	33	40	46	56	55	40	36	48	68	52	66	57	70	74	68	69	68	74	50.9
	Min.	30	32	34	30	29	28	30	24	25	14	9	19	19	18	26	34	36	38	20	28	32	36	35	32	49	33	41	43	33	37	44	30.2
Red Oak	Max.	72	62	72	81	55	58	43	46	55	57	49	39	32	33	38	72	71	68	71	40	42	50	70	56	70	67	73	80	58	62	71	58.5
	Min.	31	32	32	36	32	34	35	28	30	26	15	16	23	23	26	36	44	52	34	33	33	39	41	34	36	37	41	49	38	39	52	34.1
Ridgeway	Max.	38	39	47	50	41	33	38	48	46	31	30	34	30	31	37	42	46	47	38	39	40	62	51	60	53	66	71	67	60	69	71	46.9
	Min.	29	29	30	29	27	21	23	23	25	14	1	16	19	17	22	34	33	36	27	25	30	35	39	31	40	35	44	48	36	34	45	29.1
Rock R.	Max.	46	65	70	56	42	40	40	48	42	30	30	32	28	34	34	36	50	55	40	38	58	60	54	64	65	68	78	66	70	68	70	50.9
	Min.	30	34	35	30	30	28	32	24	26	16	10	16	20	18	28	32	34	34	28	30	32	32	32	32	30	34	45	46	42	44	42	30.6
R. City	Max.	50	60	80	65	39	36	37	50	46	30	30	31	28	30	40	50	55	63	42	35	45	65	55	65	67	68	75	72	58	68	70	51.0
	Min.	28	30	52	45	29	26	29	23	28	16	10	8	15	18	25	32	32	40	26	27	30	36	32	35	33	32	48	40	34	34	41	30.1
Sac City	Max.	52	62	72	57	50	38	37	50	41	37	32	27	27	28	40	47	53	..	..	..	..	..	..	66	58	69	77	74	69	69	70	52.1
	Min.	31	35	36	33	30	25	29	23	26	15	7	19	37	18	25	33	35	..	..	..	..	..	..	34	43	34	52	38	32	35	43	29.9
St. Cha'les	Max.	60	70	80	61	53	38	39	54	50	39	31	30	26	28	55	67	65	68	51	35	44	67	60	70	66	71	78	71	64	71	72	55.9
	Min.	34	31	38	33	29	29	31	27	30	19	9	22	20	22	27	41	50	50	31	27	31	38	42	37	49	38	51	48	39	40	50	34.3
Sheldon	Max.	61	69	74	60	47	36	37	54	43	27	28	28	22	26	37	42	48	45	36	38	58	52	55	68	62	72	80	72	60	67	75	50.9
	Min.	26	33	33	34	29	26	32	22	21	10	7	15	17	18	24	34	35	35	26	29	29	39	32	29	39	29	45	41	30	32	45	28.9
Sibley *	Max.	..	65	70	39	43	31	34	52	31	23	27	25	22	30	40	37	46	39	31	34	53	57	51	64	60	69	77	46	..	67	75	46.1
	Min.	28	..	31	33	30	26	33	23	25	14	2	10	15	17	18	29	33	34	25	25	29	33	31	28	32	30	39	41	31	30	..	26.7
Sidney	Max.	60	69	78	66	53	43	41	50	42	36	34	31	34	44	69	68	64	66	51	40	57	68	51	71	62	71	83	73	64	75	69	57.5
	Min.	36	38	45	34	34	24	35	29	26	28	16	27	23	27	34	48	49	50	33	32	36	43	46	37	42	31	52	44	43	41	50	36.9
Sigourn'y	Max.	52	49	66	59	45	39	39	49	50	40	36	33	33	32	51	65	60	68	60	38	45	68	61	66	69	68	76	71	60	69	65	54.3
	Min.	32	30	29	34	30	29	30	25	29	20	9	23	22	23	28	35	45	54	30	27	31	33	44	32	46	37	47	58	40	37	46	33.2
Sioux C'r.	Max.	54	63	70	61	42	37	36	51	44	26	27	24	25	28	38	41	49	43	35	37	59	58	52	64	59	68	78	64	57	66	73	49.3
	Min.	29	35	39	29	28	27	33	23	28	16	16	16	18	18	25	34	35	22	28	30	33	40	31	31	41	33	48	41	32	34	45	30.1
Sioux C'y.	Max.	58	68	74	49	40	36	38	54	44	31	26	25	23	28	40	48	54	51	36	38	60	56	52	68	62	71	82	66	61	72	70	51.0
	Min.	32	37	42	34	29	27	32	52	24	15	13	18	19	21	28	34	35	36	30	31	37	38	34	34	43	38	53	42	36	44	52	32.7
Storm L*.	Max.	55	64	72	37	44	34	37	51	34	28	31	24	21	29	37	46	49	54	32	34	49	59	50	64	56	64	74	48	58	66	70	47.5
	Min.	30	30	34	34	30	27	27	23	24	16	7	8	16	16	17	26	33	36	26	25	26	32	34	32	33	33	31	45	33	33	42	27.8
Stuart	Max.	..	..	72	68	45	39	41	51	46	38	34	30	28	50	50	60	63	61	54	35	45	67	61	62	62	..	76	73	59	70	70	58.9
	Min.	..	..	39	32	32	27	35	27	32	19	10	21	20	20	21	36	46	50	32	28	31	38	40	34	43	..	35	48	36	36	48	32.7
Thurman	Max.	56	68	76	60	49	43	40	49	55	40	32	32	32	41	66	67	72	68	50	39	55	67	55	70	63	70	82	75	62	74	69	57.2
	Min.	28	30	35	35	29	34	35	29	31	25	15	27	23	26	34	44	49	50	34	33	36	45	39	29	48	32	57	45	34	36	56	35.6
Tipton	Max	45	37	50	48	39	37	35	48	50	35	34	33	31	29	43	57	57	65	53	34	48	65	58	64	63	67	68	67	..	68	68	49.9
	Min.	32	30	30	32	28	29	31	28	32	24	13	25	24	22	26	34	39	49	30	27	32	34	44	35	47	40	49	56	..	38	47	33.6
Toledo	Max.	47	47	67	59	41	33	36	48	51	37	30	29	27	28	41	53	64	67	51	35	43	70	60	66	66	69	75	71	59	69	63	51.7
	Min.	29	30	29	31	28	28	29	24	29	17	7	21	21	19	26	32	39	47	29	24	30	37	42	32	46	38	48	49	39	35	49	31.7
Vinton	Max.	45	37	52	57	46	38	..	45	45	33	28	30	28	28	40	55	62	65	59	34	41	70	65	65	64	52	70	66	57	68	68	50.4
	Min.	29	30	26	33	29	26	..	25	32	19	8	21	21	20	25	29	38	45	29	25	30	34	43	33	47	38	40	54	40	37	48	31.9
Washi'ton	Max.	44	46	66	50	44	37	36	50	52	48	53	32	29	30	53	68	61	70	52	36	46	69	56	67	67	69	76	68	59	70	72	58.4
	Min.	30	31	30	31	29	29	30	27	31	22	11	24	23	23	27	38	39	51	30	26	30	33	44	34	48	39	50	50	42	39	45	33.4
Wa-hta	Max	60	68	75	50	42	38	40	55	46	36	34	37	24	31	40	48	52	56	40	38	60	60	52	70	61	73	82	75	64	72	70	53.4
	Min.	23	27	30	34	28	23	22	20	27	14	8	18	18	13	25	33	25	38	28	28	32	42	32	28	42	30	51	44	30	32	48	29.0
Waterloo*	Max.	41	38	52	49	42	38	39	47	45	32	32	39	26	30	45	49	59	62	33	34	43	67	55	64	64	67	72	63	60	63	68	49.0
	Min.	27	29	29	32	27	23	27	24	33	19	7	8	20	18	19	28	35	38	28	25	29	30	40	32	34	36	39	47	39	32	41	28.9
Waukee	Max.	60	72	80	64	48	38	39	55	49	38	32	28	26	28	53	66	66	72	50	35	43	70	61	75	64	77	82	71	66	72	73	56.5
	Min.	32	30	36	32	28	29	29	26	30	16	9	22	20	20	27	38	46	49	32	27	32	38	41	36	48	46	36	49	30	38	50	33.3
Waverly	Max.	42	38	47	47	37	35	34	45	39	30	25	27	23	28	36	45	54	54	42	34	40	65	56	61	60	65	67	63	55	66	69	46.1
	Min.	26	30	29	30	27	24	28	31	27	16	6	7	19	18	24	31	35	39	28	25	30	36	39	30	42	35	41	49	38	34	47	29.7
Web'ter C	Max.	47	55	68	64	40	48	46	48	47	32	32	39	32	29	40	51	57	65	46	38	67	63	64	61	66	74	72	59	67	68	70	53.3
	Min.	30	29	30	30	28	12	30	25	28	15	5	20	22	19	25	32	36	36	28	26	36	37	33	38	33	43	50	31	36	36	45	30.1
Whitten	Max.	47	46	61	55	40	37	34	45	42	30	30	29	30	32

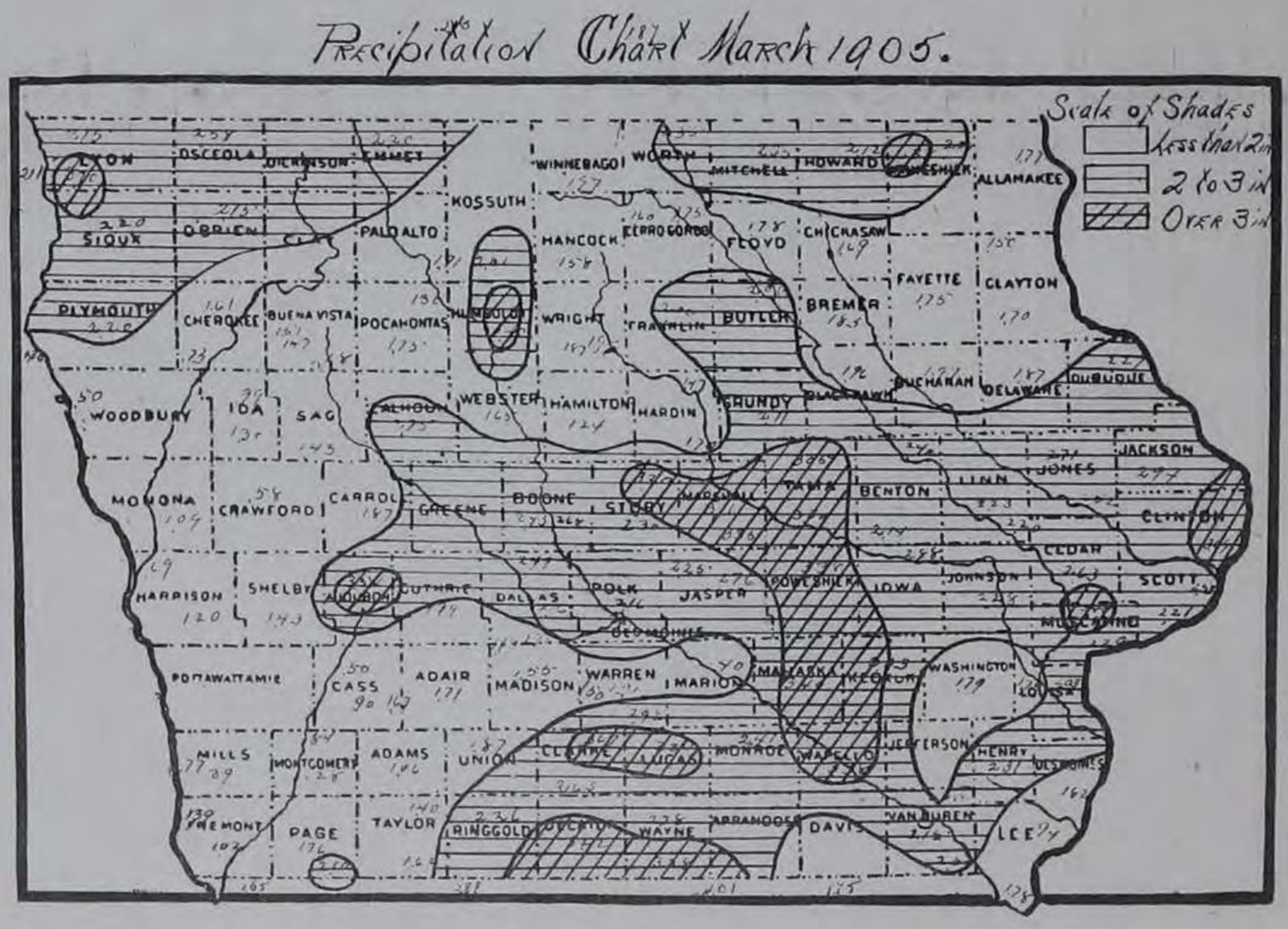
DAILY AND MONTHLY PRECIPITATION FOR MARCH, 1905.

STATIONS.	DAY OF MONTH.																													TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	....	....	....	T	....	....	....	....	....	.05	.10	....	....	.48	.47	.50	....	....	....	.13	....	....	....	....	.14	....	....	T	1.87
Albia	....	....	....	....	....	....	....	T	....	....	....	T	.08	....	....	....	.43	.07	.58	....	....	....	.44	.07	T	....	....	.74	....	....	....	2.41
Algona	....	....	....	....	....	....	T	....	....	.01	T	..	.24	.22	T	....	.43	.53	....	..	T	.12	.36	....	....	....	....	.10	....	....	....	2.01
Allerton	....	....	....	....	....	....	T	T	....	....	....	.03	T	.09	T	T	.36	.20	.51	....	....	....	.53	....	.22	....	T	1.32	....	....	.12	3.38
Alta	....	....	....	....	....	....	.03	....	....	T	.05	.05	.32	.22	.08	....	.08	.54	.05	.02	....	.05	.02	....	T	....	....	T	....	....	....	1 51
Alta [near]	....	....	....	....	....	....	.03	....	....	T	.05	.05	.32	.22	.08	....	.08	.50	.05	.02	..	.05	.02	....	T	....	....	T	....	....	....	1.47
Amana	....	....	....	....	....	....	....	....	....	....	....	.04	.13	.34	....	..	.18	.07	1.30	....	....	.07	.50	....	....	....	.03	.22	....	....	T	2.88
Ames	....	....	....	....	....	....	....	....	T	....	T	.04	.13	.33	....	....	.16	....	1.30	....	....	.26	.03	....	.05	....	....	....	....	....	....	2.30
Atlantic	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	.13	....	.07	....	T	....	.20	....	....	....	....	....	....	....	....	T	.50
Audubon	....	....	....	....	....	....	....	....	....	....	T	.10	.15	.05	..	....	.47	1.75	.84	....	....	....	.18	....	....	....	....	....	....	....	....	3.54
Baxter	....	....	....	....	....	....	....	....	....	....	.10	.30	....	....	....	....	.40	....	1.10	....	....	....	.25	....	....	....	....	....	....	....	.10	2.25
Bedford	....	....	....	....	....	....	T	....	....	....	....	T	....	.07	....	.10	.37	.06	.58	T	T	....	.32	....	T	....	....	.12	....	....	T	1.62
Belle Plaine	....	....	....	....	....	.02	.03	T	....	.02	....	.10	.25	.10	....	....	.30	....	.45	T	....	.25	.30	....	....	....	.25	.06	..	..	.01	2.14
Bonaparte	....	....	....	....	....	....	....	....	....	....	....	....	....	.03	....	....	.37	.05	.40	..	....	..	.70	....	.38	....	.10	....	....	....	....	2.03
Boone	....	....	....	....	..	T	.01	....	....	T	T	.08	.19	.28	....	....	.41	.21	.76	....	....	.32	.25	....	.14	....	....	....	..	....	....	2.65
Britt	....	....	....	....	....	....	....	....	....	.04	....	.03	.12	.25	T	....	.25	.42	....	....	T	....	.47	....	....	....	....	....	....	....	....	1.58
Buckingham	....	....	....	....	....	....	T	..	....	.04	.04	.10	.21	.20	....	....	.40	.10	1.60	T	T	.27	.05	....	T	....	....	....	....	....	.04	3.05
Burlington	....	....	....	....	....	....	T	....	....	....	..	T	.01	.09	....	....	.18	.15	.46	T	..	....	.49	....	.04	.09	.18	T	.13	..	....	1.82
Carroll	....	....	....	....	....	....	....	....	....	....	....	....	....	.60	....	..	.31	.12	.33	T	....	.09	.42	....	....	....	....	....	....	....	....	1.87
Cedar Rapids	....	....	....	....	....	....	....	....	..	....	T	.02	T	.26	.05	....	.10	....	1.15	.06	....	.06	.35	.08	....	.02	....	.08	T	....	....	2.23
Chariton	....	....	....	....	....	....	T	....	....	....	....	.10	T	T	....	T	.82	.22	.75	..	....	..	.55	....	T	T	.90	....	....	....	T	3.34
Charles City	....	....	....	....	....	.09	.04	....	....	.03	.05	.01	.26	.20	.03	..	.15	.42	.03	T	T	.18	.02	....	.27	....	T	T	....	....	....	1.78
Clarinda	....	....	..	....	....	....	T	....	....	....	....	T	....	.07	.10	....	.75	.06	.49	T	....	....	.24	....	T	....	.05	....	....	....	T	1.76
Clear Lake	....	....	....	..	....	....	T	....	....	T	....	....	.20	.25	..	....	.25	.50	....	....	T	T	.35	.05	....	....	....	....	....	....	....	1.60
Clinton	....	....	....	....	....	.01	....	....	....	.01	..	.01	.	.70	T	....	.24	.05	1.25	..	....	....	.59	....	.02	....	.10	.11	....	....	....	3.09
College Springs	....	....	....	....	....	....	....	..	....	....	....	....	....	....	....	....	.78	T	1.12	....	....	....	.20	....	T	....	T	....	....	....	T	2.10
Columbus Junct'n	....	....	..	....	....	....	....	....	....	....	....	T	.08	.12	....	....	T	T	.58	T	....	....	.90	....	.01	....	.10	T	....	....	....	1.79
Corning	....	....	....	....	....	....	T	....	....	T	....	T	T	.03	....	....	.47	.10	.24	T	.22	....	....	T	....	T	T	....	....	....	....	1.06
Corydon	....	....	....	....	....	....	....	....	....	....	....	....	.04	.06	..	..	.38	.04	75	....	....	....	.39	....	.04	....	....	1.03	....	....	.05	2.78
Cresco	..	....	..	....	....	....	.06	....	....	T	T	.01	.09	.62	.05	....	.15	.67	....	T	T	T	.20	....	.23	.04	..	....	....	....	....	2.12
Cumberland	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	.32	.4.	....	....	....	T	....	....	T	....	....	....	....	....	T	.90
Davenport	..	....	....	....	....	T	T	....	....	T	....	T	.20	.30	....	....	.13	.30	.66	T	....	....	.45	....	.01	....	.11	.02	.03	....	....	2.21
Delaware	....	....	....	....	....	....	T	....	....	T	....	....	.17	.30	....	....	.20	.14	.40	....	....	....	.58	....	.04	....	....	.04	....	....	T	1.87
Decorah	....	....	....	....	....	....	.22	....	....	T	T	.04	.20	.56	T	.10	.26	.53	T	T	.03	T	.06	....	.09	....	....	....	....	....	....	2.09
Denison	....	....	....	....	....	T	.04	....	....	....	.10	.05	.02	.02	....	T	....	....	.27	....	....	.04	.04	....	....	....	....	....	....	....	....	.58
Des Moines	....	....	....	....	....	T	T	....	....	T	.08	.08	.09	.04	.02	..	.30	1.32	T	T	T	.23	T	..	T	....	....	.01	..	....	.04	2.16
De Soto	....	..	....	....	....	....	....	....	....	....	....	.10	.10	T	.22	.40	....	.38	.54	....	..	....	.16	....	....	....	....	....	....	....	....	T	1.90
Dows	....	....	....	....	....	T	.03	..	....	.03	....	.05	.30	.20	T	....	.08	.27	.23	....	....	.05	.40	....	.30	....	....	....	....	....	T	1.94
Dubuque	....	....	....	....	....	T	....	....	....	.01	.02	.02	.33	.39	.02	....	.10	.26	.54	T	....	....	.57	....	T	....	T	.01	....	....	T	2 27
Earlham	....	....	....	....	....	....	..	....	....	....	....	.10	.16	....	....	....	.52	.34	.48	..	....	....	.18	....	T	....	....	....	....	....	T	1.78
Elkader	....	....	....	....	....	....	.05	....	....	T	..	.08	....	.65	T	....	.17	.22	.15	..	T	....	.30	....	....	....	....	....	....	....	.08	1.70
Elliott	....	....	....	....	....	....	....	....	....	....	....	T	.01	T	T	....	.29	.28	.19	T	....	.07	T	....	T	....	....	....	....	....	....	.84
Estherville	....	....	....	....	....	..	T	....	....	T	T	.08	.03	.20	.10	.28	.08	1.00	.28	..	....	.05	.10	....	....	....	....	....	T	....	....	2.20
Fayette	....	....	....	....	....	T	.11	....	....	T	T	.12	....	.66	.03	..	.28	.06	.18	....	..	T	.12	....	.17	....	....	.02	....	....	T	1.75
Florence	....	....	....	....	....	....	.10	....	..	.13	....	.06	.14	.16	.20	....	.37	.19	.12	....	....	.12	.10	....	.18	....	....	....	....	....	....	1.87
Forest City	T	....	....	....	....	....	..	....	....	T	....	.10	....	.60	T	..	.20	.50	.10	....	....	....	.47	....	....	....	....	....	....	....	....	1.97
Fort Dodge	....	....	....	....	....	....	....	T	....	....	..	.05	.10	.30	T	....	.60	.30	.02	....	....	T	.28	....	....	..	....	....	....	....	....	1.65
Fort Madison	....	....	....	....	....	....	T	....	....	....	....	....	....	T	....	....	.28	....	.20	..	....	....	.27	....	....	....	T	.19	....	....	....	.94
Galva	....	....	....	....	....	....	....	T	....	T	T	.05	.30	T	.28	....	....	T	.20	.08	....	.07	.01	....	T	....	T	....	....	....	....	.99
Gilman	T	T	T	....	....	....	....	..	....	T	T	T	.20	T	T	....	.52	T	1.60	.55	....	.19	.26	..	T	....	.03	T	..	....	T	3.35
Glenwood	....	....	....	....	....	....	T	....	....	....	T	T	T	....	T	T	.20	.09	T	T	....	.10	....	....	T	....	....	....	....	....	....	.39
Grand Meadow	....	....	....	....	....	.18	....	....	....	.05	....	.03	..	.80	....	....	.03	....	.06	....	.03	T	.13	....	.09	....	....	T	....	....	T	1.50
Greene	....	....	....	....	....	....	.20	....	....	T	T	.03	.12	.31	....	....	.18	.47	.20	....	.02	.13	.20	....	.20	....	....	....	....	....	....	2.06
Greenfield	....	....	....	....	....	T	....	....	....	....	....	.06	.10	.09	.15	....	.48	.11	.39	T	....	....	.24	....	T	....	....	.09	....	....	T	1.71
Grinnell	....	....	....	....	....	....	....	....	....	T	T	.04	.18	.50	....	....	.52	.96	.54	....	T	....	.44	....	T	....	.06	.13	....	....	.01	3.38
Grundy Center	....	..	....	....	....	....	....	....	....	T	T	.10	.20	.30	.04	....	.28	.12	1.46	....	.01	.07	.11	..	.02	....	....	....	....	....	T	2.71
Guthrie Center	....	....	....	....	....	T	T	....	....	....	T	.12	.28	.12	.04	.01	.50	.15	.52	T	....	.01	.15	....	.09	....	....	....	....	....	....	1.99
Hampton	....	....	....	....	....	.08	..	....	T	....	.07	....	.40	.	....	.12	....	.65	....	T	....	.40	....	....	.34	....	....	....	....	....	T	2.06
Hanlontown	....	....	....	....	....	T	T	....	....	T	....	.40	.40	.10	.05	....	.29	.58	....	..	T	.03	.42	....	.08	..	....	....	....	....	....	2.35
Harlan	....	....	....	....	....	T	T	....	....	..	T	.10	.12	.03	....	....	.28	.03	.65	T	....	.20	.02	....	T	....	T	....	....	....	....	1.43
Hopeville	....	....	....	....	....	....	....	....	....	....	.01	.02	.10	..	.02	....	.60	.30	.45	....	....	....	.58	....	.01	....	....	.41	....	....	.13	2.63
Humboldt	....	....	....	....	....	....	....	....	....	1.10	....	1.10	....	....	....	....	.40	.25	.04	....	....	.05	.46	....	....	....	....	....	....	....	....	3.40
Ida Grove	....	....	....	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	.80	....	....	....	....	.30	..	....	....	....	1.30
Independence	....	....	....	....	....	....	.01	....	....	T	....	.10	....	.60	T	....	.25	.30	.20	..	....	T	.50	....	T	....	....	....	....	....	.01	1.97
Indianola	....	....	....	....	....	....	T	....	....	T	....	.06	.16	T	.05	....	.04	.06	1.08	....	....	....	.23	....	T	....	....	.13	....	....	.10	1.90
Inwood	....	....	....	....	....	T	....	....	....	....	.10	....	.30	....	T	....	.05	3.00	....	T	....	.25	....	....	....	....	....	T	....	....	....	3.70
Iowa City	....	..	..	....	....	T	T	....	....	....	T	T	T	.12	....	....	.38	.05	.92	..	....	.04	.42	.26	..	T	....	T	.09	....	....	2.28
Iowa Falls	....	....	....	..	....	....	T	T	....	....	.02	.04	.03	.15	.20	T	.17	.23	.25	.02	.01	.08	.17	....	....	.15	..	..	....	....	....	1.47
Keokuk	....	....	....	....	....	T	T	....	....	....	....	T	....	.06	..	....	.36	.05	.21	.04	....	....	.44	..	.22	....	.19	.20	.01	....	....	1.78
Keosauqua	....	....	....	....	....	....	....	....	....	....	....	....	T	T	.03	....	.27	.27	.46	T	T	....	.41	....	....	.56	....	.13	.02	....	....	2.15
Lacona	....	....	....	....	....	....	..	....	....	..	....	.07	.06	.13	....	....	.42	.38	.03	.57	....	.60	....	....	....	....	.27	.31	....	....	.08	2.92
Lansing	....	....	....	....	....	....	.10	....	....	....	....	....	T	.40	.25	....	.13	.66	.05	....	T	....	....	....	.18	..	....	....	....	....	....	1.77
Larrabee	....	....	....	....	....	T	T	....	....	T	.07	.12	.20	T	.02	....	....	1.12	....	T	T	T	T	....	.08	..	....	T	....	....	....	1.61
Lenox	....	....	....	....	....	....	....	....	....	....	....	.03	.01	.13	....	.03	.60	.07	.18	..	....	....	.28	....	....	....	....	.07	....	....	T	1.40
Le Claire	....	....	....	....	....	....	T	T	....	....	..	T	....	.41	..	..	T	.19	1.10	.02	....	..	.21	.19	....	.12	....	.15	T	....	....	2.53
Little Sioux	....	....	....	....	..	....	.08	....	....	....	T	.05	.12	.12	.04	....	.10	.18	T	....	....	....	....	....	....	....	....	....	....	....	....	.69
Le Mars	....	....	..	....	....	....	....	....	....	....	T	T	.30	.15	.55	....	....	1.20	....	T	....	....	....	....	....	....	....	T	....	....	....	2.20
Leon	....	T	....	....	....	..	....	....	....	....	....	.03	....	....	....	....	.85	.18	.31	....	T	....	.60	....	.25	....	....	.93	....	....	.07	3.22
Logan	....	....	....	....	....	....	T	..	....	....	....	T	.20	T	T	.57	.10	.27	.04	....	....	....	....	....	.02	....	....	....	....	....	....	1.20
Maquoketa	....	....	....	....	....	T	....	T	....	T	.01	.01	....	.50	.15	....	.05	.08	1.26	.08	....	....	.39	.23	....	.09	....	.07	.02	....	....	2.94
Marshalltown	....	....	....	....	....	....	....	T	....	T	....	.07	.08	.54	.08	.03	.32	.07	1.55	....	T	.10	.21	....	....	.02	....	.04	....	....	....	3.11
Mason City	....	....	....	....	....	....	T	..	....	....	T	T	.52	....	....	....	.22	.28	....	....	....	.15	.35	....	.23	....	....	....	....	....	....	1.75
Massena	....	....	....	....	....	....	..	....	....	....	....	.10	.10	....	....	....	.63	.15	.45	T	....	....	.20	....	.04	....	....	....	....	....	....	1.67
Muscatine	....	....	....	....	....	....	....	....	....	....	....	T	T	.15	.06	T	.02	.04	.78	.08	....	....	.47	.44	....	.05	....	.12	.04	....	....	2.20
Monticelo	....	....	..	....	....	....	.03	....	....	.04	....	....	....	.62	....	....	....	.20	1.03	....	....	....	.55	.16	....	....	.08	....	....	....	....	2.71
Mt. Vernon	....	....	....	....	T	T	T	....	....	.02	....	.05	.06	.45	....	....	.15	.07	.75	....	....	.02	.61	....	.01	....	.01	T	....	....	....	2.20
Mount Ayr	....	....	....	....	....	....	T	....	....	....	....	.02	T	.05	....	.03	.60	.20	.30	.03	.03	....	.30	....	T	....	....	.56	....	....	.14	2.26
Mt. Pleasant	....	....	....	....	....	....	....	....	....	....	....	T	.07	.08	....	....	.23	.01	.73	T	....	....	.80	.03	.15	.10	....	....	.11	..	....	2.31
New Hampton	....	....	....	....	....	....	.14	....	....	T	T	.05	.10	.42	....	....	.17	.42	.12	....	T	....	.10	....	.15	.02	....	....	....	....	....	1.69
Newton	....	....	....	....	....	....	....	....	..	....	....	.09	.11	.21	....	....	.70	....	1.20	....	....	....	.35	....	....	....	....	.10	....	..	T	2.76
Odebolt	....	....	....	....	....	....	....	....	....	....	....	.15	.32	.25	....	.20	....	.40	....	....	....	.08	.03	....	....	....	....	....	....	....	....	1.43
Ogden	....	....	....	....	....	....	....	....	....	....	....	.07	.18	.15	....	....	.96	.11	.61	....	....	.20	....	....	.20	....	....	....	....	....	....	2.43
Olin	....	....	....	....	T	.01	.02	....	....	T	....	.08	.20	.35	....	....	....	.35	.50	....	....	....	1.00	....	T	....	.01	....	....	T	....	2.52
Omaha, Neb	....	....	....	....	....	T	.01	....	....	T	T	.10	.06	.02	.01	.32	.02	.08	.02	.01	T	T	..	....	.05	....	T	T	....	....	T	.70
Onawa	....	....	....	....	....	....	.03	....	....	....	.05	.10	.30	.25	.08	....	.10	.16	T	....	....	.02	....	....	T	....	....	....	....	....	....	1.09
Osage	....	....	....	....	....	....	.04	....	....	.03	.02	.03	.11	.56	.04	.01	.19	.58	....	....	.02	.02	.31	....	.39	....	....	....	....	....	....	2.35
Oskaloosa	....	....	....	....	....	....	....	....	....	....	....	.50	.50	T	....	.39	....	.35	.65	....	....	....	.50	....	....	....	.05	.49	....	....	.06	3.49
Ottumwa	....	....	....	..	....	..	....	....	....	....	....	T	....	....	....	....	.45	....	1.85	....	....	....	T	....	....	....	.04	1.04	....	....	....	3.38
Pacific Junction	....	....	....	....	....	....	T	....	....	T	....	.04	.03	.10	....	.28	....	.12	.04	....	....	.12	....	....	.04	....	....	....	....	....	....	.77
Perry	....	....	....	....	....	....	T	....	....	....	T	.10	.25	.05	....	....	.83	1.05	....	..	....	T	.21	..	T	....	....	....	....	....	....	2.49
Plover	....	....	....	....	....	....	....	....	..	.10	....	.10	.12	.15	.08	....	.17	.23	....	....	....	.08	.19	....	....	....	....	.08	....	....	....	1.30
Pocahontas	....	....	....	....	....	.30	.02	....	....	.05	....	.09	.18	.21	.02	....	.40	.44	....	T	....	.03	....	.10	T	....	....	.18	....	....	....	1.75
Red Oak	....	....	....	....	....	....	....	T	....	....	....	T	.10	T	.15	....	.39	.06	.86	T	....	....	.22	....	....	T	....	....	....	....	....	1.28
Ridgeway	....	....	....	....	....	.20	.30	....	....	.01	.08	....	.28	1.27	.05	....	.26	.55	....	....	.01	.18	....	....	.28	....	....	.01	....	....	....	3.38
Rock Rapids	....	....	....	....	....	T	T	....	....	.15	.10	.10	.20	....	T	.50	T	.50	T	....	T	.60	....	....	....	....	....	....	T	....	T	2.15
Rockwell City	....	....	....	....	....	....	....	....	....	....	....	T	.30	.50	....	....	1.00	.25	....	....	....	.45	.25	....	....	....	....	....	....	....	....	2.75
St. Charles	....	....	....	....	....	....	....	....	....	T	....	.08	.16	.13	.12	....	T	.54	.37	.02	....	....	....	....	T	....	....	.07	....	....	.02	1.50

DAILY AND MONTHLY PRECIPITATION FOR MARCH, 1905--Continued.

STATIONS.	DAY OF MONTH																													TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sheldon	...	...	....	....	....	....	T	....	....	.05	....	.12	....	.45	.25	.13	.09	.95	....	....	.02	.04	....	....	....	....	....	.05	....	....	...	2.15
Sibley	....	....	....	....	....	....	T	....	...	.01	....	.08	.05	.20	....	...	.54	1.25	.36	....	.01	....	.08	....	....	....	....	....	....	....	....	2.58
Sidney	....	....	....	....	....	....	....	....	....	....	...	T	....	....	....	.59	.28	.07	....	....	....	.04	....	....	.04	..	....	....	....	....	....	1.02
Sigourney	....	....	....	....	....	..	....	....	....	....	....	....	.16	.14	....	....	.55	T	1.52	....	....	....	.56	....	T	....	.05	.35	....	....	....	3.33
Sioux Center	...	....	....	....	....	T	....	....	....	.05	.20	T	.20	....	.65	....	....	1.02	....	T	....	.08	....	....	T	..	..	T	....	....	....	2.20
Sioux City	....	....	....	....	....	....	T	....	....	....	.08	.14	.21	.05	.23	..	.04	.65	.01	....	....	T	T	....	T	....	....	T	..	....	....	.50
Stockport	....	....	....	....	....	..	....	....	....	....	....	....	....	T	....	....	....	.30	.52	....	....	....	.71	....	.27	..	.17	T	.08	....	....	2.00
Storm Lake	....	....	....	....	....	....	....	....	....	....	T	.05	.18	.23	.06	....	.13	.36	.09	T	T	....	T	....	....	T	....	.08	....	....	....	1.18
Thurman	....	..	....	....	....	..	.15	....	....	T	....	T	T	.02	T	.08	.40	.62	T	T	....	.04	....	....	.08	....	....	T	....	....	T	1.39
Tipton	....	....	....	....	....	....	....	....	....	....	....	T	....	.40	....	....	.05	.14	1.30	....	....	.06	.64	..	.04	....	....	....	....	....	....	2.63
Toledo	...	....	....	....	...	....	....	....	....	T	....	T		.30	....	....	.30	.10	1.75	....	....	.10	.40	....	T	....	.20	.10	...	....	.05	3.30
Vinton	....	....	....	....	....	....	....	....	....	....	....	....	.30	.06	....	..	.13	.06	1.60	....	....	....	.25	....	....	..	....	....	....	....	....	2.40
Washington	...	....	....	....	....	....	....	....	....	....	....	....	....	.22	....	....	.09	....	.88	....	....	....	.55	....	....	....	.05	....	....	....	...	1.79
Washta	....	....	....	....	....	....	....	....	....	T	T	.10	.30	T	T	T	.08	.25	T	....	....	....	....	....	....	....	....	T	....	....	....	.73
Waterloo	....	....	....	....	....	....	.10	....	...	T	....	.07	.13	.46	..	....	.37	.13	.52	....	.06	..	.10	....	....	.02	T	....	....	....	T	1.96
Waukee	....	....	....	...	....	....	....	....	....	....	....	.05	.15	.10	.10	....	.27	.59	.75	....	....	....	.15	....	T	....	....	....	....	....	T	2.16
Waverly	....	...	....	....	....	....	.07	....	....	T	....	.10	.20	.40	.10	....	.17	.29	.28	. .	....	.07	.08	....	.07	....	....	....	....	....	...	1.83
Webster City	....	....	....	....	....	....	....	....	....	....	....	....	.30	...	T	....	.45	.11	....	....	.10	.24	..	.04	....	....	....	....	....	..	....	1.24
Whitten	....	....	....	....	....	T	....	....	....	T	....	.10	.10	.60	T	....	..	T	.75	....	....	.15	....	....	T	....	....	T	..	....	....	1.70
Wilton Junction	....	....	. ..	....	....	....	....	....	....	....	....	.10	.20	.35	....	....	....	....	1.65	....	....	....	.90	....	....	....	.20	T	....	....	....	3.40
Winterset	....	....	....	....	....	....	....	....	....	....	....	....	.20	T	T	....	T	T	1.10	..	....	....	.25	..	T	....	....	T	....	....	T	1.55
West Bend	....	....	....	....	...	T	T	....	....	.05	.08	T	.30	T	.04	.43	....	.63	....	....	T	.10	.12	....	T	....	....	.02	....	....	....	1.71
Woodburn	....	....	....	....	....	....	T	....	....	....	....	....	.05	.02	.03	....	.64	....	1.75	....	....	....	.54	....	.03	....	.07	.48	....	....	.06	3.67
Zearing	....	....	....	....	...	....	T	....	....	T	....	.05	.31	.41	..	....	.30	.65	1.10	....	T	.15	.23	..	T	....	....	....	....	....	....	3.20

T. Amount too small to measure.



APRIL, 1905. No. 4



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Harlan	H. B. Kees
Humeston	Hon. S. H. Moore
Independence	Geo. H. Wilson
Indianola	H. D. Guthrie
Ireton	J. M. Sherman
Long Grove	Hon. Chris Marti
Manson	J. D. Skinner
Marshalltown	Hon. S. B. Packard
Mt. Pleasant	W. S. Wright
Milton	Hon. E. C. Holland
Monroe	J. A. Dibel
Nevada	Geo. C. White
Northwood	T. L. Bolton
Orange City	H. J. Vande Waa
Pella	J. H. Ver Steeg
Pittsburg	G. C. Duffield
Portland (Nora Springs, P. O.)	Arthur Pickford
Platte (Creston R. D.)	M. H. Dibel
Red Oak	Hon. C. L. Stratton
Rock Rapids	D. E. F. Merrill
Seymour	L. B. Sager
Shenandoah	Reuben Mullison
State Center	E. P. Thompson
Stuart	W. W. Bailey
Toledo	W. G. Malin
Van Horne	Spencer Smith
Waukon R. D.	T. B. Wiley
Weldon	Ed Worden
Winterset	H. A. Kinsman
West Branch	Wrigley Smith
West Union	A. B. Blackman
Wilton	Thos. Boot
Wiota	I. S. Coomes
Woodward	George Swisher

U. S. DEPARTMENT OF AGRICULTURE—WEATHER BUREAU.

MONTHLY REVIEW

OF THE

Iowa Weather and Crop Service.

VOLUME XVI. APRIL, 1905. No. 4.

APRIL WEATHER AND CROPS.

April was characterized by unusually variable temperature, the maximum for the state being 90° at Clarinda on the 9th, and the minimum 10° at Inwood and Sibley, on the 14th. The mean for the state was 47.5°, which is 1.8° below the April average. Severe frosts occurred in every week of the month, causing much apprehension for the safety of fruit buds; but they were generally not far enough advanced to suffer damage, except the earliest varieties in the southern section, which were injured slightly. The rainfall was below normal in the northern section, and somewhat above normal in the central and southern sections. In portions of the southern section excessive moisture retarded plowing for corn and general field work in the latter half of the month.

In the larger part of the state conditions were favorable for early seeding of wheat, oats and barley, and these crops were mostly sown before April 15th. Germination was retarded by cool weather. There was little hindrance to field work, except in localities where the rainfall was heaviest, and clay subsoil retained the moisture. At the close of April the season was still somewhat earlier than the average of recent years in respect to the growth of grasses and foilage, and much more than the usual amount of plowing and harrowing had been done preparatory to planting corn. Reports have been received of the beginning of corn planting during the last three days of the month. The soil was never in better tilth for planting than it was on May 1st, though the cool weather served to delay that work.

NOTES AND COMMENTS.

In New York May day was ushered in with snow and hail at various places, and the temperature was near the freezing point.

March was relatively much warmer than April. The temperature was 9.1° above normal in the former, and 1 8° below normal in the latter month. So irregularity is the regular thing in the weather, sometimes.

Consul-General Williams, of Singapore, states that the Philippines contain 400,000,000 acres of valuable woods, there being 450 varieties. Mr. Williams declares that in ten years we will be able to get all the gutta-percha and rubber we can use from the Philippines.

Given a wheat crop of 748,000,000 bushels, an amount equal to that gathered in 1901, and 200,000,000 bushels larger than that of 1904, it would seem possible that a good share of this country's export trade in wheat and flour would be regained. It seems reasonable, in fact, to expect that with present crop prospects the United States will contribute largely to the world's breadstuffs supply in 1905-06; if not in the form of wheat, then in the form of flour, which allows of the American miller getting a profit from the wheat, which some years ago went abroad largely in the form of grain.—*Bradstreet's.*

The next fifty years will mark a return to canal building and river and harbor improvement as a necessary means of conserving the national wealth. The appropriation of $100,000,000 in New York to enlarge the Erie Canal betokens the public interest in securing adequate facilities of water transportation. The appropriation of $375,000 by Pennsylvania for the improvement of the Delaware river to hasten the completion of the work of the general government in deepening the channel is an intelligent and encouraging indication of the trend of popular opinion. Our great rivers are great natural opportunities. They offer a willing service. It is stupidity not to avail ourselves of the offer.—*Philadelphia Record.*

A WEATHER WAGER.

A Los Angeles, California, dispatch dated May 3, 1905, says: Charles Hatfield, a "rainmaker," who has been working since December 15th last to produce eighteen inches of rain for southern California by May 1st, on the pledge of a number of merchants to pay him $1,000 if he succeeded, has completed his demonstration and been paid a large proportion of the sum promised.

Those merchants of Los Angeles are extremely "easy." They wagered $1,000 against nothing, and the fakir who put up no stake won their pile. It is to be hoped that those liberal merchants will use some of that eighteen inches of rainfall in getting their heads soaked. Their craniums certainly need tightning up a little.

SUN SPOTS AND EARTHQUAKES.

[New York Tribune.]

A French astronomer, Abbe Moureux, believes that such terrestrial phenomena as earthquakes and volcanic eruptions are caused by those solar disturbances of which the sun spot is a manifestation. He is supposed to attribute the severe shock

which involved the loss of fifteen thousand lives in India a few weeks ago and minor tremblings elsewhere since the close of January to the exceptional solar activity which has been observed during the past three months. Indeed, so convinced was he that trouble was impending that he published predictions as long ago as February 9th.

If this theory should be well founded it should be possible to find corroboration by comparing records for thirty or forty years. At the maximum stages of three or four eleven-year sun spot cycles there should be a greater number of shocks and eruptions than usual, and at the minimum stages less than the average. A reasonably close correspondence of that sort should be discovered before much faith is placed in the supposed relationship. A few coincidences such as may have been noted since the opening of 1905 hardly count for much. They might be accidental and without real significance.

After a prima facie case had been established by statistics it would still be necessary to indicate the method by which solar influence was exerted. Perhaps the most plausible guess would be that magnetism or electricity was the agent; but to demonstrate conclusively how that force operated would be difficult. A temporary derangement of telegraphic service by the generation of earth currents, a curious trembling of obser atory magnets which are lightly poised and a display of the aurora borealis are common accompaniments of great solar outbreaks, but none of them involve the exercise of anything but an infinitesimal amount of mechanical force. It taxes the imagination severely to suggest a magnetic explanation of the displacement of millions of tons of solid material. Although the notion that lunar attraction might distort the earth's crust at the times when it raises the highest ocean tides is now pretty well discredited, it certainly had more to recommend it than a belief that there is any connection between the disturbances of which sun spots are symptoms and the shaking of thousands of cubic miles of rock.

One is not tied down to magnetism in the search for the intermediate mechanism, to be sure, and if anybody can propose a better hypothesis he can anticipate a respectful hearing. Until it is found, and until Abbe Moreaux is able to reinforce his interesting conjectures with at least a quarter of a century of history, he will find few followers.

STORY OF AN OLD TIME TORNADO.

The following article describing the tornado which destroyed the town of Camanche, Iowa, and caused desolation in its track for scores of miles across this state, on June 3, 1860, has been copied from the files of the Clinton Herald of June 9, 1860:

The storm, which occurred on Sunday, June 3d, will be remembered as long as there is a settler left of that date, as the great tornado. A strip of ground varying in width from twenty rods to a mile and extending from Cedar Rapids to Lake Michigan, leaving not a fence, nor tree, nor dwelling house, nor scarcely a living thing as withstanding its fury was the scene.

The storm had passed by Clinton, although far to the east the skies were black and threatening. The air was soft and balmy and the stars were beginning to shine, when a horseman dashed into the Main street and without scarcely drawing rein, cried: "Camanche is destroyed by a tornado and half the inhabitants are buried in the ruins; send down all your doctors and materials to dress the wounded." Immediately every vehicle in Clinton and Lyons was put in use and all available cars in the railroad yards were filled with supplies for the stricken people.

It was with great difficulty that the doctors could pick their way through the scattered debris, the crie of the wounded, the lamentations of those who were bereaved adding horror to the scene. All night the work continued, the dead, twenty-six in number, being tenderly laid at one side and special care being given to the wounded of whom there were more than 150.

There were in the beginning two storms starting west of the Cedar River and about twelve miles apart. Proceeding in separate and well defined courses until they reached the Wapsipincion river they united twenty-three miles west of the Mississippi and advanced with great rapidity. To those who watched its on-coming it was at first in appearance a threatening cloud which gradually assumed the form of a writhing serpent accompained by a roar greater than of a mighty Niagara. Beginning just west of the Cedar River the work of destruction spread over the farm house and field and through the towns of Lisbon, Onion Grove, Louden, Wheatland, Rogers Settlement, Mt. Vernon and De Witt, the latter place being not three miles from the center of the storm.

Albany, Illinois, had at that time about seven hundred inhabitants and although the loss of life was smaller than at Camanche, nearly every home was wrecked.

Instances of the storm which lasted but two or three minutes in one section, are replete with gruesome details, for during that period a village of nearly twelve hundred inhabitants was destroyed. All that remained of the contents of many houses could be put into one room twelve feet square, the rest of the furniture, clothes and bedding must have been blown into the river. A plank two inches thick effectually closed the door of Waldorf's new hotel by being driven through the door and the floor of the building in a slanting direction and sticking out, one end through the door, the other through the floor.

The first story of a building was blown out and the second story set down upon the foundation almost uninjured. Horses and cows were carried through the air at a height of twenty feet and for a distance of 200 rods.

A raft was passing down the river with twenty six persons upon it. But three of those survived and they found themselves upon the Illinois shore, not knowing how they reached there, whether through the air or the water. Near Bertram, Linn county, a man was seen carried in the vortex of the storm and afterwards a mutilated body was found three miles and a half from Bertram.

NOTES ON THE CORN CROP AT RIDGEWAY, IOWA.

BY ARTHUR BETTS, CROP REPORTER.

Year.	In Tassels.	Silks.	Crop Safe.	First Killing Frost.
1898	July 8	July 22	September 2	October 6
1899	July 14	July 28	September 8	September 29
1900	July 13	July 27	September 7	October 8
1901	July 19	August 2	September 13	October 4
1902	July 25	August 1	September 19	October 14
1903	July 17	July 31	*September 18	September 18
1904	July 22	July 29	September 23	October 6
Average	July 17	July 29	September 13	October 4

* 20 per cent needed another week.

CLIMATOLOGY OF THE MONTH OF APRIL, 1905.

BAROMETER.—Mean pressure, 29.95 inches; highest observed, 30.47 inches, at Sioux City and Dubuque, on the 16th and 23d; lowest observed, 29.47 inches, at Keokuk on the 20th; range for state, 1.00 inch.

TEMPERATURE.—The monthly mean temperature of the state as shown by records of 123 stations, was 47.5°, which is 1.8° below normal. By sections the mean temperatures were as follows: Northern section, 45.3°, which is 2.0° below normal; central section, 47.5°, which is 1.3° below normal; southern section, 49.6°, which is 2.6° below normal. The highest monthly mean was 52.6° at Keokuk; lowest monthly mean, 42.9° at Sibley. The highest temperature reported was 90°, at Clarinda on the 9th; lowest temperature reported, 10°, at Inwood and Sibley on the 14th. The average monthly maximum was 79.3°; average monthly minimum, 19.5°. Greatest daily range, 58°, at Iowa City; average of greatest daily ranges, 40.7°.

PRECIPITATION.—Average precipitation for the state, as shown by records of 135 stations, was 3.03 inches, which is 0.14 of an inch above normal. The averages by sections were as follows: Northern section, 2.09 inches, which is 0.53 of an inch below normal; central section, 3.07 inches, which is 0.17 of an inch above normal; southern section, 3.94 inches, which is 0.83 of an inch above normal. The largest amount reported was 5.49 inches at Leon; least amount reported, 0.63 of an inch, at Sibley. The greatest daily rainfall reported was 3.25 inches at Ottumwa on the 20th. Average number of days on which .01 of an inch or more was reported, 8.

WIND AND WEATHER.—Prevailing direction of the wind, northwest; highest velocity reported, 54 miles per hour, from the north, at Sioux City, on the 3d. Average number of clear days, 12; partly cloudy, 8; cloudy, 10.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	29.94	30.41	23	29.58	28
Davenport	29.92	30.43	23	29.49	28
Des Moines	29.95	30.40	23	29.55	9
Dubuque	29.94	30.47	23	29.49	28
Omaha, Neb	29.95	30.47	16	29.40	20
Keokuk	29.93	30.42	23	29.47	10
Sioux City	29.99	30.47	16	29 62	26
Means	92.95	30 47	16.23	29.47	20

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	6.474	32	NW	4
Davenport	6.109	36	NW	29
Des Moines	6.554	31	NE	13
Dubuque	5.685	32	NE	20
Keokuk	6.390	36	W	10
La Crosse, Wis	6.075	28	N	3
Omaha, Neb	7 456	44	N	13
Sioux City	9.689	54	N	3

OBSERVERS' NOTES.

AMANA—*C. Schadt.* Weather was favorable for farm work, and the season about two weeks early; at close of month plums and cherries were in full bloom.

BONAPARTE—*B. R. Vale.* A cool wet and backward month; no preparation for corn planting except plowing sod; grass started nicely in March. Rainfall, 4.60 inches.

BRITT—*Geo. P. Hardwick.* Vegetation started early but was checked by cool weather; grain was put in in fine condition; pastures good at end of month.

CHARITON—*C. C. Burr.* Season is ten days earlier than average; fruit trees covered with bloom; plums and strawberries badly injured by frost.

CLINTON—*Luke Roberts.* April temperature was normal and rainfall .75 of an inch in excess; low temperature on the 5th, 6th, 7th, 15th, 16th and 17th checked growth of vegetation; month lost some of the advantages it had at outset, but the season is not discouraging.

CRESCO—*L. G. Krumm.* Considerable snow fell on night of 3d; also on afternoon of 13th. Early sown oats made thin stand.

CRESTON—*W. L. Gaston* Robins were with us from the first of month; box elder trees showed leaves on 5th; hail did some damage to fruit trees and gardens.

ELLIOTT—*Henry Barnes.* April 30th, apples cherries and plums in bloom; recent rains started growth of grass and grain.

FLORENCE—*J. H. DuBois.* Some corn planted April 28th and 29th; good stand wheat and oats.

FOREST CITY—*J. A. Peters.* Heavy frost and ice on 29th; small grain and grass looking good.

GRAND MEADOW—*F L. Williams.* Month favorable for farm work and much ground ready for planting at end of month; pastures good.

HANLONTOWN—*Miss G. M. Paschen.* Early sown oats up the 20th; grass made rapid growth last few days of month.

HUMBOLDT—*H. S. Wells.* About the usual acreage of corn will be planted as last year; a little more wheat sown than recently.

IDA GROVE—*Dr. J. E. Conn.* An unusually cool April, but small grain and pastures made good progress.

INWOOD—*G. M. Larson.* All seeding done and plowing for corn commenced; too cool for growth of crops.

LITTLE SIOUX—*Geo. H. Gibson.* Fruit suffered but little from freezing on the 14th; moisture sufficient, but warmer weather is needed for grain and grass.

MONTICELLO.—*A Mattheisen.* Grass and grain coming finely; farmers are two weeks ahead in work compared with last year.

NORTHWOOD.—*C. H. Dwelle.* Some early sown grain has been reseeded; rain needed.

OLIN.—*N. Potter.* All fruit safe from frost; pastures more than an average.

RIDGEWAY—*Arthur Betts.* A nice month; 264 hours sunshine, or 65 per cent; crops are looking fine; soil did not freeze over 8 inches in depth last winter.

SHELDON—*A. W. Beach.* Farm work well advanced; early gardens damaged by freezing on morning of 30th.

WAUKEE—*E. J. Leonard.* Month generally backward; frost hindered growth of small grain; fall wheat is looking well.

ERRATA IN FEBRUARY REVIEW.

HANLONTOWN.—Total snowfall recorded 7.5 inches on page 7, should have been 17.5 inches.

HARLAN.—Mean temperature recorded 12.6° on page 8, should have been 12.4°.

BELATED REPORTS.

NORTHWOOD.—March; mean temperature 37.0°; highest 65° on the 27th, 28th and 31st; lowest, 1° on the 11th; greatest daily range, 35°; total precipitation, 2.35 inches; greatest in twenty-four hours, .70 of an inch; total snowfall, 8.5 inches; prevailing direction, southeast; number of clear days, 4; partly cloudy, 10; cloudy, 17; rainy, 6.

CEDAR RAPIDS.—February; daily precipitation on 14th, page 11, recorded blank, should have been .22 of an inch; total precipitation recorded, 1.10 inches on pages 8 and 11 should have been 1.32 inches; total snowfall recorded 18.8 inches on page 8, should have been 21.5 inches; number of rainy days recorded, 7 on page 8, should have been 9.

CLIMATOLOGICAL DATA FOR APRIL, 1905.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Algona	Kossuth	1,213	28	45.7	- 2.6	76	1,8	14	14	33	2.08	- .48	.92	1.5	7	7	14	9	NW	20
Alta	Buena Vista	1,513	14	44.8	- 2.8	79	8	17	14	40	2.52	- .72	1.48	1.0	10	7	12	11	NW	20, 30
Alta (near)	Buena Vista										2.69		1.51	1.5	9					
Britt	Hancock	1,236	8	44.8	- 2.0	75	1,8	13	14	39	2.21	† .14	.82	0.7	8	2	21	7	NW	1
Charles City	Floyd	1,015	18	44.6	- 4.1	72	1	18	14	33	1.99	- .55	1.38	1.0	7	8	11	11	NW	3, 9, 20
Clear Lake	Cerro Gordo	1,241	7	46.2	- 1.5	72	1,8	18	14	37	1.15	- .76	.60	1.0	4	10	11	9	NW	
Cresco	Howard		31	44.4	- 0.3	67	24	19	14	31	2.01	- .42	.96	1.5	8	11	9	10	NW	3
Decorah	Winneshiek	857	12	46.1	- 2.6	72	24	20	14	35	1.74	- .95	.65	2.0	8					
Dows	Wright	1,142	9	45.0	- 3.4	75	1	14	14	37	3.16	† .11	1.08	0.5	8	14	4	12	NW	4, 20
Elkader	Clayton	727	21	47.8	- 0.4	76	9	20	14	44	2 40	- .45	1.25	0.5	7	12	15	3	NW	3, 9, 20, 28
Estherville	Emmet	1,298	12	43.6	- 4.7	76	1	15	14	52	1.50	- .96	.91	2.0	6	16	3	11	NW	
Florence	Wright	1,226									2.16		1.15	0.5	7	5	17	8	NW	1, 19
Forest City	Winnebago	1,226	11	44.4	- 3.6	78	8	15	14	54	1.72	- .88	.90	0	6	14	3	13	W	
Grand Meadow	Clayton	1,180	11	45.8	- 1.7	70	9, 22, 24	18	14	31	2.19	- .94	1.35	1.0	6	5	13	12	NW	3
Greene	Butler	924	8	46.4	- 1.9	74	1	14	14	38	2.81	† .93	.94	1.0	8	7	7	16	W	
Hampton	Franklin	1,155	13	46.8	- 0.8	78	1	19	14	41	3 36	- .08	1.25	1.5	9	7	17	6	NW	
Hanlontown	Worth			44.0		74	8	12	14	41	2.70		1.25	1.2	8	14	7	9	NW	1
Humboldt	Humboldt	1,095	16	46.8	- 2.3	76	1,8	15	14	38	.94	-1.80	.45	0	6	12	10	8	NW	
Inwood	Lyon			44.4		76	1,8	10	14	42	.93		.42	1.5	4	15	1	14	NW	
Larrabee	Cherokee	1,266	12																	
Lansing(a)	Allamakee			47.4		73	9, 24	22	15	40	2.15		.60	1.0	9	12	7	11		3, 10
LeMars	Plymouth	1,224	7	45.5	- 4.2	78	8	14	14	43	1.25	-2.37	.50	T	3	11	9	10	N	
Mason City	Cerro Gordo	1,132	8	45.8	- 3.6	71	1	20	14	34	1.68	-1.66	.55	1.0	6	7	13	10	N	3, 20
New Hampton	Chickasaw	1,169	7	45.8	- 2.8	72	1	19	14	34	2.33	† .40	.55	1.0	8	8	12	10	NW	3
Northwood	Worth	1,222	8	44.2	- 3.5	73	24	16	14	36	.92	-1.39	.45	2.0	7	11	10	9	NW	
Osage	Mitchell	1,184	13	45.3	- 0.2	72	1	16	14	34	1.77	- .80	.45	1.0	8	8	12	10	NW	20
Pocahontas	Pocahontas	1,190		45.6		78	1,8	13	14	40	4.29		2.27	1.2	5	13	8	9	NW	
Plover	Pocahontas		8	44.9	- 3.3	78	1	14	14	41	2.93	†1.15	1.30	1.0	5	17	6	7	NW	2, 20, 26, 30
Ridgeway	Winneshiek	1,215	7	47.6	- 1.0	73	24	20	14	36	2.81	† .70	.90	2.8	12	16	10	4	S	3, 4, 9
Rock Rapids	Lyon	1,021	7	43.2	- 5.4	70	1,8,27	12	14	40	1.10	-2.65	.75	3.5	3	9	11	10		
Sheldon	O'Brien	1,422	6	45.6	- 2.6	79	1	12	14	43	1.11	- .37	.25	3.2	8	13	8	9	S	
Sibley	Osceola	1,212	12	42.9	- 5.1	77	1	10	14	54	.63	-2.08	.17	2.1	8	15	3	12	NE	
Sioux Center	Sioux		6	45.0	- 3.3	75	1,8	16	14	39	1.01	-2.12	.30	2.0	6	10	3	17	NW	
Storm Lake	Buena Vista	1,440	8	43.7	- 2.7	78	8	14	14	57	2.43	† .13	1.46	0.9	8	14	6	10	NW	
Washta	Cherokee	1,157		46.2		81	2	13	15, 18	45	2.27	† .54	1.35	T	4	12	8	10	NW	
Waverly	Bremer	942	9	45.8	- 1.7	75	9	20	14	40	2.66	- .38	1.00	1.0	11	4	15	11	NW	2, 3
West Bend	Palo Alto	1,197	12	45.2	- 1.6	76	1	12	14	33	3.48	† .67	2 26	1.0	5	7	13	10	NW	2
Average				45.3	- 2.0	74.9		15.7		39.9	2.09	- .53		1.2	7	10	10	10	NW	

SOUTHERN SECTION.

Afton	Union	1,212	11	49.6	- 1.7	84	9	23	16	36	4.17	† .50	2.11	1.6	8	13	3	14	SW	
Albia	Monroe	957		49.0	- 1.4	84	9	25	7, 8, 16	49	4.72	†1.77	1.50	2.0	12	15	1	14	SW	
Allerton	Wayne			50.0		84	9	20	15	41	3.31		1.10	2.6	10	17	5	8	NW	10, 21
Atlantic	Cass	1,164	14	47.0	- 2.3	85	9	15	17	47	3.72	† .68	1.36	1.8	8	8	7	15	NW	20
Bedford	Taylor		5	49.8	- 0.2	86	9	19	17	43	2 84	† .00	1.03	1.8	9	14	4	12	NW	
Bonaparte	Van Buren		14	50.4	- 1.4	84	9	25	15	40	4.60	† .27	2.15	3 0	6					
Burlington	Des Moines	544		52.3		83	9	26	7	39	3.68		2.24	2.5	6	16	9	5	NW	10, 19, 20, 28
Chariton	Lucas	1,042	10	49.2	- 2.5	83	9	24	7, 16	38	4.33	† .84	1.88	1.0	6	14	9	7	NW	
College Springs	Page		14	50.2	- 0.5	87	9	22	17	40	1.49	-2.18	.50	2.0	6	19	2	9	NW	
Columbus Junct.	Louisa	586		47.8		78	1	24	16	35	3 83		1.80	0.5	8	19	6	5	SE	3, 10, 20
Corning	Adams	1,127	13	48.0	- 2.7	83	9	18	17	39	3.31	† .22	1.16	2.0	7	12	8	10	NW	5, 20
Corydon	Wayne	992	12	50.6	- 1.2	84	9, 10	22	15	42	4.60	†1.48	1 59	3.5	8	14	7	9	NW	20, 25
Clarinda	Page		15	48.6	- 3.4	90	9	18	16	56	2.91	- .40	.75	1.5	13	22	2	6	NE	
Creston	Union			47.0		82	9	23	15	47	3.69		.90	1.5	12	16	8	6	W	19
Cumberland	Cass										3.52	†1.58	1.21	1.0	8	19	3	8	SE	
Earlham	Madison			46.7		80	9	19	17	43	4 48		1.48	2.0	6	11	11	8	NW	20, 21
Elliott	Montgomery			49.1		87	9	18	17	44	2.80		1.02	1.5	7	10	15	5	NW	20
Ft. Madison	Lee	516	56								4.22	† .93	1.87	1.0	6	11	7	12	N	5, 10, 19, 20
Glenwood	Mills		17	50.4	- 3.1	85	9	22	17	39	1.80	- .75	1.15	2.0	3	1	21	8	NW	19
Greenfield	Adair		14	48.4	- 2.2	85	9	19	15	43	4.21	†1.08	1.42	1.4	9	16	4	10	NW	19, 20
Hopeville	Clarke		13	49.2	- 1.0	85	9	24	16	24	4.20	† .78	2.10	0	11	8	18	4	NW	
Indianola	Warren			49.2	- 2.5	85	9	24	7, 14, 16, 17	39	3.26	- .02	1 40	1.0	11	8	8	14	NW	20, 27
Keokuk	Lee	619	34	52.6	† 0.6	86	9	28	16	42	3.32	† .11	1.45	1.0	8	16	8	6	NW	9, 10, 19, 20, 28
Keosauqua	Van Buren	644	13	50.4	- 2.4	86	9	25	7	49	3.98	† .14	1.74	2.2	11	10	9	11		
Knoxville	Marion	920	12	50.3	- 2.2	84	9	25	16	40	3.58	† .42	1.30	1.8	9	11	7	12	NW	
Lacona	Warren										5.43	†2.59	2.11	0	11	6	17	7		
Lenox	Taylor	1,250	10	48.8	- 2.4	85	9	21	15, 16	40	3.68	† .66	1,38	1.2	9	16	7	7	NW	20
Leon	Decatur	1,120		50.3		82	9	24	16	39	5.49		1,49	2.5	9	14	6	10	N, S	20
Massena	Cass			50.0		84	9	22	7, 14, 15, 18	42	4.04		1.30	2.0	6	15	2	13	S	20
Mt. Ayr	Ringgold	1,236	12	51 6	† 0.1	88	9	22	16	47	4.83	†1 68	1.70	3.2	9	10	11	9	NW	
Mt. Pleasant	Henry	729	24	50.0	- 1.1	82	9	25	7	40	4.59	†1.54	2.73	2.5	8	14	11	5	SW, NW	20, 26
Omaha, Neb.	Douglas	1,113	34	49.7	- 1 3	80	9	24	14	33	3.43	† .30	2.11	1.3	8	9	9	12	N	20
Oskaloosa	Mahaska	843	22	49.6	- 0.7	84	9	25	7, 16, 17	42	3.34	† .58	2.00	1.8	9	17	1	12	NW	
Ottumwa	Wapello	649	11			85	9				5.44	†2.36	3.25	0	5	11	9	10	SW	20, 25, 26
Pacific Junction	Mills	960	6	49.2	- 1.2	84	9	19	17	47	2.31	- .30	1.06	1.5	8	15	8	7	N	
Red Oak (c)	Montgomery	1,033	8	49.0	- 2.8			22	17	34	2.41	- .43	.72	T	10	18	2	10	NW	
St. Charles	Madison	1,070		49.8		86	9	24	16	41	2.25		1.42	0.3	10	15	9	6	NW	
Sidney	Fremont			50.8		85	9	24	16	39	1.99		.96	1.0	7	15	5	10	NW	20
Sigourney	Keokuk	887	9	50.4	- 1.8	84	9	24	16	43	3.60	† .00	2,00	1.0	11	3	23	4	NW	3, 9, 20, 21
Stockport	Van Buren			50 6		83	9	25	7, 16, 17	42	4.14		1.52	3 0	9	11	7	12	NW	19
Thurman	Fremont			50.0	- 1 8	84	8	19	17	43	2.34	-1.10	1.20		8	14	6	10	SW, NW	
Wapello (a)	Louisa	588	7	52.0	† 0.1	80	9	28	7, 16	37	3.84	†1.60	2.00	0	6				W	
Washington	Washington	769	13	49.5	- 1.4	84	9	24	7	41	4.06	†1.44	2.65	0	7				NW	3
Winterset	Madison	1,129	14	48.3	- 2.9	82	9	22	16	37	4.10	† .44	1.34	T	10	15	9	6	NW	20
Woodburn	Clarke	961	6								5.33	†2.74	2.05	2.1	11	15	8	7	NW	4, 5, 20
Average				49.6	- 2.6	84.0		22.6		41.0	3.94	† .83		1 5	8	13	8	9	NW	
Average for State				47.5	- 1.8	79.3		19.5		40.7	3.03	† .14		1.2	8	12	8	10	NW	

CLIMATOLOGICAL DATA FOR MARCH, 1905—CONTINUED.

CENTRAL SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT. Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	PRECIP., IN INCHES. Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days	SKY. Number clear days.	Number partly cloudy days.	Number cloudy days.	Prevailing direction of wind.	DATES OF THUNDER STORMS.
Amana	Iowa	721	27	48.8	† 0.1	80	9	25	6	40	3.22	† .34	1.20	0.1	9	13	9	8	NW	3, 20
Ames (*c*)	Story	926	21	47.4	- 1.7	77	1	20	14	38	1.33	-1.42	.57	?	11	12	7	11	NE, SE, NW	
Audubon	Audubon	1,301	9	46.7	- 3.2	81	8	11	15	43	3.54	†1.62	1.00	2.8	11	10	8	12	NW	9, 20
Baxter	Jasper	998	....	47.5	- 1.8	78	9	20	14	40	3.00	- .28	1.30	1.0	7	10	5	15	NW	
Belle Plaine	Benton	826	14	48.3	† 2.6	72	1	21	14	35	2.77	- .84	1.25	2.0	9	8	15	7	SE,S,NW	
Boone	Boone	....	....	46.2	.....	77	8	20	14	50	3.23	.....	1.46	T	8	15	7	8	.....	20
Buckingham	Iowa	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.40	- .08	1.44	0.2	7	5	20	5	....	
Carroll	Carroll	1,265	13	46.0	- 3.0	83	8	13	14	48	2.99	- .53	1.02	T	8	19	2	9	.....	
Cedar Rapids	Linn	733	23	48.8	† 0.4	81	9	28	7, 14, 17	43	2.34	- .64	.88	....	8	11	13	6	NW	
Clinton	Clinton	609	38	49.0	† 0.4	80	28	25	7	39	3.69	† .76	2.04	..	11	13	10	7	NW	9, 20
Davenport	Scott	606	34	49.8	† 0.1	82	9	28	16	36	3.45	† .67	1.96	T	12	12	11	7	NW	3, 5, 9, 20, 28
Delaware	Delaware	1,083	12	45.6	- 0.4	71	1,9	21	7, 14	36	2.06	- .98	.73	0.4	10	12	13	5	NW	3, 10
Denison	Crawford	1,180	9	46.6	- 2.7	81	8	13	14, 18	46	2.20	-1.76	.75	1.0	10	16	7	7	N	
Des Moines	Polk	861	27	48.7	- 1.8	82	9	21	16	36	3.29	† .50	1.35	2.2	11	8	13	9	NW	20
De Soto	Dallas	866	....	48.5	.....	84	9	23	14	42	4.34	.....	1.88	..	9	14	6	10	NW	
Dubuque	Dubuque	655	32	48.2	- 0.4	73	9	29	7	32	3.07	† .28	1.37	0.2	12	9	8	13	NW	3, 4, 10, 20, 21, 26
Fort Dodge	Webster	1,126	....	45.6	.....	78	8	14	14	54	2.93	.....	1.35	1.0	6	18	8	9	NW	
Galva	Ida	1,290	12	46.1	- 3.2	80	1	14	14	40	1.98	- .78	1.20	T	5	15	0	15	.....	
Gilman	Marshall	1,052	..	....	.....	.....	.....	.....	.....	.....	2.40	- .10	1.65	....	4	9	14	7	S	
Grinnell	Poweshiek	1,023	10	47.7	- 2.7	77	9	22	14, 17	33	3.48	- .04	2.00	0.5	9	12	9	9	NW	4, 20
Grundy Center	Grundy	976	12	46.7	- 1.0	76	1	18	14	35	4.26	† .88	2.05	T	7	11	6	13	NW	
GuthrieCenter	Guthrie	1,077	7	47.9	- 2.2	78	1,8	21	14	44	4.55	†2.08	1.64	3.5	12	16	4	10	NW	
Harlan	Shelby	1,192	....	46.8	- 2.0	79	8	19	14, 17	40	2.98	† .50	1.12	2.2	11	7	12	11	NW	20, 30
Ida Grove(*c*)	Ida	1,220		45.2	.....	71	27	12	14	43	1.44	.....	.88	T	5	13	8	9	W	
Independence	Buchanan	921	40	46.5	- 0.7	73	1,9	19	14	38	3.90	†1.69	1.95	1.5	8	11	10	9	NW	3
Iowa City	Johnson	683	47	48.0	† 1.7	85	9	24	7	58	3.36	† .22	1.15	0.5	11	16	1	13	N	
Iowa Falls	Hardin	1,170	10	45.5	- 2.0	77	1	19	14	42	2.83	- .32	1.26	0.3	7	14	5	11	NW	3, 20
Little Sioux	Harrison	.....	....	48.6	.....	84	8	14	15	43	3.13	.....	1.07	4.4	10	12	8	10	NW	20
LeClaire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	3.41	.....	1.07	T	9	17	3	10	SW	
Logan	Harrison	928	36	48.6	- 1.4	81	8	20	14, 15, 17	40	4.23	†1.36	1.98	4.0	10	10	12	8	SE, NW	
Maquoketa	Jackson	688	12	47.4	- 1.5	80	9	24	6	48	3.30	† .77	1.10	0.8	8	20	6	4	NE	
Marshalltown	Marshall	947	10	47.0	- 2.6	79	1	21	14	47	3.39	† .28	1.62	?	10	15	5	10	NW	
Muscatine	Muscatine		46	.....	.....	.....	.....	.....	.....	.....	3.41	‡ .00	1.34	T	13	13	7	10	N	
Mt. Vernon	Linn	847	30	49.0	† 2.5	88	9	23	17	41	2.40	- .63	1.30	T	8	14	5	11	NW	20, 21
Montezuma	Poweshiek	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.79		1.70	0.5	3	....	....	....	.....	
Newton	Jasper	944	15	47.8	- 1.1	80	9	22	14	36	3.38	‡ .00	1.05	1.0	8	14	7	9	.....	
Odebolt	Sac	1,356	8	47.0	- 2.7	81	8	17	14	40	2.83	† .12	1.45		8	16	4	10	.....	
Ogden	Boone	1,058	9	47.4	- 3.1	79	8	19	14	41	2.53	- .42	1.03	0.1	9	16	4	10	NW	
Olin (*c*)	Jones	760	7	47.6	† 0.9	76	9	25	6, 7, 12, 17, 18	41	2.88	† .70	1.37	0.5	6	14	9	7	NW	3, 20
Onawa	Monona	.....	....	49.0	- 1.6	84	8	18	14	42	4.24	†1.25	2.15	0.9	12	16	4	10	NE	20, 30
Perry	Dallas	975	....	47.9	.....	79	8	21	14	45	4.13	.....	1.63	0.8	8	5	11	14	.....	20
Rockwell City	Calhoun	.....	8	46.0	- 2.2	80	8	19	14	44	4.68	†2.27	1.95	1.0	6	12	6	12	....	
Sac City (*a*)	Sac	1,278	23	46.4	- 1.8	78	8	19	14	41	3.42	† .43	2.01	0.5	10	15	3	12	NW	
Stuart	Guthrie	.....	....	48.8	- 0.4	84	9	22	14	38	3.15	- .06	1.31	T	7	....	....	....	N, NW	
Sioux City	Woodbury	1,165	16	46.2	- 4.4	78	8	20	14	38	2.44	- .58	1.01	0.6	12	11	5	14	N	20, 30
Tipton	Cedar	807	....	50.7	† 2.2	81	9	28	16, 17	37	3.28	- .49	1.70	T	5	17	8	5	NW	
Toledo	Tama	856	9	47.9	- 2.7	78	1,9	21	14	40	2.40	- .63	1.10	0.5	9	9	14	7	NW	
Vinton	Benton	810	15	47.6	- 1.6	77	9	22	14	45	2.22	- .70	1.24	?	4	17	0	13	NW	
Waterloo	Black Hawk	862	16	47.0	- 0.2	76	9	19	14	41	2.60	- .39	1.63	0.5	9	11	11	8	NW	3, 20
Waukee	Dallas	1,039	....	49.4	...	87	9	21	14	47	3.60	.....	1.17	2.5	12	10	11	9	NW	3, 19, 20
Wilton Junction	Muscatine	683	11	49.9	- 1.0	82	9	25	6, 17	41	4.11	†1.24	2.00	2.0	10	12	2	16	NW	3, 20
Webster City	Hamilton	.....	..	47.6	.....	77	1	16	14	40	1.87	.....	.97	T	4	17	0	13	NW	
Whitten	Hardin	1,036	....	46.0	- 2.1	72	1	21	17	35	3.19	†1.13	1.00	1.0	7	11	9	10	NW	3, 20
Zearing	Story	718	..	46.8	....	79	2	19	14	37	2.64	.....	1.20	T	8	13	9	8	NW	
Average				47.5	- 1.3	79.0		20.3		41.1	3.07	† .17		0.8	9	13	7	10	NW	

† Above normal. ‡ Received too late to be computed with means. *a*. One day missing; *b*. two days, etc. § Not supplied with self-registering instruments.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR APRIL, 1905.

STATIONS.		DATE.																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max	78	68	61	52	47	54	59	76	84	70	53	65	64	55	46	46	51	60	59	67	60	64	65	59	59	59	75	72	61	63	..	61.9
	Min	42	57	41	35	30	28	25	39	48	39	32	28	29	26	25	23	25	29	35	50	36	35	40	48	47	51	46	50	41	36	..	37.2
Albia*	Max	78	66	65	54	49	53	57	74	84	48	64	54	59	48	45	46	51	59	61	68	56	62	62	63	60	63	74	72	63	53	..	60.5
	Min	45	45	53	37	31	27	25	25	41	45	36	33	35	28	37	25	26	28	30	42	38	38	38	46	48	48	54	53	42	37	..	37.5
Algona	Max	76	65	56	48	49	47	53	76	65	50	52	58	44	41	45	47	52	58	66	55	56	61	63	69	65	59	71	65	52	57	..	57.4
	Min	42	51	35	34	29	27	22	38	42	38	25	32	25	14	23	24	23	25	35	38	30	28	36	47	48	48	53	44	36	28	..	34.0
Allerton	Max	77	71	63	54	50	54	57	76	84	69	55	64	62	52	47	46	51	59	58	68	63	62	65	60	67	61	74	73	63	61	..	62.2
	Min	45	57	42	34	30	25	24	38	43	42	34	30	32	30	20	24	25	28	34	52	38	35	40	47	48	52	54	51	41	39	..	37.8
Alta	Max	76	60	53	48	45	50	57	79	61	47	54	60	47	44	43	48	51	59	57	49	57	60	60	63	54	61	69	59	58	54	..	56.1
	Min	42	53	33	32	27	27	22	39	41	38	22	30	18	17	22	21	19	25	37	39	32	35	37	46	47	48	48	41	35	28	..	33.5
Amana	Max	76	71	65	51	47	49	51	68	80	67	54	64	57	45	47	46	51	57	66	58	55	62	63	64	60	65	69	68	60	58	..	59.8
	Min	42	50	45	36	31	25	26	34	40	46	38	30	32	26	29	26	28	31	34	51	35	31	36	48	50	54	53	53	41	36	..	37.9
Ames	Max	77	67	59	50	49	50	55	74	72	55	55	66	53	45	49	50	53	58	63	55	57	61	60	62	58	62	72	67	59	52	..	58.8
	Min	44	54	38	34	30	28	24	36	39	41	31	33	27	20	26	25	24	26	27	47	34	31	37	47	48	51	54	46	42	33	..	35.9
Atlantic	Max	77	65	57	55	51	58	63	82	85	65	58	67	60	46	48	50	55	60	58	60	57	61	59	60	53	59	74	68	63	60	..	61.1
	Min	36	37	40	32	28	21	20	40	38	40	29	25	29	21	22	21	15	17	30	49	33	28	41	46	48	51	44	41	37	30	..	33.0
Audubon	Max	78	63	56	51	49	55	62	81	73	55	55	66	54	42	42	48	52	60	58	62	65	61	58	58	60	61	74	66	61	55	..	59.4
	Min	36	55	41	33	28	26	22	38	37	40	28	59	30	21	11	22	20	20	36	46	34	29	38	48	47	50	42	44	37	32	..	34.0
Baxter	Max	77	65	62	50	49	50	54	74	78	53	55	66	57	46	46	49	52	60	62	55	56	62	60	64	57	63	72	67	62	54	..	59.2
	Min	43	53	45	34	29	25	23	34	42	40	32	30	26	20	25	25	22	25	34	45	35	33	38	45	47	52	54	48	37	32	..	35.8
Bedford	Max	77	68	68	53	51	59	61	79	86	68	56	66	66	55	49	48	53	60	58	70	58	62	64	61	62	62	74	71	65	65	..	63.2
	Min	45	56	42	34	29	26	22	41	43	38	33	24	34	27	22	23	19	21	34	50	36	31	45	49	49	52	44	47	38	35	..	36.3
Belle Pl'e	Max	72	70	65	50	49	50	56	70	70	50	53	65	60	45	48	48	54	60	67	60	55	65	64	65	55	69	70	65	60	60	..	59 7
	Min	40	43	51	35	29	25	24	35	50	43	35	30	32	21	28	25	28	27	34	45	35	32	38	48	48	50	53	52	38	34	..	36.9
Bonapar'e	Max	78	76	68	55	52	54	54	70	84	70	55	63	59	53	46	45	52	58	65	63	56	61	64	64	59	61	70	77	67	61	..	62.0
	Min	45	54	48	38	29	27	26	33	40	43	40	28	35	34	25	27	27	29	33	52	38	32	39	48	52	54	53	54	41	38	..	38.7
Boone	Max	76	66	51	50	48	50	54	77	70	48	53	65	52	44	47	48	52	58	62	51	56	60	59	61	52	59	71	64	58	51	..	57 0
	Min	45	46	47	34	30	29	25	27	38	41	30	31	29	20	24	24	25	27	30	43	33	35	41	42	49	48	51	47	41	34	..	35.5
Britt	Max	75	64	56	47	46	45	55	75	62	49	52	60	43	40	42	46	50	57	62	52	55	63	65	71	57	61	72	64	66	58	..	57.0
	Min	41	49	34	32	28	24	21	36	38	39	27	28	21	13	21	24	21	20	32	40	29	29	35	46	47	48	50	45	33	25	..	32.5
Burling'n	Max	80	77	71	59	60	55	54	69	83	75	60	65	62	55	47	47	54	59	66	61	59	62	66	67	61	63	69	81	69	63	..	64 0
	Min	52	54	50	37	30	27	26	38	44	43	42	37	38	35	29	27	27	31	39	51	38	38	44	50	50	55	51	54	43	39	..	40.6
Carroll*	Max	78	62	48	52	51	57	62	83	69	48	69	67	52	45	45	51	54	60	61	51	59	61	60	59	52	59	73	61	60	50	..	58.6
	Min	39	54	45	32	26	25	23	35	42	25	25	27	29	13	21	21	24	21	38	41	32	33	35	46	47	47	42	44	37	30	..	33 3
Cedar R*	Max	76	71	67	51	47	48	51	68	81	52	57	65	58	46	45	47	51	57	67	55	58	64	63	68	57	65	68	69	58	61	..	59.7
	Min	41	42	53	36	33	30	28	29	38	43	40	32	32	28	31	29	28	29	31	43	37	34	39	45	52	50	52	54	43	37	..	38.0
Chariton	Max	77	67	63	53	50	54	55	75	83	70	54	64	62	53	45	47	51	58	59	69	56	60	62	61	62	60	73	71	62	58	..	61.1
	Min	43	55	42	35	30	27	24	38	45	42	33	29	30	28	25	24	25	28	34	50	38	33	39	46	48	52	52	50	40	36	..	37.4
Charles C	Max	72	60	56	47	45	43	47	67	66	50	51	59	42	40	41	44	49	54	62	54	54	62	62	68	57	59	67	64	52	56	..	55.0
	Min	39	47	34	33	27	26	23	34	35	39	31	32	21	18	26	26	26	25	38	40	33	30	34	47	47	50	52	43	38	30	..	34.1
Clarinda*	Max	81	62	55	53	59	63	59	81	90	48	57	69	58	50	48	50	55	63	60	70	59	69	64	59	59	60	75	70	67	68	..	62.7
	Min	44	45	46	34	28	25	28	25	42	43	32	25	31	27	20	18	22	25	25	33	36	31	34	48	48	49	45	47	40	37	..	34.4
Clear L	Max	72	65	56	46	46	44	52	72	64	53	53	56	46	40	41	45	50	56	61	58	59	62	62	70	61	59	67	64	54	61	..	56.5
	Min	45	46	36	33	29	32	24	35	45	39	28	31	25	18	25	29	25	27	40	42	32	38	39	48	48	48	52	47	40	30	..	35.9
Clinton	Max	76	73	69	55	51	52	48	63	70	62	57	62	56	47	48	46	53	57	69	62	55	63	68	70	59	70	73	80	63	60	..	61.2
	Min	38	42	48	36	28	25	26	30	33	42	36	33	36	31	30	26	28	30	30	41	36	31	35	47	51	55	52	54	42	35	..	36.9
Col. Spgs.	Max	78	65	58	55	51	60	61	78	87	67	53	56	65	49	47	47	53	58	58	71	57	63	64	59	59	62	75	70	66	67	..	62.0
	Min	50	54	47	34	31	28	27	43	47	39	33	26	33	28	26	24	22	26	35	45	37	34	47	50	49	53	46	50	40	48	..	38.4
Colum. J.	Max	78	76	63	49	43	41	46	59	72	72	49	53	52	52	41	41	47	48	57	57	55	55	59	60	60	57	64	77	64	54	..	56.7
	Min	43	58	49	35	29	26	25	35	44	42	40	31	33	32	29	24	27	30	36	51	37	36	42	47	51	55	52	53	41	37	..	38.8
Corning	Max	76	63	58	53	50	55	58	75	83	60	52	66	66	47	46	47	52	59	58	69	55	59	61	57	59	59	72	68	62	63	..	60.3
	Min	45	46	41	33	29	25	22	41	44	38	32	29	33	27	22	22	18	21	35	50	31	34	44	48	48	50	44	48	38	34	..	35.7
Corydon	Max	77	71	64	57	52	57	57	76	84	84	57	66	62	57	49	50	55	60	57	68	60	61	62	60	69	59	74	72	64	60	..	63.4
	Min	49	56	42	35	29	25	25	38	47	42	34	30	30	29	22	23	24	28	35	50	38	36	42	47	44	53	54	51	40	38	..	37.9
Cresco	Max	66	60	58	45	43	41	44	64	63	52	50	57	43	40	39	43	48	52	59	56	54	61	63	67	61	57	65	63	53	55	..	54.1
	Min	37	42	40	32	29	29	22	33	40	40	31	33	27	19	24	25	24	26	38	42	32	33	36	47	43	48	51	50	39	31	..	34.8
Creston	Max	76	65	56	51	47	47	56	75	82	47	52	63	59	45	46	45	51	57	56	66	55	58	61	57	58	57	70	66	61	59	..	58.1
	Min	48	49	49	34	30	27	27	28	41	42	32	32	33	26	23	23	25	27	29	38	36	37	37	45	48	48	46	40	41	37	..	35.9
Davenpo't	Max	77	76	68	52	47	49	48	61	82	57	55	62	56	46	44	44	51	55	64	58	54	61	63	64	59	66	68	75	61	58	..	59.4
	Min	43	49	39	37	32	31	29	37	46	43	42	40	36	34	31	28	30	31	41	42	37	40	44	51	50	55	53	53	46	40	..	40.3
Decorah	Max	71	62	59	48	46	45	48	66	67	53	53	60	43	43	42	43	50	57	62	55	57	62	68	72	59	58	69	67	65	58	..	56.9
	Min	39	42	38	35	29	25	24	34	34	43	34	33	28	20	27	27	29	29	30	42	38	29	33	47	44	50	52	50	42	38	..	35.3
Delaware	Max	71	65	60	48	44	44	45	61	71	60	52	63	54	42	43	44	49	55	65	54	53	63	64	68	59	59	68	62	57	55	..	56.6
	Min	35	45	44	31	34	24	21	29	35	41	36	30	27	21	25	27	22	24	32	46	31	32	33	46	47	50	50	50	39	31	..	34.6
Denison	Max	78	68	66	51	50	54	61	81	71	56	55	64	52	43	45	47	52	59	59	55	57	60	59	58	55	62	72	67	61	54		58.7
	Min	40	55	39	34	29	26	20	43	42	41	25	33	28	13	23	21	18	13	38	34	32	32	40	48	47	49	47	42	53	30	..	34.5
Des M	Max	77	65	61	51	49	52	56	75	82	50	54	66	56	45	45	45	51	57	57	59	53	60	60	63	57	63	72	65	59	54	..	58.7
	Min	47	55	38	37	33	28	29	41	46	44	33	34	31	25	29	21	30	29	40	45	38	36	42	50	48	53	53	45	43	37	..	38.7
De Soto	Max	79	68	57	53	50	54	62	81	84	58	56	69	57	46	46	50	54	61	59	58	58	61	60	62	57	59	73	68	60	53	..	59.8
	Min	43	57	41	36	31	27	24	39	43	42	31	30	31	23	25	24	25	26	38	50	35	32	41	49	48	52	46	49	42	35	..	37.2
Dows	Max	75	68	57	49	45	46	52	74	68	52	51	62	46	41	44	46	50	57	64	53	55	60	62	65	70	63	70	66	57	67	..	57.4
	Min	40	49	36	32	28	26	22	37	38	40	29	30	28	14	22	23	21	23	35	30	32	33	37	38	40	41	42	46	38	29	..	32.6
Dubuque	Max	64	66	64	49	44	46	46	59	73	54	54	63	51	43	42	44	50	55	64	55	57	63	64	68	56	60	68	69	57	57	..	57.0
	Min	41	44	42	35	35	31	29	37	41	46	38	37	32	29	33	31	33	34	42	39	37	37	41	50	49	52	53	51	45	37	..	39.4
Earlham	Max	77	66	56	52	52	52	57	78	80	59	53	65	58	46	45	48	52	59	57	61	65	59	58	60	55	57	73	66	61	54	..	59.4
	Min	34	56	34	34	28	22	22	25	38	41	29	27	34	21	23	23	19	21	35	48	34	28	38	45	47	51	44	47	39	32	..	34.0
Elkader	Max	73	66	67	49	46	47	50	65	76	57	58	69	51	46	45	46	52	59	67	60	60	66	68	72	61	59	69	65	57	57	..	59.4
	Min	39	44	49	34	28	24	24	32	32	45	48	30	28	20	27	27	26	26	35	44	33	28	33	48	44	51	56	54	40	34	..	36.1
Elliott	Max	77	65	58	56	47	64	65	77	87	52	58	67	66	51	46	47	53	60	63	63	60	67	63	59	56	60	73	65	63	66	..	62 0
	Min	43	57	47	33	28	25	24	47	43	41	32	24	31	25	23	23	18	21	33	50	35	31	45	49	48	52	46	44	36	33	..	36.2
Esthervil*	Max	76	59	41	48	47	47	53	74	60	49	54	52	36	40	48	47	51	58	63	52	58	64	64	69	59	60	69	52	56	58	..	55.5
	Min	43	43	40	33	29	28	20	22	41	35	23	25	28	15	17	24	22	26	30	39	28	25	29	47	45	47	45	42	33	26	..	31.8
ForestCy*	Max	75	71	48	46	47	44	50	78	65	40	52	56	40	39	40	47	50	58	63	53	58	63	63	69	57	59	68	59	58	58	..	55.8
	Min	40	40	47	34	28	28	22	24	40	39	27	28	28	15	19	22	23	24	28	40	30	32	36	48	49	48	49	46	35	25	..	33.1
F. Dodge*	Max	72	65	49	48	47	48	56	78	66	47	53	61	49	42	43	48	58	58	62	53	55	61	60	64	53	59	71	63	57	54	..	56.5
	Min	45	45	47	35	30	28	24	24	41	42	29	29	31	14	21	24	25	28	29	43	33	32	33	47	49	49	50	45	41	32	..	34.8
Galva	Max	80	65	59	50	48	51	60	77	71	55	58	60	51	43	45	48	51	60	64	63	56	62	60	62	58	63	70	65	59	56	..	59.0
	Min	41	54	38	32	24	25	19	39	40	39	23	30	22	14	22	19	15	40	33	37	31	29	35	46	47	48	47	41	37	28	..	33 2
Glenw'd	Max	79	73	61	55	52	64	65	81	85	61	54	68	65	45	48	47	52	60	60	61	57	63	63	61	52	62	74	67	67	68	..	62.3
	Min	46	56	42	43	28	29	26	44	59	39	32	33	36	23	24	23	22	28	39	46	36	38	47	49	48	51	42	48	42	39	..	38.6
Grand M.	Max	67	62	61	49	44	46	45	64	70	56	52	64	41	42	44	44	48	54	64	56	54	70	65	70	59	57	65	64	54	56	..	56.2
	Min	37	42	41	32	24	27	27	32	37	42	35	35	28	18	24	24	25	25	37	45	36	35	37	47	45	49	51	51	39	32	..	35 3
Greene	Max	74	65	57	49	48	44	52	71	67	54	54	62	48	41	45	47	51	58	65	57	57	63	67	69	58	61	70	65	55	59		57.8
	Min	39	46	40	34	30	27	23	33	36	41	30	33	27	14	25	25	25	24	36	48	32	30	35	47	49	50	51	51	49	30	..	34.9
Greenfield	Max	79	68	60	55	50	57	62	79	85	53	54	67	64	45	48	50	53	63	66	63	55	65	62	60	54	59	76	78	62	62	..	61.8
	Min	41	56	40	30	28	23	22	38	42	38	28	28	30	20	19	21	21	22	34	49	33	35	42	47	47	48	46	48	30	35	..	34.9
Grinnell	Max	73	67	62	49	46	48	50	67	77	54	53	62	54	43	47	46	48	58	64	56	62	63	60	61	57	68	69	66	57	54	..	58.0
	Min	43	54	43	35	30	29	26	36	53	43	35	35	29	22	27	25	22	25	35	36	34	35	41	46	48	49	54	53	42	38	..	37.4
Grundy C	Max	76	67	61	51	46	47	51	68	73	58	55	65	53	44	47	49	53	57	65	55	55	62	64	64	56	62	69	69	58	57	..	58.6
	Min	41	49	41	33	28	25	22	38	38	40	32	30	25	18	23	24	22	24	35	47	33	33	40	38	49	52	50	49	33	31	..	34.8
Guthrie C	Max	78	71	59	51	47	52	58	78	75	61	52	59	56	43	42	56	51	58	59	56	55	60	60	59	68	58	74	72	59	57	..	59,5
	Min	38	57	40	35	28	28	23	41	41	41	29	32	30	21	22	24	23	24	38	50	34	31	40	49	47	51	57	44	40	32	..	36.3
Hampton	Max	78	63	58	47	48	46	55	72	72	51	53	63	47	45	44	45	51	58	64	52	59	66	64	69	59	60	71	69	57	61	..	58.2
	Min	39	47	36	32	30	28	24	35	43	41	30	34	27	19	25	24	26	26	36	44	32	36	36	47	49	49	52	49	40	30	..	35.5
Hanlontown	Max	72	68	58	45	44	44	50	74	61	48	53	57	41	37	41	44	48	56	64	52	55	63	64	67	57	58	63	63	53	56	..	55.4
	Min	38	45	35	32	29	26	22	33	37	38	27	31	21	12	24	24	23	22	34	40	29	28	32	45	45	48	49	45	36	27	..	32.6
Harlan	Max	77	68	58	51	49	53	61	79	73	56	55	65	57	44	44	47	52	62	58	54	59	63	58	60	52	65	74	66	62	58	..	59.3
	Min	40	55	39	33	27	24	20	40	45	40	27	25	29	19	21	21	19	20	32	45	34	30	42	47	47	50	46	43	38	33	..	34.4
Hopeville	Max	77	64	61	51	50	54	59	79	85	62	53	64	61	43	48	46	51	60	57	67	55	62	63	59	62	58	72	67	61	61	..	60.4
	Min	45	56	41	36	32	28	25	39	48	41	32	30	32	28	25	24	25	28	34	50	38	37	41	53	48	51	49	49	41	38	..	38.1
Humboldt	Max	76	66	57	43	43	48	54	76	70	53	54	51	46	42	46	48	54	58	67	57	56	61	63	67	60	60	73	68	58	60	..	58.2
	Min	45	54	36	35	30	26	22	38	42	42	28	34	28	15	24	23	24	24	37	43	32	31	39	47	50	50	53	44	40	30	..	35.5
Ida Grove	Max	..	..	..	..	..	56	61	60	64	48	55	60	50	42	43	46	52	60	57	57	57	61	61	60	61	61	71	69	60	55	..	57.1
	Min	39	40	36	39	30	26	21	27	39	40	25	23	21	12	24	18	30	17	39	43	33	34	39	49	48	49	48	42	36	32	..	33.3
Independ.	Max	73	68	62	53	45

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR APRIL, 1905—CONTINUED.

STATIONS.		DATE.																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Iowa F*	Max	77	65	64	48	45	47	53	71	69	47	52	63	47	42	45	46	51	57	64	55	55	61	63	66	53	62	70	63	57	57	..	57.2
	Min	35	40	47	32	29	25	22	35	35	38	30	33	27	19	24	24	23	25	36	40	32	29	32	41	45	49	50	48	40	30	..	33.8
Keokuk	Max	78	70	70	59	50	54	53	68	86	81	56	62	62	57	45	44	52	58	66	68	61	61	66	65	61	64	72	78	68	62	..	63.1
	Min	48	55	50	39	33	30	29	36	44	44	44	38	39	36	30	28	32	34	41	52	40	39	42	50	52	55	55	60	45	44	..	42.1
Keosauqua *	Max	80	77	69	58	55	58	57	72	86	50	57	65	61	51	49	48	55	61	65	64	57	63	66	65	60	64	73	78	68	63	..	63.2
	Min	39	47	51	38	29	26	25	27	37	49	40	27	36	34	26	27	27	28	34	39	40	30	33	48	51	51	55	55	42	38	..	37.6
Knoxv'lle	Max	76	72	66	53	49	51	57	75	84	75	54	67	60	52	45	45	52	59	61	68	60	55	62	65	60	63	73	70	60	56	..	61.5
	Min	45	55	41	36	31	29	27	39	44	43	34	31	32	32	29	25	27	30	40	50	37	35	41	48	49	54	56	52	43	37	..	39.1
Lansing	Max	69	62	64	60	49	48	49	64	73	62	58	64	49	48	48	47	48	57	52	58	62	69	68	73	65	68	67	66	60	..	..	59.6
	Min	45	39	52	34	30	25	27	34	34	45	39	36	29	24	22	29	27	25	27	35	34	29	29	38	42	45	53	54	35	..	..	35.1
Le Mars	Max	77	68	59	51	50	53	63	78	68	49	56	59	50	40	44	47	53	63	59	52	60	64	62	66	58	62	70	58	61	62	..	58.7
	Min	43	43	37	30	26	26	20	35	44	30	21	30	24	14	24	21	18	19	39	37	28	26	38	46	48	46	44	46	35	31	..	32.3
Lenox	Max	78	65	58	52	48	56	59	78	85	59	53	66	64	47	46	47	52	60	59	68	55	61	62	58	60	59	73	67	62	64	..	60.7
	Min	47	55	41	33	28	25	26	38	48	38	31	30	32	27	21	21	23	25	36	47	36	36	42	47	47	51	45	50	39	39	..	36.8
Leon	Max	75	71	61	57	47	53	56	72	82	75	52	64	62	57	45	46	50	57	58	68	63	61	64	62	68	67	74	72	62	62	..	62.1
	Min	45	56	42	36	32	28	27	40	43	41	33	32	33	30	25	24	28	30	36	50	39	36	42	47	48	51	50	52	40	40	..	38.5
Lit. Sioux	Max	81	73	62	55	51	58	65	84	73	61	57	67	59	45	44	47	54	62	59	55	58	62	59	59	52	62	72	68	64	60	..	60.9
	Min	44	58	41	32	24	24	22	41	49	41	25	33	32	17	14	23	21	21	41	44	32	40	48	51	49	51	48	48	35	37	..	36.2
Logan	Max	80	70	58	55	50	58	64	81	75	55	57	68	60	49	49	48	54	65	60	55	60	64	67	61	54	61	75	69	65	62	..	61.6
	Min	40	55	41	34	26	24	23	41	45	45	28	30	30	20	20	23	20	23	37	42	35	34	44	44	47	51	45	45	37	35	..	35.5
Maquoketa *	Max	74	68	64	52	50	49	49	61	80	49	59	63	56	47	48	45	53	56	66	55	57	63	65	68	57	67	68	76	61	59	..	59.5
	Min	37	41	48	35	27	24	26	29	32	43	38	25	28	30	29	26	27	28	27	41	34	28	32	44	50	50	52	51	41	35	..	35.3
Marshaltown*	Max	79	62	64	51	49	49	54	72	77	51	56	66	58	47	48	47	52	59	65	53	57	64	62	63	54	63	72	65	59	57	..	59.2
	Min	42	42	49	33	29	26	22	25	38	41	32	33	27	21	25	25	24	26	29	40	34	30	35	45	48	48	51	48	41	32	..	34.7
Mason C.	Max	71	62	52	46	47	45	49	70	60	53	53	56	45	40	42	46	50	56	61	56	57	60	62	68	60	59	68	60	50	60	..	55.5
	Min	40	46	37	36	31	31	25	36	43	41	32	35	28	20	27	25	27	27	37	45	32	32	35	47	50	48	52	50	40	30	..	36.2
Massena	Max	78	69	68	52	43	55	64	81	84	68	56	65	64	47	45	60	61	64	59	65	57	64	63	60	60	58	75	77	60	60	..	62 7
	Min	45	56	40	33	28	25	22	40	45	40	30	30	31	22	22	47	30	22	36	59	84	34	43	42	47	51	46	47	38	35	..	37.3
Monticelo	Max	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....
	Min	38	35	45	32	26	22	23	27	32	43	36	25	28	24	22	24	24	25	30	45	32	28	33	43	50	48	37	49	38	32	..	33.2
Mt. Ayr.	Max	79	70	60	51	49	59	64	85	88	68	57	65	66	58	51	50	57	66	60	76	63	72	67	59	69	62	80	76	66	66	..	65.3
	Min	46	56	41	35	30	27	28	38	48	39	31	31	32	28	24	22	25	29	35	49	38	37	42	48	47	50	47	51	40	40	..	37.8
Mt. Pl'snt	Max	78	77	71	55	52	53	51	68	82	71	56	62	58	54	46	46	50	58	65	60	60	63	65	67	61	60	70	80	67	62	..	62.3
	Min	43	54	41	36	29	26	25	34	42	41	39	31	34	32	27	26	26	26	29	52	37	35	36	39	49	54	51	41	54	38	..	37.6
Mt. Ver'n	Max	80	71	65	48	46	46	57	65	83	65	62	66	63	51	43	46	53	61	65	58	65	70	63	65	58	69	68	68	60	61	..	61.4
	Min	42	47	48	33	29	26	23	31	42	44	36	30	29	26	25	25	25	27	34	48	33	33	40	46	48	51	52	53	40	33	..	36.6
New H.	Max	72	65	60	47	45	42	47	64	67	55	52	61	47	41	42	44	50	55	65	61	56	63	64	68	66	61	69	65	55	55	..	56.8
	Min	38	45	40	32	30	26	23	32	38	41	30	31	28	19	25	25	25	25	34	43	32	31	38	48	48	49	52	52	38	30	..	34.9
Newton	Max	67	67	61	52	48	50	50	68	80	65	54	65	58	48	47	48	52	58	63	57	54	61	61	62	59	60	68	69	60	55	..	58 9
	Min	44	53	41	34	29	27	24	35	44	42	33	29	31	22	26	24	25	27	34	49	34	34	39	47	47	52	53	51	39	34	..	36.8
N'thwood	Max	72	62	51	40	45	48	52	58	52	50	43	49	44	39	40	42	45	54	65	59	56	65	65	73	60	61	71	63	53	58	..	54.5
	Min	40	40	38	34	32	27	22	32	38	36	33	30	28	16	29	25	28	24	31	39	29	29	33	45	45	49	50	49	38	26	..	33.8
Odebolt	Max	79	74	58	50	48	52	61	81	71	56	60	64	53	46	45	48	53	60	63	55	57	62	59	61	59	67	71	66	60	56	..	59.8
	Min	41	55	39	32	25	26	21	41	43	24	32	34	27	17	22	20	20	40	81	40	33	35	32	47	49	47	42	43	38	30	..	34.2
Ogden	Max	77	70	58	52	50	52	56	79	72	57	55	65	57	46	48	50	53	57	62	55	57	61	65	62	59	60	72	70	58	57	..	59.7
	Min	44	55	37	34	27	26	24	38	43	41	29	32	28	19	24	22	21	23	37	44	32	34	38	48	43	51	48	44	38	31	..	35 2
Olin	Max	72	69	66	55	46	48	47	62	76	..	..	..	.	42	45	43	50	56	65	56	54	61	62	66	61	64	66	72	63	56	..	58.7
	Min	40	48	52	36	28	25	25	30	35	..	..	25	30	28	30	27	25	25	30	50	35	29	35	47	50	53	53	51	40	36	..	36.4
Omaha, N	Max	79	64	54	51	48	58	65	80	80	48	54	66	60	43	44	46	52	60	59	54	56	62	60	59	56	60	73	66	63	66	..	59.5
	Min	47	54	42	37	31	32	32	48	48	42	32	37	30	24	25	26	29	32	42	42	36	43	50	51	49	52	49	50	44	42	..	39.9
Onawa	Max	80	71	64	54	53	60	69	84	78	60	63	69	57	46	48	52	57	62	60	55	63	63	60	57	56	63	75	71	67	64	..	62.7
	Min	42	57	40	32	25	26	25	42	44	38	26	31	31	18	24	22	20	22	39	41	31	34	42	47	47	49	45	45	38	36	..	35.3
Osage	Max	72	63	55	47	45	42	49	68	64	50	52	57	44	41	42	44	49	55	62	57	57	64	64	70	61	58	68	63	51	59	..	55.8
	Min	38	45	36	33	30	29	23	34	40	39	39	32	27	16	26	25	26	26	32	44	31	32	34	47	46	49	50	49	38	28	..	34.8
Oskaloosa	Max	77	68	66	54	50	52	54	72	84	68	55	65	60	45	46	47	52	59	65	65	57	64	63	64	58	65	75	70	63	57	..	61.3
	Min	45	54	42	36	28	27	25	36	42	45	36	28	34	26	29	25	25	27	37	50	37	32	40	41	49	54	54	53	42	37	..	37 9
Ottumwa	Max	74	68	65	55	51	55	53	74	85	73	54	62	60	49	52	45	52	58	65	76	57	64	65	78	68	65	75	78	72	60	..	63.6
	Min	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....
Pacific J'n	Max	79	72	55	52	50	60	65	80	84	60	54	74	68	49	47	48	53	62	65	55	60	64	57	55	63	75	68	67	71	70	..	62.7
	Min	45	55	40	32	26	21	24	42	44	37	32	27	34	26	22	22	19	22	35	48	35	35	47	48	53	43	45	35	36	42	..	35.7
Perry	Max	77	67	59	51	49	51	68	79	75	56	54	67	55	45	46	48	52	61	62	54	56	62	61	60	57	60	74	66	60	52	..	59.5
	Min	44	55	40	35	30	26	23	39	40	42	30	30	31	21	26	24	23	25	36	49	34	33	38	48	49	52	47	45	40	33	..	36.3
Plover	Max	78	65	55	47	48	46	55	77	62	50	53	56	43	41	43	46	51	57	70	55	55	63	65	69	57	58	74	60	57	60	..	57 2
	Min	42	50	32	30	27	26	20	36	42	38	25	30	29	14	23	20	20	22	33	35	30	30	35	45	48	48	47	42	30	28	..	32.6
Pocah'tas	Max	78	64	58	49	48	48	58	78	64	49	55	50	46	43	44	48	52	60	67	60	57	63	63	66	59	59	72	62	57	59	..	57.9
	Min	42	42	36	34	29	28	22	38	44	39	25	33	25	13	22	21	22	23	37	38	32	34	33	40	39	49	47	43	38	29	..	33.2
Red Oak	Max	79	..	..	..	..	..	..	..	..	49	56	68	63	49	52	51	56	64	61	65	61	63	64	59	57	53	75	69	68	..	..	61.0
	Min	46	50	50	34	30	28	27	30	30	43	34	29	35	30	27	26	22	25	30	42	36	36	42	50	50	50	46	48	42	38	..	36.9
Ridgeway	Max	70	63	65	47	49	45	48	69	72	57	57	64	47	46	47	46	55	61	66	57	62	70	70	73	61	62	72	70	59	66	..	59.9
	Min	37	44	38	33	30	28	22	33	40	41	32	33	28	20	25	25	25	26	35	42	31	35	40	48	44	50	51	51	39	33	..	35.3
Rock R.	Max	70	66	60	50	50	45	60	70	50	40	38	46	36	36	30	45	50	50	60	48	60	68	60	68	58	64	70	68	60	62	..	54.6
	Min	40	38	36	36	30	26	30	30	34	21	22	28	26	12	14	20	26	24	38	34	36	26	36	40	45	48	45	44	38	30	..	31,8
R. City	Max	78	66	58	50	48	50	50	80	73	53	53	53	48	44	46	48	53	58	65	58	55	64	65	68	60	58	72	64	58	54	..	58.3
	Min	41	53	36	30	28	28	24	36	43	39	26	34	26	19	21	22	21	24	25	35	33	35	36	46	46	48	45	42	38	31	..	33.7
Sac City	Max	75	69	59	51	47	50	57	78	71	--	56	60	51	42	44	47	50	57	61	54	55	60	59	63	58	59	71	66	58	57	..	58.1
	Min	41	54	38	33	29	28	24	37	43	.	26	34	26	19	24	22	25	25	31	41	32	34	37	47	47	49	48	44	38	30	..	34.7
St. Cha'les	Max	79	80	65	55	50	55	60	80	86	61	57	66	59	48	47	50	54	61	58	63	58	63	60	61	57	58	74	69	61	58	..	61.8
	Min	43	43	40	35	30	28	25	39	48	42	32	33	31	25	26	24	26	30	37	50	37	38	41	47	47	53	50	52	42	36	..	37.7
Sheldon	Max	79	67	58	52	50	53	61	78	62	52	57	56	34	43	43	49	53	61	56	53	64	63	65	67	59	68	72	63	60	62	..	58.7
	Min	44	53	35	31	26	26	21	38	42	34	20	34	25	12	22	22	21	18	34	38	28	28	38	46	47	42	44	41	35	28	..	32.4
Sibley *	Max	77	64	43	49	48	49	58	75	59	46	55	50	32	38	38	46	50	58	59	51	59	62	65	69	60	64	70	51	57	62	..	55.5
	Min	43	45	39	31	20	25	19	21	41	36	22	23	27	10	19	22	19	19	21	37	29	28	32	43	46	46	43	41	35	27	..	30.3
Sidney	Max	81	72	55	54	52	62	62	81	85	65	55	69	69	50	49	49	55	59	64	61	61	61	62	59	53	62	72	70	62	74	..	62,8
	Min	45	54	44	35	31	30	29	43	46	40	33	35	33	26	26	24	31	31	37	51	37	37	47	42	42	51	51	50	43	42	..	38.9
Sigourn'y	Max	77	73	68	54	51	52	55	71	84	75	56	65	61	54	47	47	52	60	66	62	60	65	65	69	59	70	74	75	64	63	..	63.1
	Min	43	52	47	36	28	26	26	34	41	45	37	29	32	28	29	23	25	27	35	50	37	32	39	47	50	50	53	53	41	36	..	37.7
Sioux C'r.	Max	75	68	59	49	46	49	59	75	65	52	57	53	44	40	40	45	50	58	57	53	59	63	65	67	59	62	70	62	57	60	..	57.3
	Min	42	52	31	30	28	28	21	36	38	34	20	32	23	16	24	22	22	27	34	38	30	29	34	47	47	46	43	45	35	29	..	32.8
Stockport	Max	80	76	67	54	51	54	56	71	83	70	54	63	62	48	46	44	51	60	65	63	59	64	65	66	60	61	70	76	65	60	..	62,1
	Min	44	53	48	38	31	28	25	33	41	43	39	29	36	34	30	25	25	30	34	52	39	32	39	47	50	54	54	54	45	40	..	39,1
Storm L*	Max	74	60	44	50	47	50	57	78	63	48	58	60	45	41	42	47	51	58	59	47	57	59	58	62	52	61	68	57	58	51	..	55,2
	Min	43	44	42	32	27	28	20	21	43	37	22	23	28	14	19	21	20	24	28	40	30	32	36	45	47	47	47	42	37	28	..	32,2
Thurman	Max	80	72	59	54	49	60	66	84	82	61	58	66	65	53	47	47	54	60	64	65	58	64	61	60	56	61	74	70	66	72	..	62,8
	Min	42	58	44	35	29	23	24	41	50	40	34	25	35	26	25	25	19	22	40	51	37	32	49	49	49	51	42	47	39	37	..	37,3
Tipton	Max	76	75	66	54	51	51	58	65	81	67	60	64	61	52	45	45	53	59	67	59	61	64	64	63	60	64	66	74	62	62	..	61.5
	Min	42	50	50	37	33	30	29	29	44	46	40	37	36	33	32	28	28	29	36	50	38	36	43	50	49	53	54	55	43	38	..	39.9
Toledo	Max	78	68	64	52	51	51	53	70	78	55	56	65	57	46	47	47	52	59	65	55	56	63	62	64	57	64	71	69	57	57	..	59.7
	Min	40	50	40	35	30	25	23	36	38	42	35	31	27	21	26	25	25	27	37	49	34	30	36	45	47	52	52	51	40	33	..	36.1
Vinton	Max	75	74	68	51	47	47	49	66	77	71	55	65	62	45	45	45	50	56	65	60	57	64	61	65	62	65	66	66	64	58	..	60.0
	Min	41	49	51	34	31	27	23	34	32	45	35	32	29	22	28	26	26	26	34	49	34	32	36	46	50	32	48	31	40	33	..	35 2
Wapello	Max	78	75	70	59	55	55	57	65	80	70	57	67	67	65	45	45	..	61	68	59	55	60	61	64	69	59	64	72	69	58	..	63.1
	Min	49	57	50	39	33	30	28	35	43	45	41	33	38	35	33	28	..	29	39	50	39	37	42	48	51	43	54	53	45	40	..	40.9
Washi'ton	Max	80	74	69	55	51	52	52	69	84	61	58	64	59	50	45	46	52	58	65	57	57	63	63	68	57	61	67	73	63	58	..	61.0
	Min	42	52	41	36	29	25	24	35	43	45	39	31	32	32	31	26	26	29	36	43	37	33	41	46	50	53	52	53	41	36	..	38.0
Washta	Max	80	81	60	62	54	50	56	62	80	71	55	58	62	44	46	44	50	54	60	54	60	60	60	60	54	64	72	60	60	60	..	59,8
	Min	42	55	36	42	24	24	20	17	22	38	35	21	32	30	13	22	18	13	38	38	31	28	36	46	48	48	44	40	35	28	..	32.5
Waterloo*	Max	75	65	63	52	48	49	50	69	76	54	57	66	52	44	46	47	53	57	67	56	55	64	63	68	54	63	68	64	57	58	..	58.7
	Min	40	40	50	33	30	27	22	35	35	43	32	34	29	19	27	25	25	26	36	44	34	31	36	46	48	50	46	47	40	32	..	35.4
Waukee	Max	81	68	58	51	51	54	65	83	87	58	60	69	60	46	46	52	55	65	62	60	64	64	61	62	58	59	71	69	61	56	..	61.9
	Min	44	57	39	34	29	28	25	39	44	41	30	31	29	21	24	24	23	26	39	50	35	36	40	48	48	52	48	48	40	34	..	36.9
Waverly	Max	73	62	59	48	46	45	48	67	75	55	51	63	48	41	43	43	44	50	65	55	58	62	64	69	61	61	69	63	54	56	..	56.5
	Min	40	48	40	33	30	25	25	34	35	42	32	33	29	20	26	25	21	26	34	44	34	30	34	42	50	50	49	50	40	31	..	35,1
Web'ter C	Max	77	71	59	56	48	49	54	76	69	56	53	65	63	44	54	48	52	53	67	52	55	61	66	66	62	65	71	71	60	60	..	60.1
	Min	43	51	39	34	29	24	21	36	38	42	30	35	29	16	24	23	22	23	34	46	32	28	38	46	48	50	52	45	40	31	..	35.0
Whitten	Max	72	69	59	48	46	47	52	69	71	55	52	65	54	42	45	46

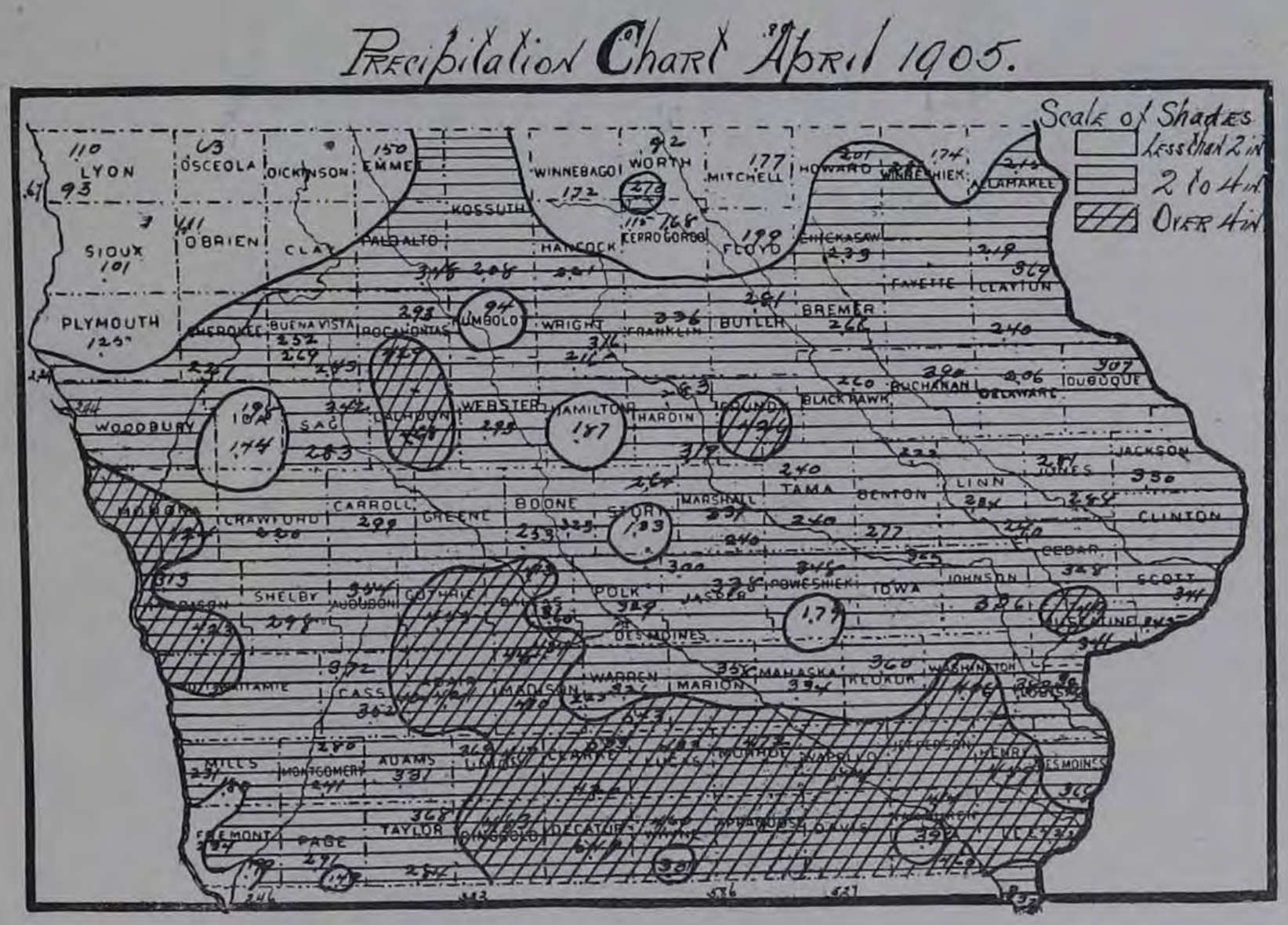
DAILY AND MONTHLY PRECIPITATION FOR APRIL, 1905.

STATIONS.	DAY OF MONTH.																													TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	.53	.04	....	..	..	.04	....	...	.09	....	...	....	....	.12	....	....		...	2.12	....	...	...	T	1.19	.05	T	T		....	...	4.17
Albia	.13	....	.63	.05	...	...	....	....	..	.08	.30	..	...	....	.13	.02	....	....	..	1.50	.58		...	....	.20	1.03	.07	....	....	....	....	4.72
Algona	.92	.25	.10		....	....	....	....	...	....	....	....	.10	...	T	....	..	..	....	.48	.02	....	....	....	.21		...	...		...	....	2.08
Allerton	...	.30	.07	....	.06	....	....	...	....	.58		....		...	.18	.02	....	....	....	.64	.26	....	....	T	1.10	.10	T	....	....	T	....	3.31
Alta	....	.23	.20	T	.01	....	....	...	....	....	....	....	.05	.03	T	....	....	....	....	1.48	....	....	.02	.02	.43	....	..	.05	..	T	....	2.52
Alta [near]	....	.25	26	....	T	....	....		....		....	....	.10	.05	...	....	....	..	....	1.51		...	.02	T	.40	T	....	.07	....	.03	....	2.69
Amana	....	.05	.20	.08	.01	....	....	T	....	T	.	..	..	....	.04	....	....	....	....	1.20	.66	...	...	T	.76	.22	....	....	..	....	....	3.22
Ames	....	.05	.57	.02	...	....	....	..	....	....	..	..	....	02	.01	....	....	....	....	.12	...	....	....	.01	.39	.12	.01	.01	....	T	....	1.83
Atlantic	T	.63	.12	....	.02	..	..	....	....	....	....	....	T	.13	.05	....	....		....	1.84		....	....	....	1.86	..	.	.07	....	T	...	3.72
Audubon		.78	.07	...	T	....	....	....	....	....	....	....	....	.18	.10	....	....	....	....	1.00	.47	....	....	.03	.72	.05	...	.03	....	.11	....	3.54
Baxter	....	.30	.50	...	....	....	....	....	....	...	....	....	..	.10	...	....	....	...	....	1.30	.20	....	....	....	.50	.10	..	T	....	..	....	3.00
Bedford		.51	.04	....	.03		....		....	.22	....	..	..	T	.19	....	....	....	T	.79	....	...		.01	1.03	.02	T	...	....	....	....	2.84
Belle Plaine	....	.15	.02	.10	....	....	....	....	....	...			..	.02	.08	....	....	....	...	1.25	.75	....	.	...	.30	.10	..	T	....	....	....	2.77
Bonaparte	....	..	.25	....	...	...	....	....	....	.70	....	....	....	...	.25		....		....	2.15		....		....	.58	.67	..	....	..	T	....	4.60
Boone	....	....	.75	.10	T	T	....	....		....	..	....	T	T	T	T	....	....	....	.14	1.32	....	...	T	.02	.80	.08	....	.02	....	.	3.23
Britt	T	.52	.40	.12	T	....	....	..	..	....	....	....	.10		T	....	....	...	T	.82	.08	..	....	...	.13	.04	T	..	....		....	2.21
Buckingham	....	.13	08	.13	T	T	...	....	....	T	....	....	.02	T	....	...	....	....	....	1.44	..	....	....	T	.20	.40	....	....	....	T	....	2.40
Burlington	...	.04	....	...	.	....	....	....	....	.60	....	..	....	T	.25	...	...	....	....	2.24	.	....	....		.40	.15		T	....	....	...	3.68
Carroll	...	.05	.54	.10	....	..	....	....		....	....	.	..	T	T	T	....	..	....	.51	1.02	....	...	...	.15	.52	.10	...	T	....	....	2.99
Cedar Rapids	T	...	.07	.48	.02	.01	...	....	....	....	T			T	T	...	...	...	....	.26	.88	....	....	....	T	.58	.04	T	...	....	....	2.34
Chariton	...	.38	...	....	....	...	....	....	....	.42	....		..	T	.10	T	....	..		1.88	..	....	....	T	1.25	.30	T	....	...	T	....	4.33
Charles City		14	.18	03	T	T	....	T	....	....	....	....	06		T	....	....	....	T	1.38	.	....		T	.18	.02	T	T	T	....	....	1.99
Clarinda	T	.12	.28	T	.08	....	....	....	....	....	.15		..	...	.15	....	....	....	....	.51	.61	....	....	....	.99	.02	T	....	....	....	..	2.91
Clear Lake		...	....	T	T	....	....	....	....	....	....	..	.10	....	....	..	....	....	....	.60	..	....	.	....	.35	.10	...	T	....	T	....	1.15
Clinton	....	.13	.38	.04	.06	.01	...	....	.03	.5	....	....	....	.05	...	...	....	..	....	1.94	.10	...	...	....	...	.37	....	.10	....	....	....	3.69
College Springs	..	.25		....		.04	....	...	....	10		....	....		.20	....	....	....	....		....	....	...	T	.59	.40	....	....		...	....	1.49
Columbus Junct'n	....	T	.16	.04	....	..	....	T	.	.46	..	...			.11	...	....	...		1.80	.07	....	....		.84	.35		T	....		...	3.83
Corning	....	.52	T	..	.15	....	...	..	....	.19	...	....	....		.13	.02	....	..	....	1.14	....		T	T	1.16	T	T	T	....	T	....	3.31
Corydon		.21	.03	T	.03	....	....	....	....	.56	....	..	....	....	.29	T	....	....	..	1.59	....	....	..	T	1.44	.45	T	...	.	..	....	4.60
Cres o	....	T	.96	.23	T	T	....	..	..	...		....	.15	.01	.	T	...	..	.	.40	.20	...	..	....	.03	.03	T		...		....	2.01
Creston	T	.13	.55	.01	T	.06	....	..	....	....	.08	....	..	....	.25	.05	...	....	....	.90	52	...	....	....	.74	.36	.04	....	....	....	.	3.69
Cumberland	..	.42	.17	....	....	....	....	....	....	....	....	..	....	.10	.01	....	....		.41	1.19	....	....	....		1.21	.01	....	....	....	T	....	3.52
Davenport	...	.04	.11	.01	.10	T	....	T	.05	.50	..	....	...	.02	.01	T	....		T	1.96		...	....	T	.61	.05	T	.01	...	T	..	3.45
Delaware	...	....	.21	.10	.05	....	.02	....	....	.10	....	....	....	.04	....	....	....	....	....	.73		..	....	....	.65	.11	T	.05	....	....	....	2.06
Decorah	....		.43	.16	T	T	T	....	....	..	.	....	.15	.10	....	....	....		....	.65	.15		....	....	.06	.04	....		....	....	....	1.74
Denison	T	.44		.06	T	..	....	....		....	....	..	T	.05	.06	.01	T	....	....	.61	.02	....	....	.75	T	....	....	.06	....	.14	....	2.20
Des Moines	...	.35	.25	.04	T	....	..		...	T	....	.	.01	.11	.07	....	....	....	.05	1.31	....	....	..	T	.79	.20	....	T	...	.11	....	3.29
De Soto	...	.6	.02	.07	....	..	....	....	....	..	....	.	....	T	.14	....	....	....	....	1.38	.48	...		T	1.34	.20	T	....		.05	....	4.34
Dows		.55	.40	.13	....	....	....	....	....	....	....	.	....	.05	....	....	....	....	....	1.08	.05	....	....	....	.40	T	.50		....		....	3.16
Dubuque	....	.02	1.01	.05	.02	T	..	T	.01	.27	....	....	.04	....		T	....	....	....	1.36	.01	...		....	.25	.02	.01	T	..	....	....	3.07
Earlham	..	.75	T	T	T	....	....		....	T	....	....	..	T	.21	....	....	....	....	1.48	1.10	....	T	T	.82	.12	...	T	....	T	....	4.48
Elkader	...	....	.44	.15	....	....	..		...	.02	....	....	....	.03	....	....	..	....	....	1.35		....		..	.46			.05	....	....	....	2.40
Elliott		.43	T	....	T	....	....	....	....	T	..	..	....	T	.18	....	T	....	....	.98	.05	....	....	04	1.02	.10	.	T	....	....	....	2.80
Estherville	....	T	.91	.20	....	....	....	....	....	....	....	....	....	.08	...	T	....	....	....	T	..	..	....	....	....	.05	....	.10	.16	....	....	1.50
Florence	T	.15	.33	.19	..	..	....	....	....	..	....	....	.05	....	....	....	....	....	1.15	....		....	....	....	.21	.08	T	T	....	....	....	2.16
Forest City	....	...	.60	.36	T	....		....	....	..	....	....		.20	....	.	..	....	....	....	.32		....	..	....	.24	.06		....	....	....	1.72
Fort Dodge	..	T	.75	.25	T	....	....	....	....	....	....	....	..	.10	....	....	....	....	....	..	1.35	....	....	.	T	.40	.08	T	T	....	....	2.93
Fort Madison		....	T	..	T	T	....	..	....	.95	....	.	....		.10	....	..	....	1.87	.45	....	....	....	....	.70	....	.15	....	....	T	....	4.22
Galva	....	.02	.21	....	T	.	....	..	....	....	....	....	T	T	T	....	....	....	....	1.20	..		T	.13	.32	.10	T	T	....	T	....	1.98
Gilman	....	....	..	..	....	....	T	.	....	....	....	....	....	....	....	....	....	....	....	1.65	.31	..	....	....	.40	.04	....	....	....	....	....	2.40
Glenwood	....	T	T	....	T	....	....	....	....	T	....	....	....	.20	T	..	....	....	T	.45	....	....	T	T	1.15	....	....	....	....	....	....	1.80
Grand Meadow	..	..	.40	....	.08	....	....	....	....	....	....	..	....	.08	....	....	....	....	..	....	1.35		..	....	....	.18	....	.15	....	....	....	2.19
Greene	....	.06	.47	.10	..	....	....	..	..	....	....	....	....	.05		....	....	....	....	.78	.94	..	....		.27	.14	..	....	....	....	....	2.81
Greenfield	....	.68	.16	T	.06	....	....	....	..	.06	T	....	....	.04	.15	..	....	....	....	1.42	.37	....	T	T	1.06	.10	T	.11	....	T	..	4.21
Grinnell	....	.24	.32	.01	T	....	....	....	.	.01	....	....	....	.32	....	....	....	....	T	2.00	....	....	..	T	.50	.06	T	.02	....	..	....	3.48
Grundy Center		.24	.62	.31		....	....	....	....		....	....	....	.07	....	....	....	....	....	2.05	....	....	....	....	.42	.55	....	....	....	....	....	4.26
Guthrie Center	....	.68	.05	.02	T	....	....	....	....	....	....	....	....	.01	.34	....	....	....	....	1.64	.42	...	T	T	1.00	.20	.01	.06	....	.12	....	4.55
Hampton	....	.72	.37	.05	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	1.25	....	....	.02	....	.49	.08		....	....	.28	....	3.36
Hanlontown	..	.50	.24	.25	T	....	....	....	....	....	....	....	1.25	.	T	....	....	..	....	.28	....	....		....	.10	.05	T	.03	....	....	....	2.70
Harlan	....	.28	.07		T	....	....	....	....	....	..	....	T	.10	.15	.02	....	.	....	1.10	.08	....	T	.01	1.12	.04	T	.01	-	T	....	2.98
Hopeville		.44	.16	T	.01	....	....	....	..	.18	....	....		.03	.06	....	..	.10	T	2.10	....	....	....	T	.97	.08	.07	....	....	T	....	4.20
Humboldt	.04	.45	.15	..	....	....	....	....	....	..	....	..	.03	..	..	....	..		....	....	.05	....	....	....	.22	....	....	....	....	..	....	.94
Ida Grove		....	.18	....	....	....	....	....	....	....	....	....	T	T	T	..	....	....	....	.88	....	..	05	....	29	....	....	....	....	.04		1.44
Independence	....	.20	.50	T	.05	T	....	....	..	T	....	....	....	.15	....	....	....	.	....	1.00	.95	....		....	....	1.00	T	.05	..	....	....	3.90
Indianola	....	.35	.09	.06	....		....	..	....	.17	....	....	....	.01	.08	.01	....	..	.	1.40	.0	....	....	T	.96	T	T	..	....	.05	..	3.26
Inwood	T		.42	....	T	....	....	....	....	....	....	....	.15	T	....	....	....	....	....	....	....	....	....	....	.18	....	....	.18	....	....	..	.93
Iowa City		..	.05	.20	.03	.02	....	...	..		.06	..	....	T	.04	....	....	....	....	.88	1.15	..	..	....	.09	.81	.03		....	....		3.36
Iowa Falls	T	....	.55	.34	.03	T	....	....	T	T	....	....	....	.03	T	T	...	...	....	T	1.26	....	....	....	....	.51	.11	T	T	....	....	2.83
Keokuk		.07	T	....	....	T	....	..	T	.45	....	....	....	T	.08	..	....		.08	1.37	....	...	....		.59	.05	T	.63	..	T	....	3.32
Keosauqua	....	....	.16	.12	T	T	....	....	...	.18	.57	....	..	....	.22	.03	..	....	....	1.20	.54		....		.07	.63	.26	....	....	....	....	3.98
Knoxville	..	.40	.10	.05	....	..	....	....	....	.08	....	....	....	T	.17	T	....	..	....	1.30	....	..	....	T	.68	.70	....		....	.10	....	3.58
Lacona	..	..	.03	.48	.02	....	....	....	....	.09	....	....	....	.04	.01	....	....	....	....	2.11	....	..	....	.01	1.97	.62	....	....	....	.05	....	5.43
Lansing	...	....	.38	.22	.05	T	..	.	....	.20	....	....	20	.20	....	..	....	....	....	..	.60	...	..	....	.20	.10	....	....	....	....	....	2.15
Lenox		.75	....	....	.03	....	....	....	....	.16	....	....	....	.01	.11	....		....	T	1.12	.05	....	....	T	1.38	.07	T	..	....	....	....	3.68
Le Claire	..	....	.21	.11	T	T	.02	....	.	.07	.61	....		....	....	....	T	....	....	1.07	.91	....		....	T	.39	T	....	.02	....	....	3.41
Little Sioux	....	.04	.31	....	....	....	....	....	....	....	....	....	....	.37	.15	....	....	....	....	1.07	.11	....	T	.03	1.01	.01	....	.03	....	....	....	3.13
Le Mars		T	..	T	....	....	....			....	....	....	T	T	T	....	....	....	....	.40	....	....		T	.50	....	....		.35	....	....	1.25
Leon		.63	.06	.	.01	....	....	....	....	.62	....	....	....	...	1.25	....	....	..		1.49	.08	....	....	T	1.13	22	....	....	....	....	....	5.49
Logan	....	....	.06	.02	.10	....	....	....	....	....	....	....	....	.20	.10	....	....	....	....	1.98	....	....	....	.05	1.67		.03	.02	....	....	....	4.23
Maquoketa	....	....	.05	.10	..	....	....	....	..	....	.10	....	..	.08		....	....	....	....	.27	1.07	....	....	..		.46	.17	..	....	....	....	3.30
Marshalltown	.05	....	.55	.35	.01	..	....	....	....	....	....	....	....	.05	T	....		....	....	.29	1.62	....	....	....	.02	.38	.07		....	....	....	3.39
Mason City	.10	.50	.20	T	....	....	....	....	....	..		....	.10	....	T	....	....	....	....	.55	....	....	....		.23	T	...	T	....	..	....	1.68
Massena	...	.01	.04	....	....	....	....		....	....	....	....	....		.20	....	....	....	....	1.80	.56	....	....		1.23	....	....	....	....	....	....	4.04
Montezuma	....	....	.02	....	....	....	....	..	....	....	....	....	....	....	....		....	....	....	1.70	..	....	....	....	.07	....	....	....	....	....	....	1.79
Muscatine	....	....	.03	.05	.01	T	..	..	.06	.35	....	....	....	.01	.05	..	....	....	....	1.31	.98	....	....	....	.02	.37	.06	....	.08	....	....	3.41
Monticelo	....	....	.17	.50		.15	....	....	....	....	....	....	....	....	....	....	....	....	....	.25	1.00	..	....	....	....	.74		....	....	....	....	2.81
Mt. Vernon	....	T	.14	.06	.01	T	....	....	.	.01	....	..	.	T	T	....	....	....		1.30	.30	....	....	T	.50	08	T	T	....	..	..	2.40
Mount Ayr	....	.60	.13	....	.05	.	....	....	....	.50	....	....	....	T	.30		..	....	T	1.30		..	....	T	1.70	.10	T	.15	....	T	....	4.83
Mt. Pleasant	....	.04	.11	....	....	T		..	.70	....	....	....	....	T	.31	....	....	....	....	2.73		....	....	....	.46	.23	....	....	..	.01	....	4.59
New Hampton	T	.18	.52	.20	....	T		....	....	...	....	....	....	.05	....	....			..	.48	.55	....	....	....	.20	.15	....	....	....	....	....	2.33
Newton	....	.40	.14	.10	....	....		....	....	T	....	....	....	T	.11	....			....	1.05	.85	..		....	.52	.21	....	T	...	T	....	3.38
Northwood	...	.05	.30	.05	T	....	....	....	....	....	....	....	.45	....	....	....	..	..	T	.03	...	....	....	....	.03	T	...	T	.01	....	....	.92
Odebolt	....	.35	.20	....	T	....	....	....	.	....	....	....	T	T	....	....	....	....	....	1.45		....	....	.05	.52	.15	....	.06	.05	....	....	2.83
Ogden	....	.55	.10	..	....	..	..	..	....	....	....	....	....	.05	....	....	....	....	....	1.03	.06	....	....	.03	.52	.14	....	....	....	.65	....	2.53
Olin	T	T	.70	.01	T	T	....	....	....	.02	....	....	....	.05	....	....	....	....	....	1.37	....	....	....	....	.73	T	T	T	....	....	....	2.88
Omaha, Neb	....	.08	.12	....	T	..	..	....	....	....	....	....	..	.13	T	....	....	....	.02	2.09	....	....	T	.12	.85	T	T	.02	....	....	....	3.43
Onawa	....	.02	.20	...	T	..	..	....	....	....	....	....	..	.05	.02	..	..	..	..	2.15	.22		.02	.02	1.40	.06	T	.02	...	.06	..	4.24
Osage	....	.44	.44	.17	T	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	.45	.08		....		.07	.02	....	T	T	....	....	1.77
Oskaloosa	....	.25	.06	....	....	..	T	T	.10	....	....	..	....	.10	.02	....	....	....	T	2.00	..	....	....	T	.23	.52	....	....	....	.06	....	3.34
Ottumwa	....	.27	T	....		....	....	....	.30	....	....	....	....	....	....	....	....	....	....	3.25	....	....	....	....	1.17	.45	....	....	....	....	-	5.44
Pacific Junction	...	.06	.05	....	T	....	....	....	.02	....	....	....	....	.04	.11	....	....	....	....	.95	..	T	T	1.06	02	T	....	....	....	....	..	2.31
Perry	....	.85	.17	T	....	....	.	....	....	....	....	....	T	.08	....	....	....	....	....	1.63	....		T	T	.83	.40	....	.08	....	.09	....	4.13
Plover	....	1.05	.18	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	..		1.30	....	....			30	..	....	T	..	....	....	2.93
Pocahontas	....	....	1.21	...	T	....	....	....	....	....	....	....	.18	T	T	....	....	....	....	....	2.27		T		.63	....	....	.05	....	....	....	4.29
Red Oak	...	.02	.34	....	T	T	....	..	....	....	.02	....	....	T	.17	.02	....	....	....	.44	.15	....	.02	T	.72	.51	....	....	....	....	..	2.41
Ridgeway	....	.23	.48	.09	.01	T	..	.01	.01	....	....	....	.30	....	....	....	....	....	.66	.90	....	....	.01	....	.05	.06	...	T	T	....	....	2.81
Rock Rapids	....	....	..	....	.05	....	....	....	....	....	....	....	.30	T	T	..	....	....	....	....	....	....	....	....	T	T	....	.75	....	....	....	1.10

DAILY AND MONTHLY PRECIPITATION FOR APRIL, 1905--CONTINUED.

STATIONS.	DAY OF MONTH																													TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Rockwell City	....	1.45	.52	T	..	....	....	....	....	....	....	....	.10	....	....	....	..	..	....	1.95	....	..	....	....	.51	....	....	....	....	.15	....	4.68
Sac City	....	.46	.20	T	T	....	....	....	....	..	....	....	.05	.03	.02	....	....	....	....	2.01	....	....	....	.01	.46	.17	..	.01	....	....	....	3.42
St. Charles	....	....	.10	.04	.02	....	....	....	....	....	....	....	....	.03	.21	..	....	....	....	....	....	..	....	....	.08	1.42	.28	....	.03	..	.04	....	2.25
Sheldon	....	.04	.18	....	.09	....	....	....	....	....	....	....	.20	.10	.05	....	....	..	....	T	....	....	....	....	.20		....	.25	....	....	....	1.11
Sibley	....	.03	.04	.17	....	....	....	....	....	....	....	....	.09	....	....	.01	....	....	....	....	..	....	....	....	....	.10	..	.03	.16	....	....	.63
Sidney	....	.10	.08	....	T	....	....	....	....	.11	....	..	....	T	.10	..	....	..	....	.60	....	....	....	.04	.96	....	....	....	....	....	....	1.99
Sigourney	....	.18	.15	.08	T	....	....	....	....	.11	....	....	....	.02	.13	....	....	..	....	2.00	.30	..	....	....	.40	.18	....	....	....	.10	....	3.60
Sioux Center	....	T	.27	T	.05	....	....	T	....	....	....	.10	.05	T	....	....	....	..	..	T	....	....	T	....	.24	....	....	.30	....	....	....	1.01
Stockport	....	.03	.17	.08	T	T	....	....	....	.85	....	....	....	....	.15	.18	....	....	....	1.52	....	....	....	T	.41	.75	T	T	....	T	....	4.14
Storm Lake	....	..	.21	.14	T	....	....	....	....	....	....	....	....	.02	T	..	....	....	..	.12	1 46	....	....	.01	T	.45	T	....	.02	....	....	2.43
Stuart	....	.20	.10	T	T	....	....	....	....	....	....	....	....	....	T	....	..	....	....	1.31	.52	....	....	....	.86	.10	....	....	....	.06	....	3.15
Thurman	....	.04	.12	....	T	....	....	....	..	.21	....	....	....	.02	T	....	....	....	....	.67	T	..	T	.06	1.20	.02	T	T	..	T	....	2.34
Tipton	....	....	.45	....	.07	....	....	....	....	.08	....	..	....	....	....	....	....	....	....	1.70	....	....	....	....	....	.98	....	....	....	....	....	3.28
Toledo	....	..	.50	.20	T	....	....	....	....	T	....	....	....	T	.03	....	..	....	....	1.10	.10	....	..	....	.30	.15	....	.02	....	....	....	2.40
Vinton	....	....	....	.16	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.24	.10	....	....	..	.72	....	....	....	....	....	....	2.22
Wapello	..	....	....	.45	....	....	....	....	....	....	....	....	....	....	.14	....	..	....	....	2.00	.42	....	....	..	.50	.33		T	..	....	....	3.84
Washington	..	....	.14	....	....	....	....	....	....	.13	.12	..	....	.06	....	.	....	....	....	2.65	....		..	....	....	.80	.16	....	.	....	..	4.06
Washta	....	T	.20	....	....	T	....	....	....	....	....	....	....	T	..	T	....	....	....	1.35	....	....	.	T	.50	....	....	.22	....	T	....	2 27
Waterloo	....	T	.13	.14	.01	T	....	....	....	....	....	....	....	.05	....	....	....	....	.	.03	1.63	....	....	....	.21	.34	.02	.04	....	....	....	2.60
Waukee	....	.48	.14	.09	.03	....	....	..	....	T	....	....	....	.05	.18	..	....	....	....	1.17	.39	..	....	T	.79	.14	T	.01	....	.18	....	3.60
Waverly	T	.03	.33	.09	.01	T	....	....	....	.02	....	....	.10	....	....	....	..	....	....	1.00	.40	....	....	....	.39	.24	T	.05	....	....	..	2.66
Webster City	....	.47	T	T	....	....	....	....	..	....	....	....	T	....	....	....	....	....	.97	....	....	..	....	....	.25	.18	....	....	....	....	....	1.87
Whitten	....	.35	.36	.20	T	....	..	....	....	....	....	....	....	.10	T	....	....	.	..	1.00	....	....	....	T	.50	.68	T	T	....	....	....	3.19
Wilton Junction	....	.10	.45	.10	.10	.12	....	....	..	.83	....	....	....	....	.10	..	....	....	....	2.00	..	....	T	....	.40	.41	....	T	....	....	....	4.11
Winterset	....	....	.38	.20	T	....	....	....	....	.12	....	....	....	T	.08	....	....	....	....	1.00	1.34	....	....	T	.90	.07	....	.01	....	T	....	4.10
West Bend	....	2.06	.20	T	T	....	....	....	....	....	....	....	.10	....	T	....	....	....	....	.87	....	....	..	....	.25	T	....	T	....	T	..	3.48
Woodburn	....	.30	.05	.02	.02	....	..	..	T	.14	....	..	....	T	.20	.01	....	....	....	2 05	.07	...	....	T	2.00	.47	T	....	....	T	....	5.33
Zearing	.05	.16	.41	.37	.01	...	....		...		....	....	....	T	T	....			.	1.20	...		....	....	.21	.28		T			....	2.64

T. Amount too small to measure.



MAY, 1905 No. 5



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MONTHLY REVIEW

OF THE

Iowa Weather and Crop Service.

VOLUME XVI. MAY, 1905. No. 5.

IOWA CROP REPORT, JUNE 1, 1905.

Following is a summary of the June 1st reports, received from county and township correspondents of the Iowa Weather and Crop Service.

CORN.—The reports show an increase in the acreage in more than half the counties, and a slight decrease in some of the others wherein a portion of the acreage prepared for corn was too wet to plant prior to June 1st. The average increase for the State is about three per cent. The number of acres by counties can not be given until after the completion of the State census, now in process of tabulation.

The average condition of the corn crop was estimated about ninety per cent, or about the same as last year on corresponding date. A considerable portion of the crop, however, was scarcely visible above ground on June 1st.

The other staple farm crops are rated as follows, in condition:

Winter wheat, 102 per cent; spring wheat, 99; oats, 95; barley, 96; rye, 98; flax, 94; potatoes, 97; meadews, 100; pastures, 97.

CONDITION OF FRUIT.—Apples, 80 per cent, plums, 70, peaches, 35; cherries, 65; grapes, 90; strawberries, 103; raspberries, 96; blackberries, 94.

CONDITION OF LIVE STOCK.—Cattle, 100 per cent; sheep, 99; hogs, 99; spring pigs, 90; horses, 99; foals, 95.

Condition of crops June 1, 1904.—Corn, 90 per cent; winter wheat, 85; spring wheat, 94; oats, 92; barley, 93; rye, 91; flax, 85; potatoes, 95; meadows, 96; pastures, 97.

The area of spring wheat sown this year has been reduced probably 10 per cent below the area harvested last year. The oats acreage about the same as last year. Barley acreage has been reduced 7 to 10 per cent.

MAY WEATHER AND CROPS.

May was below normal in temperature and above the average in precipitation. The mean temperature for the state was 58.3° which is 2.1° below the May average. The northern section showed a deficiency of 3.3°; the central section, 1.6° and the southern section, 1.6°. Light frosts were noted in all districts on several mornings, but the damage to vegetation was quite small and mainly confined to low lands in the northern section. The average precipitation for the state, as shown by records of one hundred and thirty-two stations, was 5.95 inches which is 1.82 inches above normal. The greatest excess was 3.68 inches above normal in the northern section. There was more than the normal amount of cloudiness in all districts. During the first week in May the temperature was slightly above normal, and the rainfall generally light. This was favorable for preparing corn ground with soil in fine tilth, and a good beginning was made in planting that most important cereal. The second week brought excessively wet and cold weather, with numerous severe windstorms, which delayed planting and other field work, though the pastures, meadows and small grain received benefit from the moisture. The third week was also cool and cloudy, but the rainfall was not generally excessive.

Field work was resumed on driest ground about the 17th, and considerable progress was made in planting corn, and on the warmest land germination was fairly good. The latter part of the month afforded about the usual alternation of heat and cold, with some more than the average amount of coolness and moisture. The conditions were not generally favorable for germination of corn and much more than the usual amount of replanting was done. In numerous localities, where sufficient care was not taken in selecting and testing seed, the farmers replanted their entire acreage of corn. At the close of the month a fair start had been made in cleaning out the cornfields, and reports indicated a more promising condition of the corn crop than had been deemed possible at an earlier date. Wheat, oats, barley, rye and flax made good growth, with promise of fair yield. The pastures and meadows were extra good. The apple crop appeared to be very good, cherries and plums light. Strawberries were extra fine, ripening earlier than usual.

NOTES AND COMMENTS.

In the beginning this old earth was thickly sown with interrogation points. And some of these are continually cropping out to perplex mankind, somewhat like weeds and fungi. Happily we are not compelled to solve offhand all the complex problems relating to the mysteries of life and the universe. One by one, men are finding out some things heretofore inexplicable; but each step in advance opens out a new field of inquiry, and brings new zest to activity.

Some men are continually stating and restating great problems, while wiser men are intent on solving those questions that most deeply concern human welfare day by day, here and now. The best solvent to apply to all problems is plain common sense.

On a farm near Hawarden, Sioux county, during the first week in May, lightning struck a barbwire fence and gave a fatal shock to a boy named Bert Liston, who was standing near the fence. This is a warning as to the danger of constructing wire fences without protection by ground wires.

And another warning comes from the Belle Fourche district in South Dakota, where a stroke of lightning caused the death

of one hundred horses in a herd of one hundred and three, that were in contact with a wire fence. In thunderstorms keep away from live wires.

Fifty years ago Livingstone carved his name on a tree standing in view of the marvels of the Victoria Falls, in what was then "Darkest Africa." After Livingstone came Stanley and it was only thirty years ago that this great explorer explored the boundaries of Lake Victoria Nyanza, and it is less than twenty years ago when he made his last and in many respects most memorable trip through the then unknown regions of Central Africa, yet we have before us now a two-page advertisement of a fast railway train running through the very region explored by Livingstone and Stanley. A train de luxe leaves Cape Town every Wednesday for Kimberly, Mafeking and Bulawayo, connecting with parlor car service and sleeping accommodations to Gwelo, Salisbury and Victoria Falls. These trains are lighted by electricity and provided with dining and buffet accommodations. The Cape to Cairo Railroad indeed reaches nearly every important point, which only a few years ago we were reading about in the wonderful narratives of Livingstone's and Stanley's explorations. Nothing could illustrate more vividly the rapidity with which modern civilization is moving and the speed with which Darkest Africa is being opened, not only to the commerce but to the tourists of the world. Not only have the Victoria Falls thus been brought within the easy reach of travelers, but this stupendous wonder of the world, like Niagara, is about to be utilized to provide power to conduct electric energy for use in transportation and industry.—*Wall Street Journal*.

ALMOST IDEAL.

(Selected)

I know a spot where a brook spreads out and forms a limpid pool;
The elms and alders shade the place and keep it nice and cool.
A mossy bank slopes down on which one may rest all day long,
And many a bird is there to cheer the angler with its song.

A flattened rock on which to put your creel is near at hand;
In short, accommodations there may fitly be termed "grand."
There's everything about the spot the fisherman could wish,
And the only drawback seems to be the total lack of fish.

WEATHER BUREAU SAVING.

[The Prairie Farmer.]

In connection with what Chief Willis L. Moore of the United States Weather Bureau says in another column on the matter of "long range forecasts", it is timely that something should be said relative to the actual value that weather forecasts are to the farmer. Obviously, it is impossible to secure definite information as to the amounts annually saved through the agency of the weather bureau, but as the farmer becomes so situated that he can take advantage of its forecasts he is enabled to increase its benefit to himself and curtail losses that would otherwise occur. However, some interesting information on this point is published in the June issue of the Century magazine on the authority of Gilbert H. Grosvenor, who says:

"Some time ago a skeptical insurance company determined to investigate the amount of property saved in one year by the warnings of the weather bureau. It was a company of conservative men whose estimate would be under rather than above the truth, but it found that on an average the people of the United States saved every year $30,000,000 because of their weather service. As the people contribute $1,500,000 every year to its support, this means that they get annually a dividend of 2,000 per cent on the investment. An investment in which the original capital is paid back twenty times over in twelve months is extraordinarily profitable and well worth investigation.

Men are willing as a rule to invest money when they are able to secure a nominal return. If it be a fact that the investment of the cost of the government weather service pays a dividend of 2,000 per cent, it is certainly worthy of support. Thus the attacks that are occasionally made upon the service are illy advised, indeed, and worthy of little consideration.

Our readers are familiar with the bulletins that are issued in every State each Monday night for the week preceding. While these largely cover the conditions of the crops and the climate for that week, they are none the less valuable to every progressive farmer anxious to keep in touch with conditions in neighboring counties and States.

CHIEF MOORE ON LONG RANGE WEATHER FORECASTS.

(From the Prairie Farmer.)

From time to time our attention has been called to the claims of the long range weather forecaster, and his attacks upon the United States government service. While we have only words of commendation for the weather bureau, *The Prairie Farmer* has no sympathy for the weather fakir who seems to be content to work the public for what money there is in the business. Some time since we received a letter from a certain "long range forecaster" who desired to sell his "forecasts" to this publication. Ordinarily his communication would have been consigned immediately to the waste paper basket without further thought, but having seen the service offered to us in a number of our "country dailies" and observing a direct attack in this circular upon the Weather Bureau of the United States Bureau of Agriculture at Washington, we were prompted to forward the communication to chief Willis L. Moore of the Weather Bureau. We received from him the following reply, which we take the liberty of reproducing:

"I have just received your letter inclosing the pamphlet of a certain long range weather forecaster, and his personal letter to 'The Editor,' in which he asks for editoral comment that will advertise the forecasts that he has to sell. He calls attention to his oft-repeated warnings to the public that unusually destructive tornadoes, and other radical weather changes, would occur in April and May, *notwithstanding the fact that these are the most quiet months of the year*. He thinks that the fact that these warnings were verified is worthy of editoral comment by you. In answer, permit me to say that his statements are not founded upon fact, for April and May are the two months in which tornadoes always occur. Any one who uses long range predictions can make just as good a guess of tornadoes for April and May as the long range forecaster. It is ridiculous for any one to claim that a prediction of 'April and May will be the dangerous storm months this year, expect tornadoes and other dangerous storms' bears any definite relation to any definite storm occurring at any definite time at any definite place. Any faker can gain fame with the ignorant by predicting tornadoes for April any May, and at times he may include the latter part of March and all of June, because tornadoes occur every year during those months. I know of no April, May or June in which tornadoes have not occurred.

"The Weather Bureau is able to foresee from the morning map, when conditions are favorable over a large area, such, for instance, as that of a state, for the development of tornadoes, and very often it has predicted them and they have occurred inside of the area defined; but several years ago I prohibited the forecasting of tornadoes, for the reason that they only touch an infinitesimal part of the region over which the conditions were

favorable for their development, and it was not considered advisable to alarm millions of people, in hundreds of towns in order that a few persons in one city, or in two or three adjacent towns, might take the necessary precautions. We have contented ourselves with saying to the public that, whenever, in the spring or early summer months, the forecast contains the statement that there is a likelihood of severe thunderstorms, there is a possibility that some of them may develop into tornadic whirls.

"I believe it to be the function of an institution supported at public expense to do its best to expose deception, and those who would prey upon the credulity of the ignorant for the purpose of deriving personal profit. With this thought in mind, I have persistently attacked the long range forecasters, no one of whom, I believe, has any scientific principle back of his prediction. Some of them believe that, because of a few coincidences between the conjunction of certain planets and their forecasts, they have the ability to make predictions that have value; but the majority know that they are charlatans and that they are perpetrating fraud upon the public in selling their forecasts. I have adopted the policy of never mentioning the name of any of these long range forcasters in my opposition of them. This would be to their profit, as it would bring him into the limelight, enable him to talk back and attract attention to himself, which would only create curiosity in the public mind as to what predictions he was making, and so inure to his personal profit.

"I thank you for calling my attention to the matter. I am sure that *The Prairie Farmer* will never disseminate ignorance or untruth, but that in the future, as in the past, it will be found giving out correct information that will benefit its readers and educate and instruct them."

THE FUNNEL AND THE TORNADO.

[Kansas City Star.]

A feature of the tornado that enhances its terror is the mystery of its operation. There is something uncanny about the power of the funnel-shaped cloud that expends its force on a comparatively narrow swath and leaves the surrounding territory untouched. People instinctively inquire how such an enormous source of energy is developed and why it displays itself only in certain portions of the country.

Perhaps the simplest explanation of the tornado's formation can be based on the analogy of the escape of water from the opening of a funnel. The particles of water all tend to slide down the funnel's sides in straight lines to the mouth. But the opening is narrow, the particles jostle against one another, and in their effort to escape a swirling motion is set up. This is slow about the edges, but increases in rapidity toward the center in accordance with a well known law of physics. If the funnel is large the escaping water may attain an extreme velocity at the center. A familiar illustration is the miniature whirlpool produced when the plug is withdrawn from a washbowl.

The tornado is simply the washbowl inverted; that is, the suction is upward, not downward. There is a sudden rarefaction of air. A partial vacuum is created and air is sucked in from all sides to fill it. The particles crowd against each other in rushing toward the center, a vortex motion is produced and about the core of the storm the air is supposed to revolve frequently at the rate of four hundred or five hundred miles an hour.

The partial vacuum results from the contact of moist air masses of different temperatures. This occurs most frequently in the spring when the earth is heating rapidly, but when the upper atmosphere is still abnormally chilly. When such conditions exist a mass of warm, humid, light air may be isolated and hemmed in between colder, heavier masses. Suddenly it may happen to be released and so may shoot upward, releasing its moisture in rain and being helped in its ascent by the latent heat liberated by the condensation of the vapor. The colder, heavier air rushes in from all sides and the tornado vortex is the outcome.

Experience has shown that for this result there must be usually a temperature of at least 70 degrees with great humidity at a time of year when there may be much colder atmospheric strata near the earth. California is not visited by tornadoes because the whole atmospheric mass there is subject to the ameliorating influences of the ocean climate, and no large bodies of air at sharply diverse temperatures come in contact with each other. Similarly, tornadoes do not occur north of the fiftieth parallel, because the necessary heat is lacking. But they develop in the central and eastern parts of the United States, in Southern Europe and Africa.

CLIMATOLOGY OF THE MONTH OF MAY 1904.

BAROMETER.—Mean pressure, 29.90 inches; highest observed, 30.28 inches, at Dubuque, on the 23d; lowest observed, 29.31 inches, at Des Moines, on the 3d; range for state, 0.97 of an inch.

TEMPERATURE.—The monthly mean temperature for the State, as shown by records of 123 stations, was 58.3°, which is 2.1° below normal. By sections the mean temperatures were as follows: Northern section, 56.0°, which is 3.3° below normal; central section, 58.6°, which is 1.6° below normal; southern section, 60.4°, which is 1.6° below normal. The highest monthly mean was 63.6°, at Keokuk; lowest monthly mean, 53.2°, at Sibley. The highest temperature reported was 88°, at Glenwood and Welton Junction on the 3d and 29th; lowest temperature reported, 28°, at Washta on the 26th. The average monthly maximum was 82.2°; average monthly minimum, 34.3°. Greatest daily range, 49°, at Carroll; average of greatest daily ranges, 36.9°.

PRECIPITATION.—Average precipitation for the state, as shown by records of 132 stations, was 5.95 inches, which is 1.82 inches above normal. The averages by sections were as follows: Northern section, 7.60 inches, which is 3.68 inches above normal; central section, 5.88 inches, which is 1.79 inches above normal; southern section, 4.38 inches, which is .03 of an inch above normal. The largest amount reported was 10.83 inches at Hanlontown; least amount reported, 2.57 inches at Bonaparte. The greatest daily rainfall reported was 3.48 inches at Onawa on the 11th. Average number of days on which .01 of an inch or more was reported, 14.

WIND AND WEATHER.—Prevailing direction of the wind, northwest; highest velocity reported, 59 miles per hour, from the south, at Sioux City, on the 3d. Average number of clear days, 12; partly cloudy, 11; cloudy, 8.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	29.90	30.25	23	29.38	3
Davenport	29.90	30.24	23	29.50	14
Des Moines	29.90	30.23	23	29.31	3
Dubuque	29.92	30.28	23	29.49	3
Omaha, Neb	29.87	30.26	31	29.19	3
Keokuk	29.90	30.19	31	29.49	3
Sioux City	29.88	30.23	31	29.35	3
Means	29.90	30.28	23	29.31	3

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	6.621	39	SW	7
Davenport	6.101	32	SE	9
Des Moines	7.462	38	SW	1
Dubuque	5.619	27	NW	14
Keokuk	6.323	34	SW	11
La Crosse, Wis	5.825	28	SE	1
Omaha, Neb	7.541	44	N	14
Sioux City	11.444	59	S	3

CLIMATOLOGICAL DATA FOR MAY, 1905.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Algona	Kossuth	1,213	28	56.1	- 3.4	80	3	32	26	38	7.95	†4.50	2.05	....	16	10	8	13	NW	3, 11, 24, 27
Alta	Buena Vista	1,513	14	55.6	- 3.0	80	1	32	8, 26	38	8.74	†4.52	2.04	....	17	9	14	8	S	2, 3, 7, 9, 11, 24, 28
Alta (near)	Buena Vista	.....	....	.....	.....	.....	.....	.....	.....	.....	8.22	....	1.52	....	16	....	....	....	.....	
Alton	Sioux	.....	....	55.4	.....	80	1	33	5, 8	37	8.80	.....	1.98	....	17	12	10	9	NW	1, 2, 3, 7, 9, 10, 11, 13, 25, 28, 29
Britt	Hancock	1,236	8	55.8	- 3.3	80	3	31	26	38	8.10	†4.41	2.44	..	21	2	23	6	SW	2, 4, 29
Charles City	Floyd	1,015	18	55.1	- 4.8	78	3	34	26	37	7.07	†3.02	1.52		17	6	11	14	NW	2, 3, 7, 9, 10, 11, 18, 29
Clear Lake	Cerro Gordo	1,241	7	57.4	- 3.9	84	31	37	5, 8, 26, 27	37		.....	2.40	..	....	10	15	6	NW	
Cresco	Howard	.....	31	55.0	- 1.7	78	3	34	26	32	6.60	†2.84	1.59	T	18	10	9	12	S	2, 3, 4, 7, 9, 11, 15, 29
Decorah	Winneshiek	857	12	56 4	- 4.8	83	3	33	7	39	6.48	†2.11	1.86	....	15	....		....	....	
Dows	Wright	1,142	9	55.8	- 3 9	79	1	31	26	36	8.15	†3.08	1.65	....	17	16	7	8	NE, SW	1, 2, 3, 9, 11
Elkader	Clayton	727	21	58.4	- 2.5	84	3	33	7	41	6.35	†2.30	1.98	..	15	12	14	5	SE, NW	4, 9, 10, 11, 15, 29
Estherville	Emmet	1,298	12	54.6	- 4.1	79	1, 3	31	26	41	9.15	†6.02	2.20	....	18	17	3	11	SE, NW	
Fayette (a)	Fayette	.....	15	55.1	- 2.6	80	3	31	7	40	6.45	†1.61	1.64	....	18	....	....	....	.....	3, 4, 7, 9, 11, 29
Florence	Wright	1,226	...	.....	.....	.....	.....	.....	.....	.....	6.96	.....	1.50	....	19	5	21	5	E	3, 4, 6, 9, 10, 11, 25, 28
Forest City	Winnebago	1,226	11	55.8	- 3.8	80	3	34	5, 26	34	7.89	†4.09	2.26	....	14	15	1	15	E	
Grand Meadow	Clayton	1,180	11	56.1	- 2.1	77	31	36	5, 7, 8, 26	34	8.60	†3.45	2.34	....	15	7	9	15	SE, NW	
Greene	Butler	924	8	57.3	- 3.3	81	3	33	26	40	7.51	†3.37	1.75	....	18	6	11	14	W	
Hampton	Franklin	1,155	13	57.6	- 0.8	80	1, 3, 20	35	5, 8, 26	39	8.50	†4.33	2.45	....	14	5	20	6	SW	
Hanlontown	Worth	.....	....	55.2	.....	79	1, 3	32	26	40	10.83	.....	3.26	....	15	15	9	7	SE	3, 4, 10, 11, 15, 26
Humboldt	Humboldt	1,095	16	55.4	- 4.9	82	1	33	26	37	7.04	†3.16	1.60	....	17	15	7	9	SW	11
Inwood (j)	Lyon	.....	....	56.5	.....	82	1	29	4	38	6.29		1.40	..	13	16	2	13	NW	4
LeMars	Plymouth	1,224	7	56.3	- 4.3	82	1	32	5, 8, 26	41	8.87	†5.28	2.32	..	11	7	16	8	S	28, 29
Mason City	Cerro Gordo	1,132	8	56.6	- 2.4	81	3	33	26	38	8.19	†4.24	2.35	....	15	8	17	6	N	9, 10, 11, 13, 25, 29
New Hampton	Chickasaw	1,169	7	56.6	- 2.7	79	3	34	7	39	7.35	†2.88	1.71	....	20	6	16	9	NW	15
Northwood	Worth	1,222	8	56.2	- 2.7	80	3	34	26	40	7.89	†3.47	1.35	....	21	7	15	9	NW	4, 7, 10, 11, 15, 25
Osage	Mitchell	1,184	13	56.4	- 0.7	81	3	34	26	37	7.42	†3.19	2.39	..	18	9	5	17	S	7, 9, 11, 13, 15, 29
Pocahontas	Pocahontas	1,190	...	56.6		81	1	33	8, 26	40	8.04	.....	2.05	....	11	14	11	6	SW, NW	3, 11
Plover	Pocahontas	.....	8	56.7	- 3.7	82	2	32	26	39	6.60	†3 32	1.75	...	10	16	5	10	S	2, 3, 4, 6, 29
Ridgeway	Winneshiek	1,215	7	57.4	- 3.2	82	3	36	5, 7, 8	36	6.88	†1.73	1.88	....	21	10	16	5	S	2, 3, 4, 7, 9, 10, 11, 13, 14, 15, 29
Rock Rapids	Lyon	1,021	7	55.4	- 1.8	80	1	30	8	38	5.35	†1.96	.75	....	10	7	10	14	NE	
Sheldon	O'Brien	1,422	6	55.3	- 8.7	82	1	31	8	40	8.60	†4.93	2.90	T	14	14	6	11	S	1, 2, 3, 4, 9, 15, 16, 24, 26, 28, 29, 30
Sibley	Osceola	1,212	12	53.2	- 5.4	81	1	31	26	48	7.96	†4.61	2.09	....	18	16	1	14	SE	1, 3, 4, 10, 25
Sioux Center	Sioux	.....	6	54.6	- 604	79	1	30	8	36	6.94	†3.12	1.12	....	14	11	8	12	S, SW, NW	1, 9
Storm Lake	Buena Vista	1,440	8	54.6	- 3.4	79	1	32	8, 26	41	7.50	†3.98	2.03	...	15	15	4	12	SE	
Washta	Cherokee	1,157	....	56.6	...	85	25	28	26	40	6.83	†3.67	1.92	..	12	14	8	9	N, S	9
Waverly (a)	Bremer	942	9	57.0	- 4.4	79	3	35	7	38	6.80	†2.18	1.84	....	19	8	15	8	E	1, 2, 3, 7, 9, 10, 11, 14, 29
West Bend	Palo Alto	1,197	12	55 9	- 3.4	80	1	32	8	38	6.60	†3.76	1.44	....	16	....	....	....	N, SE, S	1, 4, 11
Average	.....	.....	...	56.0	- 3.3	80.5	.....	32.6	.....	38 4	7.60	†3.68	.....	T	16	11	11	9	NW	

CENTRAL SECTION.

Amana	Iowa	721	27	59.8	- 0.2	83	29	36	7	35	7.87	†3.41	3.48	...	16	10	14	7	SW	3, 6, 9, 10, 11, 15, 24, 25, 28
Ames	Story	926	21	58.4	- 1.2	80	1	35	5	35	5.51	†1.28	1.65	....	16	13	13	5	NW	
Audubon	Audubon	1,301	9	57.8	- 2.5	83	1	31	26	44	6.19	†2.27	1.95	..	17	6	17	8	.....	4, 10, 11, 13, 15
Baxter	Jasper	998	....	58.2	- 3.9	82	29	35	5	38	6.31	.....	1.40	..	12	11	11	9	SE	
Belle Plaine	Benton	826	14	59.2	- 0.1	83	29	37	5	38	8.28	†3.84	2.90	....	15	10	10	11	E	
Boone	Boone	....	....	57.6	.....	80	1	36	5	43	7.43	.. ....	2.67	....	15	13	11	7	.....	3, 9, 10, 11
Buckingham	Iowa	.....	....	.....	.....	.....	.....	..	.....		5 50	.....	1.53	..	15	....	....	....	....	
Carroll	Carroll	1,265	13	57.2	- 2.3	83	1	31	26	49	6.29	†1.88	1.98	....	14	22	3	6	.....	2, 3, 7, 8, 9, 10, 11, 13, 14
Cedar Rapids	Linn	733	23	60.2	† 0.2	82	3, 10	38	1	42	8.31	†3.79	2.80	..	17	7	16	8	SW	
Clinton	Clinton	609	38	60.6	- 0.3	87	3	35	7	39	5.95	†1.35	1.88	....	12	13	5	13	SW, W	10, 11, 29
Davenport	Scott	606	34	61.0	- 0.7	84	29	43	26	35	3.12	-1.20	1.69	....	13	10	10	11	NW	9, 10, 11, 15, 28, 29
Delaware	Delaware	1,083	12	57.2	- 1.5	80	3	36	5, 7, 26	33	6.13	†2.01	1.63	....	14	12	14	5	S	9, 10, 11, 15, 28, 29
Denison ‡	Crawford	1.180	9	57.1	- 3.5	83	1	26	4	48	5.53	†1.93	1.03	..	17	16	11	4	N	
Des Moines	Polk	861	27	59.1	- 1.3	80	29	38	5	36	4 44	- .26	1.37	....	15	4	20	7	SW	3, 9, 10, 11, 13, 15, 24, 28, 29
De Soto (a)	Dallas	866	...	59.5	.....	82	10	35	5	33	3.97	. .	1.29	..	13		....	....	SW	
Dubuque	Dubuque	655	32	59.0	- 0.9	80	3	40	9	27	4.06	† .07	1 29	....	16	11	8	12	S	6, 10, 11, 15, 16
Fort Dodge (c)	Webster	1,126	....	56 5	.	82	1	35	1, 26	47	4.82	.....	1.00	....	17	18	2	11	SE	
Galva	Ida	1,290	12	55.6	- 5.1	81	1	30	26	40	8.05	†4.75	1.53		14	18	6	7	S	
Gilman	Marshall	1,052			.....	.....	.....	.....	....	.....	5.52	†1.52	1.17	....	13	14	9	8	S	
Grinnell	Poweshiek	1,023	10	59 1	- 1.1	82	29	38	26	32	6.35	†1.70	2 28	....	15	11	11	9	NW	4, 9, 10, 11, 14, 15, 28, 29
Grundy Center	Grundy	976	12	57.3	- 1.4	80	3	33	26	37	6.82	†1.87	1.14	....	16	11	9	11	S	7, 8, 9, 10, 11, 13, 14, 15, 16, 24, 28, 30

CLIMATOLOGICAL DATA FOR MAY, 1905—CONTINUED.

CENTRAL SECTION—CONTINUED.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Guthrie Center..	Guthrie	1,077	7	59.2	- 1.8	82	1	33	26	44	4.79	† .22	1.22	....	14	21	5	5	SW, NW	3, 7, 9, 11, 15, 28
Harlan.....	Shelby ..	1,192	....	58.0	- 3.7	82	1	32	26	41	4.29	- .07	.89		13	4	22	5	E	1, 2, 3, 9, 10, 11, 13, 14, 15, 28
Ida Grove.....	Ida.....	1,220		57.1	.....	83	1, 2	32	7, 26	41	6.36	.....	1.28	....	11	15	13	3	W	
Independence ...	Buchanan. ..	921	40	57.4	- 2.3	78	3	35	7, 26	38	7.44	†3.27	2.55	..	14	14	8	9	SE, W, NW	3, 7, 10, 15, 28, 29
Iowa City	Johnson.....	683	47	60.0	- 0.3	85	10, 29	37	7	42	5.37	†1.03	1.09	....	15	13	2	16	N	
Iowa Falls.....	Hardin	1,170	10	55.9	- 3.8	79	3	33	26	38	7.73	†4.18	1.05	....	17	11	10	10	NW	2, 3, 4, 7, 9, 10, 11, 15, 28
Little Sioux.....	Harrison	.....	....	60.0	.....	85	1	36	8	38	4.25	.....	.82	....	15	12	12	7	SE	3, 9, 10, 13, 28, 29
LeClaire..	Scott	576	....	.....	.....	.....	.....	.....	.. ..	.....	3.96	.....	.69	....	14	...	....	.	S	
Logan.....	Harrison	928	36	58.7	- 2.5	84	1	32	5	38	4.26	† .07	1.02	....	14	7	20	4	NW	
Maquoketa.....	Jackson.	688	12	58.4	- 2.7	81	3	34	7	37	5.78	†1.26	1.28	.. .	16	14	3	14	NE	
Marshalltown...	Marshall	947	10	58.3	- 1.8	82	3	35	26	39	6.11	†1.37	1.15		11	15	5	11	NW	9
Monticello (a)....	Jones.....	925	....	58.6	- 0.9	87	24	32	26	47	5.57	†1.66	1.04	....	14	12	12	7	SE, NW	29
Muscatine.....	Muscatine....		46		.....	.....	....	.....	....	..	3 20	-1.18	.64		14	....		....	N, S	
Mt. Vernon .	Linn.....	847	30	59.8	† 0.4	87	10	35	5	47	5.41	†1.32	1.06	....	17	13	6	12	NW	8, 9, 10, 11, 15, 16, 28, 29
Montezuma	Powe hiek	.....	....	.....	.....	.....	.....	.....	.....	.....	4 35	.	.70	....	11	...	...	...	.....	
Newton.....	Jasper..... .	944	15	58.1	- 2.8	80	3	37	5, 7	38	8.25	†4 79	2.52	....	14	13	12	6	SE, S	
Odebolt.....	Sac	1,356	8	56.8	- 5.1	83	1	29	8	42	6.42	†4.15	1.75		13	17	6	8	.....	
Ogden	Boone	1,058	9	58 9	- 2.5	80	1, 3	34	5, 26	37	5 40	† .24	1.94	...	12	14	14	3	S	
Olin	Jones	760	7	59.0	- 2.0	82	29	35	7	33	6.37	†1 85	2 90	..	13	14	9	8	NW	9, 10, 11, 15, 27, 29
Perry.....	Dallas..... .	975	....	59.4	.....	82	1	34	5	40	6.06	.....	2.20		12	4	23	4	.....	
Onawa..	Monona	.....	....	61.5	- 2.2	87	1	35	5	43	7.57	†3 19	2.05		15	20	6	5	NW	3, 7, 9, 11, 29
Rockwell City....	Calhoun.	.....	8	57.0	- 3.6	88	1	31	5, 8	41	7 05	†3.71	2 05		12	15	8	8	.....	
Stuart	Guthrie	.....	8	59.8	- 2.3	81	1, 22	31	13	37	3.99	- .46	1.05	....	11	2	17	12	.....	
Sioux City	Woodbury.....	1,165	16	56.9	- 1.5	83	1	35	5	37	8.41	†4.74	3.18	...	17	2	18	11	N	2, 3, 7, 9, 11, 13, 24, 28, 29
Tipton.....	Cedar	807	....	61.8	†1.1	82	29	40	12	37	4.08	-1.23	1.53	..	6	18	9	4	SW	
Toledo..... ...	Tama.....	856	9	58.6	- 3.2	81	3	34	26	36	5.90	†2.19	1.50	....	16	9	17	5	NW	
Waterloo..... ..	Black Hawk. ..	862	16	57.6	- 2.4	80	3	35	26	37	5.66	†1.28	1.29	T	17	7	14	10	.....	3, 4, 10, 14, 15, 29
Waukee	Dallas..... .	1,039	....	60.4	..	85	10, 31	35	5	40	5.01	.....	1.23	..	13	10	15	6	SW, NW	3, 8, 9, 10, 11 13, 15, 24
Wilton Junction.	Muscatine.....	683	11	61.2	- 1.2	88	29	36	7	34	4.72	† .40	.98	...	10	13	5	13	NW	
Webster City	Hamilton	.....	..	58.2	.....	82	20	31	26	38	6.98	.....	1.49	....	10	22	0	9	SE	
Whitten (a)	Hardin	1,036	....	57.8	- 2.0	81	3	33	5, 26	39	6.66	.....	1.90		11	9	16	6	SW	1, 4, 7, 8, 9, 10, 11, 12, 13, 14, 15, 28, 29
Zearing	Story.....	718		56.7	....	79	1, 3	31	3, 7	48	6.75	.....	1.32	...	14	12	12	7	SW	8, 9, 10, 11, 15
Average ...	..... .	... .	....	58.6	- 1.6	82.3	.....	34.6		34.7	5.88	†1.79		T	14	12	11	8	NW	

†Above normal. ‡Received too late to be computed with means. *a*. One day missing; *b*. two days, etc. §Not supplied with self-registering instruments.

SOUTHERN SECTION.

Afton	Union.....	1,212	11	60.4	- 2.7	87	29	34	5	37	4.76	†0.05	1.28	....	10	4	20	7	SW	
Albia.....	Monroe.....	957	.	60.0	- 2.2	85	29	38	1, 5, 26	41	4.76	† 54	2.50	....	12	18	1	12	SE	
Allerton.....	Wayne	.....	....	60.3		84	29	36	5	35	3 81	.....	1.14	....	13	19	8	4	NW	9, 10, 27
Atlantic	Cass	1,164	14	58.4	- 1.2	84	1	31	26	46	3.03	-1.14	.70	...	9	6	6	19	S, SE, W	2, 9, 11, 13, 28
Bedford	Taylor	*	5	59.1	- 3.7	79	1	33	5	40	6 28	† .16	1.09		14	12	5	14	SE, NW	
Bonaparte	Van Buren....	.....	14	61.6	- 1.3	85	29	38	7, 12	34	2.57	-1.46	.93	....	8	....	....	....	....	
Burlington.....	Des Moines....	544		62.8	.....	85	4, 29	40	12	32	3.07	.....	.61	....	12	16	9	6	S	11, 13, 29
Chariton	Lucas	1,042	10	59.2	- 3.5	83	29	35	5	38	5.51	†1.24	1.35	....	11	17	7	7	SE	3
College Springs..	Page.....	.....	14	59.2	- 2.2	82	1	35	5	38	4.32	- .62	1.87	...	11	21	3	7	NW	
Columbus Junct.	Louisa	586	..	60.8	.....	84	29	35	18	33	3.18	.....	.74	..	13	21	7	3	SE	9, 10, 11, 15, 16, 28, 29
Corydon(d)	Wayne.....	992	12	60.5	- 1.3	84	29	36	5	33	3.84	-1.13	1.15		14	11	14	6	S	11, 15
Corning	Adams.....	1,127	13	59.4	- 1.6	81	1	34	5, 26	38	4.31	-0.42	.75	....	12	13	13	5	SW, NW	9, 11, 13, 29
Clarinda	Page..... ..	.....	15	59.7	- 2.0	84	1	33	5	44	6.32	†1.53	1.68	....	12	20	1	10	NE	24, 27, 28
Creston.....	Union	.....	....	57.9	....	79	1	35	5	37	4.32	.....	1.32	....	12	16	9	6	E, SE, S	10
Cumberland	Cass	.....	....	.....	..	.....	.....	.....	.....	...	4.94	† .93	1.23	....	8	17	6	8	NE, SW	9, 14
Earlham	Madison.	.....	....	57.2	.....	80	29	31	5	39	4.01	.....	1.27	....	12	18	8	5	SW	4, 10, 11, 13, 15, 29
Elliott	Montgomery..	.....	..	59.6	...	87	31	32	5	47	3.55	.....	.78	....	11	11	20	0	SE	3, 10, 11, 13
Ft. Madison.....	Lee	516	56	.....		.....	.....	.....	.....	....	3 92	- .94	1.35	....	6	7	11	13	S	
Glenwood.....	Mills	.....	17	59.8	- 2.1	88	3	32	28	37	3.09	-1.40	1.00	....	9	1	25	5	SW	
Greenfield	Adair.....	.....	14	60.4	- 0.1	84	10	32	5	44	4.94	† .34	1.31	T	14	20	6	5	SW, NW	3, 8, 10, 12, 13, 15, 16, 24, 28
Hopeville.....	Clarke.....	.....	13	59.0	- 1.4	80	10, 29	35	5	36	4.76	†0.00	1.67	....	12	5	20	6	S	10
Indianola.....	Warren	....	.	59.5	- 1.4	82	29	36	26	36	4.02	- .68	1.42	....	11	2	14	15	SW	2, 3, 6, 8, 9, 11, 12, 28
Keokuk	Lee.....	619	34	63.6	† 1.0	86	29	43	26	31	3.01	-1.06	1.04	....	9	11	12	8	SW	10, 12, 13, 15 25, 28, 29
Keosauqua.....	Van Buren	644	13	61.5	- 1.7	87	10, 29	38	7	42	3.77	- .57	1.33	....	15	10	10	11	....	
Knoxville	Marion.....	920	12	60 8	- 2.3	85	29	37	5	35	5.57	†2.21	1.50	....	13	8	14	9	SE	
Lacona.....	Warren.....	.....	....	.....	.....	.....	.....	.....	.....	.....	5.43	- .49	1.98	....	11	7	17	7	.....	
Lenox	Taylor	1,250	10	59.3	- 2.8	80	1, 10	33	5	35	5.42	† .71	1.20	...	12	19	9	3	S, NW	9, 11, 28
Leon.....	Decatur	1,120	....	60.9	.....	81	29	37	5	36	5.39	.....	.91	...	16	18	5	8	S	
Massena.....	Cass	.....	....	60.0	....	82	1, 22	33	5	43	4.40		1.52	....	14	19	4	8	E, S	3, 9, 10, 13
Mt. Ayr	Ringgold.....	1,236	12	61.3	- 1.1	87	10	35	5	41	6.74	†1.35	1.70	....	15	8	17	6	E	
Mt. Pleasant.....	Henry.....	729	24	62.4	† 1.0	87	29	40	12, 26	33	4.01	- .33	.91	....	12	16	11	4	SW	9, 10, 11
Omaha, Neb.	Douglas.....	1,113	34	60.1	- 1.6	84	1	38	5	32	3.40	- .97	.79	....	11	3	16	12	S	1, 2, 3, 9, 11, 13, 28
Oskaloosa.....	Mahaska	843	22	60.4	‡ 0.0	83	29	39	7, 26	35	3.34	- .23	.90	....	13	16	1	14	SW	
Pacific Junction..	Mills	960	6	60.6	- 2.0	84	1, 10	33	5	42	2 83	-2.16	.73	....	14	12	13	6	S	15, 29
Red Oak	Montgomery..	1,033	8	63.1	‡ 0.0	86	21, 23	35	26	41	3.86	† .12	1.07	....	11	18	8	5	SW	
St. Charles.	Madison.....	1,070	...	59.2	...	82	29	36	5	36	5.05	.....	1.00	....	15	16	10	5	NW	
Sidney	Fremont	.....	....	62.0	....	86	1	36	5	39	5.96	.....	2.00	....	9	18	4	9	NW	24, 29
Sigourney.....	Keokuk	887	9	61.4	- 2.8	87	29	38	5, 12, 26	36	3.83	- .15	.55	....	15	1	29	1	NW	4, 10, 15
Stockport.....	Van Buren....	.....		61.6	.....	83	29	40	7	33	3.45	.....	.71	...	15	10	6	15	NW	10, 11, 15
Thurman.....	Fremont	.....	....	61.1	- 2.2	85	1	34	5	45	6.20	†1.49	2.28	....	11	13	9	9	NW	
Wapello	Louisa	588	7	61.4	- 3.0	82	4	41	12	31	4.23	† .64	1.30	...	10	16	12	3	W	
Washington.....	Washington...	769	13	60.6	- 0.8	84	28	39	5, 7, 12	35	4.05	† .62	.77	....	13	....	....		SW	
Winterset.....	Madison	1,129	14	59.8	- 2.5	81	29	35	5, 26	40	3.63	- .94	.98	....	12	21	4	6	NW	11, 13
Woodburn	Clarke.....	961	6	59.4	.....	82	29	34	7	38	6.06	† .67	2.53	....	14	14	11	6	SW	11, 15
Average	....	.....	....	60.4	- 1.6	83.7	.....	35.7	.....	37.7	4 88	† .03	.....	....	12	13	10	8	SW, NW	
Average for State	.....	.....	....	58.3	- 2.1	82.2	.....	34.3		36.9	5.95	†1.82	.....		14	12	11	8	NW	

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR MAY, 1905.

STATIONS.		DATE																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max..	79	77	80	73	65	63	75	73	53	81	80	71	64	69	76	60	67	69	77	78	80	79	77	80	64	71	67	74	81	74	79	73.1
	Min ..	42	57	60	46	34	48	38	43	46	52	54	38	40	51	50	43	45	42	41	47	50	51	47	50	56	36	57	55	60	53	47	47.8
Albia*....	Max..	79	79	83	69	76	67	74	64	64	84	79	72	69	63	76	60	66	66	71	75	78	78	74	78	68	68	67	78	85	65	77	72.8
	Min ..	38	45	57	53	38	40	42	47	41	44	62	40	42	59	50	50	40	43	42	43	53	54	43	47	56	38	42	52	64	55	47	47.2
Algona...	Max..	79	76	80	71	53	52	73	59	49	69	73	70	70	68	72	55	64	61	74	76	72	75	70	75	68	64	55	67	61	70	74	67.7
	Min ..	44	47	62	45	35	43	35	35	37	40	43	37	47	50	47	43	44	41	41	45	48	50	41	51	44	32	47	49	55	48	48	44.5
Allerton .	Max..	78	77	80	74	65	66	73	65	60	82	80	71	65	68	76	60	65	69	72	75	75	78	74	77	67	68	67	73	84	67	80	72.1
	Min ..	44	51	62	50	38	43	38	48	47	55	57	37	52	53	43	48	44	42	43	42	33	54	44	48	56	37	51	57	62	55	45	48.5
Alta.	Max..	80	75	78	69	50	53	72	55	45	67	75	69	66	64	65	53	65	62	72	74	77	77	76	77	58	63	52	65	62	67	73	66.6
	Min ..	42	56	55	37	33	42	40	32	42	42	39	36	47	53	48	48	41	40	42	52	51	52	50	55	41	32	47	48	49	47	46	44.7
Alton	Max..	80	73	79	70	56	55	71	59	55	64	71	71	65	69	67	57	65	63	73	75	76	78	76	78	61	62	59	65	61	68	73	67.6
	Min ..	43	44	50	42	33	43	38	33	42	42	40	33	44	50	46	47	43	40	39	39	41	51	49	57	44	34	43	35	53	46	45	43.1
Amana...	Max..	77	79	80	74	65	61	71	66	53	79	74	69	70	66	76	60	62	60	72	77	78	78	71	80	68	64	71	76	83	69	77	70.9
	Min ..	47	55	63	60	39	47	36	44	44	44	57	40	55	58	47	47	43	45	44	45	51	53	45	45	55	39	49	57	62	53	47	48.8
Ames	Max..	80	77	78	75	64	60	75	67	53	77	77	69	64	78	69	57	66	64	72	74	76	74	71	72	66	64	68	65	79	69	75	70.2
	Min ..	45	54	60	50	35	44	40	38	43	44	46	40	51	52	48	44	45	43	41	44	49	51	46	47	52	36	47	53	59	52	46	46.6
Atlantic..	Max..	84	77	80	71	64	60	78	71	55	79	80	72	67	72	72	53	68	70	76	78	78	78	77	74	65	67	68	65	77	65	77	71.5
	Min ..	45	55	62	45	33	41	32	38	43	50	45	36	49	51	50	48	41	35	36	40	45	45	50	54	53	31	50	53	54	53	37	45.2
Audubon..	Max..	83	78	79	72	61	58	78	62	53	78	78	69	65	69	70	55	66	67	74	79	78	77	77	75	65	67	64	62	75	67	77	70.3
	Min ..	41	52	61	42	38	43	34	36	44	47	44	37	50	50	49	47	48	37	38	44	44	52	50	48	53	31	50	51	53	52	40	45.3
Baxter. ..	Max..	79	76	80	76	65	63	74	69	53	78	74	67	65	67	70	56	68	65	74	76	76	76	78	78	64	57	72	67	82	70	79	70.2
	Min ..	48	56	59	50	35	43	36	39	43	44	47	38	53	54	45	45	43	41	40	48	48	51	41	47	48	37	45	53	60	51	48	46.2
Bedford ..	Max..	79	75	76	68	65	64	74	72	68	78	76	68	64	70	72	59	68	69	71	75	75	76	75	75	66	67	65	76	77	69	75	71.1
	Min ..	47	52	61	45	33	46	34	44	47	50	48	34	53	51	43	47	46	38	42	42	43	53	50	52	53	35	50	56	61	54	41	47.1
Belle Pl'e	Max..	77	78	79	70	65	64	72	60	45	80	70	70	67	65	75	60	61	63	72	76	72	70	72	81	70	68	72	70	83	73	78	70.7
	Min ..	40	54	60	55	37	43	38	48	43	42	55	39	53	55	47	45	48	43	44	46	53	44	45	48	58	38	50	55	62	53	48	47.6
Bonapar'e	Max..	78	79	82	76	69	68	72	65	58	84	79	70	69	63	76	63	62	64	72	75	77	76	72	78	70	67	72	77	85	79	77	72.8
	Min ..	45	55	64	63	41	51	38	50	45	53	61	38	53	57	49	48	45	45	43	48	50	55	42	48	60	39	52	57	64	54	49	50.3
Boone* ..	Max..	80	75	78	63	62	59	74	58	57	77	75	68	63	68	71	55	68	64	72	75	75	75	71	71	61	63	69	63	77	69	75	68.7
	Min ..	37	47	59	47	36	41	40	38	41	48	55	39	44	48	50	48	44	43	48	50	53	54	48	52	55	37	39	52	55	52	52	46.5
Britt.	Max..	79	78	80	70	57	55	74	56	48	75	74	70	69	67	73	58	63	59	74	79	79	73	74	77	64	66	54	70	67	70	76	68.5
	Min ..	46	50	50	45	33	40	32	34	40	37	43	35	41	48	45	41	42	39	39	44	48	50	46	51	45	31	47	50	49	47	45	43.0
Burling'n	Max..	78	80	83	85	70	69	70	63	58	83	79	71	73	65	77	64	60	64	70	75	78	77	73	78	70	67	73	80	85	79	78	73.5
	Min ..	49	59	64	66	41	54	42	58	44	51	61	40	55	55	50	49	45	46	44	49	53	55	47	52	60	42	53	58	64	58	49	52.1
Carroll*..	Max..	83	73	76	60	60	62	76	58	57	77	77	66	65	71	72	66	69	67	77	76	77	72	75	76	67	63	58	62	73	69	76	69.7
	Min ..	34	55	60	43	34	39	38	34	41	42	50	37	50	49	50	46	42	38	40	44	48	49	46	53	49	31	48	48	55	51	43	44.6
Cedar R*.	Max..	80	80	82	76	66	62	74	68	51	82	72	71	70	65	75	59	61	61	74	79	79	73	73	80	68	66	72	72	80	72	78	71.5
	Min ..	38	48	62	63	40	43	40	45	44	41	51	42	46	54	50	48	44	45	47	49	52	58	45	50	58	42	46	58	58	54	52	48.8
Chariton .	Max..	78	76	80	63	64	65	73	60	80	79	70	65	67	75	58	65	64	72	77	75	76	72	78	70	65	66	64	75	83	68	77	71.1
	Min ..	44	50	62	48	35	47	37	45	52	57	37	37	52	47	45	44	42	42	44	52	53	45	48	50	52	33	50	55	60	53	45	47.4
Charles C.	Max..	76	77	78	64	59	52	72	54	45	75	70	68	66	62	74	54	59	57	72	75	75	73	71	69	58	63	62	64	69	71	75	66.1
	Min ..	43	55	59	40	36	40	35	36	39	40	40	38	49	47	45	42	42	43	40	42	48	50	42	48	40	34	51	53	53	50	46	44.1
Clarinda*.	Max..	84	79	80	69	67	68	80	67	69	81	80	72	64	72	74	61	70	71	72	75	78	81	78	76	66	68	65	76	80	65	78	73.1
	Min ..	47	52	54	48	33	39	36	44	43	51	52	36	44	51	50	45	45	40	48	44	46	54	51	50	54	38	43	55	57	53	43	46.3
Clear L ..	Max..	75	75	80	72	57	53	70	57	54	74	71	70	68	67	70	54	61	59	74	79	77	76	72	77	69	65	53	67	62	71	84	68.4
	Min ..	43	54	61	49	37	41	42	37	40	38	47	39	50	51	51	42	43	44	44	52	54	53	49	51	48	37	37	51	54	47	52	46.4
Clinton...	Max..	74	84	87	85	70	64	72	65	53	79	75	71	76	69	79	64	61	64	75	81	82	72	74	80	75	69	76	82	84	71	80	74.0
	Min ..	41	61	63	59	41	41	35	42	42	42	57	39	42	54	46	46	46	43	44	42	49	53	42	44	54	43	40	56	57	51	44	47.1
Col. Spgs.	Max..	82	78	67	68	65	64	75	63	68	78	79	70	65	72	72	61	67	69	76	76	76	77	74	78	65	67	68	77	78	64	73	71.3
	Min ..	49	51	44	45	35	45	37	40	48	53	47	37	54	50	48	45	47	41	44	45	46	50	53	52	52	37	54	50	60	55	46	47.1
Colum. J.	Max..	79	80	82	78	64	60	62	62	56	82	74	70	75	66	78	59	62	62	73	77	78	80	77	78	74	68	76	80	84	72	71	72.2
	Min ..	46	57	64	62	39	49	40	47	44	49	60	39	53	55	47	47	48	35	43	49	51	44	42	50	59	38	50	53	63	53	49	49.4
Corning..	Max..	81	76	78	74	62	63	76	71	62	78	72	68	63	70	71	60	63	67	72	73	75	76	74	75	64	66	63	72	77	68	74	70.5
	Min ..	57	52	60	54	34	45	38	48	53	57	41	38	51	51	51	47	45	38	42	44	49	52	48	56	54	34	50	54	61	53	41	48.2
Corydon..	Max..	78	76	80	74	65	68	73	70	57	80	79	70	61	70	76	60	63	68	73	74	73	75	72	76	69	68	66	77	84	74	76	72.0
	Min ..	45	53	53	50	33	..	..	..	..	..	..	..	52	49	48	44	42	43	48	51	51	44	50	58	37	51	55	61	54	47	49.0
Cresco ...	Max..	65	73	78	78	59	50	69	57	48	65	63	66	65	60	70	54	54	56	71	74	74	70	70	70	64	62	59	61	58	68	73	64.5
	Min ..	38	54	60	55	36	40	37	35	37	38	50	39	50	52	44	44	40	42	42	46	49	49	41	49	52	34	49	51	52	47	51	45.4
Creston...	Max..	79	75	77	64	60	63	74	61	62	78	77	68	62	67	72	53	64	65	68	71	74	76	72	72	63	64	62	70	78	63	71	68.7
	Min ..	42	48	55	46	35	40	41	42	43	48	56	40	45	51	53	49	46	41	41	47	50	51	49	52	57	37	44	54	56	53	46	47 1
Davenpo't	Max..	76	79	82	80	67	63	69	64	51	83	75	69	72	65	75	53	60	59	70	76	76	73	69	76	70	63	71	78	84	68	76	70.9
	Min ..	48	60	65	60	44	48	44	43	45	47	49	43	55	57	51	50	48	45	49	51	54	52	46	54	53	43	51	60	57	54	53	51.1
Decorah..	Max..	67	76	83	74	61	52	72	58	48	68	68	70	68	60	75	61	55	58	73	78	78	75	75	72	63	67	61	62	58	72	78	67.3
	Min ..	38	55	63	55	39	42	38	34	38	40	48	42	52	52	43	42	42	43	40	42	48	52	40	45	48	35	51	52	58	50	51	45.4
Delaware.	Max..	71	77	80	73	65	58	69	64	43	70	69	68	69	64	73	60	57	53	70	78	75	67	70	76	72	65	73	64	74	68	77	68.5
	Min ..	40	55	60	59	36	41	36	38	39	39	53	37	52	53	43	41	40	42	42	47	50	52	40	45	50	36	51	51	55	50	49	46.0
Des M....	Max..	79	76	80	66	64	61	73	60	50	79	78	66	64	69	72	58	67	63	71	73	75	77	71	76	62	63	63	66	80	69	75	69.4
	Min ..	45	58	64	45	38	47	41	42	45	50	42	40	51	54	52	46	46	44	43	47	53	53	49	52	48	40	51	57	61	53	49	48.8
De Soto ..	Max..	80	76	78	74	64	64	74	67	55	82	78	69	65	70	73	57	68	74	..	79	78	76	74	75	64	64	67	66	78	70	75	71.1
	Min ..	44	56	63	48	35	46	36	41	45	49	48	39	55	52	51	45	45	41	..	45	43	54	48	49	53	38	49	55	60	53	46	47.9
Dows. ...	Max..	79	76	77	73	60	54	73	60	47	73	72	68	63	65	70	53	63	53	71	74	73	72	70	73	70	61	60	63	63	65	75	66.9
	Min ..	43	52	58	47	34	41	37	34	40	33	48	38	48	42	47	42	42	41	41	46	50	50	46	49	47	31	49	50	55	50	48	44.6
Dubuque.	Max..	69	76	80	77	64	57	68	53	48	63	69	69	71	65	75	58	58	53	72	76	76	67	70	76	68	62	69	66	73	72	76	68.1
	Min ..	44	64	66	55	43	44	41	46	40	42	46	43	55	54	48	48	42	49	45	49	56	52	49	52	56	44	54	54	56	54	54	49.8
Earlham.	Max..	79	76	79	72	62	63	74	65	51	77	77	67	69	67	74	58	63	65	71	73	74	76	71	74	61	64	63	68	80	68	74	69.8
	Min ..	42	52	60	45	31	44	35	39	45	43	45	37	49	50	50	44	44	36	37	40	43	47	40	45	53	32	47	53	58	51	42	44.6
Elkader ..	Max..	73	79	84	77	66	58	74	63	51	70	73	73	70	65	78	62	62	60	78	82	80	76	77	73	65	69	70	62	64	76	79	70.6
	Min ..	38	59	63	62	39	42	33	39	40	39	54	39	53	54	43	49	42	44	38	41	47	52	39	40	54	35	50	53	54	52	45	46.2
Elliott ...	Max..	80	80	80	69	68	63	80	63	64	75	78	75	72	70	72	60	70	69	80	80	85	78	79	79	63	62	64	66	68	67	87	72.4
	Min ..	46	56	63	44	32	42	31	41	43	49	49	35	52	52	49	47	45	33	40	44	47	53	52	53	55	33	52	54	57	53	40	46.9
Esthervil*	Max..	79	73	79	54	52	53	78	55	50	65	70	70	68	67	63	52	63	59	74	76	75	74	75	77	63	61	64	63	58	71	78	66.2
	Min ..	38	44	43	43	35	36	38	33	33	38	46	37	44	49	48	47	43	42	42	46	46	48	44	53	40	31	45	44	58	46	48	42.9
ForestCy*	Max..	70	77	80	60	56	60	76	53	57	71	77	69	69	66	73	52	61	58	74	77	76	75	72	73	58	53	61	69	60	73	73	67.2
	Min ..	38	44	49	47	34	38	35	38	40	47	47	36	45	54	48	44	42	42	42	47	52	54	46	51	47	34	42	48	53	47	49	44.5
F. Dodge*	Max..	82	75	79	60	61	54	73	57	55	75	74	70	62	67	69	55	61	60	72	76	75	77	75	73	62	65	58	64	65	68	76	67.7
	Min ..	35	47	58	47	38	40	40	38	40	42	53	39	44	52	50	49	44	43	42	47	50	50	48	51	52	35	52	..	..	..	..	45.3
Galva	Max..	81	76	78	65	58	55	73	53	52	68	75	69	67	69	65	55	65	62	73	75	75	76	74	75	69	66	56	67	65	70	77	68.0
	Min ..	41	58	55	41	32	41	38	32	41	42	41	35	45	50	47	48	41	35	37	45	41	41	49	53	45	30	48	46	55	48	41	43.2
Glenw'd .	Max..	84	79	83	74	62	60	78	60	70	80	78	72	65	71	70	59	67	67	70	74	75	77	76	72	64	64	63	69	74	66	73	71.0
	Min ..	58	61	67	43	34	43	42	43	48	50	47	39	51	53	50	47	54	44	44	49	52	53	52	54	52	39	51	32	59	53	45	48.5
Grand M.	Max..	68	76	80	72	62	55	70	56	43	65	70	67	67	61	73	60	56	59	72	77	76	71	71	73	63	63	68	58	58	70	77	66.0
	Min ..	39	56	61	55	36	40	33	33	37	37	52	40	57	53	43	48	40	42	43	50	50	51	42	49	47	36	49	51	52	49	50	46.2
Greene...	Max..	79	79	81	74	63	58	73	57	49	79	75	71	69	65	71	55	62	59	74	78	80	75	77	76	70	66	61	64	61	73	78	69.4
	Min ..	43	55	60	51	35	42	35	34	40	39	48	33	48	52	46	44	42	43	40	44	48	50	42	46	53	33	49	50	55	49	47	45.2
Greenfield. ..	Max..	83	78	80	77	65	65	79	68	57	81	80	72	65	71	75	62	69	73	82	83	80	79	77	82	68	69	67	67	82	72	82	74.1
	Min ..	39	53	55	43	32	43	39	49	44	50	49	37	48	49	50	48	43	42	48	50	53	55	49	45	54	35	48	53	58	48	54	48.8
Grinnell.	Max..	76	76	77	74	64	61	71	67	52	76	72	67	66	65	73	56	63	63	69	74	74	73	70	77	65	63	68	69	82	69	74	69.2
	Min ..	45	54	61	54	39	43	42	43	41	44	51	41	54	55	50	46	43	45	45	50	53	57	45	50	55	33	50	56	61	52	53	49.0
Grundy C	Max..	78	76	80	74	65	60	73	59	47	77	78	69	66	65	72	56	64	60	72	75	74	73	70	73	64	65	70	65	78	71	75	69.0
	Min ..	41	52	60	50	35	42	36	37	42	40	45	37	52	53	47	45	42	40	42	45	51	52	42	47	49	33	47	54	58	51	47	45.6
Guthrie C	Max..	82	80	79	75	62	58	76	72	55	79	78	69	68	69	72	58	65	65	74	76	75	77	75	75	74	77	66	64	76	70	76	71.5
	Min ..	43	56	61	45	35	44	38	38	45	47	48	38	53	51	48	45	39	38	45	47	51	46	48	54	38	51	53	60	58	43	46.8
Hampton.	Max..	80	78	80	72	65	59	74	62	48	77	71	73	65	65	74	53	64	60	77	80	78	77	75	73	67	67	61	63	62	76	79	69.5
	Min ..	43	53	57	50	35	42	39	35	39	38	48	38	59	51	49	43	43	40	43	47	51	50	43	50	51	35	50	50	53	50	51	45.8
Hanlontown .	Max..	79	77	79	72	56	52	73	54	47	70	70	68	65	64	71	52	59	56	71	74	74	69	70	72	65	61	56	64	61	68	73	65.9
	Min ..	39	52	62	47	34	40	35	38	39	37	45	37	46	51	47	42	41	41	42	45	50	50	42	56	47	33	47	50	53	47	46	44.5
Harlan....	Max..	82	80	80	67	62	61	77	53	57	80	77	71	65	70	70	57	66	68	74	79	77	77	78	76	72	67	64	64	75	67	77	70.8
	Min ..	43	50	57	42	34	41	36	36	45	47	45	36	51	51	46	47	43	38	39	46	46	53	49	52	52	32	50	50	57	52	40	45.3

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR MAY, 1905—Continued.

STATIONS.		DATE.																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Hopeville.	Max..	79	79	79	61	63	64	74	62	57	80	75	69	64	67	73	57	66	69	69	75	76	77	73	70	64	67	64	76	80	65	76	70.2
	Min ..	44	51	61	47	35	46	38	43	45	55	47	38	50	52	51	45	45	42	44	48	52	54	48	48	51	36	51	56	61	53	46	47.8
Humboldt	Max..	82	77	79	72	60	55	70	56	53	73	74	62	62	59	58	57	55	55	60	70	69	71	67	69	69	56	56	65	61	68	74	65.0
	Min ..	45	57	60	46	35	42	39	35	42	41	45	40	48	50	50	45	45	40	40	45	49	49	46	52	46	33	50	51	57	50	48	45.8
Ida Grove	Max..	83	83	80	67	58	57	70	55	53	71	75	70	68	71	60	56	64	64	72	78	76	75	78	80	70	64	55	62	65	65	76	68.4
	Min ..	42	55	56	42	35	42	32	42	43	44	48	53	46	50	45	46	43	43	43	48	48	52	50	50	46	32	49	49	50	48	48	45.8
Independ.	Max..	76	75	78	77	62	60	69	58	50	77	68	68	68	66	73	59	59	57	71	75	74	72	71	74	70	64	69	66	74	71	75	68.6
	Min ..	43	53	58	57	37	41	35	39	38	39	54	37	52	53	44	46	41	42	44	44	49	53	41	45	54	35	50	53	57	50	50	46.3
Indianola.	Max..	79	78	80	72	63	63	75	66	55	81	69	69	63	68	75	57	66	66	71	77	78	77	74	77	64	64	63	69	82	72	76	70.7
	Min ..	45	57	62	50	37	45	39	44	44	49	49	39	53	54	50	45	45	42	42	47	53	54	47	51	50	36	50	56	62	53	48	48.3
IowaCity*	Max..	80	82	84	76	68	64	73	63	54	85	75	72	75	65	79	58	62	62	73	79	80	76	77	80	70	69	73	79	85	73	78	73.2
	Min ..	40	45	44	61	40	43	37	48	45	43	53	40	45	56	46	48	44	44	44	44	43	53	43	46	56	41	45	53	63	54	48	46.9
Iowa F*.	Max..	78	76	79	63	62	56	74	56	49	78	72	69	66	65	71	53	64	59	72	76	78	73	74	75	60	63	64	64	72	69	75	67.9
	Min ..	40	46	53	50	34	37	36	35	37	40	50	38	42	53	38	46	43	40	40	44	48	50	41	46	53	33	45	51	54	51	46	43.9
Keokuk ..	Max..	79	80	82	79	71	70	71	67	61	85	84	70	71	68	76	62	63	64	69	74	76	77	73	78	72	67	72	80	86	81	77	73.7
	Min ..	48	58	67	67	46	59	45	57	44	54	65	43	56	58	53	50	46	48	47	54	53	58	46	51	61	43	54	58	64	58	53	53.5
Keosauqua *.	Max..	79	80	84	76	73	71	74	65	65	87	80	72	72	70	73	63	67	65	74	76	78	78	75	80	71	70	73	79	87	63	81	74.2
	Min ..	45	51	57	60	40	47	38	49	47	45	61	39	47	57	49	49	45	45	41	42	46	54	44	45	57	39	48	55	64	58	48	48.8
Le Mars..	Max..	82	78	80	66	59	58	74	59	53	69	59	71	65	71	69	56	66	66	74	78	78	80	79	81	72	61	55	65	61	70	75	68.8
	Min ..	41	55	46	40	32	42	42	32	41	43	41	35	48	49	48	47	42	38	38	44	52	48	50	56	42	32	48	45	53	45	43	43.8
Lenox....	Max..	80	77	78	72	65	64	70	65	63	80	77	69	63	70	73	58	67	68	72	73	75	75	78	76	64	65	64	75	77	66	76	70.8
	Min ..	45	50	59	45	33	46	39	43	45	54	48	38	51	50	52	47	46	42	43	46	52	53	48	51	55	35	49	55	61	53	47	47.8
Leon.....	Max..	78	76	79	74	66	65	74	73	61	80	78	71	79	69	74	59	68	67	71	74	75	76	74	75	65	68	68	80	81	78	75	72.6
	Min ..	43	52	61	48	37	48	38	46	47	56	57	39	52	52	49	48	45	45	44	47	51	53	47	50	57	39	50	57	62	54	50	49.2
Lit. Sioux	Max..	85	83	82	72	62	59	76	62	58	71	75	70	68	73	71	62	68	71	73	77	77	80	77	78	72	65	62	64	74	70	76	71.4
	Min ..	47	60	57	44	37	44	55	36	52	49	47	39	53	52	51	48	42	39	41	48	56	51	54	58	50	37	51	53	59	53	44	48.6
Logan....	Max..	84	80	82	70	61	60	80	62	60	74	79	70	69	73	70	57	68	70	76	78	80	80	81	78	66	70	60	65	72	70	76	71.6
	Min ..	46	50	63	45	32	34	40	38	46	49	44	36	50	51	49	46	44	39	41	45	47	54	52	55	53	34	34	49	58	54	42	45.8
Maquoketa *.	Max..	74	73	81	79	66	63	68	64	49	75	72	70	71	66	75	60	61	62	74	77	76	71	72	76	71	65	70	76	79	72	78	70.7
	Min ..	40	43	61	63	40	44	34	45	43	40	47	39	47	55	44	45	43	44	40	41	48	54	36	39	56	37	48	53	56	51	49	46.0
Marshaltown*	Max..	80	78	82	69	66	62	75	61	56	80	75	71	66	67	75	56	67	66	74	78	77	78	74	77	67	66	75	68	62	72	78	70.9
	Min ..	41	48	55	51	36	41	37	39	42	41	53	39	48	52	49	46	43	43	43	45	48	50	41	44	54	35	45	53	56	51	47	45.7
Mason C..	Max..	76	77	81	72	55	50	72	54	50	76	66	71	66	65	68	50	60	56	73	76	76	75	76	76	65	63	55	64	60	68	76	66.7
	Min ..	43	55	62	54	37	42	40	37	40	38	50	38	50	53	48	44	42	43	43	49	49	53	48	52	52	33	50	50	53	48	50	46.6
Massena..	Max..	82	78	80	74	65	60	80	70	60	81	80	72	65	70	72	62	67	70	75	79	81	82	77	75	74	72	67	70	79	72	81	73 3
	Min ..	44	53	60	44	33	44	37	39	46	51	50	38	51	51	50	46	45	39	40	44	46	53	49	51	54	34	51	54	58	53	41	46 7
Monticelo	Max..	..	71	79	82	80	77	64	70	69	47	78	67	79	65	69	61	57	59	63	81	85	86	68	87	83	72	74	65	69	77	80	72.1
	Min ..	39	52	54	58	33	42	33	42	42	41	47	37	52	53	44	43	42	43	40	42	48	52	40	42	62	32	45	53	54	49	45	45.2
Mt. Ayr.,	Max..	84	83	82	75	73	69	78	69	67	87	77	73	65	73	75	58	71	74	74	76	76	80	78	79	70	70	67	79	81	72	79	74.6
	Min ..	43	53	59	45	35	45	40	44	46	53	49	38	50	50	49	45	45	42	45	49	51	54	48	51	56	38	49	55	60	53	48	48 0
Mt. Pl'snt	Max..	78	81	84	81	75	66	72	67	58	83	79	70	72	65	78	60	62	66	72	80	80	79	74	79	72	68	74	81	87	79	78	74.2
	Min ..	45	55	63	71	41	49	41	50	43	51	59	40	54	56	48	47	44	44	42	48	55	54	42	50	57	40	50	58	64	55	49	50.5
Mt. Ver'n	Max..	78	79	83	74	68	63	71	69	53	87	71	71	69	62	76	56	60	60	77	81	77	76	81	80	65	66	71	71	82	78	81	72.1
	Min ..	42	53	60	55	35	43	38	42	41	40	53	48	53	53	45	45	40	44	44	52	52	55	41	48	54	39	55	55	56	51	51	47.5
New H. ..	Max..	73	78	79	77	60	54	73	59	52	71	73	67	69	63	73	56	59	58	70	75	76	72	71	73	68	62	64	62	62	70	74	67.5
	Min ..	41	55	62	54	35	41	34	35	40	38	54	38	50	52	45	46	50	42	42	40	50	52	45	47	53	35	50	52	53	49	50	45 8
Newton..	Max .	78	77	80	75	65	63	75	68	56	78	72	67	65	63	72	55	65	61	71	75	70	69	74	78	64	62	71	66	79	68	68	69.4
	Min ..	43	50	42	50	37	44	37	41	43	44	49	39	52	54	47	45	43	43	44	48	51	55	45	49	54	38	48	55	59	52	50	46.8
N'thwood	Max..	78	77	80	72	53	53	73	56	46	75	74	70	72	66	75	53	62	60	72	78	77	71	70	73	65	65	56	70	63	71	75	67.8
	Min ..	38	52	59	50	35	42	36	36	39	38	47	37	42	51	45	42	41	45	44	46	45	50	42	47	49	34	48	50	54	46	50	44.5
Odebolt ..	Max..	83	79	80	72	62	50	71	59	53	76	72	67	70	67	55	61	73	67	71	81	79	82	77	82	65	68	55	61	66	71	79	69.5
	Min ..	41	44	57	42	30	42	39	29	42	42	38	45	50	49	46	41	44	40	40	41	49	49	48	55	46	33	49	49	56	49	44	44 2
Ogden....	Max.	80	77	80	75	62	59	75	68	55	76	77	70	73	69	71	56	64	66	73	76	77	78	76	73	69	64	70	63	75	70	75	70.7
	Min ..	43	54	61	46	34	43	38	35	43	44	45	39	53	51	49	44	44	41	42	49	50	42	54	51	51	34	48	53	57	61	60	47.1
Olin	Max.	75	77	80	73	65	62	68	64	55	73	70	66	70	65	73	60	60	60	70	75	75	70	67	74	69	64	72	75	82	68	73	69 4
	Min ..	45	56	64	62	40	45	35	45	43	40	55	39	53	56	45	47	44	45	43	44	55	54	41	46	57	39	50	57	58	53	47	48.5
Omaha, N	Max..	84	80	81	62	60	58	78	60	71	73	75	70	65	72	67	58	67	67	70	74	75	78	76	72	63	66	59	66	74	66	73	69.7
	Min ..	54	60	58	43	38	45	46	41	48	53	45	43	54	52	51	48	48	48	47	53	56	58	55	57	50	45	53	53	59	55	51	50 5
Onawa...	Max..	87	86	82	70	61	66	73	63	55	78	78	72	69	76	75	62	72	75	77	80	78	80	82	82	78	63	59	61	74	70	76	76.0
	Min ..	44	56	56	42	35	44	41	37	44	48	45	37	47	50	49	47	44	42	42	48	50	54	54	59	51	37	50	51	57	50	46	47.0
Osage.....	Max..	76	78	81	72	58	53	72	56	48	75	70	69	67	63	73	51	59	56	74	77	78	75	74	73	64	66	59	66	59	73	77	67.5
	Min ..	40	52	61	51	35	41	35	36	39	38	48	37	47	50	45	42	39	44	44	45	49	50	43	47	49	34	50	51	53	46	65	45.4
Oskaloosa	Max..	78	79	82	75	65	66	74	67	56	81	75	71	69	66	77	60	65	64	71	76	78	77	74	80	66	64	65	75	83	72	76	71.8
	Min ..	45	55	63	55	40	46	39	45	45	49	55	41	49	56	49	47	45	45	42	44	52	54	45	47	55	39	49	58	63	54	47	49.0
Pacific J'n	Max..	84	80	82	75	60	61	81	72	74	84	73	74	66	73	73	60	68	70	73	78	76	78	77	72	65	68	67	71	79	67	74	72.7
	Min ..	52	54	62	44	33	41	39	42	48	49	49	39	52	52	50	47	48	89	45	52	52	57	55	55	55	37	50	54	57	54	42	48.4
Perry,....	Max..	82	78	80	74	66	60	78	60	54	78	77	70	65	68	75	57	67	67	73	78	79	77	76	73	66	67	69	64	79	70	78	71.5
	Min ..	43	51	63	47	34	45	38	39	45	46	47	38	54	52	50	45	45	43	42	47	48	51	47	51	52	36	50	54	60	54	47	47.2
Plover....	Max..	80	82	78	80	72	60	74	57	52	75	67	73	67	70	67	55	64	60	74	80	79	75	73	77	67	67	54	65	55	69	74	69.1
	Min ..	45	44	50	60	40	38	35	33	40	51	40	36	45	50	46	38	43	42	38	47	46	50	45	50	50	32	47	50	53	49	45	44.3
Pocah'tas	Max..	81	76	78	71	61	55	70	58	50	71	75	71	69	69	68	54	65	60	74	77	78	77	74	77	68	67	54	66	61	71	75	68.4
	Min ..	41	54	61	44	34	42	37	33	40	40	42	38	47	51	48	44	42	42	41	49	49	50	47	50	45	33	48	44	55	49	48	44.8
Red Oak..	Max..	66	84	78	80	67	67	79	75	65	79	80	78	71	72	77	64	72	77	79	83	86	85	86	82	75	76	70	78	82	75	78	76.3
	Min ..	45	57	63	51	37	45	39	44	49	52	52	37	52	52	51	52	45	40	42	48	59	56	52	54	57	35	53	56	56	55	60	49.9
Ridgeway	Max..	70	78	82	76	63	57	71	61	47	69	70	73	72	59	72	59	61	63	77	81	80	77	76	72	65	72	65	66	60	71	79	69.2
	Min ..	39	55	60	51	36	40	36	36	39	38	50	40	50	51	44	45	40	43	41	49	52	51	45	47	48	38	51	52	52	46	51	45.7
Rock R...	Max..	80	60	75	68	60	70	65	60	58	60	55	70	65	70	65	70	68	65	74	78	78	78	78	68	60	68	66	70	70	70	78	68.4
	Min ..	42	38	48	42	35	38	32	30	34	40	38	35	40	50	45	40	42	38	46	50	50	54	50	40	36	40	40	54	52	54	42	42.4
R. City...	Max..	83	71	80	72	51	56	78	64	53	72	73	71	67	68	70	60	65	64	75	78	81	78	74	75	73	66	51	60	70	76	76	69.4
	Min ..	42	51	60	44	31	41	41	31	40	42	43	38	46	50	50	44	42	46	41	49	48	58	45	50	43	35	44	45	50	50	46	44.7
St. Cha'les	Max..	79	76	79	74	64	63	75	64	54	79	77	69	65	67	75	58	64	66	70	74	76	76	73	75	62	62	63	69	82	68	75	70.1
	Min ..	43	57	63	49	36	46	40	42	45	50	45	40	51	52	52	45	45	43	44	49	53	54	46	52	50	38	50	55	61	53	48	48.3
Sheldon..	Max..	82	72	78	70	56	58	73	57	48	65	72	72	66	73	64	55	68	65	75	75	78	80	76	80	71	58	56	67	62	74	75	68.4
	Min ..	42	42	46	34	34	40	38	31	32	38	39	34	46	59	46	46	40	42	38	48	47	51	49	54	41	32	47	42	53	44	43	42.2
Sibley *...	Max..	81	62	74	46	53	55	72	54	50	61	71	70	65	70	61	54	63	60	73	75	78	76	75	76	55	60	56	67	59	70	73	65.0
	Min	33	45	45	41	33	35	35	32	37	39	44	34	39	48	44	46	40	41	38	45	49	51	47	52	40	31	40	44	54	43	42	41.5
Sidney...	Max..	86	81	84	72	59	65	82	73	73	85	79	71	64	74	73	61	69	73	75	79	78	80	81	74	66	72	68	76	79	69	79	74.2
	Min ..	50	53	63	49	36	44	43	42	48	52	51	40	53	52	53	48	46	46	45	49	51	57	52	54	55	40	52	54	61	53	49	49.7
Sigourn'y	Max..	78	80	83	78	68	67	74	69	59	83	78	73	73	68	78	60	67	68	75	80	80	79	76	83	68	69	72	80	87	75	78	74.4
	Min ..	44	53	60	56	38	47	39	46	44	48	58	38	52	56	48	46	43	43	41	45	51	54	42	47	56	38	48	59	62	54	47	48.5
Sioux C'r.	Max..	79	74	77	68	57	57	72	53	50	63	68	68	69	70	65	58	63	63	71	74	77	77	76	77	62	60	57	64	59	69	73	66.8
	Min ..	43	49	42	39	32	41	38	30	40	42	36	35	43	48	44	46	42	42	42	42	48	52	46	55	40	34	47	41	58	48	44	42.5
Sioux C'y	Max..	83	76	79	57	57	59	75	55	50	67	64	69	63	72	64	58	65	65	71	74	74	77	75	78	61	59	55	68	65	68	74	66.8
	Min ..	46	58	52	37	35	43	46	35	45	48	40	42	51	50	47	49	45	42	43	48	54	54	54	58	46	41	49	48	54	48	50	47.0
Stockport	Max..	78	79	80	76	68	66	71	61	56	81	77	79	72	65	74	59	61	63	70	75	73	77	72	76	69	65	72	79	83	71	75	71.8
	Min ..	45	56	66	60	42	51	40	51	45	52	56	51	54	57	50	49	45	47	44	46	51	57	45	50	56	41	52	59	65	56	54	51.4
Storm L*.	Max..	79	73	75	55	56	54	71	55	67	55	73	68	64	68	68	54	64	60	70	72	72	74	72	75	59	61	58	64	61	68	72	65.7
	Min ..	38	44	55	42	34	37	41	32	35	43	41	38	42	49	50	45	42	40	39	46	54	48	48	52	44	32	44	46	55	46	49	43.6
Stuart ...	Max..	81	78	80	76	65	61	72	79	58	79	78	71	65	69	73	60	67	68	79	80	80	81	77	76	67	68	67	68	80	78	79	72.7
	Min ..	42	53	60	46	36	45	40	40	44	47	52	40	31	50	50	45	44	42	42	49	52	54	48	52	54	37	49	58	57	53	48	46.9
Thurman.	Max..	85	77	83	70	62	62	80	71	73	82	79	74	69	74	73	63	69	71	75	77	75	79	78	73	67	69	65	75	70	70	77	73.1
	Min ..	57	59	60	43	34	42	35	43	48	50	50	40	53	53	52	46	46	41	45	44	49	58	54	55	56	38	54	56	61	55	44	49.1
Tipton....	Max..	77	78	81	78	69	65	70	68	58	80	73	71	71	65	74	61	61	61	74	79	77	76	76	78	71	69	70	79	82	74	80	72.5
	Min ..	47	58	65	63	43	48	42	48	45	43	57	40	54	55	47	49	45	46	48	50	54	58	46	51	57	43	51	60	61	56	51	51.1
Toledo....	Max..	79	78	81	76	64	62	72	60	51	78	74	68	68	65	73	55	63	63	72	76	78	77	72	77	67	63	74	70	80	69	75	70.3
	Min ..	45	55	60	54	37	44	36	39	43	42	53	39	54	55	47	46	43	41	42	43	48	51	41	45	55	34	45	55	61	52	46	46.8
Wapello .	Max..	76	75	79	82	74	67	70	70	72	77	79	67	69	69	68	57	57	60	69	71	73	76	73	76	70	66	69	77	81	74	75	71.5
	Min ..	45	48	57	64	45	56	42	51	53	46	62	41	59	56	49	50	45	46	45	48	53	58	42	51	52	43	58	59	64	52	51	51.3

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR MAY 1905—CONTINUED.

STATIONS.		DATE.																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Washi'ton	Max..	78	81	82	77	67	66	73	64	53	83	73	70	72	65	76	58	63	64	71	76	78	78	74	78	65	72	78	84	66	66	76	71.8
	Min ..	46	56	64	57	39	48	39	47	44	48	51	39	58	55	47	47	44	43	43	48	51	55	43	49	54	50	59	62	64	48	48	49.4
Washta ..	Max..	82	78	80	68	60	57	77	58	50	70	76	72	63	71	66	56	66	66	76	77	76	79	77	80	85	67	56	67	65	71	75	70.0
	Min .	42	44	45	43	34	42	38	31	42	43	42	35	44	50	46	48	43	35	38	44	44	45	50	56	55	28	44	44	56	45	40	43.1
Waterloo*	Max..	78	77	80	71	65	68	73	61	50	78	73	69	65	64	75	57	54	58	74	77	77	74	74	75	68	66	71	65	75	73	78	69.6
	Min ..	43	46	57	55	38	42	37	39	41	41	49	40	45	55	46	46	42	42	41	45	50	50	42	45	51	35	43	53	55	51	47	45.5
Waukee..	Max..	83	80	81	75	66	63	79	69	54	85	78	71	63	72	75	58	69	69	81	81	79	79	77	78	67	67	67	66	80	75	85	73.3
	Min .	43	56	63	47	35	45	39	40	45	46	48	38	52	52	50	45	44	41	43	46	51	53	46	51	51	36	47	54	60	52	49	47.4
Waverly..	Max..	76	77	79	74	62	52	72	58	50	78	69	68	65	63	74	56	61	59	72	75	75	70	70	70	65	62	66	60	66	68	75	67.3
	Min ..	44	56	62	55	37	42	35	38	41	40	49	39	51	53	46	47	43	44	42	44	49	51	43	47	52	36	.	52	55	51	57	48.7
Web'ter C	Max..	81	79	78	74	64	60	76	65	53	73	73	71	70	67	78	55	58	70	75	82	80	76	72	74	72	69	72	61	75	65	80	70.9
	Min ..	46	54	60	53	35	43	38	35	43	41	46	39	50	52	46	44	40	43	37	44	48	47	44	47	49	31	49	51	58	52	43	45.4
Whitten..	Max..	78	77	81	77	64	59	74	62	56	79	77	68	66	66	73	54	64	61	73	80	75	76	76	70	..	67	73	62	75	70	78	70 3
	Min ..	44	52	59	49	33	41	35	36	41	40	52	37	52	52	46	43	41	40	41	46	50	42	46	52	..	33	48	50	57	50	47	45.2
Wilton J.	Max..	76	80	85	78	73	64	70	63	59	81	77	71	77	69	80	65	63	66	75	78	80	76	71	79	70	63	70	82	88	74	77	73.7
	Min ..	46	57	63	66	39	47	36	47	43	48	47	38	52	57	50	47	43	42	43	52	50	42	46	51	46	47	50	52	62	54	47	48.7
Wint'rset	Max.	80	77	80	73	67	64	77	73	58	80	77	69	65	69	74	58	68	63	73	76	76	78	75	80	65	67	65	71	81	77	77	72.1
	Min ..	43	55	60	46	35	44	37	40	45	48	52	38	51	51	50	45	44	40	40	47	50	52	47	51	55	35	59	60	60	52	45	47.6
W. Bend.	Max..	80	77	79	71	56	54	73	55	47	71	73	70	68	68	67	53	63	58	72	76	77	74	73	74	64	67	54	68	60	70	73	67.3
	Min ..	44	49	62	44	33	41	35	32	40	40	43	37	47	49	47	44	42	41	40	47	49	52	44	52	44	33	49	50	55	49	45	44.5
Zearing ..	Max..	79	75	79	76	68	59	74	60	60	76	74	67	62	65	68	55	64	61	70	73	74	74	70	72	67	64	68	64	77	68	74	68.6
	Min ..	38	42	51	36	33	39	31	49	42	41	51	39	52	53	47	45	44	42	44	46	51	52	43	50	53	36	47	53	59	51	50	44.8

*At those stations thermometers are read in the morning; the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

OBSERVERS' NOTES.

ALTA—*David E. Hadden*. May was cloudy, cool and wet; rainfall about double the normal amount; only exceeded once in last 16 years, and that was in May, 1892; temperature about 3° below normal.

ALTON—*W. S. Slagle*. Very hard wind on 10th; frost on 26th killed some garden truck on low ground.

AMANA—*Conrad Schadt*. Though May had 16 rainy days, the farmers found ample time to plant corn, which was mostly finished by close of month; fruits promising.

BONAPARTE—*B. R. Vale*. First half of month very wet, and month was unusually cold; no severe storms; precipitation 2.27 inches, while last year we had 4.17 inches.

BOONE—*Carl Fritz Henning*. On May 1st apple blossoms were observed. May 4th plums, apples, wild plums, violets and sweet williams were in bloom; corn planting started. May 10th to 12th many small birds were killed during hailstorm.

BRITT—*Geo. P. Hardwick*. Rain 8 10 inches, with exessive cloudiness; corn planting retarded. On night of 10th a small tornado passed through southeast part of county and destroyed a few buildings. Plum crop disappointing; apple prospects good.

CHARITON—*C. C. Burr*. Nights cool and sunshine below normal; prospects for a large corn crop not flattering; grasses and oats rank; fruit fairly good.

CLINTON—*Luke Roberts*. Mean temperature for May was 60.6°; rainfall, 5 95 inches; per cent of sushine only 50. The central portion of the month was cooler than the commencing or ending. There were 12 stormy days.

CRESCO—*W. L. Gaston*. About 1 P. M. on the 22d, a solar halo of unusual size and brilliancy was observed and created much comment.

ELLIOTT—*Henry Barnes*. By the 13th most of the corn had been planted; about 25 per cent has been replanted; grasses and small grain doing well.

FOREST CITY—*J. A. Peters*. Rain 7.89; low lands too wet to plant; hay crop promising.

GRUNDY CENTER—*E. S King*. Wet soil retarded planting, and but little corn plowing had been done at close of month; grass and small grain promising.

HANLONTOWN—*G. M. Paschen*. Severe thunder, wind and hailstorm on 11th did much damage to crops. First corn planted on 18th, and finished on 24th; acreage about same as last year; fruit promising where it was not cut short by hail.

HUMBOLDT—*H. S. Wells*. Corn coming good; small grain all right; stock doing well.

IOWA FALLS—*J. B. Parmalee*. Rainfall in May 7.73 inches, has been exceeded but once in thirteen years, and that was in 1896, when the amount was 7.76 inches.

LITTLE SIOUX—*Geo. H. Gibson*. Nearly 50 per cent of corn replanted on account of cold and excessive moisture; small grain and pastures good.

MASSENA—*Fred L. Knott*. Corn planting commenced on 5th, and replanting was done 20th to 25th.

MONTICELLO—*A. Matthiessen*. Corn slow in growth; hay and small grain extra fine.

NORTHWOOD—*Chas. H. Dwelle*. Storm on 11th damaged buildings and windmills; corn backward.

OLIN—*N. Potter*. Some early planted corn was replanted on account of wet and cool weather; the crop is ten days late; grasses and oats fine; heavy hail on 29th.

POCAHONTAS—*F. E. Hronek*. Excess of rain damaged crops on low ground; yet the grain looks fine.

RIDGEWAY—*A. Betts*. Coldest May on record here. No frost since April 21; sunshine 253 hours, or 55 per cent; 8 days were perfect; some severe thunderstorms but no gales.

STOCKPORT—*C. L. Beswick*. On 10th hail fell nearly 8 inches in circumference; corn planting mostly finished at close of May.

WAUKEE—*E. J. Leonard*. Corn made slow growth; small grain doing well; meadows, average crop; strawberries ripened earlier than usual.

BELATED REPORT.

LARRABEE.—April. Mean temperature 42.6; highest 80° on the 1st; lowest 10° on the 14 h; greatest daily range 41°; total precipitation 1.29 inches; greatest in 24 hours .43 inch; total snowfall 2.2 inches; prevailing direction, north and northeast. Number of clear days, 11; partly cloudy, 10; cloudy, 9; rainy, 7.

ERRATA IN MARCH REVIEW.

COLLEGE SPRINGS.—Maximum temperature recorded 79 on the 27th, page 6, should have been 80° on the 3d.

POCAHONTAS.—Total snowfall recorded 7.8 inches on page 7, should have been 4.5 inches.

ERROR IN APRIL REVIEW.

RIDGEWAY—Total snowfall recorded 2.8 inches on page 6, should have been 1.8 inches.

DAILY AND MONTHLY PRECIPITATION FOR MAY, 1905.

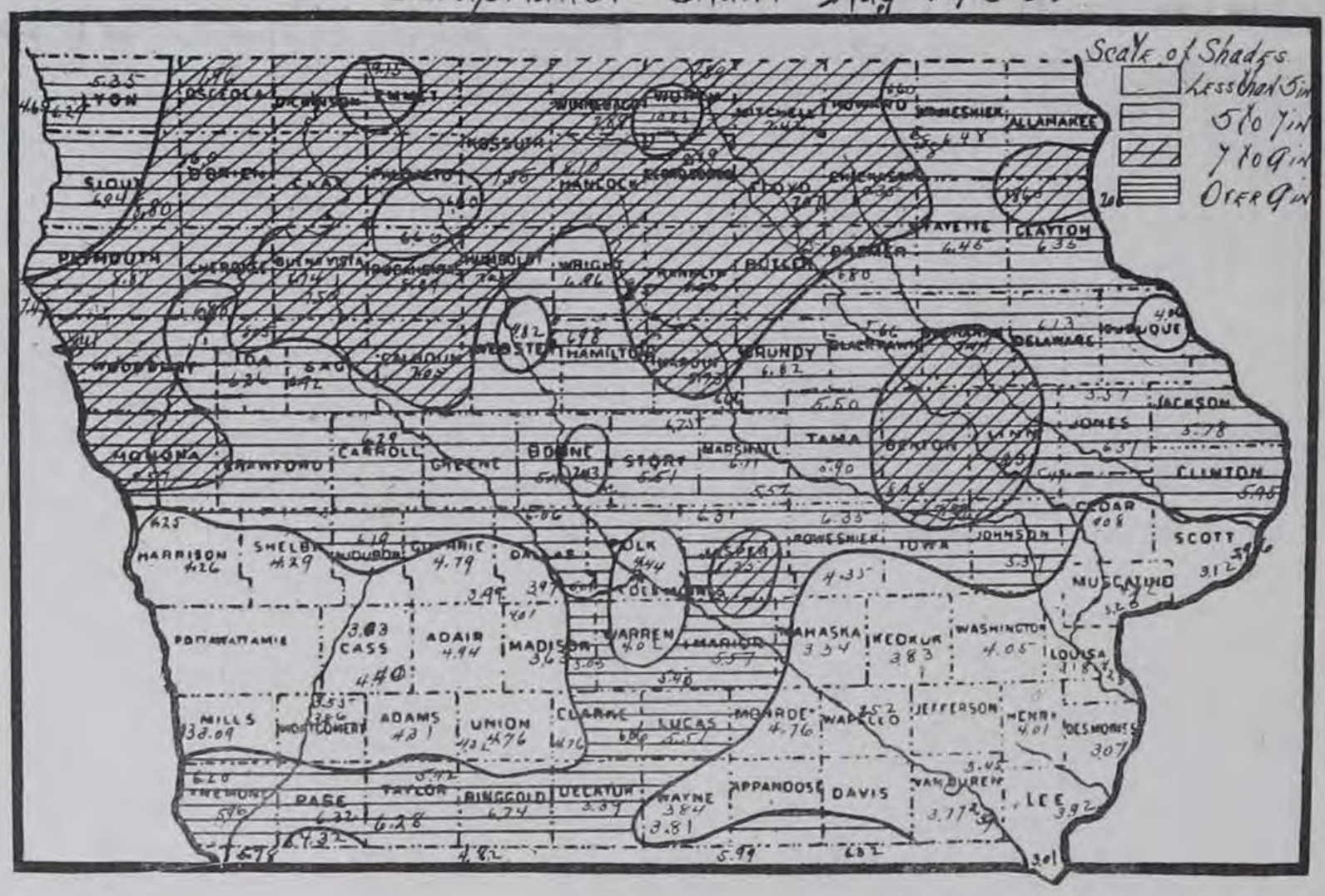
STATIONS.	DAY OF MONTH.																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	.26	....	.04	....	T	.83	.78	1.28	....	.46	....	....	.19		....	....	....	....	....	....	.10	....	....	.22	....	.60	....	....	4.76
Albia	.10	....	....	.10	....	....	....	....	.24	2.50	....	.60	.03	.07	....	.22	.19	....	....	....	....	....	....	....	.05	....	....	.22	.44	....	....	4.76
Algona	.29	T	.39	....	....	.15	T	....	1.00	.22	.75	....	.20	1.77	.06	.20	T	.04	....	....	....	....	....	T	.32	T	.43	.06	2.05	.02	....	7.95
Allerton	....	T	....	.16	..	T	....	....	1 06	1.14	.07	....	.14	.08	.10	.12	.01	....	....	....	....	..	....	.07	.07		.25	T	.54	T	..	3.81
Alta	..	T	.73	....	.10	.40	.10	....	.95	.61	.64	....	.92	.98	.03	.27	....	....	....	....	....	....	....	.04	....	.29	.55	.35	1.78	....	....	8.74
Alta [near]	....	.02	1.00	....	.26	.11	.24	....	1.51	....	.72	....	.60	1.20	.08	.24	....	....	....	....	....	....	....	.04	....	.17	.49	1.52	.02	....	....	8.22
Alton	.09	.05	.39	.04	....	.39	T	....	.51	1.42	.48	....	.99	1.12	.05	.24	..	....	..	....	....	..	....	....	.26	.19	.25	.35	1.98	....	....	8.80
Amana	.11	....	....	.15	....	.24	....	.05	.78	.62	3.48	....	.03	.07	.53	.26	.03	....	....	....	....	....	....	.15	.22	..	T	.90	.25	T	..	7.87
Ames	.11	....	....	.03	T	....	.02	.04	.71	.18	1.65	....	.27	.84	.59	.27	.01	..	....	....	..	....	....	....	....	....	.12	.22	.44	.01	....	5.51
Atlantic	..	T	....	....	.14	....	T	.09	.28		.42	....	.70	.30	T	.36		..	....	....	....	....	....	....	....	....	.04	.70	....	....	....	3.03
Audubon	..	..	.13	.03	.08	.07	..	.03	.28	.68	.96	....	.65	1.95	.07	.28	.07	....	....	....	....	....	....	....	....	....	.16	.31	.48	.01	....	6.19
Baxter	....	....	..	.35	....	....	....	....	1.15	.70	1.40	....	.28	.38	.53	.20	....	....	..	....	....	....	....	.20	....	....	.12	.55	.45	....	....	6.31
Bedford	....	....	.08	....	T	.11	....	T	.66	.42	1.09	....	1.07	06	.04	.10	.20	....	....	....	....	..	..	1.09	..	....	.45	.09	.82	....	....	6 28
Belle Plaine	.06	....	....	.15	....	.12	....	.20	.85	.40	2.90	..	.12	.20	.60	.42	....	....	....	....	..	....	....	.08	....	....	....	1.75	.40	.03	....	8.28
Bonaparte	..	....	.03	....	.02	....	....	.59	.25	.93	....	....	....	.35	.23		..	....	....	....	..	....	....	....	.17	..	....	....	....	....	....	2.57
Boone	.10	....	T	.09	....	.02	....	.30	.49	1.12	2.67	.35	.06	.92	T	.07	.24	....	..	....	....	....	....	....	T	....	T	.41	.58	.01	....	7.43
Britt	.28	.03	....	.19	....	.14	.04	T	.70	.63	1.04		.22	2.44	.03	.22	.04	.01	....	....	....	....	....	.03	.26	.04	.44	.06	1.24	.02	....	8.10
Buckingham	.15	....	.10	.10	.07	....	.03	....	1.53	T	1.14	.04	.69		.19	.18	....	....	....	....	....	....	....	.10	....	....	.15	.24	.70	....	....	5.50
Burlington	....	....	....	....	....	.04	....	....	.51	.10	.6	....	.24	.07	.09	.25	.21	....	....	....	....	....	....	....	.43	....	T	.04	.38	....	....	3.07
Carroll	T	....	.75	.12	....	.15	....	.27	.37	.62	.50	....	....	1.98	T	.15	.33	....	....	..	....	....	..	.	....	....	T	.15	.90	....	....	6 29
Cedar Rapids	.18	....	..	.07	.	.18	....	.10	.22	.67	.65	2.80	05	.07	T	1.35	.15	....	....	....	....	....	....	....	.29	.14	....	.05	.68	.71	....	8.31
Chariton	....	....	....	T	..	T	....	.60	1.35	.75	..	.40	.55	.20	.20	T	....	....	....	....	....	....	T	.26	....	....	.45	.10	.65	....	....	5.51
Charles City	.11	.10	.60	....	T	.01	.08	....	.94	.25	1.32	....	.67	.63	.18	.11	T	..	....	....	....	....	..	.02	....	.02	.43	.56	1.04	....	....	7.07
Clarinda	....	....	.11	....	....	T	..	T	.74	.26	.88	.16	....	.51	.13	.12		....	....	....	....	....	....	.96	....	....	....	.77	1.68	....	....	6.32
Clear Lake	....	....	....	....	....	....	....	....	.65	1.00	.85	....	....	2.40	T	.30	T	....	..	....	....	....	....	....	..	T	.50	....	1.20	....	....	7.53
Clinton	.10	....	....	....	....	.10	....	....	....	.80	1.88	..	.15		.65	.82	..	....	....	....	....	..	....	....	.24	....	.01	....	1.20	....	....	5.95
College Springs	..	....	....	....	....	T	T	T	.20	.25	.50	T	.50	.15	.04	05	....	....	....	....	....	....	....	.60	....	....	.06	.10	1.87		....	4.32
Columbus Junct'n	....	....	....	.02	....	.05	....	....	.55	.18	.49	....	....	.15	.10	.74	.14	....	....	....	....	....	....	....	.19	..	.05	.17	.35	T	....	3.18
Corning	..	....	....	.58	....	..	....	T	.23	.50	.75	T	.52	.11	.10	.22	.15	....	....	....	....	....	....	.13	....	....	.32	T	.70	....	..	4.31
Corydon	..	..	....	.03	....	T	....	....	1.15	1.12	.21	..	.11	.12	.06	.16	.02	....	....	....	..	....	....	.10	.08	....	.23	.02	.48	....	....	3.84
Cres o	.11	.07	.01	.02	....	.02	.15	.10	.39	.67	1.59	..	.05	1.52	.28	.12	....	.	....	....	....	....	....	.04	....	....	.24	.03	1.19	....	....	6.60
Creston	....	....	....	.01	....	T	....	.08	.06	1.00	1.32	.07	T	.54	....	.02	.16	....	....	....	..	....	....	..	.39	....	T	.29	.38	T	....	4.32
Cumberland	....	....	.48	....	....	....	....	.02	1.23	....	....	T	.82	1.00		.84	....	....	....	..	..	....	.31	....	....	.24	T	....	....	....	4.94
Davenport	.03	....	.01	T	.08	....	T	.15	.78	.99	....	.08	T	.04	.40	T	T	....	....	....	....	....	T	.22	....	.02	.03	.29	T	....	3.12
Decorah	.10	.12	T	.10	T	T	.06	....	.54	.56	1.88	....	..	1.10	.25	.26	.06	....	..	....	..	..	....	....	T	.03	.28	.03	1.13	....	....	6.48
Delaware	.18	.04	....	.11	....	....	....	.36	.18	.77	1.63	T	.10	.50	.50	.35	.01	....	....	....	....	....	....	....	....	....	....	.38	1.02	....	....	6.13
Des Moines	....	T	.03	....	T	T	.01	.05	.76	39	.98	.08	.45	.09	.14	.14	T	....	....	....	....	....	....	.08	....	....	.26	.84	.14	T	....	4.44
De Soto	....	....	....	....	....	T	....	.03	.22	.56	1.29	....	.15	.06	.15	.15	.03	....	....	....	....	....	....	.06	....	....	.21	.49	.57	....	....	3.97
Dows	.30	.15	.25	.12	....	T	.29	.24	.85	.87	.83	....	.20	1.65	.04	.34	.03	....	....	....	....	....	..	T	....	T	.50	.31	1.18	....	....	8.15
Dubuque	.13	..	....	.08	....	.16	.29	....	.27	.75	1.21	....	.20	.01	.41	.05	T	....	....	....	....	....	....	.01	.04	T	.07	.14	.33	....	....	4.06
Earlham		....	....	T	....	....	..	....	.15	.58	1.27	....	.28	.12	.39	.11	.06	....	....	....	....	....	....	.09	....	....	.18	.38	.40	T	....	4.01
Elkader	.08	....	....	.04	..	.04	.40	....	.25	.80	1.95	.03	.15	.82	.20	.48	....	....	..	....	....	....	....	....	..	.05	.66	....	.90	....	....	6.35
Elliott	....		T	....	....	.15		....	.08	.09	.78	....	.74	.41	.10	.13	..	....	....	....	....	....	..	T	....	....	.14	.33	.55	....	....	3.55
Estherville	.06	.03	T	.15	..	.23	.11	....	.20	2.20	.31	.11	T	2 18	.07	.10	.18	....	....	....	....	....	....	....	1.27	....	.05	.26	1.50	.14	....	9.15
Florence	.11	.07	.05	.25	....	.08	.33	.06	.35	1.00	.60	....	.20	1.50	.02	.47	....	....	....	....	....	....	....	.03	....	.02	.64	.08	1.10	....	..	6.96
Forest City	.10	....	....	....	....	.15	....	.11	....	1.47	.75	.12	....	2.21	.05	T	.25	....	..	..	....	....	....	....	82		.18	.38	1.25	.05	....	7.89
Fort Dodge	.09	....	.06	.11	....	.10	....	.28	.62	.25	.52	.10	....	.90	T	.03	.16	....	....	....	....	....	....	....	.01	....	.04	.53	1.00	.02	....	4.82
Fort Madison	....	T	....	....	....	T	....	....	T	.65	.65	....	.30	....	T	.57	....	....	....	....	....	....	..	....	.40	....	T	T	1.35	..		3.92
Galva	....	....	.92	.17	....	.24	.48	....	.47	.43	.86	....	.13	1.53	.05	.24	.	....	..	....	....	....	....	T	....	T	.53	.60	1.40	T	..	8.05
Gilman	..	....	....	.05	....	.20	....	....	.85	1.15	1.17	T	.13	.50	.10	.30	....	....	....	....	..	....	....	.03	....	....	.03	.61	.40	..	T	5 52
Glenwood	....	....	.09	....	.10	....	..	....	T	..	.45	....	.78	.35	.09	T	....	....	....	....	....	....	....	T	....	T	.08	.15	1.00	....	....	3.09
Grand Meadow	.06	....	.02	.20	....	.06	....	.22	....	1.60	2.34	..	.03	.63	.25	.50	....	....	..	....	....	....	....	.03	....	.05	....	.56	2.05	....	....	8.60
Greene	.23	.08	.09	.26	....	.04	.10	.03	.77	.73	1.10	....	.20	1 75	.24	.19	....	....	..	....	....	....	....	.08	....	....	.43	.14	1.05	....	....	7.51
Greenfield	....	....	....	.41	....	.04	T	T	.16	.95	1.31	....	.35	.09	.06	.20	.04	....	....	....	T	T	....	.21	....	....	.26	.35	.51	....	....	4.94
Grinnell	.06	....	....	.07	....	.15	....	.06	.78	.62	2.28	....	.18	.29	.45	.31	....	....	....	....	....	....	....	.03	....	....	.13	.49	.45	....	....	6.35
Grundy Center	.12	....	....	.82	....	....	.21	.61	.90	.76	1.14	.01	.18	.76	.26	.27	.01	....	....	....	....	....	....	....	....	T	.09	.44	.74	....	....	6.82
Guthrie Center	....	....	....	.09	.02	....	....	.08	.30	.40	1.22	....	.41	.30	.13	.28	.05	....	....	....	....	....	....	....	....	....	.09	.95	.52	..	....	4.79
Hampton	....	.28	.03	....	.10	....	.45	....	1.58	1.40	.05	....	2.45	....	.20	.25	....	....	....	....	....	....	....	.06	..	.03	.69	.93	....	....	....	8.50
Hanlontown	.10	T	.08	.30	....	T	.10	....	.60	1.20	2.00	....	.56	3.26	.15	.17	T	....	....	....	..	....	....	.04	.75	T	.52	....	1.00	....	....	10.83
Harlan	T	T	.68	....	.15	.01	T	....	.16	.55	.89	....	.55	.29	.20	.16	....	....	....	....	..	..	....	T	....	....	03	.17	.45	....	..	4.29
Hopeville	....	T	....	.08	....	.16	....	....	.28	.77	1.67	T	.53	T	.06	.13	....	....	....	....	....	....	....	.11	....	....	.24	.11	.62	....	....	4.76
Humboldt	....	.12	.12	.18	....	.15	.30	....	.85	.15	1.60	....	.03	1.00	.04	.27	....	....	....	....	..	....	..	....	....	.04	.48	.10	1.59	.02	....	7.04
Ida Grove	....	....	1.02	....	.25	....	.15		1.03	.50	....	....	1.28	....	.28	.17			....	....	....	....	....	....	....	....	.63	1.00	.05	....	..	6.36
Independence	.03	....	.30	....	.01	....	.50	.25	.55	1.00	1.55	....	.10	.30	.65	.75	T	....	....	....	....	....	....	T	....	T	.05	1.40	....	....	....	7.44
Indianola		T	....	.28	T	.13	....	....	.83	T	1.42	T	.38	.12	.03	.13	T	....	....	....	....	....	.23	....	....	....	....	.02	.50	T	..	4.02
Iowa City	....	....	....	.37	.	.12	....	.03	.16	.73	40	.93	....	.07	.03	.52	.55	....	....	....	..	....	....	....	.20	.15	T	.02	1.09	....	....	5.37
Iowa Falls	.08	.02	.53	.02	....	T	....	.38	.07	1.50	.94	.36	.01	1.65	.01	.66	.36	T	....	..	....	....	....	....	.06	....	T	.39	.69	T	....	7.73
Keokuk	....	....	....	....	.01	T	....	.01	.76	.04		T	.20	....	.16	.27	....	....	....	....	....	....	....	....	.52	....	T	....	1.04	....	....	3 01
Keosauqua	.02	....	..	.18	....	.04	..	..	.14	.95	.48	.33	T	.07	.06	.42	.10	T	....	....	..	....	....	....	.03	.10	....	.03	.82	T	T	3.77
Lacona	....	....	..	....	.06	....	....	....	.48	.62	1.98	....	..	.48	.22	.52	....	....		....	....	....	....	.20	....	....	.18	.36	.33	....	....	5.43
Lenox	....	....	.02	....	....	....	....	....	.90	.70	1.20	....	.52	.02	04	.22	.07	....	....	....	....	....	....	.35	....	....	.38	....	1.00	....	....	5.42
Le Claire	.03	T	....	....	.03	.05	T	....	.65	.69	.49	.03	.21	T	.62	.46	....	....	....	....	....	....	....	....	T	.31	....	.02	.35	.02	....	3.96
Little Sioux	..	....	.27	....	.14	.23	....	....	.12	.41	.32	....	.32	.82	.10	.22	..	....	....	....	....	....	....	.02	....	....	.28	.30	.67	.03	....	4.25
Le Mars	..	.12	.80	....	....	.50	T		1.15	....	....	....	T	2 82	.10	.22	....	....	....	....	..	....	....	.40	..	.20	....	1.10	1.96	....	....	8 87
Leon	..	....	....	.11	....	....	....	....	.75	.91	1.16	.05	.66	.69	.05	.05	.08	....	....	....	..	....	....	.07	.19	....	.35	.02	.80	.05	....	5.39
Logan	.02	.02	.38	.31	....	..	....	....	.30	.54	.51	....	1.02	....	.14	.25	.01	....	....	....	....	....	....	.05	....	....	.30	.41	....	....	....	4.26
Maquoketa	.15	....	....	....	....	.32	.06	....	....	.80	.92	.90	.02	.10	.08	.80	.27	....	....	....	....	....	....	....	....	.08	....	.10	.95	.25	.03	5.78
Marshalltown	.13	.01	....	.15	....	.03	....	.30	.56	.88	.68	.70	.08	.52	....	.24	.58	....	....	....	....	....	....	....	.02	....	....	.07	1.15	.01	....	6.11
Mason City	.03	....	....	.03	....	.03	.25	....	.60	.70	1.01	....	.65	2.35	.04	.14	....	....	..	....	..	....	....	T	.10	.08	.25	....	1.93	....	....	8.19
Massena	....	....	....	.30	....	....	.03	.05	.09	.50	1 52	....	.46	.21	.04	.30	....	....	....	....	....	....	....	.28	....	....	....	.32	.28	.02	..	4.40
Montezuma	....	....	..	.05	....	.15	....	..	.30	.70	.70	.25	....		.50	....	.60	....	....	..	....	....	....		.40	....	....		.70	....	....	4 35
Muscatine	....	....	....	....	....	.12	.01	....	.21	.42	.40	.36	.03	.23	T	.11	.46	....	....	....	....	....	....	....	.02	.16	....	.03	.64	T	....	3.20
Monticello	....	.	....	.23	....	.30	....	....	....	.96	.70	1.04	.08	.49	.04	.62	.14	....	....	....	....	....	....	....	.21	....	.22	.49	.05	....	....	5.57
Mt. Vernon	.09	....	....	.25	....	.33	....	.07	.65	.37	1.06	....	.12	.06	.40	.50	.01	T	....	..	....	....	....	.08	.22	....	T	.22	.97	.01	..	5.41
Mount Ayr	....	....	....	.25	T	.10	....	.01	.58	.85	1.70	T	.50	.15	.05	.40	.10	....	....	....	....	....	....	.40	....	....	.55	.15	.95	....	....	6.74
Mt. Pleasant	....	....	....	..	....	.09	....	....	.73	.83	.91	..	T	.03	.14	.41	.17	....	....	....	....	....	....	....	.15	....	.06	.14	.29	....	....	4.01
New Hampton	.10	.03	.03	.10	....	.06	.04	.04	.35	.87	1.71	....	.08	.92	.75	.18	.03	.07	....	....	....	....	..	.03	....	....	.28	.18	1.55	....	....	7.35
Newton	....	....	..	.26	....	.07	....	.05	.90	.77	2.52	..	.14	.37	.73	.17	....	....	....	....	....	....	....	.17	....	.05	1.30	.75	..	....	....	8.25
Northwood	.17	.02	.02	.17	....	.05	.46	T	.78	.85	1.21	T	.40	1.35	.18	.24	.02	....	....	....	....	....	..	.02	.22	.01	.46	.06	1.12	.08	....	7.89
Odebolt	....	....	20	....	....	....	.27	....	.44	.62	.60	....	.15	1.62	.08	.20	.05	....	....	..	..	....	....	T	....	T	.74	.20	1.75	....	....	6.92
Ogden	....	..	....	....	.16	.04	....	.66	....	.61	1.94	....	.20	.80	.04	.13	..	....	..	..	..	....	....	....	....	....	.15	.32	.35	....	....	5.40
Olin	.12	....	....	.13	....	.10	....	.05	.32	.40	2.90	..	....	.39	.40	.33	....	....	..	..	..	....	....	T	.14	....	T	..	1.00	.09	....	6.37
Omaha, Neb	T	T	.44	....	.37	T	T	T	.16	....	.44	T	.55	.12	.05	.02	....	....	....	....	....	....	....	.80	....	T	.16	.79	....	....	....	8.40
Onawa	....	T	.22	....	.05	.38	.02		.22	.42	.41	....	.50	2.05	T	.15	....	....	....	....	....	....	....	.01	....	.02	1.15	.37	1.60	....	..	7.57
Osage	..	.15	.08	....	.07	....	.10	.12	.04	.60	.85	1.19	....	.20	2.19	.31	.11	....	....	....	..	....	..	.04	....	T	.35	.04	1.02	.01	....	7.42
Oskaloosa	....	....	.03	....	.11	....	.	.37	.69	.90	....	....	.02	....	.07	.15	T	..	....	.	....	....	....	.37	.11	....	.13	.05	.31	....	....	3.34
Pacific Junction	....	....	.16	....	.05	.12	....	.02	.01	.03	.2	....	.64	.34	.11	.04	....	..	..	..	..	....	....	T	..	T	.22	.09	.73	....	....	2.83
Perry	....	..	....	.20	T	.02	....	.10	.51	.75	2.20	....	.25	.94	.09	.10	....	....	..	....	....	....	....	....	....	....	T	.34	.56	....	....	6.06
Plover	....	....	....	.18	....	.36	T	....	1.20	.75	....		1.75		T	....	....	....	....	....	....	....	....	.11	....	.14	.34	.37	1.40	....	....	6.60
Pocahontas	.12	T	....	.42	....	.31	....	....	....	2.05	1.27	....	....	1.71	T	.20	....	....	....	....	....	....	....	T	....	.04	.58	1.28	.06	....	....	8.04
Red Oak	....	....	....	.15	....	T	....	.03	....	.20	1.07	....	.50	.50	.17	....	....	....	....	....	....	....	....	.01	....	....	.20	.13	.90	....	....	3.86
Ridgeway	.13	.08	.22	.05	.01	.04	.11	T	.57	.48	1.88	.02	.23	.80	.31	.15	.03	.02	..	....	....	....	....	.05	....	T	.29	.04	1.42	....	....	6.88
Rock Rapids	....	.40	.07	....	.30	.14	.42	.75	T	.75	.85	T	T	.60	T	.60	....	....	..	....	..	....	....	....	T	T	.02	.36	.59	....	....	5.35
Rockwell City	....	....	.20	....	....	.25	....	....	.95	.45	.65	....	.45	2.65	.05	.15											.50	.15	1.20	....	....	7 05
St. Charles	....	....	....	.02	....	.37	....	....	.76	.96	1.00	.07	.51	.11	.15	.19	.02	....	....	....	....	....	....	.16	....	....	.13	.07	.53	T	....	5.05
Sheldon	.11	.33	.15	....	....	.50	....	....	2.90	....	.43	....	1.55	....	.08	.30	....	....	....	....	....	....	....	.42	....	.08	.30	1.30	.15	....	....	8.60
Sibley	.07	.14	1.56	.18	....	.42	.09	....	.44	2.09	.30	T	....	.98	.02	.15	.16	....	....	....	....	....	....	....	.05	....	.01	.20	.93	.17	....	7.96

DAILY AND MONTHLY PRECIPITATION FOR MAY, 1905--CONTINUED.

STATIONS.	DAY OF MONTH																														TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sidney	....	....	....	....	....	....	.02	....	....	....	1.20	....	.62	....	.23	.09	....	....	..	...	....	..	....	1.30	....	....	.42	.08	2.00	....	....	5.96
Sigourney	.02	....	....	.35	....	.05	....	....	.55	.45	.36	...	T	.01	.27	.36	.02	...	....	....	...	....	...	.27	.28	...	.10	.37	.84	...	....	3.83
Sioux Center	.20	....	.21	....	....	.44	....	....	.90	1.12	.38	....	1.10	.91	.10	.18	....	...	..	..	....	...	....	..	.09	.10	.23	....	.98	....	...	6.94
Sioux City	..	.14	.01	....	.25	.10	.04	T	.87	.24	.54	....	1.50	.26	.05	.12	....	....	....	....	....	....	....	..	.22	....	.54	.82	1.91	1.30	....	...	8.41
Stockport	....	....	....	.15	....	.03	..	..	.57	.71	.54	....	.02	.12	.80	.26	.03	....	....	....	....	....	....	.02	.15	....	.10	.20	.25	T	....	3.45
Storm Lake	.03	....	....	.15	....	.25	.10	.20	1.12	.67	.73	....		2.03	..	.03	.23	....	....	....	...	..	....	.01	....	....	.21	.47	1.27	T	....	7.50
Stuart	...	....	.15	....	....	....	....	....	.17	.87	1.05	....	.18	.32	.05	.07	....	....	....	....	.	....	....	.15	....	....	.08	.90	....	....	....	3.99
Thurman	....	..	.10	....	T	T	T	....	.42	T	1.30	T	1.08	.21	.05	.15	....	....	....	....	....	..	..	.35	....	....	.18	.08	....	2.28	....	6.20
Tipton	.10	....	....	....	....	....	....	....	....	.90	1.53	....	....	.15	....	....	....	....	....	....	....	....	....	....	.22	....	....	1.18	....	....	..	4.08
Toledo	.10	....	.	.35	....	....	....	.35	.90	.70	.70	.10	.10	....	.15	.60	....	....	....	..	....	....	..	.25	....	....	.05	.05	1.50	....	....	5.90
Wapello	T	....	....	....	....	....	....	....	.86		1.30	..	.20	.10		.51	.20	....	....	....	..	....	....	..	.17	....	.06	.47	.36	....	....	4.23
Washington	..	....	....	.15	.06	....	....	....	.27	.72	.49	....	.03	....	68	.77	....	....	..	..	....	....	....	....	.05	.08	.05	.65	....	....	....	4.05
Washta	....	.08	.36	....	....	.37	.20	....	1.20	....	....	....	1.92	....	T	.20	....	....	....	....	....	....	....	.05	....	.22	.48	.38	1.42	....	....	6.88
Waterloo	.17	....	....	.14	....	.07	.15	.38	.06	1.29	.88		.06	.54	.37	..	.21	T	....	....	....	....	....	T	....	...	T	.37	.94	.03	....	5.66
Waukee	....	T	....	.07	T	T	..	...	.28	.70	1.01	T	.18	.13	.04	.08	.03	....	....	....	....	....	....	.05	T	....	.21	1.23	1.00	T	....	5.01
Waverly	.26	.04	.01	.15	....	.03	.20	.27	.50	77	1.84	....	.20	.40	.23	.25	....	....	..	....	..	....	....	.03	....	.02	.15	.21	1.24	....	....	6.80
Webster City	T	....	.54	.18	T	....	.25	....	1.49	..	1.00	....	1.27	....	.08	.50	T	..			....	....	....	....	....	T	.69	1.07	T	....	....	6.98
Whitten	.15	...	....	.44	T	....	T	.50	.72	.43	1.90	T	.14	.80	.17	.50	....	....	....	....	....	....	T	....	....	..	T	....	.91	...	....	6.66
Wilton Junction	....	..	....	....	..	.33	....	....	.98	.20	.42	....	T	....	.40	.58	.10	....	....	....	....	....	....	....	.60	....	....	.96	.15	...	....	4.72
Winterset	...	....	..	....	.03	T	....	.02	.33	.73	.98	....	.47	.12	.07	.08	....	....	....	..	....	....	....	.15	....	....	.24	....	.41	....	....	3.63
West Bend	.14	T	....	.02	T	.20	.20	....	1.25	....	1.06	....		1.44	.09	.27	....	.	....	....	..	....		.01	.02	.02	.38	.08	1.16	.26	....	6.60
Woodburn	...	....	....	....	....	.34	....	.05	.31	.91	2.53	T	....	.80	.06	....	.32	....	....	....	....	....	....	.05	..	T	.19	.02	.44	.04	....	6.06
Zearing	....	.10		.04	....	.01	T	.54	.69	.64	1.32	....	.13	.94	.93	.42	....	....	....	....	....		....		....	....	.06	.38	.55	T	....	6.75

T. Amount too small to measure.

Precipitation Chart May 1905.



JUNE, 1905 No. 6



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DIRECTOR.

GEO. M. CHAPPEL,
LOCAL FORECASTER,
U. S. WEATHER BUREAU, ASS'T DIRECTOR.

THE IOWA WEATHER AND CROP SERVICE

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METEOROLOGICAL STATIONS AND OBSERVERS.

From the following, weekly and monthly reports of Metorological data are received by the Iowa Weather and Crop Service.

Afton	Hon. N. W. Rowell
Albia	E. R. Reeve
Algona	Dr. F. T. Seeley
Allerton	Rex Shriver
Alta	D. E. Hadden
Alta (near)	W. J. Minard
Alton	W. S. Slagle
Amana	Conrad Schadt
Ames	Exp. Station
Atlantic	J. W. Love
Audubon	Geo. E. Kellogg
Baxter	W. T. Thorp
Bedford	E. E. Healy
Belknap	A. W. Rankin
Belle Plaine	S. P. Vandike
Bonaparte	Hon. B. R. Vale
Boone	Carl Fritz Henning
Britt	G. P. Hardwick
Buckingham (Traer P. O.)	Dr. W. A. Daniel
Burlington	I. S. Shontz
Carroll	Moses Simon
Cedar Rapids	Electric Light and Power Co.
Chariton	C. C. Burr
Charles City	*Clarence J. Root
Clarinda	A. S. Van Sandt
Clear Lake	E. C. Schrader
Clinton	Luke Roberts
College Springs	A. M. Finley
Columbus Junction	J. B. Johnston
Corning	Jerome Smith
Corydon	Clara Miller
Creston	Rev. W. L. Gaston
Cresco	L. G. Krumm
Creston	Rev. W. L. Gaston
Cumberland	Agent C., B. & Q. R'y
Davenport	*J. M. Sherier
Delaware	Wm. Ball
Decorah	F. H. Baker
Denison	Prof. W. C. Van Ness
Des Moines	*Geo. M. Chappel
De Soto	R. D. Minard
Dows	H. A. Fleet
Dubuque	*Orin Parker
Earlham, R. F. D.	Geo. Phillips
Elkader	Chas. Reinecke
Elliott	Henry Barnes
Estherville	Earle W. Peterson
Fayette	R. Z. Latimer
Florence (Clarion P. O.)	H. Du Bois
Forest City	J. A. Peters
Fort Dodge	Tobin College
Ft. Madison	Miss L. A. McCready
Galva	F. H. Schleiter
Gilman	Jas. L. Wylie
Glenwood	J. P. Jackson
Grand Meadow (Postville P. O.)	F. L. Williams
Greene	J. L. Cole
Greenfield	J. G. Culver
Grinnell	Prof. J. S. Buck
Grinnell (near)	A. O. Price
Grundy Center	Ed King
Guthrie Center	D. G. Beardsley
Hampton	E. C. Grenelle
Hancock	W. Armstrong
Hanlontown	Miss G. M. Paschen
Harlan	C. A. Reynolds
Hopeville	M. T. Ashley
Humboldt	H. S. Wells
Ida Grove	J. E. Conn
Independence	E. F. Wulfke
Indianola	Prof. J. L. Tilton
Inwood	Geo. M. Larsen
Iowa City	Prof. A. A. Veblen
Iowa Falls	J. B. Parmelee
Jefferson	G. W. Day
Keokuk	*Fred Z. Gosewisch
Keosauqua	Prof. J. A. Landes
Knoxville	Casey & Bellville
Lacona	Agent C., B. & Q. R'y
Lansing	J. Ackerman
Larrabee	H. B. Strever
Lenox	J. L. Hurley
Le Mars	Dr. T. E. Cole
Leon	Millard F. Stookey
Little Sioux	G. H. Gibson
Logan	Glenn H. Stern
Maquoketa	Frank W. Keeney
Marshalltown	Mrs. Elizabeth Jones
Mason City	J. S. Mills
Massena	Fred. T Knott
Montezuma	C. J. Griffin
Monticello	A. Matthiessen
Mount Vernon	Rev. J. W. Hubbard
Mt. Ayr	A. F. Beard
Mt. Pleasant	Prof. J. W. Edwards
Nevada	R. S. Patrick
New Hampton	A. F. Kemman
Newton	Hon. J. P. Beatty
Northwood	Charles Dwelle
Odebolt	E. Starner
Ogden	C. L. Zollinger
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Onawa	C. G. Perkins
Osage	G. D. Pattingill
Oskaloosa	Jos. Boyd
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Pacific Junction	Agent C., B. & Q. R'y
Perry	J. A. Harvey
Plover	J. S Smith
Pocahontas	F. E. Hronek
Red Oak	G. W. Holt
Ridgeway	Arthur Betts
Rock Rapids	W. C. Wyckoff
Rockwell City	C. M. Randall
Ruthven	F. M. Fitzgerald
Sac City	Frank Stouffer
St. Charles	C. W. Minard
Sheldon	Dr. A. W. Beach
Sibley	H. G. Doolittle
Sidney	A. P. Speers
Sigourney	J. T. Parker
Sioux Center	Jacob de Ruyter
Sioux City	*C. D. Reed
Spirit Lake	W. C. Drummond
Stockport	C. L. Beswick
Storm Lake	L. E. Burdick
Stuart	Hon John Herriott
Thurman	C. R. Paul
Tipton	F. K. Gregg
Toledo	Herbert Giger
Vinton	H. G. Haines
Wapello	Geo. W. Schofield
Washington	Wm. A. Cook
Washta	H L. Felter
Waterloo	M. L. Newton
Waukee	E. J. Leonard
Waverly	H. S. Hoover
Webster City	C. D. Carpenter
What Cheer	R. S. Alexander
Whitten	Dr. Frank P. Butler
Wilton Junction	J. M. Rider
Winterset	B. L. Sprinkle
West Bend	Phil Dorweiler
Woodburn	C. B. McDonough
Zearing	H. E. Burkhart

*U. S. Weather Bureau.

WEATHER-CROP OBSERVERS.

Reporting for the Weekly Bulletin.

Agency	J. H. Van Zandt
Albia	E. B. Morris
Allerton	James Piper
Alta	Jonas Cushman
Audubon	A. H. Edwards
Blairstown	T. H. Weil
Burt	R. Jain
Cedar Rapids	Hon. A. J. Fuhrmeister
Centerville	Jacob Harter
Charles City	W. B. Towner
Clarksville	F. M. Russell
Council Bluffs	L. Prouty
Correctionville	Hon. W. B. Chapman
Creston	M. V. Ashby
Danville	Sherman Matthews
Dunlap	Hon. B. F. Roberts
Emerson	D. B. Nims
Fort Dodge	R. W. Blaine
Fruitland	R. T. Hummel
Goldfield	D. M. Stephens
Geneva	Wm. H. Thompson
Gruver	C. Higinbotham
Hartford	H. E. Slack
Hartwick	Fred McCulloch
Harlan	H. B. Kees
Humeston	Hon. S. H. Moore
Ida Grove	P. E. Lund
Independence	Geo. H. Wilson
Indianola	H. D. Guthrie
Ireton	J. M. Sherman
Long Grove	Hon. Chris Marti
Manson	J. D. Skinner
Marshalltown	Hon. S. B. Packard
Mt. Pleasant	W. S. Wright
Milton	Hon. E. C. Holland
Monroe	J. A. Dibel
Nevada	Geo. C. White
Northwood	T. L. Bolton
Oakville	Z. W. Steele
Orange City	H. J. Vande Waa
Pella	J. H. Ver Steeg
Preston	J. G. Storm
Pittsburg	G. C. Duffield
Portland (Nora Springs, P. O.)	Arthur Pickford
Platte (Creston R. D.)	M. H. Dibel
Red Oak	Hon. C. L. Stratton
Rock Rapids	D. E. F. Merrill
Seymour	L. B. Sager
Shenandoah	Reuben Mullison
State Center	E. P. Thompson
Stuart	W. W. Bailey
Toledo	W. G. Malin
Van Horne	Spencer Smith
Waukon R. D.	T. B. Wiley
Weldon	Ed Worden
Winterset	H. A. Kinsman
West Branch	Wrigley Smith
West Union	H. B. Blackman
Wilton	Thos. Boot
Wiota	I. S. Coomes
Woodward	George Swisher

U. S. DEPARTMENT OF AGRICULTURE—WEATHER BUREAU.

MONTHLY REVIEW

OF THE

Iowa Weather and Crop Service.

VOLUME XVI. JUNE, 1905. No. 6.

IOWA CROP CONDITIONS, JULY 1, 1905.

Reports of crop correspondents showed the following averages of condition of staple crops, July 1, 1905: Winter wheat, 99; spring wheat, 94; corn 92; oats, 96; rye, 96; barley, 98; flax, 95; hay crop, 101; pastures, 105; potatoes, 98; apples, 65; grapes, 88; plums, 68 per cent.

On July, 1, 1904, spring wheat was rated 91; corn, 90; oats, 91; barley, 93; flax, 89; hay, 90; pastures, 94; potatoes, 101; apples, 85 per cent.

JUNE WEATHER AND CROPS.

June was about normal in temperature, the average for the state being 69.9°, which is .3° above normal. The average rainfall was 5.53 inches, or about 1.00 inch above the state normal. The distribution of rainfall was very unequal, ranging from 1.80 inches at Forest City, to 14.89 inches at Keosauqua. The greatest excess occurred in the southeast, and in a portion of the northwest districts. The central section received the lowest average. The first week was warm and generally dry, affording ideal conditions for the growth of crops and the cultivation of corn, potatoes, etc. A fair stand of corn was secured on well drained lands, and the fields were mainly well cultivated. Copious showers fell on the 9th and 10th, which were timely and beneficial in three-fourths of the state; but portions of the southeast district suffered much damage from excessive downpours, materially injuring crops in that region by flooding the bottoms and washing the cultivated slopes. The third week was normal in temperature and amount of sunshine, affording conditions favorable for growth and cleaning out the weedy fields. The last ten days of the month brought intermittent temperature, and closed with copious showers in all districts, and considerable excess in extensive areas in the northern section. At the close of the month the corn crop was materially better in stand and condition than at the corresponding date in three preceding years. Haying was begun, but the first cutting of clover suffered material damage by showery weather. The pastures were excellent, and the old meadows were improved by the rains. Small grain crops were not affected by rust, except in limited areas.

NOTES AND COMMENTS.

Numerous people express the belief that rain may be shaken out of the air by means of high explosives and a general bombardment of the sky. To sustain this notion they assert that there is generally a greater amount of rainfall on or closely following the Fourth of July, as a result of the wild, air-splitting celebration of that day. Records of past years do not sustain this view. In Iowa, for the period of fifteen consecutive years, the rainfall tables for the state show heavier rainfall on the 1st, 2d and 3d than on the 4th, 5th and 6th of July. June brings the heaviest rainfall, though at times the culmination of our rainy season is reached the first week in July. The idea of producing rainfall by jarring the air, or any other artificial means, may be termed a factless theory.

If everything went well with the farmer all the time—perfect weather conditions, no insect pests, no blight or rust, cheap and docile hired help, no summer hailstorms or untimely frosts, no floods or drouths—there would still be trouble, for so many would want to farm and so much would be produced that the business would not pay. So it is just as well to regard the calamities which beset the business as really essential to its best interests. It is only the disagreeable features, the slavery connected with dairying, which makes it the most profitable business on the farm.—*J. S. Trigg.*

In comparing the average annual temperatures of the past 16 years in Honolulu, it will be seen the lowest was 63.07 degrees and the highest 74.49 degrees. The maximum in the same period was 90 degrees and the minimum was 53 degrees. This is a remarkable exhibit of equability of temperature. Probably in no other place under the American flag will be found so little disparity between the extremes of heat and cold. The rainfall, except during the months of May, June, July, August and September, was somewhat erratic and wholly out of comparison with that of Southern California, whose temperature is not nearly so equable as Hawaii's. Last February there was heavier precipitation than in some whole years and not very far from the average annual fall of 20 years.—*Ex.*

WASHINGTON SPECIAL: Excluding the two reserves in Alaska, which cover nearly 5,000,000 acres, there are now in the United States fifty-one forest reserves, with a combined area of 57,833,974 acres. These reserves are divided among thirteen states and territories of the west. The people of the United States, as a whole, have little idea of the enormous magnitude of the interests affected by the government's forest reserve policy. Timber supply, important as this is, is a relatively small part of the whole purpose. The reclamation of millions of acres of arid land, a sustained or heightened fertility for other millions of acres of farm lands, and, finally, the safeguarding for the future of pasturage of millions of head of sheep and cattle are already certain results of that policy. It contemplates furnishing the present and thousand prospective settlers wood, water, tillable lands, and prosperous homes. Roundly stated, the purpose is to give these forests reserves their highest utility to all who use them now or will use them hereafter.

When you get up in the morning from your superheated couch
With a brain all hot and addled and a temper full of grouch,
When you wander to your office with a dull and fishy eye
'Neath a sun that's gayly blazing like a furnace in the sky,
Oh it's hot, but don't you mind it, though you're wilted and forlorn;
It's a little tough for mortals, but its mighty good for corn.
—*Council Bluffs Nonpareil.*

Mr. F. H. Newell, U. S. Hydrographer, says: "Not only are trees of great importance in maintaining favorable conditions for the perennial supply of water, but the forest has peculiar value in preventing erosion of the soil and the washing of silt into the reservoirs. The soil on many of the upland mountain parks is extremely light and easily moved by the beating of the rain. This is shown where cattle have traveled through the denuded areas. Each trail serves to collect the water from the occasional rains. A few sharp showers quickly cut out these trails into gulleys, and a few years suffice to convert them into miniature canyons and bad lands. About twenty years ago, when I first visited Colorado, there were to be found throughout the mountains little valleys with smooth fertile bottoms. On my last trip through this same country, I was dismayed by the appalling changes that had taken place. Each of these valleys was traversed by a deep-walled gulley, which in places widened out and left no room even for a wagon road. All the rich, light soil had been carried down the streams. This rapid erosion had been due to the cutting away of the timber and the burning of the brush and by over-grazing."

THE BLESSED RAIN.

The Rain came down on the brown
Rich furrows of mountain farms
And rivers with silver arms:
The cornblades rustled in merriment:
The cutworm made him a leafy tent;
The hemlock tassels were pearled.
Then, soft through fillets, of vapor spun,
The drops fell lazily, one by one,
A bluebird fluted to greet the sun;
A bow bent over the world.

The Rain came down on the town;
In floods, in torrents, in sheets
It swept the feverish streets.
A million lances of silver gray
It broke on steeples in stern array;
It veiled the cornice with wreaths of spray;
The big drops spattered the pane,
Then ceased. But gardens that late had been
So parched and thirsty, were fresh and green;
And all was wholesome and cool and clean;
For blest is ever the Rain.

—*By Arthur Guiterman.*

A SAD AND HEROIC DEATH.

By press dispatches we have received the details of the tragic ending of the life of Mr. Louis A. Hatten, formerly an assistant observer in the U. S. Weather Bureau office in Des Moines, who was drowned in the Arkansas river near Little Rock, Arkansas, on the evening of July 4th. Mr. Hatten served in this office from March 1903 to October 1903, during which period he won the high esteem of all who were associated with him in official and social relations. He was a competent observer, faithful in his work, and possessed of estimable qualities of character. The manner in which he came to his death gives the highest attestation of the noble spirit of the man. He was drowned while making a heroic attempt to save the life of a young friend with whom he was enjoying a holiday's outing on the river. Though failing in the effort to save the friend's life, he won for himself the imperishable crown of heroism. Mr. Hatten was born in Carrollton, Missouri, September 24, 1877, and was reared and educated at Carthage, Missouri. He was appointed assistant observer in the Weather Bureau in July 1902, and his first assignment to duty was at Evansville, Indiana, from which place he was transferred to Des Moines, in March 1903. He leaves a wife and a little son ten months old to grieve for his untimely taking off.

WEATHER MEDICINE.

The element of Superstition continues to be predominent in human nature, and the faker that can employ it successfully is always sure of an audience. The people still have faith in the imposter who claims to be able to foretell the weather a year in advance. The weather medicine man is only one in a legion of imposters, but he is the most exasperating one of the lot for reason of his lengthy staying powers. He keeps right on predicting cold weather for Winter and warm weather in Summer, with variable temperatures and occasional storms in the Spring and Fall, and a large section of the newspaper reading public accepts his fulminations as the conclusions of researches in what they fondly believe to be a new and mysterious science. The weather faker does not even have to exercise the virtue of keeping a close mouth in order to be esteemed wise; the more extensive his prognostications, so-called, the wider their range, the more profound is the awe in which he is held by the vast multitude of the unsophisticated. It is a pity that the gullible section of the public can not know the volunteer weather prophets for what they are—can not know what is the truth, that they know as little about the science of meteorology as do the medicine men of the Indian tribes about the healing art. It is a serious reflection, also, upon the press, that it should render space that could be made valuable, to such puerile and misleading vagaries as —— and —— and other such cheap mountebanks promulgate. Without the gullible newspaper through which to communicate with the gullible public, the weather medicine would soon give place in the public mind to a higher plane of thinking —*Saturday Evening Post, Burlington, Iowa.*

TRANSPORTATION ON THE GREAT LAKES.

The *Marine Review* states that never before in the history of the lakes had the shipyards been blessed with such a prodigality of orders; never before have all available berths been practically taken a year ahead. There are sixteen ships under order for 1906 delivery. This is in striking contrast with the condition of a year ago, when the ship building berths were practically vacant and no orders in sight. Indeed, the summer of 1904 was well advanced before the shipyards received a single order, but after that they came fast. But such a condition as now confronts the great lake shipbuilders is a new experience altogether. What with the orders for new ships, the lengthening of old ones and the inevitable repairs to the existing fleet, the shipbuilders of the great lakes can look forward to eighteen months of exceedingly active work. Since the beginning of the present year the great lakes' shipbuilders are working upon or have under order forty ships for the ore trade. These forty ships have a carrying capacity of 360,500 tons, or an average of a trifle over 9,000 tons each. Ten years ago the average carrying capacity of vesels under construction was only 3,000 tons. These forty ships for delivery during this year and next, carrying 360,500 tons on a single trip, will in an average season of twenty trips move 7,210,900 gross tons of ore. It was not until 1884 that the shipments of iron ore exceeded 1,000,000 tons per annum. These forty ships could therefore carry in a single season the combined movement of all the years from 1855 to 1870, and their capacity is in excess of even so recent a year as 1893, when 6,065,716 tons were moved. A ship has been pushed overboard on the great lakes every ten days during the past spring. The independent vesel owner as well as the ore-owning steel companies have faith in the continued expansion of the iron business of the United States, for the greater part of the tonnage under order is for interests that must be called independent—that is to say, vessel owners without furnace or steel-making connections.

CLIMATOLOGY OF THE MONTH, JUNE, 1905.

BAROMETER.—Mean pressure, 29.91 inches, highest observed, 30.23 inches, at Dubuque, on the 27th; lowest observed, 29.49 inches, at Charles City, on the 5th; range for state, 0.74 of an inch.

TEMPERATURE.—The monthly mean temperature for the state, as shown by records of 121 stations, was 69.9°, which is 0.3° above normal. By sections the mean temperatures were as follows: Northern section, 67.9°, which is 0.2° below normal; central section, 70.2°, which is 0.7° above normal; southern section, 71.7°, which is 0.5° above normal. The highest monthly mean was 74.5° at Red Oak; lowest monthly mean, 64.5° at Sibley. The highest temperature reported was 100° at Red Oak on the 9th; lowest temperature reported, 36°, at Washta on the 22d. The average monthly maximum was 92.1°; average monthly minimum, 45.7°. Greatest daily range, 48° at Washta; average of greatest daily ranges, 33.9°.

PRECIPITATION.—Average precipitation for the state, as shown by records of 131 stations, was 5.53 inches, which is 1.00 inch above normal. The averages by sections were as follows: Northern section, 5.39 inches which is .71 of an inch above normal; central section, 4.78 inches, which is .22 of an inch above normal; southern section, 6.43 inches, which is 2.07 inches above normal. The largest amount reported was 14.89 inches at Keosauqua; least amount reported, 1.80 inches at Forest City. The greatest daily rainfall reported was 12.10 inches at Bonaparte on the 10th. Average number of days on which .01 of an inch or more was reported, 10.

WIND AND WEATHER.—Prevailing direction of the wind, south, southeast, southwest; highest velocity reported, 49 miles per hour, from the northwest, at Sioux City, on the 18th. Average number of clear days, 12; partly cloudy, 11; cloudy, 7.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	29.92	30.19	27	29.49	5
Davenport	29.93	30.20	27	29.58	5
Des Moines	29.92	30.15	27	29.54	5
Dubuque	29.94	30.23	27	29.54	5
Omaha, Neb	29.88	30.14	7	29.49	5
Keokuk	29.93	30.16	27	29.65	5
Sioux City	29.88	30.13	7	29.50	5
Means	29.91	30.23	27	29.49	5

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	4.946	36	SW	5
Davenport	5.207	34	N	18
Des Moines	6.269	47	W	5
Dubuque	4.798	29	SW	5
Keokuk	5.043	34	W	9
La Crosse, Wis	4.714	26	W	18
Omaha, Neb	6 502	33	NE	27
Sioux City	9.579	49	NW	18

OBSERVERS' NOTES.

ALTA—*David E. Hadden.* Temperature and rainfall in June were above normal; heaviest rainfall occurred during closing days of the month.

ALTON—*W. S. Slagle.* Altitude of this station is 1,308 feet. Light frost observed on 22d, causing no damage. Some rust on small grain.

AMANA—*Conrad Schadt.* Weather generally favorable for crops; no destructive storms during the month. Rye harvest begun on 30th.

BAXTER—*W. T. Thorp.* Fifty per cent of corn crop laid by at close of June. Hay crop, wheat and oats look good.

BONAPARTE—*B. R. Vale.* A normal June, except the phenomenal downpour of 12.10 inches of rain on the 10th, causing much damage to crops, soil and bridges.

BRITT—*Geo. P. Hardwick.* On the 18th a tornado passed from southwest to northeast, through center of county, causing loss of a few buildings in its track.

CHARITON—*C. C. Burr.* Excessive moisture hindered cultivation of corn; early planted corn doing well.

CLINTON—*Luke Roberts.* The mean temperature of June was 1.5° above normal; rainfall, 4.02 inches, was .41 of an inch below normal; conditions good for crops and a fine harvest is promised.

CRESTON—*W. L. Gaston.* Heavy rainfall interfered somewhat with corn plowing.

ELLIOTT—*Henry Barnes.* A very growing month and crops are doing finely; heavy crop of clover and nearly all cut.

FOREST CITY—*J. A. Peters.* Height of corn June 30th about same as last year same date; rainfall 2.83 inches below normal.

GRAND MEADOW—*F. L. Williams.* Month wet; hay crop large; pastures extra; corn good but small; largest butter yield on record for this section.

GRINNELL—*A. O. Price.* Generally fair weather for field work and crops; small fruit abundant.

GRUNDY CENTER—*E. S. King.* Small grain uneven; corn best in years, fully knee high on 30th, hay and pastures good.

HANCOCK—*W. Armstrong.* All crops in fair condition at close of month; commenced to plow corn last time on the 26th.

HANLONTOWN—*Mrs. G. M. Paschen.* Corn made good progress in June; hay crop heavy and some hay made the last week of month; oats heading out and heavy; lightning did considerable damage to stock and buildings.

HUMBOLDT—*H. S. Wells.* Rain 2.44 inches—not too much for all crops; showers the last week hindered hay making.

IDA GROVE—*Dr. J. E. Conn.* An unusually fine month for the crops; everything looking well, especially corn.

INDIANOLA—*Prof. John L. Tilton.* On June 1st, John Legget, of Lathrop, was killed by lightning; on the 19th a barn was burned by lightning two miles northeast; on 27th a chimney was struck.

INWOOD—*G. M. Larsen.* Greatest rain for many years fell on 28th; much hay spoiled and some other crops injured.

KEOSAUQUA—*J. H. Landes.* The rainfall, 11.23 inches, on night of 9th breaks the record for this place; much damage was done to crops on low lands by overflow, and on high lands by washing the soil; eighty-nine county bridges were taken out.

OLIN—*N. Potter.* June was an ideal month for cultivating corn, which is a high average; oats and hay above average.

RIDGEWAY—*Arthur Betts.* Warmest June since 1901; 285 hours of sunshine, or 62 per cent; copious rainfall.

SHELDON—*A. W. Beach.* Conditions fine until 23d; since then too much rain for good progress of crops.

STOCKPORT—*C. L. Beswick.* On the 9th about 8 P. M. a gentle rain began and by morning the amount was 10.63 inches—the heaviest ever recorded here.

WAUKEE—*E. J. Leonard.* Month favorable the first half, but very wet the latter part; all grain doing well.

WAVERLY—*H. S. Hoover.* A wet, cool month; too wet for making clover hay, and for corn and oats; apples not promising.

CLIMATOLOGICAL DATA FOR JUNE, 1905.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Algona	Kossuth	1,213	28	68.0	- 1.7	91	4	42	22	31	5.55	†1.16	1.12	....	10	15	8	7	S	
Alta	Buena Vista	1,513	14	67.6	- 0.9	90	4,5	42	22	30	5 73	† .07	3.55	....	11	9	14	7	S	
Alta (near)	Buena Vista										7 23		5.30	....	11					
Alton	Sioux			67.8		92	4	39	22	38	7.20		2.34	....	11	8	13	9	SE	
Britt	Hancock	1,236	8	69.4	† 0 6	92	4	42	22	32	3.56	- .92	1.00	....	14	1	27	2	SE	
Charles City	Floyd	1,015	18	67.0	- 2.5	91	4	45	22	29	5.29	† .16	1.22	....	13	4	16	10	SE	
Clear Lake	Cerro Gordo	1,241	7	69.4	† 0.9	91	4,5	45	22	30	4.25	- .14	1.50	....	6	4	20	6	NW	
Cresco	Howard		31	66.3	† 4.1	88	4	44	22	29	4.67	- .29	1 27	....	10	9	14	7	SE	
Decorah	Winneshiek	857	12	68.6	† 0.8	89	5	45	8	31	6.31	†2.05	1.52	....	10					
Dows	Wright	1,142	9	67.8	† 0.1	91	4	39	23	30	5.64	† .56	1.32	....	12	9	9	12	S	
Elkader	Clayton	727	21	70.4	† 0.9	95	4	45	8,27	37	4.49	† .29	1.50	....	11	12	15	3	SE	
Estherville	Emmet	1,298	12	66.6	- 2.0	91	4	40	22	36	3.48	† .39	.80	....	9	15	3	12	S, NW	
Florence	Wright	1,226									5.01		2,68	....	8	3	25	2	S	
Forest City	Winnebago	1,226	11	67.2	- 0.9	91	4	43	22	34	1.80	-3.26	.78	....	9	14	1	15	SW	
Grand Meadow	Clayton	1,180	11	67.6	† 0 6	89	4,18	46	22	30	5.36	† .10	1.49	....	11	5	15	10	SE	
Greene	Butler	924	8	69.4	† 0.0	93	4	44	22	32	4.68	† .61	1.00	....	10	3	16	11	S	
Hampton	Franklin	1,155	13	69.5	† 1.3	95	4	45	22	32	4.99	- .24	1.58	..	9	3	24	3	SW	
Hanlontown	Worth			65.6		88	4	42	3,21	31	4.55		1.55	....	11	14	11	5	SE	
Humboldt	Humboldt	1,095	16	67.2	- 2.8	88	13	43	22	29	2.44	-2.23	.84	....	7	13	11	6	SW	
Inwood	Lyon			67.3		92	3,4	38	21	38	9.92		4.89	....	8	16	1	13	S	
Larrabee (a)	Cherokee	1,266	12	69.8	† 0.9	98	5	39	22	38	3 90	-2.00	1.47	....	12	5	20	5		
LeMars	Plymouth	1,224	7	71.2	† 2.3	95	5	41	22	40	4 31	† .29	1.65	....	12	11	14	5	S	
Mason City	Cerro Gordo	1,132	8	68.8	† 1.2	91	4	45	22	30	4.80	-2.24	1.15	....	8	7	19	4	S	
New Hampton	Chickasaw	1,169	7	68.4	- 0.2	90	4	47	23	33	4.65	† .17	1.30	....	14	3	21	6	SE	
Northwood	Worth	1,222	8	67.3	† 0.5	90	4	43	22,23	30	3.89	- .92	.96	...	10	8	17	5	S	
Osage	Mitchell	1,184	13	67.4	† 1.0	92	4	42	22	33	5.52	†1.00	1.27	....	8	5	13	12	S	
Pocahontas	Pocahontas	1,190		68.2		93	4	41	22	33	4.25		1.19	....	9	11	13	6	SE	
Plover	Pocahontas		8	68 1	- 0.5	93	9	42	22	35	4.42	† .39	1.22	....	7	9	11	10	S	
Ridgeway	Winneshiek	1,215	7	69 7	† 0.5	90	4,5	48	22	33	5.26	† .74	2.01		10	10	18	2	S	
Rock Rapids	Lyon			67.6	- 0.8	93	4	46	2,22	34	9.17	†5.43	4.15	..	6				S	
Sheldon	O'Brien	1,422	6	69.1	† 2.6	94	5	47	27	40	6.79	†2.62	2.52	....	12	9	18	8	S	
Sibley	Osceola	1,212	12	64.5	- 2.6	92	5	40	22	37	7.19	†3.06	1.80	..	14	12	3	15	S	
Sioux Center	Sioux		6	66.1	- 2.9	91	5	38	22	37	8.87	†4.57	4.05	....	12	9	9	12	S	
Storm Lake	BuenaVista	1,440	8	66.1	- 1.9	88	4	39	22	30	5.20	† .32	3.30	....	10	9	3	18	SE	
Washta	Cherokee	1,157	....	68.3		93	5	36	22	48	5.75	†1.34	3.35	....	12	13	9	8	W	
Waverly	Bremer	942	9	68.1	- 0.7	90	4	48	22	30	6.76	†2,28	1,67	....	14	6	15	9	S	
West Bend (a)	Palo Alto	1,197	12	68.2	† 0.4	90	4	42	22	33	5.23	†1.42	1.77	..	10					
Average				67.9	- 0.2	91 2		42.8		33.4	5.39	† .72			10	9	13	8	S	

CENTRAL SECTION.

Amana	Iowa	721	27	70.8	† 1.1	91	4,5	49	27	34	7.52	†3.03	2.54	....	10	14	12	4	SE	
Ames	Story	926	21	70.4	† 0.4	91	4,5	46	22	35	4.23	- .52	2.20	....	12	16	11	3	SE	
Audubon	Audubon	1,301	9	70.2	† 1.4	93	4,5	41	8	35	5.95	†2.18	2.63	....	9	5	14	11		
Baxter	Jasper	998	....	70.2	† 2.7	90	4,19	42	23	33	4.50	† .08	1.40	....	12	11	10	9	SE	
Belle Plaine	Benton	826	14	69.8	1 0 0	95	4	48	22	34	4.49	† .26	1.65		11	13	8	9	SE	
Boone	Boone			69.1		92	4	47	22	38	6.59		3.49	....	10	11	5	14	S	
Buckingham	Iowa										5.83	† .67	1.40	....	13	3	24	3		
Carroll	Carroll	1,265	13	69.6	† 0.1	93	4	43	22	34	3.59	-1.24	1.95	....	8	16	6	8		
Cedar Rapids	Linn	733	23	71.0	† 0.3	94	4	49	27	39	3.70	- .22	.92	..	13	12	15	3	S W	
Clinton	Clinton	609	38	71.6	† 1.7	94	5	43	1	40	4.02	- .66	2.74	....	6	12	15	3	NW	
Davenport	Scott	606	34	71.4	† 0.5	91	4	49	27	32	7.68	†3.29	5.06	....	10	11	15	4	E	
Delaware	Delaware	1,083	12	68.8	† 0.2	91	4	42	27	36	5.35	†1.07	1.29	....	12	6	20	4	S	
Des Moines	Polk	861	27	70.6	† 0.5	90	4	51	27	30	5.73	† .37	1.93	....	12	3	20	7	SW	
De Soto	Dallas	866	..	70.4		90	18	49	22	32	5.94		1.40	..	8	20	6	4	SW	
Dubuque	Dubuque	655	32	70.1	† 0.6	91	4	49	3	33	4.33	- .87	1.16	....	15	10	17	3	S	
Fort Dodge	Webster	1,126	....	69.0		92	4	44	22	37	3 07		1 10	...	8	16	4	10		
Galva	Ida	1,290	12	67.6	- 1.4	88	4,5	38	22	44	5 00	† .77	2.80	....	11	15	4	11	S	
Gilman	Marshall	1,052									5.24	† .34	1.65	....	10	9	17	4	W	
Grinnell	Poweshiek	1,028	10	70.7	† 0.4	91	4,5,15	47	22	35	5.95	†1.06	2.45	....	9	9	14	7	SW	
Grundy Center	Grundy	976	12	69.0	- 0.1	91	4	45	22	33	4.24	-1.60	.93	....	12	13	9	8	SE	
Guthrie Center	Guthrie	1,077	7	71.2	† 1.6	92	4,5	46	8,22	34	5.61	†1.55	1 92	....	10	18	6	6	NW	
Harlan (a)	Shelby	1,192	....	70.6	† 1.9	92	4,5,9	44	22	34	3.80	-1.48	1.54	..	10	5	19	6	SE	
Ida Grove	Ida	1,220		70.0		93	4,5	46	27	36	3.13		2.25	....	6	19	8	3	S	
Independence	Buchanan	921	40	68.8	- 0.3	90	4	45	22	33	4.33	- .70	1.80	....	8	17	6	7	SW	
Iowa City	Johnson	683	47	70.8	† 1.5	94	18	47	27	40	6.68	†2.05	4.85	....	9	14	0	16	N, S	
Iowa Falls	Hardin	1,170	10	68.1	- 0.4	92	4	46	8,22	36	3.52	-1.25	1.14	....	10	9	12	9	SW	
Little Sioux (a)	Harrison			71.6		94	4,5	45	22	32	3.18		2.07	....	10	11	10	9	SE	
LeClaire	Scott	576									6.87		4.41	....	6	22	2	6	SE	
Logan	Harrison	928	36	72.0	† 1.9	95	4	44	22	33	2.53	-3.17	1 00	....	7	5	22	3	NW	
Maquoketa	Jackson	688	12	68.4	- 1.6	91	4	41	27	40	8.13	-2.59	1.19	....	10	20	2	8	NE	
Marshalltown	Marshall	947	10	69.6	† 0.2	94	4	45	22	37	4.69	- .25	2.22	....	10	12	4	14	SE	
Monticello	Jones	925	....	70.7	† 2.2	96	17	44	8	38	3.80	- .69	1.22	....	8	16	5	9	E	
Muscatine ‡	Muscatine		46								4.36	- .50	2.57	....	9	3	19	8	N, S	
Mt. Vernon	Linn	847	30	70.2	† 0.8	92	4,15	46	27	35	4.07	† .32	1.47	....	14	13	12	5	NW	
Mountezuma	Poweshiek										6.90		3.10	....	8					
Nevada	Story										4.92		2.25	....	8					
Newton	Jasper	944	15	69.8	- 0.4	91	3	50	23,27	33	5.82	† .85	1.20	....	10	18	8	4	S	
Odebolt	Sac	1,356	8	71.4	† 0.6	94	4	43	22	36	3.64	- .67	2.04	....	7	21	6	3		
Ogden	Boone	1,058	9			92	18				6.35	†1.87	1.99	....	9	16	12	2	SE, SW	
Olin (a)	Jones	760	7	69.8	† 0.2	90	5	46	27	33	5 06	†1.54	3.10	....	7				SE	
Perry	Dallas	975	....	70.6		92	4,18	47	22	34	6.97		2.76	....	9	8	14	8		
Onawa	Monona			72.6	† 2.9	95	5,14	46	22	37	2.86	-2.34	1.18	....	14	20	5	5	SE	
Rockwell City	Calhoun		8	70.6	† 1.7	93	4	46	23, 27, 28	35	2.05	-2.45	.85	....	4	22	7	1		
Sac City	Sac	1,278	23	68.2	- 0.4	90	3	43	22	32	2 07	-2 82	1.45	....	6	21	7	2	SW	
Sioux City	Woodbury	1,165	16	69.0	- 1.3	95	5	44	22	34	2.55	-1.25	1.09	....	11	4	12	14	S	
Tipton	Cedar	807	....	72.6	† 3.3	93	4	51	27	29	5.92	†2.19	3.15	....	7	23	6	1	SE	
Toledo	Tama	856	9	69.8	- 0.9	90	4	47	22	35	4.45	† .85	2.00	..	10	11	14	5	SW	
Vinton (a)	Benton	810	15	69.0	- 0.7	90	4,5	48	27	34										
Waterloo	Black Hawk	862	16	69.0	† 0.3	94	4	47	22	42	5.53	†1.03	1.73	....	11	6	20	4	SE	
Waukee	Dallas	1,039	....	71.7		96	4,5	47	22	36	7.31		2 50	....	12	7	16	7	SE	
Wilton Junction	Muscatine	683	11	72.7	† 1.6	95	4,18	45	27	38	6.57	†3.29	3.60	..	7	14	11	5	NW	
Webster City	Hamilton			70 8		95	4	43	22	36	3.06		.90	....	7	18	7	5	SE	
Whitten	Hardin	1,036	....	70.2	† 1.9	93	4	44	22	34	4.16	-2.10	1.00	....	11	12	14	4	SE	
Zearing	Story	718	....	69.4		90	4	47	22	29	4.62		1,04	....	9	15	9	6	SW	
Average				70.2	† 0.7	92.3		45.6		35.0	4.78	† .22			10	13	11	6	SE	

†Above normal. ‡ Received too late to be computed with means. *a*. One day missing; *b*, two days, etc. § Not supplied with self-registering nstruments.

CLIMATOLOGICAL DATA FOR JUNE, 1905—CONTINUED.

SOUTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Afton	Union	1,212	11	71.4	- 0.2	93	18	48	1, 22, 27	35	6.12	+ 1.82	2.07	....	9	16	10	4	SW	
Albia	Monroe	957	...	70.6	† 0.5	92	18	50	1	34	9.06	+ 5.49	3.44	....	12	19	0	11	SW	
Allerton	Wayne	.....	....	71.6	.....	91	18	50	1	32	5.17	.....	1.30	....	11	22	4	4	NW	
Atlantic	Cass	1,184	14	71.8	† 2.1	94	4, 18	44	22	41	5.59	- .09	2.29	....	7	2	13	15	S	
Bedford	Taylor	...	5	71.4	† 3.8	90	15, 18	49	22	30	2.96	- 1.27	.69	..	10	13	9	8	S	
Bonaparte	Van Buren	.....	14	71.4	- 1.0	94	18	50	1, 27	35	14.50	+10.16	12.10	....	7	....	....	....	.....	
Burlington	Des Moines	544		73.2	.....	93	6, 18	52	3, 27	29	7.67	.....	6.04	....	8	19	10	1	S	
Chariton	Lucas	1,042	10	70.4	‡ 0.0	90	5, 18	50	1, 8, 22, 27	30	9.70	+ 5.43	4.22	....	8	15	8	7	SE	
College Springs(a	Page	.....	14	72.5	† 1.0	92	9	50	22	28	2.58	- 1.87	1.30	....	9	....	....	....	S	
Columbus Junct.	Louisa	586	..	71.4	.....	92	4, 18	50	3, 27	34	6.05	.....	1.94	...	10	21	9	0	SE	
Corydon	Wayne	992	12	71.4	† 0.6	89	5, 18	51	8, 22	30	9.07	+ 4.74	3.56	..	9	12	11	7	S	
Corning	Adams	1,127	13	70.8	† 0.4	92	5	43	27	30	5.07	+ .88	1.75	....	6	9	17	4	SW	
Clarinda	Page	.....	15	72.3	† 0.5	96	18	48	22	36	3.80	- 1.31	1.58	....	12	15	4	11	NE	
Creston	Union	.....	....	68.8	....	90	5, 18	48	28	31	6.22	.....	1.59	....	6	12	10	8	SE, W	
Cumberland	Cass	.....	....	.....	.....	.....	.....	.....	.....	....	5.81	+ 1.75	2.23	....	9	20	5	5	S	
Earlham (a)	Madison	.....	....	68.5	.....	90	18	43	8	36	6.96	.....	2.18	....	6	13	10	7	SE	
Elliott	Montgomery	.....	..	73.7	....	95	2, 4, 9, 14	46	22	40	3.27	.....	1.06	....	8	12	18	0	E	
Ft. Madison	Lee	516	56	.....	.....	.....	.....	.....	.....	.....	8.26	+ 3.92	6.40	....	7	12	8	10	S	
Glenwood	Mills	.....	17	71.2	- 1.8	92	4, 9	44	22	29	2.72	- 1.19	1.40	....	4	1	25	4	SW	
Greenfield (a)	Adair	.....	14	72.4	† 1.8	97	4	45	21	46	8.74	+ 3.63	3.27	....	8	22	5	3	S	
Hancock	Pottawatt'mie	.....	....	70.8	.....	93	1, 5, 9	47	22	39	2.72	.....	1.10	....	5	16	9	5	E, SW	
Hopeville ‡	Clarke	.....	13	70.9	† 0.4	91	18	49	22, 27	32	4.64	+ 0.29	1.28	....	9	5	19	6	S	
Indianola	Warren	.....	....	71.0	† 0.6	92	18	48	22	34	6.98	+ 2.90	1.72	....	11	9	10	11	SW	
Keokuk	Lee	619	34	74.2	† 1.7	94	18	52	27	30	6.57	+ 2.03	4.80	....	9	14	13	3	SE	
Keosauqua	Van Buren	644	13	71.8	- 1.2	95	18	50	1	38	14.89	+10.83	11.23	....	10	3	18	9	.....	
Lacona	Warren	.....	....	.....	.....	.....	.....	.....	.....	.....	8.85	+ 4.51	2.50	....	10	7	18	5	.....	
Lenox	Taylor	1,250	10	71.2	† 1.0	92	5	48	22, 27	31	5.93	+ 1.80	2.50	...	8	19	7	4	S	
Leon	Decatur	1,120	....	72.1	.....	92	18	50	22	33	5.08	.....	1.85	...	10	21	5	4	S	
Massena	Cass	.....	....	72.0	.....	94	14, 18	47	22, 27	38	5.74		1.80	....	7	21	5	4	S	
Mt. Ayr	Ringgold	1,236	12	72.2	† 1.5	93	15	48	22	32	7.00	+ 2.56	3.00	....	9	7	20	3	SW	
Mt. Pleasant	Henry	729	24	72.7	† 1.6	94	4, 6, 25	48	27	34	10.06	+ 5.85	7.20	....	9	16	12	2	SW	
Omaha, Neb.	Douglas	1,113	34	72.2	† 0.7	93	4	51	22	26	1.70	- 3.97	.76	....	12	5	12	13	N	
Oskaloosa	Mahaska	843	22	71.6	† 1.7	92	5	52	22	32	6.72	+ 2.59	2.12	....	11	16	2	12	SW	
Pacific Junction	Mills	960	6	71.8	† 2.3	94	5	50	22, 27	34	3.40	- 1.03	1.07	....	10	14	12	4	S	
Red Oak	Montgomery	1,033	8	74.5	† 1.9	100	9	51	22	39	3.87	- 1.29	2.18	....	8	17	7	6	NW	
St. Charles	Madison	1,070	...	70.4	....	90	4, 5, 18	50	7, 22	30	4.19	.....	1.62	....	12	16	9	5	SW	
Sidney	Fremont	.....	....	74.0	....	96	9	50	22	34	2.50	.....	.80	....	8	24	5	1	SE	
Sigourney	Keokuk	887	9	72.5	† 0.2	93	4, 18	50	27	35	7.48	+ 3.79	2.73	....	12	0	28	2	SW, NW	
Stockport	Van Buren	.....		71.4	.....	90	18	52	27	29	14.57	.....	10.63	...	8	16	4	10	NW	
Thurman	Fremont	.....	....	73.4	† 1.2	96	9	49	11	34	5.98	- 1.56	2.20	....	10	10	14	6	SW	
Wapello (a)	Louisa	588	7	70.6	- 0.9	90	4, 5	52	3, 22, 27	27	4.67	+ 1.75	2.00		8	18	11	1	SE	
Washington	Washington	769	13	70.6	- 2.6	91	4, 18	49	27	31	5.36	+ 2.91	2.15	....	6	....	....		SW	
Winterset	Madison	1,129	14	71.8	† 1.5	92	4, 5, 18	48	22	34	6.24	+ .40	3.10	....	7	13	12	5	SE	
Woodburn	Clarke	961	6	71.1	.....	92	16	46	8	33	6.80	+ 2.81	2.00	....	8	17	9	4	SW	
Average		.....	....	71.7	† 0.5	92.8	.....	48.7	.....	33.3	6.43	+ 2.07	.....	....	9	12	10	6	SW	
Average for State		.....	....	69.9	† 0.3	92.1	.....	45.7	..	33.9	5.53	+ 1.00	.....		10	12	11	7	S, SE, SW	

DATES OF THUNDERSTORMS.

NORTHERN SECTION.

Algona, 9, 18, 24, 27, 30.
Alta, 1, 3, 5, 8, 14, 15, 18, 24, 27, 29, 30.
Alton, 1, 15, 18, 24, 27, 30.
Britt, 9, 18, 29, 30.
Charles City, 1, 5, 9, 14, 16, 17, 18, 21, 28, 29, 30.
Cresco, 9, 14, 17, 18, 29, 30.
Dows, 6, 15, 16, 18, 29, 30.
Elkader, 1, 5, 9, 14, 17, 18, 25, 29, 30.
Estherville, 10, 16, 25, 30.
Florence, 3, 5, 9, 15, 18, 27, 28, 30.
Hampton, 5, 14.
Hanlontown, 1, 9, 16, 17, 18, 29, 30.
Humboldt, 27, 30.
Inwood, 28.
Larrabee, 9, 15, 27.
Mason City, 16, 17, 18, 29, 30.
New Hampton, 1, 5, 14, 18, 21, 29, 30.
Northwood, 10, 16, 17, 18, 29.
Osage, 9, 14, 16, 18, 28, 30.
Pocahontas, 18, 27, 29, 30.
Plover, 5, 9, 19, 27, 29, 30.
Rock Rapids, 1, 15, 18, 24, 30.
Ridgeway, 1, 3, 5, 9, 13, 14, 15, 16, 17, 18, 21, 25, 28, 29, 30.
Sheldon, 9, 15, 18, 24, 25, 26, 27, 28, 30.
Sibley, 2, 16, 19, 27, 30.
Sioux Center, 15, 16, 24, 27, 28, 30.
Storm Lake, 18, 23, 27, 28, 29.
Washta, 1, 3, 27, 28.
Waverly, 1, 5, 9, 11, 14, 16, 17, 18, 21, 27, 29, 30.
West Bend, 5, 9, 15, 18, 27, 29.

CENTRAL SECTION.

Amana, 1, 5, 9, 18, 21, 25, 29.
Baxter, 9, 19.
Boone, 1, 9, 18.
Carroll, 3, 9, 10, 20, 27, 28, 29, 30.
Clinton, 4.
Delaware, 1, 2, 9, 10, 19, 25.
Davenport, 9, 10, 15, 18, 19, 25, 30.
Des Moines, 1, 5, 9, 10, 14, 16, 18, 19, 20, 25, 27, 28, 29, 30.
Dubuque, 1, 5, 6, 14, 15, 18, 19, 25, 29, 30.
Grinnell, 1, 6, 9, 10, 14, 18, 19, 20, 25, 27, 29, 30.
Grundy Center, 2, 6, 9, 10, 15, 16, 17, 19, 27.
Guthrie Center, 5, 9, 16, 18, 19, 27, 30.
Harlan, 3, 5, 9, 10, 11, 20, 27, 30.
Independence, 1, 5, 9, 18, 21, 25, 30.
Iowa Falls, 5, 9, 12, 14, 16, 18, 28, 29.
Jefferson, 18, 27, 29
Little Sioux, 11, 30.
Marshalltown, 9, 16, 18.
Monticello, 18.
Mt. Vernon, 6, 18, 19, 20, 25, 29, 30.
Montezuma, 10.
Nevada, 1, 9, 16, 19, 27.
Olin, 2, 9, 14, 18, 30.
Onawa, 3, 8, 13 21.
Perry, 1, 6, 9, 28.
Sioux City, 5, 11, 12, 13, 15, 18, 20, 24, 27, 30.
Waukee, 1, 5, 9, 16, 18, 19, 25, 27, 29, 30.
Wilton Junction, 9, 10,
Whitten, 6, 9, 10, 16, 17, 18, 19, 20, 26, 29, 30.
Zearing, 9, 17, 19.

SOUTHERN SECTION.

Allerton, 1, 10, 14, 19, 20, 27, 28, 29, 30.
Atlantic, 5, 9, 18, 19, 27.
Burlington, 9, 10, 19.
Columbus Junction, 9, 10, 14, 19, 25, 26, 30.
Corydon, 10, 14, 27.
Corning, 6, 9, 10, 11, 16, 18, 20, 27.
Creston, 19, 20, 28.
Cumberland, 9, 18, 30.
Earlham, 1, 2, 9, 10, 14, 18, 20, 27, 30.
Elliott, 6, 16, 18, 20, 27, 30.
Greenfield, 1, 2, 3, 5, 9, 10, 14, 16, 18, 25, 27, 28, 29, 30.
Hancock, 4, 9, 30.
Indianola, 1, 5, 9, 16, 18, 19, 27, 29.
Keokuk, 9, 10, 14, 18, 29, 30.
Keosauqua, 9.
Lenox, 5, 9, 18, 20.
Massena, 6, 9, 16, 18, 20, 30.
Mt. Pleasant, 10, 18, 19, 20, 28.
Oskaloosa, 9, 27, 30.
Pacific Junction, 6, 10, 20.
Omaha, 1, 3, 5, 9, 11, 13, 15, 16, 19, 21, 23, 28, 30.
Red Oak, 18.
Sidney, 6, 16, 18, 20, 27, 28, 30.
Sigourney, 6, 10, 14, 17, 19, 30.
Stockport, 10, 20, 27, 29.
Woodburn, 9, 19, 27.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JUNE, 1905.

STATIONS.		DATE																															MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max..	81	86	89	92	92	82	77	81	91	75	81	86	90	92	92	92	81	93	84	81	80	77	85	91	92	86	71	85	88	84	..	85.2
	Min ..	48	57	60	67	69	65	54	57	65	66	61	56	59	61	61	67	63	58	55	58	58	48	56	62	68	62	48	52	52	57	..	57.7
Albia*....	Max..	80	82	86	91	91	85	75	76	84	84	75	80	88	88	89	90	76	92	80	77	82	74	80	88	90	80	67	77	81	77	..	82.2
	Min ..	50	56	54	57	71	70	56	52	57	62	62	56	60	64	64	58	68	58	62	61	58	51	52	54	67	67	53	53	56	64	..	59.1
Algona...	Max..	81	79	85	91	88	84	69	74	88	70	72	82	86	86	82	85	74	80	73	79	70	71	72	83	80	78	67	75	80	75	..	78.5
	Min .	54	53	56	66	71	60	53	47	58	60	57	51	59	61	64	66	58	56	49	55	59	42	52	64	69	58	48	55	64	60	..	57.5
Allerton .	Max..	80	88	85	90	90	85	75	75	87	86	80	82	87	90	90	88	82	91	82	76	83	75	81	86	89	85	75	79	85	80	..	83.4
	Min ..	50	55	56	68	71	66	52	51	65	67	57	60	57	60	63	67	66	59	60	59	57	51	53	62	66	66	51	52	63	66	..	59.9
Alta.	Max..	84	80	86	90	90	75	70	71	87	70	72	83	88	87	82	80	72	83	74	79	65	68	75	85	77	76	61	70	80	74	..	77.8
	Min ..	55	55	60	67	72	58	53	49	62	57	52	53	62	61	64	63	57	57	49	55	50	42	55	65	67	58	45	52	64	60	..	57.3
Alton...	Max..	84	79	87	92	91	84	69	72	89	78	74	87	90	88	79	78	71	77	74	78	74	68	75	83	78	71	67	72	79	76	..	78.8
	Min ..	55	53	62	62	72	56	55	52	61	55	52	49	63	62	63	62	56	58	49	55	55	39	56	56	66	56	48	53	64	58	..	56.8
Amana...	Max..	81	75	82	91	91	84	73	75	82	77	73	79	86	88	89	89	81	89	77	78	81	72	79	86	90	77	70	78	84	79	..	81.2
	Min ..	50	55	52	70	72	68	59	52	59	67	60	58	61	64	63	66	68	65	63	60	58	51	52	64	66	65	49	55	63	65	..	60.3
Ames	Max..	81	80	85	91	91	86	73	78	85	71	76	80	86	86	87	88	77	90	76	79	78	73	75	86	88	80	69	74	82	79	..	81.0
	Min ..	56	53	56	71	73	65	58	48	62	64	59	55	60	62	64	68	62	55	55	59	57	46	55	63	68	62	51	55	64	67	..	59.8
Atlantic..	Max..	85	89	90	94	92	80	72	77	94	72	78	85	91	90	88	86	77	94	77	80	80	76	83	88	88	76	70	72	88	81	..	83.1
	Min ..	55	48	63	68	72	63	56	46	67	65	60	69	70	65	65	62	61	59	53	59	59	44	57	65	68	59	56	54	64	67	..	60.6
Audubon.	Max..	86	82	90	93	93	83	73	75	92	78	75	85	88	89	86	84	75	92	76	79	75	76	84	89	87	87	71	74	85	81	..	82.6
	Min ..	53	51	61	67	71	62	57	41	68	63	63	50	60	58	62	62	61	57	50	57	57	45	55	60	64	58	47	53	64	63	..	57.8
Baxter. ..	Max..	82	81	84	90	89	83	74	75	80	76	75	81	84	88	88	85	80	85	90	82	81	74	75	84	89	77	67	75	85	78	..	81.2
	Min ..	52	52	53	69	71	65	57	52	60	65	59	54	58	61	62	72	62	65	60	62	55	46	42	64	65	63	50	58	63	65	..	59.2
Bedford ..	Max..	81	86	85	88	89	82	76	78	86	80	80	83	86	88	90	85	79	90	84	78	77	74	78	84	88	82	74	79	88	81	..	82.6
	Min ..	53	56	62	68	72	62	52	53	66	66	57	53	59	61	62	66	62	61	56	59	53	49	60	64	65	65	50	55	66	67	..	60.2
Belle Pl'e	Max..	72	76	80	95	93	83	72	71	84	78	75	80	84	91	90	89	78	70	75	81	80	73	87	89	86	76	68	77	84	75	..	80.4
	Min .	52	55	52	68	71	65	58	57	58	63	58	57	59	61	65	65	67	55	60	60	57	48	53	55	65	62	50	52	59	65	..	59.1
Bonapar'e	Max..	79	82	81	89	89	89	76	75	84	86	73	80	85	88	90	88	80	94	79	78	81	73	78	87	90	82	78	77	79	79	..	82.1
	Min ..	50	53	51	68	69	71	58	57	64	62	60	57	61	63	65	66	68	59	66	61	61	55	52	60	65	69	50	55	62	61	..	60.6
Boone* ..	Max..	82	80	85	92	90	80	71	73	85	67	74	81	82	88	85	87	71	90	74	79	77	72	73	86	88	75	60	71	79	77	..	79.1
	Min ..	56	57	56	57	72	65	59	53	58	62	59	56	61	65	66	68	62	57	55	59	60	47	52	56	66	62	55	51	56	65	..	59.1
Britt.	Max..	83	76	87	92	91	83	68	77	88	69	75	83	87	90	88	87	73	81	75	81	74	73	76	86	85	72	64	78	85	76	..	80.1
	Min ..	51	52	57	64	71	58	51	46	58	61	57	49	57	61	60	62	59	55	45	56	58	42	53	63	68	58	52	55	63	61	..	56.8
Burling'n	Max..	79	83	81	92	91	93	76	78	80	86	75	80	86	88	90	90	89	93	79	77	84	73	84	87	90	83	75	78	79	81	..	83.3
	Min ..	52	64	52	69	71	73	60	56	67	67	63	58	63	66	67	67	73	64	64	62	62	56	56	63	67	67	52	54	72	62	..	63.0
Carroll*..	Max..	84	83	88	93	92	78	73	77	84	76	79	84	88	89	84	83	78	90	78	80	76	73	79	87	82	77	58	71	80	82	..	80.9
	Min ..	55	57	58	79	71	60	52	47	61	60	55	51	64	59	63	63	60	56	50	55	58	43	55	65	67	57	55	45	61	64	..	58.2
Cedar R*.	Max..	82	74	84	94	93	83	70	77	83	79	74	79	89	91	91	92	78	91	79	79	81	72	78	89	92	76	71	79	84	80	..	82.1
	Min ..	54	58	51	55	75	70	61	53	58	60	61	60	62	57	61	69	72	59	63	62	61	53	54	55	67	66	49	54	56	65	..	60.0
Chariton.	Max.	80	81	83	89	90	81	78	75	87	82	75	80	86	87	81	88	81	90	80	75	79	72	80	86	88	84	70	74	83	78	..	81.4
	Min ..	50	54	56	69	70	67	53	50	64	66	60	57	58	56	64	66	65	57	59	60	55	50	53	63	66	64	50	58	62	65	..	59.4
Charles C.	Max..	80	74	81	91	88	77	64	74	83	73	73	77	86	88	83	84	68	81	74	77	72	70	78	82	83	72	61	76	79	71	..	77.2
	Min ..	52	52	52	70	67	62	50	46	58	60	56	51	58	62	60	66	61	55	54	59	51	45	53	62	65	53	50	55	61	58	.	56.8
Clarinda*.	Max..	86	89	92	95	95	87	79	80	94	76	80	87	93	93	91	90	78	96	76	79	78	77	83	90	94	82	74	80	86	83	..	85.4
	Min ..	59	56	59	69	70	63	53	58	58	67	56	54	60	61	61	63	61	62	56	53	60	48	50	62	64	64	63	50	65	67	..	59.2
Clear L ..	Max..	88	85	81	91	91	82	67	72	84	71	72	85	86	88	87	86	77	79	82	84	72	72	71	83	81	74	68	73	88	77	.	79.9
	Min ..	56	54	53	68	72	64	49	51	57	60	57	55	64	65	64	67	60	59	56	59	59	45	52	62	68	68	53	55	64	61	..	58.9
Clinton...	Max..	82	75	86	93	94	90	75	80	72	84	81	80	88	81	92	93	91	93	81	83	85	75	83	90	93	79	75	83	84	87	..	84.6
	Min ..	43	54	46	64	71	66	57	46	57	63	61	58	58	63	64	66	68	63	61	60	56	51	50	56	65	62	48	55	61	57	..	58.5
Col. Spgs.	Max..	81	85	87	90	90	85	73	80	92	82	78	82	88	90	89	88	86	88	75	75	77	77	79	86	89	80	74	82	82	87	..	83.2
	Min ..	..	60	63	70	70	65	63	55	70	62	56	54	62	65	65	66	64	65	63	58	62	50	62	63	68	65	52	52	56	66	..	61.8
Colum. J.	Max..	79	80	83	92	91	85	74	78	77	80	74	79	86	89	90	89	84	92	78	78	82	79	81	87	90	80	73	78	81	83	..	82.4
	Min ..	52	55	50	68	70	70	58	54	63	66	63	57	59	64	65	66	60	58	63	69	59	52	51	61	65	63	50	53	64	61	..	60.4
Corning..	Max.	83	84	87	91	92	83	77	73	90	75	78	83	87	88	87	87	78	74	73	77	76	73	81	85	89	83	71	75	83	82	..	81.5
	Min ..	54	54	63	68	71	61	55	52	66	63	60	53	63	61	64	65	61	60	55	58	58	48	59	63	65	64	48	68	65	68	..	60.1
Corydon..	Max..	80	81	84	88	89	84	77	73	85	81	78	83	85	86	86	87	81	89	88	76	81	72	79	85	87	83	70	75	83	77	..	81.8
	Min ..	53	56	56	69	71	67	58	51	65	66	61	58	60	62	65	67	66	59	60	60	58	51	54	63	67	67	52	55	63	66	..	60.9
Cresco	Max..	79	70	79	88	87	81	66	73	74	71	69	76	83	85	83	84	78	77	72	76	70	69	70	80	82	72	61	75	78	71	..	76.0
	Min ..	54	52	50	69	72	61	50	48	57	61	56	53	57	64	60	64	62	52	54	59	57	44	53	62	65	46	47	51	61	58	..	56.6
Creston...	Max..	73	81	84	89	90	78	72	74	85	71	73	79	85	85	84	75	90	75	75	75	71	78	84	87	77	62	73	82	77	..	79.0
	Min ..	54	54	61	63	71	66	54	54	59	68	61	57	62	64	64	66	62	60	57	59	60	49	52	56	64	63	58	48	51	61	..	58.6
Davenpo't	Max..	78	75	82	91	90	89	70	76	74	77	75	79	86	87	89	89	86	90	78	80	82	71	80	85	90	75	73	80	79	83	..	81.3
	Min ..	57	56	50	71	73	68	58	52	60	65	62	60	65	68	70	67	68	63	65	63	62	56	52	60	70	57	49	54	64	63	..	61.6
Decorah. .	Max..	82	76	81	88	89	85	68	77	73	75	73	78	87	88	88	87	82	86	76	78	78	72	76	76	87	73	67	78	78	68	..	79.0
	Min ..	51	52	50	70	75	64	53	45	58	64	58	53	57	65	60	65	61	55	57	58	57	48	55	64	69	58	50	53	62	60	..	58.2
Delaware.	Max..	80	69	81	91	89	85	70	76	73	80	75	77	88	88	90	88	80	87	77	76	83	68	76	85	88	71	67	76	76	77	..	79.6
	Min ..	57	55	45	68	70	62	55	48	56	64	58	56	58	64	62	65	67	55	59	57	56	47	49	72	64	58	42	54	59	63	..	58.0
Des M....	Max..	80	80	85	90	90	81	71	72	84	73	76	80	86	88	86	88	73	90	77	80	78	71	77	86	89	74	64	78	82	78	..	80.1
	Min ..	57	56	57	73	70	62	59	54	64	64	61	58	62	64	66	71	63	60	59	61	57	52	56	66	68	64	51	56	61	64	..	61.2
De Soto ..	Max..	81	79	84	89	89	84	72	72	85	70	75	80	85	87	84	86	76	90	75	77	76	76	78	85	88	78	71	72	80	78	..	80.1
	Min ..	54	54	58	70	73	66	58	51	65	65	60	55	62	63	64	68	68	58	58	60	60	49	56	65	68	63	50	54	64	67	..	60.7
Dows.	Max..	81	76	85	91	88	81	68	73	86	71	71	80	83	88	82	85	75	86	76	76	72	70	71	87	82	74	67	75	78	78	..	78.5
	Min ..	54	53	54	67	72	63	53	45	57	62	57	50	58	61	60	63	59	56	53	58	58	44	39	61	65	59	51	53	62	62	..	57.0
Dubuque.	Max..	78	72	82	91	90	82	70	75	71	78	78	78	86	87	87	86	79	87	78	78	80	70	77	84	90	72	69	78	76	78	..	79.4
	Min ..	56	55	49	78	64	65	60	54	56	64	62	61	68	69	67	68	66	62	63	61	59	55	53	60	70	57	52	53	64	64	..	60.8
Earlham.	Max..	81	80	83	87	88	81	80	71	85	70	75	81	85	85	85	86	75	90	76	79	76	71	69	85	87	75	69	..	81	79	..	79.8
	Min ..	50	51	57	68	70	63	55	48	68	64	59	50	58	57	58	62	61	54	54	59	54	45	53	61	65	60	47	..	53	65	..	57.2
Elkader ..	Max..	84	76	75	95	93	84	78	78	74	79	75	83	91	93	92	92	80	92	81	83	81	76	80	88	91	78	76	83	73	83	..	82.7
	Min ..	47	52	46	60	77	64	57	45	58	65	59	56	58	68	61	65	67	56	59	60	55	47	54	60	65	60	45	53	61	60	.	58.0
Elliott....	Max..	88	95	93	95	94	84	79	82	95	83	79	93	92	95	89	91	90	94	79	85	77	80	87	91	93	84	74	79	91	92	..	87.4
	Min ..	54	58	68	67	72	62	54	53	66	64	57	53	63	61	63	64	60	61	55	57	60	46	60	64	69	61	49	55	61	68	..	60.0
Esthervil*	Max..	83	78	88	91	90	78	72	79	88	72	73	85	90	85	79	83	77	73	76	79	68	70	83	83	74	68	58	73	80	72	..	78.3
	Min ..	62	51	56	59	65	59	55	47	59	55	53	49	55	68	64	62	58	53	47	53	58	40	53	55	63	57	53	47	53	55	..	55.0
ForestCy*	Max..	84	75	83	91	87	79	66	74	87	65	71	80	88	88	83	86	75	82	73	81	69	73	73	86	85	78	61	76	84	75	..	78.6
	Min ..	53	54	53	57	71	60	49	47	57	63	56	52	58	62	63	61	59	55	49	55	59	43	50	54	65	57	51	51	56	58	..	55.9
F. Dodge*	Max..	80	81	88	92	91	76	71	73	87	67	75	84	89	89	86	86	75	90	80	89	75	76	75	88	82	77	59	72	82	73	..	80.3
	Min ..	56	56	58	60	59	64	57	48	60	64	57	52	57	65	67	66	60	61	51	58	58	44	46	51	66	60	57	50	57	64	..	57.6
Galva	Max..	84	79	85	88	88	73	70	72	85	72	73	82	85	85	82	82	72	85	75	79	79	71	77	86	83	75	74	72	82	78	..	79.1
	Min ..	40	54	60	62	69	63	55	49	62	52	52	50	62	59	57	60	59	56	51	58	57	38	56	64	69	56	45	52	62	63	..	56.2
Glenw'd .	Max..	88	84	89	92	91	82	90	77	92	81	75	82	90	88	84	79	74	91	74	74	73	71	79	87	84	78	73	78	79	81	..	81.8
	Min ..	59	57	64	71	73	56	63	55	67	60	56	56	64	64	66	68	59	62	56	59	62	44	59	64	68	62	50	54	61	64	..	60.6
Grand M.	Max..	79	72	78	89	87	78	68	75	74	77	74	77	89	86	85	86	75	85	74	74	77	70	75	81	66	71	65	77	73	71	..	77.6
	Min ..	54	54	48	69	71	54	55	50	57	55	57	55	59	66	60	65	65	60	56	56	56	46	56	60	66	58	47	54	60	58	..	57.6
Greene...	Max..	85	77	85	93	90	89	73	78	85	77	77	82	90	91	87	88	78	86	76	83	75	75	77	87	86	75	63	80	79	77	..	81.5
	Min ..	53	52	51	70	70	68	50	50	57	64	58	52	58	62	59	64	61	56	54	58	56	44	45	60	67	58	51	55	62	59	..	57.3
Greenfield. ..	Max..	92	85	89	97	96	90	77	78	92	76	80	84	92	93	90	89	82	93	80	82	75	87	92	93	96	87	72	71	86	85	..	86.0
	Min ..	54	56	58	..	70	63	58	51	58	65	60	54	60	62	61	65	60	57	55	57	45	56	63	65	66	60	56	46	65	66		58.9
Grinnell.	Max..	82	80	82	91	91	88	75	75	88	78	76	81	86	90	91	88	79	90	84	78	84	70	75	85	89	80	70	74	87	78	..	82.0
	Min ..	52	54	52	72	70	70	54	55	60	66	59	55	60	63	63	68	60	55	58	59	57	47	52	63	66	63	50	53	62	63	..	59.4
Grundy C	Max..	80	74	82	91	89	80	74	72	83	79	74	78	85	87	85	85	76	88	75	79	78	71	72	84	87	75	65	75	80	74	..	79.2
	Min ..	51	55	52	69	71	64	54	54	60	64	59	52	60	63	60	66	62	55	55	59	56	45	52	64	67	62	49	53	62	64	..	58.7
Guthrie C	Max..	84	82	89	92	92	90	79	75	89	71	76	85	88	90	88	87	78	91	78	80	80	69	81	88	88	81	75	75	83	82	..	82.9
	Min ..	50	53	60	70	73	62	58	46	63	64	60	52	62	62	62	67	61	58	55	59	59	46	56	65	69	60	48	58	66	66	..	59.5
Hampton.	Max..	84	76	82	95	90	83	70	74	86	71	75	83	89	81	88	87	75	89	73	83	73	77	71	87	84	75	65	80	85	74	..	80.5
	Min ..	54	55	52	68	72	65	52	49	57	64	58	54	61	61	62	65	60	58	53	59	58	45	52	62	67	59	52	55	63	62	..	58.5
Hancock.	Max..	93	92	91	90	93	85	72	72	93	80	70	84	89	87	85	83	74	92	75	76	76	75	81	87	89	78	71	75	87	81	..	82.5
	Min ..	57	56	62	62	72	63	55	53	54	62	58	56	64	62	65	65	60	60	55	50	62	47	59	59	68	60	48	55	54	66	..	59.0
Hanlontown .	Max..	82	72	80	88	86	82	67	71	84	68	69	77	83	85	82	82	73	76	72	75	70	66	69	81	80	71	62	73	80	73	..	76.0
	Min ..	51	57	42	62	71	58	48	45	55	62	56	50	58	62	60	64	58	54	50	49	42	51	50	62	67	56	50	52	63	57	..	55.2

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JUNE, 1905—CONTINUED.

STATIONS.		DATE.																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Harlan....	Max..	85	86	89	92	92	86	70	74	92	75	78	85	89	89	86	81	77	91	..	81	77	75	84	88	85	77	74	74	83	83	..	82.7
	Min ..	53	52	62	66	70	61	50	50	64	61	56	51	61	58	68	64	59	59	..	57	60	44	56	64	67	58	46	53	64	66	..	58.6
Humboldt	Max.	74	74	80	82	83	73	69	72	73	72	68	73	88	82	81	80	72	68	72	78	74	72	72	86	80	76	68	74	79	77	..	75.7
	Min ..	56	54	58	69	73	64	56	46	60	62	58	51	60	63	66	66	59	55	51	58	60	43	56	65	70	58	50	55	63	60	..	58.8
Ida Grove	Max..	82	81	90	93	93	80	72	75	89	80	83	87	91	92	90	79	78	87	77	82	73	71	82	90	83	76	70	71	80	79	..	81.9
	Min .	56	52	63	70	73	59	61	50	63	58	53	60	55	62	60	61	56	56	56	54	59	53	54	66	63	60	46	52	52	62	..	58.1
Independ.	Max..	79	73	80	90	89	87	74	73	79	77	73	77	84	86	86	85	84	86	83	84	77	72	74	88	87	78	69	75	77	78	..	80.1
	Min ..	49	54	47	69	71	61	60	47	55	64	57	58	56	63	60	64	64	55	57	59	55	45	50	61	64	60	46	53	61	64	..	57.6
Indianola	Max..	81	80	85	91	90	88	74	74	85	72	75	82	83	89	88	89	80	92	72	78	78	72	79	88	89	82	71	73	83	78	..	81.4
	Min ..	52	57	56	70	72	65	57	51	64	66	61	57	60	62	64	69	65	58	65	61	58	48	54	64	67	63	51	54	64	67	..	60.7
Inwood...	Max	80	90	92	92	81	73	69	82	78	74	81	89	90	87	86	72	74	73	76	79	68	73	80	78	70	66	68	82	73	76	..	78.4
	Min ..	54	63	65	71	51	52	51	66	49	59	49	51	61	62	59	64	53	45	54	55	38	55	63	62	53	49	52	61	59	61	..	56.2
IowaCity*	Max..	76	80	85	91	90	84	74	75	82	78	73	81	89	90	92	92	79	94	80	81	84	76	83	89	90	81	75	83	84	82	..	83.1
	Min ..	50	55	50	51	73	68	60	51	56	58	62	58	60	62	63	65	67	58	62	60	59	52	50	57	65	67	47	51	58	62	..	58.6
Iowa F*..	Max..	82	76	84	92	90	76	67	74	85	73	75	81	85	89	85	87	70	89	77	80	78	73	74	86	86	75	64	78	85	77	..	79.7
	Min .	57	55	53	53	71	64	56	46	52	63	59	50	53	61	60	63	62	56	54	55	56	46	48	54	63	60	52	53	55	61	..	56.5
Keokuk ..	Max..	80	82	84	91	92	93	86	77	83	88	76	80	83	88	90	90	86	94	79	78	82	74	82	89	92	86	77	78	80	82	..	84.2
	Min ..	57	60	54	71	78	75	61	60	66	67	64	60	66	67	70	68	73	64	66	66	66	58	53	63	70	72	52	57	66	63	..	64.3
Keosauqua *.	Max..	82	84	87	93	92	93	77	77	85	87	77	84	90	89	90	88	83	95	81	79	84	75	81	88	92	80	72	79	84	84	..	84.4
	Min ..	50	53	53	59	54	71	57	54	62	67	63	55	60	63	63	66	64	58	66	61	54	55	51	58	65	70	52	52	62	62	..	59.3
Le Mars..	Max.	86	82	89	93	95	85	74	73	89	75	73	88	92	89	80	72	73	76	79	78	75	65	72	84	82	71	69	74	82	75	..	79.7
	Min ..	54	52	60	67	71	55	54	53	62	52	48	48	62	61	62	52	53	56	48	56	56	41	54	63	66	56	47	49	62	62	..	62.7
Lenox....	Max..	82	83	87	90	92	83	74	78	89	76	77	85	86	87	87	85	79	91	82	75	76	71	81	86	90	82	74	75	82	82	..	82.2
	Min	52	57	62	68	72	65	54	52	65	64	60	56	62	63	63	65	62	60	56	58	60	48	57	62	67	63	48	53	65	66	..	60.2
Leon.....	Max..	80	83	86	89	89	87	78	76	87	82	77	83	91	88	87	90	85	92	86	79	79	75	82	87	89	83	75	79	85	83	..	83.7
	Min ..	53	57	58	67	70	67	54	52	65	69	61	56	60	60	62	67	66	59	59	58	59	50	55	62	68	65	51	52	64	68	..	60.5
Lit. Sioux	Max..	87	82	91	94	94	90	77	74	90	79	77	85	91	89	89	76	77	90	79	83	78	74	81	82	81	..	76	74	83	84	..	83.0
	Min ..	60	53	62	71	74	58	55	55	69	59	53	56	66	62	69	62	57	63	51	57	60	45	61	70	58	..	51	54	65	68	..	60.1
Logan....	Max..	85	87	89	95	94	89	77	76	92	94	78	88	89	91	89	80	76	93	78	81	75	78	88	90	85	80	81	75	84	86	..	84.8
	Min .	54	54	64	67	71	61	51	51	65	61	63	53	55	60	64	62	57	60	50	57	57	44	55	65	66	66	50	55	64	65	..	59.2
Maquoketa *.	Max..	79	73	83	91	90	86	74	76	70	80	78	80	86	87	90	88	87	88	79	80	84	72	79	85	90	75	72	80	81	80	..	81.4
	Min ..	45	52	43	56	70	65	57	43	58	56	62	57	57	58	63	60	70	57	63	52	55	49	46	52	62	59	41	53	50	51	..	55.4
Marshaltown*	Max..	83	81	84	94	91	83	71	78	86	79	75	81	89	93	91	90	72	91	78	86	82	75	76	88	91	77	69	77	80	73	..	82.1
	Min ..	52	53	52	57	71	65	56	52	59	52	60	53	59	63	60	65	62	49	56	58	52	45	52	55	66	64	51	51	57	65	..	57.1
Mason C..	Max..	83	76	82	91	90	80	70	73	84	72	69	81	89	87	86	86	78	76	73	78	72	72	72	85	80	74	67	77	82	77	..	78.7
	Min ..	55	53	52	68	70	65	52	50	57	62	58	54	60	66	63	66	61	60	53	59	61	45	53	62	68	59	53	54	64	60	..	58.8
Massena..	Max..	87	88	91	93	93	90	79	78	89	76	80	91	90	94	90	89	83	94	81	85	79	80	83	85	90	80	73	78	88	83	..	85.3
	Min ..	54	52	55	67	71	61	52	50	67	65	60	53	63	61	62	64	60	59	56	59	60	47	56	62	63	60	47	54	55	64	..	58.6
Monticelo	Max..	84	82	73	84	90	91	90	69	75	74	72	79	87	95	91	95	96	87	93	88	86	82	88	87	86	95	89	75	88	89	..	85.3
	Min ..	46	52	45	55	70	71	56	44	54	54	58	54	57	59	64	63	67	54	64	55	50	46	49	59	61	59	48	51	58	60	..	56.1
Mt. Ayr..	Max..	81	85	88	91	91	85	80	79	88	82	82	87	90	91	93	90	84	92	81	81	81	75	83	88	89	83	72	79	88	82	..	84.7
	Min ..	54	60	60	65	68	64	52	52	63	67	60	56	59	61	61	65	63	60	56	56	69	48	56	62	67	64	49	52	65	66	..	59.7
Mt. Pl'snt	Max..	83	85	82	94	92	94	76	80	83	86	78	82	87	89	92	90	88	93	81	79	86	73	81	87	94	85	76	79	80	80	..	84.5
	Min ..	53	56	51	68	70	72	59	57	63	67	63	58	62	65	66	67	71	59	64	60	60	56	50	62	66	66	48	52	61	61	..	60.9
Mt. Ver'n	Max..	81	81	82	92	91	84	69	74	81	77	73	84	89	88	92	88	80	90	88	78	77	75	81	89	90	81	74	82	81	76	..	82.3
	Min ..	51	56	47	68	72	65	57	51	51	56	59	55	58	63	63	66	69	56	60	58	56	48	50	60	65	61	46	52	61	62	..	58.1
New H. ..	Max .	80	77	81	90	88	87	74	70	80	81	73	75	85	88	87	85	83	84	78	78	81	70	74	81	85	72	68	75	76	76	..	79.2
	Min ..	49	54	50	67	70	62	51	50	57	64	64	54	58	61	60	65	63	55	55	58	56	52	47	61	67	57	50	52	62	58	..	57.6
Newton..	Max..	71	84	91	90	85	80	75	70	81	74	72	80	80	89	87	88	81	90	78	78	73	68	73	87	89	79	68	71	81	77	..	79.7
	Min ..	52	54	65	71	74	67	58	54	61	65	59	52	55	63	63	68	62	57	57	59	56	51	50	63	67	65	50	52	62	66	..	59.9
N'thwood	Max..	81	74	80	90	88	87	66	75	87	76	73	79	84	86	83	85	71	79	75	78	72	71	73	82	84	76	64	76	80	78	..	78.4
	Min ..	51	52	52	68	70	59	49	46	57	62	57	51	55	61	60	64	60	53	51	56	58	43	43	61	67	56	51	52	62	58	..	56.2
Odebolt ..	Max.	87	87	88	94	93	85	76	88	77	76	75	87	92	93	86	82	78	91	81	85	76	76	82	90	89	81	72	84	82	80	..	83.8
	Min ..	55	55	61	69	72	59	50	63	66	65	53	54	64	61	65	63	60	57	49	55	59	43	55	61	68	45	52	63	60	65	..	59.1
Ogden....	Max.	82	81	86	91	91	86	73	73	85	69	76	81	87	87	85	88	80	92	85	79	76	73	75	85	86	77	75	71	80	78	..	81.2
	Min ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....
Olin	Max..	79	71	81	88	90	86	71	..	77	78	74	77	84	86	89	89	87	87	75	75	82	69	76	85	88	78	70	77	82	80	..	80.4
	Min ..	48	55	48	64	70	59	64	..	47	66	63	57	59	60	66	65	72	58	64	58	57	51	50	65	65	62	46	55	62	62	..	59.2
Omaha, N	Max.	85	86	90	93	92	79	75	76	92	69	76	85	91	90	87	74	76	90	78	78	71	74	81	88	83	80	71	77	83	84	..	81.8
	Min ..	61	60	66	74	75	60	56	59	69	59	57	59	68	69	70	64	59	64	57	61	58	51	62	68	66	63	52	57	68	68	..	62.7
Onawa ...	Max..	88	83	92	94	95	89	81	77	89	84	78	90	94	95	93	75	78	86	79	84	74	74	85	91	91	80	78	75	82	83	..	84.6
	Min ..	51	57	65	70	73	61	55	55	66	59	54	56	65	65	67	63	57	61	53	58	62	46	60	67	70	60	50	53	64	67	..	60.7
Osage.....	Max..	82	76	82	92	88	80	68	75	83	74	72	80	87	90	84	86	76	78	74	80	70	75	74	84	82	73	64	78	82	75	..	78.8
	Min ..	50	51	50	69	71	61	48	46	57	61	57	52	56	64	60	63	61	53	51	52	56	42	43	60	67	57	49	53	61	58	..	56.0
Oskaloosa	Max..	83	80	83	91	92	84	75	78	85	76	70	78	86	87	88	89	82	90	83	76	81	73	79	87	90	77	71	74	80	76	..	81.5
	Min ..	56	54	55	72	73	70	56	53	65	67	62	57	60	64	64	70	67	58	63	61	59	52	54	64	67	67	55	53	63	66	..	61.6
Pacific J'n	Max..	86	85	89	93	94	88	76	78	93	82	79	85	89	89	86	78	78	93	75	76	74	75	81	87	89	80	75	80	84	83	..	83.3
	Min ..	58	59	64	70	72	59	54	54	67	59	54	57	61	60	64	61	59	59	55	59	59	50	60	67	67	63	50	55	67	63	..	60.2
Perry.....	Max..	84	82	87	92	91	84	72	76	87	69	78	84	88	88	88	89	76	92	77	72	77	76	79	89	90	77	71	75	83	80	..	81.8
	Min ..	54	55	58	58	74	62	59	50	64	64	60	56	60	64	65	68	62	57	51	60	61	47	51	65	68	60	51	55	64	62	..	59.5
Plover....	Max..	84	79	88	92	91	76	71	74	93	72	73	84	89	84	82	85	72	84	75	79	69	73	73	85	82	74	65	75	80	73	..	79.2
	Min ..	55	56	59	65	75	57	47	48	62	59	55	57	54	64	63	64	58	54	48	55	57	42	53	65	67	57	47	51	64	58	..	57.0
Pocah'tas	Max..	85	81	87	93	91	77	71	73	88	70	72	83	89	90	82	82	78	85	80	82	70	74	74	87	80	72	67	74	82	72	..	79.5
	Min ..	55	54	58	67	72	61	54	48	60	59	56	53	61	61	64	64	59	55	51	55	54	41	53	53	68	58	48	53	53	62	..	57.0
Red Oak..	Max..	89	95	94	98	97	92	81	88	100	82	87	89	94	98	87	86	77	93	78	74	80	75	81	87	91	83	78	79	87	83	..	86.8
	Min ..	56	56	64	69	72	64	55	55	76	68	57	53	63	62	65	66	62	62	59	60	63	51	62	66	70	65	53	56	67	70	..	62.2
Ridgeway	Max..	85	75	84	90	90	85	70	77	78	77	76	79	89	88	85	88	77	82	75	77	81	78	76	82	85	82	69	79	83	75	..	80.6
	Min ..	53	53	51	71	73	63	53	52	58	65	58	55	61	65	62	66	64	55	55	60	59	48	58	62	69	57	50	53	63	59	..	58.8
Rock R...	Max..	86	80	88	93	80	73	69	82	80	78	88	88	85	90	85	80	74	75	78	83	70	68	75	88	72	74	62	74	83	72	..	79.1
	Min ..	54	46	62	65	61	52	51	66	50	48	70	68	63	50	65	56	56	57	52	58	48	46	53	62	64	58	50	52	60	56	..	56.2
R. City...	Max..	86	86	89	93	92	80	78	75	90	85	78	80	90	91	89	84	89	90	78	80	70	80	78	90	86	76	65	76	86	80	..	83.0
	Min ..	56	57	57	68	70	68	57	49	60	63	50	60	65	60	61	60	58	55	52	55	53	50	46	62	66	65	46	46	66	65	..	58.2
Sac City..	Max..	83	79	90	89	81	74	73	72	88	77	73	82	87	87	84	81	78	88	76	78	71	72	78	86	82	75	65	71	80	76	..	79.2
	Min ..	55	55	68	69	60	55	52	50	61	53	54	51	62	60	63	60	55	56	50	55	59	43	55	65	68	58	46	53	63	61	..	57.2
St. Cha'les	Max..	80	80	84	90	90	81	80	72	80	84	75	79	85	86	86	87	87	90	76	77	77	70	78	85	87	77	68	72	81	75	..	80.6
	Min	55	58	58	70	72	66	50	51	62	54	60	58	53	62	62	68	64	59	58	61	60	50	55	65	69	63	50	53	64	67	..	60.2
Sheldon..	Max..	84	82	89	92	94	82	75	70	86	76	78	89	91	91	80	78	74	78	78	80	70	76	75	83	79	70	72	78	83	82	..	80.5
	Min ..	55	52	61	63	72	53	53	50	62	54	48	49	60	61	63	62	52	50	62	69	59	57	58	64	65	60	47	53	60	57	..	57.7
Sibley *...	Max..	84	79	86	90	92	75	67	70	82	65	71	85	88	85	79	77	70	76	72	78	63	66	73	80	73	68	56	71	80	70	..	75.7
	Min ..	47	52	53	63	71	53	53	47	54	53	46	49	55	55	56	62	56	54	45	50	56	40	44	55	61	56	55	44	56	58	..	53.3
Sidney...	Max..	88	89	92	93	93	86	80	82	96	89	85	90	92	95	90	86	85	96	77	82	76	80	86	90	92	83	75	85	86	87	..	86.9
	Min ..	56	59	63	70	72	69	55	54	67	64	58	56	61	62	64	64	60	64	58	59	61	50	59	68	68	64	52	56	61	62	..	61.0
Sigourn'y	Max.	83	84	85	93	92	86	79	81	85	79	76	83	87	90	90	89	83	93	88	80	84	77	82	88	91	85	74	80	84	81	..	84.4
	Min ..	51	55	52	71	71	69	56	57	64	67	60	57	60	63	63	69	68	58	63	61	58	51	52	63	65	67	50	53	62	63	..	60.6
Sioux C'r.	Max..	83	80	86	89	91	82	72	71	86	73	76	86	88	86	77	76	74	78	73	78	73	67	75	81	77	70	65	71	79	72	..	77.8
	Min ..	54	53	52	62	71	51	52	49	58	58	49	51	61	61	61	60	55	57	42	47	40	38	53	63	64	54	48	52	64	56	..	54.4
Sioux C'y	Max..	85	82	91	93	95	72	72	69	85	71	71	86	91	88	79	74	71	85	74	80	67	68	77	84	76	74	66	72	81	78	..	78 6
	Min ..	58	57	67	72	72	56	55	56	68	54	52	52	67	63	65	60	56	58	54	58	52	44	61	68	64	59	49	54	66	63	..	59.3
Stockport	Max..	77	81	81	89	89	87	73	74	83	82	72	77	83	84	85	85	83	90	77	75	80	72	78	78	88	80	74	75	77	78	..	80.1
	Min ..	53	56	54	70	72	71	60	58	65	68	62	57	63	65	66	68	64	61	68	62	62	56	54	67	70	72	52	56	62	63	..	62 6
Storm L*.	Max..	83	77	84	88	87	74	69	72	84	68	72	82	86	87	82	79	75	81	72	76	65	67	73	84	78	73	58	70	80	78	..	76.6
	Min ..	53	52	56	60	70	58	53	51	54	56	51	53	60	60	64	62	58	56	49	53	60	39	45	55	64	56	57	44	55	63	..	55.6
Thurman.	Max	86	87	91	93	95	88	80	89	96	83	83	86	91	91	88	81	82	93	77	79	78	78	83	89	88	81	77	83	84	85	..	85.5
	Min	59	59	65	68	72	64	55	56	69	63	49	55	62	61	66	62	60	64	60	59	61	51	60	67	69	64	53	56	68	66	..	61.4
Tipton....	Max..	81	79	83	93	92	88	74	78	76	76	75	80	87	87	91	90	89	92	82	81	85	78	81	86	91	80	77	79	82	80	..	83.1
	Min ..	54	59	52	70	73	70	62	55	56	65	63	60	62	66	68	69	78	63	64	62	62	55	55	62	67	65	51	56	63	64	..	62.2
Toledo....	Max..	80	77	81	90	89	84	72	76	83	77	72	78	85	89	87	87	79	88	75	80	79	72	75	85	87	80	69	75	82	75	..	80.3
	Min ..	53	53	52	71	71	66	57	59	60	65	60	55	59	65	60	67	64	53	58	59	54	47	52	62	67	65	49	53	62	68	..	59.4

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JUNE 1905—CONTINUED.

STATIONS.		DATE.																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Vinton ...	Max..	80	78	80	90	90	86	86	73	80	76	75	76	85	87	86	86	89	81	83	77	80	71	85	..	87	75	70	74	89	88	..	81.5
	Min ..	52	55	50	70	73	56	56	52	50	56	56	56	52	55	52	67	56	53	60	54	55	50	63	..	66	64	48	53	53	56	..	56.5
Wapello .	Max..	77	77	79	90	90	88	78	73	78	74	73	74	80	82	81	83	82	88	78	76	78	70	76	..	89	80	70	76	78	79	..	79.3
	Min ..	54	53	52	71	73	74	63	57	64	67	63	60	62	65	66	62	73	61	65	64	63	52	53	..	63	62	52	54	65	64	..	62.0
Washi'ton	Max..	80	79	82	91	90	87	73	76	78	76	71	78	83	86	87	88	79	91	78	77	81	73	79	85	89	78	72	77	79	78	..	80.7
	Min ..	53	56	51	79	71	68	58	58	63	67	62	57	57	65	64	66	64	58	64	61	59	52	51	63	67	63	49	53	63	62	..	60.5
Washta ..	Max..	88	83	88	92	93	85	73	70	90	73	76	86	90	91	82	80	72	80	77	80	76	72	78	88	80	75	65	72	82	76	..	80.4
	Min ..	40	50	62	67	70	55	55	50	63	57	50	48	60	70	64	58	62	47	54	57	44	36	56	66	66	56	45	53	64	60	..	56.2
Waterloo*	Max..	81	74	82	94	91	82	70	76	85	78	76	80	89	91	89	87	73	88	76	81	81	72	76	86	91	76	67	76	81	73	..	80.7
	Min ..	53	55	50	52	72	65	55	51	55	60	57	53	58	65	60	65	63	55	57	58	56	47	52	55	65	63	50	52	58	63	..	57.3
Waukee..	Max..	87	83	90	96	96	83	79	72	87	70	79	88	87	92	89	88	85	92	77	85	76	78	79	87	90	89	71	75	87	83	..	84.0
	Min ..	55	55	57	70	73	63	57	51	63	64	59	55	51	61	65	68	63	57	57	59	59	47	54	64	68	61	50	52	63	62	..	59.4
Waverly..	Max..	81	72	80	90	88	83	71	73	81	73	72	77	84	87	83	84	78	84	73	75	75	68	72	82	83	78	65	73	74	73	..	77.7
	Min ..	51	54	52	70	72	64	53	51	57	65	57	54	59	61	61	65	63	55	56	60	56	48	53	63	67	60	50	55	62	61	..	58.5
Web'ter C	Max..	86	82	85	93	93	84	76	76	93	71	80	85	78	94	91	91	79	90	78	82	88	79	75	87	91	79	70	78	82	78	..	83.2
	Min ..	5	53	55	70	73	62	57	46	60	63	58	50	73	61	62	65	61	54	53	58	57	43	54	63	69	61	52	55	63	62	..	58.5
W. Bend.	Max..	83	78	84	90	88	76	68	78	78	72	74	84	85	87	82	86	..	84	79	83	72	73	75	85	81	72	62	77	85	75	..	79.0
	Min ..	56	56	57	66	72	60	55	48	59	59	56	51	60	59	64	64	57	53	48	55	58	42	51	61	68	58	48	..	64	60	..	57.4
Whitten..	Max..	83	78	86	93	92	89	75	77	87	77	76	85	88	90	90	90	75	90	77	80	81	75	78	88	90	77	67	80	83	74	..	82.4
	Min ..	50	55	52	67	70	62	54	50	60	64	58	51	58	60	59	67	60	55	53	59	57	44	51	61	62	62	50	53	68	65	..	57.9
Wilton J.	Max.	83	79	85	95	92	87	89	81	83	85	79	82	87	90	92	92	94	95	84	82	85	81	78	88	93	78	74	84	87	89	..	85.8
	Min ..	51	55	47	68	71	69	57	59	47	65	61	57	61	63	64	65	71	63	57	62	58	53	43	66	65	64	45	52	61	63	..	59.6
Wint'rset	Max..	84	83	87	92	92	88	79	75	88	70	78	84	88	88	87	88	80	92	84	81	79	78	82	87	90	85	77	73	83	81	..	83.4
	Min ..	57	56	58	69	71	65	55	62	65	65	60	54	60	61	63	67	63	58	58	60	59	48	54	63	67	69	52	52	63	66	..	60.3
Woodb'n.	Max..	81	83	85	89	90	84	76	79	89	83	77	80	85	89	90	92	80	89	80	78	82	72	85	85	88	84	67	79	86	81	..	82.9
	Min ..	49	59	57	57	71	66	56	46	65	67	62	54	59	59	61	67	65	60	55	59	55	49	54	60	68	65	51	54	64	64	..	59.3
Zearing ..	Max..	80	75	82	90	88	86	68	71	84	72	74	79	85	85	85	86	81	86	82	77	76	70	72	84	86	80	69	74	79	76	..	79.4
	Min ..	55	55	53	69	72	64	57	49	61	65	59	53	61	61	62	65	62	65	55	59	56	47	52	63	68	63	52	54	64	65	..	59.5

*At those stations thermometers are read in the morning; the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

TORRENTIAL RAINS, JUNE 9TH AND 10TH.

On the afternoon and night of June 9th and morning of the 10th, copious showers visited all districts, and in a considerable portion of the southeast and east-central districts the downpour can only be described by the term "torrential." The heaviest amounts reported at stations in the submerged section were as follows: Bonaparte, 12.10 inches; Keosauqua, 11.09; Stockport, 10 63 (three co-operative stations in Van Buren county); Mt. Pleasant, 7.20; Burlington, 6.10; Fort Madison, 6.40; Keokuk, 4.80; Chariton, 4.22; Albia, 3.44; Iowa City, 4.87; Amana, 3.65; Davenport, 5.67; Wilton, 4.17; LeClaire, 4.41 inches. The larger part of this heavy precipitation fell in the twelve hours from 8:30 P. M. of the 9th to 8:30 A. M. of the 10th; and in Bonaparte the average downpour was about an inch an hour. This was phenomenal and record-breaking in that region. The result of such a shower may be imagined but can not be fully described in detail. Not many buildings were sufficiently well roofed to keep the occupants dry, and but few streams and water courses were adequate to carry off the surplus moisture. Those who were driven out into the wet say it came down in sheets and hi so hard it was difficult to stand though there was no wind. One of the Van Buren county reporters states that eighty-five county bridges were swept away. The aggregate damage to crops by erosion of soil on the slopes, and flooding the bottoms was altogether beyond estimation in all the area swept over by that unprecedented storm. Happily such storms are not usual visitations.

Hon. B. R. Vale, observer at Bonaparte, writes that the storm came up gradually on the evening of the 9th, with great electrical display in the southwest, the barometer being not extremely low, and rainfall began about 8:30. About 11 inches fell in 8 hours. There was a strong steady rain through the night, with no let up till 5:30 A. M. There was a dry subsoil, which took up a vast amount of the surplus. This helped to avert disaster. The *Keosauqua Republican* published over four columns concerning the storm and its effects, and boastfully added that "Van Buren county beat the record by pulling more water from the clouds in the same length of time than was ever done by any county in Iowa." One man lost his life during the night in trying to rescue his cattle from the floods.

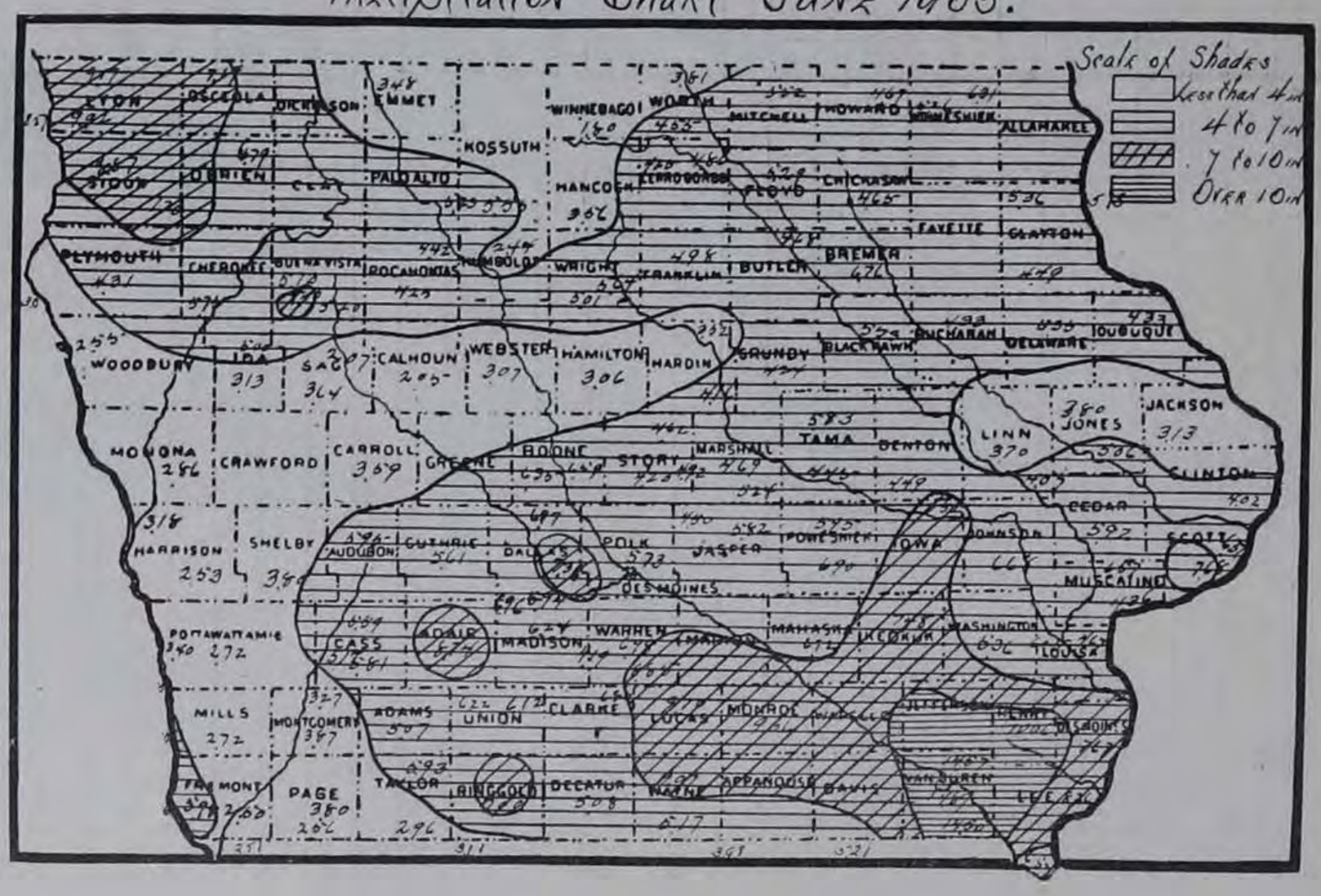
DAILY AND MONTHLY PRECIPITATION FOR JUNE, 1905.

STATIONS.	DAY OF MONTH.																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	..	.18	....	.	....	.04	....	...	.22	1.25	....	....	...	....	....	.03	.33	T	1.35	....	....	....	..	....	....	....	2.07	....	....	.65	....	6.12
Albia	....	.82	....	....		.01	....	...	....	3.44	.03	....	....	....	....	....	....	....	.17	.58	....	.26	....	....	....	.02	....	.66	2.60	.08	..	9.06
Algona	....	....	....	....	T	T	....	..	1.00	.72	....	T	.06	....	....	T	.28	1.00	....	....	....	....	T	.30	T	....	.67	.20	.20	1.12	....	5.55
Allerton	.55	....	....	..	....	..	...	..	.01	1.30	....	....	...	.65	....	....	T		.23	.76	....	..	....	....	....	.10	.67	.26	.42	.22	....	5.17
Alta	.09	....	.02	....	....	..	....	.01	....	.34	....	....	...	.07	.05	T	....	.62	....	....	....	....	....	T	.01	....	3.55	T	.47	.50	....	5.73
Alta [near]	.06	....	.11	..	T	....	....	T	..	.39	....	....	....	.11	.07	.01	....	.50	....	....	....	..	..	.11	....	....	5.30	.	.09	.48	...	7.23
Alton	.05	....	....	....	....	....	....	T	..	.11	....	....	....	....	.90	T	....	.25	....	...	.06	.05	....	2.31	.05	....	2.34	.13	....	.95	...	7.20
Amana	....	.	....	....	.16	..	...	..	1.57	2.05	.	....	.01	T	....	..	....	....	.83	.11	.10	....	....	..	.11	..	T	....	.14	2.54	....	7.52
Ames	....	....	.03	....	....	..	....	....	1.79	.41	....	....	....	....	....	.04	.03	.04	.01	.16	....	....	.01	....	....	....	.43	....	.51	.74	...	4.23
Atlantic	....	....	....	....	.40	....	....	....	1.66	.16	....	....	T	....	....	....	....	.05	.66	....	....	....	....	....	....	..	2.29	....	..	.87	....	5.59
Audubon	..	..	..	....	....	.43	....	....	.67	1.17	T	.01	....	....	....	.05	T	.03	....	.19	..	....	....	....	....	....	2.63	....	....	.77	....	5.95
Baxter	.15	....	..	....	..	.05	.	...	1.40	.45	....	....	..	.05	....	.14	.30	....	.60	....	....	....	....	....	.10	....	.38	..	.60	.30	....	4.50
Bedford	....	....	....	....	....	....	..	..	.25	.17	.06	....	....	....	....	....	.05	.69	.08	.95	....	....	....	....	....	.01	.35	....	..	.35	....	2.96
Belle Plaine	....	..	....	....	....	.17	..	....	1.65	.65	..	....	....	.14	....	....	.04	.70	....	.15	....	....	....	....	.04		.05	....	.20	.70	...	4.49
Bonaparte	....	....	....	....	....	....	....	..	....	*	....	....	....	....	....	..	....	....	.07	.53	....	....	....	....	....	.33		.65	.52	.30	....	14.50
Boone	..	.62	....	....	....	.05	....	....	.01	3.49	T	....	....	....	....	....	.15	....	1.09	.10	....	....	....	T	....	....	.02	.52	.54	T	....	6.59
Britt	....	....	..	....	....	....	....	....	.72	.13	.01	..	....	.07	....	.04	.09	.77	.02	....	....	....	03	.08	T	....	.31	.13	.16	1.00	....	3.56
Buckingham	.05	....	....	....	.86	....	....	.39	.86	....	....	....	....	.25	....	..	.61	.72	....	.06	.27	....	T	....	.22	T	.04	.10	....	1.40	....	5.83
Burlington	..	....	....	....	....	....	....	....	.06	6.04	..	....	....	....	....	....	..	T	.78	.22	....	....	....	....	..	.10	....	.31	.08	.08	....	7.67
Carroll	....	....	.10	....	....	....	....	....	.07	1.95	....	....	....	....	....	....	T	T	..	.08	....	....	....	....	....	....	.25	.90	.04	.20	..	3.59
Cedar Rapids	....	.27	....	....	....	.14	....	....	....	.41	.83	.03	....	....	.10	....	T	....	.92	.04	....	.72	....	....	....	.07	....	.05	.04	.08	....	3.70
Chariton	....	.85	..	....	....	.	....	....	4.22	....	....	....	....	.35	..	....	....	.30	....	1.00	....	....	....	....	....	....	.88	..	1.10	1.00	....	9.70
Charles City	....	....	....	....	.05	..	....	T	48	.05	T	....	....	1.22	T	.78	.01	.94	T	T	.24	.02	T	....	T	....	.01	.42	.19	.88	....	5.29
Clarinda	....	..		....	..	.04	....	....	T	.60	....	.09	....	....	....	....	.21		.77	1.58	....	....	....	....	T	....	....	.38	.03	.10	....	3.80
Clear Lake	....	....	T	..	....	....	....	....	.35	.50	....	....	....	....	....	1.05	.35	1.50	T	....	....	....	T	....	....	....	T	....	T	.50	..	4.25
Clinton	....	....	....	....	....	....	....	....	....	2.99	....	....	....	..	T	..	T	.08	.68	.07	....	....	....	....	....	....	T	....	....	.20	....	4.02
College Springs	....	....	....	....		....	....	....	.10	.20	.02	....	....	....	....	.25	.26	.25	....	1.30	....	..	T	....	....	....	.12	....	....	.06	....	2.56
Columbus Junct'n	....	....	....	....	....	....	....	....	.10	1.44	....	....	..	.17	.03	....	....	T	.82	.55	....	..	....	....	....	57	.17	.26	....	1.94	..	6.05
Corning	T	....	..	....	....	T	....	....	.23	1.04	T	....	....	....	....	T	....	.46	T	1.75	....	....	....	....	T	..	1.09	....	....	.50	....	5.07
Corydon	....	.37	....	..	....	....	....	....	T	3.56	....	....	....	1.49	....	....	....	....	.45	.89	....	....	....	..	....	....	.91	.04	1.00	.36	....	9.07
Cres o	..	....	....	..	.02	....	T	..	.61	.42	....	....	....	.06	.05	....	.67	1.27	.04	....	....	....	....	....	....	....	....	....	.55	.98	..	4.67
Creston	..	....	....	....	....	.66	....	....	....	1.60	....	T	....	....	....	....	T	..	.78	1.59	....	....	....	....	....	....	....	1.57	....	.07	....	6.22
Cumberland	..	....	....	....	....	.34	....	....	1.42	.81	....	....	....	....	....	.01	..	.64	....	.58	....	....	....	....	....	....	1.20	....	....	.81	....	5.81
Davenport	....	....	....	....	....	....	....	....	3.98	1.69	....	....	....	....	T	....	....	.94	.19	.10	T	....	....	....	.01	..	.01	.07	.08	.61	....	7.68
Decorah	....	....	..	..	T	....	....	..	.82	.48	.04	....	....	.05	.04	..	.90	1.48	....	....	.02	....	T	T	....	....	....	....	.96	1.52	....	6.31
Delaware	.34	.26	....	....	T	.42	....	....	.92	.21	.04	....	....	....	.23	....	.03	....	1.29	....	.37	....	....	....	.49	....	....	....	....	.75	....	5.35
Des Moines	11	....	....	....	.02	....	....	....	1.54	.53	....	....	....	T	....	.02	T	.05	.03	.46	....	....	T	....	.02	T	1.00	T	1.11	.84	....	5.73
De Soto	.55	....	....	....	....	.12	....	....	.82	1.40	....	....	....	....	....	T	T	T	....	.57	....	..	....	....	....	....	1.00	....	.60	.88	....	5 94
Dows	....	....	....	....	....	.23	....	....	.18	.12	....	....	.22		1.82	.04	.48	1.30		.08	....	..	T	....	..	....	.39	....	.11	1.17	...	5.64
Dubuque	.06	....	....	....	.28	T	....	....	1.16	.01	T	....	.12	.04	.10	T	....	.83	.01	.02	.03	....	....	....	.17		....	.16	.90	.44	....	4.33
Earlham	....	.96	T	....	....	....	....	....	1.40	.90	T	....	....	....	....	T	..	T	..	.81	....	....	....	....	T	..	2.18	T	....	.71	....	6.96
Elkader	..	.05	....	....	T	.05	....	....	.60	.34	....	....	....	....	.15	....	.65	1.50	..	..	T	....	....	....	.09	....	....	.03	.50	.53	....	4 49
Elliott	....	....	..	....	....	20	....	T	.18	.59	....	....	..	....	....	.12	....	.22	....	1.06	....	....	....	....	....	....	.45	..	....	.45	....	3.27
Estherville	....	T	..	....	..	T	....	....	....	.25	T	....	....	....	.30	.70	T	....	.20	....	....	....	T	.10	.80	....	....	.80	.08	.25	....	3.48
Florence	..	....	T	....	T	....	....	T	.24	.20	.01	....	....	T	....	T	....	1.00	....	....	....	....	....	T	....	....	.58	.22	.08	2.68	....	5.01
Forest City	....	.06	....	....	....	....	T	.	.20	.58	.12	....	..	....	....	....	.15	....	.48	....	....	....	T	.03	....	....	....	.08	.10	....	..	1.80
Fort Dodge	....	....	..	....	....	.03	....	....	.08	.30	....	....	....	..	T	....	.12	..	.60	1.10	....	....	....	T	....	T	....	.46	.38	T	....	3.07
Fort Madison	....	....	....	..	....	....	....	....	....	6.40	....	....	....	....	....	....	....	.45	....	.22	....	....	....	..	....	.05	....	....	.80	.34	....	8.26
Galva	....	..	.61	....	.18	..	....	T	.13	.70	....	....	....	.10	.05	T	....	.24	..	....	....	....	....	....	.09	....	2.80	.02	....	.08	....	5.00
Gilman	T	....	....	....	..	T	....	....	1 65	.45	T	....	....	.80	....	....	.80	....	.25	.14	T	..	....	..	.05	.21	....	....	.34	1.05	....	5.24
Glenwood	....	T	....	....	....	..	....	T	T	1.15	T	....	....	T	T	....	....	....	1.40	....	....	T	....	....	....	....	....	.05	....	.12	....	2.72
Grand Meadow	....	....	.33	....	.03	....	....	..	.50	.22	....	....	....	..	.15	....	1.17	....	1.49	....	.03	....	....	....	.08	....	..	....	.42	.93	....	5.36
Greene	....	....	..	....	....	.06	....	....	.75	.05	....	....	....	.86	....	..	.90	.75	....	....	.14	....	....	....	T	....	.07	....	.10	1.00	....	4.68
Greenfield	....	....	....	....	.	.26	....	....	2.20	.92	....	....	....	....	....	T	.14	T	T	1.04	....	....	..	....	....	....	3.27	.31	T	.60	..	8.74
Grinnell	....	....	....	....	....	.03	....	....	1.00	1.45	....	....	....	T	....	..	..	....	.40	.25	..	....	..	....	.22	....	.35	..	.70	1.55	....	5.95
Grundy Center	....	.15	....	....	....	.93	..	....	.39	.10	....	....	....	....	.06	....	.72	..	.70	.05	.07	....	....	....	....	....	.07	....	.16	.84	....	4.24
Guthrie Center	....	T	T	....	..	.18	....	....	1.92	.68	....	....	....	....	....	.04	....	.15	.01	.30	....	....	....	..	T	....	1.65	....	.05	.68	....	5.61
Hampton	...	....	....	....	.02	....	....	.45	.03	T	....	..	....	.85	....	1.15	....	.56	....	.	T	....	....	....	....	....	.20	.15	....	1.58	....	4.99
Hancock	....	....	....	....	....	.13	....	....	.17	....	....	....	.	..	....	....	....	.77	....	....	....	....	T	....	.	....	.55	T	....	1.10	....	2.72
Hanlontown	.05	....	....	....	....	....	....	....	1.55	.34	....	....	....	....	....	.03	.25	1.15	....	....	....	....	....	.12	.03	....	.03	....	.11	.89	....	4.55
Harlan	....	....	.03	....	T	..	....	T	.38	.74	....	.08	T	T	....	.01	.17	..	T	.18	....	....	.01	....	....	....	1 54	T	T	.66	....	3.80
Humboldt	....	....	....	....	..	....	....	....	.13	.13	....	....	....	....	....	.20	....	.36	....	....	..	....	....	....	....	....	.84	..	.12	.66	....	2.44
Ida Grove	....	....	.05	T	T	....	....	....	.06	.04	.63	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2.25	.10	....	....	....	3.13
Independence	T	....	....	....	.03	....	....	....	.70	....	....	....	....	....	.20	....	1.80	....	.60	....	.20	....	....	....	.30	....	....	....	....	.50	..	4.33
Indianola	.01	.67	....	....	..	.02	..	....	1.72	1.27	....	....	....	....	....	T	T	.50	.55	.61	....	..	....	....	T	....	.80	....	.18	.70	....	6.98
Inwood	....	.	.	....	....	....	.15	....	....	....	....	....	....	....	....	.05	....	.80	....	.05	1.29	....	1.22	....	....	1.47	....	4 89	....	..	....	9.92
Iowa City	....	T	....	....	....	....	....	..	.52	4.35	.28	....	....	....	T	..	....	....	.86	.16	..	.11	....	....	....	.19	....	.04	T	.17	..	6.68
Iowa Falls	...	...	....	..	....	.25	....	....	.03	.10	T	T	.27	....	.69	....	1.14	....	.82	.03	....	T	....	T	..	....	....	.14	.05	T	....	3.52
Keokuk	....	....	....	....	....	....	....	..	2.18	2.62	....	....	....	....	....	....	....	.18	.18	.11	....	....	..	....	....	....	.08	.06	.06	1.10	....	6 57
Keosauqua	....	.03	....	....	....	....	....	....	....	†	.14	....	....	....	....	....	....	....	.33	1.05	.11	....	.	....	....	.10	....	.32	.42	1.80	....	14.89
Lacona	....	.68	....	....	....	.35	....	....	.05	2.23	....	..	....	....	....	.47	....	....	.57		.18	..	....	....	....	....	....	.82	1.00	2.50	..	8.85
Lenox	....	....	....	....	....	....	....	....	.05	1.25	....	....	....	....	....	....	....	.63	.04	.86	....	....	....	....	....	....	.84	1.66	....	.64	....	5.93
Le Claire	..	....	....	....	T	....	....	....	T	4.41	.26	....	.02	....	....	....	....	..	1 61	.04	.03	....	....	....	....	....	....	....	....	T	....	6.37
Little Sioux	....	....	....	....	....	.07	....	.04	....	....	.07	....	.04	.14	....	.03	....	....	....	....	.10	....	.10	..	....	....	.41	....	.01	.17	....	3.18
Le Mars	.13	....	.13	....	....	....	....	.09	....	.13	T	....	..	T	.06	....	..	.40	..	....	.02	....	....	1.25	.08	....	1.65	....	.05	.32	....	4.31
Leon	....	.55	....	....	....	....	....	....	.11	.87	....	....	....	.02	T	..	....	....	.78	.75	....	....	....	..	....	....	1.67	.18	.	.15	....	5.08
Logan	....		....	....	....	....	....	....	.54	1.00	....	..	....	....	....	.30	....	..	....	.04	....	....	.18	....	....	....	.45	....	.02	....	....	2.53
Maquoketa	....	.12	....	....	....	.13	....	....	.08	1.19	.14	....	..	....	T	.89	....	....	.87	.06	.08	....	.	....	....	....	....	....	....	.07	....	3.13
Marshalltown	....	T	....	....	....	....	....	....	.08	2.14	.01	....	....	....	....	....	.70	....	.46	.17	....	....	T	....	....	.68	.22	....	.16	.07	....	4.69
Mason City	.08	....	T	....	....	....	....	....	.50	.46	....	....	....	....	....	1.15	.56	1.00	....	....	....	T	T	....	....	....	T	..	.35	.70	....	4.80
Massena	....	....	..	....	....	.13	....	....	.45	.75	....	....	....	....	....	....	....	.16	....	1.00	....	....	....	....	....	....	1.80	....	....	1.45	..	5.74
Montezuma	....	..	....	....	....	....	....	..	....	3.10	.50	....	....	....	....	....	.50	....	.50	.20	....	....	....	....	....	....	....	.40	.80	1.40	....	6.90
Muscatine	....	....	....	....	....	....	....	....	T	2.57	.57	....	....	....	T	....	....	....	.92	.19	.02	.01	....	....	....	.04	....	.03	....	.01	....	4.36
Monticello	.22	....	....	....	....	.07	..	....	1.22	.52	.78	....	....	....	....	..	....	....	.96	....	..	....	....	....	....	.13	....	....	....	.50	....	3.80
Mt. Vernon	.01	.06	....	....	....	.06	..	....	.50	.46	....	....	....	....	.01	....	.	.04	.08	.01	.24	....	....	....	.10	....	.01	....	.07	1.47	....	4.07
Mount Ayr	....	....	....	..	....	....	....	T	.60	.26	....	....	....	T	....	.04	....	.25	.80	.95	....	....	....	....	....	T	.35	2.65	....	1.10	....	7.00
Mt. Pleasant	....	..	....	....	....	....	....	....	.05	7.20	....	....	....	....	....	....	....	....	.20	.98	....	....	....	....	....	.16	.19	95	.25	.08	....	10.06
New Hampton	....	.09	....	....	....	.14	.02	..	.49	.24	....	....	....	.02	.07	..	.42	1.30	.10	....	.26	..	.06	....	....	....	....	....	.54	.90	....	4.65
Newton	.07	....	....	..	....	....	....	....	1.20	1.18	....	....	....	.04	....	....	.70	....	.50	.28	..	....	....	..	..	....	.48	....	.92	.45	....	5 82
Northwood	.04	....	....	....	....	....	....	..	.22	.96	....	....	..	....	.	.52	.46	.79	....	....	....	....	.03	....	....	....	.02	....	.17	.68	....	3.89
Odebolt	....	....	.60	..	30	....	.03	..	....	.32	....	....	..	....	....	T	....	....	....	....	....	....	....	....	....	2.04	.30	....	....	.05	....	3.64
Ogden	.06	....	T	....	....	.06	....	..	1.75	.50	....	....	....	..	....	..	....	1.99	....	.12	....	....	....	....	....	....	.44	....	.90	.53	....	6.35
Olin	....	.06	....	....	....	....	..	....	.67	.30	....	....	....	....	....	....	....	....	.82	.10	.01	....	..	....	T	....	T	....	T	3.10	....	5.06
Omaha, Neb	.15	....	.02	....	....	....	....	T	.62	.14	T	....	.05	....	T	.07	T	....	.29	T	.02	....	.07	.	T	....	.13	.08	T	.06	....	1.70
Onawa	....	....	.03	....	....	....	..	.02	.03	.90	....	....	.02	.02	.32	.02	....	....	..	.01	.08	....	.05	....	T	....	1.18	....	.02	.16	....	2.86
Osage	..	....	....	....	..	....	..	....	.75	1.13	..	....	....	.03	....	.05	.69	1.27	....	....	....	....	....	....	....	....	....	....	1 02	.58	....	5 52
Oskaloosa	.15	....	....	....	....	....	....	....	1.30	1.20	....	....	....	.	....	....	.12	.20	....	.33	.06	....	..	....	T	..	.74	.13	37	2.12	....	6.72
Pacific Junction	....	....	....	....	....	.51	....	.06	.02	1.00	.21	....	....	....	T	....	....	....	....	1.07	..	....	.11	....	....	....	.31	T	.06	.05	....	2.40
Perry	.38	....	....	....	....	.10	....	....	1.44	.54	....	..	....	....	....	T	..	.73	..	.24		....	....	....	....	....	.78	....	2.16	.60		6 97
Plover	....	..	..	....	.15	....	..	....	.69	....	....	....	....	....	.44	....	....	....	1.22	....	....	....	....	....	..	....	1.05	....	.21	.66	....	4.42
Pocahontas	....	..	..	....	....	....	..	..	.16	.31	....	....	....	.36	..	..	....	....	.62	....	..	.01	....	.03	....	....	1.05	1.19	....	.52	..	4.25
Red Oak	....	....	....	....	.60	....	....	T	....	.37	....	....	.02	....	....	.26	T	.10	..	2.18	....	....	....	....	....	....	.24	T	....	.10	....	3.87
Ridgeway	....	....	....	....	T	....	T	....	.72	.15	T	....	T	.06	.03	.56	.26	2.01	....	....	.03	....	T	..	T	....	....	....	.56	.88	....	5.26
Rock Rapids	.50	....	..	....	....	....	....	T	T	T		....	T	....	.17	....	....	.60	T	....	....	T	T	2.10	T	1.65	....	....	....	1.15	....	9.17
Rockwell City	....	....	....	....	.35	....	....	....	.65	..	....	....	....	....	....	....	....	....	....	....	....	....	..	....	....	....	.85	....	.20	....	....	2.05
Sac City	.03	....	....	....	.03	..	....	....	.04	.48	....	....	....	....	....	.04	....	....	....	....	....	....	..	....	....	1.45	T	....	....	....	....	2.07
St. Charles	.05	.20	....	....	..	T	....	....	....	....	.11	....	....	....	....	.05	.04	.11	.02	.70	..	....	....	....	.01	.01	1.62	....	.98	1.00	....	4.19

DAILY AND MONTHLY PRECIPITATION FOR JUNE, 1905--CONTINUED.

STATIONS.	DAY OF MONTH																															TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sheldon	.15	....	....	....	....	....	T	.02	....	.09	....	....	....	T	.65	T	..	.27	....	....	.03	.10	....	1.00	.09	T	2.52	.02	....	1.85	....	6.79
Sibley	....	.24	....	....	....	....	....	....	.45	.01	T	....	....	....	T	.25	.06	....	.81	..	.15	....	.08	.16	1.26	....	.16	1.75	.01	1.80	....	7.19
Sidney	....	....	....	....	....	.04	....	....	....	.30	.32	....	....	....	....	.15	....	....	....	.80	....	....	.04	....	....	....	.38	....	....	.49	....	2.50
Sigourney	....	....	....	....	....	.04	....	..	.09	2.73	..	....	....	.50	....	....	.08	....	.26	.27	.05	....	..	....	....	....	.61	.46	.39	2.00	....	7.48
Sioux Center	.01	....	T	....	....	....	....	.03	....	.09	T	....	....	....	.58	T	....	.83	....	....	.04	.03	....	1.82	.04	....	4.05	.15	....	1.20	....	8.87
Sioux City	....	....	....	....	....	....	....	.11	....	.18	T	....	.03	....	.79	.01	....	....	T	.14	....	T	....	.10	.05	....	1.09	.03	.02	T	....	2.55
Stockport	....	....	....	....	....	....	....	....	....	†	....	....	....	....	..	..	....	....	.38	1.50	....	....	....	.. ..	....	.07	.51	.31	.54	.60	....	14.57
Storm Lake	....	.08	....	T	....	....	....	....	.05	.33	T	....	....	....	.10	....	.02	....	.56	....	....	.	....	.15	....	....	....	3.30	.51	.10	....	5.20
Thurman	....	....	....	..	T	....	....	....	.02	.12	.22	....	T	..	.70	2.05	....	T	....	2.20	....	....	.10	....	....	....	.30	....	.03	.24	....	5.98
Tipton	....	....	....	....	....	....	....	....	....	3.15	....	....	....	....	....	....	....	....	1.19	.14	.02	....	....	....	.23	....	.04	....	....	1.15	....	5.92
Toledo	....	....	....	....	....	....	....	....	.40	2.00	....	....	....	.30	....	....	.15	....	.40	.10	.10	....	....	....	T	....	.10	....	.15	.75	....	4.45
Wapello	....	....	....	....	....	....	....	....	.02	2.00	....	....	....	.55	....	....	....	....	.81	.52	....	..	....	....	.09	.24	....	..	.44	....	....	4.67
Washington	....	....	....	....	....	....	....	....	....	1.72	....	....	....	.25	....	....	....	....	.58	.36	....	....	....	....	....	....	....	.30	....	2.15	....	5.86
Washta	.06	....	.12	....	.05	....	....	.05	.26	1.00	....	....	....	....	.48	.18	....	.05	....	....	....	T	.05	T	...	3.35	.10	....	....	....	....	5.75
Waterloo	.12	....	....	....	....	.21	....	....	.56	T	....	....	....	....	.68	....	1.10	.92	....	T	.08	....	T	....	.03	....	.02	....	.08	1.73	...	5.53
Waukee	.67	T	T	....	....	.21	....	....	.80	1.70	....	....	....	....	....	.03	.04	.01	....	.55	....	....	T	....	.04	T	1.42	....	1.25	.59	..	7.31
Waverly	....	....	....	....	....	.40	....	....	.80	.10	T	..	....	1.08	.05	...	.96	.72	.25	.04	.52	....	....	..	.02	...	.01	....	.14	1.67	....	6.76
Webster City	....	....	....	....	.90	....	....	T	....	.32	....	....	....	T	....	....	.67	..	....	.07	....	....	T	..	....	....	.60	T	.10	.40	....	3.06
Whitten	....	....	....	....	....	.80	....	....	.80	.14	....	....	.16	....	....	T	.60	T	.54	.12	.22	....	T	....	T	....	.15	....	.13	1.00	..	4.16
Wilton Junction	....	....	....	....	....	....	....	....	.57	3.60	....	....	....	....	....	....	....	.25	1.00	....	.23	....	....	....	T	.47	....	....	....	.45	....	6.57
Winterset	.18	....	....	....	....	T	....	....	T	3.10	....	....	....	....	....	T	....	....	T	1.12	....	....	....	....	T	T	1.35	.02	.04	.43	....	6.24
West Bend	....	....	....	....	T	....	....	....	.07	.95	.22	....	....	....	.10	T	.05	1.77	....	....	....	.04	....	....	T	....	.85	....	.67	.51	....	5.23
Woodburn	....	.82	....	....	....	T	..	....	....	2.00	....	....	....	.05	....	T	T	....	.55	1.28	....	....	....	....	..	....	1.35	....	.20	.55	....	6.80
Zearing	1.04	....	....	....	....	.48	....	....	.37	.23	....	....	....	....	....	T	.84	....	.53	.12	....	....	T	....	..	....	.23	....	T	.78	....	4.62

T. Amount too small to measure. *12.10. †11.09. ‡10.63.



JULY, 1905. No. 7



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U. S. WEATHER BUREAU, ASS'T DIRECTOR.

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From the following, weekly and monthly reports of Metorological data are received by the Iowa Weather and Crop Service.

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Algona	Dr. F. T. Seeley
Allerton	Rex Shriver
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Alton	W. S. Slagle
Amana	Conrad Schadt
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Jefferson	G. W. Day
Keokuk	*Fred Z. Gosewisch
Keosauqua	Prof. J. A. Landes
Knoxville	Casey & Bellville
Lacona	Agent C., B. & Q. R'y
Lansing	J. Ackerman
Larrabee	H B. Strever
Lenox	J. L. Hurley
Le Mars	Dr. T. E. Cole
Leon	Millard F. Stookey
Little Sioux	G. H. Gibson
Logan	Glenn H. Stern
Maquoketa	Frank W. Keeney
Marshalltown	Mrs. Elizabeth Jones
Mason City	J. S. Mills
Massena	Fred. T Knott
Montezuma	C. J. Griffin
Monticello	A. Matthiessen
Mount Vernon	Rev. J. W. Hubbard
Mt. Ayr	A. F. Beard
Mt. Pleasant	Prof. J. W. Edwards
Nevada	R. S. Patrick
New Hampton	A. F. Kemman
Newton	Hon. J. P. Beatty
Northwood	Charles Dwelle
Odebolt	E. Starner
Ogden	C. L. Zollinger
Olin	Hon. Nathan Potter
Omaha, Neb	*L. A. Welsh
Onawa	C. G. Perkins
Osage	G. D. Pattingill
Oskaloosa	Jos. Boyd
Ottumwa	Dr. W. B. La Force
Pacific Junction	Agent C., B. & Q. R'y
Perry	J. A. Harvey
Plover	J. S Smith
Pocahontas	F. E. Hronek
Red Oak	G. W. Holt
Ridgeway	Arthur Betts
Rock Rapids	W. C. Wyckoff
Rockwell City	C. M. Randall
Ruthven	F. M. Fitzgerald
Sac City	Frank Stouffer
St. Charles	C. W. Minard
Sheldon	Dr. A. W. Beach
Sibley	H. G. Doolittle
Sidney	A. P. Speers
Sigourney	J. T. Parker
Sioux Center	Jacob de Ruyter
Sioux City	*C. D. Reed
Spirit Lake	W. C. Drummond
Stockport	C. L. Beswick
Storm Lake	L. E. Burdick
Stuart	Hon. John Herriott
Thurman	C. R. Paul
Tipton	F. K. Gregg
Toledo	Herbert Giger
Vinton	H. G. Haines
Wapello	Geo. W. Schofield
Washington	Wm. A. Cook
Washta	H L. Felter
Waterloo	M. L. Newton
Waukee	E. J. Leonard
Waverly	H. S. Hoover
Webster City	C. D. Carpenter
What Cheer	R. S. Alexander
Whitten	Dr. Frank P. Butler
Wilton Junction	J. M. Rider
Winterset	B. L. Sprinkle
West Bend	Phil Dorweiler
Woodburn	C. B. McDonough
Zearing	H. E. Burkhart

*U. S. Weather Bureau.

WEATHER-CROP OBSERVERS.

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Allerton	James Piper
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Pella	J. H. Ver Steeg
Preston	J. G. Storm
Pittsburg	G. C. Duffield
Portland (Nora Springs, P. O.)	Arthur Pickford
Platte (Creston R. D.)	M. H. Dibel
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State Center	E. P. Thompson
Stuart	W. W. Bailey
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Van Horne	Spencer Smith
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West Branch	Wrigley Smith
West Union	H. B. Blackman
Wilton	Thos. Boot
Wiota	I. S. Coomes
Woodward	George Swisher

U. S. DEPARTMENT OF AGRICULTURE—WEATHER BUREAU.

MONTHLY REVIEW

OF THE

Iowa Weather and Crop Service.

VOLUME XVI. JULY, 1905. No. 7.

IOWA CROP CONDITIONS AUGUST 1, 1905.

The August 1st report of crop correspondents has been tabulated, showing following estimates of the condition of crops on the percentage basis: Corn, 94 per cent; spring wheat, 93; oats, 97; flax, 78 ; potatoes, 92; pastures, 103; apples, 40; grapes, 91.

Last year at corresponding date the estimates were: Corn, 88; spring wheat, 75; oats, 89, flax, 94; pastures, 96; potatoes, 101; apples, 73; grapes, 86.

JULY WEATHER AND CROPS.

The daily mean temperature of July for the state was 70.6°, which is 3.8° below normal. The rainfall was 2.91 inches, or 1.44 nches below the July average. The temperature was quite uniform, except as affected by altitude and latitude; but the rainfall was unequally distributed, ranging from 7.08 inches at Albia, Monroe county, to .69 of an inch at Washta, Cherokee county. The average of the northern section was 2.00 inches; central section, 3.19 inches; and the southern section, 3.45 inches.

The temperature of the month was exactly the same as in July 1904; but the rainfall this year was 1.50 inches less than last year, and conditions were more favorable this year for crop growth and harvest operations. During the first decade the weather was generally cool and showery, retarding the necessary work of finishing the cultivation of corn, and in many fields that crop was laid by in condition not up to the normal. The showery weather during the first half of July was somewhat unfavorable for securing the heavy crop of clover. But the latter half of the month was quite favorable for haying and harvesting oats, barley, rye and winter wheat. The hottest period of the month was during the second decade, from about the 13th to the 20th, during which time corn made very rapid progress. At the close of the month the average condition of corn was better than at the corresponding date in any year since 1900. Spring wheat ripened under favorable conditions, and the harvest was begun in the last week in July, with but little appearance of damage by rust. The oats crop was secured in good condition, and early threshing reports indicated a full normal yield. The hay crop secured in the latter half of July was generally in good condition, though somewhat overripe in the southern half of the state. As a whole July was a favorable month, with a minimum amount of damage from excess or deficiency of moisture or temperature. The crops already secured are better than was deemed possible in the spring months, and the growing crops give promise of an abundant yield.

TRAITS OF SUMMER STORMS.

[N. Y. Tribune, July 14.]

One of the most striking differences between such storms as have occurred in this vicinity within the last few days and those of winter is seen in the distribution of the attendant rainfall. At both seasons a wide area is likely to be affected at any one time, but the actual result is not the same. In cool weather the precipitation is usually almost uniform over the whole of the region favored, which may embrace several large states, and it is practically continuous for several hours. In warm weather it is concentrated over many widely separated spots. Sunshine often intervenes between these; and where there is a downpour at all it is generally swift, sudden and copious. That which visited New York City on Monday was almost without precedent in this respect for northern latitudes; but it illustrated the extremely local character of such meteorological episodes.

Summer and winter storms are dissimilar also in the changes in wind direction and temperature which accompany them. In cool weather the wind usually holds from the same quarter from the beginning to the end of the period of precipitation, and finally shifts to the northwest, where it stays for a day or two. Previous to that occurrence the air is mild if not really warm, but the mercury takes an abrupt drop when the sky clears. In July another programme is observed. Nine times out of ten the wind goes back after a shower to the same quarter as before which is generally the southeast. This may happen on several successive days while a given locality is under the influence of one particular barometric depression. The movement of a "low" in summer is almost invariably sluggish, and not until the centre of it has passed to the eastward does any lasting change come in the wind or temperature. A shower is often ushered in, to be sure, with a gust of greater or less violence from the west, but its duration is brief. The phenomenon is attributed by meteorologists to a convulsive descent of air from above in the middle of the storm; and though the volume of atmosphere which is thrust downward may be large enough to produce a cooling effect that last an hour or so, the benefit is shortlived. No permanent relief can be expected until the low area of barometer is followed by a high one and the wind comes steadily from the northwest.

Observations made with balloons and kites in thousands of instances show that with increasing elevation above the earth there is usually a slow fall in temperature. The average difference is about 1 degree Fahrenheit for every 300 or 325 feet. On occasions, however, notable departures from this standard are observed. Sometimes the diminution is not so rapid as might be expected, and when such a situation exists no particular consequences need be looked for. When, on the other hand, at an elevation of a few thousand feet a stratum of air is found which is much colder than the established formula demands trouble is almost sure to follow. At one point or another the hot air below will force its way upward, an exchange will take place on a greater or a smaller scale, and thundershowers, wind squalls, tornadoes or hailstorms will follow. A large brood of these local demonstrations is generated almost simultaneously, their intensity being governed mainly by the extent

to which the lower air is saturated with water vapor and by the temperature deficiency of the upper stratum.

The task of forecasting local disturbances is beset with peculiar difficulties. It is comparatively easy for the expert to recongnize on a weather map the conditions which are favorable to their development. These are likely to prevail over a wide area at one time, and warning of their existence ought always be given. It is practically impossible, however, to foresee precisely where any particular outbreak will begin. The most that can be done ordinarily is to say that there is a chance that such storms will form. After one does, its progress can be reported by telephone; but the responsibility of doing that has never been assumed by the national government, and probably never will be. Local forecasters who have studied the deflecting influence of hills upon the routes of summer storms might be enabled in time to perform useful service in announcing the probable path that would be taken by one which had come within the range of their observations; but the extremely short life of most disturbances would impair the value of even these indications.

CYCLONES ARE HARMLESS.

[Nature and Science in St. Nicholas.]

The ordinary land cyclone is usually quite harmless, and it is only by a mistaken use of the term that it has become associated with those terrifying storms peculiar to our country known as tornadoes. Cyclones have a bad reputation because they are commonly associated with other more harmful storms. Instead of being dangerous and destructive they are the chief source of rain in spring and autumn and supply the snow which adds so much to the pleasure of our northern winter. They cover a large extent of territory at one time, and on an average follow one another across the country from west to east at intervals of about three days.

A tornado often does great damage. It is known by its funnel-shaped cloud, which bounds and bounces along, now high in the air and again touching the ground. When it skims along the ground the havoc is greatest. Here the mightiest structures of man are crushed in an instant before the avalanches of wind let loose from every direction. The air seems to have an explosive force, buildings falling outward instead of inward, as one might think. In such a storm no place is safe, but the southwest corner of a cellar affords the best protection obtainable. If in the open lie flat on the ground. During a tornado, which lasts but a few minutes, the sky is covered by clouds of inky blackness, which here and there take on a livid greenish hue. The surface winds rush spirally upward into the funnel-shaped cloud, carrying with them many articles which are afterwards dropped some distance beyond. The danger zone is confined to a path less than a half mile in width and one hundred miles in length. These storms occur only on land.

The true hurricane is ocean-born. On the high seas of the tropics it marshals its forces of wind and wave, before which the stoutest ship is helpless and the fairest islands are laid waste. Even the sturdy mainland trembles under its awful castigation. These ocean storms last much longer than tornadoes, cover more territory and cause more damage. The hurricane which overwhelmed Galveston destroyed several thousand lives and millions of dollars' worth of property. The West India islands are frequently scourged by these awful visitations, and our own Atlantic coast sometimes feels the lash of these dreaded storms.

But the hurricane and the tornado are rare. The former seldom extends far inland, and usually occurs in the late summer or fall. Tornadoes are products of the south and west and are mostly confined to the spring and early summer months. The cyclone is a universal storm which travels over land and sea, in season and out of season, in spring or in fall, in summer or in winter. It is an old friend, but one much abused.

GROW A LITTLE ALFALFA.

[Cedar Rapids Republican.]

It is the boast of the arid west that it is the alfalfa country. But there is every reason for believing that Iowa can beat the world on alfalfa as well as on corn. The soil of the arid west has no natural advantages over the soil of Iowa. Even alfalfa likes a fairly good soil. But it wants depth. Some wise men assert that alfalfa roots go down 300 feet into the soil. There are westerners who claim to have found traces of them 150 feet below the top crust. But alfalfa wants depth. Where it strikes a hard pan alfalfa will not grow. Nor will it grow in rocks.

But Iowa has millions of acres that will grow alfalfa, undoubtedly. The way to find out is to try it. Alfalfa is said to add the balanced ration to the Iowa feed lot. All corn is not good, not even for hogs. Alfalfa is a growth that has the necessary variant. Even hogs are said to eat the hay with avidity and some Nebraska men have made small fortunes selling gound up alfalfa hay for chicken feed. Some of it is due to a fad. Some of it is based on solid facts. But give alfalfa a trial. Show that even with those forage plants Iowa is up with the best.

Soil inocculation and all that sort of thing is said to be unnecessary. Professor Holden says it can be done without that troublesome work. He says for the Iowa farmer to take a couple of acres of oat land. Spread some manure on it, six or eight loads an acre, disc it twice and then plow and harrow until it is like a garden seed bed. Sow the alfalfa fairly deep, an inch down. With favorable weather, which includes some rains, the alfalfa will grow from six inches to a foot in height. Leave the growth on the soil. Next spring there will be three crops.

Why not try it? Why not try it in every county in the state? And now!

CLIMATOLOGY OF THE MONTH OF JULY, 1905.

BAROMETER.—Mean pressure, 29.93 inches; highest observed, 30.24 inches, at Sioux City, on the 24th; lowest observed, 29.37 inches, at Charles City, on the 4th; range for state, 0.87 of an inch.

TEMPERATURE.—The monthly mean temperature for the state, as shown by records of 117 stations, was 70.6 degrees, which is 3.8° below normal. By sections the mean temperatures were as follows: Northern section, 69.5°, which is 3.7° below normal; central section, 70.8°, which is 3.5° below normal; southern section, 71.4°, which is 4.3° below normal. The highest monthly mean was 73.4°, at Keokuk; lowest monthly mean, 67.4°, at Sibley. The highest temperature reported was 102°, at Waukee, on the 16th; lowest temperature reported, 40°, at Washta, on the 25th. The average monthly maximum was 95.3°; average monthly minimum, 49.0°. The greatest daily range, 41°, at Waukee; average of greatest daily ranges, 31.6°.

PRECIPITATION.—Average precipitation for the state, as shown by records of 128 stations, was 2.91 inches, which is 1.44 inches below normal. The averages by sections were as follows: Northern section, 2.00 inches, which is 2.21 inches below normal; central section, 3.19 inches, which is 1.09 inches below normal; southern section, 3.54 inches, which is 1.08 inches below normal. The largest amount reported was 7.08 inches at Albia; least amount reported, 0.69 of an inch, at Washta. The greatest daily rainfall reported was 4.00 inches, at Grinnell, on the 19th. Average number of days on which .01 of an inch or more was reported, 9.

WIND AND WEATHER.—Prevailing direction of the wind, northwest; highest velocity reported, 39 miles per hour, from the northwest, at Sioux City, on the 4th. Average number of clear days, 14; partly cloudy, 10; cloudy, 7.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES. Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	29.93	30.22	25	29.37	4
Davenport	29.92	30.21	15	29.43	4
Des Moines	29.94	30.22	25	29.40	3
Dubuque	29.93	30.22	25	29.40	4
Omaha, Neb	29.93	30.20	24	29.44	3
Keokuk	29.92	30.24	25	29.50	4
Sioux City	29.92	30.24	24	29.42	3
Means	29.93	30.24	24	29.37	4

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	4.028	23	NW	4
Davenport	4.588	25	NW	4
Des Moines	5.135	34	SE	19
Dubuque	4.296	30	NW	22
Keokuk	4.450	36	SW	2
La Crosse, Wis	4.550	26	NW	22
Omaha, Neb	5 514	64	NE	13
Sioux City	7.381	39	NW	4

OBSERVERS' NOTES.

ALTA—*David E. Hadden.* Mean temperature of July was about 3.5° below normal; rainfall 3 inches less than the 15-year average.

ALTON—*W. S. Slagle.* Very good month for growth of crops; wheat and corn doing well; no rust damage yet.

AUDUBON—*Geo. E. Kellogg.* Hail on 24th destroyed crops in small area.

BONAPARTE—*B. R. Vale.* First half of July cloudy and wet; very hot 14th to 18th inclusive; cool the balance of month, farm work retarded.

BOONE—*Carl Fritz Henning.* Splendid month for grain, such as oats, wheat and corn; large crop of hay.

BRITT—*Geo. P. Hardwick.* Excessive cloudiness and fog in July; extremes of temperature; corn uneven and late; oats and hay crops above average; apple twig blight prevailing over the county.

CHARITON—*C. C. Burr.* Corn is developing rapidly; no severe storms in July, but hay was badly damaged by showers.

CLINTON—*Luke Roberts.* July was over 2° below normal; deficiency in rainfall 2.69 inches; and yet all growing crops were in fine condition at close of month.

CRESCO—*L. G. Krumm.* At Bonair on 17th hail did much damage; surface very dry at close of month.

CRESTON—*W. L. Gaston.* July was unusually cool; good hay weather during latter part of month.

ELLIOTT—*Henry Barnes.* Heavy crop of hay gathered in good order in July; yield of grain fairly good; corn fully up to the average; good yield of potatoes.

FLORENCE—*H. Du Bois.* Hay harvested in fine condition; oats yielding 30 to 35 bushels; corn up to average for July.

FOREST CITY—*J. A. Peters.* From 13th to 20th corn made rapid growth; hay was never gotten up in better condition; month closes quite dry.

GRAND MEADOW—*F. L. Williams.* Many wet days but no very heavy rains; harvesting well along at close of month.

GRINNELL—*A. O. Price.* "Catchy" weather for haying; small grain good and crops secured in fair condition.

HANLONTOWN—*Miss G. M. Paschen.* Corn was mostly eared by 23d; barley and early oats harvested by 20th; standing up good; fair crop of black and red raspberries; drought cut berry crop short somewhat.

HUMBOLDT—*H. S. Wells.* Rain 1.74 inches; corn about 20 per cent below average; potato crop short; tame hay harvested.

IDA GROVE—*J. E. Conn.* This has been a cool month, but no damage was done to crops, which are looking good.

INWOOD—*G. M. Larsen.* A fine month; corn in fine condition; with favorable weather it will be a "bumper" crop; abundance of good hay put up.

JEFFERSON—*Geo. W. Day.* Haying commenced on 13th; oats harvest on 17th; no damage by hailstorm on 13th.

KEOSAUQUA—*J. H. Landes.* First of July and last of June wet weather spoiled nearly all early clover hay; but last of July was fine for harvesting; grain in fine condition at close of month.

OLIN—*Nathan Potter.* First week was mostly bad for making clover hay; since that time it has been good weather for harvesting.

POCAHONTAS—*F. E. Hronek.* High temperature from 14th to 20th; harvesting about finished by close of month and crops good.

RIDGEWAY—*Arthur Betts.* Month cool and similar to July, 1904, but not so pleasant; 319 hours of sunshine, or 39 less than average; hot weather 14th to 19th.

SHELDON—*A. W. Beach.* Best harvest weather in years; hay all put up without a drop of rain; harvest was late and corn is a week behind.

STOCKPORT—*C. L. Beswick.* No clear days between June 26 and July 13, and rain every day between those dates except July 7th.

WAUKEE—*E. J. Leonard.* Rain in first week hindered haying and corn plowing; generally favorable during remainder of month; grain nearly all in shock at close of July.

WAVERLY—*H. S. Hoover.* Very cool except a few days, 13th to 20th; last 11 days gave us remarkable weather for haying and harvesting; oats crop about an average; corn improving.

WEST BEND—*Ph. Dorweiler.* Month was below average in temperature; harvest well under way; corn backward.

WHITTEN—*Dr. Frank P. Butler.* On July 4th wore an overcoat to make calls. Heavy electric storm on night of 18th; oats blown down and corn lodged.

ERRATA IN MAY REVIEW.

CLEAR LAKE.—On page 11, the precipitation of the 4th, 6th and 7th should have been .35 of an inch, .10 of an inch and .18 of an inch respectively.

CLEAR LAKE.—Total precipitation on page 6, omitted, should have been 7.53 inches.

CLIMATOLOGICAL DATA FOR JULY, 1905.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Algona	Kossuth	1,213	28	69 4	- 4.3	95	16	48	25	33	1.18	- 2.49	.88	....	7	20	7	4	NW	
Alta	Buena Vista	1,513	14	68.9	- 3.8	95	16	49	9,24	27	1.47	- 4.24	.55	....	8	16	10	5	N	
Alta (near)	Buena Vista										1.93		.68	....	7					
Alton	Sioux			69.5		95	16	48	24	29	1.55		.70	....	7	16	12	3	NE	
Britt	Hancock	1,236	8	69.6	- 3.3	94	16,17	46	25	34	1.97	- 2.35	.72	....	8	3	26	2	N	
Charles City	Floyd	1,015	18	69.0	- 5.0	95	17	50	10	28	1.19	- 2.73	.74	....	9	10	13	8	NW	
Clear Lake	Cerro Gordo	1,241	7	71.2	- 2.7	98	16	50	9,24	31	1.60	- 3.15	1.20	....	3	14	14	3	NW	
Cresco	Howard		31	68.0	- 3.1	93	16	50	24	26	1.33	- 2.70	.57	....	11	14	9	8	N, NW	
Decorah	Winneshiek	857	12	69 8	- 2.8	98	17	48	25	29	3.32	+ 0.11	1.06	...	8					
Dows	Wright	1,142	9	68.4	- 4.6	94	16	46	25	30	1.75	- 2.60	.72	....	11	15	10	6	N	
Elkader	Clayton	727	21	71.6	- 2.4	98	17,18	46	25	36	2.23	- 2.11	.75	..	9	13	14	4	SE, NW	
Estherville	Emmet	1,298	12	68.8	- 3.9	96	16	46	25	32	3.05	- 0.83	1.50	...	7	18	2	11	NW	
Florence	Wright	1,226	...								2.14		.52	....	8	9	20	2	W	
Forest City	Winnebago	1,226	11	70.0	- 2.9	96	16	49	24	34	3.30	- 0.13	1.37	....	7	20	1	10	N, W, NW	
Grand Meadow	Clayton	1,180	11	39.0	- 2.0	92	16,17	50	24	27	3 19	- 1.18	.68	..	14	7	17	7	SW	
Greene	Butler	924	8	70.6	- 4.5	97	16,17	49	10,24	34	1.86	- 2.83	1 17	....	7	7	14	10	W	
Hampton	Franklin	1,155	13	70.8	- 1.9	97	16,17,18	50	24,25	30	3.06	- 1.08	1.54	....	10	9	17	5	NW	
Hanlontown	Worth			67.6		94	16,17	47	25	30	3.04		1.41	....	6	17	7	7	NW	
Humboldt	Humboldt	1,095	16	68.9	- 5.0	96	17	48	25	30	1.24	- 2.70	.57	....	5	15	10	6	NW	
Inwood †	Lyon			68.7		100	16	45	9,25	33	1.29		.48	....	6	23	1	7	NW	
Larrabee † (c)	Cherokee	1,266	12	72.0	- 1.0	99	17	44	24	36	.63	- 4.03	.22		6				NE	
LeMars	Plymouth	1,224	7	70.1	- 3.8	97	16	45	24	33	2.86	- 2.04	1.05	...	10	6	22	3	S	
Mason City	Cerro Gordo	1,132	8	70.6	- 0 8	98	16,17	52	9	28	2 25	- 0.54	1.25	....	6	11	17	3	N	
New Hampton	Chickasaw	1,169	7	70.3	- 3.1	96	17	51	24	29	2.82	- 0.87	.71	....	10	16	13	2	N	
Northwood	Worth	1,222	8	69 3	- 2.7	94	16,17	49	24	30	1.92	- 2.07	1.17	...	10	15	7	9	N	
Osage	Mitchell	1,184	13	69 3	- 1.7	96	16,17	49	9	32	1.49	- 2.05	.58	....	9	15	5	11	NE, S, NW	
Plover	Pocahontas		8	69.3	- 5.2	95	16,17	43	25	37	1 18	- 3.95	.60	....	5	19	5	7	NW	
Pocahontas	Pocahontas	1,190		70.2		97	16	47	24	30	1.83		1.07	.	6	12	12	7	NW	
Ridgeway	Winneshiek	1,215	7	71.6	- 5.0	96	16	52	9	31	1.85	- 3.24	.56	....	12	14	15	2	S	
Rock Rapids	Lyon	1,021	...	70.1	- 2.7	96	16	46	25	34	2.63	+ 0.11	.90	....	5	15	14	2	N	
Sheldon	O'Brien	1,422	6	70.1	- 2.9	100	16	42	9	37	1.20	- 5.65	.70	....	6	17	5	9	S	
Sibley	Osceola	1,212	12	67.4	- 3.9	95	16	46	24	51	2.40	- 1.51	1.20	...	6	15	4	12	NW	
Sioux Center	Sioux		6	69.4	- 5.1	96	16	47	9	29	.73	- 4.65	.30	.	6	19	9	3	S	
Storm Lake	Buena Vista	1,440	8	68.0	- 5.1	95	16	47	10	30	1.30	- 2.98	.38	....	8	15	4	12	NW	
Washta	Cherokee	1,157	....	69.0		98	16	40	25	38	.69	- 4.41	.25	....	5	22	3	6	N	
Waverly	Bremer	942	9	69.2	- 4.7	92	16,17,18	51	24,25	27	2.84	- 1.00	1.19	....	18	10	14	7	NW	
West Bend	Palo Alto	1,197	12	69.0	- 3.9	94	16	47	24	30	1 58	- 1.26	.50	....	6	12	13	6	N	
Average				69.5	- 3.7	95.7		47 7		33.1	2.00	- 2.21			8	14	11	6	NW	

CENTRAL SECTION.

Altoona	Polk										2.47		1.58	....	10					
Amana	Iowa	721	27	71.0	- 3.0	93	17,18	52	24	26	2 65	-1.55	.61	....	14	13	8	10	NW	
Ames	Story	926	21	70.4	- 4.6	93	16,17	49	10,25	29	2.14	-2.44	.82	....	12	17	8	6		
Audubon	Audubon	1,301	9	69.5	- 3.4	96	16	45	24	33	2 83	-1.09	.85	....	9	11	12	8	NE	
Baxter	Jasper	998	....	70.2	- 4.2	95	17	50	10,24,25	32	4.54	- .35	2.50	....	8	10	10	11		
Belle Plaine	Benton	826	14	70.8	- 2.8	95	18	52	24,25	28	5.93	†2.29	2.25	....	11	12	10	9	SE	
Boone	Boone			70.6		95	17	51	9	29	3 52		2.08	...	12	18	6	7		
Buckingham	Iowa										5.17	† .77	2.54	....	7	9	19	3		
Carroll	Carroll	1,265	13	69.4	- 4.5	96	16	46	10,24	32	2 97	- .93	.88	....	10	21	5	5		
Cedar Rapids	Linn	733	23	72.7	- 3.1	98	18	54	24,25	26	2.77	-1.10	1.11	....	14	10	12	9	SW	
Clinton	Clinton	609	38	71.8	- 2.2	96	17	48	25	35	1.48	-2.61	.47	....	9	11	9	11	SW	
Davenport	Scott	606	34	72.0	- 3 0	93	17	54	24	27	.99	-2.67	.41	....	8	11	11	9	NW	
Delaware	Delaware	1,083	12	69.0	- 3.6	92	17	47	25	33	1.75	-1.93	.79	....	10				SW	
Des Moines	Polk	861	27	71.0	- 3.5	94	16	54	25	24	4 53	†1.00	2.38	....	10	6	17	8	N	
De Soto	Dallas	866	....	70.1		92	16	52	9	21	4.78		2.16	....	13	22	1	8	NW	
Dubuque	Dubuque	655	32	71.4	- 2.9	94	17	52	25	26	1.51	-2.77	.38	....	12	9	10	12	N	
Fort Dodge	Webster	1,126	....	70.4		97	16,17	49	25	29	2.06		1.00	....	11	19	3	9	S	
Galva	Ida	1,290	12	68.4	- 5.6	94	16	43	10	35	2.60	-1.90	1.53	....	7	26	0	5	S	
Grinnell	Poweshiek	1,023	10	70.3	- 3.7	93	17,18	49	24	31	5.96	†2.24	4.00	....	11	11	18	7	SW	
Grundy Center	Grundy	976	12	69.6	- 2.6	94	17	49	24	28	4.46	† .28	2.01	..	12	16	7	8	NW	
Guthrie Center	Guthrie	1,077	7	71.0	- 3.0	96	16	49	10,24	29	3.53	-1.01	1.12	....	12	22	6	3	NW	
Harlan	Shelby	1,192	....	69.8	- 4.6	95	16,18	45	24	40	4.21	-1.50	1.96	....	12	6	20	5	N, NW	
Ida Grove (e)	Ida	1,220		71.6		97	16,17	41	9	32	1.65		.70	....	5	21	8	2	S	
Independence	Buchanan	921	40	69 2	- 4.2	96	18	47	25	30	2.41	-2.81	.75	....	10	12	12	7	SW	
Iowa City	Johnson	683	47	71.6	- 2.6	95	15,16,18	52	24	31	3.59	- .91	1.27	....	13	14	1	16	N	
Iowa Falls	Hardin	1,170	10	69.3	- 3.7	94	16,18	47	25	32	2.79	-1.05	1.10	....	11	18	4	9	NW	
Jefferson	Greene		....	73.1		97	18	51	10	27	2.16		1.00	....	8	11	17	3	SE	
Le Claire	Scott	576	....								2.30		.81	....	9				NE	
Little Sioux	Harrison			71.8		97	16	47	9,10,24	34	1.15		.38	.	9	19	8	4	NE	
Logan	Harrison	928	36	72.1	- 2.9	97	16,17	46	24	33	4.20	- .71	1.20	....	9	13	16	2	NE	
Maquoketa	Jackson	688	12	70.0	- 5.1	94	18	44	25	38	4.46	† .37	2.90	...	10	13	6	12	NE	
Marshalltown	Marshall	947	10	70.2	- 3.6	97	16,17	49	25	33	4.60	† .15	1.47	....	13	14	4	13	NW	
Montezuma	Powe-hiek										3.62		2.80	....	7					
Monticello	Jones	925	....	71.0	- 1.9	98	15	45	25	38	2.24	-1.92	1.15	....	4	16	8	7	NW	
Mount Vernon	Linn	847	30	71.4	- 2.0	95	17,18	51	6,24	31	1.43	-3.20	.62	....	9	13	11	7	W	
Muscatine	Muscatine		46								4.59	† .68	1.78	....	9				S	
Newton	Jasper	944	15	69.8	- 5.7	94	16,17,18	53	12,24,25	29	6.12	†2.24	3.36	....	10	12	13	6	N	
Nevada	Story										3.71		1 54	....	8	19	8	9		
Odebolt	Sac	1,356	8	70.9	- 5.2	99	16	46	10	38	2.58	-2.54	1.23	...	6	22	4	5		
Ogden	Boone	1,058	9	70.3	- 4.6	95	16,17	48	24	29	2.91	-1.21	1.54	..	8	12	15	4	SE	
Olin (a)	Jones	760	7	71.5	- 3.3	92	17,18				3.12	- .48	1.01	....	8					
Perry	Dallas	975	....	71.2		95	16	50	9	27	4.05		1.25	..	10	3	17	11		
Onawa	Monona		....	73.1	- 2.9	98	16	50	9,24	38	1.14	-3.49	.60	....	8	24	4	3	NW	
Rockwell City	Calhoun		8	69.4	- 4 5	95	18	48	24	32	2.99	-1.01	.89	....	8	22	6	3		
Sac City	Sac	1,278	23	69.1	- 4.2	93	16	50	11,24	28	3.65	- .16	1.41	....	9	21	6	4		
Sioux City	Woodbury	1,165	16	70.6		100	16	48	10	23	1.41		.70	....	6	10	12	9	NW	
Tipton	Cedar	807		73.2	- 1.4	96	17,18	55	24,25	28	2.55	-1.87	.66	....	7	15	15	1	SW	
Vinton	Benton	810	15	69.9	- 3.8	93	17	49	25	28	2.44	- .95	.54	..	8	22	0	9	SW	
Waterloo	Black Hawk	862	16	71.0	- 3.0	98	17	51	10,24,25	31	4.35	† .11	2.43	....	10	14	12	5	NW	
Waukee	Dallas	1,039	....	72.6		102	16	50	9,24	41	3.53		1.41	....	12	11	14	6	NW	
Webster City	Hamilton		..	71.5		99	17	47	10,24,25	39	3.03		1.00	....	8	25	0	6	NW	
Whitten	Hardin	1,036	....	70.4	- 4.3	96	16	48	24	28	5.23	-1.46	2.10	....	7	11	13	7	NW	
Wilton Jct	Muscatine	683	11	71.9	- 3.5	98	16	48	25	34	3.26	-2.01	.95	....	8	14	4	13	NW	
Zearing	Story	718	....	70.0		93	17	51	24	27	2.09		.70	....	6	16	10	5	NW	
Average				70.8	- 3 5	95 5		49.0		31.0	3.19	-1.09			9	15	9	7	NW	

†Above normal. ‡ Received too late to be computed with means. *a*. One day missing; *b*. two days, etc. §Not supplied with self-registering instruments.

CLIMATOLOGICAL DATA FOR JULY, 1905—CONTINUED.

SOUTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Afton	Union	1,212	11	71.6	- 4.5	98	16	50	10	32	2.84	- 1.96	.87	..	9	12	14	5	NW	
Albia	Monroe	957	....	70.6	- 4.5	94	12,16	53	24,25	37	7.08	† 2.95	1.50	...	14	....	....	....	SW	
Allerton	Wayne	.....	....	71.2	.....	94	16,18	49	24	29	3 62	.....	1.35	...	17	18	5	8	NW	
Atlantic	Cass	1,184	14	70.2	- 3.5	97	17,18	42	24	37	2.34	- 2.01	1.22	....	6	6	11	14	S	
Bedford	Taylor	...	5	71.4	- 2.5	95	16	47	24	32	2.87	- 2.73	1.64	....	12	16	6	9	NW	
Bonaparte	Van Buren	.....	14	72.0	- 4.4	93	18	50	25	30	2.54	- 1.06	.95	....	10	....	....	....	.....	
Burlington	Des Moines	544	..	72.8	.....	94	18	53	24	26	3.30	.	.88	....	13	16	9	6	SW	
Chariton	Lucas	1,042	10	70.0	- 5.1	93	18	50	24	28	4.91	- 1.38	1 32	..	8	15	7	9	SE	
Clarinda	Page	.....	15	72.3	- 4.0	101	16	49	24	40	5.22	† .54	1.41	....	12	21	2	8	NE	
College Springs	Page	.....	14	71.8	- 3.6	96	18	50	24	30	2.64	- 3.09	1.30	....	11	17	12	2	NE, NW	
Columbus Junct.	Louisa	586	...	71.0	..	93	17,18	53	24	28	2.75	.....	.85	....	14	15	13	3	NW	
Corning	Adams	1,127	13	70.5	- 4.0	95	16,18	44	24	32	2.25	- 2.22	.96	....	7	15	13	3	NW	
Corydon	Wayne	992	12	71.3	- 4.5	92	16,18	51	24	26	4.74	† .34	2.10	..	13	13	11	7	S	
Creston	Union	.....	....	69.8	.....	94	16	48	7	30	3.42	.....	.63	....	15	18	5	8	W, NW	
Cumberland	Cass	.....	....	.....	...	.....	.....	.....	.....	.....	4 02	- 1.15	2.07	....	6	23	3	5	S, SW	
Earlham	Madison	.....	....	69.0	.....	92	16,17	47	25	31	3.49	.....	.77		11	18	6	7	NW	
Elliott	Montgomery	.....	...	72.1	.....	99	16,17	45	24	40	2.18	.....	.82	....	9	18	11	2	NW	
Ft. Madison	Lee	516	56	.....	.....	.....	.....	.....	.....	.....	3.64	- .47	.68	....	8	7	10	14	SW	
Greenfield	Adair	.....	14	71.6	- 3.0	100	16	47	24	31	2.81	- 2.08	1.03	....	11	19	6	6	S	
Indianola (a)	Warren	.....	....	70.6	- 5.0	95	16,18	52	24	35	3.17	- .47	1.50	....	11	5	12	14	.....	
Keokuk	Lee	619	34	73.4	- 3.5	94	18	56	24	25	2.89	- 1.21	.82	....	12	14	8	9	SW	
Keosauqua	Van Buren	644	13	72.3	- 4.5	96	18	50	25	32	2.57	- 1.40	.99	....	11	5	12	14	.....	
Lacona	Warren	.....	....	.....	.....	.....	.....	.....	.....	.....	4 22	- .65	1.42	....	14	7	20	4	.....	
Lenox	Taylor	1,120	10	71.0	- 3.7	95	16	51	9	29	1.81	- 3.41	1.03	....	9	21	7	3	S, NW	
Leon	Decatur	1,120	....	71.6	..	93	16,18	52	9	28	2.76	.....	1.24	..	11	19	4	8	E	
Mt. Ayr	Ringgold	1,236	12	71.6	- 4.1	96	16	51	9	30	3.61	- 1.50	1.23	..	10	7	7	17	NW	
Mt. Pleasant	Henry	729	24	72.4	- 2.9	97	17	52	24	32	2.91	- .83	.66	....	10	9	12	10	NW	
Omaha, Neb.	Douglas	1,113	34	72.6	- 3.6	95	16	54	9	27	2.36	- 2.39	.74	....	10	10	10	11	N	
Oskaloosa	Mahaska	843	22	71.0	- 4.4	93	18	51	25	28	3.62	- .43	.72	....	12	18	0	13	SW, NW	
Ottumwa	Wapello	649	11	72.4	- 4.4	96	16	58	9	31	2.40	- 1.89	1.10	....	4	23	3	5	.....	
Pacific Junction	Mills	960	6	70.8	- 4.5	96	16	47	24	37	4.17	- .40	1.18	....	12	12	16	3	N	
Red Oak	Montgomery	1,033	8	73.1	- 3.5	96	16,17	49	24	29	3.21	- 1.59	1.36	...	9	11	10	10	W	
St. Charles	Madison	1,070	....	70.4	.....	93	18	52	9	23	6.63	.. ...	3.35	....	11	18	8	5	NW	
Sidney †	Fremont	.....	....	73.1	.....	96	16,17,18	51	9	32	3.72	.....	.70	....	10	23	1	7	SE	
Sigourney	Keokuk	887	9	72.6	- 5.0	95	17,18	51	24	30	4.35	- .33	1.11	....	15	1	28	2	NW	
Stockport	Van Buren	.....		71.1	....	90	16,17	55	24	24	1.88	.. .	.64	...	12	14	4	13	NW	
Thurman	Fremont	.....	....	72.2	- 4.3	95	16,18	50	24	34	6.30	† .82	1.54	....	8	15	12	4	SW	
Washington (c)	Washington	769	13	70.6	- 5.0	92	16,17,18	52	24	25	3.39	- .14	1.87	....	12	....	....	....	SW	
Winterset	Madison	1,129	....	70.5	- 3.8	95	16	50	9,24	29	3.65	- 2.28	1.07	....	11	4	18	9	NW	
Woodburn	Clarke	961	....	70.6	.....	92	18	48	24	34	5.60	† .19	2.12	....	9	16	8	7	SW	
Average		.....	....	71.4	- 4.3	94.8	.....	50.2	.....	30.6	3.54	- 1.08	.....	....	11	14	9	8	NW	
Average for State		.....	....	70.6	- 3.8	95.3	.....	49.0	.....	31.6	2.91	- 1.44	.....		9	14	10	7	NW	

DATES OF THUNDERSTORMS.

NORTHERN SECTION.

Algona, 2, 5, 18.
Alta, 2, 4, 5, 13, 22, 25.
Alton, 2, 5, 6.
Charles City, 5, 18.
Cresco, 7, 11, 13, 17, 18.
Dows, 13, 18.
Elkader, 7, 8. 11, 17, 18, 31.
Florence, 3, 4, 5.
Hampton, 18.
Hanlontown, 5.
Humboldt, 5, 26.
Mason City, 3, 5, 6.
New Hampton, 19.
Osage, 18.
Pocahontas, 2.
Ridgeway, 7, 8, 11, 13, 17, 18.
Rock Rapids, 3, 5, 7, 26, 30,
Sheldon, 3, 5.
Sibley, 3, 6
Sioux Center, 3, 4, 5, 6
Washta, 4, 5.
Waverly, 2, 3, 6, 11, 13, 17, 18.
West Bend, 18.

CENTRAL SECTION.

Amana, 2, 5, 6, 8, 11, 14, 13, 18, 19, 22.
Audubon, 2, 3, 7, 13, 22.
Boone, 13.
Carroll, 2, 3, 4, 6, 14.
Clinton, 2, 5, 8, 11.
Davenport, 2, 5, 6, 8, 11.
Des Moines, 2, 6, 7, 13, 17, 19.
Dubuque, 2, 5, 6, 7, 8, 11, 17, 18, 19, 22, 31.
Grinnell, 2, 3, 4, 5, 6, 7, 8, 13, 14.
Guthrie Center, 2, 5, 7, 8, 13, 19, 22.
Harlan, 2, 4, 7, 13, 19, 22, 26.
Independence, 2, 6, 10, 11, 13, 17, 18.
Iowa Falls, 4, 5, 11, 13, 18, 22.
Jefferson, 13.
Little Sioux, 5.
Logan, 4, 13, 26.
Mt. Vernon, 11.
Nevada, 3, 4, 13.
Olin, 2, 3, 4, 5, 6, 11, 19.
Onawa, 2, 7, 8, 14, 26.
Waterloo, 2, 3, 5, 13, 18.
Waukee, 2, 4, 5, 6, 7, 13, 17, 19, 22.
Whitten, 3, 11, 12, 13, 17, 19.
Wilton Junction, 5, 19.
Zearing, 13, 17, 19.

SOUTHERN SECTION.

Atlantic, 4, 13.
Allerton, 2, 7, 8, 14, 19, 22.
Burlington, 3.
Columbus Junction, 2, 8, 11, 13.
Corning, 6, 7, 19.
Corydon, 2, 14, 19.
Creston, 4, 22.
Earlham, 7, 8, 13, 14, 17, 19, 22.
Elliott, 14.
Indianola, 7, 13, 14, 18, 19.
Lenox, 19.
Sigourney, 7, 11, 13, 19, 22.
Stockport, 2, 11, 13.
Winterset, 1, 14, 19.
Woodburn, 8, 14, 19.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JULY, 1905.

STATIONS.		DATE																															MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max.	79	80	76	81	81	82	83	78	75	70	74	86	93	94	94	98	95	96	84	84	85	86	81	78	84	74	80	78	82	84	86	83.3
	Min	56	60	62	59	59	57	59	56	52	50	56	59	62	62	68	72	70	69	65	64	61	59	53	52	52	60	61	63	58	58	61	59.8
Albia*	Max.	77	80	75	79	81	80	80	80	73	68	73	94	80	84	91	94	92	94	76	83	81	84	77	73	78	67	73	80	80	82	86	80.5
	Min	61	61	61	62	62	58	57	68	55	55	57	57	66	58	62	70	73	72	66	61	60	60	57	53	53	57	61	62	59	58	62	60.7
Algona	Max.	75	75	76	78	73	79	79	71	75	81	75	82	85	91	91	95	94	90	86	82	83	80	74	76	78	72	71	76	74	83	83	80.1
	Min	60	59	62	59	56	57	55	58	49	51	52	60	60	58	69	72	71	71	60	59	61	59	52	49	48	61	60	60	62	54	57	58.7
Allerton	Max.	81	79	74	80	81	81	83	79	73	70	68	80	89	91	92	94	93	94	86	85	82	85	76	76	80	75	73	81	81	83	86	81.6
	Min	60	62	61	61	62	57	57	60	53	56	58	60	61	63	69	70	70	69	67	64	59	69	58	49	51	60	61	63	57	60	61	60.9
Alta	Max.	77	72	73	77	76	77	77	70	72	77	75	83	82	90	90	95	93	89	87	80	80	80	74	75	76	65	75	70	76	81	83	78.9
	Min	56	62	63	59	55	57	57	54	49	51	51	58	62	63	70	74	70	68	68	61	63	58	50	49	54	61	60	57	56	57	59	58.9
Alton	Max.	76	74	74	78	77	78	77	69	74	77	74	83	85	90	92	95	94	87	87	84	81	80	75	75	78	72	75	74	78	80	81	79.8
	Min	56	61	64	67	57	57	56	59	50	49	50	54	64	62	71	72	66	70	60	62	60	58	51	48	55	63	63	60	52	55	62	59.2
Amana	Max.	78	82	77	78	81	79	79	81	72	68	75	81	87	90	91	92	93	93	85	82	80	82	75	74	78	72	68	79	78	83	85	80.6
	Min	62	64	64	63	60	58	58	59	57	56	60	57	58	62	70	71	74	72	69	65	61	60	54	52	54	61	62	65	60	58	59	61.5
Ames	Max.	80	77	74	78	79	81	82	78	74	74	70	83	87	88	90	93	93	92	88	83	82	82	77	78	78	69	71	75	81	84	86	80.9
	Min	61	59	63	61	60	59	56	56	50	49	53	56	59	61	68	82	71	70	67	63	60	64	54	51	49	62	61	61	59	56	58	60.0
Atlantic	Max.	77	75	71	79	79	84	81	77	75	76	76	85	88	92	93	96	97	97	89	88	82	87	79	79	80	73	84	79	81	84	87	82.9
	Min	57	57	64	59	58	53	55	53	49	48	50	53	57	66	67	73	66	68	65	59	57	62	52	42	49	60	62	58	51	55	55	57.4
Audubon	Max.	75	78	74	79	78	81	79	75	73	79	71	85	90	92	92	96	95	95	90	83	79	85	77	78	81	71	82	75	80	83	85	81.8
	Min	57	56	63	51	62	53	55	53	49	57	46	54	56	64	65	72	64	69	64	65	52	58	52	45	50	60	61	59	53	53	55	57.2
Baxter	Max.	78	78	73	78	80	82	81	80	75	73	70	84	87	89	90	93	95	94	85	84	84	83	77	79	79	68	70	78	83	85	87	81.4
	Min	59	60	61	60	58	57	55	55	52	50	56	52	59	58	69	71	69	73	65	63	58	62	52	50	50	60	60	59	58	57	58	58.9
Bedford	Max.	79	76	72	79	78	79	80	78	75	75	72	84	89	90	90	95	92	94	85	88	86	87	78	79	79	75	80	80	84	86	90	82.4
	Min	59	63	61	60	59	65	53	54	50	54	57	52	61	64	70	72	69	68	68	62	59	63	63	47	51	59	63	65	55	61	61	60.3
Belle Pl'e	Max.	78	80	74	78	83	82	82	71	74	65	74	82	88	90	93	94	94	95	82	83	82	83	75	74	78	70	68	79	80	83	86	80.6
	Min	62	63	63	62	60	58	55	58	56	54	58	56	60	62	70	71	73	71	65	63	61	61	54	52	52	62	60	64	59	59	63	60.9
Bonapar'e	Max.	79	83	78	78	80	79	82	82	71	65	78	80	88	92	92	92	92	93	86	86	82	86	78	76	80	72	74	85	81	83	85	81.9
	Min	65	62	67	68	61	56	58	59	59	57	61	59	59	66	69	71	71	72	69	66	60	62	60	52	50	60	62	65	59	61	58	62.1
Boone*	Max.	77	77	73	78	78	81	81	76	74	74	73	81	89	89	90	94	95	94	85	84	82	83	76	75	75	68	71	75	80	83	86	80.5
	Min	60	60	63	61	60	59	59	58	51	52	54	58	60	64	69	73	73	72	68	65	62	63	55	52	53	59	61	61	59	57	60	60.7
Britt	Max.	78	78	79	77	77	73	81	72	73	80	75	86	89	91	90	94	94	93	88	81	84	81	73	76	80	76	79	78	77	81	83	81.4
	Min	60	59	62	59	57	57	51	55	49	50	52	60	59	58	69	72	70	68	58	58	59	59	51	48	46	58	59	57	65	52	56	57.9
Burling'n	Max.	80	85	79	77	79	76	83	82	70	65	82	80	87	92	93	93	93	94	85	88	81	86	80	79	81	71	73	89	81	82	86	82.3
	Min	65	63	62	63	62	64	59	60	60	55	61	63	65	69	70	72	72	72	72	67	63	62	62	53	54	61	63	65	60	61	62	63.3
Carroll*	Max.	76	75	78	78	77	80	81	73	75	78	78	84	87	84	92	96	94	95	86	83	87	89	77	77	78	65	80	73	82	84	85	81.4
	Min	56	63	62	48	56	55	56	55	49	46	47	55	60	62	67	78	69	71	64	63	60	57	50	46	52	60	59	58	53	52	55	57.4
Cedar R*	Max.	78	83	77	78	80	81	82	82	74	67	76	80	89	93	95	97	97	98	83	88	84	83	77	75	80	73	67	79	82	86	89	82.4
	Min	63	63	66	65	63	60	56	56	60	58	60	60	61	64	68	71	77	76	70	67	63	63	57	54	54	60	62	63	64	66	63	63.0
Chariton	Max.	79	77	74	79	78	78	80	77	71	70	66	81	87	90	89	92	91	93	78	82	80	83	75	74	77	76	74	78	80	83	83	79.7
	Min	60	60	60	60	61	56	57	60	53	53	58	59	60	62	69	71	70	72	64	65	60	60	57	50	51	59	60	62	57	58	61	60.2
Charles C.	Max.	75	79	73	74	75	76	78	75	72	75	73	79	85	88	90	94	95	92	87	81	81	78	71	71	78	70	65	75	77	81	82	78.9
	Min	62	60	63	61	58	58	53	57	51	50	59	57	57	60	70	44	72	66	65	59	60	58	53	52	51	57	57	61	59	55	57	59.1
Clarinda*	Max.	75	73	75	82	81	84	82	78	75	78	76	88	95	96	96	101	100	98	89	90	86	90	81	81	83	76	82	85	85	85	88	85.0
	Min	60	60	60	60	58	56	57	57	50	52	55	55	55	65	73	71	69	68	70	63	57	61	58	49	53	57	59	64	57	60	60	59.6
Clear L	Max.	81	78	74	74	76	78	81	71	76	78	94	86	83	90	90	98	97	91	89	82	84	78	74	74	78	71	71	79	81	83	82	82.0
	Min	61	60	63	59	59	59	58	57	50	54	56	58	65	62	64	74	75	74	64	61	62	62	53	50	54	60	59	60	62	58	58	60.4
Clinton	Max.	82	86	83	78	81	80	84	84	74	66	83	82	89	91	94	95	96	95	90	85	82	88	79	75	82	78	77	87	83	83	87	83.8
	Min	64	64	67	65	60	57	57	58	61	57	60	60	59	63	61	62	68	68	69	61	60	53	56	51	48	51	59	62	59	57	58	59.8
Col. Spgs.	Max.	77	77	79	80	78	82	82	77	74	72	74	84	91	90	91	95	95	96	92	78	83	87	78	77	81	76	81	80	83	83	84	82.5
	Min	61	64	60	60	60	57	57	57	51	54	58	56	61	67	70	73	70	69	70	64	60	64	60	50	54	54	64	67	58	63	61	61.1
Colum. J.	Max.	77	84	77	78	79	79	79	81	71	65	79	78	86	90	92	90	93	93	86	89	79	89	72	74	78	69	69	84	80	83	86	80.9
	Min	62	60	65	62	61	58	58	58	58	57	59	57	61	63	69	71	72	72	68	67	59	61	56	53	54	58	62	60	60	59	61	61.2
Corning	Max.	72	75	75	79	72	79	78	73	74	71	75	84	91	90	91	95	94	95	85	85	81	86	81	76	80	72	80	79	81	81	84	81.1
	Min	59	51	62	65	59	56	55	54	59	52	55	54	63	66	70	74	70	71	68	62	59	62	55	44	54	60	63	64	55	58	58	59.9
Corydon	Max.	80	77	72	79	81	81	81	82	73	70	69	82	88	89	90	92	91	92	83	84	83	86	80	77	80	73	74	81	82	83	86	81.3
	Min	60	62	61	60	61	57	58	62	53	56	59	61	62	64	71	72	71	70	66	64	60	62	57	51	54	63	61	63	57	60	62	61.3
Cresco	Max.	73	76	73	69	72	76	77	72	70	72	70	79	82	87	89	93	91	89	84	78	78	76	71	66	74	68	66	76	75	80	77	76.7
	Min	62	59	64	62	59	60	56	59	51	54	54	59	60	61	67	74	72	71	63	59	58	61	53	50	52	52	54	60	61	55	59	59.4
Creston	Max.	73	76	76	78	75	77	78	75	71	70	70	80	88	88	90	94	91	92	76	83	79	83	74	73	76	68	75	77	78	80	82	78.9
	Min	59	61	63	60	60	56	48	59	52	55	56	57	61	66	70	73	71	71	70	66	61	64	56	51	57	59	60	62	57	60	62	60.7
Davenpo't	Max.	77	83	78	77	78	73	81	78	70	63	78	78	86	91	92	92	93	93	85	85	79	83	76	72	78	72	70	84	80	83	84	80.4
	Min	66	65	68	64	64	61	60	61	61	55	60	63	64	67	65	74	75	75	71	68	61	63	57	54	55	62	63	65	62	62	63	63.7
Decorah	Max.	76	83	75	73	78	78	80	72	73	76	77	82	85	88	92	94	98	93	88	82	81	78	72	68	77	73	67	77	78	82	80	79.9
	Min	62	62	65	62	61	60	53	59	53	50	57	60	57	62	64	76	70	71	63	60	61	59	56	53	48	51	58	60	61	60	57	59.7
Delaware	Max.	73	79	76	74	79	77	81	81	72	66	72	81	86	90	88	91	92	90	86	82	78	81	72	69	79	73	68	79	79	81	83	79.3
	Min	62	63	64	61	57	58	57	57	55	52	56	57	59	60	61	70	72	67	66	61	59	57	50	48	47	55	55	62	58	57	59	58.8
Des M	Max.	74	76	72	80	79	80	77	77	74	71	70	82	87	88	90	94	93	93	78	83	80	82	76	74	76	67	71	76	81	84	84	79.6
	Min	62	64	62	62	61	59	59	59	55	57	58	58	64	64	71	74	73	72	65	69	64	66	56	55	54	62	61	62	59	60	64	62.3
De Soto	Max.	75	76	72	78	77	79	76	75	72	69	71	79	86	85	88	92	90	91	85	80	78	81	75	73	75	70	73	74	78	80	82	78.5
	Min	66	60	63	61	61	57	58	58	52	54	56	61	61	64	69	75	75	72	68	66	62	64	56	53	55	62	61	64	59	59	62	61.7
Dows	Max.	76	76	72	67	74	76	76	74	74	74	72	82	85	89	91	94	93	92	86	82	82	78	72	75	76	71	67	75	76	82	83	78.8
	Min	60	59	62	58	56	58	54	56	50	52	51	54	58	59	66	73	70	70	64	61	58	59	52	48	46	60	60	57	59	54	57	58.1
Dubuque	Max.	72	81	77	76	79	78	79	80	72	67	74	78	86	90	91	93	94	94	86	83	79	81	73	68	77	73	73	81	77	81	81	79.8
	Min	64	66	66	63	61	60	63	61	60	57	59	61	63	64	66	73	73	72	70	66	63	62	59	56	52	56	63	64	65	60	62	62.9
Earlham	Max.	72	76	72	79	79	80	81	80	72	72	71	82	88	87	88	92	92	91	81	81	80	83	75	76	77	69	75	75	80	82	85	79.8
	Min	57	55	61	60	58	54	52	57	50	49	52	55	57	63	65	72	69	69	64	61	56	60	53	47	48	58	65	60	54	58	67	58.3
Elkader	Max.	76	84	80	75	83	83	85	80	79	70	75	86	91	94	93	97	98	98	93	88	86	86	79	72	82	66	72	83	83	89	90	83.7
	Min	63	62	66	64	59	62	57	56	55	49	59	57	58	60	64	73	73	67	67	60	59	55	52	50	46	50	54	63	59	55	57	59.4
Elliott	Max.	87	71	74	86	81	82	85	77	75	78	80	93	97	98	95	99	99	98	84	87	83	88	78	77	83	80	86	79	88	84	88	85.0
	Min	59	61	64	60	51	55	56	55	47	49	51	53	61	69	70	73	68	69	68	63	56	68	59	45	52	61	63	63	55	57	59	59.2
Esthervil*	Max.	78	74	73	76	73	77	77	70	78	77	75	83	85	89	94	96	95	84	89	82	84	79	73	75	78	70	74	74	80	82	83	79.7
	Min	56	57	63	59	58	58	54	59	50	49	50	58	61	60	64	72	70	70	58	58	60	57	52	50	46	56	56	59	60	53	59	57.8
ForestCy*	Max.	79	79	76	77	76	79	81	70	75	78	76	83	85	93	90	96	95	91	91	83	86	78	75	78	81	74	69	82	77	83	83	81.3
	Min	60	58	61	59	55	59	55	59	55	54	54	56	60	59	65	73	70	71	61	59	60	60	52	49	51	56	58	60	61	56	57	58.8
F. Dodge*	Max.	78	76	75	77	77	78	78	71	74	78	75	82	86	90	93	97	97	96	90	84	83	82	75	77	76	72	78	74	76	84	86	81.0
	Min	60	61	63	60	58	59	58	57	51	50	52	58	63	64	68	73	72	72	66	64	61	61	53	50	49	53	61	61	61	55	58	59.7
Galva	Max.	78	75	72	77	76	77	78	70	73	78	78	84	87	89	90	94	93	91	86	86	83	82	79	75	80	78	81	78	77	80	80	80.8
	Min	54	58	62	58	55	56	52	58	45	43	44	53	59	59	65	72	65	69	63	59	60	55	48	45	50	50	60	57	53	52	57	56.0
Grand M.	Max.	76	79	77	74	74	79	79	77	73	71	72	80	79	87	88	92	92	90	85	82	78	78	71	68	76	68	69	78	75	80	80	78.3
	Min	60	62	64	64	56	60	56	58	54	53	57	58	59	60	66	73	72	73	64	60	60	60	54	50	51	55	54	61	61	55	60	59.7
Greene	Max.	80	80	74	77	77	79	82	76	75	75	77	83	88	93	93	97	97	95	90	84	85	81	77	77	79	75	67	79	82	86	87	82.2
	Min	61	59	63	62	58	60	54	55	50	49	58	56	57	59	69	72	72	72	63	60	60	60	53	49	50	59	57	57	60	55	56	58.9
Greenfield	Max.	83	80	78	84	84	85	87	78	75	74	78	89	92	94	95	100	97	99	91	84	82	87	80	78	80	79	85	80	84	80	85	84.7
	Min	56	59	62	59	56	55	56	54	49	53	52	56	63	65	72	72	71	69	67	63	55	61	54	47	55	54	60	53	54	55	59	58.6
Grinnell	Max.	77	77	77	78	81	82	83	80	73	70	72	83	91	90	92	92	93	93	87	81	80	84	78	75	82	70	67	78	84	83	86	81.3
	Min	59	61	60	60	59	56	54	56	54	59	56	54	60	59	70	71	70	70	59	63	60	62	51	49	51	61	59	62	57	57	60	59.3
(near) Guthrie C	Max.	82	77	78	81	80	80	80	74	74	75	79	86	90	91	91	96	95	95	95	84	83	83	76	77	79	76	78	75	80	83	83	82.5
	Min	57	59	63	60	60	55	56	55	50	49	52	50	61	66	69	79	70	71	67	64	59	60	54	49	52	61	61	61	56	55	59	59.6
Grundy C	Max.	77	77	72	76	79	80	80	80	75	71	72	81	87	88	90	92	94	92	84	83	82	81	76	75	76	70	65	75	79	84	85	79.9
	Min	59	59	62	62	58	59	54	55	52	50	57	53	59	60	68	72	72	71	66	61	59	61	51	49	51	62	60	62	59	56	59	59.3
Hampton	Max.	83	79	74	78	76	79	83	75	78	77	78	82	86	93	92	97	97	97	90	86	87	80	76	80	77	70	67	77	78	86	86	81.9
	Min	61	60	62	60	58	59	56	56	51	52	55	56	60	59	70	74	73	71	64	62	60	61	53	50	50	60	59	62	61	58	58	59.7
Hancock	Max.	76	75	74	80	78	80	80	70	72	76	73	85	92	92	93	96	95	97	87	87	77	87	78	77	81	77	82	78	81	81	87	82.1
	Min	60	61	63	60	59	59	60	58	50	50	52	55	64	70	71	74	99	70	68	65	58	62	56	49	55	61	63	62	57	59	60	60.6
Hanlontown	Max.	73	76	73	73	73	74	76	70	71	75	71	80	84	88	89	94	94	88	86	80	80	77	72	71	75	70	66	75	75	79	80	77.7
	Min	60	58	61	59	55	58	52	50	48	50	55	56	59	58	68	74	70	71	60	57	59	59	51	48	47	56	55	59	60	52	57	57.5
Harlan	Max.	77	76	75	79	77	81	77	74	74	77	74	86	91	91	93	95	94	95	90	82	76	84	79	75	82	74	81	75	78	82	85	81.6
	Min	58	60	63	59	57	54	57	56	49	48	47	51	51	65	67	70	66	68	66	64	58	59	54	45	52	60	61	60	62	56	58	58.1
Humboldt	Max.	74	73	76	77	76	69	72	70	72	68	70	72	78	81	93	95	96	91	89	82	83	82	74	73	78	71	69	72	74	81	83	78.2
	Min	61	60	64	60	58	59	57	56	50	49	51	62	61	60	69	74	72	72	63	62	59	60	53	49	48	62	63	62	63	54	56	59.6

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JULY, 1905—CONTINUED.

STATIONS.		DATE.																															MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Ida Grove	Max..	78	75	75	82	76	79	78	78	72	78	75	88	90	93	94	97	97	94	90	81	77	83	75	75	78	73	..	..	..	..	..	82.0
	Min ..	57	58	65	58	67	63	56	56	41	51	47	54	61	65	62	67	75	72	72	71	65	70	50	62	68	58	..	..	..	..	..	61.2
Independ.	Max..	72	80	71	76	77	79	78	78	72	69	72	78	85	87	90	93	94	96	85	85	80	79	74	74	77	74	69	76	79	83	85	79.6
	Min ..	61	59	63	61	57	64	57	58	52	50	57	56	57	59	65	71	71	70	65	61	58	57	53	51	47	58	58	58	60	55	58	58.9
Indianola.	Max..	75	77	72	78	78	80	77	78	74	69	67	81	90	91	92	95	93	95	85	77	80	83	79	74	88	72	72	75	80	83	84	80.5
	Min ..	60	61	62	61	60	56	59	66	54	53	57	56	63	64	69	77	71	71	56	64	..	..	55	52	53	61	61	63	58	58	62	60.8
IowaCity*	Max..	79	85	79	79	80	81	81	85	74	67	83	82	89	93	95	95	94	95	81	85	82	82	76	75	80	72	68	82	82	86	88	82.2
	Min ..	62	60	65	64	62	59	59	58	58	58	57	57	59	62	65	68	74	73	69	66	60	60	55	52	53	56	61	62	62	58	60	61.1
Iowa F*..	Max..	79	79	75	77	78	78	78	75	73	77	70	83	88	89	90	94	93	94	88	81	82	81	74	75	78	75	68	76	78	83	82	80.4
	Min ..	60	59	62	61	58	58	53	56	54	48	52	55	56	57	62	70	70	69	65	60	59	59	52	48	47	59	60	60	61	56	57	58.2
Jefferson.	Max..	79	88	75	82	78	80	81	82	78	78	76	87	87	92	93	96	96	97	91	84	87	84	77	79	79	78	78	77	79	85	86	83.5
	Min ..	59	63	65	61	60	57	71	62	56	51	54	63	65	66	71	76	74	74	71	67	64	63	54	56	56	63	62	63	59	58	60	62.7
Keokuk ..	Max..	81	85	81	78	80	75	79	80	69	65	76	76	87	92	93	92	93	94	87	86	79	85	80	75	78	76	75	86	82	83	85	81.7
	Min ..	69	65	66	63	67	61	60	61	62	56	62	63	62	70	72	76	75	76	76	70	63	65	64	56	58	64	61	68	61	64	65	65.2
Keosauqua *.	Max..	79	84	78	80	82	80	84	83	71	63	79	82	89	92	92	93	94	96	88	87	84	88	81	76	82	70	74	86	83	84	87	82.9
	Min .	65	61	63	63	61	57	57	59	59	57	57	58	59	64	68	78	71	78	69	65	59	62	60	52	50	58	62	62	59	60	59	61.7
Le Mars..	Max..	81	76	77	79	77	81	80	70	74	80	79	86	85	92	93	97	95	88	90	84	78	83	77	79	80	76	78	75	79	81	83	81.7
	Min ..	58	61	63	58	53	53	56	57	48	47	50	54	66	64	70	72	70	68	62	61	68	58	50	45	55	62	61	57	50	55	63	58.5
Lenox....	Max..	79	75	71	79	78	80	79	86	72	72	72	84	88	90	91	95	93	94	85	84	80	86	76	76	82	74	79	80	80	81	84	81.1
	Min ..	58	62	62	59	60	57	57	57	51	54	55	55	65	66	70	73	71	70	69	64	60	64	57	52	55	59	62	65	57	59	64	60.9
Leon.....	Max..	83	79	72	80	80	80	81	77	73	69	69	83	89	91	92	93	92	93	89	84	85	87	84	76	81	69	77	79	80	81	84	81.7
	Min ..	60	62	60	60	62	58	58	60	52	56	58	59	62	63	69	71	70	70	69	65	61	63	58	53	55	60	62	65	59	60	63	61.4
Lit. Sioux	Max..	81	77	76	81	80	81	81	76	76	80	81	87	93	92	93	97	95	96	91	85	80	88	79	79	81	75	84	78	79	80	87	83.5
	Min ..	60	62	62	60	57	56	60	58	47	47	49	53	69	62	74	75	71	74	68	62	63	57	53	47	58	63	64	60	55	60	59	60.2
Logan....	Max..	83	80	78	80	80	81	83	86	81	80	75	88	96	93	95	97	97	95	90	86	76	90	79	79	84	76	85	80	80	84	88	84.7
	Min ..	68	59	61	56	57	55	59	55	57	51	48	53	63	64	69	72	68	69	66	65	58	57	54	46	55	61	63	60	56	59	60	59.5
Maquoketa *.	Max..	80	82	78	76	78	82	84	82	73	65	79	79	87	91	92	93	93	94	86	88	82	85	77	73	82	74	71	84	83	85	87	82.1
	Min ..	60	62	66	62	59	56	55	55	57	55	58	56	55	61	60	66	71	67	67	59	56	53	53	51	44	51	55	58	58	54	55	57.9
Marshaltown*	Max..	75	79	76	79	82	81	81	80	76	71	71	81	90	91	94	97	97	96	81	84	81	84	78	75	79	72	69	76	84	86	88	81.7
	Min ..	59	58	61	60	58	58	55	56	53	50	57	53	57	59	65	71	70	70	66	62	58	65	52	50	49	55	60	61	60	56	57	58.7
Mason C..	Max..	77	77	72	77	75	78	79	72	75	77	76	82	83	90	95	98	98	91	92	84	85	79	76	75	76	73	68	75	80	84	81	80.5
	Min ..	61	60	62	62	57	58	55	58	52	54	57	59	62	63	70	75	75	74	64	62	62	64	56	53	54	58	58	62	62	58	59	60.8
Monticelo	Max..	90	88	89	76	84	85	86	92	77	75	65	76	88	92	97	98	92	93	92	86	85	80	83	76	75	79	79	82	84	84	83	84.9
	Min ..	59	60	62	59	55	55	56	54	53	50	55	54	54	59	59	60	70	67	67	61	59	55	53	57	45	52	61	60	54	56	56	57.1
Mt. Ayr..	Max..	79	74	73	80	82	84	83	79	75	72	72	85	91	94	93	96	94	95	84	85	84	88	79	80	81	70	78	82	84	83	89	82.8
	Min ..	58	62	59	58	58	57	58	57	51	55	57	57	64	64	69	72	69	69	66	65	55	62	67	52	55	55	61	64	58	60	63	60.5
Mt. Pl'snt	Max..	82	85	79	78	81	80	83	83	72	66	80	80	90	93	95	96	97	96	88	90	82	86	79	77	81	72	74	84	81	83	88	83.3
	Min ..	65	61	64	61	60	56	58	58	58	54	59	59	62	61	69	71	71	72	70	68	60	61	59	52	53	61	60	63	59	60	62	61.5
Mt. Ver'n	Max..	76	82	75	76	81	83	88	84	75	65	80	81	88	94	93	93	95	95	82	92	85	86	77	75	83	72	65	79	84	88	88	82.6
	Min ..	61	67	64	60	59	51	58	58	54	53	57	57	60	64	65	68	72	70	66	64	59	59	54	51	52	59	59	62	61	58	60	60.1
New H. ..	Max..	77	80	77	75	80	80	79	78	73	76	75	82	87	88	91	94	96	93	87	84	80	79	73	70	78	72	72	81	78	82	82	80.6
	Min ..	62	61	63	62	57	60	56	58	56	55	57	58	58	61	68	68	72	69	68	60	65	59	53	51	52	58	56	59	60	58	60	60.0
Newton..	Max..	74	78	70	76	70	78	80	71	74	68	69	80	88	89	91	94	94	94	90	80	79	82	75	73	78	71	69	75	80	81	84	79.2
	Min ..	60	61	61	60	60	57	58	59	54	55	58	53	61	60	70	72	71	72	65	63	61	63	54	53	53	61	61	62	58	60	61	60.5
N'thwood	Max..	78	80	75	79	76	76	78	73	74	79	76	82	83	89	89	94	94	92	86	82	80	80	76	73	76	76	69	78	77	81	82	80.1
	Min ..	62	58	58	59	56	58	55	58	53	52	55	56	58	59	69	73	70	70	61	59	58	59	52	49	52	55	56	61	61	55	56	58 5
Odebolt ..	Max .	82	75	76	80	78	80	80	75	76	84	79	89	85	94	94	99	98	98	93	85	81	89	76	78	80	75	82	73	80	86	88	83.2
	Min ..	57	65	66	59	57	57	50	51	48	46	47	55	62	63	69	77	70	71	65	63	60	62	51	49	54	61	60	58	56	52	57	58 6
Ogden....	Max..	78	79	75	74	77	81	80	72	76	75	74	81	88	89	90	95	95	94	91	83	82	83	77	76	78	72	75	75	80	84	85	81.1
	Min ..	56	58	60	59	58	57	58	57	51	50	52	60	61	63	69	73	71	71	67	63	61	62	53	48	52	62	61	62	56	55	59	59.5
Olin	Max..	78	82	81	75	77	79	79	80	71	65	75	78	86	89	89	90	92	70	69	73	60	53	..	..	..	..	59	63	61	57	59	62.1
	Min ..	62	63	66	63	58	58	59	58	58	57	59	57	63	64	65	69	73	70	69	73	60	53	..	..	..	..	68	81	79	84	84	80.9
Omaha, N	Max.	78	75	71	82	77	80	78	72	73	75	73	85	91	90	92	95	95	94	88	84	75	87	76	76	78	74	81	78	78	81	84	81.2
	Min ..	62	63	61	61	62	62	63	59	54	56	57	62	64	69	74	76	75	75	72	69	65	63	60	56	60	63	64	64	62	65	65	64.0
Onawa...	Max.	81	78	77	84	84	84	80	74	78	80	78	89	91	93	95	98	96	96	93	89	84	87	80	88	81	77	83	78	83	85	84	84.8
	Min ..	61	62	64	59	59	58	60	58	50	52	53	57	65	65	70	75	70	72	69	67	64	59	56	50	59	69	63	60	56	60	62	61.4
Osage.....	Max..	78	79	73	74	73	79	80	73	76	78	75	84	86	91	91	96	96	92	88	83	83	79	73	73	79	72	66	76	79	84	82	80.4
	Min ..	61	60	66	61	57	59	55	56	49	51	53	45	58	59	68	72	71	68	62	59	59	53	50	51	55	55	62	60	55	56	58.2	
Oskaloosa	Max..	74	80	76	78	80	79	79	79	71	67	71	79	87	89	91	92	92	93	84	81	79	82	75	72	79	72	71	79	79	81	84	79.8
	Min ..	62	62	62	63	62	59	56	62	56	57	60	59	60	62	69	72	74	73	67	67	62	66	57	53	51	62	62	65	62	60	61	62.1
Ottumwa.	Max..	75	80	81	79	81	83	86	81	76	74	73	79	89	91	94	96	95	93	82	85	80	86	79	75	84	67	73	86	84	86	85	82.5
	Min ..	60	62	59	60	64	59	61	63	58	59	64	59	60	61	63	65	61	63	61	63	64	68	62	68	65	61	60	75	63	62	61	62.4
Pacific J'n	Max..	77	75	77	80	80	79	78	75	74	76	74	89	91	91	93	96	94	94	86	84	84	87	79	75	78	75	83	79	81	82	85	82.3
	Min ..	60	62	59	58	57	57	58	57	49	52	50	52	63	62	69	73	70	69	67	62	57	60	55	47	55	60	63	62	55	60	59	59.3
Perry.....	Max..	80	80	74	80	79	81	81	76	75	75	75	84	90	90	91	95	94	94	85	88	82	85	77	78	80	71	78	78	80	84	86	82.0
	Min ..	59	62	64	61	59	57	58	56	50	51	54	61	62	64	69	74	71	71	62	65	61	62	55	51	53	62	62	63	57	56	59	60.4
Plover....	Max..	76	80	77	74	77	78	77	71	74	80	76	84	85	91	93	95	95	92	88	81	85	82	73	75	80	74	80	76	78	84	84	81.1
	Min ..	57	59	60	58	54	56	57	57	49	52	52	59	60	59	68	69	72	67	60	59	57	56	50	48	43	60	57	58	60	54	57	57.5
Pocah'tas	Max..	79	74	76	77	78	79	79	72	75	81	85	83	83	91	92	97	96	93	90	83	85	81	75	75	77	71	78	75	75	83	87	81.5
	Min ..	56	59	62	60	56	56	55	58	48	57	50	59	62	61	69	72	70	71	61	62	60	65	50	47	50	62	61	59	59	55	58	59.0
Red Oak..	Max..	82	75	72	81	81	84	84	71	76	78	76	84	92	92	93	96	96	95	92	89	83	87	80	81	80	76	80	82	83	84	83	83.7
	Min ..	62	64	62	61	61	58	60	59	51	58	55	56	65	70	72	72	75	71	71	65	71	68	63	49	51	62	63	66	58	62	62	62.5
Ridgeway	Max..	82	79	82	75	76	81	82	79	76	75	80	82	85	90	92	96	94	92	95	83	82	83	75	74	80	72	70	80	80	84	80	81.8
	Min ..	64	61	65	64	60	60	60	60	52	55	57	61	61	62	68	75	78	71	64	62	60	60	55	53	53	58	58	62	64	60	63	61.5
Rock R...	Max..	78	76	78	78	72	78	76	68	74	78	82	86	88	92	94	96	95	90	86	84	82	84	80	76	80	78	78	74	80	78	85	81.4
	Min ..	56	60	58	68	64	56	56	56	50	48	52	54	64	61	71	72	67	66	60	60	64	60	56	52	46	60	60	58	54	57	58	58.8
R. City...	Max..	87	86	87	70	71	80	79	70	75	80	75	80	80	90	91	94	94	95	90	85	84	80	72	70	75	71	80	72	80	83	80	80.5
	Min ..	55	58	61	55	56	56	57	54	49	51	55	57	61	64	66	71	66	71	68	66	60	61	51	48	55	61	60	51	55	55	56	58.4
Sac City..	Max..	77	77	74	78	76	77	76	76	72	71	73	83	80	88	89	93	91	91	87	80	79	81	75	74	78	71	77	72	76	81	83	79.2
	Min ..	56	60	63	59	57	57	56	56	51	51	50	56	61	62	67	73	69	71	65	63	63	59	52	50	52	62	61	55	59	53	60	59.0
St. Cha'les	Max..	71	75	70	77	77	77	80	76	74	77	70	78	82	87	89	92	92	93	84	81	80	83	75	74	78	70	74	75	79	81	84	79.2
	Min ..	60	60	62	61	61	58	60	59	52	55	57	59	64	64	70	72	72	72	66	65	62	64	57	53	55	61	61	65	59	60	64	61.6
Sheldon..	Max..	80	74	70	80	76	81	82	72	79	80	80	88	89	62	92	100	95	89	92	85	85	81	76	78	79	72	76	73	82	85	85	82.2
	Min ..	54	61	62	59	55	56	54	58	42	48	50	53	62	61	69	72	72	69	65	57	62	57	52	47	51	62	59	58	55	56	59	58.0
Sibley *...	Max..	76	72	78	76	75	77	76	68	73	76	77	81	83	90	90	95	92	83	87	79	82	76	72	73	76	70	73	72	75	80	80	78.3
	Min	53	58	53	53	55	56	55	56	47	47	49	53	59	59	66	72	66	66	57	57	59	57	50	46	48	56	60	59	58	55	62	56.4
Sigourn'y	Max..	80	84	78	79	82	81	83	83	74	70	79	82	90	91	93	93	95	95	89	83	83	86	79	76	82	75	73	81	89	86	88	83.3
	Min ..	60	62	63	62	59	62	56	61	57	57	59	57	60	62	69	70	73	71	65	66	62	63	55	51	52	62	62	64	68	68	60	61.9
Sioux C'r.	Max..	77	75	75	77	76	77	78	68	75	78	79	84	86	90	92	96	94	87	88	82	82	80	74	75	79	74	76	73	78	81	33	80.3
	Min ..	56	60	62	58	57	55	57	58	47	51	52	55	63	61	69	72	69	69	62	62	64	58	49	48	53	62	62	57	53	56	61	58.6
Sioux C'y	Max..	77	75	71	80	77	80	80	71	75	76	78	84	84	93	93	100	96	89	89	81	76	82	75	76	79	68	78	75	78	80	82	80.6
	Min ..	59	65	59	59	60	59	60	56	50	48	53	56	68	67	72	75	75	69	64	63	64	60	52	48	56	62	62	58	55	61	63	60.6
Stockport	Max.	76	82	73	76	77	76	78	76	70	66	74	76	84	88	89	90	90	82	85	81	84	82	74	73	77	69	73	80	78	80	84	78.8
	Min ..	65	62	65	63	62	60	59	60	60	57	60	60	60	66	71	73	74	72	67	63	70	64	63	55	59	62	62	66	61	62	61	63.4
Storm L*.	Max..	75	71	72	77	74	77	76	70	73	76	75	82	82	88	89	95	92	89	88	80	80	79	74	74	75	65	75	71	77	81	83	78.5
	Min ..	55	58	62	59	56	58	53	59	48	47	48	52	61	61	67	73	72	71	60	60	59	58	50	48	50	58	59	57	55	53	56	57.5
Thurman.	Max..	82	73	72	85	83	81	79	74	75	76	78	88	91	90	92	95	93	95	89	87	81	90	78	79	82	78	84	83	85	84	86	83.5
	Min ..	61	62	59	58	59	57	59	55	53	53	51	54	65	65	74	75	71	72	69	64	59	62	58	50	55	60	64	64	59	63	59	60.9
Tipton....	Max..	77	84	77	76	79	83	84	84	76	67	76	77	87	94	93	94	96	96	84	90	85	86	81	80	82	73	67	84	83	90	89	83.0
	Min ..	65	66	67	63	61	59	61	62	61	60	60	60	62	61	67	72	74	73	71	68	64	62	58	55	55	62	63	64	64	62	65	63.5
Vinton ...	Max..	78	78	73	75	78	79	80	79	73	67	71	85	87	87	90	91	93	92	88	84	81	80	71	74	77	73	67	75	78	82	84	79.7
	Min ..	56	60	63	62	61	60	57	58	56	54	58	58	60	60	68	73	73	72	67	63	60	61	57	54	49	50	50	60	62	57	63	60.1
Washi'ton	Max..	75	82	78	76	79	79	80	80	70	66	76	78	85	89	91	92	92	92	78	83	79	83	77	72	78	66	69	82	..	..	..	79.5
	Min ..	61	62	64	62	61	58	57	61	58	56	60	57	61	64	69	72	73	72	68	66	61	61	56	52	53	61	61	63	..	..	..	61.8
Washta ..	Max..	78	75	74	76	80	80	80	78	76	80	78	88	86	92	93	98	97	92	91	84	81	83	76	78	70	80	82	74	81	83	82	82.1
	Min ..	56	60	62	56	55	56	53	52	46	42	44	52	58	60	70	72	72	62	62	62	57	58	53	45	40	65	60	53	49	51	52	56.0
Waterloo*	Max..	77	82	75	77	80	82	82	81	75	75	72	80	89	90	94	97	98	97	86	85	83	85	78	74	81	79	68	78	81	85	88	82.4
	Min ..	61	60	63	63	60	60	57	57	53	51	59	56	58	60	63	69	72	72	66	62	61	61	54	51	51	55	60	61	60	57	59	59.7

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JULY 1905—CONTINUED.

STATIONS.		DATE.																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Waukee..	Max..	84	78	72	82	80	83	78	76	80	77	75	91	88	96	93	102	93	96	82	92	84	84	82	91	78	71	88	78	90	91	92	84.7
	Min .	59	61	62	60	60	57	59	56	50	53	54	59	63	63	69	73	72	72	66	64	60	63	54	50	54	61	61	63	57	57	61	60.4
Waverly..	Max..	75	78	73	75	76	76	77	74	72	71	70	77	83	87	88	92	92	92	85	82	78	78	72	71	74	71	67	74	77	83	83	78.2
	Min ..	61	61	63	61	59	60	56	58	54	52	58	57	59	60	69	72	72	71	67	62	62	60	56	51	51	60	59	61	60	57	59	60.3
Web'ter C	Max..	81	86	77	82	84	83	85	81	74	80	76	87	92	90	92	95	99	96	90	82	86	89	76	78	86	76	75	82	82	88	92	84.6
	Min ..	61	58	63	60	57	58	59	56	50	47	49	57	58	59	67	72	69	68	65	62	59	59	52	47	47	63	61	59	61	52	55	58.4
W. Bend.	Max..	78	77	78	78	78	77	77	70	74	81	75	84	85	92	90	94	92	89	84	78	82	78	72	74	80	76	72	75	72	80	82	79.8
	Min ..	58	59	63	54	54	57	57	56	48	51	52	60	62	58	68	72	69	62	60	59	61	59	51	47	49	61	60	61	62	55	57	58.1
Whitten..	Max..	79	80	74	77	78	80	80	85	76	74	72	81	87	88	91	96	95	95	85	81	83	83	74	76	79	75	76	78	80	84	86	81.5
	Min ..	59	59	61	59	57	58	56	54	52	49	56	53	59	58	68	80	70	70	65	60	60	60	51	48	51	62	60	61	60	55	66	59.3
Wilton J.	Max.	80	87	88	80	83	81	83	85	75	67	83	84	89	92	93	96	95	95	88	86	82	86	79	79	82	77	73	88	81	85	86	84.1
	Min ..	64	63	67	60	57	55	57	61	58	56	60	60	59	63	65	69	71	72	69	63	59	57	54	51	48	51	48	62	60	57	52	59.7
Wint'rset	Max..	78	79	74	81	80	82	81	77	75	71	78	81	90	90	91	95	92	94	87	82	80	85	77	78	77	75	76	77	81	81	83	81.4
	Min ..	58	59	61	61	65	55	56	55	50	51	54	58	61	62	67	73	70	69	65	62	58	60	54	50	53	58	60	63	56	57	68	59 6
Woodb'n.	Max..	81	82	76	79	80	84	85	78	76	72	75	83	91	89	90	91	90	92	80	82	82	84	76	76	82	75	80	80	80	83	85	81.8
	Min ..	58	57	61	61	60	55	54	58	52	54	59	57	57	62	67	71	71	70	65	61	57	60	56	48	49	61	62	63	55	58	58	59.3
Zearing ..	Max..	77	76	73	77	77	78	79	75	72	70	68	81	85	87	89	92	93	92	87	81	79	81	74	74	76	78	66	74	80	82	84	79.3
	Min ..	60	59	62	60	58	58	57	57	52	52	56	56	62	60	71	73	72	71	67	63	61	61	54	51	52	63	60	60	64	58	68	60.6

* At those stations thermometers are read in the morning; the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

DAILY AND MONTHLY PRECIPITATION FOR JULY, 1905.

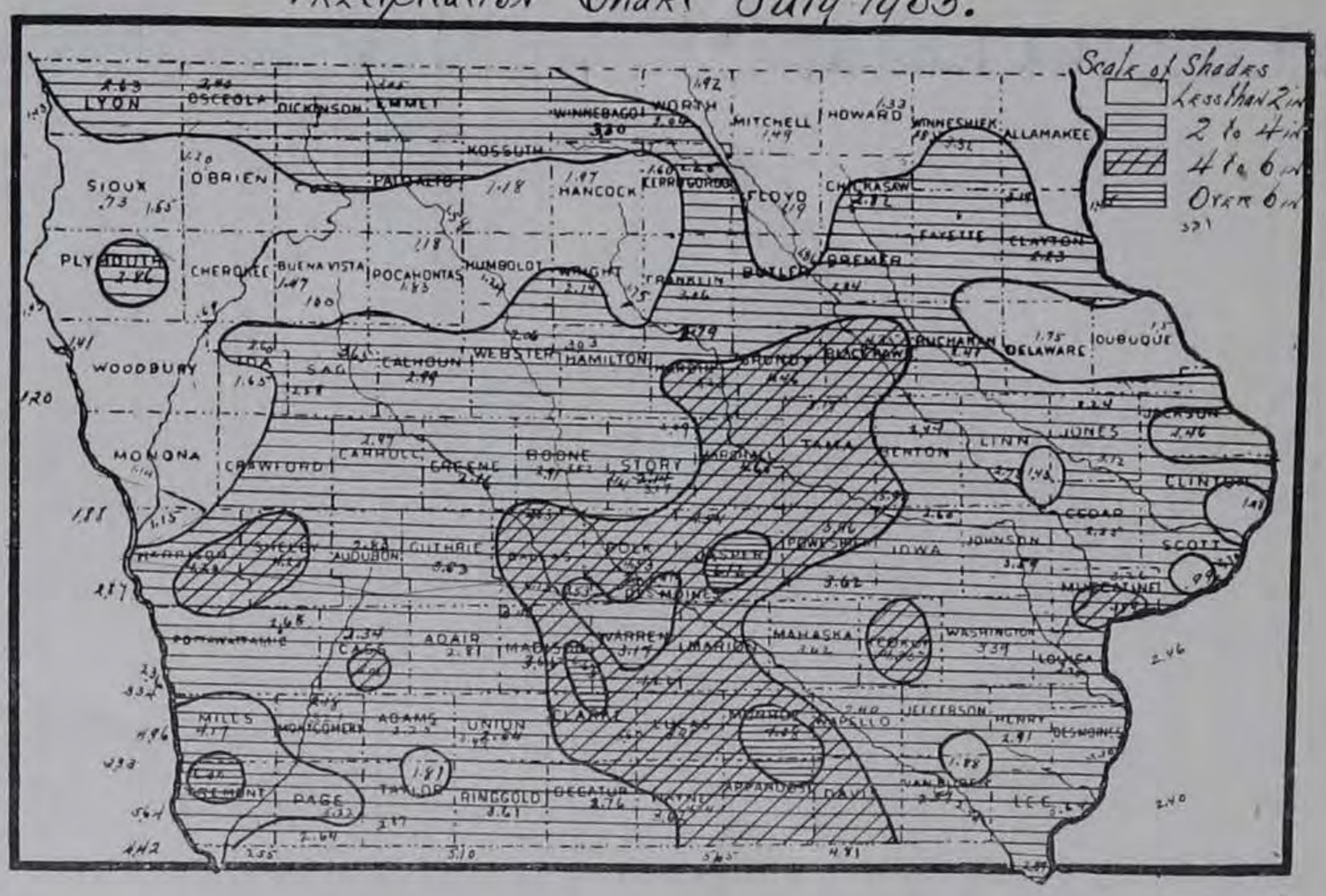
STATIONS.	DAY OF MONTH.																													TOT
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	.10	.19	....	.06	.	.18	....	....	...	.18	....	....	.40	....	....	....	....	.27	...	...	.59	....	...	T	.87	....	....	....	....	....	2.84
Albia	.81	..	1.12	.10	....		.02	.13	.23	....	.25	1.50	.80	....	.38	....	....	....	.80	.21	....	....	....	....	....	.08	.65	...	....	....	....	7.08
Algona	....	.19	.30	.07	.07	.11	....	....	....	....	T	....	....	....	....	....	....	....	.38	....	....	.06	....	....	....	T	T	...	...	....	...	1.18
Allerton	.03	.61	.15	.30	.03		.25	.16	.03	.05	.09	.04	....	.35	....	....	....	....	.05	....	....	.03	.03	....	T	1.36	.06	T	T	....	....	8.62
Alta	....	.55	.05	.08	.23	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	....	.03	....	....	....	.30	....	....	....	....	.20	1.47
Alta [near]	....	.47	.07	.11	.68	....	....	....	....	....	....	....	.06	..	..	....	....	....	....	....	....	.28	....	....	....	.26	....	..	....	....	....	1.93
Alton	....	.01	.60	.16	.01	.04	....	.03	....	....	....	....	T	....	....	....	....	T	....	....	....	T	....	....	T	T	T	....	....	T	.70	1.55
Amana	....	.23	.80	.11	T	.36		.61	.05	.06	.32	....	.11	.02	...	....	....	....	.04	....	....	.39	....	..	....	.01	.04	...	....	..	....	2.65
Ames	..	.07	.09	.06	.16	....	....	....	....	....	....	.03	.82	.02	....	...	....	....	.87	....		.09	....	....	.25	.15	.03	....	....	....	....	2.14
Atlantic	....	.38	.16	.10	....	....	....	....	....	....	....	....	.06	....	....	....	....	....	T	....	T	.42	..	....	....	1.22	....	..	....	....	....	2.34
Audubon	....	.60	.50		....	....	.14	....	....		....	....	.18	.35	....	....	....	....		....	.02	.18	.01	....	T	.85	T	....	....	....	....	2.88
Baxter	...	....	.63	....	.20	.05	T	....	...	....	....	....	.50	.08	...	....	..	....	2.50	...	....	.48	....	...	...	.15	....	....	....	....	....	4 54
Bedford	....	.11	.25	.11	.27	.04	.17	.02	....	..	.05	....	...	T	....	....	....	....	.01	....	....	....	....	....	.12	1.64	.08	....	....	....	....	2.87
Belle Plaine	....	1.00	.20	T	T	.40	....	1.02		.10	.11	....	.30	....	....	....	....	....	2 25	....	...	.45	....	....	....	T	.02	....	....	....	.08	5.93
Bonaparte	.08	.95	.25	.10	.02	T	T	.40	T	.17	.03	T	....	....	..	....	....	....	....	..	....	....	....	....	....	.36	.18	....	....	....	..	2.54
Boone	.40	T	T	.14	.04	.05	T	....	....	....	....	.09	....	2.08	....	...	....	....	.16	.01	....	.18	.01	....	....	.28	.08	T	....	....	....	3.52
Britt	....	.04	.08	.70	.24	.03	.72	....	....	....	T	T	T	....	....	....	....	....	....	....	....	....	....	....	....	.19	.02	....	....	....	....	1.97
Buckingham	....	.20	.44	T	T	.24	....	T	....	....	1.25	..	.35	....	....	....	T	2.54	...	....	...	.15	....	....	....	T	T	....	....	....	....	5.17
Burlington	.11	.27	.59	.18	.41	.20	.06	.88	T	.08	.17	.06	....	....	..	....	....	....	....	....	....	....	....	....	....	.21	.08	....	....	....	....	3.30
Carroll	T	.47	.07	.55	.60	.06	....	..	....	....	....	....	....	.88	....	....	....	....	.05	....	...	T	.07	..	....	.18	.04	..	....	....	....	2.97
Cedar Rapids	1.11	....	.55	.10	.02	.03	.21	....	.01	....	.12	.18	.02	.15	....	....	....	....	.08	T	....	....	....	....	....	.18	T	.02	..	....	....	2.78
Chariton	....	.65	.25	T	....	.25	.36	.70	....	T	T	T	T	.38	....	....	....	....	1.32	....	...	T	....	....	....	1.00	T	....	....	....	....	4.91
Charles City	T	T	.74	.01	.15	.01	....	....	....	....	.02	.01	T	....	....	....	....	.11	....	....	....	T	....	....	....	.12	.02	T	T	....	....	1.19
Clarinda	.24	.11	.95	.23	.22	.45	.30	.25	....	....	....	....	....	....	....	....	....	.56	....	....	....	....	.08	....	.28	1.41	.19	....	....	....	....	5.22
Clear Lake	....	....	1.20	.05	T	.35	....	....	....	....	....	T	T	....	....	....	....	....	T	....	....	....	....	....	....	T	T	....	....	....	....	1.60
Clinton	....	....	.38	.06	.08	.47	.12	....	....	.17	.13	....	....	....	....	....	....	..	....	....	....	.07	..	....	....	....	T	...	T	....	....	1.48
College Springs	.03	.02	.60	.12	.10	.05	.03	.12	....	....	T	....	....	....	....	....	T	....	.10	....	....	.17	....	....	....	1.30	....	....	....	....	....	2.64
Columbus Junct'n	..	.47	.17	.10	....	.17	....	.10	....	.23	.85	.16	.10	.07	....	....	....	....	.11	....	....	.03	....	....	....	.12	.07	....	....	....	....	2.75
Corning	.26	.06	.26	.06	.52	T	.13	T	....	....	T	....	....	T	....	....	..	....	T	....	....	T	....	....	T	.96	T	....	....	....	....	2.25
Corydon	....	2.10	.09	.10	....	.02	.04	.48	....	.03	.06	....	....	.19	..	....	....	....	.57	....	....	.06	....	....	....	.97	.03	....	....	....	....	4.74
Cresco	....	....	.57	.10	.03	.10	.06	.01	....	....	.04	....	....	....	....	....	.23	....	.13	....	....	....	....	....	....	....	.05	T	.01	....	....	1.33
Creston	.63	.02	.10	.21	.15	.12	...	.13	....	....	T	.11	....	.17	....	....	....	....	....	.19	....	.31	.20	....	....	.59	.48	.01	..	....	....	3.42
Cumberland	1.25	....	.20		....	....	....	....	....	....	....	....	T	....	....	....	....	....	.10	....	....	.40	....	....	.01	2.06	T	....	....	....	....	4.02
Davenport	....	.03	.07	.04	T	.41	T	.07	....	.28	.08	T	.01	....	....	..	....	....	....	....	....	....	....	....	....	T	T	T	....	....	....	0.99
Decorah	....	....	.48	.70	..	.42	1.06	.28	T	T	T	....	T	....	....	..	.10	....	.08	....	....	T	....	....	....	T	T	T	.20	....	....	3.32
Delaware	....	....	.79	.13	.01	T	....	....	....	.11	.10	.08	..	....	....	....	....	.44	.05	....	....	....	....	....	....	....	....	.03	.01	....	....	1.75
Des Moines	.02	.12	.03	T	....	.40	.48	....	....	T	.02	T	.58	....	....	....	....	....	2.38	....	....	T	....	....	....	.48	.02	....	....	....	....	4.53
De Soto	.03	.02	.15	.02	.04	....	.34	T	....	....	....	.16	.45	2.16	....	....	....	....	.52	....	....	.03	....	....	....	.79	.02	....	....	....	....	4.73
Dows	....	.02	.72		.10	.25	..	....	....	....	T	.09	.06	....	....	....	....	....	.39	....	....	.05	....	....	....	.03	.02	.02	....	....	....	1.75
Dubuque	....	.12	.26	.05	.36	T	.16	.15	....	.01	.04	....	....	....	....	....	.08	.01	.01	....	....	.26	....	....	....	....	T	....	T	....	T	1.51
Earlham	.11	T	.24		.11	T	.28	T	....	....	T	T	.09	.62	...	....	.44	....	.61	...	T	.21	....	....	....	.77	.01	....	....	....	....	3.49
Elkader	....		.75	.10	T	....	T	.41	....	T	.10	....	.06	....	....	....	..	....	.36	....	....	.13	....	....	....	.06	..	....	....	....	.26	2.23
Elliott	T	.57	.20	.11	.18	....	.05	....	..	....	....	....	....	....	....	....	....	....	.03	....	....	.08	....	....	.14	.82	....	....	....	....	....	2.18
Estherville	1.50	....	.60	.28	....	.15	....	.40	....	....	....	....	....	....	....	....	....	..	....	....	....	....	.10	....	....	....	T	....	....	....	....	3.05
Florence	....	T	.51	.06	.38	.32	....	....	....	....	....	....	.10	....	...	....	....	....	.52	....	....	.10	....	....	....	.15	....	T	T	....	....	2.14
Forest City	1.04		1.30	.07	.06	.63	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	....	....	.12	....	....	.08	..	T	T	....	....	3.30
Fort Dodge	1.00	....	.06	.13	.03	.45	....	....	....	....	....	.02	....	.20	....	....	....	....	.02	....	....	....	....	....	....	.05	.08	.02	....	....	....	2.06
Fort Madison	.20	.43	.53	....	T	.43	....	....	....	.83	.54	.50	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.68	....	....	....	....	3.64
Galva	...	.09	.11	.13	.05	T	....	....	....	....	....	....	....	.16	....	....	....	....	....	....	....	.53	....	....	....	1.53	....	....	....	....	....	2.60
Grand Meadow	...	..	.43	.36	.07	....	.27	.16	....	.03	.01	.35	.04	....	....	....	T	....	.68	....	....	.45	....	....	....	.20	.06	....	.08	....	....	3.19
Greene	....	....	1.17	.07	....	.15	....	....	....	....	....	....	.11	....	....	....	....	....	.23	....	....	....	....	....	....	.08	.05	....	....	....	....	1.86
Greenfield	.36	.59	.11	....	.06	.18	.09	T	....	....	T	....	T	....	....	....	....	....	.20	....	.03	.40	....	....	....	.10	....	....	..	....	....	2.81
Grinnell	T	.17	.45	.15	....	.15	....	..	....	.03	T	.17	.20	.14	....	....	....	....	4.00	....	....	.40	....	....	....	.05	....	....	....	....	....	5.96
Grundy Center	T	.02	1.07	.05	.03	.03		....	....	....	.09	.07	.32	...	....	..	.23	....	2.01	....	....	.49	....	....	....	.05	....	....	....	....	....	4.46
Guthrie Center	.02	.20	.06	.14	.24	....	.22	.53	....	....	....	....	.04	....	....	....	....	....	.58	....	....	.34	....	..	T	1.12	.04	....	....	....	....	3.53
Hampton	....	1.54	.03	.05	..	..	....	....	....	....	.50	....	.05	....	....	....	....	.32	....	....	....	.08	....	....	.36	....	.06	.07	....	....	....	3.06
Hancock	.04	.56	.78	.10	.17	.05	T	....	..	....	....	....	T	T	....	....	....	....	T	....	....	.30	....	....	.08	.60	..	....	....	....	....	2.68
Hanlontown	....		.41	.09	.76	.28	....	....	....	....	....	....	....	....	....	....	....	T	....	....	T	....	....	....	....	.47	....	.03	....	....	....	3.04
Harlan	T	.30	.22	T	.10	....	.03	.01	..	....	....	....	.43	.96	....	....	....	....	.15	....	.02	.03	..	....	.03	1.93	....	....	T	....	....	4.21
Humboldt	....	T	.12	.10	.57	....	....		....	....	....	....	.03	....	....	....	....	....	....	....	....	....	....	....	....	.42	T	....	....	....	....	1.24
Ida Grove	....	....	....	.35	....	....	..	....	....	....	....	....	.37	....	....	....	....	....	....	....	....	.20	....	....	.03	.70	....	....	....	....	....	1.65
Independence	....	.20	.70	.45	....	.10	....	....	.03	.02	T	T	.10	....	....	....	....	....	.75	....	....	.01	..	..	....	T	....	....	....	....	.05	2.41
Indianola	T	.03	.10	.02	....	.01	.01	....	..	T	.12	....	.12	.75	....	....	....	....	1.50	....	....	T	....	....	....	.50	.01	....	....	....	....	3.17
Iowa City	1.27	T	.56	.21	.03	T	.30	....	.02	....	.26	.44	....	.16	....	....	....	....	.06	....	....	....	.14	....	..	T	.06	.08	..	....	....	3.59
Iowa Falls	1.10	....	.87	.14	.01	.05	T	..	....	....	T	.07	....	.20	....	....	....	....	.15	....	....	....	.15	....	....	.04	T	T	.01	....	....	2.79
Jefferson	....	.11	.11	.08	.08	T	T	T	....	....	....	....	1.00	.39	...	....	....	....	.01	....	....	T	....	....	T	.27	.11	....	....	....	....	2.16
Keokuk	.02	.82	.27	.08	.06	.41	T	T	.05	.16	.61	T	....	....	....	....	....	....	....	....	....	.01	....	....	....	.21	.19	....	....	....	....	2.89
Keosauqua	.21	.07	.92	.10	.04	T	.25	T	.09	.02	.13	T	T	T	....	....	....	....	....	....	....	....	....	....	....	T	.70	.04	....	....	....	2.57
Lacona	....	.10	.08	....	.02	.03	.37	.27	.08	.08	.18	.01	.03	.80	..	....	....	....	1.42	....	....	T	....	....	....	.75	....	....	....	....	....	4.23
Le Claire	.50	....	.21	T	.10	.81	T	.19	.02	.02	.21	.24	....	....	....	....	....	....	....	....	....	....	T	..	....	....	T	T	T	....	....	2.30
Le Mars	....	.10	1.05	.25	.25	.10	.50	....	....	....	....	....	.05	....	....	....	....	T	....	....	....	....	....	....	.22	.09	....	....	....	T	.25	2.86
Lenox	....	.10	.15	.07	.22	....	.08	....	....	....	.07	....	....	.07	....	....	....	....	.02	....	....	....	....	....	T	1.03	....	....	....	....	....	1.81
Leon	....	.13	.40	.10	....	....	T	.07	....	..	.07	.02	....	.32	....	....	....	....	.09	..	....	.25	....	....	....	1.24	.07	....	....	....	....	2.76
Little Sioux	....	.37	.08	.03	.20	....	.01	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	.01	....	....	.02	.38	....	....	....	....	....	1.15
Logan	.03	....	.10	.80	....	....	.20	.80	....	....	....	....	1.00	....	....	....	....	....	....	....	....	.02	....	....	.05	1.20	....	....	....	....	....	4.20
Maquoketa	2.90	....	.68	.06	.09	.21	....	.14	..	....	.05	.16	...	T	..	....	....	....	.03	..	....	....	.14	..	....	....	....	....	....	....	....	4.46
Marshalltown	1.47	.01	.91	.05	.01	.11	.06	..	....	....	....	.14	....	.25	..	....	..	....	1.24	....	....	....	.30	....	....	T	.03	.02	....	....	....	4.60
Mason City	....	....	1.25	T	.45	.25	....	....	..	....	.05	....	....	....	..	....	....	....	T	....	....	....	....	....	....	.15	T	.10	....	....	....	2.25
Montezuma	....		2.30	....	....	T	.10	.12	....	....	....	.10	.30	....	....	....	....	....	.60	....	....	T	....	....	....	....	.10	....	....	....	....	3.62
Monticello	....	....	1.15	..	.23	T	....	....	....	.20	....	.57	....	....	....	....	....	....	T	....	....	....	....	....	....	.09	T	....	....	....	....	2.24
Mount Ayr	....	.27	.20	.15	.10	....	1.15	....	....	....	.20	....	....	.07	..	....	....	....	.17	....	....	....	....	....	....	1.23	.07	....	..	....	....	3.61
Mt. Pleasant	T	.41	.20	.66	.15	T	....	T	....	.06	.47	.47	.15	....	....	....	....	....	....	....	....	....	....	....	....	.32	.02	....	..	....	....	2.91
Mt. Vernon	....	.22	.28	.04	T	.01	..	T	....	....	.62	....	.06	..	....	....	....	....	.03	....	....	....	T	....	....	.16	T	....	....	....	.01	1.43
Muscatine	1.78	....	1.11	.11	.06	....	..	....	.13	....	.38	.90	T	.05	....	..	....	....	T	T	....	....	....	....	....	....	T	.07	....	..	....	4.59
Nevada	..	.02	1.54	.45	....	....	..	....	....	....	.31	....	.55	.10	....	....	....	....	....	....	.61	....	....	....	....	.13	....	....	....	....	....	3.71
New Hampton	....	..	.71	.18	.60	.04	....	.70	....	..	....	.06	.03	....	....	....	....	....	.14	....	....	....	....	....	....	.33	.03	....	....	....	....	2.82
Newton	....	.10	.75	.94	....	....	....	.10	....	....	T	....	.37	.07	....	....	....	....	3.36	....	....	.27	..	....	....	.13	.03	T	..	....	....	6.12
Northwood	.01	....	1.17	.05	.15	.23	....	....	....	....	T	.12	....	....	....	....	....	.02	....	....	....	.12	....	....	....	.01	....	.04	....	....	....	1.92
Odebolt	....	.35	....	....	.37	....	....	....	....	....	....	....	1.23	....	....	....	....	....	....	....	....	.04	.12	....	....	.47	....	....	....	....	....	2.58
Ogden	....	.05	.08		.23	T	..	....	....	....	....	.13	1.54	....	...	..	....	....	.68	....	....	....	T	....	....	.19	.01	....	....	....	....	2.91
Olin	....	....	1.01	.24	T	.75	....	.02	....	.30	.50	T	....	....	....	....	....	....	.10	....	....	.20	....	....	....	....	T	....	....	....	....	3.12
Omaha, Neb	.01	.31	.33	.06	T	T	.16	.06	....	..	....	....	.74	....	....	....	....	....	....	....	....	.03	....	....	.30	.36	T	....	T	....	....	2.36
Onawa	....	.60	.01	.05		....	T	.02	....	....	....	....	.01	.25	....	....	....	....	....	....	....	.02	....	....	T	.18	....	....	....	....	....	1.14
Osage	....	....	.58	.13	.33	.12	....	....	....	....	....	.24	T	....	....	....	....	....	.03	....	....	....	....	....	....	.04	T	.01	....	.01	....	1.49
Oskaloosa	....	.47	.57	T	.04	.20	....	.13	....	.03	.72	....	.54	.13	....	....	....	.57	....	....	....	....	....	....	....	.21	.04	....	....	..	....	3.62
Ottumwa	....	....	....	1.10	....	T	....	.25	....	....	....	....	T	....	....	....	T	....	.65	....	....	T	....	....	.40	....	....	....	....	....	....	2.40
Pacific Junction	1.18	.70	.22	.23	.28	.06	.08	.34	....	....	....	....	....	.53	....	....	....	T	....	....	....	.06	....	....	.03	.46	....	....	....	....	....	4.17
Perry	....	.07	.28	.02	T	T	.36	.06	....	....	....	.25	...	1.00	....	...	..	....	1.25	..	....	....	....	....	....	.66	.10	....	....	....	....	4.05
Plover	....	.60	.32	....	.14	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.07	.05	....	....	....	....	1.18
Pocahontas	....	1.07	.42	.05	.03	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.24	.02	....	....	....	T	1.83
Red Oak	.30	.57	.20	....	.33	.18	.17	T	....	....	....	....	....	....	....	....	....	....	.06	T	....	.04	....	....	T	1.36	....	....	....	....	....	3.21
Ridgeway	T	T	.56	.19	.15	.08	.02	T	....	....	.19	....	.01	....	....	....	.38	.13	....	....	T	....	....	....	....	....	.05	.06	.03	....	....	1.85
Rock Rapids	....	T	.90	....	.45	T	.18	....	..	....	....	....	T	....	....	....	....	T	....	....	....	....	....	....	....	.60	....	....	....	.50	....	2.63
Rockwell City	....	.45	.10	.40	.80	....	....	..	....	....	.10	....	.40	....	....	....	....	....	....	....	....	.19	....	....	....	.85	....	....	....	....	.89	2.99
Sac City	....	.62	.34	.10	.56	....	....	....	....	....	....	....	1.41	....	....	....	....	....	....	....	....	.09	....	....	....	.89	.02	..	....	....	.02	3.65
St. Charles	.02	.02	.07	....	.04	.01	3.35	....	....	....	.06	T	1.26	....	....	....	....	....	1.03	....	....	....	....	....	....	.60	.03	....	....	....	....	6.63

DAILY AND MONTHLY PRECIPITATION FOR JULY, 1905--CONTINUED.

STATIONS.	DAY OF MONTH																														TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sheldon		.08	.70	T	.35													.02				T				.08					.02	1.20
Sibley	1.20		.42	.59		.09		.01						T												.09					.02	1.20
Sigourney	T	1.11	.60	.40	T	.35	.21	.08	T	.11	.04	.16	.11	.07					.87			.10				.12	.02					2.40
Sioux Center		T	.30	.18	.12	.03		.08					T	T				T			T	T				T			T	.02	4.35
Sioux City		.20	.22	.02	T		T						.22					T			T				.54	.21	T		T	T	T	.73
Spirit Lake																																1.41
Stockport	.07	.64	.24	.06	T	.05		.02	T	.10	.03	T	.10	.03				T								.40	.14	T				1.88
Storm Lake	.20		.38	.28	T	.08								.02											.09		.03					1.30
Thurman	.78	1.13	.48		.32	T	T	1.54						.84					T		T	.36				.85		T				6.30
Tipton		.44		.11		.66		.41		.25	.49																.19					2.55
Vinton		.50	.45	.05					.10		.40	.05					.54									.35						2.44
Washington	.40	.10		.10		.12		.04		.12	1.87		.23						.23							.10	.05	.03				3.39
Washta		.18	.12	.03	T								.06					T				T				.25	T					.69
Waterloo	T	.86	.13	.03	.11			.22		T	T	.12	.36				.05	2.43								.04	T					4.35
Waukee	.03	.17	.07		.08	T	.39				T	T	.89	1.32			.17		.62			.02				.52	.05					3.53
Waverly		.02	.49	.46		.09		.01		.01	.01	.32	.06				.01	.48	.71			.02				.12	.02	.01				2.84
Webster City		.24	.36	T	.31	.27						.25	.50						1.00							.10						3.03
West Bend		.20	.25		.50						T		T					.35				T				.25	.03					1.58
Whitten	T	T	1.25	.25	.08					T	T	.76	.62				T		2.10			.17				T	T					5.23
Wilton Junction		.40	.21	.15				.65		.15	.95	.65	.10						T							T	T					3.26
Winterset	.14	.15	.02	T	.09	T	.10				.02	T	.30	1.07			T		.96			T				.76	.04		T			3.65
Woodburn		.20		.15				1.33		.04	.06	T		.58					2.12			.08			T	1.04	T					5.60
Zearing			.35	T	T	.07					T	T	.64	T			.06		.70			.27				T						2.09

T. Amount too small to measure.

Precipitation Chart July 1905.



AUGUST, 1905. No. 8



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U. S. DEPARTMENT OF AGRICULTURE—WEATHER BUREAU.

MONTHLY REVIEW

OF THE

Iowa Weather and Crop Service.

VOLUME XVI. AUGUST, 1905. No. 8.

AUGUST WEATHER AND CROPS.

The month of August was above normal in temperature and rainfall for the state at large. The mean temperature was 74.3°, which is 2.3° above the August normal for Iowa. And the average was 3.7° higher than the mean temperature of July, 1905, which is quite a departure from the normal in this state. From the first week to the close of the month the temperature was about or above the normal line, so there was practically no check to the growth of the immature crops. The rainfall was generally timely in its coming, and not greatly in excess of local needs in any part of the state; the distribution being unusually favorable.

The average number of clear days was 16, and there was a sufficient number of hours of sunshine to promote healthy growth of plants. At the close of the month the corn crop had reached the roasting ear and glazing stage, giving promise of reaching the line of safety from harm by frost by the 20th to 30th of September. All crops were much further advanced on September 1st, than on the corresponding date in 1904, or the two preceding years. Some damage resulted from severe local storms of rain, hail and wind, but the aggregate of loss from this cause was not much in excess of the usual amount of damage in other seasons. There are numerous reports of injury to corn by root worms, mostly in fields where corn has been grown two or more consecutive years.

Thrashing oats and wheat from the shock was continued through the month, and reports indicate that the grain suffered some detriment from exposure to frequent showers.

The conditions were generally favorable to pastures, and the second crop of clover was unusually heavy. There were some complaints of blight of the leaves of the late potato crop, but the early crop was heavy enough to compensate in part for this loss. Altogether the month of August was very favorable.

NOTES AND COMMENTS

By a press dispatch we are pained to learn of the death of Moses Simon, who for the past fifteen years has served as cooperative observer of the Weather Bureau at Carroll, Iowa. He passed away on September 1, 1905, after a period of illness from cancer. He was a good citizen, and a most efficient observer. The station at Carroll will be continued under supervision of Mrs. Simon.

The Mount of the Holy Cross in Colorado has been set aside by the government as a forest reserve. This fine park will include an area of 1,500,000 acres, much of which at one time was covered by heavy timber.

Some money will be required to move the crops of the West, but in Iowa most of the moving will be done by cattle, horses, swine, sheep and poultry. The home market in the feed lots is the best place to dispose of corn and other feed stuffs.

FOR want of timely stacking, the farmers of Iowa suffered heavy loss in the quality of oats and wheat thrashed from the shock. That is a very wasteful practice, which in some years has caused the loss of millions in the impairment or total destruction of small grain. Is stacking a lost art in Iowa? If so, the Agricultural College at Ames should send out a score of young experts to teach the farmers how to build stacks, and show them the cash value of careful work in that line. There's millions in it.

BETTER YIELDING GRASS LANDS.*

(By Prof. Chas. F. Curtiss, Dean of Agriculture, I. S. C.)

We have had and are having a great corn revival throughout Illinois and the entire corn belt and it is an excellent thing. It certainly means that we are going to produce very much better results. We are going to get more from the corn lands of this great West, but we need to have as well as a corn revival, a grass revival. We need to study the grass crop as well as the corn crop.

The two great products of the central west are corn and grass and the greater of these is grass. That is, the grass and the forage crops of our farms and our farming states are of greater value, taken the one year with another, on an average, than any other single crop that we produce.

As a rule, we give less consideration to the hay and grass lands—and especially is this true of our grazing lands—than to any other part of our farms. I believe they are the lands that are the most susceptible to improvement, and it is the crop in which we can increase the returns with the least expenditure of additional labor, and at the least cost.

□ We are confronted with new conditions in the agriculture of the central west today. We have seen these lands advance, within a decade or a little more, from $50 and $75 to $100 and $150 per acre, and it is my prediction that they have not yet reached the limit. At the same time, while these western lands have been advancing in value we have experienced a decline of 25 to 50 per cent in the lands further east, the lands of the Ohio and Miami valleys and eastward from that. There will sometime be a corresponding advance in the lands of some other sec-

*This article is an extract from a stenographic report of Professor Curtiss' address before the late Illinois Farmers' Institute. It has lately been revised by Professor Curtiss and was published in the Prairie Farmer of Chicago, August 10, 1905.

tions, if we do not give attention to the right methods of maintaining the productive capacity of our farming land.

We all know that as valuable as corn is, it is not a complete ration, and if we expect to produce the best results in growing animals, and in dairy stock, and in developing horses, and in maintaining the breeding qualities of our animals, we must have a variety of feed stuffs. We must have the constituents that go to build up the bone and muscle and properly develop the animal in the highest form and highest state of excellence. These things are absolutely essential; never so much so as today, in view of the high-priced land that we have, in view of the quicker returns we must get from these animals, and the higher excellence that we must produce in the finished product. That point is generally conceded by the most successful stock men. In the face of the fact that we have higher priced labor, higher priced feed products of all kinds, the problem presented is, how we may cheapen the production of these animals by the rations we use, or the methods we employ in growing and producing them on our farms, and produce the finished product at comparatively a lower cost and without sacrificing any of the excellence.

I believe that the grass crop affords today the surest and most practical means of accomplishing cheaper production. That is, I think if we would give to the improvement of our forage crops and our pasture lands the same attention that we have given to the improvement of our cultivated crops and our grain crops, that we would receive a larger increase, larger returns for less expenditure than any other improvement that we may have.

It is sometimes said that when land becomes worth a hundred dollars an acre or more, that it is worth too much to maintain in grass. I believe that statement and that theory are entirely fallacious.

You will find today in the rich agricultural land of Great Britain a larger area of grass, relatively, than you will find in Illinois or Iowa. You will find lands worth three or four hundred dollars per acre more largely devoted to the growing of grass crops than they are in this country. And I believe, if we are to maintain our farms in the highest state of productive capacity, and conduct them with the highest profits, we shall be obliged to devote a large part of our farming lands to grass production, and relatively less to corn production.

I believe that if we were today to reduce the cultivated lands devoted to the grain crops twenty-five per cent and apply better methods, and devote that reduction of grain crops to grass production, that we might maintain our present output of grain, and at the same time have this increased grass land, that could be applied to the production of live stock, with greater profit than any other part of the farm. And I think it goes without saying we all recognize that we could reduce the acreage of our cultivated grain crops one-fourth per cent without decreasing the yield, if, at the same time we could apply the best methods of more thorough cultivation and of rotation, and the improved methods of agriculture which are being introduced today.

Now, in view of the fact that the grain crops have all advanced in value, in view of the fact that everything a farmer buys to balance his corn crop is high priced, and will undoubtedly continue high in price, I believe that we have, right on our farms and in the products of our farms, the means of balancing the ration, with greater economy and with greater profit, and with greater advantage to the maintenance of the fertility of the farm, than through the purchase of any of the by-products from the factories or the mills. These products must continue to be high, and while of course we do not expect to quit producing them, because there is a certain output from our factories and our mills that must always be consumed on the farm, and they ought to be consumed here rather than go abroad, yet there is a limit to the price we can pay for them and utilize them with profit.

Instead of paying out a large amount of money for these products at high prices, we might better produce on the farm the feeding stuffs containing the nutrients and the elements of growth and muscle and bone making that we need in our animals. The safest, the surest and the best means of producing that will be through the grass crops rather than in the grain crops.

Now I think we could, in the first place, extend the grazing season from two to three months in the year, on nearly every farm throughout this state and other states similarly situated. In fact, we do not get good grazing more than five or six months in the year, seldom more than five months. Wherever we can grow blue grass, we can extend the grazing period to eight or nine months, without serious difficulty. Particularly is that true with regard to the production of horses and of beef cattle. It can not be so readily done with diary cattle for the reason we can not expose them so much, and have them out so many months in the year.

But by maintaining our lands in good condition, and providing for a good growth of grass throughout the summer months, and carrying a surplus into the autumn and over the winter, we can graze up till the first of January in nearly all parts of Illinois. From this latitude south there will be no difficulty. And then, by maintaining a surplus of grass on the pastures over winter, we can turn stock out by the first of April instead of the first of May. So we can add two months to the grazing period at the end of the season, and one month at the beginning of the season, by holding in reserve on our grass lands a surplus of feed, which can be drawn upon at any time.

In order to do this, however, it will be necessary to give attention to the grass lands, in the way of building them up; in the way of cultivating them. If we expect to grow a crop of grass, we must expect to feed that crop the same as we feed our live stock. And we must give the same attention to the cultivation and the maintenance of the grass lands in the best state of fertility that we give to other parts of the farm. Three-fourths of our grass lands are relatively neglected lands. The pasture lands, as a rule, are the poorest and most inferior parts of the farm.

It is not always the case, but as a rule, the pasture receives no consideration, until all other parts of the farm have been brought under improved methods. And if we were to give it the annual attention in the way of top dressing, in the way of harrowing and distributing fertilizer, in the way of renewing the grass seed, and in the way of drainage, keeping the soil sweet and light and in the best possible condition, I believe that we could practically double the output from our pasture lands.

One of the first essentials is to see that we have a good stand of grass. So many of our grass lands are simply set aside to grass, and they are grazed closely from the beginning to the end of the season. The soil bakes, and becomes what we call hide-bound at times. The grass dies, and then if it is exposed when it is bare during the winter and during the midsummer's severe drouth, it dries out and kills out, and very soon we will have not more than half or three-quarters of a stand of grass on many of our grazing lands. And whenever that condition occurs, nature provides for a covering, and the weeds come in there, and they take possession of the soil just as soon as there is an opportunity. Just as soon as there is a reduced condition or weakened vitality of the grass crop, the weeds will come on and take possession. So that over a large part of our grazing lands, we have not a stand of grass at all, in many cases not to exceed a half a stand.

The first thing should be to secure a stand, after providing drainage. Of course that should be the beginning of all agricultural operations. We should have our grass land drained, as well as our agricultural land, and if we do not we can not expect returns. Of course we may get an inferior, coarse, rough sort

of grass, but it will not be the grass and it will not be the production that we must have from our valuable land today. No man can afford to own valuable land today that is not drained,

That should be the beginning. Then we ought to go through our grass land and make sure of getting a stand, the very first thing we do. I do not mean that we ought to put a plow in and plow them up regardless of conditions or what we want to use them for. I want to say emphatically that the best grass land of the world, in all farming countries, is land that has been devoted to grass for centuries. And that will be so in this state. Of course it may be desirable, and will be desirable to rotate a good part of the farm, but if certain portions of the farm can be put into grass and left there permanently, it will be much better than to be continually plowing the pasture land. If our land is lacking a stand in grass, it will not be necessary to put a plow in and plow it up and reseed, to start over again. We can put the disk and harrow in there and give the surface of our pasture land a thorough cutting up; so complete a cutting up that it will look, perhaps, as though but little grass remained. But put on, in connection with that, clover and timothy seed, and alsike and we can at once get a stand of grass without in any way disturbing the sod which has been there so long, and which is of such great value in getting the land up to its highest state of production. It will surprise you to see how much this will improve the grass land.

We have recently made some experiments on the college farm at Ames with blue grass pasture land that was not by any means in a low condition. It had been pastured, but kept up in a good state of fertility, but by going on it in the spring, just as soon as the frost was out of the ground, and putting a disk on and cutting it up, and then sowing the grass seed at the rate of two or three pounds per acre, dependent upon the varieties—sometimes as much as five pounds per acre—and following that with the harrow, and then not pasturing too heavily for a time, we have been able to add as much as one hundred per cent to the productive capacity of the soil in the first season, and that advantage will accrue for several seasons to follow.

It is very easy to add fifty per cent to the grass crop in a single year, by this method. Instead of having grass land growing weeds we can have the entire area growing grass. There is never any trouble about weeds in the pastures, if you first have the soil in good condition, and have grass enough to make a good stand. We see weedy pastures all over this country, on the best farms as well as on the poorest, and in nine cases out of ten the sole trouble is that the methods of managing this grass land have been wrong, and the weeds stand is a protest against that farmer's methods. The weeds would not be there if the methods had been right, and if there had been an opportunity for the grass to take possession of the soil. If you give our grasses possession of the rich farming land of central Illinois or any part of the state, and maintain the soil in the right condition, there will be no trouble in keeping down the weeds.

These are some of the first things that need to be observed in the growing of grass. Then, when we get our lands in that condition, we need to keep them there. It is like what the old English gardener said to an American lady, about making a lawn. In traveling in England she was very much taken with the richness and the velvety, luxuriant growth of the English lawns, and she thought she would get a recipe for making that kind of a lawn and have some in her own dooryard, so she asked him if he would kindly tell her how he made a lawn, and got it in such nice condition. He said:

"Madam, it is very simple. I prepares the seed bed perfectly, and I sows the grass seed, and then I waters it and mows it, and waters it and mows it for four hundred years, and then you have a lawn."

Now, that is the way to make a pasture. We must get the soil right, get the grass seed in there, and keep it in there, and then feed the grass crop the same as the corn crop. We know we can not grow corn unless we get the soil up and keep it up in a high state of fertility. And the same is true of the grass crop. If we give the same attention to the improvement of our grass lands, we will get double the returns for the outlay and labor and expense that we would get in improving our tillable lands.

CLIMATOLOGY OF THE MONTH.

BAROMETER.—Mean pressure, 29.94 inches; highest observed, 30.33 inches, at Dubuque, on August 26th; lowest observed, 29.65 inches, at Davenport, on August 14th; range for state, 0.68 of an inch.

TEMPERATURE.—The monthly mean temperature for the state, as shown by records of 125 stations, was 74.3°, which is 2.3° above normal. By sections the mean temperatures were as follows: Northern section, 73.1°, which is 24° above normal; central section 74.4°, which is 2.8° above normal; southern section 75.4°, which is 1.8° above normal. The highest monthly mean was 78.0° at Waukee; lowest monthly mean, 70.6° at Fayette. The highest temperature reported was 104°, at Waukee, on the 11th; lowest temperature reported 44°, at Rock Rapids, on the 6th. The average monthly maximum was 95.5°; average monthly minimum, 52.9°. Greatest daily range, 46° at Rock Rapids; average of greatest daily ranges, 33.1°.

PRECIPITATION.—Average precipitation for the state, as shown by records of 136 stations, was 4.05 inches, which is 0.50 of an inch above normal. The averages by sections were as follows: Northern section, 4.06 inches, which is 0.96 of an inch above normal; central section, 3.48 inches, which is 0.24 of an inch below normal; southern section, 4.61 inches, which is 0.71 of an inch above normal. The largest amount reported was 8.47 inches at Plover; least amount reported, 1.04 inches at Vinton. The greatest daily rainfall reported was 3.74 inches at Allerton, on the 14th. Average number of days on which .01 of an inch or more was reported, 9.

WIND AND WEATHER.—Prevailing direction of the wind, south; highest velocity reported, 48 miles per hour, from the northeast, at Sioux City, on the 20th. Average number of clear days, 16; partly cloudy, 9; cloudy, 6.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	29.94	30.30	26	29.71	14
Davenport	29.95	30.29	26	29.65	14
Des Moines	29.94	30.28	26	29.66	14
Dubuque	29.96	30.33	26	29.70	14
Omaha, Neb	29.92	30.22	25	29.67	14
Keokuk	29.94	30.26	26	29.67	14
Sioux City	29.90	30.22	25	29.71	14
Means	29.94	30.33	26	29.65	14

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	3.930	22	S	17
Davenport	4.420	25	SW	22
Des Moines	4.724	36	SW	18
Dubuque	3.937	28	NE	19
Keokuk	4.195	30	NW	21
La Crosse, Wis	4.154	36	N	21
Omaha, Neb	4.734	30	NW	17
Sioux City	7.200	48	NE	20

CLIMATOLOGICAL DATA FOR AUGUST, 1905.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Algona	Kossuth	1,213	28	73.1	† 2.0	94	10	52	20	35	4.89	† 1.18	1.91	....	11	18	5	8	SE, NW	
Alta	Buena Vista	1,513	14	73.3	† 2.8	96	11	55	19	30	4.75	† 1.11	1.89	....	12	13	14	4	S	
Alta (near)	Buena Vista	.....	....	.....	.....	.....	.....	.....	.....	.....	2.96	.....	1.02	....	10	....	....	....		
Alton	Sioux	.....	....	73.5	.....	94	10	52	7	35	3.65	.....	1.42	....	9	15	11	5	SW	
Britt	Hancock	1,236	8	72.6	† 2.6	95	11	50	8	40	2.96	- .71	.78	....	12	6	22	3	SE	
Charles City	Floyd	1,015	18	71.8	- 0.2	95	11	52	25	34	5.46	† 2.62	1.72	....	8	11	12	8	SE	
Clear Lake	Cerro Gordo	1,241	7	74.2	† 2.8	95	11	54	26	29	3.78	- .28	1.00	....	9	12	16	3	SE	
Cresco	Howard	.....	31	70.8	- 0.4	93	11	51	25	30	3.13	† .28	.83	....	12	16	10	5	S, SE	
Decorah	Winneshiek	857	12	71 8	† 1.8	94	11	49	26	32	3.07	† 1.39	.51	...	9	...	...	...		
Dows	Wright	1,142	9	71.9	† 1.9	93	11	49	26	30	4.83	† .95	1.59	....	13	13	9	9	SE, SW	
Elkader	Clayton	727	21	73.8	† 3.0	101	11	50	25, 26	42	2.83	† .03	1.00	..	9	15	12	4	SE	
Estherville	Emmet	1,298	12	72.2	† 1.2	95	10	52	20	36	5.05	† 1.75	1.90	..	8	21	0	10	SE	
Fayette * (a)	Fayette	.....	15	70.6	.....	94	10	48	24	39	5.08	† 2.18	1.90	...	11	....	....	..	SW	
Florence	Wright	1,226	...	.....	.....	.....	.....	.....	.....	.....	3.26	.....	1.68	....	1	11	20	0	SW	
Forest City	Winnebago	1,226	11	73.4	† 2.6	97	11	52	26	33	2 42	† .21	1.17	..	8	18	0	13	S	
Grand Meadow	Clayton	1,180	11	71.0	† 2.0	92	11	52	25	28	3.93	† 1.43	1 47	....	10	8	16	7	SE	
Greene	Butler	924	8	73.6	† 1.2	98	11	51	26	37	5.01	† 1.86	1.95	....	12	6	19	6	W	
Hampton	Franklin	1,155	13	74.3	† 4.4	99	11	53	26	34	3.96	† .81	1.50	....	10	8	16	7	SE	
Hanlontown	Worth	.....	...	71.9		98	11	50	26	37	2.39	.....	.56	....	14	16	9	6	SE	
Humboldt	Humboldt	1,095	16	73.4	† 6.5	94	11	55	25	33	6.01	† 2.90	2.05	....	10	17	9	5	SW	
Inwood	Lyon	.....	....	73.8	.....	96	9	52	19, 20	39	2.76	.....	.75		7	22	2	7	S	
Larrabee	Cherokee	1,266	12	75.0	† 3.8	97	4, 11	55	7, 19	36	3.93	† .59	1.76	....	8	15	13	3	SW	
LeMars	Plymouth	1,224	7	74.4	† 2.4	97	10	50	7	40	3.88	† 1.17	1.20	....	9	14	15	2	S	
Mason City	Cerro Gordo	1,132	8	73.8	† 4.2	96	10, 11	55	25, 26	31	5 00	† 2.34	2.55	....	10	9	19	3	SW	
New Hampton	Chickasaw	1,169	7	72.4	† 1.7	96	11	54	26	36	4.26	† 1.76	1.88	...	10	13	17	1	S	
Northwood	Worth	1,222	8	72 4	† 2.7	96	11	50	26	33	2.97	- .65	.87	....	13	10	15	6	S	
Osage	Mitchell	1,184	13	72.2	† 4.7	96	11	51	11, 25	45	2.83	- .17	1.02	....	12	12	10	9	S	
Plover	Pocahontas	.....	8	74.9	† 3.9	95	11	52	26	31	8 47	† 4.47	2.73	...	9	18	8	5	SE	
Pocahontas	Pocahontas	1,190	...	74.2	....	98	11	55	25	35	5.87	.....	1.89	....	11	11	15	5	SW	
Ridgeway	Winneshiek	1,215	7	74.0	† 1.2	97	11	53	25	33	3.62	† .92	1.10	....	14	16	11	4	S	
Rock Rapids	Lyons	1,021	....	74.6	† 4.8	96	10	44	6	46	6.00	† 4.24	1.70	....	6	....	....	....		
Sheldon	O'Brien	1,422	6	74.8	† 3.4	99	11	53	19	53	3.15	- .27	.90	....	9	17	4	10	S	
Sibley	Osceola	1,212	12	71.6	† 2.5	93	10	52	20	34	4.63	† 1.38	1.56	...	11	17	3	11	SE	
Sioux Center	Sioux	.....	6	73.2	† 1.0	94	10	52	19	31	2.76	- 1.34	.85	..	8	18	8	5	S	
Storm Lake	Buena Vista	1,440	8	73.0	† 1.5	95	11	55	19	31	2.67	- .25	.68	....	11	16	1	14	SE	
Washta	Cherokee	1,157	....	73.8	.....	99	11	45	1	42	2.23	- .68	.88	....	8	17	11	3	S	
Waverly	Bremer	942	9	72.0	† 0.6	94	11	53	26	29	5.49	† 2.96	1.62	....	14	13	13	5	S	
West Bend	Palo Alto	1,197	12	73.0	† 3.3	98	11	54	20, 26	33	5 33	† 1.70	1.98	....	9	10	11	10	S, NW	
Average		.....	....	73.1	† 2.4	95.7	....	51.8	.....	34.7	4.06	† 0.96	.....	....	10	14	11	6	S	

CENTRAL SECTION.

Altoona	Polk	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....
Amana	Iowa	721	27	74.2	† 3.4	94	11, 12	49	26	31	1.96	-1.62	.49	....	11	15	9	7	SW	
Ames	Story	926	21	75.4	† 3.2	95	11	52	26	32	3.03	- .51	1.92	....	12	14	13	4	SE, SW	
Audubon	Audubon	1,301	9	74.4	† 2.5	97	11	50	9	40	2.72	-1.23	1.17	....	11	12	14	5	SW	
Baxter	Jasper	998	....	74.0	† 2.4	95	11	52	16, 26	31	7.22	-3.20	2.50	....	12	11	9	11	SW	
Belle Plaine	Benton	826	14	73.8	† 3.2	94	12	56	27	30	2.66	-1.70	.89	....	9	15	6	10	SE	
Boone	Boone	....	....	74.8	...	96	11	55	26	28	6.45	.....	1.42	...	12	21	5	5	SE	
Buckingham	Iowa	.....	....	.....	.....	....	.....	.....	....	.....	2 72	-2.08	.84	..	9	10	19	2	.....	
Carroll	Carroll	1,265	13	74.2	† 3.0	96	11	50	26	36	1.64	-2.13	.50	....	8	20	0	11	.....	
Cedar Rapids	Linn	733	23	75.4	† 2.7	97	11	53	26	32	3.48	† .23	1.33	....	11	15	13	3	SW	
Clinton	Clinton	609	38	73 6	† 2.4	95	11	51	20, 26	36	4.11	†1.06	1.06	....	13	15	12	4	S	
Davenport	Scott	606	34	75.2	† 2 4	94	12	55	26	27	1.93	-1.65	.73	....	12	13	7	11	E	
Delaware	Delaware	1,083	12	71.8	† 2.0	95	11	49	26	34	5.53	†2.67	3.38	....	9	17	10	4	S	
Denison	Crawford	1,180	9	75.0	† 2.9	97	11	50	7	39	1.15	-2.23	.50	....	7	19	10	2	S	
Des Moines	Polk	861	27	75 5	† 3.5	94	11	58	26	26	5.21	†1.95	1.37	....	13	12	15	4	SW	
De Soto	Dallas	866	....	74.6	.....	92	11	57	26	26	4 50		1.10	..	9	22	5	4	SE	
Dubuque	Dubuque	655	32	73.5	† 1. 9	94	11	57	26	28	3.07	- .08	1.09	....	12	9	10	12	S	
Fort Dodge	Webster	1,126	....	74.4	.....	97	11	55	10, 18, 27	40	7.63	.....	3.10	....	8	16	1	14	S	
Galva	Ida	1,290	12	72.2	† 0.8	93	11	49	7	37	3.79	† .45	1.05	....	9	24	3	4	S	
Gilman	Marshall	1,052	....	.....	.....	.....	.....	.....	.....	.....	3.10	- .56	1.10	...	7	15	9	7	S	
Grinnell	Poweshiek	1,023	10	74.2	† 2.4	95	11	52	26	32	5.74	†2 08	2.35	..	11	15	11	5	SW	
Grundy Center	Grundy	2,976	12	73.2	† 2.5	94	11	50	26	31	2.81	- .76	1.23	....	9	14	8	9	SW	
Guthrie Center	Guthrie	1,077	7	75.1	† 2.7	98	8	54	7, 26	36	3.23	-1.43	.75	....	11	25	4	2	SW	
Harlan	Shelby	1,192	....	74.2	† 2.3	94	10, 11	52	7	36	4.70	† .09	1.71	....	9	12	16	3	S	
Ida Grove	Ida	1,220		73.0	.....	95	12	48	6	39	2.60	.....	.80	....	8	18	10	8	W	
Iowa City	Johnson	683	47	74.4	† 2.8	96	10	51	26	34	2.62	-1.61	.81	....	11	13	2	16	S	
Iowa Falls	Hardin	1,170	10	72.5	† 2.3	95	11	49	26	37	2.62	- .78	.87	....	9	18	6	7	SW	
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	1.86	.....	.60	....	12	....	....	..	S	
Little Sioux	Harrison	.....	....	77.2	.....	98	11	51	7	40	1.30	.....	.69	....	7	18	11	2	SE	
Logan	Harrison	928	36	76.4	† 3.9	97	11	52	7	37	1.74	-2.12	1 00		5	15	15	1	SW	
Maquoketa	Jackson	688	12	72.2	† 0.3	97	12	46	26	35	3.32	† .49	1.66	....	12	17	4	10	SW	
Marshalltown	Marshall	947	10	74.8	† 2.8	103	11	50	26	37	3.21	- .36	.80	..	9	16	1	14	SE	
Montezuma	Poweshiek	.....	....	.....	.....	.....	.....	.....	.....	.....	5.20	.....	2.85	....	5	....	....	....	.....	
Monticello	Jones	925	....	72.2	† 1.2	96	12	47	25	33	3.75	† .20	1.75	....	5	15	7	9	SW	
Mount Vernon	Linn	847	30	75.0	† 4.8	98	11	55	25	34	1.56	-3.01	.70	....	9	23	3	5	.....	
Muscatine	Muscatine	.....	46	.....	.....	.....	.....	.....	.....	....	3.36	-1.02	1.10	....	11	....	....	....	S	
Newton	Jasper	944	15	73.7	† 1.5	93	11	54	26	26	5.10	†1.23	1.34	....	9	21	7	3	S	
Nevada	Story	.....	....	.....	.....	.....	.....	.....	.....	.....	2.61		1 16	....	8	15	12	4	.....	
Odebolt	Sac	1,356	8	75 7	† 1.1	100	11	56	7, 19, 31	36	2.82	- .87	1.00	....	8	21	8	2	.....	
Ogden	Boone	1,058	9	74.8	† 1.8	95	11	55	26	32	3.87	- .19	.65	...	11	19	11	1	SE	
Olin	Jones	760	7	73.2	† 2.4	94	12	48	26	30	3.28	- .30	1.80	....	7	16	10	5	S	
Perry	Dallas	975	....	75.0	....	95	11	55	26	30	5.30	.....	2.63	....	8	8	18	5	.....	
Onawa	Monona	.....	....	77.5	† 4.0	98	10	55	7	36	2.03	-1.86	.65	..	10	27	2	2	S	
Rockwell City	Calhoun	.....	8	73.8	† 2.4	95	11, 12	55	28	33	4.20	† .66	1.10	....	10	22	5	4	.....	
Sac City	Sac	1,278	23	73.4	† 3.4	93	11	56	19, 25	30	3.46	† .10	2.13	....	9	17	14	0	SW	
Sioux City	Woodbury	1,165	16	75.4	† 3.8	96	10	54	7	36	1.84	-1.35	.70	....	8	11	11	9	SE	
Tipton	Cedar	807	..	75.6	† 5.1	98	12	57	26	29	4.75	- .50	.....	....	7	21	9	1	SW	
Toledo	Tama	856	9	73.7	† 1.3	95	12	49	26	32	3.00	- .82	1.05	....	9	15	12	4	SW	
Vinton (f)	Benton	810	15	73.6	† 2.9	93	12	46	26	33	1.05	-1.56	.72	..	4	....	....	....	S	
Waterloo	Black Hawk	862	16	74.4	† 3.6	99	11	51	26	35	4.41	† .81	1.15	....	8	15	9	7	S	
Waukee	Dallas	1,039	....	78.0	.....	104	11	57	26	39	5.39	.....	1.58	....	10	18	10	3	SW	
Webster City	Hamilton	.....	..	75.2	.....	98	11, 12	50	26	39	3.97	.....	1.40	....	7	23	0	8	S	
Whitten	Hardin	1,036	....	73.4	† 2.5	94	11	50	26	32	1.61	-2.28	.64	....	6	12	15	4	SW	
Wilton Jct	Muscatine	683	11	74.0	† 1.1	94	5, 11, 12	48	26	39	3.53	- .68	.98	....	6	15	6	10	S	
Zearing	Story	718	....	73.6	....	95	11	47	26	33	4.32	.....	1.60	....	11	23	5	3	W	
Average		... ..	....	74.4	† 2.8	95 8	....	52.0	.....	33.6	3.48	- .24	..	..	7	16	9	6	S, SW	

†Above normal. ‡ Received too late to be computed with means. *a*. One day missing; *b*. two days, etc. § Not supplied with self-registering instruments.

CLIMATOLOGICAL DATA FOR AUGUST, 1905—CONTINUED.

SOUTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Afton	Union	1,212	11	75.1	† 1.2	94	5, 10, 11, 12	54	26	28	4.67	† 1.16	1.12	....	8	17	7	7	SW	
Albia	Monroe	957	...	75.0	† 1.9	95	10, 11	52	26	31	7.87	† 3.89	1.65	....	13	14	1	16	SE	
Allerton	Wayne	....	....	75.5	.....	97	11	54	26	32	6.62	.....	3.74	....	10	21	6	4	SW	
Atlantic	Cass	1,164	14	74.8	† 3.9	98	11	50	7	40	4.54	† 1.48	1.22	....	9	5	11	15	S	
Bedford	Taylor	..	5	75.5	† 2.0	96	10	56	20	34	2.64	- 3.47	.75	....	6	21	6	4	SE, SW	
Bonaparte	Van Buren	.....	14	75.2	† 0.3	96	11	53	26	35	7.93	† 4.10	3.00	....	11	..	..	....	.....	
Burlington	Des Moines	544	..	76.0	.....	93	5, 11, 12	57	26	28	6.61	.....	2.40		11	20	8	3	NE, S	
Chariton	Lucas	1,042	10	74.5	† 0.8	95	11	53	26	30	7.74	† 4.84	2.00	...	8	26	8	3	SE	
Clarinda	Page	.....	15	76.2	† 1.6	100	11	57	7, 26	38	2.97	- .74	1.12	....	10	19	1	11	SE	
College Springs	Page	.....	14	75.8	† 1.6	94	5, 9	59	26	30	2.45	- .99	.87	....	6	24	5	2	SE	
Columbus Jct (a)	Louisa	586	...	75.2		94	11, 12	52	26	31	8.30	.....	1.42	....	9	22	9	0	SW	
Corning	Adams	1,127	13	74.0	† 1.2	92	10, 11	55	7	31	4.29	† .89	.89	....	7	14	14	3	SW	
Corydon	Wayne	992	12	75.2	† 0.9	96	11	55	26, 27	34	2.81	- 1.20	.66	....	9	14	11	6	SW	
Creston	Union	.....	....	74.2	.....	93	11	58	26	23	5.43	.....	1.57	...	10	16	8	7	S	
Cumberland	Cass	.....	....	....	....	.....	.....	.....	.....	.....	3.73	- 1.02	1.38	....	6	30	1	0	SW	
Earlham (d)	Madison	.....	....	73.0	.....	94	11	50	27	34	4.27	....	1.48	....	7	19	8	4	SE	
Elliott	Montgomery	.....	...	76.6	.....	98	10	58	20, 26	36	2.61	.....	1.10	....	7	20	10	1	S	
Ft. Madison	Lee	516	56	.....	.....	.....	.....	.....	.....		4.93	† 1.27	2.03	..	10	10	12	9	S	
Greenwood	Mills	.....	17	75.5	† 1.4	94	11	59	7	28	3.15	- .36	1.00	....	4	10	21	0	SW	
Greenfield	Adair	.....	14	75.4	† 2.8	97	12	54	2	32	4.39	† 1.57	1.08		10	22	6	3	S	
Hancock	Pottawattamie	.....	....	76.0	.....	97	11	57	7	33	2.77	.....	.93	.	7	24	6	1	SW	
Hopeville	Clark	.....	13	75.8	† 2.7	97	10	56	26	32	3.25	- .04	.63	....	9	11	14	6	S	
Indianola	Warren	.....	....	74.8	† 2.1	95	11	55	26	33	6.17	† 5.01	2.00	..	9	8	14	9	SE	
Keokuk	Lee	619	34	76.9	† 2.4	94	11	56	26	27	3.16	† .33	1.68	....	9	17	10	4	SW	
Keosauqua	Van Buren	644	13	75.8	†0 .9	98	11	50	26	39	3.92	† .43	1.77	....	11	9	11	11	.....	
Knoxville	Marion	920	12	75.0	† 1.3	93	11	55	26	29	7.81	† 3.29	1.70	....	10	19	4	8	SW	
Lacona	Warren	.....	....	.....	.....	.....	.....	.....	.....	.....	6.71	† 1.56	2.75	....	8	11	13	7	.....	
Lenox	Taylor	1,250	10	74.6	† 1.4	92	10, 11	57	26	27	3.53	- .07	.77	....	9	19	10	2	S	
Leon	Decatur	1,120	....	75.8	.....	94	10	55	26	28	4.60	.....	1.35	....	10	24	2	5	NW	
Massena	Cass	.....	....	77.0	.....	102	11	52	7	41	3.84	.	1.40	...	9	28	0	3	S	
Mt. Ayr	Ringgold	1,236	12	75.8	† 2.0	97	9, 10	56	26	32	4.87	† 1.55	1.05		10	14	11	6	W	
Mt. Pleasant	Henry	729	24	75.4	† 3.0	95	9	52	26	33	6.10	† 2.19	1.79	....	11	16	9	6	SE	
Omaha, Nebr	Douglas	1,113	34	77.6	† 3.9	94	10	62	7	26	3.03	- .31	1.08	....	8	14	7	10	SW	
Oskaloosa	Mahaska	843	22	75.0	† 3.2	94	11	53	26	28	3.80	† .66	1.02	....	10	20	2	9	SW	
Pacific Junction	Mills	960	6	74.5	† 1.1	93	10	53	7	32	3.47	- .98	1.06	....	8	16	14	1	S	
Pella	Marion	.....	....	75.9		96	10	54	26	27	4.87		1.42	....	10	15	13	3	S	
Red Oak	Montgomery	1,033	8	77.0	† 2.3	94	10	59	7	29	3.96	† .87	1.30	....	8	13	17	1	SW	
St. Charles	Madison	1,070	....	75.6	.....	95	10	56	26	27	4.04	.....	1.60	....	11	18	7	6	SW	
Sidney	Fremont	.....	...	77.0	.....	94	9, 10, 11	60	26	28	5.43	.....	1.35	....	9	22	6	3	S	
Sigourney (b)	Keokuk	877	9	75.6	† 1.4	96	11	53	26	31	3.94	† .21	1.60	....	9	2	29	0	.....	
Stockport	Van Buren	.....	....	74.6	.....	93	11	54	26	27	5.44	.....	2.36	..	12	17	6	8	SE	
Thurman	Fremont	.....	....	75.6	† 1.4	93	10	58	7	30	7.60	† 2.17	2.80	....	7	17	11	3	SW	
Washington (c)	Washington	769	13	74.4	† 1.2	93	11	54	26	29	5.58	† 2.09	2.50	....	7	....	....	....	SW	
Winterset	Madison	1,129	....	74.4	† 2.0	93	10, 11	55	26	29	3.84	† .30	1.04	....	11	15	14	2	S	
Woodburn	Clarke	961	....	74.0	.....	94	5	50	26	31	2.75	- 3.66	1.00	....	6	23	2	6	SW	
Average		.....	....	75.4	† 1.8	95.0	....	55.0	.....		31.0	4.61	† 0.71	.....	....	9	17	9	5	SW	
Average for State		.....	....	74.3	† 2.3	95.5		52.9	.....		33.1	4.05	† 0.48	...	...	9	16	9	6	S	

DATES OF THUNDERSTORMS.

NORTHERN SECTION.

Algona, 1, 4, 12, 23, 24.
Alta, 12, 13, 14, 16, 17, 18, 20, 21, 23, 24, 26, 30, 31.
Alton, 2, 30, 26.
Cresco, 3, 7, 8, 20, 30.
Dows, 1, 2, 14, 18, 24, 26, 30.
Elkader, 2, 3, 5, 7, 8, 12, 13, 20, 24, 26, 30.
Estherville, 15, 24.
Fayette, 7, 12, 13, 23, 27, 30, 31.
Florence, 1, 2, 3, 12, 23, 26, 30.
Grand Meadow, 3, 8, 9 14, 24, 27.
Hanlontown, 5, 12, 30.
Humboldt, 4.
Inwood, 16.
Larrabee, 12, 13, 14, 16, 17, 18, 20.
Mason City, 13, 21, 24, 26, 30.
New Hampton, 13, 24, 29.
Northwood, 13, 26.
Osage, 1, 2, 4, 12, 13, 26.
Pocahontas, 12, 21, 23, 30, 31.
Plover, 1, 3, 12, 14, 20, 21, 23, 30, 31.
Rock Rapids, 6.
Ridgeway, 4, 5, 7, 8, 12, 13, 20, 21, 23, 24, 26, 27, 29, 30.
Storm Lake, 31.
Sioux Center, 1, 2, 11, 12, 17, 20.
Sibley, 2, 13, 17, 18, 24.
Sheldon, 1, 12, 13, 14, 16, 17, 22.
Washta, 20, 30.
West Bend, 1, 12, 14, 18, 24, 30, 31.
Waverly, 1, 2, 4 8, 12, 13, 18, 21, 24, 30.

CENTRAL SECTION.

Amana, 1, 5, 12, 13, 14, 21, 24, 30.
Audubon, 13, 17, 20, 21.
Boone, 1, 16, 23, 26.
Carroll, 13, 21.
Clinton, 3, 5, 8, 12, 13, 21, 24, 26.
Davenport, 2, 5, 8, 13, 14, 18, 19, 21, 22, 24.
Des Moines, 16, 17, 18, 21, 22, 23, 24, 26, 27, 30.
Dubuque, 3, 5, 8, 9, 13, 18, 19, 21, 24, 27, 30.
Galva, 14, 16, 18, 21, 31.
Grinnell, 1, 2, 6, 14, 16, 21, 22, 27, 30, 31.
Grundy Center, 1, 2, 12, 13, 21, 30.
Guthrie Center, 13, 14, 17, 20, 21, 22, 23.
Harlan, 1, 4, 5, 12, 13, 14, 16, 18, 20, 21, 22, 23, 24.
Iowa Falls, 1, 2, 12, 14, 24, 26, 30.
Little Sioux, 22.
Marshalltown, 24.
Nevada, 21, 22, 24, 26.
Olin, 5, 12, 13, 21, 27.
Perry, 6, 20, 21, 23, 30.
Onawa, 6, 13, 18, 21, 23, 30.
Sioux City, 4, 8, 12, 13, 14, 17, 20, 23, 26, 30.
Waterloo, 2, 12, 21, 24, 30.
Waukee, 2, 6, 13, 14, 16, 18, 20, 21, 22, 24, 26.
Whitten, 2, 13, 14, 21, 24, 26.
Zearing, 14, 21, 24, 27.

SOUTHERN SECTION.

Allerton, 13, 14, 16, 18, 22, 24, 27.
Atlantic, 12, 17, 22, 23, 26.
Burlington, 13, 15, 22, 24.
Columbus Junction, 3, 5, 11, 12, 13, 14, 22, 24.
Corning, 13, 18, 22, 27.
Corydon, 16, 22.
Creston, 13, 14, 18, 22, 24, 27.
Earlham, 2, 6, 13, 14, 16, 18, 21, 22, 25, 27.
Greenfield, 12, 13, 14, 16, 17, 18, 21, 22, 23, 24.
Hancock, 21.
Indianola, 1, 2, 12, 13, 14, 16, 17, 20, 21, 36.
Keokuk, 2, 3, 5, 11, 12, 13, 16, 21, 22, 24.
Keosauqua, 21, 24.
Lacona, 22, 26, 27.
Lenox, 13, 14, 18, 22, 27.
Leon, 14, 16.
Massena, 13, 14; 18, 19, 22, 23, 24, 27.
Mt. Pleasant, 15, 22, 24.
Oskaloosa, 21, 24, 26.
Pella, 5, 19, 20, 21, 24, 27.
Red Oak, 17, 18, 21.
Sidney, 18, 22, 24, 27.
Sigourney, 5, 14, 15, 22, 24.
Winterset, 14, 19, 21.
Woodburn, 22, 27.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR AUGUST, 1905.

STATIONS.		DATE																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max..	90	78	85	91	94	85	86	89	91	94	94	94	81	86	87	77	86	81	81	87	91	85	91	81	80	88	85	87	87	87	86	86.5
	Min ..	63	65	64	63	68	67	59	60	65	65	66	66	66	65	64	64	61	63	62	59	65	65	67	69	64	54	62	62	63	65	63	63.7
Albia*....	Max..	84	74	84	90	92	83	84	89	90	95	95	92	76	86	86	71	86	81	84	89	90	84	88	86	82	83	80	87	88	88	90	85.7
	Min ..	60	64	64	65	67	72	60	60	65	67	68	68	69	68	64	64	63	64	63	64	69	65	65	67	62	52	53	62	64	66	67	64.2
Algona. ..	Max.	85	83	85	92	89	85	86	91	88	94	93	92	79	78	82	78	82	80	80	87	87	85	87	80	78	80	84	86	90	80	80	84.7
	Min .	60	60	59	62	65	60	59	64	59	65	66	66	65	66	66	61	61	62	57	52	65	60	64	62	53	53	62	62	66	66	60	61.5
Allerton .	Max..	87	78	84	91	94	83	86	89	93	96	97	93	80	88	86	82	85	80	83	88	90	88	88	89	83	83	82	87	88	90	88	87.1
	Min .	62	65	64	64	71	68	59	60	64	64	66	67	66	63	63	62	61	65	62	60	67	65	67	69	66	54	61	64	63	65	65	63.9
Alta.	Max..	81	82	85	92	91	86	87	92	90	94	96	90	79	83	77	76	85	79	82	86	84	88	85	76	79	81	85	88	91	71	84	84.7
	Min ..	59	62	62	63	64	62	57	64	62	66	67	66	65	64	62	62	62	60	55	59	61	63	67	62	57	59	62	62	67	58	59	61.9
Alton	Max..	82	81	84	92	91	85	87	91	91	94	93	87	79	82	76	79	84	80	83	88	83	86	86	82	83	82	86	88	92	88	85	85.5
	Min ..	59	58	61	63	63	58	52	65	59	59	65	65	64	66	63	60	60	64	55	55	61	64	67	63	61	61	62	62	63	67	61	61.5
Amana...	Max..	84	79	85	89	92	84	85	88	87	92	94	94	80	83	79	75	83	85	82	87	90	79	86	80	78	80	78	84	88	83	82	84.4
	Min ..	62	66	66	63	70	69	59	62	64	62	65	67	68	68	68	62	60	69	60	58	70	67	64	70	57	49	63	64	63	68	62	64.0
Ames	Max..	85	78	84	90	94	89	87	89	93	93	95	93	82	85	88	74	85	83	85	89	90	83	87	81	80	79	85	87	89	90	86	86.4
	Min ..	64	63	64	62	68	69	57	64	61	63	64	81	67	66	67	62	62	64	68	57	66	66	65	67	66	52	64	63	64	67	62	64.4
Atlantic..	Max..	89	85	85	93	93	87	90	91	95	96	98	95	81	87	88	78	88	83	85	89	90	89	90	82	82	85	90	90	90	89	90	88.5
	Min ..	56	64	58	58	68	66	50	58	56	60	59	59	64	62	58	64	61	63	58	58	64	65	62	68	63	55	63	61	66	66	62	61.1
Audubon.	Max..	85	85	86	94	91	87	92	95	89	96	97	95	82	87	86	82	90	81	85	90	90	91	93	80	81	85	92	92	93	81	90	88.5
	Min ..	57	64	57	56	64	67	60	56	50	56	60	60	65	62	57	61	59	64	56	55	62	65	63	66	60	52	63	62	65	65	63	60.4
Baxter. ..	Max.	86	78	84	93	94	83	87	87	92	93	95	93	81	85	85	73	82	85	85	80	89	80	85	83	82	79	84	85	87	87	86	85.4
	Min ..	61	63	65	64	68	68	57	61	31	65	65	66	66	66	66	52	61	64	58	55	63	64	75	65	56	52	61	61	64	67	63	62.6
Bedford ..	Max..	87	77	86	90	92	84	88	88	95	96	95	89	80	88	87	88	88	81	85	87	90	86	91	84	81	83	88	89	90	90	88	87.5
	Min ..	61	67	63	60	68	65	57	57	61	62	62	64	67	67	60	67	60	65	67	56	65	65	68	70	64	57	63	64	64	65	67	63.5
Belle Pl'e	Max..	85	80	83	88	92	85	85	87	87	91	93	94	80	83	75	72	82	84	82	88	89	79	84	81	78	79	79	85	87	84	82	84.0
	Min .	62	65	66	64	68	68	60	63	63	63	66	66	68	65	67	62	60	66	58	58	69	66	64	67	57	62	56	63	63	67	62	63.7
Bonapar'e	Max..	86	75	84	89	91	89	85	90	91	92	96	83	85	83	85	77	86	83	84	90	92	80	87	86	80	81	80	85	88	89	88	85.8
	Min .	66	66	64	62	70	70	69	61	66	61	61	67	68	67	65	64	63	69	65	60	67	65	64	69	64	53	63	61	60	64	67	64.5
Boone* ..	Max.	84	79	83	91	95	88	87	89	91	94	96	91	73	84	86	69	84	80	85	88	88	83	86	78	79	79	86	87	90	82	86	85.2
	Min ..	65	64	63	65	67	69	62	65	64	67	68	68	66	67	68	63	62	64	61	61	66	66	65	66	57	55	58	65	66	68	61	64.3
Britt. ..	Max.	87	82	86	91	89	86	86	90	89	93	95	91	77	79	84	73	84	79	80	89	87	85	89	78	76	80	86	91	90	79	81	84.9
	Min .	58	62	60	60	64	58	55	50	56	65	65	63	65	66	66	62	61	61	56	52	66	58	63	63	52	52	62	63	62	63	58	60.2
Burling'n	Max..	87	76	85	89	93	86	87	89	91	92	93	93	86	83	83	78	86	84	85	90	92	83	88	86	81	83	81	87	88	91	87	86.5
	Min ..	63	66	65	65	69	72	63	64	67	64	65	69	69	68	65	63	64	66	66	63	68	66	65	67	64	57	63	66	66	69	68	65.5
Carroll* ..	Max..	87	81	85	94	92	87	88	93	94	94	96	93	78	81	84	78	87	81	84	87	86	90	88	77	80	82	89	88	90	82	87	86.5
	Min ..	60	64	58	60	64	67	53	61	58	65	65	62	65	66	61	64	61	62	54	57	63	65	66	68	57	50	64	62	68	70	58	61.9
Cedar R*.	Max..	85	79	84	90	93	86	87	91	91	94	97	96	80	85	77	77	85	88	83	92	92	80	88	78	81	83	77	88	91	80	83	85.8
	Min ..	63	65	66	67	68	69	63	65	67	66	68	73	69	69	68	63	61	64	63	60	68	69	66	68	58	58	54	66	66	67	61	64.9
Chariton .	Max..	86	76	84	90	92	85	84	87	90	94	95	91	82	85	85	81	84	80	81	86	89	86	87	83	80	81	83	86	87	86	86	85.5
	Min ..	62	64	64	64	70	69	59	60	63	64	65	67	65	63	63	62	61	65	60	58	67	64	65	67	64	53	60	63	64	67	65	63.5
Charles C.	Max..	83	80	82	89	91	83	84	90	88	94	95	91	75	78	73	74	81	77	79	88	86	84	85	77	78	79	79	85	90	78	75	82.9
	Min ..	59	62	63	62	63	59	56	61	60	64	66	67	64	64	64	58	60	59	58	54	64	61	64	59	52	53	64	63	66	60	57	60.8
Clarinda*.	Max..	88	74	85	95	96	85	88	94	98	99	100	96	94	91	90	89	92	79	86	96	93	88	93	84	84	86	87	91	93	90	91	90.2
	Min ..	62	65	63	63	65	64	57	58	62	62	63	64	64	64	61	64	60	61	60	58	64	65	65	68	62	57	60	63	62	63	63	62.3
Clear L ..	Max..	89	82	84	88	89	85	88	90	90	92	95	90	76	80	74	76	82	83	83	87	88	85	89	81	80	75	84	87	90	85	75	84.6
	Min ..	60	61	62	64	67	64	62	69	64	69	70	68	67	65	65	60	61	64	60	62	67	62	63	64	66	54	64	64	67	64	59	63.8
Clinton...	Max..	84	81	85	89	92	85	87	89	89	90	95	93	86	83	89	80	82	85	84	87	90	81	88	80	78	81	78	85	88	82	83	85.5
	Min ..	60	59	63	60	67	63	58	58	64	60	62	66	65	66	64	62	60	64	61	51	66	66	68	68	56	51	62	62	58	65	60	61.8
Col. Spgs.	Max..	89	77	85	89	94	..	84	88	94	98	93	90	85	91	85	88	87	87	85	88	88	87	93	84	80	82	87	88	87	88	87	87.4
	Min ..	63	67	65	62	69	65	60	60	64	65	64	65	65	66	..	62	64	63	61	61	66	65	66	70	63	59	64	66	64	64	69	64.2
Colum. J.	Max..	85	80	85	88	92	89	89	88	89	91	94	94	84	84	85	77	85	84	84	..	90	83	87	85	79	81	77	85	87	87	85	85 9
	Min ..	74	64	65	64	63	70	60	64	67	64	63	66	66	67	61	60	61	61	63	59	67	64	63	71	58	52	62	65	62	67	65	64.5
Corning..	Max.	85	74	83	89	90	83	83	87	90	92	92	90	79	85	83	77	85	80	81	86	88	84	87	80	79	87	87	86	87	85	86	84.8
	Min ..	60	66	61	62	68	65	55	62	59	56	64	67	67	64	62	65	61	63	58	62	66	64	68	70	65	56	63	63	66	66	65	63.2
Corydon..	Max..	85	77	85	91	93	83	87	87	93	95	96	92	79	85	87	85	85	79	84	86	89	86	87	86	81	81	81	86	87	90	87	86.3
	Min ..	64	66	65	65	71	69	60	62	61	61	67	68	67	63	63	64	62	66	63	61	68	65	67	69	66	55	55	65	65	67	65	64.2
Cresco ...	Max..	78	77	81	88	88	81	82	87	85	90	93	84	73	68	69	72	79	77	77	85	83	82	85	78	74	74	73	84	87	81	71	80.2
	Min ..	58	61	62	61	65	61	60	63	62	66	69	68	64	61	63	54	58	64	60	55	67	58	63	62	51	56	63	60	66	67	52	61.3
Creston..	Max..	84	74	80	89	90	81	83	83	88	91	93	98	78	82	82	73	84	78	81	86	87	85	86	79	77	81	80	84	86	83	86	83.3
	Min ..	64	66	66	64	70	68	61	64	64	66	69	70	67	63	64	66	62	64	62	62	68	66	67	70	64	58	60	64	66	67	64	65.0
Davenpo't	Max..	85	80	83	88	93	83	86	89	90	89	93	94	85	83	78	77	83	87	83	89	90	77	87	79	79	82	76	86	88	85	83	84 8
	Min ..	61	61	66	67	72	69	64	67	67	67	68	72	67	68	65	63	62	68	66	64	71	68	64	65	60	55	63	66	67	70	65	65.7
Decorah. .	Max..	84	80	82	88	89	82	84	88	87	92	94	88	82	71	76	82	78	80	81	85	85	86	77	76	78	79	76	87	88	81	74	82.6
	Min ..	59	63	62	58	63	62	63	59	61	63	64	68	63	63	61	62	64	63	58	53	66	62	64	58	50	49	64	59	65	62	56	60.9
Delaware.	Max..	82	80	83	88	90	84	84	87	85	92	95	90	72	75	70	76	80	85	79	88	89	85	86	78	74	79	75	85	87	78	79	82.6
	Min ..	56	63	65	59	69	61	59	61	62	61	64	65	64	63	63	58	58	65	57	54	67	65	61	65	52	49	62	61	62	66	55	61.0
Denis on .	Max..	84	83	87	93	92	88	89	93	93	95	97	92	83	87	85	81	89	83	90	89	88	89	90	79	81	84	90	90	93	75	90	87.8
	Min .	57	64	59	59	65	68	50	66	57	65	65	62	66	64	62	61	71	63	54	54	62	66	66	67	61	58	64	62	68	64	62	62.3
Des M....	Max.	85	75	84	89	93	85	86	88	90	93	94	91	75	84	86	73	84	82	85	87	87	82	86	82	84	80	83	86	88	83	88	85.1
	Min ..	65	65	66	66	72	70	61	64	66	68	68	69	68	67	68	64	64	66	64	62	67	66	68	68	62	58	63	64	68	69	66	65.9
De Soto ..	Max..	82	75	81	88	89	82	83	88	87	91	92	89	81	81	83	75	83	80	82	87	87	82	86	81	77	80	86	86	88	83	86	83.9
	Min ..	65	65	65	64	71	71	60	64	64	65	67	68	67	67	67	64	62	65	65	62	66	61	67	70	62	57	65	66	67	69	65	65.3
Dows. ...	Max.	81	80	82	88	88	88	83	87	88	91	93	91	74	80	78	71	82	78	80	86	88	83	86	78	78	79	85	87	89	77	81	83.1
	Min .	61	59	61	61	64	60	57	61	61	63	63	63	65	64	65	60	59	61	57	54	62	63	61	66	54	49	62	61	65	62	58	60.7
Dubuque.	Max..	82	78	83	89	92	84	84	90	84	90	94	91	73	76	71	76	80	84	76	88	87	81	84	75	79	79	72	84	88	79	76	82.2
	Min ..	63	61	66	64	69	65	62	65	67	65	68	71	66	66	63	63	62	69	62	60	72	68	66	64	59	57	66	67	67	66	60	64.8
Earlham.	Max..	84	75	85	90	91	85	85	87	90	93	94	90	78	84	86	73	84	82	83	87	84	86	86	79	79	81	85	..	..	..	..	84.7
	Min ..	65	62	60	56	69	65	58	57	59	64	61	63	65	62	59	63	63	63	60	62	65	67	64	69	60	51	50	..	..	..	..	61.4
Elkader ..	Max..	87	86	87	94	95	89	90	93	91	97	101	95	77	73	71	78	85	85	85	94	92	89	91	80	81	84	73	90	93	86	79	86.8
	Min ..	59	65	65	58	67	58	55	59	60	60	63	66	65	60	60	56	61	68	55	52	68	61	60	68	50	50	64	61	60	62	65	60.7
Elliott...	Max..	93	82	86	96	88	88	93	95	97	98	97	97	87	87	86	87	90	83	83	89	95	88	93	82	82	85	89	92	91	86	88	89.5
	Min ..	59	67	62	68	67	59	60	60	63	63	64	64	68	63	61	68	62	63	61	58	67	67	67	72	61	58	65	64	66	66	65	63.8
Esthervil*	Max.	80	78	85	92	89	89	88	93	90	95	92	88	78	85	80	70	83	81	82	88	84	86	86	73	77	88	80	92	81	80	80	84.3
	Min ..	58	60	60	60	64	62	58	63	58	59	67	64	63	65	65	62	61	62	56	52	62	58	59	62	53	53	55	57	63	60	60	60.0
Fayette..	Max..	83	80	83	90	92	88	87	90	89	94	79	93	74	74	73	76	83	81	81	89	86	82	76	78	..	78	76	86	89	78	67	82.5
	Min ..	54	64	64	58	60	58	53	57	59	62	64	61	59	62	63	55	57	60	52	50	69	65	62	48	.	50	58	60	65	60	55	58.8
ForestCy*	Max.	85	83	85	91	62	86	88	92	90	96	97	93	75	81	77	75	84	84	83	89	90	90	89	74	81	80	87	88	93	80	78	85.7
	Min ..	59	60	60	60	63	60	59	62	60	63	66	66	66	64	64	60	60	62	58	56	66	60	60	64	53	52	64	59	65	65	57	61.1
F. Dodge*	Max..	86	81	85	93	93	90	89	92	89	95	97	94	89	83	82	72	85	80	83	89	88	86	89	73	80	79	88	89	92	79	83	86.2
	Min ..	59	62	63	64	62	64	59	61	65	55	68	67	67	67	67	63	62	55	59	58	65	65	65	65	56	56	55	67	68	67	61	62.5
Galva	Max..	84	83	85	91	90	90	86	92	91	91	93	90	80	83	81	78	85	80	83	86	80	85	86	81	80	81	80	89	90	78	83	85.0
	Min ..	57	53	60	58	61	60	49	64	52	58	60	58	57	60	61	63	62	64	55	55	61	64	61	64	59	59	64	59	62	60	59	59.3
Glenwo'd	Max..	83	72	84	90	89	83	85	89	92	93	94	89	82	85	84	89	87	83	83	87	88	85	89	83	78	83	88	88	90	85	89	86.1
	Min ..	64	65	61	65	69	65	59	66	64	67	69	68	67	65	62	65	62	63	60	66	68	65	68	70	63	61	61	65	68	67	63	64.9
Grand M.	Max..	81	80	80	85	87	82	81	86	84	90	92	87	75	70	70	75	79	80	77	85	88	83	80	76	75	76	75	84	85	85	77	81.0
	Min ..	60	63	64	60	65	61	60	62	60	62	66	67	65	62	62	55	59	66	58	56	56	58	61	64	52	53	64	63	65	65	56	61.0
Greene...	Max..	84	82	85	92	93	87	88	91	92	96	98	92	75	80	75	76	84	82	83	90	90	86	90	79	79	81	82	90	91	80	80	85.6
	Min..	58	62	62	63	65	60	57	64	60	63	65	67	65	65	66	60	59	63	58	53	65	62	62	67	53	51	64	61	65	64	57	61.5
Greenfield. ..	Max..	87	84	87	92	94	92	88	89	90	94	96	97	89	90	89	82	88	83	83	87	89	87	92	82	78	84	87	87	89	85	87	88.0
	Min ..	56	54	55	62	68	67	60	59	64	63	68	67	66	63	62	64	65	60	62	59	63	65	65	67	56	61	64	64	65	67	65	62.8
Grinnell .	Max..	87	78	85	91	94	85	87	91	90	93	95	94	85	85	85	74	83	88	85	88	93	80	84	85	77	78	78	86	88	85	82	85.8
(near)	Min ..	61	63	65	59	69	68	58	61	61	64	67	66	65	65	65	60	61	65	57	59	66	59	64	65	56	52	61	62	63	67	62	62.5
Grundy C	Max..	83	81	82	87	89	84	85	86	89	92	94	92	73	83	77	70	83	83	82	88	88	80	86	82	79	81	82	88	89	76	81	83.7
	Min ..	61	62	65	63	67	63	57	62	64	65	67	65	65	66	67	61	60	63	58	58	67	67	63	70	54	50	63	62	65	66	59	62.7
Guthrie C	Max..	83	77	84	90	90	84	86	98	91	93	93	92	85	85	84	83	85	80	84	88	87	85	87	83	78	81	87	87	88	85	86	86.1
	Min ..	62	65	61	62	68	69	54	62	65	65	66	66	65	63	63	65	63	65	61	60	64	67	68	69	60	54	65	69	68	68	64	64.1
Hampton	Max..	85	84	86	91	93	86	89	91	93	97	99	96	75	80	80	72	86	82	85	90	92	90	90	80	85	83	85	92	93	78	81	86.7
	Min ..	61	63	61	64	67	64	61	66	62	67	68	66	61	66	66	60	60	63	59	56	64	63	63	67	55	53	64	63	66	61	59	62.5
Hancock .	Max..	87	86	86	93	94	85	87	91	96	95	97	95	85	88	85	79	80	88	82	88	90	88	90	88	81	84	85	90	89	83	89	87.9
	Min ..	63	67	60	60	69	68	57	63	63	62	66	65	65	64	65	64	64	63	62	61	66	67	61	69	62	60	65	65	66	69	64	64.0

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR AUGUST, 1905—CONTINUED.

STATIONS.		DATE.																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Hanlontown	Max	81	78	82	89	89	84	87	91	90	94	98	89	72	76	72	72	82	80	81	88	88	83	88	77	76	80	84	87	92	78	76	83.4
	Min	59	60	59	58	64	59	57	64	57	63	67	65	64	63	64	58	60	62	56	51	65	58	61	64	51	50	63	62	66	64	58	60.4
Harlan	Max	85	81	87	92	90	87	88	91	93	94	94	93	81	84	83	81	88	82	83	88	90	87	89	82	81	82	88	89	90	80	87	86.8
	Min	58	63	60	59	65	66	52	60	59	61	60	61	67	62	59	65	61	63	57	56	63	67	65	68	62	56	63	63	64	65	63	61.7
Hopeville	Max	87	73	86	91	92	86	85	89	93	97	96	95	80	87	87	77	86	80	84	88	91	88	89	83	80	84	85	87	89	86	89	86.8
	Min	64	68	64	65	70	67	60	61	65	65	67	69	66	68	64	64	62	65	62	64	66	65	68	71	66	56	62	64	64	67	64	64.9
Humboldt	Max	80	82	83	91	90	78	84	84	88	93	94	86	76	84	82	76	85	79	81	89	86	84	88	82	76	80	82	83	93	80	78	83.8
	Min	62	60	62	61	66	63	58	66	60	66	67	66	66	68	70	64	62	64	58	56	63	63	66	65	55	56	64	66	68	59	61	62.9
Ida Grove	Max	83	81	90	94	91	87	89	94	94	94	90	95	80	85	80	79	86	80	85	87	83	85	86	85	80	83	86	87	90	83	84	86.3
	Min	61	60	65	65	68	48	53	63	68	60	58	70	60	65	58	59	58	61	52	54	62	59	60	65	59	55	54	61	62	56	55	59.8
Indianola	Max	85	75	84	90	90	84	85	87	90	94	95	92	79	85	85	81	86	82	83	88	90	84	87	86	80	82	82	87	87	84	83	85.7
	Min	62	65	64	65	70	70	60	61	66	66	62	67	68	66	65	63	62	67	63	60	62	63	67	67	62	55	62	63	65	59	66	64.0
Inwood	Max	84	83	89	93	88	86	93	93	96	95	93	87	77	82	79	83	83	81	84	89	87	87	88	81	81	81	93	89	95	86	85	86.8
	Min	62	65	64	65	70	70	60	61	66	66	62	67	68	66	65	63	62	67	63	60	62	63	67	67	62	55	62	63	65	59	66	64.0
IowaCity*	Max	84	83	89	93	88	86	93	93	96	95	93	87	77	82	79	83	83	81	84	89	87	87	88	81	81	81	93	89	95	86	85	86.8
	Min	59	59	56	64	60	56	54	64	60	63	66	62	64	66	60	62	61	62	52	52	59	61	67	61	58	61	62	61	68	63	60	60.7
Iowa F*	Max	88	80	85	90	93	82	85	90	89	96	95	95	83	85	82	79	86	86	83	90	91	88	89	81	81	83	79	87	90	83	85	86.4
	Min	60	63	64	65	65	69	60	52	66	62	64	67	69	67	67	62	60	64	61	57	63	65	66	66	58	51	53	64	61	61	63	62.4
Keokuk	Max	84	82	84	89	90	86	84	88	89	93	95	94	78	83	78	74	84	78	82	89	88	84	89	79	79	81	84	88	90	75	81	84.8
	Min	58	60	62	60	61	61	56	56	58	59	65	63	63	65	66	61	60	61	55	52	60	64	63	67	53	49	60	62	62	65	59	60.2
Keosauqua*	Max	85	78	83	89	93	85	86	89	91	90	94	92	89	86	86	80	87	85	86	90	91	81	87	89	80	81	79	85	88	91	90	86.6
	Min	65	67	66	68	71	73	65	66	72	66	67	73	71	69	67	64	66	70	67	66	69	66	67	68	66	56	64	63	67	70	69	67.2
Knoxv'lle	Max	89	74	85	91	94	86	87	90	92	95	98	95	87	87	88	79	87	83	87	92	94	84	87	90	82	82	81	86	89	92	89	87.9
	Min	60	66	64	62	67	71	60	61	66	61	63	68	63	65	64	64	63	66	64	60	67	66	66	68	65	50	56	61	61	65	68	63.7
Larrabee	Max	85	77	84	90	91	83	84	88	89	92	93	91	83	85	85	81	83	82	87	87	83	87	82	79	80	81	82	84	87	84	86	85.0
	Min	63	64	64	64	72	72	63	63	65	63	68	68	63	66	66	64	62	67	63	62	68	65	65	67	61	55	62	63	67	70	67	65 1
Le Mars	Max	87	85	89	97	93	88	91	95	94	95	97	96	83	85	81	81	86	82	85	88	87	89	90	83	81	84	85	88	92	81	86	87 9
	Min	60	59	61	62	62	58	55	66	60	65	73	64	64	69	62	63	62	63	55	56	62	65	67	62	61	56	65	61	67	59	60	62.1
Lenox	Max	84	84	86	94	93	87	90	94	93	97	95	82	91	83	79	82	85	82	86	89	84	88	90	84	83	82	89	89	93	83	85	87.3
	Min	58	60	59	62	62	60	50	66	59	64	66	65	63	65	61	62	63	64	54	55	62	64	66	63	61	61	64	59	67	57	60	61.4
Leon	Max	85	77	84	89	89	84	85	88	90	92	92	89	85	85	84	84	84	80	83	86	86	87	87	83	78	82	82	86	87	86	86	84.6
	Min	63	66	64	65	69	66	61	61	65	65	68	68	66	67	64	68	61	64	60	62	66	66	68	71	65	57	62	62	65	66	63	64.6
Lit. Sioux	Max	85	80	83	91	91	87	85	88	90	94	93	93	86	86	84	86	85	86	83	86	88	89	88	85	79	81	81	85	86	85	85	86.3
	Min	66	66	64	65	70	78	62	62	65	66	67	69	67	67	65	63	63	65	62	60	66	65	68	72	66	55	61	64	64	65	64	65.2
Logan	Max	83	85	90	97	91	89	91	97	97	97	93	91	83	85	86	85	89	84	87	91	92	90	89	86	84	84	92	91	94	87	90	89.5
	Min	64	65	65	67	62	63	51	68	65	71	69	60	68	63	60	68	66	65	57	65	64	60	70	69	61	63	67	66	69	70	64	65.0
Maquoketa*	Max	86	86	88	95	95	89	89	94	95	95	97	94	88	88	85	84	90	83	85	91	91	87	80	82	85	90	92	92	90	91	89	89.3
	Min	61	64	61	61	64	66	52	63	60	62	63	63	76	62	60	64	61	63	57	57	64	72	..	71	61	58	63	66	65	63	64	62.9
Marshaltown*	Max	84	80	85	90	95	88	89	89	90	94	93	97	75	83	76	78	82	87	84	89	91	81	87	77	79	80	74	85	88	80	81	84.9
	Min	56	60	61	58	63	58	55	57	63	57	58	65	65	65	66	60	61	63	60	54	63	66	60	65	55	46	52	60	57	63	51	59.5
Mason C.	Max	88	85	86	93	95	88	89	92	91	96	103	99	77	86	82	72	86	86	85	92	93	81	90	86	84	84	85	90	92	86	85	88.0
	Min	60	63	62	63	69	67	56	61	62	63	66	67	66	65	65	61	60	62	58	57	63	65	62	66	54	50	52	60	63	66	60	61.7
Massena	Max	80	80	82	89	90	88	87	92	91	96	96	89	77	77	72	74	83	84	81	89	86	86	89	80	80	78	80	87	91	82	76	84.3
	Min	60	62	62	64	67	63	62	67	64	69	70	69	65	65	65	60	62	65	61	58	67	62	65	65	55	55	63	62	67	64	59	63.4
Monticello	Max	92	86	91	99	100	91	93	94	100	100	102	98	86	92	92	80	91	88	88	92	98	96	98	83	87	88	90	95	93	92	93	92.5
	Min	58	60	61	58	60	60	52	60	58	62	65	62	63	63	62	60	60	63	60	62	60	78	59	70	63	56	61	63	65	62	63	61.6
Mt. Ayr	Max	84	82	83	88	92	87	88	89	88	92	94	96	72	82	77	79	81	82	82	88	88	81	85	77	76	79	74	84	87	76	81	83.7
	Min	57	63	60	66	59	55	58	62	58	60	64	64	64	66	60	60	65	56	53	66	66	61	69	55	47	62	61	60	65	56	62	60.6
Mt. Pl'snt	Max	88	77	88	93	92	88	89	89	97	97	95	95	78	90	90	80	88	80	87	89	92	90	91	83	80	85	84	89	90	90	89	88.2
	Min	65	65	65	64	65	64	61	61	65	65	66	66	64	59	63	65	61	63	60	60	65	64	67	70	65	56	62	63	64	63	63	63.5
Mt. Ver'n	Max	86	80	84	90	91	90	86	90	95	94	93	88	85	82	83	76	85	83	84	90	91	82	88	88	80	80	84	86	87	88	86	86.3
	Min	63	64	64	70	70	78	68	64	62	64	68	69	67	65	62	62	62	68	64	59	66	64	64	66	61	52	62	62	62	66	66	64.6
New H.	Max	92	76	88	91	96	87	88	89	93	96	98	97	78	87	78	78	85	80	79	88	94	88	88	79	87	83	72	88	88	87	87	87.2
	Min	60	62	64	63	66	66	62	63	64	65	68	66	64	65	66	59	59	65	60	56	65	65	62	72	55	50	61	69	61	62	61	62.7
Newton	Max	83	82	82	88	90	84	84	88	87	91	96	91	78	76	73	76	83	78	79	85	85	84	94	83	78	80	80	86	88	82	78	83.6
	Min	60	62	65	62	65	60	60	60	62	62	65	70	64	63	62	56	58	58	59	56	63	64	62	62	58	54	60	62	62	67	58	61.3
N'thwood	Max	85	74	80	88	91	84	84	88	87	92	93	92	82	82	80	74	82	81	82	88	88	79	85	80	78	79	79	85	87	84	85	83.6
	Min	63	63	65	65	70	70	60	63	65	66	68	68	67	65	61	62	62	61	62	60	67	64	65	66	58	54	61	62	65	68	63	63.8
Odebolt	Max	84	84	84	90	90	84	86	90	88	95	96	91	76	89	77	75	82	78	79	83	87	84	86	79	76	78	84	86	91	80	77	84.3
	Min	56	66	56	60	62	61	59	63	60	63	65	67	63	63	63	56	56	63	57	55	63	58	63	64	52	50	61	62	64	65	57	6 .4
Ogden	Max	87	85	89	96	94	90	92	96	95	98	100	95	79	85	88	81	88	82	84	88	91	87	80	82	83	90	90	91	84	84	88.4
	Min	60	63	63	62	66	66	56	67	60	67	69	66	67	66	63	63	61	63	56	57	62	65	66	65	60	59	64	65	67	64	56	63.0
Olin	Max	86	80	85	91	93	88	87	90	92	94	95	93	83	84	85	81	85	80	83	88	88	85	87	81	79	79	88	88	90	90	87	86.6
	Min	65	64	62	64	67	67	57	65	60	64	66	65	65	60	61	59	62	64	59	59	64	65	66	68	57	55	64	65	67	66	62	63.0
Omaha, N	Max	80	79	83	86	89	84	86	86	86	89	91	94	77	81	78	77	80	84	80	85	87	84	85	78	76	78	74	82	80	77	79	82.7
	Min	60	63	65	63	70	63	58	65	65	60	61	66	67	67	67	61	61	67	60	58	68	67	67	70	57	48	63	68	67	72	62	63.7
Onawa	Max	82	81	86	92	89	86	88	91	93	94	93	86	82	86	84	86	87	81	86	88	88	89	89	82	81	83	91	88	91	83	89	86.9
	Min	63	68	66	70	78	67	62	69	69	72	73	72	70	69	67	69	64	65	65	68	70	67	71	70	65	65	69	70	70	70	67	68.2
Osage	Max	82	82	89	95	88	88	91	96	97	98	97	91	85	88	87	84	93	89	87	90	93	87	88	86	83	88	93	94	96	89	86	89.6
	Min	64	64	65	65	65	69	55	67	64	67	68	68	69	66	65	66	64	65	59	61	66	67	69	69	33	62	67	70	68	65	64	65.4
Oskaloosa	Max	85	82	82	90	91	86	86	90	89	95	95	90	74	76	73	75	83	82	82	88	89	87	88	78	80	79	80	87	90	82	77	84.3
	Min	57	61	62	59	63	62	58	61	61	63	51	67	65	63	63	54	59	64	58	55	64	60	62	65	51	52	63	60	60	68	56	60.2
Pacific J'n	Max	85	75	82	87	91	83	84	89	88	92	94	91	82	84	84	76	84	82	82	89	89	80	86	85	79	81	81	86	88	86	85	84.8
	Min	64	65	65	62	73	72	61	63	66	65	67	66	68	69	65	65	64	69	62	61	67	65	65	65	60	53	62	66	66	70	67	65.1
Pella	Max	86	80	85	91	90	84	85	90	91	93	92	90	84	85	84	90	86	82	84	87	88	86	91	80	80	82	90	87	89	84	86	86.5
	Min	63	63	60	63	65	65	53	60	63	60	64	65	66	62	57	66	63	60	59	60	65	64	66	66	64	59	66	65	64	62	63	62.5
Perry	Max	87	80	85	91	93	86	87	91	94	96	94	86	85	86	81	85	85	85	85	90	88	83	83	82	81	81	82	89	86	87	86	86.4
	Min	63	65	66	67	71	71	62	62	68	69	69	67	68	67	63	63	67	64	61	68	68	65	65	68	60	54	63	64	65	69	66	65.4
Plover	Max	85	81	85	91	92	80	87	89	91	93	95	92	81	85	84	76	85	80	83	87	88	86	88	80	79	83	86	88	89	80	87	85.7
	Min	65	65	64	63	67	70	58	62	64	65	65	67	65	68	61	64	63	65	62	59	65	67	66	70	58	55	65	66	66	67	64	64.2
Pocah'tas	Max	86	80	85	90	94	85	85	92	91	92	95	92	83	85	85	75	83	80	86	88	88	87	89	79	77	86	86	88	91	79	83	86.2
	Min	70	75	76	78	82	61	57	63	60	63	64	65	63	65	63	63	60	62	60	55	63	61	65	64	54	52	61	64	63	58	62	63.6
Red Oak	Max	90	83	87	93	91	86	89	93	92	95	98	93	80	85	81	75	85	83	83	88	89	88	89	80	79	78	87	89	92	80	85	86.6
	Min	59	60	61	63	64	61	58	58	60	65	65	66	64	66	64	64	63	63	57	58	63	65	64	55	56	63	62	67	60	61	61	61.7
Ridgeway	Max	83	79	84	92	92	84	87	90	93	94	92	93	82	89	89	87	89	85	81	89	90	88	90	85	82	83	86	90	90	89	89	87.6
	Min	62	62	65	63	70	67	59	63	68	67	69	71	70	67	68	69	65	66	64	64	69	68	70	73	64	61	66	66	67	69	66	66.4
Rock R.	Max	81	81	83	91	91	88	87	93	87	95	97	88	76	74	73	76	83	82	82	90	87	90	91	81	78	79	76	88	91	83	76	84.5
	Min	62	62	65	62	66	67	64	60	64	65	70	72	66	61	64	58	60	66	60	62	70	61	65	64	53	58	64	62	66	71	57	63 4
R. City	Max	80	86	92	93	88	90	90	90	93	96	94	84	76	80	80	83	82	80	83	90	91	90	82	84	86	88	86	90	94	80	78	86.6
	Min	50	54	51	51	48	44	55	65	70	68	64	64	64	70	73	70	56	60	63	66	68	66	70	68	68	68	66	64	64	70	72	64	54	62.5
Sac City	Max	85	80	85	91	91	85	85	92	89	94	95	95	83	85	83	74	87	80	83	87	87	86	87	80	75	82	85	86	92	83	85	85 6
	Min	58	57	58	62	65	64	56	65	67	66	68	65	65	66	62	61	60	63	56	60	62	60	65	65	60	64	62	55	65	58	60	61.9
St. Cha'les	Max	83	81	83	90	90	86	86	91	90	92	93	93	90	77	83	80	75	84	79	81	85	85	83	85	81	77	80	85	86	89	80	84.4
	Min	60	62	60	60	60	65	67	66	60	65	65	64	65	66	62	63	64	62	58	57	61	64	67	66	56	58	64	64	66	66	61	62.5
Sheldon	Max	85	77	83	89	91	84	85	88	90	95	94	91	80	83	84	76	85	82	83	88	89	85	86	79	77	81	82	84	87	89	83	85.2
	Min	65	65	65	67	71	70	62	64	67	68	69	70	68	67	65	64	63	67	66	64	66	65	68	70	62	56	63	64	66	70	66	66 0
Sibley*	Max	84	85	90	95	90	85	88	90	92	94	99	90	81	83	80	84	82	82	85	88	88	85	89	87	85	88	90	91	95	85	85	87.1
	Min	59	60	61	62	61	61	58	62	65	64	76	72	64	65	62	63	63	62	53	55	61	65	68	62	58	58	65	60	67	64	61	62.5
Sidney	Max	83	79	83	90	88	83	87	89	88	93	90	85	77	79	75	76	81	79	81	85	84	87	88	86	79	79	88	87	92	75	83	83.4
	Min	58	60	59	61	62	54	53	55	59	62	64	64	63	63	65	62	64	62	61	53	52	60	60	62	61	56	56	61	60	62	60	59.7
Sigourn'y	Max	87	82	87	91	91	84	87	92	94	94	94	89	84	83	80	91	90	87	85	88	90	88	90	81	82	83	88	88	89	88	89	88.1
	Min	64	66	64	66	71	66	62	64	68	66	68	68	68	64	65	67	66	62	65	65	66	66	68	71	66	66	66	65	65	67	70	68	66.0
Sioux C'r.	Max	87	80	86	90	92	86	86	89	90	94	96	94	86	85	86	81	85	85	85	90	88	83	85	84	81	85	88	88	91	81	88	86.9
	Min	64	67	64	64	70	71	60	63	65	64	65	68	67	68	63	63	61	63	60	61	68	65	..	..	65	64	67	60	58	62	63	63	67	66	64.4
Sioux C'y	Max	86	83	85	92	90	83	88	90	92	94	93	88	88	83	76	80	85	81	79	80	87	83	86	86	79	82	80	85	87	91	83	85	85.2
	Min	60	67	64	64	70	71	60	63	65	64	65	68	67	68	63	59	58	61	63	52	56	59	63	66	62	60	60	65	61	67	64	59	61.2
Stockport	Max	83	83	85	92	90	83	88	90	92	94	93	88	88	83	66	59	58	61	63	52	56	59	63	66	62	60	60	65	61	67	64	59	61.2
	Min	57	56	59	61	65	61	58	62	65	64	64	63	64	66	64	59	63	64	62	64	67	65	68	67	64	62	62	66	64	72	61	64	64	64.6
Stockport	Max	81	79	87	95	91	87	90	93	93	93	96	95	87	81	82	79	83	87	88	88	89	87	89	88	86	84	86	88	91	84	86	88.1
	Min	61	63	60	68	68	62	54	70	62	71	73	66	66	67	63	67	64	62	59	59	65	67	71	65	62	62	66	64	72	61	64	64.6	83.8
	Min	84	76	80	85	87	82	82	87	87	87	91	93	90	85	80	82	77	83	80	88	89	90	81	84	77	78	77	82	86	87	85	83	68	63	65.5
Stockport	Max	64	67	66	64	71	68	64	64	69	64	67	69	67	68	65	65	65	71	61	65	70	66	65	69	65	54	63	62	63	68	63	65.5
	Min																																

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR AUGUST 1905—CONTINUED.

STATIONS.		DATE.																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Storm L*	Max	81	81	85	92	91	85	88	92	92	92	95	89	76	83	78	76	84	79	82	86	85	85	84	72	78	80	85	88	91	72	84	84.2
	Min	57	61	62	63	65	62	57	63	61	68	70	65	64	69	61	62	61	62	55	59	60	62	64	63	58	59	61	60	63	65	59	61.8
Thurman	Max	84	79	87	91	90	85	85	90	91	93	92	87	84	88	87	89	87	82	84	87	88	87	88	85	80	84	88	87	89	85	87	86.8
	Min	62	66	62	61	67	66	53	60	62	62	63	65	68	62	60	67	63	63	63	61	68	66	69	70	66	62	64	65	67	68	66	64.3
Tipton	Max	87	79	84	92	92	85	89	90	93	95	97	98	82	82	75	77	85	86	85	90	91	82	86	85	82	82	72	85	89	84	85	86.0
	Min	63	63	66	66	63	71	64	65	69	68	69	69	65	67	68	62	62	68	64	62	70	66	65	70	61	57	59	65	64	69	63	65.3
Toledo	Max	83	79	81	88	90	84	89	90	85	93	91	95	78	83	78	72	83	83	81	89	83	78	87	84	80	81	81	87	89	81	83	84.4
	Min	60	65	66	62	69	58	62	63	62	62	65	67	67	67	67	62	60	65	57	57	68	66	63	71	55	49	64	61	65	68	61	63.0
Vinton	Max	84	81	..	88	92	90	85	89	88	90	92	93	..	83	85	82	82	83	82	90	87	82	83	81	80	78	77	84	87	85	80	84.9
	Min	61	65	..	62	69	59	60	64	63	61	65	68	..	66	60	61	59	68	67	57	68	62	62	71	54	46	63	54	64	69	59	62.3
Washi'ton	Max	..	..	91	86	90	81	84	88	88	91	93	92	81	82	80	75	83	82	83	88	88	78	84	82	79	79	76	84	86	84	84	84.2
	Min	..	..	..	65	70	68	62	64	66	64	66	68	68	67	64	62	62	69	62	59	68	64	64	70	59	54	62	64	64	68	66	64.6
Washta	Max	85	85	90	95	95	85	92	96	97	97	99	94	80	87	83	82	88	85	87	90	89	89	87	77	83	84	89	93	94	71	80	88.0
	Min	45	56	58	55	57	58	60	63	55	58	65	65	60	65	68	57	63	62	51	51	60	65	64	64	60	53	64	64	60	60	60	59.7
Waterloo*	Max	85	81	84	96	96	88	90	92	91	95	99	97	76	82	76	74	84	86	85	91	90	82	87	81	82	83	81	89	92	75	81	86.2
	Min	61	63	65	63	69	63	58	61	64	63	66	66	67	65	66	60	59	62	58	56	67	68	63	69	55	51	59	62	63	67	58	62.5
Waukee	Max	83	80	93	100	98	87	92	96	99	100	104	97	85	89	94	79	88	87	92	96	93	91	88	84	90	86	94	97	93	87	95	91.6
	Min	62	63	64	63	67	69	59	62	64	66	65	68	67	66	66	63	62	65	64	61	65	64	67	68	60	57	64	65	66	68	64	64.3
Waverly	Max	80	77	81	87	90	83	84	88	86	92	94	90	73	78	73	72	81	77	79	85	84	79	84	77	75	73	78	84	87	80	77	81.2
	Min	61	63	63	62	68	62	53	62	62	64	66	68	65	65	65	60	59	65	59	56	64	65	64	63	55	53	63	62	62	67	58	62.4
Web'ter C	Max	91	88	86	92	95	92	90	91	92	97	98	98	87	89	92	75	85	80	86	92	93	87	90	83	81	81	91	90	92	82	85	88.7
	Min	64	62	62	60	63	61	53	63	58	63	63	64	60	68	68	62	61	62	56	53	64	63	64	67	54	50	67	63	72	61	66	61.8
W. Bend	Max	88	83	85	92	88	85	85	89	88	90	93	92	82	85	82	75	84	80	80	87	88	85	88	77	77	80	85	88	89	77	83	84.8
	Min	60	61	60	61	64	60	57	64	59	65	65	64	64	66	65	63	59	61	56	54	63	61	62	64	56	54	62	61	67	61	60	61.3
Whitten	Max	86	81	83	89	90	85	85	87	88	91	94	93	77	83	79	75	83	82	80	88	89	83	88	80	77	80	85	88	88	84	80	84.5
	Min	66	62	63	63	67	64	57	60	61	79	66	62	66	65	67	61	60	64	59	56	66	66	63	59	54	50	62	61	63	60	59	62.8
Wilton J.	Max	88	85	88	91	94	88	89	89	90	93	94	94	82	87	82	82	85	88	85	87	90	83	80	82	78	82	80	88	88	89	86	86.7
	Min	52	63	64	64	55	54	61	55	53	60	61	62	65	69	68	62	59	66	57	65	70	65	66	64	58	48	60	60	61	67	66	61.3
Wint'rset	Max	83	79	83	90	91	85	84	89	89	93	93	91	82	85	83	80	85	81	82	87	85	84	88	82	80	82	84	86	87	84	86	85.3
	Min	63	63	62	62	70	68	57	60	64	66	66	63	66	63	63	63	60	64	69	60	63	64	66	69	53	55	63	63	65	68	64	63.6
Woodb'n.	Max	89	81	84	87	94	84	83	85	87	92	91	93	84	87	85	75	83	84	80	85	90	83	91	85	80	81	85	86	85	89	85	85.6
	Min	60	64	63	58	70	62	55	57	61	60	64	61	67	65	62	61	59	65	57	57	67	65	65	65	65	50	63	65	64	63	65	62.4
Zearing	Max	87	80	84	89	92	87	87	89	89	92	95	92	85	85	84	73	83	80	83	88	90	80	85	80	82	79	84	85	83	78	83	85.1
	Min	63	64	61	63	62	65	53	61	60	65	68	65	67	66	68	62	59	63	57	55	63	62	62	67	55	47	64	63	65	66	60	62.1

*At those stations thermometers are read in the morning; the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

OBSERVERS' NOTES.

ALLERTON—*Rex Shriver.* Good yield of small grain; corn considerably damaged by root worms.

ALTA—*David E. Hadden.* High wind on 14th damaged shade trees, out buildings and sheds on fair ground; another windstorm on the 16th and both storms leveled corn badly.

AMANA—*Conrad Schadt.* The days were generally hot and nights mainly cool with fog; ground too dry for plowing near close of the month; mean temperature was 32° higher than in July.

BAXTER—*W. T. Thorp.* Weather favorable for corn; too much rain for thrashing and oats were damaged by being left in shock.

BONAPARTE—*B. R. Vale.* Rain 7.93 inches; a wet month with normal temperature; vegetation vigorous; subsoil full of water.

BRITT—*Geo. P. Hardwick.* No serious storms, but damp and excess of cloudiness; grain left to thrash from shock badly damaged; corn has made rapid advancement, but will not produce a yield.

CHARITON—*C. C. Burr.* Grain damaged in shock by rains; fields too soft for movement of thrashing engines.

CLINTON—*Luke Roberts.* Rain, 4.11 inches, or .97 of an inch above normal. Month exceptionally fine for crops and work in fields. Greatest amount of rainfall in any 24 consecutive hours, 1.06 inches on 13th and 14th. No windstorm heavy enough to prostrate corn or other crops. If the temperature remains above the frost line for three weeks beyond August the crop will beat the record.

CRESCO—*L. G. Krumm.* On the 7th corn was badly riddled by hail in a narrow strip half a mile wide.

CRESTON—*W. L. Giston.* The electrical storm on the 13th was the severest known here for many years.

ELLIOTT—*Henry Barnes.* Corn was somewhat damaged by windstorms on 17th and 21st. Old corn nearly all sold, and there has been a free movement of small grain to market.

FOREST CITY—*J. A. Peters.* August was an exceptionally good month for corn and for threshing small grain. Corn needs three weeks in September to mature.

GRAND MEADOW—*F. L. Williams.* A wet harvest and much damp grain in shock or stack; oats extra heavy; corn practically safe and crop heavy; pastures excellent.

GRINNELL—*A. O Price.* Seldom better pastures or bigger aftermath in meadows; at end of month corn was glazing and promised a big yield.

HANLONTOWN—*Miss G. M Paschen.* Threshing from shock begun on 9th; oats fair yield; harvest apples were ripe the 17th; good crop of blackberries.

INWOOD—*G. M. Larsen.* A fine month; grain yield fair to good; corn in good condition, needing two weeks of good weather in September.

OLIN—*N. Potter.* August was all that could be desired for threshing and ripening corn.

PLOVER—*J. S. Smith.* Corn damaged by wind on 23d fully 25 per cent in pathway of storm, about 18 miles wide.

RIDGEWAY—*Arthur Betts.* Warmest August since 1900; hard hail 7th and 8th and some damage done; sunshine 302 hours, or 70 per cent.

WAUKEE—*E. J. Leonard.* Month favorable for work; corn needs dry weather; threshing about half done.

BELATED REPORTS.

FAYETTE—June—Mean temperature, 67.2°; highest, 91° on the 4th; lowest, 42° on the 8th; greatest daily range, 36°; total precipitation, 5.15 inches; greatest in 24 hours, 1.10 inch; prevailing direction of wind, southeast; number of clear days, 10; partly cloudy, 13; cloudy, 7; rainy, 13.

FAYETTE—July—Mean temperature, 68.4°; highest, 93° on the 17th; lowest, 42° on the 25th; greatest daily range, 36°; total precipitation, 2.62 inches; greatest in 24 hours, .57 of an inch; prevailing direction of wind, northwest; number of clear days, 16; partly cloudy, 8; cloudy, 7; rainy, 11.

MASSENA—July—Mean temperature, 72.2°; highest, 100° on the 16th; lowest, 48° on the 9th; greatest daily range, 35°; total precipitation, 1.91 inches; greatest in 24 hours, .88 of an inch; prevailing direction of wind, north and south; number of clear days, 19; partly cloudy, 4; cloudy, 8; rainy, 8.

DENISON—July—Mean temperature, 69.2°; highest, 95° on the 17th; lowest, 45° on the 10th; greatest daily range 32°; total precipitation, 3.68 inches; greatest in 24 hours, 1.03 inches; prevailing direction of wind, south; number of clear days, 21; partly cloudy, 8; cloudy, 2; rainy, 10.

ERRATA IN JUNE AND JULY REVIEW.

AMANA—Precipitation on page 11, for June 5th, recorded .16 of an inch, should read .06 of an inch.

MONTICELLO—Precipitation on page 11, for June 11th, recorded .78 of an inch, should read .18 of an inch.

CEDAR RAPIDS—Precipitation, page 6, recorded 2.77 inches in July, should read 2.78 inches departure from normal, recorded 1.10 inches should read 1.09 inches.

DAILY AND MONTHLY PRECIPITATION FOR AUGUST, 1905.

STATIONS.	DAY OF MONTH.																													TOT
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	.92	.20	..	.	T	....	....	....	...	....	....	.80	.33	..	.11	....	.52	.	..	T	.67	....		....	....	1.12	....	..	....	....	4.67
Albia	....	1.65	.80	....	....	.03	....	....	....	....	....	..		.68	.08	...	1.38	.02	.04	....	T	1.48	.03	1.30	....	....	.25	.13	....	....	....	7.87
Algona	.36	.18		..	.13	....	..	....	..	..	....	.40	.11	1.00	.31	....	..	.14	.20	..	....		....	1.91	....	....	....	....	T	T	.15	4.89
Allerton	T	.05	.06	....	....	.05	..	...	....	....	....	....	.81	3.74	....	.42	..	.20	....	....	..	.76	....	.10	....	....	.43	....	....	....	....	6.62
Alta	.03	...	..	T	....	..	...	....	....	....	....	....	.23	1.89	....	.11	....	.55	....	.73	..	....	....	.41	....	.01	....	....	....	.24	.55	4.75
Alta [near]	.04		....	T	....	..	...	....				.16	.32	.43	....	.09	....	.18	..	.26	..	....	.23	....	..	....	..	....	....	.23	1.02	2.96
Alton	.04	.17		T	..	..	....	....	....	....	T	18	.79	.18	.	.60	T	T	...	....	1.42	...	....	....	....	.02	....	....	....	....	.25	3.65
Amana		.16	....	..	.11	T	....	..	....	....	....	.07	.35	.20	.14	....	..	....	....	....	.12	.13	...	.49	....	...	.09	....	....	.10	T	1.96
Ames	....	.04	.04	....	....	....	....	....	..	....	....	....	.11	.02	.14	.07		.18	....	....	.09	.13	....	1.92	....	....	.02	....	....	....	.27	3.03
Atlantic	T	.83	....	....	T	T		....	....	....	....	1.22	..	.55	..	....	.92	.08	....	....	...	.74	.04	.09	....	T	.07	....	..	..	...	4.54
Audubon	....	.10	..	..	..	.01	....	....	....	..	....	..	.10	.15	....	.03	..	.50	T	..	.55	.08	.01	1.17	....	....	.04	....	....	....	....	2.72
Baxter	.04	.40	..	....	....	.27	....	....	....	....	....	....	.32	.10	1.40	....	....	....	....	....	.35	2.15	....	1.87	....	....	.15	....	....	.02	.15	7.22
Bedford	....	.53	..	....	....	.14	....	....	..	..	....	....	.48	....	....	....	....	.45	....	....	....	.75	....	.29	....	....	....	.	..	....	...	2.64
Belle Plaine	....	.10	....	....		.06	..	....	....	....	....	....	.80	....	.89	....	....	....	....	....	.04	.02	....	.20	....	....	.27	....	....	.28	....	2.66
Bonaparte	....	.82	.10	....	.20	T	....	....	....	....	.17	1.70		1.00	....	.02		....	.11	..	....	3.00	....	.75	....	....	.06	....	..	....	....	7.93
Boone	....	1.30	.05	....	....	....	...	....	..	....	....		.46	.04	.01	....	.96	1.38	....	....	.03	.14	....	1.42	....	..	.13	....	....	....	.53	6.45
Britt	.	.33	..	....	.09	...		....	....		....	....	.78	.13	.15	.55	.04		.14	.04	.	T	....	....	.63	....	.04		....	....	.04	2.96
Buckingham	.56	.08		..	....	....	....	....	....	....	....	.52	.84	.12	.13		....	T	....	....	T	..	....	.12	....	T	.12	....	....	.25	T	2.72
Burlington	....	.35	.02	....	.20	.02	....	....	....	....	....	..	.73	.42	1.55	....	....	....	.10	..	....	2.40	....	.78	....	....	.04	....	....	....	..	6.61
Carroll	....	T	...	..	....	...	..	....	....	....	....	....	.50	T	.25	....	.06	.25	....	....	.20	.05	....	.13	....	....	....	....	....	....	.20	1.64
Cedar Rapids	....	1.38	.70	....	....	T	....	....	....	....	....	....	.19	.34	.02	T	....	....	....	....	T	.08	....	.06	.18	....	.08	.28	....	....	.22	3.48
Chariton	....	.40	T		T	T	....	....	....	....	....		1.65	2.00	T	.68	....	.10	....	....		1.10	....	.26	....	....	1.55	....	....	....	....	7.74
Charles City	.18	.18	T	T	....	....	T	T	....	....	....	1.32	1.02	.52	.04	....	....	.01	T	..	.10	....	.20	1.47	....	.05	.09	....	T	.22	T	5.46
Clarinda	....		.43	....	....	.18	....	....	....	..	....		.29	....	....	....	....	1.12	....	....	....	.59	....	.07	....	....	.29	....	....	....	....	2.97
Clear Lake	1.00	.20	T	..	....	....	....	....	....	....	....	.20	.50	.10	.25	..	....	T	..	....	T	....	....	.80	..	T	T	T	.05	.68	T	3.78
Clinton	....	.98	.26	...	.14	....		..	.23	....	....	.10	....	1.00	....	....	....	....	.46	....	.07	....	....	.76	....	.02	....	....	.08	....	4.11
College Springs		64	....	...		.30	....	...	....	....	....	T	..	.46	....	....	....	.87	....	....	....	.06	....	....	....	....	.12	....	....	..	....	2.45
Columbus Junct'n	T	.20	.11	..	.14	....		....	....	..	....	T	.98	.10	.24	....	....	....	....	.	T	1.42	....	....	....	...	.15	.02	..	....	T	3.36
Corning	....	.89	....	..	..	....	.38	..	....	..	....	....	.44	.84	....	T	T	.83	....	....	....	.43	....	T	....	....	.48	....	....	....	....	4.29
Corydon	....	.22	.31	....	....	.07	....	....	....	....	....	....	.66	..	..	.50	....	.11	....	....	....	.64	....	.11	....	..	.19	..	....	....	..	2.81
Cres o	..	.03	..	....	.02	....	.21	.	.57	....		T	.83	.57	....	....		T	.02	....	T	....	T	.54	....	.02	.19	....	....	.12	.01	3.13
Creston	..	....	.30	....		T	....	....	..	..	....	....	.30	1.50	.10	T	.20	.54	.05	..	....	.70	....	.17	....	..	1.57		....	....	...	5.43
Cumberland	....	....	....	....	T	T	....	....	....	....	....	1.00	.32	....	....	T	....	.70	..	..	....	1.38	.01	.32	..	..	....	....	....	....	....	3.73
Davenport	..	.27	T	.01	.10	T	..	....	.11	....	....	....	.71	.08	..	..	....	.02	.01	..	.05	.22	....	.23	....	....	.17	....	....	T	T	1.93
Decorah	....	.02	.06	....	.32	....	T	.51	....	....	..	.29	.49	.60	....	....	....	....	....	T	....	....	.46	....	....	T	.32	....	T	....	T	3.07
Delaware	....	.25	....	....	.02		..	.12	....	..	..	.63	.80	.27	....	....	....	....	....	....	.02	....	....	3.38	....	..	.04	....	....	....	....	5.53
Denison	....		....	..	....	....	....	T	..	..	....	....	.04	.10	...	.04	....	.40	....	....	.50	.03	T	..	....	....	....	....	....	.04	....	1.15
Des Moines	1.19	.18	....	....	....	.01	....	....	....	..	....	....	.75	T	T	.41	.10	.05	....	.16	.48	.78	.02	1.00	....	.10	T	....	....	T	T	5.21
De Soto	....	.62	....	....	....	.0	....	....	....	....	....	....	.72	.82	T	.69	..	.37			T	1.10	....	.55	..	.	.11	....	....	....	....	4.50
Dows	.22	1.59	.03	....	....	....	....	....	....	....	..	....	.03	1.49	.06	...	....	.13	.02	....	.04			1.02	..	.05	....	....	....	.10	.05	4.83
Dubuque	..	.16	.23	...	.26	....	...	.25	....	....	....	T	.74	.35	T	....	....	T	.04	....	T	....	.78	....	.19	.06	....	....	....	.05	.01	3.07
Earlham	....	T		....	..	.31	..	....		....	....	..	.82	.09	....	.58	....	.63	....	T	T	1.48	....	.36	....	....	T	....	....	....	....	4.27
Elkader	....	.07	....	....	.05	...	....	....	.45	....	....	....	....	1.00	....	....	....	....	....	....	....	....	....	.78	....	..	.28	....	....	.18	.02	2.83
Elliott	....	.38	T	.06	....	....	....	....	....	....	....	....	.05	.22	....	....	....	1.10	....	....	....	.75	...	.05	..	....	....	....	....	....	....	2.61
Estherville	...	1.10		....	.10	....	....	....	....	..	..	T	.77	.20	.83	T	...	T	.05		....	....	....	1.90	....	....	..	....	....	.10	....	5.05
Florence	.16	.70	....	...	....	....	....	....	....	....	....	..	.10	T	....	.12		.10		T	T	...	T	1.68	T	.20	....	....	....	.20	T	3.26
Forest City	....	.37	....	....	.05	....	..	T	....	....	....	T	.06	.87	.30	T	....	....	.20	....	....	....	....	.33	....	....	.24	....	..	....	....	2.42
Fort Dodge	....	2.30	T	...	....	....	....	....	....	....	....	....	.45	....	1.20	..	T	.18	.03	....	.09	....	..	3.10	....	....	T	..	..	....	.28	7.63
Fort Madison	....	2.03	T	.64	T		....	....	....	....	....	....	.15	.16	....	....	....	.03	....	....	....	1.42	..	.50	....	....	T	..	....	....	....	4.93
Galva	...	.05	..	...		....	....	....	....	....	....	....	.55	.48	....	.57	..	.33	....	....	50		....	.09	....	....	....	....	....	.17	1.05	3.79
Gilman	....	....	....	....	....	.15	....	....	....	....	....	....	.50	.10	T	...	....	T	..	..	.90	.	T	1.10	..	....	T	....	....	.30	.05	3.10
Glenwood	T	.75	....	....	....	..	.	....	.	....	....	..	T	.65	..	..		1.00	.	....	....	.75	..	....	....	....	....	....	....	....	....	3.15
Grand Meadow	....	.05	.50	....	.05	....	....	.12	.56	..	....	T	....	.82	..	....	..	....	..	....	.02	....	....	1.47	....	..	.32	....	....	.04	T	3.93
Greene	.25	.37	.02	....	....	..	....	....	..	....	....	.04	.68	.33	.27	....	....	.02		....	....	....	....	1.95	....	....	.15	....	....	.90	.03	5.01
Greenfield	..	.02	.03	....	T	T	...	..	....	....	....	..	1.08	.35	....	T	....	.92	.06	..	.10	.86	....	.21	....	....	.76	....	....	....	....	4.39
Grinnell [near]	.10	.42	....	....	....	T	....	....	....	....	....	....	.40	.32	.08	.17	....	T	..	....	....	1.28	....	2.35	..	..	.50	..	....	.05	.07	5.74
Grundy Center	.07	1.28	....	..	..	....	....	....	....	....	....	.14	.87	.03	....	....	....	....	....	..	.06	....	....	....	....	....	.12	....	....	.27	.02	2.81
Guthrie Center	....	.21	.04	....	..	.03	....	....	....	....	....	....	.3	.62		.04	....	.50	....	....	.75	.16	....	.49	..	....	.05	....	....	....	T	3.23
Hampton	.15	.05		...	....	....	....	....	....	....	....	T	.28	.40	.04	....	.10	....	.04	....	....	....	1.50	....	..	.08		....	....	1.82	....	3.96
Hancock	.02	.04	T	....	....	T	....	....	....	....	....	T	.93	T	....	....	....	.88		....	....	.71	T	.16	..	....	.03	....	....	....	....	2.77
Hanlontown	.29	.06	....	...	.26	....	.02	....	....	....	....	.08	.56	08	.10	....	....	.10	.04	....	....		....	.34	....	30	....	..	....	.12	.03	2.39
Harlan	.22	.07	T	...	T	T	...	T	....	..	....	T	.08	1.71	..	T	....	1.16	....	....	.01	1.35	T	.08	...	....	.08	....	....	....	T	4.70
Hopeville	....	.49	.02	....	....	T	..	....	....	....	....	....	.39	.63	....	.33	....	.32	....	....	....	.51	...	.14	....	....	.42	....	....	....	....	3.25
Humboldt	1.70	1.29	....	....	....	....	....	....	..	....	....	....	.10	....	....	.03	..	.18	.02	.	.04	....	....	2.05	....	.	....	....	....	.30	.30	6.01
Ida Grove	...	.04	....	....	....	....	....	....	....	....	....	....	.45			.80	.32	.04		.69	....	....	.05	....	....	....	....	....	....	23	....	2.60
Indianola	....	1.09	T	....	T	T	....	....	....	....	....	....	1.45	.07	.51	...	..	.06	T	..	.01	2.00	...	.70	....	....	.30	....	..	....	....	6.17
Inwood	....	.16	....		....	....	....	....	....	....	....	.37	.75	.64	...	.42	....	....	....	.37	....	....	....	....	....	T	....	....	....	....	.05	2.76
Iowa City	..	.32	....	T	.34	T	.01	....	..	..	....	T	.24	.48	.01	...		....	..	....	.03	.81	T	.12	.22	....	.04	..	..	..	T	2.62
Iowa Falls	....	.87	T	T		...	T	.	....	....		....	.24	.25	.03	.05	T	.09	T	T	T	....	.57	....	....	04	....	....	....	....	.48	2.62
Keokuk	....	.30	.03	....	.38	T	..	....	....	....	....	....	.05	T	....	....	....	....	.02	....	.50	1.18	....	.66	....	....	.06	....	....	....	..	3.16
Keosauqua	..	.40	.12	....	T	T	....	....	....	....	....	.02	T	.20	.30		.07	T	.08	....	....	1.47	.30	.93	..	..	.08	....	....	....	..	3.92
Knoxville	T	.60	....	....	....	....	..	....	..	....	....	....	1.25	1.70	....	.55	....	.25	55	....	.04	1.12	....	1.45	....	....	.80	..	....	....	....	7 81
Lacona	...	.48	..	..	....	....	....	....	....	....	....		2.75	.08		.80	....	....	....	....	.02	1.28		.82	....	....	.48	....	..	....		6.71
Larrabee	.05	.15	..	....	....	....	....	....	....	....	....	T	1.76	.65	...	.36	T	T	....	T		....	T	....	....	.05	...	....	.75	.16	3.93
Le Claire	..	.46	.02	....	.04	....	....	....	.60	....	..	....	....	.17	.02		....	....	.02		T	.17	.02	.04	.15	....	.15	T	....	....	....	1.86
Le Mars	.18	....	....	....	....	....	....	..	....	..	....	.93		.10	....	.33	T	....	....	....	.91	....	....	.08	....	.12	....	....	1.20	.08	3.88
Lenox	....	.75	.02	....	..	.07	....	....	....	....	....	....	.51	.77	....	T	....	.55	....	....	....	.49	....	.05	....	....	.52	....	....	....	....	3.53
Leon	....	.11	....	..	....	.11	..	....	....	....	T	.07	....	.38	2.10	....	.40	....	.26	....	....	.52	....	.15	....	....	.52	..	....	....	....	4.60
Little Sioux	.02	T	...	....	.01	..	....	....	....	....	....	..	....	.22	....	....		.69	....	....	....	.24	....	07	....	....	....	....	....	....	.05	1.30
Logan	.02		....	..	....	.03		..	..	....	....	....	.01	....	....	....	..	1.00	..		....	.68	....	....	....	....	....	....	....	....	....	1.74
Maquoketa	....	.23	.	..	....	....	....	....	.19	..	....	.08	T	1.66	.24	....	....	....	T	.05	T	.05	..	.12	.46	..	.05	.15	....	....	.04	3.32
Marshalltown	....	.34	.05	....	....	....	....	....	..	....	..	....		.58	.80	T	....	....	....	.07	....	.77	....	.28	....	....	.25	....	....	.	.07	3.21
Mason City	.12	.18	.20	....	T		T			....	....	....	1.20	.23	T	....	....	.10	....	....	.10	....	.	2.55	....	.27	....	....	....	.10	T	5.00
Massena	....	.03	....	..	T	T	.05	....	....	....	....	....	.43	.69	....	....	....	1.15	.25	....	....	.25	..	.23	....	..	.76	....	....	....	....	3.84
Montezuma	....	.10	.10	....	....	....	..	....	....	....	....	....	....	.40			....	....	....	....	....	2.85	....	1.75	....	....	....	..	....	....	....	5.20
Mon'icello	.2	....	....	....	....	....	....	....	....	....	....	....	1.75	....	....	..	....	....	....	T	T	....	....	1.30	....	..	.30	....	....	.20	....	3.75
Mount Ayr	....	.25	....	...	.04	.16	..	.	...	..	....	....	1.00	.65		.20	....	.55	....	.	....	.81	....	.16	....	....	1.05	..	..		....	4.87
Mt. Pleasant	..	.89	....	..	.06	.05	....	.04	....	....	.08	.39	.05	....	1.08	..	....	T	.02	....	..	1.79	....	1.70	....	....	....	..	....	....	....	6.10
Mt. Vernon	....	.52	....	..	....	....	....	....	....	....	....	.01	.70	.05	T	....	....	....	.01	..	.02	.07	....	.08		....	.10	....	....	....	....	1.56
Muscatine	T	.33	....	....	.30	....	T	....	....	....	....	..	.48	.70	.12	....	....	....	T	....	T	1.10	.20	.07	.02	....	.01	.03	....	....	T	3.36
Nevada	....	.34	.	....	....	....	....	....	....	....	..	....	.20	.16	.40	....	..	....	....	....	.02	.25	....	1.16	.	.08	....	....	....	....	..	2.61
New Hampton	....	.26	....	....	....	....	.23	....	....	....	....	.37	1.38	.75	....	.	....	....	....	....	.04	....	....	.70	....	.10	.17	....	.26	....	....	4.26
Newton	T	.85	....	....	....	T	....	....		..	....	....	.52	.16	.56	.05	....	....	....	....	..	.49	....	1.02	....	....	1.34	....	....	....	.11	5.10
Northwood	.02	....	.03	....	....	....	....	....	....	..	....	.07	.87	.11	.38	.	...	.13	.04	....	.16	....	01	.70	....	.42	.03	....	....	....	....	2.97
Odebolt	.05	....	....	....	.	....		....	....	....	....	....	.29	.04	....	.40	....	.40	....	....	1.00		....	.04	....	....	....	....	....	.60	....	2.82
Ogden	.07	.29	....	.	....	..	....	.	..	..	....		.57	.03	.02	.65		.48	....		.20	.53		.64	....	..	....	....	....	..	.39	3 87
Olin	....	.66	....	....	.01	....	....	..	....	....	....	T	1.40	.40	....	....	....	.32	....	T	T	.02	....	....	....	....	.47	....	....	....	....	3.28
Omaha, Neb	76	.32	....	T	T	.05	....	..	....	....	....	T	.31	.04	....	..	.55	.09	....	....		.91	T	T	....	..	....	....	....	....	....	3.03
Onawa	.04	..	....	T	T	.15	....	....	....	....	....	....	.65	.25	....	....	..	.55	....	....	.03	.05	.01	.15	....	....	....	....	....	.15	....	2.03
Osage	T	.21	....	....	.02	....	....	..	.	....	....	.03	.77	.15	.27	....	...	.03	.01	....	.07		..	1.62	....	.11	.14	....	....	.	T	2.83
Oskaloosa	.35	....	....	....	.06	T	....	....	....	....	....	....	.04	.45	....	.36	....	.05		....	.50	.75	....	1.02	....	....	.22	....	..	....	....	3.80
Pacific Junction	.07	.62	...	....	....	.07	....	....	....	....	....	T	.10	.86	....	....	.	1.06	....	....		.66	..	.08	....	....	....	....	....	....	T	3.47
Perry	....	.44	...	....	....	T	....	..	..	....	....		.77	....		2.63	....	.43	....	....	.48	..	....	.25	....	....	T	....	....	.30	.05	5.30
Plover	1.70		.20	..	....	....	....	....	....	....	....	....	2.10	.13	.55	T	....	.22	....	T	T	....	....	2.73	....	....	....	....	....	.48	.36	8.47
Pocahontas	1.57	....	....	....	....	....	....	....	....	....	....	....	1.04	.06	.07	.28	.24	..	.04	....	.07	....	1.89	..	....	....	....	....	.41	....	.20	5.87
Red Oak	....	1.30	.11	....	T	.08	....	....	....	....	....	.04	T	.10	....	...	....	1.27	....	....	..	.90	....	....	....	....	.16	....	..	....	....	3.96

DAILY AND MONTHLY PRECIPITATION FOR AUGUST, 1905--CONTINUED.

STATIONS.	DAY OF MONTH																														TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Ridgeway	...	.03	...	T	.04	...	.55	.54	....	....	....	....	1.10	.36	....	.01	....	....	.08	...	.02	....	.04	.53	....	.28	....	....	.04	...	.05	3.62
Rock Rapids	....	....	...	....	....	....	....	....	....	....	....	.50	1.10	1.70	....	1.00	T	....	T	...	....	...	1.30	.40	....	....	....	....	....	..	....	6.00
Rockwell City	.25	.65	...	....	....	....	....	....	....	....	....	....	.55	.15	....	.25	....	.30	...	.10	....	.25	....	.60	....	....	....	....	....	....	1.10	4.20
Sac City	T	.06	....	....	....	....	....	....	....	....	...	2.13	.10	....	....	.11	....	.16	....	..	.08	....	....	.09	...	....	....	....	....	.18	.60	3.46
St. Charles	...	.15	.11	....	....	T	...	....	....	....	....	....	.40	.12	....	.60	....	.21	.01	....	.26	1.60	...	.40	....	...	.18	...	...	...	..	4.04
Sheldon	.15	....	....	....	....	....	....	....	....	....	....	.01	.85	.60	T	.55	T	.05	....	.02	....	...	.80	....	....	....	....	....	....	T	.02	3.15
Sibley	....	.59	.03	....	....	....	...	....	....	....	....	....	1.56	.26	.66	.02	.59	.02	.02	....	....	....	....	.83	....	....	....	....	....	....	.05	4.68
Sidney	.01	1.13	....	....	...	.30	....	....	....	....	....	T	.04	.53	....	....	....	1.35	....	..	....	.75	...	.04	....	....	1.28	....	....	....	....	5.43
Sigourney	....	.60	....	....	.07	T	....	..	....	....	....	....	.40	.20	....	....	T	.01	.05	....	....	1.60	..	.90	....	..	.11	....	....	....	....	3.94
Sioux Center	.06	.07	....	.09	....	....	....	....	....	....	T	....	.71	.11	....	.82	T	....	....	.85	T	...	T	...	....	T	....	....	....	.05	....	2.76
Sioux City	T	T	...	T	T	....	....	T	....	....	....	T	.52	.17	....	T	.04	.02	....	.70	T	....	.06	...	T	.09	..	....	....	.24	..	1.84
Stockport	....	.27	.11	....	.28	T	....	...	....	....	.23	.75	.05	.45	....	.03	....	.01	....	....	....	2.36	....	.84	....	....	.06	....	....	....	....	5.44
Storm Lake	....	.08	...	...	....	....	...	....	....	....	....	....	.46	.12	.53	.03	.20	.16	.11	....	.12	..	...	.18	....	....	....	....	....	....	.68	2.67
Thurman	T	1.28	....	....	....	.23	...	....	...	....	...	T	T	.31	....	....	....	2.80	....	....	....	1.35	....	.03	....	....	1.65	....	....	....	....	7.60
Tipton	.74	....	....	...	.14	..	....	....	....	....	....	....	....	2.12	1.25	....	...	....	....	....	....	.22	...	....	....	....	....	....	....	.28	...	4.75
Toledo	....	.35	....	...	...	...	...	....	....	....	....	....	.90	.65	.30	....	....	....	....	....	.10	.25	...	....	....	....	....	....	....	.30	.05	3.00
Vinton	...	....	....	...	....	.72	..	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	.13	....	....	....	T	....	....	....	.10	1.05
Washington	....	....	....	....	.05	....	....	....	....	....	....	.10	.65	.25	2.50	...	....	....	....	....	....	1.95	....	.08	....	....	....	....	....	....	....	5.58
Washta	T	.08	....	....	....	....	....	....	....	....	....	T	.03	.13	....	.40	....	.13	....	.88	....	....	....	.03	....	....	....	....	....	.55	....	2.23
Waterloo	....	.31	....	....	....	....	....	....	....	....	....	T	.11	1.15	.06	.41	....	T	T	....	.02	....	....	1.89	....	....	.15	....	....	.31	T	4 41
Waukee	....	1.17	....	....	....	.02	....	....	....	....	....	....	.52	.02	....	1 05	....	.25	....	....	.21	1.58	....	.45	....	....	.12	....	....	....	T	5 39
Waverly	.02	.19	.04	...	.01	...	....	....	....	....	...	.03	1.62	.58	55	....	....	.02	....	....	.06	....	....	1 52	....	....	.18	....	....	.65	.02	5.49
Webster City	1.27	.85	....	....	....	....	....	....	....	....	....	....	....	T	T	T	.25	....	....	....	.16	....	....	1.40	....	.27	....	....	....	T	.27	3.97
West Bend	1.98	....	T	...	....	....	...	....	....	....	....	.60	T	.10	.44	T	....	12	.06	....	T	...	....	1.80	....	T	...	....	...	.01	.22	5.83
Whitten	....	.51	....	....	....	T	....	....	....	....	....	....	.64	.05	.06	....	....	T	....	....	.10	...	....	.25	....	T	T	....	....	....	T	1.61
Wilton Junction	....	.31	T	..	.87	....	....	....	....	....	....	....	.98	.41	...	...	....	..	....	....	....	.74	....	.22	..	....	....	....	....	....	....	3.53
Winterset	...	.06	....	...	...	.04	....	....	....	....	....	....	.37	.68	...	.45	....	.42	.06	....	.24	1.04	....	.3	...	...	.10	....	....	...	....	3.84
Woodburn	....	....	.27	....	...	.08	....	....	....	...	...	....	....	1.00	....	.34	....	..	....	..	....	.90	....	....	....	....	.21	....	....	....	....	2.75
Zearing	.76	.37	.04	....	....	..	....	....	....	....	...	...	.65	.21	T	T	...	.06	....	....	.89	.05	....	1.60	...	....	.10	....	....	T	.19	4.52

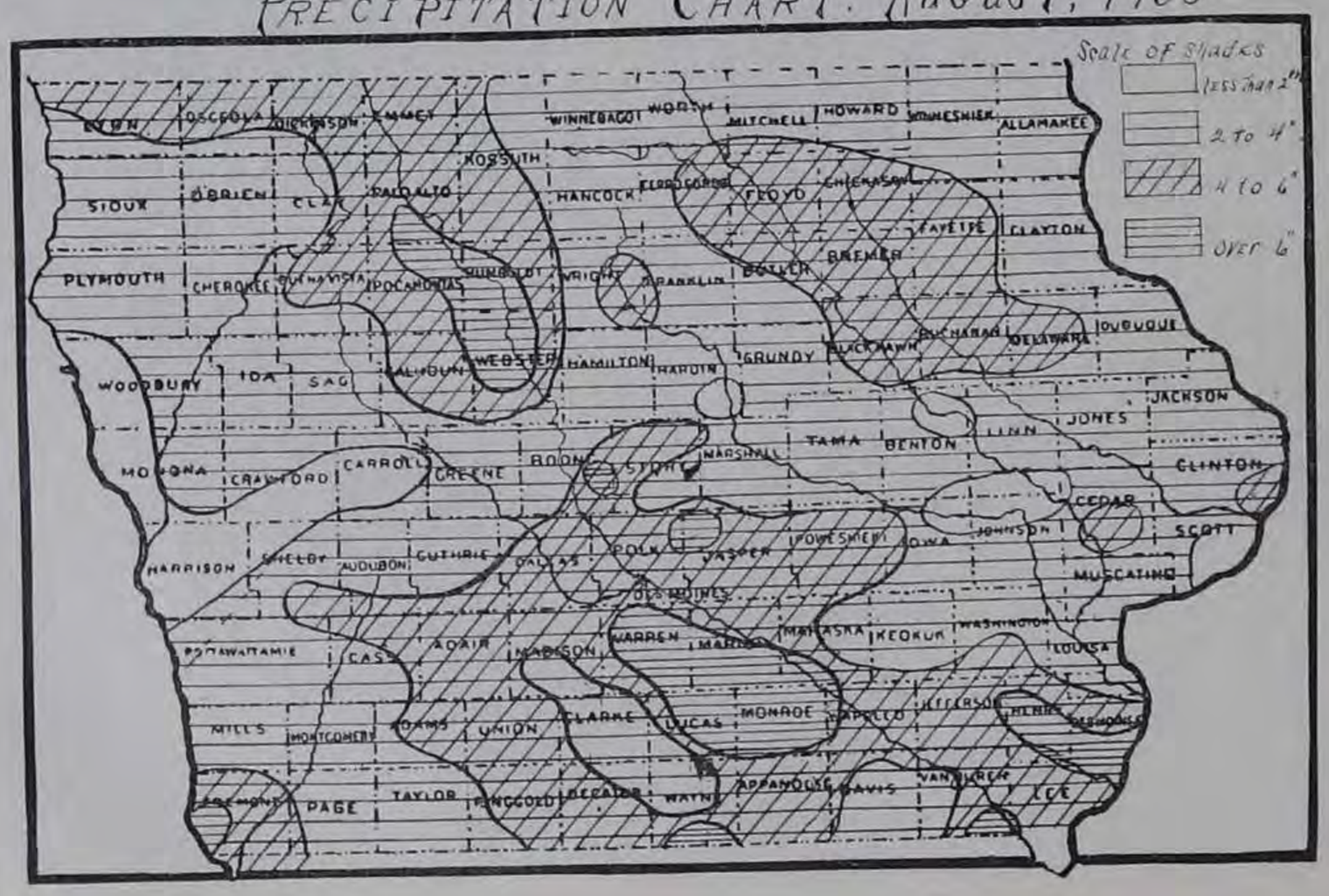
T. Amount too small to measure.

A DESTRUCTIVE HAILSTORM.

On the evening of August 21st one of the most damaging hailstorms ever witnessed in Poweshiek county struck the town of Montezuma, says the *Grinnell Herald* of August 22d.

The storm came from the northwest and cut a clean swath about three miles wide and several miles long, stripping trees of leaves and bark, cutting off cornstalks and ruining the crops, de troying fruit, breaking window lights and splitting shingles and weather boarding. The hail was accompanied by a high wind. At Ewart where but little hail fell the corn was blown to the northeast while at Montezuma the wind blew toward the southeast. The hailstones were very large ranging from the size of a walnut to the size of the fist. The *Republican* office at Montezuma presented a broadside to the storm and suffered greatly thereby, having all its north window lights demolished and being deluged with rain. The lights on the north side of churches, schoolhouses, masonic hall and court house as well as those of dwelling houses were smashed during the terrific bombardment. The high school building lost fifty-six lights, Garfield school twenty. All the lights on the north side of every church in town were broken and about three-fourths of the lights on the north side of residences. It is reported that corn crops in the path on the storm were completely destroyed. The hailstorm lasted about fifteen minutes and rain fell in torrents accompanied by high wind and blinding lighting which did a great deal of damage, setting fire to barns and killing stock.

PRECIPITATION CHART. AUGUST, 1905



SEPTEMBER, 1905 No. 9



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CENTRAL STATION, DES MOINES, IOWA.

J. R. SAGE,
DIRECTOR.

GEO. M. CHAPPEL,
LOCAL FORECASTER,
U. S. WEATHER BUREAU, ASS'T DIRECTOR.

THE IOWA WEATHER AND CROP SERVICE

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CONSTITUTED AS FOLLOWS:

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Winterset	H. A. Kinsman
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West Union	H. B. Blackman
Wiota	I. S. Coomes
Woodward	George Swisher

U. S. DEPARTMENT OF AGRICULTURE—WEATHER BUREAU.

MONTHLY REVIEW

OF THE

Iowa Weather and Crop Service.

VOLUME XVI. SEPTEMBER, 1905. No. 9.

SEPTEMBER WEATHER AND CROPS.

September was about two degrees above normal in daily average temperature, with a small excess of the mean rainfall. The warmest and brightest period of the month was the last decade, and the coldest period was from the 1st to the 9th. The heaviest rainfall for the state occurred in the second decade, from about the 12th to the 18th. The distribution of rainfall was quite unequal, the heaviest downpours occurring in the southwestern half of the state, dividing by a diagonal line from Lyon to Lee county. In portions of the area of greatest precipitation the excess was somewhat detrimental to crops, and especially damaging to wheat and oats in the fields put up in shocks awaiting favorable conditions for thrashing. The heaviest losses of the season resulted from the prevalent method of thrashing from the shock instead of the stack or barn. As a result, much of the excellent crop of small grain produced this year has been badly discolored and reduced below the standard grades in the markets. During the stormy period, about the 17th to the 19th, severe windstorms swept over considerable areas in all districts, aggregating probably about one-third of the state. Corn was prostrated to an unusual extent, and much of it failed to regain its standing position on account of great weight of ears and stalks. The damage and consequent reduction in quality and amount of the output can not be estimated prior to the harvest, but it is certain that a material loss resulted from that cause. The extraordinary weather of the last twelve days was of inestimable value to the state, bringing to maturity the belated portion of the corn crop and affording ideal conditions for cutting fodder, thrashing grain, putting up the second crop of clover, aftermath and wild hay, fall plowing, etc. At the close of the month practically 98 per cent of corn was well matured, and most of that which was planted about the middle of June was made sound and merchantable. Altogether September was a month to be remembered for its abundant sunshine and generally beneficient conditions, serving as a fitting crown of a most bountiful season.

NOTES AND COMMENTS.

According to a bulletin issued by the Iowa Highway Commission, this state has in rounds numbers about 100,000 miles of country roads. Of this mileage about 25,000 miles should be classed as main traveled roads. When these main traveled highways are made solid and reliable at all times of the year, they will constitute such a network that no farmer will be far from a good road. The business of the State Commission is to devise and adopt plans and systems of highway construction and maintenance, and disseminate information to all officers whose duties are in anyway related to that line of public service.

About 800,000 acres of land in Iowa is dedicated to public use in the highways, exclusive of the large acreage in the streets of the cities and towns. The country roads, and many of the streets in towns, afford fertile breeding ground for all kinds of pestiferous weeds. One of the good roads problems awaiting solution is how to abate the weed nuisance and make roads pleasant to the eye as well as passable for travel.

In the building of culverts and bridges and the digging of ditches reference must always be had to the maximum amount of water which they may be called upon to handle. It is the extraordinary and not the average rainfall which wrecks these structures and determines the water carrying capacity of the ditch. We recall the case of the man who undertook to drain and reclaim a small lake bed. He carefully figured out the average rainfall and the area of the watershed tributary to the lake and made out that a ditch of a certain size would easily carry off all the water. He drained the lake bed and had it all in crops, when one day along in June came a cloudburst, a rainfall of ten inches inside of six hours, which covered his crops with six feet of water, his ditch not being one-half large enough to handle such a volume of water, so when it did finally dispose of the water the crops were all ruined.—*J. S. Trigg*.

The present season affords, in the west at least, a remarkable object lesson in the value of tile drainage for wet farms. Side by side may be seen cornfields, the one on well drained land, the other taking its chance with the soil undrained, the one burdened with a magnificent crop, the other yellow and spindly, promising no satisfactory return whatever. The difference in the value of these two crops just about represents the cost of tile draining the land. It is almost needless to say that no business is being so overworked in that territory as the tile factories.—*J. S. Trigg*.

There are few bureaus in the United States Department of Agriculture that are more worthy of commendation than the climate and crop service as it has been instituted in every state in the Union. Not only are these weekly reports of interest, but they may be made of great value to both the producer and the consumer. Either can regulate their sales and purchases in a considerable measure by conditions of weather and crops as regularly recorded by the various bureaus working in conjunction with the Department of Agriculture.—*Prairie Farmer*.

Dr. Sohn said recently: "The climatic conditions in Greenland above the Artic circle are ideal. Even at our best consumption resorts in this country the patient has good days and bad nights. He can not go out in the damp air, and ordinarily

he loses at night what he has gained during the day. The secret of the outdoor treatment for this disease is abundant sunlight and dry, cold, bracing atmosphere. In the Artic regions in summer there is a period of three months of never-ceasing sunlight every hour in the twenty-four. Think of the effect of a continuous sun-bath of fourteen weeks. I have made numerous bacteriological cultures in Greenland, and have never found a disease germ. Such germs can not exist in that climate, as their propagation depends upon a temperature almost as high as that of the human body."

Hon. John Cownie, who is one of the best agricultural writers in the state, wants the farmers to get their seed corn in before any heavy frosts come, not later than the middle of October. He wants the best ears selected. He wants the ears put in crates, or swung over a beam in order that they may be thoroughly dried. He wants the corn kept during the winter months where it will not be exposed to zero temperature, some place where it will have a very even temperature, where dampness can not reach it and where rats and mice do not enter and destroy. Presumably he prefers the attic over a farmer's kitchen. In the spring he wants only the best kernels of each ear taken and planted, none of the kernels that grow at the tip or the butt of the ear.

If all this advice is followed and the corn is planted early, Mr. Cownie will guarantee 100 per cent corn in every field in the state. Mr. Cownie's advice is so direct and it is so easily followed that it is to be hoped the farmers generally will make use of it.—*Cedar Rapids Republican*.

THE NINE-LIVED CORN.

[*"Frolic of the Types," Council Bluffs Nonpareil.*]

The corn was killed in early May,
The floods had washed it quite away.

And later on it died again
And rotted 'neath the constant rain.

Once more we tolled its final knell;
The seed had not been tested well.

Yet, later, it began to sprout,
Then died. The weeds had run it out.

And later yet, still thin and pale,
It perished in a storm of hail.

Then came a fierce and burning heat,
It died that week of "fired" feet.

And then the awful smut arrived
And not a single stalk survived.

And soon we watched it in dismay,
Dry up and shrivel quite away.

Then came the last and saddest death;
It wilted 'neath the frost king's breath.

Nine times it died; and yet that fall,
We built new cribs to hold it all.

Now tell me, is there any cat
With lives enough to equal that?

ANOTHER RAIN MEDICINE MAN.

A correspondent of the Kansas City Star, writing from Topeka, Kansas, August 11th, said: There was an echo of the days when Kansas indulged seriously in the business of rainmaking in the mail of the secretary of state today. It was a letter from a Missourian who asked for the privilege of "showing" Kansas how to make rain. The Missourian is Allen Dorman, "president of the Continental Rainmaking company," of Clinton, Missouri. In a letter to the secretary of state, Prof. Dorman declared that he could come to Kansas and produce rain at any time and asked for orders. In his statement to the Kansas official, Dorman says:

"Rainmaking is a science. Oxygen is a poor conductor and bears the mineral molecules in their detached form that bridles the cloud with their electricity when it is far off. The mineral molecules are not oxidized; some may be borne far away on their mission of good. The Mississippi valley has been helped a billion dollars. Clinton, Mo., has been helped. Science has done the work. I have a drought formula."

"Boom, boom, boom! hear the cannon boom. A rain will surely come. A much needed rain is coming if science can induce nature to turn loose her moisture. The cannon booms and throws chemicals above the ground current to form new raindrops and prepare the chemical blue of the sky for rain. Science is advancing with leaps and bounds, but to help nature and to cope with its extensive meteorological conditions a purse of $500 may be required. Boards of trade and cities are expected to arrange lodging, location, cannon, etc., to save time and expense. Please state size of cannon caliber for chemical packages."

Mr. Dorman then proceeds to tell the secretary of state that he is the inventor of countless things of benefit to mankind. In his list of patents are "break hens from setting," "tooth powder," "to break new shoes," "home-made lye," "pie pan plates," etc.

Kansas ceased depending on artificial means for rain fifteen years ago. The state has suffered to such an extent from excessive moisture this year that a rainmaker would receive a scant welcome here.

LIGHTNING RODS UP TO DATE.

[The Literary Digest.]

The matter of protection from lightning, in the light of the most recent statistics, observations and experiments, is taken up in the report of a committee appointed in 1904 by the Royal Institute of British Architects. The conclusion of this body, which included several well-known scientific men and engineers, tend to modify in important directions the report published by the Lightning Rod Conference of Great Britain in 1882, which laid down what have since been considered the standard rules on the subject. The gist of these was that buildings should be protected by copper-strip conductors well grounded at the bottom and sharply pointed near the top. While the observance of this method doubtless saved many buildings, there has been a general feeling that it did not go thoroughly enough into the matter, and the present investigation, which covers the years 1901–04, is the result. The conclusions are thus stated editorially in *The Electrical World and Engineer* (New York):

"As the result of the investigation, and of experimental researches conducted since the lightning-rod conference report of 1882, the whole theory of lightning protection has been modified. The old idea was to erect perpendicular conductors from good ground to the top of the building. If there are several high points on the building, erect a perpendicular to each. It was supposed that a vertical rod exercised a protecting range of influence for a radial distance equal to its own height. These notions are abandoned. It is now supposed that lightning flashes are of two distinct characters, or, as described in the report, there are A flashes and B flashes. The vertical conductor is all-right for the A flash, but for the B flash it may be of no use. There is thus always the comforting reflection left open to the owner of a lightning-struck rodded building that he suffered from a B flash. In brief, an A flash is a direct or main discharge between cloud and ground, while a B flash is a side discharge between one cloud and ground precipitated as the immediate consequence of a main flash between two opposed clouds. The only complete protection against a B flash is to construct a bird cage of metal around the building and to

ground the bird cage. This is almost precisely the construction followed in a modern skyscraper or tall office building, except that occasionally the steel structure is not thoroughly grounded. It is noticed in the report that these tall steel structures appear to be immune. Those who work inside modern tall office buildings during thunderstorms ought to lay this consolation to their souls: that they are rendered as nearly immune to lightning as modern science can devise. A flashes and B flashes may jump about and envelop them, but persons who are well inside the metal bird cage may consider themselves safe."

The new report, departing from the old, no longer recommends to gild, platinize, or electroplate the points near the top of a rod, and it restores iron conductors to confidence, preferring them to copper (except on the score of permanence) because of larger inductance, which in the old days was held in horror. Finally, the new report advises that two rods should be provided on each tower or high part of a building, one on each side. The writer concludes:

"Horizontal conductors should interconnect all vertical rods at the roof-ridge level, and also at the ground level. This works in the direction of the bird cage theory. All large masses of metal, in or on the building, should be grounded as directly as possible. Gas pipes should be kept away from lightning conductors. Steel pipe grounds are recommended, terminating below in packed charcoal and kept moist by rain-flow above. There can be no doubt that the new report is a great improvement over the earlier one, and property owners all over the world owe thanks to the committee for its labors. All nations have taxes and lightning damages in common."

CLIMATOLOGY OF THE MONTH OF SEPTEMBER, 1905.

BAROMETER.—Mean pressure, 29.99 inches; highest observed, 30.35 inches, at Dubuque, on the 13th; lowest observed, 29.50 inches, at Charles City, on the 18th; range for state, 0.85 of an inch.

TEMPERATURE.—The monthly mean temperature for the state, as shown by records of 124 stations, was 65.8°, which is 2° above normal. By sections the mean temperatures were as follows: Northern section, 64.2°, which is 1.9° above normal; central section, 65.8° degrees, which is 2.5° above normal; southern section, 67.3°, which is 1.5° above normal. The highest monthly mean was 69.2°, at Red Oak; lowest monthly mean, 62°, at Hanlontown. The highest temperature reported was 96°, at Mount Ayr and Ottumwa, on the 1st; lowest temperature reported, 36° at Washta, on the 4th. The average monthly maximum was 88.0°; average monthly minimum, 44.0°. Greatest daily range, 48°, at Massena; average of greatest daily ranges, 34.1°.

PRECIPITATION.—Average precipitation for the state, as shown by records of 130 stations, was 3.81 inches, which is .50 of an inch above normal. The averages by sections were as follows: Northern section, 3.23 inches, which is .16 of an inch below normal; central section, 3.08 inches, which is .17 of an inch below normal; southern section, 5.11 inches, which is 1.81 inches above normal. The largest amount reported was 13.18 inches at Thurman; least amount reported, .50 of an inch, at Clear Lake. The greatest daily rainfall reported was 6.10 inches at Alta on the 18th. Average number of days on which .01 of an inch or more was reported, 8.

WIND AND WEATHER.—Prevailing direction of the wind, southeast; highest velocity reported, 50 miles per hour, from the southeast, at Sioux City, on the 15th. Average number of clear days, 14; partly cloudy, 8; cloudy, 8.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	29.99	30.31	13	29.50	18
Davenport	30.00	30.26	13	29.63	18
Des Moines	30.00	30.27	8	29.55	18
Dubuque	30.01	30.35	13	29.59	18
Omaha, Neb	29.97	30.23	4	29.55	17
Keokuk	30.00	30.23	23	29.65	18
Sioux City	29.95	30.23	4	29.51	18
Means	29.99	30.35	13	29.50	13

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	4491	25	SE	30
Davenport	4766	38	NW	1
Des Moines	5088	37	SW	18
Dubuque	4219	23	S	18
Keokuk	4722	36	W	15
La Crosse, Wis	4721	21	S	26
Omaha, Neb	5324	54	NE	15
Sioux City	8407	50	SE	15

CLIMATOLOGICAL DATA FOR SEPTEMBER, 1905.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Algona	Kossuth	1,213	28	64.0	† 1.5	84	27	42	23	32	1.61	- 1.55	.55	....	7	15	6	9	SE	
Alta	Buena Vista	1,513	14	64.1	† 0.9	84	11,27,28	44	4	35	7.66	† 4.99	6.10	....	7	13	11	6	S	
Alta (near)	Buena Vista	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.29	.....	5.35	...	8	...	...	...	...	
Alton	Sioux	.....	...	64.6	.....	85	11	42	23	33	5.20	.....	2.31	....	7	15	9	6	SE	
Britt	Hancock	1,236	8	63.5	† 1.9	85	11,27	40	23	36	1.49	- 2.56	.67	....	8	8	19	3	SW	
Charles City	Floyd	1,015	18	62.8	- 1.3	85	27	41	23	36	2.00	- 1.19	.78	..	12	12	8	10	SE	
Clear Lake (a)	Cerro Gordo	1,241	7	62.8	† 1.2	82	28	47	13,25	26	.50	- 3.08	.50	....	1	...	...	...	SE	
Cresco	Howard	.....	31	63.3	† 1.7	82	27,28	43	14	30	1.45	- 2.24	.55	....	9	14	9	7	SE	
Decorah	Winneshiek	857	12	64.5	† 2.6	83	27,29	42	23	31	1.91	- 1.54	.94	..	5	...	...	...	...	
Dows	Wright	1,142	9	63.9	† 2.3	86	27	40	23	35	1.36	- 2.41	.47	....	9	14	9	7	SE	
Elkader	Clayton	727	21	66.5	† 4.5	90	27	39	23	40	3.07	- .75	1.66	....	6	17	9	4	SE	
Estherville (a)	Emmet	1,298	12	62.8	† 1.9	85	11	42	5,6	38	5.68	† 2.58	2.60	....	8	17	0	13	SE, NW	
Fayette	Fayette	.....	15	63.7	† 1.2	87	27	37	23	38	3.58	† .62	2.60	....	8	15	7	8	SW	
Florence	Wright	1,220	..	.....	.....	.....	.....	.....	.....	.....	1.57	.....	.42	....	6	2	24	4	S	
Forest City (a)	Winnebago	1,226	11	63.6	† 1.3	88	27,28	42	23	36	1.98	- 1.84	.45	....	7	16	1	13	SW	
Grand Meadow	Clayton	1,180	11	64.2	† 2.5	83	29	45	23,25	27	3.36	† .19	2.65	....	6	11	8	11	SE	
Greene	Butler	924	8	64.0	- 0.1	86	27	42	23	37	1.68	- 1.66	.50	..	9	8	10	12	E	
Hampton	Franklin	1,155	13	65.8	† 3.5	91	27	45	23	36	2.57	- .93	.65	..	8	9	18	3	SE	
Hanlontown	Worth	.....	...	62.0	.....	84	11,28	38	23	38	1.54	.....	.34	...	9	17	4	9	SE	
Humboldt	Humboldt	1,095	16	64.2	† 1.9	84	27	43	23	30	1.84	- 1.60	.98	..	7	16	4	10	SE	
Inwood	Lyon	.....	...	64.7	.....	89	11	39	4	40	4.42	.....	2.00	....	5	22	0	8	S, SE	
Larrabee (a)	Cherokee	1,266	12	64.9	† 1.8	85	14,27	42	4	35	7.41	† 4.53	5.50	....	8	14	10	6	S	
LeMars	Plymouth	1,224	7	64.8	† 1.9	85	1,11	41	4	32	8.31	† 5.12	3.55	....	8	14	9	7	S	
Mason City	Cerro Gordo	1,132	8	64.0	† 1.0	85	27	44	23	33	1.00	- .85	.35	....	6	10	12	8	SE	
Northwood	Worth	1,222	8	63.3	† 3.0	84	28	42	23	33	1.89	- 1.60	.75	....	11	15	9	6	SW	
Osage	Mitchell	1,184	13	63.4	† 4.0	85	27	43	23	35	1.53	- 1.97	.50	...	9	12	7	11	S	
Plover	Pocahontas	.....	8	63.6	† 0.2	85	14	46	2,4	29	.....	.....	.....	....	...	20	8	2	S	
Pocahontas	Pocahontas	1,190		64.6		85	11,26,27	45	4,23	33	3.25	.....	.85	....	7	14	6	10	SE, S	
Ridgeway	Winneshiek	1,215	7	66.4	† 4.2	91	30	45	25	33	2.02	- 2.11	.88	....	14	13	12	5	S	
Rock Rapids	Lyon	1,021	..	67.8	† 4.8	88	26,28	38	3	35	2.73	† .43	.80	....	5	...	...	...	S	
Sheldon	O'Brien	1,422	6	65.7	† 3.3	88	11	42	4	38	4.36	† .27	1.80	...	8	17	7	6	S	
Sibley	Osceola	1,212	12	62.6	† 1.4	86	11	43	5,13,20	38	4.07	† .91	1.69	....	10	18	0	12	SE	
Sioux Center	Sioux	.....	6	63.9	† 3.2	86	11	42	4	33	4.47	† .09	1.10	....	9	16	7	7	S	
Spirit Lake	Dickinson	1,458		65.2	† 1.2	93	21	44	5	47	3.15	- 2.56	1.00	....	8	11	10	9	S	
Storm Lake	Buena Vista	1,440	8	63.4	- 0.1	85	27	44	23	33	3.95	† .93	2.10	....	6	16	1	13	NE, SE	
Washta	Cherokee	1,157	..	65.2		89	27	36	4	40	5.51	† 1.60	3.88	....	5	18	6	6	S	
Waverly	Bremer	942	9	64.2	† 1.7	87	27	42	23	32	1.73	- 1.47	.70	...	10	11	12	7		
West Bend	Palo Alto	1,197	12	63.4	† 2.6	83	27	43	5	30	2.65	- .53	.58	....	8	10	11	9	S	
Average		.....	....	64.2	† 1.9	85.9	.....	42.2	.....	34.4	3.23	- .16	.....	....	8	14	8	8	SE	

CENTRAL SECTION.

Altoona	Polk	.....	....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	...	...	...	...	.....	
Amana	Iowa	721	27	66.4	† 3.7	90	1	45	23	34	1.84	-1.52	.70	....	6	12	5	13	SE	
Ames	Story	926	21	65.7	† 2.3	88	27	43	23	34	2.96	- .57	1.20	....	9	13	13	4	SW	
Audubon	Audubon	1,301	9	65.5	† 2.1	87	27	41	23	41	4.50	†1.44	1.81	....	12	9	12	9	SE	
Baxter	Jasper	998	....	66.5	† 4.1	86	27	44	23	33	2.81	- .30	1.32	....	5	12	3	15	SE	
Belle Plaine	Benton	826	14	65.2	† 1.5	88	1	43	23	33	3.05	† .15	1.00	....	9	9	9	12	SE	
Boone (a)	Boone	....	....	65.2	.....	87	28	47	23	34	2.91	.....	1.24	..	7	16	7	7	SE	
Buckingham	Iowa	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.37	† .48	2.29	....	5	10	16	4	.....	
Carroll	Carroll	1,265	13	64.2	† 1.1	85	27	42	23	38	2.51	- .61	.90	....	7	17	0	13	.....	
Cedar Rapids	Linn	733	23	66.6	† 3.0	92	1	46	23	40	1.50	-1.39	.74	..	7	11	10	9	SE	
Clinton	Clinton	609	38	65.8	† 2.7	91	1	41	5	35	3.81	† .71	3.04	....	6	9	14	7	S	
Davenport	Scott	606	34	67.9	† 3.2	92	1	50	25	32	3.48	† .30	2.72	....	7	11	9	10	E	
Delaware	Delaware	1,083	12	64.2	† 2.8	85	1	44	20,25	32	2.62	- .62	1.16	....	5	13	11	6	SE	
Denison ‡	Crawford	1,180	9	66.0	† 2.6	89	27	41	4,23	35	2.96	- .25	.95	....	7	20	3	7	S	
Des Moines	Polk	861	27	67.3	† 3.2	88	27	50	23	31	3.47	† .27	.81	....	10	12	9	9	S	
De Soto	Dallas	866	..	67.4	.....	89	27	46	23	34	3.03		.98	....	6	20	4	6	SE	
Dubuque	Dubuque	655	32	67.0	† 3.8	87	27	49	23	29	1.25	-2.84	.57	...	6	11	11	8	SW	
Fort Dodge	Webster	1,126	....	63.8	.....	86	27,28	44	23,24	35	2.54	.....	1.45	..	10	17	3	10	S	
Galva	Ida	1,290	12	64.0	- 0.5	84	27	42	4	34	4.70	† .70	2.35	...	7	17	1	12	S	
Gilman	Marshall	1,052	....	.....	.....	.....	.....	.....	.....	.....	3.52	† .89	.98	....	5	12	10	8	S	
Grinnell	Poweshiek	1,023	10	66.2	† 2.8	90	1	45	23	34	2.07	- .39	.85	....	5	11	9	10	SW	
Grundy Center	Grundy	2,976	12	65.6	† 2.7	87	27	42	23	34	1.54	-1.78	.48	....	7	12	9	9	SE	
Guthrie Center	Guthrie	1,077	7	66.0	† 2.5	85	27	43	23	30	3.68	† .22	.85	..	7	21	3	6	SW	
Harlan	Shelby	1,192	....	65.6	† 3.5	85	27	41	4	31	3.54	- .46	1.01	....	8	10	13	7	S	
Ida Grove	Ida	1,220		62.3	.....	83	11	38	5	31	2.73	.....	1.10	....	4	23	3	4	SW	
Iowa City (a)	Johnson	683	47	66.0	† 2.6	91	1	.....	.....	.....	1.54	-2.29	.77	....	7	5	11	14	N	
Iowa Falls	Hardin	1,170	10	63.4	† 1.8	85	27	40	23	36	2.81	- .51	1.74	....	7	14	4	12	SE	
Jefferson (f)	Greene	.....	....	66.6	...	88	26,27	45	4	31	4.40	.....	1.64	....	6	...	...	...	SE	
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	3.11	....	2.70	.	5	...	...	...	S	
Little Sioux	Harrison	.....	....	68.6		88	27,28	44	4	33	4.64		.93	....	9	15	8	7	SE	
Logan	Harrison	928	36	67.0	† 3.0	86	27	40	4	35	6.52	†3.41	1.71	....	6	10	16	4	SE, SW	
Maquoketa	Jackson	688	12	64.6	† 0.8	90	1,27	39	23	42	2.82	- .39	1.20	...	8	16	5	9	SW	
Marshalltown	Marshall	947	10	66.0	† 1.8	90	27	42	23	43	3.34	† .67	1.48	....	12	10	6	14	SE	
Monticello	Jones	925	....	64.0	† 2.4	87	1	40	22	41	2.64	-1.05	1.12	...	6	14	7	9	SE	
Mount Vernon	Linn	847	30	66.4	† 4.7	91	1	45	20,23	37	1.32	-1.49	.80	....	6	11	12	7	NW	
Muscatine	Muscatine	.....	46								1.33	-2.39	.38	....	7	...	...	...	S	
Newton	Jasper	944	15	65.2	† 2.3	86	1	48	23	32	3.47	† .24	1.66	....	5	15	7	8	S	
Odebolt	Sac	1,356	8	65.1	† 2.0	85	29	44	4	30	4.69	†1.54	1.92	....	7	17	5	8	.....	
Ogden	Boone	1,058	9	66.4	† 1.7	88	11	46	23	34	2.38	-1.42	.77	....	8	12	5	13	SE	
Olin	Jones	760	7	65.8	† 4.3	89	1	43	20,23	33	2.30	-1.08	.82	....	4	13	12	5	SW	
Perry (c)	Dallas	975	....	66.2	.....	86	27	45	23	31	2.40	.....	1.20	....	5	...	...	...	.....	
Onawa	Monona	.....	.....	68.2	† 4.1	89	28	44	4	38	5.23	†2.46	2.10	....	11	19	2	9	SE	
Rockwell City	Calhoun	.....	8	65.3	† 1.1	88	28	43	23	34	2.70	- .37	.60	....	7	17	2	11	.....	
Sac City	Sac	1,278	23	64.4	† 2.8	84	27	43	23	33	2.37	- .92	.50	....	6	22	4	4	SE	
Sioux City	Woodbury	1,165	16	65.7	† 0.5	87	11	44	4	33	6.37	†4.28	4.29	...	9	13	5	12	SE	
Tipton	Cedar	807		68.6	† 3.9	92	1	49	20,26	31	2.06	-1.13	1.02	..	3	19	7	4	SE	
Toledo (a)	Tama	856	9	66.1	† 2.0	88	1,27	42	28	36	4.00	† .89	1.70	....	9	14	7	9	.....	
Vinton (a)	Benton	810	15	65.8	† 3.0	89	29	42	23	34	2.08	- .71	1.10	....	7	...	...	...	S	
Waterloo	Black Hawk	862	16	65.4	† 3.0	89	27	42	23	37	2.99	- .50	1.29	....	6	8	17	5	SE	
Waukee	Dallas	1,039	....	67.0	.....	90	1	48	4,23	31	3.59	.....	1.16	....	7	14	8	8	SE	
Webster City	Hamilton	.....		65.2	.....	87	27	40	23	38	2.04	.....	.53	....	7	21	0	9	SE	
Whitten (h)	Hardin	1,036	....	65.4	† 2.8	85	27	41	23	36	.....	.....	.....	....	...	...	...	...	.....	
Wilton Jct	Muscatine	683	11	66.9	† 2.6	94	1	45	23	42	4.60	†1.42	1.50	....	6	16	1	13	NW	
Zearing	Story	718	..	65.2	.....	88	27	41	23	36	1.81	.....	.63	..	7	16	8	6	E	
Average		.....	.....	65.8	† 2.5	87.8	.....	43.6	.....	34.6	3.08	-0.17	.....	....	7	14	7	9	SE	

†Above normal. ‡ Received too late to be computed with means. *a*. One day missing; *b*. two days, etc. § Not supplied with self-registering instruments.

CLIMATOLOGICAL DATA FOR SEPTEMBER, 1905—CONTINUED.

SOUTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Afton	Union	1,212	11	66.6	† 1.5	88	1,27	47	20,23	29	5.27	† 1.40	1.78	...	7	12	10	8	SW	
Albia	Monroe	967	..	66.4	† 2.2	90	1	47	23,24	37	4.92	† 1.00	1.52	...	11	16	2	12	SE, SW	
Allerton	Wayne	.....	....	67.8		93	1	48	4,20	33	4.67	.....	1.36	....	10	16	9	5	SW, NW	
Atlantic	Cass	1,164	14	66.3	† 7.2	89	27	40	4	34	9.23	† 6.56	2.35	..	9	5	10	15	SE	
Bedford	Taylor	.....	5	67.8	† 4.5	93	1	45	4	33	5.73	† 2.21	1.18	..	10	14	8	8	SE	
Bonaparte	Van Buren	.....	14	68.2	† 0.5	93	1	47	19,20	35	2.05	- 1.96	1.03	....	9	....	....	....	.....	
Burlington	Des Moines	544		68.9	.....	93	1	48	23	33	2.90	.....	.96	....	10	17	5	8	SE	
Chariton	Lucas	1,042	10	66.3	† 0.7	91	1	47	20,21,23	38	3.67	- .06	.98	....	6	17	7	6	SE	
Clarinda	Page	....	15	67.4	† 1.4	94	1	45	20	43	6.14	† 3.58	2.17	...	11	15	2	13	SE, S	
College Springs	Page	.....	14	67.6	† 0.5	88	1	45	4	34	7.88	† 5.42	2.95	....	8	19	5	6	SE	
Columbus Jct	Louisa	586	..	68.1	....	91	1	48	26	34	1.56	.....	.65	....	5	19	8	3	SE	
Corning	Adams	1,127	13	65.1	† 0.0	88	1	45	4	30	7.89	† 5.41	1.75	....	7	12	12	6	SE	
Corydon	Wayne	992	12	68.0	† 1.5	92	1	49	4,5,20	32	3.04	- .82	.83	....	7	12	5	13	SE	
Creston (a)	Union	.....	....	66.0		86	1	48	4,5	30	6.37	.....	2.00	....	8	14	6	10	.....	
Cumberland	Cass	.....	....	....	.....	.....	.....	.....	.....	.....	8.22	† 5.24	2.01	....	10	18	2	10	SW	
Earlham	Madison	.....	...	61.6	.....	87	1	40	24	43	3.53	.....	1.22	....	7	17	3	10	S	
Elliott	Montgomery	.....		67.5		89	1	44	4	33	6.39	.....	1.18	...	8	15	12	3	SE	
Ft. Madison	Lee	516	56	....	....	.....	.....	.....	.....	.....	2.38	- 1.41	.80	....	6	10	6	14	S	
Greenwood	Mills	.....	17	67.5	- 0.4	86	27	45	4	35	7.50	† 5.37	2.25	....	6	10	17	3	SW	
Greenfield	Adair	.....	14	66.1	† 0.3	87	1	44	4	32	6.06	† 2.78	1.46	....	9	15	10	5	S	
Hopeville (a)	Clark	.....	13	67.8	† 1.2	93	1	49	4,20,23	31	5.68	† 2.15	2.03	....	6	9	13	8	S	
Indianola	Warren	.....	...	66.8	† 1.2	91	1	47	23	33	.....	.....	1.28	....	...	9	8	13	SE	
Keokuk	Lee	619	34	68.6	† 2.2	92	1	50	26	32	4.15	† .63	1.38	..	11	15	3	12	SW	
Keosauqua	Van Buren	644	13	67.2	- 0.2	94	1	46	23	40	2.20	- 2.28	.80	...	8	2	13	15	.....	
Lacona	Warren	.....	...	...	...	...	.....	.....	.....	.....	3.96	† .35	1.12	....	10	11	14	5	.....	
Lenox	Taylor	1,250	10	66.8	† 1.3	88	1	45	4	38	6.73	† 3.76	2.08	....	9	15	11	4	S	
Leon	Decatur	1,120	....	67.0		88	1	50	4,5,19, 20,21,23	32	4.45	.....	1.11	....	12	16	6	8	SE	
Massena	Cass	.....	...	68.1	....	91	1.24	43	4,24	48	7.57	.....	1.50	....	8	17	4	9	SE, S	
Mt. Ayr	Ringgold	1,236	12	68.4	† 1.7	96	1	46	4	36	6.92	† 3.75	2.30	....	9	10	11	9	SE	
Mt. Pleasant	Henry	729	24	67.6	† 4.0	93	1	48	5,20	31	2.02	- 1.34	.77	....	8	13	9	8	SW	
Omaha, Neb.	Douglas	1,113	34	68.8	..	88	24	51	4	27	5.94	.....	1.80	....	8	10	10	10	S	
Oskaloosa	Mahaska	843	22	67.2	† 2.8	89	1	45	23	35	2.31	- .79	.84	....	6	18	0	12	SE, SW	
Ottumwa	Wapello	649	11	66.8	† 0.2	96	1	48	5	28	3.37	- .95	2.16	..	7	16	2	12	.....	
Pacific Junction	Mills	980	6	67.0	† 3.1	87	23	39	4	35	8.13	† 5.81	2.00	....	8	14	8	8	SE, S	
Pella	Marion	....	....	68.6	.....	91	1	48	23	34	2.28	.....	.85	....	6	14	4	12	S	
Red Oak	Montgomery	1,033	8	69.2	† 2.5	92	1	46	4,5	29	8.26	† 5.30	2.20	....	10	14	10	6	S	
St. Charles	Madison	1,070	....	68.5	.....	92	1	50	3,4,23	29	3.27	.....	1.01	....	10	18	6	6	S	
Sidney	Fremont	.....		67.9	.....	90	1	49	3,4,19	29	9.64	.....	3.59	..	8	17	3	10	SE	
Sigourney	Keokuk	877	9	67.6	† 2.5	92	1	47	20,26	37	2.09	- .88	1.05	....	8	4	23	3	SW, NW	
Stockport	Van Buren	.....	....	65.4		90	1	48	23	24	2,36	.....	.67	..	9	16	2	12	S	
Thurman	Fremont	.....	..	67.4	† 1.6	88	1	44	4	31	13.18	† 9.97	4.82	....	6	11	11	8	SW	
Washington	Washington	769	13	66.6	† 1.6	90	1	46	23	29	1.87	- .75	.70	....	6	....	....	....	SE	
Winterset	Madison	1,129	..	66.8	† 1.6	86	1	46	23	30	3.56	† .21	1.00	....	9	14	7	9	S	
Woodburn	Clarke	98	..	65.8	.....	88	1	42	23	31	4.37	† .48	1.15	....	7	11	9	10	SW	
Average		....	..	67.3	† 1.5	90.3	.....	46.2	.....	.....	33.3	5.11	† 1.81	.....	....	8	13	8	9	SE	
Average for State		....	....	65.8	† 2.0	88.0	.....	44.0	.....	.....	34.1	3.81	† .50	.....	...	8	14	8	8	SE	

DATES OF THUNDERSTORMS.

NORTHERN SECTION.

Algona, 12, 14, 15, 18.
Alta, 12, 14, 15, 17, 18.
Alton, 18.
Charles City, 1, 12, 14, 18.
Cresco, 14.
Dows, 12, 18.
Elkader, 1, 14, 18.
Estherville, 16, 18, 19.
Fayette, 1, 12, 14, 18.
Florence, 1, 12, 14, 18.
Hanlontown, 15, 16.
Inwood, 15, 16.
Larrabee, 14, 15, 17, 18.
Mason City, 12, 14, 18.
Northwood, 14, 16.
Osage, 1, 14
Pocahontas, 12, 14, 15, 17.
Ridgeway, 1, 12, 14, 18.
Sheldon, 14, 15.
Sibley, 14, 16, 18.
Sioux Center, 14, 15 16, 17, 18, 26.
Washta, 18.
Waverly, 12, 14, 18, 19.
West Bend, 12, 16.

CENTRAL SECTION

Amana, 1, 14, 16, 18.
Audubon, 12, 13, 14, 15, 16, 18.
Boone, 15.
Carroll, 6.
Clinton, 1, 2.
Davenport, 1, 2, 12, 14, 18, 19.
Des Moines, 12, 13, 14, 15, 18.
Dubuque, 1, 2, 14, 18, 26.
Grinnell, 1, 14, 18.
Guthrie Center, 12, 14, 15, 18.
Harlan, 12, 13, 14, 15, 16, 18.
Ida Grove, 18.
Iowa Falls, 1, 12, 14, 16, 18, 26.
Jefferson, 6, 12, 14.
Little Sioux, 16.
Logan, 5, 6, 13, 14, 16, 18.
Monticello, 18.
Olin, 14.
Onawa, 13, 16, 18.
Sioux City, 14, 15, 17, 18.
Waterloo, 18, 26.
Waukee, 2, 12, 13, 14, 15, 16, 18.
Wilton Junction, 1.

SOUTHERN SECTION.

Allerton, 2, 13, 14, 16, 18.
Atlantic, 12, 13, 14, 15.
Bedford, 16.
Burlington, 2, 12.
Columbus Junction, 14.
Corning, 12, 13, 14, 15, 16, 17, 18.
Creston, 16.
Earlham, 12, 13, 14, 16, 18
Elliott, 13, 14.
Hopeville, 12, 13, 18.
Indianola, 12, 14.
Keokuk, 1, 13, 15, 16, 18.
Lacona, 14, 18.
Lenox, 12, 13, 14, 15, 16
Leon, 12.
Massena, 6, 12, 13, 14, 15, 16, 18
Mount Pleasant, 2.
Omaha, Nebraska, 13, 14, 15, 16, 18.
Oskaloosa, 14, 16, 18.
Red Oak, 15, 18.
Sidney, 13, 14, 15, 16, 18.
Sigourney, 18.
Stockport, 12, 13, 16, 19.
Thurman, 5, 6, 13, 14, 15, 16, 18
Winterset, 12, 14.

ERRATA.

OSKALOOSA.—July.—Daily precipitation on the 10th, recorded .03 of an inch, should have been left blank.

COLUMBUS JUNCTION.—August.—Total precipitation recorded 3.30 inches on page 7, should have been 3.36 inches.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR SEPTEMBER, 1905.

STATIONS.		DATE																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max	88	75	69	71	64	61	73	77	76	81	83	81	70	76	79	80	80	74	69	77	79	81	76	85	78	85	88	82	82	80	....	77 3
	Min	67	52	49	49	50	52	58	57	57	61	59	60	58	60	62	58	57	63	48	47	55	54	47	57	52	58	62	56	58	62	....	56.0
Albia*	Max	90	68	62	68	63	65	73	77	78	81	81	87	68	70	83	75	79	78	72	80	83	84	79	84	74	85	89	84	86	79	....	77.5
	Min	66	50	53	49	47	48	53	54	57	59	60	60	60	52	60	60	58	63	53	51	52	59	47	47	53	54	57	57	58	63	....	55.3
Algona	Max	76	66	60	72	72	59	71	74	78	80	83	72	65	78	79	75	77	73	67	79	77	73	74	75	72	72	84	83	82	79	....	74,2
	Min	64	47	48	46	44	52	57	59	53	55	56	54	46	60	61	55	56	64	50	45	54	55	42	53	47	54	56	60	60	59	....	53.9
Allerton	Max	93	85	68	67	63	60	75	74	77	82	83	86	72	70	82	72	81	76	71	80	84	85	82	89	78	85	89	85	86	79	...	78.6
	Min	67	54	51	48	49	53	58	53	58	64	59	61	60	59	61	64	60	64	50	48	56	58	49	58	54	54	62	55	60	61	..	56.9
Alta	Max	75	65	67	71	68	59	69	74	71	70	84	70	63	81	78	77	72	70	68	81	80	75	77	77	78	77	84	84	81	78	....	74.1
	Min	59	47	48	44	48	52	58	53	57	57	68	58	50	60	60	56	57	52	45	46	52	53	45	56	52	56	58	62	63	51	....	54.1
Alton	Max	77	69	70	75	67	67	69	75	78	78	85	75	64	81	79	78	71	68	68	80	77	74	72	75	81	76	83	84	81	74	....	75.0
	Min	65	48	47	47	47	54	53	57	57	50	52	59	49	62	58	58	58	54	47	46	51	53	42	55	52	65	54	62	62	58	....	54.1
Amana	Max	90	75	60	68	72	68	70	75	80	79	82	80	70	70	82	77	75	77	74	78	81	81	74	81	69	81	87	82	84	80	....	76.6
	Min	66	56	51	55	47	54	59	53	62	63	56	62	59	54	62	62	58	68	55	46	57	50	45	54	50	47	60	56	58	62	....	54.2
Ames	Max	85	70	63	74	69	61	70	76	75	83	83	79	67	73	82	77	76	72	71	82	84	81	76	82	73	84	88	84	83	80	....	76.8
	Min	65	51	50	48	45	53	60	60	54	57	57	59	53	56	59	58	54	63	53	49	55	50	45	52	51	50	59	54	57	62	....	54 6
Atlantic	Max	88	71	71	74	60	61	73	78	74	84	85	75	69	80	84	77	87	74	71	81	83	81	80	87	82	85	89	85	85	82	..	78.5
	Min	62	49	48	40	47	52	58	60	50	58	52	59	57	63	61	60	55	59	50	47	49	47	41	53	53	59	54	61	60	59	....	54.1
Audubon	Max	81	71	68	74	63	60	75	79	72	82	85	75	72	82	84	81	82	75	71	81	83	78	81	82	81	83	87	85	85	81	...	78 0
	Min	61	48	48	43	43	52	58	60	50	55	50	60	55	60	60	58	52	62	49	46	42	45	41	55	50	59	55	59	55	58	..	53.0
Baxter	Max	89	75	83	73	73	62	72	77	75	84	83	84	69	73	81	78	75	74	71	79	84	82	74	83	73	82	86	83	83	80	....	78.0
	Min	63	51	50	47	45	53	57	57	59	61	58	60	54	55	60	57	54	60	53	47	55	55	44	56	50	50	63	54	58	63	....	55.0
Bedford	Max	93	79	72	75	64	62	74	77	76	85	84	87	74	70	80	73	77	72	72	78	82	85	80	89	82	85	87	84	84	81	..	78.8
	Min	68	52	50	45	49	51	59	53	55	64	59	62	60	63	62	62	64	63	48	46	55	52	48	56	57	58	62	59	61	64	....	56.9
Belle Pl'e	Max	88	68	61	67	71	60	65	74	79	81	80	77	65	70	80	75	78	75	69	78	80	79	73	80	68	81	85	81	83	80	...	74.9
	Min	65	55	51	54	48	53	55	55	58	62	57	62	57	54	60	60	56	62	54	47	55	53	48	52	50	48	56	58	59	65	....	55.5
Bonapar'e	Max	93	82	63	62	70	64	68	78	80	77	82	86	73	72	82	80	83	80	78	80	82	87	79	87	73	83	90	86	88	78	...	78.9
	Min	68	58	54	52	49	55	57	56	62	66	53	61	61	56	63	60	68	70	47	47	58	58	48	56	51	48	59	56	62	62	....	57.4
Boone*	Max	81	66	63	71	67	59	70	75	74	83	83	74	64	75	82	79	76	71	70	83	84	79	77	83	72	82	87	85	83	..	....	75 8
	Min	62	51	50	49	48	52	53	58	55	57	61	62	53	55	58	59	54	57	52	50	52	56	47	49	52	52	54	59	59	61		54.6
Britt	Max	76	65	60	72	75	62	71	78	80	82	85	70	66	78	78	78	80	74	68	80	77	73	76	76	74	78	85	84	83	82	...	75 5
	Min	61	45	47	44	43	52	58	50	50	48	53	56	46	54	55	53	53	65	51	43	52	45	40	48	49	54	55	61	60	55	....	51.6
Burling'n	Max	93	81	61	63	73	65	67	78	84	72	83	86	76	73	82	75	82	86	78	81	84	80	79	88	74	84	91	88	89	78		79.1
	Min	69	60	52	55	57	55	59	59	63	65	56	62	60	57	62	63	63	69	57	52	59	60	48	56	53	51	60	55	62	63	....	58.7
Carroll*	Max	78	66	67	74	66	61	67	76	71	78	82	76	66	81	80	78	77	74	73	78	80	77	78	81	76	80	85	83	82	80	....	75.7
	Min	63	47	47	43	43	51	53	57	51	52	56	59	52	53	60	57	54	58	48	47	49	50	42	43	48	55	58	58	62	62	..	52.7
Cedar R*	Max	92	67	59	69	74	63	71	75	79	78	84	82	70	70	85	76	77	79	70	82	83	83	79	84	70	84	91	87	89	84	....	77.9
	Min	62	59	53	53	50	50	55	54	57	63	58	59	58	56	59	63	59	59	55	49	51	54	46	48	50	50	51	57	57	61	..	55 2
Chariton	Max	91	81	64	68	63	60	73	75	76	81	84	83	71	71	82	75	80	75	71	80	85	84	79	85	76	85	90	84	85	80	..	77.9
	Min	65	53	49	48	49	49	57	55	58	63	59	61	60	57	59	60	57	62	50	47	47	52	47	57	52	52	62	56	58	58	....	55.3
Charles C.	Max	74	63	58	69	73	60	65	75	78	81	82	70	68	70	81	76	76	72	68	80	76	74	74	77	69	73	85	83	82	82	....	73.0
	Min	59	50	48	46	44	52	56	52	52	54	57	51	47	55	58	58	57	63	47	44	53	44	41	47	48	49	56	57	56	56	....	51.9
Clarinda*	Max	94	75	73	76	58	62	74	78	73	85	88	90	70	78	85	71	82	73	75	82	83	86	82	91	86	88	90	87	86	83	....	80.1
	Min	65	53	49	47	47	52	55	54	54	55	56	57	58	60	63	60	61	64	48	45	46	51	48	48	56	57	60	56	57	58	.	54.7
Clear L	Max	70	66	68	66	73	66	66	74	70	81	81	..	65	73	78	76	74	70	69	79	78	74	74	75	70	73	81	82	81	80	....	73 6
	Min	65	55	50	57	50	52	56	58	59	56	58	..	47	54	63	58	56	64	51	52	56	58	48	57	47	49	57	59	58	62	....	52.1
Clinton	Max	91	72	62	64	74	71	74	78	79	76	81	81	71	71	82	78	79	86	77	78	83	83	74	81	71	80	86	84	85	83		77.8
	Min	60	58	51	52	41	52	59	56	59	61	55	58	53	51	61	59	59	65	51	43	54	48	43	48	48	46	55	51	57	58	....	53.7
Col. Spgs.	Max	88	78	71	74	68	68	74	79	76	80	82	87	70	76	79	71	78	74	70	76	79	83	78	81	83	81	87	83	86	80	....	77.7
	Min	68	52	50	45	54	55	60	55	56	64	56	53	60	64	63	61	64	59	49	49	53	56	53	53	60	61	63	60	60	65	....	57.4
Colum. J.	Max	91	82	63	63	72	83	72	78	82	80	80	84	73	70	81	80	79	82	80	78	81	84	75	82	74	82	86	85	86	80	..	78.9
	Min	67	57	52	53	49	61	56	57	60	57	57	61	59	59	61	61	60	67	55	49	57	56	50	57	51	48	61	57	60	68	....	57.3
Corning	Max	88	74	70	70	61	61	71	74	74	79	82	81	69	77	79	72	78	72	70	76	79	81	77	85	80	84	85	82	83	80	....	78.8
	Min	68	51	49	45	47	52	59	54	51	60	61	62	58	63	62	60	63	63	48	50	55	51	47	59	55	58	64	59	60	59	....	56.4
Corydon	Max	92	88	66	70	64	60	75	71	74	82	83	85	74	70	82	73	81	75	74	79	85	86	80	89	76	85	88	84	86	78	...	78.5
	Min	69	53	51	49	49	53	57	56	58	64	60	59	61	59	61	61	59	66	51	49	57	59	57	59	54	53	64	58	61	62	..	57.6
Cresco	Max	77	66	55	64	71	66	66	72	76	79	81	75	66	66	79	73	75	72	65	77	74	72	72	73	67	71	82	82	81	81	....	72.5
	Min	63	51	48	52	48	51	57	55	55	61	59	44	43	61	61	58	64	58	47	57	58	45	52	44	48	55	59	59	60	....	....	54.1
Creston	Max	86	69	66	68	59	60	69	73	72	78	81	78	66	76	79	73	77	72	69	77	79	81	77	84	78	83	84	82	82	..	....	75.1
	Min	65	52	50	48	48	52	58	59	59	60	63	64	59	58	64	60	61	66	49	50	52	56	51	54	54	55	60	60	61	62	...	57.0
Davenpo't	Max	92	70	59	62	71	65	69	77	80	74	82	82	69	71	83	75	80	85	72	79	83	86	76	82	70	82	87	87	88	79	.	77.2
	Min	63	58	53	55	51	55	60	61	62	63	58	64	56	55	64	64	63	68	56	53	61	58	51	57	50	50	64	59	64	62	...	58.6
Decorah	Max	80	68	58	67	72	69	67	76	78	78	82	75	68	67	79	76	78	76	72	77	77	75	72	76	68	73	83	82	83	82	....	74.5
	Min	63	54	48	53	43	52	58	57	53	55	57	55	48	52	62	62	59	65	51	43	57	53	42	50	48	48	52	57	58	62	..	54.5
Delaware	Max	85	73	60	64	72	67	73	73	80	77	80	77	66	67	81	77	75	76	73	76	76	76	74	76	67	77	82	81	83	79	....	74.8
	Min	60	54	49	51	46	51	55	56	59	60	54	59	50	50	58	61	56	64	53	44	55	52	45	52	44	47	57	55	57	57	....	53 7
Des M	Max	88	68	64	71	63	61	70	75	74	82	83	80	65	74	81	74	76	74	71	81	82	82	76	83	73	85	88	84	84	80	...	76.4
	Min	65	55	53	51	50	54	59	62	63	65	63	64	59	58	64	61	59	56	54	52	59	55	50	60	54	54	65	60	62	59	....	58.2
De Soto	Max	85	74	64	71	63	61	72	74	73	81	84	78	69	78	84	74	80	73	73	82	83	81	80	83	76	86	89	87	85	82	....	77 5
	Min	67	53	50	50	48	53	58	61	59	63	62	61	58	60	63	59	57	64	52	50	57	53	46	60	53	55	64	58	61	64	.	57.3
Dows	Max	76	66	59	71	72	60	67	74	75	83	82	72	66	74	82	76	74	71	67	81	82	76	75	80	72	76	86	84	84	81		74.8
	Min	64	46	49	47	42	51	56	59	48	54	57	60	49	52	58	56	50	63	51	44	54	50	40	53	48	53	65	55	56	61	....	53.0
Dubuque	Max	85	69	58	63	73	70	70	76	78	75	81	79	69	66	85	75	76	80	69	80	80	79	76	80	68	78	87	85	85	81	....	75.9
	Min	65	58	51	54	53	56	60	60	63	63	64	60	53	55	64	64	61	66	55	51	58	56	49	59	50	53	61	60	61	64	....	58.2
Earlham	Max	87	74	65	69	60	59	72	75	73	82	82	78	68	77	82	78	74	72	70	82	80	81	82	83	76	85	86	83	84	81		76.7
	Min	60	49	47	47	44	51	52	58	52	59	57	60	56	61	60	56	54	51	49	47	47	46	41	40	45	55	59	58	59	57	....	52.6
Elkader	Max	88	73	62	68	80	70	71	77	81	83	87	82	72	66	87	78	82	78	71	83	84	83	79	85	74	84	90	88	88	86	....	79.3
	Min	63	55	50	54	42	57	58	60	58	56	53	63	47	52	59	62	60	63	56	42	58	47	39	50	45	46	58	53	52	55	....	53.7
Elliott	Max	89	74	70	72	62	64	71	79	79	82	85	85	77	80	81	74	82	75	70	77	79	82	76	85	82	85	87	84	85	83	....	78.5
	Min	66	52	50	44	52	53	60	61	53	62	54	62	58	62	62	60	62	62	61	47	52	51	46	55	56	52	58	60	61	60	....	56.5
Esthervil*	Max	75	63	62	70	73	68	69	73	79	80	85	71	63	81	82	75	75	68	65	80	78	73	75	74	70	75	84	84	81	..	....	74.2
	Min	60	48	48	47	42	42	54	58	56	52	58	58	49	48	55	54	55	61	49	48	51	54	43	43	51	52	55	61	43	43	....	51.3
Fayette	Max	83	74	55	68	74	60	69	73	77	80	82	76	68	67	82	77	79	77	68	79	78	77	75	79	72	79	87	84	84	82	....	75.5
	Min	61	53	48	52	40	49	56	56	55	53	50	60	48	57	59	59	57	62	50	41	55	48	37	51	44	45	54	54	54	50	....	51,9
ForestCy*	Max	74	65	58	74	76	60	65	75	84	85	86	70	67	78	84	78	78	72	70	83	83	75	78	78	72	78	88	88	88	..	....	76.0
	Min	60	45	47	48	45	50	52	52	54	53	54	54	45	46	54	55	54	64	51	44	45	54	42	45	46	49	54	55	58	59	....	51.1
F. Dodge*	Max	76	62	59	70	71	59	70	75	73	80	83	69	64	77	79	74	73	71	67	81	80	77	75	79	72	75	86	86	82	80	....	74.2
	Min	62	50	50	48	47	48	54	58	52	52	60	60	50	53	59	56	54	56	52	49	51	55	44	44	51	52	56	59	61	62	...	53.5
Galva	Max	78	72	67	71	69	63	71	79	70	78	81	71	66	81	79	78	75	69	68	79	77	79	76	76	79	79	84	82	79	77	....	75.1
	Min	65	48	48	42	43	53	59	50	52	49	51	62	51	60	55	56	54	59	47	45	50	49	43	51	51	62	54	60	61	56	....	52.9
Glenwo'd	Max	85	72	69	72	63	63	73	75	72	79	83	84	73	78	79	75	76	70	72	78	80	82	79	85	84	83	86	84	82	77	....	77.1
	Min	66	51	50	45	56	53	59	61	56	61	60	63	58	64	63	59	63	50	54	56	56	55	50	62	59	63	63	62	63	56	...	57.9
Grand M.	Max	82	68	57	65	72	66	68	73	76	79	79	74	66	64	79	75	77	75	72	78	80	79	76	78	72	75	86	85	83	82	....	78.7
	Min	62	54	54	50	47	51	56	58	56	57	58	57	46	52	60	62	59	60	55	46	63	56	45	55	45	47	57	58	56	60	....	54.7
Greene	Max	75	66	59	71	75	61	68	76	77	82	85	74	67	70	83	78	78	71	68	80	79	76	76	78	72	75	86	85	83	82	....	75.2
	Min	65	50	48	52	45	52	57	53	53	54	57	60	46	54	57	57	55	65	53	43	44	52	42	52	47	47	57	56	55	56	....	52.8
Greenfield	Max	87	76	71	72	62	60	74	77	73	81	83	78	69	78	81	80	81	75	68	78	78	79	76	82	78	86	85	84	83	80	....	77.1
	Min	60	49	47	44	49	52	58	59	52	58	60	59	56	59	62	58	59	60	48	50	55	54	48	50	51	57	63	59	60	62	....	55.1
Grinnell	Max	90	70	69	68	73	62	71	75	76	81	85	83	70	71	85	78	75	75	72	80	82	83	77	80	71	83	88	83	83	79	....	77.3
	Min	61	52	49	47	46	50	56	53	60	61	58	61	55	55	60	59	54	66	52	46	55	55	45	57	49	48	62	57	60	62	....	55.0
(near) Grundy C	Max	84	68	63	72	73	59	67	75	76	82	84	77	65	71	82	75	72	72	70	80	82	81	76	83	70	82	87	83	84	81	...	75.9
	Min	67	51	50	53	47	52	57	63	56	58	59	63	50	54	60	59	55	63	53	46	54	54	42	59	48	49	60	56	58	64	....	55.3
Guthrie C	Max	81	79	66	71	65	61	71	75	73	80	82	75	69	78	81	76	79	73	69	79	79	79	77	80	77	82	85	83	83	80	....	76.3
	Min	65	50	49	47	45	53	59	58	52	58	60	60	56	62	62	54	55	64	50	49	55	51	43	60	52	58	61	58	60	65	....	55.7
Hampton	Max	74	66	58	72	78	59	66	77	77	87	87	71	65	72	87	81	78	71	69	85	87	78	81	85	74	77	91	88	86	84	....	77.0
	Min	66	50	49	52	49	52	56	57	52	55	59	60	49	54	60	56	54	63	52	49	57	56	45	57	47	50	57	58	59	59	....	54.6
Hanlontown	Max	70	63	58	75	76	61	65	74	79	83	84	71	65	75	83	75	75	76	68	82	80	64	71	62	58	68	72	84	69	80	....	72.2
	Min	62	46	47	51	40	50	56	57	48	49	54	58	44	55	62	54	54	64	51	44	50	53	38	50	45	50	52	58	55	55	....	51.7

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR SEPTEMBER, 1905—CONTINUED.

STATIONS.		DATE.																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Harlan	Max.	80	72	68	71	63	61	73	78	74	81	83	75	72	80	82	79	80	74	70	78	80	78	77	81	81	81	85	83	82	79	....	76.7
	Min	63	50	48	41	48	52	59	61	51	55	53	60	55	56	62	59	56	63	49	45	49	48	45	60	53	61	56	60	59	60	.	54.6
Hopeville	Max.	93	75	67	69	62	60	73	76	77	81	84	87	71	75	82	76	79	..	71	80	83	83	80	86	79	86	88	85	85	81	....	78.4
	Min	68	53	51	49	50	53	58	56	57	64	60	62	59	61	62	61	61	..	50	49	58	56	49	57	54	54	63	58	60	63	....	57.1
Humboldt	Max.	77	66	61	68	68	62	70	70	75	73	82	70	64	74	79	78	70	71	71	76	77	74	73	73	72	72	84	82	77	77	...	72.9
	Min	65	50	50	48	46	55	60	60	52	53	58	61	50	60	60	55	56	66	52	48	54	54	43	55	50	56	57	60	61	67	...	55.4
Ida Grove	Max.	75	68	67	70	66	63	70	73	74	76	83	76	68	80	76	76	75	74	68	68	76	74	76	76	80	77	81	81	80	75	....	74.0
	Min	61	44	50	42	38	49	55	49	48	48	56	56	49	53	65	53	49	53	44	45	46	48	44	47	52	58	50	55	58	52	....	50.6
Indianola	Max.	91	75	69	70	63	61	73	75	75	82	84	77	69	74	83	75	80	78	71	81	83	85	80	84	75	86	89	86	85	81	....	78.0
	Min	53	53	50	49	50	53	58	50	60	63	61	63	59	58	61	60	58	53	52	49	57	55	47	59	53	53	62	57	61	54	....	55.7
Inwood	Max.	86	83	72	78	68	60	76	75	80	82	89	81	64	84	80	79	76	67	71	82	81	79	78	79	82	84	80	84	82	73	...	77 8
	Min	48	43	56	39	45	53	58	50	55	52	52	48	49	60	54	57	58	51	43	46	52	46	47	55	50	54	52	51	62	61	...	51.6
Iowa City*	Max.	91	69	60	68	74	65	71	77	83	80	84	82	72	69	85	77	80	79	71	82	82	82	80	82	74	85	90	86	90	82	...	78.4
	Min	65	58	52	55	47	48	56	53	58	62	56	56	59	54	58	62	60	62	55	45	48	51	45	46	49	46	44	53	54	..	....	53.6
Iowa F*	Max.	77	65	59	71	72	61	70	77	77	80	83	72	68	72	80	77	75	78	68	80	78	77	75	79	72	80	85	83	83	81	....	75.0
	Min	61	49	49	49	44	50	53	53	52	54	56	59	49	54	57	55	53	57	53	44	45	50	40	50	47	49	51	55	56	56	....	51.7
Jefferson	Max.	80	70	65	73	68	61	73	78	80	82	87	79	73	78	79	77	77	73	..	..	..	..	..	..	82	88	88	85	84	80	....	77.3
	Min	66	50	52	45	49	53	58	58	53	56	58	56	58	55	54	56	55	64	..	..	..	..	..	..	55	60	59	60	60	55	....	56.0
Keokuk	Max.	92	72	62	62	67	64	67	78	81	69	80	85	66	76	81	74	81	86	72	79	81	86	75	87	73	82	88	84	87	72	...	77.0
	Min	72	62	54	54	50	55	59	62	64	66	58	64	62	59	64	64	63	69	58	54	61	64	55	61	54	50	64	58	66	62	....	60.2
Keosauqua*	Max.	94	70	64	65	69	64	81	78	81	78	81	88	78	72	85	77	79	81	73	80	83	86	86	87	74	84	88	82	86	76	....	78.9
	Min	67	58	53	50	47	52	56	56	59	63	54	58	62	56	61	63	59	69	54	48	51	56	46	48	51	48	52	52	53	59	....	55 4
Larrabee	Max.	..	66	71	72	72	63	73	77	79	80	83	73	65	85	83	79	76	67	69	81	79	73	78	75	80	78	85	84	82	76	....	76.0
	Min	..	47	48	42	47	53	60	55	54	53	56	56	50	60	60	59	56	55	47	46	50	57	46	53	50	60	57	61	62	60	..	53.8
Le Mars	Max.	85	66	70	73	66	61	71	77	78	78	85	75	67	83	82	79	71	69	68	79	77	75	77	76	82	76	83	83	81	73	....	75.5
	Min	65	44	48	41	47	53	59	56	57	49	55	60	51	61	62	57	59	56	45	47	50	50	43	54	52	64	53	63	63	58	....	54.1
Lenox	Max.	88	74	69	70	61	61	70	74	73	79	82	80	70	77	78	72	77	72	70	83	79	82	77	86	78	83	85	82	80	79	....	76.4
	Min	68	52	49	45	52	52	58	57	58	62	63	59	58	62	61	60	63	63	48	50	56	56	50	59	55	57	64	59	61	63	....	57.3
Leon	Max.	88	86	67	69	67	61	72	73	76	79	81	84	72	74	77	75	77	73	69	76	77	82	77	84	76	83	85	80	81	77	..	76.6
	Min	69	54	52	50	50	53	58	57	60	64	60	62	60	61	62	63	60	64	50	50	50	58	50	57	55	54	64	57	60	61	....	52.5
Lit. Sioux	Max.	84	72	71	77	69	62	77	79	76	83	87	80	75	82	85	82	79	75	74	84	84	81	79	86	86	84	88	88	83	78	...	79.7
	Min	66	48	49	44	54	54	61	58	60	52	61	63	57	65	64	62	60	57	55	53	52	52	50	60	60	66	57	66	65	57	....	57.6
Logan	Max.	85	81	81	74	65	64	79	77	76	82	85	70	73	81	84	78	82	78	81	80	81	79	78	84	83	83	86	84	82	76	...	79.1
	Min	66	48	48	40	50	55	60	60	53	62	52	56	56	62	64	60	59	57	46	45	50	48	49	57	56	55	56	60	61	58	....	55.0
Maquoketa*	Max.	90	71	62	64	79	66	72	78	77	76	81	84	68	67	82	77	78	83	73	80	85	86	78	85	71	80	90	88	88	83	....	78.1
	Min	62	60	51	52	45	48	52	53	59	61	54	57	52	48	57	58	48	62	56	40	42	45	39	41	44	43	46	46	48	54		51.1
Marshaltown*	Max.	88	68	61	72	74	62	71	78	73	85	86	82	80	76	87	82	79	76	73	84	85	83	80	86	82	87	90	87	86	84	....	79.6
	Min	61	51	49	49	45	48	53	54	57	57	59	61	52	58	59	58	54	57	53	47	50	49	42	43	48	47	54	53	53	57	....	52.4
Mason C.	Max.	70	65	55	70	74	63	64	72	75	80	83	72	65	72	79	76	75	71	68	80	77	74	75	76	71	74	85	84	81	81	.	73.6
	Min	65	50	48	53	46	52	57	55	53	54	60	60	47	55	62	58	55	65	53	47	56	48	44	54	47	50	57	60	58	60	.	54.3
Massena	Max.	91	79	75	72	67	61	76	83	73	88	89	80	72	81	88	83	85	72	75	84	88	90	88	91	85	89	87	90	88	84	..	81.8
	Min	65	49	49	43	48	52	59	59	51	61	59	60	57	61	61	59	57	55	47	48	52	50	44	43	52	57	59	58	60	58	....	54.4
Monticello	Max.	87	67	60	68	73	66	73	76	79	77	82	81	69	68	83	77	75	80	69	78	79	81	73	80	67	77	85	82	84	80	...	75.9
	Min	58	51	52	45	50	54	49	58	61	53	57	53	52	59	61	55	60	55	42	55	46	40	47	45	44	55	50	54	56	50	....	52.2
Mt. Ayr	Max	96	78	71	74	62	60	79	75	75	85	86	89	72	76	83	74	77	72	73	80	86	87	83	93	83	85	90	85	85	80	....	79.8
	Min	68	51	49	46	52	51	57	58	59	62	60	61	59	62	62	62	62	62	47	49	54	57	50	57	55	55	64	57	60	63	..	57.0
Mt. Pl'snt	Max.	93	82	63	63	72	64	69	77	81	77	80	85	75	71	81	75	80	82	79	79	80	84	82	72	80	88	84	86	76	78	...	77 9
	Min	66	57	51	53	48	53	56	57	60	66	57	61	59	56	62	62	60	67	54	48	57	57	56	50	49	59	57	62	61	62	....	57.4
Mt. Ver'n	Max.	91	73	57	57	73	62	70	75	78	81	82	86	71	77	85	77	76	76	71	81	87	83	82	87	76	80	90	86	90	78	....	77.9
	Min	62	54	50	51	48	52	56	55	58	62	56	59	55	53	61	62	59	65	53	45	54	51	45	52	46	46	58	56	61	64	....	55.0
Newton	Max.	86	74	61	68	67	62	69	73	75	79	82	80	70	70	71	72	74	72	69	78	78	79	74	76	70	82	85	81	83	79	....	74.6
	Min	68	58	50	49	49	51	57	57	62	63	60	62	57	55	55	59	56	63	53	47	57	56	48	54	51	50	64	57	59	55	...	55 9
N'thwood	Max.	72	65	59	70	73	63	66	76	80	81	81	69	67	73	82	78	79	71	69	77	74	72	75	73	68	75	83	84	82	81	....	73 9
	Min	64	48	47	53	44	51	57	58	51	51	53	58	44	54	63	56	56	68	53	43	55	55	42	50	45	50	53	54	55	54	....	52.7
Odebolt	Max.	78	70	65	72	67	60	71	73	75	79	84	72	66	80	78	76	75	74	68	76	78	75	78	80	80	79	80	82	85	80	....	75.2
	Min	65	48	48	41	46	52	59	55	54	59	58	62	53	62	60	55	56	61	49	47	54	53	45	60	50	62	63	60	55	55	....	55.0
Ogden	Max.	81	73	65	73	68	69	72	77	78	82	88	75	68	76	83	78	76	77	70	83	85	80	77	83	73	82	87	85	83	80	....	77.6
	Min	61	49	50	47	48	58	57	59	58	55	61	60	54	57	61	56	54	54	51	49	55	54	46	58	52	53	61	56	58	63	....	55.2
Olin	Max.	89	79	62	65	70	65	72	75	80	75	79	80	70	67	82	78	76	80	75	76	78	80	73	79	75	78	85	82	83	80	..	76 3
	Min	63	59	53	54	47	52	57	52	61	65	55	60	56	52	63	63	59	66	57	43	58	58	43	51	47	45	56	56	58	62	....	55.4
Omaha, N	Max.	83	71	69	73	61	63	75	76	72	80	85	80	74	80	81	77	79	74	74	82	84	81	79	88	84	83	86	86	82	74	....	77.8
	Min	63	53	52	51	55	55	61	64	60	60	62	64	59	66	62	62	66	52	52	55	58	61	57	62	62	67	66	66	67	56	...	59 9
Onawa	Max.	83	76	70	77	71	63	72	78	76	84	88	82	70	86	83	85	77	75	77	85	85	82	84	84	87	79	85	89	85	78	....	79.9
	Min	67	50	50	44	54	53	60	57	56	54	58	63	56	63	63	60	59	53	47	47	54	54	48	58	55	66	59	63	65	59	....	58.5
Osage	Max.	72	66	57	70	75	62	65	73	79	83	82	70	68	69	81	76	77	71	68	79	78	74	73	75	69	72	85	82	79	79	....	73 6
	Min	64	48	47	52	44	51	57	54	51	55	57	60	45	54	60	57	57	64	53	44	55	52	43	50	46	48	56	56	56	58	....	53 1
Oskaloosa	Max.	89	78	64	65	66	64	71	74	76	79	82	82	71	69	81	75	78	77	69	79	79	82	76	80	73	85	87	83	84	80	...	76.6
	Min	69	55	52	50	54	54	59	52	63	65	58	64	62	57	57	61	61	68	55	49	59	54	45	58	53	50	65	60	59	65	....	57.8
Ottumwa	Max.	96	69	59	64	67	64	71	78	74	86	84	86	82	81	80	74	74	80	74	80	82	80	80	82	80	82	92	86	89	72	...	78.3
	Min	70	52	51	59	48	52	57	55	57	58	57	60	56	55	56	57	56	57	55	56	57	58	56	56	57	56	65	58	61	64	....	55.4
Pacific J'n	Max.	86	76	70	73	62	64	75	76	70	81	84	83	74	78	81	75	79	76	73	83	81	82	87	85	84	83	86	86	83	76	....	78.4
	Min	65	58	48	39	53	53	59	60	55	58	55	60	58	57	61	59	61	55	47	48	51	50	56	55	57	62	52	57	62	60	...	55.7
Pella	Max.	91	85	66	72	67	63	78	76	89	88	85	85	83	81	82	75	88	75	72	81	83	84	78	84	75	85	89	84	81	79	....	80.0
	Min	68	55	51	50	50	53	53	57	62	65	60	63	63	56	60	61	57	67	53	49	58	53	48	58	51	51	66	57	60	62	..	57.2
Perry	Max.	82	71	65	72	68	62	72	79	75	80	83	76	..	..	..	81	77	73	71	80	80	78	76	81	75	83	86	84	83	82	...	76.9
	Min	67	51	50	48	46	54	59	62	55	53	60	61	..	..	..	56	56	65	52	48	54	52	45	57	52	54	60	59	59	65	....	55.6
Plover	Max.	75	67	67	68	69	70	69	70	74	79	80	81	82	85	84	80	74	76	77	79	80	78	75	74	71	72	75	77	76	74	....	74.9
	Min	66	46	47	46	47	50	49	51	53	58	55	54	55	56	55	57	55	53	49	48	53	51	54	55	54	52	51	52	50	51		52 4
Pocah'tas	Max.	76	65	65	70	73	61	72	75	77	81	85	73	65	78	81	78	72	76	68	81	79	74	76	74	74	79	85	85	82	80	....	75.3
	Min	63	47	46	45	47	48	59	59	53	52	53	58	49	59	59	59	56	63	49	48	53	54	45	54	46	56	55	61	61	61	....	53.9
Red Oak	Max.	92	79	73	76	69	65	73	77	74	81	84	87	74	79	82	75	80	76	74	80	82	84	80	84	88	87	87	85	84	80	...	79.7
	Min	69	54	51	46	46	54	61	60	56	56	57	65	60	65	64	62	64	65	59	51	56	55	51	57	60	60	68	63	63	68		58.7
Ridgeway	Max.	81	67	58	67	76	67	70	77	87	82	85	76	68	71	85	78	76	78	72	79	80	78	77	79	70	78	87	85	84	91	...	77.0
	Min	64	53	50	53	50	53	59	57	57	60	62	58	46	53	63	62	60	66	54	46	57	56	49	54	45	49	57	60	60	63	....	55 9
Rock R.	Max.	80	72	68	70	80	76	78	74	78	86	80	82	78	80	85	80	76	64	60	76	86	82	85	80	82	88	86	88	78	76		78.5
	Min	60	54	38	40	48	54	60	62	66	54	56	52	58	60	70	66	60	52	50	54	64	60	50	48	46	68	70	68	60	62	....	57.0
R City	Max.	87	68	65	71	70	63	73	78	78	83	78	73	68	80	81	80	82	76	75	68	78	75	70	78	70	70	84	88	83	83	....	76.0
	Min	63	47	45	45	48	53	53	58	53	55	58	58	50	60	58	60	61	53	64	48	52	53	43	55	60	58	50	58	60	58	....	54.6
Sac City	Max.	76	66	65	70	68	61	72	79	76	78	81	76	64	80	77	75	75	75	68	79	77	74	76	77	75	77	84	82	81	78	....	74 7
	Min	64	47	48	46	45	52	58	59	52	56	56	61	50	61	60	55	54	62	49	48	54	52	43	56	47	56	54	61	61	57	....	54.1
St. Cha'les	Max.	92	73	64	69	61	60	72	74	74	84	85	79	68	75	85	85	80	73	73	82	83	85	83	88	79	88	90	89	87	81	...	78.7
	Min	66	53	50	50	51	53	58	60	61	63	62	64	59	60	64	64	59	63	51	52	58	57	50	62	53	55	65	60	62	63		58.3
Sheldon	Max.	82	66	70	77	73	63	68	77	82	82	88	78	76	82	85	81	73	68	72	83	84	78	80	80	81	85	87	85	83	75	...	78.1
	Min	64	45	48	42	45	54	59	58	55	49	55	54	47	59	50	57	57	57	46	45	49	52	46	53	51	63	54	65	62	57	...	53 3
Sibley	Max.	74	63	67	70	73	60	69	74	79	80	86	69	64	82	80	76	79	68	69	81	80	73	76	74	78	79	84	83	82	73	.	74.8
	Min	61	45	46	44	43	44	53	56	54	50	53	56	43	49	51	54	55	60	45	43	45	47	45	45	48	49	53	54	62	62	....	50.5
Sidney	Max.	90	80	67	68	64	63	73	79	74	80	84	85	72	79	80	73	79	74	72	79	79	82	80	86	84	84	86	84	82	80	..	78.1
	Min	66	60	49	49	54	53	59	58	56	61	59	63	59	62	62	60	63	56	49	51	54	56	51	63	59	62	61	60	60	57	...	57.7
Sigourn'y	Max.	92	84	64	69	73	63	74	79	82	79	84	86	74	70	82	77	80	80	74	79	81	84	76	82	73	84	88	83	85	79	....	78 7
	Min	67	57	50	51	49	54	58	54	61	64	56	60	60	54	60	60	59	67	54	47	59	55	48	56	51	47	59	55	59	63	...	56.5
Sioux C'r	Max.	79	70	69	71	68	59	70	75	78	78	86	76	64	81	80	77	72	68	68	78	76	73	76	75	82	78	82	81	81	71	....	74 7
	Min	63	44	45	42	48	54	59	56	55	53	56	57	49	61	57	53	57	51	45	45	55	53	46	56	51	64	57	51	52	58	....	53.1
Sioux C'y	Max.	76	65	69	71	60	61	70	76	77	79	87	70	68	84	78	79	75	67	72	85	82	77	79	79	83	78	85	85	81	71		75.6
	Min	58	50	49	44	52	54	60	51	58	50	62	58	54	64	63	61	63	51	49	52	56	55	49	58	57	61	56	64	64	51	...	55 8
Spirit L.	Max.	76	79	80	82	78	59	66	81	88	86	88	79	66	88	88	81	82	67	68	83	93	89	84	72	77	77	88	82	82	83	...	79.6
	Min	48	47	45	46	44	53	54	56	60	52	59	48	48	53	49	55	59	55	48	48	46	46	45	45	49	59	52	52	53	51	....	50.8
Stockport	Max.	90	80	64	62	62	63	67	59	56	62	66	55	62	60	56	65	64	60	69	55	50	60	58	48	57	53	49	49	61	62	63	58.1
	Min	69	60	55	52	52	55	59	56	62	66	55	62	60	56	65	64	60	69	55	50	60	58	48	57	53	49	49	61	62	63	....	58.1

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR SEPTEMBER 1905—CONTINUED.

STATIONS.		DATE.																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Storm L*	Max..	75	66	65	70	67	60	69	72	75	80	83	70	65	81	77	77	72	74	69	80	81	75	71	79	76	78	85	82	81	77	....	74.4
	Min ..	60	46	47	45	45	51	52	50	56	50	51	60	49	50	58	57	56	59	47	47	52	52	44	50	49	50	55	56	62	63	....	52.3
Thurman	Max..	88	75	71	73	64	65	73	76	74	79	83	83	70	79	79	74	78	78	72	79	78	83	78	87	83	85	87	85	82	78	....	78.0
	Min ..	65	53	50	44	54	53	59	57	54	59	53	64	57	63	60	58	64	57	48	48	53	52	50	61	61	66	59	63	62	61	....	56.9
Tipton	Max	92	80	67	66	74	63	70	75	79	78	82	83	73	67	83	75	78	81	78	80	84	78	84	83	74	80	89	85	89	81	....	78.4
	Min ..	66	60	58	55	51	51	58	58	62	66	62	62	58	56	63	63	63	68	57	49	59	53	56	56	51	49	62	60	65	65	...	58.7
Vinton	Max..	85	75	62	68	75	67	68	72	74	79	81	79	74	70	83	78	74	75	74	79	77	80	76	80	73	..	87	80	89	80	....	76.3
	Min ..	65	55	51	54	47	53	57	50	60	60	56	61	54	54	62	61	57	66	53	49	59	51	42	57	49	..	47	55	58	62	...	55.3
Washi'ton	Max..	90	69	59	59	68	62	67	75	79	76	80	83	68	68	82	73	79	78	71	80	81	84	75	82	72	82	87	84	86	79	..	75.9
	Min .	70	57	52	54	49	54	58	56	61	65	58	62	58	55	62	64	61	66	54	48	58	57	46	57	50	48	61	57	60	63	....	57.4
Washta ..	Max..	80	70	70	75	68	61	72	78	80	84	88	76	67	86	86	85	74	74	72	82	84	84	80	80	84	82	89	86	84	75	....	78.5
	Min ..	58	46	48	36	40	56	58	48	55	47	58	64	47	52	56	55	58	52	45	42	44	46	45	50	52	62	52	62	60	66	...	51.9
Waterloo*	Max..	85	68	61	72	78	61	69	75	78	84	85	77	69	71	85	79	76	75	72	83	83	81	79	83	73	83	89	85	75	84	....	77.3
	Min .	58	54	49	52	46	47	54	54	57	58	56	59	51	53	56	60	58	64	53	45	55	49	42	50	48	48	59	55	55	58	....	53.4
Waukee	Max.	90	74	67	74	65	60	75	80	74	88	82	77	70	74	79	72	77	72	69	79	87	78	74	80	72	85	84	82	83	79	....	76.8
	Min .	67	52	50	48	49	53	57	60	60	62	65	62	58	59	62	58	58	63	51	50	56	55	48	59	53	54	53	59	62	63	....	57 2
Waverly..	Max..	78	69	59	68	72	61	66	70	73	78	81	72	66	68	80	75	75	73	71	78	72	76	73	78	68	78	87	82	82	81	....	73 7
	Min ..	65	53	48	53	45	52	57	55	55	56	57	60	52	55	60	59	56	66	54	46	56	56	42	52	48	50	58	56	58	60	....	54.7
Web'ter C	Max..	81	68	69	73	75	65	73	80	82	85	85	74	70	77	83	80	78	75	76	80	78	76	77	81	73	81	87	84	83	82	..	77.7
	Min ..	48	57	47	50	43	55	60	61	51	52	55	58	50	56	59	54	55	65	51	43	53	49	40	45	56	53	57	55	57	44	....	52.6
W. Bend.	Max..	73	64	62	70	71	59	73	76	79	80	82	70	67	81	81	78	76	76	68	79	76	72	75	74	72	78	83	82	81	79	...	74.6
	Min ..	63	46	47	46	43	53	58	55	53	51	57	58	47	58	58	54	55	62	50	45	53	54	45	53	47	55	57	59	59	64		52.2
Whitten	Max..	84	71	60	70	72	63	70	77	78	80	83	..	..	..	..	..	..	..	..	77	78	78	75	80	70	83	85	80	83	81	....	76.3
	Min ..	65	48	49	49	45	53	56	57	54	57	58	..	..	..	..	..	..	..	..	48	53	50	41	23	45	47	60	56	57	61	...	54.6
Wilton J.	Max.	94	74	63	65	75	67	73	80	85	78	81	84	72	70	69	80	82	86	78	78	80	83	75	81	71	88	87	84	86	82	...	78.4
	Min ..	63	54	50	51	47	53	57	60	59	62	55	56	56	54	63	60	63	67	58	46	58	51	45	53	47	46	55	52	58	62	....	55.4
Wint'rset	Max..	86	76	66	70	65	60	72	76	79	85	81	79	71	76	80	75	79	73	69	78	78	78	76	81	76	83	84	81	82	79	....	76.5
	Min ..	69	52	48	47	49	52	57	60	61	62	61	61	58	61	62	58	66	62	49	48	55	53	46	59	57	56	62	58	60	61	....	57.0
Woodb'n.	Max..	88	77	69	70	62	65	78	77	81	81	80	82	70	72	77	73	79	78	69	75	78	80	73	83	74	82	85	79	83	79	...	76.6
	Min ..	7..	53	49	48	45	53	58	53	53	63	60	62	59	59	59	58	55	63	49	44	56	52	42	55	50	53	64	55	56	53	...	55.1
Zearing ..	Max..	82	70	60	71	70	61	67	77	75	84	83	76	69	72	82	77	70	72	70	81	83	79	77	82	73	83	88	84	85	81	....	76.1
	Min ..	67	50	50	47	44	58	57	60	51	58	59	61	51	54	57	57	52	64	53	47	54	51	41	57	47	52	59	57	57	60	....	54.4

*At these stations thermometers are read in the morning; the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

OBSERVERS' NOTES.

ALTA—*David E. Hadden.* On the 18th 6.10 inches of water fell in the twenty-four hours ending 11 P. M. of the 18th. The month as a whole was ideal; no frosts; corn made rapid progress and at the close was out of danger.

AMANA—*C. Schadt.* Weather fine and agreeable during the month; no frost and corn had ample time to mature.

BONAPARTE—*B. R. Vale.* Early half showery and cloudy; latter half bright, warm and good for corn.

BRITT—*Geo. P. Hardwick.* Month exceptionally fine, without frost. Half of corn crop is up to average. Pastures good; plowing advanced.

CHARITON—*C. C. Burr.* Corn crop varies from total failure on flat land to 70 bushels per acre on good rolling ground. From April 1st to October 1st had 32.09 inches of rainfall; pasture splendid and fall plowing made good progress.

CLINTON—*Luke Roberts.* A fine month for ripening corn, with no frost; temperature 2° above normal; rainfall 3.81 inches, over a half-inch above average; of this amount 3.04 inches fell on the first day.

CRESTON—*W. L. Gaston.* The heaviest rain of the season occurred this month, the total being 6.37 inches. No frost, and everything green or fully ripe.

ELLIOTT—*H. Barnes.* At close of month corn was mostly mature, and a full average yield; potatoes below average.

FLORENCE—*J. H. DuBois.* At close of month 98 per cent of corn was safe; largest amount of fall plowing done for years; potatoes about a half a crop.

FOREST CITY—*J. A. Peters.* A frostless September and 95 per cent of corn was safe at its close; temperature 2.5° above normal.

GRAND MEADOW—*F. L. Williams.* At 6:15 P. M. on the 18th a heavy windstorm blew down some buildings and trees; corn was badly lodged; no frost during month and corn ripe; pastures extra.

GRINNELL—*A. O. Price.* Month without frost and corn fully ripened; pastures of June freshness.

HANLONTOWN—*Miss G. M. Paschen.* Cutting corn begun on 15th; potato crop poor; good yield of apples; plum crop light.

HUMBOLDT—*H. S. Wells.* Some plowing and thrashing yet to be done, but this work is well along; much corn is being fed; no clover seed harvested.

IDA GROVE—*Dr. J. E. Conn.* An unusually warm September; corn all matured and a fine crop.

INDIANOLA—*John L. Tilton.* On the 14th a severe thunderstorm occurred at Indianola. Lightning struck the center poles of a tent on the fair grounds. The county fair was in progress and the tent was filled with people; four persons were killed and several severely injured by the shock. The storm was unusually severe over a wide area A livery barn in town was struck and set on fire, but the property was saved by strenuous work. The telephones were burned out and rendered useless. It was a sad calamity to the people of that town and county.

INWOOD—*Geo. M. Larsen.* A fine month and better than was expected for benefit of corn crop; no frost; corn badly lodged by wind.

IOWA FALLS—*J. B. Parmalee.* This is the fourth time September has escaped a killing frost in the last fourteen years.

JEFFERSON—*Geo. W. Day.* Corn crop all right; potatoes and apples half crops; grapes above average.

KEOSAUQUA—*J. H. Landes.* Fine fall weather; latter half of month warm, with plenty of sunshine, grand weather for drying out corn which is now out of danger.

MASSENA—*Fred L. Knott.* Heavy wind blew corn down, cutting average yield at least ten bushels per acre.

MONTICELLO—*A. Maltheisen.* Corn cutting progressed finely, and 90 per cent safe at close of month; small grain good in yield and quality.

NORTHWOOD—*Chas. H. Dwelle.* Small grain good; corn excellent and out of danger of frost.

OLIN—*N. Potter.* September was frostless and an ideal month; corn all fully matured; pasture fine, and second crop of hay more than average.

OSKALOOSA—*Jos. Boyd.* An ideal month for maturing a bountiful crop of corn, for which we should thank the Giver of all good.

RIDGEWAY—*Arthur Betts.* Warmest of all Septembers; 239 hours of sunshine, or 64 per cent; no soft corn this year.

SHELDON—*A. W. Beach.* An ideal month for ripening all late corn which is now safe; sunshine was noted every day but two.

WASHTA—*H. L. Feller.* A severe thunderstorm on morning of 18th, with hail and damaging wind.

WAUKEE—*E. J. Leonard.* Month generally fair; corn drying fast and good quality; thrashing nearly done; late potatoes poor.

WEST BEND—*Ph. Dorweiler.* Ideal weather and no trace of frost; corn crop is all right.

ERRATA FOR AUGUST REPORT.

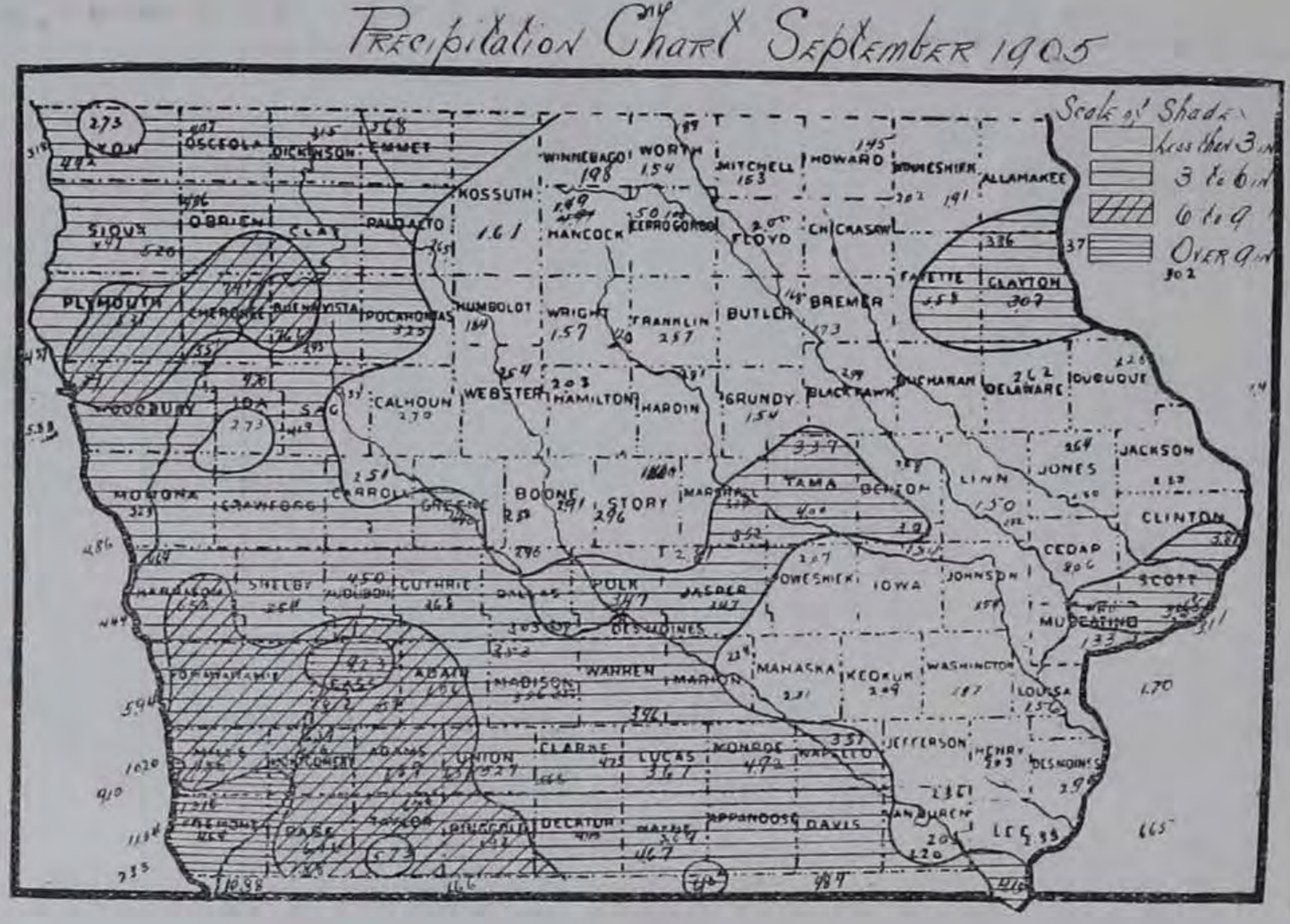
OSAGE—Mean minimum temperature, page 9, 60.2, should read 60.7. Monthly mean temperature, page 6, 72.2, should read 72.5. Date of minimum temperature 11",25", should read 25", page 6.

DAILY AND MONTHLY PRECIPITATION FOR SEPTEMBER, 1905.

STATIONS.	DAY OF MONTH.																														TOT
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	T	....	....	.28	.93	....	....	....	....	..	....	1 78	.44	.07	.70	....	1 07	....	....	...	....	....	....	....	....	...	....	..	....	....	5.27
Albia	..	.03	....	..	..	.26	.03	....	..	.06	....	....	.08	.12	1.20	.57	T	.05	1.52	....	....	....	1.00	....	....	....	...	....	....	T	....	4.92
Algona	....	T	T	....	....	.14	.03	....	....	....	..	.55	....	.09	T	.10	....	.28	.42	....	..	....	....	....	....	T	..	....	....	T	...	1.61
Allerton	T	T	..	....	.26	1.06	.02	....	T	.03	....	.04	1.36	.34	T	.53	T	.94	.09	....	..	....	....	....	....	....	....	....	....	.65	....	4.67
Alta	....	....	....	....	....	.38	....	....	....	....	....	....	....	.36	.17	..	T	3.10	....	....	....	....	....	....	....	T	....	....	..	.77	....	7.66
Alta [near]	....	....	..	...		.44	.08	.02	....	....	...		..	.40	.09	.14	....	5.35	....	....	....	....	....	....	....	.08	....	....	....	.27	..	7.29
Alton	....	.	....	....	.24	....	.06	....	....	..	....	....	....	1.61	T	.63	T	1.19	1.12	....	....	....	..	....	....	....	....	....	....	T	....	5.20
Amana	T	.13	....	....	..	.05		....	....	....	....	....	....	.38	....	.33	....	.25	.70	....	....	....	..	....	....	....	....	....	....	....	..	1.84
Ames	....	.01	....	....	..	.22	....	....	....	....	.01	.01	....	.72		.75	.02	1.20	.02	....	....	....	....	....	....	..	....	....	....	....	..	2.96
Atlantic	....	....	....	....	.99	.48		....	....	....	....	2.35	.70	1.45	1.74	.10	....	1.00	....	....	..	....	....	..	....	....	....	....	....	.42	....	9.23
Audubon	....	.01	..	....	.01	.88	.01	....	T	....	....	1.31	.26	.68	.01	.31	....	.79	.02	....	....	....	....	....	....	....	....	....	....	.21	..	4.50
Baxter	....	...		....	....	.15	....	....	..	....	....	....	....	.54	....	.72	..	1.32	.08	....	....	....	....	....	....	....	....	....	....	....	....	2 81
Bedford	.09	....	....	..	.45	1.10	....	..	....	....	....	T	1.18	.48	.20	1.03	T	.68	.03	.	..	....	....	....	....	..	....	....	..	.49	....	5.73
Belle Plaine	.01	T	...	....	....	.03	.20	....	...	.46	....	....	....	.54		.34	....	.45	1.00	....	....	....	....	....	....	....	....	....	....	.02	....	3.05
Bonaparte		.07	....	....	....	.22	.03	....	....	.10	....	.05	.05	.10	.40	....	..	1.03	....	..	..	....	....	....	....	....	....	....	....	....	....	2.05
Boone	T	....	T	T	....	.30	.08	.02	....	....	....	.05	T	T	.52	.70	T	..	1.24	....	....	....	..	....	....	..	....	....	....	....	....	2.91
Britt	....	.04	....	..	..	.13	.08	T	..	....	....	.67	T	.08	....	.05	....	.21	.23	....	....	....	....	....	....	..	....	....	....	....	....	1.49
Buckingham	.12	.10	....	....	..	....		....	....	....	....	....	....	.48	....	.38	....	2.29	....	....	....	....	....	....	....	....	....	....	....	T	..	3.37
Burlington	....	.19	.	....	....	.13	.02	..	..	.33	....	.96	.17	.09	.05	.14	....	T	.82	....	....	....	....	....	....	....	....	....	....	T	....	2.90
Carroll	....	....	....	.	....	.80	.05	....	....	....	....	....	.03	.18	....	.90	....	05	.50	....	....	....	....	....	....	....	....	....	....	....	....	2.51
Cedar Rapids	.06	.05	....	....		.02	T		....	..	....	....	....	....	.28	.12	....	.23	.74	....	....	....	....	....	....	....	....	....	....	....	....	1.50
Chariton	T	....	T	..	.10	.85	....	....	T	....	....	T	.43	.75	T	.65	...	.89	....	....	....	....	....	....	....	....	....	....	....	....	....	3.67
Charles City	T	.03	.03	T	....	.02	.03	....	....	....	....	.30	....	.48	T	.01	.01	.70	.08	....		....	....	....	....	.04	....	....	....	.27	....	2.00
Clarinda	....	....	....	....	....	1.66	.07		....	....	....	....	.93	.33	.47	1.70	.07	.07	.31	....	....	....	....	....	....	....	..	....	....	.53	....	6.14
Clear Lake	T	T	T	..	....	....	T	...	....	T	....	..	..	.50	T	T	....	T	....	....	..	....	....	....	....	T	....	....	....	....	....	.50
Clinton	3.04	..	.02	...	....	....	....	....	....	.23	..	....	....	....	....	....	....	....	.46	....	....	....	....	....	....	....	....	....	....	.06	....	3.81
College Springs	....	....	..	....	.95	.95	....	....	....	....	....	.50	1.35	.25	....	2.95	....	.63	....	....	....	....	....	....	....	....	....	....	....	.30	....	7.88
Columbus Junct'n	T	.65	...	....	.	.02	....	....	....	....	....	....	....	.22		.22	..	T	.45	....	..	....	....	....	....	....	....	....	....	T	....	1.56
Corning	....	....	....	....	....	1.60	....	....	....	..	...	.38	1.75	....	1.08	.92	....	1.43		....	....	....	..	..	..	....	..	....	..	.73	..	7.89
Corydon	....	....	..	..	.28	.72	....	....	.10	....	....	T	..	.10	....	.67	....	.83	.34	..	...	....	....	....	....	....	....	....	....	....	....	3.04
Cresco	.01	.04	.07	....	..	....	....	....	..	....	....	.10	....	.55	T	.08	T	.52	.07	..	....	....	..	....	....	.01	....	....	....	T	....	1.45
Creston	T	T	....	....	....	1.20	.07	T	....	....	..	....	.75	.85	.75	2.00	....	.15	.60	....	....	....	..	....	....	..	..	....	....	....	....	6.37
Cumberland	....	..	....		2.01	.29	....	....	....	....	..	1.01	.62	.70	1 01	1.02	....	.42	.90	....	....	....	....	....	....	....	....	....	....	.24	....	8.22
Davenport	2.58	.23	T	T	....	T	....	....	....	.05	....	....	....	.07	....	.04	T	.55	T	....	....	....	....	....	....	.	....	....	....	.01	....	3.48
Decorah	....	.11	T	...	....	....	....	....	....	....	....	.02	....	.78	T	.06	....	.94	....	....	....	....	....	....	....	....	....	....	....	T	....	1.91
Delaware	.01	....	T	..	....	....	....	....	..	....	....	....	....	.45	....	....	..	1.16	.74	....	....	....	....	....	..	.26	....	....	....	....	....	2.62
Des Moines	T	T	....	....	.15	.22	..	....	....	....	....	.43	.06	.81	.20	.59	.01	.65		....	....	....	....	....	..	....	....	....	....	.35	....	3.47
De Soto	....	....	T	.	T	.50	T	....	....	....	....	....	.15	.88	....	.98	....	.55	.02	....	..	....	....	....	....	....	..	....	..	....	....	3.03
Dows	.01	T	T	.	....	.22	.02	....	....	....	....	.06	..	.26	....	.17	....	.47	.05	....	....	..	..	....	....	.10	....	....	....	....	..	1.36
Dubuque	.32	.04	T	....	....	....	....	....	....	....	....	....	....	.17	....	T	....	.57	....	....	....	....	....	....	....	.02	....	....	....	.13	....	1.25
Earlham		....	....	....	.20	.65	T	....	....	....	....	.01	.16	.78	....	1.22	....	.51	....	....	....	....	....	....	....	....	....	....	....	....	....	3.53
Elkader	.15	....	.06	....	....	....	....	..	....	..	....	T	....	.50	....	....	....	.65	1.66	....	....	....	....	....	....	.05	....	....	....	....	....	3.07
Elliott	....	....	....	....	.46	1.15	..	....	....	..	....	T	1.15	.54	.52	1.18	....	1.01	....	....	....	....	..	....	....	....	....	....	....	.38	....	6.39
Estherville	T	....	.04	....	....	.14	.11	....	....	....	....	.35	....	.50	T	.97	....	.97	2.60	....	....	..	....	..	....	....	....	..	....	....	....	5.68
Fayette	.07	.04	.08	....	....	T		....	..	..	....	.08	....	.48	....	..	..	2.60	.03	....	....	....	....	....	....	.09	..	..	....	.16	....	3.58
Florence	T	T	T	...	....	.20	T	....	....	....	....	.03	....	.42	..	.20	....	.34	.38	....	....	....	....	....	....	T	....	....	....	....	....	1.57
Forest City	.10	....	T	....	....	T	.30	....	....	....	....	.45	....	.10	.18	....	....	....	....	.45	..	....	....	....	....	....	....	....	....	.40	....	1.98
Fort Dodge	.02	....	.10	..	....	.16	.08	T	....	....	....	.24	T	.05	.07	.27	....	....	1.45	..	..	....	....	....	....	....	.10	....	..	..	..	2.54
Fort Madison	....		....	..	....	.18	T	....	....	.75	....	....	.05	...	.50	.10	....	.80	....	....	....	....	....	....	....	....	....	....	....	T	....	2.38
Galva	....	T	....	..	....	.50	....	....	....	..	..	....	....	.41	.51	.12	..	2.35	.15	....	....	....	....	....	....	....	....	..	....	.66	....	4.70
Gilman	....	T	T	..	....	.10	....	....	....	....	..	....	....	.95	....	.62	....	.98	.87	....	....	....	....	....	....	....	....	....	....	T	....	3.52
Glenwood	....	....	....	....	..	....	1.85	....	..	....	....	....	2.10	.25	....	2.25	....	.85		....	....	....	..	..	....	....	....	....	....	.20	....	7.50
Grand Meadow	.10	....	.11	....	....	....	....	....	....	....	....	.08	....	....	....	....	..	.33	2.65	....	....	....	....	....	....	.09	....	....	....	....	....	3.36
Greene	.05	....	05	....	....	.06	T	....	....	....	....	.14	....	.25	....	.08	...	.50	.47	....	....	....	....	....	....	.08	....	....	....	....	....	1.68
Greenfield	T	....	....	....	.25	.92	.04	....	....	....	....	.74	.25	1.46	....	1.32	....	.99	.06	....	....	....	....	....	....	....	....	....	....	T	....	6.06
Grinnell [near]	..	....	....	..	....	.22	....	....	....	....	....	T	.05	.40	....	.55	....	.85	....	....	....	....	....	....	....	....	....	....	....	T	....	2.07
Grundy Center	..	.02	..	..	....	.13	....	....	....	....	....	.05	...	.45	....	.18	....	.48	.23	....	....	....	....	....	....	T	....	....	....	....	....	1.54
Guthrie Center			....	....	.02	.60	....	....	....	..	....	.85	.26	.33	....	.83		.79	..	....	....	....	....	....	....	....	....	....	....	T	....	3.68
Hampton	T	.05	.03	....	..	.12	....	....	....	....	..	.35	....	.65	.12	....	....	.63	....	....	....	..	..	....	....	.20	....	....	....	.42		2 57
Hanlontown	....	....	....	....	....	.05	.27	.20	....	....	....	.34	....	.29	.05	.06	....	.27	....	....	..	..	....	....	....	.01	....	....	....	....	....	1.54
Harlan	...	....	...	..	.08	.20	T	T	....	....	....	.09	.50	.92	T	1.01	...	.55	....	..	....	....	....	....	....	....	....	....	....	.19	.	3.54
Hopeville	....	....	..	....	.31	.84	..	....	....	....	....	.03	2.03	1.08	..	....	....	1.39		..	....	....	....	....	....	....	....	....	....	....	....	5.68
Humboldt	....	.10	....	....	...	.22	....	....	....	....	....	.30	....	.12	....	.12	..	.48	.50	....	....	....	....	....	....	....	....	....	....	....	....	1.84
Ida Grove	....	....	....	...	....	.36	...	....	....	..	....	....	....	....	.32	....	..	1.60	....	....	....	....	....	....	....	....	....	....	....	.45	...	2.73
Inwood	....	....	....	....	....	.15		....	....	....	....	....	....	2.00	....	.72	T	.75	....	....	....	....	....	....	....	....	....	....	....	.80	..	4.42
Iowa City	....	.14	.05	.02	....	....	T	T	....	T	T	....	....	....	.28	.26	.02	T	.77	....	....	....	....	....	....	....	....	....	....	....	..	1.54
Iowa Falls	T	.05	T	T	....	T	.17	T	..	....	....	.04	T	T	.52	.16	....	.14	1.60	..	..	....	....	....	....	.13	..	....	....	....	....	2.81
Jefferson	....	T	..	....	....	....	.46	.12	..	....	....	....	1.64	....	.40	....	.68	....	1.10	....	....	....	....	....	..	..	....	....	..	....	....	4.40
Keokuk	.05	.46	..	....	T	.37	.09	....	T	1.38	....	..	.22	.53	.04	.33	.02	.72	....	....	....	....	....	....	....	....	....	....	....	T	....	4.15
Keosauqua		.46	....	....	....	.29	.03	T	.	.05	.05	....	T	T	.10	.42	....	....	.80	....	....	..	....	....	....	....	....	....	....	....	....	2.20
Lacona	T	.02	T	...	.07	.43	.02	..	....	..	....	.12	.27	.88	...	.60	....	1.12	..	....	....	....	....	....	....	....	....	....	....	.43	....	3.96
Larrabee	....	T	....	....	...	.51	.05	....	..	....	....	....	....	.65	.20	....	....	5.50	..	....	....	....	....	....	....	.09	....	....	....	.41	....	7.41
Le Claire	T	2.70	....	T	....	....	T	....	....	.02	.01	....	....	....	T	.06	T	....	.32	....	....	....	....	....	....	....	....	....	....	....	....	3.11
Le Mars	...	....	....	....	T	.40	.08	....	.	....	....	..	....	.80	...	.42	....	3.55	2.68	....	....	....	....	....	....	.07	....	...	...	.31	....	8,31
Lenox	...	....	....	....	.26	.83	.	....	....	..	..	.46	1.02	.50	2.08	1.07	....	.36	..	....	....	....	....	....	....	....	....	....	....	.45	....	6.73
Leon	....	....	....	....	.28	1.09	.02	...	....	.02	....	.21	.98	.25	.07	.74	....	.74	.05	....	....	....	....	....	....	....	....	....	....	....	..	4.45
Little Sioux	....	..	....	....	.17	.93	....	..	....	....	....	....	.35	.67	.15	.92	....	.74	.19	....	....	....	..	..	....	....	....	....	....	.52	....	4.64
Logan	....	..	..	....	.48	1.00	...	..	.	....	....	....	.80	.38	....	1.65	....	1.71	....	....	....	....	....	....	....	....	....	....	....	....	....	6.52
Maquoketa	.03	1.20	...	....	....	..	....	....	....	.23	.50	....	....	....	.26	.03	....	.02	.55	..	...	....	....	....	....	....	....	....	....	....	....	2.82
Marshalltown	.15	.12	.10	....	....	.04	.05	....	..	....	....	.01	.01	....	.80	.56	.02	.05	1.43	....	....	..	..	....	....	..	..	....	....	....	....	3.34
Mason City	....	T	.05	..	....	.06	.04	....	....	....	....	.20	...	.30	....	....	....	.35	...	....	....	....	....	....	....	T	....	..	....	....	....	1.00
Massena	....	....	....	....	....	1.28	....	....	....	....	....	1.50	.65	.99	.05	1.37	...	....	1.15	....	....	....	....	....	....	....	....	....	....	.58	....	7.57
Monticello	.10	....	..	....	....	....	....	....	....	....	....	....	....	.31	....	....	.15	1.12	..	....	....	....	....	....	....	.75	....	....	....	.21	....	2.64
Mount Ayr	T	....	....	....	.25	1.45	.05	....	T	....	....	.10	2.30	.22	.60	.70	T	1.25	..	...	....	....	....	....	....	....	....	....	....	....	..	6.92
Mt. Pleasant	.	.04	T	...	....	.20	.04	....	T	.14	..	...	.05	.45	....	.33	...	T	.77	....	....	....	..	....	....	....	....	....	....	....	....	2.02
Mt. Vernon	....	.20	....	.01	..	T	.	...	....	....	....	....	..	.30	...	....	..	.25	.55	..	..	....	..	..	....	....	....	....	....	.01	....	1.32
Muscatine	....	.35	.03	..	.	....	T	....	..	.14	.01	....	....	....	.3 0	.15	....	....	.35	..	....	....	....	....	....	....	....	....	....	....	....	1.53
Newton	....	....	....	....	....	.25	....	....	....	....	....	....	....	.58	....	.60	....	1.66	.58	....	....	....	....	....	....	....	....	....	....	....	....	3.47
Northwood	.10	.04	.04	..	....	.05	.09	T	....	....	....	.22	..	.75	.05	.08		.07	....	...	..	....	....	....	....	.40	....	....	....	....	....	1.89
Odebolt	....	T	.06	....	....	.70	..	....	....	....	..	....	....	.41	.97	....	.	1.92	.21	..	....	....	....	....	....	.	..	....	....	.42	....	4.69
Ogden	....	T	.03	..	.39	T	..	....	....	....	....	.14	.02	.37	..	.77	....	.64	.02	....	....	....	....	....	....	....	....	....	....	....	....	2.38
Olin	T	.65	T	....	....	T	....	....	....	T	....	..	....	.35	....	T	....	.82	...	....	....	....	....	....	....	....	....	....	....	.48	....	2.30
Omaha, Neb	....	....	....	..	1.37	.35	T	....	....	....	....	....	1.80	.22	1.03	.15	....	.62	....	....	....	....	....	....	....	....	....	....	....	.40	....	5.94
Onawa	....	....	....	....	.05	.98	.01	.06	..	....	....	....	.30	.30	.05	.55	..	2.10	.33	....	....	....	....	....	....	....	....	....	....	.50	....	5.23
Osage	T	.03	.07	....	....	.01	.05	....	....	....	....	.25	....	.30	....	.04	...	.28	.50	....	....	..	..	....	..	....	....	....	....	....	....	1.53
Oskaloosa	T	.02	....	..	....	.21	....	..	....	....	....	T	T	.65	....	.55	.04	.84	....	....	....	....	....	....	....	....	....	....	....	T	....	2.31
Ottumwa	.01	....	..	.	T	....	..	....	....	....	....	.04	.01	.35	.45	....	....	2.16	....	....	....	....	....	....	..	....	....	..	....	.35	....	3.37
Pacific Junction	T	....	....	....	....	.74	.94	....	T	....	....	....	1.80	.50	.80	2.00	T	.95		....	..	....	....	..	....	....	....	....	....	.40	..	8.13
Pella	T	....	T	...	....	.27	....	.	....	....	....	.02	....	.85	....	.60	....	.30	.24	....	..	....	....	....	....	....	....	....	....	T	....	2.28
Perry	....	.	....	....	.05	.41	T	T	....	....	....	.10	....	....	....	1.20	....	.64		....	....	....	....	....	....	....	....	....	....	....	....	2.40
Pocahontas	....	.02	....	....	..	.41	T		....	....	....	.64	....	.13	.04	..	.77	.39	....	....	....	....	....	....	....	....	....	....	....	.85	....	8.25
Red Oak	....	.02	....	...	.54	1.00	.03	....	....	....	....	T	2.00	T	.95	1.50	....	2.20	.02	....	....	....	....	....	....	....	....	....	....	....	....	8.26
Ridgeway	T	.04	.06	.01	....	....	..	....	....	....	.01	.11	....	.54	.03	.03	.02	.60	.28	....	...	....	....	....	....	.03	.01	....	....	.25	....	2.02
Rock Rapids	....		....	....	....	T	....	....	....	....	....	....	....	.80		....	.70	.20	.75	....	....	....	....	....	....	2-	....	....	....	....	....	2.73

DAILY AND MONTHLY PRECIPITATION FOR SEPTEMBER, 1905--Continued.

STATIONS.	DAY OF MONTH																														TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Rockwell City	...	...	..	....	....	.60	....	....	....	....	....	....	....	.50	.45	....	.10	.40		....	..	....	.	....	....	.10	....	....	....	.55	....	2.70
Sac City	....	....	...	....	.50		....	....	....	....	T	....	T	48	T	.81	....	.43	.15	....	....	....	..	....	....	....	....	....	....	.50	....	2.87
St. Charles	.02	....	.02	....	.03	.63	.04	....	....	....	..	.07	.20	.45	....	.80	....	1.01	....	....	....	....	....	....	....	....	....	....	....	....	....	3.27
Sheldon	....	.01		....	....	.25	....	....	....	..	....	....	T	.60	.90	.40	..	1.80	....	....	....	....	....	....	....	.02	....	....	....	....	....	4.36
Sibley	.01	...	.03	..	....	.15	.11	....	.	..	..	..	..	.96	.03	.50	....	.47	1.69	....	....	....	....	....	....	.12	T	....	....	.38	....	4.07
Sidney	....	....		....	.85	.90	....	....	....	....	....	....	1.80	.28	.28	3.59	...	1.90	..	...	....	....	..	..	....	....	....	....	....	.04	....	9.64
Sigourney	....	.06	.01	....	....	.11	....	....	....	.03	....	....	T	.34	....	.44	.05	1.05	....	..	....	....	....	....	....	....	....	....	....	T	....	2.09
Sioux Center	....	.02	....	....	T	.29	...	....	..	....	....	....	T	1.10	.90	.42	T	.95	.27	....	....	....	....	..	....	.15	....	....	..	.38	....	4.47
Sioux City	....	....	....	....	.10	.23	T	....	....	....	....	T	T	.32	.46	....	1.60	3.17	.19	....	..	....	....	....	....	.07	....	..	....	.23	..	6.37
Spirit Lake	....	.20	....	..	....	.14	.16	....	....	....	....	....	....	.25	.30	1.00	.85		...	....	....	..	....	....	....	T	....	....	....	.25	....	3.15
Stockport	T	.10	T	..	T	.20	.01		....	.17	..	....	.67	.20	....	.40	T	.01	.60	....	....	..	....	....	....	....	....	....	....	T	....	2.36
Storm Lake	....	....	..	....	....	.23	.11	T	....	....	....	T	.	.80	....	.18	....	1.03	2.10	....	..	....	..	....	..	....	..	....	....	....	..	3.95
Thurman	....	....	....	....	....	2.26	....	....	....	....	....	..	3.38	.68	....	4.82	....	1.89		....	....	....	....	....	....	....	....	....	....	.15	....	13.18
Tipton	....	1.02	...	....	....	....	...	...	....	...	...	....	....	31	...	....	..		.73	....	....	....	....	.	....	....	....	....	....	....	....	2 05
Toledo	.10	.10	....	....	....	.15	....	....	....	....	....	.05	T	.70	....	.45	....	.75	1.70	..	....	....	....	....	..	....	....	....	....	....	....	4.00
Vinton	.10	...	....	....	....	.	.10	....	....	....	....	....	....	.32	....	.12	.02	.32	1.10	....	....	....	....	....	....	....	....	....	....	....	....	2.08
Washington	.70	....	....	....	....	.03	....	....	....	.29	...	....		.25	....	.25	..	.55	....	..	..	....	....	....	....	....	....	....	....	....	....	1.87
Washta	..	T		....	....	.48	.08	....	....	....	....	....	..	.28	.33	....	....	3.88	..	..	....	....	....	....	....	....	....	....	....	....	....	5.51
Waterloo	.16	.	T	....		.11	....	.	..	....	....	.08	....	.44	....	....	....	1.29	..	....	....	....	....	....	....	....	....	....	....	.46	....	2.99
Waukee	....	.05	....	....	T	.47	....	....	....	..	...	.03	.07	1.16	T	.82	....	.99	....	....	..	....	....	..	....	.89	.02	....	....	....	....	3.59
Waverly	.07	.01	T	...	....	.03	.02	....	....	....		.11	..	.43	....	.08	....	.20	.70	....	....	....	....	....	....	.08	....	....	....	....	..	1.73
Webster City	....	.17	...	....	T	.32	....	....	....	..	..	..	....	.36	..	.30	..	.36	....	....	..	....	....	....	....	T	....	....	....	.53	..	2.04
West Bend	....	T	....	....	....	.20	.02	....	....	....	..	.58	....	.10	....	.14	T	.70	.40		....	..	....	....	....	....	....	....	....	.51	....	2.65
Wilton Junction	.85	1.25	..	....	....	T	....	..	..	1.50	....	....	....	.30	....	.17	..	....	.53	....	....	....	....	....	....	....	....	....	....	T	....	4.60
Winterset	.01	T	....	....	.10	.68	.02	....	..	..	.02	.18	.75	....	.80	....	1.00	T	..	....	....	..	....	....	....	....	....	....	....	....	....	3.56
Woodburn	T	....	....	....	...	.80	....	....	....	....	..	.05	.30	1.00	.82	.75	....	1.15	..	..	....	....	....	....	....	....	....	....	....	....	....	4.37
Zearing	....	.04	.01			.15	..	.	....	....	....	T	...	.50	...	.43	...	.63	.05	.	.	..	....	....	....	....	....	....	....	....	....	....	1.81



OCTOBER, 1905. No. 10



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U. S. DEPARTMENT OF AGRICULTURE—WEATHER BUREAU.

MONTHLY REVIEW

OF THE

Iowa Weather and Crop Service.

VOLUME XVI. OCTOBER, 1905. No. 10.

OCTOBER WEATHER AND CROPS.

The daily average temperature of October for the state was 49.2°, which is 3 3° below normal. The average at the Mississippi river stations was higher than in the interior and western districts. The average precipitation was 3.40 inches, or .98 of an inch in excess of the October normal. The greater part of the rainfall came in the second decade. The first decade was warm and generally clear and dry, affording almost ideal conditions for ripening the belated portion of the corn crop, and for securing the second crop of clover and harvesting potatoes, apples and vegetables in good condition. The first killing frost was reported about the 11th and 12th in all districts, and all crops were fully matured. The wet weather prevalent from the 12th to the 20th retarded the drying out of the corn, but the last decade was more favorable and a good beginning was made in cribbing the fine crop that had been produced. The pastures were green, affording ample forage for stock throughout the month. Good progress was made in fall plowing. An increased acreage of winter wheat was sown in September, and this crop was in excellent condition as to stand and height at the close of October. All minor crops, garden truck and fruit were harvested in due season. Except some damage to flattened corn by the wet weather about the middle of the month, the conditions during October were all that could be desired.

GENERAL NOTES.

In the next monthly issue the final crop report for 1905 will be published. To supplement the reports of regular crop correspondents, we respectfully solicit notes, estimates, figures and criticisms from any of the readers of this publication who may be qualified to give an opinion relative to the yield and quality of corn and other staple farm crops. There is much variability in the yield of corn. What is the average number of bushels harvested in the territory within the range of your observation? What is the quality compared with previous years? Take as wide range of observation as possible. Don't judge the general average by the yield of a single farm, or a limited area in a township. The public want reliable figures. Help us get the facts.

The gold output for Alaska for the year is estimated at about twenty-one million dollars. That's a very handsome dividend upon the original cost of that region. But the labor expended, and the privations endured in the production of that gold, brought a meagre compensation as compared with the rewards of labor expended upon the fertile fields of Iowa. The hay crop of this state for this year is worth one and two-thirds the value of Alaska's gold output, and the labor cost of the hay product was not half as great. Why, the farmers of Iowa waste more than the value of Alaska's gold every year in their corn fields, and that's not half the amount they waste yearly by not applying the best methods of farming. There is vastly more net profit in good farming than in gold mining in any country.

Everyone has tried to describe our Indian summer, and none has succeeded. It is like painting the rainbow. Such days must be seen, must be felt. It is not the eye alone that drinks in the scene with delight; it is not the ear alone that catches, far from the maddening crowd, all manner of voices and songs and instruments in the grand chorus of nature; it is not the lungs alone that feast upon the pure crisp air that fairly intoxicates you; it is not the sense of smell alone that is delighted with an odor so slight, pungent, indescribable, yet strangely agreeable; it is all these, and much more. And getting away from the busy haunts of man, up among the islands of the grand river or walking or driving through a wooded vale, or a broad expanse of prairie, there are sermons in an Indian summer day more eloquent, more effective than any that have ever been put into words. He who loves nature returns to his labors physically, mentally and morally better because of a day in the open during Indian summer.—*Burlington Hawkeye*.

The soil of Emmet county will raise a large yield of corn as well as small grain if properly tilled. H. C. Hanson, south of Armstrong, has a field of corn which he considered about the best in the county, and in order to ascertain if his statements were true some neighbors and people from Ringsted went out and husked a load, measured the ground and the corn, and examined the whole field carefully. It was found the average yield of the whole field would be about 92 bushels to the acre. They did not find a hill missing, and very few hills had less than three stalks. This is an example and a lesson of what good farming and good seed corn will accomplish. — *Armstrong Journal*.

According to the *Marine Review*, thirty million tons of iron ore will be transported down the lakes this year. There has been a steady increase in the ore trade, and also a constant decrease in the cost of transportation. It is confidently expected that there will be a movement of forty-five million tons of ore within the coming decade. This signifies a vast deal for the prosperity of the Northwest.

The total eclipse of the sun in August, 1905, occurred in the period of the greatest sunspot activity, and this afforded a rare opportunity to solar scientists to solve some of the problem relating to the variations of the sun's energies.

A Moscow report says that famine is prevalent in 100 districts of twenty-three provinces of Russia, and that it affects 18,000,000 persons, who will have to be fed until next July.

PENALTY FOR COUNTERFEITING FORECASTS.

Any person who shall knowingly issue or publish any counterfeit weather forecasts or warnings of weather conditions, falsely representing such forecasts or warnings to have been issued or published by the Weather Bureau, or other branch of the Government service, or shall molest or interfere with any weather or storm flag or weather map or bulletin displayed or issued by the United States Weather Bureau, shall be deemed guilty of a misdemeanor, and, on conviction thereof, for each offense, be fined in a sum not exceeding five hundred dollars, or be imprisoned not to exceed ninety days, or be both fined and imprisoned, in the discretion of the court.—[See Act of Congress approved March 3, 1905.]

FROST DATA AT RIDGEWAY, WINNESHIEK COUNTY.

BY ARTHUR BETTS, OBSERVER.

Year.	Late Frost.	Early Frost.	Frostless Period.
1897	.....	October 17	.....
1898	May 6	October 6	152 days
1899	April 22	September 29	159 "
1900	May 4	October 8	156 "
1901	April 22	October 4	164 "
1902	April 24	October 14	172 "
1903	May 3	September 18	137 "
1904	April 27	October 6	161 "
1905	April 21	October 11	172 "
Average	April 27	October 6	160 days

POPULARIZING METEOROLOGY.

[New York Tribune.]

The work of the Weather Bureau at Washington in making practical popular applications of its meteorological knowledge is greatly to be commended. In the realm of science there are, generally speaking, two classes of workers: those who make original researches and discoveries and those who make the knowledge thus acquired known and practically profitable to the world. Perhaps it would be better to say there are these two classes of work, because it sometimes happens that they are both done by the same men, and those who make original researches also make practical applications of them to human needs. That combination of activities marks, of course, the highest form of unity.

Our Weather Bureau makes many observations, experiments and what not with a view to increasing theoretical knowledge of the weather and climatic conditions and phenomena. But these are of little value to the people unless their results are applied in some practical manner. For years daily forecasts of the weather have been widely published, and these steadily increasing in accuracy, have become more and more valuable to the public; even those who affect lightly to scoff at "Old Prob." often trusting to them implicity and profitably. A further development of the same principle is now seen in the issuance of special warnings of weather changes to special districts in which special crops are likely to be affected. A warning twenty-four hours in advance of the coming of frost may mean all the difference between prosperity and ruin to some fruit growing region.

In promoting that sort of work Professor Moore is giving to the Weather Bureau perhaps its greatest popular value. The average farmer or other citizen may take comparatively little interest in learned talk of high pressure and low pressure and atmospheric strata and all the rest of it, but he appreciates as ready money in his pocket a bit of information that enables him to gather a crop just in time to save it from being destroyed by frost; and when he finds such practical results proceeding from the more abstruse investigations in which he has taken little or no interest and which he may have been inclined to regard as a squandering of money, he will realize that after all they are well worth while.

JUST A WINTER'S SLEEPING.

The flowers of summer are dead,
And the world waits her garments to shed,
For her handmaid, October, has come to disrobe her—
November will spread her white bed!

She will sleep, and her sleep will be deep,
And the dull hours will silently creep,
And glad dreams without number will sweeten her slumber,
For she ll dream of the spring in her sleep!

But so weary she is, and outworn
With the burden of toil she has borne,
That not once will she stir till the birds call to her,
And the strength of the winter is shorn.

Then she'll throw off the robe that has kept
Her so warm from the winds that have swept
'Round the couch where she lies—and the light in her eyes
Will be brighter because she has slept!

—*Cleveland Leader.*

GRASS AS A MEAT MAKER.

All through the corn belt men have placed too much dependence upon corn as a meat maker and not enough on grass and other crops. Meat made from grass—and by grass we mean clover, alfalfa and blue grass—is always cheaply produced, while meat made from corn has often to be sold for less than it cost. But few men understand the real value of a good pasture as a meat producer, and altogether too little attention is paid to keeping pasture lands up to a high state of productiveness, the most common sin being in connection with overstocking them and never giving the grass any kind of a show to grow. We know of men who would hardly be able to sleep nights if they had a pasture which carried a heavy and luxuriant growth of grass and would not rest until they had got enough stock into it to "keep it down," as they express it. Grass must have some sort of a chance to grow above ground if it is to have a good, strong and vigorous root system. Where grass is weakened by overpasturing the weeds are quick to take advantage of the fact and soon swarm all over the field to still further help kill out the grass. A blue grass pasture unfed from July 1 till winter will furnish one of the best and very cheapest winter rations for the colts and for cattle and sheep as well, provided the snow does not get too deep.—*J. S. Trigg.*

CLIMATOLOGY OF THE MONTH OF OCTOBER, 1905.

BAROMETER.—Mean pressure, 30.09 inches; highest observed, 30.68 inches, at Charles City and Dubuque, on the 28th; lowest observed, 29.66 inches, at Sioux City, on the 13th; range for state, 1.02 inches.

TEMPERATURE.—The monthly mean temperature for the state, as shown by records of 116 stations, was 49.2° degrees, which is 3.3° below normal. By sections the mean temperatures were as follows: Northern section, 46.9°, which is 4.0° below normal; central section, 49.5°, which is 2.3° below normal; southern section, 51.1° degrees, which is 3.6° below normal. The highest monthly mean was 54.8°, at Keokuk; lowest

monthly mean, 42.4°, at New Hampton. The highest temperature reported was 95°, at Inwood and Sheldon, on the 4th; lowest temperature reported, 16°, at Decorah, Elkader, Maquoketa and Inwood, on the 28th, 29th and 30th. The average monthly maximum was 84.7°; average monthly minimum, 20.4°. Greatest daily range, 53°, at Keosauqua; average of greatest daily ranges, 38.7°

PRECIPITATION.—Average precipitation for the state, as shown by records of 125 stations, was 3.40 inches, which is 0.98 of an inch above normal, The averages by sections were as follows: Northern section, 3.15 inches, which is .96 of an inch above normal; central section, 3.58 inches, which is 1.13 inches above normal; southern section, 3.46 inches, which is .85 of an inch above normal. The largest amount reported was 5.36 inches at Iowa City; least amount reported, 1,20 inches, at Sioux Center. The greatest daily rainfall reported was 3.14 inches at Clinton on the 16th and 17th. Average number of days on which .01 of an inch or more was reported, 8.

WIND AND WEATHER.—Prevailing direction of the wind, Northwest; highest velocity reported, 47 miles per hour, from the south, at Sioux City, on the 8th. Average number of clear days, 16; partly cloudy, 6; cloudy, 9.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	30.03	30.68	28	29.73	13
Davenport	30.09	30.64	28	29.73	17
Des Moines	30.09	30.66	28	29.70	14
Dubuque	30.14	30.68	28	29.69	19
Omaha, Neb	30.09	30.66	28	29.67	13
Keokuk	30.10	30.65	28	29.76	17
Sioux City	30.07	30.66	28	29.66	13
Means	30.09	30.68	28	29.66	13

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	5481	26	SE	17
Davenport	5681	34	NW	19
Des Moines	5887	32	SW	8
Dubuque	5246	28	NW	19
Keokuk	5651	36	W	19
La Crosse, Wis	6078	30	W	31
Omaha, Neb	6174	29	NW	19
Sioux City	9268	47	S	8

OBSERVERS' NOTES.

ALLERTON—*Rex Shriver*. About one-third of corn gathered and some fall plowing being done; pastures good.

ALTA—*David E. Hadden*. First killing frost on morning of the 10th; corn entirely safe; first snow on the 19th, but soon turned to rain; month as a whole pleasant.

ALTON—*W. S. Slage*. Corn picking in progress; much of it down and would be damaged by snow.

AMANA—*Conrad Schadt*. Fine weather, with balmy days during a great part of the month; rains moistened the grounds thoroughly, which bad been very dry.

ATLANTIC—*J. W. Love*. First frost on 10th; first ice on 12th; severe thunderstorms 16th and 17th; wild fowls flying southward on 27th; snow on 29th.

BAXTER—*W. T. Thorp*. Corn matured naturally and husking is in progress.

BONAPARTE—*B. R. Vale*. A pleasant and profitable month; corn husking begun about the 20th; much fall plowing done; fall grain doing nicely.

BRITT.—*Geo. P. Hardwick*. Corn and other tender vegetation killed on 12th; about an average crop of corn; husking during the last week; pastures fair to near the end of month.

CHARITON—*C. C. Burr*. Many are cribbing corn, which is badly tangled and down; more than usual fall plowing done; grass and pastures never better.

CLINTON—*Luke Roberts*. October, 1905, was 1° colder than normal, and 5° above the coldest October during the last 27 years; 8° below the warmest October. Rainfall, 4.45 inches; was 2.12 in excess of normal.

CORNING—*Jerome Smith*. The frost on the 12th killed all tender vegetation.

CRESCO.—*L. G. Krumm*. First heavy frost on the 11th; ice on shallow troughs.

ELLIOTT.—*Henry Barnes*. Corn was well matured but badly down; husking somewhat delayed by bad weather; potatoes a fair crop.

FLORENCE.—*J. H. DuBois*. Large amount of plowing done; corn picking begun on 23d; average yield 50 to 55 bushels per acre.

FOREST CITY.—*J. A. Peters*. Corn husking begun last week in October; first killing frost on 11th, and corn out of the way.

GRAND MEADOW.—*F. L. Williams*. Field work well along; pastures good, and plowing well advanced.

GRINNELL.—*A. O. Price*. Rainfall 4.68 inches, almost 4 inches in excess of October, 1904; stock water will be abundant; corn dry enough to husk the last of month.

HANCOCK.—*W. Armstrong*. Corn harvest begun about the 25th; crop not quite up to 1904.

HANLONTOWN.—*Mrs. G. M. Paschen*. Most all stack thrashing finished by 15th; potatoes most all dug by 20th when corn husking begun; corn best in quality and yield for past 4 years; fall work retarded by bad weather.

HUMBOLDT.—*H. S. Wells*. A good month for corn harvest, and a bountiful crop.

INWOOD.—*Geo. W. Larsen*. Warmest day in October, 94° on 4th; coldest, 16° on 30th. Frost nearly every morning after the 10th; corn husking in progress and the crop is extra good in yield and quality. First snow on 20th, wet and heavy.

JEFFERSON.—*Geo. W. Day*. Corn gathering begun on 17th; bushels per acre, 35 to 75; quality good.

KEOSAUQUA—*J. H. Landes*. Ice one-fourth inch thick on morning of 12th. This is phenomenal, the first frost of the season being a genuine freeze. A beautiful fall month and favorable for work.

LARRABEE—*H. B. Strever*. First killing frost on 12th; corn was generally well ripened.

LEON—*Millard F. Stookey*. First killing frost of season on 12th; first snow on 30th.

MONTICELLO—*A. Matthiesen*. Corn crop good in yield and qua ity; ground in fine condition for plowing.

OLIN—*Nathan Potter*. October was a good month, the first half being warm and dry, and latter half wet enough to moisten the ground for plowing.

POCAHONTAS—*F. E. Hronek*. Killing frost on 12th, the latest date for years; no damage to crops.

RIDGEWAY. *Arthur Betts*. First decade of the month delightful; we had in the month 212 hours of sunshine, or 62 per cent; first killing frost on 11th; first snow on 19th.

SHELDON.—*A. W. Beach*. First half of month warm and clear; latter half cool and disagreeable, with two snowstorms.

STOCKPORT.—*C. L. Beswick*. First killing frost October 12th; latest frost in spring, April 22d; giving 173 frostless days; 95 to 98 per cent of corn was well ripened.

WAUKEE.—*E. J. Leonard*. Except about ten days near the middle of month October was favorable; first frost on 12th, and snow on 30th; crops all matured without damage.

BELATED REPORT.

HANCOCK.—September, mean temperature 70.5°; highest 94° on the 25th; lowest 44° on the 4th; greatest daily range 45°; total precipitation 7.61 inches; greatest in 24 hours 2.71 inches on 16th; prevailing direction, south; number of clear days, 23; partly cloudy, 1; cloudy, 6; rainy, 10.

MONTHLY REVIEW OF THE

CLIMATOLOGICAL DATA FOR OCTOBER, 1905.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Algona	Kossuth	1,213	28	46.4	- 4.2	82	4	21	28	37	3.62	† 1.52	1.00	T	8	13	7	11	S	14
Alta	Buena Vista	1,513	14	46.2	- 4.6	85	4	20	28	41	2 08	- .09	.75	2.3	8	15	5	11	NW	14
Alta (near)	Buena Vista										2.08		.59		7					
Alton	Sioux			47.2		84	4	22	28	39	1.41		.59	T	4	18	7	6	NW	14
Britt	Hancock	1,236	8	46.4	- 5.3	85	4	19	28	38	3 85	† 1.67	.98	2 0	10	9	11	11	SW	15
Charles City	Floyd	1,015	18	46.8	- 4.8	85	4	20	28	35	3.23	† .84	1.15	0.4	8	12	9	10	NW	9, 13, 14, 17
Clear Lake	Cerro Gordo	1,441	7	47 6	- 4.2	83	4	20	28	31	3.25	† .37	.85	1.0	6	19	2	10	NW	
Cresco	Howard		31	46.6	- 1.0	84	4	19	29	30	4 93	† 2 56	.99	2.0	10	16	6	9	NW	13
Decorah	Winneshiek	857	12	47.2	- 3.5	82	4	16	28	30	3.40	† 1.06	.76	T	8					
Dows	Wright	1,142	9	47.4	- 5.2	86	4	20	28, 31	36	3.82	† 1.47	.96	.5	10	15	4	12	NW	14, 15
Elkader	Clayton	727	21	49.4	- 0.1	88	4	16	29	40	4.31	† 1.56	1.85		8	16	8	7	NW	13, 14, 19
Florence	Wright	1,220									4.85		.90	.5	8	10	13	8	NW	16
Forest City	Winnebago	1,226	11	46.4	- 4.1	92	4	20	28	42	3.84	† 1.47	1.21	T	7	14	3	14	SW	
Grand Meadow(†)	Clayton	1,180	11	47.6	- 2.4	78	4, 8	20	28, 29	27	2.93	† .36	.78	T	7	15	9	7		13, 17
Greene	Butler	924	8	48.1	- 5.5	85	4	21	28	32	3 85	† 1.71	.75		10	8	11	12	W	
Hampton	Franklin	1,155	13	49.5	- 1.1	91	4	22	28	37	3.46	† .88	.90	T	6	12	14	5		13, 14
Hanlontown	Worth			45.9		87	4	19	28	36	3.60		.87	1.0	8	17	1	13	SE	15
Humboldt	Humboldt	1,095	16	49.8	† 0.1	83	8	20	28	37	4.11	† 2.38	1.18		8	16	5	10	NW	
Inwood	Lyon			47.3		94	4	16	30	38	1.47		.60	8.0	5	19	1	11	NW	
Larrabee (b)	Cherokee	1,266	12	48.6	- 1.9	84	4, 7	22	30	42	2.61	† .77	1.05	4 0	5	14	9	8	SW, NW	14
LeMars	Plymouth	1,224	7	47.2	- 5.3	84	4	23	28, 31	43	1,78	- .07	.65	T	4	16	7	8	S	
Mason City	Cerro Gordo	1,132	8	47.8	- 1.6	82	4	22	28	32	3.64	† 1.63	1.02	T	7	10	11	10	SW	14
New Hampton	Chickasaw	1,169	7	42.4	-11.1	81	7	20	28, 29, 30	32	3.28	† .63	.84	T	9	13	2	16	W	9, 10, 15
Northwood	Worth	1,222	8	46.0	- 2.0	84	4	20	28	38	4.20	† 1.51	.90	7.2	11	13	11	7	NW	14
Osage	Mitchell	1,184	13	46.7	- 0.2	84	4	20	28, 31	34	3.45	† 1.02	1.01	4.0	9	14	4	13	S, NW	14
Plover (c)	Pocahontas			47.4	- 4.9	83	7	20	28, 30	40	2.86	† .55	.69	3.0	7					16
Pocahontas	Pocahontas	1,190		47.4		86	4	21	28	42	3.35		.87	0.5	6	15	6	10	S	14
Ridgeway	Winneshiek	1,215	7	48.8	- 5.1	88	4, 7	20	28, 29	34	3.58	- .30	1.10	1.0	9	15	11	5	S	15, 17
Rock Rapids	Lyons	1,021	7	44.2	- 3.3	87	5	26	11, 16, 21, 30	38	2.50	† .75	.60	0.0	5				N	
Sheldon	O'Brien	1,442	6	48 2	5.2	94	4	20	28, 30	50	2.41	† .41	1.25	6.0	6	19	2	10	S	14
Sibley (a)	Osceola	1,212	12	44.2	- 6.7	89	4	17	30	44	2.11	† .44	.40	4.3	10	17	3	11	NW	15
Sioux Center	Sioux		6	46.1	- 7.1	84	4	18	28	41	1.20	- .86	.65	5.0	5	17	2	12	S	14
Storm Lake	BuenaVista	1,440	8	44.0	-11.5	88	4	17	28	38	2.85	† 1.09	.75	T	7	17	1	13	NW	
Washta	Cherokee	1,157		48.0		92	4	17	28, 29	50	1.92	- .05	.68	T	4	16	7	8	S	14
Waverly (a)	Bremer	942	9	47.6	- 5.8	81	4, 7	20	31	32	3.04	† .40	.70	T	12	15	6	10	NW	1, 13, 14, 17
West Bend	Palo Alto	1,197	12	46.5	- 2.5	88	4	18	28	38	2.75	† .99	.90	0.3	8	13	10	8	N	14, 15
Average				46.9	- 4.0	85.8		19.8		37.3	3.15	† .96		3.2	8	15	6	10	NW	

CENTRAL SECTION.

Amana	Iowa	721	7	50.1	† 0.5	82	4	21	31	34	4.52	- 1.78	2.36	T	9	13	13	5	NW	17
Ames	Story	926	21	49.4	- 1.5	84	4	20	28	42	3.55	† 1.03	1.32		8	16	9	6	W	
Audubon	Audubon	1,301	9	48.5	- 2 7	85	4, 5	18	28	40	3.17	† .94	1.39	T	9	12	11	8	NW	13, 14, 17
Baxter	Jasper	998		49.8	- 4.9	82	4	18	28	32	3.98	† 1.27	.95	T	8	13	6	12	NW	
Belle Plaine	Benton	826	14	48.8	- 1.8	80	4, 7, 8	20	31	30	4.35	† 2.07	2.10		7	15	11	5	NW	
Boone	Boone			49.0		85	4	21	28	42	3.60		1.10	T	8	17	2	12	NW	
Buckingham	Iowa										3.57	† 1.73	1.15	T	6	12	15	4		
Carroll	Carroll	1,265	13	48.1	- 3.2	84	4	18	28	46	3.63	† 1.37	1.10	T	6	19	3	9		
Cedar Rapids	Linn	733	23	50.6	- 0,9	87	4	23	29	46	4.19	† 1.60	2.05		8	10	12	9	S	
Clinton	Clinton	609	38	49.8	- 0.6	83	4	20	29, 31	41	4.45	† 2.04	3.14		6	19	8	4	SW	16
Davenport	Scott	606	34	52.6	† 0.5	84	4	25	28	30	2.73	† .11	2.32	T	8	15	7	9	NW	16, 17
Delaware	Delaware	1,083	12	48.0	- 1.0	80	4	20	28, 29, 31	33	3.35	† 1.13	1.18		8	18	4	9	SW	
Des Moines	Polk	861	27	50.8	- 1.4	85	4	24	31	39	3.64	† .60	1.67	0.8	8	11	10	10	SW	14, 16, 17
De Soto	Dallas	866		50.9		87	4	20	28	48	3.86		1.33		7	16	5	10	SW, NW	
Dubuque	Dubuque	655	32	50.9	† 0.3	83	4	23	29	30	3.88	† 1.17	2.25		7	14	9	8	NW	14, 17
Fort Dodge	Webster	1,126		48.3		87	4	22	28	41	4.18		1.20	T	9	19	2	10	SSE, NW	
Galva	Ida	1,290	12	47.2	- 4.1	82	4	18	28	43	2.05	† .88	.72	.6	6	18	2	11	S	
Gilman	Marshall	1,052									4.83	† 2.04	1.18	?	7	16	7	8	SW	
Grinnell	Poweshiek	1,023	10	50.4	- 1 9	84	4	19	28	37	4.68	† 2.23	2.43		8	19	2	10	SW	14, 15, 17, 18
Grundy Center	Grundy	976	12	49.0	- 2.4	88	4	20	28, 31	35	3.32	† .63	1.15		10	11	14	6	NW	14, 15, 17, 18
Guthrie Center	Guthrie	1,077	7	49.2	- 3.3	82	4	18	28	43	3.32	† 1.10	.70	T	10	19	6	6	SW, NW	14.16
Harlan	Shelby	1,192		48.5	- 5.9	83	4	19	28, 31	43	2.75	† .28	1.40	T	8	13	9	9	S	13, 14, 17, 18
Independence	Buchanan	921	40	48.4	† 0.2	81	4, 7	19	31	46	3 98	† 1.61	1 80	T	8	17	7	7	SW	14
Iowa City	Johnson	683	47	50 4	- 0.7	86	4	21	31	43	5.36	† 2.82	1.93		9	18	6	7	NW	
Iowa Falls	Hardin	1,170	10	46 8	- 3.5	81	4, 7	19	28	39	3.15	† .85	.67	T	10	13	7	11	NW	13, 14, 16
Jefferson	Greene			50.1		88	4, 5, 7	19	28	42	3.18		1.00	T	6	15	7	9	NW	
Le Claire	Scott	576									3.01		2.02		8				NW	
Little Sioux	Harrison			51.0		86	3, 4, 7	21	31	44	1.54		.67	T	7	15	7	9	SE	13, 14
Logan	Harrison	928	36	50.0	- 2.3	82	4	19	31	44	1.85	- .63	.61	T	5	9	13	9	NE, NW	
Maquoketa	Jackson	688	12	48 0	- 6.4	85	4	16	29	45	4.29	† 1.35	1.75		8	18	3	10	NE	
Marshalltown	Marshall	947	10	52.4	- 0.6	86	4	19	28	46	3.45	† .98	1.01	T	9	18	2	11	SE, NW	
Monticello (a)	Jones	925		47.8	- 1.7	85	7	18	30	42	4.28	† 1.56	1.65		5	15	8	8	S, NW	
Mount Vernon	Linn	847	30	50.9	† 3.6	86	4	19	31	38	4.67	† 2.27	2.70	.2	8	21	3	7	S	17
Muscatine	Muscatine		46								4 49	† 1.45	2.77		9				S	
Newton	Jasper	944	15	49.6	- 2.2	82	4	18	28	36	5.07	† 2.30	2.42	T	8	16	7	8	NW	
Odebolt	Sac	1,356	8	48.2	- 7.2	85	4	20	28	41	2.49	† .28	.73		7	18	4	9		
Ogden	Boone	1,058	9	49 2	- 4.2	85	4	20	28	42	3.83	† .67	78		7	17	7	7	NW	
Olin	Jones	760	7	50.2	- 1 7	80	4, 8	20	31	38	4.03	† 1.61	3 10	T	5	15	9	7	S	17
Onawa	Monona			50.8	- 5.4	88	3	23	31	48	1.28	- 1.11	.52	.4	9	21	4	6	NW	13, 14
Rockwell City	Calhoun		8	49.0	- 3.7	83	4	20	28	41	3.22	† .64	1.05		5	22	1	8		
Sac City (l)	Sac	1,278	23	44.9	- 5.0	83	4	20	28	31	2.59	- .06		T						
Sioux City	Woodbury	1,165	16	49.2	-11.8	86	4	24	27	45	1.89	† .19	.59	0.9	8	15	6	10	NW	13
Tipton	Cedar	807		52.4	- 0.6	85	4	23	31	30	4.81	† 2.88	2.98	.4	6	19	6	6	SW	
Toledo	Tama	856	9	50.4	- 2.1	85	4	19	28	39	4.06	† 2.19	1.75	.3	8	18	6	7	SW, NW	15
Waterloo	Black Hawk	862	16	49.9	† 0.2	85	4	21	28	36	3.38	† 1.06	1.20	T	11	12	11	8	NW	14
Waukee (a)	Dallas	1,039		49.6		81	4	21	28	37	3.88		1.37	0.8	10	14	9	8	NW	14, 16, 17
Whitten	Hardin	1,036		47 1	- 5.8	80	7	17	31	31	3.78	† 1.16	1.05	T	9	13	8	10	SW	14, 15, 17, 19
Wilton Jct	Muscatine	683	11	51.2	- 1.6	83	4	20	28	32	3.94	† 1.87	3 03		6	14	6	11	NW	17
Zearing	Story	718		48.8		85	4	18	28	42	3.02		.98	T	6	17	7	7	SW	15, 17
Average				49.5	- 2.3	83.7		20.0		39.3	3.58	† 1.13		0.6	8	16	7	8	NW	

CLIMATOLOGICAL DATA FOR OCTOBER, 1905—CONTINUED.

SOUTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Afton	Union	1,212	11	49.8	- 4.1	87	5	20	28	34	3.66	† .70	1.60	....	8	12	12	7	SW	
Albia	Monroe	957	...	49.1	- 5.5	85	4	21	29	41	4.17	† 1.38	1.80	T	9	18	5	8	SE, NW	
Allerton	Wayne	.....	...	52.0	.....	86	5	22	28, 31	32	3.36	.....	1.23	1.0	11	19	4	8	SW	17
Atlantic	Cass	1,164	14	48.4	- 3.6	85	4, 5	18	28	48	4.79	† 2.15	1.59	.5	9	14	4	13	S, NW	16, 17
Bedford	Taylor	...	5	49.4	- 7.7	85	5	18	31	46	2.16	- .67	.45	1.0	7	16	4	11	S, NW	
Bonaparte	Van Buren	.....	14	53.2	- 2.5	86	4	23	28	40	2.09	† .27	.60	..	9					
Burlington	Des Moines	544		54.3	.....	87	5	25	28	35	3.03	.....	.87	0	10	19	4	8	S	17, 19
Chariton	Lucas	1,042	10	50.4	- 3.4	85	5	20	31	42	3.46	† .64	1.55	T	6	16	7	8	SE	
Clarinda	Page	.....	15	50.2	- 4.4	89	4	21	31	43	2.33	- .46	.77	3.0	12	17	4	10	S	
College Springs(c)	Page	.....	14	51.3	- 6.4	82	4, 5	23	31	41	2.30	- .81	.75	?	6					
Columbus Jct	Louisa	586		51.3	.....	84	4	23	28	30	3.88	.. ..	2.75	T	7	25	2	4	S	15, 16, 17
Corning	Adams	1,127	13	49.4	- 4.6	83	4	21	31	41	2.93	† .87	.86	....	6	16	9	6	SW	14, 17
Corydon	Wayne	992	12	52.7	- 2.4	88	5	21	28, 31	40	4.99	† 2.12	2.41	T	9	16	4	11	SW	17
Cumberland	Cass	.....	...	.....	...	....	.....	.....	.....	....	2.75	- .06	2.36	1.0	3	23	3	5	S	
Earlham	Madison	.....	....	48.4	.....	84	4	17	28	40	4.24	.....	1.87	T	10	17	4	10	S	14, 17
Elliott	Montgomery	.....		49.6	.....	81	5	22	28, 31	31	3.31	.....	1.01	.8	8	17	7	7	S	13, 17
Ft. Madison	Lee	516	56	....	....	.....	.....	.....	.. ....	.....	1.93	- .82	.80	...	6	12	9	10	SW, W	16, 19
Glenwood	Mills	.....	17	52.4	- 3.5	85	4	23	28, 31	41	4.40	† 1.82	1.77	.5	5	11	10	10	SW	
Greenfield	Adair	.....	14	49.8	- 3.8	85	4	20	31	37	4.33	† 2.08	1.36	.9	9	20	2	9	S, NW	13, 14, 16, 17
Hancock	Pottawattamie	.....	....	50.0	.....	85	3, 4	23	28, 29, 30, 31	46	4.48	.....	2.00	T	8	21	3	7	S, NW	17
Hopeville	Clark	.....	13	51.2	- 3.4	87	5	22	31	42	3.68	† 1.25	2.05	....	8	10	13	8	NW	
Indianola (a)	Warren	.....	....	50.8	- 3.4	84	4	20	28	41	4.13	† 2.07	1.77	T	10	10	6	15	NW	13, 14, 16, 17
Keokuk	Lee	619	34	51.8	- 0.7	83	5	26	28	34	3.41	† .65	1.87	0	10	15	7	9	SW	14, 16, 17, 18 19
Keosauqua	Van Buren	644	13	51.8	- 4.3	85	4	23	28	53	2.31	† .41	.67	0	10	9	11	11		
Lacona	Warren	.....	....	.....	.....	.....	.....	...	.....	.....	4.85	† 1.66	3.04	0	7	6	21	4		
Lenox	Taylor	1,250	10	50.0	- 4.3	82	4	22	31	40	3.32	† .33	.78	.8	11	18	6	7	NW	14
Leon	Decatur	1,120	...	51.2	.....	80	4	22	31	37	3.91	.....	1.92	....	9	19	6	6	SE	
Mt. Ayr(a)	Ringgold	1,236	12	52.0	- 3.3	87	5	20	31	44	3.75	† 1.36	1.00	T	10		..	....	SW	16, 17
Mt. Pleasant	Henry	729	24	51.8	- 1.2	83	4	23	30	40	2.04	- .04	.51	0	10	17	6	8	SW	16
Omaha, Neb.	Douglas	1,113	34	51.8	- 1.1	87	4	27	31	36	3.97	† 1.50	1.96	.9	10	16	2	13	S	9, 13, 14, 16 17
Oskaloosa	Mahaska	843	22	51.4	- 0.5	83	4	23	28, 31	40	3.70	† 1.37	1.79	....	7	18	2	11	SW	17
Pacific Junction	Mills	960	6	49.2	- 7.2	83	4	20	31	43	3.61	† 1.15	1.33	1.6	6	16	7	8	S	9, 14
Pella	Marion	.....	....	52.4	.....	84	4	22	28	48	4.40	.....	2.32	T	10	15	9	7	NW	17
Red Oak	Montgomery	1,033	8	52.5	- 4.8	86	4	25	31	40	2.73	- .47	.95	2.0	10	15	7	9	NW	13
St. Charles	Madison	1,070	....	52.2	.....	90	4	21	28	42	3.16	.....	1.01	1.0	11	17	8	6	NW	
Sidney	Fremont	.....	...	49.9	.....	83	4	18	31	42	2.34	.....	1.02	1.5	5	19	1	11	SE	
Sigourney	Keokuk	877	9	52.0	- 3.4	84	4	21	28	37	5.23	† 2.21	2.44	..	7	5	22	4	SW	14, 17, 18
Stockport	Van Buren	.....	....	52.8	.....	83	8	23	28	39	1.84		.75	0	9	16	2	13	S	17
Thurman	Fremont	.....	...	50.9	- 5.4	85	4	20	31	33	2.94	- 1.10	.16	.5	5	17	4	10	SW	13, 14
Washington	Washington	769	13	51.4	- 2.6	84	4	22	28	31	4.54	† 2.41	3.02	0	6	.	....	....	SW	
Winterset	Madison	1,129	....	49.0	- 4.7	81	5	20	28	36	3.74	† .37	1.27	.8	11	13	7	11	S	14, 16, 17
Woodburn	Clarke	961	....	49.4	.....	80	4	18	28	40	3.53	† 1.67	1.75	T	8	12	9	10	SW, NW	18
Average		.....	....	51.1	- 3.6	84.5	.....	21.5	.....		39.6	3.46	† .85	.....	11	8	16	6	9	S, SW	
Average for State		.....	....	49.2	- 3.3	84.7	.....	20.4	.....		38.7	3.40	† .98	....	11.6	8	16	6	9	NW	

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR OCTOBER, 1905.

STATIONS.		DATE 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	MEAN.
Afton	Max..	70	74	77	82	87	79	78	78	75	53	49	67	70	68	62	54	60	49	45	45	53	49	60	57	53	58	49	39	45	38	49	60.4
	Min ..	45	46	50	55	53	56	59	46	46	39	34	29	47	52	37	31	46	41	37	36	27	28	30	43	30	37	34	20	25	31	21	39.2
Albia*	Max..	70	77	78	85	83	80	82	80	80	58	45	69	75	66	54	70	78	50	55	48	55	53	62	63	52	63	48	50	48	45	51	61.4
	Min ..	50	50	52	53	55	53	53	55	60	43	36	28	36	52	42	34	46	43	36	40	30	29	40	32	35	35	35	22	21	22	22	36.8
Algona	Max..	68	74	77	82	78	78	81	78	70	51	42	64	69	58	50	45	49	47	39	44	50	46	54	51	51	49	42	33	38	38	46	56.2
	Min ..	41	42	51	51	41	50	59	57	45	36	30	27	38	52	40	31	41	37	32	31	27	34	36	29	27	37	23	21	24	24	32	36.7
Allerton	Max..	72	77	80	84	86	81	72	81	79	53	50	70	74	65	65	57	70	58	51	46	57	55	65	61	58	65	54	42	46	39	52	63.5
	Min ..	47	43	49	54	53	54	55	54	50	40	34	29	49	52	40	34	48	45	39	36	28	27	33	47	34	36	36	22	27	33	22	40.5
Alta	Max..	69	75	79	85	76	79	82	78	65	49	45	71	70	55	45	47	46	43	38	41	44	39	55	52	55	46	39	32	37	36	43	55.4
	Min ..	40	45	50	52	50	51	59	63	38	34	31	30	42	41	36	31	42	33	34	30	29	31	31	30	31	33	25	20	26	24	28	36.9
Alton	Max..	69	74	78	84	76	80	82	80	68	50	48	72	69	59	49	48	47	45	43	44	47	48	56	51	55	50	47	35	38	38	42	57.2
	Min ..	40	42	43	45	53	55	61	61	44	35	32	31	38	43	38	32	42	37	32	34	30	30	29	30	35	40	27	22	23	23	24	37.3
Amana	Max..	69	77	77	82	76	76	81	81	79	57	47	60	73	65	64	52	62	57	50	47	53	46	58	57	50	58	49	39	45	40	50	60.5
	Min ..	50	44	49	59	49	50	55	51	55	45	35	26	42	51	44	31	47	45	38	35	28	31	30	43	32	35	31	22	23	33	21	39.7
Ames	Max..	71	76	82	84	80	80	82	81	72	54	45	68	70	61	61	48	55	52	45	45	53	49	62	58	58	56	46	40	45	42	51	60.3
	Min ..	42	42	49	55	52	51	53	52	45	39	31	23	44	52	40	30	45	39	36	35	27	32	38	39	38	35	28	20	24	27	21	38.4
Atlantic	Max..	72	76	80	85	85	80	81	80	63	49	51	73	69	61	53	51	53	48	43	49	54	51	60	58	59	59	46	38	41	40	51	60.1
	Min ..	38	38	51	56	49	52	53	55	46	36	31	25	45	52	38	30	47	38	34	35	24	22	25	41	25	40	28	18	25	25	19	36.8
Audubon	Max..	70	77	82	85	85	86	82	80	70	53	50	73	70	59	57	47	54	47	41	44	54	52	60	57	60	53	47	37	43	38	54	60.1
	Min ..	39	38	50	55	45	49	56	55	45	36	32	25	42	51	38	29	45	38	36	36	25	28	28	38	28	40	28	18	25	27	19	36.9
Baxter	Max..	73	75	79	82	81	77	80	81	74	57	47	55	70	66	63	53	60	55	47	47	53	49	61	57	54	58	60	39	45	41	52	61.0
	Min ..	45	45	50	56	52	50	55	55	48	40	33	28	48	51	40	30	44	43	35	35	28	31	32	40	30	35	30	18	22	29	20	38.5
Bedford	Max..	73	76	79	83	85	83	81	81	76	56	53	73	72	66	65	52	49	52	47	46	53	54	53	57	60	61	51	41	39	39	51	61.6
	Min ..	41	41	45	53	49	49	41	49	46	40	31	27	48	51	39	32	47	42	40	31	23	25	26	26	32	40	33	22	29	31	18	37.2
Belle Pl'e	Max..	68	73	78	80	76	75	80	80	79	54	39	59	71	62	59	53	62	54	48	46	53	45	58	57	52	58	45	40	42	55	35	59.0
	Min ..	47	48	48	55	52	50	55	53	60	42	35	25	46	50	42	32	40	37	41	33	28	28	31	31	30	34	31	21	22	31	20	38.5
Bonapar'e	Max..	70	79	81	86	83	81	83	84	82	68	49	65	80	67	67	59	72	67	55	51	57	55	65	61	55	65	65	44	48	42	51	65 7
	Min ..	52	49	47	50	54	51	52	55	56	46	37	25	47	52	45	30	49	45	42	35	27	29	32	46	35	32	32	23	28	35	25	40.7
Boone*	Max..	72	76	82	85	79	80	82	80	66	54	44	70	70	59	52	54	54	48	42	42	52	49	61	56	56	55	44	40	42	39	52	59.2
	Min ..	46	49	52	58	54	52	54	56	60	39	35	23	30	51	40	33	37	40	39	35	30	31	34	36	29	32	30	21	22	30	23	38.9
Britt	Max..	68	75	79	85	73	78	82	79	68	54	41	68	72	58	58	48	51	46	39	46	50	45	53	50	53	52	40	33	41	38	47	55.9
	Min ..	41	42	49	47	50	52	57	55	44	33	30	26	40	53	39	28	42	33	32	30	26	33	29	28	25	37	25	19	25	22	20	35.9
Burling'n	Max..	74	81	81	81	87	82	84	85	82	69	49	64	79	68	67	60	70	66	52	52	58	52	68	64	58	61	54	45	49	43	49	65.3
	Min ..	54	51	49	57	59	53	57	58	61	47	36	29	50	52	46	35	50	50	43	38	29	31	37	45	36	33	39	25	29	36	28	43.3
Carroll*	Max..	69	74	80	84	79	80	81	79	58	53	51	73	69	59	53	48	50	41	43	46	51	52	60	54	58	57	45	38	43	41	54	58.7
	Min ..	40	45	53	56	51	50	53	53	55	35	31	27	47	51	37	30	38	36	37	33	29	31	29	35	27	33	29	18	25	27	19	37.5
Cedar R*	Max..	72	78	83	87	77	78	85	85	82	57	42	62	77	67	51	54	63	59	50	48	53	47	61	57	52	58	44	40	44	39	52	61.4
	Min ..	51	48	49	53	58	51	52	57	59	46	38	29	31	49	47	34	35	47	42	36	31	32	32	33	33	33	33	24	23	25	24	39.9
Chariton	Max..	71	73	80	84	85	81	81	80	79	57	54	69	73	70	64	55	68	56	55	46	56	53	64	61	58	63	53	39	45	42	52	63.2
	Min ..	47	39	49	55	52	53	51	53	50	41	36	27	50	50	40	32	47	44	40	36	27	28	32	43	34	36	34	22	25	32	20	39.5
Charles C.	Max..	70	75	80	85	73	76	83	80	73	51	39	58	70	59	54	46	55	48	41	43	50	41	54	52	51	50	37	34	40	38	49	53.6
	Min ..	46	43	51	50	50	47	55	54	44	37	31	30	33	52	35	30	45	37	33	31	29	34	33	31	27	36	25	20	26	22	22	36.9
Clarinda*	Max..	74	80	83	89	88	85	85	83	67	59	54	76	70	65	57	51	53	51	46	49	60	55	63	60	63	63	53	40	43	34	54	63.1
	Min ..	44	43	45	46	49	51	52	51	57	39	31	28	34	48	39	32	39	42	41	35	27	27	27	30	31	31	37	24	25	31	21	37.3
Clear L	Max..	72	73	77	83	79	79	79	81	74	49	44	61	70	65	55	48	48	43	48	44	48	46	50	50	48	47	35	30	39	37	45	56.5
	Min ..	48	51	55	56	50	59	57	58	47	39	31	30	45	52	40	34	41	40	33	30	30	34	31	30	25	38	26	20	25	23	25	38.8
Clinton	Max..	70	76	77	83	78	75	80	82	82	70	48	56	77	67	65	59	69	60	56	49	52	48	60	57	50	58	50	40	45	41	46	62.1
	Min ..	51	45	44	46	53	43	48	49	51	45	36	29	38	46	42	39	48	41	40	32	25	29	27	43	31	28	31	23	20	32	20	37.5
Col. Spgs.	Max..	69	73	78	82	82	80	80	80	70	57	53	71	71	69	57	53	55	52	46	47	55	53	..	60	60	..	..	60	45	40	47	62.8
	Min ..	49	43	48	55	50	55	55	54	..	37	31	30	49	51	40	35	47	43	40	32	27	30	27	47	33	..	..	40	25	32	23	40.3
Colum. J.	Max..	70	71	77	84	80	77	82	82	82	72	49	58	78	68	64	57	68	63	54	42	48	48	50	48	48	54	54	43	46	42	41	61.1
	Min ..	51	49	50	54	56	50	53	57	56	45	33	27	49	52	45	33	48	47	42	35	31	30	31	41	34	31	35	23	28	36	25	41.5
Corning	Max..	67	73	78	83	80	79	79	78	70	58	51	70	69	65	60	51	54	49	44	48	54	50	53	57	54	58	48	38	42	39	50	59.6
	Min ..	43	44	51	51	52	57	58	54	46	38	37	29	47	51	38	33	47	41	38	34	27	25	30	44	31	31	33	22	26	29	21	39.1
Corydon	Max..	74	77	80	85	88	81	82	81	79	60	50	70	74	66	65	54	67	61	50	49	57	55	63	62	59	65	55	42	45	43	54	64.3
	Min ..	46	48	50	66	56	54	57	55	51	41	36	30	50	52	40	34	48	45	40	36	29	23	34	45	34	37	35	21	22	34	21	41.1
Cresco	Max..	67	73	73	84	74	73	80	79	74	50	41	55	68	60	58	46	54	50	44	42	47	42	52	49	49	48	42	31	33	36	42	55.5
	Min ..	46	45	53	54	48	47	55	56	47	39	31	30	43	50	41	31	41	42	32	31	31	34	32	32	26	37	28	21	19	27	23	37.8
Davenpo't	Max..	71	78	79	84	80	79	82	84	82	61	44	60	76	68	68	56	68	59	57	47	53	44	60	58	50	53	49	41	45	40	48	62.2
	Min ..	55	54	54	56	58	51	58	60	52	44	35	32	50	54	46	38	48	49	40	37	33	35	36	41	36	35	32	25	28	37	27	43.1
Decorah	Max..	72	73	77	82	72	73	81	81	81	58	43	55	70	59	60	56	53	42	43	49	42	53	52	51	52	44	32	39	38	41	42	56.8
	Min ..	50	48	55	52	50	49	59	53	57	42	32	32	40	52	43	43	38	32	32	28	32	32	31	25	38	27	19	13	22	20	22	37.7
Delaware	Max..	68	72	76	80	78	70	79	79	75	55	45	57	71	62	62	49	60	48	49	43	51	40	56	53	47	54	46	35	41	37	47	57.6
	Min ..	47	47	50	53	54	46	53	52	52	42	32	28	38	52	40	32	58	40	35	33	30	30	32	37	30	32	27	20	20	27	20	38.4
Des M	Max..	71	76	81	85	79	80	80	80	74	55	46	69	71	64	56	51	58	54	46	45	54	49	59	59	51	58	46	40	45	39	52	60.5
	Min ..	49	48	52	59	58	54	60	57	46	43	34	30	52	54	39	35	46	42	38	35	31	31	35	40	34	40	29	26	28	25	24	41.1
De Soto	Max..	74	79	83	87	80	83	83	84	74	56	50	76	72	63	62	50	54	48	45	46	55	54	61	58	57	58	47	38	47	40	51	61.8
	Min ..	46	44	51	61	52	53	58	54	47	40	35	28	51	53	40	32	47	42	37	37	28	30	33	43	32	40	30	20	25	30	21	40.0
Dows	Max..	70	76	81	86	77	79	82	81	74	51	43	66	71	60	59	46	53	47	42	43	47	46	57	52	51	50	43	33	43	39	47	58.1
	Min ..	42	41	49	50	51	49	57	56	45	35	33	24	40	51	40	28	41	38	32	33	26	34	30	30	27	36	27	20	25	26	20	36.6
Dubuque	Max..	69	77	78	83	73	74	80	81	81	58	49	55	74	64	64	50	61	57	50	44	51	43	59	55	49	56	44	36	40	40	48	59.5
	Min ..	54	53	57	60	58	51	57	59	51	45	36	35	45	53	44	38	50	43	37	36	32	34	37	40	33	37	31	25	23	32	25	42.3
Earlham	Max..	71	78	80	84	83	80	79	80	69	55	55	69	70	63	61	48	53	44	51	54	50	62	59	60	55	56	49	37	42	40	49	60.7
	Min ..	41	39	40	58	47	64	47	49	45	33	33	24	39	51	37	26	37	35	34	25	22	24	39	41	27	37	29	17	28	29	19	38.1
Elkader	Max..	75	79	83	88	77	77	85	85	83	64	45	63	78	59	58	48	57	62	46	44	52	41	63	59	55	54	45	40	42	39	43	60.9
	Min ..	48	42	51	56	47	42	58	49	64	45	33	30	38	53	43	30	46	44	35	31	24	31	30	33	25	33	29	20	16	27	18	37.9
Elliott	Max..	69	73	77	78	81	80	80	78	75	51	51	58	70	63	53	52	52	49	49	45	52	48	59	57	56	57	51	40	45	43	49	59.4
	Min ..	42	42	49	48	54	55	57	56	61	42	33	28	48	55	38	33	48	42	39	35	27	25	26	44	29	41	32	22	28	29	22	39.7
ForestCy*	Max..	71	79	82	93	77	80	85	83	53	53	39	64	71	56	50	47	50	47	38	48	51	51	56	54	50	51	35	33	35	42	48	57.1
	Min ..	40	42	47	50	49	51	52	54	53	35	31	26	30	42	40	29	31	37	37	31	26	32	30	30	32	33	23	20	23	23	24	35.7
F. Dodge*	Max..	71	76	81	87	78	81	83	81	62	52	44	70	72	59	51	49	50	48	40	44	47	47	58	55	55	50	39	48	41	38	50	58.3
	Min ..	45	46	47	54	54	52	53	57	61	38	35	30	31	45	40	32	41	39	38	33	31	29	33	34	28	34	23	22	24	29	23	38.3
Galva	Max..	68	74	78	82	76	78	81	77	71	50	45	71	69	57	49	47	48	48	41	45	46	48	55	53	56	51	46	35	39	37	50	57.2
	Min ..	39	43	51	42	52	51	58	56	45	35	31	28	40	47	39	31	49	37	33	34	28	32	35	33	30	39	26	18	28	25	22	37.1
Glenwo'd	Max..	69	75	80	85	84	80	83	80	76	54	53	75	74	64	63	50	52	48	45	45	53	52	59	58	58	57	52	41	40	40	51	63.4
	Min ..	43	48	54	58	55	56	60	60	46	40	33	34	52	50	49	39	45	37	38	33	32	28	32	42	43	42	33	23	29	28	23	41.5
Grand M.	Max..	68	72	74	78	68	71	77	78	77	63	45	54	70	60	59	47	57	54	44	44	48	46	55	50	46	54	44	34	40	36	46	56.7
	Min ..	47	47	56	57	52	46	56	56	50	40	32	31	44	52	39	32	42	41	32	32	30	31	30	34	28	33	30	20	20	26	23	38.5
Greene	Max..	71	72	81	85	75	78	82	82	73	52	44	61	73	60	58	46	56	49	42	45	50	48	58	52	53	52	44	34	42	38	48	58.0
	Min ..	46	42	54	53	50	47	55	53	46	37	32	29	38	52	42	31	42	40	33	32	29	34	38	32	27	37	33	31	25	30	23	38.2
Greenfield	Max..	72	75	79	85	80	84	80	79	72	54	52	70	70	70	61	51	53	52	44	46	52	50	60	57	55	58	49	33	42	40	48	60.5
	Min ..	44	47	49	53	55	60	54	54	43	37	33	32	49	48	38	35	45	44	36	36	28	26	35	40	30	39	30	21	25	26	20	39.1
Grinnell	Max..	71	77	80	84	77	78	82	82	81	59	53	63	74	66	62	50	64	56	50	50	55	50	60	57	62	60	50	40	44	40	50	62.2
(near)	Min ..	45	45	47	55	53	48	57	53	51	39	34	23	46	50	40	32	45	42	35	34	28	28	23	40	31	35	30	19	24	32	20	38.5
Grundy C	Max..	71	75	80	83	77	77	81	82	74	57	43	62	71	63	60	51	57	55	46	48	53	48	61	56	54	56	46	40	43	39	50	59.9
	Min ..	45	44	52	56	50	49	57	55	49	38	33	27	45	52	41	30	43	42	34	33	28	31	32	36	28	37	28	20	21	27	20	38.2
Guthrie C	Max..	71	73	79	82	80	80	80	79	72	52	47	70	68	62	61	48	52	49	43	44	53	48	58	56	54	54	53	38	42	40	52	59.3
	Min ..	43	44	54	60	51	54	57	55	46	39	34	27	52	52	39	30	46	39	36	37	27	23	33	41	27	40	29	18	35	29	19	39.0
Hampton	Max..	75	79	75	91	82	82	88	83	74	53	43	65	76	58	58	45	55	52	42	45	50	50	61	60	58	55	42	41	42	42	49	60.3
	Min ..	45	47	53	55	51	49	58	58	44	38	32	28	47	52	41	33	42	40	35	32	29	35	34	34	28	40	27	22	25	26	23	38.7
Hancock	Max..	69	75	85	85	83	80	82	80	74	58	52	75	63	60	60	60	53	48	43	45	52	49	57	57	58	56	48	39	42	41	52	60.8
	Min ..	48	43	48	55	47	53	59	58	47	38	34	39	46	53	40	33	46	39	38	36	30	30	32	42	31	42	34	23	28	23	23	39.3
Hanlontown	Max..	71	73	78	87	69	77	84	81	72	53	43	62	69	60	57	47	50	46	38	44	52	45	52	48	53	46	41	30	37	37	39	55.2
	Min ..	42	39	52	51	48	45	58	58	43	32	28	26	34	52	39	28	41	36	32	30	27	32	29	29	24	38	25	19	25	22	20	35.6
Harlan	Max.	69	74	79	83	82	80	81	80	72	52	70	70	78	65	52	48	50	47	40	45	53	50	58	57	57	55	47	38	43	39	54	59.6
	Min ..	40	40	46	51	47	54	53	56	46	38	32	27	44	52	37	33	44	39	36	35	27	26	27	39	28	38	31	19	28	28	19	37.4
Hopeville	Max..	70	77	80	84	87	83	81	81	75	56	49	72	72	64	63	53	63	51	47	44	56	53	63	63	58	60	49	39	45	39	55	62.3
	Min ..	47	47	49	55	55	57	55	52	46	39	36	30	47	52	39	38	48	48	38	37	28	30	31	45	33	38	34	23	27	30	22	40.2

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR OCTOBER, 1905—CONTINUED.

STATIONS.		DATE.																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Humboldt	Max..	70	75	74	73	82	75	79	83	76	70	52	45	66	69	62	58	48	50	48	43	42	50	47	56	52	54	50	42	42	40	50	58.8
	Min ..	45	65	44	52	51	52	52	60	58	46	38	37	29	40	52	44	32	44	38	34	34	30	35	33	33	47	39	20	28	26	28	40.8
Independence	Max..	63	69	79	81	75	69	81	80	78	69	50	58	73	54	62	50	60	60	48	45	51	49	54	55	52	54	49	36	41	40	48	59.3
	Min ..	28	43	46	51	53	47	53	57	57	42	33	28	27	39	42	30	43	43	38	33	28	34	30	57	27	34	32	20	20	51	19	37.6
Indianola.	Max..	72	..	80	84	80	81	81	81	75	56	48	70	71	65	62	50	68	55	47	46	56	51	61	59	55	58	50	38	47	38	52	61.1
	Min ..	47	46	51	58	65	53	55	63	47	40	36	29	..	53	40	48	34	44	37	37	29	28	33	43	33	38	37	20	27	30	21	40 4
Inwood ..	Max..	80	79	80	94	75	78	86	79	65	48	50	68	74	60	56	50	47	52	48	44	45	52	60	54	57	51	44	44	35	36	44	59.2
	Min ..	43	41	57	52	49	59	55	56	44	31	29	32	36	34	35	29	30	33	32	29	28	25	27	29	30	38	24	28	23	16	24	35.4
IowaCity*	Max..	71	78	81	86	81	80	84	85	83	61	45	64	77	65	50	55	64	61	51	49	54	49	61	61	55	60	47	42	48	42	51	62.6
	Min ..	50	45	47	50	51	49	51	51	57	46	30	26	34	52	45	32	35	47	42	36	28	30	29	51	31	32	35	22	23	28	21	38.1
Iowa F*	Max..	68	75	79	81	75	77	81	80	73	53	40	63	70	60	50	53	57	48	44	44	49	45	57	52	52	53	40	35	43	38	49	57.5
	Min ..	46	39	45	51	51	49	50	51	51	37	33	24	38	40	41	28	33	41	37	32	27	32	32	31	27	35	27	19	22	26	20	36.2
Jefferson	Max..	73	77	82	83	83	82	83	82	73	56	52	71	71	60	61	58	52	49	42	48	53	52	62	60	55	54	49	40	42	41	55	61.3
	Min ..	45	50	55	59	54	53	59	54	45	39	34	29	46	54	40	31	45	31	36	35	30	29	33	37	27	37	27	19	25	27	23	38.9
Keokuk ..	Max.	70	77	79	83	83	80	82	83	78	69	51	65	77	68	69	59	74	68	56	49	54	52	63	58	53	63	56	44	47	43	48	64.5
	Min ..	57	54	52	56	61	54	56	60	58	48	40	31	52	53	47	35	49	50	44	38	33	33	42	49	38	36	42	26	31	36	32	45.0
Keosauqua *.	Max..	71	78	80	85	83	80	83	80	80	64	54	65	79	68	55	59	72	58	54	52	55	53	64	61	64	65	56	46	48	39	49	64.5
	Min ..	50	46	45	50	53	50	52	63	55	46	36	24	26	52	45	30	31	49	44	36	27	28	31	35	36	32	32	23	24	35	26	39.1
Larrabee	Max..	69	78	80	84	77	80	84	79	70	51	..	72	69	58	51	48	58	47	40	45	48	48	58	51	56	52	53	..	57	37	48	59.5
	Min ..	41	46	50	49	52	54	59	58	54	48	33	30	42	46	34	30	30	38	33	33	28	31	28	28	31	40	23	..	28	22	23	37.8
Le Mars..	Max..	64	76	78	84	78	79	82	79	69	50	48	73	69	60	48	48	53	48	42	38	43	48	57	53	55	53	47	38	37	37	47	57.6
	Min ..	44	42	50	45	48	57	59	60	45	34	31	30	37	45	36	32	41	38	32	28	28	28	27	30	32	37	27	23	30	28	23	36.9
Lenox....	Max..	72	74	77	82	81	78	79	79	71	55	52	71	70	68	62	52	58	49	46	45	51	50	59	58	55	58	50	38	44	40	50	60.4
	Min ..	45	47	51	58	55	57	59	58	46	39	32	31	45	52	38	34	47	41	38	36	29	27	28	28	32	39	35	23	26	30	22	39 5
Leon.....	Max..	71	72	75	80	79	77	79	78	76	56	48	68	71	64	65	54	64	53	49	44	54	50	60	57	54	61	53	41	45	40	55	61.1
	Min ..	48	48	50	76	55	56	55	52	50	42	37	31	50	55	40	34	48	44	40	36	29	31	38	48	34	38	36	24	29	33	22	41.4
Lit. Sioux	Max..	74	79	86	80	85	83	86	82	75	54	55	78	71	58	55	50	50	52	43	48	55	54	64	61	61	58	48	40	40	40	59	62.3
	Min ..	40	49	55	56	53	60	60	61	47	34	33	34	52	48	38	37	40	39	37	33	31	24	30	40	32	42	28	22	28	27	21	39.7
Logan....	Max..	81	80	81	82	80	89	80	80	52	51	52	71	70	59	53	50	49	47	47	48	54	50	59	58	57	57	47	41	45	39	56	59.8
	Min ..	60	61	63	59	62	60	58	52	46	35	31	26	44	48	39	34	45	38	37	34	28	25	29	38	29	39	32	21	21	27	19	40.1
Maquoketa *.	Max..	73	78	79	85	78	77	83	84	82	63	46	58	75	66	48	55	62	59	51	52	53	45	65	61	52	56	50	45	45	39	48	61.7
	Min ..	51	45	48	43	49	41	46	44	49	45	34	27	30	32	46	28	29	47	35	29	22	32	25	29	27	28	31	19	16	26	18	34.3
Marshaltown*	Max.	81	80	84	86	83	81	85	84	78	75	72	69	75	73	70	68	65	63	61	59	55	53	64	62	60	59	56	54	53	51	51	68.1
	Min .	45	42	46	54	49	48	51	52	54	39	35	26	29	48	41	29	33	42	39	34	28	30	33	34	28	29	30	19	20	27	22	36.6
Mason C..	Max..	70	75	78	82	72	75	81	80	70	50	45	58	71	67	55	48	54	45	40	45	50	46	53	49	50	51	40	32	40	37	46	56.6
	Min ..	49	45	55	55	50	48	58	56	45	38	32	31	39	54	43	32	43	40	33	31	32	34	34	32	28	40	28	22	27	27	25	38.9
Monticello	Max..	75	76	81	74	72	85	81	80	60	45	56	78	63	50	52	51	57	49	46	52	40	59	56	49	58	46	38	43	60	50	..	59.2
	Min ..	41	46	51	50	47	51	50	55	45	34	27	36	48	45	29	37	46	38	35	24	27	27	39	28	30	31	20	20	29	18	20	36.3
Mt. Ayr..	Max .	74	79	81	84	87	82	81	82	74	63	55	74	72	64	..	65	63	54	47	47	56	55	63	57	60	62	53	40	44	43	52	63.8
	Min ..	46	51	48	54	55	58	57	54	46	40	31	30	50	51	..	34	46	41	38	36	27	30	31	46	32	39	35	24	28	31	20	40.3
Mt. Pl'snt	Max..	70	75	77	83	82	78	81	82	79	69	48	60	78	66	67	56	68	67	55	50	53	48	60	61	53	62	55	44	46	40	48	63.3
	Min ..	50	49	48	51	59	50	54	56	50	44	36	27	38	51	41	33	48	46	43	35	30	29	34	44	33	32	35	23	24	22	25	40.2
Mt. Ver'n	Max..	74	78	82	86	82	82	84	83	81	57	44	61	75	65	50	51	60	63	74	50	52	60	64	63	57	58	48	42	47	37	51	63.3
	Min ..	49	49	46	50	55	48	52	53	55	43	35	25	42	50	42	31	47	44	36	33	27	33	29	40	29	31	31	20	21	30	19	38.5
New Hampton	Max..	72	73	76	80	73	72	81	80	73	55	45	55	70	65	64	49	58	50	48	42	51	43	54	50	50	53	46	34	40	38	47	57.6
	Min ..	45	42	48	50	53	47	52	52	47	38	32	28	33	51	41	30	42	42	32	31	29	34	31	32	28	40	27	20	20	28	20	37.1
Newton..	Max.	75	74	77	82	78	77	80	80	75	55	58	64	71	65	64	54	63	53	50	44	52	47	55	59	53	59	46	40	45	39	51	60.8
	Min ..	47	46	47	53	51	51	57	49	52	40	34	28	45	51	40	33	50	42	37	35	28	30	32	35	31	34	26	18	23	26	20	38.4
N'thwood	Max..	70	74	76	84	70	75	82	78	69	47	41	57	65	57	57	52	52	48	38	45	49	44	52	48	52	48	40	37	37	35	45	55.6
	Min ..	43	42	54	51	48	47	55	51	43	36	31	28	35	53	39	30	41	36	33	30	29	29	32	30	26	37	26	20	26	25	21	36.4
Odebolt ..	Max.	68	75	80	85	80	81	83	80	73	50	46	72	72	56	56	45	47	47	41	42	45	48	58	54	57	52	46	36	38	38	52	58.2
	Min ..	43	47	53	54	52	53	60	57	45	35	31	31	45	33	39	32	44	38	34	34	30	32	31	35	30	41	27	20	27	26	25	38.2
Ogden....	Max..	78	76	81	85	78	80	82	80	71	53	46	70	70	62	60	47	54	52	43	44	52	48	54	58	53	55	47	40	43	40	50	59.7
	Min ..	49	45	51	56	53	55	57	54	45	37	35	28	41	52	39	33	45	39	35	36	30	29	31	32	30	39	29	20	26	30	21	38.8
Olin	Max..	69	72	75	80	75	74	79	80	79	71	49	57	73	68	64	64	68	62	51	46	53	49	57	56	49	56	52	38	42	40	49	61.0
	Min ..	51	45	44	49	53	49	55	48	56	46	35	27	35	50	46	30	49	47	40	37	25	33	27	42	31	31	34	21	21	33	20	39.4
Omaha, N	Max..	70	76	83	87	83	81	84	81	70	54	53	77	67	60	54	51	49	45	44	46	55	53	59	57	58	57	47	37	41	37	58	60.5
	Min ..	48	53	56	61	61	63	63	60	46	42	37	41	53	43	40	43	43	40	38	33	35	32	36	43	36	43	34	29	33	28	27	43.2
Onawa ...	Max..	76	81	88	86	87	84	87	83	76	51	58	80	69	60	58	50	48	45	44	48	51	56	59	61	61	54	50	41	48	40	52	62.3
	Min ..	42	45	51	53	53	55	58	59	45	37	33	32	45	48	37	36	44	39	35	32	29	31	30	41	34	40	30	25	29	26	23	39.3
Osage.....	Max..	70	74	78	84	71	75	80	78	72	48	43	57	70	58	58	48	54	49	42	44	48	43	56	49	48	48	41	32	38	37	45	56.1
	Min ..	46	40	52	50	50	45	56	52	45	35	33	30	38	53	41	29	41	39	33	32	29	34	33	40	26	37	27	20	23	26	20	37.3
Oskaloosa	Max..	67	76	79	83	80	78	82	82	81	51	47	66	75	64	63	53	65	56	51	48	55	50	59	59	53	61	52	41	48	40	52	61.8
	Min ..	50	45	51	53	52	53	60	57	52	44	36	20	50	53	42	33	49	46	40	36	30	30	32	43	34	36	35	23	24	35	23	41.1
Pacific J'n	Max..	70	75	80	83	81	81	81	80	78	55	55	73	66	60	53	50	51	50	45	47	54	52	60	58	58	57	49	40	43	39	50	60.3
	Min ..	39	42	46	53	49	53	55	56	45	31	32	30	47	49	38	38	47	35	38	33	28	25	29	40	29	39	32	22	29	26	20	38.0
Pella.....	Max..	71	87	81	84	81	79	82	81	80	58	49	77	74	68	62	52	68	58	51	47	55	50	61	60	54	60	53	43	48	42	52	63.3
	Min ..	49	49	51	57	57	51	58	54	52	43	35	29	51	52	41	34	46	45	44	36	35	30	34	43	39	36	34	22	25	34	23	41.6
Plover....	Max..	80	76	78	79	75	80	83	78	70	46	45	68	70	58	51	47	50	..	40	38	..	49	54	..	54	48	50	35	37	35	46	57.9
	Min ..	40	42	48	55	47	52	55	55	45	34	34	27	38	45	40	28	42	..	31	31	..	34	29	.	29	34	27	20	28	20	21	36 8
Pocah'tas	Max..	70	70	80	86	79	80	83	80	70	51	45	71	72	59	53	48	49	46	40	45	48	48	55	53	54	48	48	35	42	38	49	57.9
	Min ..	45	46	46	47	48	51	54	54	45	35	34	29	38	53	37	32	34	40	33	33	30	31	32	30	30	38	25	21	26	26	23	37.0
Red Oak..	Max..	72	78	81	86	84	82	83	81	74	61	56	78	71	65	64	53	53	51	48	48	51	53	60	61	60	60	52	41	44	42	57	62.7
	Min ..	45	46	52	60	53	53	59	58	49	41	35	33	52	53	42	38	48	43	41	38	31	29	32	47	33	43	38	27	32	32	25	42.3
Ridgeway	Max..	72	77	81	88	74	75	88	83	78	52	42	59	75	63	66	54	57	56	48	44	55	43	60	55	52	52	42	38	41	39	42	59.5
	Min	46	47	53	54	50	48	56	56	45	40	31	30	48	53	41	32	41	40	35	32	30	35	32	34	28	37	28	20	20	25	21	38.2
Rock R...	Max..	80	78	78	85	87	80	82	50	46	56	50	48	46	42	50	46	50	50	38	40	38	38	46	50	50	52	40	34	34	30	46	52.9
	Min ..	60	40	48	50	62	56	64	28	30	30	26	30	28	30	36	26	32	36	34	28	26	28	30	30	32	36	28	28	30	26	30	35.4
R. City...	Max..	80	78	78	83	80	78	80	78	74	47	41	70	68	60	66	46	50	53	46	46	47	46	55	53	52	50	48	48	42	45	50	59.3
	Min ..	55	57	60	55	55	51	55	56	45	36	34	29	44	43	40	33	36	42	33	34	30	32	31	33	29	29	25	20	26	25	23	38.6
Sac City..	Max..	68	74	79	83	76	..	..	..	..	..	..	..	..	..	..	..	..	..	50	48	45	46	47	57	52	55	50	45	37	41	38	50	54.8
	Min ..	41	46	52	52	51	..	..	..	..	..	..	..	..	..	..	..	..	..	38	38	33	28	32	31	32	30	40	28	20	27	25	21	53.0
St. Cha'les	Max.	77	82	84	90	88	84	88	83	77	56	50	73	71	65	64	50	61	54	46	45	59	59	70	60	63	60	49	37	47	41	55	63.8
	Min ..	47	49	53	61	57	54	59	54	45	40	36	31	51	52	39	35	47	42	36	37	31	30	36	33	32	39	34	21	26	31	22	40.6
Sheldon..	Max..	78	80	82	94	78	82	86	81	72	52	52	75	73	57	56	47	48	53	40	47	50	51	64	57	58	50	45	35	32	40	48	60.2
	Min ..	40	39	50	44	51	54	61	56	44	34	32	29	38	45	37	29	40	36	32	32	28	29	29	30	35	39	24	20	26	20	23	36.3
Sibley....	Max..	..	76	77	89	75	79	82	79	49	57	47	71	66	47	49	46	47	46	34	43	47	48	57	51	55	48	38	30	34	35	..	55.2
	Min ..	38	39	48	45	46	49	53	58	44	33	33	29	34	44	38	30	35	34	33	32	28	30	28	29	30	36	25	22	23	17	20	34.9
Sidney ...	Max..	70	75	80	83	82	81	81	81	72	55	52	72	70	62	52	52	51	50	44	40	53	49	60	58	55	60	50	40	40	40	45	59.8
	Min ..	46	49	52	62	63	60	60	56	45	38	30	30	49	49	37	36	46	40	38	33	28	25	31	44	32	39	33	23	26	23	18	40.0
Sigourn'y	Max..	70	76	79	84	81	78	82	82	80	64	50	64	76	67	66	54	67	58	54	49	59	52	60	62	54	61	55	42	43	43	51	63.3
	Min ..	48	46	47	55	55	50	56	53	57	45	36	27	47	54	44	33	48	45	42	36	29	29	33	44	34	34	35	21	23	35	23	40.8
Sioux C'r.	Max..	63	76	76	84	76	78	80	79	68	49	47	70	68	58	48	49	47	46	40	36	33	33	29	27	33	30	33	37	25	18	28	21	22	36.0
	Min ..	40	43	48	47	51	50	56	52	44	35	32	29	33	51	42	38	30	40	36	33	33	29	27	33	30	33	37	25	18	28	21	22	36.0
Sioux C'y	Max..	71	79	83	86	83	80	85	80	69	50	51	81	70	56	50	48	46	45	39	47	45	52	58	54	58	50	42	35	39	37	50	58.7
	Min ..	46	52	53	49	56	60	63	63	45	38	33	36	45	38	37	36	36	39	34	30	32	32	34	33	38	41	24	24	29	25	26	39.8
Stockport	Max..	61	63	65	80	81	80	82	83	80	69	53	66	77	68	68	62	70	68	56	46	55	52	63	60	52	63	59	42	48	45	50	63.5
	Min ..	53	51	50	56	55	56	53	55	56	47	38	27	50	52	46	33	50	48	41	36	29	33	34	46	36	33	32	23	28	37	26	43.2
Storm L*	Max	70	75	74	88	77	78	81	77	49	49	47	76	71	55	50	45	50	48	38	43	47	48	59	50	28	34	25	17	24	24	23	56.6
	Min ..	42	48	51	55	48	48	52	57	47	34	32	31	36	42	37	30	35	31	31	31	32	50	28	34	25	17	24	24	23	31.4		
Thurman.	Max..	69	75	82	85	83	80	83	80	76	56	55	74	68	64	54	52	53	49	48	47	54	52	58	59	58	59	53	39	43	41	50	61.3
	Min ..	41	42	53	60	60	52	61	60	48	40	32	31	54	50	40	35	45	40	40	33	28	27	26	47	30	42	34	25	30	29	20	40.5
Tipton....	Max	73	77	79	85	79	79	82	82	80	70	51	60	75	66	65	58	62	59	50	50	52	47	60	60	53	57	51	43	45	39	48	62.5
	Min ..	53	53	50	55	58	51	55	53	60	49	36	30	45	51	46	35	48	49	38	36	31	35	32	43	35	34	35	25	27	35	23	42.3
Toledo ...	Max..	78	77	82	85	81	79	83	82	82	58	47	64	73	68	62	48	63	58	48	50	54	50	64	62	56	59	52	40	46	40	53	62.4
	Min .	46	41	50	57	49	48	58	56	51	41	35	25	42	52	42	29	45	44	36	34	28	36	29	19	21	29	20	53	48	38	51	62.5
Washi'ton	Max..	70	76	79	84	79	78	82	82	80	61	45	63	77	64	65	55	66	59	53	50	55	40	60	60	53	62	50	45	48	38	51	62.5
	Min ..	50	48	48	53	55	50	53	56	55	45	31	28	48	52	42	33	48	45	40	36	29	29	34	44	34	33	29	22	24	35	23	40.4

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR SEPTEMBER 1905—CONTINUED.

STATIONS.		DATE.																															MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Washta ..	Max..	74	80	83	92	82	87	86	84	75	53	48	75	70	57	52	45	50	50	45	46	45	52	60	55	59	53	45	45	33	40	50	60.4
	Min ..	33	44	50	42	48	57	58	56	46	33	29	26	37	45	42	30	42	38	32	35	25	30	26	30	28	36	23	17	17	25	21	35.5
Waterloo*	Max..	73	78	83	85	79	79	84	83	82	57	44	61	73	63	62	47	60	58	46	49	52	46	61	57	54	56	45	39	42	47	49	61.1
	Min ..	47	43	53	55	53	48	55	54	46	41	34	29	39	52	42	31	45	40	34	33	31	24	32	36	29	36	28	21	22	33	23	38.7
Waukee..	Max..	72	74	78	81	77	79	79	79	73	54	46	66	69	63	62	49	54	50	45	44	53	44	57	57	52	57	50	38	45	40	49	59.2
	Min .	..	45	51	60	55	53	53	54	47	39	35	29	50	53	40	34	46	42	36	37	29	32	34	42	31	39	32	21	26	30	22	39.9
Waverly..	Max..	..	74	79	81	73	75	81	80	70	53	43	59	71	61	59	45	56	52	44	45	50	43	55	52	50	52	44	35	41	38	47	56.9
	Min ..	..	42	52	54	54	50	55	54	45	40	33	29	41	54	42	32	43	42	34	33	29	32	32	34	30	37	29	22	24	27	20	38.2
W. Bend.	Max..	70	74	78	83	73	72	81	78	70	51	43	69	70	60	55	47	49	46	40	44	48	48	54	49	52	47	42	32	38	37	47	56.4
	Min ..	41	42	50	49	47	48	58	56	45	34	34	27	39	52	40	29	41	39	33	31	28	34	30	31	29	36	25	18	25	24	21	36.6
Whitten..	Max..	70	73	77	78	78	77	80	79	75	59	45	60	76	62	60	48	57	50	46	42	52	45	57	53	55	47	37	45	41	40	48	58.0
	Min ..	43	42	47	48	50	47	55	52	46	36	32	25	42	51	40	30	43	40	33	31	25	32	30	35	35	27	18	23	22	24	17	36.2
Wilton J.	Max.	69	75	78	83	78	78	80	81	80	71	52	58	76	67	65	57	64	64	55	49	52	47	60	57	50	59	51	41	46	42	47	62.3
	Min ..	51	53	48	51	52	47	49	57	54	47	38	25	43	53	47	31	48	48	40	37	25	31	30	43	32	30	35	20	22	32	22	40.0
Wint'rset	Max..	71	73	77	80	81	78	78	78	78	55	47	66	68	61	61	50	57	49	45	44	52	47	57	56	51	56	49	37	44	39	48	59.0
	Min ..	44	45	50	58	53	53	54	52	47	38	35	30	47	51	38	33	45	40	37	34	28	28	32	40	29	37	31	20	25	31	21	38.9
Woodb'n.	Max..	67	71	75	80	79	79	77	78	77	59	49	65	72	67	65	59	65	52	50	47	53	48	61	59	52	60	50	48	49	49	50	61 5
	Min ..	44	40	44	51	50	50	54	52	50	38	34	25	49	53	40	28	48	37	36	35	25	24	26	44	30	33	26	18	24	32	20	37.4
Zearing ..	Max..	70	76	81	85	80	79	81	81	76	53	46	65	70	61	60	48	55	51	45	44	52	48	60	57	54	55	50	40	45	42	51	60.0
	Min ..	45	42	50	55	50	48	56	54	46	38	34	23	39	52	41	28	44	41	35	35	27	33	31	36	28	37	27	18	23	31	19	37.6

* At those stations thermometers are read in the morning; the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

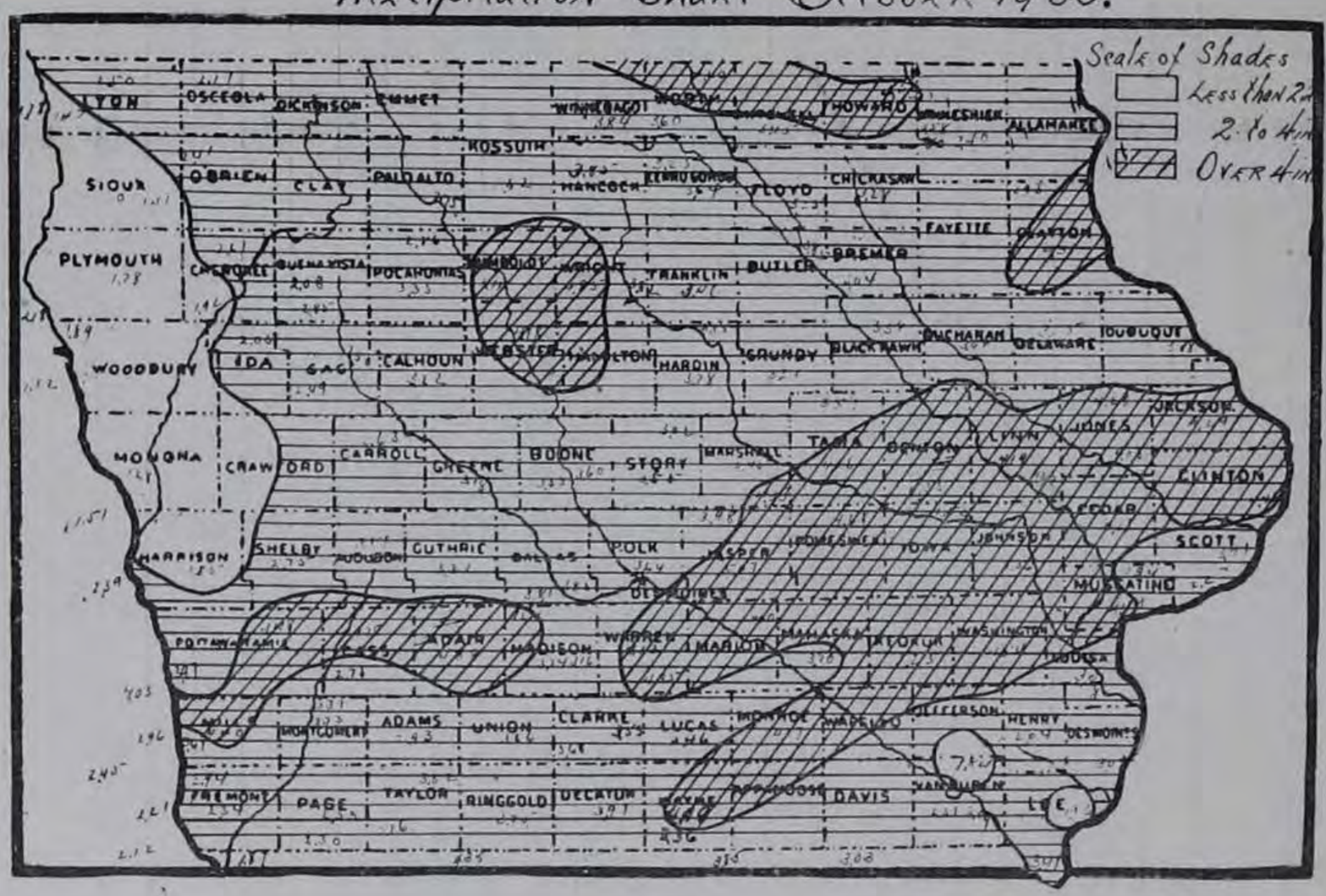
DAILY AND MONTHLY PRECIPITATION FOR OCTOBER, 1905.

STATIONS.	DAY OF MONTH.																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	.46	..	....	....	...	....	....		.15	..	....	....	....	.82	....	.02	1.60		.18	..	..	....	....	.10	....	....	....	....	..	.33	...	3.66
Albia	.38	....	....	....	....	...	....	....	....	.22	....	..	....	.87	.05	1.80	.40	.10	.05	....	....	....	..	..	....	....	....	....	....	.30	....	4.17
Algona	.50	....	....	....	....	....	....	....	1.00	....	T	...	....	.60	.07	.01	.42	...	.96	....	....	....	....	....	....	T	....	....	T	.06	....	3.62
Allerton	.38	...	..	....	....	....	....	....	T	.20	..	....	....	.53	.03	.04	1.23	.08	.10	..	....	....	....	.39	....	....	.02	....	....	.36	....	3.36
Alta	....	....	....	....	....	....	....	....	.58	..	..	....	....	.53	....	.16	....	....	.75	....	....	....	....	....	....	.01	....	T	.05	.	....	2.08
Alta [near]	....	....	....	....	....	....	...	....	.51	....	....	..	.32	.43	....	.16	....	....	.54	....	....	....	....	....	....	.04	..	....	.03	....	....	2.08
Alton	.	....	....	..	.	....	...	....	.29	....	.	....	....	.26	....	.27	....	....	.59	..	..	....	....	....	....	T	....	T	T	....	..	1.41
Amana	.41	....	..	....	....	...	....	....	...	.08	.01	....	....	1.00	T	.05	2.36	.20	.28	.	....	....	....	..	....	....	....	....	....	.13	....	4.52
Ames	.17	....	....	....	....	....	....	....	.41	.14	....	....	..	1.31	.16	....	1.08	....	.26	.02	....	....	....	..	....	....	....	....	....	....	....	3.55
Atlantic	....		....	....	....	...	....	....	.72	....	..	....	.24	1.04	.10	1.50	1.06	.03	....	...	....	....	.05	....	..	....	....	....	T	.05	....	4.79
Audubon	.08	....	....	....	....	...	....	....	.98	.02	....	....	....	1.39	.09	.01	.50	....	.05	....	....	....	....	.05	....	....	..	....	..	T	....	3.17
Baxter	.50	....	....	....	....	...	....	....	....	.75	....	....	...	.83	.17	.	.95	....	.23	....	....	....	....	....	....	....	....	....	....	.55	....	3.98
Bedford	..	....	....	....	....	....	....	....	....	.45	....	....	....	.33	....	.07	.51	....	.08	....	....	....	....	.32	....	....	....	....	T	.40	....	2.16
Belle Plaine	.12	....	....	....	...	....	....	....	....	.40	....	....	....	1.14	.06	.	2.10	....	.50	....	....	....	....	....	....	....	....	....	....	.03	....	4.35
Bonaparte	.20	....	....	....	....	....	....	....	....	.09	....		...	.30	....	.05	.60	.22	.17	....	....	....	.	.20	....	....	....	....	....	.26	....	2.03
Boone	.45	...	....	....	..	....	...	....	....	.78	..	....	....	1.10	.26	....	.73	.08	.16	.04	T	..	..	....	....	....	T	..	....	....	....	3.60
Britt	.54	....	....	..	....	....	....	....	.98	.08	T	..	....	.70	.29	.05	.25	....	.88	.03	....	....	....	..	....	.07	....	T	T	....	....	3.85
Buckingham	.55	...	....	...	....	....	....	....	.61	....	.03	....	....	.98	...	....	1.15	.	.25	....	....	....	....	....	....	T	....	....	....	T	....	3.57
Burlington	.22	....	....	....	....	....	....	....	....	.08	....	....	....	.17	.08	.25	.57	.46	.87	....	...	....	....	.10	..	....	....	....	....	.23	...	3.03
Carroll	.35	....	....	....	....	....	....	....	.93	....	....	....	....	1.10	.59	....	.53	....	.13	....	..	....	....	....	....	....	....	....	....	....	....	3.63
Cedar Rapids	.32	....	....	....	....	....	....	....	....	.07	....	T	...	.13	.42	....	.85	2.05	....	.09	....	....	....	....	....	....	....	....	.14	T	.26	4.19
Chariton	.60	....	....	....	...	....	...	....	.40	....	....	....	....	.55	T	T	1.55	T	.22	....	....	....	....	T	....	....	....	....	T	....	...	3.46
Charles City	....	....	....	....	....	.	....	....	.92	....	T	....	.03	1.14	.02	.09	.27	..	.68	....	T	....	....	....	..	.08	T	....	T	....	....	3.23
Clarinda	....	....	....	....	....	..	....	....	.77	....	..	..	..	.48	.07	...	.38	.04	T	....	....	....	....	.26	....	....	..	....	.33	..	....	2.33
Clear Lake	.85	..	....	....	....	..	....	....	.55	....	....	..	....	.60	.45	..	.10	....	.70	....	....	....	....	....	....	....	....	....	....	.50	..	3.25
Clinton	....	..	..	....	....	....	....	....	.16	..	....	....	....	.12	....	....	3.17	.50	....	....	....	....	....	.35	.	....	....	....	....	.75	..	4.45
College Springs		....	....	....	..	....	....	..	.70	....	....	....	....	.20	..	.20	..	....	.10	....	....	....	....	....	....	....	....	....	....	.13	..	2.30
Columbus Junct'n	.20	....	....	..	....	..	....	....	..	....	T	....	....	.44	.05	.06	2.75	....	.25	....	..	....	....	....	....	....	....	....	....	....	....	3.88
Corning	....	....	....	....	....	..	....	....	..	.80	....	....	T	.72	.09	....	.86	....	.04	....	....	....	....	....	....	....	....	....	T	.42	....	2.93
Corydon	.37	....	....	....	....	....	....	....	T	.26	.02	..	....	1.54	.04	.03	2.41	T	.	....	....	....	....	.11	..	....	....	....	....	.21	....	4.99
Cresco	.10	...	....	....	....	....	....	....	.92	.76	T	....	....	.84	.99	.01	.25	....	.85	.06	....	....	....	....	....	.15	....	...	T	....	...	4.93
Cumberland	....	....	....	....	....	....	....	....	.21		....	....	.18		....	....	2.36	....	....	....	....	....	....	....	....	....	....	....	....	.10	..	2 85
Davenport	.12	..	..	....	....	....	..	..	.02		T	..	....	.06	T	.0	2.31	.01	.14	T	....	....	....	T	....	....	....	....	....	.06	....	2.73
Decorah	.38	....	....	....	....	....	....	....	....	.70	....	....	....	....	.12	....	.70	.50	T	.76	.10	..	....	....	....	....	.14	....	....	....	....	3.40
Delaware	.42	....	....	....	....	....	....	....	....	.05	....	....	....	.20	.18	...	1.18	.57	.64	....	....	....	....	....	....	..	....	....	..	.11	..	3.35
Des Moines	....	....	....	....	....	....	....	....	.73	....	....	....	.41	.52	.04	.05	1.62	....	.19	....	....	....	....	....	....	..	....	....	....	.08	....	3.64
De Soto	..	....	....	....	....	....	....	....	.25	.75	....	....	....	1.18	.09	T	1.38	..	.17	....	..	....	....	..	....	....	.	....	....	.09	....	3.86
Dows	.44	....	....	....	....	....	....	....	.38	.25	T	....	.04	.96	.85	.03	.27		.54	....	....	....	....	....	....	.06	....	....	....	....	....	3.82
Dubuque	.39	....	....	...	....	....	....	....	.03	T	..	....	....	.50	T	.01	2.24	T	.61	....	..	....	....	....	....	T	....	....	..	.10	....	3.88
Earlham	.44	....	....	....	....	..	....	....	.35	.42	....	....	...	1.26	.05	.07	1.37	.10	....	....	....	..	.08	..	....	....	....	..	....	.10	....	4.24
Elkader	.23	..	....	....	....	....	..	....		.25	....	....	....	.06	1.85	...	1.05	....	.82	....	....	....	....	....	....	.05	....	....	....	....	....	4.31
Elliott		....	..	....	....	....	....	....	.63	....	....	....	.18	.95	....	.18	1.01	....	.03	....	..	..	....	.27	....	....	....	....	....	.11	....	3 31
Florence	.45	....	....	....	....	....	....	....	.80	.20	....	....	.90	.90	.75	T	.10	...	.75	....	....	....	....	..	T	..	....	....	....	....	....	4.85
Forest City	....	....	....	....	....	..	....	....	1.15		....	..	....	.19	1.02		.40	.20	T	.76	....	....	....	....	....	....	.12	..	T	..	....	3.84
Fort Dodge	.60	....	....	..	..		....	....	..	1.20	....	....	...	.64	1.13	...	.20	.03	.12	.23	....	....		....	....	..	.03	..	....	T	....	4.18
Fort Madison	..	....	....	....	....	....	..	....	T	....	....	....	....	.35	.	.25	....	.80	.05	....	..	....	....	.24	....	....	....	....	....	.24	..	1.93
Galva	....	....	....	....	....	....	....	..	.51	....	....	....	T	.72	.08	T	.12	....	.60	....	..	....	....	....	....	T	....	....	.02	....	....	2.05
Gilman	.28	....	....	..	....	..	....	....	....	.63	....	....	....	.85	.97	T	1.18	....	.30	....	....	....	....	....	....	....	....	....	....	.12	...	4 33
Glenwood		..	..	....	....	....	....	..	....	.75	..	....	T	....	1.77	T	1.25	....	T		....	....	T	.58	....	....	....	..	T	....	....	4.40
Grand Meadow	.24	....	....	.	....	....	....	....	.17	.42	....	....	T	....	.44	T	.78	.23	..	.69	....	....	....	....	....	.13	..	....	....	....	....	2.98
Greene	.37	....	....	....	....	....	....	....	.48	.75	T	....	....	.62	.52	.04	.55	....	.50	.25	..	....	..	....	....	.08	....	..	.	....	....	3.85
Greenfield	.55	....	....	....	....	....	....	....	....	.41	T	....	....	1.33	.06	T	1.27	....	.04	....	....	....	....	.11	....	....	....	....	....	.10	....	4.38
Grinnell [near]	.35	....	....	....	....	....	..	....	.	.40	....	....	....	.85	....	.20	1.90	.53	.30	....	..	....	....	..	..	....	....	....	....	.15	.	4.68
Grundy Center	.32	..	....	...	..	....	....	....	.11	.64	..	....	....	.55	.25	T	1.15	.04	.20	.02	....	....	....	....	....	.04	....	....	....	....	....	3 32
Guthrie Center	.70	....	..	....	....	....	....	....	.70	.09	....	....	....	.70	.07	.02	.95	..	.03	....	....	....	....	.02	....	T	....	....	....	.04	....	3.32
Hampton	....	...	....	..	....	....	..	....	.66	....	....	....	.90	.78	....	.33	.11	....	.68	....	....	....	....	....	....	....	....	....	....	....	....	3.46
Hancock	.04	....	..	...	....	....	....	..	.80	....	....	....	....	1.30	.12	.02	2.00	....	.05	....	..	....	....	.15	....	....	....	....	T	T	...	4.48
Hanlontown	.49	....	....	....	....	....	....	....	.87	T	....	....	T	.64	.40	.	.35	..	.75	.02	..	..	....	....	....	.03	....	....	T	....	....	3 60
Harlan	....	....	....	....	....	....	....	....	1.01	T	....	....	T	1.40	.11	T	.04	....	.05	....	....	....	....	.10	...	....	....	....	.02	.02	...	2.75
Hopeville	..	....	....	....	....	....	....	....	.47	....	....	....	....	.60	.03	....	2.05	.03	.15	....	..	....	....	.14	....	....	....	....	....	.21	....	3.68
Humboldt	.62	....	....	..	....	....	....	..	1.18	.20	....	....	....	.58	.68	T	.19	.	.60	....	....	....	....	..	....	.06	....	....	....	T	....	4 11
Independence	....		..	....	....	..	....	....	....	....	T	....	....	.80	1.50	.10	1.25	.25	.25	.30	....	..	....	....	....	.03	....	....	....	.16	T	3.98
Indianola	.45	....	....	....	....	....	....	....	.22	.29	T	T	....	1.03	.05	.01	1.77	T	.14	T	....	..	..	.01	....	..	....	....	....	....	....	4.13
Inwood	....	....	....	....	....	....	....	....	.22	....	....	..	....	.40		T	..		.60	T	..	....	....	....	..	.05	....	....	.20	....	..	1.47
Iowa City	.36	....	....	....	....	....	....	....	..	.02	T	....	....	.50	.51	..	1.93	1 68	....	.19	....	....	....	.03	....	....	T	..	....	.14	....	5 36
Iowa Falls	.28	....	....	....	....	....	....	....	.	.67	.01	....	....	.60	.51	....	.59	.04	.13	.30	....	..	....	....	....	....	.02	....	T	T	....	3 15
Jefferson	.74	.	....	....	....	....	....	....	.83	.07	....	....	T	....	1.00	....	.45	....	.09	....	....	....	....	....	....	T	....	..	T	....	....	3 18
Keokuk	.14	....	....	....	....	....	....	....	.08	T	....	....	....	.30	....	1.10	.27	.27	.95	....	....	....	....	....	T	....	.01	....	..	.20	..	3.41
Keosauqua	.20	....	....	....	....	....	..	....	....	.11	....	....	....	.62	.15	....	.33	.20	.14	.05	....	....	....	.23	T	....	....	....	....	T	.25	2.31
Lacona	....	....	....	....	..	....	..	....	.03	.67	....	....	....	....	.48	....	.03	3.01	..	....	....	....	....	.05	..	....	....	....	....	.08	....	4.85
Larrabee	....	....	....	....	....	....	....	..	.64		..	....	....	.55	....	.37	....	....	1.05	....	....	....	....	....	....	T	....	....	....	....	....	2.61
Le Claire	.06	....	....	....	....	....	....	....	..	.16	..	....	..	T	.05	....	2.02	.56	.05	.06	....	....	....	T	T	....	....	....	....	....	.05	3.01
Le Mars	....	....	....	....	....	....	....	....	.38	....	....	....	....	.45	.30	....	....	....	.65	....	....	..	....	.10	....	....	T	T	T	T	..	1.78
Lenox	.41	....	....	....	....	....	....	..	.51	.36	..	....	.10	.74	.05	T	.78	.02	.40	....	....	..	....	.10	....	....	....	....	....	.15	..	3.32
Leon	.51	...	....	....	....	....	....	....	T	.39	....		....	.31	....	.10	1.92	.04	.15	....	....	....	....	.26	..	....	....	....	....	.23	....	3 91
Little Sioux	....	..	....	....	....	..	....	....	.42	....	....	....	.11	.67	.05	.01	.14	..	.14	....	....	....	....	..	....	....	....	....	T	....	....	1.54
Logan	....	..	....	....	....	....	....	....	.48	....	..	..	..	.15	.50	T	.61	.	.11	....	....	....	....	....	..	....	....	....	T	....	....	1.85
Maquoketa	.64	....	....	....	....	....	....	....	....	.09	....	....	T	.35	....	1.10	1.75	....	.20	....	....	....	....	....	....	....	.02	....	....	....	.14	4.29
Marshalltown	.33	...	....	..	....	....	..	....	....	.72	....	....	....	.54	.30		1.01	.22	.18	.10	....	....	..	....	....	.	....	..	T	T	.05	3.45
Mason City	.32	..	....	....	....	....	....	....	.75	....	....	....	....	.75	.50	T	.20	....	1.02	..	....	....	....	....	....	.10	....	....	....	....	....	3.64
Monticello		..	....	....	....	..	..	....		....	....	....	. ..	.67	...	1.15	1.65	....	1.68	....	..	....	....	....	..	....	....	..	....	.13	...	4.28
Mount Ayr	.80	....	..	..	....	....	....	....	.15	.45	....	..	....	.35	.05	1 00	...	....	.15	.05	..	....	....	.25	..	....	....	....	..	.50	...	3.75
Mt. Pleasant	.19	....	....	....	....	....	....	....	..	.09	.	....	....	.39	.02	.23	.51	.03	.35	....	....	....	..	....	....	....	....	....	....	.18	.02	2.04
Mt. Vernon	.34	..	....	....	....	....	....	....	....	T	.02	....	....	.98	T	.01	2.70	.03	.45	....	....	..	....	T	....	T	..	....	..	.14	.	4.67
Muscatine	.23	....	..	....	....	....	....	..	....	.05	....	.	....	.11	.13	..	2 77	.96	.08	.08	....	....	....	..	....	....	T	....	....	....	.08	4 49
New Hampton	....	....	....	....	....	....	....	....	.40	.75	...	....	....	.27	.29	.02	.41	....	.84	.21	..	..	....	....	....	.09	....	....	....	....	..	3 28
Newton	.30	..	....	....	...	..	....	....	....	.60	....	....	..	.93	.38	.	2.42	.04	.37	.03	....	..	....	....	....	....	....	....	....	T	....	5.07
Northwood	.38	....	....	....	....	....	....	....	.80	.17	.03	....	..	.63	.66	....	.37	...	.83	.07	....	....	....	..	..	.14	....	....	.12	T	....	4.20
Odebolt	....	....	....	..	....	....	....	..	.55	....	....	..	.25	.73	.47	.02	....	.15	.32	..	....	..	....	....	..	....	....	....	T	..	....	2.49
Ogden	....	....	....	....	....	....	....	....	.55	.20		..	....	.78	.33	T	.65	.61	.21	....	....	...	....		....	....	..	....	..	....	....	3 83
Olin	....	....	....	....	...	....	....	....	....	....	T	....	.	.50	....	T	2.00	1.10	.29	....	....	...	...	T	....	..	....	....	....	.14	...	4 03
Omaha, Neb	....	....	....	....	..	..	....	....	.52	....	....	....	.14	.95	.04	1.29	.67	....	.04	....	....	....	.21	.02	....	....	....	....	T	.09	....	3.97
Onawa	..	....	....	....	...	....	....	....	.40	....	....	..	.03	.52	.05	.03	.07	....	.15	....	....	....	....	....	....	.01	....	....	.02	....	....	1.28
Osage	.33	....	....	....	....	....	....	..	.26	.30	T	..	....	.80	.40	T	.15	....	1.01	.10	....	....	....	....	....	.10	..	....	T	....	....	3.45
Oskaloosa	.43	....	....	....	....	....	....	....	T	.18	....	....	....	.98	..	.04	1.83	..	.09	....	....	....	....	....	....	....	....	....	..	.15	....	3 70
Pacific Junction	....	....	....	....	....	....	....	....	.81	....	....	....	....	1.33	.	.11	1.00	....	.20	....	....	T	T	....	....	....	....	....	....	.16	....	3.61
Pella	.37	....	....	....	....	....	....	....	.02	.38	....	..	....	.79	.09	.05	2.32	.09	.15	....	..	....	....	....	....	....	....	....	....	.14	..	4.40
Plover	..	....	....	....	....	....	....	..	.45	....	....	..	....	.69	0.22	.46	.29	....	.69	....	....	....	....	....	....	.06	....	....	T	....	....	2.86
Pocahontas	....	....	..	....	....	....	....	....	.87	....	....	....		.64	.52	.50	....	T	.80	....	....	....	....	....	....	.02	....	....	T	....	....	3.35
Red Oak	.25	....	....	..	....	....	....	..	.50	.10	..	....	.10	.95	.10	.05	.55	....	.03	....	....	....	....	....	....	....	....	....	....	....	.10	2.73
Ridgeway	...	....	....	....	....	....	....	....	.88	.08	.01	....	T	.35	.66	.02	.30	....	1.10	....	....	....	....	....	....	.18	....	....	T	....	....	3.58
Rock Rapids	....	....	....	....	....	....	....	....	....	....	....	.50	....	....	.60	....	....	....	.60	..	....	....	....	....	....	.40	....	....	.40	....	....	2 50
Rockwell City	....	....	....	....	....	....	....	..	1.05	....	....	....	....	.95	....	.45	.32	....	.45	....	....	....	....	....	....	....	....	....	....	....	....	3.22
Sac City	.	....	....	..	....	....	..	....	....	....	2.15	....	....	....	....	....	....	....	.85	....	....	....	..	....	....	T	....	....	....	....	....	2 50
St. Charles	.47	....	....	....	....	....	....	..	.03	.55	....	....	....	.56	.10	.02	1.01	....	.20	.01	..	....	.04	....	..	....	....	....	....	.17	...	3.16

DAILY AND MONTHLY PRECIPITATION FOR OCTOBER, 1905--Continued.

STATIONS.	DAY OF MONTH																														TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sheldon									.32					.50		.01	.02		1.25										.31			2.41
Sibley	.34								.12	.17				.07	.40		.04		.37	.24									.20	.16		2 11
Sidney									.60					1.02		.03	.52						.02						.15		2.34
Sigourney	.21									.09	T			2.10	T	T	2.44	.13	.09	T				T					.17		5.23
Sioux Center									.02					.65			.03		.30						T						1.20
Sioux City									.51				.38	.54		.09	.03	.0	.30					T		T		.02			1.89
Stockport										.06				.75	.03	.05	.32	.11	.16					.11					.25		1 84
Storm Lake	.67									.75				.45	.34		.15		.08	.41								T			2.85
Thurman									.78					.96			.82		T					.30			T		.08		2.94
Tipton	.81										.04			.57			2.98		.25										.16		4.81
Toledo	.33									.55	T			.90	.85		1.05	.15	.20										.08		4.06
Washington	.30													.98			3.07		.07											.12	4.54
Washta									.42				T	.68		.20			.62						T	T	T				1.92
Waterloo	.41								.37	.28	T			.45	.08	.09	1.20	.13	.26	.09					.02						3.38
Waukee	.36								.15	.45	.01			1.14	.12	T	1.37	.02	.13										.75		3 83
Waverly	.26								.33	.56	.03			.33	.36	.02	.70		.40	.01					.04						3.04
West Bend									.90					.45	.50	.01	.29		.57						.02			.01			2.75
Whitten	.33								.40	.62	T			.50	.32	.04	1.05		.45	.07					T			T	T		3.78
Wilton Junction	.30													.38	.04		3.03	.07	.12												3.94
Winterset	.39								.19	.53				.79	.11	.03	1.24	.01	.23					06					.16		3.74
Woodburn	.36								T	.48				.45	.07			1.75	.18					.05		T			.19		3.53
Zearing	.17									.65				.53	.83	T	.98		.36												3.02

Precipitation Chart October 1905.



NOVEMBER, 1905. No 11



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MONTHLY REVIEW

OF THE

Iowa Weather and Crop Service.

VOLUME XVI. NOVEMBER, 1905. No. 11.

IOWA CROPS, 1905.

Final Report for the State. Total Yield; Value of Soil Products at Farm Prices, Dec. 1, 1905.

The crop season of 1905, as shown by tabulated reports from each county, was the best that has been reported in this state since 1900. Altogether the showing as to aggregate yield and prices of staple products is beyond estimates made during the early half of the season.

Corn. Reports indicate unusual variation in the yield of corn, the averages by counties ranging from 25 to 45 bushels per acre, as a result of notable local differences in condition of the soil in the critical stages of the season. The first report of the season showed an average increase in the acreage of corn planted as compared with last year, but adverse local conditions in May and June caused a loss of acreage which has been taken into account in the final estimate of the output. The census returns showed the total area of corn to have been 9,583,815 acres in 1904. The yield this year is based on a total of 9,285,150 acres, the average yield for the state being 37.2 bushels per acre. The total product appears to be 345,871,840 bushels, which is 816,800 bushels in excess of the output of any previous year; but the average per acre was higher in four previous seasons since 1890. The average value of the corn crop on Dec. 1 was about 35 cents per bushel — total for the state, $121,055,144.

Wheat. The yield and quality of winter wheat has been good this season, but the acreage was small. The total appears to be 1,253,020 bushels, an average of 20.2 bushels per acre, and quality good. The total of spring wheat was 5,155,760 bushels — an average of 14.4 bushels per acre. The total wheat output (6,108,780 bushels) is worth $4,614,321 — an average of 72 cents per bushel.

Oats. The yield of oats, 37.2 bushels per acre, is above the average but the product was somewhat impaired by wet weather while standing in shocks. The total appears to be 146, 439,240 bushels, which amount has been exceeded but once in the records of the state, and that was in 1895. The farm value of the crop Dec. 1 was 25 cents per bushel — total $36,609,810.

Rye. Total yield 1,283,500 bushels—an average of 18 bushels per acre. Value, $667,420, at 52 cents per bushel.

Barley. Average per acre, 27.5 bushels; total yield 15,566,770 bushels. Value 33 cents per bushel; total value $5,137,034.

Flax Seed. Amount produced, 173,710 bushels. Value $156,393, at 90 cents per bushel.

Potatoes. Bushels produced, 9,352,190—average per acre 84 bushels; value 50 cents per bushel; total $4,676,045.

Hay. (*Tame*) Area harvested 3,598,500 acres, total output 6,477,300 tons, or 1.8 tons per acre. Value of crop $35,625,150, at $5.50 per ton.

Hay (*Wild.*) Amount harvested 1,313,310 tons; an average 1.2 tons per acre. Value of crop $5,909,895 at $4.50 per ton.

Pasturage and Grazing. This item includes pastures, grazing in meadows and grain fields after harvest and in corn fields in fall and winter months, and can be estimated only by reckoning its value as a factor in the production of farm animals and animal products of all kinds. In my judgment the farms of this state should be credited with the full value of the soil output which is the real basis of our great animal industry, and I have tentatively placed the estimate at about $400 per farm, believing that is below rather than above the average. The total output is placed at $80,000,000.

TABULATED CROP SUMMARY.

Crops.	Total Products.	Farm Value Dec. 1.
Corn	345,871,840 bus.	$121,055,144
Wheat	6,408,780 bus.	4,614,321
Oats	146,439,240 bus.	36,609,810
Barley	15,566,770 bus.	5,137,034
Rye	1,283,500 bus.	667,420
Potatoes	9,352,190 bus.	4,677,045
Flax seed	173,770 bus.	156,393
Hay (tame)	6,477,300 tons	35,625,150
Hay (wild)	1,313,310 tons	5,909,895
Pasturage and Grazing (cornfields, etc.)	Estimated	80,000,000
Buckwheat		85,000
Sweet potatoes		135,000
Sorghum & broom corn		190,000
Timothy seed		1,200,000
Clover seed		195,000
Millet & alfalfa		520,000
Sweet corn		510,000
Fruit crops & gardens		5,000,000
Total soil products		$302,286,212

In the above estimate of the value of cereal products no account is made of the increment derived from the consumption of these staple crops on the farms.

NOVEMBER WEATHER AND CROPS.

The average temperature of November was 38.4° which is 3.2° above normal. The average precipitation, 2.84 inches, was 1.53 inches in excess of the normal. But there was a large excess of clear and partly cloudy weather, the average number of clear days being 16, and partly cloudy 7. Conditions were unusually favorable for gathering corn, and all kinds of field work usual to the season. The bulk of the corn crop has been secured in good condition. Pasturage has been very good up to the close of the month. The rainfall was ample for maintenance of soil moisture during the winter. The area of fall wheat has been materially increased, and the condition of that crop is excellent. The area of fall rye is about the average of recent years, and the stand is good. The large amount of fall plowing in evidence in all sections of the state gives an encouraging outlook for the crop season of 1906.

FINAL CROP REPORT, 1905.

AVERAGE PER ACRE AND TOTAL YIELD—BY COUNTIES.

COUNTIES.	Winter Wheat.		Spring Wheat.		Corn.		Oats.		Rye.		Barley.		Flax Seed.		Potatoes.		Hay (Tame).		Hay (Wild).	
	Bushels Per Acre.	Total Bushels.	Bushels Per Acre.	Total Bushels.	Bushels Per Acre.	Total Bushels.	Bushels Per Acre.	Total Bushels.	Bushels Per Acre.	Total Bushels.	Bushels Per Acre.	Total Bushels.	Bushels Per Acre.	Total Bushels.	Bushels Per Acre.	Total Bushels.	Tons Per Acre.	Total Tons.	Tons Per Acre.	Total Tons.
Adair	15	2,600	14	43,540	35	3,237,770	30	896,460	24	1,680	25	72,700	....	.....	67	77,720	1.8	82,030	1.0	5,250
Adams	15	10,200	13	6,110	41	2,929,040	33	545,320	32	8,080	30	67,200	....	.....	60	41,400	1.8	59,040	1.0	2,140
Allamakee	18	3,060	15	27,150	40	1,879,840	35	1,439,970	18	28,020	30	329,700	10	1,450	90	85,050	2.2	98,890	1.5	2,530
Appanoose	20	12,400	16	1,760	32	1,570,240	32	381,120	18	7,380	30	2,550	....	.....	60	64,800	1.5	89,800	1.2	1,210
Audubon	....	.....	14	122,920	35	3,173,870	28	855,960	18	2,250	25	181,250	....	.....	85	83,300	1.8	54,610	1.0	6,180
Benton	20	800	18	9,180	42	5,531,820	33	2,027,190	17	7,780	28	381,640	....	.....	85	145,350	1.6	66,100	1.2	10,870
Black Hawk	....	.....	15	4,950	42	4,276,020	34	1,715,980	16	20,360	33	100,280	....	.....	90	109,800	1.8	65,660	1.5	18,760
Boone	....	.....	15	26,250	38	4,280,020	30	1,536,580	15	3,390	25	7,010	....	.....	74	76,180	1.9	41,780	1.5	36,220
Bremer	....	.....	17	5,270	39	2,362,720	40	2,108,840	25	41,500	24	61,960	8	1,120	65	78,650	2.0	43,980	1.5	28,680
Buchanan	18	750	16	1,630	41	3,802,870	40	2,043,440	18	14,040	31	57,530	10	150	92	90,160	1.8	80,910	1.5	20,800
Buena Vista	....	.....	14	17,920	36	3,633,160	38	2,567,830	20	1,120	28	84,700	9	1,440	75	90,750	1.6	38,620	1.2	26,520
Butler	....	.....	14	4,900	38	4,212,680	30	2,287,500	15	14,550	25	29,750	11	560	65	78,130	1.7	41,320	1.2	14,530
Calhoun	....	.....	14	28,150	38	4,086,360	37	2,339,880	22	3,080	32	117,120	12	1,680	82	77,080	1.6	36,020	1.0	22,010
Carroll	....	.....	15	97,870	38	4,288,686	35	2,107,350	20	1,740	30	181,560	....	.....	90	145,800	1.8	53,410	1.5	21,060
Cass	20	16,240	12	78,240	34	3,917,840	27	883,980	20	3,280	30	107,100	....	....	90	138,150	2.0	68,580	1.2	2,900
Cedar	22	14,080	18	10,980	45	4,718,250	40	1,280,220	14	8,540	24	442,820	....	.....	76	71,220	1.8	91,380	1.0	550
Cerro Gordo	....	.....	13	6,370	39	3,598,530	33	3,160,740	16	2,880	26	48,880	9	2,970	91	96,460	1.9	61,570	1.2	17,180
Cherokee	....	.....	15	68,460	37	4,171,650	42	2,382,500	18	720	27	173,070	9	1,170	95	108,300	2.0	63,040	1.3	15,750
Chickasaw	....	.....	15	9,300	36	2,293,580	33	2,152,530	15	7,720	29	122,670	10	12,300	75	77,250	2.0	55,080	1.4	16,980
Clarke	20	2,400	16	160	34	1,755,080	28	425,710	20	2,400	20	4,400	....	.....	98	89,670	1.5	74,280	1.0	310
Clay	....	.....	13	17,160	35	2,957,120	36	2,168,280	22	2,170	23	215,180	9	1,450	116	99,550	1.7	45,810	1.2	28,340
Clayton	22	23,320	16	33,760	43	3,320,030	40	2,460,480	18	73,980	32	892,320	....	.....	90	136,890	2.0	108,160	1.5	3,160
Clinton	18	7,380	14	12,880	42	5,124,420	33	1,323,960	18	25,380	27	248,670	....	.....	105	112,350	1.5	96,990	1.0	3,010
Crawford	....	.....	13	279,110	42	5,918,180	37	1,854,810	20	4,190	30	186,900	....	.....	110	187,100	2.0	86,440	1.5	10,360
Dallas	20	16,200	13	15,080	38	4,430,040	33	1,330,130	12	6,020	25	12,420	..	.....	80	77,600	2.0	63,340	1.5	8,790
Davis	14	9,100	....	.....	25	1,857,750	28	454,160	14	21,840	....	.....	....	.....	68	43,520	1.5	86,280	1.0	110
Decatur	19	7,790	....	.....	36	2,407,680	29	384,830	21	5,390	....	.....	....	.....	65	43,550	1.5	73,550	1.0	420
Delaware	22	15,840	....	.....	45	3,854,700	40	1,570,240	20	33,060	25	191,250	..	.....	85	93,600	2.0	94,560	1.5	12,100
Des Moines	20	36,500	14	3,780	35	2,275,700	34	935,480	20	36,380	28	17,640	..	.....	80	73,040	1.8	50,720	1.2	330
Dickinson	....	.....	12	25,560	35	1,647,100	35	1,309,350	15	960	30	412,500	9	3,780	60	32,400	2.0	26,760	1.5	26,500
Dubuque	18	1,850	14	17,220	45	3,241,980	40	1,997,200	22	21,780	30	165,600	....	.....	65	104,650	1.6	92,640	1.0	2,140
Emmett	....	.....	14	11,340	33	1,766,490	32	1,427,840	20	1,280	28	52,080	10	2,900	70	38,750	1.8	31,780	1.4	23,730
Fayette	20	2,800	15	17,550	45	4,065,800	41	2,692,470	22	14,960	32	264,240	9	3,690	70	102,970	1.8	104,220	1.4	17,000
Floyd	....	.....	15	2,760	38	3,299,540	35	2,599,410	18	20,430	30	139,080	10	7,250	65	118,300	2.0	61,820	1.5	7,720
Franklin	....	.....	15	18,600	38	4,042,820	40	3,009,640	16	1,760	35	39,300	12	1,920	92	97,520	1.5	44,320	1.2	23,170
Fremont	22	88,640	15	18,210	40	4,612,800	32	358,170	20	6,730	.....	.....	....	.....	80	62,720	1.5	27,050	1.5	4,820
Greene	....	.....	14	8,680	39	4,371,210	34	1,673,140	15	630	27	54,050	10	1,200	90	63,100	1.8	38,330	1.0	20,140
Grundy	....	.....	14	12,040	43	4,341,710	31	2,059,930	18	24,840	30	225,300	....	.....	110	145,200	1.8	65,260	1.5	14,640
Guthrie	25	5,250	12	56,040	34	2,983,840	28	1,148,140	12	1,220	25	52,250	....	.....	88	59,850	1.7	61,650	1.0	6,570
Hamilton	18	570	14	34,580	40	4,288,680	31	1,744,370	20	560	30	22,950	12	1,560	68	119,510	1.8	54,650	1.2	28,980
Hancock	20	600	15	30,450	35	2,875,950	38	2,579,280	21	1,170	29	64,670	10	3,100	110	114,500	2.2	80,060	1.5	29,910
Hardin	....	.....	12	27,720	38	3,924,640	36	2,234,160	14	1,640	28	30,240	8	160	80	103,280	2.0	55,820	1.5	22,860
Harrison	23	4,620	12	260,040	40	5,862,400	35	658,780	16	3,280	25	35,650	..	.....	75	95,250	2.0	38,350	1.3	21,290
Henry	16	10,880	14	1,680	34	2,293,160	32	963,360	17	38,420	24	15,360	....	....	90	50,850	1.7	52,480	1.0	00
Howard	....	.....	14	11,270	35	1,792,350	33	1,913,140	15	570	32	299,480	11	31,920	65	61,750	1.7	56,390	1.2	12,216
Humboldt	....	.....	18	58,800	42	2,863,770	36	1,767,520	20	160	30	37,990	10	1,440	115	55,200	1.8	42,240	1.5	26,946
Ida	....	.....	13	76,960	39	3,814,590	36	1,335,960	20	210	30	225,630	..	.....	102	96,900	1.8	45,090	1.2	4,970
Iowa	21	8,820	16	13,860	48	3,922,870	38	1,257,960	17	10,130	28	114,840	....	.....	97	119,310	2.0	87,840	1.5	2,460
Jackson	17	4,930	15	21,360	41	3,958,150	37	1,058,570	18	25,360	30	183,210	....	.....	70	81,900	1.8	105,060	1.5	60
Jasper	19	19,580	18	42,250	39	5,270,850	38	1,551,160	20	4,220	25	60,259	..	.....	75	121,600	1.8	96,350	1.5	3,100
Jefferson	18	22,880	12	1,810	30	1,924,980	32	769,530	14	50,820	30	45,600	....	.....	87	53,290	1.8	59,540	1.0	60
Johnson	24	15,120	16	3,360	42	4,352,460	36	1,452,960	15	24,240	26	185,640	....	.....	105	132,200	2.0	102,780	1.0	2,540
Jones	....	.....	15	9,930	48	3,678,060	31	852,280	20	17,440	27	201,420	....	.....	102	98,940	2.0	102,960	1.0	560
Keokuk	18	14,580	16	6,800	30	2,935,650	32	1,011,520	20	56,800	25	139,500	....	.....	85	73,100	1.5	68,940	1.0	520
Kossuth	....	.....	15	63,540	35	4,648,280	34	4,157,520	22	2,200	28	84,750	9	8,190	94	149,460	1.6	60,190	1.2	92,430
Lee	18	240,010	....	.....	31	1,830,950	28	600,320	18	74,880	30	3,600	..	.....	60	70,800	1.8	88,080	1.0	100
Linn	20	16,240	16	40,480	44	5,112,360	41	2,055,330	20	18,640	30	27,690	..	.....	75	135,750	1.6	96,160	1.5	9,010
Louisa	20	14,280	15	9,150	39	3,808,550	35	812,350	18	52,020	28	19,880	..	.....	70	40,250	1.8	85,140	1.5	2,890
Lucas	18	51,340	..	....	29	1,472,040	30	393,800	16	6,410	....	.....	....	.....	50	23,750	1.6	107,280	1.5	460
Lyon	....	.....	15	246,150	38	3,553,920	40	2,926,880	18	2,700	28	1,435,560	10	1,040	85	105,400	2.0	35,700	1.5	17,230
Madison	22	10,220	16	16,320	38	3,194,680	32	899,840	17	3,450	30	81,090	....	.....	112	76,280	2.0	87,820	1.2	2,010
Mahaska	18	20,160	13	10,530	30	3,031,890	28	853,690	15	15,390	28	138,320	....	.....	83	75,530	1.8	70,940	1.5	1,960
Marion	21	32,780	15	13,130	31	2,809,560	28	761,880	20	7,080	25	86,750	....	.....	70	59,640	1.8	66,730	1.2	1,290
Marshall	....	....	14	48,870	39	4,466,670	40	2,324,840	20	5,600	31	68,510	....	.....	80	91,200	2.0	70,360	1.0	2,610
Mills	17	89,770	12	65,280	33	3,246,870	32	456,020	20	840	28	16,880	....	.....	90	77,400	2.0	44,950	1.5	7,550
Mitchell	....	.....	12	6,020	35	2,104,200	36	2,554,920	18	3,600	25	243,950	10	4,100	60	97,200	1.8	54,060	1.2	3,680
Monona	25	18,300	14	244,080	30	3,900,510	33	642,840	20	5,140	31	199,020	10	210	93	113,460	2.0	19,850	1.6	33,870
Monroe	23	15,870	20	4,200	30	1,293,600	30	556,200	20	17,400	24	7,440	....	.....	50	80,500	1.8	72,840	1.0	350
Montgomery	24	71,440	13	115,960	37	3,604,170	35	481,400	20	1,780	28	57,680	....	.....	97	78,870	2.2	80,800	1.0	1,280
Muscatine	21	16,080	16	6,510	33	2,489,850	35	602,350	19	60,610	25	219,250	....	.....	72	152,640	2.0	51,630	1.5	2,510
O'Brien	....	.....	15	94,950	36	3,735,720	30	1,828,980	20	1,120	25	510,150	10	3,220	90	101,160	2.0	53,700	1.5	17,760
Osceola	....	.....	12	42,120	34	1,877,840	35	1,678,600	15	1,450	24	537,120	11	660	80	56,150	2.0	34,270	1.5	15,220
Page	22	137,060	14	29,540	40	4,608,800	32	587,680	21	7,350	25	20,050	....	.....	85	77,350	1.5	47,430	1.0	350
Palo Alto	....	.....	15	14,550	42	3,381,420	35	426,330	15	580	30	72,300	12	6,880	100	89,000	1.5	22,300	1.5	66,780
Plymouth	....	.....	14	724,510	38	6,274,750	35	2,240,550	18	3,320	30	569,250	10	1,660	90	146,700	1.5	37,790	1.0	34,820
Pocahontas	....	.....	18	19,440	38	3,424,710	40	2,538,480	16	1,280	30	55,750	8	3,440	94	101,520	2.0	36,240	1.4	48,740
Polk	23	18,860	14	35,840	39	4,154,670	34	1,371,110	16	6,440	26	5,980	....	.....	70	134,400	2.0	72,410	1.0	8,610
Pottawattamie	25	31,350	12	236,820	35	7,714,350	36	1,518,920	20	4,460	28	69,440	....	....	92	221,900	1.8	98,480	1.6	19,310
Poweshiek	18	1,710	16	15,750	34	3,645,340	33	1,252,090	16	3,520	28	172,760	....	.....	115	125,350	1.8	79,410	1.0	510
Ringgold	17	5,440	10	920	35	2,524,550	32	633,770	15	2,400	20	460	....	....	94	47,940	1.6	90,270	1.0	490
Sac	....	.....	14	33,740	42	4,831,260	40	2,058,200	18	1,260	30	284,320	10	400	110	113,300	1.5	51,910	1.0	14,430
Scott	21	34,320	15	24,610	43	3,476,120	38	698,630	20	23,080	28	796,330	....	.....	105	505,050	1.8	55,330	1.2	5,420
Shelby	22	2,090	13	255,780	36	4,406,760	30	908,910	17	3,230	24	187,560	....	.....	98	125,440	1.8	68,940	1.5	9,780
Sioux	22	1,650	15	507,750	42	6,309,660	40	2,568,490	18	720	31	1,274,330	10	530	112	157,920	2.5	53,820	2.0	42,260
Story	30	2,750	18	16,880	41	4,929,430	35	1,945,750	18	5,220	23	14,700	..	.....	93	78,120	2.2	66,890	1.4	22,120
Tama	....	.....	18	46,620	45	5,418,450	31	1,848,890	20	83,500	28	358,000	....	.....	80	129,760	2.0	120,820	1.5	7,230
Taylor	20	25,640	17	1,440	39	3,858,680	29	512,480	20	6,820	25	20,450	..	.....	90	58,680	1.8	91,990	1.5	1,680
Union	20	3,480	....	.....	35	2,230,790	32	600,640	18	1,620	30	6,360	....	.....	85	68,950	2.0	93,610	1.0	1,170
Van Buren	16	23,360	..	.....	31	1,556,510	27	518,670	12	89,240	25	1,870	....	.....	72	34,960	1.5	88,200	1.0	520
Wapello	20	20,740	12	4,080	31	1,944,940	30	492,550	18	36,180	25	88,520	....	.....	70	68,670	1.5	54,890	1.0	160
Warren	18	5,400	12	9,620	38	3,008,280	28	640,920	17	4,930	25	28,250	....	.....	74	59,940	1.5	66,460	1.0	1,230
Washington	20	18,489	12	8,620	34	3,841,950	33	1,298,840	18	28,080	28	73,080	....	.....	70	48,440	1.8	80,160	1.2	420
Wayne	18	2,340	....	.....	37	2,598,250	33	561,750	16	2,240	24	480	....	.....	50	25,250	2.0	141,890	1.0	180
Webster	....	.....	16	82,170	42	4,715,340	40	2,900,880	15	2,780	28	21,570	11	2,090	65	78,450	2.0	54,410	1.5	52,230
Winnebago	....	.....	15	73,950	32	1,681,920	33	1,546,710	18	810	25	37,150	8	7,720	90	61,380	1.8	31,590	1.3	36,140
Winneshiek	....	.....	16	49,920	40	2,835,420	35	2,489,850	20	5,420	25	427,750	12	34,920	78	92,040	1.8	87,970	1.6	9,470
Woodbury	24	19,680	14	216,160	30	4,892,480	36	1,543,780	17	11,470	30	351,450	10	270	88	124,960	1.8	38,800	1.4	23,220
Worth	....	.....	14	80,460	37	1,678,690	36	2,286,720	22	880	25	127,750	6	12,540	90	66,880	2.0	49,660	1.4	23,710
Wright	....	.....	12	83,620	33	3,231,460	28	1,681,280	20	3,040	30	55,230	8	2,720	85	71,820	2.0	51,410	1.5	27,930
Totals for State	..	1,253,020	..	5,155,760	....	345,871,840	....	146,439,240	....	1,288,500	....	15,566,770	....	173,770	....	9,352,190	....	6,477,300	....	1,318,310
Av. per acre	20.2	.....	14.4	.....	37.2	.....	28.8	.....	18	.....	27.5	.....	9.8	.....	84	.....	1.8	.....	1.2	.....

THE STATE CENSUS.

The State Census compiled during the past year is the most complete and satisfactory report of the kind that has been issued in Iowa. In the line of statistics of agriculture it is comprehensive and reliable.

According to the returns of the assessors, serving as enumerators, the area in corn in Iowa last year was 9,542,956 acres, and the total yield of corn was 346,577,988 bushels. These figures reveal the fact that the report of the Iowa Weather and Crop Service last year was made on conservative lines, though many people expressed the belief that the aggregate was too high. Our figures were 9,052,450 acres in corn, and the yield, 323,853,330 bushels. In all reports made by this bureau since 1890 our estimates of yield and acreage have been below the totals shown by the State and National census returns. In fact we have been too conservative to serve any good purpose in the line of moderation.

INDIAN SUMMER.

The following paragraph, copied from the Century Dictionary, gives a very good definition of the term Indian Summer, which is applied to the mild weather occuring in the Mississippi Valley in the autumn:

"Indian Summer in the United States.—A period in autumn characterized by calm and absence of rain. This condition is especially well manifested in the upper Mississippi Valley, where it is in conspicuous contrast with the climatic phenomena which precede and follow it. West of the belt of States lying adjacent to the Mississippi, the rainfall is so small that the chief characteristic of the Indian Summer is not exceptional enough to excite attention, and from the Mississippi Valley eastward the autuma periods of calm and dryness become more and more irregular in their occurrence and are, on the whole, of shorter duration. Hence, in the eastern States any period of unusally quiet, dry and hazy weather, even if it lasts only a few days, may be designated as Indian Summer, provided it occurs at any time between the middle of September and the early part of December. The haze which fills the air at such times is simply the dust and smoke which are not blown away by the wind, but float near the earth's surface. The name is due to the fact that the phenomena of the Indian Summer are much more distinctly marked in the region chiefly occupied by the Indians at the time this term became current than they were in the more eastern regions to which the white population was chiefly limited prior to the beginning of the present century."

CLIMATOLOGY OF NOVEMBER, 1905.

BAROMETER.—Mean pressure, 30.05 inches; Highest observed, 30.65 inches, at Des Moines, on the 30th; lowest observed; 29.30 inches, at Charles City on the 28th; range for the state, 1.45 inches.

TEMPERATURE.—The monthly mean temperature for the state, as shown by records of 123 stations, was 38.4 degrees, which is 3.2° above normal. By sections the mean temperatures were as follows: Northern section 36.7 degrees which is 4.1° above normal; Central section 38.3 degrees, which is, 3.3° above normal; Southern section 40.3 degrees, which is 2.3° above normal. The highest monthly mean was 42.8° at Red Oak; lowest monthly mean, 35.2 at Sibley. The highest temperature reported was 70° at Belle Plaine, Webster City, Burlington and Corning, on the 4, 12, 13 and 17; lowest temperature reported —12°, at Estherville on the 30th, The average monthly maximum was 63.2°; average monthly minimum, 0.6°. Greatest daily range, 54° at Massena; average of greatest daily ranges 34.3°.

PRECIPITATION.—Average precipitation for the state, as shown by records of 131 stations, was 2.84 inches, which is 1.53 inches above normal. The averages by sections were as follows; Northern section, 3.16 inches, which is 1.91 inches above normal; Central section, 2.67 inches, which is 1.26 inches above normal; Southern section, 2.58 inches, which is 1.40 inches above normal. The largest amount reported was 5.30 inches at Plover, least amount reported, .90 inch at Mt. Vernon. The greatest daily rainfall reported was 2.70 inches at Ft. Madison on the 23d. Average number of days on which .01 of an inch or more was reported.

WIND AND WEATHER.—Prevailing direction of the wind, Northwest; highest velocity reported, 54 miles per hour from the Northwest, at Sioux City, on the 24th. Average number of clear days, 16; partly cloudy 7, cloudy, 7.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	30.02	30.74	30	29.30	28
Davenport	30.05	30.70	30	29.38	28
Des Moines	30.06	30.75	30	29.41	28
Dubuque	30.05	30.74	30	29.34	28
Omaha, Neb	30.06	30.72	30	29.35	27
Keokuk	30.08	30.72	30	29.49	28
Sioux City	30.08	30.71	30	29.42	28
Means	30.05	30.75	30	29.30	28

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	6668	36	NW	28
Davenport	6498	34	NW	24
Des Moines	6562	36	SW	28
Dubuque	5552	28	S	23
Keokuk	6792	36	SW	24
La Crosse, Wis	6206	32	N	29
Omaha, Neb	6929	36	NW	29
Sioux City	9983	54	NW	24

OBSERVERS' NOTES,

ALTA.—*David E. Hadden.* The mean temperature of November, 1905 was 4.2 degrees above the normal and the precipitation, 2.12 inches in excess of the average of the preceding 15 years and the amount was larger than that of any November during the same period. The month as a whole was pleasant and ideal for corn picking.

ALTON—*W. S. Slagel.* Snow storm on 28th. Ten per cent of the corn still in the fields; picking delayed on account of wet weather. Many hogs died from cholera.

AMANA—*Conrad Schadt.* The month was remarkable for its many fine Indian Summer days. There were but four days on which the mean temperature was below the freezing point and only one—the last—on which the maximum temperature was below that point. Farmers had good and ample time for corn husking and plowing.

AMES.—*G. E. Stayner.* Light snow on the 7th and 29th.

ATLANTIC.—*J. W. Love.* November has been very pleasant with plenty of pasture for stock till close of month. Quite a thunder storm for this time of the year on the 23d.

ANDUBON.—*Geo. E. Kellogg.* Ninety per cent of corn in crib and is of extra quality and above average amount. Thunderstorm on 23d.

BRITT—*Geo. P. Hardwick.* Splendid month for farm work, plowing until 28th: Pastures unusually good until end of

CLIMATOLOGICAL DATA FOR NOVEMBER, 1905.

CENTRAL SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT. Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	PRECIP., IN INCHES. Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days	SKY. Number clear days.	Number partly cloudy days.	Number cloudy days.	Prevailing direction of wind.	DATES OF THUNDER STORMS.
Amana	Iowa	721	7	38.4	† 5.2	60	17.28	6	30	29	3.14	†1.39	1.63	T	7	15	10	5	NW	27.
Ames	Story	926	21	38.2	† 5.0	63	12	- 1	30	37	2.43	†1.88	1.05	T	6	13	7	6	W	
Audubon	Audubon	1,301	9	37.8	† 3.8	62	12	0	30	37	2.42	† .94	96	T	4	14	5	11	NW	28.
Baxter	Jasper	998	....	39.0	† 1.6	67	16	0	30	36	2.50	†1.69	1.38	T	6	17	4	9	NW	27.
Belle Plaine	Benton	826	14	38.5	† 4.1	70	4	6	30	48	2.41	† .58	1.40	1.0	5	17	5	8	NW	
Boone	Boone	....	....	37.8	.....	63	12	- 1	30	37	2.53	.....	1.34	T	6	20	4	6	NW	
Buckingham	Iowa	.....	....	.....	.....	.....	.....	....	.....	.....	3.31	†2.53	2.00	T	8	11	17	2	.....	
Carroll	Carroll	1,265	13	38.8	† 5.6	64	11,12	- 1	30	37	2.48	†1.33	1.00	T	6	16	3	11	.....	24.
Cedar Rapids	Linn	733	23	37.7	† 1.9	60	18.24	7	30	34	2.65	†1.23	80	T	4	11	14	5	SW	
Clinton	Clinton	609	38	37.4	† 1.9	61	23	9	30	53	2.43	† .58	1.15	T	6	14	7	9	W	
Davenport	Scott	606	34	39.7	† 2.9	62	28	10	30	35	2.01	- .05	95	T	6	15	6	9	NW	
Delaware	Delaware	1,083	12	36.0	† 4.0	58	12	3	30	30	3.12	†1.51	1.43	0	8	14	10	6	NW	
Denison (c)	Crawford	1,180	9	38.4	† 4.0	64	8	- 1	30	37	2.50	†1.60	1.06	T	5	23	0	7	S	
Des Moines	Polk	861	27	40.0	† 3.6	64	12	8	30	46	2.34	† .63	1.40	0.1	5	11	11	8	W	
De Soto	Dallas	866	....	39.8	.....	65	12	0	30	35	1.43	.....	.68	0	4	17	2	11	SW	
Dubuque	Dubuque	655	32	38.4	† 3.4	62	11	7	30	31	2.64	† .54	1.08	T	7	16	4	10	NW	
Fort Dodge (a)	Webster	1,126	....	37.1	.....	63	11	- 2	30	38	2.55	.....	1.12	0.5	5	19	2	9	S W	
Galva	Ida	1,290	12	38.0	† 5.8	60	11,16	- 3	30	31	3.10	†1.77	1.21	.9	7	17	5	8	S	.28
Gilman	Marshall	1,052	....	.....	.....	....	.....	.....	.....	.....	2.61	1.63	1.80	0	4	14	11	5	SW	
Grinnell (near)	Poweshiek	1,028	10	38.7	† 2.9	61	17	0	30	31	3.26	†1.74	1.70	0.1	6	14	5	11	NW	27.
Grundy Center	Grundy	976	12	38.0	† 5.2	62	11	0	30	35	2.65	†1.37	1.30	T	6	13	9	8	W, NW	28.27.
Guthrie Center	Guthrie	1,077	7	38.6	† 2.0	66	12	- 1	30	31	2.16	†1.11	1.03	T	7	18	7	5	NW	23.
Harlan	Shelby	1,192	....	38.4	† 1.0	60	12	0	30	33	3.06	†2.26	1.87	T	6	11	11	8	SW	28.
Ida Grove (g)	Ida	1,220	....	37.6	.....	64	11	- 3	30	37	.....	.....	.....	.....	..	..	..	..	.....	
Independence	Buchanan	921	40	37.6	† 4.4	61	12	3	30	31	3.20	†1.68	1.70	0	4	16	8	6	W	
Iowa City	Johnson	683	47	37.6	† 2.1	62	11,12	6	30	37	2.92	† .60	1.18	T	5	17	7	6	SW	
Iowa Falls	Hardin	1,170	10	36.3	† 4.1	62	11	0	30	34	2.49	†1.21	.82	T	4	16	6	8	SW	
Jefferson (a)	Greene	.....	....	40.2	.....	64	12	0	30	34	1.84	.....	.88	T	4	....	....	....	SE	
Le Claire	Scott	576	....	....	.....	..	.....	.....	.....	.....	2.89	.....	1.03	T	5	..	....	...	SW, W	
Little Sioux	Harrison	.....	....	41.0	....	66	11	- 1	30	38	2.60	.....	1.00	0	5	13	9	8	NW	23.
Logan	Harrison	928	36	39.4	† 3.8	62	16	1	30	34	3.09	†1.93	1.50	0	5	9	12	9	NW	
Maquoketa	Jackson	688	12	35.7	- 1.4	64	17	5	30	43	2.99	†1.54	1.25	0	5	20	4	6	NE	
Marshalltown (b)	Marshall	947	10	40.4	† 4.7	62	11,12	0	30	35	2.77	†1.44	1.43	T	5	12	1	17	NW	27.
Monticello	Jones	925	....	35.4	† 1.9	60	11,12,17	5	29	41	2.83	† .69	1.40	T	3	13	11	6	NW	
Mount Vernon	Linn	847	30	37.8	† 4.6	66	12	5	30	40	.90	- .22	.70	T	3	11	9	10	SW	
Muscatine	Muscatine	.....	46	.....	.....	.....	.....	....	.....	.....	2.23	- .02	.82	T	5	....	....	..	S	
Newton	Jasper	944	15	37.4	† 2.9	61	11	- 1	30	30	2.97	†1.17	1.70	0	7	....	....	....	NW	
Odebolt	Sac	1,356	8	38.9	† 2.9	61	11	0	30	28	3.26	†2.14	1.60	?	4	22	5	3	.....	
Ogden	Boone	1,058	9	38.6	† 3.4	62	11	0	30	36	2.24	†1.13	1.00	T	5	14	7	9	NW	
Olin (f)	Jones	760	7	37.2	† 0.3	...	.....	7	30	33	2.85	†1.65	1.40	..	3	....	....	....	.....	
Perry (b)	Dallas	975	....	38.4	.....	62	12	1	30	34	3.46	.....	1.23	....	5	10	11	9	.....	
Onawa	Monona	.....	....	40.6	† 2.9	69	2,11	- 1	30	40	4.26	†3.13	2.80	0	6	19	5	6	NW	5.23.
Rockwell City	Calhoun	.....	8	37.9	† 3.9	68	12	3	30	38	2.98	†2.13	1.40	1.0	4	21	2	7	.....	
Sac City (d)	Sac	1,278	23	38.4	† 5.9	60	11,12	- 1	30	38	.....	.....	.....	.....	4	....	....	....	NW	
Sioux City	Woodbury	1,165	16	39.6	† 5.8	67	11	- 5	30	33	4.16	†3.34	1.97	1.0	7	13	7	10	NW	23.27
Tipton	Cedar	807	....	39.7	† 3.7	61	13	10	30	28	1.64	- .13	1.33	0	4	17	8	5	SW	
Toledo	Tama	856	9	39.0	† 2.9	62	11,12	1	30	34	3.00	†1.47	1.40	T	4	16	8	6	SW, NW	
Vinton (b)	Benton	810	15	38.5	† 4.1	62	13	9	30	30	2.90	†1.75	2.40	0	2	....	....	....	.....	
Waterloo	Black Hawk	862	16	39.6	† 4.4	64	11,12	4	30	33	2.60	†1.20	1.28	T	5	17	6	7	NW	
Waukee (a)	Dallas	1,039	....	39.4	....	60	12,23	1	30	32	2.07	.....	1.04	0.6	7	20	2	8	NW	23.
Webster City	Hamilton	.....	....	38.7	.....	70	12	10	29,30	41	3.67	.....	1.60	?	4	15	0	15	NW	
Whitten	Hardin	1,036	....	37.0	† 2.2	59	11,12	- 1	30	29	1.82	† .53	1.00	T	4	13	10	7	NW	27.
Wilton Jct	Muscatine	683	11	38.6	† 1.2	65	18	5	30	31	3.78	† .98	1.50	T	3	16	2	12	W	
Zearing	Story	718	....	37.6	.....	61	11,12	- 1	30	35	2.01	.....	1.06	T	6	19	4	7	NW	
Average	.....	...	....	38.3	† 3.3	63.0	.....	2.1	.....	35.0	2.67	†1.26	.....	0.6	5	15	7	8	NW	

month. Corn nearly all gathered in good condition, except that the hard freezing of Oct. 28th Nov. 1st, killed the germ of much that grew late

CLEAR LAKE.—*Oscar Stevens.* Clear Lake froze over on the night of the 29th.

CLINTON.—*Dr. Luke Roberts.* Maximum temperature, 6 degrees below and minimum and mean 3 degrees above normal; rainfall 0.67 inch in excess of normal. Storm days 7 less, cloudy days less and clear days more than normal.

CRESTON.—*Rev. Wm. L. Gaston.* The greatest rainfall reported from this station since April last occurred this month.

FLORENCE.—*J. H. DuBois.* Plowing up to the 26th.

FOREST CITY—*J. A. Peters.* Rainfall 1.79 inches above normal. First taste of winter, Thanksgiving, Nov. 30th,

FORT MADISON.—*Miss L. A. McCready.* Thunder storm on 27th.

GRINNELL.—*A. O. Price.* Thunder storm. Stock water abundent.

HANLONTOWN.—*Miss G. M. Paschan.* Corn husking most all finished by 20th, yield from 30 to 40 bushels per acre with better quality than past 3 years. Some fall plowing and ditching done during the month.

LARRABEE.—*H. B. Streever.* Frost stopped the plowing on the 28th.

OLIN.—*Nathan Potter.* A fine month with no severe storms; fall work on the farm in better shape than for several years.

ONAWA.—*C. G. Perkins.* More rain this month than during any November since 1886. Thunder storms on 5th and 23d.

RIDGEWAY.—*Arthur Betts.* Wettest of all the Novembers of which I have a record.

SHELDON.—*A. W. Beach.* Except for excessive rains, a very good month and corn is about all husked.

SIGOURNEY.—*J. T. Parker.* First snow of season on 8th.

WAUKEE.—*E. J. Leonard.* Month generally favorable; ground not frozen to hinder plowing till the 29th.

BELATED REPORTS.

WEBSTER CITY.—Oct.—Mean temperature 48.4°; highest 82° on the 6th and 7th; lowest 17° on the 28th; greatest daily range 41°; total precipitation 2.42 inches; greatest in 24 hours .75 inch on the 9th; prevailing direction, northwest. Number of clear days 16, partly cloudy 0, cloudy 15, rainy 5.

VINTON.—Oct.—Mean temperature 51.2°; highest 82° on the 4th and 7th; lowest 20° on the 29th; greatest daily range 34; total precipitation 2.22 inches; greatest in 24 hours 1.26 inches on the 17th; prevailing direction, northwest. Number of rainy days 4.

KNOXVILLE.—Oct.—Mean temperature 52.2°; highest 83° on the 4th and 5th; lowest 23° on the 28th and 31st; greatest daily range 38°; total precipitation 4.41 inches; greatest in 24 hours 2.10 inches on the 17th; total snowfall, trace. Number of rainy days 8.

NEVADA.—Oct.—Total precipitation 3.15 inches; greatest in 24 hours .95 inches on the 10th; total snowfall, trace. Number of clear days 22, partly cloudy 1, cloudy 8, rainy 6.

ESTHERVILLE.—Oct.—Maximum 88° on the 4th 5th. and 6th; total precipitation 3.06 inches; greatest in 24 hours .80 inch on the 1st and 10th; prevailing direction, northwest. Number of clear days 15, partly cloudy 0, cloudy 16, rainy 9.

ERRATA IN OCTOBER REVIEW.

SIBLEY.—Mean temperature recorded 44.2° on page 6, should have been 45.0°.

STORM LAKE.—Mean temperature recorded 44.0° on page 6 should have been 46.5°. Mean minimum temperature recorded 31.4° on page 9, should have been 36.4°.

CLIMATOLOGICAL DATA FOR NOVEMBER, 1905—CONTINUED.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Algona	Kossuth	1,213	28	33.4	†4.5	60	11, 12	- 5	30	34	3.37	† 2.11	1.78	T	7	15	7	8	SE, NW	
Alta	Buena Vista	1,513	14	36.6	†5.0	61	11	- 4	30	36	3.20	† 2.03	1.28	0.4	7	14	10	6	S, NW	23
Alta (near)	Buena Vista										3.11		1.20		7					
Alton	Sioux			37.2		63	11	- 6	30	28	3.91		1.43	0.5	6	19	5	6	SW	23, 28
Britt	Hancock	1,236	8	35.5	†2.4	62	11, 12	- 7	30	37	2.86	† 1.88	1.25	0.8	7	7	16	7	NW	
Charles City	Floyd	1,015	18	35.7	†2.7	64	11	0	30	36	2.08	† .58	.73	T	7	10	10	10	NW	
Clear Lake	Cerro Gordo	1,441	7	35.3	†1.6	57	12	- 5	30	31	2.20	† 1.37	.85		6	20	4	6	S	
Decorah	Winneshiek	857	12	36.7	†4.3	62	11, 12	2	30	34	2.80	† 1.21	.89		7					
Dows	Wright	1,142	9	36.8	†3.1	63	11	- 3	30	36	2.75	† .41	1.21	0.2	6	14	9	7	SW	
Elkader	Clayton	727	21	37.2	†4.6	67	12	4	30	40	2.55	† .87	1.10		4	18	11	6	NW	
Estherville(a)	Emmet	1,298	12	35.9	†6.8	63	11	-12	30	40	4.06	† 2.89	1.40	2.0	6				NW	
Florence	Wright	1,226									2.54		1.10	.8	6	8	15	7	SE	
Forest City	Winnebago	1,226	11	35.8	†4.6	64	11	- 4	30	33	2.93	† 1.57	1.20	T	4	19	2	9	SW	
Grand Meadow(‡)	Clayton	1,180	11	35.4	†3.2	58	11, 12	1	30	26	2.68	† 1.09	1.15	0.2	6	10	8	12	NW	
Hampton	Franklin	1,155	13	38.0	†5.9	66	11	- 1	30	32	2.86	† 1.25	1.00	T	4	9	17	4	SW	
Hanlontown	Worth			35.8		64	11	- 7	30	37	3.09		.95	T	6	21	2	7	NW	
Humboldt	Humboldt	1,095	16	38.4	†4.9	60	4, 11, 12, 16	- 2	30	30	2.92	† 1.46	1.48	T	6	19	4	7	NW	
Larrabee	Cherokee	1,266	12	37.6	†5.7	65	17	2	29, 30	33	3.74	† 2.76	1.74	.5	6	16	8	6	SW	23
LeMars	Plymouth	1,224	7	37.6	†4.2	64	11	- 6	30	31	4.93	† 3.87	2.20	T	3	17	7	6	S	23, 27
Mason City	Cerro Gordo	1,132	8	37.2	†7.8	63	11	- 2	30	29	2.65	† 1.65	.80	0	6	11	12	7	NW	27
New Hampton	Chickasaw	1,169	7	36.6	†1.8	62	11	0	30	33	2.38	† .59	1.02	0	6	14	11	5	W	
Northwood	Worth	1,222	8	35.5	†3.6	62	11	- 5	30	31	2.78	† 1.22	.97	1.5	7	14	8	8	NW	
Osage	Mitchell	1,184	13	35.8	†6.6	61	11	- 2	30	32	2.66	† 1.21	.90	0.1	6	14	6	10	NW	
Plover (d)	Pocahontas			36.6	†2.8	61	4, 11	0	29	31	5.30	† 3.71	2.30	T	4					23
Pocahontas	Pocahontas	1,190		37.5		62	11	- 3	30	30	4.32		1.98	1.1	4	18	5	7	S	
Ridgeway	Winneshiek	1,215	7	38.0	†0.8	64	12	0	30	36	2.93	† .98	1.00	0.2	9	14	11	5	S	23, 27
Rock Rapids	Lyons	1,021	7	38.2	†10.2	68	16	- 6	30	32	3.70	† 2.71	1.60	3.5	5					
Sheldon	O'Brien	1,442	6	38.0	†2.4	65	16	-10	30	38	3.94	† 3.23	1.25	1.0	6	17	4	9	S	24, 27
Sibley (a)	Osceola	1,212	12	35.2	†4.3	63	11	- 9	30	35	4.24	† 3.37	1.55	2.2	7	19	1	10	SE, NW	
Sioux Center	Sioux		6	39.8	†1.3	68	11	- 8	30	33	3.23	† 2.66	1.05	2.0	6	14	6	10	W	23
Storm Lake	Buena Vista	1,440	8	36.4	†0.0	61	11	- 5	30	36	3.00	† 2.04	1.20	T	4	18	1	11	NW	19
Washta	Cherokee	1,157		37.6		62	11	- 4	30	32	2.57	† 1.32	1.32	T	3	18	6	6	S, NW	
Waverly	Bremer	942	9	37.2	†2.7	61	11	3	30	30	1.97	† .49	1.01	T	6	10	11	9	NW	
West Bend(a)	Palo Alto	1,197	12	36.4	†5.4	60	11	- 4	30	31	3.29	† 1.90	1.52	T	5				W	27
Average				36.7	†4.1	62.5		- 3.4		33.3	3.16	† 1.91		1.1	6	15	8	7	NW	

SOUTHERN SECTION.

Afton	Union	1,212	11	39.9	†4.0	61	13, 17	0	30	29	3.12	†2.01	2.00	0.	5				SW	23, 27
Albia	Monroe	957		40.0	†1.0	65	13	3	30	34	2.47	†.83	1.02		5	16	4	10	SW	
Allerton	Wayne			41.0		66	13	2	30	34	2.35		1.09	T	5	20	3	7	NW	
Atlantic	Cass	1,164	14	38.6	†4.1	62	16, 23	1	30	35	2.54	†1.68	1.50	0.	4	12	5	13	W	23
Bedford	Taylor		5	39.0	-0.7	62	16	1	30	33	3.33	†2.36	1.86	T	6	19	3	8	NW	
Bonaparte	Van Buren		14	41.1	†2.9	68	13, 17	6	30	39	1.84	- .16	.72	0.	6					
Burlington	Des Moines	544		42.0		70	13	8	30	35	2.09		.75	0.	6	18	7	5	NW	
Chariton	Lucas	1,042	10	40.6	†2.0	65	13	3	30	35	2.55	†1.14	1.15		5	17	7	6	SE	
Clarinda	Page		15	39.8	†2.4	65	12, 13, 22	3	30	38	3.41	†2.38	2.33	T	5	17	7	6	NW	
College Springs(a)	Page		14	40.8	†2.4	63	13, 27	4	30	32	3.13	†2.09	2.00	0.	3	19	3	8	S, NW	
Columbus Jct	Louisa	586		38.0		63	17, 28	7	30	30	2.69		1.68	T	6	23	3	4	W	27
Corning	Adams	1,127	13	39.3	†2.1	70	17	1	30	34	3.46	†2.50	2.10	0.	3	15	11	4	SW	23
Corydon	Wayne	992	12	41.9	†3.8	67	13	2	30	33	2.17	† .67	1.07	0.2	6	18	5	7	SW, NW	
Creston	Union			39.5		62	13	1	30	35	3.23		2.02	0.	3				NW	
Cumberland	Cass										2.31	†1.67	.92		4	22	2	6	S	
Earlham	Madison			38.7		63	12	7	29	37	1.98		1.03	T	5	16	6	8	SW	
Elliott	Montgomery			39.8		61	13, 17, 18	3	30	34	1.11		.78	T	3	17	9	4	SE	2
Ft. Madison	Lee	516	56								3.98	†1.82	2.70		3	13	9	8	W	
Glenwood	Mills		17	41.8	†3.2	65	15	2	30	34	3.00	†2.40	1.80	0.	3	8	15	7	SW	
Greenfield	Adair		14	39.5	†3.6	63	13	-2	30	34	2.85	†1.79	1.24	T	7	19	4	7	S	23
Hopeville	Clark		13	40.4	†4.9	64	13	1	30	33	2.92	†1.94	1.87	T	6	12	14	4	W	27
Indianola	Warren			39.6	-2.0	63	12	1	30	33	3.21	†1.91	2.11	T	7	5	11	14	SW	23
Keokuk	Lee	619	34	42.7	†3.9	68	13, 28	8	30	25	2.32	† .20	1.01	T	7	17	5	8	SW	27
Keosauqua	Van Buren	644	13	41.1	†1.8	68	12	5	30	40	2.08	† .45	1.00	T	4	15	4	11		
Knoxville	Marion	920	12	40.6	†3.4	63	12	3	30	32	2.42	†1.88	1.40	T	6	15	7	8	SW	
Lacona	Warren										2.52	†1.44	1.27	0.	6	7	17	6		
Lenox(e)	Taylor	1,250	10	40.2	†2.8	62	13	0	30	30	3.22	†2.09	1.98	0.	5	22	5	3	NW	
Leon	Decatur	1,120		41.0		64	13	3	30	28	2.46		1.21	0.	6	21	2	7	SE	
Massena	Cass			39.3		67	12, 13	0	30	34	2.05		1.25		2	21	0	9		
Mt. Ayr	Ringgold	1,236	12	40.8	†2.9	64	13, 22	2	30	36	2.90	† .62	1.65	0.	6	15	7	8	SW	23
Mt. Pleasant	Henry	729	24	39.6	†4.9	64	13	5	30	31	2.65	†1.06	.75	T	7	17	4	9	SE	27
Omaha, Neb.	Douglas	1,113	34	42.6	†6.0	65	15	4	30	43	2.72	†1.66	1.65	T	4	11	7	12	SW	23
Oskaloosa	Mahaska	843	22	39.7	†3.0	62	13	3	30	34	2.26	† .71	1.00	T	6	17	1	12	SW	27
Ottumwa	Wappelo	619	11	39.8	†0.6	65	13	6	30	37	2.43	† .75	.97	0.	3	19	3	8		
Pacific Junction	Mills	960	6	39.2	†2.9	62	15	1	30	35	2.70	†2.11	.85		5	16	8	6	S	
Pella	Marion			40.5		62	23	3	30	33	2.77		1.50	T	6	16	6	8	SW	
Red Oak	Montgomery	1,033	8	42.8	†1.2	65	13, 16	5	30	33	3.19	†2.15	1.56	0.	6	17	8	5	NW	
St. Charles	Madison	1,070		41.4		67	12, 22	0	30	34	3.29		2.13	T	8	17	8	5	NW	
Sidney	Fremont			38.8		60	16	-1	30	39	3.61		1.34	0.	5	20	6	4	SE	
Sigourney(a)	Keokuk	877	9	39.9	†1.1	61	11, 23	4	30	35	2.25	† .75	.96	T	5	7	20	3	NW	27
Thurman	Fremont			40.8	†2.6	63	13, 15	2	30	35	4.18	†3.09	2.41	T	3	15	9	6	NW	23
Wapello	Louisa	588	7	41.6	-0.4	68	13, 17	10	30	35	1.96	† .50	.70	T	5	17	8	5	SW	
Washington	Washington	769	13	40.4	†4.8	64	13	6	30	32	2.35	† .96	1.30	0.	3				W, SW	
Winterset	Madison	1,129		38.2	-0.2	62	12	0	30	30	2.57	†1.36	1.63	0.	4	16	4	10	SW	
Woodburn	Clarke	961		38.5		63	13	2	30	36	2.15	†1.11	1.40	T	3	17	4	9	SW	
Average				40.3	†2.3	64.2		3.0		34.5	2.68	†1.40		0.2	5	16	7	7	SW	
Average for State				38.4	†3.2	63.2		0.6		34.3	2.84	†1.53		0.6	5	16	7	7	NW	

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR NOVEMBER, 1905.

STATIONS.		DATE																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max..	42	56	58	56	46	48	41	51	43	47	57	58	61	57	56	58	61	49	47	48	48	58	58	54	49	48	48	59	30	21	...	50.0
	Min ..	25	27	42	31	39	38	37	29	24	25	32	34	35	38	36	35	38	34	27	23	23	21	36	36	28	29	28	30	8	0	....	29.2
Albia*....	Max..	41	58	54	51	49	50	41	41	42	50	60	62	65	45	58	62	60	50	49	51	60	62	64	46	51	45	62	62	18	22	...	51.0
	Min ..	22	23	33	34	37	29	31	29	24	25	27	34	35	27	25	28	37	35	30	24	28	35	41	40	30	29	30	32	12	3	....	29.0
Algona...	Max..	35	51	47	59	46	46	43	37	41	50	60	60	57	42	55	57	58	50	46	46	57	56	54	54	45	37	35	50	23	18	.	47.1
	Min .	15	25	30	28	35	25	29	28	24	26	32	38	33	20	35	31	32	24	25	26	28	29	42	30	27	24	26	22	0	-5	....	25 7
Allerton .	Max..	47	61	54	56	52	51	45	54	45	52	61	62	66	49	57	58	63	52	52	50	52	62	62	56	53	50	41	53	40	24	..	52.7
	Min ..	22	27	30	32	40	28	36	28	22	28	31	34	34	29	30	36	37	37	29	23	24	28	39	38	29	29	31	39	11	2	....	29.3
Alta.	Max..	28	51	50	59	42	43	39	35	42	50	61	59	52	43	59	57	55	51	49	49	47	54	54	50	46	35	37	47	11	17	....	45.7
	Min ..	15	28	29	34	31	25	31	28	24	28	31	32	35	35	41	31	37	29	20	24	24	33	49	29	30	27	29	11	0	-4	....	27.4
....	Max..	41	50	50	58	48	47	45	40	39	53	63	57	51	49	52	62	53	49	48	50	51	54	55	54	45	38	35	39	15	19	..	47.2
	Min ..	20	32	30	35	26	25	35	34	24	25	30	29	31	26	37	28	32	29	31	28	26	32	45	30	30	29	30	15	2	-6	....	27.3
Amana...	Max..	42	51	50	52	49	45	42	38	40	49	58	58	58	39	53	55	60	50	45	46	45	55	60	65	46	41	39	59	38	22	....	48.0
	Min ..	23	24	33	26	38	33	38	28	23	22	29	35	32	23	34	37	36	35	26	21	24	24	38	34	27	31	30	38	13	6	....	28.7
Ames	Max..	47	52	51	52	49	50	47	38	43	50	62	63	59	45	58	59	58	51	50	48	49	61	58	56	51	46	42	60	29	21	....	50.0
	Min ..	21	16	16	28	41	28	32	28	26	22	33	35	31	19	37	33	36	34	25	21	24	24	38	32	27	27	30	26	7	-1	...	26.5
Atlantic .	Max..	45	55	55	51	46	48	45	53	45	59	61	61	46	59	62	59	49	53	52	51	62	55	44	51	42	45	58	23	23	...	50.3
	Min ..	19	29	30	29	40	27	28	27	21	20	32	32	25	31	35	27	28	34	19	21	27	28	45	39	28	25	31	28	8	1	....	26.9
Audubon.	Max..	45	45	53	52	45	48	44	45	32	50	60	62	58	46	58	60	55	50	51	50	51	61	55	53	50	42	39	58	28	31	..	49.5
	Min ..	18	23	29	24	41	26	33	26	22	20	42	32	30	30	35	26	29	33	20	19	20	24	39	31	27	25	30	23	5	0	....	26.0
Baxter . .	Max.	43	53	50	50	48	49	45	39	40	60	61	63	59	43	46	67	61	54	49	48	47	59	57	56	52	43	37	61	34	22	....	50.2
	Min ..	18	25	30	30	38	30	36	27	23	24	31	35	34	23	36	34	39	34	24	23	23	25	34	33	26	27	28	32	9	0	...	27.7
Bedford ..	Max..	48	58	55	45	46	50	46	56	39	48	44	58	45	45	53	62	61	58	54	52	53	61	60	60	37	47	44	43	33	21	...	49.1
	Min .	19	31	32	34	43	28	34	29	23	20	29	34	29	23	41	32	33	39	30	25	28	28	42	32	28	29	32	32	8	1	..	28.9
Belle Pl'e	Max..	35	58	62	70	60	45	44	49	32	41	49	40	47	42	45	56	68	67	62	25	37	33	41	60	48	41	36	52	21	26	....	46.4
	Min ..	22	25	30	22	45	32	42	33	21	21	31	32	32	31	47	36	43	45	32	23	31	21	32	41	33	28	28	42	12	6	....	30.6
Bonapar'e	Max..	43	55	54	60	67	48	48	41	44	52	63	63	68	48	56	59	68	50	48	49	48	62	65	58	53	49	44	64	40	24	....	53.0
	Min .	23	24	33	31	40	34	38	29	22	22	29	35	33	20	34	38	37	37	30	25	28	23	35	35	25	30	32	40	14	6	....	29.2
Boone* ..	Max.	40	50	52	52	42	50	41	33	42	50	62	63	58	44	58	59	57	51	51	47	48	62	53	43	50	40	60	40	14	21	...	47.9
	Min ..	20	22	32	33	33	28	29	30	27	28	29	33	36	21	23	35	36	32	29	27	25	25	34	35	29	30	30	32	9	-1	....	27.7
Britt.	Max..	35	50	48	61	47	49	42	40	39	50	62	62	48	45	54	58	52	51	43	46	47	56	56	54	47	36	35	52	37	21	....	47.4
	Min ..	15	25	29	25	36	26	25	23	21	25	25	26	28	14	35	29	28	25	23	24	21	28	39	25	24	21	27	24	0	-7	....	23.6
Burling'n	Max..	42	50	55	59	57	47	48	40	47	53	63	65	70	41	53	60	68	62	48	50	50	61	63	53	53	51	42	68	48	27	....	52.0
	Min ..	24	27	34	31	41	34	37	29	24	24	31	37	35	22	34	37	42	36	34	29	27	24	40	36	31	32	31	42	15	8	....	31.1
Carroll* ..	Max.	47	53	55	59	45	43	39	48	46	59	64	64	60	50	61	63	56	51	54	50	52	62	55	45	53	39	59	37	13	20	....	50.1
	Min ..	15	27	27	30	40	28	28	28	29	26	36	47	46	39	38	24	19	32	21	23	21	22	38	27	28	29	28	31	6	-1	....	27.4
Cedar R*.	Max.	38	50	49	53	44	44	42	37	42	50	52	60	56	43	54	56	58	50	45	45	46	56	60	43	46	40	60	52	18	21	..	47.0
	Min ..	25	24	31	27	28	34	33	29	26	25	25	34	35	24	24	37	36	35	30	26	25	25	26	41	29	33	30	31	16	7	....	28.4
Chariton.	Max.	45	60	53	55	50	50	49	46	45	51	62	62	65	50	57	61	61	52	51	49	50	62	63	56	50	45	40	63	43	23	....	52.2
	Min ..	22	26	32	33	40	28	38	27	24	23	30	34	33	28	36	35	39	35	27	21	24	27	40	37	28	27	29	38	10	3	....	29.1
Charles C.	Max.	35	49	45	56	46	43	40	34	39	50	64	62	51	40	52	57	55	51	46	47	60	55	34	54	48	37	40	54	18	21	....	46.3
	Min ..	19	24	25	26	32	32	27	24	22	24	30	33	23	17	39	32	33	24	23	25	25	26	37	28	28	26	28	18	4	0	....	25.1
Clarin da*	Max.	55	59	60	49	47	53	47	50	45	58	62	65	65	48	62	54	53	45	54	53	54	64	65	56	46	54	48	63	46	15	24	....	52.0
	Min ..	23	28	33	33	39	28	31	29	23	21	26	28	29	24	35	32	32	34	23	24	27	27	29	37	22	32	32	33	8	3	....	27.5
Clear L ..	Max.	34	46	46	48	45	43	42	35	39	45	56	57	53	44	50	50	53	50	47	46	48	51	50	48	40	35	35	38	36	19	....	44 2
	Min ..	16	28	28	21	37	28	32	25	24	29	35	38	35	15	35	31	36	23	28	32	22	28	41	31	25	26	25	31	5	-5	...	26.4
Clinton...	Max..	38	44	40	55	48	42	44	39	43	48	58	60	60	38	52	52	60	51	46	46	45	52	61	56	53	37	41	60	40	23	....	47.7
	Min ..	21	20	29	23	39	32	34	28	22	20	28	34	29	19	38	34	32	30	31	28	25	20	28	31	24	30	28	39	15	9	....	27.2
Col. Spgs.	Max..	51	54	55	50	47	50	48	47	44	48	57	58	63	57	60	60	60	52	51	51	53	58	58	54	52	49	63	45	30	22	....	51 5
	Min ..	27	33	33	35	42	28	34	32	25	23	28	..	31	29	37	32	37	39	30	29	29	30	43	32	28	30	37	30	10	4	...	30.1
Colum. J.	Max..	31	48	48	50	50	40	40	40	34	39	49	49	48	39	45	56	63	53	45	48	47	56	63	56	49	45	42	60	44	23	....	46.7
	Min ..	28	25	32	31	38	33	34	23	24	24	29	36	29	19	35	36	39	35	35	24	23	26	38	35	28	31	30	41	14	7	....	29.4
Corning ..	Max.	42	55	54	50	46	49	44	54	41	47	56	59	61	45	58	59	70	51	49	49	49	59	56	54	49	43	44	60	30	22	....	50.2
	Min ..	23	31	30	35	42	26	35	29	22	32	31	33	32	21	35	29	36	33	26	27	27	31	39	33	29	28	31	29	7	1	....	28.4
Corydon..	Max..	46	61	55	56	53	52	48	54	47	53	62	64	67	49	57	63	60	55	53	49	52	63	63	58	52	52	41	62	40	23	...	53.7
	Min ..	21	28	31	35	40	29	38	29	24	25	30	35	35	28	37	35	39	36	29	22	25	30	42	38	30	29	31	40	10	2	....	30.1
Creston..	Max..	56	56	54	50	50	49	49	53	48	48	58	60	62	49	56	59	60	50	50	50	60	58	56	44	48	42	59	35	15	17	....	49.9
	Min ..	22	30	31	37	43	28	30	32	24	25	28	34	35	24	35	35	40	35	28	29	25	26	42	37	31	30	29	30	8	1	...	29.1
Davenpo't	Max..	38	48	49	54	51	40	42	31	42	49	60	59	62	38	52	54	61	52	47	40	48	57	62	57	47	43	47	62	30	22	....	48.6
	Min ..	26	28	35	30	40	34	36	31	28	28	34	40	27	21	36	36	41	36	32	31	26	28	40	35	31	32	30	30	13	10	....	30.8
Decorah. .	Max..	43	47	43	56	47	40	42	37	38	50	62	62	52	39	48	53	56	56	48	48	48	54	57	57	48	37	38	52	28	23	....	47.0
	Min ..	19	22	28	22	34	33	32	29	24	24	33	35	32	18	33	32	37	24	22	20	24	26	38	29	27	22	30	28	8	2	....	26.4
Delaware.	Max..	36	43	46	51	45	40	41	40	41	46	57	58	54	37	48	50	57	49	40	43	48	50	56	55	46	40	55	45	38	19	....	45.6
	Min ..	20	20	31	24	24	32	24	24	23	25	30	33	31	17	32	32	35	32	27	23	22	24	40	32	32	25	25	35	11	3	....	26.8
Denison ..	Max.	46	53	64	..	55	48	44	47	44	..	..	..	..	47	60	62	55	50	52	51	52	63	55	54	51	43	50	55	21	21	...	48.5
	Min .	20	33	27	..	35	26	36	30	25	25	33	32	31	30	36	29	32	10	22	28	26	34	47	33	31	29	32	20	6	-1	....	28 2
Des M....	Max.	41	54	52	54	46	50	44	38	42	50	62	64	61	44	60	58	61	50	49	48	49	61	61	55	51	42	59	63	17	20	....	50.2
	Min ..	24	30	34	33	34	31	32	31	27	26	33	37	36	25	39	38	42	33	29	27	27	31	39	32	31	32	32	17	6	3	....	29.8
De Soto ..	Max..	46	54	55	53	48	51	44	40	44	51	62	65	62	47	60	64	58	50	54	50	52	63	60	55	52	42	42	60	27	20	....	51.0
	Min ..	22	28	33	31	40	28	31	28	25	21	31	32	34	23	40	36	40	34	24	22	24	23	45	33	28	28	30	27	8	0	....	28.5
Dows.	Max.	39	49	46	56	46	50	43	36	39	49	63	60	54	42	55	57	57	50	47	47	47	61	53	55	48	42	35	56	31	19	..	47.7
	Min .	17	22	30	24	37	29	35	25	22	24	30	34	31	15	37	29	36	27	21	20	20	25	40	33	26	27	29	30	6	-3	....	25.9
Dubuque.	Max..	35	43	46	53	46	41	40	36	41	50	62	61	56	37	50	53	58	50	43	45	46	55	58	56	49	42	39	61	30	22	....	46.8
	Min ..	22	27	33	28	39	34	36	32	29	27	36	40	29	21	34	37	42	32	30	27	27	28	39	33	32	31	30	30	12	7	....	30.1
Earlham.	Max..	45	54	53	53	45	50	50	42	51	55	58	63	61	46	57	60	59	54	58	47	50	58	61	54	50	45	35	59	30	15	....	50.6
	Min ..	19	28	29	26	39	25	35	33	20	19	25	30	39	19	37	37	39	25	21	16	21	30	35	34	28	25	28	30	7	8	....	26.8
Elkader ..	Max..	36	44	45	58	50	40	40	36	44	54	66	67	57	38	50	60	60	56	43	49	49	60	56	53	50	44	38	45	36	22	....	48.2
	Min ..	20	18	31	20	35	33	33	23	24	21	33	38	32	20	34	30	36	24	21	18	19	20	38	32	26	26	28	35	11	4	....	26.1
Elliott....	Max..	43	58	55	52	47	51	46	56	43	48	54	58	61	48	60	59	61	61	50	51	51	59	58	53	50	43	43	59	25	27	..	50.9
	Min ..	21	30	29	35	43	27	33	32	23	28	29	31	30	34	34	31	32	35	25	25	27	30	43	34	30	27	32	25	8	3	....	28.7
Esth'rv'le	Max..	40	50	48	50	45	..	47	36	48	53	63	61	49	48	56	60	52	50	45	49	48	55	53	38	46	38	38	35	10	15	..	47.1
	Min ..	23	22	32	27	33	23	..	25	23	25	27	31	32	25	24	29	32	26	25	23	25	26	36	31	28	23	26	30	-5	12	....	24.7
ForestCy*	Max.	39	51	49	60	40	45	38	37	42	51	64	63	42	42	53	57	55	55	49	48	49	56	57	37	47	38	49	35	20	20	....	46.3
	Min ..	16	19	30	29	40	28	25	25	25	28	31	32	31	16	22	29	33	20	26	25	23	26	33	32	25	21	26	30	4	-4	....	25.8
F. Dodge*	Max..	45	49	56	55	56	53	40	35	43	50	63	62	55	44	59	59	56	51	48	48	49	59	55	40	48	38	46	35	11	..	....	48.6
	Min ..	20	19	22	17	18	28	32	20	22	22	29	35	36	21	25	31	34	32	25	27	26	27	33	35	29	29	29	35	11	-2	....	25.6
Galva	Max..	40	51	50	59	58	47	43	39	42	51	60	59	54	46	59	60	55	51	49	49	50	57	55	54	52	41	35	48	18	18	....	48.3
	Min ..	17	31	30	34	37	24	36	31	22	24	31	31	33	30	39	29	32	30	24	25	24	30	43	40	27	27	29	18	5	-3	....	27.7
Glenwo'd	Max..	56	57	57	51	47	50	49	57	48	51	61	62	62	52	65	63	60	53	53	51	52	62	56	54	53	54	43	60	10	22	....	52.4
	Min ..	25	34	32	35	42	27	39	32	26	28	31	33	36	33	39	37	39	34	31	30	28	28	46	35	35	32	31	29	7	2	....	31.2
Grand M.	Max..	34	43	45	54	46	40	37	35	37	47	58	58	53	36	48	52	55	49	45	44	43	54	55	51	45	37	35	53	34	18	....	44.7
	Min ..	17	23	28	23	32	31	39	20	22	25	32	38	32	19	32	30	36	30	26	26	28	29	41	30	25	25	25	25	8	1	....	26.0
Greenfield. ..	Max.	46	52	54	52	47	48	46	52	50	49	57	62	63	54	57	59	59	53	48	47	49	58	57	60	49	43	39	57	34	20	....	50.7
	Min ..	19	29	30	35	40	35	35	31	21	25	30	32	32	20	33	33	38	33	25	24	22	32	42	35	29	29	29	26	7	-2	....	28.3
Grinnell.	Max..	42	57	52	51	50	48	42	38	48	52	60	60	60	40	55	60	61	48	48	46	47	59	58	54	50	45	37	50	37	20	....	49.2
(near)	Min ..	20	28	31	32	35	30	32	26	22	28	30	33	32	24	15	43	38	34	24	25	24	27	38	35	27	27	28	35	9	0	....	28.2
Grundy C	Max..	42	52	51	53	47	47	48	37	42	51	62	61	53	42	54	57	59	54	58	47	47	58	56	55	50	40	35	55	35	20	....	48.8
	Min ..	18	24	31	28	37	32	36	25	22	24	30	33	31	19	36	32	35	29	23	22	23	28	41	38	27	28	28	34	11	0	....	27.3
Guthrie C	Max..	44	53	52	53	48	49	44	42	43	48	59	66	58	45	58	59	55	50	49	49	49	58	55	55	49	43	41	58	27	19	....	49.3
	Min ..	19	28	30	30	42	27	35	18	22	23	32	35	34	25	38	32	40	38	23	23	22	30	44	34	30	28	29	26	7	-1	....	27.9
Hampton.	Max..	39	50	48	57	45	49	44	40	42	54	66	62	54	42	54	61	58	57	52	50	50	60	55	55	50	38	35	37	28	21	....	48.4
	Min ..	19	25	32	26	38	30	34	26	26	27	34	35	33	17	37	32	39	29	26	23	23	29	44	32	27	26	27	28	4	-1	....	27.5
Hancock .	Max..	45	55	54	50	46	50	44	54	45	50	61	59	60	46	59	60	60	52	51	51	52	61	58	56	51	42	51	57	26	22	...	50.2
	Min ..	23	33	32	36	41	29	37	33	26	25	31	32	35	34	37	34	37	34	27	29	28	32	45	33	31	31	33	28	7	2	....	30.3
Hanlontown .	Max..	37	50	48	60	47	45	42	33	39	51	64	63	49	40	55	57	53	50	47	46	48	55	55	56	49	39	34	50	28	18	...	46.9
	Min ..	15	23	26	23	39	28	29	29	22	24	32	31	26	15	37	30	34	25	22	23	23	24	40	26	24	23	26	26	0	-7	....	24.6
Harlan....	Max..	45	54	55	50	47	48	45	50	44	50	59	60	59	45	59	59	56	50	51	50	50	59	51	52	50	40	42	55	21	22	....	49.4
	Min ..	18	28	29	30	41	26	37	31	22	23	26	28	31	33	35	30	30	34	24	24	26	30	43	33	28	29	30	21	6	0	....	27.5

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR NOVEMBER, 1905—CONTINUED.

STATIONS.		DATE.																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Hopevi'e	Max..	47	58	55	52	47	50	44	53	44	50	59	61	64	43	57	61	60	48	52	50	50	62	59	54	50	44	41	60	27	22	....	50.8
	Min ..	32	30	32	34	41	29	34	30	25	25	32	35	36	26	38	35	38	38	30	26	26	29	41	34	29	30	31	27	9	1	...	30.1
Humbo't	Max..	40	52	49	60	45	48	45	37	42	51	60	60	52	44	56	60	55	52	48	48	50	59	56	56	49	41	46	53	29	18	....	48.7
	Min ..	18	27	31	30	40	28	34	30	27	25	33	33	32	22	40	31	35	29	24	28	26	30	44	33	29	28	30	29	3	-2	....	28.2
IdaGro'e	Max..	..	..	..	..	..	..	..	40	44	52	64	60	57	49	59	63	56	53	53	50	52	62	56	55	49	46	37	53	24	19	....	50.2
	Min ..	..	..	..	..	..	..	..	22	19	23	32	30	31	31	33	26	33	29	21	22	24	32	36	31	25	25	29	22	5	-3	....	25.1
Indep'ce	Max..	48	50	50	53	50	43	43	38	40	49	60	61	60	48	50	54	58	49	46	46	45	56	56	57	48	44	35	58	38	21	....	48.5
	Min ..	20	20	32	24	35	32	34	26	24	25	29	35	34	22	33	33	35	31	26	22	23	23	33	33	24	28	26	27	10	3	....	26.7
Indian'la	Max..	48	57	53	53	40	50	44	40	44	50	60	63	61	43	57	60	60	51	51	48	50	61	61	56	48	43	39	61	29	20	....	50.2
	Min ..	22	27	32	33	41	28	36	29	24	24	31	36	35	24	38	35	45	34	25	26	25	30	41	35	29	30	20	28	10	1	....	29.1
Iowa C*	Max..	39	52	48	54	46	46	43	38	42	52	62	59	60	42	54	57	61	53	42	50	50	59	62	44	48	43	59	53	19	21	....	48.6
	Min ..	22	23	30	24	30	33	31	27	22	21	25	34	30	19	19	36	26	36	26	22	23	23	25	36	26	28	31	31	16	6	....	26.5
Iowa F*	Max..	36	52	48	54	43	47	39	36	39	49	62	60	53	43	55	55	58	50	47	47	45	58	56	40	48	36	57	41	15	21	....	46.3
	Min ..	19	27	30	28	32	31	32	25	24	21	28	31	30	17	35	32	38	28	22	21	21	30	30	36	26	28	27	32	13	0	....	26.3
Jefferson	Max..	43	52	53	55	48	51	43	37	44	52	63	64	59	46	60	61	56	53	52	49	51	63	62	56	56	56	49	..	54	22	....	52 1
	Min ..	20	28	31	32	30	26	33	30	24	27	34	35	37	26	40	32	38	31	23	26	25	29	38	34	29	26	28	..	9	0	....	28.3
Keokuk	Max..	44	53	53	58	58	47	48	42	44	50	59	63	68	45	55	57	66	55	47	48	48	59	62	54	54	48	44	68	47	24	..	52.2
	Min ..	27	30	36	34	44	35	41	32	28	26	34	39	37	24	36	41	45	38	37	30	28	29	40	41	34	34	33	44	15	8	..	33.3
Keosauqua**	Max..	41	55	54	59	58	58	48	43	43	50	61	68	65	58	57	60	65	59	50	49	49	61	66	56	58	49	63	62	47	37	....	54.8
	Min ..	23	24	33	26	31	35	35	28	23	21	22	32	22	23	38	38	37	37	31	20	20	21	23	40	28	27	31	33	15	5	...	27.4
Knoxvi'e	Max..	40	60	53	54	49	49	44	40	41	51	61	63	61	44	57	54	60	50	49	49	50	61	61	56	50	44	41	61	36	22	....	50.7
	Min ..	24	28	32	32	40	30	38	30	27	26	33	36	36	29	37	38	42	34	29	28	24	30	41	36	30	21	30	36	11	3	....	30 5
Larrabee	Max..	41	47	51	61	44	48	43	35	42	51	62	59	53	48	62	62	65	52	51	51	50	56	54	53	47	37	35	47	19	19	....	48.2
	Min ..	16	30	34	29	35	25	25	30	22	24	31	32	35	30	38	29	32	30	30	25	25	33	42	30	27	26	27	16	2	2	....	27.1
Le Mars	Max..	41	51	51	55	46	45	43	40	44	53	64	59	53	47	61	62	57	51	49	50	50	54	55	54	46	41	36	40	18	18	..	47.8
	Min ..	17	31	27	36	39	22	35	34	22	26	31	32	33	27	37	36	33	27	29	16	22	32	46	32	29	27	28	18	4	-6	....	27.4
Lenox...	Max..	43	56	54	51	46	..	..	..	..	47	56	57	62	48	58	58	59	50	49	48	49	58	56	54	..	..	..	..	..	21	...	51.3
	Min ..	21	29	29	33	40	27	33	30	25	23	31	33	32	28	34	35	38	36	29	27	26	30	41	35	29	31	30	30	6	0	....	29.0
Leon	Max..	45	58	53	53	50	50	44	50	43	47	56	57	64	56	56	57	60	54	46	48	48	58	60	57	49	45	42	61	36	21	....	50.8
	Min ..	24	30	32	35	41	42	39	30	26	25	31	34	36	31	37	39	38	37	30	25	24	30	41	37	30	32	31	35	10	3	....	31.2
Little Sioux	Max..	47	51	60	53	47	50	47	56	48	56	66	64	60	51	64	65	57	52	57	54	54	64	56	55	53	43	42	54	23	22	...	53.4
	Min ..	17	31	22	41	42	26	37	35	21	27	34	31	32	35	32	29	32	31	26	32	32	37	49	35	32	28	32	23	7	-1		29 6
Logan...	Max..	46	55	55	51	48	49	46	55	46	51	59	60	60	49	61	62	51	50	50	51	52	61	56	54	51	44	41	56	13	21	...	50.1
	Min ..	19	31	28	35	40	24	36	30	22	24	30	30	30	33	33	32	37	30	36	24	28	32	46	33	29	28	31	22	6	1	....	28.7
Maquoketa*	Max..	41	45	51	53	45	41	44	36	46	52	62	62	61	50	53	52	64	54	46	47	48	55	61	49	48	46	58	55	23	24	...	48 9
	Min ..	20	16	22	18	20	32	32	26	20	18	19	30	31	14	18	34	33	24	21	19	18	18	19	27	23	28	26	28	16	5	....	22.5
Marshall'n*	Max..	50	55	54	53	52	56	49	46	45	50	62	62	60	57	56	57	61	56	55	53	52	53	58	57	55	54	59	58	..	..	....	55.0
	Min ..	20	20	32	26	28	51	31	26	23	22	27	34	33	22	22	24	34	33	22	21	23	23	29	37	27	28	28	30	12	0	....	25 9
Mason C.	Max..	32	49	47	56	45	46	42	35	40	50	63	61	50	37	55	55	54	50	42	45	45	55	52	50	47	42	35	50	32	19	....	46.0
	Min ..	19	26	33	27	37	33	35	26	22	28	36	35	36	19	37	32	39	28	25	25	25	29	42	32	30	26	28	32	8	-2	....	28.3
Massena	Max..	52	55	62	50	45	48	57	59	48	54	52	67	67	47	48	45	63	53	59	53	53	65	55	54	57	44	50	60	12	23	....	51.9
	Min .	19	28	29	34	41	30	25	27	22	20	30	30	29	29	27	28	40	33	24	26	27	29	43	35	26	25	29	6	10	0	....	26.7
Monticello .	Max..	35	45	49	54	44	48	42	37	41	49	60	60	58	44	53	52	60	51	44	45	45	53	58	40	47	40	58	49	20	22	....	46.6
	Min ..	18	30	20	30	33	32	24	22	20	27	32	31	17	23	32	33	29	22	18	20	19	18	38	23	22	27	30	16	5	13	....	24.1
Mt. Ayr	Max..	49	59	58	49	47	51	47	58	45	50	58	60	64	49	59	63	63	48	53	51	52	64	58	55	52	45	48	63	32	23	....	52.4
	Min ..	23	30	31	34	41	28	38	30	25	23	26	31	33	27	34	38	37	36	30	26	25	31	39	32	30	31	30	27	-8	2	...	29, 2
Mt. Pleasant	Max..	44	52	50	59	57	45	47	41	42	48	59	60	64	45	54	55	62	53	47	47	47	57	61	56	51	46	41	61	45	24	....	50.7
	Min ..	22	25	32	31	39	32	37	27	22	22	28	35	33	18	33	35	37	35	27	24	23	26	37	34	27	30	28	39	14	5	....	28.6
Mt. Vernon.	Max..	44	46	50	51	43	43	42	38	53	58	64	66	58	42	53	62	58	52	40	52	54	60	58	54	46	43	38	56	28	28	....	49.3
	Min ..	21	21	31	26	35	31	36	25	23	23	30	34	28	18	30	34	32	30	26	23	23	20	33	20	24	36	28	26	8	5	....	26.3
N. Hampton	Max..	37	50	47	57	48	43	42	36	38	48	62	60	54	42	50	53	56	51	46	40	44	52	55	56	47	40	38	56	38	21	....	46.9
	Min ..	18	22	32	27	34	32	33	25	22	23	29	32	32	18	23	31	33	31	28	23	25	26	36	31	25	25	27	33	8	0	....	26.3
Newton.	Max..	38	55	50	51	49	43	45	36	40	49	61	59	59	41	57	57	59	49	47	46	46	58	59	54	48	42	43	47	25	20	....	47.9
	Min ..	18	25	31	29	37	29	29	27	21	23	31	34	34	27	35	33	38	34	25	23	23	23	37	29	25	28	28	24	4	-1	....	26.8
Northwood..	Max..	33	48	44	58	44	42	43	35	39	49	62	59	50	39	58	55	53	51	48	44	44	53	53	54	45	37	38	49	28	19	....	45.6
	Min ..	16	22	30	24	41	32	31	24	22	24	31	35	27	16	36	31	30	28	23	24	22	26	35	29	26	25	26	28	2	-5	....	25.4
Odeboldt	Max..	45	51	50	58	45	47	42	38	41	50	61	59	55	45	57	60	55	51	50	50	60	58	65	42	48	43	36	53	23	20	....	48.1
	Min ..	19	30	30	30	40	27	36	30	30	29	36	35	35	30	37	40	37	31	28	25	33	31	34	32	30	28	29	23	6	0	..	29.7
Ogden...	Max..	43	51	51	53	46	49	44	36	43	50	62	61	58	44	56	58	58	53	50	47	49	61	57	56	57	44	38	48	28	19	....	49.0
	Min ..	19	28	30	29	40	26	30	30	24	27	32	33	35	21	38	31	38	34	27	25	25	25	41	35	29	28	28	28	9	0	....	28.2
Olin	Max..	44	46	43	53	48	43	43	40	41	..	..	..	..	..	..	53	59	51	45	45	44	53	60	57	45	40	39	59	40	21	....	18 5
	Min ..	23	21	33	29	41	34	37	26	22	..	..	..	..	..	..	35	34	35	27	20	25	20	30	38	25	30	29	35	16	7	....	28.0
Omaha, Neb.	Max..	46	57	59	48	48	52	47	57	44	52	61	63	60	50	65	64	56	52	54	51	53	62	57	48	51	42	59	58	15	22	....	51.8
	Min ..	27	38	35	40	34	31	40	36	30	32	36	36	40	37	42	40	43	36	34	33	33	39	47	37	38	34	33	15	6	4	....	33.5
Onawa ..	Max..	43	55	69	51	48	48	48	51	51	59	67	69	60	53	67	67	56	55	61	52	53	63	56	54	50	46	41	41	20	21	....	52.7
	Min ..	20	33	29	35	40	26	36	33	23	24	28	29	30	35	37	32	33	29	29	26	27	32	46	32	31	29	29	20	5	-1	....	28.6
Osage ...	Max..	35	47	43	56	45	41	39	34	38	47	61	69	52	38	46	53	53	50	45	44	43	52	50	53	45	40	35	49	33	19	....	44.8
	Min ..	17	23	33	25	38	32	33	25	28	23	29	34	31	16	34	32	38	28	26	24	24	26	38	32	27	27	26	33	9	-2	....	26.8
Oskaloosa ..	Max..	42	58	52	55	50	49	44	39	43	51	61	61	62	45	55	57	60	51	48	49	49	59	61	55	49	43	41	61	35	20	....	50.3
	Min ..	23	27	32	29	39	32	39	27	24	22	32	35	33	28	36	35	40	35	27	21	25	25	39	35	28	28	30	35	10	3	....	29.1
Ottumwa...	Max..	45	44	54	59	46	49	45	42	46	52	63	64	56	39	29	27	39	49	36	31	26	26	28	30	34	32	33	31	31	8	6	....	49.5
	Min ..	25	28	30	29	37	33	34	31	26	29	26	26	39	29	27	30	49	36	31	26	26	28	30	34	32	33	31	31	8	6	....	30.0
Pacific Jct.	Max..	45	58	56	48	44	53	46	58	42	50	58	59	60	46	62	61	60	51	57	50	51	60	55	53	51	43	47	55	38	24	....	51.4
	Min ..	19	29	26	34	40	25	33	30	22	22	26	28	26	34	30	29	30	35	29	24	25	30	43	30	29	28	21	20	8	1	....	26.9
Pella	Max..	40	56	51	58	51	49	46	39	50	56	61	61	61	48	56	58	61	54	50	48	48	60	62	57	48	46	40	60	41	21	.	51.2
	Min ..	23	26	31	31	40	30	38	29	26	26	33	35	35	28	36	36	42	34	29	26	24	27	38	32	29	31	30	36	11	3	....	29.8
Perry ..	Max..	44	53	51	54	48	50	44	38	42	50	61	62	58	45	59	59	57	51	50	47	49	61	57	55	51	41	40	59	25	20	....	49.4
	Min ..	19	29	32	28	40	28	32	29	28	24	31	34	33	21	39	31	38	35	24	24	23	27	..	..	..	33	30	24	9	1	....	27.4
Plover ...	Max..	40	50	50	61	48	50	40	38	46	51	61	59	..	..	52	58	52	51	50	47	..	..	53	46	48	37	44	47	20	30	....	47.3
	Min ..	18	25	29	30	33	25	31	30	25	25	30	29	..	..	35	28	32	25	27	25	..	..	40	28	25	26	25	20	0	5	....	25.8
Pocahontas.	Max..	41	52	49	59	45	48	42	37	42	51	62	60	52	45	57	59	50	51	51	48	48	58	55	53	48	38	36	50	20	20	...	47.6
	Min ..	17	29	29	30	35	27	34	32	25	27	32	32	33	28	36	30	35	25	26	25	23	30	43	32	29	28	29	20	3	-3	....	27.4
Red Oak	Max	46	57	52	54	48	53	49	57	49	53	61	64	65	52	60	65	64	54	54	55	56	63	56	57	52	48	44	60	31	25	....	53.5
	Min ..	25	36	33	39	45	30	41	34	27	25	33	35	32	35	37	34	36	38	28	31	31	34	46	38	34	31	33	31	10	15	....	32.2
Ridge'y	Max..	37	50	47	61	46	41	40	34	45	52	61	64	57	40	52	58	59	56	49	47	47	56	58	60	54	45	42	47	36	25	....	48 9
	Min ..	17	22	34	25	35	33	34	26	23	26	31	36	30	18	34	32	36	30	29	25	21	28	37	30	25	26	26	36	7	0	....	27.2
Rock R..	Max..	40	50	50	38	44	44	50	32	46	56	44	48	54	56	60	68	54	56	54	58	48	50	48	50	48	54	46	42	10	18	..	47.5
	Min ..	24	28	30	26	30	30	28	28	30	34	30	32	30	32	34	33	34	36	34	36	28	30	34	30	34	32	34	26	4	-6	....	28.9
R City...	Max..	50	52	50	55	45	48	40	40	40	45	65	68	60	60	57	59	58	50	48	45	45	58	50	50	53	44	55	35	21	19	..	48 8
	Min ..	19	27	30	35	30	26	35	31	25	26	28	30	25	28	30	35	35	28	27	24	25	26	35	33	29	29	28	21	6	3	..	27.0
Sac City.	Max..	40	52	50	58	45	48	46	45	42	50	60	60	55	45	58	59	55	51	49	47	49	58	54	..	..	..	..	58	23	22	...	49.2
	Min ..	18	26	35	29	38	26	33	31	24	27	33	33	34	28	35	31	39	29	25	24	24	29	42	..	..	..	..	20	6	-1	....	27.6
St.Cha'es	Max..	53	49	59	53	48	54	44	43	49	55	63	67	66	45	60	66	64	50	60	53	59	67	61	55	52	43	41	60	31	20	....	53.0
	Min ..	22	28	32	34	40	28	33	30	26	27	35	37	38	24	39	37	42	33	26	24	22	30	43	36	30	31	29	31	9	0	....	29.9
Sheldon.	Max..	45	53	59	48	40	49	42	36	47	56	66	63	53	58	62	65	56	55	55	52	51	57	53	57	47	37	33	36	18	17	....	48.9
	Min ..	15	29	34	36	26	29	34	32	28	26	32	29	33	28	36	27	33	29	30	28	26	32	46	30	28	26	27	18	-5	10	....	27.1
Sibley...	Max..	40	49	50	57	43	47	39	34	42	53	63	62	48	43	59	61	51	53	52	50	49	56	53	38	47	39	34	31	6	-19	....	45.8
	Min ..	15	16	29	29	35	24	25	31	24	25	27	28	32	26	26	27	28	30	30	24	24	26	32	31	28	23	24	29	3	-9	....	24.7
Sidney ..	Max..	42	59	55	47	47	51	48	58	44	47	48	49	50	46	59	60	59	54	50	47	47	57	55	52	48	43	47	59	20	18	....	48.9
	Min ..	23	28	30	34	43	25	32	30	24	25	31	30	34	32	36	37	37	35	29	25	26	29	41	30	30	29	30	20	6	-1	....	28.7
Sigour'y	Max..	45	56	50	55	52	46	58	41	42	50	61	60	60	49	53	56	58	54	48	48	58	..	61	56	48	45	40	60	49	24	....	51.0
	Min ..	22	24	33	29	40	33	28	27	22	24	31	35	33	25	31	36	37	29	24	23	25	..	36	39	27	30	30	37	14	4	....	28.8
Sioux C'r	Max..	45	50	49	55	45	47	44	37	43	53	63	59	49	48	60	62	53	49	48	50	50	53	53	53	45	37	36	38	14	17	....	46.8
	Min ..	18	30	30	30	33	24	35	34	26	26	27	32	35	24	36	30	35	28	26	26	24	32	45	28	29	28	29	14	6	-8	....	26.9
Sioux C.	Max..	44	53	55	50	48	50	43	45	46	56	67	61	55	53	65	64	54	52	53	50	50	58	56	42	48	37	45	43	10	20	....	49.1
	Min ..	22	36	32	37	30	29	33	31	28	31	35	37	35	33	43	34	38	31	35	32	30	34	40	32	34	30	32	10	-3	-5	...	30.0
Storm L*	Max..	41	52	51	59	44	46	39	34	43	51	61	60	52	46	58	59	56	53	50	48	50	59	53	40	48	36	48	33	9	20	....	46.6
	Min ..	16	16	28	29	37	25	26	31	24	25	30	33	37	28	28	32	32	27	26	25	25	26	35	32	30	25	27	29	4	-5	...	26.0

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR NOVEMBER, 1905—Continued.

STATIONS.		DATE.																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Thurm'n	Max..	44	60	57	50	49	58	47	59	47	50	59	62	63	48	63	62	60	54	53	50	58	58	57	55	50	47	48	60	27	18	..	52.1
	Min ..	21	37	30	32	44	27	35	32	25	22	32	33	28	34	35	30	32	38	30	24	31	33	44	33	28	27	32	25	8	2	..	29.5
Tipton ..	Max..	42	47	50	52	45	41	41	38	44	50	60	60	60	40	52	55	60	52	44	49	49	55	61	55	46	44	38	59	43	25	..	48.6
	Min ..	25	26	35	30	38	34	37	30	26	27	32	37	37	24	33	37	38	37	32	29	26	28	38	36	28	33	30	37	15	10	..	30.8
Toledo ..	Max..	45	55	50	58	48	47	48	37	45	51	62	62	59	42	53	57	61	61	48	48	48	60	58	46	50	48	36	60	34	22	..	49.5
	Min ..	21	26	34	25	39	32	37	25	22	21	32	35	32	26	36	35	41	34	22	22	24	26	41	35	26	28	29	34	10	1	..	28.4
Vinton ..	Max..	45	50	48	50	50	44	43	50	42	50	..	..	62	44	52	57	57	54	54	47	47	55	57	55	48	42	37	58	42	22	..	48.6
	Min ..	22	24	33	23	37	32	36	25	24	25	..	..	38	28	34	50	38	28	30	18	24	25	38	38	27	30	30	34	13	9	..	28.4
Wappello	Max..	47	58	57	56	53	46	45	45	49	53	61	65	68	45	55	64	68	56	51	50	49	59	60	55	46	50	40	64	48	26	..	53,0
	Min ..	25	27	33	31	29	36	36	31	24	25	33	32	33	28	34	38	41	38	33	28	25	22	37	37	29	31	31	38	16	10	..	30,2
Wash'on	Max.	42	52	54	53	49	47	45	39	45	52	62	62	64	42	62	58	62	53	44	48	49	60	63	56	48	46	44	60	32	23	..	51,8
	Min ..	23	25	34	31	39	33	38	28	23	24	30	36	33	19	35	36	38	36	29	26	24	36	36	32	28	30	30	32	12	6	..	29.1
Washta ..	Max..	46	48	55	58	47	50	42	40	44	52	62	60	58	48	60	60	55	53	52	50	52	60	55	45	48	45	38	40	18	20	..	48.7
	Min ..	15	33	36	26	39	24	37	30	20	25	32	26	30	32	34	26	26	21	26	20	25	28	43	53	32	25	30	18	5	-4	..	26,4
Waterloo*	Max..	47	52	50	55	47	48	44	38	43	53	64	64	67	45	55	63	59	56	49	49	49	58	58	55	57	43	38	58	36	23	..	50,4
	Min .	20	24	32	26	36	33	35	26	27	25	33	36	30	24	37	35	37	31	24	28	24	25	41	44	27	27	29	36	12	4	..	28,8
Waukee..	Max.	40	54	52	53	48	48	44	41	41	57	58	60	59	44	49	48	57	50	46	46	47	59	60	55	49	..	39	59	28	18	..	49.3
	Min .	21	28	32	33	41	28	36	30	25	25	33	35	36	22	38	34	40	34	27	25	24	31	42	35	30	..	29	28	9	1	..	29.4
Waverly.	Max..	35	49	47	54	48	45	41	35	39	49	61	60	53	40	53	55	57	50	47	46	45	45	55	54	48	39	36	56	32	21	..	46.8
	Min ..	20	24	32	24	35	32	35	26	24	23	31	35	31	21	36	34	36	29	24	25	26	26	39	33	26	24	29	32	10	3	..	27.5
Web. C'y	Max..	50	53	50	52	56	47	45	37	40	53	55	70	55	43	56	54	58	57	51	48	48	65	55	67	54	45	35	58	31	22	..	50.3
	Min ..	17	25	30	26	39	29	31	26	25	21	32	34	33	16	36	31	30	31	21	22	23	24	40	35	27	29	30	30	10	10	..	27.1
W. Bend.	Max..	36	51	47	59	46	47	42	36	42	49	60	59	50	48	54	57	52	50	47	47	..	56	53	53	47	38	35	50	27	18	..	46.6
	Min ..	15	25	30	28	36	24	30	29	28	25	30	29	31	25	37	28	35	26	27	24	..	30	43	31	25	24	27	27	8	4	..	26.8
Whitten..	Max.	42	53	45	54	47	45	45	37	38	48	59	59	55	42	54	57	58	51	46	45	45	56	58	57	48	48	36	57	30	19	..	47.8
	Min ..	17	28	30	28	36	30	33	25	22	22	30	32	30	17	35	31	35	30	28	28	22	25	39	34	25	28	28	28	9	-1	..	26.8
Wilton J.	Max..	41	48	51	54	48	43	44	46	41	47	58	58	61	41	52	53	63	65	45	46	36	61	54	50	47	43	40	59	49	22	..	49.2
	Min ..	22	29	33	24	42	33	34	27	25	21	28	35	30	17	32	33	36	35	27	24	22	35	40	22	25	27	29	36	14	5	..	28.1
Wint'rset	Max..	41	54	51	52	46	47	43	43	42	46	57	62	59	46	56	53	58	49	46	46	47	58	59	56	47	48	38	58	31	19	..	48.4
	Min ..	20	27	22	32	39	27	36	30	23	26	32	34	35	22	35	32	39	33	24	23	28	28	42	35	27	28	27	31	8	0	..	28.0
Woodb'n.	Max..	42	59	52	54	49	48	46	50	43	47	56	58	63	49	55	56	61	49	46	47	54	57	61	55	56	45	40	61	28	42	..	50.1
	Min ..	19	25	25	30	40	26	33	24	20	18	31	35	30	31	37	31	39	37	26	17	20	21	40	30	25	25	30	30	10	2	..	26.9
Zearing ..	Max.	47	58	50	53	45	45	46	37	39	50	61	61	57	43	56	57	58	52	52	48	48	59	57	56	50	42	36	58	33	21	..	49.0
	Min ..	20	25	31	25	28	36	34	25	22	28	32	33	30	17	36	30	36	10	20	19	19	24	40	35	20	29	28	33	10	-1	..	26.1

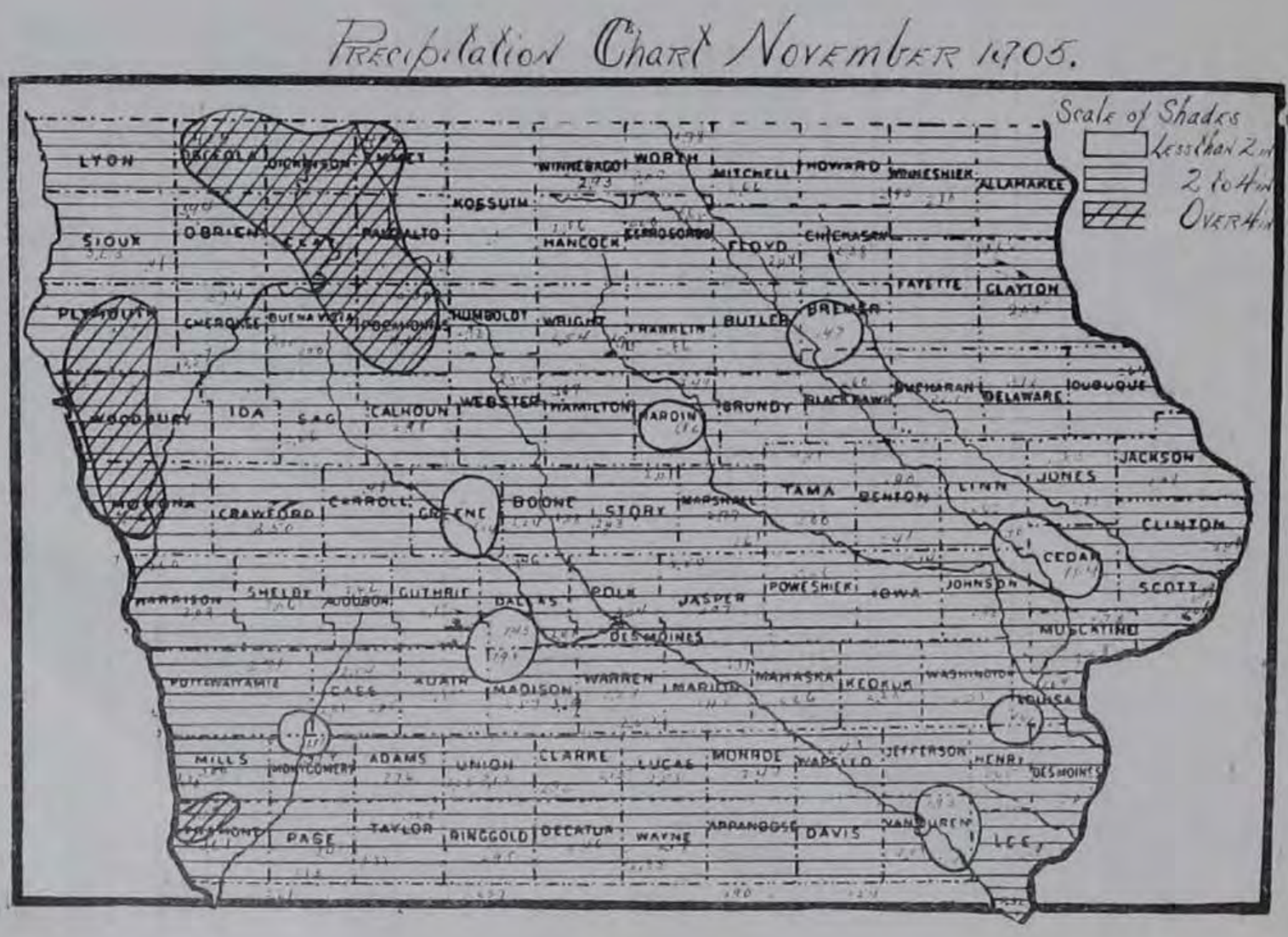
* At those stations thermometers are read in the morning; the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

DAILY AND MONTHLY PRECIPITATION FOR NOVEMBER, 1905.

STATIONS.	DAY OF MONTH.																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	.. .	....	.23	2.00	....	....	....	....	....	....	....	....	....	....	....			....	....	....	....	..	.65	.07	....	....	.17	....	....	....	....	3.12
Albia	....	....	..	....	1.02	.08	....	....	.10	....	....	....			....	....	....	....		....	.	....	....	.97	....	....	....	.30	....	....	..	2.47
Algona	....	....	....	.06	1.78	....	....	.02	....	....	....	....	....			....	....	....	....	....	....	....	.90	.07	....	....	.30	.24	....	....	....	3.37
Allerton	....	....	....	T	1.09		T	T	....	....	....	....	....	T	....		....	....	....	....	....	....	.32	.68	...	..	.22	.04	T	..	...	2.35
Alta	....	..		.20	1.05	.	....	.09	....	....	....	....	....		....	....	....	....	....	..	....	....	1.15	.13	....	....	.53	.05	....	....	..	3.20
Alta [near]	....	....	....	.10	1.20	....	....	.10	....	..	....	....	....	....	....	....	..	....	....	....	..	....	1.10	.14	....	..	.30	.17	....	....	....	3.11
Alton	....	..	....	T	1.12	....	....	.08	....	....	....	....	....		....	....		....	....	....	....	....	1.43	.28	....	....	.39	.61	....	....	..	3.91
Amana	.02	....	....	....	1.61	....	....	.02	..	....	....	....	....	....	....	....	....	....	..			....	.28	.37	....	....	.53	.29	T	....	....	3.14
Ames	....	....	....	.03	1.05	....	.08	....	....	....	....	....	....	....	..	....	....	....	....	....	....	....	1.01	.05	....	....	.18	....	T	....	....	2.43
Atlantic	....	....	..	.86	.64	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	....	....	.82	..	....	..	.22	..	....	....	....	2.54
Audubon	....	..	..	.29	.91	...	.	...	....	....	....	....	....	....	....	....	....	....	..	....	....	..	.96	...	....	....	.23	.	....	....	....	2.42
Baxter	....	....	....	....	1.38	....	....	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.58	.16	....	....	.20	.10	....	....	....	2.50
Bedford	....	....	....	.48	1.86	....	....	...	....	....	....	...	....	....	....	....	..	....	....	....	...	..	.65	.07	....	.	.17	.10	T	....	....	2.33
Belle Plaine	....	....	. ..	.01	1.40	....	T	.10	....	....	....	....	....	....	....	....	....	...	....	....	....	....	.50		....	....	.40	...	....	....	....	2.41
Bonaparte	....	..	....	....	.72	..	....	.04	....	....	....	....	....	....	..	....	....	....	..	....	....	..	.33	.21	....	....	.43	.11	...	....	....	1.84
Boone	....	....	.	....	.70	.26	....	.02	.07	....	...	....	..	...	....	....	....		....	....	..	...	....	...	1.34	....	....	...	.14	....	T	....	2.53
Britt	....	....	....	....	1.25	.01	T	T	....	..	..	....	....	..	....	..	....	....	....	....	....	....	.76	.38	....	....	.20	.24	.02	....	....	2.86
Buckingham	...	....	....	T	2.00	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.68	..	....	.63	...	....	....	....	3.31
Burlington	....	T	....	....	.75	....	....	.09	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.15	.12	....	....	.59	.39	....	....	....	2.09
Carroll	...	....	....	..	1.00	.15	....	.04		....	...	....	....	....	....	....	....	....	....	.	....	....	.09	.95	....	....	....	.25	T	....	....	2.48
Cedar Rapids	....	..	T	...	.80	.60		....	T	....	....	....	....	..	....	..	....	....	..	....	....	....	....	.54	....	....	...	.71	....	T	....	2.65
Chariton	....	T	....	T	1.15		T	.10	....	....	....	....	....	....	....	..	....	....	....	....	....	....	.75	.20	....	....	.35	....	....	....	....	2.55
Charles City	....	....	....	.01	.75	.02	T	T	.	....	....	....	....	....	....	....	....	....	....	....	....	....	.65	.05	T	....	.61	.01	T	....	....	2.08
Clarinda	....	....	....	....	2.33	....	..		....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	.91	..	....	.17	....	....	T	....	3.41
Clear Lake	....	....	..	....	.85	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.45	.15	....	....	.05	.70	T	....	...	3.20
Clinton	....	.08	....	....	1.15	...	....	....	....	..	....	....	....	....	.01	....	....	....	....	....	....	....	.22	....	....	....	...	1.02	T	....	....	2.48
College Springs	...	....	....	2.00	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.91	...	....	....	.22	....	..	....	....	3 13
Columbus Junct'n	...	.02	....	..	1.68	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	..	..	....	.24	.06	....	....	.64	....	T	...	....	2.69
Corning	....	..	....	....	2.10	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.20	....	....	.16	....	....	....	....	3 46
Corydon	....	..	....	T	1.07	....	T	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.34	.39	....	....	.27	.08	T	....	....	2.17
Creston	....	....	....	....	1.02	T	....	T	....	....	....	....	....	....	....	....	....	..	..	..	..	....	....	1.04	....	....	....	.17	T	....	..	3.23
Cumberland	....	..	..	.40	.61	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	....	.92	....	....	....	.38	....	....	....	....	2.31
Davenport	....	.05	....	....	.95	....	....	T	....	....	....	....	....	....	T	....	....	....	....	....	....	....	.09	.18	....	....	.72	.02	T	....	....	2.01
Decorah	....		..	.89	.06	.15	....	....	....	....	....	....	....	....	T	....	....	..	....	....	....	....	.48	.12	....	....	.70	.40	....	....	....	2.80
Delaware	....	....	....		1.48	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.54	....	..	....	1.15	....	....	....	....	3.12
Denison	....	...	....	.53	1.08	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.63	.03	....	....	.25	....	....	....	....	2.50
Des Moines	....	....	....	.12	1.29	....	T	.03	....	....	....	....	....	....	....	....	....	..	....	....	....	....	.65	T	....	....	.25	....	T	....	....	2.34
De Soto	....	....	....	T	.61	....	....	.07	..	....	....	....	....	....	....	....	....	....	....	....	....	....	.68		....	....	.07	T	....	....	....	1.43
Dows	...	....	....	.04	1.17	....	..	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.90	.24	....	....	....	.38	T	....	....	2.75
Dubuque	....	T	....	....	1.02	....	.02	....	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	.38	.12	T	....	.96	.12	T	T	....	2 64
Earlham	....	....	..	.03	1.03	....	..	T	..	....	....	....	....	....	....	....	....	...	..	....	....	....	.71	....	....	....	.19	.02	T	....	....	1.98
Elkader	....	....	....	....	1.10	....	.10	...	....	....	....	....	....	....	T	....	....	....	....	....	....	....	.30	....	....	....	1.05	....	...		....	2.55
Elliott	....	....	..	.12	....	..	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.78	....	....	....	.21	....	T	.	....	1.11
Estherville	....	...	..		1.05	.15	....	..	....	....	....	....	....	....	....	....	....	....	....	..	....	....	.01	1.40	....	....	....	1.25	.20	....	....	4.06
Florence		...	....	T	1.10	...	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.66	.35	....	....	.23	.10	....	....	....	2.54
Forest City	....	....	....	....	.20	1.00	...	....	....	....	....	..	....	....	....	....	....	....	....	..	....	....	....	.87	....	....	....	.86	....	T	....	2.93
Fort Dodge	....	....	....	1.12	.16	..	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	..	....	.90	..	....	....	.32	.	....	....	2.55
Fort Madison	...	T	....	....	.43	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2.70	....	....	....	.83	....	....	....	....	3.98
Galva	....	..	...	.17	1.21	....	....	.09	....	....	....	....	....	....	....	....	..	....	..	....	....	....	1.08	.12	...	...	.34	T	.09	....	....	3.10
Gilman	....	T	...	.05	1.80	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.61	....	....	....	.15	....	....	....	....	2.61
Glenwood	....	....	....	....	1.80	....	....	....	....	....	....	....	....	....	....	....	....	....	..	....	....	....	1.00	....	....	....	.20	....	....	....	....	3.00
Grand Meadow	....	....	....	....	.90	....	....	....	....	....	....	....	....	....	.01	....	....	....	....	....	....	..	....	.55	.02	....	....	1.15	.02	....	....	2.68
Greenfield	....	....	...	14	1.21	....	....	.06		....	....	..	....	....	....	....	....	....	....	....	....	....	.96	.14	....	....	.29	.02	T	...	....	2 85
Grinnell [near]	....	T	....	T	1.70	...	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.25	.70	....	....	.50	...	.01	....	....	3 26
Grundy Center	....	....	....	T	1.30	....	....	.01	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.43	.30	...	....	.41	.20	T	....	....	2.65
Guthrie Center	....	....	....	.07	.72	...	T	.07	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.03	.07	....	....	.17	.03	T	....	...	2.16
Hampton	....	....	....	.88	.41	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	..	....	....	1.00	....	....	..	.57	T	..	....	....	2.86
Hancock	....	....	...	.68	.88	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.90	..		....	.25	....	T	T	...	2.71
Hanlontown	....	..	....	.10	.95	....	....	T	....	....	....	..	....	....	....	....	....	....	....	....	....	....	.64	.17	....	....	.73	.50	T	T	....	3.09
Harlan	....	....	....	.40	1.47	....	....	TT	....	....	..	....	....	....	....	....	....	....	..	....	....	....	.68	.25	....	....	.25	.01	T	....	....	3.06
Hopeville	....	....	....	.13	1.87	...	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.58	.14	....	....	.14	.06	T	....	....	2.92
Humboldt	....	....	....	...	1.48	..	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.86	.09	..	....	.20	.27	T	....	....	2.92
Independence	....	T	....	...	1.70	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	.60	....	....	.80	....	....	....	....	3.20
Indianola	....	....	..	.08	2.08	..	T	.09	....	....	..	....	....	....	....	....	....	....	....	....	....	....	.60	.15	....	....	.20	.06	T	....	...	3.21
Iowa City	..	....	.01	....	1.18	.30	....	....	T	..	..	....	....	....	....	....	....	....	....	....	....	....	...	.66	....	....	..	.74	....	T	....	2.92
Iowa Falls	...	..	....	....	.76	.45	...	....	T	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.82	T	....	....	.46	T	T	....	2.49
Jefferson	....	....	....	T	.88	...	T	.06	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.75	T	....	....	.15	....	....	....	....	1.84
Keokuk	....	.02	....	....	1.01	....	....	.05	.	....	....	....	....	....	....	....	....	....	.32	....	....	....	.28	..	....	....	.60	.04	T	T	....	2.32
Keosauqua	....	....	.	...	1.00	T	T	...	.05	....	...	...	....	....	....	....	....	....	....	T	...	..	....	.50	....	....	....	....	....	....	....	2.08
Knoxville	....	....	....	....	1.40	....	....	.07	....	..	....	....	....	....	....	....	....	....	....	....	....	....	.47	.20	....	....	.20	.53	....	....	....	2.42
Lacona	....	....	....	.03	1.27	...	.01	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.39	....	....	....	.62	.08	....	....	....	2.52
Larrabee	...	....	....	.40	.83	....	....	.09	....	....	..	....	....	....	....	....	....	....	....	....	....	....	1.74	....	....	....	.63	.05	T	..	....	3.74
Le Claire	....	....	.25	....	.41	.33	....	....	T	....	....	....	....	....	....	T	....	....	....	..	....	....	..	37	....	....	....	1.08	T	T	....	2.39
Le Mars	....	....	....	1.08	....	..	T	..	....	....	....	....	....	....	....	....	....	....	....	..	....	....	2.20	....	....	....	1.65	T	....	....	....	4.93
Lenox	....	....	....	.28	1.70	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	....	....	1.00	.10	....	....	.14	....	....	....	....	3.22
Leon	..	....	....	.03	1.21	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.69	.19	....	..	.20	.14	T	....	....	2.46
Little Sioux	....	....	....	.41	1.00	...	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.70	....	....	....	.42	.07	....	....	..	2.09
Logan	....	....	....	.40	1.50	.	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.74	....	..	....	.44	.01	....	..	....	3.06
Maquoketa	...	...	.06	....	.50	.84	....	....	....	..	....	....	....	....	....	....	....	....	....	....	..	....	....	.34	....	....	....	1.25	....	....	....	2.99
Marshalltown	....	....	....	....	1.09	.34	...	....	.06	....	..	....	....	....	....	....	....	....	....	....	....	....	....	.83	....	....	....	.55	T	....	....	2.77
Mason City	....	..	....	.15	.80	...	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.50	.30	....	....	.35	.45	....	....	....	2.65
Massena	..	....	....	....	1.25	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	..	....	....	.80	..	....	....	.55	....	..	....	2.05
Monticello	....	..	....	....	1.40	....	...	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.48	....	....	..	.95	.05	T	....	....	2.88
Mount Ayr	....	....	....	.30	1.65	....	....	. ..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.68	.07	....	....	.15		....	....	....	2.90
Mt. Pleasant	....	.12	...	....	.75	....	....	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.37	.57	...	....	.11	...	....	....	....	2.65
Mt. Vernon	....	T	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	.70	....	....	....	.10	T	....	....	.90
Muscatine	....	....	.07	...	.77	.38	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.24	....	.	....	.82	T	T	...	2.28
Nevada	....	....	....	....	....	....	....	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	....	....	....	....	....
New Hampton	....	....	....	T	.78	....	.04	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	.14	.40	....	....	.40	.62	T	....	..	2.38
Newton	....	....	....	.05	1.70	....	....	.08	....	....	...	....	...	..	....	....	....	....	....	....	..	....	.70	.12	....	....	.26	.06	....	....	....	2.97
Northwood	..	....	...	T	.88	.03	....	....	...	....	....	....	....	..	....	....	....	....	....	....	....	....	.65	.15	....		.97	....	....	....	....	2.78
Odebolt	....	....	....	....	1.60	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.80	....	....	....	.10	.10	....	...	2.26
Ogden	...	....	....	T	.92	....	....	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.00	.08	....	....	.16	....	....	....	....	2.24
Olin	....	T	....	....	1.40	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.40	....	....	....	1.05	....	T	....	....	2.85
Omaha, Neb	..	....	....	1.18	.47	....	....	.	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.71	T	....	....	.38	T	T	..	....	2.72
Onawa	....	....	....	.25	2.30	....	....	.01	....	....	....	....	....	....	....	....	....	....	....	T	....	....	1.00	.10	...	....	.60	..	..	....	....	4.26
Osage	...	....	....	T	.90	....	.07	....	....	....	....	....	....	....	....	....	....	....	....	..	....	....	.46	.82	....	....	.21	.70	...	T	...	2.66
Oskaloosa	....	....	....	T	1.00	....	....	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.40	.40	....	....	.15	.28	T	....	....	2.26

DAILY AND MONTHLY PRECIPITATION FOR NOVEMBER, 1905--CONTINUED.

STATIONS.	DAY OF MONTH.																															TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Ottumwa	....	T	....	....	.96	....	....	.50	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.97	....	....	....	....	....	....	....	....	2.43
Pacific Junction	....	....	....	.75	.85	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.73	.10	....	....	.27	....	....	....	....	2.70
Pella	....	....	....	T	1.50	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.41	.46	....	..	.20	.10	T	....	....	2.77
Perry	....	....	..	T	.96	....	....	.10	....	....	....	....	....	..	..	....	....	....	....	....	....	....	1.00	1.28	....	....	.17	....	....	....	....	3.46
Plover	....	....	....	.18	2.80	..	....	T	..	T	....	....	....	....	....	....	....	....	..	....	....	....	1.86	....	....	....	1.46	....	....	....	....	5.80
Pocahontas	....	....	....	....	1.98	....	....	.11	....	....	....	....	....	....	....	....	....	....	....	..	....	....	1.22	..	....	....	1.01	....	....	....	....	4.32
Red Oak	....	....	....	.68	1.56	....	....	....	....	....	....	....	....	....	..	....	....	....	....	....	....	....	.66	.03	....	....	.24	.02	....	....	....	3.19
Ridgeway	....	....	....	.18	.76	.17	.07	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	.50	.19	T	....	1.00	....	.03	....	....	2.93
Rock Rapids	....	T	....	....	1.60	....	....	.05	..	....	....	....	....	....	....	....	....	....	....	....	....	....	1.15	....	....	....	.60	.30	....	....	....	3.70
Rockwell City	..	....	....	....	1.40	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.03	....	....	....	.45	....	....	....	....	2.98
Sac City	..	....	....	.25	1.08	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.02	....	....	....	....	....	....	....	....	.....
St. Charles	....	..	....	.02	2.13	....	T	.04	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	.62	.14	....	....	.21	.11	T	....	....	3.29
Sheldon		....	T	....	1.25	....	....	T	....	..	....	....	..	....	....	..	....	....	....	....	....	....	1.15	.69	....	....	.70	.15	....	....	....	3.94
Sibley	..	....	....	....	1.11	.08	....	....	.12	....	....	....	....	....	....	....	....	....	..	....	....	....	.32	1.55	....	....	....	.96	.10	....	....	4.24
Sidney	....	....	....	1.20	1.34	....	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	.78	.04	....	..	.25	....	....	....	....	3.61
Sigourney	....	T	....	....	.96	....	..	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	..	T	.80	....	....	.25	.14	T	....	....	2.25
Sioux Center	....	....	....	.45	.70	....	....	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	..	1.05	....	....	....	.75	.20	....	....	....	3.23
Sioux City	....	....	....	.78	.68	....	.01	T	....	....	....	....	....	....	....	....	....	....	T	....	....	....	1.93	.04	....	....	.62	.10	....	....	....	4.10
Stockport	....	.02	....	....	.84	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.27	....	....	....	.75	....	....	....	....	1.93
Storm Lake	....	....	....	....	1.11	T	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	T	1.20	....	....	....	.59	T	....	....	3.06
Thurman	....	....	..	....	2 41	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	....	....	1.10	....	....	....	.67	....	T	....	....	4.18
Tipton	..	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.31	....	....	....	1.38	....	....	....	1.64
Toledo	....	....	....	....	1.40	....	....	.25	..	....	....	....	....	....	....	....	....	....	....	....	....	....	.60	....	....	....	.75	....	....	....	....	3.00
Vinton	....	....	....	....	2.40	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.50	....	....	..	....	....	....	....	....	....	2.90
Wapello	....	....	.06	..	.70	....	....	T	..	..	..	..	....	....	....	....	....	....	....	....	....	....	....	.55	....	....	.15	.50	....	....	....	1.96
Washington	....	....	....	....	1.30	....	.	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.55	....	....	.50	....	....	....	....	2.86
Washta	....	....	....	T	1.32	....	..	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.90	....	....	....	.85	T	T	....	....	2.57
Waterloo	...	...	....	....	1.28	...	T	....	...	....	....	....	....	....	....	....	....	....	....	....	....	..	.39	.13	....	....	.68	.12	T	T	....	2.60
Waukee	....	....	....	.02	1.02	..	....	.06	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.72	.06	....	..	.13	.06	....	....	....	2.07
Waverly	....	....	....	.01	1.01	....	....	T	....	....	....	....	..	....	....	....	....	....	....	....	....	....	.82	.15	....	....	.25	.23	T	....	....	1.97
Webster City	.80	..	....	T	1.60	....	....	....	....	....	....	....	....	..	....	..	....	..	..	....	....	....	.86	....	....	....	.41	....	....	....	....	3.67
West Bend	....	....	....	....	1.52	....	....	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.93	....	....	....	.76	T	T	....	....	3.29
Whitten	....	..	....	T	1.00	....	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.97	.15	....	..	.30	T	T	....	....	1.82
Wilton Junction	....	....	....	....	1.50	....	....	T	....	....	..	....	....	....	....	....	....	....	....	....	....	....	.42	....	....	....	..	.86	T	....	....	2.78
Winterset	..	....	....	T	1.63	.30	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.71	.09	....	....	.14	T	....	....	....	2.52
Woodburn	....	....	....	....	1.40	....	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.60	....	....	....	.15	....	....	....	2.15
Zearing	....	....	....	....	1.06	....		.04		....	....	....	....	....	....	....	....	....	....	....	....	....	.53	.11	....	..	.15	.12	T	....	....	2.10



DECEMBER, 1905. No 12



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AND .. ANNUAL SUMMARY, 1905.

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DIRECTOR.

GEO. M. CHAPPEL,
LOCAL FORECASTER,
U. S. WEATHER BUREAU, ASS'T DIRECTOR.

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U. S. DEPARTMENT OF AGRICULTURE—WEATHER BUREAU.

MONTHLY REVIEW

OF THE

Iowa Weather and Crop Service.

VOLUME XVI. DECEMBER, 1905. No. 12.

DECEMBER WEATHER AND CROPS.

December, 1905, will take rank in the climatic records as one of the most agreeable winter months ever experienced in Iowa. The average temperature for the state, twenty-seven degrees, was four degrees above the normal. The average precipitation 0.52 of an inch, was 0.73 of an inch below normal.

The conditions were very favorable for completing the corn harvest, the care of live stock, and the usual farm work of the season. The fields afforded excellent grazing for stock in all parts of the state, with but little obstruction from stormy weather and snow.

No reports have been received of damage to winter wheat and rye by freezing. There were ninteen clear days, six cloudy and six partly cloudy, as the averages of reports received from all stations.

CLIMATOLOGY OF THE MONTH, DECEMBER 1905.

BAROMETER.—Mean pressure, 30.13 inches; highest observed, 30.59 inches, at Des Moines on the 4th; lowest observed, 29.35 inches, at Davenport on the 28th: range for state, 1.24 inches.

TEMPERATURE.—The monthly mean temperature for the state, as shown by records of 117 stations, was 27.0°, which is 4.0° above normal. By sections the mean temperatures were as follows: Northern section 25.2°, which is 5.0° above normal; Central section 26.9°, which is 3.8° above normal; Southern section 28.9°, which is 3.3° above normal. The highest monthly mean was 32.4°, at Red Oak; lowest monthly mean, 22.8° at Charles City. The highest temperature reported was 62°, at Jefferson on the 8th; lowest temperature reported -11°, at Monticello on the 23d and 24th. The average monthly maximum was 52.0°; average monthly minimum, -3.1°. Greatest daily range, 53° at De Soto; average of greatest daily ranges 36.0.

PRECIPITATION.—Average precipitation for the state, as shown by records of 125 stations, was 0.52 inch, which is 0.73 of an inch below normal. The averages by sections were as follows: Northern section, .40 inch, which is 0.65 inch below normal; Central section, 0.63 inch, which is 0.71 inch below normal; Southern section, 0.53 inch, which is 0.84 inch below normal. The largest amount reported was 1.69 inches at Ottumwa; least amount reported, Trace, at Estherville, and Rock Rapids. The greatest daily rainfall reported was 1.27 inches at Ottumwa on the 28th. Average number of days on which .01 of an inch or more was reported, 3.

WIND AND WEATHER.—Prevailing direction of the wind, Northwest; highest velocity reported, 37 miles per hour, from the Northwest, at Sioux City on the 8th. Average number of clear days, 19; partly cloudy, 6; cloudy, 6.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES. Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	30.10	30.56	9	29.54	28
Davenport	30.12	30.56	4	29.35	28
Des Moines	30.14	30.59	4	29.56	28
Dubuque	30.12	30.56	1	29.41	28
Omaha, Neb	30.14	30.67	9	29.63	27
Keokuk	30.16	30.60	4	29.38	28
Sioux City	30.12	30.58	3	29.62	27
Means	30.13	30.59	4"	29.35	28

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	5618	28	NW	9
Davenport	5341	26	NW	29
Des Moines	5527	25	NW	9
Dubuque	4802	27	NW	29
Keokuk	5659	34	NW	29
La Crosse, Wis	5820	24	N	28
Omaha, Neb	6027	35	NW	9
Sioux City	8818	37	NW	8

CLIMATOLOGICAL DATA FOR DECEMBER, 1905—Continued.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.	
Algona	Kossuth	1,288	28	25.2	+4.9	47	6,17	-5	4	35	.20	-.85	.12	2.0	3	22	6	3	SNW
Alta	Buena Vista	1,513	14	25.5	+4.7	49	26	-4	4	31	.15	-.88	.09	1.5	3	17	10	4	NW
Alta (near)	Buena Vista	"	....	.....	.....	.....	.....	.....	.....	.....	.25	.....	.15	2.5	2	.....	.....	.....	.....
Alton	Sioux	.....	....	26.6	.....	49	17	-1	4	32	.03	.....	.03	0.2	1	23	6	2	NW
Britt	Hancock	1,336	8	23.8	+6.7	47	6,11	-7	4	40	.37	-.42	.27	3.7	3	8	19	4	SW
Charles City	Floyd	1,015	18	22.8	+1.8	51	.6	-7	24	35	.61	-.75	.37	6.4	4	15	8	8	NW
Clear Lake	Cerro Gordo	1,441	7	24.4	+5.8	44	6,16	-1	24	31	.30	-.35	.30	3.0	1	25	1	5	W
Cresco	Howard	.....	....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	..	.....	.....	..	.....
Decorah	Winneshiek	857	12	25.2	-4.8	47	6,7	-8	24	35	1.26	-.10	.60	8.5	5	.....	.....	.....	.....
Dows	Wright	1,142	9	24.6	+4.8	51	6	-7	24	39	.34	-.55	.30	3.5	3	18	8	5	NW
Elkader	Clayton	727	21	25.1	+3.5	56	7	-10	31	44	1.05	-.88	.70	11.0	3	17	8	6	SE
Estherville	Emmet	1,298	12	24.4	+8.0	52	26	-8	4	37	T	-.59	T	T	0	18	0	13	NW
Fayette (b)	Fayette	.....	15	20.8	.....	44	16	-10	31	34	.94	.....	42	8.5	4	.....	.....	.....	.....
Florence	Wright	1,226	....	.....	.....	....	.....	....	.....	...	.85	.....	.25	3.5	2	12	14	5	N
Forest City	Winnebago	1,226	11	24.8	+5.4	48	6	-7	4	41	.30	-.61	.20	3.0	3	19	5	7	SW
Grand Meadow	Clayton	1,180	11	23.9	+2.4	45	7,17	-5	24	31	.89	-.67	.50	9.0	5	20	6	5	SW
Greene	Butler	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	.....	.....
Hampton	Franklin	1,155	13	26.5	+5.6	54	6	-2	4	34	.57	-.75	.34	5.1	4	11	15	5	NW
Hanlontown	Worth	.....	....	24.2	.....	47	11,16	-8	4	39	.40	.....	.30	4.0	2	19	6	6	NW
Humboldt	Humboldt	1,095	16	26.6	+3.8	48	6	-4	4	34	.10	-.66	.05	1.0	2	22	4	5	SW
Larrabee	Cherokee	1,266	12	26.2	+4.3	51	17	-4	4	40	.17	-.90	.12	2.4	2	21	6	4	SW
Le Mars	Plymouth	1,224	7	26.8	+5.3	51	17	-2	4	29	.10	-.99	.10	1.0	1	21	8	2	NW
Mason City	Cerro Gordo	1,132	8	26.1	+5.7	48	6	-0	4	31	.45	-.21	.45	4.5	1	18	9	6	SW
New Hampton	Chickasaw	1,169	7	23.8	+5.9	48	6	-6	24	32	.56	-.11	.38	5.0	3	16	9	6	S
Northwood	Worth	1,222	8	23.6	+4.5	45	6	-6	24	38	.56	-.35	.40	5.5	4	19	7	5	SW
Osage	Mitchell	1,184	13	23.8	+4.7	46	6	-4	24	32	.55	-.73	.45	5.5	4	17	5	9	NW
Plover	Pocahontas	.....	....	25.9	+6.0	48	6,26	-4	4	35	.15	-.60	.10	1.5	2	21	4	6	S
Pocahontas	Pocahontas	1,190	...	25.2	.....	49	17	-2	4	34	.21	.....	.13	2.2	2	19	8	4	SW
Ridgeway	Winneshiek	1,215	7	26.2	+5.4	53	6	-5	24	32	1.27	-1.23	.66	7.4	8	16	8	7	W
Rock Rapids	Lyons	1,021	7	25.4	+5.7	48	15	-2	3	34	T	-.61	T	T	0	....	....		N
Sheldon	O'Brien	1,422	6	27.4	+8.4	56	7	-4	4	36	.10	-.80	.10	1.0	1	23	5	3	SNW
Sibley (a)	Osceola	1,212	12	24.1	+5.0	57	6	-9	1	40	.17	-.69	.17	1.7	1	24	0	7	NW
Sioux Center (a)	Sioux	.....	6	26.4	+6.7	52	17	-2	3.4	34	.25	-.63	.10	2.5	3	21	5	5	SW
Spirit Lake	Dickinson	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	.....	.....
Storm Lake	BuenaVista	1,440	8	25.0	+4.8	50	26	-2	4	41	.26	-.67	.20	2.6	1	20	0	11	SW
Washta	Cherokee	1,157	....	26.4	.....	52	11	-1	3	42	.10	1.07	.10	1.0	1	20	7	4	NW
Waverly	Bremer	942	9	25.0	+4.8	49	6,7	-5	24	33	.81	-.27	.45	8.0	4	12	11	8	S
West Bend	Palo Alto	1,197	12	25.9	+6.0	48	6,17	-1	3,24	34	.15	-.84	.10	1.5	2	14	11	6	NW
Average		.....	....	25.2	+5.0	49.7	.....	-4.4	....	35.5	40	-.65	..	3.9	3	18	7	6	NW

SOUTHERN SECTION.

Afton	Union	1,212	11	27.4	+2.6	51	12	—1	4,5	33	.25	—1.03	.25	2.5	1	17	9	5	SW
Albia (a)	Monroe	957	....	27.0	+3.6	56	11	—3	24	45	1.08	—.08	.61	11.0	3	20	6	5	SW
Allerton (c)	Wayne	.....	....	28.6	.....	57	11	—2	24	40	.61	.....	.28	6.1	5	23	3	5	NW
Atlantic	Cass	1,164	14	28.2	+5.7	55	11	—8	4	40	.10	—1.28	.10	1.0	1	16	6	9	SW.NW
Bedford	Taylor		5	26.6	+3.4	51	6	—4	4	38	.15	—.77	.13	1.2	2	21	2	8	NW
Belknap	Davis	875		.....	.....	.....	.....	... .	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....
Bonaparte	Van Buren	.....	14	29.2	+1.4	57	11	—3	24	36	.88	—.62	.35	4.0	4	...	...	...	.....
Burlington	Des Moines	544	...	31.3	....	55	7,11	3	24	34	1.35	.....	.71	2.0	5	21	4	6	.....
Chariton	Lucas	1,042	10	28.3	+2.7	55	11	—5	24	40	.65	—.87	.30	7.0	2	20	5	6	SW
Clarinda	Page	.....	15	27.9	+1.4	56	11	—2	4	47	.19	—1.04	.15	2.0	3	22	5	4	NW
College Springs	Page	.....	14	30.2	+3.2	58	11	8	3	34	.03	.....	.03	0.3	1	19	6	6	NW
Columbus Jct	Louisa	586	..	28.4		54	7	—2	24	30	1.22	.....	.52	7.8	6	25	1	5	NW
Corning	Adams	1,127	13	27.8	+0.6	52	11	—3	4	38	.20	—1.04	.15	2.0	2	19	7	5	SW
Corydon	Wayne	992	12	29.4	+3.6	57	11	—3	24	39	.63	—.94	.35	7.0	5	18	5	8	.....
Creston	Union	.....	....	28.9	.....	52	11	—1	3	44	.35	.....	.30	3.5	2	21	2	8	SW.NW
Cumberland	Cass	.....	....	.....	.....	.....	.....	.....	.....	.....	.04	—.92	.04	0.4	1	22	6	8	S
Earlham	Madison	.....	....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	.....	.....
Elliott	Montgomery	.....		28.1	.....	51	11	—5	4	35	.13	.....	.13	1.2	1	23	8	0	NW
Ft. Madison	Lee	516	56	.....	.....	.....	.....	.....	.....	.....	1.10	—.90	.70	1.5	2	18	5	8	N, NW
Glenwood	Mills	.....	17	31.0	+1.9	54	11	—2	4	34	.05	—.78	.05	0.5	1	14	14	3	SW
Greenfield	Adair	.....	14	27.4	+2.9	51	11	—4	4	34	.21	—1.14	.17	2.6	2	20	5	6	SW
Hopeville	Clarke	.....	13	29.4	+3.9	54	11	0	4	34	.18	—.93	.13	....	3	15	10	6	SW
Hancock	Pottawattamie	.....	....	29.2	.....	52	11	—2	4	36	.03	.....	.08	T	1	24	5	2	NW
Indianola (b)	Warren	.....	....	28.8	+3.6	56	11	—2	24	37	.65	—.75	.32	6.2	5	....	....	....	SW
Keokuk	Lee	619	34	32.2	+2.4	53	7	5	24	29	1.03	—.93	.72	0.6	5	19	5	7	SW
Keosauqua	Van Buren	644	13	28.0	+1.0	56	11	0	24	42	1.04	—.50	.59	5.0	3	11	8	12	.....
Knoxville ‡	Marion	920	12	28.9	+3.6	56	11	0	24	33	.85	—.51	.30	8.5	5	21	2	8	SW
Lacona	Warren	.....	....	.....	.....	.....	.....	.. ....	.....	.....	.92	—.73	.30	12.6	5	11	17	3	.....
Lenox	Taylor	1,250	10	23.0	+3.8	51	11	—3	4	34	.18	—1.10	.15	1.8	2	21	6	4	NW
Leon	Decatur	1,120	....	28.8	.....	52	11	—2	4	32	.39	.....	.17	3.9	3	27	1	3	NW
Massena	Cass	.....		.....	..	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....
Mt. Ayr	Ringgold	1,236	13	29.7	+5.1	56	11	0	4	26	.38	—.94	.25	4.5	3	19	6	6	SW
Mt. Pleasant	Henry	729	24	28.4	+2.6	51	7,8	0	24	31	1.28	†.07	.58	5.5	5	20	3	8	SW
Omaha, Neb.	Douglas	1,113	34	31.6	+4.9	54	11	1	3	28	.14	—.87	.14	1.4	2	18	6	7	SW
Oskaloosa	Mahaska	843	22	27.6	+1.8	54	11	—6	24	37	.84	—.44	.35	8.4	6	23	0	9	NW
Ottumwa ‡	Wapello	649	11	28.8	+1.4	57	11	1	24	34	1.69	†.42	1.27	0.1	3	17	5	9	.. ....
Pacific Junction	Mills	960	6	28.6	+3.8	51	11	—5	4	36	.07	—.89	.07	0.7	1	21	3	7	N
Pella (a)	Marion	.....	....	29.0		55	11	—1	24	33	.86	.....	.44	8.2	5	...	...	...	SW
Red Oak	Montgomery	1,033	8	32.4	+7.6	55	30	0	4	34	.06	—1.16	.06	2.0	2	23	5	3	SW
St. Charles	Madison	1,070	....	31.1	.....	61	11	0	4	39	.52	.....	.33	5.2	5	19	4	8	NW
Sidney	Fremont	877	9	27.6	...	50	11	—3	4	33	.15	.....	.15	1.5	1	27	1	3	NW
Sigourney	Keokuk	.....	....	28.1	+3.2	53	11	—4	24	33	1.06	—.85	.50	8.5	3	6	19	6	NW
Stockport	Van Buren	.....	....	29.0		54	7,8,11	—1	24	41	.63	.....	.40	7.0	5	19	4	8	NW
Thurman	Fremont	.....	....	28.8	+5.6	53	11	—5	4	35	.10	—1.63	.10	1.0	1	12	15	4	NW
Wapello (a)	Louisa	588	7	30.9	+3.9	59	11,12	8	4.31	31	1.23	—.11	.47	4.0	3	21	3	7	W
Washington	Washington	769	13	28.4	+4.4	54	7	—4	24	34	1.05	—.42	.45	...	3		....	....	SW
Winterset	Madison	1,129	....	27.4	+2.2	53	11	—1	4	33	.46	—.91	.40	4.7	3	17	7	7	S
Woodburn	Clarke	961	....	.....	.....	53	11	.....	.....	.....	.37	—.89	.35	5.5	2	20	4	7	SW
Average		.....	....	28.9	+3.3	53.9	.....	—1.7	.....	35.9	0.53	—.84	.....	3.7	3	19	6	6	SW, NW
Average for State		.....	....	27.0	+4.0	52.0	.....	—3.1	....	36.0	0.52	—0.78		4.2	3	19	6	6	NW

†Above normal. ‡Received too late to be computed with means. *a*. One day missing; b. two days, etc.

CLIMATOLOGICAL DATA FOR DECEMBER, 1905.

CENTRAL SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Amana	Iowa	721	7	27.0	+5.0	50	7,8	-5	24	23	.97	-.52	.41	6.6	5	18	8	5	SW. NW	
Ames (a)	Story	926	21	28.2	+6.4	57	10	4	3.23	49	.23	-.79	.21	4.0	2	14	6	11	N	
Audubon	Audubon	1,301	9	27.2	+4.1	53	11	-5	4	38	.15	-1.10	.07	1.5	3	21	1	9	NW	
Baxter	Jasper	998	....	26.6	+4.2	53	11	-2	4	37	.30	-.66	.30	3.0	1	21	2	8	NW	
Belle Plaine	Benton	826	14	25.2	+1.2	49	11	-6	24	37	.65	-.84	.30	6.5	4	17	8	6	NW	
Boone	Boone	....	....	26.9	...	53	11	-1	4	45	.41	.....	.33	5.5	3	22	0	9	.....	
Buckingham	Tama	.....	....	.....	.....	.....	.....	.....	.....	.....	.69	-.81	.37	7.0	3	15	14	2	.....	
Carroll	Carroll	1,265	13	26.6	+3.6	54	11	-6	4	46	.27	-.81	.15	2.7	2	15	6	10	.....	
Cedar Rapids	Linn	733	23	25.6	+0.3	52	7	-10	24	37	.52	-1.09	.25	4.2	3	12	11	8	SW. NW	
Clinton	Clinton	609	38	27.4	+2.3	52	8	1	24	30	1.42	-.39	.92	4.1	5	13	11	7	SW	
Davenport	Scott	608	34	29.5	+1.7	53	8	3	24	26	1.32	-.41	.77	4.4	3	14	10	7	NW	
Delaware	Delaware	1,083	12	24 0	+2.8	48	7	-5	24	28	.94	-.58	.55	9.5	2	17	8	6	NW	
Denison (a)	Crawford	1,180	9	28.4	+6.5	54	11	-6	4	40	.12	-.48	.10	1.2	2	....	....	....	S	
Des Moines	Polk	861	27	28.9	+2.1	57	11	1	24	36	.55	-.89	.35	6.6	5	16	7	8	NW	
De Soto	Dallas	866	...	27.6	.....	57	11	-5	5	53	.47	.....	.30	4.7	4	21	3	7	SW. NW	
Dubuque	Dubuque	655	32	27.6	+1.7	52	7	-1	24	29	1.17	-.64	.72	9.6	7	11	13	7	W	
Fort Dodge	Webster	1,126	....	25.2	.....	50	6	-3	4	42	.25	.....	.15	2.5	2	17	2	12	SW	
Galva	Ida	1,290	12	26.5	+4.9	50	11	-4	4	37	.08	-.76	.05	.8	2	24	1	6	S	
Gilman †	Marshall	1,052	....	....	.....	.....	.....	.....	.....	.....	.40	.....	.30	4.0	2	16	7	8	S	
Grinnell (*near*)	Poweshiek	1,023	10	26 9	+2.7	52	6,7	-4	24	35	1.00	-.29	.50	9.8	5	20	2	9	SW	
Grundy Center	Grundy	976	12	25.2	+3.0	51	6	-8	24	35	.71	-.54	.41	7.0	2	19	6	6	NW	
Guthrie Center	Guthrie	1,077	7	27.8	+6.5	53	11	-4	4	32	.95	-1.13	.60	....	3	21	5	5	NW	
Harlan	Shelby	1,192	....	26.4	+4.2	53	11	-6	4	40	.05	-1.02	.05	1.0	1	15	9	7	NW	
Ida Grove (‡)	Ida	1,220	....	27.4		50	6,11	-7	4	40	.10	.....	.10	1.0	1	18	11	2	NW	
Independence	Buchanan	921	40	25 5	+3.8	50	6,7	-4	31	33	.93	-.55	.50	9.3	4	19	6	6	SW	
Iowa City	Johnson	683	47	24.2	+0.1	51	7,8	-10	24	35	1.04	-.62	.67	5.3	3	20	3	8	....	
Iowa Falls	Hardin	1,170	10	24.6	+4.1	49	6	-6	24	35	.47	-.69	.40	4.7	3	20	2	9	....	
Jefferson	Greene	.....	....	30.0		62	8	-1	4	39	.06	.....	.03	0.5	2	20	7	4	....	
Le Claire	Scott	576	...	.....	.....	.....	.....	.....	.....	.....	1.38	.....	.71	....	4	....	....	..	W	
Little Sioux	Harrison	.....	....	30.0	....	57	11	-2	4	40	.05	...	.05	0.5	1	24	4	3	NW	
Logan	Harrison	928	36	28.2	+3.3	52	11	-4	4	35	.20	-1.15	.10	2.0	2	14	12	5	NW	
Maquoketa	Jackson	688	12	24.8	-0.3	53	7	-7	24	39	1.58	-.03	.90	4.1	3	18	2	11	SW	
Marshalltown (b)	Marshall	947	10	26.4	+0.9	52	11	-1	4,5,24	48	.56	-.92	.28	5.2	4	15	4	12	SW NW	
Montezuma	Poweshiek	.....	....	.....	...	...	.....	.....	.....	...	.....	.....	.....	.....	...	.....	.....	...	.....	
Monticello	Jones	925	....	24.4	+2.3	54	19	-11	23,24	39	1.33	-.83	.90	13.2	2	18	6	7	NW	
Mount Vernon	Linn	847	30	26.3	+2.2	53	7	-7	24	33	1.47	-.19	.76	10 5	5	21	3	7	S	
Muscatine	Muscatine	.....	46	....	.....	.....	.....	.....	.....	.....	.97	-1.31	4.5	6.1	4	....	....	....	S	
Newton	Jasper	944	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	...	...	.....	
Nevada	Story	.....	....	.....	...	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	...	.....	
Odebolt	Sac	1,356	8	27.6	+6.3	50	1,0	-2	4	34	.06	-1.04	.06	1 0	1	24	3	4	.....	
Ogden	Boone	1,058	9	27.1	+3.7	52	6,1	-2	4	37	.50	-.51	.40	5.0	2	19	5	7	NW	
Olin	Jones	760	7	26.2	+3.4	50	7,8	-9	24	32	1.54	†.08	.90	6.8	4	18	5	8	NW	
Perry	Dallas	975	....	26.8		55	11	-3	24	41	.45	.....	.30	4.5	3	15	7	9	.....	
Onawa	Monona	.....	....	29.6	+5.2	56	11	-1	3	40	.10	-.98	.05	1.0	3	27	0	4	NW	
Rockwell City	Calhoun	.....	8	27.7	+6.8	50	11,16	-1	4	33	.05	-1.25	.05	.5	1	21	7	3	.....	
Sac City	Sac	1,273	25	26.6	+3.2	52	11	-3	4	38	.17	-.98	.15	1.8	2	23	4	4	NW	
Scranton	Greene	1,172	....	....	.....	.....	.....	.....	.....	...	.....	.....	...	...	...	...	...	...	.....	
Sioux City	Woodbury	1,165	16	28.4	.....	54	17	-3	3	36	.07	-.81	.06	0.9	2	17	7	7	NW	
Stuart	Guthrie	.....	..	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	.....	...	.....	
Tipton	Cedar	807	....	28.5	+4.7	50	6,7,8,	-3	24	27	.93	-.97	.52	9.2	2	25	0	6	SW	
Toledo†	Tama	856	9	26.9	+3.7	52	6.7	-5	24	37	.20	-.94	.20	3.0	1	18	6	7	SW NW	
Vinton (a)	Benton	810	15	26.4	+2.5	52	7	-5	24	33	.68	-.53	.33	6.8	3	....	....	....	NW	
Waterloo	Black Hawk	862	16	26.9	+5.8	54	6	-4	24	33	.73	-.41	.42	7.2	3	20	4	7	SW NW	
Waukee	Dallas	1,039	....	27.4	.....	54	11	-1	4	35	.85	.....	.50	8.5	4	19	5	7	SW	
Webster City † (a)	Hamilton	.....	....	26.9	.....	50	6 ,7,11	4	4	34	.30	....	.30	3.0	1	....	....	....	NW	
Whitten	Hardin	1,036	....	25.1	+5.8	48	6,11	-7	24	38	.60	- 57	.40	6.0	2	17	8	6	NW	
Wilton Jct	Muscatine	683	11	26.8	+1.2	50	7,8	-5	24	30	1.50	†.05	.75	10 0	5	23	0	8	NW	
Zearing	Story	718	..	23.2	.....	54	11	-9	24	38	.41	.....	.26	3.5	2	21	4	6	SW	
Average		...	....	26.9	+3.8	52 5	.....	-3.3	.....	36.6	0.63	-.71	.....	5.0	3	19	5	7	NW	

ERRATA IN NOVEMBER REVIEW.

CHARLES CITY—Greatest precipitation in 24 hours recorded .73 inch on page 7, should have been .74 inch.

SHELDON. Maximum temperature recorded 65° on the 16th, on page 7, should have been 66° on the 11th.

OBSERVER'S NOTES.

ALTON.—*W. S. Slagle.* All corn was picked by Dec. 15; hog cholera abated; bees were out on 26th.

AMANA.—*Conrad Schadt.* Indian summer extended far into December; weather mild until towards close of month.

ATLANTIC.—*J. W. Love.* Unseasonably warm winter month; pasturage yet for stock; no rain only 1 inch of snow.

BONAPARTE.—*B. R. Vale.* An open month; good roads; only reached zero once; subsoil dry.

BRITT.—*Geo. P. Hardwick.* Remarkably fine month; above average of recent years; corn harvest finished earlier than usual.

CHARITON.—*C. C. Burr.* No severe storms and more than usual number of fine days; stock in good condition.

CLINTON.—*Luke Roberts.* December warm, the mean temperature being 4.7° above normal. Rain fall 0.43 of an inch below normal; wind moderate; 4 inches of snow.

GRAND MEADOW.—*F. L. Williams.* December extremely favorable for all kinds of stock; good sleighing at end of month.

IOWA FALLS.—*J. B. Parmalee.* The finest December in ten years.

OLIM.—*N. Potter.* December has been remarkable for eveness: no severe storms, with good roads and healthfulness; one of the best in Iowa's history, or the winters experience in 60 years.

RIDGEWAY.—*Arthur Betts.* Month uncommonly fine; 190 hours of sunshine, or 19 more than ever before in December; For 1905 the mean temperature was 46.8°; precipitation 36.93; hours of sunshine 2823; snowfall 42.3 inches; clear days 159; cloudy days 56, prevailing wind south.

WAVERLY.—*H. S. Hoover.* Remarkable month for finishing up outdoor work; it was 4.4 degrees warmer than the preceding December.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR DECEMBER, 1905.

STATIONS.		DATE																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max.	21	33	30	14	29	44	49	49	46	36	41	51	42	33	34	35	44	45	36	36	30	33	30	32	43	45	40	36	35	39	41	37.2
	Min.	0	14	9	-1	-1	20	21	26	28	21	11	28	28	15	13	12	11	23	27	16	17	26	18	13	20	26	27	30	19	20	12	17.6
Albia*	Max.	30	21	16	30	47	54	53	50	35	42	56	44	29	38	33	48	47	31	41	31	33	25	28	35	43	45	43	33	34	40		37.8
	Min.	7	12	8	2	4	33	25	23	29	10	11	28	12	14	12	15	17	27	25	17	22	18	13	- 3	10	17	32	32	22	14	8	16.3
Algona	Max.	27	24	13	23	37	47	43	42	32	41	45	34	25	32	36	44	47	36	37	31	29	32	28	35	44	44	40	33	32	32	29	34.6
	Min.	12	5	2	-5	21	22	26	30	17	10	28	22	18	12	13	19	28	21	9	17	26	19	7	0	16	23	25	21	16	9	7	15.8
Allerton	Max.	31	30	17	30	49	55	54	49	38	42	57	45	36	37	44	49	48	37	41	32	32	30	33	38	48	42	35	38	37	43	34	40.0
	Min.	12	13	2	1	21	22	25	26	21	..	..	..	..	..	14	15	22	26	19	12	27	18	9	- 2	19	23	28	31	19	16	9	17.2
Alta	Max.	28	23	6	25	39	46	44	38	28	43	47	35	28	35	41	46	44	30	39	35	27	33	20	38	47	49	37	38	32	33	37	35.2
	Min.	11	1	0	-4	21	25	25	28	13	12	26	13	9	13	13	24	30	15	13	18	24	17	2	8	20	25	28	22	13	14	10	15.8
Alton	Max.	29	26	11	28	37	45	41	39	30	41	45	40	39	37	40	45	46	41	41	39	30	30	27	39	44	45	40	39	34	38	33	36.8
	Min.	15	7	0	-1	21	22	22	29	20	12	27	24	14	13	13	23	31	9	13	24	25	16	10	8	13	20	28	14	14	10	10	16.3
Amana	Max.	30	29	18	24	45	49	50	50	39	41	49	40	28	33	36	43	46	39	39	35	35	32	25	26	34	41	40	37	33	30	26	36.2
	Min.	16	14	5	5	22	17	28	26	24	11	29	27	16	10	15	10	20	28	27	20	32	20	9	- 5	12	21	29	33	23	6	3	17.8
Ames	Max.	37	37	14	28	45	52	51	46	47	57	..	48	35	34	39	48	49	36	39	30	32	31	29	35	40	43	39	47	34	37	38	39.2
	Min.	14	8	4	8	22	18	28	25	20	16	29	26	14	12	12	13	20	25	12	15	23	22	4	6	27	19	23	29	20	10	7	17.3
Atlantic	Max.	34	30	13	28	45	50	51	45	36	45	55	42	36	39	44	48	48	33	41	31	30	37	30	41	50	47	43	38	38	42	44	39.8
	Min.	16	9	0	-8	31	15	30	30	24	10	30	22	17	13	10	21	25	28	9	16	25	20	14	5	17	24	20	23	18	8	4	16.6
Audubon	Max.	32	28	12	26	44	47	48	48	35	44	53	42	34	38	42	46	48	37	40	30	30	35	30	40	47	46	43	36	36	39	42	38.5
	Min.	18	6	-2	-5	16	18	26	32	22	12	27	24	11	11	9	13	25	26	6	25	25	25	9	9	16	23	23	23	16	10	4	16.0
Baxter	Max.	27	29	15	24	42	51	52	47	40	46	53	44	30	33	40	46	49	38	36	30	32	35	25	35	33	42	40	40	35	39	35	37.5
	Min.	14	8	2	-2	22	19	27	25	22	10	29	26	10	10	10	10	23	26	15	15	18	20	5	10	16	5	15	20	10	28	20	15.7
Bedford	Max.	33	30	13	29	32	51	36	35	34	42	46	44	30	37	44	34	47	36	42	31	30	33	32	39	34	47	40	37	38	41	44	36.8
	Min.	17	9	1	-4	17	18	28	27	9	7	27	22	11	16	13	14	26	26	12	20	26	16	14	2	19	28	24	30	19	15	6	16.5
Belle Pl'e	Max.	27	15	19	28	42	47	48	47	28	41	49	38	30	32	37	43	48	32	39	35	33	29	27	31	38	43	42	37	32	32	25	35 3
	Min.	4	14	2	1	24	18	20	25	27	8	27	25	12	10	11	10	20	25	20	17	20	21	10	- 6	12	21	23	28	20	5	-2	15.2
Bonapar'e	Max.	33	30	20	29	48	55	56	53	35	43	57	46	32	35	38	43	45	38	40	34	31	32	30	33	41	47	48	39	34	40	40	39.6
	Min.	17	17	6	4	22	20	26	24	25	10	32	27	14	13	17	13	19	27	23	19	32	22	10	- 3	16	29	28	32	24	12	5	18.8
Boone*	Max.	26	18	14	27	45	52	51	46	28	45	53	38	30	34	39	48	48	28	39	29	30	31	21	36	42	45	40	34	35	39	39	36.5
	Min.	0	8	2	-1	0	24	26	30	26	13	20	26	14	13	14	22	22	26	16	18	20	22	18	2	22	22	27	30	20	17	16	17.3
Britt	Max.	28	26	18	25	39	47	43	44	32	41	47	36	22	32	38	44	45	33	36	29	33	37	30	34	34	39	40	33	30	30	28	34.3
	Min.	14	4	1	-7	22	20	22	28	16	8	23	18	12	12	12	18	26	18	9	12	27	18	0	- 6	6	10	20	22	15	5	5	13.2
Burling'n	Max.	33	30	24	30	48	54	55	53	40	42	55	43	34	31	48	44	47	37	37	37	35	34	33	37	44	53	50	41	36	39	40	40.7
	Min.	18	17	8	6	20	26	32	29	28	12	32	29	16	17	18	16	24	27	30	23	32	26	15	3	19	31	31	34	26	18	15	21.9
Carroll*	Max.	29	18	14	27	45	50	53	46	30	45	54	38	29	29	44	50	51	29	41	27	31	38	26	41	50	47	43	38	37	40	44	39.2
	Min.	3	15	-2	-6	-1	19	29	28	28	12	21	24	11	12	11	12	28	23	11	16	19	17	16	0	17	20	26	23	16	14	12	15 1
Cedar R*	Max.	28	27	18	27	42	51	52	50	32	44	46	38	28	32	36	44	47	34	39	31	35	28	21	27	31	42	43	34	30	31	24	35.4
	Min.	7	21	6	6	10	19	19	26	26	13	13	27	18	13	14	12	12	24	29	18	27	27	7	-10	4	6	22	30	26	10	5	15.7
Chariton	Max.	31	29	12	29	48	53	52	50	44	43	55	48	33	38	41	48	46	37	40	31	31	30	31	35	42	45	42	39	35	40	37	39.2
	Min.	16	10	3	0	20	21	27	27	27	9	28	27	13	12	13	13	22	23	31	16	27	16	8	- 5	10	24	28	29	20	12	8	17.4
Charles C.	Max.	25	24	13	24	40	51	48	43	32	40	44	34	23	31	36	46	46	33	38	33	32	27	15	28	31	37	36	32	27	31	21	32.9
	Min.	15	6	4	5	23	19	25	26	12	10	24	18	14	12	10	15	24	23	13	17	25	10	-6	- 7	6	16	14	22	9	-2	-5	12.8
Clarinda*	Max.	35	25	14	32	49	53	52	49	33	46	56	48	40	39	44	48	50	35	41	32	31	37	32	43	50	50	41	37	40	42	44	40.8
	Min.	3	9	1	-2	2	13	17	23	32	9	16	25	13	15	15	14	16	26	13	14	22	20	15	7	12	20	26	26	18	17	9	15.0
Clear L	Max.	25	25	14	23	37	44	41	43	37	36	41	37	28	30	26	44	40	37	35	30	32	30	28	30	33	33	35	35	30	30	26	32.7
	Min.	12	5	0	3	20	21	26	30	14	12	24	22	12	12	19	27	34	24	13	16	25	16	5	- 1	12	21	22	23	15	7	6	16.0
Clinton	Max.	31	31	25	27	40	48	50	52	41	39	36	43	29	34	38	35	44	35	39	38	35	35	27	25	30	42	45	38	35	32	29	36.4
	Min.	16	15	9	8	22	18	25	22	22	11	27	24	14	14	17	10	16	25	23	20	33	24	8	1	15	20	29	34	26	13	10	18.4
Col. Spgs.	Max.	34	32	15	46	46	49	49	47	35	46	53	43	36	37	38	45	47	36	36	32	35	32	32	36	46	48	44	38	40	40	40	39.8
	Min.	18	11	8	24	24	19	27	29	28	12	29	28	14	19	15	28	28	13	13	22	28	26	16	11	22	26	28	23	20	18	10	20.5
Colum. J.	Max.	34	32	20	26	42	51	54	41	26	42	52	42	31	34	37	42	45	38	39	36	33	35	31	28	37	45	46	41	33	35	34	37.6
	Min.	19	16	15	5	20	24	28	25	5	11	29	26	14	13	15	16	23	27	28	23	32	25	10	- 2	12	26	32	32	21	12	6	19.1
Corning	Max.	31	29	13	28	49	49	48	46	36	43	52	41	34	33	34	46	46	33	38	31	30	34	32	39	46	48	40	36	37	38	43	38.2
	Min.	16	8	-1	-3	20	23	23	30	24	9	25	28	12	14	11	15	28	28	13	18	35	18	13	1	20	26	25	28	18	17	3	17.4
Corydon	Max.	31	30	18	31	50	55	54	51	45	43	57	46	36	36	45	50	48	41	42	35	33	31	31	36	45	48	45	38	35	40	30	40.5
	Min.	17	11	2	1	22	23	27	28	26	10	30	27	13	15	13	11	23	25	22	17	28	19	11	- 3	18	26	29	31	19	16	7	18.2
Creston	Max.	31	18	12	29	45	50	50	46	42	42	52	50	44	45	40	46	46	28	40	35	31	31	31	38	46	46	46	34	39	40	40	39.1
	Min.	2	9	-1	0	1	22	28	29	28	36	29	28	13	15	15	16	25	27	18	19	26	19	18	5	16	23	27	28	19	19	15	18 7
Davenpo't	Max.	31	31	21	26	41	50	52	53	38	40	49	43	30	33	39	43	45	34	37	38	34	32	25	28	36	48	48	40	32	37	33	37.6
	Min.	19	14	8	9	24	26	33	31	20	14	33	24	17	16	19	19	24	27	25	25	32	20	5	3	20	30	34	32	25	18	16	21.4
Decorah	Max.	29	25	18	22	38	47	47	46	44	39	44	36	24	33	38	44	45	36	39	32	33	32	22	27	32	38	39	33	39	27	22	34.5
	Min.	7	11	6	11	24	20	28	24	20	12	31	23	12	12	11	13	28	28	26	16	28	21	5	- 8	7	22	13	24	17	7	-3	16.0
Delaware	Max.	26	25	19	21	36	41	48	46	37	40	46	34	26	29	35	40	42	37	37	35	32	30	20	19	29	35	38	35	31	19	24	32.6
	Min.	12	11	5	6	17	20	26	26	14	17	25	22	12	10	12	12	22	25	18	17	25	16	8	- 5	7	21	22	28	19	1	10	15.8
Denison	Max.	29	38	13	26	44	39	48	43	36	46	54	..	43	37	43	48	49	40	42	35	38	36	31	43	40	47	43	39	37	38	44	39.6
	Min.	13	7	-1	-6	17	21	27	32	25	8	27	..	26	13	13	23	31	24	10	22	26	18	14	8	21	25	29	17	16	7	4	17.2
Des M.	Max.	30	27	15	28	46	53	52	47	35	47	57	42	29	34	37	47	48	32	38	32	32	32	27	37	42	45	39	38	38	40	37	38.2
	Min.	18	9	4	2	25	23	30	31	19	13	32	23	16	16	19	17	24	28	19	20	29	21	1	1	21	29	32	32	23	17	13	19.6
De Soto	Max.	31	23	13	32	48	54	54	47	35	46	57	43	30	33	36	49	50	32	40	29	31	32	24	40	44	47	41	35	34	41	44	38.7
	Min.	15	9	1	-2	-5	15	29	29	23	9	29	26	13	12	11	13	26	26	12	17	28	18	5	- 4	20	28	29	31	21	13	10	16.4
Dows	Max.	25	25	12	23	41	51	49	42	41	44	46	40	29	32	37	46	48	35	38	30	29	28	26	32	35	39	37	35	32	31	28	35.0
	Min.	12	6	2	-4	22	20	26	21	21	10	25	22	10	9	8	16	23	23	9	14	26	19	7	- 7	13	17	16	27	17	6	4	14.2
Dubuque	Max.	28	28	22	24	37	50	52	50	40	42	46	39	28	34	37	44	44	37	38	36	34	31	22	23	32	42	42	39	32	31	24	35.7
	Min.	18	18	8	11	19	21	31	29	22	14	33	25	18	15	17	16	25	29	29	21	30	21	4	- 1	15	27	30	32	20	9	7	19.6
Elkader	Max.	27	25	21	25	35	53	56	46	40	41	47	36	27	37	40	47	45	37	40	35	33	30	20	26	36	42	42	35	30	32	23	35.8
	Min.	15	15	6	5	20	9	25	23	21	10	27	20	15	11	9	9	24	28	24	13	20	20	2	- 8	5	19	14	26	20	0	-10	14.4
Elliott	Max.	38	36	11	32	49	48	48	47	42	45	51	43	46	38	41	41	45	40	29	29	28	24	28	40	44	47	48	40	38	44	41	39.4
	Min.	17	8	-1	-5	20	18	22	29	24	10	25	27	12	15	12	13	28	29	14	21	21	11	12	12	19	23	23	23	17	12	9	16.8
Esth'rv'l*	Max.	28	15	12	29	40	48	48	40	27	36	47	35	25	33	44	48	51	25	39	34	38	34	21	37	46	52	40	37	32	31	24	34.5
	Min.	-5	5	-5	-8	1	24	27	26	21	14	27	26	11	12	13	16	30	18	12	18	20	19	9	0	18	18	26	18	15	9	4	14.2
Fayette	Max.	26	25	16	24	37	..	..	..	..	..	..	..	..	31	35	44	41	38	..	35	35	28	20	23	30	35	38	33	30	20	20	30.2
	Min.	14	10	4	5	12	..	..	..	..	..	..	..	..	8	7	10	24	28	..	25	20	20	0	- 9	7	16	20	28	18	-5	-16	11.5
ForestCy*	Max.	25	20	10	27	41	48	44	45	25	38	44	33	26	40	44	46	46	27	38	28	30	22	16	35	37	44	37	32	38	31	30	33 9
	Min.	11	8	2	-7	3	20	26	28	20	10	28	26	17	14	26	27	23	23	11	12	18	18	6	- 5	15	18	22	26	15	14	6	15.7
F. Dodge*	Max.	22	10	15	28	41	50	48	44	36	44	49	35	25	33	38	40	47	28	38	29	30	34	20	35	46	45	40	34	33	35	39	35.2
	Min.	-2	2	8	-3	-1	25	26	22	25	12	20	26	14	14	15	15	19	25	11	15	20	22	18	2	13	21	26	27	19	12	10	15.3
Galva	Max.	30	26	9	27	40	42	39	40	34	43	50	39	29	36	40	46	49	38	39	37	29	37	28	40	46	47	41	40	33	34	41	37 1
	Min.	13	6	-1	-4	18	23	23	27	21	10	25	26	12	15	13	22	30	22	10	19	26	18	8	8	20	20	21	17	15	10	5	15 9
Glenwo'd	Max.	35	30	17	28	48	49	51	41	39	48	54	43	36	40	44	48	52	43	42	42	32	38	34	47	51	52	46	40	43	42	45	42.0
	Min.	11	8	0	-2	22	27	31	33	24	14	23	30	16	18	15	23	28	25	14	21	24	22	21	14	23	28	28	22	18	19	19	20.0
Grand M.	Max.	23	25	18	22	35	44	45	44	39	40	42	35	24	25	34	44	45	37	37	32	31	29	20	21	30	38	39	33	31	25	20	32 6
	Min.	14	10	4	5	17	20	27	28	18	10	25	23	14	1	14	13	24	26	21	11	27	20	4	- 5	10	21	21	25	16	4	3	15.2
Greenfield	Max.	33	28	30	30	43	48	50	48	35	43	51	44	35	36	39	46	45	35	38	32	28	36	32	36	43	44	41	33	36	40	40	38 6
	Min.	12	6	-2	-4	14	24	26	28	23	10	25	20	12	12	12	27	27	25	16	18	15	17	10	3	16	19	23	17	16	16	15	16.1
Grinnell (near)	Max.	28	25	17	26	45	52	52	48	38	44	51	42	32	31	38	47	50	40	37	30	34	30	27	31	41	46	43	35	33	38	32	37.5
	Min.	12	9	3	-1	23	21	26	27	20	9	26	25	10	10	12	17	21	25	20	12	27	17	4	- 4	15	24	28	29	19	12	10	16.3
Grundy C	Max.	26	26	17	23	41	51	50	45	39	44	41	38	28	32	37	45	48	41	38	31	34	30	23	27	35	39	38	34	32	34	21	35.1
	Min.	13	9	2	-3	21	21	26	27	21	8	25	21	12	9	10	17	24	25	11	16	30	19	8	- 8	11	22	23	28	19	5	3	15.3
Guthrie C	Max.	30	30	13	23	44	48	49	45	37	43	53	44	30	35	38	46	47	33	39	30	31	35	29	39	46	45	42	40	37	40	41	38.5
	Min.	14	7	-1	-4	19	19	29	30	23	11	28	23	12	11	10	19	29	26	9	26	27	17	9	1	19	28	27	26	18	14	7	17.2
Hampton	Max.	25	21	14	27	45	51	52	45	37	45	47	38	27	35	40	49	49	37	41	29	32	29	25	34	39	42	39	34	32	33	29	36.8
	Min.	13	8	2	-2	22	25	28	30	19	12	28	23	14	10	10	20	26	25	13	15	28	20	8	0	17	24	24	27	19	7	8	16.7
Hancock	Max.	34	30	11	28	43	41	50	45	39	47	52	43	34	40	41	46	47	39	40	34	28	38	31	42	48	49	42	48	32	39	42	39.5
	Min.	15	8	-1	-2	22	24	26	31	25	11	25	27	18	18	15	19	25	26	15	22	25	20	13	11	22	23	27	25	18	18	15	18.8
Hamiontown	Max.	24	25	12	24	44	38	45	44	33	38	47	34	25	31	38	47	46	35	38	30	30	28	24	33	36	46	36	33	28	34	27	34.0
	Min.	13	5	0	-8	20	20	26	30	18	10	33	28	12	9	10	16	28	23	11	14	25	17	2	- 6	11	20	17	22	16	4	4	14.4
Harlan	Max.	33	27	11	26	43	46	46	44	35	44	53	41	34	38	40	45	48	36	39	34	29	35	31	42	47	45	42	38	37	38	42	38.4
	Min.	14	-4	-5	-6	14	18	20	25	22	9	26	27	16	15	11	14	26	23	9	18	24	19	14	7	7	6	23	17	17	10	6	14.3
Hopevi'e	Max.	31	28	14	31	50	52	52	47	34	43	54	40	34	37	42	48	47	37	40	29	31	31	32	37	47	48	41	35	47	43	41	39.5
	Min.	16	10	1	0	20	23	31	25	28	10	29	29	10	16	15	18	32	27	20	18	27	19	11	3	20	27	27	31	20	20	14	19.3

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR DECEMBER, 1905—CONTINUED.

STATIONS.		DATE.																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Humbo'lt	Max..	24	24	14	26	40	48	46	42	38	44	46	40	28	32	38 22	46	47	38	38	30	34	34	32	36	44	40	34	34	33	33	38	36.2
	Min ..	14	7	2	-4	10	21	21	31	20	12	36	25	15	12	40	22	23	24	18	18	26	22	6	2	16	24	22	24	17	10	7	17.1
Indep'ce	Max..	26	26	15	22	37	50	50	49	44	48	43	41	34	33	12	45	46	42	38	36	36	33	21	23	31	37	35	36	31	30	20	35.3
	Min ..	12	11	3	7	19	17	25	24	25	9	28	24	16	10	39	12	18	25	22	15	30	21	5	12	9	16	20	25	19	0	-4	15.7
Indian'la	Max..	..	29	14	30	47	53	52	48	36	45	56	41	30	34	13	48	48	35	39	30	32	29	28	35	44	45	41	35	36	40	38	38.6
	Min ..	..	10	2	-1	23	22	28	29	22	11	30	27	13	15	37	18	24	27	19	19	28	19	..	-2	18	27	30	31	21	15	11	18.9
Iowa C*	Max..	29	25	19	27	41	49	51	51	33	42	50	40	28	32	15	42	44	32	38	34	34	29	22	25	34	43	42	34	29	30	26	35.2
	Min ..	6	21	6	6	8	14	14	18	20	10	13	22	11	13	35	8	8	20	29	13	27	27	17	-10	4	12	12	27	25	0	-4	13.3
Iowa F*	Max..	26	16	14	27	42	49	48	43	28	44	46	36	29	32	10	45	46	31	36	30	32	26	19	29	34	37	37	33	30	32	25	33.5
	Min ..	15	9	2	-2	18	17	25	28	26	9	30	24	12	10	39	19	27	24	12	15	25	20	8	-3	15	20	25	28	19	3	1	15.7
Jefferson	Max..	39	42	26	34	52	55	58	62	54	47	55	43	29	35	12	49	49	36	41	30	32	37	30	40	50	49	43	36	47	40	46	42.7
	Min ..	15	8	1	-1	21	22	30	31	24	12	30	24	10	14	38	15	25	22	10	18	28	19	15	3	21	27	28	27	19	14	7	17.3
Keokuk	Max..	35	32	20	29	46	52	53	53	44	41	52	46	33	33	19	42	45	37	36	36	35	39	33	34	44	52	51	44	34	43	39	40.3
	Min ..	20	20	8	8	22	28	34	32	28	15	34	32	19	17	37	20	24	28	29	25	32	27	16	5	25	34	37	34	27	26	21	24.0
Keosauqua**	Max..	32	28	20	30	47	52	54	52	43	42	56	45	36	34	11	44	45	33	40	34	34	30	30	35	40	47	46	36	32	39	36	39.0
	Min ..	10	23	7	5	5	19	20	22	21	12	17	28	14	11	40	10	10	28	28	15	22	26	16	0	10	25	29	29	25	16	9	16.9
Larrabee	Max..	30	25	11	27	39	48	43	39	31	43	49	40	38	36	14	45	51	33	42	38	30	32	25	38	46	48	43	41	32	32	39	37.2
	Min ..	13	4	1	-4	21	24	24	24	16	8	28	16	10	7	39	20	31	20	11	20	28	12	7	6	21	22	23	16	13	13	10	15.2
Le Mars	Max..	29	26	10	27	37	45	40	39	31	45	48	41	29	36	17	45	51	35	39	36	32	31	29	40	44	46	45	38	35	34	34	36.6
	Min ..	14	6	-1	-2	20	23	21	29	22	17	28	23	13	18	38	22	30	19	14	24	23	13	13	14	21	20	28	12	13	11	6	17.1
Lenox...	Max..	32	30	14	29	45	48	50	46	39	42	51	42	34	36	14	45	45	35	38	32	29	32	32	37	45	45	40	36	37	40	40	38.2
	Min ..	15	7	-2	-3	19	24	28	28	25	9	24	28	14	13	38	17	24	27	18	17	25	17	14	3	19	27	26	30	17	19	13	17.9
Leon	Max..	31	31	22	28	45	49	50	46	40	41	52	44	35	34	15	44	50	40	37	31	32	29	32	36	43	46	41	37	35	38	37	38.5
	Min ..	11	12	2	-2	22	23	27	28	26	12	29	28	11	17	42	16	22	27	21	17	27	20	15	4	20	27	28	30	20	20	15	19.0
Little Sioux	Max..	30	31	14	28	42	52	48	44	35	50	57	44	37	42	18	47	53	41	42	37	31	38	32	47	51	53	45	41	40	38	47	41.3
	Min ..	16	8	0	-2	16	23	29	33	23	10	26	23	13	20	40	26	30	23	14	23	23	17	16	12	19	21	31	15	12	13	20	18.6
Logan...	Max..	34	28	14	29	40	47	46	45	37	45	52	40	34	39	14	46	49	39	40	38	30	36	30	43	48	45	45	41	38	38	43	39.3
	Min ..	15	8	0	-4	16	20	25	25	20	10	24	24	16	18	41	19	29	25	10	22	23	20	16	12	19	28	27	18	18	11	8	17.1
Maquoketa*	Max..	28	27	26	22	45	51	53	51	35	40	48	45	33	37	11	41	45	33	41	35	35	30	23	24	34	46	44	24	30	33	32	36.5
	Min ..	5	19	7	6	6	14	14	18	18	10	20	22	10	8	36	6	9	21	28	14	26	27	8	-7	4	7	7	29	36	7	-3	13.1
Marshall'n*	Max..	.	..	..	..	47	50	49	49	48	47	52	47	35	32	10	46	49	32	39	32	35	28	22	29	36	42	40	34	31	35	29	38.9
	Min ..	1	9	2	-1	-1	18	17	27	25	11	14	25	15	10	35	10	13	26	18	17	19	25	9	-1	10	18	25	29	21	8	1	13.9
Mason C.	Max..	25	22	12	24	39	48	46	44	37	40	44	38	26	30	15	46	45	35	37	32	32	30	20	33	34	36	40	40	30	32	30	34.3
	Min ..	10	10	3	0	23	25	30	31	20	15	28	25	16	12	37	20	26	26	13	18	30	19	12	2	17	24	21	27	18	10	9	17.9
Monticello .	Max..	29	24	20	31	40	48	50	50	30	41	45	39	41	52	8	42	46	34	54	35	36	28	24	23	39	31	42	36	27	28	22	35.6
	Min ..	12	4	5	11	15	21	22	28	9	13	23	14	10	12	43	14	24	29	15	23	25	8	-11	-11	9	19	30	22	2	-4	-1	13.1
Mt. Ayr	Max..	31	27	17	31	50	53	52	48	38	43	56	44	40	37	15	49	48	37	41	30	31	35	32	40	49	49	43	36	38	45	44	40.5
	Min ..	16	12	1	0	21	23	25	29	23	9	25	28	15	16	37	20	24	25	20	18	23	19	12	4	21	25	28	31	19	20	18	18.9
Mt. Pleasant	Max..	32	31	21	26	42	50	51	51	40	41	52	46	30	33	14	41	42	38	40	35	35	32	31	30	38	46	46	40	32	36	35	38.1
	Min ..	16	16	6	4	18	22	25	26	26	10	30	26	13	12	41	13	20	25	25	19	31	25	11	0	18	26	29	31	15	13	7	18.3
Mt. Vernon.	Max..	30	26	18	27	43	50	53	52	38	42	47	39	34	34	14	45	44	34	42	32	33	29	19	25	35	41	38	35	30	24	30	35.8
	Min ..	14	13	3	6	18	21	26	26	22	9	28	24	14	11	35	16	19	26	28	20	29	19	8	-7	10	19	25	30	18	9	2	16.8
N. Hampton	Max..	25	27	14	24	36	48	46	43	38	40	42	35	24	29	13	43	45	45	36	32	33	32	22	25	28	35	37	36	34	27	22	33.5
	Min ..	13	9	4	5	18	17	25	26	20	8	24	22	14	10	34	15	22	22	11	15	28	18	4	-6	10	15	12	26	18	1	-4	14.0
Northwood..	Max..	28	25	11	24	36	45	44	43	35	38	42	33	24	30	11	44	43	33	35	30	32	23	22	32	33	37	33	33	27	27	24	32.6
	Min ..	13	6	3	-4	18	20	23	28	17	11	27	22	16	10	41	16	23	25	17	16	27	18	4	-6	15	23	16	23	16	-4	3	14.7
Odeboldt	Max..	29	26	10	25	36	47	46	41	36	50	40	43	36	36	15	46	48	43	40	35	30	34	26	39	48	45	40	39	34	35	44	37.8
	Min ..	14	6	0	-2	20	20	27	31	12	18	30	14	12	15	37	23	31	24	14	18	26	17	9	7	23	24	30	20	15	15	10	17.4
Ogden...	Max..	27	27	15	26	48	52	50	47	37	45	52	43	27	33	14	46	48	39	38	29	29	32	29	34	39	45	36	36	33	38	35	37.0
	Min ..	14	8	2	-2	22	24	27	30	22	11	28	24	18	13	36	19	19	25	11	18	27	20	5	0	19	23	23	29	18	15	13	17.2
Olin	Max..	30	29	20	25	42	47	50	50	38	40	44	40	32	32	16	41	45	39	39	35	35	34	34	23	30	39	40	38	33	27	23	35.8
	Min ..	15	12	6	7	21	16	21	22	27	10	29	28	11	12	41	9	15	28	30	17	32	23	5	-9	9	15	25	32	24	6	-1	16.5
Omaha, Neb.	Max..	32	27	14	29	46	50	51	45	32	46	54	44	34	40	28	46	51	32	40	36	34	38	31	46	49	49	48	39	41	38	44	40.1
	Min ..	20	9	1	5	25	30	33	32	21	18	33	28	20	23	42	26	32	26	20	26	25	23	19	19	27	31	34	24	20	23	22	23.1
Onawa ..	Max..	29	28	18	28	49	52	49	41	35	50	56	42	36	40	16	46	55	41	43	37	32	41	32	49	52	55	46	40	43	44	44	41.8
	Min ..	15	6	-1	0	17	23	23	29	25	10	22	25	16	16	33	20	28	23	13	20	22	18	20	13	18	20	28	17	15	12	12	17.5
Osage ...	Max..	24	24	12	22	36	46	43	41	37	38	41	35	27	29	12	42	44	38	35	30	30	29	20	28	29	34	37	34	30	29	24	32.8
	Min ..	10	8	3	4	19	20	26	27	21	9	27	24	17	10	38	16	25	27	13	16	29	18	8	-4	13	17	17	24	17	3	2	15.4
Oskaloosa ..	Max..	30	30	18	28	44	51	53	49	38	43	54	42	29	32	15	45	48	39	39	32	35	30	26	31	39	43	36	33	34	34	37.6
	Min ..	16	12	4	2	23	17	29	28	22	11	30	26	13	12	40	11	21	29	24	18	30	19	5	-6	15	26	29	30	22	7	2	17.5
Pacific Jct.	Max..	34	30	16	30	48	46	49	47	34	46	51	40	35	40	16	46	49	35	39	37	32	37	32	48	49	49	44	39	39	37	43	39.7
	Min ..	19	9	0	-5	16	20	26	29	21	10	26	26	14	19	39	17	29	20	10	22	24	21	14	12	19	23	25	20	15	16	10	17.5
Pella	Max..	30	28	18	29	45	52	53	48	43	44	55	48	34	38	15	46	..	43	39	35	35	30	27	32	39	44	40	38	35	37	33	38.6
	Min ..	15	11	3	2	24	23	30	28	25	12	31	29	14	13	37	15	..	28	22	18	29	20	12	-1	19	28	30	30	27	14	7	19.3
Perry .	Max..	31	29	13	28	44	52	51	47	35	45	55	38	27	33	11	47	50	34	38	30	31	32	28	37	43	44	43	37	35	38	40	37.8
	Min ..	14	3	2	-2	19	21	27	29	21	11	26	18	12	13	41	15	27	23	10	17	28	18	4	-3	17	24	26	30	19	12	10	15.9
Plover ..	Max..	30	28	13	24	41	48	44	41	31	41	45	40	30	33	13	45	47	41	38	31	29	35	28	35	47	48	42	35	28	31	31	36.2
	Min ..	15	5	0	-4	25	28	25	26	20	8	30	18	11	12	40	16	22	16	11	20	25	20	5	0	16	19	26	20	15	10	12	15.6
Pocahontas.	Max..	28	26	12	26	42	48	46	42	33	38	48	35	27	34	14	47	49	35	40	32	30	36	30	37	47	48	42	36	32	35	31	33.5
	Min ..	9	6	0	-2	25	24	24	29	18	18	26	23	12	12	42	19	27	20	14	18	22	21	7	3	20	33	27	20	16	12	9	16.9
Red Oak	Max..	36	34	20	31	45	52	53	48	44	47	54	50	37	43	17	49	49	45	43	38	32	39	36	43	51	50	46	45	41	55	45	43.3
	Min ..	18	11	3	0	22	22	29	32	29	24	31	29	17	20	41	18	30	30	16	24	28	23	23	14	23	28	28	26	20	18	11	21.4
Ridge'y	Max..	27	25	24	23	40	53	51	45	37	40	47	38	30	35	13	47	45	39	40	37	35	30	23	27	34	43	40	35	32	28	28	36.1
	Min ..	14	10	5	7	20	23	28	27	16	10	28	21	10	10	48	18	23	29	17	15	30	20	5	-5	15	22	19	25	17	7	5	16.3
Rock R..	Max..	30	10	8	16	38	36	40	32	34	42	40	36	38	40	28	46	44	46	44	40	38	32	26	20	30	38	38	44	30	28	22	33.9
	Min ..	16	2	-2	0	18	20	22	20	22	26	28	22	24	26	45	28	28	26	18	22	26	15	10	8	10	12	10	10	10	12	10	17.0
R City..	Max..	30	25	13	20	42	47	47	40	30	43	50	38	30	30	16	50	40	41	39	40	35	33	35	38	48	45	43	35	34	35	43	37.5
	Min ..	13	6	1	-1	19	21	26	24	21	15	26	20	11	16	40	21	23	24	24	28	26	20	7	5	21	26	28	26	16	15	12	17.9
Sac City.	Max..	29	27	12	30	41	47	47	42	35	45	52	40	32	34	12	45	48	40	39	32	31	35	28	38	47	45	42	34	34	36	40	37.6
	Min ..	18	6	0	-3	8	21	26	30	21	18	30	23	12	18	46	17	26	22	12	17	24	18	5	0	11	23	28	3	14	16	8	15.6
St.Cha'es	Max	31	30	17	37	54	57	55	54	35	48	61	48	36	36	54	54	50	35	48	29	34	39	26	48	52	51	42	37	40	53	50	42.8
	Min ..	15	10	2	0	23	27	30	32	23	12	31	23	13	13	19	20	27	27	19	17	27	18	5	4	23	31	30	32	20	16	15	19.4
Sheldon.	Max..	34	24	12	25	48	49	56	40	31	46	47	40	31	38	48	48	54	35	43	38	30	35	28	40	48	58	43	44	34	36	33	38.9
	Min ..	18	6	-1	-4	20	24	24	28	21	10	23	23	10	11	15	24	30	18	12	21	24	15	8	8	18	20	24	14	13	10	10	15.9
Sibley...	Max..	27	11	10	27	41	57	46	37	26	40	46	38	30	37	42	48	52	30	43	37	27	31	19	..	44	51	40	41	..	33	24	35.5
	Min ..	-9	5	-1	-4	1	22	23	23	23	12	23	23	8	13	6	18	25	16	4	16	23	4	11	5	17	19	22	15	12	12	8	12.7
Sidney ..	Max..	30	28	8	27	40	44	46	39	34	42	50	44	34	37	37	44	41	37	27	34	33	35	32	40	40	42	44	42	37	37	39	36.9
	Min ..	14	6	-2	-3	19	21	25	28	20	9	26	27	16	16	14	18	27	20	12	18	20	20	16	12	21	28	27	32	18	22	16	18.2
Sigour'y	Max..	31	29	22	27	43	51	52	50	42	42	58	48	35	34	38	44	46	39	39	34	35	32	28	30	36	42	42	37	33	34	33	38.1
	Min ..	16	14	5	8	20	20	28	26	28	10	30	25	13	12	15	11	20	25	21	18	31	26	12	-4	16	22	26	33	22	10	4	18.1
Sioux C'r	Max..	27	26	10	26	37	47	41	37	29	45	46	39	29	37	40	45	52	33	40	33	28	29	..	39	44	46	40	37	32	33	30	36.1
	Min ..	2	10	-2	-2	23	22	21	27	20	11	30	23	11	11	16	22	30	18	13	23	21	14	..	11	20	21	29	17	13	13	10	16.6
Sioux C.	Max..	28	17	10	29	40	51	43	41	30	51	53	37	31	38	42	48	54	31	42	38	30	34	29	44	49	49	43	37	35	36	38	38.0
	Min ..	17	4	-3	3	22	28	27	26	17	15	36	20	15	22	21	24	30	23	17	25	22	18	16	17	23	21	22	17	16	16	10	18.9
Stocport	Max..	21	20	20	30	48	53	54	54	46	52	54	45	32	35	37	45	42	40	42	34	35	33	33	34	45	48	45	45	36	40	38	40.0
	Min ..	4	2	7	4	19	18	27	24	28	11	32	28	14	12	15	10	20	28	28	12	32	25	5	-1	15	30	30	32	25	12	8	17.9
Storm L.	Max..	28	13	11	28	41	48	46	41	29	43	48	34	29	35	41	46	28	40	31	29	34	18	38	47	50	41	38	33	35	38	35.9
	Min ..	0	4	2	-2	0	22	26	25	23	12	21	24	8	13	18	16	24	22	14	15	12	12	14	4	15	24	24	18	14	13	7	14.1
Thurm'n	Max..	34	32	13	30	43	47	50	47	36	45	53	42	35	38	39	45	48	37	38	35	33	38	33	44	49	50	44	39	40	38	40	39.8
	Min ..	15	9	1	-5	15	18	30	32	24	12	26	27	14	19	18	15	32	22	9	18	25	23	17	9	18	28	29	20	18	18	8	17.9
Tipton ..	Max..	38	29	20	25	41	50	50	50	40	41	46	42	31	35	38	42	43	38	37	34	33	34	24	24	33	42	42	38	34	31	30	36.6
	Min ..	18	17	8	8	20	25	28	30	26	14	30	27	16	15	19	20	22	28	29	24	32	23	10	-3	15	25	30	29	24	18	10	20.4
Vinton ..	Max.	25	26	23	25	38	48	52	47	42	43	40	40	32	35	42	48	47	38	40	33	32	32	..	25	28	50	42	36	33	33	25	36.3
	Min ..	14	8	4	5	21	26	28	26	25	10	28	25	16	9	12	11	21	28	23	14	30	20	..	-5	12	25	23	28	20	3	-2	16.6
Wappello	Max..	32	39	36	39	39	50	56	55	41	41	59	59	31	31	46	43	43	37	36	36	34	34	30	..	36	43	49	43	36	32	32	40.4
	Min ..	20	19	10	8	19	21	30	28	27	14	30	28	17	15	18	13	23	27	28	23	33	27	13	..	17	23	29	35	25	13	8	21.4
Wash'on	Max ..	30	29	21	27	45	53	54	53	36	42	53	44	30	34	99	45	46	40	40	34	35	32	28	30	38	45	45	38	34	36	34	38.4
	Min ..	17	14	7	4	23	21	26	28	20	10	30	24	13	13	15	14	21	28	24	21	32	19	4	-4	17	26	30	34	22	12	4	18.4

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR DECEMBER, 1905—Continued.

STATIONS.		DATE. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	MEAN.
Washta ..	Max..	30	30	11	40	42	50	56	40	32	45	52	38	33	38	42	48	50	36	43	36	30	26	28	40	47	50	40	38	34	36	44	37.9
	Min ..	14	6	-1	8	17	17	17	23	25	10	20	22	11	15	10	22	32	22	7	24	22	18	14	1	17	18	15	14	14	6	2	15.0
Waterloo*	Max..	28	28	20	27	41	54	52	52	37	44	47	38	30	35	41	47	49	44	40	34	35	32	23	28	35	41	40	41	32	32	30	37.3
	Min ..	14	13	3	5	23	27	28	27	19	11	29	21	16	12	13	14	21	27	20	17	29	16	6	-4	13	20	21	26	20	5	-1	16.5
Waukee..	Max..	29	28	12	27	43	50	50	46	37	45	54	41	27	32	33	45	47	35	35	29	30	30	27	35	40	48	40	35	35	37	37	36.7
	Min ..	14	8	1	-1	23	23	28	29	22	11	28	27	12	13	14	18	23	26	25	18	28	18	6	0	18	26	26	31	20	15	12	18.1
Waverly.	Max..	27	27	15	24	36	49	49	45	39	42	45	37	26	31	36	45	47	34	37	32	34	30	21	28	32	38	39	35	30	30	20	34.2
	Min ..	15	11	4	6	23	17	27	28	21	11	28	26	19	13	14	15	23	28	17	17	17	15	5	-5	10	19	19	27	20	2	-1	15 8
W. Bend.	Max..	28	26	12	23	39	48	44	42	33	42	46	38	26	32	38	47	48	38	38	31	28	33	31	35	45	46	41	34	32	32	30	35.7
	Min ..	12	4	1	5	22	23	23	30	20	10	28	23	13	10	13	17	28	21	11	16	26	17	8	1	15	21	26	21	16	10	8	16.1
Whitten..	Max.	28	27	15	24	41	48	47	45	39	44	48	40	29	31	35	43	46	40	36	31	34	30	23	28	34	38	38	35	38	33	27	35 3
	Min ..	10	17	0	-4	20	18	25	25	21	6	26	22	11	9	10	14	21	24	14	15	28	20	6	-7	12	18	22	27	18	11	2	14.9
Wilton J.	Max..	33	30	22	25	40	48	50	50	39	41	49	42	38	32	36	40	44	38	38	36	36	34	30	25	33	42	44	38	32	32	28	36.9
	Min ..	15	16	6	5	16	18	26	23	27	9	27	24	10	10	15	10	18	23	27	17	31	24	8	-5	11	22	27	26	23	6	2	16.7
Wint'rset	Max..	31	29	14	28	43	49	49	46	37	42	53	41	29	33	39	45	45	39	32	29	33	39	31	35	42	48	38	35	35	38	37	37.1
	Min ..	12	8	0	-1	20	22	28	27	28	21	29	26	12	13	12	16	25	25	15	17	26	12	9	2	20	26	28	30	18	16	13	17.7
Woodb'n.	Max..	34	30	17	28	45	50	50	49	37	42	58	42	30	35	37	37	45	39	47	32	34	28	35	35	40	43	47	35	34	36	38	38.2
	Min ..																																
Zearing ..	Max..	27	27	14	24	43	51	50	45	39	45	54	43	31	35	39	46	48	37	37	30	32	30	22	31	37	42	39	34	34	35	33	36.9
	Min ..	13	8	3	-3	22	19	25	29	24	9	25	21	12	22	9	12	25	24	12	12	29	22	8	-9	11	23	25	30	19	6	4	15.9

* At those stations the thermometers are read in the morning; the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

DATES OF KILLING FROST.

	Killing Frost. Last in Spring.	First in Autumn.		Killing Frost. Last in Spring.	First in Autumn.
Afton	Apr. 18	Oct. 12	Jefferson		Oct. 1
Albia	Apr. 19	Oct. 12	Keokuk	Apr. 17	Oct. 12
Algona	May 26	Oct. 11	Keosauqua	Apr. 22	Oct. 2
Allerton	Apr. 18	Oct. 12	Knoxville	Apr. 18	
Alta	May 26	Oct. 11	Larrabee	May 26	Oct. 12
Alton		Oct. 11	Le Mars	May 26	Oct. 11
Amana	Apr. 22	Oct. 12	Lenox	Apr. 18	Oct. 11
Ames	Apr. 22	Oct. 11	Leon	Apr. 18	Oct. 12
Atlantic	May 26	Oct. 11	Little Sioux	Apr. 21	Oct. 21
Audubon	May 26	Oct. 11	Logan	May 5	Oct 11
Baxter	Apr. 27	Oct. 12	Maquoketa	Apr. 23	Oct. 12
Bedford	Apr. 22	Oct. 11	Marshalltown	Apr. 30	Oct. 12
Belle Plaine	Apr. 22	Oct. 12	Mason City	Apr. 30	Oct. 11
Bonaparte	Apr. 22	Oct. 12	Massena	Apr. 18	
Boone	Apr. 19	Oct. 12	Monticello	May 26	Oct. 11
Britt	May 23	Oct. 11	Mt. Ayr	Apr. 18	Oct. 11
Burlington	Apr. 18	Oct. 12	Mt. Pleasant	Apr. 19	Oct. 12
Carroll	May 26	Oct. 11	Mt. Vernon	Apr. 18	Oct. 12
Cedar Rapids	Apr. 19	Oct. 12	New Hampton	Apr. 30	Oct. 11
Chariton	Apr. 18	Oct. 12	Newton	Apr. 18	Oct. 12
Charles City	Apr. 30	Oct. 11	Northwood	Apr. 30	Oct. 11
Clarinda	Apr. 22	Oct. 11	Odebolt	May 8	Oct. 11
Clear Lake	Apr. 30	Oct. 11	Ogden	Apr. 30	Oct. 12
Clinton	Apr. 22	Oct. 12	Olin	Apr. 22	Oct. 12
Col. Springs	Apr. 18	Oct. 11	Onawa	Apr. 21	Oct. 12
Col. Junction	Apr. 18	Oct. 12	Osage	Apr. 30	Oct. 12
Corning	Apr. 21	Oct. 12	Oskaloosa	Apr. 22	Oct. 12
Corydon	Apr. 18	Oct. 12	Ottumwa		Oct. 12
Cresco	Apr. 30	Oct 11	Pacific Junction	Apr. 18	Oct. 11
Creston	Apr. 19	Oct. 12	Pella		Oct. 12
Davenport	Apr. 18	Oct. 12	Perry	Apr. 18	
Decorah	Apr. 22	Oct. 11	Plover	May 26	Oct. 12
Delaware	Apr. 30	Oct. 11	Pocahontas	Apr. 30	Oct. 12
Denison	May 26	Oct. 11	Red Oak	Apr. 19	Oct. 21
Des Moines	Apr. 18	Oct. 12	Ridgeway	Apr. 21	Oct. 11
De Soto	Apr. 22	Oct. 12	Rock Rapids	May 8	Oct. 18
Dows	May 26	Oct. 12	Rockwell City	May 8	Oct. 12
Dubuque	Apr. 16	Oct. 12	Sac City	May 12	
Earlham	May 26	Oct. 12	St. Charles	Apr. 18	Oct. 12
Elkader	Apr. 22	Oct. 12	Sheldon	May 26	Oct. 11
Elliott	May 5	Oct. 11	Sibley	May 26	Oct. 12
Estherville	May 26		Sidney	Apr. 18	Oct. 11
Fayette	May 26		Sigourney	Apr 22	Oct. 12
Forest City	Apr. 30	Oct. 11	Sioux Center	May 8	Oct. 11
Fort Dodge	Apr. 30	Oct. 12	Sioux City	Apr. 24	Oct. 20
Galva	May 26	Oct. 11	Stockport	Apr. 22	Oct. 12
Glenwood	May 28	Oct. 11	Storm Lake	Apr. 26	Oct. 11
Grand Meadow	Apr. 30	Oct. 11	Thurman	Apr. 22	Oct. 11
Greene	Apr. 30	Oct. 11	Tipton	Apr. 18	Oct. 12
Greenfield	May 5	Oct. 12	Toledo	Apr. 18	Oct. 12
Grinnell	Apr. 18	Oct. 12	Vinton	Apr. 28	
Grundy Center	Apr. 30	Oct. 12	Washington	Apr. 18	Oct. 11
Guthrie Center	Apr. 30	Oct. 12	Wapello	Apr. 18	
Hampton	Apr. 30	Oct. 11	Washta	May 26	Oct. 11
Hancock		Oct. 12	Waterloo	Apr. 30	Oct. 12
Hanlontown	May 26	Oct. 10	Waukee	Apr. 18	Oct. 12
Harlan	May 26	Oct. 11	Waverly	Apr. 30	Oct. 12
Hopeville	Apr. 18	Oct. 12	Webster City	May 26	
Humboldt	May 26	Oct. 12	West Bend	May 8	Oct. 12
Ida Grove	May 26		Whitten	May 26	Oct. 11
Independence	Apr. 30	Oct. 12	Wilton Junct	Apr. 18	Oct. 12
Indianola	Apr. 22	Oct. 12	Winterset	Apr. 18	Oct. 12
Inwood		Oct. 10	Woodburn		Oct. 12
Iowa City	Apr. 22	Oct. 11	Zearing	May 7	Oct. 12
Iowa Falls	Apr. 30	Oct. 12			

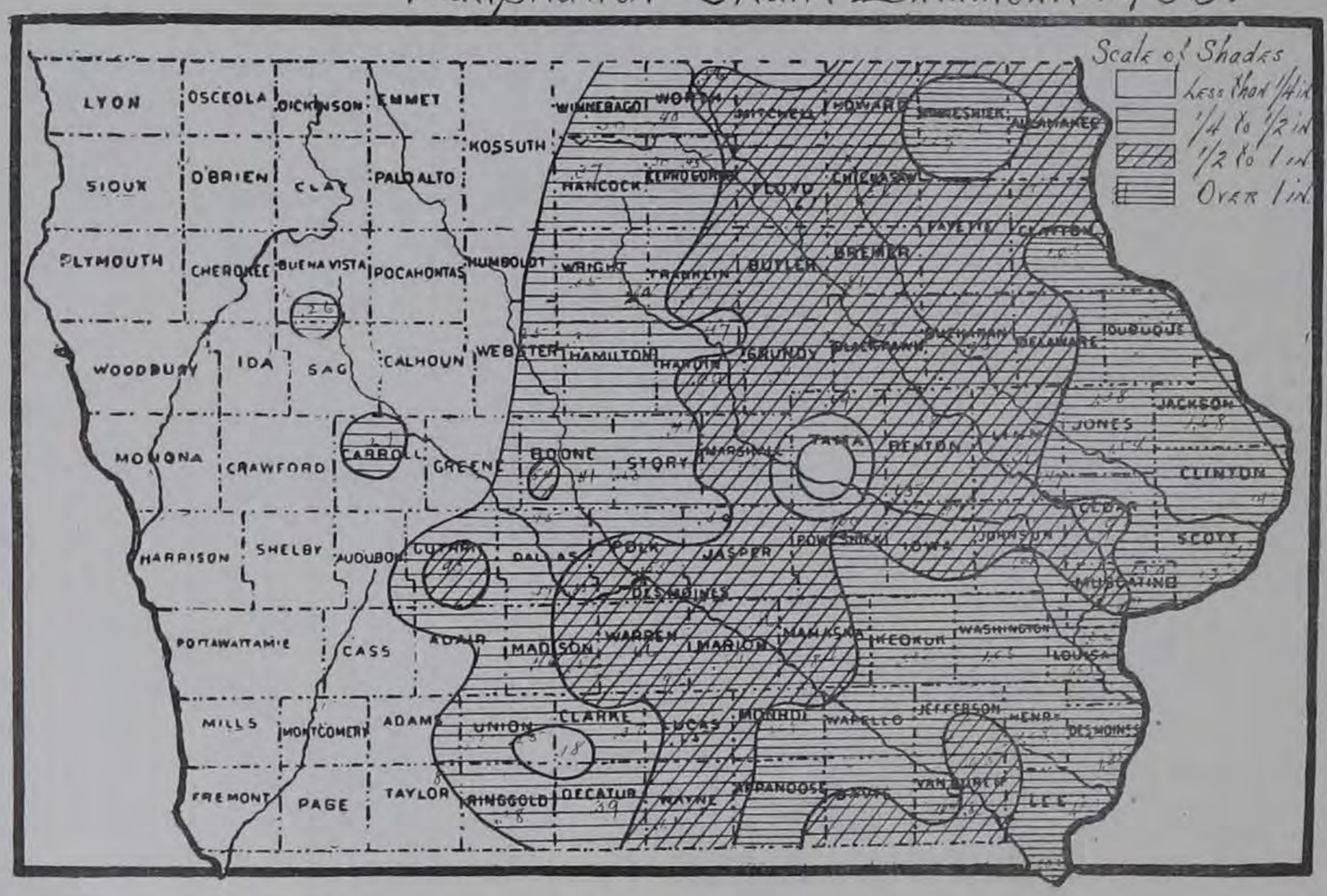
DAILY AND MONTHLY PRECIPITATION FOR DECEMBER, 1905.

STATIONS.	DAY OF MONTH.																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....		T	....	....	....			....		....	....	....	....	....	....	....	....	....	..	.25	....	T		....	....	....	T	....	....	....	.25
Albia	....	T	..	....	....	....	....		....	..	....		....	....	....	....		....	....	....	.42	T	....	.05	....	....	....	..	.61	....	....	1.08
Algona	T	.08	....	....	....				....	....	..	....	....	....	....	....	....		..	....	.12	....	.02	T	....	....	....	....	....	....	....	.20
Allerton	....	T	T	....	....	....	....	..	....	....	....	....	..	....	....	....	....	T		.03	.28	....	.01	....	....	....	....	.26	.03	....		.61
Alta	.05		..	....	....	..	....	....		....	....	....	....	....	....	....	....	....	....	....	.01		.09	....	....	..	....	....	..	....	....	.15
Alta [near]	.10	..		....	....	....	....	....		....		....	..	....	....	....	....	....	....	....	..	....	.15	....	....	....	....	..	....	..		.25
Alton	T		....	....	....	....		....	....	.	....	....	....	....	....	....	....	..		....	T	T	.03	..	....	....	....	....			....	.03
Amana	....	T	....		....	..	....	....	....	....		....	..	....	....	....	....	....	....	.04	.36	....	.01	....	....	....	....	.41	.15	....	....	.97
Ames	....	....	....	....	....	....	....	....	....	....		..	....	....	....	....	....	....	....	..	.21	....	.02	....	....	....	....	....	....	..	....	.23
Atlantic	.10	..	....	....	....		....	....			....		....	..	..	....	....	....	....	T	..	..	....	....	....	....	....	..	..	..	....	.10
Audubon	..	.07		....	..	....	..	..	....	....	....		....	..	....	....	....	....		....	.07	..	.01	..	....	....	....	....	....	....	....	.15
Baxter	T	....		....	....	....	..	....	....	....	....	....		..	....	....			..	....	.30	..	..	....	....	....	....	....	....	....	....	.30
Bedford	..	.02	....	.		....	....	....	....	....	....	....	..	....	....	....	....		....	T	.18	....	T	....	....	....	....	....	....	....	....	.15
Belle Plaine	..	..	....	....	..		..	....	....	....	....	....		....	....	....	..	..	....	....	.25	..	.05	....	....	....	....	.30	.05	....	....	.65
Bonaparte	..		....	....	..	..	..	..	..	..	....	....		..	....	....	....	..	..	.25	.12	....		....	....	....	....	.35	.11	....	....	.83
Boone	....	.04	T	....	....		....	....	....	....			..	....	....	....	....		....	.	.33	T	....	.04	....			....	T	....	....	.41
Britt	....	.05	T			....		....	.	....	....	....	....	..	....	....	..	....	....	....	.27	.	.02	....	....	....	....	....	..	....	....	.37
Buckingham	..	.05	..	..	T	....	....	....	....		....	....	..	..	....	....	..	T	....	....	.27	..	T	....	..	....	....	.37	....	....	....	.69
Burlington	T	....		....	....	....	....	....	....	..	....	....	....	....	....	....	....	....	....	.26	.14	..	.05	....	....	....	....	.71	.19	....	....	1.35
Carroll		.12	....	....	....	....	..	....	....	....	..	....	....	....	....	....	....	....	....	....	....	....	T	.15	....	....	..	....	....	....	....	.27
Cedar Rapids	....	T	T	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.25	....	....	.02	....	....	....	T	.25	..	....	.52
Chariton	....	T	....	....		....	....	....		....			....		....	....	....	T	....	T	.30	.10	....	....	.	....	....	.25		....	..	.65
Charles City	.02	T	T	T	T		....	....	....	....	..		T	....	....	....	....	T	..	04	.37	T	T	....	....	....	....	.18	..	....	..	.61
Clarinda	....	.04	....	....	....	..	....	....	....	....	....	....	..	....	....	..	....	....	....	.15	.	.	T	....	.	....	T	....	..	....	....	.19
Clear Lake	....	T	....	.	..	....	....	..	....	..	..	..	....	....	....	..	....	.	....	....	.30		....	....	....	..	....	....	....	....	....	.30
Clinton	..	.01	....	....	....	....	....	....	....	....	..	....	..	....	....	....	....	..	....	.48	....	.	.01	....	....	....	....	.	.92		..	1.42
College Springs	...	.03		....	....	....	....	....	....	....		....	....	....	....	..	..	....	..	....	....	....	....	....	....	....	....	....	....	....	..	.03
Columbus Junct'n	..	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.17	.25	....	.03	....	....	....	..	.52	.23	..	....	1.22
Corning	....	.05	....	....	....	....	..	....	....	....	....	....	....	....	....	....	.	....	..	..	.15	....	T	....	....	....	..	T	....	....	....	.20
Corydon	..	T	....	..		..	..	..	....	....	..	....	....	....	....	.	....	....	....	.02	.35	....	.01	....		..	....	.21	.09	....	....	.68
Creston	..	.05	..	....	....	....	....	..	....	....	....	....	..	....	....	....	....			..	.30	....	T	T	....	....	....	..	....	....		.35
Cumberland	....		..	....	....	....	....	....	....	....	....	....	..	.		....	....	....	....	....	.04	....	....	....	....	....	....	....	....	....	....	.04
Davenport	T	T	T	....	....		....		....	....	....	..	..		....	....	....	T	..	.46	T	T	T	....	....	....	....	.76	.10	....	....	1.32
Decorah	....	.05	.05	T	T	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	.46	....	....	....	....	....	....	....	.60	.10	....	....	1.28
Delaware	....	T	....	....		....	....	....	....	....	..	....	....	....	....	....	....	..	....	....	.39	....	T	....	....	....	....	....	.55	....	....	....	.94
Denison	..	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	.02	....	....	....	....	....	....	....	....	.12
Des Moines	.02	T	T	..	..	..	....	..	....	....	....	....	....	....	....	..	....	T	..	.20	.15	.	.01	....	..	....	....	.14	....	....	....	.55
De Soto	..	.05	....	....	....	..		.	....	....	....	....	....	....	....	..	....	....	....	....	.30	.10	....	....	....	....	....	.02	....	....	....	.47
Dows	.	.02		....	....	..	....	..	....	....	..	..	..	..	....	....	..		....	....	.30	....	.02	....	....	....	....	....	....	....		.34
Dubuque	....	.02	.01	....	.02		....	....	..	..	....	....	....	....	....	....	....	T	..	.12	.23	....	T	T		....	....	.69	.08	....	....	1.17
Elkader	..	T	T	..	.05	....	....	....	....	....	....		....	....	....	....	....	....	..	....	.30	....	....	....			....	.70	....	....	....	1.05
Elliott	....	.13	....	....	....	....	....		....	....	..	..	..	....	....	..	....	....	....	T	....	....	....	....	....	....	....	..	..	....	....	.18
Estherville	....	T	....	....	....	....	....	....	..	....	....	....	....	.	....	....	..	....	....	....	....	....	..	T	....	....	....	..	....	....	....	T
Fayette	....	..	....	T	.08	....	..	.	....	....	..	....	....	....	....	....	....	....	....	..	.42	....	..	....	....	....	.	.40	.04	....	....	.94
Florence	....	.10	....	....		....		....	....	....	....	....	....	....	....	....	....	....	....	....	.25	....	T	....	....	....	....	....	....	....	....	.35
Forest City	....	.10	T	....	..	....		....	....	....	....	....	....	....	....	....	....	....	....	....	.10	.10	....	....	....	....	....	....	....	....	....	.50
Fort Dodge	.10	....	....	..	....	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	.15	....	T	....	....	....	....	....	..	..	....	.25
Fort Madison	T	....	.	..	....	....	....	....	....	....	....	....	....	....	....	....	....	..	....	.40	....	....	....	....	....	....	....	.70	....	....	....	1.10
Galva	....	.05	..		....	....	....	....	....	....	....	....	....	....	....	....	..	....	....	....	T	.03	..	....	....	.	....	....	....	....	....	.08
Glenwood	.05	....	....	.	....	....	....	....	....	....	.	....	....	....	.	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05
Grand Meadow	....	.04	.05	....	....	....	....	....	....	..	....	....	....	....	....	....	..	....	....	....	.15	.15	....	....	....	....	....	....	.50	..	....	.89
Greenfield	.	.04		....	.	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.17	..	T	....	....	....	....	....	....	....	....	.21
Grinnell [near]	....	.03		....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	.40	....	.07	....	....	..	....	....	.50	....	..	1.00
Grundy Center	....	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.41	....	T	....	....	....	....	.30	T	....	....	.71
Guthrie Center	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	..	.60	....	.30	....	....	....	....	....	....	....	....	.95
Hampton	.02	....	....	..	....	....	....	..	..	....	....	....	..	....	....	....	..	....	....	.31	.15	....	....	....	....	....	....	.06	....	....	....	.57
Hancock	....	T	....	....	....	....	....	..	....	....	....	....	....	....	....	....	..	....	....	....	.	.	.08	....	....	....	..	....	....	....	..	.08
Hanlontown	T	f	.10	T	....	....	....	....	....	....	..	....	....	....	....	....	....	....	....	T	.30	T	....	....	....	....	....	....	....	....	....	.40
Harlan	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	T	....	T	..	....	....	....	....	....	....	....	.05
Hopeville	....	T	....	..	....	....	....	....	....	....	....	....	.	....	....	....	....	....	....	T	.13	....	.01	....	....	....	..	.04	....	....	..	.18
Humboldt	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	05	....	....	....	....	....	....	....	....	....	....	.10
Independence	....	.01	....	T	T	....	....	....	....		....	....	....	....	....	....	....	....	....	....	.50		.02	....	....	....	....	.40	....	....	....	.93
Indianola	....	.04	....	....	....	....		..	....	....	....	....	....	....	....	....	....	....	....	.08	.32	....	.18	....			....	.14	....	....	....	.66
Iowa City		T	....	....		....	....		....	....	....	..	..	....	....	....	....	....	....	....	.25	T	....	.02	....	....	....	.10	.67	....	..	1.04
Iowa Falls	..	....	....	T	T		....	....	....	....		....	..	....	....	....	....	T	T	....	.40	T	....	.05	....	....	....	....	.02	.	....	.47
Jefferson	....	T	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	T	.09	....	.03	....	....	....	T	....	....	....	....	.06
Keokuk	.01	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	.05	....	.05	....	....	....	....	.72	....	....	....	1 03
Keosauqua	....	T	..	T	....	....	..	....	....	....	....	....	....	....	....	....	....	....	T	....	.45	T	....	....	....	....	....	.12	.47	....	....	1.04
Knoxville	....	.05	....	....		....	..	....	.	....	....	....	....	....	....	..	....	..	....	.10	.30	....	.20	....	....	....		.20	....		....	.85
Lacona	..	.02	....	....	....	..	....	....	....		....	....	....	....	....	....		T	....	.25	.15	....	.20	....	....	....	....	.30	....		....	.22
Larrabee	.05	..	....	....	..	....				....	....	..	....	....	....	....	....	....	....	....	T	....	.12	....	....	....	....	....	....	....	....	.17
Le Claire	....	T	T	....	....	....		..	....	....	....	....	....	....	....	....	....	....	....	....	44	.01	....	T	....	..	..	.22	.71	....	....	1.38
Le Mars	T		..	....	....	....	....	....	....	....	....	....	..	....	....	....	....	....	....	....	T	....	.10	....	....	....	....	....	....	....	....	.10
Lenox	....	.03	....	....	....	....	....	....	....		....	....	....	....	....	....	....	....	....	T	.15	....	T	....	..	....	....	....	..	....	....	.18
Leon	....	T	..	.	....	....	....	....	....	....	....	....	..	....	....	.	....	....	....	T	.17	....	.05	....	....	....	....	.17	T	....	....	.39
Little Sioux	....	.05	....	....	..	..	..	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	..	....	....	..	..	....	....	....	....	.05
Logan	T	.10	T	..	....	....			....	..	....	.	....	....	....	....	....	....	....	....	T	....	.10	....	....	....	....	..	.	....	....	.20
Maquoketa		....	....	..	....		....		....	....	....	....	....	....	....	....	....	T		.50	.50	T	..	....	....	....	....	.18	.90	..	....	1.58
Marshalltown	....	.03	....	....	....	....		..	....	..	....	....	....	....	....	..	....	....	....	....	.28	T	....	.04	..	....	....	....	.21	....	....	.56
Mason City	....	T	....	....	....	....		..	....	....	....	....	....	....	....	....	....	....	....	....	.45	....	.	.	....	....	....	....	....	....	....	.45
Monticello	..	....		..		....	..	....	....	....	....	....	....	..	....	....	....	....	....	.48	....	..	....	....	....	....	....	.90	....	....	....	1.38
Mount Ayr	....	T	....	..	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	.25	....	....	.05	....	....	....	....	.08	..	....	....	.38
Mt. Pleasant	....	T	....	....		....	....	..	....	....	....	....	..	..	....	....	....	....	....	.28	.19		.04	....		..	....	.58	.19	....		1.28
Mt. Vernon	....	.02	....	....	....	....		....	....	....	....	....	....	..	....	....	....	T	....	....	.65	....	.04	....	....	....	....	.40	.36	..	....	1.47
Muscatine	....	T		..	....	..	....	....	....	..	....	....	....	....	....	..	....	....	....	....	.39	.01	....	T	....	..	..	.12	.45	....	....	.97
New Hampton	....	T	T		T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.38	....		....	....	....	....	.16	.02	....	....	.56
Northwood	....	.10	.03	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	..	.40	.03	T	....	..	....	....	....	....	....	....	.56
Odebolt	....	....	....	....	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	.06	....	....	....	....	....	....	....	....	.06
Ogden	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	.40	....	.10	....	....	....	....	....	....	....	....	.50
Olin		.01	....	....	....	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	.60	....	.03	..		....		.90	....	....	....	1.54
Omaha, Neb	.12	02	....	..	....	..	....	....	T	....	....	....	....	....	..	..	.	T	..	...	T	...	T	....	....	....	....	....	....	....	....	.14
Onawa	.05	T	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	03	T	.02	....	....	..	..	....	....	....	....	.10
Osage		.04	T	....	..	....	....	....	....	..	..	....	....	....	....	....	....	....	....	....	.45	.02	....	....	....	....	....	.04	....	....	....	.55
Oskaloosa	.01	..	....	..	....	....	....	....	....	....	.	....	....	....	....	....	....	....	....	.05	.30	....	.08	....	....	..	....	.35	....	.05	....	.84
Pacific Junction	T	.07	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	....		T	..		..	....	....	....	....	....	....	....	.07
Pella	....	.02	....	....	....	....		....	....	....	....	....	....	....	....	....	....	....	....	T	.44	....	.05	....	..	..	..	.30	.05	....	....	.86
Perry		.10	..		..	....	..	....	....	....	....	....	....	..	....	....	....	....	....	....	.30	....	.05	..	....	....	....	....	....	....	....	.45
Plover	.05	....	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	..	....	.	....	.	..	....	.15
Pocahontas	.13	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	..	....	..	....	....	....	....	.08	....	....	....	....	....	....	....	.21
Red Oak	....	.06	....	..		....		..	..	....	....	....		....	....	....	....	....	....	T	T	.	T	....	....		....	....	....	....	....	.06
Ridgeway	....	.03	.01	.01	..	.		....	....	....	....	....	T	....	....	....	....	....	....	.09	.66			....	....	....	....	.44	T	.02	.01	1.27
Rock Rapids	..		....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	T
Rockwell City	....	..	....	.05	....	....	....	.	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05
Sac City	.02	....	....	....	..		....	..	..	....	....	....	....		....	....	....	....	....	....	....	.	.15	..	....	....	....	....	....	....	....	.17
St. Charles	..	.05	....	..	....	....	....	....	....	....	....	....	....	....	....	....	..	....	....	.02	.33	....	.10	....	....	....	....	.02	....	....	....	.52
Sheldon	T	....	....	....	....	....	..	....	....	..	....	..	..		....	....	....	....	....	....	T	..	.10	T	....	....	....	....	..	....	..	.10
Sibley	....		....	....	....	....		....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.17	....	....	....	....	....	..	....	....	.17

DAILY AND MONTHLY PRECIPITATION FOR DECEMBER, 1905—CONTINUED.

STATIONS.	DAY OF MONTH.																															TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sidney	....	.15	....	..	...	....	....	....	....	....	....	....	....	....	....	....	...	...	....	....	....	T	...	..	....	....	....	....	....	...	...	.15
Sigourney	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	..	....	..	.50	....	.08	..	....	....	....	.50	....	....	.	1.06
Sioux Center	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	..	....	..	.05	.10	.10	....	....	....	..	..	..	....	....	.25
Sioux City	.06	T	....	....	..	..	....	..	....	....	....	....	....	....	....	....	....	....	....	....	.01	..	T	....	....	....	....	....	....	....	....	.07
Stockport	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	....	..	.10	.10	....	.03	....	....	....	....	.85	.05	..	...	.63
Storm Lake	....	.06	....	....	....	....	....	..	....	..	....	....	....	....	....	....	....	....	....	....	....		.20	T	....	....	....	....	....	....	....	.26
Thurman	.10	....	.	...	....	....	....	....	....	..	...	...	....	.	....	.	....	....	....	....	T	....	....	....	....	....	..	....	....	....	....	.10
Tipton	....	....	....	....	....	..	....	....	....	....	....	....	..	....	....	....	....	..	....	....	.41	....	T	....		....	....	....	.52	....	...	.93
Vinton	....	.05	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.30	....	....	....	..	....	.88	....	....	....	....	.68
Wapello	T	....	....	....	....	....	....	.	....	....	..	....	....	....	....	....	....	....	....	....	.46	....	T		....	....	....	.47	.30	....	...	1.23
Washington	....	T	....	....	....	....	....	....	....	....	..	....	....	....	....	....	....	....	....	....	.45	..	....		....	....	..	.33	.27	....	....	1.05
Washta	T	....	....	....	....	...	....	...	...	....	....	....	....	....	....	....	..	....	....	....	T	....	.10	....	....	....	....	....	....	....	..	.10
Waterloo	....	T	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	T	..	....	.42	....	.02	....	....		..	.29	....	....	....	.73
Waukee	....	.05	....	....	....	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	.50	..	.20	..	....	....	....	.10	....	....	....	.85
Waverly	....	.08	....	T	.08	....	....	....	....	....	....	....	....	..	....	....	....	T	....	..	.45	....	T	...	....	....	....	.30			..	.81
West Bend	..	.05	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	.10	T	....	....	..	....		..		.15
Whitten	....	T	T	....	....	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	.40	....	T	....	....	....	....	.20	....	..	....	.60
Wilton Junction	..	...	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	.47	.03	....	.05	....	..	..	T	.75	.20	....	....	1.50
Winterset	....	.02	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	..	T	.40	....	.02		....	....	....	.02	....	....	....	.46
Woodburn	....	T	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	.35	....	T	..	....	....	....	....	.02	..	....	.37
Zearing	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.36	....	T	..		....	....	.05	....	..	....	.41

Precipitation Chart December 1905.



APPENDIX.

ANNUAL SUMMARY, 1905.

CLIMATOLOGY OF THE YEAR 1905.

BAROMETER.—The mean pressure for the year was 30.04 inches. The highest observed pressure was 31.09 inches on January 25th ,at Sioux City; lowest pressure, 29.12 inches on January 1st at Keokuk. Range for the state 1.97 inches.

TEMPERATURE.—The mean temperature for the state was 47.3°, which is 0.4° below normal. The highest temperature reported was 104° on August 11th at Waukee. The lowest temperature reported was 41° below zero on Feb. 2nd, at Galva and Ida Grove. Range for the year 145°.

PRECIPITATION.—The average amount of rain and melted snow for the year, as shown by complete records of 107 stations, was 36.51 inches, which is 4.79 inches above the normal, and 7.77 inches above the average amount in 1904. The greatest amount recorded at any station for the year was 52.26 inches at Thurman. Least amount recorded 24.66 inches at Little Sioux. The greatest monthly rainfall was 14.89 inches at Keosauqua in June; least monthly amount, trace at Estherville, Rock Rapids in December. The greatest amount in any 24 consecutive hours was 12.10 inches, at Bonaparte, June 10th. The average number of days on which .01 of an inch or more of rain fell was 97.

WIND AND WEATHER.—The prevailing direction of wind was Northwest. Highest velocity reported, 59 miles an hour, in Sioux City, from the Northwest on May 3rd. Average daily movement, 201 miles. There were 164 clear days, 98 partly cloudy, and 103 cloudy days; as against 164 clear days 97 partly cloudy, and 105 cloudy days in 1904.

CLIMATE AND CROP REVIEW. 1905.

The mean temperature of the year 1905 was 47.3°, which is 0.4° below the normal. The daily average for the year was 1° above the mean of 1904. The average precipitation for the state, 36.51 inches, was 4.79 inches above normal, and 7.77 inches above the average in the preceding year.

January and February were colder than usual, the average for the former being 11.2°, and the latter 12.8°, or nearly 7° below normal. Considerable snow fell, and there was much stormy weather during those months. The fields generally were well covered by snow during the coldest periods, affording protection to winter grain and grasses.

The last week in February was generally moderate, and March was phenomenally warm, the mean temperature for the month being 9.1° above normal. Springlike conditions were continuous, except about 6 days in the second decade. The frost disappeared and the surface dried off rapidly. Much preparatory work was done the first half of the month, and considerable seeding of spring wheat, oats and barley was done in the latter half, Winter wheat, rye and clover showed but little damage from effects of freezing, and fruit buds were apparently unharmed. The season for farm work and growth of vegetation was about a week earlier than the average.

April brought unusually variable temperature, the average for the state being 1.8° below normal. Severe frosts were reported in all districts in every week, causing apprehension for safety of fruit buds. In portions of the southern section excessive moisture retarded plowing and seeding, but in the central and northern districts there was little hindrance to field work. At the close of April the season was somewhat earlier than usual in respect to growth of grass and foliage, and more than the usual amount of plowing and other farm work had been done. And during the last three days of the month corn planting operations were in progress in favored localities. About the usual acreage of oats, spring wheat and barley was sown in April.

The temperature in May was 2.1° below normal, and the rainfall was 1.82 inches above the average. The larger portion of the excess of moisture fell in the northern half of the State, in the first and second decades of the month. Frosts were noted in all districts about the 5th and 26th, and at numerous stations the temperature fell to 32° or below; but the damage to vegetation was light. During the first week in May conditions were generally favorable for preparing the ground and planting corn on the best drained lands. The weather was wet, cool and backward from about the 7th to the 17th, causing delay in planting operations and retarding germination of seed in the ground. The balance of the month was variable, with some more than the average amount of moisture; but fair progress was made in planting, and cultivating the early planted fields. Wheat, oats, barley, rye, meadows and pastures made good growth in May. The average conditions of grain and grasses were nearly normal at the close of the month.

June was about normal in temperature, and the rainfall was 1 inch above the state average. The distribution of rainfall was very unequal, ranging from 1.80 inches at Forest City to 14.89 at Keosauqua. The greatest excess was recorded in the southeast district, and in the northwest counties. The first week was warm and mostly dry, affording ideal conditions for growth of crops and cultivation of corn and potatoes. Some corn planting was done, in localities previously too wet, as late as the 12th to 15th of the month. The rainfall on the 9th and 10th was excessively heavy and destructive in VanBuren and adjoining counties: but the copious showers in other parts of the state were timely and beneficial to all crops. The third week was normal in temperature and amount of sunshine, with conditions favorable for cleaning out the weedy fields, and general farm work. The month closed with a showery period of three to four days. Haying operations were begun somewhat earlier than usual, and the first cutting of clover suffered damage by the wet weather. The corn crop was doing fairly well in the larger part of the state at the end of the month.

The daily mean temperature of July was 3.8° below normal and the rainfall was 1.44 inches below the average of previous years. The first half of the month brought the bulk of the wet weather and conditions were more favorable during the latter half for harvest of hay and grain. The conditions were not altogether favorable in the early part of the month for finishing the cultivation of corn. The fields were not generally clean as could be desired when laid by. The warmest period was from about the 13th to 20th during which corn made

rapid advancement. Spring wheat, rye and barley ripened under favorable conditions, and the work of harvesting was well advanced in the latter half of July. As a whole July was a favorable month. With but little damage from excess or deficiency of moisture. The crops of wheat, oats, barley and rye secured were better in quality and yield than was deemed possible in the early part of the season. At the close of the month corn gave promise of more than an average crop.

August was above normal in temperature and rainfall. The mean temperature, 74.3° was 2.3° above normal, and 3.7° degrees higher than the daily average in July. From the first week to the close of the month the temperature was near or above the normal line. The rainfall was generally timely, and not greatly in excess of local needs in any part of the state, the distribution being more than usually favorable. In the state the average number of clear days was 16, and 9 were partly cloudy, affording ample sunshine to hasten growth of all belated crops. At the close of the month the corn crop was generally in the full roasting ear stage or glazed, giving promise of reaching maturity in advance of the average date of killing frosts. Good progress was made during the month in threshing wheat oats and barley; but in many localities these grain suffered some damage from exposure to showers while in the shock. There was a heavy growth of aftermath in meadows, and the pastures were about as green as in springtime. The potato crop suffered materially from blight. The corn crop was seriously damaged by root worms in fields that had been planted two or more seasons in succession.

September was about 2° above normal in temperature, with a small excess of rainfall. The coldest period of the month was the first decade and the warmest and brightest was the third decade. The distribution of rainfall was quite unequal, more than half the state receiving less than 3.00 inches, the heaviest amounts being recorded in portions of the southwest and northwest districts. During the stormy period from the 14th to the 18th severe windstorms swept over considerable areas in all districts, aggregating over one-third of the state. Corn was prostrated to an unusual extent, resulting in material damages in regions that were most severely storm-swept. The extraordinary weather of the last decade was of inestimable value in bringing to maturity the late planted portion of the corn crop, affording ideal conditions for cutting fodder, threshing grain, putting up second crop of clover, aftermathand wild hay, fall plowing etc. At the close of the month fully 98 per cent of corn was well matured. And most of the corn planted as late as June 15 was well ripened. An increased acreage of winter wheat was sown in September, and made an excellent stand. About the usual acreage of winter rye was sown.

The first decade of October was warm and generally dry and clear, with conditions favorable for ripening all belated crops, and drying out the corn crop preparatory to husking, which was in progress in the latter part of the month. The last decade was also very dry and clear, altogether the month of October was notable for its large percentage of sunshine and agreeable weather. The first killing frosts were reported about the 11th and 12th in all districts, after all crops were well matured. Pastures were green, affording excellent grazing throughout the month. All minor crops, garden truck and fruit were harvested in due season, under favorable conditions. Except some damage to flattened corn by wet weather from the 15th to 20th, the conditions during October were all that could be desired.

The average temperature in November was 3.2° above normal. There was a large excess of clear or partly cloudy weather, as compared with the average. Conditions were unusually favorable for gathering corn, and all kinds of field work usual to the season. The bulk of the corn crop was husked in good condition for cribbing or shipping. Pasturage was unusually good for grazing stock. Fall wheat and rye were looking well, and much fall plowing was in evidence in all parts of the state.

The closing month of the year was one of the fairest and most agreeable winter months ever known in this section. Altogether the crop season of 1905 will be remembered as one that contributed largely to the prosperity of the state and nation.

ERRATA IN ANNUAL SUMMARY, 1904.

FORT DODGE.—Mean temperature for Feb., recorded 13.4° on page 20, should have been 13.0°. Annual temperature recorded 45.1° on pages 15 and 20, should have been 45.0°.

INDEPENDENCE.—Mean temperature for Feb., recorded 9.8° on page 20, should have been left blank.

OSCEOLA.—Mean temperature for Dec., left blank on page 20, should have been 24.0°.

VINTON.—Mean temperature for Sept., recorded 95.3° on page 20, should have been 65 3°.

ALGONA.—Total precipitation for December recorded 1.27 inches on page 21, should have been 1.37 inches. Annual precipitation recorded 22.76 inches on pages 15 and 21, should have been 26.86 inches.

DAVENPORT.—Total precipitation for June recorded 2 28 inches on page 21, should have been 1.44 inches. Annual precipitation recorded 27 05 inches on pages 15 and 21, should have been 26. 21 inches.

FAYETTE.—Total precipitation for the months of Sept., Oct., Nov., and Dec. left blank on page 21, should have been 6 08 inches, 2.03 inches, Trace and 2.30 inches respectively. Annual precipitation left blank on pages 15 and 21, should have been 32.67 inches.

INDEPENDENCE.—Total precipitation for Feb., recorded 4.0 inch on page 21, should have been .45 inch. Annual precipitation recorded 21.62 inches on pages 15 and 21, should have been 21.67 inches.

OSCEOLA.—Total precipitation for Dec., left blank on page 21, should have been 1.50 inches.

STORM LAKE.—Annual precipitation recorded 24.19 inches on pages 16 and 22, should have been 26.46 inches.

TOLEDO.—Annual precipitation left blank on pages 16 and 22, should have been 22.86.

CLIMATOLOGICAL DATA FOR THE YEAR 1905.

STATION.	COUNTY.	Elevation, feet.	Length of record, years	TEMPERATURE.					PRECIPITATION.							Number rainy days.	SKY.			Prevailing direction of wind.
				Annual mean.	Highest.	Date.	Lowest.	Date.	Length of record, years.	Total for years.	Greatest m'thly.	Month.	Least monthly.	Month.	Total snowfall, unmelted.		No. clear days.	No. partly cloudy days.	No cloudy days.	
Afton	Union	1,212	11	48.9	98	July 16	- 25	Feb. 2	12	39.43	6.12	June	.25	Dec.	31.6	84	....	....	....	SW
Albia	Monroe	957	8	48.0	95	Aug. 10*	- 29	Feb. 13	8	51.45	9.06	June	1.04	Jan.	48.5	113	190	22	153	SW
Algona	Kossuth	1,213	30	45.1	95	July 16	- 31	Feb. 13	33	35.09	7.95	May	.20	Dec.	48.2	97	....	....	....	NW
Allerton	Wayne	.....	....	49.5	97	Aug. 11	- 33	Feb. 13	....	39.73	6.62	Aug.	.61	Dec.	34.7	114	221	62	82	NW
Alta	Buena Vista	1,513	13	45.1	96	Aug. 11	- 33	Feb. 2	15	40.34	8.75	May	.15	Dec.	38.9	115	145	134	86	S, NW
Alta, near	Buena Vista	.....	....	....	....	....	....	.....	....	39.48	8.22	May	.25	Dec.	32.9	101	....	....	....	.....
Amana	Iowa	721	27	47.8	94	Aug. 11*	- 32	Feb. 13	30	39.39	7.87	May	.89	Jan.	34.5	113	151	122	92	NW
Ames	Story	926	22	48.0	95	Aug. 11	- 31	Feb. 13	23	29.02	5.51	May	.23	Dec.	29.1	104	166	118	81	.....
Atlantic	Cass	1,164	13	47.6	98	Aug. 11	- 36	Feb. 2	15	40.03	9.23	Sept.	.10	Dec.	40.8	74	100	92	173	S
Audubon	Audubon	.....	....	46.8	97	Aug. 11	- 35	Feb. 2	....	37.88	6.19	May	.15	Dec.	36.0	106	113	133	119	NW
Baxter	Jasper	998	6	47.2	95	July 17; Aug. 11	- 32	Feb. 13	6	40.21	7.22	Aug.	.30	Dec.	36.0	86	180	68	137	NW
Bedford	Taylor	.....	6	48.8	98	Aug 10	- 32	Feb. 13	6	33.09	6.28	May	.15	Dec.	...	951	88	57	120	NW
Belle Plaine	Benton	838	14	46.7	95	June 4; July 18	- 32	Feb. 13	16	41.35	8.28	May	65	Dec	55 6	108	141	113	111	SE
Bonaparte	Van Buren	.....	12	49.9	96	Aug. 11	- 31	Feb. 13	14	43.19	14.50	June	.79	Jan.	26 5	88	...	....	.....	.....
Boone	Boone	.....	...	47.1	96	Aug 11	- 27	Feb. 2	...	41.59	7.43	May	.41	Dec.	41.1	108	193	60	112	.....
Britt	Hancock	1,236	7	44.7	95	Aug. 11	- 34	Feb. 13	9	31.93	8.10	May	.37	Dec	39.8	115	67	226	72	SW, NW
Buckingham	Tama	.....	6	.....	...	.....	.....	.....	6	37.75	5.83	June	.69	Dec.	35.1	95	....	....	.....	.....
Burlington	Des Moines	544	8	51.2	94	July 18	- 27	Feb. 13	10	38.92	7.67	June	1.00	Jan.	.....	107	204	80	81	S
Carroll	Carroll	1,263	14	46.6	96	July 16; Aug. 11	- 33	Feb. 2	16	31.56	6.29	May	.27	Dec	40.4	93	209	40	116	.....
Cedar Rapids	Linn	733	2	47.5	98	July 18	- 27	Feb. 13	23	33.76	8.31	May	.52	Dec	38.8	113	129	146	90	SW
Chariton	Lucas	1,013	9	48.6	95	Aug. 11	- 28	Feb. 13	11	49.04	9.70	June	.65	Dec.	33.0	76	189	92	84	SE
Charles City	Floyd	1,012	13	43.8	95	July 17; Aug. 11	- 31	Feb. 2	15	32.72	7.07	May	.61	Dec.	41.7	116	114	126	125	NW
Clarinda	Page	1,069	14	48.7	101	July 16	- 29	Feb. 13*	16	37.10	6.32	May	.19	Dec.	32.9	110	199	48	118	NE
Clear Lake	Cerro Gordo	1,241	7	45.2	98	July 16	- 31	Feb. 13	7	27.86	7.53	May	.30	Jan Dec.	26.5	59	....	....	.....	NW
Clinton	Clinton	609	36	48 0	95	July 17	- 27	Feb. 13	38	37.63	5.95	May	.69	Jan.	36.3	101	147	116	102	SW
College Springs	Page	.....	12	49.7	96	July 18	- 30	Feb. 14	14	31.20	7.88	Sept.	.03	Dec.	25.1	76	....	....	....	NW
Columbus Junc.	Louisa	595	4	49.0	94	Aug. 11*	- 28	Feb. 13	5	32.91	6.05	June	.78	Jan.	38.7	100	208	86	41	SE, NW
Corning	Adams	1,127	12	47.9	95	July 16*	- 33	Feb. 13	18	37.74	7.89	Sept.	.20	Dec.	34.8	71	156	135	74	S W
Corydon	Wayne	992	11	49.9	96	Aug. 11	- 31	Feb. 13	13	41.53	9.07	June	.68	Dec.	38.7	103	164	91	110	.....
Cresco	Howard	.....	33	.....	93	Aug. 11	- 27	Feb. 2*	30	.....	6.60	May	....	.....	.....	....	....	....	.....	.....
Cumberland	Cass	.....	....	....	....	.....	.....	.....	7	39.59	8 22	Sept.	.04	Dec.	40.4	69	247	46	72	S, SW
Davenport	Scott	606	33	49.3	94	Aug. 12	- 25	Feb. 13	15	31.54	7.68	June	.63	Jan.	30.3	104	143	108	114	NW
Decorah	Winneshiek	875	10	45.1	93	July 17	- 26	Feb. 2	12	34.77	6.48	May	.91	Jan.	44 0	96	....	....	....	.....
Delaware	Delaware	1,083	13	45 1	95	Aug. 11	- 31	Feb. 13	15	34.80	6.13	May	.74	Jan.	36.4	92	....	....	....	NW
Denison	Crawford	1,180	10	47.1	97	Aug. 11	- 37	Feb. 2	11	25.87	5 53	May	.12	Dec.	28.2	93	....	....	....	S
Des Moines	Polk	861	27	48.6	94	Aug. 11	- 26	Feb. 13	27	37.50	5.73	June	.55	Dec.	42,9	120	105	156	105	SW, NW
De Soto	Dallas	886	6	48.3	92	July 16; Aug. 11	- 32	Feb. 13	6	37.22	5.94	June	.47	Dec.	35.7	93	....	....	....	SW
Dows	Wright	1,142	6	44.8	94	July 16	- 32	Feb. 13	6	37.74	8.15	May	.34	Dec.	50 2	112	167	81	117	NW
Dubuque	Dubuque	655	31	47.5	94	July 17; Aug. 11	- 25	Peb. 13	33	29.78	4.33	June	.95	Jan.	45.3	119	134	110	121	NW
Earlham	Madison	.....	4	....	94	Aug. 11	- 29	Feb. 2*	....	.....	6.96	June	....	....	.....	....	....	....	....	.....
Elkader	Clayton	727	23	46.7	101	Aug. 11	- 30	Feb. 15	26	32.91	6.35	May	.81	Jan.	43.0	90	161	135	69	SE
Elliott	Montgomery	.....	...	.....	99	July 16	.....	.....	.....	.....	6.39	Sept.	.....	.....	.....	...	.....	.....	.....	.....
Estherville	Emmet	1,298	9	....	93	July 16	- 28	Feb. 2*	8	39.19	9.15	May	T	Dec.	35.5	95	.....	.....	.....	NW
Fayette	Fayette	.....	16	....	94	Aug. 10	- 30	Feb. 13*	16	.....	6.45	May	.....	.....	.....	...	.....	....	.....	.....
Florence	Wright	.....	...	....	.....	.....	.....	.....	....	33.68	6.96	May	.35	Dec	40.5	97	81	219	65	N, S
Forest City	Winnebago	1,220	10	44.4	97	Aug. 12	- 31	Feb. 13	12	30.90	7.89	May	.30	Dec.	36 5	80	191	29	145	SW
Fort Dodge	Webster	1,128	...	45.7	97	July 16*; Aug. 11	- 28	Feb. 13*	....	33.98	7.63	Aug.	.25	Dec.	29.8	95	203	82	130	S
Fort Madison	Lee	516	53	.....	.....	.....	.....	.....	56	38.80	8 26	June	.94	Mar.	27.0	70	123	93	144	S
Galva	Ida	1,290	10	45 7	94	July 16	- 41	Feb. 2	12	35.17	8.05	May	.08	Dec.	41.2	.	....	.....	.....	S
Gilman	Marshall	1,052	....	....	....	.....	.....	.....	7	.....	5.52	May	.40	Dec.	.....	...	.....	.	.....	S
Glenwood	Mills	.	17	49.8	94	Aug. 11	- 29	Feb. 13	17	31.58	7.50	Sept.	.05	Dec.	24 5	59	79	224	62	SW
Grand Meadow	Clayton	1,080	13	44 7	92	July 16; Aug. 11	- 29	Feb. 13	15	36.84	8 60	May	.88	Jan.	39.0	101	116	125	124	NW
Greene	Butler	924	7	....	93	Aug 11	- 29	Feb. 13	9	.....	7.51	May	.....	.	.....	.....	.....	.....	.....	.....
Greenfield	Adair	.....	13	48 5	100	July 16	- 33	Feb. 13	15	42.66	8.74	June	.21	Dec.	35.3	103	215	71	79	S
Grinnell	Poweshiek	1,023	11	....	....	.....	- 26	Feb. 13	....	.....	.....	.....	.....	.....	...	....	....	.....	.....	SW
Grinnell, near	Poweshiek	.....	...	.....	95	Aug. 11	.....	.....	....	.....	.....	.....	....	.....	....	....	151	108	106	SW
Grundy Center	Grundy	976	13	46.0	94	July 17; Aug. 11	- 34	Feb. 13	15	37.57	6.82	May	.71	Dec.	55.3	106	151	94	120	NW
Guthrie Center	Guthrie	1,077	8	43.0	98	Aug. 8	- 32	Feb. 2	10	35.70	5.61	June	.74	Jan.	.....	116	227	67	71	NW
Hampton	Franklin	1,155	14	46.5	99	Aug. 11	- 30	Feb. 13	16	37.56	8.50	May	.57	Dec.	47.3	95	99	204	62	NW
Hanlontown	Worth	.....	...	43 8	98	Aug. 11	- 31	Feb. 13	....	37.28	10 83	May	.40	Dec.	42 7	100	184	71	110	NW
Harlan	Shelby	1,192	7	47.0	95	July 16	- 37	Feb. 2*	7	32.84	4.70	Aug.	.05	Dec.	30.2	100	107	159	99	NW
Hopeville	Clarke	.....	13	.....	....	.....	- 30	Feb. 13	15	.....	5.68	Sept.	.18	Dec.	.....	....	....	.....	.....	.....
Humboldt	Humboldt	1,095	12	46.1	96	July 17	- 32	Feb. 2	17	31.39	7.04	May	.10	Dec.	.....	84	191	81	93	NW
Ida Grove	Ida	1,220	....	.....	97	July 16*	- 41	Feb. 2	...	.....	6.36	May	T	Dec.	.....	.	....	...	. .	.....
Independence	Buchanan	921	40	....	96	July 18	- 29	Feb. 13	33	.....	7.44	May	.93	Dec.	52.8	.	....	.....	....	.....
Indianola	Warren	969	13	48.6	95	July 16*; Aug. 11	- 28	Feb. 2	11	40 39	6.98	June	.66	Dec.	39 9	108	.	.....	.....	.....
Inwood	Lyon	.....	...	.....	100	July 16	- 34	Feb. 2		.....	9.92	June	.....	.....	.....	.....	.....	.....	.....	.....
Iowa City	Johnson	685	45	47.0	96	Aug. 10	- 32	Feb. 13	48	37.88	6.68	June	1.04	Dec.	46.3	104	159	42	164	N
Iowa Falls	Hardin	1,147	11	44.7	95	Aug. 11	- 32	Feb. 13	13	32.52	7.73	May	.47	Dec.	43.5	107	172	65	128	NW
Keokuk	Lee	619	33	52.0	94	June 18; July 18; Aug. 11	- 27	Feb. 13	34	33 61	6.57	June	.60	Jan.	19 5	109	176	89	100	SW
Keosauqua	Van Buren	664	12	49.3	98	Aug. 11	- 28	Feb. 13	14	41.71	14.89	June	.78	Jan.	27.0	110	96	115	154	.....
Knoxville	Marion	.....	11	.....	....	.....	- 26	Feb. 13	8	.....	8.73	June	.85	Dec.	31.3	.....	.	.....	....	SW
Lacona	Warren	.....	....	.....	....	.....	.....	....	7	49.76	8.85	June	.92	Dec	.....	112	92	203	70	.....
Larrabee	Cherokee	1,366	15	46,3	99	July 17	- 36	Feb. 2	16	35 59	7 60	May	.17	Dec.	39.9	89	.....	...	....	SW
Le Claire	Scott	576	....	.....	....	.....	.....	....	....	32.67	6.37	June	.79	Jan.	.....	96	....	.....	.....	S
Le Mars	Plymouth	1,224	8	46.3	97	July 16; Aug. 10	- 35	Feb. 2	10	39.97	8.87	May	.10	Dec.	23.7	70	157	135	73	S
Lenox	Taylor	1,250	9	48.4	95	July 16	- 37	Feb. 13	11	37.23	6.73	Sept.	.18	Dec.	23.0	92	216	87	62	N W
Leon	Decatur	1,120	...	49.6	94	Aug. 10	- 28	Feb. 13	....	40.51	5.49	Apr.	.39	Dec.	34.4	106	211	50	104	S
Little Sioux	Harrison	.....	....	49.2	98	Aug. 11	- 38	Feb. 2	..	24.66	4.64	Sept.	.05	Dec.	28 2	91	180	98	87	SE, NW
Logan	Harrison	928	37	48.7	97	July 16; Aug 11	- 34	Feb. 2	6	33.92	6.52	Sept.	.20	Dec.	39.0	82	115	181	69	NW
Maquoketa	Jackson	688	11	45.8	97	Aug. 12	- 31	Feb. 13	13	36.85	5.78	May	.63	Jan.	43.8	103	194	47	124	NE

CLIMATOLOGICAL DATA FOR THE YEAR 1905—CONTINUED.

STATION.	COUNTY.	Elevation, feet.	Length of record, years	TEMPERATURE. Annual mean.	Highest.	Date.	Lowest.	Date.	PRECIPITATION. Length of record, years.	Total for year.	Greatest m'thly.	Month.	Least monthly.	Month.	Total snowfall, unmelted.	Number rainy days.	SKY. No. clear days.	No. partly cloudy days.	No. cloudy days.	Prevailing direction of wind.
Marshalltown ..	Marshall	947	11	47.0	103	Aug. 11	- 30	Feb. 13	12	37.64	6.11	May	.56	Dec.	38.1	121	156	40	169	NW
Mason City.....	Cerro Gordo..	1,132	..	45.7	98	Aug. 16*	- 27	Feb. 13	..	34.23	8.19	May	.45	Dec.	88.2	81	122	160	83	N,SW,NW
Massena	Cass.	.....	..	....	102	Aug. 11	- 31	Feb. 2	..	.....	7.57	Sept.	....	.....	....	...	...	...	...	.....
Monticello.....	Jones	.....	..	....	98	July 15	....	.....	..	.....	5.57	May	....	.....	....	...	...	...	...	.....
Mount Ayr.	Ringgold	1,236	10	50.1	97	Aug. 9*	- 28	Feb. 13	12	45.98	7.00	June	.33	Dec.	39.7	105	...	...	...	SW
Mount Pleasant	Henry	729	22	49.6	97	July 17	- 27	Feb. 13	12	40.53	10.06	June	.88	Jan.	34.1	105	178	98	91	SW
Mount Vernon.	Linn	847	37	47.8	98	Aug. 11	- 30	Feb. 13	10	29.01	5.41	May	.90	Nov.	57.1	108	176	80	109	.....
Muscatine	Muscatine	.....	..	....	..	.....	....	.....	..	32.49	4.59	July	.93	Jan.	31.0	109	...	...	...	S
New Hampton .	Chickasaw ...	1,169	6	....	96	July 17; Aug. 11	- 32	Feb. 13	9	....	7.35	May	.47	Jan.	....	...	...	...	...	.....
Newton.....	Jasper	944	16	...	94	July 16*	- 34	Feb. 13	16	.	8.25	May	....	.....	....	...	...	...	...	.....
Northwood....	Worth	1,222	8	44.2	96	Aug. 11	- 28	Feb. 2*	10	32.39	7.89	May	56	Dec.	55.0	111	133	136	96	NW
Odebolt	Sac..... ...	1,356	5	47.2	100	Aug. 11	- 34	Feb 2	8	32.54	6.92	May	.06	Dec.	....	77	227	64	74	.....
Ogden.....	Boone	1,088	10	....	95	July 16*; Aug. 11	- 32	Feb. 2	11	34.56	6.85	June	.50	Dec.	34.6	89	176	96	93	NW
Olin	Jones..... ..	760	7	47.1	94	Aug. 12	- 28	Feb. 13	7	37.00	6.37	May	.85	Jan.	46.8	80	...	...	...	NW
Omaha, Neb....	Douglas	1,113	34	50.8	95	July 16	- 25	Feb. 2	35	29.88	5.94	Sept.	.14	Dec.	35.8	104	117	105	143	N, S
Onawa	Monona.....	1,053	6	49.6	98	July 16; Aug. 10	- 30	Feb. 2	6	32.33	7.57	May	.10	Dec.	34.4	113	246	49	70	NW
Osage	Mitchell.	1,184	13	44.6	96	July 16*; Aug. 11	- 28	Feb. 2	18	31.78	7.42	May	.55	Dec.	39.6	112	137	88	140	NW
Oskaloosa.....	Mahaska ..	843	20	48.8	94	Aug. 11	- 31	Feb. 13	28	35.41	6 72	June	.73	Jan.	36.0	104	209	11	145	SW
Ottumwa.....	Wapello	649	10	....	99	Aug. 11	- 24	Feb. 2*	12	.....	6.86	Aug.	.85	Jan.	....	...	...	...	...	.....
Pacific Junction	Mills	960	7	48.7	96	July 16	- 97	Feb. 13	7	33.40	8.13	Sept.	.07	Dec.	....	93	164	184	67	S
Perry	Dallas.....	975	..	....	95	July 16; Aug. 11	- 33	Feb. 13	..	....	6.97	June	.45	Dec.	....	...	...	...	...	.....
Plover	Pocahontas...	1,190	7	45.4	95	July 16*; Aug. 11	- 35	Feb. 13	9	.....	8.47	Aug.	.15	Dec.	38.3	...	...	...	...	....
Pocahontas.	Pocahontas...	.....	..	46.0	98	Aug. 11	- 30	Feb. 13	..	39.86	8.04	May	.21	Dec.	36.5	85	164	107	94	NW
Red Oak	Montgomery .	1,033	9	51.0	100	June 9	- 26	Feb. 13	9	34.95	8.26	Sept.	.06	Dec.	28.8	91	186	94	85	NW
Ridgeway	Winneshiek ..	1,215	8	46.8	97	Aug. 11	- 28	Feb. 13	8	36.93	6.88	May	1.27	Dec.	42.3	138	159	150	56	S
Rock Rapids....	Lyon	.....	..	45.6	96	July 16; Aug. 10	- 33	Feb. 2	..	36.63	9.17	June	T	Dec.	35.5	59	...	...	...	.....
Rockwell City..	Calhoun	.....	9	46.7	95	July 18; Aug. 11*	- 32	Feb. 12	10	35.22	7.05	May	.05	Dec.	36.0	70	215	57	93	.....
Sac City...	Sac	1,278	24	46.1	93	July 16; Aug. 11	- 28	Feb. 2	30	.....	6.55	May	.17	Dec.	....	...	...	...	...	.....
Saint Charles...	Madison ...	1,070	4	49.6	95	Aug. 10	- 27	Feb. 13	5	36.71	6.63	July	.52	Dec.	39.2	120	189	89	87	NW
Sheldon.....	O'Brien	.....	6	46.1	100	July 16	- 35	Feb. 2	6	36.45	8.60	May	.10	Dec.	42.4	95	195	73	97	S
Sibley.....	Osceola	1,512	10	43.1	95	July 16	- 36	Feb. 2	12	37.46	7.96	May	.17	Dec.	29.6	108	191	84	140	NW
Sidney	Fremont	.....	..	....	96	July 16*	- ..	.....	..	.....	9.61	Sept.	.15	Dec.	..	...	...	...	...	.....
Sigourney	Keokuk	787	7	49.5	96	Aug. 11	- 30	Feb. 13	10	40.38	7.48	June	1.06	Dec.	...	...	...	...	...	NW
Sioux Center..	Sioux.	.....	7	45.2	96	July 16	- 32	Feb. 2	7	33.56	8.87	June	.25	Dec.	35.0	84	172	69	124	S
Sioux City.....	Woodbury....	1,165	15	47.2	100	July 16	- 30	Feb. 2	17	31.66	5.41	May	.07	Dec.	29.8	102	124	106	135	NW
Stockport.....	Van Buren ...	.....	..	....	93	Aug. 11	- 26	Feb. 13	4	40.81	14.57	June	.63	Dec.	32.5	101	...	...	...	NW
Storm Lake....	Buena Vista..	1,440	9	44.1	95	July 16; Aug. 11	- 34	Feb. 2*	17	33.18	7.50	May	.26	Dec	36.0	90	183	24	158	NW
Thurman.....	Fremont	.....	8	49.6	96	June 9	- 37	Feb. 13	9	52.26	13 18	Sept.	.10	Dec.	....	79	153	119	93	SW
Tipton	Cedar	807	8	49.6	98	Aug. 12	- 24	Feb. 13	8	.....	5.92	June	.93	Dec.	....	...	...	...	...	.....
Toledo	Tama	856	10	47.2	95	Aug. 12	- 28	Feb. 2*	11	38.09	5 90	May	.20	Dec.	48.3	98	153	121	91	NW
Vinton.....	Benton.....	810	14	....	93	July 17; Aug. 12	- 30	Feb. 13	16	.....	.....	.....	----	.....	39.6	...	...	...	...	.....
Wapello,.....	Louisa	588	6	....	93	July 18; Aug. 11	- 22	Feb. 13	8	. . .	46.7	June	.72	Jan.	....	...	...	...	...	.....
Washington....	Washington ..	769	22	48.8	93	Aug. 11	- 29	Feb. 13	15	37.00	5.58	Aug.	.82	Jan.	....	84	...	...	...	SW
Washta	Cherokee . .	1,157	..	....	99	Aug. 11	....	.....	8	30 80	6.83	May	.10	Dec.	27.2	67	200	82	83	S
Waterloo	Black Hawk ..	862	17	46.7	99	Aug. 11	- 27	Feb. 13	25	36.41	5 66	May	.73	Dec.	34.7	108	186	133	96	NW
Waukee.....	Dallas	1,039	..	49.1	104	Aug. 11	- 32	Feb. 2	..	41.37	7.31	June	.85	Dec.	55.4	111	158	120	89	NW
Waverly	Bremer	942	8	45.2	94	Aug. 11	- 28	Feb. 13*	10	36.60	6.80	May	.81	Dec.	46.5	129	...	...	...	NW
Webster City..	Hamilton....	.....	..	....	99	July 17	....	.....	..	.....	6.93	May	.30	Dec.	....	...	...	...	...	.....
West Bend.....	Palo Alto	1,197	10	45.3	94	July 16	- 32	Feb. 13	12	36.52	6.60	May	.15	Dec.	44 0	87	...	...	...	.....
Whitten	Hardin.....	1,036	6	46.0	96	July 16	- 33	Feb. 13	8	.....	6.66	May	.60	Dec.	49.0	...	...	...	...	.....
Wilton Junct'n.	Muscatine ...	688	9	48 6	96	July 16	- 33	Feb. 13	11	41.82	6.57	June	.74	Jan.	48.5	76	185	40	140	NW
Winterset.....	Madison	1,129	13	48.2	95	July 16	- 29	Feb. 2	15	. . .	6.24	June	.46	Dec.	....	...	178	93	94	.....
Woodburn.....	Clarke	961	..	....	94	Aug. 5	- 30	Feb. 13	7	43 65	6.80	June	.87	Dec.	37.6	91	186	80	99	SW
Zearing..... ...	Story	.....	..	46.4	95	Aug. 11	- 35	Feb. 13	..	33.81	6.75	May	.41	Dec.	37.0	85	192	82	91	NW
Average	.....	.....	..	47.3	..	.....	.....	.....	..	36.51	.....	.....	.....	.....	....	97	164	98	103	NW
Extr'mes & date	....	.....	..	....	104	Aug. 11	- 41	Feb. 2	..	.....	14.89	June	T	Dec.	....	...	...	...	...	.....

* And other dates.

MONTHLY MAXIMUM AND MINIMUM TEMPERATURES FOR 1905 WITH DATES.

STATIONS.		Jan.		Feb.		March.		April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.	
		Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.
Afton	Max	48	1	62	28	78	27	84	9	87	29	93	18	93	16	94	* 5	88	* 1	87	5	61	*13	51	12
	Min	-17	25	-25	* 2	10	11	23	16	34	5	48	* 1	50	10	54	26	47	*20	20	28	0	30	- 1	* 4
Albia	Max	49	1	64	28	80	27	84	9	85	29	92	18	94	*12	95	*10	90	1	85	4	65	13	56	11
	Min	-14	*24	-29	13	10	11	25	* 7	38	* 1	50	1	53	*24	52	26	47	* 5	21	29	3	30	- 8	24
Algona	Max	39	4	50	28	76	31	76	* 1	80	8	91	4	95	16	94	10	84	27	82	4	60	*11	47	* 6
	Min	-20	25	-31	13	2	11	14	14	32	26	42	22	48	25	52	20	42	23	21	28	- 5	30	- 5	4
Allerton	Max	48	1	64	28	79	27	84	9	84	29	91	18	94	*16	97	11	93	1	86	5	66	13	57	11
	Min	-15	25	-33	13	9	11	20	15	36	5	50	1	49	24	54	26	48	* 4	22	*28	2	30	- 2	24
Alta	Max	44	4	59	28	78	27	79	8	80	1	90	* 4	95	16	96	11	84	*11	85	4	61	11	49	26
	Min	-26	25	-33	2	7	11	17	14	32	* 8	42	22	49	* 9	55	19	44	4	20	28	- 4	30	- 4	4
Amana	Max	45	1	48	28	70	29	80	9	83	29	91	* 4	93	*17	94	*11	90	1	82	4	60	*17	50	*7
	Min	-15	*26	-32	13	9	11	25	6	36	7	49	27	52	24	44	26	45	23	21	31	6	30	- 5	24
Ames	Max	47	1	61	28	76	27	77	1	80	1	91	* 4	93	*16	95	11	88	27	84	4	63	12	57	10
	Min	-18	31	-31	13	7	11	20	14	35	5	46	22	49	*10	52	26	43	23	20	28	- 1	30	4	* 3
Atlantic	Max	46	1	66	28	78	3	85	9	84	1	94	* 4	97	*17	98	11	89	27	85	* 4	62	*16	55	11
	Min	-26	14	-36	2	11	11	15	17	31	26	44	22	42	24	50	7	40	4	13	28	1	30	- 8	4
Audubon	Max	44	1	62	28	78	27	81	8	83	1	93	* 4	98	16	97	11	87	27	85	* 4	62	12	53	11
	Min	-24	14	-35	2	9	11	11	15	31	26	41	8	45	24	50	9	41	23	18	28	0	30	- 5	4
Baxter	Max	44	1	58	28	76	27	78	9	82	29	90	* 4	95	17	95	11	86	27	82	4	67	16	53	11
	Min	-17	*10	-32	13	6	11	20	14	35	5	42	23	50	*10	52	*16	44	23	18	28	0	30	- 2	4
Bedford	Max	50	1	68	28	77	27	86	9	79	1	90	*15	95	16	96	10	93	1	85	5	62	16	51	6
	Min	-19	25	-32	13	12	11	19	17	33	5	49	22	47	24	56	20	45	4	18	31	1	30	- 4	4
Belle Plaine	Max	45	1	47	28	67	*22	72	1	83	29	95	4	95	18	94	12	88	1	80	* 4	70	4	49	11
	Min	-18	14	-32	13	8	11	21	14	37	5	48	22	52	*24	56	27	48	23	20	31	6	30	- 6	24
Bonaparte	Max	51	1	62	28	77	27	84	9	85	29	94	18	93	18	96	11	93	1	86	4	68	*13	57	11
	Min	-11	*14	-31	13	13	11	25	15	38	* 7	50	* 1	50	25	53	26	47	*19	23	28	6	30	- 3	24
Boone	Max	44	1	60	28	74	27	77	8	80	1	92	4	95	17	96	11	87	27	85	4	63	12	53	11
	Min	-16	25	-27	2	9	11	20	14	36	5	47	22	51	7	55	26	47	23	21	28	- 1	30	- 1	4
Britt	Max	39	1	47	23	75	31	75	* 1	80	3	92	4	94	*16	95	11	85	*11	85	4	62	*11	47	* 6
	Min	-21	30	-34	13	2	11	13	14	31	26	42	22	46	25	50	8	40	23	19	28	- 7	30	- 7	4
Burlington	Max	54	1	61	28	75	27	83	9	85	* 4	93	* 6	94	18	93	* 5	93	1	87	5	70	13	55	* 7
	Min	-10	*14	-27	13	12	11	26	7	40	12	52	* 3	53	24	57	26	48	23	25	28	8	30	3	24
Carroll	Max	46	1	66	28	80	27	83	8	83	1	95	4	96	16	96	11	85	27	84	4	64	*11	54	11
	Min	-20	25	-33	2	7	11	13	14	31	26	43	22	46	*10	50	26	42	23	18	28	- 1	30	- 6	4
Cedar Rapids	Max	44	1	50	28	71	27	81	9	82	* 3	94	4	98	18	97	11	92	1	87	4	60	*12	52	7
	Min	-12	*14	-27	13	10	12	28	7	38	1	49	27	54	*24	53	26	46	23	23	29	7	30	-10	24
Chariton	Max	47	1	64	28	77	* 3	83	9	83	29	90	* 5	93	18	95	11	91	1	85	5	65	13	53	6
	Min	-15	25	-28	13	9	11	24	* 7	35	5	50	* 1	50	24	53	26	47	*20	20	31	3	30	- 5	24
Charles City	Max	37	1	43	28	70	31	72	1	78	2	91	4	95	17	95	11	85	27	85	4	64	11	51	6
	Min	-24	30	-31	2	4	11	18	14	54	26	45	22	50	10	52	25	41	23	20	28	0	30	- 7	24
Clarinda	Max	46	1	68	28	79	* 3	90	9	84	1	98	18	101	16	100	11	94	1	89	4	65	*12	56	11
	Min	-19	*25	-29	*13	14	*11	18	16	33	5	48	22	49	24	57	* 7	45	20	21	31	3	30	- 2	4
Clear Lake	Max	41	1	..	..	66	27	72	* 1	84	31	91	4	98	16	95	11	82	28	88	4	57	12	44	* 6
	Min	-20	25	-31	18	5	11	18	14	37	* 5	45	22	50	* 9	54	26	47	*13	20	28	- 5	30	- 1	24
Clinton	Max	48	1	49	28	78	28	80	28	87	3	94	5	96	17	95	11	91	1	83	4	61	23	52	8
	Min	-10	10	-27	13	10	11	25	6	35	7	43	1	48	25	51	*20	41	5	20	*29	9	30	1	24
College Springs	Max	47	1	62	28	80	3	87	9	82	1	92	9	96	18	94	* 5	88	1	82	* 4	63	*13	52	11
	Min	-20	25	-30	14	..	..	22	17	35	5	50	22	50	24	59	26	45	4	23	31	4	30	3	8
Columbus Junction	Max	51	1	55	28	76	31	78	1	84	29	92	* 4	93	17	94	*11	91	1	84	4	68	*17	54	7
	Min	-11	14	-28	13	11	11	24	16	35	18	50	* 3	53	24	52	28	48	26	23	28	7	30	- 2	24
Corning	Max	45	1	63	28	76	26	83	9	81	1	92	5	95	*16	92	*10	88	1	83	4	70	17	52	11
	Min	-19	*14	-32	13	11	11	18	17	34	* 5	43	27	44	24	55	7	45	4	21	31	1	30	- 3	4
Corydon	Max	48	1	66	28	80	27	84	* 9	84	29	89	5	92	*16	96	11	92	1	88	5	67	18	57	11
	Min	-15	25	-31	13	9	11	22	15	36	5	51	8	51	24	55	*26	49	* 4	21	*28	2	30	- 3	24
Cresco	Max	39	1	42	28	67	31	67	24	78	3	88	4	93	16	93	11	82	*27	84	4	..	..	..	..
	Min	-17	*10	-.7	* 2	2	11	19	14	34	26	44	22	50	24	51	25	43	14	19	29	..	..	..	..
Creston	Max	..	..	..	..	..	..	82	9	79	1	90	* 5	94	16	93	11	86	1	84	3	62	13	52	11
	Min	..	..	..	..	..	..	23	*15	35	5	48	28	48	7	58	26	48	* 4	22	31	1	30	-1	3
Davenport	Max	51	1	52	28	73	31	82	9	84	29	91	4	93	17	94	12	92	1	84	4	62	28	53	8
	Min	- 9	14	-25	13	14	11	28	16	43	26	49	27	54	24	55	26	50	25	25	28	10	30	3	24
Decorah	Max	34	1	47	28	72	31	72	24	83	3	89	5	98	17	94	11	83	*27	82	4	62	*11	47	* 6
	Min	-20	30	-28	2	4	11	20	14	38	7	45	8	48	25	49	26	42	23	16	28	2	30	- 8	24
Delaware	Max	42	1	45	28	68	28	71	* 1	80	3	91	4	92	17	95	11	85	1	80	4	58	12	48	7
	Min	-15	*10	-31	13	4	11	21	* 7	36	* 5	42	27	47	25	49	26	44	*20	20	*28	3	30	- 5	24
Denison	Max	46	* 1	64	28	81	27	81	8	83	1	91	4	95	17	97	11	89	27	87	4	64	3	54	11
	Min	-24	14	-37	2	3	11	13	*14	26	4	40	22	45	10	50	7	41	* 4	18	*28	- 1	30	- 6	4
Des Moines	Max	45	1	63	28	77	27	82	9	80	29	90	4	94	16	94	11	88	27	85	4	64	12	57	11
	Min	-15	25	-26	13	11	11	21	16	38	5	51	27	54	25	58	26	50	23	24	31	8	30	1	24
De Soto	Max	48	1	64	28	77	27	84	9	82	10	90	18	92	16	92	11	89	27	87	4	65	12	57	11
	Min	-19	25	-32	13	10	11	23	14	35	5	49	22	52	9	57	26	46	23	20	*28	0	30	- 5	5
Dows	Max	40	1	49	28	72	27	75	1	79	1	91	4	94	16	93	11	86	27	86	4	68	11	51	6
	Min	-19	*14	-32	13	5	11	14	14	31	26	39	23	46	25	49	26	40	23	20	*28	- 3	30	- 7	24
Dubuque	Max	44	1	49	28	73	28	73	9	80	3	91	4	94	17	94	11	87	27	83	4	63	11	52	7
	Min	-12	30	-25	13	8	11	29	7	40	9	49	3	52	25	57	26	49	23	23	29	7	30	- 1	24
Earlham	Max	44	1	63	28	78	3	80	9	80	29	90	18	92	*16	94	11	87	1	84	4	63	12	..	..
	Min	-17	*25	-29	* 2	13	10	19	17	31	5	43	8	47	24	50	27	40	24	17	28	7	29	..	..
Elkader	Max	38	1	51	28	70	27	76	9	84	3	95	4	98	*17	101	11	90	27	88	4	67	12	56	7
	Min	-21	30	-30	15	2	11	20	14	33	7	45	* 8	46	25	50	*25	39	23	16	29	4	30	-10	31
Elliott	Max	..	..	..	..	81	3	87	9	87	31	95	* 2	99	*16	98	10	89	1	81	5	61	*13	51	11
	Min	..	..	..	..	13	11	18	7	32	5	46	22	45	24	58	*20	44	4	22	*28	3	30	- 5	4
Estherville	Max	42	1	55	28	74	*27	76	1	79	* 1	91	4	96	16	95	10	85	11	88	* 4	63	11	52	26
	Min	-21	25	-28	* 2	2	11	15	14	31	26	40	22	46	25	54	20	42	* 5	..	..	-12	30	- 8	4
Fayette	Max	38	1	46	28	70	*27	74	1	80	3	91	4	93	17	94	10	87	27	83	4	..	..	..	..
	Min	-24	30	-30	*13	1	11	18	14	31	7	42	8	42	25	48	24	37	23	14	29	..	..	..	..
Forest City	Max	40	1	46	*23	74	31	78	8	80	3	91	4	96	16	97	12	88	*28	92	4	64	12	48	6
	Min	-19	25	-31	13	3	11	15	14	34	* 5	43	22	49	24	52	26	42	23	20	28	- 4	30	- 7	4
Fort Dodge	Max	41	* 1	58	28	75	27	78	8	82	1	92	4	97	*16	97	11	86	*27	87	4	63	11	50	6
	Min	-18	*25	-28	*13	8	11	14	14	35	* 1	44	22	49	25	55	*10	44	*23	22	28	- 2	30	- 3	4
Galva	Max	45	4	59	28	80	27	80	1	81	1	88	* 4	94	16	93	11	84	27	82	4	60	*11	50	11
	Min	-27	25	-41	2	8	11	14	14	30	26	38	22	43	10	49	7	42	4	18	28	- 3	30	- 4	4
Glenwood	Max	54	1	69	28	81	27	85	9	88	3	92	* 4	93	*16	97	11	86	27	85	4	65	15	54	11
	Min	-20	25	-29	13	13	11	22	17	32	28	44	22	50	*11	59	7	45	4	23	*28	2	30	- 2	4
Grand Meadow	Max	38	1	46	28	70	*28	70	* 9	77	31	89	* 4	92	*16	92	11	83	29	78	* 4	58	*11	45	* 7
	Min	-18	10	-29	13	1	11	18	14	36	* 5	46	22	50	24	52	25	45	*23	20	*28	1	30	- 5	24
Greene	Max	37	1	46	28	70	31	74	1	81	3	93	4	97	*16	98	11	86	27	85	4	..	..	..	..
	Min	-18	13	-29	13	6	11	14	14	33	26	44	22	49	*10	51	26	42	23	21	28	..	..	..	..
Greenfield	Max	45	1	63	28	78	27	85	9	84	10	97	4	100	16	97	12	87	1	85	4	63	13	51	11
	Min	-20	25	-33	13	7	11	19	15	32	5	45	21	47	24	54	2	44	4	20	31	- 2	30	- 4	4
Grinnell	Max	45	1	53	28	74	27	77	9	82	29	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Min	-15	25	-26	13	7	11	22	*14	38	26	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Grinnell (near)	Max	..	..	..	..	..	..	..	..	..	..	91	* 4	93	*17	95	11	90	1	84	4	61	17	52	* 6
	Min	..	..	..	..	..	..	..	..	..	..	47	22	49	24	52	26	45	23	19	28	0	30	- 4	24
Grundy Center	Max	38	1	48	28	74	27	76	1	80	3	91	4	94	17	94	11	87	27	83	4	62	11	51	6
	Min	-17	26	-34	13	5	11	18	14	33	26	45	22	49	24	50	26	42	23	20	*28	0	30	- 8	24
Guthrie Center	Max	48	5	62	28	78	27	78	* 1	82	1	92	* 4	96	16	98	8	85	27	82	4	63	12	53	11
	Min	-20	25	-32	2	8	11	21	14	33	26	46	* 8	49	*10	54	* 7	43	23	18	28	- 1	30	- 4	4

MONTHLY MAXIMUM AND MINIMUM TEMPERATURES WITH DATES FOR 1905—CONTINUED.

STATIONS.		Jan.		Feb.		March.		April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.	
		Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.
Hampton	Max	41	1	50	28	72	31	78	1	80	* 1	95	4	97	*16	99	11	91	27	91	4	66	11	54	6
	Min	-17	25	-30	13	4	11	19	14	35	* 5	45	22	50	*24	53	26	45	28	22	28	- 1	30	- 2	4
Hanlontown	Max	39	1	47	*21	73	31	74	8	79	* 1	88	4	91	*16	98	11	84	*11	87	4	64	11	47	*11
	Min.	-21	30	-31	13	2	11	12	14	32	26	42	* 3	47	25	50	26	38	23	19	28	- 7	30	- 8	4
Harlan	Max	43	* 1	63	28	79	27	79	8	82	1	92	* 4	95	16	94	*10	85	27	83	4	60	12	53	11
	Min.	-24	14	-37	* 2	10	11	19	*14	32	26	44	22	45	24	52	7	41	4	19	*28	0	30	- 6	4
Hopeville	Max	46	1	64	28	77	27	85	9	80	*10	91	18	..	..	97	10	93	1	87	5	64	13	51	11
	Min.	-16	25	-30	13	10	11	24	16	35	5	49	*22	..	..	56	26	49	* 4	22	31	1	30	0	4
Humbolt	Max	45	2	54	28	75	27	76	* 1	82	1	88	18	96	17	94	11	84	27	83	8	60	* 4	48	6
	Min.	-20	*13	-32	2	5	11	15	14	33	26	43	22	48	25	55	25	43	23	20	28	- 2	30	- 4	4
Ida Grove	Max	..	..	60	27	..	..	71	27	83	* 1	93	* 4	97	*16	95	12	83	11	.	..	64	11	50	* 6
	Min	..	..	-41	2	..	..	12	14	32	* 7	43	27	41	9	48	6	38	5	..	..	- 3	30	- 7	4
Independence	Max	36	* 1	48	28	68	*27	73	* 1	78	3	90	4	96	18	..	..	..	.	81	* 4	61	12	50	* 6
	Min	-19	30	-29	13	5	11	19	14	35	* 7	45	22	47	25	..	..	.	..	19	31	3	30	- 4	31
Indianola	Max	49	1	64	28	79	27	85	9	82	29	92	18	95	*16	95	11	91	1	84	4	63	12	56	11
	Min.	-17	25	-28	2	8	11	24	* 7	36	26	43	22	52	24	55	26	47	23	20	28	1	30	- 2	24
Inwood	Max	50	1	62	28	80	27	76	* 1	82	1	92	* 3	100	16	96	9	89	11	94	4	..	..	..	..
	Min.	-30	25	-34	2	12	*11	10	14	29	4	38	21	45	* 9	52	*19	39	4	16	30	..	..	..	..
Iowa City	Max	48	1	55	28	73	*27	85	9	85	*10	94	18	95	*15	96	10	91	1	86	4	62	*11	51	* 7
	Min.	-16	30	-32	13	10	11	24	7	37	7	47	27	52	24	51	26	41	27	21	31	6	30	-10	24
Iowa Falls	Max	32	4	48	28	73	27	77	1	79	3	92	4	94	*16	95	11	85	27	81	* 4	62	11	49	6
	Min	-18	30	-32	13	6	11	19	14	33	26	46	* 8	47	25	49	26	40	23	19	28	0	30	- 6	24
Keokuk	Max	56	1	62	28	78	26	86	9	86	29	94	18	94	18	94	11	92	1	83	5	68	*13	53	7
	Min	-10	24	-27	13	14	11	28	16	43	26	52	27	56	24	56	26	50	26	26	28	8-	30	5	24
Keesauqna	Max	52	1	62	28	79	27	86	9	87	*10	95	18	96	18	98	11	94	1	85	4	68	12	56	11
	Min	-10	*10	-28	*13	12	11	25	7	38	7	50	1	50	25	50	23	46	23	23	28	5	30	0	24
Knoxville	Max	48	1	69	20	79	27	84	9	85	29	92	4	..	..	93	11	88	* 1	83	* 4	63	12	56	11
	Min.	-14	25	-26	13	10	11	25	16	37	5	51	* 8	..	..	55	26	48	23	23	*28	3	30	0	24
Larrabee	Max	45	1	59	28	80	27	80	1	84	* 1	98	5	99	17	97	* 4	85	*14	84	* 4	65	17	51	17
	Min.	-29	25	-36	2	3	1	10	14	28	8	39	22	44	24	55	* 7	42	4	22	30	2	*29	- 4	4
Le Mars	Max	45	1	61	28	80	27	78	8	83	1	95	5	97	16	97	10	85	* 1	84	4	64	11	51	17
	Min	-24	25	-35	2	10	11	14	14	32	* 5	41	22	45	24	50	7	41	4	23	*28	- 6	30	- 2	4
Lenox	Max	47	1	63	28	77	27	85	9	80	* 1	92	5	95	16	92	*10	88	1	82	4	62	13	51	11
	Min	-32	25	-37	13	9	11	21	*15	33	5	45	*22	51	9	57	26	45	4	22	31	0	30	- 3	4
Leon	Max	47	1	62	28	77	27	82	9	81	29	92	18	93	*16	94	10	88	1	80	4	64	13	53	11
	Min	-15	25	-28	13	29	13	24	16	37	5	50	23	52	9	55	26	50	* 4	22	31	3	30	- 2	4
Little Sioux	Max	52	4	66	28	83	27	84	8	85	1	94	* 4	97	14	98	11	88	*27	86	* 3	66	11	57	11
	Min	-27	25	-38	2	14	11	14	15	33	8	45	22	47	* 9	51	7	44	4	21	31	- 1	30	- 2	4
Logan	Max	47	4	63	28	80	27	81	8	84	1	95	4	97	*16	97	11	86	27	82	4	62	16	52	11
	Min	-21	25	-34	2	13	11	20	*14	32	5	44	22	46	24	52	7	40	4	19	31	1	30	- 4	4
Maquoketa	Max	43	1	48	28	73	28	80	9	81	3	91	4	94	18	97	12	90	* 1	85	4	64	17	53	7
	Min	-15	*10	-31	13	7	11	24	6	34	7	41	27	44	25	46	26	39	23	18	29	5	30	- 7	24
Marshalltown	Max	41	1	57	28	76	27	79	1	82	3	94	4	97	*16	103	11	90	27	86	4	62	*11	52	11
	Min	-16	*14	-30	13	7	11	21	14	35	26	46	23	49	25	50	26	42	23	19	28	0	30	- 1	* 4
Mason City	Max	38	1	45	28	69	31	71	1	81	3	91	4	98	*16	96	*10	85	27	82	4	3	11	48	6
	Min.	-15	*13	-27	13	8	11	20	14	33	26	45	22	52	9	55	*25	44	23	24	28	62	30	0	4
Massena	Max	44	1	65	28	78	27	84	9	82	* 1	94	*14	100	16	102	13	91	* 1	.	..	67	*12	..	..
	Min.	-19	25	-31	2	10	11	22	* 7	33	5	47	*22	48	9	52	7	43	* 4	..	..	0	30	..	..
Monticello	Max	..	..	..	..	79	27	.	..	87	24	96	17	98	15	96	12	87	1	85	7	60	*11	54	19
	Min	..	..	..	..	6	11	22	* 6	32	26	44	8	45	25	47	25	40	22	18	30	5	29	-11	*23
Mt. Ayr	Max	50	1	68	28	78	* 3	88	9	87	10	93	15	96	16	97	* 9	96	1	87	5	64	*18	56	11
	Min.	-17	25	-28	13	10	11	22	16	35	5	48	22	51	9	56	26	46	4	20	31	2	30	0	4
Mt. Pleasant	Max	52	1	58	28	75	27	82	9	87	29	94	* 4	97	17	95	9	93	1	83	4	64	13	51	7
	Min.	-12	14	-27	13	11	11	25	7	40	*12	48	27	52	24	52	26	48	* 5	22	30	5	30	0	24
Mt. Vernon	Max	44	1	52	28	72	27	83	9	87	10	92	* 4	95	*17	98	11	91	1	86	4	66	12	53	7
	Min.	-17	15	-30	13	6	11	23	7	35	5	46	27	51	* 6	55	25	45	*20	19	31	5	30	* 7	24
New Hampton	Max	38	1	41	28	70	31	72	1	79	3	90	4	96	17	96	11	..	..	81	7	62	11	48	6
	Min.	-18	*13	-32	13	2	11	19	14	34	7	47	23	51	24	54	26	..	..	20	*28	0	30	- 6	24
Newton	Max	43	1	55	28	71	*27	80	9	80	3	91	3	94	*16	93	11	86	1	82	4	61	11	..	..
	Min.	-18	25	-34	13	7	11	22	14	37	5	50	*23	53	*12	54	26	48	23	18	28	- 1	30	..	..
Northwood	Max	52	1	43	22	65	*27	73	24	80	3	90	4	94	*16	98	11	84	28	84	4	62	11	45	6
	Min	-19	13	-25	* 2	1	11	16	14	34	26	43	*24	49	*24	50	26	42	23	20	28	- 5	30	- 6	24
Odebolt	Max	50	1	60	28	79	27	81	8	83	1	94	4	99	16	100	11	85	29	85	4	61	11	-50	10
	Min.	-25	25	-34	2	8	11	17	14	29	8	43	22	48	10	58	* 7	44	4	20	28	0	30	- 2	4
Ogden	Max	43	1	62	28	75	27	79	8	80	* 1	92	17	95	*16	95	11	88	11	85	4	62	11	52	* 6
	Min.	-18	*14	-32	2	12	11	19	14	31	* 5	..	..	48	24	55	26	46	23	20	28	0	30	- 2	4
Olin	Max	42	1	48	28	69	*28	76	9	82	29	90	5	92	*17	94	12	89	1	80	* 4	..	..	50	* 7
	Min	-17	30	-28	13	10	11	25	* 6	35	7	46	27	..	..	48	26	43	*20	20	31	7	30	9	24
Omaha, Neb	Max	50	4	66	28	82	27	80	9	84	1	93	4	95	16	94	10	88	24	87	4	65	15	54	11
	Min.	-18	25	-25	2	17	11	24	14	38	5	51	22	54	9	62	7	51	4	27	31	4	30	1	3
Onawa	Max	47	1	69	28	84	27	84	8	87	1	95	* 5	98	16	98	10	89	28	88	3	69	* 2	56	11
	Min	-20	25	-30	2	14	11	18	14	35	5	46	22	50	* 9	55	7	44	4	23	31	- 1	30	- 1	3
Osage	Max	38	1	43	28	69	31	72	1	81	3	92	4	96	*16	96	11	85	27	84	4	61	11	46	6
	Min	-19	13	-28	2	1	11	16	14	34	26	42	22	49	9	51	25	43	23	20	*28	- 2	30	- 4	24
Oskaloosa	Max	48	1	60	28	79	27	84	9	83	29	92	5	93	18	94	11	89	1	83	4	62	13	54	11
	Min.	-16	*10	-31	13	10	11	25	* 7	39	* 7	52	22	51	25	53	28	45	23	23	*28	3	30	- 6	24
Ottumwa	Max	51	1	60	28	74	3	85	9	..	..	..	..	96	16	99	11	96	1	87	4	65	13	57	11
	Min	-12	25	-24	* 2	3	11	..	..	..	..	..	.	58	9	57	26	48	5	26	31	6	30	1	24
Pacific Junction	Max	44	* 1	67	28	82	27	84	9	84	* 1	94	5	96	16	93	10	87	23	83	4	62	15	51	11
	Min.	-22	25	-37	13	15	11	19	17	33	5	50	*22	47	24	53	7	39	1	20	31	1	30	- 5	4
Perry	Max	42	1	61	28	77	27	79	8	82	1	92	* 4	95	16	95	11	86	27	..	..	62	12	55	11
	Min	-19	25	-33	13	10	11	21	14	34	5	47	22	50	9	55	26	45	23	..	..	1	30	- 3	24
Plover	Max	42	4	55	28	75	27	78	1	82	2	93	9	95	*16	95	11	85	14	83	7	61	* 4	48	* 6
	Min	-22	13	-35	13	5	11	14	14	32	26	42	22	43	25	52	26	46	* 2	20	*28	0	29	- 4	4
Pocahontas	Max	43	4	53	28	74	*27	78	* 1	81	1	93	4	97	16	98	11	85	*11	86	4	62	11	49	17
	Min.	-21	25	-30	13	9	11	18	14	33	* 8	41	22	47	24	55	26	45	4	21	28	- 3	30	- 2	4
Red Oak	Max	45	4	60	27	81	4	..	..	86	*21	100	9	96	*16	94	10	92	1	86	4	65	*13	55	30
	Min	-15	25	-26	13	15	11	23	17	35	26	51	22	49	24	59	7	46	* 4	25	31	5	30	0	4
Ridgeway	Max	40	1	47	28	71	*27	73	24	82	3	90	* 4	96	16	97	11	91	30	88	* 4	64	12	53	6
	Min	-18	10	-28	13	1	11	20	14	36	* 5	48	32	52	9	53	25	45	25	20	28	0	30	- 5	24
Rock Rapids	Max	50	1	64	25	78	27	70	* 1	80	1	93	4	96	16	96	10	88	*26	87	5	68	16	48	15
	Min	-22	*15	-33	2	10	11	12	14	30	8	46	* 2	46	25	44	6	38	3	23	11	- 6	30	- 2	3
Rockwell City	Max	45	1	58	28	80	3	80	8	83	1	93	4	95	18	95	*11	88	28	83	4	68	12	50	*11
	Min.	-23	25	-32	*12	8	12	19	14	31	* 5	46	*23	48	24	55	28	43	23	20	28	3	30	- 1	4
Sac City	Max	45	4	57	28	77	27	78	8	81	1	90	3	93	16	93	11	84	27	83	4	60	*11	52	11
	Min	-23	25	-28	2	7	11	19	14	32	12	43	22	50	*11	56	19	43	23	20	28	- 1	30	- 3	4
St. Charles	Max	50	1	67	28	80	3	86	9	82	29	90	* 4	93	18	93	10	92	1	90	4	67	*13	91	11
	Min.	-16	25	-27	13	9	11	24	16	34	5	50	* 7	52	9	..	26	50	* 3	21	28	0	30	0	4
Sheldon	Max	46	1	63	28	80	27	79	1	82	1	94	5	100	16	99	11	88	11	94	4	66	11	56	7
	Min.	-27	25	-35	2	7	11	12	14	31	8	47	27	42	9	53	19	42	4	20	*28	-10	30	- 4	4
Sibley	Max	42	1	58	28	75	31	77	1	81	1	92	5	95	16	93	10	86	11	89	4	63	11	57	6
	Min.	-26	26	-35	2	2	11	10	14	31	26	40	20	46	24	52	20	43	* 5	17	30	- 9	30	- 9	1
Sidney	Max	..	..	..	..	83	27	85	9	86	1	96	9	96	*16	94	* 9	90	1	83	4	60	16	50	11
	Mix.	..	..	..	..	16	11	24	16	36	5	50	22	51	9	60	26	49	* 3	18	31	- 1	30	- 3	4
Sigourney	Max	45	1	54	28	76	27	84	9	87	29	93	* 4	95	*17	96	11	92	1	84	4	61	*1	53	11
	Min	-17	14	-30	13	9	11	24	16	38	* 5	50	27	51	24	53	26	47	-20	21	28	4	30	- 4	24

MONTHLY MAXIMUM AND MINIMUM TEMPERATURES WITH DATES FOR 1905—CONTINUED.

STATIONS.		Jan.		Feb.		March.		April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.	
		Temp.	Date.	Temp.	Date.	Temp	Date	Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.	Temp.	Date.
Sioux City	Max	47	1	64	28	82	27	78	8	83	1	95	5	100	16	96	10	87	11	86	4	67	11	54	17
	Min	-25	25	-30	2	13	11	20	14	35	5	44	22	48	10	54	7	44	4	24	28	- 5	30	- 3	3
Sioux Center	Max	44	1	60	28	78	27	75	* 1	79	1	91	5	98	16	94	10	86	17	84	4	63	11	52	17
	Min	-37	25	-32	2	16	*10	16	14	30	8	38	22	47	9	52	19	42	4	18	28	- 8	30	- 2	* 3
Stockport	Max	51	1	62	28	..	..	83	9	83	29	90	18	90	16	93	11	90	1	83	8	..	..	54	* 7
	Min	-12	14	-26	13	..	..	25	* 7	40	7	52	27	55	24	54	26	48	23	23	28	..	..	- 1	24
Storm Lake	Max	44	* 1	59	23	74	27	78	8	79	1	88	4	95	16	95	11	85	27	88	4	61	11	50	26
	Min	-26	25	-34	* 2	7	11	14	14	32	* 8	39	22	47	10	55	19	44	23	17	28	- 5	30	- 2	4
Thurman	Max	49	1	66	28	82	27	84	8	85	1	96	9	95	*16	93	10	88	1	85	4	63	*13	58	11
	Min	-21	14	-37	13	15	11	19	17	34	5	49	11	50	24	58	7	44	4	20	31	2	30	- 5	4
Tipton	Max	46	1	49	28	63	*27	81	9	82	29	93	4	96	*17	98	12	92	1	85	4	61	23	50	* 6
	Min	-10	*14	-24	13	13	11	28	*16	40	12	51	27	55	*24	57	26	49	*20	23	31	10	30	- 3	24
Toledo	Max	44	1	53	28	75	27	78	* 1	81	3	90	4	93	17	95	12	88	* 1	85	4	62	*11	52	* 6
	Min	-17	*10	-28	* 2	7	11	21	14	34	23	47	22	50	25	49	26	42	23	19	28	1	30	- 5	24
Vinton	Max	40	1	46	28	70	*22	77	9	..	..	90	* 4	93	17	93	12	89	29	82	* 4	63	13	52	7
	Min	-19	30	-30	13	8	11	22	14	..	..	48	27	49	25	46	26	42	23	20	29	9	30	- 5	24
Wapello	Max	49	1	..	..	72	26	80	9	82	4	90	* 4	93	18	93	11	.	..	82	4	68	*13	59	*11
	Min	- 8	25	-22	13	22	13	28	* 7	41	12	52	* 3	55	25	54	*17	..	..	26	28	10	30	8	* 4
Washington	Max	47	1	57	28	76	27	84	9	84	28	91	* 4	92	*16	93	11	90	1	84	4	64	13	54	7
	Min	-13	14	-29	13	11	11	24	7	39	* 5	49	27	52	24	54	26	46	23	22	28	6	30	- 4	24
Washta	Max	..	..	..	..	82	27	81	2	85	25	93	5	98	16	99	11	89	27	92	4	62	11	52	11
	Min	..	..	..	..	8	11	13	*15	28	26	36	22	40	25	45	1	36	4	17	*28	- 4	30	- 1	3
Waterloo	Max	40	1	45	*21	72	27	76	9	80	3	94	4	98	17	99	11	89	27	85	4	64	*11	54	6
	Min	-16	*13	-27	13	7	11	19	14	35	26	47	22	51	*10	51	26	42	23	21	28	4	30	- 4	24
Waukee	Max	46	1	66	28	82	27	87	9	85	10	93	* 4	102	16	104	11	90	1	81	4	60	*12	54	11
	Min	-18	25	-32	2	9	11	21	14	35	5	47	22	50	* 9	57	26	48	* 4	21	28	1	30	- 1	4
Waverly	Max	36	1	44	28	69	31	75	9	79	3	90	4	92	*16	94	11	87	27	81	* 4	61	11	49	* 6
	Min	-20	30	-28	*13	6	11	20	14	35	7	48	22	51	*24	53	26	42	23	20	31	3	30	- 5	24
Webster City	Max	..	..	..	..	74	26	77	1	82	20	95	4	99	17	98	*11	87	27	82	* 1	70	12	50	* 6
	Min	..	..	..	..	5	11	16	14	31	26	43	22	47	*10	50	26	40	23	17	28	10	*29	4	4
West Bend	Max	42	4	52	28	75	27	76	1	80	1	90	4	94	16	93	11	83	27	83	4	60	11	48	* 6
	Min	-19	25	-32	13	4	11	12	14	32	8	42	22	47	24	54	*20	43	5	18	28	- 4	30	1	* 3
Whitten	Max	49	1	48	28	73	27	72	1	81	3	93	4	96	16	94	11	85	27	80	7	59	*11	48	* 6
	Min	-30	13	-38	18	5	11	21	17	33	* 5	44	22	48	24	50	26	41	23	17	31	- 1	30	- 7	24
Wilton Junction	Max	52	1	49	28	74	31	82	9	88	29	95	* 4	96	16	94	* 5	94	1	83	4	65	18	50	* 7
	Min	-14	10	-23	13	9	11	25	* 6	36	7	45	27	48	25	48	26	45	23	20	28	5	30	- 5	24
Winterset	Max	45	1	59	28	74	* 3	82	9	81	29	92	* 4	95	16	93	*10	86	1	81	5	62	12	53	11
	Min	-17	25	-29	2	9	11	22	16	35	* 5	48	22	50	* 9	55	26	46	23	20	28	0	30	- 1	4
Woodburn	Max	..	..	61	28	..	..	..	..	82	29	92	16	93	18	94	5	88	1	80	4	63	13	53	11
	Min	..	..	-30	*13	..	..	..	..	34	7	46	8	48	24	50	26	42	23	18	28	2	30	..	..
Zearing	Max	39	1	55	28	75	27	79	2	79	* 1	90	4	93	17	95	11	88	27	85	4	61	*11	54	11
	Min	-23	25	-35	13	7	11	19	14	31	* 3	47	22	51	24	47	26	41	23	18	28	- 1	30	- 9	24

* And other dates.

MONTHLY AND ANNUAL MEAN TEMPERATURES FOR 1905, WITH DEPARTURES FROM THE NORMAL.

STATIONS.	Jan.		Feb.		Mar.		Apr.		May.		June.		July		Aug.		Sept.		Oct.		Nov.		Dec.		Annual	
	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.
Afton	14.5	- 8.9	16.1	- 5.7	44.8	s 9.8	49.6	-1.7	60.4	-2.7	71.4	-0.2	71.6	-4.5	75.1	s1.2	66.6	s1.5	49.8	- 4.1	39.9	s 4.0	27.4	s2.6	48 9	-0.7
Albia	12 3	s12.9	12.5	- 7.2	43.0	s 5 5	49.0	-1.4	60.0	-2.2	70.6	s0.5	70.6	-4.5	75.0	s1.9	66.4	s2.2	49.1	- 5.5	40.0	s 1 0	27.0	s3 6	48.(	-1.6
Algona	8.0	- 8.5	11.0	- 6 0	38.4	s 8.4	45.7	-2.6	56.1	-3.4	68.0	-1 7	69.4	-4.3	78 1	s2.0	64.0	s1.5	46.4	- 4.2	36.4	s 4.5	25.2	s4.9	45 1	-0.8
Allerton	15 2	....	15.7	....	45.2	.....	50.0	....	60.5		71.6	..	71.2	....	75.5	....	67.8	...	52.0	....	41.0	.....	28.(	...	49 5	....
Alta	7.9	- 8.9	11.2	- 8.0	39 6	s10.2	44.8	-2.8	55.6	-3.0	67.6	-0.9	68.9	-8.8	73.3	s1.5	64.1	s0.9	46.2	- 4.6	36.(	s 5.0	25 2	s4.7	45.1	-0 7
Alton	....	....		.....	.....	.....	.....	.....	55.4		67.8	...	69.5	..	73 5	....	64.6	...	47.2	.....	37.2	.....	26.6	.....	.....	.....
Amana	12.0	- 3.8	12.8	- 7.2	41 9	s10.5	48.8	s0.1	57.8	-0.2	70.8	s1 1	71.0	-3.0	74.2	s3.4	64.4	s3.7	50.1	s 0.5	38.4	s 5 2	27.(	s5 0	47.8	s1.3
Ames	14.5	- 2.6	13 5	- 8.1	44.0	s11.5	47.4	-1.7	58.4	-1.2	70.4	s0 4	70 4	-4.6	75.4	s1.2	65.7	s2.3	49.4	- 1.5	38.2	s 5.0	28.2	s6.4	48.0	s0.8
Atlantic	11.8	- 8.4	12.8	- 7.9	42.8	s 9.3	47.0	-2.5	58.4	-1.2	71.8	s2.1	70.2	-3.5	74.8	s3.9	66.3	65.7	48.4	- 3.6	38.6	s 4.1	28.2	s5.7	47.6	s0.4
Audubon	9.1	-10.3	12.3	- 6.9	42.7	s10.1	46.7	-3.2	57.8	-2.5	70.2	s1.4	69.5	-3.4	74.4	s2.5	65.5	s3.1	48.5	- 2.7	37.8	s 3.8	27.2	s1.(	44.8	-0.5
Baxter	10 4	-10.9	11.7	- 5.1	42.0	s 5.6	47.5	-1.8	58.2	-3.9	70.2	s2 7	70.2	-4.2	74 0	s2.4	66.5	s4.1	49.8	- 4.9	39.0	s 1.6	26.6	s4 2	7.2	-0.8
Bedford	14 2	-11.0	15 4	- 3.6	45.4	s10.1	49.8	-0.2	59 1	-3 7	71.4	s3.8	71.4	-2.5	75.5	s2.0	67.8	s4.5	49.4	- 7.7	39.0	- 0.9	26.6	s4 4	48.8	-0.5
Belle Plaine	10.2	- 8.2	10.8	- 9.8	39.9	s 7.4	48.3	s2.6	59.2	-0.1	69.8	[0.0	70.8	-2.8	73 8	s3.2	65.2	s1.5	48.8	- 1.8	38.5	s 4.1	25 2	s1, 2	46.7	-0 2
Bonaparte	16.2	- 7.4	15 2	- 7.7	44.8	s 7.6	50.4	-1.4	61.6	-1.8	71.4	-1 0	72.0	-4.4	75.2	s0.8	68.2	s0.5	53.2	- 2.5	41.1	s 2.9	29.2	s1.4	49.9	-1.1
Boone	12.2	.....	14.7	.....	41.6	.	46.2	..	57 6	....	69.1		70.6	----	74.8	....	65.2	....	49.0	....	37.8	... .	26.9		47.1	...
Britt	7.2	-10.5	10.8	- 6 2	38.4	s 9.6	44 8	-2.0	55 8	-3.3	68.4	s0.6	69.6	-3.5	72.6	s2.6	63 5	s1.9	46.4	- 5.8	35.5	s 2.4	23.8	s6.7	44 7	-0.6
Burlington	18 2	. .	17.2	.....	45.2	....	52.8		62.8		78.2	..	72.8	....	76.0		68.9	...	54.3	....	42.0	....	31.3	...	51.2	....
Carroll	10.6	- 9.0	12.7	- 6 3	41.2	s 9.7	48.0	-3.0	57.2	-2.3	69.6	s0.1	69.4	-4.5	74.2	s3.0	64.2	s1.1	48.1	- 3,2	38.8	s 5.6	26 6	s3.6	46.6	-0.4
Cedar Rapids	10.6	- 7.7	10.6	- 9.9	39.9	s 7.1	48.8	s0 4	60.2	s0.2	71.0	s0.3	72 7	-3.1	75.4	s2.7	16.6	s3 0	50.6	- 0.9	37.7	s 1.9	25 6	s0.3	47.5	-0 5
Chariton	13.5	-11.9	14.8	- 7.4	44.2	s 8.5	49 2	-2 5	59.2	-3.5	70.4	[0.0	70 0	-5.1	74.5	s0.8	66.6	s1.0	51 4	- 3.4	40.6	s 2.0	28 3	s2 7	48.6	-1.6
Charles City	4.6	11.9	8 8	- 9.0	36.2	s 4.9	44.6	-4.1	55.1	-4.8	67.0	-2.5	69.0	-5.0	71 8	-0 2	63.8	-1.3	46.8	- 4.8	35.7	s 2.7	32.8	s1.8	43.8	-2.8
Clarinda	12.8	- 9.9	12.4	10 6	41 5	s 9.3	48.6	-3.4	59 7	-2.0	72.3	s0,5	72.3	-4.0	76.2	s1.8	67.4	s1.4	50.2	- 4.4	39.8	s 2.4	27.9	s1 4	48 7	-1 5
Clear Lake	7.6	- 9.9	8.6	- 4.7	37.2	s 6.0	46.2	-1.5	57.4	-3.9	69.4	s0.9	71.2	-2.7	74.2	s2.8	62.8	s1.2	47.6	- 4.2	35 5	s 1.6	24.4	s5.8	45 2	-0 7
Clinton	14.8	- 4.4	13.6	- 8.4	10.3	s 7.5	49 0	s0.4	60.6	-0.8	71.6	s1.7	71.8	-2.2	73.6	s2.4	65.8	s2.7	49.8	- 0.6	37.4	s 1.9	27.4	s2 8	48.0	s0.2
College Springs	15 4	- 8.8	14.9	- 8.9	47.2	s11.1	50.2	-0.5	59.2	-2.2	72.5	s1.0	71.8	-3.6	75.8	s1.6	67.6	s0.5	51.3	- 6.4	40.8	s 2.4	30.2	s3.2	49.7	-0 9
Columbus Junction	16.4	.....	16.0	.....	44.0	.....	47.8	....	60.8		71.4	....	71.0	....	75.2	....	68.1		51.8	.....	38.0	.	28.4	....	49.0	...
Corning	12.8	- 9 5	13.3	- 8.9	44 8	s 9.1	48.0	-2.7	59.4	-1.6	70.8	s0.4	70 5	-4.0	74.0	s1.2	65.1	[0.0	49.4	- 4.6	39.3	s 2.1	27.8	s0.6	47 9	-1 5
Corydon	15.4	- 6.1	15 8	- 6 0	46.2	s10.1	50.6	-1.2	60.5	-1 3	71.4	s0.6	71 3	-4.5	75.2	s0.9	68.6	s1.5	52.7	- 2.4	41.9	s 3.8	29.4	s3.6	49.9	-0.1
Cresco	7.2	- 3.5	10.6	- 4.5	35.9	s 9.2	44.4	-0.3	55.0	-1.7	66.3	s4.1	68.0	-3.1	70.8	-0.4	63.3	s1.7	46.6	- 1.0						
Creston	...	.....	...	.....	..	..	47.0	....	57.9	....	68.8	....	69.8	....	74.2	..	66.0	...	49.9	....	39.5	.....	28.9	...	....	....
Davenport	15.7	- 4.3	14.6	-10.7	42.0	s 7.1	49.8	s0.1	61.0	s0.3	71.4	s0.5	72.0	-3.0	75.2	s2.4	67.9	s3.2	52.6	s 0.5	39.7	s 2.9	29,5	s1.7	49.8	s0.1
Decorah	6.6	- 9.9	11.2	- 3.8	36.8	s 6.5	46.1	-2.6	56.4	-3.8	68.6	s0.8	69 8	-2.8	71.8	s1.3	64.5	s2.6	47.2	- 3.5	36.7	s 4.4	25.2	s4.8	45.1	-0 5
Delaware	9.0	- 6.8	11.0	- 5.2	37.0	s 6.7	45.6	-0.4	57.2	-1.5	68.8	s0.2	69.0	-3 6	71.8	s2.0	64.2	s2.8	48.0	- 1.0	36.0	s 4.0	24.0	s2 8	45.1	[0 0
Denison	11.0	-10.1	13.2	- 5.4	42.2	s10 3	46.5	-2.7	57.1	-3.5	69.6	s0.7	69.2	-4.8	75.0	s2.9	66.0	s2.6	48.4	- 2.4	38.4	s 4 0	28.4	s6.5	47.1	-0.1
Des Moines	12 8	- 4.7	14.8	- 8.3	43.5	s 8.8	48.7	-1.8	59.1	-1.8	70 6	s0.5	71.0	-3.5	75.5	s3.5	67.3	s3.2	50.8	- 1.4	40.0	s 3.6	28.9	s2.1	48.6	s0.1
De Soto	12.7	.....	14.0	.....	43.8	....	48.5	....	59.5	...	70.4	....	70,1	....	74.6	....	67.4	....	50.9	.	39.8	.....	27.6	..	48.3	....
Dows	7.2	-12 1	9.8	- 5.6	38.4	s 8.5	45.0	-3.4	55.8	-3 9	67.8	s0.1	68.4	-4.6	71.9	s1.9	63.9	s2.3	47.4	- 5 2	36.8	s 3.1	24.6	s4.8	44.8	-1.2
Dubuque	12.0	- 5.3	13.3	- 9.3	39.1	s 6.2	48.2	-0.4	59.0	-0 9	70.1	s0.6	71.4	-2 9	73.5	s1.9	67.0	s3.8	50.9	- 0.8	38.4	s 3.4	27.6	s1.7	47.5	-0.1
Earlham	12.7	. .	14.0	. .	43.9	.....	46.7	....	57.2	...	68.5	....	69.0	....	73.0	....	64.6	....	48.4	.....	38.7	.....				....
Elkader	10.2	- 4.2	11.8	- 6.3	38.2	s 7.3	47.8	-0.4	58.4	-2.5	70 4	s0.9	71.6	-2.4	73.8	s3.0	66.5	s4.5	49.4	- 0.1	37.2	s 4.6	25 1	s3.5	46.7	s0.7
Elliott	....	.....	...	.....	...	.....	49.1	....	59.6	....	73 7	....	72.1	....	76.6	..	67.5	...	49.6	....	39.8	.....	28.1	....	....	....
Estherville	6.6	- 9.7	9.0	- 7.0	37.1	s10.0	43.6	-4.7	54.6	-4.1	66.6	-2.0	68.8	-3.9	72.2	-3.8	62.8	s1.9	....	.....	35.9	s 6.8	24.4	s8.0	....	...
Fayette	4.2	-12.7	9.2	- 8.2	36.8	s 6.6	44.6	-2.6	55,1	-2.6	67.2	-1.9	68.4	-3,9	70.6	s1.1	63.7	s1.2	47.3	- 2 6	35.2	s 2.7	20.8	-0.6	43.6	-1.9
Forest City	6.4	-11.8	8.1	- 6.9	36.6	s 8.2	44.4	-3.6	55.8	-3.8	67.2	-0.9	70.0	-2.9	73.4	s2.6	63.6	s1.3	46.4	- 4.1	35.8	s 4.6	24.8	s5.4	44.4	-1.0
Fort Dodge	8.4	.....	10,5	.....	39 3	.....	45.6	....	56.5	....	69,0	....	70.4	....	74.4	....	63.8	....	48.3	.....	37.1	.....	25.2	....	45.7	....
Galva	8 8	- 9.7	12.5	- 5.3	41.4	s 8.9	46.1	-3,2	55.6	-5.1	67,6	-1.4	68.4	-5.6	72.2	s0.8	64.0	-0.5	47.2	- 4.1	38.6	s 5.8	26.5	s4.9	45.7	-1.2
Glenwood	15.0	- 7.7	16.1	- 7.1	46.6	s10.6	50.4	-3.1	59.8	-2.1	71.2	-1.8	70.6	-6.4	75.5	s1.4	67.5	-0.4	52.4	- 3.5	41.8	s 3.2	31,0	s1 9	49.8	-1.2
Grand Meadow	7.8	- 8.1	11.0	- 6.0	36.6	s 6.4	45.8	-1.7	56.1	-2.1	67.6	s0.6	69.0	-2.0	71.0	s2.0	64.2	s2.5	47.6	- 2.4	35.4	s 3.2	23.9	s2.4	44,7	-0.4
Greene	8.8	-12.0	11.3	- 5.0	38.2	s 7.3	46.4	-1.9	57.3	-3.3	69 4	[0.0	70,6	-4.5	73.6	s1.2	64.0	-0.1	48.1	- 5.5	....	.....	...	...	...	...
Greenfield	12.4	- 9.3	14.2	- 7.1	44.2	s10.3	48.4	-2.2	60.4	-0.1	72.4	s1.8	71.6	-3.0	75.4	s2.8	66.1	s0.3	49.8	- 3.8	39.5	s 3.6	27.4	s2.9	48.5	-0.3
Grinnell	11.3	- 6.2	13.5	- 7.6	41.5	s 8.8	47.7	-2 7	59.1	-1.1	....	....	....	....	....	....	....	....	....	.....	....	....	....	....	....	....
Grinnell (near)	....	....	....	....	....	....	....	....	....	....	70.7	...	70.3	....	74 2	....	66.2	....	50.4	.....	38.7	....	26.9	....	....	....
Grundy Center	8.8	- 8.1	10.8	- 6.8	39.3	s 7.8	46.7	-1.0	57.3	-1.4	69.0	-0.1	69.6	-2 6	73.2	s2.5	65.6	s2 7	49.0	- 2.4	38.0	s 5.2	25.2	s3.0	46.0	-0.1
Guthrie Center	12.8	- 9.2	13.8	- 6.1	43.0	s 9.4	47.9	-2.2	59.2	-1.8	71.2	s1.6	71.0	-3.0	75.1	s2.7	66.0	s2.5	49.2	- 3.3	38.6	s 2.0	27.8	s6,5	48.0	-0.1
Hampton	8.8	- 6.7	11-4	- 6.1	38.8	s10.2	46.8	-0.8	57,6	-0.8	69.1	s1.3	70.8	-1.9	74.6	s4.4	65.8	s3.5	49.5	- 1.1	38 0	s 5.9	26.5	s5.6	46.5	s1.1
Hanlonton	6.8	....	9.6	....	36.8	.....	44.0	....	55.2	...	65.6		67.6		71.9	....	62.0		45,9	.....	35.8	.....	24.2	....	43 8	....
Harlan	10.8	-11,6	12,4	- 4.1	42.9	s 8.7	46.8	-2.0	58.0	-3.7	70.6	s1.9	69.8	-4.6	74.2	s2.3	65.6	s3.5	48.5	- 5.9	38.4	s 1.0	26.4	s4.2	47.0	-0.9
Hopeville	13.4	- 8.4	14.8	- 7.1	44.5	s10.2	49.2	-1.0	59.0	-1.4	70.9	s0.4	....	....	75.8	s2.7	67.8	s1, 2	51.2	- 3.4	40.4	s 4 9	29.4	s3,9	...	...
Humboldt	9.0	- 8.5	12,8	- 4.6	40.6	s10.9	46.8	-2 8	55.4	-1.9	67.2	-2,8	68.9	-5.0	78.4	s3.5	64.2	s1.9	49.8	s 0.1	38.4	s 4.9	26.6	s3.8	46.1	[0.0
Ida Grove	...	.....	12.9	....	....	....	45.2	....	57.1		70.0	..	71.6	...	73,0	....	62.3	...	....	....	37.6	.....	27,4		....	....
Independence	8.2	- 6.5	10.3	-11.5	38.2	s 8 3	46.5	-0.7	57.4	-2.3	68.8	-0.3	69 2	-4.2	....	....	....	....	48.4	s 0.2	37.6	s 4.4	25.5	s3 8	....	....
Indianola	12.6	- 6.4	15.2	- 7.3	44.4	s 6.4	49.2	-2.5	59.5	-1.4	71.0	s0.6	70.6	-5.0	74 8	s2.1	66,8	s1.2	50.8	- 3.4	39.6	- 2.0	28.8	s3,6	48,6	-1.2
Inwood	7.7	. .	10.8	.....	38 6	. .	44.4	..	56.5		67.3	....	68.7	....	73.8	....	64.7	....	47 3		....	....	....	....	....	....
Iowa City	11.2	- 7.9	10.4	-12.5	39.8	s 6.2	48.0	s1.7	60.0	-0.3	70.8	s1.5	71.6	-2,6	74.4	s2.8	66.0	s2.6	50.4	- 0.7	37.6	s 2.1	24.2	s0.1	47.0	-0.6
Iowa Falls	6.5	- 8.9	10.0	- 5.3	37.8	s 7.0	45.5	-2.0	55.9	-3.8	68.1	-0.4	69.3	-3.7	72.5	s2.3	63.4	s1 8	46.8	- 3.5	36.3	s 4.1	24.6	s4.1	44.7	-0.7
Keokuk	19.6	- 3.6	18 0	-10.3	46.8	s 9.2	52.6	s0.6	63 6	s1.0	74.0	s1.7	73.4	-3.5	76.9	s2.4	68.6	s3.2	54.8	s 0.7	42.7	s 3 9	32.2	s3.4	52.0	s0.6
Keosauqua	15.4	- 8.4	13.4	-10 7	43.4	s 5.4	50.4	-2.4	61.5	-1.7	71.8	-1.2	72.3	-4.5	75.8	s0.9	67.2	-0.2	51.8	- 4.3	41.1	s 1.8	28.0	s1.0	49.3	-2.0
Knoxville	14 0	-10.4	16.6	- 5.0	43.9	s 6 9	50.3	-2.2	60.8	-2.3	72.2	s0.1		...	75 0	s1.3	67.8	s1.9	52.2	- 1 9	40.6	s 3.4	28.9	s3.6	....	..
Larrabee	8.6	- 9.3	11 4	- 6.8	39.7	s10.5	45.6	-2.5	56.2	-2.3	69.8	s0.9	72.0	-1.0	75.0	s3.8	64.9	s1.8	48.6	- 1.9	37.6	s 5.7	26 2	s4,8	46.8	s0.8
Le Mars	9.3	-11.7	11.8	- 5.5	40.4	s 8.6	45.5	-4.2	56.3	-4.3	71.2	s2.3	70.1	-3.8	74.4	s2.4	64.8	s1.9	47.2	- 5 8	37.6	s 4.2	26 8	s5.3	46.3	-0.8
Lenox	12.4	-12.5	13.6	- 8.4	44.5	s 9.6	48.8	-2.4	59.3	-2.8	71.2	s1.0	71.0	-3.7	74.6	s1.4	66.8	s1.5	50 0	- 4.8	40.2	s 2.8	28 0	s3.8	48.4	-1.2
Leon	15.0	...	16.0	.....	45.8	.....	50.3	....	60.9	....	72.1	....	71.6	....	75 8	....	67.0	..	51.2	.....	41.0	.....	28.8	....	49.6	....
Little Sioux	11.8	.....	14.2	.....	45.0	....	48.6	...	60.0	...	71.6	..	71.8	....	77.2	..	68.6	.	51.0	. .	41.0	.....	30.0	....	49.2	
Logan	13.7	- 5.5	15.2	- 8.4	43.2	s 9.1	48.6	-1.4	58.7	-2.5	72.0	s0.9	72.1	-2,9	76.1	s3.6	67.0	s3.0	50.0	- 2.8	39.4	s 3.8	28.2	s3.3	48.7	s0.1
Maquoketa	11.7	- 8.4	10.2	-11.4	37.9	s 3.9	47.4	-1.5	58.4	-2.7	68.4	s1.6	70.0	-5,1	72.2	s0.3	64.6	s0.8	48.0	- 6.4	35.7	- 1.4	24.8	-0.3	45.8	-2.8
Marshalltown	9.4	-10.7	10.1	- 9,9	39.8	s 7.6	47.0	-2.6	58.3	-1.8	69.6	s0.2	70.2	-3.6	74.8	s2.8	66.0	s1 8	52.4	- 0.6	40.4	s 4.7	28.4	s0.9	47.0	-0.9
Mason City	8.6	- 6.6	11.6	- 3.3	37.2	s 9.3	45.8	-3.6	56.6	-2.4	68.8	s1.2	70.6	0 8	73.8	s4.2	64.0	s1.0	47.8	- 1.6	37.2	s 7.8	26.1	s5.7	45.7	s0.9
Massena	13.2	.....	14 4	.....	44.6	....	50.0	....	60.0		72.0	...	72.2	...	77.0	....	68.1	....	....	. ...	39.3	.....	....	....	....	....
Monticello	....	.....	....	.....	41.8	s 9.4	....	....	58 6	-0.9	70.7	s2.2	71.0	-1.9	72.2	s2.1	64 0	s2.4	47.8	- 1.7	35.4	s 1.9	24.4	s2.3	....	....
Mt. Ayr	14.8	- 9.1	16.2	- 5.6	46.6	s11.1	51 6	s0.1	61.8	-1.1	72.2	s1.5	71.6	-4.1	75.8	s2.0	68.4	s1.7	52.0	- 3.3	40.8	s 2.9	29.7	s5.1	50.1	s0.1
Mt. Pleasant	15 6	- 2.4	15.2	- 8.6	44 2	s 9.7	50 0	-1.1	62.4	s1.0	72.7	s1.6	72.4	-2.9	75.4	s3.0	67.6	s4.0	51.8	s 1.2	39.6	s 4.9	28.4	s2.6	49 6	s1.1
Mt. Vernon	12.4	- 4.3	13.0	- 8.6	41.0	s11.1	49.0	s2.5	59.8	s0.4	70.2	s0.8	71.4	-2.0	75.0	s5.2	66.4	s4.7	50.9	s 3.6	37.8	s 4.6	26.3	s2.2	47.8	s1.7
New Hampton	7.2	-13.1	10.5	- 3 4	37.2	s 6.6	45.8	-2 8	58.6	-2.7	68.4	-0.2	70.3	-3.1	72.4	s1.7	....	....	42.4	-11.1	36.6	s 1.8	23.8	s5.9	...	...
Newton	11.4	- 6.8	12.8	- 7.6	41 2	s 8.0	47.8	-1.1	58.1	-2.8	69.8	-0.4	69.8	-5.7	73.7	s1.5	65.2	s2.3	49.6	- 2.2	37.4	s 2.9		..		...
Northwood	7.5	- 9.8	6.4	- 7 0	37.0	s 7.6	44.2	-3.5	56.2	-2.7	67.8	s0.5	69.8	-2.7	72.4	s2.7	63.3	s3.0	46.0	- 2.0	35.5	s 3.6	23.6	s4.5	44.2	-0.5
Odebolt	10.2	-12.4	13.2	- 4.4	42 0	s 9.0	47.0	-2.7	56.8	-5.1	71.4	s0.6	70,9	-5.2	75.7	s1.1	65.1	s2,0	48.2	- 7.2	38.9	s 2.9	27.6	s3.8	47.2	-1.3
Ogden	10.2	-11.3	13 6	- 5.8	41 8	s 8.6	47.4	-3.1	58.9	-3.5	....	....	70.5	-4.6	74.8	s1.8	66.4	s1 7	49.2	- 4.2	38.6	s 3.4	27,1	s3.7	....	....
Olin	12.3	-10.3	12.4	- 1.9	39.8	s 6.8	47.6	s0.9	59.0	-2.0	69.8	s0,2	71.5	-3.3	72.2	s2.4	65 8	s4.3	50.2	- 1 7	37.2	s 0.3	26.2	s3.4	47.1	-0 1
Omaha, Nebr	14.3	- 4.9	17.0	- 8.0	45.7	s10.2	49.7	-1.3	60.1	-1.6	72.2	s0.7	72.6	-3.6	77.6	s3.9	68.8	s4.0	51.8	- 1.1	42.6	s 6.0	31.6	s4.9	50,3	s0.8
Onawa	13.0	-11.0	15.9	- 3.6	43.8	s 6.6	49.0	-1.6	61.5	-3.2	72.6	s2.9	73.1	-2.9	77.5	s4.0	68.2	s4 1	50 8	- 5.4	40.6	s 2.5	29.6	s5.2	49.6	-0.1
Osage	6 6	- 7.4	11.2	- 3.2	37.0	s 9.6	45.3	-0.2	56.4	-0.7	67.4	s1.0	69.3	-1.7	72.5	s5.0	63.4	s4 0	46.7	- 0.2	35.8	s 6.6	23.8	s1,7	44.6	s1 5
Oskaloosa	12.6	- 6.4	13.8	- 7.5	45.2	s11.0	49.6	-0.7	60.4	[0.0	71.6	s1.7	71.0	-4.4	75.0	s3.2	67.2	s2.8	51.4	- 0.5	39.7	s 3.0	27.6	s1.8	48.8	s0.3
Ottumwa	14.9	- 9.9	16.2	- 6.7	45.2	s 7.6	....	....	....	....	....	....	72.4	-4.4	77.2	s2.2	66.8	s0.2	52.4	- 3.3	39.8	s 0.6	28.8	s1.4	....	...
Pacific Junction	13.4	.11 2	14.5	- 4.5	45.2	s 9.1	49,2	-1.2	60.6	-2.0	71.8	s2.3	70.8	-4.5	74.5	s1.1	67.0	s3.1	49.2	- 7.2	39.2	s 2.9	28.6	s3.8	48.7	-0.7
Perry	11.2	....	13.8	.....	42.8	.....	47.9	..	59 4	...	70.6	....	71.2	....	75.0	....	66.2	....	....	....	38.4	....	26.8		...	...
Plover	7.8	-13.2	10.4	- 6.3	39 4	s 9.0	44.9	-3.3	56.7	-3.7	68.1	-0.5	69.3	-5.2	74.9	s3.9	63.6	s0.2	47.4	- 4.9	36.6	s 2.8	25.9	s6.0	45.4	-1 3
Pocahontas	9.6	.....	12.2	.....	40.6	.....	45.6	....	56.6	....	68.2	....	70.2	....	74.2	....	64.6	....	47.4	.....	37.5		25.2		46.0	...
Red Oak	16 6	- 9.5	15.4	- 7.4	46.3	s 9.5	49.0	-2.8	63.1	[0 0	74.5	s1,9	73.1	-3.4	77.0	s2.8	69.2	s2.5	52.5	- 4.8	42.8	s 1.2	32.4	s7.6	51.0	-0.2
Ridgeway	10 2	-12.1	13.6	- 3 5	38 0	s 6 6	47.6	-1.0	57.4	-3.2	69.7	s0.5	71.6	-5.0	74.0	s1.2	66.4	s1.2	48.8	- 5.1	38.0	s 0.8	26.2	s5.0	46.8	-1.0
Rock Rapids	9.7	- 5.1	10,6	- 6.4	40.8	s11.0	48.2	-5.4	55.4	-1 8	67.6	-0,8	70.1	-2.7	74.6	s4.8	67.8	s4.8	44.2	- 3.8	38.2	s10.2	25 4	s5.7	45.6

MONTHLY AND ANNUAL MEAN TEMPERATURES FOR 1905 WITH DEPARTURES FROM THE NORMAL—CONTINUED.

STATIONS.	Jan.		Feb.		Mar.		Apr.		May.		June		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Annual	
	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp	Dept.	Temp.	Dept.
Sheldon	8.2	-13.6	11.0	- 3.2	39.9	s11.1	45.6	-2.6	55.3	-3.7	69.1	s2.6	70.1	-2.9	74.8	s3.4	65.7	s3.3	48.2	- 5.2	38.0	s 2.4	27.4	s8.4	46.1	-0.0
Sibley	6.0	-10.6	8.3	- 7.1	36.4	s 6.8	42.9	-5.1	53.2	-5.4	64.5	-2.6	67.4	-3.9	71.6	s2.5	62.6	s1.4	45.0	- 5.9	35.2	s 4.8	24.1	s5.0	43.1	-1.7
Sidney	....	....	....	....	47.2	....	50.8	....	62.0	....	74.0	....	73.1	...	77.0	....	67.9	....	49.9	.....	38.8	....	27.6	....	....	....
Sigourney	14.4	- 9.7	15.2	- 6.2	43.8	s 7.9	50.4	-1.8	61.4	-2.8	72.5	s0.2	72.6	-5.0	75.6	s1.4	67.6	s2.5	52.0	- 3.4	39.9	s 1.1	28.1	s3.2	49.5	-1.0
Sioux Center	8.9	-12.7	11.8	- 3.8	39.7	s 6.7	45.0	-3.3	54.6	-6.4	66.1	-2.9	69.4	-5.1	73.2	s1.0	63.9	s3.2	46.1	- 7.1	36 8	s 1.3	26.4	s6.7	45.2	-1.9
Sioux City	10.0	- 6.8	13.6	- 5.4	41.8	s10.2	46.2	-4.4	56.9	-1.5	69.0	-1.3	70.6	-3.7	75.4	s3.8	65.7	s0.5	49.2	- 1.8	39.6	s 5.3	28.4	s0.6	47.2	-0.3
Stockport	16.7	.....	16.8	..	....	....	50.6	...	61.6	....	71.4	...	71.1	...	74.6	..	65.4	....	52.8	.....	...	.....	29.0	....	....	....
Storm Lake	6.2	-13.0	8.2	- 6.8	37.6	s 9.5	43.7	-2.7	54 6	-3.4	66.1	-1.9	68.0	-5.1	73.0	s1.5	63.4	-0.1	46.5	- 9 0	36.4	s 0.0	25.0	s4.8	44.1	-2.2
Thurman	13.6	-12.6	14.4	- 5.8	46.4	s 9 5	50.0	-1.8	61.1	-2.2	73.4	s1.2	78.2	-4.3	75.6	s1.2	67.4	s1.6	50.9	- 5 4	40.8	s 2.6	28.8	s5.6	49.6	-0.9
Tipton	15.4	- 4.8	15.2	- 6.2	41.8	s 5.9	50.7	s2.2	61.8	s1.1	72.6	s3.3	73.2	-1.4	75.6	s5.1	68.6	s3.9	52.4	- 0.6	39.7	s 3.7	28.5	s4.7	49.6	s1.4
Toledo	10.8	- 8.9	12.2	- 7.4	41.7	s 9.5	47.9	-2.7	58.6	-3.2	69.8	-0.9	69.4	-5.5	73.7	s1.3	66.1	s2.0	50.4	- 2.1	39.0	s 2.9	26.9	s3.7	47.2	-0.9
Vinton	11.2	- 7.7	11.3	- 8.6	41.2	s 9.1	47 6	-1.6	....	....	69.0	-0.7	69.9	-3.8	73.6	s2.9	65.8	s3.0	51.2	s 0.6	38.5	s 4.1	26.4	s2.5	....	....
Wapello	18.4	- 8.6	13.3	- 7.5	42.3	s 7.3	52.0	s0.1	61.4	-3.0	70.6	-0.9	72.0	-5.4	73.6	-1.3	....	..	52.9	- 3.3	41.6	- 0.4	30.9	s3.9	...	....
Washington	14.9	- 6.3	14.7	- 6.7	43.4	s 8.8	49 5	-1.4	60.6	-0.8	70.6	-2.6	70.6	-5.0	74.4	s1.2	66.6	s1.6	51.4	- 2.6	40.4	s 4.8	28.4	s4.4	48.8	-0.4
Wahsta	....	....	...	....	41.2	.....	46.2	....	56.6	...	68.3	....	69.0	....	73.8		65.2	...	48.0	.....	37.6	.....	26.4	...	....	....
Waterloo	8.2	- 9.6	12.0	- 6.2	39.0	s 8.8	47.0	-0.2	57.6	-2.4	69.0	s0.5	71.0	-3.0	74.4	s3.6	65.4	s3.0	49.9	s 0.2	39 6	s 4.4	26.9	s5.8	46.7	s0.4
Waukee	13.2	.....	15.7	.....	44.9	.....	49.4	....	60.4	....	71.7	....	72.6	....	78 0	....	67.0		49.6	.....	39.4	.....	27.4	....	49.1	....
Waverly	7.6	-12.1	10.6	- 7.4	37.9	s 6.7	45 8	-1.7	57.0	-4.4	68.1	-0.7	69.2	-4.7	72.0	s0.6	64.2	s1.7	47.6	- 5.8	37.2	s 2.7	25.0	s4.8	45.2	-1.7
Webster City		.....	....	.	41.7	.....	47.6	....	58.2	....	70.8	..	71.5	....	75.2	...	65.2	....	48.4	.....	38.7	.....	26.9	....	....	....
West Bend	8.6	- 9.0	12.0	- 4.5	39.4	s10.2	45.2	-1.6	55.9	-3.4	68.2	s0.4	69.0	-3.9	73.0	s3.8	63.4	s2.6	46.5	- 2.5	36.4	s 5.4	25.9	s6 0	45.8	s0.2
Whitten	9.1	-11.2	10.7	- 4.4	39.4	s 8.4	46.0	-2.1	57.8	-2.0	70.2	s1.9	70.4	-4.8	73.4	s2.5	65.4	s2.8	47.1	- 5.8	37.0	s 2.2	25 1	s5.8	46.0	-0.5
Wilton Junction	14 2	- 8 6	13.7	- 6.1	42.0	s 7.7	49.9	-1.0	61.2	-1.2	72.7	s1.6	71.9	-3.5	74.0	s1.1	66.9	s2.6	51.2	- 1.6	38.6	s 1.2	26.8	s1.2	48.6	-0.6
Winterset	13 6	- 7 9	14.9	- 6.7	43.6	s 9.5	48.3	-2.9	59.8	-1.5	71.8	s1.5	70.5	-3.8	74.4	s2.0	66.8	s1.6	49.0	- 4.7	38 2	- 0.2	27.4	s2 2	48.2	-0.9
Woodburn	...	....	14.8	.....	....	....	....	..	59.4	....	71.1	..	70.6	....	74.0	....	65.8	..	49.4	.....	38.5	.....	....	....	....	....
Zearing	9.4	...	11.8	....	40 7	.	46 8	....	56.7	...	69.4	....	70.0	...	73 6	....	65.2	....	48 8	.....	37.6	....	26.2	...	46.4	....

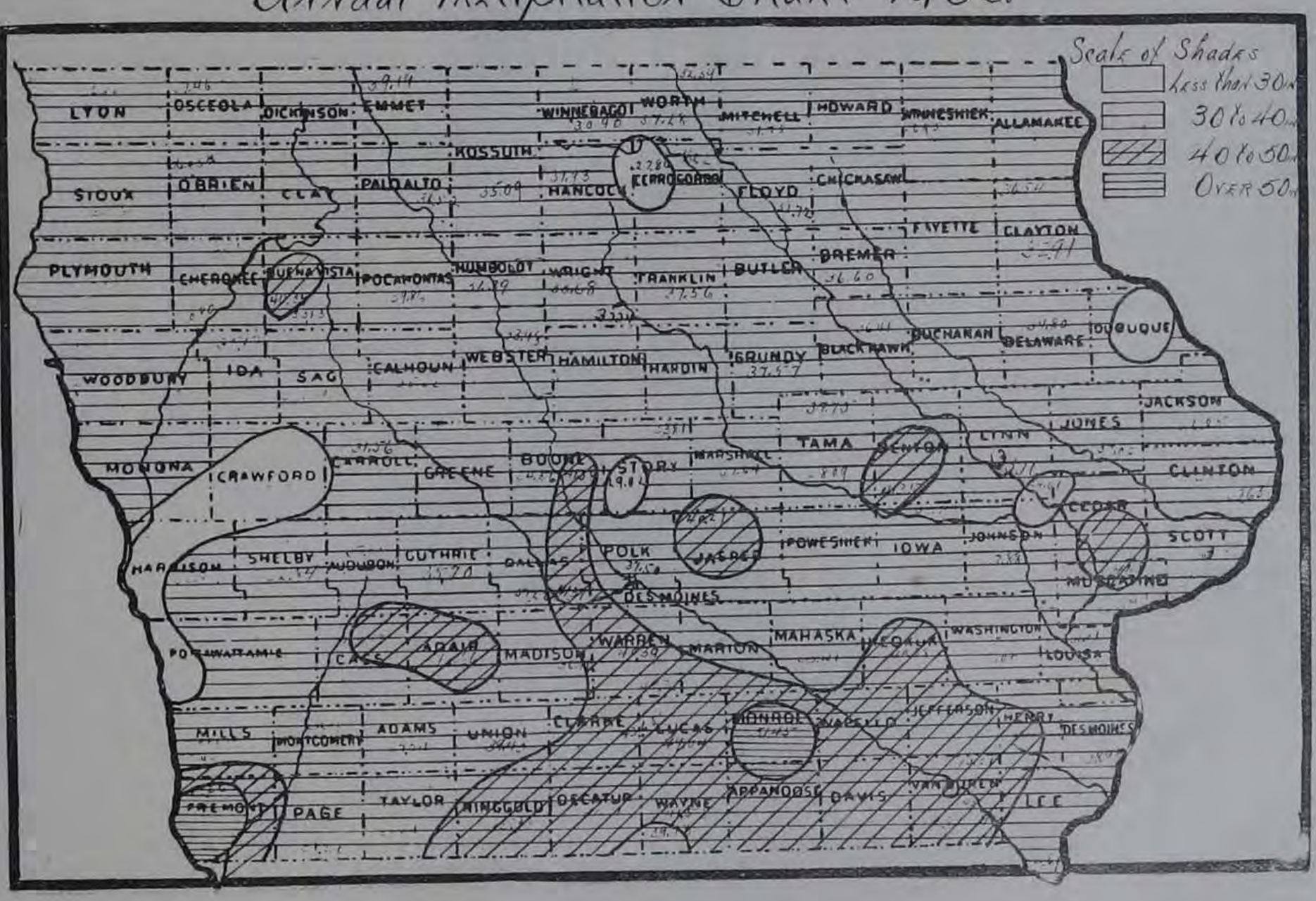
MONTHLY AND ANNUAL PRECIPITATION FOR 1905, WITH DEPARTURES FROM NORMAL.

STATIONS	Jan.		Feb.		Mar.		Apr.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Annual.	
	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.
Afton	1.35	s .54	1.35	s .31	1.87	- .43	4.17	s .50	4.76	s .05	6.12	s 1.82	2.84	-1.96	4 67	s1.16	5.27	s1.40	3.66	s .70	3.12	†2.01	.25	-1.09	39.48	s 5.08
Albia	1.04	- .22	1.87	s .55	2.41	s .58	4.72	s1.77	4.76	s .64	9.06	s 5.49	7.08	s2.95	7.87	s3.89	4.92	s1.00	4.17	s1.88	2 47	s .88	.08	s .08	51.45	s18.89
Algona	1.03	s .23	1.60	s .50	2.01	s .45	2.08	- .48	7.95	s4.50	5.55	s 1.16	1.18	-2.49	4.89	s1.18	1 61	-1.55	3.62	s1.52	3 37	s2.11	.20	- 85	35.09	s 6.08
Allerton	1.01	.....	1.82	...	3.38	....	3.31	.....	8.81	.....	5.17	.....	3.62	.....	6.62	.....	4.67	...	3 33	.....	2.35	.....	.61	.....	39.78	.....
Alta	1.27	s .62	1.26	s .51	1.51	- .31	2.52	- .72	8.74	s4.52	5.73	s .07	1.47	-3.24	4.76	s .91	7.06	s4.99	2.08	—.09	3 20	s2.03	.15	- .88	40.34	s 8.41
Alta (near)	1.25	.....	1.00	.....	1.47	...	2.69	...	8.22	....	7.23	...	1.93	....	2.96	.....	7 29	...	3.08	....	3 11	.	.25	....	39.48	.....
Alton	...	...	...	...	...	...	...	...	8.80	...	7.20	...	1 55	...	3.65	...	5.26	...	1.41	....	3.91	.....	.08	...	.....	.....
Amana	0.89	- .55	1 93	s .66	2.88	s .88	3.22	s .34	7.87	s3.41	7.52	-s3.03	2.65	-1.55	1.98	-1.61	1.84	-1.52	4.52	s1.78	3.14	s1.39	.97	- .52	39.39	s 5.73
Ames	0.64	- .33	0.67	- .17	2.80	s .82	1.38	-1.42	5.51	s1.28	4.28	- .52	3.14	-2 44	3.03	- .51	2.96	- 5.7	3.55	s1,0	2 43	s1.33	.23	- .79	29 02	- 2.29
Atlantic	1.55	s .79	2.10	s1 14	0.50	-1 46	3 72	s .68	3.03	-1.14	5 59	- .09	2.34	-2.01	1.54	s1 48	9.28	s3.50	4.78	s2.15	2.54	s1.68	.10	-1.28	40 08	s 8.50
Audubon	1.08	s .42	1.79	s .99	3.54	s1.76	3 54	s1.62	6.19	s2.27	5.95	s 2.18	2 83	-1 09	2 72	-1.23	4.50	s 1.11	3.17	s .94	2.42	s .94	.15	-1.10	37.88	s 9.14
Baxter	1.40	s .75	1.40	s .51	2.25	[0.0	3.00	- .25	8.81	s .85	4.50	s .08	4.54	- .35	7.22	s3.20	2.81	- .30	3 98	s1.27	2.50	s1.69	.30	- 66	40.21	s 6 79
Bedford	0.95	s .13	1.56	s .75	1.62	- .91	2 84	[.00	6.28	s .16	2.96	--1.2	2.87	-2.73	2.64	-3.47	5 73	s2.21	2.16	- .67	3.38	s2.39	.15	- .77	33.09	- 4.18
Belle Plaine	1.65	s .18	3.97	s1.67	2 14	- .46	2.77	- .84	8 28	s3.84	4.49	s .26	5.93	†2.29	3.66	-.70	9.05	s .15	4 35	s2.07	2.41	s .58	.65	- .84	41.85	s 7.15
Bonaparte	0.79	- .78	1.42	s .18	2.03	- .65	4.60	s1.27	2.57	-1.46	14.50	†10.26	2.54	-1 06	7.98	s4 10	2.05	-1.96	2.09	s .27	1.84	- .16	.88	- .62	43.19	s 9.39
Boone	0.90	.....	1.37	....	2.65	....	4.23	...	7.43	.....	6.59	. .	3.52	....	3.45	.	2.91	.....	3 60	.....	2.58	...	.41	.....	41.59	.....
Britt	1.14	s .55	1.84	s .87	1.58	s .24	2 21	s .14	8.10	s4.41	3 56	- .92	1.97	-2.85	2.96	- .71	1.49	-2.56	3 85	s1.67	2.86	s1.88	.37	- .42	31 98	s 2.80
Buckingham	0.91	s .19	1.23	s .29	3.05	s .96	2.40	- .08	5.5	s1.66	5.83	s .67	5 17	s .77	2.72	-2.18	3.87	s .48	3.57	s1 78	3.31	s2.33	.69	- .31	37.75	s 6.51
Burlington	1.00	...	2.40	..	1 82	...	3.68	....	3.07	.....	7.67	.....	3.30	...	6.61		2.90		3.03	.....	3.09	.	1.85	.....	38.92	.....
Carroll	1.57	s-.71	1.75	s .67	1.87	- .48	2.99	- .53	6.29	s1.88	3.59	- 1.24	2.97	—.93	1.64	-2.13	2.51	- .61	3.68	s1.37	2.48	s1.33	.27	- 81	31 56	- 0.77
Cedar Rapids	0.74	- .70	1.32	- .28	3.23	s .05	2.94	- .64	8.31	s3.79	3.70	- .22	2.78	-1 09	3.45	s .23	1.50	-1 36	4.19	s1.60	2.65	s1.28	.52	-1 09	33.76	s 1.54
Chariton	1.15	s .04	2 03	- .99	3.34	s1.84	4.35	s .84	5.51	s1 24	9.70	s 5.43	4 91	-1.33	7.74	s1.84	3.67	- .06	3.46	s .64	2.55	s1.14	.65	- .87	49.04	s14 74
Charles City	0.86	- .15	1.16	s .07	1.78	- .07	1.99	- .55	7.07	s3.02	5.29	s .16	1.19	-2.73	5.46	s2.62	2.00	-1.19	3.23	s .84	2.08	s .58	.61	- .75	32.72	s 1.87
Clarinda	0.87	- .10	1.18	s .16	1.76	- .14	2.91	- .40	6.32	s1.51	3 80	- 1.31	5.22	s .54	2.97	- .74	6.14	s3.58	3.33	- .46	3.41	s2 38	.19	-1.05	37.10	s 3.99
Clear Lake	0.30	- .22	1.40	s .55	1.60	s .38	1 15	- .76	7.53	s1 93	4.25	- .14	1.60	-3.15	3.78	- .23	.50	-3.18	3.25	s .37	2 20	s1.37	.30	- .35	27.86	- 3.38
Clinton	0.69	-1.16	2 44	s .33	3.09	s .07	3.69	s .76	5.95	s1 35	4.02	- .66	1.48	-2 6	4 11	s1.06	3.81	s .71	4.45	s2 04	2.48	s .58	1.42	- .81	37.68	s 2.08
College Springs	0.90	s .34	1.40	s .50	2.10	s .25	2.49	-2.18	4.32	- .62	2.56	- 1.87	2.64	-3.09	2 45	- .99	7.88	s5.42	2.30	- .81	3.18	s2.09	.03	-1.56	31.20	- 2.52
Columbus Junction	0.78	.....	1.82	.....	1.79	.....	3.88	.....	8 18	...	6.05		2.75	...	3.35	.....	1.56	....	3 88	.	2.69	...	1.22	.....	35.91	.....
Corning	0.97	s .23	2.90	s1.20	1 06	- .69	3.31	s .22	4.81	- .42	5.07	s .88	2.25	-2.22	4.29	s .89	7.89	s5.4	2.98	s .37	3.46	s2.50	.20	-1.04	37.7	s 7.32
Corydon	1.10	- .51	1.71	s .29	2.78	s .71	4.60	s1.48	3 84	-1.18	9.07	s 4.74	4.74	s 31	2.81	-1 20	3 04	— 82	4.99	s2.12	2.17	s .67	.68	- .94	41.53	s 5.75
Cresco	0.60	- .57	1.03	s .10	2.12	s .43	2.01	- .42	6 60	s2.84	4.67	- .29	1.83	-2.70	3.18	s .28	1.45	-2.24	4.93	s2.56	...	....	...	.....	.. .	.....
Creston	...	...	...	...	...	...	3.89	...	4.32	.....	6.22	..	3.42	....	5.48	....	6 37	....	3.95	.....	3.28	.....	.35	...	....	.....
Cumberland	1.00	s .26	2 25	s1.54	0.90	-1.56	3.52	s1.58	4 94	s .93	5.81	s 1.75	4.02	-1.15	3.78	-1 02	8.22	s5.24	2.85	s .04	2.31	s1.67	.04	- .92	39.59	s 8.36
Davenport	0.63	-1.04	1.99	s 4	2.21	s .05	3.45	s .67	8.12	-1.20	7.68	s.3.29	0.99	-2.67	1.98	-1.65	8.48	s .80	2 78	s .11	2.01	- .05	1.32	- .41	31.54	- 2.18
Decorah	0.91	- .18	1.18	s .20	2.04	s . 3	1.74	—.95	6.48	s2.11	6.31	s 2.05	3.32	s 11	3.07	s1.39	1.91	-1.53	3.40	s1.06	2.80	s1.21	1.26	- 10	34.47	s 5.50
Delaware	0.74	- .27	1.84	s .40	1.87	s .04	2.06	—.98	6.13	s2 01	5.35	s 1.07	1.75	-1 93	5.53	s2.67	2.62	- .62	3.15	s1.13	3.12	s1.51	.94	- .58	34.80	s 4.51
Denison	1.12	s .56	1.52	s .8s	0.58	-1.05	2.20	-1.76	5.53	s1.93	2.22	- 1.56	3.68	- .64	1.15	-2.23	2.96	- .25	2.20	- .12	2.50	s1.60	.12	- 48	25.87	- 2.92
Des Moines	1.08	- .23	1.06	- .22	2.16	s .70	3.29	s 50	4 44	- .26	5.73	s .37	4.53	s1.00	5.21	s1.95	3.47	s .27	3.64	s .60	2.34	s .63	.55	- .89	37.50	s 4.39
De Soto	1.20	.....	0.85	.....	1 90	.....	4.34	.....	3 97	.....	5 94	...	4.75	...	4 50	.....	3.03	...	3 86	.....	1.43	.....	.47	.....	37.22	.....
Dows	1.20	s .56	2 90	s3.00	1.94	- .05	3.16	s .11	8.15	s3.08	5.64	s .56	1.75	-2.60	4.83	s 95	1.36	-2.41	3.82	s1.47	2.75	s .41	.84	- .55	37.74	s 3.53
Dubuque	0.95	- .73	1.58	s .12	3 27	[.00	3.07	s .28	4.06	s .07	4.88	- .87	1.51	-2.77	3.07	- .08	1.25	-2 84	3.88	s1.17	2.64	s .54	1.17	- .64	29.78	- 5.75
Earlham	0.91	.....	1.38	....	1 73	.....	4.48	.....	4.01	.....	6.93	.....	3.49	.....	4.27	.	3.53	...	4.24	.....	1.98	...	...	...	.....	.....
Elkader	0.81	- .54	1.12	[.00	1.70	- .13	2.40	- 45	6.35	s2.30	4.49	s .20	2.28	2.11	2 83	s .03	3.07	- .75	4.31	†1.56	2.55	s .87	1.05	- .88	32.91	s 0.19
Elliott	...	...	...	...	0 84	.....	2.80	...	8.55	.	5.27	.....	1.18	...	2.61	.....	6.89	.....	3.81	.....	1.11	.....	.13	...	.....	.....
Estherville	0.78	s .43	1.18	s .56	2.20	s .79	1.50	- .90	9.15	s6.02	3 48	s .89	3.05	- .83	5.05	s1.75	5.68	s2.58	3.06	s1.44	4.06	s2.89	T	- .59	39.19	s14.47
Fayette	...	...	1.43	s .27	1.75	- .51	2.62	- .58	6.45	s1.61	5.15	- 70	2.62	-1.08	5.08	s2.18	3.58	s .62	2.98	s .17	2 81	†1.16	.94	†0.49	....	.....
Florence	0.73	....	2.24	...	1.87	.....	1.61	.....	6.96	.	5.01	.....	3.14	..	3.26	.....	1.57	.	4.85	...	2.54	....	.35	.....	33.68	.....
Forest City	0.80	s .16	1.95	s1.18	1.97	s .49	1.72	- .85	7.89	s4.09	1.80	- 3.26	3.30	- .13	2.42	s .21	1.98	-1.84	3 84	s1.47	2.93	s1.57	.80	- .61	30.90	s 2.45
Fort Dodge	0.80	.....	1.50	....	1.65	.....	2.93	....	4.82	.....	3.07	.....	2 06	.....	7.63	.....	2.54	.....	4.18	.....	2.55	...	.25	.....	33.98	.....
Fort Madison	1.37	- .52	2.18	s .17	0.94	-2 04	4.22	s .93	3.92	- .94	8.26	s3.92	3.64	- 47	4.93	s1.27	2.38	-1.41	1.93	- .82	3.98	s1.82	1.10	- .90	38.80	s 1.01
Galva	1.53	s1.18	1.80	s .88	0.99	- .40	1.98	- .78	8 05	s4.75	5.00	s .77	2.60	-1 60	3.79	s .45	4.70	s .70	2 05	s .38	3.10	s1.77	.08	- .76	35.17	s 7.29
Gilman	1.60	s1.10	1 75	s .74	3 35	s1.40	2.40	- .10	5.52	s1.52	5.24	s .84	....		3.10	- .56	3.52	s .89	4.38	s2.04	2.61	s1.63	.40	- .50	....	.....
Glenwood	0.75	- .10	1.60	s .92	0.39	- .87	1.80	- .75	3.09	-1 40	2.72	- 1.19	3.13	- .53	3.15	- .36	7.50	s5.37	4.40	s1.82	3.00	s2.40	.05	- .73	31.58	s 4.58
Grand Meadow	0.88	- .30	1.33	s .21	1.50	- .60	2.19	- .94	8.60	s3.45	5.36	s .10	3.19	-1.18	3.93	s1.43	3.36	s .19	2.93	s .86	2.68	s1.09	.89	- .67	36.84	s 3.19
Greene	0.69	- .02	0.94	- .02	2.06	s .42	2.81	s .93	7.51	s3.37	4.68	s .61	1.88	-2 23	5.01	s1.86	1 68	-1.66	3.85	s1.71	...	....	...	.....	.....	.....
Greenfield	0.93	s .03	1.43	s .39	1.71	- .53	4.21	s1.08	4.94	s .34	8.74	s 3.63	2 81	-2 08	4 39	s1.57	6.06	s2.78	4.38	s2 08	2.85	s1.79	.21	-1.14	42 66	s 9.94
Grinnell	...	....	2.03	s1.16	3.38	s1.59	3.48	- .04	6.35	s1.70	....	....	.	.....	.	.....	.	.....	.	.....	.	.....	...	.....	...	.....
Grinnell (near)	....	....	....	....	....	....	....	....	....	....	5.95	.....	5.96	...	5.74	.....	2.07	.....	4.68	.....	3.26	.	1.00	.....	...	.....
Grundy Center	1.50	s .79	2.55	s1.83	2.71	s1.05	4.26	s .88	6.82	s1.87	4.24	- 1.60	4.46	s .28	2.81	- .76	1.54	-1.78	3.32	s .68	2.65	s1 37	.71	- .54	37 57	s 4.02
Guthrie Center	0.74	s .21	1.15	s .48	1.99	s .59	4.55	s2 08	4.79	s .22	5.61	s 1.55	3.53	-1.01	3.23	-1.43	3.08	s .22	3.32	s1.10	2.16	s1.11	.95	- .32	35.70	s 4.80
Hampton	0.89	- .41	1.48	s .37	2.06	- .20	3.36	- .08	8.50	s4.33	4.99	- .24	3.00	-1.08	3.96	s .81	2.57	- .93	3.46	s .83	2.86	s1.25	.57	- .75	37 56	s 3.90
Hanlontown	1.00	...	1.79	.....	2.35	.....	2.70	.....	10.83	...	4.55	.....	3.04	...	2.39	.....	1.54	...	3.60	.....	3.09	.....	.40	.....	37.28	.....
Harlan	0.87	s .19	1.16	s .40	1 43	- .27	2.98	s .50	4.29	- .07	3.80	- 1.48	4.21	-1 50	4.70	s .09	3.54	- .46	2.75	- .28	3.06	s2.96	.05	-1.02	32.84	- 1.64
Hopeville	0.46	- .44	0.68	- .09	2.63	s .95	4.20	† .78	4.76	†0.00	4 64	† .29	.	...	3.25	- .04	5.68	s2.15	3.68	s1.25	2 92	s1.94	.18	- .93	.....	.....
Humboldt	0.60	- .05	0.75	s .05	3.40	s1.95	0.94	-1.80	7.04	s3.16	2.44	- 2.23	1.24	-2.70	6 01	s2.90	1 84	-1.60	4.11	s2.38	2.92	s1.46	.10	- .66	31.39	s 2.86
Ida Grove	...	...	1.10	.....	1.30	...	1.44	...	6.36	...	3.13		1.65	.....	2.60	.....	2.73	.....	...	...	...	...	.10	...	...	.....
Independence	1.39	s .02	2.00	s .95	1.97	s .18	3.90	s1.69	7.44	s3 27	4.33	- .70	2.41	-2.31	...	.	...	.	3.98	s1.61	3.20	s1.08	.98	- .55	...	.....
Indianola	1.33	s .18	1.68	s .93	1.90	s .71	3.26	- .0	4.02	- .68	6.98	s2.90	3.17	- .47	6.17	s2 01	3.88	s .83	4.13	s2.07	3.21	s1.91	.66	- .75	40 39	s 9.62
Inwood	1.00	.....	0.70	....	3.70	.....	0.93	.	6 23	.....	9.92	.....	1.29	.....	2.76	.	4.42	.....	1.47	.....	...	.....	.....	.....	...	.....
Iowa City	1.22	- .52	1.90	s .39	2.28	- .20	3.36	s 22	5.37	s1.03	6.68	s2.05	3.59	- .91	2 62	-1.64	1.54	-2.29	5.80	s2.82	2 92	s .60	1.04	- .62	37.88	s 0.93
Iowa Falls	1.10	s .26	1.54	s .59	1.47	- .14	2.83	- .32	7.73	s1.18	8.52	- 1.25	2.79	-1.05	2.62	- .78	2.81	- .51	3.15	s .85	2.49	s1.21	.47	- .69	32.52	s 2.35
Keokuk	0.60	-1.12	1.37	- .34	1.78	- .40	3.82	s .11	3.01	-1.06	6.57	s 2.03	2.89	-1.21	3 10	s .33	4.15	s .68	3 41	s .65	2.32	s .20	1.03	- .93	33.61	- 1.11
Keosauqua	0.78	- .14	2.02	s .60	2.15	- .33	3.98	s .14	3.77	- .57	14.89	s10.83	2.57	-1.40	3.92	s .43	2.20	-2.28	2.31	s .41	2.08	s .45	1.04	- .50	41.71	s 7.64
Knoxville	1.65	s .72	0.40	- .58	1.40	- 10	3 58	s .42	5.57	s2.21	8.72	s4.90	...	.	7.81	s3.29	2.68	- .83	4.41	s2.01	2.42	s1.38	.85	- .51	....	.....
Lacona	1.82	s .40	2.63	s1 38	2.92	s .23	5 43	s2.59	5.43	- .49	8.85	s 4.51	4 22	- .65	6.71	s1.56	8.96	s .35	4.35	s1.66	2.52	s1.44	.92	- .73	49 76	s12.25
Larrabee	1.30	s .73	1.40	s .65	1.61	- .04	1.29	-1.70	7.60	s3.65	3.90	- 2.00	.68	-4.08	3.98	s .59	7.41	s4.58	2.61	s .77	3.74	s2.76	.17	- .90	35.59	s 5.01
Le Claire	0.79	...	1.50	...	2.53	....	3.41	.....	8.96	.....	6.37		2.30	.....	1.86	...	3.11	.....	3.01	...	2.39	.....	1.38	.....	32.67	.....
Le Mars	0.88	s .19	0.60	- .01	2.20	s .83	1.25	-2.37	8.87	s5.28	4.31	s .29	2.86	-2.04	3.88	s1.17	8.31	s5.12	1.78	- .07	4.93	s3.87	.10	- .99	39.97	s11.27
Lenox	0 60	- .03	1.41	s .76	1.40	- .45	3.68	s .66	5.42	s .71	5.93	s 1.80	1 81	-3.41	3.53	- .07	6.78	s3.76	3.82	s .33	3.22	s2.09	.18	-1.10	37.23	s 5.05
Leon	0.91	.....	1.85	.....	3.22	.....	5.49	....	5.89	.....	5.08	... ..	2.76	... .	4.60	.....	4.45	... .	3.91	.....	2.46	.....	.39	, ...	40.51	.....
Little Sioux	1.24	....	0.89	...	0.69	.....	3.13	.	4.25	.....	3.18	.....	1.15	....	1 80	....	4 64	.....	1 54	....	2 60	....	.05	.....	24.66	...
Logan	1.70	s .58	1.40	s .20	1.20	- .70	4.23	s1.36	4.26	s .07	2.53	- 3.17	4.20	- .71	1.74	-2.12	6.52	s3.41	1.85	- .69	3.09	s1.93	.20	-1.15	32.92	- 0.93
Maquoketa	0.63	- .69	1.61	s .11	2.94	s .65	3.30	s .77	5.78	s1.26	3.13	- 2.59	4.46	s .87	3.32	s .49	2.82	- .39	4.29	s1.35	2.99	s1.54	1.58	- .08	36.85	s 2.84
Marshalltown	0.92	- .02	1.49	s .71	3.11	s1.18	3.39	s .28	6.11	s1.37	4.69	- .25	4.60	s .15	3.21	- .36	3.34	s .67	3.45	s .98	2.77	s1.44	.56	- .92	37.64	s 5.23
Mason City	1.20	s .01	1.61	s1.05	1.75	s .41	1.68	-1.66	8 19	s4.24	4.80	- 2.24	2.25	- .54	5.00	s2.34	1.00	- .85	3.64	s1.63	2.65	s1.65	.45	- .21	34.22	s 5.83
Massena	0.66	...	1.03	.....	1.67	....	4.04	....	4.40	.....	5.74	...	1.91	...	3.84	.	7 57	...	...	...	2.05	...	...	...	...	.....
Monticello	...	....	...	....	2.71	s .33	2.81	s .12	5.57	s1.66	3.80	- .69	2 24	-1.92	3 75	s .20	2.64	-1.08	4.28	s1 56	2.83	s .69	1.38	- .83	.....	.....
Mount Ayr	1.07	s .04	1.65	s .49	2.26	s .83	4.83	s1.68	6.74	s1.35	7.00	s 2.56	3.61	-1 50	4.87	s1.55	6.92	s3.75	3.75	s1.36	2 90	s1.62	.38	- .94	45.98	s12.29
Mount Pleasant	0.88	- .35	1.68	s .64	2 81	- .02	4.59	s1.54	4.01	- .33	10 06	s 5.85	2.91	- .83	6.10	s2.19	2.02	-1.84	2.04	- .04	2.65	s1 06	1.28	s .07	40.53	s 8.44
Mount Vernon	1.21	- .10	2.37	s1 30	2.20	s .17	2.40	- .63	5.41	s1.32	4.07	s .32	1.43	-3.20	1.56	-3 01	1.32	-1.49	4.67	s2.27	.90	- .22	1.47	- .19	29.01	- 3.46
Muscatine	0.93	- .88	1.37	- .71	2.20	- .59	3.41	[.00	3.20	-1.18	4.36	- .50	4.59	s .68	3.86	-1.02	1.38	-2.39	4.49	s1.45	2 28	- .02	.97	-1 31	32.49	- 6.47
New Hampton	0.47	- .36	0.97	- .10	1 69	s .04	2.33	s .40	7.35	s2.88	4.65	s .17	2.82	- .87	4 26	s1.76	...	... .	3.28	s .78	2.38	s .59	.56	- .11	....	.....
Newton	1.46	s .54	2.00	s .98	2.76	s1.20	3.33	[.00	8.25	s3.79	5.82	s .85	6.12	s2.24	5.10	s1.23	3.47	s .24	5.07	s2.30	2.97	s1.17	...	....	.....	.....
Northwood	1 55	s .90	1.47	s .31	2 35	s .75	0.92	-1.39	7.89	s3 47	3.89	- .92	1.92	-2.07	2.97	- .65	1.89	-1.60	4.20	s1.57	2.78	s1.22	.56	- .85	32.39	s 1.24
Odebolt	0.94	s .62	0.88	s .13	1.43	- .56	2.83	s .12	6 92	s4.15	3 64	- .67	2.58	-2 51	2.82	- .87	4.69	s1.54	2.49	s .28	3.26	s2.14	.06	-1.04	32.54	s 3.30
Ogden	0.95	s .36	1.87	s1.08	2.43	s .01	2.53	- .42	5.40	s .24	6.35	s 1.47	2.91	-1.21	3.87	- .19	2.88	-1.42	3.33	s .67	2.24	s1.13	.50	- .51	34.56	s 2.11
Olin	0.83	- .23	2.20	s .87	2.52	s .07	2.88	s .70	6.37	s1.84	5.06	s 1.54	3.12	- 48	3.78	- .30	2.30	-1.08	4 08	s1.61	2.85	s1 65	1.54	s .08	37.00	s 6.27
Omaha, Neb	1.13	s .44	1.36	s .57	0.70	- .90	3.43	s .30	3 40	s .97	1.70	- 3.97	2.36	-2.39	3.03	- .31	5.94	s3.03	3 97	s1.50	2.72	s1.06	-14	- .87	29.88	- 1.81
Onawa	1.43	s .29	1.10	s .15	1.09	s .44	4 24	s1.25	7 57	s3.19	2.86	- 2.34	1 14	-3.49	2.08	-1.86	5.28	s2.46	1.28	-1.11	4.26	s3.13	.10	- .98	32.33	s 0.25
Osage	1.03	s .15	1.18	† .00	2.35	s .78	1 77	s .80	7.42	s3.19	5.52	s 1.00	1.49	-2.05	2.88	- .17	1.53	-1.97	3.45	s1.02	2.36	s1.21	.55	- .73	31.78	s 1.63
Oskaloosa	0.73	- .15	1.26	s .19	3.49	s1.60	3.34	s .56	3.34	- .23	6.72	s 2.59	3.62	- .43	3.80	s .66	2.31	- .79	3.70	s1.37	2.26	s .71	.84	- .44	35.41	s 5.64
Ottumwa	0.85	- .74	2.83	s1.59	3 38	s1.47	5 44	s2.36	.....	.....	.....		2.40	-1.89	6.86	s3 18	3 37	- .95	7.13	s4.25	2.43	s .75	1 69	s .32	.....	.....

MONTHLY AND ANNUAL PRECIPITATION.—CONTINUED.

STATIONS.	Jan.		Feb.		Mar.		Apr.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Annual.	
	Prec.	Dept	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.
Pacific Junction	0.96	s .53	0.98	s .50	0.77	- .66	2.81	- .30	2.83	-2.16	3.40	- 1.03	4.17	- .40	3.47	- .98	3.13	s5.81	3.61	s1.15	2.70	s2.11	.07	- .89	33.40	s 3.68
Perry	1.28	....	1.85	.. .	2.49	. .	4.13	.	6.06	.....	6.97	.....	4.05	.....	5.30	.....	2.40	.....	...	.....	3.46	.... .	.45	....	.....	.....
Plover	1.45	s .94	1.35	s .70	1.30	- .08	2.93	s1.15	6.60	s3.32	4.42	s .39	1.18	-3.95	8.47	s4.47	...	.....	2.86	s .55	5.80	s3.71	.15	- .60	... .	.....
Pocahontas	1.15	.. .	1.55	....	1.75	.....	4.29	.....	8.04	.....	4.25	.....	1.83	.....	5.87	.....	3.25	.....	3.35	... .	4.32	.....	.21	.....	39.86	.....
Red Oak	0.65	- .07	1.47	s .69	1.28	- .98	2.41	- .43	3.86	s .12	3.87	- 1.29	3.21	-1.59	3.96	s .87	3 26	s5.30	2.73	- .47	3.19	s2.15	.06	-1.16	34.95	s 3.14
Ridgeway	1.33	- .37	2.00	- .67	3.38	s .89	3.81	s .70	6.88	s1.73	5.26	s .74	1 85	-3.24	3.62	s .92	2.02	-2.11	3.58	- .30	2.98	s .98	1.27	-1.23	36.98	- 1.96
Rock Rapids	0.70	s .07	0.60	s .46	2.15	s .56	1.10	-2.65	5.35	s1.96	9.17	s 5.43	2.63	s .11	6.00	s4.24	2.73	s .48	2.50	s .75	3.70	s2.71	T	- .61	36.63	s13.46
Rockwell City	1.25	s .62	1.30	s .79	2.75	s .45	4.68	s2.27	7.05	s3.71	2.05	- 2.45	2.99	-1.01	4.20	s .66	2.70	- .37	3.22	s .64	2.98	s2.13	.05	-1.25	35.22	s 6.19
Sac City	1.17	s .22	1.57	s .75	...	.....	3.42	s .43	6.55	s2.92	2.07	- 2 82	8.65	- .16	3.46	s .10	2.37	- .92	2.50	- .06	....	.... .	.17	- .98	.....	.....
Saint Charles	1.24	.....	1.57	.. .	1.50	...	2.25	.....	5.05	... .	4.19	.....	6.63	.....	4.04	.. .	3.27	.....	3.16	.....	3.29	....	.52	.....	36.71	.....
Sheldon	1.34	s .95	1.30	s .62	2.15	s1.19	1.11	- .37	8.60	s4.98	6.79	s 2 62	1.20	-5.65	3.15	- .27	4.86	s .27	2.41	s .41	3.94	s3.28	.10	- .80	36.45	s 7.18
Sibley	0.88	s .34	0.60	s .18	4.58	s1.41	0.63	-2.06	7.96	s4.61	7.19	s 3.06	2.40	-1.51	4.68	s1.38	4.07	s .91	2.11	s .44	4.24	s3.87	.17	- .69	37.46	s11.39
Sidney	....	.....	.....	.....	1.02	....	1.99	.	5.96	.	2.50		3.72	..	5.43	.....	9.64	...	2.84	...	3.61	.....	.15	.....	...	.....
Sigourney	1.11	- .13	2.11	s .76	3.33	s1.44	3.60	‡ .09	3.83	- .15	7.48	s 3.79	4.35	- .33	3.94	s .21	2.09	- .88	5.23	s2.21	2.25	s .75	1.06	- .35	40.38	s 7.82
Sioux Center	1.30	s1.03	0.60	- .18	2.20	s .95	1.01	-2.12	6.94	s3.12	8.87	s 4.57	.73	-4.65	2.76	-1.34	4.47	s .09	1.20	- .36	3.23	s2.66	.25	- .69	33.56	s 3.14
Sioux City	0.67	s .04	0.44	- .11	1.41	s .17	2.44	- .58	8.41	s4.74	2.55	- 1.25	1.41	-1.96	1.84	-1.35	6.37	s4.28	1.89	s .19	4.16	s3.34	.07	- .81	31.66	s 6.70
Stockport	0.94	.....	1.63	.....	2.00	.....	4.14	.....	8.45	.....	14.57	.....	1.88	....	5.44	..	2.36	, ...	1.84	.....	1.93	.....	.68	.....	40.81	....
Storm Lake	1.48	s .78	1.31	s .66	1.18	- .20	2.48	s .18	7.50	s3.98	5.20	s .32	1.80	-2.98	2.67	- .25	3.95	s .93	2.85	s1.09	3.00	s2.04	.26	- .67	33.13	s 5.83
Thurman	0.91	s .20	1.14	- .18	1.39	- .39	2.34	-1.10	6.20	s1.49	5.98	- 1.56	6.30	s .82	7.60	s2.17	13.18	s9.97	2.94	-1.10	4.18	s3.09	.10	-1.68	52.26	s11.78
Tipton	...	....	2.60	-1.37	2.63	- .47	3.28	- .49	4.08	-1.23	5.92	s 2.19	2.55	-1.87	4.75	- .50	2.06	-1.13	4.81	s2.88	1.64	- .15	.93	- .97	.....	.....
Toledo	0.97	s .16	1.51	s .82	3 30	s1.55	2.40	- .63	5.90	s2.19	4.45	s .85	5.30	s2.07	3.00	- .82	4.00	s .89	4.06	s2.19	3.00	s1 47	.20	- .94	38.09	s 9.80
Vinton	0.80	- .35	2.10	s1.09	2.40	s .62	2.28	- .70	.....	...	.....	.....	2.44	- .95	1.05	-1.56	2.08	- .71	2.22	s .62	2.90	s1.75	.68	- .53	.....	.....
Wapello	0.72	s .01	2.06	s .60	2.03	- .49	3.84	s1.60	4.28	s .64	4.67	s 1.75	2.52	- .57	4.05	-1.20	...	....	2.04	- .18	1.96	s .50	1.23	- .11	....	.....
Washington	0.82	- .63	2.14	s .98	1.79	- .38	4.06	s1.44	4.05	s .62	5.36	s 2.13	3.39	- .15	5.58	s2.09	1.87	- .75	4.54	s2.41	2.35	s .96	1.05	- .42	37.00	s 8.80
Washta	1.15	s .74	1.00	s .38	0.73	- .52	2.27	s .54	6.88	s3.67	5.75	s 1.84	.69	-4.41	2.23	- .68	5.51	s1.60	1.92	- .05	2.57	s1 52	.10	-1.07	30.80	s 3.06
Waterloo	0.74	- .21	1.46	s .48	1.96	s .13	2.60	- .39	5.66	s1.28	5.53	s 1.03	4.85	s .11	4.41	s .81	2.99	- .50	3.38	s1.06	2.60	s1.20	.73	- .41	36.41	s 4.59
Waukee	1.65	....	2.38	.....	2.16	... .	3.60	.. .	5.01	.....	7.31	.....	3.53	.. .	5.39	.....	8.59	....	3.83	.....	2.07	.....	.85	....	41.87	.....
Waverly	1.14	s .21	1.53	s .41	1.88	- .13	2.66	- .39	6.80	s2.18	6.76	s 2.28	2.84	-1.00	5.49	s2.96	1.73	-1.47	3.04	s .40	1.97	s .49	.81	- .27	36.60	s 5.67
Webster City	...	...	....	....	1.24	.....	1.87	.. .	6.98	....	3.06	.....	3.03	.....	3.97	....	2.04	.....	2.42	...	3.67	....	.30	...	.....	.....
West Bend	1.75	s1 13	2.00	s1.19	1.71	s .07	3.48	s .67	6.60	s3.76	5.23	s 1.42	1.58	-2.26	5.33	s1.70	2.65	- .53	2.75	s .99	3 29	s1.90	.15	- .84	36.52	s 9.20
Whitten	1.30	s .73	3.10	s1 59	1.70	* .76	3.19	s1.18	6.66	s2.90	4.16	s 2.10	5.23	s1.46	1.61	-2.28	.....	...	3.78	s1.16	1.82	s .58	.60	- .57	....	.....
Wilton Junction	0.74	- .64	2.67	s1.27	3.40	s .69	4.11	s1.24	4.72	s .40	6.57	s 3.29	3.26	-2.01	3.53	- .68	4.60	s1.42	3.94	s1.87	2.78	s .98	1.50	s .05	41.82	s 7.88
Winterset	....	.....	0.85	- .04	1.55	- .49	4.10	s .41	3.68	- .94	6.24	s .40	3.65	-2.28	3.84	s .30	3.56	s .21	3.74	s1.37	2.57	s1.56	.46	- .91	..	..
Woodburn	1.15	s .14	1.81	s .66	3 67	s2.15	5.33	s2.74	6.06	* .67	6.80	s 2.81	5.60	s .19	2.75	-3.66	4.37	s 48	3.53	s1.67	2.15	s1.11	.37	- .89	43.65	s 8.07
Zearing	0.78	.	2.18	. .	3.20	.	2 64	.....	6.75	.....	4 62	.....	2.09	....	4 32	....	1.81	....	3.02	....	2.0	....	.41	..	33 81	.....

Annual Precipitation Chart 1905.



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U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR JANUARY, 1906

IOWA SECTION

OF THE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
BERNARD MURPHY, STATE PRINTER
1906

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Storm Lake	L. E. Burdick
Stuart	Dr. J. A. Treat
Thurman	C. R. Paul
Tipton	F. K. Gregg
Toledo	Herbert Giger
Vinton	H. G. Haines
Wapello	Geo. W. Schofield
Washington	Wm. A. Cook
Washta	H L. Felter
Waterloo	M. L. Newton
Waukee	E. J. Leonard
Waverly	H. S. Hoover
Webster City	C. D. Carpenter
Whitten	Dr. Frank P. Butler
Wilton Junction	Wm. Lang
Winterset	Dr. Robt. S. Cooper
West Bend	Phil Dorweiler
Woodburn	C. B. McDonough
Zearing	C. P. Bean

*U. S. Weather Bureau.

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Clarksville	F. M. Russell
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Dunlap	Hon. B. F. Roberts
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Geneva	Wm. H. Thompson
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Harlan	H. B. Kees
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Indianola	H. D. Guthrie
Ireton	J. M. Sherman
Long Grove	Hon. Chris Marti
Manson	J. D. Skinner
Marshalltown	Hon. S. B. Packard
Mt. Pleasant	W. S. Wright
Milton	Hon. E. C. Holland
Monroe	J. A. Dibel
Nevada	Geo. C. White
Northwood	T. L. Bolton
Oakville	Z. W. Steele
Orange City	H. J. Vande Waa
Pella	J. H. Ver Steeg
Preston	J. G. Storm
Pittsburg	G. C. Duffield
Portland (Nora Springs, P. O.)	Arthur Pickford
Platte (Creston R. D.)	M. H. Dibel
Red Oak	Hon. C. L. Stratton
Seymour	L. B. Sager
Stuart	W. W. Bailey
Toledo	W. G. Malin
Van Horne	Spencer Smith
Waukon R. D.	T. B. Wiley
Weldon	Ed Worden
Winterset	H. A. Kinsman
West Branch	Wrigley Smith
West Union	H. B. Blackman
Wiota	I. S. Coome
Woodward	George Swisher

U. S. DEPARTMENT OF AGRICULTURE

CLIMATE AND CROP SERVICE

OF THE

WEATHER BUREAU

CENTRAL OFFICE: WASHINGTON, D. C.

IN COOPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R SAGE, Section Director
GEO. M. CHAPPEL, Asst Director

VOL. XVII. DES MOINES, IOWA, JANUARY, 1906. No. 1

CLIMATOLOGY OF THE MONTH.

The month was unusually fair and mild, with less than the average amount of stormy weather. Conditions were generally favorable for the care of stock, for marketing products and for the usual farm operations of the winter season.

Since 1890 there have been but two warmer Januaries, viz: in 1891, when the mean temperature for the state was 26°, and in 1900 when the mean was 25.6°. The coldest periods of the month were the 7th to the 10th inclusive, and the 21st to the 23d. During the prevalence of the lowest temperatures, in the first decade, the ground was generally well covered with snow; but in the latter part of the month the surface was mostly bare. So far as can be ascertained no material damage has been caused to fall wheat and rye, or to fruit buds. Electric storms were reported at Keokuk, Fort Madison and other southeastern stations on the night of the 20th.

TEMPERATURE—The monthly mean temperature for the state, as shown by records of 125 stations, was 24.6 degrees, which is 4.8 degrees above the normal. By sections the mean temperatures were as follows: Northern section, 22.7 degrees, which is 5.1 degrees above normal; Central section, 25.2 degrees, which is 6.0 degrees above normal: Southern section, 25.9 degrees, which is 3.4 degrees above normal. The highest monthly mean temperature reported was 31.8 degrees at Red Oak. The lowest mean reported was 19.4 degrees at Charles City. The highest temperature reported for the month was 69 degrees at Keokuk on the 20th. The lowest temperature reported was 19 degrees below zero, at Charles City, onthe 8th. The average of monthly maximum temperatures for all reporting stations was 53.2 degrees. The average of the minimum temperatures was -9.3 degrees. The greatest daily range of temperature was 49 degrees, at Sibley. The average of greatest daily ranges was 36.8 degrees.

PRECIPITATION—The average precipitation (rain and melted snow) for the state, as shown by records of 132 stations, was 1.52 inches, which is 0.57 of an inch above the normal for January in Iowa. By sections the averages were as follows—Northern section, 1.20 inches, which is 0.44 of an inch above normal; Central section, 1.79 inches, which is 0.75 of an inch above normal; Southern section, 1.57 inches, which is 0.52 of an inch above normal. The largest amount reported was 4.71 inches at Ridgeway. The least amount reported was 0.28 of an inch at Inwood. The greatest daily precipitation reported was 3.87 inches at Ridgeway on the 3d. The average number of days on which .01 of an inch, or more, precipitation was recorded was 5.

WIND AND WEATHER—The prevailing direction of the wind for the month was northwest. The highest velocity reported was 50 miles per hour, from the southwest, at Keokuk, on the 3d. The average number of clear days was 14; the average of partly cloudy days was 6, and of cloudy days 11.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	30.04	30.70	8	28.95	3
Davenport	30.05	30.62	8	28.81	3
Des Moines	30.07	30.76	8	29.22	3
Dubuque	30.06	30.68	8	28.71	3
Omaha, Neb	30.07	30.77	8	29.24	20
Keokuk	30.09	30.65	8	29.09	3
Sioux City	30.05	30.77	8	29.27	20
Means	30.06	30.77	8"	28.71	3"

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	7303	40	NW	15
Davenport	7012	35	NW	15
Des Moines	7044	29	NW	15
Dubuque	6105	31	NW	15
Keokuk	7139	50	SW	3
La Crosse, Wis	6496	34	NW	5
Omaha, Neb	7550	35	NW	15
Sioux City	11004	47	NW	18

OBSERVERS' NOTES.

ALTA. *David E. Hadden.* January was an ideal winter month, being warm and dry. The mean temperature was 7° above the 16 years normal. Only three times was the mean temperature higher, viz: in January 1891, 1900 and 1903.

ALTON. *W. S. Slagle.* Bees were out on the 26th and 27th. Ice harvest poor in quality, egg production large.

AMANA. *Conrad Schadt.* Weather generally mild and some warm, springlike days; enough snow to make good sleighing for three-fourths of the month; lightning observed night of the 20th in the eastern sky.

ATLANTIC. *J. W. Love.* This has been the warmest January on record here; zero temperature was recorded one day and then only 5° below.

BONAPARTE. *B. R. Vale.* Probably the mildest January since 1876. The temperature on the 20th was one degree higher than it was on July 10th, last year.

BRITT. *Geo. P. Hardwick.* Mild, with but few storms and light precipitation; conditions good for feeding in stalk fields.

CHARITON. *C. C. Burr.* Temperature above normal; snowfall heavy but all melted except drifts; 90 per cent of forecasts were verified in January.

CLINTON. *Luke Roberts.* This has been the warmest January in 28 years, except in 1880, which was 8.1° above the mean of January, 1906.

CRESTON. *Rev. W. L. Gaston.* A month that will be remembered for its delightful winter weather.

FT. MADISON. *Miss L. A. McCready.* Thunderstorm occurred about 10 P. M. on night of January 20th, very bright lightning and heavy thunder; storm ended with snow.

GRAND MEADOW. *F. L. Williams.* January was warm and pleasant; on the 3d the barometer reading was 27.40 inches, which was the lowest I ever recorded.

GRINNELL. *A. O. Price.* Highest mean temperature recorded in January since 1900.

HANLONTOWN. *Miss G. M. Paschen.* Most moderate weather during latter part of month we have had for years.

INWOOD. *F. B. Hanson.* Only three days on which this temperature was below zero; on five days the maximum exceeded 50 degrees.

KEOSAUQUA. *J. H. Landes.* A beautiful winter month. This is the first instance where my record for a month did not show a single entry of "partly cloudy."

LARRABEE. *H. B. Strever.* This has been a midwinter month with the "backbone" left out.

LEON. *W. F. Stookey.* Warmest January known in this section for many years.

RIDGEWAY. *Arthur Betts.* One of the mild Januaries; no bad storms; meteor on the 5th making the night as light as day.

WAUKEE. *E. J. Leonard.* Only once was the zero mark reached; range for the month 58°

NOTES AND COMMENTS.

According to the *American Grocer* the corn pack of the United States and Canada in 1905 exceeded the product in that line of any preceding year. The crop of sweet corn grown for canning purposes was very large and all factories were worked to their full capacity. The total pack for the United States was 13,018,665 cases, each case containing two dozen cans. In the list of states Iowa leads, with a total product of 2,557,104 cases. Illinois is second with 1,963,617 cases. Iowa's output was about one-fifth of the total amount packed in the United States.

Canada put up 400,000 cases. It is becoming a large and profitable industry in this section. The output for Iowa last year was worth over three million dollars.

C. L. Marlatt, of the U. S. Department of Agriculture, has prepared an estimate of the yearly losses of farm crops due to the depredations of insect pests. The aggregate is about five hundred million dollars, or ten per cent of the annual output of the soil in the form of cereals, grasses, fruits and vegetables. That is a heavy tax upon this great industry, which must be paid in advance of the harvests. By waging a vigorous warfare against the insect pests the tax may be materially lessened.

This country has not been afflicted by "car famines" except at times when there has been heavy production of crops or goods for shipment.

A week ago there was a wood famine at Dawson and the temperature registered 70 degrees below zero. Unoccupied cabins were torn down and used for fuel. The coldest official record before the present winter was made on January 15, 1901, when the thermometer touched 68 degrees below, whereas this winter it has made a record of 73. The extreme cold of the Far North and the extreme mildness of the winter in this latitude constitute a weather problem sufficient to baffle the best experts.—New York Tribune, February 4, 1906.

In attempting a solution of the problem referred to in the above paragraph due consideration should be given to the north ward trend of the "lows" during the time of the prevalence of warm weather in this latitude, coincident with the period of extreme cold in Alaska and the northern provinces of Canada. The "lows" passing in a continuous procession near the fiftieth parallel served as "buffers" against the cold waves which otherwise would have invaded the states. In other words, the prevalence of southerly winds caused moderate weather in December and January in this latitude.

Sunspots are a sort of universal scapegoat. If there is anything unusual on the earth it is blamed on the sunspots. Here is M. Flammarion, the famous astronomer, who has a theory that they affect the migration of birds. So far back as 1898 he accumulated data to establish a direct relation between the appearance of sunspots and the arrival of swallows in Europe, and the eminent astronomer now carries his position one step further to connect sunspots with the departure of the swallows. In his view these birds seem to be the living embodiment of some of the properties of the barometer, the hygrometer and the thermometer, fused into an animate intelligence by the spark of instinct.—New York Tribune.

There are millions of acres of land in nearly every state which could be more profitably devoted to the growing of timber than any other thing. We have been busy for a hundred years despoiling the primeval forests, and they are practically gone, the people in the most heavily timbered sections of the country being forced to burn coal as a fuel. All land, no matter where located, which is too steep and hilly for cultivation should be put to growing trees. We do not begin to realize the benefits and profit which would accrue throughout the country at large if all such rough land were devoted to the growing of the conifers, the pines, spruces and cedars. Such planting of waste acres would have more than a mere money value. It would greatly beautify the landscape; it would temper the force of the winds, and in a general way do very much to converse the rainfall and prevent the disastrous floods which are becoming so common in the cleared and hilly sections of the country. J. S. Trigg.

NO CHANGE OF CLIMATE.

(By Prof. Cleveland Abbe in U. S. Weather Review.)

The daily press is the great educator of the country and the Monthly Weather Review hopes in a modest way to emulate its example. When we find popular errors that have permeated the human mind for centuries repeated and taught as it were *ex-cathedra* by numerous newspaper correspondents we can but hope that these same papers will give to the public the best results of recent careful study, as in the following case:

In a syndicate letter of July 4, a special correspondent, Mr. William E. Curtis, shows that the western limit of the Kansas wheat belt has been pushed westward from the one hundredth meridian to the one hundred and second meridian, or about 100 miles without special irrigation and without any change in climate. He states that the extreme limits of cultivation have been as follows: In 1860, Emporia, 110 miles west of the Missouri state line; in 1870, Manhattan; in 1880, Salina, 286 miles west of the state line of Missouri; about 1890 there were "seven lean years," and many farms were abandoned, but in 1896 there was plenty of rain and sunshine and the westward march was resumed: in 1900, Ellis county was the limit, but now the plowman has crossed the boundary of Colorado.

Mr. Curtis adds that there are many theories in regard to the increase of rainfall in Kansas. The popular impression is that the plowing of the ground increases the evaporation and therefore increases the precipitation, but as he very properly states, there is nothing to prove that there has really been any increase of rainfall. The records cover too short a period and are neither accurate nor complete. The comparison of the records shows great variations but no increase; the greatest precipitation is in Greenwood county, and the least at Dodge City in Ford county. In the extreme northwestern corner of the state, in Wallace county, the records for the past twelve years show some good rainy seasons and some dry years. We quite agree with the author when he says that: "It is useless for anyone to assert that the cultivation of the soil has increased the rainfall."

On the other hand, there have been some remarkable changes; 25 years ago nothing would grow at Dodge City, where the soldiers at the military post tried in vain to make a garden. But the experiments were repeated from year to year, each time with better success, until now very fair crops are harvested. In 1867, old Fort Hays was the center of the Great American Desert, and to have imported a plow or a sickle would have been a matter of public ridicule. Now it is within the richest part of the grain belt. At Wiona, within 40 miles of the border of Colorado, it was supposed that nothing but Buffalo grass

would grow, but within five or ten years dry farms have been cultivated and profitable crops harvested, and now several train loads of wheat are shipped annually. In fact, there is very little land left in Kansas that has not been taken up by farmers.

There can be no doubt but that the successful settlement and agriculture of Kansas are due primarily to the natural necessity that is imposed upon intelligent man of learning how to overcome the difficulties of his situation. It is not the increase of rainfall or the change in climate that has made Kansas habitable any more than it is the diminution of rainfall that has made Syria a desert. In the one case intelligent man has conquered the desert, in the other case ignorant men and oppressive rulers have allowed the desert climate to conquer them. As a rule, even without artificial irrigation, a good crop plant, such as wheat or maize, suitable to desert conditions can be evolved by a proper system of selection; when irrigation comes in to help, the sunny desert becomes a more profitable garden field than the moist climate of the seashore or the Tropics. As a rule, grain crops require plenty of sunshine, a soil of the right physical properties, and a very careful, systematic application of water. Formerly the ideal wheat fields were in Egypt, with abundance of sunshine, a fine soil for retaining the water and a periodic inundation and irrigation, regulated by the river Nile. Almost the same conditions prevail throughout the basins of the Mississippi, Missouri, Saskatchewan, and Mackenzie. The fertility of this great region is a matter that depends wholly on human industry, and not on any change of climate.

THE LUNAR ECLIPSE.

A most notable astronomical event was the total eclipse of the moon, which occurred in the early morning hours of February 9th, 1906. The spectacle diverted public attention from the puerilities of politics, personalities and police items, and directed the gaze of many people heavenward for a little time. Among the many newspaper write-ups of the celestial exhibit, the following clipping from the local columns of the Marshalltown Times-Republican is copied, as matter of more than transient interest:

The eclipse arrived on schedule time, the moon entering the shadow of the earth exactly at 11:57 o'clock and did not completely emerge until 3:37, three hours and forty minutes later. At 12:58 A. M. the eclipse became total, and the moon remained in complete obscurity one hour and thirty-eight minutes. The eclipse is pronounced by many who saw it as the most beautiful ever witnessed.

In speaking of the eclipse, and the fact that the public as a general thing is too inclined to slight the importance of the science of astronomy, Dr. Woodward, president of the Carnegie Institute, declares that the study of the heavens is the most important, practical and useful of all the sciences. "The most important service of astronomy to mankind," said the learned professor, "has been to convince people of the continuity of the phenomena of nature. If we did not believe in the permanence of the phenomena of nature, we would be just as badly off and just as helpless as the barbarians of central Africa in dealing with epidemics, storms and other great physical calamaties. Let me cite a noteworthy case. A few years ago there was a great drouth in Missouri. The people had their own way of dealing with it. Instead of digging wells or driving their cattle to places where water was plenty, they appointed a day of prayer. This is done all over the world, however. The Missourians have no monopoly on that method of averting calamities. The Moqui Indians have done the same for ages. But it isn't the scientific way. Science keeps records, anticipates droughts, and provides for them, and the public is becoming more and more dependent upon it for guidance and relief. When serious epidemics like cholera, or yellow fever break out, we do not depend on supernatural influences any longer. We look for approximate causes and remove them. Astronomy has taught us how to do that. The striking phenomena of the heavens have been visible to everybody since the shepherds noted them on the plains of Shinar, and they proceed in an orderly fashion. Having been once taught the fact of the continuity of nature, we are beginning to apply the same laws to every day phenomena, more intimately related to us. We are beginning to apply them to ourselves.

"Astronomy has taught us that we are a part of, and not apart from the rest of the universe; that the humblest creature is involved in all the movements of the spheres, and plays an important role in the program of the universe. Anthropology, the investigation of mankind, is a problem of transcendent interest because the very instruments of investigation are also the very objects of research. The highest study of mankind is man. We learned only recently how to do it and we obtained our methods from the astronomers."

CLIMATOLOGICAL DATA FOR JANUARY, 1906—CONTINUED.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT. Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	PRECIP., IN INCHES. Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days	SKY. Number clear days.	Number partly cloudy days.	Number cloudy days.	Prevailing direction of wind.	Dates of Thunderstorms.
Algona	Kossuth	1,238	30	22.8	s 6.3	49	29	- 11	8	36	1.11	s .31	.68	10.2	6	14	6	11	SE	
Alta	Buena Vista	1,513	13	23.0	s 6.2	53	22	- 11	8	38	.72	s .07	.42	7.0	5	15	7	9	NW	
Alta (near)	Buena Vista	1,513	....	.....	.....	.....	.....	.....	.....	....	.60	.....	.40	6.0	3	....	....	....	.....	
Alton	Sioux	.....	....	25.0	.....	52	31	- 9	8	40	.38	.....	.25	3.8	3	19	3	9	NW	
Britt	Hancock	1,336	7	21.6	s 3.9	47	29	- 17	8	36	1.14	s .55	.68	7.3	5	9	12	10	NW	
Charles City	Floyd	1,015	13	19.4	s 2.9	44	29	- 19	8	32	1.99	s 1.00	1.55	18.5	6	9	7	15	NW	
Clear Lake	Cerro Gordo	1,441	7	21.8	s 4.3	44	28,29	- 5	22	32	.90	s .38	.70	8.5	3	22	2	7	N	
Decorah	Winneshiek	857	10	21.2	s 4.7	43	28	- 12	8	33	2.88	s 1.79	1.00	17.0	9	....	....	....	.....	
Dows	Wright	1,142	6	21.8	s 2.5	46	28	- 15	8	35	1.85	s 1.31	1.50	14.0	4	9	12	10	NW	
Elkader	Clayton	727	23	22.8	s 7.9	49	28	- 12	8	39	2.40	s 1.05	1.17	17.5	5	12	6	13	NW	
Estherville	Emmet	1,298	9	22.1	s 5.8	53	26	- 10	8	36	1.15	s .80	.70	7.0	4	15	6	16	NW	
Forest City	Winnebago	1,226	10	21.0	s 2.8	48	29	- 14	8	48	.90	s .26	.90	9.0	2	15	4	12	N	
Grand Meadow	Clayton	1,180	13	21.6	s 5.7	44	20	- 15	8	32	2.18	s .95	.70	14.5	7	12	4	15	NW	
Greene	Butler	924	7	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Hampton	Franklin	1,155	14	23.2	s 7.7	50	28	- 13	8	38	1.14	s .04	.52	14.5	5	9	13	9	NW	
Hanlontown	Worth	.....	....	21.0	....	51	28	- 15	8	35	.71	.....	.50	7.1	5	.....	.....	.....	.....	
Humboldt	Humboldt	1,095	12	24.9	s 7.4	50	29	- 10	8	38	.43	- .22	.28	8.0	2	19	4	8	NW	
Inwood	Lyon	.....	....	23.4	....	56	26	- 15	8	44	.28	.....	.16	3.6	3	16	7	8	NW	
Larrabee	Cherokee	1,266	15	24.2	s 6.3	58	29	- 12	8	43	.56	- .01	.31	6.4	5	15	8	8	NW	
Le Mars	Plymouth	1,224	8	24.6	s 3.6	55	31	- 10	8	43	.40	- .29	.20	4.0	2	19	3	9	S	
Mason City	Cerro Gordo	1,132	....	23.2	s 8.0	49	29	- 12	8	38	1.15	- .04	.50	11.5	3	13	7	11	NW	
New Hampton	Chickasaw	1,169	6	20.4	s 0.1	46	12	- 17	8	34	1.61	s .78	.55	....	6	....	....	....	ENW	
Northwood(a)	Worth	1,222	8	20.7	s 3.6	46	29	- 13	8	35	1.32	s .67	.85	13.0	5	13	9	9	NW	
Osage	Mitchell	1,184	13	20.8	s 6.8	45	29	- 14	8	33	2.00	s 1.12	1.46	18.0	7	10	6	15	NW	
Plover (a)	Pocahontas	.....	7	24.0	s 3.0	49	29	- 12	8	37	.61	s .10	.30	5.0	5	18	2	11	NW	
Pocahontas	Pocahontas	1,190	....	24.6	.....	54	29	- 18	8	40	.61	.....	.34	6.2	2	15	6	10	NW	
Ridgeway	Winneshiek	1,215	8	23.2	s 0.9	50	27	- 9	8	32	4.71	s 3.01	3.85	22.7	9	9	11	11	S	
Rock Rapids	Lyons	1,021	....	22.4	s 7.6	54	27	- 12	8	44	.75	s .12	.40	7.5	3	....	....	....	NS	
Sheldon	O'Brien	1,422	6	24.6	s 2.8	55	28	- 15	8	41	1.12	s .73	.60	8.0	3	20	3	8	S	
Sibley	Osceola	1,212	10	21.2	s 4.6	54	26	- 14	8	40	.52	- .02	.24	5.2	4	16	1	14	S	
Sioux Center	Sioux	.....	7	23.4	s 1.8	53	26,31	- 10	8	43	.65	s .38	.30	6.5	3	18	3	10	W	
Storm Lake	Buena Vista	1,440	9	22.8	s 2.6	50	26,28	- 12	8, 9	47	.80	s .10	.35	8.0	4	15	1	15	SW NW	
Washta	Cherokee	1,157	....	25.6	....	54	28, 29	- 13	8	41	.64	s .23	.40	6.2	3	18	5	8	S NW	
Waverly	Bremer	942	8	22.2	s 2.5	42	29	- 12	8	31	1.80	s .87	.80	16.0	6	11	5	15	S	
West Bend	Palo Alto	1,197	10	23.7	s 6.1	51	29	- 13	8	38	.85	s .23	.70	8.8	4	10	11	10	NW	
Average		.....	....	22.7	s 5.1	49.7	.....	- 12.6	.....	37.6	1.20	s .44	.....	9.9	4	14	6	11	NW	

SOUTHERN SECTION.

Afton	Union	1,212	12	27.8	s 4.4	52	20	- 7	8	35	.40	- .41	.40	4.0	1	9	8	14	SW	
Albia (a)	Monroe	957	8	27.0	s 1.8	60	20	- 9	8	39	2.12	s .86	.85	11.5	5	18	7	11	SW	
Allerton	Wayne	.....	....	27.7	.....	54	20	- 7	8	34	1.61	.....	.60	14.1	5	17	2	12	NW	20
Atlantic	Cass	1,164	18	28.2	s 8.0	55	28	- 5	8	40	.80	s .04	.40	8.0	3	10	6	15	S	
Bedford	Taylor	.....	6	27.4	s 2.2	57	20	- 5	8	37	1.24	s .42	.62	6.5	3	17	2	12	NW	
Bonaparte	Van Buren	.....	12	28.0	s 4.4	66	20	- 4	8	35	1.74	s .17	.80	8.0	6	....	....	....	.....	
Burlington	Des Moines	544	8	30.2	.....	65	20	- 1	8	42	3.23	.....	1.05	14.0	10	14	5	12	W	15, 21
Chariton	Lucas	1,042	9	27.1	s 1.7	60	20	- 10	8	38	2.00	s .98	1.05	22.0	4	16	8	7	NW	
Clarinda	Page	.....	14	28.7	s 6.0	58	29	- 4	8, 9	45	.82	- .15	.40	8.2	5	15	5	11	SW NW	
College Springs	Page	.....	12	29.8	s 5.6	53	20,29	- 2	8	35	.45	- .11	.35	4.5	2	17	5	9	NW	
Columbus Jct	Louisa	586	4	27.6	.....	64	20	- 5	8	36	2.45	.....	1.00	8.8	9	20	1	10	SE	
Corning	Adams	1,127	12	27.4	s 5.1	51	28	- 6	8	35	1.33	s .58	.68	9.8	4	16	4	11	SW	
Corydon	Wayne	992	11	27.5	† 6.0	62	20	- 8	8	34	1.39	- .22	.62	12.5	6	17	2	12	NW	
Creston	Union	.....	..	27.8	.....	50	28,29	- 7	8, 9	41	1.26	.....	.61	12.6	3	14	4	13	NW	
Cumberland	Cass	.....	..	.....	.....	.....	.....	.....	.....	.....	1.40	s .66	.08	14.0	8	22	3	6	S	
Earlham	Madison	.....	4	26.4	....	51	28	- 11	8	33	2.00	.....	.80	20.0	4	16	4	11	NW	2
Elliott	Montgomery	.....	....	30.4	.....	57	29	- 5	8	31	.70	.....	.40	7.0	2	14	9	8	NW	
Ft. Madison	Lee	516	53	.....	.....	.....	.....	.....	.....	....	2.79	s .90	1.15	13.1	6	10	5	16	S SW	
Glenwood	Mills	.....	17	30.4	s 7.7	56	28,29,31	- 4	8	40	.55	- .30	.30	5.5	2	8	14	9	SW NW	
Greenfield	Adair	.....	13	27.6	s 5.9	50	28	- 10	8	36	1.57	s .67	.75	14.4	4	19	4	8	SW NW	
Hancock	Pottawattamie	.....	....	28.8	.....	57	29	- 4	8	38	.75	.....	.45	5.0	2	20	0	11	NW	
Hopeville	Clarke	.....	13	28.0	s 6.2	59	20	- 7	8	34	1.01	s .11	.44	....	4	9	11	11	NW	
Indianola	Warren	.....	13	27.7	s 8.7	63	30	- 9	8	38	1.46	s .81	.70	12.0	3	7	9	15	SW NW	20
Keokuk	Lee	619	33	31.6	s 8.4	69	20	1	8	46	2.40	s .68	.91	6.6	7	14	3	14	SW	20
Keosauqua	Van Buren	644	12	27.2	s 3.4	66	20	- 5	8, 9	38	2.37	s 1.45	.84	16.8	7	9	0	22	..	20
Knoxville ‡	Marion	920	11	27.2	s 2.8	56	20	- 8	8	31	2.75	s 1.82	1.25	22.5	4	16	3	12	SW	
Lacona	Warren	.....	....	.....	.....	.....	.....	.....	.....	....	1.81	s .39	.68	17.0	5	8	17	6	.....	
Lenox	Taylor	1,250	9	27.5	s 2.6	52	20,29	- 10	8	35	.81	s .18	.50	8.1	4	18	4	9	S	
Leon	Decatur	1,120	....	28.1	.....	60	20	- 6	8	30	1.60	.....	.70	15.4	4	22	0	9	S	
Mt. Ayr	Ringgold	1,236	10	29.0	s 5.1	61	28	- 6	8	36	1.65	s .62	.60	17.0	3	18	7	11	NW	
Mt. Pleasant	Henry	729	22	28.0	s 10.0	65	20	- 6	8	41	2.06	s .83	.93	7.5	8	12	7	12	SE SW NW	20
Omaha, Neb.	Douglas	1,113	34	30.2	s 11.0	58	29	- 8	8	35	.60	- .09	.29	6.2	6	11	7	13	N	
Oskaloosa	Mahaska	843	20	25.6	s 6.6	55	20	- 11	8	35	1.24	s .36	.88	11.8	7	16	0	15	NW	
Ottumwa	Wapello	649	10	28.7	s 3.9	64	20	- 5	8	25	1.27	- .32	.80	....	2	12	8	11	.....	
Pacific Junction	Mills	960	7	28.5	s 3.9	56	29	- 3	8	43	.62	s .19	.34	6.1	4	16	7	8	S	
Pella	Marion	.....	....	26.6	.....	55	20	- 10	8	38	2.57	.....	1.00	20.5	6	17	3	11	SW	
Red Oak	Montgomery	1,033	9	31.8	s 5.7	56	28	0	8	34	1.03	s .31	.68	12.0	3	11	12	8	SW	
St. Charles	Madison	1,070	4	29.0	....	64	28	- 8	8	39	1.40	.....	1.12	8.7	2	23	4	4	NW	
Sidney	Fremont	.....	....	28.0	.....	53	29	- 6	8	38	.60	.....	.30	6.0	3	22	1	8	SE	
Sigourney	Keokuk	877	7	26.8	s 2.7	55	20	- 10	8	35	4.21	s 2.97	1.55	25.5	7	4	16	11	NW	
Stockport	Van Buren	.....	....	28.2	.....	65	20	- 5	8	39	1.79	.....	.94	16.5	8	13	5	13	NW	
Thurman	Fremont	.....	8	29.2	s 3.0	54	29,31	- 3	8	40	.70	- .01	.40	7.1	3	14	7	10	SW NW	
Wapello (f)	Louisa	588	6	28.9	s 1.9	61	20	0	8	38	2.04	s 1.33	1.02	7.0	6	....	....	....	.....	14
Washington	Washington	769	22	26.8	s 5.6	62	20	- 9	8	27	2.51	s 1.06	1.25	18.5	8	....	..	..	SE SW NW	15
Winterset	Madison	1,129	13	26.4	s 4.9	47	20,29	- 10	8	33	1.60	s .65	.56	12.0	4	15	4	12	SW NW	
Woodburn	Clarke	961	....	27.0	....	57	20	- 8	8	29	1.73	s .72	1.25	16.0	3	15	2	14	NW	
Average		.....	....	25.9	s 3.4	57.9	.....	- 6.1	.....	36.0	1.57	s .52	.....	11.8	5	14	6	11	NW	
Average for State		.....	....	24.6	s 4.8	53.2	.....	- 9.8	.....	36.8	1.52	s .57	.....	11.3	5	14	6	11	NW	

CLIMATOLOGICAL DATA FOR JANUARY, 1906.

CENTRAL SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				SKY.				
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days	Number clear days.	Number partly cloudy days.	Number cloudy days.	Prevailing direction of wind.
Amana	Iowa	721	27	24.6	s 8.8	49	20	-9	8	33	2.91	s 1.47	1.08	12.1	6	8	12	11	NW
Ames	Story	926	22	24 8	s 7.7	49	28	-10	8	39	1.12	s .15	.59	9.0	5	13	11	7	N
Audubon	Audubon	1,301	19	27.8	s 8.4	55	29	-10	8	38	.71	s .05	.40	7.0	3	11	11	9	NW
Baxter (c)	Jasper	998	6	25.6	s 4.3	50	20, 29	-4	9	34	1.33	s .68	.35	15.0	4	13	7	11	NW
Belle Plaine	Benton	826	14	22.0	s 3.6	42	29	-15	8	28	3.46	s 1.91	1.60	28.6	10	13	6	12	NW
Boone (a)	Boone	....	....	24.3	.....	51	28	-10	8	45	1.73	.....	.90	12.1	5	18	1	12	NW
Buckingham	Tama	.....	6	.....	...	...	.....	....	.....	.....	3.11	s 2.39	...	25.3	4	7	14	10	.....
Carroll	Carroll	1,265	14	25.0	s 5.4	56	28	-11	8, 9	48	.87	s .01	.35	8.5	4	13	3	15	.....
Cedar Rapids	Linn	738	21	23 7	s 5.4	5	20	-8	8, 9	37	2.08	s .64	.72	11.5	5	12	8	11	.....
Clinton	Clinton	609	36	27.4	s 8.2	59	20	0	9	32	3.25	s 1.40	.82	12.5	10	9	7	15	SW
Davenport	Scott	606	38	28.4	s 8.4	63	20	1	8	32	2.14	s .47	.83	8.3	9	12	3	16	NW
Delaware	Delaware	1,083	13	21.5	s 5.7	45	20	-10	8	30	1.72	s .71	.70	2.9	6	10	9	12	NW
Denison	Crawford	1,180	10	27.5	s 6 4	58	29	-8	8	41	.50	-.06	.30	5.0	3	20	2	9	N
Des Moines	Polk	861	27	27.2	s 9.7	54	20	-8	8	35	2.07	s .78	.96	18.1	4	10	9	12	NW
De Soto (b)	Dallas	866	6	28.0	....	5?	28	-10	8	36	1.74	.....	.80	17.7	3	19	2	10	NW
Dubuque	Dubuque	655	31	25.2	s 7.9	58	20	-4	8	32	2.72	s 1.04	1.28	7.5	9	11	7	13	NW
Fort Dodge	Webster	1,126	....	22.6	.....	50	29	-11	8, 9	48	.92	.....	.45	9.2	4	11	4	16	SW, NW
Galva	Ida	1,290	10	25.6	s 7.1	54	29	-10	8	39	.47	s .12	.30	4.7	4	20	1	10	S
Gilman	Marshall	1,052	....	.....	.....	.....	.....	.....	.....	.....	.88	s .38	.40	3.0	4	14	4	13	N, S
Grinnell (near)	Poweshiek	1,023	11	24.4	s 6 9	5	20	-12	8	32	1.95	s .79	1.35	21.5	5	9	7	15	SW, NW
Grundy Center	Grundy	976	13	23.8	s 5.9	45	28	-15	8	42	2.25	s 1.54	2.00	19.0	3	12	6	13	NW
Guthrie Center	Guthrie	1,077	8	27.5	s 5.5	52	29	-10	8	36	1.20	s .67	.80	11.2	4	16	8	7	NW
Harlan	Shelby	1,192	7	27.4	s 5.0	57	29	-7	8	44	.45	-.23	.28	5.5	3	8	13	10	NW
Ida Grove	Ida	1,220	....	26.6	.....	55	29	-9	8	40	.75	.....	.40	7.5	4	19	8	4	SE, NW
Independence	Buchanan	921	41	21.0	s 6.3	42	20	-14	8	36	3 30	s 1.93	1.60	18.0	4	12	4	15	NW
Iowa City	Johnson	688	45	23.9	s 4.8	58	20	-9	8	38	2.51	s .77	.65	10.6	6	13	3	15	SE
Iowa Falls	Hardin	1,170	11	23.2	s 6.8	48	23, 29	-15	8	32	2.02	s 1.18	.90	17.2	5	16	5	10	SW
Jefferson	Greene	.....	....	25.8	.....	54	29	-11	8	41	1.13	.....	.42	10.6	5	12	11	8	NW
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	2.15	.....	.70	10.5	7	9	2	20	S
Little Sioux	Harrison	.....	....	28.6	.....	61	29	-10	8	44	.79	.....	.44	6.0	3	18	4	9	NW
Logan	Harrison	928	37	27.8	s 8.6	57	29	-1	22	38	.85	-.27	.40	8.5	4	12	10	9	NW
Maquoketa	Jackson	688	11	24.2	s 4.1	56	20	-5	9	34	2.96	s 1.64	1.03	8.0	6	12	3	16	NE
Marshalltown (b)	Marshall	947	11	23.2	s 3.1	51	20	-12	8, 9	41	2.21	s 1.27	1.10	18.8	7	9	6	16	NW
Monticello	Jones	925	...	23.6	s 7.6	45	20	-7	7, 8	32	.....	.....	.....	....	....	12	8	11	NW
Mount Vernon	Linn	847	37	23.8	s 7.1	55	20	-11	8	35	2.68	s 1.34	1.20	9.7	9	12	6	13	N
Muscatine	Muscatine	.....	47	.....	.....	.....	.....	....	.....	.....	2.53	s .72	.76	10.6	9	10	2	19	S
Odebolt	Sac	1,356	7	26.8	s 4.2	54	29	-10	8	35	.60	s .28	.45	6.0	2	21	0	10	.....
Ogden	Boone	1,058	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	SW, W
Olin	Jones	760	7	25.3	s 2.7	51	20	-5	8, 9	31	3.45	s 2.37	1.00	8.2	8	14	3	14	SW, W
Perry	Dallas	975	....	24.1	.....	50	29	-11	8	39	.75	....	.40	7.5	3	9	10	12	NW
Onawa	Monona	.....	6	28.8	s 4.8	61	31	-6	8	46	.93	-.21	.55	9.8	4	21	1	9	NW
Rockwell City	Calhoun	.....	9	26.5	s 5.3	51	28, 29	-11	8	36	1.20	s .57	.70	12.0	3	18	3	10	.....
Sac City	Sac	1,273	24	25 6	s 9.1	53	29	-10	8	38	.77	-.18	.40	7.8	4	21	0	10	NW
Sioux City	Woodbury	1,165	15	26.4	s 10.1	57	31	-7	8	42	.50	-.13	.23	6.2	5	13	8	10	NW
Stuart (a)	Guthrie	.....	7	27.5	s 5.5	49	29	2	22	32	1.30	s .71	.60	13.0	3	.	...	....	.....
Tipton	Cedar	807	8	26.5	s 6.3	60	20	-2	8, 9	30	2.76	s 1.59	1.06	10.2	5	19	6	6	SW
Toledo	Tama	856	10	24.0	s 4 3	48	20	-13	8	33	2.33	s 1.52	1.60	20.0	4	8	10	13	SW, NW
Vinton	Benton	810	14	23.2	s 4.8	49	20	-14	8	35	1 77	s .62	.80	17.7	6	18	0	13	NW
Waterloo	Black Hawk	862	17	23 8	s 4.5	46	20	-13	8	37	2.94	s 1.99	1.77	18.9	8	13	5	13	NW
Waukee	Dallas	1,039	....	26.2	.....	48	29	-10	8	30	2.40	.....	1.20	24.0	3	17	4	10	SW
Webster City	Hamilton	.....	....	24.6		47	29	-16	8	47	1.50	....	1.20	15.0	2	17	0	14	SE
Whitten	Hardin	1,036	6	22.0	s 1.7	42	20	-17	8	31	1.90	s 1.33	.60	19.0	4	14	7	10	NW
Wilton Jct	Muscatine	683	9	26.4	s 3.6	59	20	-5	8	36	3.12	s 1.74	.80	15.5	9	17	0	14	NW
Zearing	Story	718	....	23 4	.....	44	28	-12	8	34	1.28	....	.55	10.2	5	16	4	11	NW
Average	.....	...	...	25.2	s 6.0	52.0	....	-9.1	.....	36.7	1.79	s .75	.....	12.2	5	14	5	12	NW

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JANUARY, 1906.

STATIONS.		DATE																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max..	33	35	33	25	37	38	27	13	33	38	37	34	33	36	34	28	40	37	45	52	34	16	36	40	41	47	43	49	50	44	45	36.5
	Min ..	23	27	22	18	18	18	10	- 7	5	19	27	19	29	30	27	17	12	22	21	33	14	4	5	16	16	21	30	29	30	30	14	19.0
Albia*	Max..	32	34	43	25	38	38	22	30	31	37	34	33	33	37	35	30	41	28	48	60	23	9	23	35	46	49	42	46	52	40	..	35.8
	Min ..	15	25	31	18	10	15	15	- 9	13	12	22	19	20	30	32	21	15	25	19	28	22	5	-4	5	12	28	25	26	28	31	12	18.1
Algona	Max..	25	31	32	25	35	31	28	14	34	32	34	31	32	32	32	22	38	35	33	34	28	9	31	25	32	45	40	46	49	36	42	32.0
	Min ..	18	22	20	13	18	12	4	-11	2	12	24	17	28	30	20	7	8	14	18	26	5	-5	-5	5	7	18	16	25	32	11	6	13.6
Allerton	Max..	28	34	35	25	37	42	28	14	32	37	37	33	33	34	38	30	36	36	46	54	44	16	27	35	44	50	42	44	52	44	40	36.3
	Min ..	20	28	24	15	10	16	10	- 7	- 2	17	26	19	30	31	30	21	18	22	19	39	16	5	1	10	23	2	29	28	31	30	15	19.1
Alta	Max..	25	30	28	26	33	30	21	13	31	37	33	29	30	31	31	19	37	34	36	28	19	8	28	27	38	51	45	49	58	37	48	31.8
	Min ..	14	24	14	10	21	12	0	-11	11	17	18	19	29	29	19	11	13	18	21	19	2	-5	1	5	9	22	26	26	32	11	10	14.3
Alton	Max..	27	36	28	30	34	34	23	15	35	33	35	34	35	37	34	22	51	42	42	35	30	16	30	29	35	51	49	50	51	36	52	35.3
	Min ..	15	22	21	9	17	13	6	- 9	10	8	17	18	30	29	21	13	18	15	24	26	5	-5	0	0	10	17	26	21	31	18	12	14.8
Amana	Max..	34	34	34	27	36	32	29	9	27	36	36	34	34	35	33	31	39	37	35	49	40	12	20	30	39	40	39	41	44	39	32	33.6
	Min ..	9	30	27	11	8	13	8	- 9	- 6	16	24	11	30	33	31	13	9	20	19	35	12	8	0	11	20	11	23	25	23	17	8	15.6
Ames	Max..	31	33	38	27	37	33	30	8	34	37	38	32	33	34	34	26	39	39	36	47	36	13	35	31	37	43	40	49	47	40	43	34.7
	Min ..	17	27	22	16	14	17	6	-10	- 5	14	23	12	29	31	24	11	7	19	17	29	11	0	-2	10	10	9	23	28	28	18	10	15.0
Atlantic	Max..	35	34	33	29	39	38	28	19	39	40	39	34	33	35	35	27	42	38	45	45	29	14	41	46	45	49	47	55	54	41	51	38.0
	Min ..	20	27	20	14	11	15	12	- 5	10	21	25	21	30	30	26	15	15	23	24	29	11	5	1	17	16	16	22	23	35	26	15	18.4
Audubon	Max..	32	34	32	27	35	37	27	20	37	39	36	33	33	34	33	26	40	36	42	42	32	12	41	48	43	49	45	52	55	51	41	36.9
	Min ..	18	26	22	16	10	17	9	- 0	9	18	26	20	29	30	25	15	10	20	23	28	10	3	10	15	27	11	28	26	32	38	28	18.7
Baxter	Max..	36	39	39	30	38	34	29	8	30	38	34	30	33	33	35	29	37	37	35	50	34	13	25	29	33	43	40	45	50	42	40	34.4
	Min ..	32	30	..	..	..	..	..	..	- 4	14	20	10	27	30	27	14	6	18	15	30	10	0	-1	10	12	16	24	25	29	19	9	16.9
Bedford	Max..	33	33	33	27	39	41	31	17	35	38	32	33	32	36	35	28	39	39	43	57	32	15	39	46	34	35	49	42	43	43	48	36.4
	Min ..	32	27	20	11	8	17	10	- 5	5	21	28	18	29	30	27	15	11	21	22	32	14	6	2	17	18	19	21	20	29	28	18	18.3
Belle Pl'e	Max..	33	33	34	26	35	33	24	8	28	32	38	34	35	35	35	20	35	27	32	45	15	5	18	28	31	40	36	41	42	35	30	30.4
	Min ..	12	22	30	18	17	9	10	-15	-10	6	14	10	15	28	32	15	7	18	17	30	12	0	-4	9	12	10	15	23	24	26	6	13.5
Bonapar'e	Max..	34	34	34	26	38	38	30	12	34	39	38	34	35	37	46	32	43	35	42	66	55	16	23	31	47	46	42	44	53	42	35	37.5
	Min ..	20	28	25	15	10	18	12	- 4	- 1	20	26	20	30	32	32	19	14	23	22	38	16	7	-3	5	21	17	24	26	26	28	12	18.5
Boone*	Max..	30	32	32	29	37	32	16	14	35	36	36	30	32	33	32	24	39	27	40	46	15	9	35	30	36	48	42	51	48	36	..	32.3
	Min ..	18	20	29	15	14	16	16	-10	-10	14	19	20	20	29	31	20	12	20	17	24	13	0	0	1	12	13	23	28	31	30	10	16.3
Britt	Max..	25	33	32	24	33	32	23	12	32	32	27	34	33	35	33	20	38	34	33	36	28	14	30	25	33	40	38	43	47	38	40	31.5
	Min ..	18	21	24	11	12	10	3	-17	- 2	8	17	12	29	30	20	7	6	13	17	27	5	-5	-6	5	7	12	24	25	26	9	4	11.8
Burling'n	Max..	36	35	35	30	41	40	31	17	37	44	40	35	34	38	50	32	42	36	39	65	59	17	24	33	48	49	46	50	58	46	32	39.3
	Min ..	27	31	27	18	15	19	17	- 1	8	25	29	26	30	32	32	20	17	25	23	39	17	8	3	10	24	20	26	26	28	29	11	21.2
Carroll*	Max.	30	32	28	28	38	37	15	19	37	40	39	33	33	34	30	38	43	28	38	34	16	14	41	34	38	51	47	56	51	36	50	34.9
	Min ..	11	20	25	9	10	14	14	-11	-11	16	23	21	25	29	29	16	12	18	19	23	10	0	0	2	13	14	23	25	24	29	12	15.0
Cedar R*	Max..	31	34	34	25	35	30	26	6	29	34	35	33	36	38	37	23	39	26	46	53	25	10	19	26	40	43	40	41	46	35	37	32.6
	Min ..	4	21	31	23	12	16	17	- 8	- 8	5	19	12	15	30	33	21	11	20	18	24	23	5	3	6	12	9	11	19	24	30	7	14.8
Chariton	Max..	38	33	33	26	38	38	34	18	30	35	34	33	32	34	36	31	39	37	39	60	40	14	23	33	41	46	42	51	50	42	41	36.0
	Min ..	30	27	25	14	8	16	13	-10	- 3	19	24	16	29	30	30	19	10	21	18	35	15	5	-1	9	18	18	28	27	29	30	14	18.2
Charles C.	Max..	22	33	33	23	32	28	24	3	25	28	33	30	31	33	34	16	37	34	32	39	23	6	25	22	34	38	39	44	44	32	35	29.4
	Min ..	4	22	20	13	18	11	-5	-19	- 7	3	6	2	28	30	15	4	6	16	16	23	-1	-3	-5	8	7	8	20	20	26	4	3	9.5
Clarinda*	Max..	31	34	28	32	41	42	29	21	41	42	40	34	33	40	33	38	44	34	52	54	15	15	43	46	48	54	48	56	58	57	54	39.7
	Min ..	11	27	27	12	12	19	19	- 4	- 4	15	20	20	27	29	30	16	15	21	20	33	15	6	4	4	18	17	17	28	28	26	22	17.7
Clear L	Max..	21	30	32	26	32	30	27	9	26	27	31	27	32	33	29	35	35	30	38	33	10	28	21	32	38	39	44	44	41	37	30.6
	Min ..	10	20	24	11	15	15	3	8	2	10	20	10	25	29	26	5	5	12	15	25	4	-5	-4	5	7	16	25	26	31	12	8	13.1
Clinton	Max..	33	35	42	30	35	31	31	31	32	39	33	37	34	37	49	23	38	39	36	59	52	21	18	29	42	40	43	44	48	40	30	36.6
	Min ..	15	31	28	15	10	16	12	1	0	23	25	20	30	32	33	14	13	23	20	36	21	12	9	6	23	13	20	22	21	16	9	18.3
Col. Spgs.	Max..	35	35	33	31	40	39	28	19	39	39	39	35	35	39	36	29	42	39	48	53	30	18	41	46	44	47	47	51	53	44	51	38.9
	Min ..	28	28	22	16	10	20	14	- 2	10	21	29	22	29	27	28	16	20	27	27	30	14	6	6	20	19	20	27	29	32	27	18	20.6
Colum. J.	Max..	38	35	36	27	36	35	32	12	31	38	39	39	38	40	42	34	45	36	36	64	55	18	19	34	44	39	43	45	50	42	32	37.2
	Min ..	19	30	26	15	12	16	10	- 5	- 2	9	27	20	29	30	32	17	15	21	21	35	15	7	0	9	23	20	25	24	26	22	10	18.0
Corning	Max..	37	33	33	27	38	35	29	17	36	37	36	33	32	35	34	27	39	36	40	50	34	14	38	44	45	48	45	51	50	41	48	36.8
	Min ..	22	27	18	13	9	11	9	- 6	7	21	27	19	29	30	25	14	12	21	21	33	13	5	3	12	20	20	27	27	31	28	14	18.1
Corydon	Max..	31	34	33	26	38	39	30	13	32	36	35	33	33	34	38	31	41	36	40	62	43	16	25	34	43	45	45	51	53	45	43	36.7
	Min ..	18	27	24	15	10	15	11	- 8	0	18	19	19	30	31	30	19	12	23	19	38	16	4	1	9	21	22	23	27	31	30	14	18.3
Creston	Max..	41	33	28	26	34	37	31	13	34	37	35	32	32	34	32	38	38	33	54	49	27	24	40	44	47	49	44	50	50	42	47	37.8
	Min ..	22	22	18	12	15	17	18	- 7	- 7	14	28	23	27	30	30	16	15	19	22	32	17	4	4	7	15	17	29	27	30	32	15	18.2
Davenpo't	Max..	33	35	40	26	37	33	33	11	34	40	35	35	33	40	51	25	40	38	44	63	46	14	20	28	41	44	44	45	48	38	31	36.4
	Min ..	22	31	26	16	15	19	10	1	4	25	29	25	30	32	25	16	16	22	23	41	14	11	6	12	25	21	28	28	29	14	10	20.3
Decorah	Max..	22	32	32	30	33	27	25	12	24	32	33	32	32	33	34	21	32	32	31	42	32	8	23	22	36	40	41	43	42	37	31	30.5
	Min ..	0	20	27	12	11	12	0	-12	- 6	11	22	8	27	31	23	8	4	18	21	32	7	-2	-2	5	11	7	22	22	23	6	2	11.9
Delaware	Max..	28	32	34	31	31	26	26	10	24	30	35	32	30	33	35	32	32	32	30	45	40	11	18	22	38	38	40	40	40	35	27	30.9
	Min ..	1	20	20	10	10	10	6	-10	- 6	11	20	11	22	25	29	10	3	16	12	29	10	2	2	6	12	15	15	22	24	15	3	12.1
Denison	Max..	36	32	31	30	38	37	29	18	38	42	39	33	33	35	34	26	44	40	43	39	29	15	40	47	43	54	47	55	58	44	50	37.9
	Min ..	20	26	22	11	18	15	11	- 8	10	19	23	19	30	30	25	15	15	19	24	25	9	1	-1	12	11	16	16	25	34	26	11	17.1
Des M	Max..	32	33	34	28	39	35	28	10	31	37	36	38	33	35	37	25	40	39	38	54	34	13	38	34	39	50	42	50	51	38	46	36.0
	Min ..	23	28	19	16	15	19	5	- 8	7	21	24	20	30	32	23	15	16	19	19	34	8	3	3	14	18	20	30	30	33	17	14	18.3
De Soto	Max..	29	..	..	..	41	37	37	21	35	39	37	34	34	43	34	28	40	39	40	50	35	14	38	43	40	48	40	52	50	41	47	38.1
	Min ..	24	27	24	15	13	18	8	-10	3	20	23	17	30	32	28	18	10	21	21	31	14	3	2	13	14	15	30	29	32	23	13	17.9
Dows	Max..	21	31	32	25	33	29	27	6	28	31	33	30	31	31	33	26	36	34	32	37	34	9	30	24	35	40	38	46	45	42	39	31.2
	Min ..	11	19	24	13	10	7	4	-15	- 2	9	20	8	27	29	25	9	4	14	14	24	6	-3	-5	7	10	12	25	25	30	15	6	12.3
Dubuque	Max..	27	34	37	31	36	28	29	11	29	34	36	32	32	35	39	23	36	38	37	59	38	13	21	25	42	46	44	48	46	36	34	34.1
	Min ..	8	24	31	12	11	17	3	- 4	- 1	22	28	22	29	31	23	10	10	20	20	37	10	7	5	8	21	14	24	26	25	8	5	16.3
Earlham	Max..	32	32	31	23	39	37	25	22	33	35	32	31	32	33	33	32	40	34	38	50	34	12	30	42	41	49	41	51	49	42	47	35.5
	Min ..	22	25	22	15	15	15	7	-11	4	18	21	18	28	29	26	18	5	19	19	29	12	1	8	15	12	19	27	25	30	27	12	17.2
Elkader	Max..	25	32	33	28	36	30	25	18	28	35	37	32	32	35	35	33	35	33	33	47	35	10	28	28	43	46	47	49	46	39	28	33.1
	Min ..	-2	19	30	10	-2	12	5	- 2	-11	17	15	8	26	30	30	10	5	19	18	32	10	2	-1	5	9	5	17	20	18	10	4	11.5
Elliott	Max..	42	35	34	35	45	46	35	23	42	43	44	41	36	37	39	35	46	38	48	52	40	22	30	48	42	51	47	51	57	49	55	41.5
	Min ..	24	29	20	13	12	18	11	- 5	9	21	26	23	31	31	27	18	17	21	25	28	3	4	10	10	17	18	26	24	28	28	17	19.2
Esth'rv'l*	Max	24	29	24	35	34	31	10	17	36	38	41	32	30	33	32	25	40	29	33	32	13	10	29	24	38	53	44	52	50	28	46	32.0
	Min ..	9	12	22	11	12	11	6	-10	- 8	15	18	18	20	24	28	8	9	12	13	22	3	-7	-7	2	6	8	29	28	34	26	6	12.2
ForestCy*	Max..	25	32	32	29	33	28	10	10	30	30	35	29	31	32	33	20	37	35	34	34	8	7	23	24	34	38	40	47	48	29	39	29.5
	Min ..	12	14	24	11	14	14	6	-14	-13	10	14	16	19	27	30	6	5	12	19	22	3	-6	-6	9	10	20	22	24	32	27	8	12.4
F. Dodge*	Max..	29	31	32	28	35	32	12	18	32	34	34	31	33	33	33	26	38	25	35	34	12	11	35	29	33	44	41	47	50	32	42	31.5
	Min ..	12	21	20	15	14	15	10	-11	-11	18	11	16	22	30	31	12	13	16	16	25	11	-2	-1	1	11	10	19	27	27	30	10	18.6
Galva	Max..	31	33	33	26	34	35	26	15	35	39	35	34	33	36	33	23	41	40	40	34	29	13	33	31	36	52	48	50	54	39	50	35.2
	Min ..	17	25	22	10	21	14	9	-10	7	12	20	17	30	30	28	15	15	17	24	27	7	-2	-1	8	10	17	25	23	32	22	11	16.0
Glenwo'd	Max..	36	32	32	33	47	41	35	35	41	42	37	33	33	35	35	33	45	41	48	48	32	17	44	48	41	42	47	56	56	52	56	40.4
	Min ..	25	26	20	14	19	22	14	- 4	18	24	28	23	29	29	26	17	19	19	23	28	10	-1	4	22	27	21	30	26	31	30	16	20.8
Grand M.	Max..	24	33	33	29	33	25	24	4	24	30	35	31	30	34	34	30	32	30	31	44	35	7	28	24	34	40	41	42	40	36	26	31.5
	Min ..	5	17	27	7	6	13	0	-15	- 8	13	22	13	17	29	30	7	2	16	18	30	7	-2	-3	4	11	14	24	21	26	8	0	11.6
Greenfield.	Max..	40	37	35	26	37	39	26	24	35	38	37	35	36	38	37	36	44	34	45	45	33	14	37	43	44	42	43	50	49	48	47	37.9
	Min ..	16	27	28	12	12	19	6	-10	5	12	24	22	27	24	28	15	12	20	20	30	11	8	2	13	15	28	26	27	33	26	11	17.4
Grinnell	Max..	32	32	33	28	37	36	28	10	29	38	38	30	34	33	35	30	39	35	38	52	30	12	24	26	40	43	39	46	47	46	36	38.7
	Min ..	14	26	23	18	8	12	4	-12	- 3	17	25	15	27	30	26	12	8	20	16	30	10	-2	-1	9	14	20	25	23	29	19	7	15.1
(near)	Max..	29	32	32	29	34	30	27	6	37	31	34	30	32	32	34	30	36	35	32	44	34	10	25	25	36	42	36	45	44	38	34	32.1
Grundy C	Min ..	7	26	29	16	9	7	5	-15	- 5	14	21	10	28	30	30	12	5	17	14	28	9	-1	-2	8	10	13	23	22	29	17	3	13.5
Guthrie C	Max..	38	35	35	27	37	36	32	18	37	36	36	33	34	35	38	30	39	39	40	45	38	15	37	42	36	46	43	51	52	45	45	37.0
	Min ..	22	27	23	14	13	16	8	-10	7	19	25	20	29	30	26	18	12	20	21	27	12	1	1	11	14	16	29	28	28	28	18	18.0
Hampton	Max..	25	31	33	24	36	29	27	10	31	34	37	30	31	32	33	21	36	32	32	48	38	8	30	23	39	46	41	50	48	37	38	32.3
	Min ..	12	22	22	15	15	14	4	-13	- 2	16	23	18	28	30	21	9	7	17	15	25	5	-2	-2	8	10	18	28	28	32	11	6	14.2
Hancock	Max..	35	33	34	29	38	40	30	22	39	40	38	35	35	37	38	31	42	40	41	40	30	16	41	46	42	49	47	52	57	44	51	38.4
	Min ..	25	27	20	12	14	20	12	- 4	10	20	29	24	30	30	26	15	19	20	25	28	10	3	3	19	11	21	25	26	32	25	16	19.1
Hamontown.	Max..	21	29	33	26	33	30	28	10	28	30	35	28	34	34	33	20	37	34	31	35	25	7	26	20	35	41	36	51	50	37	38	30.8
	Min ..	10	20	25	10	15	9	1	-15	- 2	10	14	10	25	29	18	4	8	12	15	25	8	-5	-7	5	7	12	24	26	32	9	3	11.2
Harlan	Max..	34	34	32	28	38	39	28	19	38	41	37	34	33	36	34	27	43	37	46	38	26	15	42	47	41	49	47	54	57	44	52	37.7
	Min.,	23	26	29	11	12	17	11	- 7	6	15	28	20	29	29	20	25	15	15	19	24	25	4	0	-2	15	14	15	23	24	27	26	17.1
Hopevi'e	Max..	30	33	33	26	38	39	27	15	34	37	33	32	32	35	35	26	40	35	48	59	33	15	38	36	47	52	44	56	52	42	47	37.0
	Min ..	24	27	21	14	12	18	9	- 7	5	17	25	18	29	30	25	15	14	22	21	33	15	5	4	15	18	23	30	29	32	2 8	14	18.9

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JANUARY, 1906—Continued.

STATIONS.		DATE.																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Humbo't	Max..	27	32	32	31	35	32	30	31	33	34	34	31	34	34	32	38	36	37	33	34	24	12	35	29	33	42	40	45	50	41	43	34.8
	Min .	17	26	22	15	18	16	12	-10	4	12	27	15	30	32	14	10	15	16	20	26	8	-2	-3	7	9	14	27	24	34	16	10	15.5
Ida Grv.	Max..	40	31	31	27	35	36	33	17	38	41	38	35	33	34	31	27	42	40	41	38	33	15	35	35	40	54	48	53	55	48	50	37.3
	Min ..	18	25	21	10	18	13	11	- 9	10	8	21	15	29	30	25	14	13	17	25	27	7	-2	-2	9	9	14	26	24	34	24	12	16.0
Indep'ce	Max..	27	31	30	33	32	31	27	5	24	28	32	32	31	32	34	34	34	36	30	42	33	10	15	20	35	39	37	39	40	37	27	30.2
	Min ..	7	20	23	5	9	10	4	-14	-12	9	17	6	24	30	25	9	5	18	12	29	10	0	-2	9	15	8	17	22	20	26	4	11.8
Indian'la	Max..	32	33	33	27	39	37	26	12	33	38	34	32	33	34	35	28	40	36	39	53	35	15	37	35	40	50	43	50	50	53	45	36.7
	Min ..	28	27	24	17	13	19	8	- 9	4	20	26	19	30	31	28	17	12	22	19	33	15	3	2	13	16	21	30	27	32	45	13	18.7
Inwood..	Max..	22	27	25	29	33	33	26	16	36	35	35	32	35	33	33	21	41	36	41	36	22	20	28	27	39	56	50	53	51	37	53	34.2
	Min ..	11	20	17	4	17	10	5	-15	10	6	11	11	29	23	21	8	14	12	23	21	2	-8	-1	6	6	19	23	21	34	21	9	12.6
Iowa C*	Max..	32	31	34	24	37	31	27	6	29	36	35	33	34	39	39	23	40	25	46	58	24	10	17	28	39	41	40	42	48	37	36	33.0
	Min ..	3	24	33	33	6	16	16	- 6	- 9	5	9	13	17	30	34	22	10	22	17	25	24	6	2	1	9	8	9	21	21	29	9	14.8
Iowa F*	Max..	28	33	32	28	33	30	15	16	29	30	34	33	32	34	33	20	36	24	38	40	12	9	27	26	34	39	39	43	43	32	37	30.1
	Min ..	10	18	30	16	15	9	14	-15	6	15	25	6	20	28	30	13	4	17	14	22	12	-2	-4	9	10	10	22	26	30	29	6	14 3
Jefferson	Max..	31	34	34	29	38	35	30	16	36	39	39	32	33	34	31	29	40	39	37	36	35	15	41	33	37	50	42	53	54	45	47	36.4
	Min ..	21	26	23	14	13	17	10	-11	5	16	13	20	20	18	12	15	13	18	21	26	12	-3	0	9	11	13	27	27	33	21	14	15.3
Keokuk	Max..	34	36	36	27	40	38	33	19	39	44	37	35	37	41	56	32	47	37	45	69	64	18	28	33	45	48	44	46	52	45	38	39 9
	Min ..	30	32	26	21	18	22	19	1	7	27	29	30	31	31	32	24	20	25	24	41	18	8	7	12	26	26	30	29	30	32	18	23.3
Keosauqua*	Max..	45	36	34	25	37	37	30	11	27	39	32	35	37	43	47	29	45	33	54	66	30	10	22	31	45	46	41	45	52	43	37	36.9
	Min ..	13	27	31	21	14	19	16	- 5	- 5	10	28	21	23	31	31	24	15	25	21	28	30	9	-3	-2	8	13	14	20	21	30	13	17.5
Knox'lle	Max..	35	34	34	26	39	38	28	9	32	37	37	35	35	35	37	32	42	35	39	56	33	13	26	33	42	47	40	47	49	38	41	35.7
	Min ..	20	29	25	18	14	17	9	- 8	1	22	26	18	30	32	32	19	12	22	20	33	18	4	2	10	14	20	30	28	28	26	18	18.7
Larrabee	Max..	24	31	29	28	34	34	27	11	35	39	38	32	34	38	32	21	41	37	39	34	27	18	33	28	38	52	48	51	53	37	52	34.5
	Min ..	14	23	20	9	21	12	5	-12	- 7	10	18	20	30	31	20	12	13	13	13	27	4	-5	-2	7	8	10	22	24	33	16	9	13.8
Le Mars	Max.	25	27	28	28	34	35	27	15	35	39	36	33	34	35	34	22	43	40	40	34	21	17	21	32	35	50	49	50	52	41	55	34.4
	Min ..	16	21	21	9	19	13	8	-10	10	10	15	17	30	28	20	12	16	17	24	21	5	-6	-1	10	9	13	23	22	30	23	12	14.7
Lenox...	Max..	31	34	34	26	38	36	30	17	35	38	37	33	33	35	35	27	39	35	42	53	34	15	37	42	42	47	44	50	52	43	48	36 8
	Min ..	24	27	20	10	11	14	10	-10	6	20	27	20	28	29	25	15	12	20	21	33	18	3	2	12	18	23	28	26	32	29	18	18.2
Leon	Max..	30	34	34	26	39	34	30	12	32	35	35	34	32	34	37	30	40	36	43	60	41	17	25	35	41	47	45	49	51	45	44	36.4
	Min ..	24	27	23	15	11	20	11	- 6	4	20	23	19	29	30	29	20	16	23	21	39	11	6	4	12	21	23	31	29	31	31	15	19.8
Little Sioux	Max..	37	31	32	32	39	41	33	19	39	42	42	34	34	35	35	28	45	40	48	43	25	16	42	51	42	57	48	57	61	45	58	39.7
	Min ..	21	27	19	6	20	13	13	-10	13	23	21	25	31	31	22	13	19	20	27	24	8	-4	-1	15	12	18	25	12	34	25	14	17.6
Logan...	Max..	33	34	38	31	39	41	31	18	38	42	38	35	33	34	35	26	41	37	46	39	26	17	37	48	39	48	50	50	57	44	52	38.0
	Min ..	15	27	19	13	8	16	12	6	8	8	25	22	30	31	25	15	18	20	28	26	9	-1	8	15	15	17	17	22	32	27	14	17.6
Maquoketa*	Max..	32	35	36	33	40	30	27	13	30	37	38	33	34	40	40	21	38	33	47	56	32	13	21	25	44	43	47	52	45	39	35	35.1
	Min ..	-2	19	30	10	6	15	15	- 3	- 5	3	17	10	16	28	32	19	9	17	16	24	30	11	2	5	10	8	9	7	20	25	13	13.4
Marshall'n*	Max..	33	35	33	..	..	.	20	20	29	33	34	33	33	34	34	23	38	37	41	50	12	10	30	32	42	43	40	46	46	36	37	33.4
	Min ..	4	18	29	17	13	13	15	-12	-12	9	12	9	19	29	30	18	7	19	16	23	15	0	-2	-1	10	11	11	25	25	28	8	13.1
Mason C.	Max..	23	32	34	25	33	31	27	11	29	31	35	30	33	32	35	27	37	33	32	39	33	9	29	22	33	43	40	46	49	38	39	32.0
	Min .	13	22	25	14	17	15	6	-12	1	12	21	16	26	30	27	8	10	15	18	28	7	-5	-3	8	12	13	27	27	38	10	6	14.4
Monticello .	Max.	34	35	35	28	35	29	25	16	25	32	36	35	33	38	38	20	38	31	43	50	24	12	20	27	39	41	44	43	45	37	38	33.0
	Min ..	20	30	23	7	13	15	-7	- 7	4	13	13	20	28	32	15	8	19	14	25	22	6	1	0	12	10	13	23	22	29	5	8	14.1
Mt. Ayr	Max..	30	34	35	29	40	43	27	17	37	40	37	34	32	35	36	30	42	36	47	60	33	15	40	42	49	53	49	61	53	43	50	39.0
	Min ..	24	27	19	12	10	19	10	- 6	4	19	21	20	28	29	25	15	15	21	20	33	15	5	6	15	21	26	30	28	29	28	14	18.9
Mt. Pleasant	Max..	37	35	35	28	38	37	30	14	32	38	40	36	35	38	46	32	42	36	40	65	56	16	20	33	43	43	42	44	50	42	34	37.3
	Min ..	22	28	25	16	12	12	13	- 6	0	20	28	22	29	31	31	19	15	22	21	35	15	7	-2	9	23	21	24	24	26	27	9	18.6
Mt. Vernon.	Max..	31	32	34	27	35	28	28	9	29	34	36	32	32	33	47	30	36	32	33	55	35	12	21	25	43	43	43	46	45	33	31	32.9
	Min ..	9	26	26	14	9	11	9	-11	- 6	16	22	14	27	30	30	10	8	17	15	30	12	3	-2	8	18	18	26	22	23	18	5	14.6
N. Hampton	Max..	22	31	33	31	34	29	23	8	21	25	34	46	31	34	34	33	34	34	36	42	37	5	22	22	34	38	38	40	38	38	29	30.8
	Min ..	-4	18	28	13	10	12	-5	-17	-13	6	15	12	10	29	30	7	3	15	12	30	5	-4	-4	7	12	8	20	23	24	10	1	10.1
Northwood..	Max..	29	31	33	27	33	28	24	14	29	31	33	30	31	35	35	19	33	34	29	37	30	9	25	23	30	41	38	44	46	37	38	31.0
	Min ..	8	..	26	13	13	15	0	-13	- 3	6	15	12	25	30	17	5	4	14	14	..	1	-5	-6	5	7	12	25	25	28	7	3	10.4
Odeboldt	Max..	36	32	31	25	35	35	28	16	35	40	36	34	32	35	33	26	40	40	34	35	33	13	36	33	39	52	47	51	54	41	48	35.6
	Min ..	18	25	22	9	20	16	10	-10	10	17	23	20	28	30	26	15	13	17	27	26	8	-1	12	10	12	20	26	36	34	25	18	18.0
Olin	Max..	32	33	35	33	35	30	29	15	26	32	36	33	34	35	40	33	38	38	33	51	47	17	18	24	38	40	41	46	45	41	29	34.1
	Min ..	6	28	32	19	9	14	13	- 3	- 5	16	23	13	27	31	33	14	11	21	16	33	16	8	3	9	20	10	20	24	21	22	8	16.5
Omaha, Neb.	Max..	32	32	31	32	40	41	32	19	41	43	39	35	34	35	34	30	46	39	49	46	19	15	45	48	38	53	47	54	58	40	56	38.8
	Min ..	29	28	21	18	25	25	8	- 3	17	24	24	27	31	31	26	19	27	21	28	19	6	-1	10	24	18	27	30	32	37	23	21	21.7
Onawa ..	Max..	34	32	32	37	41	39	32	22	42	41	43	34	34	34	34	33	48	37	44	40	24	21	41	45	44	57	50	58	57	43	61	39.8
	Min ..	24	26	20	13	17	15	12	- 6	10	18	22	25	29	30	26	14	18	18	25	24	8	-5	3	15	12	18	25	25	30	26	15	17.8
Osage ...	Max..	21	29	32	27	32	28	26	6	24	27	32	28	31	32	32	30	36	38	30	37	33	5	24	20	31	38	36	43	45	40	32	29.7
	Min ..	7	20	27	14	14	18	2	-14	- 9	8	17	11	25	29	30	6	5	15	16	30	5	-4	-5	6	9	9	23	24	26	10	2	12.0
Oskaloosa ..	Max..	35	35	34	25	38	36	28	8	30	39	36	34	35	36	35	30	40	33	37	55	35	12	26	33	41	45	38	43	48	41	38	34.8
	Min ..	18	28	25	16	10	14	8	-11	- 4	19	26	13	30	32	30	17	9	19	19	34	12	8	-5	8	15	10	23	22	27	22	10	16.3
Ottum'a	Max..	32	36	34	24	39	37	30	12	33	38	33	34	38	38	38	28	39	30	40	64	32	10	21	34	42	46	38	44	52	38	38	35.2
	Min .	28	30	24	20	16	26	10	- 5	6	26	28	20	34	34	32	24	27	26	28	38	16	1	10	16	26	21	30	26	35	18	16	22.2
Pacific Jct.	Max..	33	34	32	31	39	41	30	20	40	42	35	35	34	36	35	30	43	39	50	44	25	12	44	51	39	49	44	53	56	41	55	38.5
	Min ..	25	28	20	10	15	20	15	- 3	10	20	25	22	31	31	27	14	20	20	25	25	10	-1	1	20	10	16	25	23	29	27	15	18.5
Pella	Max..	33	34	33	27	38	36	33	10	32	38	35	34	34	34	34	31	40	37	36	55	38	15	28	30	40	46	42	45	50	45	40	35.6
	Min ..	18	22	26	17	12	15	8	-10	- 1	20	21	19	29	30	30	21	13	21	17	33	14	4	0	10	17	19	23	26	28	29	12	17.5
Perry .	Max..	32	34	34	26	36	37	31	12	35	36	37	32	34	35	35	28	38	37	37	42	35	14	38	33	34	45	38	46	50	41	45	31.8
	Min ..	22	27	23	18	13	13	8	-11	1	15	23	16	30	31	27	16	9	19	19	29	12	1	-1	11	11	13	26	27	31	21	18	16.4
Plover...	Max..	32	31	29	28	35	37	28	19	35	37	38	32	32	33	34	30	40	37	33	35	28	12	35	30	34	36	45	44	49	47	46	34.2
	Min ..	15	16	20	13	15	13	7	-12	0	12	22	21	22	28	22	10	10	20	19	20	4	-4	-2	5	8	16	19	27	28	..	19	13.8
Pocahontas.	Max..	27	34	32	28	35	34	30	18	37	40	38	31	34	35	34	22	39	36	35	35	30	11	34	30	37	49	43	50	54	36	45	34.6
	Min ..	19	20	20	10	20	13	7	-13	11	15	25	18	18	30	21	8	8	19	20	25	9	-3	-2	8	9	9	28	25	33	15	11	14.7
Red Oak	Max..	38	36	35	38	42	43	36	27	43	43	40	40	36	38	38	33	44	40	49	50	35	18	41	43	43	52	49	56	55	49	53	41.2
	Min ..	28	29	28	15	12	23	27	0	13	23	31	25	32	32	30	27	20	20	21	32	15	8	6	21	20	21	30	27	34	30	19	22.4
Ridge'y	Max..	21	34	36	33	35	29	25	21	27	34	34	30	34	35	38	27	34	33	34	42	35	7	26	22	40	42	50	48	47	37	30	32.9
	Min ..	7	18	32	15	12	14	0	-9	-5	10	18	17	24	32	27	9	4	20	17	33	4	0	1	6	10	15	25	25	28	8	0	13.5
Rock R..	Max	32	22	24	30	34	26	16	10	26	20	40	32	34	32	32	24	42	36	42	40	18	16	18	26	38	40	54	50	46	38	36	31.4
	Min ..	16	10	10	12	10	12	6	-12	10	4	10	12	26	30	26	10	20	18	18	16	4	-6	6	10	16	18	20	26	26	22	10	13.4
R City...	Max..	30	35	35	37	35	38	35	25	35	36	40	35	38	35	35	30	35	40	35	35	32	31	30	29	35	48	45	51	51	40	46	36.7
	Min ..	15	25	13	13	18	16	8	-11	16	18	20	22	20	30	21	17	22	20	20	24	10	-1	-1	12	10	19	20	25	35	19	12	16.3
Sac City.	Max..	29	29	32	28	35	34	30	20	35	39	37	31	33	34	35	27	40	39	37	35	29	13	35	30	35	50	45	51	53	40	48	35.1
	Min ..	17	21	22	12	20	15	7	-10	0	15	25	19	28	30	25	15	13	16	23	20	8	-1	0	7	10	19	28	26	34	23	10	16.0
St.Cha'es	Max..	29	32	33	35	44	45	26	20	37	40	30	33	32	35	35	30	41	36	42	53	35	16	42	48	46	56	50	64	55	46	49	39.4
	Min ..	24	23	23	14	15	19	9	-8	8	19	25	19	30	31	27	19	14	20	20	34	14	4	3	15	17	27	22	29	33	22	12	18.7
Sheldon.	Max..	24	28	26	30	35	31	26	15	38	39	36	33	33	34	34	23	43	35	38	33	24	19	30	31	42	52	51	55	53	37	53	35.2
	Min ..	12	20	20	7	19	16	0	-15	-3	10	18	13	29	28	20	11	12	12	22	23	4	-6	-1	5	19	19	25	22	30	18	19	14.1
Sibley*..	Max..	24	27	21	29	33	29	10	15	33	37	37	31	32	33	30	28	33	27	48	32	11	14	25	25	41	54	47	51	50	27	51	31.9
	Min ..	8	12	20	8	10	9	8	-14	-13	8	10	6	22	29	27	10	10	11	12	25	4	-7	-7	3	8	8	20	23	22	25	9	10.5
Sidney ..	Max..	31	35	31	29	39	37	28	12	37	40	34	31	34	39	36	28	41	37	48	47	22	15	38	45	36	45	44	50	53	41	50	36.6
	Min ..	24	26	21	12	19	20	12	-6	12	22	26	24	30	29	26	16	17	21	25	22	10	0	2	22	17	22	30	37	30	26	23	19.5
Sigour'y	Max..	37	35	34	29	35	38	33	15	29	38	37	35	35	35	37	32	41	36	37	55	50	15	25	32	41	44	40	41	48	43	36	36.1
	Min ..	19	29	29	19	11	14	13	-10	-5	17	25	15	29	32	32	20	11	21	19	33	15	4	-2	8	20	14	24	23	26	29	9	17.5
Sioux C'r	Max..	23	28	26	30	33	34	26	14	34	35	35	33	34	35	33	20	42	38	41	34	20	16	28	28	35	53	48	49	51	35	53	33.7
	Min ..	13	21	17	5	16	15	3	-10	9	9	15	19	30	26	13	10	10	14	18	20	0	-7	0	7	9	18	24	25	30	18	10	13.1
Sioux C.	Max..	28	29	28	29	36	36	27	19	40	44	40	34	35	34	32	23	46	42	43	33	14	18	31	33	36	57	48	55	58	36	57	36.1
	Min ..	19	27	14	12	22	20	0	-7	14	17	18	25	31	29	22	13	23	18	27	14	-1	-7	4	14	12	22	25	28	34	15	15	16.7
Stocport	Max..	35	35	35	29	39	39	31	21	31	38	39	36	34	35	48	34	41	35	41	65	48	18	24	33	48	47	48	48	53	45	35	38.1
	Min ..	22	28	26	20	12	18	13	-5	0	12	28	21	30	32	32	14	11	28	21	40	9	6	0	5	21	17	34	25	26	28	11	18.4
Storm L.	Max..	26	31	24	30	31	31	12	17	35	39	38	30	32	33	31	27	40	26	35	32	14	13	32	29	40	50	45	50	47	30	47	32.3
	Min ..	15	16	22	10	11	14	10	-12	-12	15	17	18	20	29	29	14	13	14	14	23	5	-4	-5	5	7	11	25	25	31	27	9	13.4
Stuart ..	Max..	35	34	34	28	37	38	26	13	34	36	36	34	34	36	35	26	39	35	41	47	33	15	36	38	..	44	40	48	49	45	46	35.7
	Min ..	23	27	22	12	13	17	8	9	7	19	27	22	29	30	25	17	13	20	20	29	12	2	12	14	..	20	29	28	33	26	14	19.3
Thurm'n	Max ..	33	34	32	32	41	39	33	19	40	41	37	35	34	38	36	30	44	38	49	50	25	15	43	49	39	48	45	53	54	48	54	39.0
	Min ..	25	28	21	13	6	15	13	-8	12	23	26	21	31	31	28	13	20	22	25	25	12	0	3	18	18	17	29	24	33	30	18	19.3

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JANUARY, 1906--CONCLUDED.

STATIONS.		DATE.																														Mean.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Tipton....	Max.	35	33	33	28	36	30	30	15	28	35	35	33	34	34	38	33	36	37	34	40	47	17	18	25	40	43	44	45	47	42	30	34.6
	Min ..	19	20	27	14	15	15	14	-2	-2	20	26	17	28	30	32	15	12	21	19	33	16	10	3	10	21	21	27	26	27	19	10	18.4
Toledo ...	Max..	33	33	33	29	36	32	30	8	29	34	35	32	33	33	35	30	38	37	37	48	38	10	19	26	37	40	37	44	45	40	34	32.9
	Min ..	9	28	29	17	12	15	7	-13	-4	17	24	8	28	31	30	13	8	19	17	31	10	0	-1	10	14	11	24	23	29	18	7	15.2
Vinton	Max..	32	32	32	31	33	31	27	8	26	32	35	33	32	33	36	32	35	36	33	49	42	10	18	24	40	42	39	41	42	39	30	32.4
	Min ..	3	27	30	14	9	9	6	-14	-9	14	21	6	29	30	32	10	18	18	15	32	10	1	-3	9	14	7	23	23	25	17	4	13.9
Wapello	Max.	34	34	36	30	35	31	31	17	32	41	35	34	38	36	48	34	36	..	..	61	56	20	..	..	..	..	41	42	42	45	30	36.8
	Min ..	22	30	29	18	19	18	16	0	4	14	23	24	30	32	33	19	20	..	..	38	18	10	..	..	..	..	22	24	29	20	13	21.0
Washi'ton	Max..	34	34	36	36	38	38	32	10	32	38	39	34	34	36	42	30	40	37	36	62	37	14	22	29	46	47	41	45	58	46	35	36.4
	Min .	18	30	25	15	11	15	9	-9	-4	20	20	17	28	32	30	15	13	22	20	35	14	6	-1	8	21	20	26	26	26	17	10	17.3
Washta ..	Max..	34	30	30	30	40	35	32	15	36	38	40	33	34	35	34	26	46	40	42	38	28	14	36	38	40	53	50	54	54	42	40	36.7
	Min ..	18	24	20	8	20	12	9	-13	4	6	18	15	30	32	24	14	13	16	24	26	7	-4	-4	9	8	12	28	20	32	20	10	14.4
Waterloo*	Max..	30	33	34	28	36	28	20	5	28	38	34	33	32	33	34	27	36	26	33	46	30	15	15	27	40	42	40	45	43	34	30	31.3
	Min ..	8	25	27	15	15	12	5	-13	-9	13	25	9	29	31	27	10	7	19	15	30	29	0	-3	8	15	9	19	22	23	10	5	13.3
Waukee..	Max..	32	33	36	24	36	37	30	10	38	38	36	32	33	34	34	28	37	35	38	47	35	14	31	36	36	43	38	43	48	42	43	34.4
	Min ..	22	27	24	13	13	17	9	-10	5	21	27	20	30	31	28	15	12	19	19	31	14	2	1	13	14	19	19	28	32	22	13	18.1
Waverly.	Max.	27	33	34	28	35	29	28	4	26	30	35	32	33	33	34	24	36	35	32	41	35	7	22	22	35	39	40	41	42	39	31	31.0
	Min ..	8	22	28	17	15	14	8	-12	-5	10	20	8	30	32	24	10	7	16	15	31	6	0	-2	9	14	10	19	23	25	11	6	13.4
Webst'r C	Max..	30	34	34	35	37	37	32	31	32	34	39	33	33	35	35	30	40	34	34	42	35	11	35	30	35	43	40	44	47	48	41	35.0
	Min ..	15	26	24	11	13	12	7	-16	5	7	20	9	30	32	30	16	8	19	18	27	10	-1	-5	9	10	11	22	22	20	20	8	14.2
W. Bend.	Max..	24	31	31	26	34	32	28	16	34	34	34	33	32	34	32	24	37	35	34	33	32	10	32	28	33	46	41	48	51	38	45	33.0
	Min ..	14	23	21	13	17	12	7	-13	3	14	24	17	29	29	24	11	10	13	19	25	7	-3	-4	6	9	18	26	24	32	14	6	14.4
Whitten..	Max.	32	35	33	29	34	32	28	8	23	30	37	35	34	35	34	30	36	34	34	42	35	8	25	27	32	35	35	37	39	40	35	31.7
	Min ..	10	25	25	14	12	10	4	-17	-8	10	20	10	27	29	22	10	7	15	15	26	8	-3	-5	7	11	10	22	23	26	15	5	12.4
Wilton J.	Max..	34	34	35	31	35	33	30	18	30	31	38	37	37	36	44	34	38	38	35	59	53	19	16	30	41	40	42	44	47	40	31	35.8
	Min ..	13	30	31	19	7	12	12	-5	-3	18	25	17	28	31	33	15	12	19	22	32	17	7	-2	6	19	11	20	22	25	25	7	17.0
Wint'rset	Max..	33	33	33	25	35	35	29	10	32	36	35	33	33	34	33	29	38	35	39	47	34	15	35	39	37	45	39	45	47	42	44	34.8
	Min ..	25	27	22	12	11	11	10	-10	4	19	26	21	28	29	28	18	11	19	20	32	18	2	2	14	15	20	28	26	30	29	12	17.9
Woodb'n.	Max..	34	33	36	26	37	40	30	12	32	36	39	37	35	37	35	32	42	35	45	57	37	17	25	37	39	42	47	50	42	42	42	36.5
	Min :	19	28	24	15	10	15	9	-8	9	20	20	15	30	31	29	14	10	22	20	34	15	5	8	10	12	25	25	25	28	13	14	17.5
Zearing ..	Max..	31	32	33	26	35	32	29	8	31	33	35	31	32	33	34	30	38	38	34	43	35	12	31	29	40	41	39	44	43	40	38	33.2
	Min ..	11	27	25	15	6	8	6	-12	-3	15	22	15	28	30	29	12	8	7	14	24	7	-6	-2	10	10	11	22	26	30	20	8	18.5

At those stations the thermometers are read in the morning, the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

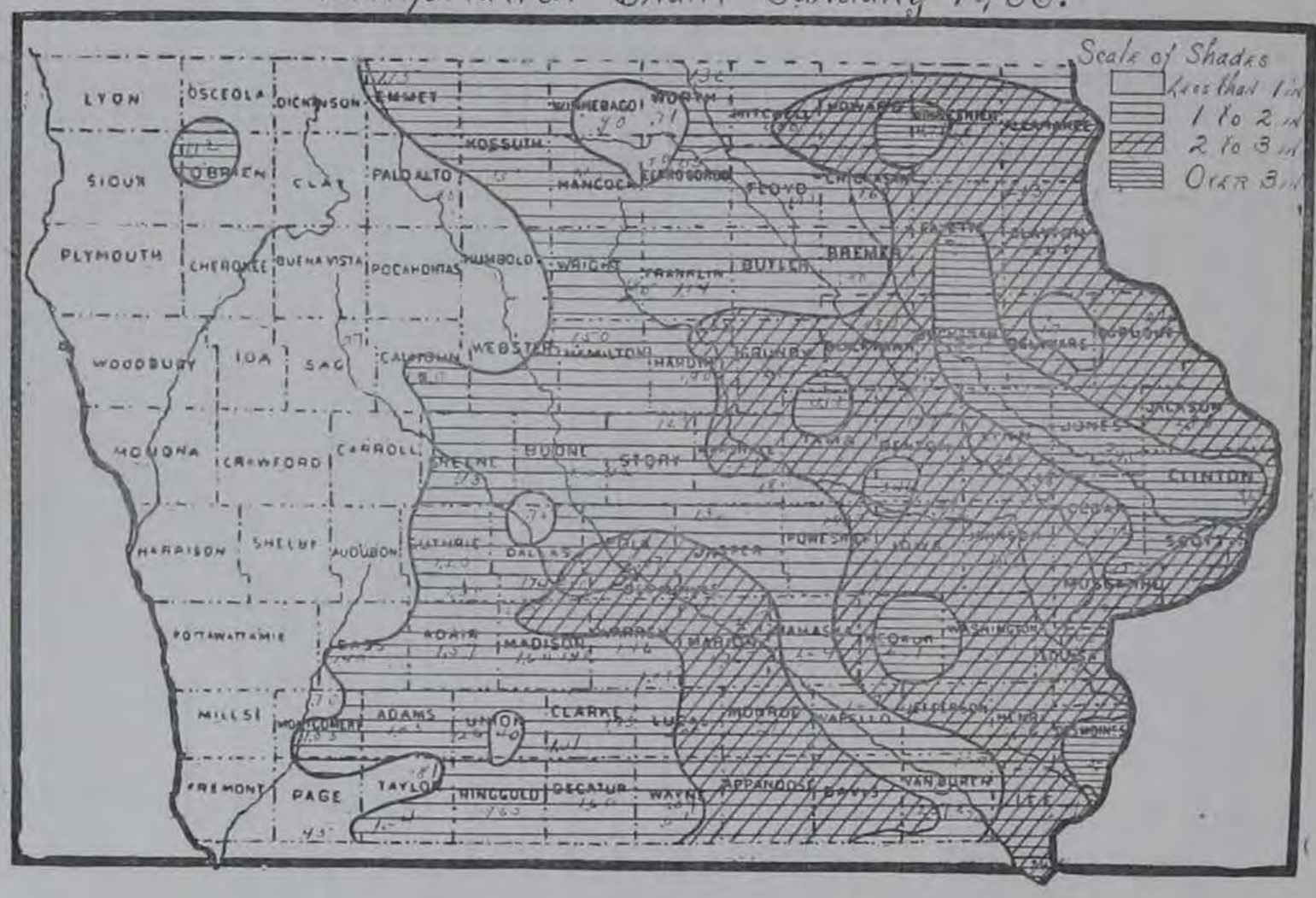
DAILY AND MONTHLY PRECIPITATION FOR JANUARY, 1906.

STATIONS.	DAY OF MONTH.																														TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	..	....	.40	..	....	....	....	....	....	....	..	....	T	....	..	....	....	..	....	....	T	....	....	....	....	....	....	....	....	....	....	.40
Albia	....	T	.85	.72	T	....	....	....	....	....	T	....	T	....	.03	.03	..	....	....	T	....	T	.50	....	....	....	....	.	....	....	....	2.12
Algona	...	.24	.68	.02	....	.	....	..	....	..	..	....	.06		.01	....	.05	....	....	....	....	..	..	....	....	....	....	....	....	....	....	1.11
Allerton	T	.25	.60	.05	....	..	..	....	....	..	T	....	T	T	.60	T	..	....	T	T	T	.11	T	....	....	....	....	....	....	....	....	1.61
Alta	....	.42	.05	....	..	....	....	....	..	....	....	....	.10	....	.13	....	T	....	....	.02	..	....	....	....	....	....	....	..	....	....	....	.72
Alta [near]	....	.40	T	....	....	....	....	....	....	....	....	....	.05	T	.15	..	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.60
Alton	T	.25	.02	....	..	....	T	..	.	..	....	....	T	....	.11	....	..	....	....	..	....	....	....	..	..	....	....	....	....	....	....	.38
Amana	....	.30	1.05	.15	....	..	..	..	....	...	T	...	T	....	1.08	....	....	..	T	....	....	.11	.22	....	....	....	....	....	....	....	....	2.91
Ames		.30	.59	.02	....	....	....	....	....	....	....	..	....	....	.16	....	....	....	....	.05	....	....	....	....	....	....	....	.	....	....	....	1.12
Atlantic	T	.30	.10	...	....	....	T	....	....	....	....	....	T	T	.40	....	....	..	....	.	T		....	....	....	..	....	....	....	..	....	.80
Audubon	....	.40	.10	....	....	....	....	....	....	....	....	....	T	....	.20	....	....	....	....	.01	..	....	....	....	....	....	....	..	....	....	....	.71
Baxter	.35	....	.60	.08	....	....	....	....	....	....	....	....	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.83
Bedford	...	.41	.21	....	....	....	....	..	..	..	....	T	....	....	.62	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.24
Belle Plaine	....	....	.50	1.60	....	....	..	....	....	....	.03	....	.01	....	.20	....	....	....	.91	....	....	.11	.10	....	....	....	....	....	....	....	....	3.46
Bonaparte	....	.20	.80	....	....	....	....	....	....	....	T	....	....	....	.18	....	....	....	.05	....	.21	.30	....	....	....	....	..	....	....	....	....	1.74
Boone	....	.08	.57	.90	....	....	....	....	....	....	..	....	T	....	.04	.14	....	T	....	T	....	T	....	....	....	....	....	....	..	....	....	1.73
Britt	....	.25	.65	....	....	....	....	....	....	..	....	....	.03	.10	.06	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.14
Buckingham	....		2.30	....	....	....	....	....	....	....	T	....	T	....	..	.58	..	....	T	T	....	.23	....	....	....	....	....	....	..	....	....	3.11
Burlington	..	.20	1.05	.25	....	....	....	....	....	....	.03	....	T	....	.31	..	....	....	.11	.01	.48	.60	.19	....	....	....	....	....	....	....	....	3.28
Carroll	....	.07	.85	.20	....	....	....	T	....	....	....	..	....	....	T	.25	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.87
Cedar Rapids	....	....	.50	.52	....	....	....	....	....	....	....	T	....	T	T	.72	....	....	....	.07	..	....	.27	....	....	....	....	....	....	....	....	....	2.08
Chariton	..	.30	1.05	....	....	....	..	....	....	....	T	T	..		.40	....	....	....	....	....	T	.25	....	....	....	....	....	....	....	....	....	2.00
Charles City	....	.21	1.55	..	....	....	....	....	....	....	....	....	.01	T	.14	T	.06	T	.02	T	..	....	T	....	....	....	....	....	....	....	....	1.99
Clarinda	....	T	.30	.12	....	....	T	..	....	....	..	..	T	....	.40	....	..	....	....	....	....	T	....	....	....	....	....	....	....	....	....	.82
Clear Lake	....	.15	.70	....	....	....	....	....	....	....	....	....	T	T	.05	....	..	....	T	T	....	....	T	....	....	....	....	....	....	....	....	.90
Clinton	....	....	.41	.79	....	....	....	....	....	....	.03	....	....	....	.31	.35	..	..	.20	.34	T	.40	.42	....	....	....	....	....	....	....	....	3.25
College Springs	....	.35	.10	....	....	....	....	T	....	..	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	....	....	.45
Columbus Junct'n	....	.20	1.00	.15	....	..	....	....	..	....	T	....	....	....	.25	T	T	....	.13	.06	.30	.25	.11	....	....	....	....	....	....	....	....	....	2.45
Corning	....	.35	.20	.15	....	....	T	....	....	....	T	....	T	....	.63	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.33
Corydon	....	.10	.62	.11	....	....	....	....	....	....	T	....	....	....	.35	T	....	....	....	....	T	.16	.05	....	....	....	....	....	....	....	....	....	1.39
Creston	....	....	....	.60	....	....	....	....	....	....	..	T	.05	....	....	.61	....	....	..	....	T	....	....	....	....	....	....	....	....	....	....	....	1.26
Cumberland	....	.40	.20	..	..	....	....	....	....	....	....	....	....	....	.80	....	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	....	1.40
Davenport	..	.18	.80	.06	....	....	....	..	....	....	T	....	....	T	.32	T	..	T	.08	.12	.20	.32	.06	....	....	....	....	....	....	....	....	....	2.14
Decorah	.44	1.00	.07	....	....	....	....	....	....	....	....	T	T	.44	.15	.45	.05	T	....	....	.20	.08	....	....	....	..	....	..	..	..	....	....	2.88
Delaware	....	.25	.70	....	....	....	....	....	....	....	T	..	..	.05	.57	....	T	....	.11	....	....	.04	....	....	....	. ..	....	..	....	....	....	....	1.72
Denison	....	.30	.10	....	....	....	T	....	....	....	....	....	....	....	.10	....	..	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	.50
Des Moines	T	.51	.95	....	..	....	....	....	....	....	....	....	T	....	.60	T	....	T	..	.01	T	....	....	....	....	....	....	....	....	..	..	....	2.07
De Soto	....	.28	.66	T	....	..	....	....	....	....	....	....	..	....	.80	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.74
Dows	....	....	1.50	....	....	..	..	..	....	....	....	....	....	....	.10	....	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.85
Dubuque	....	.08	1.22	.05	..	....	....	....	....	....	T	....	T	T	1.08	.03	..	T	.01	.05	T	.17	.03	....	....	....	....	....	....	....	....	T	2.72
Earlham	....	.20	.80	.20	..	....	....	....	....	....	....	....	T	....	.80	....	..	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	2.00
Elkader	....	....	1.17	....	.	..	..	....	....	....	....	....	T	T	.80	....	.08	....	. 10	....	....	.25	....	....	....	....	....	....	....	....	....	....	2.40
Elliott	....	.30	....	....	....	....	..	..	....	....	....	....	....	....	.40	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	.70
Estherville	....	.05	.70	.10	....	....	....	....	....	....	....	....	.30	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.15
Forest City	..	T	.60	.30	..	....	....	..	....	....	....	....	T	....	T	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.90
Fort Dodge	....	.05	.40	.45	....	....	....	....	....	....	....	....	.02	....	T	....	T	T	....	....	....	..	..	....	....	....	....	....	....	....	....	....	.92
Fort Madison	....	....	1.15	....	....	....	....	....	....	....	.01	....	....	....	.18	....	....	....	.03	42	1.00	....	..	....	....	....	....	....	....	....	....	....	2.79
Galva	....	.30	.06	....	....	....	....	....	....	....	....	....	.05	....	.06	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	.47
Gilman	T	.12	.06	..	....	....	....	....	....	T	..	....	....	....	.40	....	....	....	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	.88
Glenwood	....	.25	T	....	....	....	T	....	....	....	....	....	T	....	.30	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.55
Grand Meadow	....	.20	.70	....	....	....	....	..	..	..	....	....	....	.15	.65	....	.20	....	.08	....	....	.15	T	....	....	..	....	....	....	....	....	....	2.13
Greenfield	T	.24	.51	T	....	....	..	....	....	....	....	....	....	.07	.75	T	....	....	....	T	T	....	....	....	....	....	....	....	....	....	....	....	1.57
Grinnell [near]	....	.25	1.10	....	....	....	....	..	..	....	....	....	....	....	.25	.10	....	....	T	....	....	....	.25	....	....	....	....	....	....	....	....	....	1.95
Grundy Center	..	....	2.00	....	....	....	..	....	....	....	....	....	T	.	.20	T	T	....	.05	....	....	T	....	....	....	....	....	....	....	....	....	....	2.25
Guthrie Center	....	.40	.40	.06	....	....	....	....	....	....	....	....	T	....	.34	..	....	T	....	....	T	....	....	....	....	....	....	....	....	....	....	....	1.20
Hampton	.32	.48	.52	....	..	....	....	....	....	....	....	....	....	....	.10	....	.02	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.14
Hancock	....	.45	....	....	....	....	....	....	....	....	....	....	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.	....	.75
Hanlontown	....	.20	.30	....	....	....	....	....	....	....	....	....	.01	T	.15	....	.05	T	T	....	....	....	T	....	....	....	....	....	....	T	....	....	.71
Harlan	T	.28	.05	..	....	....	T	....	..	..	T	....	T	T	.12	..	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.45
Hopeville	....	.22	.44	.07	....	..	T	....	....	....	T	....	T	....	.28	....	....	....	....	T	T	T	....	....	....	....	....	....	..	....	....	....	1.01
Humboldt	....	.15	.28	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.43
Ida Grove	....	.40	.10	....	....	....	....	....	....	....	....	....	.05	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.75
Independence	....	.50	1.60	....	....	....	....	....	....	..	T	....	T	....	1.00	....	....	....	T	....	....	.20	....	....	....	....	....	....	....	....	....	....	3.30
Indianola	....	.36	.70	T	....	....	....	....	....	....	....	....	....	....	.40	....	....	....	....	T	....	T	....	....	....	....	....	....	....	....	....	....	1.46
Inwood	T	.16	.06	....	....	....	T	..	....	....	....	....	T	..	.06	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.28
Iowa City	....	....	.65	.62	....	....	....	....	....	....	....	T	....	....	.45	.50	....	..	....	.06	....	....	.23	....	....	....	....	....	....	....	....	....	3.51
Iowa Falls	....	.02	59	.90	....	....	....	....	....	....	....	....	T	T	T	.50	....	.10	T	T	T	....	T	....	....	....	....	....	....	....	....	....	2.02
Jefferson	T	.35	.42	.21	....	....	....	....	....	....	....	....	.03	T	.12	T	T	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	1.13
Keokuk	....	.38	.91	T	....	....	T	....	....	....	.01	....	....	....	.16	T	..	....	T	.06	.56	.32	T	....	....	....	....	....	....	....	....	....	2.40
Keosauqua	....	T	.75	.84	....	....	....	....	....	....	.03	T	....	....	....	.12	....	....	....	.07	.23	T	.33	....	....	....	..	....	....	....	....	....	2.37
Knoxville	....	.25	1.25	....	..	....	....	..	....	T	....	....	T	....	.95	....	....	....	T	....	T	.30	....	....	....	....	....	....	....	....	....	....	2.75
Lacona	....	.48	.60	....	....	....	....	....	....	....	....	....	T	....	.68	....	....	....	....	.03	.02	....	....	....	....	....	....	....	....	....	....	....	1.81
Larrabee	....	.31	.03	....	....	....	T	....	....	....	....	....	.04	....	.18	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.56
Le Claire	....	....	.70	.56	T	....	....	....	....	....	....	T	..	....	.15	.95	....	T	....	T	.12	.10	.17	....	....	....	....	....	....	....	....	....	2.15
Lenox	....	.15	.15	....	....	....	....	....	....	....	....	....	.01	....	.50	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.81
Le Mars	....	.20	....	....	..	....	T	....	....	....	....	....	T	..	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.40
Leon	....	.20	.70	T	....	....	....	....	....	....	T	....	....	....	.34	....	....	..	....	....	T	.36	..	....	....	....	....	....	....	....	....	....	1.60
Little Sioux	....	.44	....	....	....	....	T	....	....	..	....	....	.05	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.79
Logan	....	.40	.05	....	....	....	.10	....	....	....	....	....	....	....	.30	..	....	....	....	T	T	....	....	....	....	....	....	....	....	....	....	....	.85
Maquoketa	...	....	.37	1.03	....	....	....	....	....	....	....	....	....	....	....	.70	..	....	....	.20	.23	....	.43	....	....	....	....	....	....	....	....	....	....	2.96
Marshalltown	....	.01	.67	1.10	....	....	....	....	....	....	....	....	....	....	.03	.28	....	....	....	.03	....	....	.09	....	....	....	....	....	....	....	....	....	2.21
Mason City	....	.50	.50	....	....	....	....	....	....	....	....	....	T	T	.15	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.15
Mount Ayr	....	.30	.50	.25	....	....	....	T	....	....	T	....	....	....	.60	....	....	....	....	....	....	T	....	....	....	..	....	....	....	....	....	....	1.65
Mt. Pleasant	....	.22	.93	.12	..	....	....	....	....	....	T	....	....	....	.14	T	....	..	.09	....	.30	.18	.08	....	..	....	....	....	....	....	....	....	2.06
Mt. Vernon	....	.26	.83	.06	....	....	....	....	....	....	.01	....	....	....	1.20	.04	....	....	.06	....	....	.20	.02	....	....	....	....	....	....	....	....	....	2.68
Muscatine	....	....	.40	.76	T	....	....	....	....	....	T	.01	....	T	.05	.30	....	T	....	.15	.66	.03	.17	....	....	....	....	....	....	....	....	....	2.53
New Hampton	....	.16	.55	.38	....	....	....	....	....	....	....	....	T	....	.30	T	.20	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	1.61
Northwood	....	.15	.85	.20	....	....	....	..	....	....	....	....	T	T	.07	....	.05	T	T	T	....	....	T	....	....	....	....	....	....	....	....	....	1.32
Odebolt	....	.45	....	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.60
Olin	...	.28	1.00	.20	....	....	....	....	....	....	.02	....	T	T	1.00	.59	....	....	.20	....	....	....	.30	....	....	....	....	....	....	....	....	....	3.45
Omaha, Neb	.10	.19	T	....	....	....	.01	....	....	..	....	.04	.02	T	.24	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.60
Onawa	....	.55	....	....	....	....	.10	....	....	....	....	....	.03	....	.25	..	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	.95
Osage	...	.14	1.46	.10	....	....	....	.	....	..	....	....	T	...	.13	....	.13	.02	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	2.00
Oskaloosa	....	.20	.09	.83	....	....	....	....	....	....	.20	..	T	...	.20	....	....	....	T	....	.20	.20	....	....	....	....	....	....	....	....	....	....	1.24
Ottumwa	....	....	.47	....	....	....	....	....	....	....	....	....	....	....	.80	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.27
Pacific Junction	T	.25	T	....	....	....	.02	....	....	....	..	....	.01	....	.34	....	....	....	....	T	T	....	....	....	....	....	....	....	....	....	....	....	.62
Pella	....	.24	1.00	.16	....	....	....	....	....	....	....	....	T	....	.85	....	....	....	T	....	T	.26	.06	....	....	....	....	....	....	....	....	....	2.57
Perry	....	.40	T	....	....	....	....	....	....	....	....	....	....	T	.15	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.75
Plover	....	.10	.30	....	....	....	....	....	....	....	....	....	T	....	.10	..	.05	....	....	.06	....	....	....	....	....	....	....	....	....	....	....	....	.61
Pocahontas	....	....	....	.34	....	....	....	....	....	..	....	....	T	....	.27	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.61
Red Oak	....	.25	....	.10	....	....	T	....	....	....	....	....	T	....	.68	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.03
Ridgeway	...	.24	3.85	....	....	....	....	....	....	....	....	....	.01	.01	.27	T	.15	....	.16	.01	....	T	.01	....	....	....	....	....	....	....	....	....	4.71
Rock Rapids	T	.20	.40	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.75
Rockwell City	....	.70	.20	....	....	....	....	....	....	....	....	....	....	....	.30	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.20
Sac City	....	.40	.20	....	....	....	....	....	....	....	....	....	.02	....	.15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.77
St. Charles	....	.28	....	1.12	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	T	..	....	....	....	....	....	....	....	....	....	1.40
Sheldon	....	.60		....	....	....	....	....	....	....	....	....	.02	....	.50	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.12
Sibley	....	.18	.24	....	....	....	T	T	....	....	....	....	T	....	.05	.05	....	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	.52

DAILY PRECIPITATION FOR JANUARY 1906—CONTINUED.

STATIONS.	DATE. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	MEAN.
Sidney	....	.30	.10	...	....	....	....	....	....	....	....	....	T	....	.20	....	...	....	....	....	T	....	....	....	....	....	....	....	....	...	..	.60
Sigourney	....	.26	1.55	.55	...	..	....	....	...	....	T	....	T	....	1.80	.07	....	....	.04	T	....	.44	....	....	....	....	....	....	....	...	..	4.21
Sioux Center	....	.30	...	....	....	....	T	....	....	....	....	....	.05	....	.30	....	..	....	....	T	....	....	....	....	....	....	....	....	....	....	....	.65
Sioux City	T	.23	T	..	....	....	.04	...	....	....	....	.01	T	T	.22	....	T	T	...	T	T	....	....	....	....	....	....	....	....	....	....	.50
Stockport	....	.22	.94	....	....	....	....	..	....	....	.08	....	....	....	.14	T	....	T	.15	....	.16	.06	.04	....	....	....	....	....	....	....	....	1.79
Storm Lake	....	.10	.35	....	....	....	....	....	....	....	....	....	.05	..	....	.30	....	....	....	....	....	....	..	.	..	....	....	....	....	....	....	.80
Stuart	....	.30	.40	....	....	....	....	....	....	....	....	....	T	....	.60	....	....	....	....	....	....	....	..	....	..	....	....	....	....	....	....	1.80
Thurman	....	.40	T	....	....	....	T	.10	....	..	....	....	T	....	.20	....	....	....	....	....	T	....	..	....	....	....	....	....	....	....	....	.70
Tipton	....	....	1.06	....	....	....	....	....	....	....	T	....	....	....	.84	....	....	....	.18	.16	....	.52	....	....	....	....	....	....	....	....	....	2.76
Toledo	....	....	1.60	..	....	....	....	....	....	..	T	....	....	....	.35	....	....	....	.15	....	....	.23	....	....	....	....	....	....	....	....	....	2.33
Vinton	.30	....	.80	.07	....	....	....	....	....	..	T	....	T	..	.80	T	T	..	....	..	....	.20	.10	....	....	....	....	....	....	....	....	1.77
Wapello	....	.16	1.02	....	....	....	....	....	....	....	....	....	....	....	.35	....	....	....	....	.07	.04	.40	..	....	....	....	....	....	....	....	....	2 04
Washington	....	.30	....	1.25	..	....	....	....	....	..	.02	....	....	....	.51	.15	....	....	.03	T	....	....	.25	.	....	....	..	....	....	....	....	2.51
Washta	....	.40	....	....	....	....	....	....	....	....	....	..	.04	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.64
Waterloo	....	.21	1.77	.22	....	..	....	....	....	....	....	....	.02	....	.55	...	.05	....	.03	....	....	.09	....	....	..	..	....	....	....	....	....	2.94
Waukee	....	.40	1.20	....	....	....	....	....	....	....	....	....	T	T	.80	....	....	T	T	T	..	....	....	....	....	....	....	....	....	....	....	2.40
Waverly	....	.30	.80	.10	....	....	....	....	....	....	....	....	....	....	.45	....	.10	....	.05	....	..	....	....	....	....	....	....	....	....	....	....	1.80
Webster City	....	....	....	1.20	....	....	....	....	....	....	....	....	....	....	.30	....	....	T	....	....	..	....	....	....	....	....	....	....	....	....	....	1.50
West Bend	....	....	.70	....	..	..	....	....	..	....	....	....	T	....	.10	....	.03	....	....	.02	....	....	T	....	....	....	....	....	....	....	....	.85
Whitten	....	.60	.60	.40	....	....	....	....	....	....	....	....	....	....	.90	....	T	....	T	T	....	....	....	....	..	..	....	....	....	....	....	1.90
Wilton Junction	..	.80	.40	.12	....	....	..	....	....	....	.04	...	....	....	.37	.12	....	...	.15	.80	...	.32	....	..	....	....	....	....	..	....	....	8.12
Winterset	....	.52	.50	.02	..	....	....	....	....	....	....	..	T	T	.58	...	...	....	...	....	....	....	....	..	....	....	....	....	....	....	....	1.60
Woodburn	....	....	....	1.25	....	....	....	T	....	....	....	....	....	....	..	.88	....	....	....	....	T	....	.10	....	....	....	....	....	....	....	....	1.73
Zearing	....	.32	.55	.06	....	....	....	....	....	....	....	....	T	....	.82	.08	T	....	T	....	....	....	....	....	....	....	....	....	....	....	....	1.28

Precipitation Chart January 1906.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR FEBRUARY, 1906

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA

BERNARD MURPHY, STATE PRINTER

1906

THE IOWA WEATHER AND CROP SERVICE

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Ames	Exp. Station
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Perry	J. A. Harvey
Plover	J. S Smith
Pocahontas	F. E. Hronek
Red Oak	G. W. Holt
Ridgeway	Arthur Betts
Rock Rapids	W. C. Wyckoff
Rockwell City	C. M. Randall
Sac City	Frank Strouffer
St. Charles	C. W. Minard
Sheldon	Dr. A. W. Beach
Sibley	H. G. Doolittle
Sidney	A. P. Speers
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Sioux City	*C. D. Reed
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Tipton	F. K. Gregg
Toledo	Herbert Giger
Vinton	H. G. Haines
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Weldon	Ed Worden
Winterset	H. A. Kinsman
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Wiota	I. S. Coome
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U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IN COOPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R SAGE, Section Director
GEO. M CHAPPEL, Asst Director

VOL. XVII. DES MOINES, IOWA, FEBRUARY, 1906. No. 1

CLIMATOLOGY OF THE MONTH.

TEMPERATURE: This has been the warmest February since 1898. The mean temperature for the State as shown by the records of 125 stations, was 23.6 degrees, which is 4.2 degrees above normal. By sections the mean temperatures were as follows: Northern section, 20.2 degrees; Central section, 23 5 degrees; Southern section, 27.2 degrees. The highest monthly mean was 31.6 degrees at Red Oak, and the lowest was 17.3 at Charles City. The highest temperature reported was 66 degrees at Red Oak on the 22nd, and the lowest was—32 degrees at Inwood on the 10th. The average of monthly maximum temperatures was 56.4 degrees, and the average of minimun temperatures was —13.1 degrees. The greatest daily range was 59 degrees at Sibley, and the average of greatest daily ranges was 38 degrees.

PRECIPITATION: The average precipitation for the State, as shown by records of 132 stations was 1.29 inches, which is 0.28 of an inch above the normal for February. By sections the averages were as follows: Northern section, 1.01 inches; Central section, 1.23 inches; Southern section, 1.62 inches. The largest amount reported was 2.91 inches at Mt. Pleasant, and the least reported was 0.20 of an inch at Baxter and Sibley. The greatest daily precipitation was 1.48 inches at Webster City on the 13th. The average number of days on which .01 of an inch or more precipitation was reported was 5.

WIND AND WEATHER: The prevailing direction of wind was South. The highest velocity reported was 50 miles per hour, from the Northwest at Sioux City, on the 3rd. The average number of clear days was 14; partly cloudy 7, and cloudy 7 days.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	30.24	30.77	5	29.59	22
Davenport	30.26	30.71	5	29.73	22
Des Moines	30.26	30.78	5	29.60	22
Dubuque	30.28	30.79	5	29.71	23
Omaha, Neb	30.23	30.76	5	29.52	28
Keokuk	30.28	30.72	5	29.75	24
Sioux City	30.23	30.76	14	29.49	22
Means	30.25	30.79	5	29.49	22

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	6071	31	NW	3
Davenport	5433	30	NE	13
Des Moines	6028	36	S	22
Dubuque	4659	26	SE	3
Keokuk	5292	30	NW	24
La Crosse, Wis	5921	30	N	4
Omaha, Neb	6884	45	NE	13
Sioux City	9198	50	NW	3

OBSERVER'S NOTES.

ALTA—*David E. Hadden.* Mean temperature of February was 3.3 degrees above the sixteen years' normal, and the precipitation was double the normal. Month as a whole was warm and pleasant.

ALTON—*W. S. Slagle.* Bees were out on the 22nd; ice broke up in streams on 22d.

AMANA—*Conrad Schadt.* Month was mild, with a number of spring-like days; on 25th the river was high and ice was moving; in the timber the ground was slightly frozen.

ATLANTIC—*J. W. Love.* A mild winter month; ducks were observed on the 21st and robins on the 27th.

BONEPARTE—*B. R. Vale.* A mild month; frost practically out the last ten days.

BRITT—*Geo. P. Hardwick.* February has been much milder than the average. Wild fowls flying northward on the 22nd. Less than usual fuel used this winter.

CLINTON—*Luke Roberts.* Mean temperature 5 degrees above normal; rainfall also above average; lowest temperature at zero.

CRESTON—*W. L. Gaston.* Another month of good weather; a few robins and blue birds made their appearance during the last days of February.

ELKADER—*Chas. Reinecke.* Ice went out of Turkey river February 22nd.

FOREST CITY—*J. A. Peters.* Mean temperature highest since 1898; mo th was beautiful, though there were some sudden changes.

GRINNELL—*A. O. Price.* An enjoyable month, with no bad storms or protracted cold weather.

KEOSAUQUA—*J. H. Landes.* A very mild February, with only one touch of zero weather; roads nearly impassable during last week.

MASON CITY—*J. S. Mills.* Robins appeared the 22nd; wild geese and ducks were flying northward on the 24th.

OLIN—*N. Potter.* February was warmer than usual, with good roads most of the month; zero temperature only on five days.

PLOVER—*J. S. Smith.* Ducks flying northward on 22nd; blackbirds and robins were observed on 23rd; brilliant northern lights on night of 24th.

RIDGEWAY—*Arthur Betts.* This has been the mildest February since 1898; also the driest; there were sixteen days with thawing temperature; 206 hours of sunshine.

WAUKEE—*E. J. Leonard.* First half of the month was much colder than January; temperature fell below zero only five times with 13 degrees below on the 15th.

CLIMATOLOGICAL DATA FOR FEBRUARY, 1906.

CENTRAL SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.	
Amana	Iowa	721	27	24.4	s 4.4	55	22	- 11	15	32	1.60	s .33	.79	3.6	5	11	12	5	NW
Ames	Story	926	22	24.3	s 2.7	58	22	- 16	15	32	.28	- .56	.13	5.5	4	14	7	7	W
Audubon	Audubon	1,301	10	25.8	s 6.6	60	22	- 19	15	40	.53	- .27	.32	5.0	5	10	10	8	S
Baxter	Jasper	998	6	23.4	s 6.6	57	22	- 11	15	35	.20	- .69	.10	0.5	3	13	6	9	SE
Belle Plaine	Benton	826	14	21.4	s 0.8	51	22	- 14	15	36	1.88	s .58	.70	10.8	7	13	8	7	W, NW
Boone (a)	Boone	....	....	21.4	.....	58	22	- 9	10	47	1.52	.....	.91	10.5	6	16	1	11	NW
Buckingham	Iowa	.....	6	.....	.....	.....	.....	.....	.....	.....	1.26	s .32	.79	...	8	7	16	5	.....
Carroll	Carroll	1,225	14	22.8	s 3.8	68	22	- 22	15	49	1.79	s .71	1.10	17.0	5	14	5	9	.....
Cedar Rapids	Linn	733	21	21.5	s 1.0	56	22	- 11	15, 16	38	.60	- .95	.28	2.2	3	10	11	7	NW
Clinton	Clinton	609	36	25.4	s 3.4	54	22	0	5, 10, 15	34	2.37	s .26	.94	1.2	4	9	11	8	N, S
Davenport	Scott	606	33	26.2	s 0.9	55	22	0	5	32	2.21	s .64	.99	0.8	4	12	7	9	NE
Delaware	Delaware	1,083	13	20.4	s 4.2	48	22	- 9	5, 10, 15	25	.43	- .45	.20	2.2	4	15	11	2	NE
Denison	Crawford	1,180	10	24.6	s 6.0	61	22	- 22	16	41	1.25	- .61	.65	7.5	7	21	2	5	N
Des Moines	Polk	861	27	25.4	s 2.3	61	22	- 12	15	37	0.86	- .42	.51	7.1	7	9	10	9	NW
De Soto	Dallas	866	6	26.6	.....	60	22	24	15	44	.61	.....	.46	4.5	3	19	2	7	NW
Dubuque	Dubuque	655	31	22.4	- 0.2	53	29	- 14	15	32	0.93	- .53	.40	7.7	4	14	8	6	NW
Fort Dodge (a)	Webster	1,126	....	19.9	....	57	22	- 19	15	49	.67	...	.40	6.5	5	...	....	....	.....
Galva	Ida	1,290	10	23.0	s 4.2	51	12, 22	- 16	15	35	1.17	s .70	.65	11.7	5	20	2	6	S
Gilman	Marshall	1,052	....	.....	.....	.....	.....	.....	.....	.....	.88	- .13	.88	2.0	2	16	6	16	N
Grinnell (near)	Poweshiek	1,023	11	22.8s	1.7	56	22	- 12	5	34	.91	s .04	45	3.5	6	12	5	11	NE
Grundy Center	Grundy	976	13	21.4	s 3.8	49	22	- 13	10, 15	37	.80	s .08	.70	5.0	2	11	5	12	S
Guthrie Center	Guthrie	1,077	8	25.3	s 5.4	60	22	- 23	15	41	1.34	s .67	.78	10.0	7	16	9	3	SW
Harlan	Shelby	1,192	7	25.4	s 8.9	60	22	- 15	15	35	.88	s .12	.41	5.8	4	8	13	7	S
Ida Grove	Ida	1,220	....	23.9	...	58	22, 23	- 23	15	41	.97	.....	.40	10.0	4	16	7	5	SE
Independence	Buchanan	921	41	20.4	- 1.4	47	22, 23	- 10	10, 15	33	.47	- .58	.40	2.8	2	15	5	8	W
Iowa City	Johnson	683	45	22.0	- 0.9	54	22	- 10	15	42	1.73	s .22	.75	3.0	7	16	2	10	N
Iowa Falls	Hardin	1,170	11	19.8	s 4.5	53	22	- 17	10	35	1.32	s .37	.50	8.5	5	....	....	....	.....
Jefferson	Greene	.....	....	25.8	.....	60	22	- 18	15	35	.88	.....	.60	8.0	3	13	8	7	NW
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	2.51	.....	1.04	T	6	13	4	11	NW
Little Sioux	Harrison	.....	....	27.6	.....	64	22	- 12	14	41	1.60	.....	1.33	9.8	5	18	6	4	NW
Logan	Harrison	928	37	26.8	s 3.2	61	22	- 14	15	36	1.00	- .20	.40	9.0	5	8	17	3	NW
Maquoketa	Jackson	688	11	22.6	s 1.0	55	22	- 14	15	42	1.42	- .08	.55	3.5	5	14	5	9	NE
Marshalltown	Marshall	947	11	21.0	s 1.0	57	22	- 15	15	48	.66	- .12	.50	4.4	5	....	....	....	SE
Mount Vernon	Linn	847	37	23.6	s 2.0	55	22	- 7	10, 15	38	1.30	s .23	.51	5.8	5	16	6	6	.....
Muscatine	Muscatine	.....	47	.....	.....	.....	.....	.....	.....	.....	2.78	s .70	1.14	0.2	4	9	5	14	N, S
Odebolt	Sac	1,356	7	23.6	s 6.0	58	22	- 14	15	35	1.92	s 1.17	1.15	7.0	5	20	2	6	.....
Ogden	Boone	1,058	10	24.2	s 4.8	57	22	- 11	15	36	1.34	s .75	.97	11.8	5	16	4	8	SE
Olin	Jones	760	7	23.8	s 9.5	52	22	- 11	15	30	1.84	s .51	.61	5.8	6	15	7	6	NE, NW
Onawa	Monona	.....	6	26.8	s 7.3	62	22	- 10	14	42	1.69	s .74	1.05	9.7	6	19	5	4	SE
Perry	Dallas	975	....	24.4	.....	58	22	- 17	15	32	.80	.....	.40	8.1	5	....	....	....	.....
Rockwell City	Calhoun	.....	9	22.6	s 5.8	56	22	- 15	15	36	2.35	s 1.84	1.05	13.0	3	20	1	7	.....
Sac City	Sac	1,356	7	21.9	s 4.3	56	22	- 17	15	55	1.87	s 1.05	.60	13.8	7	19	3	6	NW
Sioux City	Woodbury	1,165	15	23.0	.....	61	22	- 14	14	37	1.34	.....	.55	13.3	7	11	10	7	S
Stuart	Guthrie	.....	7	24.8	s 5.1	59	22	- 15	15	47	1.29	s .72	.85	11.6	6	....	....	....	.....
Tipton	Cedar	807	8	26.2	s 4.8	55	22	0	10, 15	27	1.27	s .04	.52	...	3	17	8	3	SW, NW
Toledo	Tama	856	10	23.2	s 3.6	54	22	- 12	15	35	.95	s .26	.57	8.0	4	14	6	8	SE
Vinton (a)	Benton	810	14	22.4	s 2.5	49	22	- 16	16	40	.30	- .81	.30	3.0	1	....	....	....	NW
Waterloo	Black Hawk	862	14	20.6	s 2.4	48	22	- 17	15	34	1.20	s .22	1.04	6.5	5	13	7	8	NW
Waukee	Dallas	1,039	....	25.0	.....	58	22	- 13	15	37	1.40	.....	.60	9.5	6	13	4	11	NW
Webster City	Hamilton	.....	....	22.9	....	55	22	- 19	15	33	1.68	.....	1.48	5.0	3	20	3	5	SE
Whitten	Hardin	1,036	6	21.7	s 6.6	53	22	- 15	10, 15	38	.50	- .06	.50	5.0	1	15	3	10	SE
Zearing	Story	718	....	22.6	.....	55	22	- 16	15	39	.75	.....	.52	5.5	6	14	6	8	SE
Average		...	....	23.5	s 3.8	56.0	.. ..	- 13.8	....	37.6	1.23	s .18	.....	6.6	5	14	7	7	NW

THE WINTER OF 1905-6.

The mean temperature of the three winter months—December 1, 1905 to March 1, 1906—was 25 degrees, which is 4.3 degrees above the normal for this state. The maximum temperature recorded was 69 degrees at Keokuk on January 20. The minimum recorded was 32 degrees below zero at Inwood, on February 10. The average precipitation for the state was 1.11 inches—a total of 3.33 inches for the winter months. This is 0.04 of an inch above the normal. On the whole it was a very mild and agreeable winter, with less than the usual amount of stormy weather. In the southern districts the supply of ice was deficient.

NOTES AND COMMENTS.

In 1905, Mons. Flammarion, the noted French astronomer, began a series of experiments to determine the influence of lunar radiation on vegetation. The results with peas, beans, beets, carrots, leeks, onions, potatoes and other vegetables planted in different phases of the moon were inconclusive, and observations will be continued through a series of years.

Seventeen-year locusts are said to be due to appear at the east this spring, and some anxiety has been expressed as to the damage that may result from their visitation. It is probable that this insect causes more harm to the roots of trees than to their foliage and branches.

ERRATA.

ESTHERVILLE:—Dec. Precipitation on the 2nd and 23rd, on page 9, recorded trace, should have been 20 inch and .05 inch respectively. Total precipitation recorded trace on page 9, should have been .25 inches.

OMAHA:—Jan. Mean barometer reduced on page 3, recorded 30.07 inches, should have been 30.08 inches.

CORNING:—Jan. Total snowfall recorded 9.8 inches on page 6, should have been 11.9 inches.

DECORAH:—Jan. Mean maximum temperature recorded 30.5 on page 8, should have been 30.6.

CLIMATOLOGICAL DATA FOR FEBRUARY, 1906—CONTINUED.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	Dates of Thunderstorms.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Algona	Kossuth	1,238	30	19.8	s 2.5	52	22	- 20	15	34	1.46	s .16	1.25	10.0	4	16	5	7	S	
Alta	Buena Vista	1,513	13	19.1	- 0.1	55	22	- 16	10, 14	38	1.61	s .86	.65	11.0	7	13	8	7	S	
Alta (near)	Buena Vista	....	....	..	.....	..	.....	.....	.....	....	1.55	.....	.45	11.0	5	...	...	....	.....	
Alton	Sioux	...	...	21.8	.....	58	22	- 17	10	42	1.08	.....	.60	7.9	5	17	7	4	SE, NW	
Britt	Hancock	1,36	7	20.2	s 3.2	54	22	- 18	10	35	.96	- .01	.66	5.2	4	3	21	4	S	
Charles City	Floyd	1,015	13	17.3	- 0.5	44	22	- 22	15	35	1.45	s .86	1.18	9.3	6	10	10	8	SE	
Clear Lake	Cerro Gordo	1,441	7	20.7	s 7.4	50	22	- 13	9	54	.40	- .45	.20	3.0	3	18	4	6	S	
Decorah	Winneshiek	857	10	18.2	s 3.2	48	22	- 23	15	43	71	- .27	.45	5.8	4	...	...	...	.....	
Dows	Wright	1,42	6	20.8	s 5.4	54	22	- 17	10	37	1.02	s .12	.88	5.5	4	13	3	12	.....	
Elkader	Clayton	727	23	20.4	s 2.3	51	22	- 25	5	46	1.00	- .12	1.00	8.0	1	17	5	6	NW	
Estherville(c)	Emmet	1,298	9	19.5	s 3.5	56	22	- 18	10, 15	49	.58	- .04	.26	4.5	4	13	0	15	NW	
Fayette (a)	Fayette	....	16	17.6	s 0.2	47	22	- 27	15	43	.99	- .17	.83	7.0	3	.	...	...	.....	
Forest City	Winnigo	1,226	10	18.8	s 3.8	53	22	- 15	10	43	1.15	s .88	1.00	4.5	4	14	6	8	.....	
Grand Meadow	Clayton	1,186	13	18.6	s 1.6	46	22	- 14	5	32	1.17	s .05	.90	7.0	4	14	9	5	N	
Hampton	Franklin	1,156	14	21.8	s 4.3	55	22	- 13	10, 15	30	1.04	- .07	.51	8.9	5	9	15	4	NW	
Hanlontown	Worth	....	.	19.1	.....	52	22	- 18	15	37	.56	.....	.40	5.5	4	16	6	6	SE	
Humboldt	Humboldt	1,095	12	21.4	s 4.0	55	22	- 17	10, 15	36	.25	- .45	.20	2.0	3	18	5	7	NW	
Inwood	Lyon	....	....	21.4	.....	59	22	- 32	10	41	.21	.....	.16	3.3	2	18	9	1	SE	
Larrabee	Cherokee	1,266	15	21.3	s 3.1	57	22	- 20	10	45	1.57	s .82	1.05	12.0	5	13	10	5	S	
Le Mars	Plymouth	1,224	8	23.1	s 5.8	58	22	- 17	15	35	1.16	s .55	.55	10.5	5	15	10	3	S	
Mason City	Cerro Gordo	1,132	....	21.3	s 6.4	44	20, 24	- 13	15	34	1.55	s .99	1.30	7.5	3	13	9	6	NW	
New Hampton	Chickasaw	1,169	6	18.7	s 4.8	44	22	- 14	5, 10	37	1.09	s .02	.89	8.0	4	13	11	4	S	
Northwood	Worth	1,222	8	21.1	s 5.7	45	20, 22	- 15	10, 15	36	1.07	- .09	.80	4.7	4	14	10	4	S, SE	
Osage	Mitchell	1,184	13	19.2	s 4.8	44	23	- 14	15	33	1.56	s .38	1.25	9.1	4	15	4	9	S	
Plover	Pocahontas	....	7	19.5	s 2.8	53	22	- 21	10	34	.44	- .21	.19	4.5	3	20	3	5	N	
Pocahontas	Pocahontas	1,190	...	21.6	.....	55	22	- 18	10, 14	42	1.52	.....	1.13	8.5	5	17	6	5	NW	
Ridgeway	Winneshiek	1,215	8	20.6	s 3.5	49	22	- 13	5	37	1.32	- 1.35	.83	6.4	6	13	10	5	S	
Rock Rapids	Lyons	1,021	.	21.8	s 4.8	60	22	- 21	10	40	.35	s .21	.25	3.5	2	....		...	N	
Sheldon	O'Brien	1,422	6	21.2	s 7.0	62	22	- 23	10	44	1.07	s .39	.55	10.5	4	19	4	5	SE	
Sibley (a)	Osceola	1,212	10	18.6	s 8.2	59	22	- 19	9, 10	59	.19	- .28	.12	2.0	3	14	4	10	SE	
Sioux Center	Sioux	.....	7	21.6	s 6.0	59	22	- 13	10	35	.60	- .18	.20	8.0	3	17	4	7	.....	
Storm Lake	Buena Vista	1,440	9	17.8	s 2.8	55	23	- 19	10	48	1.08	s .43	.35	10.8	6	14	3	11	SW	
Washta	Cherokee	1,157	....	23.6	....	58	22	- 24	15	43	1.15	s .53	.30	8.5	4	13	11	4	N	
Waverly	Bremer	942	8	20.2	s 2.2	45	22	- 18	15	35	1.43	s .31	1.05	9.4	5	13	5	10	NW	
West Bend	Palo Alto	1,197	10	20.4	s 3.9	51	22	- 20	10	34	1.01	s .20	.80	1.7	3	11	10	7	.....	
Average	.....	.....	...	20.2	s 3.8	52.6	.....	-18.6	.....	40.0	1.01	s .18	...	8.9	4	14	7	7	S	

SOUTHERN SECTION.

Afton	Union	1,212	11	26.9	s 5.1	60	22	- 8	15	37	1.00	- .04	.50	4.0	3	13	11	4	SW	
Albia (a)	Monroe	957	8	24.3	s 4.6	62	22	- 6	5, 15	42	1.99	s .67	.47	3.0	6	16	5	7	N	
Allerton	Wayne	....	....	28.4	.....	55	18	- 5	5	38	2.11	.....	.85	1.4	5	18	4	6	NW	20
Atlantic	Cass	1,164	18	28.9	s 6.2	63	22	- 16	15	34	99	s .03	.56	6.5	6	6	10	12	N, S	
Bedford	Taylor	.....	6	27.3	s 8.8	55	23	- 7	5	37	1.71	s .90	.65	5.2	4	16	9	3	S E	
Bonaparte	Van Buren	....	12	27.4	s 4.5	60	22	- 3	5	31	2.47	s1.23	1.10	0.5	4	...	...	...	.....	
Burlington	Des Moines	544	8	28.7	.....	59	22	0	5	34	2.40	. . .	.98	...	4	19	2	7	NE	
Chariton	Lucas	1,042	9	27.0	s 4.8	60	22	- 7	15	38	1.60	s .58	.75	5.0	4	19	4	5	SE, NW	
Clarinda	Page	.....	14	26.2	s 3.2	65	22	- 6	5, 6	42	1.54	s .52	.50	9.5	6	15	3	10	S	
College Springs	Page	.....	12	29.0	s 5.2	62	22	- 4	5	27	1.32	s .42	.72	9.0	4	18	7	3	SE	
Columbus Jct	Louisa	586	4	27.0	s 8.2	57	22	- 2	5	38	2.10	s .91	1.10	0.8	3	22	2	4	SE	
Corning	Adams	1,127	12	28.7	s 4.5	60	23	- 6	5, 15	34	1.03	s .23	.40	5.5	4	13	13	2	SE	
Corydon	Wayne	992	11	28.4	s 6.6	62	22	- 6	5, 15	35	2.03	s .61	1.00	....	4	17	5	6	NW	13
Creston	Union	.. ...	....	26.0	....	60	22	- 7	15	40	.65	.....	.30	3.5	4	14	6	8	NW	
Cumberland	Cass	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.50	- .21	.40	5.0	2	21	4	3	N, S,	
Earlham	Madison	.....	4	24.8	.....	59	22	- 22	15	38	1.17	.....	.85	3.5	3	14	7	7	S	
Elliott	Montgomery	.....	...	28.0	.....	60	22	- 7	14	32	.73	...	.53	5.0	2	16	10	2	S	
Ft. Madison	Lee	516	53	....	....	.....	.....	.....	.....	.....	2.29	s .83	1.12	1.0	4	12	9	7	N, S	
Glenwood	Mills	.....	17	29.2	s 6.0	64	22	- 8	14	37	.70	s .02	.30	7.0	3	6	18	4	SW	
Greenfield	Adair	.....	13	26.2	s 4.9	60	22	- 15	15	38	1.00	- .04	.43	6.1	5	12	11	5	S	20
Hancock	Pottawattamie	.....	....	22.0	.....	61	22	- 8	14, 15	34	1.14		.74	5.5	5	16	11	1	SE	
Hopeville	Clarke	..	13	27.6	s 5.7	62	23	- 5	5	35	1.03	s .31	.47	...	5	7	19	2	.....	
Indianola (c)	Warren	..	13	26.0	s 3.5	61	22	- 12	15	35	1.32	s .57	.68	4.4	5	9	3	16	SW	
Keokuk	Lee	619	33	29.2	s 0.9	61	23	0	5	32	2.50	s .79	.85	3.5	6	15	4	9	NW	
Keosauqua	Van Buren	644	12	25.6	s 1.5	61	22	- 1	5, 6	42	2.77	s1.35	1.08	1.5	8	11	5	12	.....	
Knoxville ‡	Marion	920	11	27.1	.....	61	22	- 8	15	35	1.35	.....	.65	4.0	6	16	3	9	NW	
Lacona	Warren	.....	...		.....	.....	.....	.....	.....	.....	1.63	s .38	.90	17.3	6	7	16	5	.....	
Lenox	Taylor	1,250	9	27.0	s 5.0	66	22	- 7	5, 14, 15	38	2.35	s1.70	1.05	3.5	4	19	7	2	S	
Leon	Decatur	1,120	....	28.3	.....	61	22	- 4	5	36	1.83	.....	.60	4.8	5	18	2	8	SE	
Massena	Cass	...	....	27.4	.....	65	23	- 12	15	40	1.89	.	.60	9.2	4	19	4	5	S	
Mt. Ayr (a)	Ringgold	1,236	10	29.6	s 7.8	64	22	- 5	4	46	1.78	s .62	.80	4.2	4	11	12	5	. ....	
Mt. Pleasant	Henry	729	22	26.4	s 2.6	57	22	- 3	5	34	2.91	s1.87	1.20	T	5	13	7	8	SE	
Omaha, Neb.	Douglas	1,113	34	28.4	s 3.4	64	23	- 8	14	39	.71	- .08	.38	6.8	5	6	12	10	S	
Oskaloosa	Mahaska	843	20	25.5	s 4.2	60	22	- 7	5	32	.78	- .29	.28	2.8	6	19	0	9	NW	
Ottumwa	Wapello	649	10	26.6	s 3.7	59	22	- 3	5	28	2.67	s1.43	1.12	....	3	11	8	9	.....	
Pacific Junction	Mills	960	7	28.3	s 9.3	64	22	- 8	14	38	.90	s .42	.60	7.5	4	13	12	3	N	
Pella	Marion	....	....	27.0	.....	59	22	- 6	5, 15	36	1.85		.75	4.1	6	18	3	7	SE	
Red Oak	Montgomery	1,083	9	31.6	s 8.8	66	22	- 2	5, 15	39	1.58	s .80	.75	10.0	5	12	11	5	SW	
St. Charles	Madison	1,070	4	27.5	.....	63	22	- 12	15	40	.94	.....	.33	3.8	7	16	7	5	S	
Sidney	Fremont	..	....	27.8	..	64	22	- 8	5, 14	31	.60	. . .	.20	6.0	4	16	8	4	SE	
Sigourney	Keokuk	877	7	25.9	s 4.5	58	23	- 6	2	32	1.97	s .62	1.07	3.5	5	5	18	5	NW	
Stockport	Van Buren	.....	...	28.2	.....	60	22	- 3	5	34	2.70	.....	1.10	.5	5	10	7	11	NW	
Thurman	Fremont	..	8	27.6	s 7.4	64	23	- 8	15	44	1.10	- .22	.60	4.7	4	11	9	8	SW	
Wapello (a)	Louisa	588	6	27.2	s 6.4	55	21	0	10	40	2.72	s1.26	.99	0.5	4	....	....	....	SE	20
Washington	Washington	769	22	26.4	s 5.0	59	22	- 4	5	32	2.56	s1.40	1.18	....	4		....	....	NW	
Winterset	Madison	1,129	13	26.0	s 4.6	58	22	- 14	15	34	.95	s .06	.40	7.5	4	11	10	7	N, NW	
Woodburn	Clarke	961	...	26.6	....	60	22	- 12	15	39	1.60	s .39	.82	3.0	4	17	7	4	NE	
Average	.....	.....	....	27.2	s 5.0	60.6	.....	- 6.8	.....	36.3	1.62	s .53	.....	4.8	5	14	8	6	SE. S	
Average for State	.....	.....	....	23.6	s 4.2	56.4	.....	-13.1	.....	38.0	1.29	s .28	.....	6.1	5	14	7	7	S	

s Above normal. ‡ Received too late to be computed with means. a. One day missing; b. two days, etc.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR FEBRUARY, 1906.

STATIONS.		DATE																															MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max..	42	27	51	44	12	19	34	29	24	21	48	45	43	19	22	34	39	46	50	46	49	60	54	46	44	42	32	45	..	..	.	38.1
	Min ..	20	15	18	7	- 5	1	6	6	- 2	- 4	14	28	19	- 5	- 8	8	28	27	28	35	29	35	32	31	23	22	13	19	..	..	..	15.7
Albia*....	Max..	26	30	52	15	12	22	23	27	23	20	42	54	38	15	24	29	36	47	48	42	42	62	49	40	45	32	32	44	..	..	..	34.5
	Min ..	12	8	10	9	- 6	- 4	5	5	- 3	- 5	2	24	33	3	- 6	- 1	12	28	31	35	29	31	34	32	25	22	12	18	..	..	..	14.1
Algona...	Max..	39	18	44	27	9	15	31	15	18	14	35	43	37	11	12	28	34	39	40	45	38	52	44	37	32	30	31	45	..	..	..	30.8
	Min .	8	8	13	-4	-11	- 5	4	1	-12	-15	1	16	6	-14	-20	2	22	17	22	31	27	30	31	27	15	16	11	22	..	..	..	8.9
Allerton .	Max..	40	25	54	45	16	24	35	32	28	24	42	47	47	24	25	36	38	55	48	48	51	54	54	48	48	41	35	42	..	..	..	39.5
	Min ..	21	13	16	9	- 5	2	9	6	0	- 1	15	29	24	1	- 3	11	27	27	31	37	29	37	33	32	26	23	14	20	..	..	..	17.2
Alta.	Max..	36	16	43	15	5	20	28	14	17	10	37	49	36	4	15	27	28	41	38	48	35	55	39	32	32	28	28	46	..	..	..	29.2
	Min ..	9	11	15	-4	-11	0	7	-1	-12	-16	9	15	-2	-16	-12	5	18	20	28	31	25	32	29	24	17	14	11	6	..	..	..	9 0
Alton. . .	Max..	47	28	44	27	13	22	28	22	22	15	43	41	30	8	16	28	30	39	45	50	44	58	46	37	36	30	30	45	..	..	..	33.0
	Min ..	12	16	18	-3	- 8	2	10	3	-13	-17	11	11	3	-15	-15	10	11	10	27	33	25	32	31	28	18	16	16	24	..	..	..	10 6
Amana...	Max..	36	19	44	41	11	16	29	26	18	16	39	46	43	24	21	30	39	42	46	43	36	55	48	37	33	31	29	41	..	..	..	33.6
	Min ..	13	4	13	6	- 4	2	3	7	0	- 4	9	34	23	3	-11	4	22	32	24	36	30	31	34	33	28	24	18	20	..	..	..	15.1
Ames	Max..	38	18	49	36	11	17	37	25	20	20	41	45	38	16	15	31	37	43	44	45	39	58	49	41	39	33	34	48	..	..	..	34.5
	Min ..	19	9	17	13	- 7	0	11	4	- 4	- 8	9	28	14	- 6	-16	3	25	16	24	38	28	32	32	30	23	26	17	22	..	.	..	14.1
Atlantic .	Max..	31	31	55	39	16	25	38	25	27	22	45	48	41	14	23	33	36	46	53	52	54	63	56	48	47	37	37	49	..	..	..	39.0
	Min ..	19	14	21	8	- 6	0	9	2	- 4	- 9	16	29	14	- 6	-16	10	29	26	22	32	23	39	27	30	19	24	17	24	..	..	..	14.8
Audubon.	Max..	45	30	50	40	17	23	36	28	25	20	45	48	40	15	21	30	38	44	49	48	52	60	53	45	45	38	37	47	..	..	..	38.2
	Min ..	19	20	21	2	- 7	0	2	4	-10	- 9	13	22	15	- 9	- 9	4	27	21	24	33	25	37	31	30	21	22	15	23	..	..	..	13.5
Baxter . .	Max.	37	18	47	40	10	16	35	27	20	16	39	44	40	20	17	29	35	44	43	43	37	57	52	40	40	36	33	45	..	..	..	34.3
	Min ..	14	5	14	5	- 8	- 2	3	2	- 6	- 8	5	28	17	- 3	-11	4	24	22	23	24	24	30	32	29	23	21	15	20	..	..	..	12.5
Bedford ..	Max..	48	32	38	38	17	26	36	34	25	24	40	46	46	20	25	34	33	54	48	50	54	54	55	47	50	42	40	48	..	..	..	39.4
	Min ..	22	14	19	7	- 7	3	14	4	- 3	0	17	27	19	- 4	- 3	18	30	29	31	35	25	38	30	32	21	21	8	20	..	..	..	16.3
Belle Pl'e	Max..	19	20	42	22	12	13	20	17	16	20	38	45	33	14	4	27	40	41	43	47	38	51	42	36	29	27	23	42	..	..	..	29.5
	Min ..	10	3	6	8	-10	- 6	2	3	- 3	- 7	24	24	25	- 2	-14	- 3	22	22	24	35	37	28	34	32	25	15	21	18	..	..	..	18.3
Bonapar'e	Max..	36	20	53	40	17	22	30	31	23	21	42	58	43	28	25	34	36	49	50	48	43	60	53	45	44	30	33	39	..	..	..	37.7
	Min .	17	8	17	9	- 3	5	4	8	1	1	11	34	28	10	0	6	23	26	27	35	30	30	36	24	30	25	13	18	..	..	..	17.2
Boone* ..	Max.	24	27	48	10	10	17	35	14	21	23	39	44	24	9	16	30	33	42	44	46	40	58	45	42	40	32	34	..	..	..	..	31.4
	Min ..	14	10	10	2	- 7	- 3	2	4	- 4	- 9	- 8	22	24	- 7	- 8	- 5	8	21	24	33	28	27	33	31	21	22	16	18	..	..	..	11.3
Britt. ...	Max..	30	21	45	24	11	14	31	22	19	12	36	45	37	7	8	31	45	44	44	46	38	54	42	40	46	31	31	45	..	..	..	32.1
	Min ..	9	2	12	-3	-12	- 6	4	0	-16	-18	1	21	7	-12	-15	2	18	19	12	28	26	32	31	27	16	16	11	21	..	..	..	8.3
Burling'n	Max..	30	20	50	42	19	25	27	36	25	23	42	57	46	28	25	33	36	54	51	49	48	59	58	42	47	34	36	40	..	..	..	38.3
	Min ..	17	8	16	12	0	8	10	9	5	8	15	33	28	11	4	11	24	28	29	37	31	30	37	33	31	27	18	21	..	..	..	19.1
Carroll* ..	Max.	28	32	50	29	13	21	33	19	26	38	43	51	24	10	19	31	35	43	47	46	43	63	50	46	40	31	31	47	..	..	..	35.5
	Min ..	16	13	16	0	- 7	- 6	5	2	- 8	-11	- 5	26	19	-13	-22	-13	13	20	24	32	25	28	31	29	20	21	11	15	..	..	..	10.0
Cedar R*.	Max..	28	21	44	14	11	17	31	20	16	17	39	50	33	18	20	24	36	42	47	42	39	56	42	38	36	30	29	41	..	..	..	31.5
	Min ..	8	4	6	11	- 3	- 4	2	7	- 1	- 4	- 5	5	35	6	-11	-11	-1	20	19	28	30	30	31	31	28	23	18	19	..	..	..	11.5
Chariton .	Max..	31	24	52	30	13	21	35	34	26	25	41	50	48	22	22	34	36	50	48	46	49	60	50	48	46	40	34	42	..	..	..	37.8
	Min ..	19	11	14	8	- 5	1	7	5	- 1	- 4	14	30	22	0	- 7	8	27	27	29	36	28	36	33	33	24	22	12	19	..	..	..	16.3
Charles C.	Max..	35	14	39	12	5	10	30	13	15	8	32	40	34	8	11	23	33	39	40	40	33	44	41	39	31	28	27	38	..	..	..	27.2
	Min ..	0	0	11	-9	-13	-10	- 3	-5	-11	-12	8	23	4	-17	-22	- 4	21	16	18	32	28	28	28	27	20	16	30	20	..	..	..	7.4
Clarinda*	Max.	33	37	57	16	20	27	40	34	29	27	45	48	32	14	22	34	38	52	57	52	57	65	55	47	50	30	38	50	..	..	..	39.5
	Min ..	23	13	19	6	- 6	- 6	6	6	- 1	0	1	25	27	- 5	- 5	- 5	15	27	28	33	25	27	30	31	22	22	8	8	..	..	..	12.9
Clear L ..	Max.	32	15	40	38	7.	11	31	20	14	16	31	42	38	16	14	28	35	37	40	40	38	50	45	40	34	28	30	43	..	..	..	30.4
	Min ..	10	4	9	0	-12	- 6	0	0	-13	-15	- 3	21	15	9	- 5	3	21	14	21	31	26	28	31	27	17	15	12	18	..	..	..	11.0
Clinton...	Max..	34	18	43	38	13	20	25	30	21	14	38	50	43	26	22	29	47	42	52	45	42	54	47	37	37	31	28	40	..	..	..	34.5
	Min ..	18	4	9	9	0	9	4	9	3	0	8	29	25	6	0	5	20	30	24	36	30	30	34	34	26	22	18	16	..	..	..	16.2
Col. Spgs.	Max..	40	34	54	30	16	34	38	32	26	25	40	50	44	16	25	35	39	47	57	46	54	62	51	48	48	41	32	48	..	..	..	39.7
	Min .	29	20	22	9	- 4	9	11	8	1	3	22	28	16	- 3	- 1	15	30	28	32	36	28	36	32	32	25	23	6	22	..	..	..	18.4
Colum. J.	Max..	36	21	51	44	15	21	28	29	22	19	42	56	46	37	24	32	37	45	52	47	38	57	50	39	41	33	29	42	..	..	..	36.9
	Min ..	15	7	13	9	- 2	4	5	7	1	- 1	12	32	25	9	1	9	23	22	28	36	30	30	36	34	29	24	18	20	..	..	..	17.0
Corning..	Max..	43	29	52	40	14	21	37	26	19	22	44	48	43	18	22	33	35	45	55	50	51	60	51	46	44	37	34	44	..	..	..	38.0
	Min ..	19	19	19	6	- 6	1	8	3	- 3	- 2	14	28	12	- 5	- 6	12	28	26	29	25	25	38	30	32	22	25	10	23	..	..	..	15.4
Corydon..	Max..	39	25	54	46	19	26	36	32	28	25	42	53	45	23	25	36	36	52	49	47	51	62	58	47	49	43	36	43	..	..	..	40.2
	Min ..	21	11	16	9	- 6	2	7	6	- 1	- 2	14	31	22	1	- 6	11	27	28	30	37	28	36	33	32	25	23	11	20	..	..	..	16.6
Creston*	Max.	28	30	51	27	12	20	32	36	24	28	43	45	42	20	28	31	35	50	51	51	53	60	51	47	48	38	38	52	..	..	..	38.1
	Min ..	29	15	17	7	- 5	- 3	5	6	- 2	4	3	21	32	- 6	- 7	- 6	11	27	30	30	27	27	30	31	22	18	13	12	..	..	..	13.8
Davenpo't	Max..	35	18	45	32	16	20	26	28	18	16	39	53	45	24	22	30	38	45	50	48	40	55	50	38	38	31	30	38	..	..	..	34.5
	Min ..	12	8	13	4	0	10	11	10	8	1	13	33	24	7	4	13	23	30	29	34	31	29	36	33	28	24	19	20	..	..	..	17.9
Decorah. .	Max..	33	18	38	8	12	13	27	20	16	12	31	43	31	10	20	28	37	37	41	41	38	48	44	38	34	32	31	39	..	.	..	29.4
	Min ..	5	-1	3	-3	-13	-15	- 8	0	- 8	-10	- 1	22	15	- 8	-23	-13	19	22	12	32	26	25	29	28	18	14	10	14	..	..	..	6.9
Delaware.	Max..	32	15	40	38	6	14	25	22	16	10	32	43	40	24	16	25	36	40	41	42	35	48	47	38	35	27	25	35	..	..	..	30.2
	Min ..	10	0	10	0	- 9	- 4	1	4	- 6	- 9	1	21	21	0	- 9	0	15	25	21	32	22	26	32	30	22	18	12	12	..	..	..	10.6
Denison ..	Max..	48	31	49	41	16	24	35	25	27	26	43	49	39	10	19	29	33	43	46	49	51	61	52	45	43	35	36	48	..	..	..	37.6
	Min ..	18	14	14	1	- 9	0	- 2	2	- 8	-11	11	28	8	-14	-22	9	25	20	30	34	26	17	31	29	19	19	11	19	..	..	..	11.5
Des M....	Max..	39	19	52	24	10	13	37	19	22	16	42	45	43	12	18	33	36	45	48	46	42	61	44	44	41	31	32	46	..	..	..	34.6
	Min ..	16	10	18	1	- 5	4	8	5	0	- 4	16	33	6	- 1	-12	7	28	28	29	37	31	34	35	34	25	24	21	23	..	..	..	16.1
De Soto ..	Max..	41	21	52	38	17	25	40	33	27	28	44	49	50	18	20	34	41	49	50	48	49	60	50	45	44	38	38	49	..	..	..	39.1
	Min ..	17	13	16	5	- 6	- 6	6	5	- 5	-11	10	32	18	- 6	-24	4	27	26	26	35	29	35	34	32	23	22	17	22	..	..	..	14.1
Dows. ...	Max.	38	16	41	37	6	15	33	24	15	14	35	40	37	16	11	26	34	38	40	42	39	54	49	40	34	33	31	45	..	..	..	31.5
	Min .	11	6	13	0	-10	- 5	3	0	-15	-17	- 2	20	16	- 8	-15	0	24	18	22	31	26	30	32	28	20	19	14	21	..	..	..	10.1
Dubuque.	Max..	36	19	43	24	10	18	33	22	16	15	36	50	43	20	17	26	34	43	46	44	40	53	49	38	36	29	26	35	..	..	..	31.9
	Min ..	6	2	11	-2	- 6	0	3	9	2	- 2	8	32	20	- 2	-14	- 5	18	28	22	35	30	29	34	32	21	19	15	14	..	..	..	12.8
Earlham .	Max..	41	28	51	38	13	21	36	20	26	16	43	47	37	16	16	31	37	45	47	48	48	59	53	44	45	35	34	45	..	..	..	36.5
	Min ..	16	12	20	4	- 7	- 2	4	2	- 9	- 8	10	29	16	- 7	-22	3	26	24	33	33	23	40	30	29	20	20	11	20	..	..	..	18.2
Elkader ..	Max.	27	20	40	36	18	15	26	22	22	17	32	48	40	21	21	28	36	43	45	41	36	51	47	36	35	33	31	37	..	..	..	31.4
	Min ..	9	0	5	1	-10	- 6	- 5	2	- 5	- 8	0	27	21	- 2	-25	-16	17	25	10	35	30	28	33	29	23	18	13	15	..	..	..	9.4
Elliott	Max..	47	39	53	40	17	25	42	28	30	26	45	50	43	15	27	44	40	43	56	58	57	60	49	38	38	38	26	50	..	..	..	40.0
	Min ..	20	17	21	6	- 6	4	10	4	- 2	- 3	19	29	13	- 7	2	12	17	26	23	35	25	40	29	32	22	23	13	23	..	..	..	16.0
Esth'rv'l*	Max	18	33	53	18	6	20	30	10	18	24	39	34	16	10	14	28	34	46	47	50	40	56	48	34	32	31	33	..	..	..	..	30.4
	Min ..	5	6	11	-8	...	...	...	..	-12	-18	-10	12	16	-16	-18	- 8	13	19	19	32	26	26	30	26	18	16	10	17	..	..	..	8.6
Fayette ..	Max..	30	20	39	23	8	13	26	23	10	12	35	44	38	14	18	33	35	38	42	38	39	47	40	..	30	28	23	38	..	..	..	29.2
	Min ..	6	-3	1	-6	-18	-11	-10	0	-11	-13	- 5	26	20	-10	-27	-19	18	18	18	34	28	27	27	..	18	15	11	22	..	..	..	6.1
ForestCy*	Max..	19	27	43	5	8	13	30	11	12	22	33	43	20	12	15	28	33	40	40	47	38	53	46	39	31	29	34	45	..	..	..	29.3
	Min ..	10	6	7	-1	-12	-11	0	0	-14	-15	-11	22	23	-11	-14	- 7	12	17	25	32	26	26	33	30	16	15	11	20	..	..	..	8.4
F. Dodge*	Max.	20	35	44	8	10	16	33	12	18	27	38	44	22	6	16	30	32	41	42	45	43	57	44	40	35	31	34	..	..	..	..	30.5
	Min ..	10	11	12	2	- 7	- 7	1	3	- 8	-13	-13	26	21	- 7	-19	-19	12	19	22	31	27	22	33	29	20	21	15	16	..	..	..	9.3
Galva	Max..	45	27	46	33	13	20	31	25	22	15	40	51	40	7	16	27	32	39	42	46	41	51	49	41	38	33	29	46	..	..	..	33 8
	Min ..	13	14	17	-2	- 8	2	6	3	-10	-15	10	21	7	-14	-16	1	19	11	24	31	24	37	30	27	19	11	4	18	..	..	..	10.1
Glenwo'd	Max..	52	37	54	42	17	27	40	30	28	25	45	44	44	16	17	32	35	48	55	52	54	64	54	48	45	35	34	56	..	..	..	40.4
	Min ..	28	19	24	5	- 6	8	12	7	- 2	- 1	21	31	16	- 8	5	17	25	26	30	35	28	44	32	32	22	24	11	25	..	..	..	18.1
Grand M.	Max..	34	15	36	32	5	10	25	19	10	10	32	42	37	22	14	24	38	37	44	42	38	46	44	36	31	26	25	36	..	..	..	28.9
	Min ..	5	-4	4	-2	-14	-10	- 6	0	- 6	-13	0	24	21	- 4	-18	- 4	15	22	15	32	27	26	30	29	19	15	9	15	..	..	..	8.3
Greenfield. ..	Max..	41	30	50	39	14	36	35	26	25	20	45	48	41	16	23	35	49	45	49	48	50	60	52	45	45	38	34	46	..	..	..	38.8
	Min ..	10	12	16	5	- 7	4	8	4	- 5	- 7	10	28	16	- 9	-15	8	29	22	28	34	25	38	28	27	20	21	10	19	..	..	..	18.5
Grinnell .	Max..	33	15	47	37	8	15	32	28	20	12	38	45	41	20	18	28	42	35	43	43	37	56	48	40	41	31	32	40	..	..	..	32.9
(near)	Min ..	15	4	18	6	-12	- 2	4	3	- 5	- 8	8	20	15	- 2	-10	6	22	18	23	35	27	30	33	32	23	21	15	19	..	..	..	12.6
Grundy C	Max..	34	17	42	37	7	13	31	25	14	14	35	41	36	21	15	26	36	40	39	41	35	49	46	38	37	30	29	41	..	..	..	31.0
	Min ..	15	2	11	5	-10	- 6	0	2	- 9	-18	- 2	27	20	- 5	-18	0	23	19	25	33	28	31	33	30	24	21	16	24	..	..	..	11.8
Guthrie C	Max.	44	28	50	41	11	16	36	28	23	21	44	47	41	15	18	32	36	42	47	48	48	60	54	45	41	38	33	46	..	..	..	36.8
	Min ..	17	15	17	2	- 6	2	6	4	- 7	-10	10	29	15	-10	-23	5	29	25	29	35	26	38	32	30	22	22	11	22	..	..	..	13.8
Hampton.	Max..	35	21	43	23	12	21	35	20	18	15	35	45	32	17	17	29	35	40	40	47	38	55	47	41	36	34	36	46	..	..	..	32.6
	Min ..	13	5	5	2	- 9	- 5	2	2	- 9	-13	- 3	27	14	- 6	-13	2	24	20	26	32	27	29	32	30	20	19	15	20	..	..	..	11.0
Hancock.	Max..	45	35	53	39	15	25	38	24	26	23	45	47	41	13	21	33	40	48	50	49	55	61	58	46	46	41	35	50	..	..	..	39.1
	Min ..	19	16	21	5	- 7	3	10	5	- 2	- 4	19	28	12	- 8	- 8	12	21	21	25	35	29	40	31	31	23	23	12	24	..	..	..	14.9
Hamiontown.	Max..	36	17	42	29	6	16	31	15	18	9	33	42	35	9	11	25	32	42	38	48	36	52	46	40	34	27	32	44	..	..	..	30.2
	Min ..	9	3	10	-2	-12	- 7	1	0	-14	-15	- 4	16	7	- 9	-18	- 4	22	18	19	30	26	28	30	28	17	15	11	19	..	..	..	8.0
Harlan. ..	Max.	46	33	51	39	11	24	35	33	27	22	44	49	40	16	20	32	38	44	49	48	52	60	50	46	45	39	37	48	..	..	..	38.1
	Min ..	18	11	20	2	- 8	- 1	6	4	- 6	- 8	7	21	16	-10	-15	0	25	17	22	34	24	39	28	31	20	21	16	23	..	..	..	12.8

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR FEBRUARY, 1906—CONTINUED.

STATIONS.		DATE.																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Hopevi'e	Max.	42	28	53	40	16	25	33	29	27	22	45	47	42	18	25	33	37	53	50	48	51	62	53	43	50	35	35	43	..	..	..	38.6
	Min..	18	14	18	8	- 5	1	7	5	- 2	- 2	16	29	18	- 3	6	10	28	28	31	35	29	37	32	32	23	20	12	20	..	..	..	16.6
Humbo't	Max..	40	19	45	38	10	15	32	20	20	30	38	43	39	12	4	30	32	48	40	44	38	55	48	39	34	33	32	46	..	..	..	32.6
	Min .	10	10	15	-2	-10	- 5	6	0	-14	-17	4	17	10	-10	-17	4	21	15	24	10	28	32	32	30	18	19	14	24	..	..	..	10.3
Ida Grv.	Max..	49	30	47	40	14	23	34	26	24	23	41	54	48	18	18	28	34	42	44	47	49	58	58	45	40	36	32	49	..	..	..	37.4
	Min ..	14	14	17	-1	- 8	1	8	-1	-11	-17	11	23	12	-13	-23	9	18	11	23	30	23	39	30	23	20	16	-1	23	..	..	..	10.4
Indep'ce	Max..	34	15	38	36	8	11	27	27	15	7	32	40	40	22	14	23	34	37	40	41	36	47	47	42	37	30	30	36	..	..	..	30.2
	Min ..	4	-2	- 2	7	- 9	- 5	0	2	- 7	-10	- 1	25	22	- 2	-10	0	19	20	19	34	29	26	33	31	24	19	13	16	..	..	..	10.5
Indian'la	Max..	40	20	52	41	12	20	36	28	24	17	43	46	43	20	20	36	40	47	47	41	47	61	55	43	46	38	35	45	..	..	..	37.3
	Min ..	19	11	17	6	- 6	0	6	5	- 4	- 6	11	32	18	- 3	-12	7	..	28	30	35	29	36	34	32	23	..	16	21	..	..	..	14.8
Inwood..	Max..	43	26	47	25	10	22	29	18	18	9	40	35	28	12	19	29	35	53	51	53	50	59	52	43	38	32	30	40	..	..	..	33.8
	Min ..	9	15	18	-5	-10	- 2	9	-1	-22	-32	9	14	6	-16	- 8	11	13	17	30	29	19	37	27	22	13	12	8	22	..	..	..	9.1
Iowa C*	Max.	26	21	47	15	11	17	29	24	17	18	39	49	38	10	20	28	36	41	48	48	36	54	44	37	37	29	28	40	..	..	..	31 7
	Min ..	10	5	8	11	- 3	- 3	0	7	0	- 3	- 3	17	35	7	-10	- 6	-3	16	21	24	30	29	32	34	29	23	17	17	..	..	..	12.2
Iowa F*	Max..	20	21	42	9	6	13	32	12	10	18	35	42	26	7	11	28	36	38	42	42	35	53	43	41	33	29	30	45	..	..	..	28.5
	Min ..	13	5	10	5	- 9	- 4	5	2	-13	-17	0	28	25	- 5	-14	0	14	18	20	32	27	27	32	29	22	21	15	20	..	..	..	11.0
Jefferson	Max..	41	21	50	38	12	20	37	25	24	25	44	46	39	18	17	31	38	46	46	57	40	60	51	40	41	36	34	47	..	..	..	36 6
	Min ..	15	14	20	4	5	4	13	4	6	- 9	10	30	12	- 8	- 8	6	27	24	25	35	27	38	32	30	22	22	9	24	..	..	..	15.0
Keokuk	Max..	37	21	51	44	15	20	29	31	24	21	39	55	48	23	24	33	36	54	52	54	42	61	53	44	46	38	31	38	..	..	..	38.2
	Min ..	20	10	19	12	0	10	10	11	6	9	14	34	29	15	5	10	25	30	32	39	32	30	41	34	32	21	13	19	..	..	..	20.2
Keosauqua*	Max..	31	24	52	18	16	24	31	31	23	22	41	57	39	19	25	34	37	50	50	47	47	61	50	38	44	51	32	39	..	..	..	36.2
	Min ..	13	10	10	13	- 1	- 1	5	8	2	2	2	16	35	13	0	0	10	25	24	32	30	30	32	33	30	24	11	11	..	..	..	15.0
Larrabee	Max..	37	27	46	27	15	21	32	15	30	13	42	41	35	7	15	28	34	42	46	50	41	57	46	39	37	31	30	47	..	.	..	33.2
	Min ..	12	13	16	-5	-11	0	7	0	-15	-20	9	16	0	-17	16	6	14	16	23	30	24	35	31	28	17	16	12	21	.	..	..	9.4
Le Mars	Max..	46	32	45	29	14	25	29	23	23	15	44	47	43	11	18	28	32	39	44	49	48	58	49	43	38	35	32	44	..	..	..	35.1
	Min ..	14	17	15	-3	- 8	- 1	8	1	-10	-15	12	13	11	-15	-17	11	10	18	29	31	33	37	30	24	17	16	9	25	..	..	..	11.1
Lenox...	Max..	43	29	52	43	14	22	36	30	25	23	44	47	45	20	23	33	35	47	52	48	51	60	55	46	45	42	31	46	..	..	.	38.8
	Min ..	20	15	18	5	- 7	0	7	5	- 4	- 4	15	26	18	- 7	- 7	10	28	25	32	35	27	35	30	31	23	21	10	19	.	..	..	15.2
Leon	Max..	41	25	52	45	13	19	34	33	24	24	43	50	49	23	23	35	37	48	50	49	50	61	59	47	45	40	31	43	..	..	..	39.0
	Min ..	21	15	18	9	- 4	4	8	7	0	0	16	30	22	- 1	- 3	12	28	29	30	37	30	37	35	32	25	23	15	19	..	..	..	17 6
Little Sioux	Max..	49	39	51	40	20	28	34	27	31	28	44	53	41	15	23	31	35	44	48	52	54	64	54	44	45	41	37	52	..	..	..	40.3
	Min ..	22	18	25	3	- 7	4	13	2	- 7	- 9	19	31	15	-12	-10	15	12	13	30	32	25	42	28	28	20	22	18	27	..	..	..	14.8
Logan .	Max..	47	38	53	40	15	24	35	24	29	23	48	49	40	13	22	33	39	45	50	49	52	61	52	47	45	40	37	53	..	..	..	39.4
	Min ..	12	8	22	5	- 6	2	11	5	- 3	- 5	18	28	12	- 9	-14	12	25	20	26	33	24	40	29	28	20	24	15	23	..	..	..	14.2
Maquoketa*	Max..	36	21	46	23	18	24	21	28	20	18	38	53	37	17	25	31	35	45	48	42	46	55	50	37	37	32	31	37	..	..	..	34.0
	Min ..	26	2	4	11	- 4	- 4	0	6	0	- 2	- 3	17	32	8	-14	-10	9	20	18	18	30	26	28	29	25	18	16	11	..	..	..	11.3
Marshall'n*	Max..	24	25	46	14	8	15	33	17	19	20	39	46	35	12	17	31	36	43	48	40	36	57	44	41	40	33	32	44	..	..	..	31.8
	Min ..	10	5	6	7	-10	- 9	-3	3	- 5	- 9	- 9	18	30	- 3	-15	- 2	0	21	22	30	28	28	34	29	23	22	16	16	..	..	..	10.1
Mason C.	Max..	33	25	43	32	8	14	31	25	23	15	34	43	38	19	15	28	36	38	40	44	34	50	42	44	38	30	27	42	..	..	..	31.6
	Min ..	13	6	10	4	- 0	- 4	4	3	-10	-12	0	25	19	- 6	-13	0	22	20	20	30	28	28	32	30	20	17	13	20	..	..	..	11.0
Massena	Max..	34	31	59	41	22	31	41	30	31	23	46	47	42	17	24	32	42	53	55	57	55	65	54	49	49	41	38	48	..	..	..	41.4
	Min .	19	20	19	5	- 6	- 6	1	2	- 4	- 6	14	18	15	- 7	-13	10	28	23	28	34	27	30	28	20	20	21	14	21	..	..	..	13.4
Mt. Ayr	Max.	42	34	56	41	28	37	32	..	29	28	46	50	45	18	28	35	40	59	53	50	56	64	55	45	52	40	37	48	..	..	..	42.5
	Min ..	18	15	18	-5	2	8	8	..	- 2	- 1	15	28	18	- 3	- 2	12	28	29	31	36	29	35	30	31	24	21	11	19	..	..	..	16.8
Mt. Pleasant	Max..	36	22	50	41	16	21	29	26	23	20	38	53	44	27	22	28	34	47	50	47	40	57	50	40	42	35	32	39	..	..	..	36.0
	Min ..	16	6	16	8	- 3	3	6	4	1	- 1	11	32	26	8	0	11	22	26	27	36	27	28	35	32	28	27	17	18	..	..	..	16.7
Mt. Vernon.	Max..	30	19	44	35	20	32	32	24	24	23	38	46	42	20	28	33	34	45	44	40	39	55	43	35	38	35	30	40	..	..	..	34.6
	Min ..	10	2	6	2	- 6	- 1	4	4	- 3	- 7	9	30	20	3	- 7	3	17	21	23	32	27	27	32	31	24	20	14	16	..	..	..	12.6
N. Ham	Max..	35	13	38	33	4	8	28	25	13	13	32	38	38	20	10	23	38	38	38	39	38	44	41	40	36	29	27	38	..	..	..	29.2
	Min ..	8	-2	4	0	-14	- 8	-1	-1	-10	-14	- 5	22	17	- 8	-12	- 2	18	18	19	33	28	28	31	26	20	15	11	11	..	..	..	8.2
Northwood..	Max..	38	19	42	24	13	12	34	15	18	8	33	44	40	15	12	28	42	40	42	45	38	45	41	42	32	27	27	40	..	..	..	30.6
	Min ..	8	2	7	-3	-13	- 8	0	0	-10	-15	- 3	14	12	- 9	-15	- 3	20	20	20	30	27	28	31	27	16	14	10	18	..	..	..	11 6
Odeboldt	Max..	46	27	46	35	12	22	32	23	22	17	40	51	40	9	15	28	32	40	42	46	42	58	47	42	39	35	34	46	..	..	..	34.6
	Min ..	14	14	16	0	- 6	1	8	4	- 7	-11	10	24	9	-12	-14	8	22	20	27	32	35	38	31	29	20	17	4	22	..	..	..	12 7
Ogden...	Max..	40	17	46	38	9	15	38	28	20	19	40	48	33	16	16	31	34	39	43	43	40	57	50	43	49	34	34	47	..	..	..	34 5
	Min ..	14	12	16	2	- 6	2	7	4	- 4	- 8	8	27	15	- 7	-11	1	27	17	24	33	27	33	32	30	22	22	28	22	..	..	..	13 9
Olin	Max..	35	17	45	41	12	17	27	27	20	16	38	48	45	24	17	26	37	40	46	47	39	52	49	38	37	31	28	37	..	..	..	33 4
	Min ..	17	4	11	11	- 4	1	3	7	- 1	- 3	8	31	24	6	-11	- 6	17	21	20	37	30	29	35	35	26	20	16	17	..	..	..	14.3
Omaha, Neb.	Max..	39	37	51	20	15	25	37	21	29	24	45	45	43	6	22	32	36	49	54	52	55	64	51	46	43	37	35	56	..	..	..	38.2
	Min ..	22	21	20	4	- 4	9	15	7	2	0	24	31	4	- 8	0	18	21	32	33	36	33	41	36	32	26	20	18	28	..	..	..	18.6
Onawa ..	Max..	51	37	47	36	24	30	27	25	38	24	42	52	40	16	21	31	37	41	47	57	51	62	53	46	43	40	40	48	..	..	..	39.5
	Min ..	21	18	22	2	- 4	4	10	6	- 4	- 5	16	25	12	-10	- 8	11	13	13	25	30	25	38	28	28	21	20	14	26	..	..	..	14 2
Osage ...	Max..	35	15	39	31	5	12	29	22	15	15	29	39	36	15	11	28	35	38	37	42	39	43	44	39	34	28	30	37	.	..	..	29 3
	Min ..	11	1	6	1	-13	- 9	-1	2	- 8	-13	- 3	21	15	- 8	-14	0	21	20	20	30	27	28	32	28	18	15	11	18	..	..	..	9.1
Oskaloosa ..	Max..	34	20	49	40	13	18	34	19	21	17	41	49	43	23	23	34	40	44	48	45	41	60	51	39	41	35	31	42	..	..	..	35.5
	Min ..	16	7	17	8	- 7	2	6	5	- 3	- 5	11	34	28	2	- 6	9	20	28	28	26	29	32	34	31	26	24	18	20	.	..	.	15.5
Ottum'a	Max..	26	21	48	20	15	16	28	24	18	14	42	52	38	14	25	30	38	49	48	52	45	59	48	38	44	34	33	41	..	..	.	34.3
	Min ..	16	16	21	8	- 3	6	12	14	3	0	12	38	22	6	- 1	9	24	31	29	42	31	31	36	34	29	28	20	19	..	..	..	19.0
Pacific Jct.	Max..	43	37	55	40	20	26	38	27	28	26	48	46	41	9	26	36	38	45	53	51	55	64	54	47	46	40	37	56	..	..	..	40 4
	Min ..	20	20	25	2	- 5	5	15	5	- 1	0	28	30	15	- 8	- 5	10	25	19	27	32	25	40	29	30	22	21	9	25	..	..	..	18.2
Pella	Max..	39	28	51	45	13	20	35	33	22	20	42	47	45	24	22	34	40	45	45	45	40	59	56	48	43	40	34	46	..	..	..	37.7
	Min ..	18	8	16	9	- 6	3	7	7	- 2	- 4	10	33	22	1	- 6	7	25	26	30	36	29	31	34	33	25	24	18	21	..	..	..	16 2
Perry . .	Max..	42	22	48	35	11	18	36	24	22	20	42	45	39	16	12	33	37	42	45	46	41	53	48	44	39	34	34	46	..	..	..	34 8
	Min ..	15	14	18	3	- 5	3	8	5	- 5	- 7	9	29	15	- 7	-17	3	28	21	24	32	27	34	32	30	23	22	13	22	..	..	..	13 9
Plover...	Max..	36	20	41	28	9	18	30	18	14	0	37	40	38	5	12	37	30	40	40	43	43	53	45	46	30	29	30	42	..	..	..	3 .7
	Min ..	8	9	14	-1	-10	- 3	-1	-3	-17	-21	8	13	3	-17	-20	3	9	10	19	28	29	30	31	28	16	17	13	20	..	..	..	7 3
Pocahontas.	Max..	38	21	46	20	12	19	33	20	20	12	40	45	38	10	16	32	33	43	42	44	42	55	45	39	35	30	33	47	..	..	..	32 5
	Min ..	9	11	17	-4	-11	- 1	9	2	- 2	-18	- 2	15	8	-18	6	4	21	15	23	32	28	33	32	29	18	18	14	23	..	..	..	10 8
Red Oak	Max..	50	37	57	48	19	27	32	35	29	27	48	49	45	20	28	37	39	47	56	52	56	66	61	51	51	44	39	52	..	..	..	43 3
	Min ..	26	20	22	9	- 2	8	13	9	2	2	21	31	20	10	- 2	16	32	28	31	37	28	41	32	33	25	26	15	25	..	..	..	19.9
Ridge'y	Max..	33	24	40	24	13	20	27	21	15	15	31	44	40	20	16	27	34	40	44	45	38	49	46	42	35	35	35	40	..	..	..	31 9
	Min ..	3	-4	3	0	-13	- 9	-3	0	- 8	-12	0	25	16	- 5	- 6	0	21	21	20	34	29	28	33	29	17	14	10	17	.	..	..	9 3
Rock R..	Max	26	32	44	5	10	26	26	28	20	10	40	30	16	25	34	26	46	52	50	50	46	60	50	40	38	34	36	40	..	..	.	33 6
	Min ..	16	20	10	-5	- 8	10	4	-3	-16	-21	10	15	-4	-15	- 4	0	16	20	30	30	24	20	30	26	16	20	26	20	..	..	..	10 1
R City...	Max..	40	22	46	35	12	15	34	22	20	15	40	46	40	20	15	38	35	40	43	43	46	56	48	43	35	32	30	46	..	..	..	34.0
	Min ..	12	12	15	-1	- 9	0	8	0	- 8	-11	8	26	6	-11	-16	8	24	15	22	31	26	35	28	25	19	18	11	21	..	..	..	11 2
Sac City.	Max..	44	21	45	32	12	18	33	21	24	22	39	49	38	17	15	30	30	38	45	45	39	56	47	43	36	33	28	45	..	..	..	33 8
	Min ..	11	13	-10	-1	- 8	0	7	3	- 8	-12	8	24	9	-12	-17	- 4	23	20	25	32	25	34	31	29	18	13	8	19	..	..	..	10.0
St.Cha'es	Max..	42	28	55	37	17	26	38	29	30	18	45	47	41	18	28	38	40	56	49	45	54	63	54	44	52	37	41	47	..	..	..	33 8
	Min ..	16	13	16	8	- 6	0	5	5	- 3	- 5	11	31	16	- 5	-12	5	27	28	30	35	29	36	34	32	23	22	15	20	..	..	..	15 2
Sheldon.	Max..	40	23	45	25	12	24	39	20	23	14	41	48	23	3	15	15	28	32	42	47	51	44	62	52	40	40	34	33	48	..	..	33.9
	Min ..	9	13	15	-5	-10	0	8	2	-21	-23	8	23	3	-15	-16	- 8	13	14	28	31	24	34	30	18	15	16	13	23	..	..	..	8.6
Sibley*..	Max..	18	28	43	5	7	22	27	10	19	22	42	34	15	14	18	27	31	52	50	52	44	59	50	38	30	..	35	46	..	..	..	31.0
	Min ..	7	7	14	-8	-11	-10	0	1	-19	-19	-17	12	15	-15	-13	- 5	18	14	13	30	26	27	29	27	16	10	..	11	..	..	..	8.2
Sidney ..	Max..	47	34	52	26	12	21	37	30	24	24	45	44	42	15	22	36	38	44	51	50	58	64	54	49	46	42	32	56	..	.	..	39 0
	Min ..	20	19	26	3	- 8	6	10	6	- 4	- 1	21	27	13	- 8	- 4	12	28	28	29	36	27	40	30	30	22	20	14	25	..	..	..	16.7
Sig our'y	Max..	25	23	51	44	15	19	31	28	21	20	40	50	48	25	25	32	40	43	47	42	33	53	50	41	42	37	32	42	..	..	..	35 9
	Min ..	19	-6	19	10	- 5	2	5	6	- 1	- 3	10	33	25	3	- 5	7	23	26	26	36	29	30	35	33	27	24	17	19	..	..	..	15 9
Sioux C'r	Max..	40	28	44	24	24	22	28	9	21	15	42	40	28	10	17	27	29	44	45	50	45	59	48	38	37	32	31	42	..	..	..	33.0
	Min ..	12	16	17	-5	-10	0	7	0	-14	-18	11	15	4	-14	-13	9	14	19	23	32	23	31	30	28	15	15	12	23	..	..	..	10 1
Sioux C.	Max..	34	33	46	10	12	23	29	13	27	19	44	51	29	6	18	29	29	40	45	53	50	61	47	42	39	29	32	46	..	.	..	33 4
	Min ..	17	18	9	-1	- 6	5	10	-3	- 5	- 9	19	20	-4	-14	-11	14	16	24	29	35	28	35	30	27	20	17	9	27	..	..	..	12 7
Stoeport	Max..	33	22	52	40	21	26	32	34	26	25	41	58	43	31	29	34	36	50	50	46	45	60	52	49	45	36	35	39	..	..	..	33.9
	Min ..	20	8	18	10	- 3	4	6	7	1	0	12	33	28	10	0	7	23	27	26	36	30	30	36	33	30	25	15	19	..	..	..	17.8
Storm L*	Max..	18	30	44	8	11	20	31	10	20	29	38	49	19	4	16	29	28	42	41	46	41	55	39	35	29	30	27	46	..	..	..	29.8
	Min ..	10	9	14	-5	-12	-11	0	0	-11	-19	-14	5	13	-17	-18	-10	14	17	24	30	25	27	29	16	15	9	10	14	..	..	..	5.9
Stuart ..	Max..	30	20	40	28	11	17	36	25	22	20	43	49	42	16	18	39	38	42	50	49	47	59	52	47	41	34	32	45	..	..	..	35.4
	Min ..	16	14	18	-4	- 7	1	7	5	- 5	- 8	11	29	26	- 8	-15	- 8	29	27	30	35	27	37	31	30	21	22	14	22	..	..	..	14.2

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR FEBRUARY, 1906—Concluded.

STATIONS.		DATE.																															Mean.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Thurman	Max..	49	36	54	44	10	24	39	31	27	24	46	48	47	17	24	34	35	45	55	53	54	64	52	48	45	43	34	55	..	..	..	40.6
	Min ..	24	20	25	6	-5	5	12	6	0	2	15	28	17	-7	-8	16	11	5	11	21	24	44	30	32	22	21	8	27	..	..	..	14.7
Tipton....	Max	33	18	45	40	16	22	27	27	20	20	37	50	48	26	28	30	34	43	47	44	42	55	49	38	40	33	34	40	..	..	..	34.9
	Min ..	16	9	11	11	1	5	8	9	2	0	10	32	26	11	0	9	22	26	27	36	31	30	36	33	28	24	19	20	..	..	..	17.6
Toledo...	Max..	36	17	46	41	8	14	32	29	18	16	37	44	40	20	17	29	37	48	42	42	36	54	48	39	38	30	29	42	..	..	..	33.0
	Min .	13	4	14	6	-9	-2	3	4	-3	-8	8	30	20	-2	-12	5	24	25	26	34	28	31	35	32	19	19	16	20	..	..	..	13.4
Vinton	Max..	35	15	42	38	11	17	30	..	15	14	40	42	40	28	17	29	37	48	41	40	37	49	48	37	36	32	32	40	..	..	..	32.6
	Min ..	14	0	7	5	-9	-3	0	..	-5	-8	0	30	22	-2	-16	0	19	18	22	34	28	28	34	31	25	21	16	19	..	..	..	12.2
Wapello	Max.	34	19	44	39	20	24	27	30	28	30	39	48	41	..	27	28	34	47	48	49	55	54	46	39	41	33	34	38	..	..	..	35.9
	Min ..	16	9	13	12	1	7	11	14	5	0	12	30	20	..	4	5	23	29	28	27	15	27	33	34	31	26	20	21	..	..	..	17.5
Washi'ton	Max..	36	19	52	37	16	22	31	28	22	20	42	55	44	25	26	32	36	46	50	45	39	59	49	38	43	32	33	41	..	..	..	36.4
	Min .	14	0	15	6	-4	4	6	6	0	-2	10	34	25	6	-2	7	23	27	28	35	30	30	34	34	28	24	18	20	..	..	..	15.5
Washta ..	Max..	46	30	46	32	16	25	38	26	28	18	41	52	32	24	19	28	28	46	48	52	48	58	48	44	40	34	30	45	..	..	..	36.3
	Min ..	15	15	15	-2	5	0	0	0	5	13	10	20	6	-17	-24	8	18	8	18	34	20	36	28	25	18	17	0	18	..	..	..	10.9
Waterloo*	Max..	31	16	42	22	11	15	31	17	16	10	33	43	43	13	16	23	35	43	40	41	37	48	45	40	34	31	31	40	..	..	..	30.0
	Min .	4	1	8	7	-10	-5	0	2	-3	-10	0	28	30	-3	-17	-2	21	19	20	35	27	28	31	30	21	19	11	19	..	..	..	11.0
Waukee..	Max..	42	21	49	39	8	16	35	26	20	18	41	45	41	19	16	33	39	40	47	45	42	58	51	44	39	35	32	42	..	..	..	35.2
	Min ..	16	13	12	4	-6	1	6	0	-6	-7	9	31	19	-5	-13	5	28	25	27	35	28	37	34	31	23	22	17	21	..	..	..	14.7
Waverly.	Max.	36	16	39	34	5	12	30	21	15	12	32	41	36	18	14	27	36	39	39	40	36	45	43	39	35	28	26	39	..	..	..	29.8
	Min .	11	2	8	3	-10	-5	-2	8	-7	-10	-3	28	17	-2	-18	-3	23	19	20	19	29	29	34	30	24	19	15	19	..	..	..	10.5
Webst'r C	Max.	39	20	48	42	13	18	35	27	20	17	38	45	40	19	13	29	40	42	41	45	42	55	50	41	38	33	32	41	..	..	..	34.2
	Min ..	11	9	15	2	-9	-5	6	8	-1	-15	5	22	18	-7	-19	3	26	14	21	31	27	32	34	22	32	14	20	23	..	..	..	11.6
W. Bend.	Max..	34	19	45	32	8	15	31	20	18	14	36	44	34	11	12	30	36	34	41	44	39	54	46	36	32	29	31	43	..	..	..	31.5
	Min ..	8	9	13	-4	-10	4	5	0	-16	-20	2	15	11	-13	-19	3	28	13	23	29	27	30	32	28	17	17	13	21	..	..	..	9.3
Whitten..	Max.	35	19	43	39	7	12	33	26	15	15	37	44	38	20	14	29	37	38	50	52	37	53	49	41	36	31	28	44	..	..	..	32.9
	Min ..	12	8	12	3	-12	-6	0	0	-12	-15	-1	26	21	-5	-15	1	22	18	23	32	26	28	31	30	21	19	14	18	..	..	..	10.5
Wint'rset	Max..	41	24	50	39	10	18	35	28	23	21	51	54	45	19	19	33	37	46	48	45	47	58	53	43	44	41	31	43	..	..	..	37.4
	Min ..	17	13	16	5	-6	1	6	4	-5	-6	15	40	19	-7	-14	4	27	24	27	33	26	35	32	30	42	22	11	19	..	..	..	14.6
Woodb'n.	Max..	40	35	51	41	13	19	35	30	25	20	43	49	41	35	20	35	40	45	49	45	46	60	55	45	42	37	32	38	..	..	..	38.1
	Min .	18	16	16	9	-6	1	8	5	-2	-1	14	31	21	-2	-12	5	27	27	23	37	26	35	32	33	22	23	9	18	..	..	..	15.2
Zearing ..	Max..	38	20	45	38	12	18	35	31	18	16	38	43	38	19	15	28	36	41	42	42	41	55	53	43	38	32	35	46	..	..	..	31.1
	Min .	12	7	18	-1	-8	-2	1	8	-7	-10	8	29	-1	-8	-16	-4	25	18	26	32	27	34	32	29	22	23	15	21	..	..	..	11.2

At those stations the thermometers are read in the morning, the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

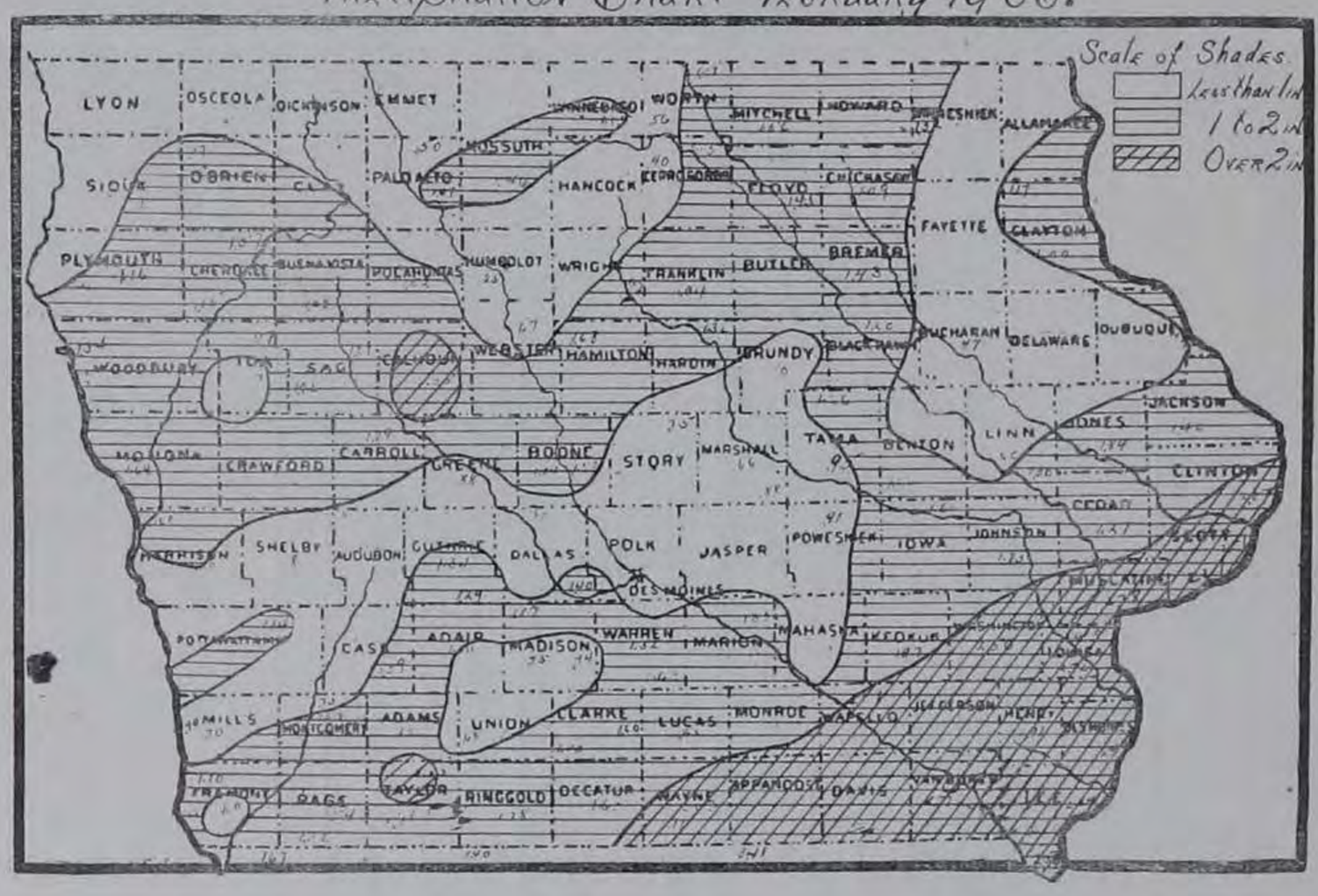
DAILY AND MONTHLY PRECIPITATION FOR FEBRUARY, 1906.

STATIONS.	DAY OF MONTH.																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton		T							T				.50							.30							.20				1.00
Albia									T				.85	.82			T				.15			.47	.15	T	.05				1.99
Algona		T						.10			T		1.25			.05	.06													1.46
Allerton		T											.85				.12		T	.42				.62		.10					2.11
Alta								.08			.07	.27	.65			.22										.82					1.61
Alta [near]								.10		T		.45	.40			.30									T	.80					1.55
Alton								.19			.05		.60			.12									T	.12					1.08
Amana				T				.02	T				.79				.04			.29				.46							1.60
Ames		T		T				.02			T	.04	.18				.09								T						.28
Atlantic		T									T	.02	.56			.05	.10			.16						.10					.99
Audubon								.02				.03	.32			T	.13		T							.03					.53
Baxter												.05	.05							.10											.20
Bedford				T				T				T	.65			.12				.42						.52					1.71
Belle Plaine				.01				.10				.10	.70				.07			.20				.70							1.88
Bonaparte									T				.75				T			1.10				.57		.05	T				2.47
Boone			T	T					.04		.05		.39	.91			.09									.04					1.52
Britt	T	T						.08	T		.04		.66				.18														.98
Buckingham	T			T				.07			T		.79				.40		T					T							1.24
Burlington													.65				.04			.75			T	.98							2.40
Carroll		T	T						.04				.05	1.10		.40									.20						1.79
Cedar Rapids				T					T				T	.28			T	T		T	.20				.12						.60
Chariton													.75				.10			.55						.20					1.60
Charles City	T	T		T				.09	T		.10	.25	.93			.02	.06		T		T					.20					1.45
Clarinda				T									.40	.25			.20			.19						.40	.10				1.54
Clear Lake	T	T						.10					.20				.10		T												.40
Clinton								.03					.80							.60				.94							2.37
College Springs				.05								T	.25				.30									.72					1.82
Columbus Junct'n									T				1.10				.10			.90											2.10
Corning		T		T								T	.40			T	.10			.33						.20					1.03
Corydon				T									1.00							.52				.41		.10					2.03
Creston													.80	.20			.10			T						.05					.65
Cumberland													.40													.10					.50
Davenport		T		T		T		.01				T	.99				T			.55				.66		T					2.21
Decorah								.05			.16		.45				.05		T												.71
Delaware								.08					.11							.20				.04							.43
Denison				.05				.05				.05	.65			.10	.30								T	.05					1.25
Des Moines		T	T	T				.03			T	.05	.51			.03	.05		T	.16						.03					.86
De Soto		T		T				T				T	.46				.06			.09						T					.61
Dows	T							.12			.02		.88																		1.02
Dubuque	T							.04			T		.40				T			.24				.25							.93
Earlham								T				T	.85							.12						.20					1.17
Elkader								T			T		1.00				T														1.00
Elliott												T	.53			T				T						.20					.73
Estherville		T							.13		.06		.26																		.58
Fayette											.10	.06	.83				T														.99
Forest City									.10		T		.90	.10			.05														1.15
Fort Dodge		T							.05		.05		.07	.40			.10									T					.67
Fort Madison													.38							.74				1.12		.10					2.29
Galva								.05			T	T	.65			.09	.08									.30					1.17
Gilman				T			T						.02							.86					.20						.88
Glenwood								T				T	.30			.20															.70
Grand Meadow	T							.05			.20		.90				.02														1.17
Greenfield		T						T				.02	.43			T	.14		T	.26						.15					1.00
Grinnell [near]								.05				.01	.22				.10			.45				.08							.91
Grundy Center								.10				T	.70				T														.80
Guthrie Center		T		T				.04			.01	.01	.78	.18			.18			T				.14							1.84
Hampton								.10		.14		.51	.26			.03															1.04
Hancock		T						T				.03	.74			T	.09			.25						.03					1.14
Hanlontown	T							.12			.02		.40			.02								T							.56
Harlan		T		T				T	T		T	.41	.30			T	.15							T		.02					.88
Hopeville		.01		T				T				T	.47				.08			.43						.09					1.08
Humboldt							.02	.20			.03																				.25
Ida Grove													.27			.10	.20									.40					.97
Independence								.07					.40				T		T					T							.47
Indianola		T		T				.05	T		T	T	.68				.09			.40						.10					1.32
Inwood								.16					T				T							T		.05					.21
Iowa City									.01				.09	.75				.02			.28			.42	.16							1.73
Iowa Falls		T	T						.15		.10		.47	.50			.10														1.32
Jefferson		T		T				T			T	T	.60			T	.15									.18					.88
Keokuk				T									.56	T			.04			.85				.46	.41	.18					2.50
Keosauqua													.22	.60			T	.02		T	1.08			.40	.30	.10	.05				2.77
Lacona												.03	.90				.20		.02	.28						.20					1.63
Larrabee								.17				.37	.65			.25										.13					1.57
Le Claire									.01				.02	1.04						.60				.38	.46						2.51
Le Mars								.08					.55			.08	.05							T		.40					1.16
Lenox													1.05				.90			.30						.10					2.85
Leon		T											.52				.15			.60				.03		.33					1.63
Little Sioux								T				.05	1.33			.02	.15								T	.05					1.30
Logan		T										.10	.40			.20	.20									.10					1.00
Maquoketa									.06				T	.30								.35		.16	.55						1.42
Marshalltown	T								.02			.08		.50			.05			T	.01										66
Mason City								.12			.13		1.30																		1.55
Massena													.60			.50				.26						.03					1.39
Mount Ayr			T									T	.80				.10			.55						.33					1.78
Mt. Pleasant									T				.92				.08			1.20				.75	.01						2.91
Mt. Vernon			T					.03					.51				.03			.33				.40							1.30
Muscatine									T			T	T	1.14				T			.93			.86	.85						2.78
New Hampton								.06			.10		.89				.04														1.09
Northwood	T							.04	T		.20		.80				.03		T												1.07
Odebolt								.05	T				1.15			.15	.12									.45					1.92
Ogden								.02			.05	.05	.97			.15										.10					1.34
Olin								.08					.61	.20			.05			.50				.45							1.84
Omaha, Neb			T	T				T		T	T	T	.38			.08	.06			.03				T	T	.16					.71
Onawa				T				.02			T	.07	1.05			.15	.25									.15					1.69
Osage				T				.09			.10		1.25				.12														1.56
Oskaloosa								.02					.28				.03			.23				.20	.02						.78
Ottumwa												1.12								.77				.78							2.77
Pacific Junction								T			T	T	.60		.05		.10			T						.15					.90
Pella								T	.02				.75				.07			.31				.19		.01					1.35
Perry			T					.03			.05	T	.40				.20									.12					.80
Plover		T						.15					.19			.10															.44
Pocahontas								.13		.06			1.13			.18										.02					1.52
Red Oak	T											T	.75			T	.10			.38						.35					1.58
Ridgeway								.03			.27	.18	.65			.07		.12													1.32
Rock Rapids							.25				T															.10					.35
Rockwell City												1.05	1.00													.30					2.35
Sac City			T					.05	.02			.50	.30			.20	.20									.60					1.87
St. Charles	.26	.01		T				.03	.02		T	T					.08			.33						.21					.94

DAILY PRECIPITATION, FOR FEBRUARY 1906—CONTINUED.

STATIONS.	DATE. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	MEAN
Sheldon	....	T	...	.	....	....	....	.15	T	....	...	....	.55	....	....	.25		....	....	....	....	....	....	T	....	.12	....	....	..	...	...	1.07
Sibley	....	T		....	..	.	...	.02	.12	....	T	....	T	....	....	....	.05	....	....	....	....	....	....	....	....	..	....	....	....	....	....	.19
Sidney	....	....	T		....	....	....	..	....	....	....	....	.20	....	....	.10	.20	..	....	....	....	....	....	....	....	.10	.	....	....	....	....	.60
Sigourney	....	....	.	....	....	....	...	.02	....	....	....	....	1.07		..		.03	...	....	.33	....	....	....	.52	....	...	....	.	....	....	..	1 97
Sioux Center	....	....	....	....	....	....	....	.20	....	....	....	....	T	.20	....	....	T	....	....	....	....	....	....	T	....	.20	....	..	..	..	...	.60
Sioux City	....	T	T	T	....	...		.02	....	.02	....	.12	.43	....	....	.22	T	....	....	....	....	....	....	T	.20	.33	....	....	..	....	....	1.34
Stockport	....	....	....	T	....	..	....	..	T	..	....	....	....	....	.90	....	.02	....	T	1.10	....	....	..	.60	..	.08	....	....	....	....	..	2.70
Storm Lake	....	T	....	....	....	....	....	....	.05	....	.08	....	.35	.10	....	....	.26	....	....	.	....	..	....	....	.24	....	....	....	....	....	....	1.08
Stuart	....	.01	...	....	....	...	....	.05		...	....	....	.85	..	....	.20	....	....	.	.13	....	....	....	....	....	.05	....	....	....	..	....	1.29
Thurman	...	T	..	T	....	....	....	T	....	..	....	T	.60	..	....	....	.20	....	.20	....	....	....	....	....	....	.10	....	....	....	....	....	1.10
Tipton	....	....	....	....	..	....	....	....	..	....	....	....	.48	....	....	..	....	....	....	.52	..	.	....	.27	....	....	....	....	....	..	..	1.27
Toledo	..	....	....	T	....	....	....	.03	....	....	....	....	.57	....	....	....	.10	..	..	.25	....	....	....	T	....	....	....	..	....	....	....	.95
Vinton	....	....	.	T	..	....	....	T	....	....	....	....	.30	....	..	....	....	....	....	..	....	....	....	T	....	..	..	....	..	....	....	.80
Wapello	....	....	..	..	..	....	....	....	.09	....	....	..	.99	....	....	....	....	....	..	.84	....	....	....	.80	..	....	..	....	..	....	....	2.72
Washington	....	....	....	....	....		...	....	..	....	..	....	1.18	....	..	....	.02	...	...	.83	..	....	...	.53	....	....	....	....	....	....	....	2.56
Washta	....	....			....	....	....	.05	..	T	....	.30	.20	....	....	.30	....	....		....	..	....	....	.	.30	..	....	....	....	....	....	1.15
Waterloo	....	....	....	T	....	....	....	.09	....	....	.03	.09	.95	....	....	....	.04	....	T	....	..	....	....	.	....	..	....	....	....	....	....	1.20
Waukee	....	T	...	T	....	....	....	.05	..	....	....	05	.60	...		....	.30	....	T	.20	..	....	....	....	....	.20	....	....	....	....	....	1 40
Waverly	....	....	....	....			...	.10	....	....	.15	.06	1.05	..	...	....	.07	..	....			....		..	....	....	....	....	....	....	...	1.43
Webster City	....	....	..	....	..	....	.10	....	....	..	....		1.48	....	....	.10	....	..	.	....		....	....	..	....	....	....	....	....	..	....	1.68
West Bend	....	T	..	....	....	..	..	.15	T	....	T	...	.80	....	....	.06	....	....	....	....	....	....	....	....	....	....	....	....	....	..	....	1.01
Whitten	..	T	....	...		....		T	....	....	T	T	.50	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	..	....	....	.50
Winterset	...	T	.	T	..	..	..	T		....	....	....	.20	....	..	....	.20	....	....	.40	..	..	....	..	..	.15	....	....	....	....	....	.95
Woodburn	....	T	..	T	..	....	..	....	T	....	....	T	....	.82	....	..	.05	....	....	.53	..	....	....	....	....	.20	....	..	....	....	....	1.60
Zearing	....	....	....	....	....	....	....	.04	....	....	.05	.04	.53	.04	....	....	.06		....	....	....	....	....	....	....	....	....	....	....	....	....	.75

Precipitation Chart February 1906.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR MARCH, 1906

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA

BERNARD MURPHY, STATE PRINTER

1906

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U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IN COOPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R SAGE, Section Director
GEO M CHAPPEL, Asst Director

VOL. XVII. DES MOINES, IOWA, MARCH, 1906. No. 2

CLIMATOLOGY OF THE MONTH.

This has been the coldest March experienced in Iowa since 1899. The daily mean temperature was 5.7° below normal, and 14.8° lower than the average of March 1905. The snowfall was generally heavier, and the weather was more stormy and inclement than during any of the preceding winter months. The last five days were milder and more springlike, the snow disappeared rapidly, leaving the ground thoroughly saturated and causing floods in some of the streams. The severest cold wave of the month swept over the state on the 17th, the records showing below zero temperatures at numerous stations in the southern districts, and above zero at stations in the central and northern sections. Conditions were at no time favorable for field work, and live stock required more care and forage than during any month of the preceding winter.

TEMPERATURE.—The monthly mean temperature for the state, as shown by the records of 123 stations, was 27.1° which is 5.7° below normal. The mean temperatures by sections were as follows: Northern section, 25.3°; Central section, 27.6°, Southern section, 28.4°. The highest monthly mean was 30.7°, at Red Oak, and the lowest monthly mean was 22.8° at Sibley. The highest temperature reported was 65° at Pacific Junction on the 1st, and the lowest reported was 14° below zero at Thurman on the 17th. The greatest daily range was 42° at Bedford and Thurman. The average of greatest daily ranges was 32.1°.

PRECIPITATION.—The average precipitation for the state, as shown by the records of 129 stations, was 2.34 inches, which is 0.46 of an inch above normal. The averages by sections were as follows: Northern section, 2.56 inches; Central section, 2.14 inches; Southern section, 2.31 inches. The largest amount reported was 4.55 inches at Burlington; and the least amount reported was 0.58 of an inch at Ames. The greatest daily rainfall reported was 2.55 inches at Denison on the 3d. The average number of days on which .01 of an inch or more was reported was 10.

WIND AND WEATHER.—The prevailing direction of the wind was Northwest. The highest wind velocity reported was 58 miles an hour from the Northwest at Sioux City on the 21st. The average number of clear days was 7; partly cloudy 7; cloudy days 16.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	30.14	30.60	12	29.48	2
Davenport	30.14	30.64	24	29.43	2
Des Moines	30.17	30.60	24	29.46	2
Dubuque	30.17	30.73	24	29.43	3
Omaha, Neb	30.18	30.54	24	29.34	2
Keokuk	30.17	30.60	24	29.41	2
Sioux City	30.18	30.54	24	29.39	2
Means	30.16	30.73	24	29.89	2

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	6689	38	NW	21
Davenport	6710	32	NW	21
Des Moines	7211	31	NW	21
Dubuque	7176	36	NW	21
Keokuk	7331	35	NE	30
LaCrosse, Wis	5875	38	NW	21
Omaha, Neb	8255	47	NW	8
Sioux City	10420	58	NW	21

OBSERVERS' NOTES.

ALTA.—*David E. Hadden.* Compared with preceding 16 years March 1906 was 0.8° cooler; the mean temperature was 10° lower than March 1905.

ALTON.—*W. S. Slagle.* Month has been unusually cold, damp and foggy. Corn in cribs too damp to shell.

AMANA.—*C. Schadt.* A cold, wet month, with frequent rain and snow; soil was untillable till the end of the month.

ATLANTIC.—*J. W. Love.* March was more wintery than January or February.

BONAPARTE.—*B. R. Vale.* A cold March with 12 inches of snow, and 2.40 inches of precipitation.

BRITT.—*Geo. P. Hardwick.* Precipitation 2.86; northerly winds; no field work done in March. Preceding winter months were open and favorable.

CHARITON.—*C. C. Burr.* Temperature below normal; stock required more feed in March than in any month of the winter.

CRESTON.—*W. L. Gaston.* March was the most inclement month of the winter, with deepest snow; month ended with fine weather.

GRINNELL.—*A. O. Price.* Coldest March since 1899, when the average was 25.9°.

OLIN.—*N. Potter.* March was the most disagreeable month of the winter; cloudy weather and bad roads.

RIDGEWAY.—*Arthur Betts.* Wettest March since 1899; 47 per cent of sunshine. Precipitation 4.41 inches, of which 85 per cent was in form of rain.

WAUKEE.—*E. J. Leonard.* Unusually severe winter weather for March; no farm work done during the month.

CYCLONES, ANTI-CYCLONES AND TORNADOES.

The broad aerial stream that is generally flowing from west to east over the United States apparently carries cyclones and anti-cyclones along with it very much as the brook or river carries along its whirlpools. It is this succession of "highs" and "lows" with their opposite kinds of weather and wind that brings us our frequent changes from rainy to clear, warm to cold, and south wind to north wind.

The word cyclone belongs to the very large whirls in the atmosphere that I have described. There are other smaller atmospheric whirls that have special names; these are the hurricane, typhoon, tornado, and waterspout. I wish especially

to make very clear to you the difference between a cyclone and a tornado, because many people use the word cyclone when they mean tornado, and when others use the word cyclone properly they are not understood. The word cyclone was first used about the year 1840 as a name for very large whirling storms, sometimes as much as five hundred miles across, that occur in the Bay of Bengal and the Indian Ocean. Storms like these also occur in the West Indies (south and southeast of the United States), where they were named hurricanes by the Caribbean Indians who inhabited the islands of the West Indies when they were discovered by Europeans, and the name was adopted by early Spanish and Portuguese navigators and has been used ever since. Storms of the same kind occur in the Philippines and on the Chinese coast, where they have been called typhoons from ancient times.

The name cyclone was invented to describe the whirling character of these large whirlwinds that Englishmen found in India. It was brought home to England by them, and the large whirling masses of air that are carried along from west to east were called cyclones, and now the word cyclone belongs properly to large whirlwinds two or three thousand miles in diameter.

The word tornado is a Spanish word meaning "twister" and is applied to the dangerous whirlwinds that tear down houses and kill people. They are very small compared with the hurricane and cyclone, being generally less than half a mile in diameter and are rarely carried more than forty or fifty miles, and do not last altogether more than an hour or so before they die away and disappear. They take only a few seconds to pass over any given point. Cyclones and hurricanes travel for many days and go thousands of miles, and take from a day to three or four days to pass over a place. It is evident, then, that the cyclone and the tornado are two very different things, their similarity being that they are both whirling masses of air. The house cat and the tiger are alike in more respects, but there is no one who would call a cat a tiger; so the tornado should not be called a cyclone.—Extracts from the National Monthly Weather Review, December, 1905.

A FOREMOST QUESTION.

Success Magazine: Early in the spring the country begins to ask, "How are the crops?" Our prosperity during the twelve months following the harvest depends, in a very large measure, on the answer to this question. Out of the ground comes our wealth. In these years of abundant prosperity the farmer takes from the earth, each harvest season, products of a value of $4,000,000,000, and more than a third of this enormous sum represents the two great crops of the west—corn and wheat.

The question, "How are the crops?" becomes, each year, therefore, as the harvest time approaches, one of vital importance; and the earlier the knowledge of the size and quality of the crops the more valuable it is to the commercial community. Railway men need to know, in advance, the outcome of the harvest, that they may prepare for the transportation of the crops to the markets. Bumper crops mean big tonnage, not only of products from the farms to the consumers, but also of merchandise from the manufacturing towns to the farms, bought by the farmers with their produce. When railway men are assured of big crops they spend many millions of dollars for new locomotives and cars and rails, and many millions more for the improvement of their roadbeds and the extension of their lines into new territory. The steel makers are jointly interested with the railway men in the harvest, for one-fourth of the enormous product of the steel mills of this country is purchased by the railways. When the crops fail the railways cancel their orders for rails and bridges and equipment, and steel descends from prince to pauper. Then all the big manufacturers of the country, whether of wagons or plows, of shoes or clothing, must know whether their great customer, the farmer, is to have money to spend from harvest to harvest. So it is with the merchants all through the agricultural country. Even more important is early knowledge of the crop prospects to the bankers, who must not only finance the movement of the crops to market, but must also know whether the harvest is to cause expansion or contraction of capital ventures through the country. Then there are the flour millers and elevator owners, who are directly interested in the marketing of the crops. Finally, there is the great body of men who speculate in the rise and fall in commodity prices, and who risk many millions of dollars in backing their opinions as to the volume of the crops and the demand for them in the markets of the world.

FREAKS OF THE WEATHER.

New Orleans Picayune: There is scarcely anything in the world of physical nature that is nearer to us than the weather. It is so close to us and so constantly with us that we would greatly profit to understand the causes of its vagaries, but so far they are a profound and puzzling mystery.

It is true, thanks to the Government scientists, and their elaborate system of getting news of the weather daily from almost every part of North America, we are enabled to judge from day to day what sort of weather we are going to have tomorrow, but we are far from knowing the conditions and causes that create weather and its changes.

We know that our globe is enveloped by a great body of atmosphere composed of the air we breathe, mixed with vapor of water, and with gases, chiefly carbonic acid, which is given off in the course of all the combustion or the operations of fire upon combustible material, and is exhaled from the lungs of all animal life in the function of breathing. Then this body of atmosphere is pervaded by electricity which sometimes manifests itself with great violence, but usually seems to lie in abeyance.

This body of atmosphere, which is supposed to extend to a height of forty miles upward from the earth, revolves with our globe, moving always to the eastward at a rate of perhaps a thousand miles an hour, or 25,000 miles in twenty-four hours. It also accompanies our planet as it swings through space in its vast orbit around the sun, requiring a year to complete its course. In this grand career the earth's atmosphere travels with it through space, sometimes at a greater speed, and sometimes at a lesser, according as the earth's velocity of movement is increased or retarded by its varying nearness to or distance from the sun around which it revolves, just as the passengers standing up and holding to straps on a street car are thrown forward or backward by any sudden change in the car's speed.

This wonderful atmosphere overlies both land and sea, and it draws up moisture from the former, while it gives it in the form of rain to the thirsty earth, while it is constantly exposed to the light and other influences of the sun and possibly of the other heavenly bodies. Here, then, is a combination of conditions which may be capable of producing extraordinary physical changes of weather, but whose operation is but little, if at all, understood.

What we do know are the frequently recurring conditions of heat and cold, of drought and of rain and snow, of cloudy skies and clear, of high winds and of zephyrs, of storms and of calms. But these changes do not come at regular intervals, or in any orderly sequence, for, on the contrary, they are marked by extreme irregularity, which may often be characterized by freakishness.

ERRATA.

PERRY.—Jan.—Total precipitation recorded .75 inch on pages 7 and 11, should have been 1.35 inches; greatest in 24 hours recorded .40 inch on page 7, should have been .60 inch; total snowfall recorded 7.5 inches on page 7, should have been 13 5 inches; number of rainy days recorded 3 on page 7, should have been 4.

SIOUX CITY.—Feb.—Mean temperature recorded 23.0° on page 16, should have been 23.2°; minimum temperature on the 4th, page 19th, recorded—1, should have been Zero; maximum temperature on the 17th, page 19, recorded 29°, should have been 30°; mean maximum temperature recorded 33.4° on page 19, should have been 33 5°; mean minimum temperature recorded 12.7° on page 19, should have been 12.8°.

OTTUMWA.—Feb.—Total precipitation recorded 2.77 inches on page 21, should have been 2.67 inches.

CLIMATOLOGICAL DATA FOR MARCH, 1906.

CENTRAL SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				NUMBER RAINY DAYS	SKY.			PREVAILING DIRECTION OF WIND.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Amana	Iowa	721	27	28.9	- 2.5	54	2, 30	2	17	28	1.74	- .26	.89	5.2	11	5	10	16	NW	25, 26
Ames	Story	926	22	27.8	- 4.7	59	2	2	17	31	.58	- .90	.12	2.0	11	9	8	14	.....	
Audubon	Audubon	1,301	10	27.3	- 5.8	59	1	-4	17	37	1.83	- .45	.34	7.5	11	8	5	18	NW	25
Baxter	Jasper	998	6	26.8	- 9.6	58	2	-3	17	32	1.54	- .71	.89	7.0	5	9	0	22	NW	23
Belle Plaine	Benton	826	14	26.6	- 5.9	55	2	-2	17	31	3.07	s .47	1.10	12.2	11	5	10	16	NW	
Boone	Boone	....	....	26.4	.....	58	2	2	17	32	2.02	.....	1.03	6.7	14	....	....	....	NW	25
Buckingham	Iowa	.....	6	.....	.....	.....	.....	.....	.....	.....	2.30	s .11	1.09	4.6	9	4	18	9	.....	
Carroll	Carroll	1,225	14	26.5	- 5.0	59	1	-1	20	37	2.22	- .13	1.50	6.5	6	8	2	21	.....	25
Cedar Rapids	Linn	733	21	27.2	- 5.6	53	1, 2	3	17, 18	32	1.60	- .58	.50	6.7	12	6	11	14	.....	
Clinton	Clinton	609	36	29.9	- 2.9	53	26, 30	2	17	25	2.86	- 1.6	1.52	5.3	11	4	6	21	NE	
Davenport	Scott	606	35	29.2	- 5.7	54	2	6	17	22	2.20	s .04	1.05	7.8	15	4	10	17	NW	2, 26
Delaware	Delaware	1,083	13	25.2	- 5.1	52	30	1	17	30	2.06	s .23	.80	5.9	8	9	11	11	NE	
Denison	Crawford	1,180	10	27.8	- 4.1	61	1	1	17	33	4.11	s 2.48	2.55	5.7	10	14	4	13	N	25
Des Moines	Polk	861	27	28.6	- 6.1	58	2	1	17	26	1.84	s .88	.87	11.7	14	4	13	14	NW	25, 26
De Soto	Dallas	866	6	27.9	.....	59	2	-4	17	32	1.32	.....	.65	7.5	8	10	5	16	SE, NW	
Dubuque	Dubuque	655	31	27.2	- 5.7	53	30	5	15	24	2.36	s .09	1.18	6.4	15	10	5	16	NW	26
Fort Dodge	Webster	1,126	....	26.0	.....	56	1	2	15, 16	31	3.00	. ..	1.75	4.2	10	..	....	.....	.....	3
Galva	Ida	1,290	10	....	.....	57	1	0	16	.....	1.45	s .06	.55	3.5	8	11	2	18	N	
Grinnell (*near*)	Poweshiek	1,023	11	27.2	- 5.5	56	2	-2	17	34	1.96	s .17	1.15	7.0	10	6	5	20	NW	26
Grundy Center	Grundy	976	13	26.9	- 4.6	54	2, 30	0	22	32	2.78	s 1.12	1.19	10.0	10	6	3	22	NE, E, SE, NW	2, 25, 26
Guthrie Center	Guthrie	1,077	8	27.2	- 6.4	58	1	-1	17	29	1.66	s .26	.49	11.1	11	8	10	13	NW	25
Harlan	Shelby	1,192	7	27.2	- 7.0	60	1	-7	17	26	1.26	- .44	.37	7.8	9	5	11	15	NW	25
Ida Grove	Ida	1,220	....	27.6	...	60	1	0	17	34	1.24	.....	.40	5.9	10	...	....	....	N, NW	
Independence	Buchanan	921	41	26.5	- 3.4	54	30	3	15	26	.71	- 1.08	.20	6.0	7	10	8	13	NE	
Iowa City	Johnson	683	45	27.4	- 6.2	54	2, 30	3	17	30	2.25	- .23	1.37	6.7	14	11	7	13	.....	25
Iowa Falls	Hardin	1,170	11	26.0	- 4.8	53	30	2	15	31	2.77	s 1.16	1.23	5.3	13	....	..	....	.....	2, 25
Jefferson	Greene	.....	....	28.6	.....	59	2	4	17, 20	30	1.89	.....	.91	8.0	8	5	9	17	NW	25
Le Claire	Scott	576	....	.....	.....	.....	.... ..	.....	.....	.....	2.80	.....	1.36	8.0	14	9	4	18	N	26
Little Sioux	Harrison	.....	....	28.6	.....	64	1	-1	17	36	2.45	.....	.65	11.0	10	9	4	18	NW	25
Logan	Harrison	928	37	29.2	- 4.9	64	1	-1	17	36	3.45	s .55	1.00	10.0	11	11	4	16	NW	25, 26
Maquoketa	Jackson	688	11	26.8	- 7.2	56	30	0	17	32	2.88	s .59	1.10	4.5	11	11	4	16	NE	
Marshalltown	Marshall	947	11	26.4	- 5.8	58	2	1	15	33	2.06	s .13	.95	6.8	12	....	....	....	NW	25
Mount Vernon	Linn	847	37	28.2	- 1.7	58	30	0	17	35	2.03	† .00	.90	7.7	14	6	6	19	.....	26
Muscatine	Muscatine	.....	47	.....	.....	..	.....	.....	.....	....	2.72	- .07	.91	8.6	15	7	3	21	N	
Nevada	Story	.....	....	....	.....	.....	.....	.....	.....	..	2.08	.....	1.05	2.8	10	17	4	10	.....	8, 26
Odebolt	Sac	1,356	7	27.7	- 5.3	57	1	1	16	31	1.80	- .19	.65	6.2	8	12	3	16	.....	
Ogden (*a*)	Boone	1,058	10	26.6	- 6.6	58	2	2	17, 20	22	1.67	s .15	.65	3.8	10	9	3	19	NW	
Olin	Jones	760	7	29.0	- 4.0	63	26	-1	17	29	2.04	- .41	1.00	6.8	8	7	11	18	NW	26
Onawa	Monona	.....	6	28.6	- 1.4	63	1	2	17	40	2.00	s .47	.65	10.0	12	13	3	15	NW	25, 26
Perry	Dallas	975	....	28.8	.....	58	2, 3	-1	17, 20	37	2 39	.....	.78	12.5	9	2	13	16	.....	25
Rockwell City	Calhoun	.....	9	28.1	- 3.3	56	1, 2	1	15	31	3.60	s 1.30	1.25	5.5	8	11	6	14	.....	
Sac City	Sac	1,356	7	26.4	- 3.4	55	1	1	16	31	1.47	- .18	.55	6.8	7	12	1	18	NW	
Sioux City	Woodbury	1,165	15	24.2	- 5.4	59	1	-2	16	30	.89	- .35	.38	7.4	13	7	5	19	NW	
Stuart	Guthrie		7	27.4	- 4.8	58	1, 2	-1	17	28	2.65	† .00	.60	19.2	10	7	8	16	W	25
Tipton	Cedar	807	8	29.0	- 6.9	53	30	4	17	26	2.23	- .87	1.56	..	4	9	10	12	NE, NW	
Toledo	Tama	856	10	27.6	- 4.6	56	2	0	15, 17	29	2.22	s .47	1.00	11.5	12	6	9	16	NW	2
Vinton (*c*)	Benton	810	14	27.0	- 5.1	52	2	3	15, 17, 20	26	.....	.....	.....	...	...	...	...	...	NW	
Waterloo	Black Hawk	862	14	27.9	- 2.3	55	30	5	15	29	2.14	s .31	.79	4.2	12	8	7	16	NW	25
Waukee	Dallas	1,039	....	27.6	.....	58	2	-3	17	27	3.25	.....	.90	23.3	13	8	4	19	NW	1.35
Webster City	Hamilton	.....	....	28.4		57	2	3	15	30	2.93	.....	1.09	5.5	8	11	1	19	NW	2 25
Whitten	Hardin	1,036	6	27.0	- 4.0	53	1, 2, 30	-2	17	33	1.71	s .77	.95	4.0	8	10	2	19	NW	1.25
Wilton Jct	Muscatine	683	9	29.0	- 5.3	54	30, 31	1	17	26		.....	.....			13	3	15	.....	
Zearing	Story	718	....	27.2		56	2	0	19	36	2.11	.... .	1.12	6.3	13	9	5	17	NW	
Average		... ..	....	27.6	- 5.1	56.9	..	0.5	....		30.8	2.14	s .14	.....		7.6	11	9	6	16	NW	

CLIMATOLOGICAL DATA FOR MARCH, 1906—CONTINUED.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	Dates of Thunderstorms.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Algona	Kossuth	1,238	30	25.8	- 4.2	53	1	- 2	16	31	2.88	s 1.32	1.03	3.0	7	8	6	17	NW	25, 26
Alta	Buena Vista	1,513	18	23.0	- 6.4	55	1	- 4	11	29	.95	s .3	.60	7.0	12	9	7	15	NW	25
Alta (near)	Buena Vista										1.98		.85	7.0	9					
Alton	Sioux			25.9		52	30	- 5	16	31	.32		.32	4.5	8	11	6	14	NW	
Britt	Hancock	1,236	7	26.2	- 2.6	55	1	- 2	16	35	2.86	s 1.52	1.32	3.3	9	3	19	9	NW	25
Charles City	Floyd	1,015	13	24.4	- 6.9	51	30	0	16	28	3.47	s 1.62	1.30	19.9	10	3	8	20	NW	
Clear Lake	Cerro Gordo	1,441	7	24.8	- 6.4	50	31	- 1	16	27	4.23	s 3.01	2.05	9.0	7	11	4	16	N	26
Decorah	Winneshiek	857	10	26.0	- 4.8	52	30	3	12, 15, 16	34	3.18	s 1.22	1.33	3.8	7					
Dows	Wright	1,142	6	25.4	- 3.6	54	30	0	15	34	3.54	s .55	1.20	2.6	9	8	6	17	NW	25, 26
Elkader	Clayton	727	23	26.9	- 4.0	55	30	4	15	30	3.11	s 1.23	1.25	5.0	8	9	8	14	NW	25
Estherville	Emmet	1,298	9	23.0	- 4.1	52	30	- 4	11, 16	31	1.22	- .19	.66	4.5	7	13	0	18		
Fayette	Fayette		16	25.3	- 4.9	53	31	2	12, 15, 17	28	3.99	s .73	1.25		10	8	8	15	NW	25
Forest City	Winnibago	1,226	10	23.7	- 4.7	52	30	- 1	16	33	3.06	s1.58	2.12	2.5	7	12	1	18	N&W	
Grand Meadow	Clayton	1,180	13	25.0	- 5.2	48	10	0	16	28	2.86	s .76	1.65		11	7	7	17	NW	
Greene	Butler	984	7																	
Hampton	Franklin	1,156	14	26.9	- 1.7	57	31	1	15, 16	34	3.08	s .82	1.70	6.6	11	6	12	13	NW	2, 25
Hanlontown	Worth			24.3		49	30	- 2	16	35	2.16		1.23	2.5	6	11	4	16	NW	26
Humboldt	Humboldt	1,095	12	27.8	- 1.9	54	1	- 1	15	32	3.31	s 1.89	1.70	4.0	7	6	7	18	NW	2, 18
Inwood	Lyon			23.9		58	30	- 7	16	35	1.07		.55	3.9	8	9	8	14	N, &NW	
Larrabee	Cherokee	1,266	15	26.0	- 3.2	56	1	- 6	16	35	1.35	- .80	.51	6.1	8	9	8	14	NW	
Le Mars	Plymouth	1,224	8	26.4	- 5.4	57	1	- 2	16	31			.60	7.5		8	10	13	NW	
Mason City	Cerro Gordo	1,182		25.9	- 2.0	51	31	0	16	29	3.80	s 2.46	2.02	6.4	7	6	14	11	NW	25, 26
New Hampton	Chickasaw	1,169	6	24.8	- 5.8	50	30	0	16	27	4.03	s 2.88	1.90	T	6	7	12	12	N	26
Northwood	Worth	1,222	8	25.0	- 4.4	50	30	- 1	16	30	3.38	s 1.78	1.97	1.4	10	8	13	10	NW	23
Osage	Mitchell	1,184	13	25.1	- 2.8	50	30	1	16	32	4.17	s2.60	2.04	8.8	10	9	4	18	NW	25
Plover (a)	Pocahontas		7	26.4	- 4.0	56	1	- 8	16	27	1.88	s .50	.93	3.0	7	8	5	18	N	2, 25
Pocahontas	Pocahontas	1,190		26.4		53	1	- 2	16	35	3.01		1.96	4.9	11	12	6	13	NW	2, 25
Ridgeway	Winneshiek	1,215	8	27.5	- 3.9	56	31	3	12, 15, 16, 17	32	4.41	s 1.92	2.00	3.6	13	10	10	11	S	25
Rock Rapids	Lyons	1,021		24.0	- 5.8	64	30	- 4	16	30	.75	- .84	.30	5.2	4					
Sheldon	O'Brien	1,422	6	24.7	- 4.1	55	30	- 7	16	38	2.57	s 1.61	.78	6.2	14	10	5	16	NW	24
Sibley	Osceola	1,212	10	22.8	- 6.8	52	29	- 6	6	36	2.08	s .91	.80	4.3	9					
Sioux Center	Sioux		7	24.1	- 8.9	51	30	- 6	16	32	1.37	s .12	.30	8.0	9	8	5	18	N	
Storm Lake	Buena Vista	1,440	9	28.4	- 4.7	55	1	- 3	16	31	1.30	- .08	.45	3.3	8	12	2	17	NE, NW	
Washta	Cherokee	1,157		27.0		58	1	- 2	15	34	.63	- .62	.44	0.2	4	9	5	17	N, S	
Waverly	Bremer	942	8	27.0	- 4.2	52	30	5	15, 16	28	2.51	s .55	1.00	4.2	10	5	6	20	NW	25, 26
West Bend	Palo Alto	1,197	10	25.6	- 3.6	57	1	- 4	16	33	2.66	s 1.02	.84	3.9	9	6	8	17	NW	26
West Union																				
Average				25.8	- 4.5	53.5		- 1.6		31.6	2.56	s .95		5.0	9	9	7	15	NW	

SOUTHERN SECTION.

Afton	Union	1,213	11	28.2	- 7.0	58	1	- 2	17	24	2.21	- .09	.51	7.0	8	4	10	17	NE	
Albia	Monroe	957	8	27.2	-10.3	59	2	- 4	17	32	2.01	s .13	.92	1.0	12	9	7	15		25
Allerton	Wayne			28.0		56	30	- 5	17	36	1.45		.45	9.2	10	10	7	14	NW	26
Atlantic	Cass	1,164	13	27.0	- 6.5	60	1	- 11	17	39	1.97	s .01	.77	12.0	8	4	8	19	NW	25
Bedford	Taylor		6	26.9	- 8.4	56	30	- 12	17	42	2.36	- .17	.70	16.0	12	8	3	20	NE	25
Bonaparte(a	Van Buren		12	28.8	- 8.4	58	2	- 4	17	34	2.40	- .28	.95	12.0	7					
Burlington	Des Moines	541	8	30.6		59	2	0	17	30	4.55		1.45	14.5	15	8	7	16	NW	2, 26
Chariton	Lucas	1,042	9	27.8	- 7.9	56	2	- 8	17	33	1.70	s .20	.85	11.0	7	10	5	16	NW	
Clarinda	Page		14	26.2	- 9.0	57	30	- 9	17	39	2.03	s .16	.53	21.5	10	9	2	20	NW	
Clarinda	Page		12	28.2	- 7.9	58	1	- 9	17	36	1.92	s .07	.37	15.5	12	11	8	12	NE	
CollegeSprngs(a)	Page		12	28.2	- 7.9	58	1	- 9	17	36	1.92	s .07	.37	15.5	12	11	8	12	NE	
Columbus Jct	Louisa	586	4	30.4	- 9.3	57	2.26	- 2	17	32	2.98	s .59	1.30	15.8	11	14	9	8	W	2, 26
Corning	Adams	1,127	12	28.6	- 9.1	56	1	- 8	17	32	2.47	s .72	.70	20.5	9	7	11	13	NE	25
Corydon	Wayne	992	11	28.x	- 7.9	59	30	- 5	17	34	1.56	- .51	.50	15.6	9	7	9	15	NE, NW	25
Creston	Union			25.8		57	1	- 11	17	36	1.85		.32	15.0	9	10	5	16	NW	25
Cumberland	Cass										2.62	s .16	1.02	16.0	6	9	7	15	NE	
Earlham	Madison		4	26.4		57	1	- 6	17	33	2.94		.83	19.5	9	9	3	19	NW	25, 26
Elliott	Montgomery			28.4		62	1	- 7	18	40	1.78		.50	15.0	11	5	16	10	NW	25
Ft. Madison	Lee	516	53								3.85	s .87	1.35	17.5	8	3	6	22	N	25
Glenwood	Mills		17	28.8	- 7.2	63	1	- 4	16	30	2.95	s1.69	1.50	14.5	8	3	14	14	NE	26
Greenfield	Adair		18	27.4	- 6.5	58	1	- 5	17	32	1.73	- .51	.51	13.0	10	7	8	16	NW	23, 25
Hancock	Pottawattamie			28.1		60	1	- 5	17	33	2.02		.56	8.0	7	8	6	17	E	25
Hopeville	Clarke		13	27.3	- 7.0	57	26	- 7	17	36	2.27	s .59	1.58		10	3	13	15	NE, NW	26
Indianola (a)	Warren			28.4	- 9.6	58	1, 2, 30	- 3	17	29	1.16	- .03	.35	11.1	10	5	4	22	NW	25
Keokuk	Lee	619	33	30.1	- 7.5	59	2	4	17	22	2.82	s .64	1.62	10.5	13	5	10	16	N	2, 26
Keosauqua	Van Buren	644	12	28.3	- 9.7	60	2	- 2	17, 18	37	2.24	- .24	.79	13.8	14	5	7	19		25
Knoxville ‡	Marion	920	11	29.0	- 8.0	59	2	- 2	17	31	1.70	s .20	.60	11.0	9	8	3	20	NE, NW	
Lacona	Warren										1.97	- .72	.88	11.0	11	7	17	7		
Lenox	Taylor	1,250	9	26.6	- 8.3	57	1	- 9	17	34	1.59	- .26	.40	9.7	12	8	8	15	NW	
Leon	Decatur	1,120		28.5		55	1, 2, 30	- 2	17	28	2.69		1.05	13.3	8	10	2	19	E, SE, NW	
Mt. Pleasant	Henry	729	22	29.9	- 4.6	58	2	- 3	17	34	3.38	s1.03	1.36	19.6	13	5	13	13	NE, NW	
Omaha, Neb.	Douglas	1,113	34	28.6	- 6.9	63	1	1	17	29	1.75	s .25	.44	14.4	13	4	8	19	N	25
Oskaloosa	Mahaska	843	20	28.6	- 5.6	57	2	- 2	17	31	1.55	- .34	.75	13.5	13	9	0	22	NW	25
Ottumwa	Wapello	649	10	30.0	- 7.6	57	2	2	17	27	2.84	- .93	1.18	10.3	8	5	6	20		
Pacific Junction	Mills	960	7	28.5	- 7.6	65	1	- 10	17	40	2.11	s .68	.74	13.7	11	8	7	16	S	25
Pella	Marion			29.8		64	2	0	17	29	1.08		.33	9.0	11	7	7	17	NE	26
Red Oak	Montgomery	1,093	9	30.7	- 6.1	61	1	- 2	17	28	2.05	- .21	.43	25.2	11	7	7	17	SW, NW	
St. Charles	Madison	1,070	4	28.5		61	1	- 1	17	34	2.45		1.07	13.7	13	11	1	19	NW	26
Sigourney	Keokuk	877	7	29.7	- 6.2	59	2	- 3	17	31	2.17	s .28	.95	13.0	10	3	18	10	NW	26
Stockport	Van Buren			29.9		58	2	- 5	17	35	3.45		.78	25.0	15	5	5	21	NE	1, 26
Thurman	Fremont		8	27.6	- 9.3	62	1	- 14	17	42	2.46	s .68	1.12		10	4	9	18	NE	25
Wapello	Louisa	588	6	29.6	- 6.4	54	2, 30	2	17	26	3.05	s .53	1.25	8.8	8	5	8	18	NEW	2
Washington	Washington	769	22	28.8	- 5.8	58	2	- 2	17	32	3.14	s .97	1.95	8.5	9				NW	
Winterset	Madison	1,129	13	27.4	- 7.3	56	1	- 3	17	29	2.31	s .37	.85	14.5	8	6	9	16	NW	26
Woodburn	Clarke	951		29.0		57	1	- 9	17	41	2.56	s 1.04	1.41	11.5	7	9	4	18	NW	
Average				28.4	- 7.4	58.6		- 5.0		34.0	2.31	s .28		14.1	10	7	8	16	NW	
Average for State				27.1	- 5.7	56.8		- 2.0		32.1	2.34	s .46		8.9	10	8	7	16	NW	

s Above normal. ‡ Received too late to be computed with means. a. One day missing; b. two days, etc.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR MARCH, 1906.

STATIONS.		DATE																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max..	58	54	37	26	36	36	43	53	41	34	26	23	23	23	24	17	26	27	23	30	40	31	39	42	41	49	34	40	45	55	48	36.4
	Min ..	37	37	24	11	16	25	21	30	29	25	9	3	14	14	4	6	-2	9	16	2	20	8	20	25	29	35	33	32	32	32	26	20.0
Albia*....	Max..	52	59	28	29	34	33	46	55	41	44	21	19	28	21	22	21	28	24	28	31	41	29	46	37	48	53	48	38	38	55	46	36.4
	Min ..	23	32	27	18	17	22	22	28	28	28	11	4	6	17	3	5	-1	2	3	2	10	9	15	28	24	32	34	32	32	30	27	18.1
Algona...	Max..	53	42	36	24	32	55	48	41	35	29	23	16	25	20	19	20	33	32	25	36	37	27	31	33	34	38	38	36	49	52	44	33.7
	Min ..	30	35	20	13	11	25	22	30	28	27	1	2	9	5	0	- 2	2	15	12	5	16	4	10	20	27	33	32	32	31	32	25	17.8
Allerton .	Max..	50	50	40	26	33	33	37	39	42	39	29	21	24	28	24	16	31	21	25	38	40	31	35	38	43	53	33	33	37	56	51	35.2
	Min ..	37	40	28	13	17	25	29	27	27	22	1	2	14	14	4	9	-5	13	18	2	19	10	19	25	2	33	33	32	32	31	28	20.8
Alta.	Max..	55	39	27	19	29	32	43	40	31	27	15	10	17	15	14	10	30	23	22	30	33	24	24	31	36	35	33	34	44	45	46	29.5
	Min ..	33	27	15	12	12	23	25	30	18	15	- 4	3	7	1	-1	- 3	1	15	9	5	16	4	17	20	29	33	31	31	31	32	25	16.5
Alton....	Max..	10	40	28	24	34	36	48	44	36	30	19	16	23	18	16	18	31	34	28	34	34	30	26	35	46	40	37	42	51	52	47	33.8
	Min ..	32	27	17	16	15	26	26	29	29	18	1	5	10	2	1	- 5	-2	15	11	3	17	6	15	23	31	34	32	33	30	32	27	18.0
Amana...	Max..	51	54	46	29	35	36	40	46	39	33	27	20	25	24	24	21	30	29	28	31	39	28	33	38	37	50	38	38	37	54	45	35.6
	Min ..	34	41	26	21	20	29	32	30	30	24	13	8	15	17	6	9	2	12	22	4	19	10	19	22	27	36	35	33	31	31	28	22.2
Ames	Max..	56	59	41	25	36	3	47	48	39	32	25	17	22	22	21	22	30	26	26	32	39	32	31	37	37	47	38	38	45	55	47	35.6
	Min ..	33	40	22	18	17	26	25	31	30	22	8	7	11	11	3	5	2	12	16	7	8	9	21	22	28	34	33	32	32	30	27	20.1
Atlantic .	Max..	60	56	35	29	35	34	49	43	40	35	22	19	22	21	19	16	28	25	25	29	39	29	34	38	42	49	37	39	50	56	50	35.6
	Min ..	38	35	20	16	15	26	17	25	29	21	11	-4	12	11	6	6	-11	4	13	-7	21	5	24	25	30	35	33	32	27	28	26	18.4
Audubon.	Max..	59	55	37	24	36	34	51	50	38	32	24	16	23	20	16	17	33	36	29	24	36	33	32	37	40	48	37	37	48	54	48	35.5
	Min ..	34	37	20	16	10	25	19	28	28	21	7	5	12	9	4	4	- 4	11	6	13	11	4	23	23	30	35	33	32	30	30	27	19.1
Baxter . .	Max..	54	58	28	27	37	33	46	48	40	31	25	18	23	21	20	22	28	27	25	30	42	32	31	38	36	50	37	37	40	55	48	35.1
	Min ..	32	35	23	17	15	24	25	29	25	22	8	5	12	10	0	4	- 3	8	15	-2	15	5	19	20	26	34	32	30	32	27	23	18.4
Bedford ..	Max..	51	50	35	28	33	32	40	41	41	35	24	16	22	21	17	17	30	25	22	29	38	34	31	38	42	51	35	38	46	56	51	34.5
	Min ..	41	34	23	17	20	25	15	25	28	22	9	0	14	12	5	7	-12	9	14	-2	18	8	20	25	30	34	33	32	32	32	29	19.3
Belle Pl'e	Max.	51	55	32	28	32	36	40	42	37	28	16	18	27	17	18	16	26	32	27	31	40	25	30	37	45	52	43	37	39	58	52	34.8
	Min ..	31	34	28	21	17	21	27	28	27	22	10	5	12	15	1	5	- 2	10	20	0	15	6	10	18	22	35	32	32	32	29	26	19.0
Bonapar'e	Max..	50	58	42	..	32	32	38	50	44	35	27	21	25	26	23	19	30	27	27	31	40	29	33	35	39	57	40	37	28	55	48	36.2
	Min ..	33	42	27	21	21	27	30	28	31	24	12	2	16	17	7	6	- 4	7	19	1	17	11	23	25	26	36	34	32	32	32	29	21.4
Boone* ..	Max.	58	58	26	24	35	32	48	48	38	29	16	15	22	19	19	21	30	24	24	31	40	32	29	35	48	48	37	36	45	55	46	34.4
	Min ..	24	38	25	18	18	20	25	27	30	23	7	6	8	10	4	4	2	6	15	4	8	9	12	21	22	29	33	33	32	33	27	18.5
Britt. ...	Max..	55	48	36	28	31	41	45	40	36	29	18	26	22	16	19	21	34	36	25	38	35	25	36	47	36	46	38	37	45	51	45	34.8
	Min ..	30	36	20	15	18	25	20	30	26	16	1	2	6	5	0	- 2	- 1	12	18	3	15	3	10	22	26	32	32	32	32	28	35	17.5
Burling'n	Max..	52	59	46	35	33	32	38	53	48	39	29	24	27	24	26	25	30	28	30	33	45	31	35	38	37	55	44	40	39	55	43	38.0
	Min ..	33	44	27	22	22	28	31	29	31	29	15	6	18	17	10	10	0	13	21	4	19	14	23	25	27	36	35	33	32	32	29	23.1
Carroll*..	Max..	59	58	27	25	31	35	54	51	39	29	17	15	21	18	18	24	33	24	25	36	40	31	30	34	45	38	37	45	50	55	47	35.2
	Min ..	30	37	23	15	18	2	22	23	27	23	6	6	9	7	2	8	0	12	12	-1	8	6	11	21	23	30	32	32	30	29	27	17.8
Cedar R*.	Max..	53	53	34	28	35	34	40	44	39	32	22	18	23	22	22	20	30	27	30	31	35	29	32	39	51	50	37	36	36	51	44	34.8
	Min ..	21	36	33	27	19	19	28	31	31	24	14	8	8	16	5	5	3	3	18	8	9	10	11	18	23	28	34	32	32	30	28	19.7
Chariton .	Max..	54	56	50	26	34	32	43	55	47	34	30	20	23	23	19	16	25	28	23	30	39	33	34	33	40	51	37	37	36	55	49	36.0
	Min ..	36	43	25	17	16	24	28	26	28	22	10	1	14	15	1	7	- 8	6	17	2	19	7	20	21	20	35	33	32	32	30	27	19.5
Charles C.	Max..	44	39	32	23	31	33	40	40	34	35	12	12	20	18	18	21	32	29	25	34	36	24	31	37	36	40	36	35	42	51	44	31.8
	Min ..	31	32	19	11	5	24	21	28	26	11	5	4	10	7	2	0	4	16	12	5	8	4	9	28	26	33	33	33	30	28	24	17.0
Clarinda*	Max..	50	51	29	30	35	35	45	54	40	34	18	20	25	18	18	20	30	26	24	33	41	29	34	37	53	45	38	39	50	57	54	35.9
	Min ..	25	40	23	16	17	21	18	18	29	23	10	0	1	12	7	7	- 5	-5	16	0	8	9	11	22	25	31	32	32	27	28	27	16.6
Clear L. ..	Max..	40	41	40	25	30	36	40	40	38	30	20	18	20	18	20	2.	31	30	25	24	37	25	30	34	37	40	37	38	42	50	45	32.3
	Min ..	29	35	21	15	5	25	18	26	28	16	1	2	9	6	0	- 1	4	16	12	7	22	5	10	20	25	32	32	32	32	31	20	17.3
Clinton...	Max..	52	50	42	45	35	37	40	45	44	35	28	21	26	24	27	23	21	34	34	29	42	29	34	39	37	53	43	33	41	58	45	37.0
	Min ..	31	40	28	25	22	30	31	29	32	25	15	9	12	17	11	10	2	9	24	7	19	9	13	28	27	38	35	34	33	33	30	22.8
Col. Spgs.	Max..	58	51	35	30	35	33	40	51	41	35	24	18	24	21	18	24	27	24	22	30	38	34	32	37	47	54	39	40	48	57	50	36.1
	Min ..	40	29	24	18	23	26	19	28	30	24	11	2	15	14	9	6	- 5	12	16	0	21	11	21	27	..	33	33	33	28	32	30	20.2
Colum. J.	Max..	52	57	48	30	38	39	41	50	44	35	31	23	38	25	32	22	30	37	32	29	42	28	35	39	39	57	40	38	38	55	45	38.4
	Min ..	32	44	26	21	23	28	30	28	31	24	15	8	17	17	9	11	- 2	9	22	6	18	11	22	24	26	37	33	32	32	30	29	22.4
Corning..	Max.	56	52	35	27	32	33	42	53	41	34	23	17	21	20	19	14	24	22	23	27	56	27	32	36	40	49	37	37	45	54	47	34.0
	Min ..	41	34	21	16	17	25	12	28	28	22	9	0	13	11	4	4	- 8	2	15	16	16	4	18	25	30	34	33	33	30	32	28	19.1
Corydon..	Max..	53	58	39	30	31	32	45	57	44	36	29	19	23	23	22	18	29	26	25	32	39	32	36	36	42	51	38	38	37	59	50	36.4
	Min ..	38	38	25	17	17	26	29	27	28	22	10	1	11	16	3	8	- 5	9	18	1	20	8	20	26	28	31	33	32	32	31	27	20.1
Creston*	Max.	57	50	24	26	32	33	44	40	38	35	26	26	21	21	18	18	25	24	23	28	38	28	31	45	50	38	44	47	48	56	49	35.0
	Min ..	24	31	24	12	12	20	20	26	24	17	9	2	13	8	4	5	-11	3	16	-3	3	4	15	22	28	34	33	32	33	31	28	16.7
Davenpo't	Max..	50	54	38	30	34	33	37	48	42	33	25	19	26	28	24	19	26	30	30	28	40	27	30	37	43	53	41	38	38	53	45	35.3
	Min ..	34	38	25	22	24	24	31	32	31	25	13	10	17	17	11	10	6	14	20	10	18	12	18	25	25	36	34	35	33	34	30	23.2
Decorah. .	Max..	42	38	37	25	38	37	42	41	37	29	20	21	23	21	22	21	32	34	28	36	35	23	32	39	35	40	35	38	44	52	48	33.7
	Min ..	23	34	22	18	4	20	38	27	28	18	5	3	11	10	3	3	5	14	17	11	12	5	8	20	25	24	32	33	31	27	25	18.4
Delaware.	Max..	48	42	39	24	30	36	41	42	35	31	24	11	21	21	21	21	30	32	29	30	37	26	28	38	37	47	38	34	35	52	44	33.0
	Min ..	29	27	22	18	10	24	30	27	29	21	10	3	7	5	3	4	1	10	20	4	16	4	8	8	22	33	31	29	30	26	25	17.3
Denison ..	Max..	61	58	47	24	37	33	53	49	40	33	22	15	24	21	16	20	32	26	28	35	35	30	33	35	40	46	38	34	49	55	49	36.1
	Min ..	36	40	18	16	19	24	24	24	28	21	6	7	12	8	4	5	1	14	12	2	10	8	23	23	30	35	32	32	31	28	26	19.4
Des M....	Max..	57	58	32	26	34	35	47	53	39	32	22	20	24	21	20	19	26	25	26	30	40	28	31	36	44	52	40	38	44	56	46	35.5
	Min ..	36	32	20	19	22	26	30	32	29	22	10	9	15	15	6	8	1	13	16	4	20	12	24	21	30	35	34	35	34	34	30	21.8
De Soto ..	Max..	58	59	32	27	37	36	49	55	40	30	22	20	22	20	20	20	28	25	25	29	39	29	32	37	39	51	39	38	45	55	47	35.6
	Min ..	36	32	23	18	20	25	21	31	30	22	10	7	13	13	4	5	- 4	5	15	2	21	7	24	23	30	36	33	33	32	31	29	20.2
Dows. ...	Max.	52	50	42	21	32	32	44	39	36	29	20	10	20	19	17	18	33	29	24	35	35	25	30	32	34	45	36	36	44	54	44	32.8
	Min ..	32	38	21	16	11	25	25	28	28	19	4	4	8	8	0	1	1	12	14	3	18	5	13	20	26	32	32	31	31	29	26	18.1
Dubuque.	Max..	47	45	42	25	35	34	37	41	39	31	23	12	22	20	21	20	28	30	32	29	38	25	28	38	39	50	36	37	37	53	43	33.5
	Min ..	31	40	24	22	16	26	31	27	31	23	9	5	12	14	5	8	6	15	19	11	14	9	11	21	24	34	34	34	31	31	28	20.8
Earlham .	Max..	57	55	35	26	35	34	48	53	48	30	22	18	24	20	16	19	27	25	28	29	39	28	31	35	38	47	37	37	45	54	48	34.9
	Min ..	35	35	21	15	15	25	22	27	24	19	7	4	12	10	2	3	- 6	0	13	-2	18	1	21	28	27	33	32	30	30	29	25	17.8
Elkader ..	Max..	47	41	37	27	41	36	40	40	37	32	25	15	21	24	23	1	35	33	32	32	35	26	31	42	37	44	36	36	37	55	49	34.5
	Min ..	30	30	26	20	12	20	30	26	20	22	10	5	10	14	4	5	6	14	24	10	18	7	8	20	25	35	33	32	32	25	26	19.8
Elliott....	Max..	62	50	35	28	35	36	45	53	45	42	26	24	23	25	20	18	29	28	29	28	43	43	35	45	41	45	48	43	53	53	54	38.6
	Min ..	22	35	21	16	20	25	19	29	29	22	10	3	14	10	6	6	-7	-1	15	15	9	9	24	24	35	33	33	28	28	27	18.2
Esth'rv'l*	Max	45	35	23	22	34	34	49	40	35	20	11	12	19	14	15	19	32	32	23	35	33	26	27	32	37	36	37	39	47	52	45	30.9
	Min ..	27	31	21	12	11	11	24	25	21	16	4	-1	6	3	3	4	2	14	10	4	13	4	10	14	22	29	31	31	32	31	23	15.2
Fayette ..	Max..	47	40	36	25	34	37	41	38	35	28	23	13	23	21	22	20	30	32	22	28	34	22	28	44	35	45	35	36	39	53	46	32.7
	Min ..	25	36	22	16	9	27	25	27	26	18	10	2	10	10	2	3	2	16	15	6	15	6	7	17	26	34	31	30	29	28	24	17.9
ForestCy*	Max.	49	39	24	22	25	37	41	33	33	24	11	12	21	17	19	21	34	30	24	38	33	25	29	35	43	37	37	40	46	52	47	31.7
	Min ..	20	25	21	14	10	16	21	29	29	17	0	1	4	5	0	- 1	1	10	12	6	16	3	10	16	21	30	32	32	30	32	26	15.7
F. Dodge*	Max.	56	54	25	24	36	40	50	45	36	26	15	13	22	17	16	-8	34	28	26	36	36	30	29	39	43	41	37	36	42	46	53	33.8
	Min ..	26	38	24	16	16	17	26	30	30	22	5	4	8	8	2	2	8	12	14	6	10	7	10	20	23	29	33	32	32	30	27	18.1
Galva	Max..	57	50	35	22	36	39	51	46	40	32	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....
	Min ..	34	34	17	15	18	23	26	30	30	20	3	5	12	7	1	0	2	15	12	4	21	5	20	22	30	34	32	32	32	29	27	19.1
Glenwo'd	Max..	63	53	37	38	31	32	47	53	41	34	23	23	20	14	19	24	20	26	30	4	33	31	34	33	40	52	38	39	48	55	50	36.2
	Min ..	41	34	22	27	20	24	25	31	30	22	10	3	13	10	5	4	13	13	0	31	10	20	18	25	29	33	33	33	30	34	29	21.4
Grand M.	Max..	44	37	36	30	33	38	40	40	35	31	20	15	20	22	21	2:	32	35	32	34	36	24	27	35	34	43	33	37	33	48	43	32.6
	Min ..	26	34	20	18	10	21	26	29	28	18	6	1	8	10	1	3	4	18	20	7	18	3	6	16	21	32	31	30	30	30	25	17.5
Greenfield. ..	Max..	58	55	37	28	38	39	45	55	38	31	22	21	25	20	23	17	27	31	25	28	41	32	33	41	40	51	37	38	45	53	51	36.5
	Min ..	37	37	19	15	16	24	20	26	16	19	8	2	12	10	2	3	- 5	8	14	-1	16	1	21	23	34	33	33	32	32	30	29	18.3
Grinnell.	Max..	53	56	43	28	33	32	42	52	40	34	25	17	20	22	23	25	32	27	27	30	40	30	30	35	34	43	37	31	37	53	45	35.0
	Min ..	38	40	25	18	19	25	26	29	26	20	8	5	12	11	0	6	- 2	11	18	2	17	6	18	20	25	30	32	31	37	53	45	35.0
(near)	Max..	51	54	41	26	34	38	43	42	39	30	25	16	22	21	21	2	32	25	26	32	39	29	31	34	34	45	36	36	42	54	46	34.3
Grundy C	Min ..	33	39	23	17	18	26	21	29	29	21	10	7	10	13	4	5	1	12	18	0	19	6	14	21	26	34	33	32	32	30	26	19.5
	Max.	58	56	39	26	35	39	48	50	41	31	24	18	24	22	18	17	26	26	23	29	28	27	31	36	39	48	37	38	45	50	49	34.8
Guthrie C	Min ..	38	38	21	16	20	26	19	29	29	22	8	5	13	10	3	4	- 1	7	14	1	22	4	24	23	30	35	33	33	32	30	22	19.7
	Max..	56	41	38	24	38	34	44	42	36	29	20	12	25	20	22	22	38	30	25	38	36	29	31	34	34	41	37	37	48	57	51	34.7
Hampton.	Min ..	31	37	21	17	10	27	25	32	29	20	6	5	9	9	1	1	4	14	16	6	18	5	12	20	26	34	33	32	33	32	26	19.1
	Max..	60	57	39	28	33	36	48	52	39	34	22	20	24	22	16	19	29	26	23	34	41	31	34	39	41	48	38	43	49	55	51	36.5
Hancock .	Min ..	38	37	21	15	19	26	23	33	30	20	10	4	7	7	6	5	- 5	10	13	-1	19	8	22	25	30	34	33	33	30	31	28	29.7
	Max..	46	38	35	22	30	35	40	38	37	29	18	12	18	16	16	2	36	30	26	36	33	25	29	32	33	41	35	35	3:	49	43	31.4
Hamiontown.	Min ..	28	35	20	14	10	25	19	30	28	16	0	1	9	5	0	1	14	13	17	15	3	8	19	21	32	32	31	30	30	25	17.2
	Max.	60	56	39	26	35	37	51	49	40	33	21	19	24	21	17	19	23	29	25	31	38	31	34	37	40	46	38	39	48	55	50	36.0
Harlan. ..	Min..	34	37	18	14	19	25	19	27	28	20	8	4	12	9	5	4	- 7	6	12	-2	14	5	22	23	29	34	32	32	29	28	27	18.3

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR MARCH, 1906—CONTINUED.

STATIONS.		DATE.																															MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Hopeville	Max.	56	55	32	25	33	32	42	52	40	33	22	18	21	20	16	17	29	26	22	30	38	31	34	38	43	57	38	39	41	45	49	35.0
	Min.	36	32	22	17	17	25	20	29	30	22	9	2	14	14	5	7	-7	10	16	1	21	9	21	25	29	35	38	35	32	28	18.6	
Humbolt	Max.	54	48	52	40	34	48	42	45	40	32	20	14	20	16	20	23	31	26	36	38	28	30	34	35	40	40	36	38	46	53	45	35.9
	Min.	33	16	20	15	28	26	30	30	32	22	4	6	8	3	-1	3	15	15	8	20	6	18	21	28	34	34	15	30	32	30	25	19.6
Ida Grv.	Max.	60	59	42	23	35	37	52	47	40	37	23	15	22	21	15	17	32	30	25	36	36	29	30	34	40	42	37	40	49	55	49	35.6
	Min.	35	38	21	16	18	23	27	29	29	28	5	6	11	7	2	3	0	15	13	2	19	7	21	23	30	34	32	32	31	26	29	19.5
Indep'ce	Max.	48	50	45	24	33	32	38	42	36	30	27	16	22	19	22	22	30	28	26	28	36	29	32	38	38	45	45	35	36	34	51	34.1
	Min.	31	37	24	14	14	27	29	32	28	22	9	5	10	14	3	5	4	11	18	5	20	7	9	20	25	31	32	31	21	27	24	18.9
Indian'la	Max.	58	58	37	27	33	32	46	58	39	32	26	19	23	22	21	17	26	25	26	30	37	28	33	36	40	51	38	37	42	35	47	35.3
	Min.	37	36	23	17	23	25	28	30	29	23	10	7	15	15	5	7	-3	9	17	..	20	7	24	24	29	35	33	33	33	31	27	21.6
Inwood..	Max.	38	36	26	22	31	38	47	42	38	30	20	12	18	15	12	17	32	33	25	34	52	30	31	31	35	35	36	41	51	33	47	31.9
	Min.	30	25	16	14	9	23	23	29	26	11	1	3	9	-1	-2	-7	-3	12	11	0	20	3	10	22	30	32	32	31	30	29	24	15.9
Iowa C*	Max.	51	54	33	28	34	33	37	45	40	31	21	19	24	22	22	19	28	27	30	30	40	28	31	37	44	51	35	36	37	34	44	34.5
	Min.	22	35	33	22	21	21	29	28	29	25	14	9	9	18	6	8	3	7	18	7	10	11	12	19	25	29	34	33	33	31	28	20.3
Iowa F*	Max.	52	50	26	23	34	35	41	40	37	27	15	15	22	18	19	20	34	30	26	35	36	28	32	35	42	45	37	37	42	38	40	33.3
	Min.	30	35	23	17	13	25	27	28	29	21	6	5	9	9	2	3	3	15	16	3	20	5	13	15	26	28	33	31	29	27	18.7	
Jefferson	Max.	58	59	42	25	33	38	51	53	41	33	28	18	24	25	19	27	32	25	23	38	40	32	30	31	39	43	38	39	45	50	47	36.4
	Min.	38	29	20	17	21	26	23	32	31	22	9	7	18	10	5	5	4	14	15	4	24	7	23	24	29	33	32	23	30	27	20.7	
Keokuk	Max.	53	59	45	31	32	32	39	51	46	38	29	20	27	23	28	20	26	26	29	29	42	27	33	37	39	55	41	38	38	40	36.4	
	Min.	35	44	29	21	22	27	31	30	34	26	16	8	17	19	13	14	4	12	22	7	21	15	20	25	26	37	35	34	33	32	23.8	
Keosauqua*	Max.	50	60	46	33	33	32	39	50	45	37	21	21	26	25	28	22	26	29	27	31	41	23	36	38	50	56	42	38	38	35	37	36.8
	Min.	19	36	30	21	28	24	28	29	29	25	15	3	3	19	9	11	-2	-2	18	4	4	11	12	24	27	31	35	33	32	30	19.8	
Knoxville	Max.	55	59	39	27	36	34	46	53	40	33	25	22	25	22	22	20	29	28	26	33	40	30	35	39	40	51	39	39	38	36	47	36.4
	Min.	25	39	25	19	20	26	28	32	30	25	11	8	16	16	4	9	-2	12	19	4	20	11	24	24	29	33	34	33	33	32	28	21.7
Larrabee	Max.	56	40	30	28	36	42	51	45	38	30	18	15	22	18	17	18	34	36	29	35	30	33	27	37	38	38	41	43	52	54	47	34.6
	Min.	32	28	15	14	12	26	27	30	28	18	2	3	10	4	0	-6	-1	12	12	5	17	2	17	17	30	34	32	32	30	30	27	17.3
Le Mars	Max.	57	44	29	24	35	36	44	44	39	30	21	15	23	17	14	14	33	31	25	36	34	30	28	32	38	39	35	42	51	54	48	33.7
	Min.	31	26	18	15	17	25	24	30	30	20	4	5	11	5	2	-2	2	15	13	20	21	5	21	24	31	34	32	32	30	26	24	19.2
Lenox..	Max.	57	51	38	26	32	31	41	52	41	35	26	17	22	21	17	15	25	24	22	29	37	32	33	37	40	50	38	37	44	54	50	31.6
	Min.	36	36	23	15	18	24	17	28	28	21	7	-1	12	11	3	4	-9	10	14	-4	16	5	19	24	29	33	32	32	32	28	28	18.3
Leon	Max.	55	55	36	27	33	33	40	52	40	35	29	21	23	28	22	16	25	30	26	31	39	30	35	37	44	50	38	38	39	55	52	35.8
	Min.	39	35	25	17	18	25	27	28	29	24	10	2	14	16	7	8	-2	13	19	8	22	11	20	25	29	35	33	32	33	28	21.2	
Little Sioux	Max.	64	57	39	25	34	38	55	52	41	34	22	18	25	22	17	17	31	28	24	36	39	28	33	35	48	46	48	44	52	57	52	37.3
	Min.	41	38	20	13	20	25	22	28	22	20	8	5	14	9	6	8	-1	15	14	0	24	10	23	20	32	35	32	32	31	27	27	19.8
Logan..	Max.	64	57	40	29	37	40	54	52	40	32	21	24	30	23	22	20	31	34	30	35	42	32	36	37	47	46	39	43	52	57	52	38.6
	Min.	36	39	20	15	19	26	23	29	29	21	10	4	14	10	7	5	-4	10	14	-1	18	10	23	25	31	35	32	32	29	28	27	19.9
Maquoketa*	Max.	51	47	34	28	34	34	37	47	47	36	24	20	25	24	27	28	30	30	33	30	41	29	32	40	45	50	39	37	40	36	..	35.7
	Min.	19	32	30	21	16	16	28	27	30	22	15	6	7	14	4	5	0	23	18	8	10	8	9	12	23	32	33	31	30	29	26	18.0
Marshall'n*	Max.	55	58	28	27	38	34	45	48	39	33	20	18	25	22	24	23	30	27	29	32	40	31	31	37	43	47	38	37	41	32	47	35.3
	Min.	22	35	25	17	16	16	24	25	28	22	10	6	7	13	1	4	3	3	18	4	7	7	10	19	21	29	33	31	31	29	27	17.5
Mason C.	Max.	47	40	36	25	30	36	43	40	36	28	20	16	25	20	20	21	33	32	28	37	32	25	33	35	34	40	40	39	45	51	43	33.2
	Min.	30	35	22	17	8	26	25	30	28	18	3	5	12	9	8	0	5	16	15	8	17	5	10	20	21	33	33	33	30	27	18.9	
Mt. Ayr	Max.	59	53	32	26	32	31	42	54	41	35	35	18	21	20	18	18	29	28	25	40	40	31	32	40	43	54	39	38	46	58	50	36.4
	Min.	39	32	22	15	19	24	22	26	29	22	9	1	12	13	5	7	-6	13	16	0	18	10	19	24	29	35	32	31	32	32	28	19.7
Mt. Pleasant	Max.	51	58	49	33	34	35	42	49	44	33	28	24	28	28	28	21	31	33	32	29	43	30	36	37	38	36	42	40	38	36	47	38.2
	Min.	32	43	26	20	20	20	30	26	29	23	14	4	16	17	8	11	-3	11	21	3	17	9	22	24	25	35	33	31	31	29	27	21.6
Mt. Vernon.	Max.	51	53	43	28	33	35	41	45	38	33	24	19	30	25	28	21	35	28	29	30	31	32	33	43	40	50	39	36	36	38	35	36.5
	Min.	30	40	23	19	16	26	29	31	29	21	11	5	13	15	3	6	0	11	21	6	19	8	14	19	24	33	32	32	30	28	25	19.9
N. Hampton	Max.	38	42	34	25	31	35	39	44	36	31	21	17	20	17	18	19	30	30	28	35	34	22	29	35	33	40	34	35	41	40	48	31.9
	Min.	28	34	22	16	10	26	24	29	30	18	5	2	9	8	2	0	3	13	13	8	14	3	8	18	19	33	34	31	31	31	25	17.6
Northwood..	Max.	45	38	34	27	32	38	40	41	37	27	17	18	28	18	20	20	32	36	25	35	32	22	32	37	35	39	38	35	45	50	44	32.6
	Min.	29	34	22	17	10	26	20	31	27	17	1	2	10	6	0	-1	2	14	14	8	15	3	6	19	29	32	33	32	29	30	24	17.5
Odeboldt	Max.	57	51	36	23	36	37	52	46	39	32	21	15	26	20	18	20	33	30	25	36	36	31	31	36	48	40	37	38	40	30	50	35.2
	Min.	35	36	17	15	19	22	25	32	30	21	5	7	10	7	2	1	3	16	12	5	21	6	22	22	30	34	32	32	34	36	38	20.2
Ogden..	Max.	57	58	43	25	36	34	49	49	38	33	23	16	21	21	16	16	24	24	23	24	25	27	27	35	37	36	35	..	44	49	49	33.1
	Min.	35	41	22	18	20	25	23	31	30	23	8	7	12	10	4	5	2	13	15	2	22	7	21	21	28	35	33	..	33	31	28	20.2
Olin	Max.	50	50	45	31	35	36	37	48	40	35	30	20	25	23	25	22	28	35	33	29	40	26	31	37	40	53	43	37	37	38	46	36.5
	Min.	30	38	27	22	18	29	31	28	31	24	16	7	13	18	5	9	-1	9	23	7	20	9	14	22	24	35	34	32	32	30	27	21.4
Omaha, Neb.	Max.	63	50	28	25	31	34	54	52	38	31	20	18	22	20	14	15	26	22	23	32	38	26	32	34	52	54	38	41	50	55	52	35.2
	Min.	44	28	19	17	22	26	29	36	31	20	10	7	14	12	8	6	1	18	13	4	21	15	23	27	31	34	34	33	35	36	32	22.1
Onawa	Max.	65	56	34	26	35	38	58	49	40	34	22	17	26	23	20	26	38	30	26	45	37	26	31	34	40	39	38	44	54	58	53	37.4
	Min.	35	34	18	13	19	25	24	27	27	22	8	9	14	9	6	4	2	16	13	3	25	12	23	23	30	33	30	30	28	30	25	19.9
Osage	Max.	42	37	35	23	35	36	38	44	37	30	20	15	22	18	19	22	35	31	27	37	32	25	30	35	33	38	35	35	42	50	46	32.4
	Min.	18	34	22	16	9	25	22	32	30	17	3	5	10	8	2	1	3	14	13	8	15	5	8	20	25	33	33	33	32	25	17.8	
Oskaloosa	Max.	52	57	40	29	35	34	43	48	40	32	25	21	25	22	23	21	29	31	25	32	41	29	34	38	38	52	38	38	36	55	46	35.8
	Min.	33	40	25	19	19	27	30	29	29	24	10	8	15	16	5	7	-2	6	18	8	21	10	23	24	28	37	34	31	33	29	28	21.3
Ottum'a	Max.	52	57	35	26	34	34	45	52	39	34	23	22	24	24	26	20	29	28	27	33	45	32	37	38	38	48	44	40	42	57	50	36.6
	Min.	32	38	20	19	25	28	30	28	31	24	15	8	18	19	11	8	2	11	8	2	25	14	25	26	33	36	36	36	33	29	23	23.3
Pacific Jct.	Max.	65	51	35	30	35	37	47	53	40	35	28	23	25	20	22	17	30	28	26	34	40	34	36	40	42	42	39	41	52	57	56	37.3
	Min.	40	35	22	16	22	26	25	25	26	23	9	5	14	11	9	4	-10	14	12	-5	17	10	19	27	31	35	33	33	30	25	29	19.7
Pella	Max.	54	64	51	28	42	33	45	50	40	36	30	23	29	25	27	22	29	29	29	33	40	33	32	38	39	50	39	39	39	36	32	37.9
	Min.	33	42	25	19	25	26	29	31	29	19	11	8	16	16	4	9	0	12	21	3	21	10	27	23	28	26	35	32	33	30	28	21.6
Perry	Max.	57	58	58	26	36	38	50	51	38	31	24	20	28	24	25	21	30	31	26	33	39	32	33	37	38	49	38	39	46	55	47	37.3
	Min.	34	37	21	17	21	26	20	30	30	22	9	7	13	11	4	5	-1	10	15	-1	20	8	22	28	29	35	33	33	32	31	29	20.2
Plover	Max.	56	45	35	25	33	38	56	45	42	29	22	..	15	22	17	16	25	32	26	36	35	32	33	35	35	36	37	38	38	32	31	34.7
	Min.	30	35	20	15	12	25	28	29	29	16	2	..	5	6	1	-3	0	14	15	10	11	5	16	20	26	30	32	33	32	31	25	18.2
Pocahontas	Max.	53	46	33	25	35	39	49	40	36	30	20	16	25	22	17	20	34	32	26	37	30	31	30	36	35	38	38	39	48	52	46	34.2
	Min.	32	33	19	16	12	26	26	26	29	20	3	5	10	6	2	-2	-1	17	12	8	20	4	18	22	27	34	32	33	32	32	26	18.7
Red Oak	Max.	61	59	38	34	35	37	43	59	46	39	27	23	26	24	22	25	18	30	30	33	46	35	38	38	42	52	40	44	52	58	55	39.0
	Min.	41	37	25	18	23	28	21	31	31	26	13	6	13	14	9	15	-3	12	17	2	21	13	23	27	32	36	34	34	31	32	31	22.4
Readley	Max.	42	39	35	33	39	40	49	41	40	35	21	20	28	28	29	26	35	34	34	39	40	33	36	41	40	42	35	42	50	56	47	36.6
	Min.	28	34	24	19	11	25	27	30	30	17	6	3	9	10	3	3	3	15	17	8	12	4	6	19	24	34	32	30	32	30	25	18.4
Rock R.	Max.	34	40	26	28	36	35	47	40	38	32	10	20	24	8	26	16	32	35	36	38	24	18	26	36	52	38	46	44	56	34	58	33.2
	Min.	20	24	16	10	6	15	25	22	20	16	0	5	10	-2	0	-4	2	15	4	6	6	4	12	16	20	30	32	32	32	30	32	14.7
R City.	Max.	56	56	38	37	30	38	50	50	48	35	28	14	25	20	19	25	33	33	26	35	35	33	33	38	40	41	40	42	50	53	45	36.9
	Min.	35	34	20	15	16	23	28	35	30	25	4	5	10	9	1	2	3	15	15	4	19	4	20	25	30	28	30	32	30	30	27	19.3
Sac City.	Max.	55	51	37	24	35	35	40	47	38	31	22	14	20	20	16	18	31	29	31	35	32	31	28	34	36	38	37	37	47	53	50	34.8
	Min.	34	36	18	10	17	23	24	31	29	20	8	4	10	8	2	1	2	15	8	4	19	6	10	21	28	33	32	32	31	32	28	18.5
St.Cha'es	Max.	61	50	34	29	34	33	49	57	43	34	24	18	23	21	25	26	33	25	30	53	41	33	32	37	40	39	38	39	48	57	46	36.4
	Min.	37	35	22	17	17	29	24	32	30	22	9	5	15	14	7	6	-1	11	17	3	15	8	23	24	29	34	33	32	32	31	27	20.6
Sheldon	Max.	48	38	28	24	35	35	52	45	38	32	19	11	18	15	15	17	34	30	26	34	38	30	25	29	38	38	35	40	52	55	48	32.7
	Min.	31	23	18	15	10	24	25	29	27	17	0	2	8	2	-2	-7	-4	13	11	-1	12	3	13	20	29	33	32	32	31	30	26	18.7
Sibley	Max.	44	32	22	20	36	36	51	43	35	21	10	12	17	9	12	19	33	32	28	..	35	28	23	32	38	34	34	38	52	51	47	30.7
	Min.	29	30	20	18	6	12	25	25	27	16	-2	0	6	-1	-3	-6	-3	11	10	2	..	7	8	10	22	32	32	31	29	31	26	15.0
Sigour'y	Max.	53	59	50	30	35	34	41	48	41	35	30	25	30	27	30	22	29	35	28	33	41	31	34	40	37	54	40	39	38	55	48	37.8
	Min.	31	42	26	20	20	27	30	29	28	24	12	8	17	17	5	9	-2	9	22	3	20	11	22	24	27	34	33	32	32	30	28	21.6
Sioux C'r	Max.	46	38	27	27	34	36	49	41	35	33	19	15	20	15	13	17	30	32	23	34	31	29	29	29	38	37	36	41	49	51	46	32.3
	Min.	18	27	6	15	13	22	25	28	24	18	0	2	8	0	-2	-5	0	12	11	2	16	4	16	21	29	33	32	32	30	32	25	15.9
Sioux C.	Max.	59	40	26	22	28	35	50	45	36	28	17	14	22	13	12	17	32	27	21	37	35	24	27	34	40	38	38	42	50	54	48	32.6
	Min.	38	26	16	14	19	25	26	33	28	17	5	9	13	6	3	-2	5	19	11	7	16	10	22	23	31	34	33	33	31	32	18	19.7
Stacport	Max.	48	58	53	38	33	33	42	51	45	38	29	28	27	26	29	26	30	33	29	30	45	33	36	39	39	55	49	47	36	53	46	38.6
	Min.	33	29	28	21	21	27	30	28	30	25	14	8	16	18	7	9	-5	5	19	4	20	10	22	25	26	35	34	33	31	31	29	21.2
Storm L*	Max.	55	41	24	21	33	33	50	45	35	24	13	11	21	14	13	16	32	26	22	35	31	30	25	31	36	35	36	36	47	52	45	31.2
	Min.	26	33	21	12	12	11	25	25	29	18	1	1	1	4	-1	-3	2	12	10	4	7	3	7	17	21	30	31	31	31	31	25	16.5
Stuart	Max.	58	58	39	26	35	36	45	51	39	31	22	20	23	21	22	19	24	27	28	27	38	35	38	36	40	49	38	39	41	54	46	35.3
	Min.	38	43	25	16	16	25	21	31	28	22	8	4	13	10	3	4	-1	10	15	2	10	7	22	23	28	33	33	32	31	26	19.5	
Thurman	Max.	62	54	34	28	33	35	45	53	43	37	23	18	24	20	17	15	25	26	24	30	39	29	33	35	44	55	40	41	50	58	53	36.2
	Min.	43	34	28	17	22	26	17.	27	28	28	12	0	13	11	8	7	-14	1	15	-12	17	8	18	27	31	33	34	32	30	30	29	19.0

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR MARCH, 1906--Concluded.

STATIONS.		DATE.																													Mean.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Tipton....	Max	50	41	46	33	35	33	35	49	43	35	29	20	26	24	27	23	30	28	33	30	40	30	35	42	33	50	43	36	39	53	48	36.2
	Min ..	31	26	26	22	21	28	31	31	32	25	17	12	16	19	9	11	4	13	21	10	20	11	18	23	25	35	34	33	32	31	29	21.8
Toledo ...	Max..	53	56	44	26	34	34	43	44	38	31	26	19	22	21	21	21	29	27	25	30	39	30	30	36	36	48	37	37	38	54	47	34.7
	Min .	33	41	28	18	17	27	29	30	28	21	11	7	12	14	0	7	0	11	19	4	19	8	21	21	26	35	33	32	32	30	27	20.5
Vinton	Max..	50	52	47	25	34	..	38	43	40	40	26	16	24	22	23	20	28	28	26	29	37	27	..	..	38	36	45	38	36	48	47	34.4
	Min ..	32	39	25	20	18	..	29	32	27	23	10	6	10	15	3	7	3	8	21	3	18	5	..	..	15	25	33	32	32	28	28	19.5
Wapello	Max	49	54	46	31	34	37	36	41	41	34	31	22	26	25	25	24	28	28	30	28	41	32	31	33	36	53	43	36	35	54	47	35.8
	Min ..	32	43	28	23	24	29	31	28	33	27	17	10	18	10	18	13	2	9	24	8	19	13	23	25	26	36	34	33	32	32	30	23.5
Washi'ton	Max..	51	58	37	30	34	33	39	47	42	34	25	20	28	26	25	22	31	31	30	32	42	30	32	30	38	54	40	37	38	56	46	36.3
	Min .	32	37	25	20	21	27	30	29	30	24	14	8	16	18	7	10	-2	16	19	4	18	12	22	24	26	37	34	32	33	31	28	21.4
Washta ..	Max..	58	50	32	23	40	50	52	48	45	34	20	14	25	18	16	21	33	30	25	33	33	33	28	33	33	40	38	38	50	55	49	35.8
	Min ..	32	33	18	15	18	21	26	26	26	20	4	5	13	5	-2	3	2	15	12	4	20	8	18	22	30	30	32	32	26	26	27	18.1
Waterloo*	Max..	49	50	38	29	36	34	42	45	41	33	23	16	25	22	24	22	35	29	29	33	40	29	32	39	33	48	38	35	41	55	48	35.4
	Min ..	32	33	24	19	15	27	29	30	30	21	9	6	10	17	5	6	6	15	20	7	20	7	12	20	24	35	32	32	32	28	26	20.4
Waukee..	Max..	54	58	35	25	34	35	45	52	38	33	24	24	28	21	21	20	24	28	24	28	37	27	32	36	38	50	37	37	43	55	50	35.0
	Min ..	35	35	23	17	19	25	20	31	25	22	9	7	14	18	8	5	-3	8	16	2	19	7	23	23	29	35	34	32	32	32	28	20.2
Waverly.	Max..	45	42	38	26	34	36	41	41	36	32	23	15	23	22	21	21	34	32	28	35	37	26	32	38	34	48	36	37	42	52	45	33.8
	Min ..	32	32	24	19	14	28	29	29	31	22	8	6	11	12	5	5	6	16	20	9	17	8	8	21	26	34	34	33	33	30	28	20.2
Webst'r C	Max..	55	57	44	26	31	39	45	49	39	31	25	19	24	23	21	29	33	34	36	35	42	31	34	36	37	45	38	40	47	55	50	37.1
	Min ..	33	41	25	17	15	26	25	25	19	23	6	5	10	9	3	9	4	12	15	5	24	6	18	21	28	35	33	32	31	28	27	19.7
W. Bend.	Max..	57	46	37	22	31	38	48	45	36	29	19	20	23	16	17	18	31	36	25	36	28	27	28	37	34	37	38	38	50	51	44	33.6
	Min ..	30	36	20	14	12	25	22	29	27	19	2	2	10	5	1	-4	0	13	18	4	15	8	15	21	26	33	32	32	32	30	24	17.5
Whitten..	Max.	53	53	48	26	35	38	42	43	38	30	25	16	25	23	22	21	31	32	25	31	38	28	33	37	35	47	37	39	44	53	47	35.3
	Min ..	32	33	22	15	18	26	28	29	27	21	7	4	10	10	2	3	-2	11	16	3	18	4	15	20	25	33	31	30	31	28	26	18.9
Wilton Jc	Max..	41	32	38	42	32	35	37	50	43	37	36	25	27	29	21	20	25	31	34	34	35	35	31	35	38	53	52	41	40	54	54	36.7
	Min ..	23	12	19	19	20	28	32	30	32	30	24	10	13	19	8	12	1	11	23	8	18	12	18	23	25	35	34	33	32	32	28	21.4
Wint'rset	Max..	56	55	40	27	34	34	44	52	39	35	26	21	26	22	20	18	25	30	33	29	33	29	34	37	38	48	38	37	43	55	50	35.7
	Min ..	35	40	25	11	12	24	19	29	28	24	9	4	14	13	4	5	-3	8	15	0	19	5	21	23	28	35	31	31	31	30	25	19.2
W'odb'rn	Max..	57	55	33	32	35	47	42	54	42	34	28	27	27	27	30	27	32	32	31	29	41	34	38	41	44	51	42	43	45	55	49	38.2
	Min ..	32	25	25	18	15	25	27	25	27	20	10	10	15	16	4	8	-9	0	17	0	20	5	14	25	29	33	32	33	33	32	26	19.3
Zearing	Max..	54	56	53	25	33	34	44	44	37	31	20	24	21	23	25	31	28	25	31	38	33	31	31	36	35	50	37	37	45	55	49	36.1
	Min ..	33	38	24	17	18	26	27	30	30	7	6	10	11	8	4	1	13	8	0	2	21	6	19	21	23	31	32	32	32	24	24	18.9

*At those stations the thermometers are read in the morning, the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

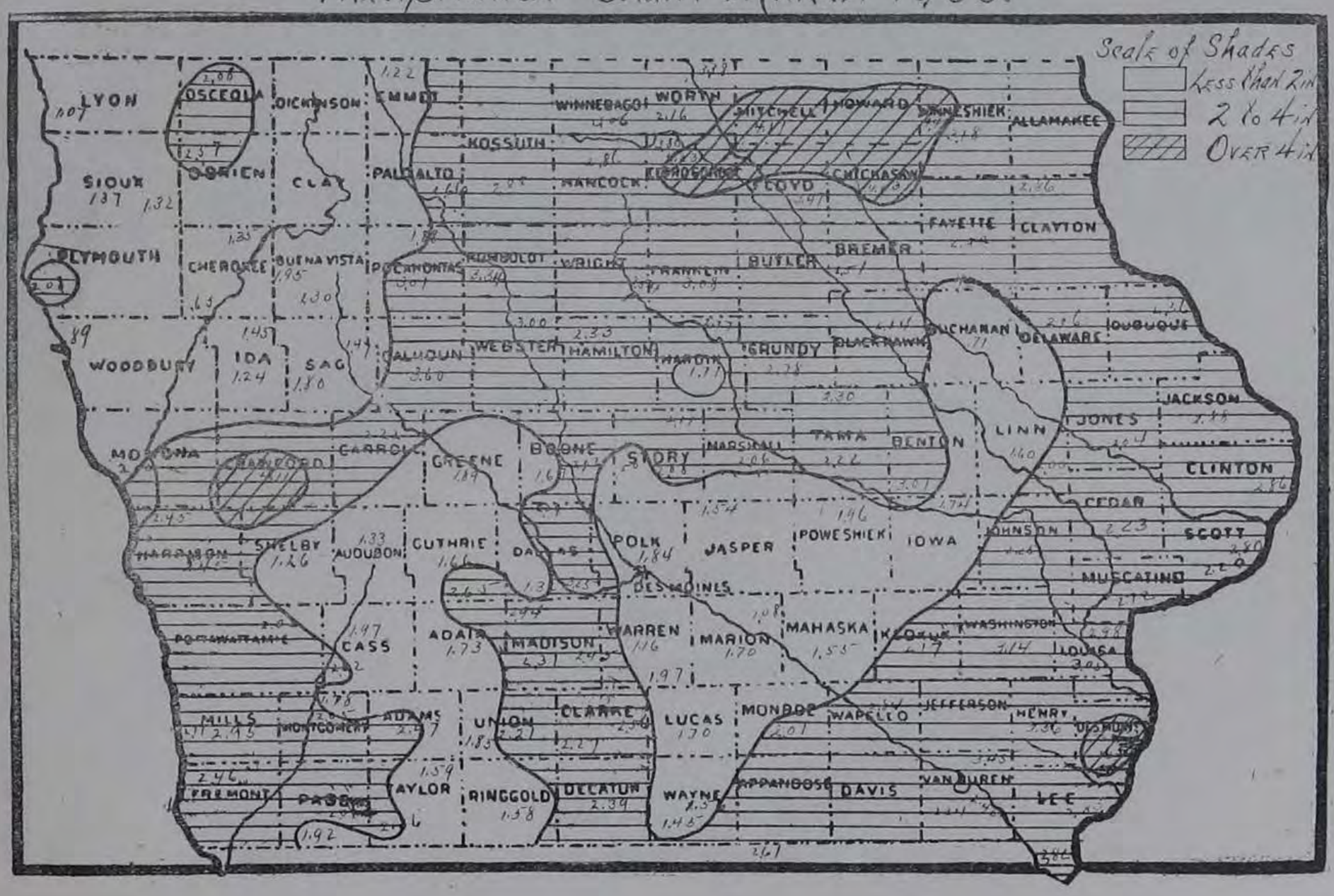
DAILY AND MONTHLY PRECIPITATION FOR MARCH, 1906.

STATIONS.	DAY OF MONTH.																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	T	....	T	..	.20	....	....	..	T	.80	...	.50	.20	.10	T	....	.20	.20	....	....	....	....	....	T	.51	....	....	....	....	....	2.21
Albia	....		T	.01	..	.11	.10	....	.10	....	.80	.01	.02	.20	.08	.03	..		T	....	....	....	....	....	....	.92	.15	....	....	....	....	2.01
Algona	T	.78	.35	T	..	T		.08	T	....	....	.05	..	....	T	....	....	T	....	....	....	....	.04	....	.60	1.08	....	....	....	....	....	2.88
Allerton	....	T	T	T	..	.25	T	T	.08	T	.28	T	.16	.08	.03	.02	....	T	.15	....	T	....	....	T	T	.45	.05	T	....	....	....	1.45
Alta	....	.26	.08	T		.05	..	..	.02	T	....	.06	.02	.02	.02	....	....	.03	....	....	....	....	.38	....	.60	.41	....	..	....	....	....	1.95
Alta [near]	..	.24	.10	T		.10	....	..	T	..	....	....	.20	....	.05	....	....	.05	..	....	....	..	.20	....	.85	.19	....	..	....	....	....	1.98
Alton	..	.28	T	T	...	.05	....	T	T	.05	....	.09	T	....	....	....	....	....	.05	..	....	..	.21	....	.27	.32	....	....	....	....	....	1.32
Amana	T	.24	.01	T	...	.11	....	.09	T	....	T	....	.15	.01	T	.03	..	.08	.12	....	T	....	....	.06	....	.89	....	....	....	....	....	1.74
Ames	..	.04	.18	T		.12	..	.07	....	....	....	.02	.07	..	....	....	....	.10	....	....	....	....	.05	..	.01	.05	.02	..	....	....	....	.58
Atlantic	....	T	.10		T	.15	....	..	....	.10	.15	....	.30	....	.10	....	....	....	.30	..	....	....	T	....	.77	....	....	....	....	....	....	1.97
Audubon	....	T	.01	T	..	.07	....	....	....	.01	.14	....	.15	....	.10	....	....	....	.25	....	....	....	T	.01	.24	.34	.01	....	....	....	....	1.33
Baxter	....	....	.10	....	..	....	....	....	T	....	....	T	.25	.10	....	....	..	.20	....	....	....	....	....	....	....	.89	..	....	....	....	..	1.54
Bedford	T	T	.02	T	..	.36	.08	T	....	....	.38	..	.20	.25	.10	....	..	.10	.08	....	....	....	..	T	.18	.70	....	T	..	..	....	2.36
Belle Plaine	..	.50	.03	....	....	.15	....	.25	.05	....	....	....	.40	.05	....	....	....	.40	.02	....	....	....	....	.10	....	1.10	....	....	....	....	....	3.07
Bonaparte	..	.14	T	....	....	.25		.06	..	....	.40	....	....	.20	....	T	....	....	.40	....	....	....	....	....	..	.95	....	..	....	....	....	2.40
Boone	..	.08	.04	.08	T	.07	.07	..	T	.03	.03	....	.02	.10	....	.02	....	....	.21	T	....	....	....	.22	....	1.03	.05	..	T	....	....	2.02
Britt	....	.25	.20			.04		T	T	....	....	.03	....	....	....	.02	....	.01	....	..	....	....	.02	.93	1.32	....	....	....	....	....	2.86
Buckingham	T	..	.68	....	..	.05	T	.07	T	....	....	.05	.11	T	.02	....	....	.17	T	..	....	....	T	.05	....	1.09	T	....	....	....	....	2.30
Burlington	.02	.52	.02		T	.14	.04	1.01	.01	T	.50	....	.11	.09	.07	.05	..	T	.48	..	....	....	....	....	....	1.45	.04	....	..	....	....	4.55
Carroll	..	T	....	T	T	.05	....	....	.02	....	T	....	T	.15	....	T	....	....	.80	....	....	....	....	.20	....	1.50	....	....	....	....	....	2.22
Cedar Rapids	....	.05	.18	.02	T	.09	.04	....	.02	T	T	T	....	.12	T	.05	....	....	.08	T	....	T	....	.06	T	.45	.50	....	....	....	....	1.60
Chariton	T	..	.10	T	T	.20	....	T	....	....	.30	....	.05	.10	T	....	..	T	.10	....	....	....	....	....	.85	....	....	....	....	....	....	1.70
Charles City	.04	.45	.48	T	....	.02	....	.03	T	....	....	.02	T	T	.02	....	....	....	....	....	....	....	....	....	1.11	1.30	....	....	....	....	....	3.47
Clarinda	....	T	.05	....	....	.35	....	....	..	..	.55	....	.33	.06	....	T	....	.05	.12	....	....	....	....	....	T	.45	.10	....	....	....	....	2.06
Clear Lake	..	.45	.80	T	....	....	....	T	..	....	....	.10	T	....	.10	....	....	....	....	....	....	....	....	.03	.70	2.05	T	....	....	....	....	4.23
Clinton	....	.54	....	....	....	....	.09	.19	..	....	.05	....	.10	.13	....	.13	....	....	.11	....	....	....	....	....	....	1.52	..	....	....	....	....	2.88
College Springs			.05	..	..	.25	....	....	....	.15	.04	.80	.30	.20	.01	T	....	.05	.20	....	....	....	....	.25	.12	....	..	..	....	....	....	1.92
Columbus Junct'n	T	.40	.07	T	T	.26	.10	.15	....	....	.11	....	.20	.13	T	.04	..	....	.22	....	T	....	....	....	....	1.30	....	....	....	....	....	2.98
Corning	T	T	T	T	..	.25	..	..	....	.05	.70	....	.35	.15	.10	....	....	.20	.25	....	T	....	....	....	.26	.16	....	T	....	....	....	2.47
Corydon	....	....	.01	....	....	.21	..	T	....	....	.89	....	.20	.08	.01	.01	....	....	.17	....	....	....	....	....	T	.50	....	T	....	....	....	1.58
Creston	....	....	..	T	..	.10	.10	..	.	....	.40	..	.30	.20	....	T	....	.15	.25	....	....	....	....	T	....	.32	.03	....	....	....	....	1.85
Cumberland	....	....	....	....	....	.20	..	....	..	.10	....	....	.60	....	....	....	....	.40	.50	....	....	....	....	....	....	1.02	....	....	....	....	....	2.62
Davenport	T	.22	.02	T	..	.17	....	.17	T	.01	.06	....	.20	.07	.08	.02	..	.04	.08	....	T	T	..	T	.01	1.05	.02	T	T	..	....	2.20
Decorah	..	.36	.42	T	..	T	....	.03	T	T	.02	T	T	....	....	T	....	.07	.05	....	....	....	....	.95	1.33	....	....	....	....	....	....	3.18
Delaware	....	.45	.40	....	....	.05	....	.14	..	..	....	T	....	....	....	T	....	.07	.07	....	....	....	....	T	.80	.08	....	....	....	....	....	2.06
Denison	....		2.55	..	.05	.05	..	....	T	.02	T	T	T	T	....	T	..	.12	.02	....	....	....	.12	.23	.60	.35	....	....	....	....	....	4.11
Des Moines	.01	T	.08	T		.11	....	.02	T	.02	.03	....	.30	.07	.02	....	....	.17	.11	....	....	....	.01	T	.62	.27	....	T	....	....	....	1.84
De Soto	..	.03	T	T	..	.13	....	T	T	T	.05	....	.17	.02	T	....	....	.10	.17	....	....	....	..	T	T	.65	..	....	....	....	....	1.32
Dows	....	.30	.05	T	....	.01	....	.10	T	....	..	.05	....	.02	....	T	....	....	.05	....	....	....	....	.07	.69	1.20	....	....	....	....	....	2.54
Dubuque	.01	.32	.41	.01	....	.04	T	.05	T	....	....	.04	.03	.03	.02	T	....	.08	.05	....	T	....	....	....	.10	1.08	.02	....	....	....	....	2.86
Earlham	T	.16	T	T	..	.20	....	T	T	T	.20	....	.50	.40	.10	T	....	.15	.40	....	....	....	T	T	.88	T	....	....	....	....	....	2.91
Elkader	....	.38	.32	....	....	.05	T	.03	....	....	....	T	....	....	....	.07	....	....	.09	....	T	....	....	T	1.25	.92	....	....	....	....	....	3.11
Elliott	....	....	.05	.03	....	.20	.05	..	....	T	.20	.20	.50	.10	T	....	.20	....	....	....	....	....	....	....	.15	.10	....	....	....	....	....	1.78
Estherville	....	.66	.21	T	....	T	.05	....	T	....	....	....	.06	.06	..	....	....	....	.06	....	....	....	....	.12	....	....	....	....	....	....	....	1.22
Fayette	....	.58	.20	....	....	T	..	.04	T	....	....	.03	T	....	....	.02	....	....	.10	....	....	....	....	.04	.68	1.25	.05	....	....	....	....	2.99
Forest City	....	.20	.37	.20	....	T	....	....	T	.15	....	....	....	....	T	....	....	....	T	....	....	....	....	.02	....	1.90	.22	....	....	....	....	3.06
Fort Dodge	....	.38	.25	....	....	.02	....	....	.	T	....	....	.05	.02	....	....	....	....	.05	....	....	....	....	.25	.10	1.75	.15	....	....	....	....	3.00
Fort Madison	T	.25	T	....	....	.20	.50	..	....	....	.60	....	....	.25	.10	T	....	....	.60	....	....	....	....	....	....	1.35	....	....	....	....	....	3.85
Galva	....	.19	.03	T	....	.03	....	....	....	....	....	.03	....	....	T	....	....	....	.05	....	....	....	....	.19	.55	.36	....	....	....	....	..	1.45
Glenwood	T	.10	T	....	....	.15	....	....	....	.30	T	T	.60	.05	.05	....	....	.20	T	..	....	T	....	T	..	1.50	T	....	....	....	....	2.95
Grand Meadow	....	.37	.20	T	T	.05	....	.04	T	....	....	.02	....	T	....	.02	....	....	.05	....	....	....	....	T	....	1.65	.46	....	....	....	....	2.86
Greenfield	T	.03	.02	T	T	.26	....	....	T	.02	.21	....	.51	.02	.04	T	....	.09	T	....	....	....	....	T	.20	.33	T	T	....	....	....	1.78
Grinnell	T	.13	.05	..	..	.10	....	.08	.	..	..	T	.05	.15	.05	....	....	....	.20	....	....	....	T	....	T	1.00	.15	....	....	....	....	1.98
Grundy Center	..	.30	.20	....	....	.15	..	.14	....	....	....	.10	T	....	....	....	....	T	.20	....	....	....	....	.10	.15	1.19	.15	....	....	....	....	2.78
Guthrie Center	....	.04	T	T	....	.15	....	T	T	T	.11	....	.23	.02	.03	..	..	.18	.21	....	....	....	T	.02	.18	.49	....	T	....	....	....	1.68
Hampton	....	.19	.20	....	.08	....	....	.05	.04	....	....	.15	.04	..	T	..	..	.08	....	....	....	....	.11	....	1.70	.48	....	....	....	....	....	3.08
Hancock	....	T	T	T	....	.10	....	....	....	T	.40	....	.45	T	.05	....	..	.15	....	....	....	T	..	....	.31	.56	....	....	....	....	....	2.02
Hanlontown	....	.36	.20	T	....	T	..	.12	T	....	....	.05	....	....	T	..	....	T	....	....	....	....	....	....	.20	1.28	....	....	....	....	....	2.16
Harlan	T	T	.02	T	....	.08	....	....	T	.05	.10	....	.18	T	.07	....	....	.19	T	....	T	T	T	....	.20	.37	T	T	....	....	....	1.26
Hopeville	T	.01	T	T	....	.22	..	T	T	.01	.16	....	.19	.04	.01	T	....	T	.05	....	....	....	....	T	T	1.58	....	....	....	....	....	2.27
Humboldt	....	....	.60	....	....	....	....	....	....	....	....	.10	.10	T	..	....	T	....	....	....	....	.10	.10	.64	1.70	....	....	....	....	....	....	3.34
Ida Grove	....	....	.05	....	....	.10	....	....	....	....	....	.10	.02	.05	....	....	....	.05	....	....	....	.02	.20	.25	.40	....	....	....	....	....	....	1.24
Independence	....	.10	.15	T	....	.10	....	T	....	....	....	.10	T	....	....	T	....	....	.20	....	....	....	.05	....	.01	T	....	....	..	....	....	.71
Indianola	T	..	.03	T	....	.20	T	T	T	T	.17	..	.35	.10	.0	.04	....	.13	.10	....	....	....	.02	....	T	T	....	....	....	....	....	1.16
Inwood	....	.55	.01	T	....	....	....	....	T	T	..	.10	T	.04	T	....	....	.07	0.1	....	....	....	.20	T	.02	.07	....	....	....	....	....	1.07
Iowa City	....	.08	.13	.04	....	.07	.05	....	.07	T	.02	T	....	.01	T	.03	....	....	.10	.02	..	....	T	....	.01	....	.37	.27	....	....	....	2.25
Iowa Falls	T	.28	.21	T	T	.03	.05	T	.14	.05	T	....	.03	.02	T	.05	....	....	.10	..	....	T	....	.18	....	1.23	.43	....	T	....	....	2.77
Jefferson	....	.15	T	T	..	.09	....	T	T	T	T	T	.05	T	T	....	....	.12	.07	....	....	....	T	.17	.38	.91	....	T	....	....	....	1.89
Keokuk	T	.17	.06	..	T	.21	....	.04	T	.09	.12	....	.07	.07	T	.03	....	.12	.18	....	T	....	....	T	.10	1.56	....	....	....	....	....	2.82
Keosauqua	..	.05	.02	T	T	.10	.48	..	.04	....	.15	.10	T	.08	.10	.08	....	....	.20	.10	....	....	....	T	T	.50	.29	T	....	....	....	2.24
Knoxville	....	....	.02	T	....	.15	....	T	T	T	.10	..	.40	.20	.05	....	....	.10	.05	....	....	....	....	T	T	.60	T	....	....	....	....	1.70
Lacona	....	....	.08	....	....	.15	....	.01	..	..	.20	.10	.10	.08	.08	....	....	.12	.22	....	....	....	....	....	.20	.88	....	T	....	....	....	1.97
Larrabee	....	.03	....	T	....	.08	....	T	T	T	....	.13	T	....	.02	....	....	.03	....	....	....	....	.32	....	.20	.54	....	....	....	....	....	1.35
Le Claire	....	.01	.49	.04	T	T	.19	....	.18	T	.04	.05	....	.18	.09	.06	....	....	.02	.09	....	....	T	....	....	.81	.55	....	....	....	....	2.80
Lenox	....	.02	.02	....	....	.25	....	....	....	.05	.10	....	.10	.25	.10	....	....	.10	.10	....	....	....	....	....	.10	.40	....	....	....	....	....	1.59
Leon	....	....	T	T	..	.30	T	T	T	T	.45	....	.20	.20	.07	T	....	T	.10	....	....	....	....	....	T	1.05	.02	....	..	....	....	2.59
Little Sioux	..	T	.37	..	....	.10	..	....	....	....	.12	....	.05	.08	.10	....	....	.15	.20	....	....	....	T	....	.63	.65	....	....	....	....	....	2.45
Logan	....	.01	T	....	....	.20	....	....	....	.10	.20	....	.20	..	.10	....	....	.10	.10	....	.	T	T	....	1.00	.45	....	..	....	....	....	2.46
Maquoketa	.10	.40	.17	....	....	T	.10	....	.17	....	....	....	T	.16	..	.08	....	....	.08	.02	....	....	....	....	....	1.10	.50	..	..	....	....	2.88
Marshalltown	T	.10	.05	.03	..	.07	.03	..	.05	....	T	..	.02	.25	T	T	....	....	T	....	....	....	....	.21	....	.95	.10	....	....	....	....	2.06
Mason City	....	.53	.44	..	....	T	..	.08	T	....	....	T	....	....	.10	..	....	....	T	....	....	....	....	10	.58	2.02	....	....	..	....	..	3.80
Mount Ayr	T	.03	.08	..	....	.52	..	....	....	....	.30	....	.10	.10	.02	....	....	T	.05	....	....	....	....	....	.03	.33	..	....	....	....	....	1.58
Mt. Pleasant	T	.20	.04	T	....	.41	.08	.10	.03	T	.29	..	.20	.10	.03	.07	....	....	.43	....	....	....	....	....	....	1.36	....	....	....	....	....	3.36
Mt. Vernon	T	.33	.08	T	..	.11	..	.18	.01	....	.01	....	.17	.02	T	.05	..	....	.06	....	T	.01	....	.35	T	.90	.05	....	....	....	....	2.03
Muscatine	....	.05	.39	.05	....	.05	.25	....	.14	T	.08	.01	T	.10	.08	.01	....	....	.04	.06	..	T	..	T	....	.91	.47	....	....	....	....	2.72
Nevada	....	....	.18	.07	....	....	....	.10	.08	..	....	.15	....	....	.25	....	....	.04	....	....	....	....	.15	....	.09	1.05	....	....	....	....	....	2.08
New Hampton	....	.45	.45	T	..	T	....	.05	..	..	....	T	T	....	....	T	....	....	....	....	T	....	....	....	1.06	1.90	.12	....	..	..	....	4.03
Northwood	..	.42	.08	T	....	.03	....	.02	.01	..	..	.02	T	....	T	....	....	T	.01	....	T	....	....	.02	.80	1.97	....	....	..	..	....	3.38
Odebolt	....	.12	.05		T	.04	....	....	T	....	..	12	....	....	....	....	....	.10	..	....	....	....	.30	.42	.65	....	....	....	....	....	....	1.80
Ogden	.10		T	T	....	.15	....	.30	T	T	....	T	.07	.05	T	....	..	.01	.02	....	....	....	....	.28	.04	.65	....	....	....	....	....	1.67
Olin	..	.30	.10	T	....	.08	....	.12	T	....	T	....	.20	T	....	.08	....	T	.16	....	T	....	....	T	T	1.00	....	....	....	....	....	2.04
Omaha, Neb	.10	.04	T	T	.08	.08	....	....	T	.24	.11	....	.29	.02	.09	....	..	.19	.12	....	T	T	T	T	.38	.10	....	....	....	....	....	1.75
Onawa	....	T	.25	T	T	.15	..	....	....	.05	.07	....	.02	.07	.06	T	....	.10	.10	....	....	T	.10	.08	.35	.65	....	....	....	....	....	2.00
Osage	....	.50	.82	T	....	.02	....	.03	T	..	....	.01	T	....	T	.02	....	....	.01	....	T	....	....	.02	.70	2.04	....	....	....	....	....	4.17
Oskaloosa	.02	.01	.02	....	....	.12	....	.04	....	....	.18	.03	.22	.07	.02	..	....	.02	.07	....	....	....	....	....	T	.75	T	..	....	....	....	1.45
Ottumwa	....	.24	T	....	....	.27	..	.39	....	....	.30	....	.10	.18	T	....	....	....	.18	....	....	....	....	....	....	1.18	..	....	....	....	....	2.84
Pacific Junction	....	T	.10	T	T	.17	.	....	....	.08	.28	....	.35	.08	.02	..	....	.14	.15	..	....	T	T	.10	.64	..	....	....	....	....	....	2.11
Pella	..	T	.03	T	....	.15	....	.10	T	....	.10	....	.33	.08	....	.02	..	.05	.03	....	....	....	....	.02	....	.09	T	....	....	....	....	1.08
Perry	....	.36	.05	....	....	.15	.	T	T	T	T	T	.20	.10	T	....	....	.35	.30	....	....	....	....	.10	....	.78	....	....	....	....	....	2.39
Plover	....	.34	.10	....	....	....	....	.12	....	....	....	.10	..	....	....	....	....	T	....	....	....	....	....	....	.22	.93	.19	....	....	....	....	1.88
Pocahontas	....	.48	.05	....	....	.14	T	.03	.02	T	....	.07	....	.02	.01	....	....	.01	....	....	....	....	....	....	....	1.96	....	....	....	....	....	3.01
Red Oak	T	T	.10	T	....	.22	....	....	....	.10	.33	....	.33	.10	.02	....	....	.20	.10	....	....	....	....	....	.23	.92	..	....	....	....	....	2.05
Ridgeway	.25	.52	.59	.01	....	.01	T	.05	T	T	....	.01	T	.01	.03	....	....	....	.02	....	T	....	T	T	2.00	.88	.03	....	....	....	....	4.41
Rock Rapids	....	.10	T	....	....	....	T	....	T	T	....	.10	T	....	....	....	....	T	..	....	....	....	.30	....	T	.25	T	....	....	....	....	.75
Rockwell City	....	.50	.30	....	....	....	....	....	....	....	....	.05	.10	....	....	....	....	.10	....	....	....	....	.30	....	1.23	1.00	....	..	....	....	....	3.60
Sac City	....	....	.02	....	....	T	..	T	T	T	....	.15	T	....	.05	....	....	.15	....	....	....	....	....	....	.55	.25	....	....	....	....	....	1.47
St. Clair	.01	....	.04	.01	....	.15	....	.01	..	.02	.15	....	.80	.20	.04	..	....	.15	.30	....	....	....	....	T	T	1.07	....	T	....	....	....	2.45

DAILY AND MONTHLY PRECIPITATION FOR MARCH, 1905—CONTINUED.

STATIONS.	DAY OF MONTH.																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sheldon	..	.78	.02	.01	....	.05	....	.02	.05	.02	....	.10	T	.05	.02	....	....	.20	....	....	..	....	.25	....	.50	.50	....	....	....	....	....	2.57
Sibley	.80	.55	T	T	T	....	T		....	T	....	..	.08	.02	..	T	....	....	.04	....	....	T	T	.28	.04	.20	.07	....	....	....	....	2.08
Sigourney	T	.11	.09	.05	....	.16	T	T	....	..	.24	....	.27	.06	....	.05	....	T	.18	....	....	....	....	....	....	.95	....	....	....	....	....	2.17
Sioux Center	..	.30	T	.05	....	.10	..	T	....	.10	....	.05	T	..	T	....	....	.20	....	..	..	T	.30	....	.03	.24	T	..	....	....	....	1.37
Sioux City	.20	.04	.01	T	.03	.03	..		T	T	T	.05	T	.01	.01	..	..	.06	T	....	....	T	.36	.02	.05	.04	..	....	....	....	....	.89
Stockport	.01	.06	.02	....	....	.50	.20	.07	.01	T	.50	..	.50	.10	.10	.10	..	T	.15	....	T	....	....	....	T	.76	.02	....	..	..	....	3.45
Storm Lake	....	.21	.10	T	T	.03	....	....	T	T	....	....	.08	T	....	T	....	....	.02	....	....	....	....	.20	....	.45	.21	....	....	....	....	1.30
Stuart	....	.01	.05	....	....	.48	....	....	T	.14	....	.29	....	.17	.01	....	....	.20	.40	....	....	....	....	....	.80	.60	....	....	....	....	....	2.65
Thurman	....	10	.22	T	....	.10	..	....	T	....	.41	....	.12	.14	.04	....	....	..	.21	....	T	..	....	T	....	1.12	....	....	....	....	....	2.46
Tipton	....	.23	....	.	....	T	..	.31	....	....	T	.	T	.	.	....	..	..	.13	....	.	....	..	.	....	1.56	....	....	....	..	....	2.23
Toledo	T	.50	T	....	....	.15	..	T	T	. .	....	.03	.12	T	.10	..	..	..	.20	....	....	....	....	.12	....	1.00	....	....	....	....	....	2.22
Wapello	T	.38	T	..	....		.55	.20	....	...	.15	....	.15	.25	....	....	....	.12	....	....	....	....	....	....	....	1.25	....	....	..	....	....	3 05
Washington	.15	....	.05	..	....	.25	....	.15	....	....	.10	....	....	.15	.10	....	....	....	.16	....	....	..		....	....	1.91	.04	....	....	....	....	3.14
Wahsta	....	.10	T	T	....	....	....	T	T	T	..	T	T	T	.04	..	....	T	....	..	....	....	T	....	.44	.05	....	..	....	..	....	.63
Waterloo	..	.53	.16	T	....	.09	....	.07	T	..	....	.07	....		T	.04	....	.05	.08	....	T	....	....	.06	.06	.79	.14	....	....	....	....	2.14
Waukee	T	T	.15	.05	.	.35	....	.02	T	.03	.20	....	.40	.30	.10	....	...	.40	.80	....	....	....	..	.05	T	.90	...	T	....	....	....	3.25
Waverly	T	.40	.24	T	....	.07	..	.14	T	....	..	.09	....	T	....	T	....	T	.12	....	....	....	....	.04	.38	1.00	.08	...	....	....	..	2 51
Webster City	..	.02	.10	....	..	.05	....	T	....	....	....	....	.10	....	....	....	....	.10	....	..	....	....	.20	....	.67	1.09	...	....	....	....	....	2.33
West Bend	....	.60	.05	..	..	.03	....	.03	T	T	..	.10	....		T	....	....	.01	....	....	....	....	.20	....	.80	.84	....	..	..	..	..	2.66
Whitten	T	T	.10	T	....	T	.	.08	T	....	....	.05	T	T	T	..	....	T	.05	....	....	....	T	.20	.18	.95	.10		....	....	....	1.71
Winterset	....	.06	T	T	.	.20	....	T	T	T	.25	..	.50	.15	T	....	....	.10	.20	....	....	....	....	....		.85	....	T	....	....	....	2.31
Woodburn	T		....	T	....	.30	....	T		T	.30	....	.20	.10	.05	....	....	....	.20	..	..	....		....	T	1.41	..	....	....	....	....	2 56
Zearing	T	.15	.17			.15		.07	T	....	.04	.04	.03	..	.04	..	.08	.04	..	..	..	..	..	.15	.03	1.12						2.11

80 Precipitation Chart March 1906.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR APRIL, 1906

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA

BERNARD MURPHY, STATE PRINTER

1906

THE IOWA WEATHER AND CROP SERVICE

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U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IN COOPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R. SAGE, Section Director
GEO. M. CHAPPEL, Asst Director

VOL. XVII. DES MOINES, IOWA, APRIL, 1906. No. 4

APRIL WEATHER AND CROPS.

As a result of cold, stormy and wet weather in March, the season for farming operations in Iowa was about ten days later than the average. The average temperature of April was about 3° above normal, and the average precipitation for the state was nearly a half inch below the normal, which brought more favorable conditions for seeding and preparation of soil for planting. The first half of the month was showery and cloudy, but the latter half was generally fair and warm, during which period very rapid progress was made in the belated work of seeding and plowing. The soil was mostly in good tilth, and sufficiently moist and warm to insure quick germination and growth. At the close of the month grass in pastures and meadows was about as well advanced as usual, and early seeded grain had made a fairly good stand. In respect to growth of foliage and the grasses the season was practically normal on the 1st of May, with a promising outlook for a staple farm crops.

CLIMATOLOGY OF THE MONTH.

TEMPERATURE: The monthly mean temperature for the state, as shown by records of 121 stations, was 52.5° which is 3.1° above normal. By sections the mean temperatures were as follows: Northern section, 50.5°; Central section, 52.5°; Southern section, 54.4°. The highest temperature reported was 94° at Ida Grove and Onawa on the 24th. The lowest temperature reported was 22° at Clinton and Webster City on the 1st and at Odebolt on the 6th. The average monthly maximum temperature was 85.4°, and the average monthly minimum was 26.3°. The greatest daily range was 51° at Denison and the average of greatest daily ranges was 42.4°.

PRECIPITATION: The average precipitation for the state, as shown by records of 128 stations, was 2.42 inches, which is 0.46 of an inch below the April normal. The averages by sections were as follows: Northern section, 2.06 inches; Central section 2.43 inches: Southern section, 2.76 inches. The largest amount reported was 5.55 inches at Glenwood, and the least amount reported was .53 of an inch at Independence. The greatest daily rainfall reported was 2.75 inches at Sheldon on the 13th. The average number of days on which .01 of an nch or more was reported was 8.

WIND AND WEATHER: The prevailing direction of the wind was southeast. The highest velocity reported was 42 miles an hour from the west at Sioux City, on the 25th. The average number of clear days was 14; partly cloudy, 9; cloudy days, 7.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES. Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	30.00	30.40	16	29.38	25
Davenport	30.01	30.44	17	29.52	25
Des Moines	30.00	30.42	16	29.37	25
Dubuque	30.03	30.46	16	29.53	25
Omaha, Neb	29.98	30.47	3	29.37	24
Keokuk	30.04	30.43	16,17	29.57	25
Sioux City	29.98	30.46	4	29.26	25
Means	30.01	30.46	4,16	29.26	25

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	6742	30	N W	5
Davenport	6148	27	N W	9
Des Moines	7252	35	S W	13
Dubuque	5886	27	S	25
Keokuk	6008	34	W	9
LaCrosse, Wis	4526	28	N	23
Omaha, Neb	7432	33	N W	25
Sioux City	11188	42	W	25

OBSERVERS' NOTES.

ALLERTON—*Rex Shriver*. A good month for farm work; plum and peach trees in bloom at close of month and pastures had started nicely.

ALTA—*David E. Hadden*. April was warm and generally pleasant. The maximum of 90° on the 24th, was the highest ever recorded here in April.

ALTON—*W. S. Slagle*. Farm work was well advanced in April; grain showed a fine stand at close of month and pastures were in good condition.

AMANA—*C. Schadt*. The month was favorable for farming, the latter part being generally warm; small grain crops were well up and soil was prepared for corn; plums, peaches, cherries and pears were in bloom at close of the month.

ATLANTIC—*J. W. Love*. April was cool and wet, the rainfall being 4.34 inches and the average temperature 53°.

BONAPARTE—*B. R. Vale*. April precipitation, 2.40 inches; first half of the month was wet and cloudy; the latter half was seasonable.

BRITT—*Geo. P. Hardwick*. The spring was ten days late; on flat lands oats seeding was not finished at close of the month; apple bloom indicates a short crop.

CHARITON—*C. C. Burr*. The season is ten days late; grass is doing finely and oats making a good start; more than usual loss of pigs and foals.

CLINTON—*Luke Roberts*. April was a fine month, the mean temperature being 3° above normal and the rainfall .69 of an inch below normal. Fruit trees were full of blossoms at close of the month.

CRESTON—*Rev. W. L. Gaston*. The month has been pleasant; grass has grown rapidly and trees are nearly in full foliage.

EARLHAM—*Geo. Phillips*. Farming operations are ten days late. The month closed with stock all out on good pasture.

ELLIOTT—*Henry Barnes*. A fairly good month for farm work; acreage of small grain less than last year; vegetation well advanced.

FOREST CITY—*J. A. Peters.* The season is ten days late, but pastures are about as far advanced as usual; early sown grain is looking well.

POSTVILLE—*F. L. Williams.* The first sod plowing was begun on 7th; the month was backward, but in the last half farm work progressed nicely.

HANLONTOWN—*Miss G. M. Paschen.* Seeding commenced April 11th; acreage sown about same as last year; early gardening on 13th; small grain was an inch high by the 27th; plowing for corn begun last week of the month.

MURRAY R. D. 2—*M. T. Ashley.* Spring backward; the close of April showed oats looking green; early fruits were in bloom and apple tree buds opening.

HUMBOLDT—*H. S. Wells.* Seeding was done in good condition; more wheat sown than last year and less oats; growth is very fine.

INWOOD—*F. B. Hanson.* First half of April not favorable for spring work, but the latter half was very good and moisture supply well regulated; high winds were prevalent.

KEOSAUQUA—*J. H. Landes.* Oats were up nicely, and some corn was planted the last week in April; much ground ready for planting.

OLIN—*Nathan Potter.* April was a fine month, the latter half being exceptionally favorable for farm work.

POCAHONTAS—*F. E. Hronek.* Seeding done in fair condition, but less oats sown than last year.

RIDGEWAY—*Arthur Betts.* This has been the warmest April in ten years; 266 hours of sunshine, or 66 per cent; seven days were entirely cloudless; very dry after the 14th.

WAVERLY—*H. S. Hoover.* There were two weeks of good weather for seeding and preparing corn ground; grass growing finely; fruit prospect good.

THE REAL WEALTH PRODUCERS.

(From the Atchison Globe.)

After all, the farmer of this country produces about all the actual wealth in existence. It is estimated that his yearly contribution to the wealth of the nation is about $6,000,000,000. This is created wealth not the accumulation of what others have brought into being. This is wealth that never existed before, it comes direct from the soil, the product of skill, industry, economy and perseverance. Its value is sufficient to discharge the public debt of any nation in the world and have a balance ef nearly $1,000,000,000 left. It is almost enough to liquidate the public debt of the United States three times, and is six times sufficient to pay off the bonded indebtedness of 175 leading cities of this country, including Atchison and Atchison county. If a deal were put through to purchase the railroads of the country at their present value, the products of the farm would produce more than one-half the required amount in one year. Don't get the idea that the railroads, the banks and great corporations are the mainstays of the Goverment and the wealth producing forces of the country, for the man with the plow, and the energy to follow it with his feet in the soil, is really the man back of all wealth.

THE ILLINOIS CORN CROP, 1905.

(From the Prairie Farmer.)

The area in Illinois devoted to corn last year, 7,698,000 acres, was a little more than 2 per cent less than in 1904, when 7,825,000 acres were reported. The area in northern Illinois was 3,033,000, in central Illinois 3,411,000 acres, and in the southern division of the state 1,254,000 acres. The average yield per acre shows a decided increase over that of 1904, being 40 bushels in northern Illinois, 42 bushels in central Illinois, and 34 bushels in the southern division, a state average of 40 bushels compared with that in 1904 of 36 bushels. The total corn crop in 1905 of the state amounted to 309,316,000 bushels, of which 121,049 bushels were produced in the northern district, 145,728,000 bushels in the central district and 42,525,000 bushels in the southern district. The ruling price of corn December 1 was 38 cents per bushel, the total value of the crop at this price being $117,893,000. The quality of the grain excellent, 98 per cent of normal.

WEALTH IN SWAMP LANDS.

(From the New York Tribune.)

Irrigation has so thoroughly demonstrated its utility that its advocates are no longer prophets crying in the wilderness vainly for appropriations which will make it blossom as the rose. Millions of dollars have been spent and millions more will be spent by the government to render vast arid regions capable of supporting a dense population against the time when the naturally fertile portions of the country shall have grown too narrow for the increasing numbers of the American people.

Yet, while we are pouring money like the water our engineers are seeking to conserve into the reclamation works in the deserts of the West, we are neglecting a field of agricultural improvement much nearer to the great centres of consumption. Scattered throughout the Eastern, Middle Western, Gulf and Mississippi Valley states are something like one hundred million acres of swamp land, natural reservoirs of fertility if they were only drained—a process which in most cases would be cheaper than the work usually required for irrigation projects. Illinois has 4,000,000 acres of swamp land, Michigan 5,000,000, Minnesota from 6,000,000 to 8,000,000, and there are vast areas in New Jersey and Virginia. The Everglades of Florida, if drained, as engineers say they might be, would yield 7,000 000 acres of tillable land.

Ths Steenerson bill, which is now under consideration by Congress, advocates appropriations for the reclaiming of these lands similar to those which have been voted for irrigation purposes in the West. A Virginia Representative has introduced a bill providing for the use of $2,000,000 of the irrigation fund for the drainage of the Dismal Swamp. In Minnesota the state appropriation for drainage is $25,000 a year, and some good is being accomplished, but the state drainage engineer urges that, in order to do effective work, it be increased to $100,000 annually. Two million acres belonging to the state might be drained, he says, at an expense of $1.50 an acre, and the result would be to add $10,000,000 to the value of these ands, while 6,000,000 acres under private ownership would be benefited by the state ditches. Perhaps his anticipations are unduly optimistic, but they are those of an expert, and as such are entitled to careful consideration.

CLIMATOLOGICAL DATA FOR APRIL, 1906.

CENTRAL SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	DATES OF THUNDER STORMS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Amana	Iowa	721	27	52.9	s 4.2	82	24	26	1	37	1.98	- .90	.71	....	9	13	11	6	SE	12, 28
Ames	Story	926	22	52.7	s 3.6	86	24	25	1	44	3.16	s .41	1.05	....	8	18	7	5	S, SW	
Audubon	Audubon	1,301	10	52.8	s 2.9	90	24	28	1, 13	47	2.96	s 1 04	.80		10	12	5	13	NW	8, 12, 27, 30
Baxter	Jasper.	998	6	53.4	s 4.1	86	24	25	1	46	2.60	- .63	.87	T	9	14	7	9	SW	12, 28
Belle Plaine (a)	Benton	826	14	51.4	s 5.7		.....	26	1	43	2.07	- 1.51	.65	....	8	11	5	14	SE	
Boone	Boone.	....	....	51.4	.....	86	24	27	1	45	3.32	.....	1.58	T	9	17	6	7	.....	12, 27
Buckingham	Iowa	.....	6	.....	.....	.....	.....	....	.....	.....	1.50	- .93	.51	T	7	7	20	3		
Carroll	Carroll	.....	..	51.6	s 2.6	90	24	26	1, 6	49	2.01	- 1 51	.85	T	7	19	3	8	.....	8, 28
Clinton	Clinton	609	38	53.0	s 4.4	85	25	22	1	37	2.22	- .71	1.40	....	7	9	11	10	S SE NW	8, 13, 28
Cedar Rapids	Linn	.....	....	52.7	s 4.8	84	24	25	1	46	1.15	- 1.83	.32	T	8	12	13	5		
Davenport	Scott	606	38	53.6	s 3 9	80	25	28	1	33	1.92	- .66	.76	....	7	10	11	9	NW	8, 13, 28
Delaware	Delaware	1,083	13	50.2	s 4.2	77	25	25	1	41	1.54	- 1.50	.70	1.0	6	14	12	4	SE	
Denison (a)	Crawford.	1,180	10	52.6	s 3.8	90	24	24	6	51	2.89	- 1.07	.65	0.5	8	....	....	....		
Des Moines	Polk	861	27	53.8	s 3.3	86	24	29	1	42	2.96	s .17	.90	....	10	7	16	7	SE	12, 13, 27
De Soto	Dallas	866	6	58.8	....	86	24	28	1, 6	42	3.01	.....	1.15	...	6	19	4	7	SE	7, 12
Dubuque	Dubuque	655	31	52.3	s 3.7	81	25	27	1	29	1.16	- 1 63	.38	1.0	5	15	9	6	SE	12, 28
Fort Dodge	Webster.	1,126	....	50.4	....	89	24	27	1	46	2.40	.	.70	0.5	10		..	....	S	13
Galva (c)	Ida	1,290	10	52.8	s 3.5	89	24	28	10	47	2.24	- .52	.68	....	5	16	5	9	SE	28
Gilman	Marshall	1,052	....	....	....	.....	.....	....	.....	.....	2.38	- .12	1.23	....	5	10	13	7	S	
Grinnell (near)	Poweshiek	1,023	11	52.6	s 2.2	84	24	25	1	36	2.16	.....	1.00	T	8	10	12	8	SE	13, 28
Grundy Center	Grundy	976	13	51.6	s 3.9	81	25	25	1	44	2.01	- 1.34	.84	1.0	8	13	10	7	SE, S	8
Guthrie Center	Guthrie	1,077	8	53.6	s 3.5	83	24	26	6	44	3.18	s .71	.97	....	9	14	9	7	NW	8, 16, 27, 30
Harlan	Shelby	1,193	7	52.6	s 3 8	89	24	26	6	42	3 45	s .97	.63	T	11	9	10	11	S	7, 8, 12, 13, 27, 28, 30
Ida Grove	Ida	1,230	...	52.2	.....	94	24	25	6	49	2.20	.....	.50	...	6	....	....	....	SE, NW	
Independence	Buchanan	921	41	51.1	s 3.9	78	25	24	1	39	.53	- 1.68	.30	2 0	5	14	9	7	SE, NW	
Iowa City	Johnson	683	45	51.2	s 4.7	83	24	23	1	44	1.83	- 1.31	.60		8	18	4	8	W	28
Iowa Falls	Hardin	1,170	11	49.6	s 2.1	84	24	25	1	45	2.24	- .91	.77	T	10	....	....	..	NW	12, 23
Jefferson	Greene	.....	....	53.3	.....	87	24	28	6	46	2 42	.... .	.66		7	11	13	6	NW	12, 28
Le Claire	Scott	576	....	....	.....	.....	.....	...	.....	....	2.14	.....	1.08	T	9	17	2	11	SW	
Little Sioux	Harrison	....	....	55.2	.....	92	24	28	15	47	3 06	.....	.73	....	9	13	10	7	SE	
Logan	Harrison	928	27	54.0	s 4.0	92	24	27	6, 15	44	2.44	- .43	1.13	....	9	9	15	6	NW	27, 28, 30
Marshalltown	Marshall	947	11	51.5	s 1.9	87	24	25	1	47	2.18	- .93	.92	....	9	....	....	....	SE	
Mount Vernon	Linn	847	37	53.2	s 6.7	84	24	25	1	42	1 92	- 1 11	.54	1.0	10	16	2	12	S	13, 28
Nevada	Story	.....	....	.....	....	..	.....	.....	.....		2.57	.....	.73	T	7	24	2	4	.....	3, 8, 12, 27
Odebolt	Sac	1,356	7	52.8	s 3.1	91	24	22	6	50	3 10	s .39	.85		7	20	5	5		
Ogden	Boone	1,058	10	53.0	s 2.5	86	24	28	1.6	44	2.81	- .14	1.00		7	17	6	7	SE	
Olin (a)	Jones	760	7	51.1	s 4.4	79	25	25	1	32	1.23	- .95	.35	T	6	....	....	....	NW	12, 28
Onawa	Monona	.....	6	54.6	s 4.0	94	24	26	6	50	3 47	s .48	.97	0.1	8	21	3	6	SE	28, 30
Perry	Dallas	975	....	53.0	....	89	24	27	1	46	3.33	.....	1.11	0.3	5	8	18	9		
Sac City (a)	Sac	1,356	7	51.8	s 3.6	89	24	26	6	47	2.75	- .24	.75	....	7	18	6	7	NW	
Sioux City	Woodbury	1,165	15	52.0	s 1.4	88	25	29	6	45	3 94	s .92	1.18	0.2	11	7	8	15	SE	13, 27, 28
Tipton	Cedar	807	8	54.0	s 5.5	80	25	29	1	34	1.21	- 2 56	.63	..	6	22	6	2	SE	
Toledo	Tama	856	10	53.2	s 2.6	86	24	26	1	44	2.35	- .68	.75	....	6	13	11	6	NW	
Vinton (a)	Benton	810	14	52.2	s 3.0	82	24, 25	26	1	40	.....	.....	.....	...	...	....	....	....	NW	
Waterloo	Black Hawk.	862	14	51.3	s 4.1	83	24	26	1	46	1.55	- 1.44	.30	0.8	7	13	12	5	SE	
Waukee (b)	Dallas	1,089	....	53.8	.....	86	24	27	1	43	4.07	.....	1.75	...	10	14	6	10	S	5, 12, 13, 28
Webster City	Hamilton	.....	....	52.5		87	24	22	1	47	3.27	.....	1.57	0.5	5	15	11	4	SE	
Whitten	Hardin	1,036	6	51.4	s 3.3	79	24, 25	24	1	40	3.06	s 1.00	.96	T	9	11	15	4	SE	12, 13, 14, 28
Wilton Jct	Muscatine	683	9	54.4	s 3.5	83	25	30	11	35	2.04	- .83	.42		7	20	8	2	W	
Zearing	Story	718	....	51.8		85	24	25	1	45	2.82	.... .	.71	0.5	10	17	6	7	SE	12. 13, 28
Average				52.5	s 3.8	85.7		26.0		43.1	2.43	- .49		0.4	8	14	9	7	SE	

CLIMATOLOGICAL DATA FOR APRIL, 1906—CONTINUED.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	Dates of Thunderstorms.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Algona	Kossuth	1,288	30	50.6	s 2.3	85	24	25	6	45	3.08	- .48	.45	2.0	8	17	7	6	NW	12, 13
Alta	Buena Vista	1,513	13	50.2	s 2.6	90	24	27	4,6	49	2.47	- .77	.72	3.0	11	11	12	7	NW	12, 27
Alta (near)	Buena Vista	.....	....	.....	.....	.....	.....	.....	.....	.....	2.51	.....	.60	2.0	11	.....	.....	.....	.....	.....
Alton	Sioux	.....	...	51.0	.....	89	24	26	6	45	2.09	.....	.65	T	8	15	8	7	NW	12, 18
Britt	Hancock	1,236	7	50.3	s 3.5	86	24	27	1	47	3.13	s 1.06	1.12	2.0	7	6	18	6	SE	12, 28
Charles City	Floyd	1,015	13	49.2	s 0.5	78	24	27	1	37	1.33	- 1.21	.26	2.2	11	4	12	14	SE	12
Clear Lake	Cerro Gordo	1,441	7	50.8	s 3.1	85	24	26	1	45	.85	- 1.06	.50	2.0	4	23	1	6	S	
Decorah	Winneshiek	857	10	51.2	s 2.5	82	25	27	1	39	.97	- .72	.30	2.0	6	.....	.....	.....	.....	.....
Dows	Wright	1,142	6	50.4	s 2.0	86	24	26	1	46	3.38	- .67	.80	0.5	7	12	11	7	SE	5, 13, 28
Elkader	Clayton	727	23	52.3	s 4.1	83	25	23	1	41	1.65	- 1.20	.90	2.0	6	17	7	6	SE	8, 12, 28
Estherville (b)	Emmet	1,298	9	49.0	s 0.7	89	24	25	1, 6	50	.71	- 1.75	.20	..	5	18	0	12	SE	28
Fayette (‡)	Fayette	.....	16	52.0	s 4.8	80	25	21	1	44	3.63	s .43	2.50	1.8	9	16	5	9	SE	12
Forest City	Winnebago	1,226	10	49.6	s 1.6	84	24	28	1	45	1.59	-1 .01	1.03	1.0	7	17	5	8	S	
Grand Meadow	Clayton	1,180	13	50.2	s 2.7	81	25	25	1	33	.93	- 2.20	.30	1.5	6	13	7	10	SE	5
Greene	Butler	934	7	....	....	....	.....	.....	.....	...	...	.....	.....	.....	...	..	...	...	.....	.....
Hampton	Franklin	1,155	14	51.8	s 4.2	81	24, 27	25	1	41	3.65	s .21	.92	1.2	10	7	16	7	NW	30
Hanlontown	Worth	.....	...	49.0	- 0.1	82	24	26	1	43	1.60	.....	.58	1.8	6	17	7	6	NW	12, 27
Humboldt	Humboldt	1,095	12	51.2	.....	78	24, 25	28	1, 6	37	2.72	- .02	.60	....	8	17	7	6	NW	
Inwood (b)	Lyon	.....	....	50.7	.....	89	24	23	15	47	1.28	.....	.42	....	6	16	6	8	SE	
Larrabee (a) (‡)	Cherokee	1,266	15	52.0	s 3.9	90	24	24	6	46	2.53	- .41	.70	2.0	10	13	11	6	SE	12, 13, 27, 30
Le Mars	Plymouth	1,224	8	51.4	s 1.7	90	24	25	6	47	3.49	- 1.13	1.00	T	7	11	12	7	NW	28
Mason City	Cerro Gordo	1,132	....	50.4	s 1.0	80	24	27	1	40	1.90	- 1.44	1.06	3.0	7	7	18	5	SE	13
New Hampton	Chickasaw	1,169	6	50.6	s 2.0	78	27	25	1	41	1.20	- .78	.24	....	9	17	7	6	E	
Northwood	Worth	1,222	8	49.8	s 2.1	77	24	25	1	37	1.79	- .52	.94	2.0	8	13	9	8	NW	13, 28
Osage	Mitchell	1,184	13	50.2	s 4.7	77	24	27	1	37	1.65	- .92	.51	0.3	8	12	8	10	NW	12
Plover (a)	Pocahontas	.....	7	51.4	s 3.2	89	24	26	6	44	2.59	s .81	1.35	2.0	7	20	2	8	S	
Pocahontas	Pocahontas	...	7	51.3	.....	89	24	28	1, 6	49	3.61	.....	.61	1.8	9	18	7	5	SW	
Ridgeway	Winneshiek	1,215	8	51.8	s 3.2	82	25	27	1	37	1.56	- .55	.49	....	9	18	15	2	S	3, 12, 28
Rock Rapids	Lyons	1,021	....	49.9	s 1.3	82	24	26	5	42	2.05	- 1.70	.65	....	4	....	....	....	S	8, 13
Sheldon	O'Brien	1,422	6	51.4	s 3.2	92	24	24	6	50	4.16	s 2.68	2.75	T	9	16	4	10	S	13, 28
Sibley	Osceola	1,212	10	48.4	s 0.4	90	24	25	6	50	2.81	s .12	1.67	....	7	18	4	8	SE	12, 14
Sioux Center (a)	Sioux	.....	7	50.0	s 1.7	88	24	26	6	45	1.79	- 1.34	.61	T	6	...	....	....	S	
Storm Lake	Buena Vista	1,440	9	49.2	s 2.8	87	24	27	1, 4, 6	46	2.09	- .21	.65	3.0	6	20	0	10	SE	
Washta	Cherokee	1,157	....	50.2	.....	91	24	25	6, 15	46	4.13	s 2.40	1.70	....	8	13	4	8	S	
Waverly (a)	Bremer	942	8	51.3	s 3.8	82	24	28	1	38	1.70	- 1.35	.40	1.0	8	10	11	9	NW	27
West Bend	Palo Alto	1,197	10	50.8	s 4.0	86	24	25	1, 6	47	1.66	- 1.15	.51	2.0	8	10	13	7	SE, NW	12, 28
West Union	.....	.....	..	....	...	....	.....	..	.....	.....	.....	.....	.....	.....	....	....	....	...	...	.....
Average	.....	....	....	50.5	s 2.4	84.6	.....	25.9	.....	43.8	2.06	- .57	....	1.5	7	14	8	8	SE, NW	

SOUTHERN SECTION.

Afton	Union	1,212	11	54.3	s 3.0	87	24	27	1	42	4.25	s .58	2.04	....	8	13	9	8	SW	
Albia	Monroe	957	8	53.0	s 2.6	85	24	26	1	41	1.87	-1 .08	1.01	....	7	13	12	5	S	
Allerton	Wayne	....	....	54.0	.....	79	24	28	1	33	2.93	.....	1.06	....	11	17	7	6	NW	5, 9, 13, 28
Atlantic	Cass	1,164	13	53.1	s 3.8	89	24	24	6	40	4.84	s 1.30	1.51	...	9	4	14	12	SE	8, 12, 27, 30
Bedford	Taylor	.....	6	51.2	s 1.2	76	24	27	6	40	3.59	s .75	1.52	..	10	11	7	12	SE	
Bonaparte	Van Buren	.....	12	54.7	s 2.9	85	24	25	1	42	2.40	- .93	.75	....	9	....	....	....	.....	
Burlington	Des Moines	544	8	54.6	.....	83	25	28	1	34	2.63	.....	.80	...	10	19	2	9	SE	8, 24, 28
Chariton	Lucas	1,042	9	53.3	s 1.6	84	24	27	1	41	2.78	- .71	.78	....	7	16	6	8	SE	
Clarinda	Page	.....	14	54.0	s 2.0	90	24	27	6	45	2.82	- .49	1.16	....	9	18	3	9	SE	
CollegeSprngs (a)	Page	.....	12	55.1	s 4.4	97	24	29	15	37	2.53	- 1.14	.77	....	10	14	11	5	SE	
Columbus Jct	Louisa	586	4	54.6	s 4.9	81	23	26	1	33	1.64	- 1.62	.54	....	8	22	5	3	NW	
Corning	Adams	1,127	12	53.4	s 2.7	86	24	26	6	41	3.49	s .40	.94	....	8	11	12	7	SE, NW	8, 12, 27
Corydon	Wayne	992	11	55.0	s 3.2	85	24	27	1	40	1.88	- 1.24	.62	....	7	14	8	8	SW	8, 27
Creston	Union	.....	....	52.0	....	86	24	27	1	42	3.36	.....	1.30	....	7	14	8	8	.....	12
Cumberland	Cass	.....	...	.....	.....	.....	.....	.....	.....	.....	2.40	s .46	.85	....	4	18	5	7	S	
Earlham	Madison	.....	4	52.6	.....	85	24	28	6, 16	42	3.87	.....	1.02	....	7	16	6	8	S, SE, NW	8, 12, 13, 27, 28
Elliott	Montgomery	.....	....	56.2	.....	90	24	27	6	43	2.16	.....	.90	....	7	14	14	2	S	8, 27, 28
Ft. Madison	Lee	516	53	....	...	.....	.....	.....	.....	.....	2.11	- 1.18	.60	....	7	9	12	9	S	
Glenwood	Mills	.....	17	54.8	s 1.3	90	24	30	6	43	5.55	s 3.00	2.00	....	8	5	15	10	NW	
Greenfield	Adair	.....	13	54.6	s 4.0	88	24	26	6	43	3.16	s .03	.86	....	9	16	7	7	S	12, 27, 29
Hancock	Pottawattamie	.....	...	52.0	.....	89	24	29	6	40	2.49	.....	.70	...	8	17	7	6	SE	
Hopeville	Clarke	.....	13	53.8	s 3.6	88	24	29	6	40	2.88	- .54	.93	....	8	10	11	9	S	13, 28
Indianola (b)	Warren	.....	..	55.2	s 3.5	87	24	28	1	43	2.59	- .69	.81	....	8	11	5	14	SE	6, 8, 12, 27
Keokuk	Lee	6,191	33	56.2	s 4.2	85	24	29	1	40	2.16	- 1.05	.83	...	8	16	8	6	SE	8, 1', 28
Keosauqua	Van Buren	644	12	54.2	s 1.4	86	24	23	1	43	2.22	- 1.62	.69	.	7	5	10	15	.....	27
Knoxville	Marion	920	11	55.1	s 2.6	86	24	26	1	42	2.74	- .42	1.17	..	7	12	8	10	SE, SW	
Lacona	Warren	.....	...	.....	.....	.....	.....	.....	.....	.....	3.04	s .20	.78	....	7	11	16	3	.....	
Lenox	Taylor	1,250	9	53.6	s 2.4	86	24	28	6, 15	38	3.07	s .05	.71	....	11	16	9	5	S	27, 28
Leon	Decatur	1,120	...	54.8	.....	84	24	29	1	38	3.04	.....	.90	...	8	20	2	8	SE	
Massena	Cass	.....	....	55.0	.....	89	24	26	6, 15	44	2.41	.....	.85	...	9	17	3	10	S	8
Mount Ayr	Ringgold	1,286	10	51.5	s 3.0	86	24	28	1, 15	41	4.13	s .98	1.25	..	13	12	10	8	SE	27
Mt. Pleasant	Henry	729	22	54.1	s 3.0	83	24	21	1	38	2.81	- .24	1.07	....	11	15	15	4	SE	27
Omaha, Neb	Douglas	1,113	34	55.4	s 4.4	90	24	34	6	39	3.67	s .54	2.08	T	9	8	8	14	N	7, 11, 12, 13, 25, 27, 28, 30
Oskaloosa	Mahaska	843	20	54.2	s 3.9	86	24	26	1	47	1.63	- 1.15	.70	....	10	18	2	10	NW	27, 28
Ottumwa	Wapello	649	10	55.4	s 2.6	88	24	28	1	43	2.40	- .68	.92	...	7	13	8	9	.....	
Pacific Junction	Mills	960	7	55.3	s 4.9	90	23	27	6	37	2.27	- .34	.52	....	8	10	13	7	SE	
Pella	Marion	....	....	55.5	.....	88	24	26	1	46	2.58	.....	.83	T	11	16	9	5	SE	12, 13, 28
Red Oak	Montgomery	1,033	9	53.8	s 5.0	89	24	31	6, 15	46	3.06	s .22	1.04	....	10	12	9	9	SW	12
St. Charles	Madison	1,070	4	54.9	.....	86	24	28	1	42	2.49	.....	1.16	....	7	16	7	7	SE	
Sigourney	Keokuk	877	7	55.0	s 2.8	86	24	25	1	44	1.48	- 2.12	.50	....	7	2	28	0	NW	28
Stockport	Van Buren	.....	..	54.8	....	85	24	21	1	42	2.17	.....	.61	...	10	16	6	8	SE, NW	28, 30
Thurman	Fremont	.....	8	55.6	s 3.8	90	24	23	6, 7	45	2.60	- .84	1.20	...	6	9	10	11	NW	11, 12, 23, 27
Wapello (b)	Louisa	588	6	55.4	s 3.5	81	25, 26	28	1	36	1.56	- .68	.60	....	7	18	7	5	SE	
Washington	Washington	769	22	52.2	s 1.3	84	24	26	1	41	1.51	- 1.11	.43	....	7	....	....	....	NW	
Winterset	Madison	1,129	13	54.5	s 3.3	87	24	27	1, 6	43	3.36	- .30	1.27	..	7	16	6	8	S	
Woodburn	Clarke	961	....	53.2	....	83	24	24	2	40	3.14	s .55	1.20	....	5	16	6	8	SW	28
Average	.....	.....	....	54.4	s 3.0	86.0	.....	27.0	.....	40.9	2.73	- .34	.....	T	8	14	9	7	SE	
Average for State	.....	.....	....	52.5	s 3.1	85.4	.....	26.3	.....	42.4	2.42	- .46	.....	0.6	8	11	9	7	SE	

s Above normal. ‡ Received too late to be computed with means. a. One day missing; b. two days, etc.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR APRIL, 1906.

STATIONS.		DATE																															MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max.	54	67	64	54	55	65	69	59	66	62	68	80	61	47	52	64	75	75	71	72	72	64	66	87	72	75	78	67	63	62	..	66.2
	Min.	27	34	48	37	36	29	45	42	39	38	40	49	41	36	34	31	40	46	53	46	50	37	41	45	60	60	50	49	48	47	..	42.4
Ainsa*	Max.	52	65	63	57	54	62	69	60	60	62	66	80	66	45	54	64	72	75	74	74	73	62	59	85	72	72	72	60	62	62	..	65.1
	Min.	26	34	36	39	38	32	33	49	42	32	34	39	50	35	36	34	39	45	50	45	50	38	42	44	45	45	50	50	48	45	..	40.8
Algona	Max.	47	60	54	46	56	62	68	63	53	56	61	69	65	47	58	61	70	73	67	74	68	56	60	85	75	65	72	66	62	56	..	62.5
	Min.	27	33	38	29	32	25	36	45	35	32	35	45	46	34	31	31	43	52	47	41	46	33	35	40	53	45	40	46	48	43	..	38.7
Allerton	Max.	45	66	63	58	59	61	71	69	59	62	67	70	70	50	52	63	64	70	70	78	69	62	62	79	78	70	72	69	62	61	..	64.9
	Min.	28	35	44	39	32	34	45	47	41	32	42	52	50	35	33	34	40	48	54	48	49	39	44	46	61	44	50	50	49	48	..	43.0
Alta	Max.	46	63	52	39	55	65	66	60	50	59	60	72	63	40	53	65	70	73	67	76	72	61	67	90	70	68	72	53	65	51	..	62.3
	Min.	28	32	35	27	31	27	42	45	33	31	33	45	35	33	30	33	43	51	46	40	42	33	40	41	48	42	41	45	42	47	..	38.2
Alton	Max.	53	64	55	44	57	69	64	55	53	59	63	70	60	46	52	65	69	71	66	76	70	59	68	89	78	68	68	62	64	64	..	63.4
	Min.	30	35	35	29	33	26	37	47	33	30	34	47	38	35	29	33	43	52	44	34	45	32	41	44	50	43	42	45	43	50	..	38.6
Amana	Max.	51	60	66	54	52	57	71	61	58	55	63	72	69	55	50	62	68	73	71	72	70	60	57	82	78	75	77	69	59	55	..	64.1
	Min.	26	38	40	40	36	34	45	49	41	33	32	49	55	40	38	28	39	47	57	38	47	39	36	45	60	44	45	46	50	39	..	41.7
Ames	Max.	51	66	57	51	58	66	68	59	61	60	65	77	64	49	58	63	72	78	71	73	72	61	60	86	79	73	77	70	61	57	..	65.1
	Min.	25	32	43	35	32	31	42	49	39	33	34	47	48	35	35	31	40	47	51	35	47	36	41	42	56	44	44	47	46	41	..	40.3
Atlantic	Max.	55	67	60	50	58	70	63	62	66	63	66	75	58	48	57	65	73	74	70	73	73	63	65	89	77	75	75	63	65	59	..	65.9
	Min.	31	35	43	35	35	24	37	38	38	28	38	51	45	36	27	30	43	49	50	34	42	35	44	49	56	45	47	50	46	47	..	40.3
Audubon	Max.	55	65	60	48	58	68	63	61	62	62	67	74	62	45	55	66	73	74	70	74	73	64	67	90	78	74	75	63	61	60	..	65.7
	Min.	28	32	38	32	33	32	46	44	35	29	36	47	45	35	32	28	44	46	49	31	46	35	42	43	58	43	45	50	45	45	..	39.8
Baxter	Max.	51	64	62	53	57	63	75	60	66	62	66	76	77	51	63	76	78	76	70	74	70	62	60	86	77	75	77	67	70	55	..	67.1
	Min.	25	33	40	36	34	26	45	48	39	30	32	46	50	33	35	31	39	44	52	37	46	35	35	40	56	43	44	44	52	40	..	39.7
Bedford	Max.	48	63	62	56	55	67	54	54	54	63	63	58	58	47	55	63	63	63	60	67	60	59	56	76	66	65	60	60	58	60	..	59.8
	Min.	31	37	47	36	36	27	43	45	39	31	44	53	46	35	28	34	42	49	53	44	45	39	45	49	58	44	52	50	48	48	..	42.6
Belle Pl'e	Max.	47	63	66	50	53	60	60	55	56	54	64	74	77	45	50	60	70	73	71	..	70	58	55	83	73	73	75	83	78	55	..	63.8
	Min.	26	31	37	39	33	32	45	49	46	30	32	39	50	37	35	28	34	46	43	37	47	37	37	40	50	41	44	45	50	40	..	39.1
Bonapar'e	Max.	52	64	71	57	50	60	74	60	66	76	65	80	70	54	53	62	68	74	75	75	73	63	55	85	79	75	77	69	62	45	..	66.7
	Min.	25	33	42	40	40	38	46	49	44	34	39	50	54	40	40	30	38	43	49	49	48	40	40	44	45	45	53	49	52	45	..	42.7
Boone*	Max.	50	65	55	49	57	65	67	56	60	59	64	76	61	40	52	63	73	74	69	74	71	60	61	86	69	72	75	57	63	54	..	63.2
	Min.	27	33	34	35	38	31	31	48	38	33	34	39	48	36	34	36	39	46	50	42	48	37	39	41	45	44	47	47	46	46	..	39.6
Britt	Max.	48	60	51	49	39	62	72	61	52	54	66	70	68	50	52	62	72	74	66	74	67	56	60	86	74	61	74	65	63	60	..	62.3
	Min.	27	36	38	28	32	30	34	46	35	30	32	46	50	34	32	30	43	50	47	34	45	32	36	39	53	38	43	46	48	40	..	38.3
Buring'n*	Max.	54	63	73	60	48	60	76	62	65	61	65	78	61	46	51	61	67	73	78	76	78	69	52	83	81	79	80	67	68	68	..	66.6
	Min.	28	31	37	41	40	37	38	48	44	35	38	42	51	42	40	32	38	45	52	54	51	42	39	39	49	48	53	46	52	47	..	42.6
Carroll*	Max.	52	65	51	50	59	67	68	61	62	63	64	75	62	42	56	65	72	74	70	76	75	60	63	90	68	78	74	57	67	63	..	65.0
	Min.	26	32	36	32	31	26	32	45	35	30	36	48	47	35	34	34	37	45	49	33	37	34	41	41	53	43	42	49	42	46	..	38.2
Cedar R*	Max.	51	61	67	51	58	59	71	54	56	55	65	72	70	45	51	63	70	75	74	74	71	60	58	84	80	75	80	66	58	57	..	64.2
	Min.	25	27	36	41	35	35	35	46	43	34	35	51	59	43	38	33	35	48	56	42	50	42	36	38	48	47	46	45	46	40	..	41.2
Chariton	Max.	52	65	68	61	55	63	69	61	48	61	65	77	65	50	51	62	71	74	71	72	72	64	60	84	75	75	76	66	60	54	..	64.7
	Min.	27	33	42	37	38	30	45	47	40	31	40	49	49	34	34	32	40	48	54	45	48	38	42	43	58	41	48	51	47	45	..	41.9
Charles C.	Max.	48	59	56	43	52	58	70	53	51	48	64	69	66	47	50	60	70	73	67	71	65	54	57	78	76	62	75	60	57	59	..	60.6
	Min.	27	33	38	33	31	32	34	43	33	32	28	47	45	35	36	29	40	49	44	36	46	34	35	42	52	43	38	46	40	37	..	37.9
Clarinda*	Max.	56	70	58	51	59	70	67	62	70	65	69	77	58	48	55	65	74	75	70	76	75	65	65	90	73	78	79	66	64	67	..	67.2
	Min.	30	35	38	39	36	27	29	45	39	38	39	46	54	34	28	30	37	45	49	45	47	39	43	45	58	41	50	49	46	47	..	40.8
Clear L	Max.	59	59	57	45	40	59	70	61	51	54	65	69	67	50	53	63	70	72	65	68	67	59	60	85	75	64	74	65	61	59	..	62.2
	Min.	26	32	37	30	32	30	40	43	37	32	35	45	50	35	32	34	40	49	49	45	47	34	35	40	56	46	43	44	45	42	..	39.5
Clinton	Max.	52	61	72	59	47	59	75	62	58	59	65	74	72	57	50	60	68	73	76	75	71	59	61	77	85	76	78	77	65	68	..	66.2
	Min.	22	27	37	43	32	37	38	47	39	33	32	46	55	40	38	28	33	36	47	43	47	38	33	43	53	46	44	47	47	40	..	39.7
Col. Spgs.	Max.	49	69	..	60	59	69	65	62	68	62	69	78	67	59	53	63	72	72	70	72	73	66	65	87	74	74	73	67	68	68	..	67.1
	Min.	33	44	..	37	38	30	44	41	38	35	45	62	45	35	29	33	44	48	55	47	46	40	45	50	51	41	52	50	48	49	..	43.1
Colum. J.	Max.	53	62	70	62	50	58	75	66	62	57	63	78	75	73	52	62	69	73	73	75	67	57	68	81	76	78	73	61	58	66	..	66.6
	Min.	26	33	42	40	37	34	42	49	42	34	31	50	55	40	39	32	40	44	55	42	49	41	37	41	60	46	49	46	51	44	..	42.5
Corning	Max.	53	66	59	51	57	67	65	60	66	60	66	76	59	56	52	61	71	73	67	72	71	61	60	86	71	74	74	69	61	62	..	64.9
	Min.	30	35	46	36	36	26	44	47	38	31	32	51	44	36	28	31	43	57	53	42	42	39	43	47	54	47	51	54	47	48	..	41.9
Corydon	Max.	53	66	64	58	56	63	71	61	68	63	66	79	69	49	55	64	72	72	72	74	76	67	60	85	77	77	76	69	64	60	..	66.9
	Min.	27	33	44	39	39	31	47	48	40	33	41	51	48	35	34	34	41	49	55	48	49	38	43	45	67	45	51	52	48	42	..	43.2
Creston*	Max.	53	66	59	53	57	65	69	60	66	62	65	77	60	44	54	62	72	73	70	72	73	62	62	86	68	75	75	62	62	63	..	64.9
	Min.	27	30	36	36	36	28	28	46	38	29	30	41	52	36	28	31	37	45	48	40	40	36	42	44	53	45	45	50	47	48	..	39.1
Davenpo't	Max.	51	60	63	54	48	58	72	61	58	54	68	74	68	52	50	60	66	71	73	72	69	58	56	76	80	74	76	70	59	56	..	63.5
	Min.	28	35	45	43	37	36	49	48	36	35	38	48	52	38	39	37	43	44	56	51	51	44	35	48	61	51	52	41	50	45	..	43.7
Decorah	Max.	53	60	62	45	51	56	71	52	52	48	68	70	69	55	52	63	71	79	72	67	69	57	62	77	82	62	78	65	54	68	..	63.0
	Min.	27	32	40	35	32	32	35	43	38	33	29	47	53	37	36	28	39	51	49	47	46	37	29	43	47	49	44	45	48	35	..	39.5
Delaware	Max.	48	57	61	59	47	52	73	61	52	48	70	71	71	54	49	60	67	70	70	70	66	57	57	74	77	70	74	65	57	59	..	62.2
	Min.	25	29	29	36	31	31	39	40	34	30	31	45	52	36	35	30	36	45	50	36	45	36	29	45	53	51	44	40	50	36	..	38.3
Denison	Max.	53	66	61	47	58	69	65	61	61	61	65	78	61	46	..	64	71	73	69	75	72	62	65	90	80	70	73	68	65	60	..	65.7
	Min.	28	34	38	31	32	24	45	46	35	30	37	48	45	34	..	30	45	51	47	31	45	34	37	39	52	41	43	50	44	47	..	39.4
Des M.	Max.	52	66	59	51	58	65	69	58	62	62	63	78	63	44	53	63	72	74	70	74	71	60	60	86	73	75	74	59	62	56	..	64.4
	Min.	29	35	42	39	37	33	50	48	42	35	41	49	44	36	36	34	44	49	53	41	52	41	45	44	51	46	50	51	47	48	..	43.1
De Soto	Max.	47	67	57	52	60	67	69	58	63	62	65	78	63	47	55	65	73	73	70	75	72	62	63	80	78	77	74	69	64	60	..	65.7
	Min.	28	34	47	38	35	28	47	48	39	33	38	48	47	37	35	31	42	47	52	38	51	38	42	44	59	45	48	51	42	47	..	42.0
Dows	Max.	48	61	53	45	58	62	67	57	54	54	63	70	65	48	50	62	71	74	68	71	68	57	60	86	75	67	75	63	57	55	.	62.1
	Min.	26	31	40	31	32	29	35	47	38	31	32	45	47	38	32	31	41	46	49	37	45	33	34	40	54	44	42	45	45	39	..	38.6
Dubuque	Max.	49	58	68	60	49	57	70	55	54	54	63	69	70	52	49	61	67	70	71	71	67	54	57	71	81	70	74	68	58	59	..	62.5
	Min.	27	32	46	37	33	35	44	40	39	37	34	49	52	40	38	34	42	47	51	44	53	41	34	45	58	51	48	44	47	41	..	42.1
Earlham	Max.	52	65	58	52	58	66	70	57	65	62	65	77	60	46	54	63	72	74	70	73	71	64	65	85	73	76	74	67	63	57	..	65.1
	Min.	26	31	42	35	33	28	45	44	37	27	39	57	44	24	33	28	40	60	53	38	49	35	43	44	53	43	45	50	45	48	..	40.1
Elkader	Max.	54	62	68	52	52	59	75	62	52	52	70	72	71	55	52	65	76	75	76	75	75	59	60	78	83	70	79	68	59	63	..	65.5
	Min.	23	28	43	38	32	32	38	32	39	32	29	47	55	36	37	26	36	50	56	36	45	37	27	43	60	49	40	41	51	35	..	39.1
Elliott	Max.	65	70	68	55	60	70	75	60	69	65	69	80	70	52	52	69	80	78	72	78	78	68	64	90	78	74	75	70	70	76	..	70.0
	Min.	33	35	47	36	36	27	45	48	38	31	42	52	45	36	27	33	43	48	51	40	48	37	44	50	58	43	49	56	48	48	..	42.5
Estth'rv'l*	Max	49	61	48	44	59	60	67	50	..	..	..	70	68	44	55	64	71	73	66	76	60	56	62	89	71	61	70	60	63	55	..	61.7
	Min.	25	32	33	26	27	25	27	38	34	32	33	37	46	33	29	32	39	46	45	42	45	33	38	39	42	47	39	42	41	43	..	36.3
ForestCy*	Max.	49	60	50	42	57	62	71	50	49	63	66	67	67	42	53	62	71	73	67	75	64	68	60	84	74	64	75	59	60	57	..	62.0
	Min.	28	33	31	29	29	29	29	45	36	34	35	37	48	35	33	32	34	46	49	39	41	36	32	39	42	42	43	46	48	41	..	37.8
F. Dodge*	Max.	51	65	51	45	55	64	66	59	56	57	64	73	63	40	53	64	72	73	67	74	68	59	64	89	69	69	74	55	63	54	..	62.5
	Min.	27	29	35	32	32	29	29	44	38	32	34	36	48	36	38	34	35	45	50	39	40	36	41	43	44	46	41	46	46	45	..	38.3
Galva	Max.	..	..	..	..	..	..	..	..	..	..	..	63	72	64	43	53	65	71	73	66	75	70	62	67	89	79	68	72	65	65	63	..	67.2
	Min.	29	34	36	30	32	35	38	47	33	28	33	46	48	36	34	30	42	49	45	31	35	31	41	42	50	41	41	49	48	..	..	38.4
Glenwo'd	Max.	58	52	45	48	61	73	71	67	69	61	67	69	58	50	52	65	71	73	69	74	73	68	74	90	81	74	72	70	73	64	..	66.3
	Min.	31	38	36	24	35	30	49	49	40	36	48	43	42	35	34	36	45	51	53	44	44	45	51	57	56	45	51	49	46	49	..	43.2
Grand M.	Max.	47	53	62	48	48	54	70	58	53	50	64	70	70	55	49	60	68	70	68	71	65	55	58	74	81	65	75	63	56	65	..	61.6
	Min.	25	30	40	34	29	30	38	40	36	31	31	44	52	35	34	23	42	47	52	41	47	35	30	41	52	46	44	42	40	36	..	38.7
Greenfield.	Max.	57	67	60	67	59	65	68	62	67	61	66	80	63	45	53	65	75	76	68	75	75	67	68	88	77	76	77	67	68	61	..	67.4
	Min.	32	36	34	40	33	26	45	45	36	30	39	48	45	36	32	33	52	48	51	54	51	34	44	45	58	43	47	50	46	48	..	41.9
Grinnell	Max.	48	62	54	55	57	73	70	62	61	60	63	75	68	50	53	63	72	75	73	73	71	60	57	84	77	75	75	70	58	58	..	65.0
	Min.	25	33	37	34	29	40	45	47	40	30	35	47	50	33	35	33	40	45	52	38	45	35	38	40	58	41	45	45	45	42	..	40.1
Grundy C	Max.	49	60	61	53	55	60	70	61	59	55	65	70	68	56	54	62	74	74	68	73	68	62	57	80	81	72	76	74	58	58	..	64.4
	Min.	25	33	41	35	33	31	40	48	40	30	34	52	40	34	35	30	30	48	52	37	44	35	36	42	60	45	42	45	46	40	..	38.8
Guthrie C	Max.	53	66	62	50	57	66	70	58	62	62	65	78	61	48	54	64	74	74	69	73	71	67	65	88	82	74	75	69	64	63	..	66.1
	Min.	27	34	45	35	33	26	46	46	39	30	36	47	47	36	36	31	44	47	50	35	51	36	43	44	60	46	46	52	41	48	..	41.2
Hampton	Max.	51	62	56	46	54	61	74	62	52	50	67	70	65	48	53	64	74	75	70	76	70	63	61	81	77	69	81	67	60	55	..	63.8
	Min.	25	31	42	32	33	30	42	45	38	34	34	46	48	35	33	33	43	49	51	43	47	35	36	40	55	40	44	45	46	41	..	39.9
Hancock	Max.	55	67	61	49	58	68	67	61	65	62	65	71	60	49	50	63	72	75	69	73	72	65	66	89	78	75	75	69	65	69	..	66.2
	Min.	30	36	37	34	34	29	45	47	38	32	40	52	45	35	31	35	43	50	50	41	48	37	44	49	56	45	48	50	45	49	..	41.8
Hantontown.	Max.	47	58	51	40	54	61	68	57	50	50	61	66	64	50	50	60	71	73	64	73	65	54	58	82	75	60	72	64	58	57	..	60.4
	Min.	26	30	35	29	32	39	36	42	36	31	31	45	49	34	32	30	38	50	48	34	44	32	31	39	54	40	36	42	42	38	..	37.5
Harlan	Max.	55	67	60	48	58	68	66	62	64	62	66	73	62	47	55	64	71	74	70	73	71	65	66	89	79	74	75	64	66	60	..	65.8
	Min.	30	30	38	33	32	26	40	45	38	29	39	50	43	35	28	30	41	48	50	34	42	36	42	47	54	42	42	43	44	48	..	59.3

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF APRIL, 1906—CONTINUED.

STATIONS.		DATE.																															MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Hopeville	Max.	53	65	65	55	56	64	68	58	66	62	67	77	61	46	52	63	72	74	68	78	71	62	64	86	72	75	74	69	61	60	..	64.3
	Min.	30	37	47	38	37	29	46	48	40	34	42	51	46	35	33	34	42	47	54	48	50	37	48	46	59	46	56	50	47	48	..	43.3
Humboldt	Max.	50	63	57	48	56	64	67	63	54	57	65	69	66	50	52	63	64	68	68	72	77	58	51	78	78	63	68	68	58	58	..	62.2
	Min.	28	34	40	32	34	28	38	38	37	32	34	47	50	36	33	32	44	52	49	35	45	44	42	42	55	41	40	48	46	44	..	40.1
Ida Grv.	Max.	53	65	60	45	57	69	67	61	58	62	33	73	63	47	57	60	72	74	68	77	72	64	67	94	82	69	72	68	66	60	..	65.5
	Min.	29	34	37	10	32	25	37	48	34	29	33	46	45	35	29	38	45	50	48	28	47	31	42	45	50	42	43	49	43	48	..	38.9
Indep'ce	Max.	49	59	63	61	51	54	70	64	53	49	64	70	70	67	50	60	63	71	69	71	70	64	56	77	78	70	76	75	59	57	..	63.8
	Min.	24	30	37	37	32	32	36	44	37	32	29	46	52	36	36	28	35	45	52	37	43	35	30	38	55	44	42	43	49	36	..	38.4
Indian'la	Max.	53	68	..	..	..	..	68	59	63	63	64	78	66	49	54	64	74	75	72	73	73	62	61	87	78	76	74	69	62	57	..	67.0
	Min.	28	33	48	38	37	29	48	49	40	33	41	50	58	35	35	33	42	46	54	48	50	43	45	44	60	45	48	50	47	48	..	43.3
Inwood	Max.	52	62	57	..	..	..	..	52	50	63	62	67	58	49	56	66	73	73	68	80	74	60	78	89	78	70	68	56	68	59	..	64.7
	Min.	26	35	31	25	33	25	36	42	32	27	34	47	36	35	23	33	41	51	37	33	44	30	41	42	49	43	36	42	42	49	..	36.7
Iowa C*	Max.	51	61	65	53	52	58	71	59	59	55	63	74	71	45	51	62	69	74	72	73	69	58	56	83	78	75	77	65	58	55	..	63.7
	Min.	28	31	35	41	36	34	36	44	41	33	30	37	50	44	39	27	33	39	45	40	44	40	34	40	47	46	44	45	48	38	..	38.8
Iowa F*	Max.	49	61	55	47	54	62	69	58	56	53	65	73	65	43	51	62	72	73	67	72	67	56	60	84	75	70	76	60	59	56	..	62.8
	Min.	25	28	35	33	32	30	35	45	39	30	31	34	45	36	33	28	38	41	48	35	38	35	36	39	42	45	42	45	47	38	..	36.9
Jefferson	Max.	52	66	60	49	58	67	67	59	61	60	65	72	62	47	54	64	74	73	70	75	72	63	65	87	79	74	76	69	69	57	..	65.5
	Min.	29	34	41	34	33	28	43	48	38	32	38	47	47	36	35	35	48	49	50	36	48	35	46	41	59	44	44	49	50	45	..	41.1
Keokuk	Max.	51	62	71	64	54	60	72	65	66	61	64	78	70	55	52	60	66	72	75	74	72	65	54	85	78	78	80	74	66	58	.	66.7
	Min.	29	35	45	42	41	37	51	48	45	37	42	51	55	41	41	36	42	46	54	53	53	43	43	45	68	52	55	51	55	51	..	46.0
Keosauqua*	Max.	58	63	69	58	54	62	74	64	67	68	67	80	69	48	56	64	69	75	75	76	73	62	55	86	79	80	80	63	65	59	..	66.9
	Min.	23	34	35	41	40	35	35	49	44	33	36	48	52	41	40	29	31	42	48	50	50	40	43	43	49	46	50	50	52	45	..	41.6
Knoxville	Max.																																
	Min.																																
Larrabee	Max.																																
	Min.																																
Le Mars.	Max.	54	70	59	45	59	71	68	56	55	61	65	68	63	47	55	65	70	74	67	79	71	63	69	90	78	70	69	65	67	64	..	65.2
	Min.	30	34	35	28	31	25	35	36	32	28	31	45	40	35	26	34	45	54	44	32	44	31	41	44	51	40	39	48	42	50	..	37.7
Lenox	Max.	53	67	60	50	57	66	66	60	66	60	67	77	59	47	53	64	72	73	67	71	71	67	60	86	76	75	74	68	68	62	..	65.2
	Min.	30	35	48	35	36	28	46	45	37	32	42	51	46	35	28	34	40	47	52	47	47	38	42	46	59	43	50	50	47	48	..	42.1
Leon	Max.	53	66	65	54	54	63	69	64	65	60	68	78	69	48	51	63	71	73	69	70	71	68	64	84	80	75	75	69	62	63	..	66.1
	Min.	29	36	48	38	39	30	45	47	40	35	42	52	48	35	34	32	41	47	55	48	50	39	42	46	63	46	50	51	48	48	..	43.5
Little Sioux	Max.	58	66	61	46	64	74	72	61	67	65	67	69	66	52	58	66	70	75	72	77	75	69	69	92	88	78	75	71	67	66	..	68.3
	Min.	38	40	38	32	32	27	50	48	36	32	42	55	42	37	26	39	49	54	48	34	45	34	47	54	54	41	46	53	45	49	..	42.1
Logan	Max.	57	67	62	43	61	71	68	63	65	65	68	75	64	53	57	57	74	62	71	76	75	66	69	92	81	78	75	66	69	60	..	67.2
	Min.	31	37	38	33	38	27	44	46	37	31	40	51	42	38	27	31	43	51	52	34	45	37	44	49	54	42	46	52	45	48	..	40.8
Marshall'n*	Max.	51	64	60	51	56	62	70	57	60	60	66	74	67	46	54	64	73	77	73	75	76	61	60	87	77	75	78	60	59	56	..	65.0
	Min.	25	30	35	37	33	31	31	46	41	32	33	36	48	35	35	28	32	46	50	37	45	36	37	40	44	45	48	44	46	40	..	38.0
Mason C.	Max.	48	58	50	42	54	60	69	56	47	50	63	68	66	55	52	60	70	72	65	71	66	60	54	80	78	64	74	67	61	56	..	61.0
	Min.	27	32	40	31	34	12	39	43	38	34	36	40	55	35	34	25	40	50	50	41	48	34	34	40	58	42	41	45	45	43	..	39.9
Massena	Max.	56	68	60	51	62	70	68	62	69	68	68	72	62	46	60	65	75	75	70	80	83	68	64	89	77	81	77	64	61	60	..	67.8
	Min.	30	34	34	35	47	26	46	46	35	40	41	52	44	36	26	32	43	47	50	39	45	36	55	55	55	41	49	49	46	49	..	42.1
Mt. Ayr.	Max.	58	70	62	55	58	67	67	59	69	65	70	79	60	45	58	67	75	75	70	74	74	66	63	86	75	78	76	64	66	64	..	67.2
	Min.	28	35	49	26	37	29	46	43	38	35	42	51	45	35	28	33	40	46	52	48	47	38	41	45	48	45	50	49	48	48	..	41.8
Mt. Pleasant	Max.	51	62	71	68	51	57	75	64	63	59	65	79	71	54	52	60	67	73	73	73	72	66	54	83	81	76	80	72	63	57	..	66.2
	Min.	28	34	41	39	38	34	45	47	40	32	38	42	53	38	38	29	38	43	52	47	49	39	38	45	61	45	49	49	49	44	..	43.0
Mt. Vernon	Max.	59	67	66	55	53	58	73	60	56	57	69	71	69	54	53	67	72	76	76	78	68	61	60	84	76	80	88	68	55	54	..	65.9
	Min.	25	33	41	38	33	32	45	47	37	32	33	47	51	38	33	32	38	45	51	44	47	37	33	42	57	45	45	42	50	41	..	40.4
N. Hampton	Max.	46	55	55	53	52	55	73	69	50	49	68	70	68	53	53	62	71	71	68	71	65	62	54	73	76	68	78	67	56	60	..	62.4
	Min.	25	31	40	32	29	31	32	42	36	37	30	44	52	33	34	30	38	46	55	40	47	33	31	40	56	45	44	45	46	38	..	38.7
Northwood	Max.	45	57	52	42	54	60	70	55	50	51	65	70	66	51	53	61	73	73	67	72	66	54	58	77	76	61	73	64	61	63	..	61.3
	Min.	25	32	35	30	30	30	39	43	38	33	31	48	51	35	32	29	39	48	49	42	46	32	32	39	56	40	43	45	45	39	..	39.3
Odeboldt	Max.	55	65	59	45	57	69	66	67	58	68	65	78	64	50	60	68	72	74	69	73	72	78	71	91	83	70	77	68	66	62	..	66.8
	Min.	29	34	37	31	32	22	43	42	35	30	30	45	48	35	32	32	45	49	41	33	47	35	41	41	50	44	43	49	43	47	..	38.8
Ogden	Max.	48	61	59	48	55	66	69	59	60	60	65	77	63	49	64	64	74	75	69	64	73	64	62	86	84	73	76	68	63	61	..	65.3
	Min.	28	33	43	34	32	28	45	48	38	31	36	42	47	36	38	33	42	47	48	45	48	37	42	42	57	42	43	47	45	44	..	40.7
Olin	Max.	47	57	68	59	58	58	..	55	57	58	63	69	69	59	50	58	65	70	72	70	67	60	57	74	79	70	75	70	60	58	..	63.0
	Min.	25	30	37	31	37	32	..	47	38	32	31	46	55	41	39	27	34	44	49	39	45	38	32	42	52	45	42	42	48	36	..	39.2
Omaha Neb.	Max.	56	66	60	44	61	73	62	60	69	63	68	68	60	49	55	65	68	73	67	75	73	64	69	90	73	73	72	64	66	60	..	65.5
	Min.	34	42	34	35	36	34	52	45	43	40	45	56	37	38	35	41	50	56	54	48	52	43	48	57	55	48	50	51	47	51	..	45.2
Onawa	Max.	56	65	62	46	68	76	73	57	66	70	66	69	64	53	66	70	78	74	73	82	79	71	69	94	85	77	76	68	70	67	.	69.3
	Min.	30	35	36	30	31	26	42	45	36	32	37	47	40	35	27	32	45	50	47	34	43	36	45	50	54	48	46	52	44	49	.	40.0
Osage	Max.	48	58	54	44	52	58	72	58	49	47	55	70	68	53	52	62	72	74	66	72	65	57	59	77	76	62	75	68	58	60	..	61.2
	Min.	27	33	40	32	31	31	35	42	37	33	31	45	53	34	34	31	41	47	51	40	46	33	32	41	57	44	44	46	45	39	..	39.2
Oskaloosa	Max.	53	64	64	55	55	62	71	59	64	60	68	80	68	52	54	65	72	76	72	73	71	60	60	86	77	77	75	68	61	61	..	65.9
	Min.	28	33	41	40	39	32	48	50	43	33	41	48	52	35	37	28	41	48	51	42	49	49	40	39	60	46	48	49	48	42	..	42.6
Ottum'a	Max.	50	55	66	62	50	64	72	62	70	63	67	80	67	46	55	64	71	75	73	75	74	61	58	88	77	75	79	62	62	60	..	66.1
	Min.	28	38	48	42	39	35	52	48	44	36	40	52	49	38	39	32	42	47	56	49	53	40	44	45	58	49	53	50	49	48	..	44.8
Pacific Jct.	Max.																																
	Min.																																
Pella	Max.	52	65	64	56	66	68	70	62	63	64	64	80	68	53	57	67	72	77	74	75	73	68	61	88	84	79	77	73	71	61	..	68.4
	Min.	26	33	43	39	38	31	47	49	42	34	37	47	52	34	37	34	41	47	55	45	51	38	41	42	61	45	48	49	47	45	..	42.6
Perry	Max.	52	66	57	51	58	67	68	58	61	60	64	77	62	48	53	65	75	75	70	75	70	62	65	89	77	75	76	68	64	57	..	65.5
	Min.	27	32	45	35	33	28	42	47	38	31	36	46	47	36	34	32	40	47	50	37	47	35	42	43	56	43	45	50	46	46	..	40.5
Plover	Max.	46	63	54	47	51	63	68	65	58	57	68	74	64	44	54	65	73	75	66	75	70	54	63	89	73	72	73	72	..	..	..	64.0
	Min.	26	32	36	32	32	26	38	46	32	32	31	52	44	35	30	30	42	51	46	35	45	31	38	45	52	42	39	51	45	46	..	38.8
Pocahontas	Max.	49	63	55	48	46	64	67	67	55	59	66	72	67	45	55	65	73	75	68	76	70	63	64	89	70	69	74	65	64	55	..	63.9
	Min.	28	34	31	30	32	28	41	40	35	32	37	45	45	35	34	33	42	41	47	38	45	34	40	40	53	43	40	48	45	44	..	38.7
Red Oak	Max.	60	70	67	54	60	77	72	62	69	63	69	77	64	51	58	65	75	76	70	75	74	70	64	89	75	75	75	68	65	65	..	68.5
	Min.	33	40	47	37	38	31	48	49	40	35	46	55	47	37	31	36	46	50	53	44	50	39	46	52	58	46	52	51	49	51	..	45.2
Redge'y	Max.	51	61	62	49	54	60	75	56	51	50	69	71	70	56	56	64	71	75	73	74	70	60	62	78	82	64	76	63	59	58	..	64.8
	Min.	27	31	42	33	30	30	39	41	37	34	32	45	50	32	34	31	40	48	54	42	45	33	32	41	60	47	43	48	47	38	..	39.4
Rock R.	Max.	62	64	60	60	46	70	70	61	55	60	62	70	62	48	60	65	70	68	72	70	74	60	64	89	56	60	58	58	56	56	..	62.6
	Min.	32	36	32	32	26	28	37	32	29	32	34	46	36	34	28	40	36	40	40	42	42	30	40	44	42	46	44	40	46	50	..	37.2
Sac City.	Max.	50	62	57	46	56	66	66	62	56	58	62	73	62	52	52	68	70	72	66	74	70	67	63	89	78	68	72	69	68	..	..	64.4
	Min.	28	31	37	31	31	26	41	41	35	31	37	45	50	34	35	33	42	50	48	36	42	35	41	42	57	43	42	48	48	..	..	39.1
St.Cha'es	Max.	54	69	67	60	57	66	70	57	58	66	65	79	64	47	58	67	75	76	74	75	74	63	64	86	75	77	73	66	61	58	..	66.7
	Min.	28	34	47	38	36	29	50	48	42	40	40	49	46	35	33	35	42	45	54	46	53	38	42	44	58	47	49	51	47	48	..	43.1
Sheldon	Max.	58	64	58	46	59	72	66	53	55	65	65	69	62	46	55	66	70	72	70	79	74	62	67	92	84	69	72	62	62	59	..	65.1
	Min.	29	34	34	27	32	24	37	44	38	28	28	45	36	34	28	33	42	52	40	35	44	31	36	42	53	44	42	45	42	48	..	37.6
Sibley*	Max.	50	63	42	43	57	69	65	47	50	60	63	69	57	43	55	65	69	70	65	78	68	60	66	90	65	62	67	52	65	55	..	61.0
	Min.	29	30	33	27	28	25	26	40	32	29	31	36	45	33	28	32	35	45	40	34	39	33	39	40	42	46	42	45	42	46	..	35.7
Sigour'y	Max.	52	63	69	60	54	60	72	63	63	61	65	79	70	57	56	64	70	76	76	74	73	72	59	86	78	78	81	71	62	57	..	67.4
	Min.	25	32	41	40	37	34	44	49	42	33	34	47	55	38	38	30	39	45	55	45	47	39	40	42	60	45	63	47	47	48	..	42.5
Sioux C'r	Max.	51	62	54	42	56	69	64	54	53	58	62	69	58	46	56	65	69	70	66	77	68	60	..	88	80	66	66	60	65	58	..	62.5
	Min.	30	33	33	27	32	26	39	42	32	32	37	47	46	36	28	32	43	50	42	35	41	32	..	43	50	39	36	45	41	49	..	37.5
Sioux C.	Max.	54	61	53	40	58	74	61	56	58	60	62	66	57	49	55	65	68	70	67	79	71	61	68	88	72	68	68	57	66	57	..	63.0
	Min.	33	39	35	29	34	29	48	41	40	32	41	51	35	34	30	40	49	53	43	39	48	36	46	51	52	47	41	45	43	49	..	41.1
Stockport	Max.	53	68	69	58	59	59	72	63	63	62	67	80	68	55	52	64	68	74	73	74	71	59	55	85	77	79	79	69	61	57	..	66.3
	Min.	24	33	42	40	40	36	49	49	48	34	37	49	53	40	39	30	38	43	54	49	49	40	41	43	61	48	52	48	49	44	..	43.2
Storm L*	Max.	50	71	46	44	55	65	65	60	53	59	61	71	60	42	58	63	68	71	66	75	69	51	64	87	62	67	71	58	63	50	..	61.2
	Min.	27	32	35	27	29	27	30	45	34	31	35	40	42	34	30	36	37	45	45	41	45	32	41	41	44	48	39	42	42	48	..	37.3
Thurman	Max.	56	68	65	48	61	73	64	61	70	65	70	70	59	52	56	64	65	75	65	73	74	66	73	90	79	80	77	66	66	69	..	67.8
	Min.	33	40	40	35	37	28	46	49	38	35	44	55	42	36	28	34	50	50	50	56	48	41	48	56	40	38	49	50	48	50	..	44.0
Tipton	Max.	53	62	67	58	52	57	71	62	57	54	66	73	71	57	55	62	67	71	73	74	73	64	56	77	80	76	77	70	58	56	..	65.0
	Min.	29	35	41	41	37	34	45	48	38	35	36	45	57	40	39	35	41	46	54	46	50	42	35	43	60	49	50	46	52	45	..	43.1

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR APRIL, 1906—Concluded.

STATIONS.		DATE.																													Means.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Toledo	Max	51	62	63	55	55	60	71	63	53	53	64	72	68	53	52	64	72	75	71	73	69	62	53	86	80	75	78	70	58	56	..	65.1
	Min	26	34	44	38	31	33	46	43	41	32	33	48	53	34	36	30	43	49	54	37	46	37	38	42	60	45	43	45	49	40	..	41.2
Vinton	Max	50	60	61	57	53	57	67	67	54	61	61	68	67	58	50	60	..	69	68	69	68	64	56	83	82	71	75	74	58	58	..	63.6
	Min	26	32	38	39	33	32	43	48	39	32	38	48	55	33	37	30	..	38	54	36	46	38	53	42	59	44	41	46	49	37	..	40.9
Wapello	Max	52	62	69	59	49	61	74	63	57	61	63	75	70	..	..	66	68	73	75	78	71	64	53	80	81	81	80	69	69	57	..	67.1
	Min	28	34	41	42	39	33	47	48	36	36	39	49	43	..	..	32	33	44	55	51	50	42	39	44	65	49	53	57	53	44	..	43.8
Washi'ton	Max	53	63	68	56	58	59	74	62	63	59	63	72	70	51	53	62	69	75	74	74	72	61	55	84	79	79	78	66	61	56	..	65.4
	Min	26	34	40	40	37	35	46	48	42	33	35	48	51	41	39	33	39	44	55	44	48	39	38	43	58	46	49	46	48	43	..	38.9
Washta	Max	53	53	56	48	58	68	62	62	62	62	63	70	63	46	57	66	62	54	73	78	73	62	60	91	65	69	65	72	70	62	..	63.7
	Min	30	33	32	28	32	25	35	42	28	26	33	45	42	36	25	30	36	42	44	43	30	28	43	45	50	45	45	40	40	42	..	36.8
Waterloo*	Max	50	60	62	50	53	59	71	56	56	53	65	71	69	45	52	61	70	74	71	73	70	57	57	83	78	74	79	62	60	57	..	63.8
	Min	26	32	35	33	32	32	34	42	33	33	30	43	48	39	35	29	40	45	53	39	40	37	35	37	55	57	42	43	45	39	..	39.3
Waukee	Max	51	65	57	..	..	..	63	60	61	59	62	77	69	48	51	62	70	74	68	72	69	60	63	86	76	74	73	69	63	57	..	65.3
	Min	27	36	47	33	45	28	48	48	38	32	38	47	48	36	33	31	42	39	51	42	50	38	42	43	59	44	51	50	43	47	..	42.3
Waverly	Max	49	59	59	50	53	58	72	60	54	49	64	70	67	53	49	62	71	73	69	71	68	60	59	82	..	77	76	68	57	58	..	62.6
	Min	28	34	41	35	33	33	36	45	38	33	31	43	53	36	37	30	42	49	53	37	48	36	37	41	..	47	42	46	49	39	..	40.0
Webst'r C	Max	49	63	62	51	55	64	72	60	60	60	61	75	67	51	52	61	73	76	70	74	72	64	61	87	84	75	76	73	63	60	..	65.7
	Min	22	33	41	33	33	32	38	49	37	30	33	46	50	36	31	30	41	46	50	34	45	35	39	40	52	44	43	46	47	40	..	39.3
W. Bend.	Max	49	62	54	46	54	62	71	67	53	56	67	73	69	48	52	63	73	73	63	78	67	57	62	86	71	67	72	65	62	55	..	63.1
	Min	25	31	37	28	32	25	39	47	33	31	35	44	48	33	30	32	42	52	46	37	41	33	37	39	52	43	39	47	44	44	..	38.5
Whitten	Max	48	60	58	54	53	60	70	63	53	56	63	72	64	53	50	61	77	74	67	71	70	64	58	79	79	71	76	71	60	59	..	63.9
	Min	24	32	40	34	32	30	40	48	38	30	33	45	50	33	33	30	37	47	48	33	45	34	36	40	58	41	42	43	46	40	..	38.9
Wilton Jc	Max	50	56	60	63	55	57	73	70	59	56	64	73	74	73	53	60	67	73	73	74	73	70	59	74	83	79	76	79	68	58	..	66.6
	Min	35	45	40	41	31	36	43	38	43	34	30	43	53	41	40	32	39	42	53	43	48	35	49	42	59	47	48	43	42	47	..	42.3
Wint'rset	Max	53	66	63	53	56	65	70	59	65	61	66	79	65	49	52	65	74	75	70	72	71	67	65	87	82	76	75	68	63	61	..	66.4
	Min	37	33	45	38	34	27	46	46	38	31	39	48	47	35	41	47	42	48	53	43	50	37	43	44	60	45	48	50	45	49	..	42.6
W'odb'rn	Max	51	64	65	56	55	61	72	64	66	62	65	79	67	49	51	61	72	72	72	70	71	60	63	83	72	73	75	69	63	62	..	65.5
	Min	25	24	42	38	37	28	45	47	40	23	37	49	48	35	33	25	40	54	54	54	42	38	38	44	60	42	46	45	48	43	..	41.0
Zearing	Max	50	62	57	51	56	63	68	62	57	58	66	74	63	51	52	63	71	74	70	72	70	61	59	85	84	71	78	70	59	55	..	64.4
	Min	25	31	42	36	33	31	39	48	35	31	32	45	50	26	34	30	40	48	49	39	42	35	33	40	58	43	41	45	46	49	..	39.2

*At those stations the thermometers are read in the morning, the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

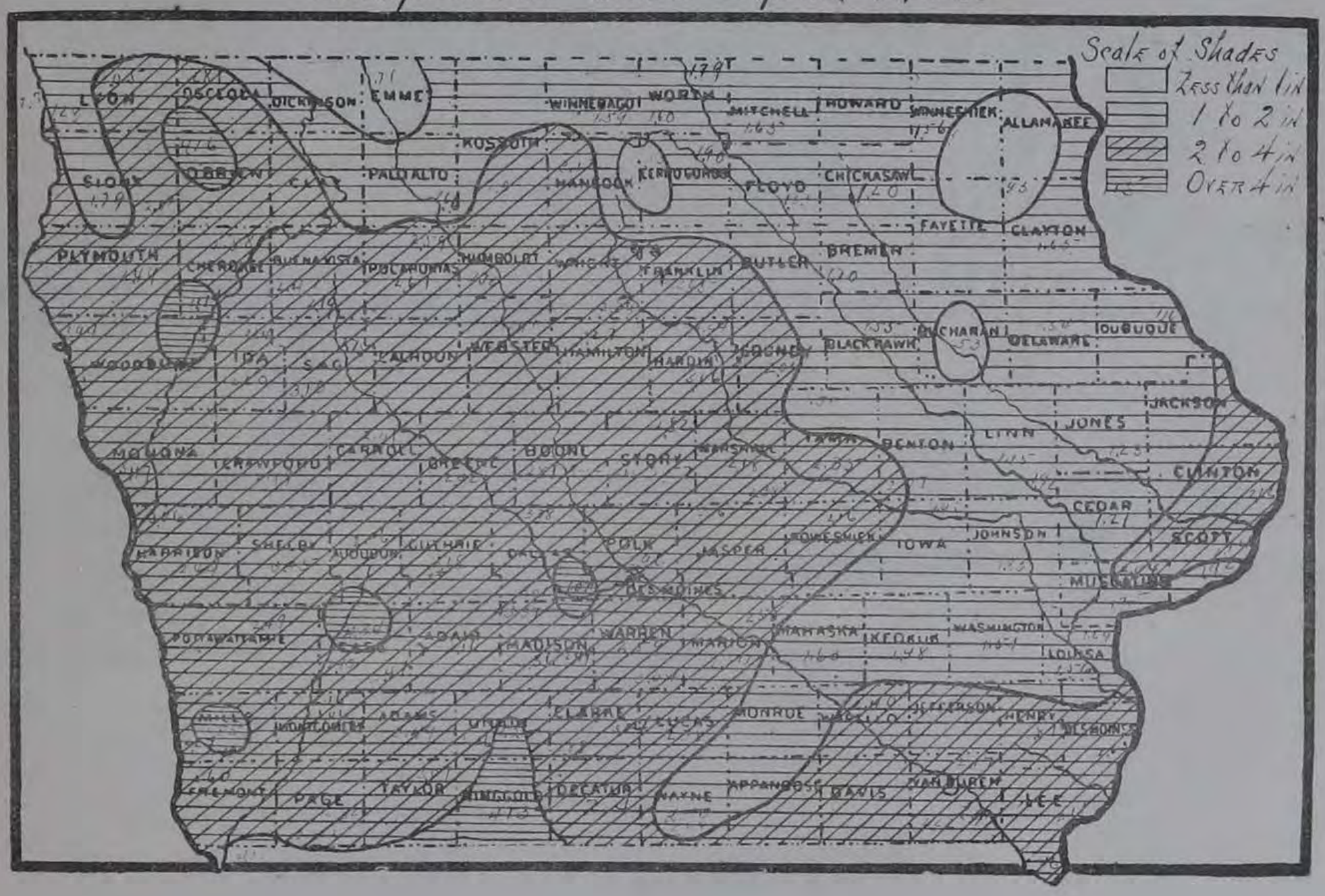
DAILY AND MONTHLY PRECIPITATION FOR APRIL, 1906.

STATIONS.	DAY OF MONTH.																													TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	.02	....	.35	....	.04	.49	..	....	....	.80	.90	....	....	....	....	....	....	....	....	....	....	....	....	....	T	2.04	....	.11	....	4.25
Albia	....	..	T	T	.40	.08	....	.11	.10	....	....	....	.10	.07	T	....	..	....	....	....	....	....	....	....	....	....	1.01	....	..	....	....	1.87
Algona	....	....	T	....	.30	..	T	.29	.07	....	....	.45	.40	.16	....	....	....	....	....	....	....	....	....	....	....	....	..	.25	....	.16	....	2.08
Allerton	....	..	.04	.45	.01	....	.09	.31	.06	..	....	.03	.71	.10	....	....	....	..	....	....	....	....	....	....	....	....	....	1.06	....	.08	....	2.93
Alta	....	..	.18	.05	.35	..	.72	.02	..	..	....	...	.38	T	....	....	....	....	....	....	....	....	....	....	.01	..	.55	.08	....	.18	....	2.47
Alta [near]	....	....	.21	.22	20	..	.60	.10	..	....	..	.02	.31	.05	....	....	....	....	....	....	....	....	....	....	T	....	.57	.05	....	.18	....	2.51
Alton	....	....	T	T	.18	..	T	.61	T	....	..	T	.65	.08	....	....	....	....	....	....	....	....	....	....	.18	....	....	.31	.08	.07		2.09
Amana	....	.....	..	..	.31	.09	T	.71	.25	....	..	.03	.10	.03	....	....	....	....	....	....	....	....	....	....	..	....	....	.88	....	.08	..	1.98
Ames	....	....	....	.04	.39	..	....	.41	....	..	..	....	1.00	.18	....	....	....	....	....	....	....	....	....	....	....	....	..	1.05	.02	.07	....	3.16
Atlantic	....	....	.16	.16	.18	....	.22	1.51	....	....	....	1.00	..	.04	.	....	....	....	..	..	....	..	....	....	....	....	.52	....	..	.60	..	4.34
Audubon	....	....	T	.25	.24	....	.12	.80	....	....	....	.51	.18	.04	..	....	....	....	....	....	....	.	....	....	....	..	.01	.53	T	.28	....	2.96
Baxter	....	..	T	.22	.22	....	T	.39	..	....	....	.12	.53	.15	....	....	....	....	....	....	....	....	.03	....	....	....	..	.87	..	.07	..	2.60
Bedford	....	....	T	.07	..	.32	.06	.68	....	....	.04	.70	.82	.06	....	....	..	..	....	....	....	....	....	....	....	....	.56	....	..	.20	....	3.59
Belle Plaine	....	..	....	....	.40	....	..	.65	.15	....	....	.06	.05	T	....	....	....	....	....	....	..	..	....	....	....	....	....	.55	.01	.20	....	2.07
Bonaparte	..	..	....	..	.55	.12	..	.49	.02	....	....	.05	.26	T	....	..	..	....	....	....	..	..	....	....	....	....	....	.75	....	.16		2.40
Boone	..	...	..	.15	.30	.03	....	.15	.26	..	....	..	1.58	.06	.02	....	....	....	....	....	....	....	T	....	....	....	....	.77	T	....	....	3.32
Britt	....	....	T	..	.82	..	....	.35	..	....	....	.70	1.12	.06	....	....	....	....	....	....	....	....	....	....	....	....	..	.39	....	.18	....	3.13
Buckingham	....	..	.08	....	.33	....	....	.27	.26	T	..	T	...	.02	..	....	....	..	..	..	....	..	....	....	....	....	....	.51	....	.03	....	1.50
Burlington	..	..	...	.06	.52	.15	....	.80	.37	.03	....	....	.10	T	.06	...	...	....	....	..	....	....	..	.05	..	..	....	.49	..	..	....	2.63
Carroll	..	....	....	.26	.20	....	....	.61	.05	....	..	....	.03	.01	..	....	....	..	....	....	....	....	....	....	....	....	....	.85	....	....	..	2.01
Cedar Rapids	..	....	...	....	.15	.08	....	.82	.25	.03	....	...	.08	T	.03	....	.	....	....	..	....	....	T	....	....	....	....	.2	...	....	....	1.15
Chariton	....	....	T	.10	.35	....	T	.75	....	..	T	....	.78	.10	...	....	....	..	..	..	....	....	T	....	....	....	....	.65	T	.05	....	2.78
Charles City	....	....	....	.01	.25	....	.02	.29	.05	....	....	.24	.01	.16	T	....	....	..	....	....	....	....	.02	....	....	....	....	.26	.05	.06	..	1.33
Clarinda	....	....	....	.12	....	..	....	.52	.28	..	.05	....	1.18	.08	....	....	....	....	....	....	....	....	....	....	....	....	.53	....	T	.06	....	2.82
Clear Lake	....	....	....	....	.25	....	....	.05	.05	....	....	T	.50	....	..	....	....	....	....	....	....	....	....	T	....	....	..	T	....	T	....	.55
Clinton	....	....	..	.02	.19	....	....	....	1.75	....	....	....	.22	.02	....	....	..	....	....	....	....	....	....	....	....	....	....	.02	....	T	....	2.22
College Springs	....	....	....	.04	.20	..	.20	.68	....	..	....	.24	.77	.05	....	....	....	....	....	....	....	....	.01	....	....	....	.26	....	....	.08	....	2.53
Columbus Junct'n	....	....	....	T	.35	.10	....	.54	.12	T	....	.07	..	T	.01	.	..	..	..	....	....	....	....	....	....	....	....	.40	..	.05	....	1.64
Corning	....	..	T	.02	.44	T	.10	.84	....	..	.03	.80	.50	....	....	....	....	....	....	....	....	....	T	T	....	....	T	.76	....	T	.	3.49
Corydon	..	..	T	.04	.40	T	.05	.19	....	....	....	T	.50	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	.62	....	....	....	1.88
Creston	....	..	....	....	.80	....	..	.30	.32	....	....	....	1.05	.07	....	....	....	....	....	....	....	....	....	....	....	....	T	1.30	T	.02	....	3.36
Cumberland	....	....	....	....	....	....	.82	.31	....	..	....	.85	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.42	....	2.40
Davenport	....	....	T	T	.29	....	....	.76	.34	....	T	T	.04	.01	T	....	..	....	T	....	....	....	T	....	....	....	....	.48	..	.02	....	1.92
Decorah	....	....	....	....	.30	....	....	.22	....	....	T	T	.05	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	.15	.05	T	....	.97
Delaware	....	.	....	....	.10	.26	....	.23	.20	....	....	....	.05	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.70	..	....	..	1.54
Denison	....	....	....	.41	.26	....	T	.64	....	....	....	.20	.20	.02	....	....	..	....	....	....	....	....	....	....	....	..	....	.65	....	.51	....	2.89
Des Moines	....	....	T	.14	.23	....	.04	.86	..	....	T	.55	.11	.15	....	....	....	....	....	....	....	....	T	..	....	..	.63	.16	..	.09	....	2.93
De Soto	....	....	T	....	.29	....	T	.40	..	....	..	.15	1.00	....	....	....	....	....	....	....	....	....	....	....	....	..	..	1.10	..	.07	....	3.01
Dows	....	..	....	.15	.07	.16	....	.36	....	....	....	....	.80	.17	....	....	....	....	....	....	....	....	....	....	....	....	....	.57	..	.10	....	2.38
Dubuque	....	..	.06	T	.38	....	....	.32	.10	..	....	..	T	T	....	....	....	....	....	....	....	....	....	....	T	....	....	.80	T	T	....	1.16
Earlham	....	..	....	T	.30	....	T	.57	....	....	T	.41	.90	.06	....	....	.	....	....	....	....	....	....	....	....	..	....	1.02	....	.11	....	3.37
Elkader	....	....	....	....	.20	.15	..	....	.90	....	..	T	.12	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	.08	....	....	1.65
Elliott	....	....	....	....	T	T	.10	.90	....	....	..	.22	.05	T	..	....	....	....	....	....	....	....	....	....	....	....	.64	.18	....	.07	....	2.16
Estherville	....	....	....	T	T	T	....	.15	T	....	.	....	.20	.15	..	....	....	....	T	....	....	....	....	....	....	....	....	.12	.09	....	....	.71
Forest City	....	....	....	T	.10	T	....	T	.28	....	....	....	.85	.18	.03	....	....	....	....	....	....	....	....	....	....	....	....	.06	.04	....	....	1.59
Fort Dodge	....	....	....	.28	.18	.05	....	.21	.15	....	....	....	.70	.10	.08	....	....	....	....	....	....	....	....	....	....	....	....	.66	.04	..	....	2.40
Fort Madison	....	....	....	T	.60	....	.42	.25	.05	....	....	T	.12	T	....	....	....	....	....	....	....	..	T	....	....	....	.47	..	..	.20	....	2.11
Galva	....	....	T	....	.50	....	....	.53	....	....	....	T	.30	....	..	....	....	....	....	....	....	....	....	....	T	....	....	.68	T	.25	....	2.24
Gilman	....	....	....	....	....	....	.48	.25	....	....	T	.35	.12	..	....	....	....	....	....	....	....	....	....	T	....	....	1.23	T	....	....	....	2.33
Glenwood	....	....	....	.20	.35	T	1.50	2.00	.	....	....	.65	T	.35	....	....	....	....	....	....	....	T	....	....	....	....	.85	T	....	.15	....	5.55
Grand Meadow	....	....	....	....	.23	.06	....	.30	..	....	....	T	....	.10	....	....	....	....	....	....	....	....	....	....	....	T	....	.18	.06	....	....	.93
Greenfield	....	....	....	T	.34	....	.10	.45	.07	....	....	.33	.78	.08	....	....	....	....	....	....	....	T	T	....	....	....	....	T	.86	T	.12	....	3.16
Grinnell	....	....	....	.26	....	....	....	.45	.05	....	....	T	.20	.12	....	....	....	....	....	....	....	....	....	....	....	....	....	.95	.05	.08	....	2.16
Grundy Center	....	....	....	....	.45	....	..	.19	.13	....	....	.25	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	..	.84	.04	.04	....	2.04
Guthrie Center	....	....	....	.07	.25	....	.04	.97	....	....	....	.25	.46	.02	....	T	T	....	....	....	....	....	....	....	....	....	....	.80	....	.32	....	3.18
Hampton	....	....	.10	.40	.07	....	.26	.44	....	..	..	.92	..	.21	....	....	....	....	....	....	....	....	....	....	....	....	.53	.07	....	.65	....	3.65
Hancock	....	....	....	.25	.28	....	.26	.16	....	....	....	.70	.28	....	....	....	....	....	....	....	....	T	..	....	....	....	.52	T	....	.04	....	2.49
Hanlontown	....	....	....	....	.33	....	..	.33	....	..	..	T	.58	.13	....	..	....	....	....	....	....	....	....	....	....	....	....	.14	....	.09	....	1.60
Harlan	....	T	.24	.25	.25	....	.20	.61	....	....	T	.63	.18	.08	....	....	....	....	....	....	....	T	T	....	T	....	.49	.02	....	.50	....	3.45
Hopeville	....	...	T	.01	.36	....	T	.40	..	..	....	.22	.78	.06	....	....	....	....	....	....	....	....	....	....	....	....	....	.93	....	.12	....	2.88
Humboldt	....	....	T	.12	.38	....	....	.56	....	..	....	.20	.60	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	.56	....	.20	....	2.72
Ida Grove	....	....	....	....	....	....	.50	.40	....	....	....	..	.20	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	.47	....	.88	....	2.20
Independence	....	...	.05	....	.30	.03	T	.12	.03	....	T	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	T	..	T	....	.53
Indianola	....	....	T	....	.40	T	.03	.58	...	T	..	.01	.49	.14	..	....	....	....	....	....	....	....	T	....	....	....	....	.81	T	.13	....	2.59
Inwood	....	....	.02	....	....	....	.04	.42	....	....	....	T	.21	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.36	T	.23	....	1.28
Iowa City	....	....	....	.02	.32	.12	..	.35	.60	....	....	....	.07	T	.01	....	....	....	....	....	....	....	....	....	....	....	....	.34	....	....	....	1.83
Iowa Falls	....	..	T	.06	.24	.09	..	.18	.22	....	....	....	.77	.07	.02	....	....	....	....	....	....	....	T	....	T	....	T	.42	.17	....	....	2.24
Jefferson	....	....	....	.21	.30	....	T	.52	....	....	....	.22	.28	T	....	....	....	....	....	....	....	....	T	....	....	....	.66	....	.23	..	2.42
Keokuk	....	....	....	.21	.39	....	.15	.67	....	....	....	T	.16	.02	....	....	....	....	....	....	....	....	T	T	....	....	....	.40	....	.16	....	2.16
Keosauqua	....	....	....	.08	.48	.08	....	.07	.45	....	....	....	.37	T	T	....	....	....	....	....	....	....	T	T	....	....	....	.69	....	.	..	2.22
Knoxville	....	....	T	....	.42	....	.08	.38	..	....	....	.05	.53	T	....	....	....	....	....	....	....	....	....	....	....	....	..	1.17	....	.16	.	2.74
Lacona	....	....	....	....	.16	....	.08	.60	..	....	....	....	.38	.62	....	....	....	....	....	....	....	....	....	....	....	....	....	.78	....	.42	....	3.04
Larrabee	....	....	.02	.50	....	....	.30	.12	....	..	....	....	.45	.02	....	....	....	....	....	....	....	....	....	....	....	....	.86	.11	....	.70	..	2.58
Le Claire	....	....	....	.01	.13	.02	....	.32	.108	.28	....	T	....	.13	.04	....	....	.10	..	....	....	....	....	T	....	....	....	.13	T	....	....	2.14
Le Mars	....	...	.15	....	.14	....	....	.60	....	....	....	T	1.00	....	....	....	....	....	..	....	....	....	....	....	....	....	....	.88	....	.12	....	2.49
Lenox	....	....	T	.10	.31	....	.08	.50	..	....	.01	.52	.70	.07	....	....	....	....	....	....	....	....	T	....	....	....	.25	.46	....	.07	....	3.07
Leon	....	....	T	.08	.40	....	.07	.51	....	....	....	....	.90	.10	....	....	....	....	....	....	....	....	.02	....	....	....	....	.85	....	.11	....	3.04
Little Sioux	....	....	....	.61	.25	..	.14	.52	....	....	....	.01	.25	.09	....	....	....	....	....	....	....	....	....	....	....	....	....	.46	....	.73	....	3.06
Logan	....	....	T	.03	.23	....	.51	.08	....	....	....	....	.15	.03	....	....	....	....	....	....	....	T	....	....	....	....	.21	.12	....	1.18	....	2.44
Marshalltown	....	....	....	....	.26	.07	....	.25	.18	....	....	....	.33	.12	.08	....	....	....	....	....	....	....	T	....	....	....	....	.92	.02	....	....	2.18
Mason City	....	....	....	T	.30	....	.12	.04	....	....	..	....	1.06	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	.15	..	.13	..	1.90
Massena	....	....	....	.05	.30	....	....	.85	....	....	....	.25	.50	.05	....	....	....	....	....	....	....	....	....	....	....	....	.02	.34	..	.05	....	2.41
Mount Ayr	....	....	.03	.07	.38	.05	.03	.92	....	....	.11	.04	.90	.10	....	....	....	....	....	....	....	....	.10	....	..	..	1.25	....	....	.15	....	4.13
Mt. Pleasant	....	....	....	.06	.46	.15	....	.53	.11	....	....	.10	.20	.05	.01	....	....	....	....	....	....	....	T	....	....	....	....	1.07	....	.07	....	2.81
Mt. Vernon	....	....	....	.01	.25	.17	....	.27	.45	....	....	....	.18	.01	.02	....	....	....	....	....	....	....	....	....	....	....	....	.54	....	.02	....	1.92
Muscatine	....	....	.03	.27	.13	....	.65	.28	.05	....	T	.08	T	.04	....	....	....	....	....	....	T	....	....	T	....	....	....	.22	....	....	....	1.75
Nevada	....	..	....	.40	.06	....	....	.53	....	....	....	....	.78	.13	....	....	....	....	....	....	....	....	....	....	....	....	....	.70	..	.02	....	2.57
New Hampton	....	...	.05	....	.14	....	....	.11	.24	....	..	.05	.17	.18	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	.16	....	....	1.20
Northwood	....	....	....	....	.28	....	....	.08	.18	....	....	T	.94	.08	..	....	....	....	....	....	....	....	....	....	....	....	....	.14	.04	.11	....	1.79
Odebolt	....	....	....	.27	.35	....	....	.85	....	....	..	.27	.33	....	....	....	..	....	....	....	....	....	....	....	....	....	....	.63	....	.40	....	3.10
Ogden	....	....	....	.23	.37	....	T	.35	....	....	..	.01	.70	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.00	....	.15	....	2.81
Olin	....	....	T	.06	.35	....	....	.25	.80	....	....	....	.02	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.25	....	T	....	1.23
Omaha, Neb	....	....	.22	.18	.12	....	.36	.33	....	....	T	.18	.40	....	....	..	....	....	T	....	....	....	T	....	....	....	.39	T	T	1.59	....	3.67
Onawa	....	....	....	.25	.40	....	.07	.90	....	....	....	T	.25	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	.58	..	.97	....	3.47
Osage	....	....	....	....	.35	....	....	.13	.24	....	..	T	.51	.12	....	....	....	....	....	....	....	....	....	....	....	....	....	.15	.11	.04	....	1.65
Oskaloosa	....	....	T	.02	.45	....	.04	.26	.02	....	....	T	.05	.05	....	....	....	....	....	....	....	....	T	....	....	....	.70	.02	....	.02	....	1.68
Ottumwa	....	....	....	....	.54	....	.09	.40	....	....	....	.21	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	.92	....	.22	....	2.40
Pacific Junction	....	....	T	.03	.20	....	.22	.65	....	....	....	.52	.06	....	....	....	....	T	....	....	....	....	....	....	....	....	44	T	..	.15	....	2.27
Pella	..	....	T	.02	.41	.04	..	.43	.05	....	....	.04	.53	.12	....	....	....	....	....	....	....	....	.02	....	....	....	....	.83	....	.09	....	2.58
Perry	....	....	....	T	.30	..	..	.76	....	....	....	....	1.11	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.06	....	.15	....	3.38
Plover	....	....	....	....	.12	....	....	.22	....	....	....	.48	.87	.33	....	....	....	....	....	....	....	....	....	....	....	....	....	.34	.23	....	....	2.59
Pocahontas	....	....	..	.10	.41	.02	....	.38	.12	....	....	....	.39	.29	....	....	....	....	....	....	....	....	....	....	....	....	....	.61	....	.29	....	2.61
Red Oak	....	.	..	.04	.27	....	.15	1.04	....	....	....	.33	.71	....	....	....	....	..	T	....	....	....	....	....	....	....	.20	.30	..	.02	....	3.06
Ridgeway	....	....	.05	....	.49	....	....	.38	.04	....	....	.18	.06	.27	....	....	....	....	.01	....	....	....	....	....	....	....	....	.18	T	T	....	1.58
Rock Rapids	....	....	....	....	T	....	....	.65	T	....	....	.35	.65	....	....	....	....	T	....	....	....	....	....	....	....	T	.40	T	T	....	....	2.05
Sac City	....	....	....	T	.61	....	T	.65	..	....	....	.34	.25	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	.75	.05	....	....	2.75
Saint Charles	....	....	.01	....	.44	....	.06	.50	....	....	....	....	....	.14	....	....	....	....	....	....	....	....	....	....	....	....	....	1.16	....	.18	....	2.49

DAILY AND MONTHLY PRECIPITATION FOR APRIL, 1906—CONTINUED.

STATIONS.	DAY OF MONTH.																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sheldon	....	....	.25	....	.10	....	....	.45	....	....	....	T	2.75	....	....	....	....	T	....	....	....	....	....	....	.04	....	....	.45	.10	.02	....	4.16
Sibley	....	....	....	.12	....	....	....	.83	.16	....	....		.18	1.67	..	....	....	....	....	..	....	....	....	....	....	....	....	.31	.04	....	....	2.81
Sigourney	....	....	T	....	.88	.18	....	.81	.06	....	T	T	.06	T	....	....	....	....	....	....	....	....	T	....	....	....	....	.50	....	.04	....	1.48
Sioux Center	....	....	.04	....	.07	....	....	.58	....	....	....	T	.61	..	....	....	....	T	....	....	....	....	....	....	T	....	....	.37	....	.12	....	1.79
Sioux City	....	....	.08	.15	.15	..	.40	.23	....	....	T	.04	.75	..	..	..	..	.03	....	....	....	....	....	T	T	T	.50	.43	....	1.18	....	3.94
Stockport	....	....	T	.03	.48	.07	T	.55	.03	....	....	.02	.28	.01	....	....	....	....	....	....	....	....	T	....	....	....	T	.61	..	.09	....	2.17
Storm Lake	....	....	....	.11	.30	....	....	.65	T	..	....	....	.41	.04	....	....	....	....	....	....	....	....	....	....	....	....	....	.58	....	....	....	2.09
Thurman	....	..	T	.18	.22	..	....	1.20	....	....	T	..	.52	.10	....	....	....	....	....	....	....	....	....	....	....	....	.88	T	....	T	....	2.60
Tipton	....	....	....	....	.21	.11	....	....	.63	....	....	.06	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	....	T	....	1.21
Toledo	....	....	T	....	.40	....	....	.75	.15	....	..	.15	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.75	....	.15	....	2.35
Wapello	....	....	....	....	.25	.15	.20	.60	....	....	....	.04	....	..	....	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	.17	....	1.56
Washington	....	....	....	..	.43	....	....	.27	.03	....	....	.18	.18	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.23	....	.03	....	1.51
Washta	....	....	....	.50	....	....	.83	.05	....	....	....	.12	.88		....	....	....	....	....	....	....	....	....	....	T	....	.50	.05	....	1.70	....	4.13
Waterloo	....	....	....	T	.24	.16	....	.30	.22	T	..	T	.22	.17	....	....	....	....	....	....	....	....	....	....	....	....	....	.24	T	..	....	1.55
Waukee	....	....	.07	.02	.36	....	.05	.61	.05	....	....	T	1.75	.09	....	....	....	....	....	....	....	....	T	....	....	....	....	.95	....	.12	....	4.07
Waverly	....	....	T	....	.40	..	....	.25	.26	....	....	....	.08	.25	.04	....	....	....	....	....	....	....	....	....	....	....	....	.22	.20	....	....	1.70
Webster City	....	....	T	....	.38	....		.50	....	..	....	1.57	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.64	....	.18	....	8.27
West Bend	....	....	.01		.30	..	T	.19	.03	....	....	.51	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.38	.05	.19	....	1.66
Whitten	....	....	....	T	.45	....	....	.45	.20	....	....	.03	.96	.15	....	....	....	....	....	....	....	....	....	....	....	....	....	.62	.10	.10	..	3.06
Wilton Jnct	....	....	....	.30	.10	....	....	.42	.45	....	....	.09	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.26	....	....	.42	....	2.04
Winterset	....	....	....	....	.35	T	T	.46	....	....	....	.02	1.25	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	1.11	....	.09	....	3.35
Woodburn	....	....	T	.03	.	....	....	1.17	....	....	T	....	.64	.10	....	....	....	....	....	..	....	....	....	....	....	....	....	1 20	....	T	....	3.14
Zearing	....	....	....	T	.26	.06	....	.41	.11	....	....	.20	.70	.15	....	....	....	.	....	....		....	....	....	....	....	....	.71	.14	.08	....	2.82

Precipitation Chart April 1906.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR MAY, 1906

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA

BERNARD MURPHY, STATE PRINTER

1906

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION OF THE

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Alta	D. E. Hadden
Alta (near)	W. J. Minard
Alton	W. S. Slagle
Amana	Conrad Schadt
Ames	Exp. Station
Atlantic	J. W. Love
Audubon	Geo. E. Kellogg
Baxter	W. T. Thorp
Bedford	E. E. Healy
Belle Plaine	S. P Vandike
Bonaparte	Hon. B. R. Vale
Boone	Carl Fritz Henning
Britt	G. P. Hardwick
Buckingham (Traer P. O.)	Dr. W. A. Daniel
Burlington	I. S. Shontz
Carroll	Frank Hughes
Cedar Rapids	Electric Light and Power Co.
Chariton	C. C. Burr
Charles City	*Edward W. McGann
Clarinda	A. S. Van Sandt
Clear Lake	Oscar Stevens
Clinton	Luke Roberts
College Springs	A. M. Finley
Columbus Junction	J. B. Johnston
Corning	Jerome Smith
Corydon	Clara Miller
Creston	Rev. W. L. Gaston
Cumberland	Agent C., B. & Q. R'y
Davenport	*J. M. Sherier
Delaware	Wm. Ball
Decorah	F. H. Baker
Denison	Prof. W. C. Van Ness
Des Moines	*Geo. M. Chappel
De Soto	R. D. Minard
Dows	H. A. Flett
Dubuque	*James H. Spencer
Earlham, R. F. D.	Geo. Phillips
Elkader	Chas. Reinecke
Elliott	Henry Barnes
Estherville	A. O. Peterson
Fayette	R. Z. Latimer
Forest City	J. A. Peters
Fort Dodge	Tobin College
Ft. Madison	Miss L. A. McCready
Galva	F. H. Schleiter
Gilman	Jas. L. Wylie
Glenwood	J. P. Jackson
Grand Meadow (Postville P. O.)	F. L. Williams
Greene	J. L. Cole
Greenfield	J. G. Culver
Grinnell (near)	A. O. Price
Grundy Center	Ed King
Guthrie Center	D. G. Beardsley
Hampton	E. C. Grenelle
Hancock	W. Armstrong
Hanlontown	Miss G. M. Paschen
Harlan	C. A. Reynolds
Hopeville (Murray R. 2)	M. T. Ashley
Humboldt	H. S. Wells
Ida Grove	R. C. Clifton
Independence	E. F. Wulfke
Indianola	Prof. J. L. Tilton
Inwood	F. D. Hansen
Iowa City	Prof. Karl E. Guthe
Iowa Falls	J. B. Parmelee
Jefferson	G. W. Day
Keokuk	*Fred Z. Gosewisch
Keosauqua	Prof. J. A. Landes
Knoxville	Casey & Bellville
Lacona	Agent C., B. & Q. R'y
Larrabee	H B. Strever
Lenox	J. L. Hurley
Le Mars	Dr. T. E. Cole
Leon	Millard F. Stookey
Little Sioux	G. H. Gibson
Logan	Glenn H. Stern
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Mason City	J. S. Mills
Massena	G. A. Hill
Montezuma	C. J. Griffin
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Mt. Pleasant	Prof. J. W. Edwards
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Newton	Hon. J. P. Beatty
Northwood	Charles Dwelle
Odebolt	E. Starner
Ogden	C. L. Zollinger
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Pacific Junction	H. H. McCartney
Pella	T. W. Cox
Perry	J. A. Harvey
Plover	J. S. Smith
Pocahontas	F. E. Hronek
Preston	J. G. Storm
Ridgeway	Arthur Betts
Rock Rapids	W. C. Wyckoff
Rockwell City	C. M. Randall
Sac City	Frank Stouffer
St. Charles	C. W. Minard
Sheldon	Dr. A. W. Beach
Sibley	H. G. Doolittle
Sigourney	J. T. Parker
Sioux Center	Jacob de Ruyter
Sioux City	*C. D. Reed
Stockport	C. L. Beswick
Stuart	Dr. J. A. Treat
Thurman	C. R. Paul
Tipton	F. K. Gregg
Toledo	Herbert Giger
Vinton	H. G. Haines
Wapello	Geo. W. Schofield
Washington	Wm. A. Cook
Washta	H L. Felter
Waterloo	M. L. Newton
Waukee	E. J. Leonard
Waverly	H. S. Hoover
Webster City	C. D. Carpenter
Whitten	Dr. Frank P. Butler
Wilton Junction	Wm. Lang
Winterset	Dr. Robt. S. Cooper
West Bend	Phil Doweiler
Woodburn	C. B. McDonough
Zearing	C. P. Bean

*U. S. Weather Bureau.

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U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IN COOPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R SAGE, Section Director
GEO. M. CHAPPEL, Asst. Director

VOL. XVII. DES MOINES, IOWA, MAY, 1906. No. 5

IOWA CROP REPORT. JUNE 1, 1906.

ACREAGE OF FARM CROPS: AVERAGE CONDITION OF CROPS, FRUIT AND LIVE STOCK.

Reports received June 1st from county and township correspondents of the Iowa Weather and Crop service make a very favorable showing as to the area planted and the average condition of the staple crops of this state, as compared with preceding years.

CORN.—The aggregate area of corn planted this season appears to be 9,443,960 acres. These figures indicate an increase of 145,000 acres as compared with the area harvested last year, and a decrease of about 99,000 acres compared with the acreage shown by the State census covering the year 1904. The average condition of the corn crop on June 1st, was placed at 99 per cent for the state, as against 90 per cent in 1905 and 1904 on the corresponding date.

WHEAT.—The area of spring wheat is estimated to be 357,250 acres; and winter wheat 65,560, making a total wheat acreage 442,810 acres. This indicates a loss of 74,464 acres since 1904, as shown by the last State census. The estimated condition of the crop is 98 per cent, which is about the same as last year.

OATS.—Total acreage sown, 4,166,800 acres, a decrease of 148,830 acres as shown by the last census. Condition of the crop 96 per cent, a gain of one point above last year.

BARLEY.—Acreage sown, 558,870 acres; condition of the crop 96 per cent, the same as last year.

RYE.—Acreage of rye sown, 62,535 acres, a slight decrease compared with the census year. Condition of the crop, 97 per cent, or one point below last year.

FLAX.—The acreage of flax is reduced to about 19,160 acres, showing a reduction of 5,837 acres since 1904 according to the census figures; condition of the crop, 94 per cent—same as last year.

POTATOES.—The acreage of the potato crop is estimated to be 115,310 acres, which is about the average of recent years. Condition of crop 101 per cent.

MEADOWS.—Acreage of meadows, including all cultivated hay crops, 3,518,750 acres. Condition of the hay crop, 92 per cent.

WILD HAY.—Acreage, 899,850; condition, 90 per cent.

CONDITION OF FRUIT.—Secretary Wesley Greene, of the Iowa Horticultural Society, reports the condition of the fruit crops, on June 1st, as follows—Apples 71 per cent; pears 45, American plums, 67; domestic plums, 50; Japanese plums, 45; cherries, 75; peaches, 67; grapes, 85; red raspberries, 65; black raspberries, 74; blackberries, 88; strawberries, 82.

CONDITION OF LIVE STOCK.—Cattle, 99 per cent; sheep, 99; hogs, 97; spring pigs, 80; horses, 98; foals, 96.

MAY WEATHER AND CROPS.

The month was nearly normal in temperature, and there was less than the usual amount of rainfall in three fourths of the state. The mean temperature was 0.1° above the May normal. In the northern section the average was slightly below, and in the central and southern sections it was above normal. There was about the usual fluctuation, the station records showing a range of 71° from the highest to the lowest temperatures during the month. Heavy frosts were reported from stations in all districts about the 6th to the 9th, and on the 28th. The average rainfall was about .70 of an inch below the normal for the state. It was unequally distributed, the amounts reported ranging from .89 of an inch at Elliott, Montgomery county, to 10.72 inches at Hanlontown, Worth county. In the northern section the average was 1.40 inches above normal; in the central section it was 1.09 inches below the normal, and in the southern section the deficiency was 2.43 inches. The wettest area of the state embraced the counties of Worth, Mitchell and Howard, with portions of all the counties in the eastern half of the northern section. The driest area was in the southwest district. In fact all of the southern half of the state was abnormally dry. Though the amount of rainfall was below the normal, there was a compensating feature in the frequency of light showers in the larger part of the state. The greater portion of the rain that fell was absorbed by the well tilled fields, and the crops derived the full benefit. The area in which damaging storms occurred was less than one-tenth of the state. Under these weather conditions the bulk of the corn acreage was planted between the 14th and the 25th of the month. There was quite satisfactory germination, a very good stand was secured, and cultivation was in progress before the close of the month. Planting was delayed beyond the last day of May in less than half a dozen counties in the northern section. Reports received at the close of May showed a high average condition of the staple crops, affording evidence that as a whole May was a favorable month. The damage by frost was much less than the early reports seemed to indicate. The dry weather was favorable for cultivation, and the prospect of a large corn crop was seldom better at the close of May. The hay crop has been materially lessened by the lack of moisture, and small grain has suffered some detriment.

CLIMATOLOGY OF THE MONTH.

TEMPERATURE: The monthly mean temperature for the state, as shown by the records of 122 stations was 60.8°; which is 0.1° above the normal for May. By sections the mean temperatures were as follows: Northern section, 58.8° which is 0.5° below the normal; Central section, 61.1°, which is 0.6° above the normal; Southern section, 62.6°, which is 0.6° above the normal. The highest monthly mean was 65.5° at Keokuk. The lowest monthly mean was 57.4° at Hanlontown. The highest temperature reported was 95° at Odebolt, on the 11th. The lowest temperature reported was 24° at Estherville, Britt and Iowa Falls on the 7th. The average monthly maximum temperature was 87°, and the average monthly minimum was 28.9°. The greatest daily range was 52° at Preston; and the average of greatest daily ranges was 39.8°.

PRECIPITATION: The average precipitation for the state, as shown by records of 129 stations, was 3.54 inches, which is 0.70 of an inch below the normal for May. The averages by sections were as follows. Northern section, 5.38 inches, which

is 1.40 above normal; Central section, 3.15 inches, which is 1.09 below the normal; Southern section, 2.09 inches, which is 2.42 inches below the normal. The largest amount reported was 10.72 inches at Hanlontown. The least amount reported was 0.89 of an inch at Elliott. The greatest daily rainfall reported was 4.24 inches at Northwood on the 14th. The average number of days on which .01 of an inch or more was reported was 11.

WIND AND WEATHER: The prevailing direction of wind was southwest, and the highest velocity reported was 48 miles an hour, from the west, at Sioux City on the 17th. The average number of clear days was 13, partly cloudy 10, and cloudy 8.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	29.93	30.37	9	29.43	3
Davenport	29.95	30.39	9	29.53	3
Des Moines	29.94	30.42	9	29.51	3
Dubuque	29.96	30.40	9	29.49	3
Omaha, Neb	29.90	30.46	9	29.44	25
Keokuk	29.98	30.46	9	29.51	26
Sioux City	29.89	30.41	9	29.45	26
Means	29.94	30.46	9	29.48	3

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	6519	30	S W	1
Davenport	6150	29	S E	23
Des Moines	7574	36	S W	12
Dubuque	5902	30	S E	24
Keokuk	6184	35	S E	29
LaCrosse, Wis	5922	28	W	5
Omaha, Neb	7621	38	N	7
Sioux City	11781	48	W	17

OBSERVERS' NOTES.

AFTON—*N. W. Rowell.* Twice during the month we were on the border line of frost, yet escaped damage altogether. A fine month for all crops, and prospects were never better.

ALBIA—*J. I. Chenoweth.* Frost on the 9th hurt cherries and killed pears, yet will have a good peach crop; not enough rain to make good hay crop; prospects good for other crops.

ALLERTON—*Rex Shriver.* Month was good for all farm work; corn is doing nicely, but it has been too dry for oats.

ALTA—*David E. Hadden.* There was a killing frost in low places on morning of the 28th.

ALTON—*W. S. Slagle.* Frost on the 6th and 9thkilled garden truck in low places; month has been favorable for crops, which show a good stand; corn plowing was begun on the 21st.

BONAPARTE—*B. R. Vale.* Rain 2.92 inches and temperature variable. The subsoil is dry. Stock in good condition.

BOONE—*Carl Fritz Henning.* Frost on the 6th, 7th and 9th damaged plums, berries and early garden truck.

BRITT—*George P. Hardwick.* Changeable weather and extremes of temperature. with frequent showers, delayed planting field crops. Grass and grain made fair growth.

CHARITON—*C. C. Burr.* Damage from frost on 6th and 9th was slight. Fruit is doing well and corn above the average; pastures are fine.

CLINTON.—*Dr. Luke Roberts.* This was not the warmest May, but it was 1.5° above the 28-year average; crops had made a fair average at close of the month; moisture abundant.

ELLIOTT—*H. Barnes.* A glorious month for farm work, and at its close all crops were in fine condition; fruit abundant.

FAYETTE—*R. G. Latimer.* Heavy frosts on 9th, 10th and 28th, hurt vegetation on low lands.

FOREST CITY—*J. A. Peters.* As a whole the month has been quite favorable for farm work, and condititions are practically normal compared with other years.

GARDEN GROVE—*F. L. Williams.* Month was wet, with extremes of temperature. Grass has been extra good; small grain is fair; corn planting was backward.

GREENFIELD—*J. G. Culver.* Heavy frosts on 6th and 9th damaged fruit on low lands; corn is a good stand and clean.

GRINNELL—*A. O. Price.* Month was favorable for farm work, with rainfall below normal of the past ten years; but little damage done by frost.

HANLONTOWN—*Miss G. M. Paschen.* Corn planting was begun on 10th and nearly finished by the 19th; heavy rains retarded farm work and nothing was done to corn fields after planting.

INWOOD—*F. B. Hanson.* First half of May was fine; on the 21st heavy rain flooded the fields. Frost on the 28th damaged corn and garden truck slightly.

IOWA FALLS—*J. B. Parmalee.* Slight damage to fruit by frosts of 7th and 9th. Apples plums and cherries set all the fruit they can bear.

KEOSAUQUA—*J. H. Landes.* All vegetation flourishing at end of month; but little damage by frost.

LEON—*Millard F. Stookey.* Light frosts on nights of 5th, 8th and 27th, in low places.

NORTHWOOD—*Chas. H. Dwelle.* Worst electric storm in years, on May 14th, rainfall 4.24 inches; farm work much behind at end of month.

OLIN—*Nathan Potter.* A good month, with no severe storms; frost and ice half inch thick on the 6th, but no material damage resulted except in very low places.

RIDGEWAY—*Arthur Betts.* The month was 1.3° warmer than May, 1905. Frost with ice two tenths of an inch thick on the 6th and 7th. There were 265 hours of sunshine. It was a good growing month with much south wind. Rain fall 6.04 inches.

SHELDON—*A. W. Beach.* A good month except a surplus of rain the last two weeks; all crops and farm work advanced to the average.

SIGOURNEY. *J. L. Baker.* Three hard frosts with fruit in full bloom, and yet but little was killed; ice formed three times a sixteenth of an inch.

WAUKEE—*E. J. Leonard.* Rain fell on 14 days, but was well distributed and little at a time, with no storms; lighf frosts on the 6th and 28th.

IOWA CROPS, 1906—NUMBER OF ACRES BY COUNTIES.

COUNTIES.	Winter Wheat, acres.	Spring Wheat, acres.	Corn, acres.	Oats, acres.	Rye, acres.	Barley, acres.	Flax, acres.	Potatoes, acres.	Hay (tame), acres.	Hay (wild), acres.
Adair	220	3,8[illegible]	99,110	51,190	70	2,120	.....	1,190	45,410	5,250
Adams	510	1,08[illegible]	75,120	16,270	130	2,150	.....	710	34,120	2,140
Alamakee	420	1,420	45,980	40,920	1,460	10,960	170	1,280	44,760	1,690
Appanoose	780	.....	56,050	11,260	450	140	.....	1,070	56,380	1,010
Audubon	.....	10,540	95,630	30,130	110	7,250	.....	1,020	29,960	4,2[illegible]0
Benton	.....	780	126,090	67,120	450	13,870	.....	1,810	48,120	9,050
Black Hawk	.....	52[illegible]	102,740	53,170	1,250	3,010	.....	1,570	35,070	12,500
Boone	.....	1,8[illegible]0	110,820	48,440	220	280	.....	1,280	25,110	21,150
Bremer	.....	320	62,820	52,87[illegible]	1,030	2,580	140	1,380	21,870	22,120
Buchanan	.....	120	92,820	48,530	630	1,820	.....	1,420	40,460	10,970
Buena Vista	.....	1,470	104,530	65,870	50	2,640	220	1,310	25,120	20,280
Butler	.....	310	110,220	69,620	960	1,190	60	1,250	26,020	11,620
Calhoun	.....	1,810	109,710	63,530	160	3,670	90	1,080	22,450	18,120
Carroll	.....	6,120	115,270	58,810	80	5,92[illegible]	.....	1,710	29,670	14,110
Cass	410	9,5[illegible]0	117,210	29,510	160	3,270	.....	1,4[illegible]0	34,290	2,190
Cedar	560	610	108,210	29,820	6[illegible]0	16,610	.....	1,240	47,980	420
Cerro Gordo	.....	790	92,270	68,850	180	1,820	4[illegible]0	1,310	30,420	12,540
Cherokee	.....	5,160	116,820	53,780	50	6,41[illegible]	160	1,2[illegible]0	29,920	10,270
Chickasaw	.....	630	64,680	65,230	520	3,8[illegible]0	1,810	1,370	27,520	13,110
Clarke	150	.....	54,350	14,450	130	120	.....	620	48,920	310
Clay	.....	1,330	88,920	60,230	90	7,460	170	970	26,950	20,120
Clayton	650	2,420	75,620	61,580	3,910	12,310	.....	1,8[illegible]0	52,060	1,980
Clinton	420	1,240	120,910	38,650	1,810	9,330	.....	1,28[illegible]	64,360	4,020
Crawford	.....	18,[illegible]90	140,260	50,370	180	6,890	.....	1,920	42,12[illegible]	6,380
Dallas	1,020	2,180	124,020	40,120	520	630	.....	1,080	30,620	180
Davis	650	.....	60,340	16,560	650	5[illegible]	.....	730	50,520	110
Decatur	610	.....	67,120	13,850	150	40	.....	680	46,750	380
Delaware	740	.....	90,260	39,160	1,450	8,780	.....	1,190	47,1[illegible]0	6,060
Des Moines	1,180	260	65,010	27,220	1,510	560	.....	980	28,180	210
Dickinson	.....	2,130	48,820	37,410	60	12,750	460	540	13,380	17,670
Dubuque	110	1,460	70,410	49,180	920	5,530	.....	1,980	53,130	2,140
Emmett	.....	820	54,530	44,180	70	1,82[illegible]	210	510	17,63[illegible]	15,210
Fayette	140	1,41[illegible]	63,120	65,750	680	9,360	510	1,64[illegible]	55,910	12,240
Floyd	.....	180	92,450	72,160	1,130	4,63[illegible]	610	1,870	30,910	5,320
Franklin	.....	1,810	106,410	77,220	110	1,12[illegible]	.....	1,080	29,540	20,140
Fremont	8,040	1,570	120,140	11,180	330	210	.....	710	18,030	4,110
Green	.....	710	112,480	46,540	50	1,740	110	830	22,490	20,130
Grundy	.....	98[illegible]	104,090	65,080	1,230	7,010	.....	1,580	25,180	9,760
Guthrie	320	4,630	95,210	38,540	110	2,130	.....	610	36,260	6,840
Hamilton	.....	1,820	115,170	59,620	25	670	130	1,440	30,110	23,110
Hancock	.....	1,910	88,210	80,120	40	2,040	.....	940	25,05[illegible]	15,940
Harden	.....	2,370	112,130	60,180	130	1,140	.....	1,310	27,910	15,410
Harrison	.....	20,810	140,160	25,160	200	1,510	.....	1,480	19,170	16,110
Henry	930	.....	71,310	30,110	2,610	950	.....	590	31,460	80
Howard	.....	810	52,280	56,910	40	9,210	2,120	960	31,760	10,220
Humboldt	.....	3,610	74,210	48,070	20	1,240	120	520	22,170	15,960
Ida	.....	8,710	95,820	37,110	110	6,580	.....	950	25,050	4,120
Iowa	210	810	94,080	38,180	590	4,010	.....	1,230	43,910	1,510
Jackson	220	1,300	73,140	28,620	1,210	5,180	.....	1,150	56,920	220
Jasper	410	4,230	140,380	46,150	190	2,510	.....	1,820	42,430	2,250
Jefferson	1,230	.....	64,890	23,040	2,910	1,360	.....	620	32,080	60
Johnson	460	290	105,820	39,160	1,420	7,160	.....	1,320	50,210	1,910
Jones	.....	580	86,530	26,630	810	7,680	.....	1,080	49,480	460
Keokuk	610	720	102,410	32,160	1,640	4,280	.....	910	42,610	410
Kossuth	.....	3,420	147,070	120,280	120	3,020	890	1,490	37,620	75,280
Lee	13,150	.....	65,120	20,640	3,960	120	.....	1,120	45,110	100
Linn	.....	2,110	117,360	50,850	920	960	.....	1,910	60,110	5,010
Louisa	1,030	210	73,010	23,960	2,690	610	.....	620	19,520	1,620
Lucas	1,510	920	53,390	12,260	370	40	.....	490	65,490	310
Lyon	.....	18,360	93,980	57,170	150	48,120	120	1,280	17,850	10,420
Madison	810	1,230	89,110	27,230	210	2,940	.....	750	41,810	1,520
Mahaska	1,080	810	109,270	29,280	990	5,740	.....	1,040	39,410	920
Marion	1,560	1,210	100,640	27,290	350	1,520	.....	890	36,170	1,080
Marshall	980	1,840	120,550	57,850	280	2,380	.....	1,290	34,680	1,610
Mills	1,850	4,110	98,120	13,910	40	820	.....	860	22,410	5,410
Mitchell	.....	970	58,020	73,970	210	10,340	2,150	1,520	29,030	2,570
Monona	2,810	12,270	130,850	19,280	250	6,420	.....	1,210	9,920	20,110
Monroe	420	310	44,650	9,510	870	360	.....	780	39,470	220
Montgomery	3,980	9,260	99,210	14,580	90	2,610	.....	760	36,780	1,280
Muscatine	810	420	76,210	18,610	3,190	9,770	.....	1,820	25,850	1,070
O'Brien	.....	6,030	103,270	60,960	50	25,110	820	1,140	26,120	10,240
Osceola	.....	4,120	57,480	47,960	90	24,380	460	670	17,180	9,150
Page	8,570	2,210	118,220	17,240	350	920	.....	980	38,120	2,450
Palo Alto	.....	1,170	82,550	12,180	40	2,420	570	890	14,870	35,590
Plymouth	.....	50,150	170,110	66,380	180	17,080	160	1,820	25,190	26,120
Pocahontas	.....	1,080	92,610	60,240	80	1,520	560	1,020	17,820	30,826
Polk	1,030	1,510	118,650	38,320	310	240	.....	2,050	26,210	6,350
Pottawattamie	1,270	22,910	2[illegible]8,120	42,120	220	2,510	.....	2,510	48,240	12,070
Poweshiek	150	1,230	107,510	35,410	210	5,770	.....	1,040	44,110	1,060
Ringgold	420	220	74,950	20,160	120	20	.....	620	52,420	410
Sac	.....	2,110	120,080	50,410	70	9,180	120	1,020	32,610	12,430
Scott	1,020	1,820	80,120	20,610	1,040	31,290	.....	4,020	30,740	4,110
Shelby	.....	15,120	122,480	30,670	190	7,260	.....	1,080	35,310	5,680
Sioux	.....	35,310	150,280	64,230	40	36,410	60	1,510	22,350	20,110
Story	160	970	120,760	55,190	290	510	.....	980	30,180	12,120
Tama	.....	2,910	122,610	56,070	1,170	15,160	.....	1,710	60,120	4,210
Taylor	1,430	.....	86,050	17,220	360	1,390	.....	620	45,190	1,050
Union	170	80	62,830	18,010	80	230	.....	780	45,6[illegible]0	970
Van Buren	1,560	120	53,710	18,290	2,170	60	.....	560	48,670	210
Wapello	920	.....	62,740	16,250	2,040	1,520	.....	980	36,590	180
Warren	420	910	92,170	21,890	210	810	.....	880	42,310	1,260
Washington	920	120	101,42[illegible]	39,150	1,360	2,960	.....	790	39,510	160
Wayne	130	.....	70,11[illegible]	16,290	140	80	.....	480	70,140	120
Webster	.....	2,820	11[illegible],230	70,570	180	930	120	1,070	27,210	30,810
Winnebago	.....	4,280	55,110	46,870	50	1,480	590	610	17,510	25,160
Winneshiek	160	2,920	75,120	70,620	280	17,120	2,710	1,090	47,120	5,910
Woodbury	890	19,580	181,190	42,100	670	12,920	30	1,520	21,610	15,950
Worth	.....	2,090	40,620	60,560	40	4,310	2,490	740	24,830	15,810
Wright	.....	2,120	99,310	70,110	160	1,920	340	810	25,710	19,960
Total for State	65,560	377,250	9,443,960	4,166,800	62,530	558,870	19,160	115,810	3,519,750	899,850

NOTES AND COMMENTS.

With a rapidly increasing population the home market in this country is assuming immense proportions, presenting a serious problem as to our ability to maintain the supply of food products and manufactured necessities in the ratio of the growing demand. Only by intensive methods, and reclamation of marshes and arid lands, can we hope to be able to feed the 130 million people, who will inhabit the United States before the middle of this century. Long before that time the demands of the home market will be more than equal to the supply, unless there shall be a great improvement in our methods of cultivation.

Horses are surviving automobiles as they survived railroads. When railroads were introduced horse breeders were as sure that they were ruined as British ship owners were when the navigation laws were repealed. The automobile and the electric car threw the horse breeders into a panic. But the department of agriculture reports that there are now 18,718,578 in the United States, against 14,364,667 nine years ago. In the same time mules have increased from 2,215,654 to 3 404,061, and the value per head of both beasts is estimated much higher now than nine years ago.—Ex.

Our pet theories are being constantly overthrown. Science has done much in recent years to lessen our regard for theories that have been built up on partial observation. One of these theories has been that forest soils were much moister than the soils of the prairie lands. It seems very natural to suppose that the ground that was protected by the shrubbery and trees would have more moisture in it than the ground exposed on the open prairie. In Europe they have been analyzing the soils in forests and in adjoining pastures to ascertain the moisture content. The difference of moisture content has been found to be not great, but it is drier in the forest than in the open pasture. —Farmers Review.

J. J. INGALLS' RHAPSODY ON GRASS.

Next in importance to the divine profusion of water, light and air, those three great physical facts which render existence possible, may be reckoned the universal beneficence of grass. Exaggerated by tropical heat and vapors to the gigantic cane congested with its saccharine secretion, or dwarfed by polar rigors to the fibrous hair of Northern solitudes, embracing between these extremes the maize with its resolute pennons, the rice plant of Southern swamps, the wheat, rye, barley, oats, and other cereals, no less than the humble verdure of hillside, pasture and prairie in the temperate zone, grass is the most widely distributed of all vegetable beings, and is at once a type of our life and the emblem of our mortality. Lying in the sunshine among the buttercups and dandelions of May, scarcely higher in intelligence than the minute tenants of that mimic wilderness, our earliest recollections are of grass; and when the fitful fever is ended, and the foolish wrangle of the market and forum is closed, grass heals over the scar which our descent into the bosom of the earth has made, and the carpet of the infant becomes the blanket of the dead.

Grass is the forgiveness of Nature—her constant benediction. Fields trampled with battle, saturated with blood, torn with the ruts of cannon, grow green again with grass, and carnage is forgotten. Streets abandoned by traffic becomes grass grown like rural lanes, and are obliterated. Forests decay, harvests perish, flowers vanish, but grass is immortal. Beleaguered by the sullen hosts of winter, it withdraws into the impregnable fortress of its subterranean vitality and emerges upon the first solicitation of spring. Sown by the winds, by wandering birds, propagated by the subtle horticulture of the elements which are its ministers and servants, it softens the rude outline of the world. Its tenacious fibers hold the earth in its place, and prevents its soluble components from washing into the wasting sea. It invades the solitudes of deserts, climbs the inaccessible slopes and forbidden pinnacles of mountains, modifies climates and determines the history, character and destiny of nations. Unobtrusive and patient, it has immortal vigor and aggression. Banished from the throughfare and the fields, it bides its time to return, and when vigilance is relaxed, or the dynasty has perished, it silently resumes the throne from which it has been expelled, but which it never abdicates. It bears no blazonry of bloom to charm the senses with fragrance or splendor, but its homely hue is more enchanting than the lily or the rose. It yields no fruit in earth or air, and yet, should its harvest fail for a single year, famine would depopulate the world.

DATES OF THUNDERSTORMS.

Northern Section.

Algona—1, 13, 20, 23, 24.
Alta—1, 13, 14, 15, 20, 21, 22, 23, 25, 29.
Alton—20, 21, 22, 24, 25, 26.
Britt—14, 23, 26.
Charles City—1, 3, 13 14, 23, 24, 26, 29.
Clear Lake—14.
Dows—1, 3, 12, 13, 14, 23, 24, 26, 29.
Elkader—1, 3, 11, 12, 13, 16, 17, 22, 23, 24, 26, 30
Fayette—1, 3, 10, 11, 17, 24, 25.
Grand Meadow—3.
Hanlontown—1, 3, 13, 14, 16, 17, 23, 24, 26, 29.
Humboldt—1, 7, 14.
Inwood—20, 21, 25, 29.
Larrabee—13, 20,23, 25, 29.
LeMars—22, 23, 29.
Mason City—1, 14, 15, 16, 23, 24, 29, 30.
New Hampton—1, 11, 23, 26.
Northwood—3, 13, 14, 15, 23, 24, 26, 29.
Osage—3, 13, 14, 23, 24, 25, 26, 29, 30.
Plover—12, 13, 14, 15, 20, 22, 23, 24.
Pocahontas—1, 14, 15, 23, 24, 38.
Ridgeway—1, 3, 8, 10, 12, 13, 14, 23, 24, 25, 26, 29, 30.
Sheldon—1, 14, 21, 23, 24, 25, 29.
Sibley—15, 20, 22, 24, 26.
Sioux Center—1, 13, 20, 21, 22, 25, 26, 29.
Washta—13, 21, 23, 26, 29.
Waverly—12, 29.
West Bend—1, 13, 14, 20, 29.

Central Section.

Amana—1, 10, 17, 24, 26, 29, 30.
Audubon—7, 14, 15, 23, 28.
Baxter—13, 14, 29.
Boone—14.
Carroll—1, 14, 15, 24, 30.
Clinton—1, 11, 12, 23, 24, 26, 29.
Cedar Rapids—11, 18, 25, 26, 29.
Davenport—1, 10, 11, 12, 17, 18, 23, 24, 26, 29, 30.
Des Moines—1, 13, 14, 15, 16, 22, 24, 26, 29, 31.
Dubuque—1, 11, 12, 17, 22, 23, 24, 25, 26, 29.
Galva—21, 29, 30.
Grinnell—1, 13, 14, 16, 22, 23, 24.
Guthrie Center—14, 23, 24, 29.
Harlan—1, 13, 14, 15, 21, 22, 23, 29.
Independence—12, 17, 24, 26.
Iowa City—1, 10, 17, 26, 29.
Iowa Falls—1, 3, 12, 13, 15, 23, 24, 26, 29.
Little Sioux—1, 14, 21, 23, 29.
Mount Vernon—11, 13, 18, 26.
Nevada—14, 16.
Olin—1, 17, 24, 26, 29.
Onawa—1, 14, 23, 24, 25, 26, 27, 29.
Perry—13.
Preston—1, 11, 18, 24, 27.
Sioux City—13, 14, 21, 22, 23, 25, 29.
Stuart—13.
Waterloo—1, 16, 24, 26.
Waukee—14, 16.
Whitten, I, 24, 25, 29.
Zearing—1, 13, 14, 15, 26, 29.

CLIMATOLOGICAL DATA FOR MAY, 1906.

CENTRAL SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	OBSERVERS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Amana	Iowa	721	27	62.0	s 2.0	88	28	29	7	35	2.12	- 2.84	.45	...	11	12	16	3	SW	
Ames	Story	926	22	60.8	s 1.2	86	11	29	6,7	40	1.73	- 2.50	.72	....	10	13	14	4	S, SW	
Audubon	Audubon	1,301	10	61.2	s 0.9	88	11	27	6,9	48	2.86	- 1 06	.95	...	11	13	8	10	SW	
Baxter	Jasper.	998	6	60.4	- 1.7	85	11, 17	27	9	42	2.50	- 2.98	.82	....	15	15	10	6	SE	
Belle Plaine	Benton	828	14	60.4	s 1.1	86	13, 17, 23, 26	27	7	37	3.06	- 1.38	.75	....	13	11	12	8	SE	
Boone	Boone.	1,134	...	60 2	....	86	11	31	6	38	2.20	.....	.57	....	9	...	....			
Buckingham	Iowa	.....	6	.....	.....	...	.....	....	.....	.....	3.23	- .61	.73	....	7		...	...		
Carroll	Carroll	1,265	16	59.6	s 0.1	87	11	28	6,9	39	2.81	- 1 60	1.66		11	11	5	15		
Clinton	Clinton	593	35	62 5	s 1.6	91	17	30	7,9	37	4.44	- .16	1.11	....	10	12	9	10	SW	
Cedar Rapids	Linn	733	...	62.0	s 2.0	90	17, 23	30	7	47	3 28	- 1.24	.95	...	13	11	15	5	S	
Davenport	Scott	606	33	62 8	s 2 1	85	17	34	7	35	2.60	- 1.72	.66	..	11	12	14	5	N W	
Delaware	Delaware	1,083	13	58 4	- 0 3	83	23, 24	27	7	33	2.80	- 1.32	68		11	10	15	6	S	
Denison	Crawford.	1,180	10	59 8	- 0 8	87	11	29	9	48	2.70	- .90	1.74	..	9	20	8	3	S	
Des Moines	Polk	861	27	61.8	s 1 5	84	11	33	9	33	2,21	- 2.49	.63	....	12	5	19	7	S	
De Soto	Dallas	866	6	62.0	.....	84	11	31	6,7	40	1.74	.....	.45	..	9	19	5	7	SW	
Dubuque	Dubuque	655	31	60.4	s 0.5	87	17	34	6	32	3.59	- .40	1 09	..	16	13	12	6	S	
Fort Dodge	Webster.	1,126	...	58 8	....	87	11	30	7	43	6.10	.	2.28	....	13	3	5	13	S	
Galva	Ida	1,290	10	59 6	- 1.1	81	11, 23, 24	30	6,9	38	4.61	s 1.30	1.80	..	13	17	9	5	S	
Gilman	Marshall	1,052	....			.....	.....	....	.....	.....	1.83	- 2.17	.52	....	8	11	14	6	S	
Grinnell (*near*)	Poweshiek	1,023	11	61.0	s 0.8	83	11, 14, 6, 17, 23, 26	28	6	35	2.41	- 2.24	.75	....	11	11	13	7	SW	
Grundy Center	Grundy	976	13	60 6	s 1.9	86	11, 23	28	7	38	2.92	- 2.03	1.05	...	6	17	6	8	S	
Guthrie Center	Guthrie	1,077	8	63.2	s 1.2	85	11	29	6,9	50	2.11	- 2.46	.60	....	14	15	11	5	S W	
Harlan	Shelby	1,193	7	61 0	- 0 7	85	11	28	9	44	4 89	s .53	1 65	..	9	8	17	6	S, NW	
Ida Grove	Ida	1,220		60.8	...	89	11	29	9	48	3.60	.....	1.82	...	11	....	...	....	NW	
Independence	Buchanan	921	40	60.4	s 0 7	85	17	29	7	38	1.00	- 3.17	.40	....	7	16	11	4	S	
Iowa City	Johnson	683	45	61 0	s 0.7	87	17	25	7	42	2.33	- 2.01	.41	....	12	23	3	5	SW	
Iowa Falls	Hardin	1,170	11	58 2	- 1.5	86	11	24	7	46	2.94	- .61	.85	....	12	13	4	14	SW	
Jefferson	Greene	.....	....	60.9	.....	86	11	30	6	42	3 17	.....	.73	....	12	12	14	5	SW	
Le Claire	Scott	576	....		....	.....	.....	....	.....	.....	2.90	.....	.60	..	11	22	2	7	SW	
Little Sioux	Harrison		....	63.0	.....	88	11	29	6	41	4 05	.....	1.15	...	11	14	13	4	SE	
Logan	Harrison	928	37	62.6	s 1.4	89	11	31	6	46	3.73	- .46	1.83	....	9	6	23	2	SE	
Marshalltown	Marshall	947	11	60.4	s 0 8	88	11	26	7	47	2.50	- 2.24	.69		7	...	....	....		
Mount Vernon	Linn	847	37	61.8	s 2.4	88	17	30	6,7	49	3 18	- 91	.93	....	11	18	5	8		
Muscatine	Muscatine	.....	47	.....	...	.....	.....	...	.....	.....	3.49	- .89	1.10	....	13	17	4	10	S	
Newton	Jasper.	944	16	63.3	s 2.4	88	11, 18	32	6,7,9	33	2 19	- 2.27	.57	....	9	8	20	3	SW	
Nevada	Story	.....		.....	...	...	.....	...	.....	.....	3.57	.....	.85	...	9	....	....	....		
Odebolt	Sac	1,356	7	61.7	- 0.2	95	11	28	6	41	4 06	s 1.29	2.25	....	8	19	9	3		
Ogden †	Boone	1,058	10	60.0	- 1.4	87	11	29	6	35	3 04	- 2.12	.94	..	12	14	10	7	S	
Olin	Jones	760	7	60.8	- 0.2	86	17	25	7	35	5.01	s .48	2.10	....	9	12	13	6	S	
Onawa	Monona	.....	6	63.2	- 0 5	91	11	30	6	47	4.61	s .23	1.60	..	11	21	3	7	SE	
Perry (*a*)	Dallas	975	....	61.3	.....	87	11, 23	30	9	37	3 10	.....	.65	..	11	5	16	10		
Preston (*e*)	Jackson	.....	...	63 2	....	91	7	30	10	52	.....	.....	.....	...		10	11	10	SW	
Rockwell City	Calhoun	.....	9	59.3	- 1.3	87	11	29	6	40	6.86	s 3.53	3.05	....	8	18	6	7		
Sac City (*b*)	Sac	1,356	24	60.5	s 2.8	86	11	30	6	40	3.16	- .47	1.19	....	11	14	10	7		
Sioux City	Woodbury	1,165	15	60.6	s 2.2	89	11	31	6	38	2.18	- 1.49	.91	..	7	9	4	18	SE	
Stuart	Guthrie	.....	7	62.2	s 0.1	89	23, 24	31	7	44	2.01	- 2.44	.65	....	10	....	....	...		
Tipton	Cedar	807	8	63.6	s 2.9	90	17	32	7	31	3 12	- 2.19	1.13	....	8	24	5	2	SW	
Toledo	Tama	856	10	61.8	s 0.0	86	16, 23	27	7	38	3.37	- .34	.97	..	12	10	13	8	SW	
Vinton (*b*)	Benton	810	14	60.8	s 0 9	85	17	27	7	31	.....	.....	.....	..	...	....	....	....		
Waterloo	Black Hawk.	862	17	59.9	- 0.1	87	23	28	7	40	3.35	- 1.03	1 50	..	11	13	13	5	SW	
Waukee	Dallas	1,039	....	62 7		85	11	30	6	36	2.46	.....	.40	....	14	13	15	3	S	
Webster City	Hamilton	.....	....	61.4		88	23	26	7	42	3.03	.....	.96		6	13	12	6	SE	
Whitten	Hardin	1,036	6	60.4	s 0.6	87	23	25	7	38	3.56	- .20	1.11	T	8	14	13	4	SE	
Wilton Jct	Muscatine	683	9	....	.....	.....	.....	30	7	.	3.79	- .53	1,50	...	10	18	10	3	W	
Zearing	Story	718	....	59,9	.....	86	11	26	7	49	2.50	... .	.48	...	9	12	9	10	SW	
Average		.....	...	....	61.1	s 0,6	87.0	.....	29,0	.....	40,4	3.15	- 1,09	.....	T	10	13	11	7	SW	

Southern Section.

Albia—13, 15, 17, 29.
Allerton—1, 7, 8, 16, 17, 18, 22, 23, 30.
Atlantic—7, 14, 22, 29.
Burlington—27.
Columbus Junction—1, 11, 12, 16, 18, 22, 26.
Corning—7, 12, 13, 22, 29.
Corydon—8, 30.
Earlham—1, 7, 10, 13, 29, 30.
Elliott—12, 14, 15, 22, 25, 29.
Fort Madison—1, 22, 26, 29.
Greenfield—7, 10, 13, 14, 22, 23, 24, 25, 29, 31.
Hancock—23.
Hopeville, 13, 29.
Indianola—1, 13, 15, 22, 24, 29, 31.
Keokuk—1, 4, 17, 22, 26, 27, 29, 30.
Keosauqua—23, 24.
Lenox—7, 22.
Mount Pleasant—15, 24, 26, 29.
Omaha, Nebr.—1, 7, 14, 21, 22, 23, 24, 25, 29.
Pella—1, 16, 22, 24.
Saint Charles—1.
Sigourney—1, 24.
Wapello—16, 18, 29.
Woodburn—29.

ERRATA.

Logan:—March: Total precipitation recorded 2.45 inches on page 27, should have been, 2.46 inches.

Fayette:—April: Mean temperature recorded 52.0* on page 40, should have been 49. 6*.

CLIMATOLOGICAL DATA FOR MAY, 1906—Continued.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	Dates of Thunderstorms.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Algona	Kossuth	1,218	30	58 5	- 1.0	87	11	26	7	31	4.48	s .98	1.07	T	18	11	8	12	NW	
Alta	Buena Vista	1,513	13	59.0	s 0.4	88	11	29	6	41	5 12	s .90	1 80	0	14	13	14	4	S, NW	
Alta (near)	Buena Vista										5 68		1.80	0	13					
Alton	Sioux	1,305		59.6		89	11	30	9	43	6.51		2.35	0	14	15	8	8	SE	
Britt	Hancock	1,236	7	58.6	- 0.5	87	11	24	7	40	4 3	s .62	.95	T	14	6	18	7	SE	
Charles City	Floyd	1,005	13	57.8	- 2.1	85	11	27	7	35	6 26	s 2.21	1.27	0	14	4	12	15	SE	
Clear Lake	Cerro Gordo	1,241	7	58.8	- 2 5	83	11, 22	31	6	33	6 80	s 1 20	1.80	0	12	13	1	17	S	
Decorah	Winneshiek	875	10	59.0	- 1.2	87	17	29	7	35	5 56	s 1.19	1.02	0	14					
Dows	Wright	1,142	6	58 2	- 1.5	83	11	27	7	33	4 19	- .88	1.18	0	18	11	10	10	SSW NW	
Elkader	Clayton	727	23	60.2	- 0.7	89	23	28	9	38	3 70	- .35	1.35	0	11	13	11	7	SE	
Estherville	Emmet	1,298	9	58 1	- 0 6	90	11	24	7	45	3 15	s .02	.75	0	9	13	0	18	SE	
Fayette (b)	Fayette	1,008	16	58 0	s 0.3	88	25	25	7	38	2 84	- 2.00	1.10	T	11				S W	
Forest City	Winnebago	1,226	10	58.4	- 1.2	88	11	27	7	45	5.17	s 1.37	1.12	0	13	13	3	15	S	
Grand Meadow	Clayton	1,180	13	58.2	‡ 0.0	84	16, 17, 23	27	7	32	4.50	- .65	.72	T	16	6	10	15	N W	
Greene	Butler																			
Hampton	Franklin	1,155	14	59 8	s 1.4	88	11	28	7	39	3.32	- .85	1.11	T	11	5	21	5	S W	
Hanlontown	Worth			57.4		86	11	25	7	39	10 72		3 46	0	17	14	8	9	SE, S W	
Humboldt	Humboldt	1,095	12	57.6	- 2.7	82	11, 12	27	7	33	6.8	s 2.97	2.00	0	14	15	6	10	S W	
Inwood	Lyon			53.8		93	11	23	6, 9	47	5.5		1.16	0	14	16	7	8	SE	
Larrabee (a)	Cherokee	1,266	15	61 4	s 2 9	89	11	30	6	43	4 27	s .32	1 53	0	8				N W	
Le Mars	Plymouth	1,224	8	60 3	- 0 3	91	11	28	9	40	5.87	s 2.28	1.55	0	13	8	18	5	S	
Mason City	Cerro Gordo	1,132		58.8	- 0.2	85	11	30	7	40	7.00	s 3.05	2.65	0	12	6	20	5	S	
New Hampton	Chickasaw	1,169	6	58.0	1.3	85	23	28	7	35	4 97	s .50	1.15	T	15	11	10	10	W	
Northwood	Worth	1,222	8	58.0	- 0.9	85	11	28	7	40	9 61	s 5.19	4.24	T	15	10	13	8	S W	
Osage	Mitchell	1,184	13	57.8	s 0.7	86	11	29	7	52	8.10	s 3.87	1.48	0	16	6	9	16	S	
Plover (c)	Pocahontas		7	59.8	- 0.6	88	11	27	7	42				0						
Pocahontas	Pocahontas			59.9		90	11	28	6	42	3 05		.73	0	13	9	15	7	S	
Ridgeway	Winneshiek	1,215	8	58.7	- 1.9	87	23	30	6 7	35	6 01	s .89	1.02	0	18	11	13	7	S	
Rock Rapids	Lyons																			
Sheldon	O'Brien	1,422	6	59 3	s 0 3	92	11	29	6, 7, 9	42	5.52	s 1.90	2.80	0	13	14	9	8	S W	
Sibley	Osceola	1,212	10	57.5	- 1.1	92	11	25	6	49	4 20	s .85	1 81	0	13	14	5	12	SE	
Sioux Center	Sioux		7	53.6	- 2.4	89	11	26	6	44	8.00	s 4.18	2.43	T	14	15	7	9	N W	
Storm Lake	Buena Vista	1,440	9	58.0	‡ 0.0	85	11	30	6	40	4.57	s 1.05	1.74	0	9	15	1	15	SE	
Washta	Cherokee	1,157		60.1		84	22	26	6	43	4.28	s 1.07	2.08	0	10	14	10	7	S	
Waverly	Bremer	942	8	60.0	- 1.4	86	11	29	7	37	2 73	- 1.89	.80	0	14	9	13	10	N W	
West Bend	Palo Alto	1,197	10	59 0	- 0 3	87	11	27	7	40	4.79	s 1 95	1.18	0	15	7	15	9		
West Union																				
Average				58.8	- 0.5	87.3		27.7		40.2	5.38	s 1.40		T	13	11	10	10	S	

SOUTHERN SECTION.

Afton	Union	1,213	11	62.5	- 0.6	86	25	31	6	42	2.97	- 1.74	.93		8	12	15	4	S W	
Albia	Monroe	959	8	61.4	- 0.8	85	17	30	6	37	2.89	- 1.23	.58		10	21	5	5	S	
Allerton	Wayne			61.1		86	17	30	6, 9	35	2.52		.51		13	20	6	5	S W	
Atlantic	Cass	1,164	13	61.4	s 1.8	86	11	25	9	43	2 65	- 1.52	.67		7	7	7	17	S, SE	
Bedford	Taylor		6	59.7	- 3.1	85	23	26	9	33	1.45	- 4.67	.31		10	18	4	9	S	
Bonaparte	Van Buren		12	63.6	s 0.7	88	17	28	7	35	2.92	- 1.11	1.03		10					
Burlington	Des Moines	544	8	63.4		89	17	31	7	34	1.82		.63		10	18	7	6	S, S W	
Chariton	Lucas	1,042	9	61.2	- 1 5	84	17	31	6, 9	36	2.23	- 2.04	.56		6	26	0	5	SE, S W	
Clarinda	Page	1,009	14	62.6	s 0.9	89	11	29	6, 9	48	1 31	- 3.47	.58		6	21	4	6	S	
College Springs	Page		12	62 8	s 1.4	95	14	29	9	38	1.67	- 3.27	1.26		5	24	4	3	S	
Columbus Jct	Louisa	595	5	64.0	s 1.0	89	17, 23, 28, 31	32	6, 7	32	2.02	- 1.67	.57		11	22	8	1	S W	
Corning	Adams	1,117	12	61.2	s 0.2	84	11, 16, 26	29	6, 9	44	1.91	- 2.82	.54		7	14	14	3	S W	
Corydon	Wayne	1,101	11	62.6	s 0.8	86	17	30	6	45	2.33	- 2.64	.49		14	15	11	5	S	
Creston	Union			60 6		84	11	27	6	43	1.29		.56		6	19	9	3	SE	
Cumberland	Cass										1.73	- 2.28	.52		7	21	5	5	S	
Earlham	Madison			60.2		85	11	26	6	43	1.70		.63		7	15	10	6	S W	
Elliott	Montgomery			63.8		88	23, 24	29	6	49	.89		.22		7	13	17	1	S	
Ft. Madison	Lee	516	53								2.26	- 2.60	1.23		7	8	18	5	S, S W	
Glenwood	Mills		17	62.4	s 0 5	85	11	32	6	40	1.97	- 2.52	1.85		2	6	21	4	S W	
Greenfield	Adair		13	63 2	s 2.7	89	12	27	6	44	2.54	- 2.06	.96		8	20	7	4	S	
Hancock	Pottawattamie			61.7		85	11	32	6.9	39	3.42		1.84		6	18	10	3	S W	
Hopeville	Clarke		13	61.9	s 1.5	84	14, 17, 22, 26	31	6.9	40	2.00	- 2.76	.46		13	6	22	3	S	
Indianola	Warren	969		62.4	s 1.5	85	11, 23	31	6.9	37	1.93	- 2.77	.56		13	10	5	16	SE	
Keokuk	Lee	691	33	65.5	s 2.9	90	17	34	7.9	30	1.83	- 2.24	.59		10	18	9	4	S W	
Keosauqua	Van Buren	644	12	63.1	- 0.1	91	17	27	7	43	3.83	- .51	1.94		11	9	14	8		
Knoxville	Marion	920	10																	
Lacona	Warren	969									1.86	- 4 56	.38		6	11	15	5		
Lenox	Taylor	1,250	9	62.2	s 0.1	84	11	30	6	41	.99	- 3.72	.41		9	20	8	3	S	
Leon	Decatur	1,120		62.7		84	17, 26, 30	32	9	33	1.40		.31		9	23	1	7	SE	
Massena	Cass																			
Mount Ayr	Ringgold	1,236	10	62.8	s 0.4	86	18, 30	31	6.9	43	2.79	- 3.20	1.15		8	14	10	7	N W	
Mt. Pleasant	Henry	729	22	64.1	s 2 7	91	31	29	7	34	1.58	- 2.76	.50		13	12	16	3	S W	
Omaha, Neb	Douglas	1,113	34	63.0	s 1.8	86	11	36	6	36	2.50	- 1.87	.61		9	6	10	15	S	
Oskaloosa	Mahaska	843	20	62.8	s 2.4	86	17	28	7	41	1.85	- 1.72	.60		9	18	1	12	S W	
Ottumwa	Wapello	649	10	63.9	s 0.1	89	17	32	7.9	25	2 40	- 2.42	.92		7	12	13	6		
Pacific Junction	Mills	960	7	62.2	- 0.4	85	11	30	9	43	1.41	- 3.58	.44		8	13	16	2	S	
Pella	Marion			64.4		88	17, 23	31	6	35	2 01		.49		13	13	15	3	S W	
Red Oak	Montgomery	1,033	9	64.2	s 1.1	87	11	32	6	43	.90	- 2.80	.44		5	14	12	5	S W	
St. Charles	Madison	1,070	4	62.4		84	11	32	6, 9	36	2.72		.49		14	15	11	5	S W	
Sigourney	Keokuk	877	7	63.9	- 0.3	88	17, 23	29	7	36	3.20	- .78	.68		10	1	2	28	S W	
Stockport	Van Buren			62.8		87	17	28	7	35	1.80		.53		11	24	1	6	S W	
Thurman	Fremont		8	63.5	s 0.2	87	11	23	9	44	1.21	- 3.50	.32		8	12	13	6	S W	
Wapello	Louisa	588	6	63.4	- 1 0	89	17	33	7	39	2 84	- .75	65		9	17	12	2	SE	
Washington	Washington	769	22	62.5	s 1.1	87	16, 17	30	7	34	2.03	- 1.40	.50		11				S W	
Winterset	Madison	1,129	13	63.8	s 2.5	86	11	31	6	39	2.48	- 2.09	.65		9	16	11	4	S	
Woodburn	Clarke	961		61.3		87	17	27	6.9	39	2.36	- 3.03	.49		7	12	16	3	S W	
Average				62 6	s 0.4	86 6		29.9		38.8	2.09	- 2.42			9	15	10	6	S W	
Average for State				60.8	s 0.1	87.0		28 9		39.8	3 54	- .70		T	11	13	10	8	S W	

s Above normal. ‡ Received too late to be computed with means. a. One day missing; b. two days, etc.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR MAY, 1906.

STATIONS.		DATE																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max..	74	67	78	68	64	54	61	53	68	80	85	77	81	85	81	82	84	82	73	80	84	85	85	85	86	85	70	68	67	83	79	75.9
	Min ..	35	48	42	48	46	31	35	39	33	34	58	57	58	59	57	59	63	48	44	44	51	60	61	61	61	62	42	96	44	55	52	49.1
Albia*....	Max..	80	61	76	65	65	51	61	49	65	73	84	79	80	83	83	82	85	80	66	73	80	81	83	77	78	83	48	64	64	82	81	72.9
	Min ..	50	47	43	49	46	30	31	41	32	39	47	57	60	63	62	63	65	52	45	41	52	53	63	65	60	62	45	38	44	48	56	50.0
Algona. ..	Max..	68	64	76	68	58	46	60	51	65	73	87	79	76	78	76	78	79	77	65	64	80	81	81	83	77	70	47	65	57	75	69	70.0
	Min ..	47	42	43	47	39	29	26	35	33	38	47	59	59	62	57	60	65	42	37	41	53	57	57	61	61	45	37	35	44	48	47	47.0
Allerton .	Max..	68	67	72	71	64	56	49	53	65	74	84	79	77	81	78	79	83	76	75	72	72	71	74	78	75	79	78	60	65	74	76	71 7
	Min ..	54	48	44	50	45	31	34	40	30	33	53	58	58	63	60	61	61	51	46	43	50	57	63	63	61	61	44	58	45	58	53	50.5
Alta.	Max..	65	65	70	56	55	50	60	51	69	82	88	80	79	78	73	77	77	77	66	74	82	80	80	81	80	72	43	66	55	77	69	70.5
	Min ..	47	42	51	45	34	29	32	35	32	41	54	60	60	60	60	60	55	44	37	45	53	54	61	60	62	41	36	37	45	48	48	47.4
Alton. ...	Max..	63	66	70	68	55	51	60	53	67	82	89	80	81	80	74	81	73	76	65	74	81	78	78	79	77	67	47	63	57	75	68	70.7
	Min ..	47	43	49	48	40	32	34	35	30	39	54	63	61	62	62	60	64	42	37	47	57	54	64	61	62	46	37	34	46	45	48	48.4
Amana. ..	Max..	78	67	75	69	61	52	63	48	64	71	84	80	81	84	82	86	87	82	74	74	84	84	88	83	79	84	58	65	61	83	79	74.5
	Min ..	52	48	40	52	44	32	29	42	31	34	54	60	60	62	62	62	64	53	44	43	54	54	62	64	52	53	41	38	43	54	50	49 5
Ames	Max..	74	65	77	72	61	49	60	50	63	73	86	79	80	83	80	79	81	80	70	71	81	83	83	80	80	82	58	67	60	80	79	73.2
	Min ..	52	45	49	49	41	29	29	39	30	33	49	61	53	63	55	61	64	44	41	39	50	57	59	61	60	53	41	35	44	52	50	48.4
Atlantic .	Max..	73	66	80	74	63	53	60	56	68	81	85	77	80	84	77	78	79	80	70	80	85	82	84	83	81	78	62	67	63	80	79	74.5
	Min ..	53	48	42	49	46	26	31	38	25	32	53	59	61	60	58	61	63	33	42	42	53	58	56	60	60	63	42	32	47	48	44	48.2
Audubon.	Max..	70	65	81	70	61	5	61	55	68	83	88	79	81	84	77	79	83	82	78	82	85	83	80	83	83	80	63	72	63	82	83	75.5
	Min ..	50	46	45	49	42	27	31	37	27	35	55	58	57	60	58	60	50	35	36	40	50	58	44	57	60	63	40	40	45	48	47	46.8
Baxter . .	Max..	77	63	77	72	64	48	62	49	69	72	85	80	79	79	79	81	85	82	69	76	81	84	83	79	78	83	57	68	59	83	80	73.6
	Min ..	49	45	41	49	43	28	28	33	27	28	48	57	55	61	55	61	63	46	40	39	49	55	61	62	59	55	40	35	42	53	52	47.2
Bedford ..	Max..	66	61	63	59	53	51	53	52	57	70	76	69	70	70	69	74	76	82	70	73	75	85	83	83	80	83	62	67	68	83	78	70.0
	Min ..	55	48	39	50	45	28	29	39	23	35	57	60	62	61	58	60	63	46	46	43	53	62	60	61	59	61	48	38	48	50	48	49.4
Belle Pl'e	Max..	75	65	73	60	62	45	64	49	65	70	85	85	88	89	81	85	84	82	70	74	83	85	83	80	80	86	48	65	50	83	80	72.9
	Min ..	46	47	41	50	43	30	27	40	30	45	48	56	58	57	58	61	64	50	42	42	51	55	61	64	60	59	42	34	44	49	51	48.0
Bonapar'e	Max..	82	68	77	67	64	53	63	48	65	70	84	82	83	84	82	86	88	83	70	75	86	87	83	83	79	85	63	64	68	84	86	75.7
	Min ..	53	51	41	53	46	34	28	41	31	39	51	53	59	53	60	61	63	59	48	48	58	62	66	65	61	63	46	40	42	55	57	51.5
Boone* ..	Max..	73	64	78	59	60	49	59	51	65	73	86	78	79	77	79	79	80	81	65	71	81	83	83	80	79	80	47	66	59	80	77	71.6
	Min ..	47	45	45	51	43	31	35	38	34	39	48	56	58	58	53	62	64	48	43	44	51	58	60	64	61	62	39	37	42	44	55	48.8
Britt.	Max..	70	67	77	65	59	45	63	50	64	73	87	81	77	74	80	79	80	76	67	65	80	83	84	84	79	77	53	66	58	79	77	71.6
	Min ..	47	43	43	49	36	29	24	36	29	33	47	58	59	60	58	60	60	42	38	43	50	58	57	57	61	45	36	33	38	47	44	45.6
Burlng'n*	Max..	64	65	76	63	67	52	64	47	64	70	83	82	83	84	88	83	89	81	67	75	82	87	87	88	79	86	50	64	69	84	85	75.3
	Min ..	50	53	44	51	48	35	31	38	33	38	49	55	61	62	61	65	65	59	50	45	54	54	58	65	62	62	49	41	44	50	60	51.5
Carroll* ..	Max..	70	67	79	57	61	54	59	54	66	81	87	77	79	80	75	77	79	81	63	75	82	83	80	81	79	78	45	65	61	79	75	72.1
	Min ..	47	44	44	49	38	28	32	34	28	33	47	59	60	60	53	60	63	42	40	41	48	52	58	59	60	62	39	35	41	45	52	47.2
Cedar R*.	Max..	81	62	77	59	63	45	62	47	63	70	86	83	81	86	84	89	90	82	69	74	86	84	90	84	80	88	49	66	63	83	84	74.4
	Min ..	42	50	44	40	45	34	30	35	35	37	49	54	61	60	61	63	66	55	45	45	53	58	61	65	63	63	44	39	43	50	53	49.5
Chariton .	Max..	76	65	76	70	60	58	58	59	64	78	83	77	79	81	80	82	84	81	71	75	78	81	81	78	78	81	70	65	64	81	78	73.4
	Min ..	46	47	40	40	46	31	32	40	31	37	53	53	57	61	59	60	63	50	44	43	50	57	62	62	59	63	43	37	42	54	50	49.0
Charles C.	Max..	74	61	75	57	53	41	58	47	62	63	85	79	70	75	72	80	79	77	58	61	79	77	82	79	74	70	46	63	60	78	70	68.5
	Min ..	49	48	48	45	32	34	27	32	33	34	50	61	60	58	57	61	51	47	39	44	53	57	64	62	61	42	37	31	40	51	50	47.0
Clarinda*	Max..	77	68	81	68	67	58	67	55	70	84	89	78	79	85	76	80	86	86	74	83	86	83	83	83	84	86	51	79	69	84	80	77.1
	Min ..	44	49	39	48	46	29	33	38	29	36	41	59	60	60	60	59	69	44	46	42	49	55	58	59	59	60	43	38	45	48	48	48.1
Clear L ..	Max..	67	66	73	69	57	43	61	49	64	74	83	77	75	68	80	80	78	75	62	62	80	83	81	81	79	70	46	64	69	73	70	69.6
	Min ..	47	42	49	50	40	3	33	36	37	41	47	59	60	47	55	62	65	47	38	43	52	53	57	61	60	44	36	36	50	52	52	47.9
Clinton...	Max..	82	64	75	67	63	52	64	50	62	69	80	84	82	88	87	89	91	80	66	74	84	88	90	86	79	80	49	66	69	81	86	75.2
	Min ..	51	46	46	52	45	32	30	40	30	35	50	59	60	55	61	67	63	57	50	43	50	51	62	64	63	48	45	42	42	54	51	49.8
Col. Spgs.	Max..	75	74	78	63	64	57	58	67	67	78	84	78	78	85	77	80	84	82	69	78	84	84	82	82	79	81	70	69	70	79	77	75.4
	Min ..	48	48	41	54	48	31	33	36	29	37	50	60	57	62	60	61	63	50	48	47	54	63	61	62	59	62	46	39	50	50	43	50.2
Colum. J.	Max..	81	70	75	69	65	54	64	52	64	70	83	82	88	83	83	87	89	82	74	75	82	86	89	87	86	89	61	63	69	85	89	76.6
	Min ..	52	49	48	52	47	32	32	42	33	42	52	56	60	60	63	61	64	58	47	43	51	53	62	64	60	61	39	45	43	55	66	51.4
Corning..	Max..	71	65	78	64	61	55	62	53	67	79	84	76	78	81	78	84	82	82	63	77	81	79	82	83	81	84	60	66	66	80	76	73.2
	Min ..	53	48	44	49	45	29	32	39	29	35	57	59	61	56	59	60	64	44	45	44	53	59	61	60	60	59	43	36	47	51	45	49.2
Corydon..	Max..	79	73	77	74	66	54	57	53	66	74	84	77	79	82	80	83	86	83	78	75	79	79	83	78	79	82	75	64	65	85	83	75.0
	Min ..	53	48	43	50	45	30	35	40	31	40	55	58	59	53	61	61	64	52	43	44	44	57	62	64	61	65	45	39	45	58	58	50.3
Creston*	Max..	74	64	78	67	64	54	55	54	65	78	84	74	78	82	77	79	82	82	70	76	80	79	82	82	80	83	49	63	65	82	79	73.0
	Min ..	49	48	43	47	45	27	31	38	28	35	41	59	60	60	59	61	62	45	44	43	53	56	61	62	61	61	42	36	42	47	47	48.2
Davenpo't	Max..	81	65	74	66	62	46	60	51	67	65	81	80	79	83	82	87	83	81	66	73	81	85	87	83	75	83	48	64	64	84	85	73.2
	Min ..	51	52	47	52	44	35	34	37	36	47	53	62	64	59	65	65	67	60	48	47	53	61	66	65	63	47	43	41	45	56	59	52.4
Decorah..	Max..	77	63	77	61	58	43	61	47	59	63	82	83	69	77	80	83	87	80	62	68	80	79	83	80	78	68	47	65	58	82	77	70.3
	Min ..	48	48	42	48	42	33	29	36	33	33	47	63	59	56	56	63	63	50	40	42	53	57	56	62	63	42	39	32	47	48	54	47.8
Delaware.	Max..	73	63	71	66	60	51	60	45	61	68	80	80	70	78	78	81	83	79	63	69	78	79	83	83	74	75	45	62	58	78	78	70.0
	Min ..	48	44	41	47	41	31	27	39	30	29	49	56	59	53	60	61	62	49	41	40	46	52	58	63	61	42	39	36	41	54	53	46.7
Denison ..	Max..	68	65	79	73	58	52	60	53	65	80	87	80	80	80	72	77	77	80	73	77	82	81	78	79	79	75	57	64	61	79	73	72.4
	Min ..	35	45	31	49	42	30	32	37	29	40	54	56	60	59	61	61	62	40	38	43	51	58	58	63	61	57	39	32	43	49	48	47.9
Des M....	Max..	76	63	77	62	61	49	58	52	65	73	84	77	79	82	81	81	82	82	66	74	81	79	82	80	79	81	55	65	61	92	78	72.5
	Min ..	52	48	46	52	41	34	35	39	33	40	52	62	60	64	62	64	64	50	46	47	53	59	64	66	61	55	42	41	46	56	56	51.3
De Soto ..	Max..	73	65	78	69	62	54	61	54	66	77	84	77	79	81	79	79	81	83	68	76	81	81	82	79	79	80	65	64	61	80	78	73.4
	Min ..	53	47	49	53	46	31	31	39	33	37	53	59	62	61	58	62	65	45	41	41	52	60	63	63	61	65	43	38	44	55	53	50.6
Dows. ...	Max.	71	63	76	69	56	48	58	49	64	72	86	79	77	75	77	78	78	78	67	65	78	83	81	79	77	77	49	62	57	77	71	70.1
	Min ..	41	43	42	46	40	30	27	40	31	33	48	57	57	60	54	60	64	45	38	39	50	53	56	61	60	48	37	35	41	48	50	46.4
Dubuque.	Max..	80	59	74	64	59	44	58	47	58	66	79	81	70	83	83	85	87	80	64	87	79	83	85	84	72	70	46	65	60	80	79	70.6
	Min ..	48	48	45	49	39	34	35	39	31	37	53	64	56	55	64	64	66	57	46	44	52	61	64	64	63	42	41	40	46	58	54	50.2
Earlham .	Max..	75	63	77	66	60	53	59	51	67	76	85	74	79	82	79	78	81	81	67	75	80	79	84	81	81	80	66	65	63	81	77	73.0
	Min ..	52	46	42	45	44	26	28	39	23	33	55	57	59	60	55	60	64	41	41	37	51	58	57	59	60	62	40	34	40	51	47	47.5
Elkader ..	Max..	79	63	77	71	62	47	60	55	63	67	83	83	73	81	84	88	88	82	70	63	83	84	89	83	76	70	46	70	60	83	84	73.4
	Min ..	47	40	39	46	37	32	29	37	28	30	50	64	60	55	55	63	67	48	40	40	50	57	57	60	61	46	40	32	40	51	53	47.0
Elliott....	Max..	80	69	81	72	63	57	68	64	74	85	85	80	83	87	88	82	84	84	74	81	87	85	88	88	83	85	59	72	64	82	77	77.7
	Min ..	55	49	43	47	43	29	34	39	30	38	56	58	61	61	65	61	65	43	45	45	53	61	60	60	61	65	43	35	43	51	47	50.0
Esth'rv'l.	Max .	64	67	78	58	58	45	58	52	66	75	90	81	78	77	76	78	80	77	64	65	83	81	80	80	76	56	46	63	54	76	70	69.5
	Min ..	47	42	43	49	38	28	24	32	34	45	45	58	60	62	57	59	63	43	33	39	49	55	58	60	62	55	36	35	42	45	48	46.7
Fayette...	Max..	77	60	77	64	58	44	58	48	60	68	83	80	78	81	82	85	85	78	66	67	..	..	86	86	88	70	50	64	54	79	73	70.6
	Min ..	47	46	46	40	37	32	25	35	30	30	55	58	53	55	60	61	60	44	39	38	..	..	58	55	60	44	38	30	40	50	47	45 4
ForestCy*	Max..	69	65	79	56	57	43	59	48	63	73	83	79	75	71	79	78	80	78	63	61	80	83	83	81	78	63	59	64	65	75	71	69.9
	Min ..	46	42	43	49	39	29	27	32	33	39	43	53	59	60	57	61	63	45	38	39	51	52	59	60	61	61	36	37	44	44	50	46.8
F. Dodge*	Max..	69	65	79	53	57	48	59	51	67	76	87	80	79	75	76	77	75	76	63	63	81	81	82	78	78	74	43	65	57	77	70	69.8
	Min ..	48	44	44	49	43	31	30	35	34	38	44	54	45	61	54	61	64	47	40	42	41	52	60	62	62	62	39	37	42	46	52	46.8
Galva	Max..	65	66	78	73	55	50	61	52	68	80	81	79	80	80	75	79	80	76	66	75	82	79	81	81	80	75	49	66	59	77	71	71.6
	Min ..	48	48	47	47	41	30	31	38	30	37	50	60	61	61	53	63	59	39	38	45	53	57	61	60	62	49	38	32	46	47	46	47.6
Glenwo'd	Max..	71	67	81	74	62	57	63	56	63	81	85	80	77	82	72	77	78	80	73	70	83	80	79	80	79	76	53	64	68	80	75	73.6
	Min ..	53	47	47	51	47	32	41	38	34	41	61	59	63	61	61	62	65	43	46	47	55	60	60	63	58	56	41	38	47	59	50	51.3
Grand M.	Max..	75	61	64	58	58	44	59	46	59	65	80	80	72	73	80	84	84	78	63	69	78	79	84	80	76	73	45	65	55	78	74	69 2
	Min ..	46	44	45	47	40	30	27	33	31	37	52	60	60	55	53	63	65	51	40	41	46	61	51	61	60	43	40	33	41	50	54	47.2
Greenfield. ..	Max..	74	70	80	74	65	59	61	58	70	82	87	89	82	87	82	84	85	71	80	84	86	84	84	84	82	76	79	68	64	86	78	77.2
	Min ..	52	47	44	49	45	27	35	38	30	33	55	60	55	59	50	63	57	42	44	63	60	60	62	63	58	40	45	35	45	54	53	49.3
Grinnell.	Max..	78	70	75	72	63	51	61	48	63	70	83	79	81	83	83	83	83	78	75	74	81	81	83	82	79	83	59	65	62	81	79	74.1
	Min ..	50	46	42	49	42	28	30	39	29	39	49	57	57	61	58	60	63	48	40	42	50	53	60	61	53	59	41	33	42	52	49	48.0
Grundy C	Max..	76	64	76	72	60	54	60	56	65	70	83	85	76	82	83	84	82	70	67	82	85	86	82	78	81	54	64	57	81	77	78.4
	Min ..	49	45	45	48	44	32	28	35	35	34	50	58	58	60	59	64	63	47	40	40	52	57	58	60	60	58	40	35	48	48	54	47.8
Guthrie C	Max..	70	69	79	77	61	53	60	52	66	81	83	84	81	85	78	79	81	81	77	78	84	84	83	82	82	81	78	65	62	81	80	75.5
	Min ..	51	46	44	48	45	29	31	39	29	31	51	60	62	61	56	62	65	42	42	40	53	59	59	60	61	65	41	35	45	58	50	48.8
Hampton	Max..	75	63	78	70	59	43	53	50	65	74	88	81	75	77	80	80	80	79	70	69	82	85	84	82	79	75	48	69	59	82	74	71.5
	Min ..	48	43	46	49	41	31	28	38	34	39	49	59	59	60	55	61	65	47	39	42	51	59	58	61	61	48	38	36	44	51	53	48.2
Hancock.	Max..	72	68	79	75	61	55	59	55	68	79	83	77	77	82	75	77	81	80	72	78	81	82	84	82	79	80	50	67	65	79	74	73.5
	Min ..	49	46	45	51	45	32	37	38	32	40	56	59	60	61	60	61	65	46	45	43	54	57	60	61	61	50	43	37	48	51	51	49.9
Hamiontown.	Max..	69	62	75	64	56	72	59	47	60	70	86	78	70	67	77	77	78	76	59	60	78	78	78	80	76	69	47	60	54	75	70	68.6
	Min ..	46	41	45	48	33	39	25	34	30	35	47	60	59	57	54	61	63	45	35	43	50	57	57	66	60	48	35	34	45	46	49	46.3
Harlan. ..	Max..	70	66	79	72	59	55	59	54	71	80	85	79	80	80	76	77	76	81	73	79	82	83	81	81	79	76	62	66	63	81	74	73.5
	Min..	50	46	44	49	44	30	33	37	28	36	52	57	60	59	57	60	63	40	43	46	54	59	59	59	61	61	40	35	46	50	48	49.6

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF MAY, 1906—Continued.

STATIONS.		DATE.																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Hopeville	Max.	73	62	77	65	61	53	58	51	65	73	83	73	79	84	81	80	81	81	70	78	83	84	82	71	82	84	60	62	65	83	77	73.4
	Min..	53	48	43	50	47	31	35	40	31	38	54	53	53	60	59	60	63	52	45	44	52	59	62	63	61	60	43	38	44	59	55	50.4
Humboldt..	Max..	64	64	70	70	52	48	50	59	63	67	82	82	74	74	66	74	74	70	65	64	73	78	72	74	74	72	52	56	57	74	71	66.9
	Min ..	48	44	48	48	42	30	27	38	31	36	49	60	60	64	59	62	60	45	40	44	51	58	60	62	62	50	33	35	46	51	49	48.4
Ida Grv.	Max..	67	67	79	75	58	59	58	54	70	80	89	79	81	82	75	81	80	79	70	78	81	84	80	81	80	75	50	66	58	79	70	73.1
	Min ..	48	43	49	45	41	39	30	37	29	37	54	60	63	62	57	61	61	37	40	42	54	68	61	60	62	49	38	30	46	49	45	48.4
Indep'ce	Max..	77	76	74	74	60	57	57	57	62	65	83	84	80	81	8	84	85	83	78	67	80	81	84	79	74	77	52	64	64	80	80	78.5
	Min ..	48	44	40	49	41	31	29	36	32	33	50	58	58	56	57	61	62	46	40	42	49	52	58	62	60	50	40	34	42	54	53	47.2
Indian'la	Max..	74	65	78	72	62	51	61	52	64	75	85	77	81	84	82	83	83	81	70	77	83	83	85	81	81	83	66	65	61	81	79	74.8
	Min ..	53	47	41	49	47	31	33	40	31	33	56	60	60	61	59	63	61	49	48	45	51	59	63	64	61	64	42	36	41	56	52	50.4
Inwood..	Max..	61	68	81	65	55	55	57	57	70	87	93	82	82	80	73	82	77	79	67	74	78	72	77	79	75	68	45	61	55	77	70	71.3
	Min ..	46	43	49	45	35	28	29	33	25	41	50	62	60	61	61	51	57	41	34	48	56	58	59	60	60	40	35	31	45	43	44	46.4
Iowa C*	Max..	80	60	77	62	61	45	62	47	62	69	84	81	82	84	81	86	87	80	65	74	83	82	86	84	80	88	49	72	64	83	88	78.6
	Min ..	45	49	35	50	47	33	25	38	31	34	47	53	62	59	61	60	61	52	46	44	49	47	59	62	62	63	44	38	41	49	50	48.4
Iowa F*	Max..	74	63	76	55	58	45	61	48	54	72	86	79	79	80	80	80	81	78	64	66	81	81	85	81	78	81	46	66	59	79	74	71 0
	Min ..	43	45	43	46	40	30	24	34	30	32	40	50	58	58	55	57	63	43	39	37	42	53	56	60	60	61	33	31	40	47	50	45.4
Jefferson	Max..	72	70	76	70	62	51	60	54	68	79	86	78	79	79	79	79	79	80	73	72	82	82	83	75	80	77	59	66	60	78	75	73.0
	Min ..	49	40	46	48	43	30	34	41	33	37	55	60	60	62	52	61	64	45	41	44	49	54	59	65	61	59	40	33	41	52	51	48.8
Keokuk	Max..	81	74	77	71	64	56	61	56	63	70	84	83	83	84	83	87	90	82	80	74	82	85	83	87	80	86	64	63	71	85	81	76.6
	Min ..	53	57	47	59	48	38	34	45	34	45	54	59	65	64	61	67	68	61	53	47	53	59	64	68	62	64	48	48	46	59	63	54.4
Keosauqua*	Max..	82	63	79	67	65	54	63	50	67	73	87	83	85	85	84	88	91	86	68	77	82	88	86	81	80	86	58	67	67	83	88	76 5
	Min ..	51	53	40	47	46	31	27	35	33	37	44	56	62	61	61	62	65	59	48	41	51	52	61	64	61	62	48	40	43	50	53	46.7
Larrabee	Max.	68	71	82	69	58	56	63	60	72	83	89	84	83	85	78	82	79	79	70	75	83	83	81	86	80	74	45	70	..	80	77	74 8
	Min ..	48	43	48	43	44	30	32	37	34	39	53	62	62	62	59	59	44	44	35	46	55	57	63	60	63	45	38	31	..	47	48	48.0
Le Mars.	Max..	65	68	81	70	58	55	55	54	72	85	91	83	83	83	73	81	76	79	70	76	85	81	78	81	76	70	48	65	57	78	71	72.5
	Min ..	48	44	47	47	37	31	35	34	28	40	51	61	62	61	60	60	61	42	38	43	57	59	60	60	61	48	37	33	47	46	47	48.1
Lenox...	Max..	72	67	77	74	63	55	63	54	65	79	84	78	77	80	75	79	82	82	76	78	81	79	82	82	81	82	71	64	67	82	76	74.4
	Min ..	53	47	43	50	45	30	35	38	31	33	57	58	58	60	59	60	63	49	44	45	50	60	60	61	60	65	43	37	46	53	53	50 0
Leon	Max..	74	67	76	68	62	54	61	52	64	78	82	79	79	83	79	82	84	81	76	77	81	78	80	79	83	84	73	66	69	84	79	74 6
	Min ..	54	49	44	50	48	33	35	40	32	39	53	58	58	61	60	61	64	52	46	44	50	53	62	62	61	68	44	39	45	57	54	50.8
Little Sioux	Max..	71	68	80	77	61	57	64	57	72	83	83	84	80	83	71	82	79	93	78	80	84	83	82	81	78	77	59	63	63	81	76	75 1
	Min ..	50	45	50	51	44	29	37	38	33	42	59	61	64	63	63	63	64	45	44	53	60	59	60	63	60	59	40	35	47	50	49	51 0
Logan..	Max..	71	69	81	63	63	59	64	58	72	84	89	84	83	74	80	81	80	84	73	83	86	84	84	85	81	79	58	68	65	81	76	76 0
	Min ..	49	46	46	51	45	31	35	38	32	38	55	60	62	61	51	60	54	41	44	48	53	59	59	59	59	58	40	45	47	49	41	49.2
Marshall'n*	Max..	79	64	78	61	64	47	63	49	66	78	83	82	80	81	83	84	66	83	67	74	84	84	85	83	80	84	48	67	63	84	80	73.3
	Min ..	44	43	44	49	42	30	26	37	30	33	41	57	57	57	59	61	63	47	41	39	51	57	60	62	60	61	40	34	43	46	52	47.4
Mason C.	Max..	70	65	75	67	53	45	60	50	62	70	85	80	75	70	80	78	80	75	65	60	80	80	82	83	78	70	47	65	60	80	75	69.8
	Min ..	47	43	47	50	40	31	30	37	35	39	45	60	59	56	56	60	65	48	39	45	52	58	57	63	60	47	37	35	45	50	50	47.9
Massena																																	
Mt. Ayr.	Max..	74	66	78	67	64	55	65	58	67	83	84	77	78	83	77	80	85	86	74	82	84	82	84	83	83	83	67	66	67	85	82	75.8
	Min ..	53	48	44	49	47	31	37	33	31	39	53	56	57	58	57	59	63	51	45	45	49	59	60	60	59	62	43	38	45	51	51	49.7
Mt. Pleasant	Max..	81	74	78	71	65	54	64	59	63	70	84	86	86	85	84	87	90	83	75	76	83	88	88	87	80	88	70	67	70	85	91	77.4
	Min ..	51	51	47	53	46	31	29	41	32	40	50	58	61	59	62	62	63	58	47	43	50	59	61	64	60	62	44	39	41	54	57	50.8
Mt. Vernon.	Max..	81	68	75	68	61	48	63	45	69	69	89	79	81	85	83	86	88	84	78	71	78	83	84	89	86	79	48	83	62	78	83	74.5
	Min ..	48	58	41	51	44	30	30	39	31	41	50	56	60	57	62	61	62	53	48	43	42	49	64	63	62	46	42	34	53	53	53	49.0
N. Hampton	Max..	72	65	73	65	59	46	58	49	59	65	79	80	70	75	77	82	84	75	73	67	77	77	85	79	72	70	45	63	60	76	77	69.4
	Min ..	48	42	48	48	38	30	28	34	32	37	50	60	58	55	57	57	57	48	33	44	49	54	56	62	60	45	37	35	44	50	52	46 7
Newton.	Max..	75	68	77	71	68	53	61	50	65	78	86	80	81	78	80	81	84	86	70	75	82	82	84	79	78	81	62	67	60	80	78	78.8
	Min ..	51	49	43	52	47	32	32	40	32	41	50	53	58	62	60	61	70	70	51	57	61	62	64	66	62	62	46	41	47	55	53	52.8
Northwood..	Max..	67	63	75	68	55	44	60	49	63	69	85	81	78	69	80	79	80	74	61	62	78	77	80	84	78	68	49	66	58	76	70	69.0
	Min ..	47	42	47	50	39	30	28	33	33	37	45	60	59	57	55	60	65	45	37	48	50	57	57	60	61	42	38	35	46	47	51	46.9
Odeboldt	Max..	68	69	80	70	58	54	61	54	71	84	95	88	81	82	75	78	78	81	74	80	79	87	82	86	84	78	58	70	58	81	79	74 7
	Min ..	47	43	47	46	47	28	33	36	33	40	54	60	60	60	60	60	63	42	39	45	52	58	61	61	62	55	38	33	46	53	48	48 7
Ogden...																																	
Olin	Max..	73	67	73	67	62	56	60	59	63	65	79	80	79	82	80	83	86	80	74	72	77	83	85	85	75	81	52	62	62	78	79	73.0
	Min ..	50	48	38	52	41	33	25	42	29	32	53	57	62	56	61	62	63	54	45	44	50	50	61	64	62	52	43	38	41	53	50	48.7
Omaha Neb.	Max..	71	65	80	65	59	55	68	54	70	82	86	79	75	81	72	79	77	82	70	80	83	82	79	82	80	78	48	66	69	81	72	72.8
	Min ..	53	48	51	52	44	36	43	40	41	46	61	61	65	64	64	63	62	54	50	52	51	62	61	64	62	48	42	41	51	54	56	53.3
Onawa ..	Max..	72	73	82	78	60	60	65	61	79	87	91	84	81	84	72	84	78	85	77	80	85	84	82	82	77	75	63	66	47	83	79	76 0
	Min ..	48	45	48	49	42	30	39	37	33	40	49	60	63	62	60	60	66	45	44	49	56	59	61	63	61	59	39	38	63	47	50	50.5
Osage ...	Max..	72	63	76	66	55	42	60	48	61	69	86	79	69	72	80	80	80	77	62	62	80	81	83	79	77	67	47	67	57	78	71	69.2
	Min ..	47	41	42	49	39	31	29	35	33	35	34	59	59	55	57	55	65	44	37	48	50	59	53	61	60	43	36	35	45	50	52	46.8
Oskaloosa ..	Max..	80	66	74	70	52	61	49	65	73	74	85	81	83	84	83	84	86	81	74	75	82	83	85	80	79	84	67	65	63	83	79	75.1
	Min ..	52	49	41	50	49	32	28	40	32	36	51	59	59	61	61	64	65	54	46	43	53	57	64	65	60	64	45	39	45	51	49	50.4
Ottum'a	Max..	83	62	80	66	63	50	61	49	66	74	87	83	85	85	85	87	89	85	70	77	84	87	86	82	81	81	50	68	67	83	86	75.7
	Min ..	55	52	44	52	48	35	32	38	32	42	50	62	60	63	62	61	68	57	48	48	53	56	64	68	62	65	46	41	44	52	57	52 1
Pacific Jct.	Max..	73	67	81	70	61	56	65	55	71	81	85	80	80	82	73	79	81	81	70	79	82	84	81	82	81	75	55	67	70	82	75	74,3
	Min ..	50	49	45	52	47	31	35	39	30	33	55	57	62	62	60	62	65	40	49	47	55	61	61	61	59	55	43	37	49	47	47	50.0
Pella	Max..	78	75	79	76	64	58	63	51	66	75	84	88	83	87	84	86	88	84	81	79	85	84	88	81	82	87	75	69	64	85	83	77,6
	Min ..	51	49	43	45	47	31	32	40	33	40	50	58	58	63	61	61	65	61	45	45	51	57	64	65	66	64	45	38	48	55	56	51,2
Perry . .	Max..	74	65	79	71	63	52	63	52	67	78	87	79	81	80	80	80	81	70	70	77	84	..	87	84	82	81	60	69	63	83	78	78 9
	Min ..	50	46	44	50	43	31	32	39	30	35	50	60	60	61	58	58	64	46	42	43	50	..	59	64	62	59	41	36	45	51	51	48.7
Plover ..	Max..	..	..	..	78	69	58	60	54	60	75	88	82	81	78	79	80	80	77	67	67	81	80	82	80	80	77	48	63	57	77	72	72.8
	Min ..	..	..	..	47	43	28	27	35	30	35	46	58	59	60	57	60	70	41	35	42	55	57	60	58	60	45	36	34	45	45	45	46.9
Pocahontas.	Max..	66	69	76	70	53	50	61	52	63	76	90	81	81	76	75	77	78	76	65	68	85	83	83	82	79	76	49	68	57	78	73	71,8
	Min ..	48	48	47	47	40	28	31	37	34	34	48	60	60	61	58	60	59	46	48	43	53	58	60	60	62	48	38	35	45	49	43	48.0
Preston.	Max..	..	..	..	..	..	82	91	87	76	70	77	81	78	82	82	86	88	82	74	70	79	85	87	82	74	78	50	63	63	80	82	78.0
	Min ..	..	..	..	..	..	40	39	41	31	30	51	59	59	51	52	60	61	53	44	38	46	48	62	62	60	48	42	38	37	51	47	48.5
Red Oak	Max	76	70	80	71	66	58	66	55	71	82	87	83	84	85	79	78	81	78	82	79	83	82	84	83	81	83	63	68	63	83	79	76.5
	Min ..	56	50	46	46	49	32	35	41	38	39	53	48	61	63	62	62	62	61	46	48	49	61	62	63	61	63	45	39	49	54	51	51.8
Redge'y	Max..	77	65	75	65	58	44	58	51	65	65	83	80	71	75	83	82	83	78	69	69	78	81	87	81	75	70	45	66	54	80	77	70.6
	Min ..	46	43	45	50	40	30	30	33	31	38	48	60	58	54	55	61	61	47	38	42	50	55	55	61	60	41	36	36	41	50	51	46.8
Rock R'ds..																																	
Rockwell C.	Max..	68	63	75	65	60	51	51	50	68	65	87	83	75	80	81	80	80	75	69	75	83	85	86	84	80	79	56	68	65	70	75	72.0
	Min ..	48	43	45	45	40	29	32	32	32	40	49	58	58	61	63	65	47	46	39	40	43	49	56	60	61	55	38	33	38	50	48	46.6
Sac City.	Max..	..	..	77	70	56	51	58	57	67	80	86	81	78	78	74	76	77	77	68	72	80	81	79	79	78	75	54	64	60	77	75	71 8
	Min ..	..	..	47	48	40	30	32	36	34	40	55	59	60	60	59	60	63	64	40	44	50	57	60	60	61	52	38	35	45	49	48	49.2
St.Cha'es	Max..	75	63	77	69	62	51	60	51	66	77	81	75	80	83	81	81	83	82	70	75	81	81	82	80	79	81	63	64	60	81	77	78.4
	Min ..	53	48	45	50	46	32	36	40	32	41	58	60	60	61	60	63	65	51	44	44	52	61	64	64	60	63	42	38	45	56	56	51,3
Sheldon.	Max..	62	63	80	69	54	54	58	57	65	83	92	85	83	81	75	79	78	78	78	72	83	83	80	80	79	69	45	54	55	78	78	72.1
	Min ..	48	43	45	45	36	29	29	35	29	41	51	60	61	60	60	58	60	41	34	41	53	58	60	60	62	45	36	32	40	45	45	46.5
Sibley*	Max..	61	68	80	59	52	50	58	53	69	84	92	80	88	79	74	78	76	76	66	70	80	79	79	81	80	55	46	62	54	74	69	69 9
	Min ..	46	42	43	46	37	25	26	32	30	37	43	54	59	63	59	49	61	41	34	37	47	56	58	59	61	54	35	33	41	45	45	45.1
Sigour'y	Max..	81	73	79	72	68	54	65	50	67	74	86	82	84	87	85	86	88	82	74	77	83	87	88	84	82	86	70	69	65	85	89	77.1
	Min ..	52	48	42	50	45	31	29	41	31	38	50	60	58	60	59	59	77	58	45	44	50	54	63	64	60	64	44	39	43	53	62	50 7
Sioux C'r	Max..	61	63	78	63	51	50	58	58	67	83	89	80	80	82	72	82	76	75	68	73	80	79	77	77	75	67	43	65	56	75	67	70.0
	Min ..	47	42	45	46	32	26	32	32	34	39	53	59	62	58	59	59	59	55	36	42	55	57	59	60	55	48	36	35	45	56	45	47.2
Sioux C.	Max..	64	67	81	58	54	53	62	51	70	84	89	80	78	83	70	83	75	77	69	79	81	82	79	79	74	68	43	63	58	79	69	71.1
	Min ..	49	45	53	47	38	31	43	35	39	46	55	63	63	64	60	63	48	46	48	53	60	63	63	63	58	41	37	36	47	49	50	50.0
Stockport..	Max..	80	69	76	68	64	53	61	51	63	70	88	86	81	82	81	86	87	80	66	73	76	83	84	80	77	83	69	63	69	82	85	74,3
	Min ..	53	53	41	53	48	35	28	41	33	38	51	60	63	60	61	62	65	60	49	44	46	53	64	64	63	63	45	40	44	56	55	51,2
Storm L.	Max..	64	65	76	57	59	49	53	53	68	79	85	76	76	76	72	75	76	77	65	69	79	80	77	78	76	72	44	62	56	75		69.0
	Min ..	46	41	42	45	40	30	34	35	35	39	47	57	59	60	59	60	61	48	36	39	50	56	59	60	61	60	36	33	40	44	47	47.1
Stuart...	Max..	72	78	60	78	73	61	52	65	52	67	80	85	79	80	81	81	83	85	71	77	82	84	89	89	83	84	65	67	61	83	88	75.0
	Min ..	47	47	46	46	41	41	31	37	40	34	41	41	60	63	58	58	65	50	44	47	51	61	63	65	61	64	41	38	46	46	56	49.4

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR MAY, 1906--Concluded.

STATIONS.		DATE.																													Means.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Thurman	Max..	73	69	82	73	62	57	70	53	71	84	87	82	78	84	72	80	80	84	78	83	86	81	83	83	83	79	61	69	70	83	79	76.4
	Min ..	58	48	42	52	49	30	33	39	28	37	59	60	63	64	62	60	65	40	46	47	59	62	58	62	59	61	44	37	48	50	48	50.6
Tipton...	Max	80	69	76	70	64	53	61	49	63	70	82	82	80	84	82	86	90	80	73	75	80	86	83	89	78	84	54	69	63	82	84	75.1
	Min ..	50	51	43	51	43	35	32	42	42	43	50	59	61	58	63	64	65	58	49	49	51	58	64	65	61	58	46	41	45	53	55	52.0
Toledo ...	Max..	77	66	76	72	63	53	52	48	65	73	86	81	80	83	83	84	85	82	75	74	82	83	86	82	79	83	56	67	59	82	80	74.1
	Min .	50	47	44	49	43	37	27	30	32	35	50	59	58	58	60	62	65	48	42	39	62	57	62	63	60	56	42	36	44	54	53	49.5
Vinton	Max..	75	75	75	75	60	57	54	54	61	68	..	76	76	81	81	82	85	80	72	63	80	79	81	81	78	80	53	..	61	77	77	72.5
	Min ..	51	46	43	49	41	29	27	38	33	34	..	60	57	59	60	62	64	49	43	41	57	54	60	62	61	55	42	..	43	51	54	49.1
Wapello	Max	80	63	77	61	63	53	61	51	61	65	82	80	80	81	81	85	89	81	70	73	79	84	86	85	76	81	61	66	64	82	85	74.1
	Min ..	61	54	43	55	50	35	32	42	34	44	52	60	61	62	63	63	66	60	51	46	57	58	61	63	63	60	47	43	40	43	56	52.6
Washi'ton	Max..	81	61	77	66	65	49	64	50	63	71	85	82	82	85	83	87	87	81	67	75	83	84	86	83	79	86	58	65	64	84	84	74.7
	Min	52	49	42	50	44	32	30	37	32	33	51	60	60	60	62	62	64	56	46	41	50	56	62	64	61	58	45	39	43	46	54	50.3
Washta ..	Max..	63	68	70	68	63	50	63	55	72	80	90	81	82	80	73	80	80	80	70	66	82	84	81	78	78	80	52	68	58	78	74	72.4
	Min ..	45	50	50	50	50	28	29	35	30	37	47	61	62	62	58	60	64	55	36	42	52	56	63	66	64	52	38	30	46	48	40	47.8
Waterloo*	Max..	78	65	77	57	62	44	62	49	65	70	85	81	71	82	82	84	85	82	65	65	82	82	87	80	71	78	48	64	58	82	79	71.7
	Min ..	44	50	43	47	42	32	28	39	34	34	45	58	59	59	58	60	62	49	41	43	51	54	58	63	60	61	40	35	45	45	53	48.1
Waukee..	Max..	72	65	77	70	61	53	60	57	67	77	85	80	79	84	69	79	81	80	69	77	82	83	83	81	80	84	67	67	65	81	77	74.1
	Min ..	52	46	44	53	46	30	34	49	32	41	57	59	61	61	58	63	66	48	43	45	58	59	63	64	61	64	43	37	45	55	55	51.8
Waverly.	Max..	77	67	74	71	57	45	59	52	64	71	86	79	75	80	83	82	83	79	67	62	81	80	85	80	74	73	48	63	63	79	78	71.3
	Min ..	50	45	43	49	41	33	29	38	34	34	51	61	60	60	61	63	65	58	41	44	53	53	57	54	61	48	40	36	46	53	50	48 8
Webst'r C	Max..	74	68	78	74	64	55	66	51	72	74	87	83	82	79	80	80	84	79	70	68	80	87	88	87	80	84	55	70	69	80	78	74.7
	Min ..	49	45	45	50	49	29	28	39	30	34	47	61	58	64	51	62	64	43	40	39	50	59	57	63	61	53	39	32	44	45	48	48.0
W. Bend.	Max..	67	66	77	67	57	48	63	51	68	73	87	80	82	78	81	80	79	76	62	68	81	85	83	84	79	74	47	71	57	74	71	71.4
	Min ..	43	43	47	45	39	28	27	35	30	37	47	59	58	62	56	59	61	42	36	41	51	57	59	59	61	46	36	34	43	47	47	46.5
Whitten..	Max.	75	62	77	75	60	56	63	51	65	73	86	83	80	80	85	83	85	75	73	70	82	85	87	81	78	81	57	65	60	80	77	73.9
	Min ..	32	32	42	41	40	29	25	31	37	36	48	58	57	61	60	60	62	60	40	40	50	55	58	63	59	55	38	35	43	50	52	46.8
Wint'rset	Max..	74	70	79	75	62	55	61	53	63	73	86	81	81	85	81	82	83	83	74	80	83	79	85	82	83	83	79	68	65	82	80	76.0
	Min ..	52	43	48	49	46	31	35	39	33	39	57	67	61	60	59	62	65	50	43	48	56	65	62	62	61	63	43	38	46	55	54	51.5
W'odb'rn	Max..	73	62	75	63	65	54	62	53	66	74	82	80	81	83	81	82	87	81	72	75	80	83	83	84	80	85	78	67	65	80	80	74.9
	Min ..	53	48	36	46	47	27	23	40	27	33	43	58	60	61	56	61	65	43	43	37	51	57	62	60	61	63	44	37	43	43	43	47.7
Zearing	Max..	74	70	76	76	59	51	61	50	65	72	83	80	79	78	78	80	81	79	77	77	81	82	83	80	79	81	54	67	58	80	76	73 2
	Min ..	48	44	48	48	40	23	26	32	28	33	37	53	57	61	58	62	65	42	41	38	53	57	58	63	60	53	40	34	40	52	48	46.6

*At those stations the thermometers are read in the morning, the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

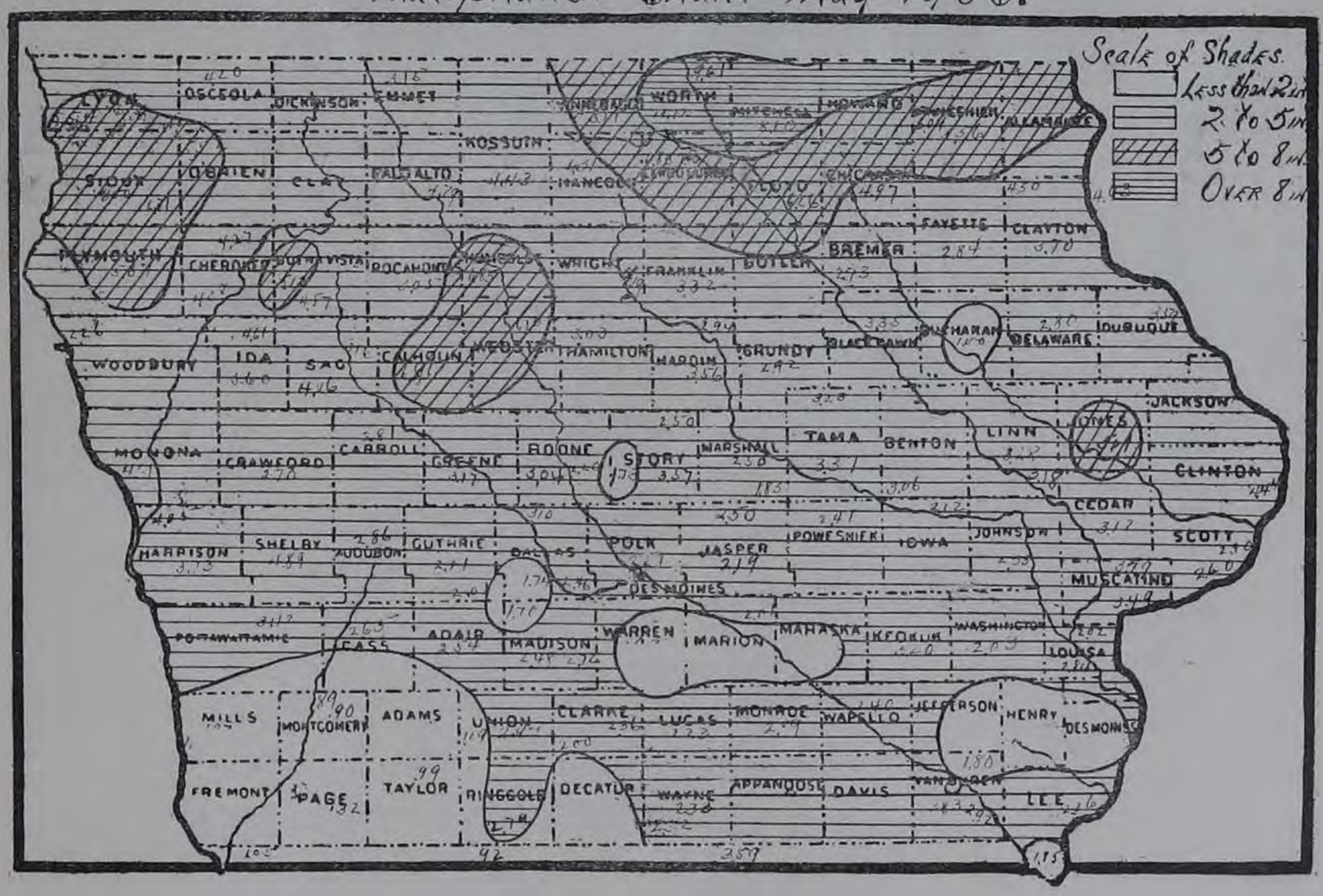
DAILY AND MONTHLY PRECIPITATION FOR MAY, 1906.

STATIONS.	DAY OF MONTH.																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	.04	....	....	....	....	....	.82	....	..	....	....	T	.12	T	.28	.93	....	....	...	....	...	.11	.63	...	....	...	....	..	.51		....	2.97
Albia	.25	....	....	....	..	....	....	.58	.02	....	....	....	.11	....	....	.42	..	.28	....	....	....	....	.40	T	.55	T	T	.01		.26	...	2.89
Algona	1.07	.02	T	.07	T	..	.27	.02	....	....	....	....	.10	.10	.13	.05	....	....	....	.24	....	.60	.09	.63	.24	.21	.04	....	.53	.02	T	4.43
Allerton	.14	....	....	....	....	....	.10	.50	...	..	....	.03	T	....	.38	.21	T	.07	....	....	...	.10	.51	.14	.32	T	T	T	.02	.05	....	2.52
Alta	1.80	.08	....	.05	...	...	.12	....	....	..	....	....	.84	.02	.10	....	....	....	....	.01	..	.92	.01	T	.15	.03	T	....	.99	....	....	5.12
Alta [near]	1.80	.09	..	.08	....	..	.10	....	....	....	....	....	1.38	....	.09	....	....	....	....	.01	.40	.60	07	....	.16	.01	....	....	.91	....	....	5.68
Alton	1.07	.08	....	.12	..	.	.04	....	.	....			.23	T	T	..	T	....	..	.24	.44	.02	.66	.14	.12	4.35	T	....	.31	.09		6.31
Amana	.53	T	...	T		....	.17	.10	..	....	T	T	.05	T	...	.22	...	.14	....	....	....	....	..	.07	.45	T	.28	...	.16	.15		2.12
Ames	....	....	....	....	....	..	.06	.07	....	.	..	....	.13	.05	.24	.72	....	....	....	....	....	....	....	....	.87	.01	..	....	.06	.02	....	1.73
Atlantic	....	....	.....	....	....	....	.44	....	....	....	....	..		.30	.32	....	....	....	..	..	....	.64	.18	.10	....	....	....	....	.67	....	T	2.65
Audubon	.95	....	..	....	..	....	.11	..	....	....	....	....	.09	.15	.02	.07	....	....	....	....	..	.49	.45	.06	.03	....	....	....	.44	..	....	2 86
Baxter	.12	T	.02	T	....	....	.07	.07	..	....	....	.02	.43	.82	.07	.06	..	....	....	....	....	.04	....	.05	.22	T	.10	....	.38	.08	..	2.50
Bedford	.03	....	....	....	T	....	.31	....	....	....	..	T	....	.10	.15	....	..	....	..	....	....	.05	.21	.04	.17	....	....	....	.22	.19	....	1.45
Belle Plaine	.70	.01	...	....	.	....	.35	.02	...	T	...		.20	.02	.18	....	T	....	..	....	....	..	.12	....	.75	.10	.02	....	.50	.09	T	3.06
Bonaparte	.12	..	....	..	...	....	.10	.31		....	....	....	....	....	....	.07	....	.08	...	..	.	.92	T	1.02	.21	....	..	..	.02	.07		2.92
Boone	.44	T	..	T	T	....	....	.17	T	.	....	...	.26	T	.20	.57	....	....	...	....	T	.05	T	T	.06	....	.05	T	....	.40	....	2.20
Britt	.95	....	.12		....	..	.09	.18	...	....	....	....	.19	.53	T	.15	..	....	....	.09	.24	....	.86	.35	T	.18	..	....	.40	.02	...	4.31
Buckingham	.42		T	T	....	....	....	.42	T	T	...	T	T	T	..	.72	....		..	T	...	T	T	.40	.78	...	.24	....	.30	...	....	3 23
Burlington	.20	.04	...	....	....		...	.32	T	T	.06	....	.05	...	....	.01	...	.04	....	..	....	....	.	....	.27	.11	.65	T	..	.09	T	1.82
Carroll	1.65	T	....			....	....	.10	....	....	....	....	.04	.15	.27	.03	....	..	....	....	....	.25	....	.01	.04	...	....	....	.01	.25	..	2.81
Cedar Rapids	.47	T	T	T	T	....	....	.25	T	....	.24	..	.06	.05	....	.17	T	.95	..	..	....	....	T	....	.20	.04	.44	.04	....	.39	....	3.23
Chariton	.32	....	....	....	....	....	.56	T	....	....	....	T	T	....	.42	.	T	..	..	..	....	....	.30	.18	.45	T	T	....	T	....	....	2.23
Charles City	.84	....	....	.02	....	....	.48	.08	...	T	....	....	T	1.19	.02	.66	....	..	....	.01	....	....	.04	1.27	.85	.87	.19	....	.25	T		6.26
Clarinda	.05	....	....	....	....		....	.35	....	..	....	....	.05	T	T	.15	...	...	....	....	..	....	.05	....	.18	....	...	...	T	.58	....	1.92
Clear Lake	1.20	....	T	....	....	T	.30	T	....	....	..	...	.25	1.80	1.65	.15	....	....	....	T	....	....	.30	.30	.10	.50	T	....	.25	....	....	6.80
Clinton	.45	..	..	....	....	....	.44	..	..	....	.43	.02	....	....	....	.12	.	.64	..	....	....	....	1.00	..	.11	....	1.01	..	.19	....	....	4.44
College Springs	.04	....	....	....	....	....	....	....	....	....	....	T	....	T	.16	....	....	....	....	....	..	1.26	.	T	....	....	..	....	.01	.20	....	1 67
Columbus Junct'n	.18	....	....	..	....	....	.25	.05	....	....	.80	.12	....	....	....	.23	..	.57	..	....	..	.07	..	T	....	T	....	.14	.05	.05	....	2 02
Corning	....	....	....	..	....	..	.54	....	....	....	....	T	T	.11	.83	....	....	....	....	....	..	.14	.15	T	T	....	....	....	.52	12	.	1 91
Corydon	.07	....	..	....	..	....	.04	.41	....	....	....	T	....	....	.29	.07	.04	.05	....	.	....	.06	.39	.49	.33	.02	.01	....	....	.06	....	2.33
Creston	.05	....	....	....	....	....	....	....	.34	....	....	..	....	T	T	..	.20	....	..	....	....	.02	.12	....	T	....	....	....	T	.56	....	1.29
Cumberland	....	....	....	....	....	....	.52	....	....	....	....	....	....	.41	.18	....	....	....	....	....	....	.03	....	....	.01	.30	....	....	.28	....	....	1.73
Davenport	.19	T	....	T	....	....	.42	.01	T	.05	.61	.01	T	....	....	.02	T	.08	....	....	..	.01	.19	.10	.19	.57	.04	....	.02	.05	T	2.60
Decorah	.46	.08	.06	T	....	....	T	.84	.14	..	.26	....	.65	.05	....	.34	....	....	....	T	....	..	....	.81	.61	1.02	.16	.10	....	....	....	5.56
Delaware	.63	....	....	....	....	....	....	.34	....	....	.25	....	.04	....	....	.26	....	.02	....	....	....	.02	.28	.32	.40	..	....	.24	....	..	....	2 80
Denison	1.74	....	T	T	..	....	.05	....	....	....	....	....	.01	.31	.01	....	....	....	....	....	.04	.17	.01	....	....	....	....	....	.36	....	....	2.70
Des Moines	.16	T	T	T	...	....	.58	T	..	....	....	.01	.19	T	.65	T	....	....	....	....	....	.17	T	.03	.18	.09	.02	..	.33	....	.02	2.21
De Soto	.11	....	....	....	....	....	.45	....	..	....		T	.07	....	.25	.25	....	....	....	....	....	.18	T	....	.05	....	T	....	.26	.07	....	1.74
Dows	1.18	.02	.03	.05	....	....	.03	T	....	....	....	.03	.32	.26	.46	.64		....	....	.15	....	.02	.06	.03	.11	.28	.17	....	.30	....	....	4.19
Dubuque	.77	....	T	T	T	....	.24	.10	.01	T	.12	.01	.07	....	....	.16	.39	....	....	T	....	.10	.25	T	.04	.77	.34	...	.18	.04	....	3.59
Earlham	T	....	....	....	....	....	.63	.05	....	....	T	T	.08	....	.39	.14	....	..	..	....	....	T	T	T	T	....	....	....	.32	.05	T	1.70
Elkader	.44	....	....	.07	....	....	....	.26	....	....	.21	....	.11	....	....	.32	....	..	....	....	....	....	....	.50	.37	1.35	....	....	.02	.05	..	3.70
Elliott	....	....	....	....	....	....	.22	....	....	....	....	T	....	.14	.15	....	....	....	....	....	....	.05	T	....	.10	....	....	....	.18	.10	....	.89
Estherville	.75	T	....	T	....	....	....	.15	....	....	....	....	....	....	T	.20	T	....	....	T	....	.85	....	.50	.25	.20	.25	....	....	.50	....	3.15
Fayette	.73	....	.08	T	....	....	.08	.17	T	.04	.18	T	.09	....	....	....	.05	....	....	T	....	....	....	....	1.10	.20	.12	....	....	....	T	2.84
Forest City	1.12	....	....	.13	..	....	....	.20	....	....	....	....	.33	..	.33	.12	....	....	..	....	T	.30	....	.52	.21	.21	.62	T	....	.40	.07	5.17
Fort Dodge	1.20	.03	....	T	.04	....	....	.07	....	....	....	....	.50	....	2.28	.17	....	....	....	....	.02	.80	....	.70	.18	T	.18	....	....	.40	....	6 10
Fort Madison	.05	....	....	....	....	....	....	.22	....	....	....	....	....	....	....	....	....	.03	.	T	....	....	....	....	.53	1.23	T	....	.30	....	....	2.26
Galva	1.80	.05	....	T	....	....	.05	....	....	....	....	T	.20	T	.05	....	....	....	....	T	.30	1.25	.04	.02	T	.20	.02	....	.32	.30	T	4.61
Gilman	.15	T	....	.17	....	....	....	....	....	....	....	T	.32	T	T	.52	....	....	....	....	....	....	.13	T	....	.35	....	T	.16	.03	....	1.88
Glenwood	....	....	....	....	....	....	.12	....	.	....	..	T	....	T	....	....	....	....	....	.	T	T	1.85	....	T	T	..	T	....	....	....	1.97
Grand Meadow	.72	....	..	.11	T	T	....	.57	.05	....	.31	T	.26	....	....	.25	....	..	....	.02	....	.04	.28	.35	.37	.45	.31	....	.24	.08	....	4.50
Greenfield	.08	....	....	....	....	....	.46	.05	....	....	....	T	T	T	.96	....	....	....	....	..	....	T	T	.30	.28	....	....	....	.36	.10	....	2.54
Grinnell	.45	....	....	....	....	....	.15	T	....	....	....	T	.20	.03	....	.65	.07	.03	....	....	..	.11	....	T	.30	T	T	....	.35	.07	....	2 41
Grundy Center	1.05	....	....	....	....	....	....	.26	..	....			....	.22	....	....	....	....	....	....	....	....	....	....	.55	.49	....	....	.35	....	....	2.92
Guthrie Center	.60	....	....	T	....	....	.13	.06	....	....	.04	T	.01	.16	.20	.06	T	....	....	....	....	.19	.17	.02	.04	....	....	....	.43	.04	....	2.11
Hampton	....	....	....	.05	....	....	T	T	....	..	..	.02	.28	.87	1.11	....	..	....	....	.30	....	....	.03	.22	.05	.39	....	....	.50	....	....	3.32
Hancock	1.34	....	....	....	....	....	.34	....	....	....	....	T	....	.50	T	....	..	....	....	....	....	.50	.11	....	....	....	....	....	.65	....	....	3.42
Hanlontown	.94	....	.09	....	....	....	.15	.24	....	..	....	....	.80	3.46	.26	.10	T	....	....	.10	....	.18	.85	1.13	.11	1.74	.22	....	.34	.03	...	10.72
Harlan	1.44	....	T	T	....	....	.12	..	....	....	....	....	T	1.65	.01	....	....	....	..	....	T	.49	.67	....	.05	T	.01	T	.42	....	..	4.89
Hopeville	.15	....	....	....	....	....	.45	T	....	..	....	.01	.05	.02	.45	....	....	....	....	....	....	.24	.19	.02	.14	.01	T	..	.16	.06	....	2.00
Humboldt	2.00	.01	....	.08	....	....	1.04	T	....	....	....	.02	.30	1.05	.18	....	....	....	....	.12	....	.28	.02	1.13	....	.08	....	....	.54	..	....	3.85
Ida Grove	1.82	....	....	....	....	....	.16	....	....	....	....	.09	....	.06	.05	....	....	....	....	....	.35	.45	.06	....	.08	.08	....	....	.35	....	....	3,60
Independence	T	....	....	T	....	....	T	....	....	....	....	T	.03	....	....	.01	.04	....	..	.20	....	....	....	.20	....	.40	T	....	.10	....	....	1.00
Indianola	.11	..	..	....	T	....	.55	.04	....	....	..	.02	.03	T	.13	.11	T	....	....	....	....	T	.01	.03	.33	T	.01	....	.47	.11	T	1 93
Inwood	.72	.03	T	.15	....	..	.01	....		....	..		.38	T	.01	....	....	....	....	.19	1.13	T	1.16	....	.06	.78	.02	....	.80	.10	....	5.54
Iowa City	.41	.01	..	....	....	....	....	.40	.05	....	.05	....	.09	..	....	.40	....	.21	....	....	....	....	T	....	.12	.03	.25	T	....	.31	....	2.33
Iowa Falls	.85	T	....	.07	T	T	T	.05	T	..	....	T	.09	.11	.03	.49	....	....	..	..	.08	T	T	.37	.15	T	.23	T	..	.39	....	2.94
Jefferson	.75	....	T	T	....	....	.15	.04	....	T	.05	T	.52	.20	.35	.22	....	....	....	.20	.10	....	....	....	.11	....	.52	....	....	....	....	8.17
Keokuk	.59	....	....	....	....	....	.16	T	....	....	....	.02	....	....	T	....	.02	.01	....	....	....	T	....	....	.47	.28	.09	....	.03	.16	..	1.83
Keosauqua	.35	T	....	..	....	..	....	.36	.08	....	..	....	T	....	.08	....	....	.03	....	....	....	....	.34	.22	1.94	.34	.05	....	....	.08	. .	8.83
Lacona	....	....		....	....	....	.01	....	..	..	....	....	....	....	.35	....	T	....	....	....	....	....	.12	.27	.30	..	....	....	.28	....	....	1.36
Larrabee	.44	....	....	....	T	..	.18	....	....	....	....	....	.88	T	.02	....	....	....	....	.15	....	....	.33	....	1.53	..	....	....	.79	....	....	4.27
Le Claire	.20	.08	..	....	....	....	....	.59	T	T	.60	....	T	..	....	....	....	.12	....	....	....	....	.08	.42	.09	.11	.60	.03	....	....	....	2.90
Le Mars	1.55	....	....	.20	....	....	.02	....	....	....	....	....	.17	....	T	....	....	....	....	T	.25	1.00	.60	.05	.20	1.05	.03	....	.50	.25	....	5.87
Lenox	.03	....	....	....	.	....	.41	.01	..	....	....	T	07	....	.02	....	....	....	....	....	....	.04	T	....	.01	....	....	....	.20	.20	....	.99
Leon	.05	....	..	..	....	....	.60	....	....	....	....	T	....	....	.31	.15	....	....	....	....	....	.07	.02	.05	.05	....	....	T	.10	....	....	1.40
Little Sioux	1.15	....	....	....	....	....	.05	..	....	....	....	....	....	.11	..	....	....	....	..	....	.28	1.15	.86	.08	.21	.10	.08	....	.67	....	....	4.05
Logan	1.83	....	..	....	....	....	.13		..	....	....	....	..	.30	.10	..	....	....	....	....	.04	.55	.11	T	T	.20	....	....	.47	....	....	3.73
Marshalltown	.20	....	..	..	....	..	....	.22	T	....	....	....	.23	....	.69	.15	....	....	....	....	....	T	....	....	.60	.02	.04	T	....	.35	....	2.50
Mason City	1.38	....	....	T	....	....	....	.80	....	....	....	....	25	2.65	.60	.60	....	....	....	T	T	.33	.10	.10	.30	T	....	....	.29	.10	...	7.00
Mount Ayr	.17	....	....	....	....	....	.65	..	....	....	....	T	.07	T	.50	....	....	....	....	....	....	1.15	.05	T	T	....	....	....	.10	.10	....	2.79
Mt. Pleasant	.16	T	..	....	....	....	.14	.50	T	....	....	T	....	....	....	.11	..	.02	....	....	....	T	.06	.06	.15	.02	.08	....	.07	.18	....	1.58
Mt. Vernon	....	.01	....	.01	....	....	T	.28	.01	....	.39	..	.01	T	....	.24	....	.93	....	....	....	....	....	....	.60	.50	T	....	.20	....	....	8.18
Muscatine	.05	.10	T	....	T	....	....	.55	.04	T	.44	....	.07	T	....	.15	....	.22	....	....	....	....	T	.01	.42	.28	1.10	T	....	.03	....	3.48
Nevada	.45	....	....	..	....	....	.11	....	....	....	....	....	.80	.85	....	.52	....	....	....	....	....	.10	....	.40	....	.44	....	....	.42	....	....	3 57
New Hampton	1.02	....	T	.02	....	....	....	.72	T	.01	.07	T	.22	.01	.18	.86	....	....	....	T	....	....	.02	.22	.66	1.15	.08	....	.20	....	....	4.97
Newton	.15	....	....	....	....	....	.23	.05	....	....	..	....	....	.42	....	.37	....	....	..	..	....	....	....	....	.57	....	.04	....	.30	.06	....	2.19
Northwood	.93	T	.04	....	T	....	....	.51	....	..	....	....	.54	4.24	.66	.40	....	....	..	.04	....	.36	.25	.77	.05	.44	T	....	.23	.04	....	9.61
Odebolt	2.25	....	....	....	....	....	.15	....	....	....	....	....	.16	.05	.10	....	....	....	..	....	....	.70	....	.10	....	....	....	....	.55	....	....	4.06
Olin	.40	T	..	T	....	....	..	.20	T	T	.45	T	T	....	.25	....	2.10	....	..	....	....	....	....	T	.30	.60	.40	..	.31	....	....	5.01
Omaha, Neb	.49	....	....	....	....	....	.28	....	....	..	....	T	..	.45	.03	....	T	....	....	....	T	.61	.28	.03	.16	T	T	....	.19	....	....	2.50
Onawa	1.60	T	....	T	.	....	....	....	....	....	....	....	T	.06	T	....	....	....	.	T	.95	.55	.67	.19	.15	.12	.03	....	.27	.02	....	4.61
Osage	1.05	....	T	.01	....	....	T	.67	....	T	..	....	.43	1.48	1.46	.72	T	....	....	.04	....	....	.25	.32	.45	.64	.29	....	.15	.11	.02	8.10
Oskaloosa	.24	....	....	....	....	..	.60	.05	....	....	....	T	.03	T	.26	....	.08	....	....	..	....	T	.21	T	.26	....	T	....	.12	....	....	1.85
Ottumwa	....	....	....	....	.54	....	.09	.40	....	....	....	....		.02	....	....	....	....	....	....	....	....	....	....	....	....	....	.92	....	.22	....	2.40
Pacific Junction	.10	....	....	....	....	....	.21	....	....	....	....	T	....	.09	.02	....	....	....	....	....	....	.20	.44	T	.20	T	....	....	.15	....	....	1,41
Pella	.10	....	....	....	....	....	.39	.22	....	....	....	T	.07	T	.01	.25	T	.07	....	....	....	.02	.04	.19	.49	....	....	....	.16	.06	....	2.01
Perry	.55	....	....	....	....		T	.20	....	....	....	....	.37	.65	.20	.50	....	....	....	....	....	.07	....	....	.15	..	.06	....	.32	.03	....	8.10
Pocahontas	.25	....	..	.04	....	....	.08	....	....	....	....	.04	....	.29	.28	.33	....	....	....	....	....	.81	T	.73	....	.09	.06	....	.59	.01	....	3.05
Red Oak	....	..		..	....	....	.44	....	....	....	....	....	....	....	....	....	....	....	....	....	.28	....	.02	T	.09	....	....	....	.02	....	....	.90
Ridgeway	.75	....	.06	.01	.01	....	.05	1.02	T	.10	....	T	.39	.74	....	.58	....	....	..	.04	....	....	.13	.58	.49	.77	.13	....	.17	.02	....	6.04
Rockwell City	3.05	....	....	....	T	..	....	....	....	....	.80	....	.70	.75	..	....	....	....	....	....	....	.40	....	.46	.80	....	....	....	.40	....	....	6.86
Sac City	....	....	....	T	....	..	.03	....	....	T	....	.10	1.19	.51	.20	.02	T	....	....	....	.06	61	.	.08	....	.03	....	....	.58	..	....	8.16
Saint Charles	.36	....	....	..	....	....	T	T	T	..	....	.02	.16	.02	.44	.40	....	..	....	....	..	.15	.05	.14	.18	.14	.04	....	.49	.13	....	2.72

DAILY AND MONTHLY PRECIPITATION FOR MAY, 1906—CONTINUED.

STATIONS.	DAY OF MONTH.																													TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sheldon	.68	.02	...	T	....	....	.05	....	...	....	....		....	.02	.08	..	....	....	....	.20	1.30		.25	.30	2.30	.02	.05	....	.25	....	....	5.52
Sibley	.36	.03	...	.06	....	....	....	.06	....	....	....	....	.04	....	.01	....	....	....	....	.06	..	1.03	....	.34	T	1.81	.04	....	.04	.32	....	4.20
Sigourney	.68	....	....	T	....	....	.22	.48	....		....	T	.12	....	....	....	....	.50	....	....	....	..	T	.33	.17	T	.25	..	.40	.05	....	3.20
Sioux Center	.68	....	..	.17	T	T	.03	....	....		....	....	.05	T	.02	....	.	....	....	.03	1.50	2.43	.27	.07	.45	1.85	.03	..	.42	....	....	8.00
Sioux City	.36	....	.	.02	T	T	T	....	....	T	....	....	T	T	T	T	T	....	....	T	.12	T	.10	....	.91	.01	....	....	.66	....	....	2.18
Stockport	.19	T	..	....	....	....	.03	.43	T	....	....	.03	....	.	T	T		.06	....	....	....	.05	.11	.53	.21	.16	T	....	.01	T	....	1.80
Storm Lake	1.74	.09	...	.03	....		....	T	....	....		....	57		T	.26	....	....	..	....	T	1.03	.11	.08	....	....	.08	....	....	.58	...	4.57
Stuart	.10	....	..	....	....	....		.45	..	.	.01	.03	.10	.22	.65	..	....			....	....	.02	....	....	....	....	....	....	.41	..	.02	2.01
Thurman	.10	..	...	....	....	....	.15	....	....	....	..	.10	T	.22	.05		....		....		....	.12	T	.15		T	....	.32	....	....	1.21
Tipton	.39	..	..	....	....	...	.30	....	....	....	.50	....	....	..		.20	.	1.13	....	....	....		....	....	.38		.10	..	.12	....	....	3.12
Toledo	.45	..	....		....	....		.40	T		.35	.05	.40	....		.50			....	....	....	T	T	.15	....	.97	.10	.	.35	....	....	3.37
Wapello	..	....	....	....	....	....	.22	.47	....	T	.35	T	....	..	....	.13	....	.65	....	....	....	T	....	....	.35	.28	.22	...	.17	....	...	2.84
Washington	.13	....	..	....	....	....	.50	.02	....	....	....	.13	....		....	.29	.26	....	....	....	....	.14	....	.12	.10	.29	..	....	.05	....	...	2.03
Washta	....	....	....	.05	....	....	.14	....	....	....	.	....	.18	.06	.05	.51	....	....	....	T	2.08	....	.06	....	.23	T	.05	.	1.38	..	....	4.28
Waterloo	.39	T	....	.02	T	....	....	.14	.06	....	....	T	.15	....		.51	....	....	....	.13	....	..	T	1.39	.11	.34	T	..	.11	....	...	3.35
Waukee	.25	..	....	....	....		.40	.07	....	..	....	T	.22	.01	21.	.37	....	....	....	....	....	.15	.08	.07	.14	.05	....	....	.35	.09	....	2.46
Waverly	.55	....	....	.05	....	....	.02	.05		....	....	.01	.05	.02	....	.35	....	....	....	.01		....	....	.10	.80	.50	.04	....	.18	....	...	2.78
Webster City	.95	....	....	....	....		.10		....	....	....	T	.20	.96	..	.37	....	....	....	....	....	T	T		T	T	T	....	.45	....	....	3.03
West Bend	1.18	....	....	.07	....		.20	T	....	..	....	..	.24	.17	.12	.03	..	....	....	.48	....	.44	.04	.48	.58	.06	.08	...	.62	....	.	4.79
Whitten	.85	...	.	T	....	T	T	.24	....	....	..	T	.18	.08	T	.30	..		....	T	...	....	....	1.11	.50	....	T	...	.30	...	...	3.56
Wilton Jnct	...	..		..	....	....	.53	.03	..	.58		.13	....	..	.12	....	.24	....	....	....	....	.14	....	.35	.22	1.50	..	....		....	....	3.79
Winterset	....	..	..	....	....	....	.52		..	....	T	T	T	T	.25	.65	....	....	....	....	....	.23	.13	.10	.08	....	....	....	.37	.15	....	2.48
Woodburn	.25	...	....	....	....	....	.49	T	....	....	....	T	.09	....	.48	....	....	....	..	....	....	T	48	T	.34	...	T	.	25	...	...	2.36
Zearing	.40	T	....	T	..	....	T	85		..		T	.13	.45	.05	.48	....	..		....	....	....	....	....	.07	.20	....	....	.37	....	....	2.50

Precipitation Chart May 1906.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR JUNE, 1906

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA

BERNARD MURPHY, STATE PRINTER

1906

THE IOWA WEATHER AND CROP SERVICE

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Perry	J. A. Harvey
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Preston	J. G. Storm
Ridgeway	Arthur Betts
Rock Rapids	W. C. Wyckoff
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U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IN COOPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R. SAGE, Section Director
GEO. M. CHAPPEL, Asst. Director

VOL. XVII. DES MOINES, IOWA, MAY, 1906. No. 5

IOWA CROP REPORT, JULY 1, 1906.

Following is a summary of reports received from correspondents of the Iowa Weather & Crop Service, giving estimates of the condition of the staple farm crops on July 1, 1906:

CORN, 99 per cent; wheat, 94; oats, 84; rye, 93; barley, 91; flax, 92; potatoes, 94; hay (tame), 75; pastures, 88; apples, 70; grapes, 85.

On July 1, 1905, the estimates were as follows: CORN, 92 per cent; wheat, 94; oats, 96; rye, 96; barley, 98; flax, 95; hay, 101; pastures, 105; apples, 65; grapes, 88.

IOWA FRUIT CROP.

Wesley Greene, Secretary of the Iowa Horticultural Society, issued the following report on the condition of the fruit crop in Iowa, dated July 3, 1906:

Apples, 60 per cent; pears, 35 per cent; American plums, 62 per cent; European plums, 45 per cent; Japanese plums, 43 per cent; peaches, 77 per cent; cherries, 79 per cent; grapes, 81 per cent; red raspberries, 65 per cent; black raspberries, 72 per cent; blackberries, 79 per cent; strawberries, 68 per cent; currants, 67 per cent; gooseberries, 58 per cent.

There is less apple scab than usual at this time of the year; the foliage is in healthy condition and the prospects are for a better grade of apples than last year. The June drop of apples was estimated at about 25 per cent. One-half of this was attributed to scab and codling moths, the remainder to blight, imperfect fertilization and other causes. Spur and twig blight seems to be more abundant in the northeastern part of the state than elsewhere.

The strawberry crop was less than estimated last month, especially in the southern part of the state. Cherries held out well and gave a better crop than was expected after the hard frosts in May. Currants and gooseberries did not set a full crop and the yield of these fruits will be light. Peaches promise well and many trees are over-loaded and on these it will pay to thin the fruit as a better grade will be produced that will sell for more money.

JUNE WEATHER AND CROPS.

The daily mean temperature of June for the state was 1.7° below the normal. The average of the northern section was 66 2°, which is 2.0° below the normal, and 3.2° lower than the mean of the southern section.

There was considerable fluctuation in temperature during the month, but no damage resulted from frost or cold weather. The average precipitation was 3.92 inches which is 0.63 of an inch below the normal. The larger part of the rainfall came in the latter half of the month, affording timely relief from droughty conditions prevalent in nearly all districts during the second decade of the month. It was an ideal month for the cultivation and growth of the corn crop. The fields were thoroughly cleaned, the soil was in fine tilth, the stand was better than usual, and the crop as a whole was very promising at the close of the month. The dry weather favored its cultivation, and there was sufficient moisture and warmth in the soil to maintain healthful growth.

These conditions however, were not entirely favorable to spring wheat, oats, barley and the hay crop, which were checked in growth by the dry weather prevalent in the latter part of May and the early part of June. But the small grain crops have made fairly good stands, and though short in straw the yield of grain is likely to be fairly good. The hay crop lacks somewhat in bulk, but is superior in quality to the product of wetter seasons. The strawberry crop was somewhat reduced by the dry weather, but the raspberry and blackberry crops have made fine yields. The crop of cherries was above the average. The gardens, vegetables and pastures were much helped by the copious rains from the 18th to the 25th. As a whole it was a very favorable month.

CLIMATOLOGY OF THE MONTH.

TEMPERATURE.—June was slightly cooler than the average, the mean temperature for the state as shown by records of 125 stations, being 67.9°, which is 1.7° below the normal. By sections the mean temperature were as follows: Northern section, 66.2° which is 2.0° below the normal: Central section, 68.1°, which is 1.4° below the normal; Southern section, 69.4°, which is 1.8° below the normal. The highest monthly mean was 71.7° at Pella, aud the lowest was 64° at Sibley. The highest temperature reported was 99° at Greenfield and Odebolt on the 16th and at Clarinda on the 16th and 17th. The lowest temperature reported was 37° at Atlantic and Earlham on the 13th. The average monthly maximum was 93.1° and the average monthly minimum was 43.4°. The greatest daily range of temperature was 48° at Audubon, Bedford and Ida Grove. The average of greatest daily ranges was 36.4°.

PRECIPITATION.—The average precipitation for the state, as shown by records of 132 stations, was 3.92 inches, which is 0.63 of an inch below the normal. By sections the averages were as follows: Northern section, 3.81 inches, which is 0.63 of an inch below normal; Central section, 3.44 inches, which is 1.16 inches below normal; Southern section, 4.50 inches, which is 0.12 of an inch above the normal. The largest amount reported was 8.27 inches at Albia, and the least amount reported was 1.48 inches at Keokuk. The greatest daily rainfall reported was 5.20 inches at Thurman on the 18th. The average number of days on which .01 of an inch or more was reported was 8.

WIND AND WEATHER.—The prevailing direction of the wind was northwest. The highest velocity reported was 49 miles an hour, from the west, at Sioux City on the 6th. The average number of clear days was 15; partly cloudy 10, and cloudy 5.

BELATED REPORT.

KNOXVILLE.--May.—Mean temperature 63.2°; highest 87° on the 17th; lowest 30° on the 7th; daily range 32; total precipitation 1.87 inches. Greatest daily rainfall, .75 inch. Prevailing direction, Southwest. Number of clear days 11, partly cloudy 10, cloudy 10, rainy 6.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	2988	30.28	12	29.42	6
Davenport	2988	30.24	12	29.50	6
Des Moines	2988	30.28	12	29.43	6
Dubuque	2990	30.29	12	29.45	6
Omaha, Neb.	2987	30.19	12	29.35	6
Keokuk	2991	30.20	12	29.55	19
Sioux City	2987	30.19	11	29.35	6
Means	29.88	30.29	12	29.35	6

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date
Charles City	4783	26	S	47
Davenport	5379	40	NW	29
Des Moines	6144	35	W	30
Dubuque	4742	24	S	29
Keokuk	5503	37	SW	29
La Crosse, Wis.	4727	33	NW	29
Omahu, Neb,	6266	52	N	30
Sioux City	9267	49	W	6

OBSERVERS' NOTES.

ALTA.—*David E. Hadden.* June 1906 was cool and dry; the mean temperature was 23° below the normal of preceding 16 years, and the deficiency in rainfall was 1.95 inches.

AMANA.—*Conrad Schadt.* June temperature was variable; timely rains were favorable to crops.

ATLANTIC—*J. W. Love.* An ideal month; not extremely hot or cold, and plentiful rains.

BONAPARTE.—*B. R. Vale.* Precipitation 2.09 inches; a dry month; showers local but too cool for rapid growth; meadows and oats light.

BRITT.—*Geo. P. Hardwick.* Latter part of the month was changeable, with excess of cloudiness. On the 17 hail caused much damage in east central part of Hancock county; all field crops uneven.

CHARITON.—*C. C. Burr.* A fine month for corn, and all vegetation made good growth; pastures good, and corn field are devoid of weeds.

CLINTON.—*Luke Roberts.* Mean temperature of June was 0.5° below normal, and the rainfall was .92 of an inch below the average; hail on 27th did some damage to fruit and gardens.

CRESTON.—*Rev. W. L. Gaston.* The month was unusually dry, but was very favorable for corn plowing.

DECORAH.—*F. H. Boker.* A tornado passed over the north east part of this county, on June 5th, doing much damage to farm buildings in its track, and causing loss of life after passing over the line into Minnesota.

FOREST CITY.—*J. A. Peters.* Rainfall was about an inch below normal, but enough for all crops. The temperature was 0.5° below normal. Corn and small grain are exceptionally good, but the hay crop is short.

GRINNELL.—*A. O. Price.* June was an ideal month for corn. The ground is clean and the growth large. Rainfall was about 1.00 inch below the normal.

INWOOD.—*F. B. Hanson.* The fore part of June was very favorable. Excessive rainfall the last ten days delayed farm work, and a windstorm on the 29th damaged early grain crops to some extent.

LARRABEE.—*H. B. Strever.* A fine rain on the 18th relieved the drought from which the crops were previously suffering.

LEON.—*Millard F. Stookey.* June was a month of exceptionally favorable weather for farm operations.

OLIN.—*Nathan Potter.* The month had some cool waves, but on the whole was favorable for farm work, and corn has been better tilled than an average; oats are below average, and meadows fair.

RIDGEWAY.—*Arthur Betts.* June was a good growing month, with 323 hours of sunshine and 16 excellent corn days. On June 6th a hailstorm came without wind, and the hailstones were the largest I ever saw. Twelve large stones weighed 3 pounds; they varied from the size of plums to turkey eggs. Some measured nine inches in circumference. In form they ranged from round to oval and flat, and they were beauties. The damage was small, but the noise of the storm was awful.

WAUKEE.—*E. J. Leonard.* The month was very dry (only 2.32 inches of rainfall,) but the crops were not injured by the drought, and there were no severe storms.

MAKING ARTIFICIAL ICE.

(St Louis Globe Democrat)

One of the census bulletins issued in 1902 dealt with the manufacture of ice in this country, and gave full details of the rise of the industry. Census office correspondence with leading ice manufacturers five years ago indicated that the average cost of the production was $1.50 a ton, the average wholesale price $2. per ton, with the average retail price varying from 15 cents to 30 cents per 100 pounds, according to the season. But in the last five years processes have been cheapened and the consumption of artificial ice greatly increased, resulting in decreased cost. When these official figures are considered in connection with the recent sudden advance, ranging as high as 50 per cent, in cost to consumers, an idea can be formed of the tremendous and audacious job worked on the people by the ice trust. Mild winters are not in the slightest degree detrimental to the manufacture of ice, which depends upon the supply of coal and ammonia. In the items of cost coal counts for two-thirds and ammonia for one-tenth, yet neither of these articles enters directly into the product, and one season is as good as another for the work. In this industry, as in all others, economic improvement is constant, and the natural tendency of prices should be downward.

The census bulletin states that the manufactured ice business was begun in New Orleans in 1866, and then took up a northward march. Three zones exhibiting its progress are mapped in the census bulletin. In 1892 the Southern States had three-fourths of the manufactured ice plants in operation in the United States, and as late as 1900 the south had half the plants. In the last ten years the industry has made a great growth, on the strength of the former favorable price and the control that can

be maintained over the purity of the water frozen. In 1870 the census reported only four ice-manufacturing plants, all in the south. The number in the census of 1880 was thirty-five. But by 1900 not one of the central Northern States had fewer than forty ice-manufacturing plants. Pennsylvania alone reporting seventy-three. By the year 1900 ice was manufactured in all the States except a few along the Canadian border, and the industry has since been started there. The methods employed are simple, and the cost can be calculated to a minute fraction the year round. Consumption increases at a much more rapid pace than the population.

LANTERN SLIDES IN STUDY OF METEOROLOGY.

All teachers of physiography and meteorology are well aware of the difficulty of obtaining adequate material for illustration in the teaching of meteorology. Special maps for the study of type storms can not be had in many cases; or, if obtained, require a great deal of care in storing and use, and deteriorate raipidly. Special data are often reduced to graphic form, making them of the highest teaching value, yet to be found only in costly volumes, or rare publications. Such graphs are often too difficult of construction to be easily duplicated for class work.

The relatively small number of schools offering work in meteorology discourages the manufacture and sale of slides by the regular dealers. So, a year ago, the Geographic Society of Chicago decided to undertake the preparation of a list of slides to cover every phase of meteorology, and to offer these slides at cost to teachers and schools.

The following committee was appointed to prepare the slides and a bulletin discussing them: Prof. Henry J. Cox, of the United States Weather Bureau, chairman; Dr. J. Paul Goode, Assistant Professor of Geography, University of Chicago; Miss Elizabeth Smith, Chicago Normal School; Mr. L. L. Everly, Wendell Phillips High School, Chicago; Mr. Chas. E. Peet, Lewis Institute, Chicago; and Mr. J. H. Armington, Chief Observer, Chicago Weather Bureau Office. The committee has received the cordial support and invaluable assistance of Prof. Willis L. Moore, Chief of the United States Weather Bureau, and the members of his scientific staff. The list of slides printed herein is the result of the year's work of this committee.

Bulletin No. 3, discussing the general question of the use of the lantern, of the weather maps and the graphic presentation of data, as well as the subject matter of each slide, has been prepared by the committee, and is issued by the Society. Orders for the bulletin should be addressed to the Geographic Society of Chicago, P. O. box 223, Chicago, Illinois.

EFFECT OF CLIMATE ON MAN.

Professor Willis L. Moore, Chief of U. S. Weather Bureau, in his article on climate, written for the Encyclopedia Americana, says:

"Climate is the most potent of any factor in the environment of races. It is climate and soil, plus heredity and form of government, that produces either vigorous or weak peoples. In this respect it is a question if the United Staees does not possess a constant potential that, all other conditions being equal, places it in a class by itself.

"Climate, soil, and good heredity may produce a race large of stature and of great physical endurance, but unless such a people exist under a liberal form of government, in which public education is fostered and the arts and sciences taught, it is unable to employ its strength in those lucrative vocations that give a high per capita of wealth; and wealth means power. It is weak in defending itself, either in war or in commerce, against a people of less numerical strength that is liberaly educated, skilled, and humanely governed.

"If one reads of the overthrow of political dynasties and the subversion of trade and commerce, it will occur to him that northmen have usually been conquerors. If we consider the invigorating effect of cold air and marked changes of temperature alone we might expect to find the strongest and most resourceful peoples in the Artic Circle; and if we consider fruitfulness of soil alone we might reasonably expect to find the dominant peoples in the Tropics. But the fact is that the greatest human potentiality occurs somewhere between these two extremes. The boundaries cannot be accurately determined by the naming of certain parallels of latitude, but a close approximation is made to the truth in the statment that the most vigorous people physically and the most resourceful mentally will be found in the most northernly regions that will produce not simply cereal crops, but an abundance of them.

"The sweep of the cold wave, as it is known in the United States, is quite distinctly North American. Nowhere else on fertile plains, unless it be Russia, does the temperature show such wide oscillation within such short periods of time, nor do the icy blasts sweep over such a broad area. It is probable that much of the physical and the intellectual enegeries that have caused the United States to excel in agriculture, in manufacturing, and in commerce, were produced by the invigorating effect of the cold, dry, highly electrified air of the North American cold wave. The anticyclonic systems of air that constitute cold waves have a marked downward component of motion. The motion brings from a considerable altitude to the surface of the earth some of the high electrical potential of the upper air, which is strongly stimulating to man and to other forms of animal life. These cold north winds have a much greater specific gravity than warm and humid winds, and this condition, added to the force with which they come, scatter and diffuse the befouled air near the surface of the earth. Enough has been said to indicate that climate is nearly as important a part of the environment of animal life as it is of the vegetable existence, and that a wide range of annual temperature, if it be not so great as to limit the production of cereal crops, favors the development of strong races of men."

DATES OF THUNDER STORMS.

Northern Section.

Algona—6, 18.
Charles City—6, 20, 26, 27, 29.
Alta—6, 24, 26, 27, 29, 30.
Dows—6, 19, 26
Elkader—20, 26, 27, 29
Estherville—19, 25, 26.
Fayette—6.
Grand Meadow—7, 19, 20, 21, 25, 26, 27, 29.
Hanlentown—4, 6, 18, 25, 26, 27, 29.
Inwood—6, 17, 25, 26, 27, 29, 30.
Larabee—4, 17, 29, 30.
LeMars—6, 17, 29.
Mason City—4, 6, 26, 27, 29.
Northwood—6, 27, 29.
Osage—6, 20, 27, 29.
Plover—4, 6, 17, 18, 26, 29, 30.
Pocahontas—29.
Ridgeway—4, 6, 20 25, 26, 27, 29.
Rock Rapids—3, 18, 19, 24, 26, 29, 30,
Sheldon—4, 18, 25, 26, 27, 29, 30.
Sibley—6 19.
Sioux Center—3, 6, 17, 25, 26, 29.
Waverly—4, 14, 20, 25. 26, 27, 29,
West Bend—6, 18, 25,28.

CLIMATOLOGICAL DATA FOR JUNE, 1906.

CENTRAL SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	OBSERVERS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Amana	Iowa	721	27	69.0	- 0.7	92	6,28	43	13	31	2.74	- 1.75	1.03	...	9	16	10	4	NW	
Ames	Story	926	22	68.1	- 1.9	95	17	42	13	40	3 71	- 1.04	1,35	....	7	18	11	1	S	
Audubon	Audubon	1,801	10	66.8	- 2.5	90	28	38	14,15	48	3.03	- .74	.96	..	8	14	8	8	S, NW	
Baxter	Jasper.	998	6	67.7	† 0.2	95	17	41	13	41	3.96	- .46	3.01	....	8	14	13	3	NE	
Belle Plaine	Benton	828	14	66.9	- 2.9	91	27,28	45	13	37	4.14	- .09	2.30	....	7	10	14	6	S,SE	
Buckingham	Iowa	.....	6	.....	.....	.....	.....	....	.....	.....	4.01	. ....	2.40	....	8	18	8	4	... .	
Carroll	Carroll	1,265	16	65.6	- 3.9	93	.....	.....	.....	.....	2.72	- 2.44	.95	....	5	7	19	4	... .	
Clinton	Clinton	593	38	69 0	- 0 9	94	17	38	22	43	1 88	- 3.95	.71		5	20	2	8	.....	
Cedar Rapids	Linn	783	....	70.2	- 0.5	94	28	43	12, 13	37	3.47	- 1.21	1.18	....	7	9	15	6	SW	
Davenport	Scott	613	35	69.8	- 1.1	93	6,17,28	47	13	38	4 92	† 1.00	2.87	...	8	12	16	2	NW	
Delaware	Delaware	1,083	13	65.0	- 2.6	88	28	48	12	29	2.60	- 1.70	.93	...	12	10	17	3	NW	
Denison (*b*)	Crawford.	1,180	10	66 8	- 2.1	95	28	42	13	31	3 30	- .98	68		9	14	13	3	NE	
Des Moines	Polk	861	27	69.6	- 0.5	92	17	41	2	43	2 83	- .72	1.00	...	8	18	3	9	SW	
De Soto	Dallas	866	6	68.4	....	92	17	48	13	33	3.80	- 1.56	1.96	....	8	11	14	5	SW	
Dubuque	Dubuque	655	33	68.0	- 1.5	92	17	45	13	31	2.30	.....	1 07	...	6	23	4	3	SW	
Fort Dodge	Webster.	1,126	....	66 4	....	93	28	50	13	33	3.36	- 1 84	1 16	...	12	13	14	3	NW	
Galva	Ida	1,290	10	64.8	- 4.2	92	17	42	13	39	1.94	.	1.25	....	8	....	....		SE	
Gilman	Marshall	1,052	....								2.89	- 1.34	1.00	..	10	22	5	3	NW	
Grinnell (*near*)	Poweshiek	1,023	11	67.6	- 2.7	94	17	43	13	39	3 82	- 1.08	2.04	....	5	16	6	8	S W	
Grundy Center ‡	Grundy	976	13	68.0	- 1.1	94	17	40	13	39	3 91	- .98	2 85	....	8	16	10	4	SW	
Guthrie Center	Guthrie	1,077	8	68.4	- 1.2	94	16,17	39	13	40	4 55	- 1.29	2.20		5	20	6	4	S	
Harlan	Shelby	1,192	7	67.2	- 1.5	94	16,17	42	2	41	4.87	† .81	1.74	....	8	23	8	4	S W	
Ida Grove	Ida	1,220	...	66.4	.....	96	17	38	2	37	3 02	- 2.26	1.29	..	7	9	18	3	N W	
Independence	Buchanan	921	40	66.6	- 2.5	94	17	38	2	48	2.89	.....	1.00	....	8	....	....	....	E	
Iowa City	Johnson	683	45	69 6	† 0.3	96	17	41	13	38	.....	.....	.....	....	..	15	10	5	S	
Iowa Falls	Hardin	1,170	11	66.0	- 2.5	94	17	45	13	41	3.64	- .99	1.28	....	9	18	4	8	N SW NW	
Jefferson (*a*)	Greene	....	....	67.2	.....	93	17	40	13	40	3.04	- 1.73	1.04	....	6	..	....	....	.....	
Le Claire	Scott	576	....	....	.....	.....	.....	41	13,14	36	2.21	.....	.67	....	5			....	NW	
Little Sioux	Harrison	....	....	69.2	.....	94	16	44	2	40	4.64	.....	2.00	..	8	17	4	9	NE, SW	
Logan	Harrison	928	37	68 8	- 1.8	98	17	43	2	40	4 71	.....	2.02	....	9	19	7	4	SE	
Marshalltown	Marshall	947	11	68 4	- 1 0	96	17	40	13	41	3.65	- 2.15	1.70	....	8	10	19	1	NW	
Mount Vernon	Linn	847	37	69.6	† 0.2	95	18	43	13	39	3.45	- 1 49	1.60	..	8	....	....	....	SE, NW	
Muscatine	Muscatine	.....	47	....	....	....	.....	.....	.....	.....	1 98	- 1 77	.83	....	8	20	5	5	S	
Newton	Jasper.	944	16	70.4	† 0.2	93	17	52	13	27	3.56	- 1.30	1.04	....	11	16	4	10	S	
Nevada	Story	.....	..	.....	.....	....	.....	..	.....	.....	4 22	- .75	2 30	....	6	15	13	2	SE	
Odebolt	Sac	1,356	7	68.4	- 2.4	99	16	42	2	43	4 01	.....	1.67	....	8	26	2	2	.....	
Ogden	Boone	1,058	10	68.2	- 1.4	93	17	43	13	36	3.41	- .90	1.46	....	6	20	4	6	.....	
Olin	Jones	760	7	67.4	- 2.2	90	28	44	12	30	5 70	- .82	3.76	..	6	19	8	3	SW	
Onawa	Monona	.....	6	69.3	- 0.4	97	16	47	1, 2, 13	33	2.02	- 1.50	.82	....	7	16	11	3	NW	
Perry (*a*)	Dallas	975	....	69.4	.....	95	17	42	13	33	6.60	† 1.40	2.05		11	28	3	4	NW	
Preston	Jackson	.....	....	66.2	....	92	28	40	13	39	2 96	.....	1.28	..	6	7	16	7	.....	
Rockwell City	Calhoun	.....	9	68 1	- 0 8	95	17, 27	41	13	33	3.64	.....	1.04	..	11	12	12	6	SW, NW	
Sac City (*b*)	Sac	1,356	24	66 1	- 2.5	92	17	41	13	37	2.10	- 2.40	1.75	....	3	26	4	0	....	
Sioux City	Woodbury	1,165	15	67.1	....	91	17	41	14	36	2.68	- 2.21	1.28	....	7	21	8	1	NW	
Stuart (*a*)	Guthrie	.....	7	70.8	† 0.0	96	16	45	2	35	4.02		2.60	..	8	12	9	9	NW	
Tipton	Cedar	807	8	71.3	† 2.0	94	30	..	....	35	2 59	- 1 38	.73	....	6	13	6	6	.....	
Toledo (*a*)	Tama	856	10	68.7	- 2.0	93	17, 28	49	13	33	2.93	- .80	1.03	....	7	23	5	2	SW	
Vinton (*b*)	Benton	810	14	67.4	- 2.3	88	17	42	13	39	4.14	† .54	2.40	...	6	....	..	..	SW	
Waterloo	Black Hawk	862	17	68.0	- 0.8	93	6,17,18	45	2	38	4.15	† .17	2.08	...	6	....	....	....	SW	
Waukee	Dallas	1,039	....	70.0	...	94	17	45	2,13	37	1,64	- 2.83	.53	...	9	13	13	4	E	
Webster City	Hamilton	.....	....	68 5		98	17	45	13	34	2.32	.....	1.21	....	6	17	11	2	SW, NW	
Whitten	Hardin	1,036	6	68.2	- 0.1	96	17	41	2, 18	39	4.03	.....	1 38	...	8	17	5	8	SE	
Wilton Jct (*a*)	Muscatine	633	9	68.5	- 2.6	90	17	43	13	37	4.83	- 1.43	2 95	....	6	17	10	3	S ¢	
Zearing	Story	718	....	67.0	.....	93	17, 29	45	12	27	2.96	- .82	.98	...	9	24	4	2	W	
Average	....	....	....	68.1	- 1.4	93.5	....	43.1	.....	37.1	3 44	- 1.16	...		8	18	9	5	NW	

CENTRAL SECTION.

Amana—6, 27, 29.
Audubon—6, 19, 26, 29.
Baxter—27.
Boone—6, 18, 29.
Carroll—26, 30.
Clinton—4, 27, 29.
Cedar Rapids—1, 7, 19, 20, 27, 29.
Davenport—4, 6, 19, 20, 27, 29, 30.
Des Moines—6, 7, 18, 19, 26, 27, 29, 30.
Dubuque—5, 6, 7, 19, 25, 26, 27, 29, 30.
Galva—6.
Grinnell—1, 6, 7, 18, 23, 26, 27, 29, 30.
Guthrie Center—3, 18, 27, 28.
Harlan—3, 18, 22, 23, 26, 27, 29. 30.
Iowa City—6, 19, 27, 30.
Iowa Falls—19, 20, 26, 29.
Jefferson—18.
Little Sioux—18, 29.
Marshalltown—26, 29, 30.
Mt. Vernon—19, 30.
Nevada—30.
Olin—20, 29.
Onawa—6, 18, 25, 26, 29.
Perry—26, 30.
Preston—6, 7, 19, 27, 29, 30.
Sioux City—6, 17, 24, 26, 27, 29, 30.
Stuart—18.
Waukee—19, 27, 29.
Waterloo—7, 26, 29.
Whitten—4, 6, 19, 20, 27, 29, 30.
Zearing—7, 18, 20, 21, 27, 29.

SOUTHERN SECTION.

Albia—7, 19, 29.
Allerton—7, 22, 27, 29, 30.
Alantic—3, 22, 27, 29, 30.
Alton—6, 18, 19
Burlington—6, 19, 29.
Chariton—29.
Columbus Junction—7. 19, 20, 27, 29, 30,
Corning—6, 27, 29.
Corydon—19, 29.
Earlham—1, 4, 13, 19, 22, 27, 29.
Elliott—4, 18, 22, 29.
Greenfield—3, 4, 5, 6, 18, 22, 26, 27, 29.
Hopeville—27, 29.
Indianola—6, 18, 19, 27, 29.
Keokuk—4, 5, 7, 8, 18, 19, 22, 29.
Lenox—29.
Massena—27.
Mt. Pleasant—18, 27, 29.
Oskaloosa—29, 30.
Omaha—3, 6, 7, 17, 18, 22, 23, 24, 26, 27, 29, 30,
Pacific Junction—3, 18, 19, 20, 27, 29.
Pella—27, 29, 30.
Sigourney—7, 27, 29.
Winterset—18, 29.
Woodburn—19, 26.

CLIMATOLOGICAL DATA FOR JUNE, 1906.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	OBSERVERS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Algona	Kossuth	1,213	30	66 4	- 3.3	90	17	43	13	33	3.49	- .90	1.58	...	9	15	8	7	NW	
Alta	Buena Vista	1,513	13	63.0	- 2.5	93	17	45	1,13	32	3 33	- 2 33	1 20	...	12	11	15	4	S, NW	
Alta (near)	Buena Vista	.....	....	...	.....	...	.....	.....	.....	...	3 28	.....	.94	...	10		...	...	.....	
Alton	Sioux	1,305	...	65 0	.....	91	17	41	23	36	4 42	.....	2.47	...	11	18	9	3	SE, NW	
Britt	Hancock	1,236	7	66 2	- 1.6	91	17	41	13	33	2 47	- 2.01	1.39	...	9	10	18	2	.....	
Charles City	Floyd	1,005	19	64.5	- 5.0	88	17	44	18	31	4 01	1.12	1 23	..	10	7	10	13	NW	
Clear Lake	Cerro Gordo	1,241	7	66.8	- 1 7	90	16, 17	44	13	32	4 55	† .16	2.00	...	6	20	6	4	S	
Decorah	Winneshiek	875	10	67.6	- 0 2	93	28	42	13	36	2 0[illegible]	- 2.18	.52		9	...	...	...	.....	
Dows	Wright	1,142	6	65 6	- 2.1	91	17	41	13	35	3 18	- 1.92	1.98	...	8	18	6	6	SW	
Elkader	Clayton	727	23	67.7	- 1.8	94	18, 23	39	13	44	2 30	- 1 90	.65	..	8	13	14	3	NW	
Estherville	Emmet	1,298	9	65 0	- 3 6	91	17	42	13	33	....	.....	2.40	....	8	18	0	12	S, NW	
Fayette (b)	Fayette	1,003	16	65 5	- 2.7	90	23	41	1	38	4 04	- 1.81	1.60	....	10	..	...		NW	
Forest City	Winnebago	1,226	10	66.4	- 1.7	91	16	41	12	33	3.62	- 1.44	2 81	....	8	16	4	10	SW	
Grand Meadow	Clayton	1,180	13	66 4	- 0.6	88	28	45	13	30	4.67	- 0.59	1 54	...	10	11	11	8	NW	
Greene	Butler			67 3	- 2.1	92	16, 28	41	13	39	1.75	- 2.32	.83	...	6	11	12	7	E	
Hampton	Franklin	1,155	14	68.4	† 0.2	94	17	44	13	37	2.89	- 2.34	1.60	....	8	5	19	6	NW	
Hanlontown	Worth	.....	.	64.8	....	88	17, 28	41	13	30	4 00	.....	2 90	..	9	17	8	5	SW, NW	
Humboldt	Humboldt	1,095	12	66 2	- 3.8	92	17	43	13	34	3.80	- 0.87	1 82	...	10	20	6	4	SW	
Inwood	Lyon	.....	....	65.1	.....	91	16	42	1,13	42	7.94	.....	2.06		13	16	11	3	SE	
Larrabee (a)	Cherokee	1,266	15	67 6	- 1 3	93	17	44	1, 2, 13	40	4.40	- 1.50	2 00	....	9	14	13	3	SW	
Le Mars	Plymouth	1,224	8	66 0	- 2 9	94	16	41	2	40	5.45	† 1.43	3.05	....	8	11	6	3	SE	
Mason City	Cerro Gordo	1,132	...	67.6	‡ 0 0	90	17, 28	45	13	31	2 75	- 4.29	.88	....	8	9	21	0	SW	
New Hampton	Chickasaw	1,169	6	65.6	3 0	89	28	42	13	31	3 56	- .93	2 82	....	8	12	12	6	E	
Northwood	Worth	1,222	8	65 6	- 1.2	88	28	42	13	30	2 24	- 2.57	.45	....	11	12	15	3	SW	
Osage	Mitchell	1,184	13	66.2	- 0.2	90	16, 17, 23	42	13	35	4.16	- 2.36	.71	....	9	12	8	10	NW	
Plover (a)	Pocahontas	.....	7	67.0	- 1.6	92	17	43	2, 13	37	5.62	† 1.59	2.19	....	10	2	4	5	SW	
Pocahontas	Pocahontas			66 8		92	16, 17	41	11	39	4 97	....	3 10	....	6	15	11	3	S	
Ridgeway	Winneshiek	1,215	8	67.3	- 1.9	92	28	43	13	32	3 87	- .65	2.04	....	12	14	16	0	S	
Rock Rapids	Lyons	....		65 8	- 2.6	92	16	42	20	38	5 65	- 1.91	1.55	....	7	..	....	..	....	
Sheldon	O'Brien	1,422	6	65.0	- 0 5	93	17	43	1, 2	37	3.84	- .33	2.05	....	11	17	8	5	SW	
Sibley	Osceola	1,213	10	64.0	- 3.1	92	17	40	2	38	5.12	† .99	1 82		10	19	3	8	NW	
Sioux Center	Sioux	.....	7	64.8	- 4.2	90	16	39	13	35	5.17	† .87	1 91	....	10	19	6	5	S	
Washta	Cherokee	1,157	.	65 3	.....	94	16	39	13, 15	45	2.72	- 1.69	1 00	....	10	17	8	5	S	
Waverly (a)	Bremer	942	8	66.4	- 2 4	91	17	46	2	35	1 74	- 2.74	.86	....	9	10	13	7	.....	
West Bend	Palo Alto	1,197	10	67.2	- 0 6	94	16, 17	41	13	37	4.63	† .82	2 45	....	9	1	26	3	NW	
Average			...	66.2	- 2.0	91.3	.....	43.2	.....	35.5	3 81	- .85	...		9	14	11	5	NW	

SOUTHERN SECTION.

Afton	Union	1,212	11	70.5	- 1.1	98	17	42	13	40	2.11	- 2.19	.52	....	8	14	15	1	SW	
Albia	Monroe	959	8	68.3	- 1.8	91	6, 17	44	13, 14	32	8.27	† 4.70	3.65	....	9	21	5	4	S	
Allerton	Wayne	....	....	68.9	.....	93	17	44	13	33	4.87	.....	2.62	....	9	22	7	1	SW	
Atlantic	Cass	1,164	13	67.4	- 2.8	98	17	37	13	43	5 87	† 0.19	2.00	...	9	9	12	9	SE, W	
Bedford	Taylor	.....	6	68.6	† 1.0	97	.6	42	2	48	6.52	† 2.29	2.05	..	7	20	6	4	NE, SE	
Bonaparte	Van Buren	.....	12	69.7	- 2.7	93	6, 27, 28	45	13	36	2 09	- 2.15	.72	...	8	....	....	....	.....	
Burlington	Des Moines	541	8	70 0	.....	93	28	50	12	30	4.80	.	1.58	...	10	17	5	8	W	
Chariton	Lucas	1,042	9	67.7	- 2 7	91	17	44	2, 13	53	5.81	† 1.34	2.30	....	7	22	5	3	SE	
Clarinda	Page	1,009	14	70.2	- 1.6	99	16, 17	38	21	45	2.44	- 2.07	1.71	...	9	20	3	7	S	
College Springs	Page	.....	12	69 6	- 1.9	97	26	45	2	38	4 18	- .25	2.10	....	5	19	10	1	SE	
Columbus Jct	Louisa	595	5	70.6	† 2.1	93	28	46	13	40	7.80	† 3.53	3.07	....	10	20	8	2	NW	
Corning	Adams	1,117	12	67.8	- 2.6	94	16, 17	43	13	35	2.75	- 1.44	.77	....	6	15	14	1	NE, NW	
Corydon	Wayne	1,101	11	69 0	- 1.8	90	6, 16, 17	45	13	31	6.08	† 1.75	3.20	..	9	19	7	4	SW	
Creston	Union	.....	....	68 4	...	93	17	42	13	39	3.11	.....	1.02	...	7	18	12	5	SE	
Cumberland	Cass	.....	...	.....	.....	.....	.....	.....	.....	.....	5.67	† 1.61	1.43	....	8	21	3	6	S	
Earlham	Madison	.....	....	68.2	....	93	17	37	13	41	3.55	.....	1 43	...	6	20	7	3	NW	
Elliott	Montgomery	.....	....	70.0	.....	98	17	43	2, 13	39	3 46	.....	1 15	...	6	17	13	0	S, NW	
Ft. Madison	Lee	516	53	...	...	...	.....	.....	.....	.....	3.52	- .82	1.54	....	10	9	15	6	S	
Glenwood	Mills	.....	17	69.0	4 0	95	17	47	2, 13	35	6.54	† 2.63	2.15	....	4	7	20	3	SW	
Greenfield	Adair	.....	13	70 2	- 0.4	99	16	41	13	40	3.89	- 1.22	1.27	....	8	24	5	1	SW	
Hancock (a)	Pottawattamie	.....	...	68.6	....	94	16, 17	46	13	46	4.22	.....	1.80	...	9	....	..	....	NW	
Hopeville	Clarke	..	13	69 2	- 1.8	96	17	42	21	33	2.26	- 2.09	.58	...	10	11	18	1	S, NW	
Indianola	Warren	939		69.4	- 1.0	94	17	46	13	34	3 13	- .95	1.17	....	6	8	13	9	SW	
Keokuk	Lee	691	35	71.6	- 0.9	93	28	50	12	30	1.48	- 3 06	.33	..	9	19	7	4	SW	
Keosauqua	Van Buren	644	12	70.2	- 2.8	95	28	45	13	38	2 25	- 1 81	.53		11	8	12	10	.....	
Knoxville	Marion	920	10	70.4	- 1.7	95	17	46	13	34	3.52	- .30	1.70		6	14	6	10	SW	
Lacona	Warren	.....	...	.....	.....	.....	.....	.....	.....	.....	3.80	- .74	1.87	....	7	7	18	5	.....	
Lenox	Taylor	1,250	9	69.4	- 0.8	94	16, 17	45	13	35	3.01	- .09	.98	....	8	21	8	1	S	
Leon	Decatur	1,120	...	69.4	.....	93	17	45	13	35	5.04	.....	1.80	....	10	23	6	1	SE	
Massena	Cass	..	..	69.0	.....	98	16	43	1, 2	46	4.15	.....	1.43	....	9	16	14	0	S	
Mount Ayr	Ringgold	1,236	10	69.5	- 1.2	97	17	45	13	40	5 33	† .89	1.20		8	14	16	0	SW	
Mt. Pleasant	Henry	729	22	70.7	- 0.4	95	28, 29	45	13	35	4.81	† .60	1.95	....	10	11	16	3	SW	
Omaha, Neb	Douglas	1,113	34	70.5	- 1.0	94	16	52	21	29	5.30	- .87	2.57	....	10	8	13	9	S	
Oskaloosa	Mahaska	843	20	69 0	- 0.9	93	6	46	2, 13	36	3 45	- .68	1.17	..	8	22	2	6	SW	
Ottumwa	Wapello	649	10	71.0	- 1.4	96	17	48	13	33	6 78	† 2.99	2.75	....	4	15	11	4	....	
Pacific Junction	Mills	980	7	69.2	- 0.3	96	17	45	2, 15	34	6 08	† 1.65	4.01		6	13	16	1	S	
Pella	Marion	....	....	71.7	.....	95	17	46	13	35	2 95	.....	1.51	....	7	20	9	1	SW	
St. Charles	Madison	1,070	4	68.7	.....	93	17	45	13	31	3.50	.	1.42	....	8	19	9	2	NW	
Sigourney	Keokuk	877	7	70.0	- 2.3	94	6	45	13	38	4.93	† 1.24	1.82	....	8	1	27	2	SW	
Stockport	Van Buren	.....	....	69.8	....	92	6 28	47	2, 13	31	2 87	.....	1.10	....	11	24	2	4	NW	
Thurman	Fremont	.....	8	70.4	- 1.8	93	16	44	2	42	8.23	† .69	5.20	..	6	14	13	8	NW	
Wapello	Louisa	588	6	69.9	- 1 6	90	28	50	12	27	5.93	† 3.00	2.34	....	11	23	6	2	W	
Washington	Washington	769	22	69.2	- 1.0	92	6, 17, 28	46	13	32	7.42	† 4.19	1 52	....	6		....	....	SW	
Winterset	Madison	1,129	13	70.9	† 0.6	96	17	44	13	37	5 60	- .24	3.80	..	6	17	8	5	S	
Woodburn	Clarke	961	....	67.4	....	94	17	39	13, 14	39	3.59	- .40	1.15	....	8	17	10	3	NW	
Average		.....	....	69.4	- 1.8	94 6	.....	44.8	.....	36.5	4.50	† .12	.....	....	8	16	10	4	SW	
Average for State		.....	....	67.9	- 1.7	93 1	.....	43.4	.....	35.4	3 92	- .63	.....	.. .	8	15	10	5	NW	

s Above normal. ‡ Received too late to be computed with means. a. One day missing; b. two days, etc.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JUNE, 1906.

STATIONS.		DATE																														MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max..	75	80	83	88	90	90	83	82	87	80	81	78	82	78	89	95	98	85	77	74	79	83	79	80	85	91	93	93	89	91	..	84.4
	Min ..	57	50	55	62	57	70	60	53	54	60	51	54	42	49	54	57	62	60	55	54	49	53	56	54	59	52	62	67	71	58	....	56.6
Al ia*....	Max..	81	77	79	80	82	91	81	77	82	75	75	73	76	64	80	86	91	82	67	71	72	78	74	74	80	84	88	89	86	86	....	79.4
	Min ..	54	48	58	64	61	61	61	57	55	55	52	48	44	44	54	60	65	67	64	54	50	55	56	56	58	54	58	67	72	64	....	57.2
Algona...	Max..	68	78	80	82	82	87	77	73	74	74	78	79	74	77	81	87	90	79	73	70	68	70	73	75	75	78	87	89	84	85	..	78.2
	Min ..	46	44	51	63	60	64	60	48	52	54	47	46	42	48	56	56	63	64	55	54	50	46	48	57	57	57	63	70	64	58	....	54.7
Allerton .	Max..	74	79	75	82	84	91	82	79	83	76	77	75	77	70	81	91	93	85	71	72	73	84	74	74	81	87	90	91	86	86	....	80.8
	Min ..	54	48	55	63	58	73	61	55	52	56	52	49	44	51	55	55	64	68	58	52	47	54	57	55	59	51	63	70	68	59	...	57.0
Alta*.....	Max..	71	77	78	76	82	84	77	74	74	74	75	75	77	78	83	92	93	74	73	66	71	74	74	68	70	77	86	89	83	86		77.7
	Min ..	45	46	54	60	60	65	57	49	51	52	50	47	45	48	51	60	62	65	52	51	46	48	53	56	57	55	61	68	62	57	....	54.4
Alton. ...	Max..	70	75	78	77	83	84	76	73	74	74	74	78	75	76	81	90	91	69	72	68	71	72	65	67	69	74	84	83	82	84	....	76.8
	Min ..	45	48	54	52	60	58	56	50	54	55	50	51	47	50	45	56	65	60	64	52	48	41	50	55	56	55	62	70	50	64	....	53.8
Amana. ...	Max..	78	77	85	84	83	92	83	80	84	74	75	74	78	70	80	90	91	86	77	72	68	76	78	79	82	87	90	92	86	85	....	80.8
	Min ..	55	47	52	66	64	67	66	54	54	55	51	47	48	55	58	52	55	65	61	53	52	51	53	55	58	51	65	71	72	62	...	57.1
Ames	Max..	74	78	81	79	88	89	83	79	81	76	78	76	79	76	85	92	95	85	71	71	72	78	76	75	79	84	88	90	86	87	..	80.9
	Min ..	49	44	48	62	62	65	62	52	55	56	50	49	42	48	52	52	60	65	57	54	51	49	52	59	56	51	63	69	63	57	...	55.8
Atlantic .	Max..	75	82	83	79	88	90	82	80	82	76	81	76	80	77	87	97	98	85	76	70	76	78	72	76	78	85	89	90	89	87	...	82.1
	Min ..	47	39	55	61	58	69	58	48	45	48	45	47	37	48	40	49	58	59	55	52	50	45	55	55	61	53	61	70	67	52	..	53.7
Audubon.	Max..	75	79	81	80	86	88	80	78	81	75	79	77	80	78	86	86	87	79	75	75	73	80	71	75	79	85	89	90	87	89	....	80.8
	Min ..	43	40	49	59	58	65	57	48	48	50	48	49	39	38	38	49	58	57	54	51	49	44	54	52	60	50	61	69	65	50	....	51.8
Baxter . .	Max..	78	78	81	80	85	91	83	80	83	75	78	78	80	69	82	92	95	81	69	73	70	78	77	78	80	84	87	90	84	87	...	80.7
	Min ..	47	45	49	63	57	64	60	55	50	53	50	47	41	52	59	51	61	65	56	51	48	47	51	57	56	51	62	70	67	58	...	54.7
Bedford ..	Max..	75	80	81	78	88	91	81	80	87	80	81	76	81	81	87	97	95	86	76	72	77	80	74	78	82	85	87	89	85	87	....	82.6
	Min ..	50	42	54	62	58	74	57	48	48	51	51	53	43	49	47	49	60	61	53	53	48	53	57	55	56	51	61	70	65	58	....	54.6
Belle Pl'e	Max..	60	65	68	67	70	71	85	81	85	77	72	73	75	65	80	90	88	86	65	69	70	75	76	75	81	80	91	91	88	85	....	76.8
	Min ..	51	57	51	64	65	68	67	55	52	55	52	48	45	51	58	58	60	65	62	52	50	51	52	57	57	54	63	65	72	61	....	57.0
Bonapar'e	Max..	76	79	86	85	82	93	84	81	86	77	76	75	77	70	77	89	91	83	72	74	78	88	75	78	81	88	93	93	92	85	....	81.6
	Min ..	55	48	56	65	61	70	68	60	55	56	52	47	45	54	56	53	58	65	60	54	50	54	57	56	57	57	61	68	70	63	....	57.8
Boone* ..	Max..	72	78	80	78	83	89	83	78	79	75	77	74	77	72	82	90	94	71	72	70	71	78	75	74	78	83	83	91	84	86	....	79.4
	Min ..	50	49	55	58	62	68	62	54	58	57	51	51	43	49	54	59	67	67	56	54	51	52	52	55	60	57	61	66	78	59	....	57.2
Britt.	Max..	69	79	78	81	85	88	79	74	76	76	74	73	74	74	82	89	91	81	72	71	67	71	74	78	83	80	87	89	87	84	....	79.1
	Min ..	44	43	52	54	59	64	59	45	50	46	47	43	41	48	56	57	60	65	51	53	50	43	50	57	59	55	63	68	64	52	...	53.2
Burlng'n*	Max..	78	78	85	86	83	89	81	82	88	77	73	71	78	69	78	88	90	83	71	75	73	80	75	75	80	87	91	93	92	85	....	80.8
	Min ..	59	51	55	65	63	68	66	66	59	57	60	50	51	51	54	58	61	64	63	55	53	56	53	57	59	63	65	67	73	68	....	59.8
Carroll* ..	Max..	78	76	80	78	85	89	81	80	81	77	78	80	79	78	85	91	93	78	75	71	74	78	70	71	76	82	87	81	85	85	....	80.5
	Min ..	45	44	48	61	59	61	59	48	52	47	45	47	48	44	48	50	55	58	41	48	40	38	46	52	55	55	59	66	64	52	...	50.8
Cedar R*.	Max..	75	84	90	91	89	94	85	81	86	74	74	76	79	64	83	92	94	87	67	70	67	76	78	79	84	89	91	91	84	87	....	82.1
	Min ..	51	50	52	63	66	65	66	59	58	56	51	51	47	55	55	55	58	63	65	56	53	54	55	60	59	63	67	75	68	....	....	58.2
Chariton .	Max..	76	77	77	80	84	90	81	77	82	74	75	72	76	74	80	89	91	86	68	71	73	79	78	74	79	85	87	90	86	85	...	79.7
	Min ..	51	44	45	62	56	70	60	53	50	52	52	48	44	51	54	56	68	66	58	53	50	54	55	55	58	52	63	69	68	59	....	55.7
Charles C.	Max..	66	73	79	79	79	87	81	78	78	78	72	73	75	71	79	86	88	79	69	67	64	64	74	76	78	77	85	88	83	82	..	74.1
	Min ..	46	45	50	63	62	62	62	52	55	56	49	46	44	50	57	56	57	64	53	51	50	50	49	55	53	54	61	67	67	57	....	54.9
Clarinda*	Max..	77	84	82	82	91	95	87	85	90	82	81	81	84	80	90	99	99	78	80	77	80	91	76	83	84	89	91	93	90	91	....	85.7
	Min ..	54	45	50	61	54	60	62	52	52	54	52	50	44	51	48	54	60	67	54	53	38	50	56	56	59	52	60	66	73	57	....	54.8
Clear L ..	Max..	69	80	82	76	80	87	77	82	75	71	72	72	73	76	82	90	90	70	79	69	65	70	73	75	75	77	85	89	84	84	....	77.6
	Min ..	48	50	50	62	62	62	63	55	57	55	50	48	44	50	57	62	60	55	55	55	52	50	50	58	60	56	63	69	65	60	....	56.1
Clinton...	Max..	77	77	85	88	83	91	84	82	85	78	78	75	79	65	78	87	87	88	77	74	68	77	78	82	86	88	91	94	92	83	....	81.8
	Min ..	54	49	49	66	63	62	65	59	55	55	49	48	48	54	59	50	57	57	64	57	52	49	53	52	56	59	61	65	70	63	....	56.8
Col. Spgs.	Max..	72	78	81	78	88	91	81	81	85	79	78	75	78	80	85	95	95	84	75	76	77	88	78	79	81	97	88	90	88	87	..	83.7
	Min ..	52	45	54	58	58	69	62	51	52	52	50	52	47	60	47	58	64	60	55	55	48	57	58	58	60	59	62	72	67	58	....	56.6
Colum. J.	Max..	85	89	84	86	83	91	83	81	85	76	75	76	78	70	79	92	93	87	84	72	73	82	77	79	83	88	91	93	92	87	..	83.1
	Min ..	56	49	55	66	62	68	60	61	56	53	51	48	46	55	57	56	61	61	62	54	53	54	55	58	59	59	58	71	70	62	....	58.0
Corning..	Max..	71	78	81	79	87	92	84	83	86	77	77	74	78	77	86	94	94	78	76	72	77	81	71	76	82	85	86	89	85	86	....	81.4
	Min ..	53	46	54	62	58	70	61	54	61	54	50	51	48	45	55	54	62	61	55	53	47	52	55	54	60	53	62	69	64	57	....	54.1
Corydon..	Max..	75	80	78	80	85	90	81	79	85	78	75	72	74	69	83	90	90	85	70	73	75	82	78	72	81	83	89	89	88	85	....	80.5
	Min ..	58	49	55	63	59	64	59	57	54	56	54	50	45	52	56	60	66	66	58	54	50	55	56	56	59	55	63	70	63	66	....	57.6
Creston*	Max..	74	78	78	78	86	88	82	80	85	85	78	78	79	80	85	92	93	78	75	73	73	81	77	77	81	84	83	90	85	81	....	81.4
	Min ..	59	44	50	65	57	59	60	57	50	60	51	51	42	47	52	53	61	66	57	53	49	51	56	55	54	50	60	66	72	55	....	55.8
Davenpo't	Max..	74	76	82	85	81	89	84	80	84	76	78	73	77	62	78	87	86	84	71	70	67	78	75	77	82	86	90	93	89	84	....	79.8
	Min ..	58	52	56	60	62	67	69	66	63	59	49	48	48	53	58	58	60	63	63	57	55	57	56	60	60	65	67	69	65	66	....	59.9
Decorah..	Max..	67	76	81	83	80	87	83	77	78	74	74	76	78	71	80	87	83	85	73	74	69	63	79	81	80	81	85	93	88	85	....	79.0
	Min ..	48	44	47	63	62	60	62	59	59	53	49	48	42	53	60	55	57	61	59	57	53	53	48	53	68	55	63	67	70	61	....	56.8
Delaware.	Max..	73	77	78	79	80	83	80	78	79	70	71	70	73	60	79	85	80	83	75	67	64	71	74	75	80	83	84	83	83	83	....	77.0
	Min ..	50	47	59	52	62	62	65	59	55	53	45	44	42	53	57	55	60	58	60	52	47	48	49	56	57	54	60	64	70	60	....	55.0
Denison ..	Max..	71	77	79	77	84	87	78	77	80	75	78	75	77	78	85	93	95	85	72	69	74	79	69	71	72	81	86	90	86	86	....	79.5
	Min ..	46	41	53	60	60	65	54	50	52	55	46	43	48	48	42	..	..	59	54	50	58	..	60	61	65	67	57	58	64	54	....	54.1
Des M....	Max..	72	77	79	78	84	89	84	80	82	75	77	74	77	70	88	90	92	81	71	73	74	78	74	76	80	85	90	91	85	87	....	80.8
	Min ..	54	50	56	64	61	71	65	59	55	55	56	53	48	50	57	57	68	63	58	56	52	53	55	61	61	56	65	72	67	60	....	58.9
De Soto ..	Max..	72	75	78	78	84	89	82	79	81	76	76	73	76	74	84	89	92	85	73	72	75	77	73	75	79	85	88	90	85	86	....	80.0
	Min ..	51	47	52	65	60	69	61	55	53	56	52	55	45	49	56	54	65	64	57	55	51	50	55	57	57	53	64	69	70	59	....	56.9
Dows.	Max..	68	76	79	78	82	86	79	74	74	73	74	74	76	72	80	88	91	76	68	68	66	70	72	72	76	78	85	87	84	85	....	77.0
	Min ..	46	45	50	60	62	61	59	45	50	54	48	48	41	48	58	54	60	64	56	53	50	45	50	57	53	..	63	69	68	53	....	54.1
Dubuque.	Max..	70	74	80	82	78	87	82	79	79	73	73	72	75	60	78	87	84	83	74	70	65	67	76	77	81	84	85	93	83	82	..	77.7
	Min ..	55	50	54	67	64	64	65	61	60	58	51	50	50	54	59	54	60	62	62	55	53	54	51	56	62	60	64	67	66	64	....	59.4
Earlham .	Max..	71	75	80	77	84	88	82	80	82	72	78	75	78	75	88	91	93	83	73	71	74	77	72	76	79	84	87	89	84	84	....	79.9
	Min ..	46	41	47	60	58	58	54	53	47	50	47	50	37	44	50	49	60	65	55	52	47	45	54	53	55	48	66	67	64	52	..	52.6
Elkader ..	Max..	66	79	84	86	81	90	85	80	78	75	76	77	78	68	84	94	91	87	78	69	62	67	80	83	86	85	88	94	86	87	..	80.7
	Min ..	47	48	47	64	61	59	66	55	56	55	47	46	39	52	59	50	54	57	60	50	49	53	47	52	60	53	61	67	73	58	....	54.7
Elliott....	Max..	76	82	88	84	90	92	85	84	85	79	79	80	80	81	88	97	98	88	74	75	82	81	72	80	80	91	91	92	91	92	....	84.5
	Min ..	50	48	58	63	60	72	63	51	51	52	51	49	48	46	44	51	67	60	52	56	49	52	52	56	61	54	62	70	66	57	....	55.4
Esth'rv'l*	Max .	67	76	78	80	88	86	78	78	75	74	77	77	75	76	84	88	91	70	72	68	68	70	65	67	71	75	84	89	83	84	....	76.8
	Min ..	45	46	49	58	62	62	59	51	52	46	45	44	42	45	53	56	61	65	52	53	50	44	54	53	56	57	58	63	53	56	....	53.1
Fayette...	Max..	62	70	78	81	74	87	82	76	76	74	72	73	76	67	80	88	89	88	70	66	62	66	69	..	..	83	89	90	83	80	..	76.6
	Min ..	41	52	45	65	58	59	58	57	53	52	49	47	43	50	56	50	58	60	58	54	49	49	50	..	..	55	60	68	68	58	..	54.4
ForestCy*	Max..	68	77	79	72	81	86	79	74	75	74	76	74	76	75	82	91	90	81	73	69	65	66	74	75	75	77	85	88	85	86	....	77.6
	Min ..	46	46	51	63	61	65	61	48	52	55	50	41	48	49	54	58	65	65	56	54	51	46	50	54	61	56	58	65	65	65	....	55.1
F. Dodge*	Max..	69	79	81	79	83	86	78	74	78	72	74	74	77	74	82	91	93	75	70	66	68	70	72	69	73	79	85	89	82	85	....	77.4
	Min ..	49	48	49	61	53	64	63	52	56	55	49	49	43	48	60	53	61	69	56	55	50	49	55	56	59	58	62	66	67	58	....	55.4
Galva	Max..	71	78	80	81	82	85	76	75	75	71	76	74	75	77	81	87	92	75	72	68	70	74	72	71	72	81	85	88	85	85	....	77.8
	Min ..	46	40	51	59	60	65	57	50	52	52	46	45	40	40	42	53	62	59	53	50	49	46	44	52	56	57	61	69	62	51	....	52.3
Glenwo'd	Max..	72	77	80	78	85	89	80	79	84	79	77	71	77	77	84	92	95	89	75	71	76	80	71	75	74	84	87	88	87	87	....	80.7
	Min ..	51	47	59	62	59	71	64	56	53	56	54	53	47	51	49	61	68	59	55	52	50	55	50	58	57	59	63	72	70	60	....	57.4
Grand M.	Max..	69	74	80	82	78	87	80	76	75	72	71	72	74	66	80	87	86	84	72	70	66	65	76	79	79	80	85	88	83	80	....	77.2
	Min ..	48	48	51	62	62	60	62	56	55	55	49	48	45	51	53	57	58	59	60	54	48	52	48	58	62	56	63	66	65	59	....	55.6
Greene...	Max..	68	77	83	83	83	90	83	75	76	75	76	78	80	72	83	92	91	80	72	68	66	69	79	77	80	82	89	92	85	88	....	79.7
	Min ..	46	45	49	62	62	62	61	51	54	55	48	45	41	50	57	58	58	63	58	49	50	46	49	57	61	53	62	68	69	57	....	54.9
Greenfield. ..	Max..	70	73	81	81	91	94	86	84	87	81	78	77	78	76	93	99	98	85	80	78	82	80	74	80	85	87	94	92	89	91	....	84.2
	Min ..	47	52	55	61	57	72	58	54	55	54	50	51	41	42	53	59	66	65	55	52	48	54	55	56	60	55	61	68	63	63	....	56.8
Grinnell.	Max..	74	76	81	83	88	92	83	79	83	76	77	75	78	76	81	90	94	85	69	71	69	78	75	76	79	85	88	89	88	85	....	80.5
	Min ..	47	44	52	63	59	67	59	53	49	52	50	47	48	58	58	51	62	63	57	50	49	46	50	53	55	51	65	67	69	58	....	54.6
Guthrie C	Max..	79	79	81	79	87	89	88	86	81	77	77	76	80	79	87	94	94	89	75	74	75	79	76	75	78	88	89	90	88	85	....	82.8
	Min ..	49	44	50	61	61	63	60	48	49	53	48	55	39	45	52	52	67	60	55	54	50	47	54	58	61	58	61	63	61	55	....	54.6
Hampton .	Max..	68	80	83	81	85	91	88	77	76	75	80	80	81	73	84	93	94	80	70	68	67	71	78	75	80	80	88	92	87	91	....	80.7
	Min ..	49	48	51	63	63	63	61	50	55	55	48	47	44	50	57	59	60	65	57	54	51	48	50	58	61	55	63	71	73	56	....	56.1
Hancock .	Max..	72	79	81	77	85	89	84	80	82	77	79	78	80	76	85	94	94	87	75	71	..	74	80	70	77	77	83	86	89	87	....	81.0
	Min ..	50	49	58	62	60	70	61	54	54	56	58	52	48	51	48	48	64	60	51	52	..	49	53	55	57	59	56	62	67	69	....	53.3
Hanlontown.	Max..	63	75	78	75	80	86	78	73	74	70	70	69	71	72	79	87	88	77	68	67	64	64	70	74	76	78	82	88	84	83	....	75.4
	Min ..	45	45	57	62	60	60	60	47	52	55	48	45	41	48	56	58	58	63	56	53	50	45	48	53	60	55	62	67	64	54	....	54.3
Harlan. ..	Max..	72	79	81	79	86	88	80	78	81	76	79	76	78	76	85	94	94	88	74	70	75	77	72	74	75	84	87	89	86	86	....	80.5
	Min ..	48	42	51	61	59	67	59	48	48	52	52	50	46	49	48	54	59	58	53	51	49	48	54	58	59	58	61	71	64	54	....	54.0

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JUNE, 1906—CONTINUED.

STATIONS.		DATE.																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Hopeville	Max.	71	79	81	82	87	91	80	78	83	76	78	74	78	74	83	94	96	86	71	73	75	85	73	77	82	90	91	93	88	87	..	81.9
	Min..	51	49	56	64	56	70	60	54	54	55	53	54	45	50	53	57	64	63	57	54	42	55	57	55	61	54	63	69	63	60	..	56.6
Humboldt..	Max..	66	67	81	78	83	88	83	73	75	78	78	76	77	76	82	85	92	82	75	79	68	69	65	68	70	73	82	85	85	78	..	76.8
	Min ..	48	46	52	64	60	66	62	50	55	56	46	46	48	48	58	54	64	62	56	53	50	46	55	55	58	58	68	72	65	55	..	55.7
Ida Grv.	Max..	78	80	76	79	86	88	80	77	78	75	76	77	78	84	87	95	96	76	74	69	78	78	67	73	78	80	87	90	84	87	..	79.8
	Min ..	45	88	59	60	62	66	60	51	51	54	52	41	41	43	39	51	63	59	54	50	43	44	54	62	52	57	60	69	64	51	..	53.1
Indep'ce	Max..	77	74	80	81	81	90	88	77	80	73	74	76	77	63	82	89	92	83	74	67	64	71	78	77	79	85	83	90	81	83	..	79.2
	Min ..	47	42	49	61	62	60	62	52	53	53	48	46	41	50	55	51	56	60	58	51	50	48	49	55	56	50	51	67	67	60	..	54.0
Indian'la	Max..	72	77	80	81	85	90	84	80	82	77	78	74	78	71	88	92	94	85	71	72	73	78	75	75	81	87	91	93	88	88	..	81 1
	Min ..	51	47	56	63	58	70	62	58	53	56	52	52	46	52	56	58	66	68	58	55	51	53	56	59	60	54	64	70	65	60	..	57.6
Inwood..	Max..	73	78	78	76	84	85	78	76	75	77	76	74	75	76	84	91	89	86	75	65	71	73	65	65	69	74	86	88	83	82	..	76.9
	Min ..	42	45	54	60	58	64	50	50	51	50	48	50	48	48	48	73	65	56	51	50	44	45	51	53	55	53	62	71	58	58	..	53.3
Iowa C*	Max..	75	80	86	86	83	93	83	78	83	78	81	81	84	65	82	93	96	90	67	70	68	80	83	79	84	88	91	94	84	88	..	82.5
	Min ..	55	48	53	63	62	63	65	56	54	56	49	48	45	53	56	52	56	58	61	54	53	52	54	54	58	56	62	64	72	63	..	56.6
Iowa F*	Max..	69	78	82	80	84	90	83	76	78	78	75	76	79	73	82	89	94	79	69	67	69	71	75	77	79	82	89	90	87	87	..	79 4
	Min ..	47	48	44	56	61	61	60	48	50	51	48	45	40	45	51	51	54	61	58	52	51	44	46	52	50	51	55	65	71	54	..	52.5
Jefferson	Max..	70	77	79	78	..	88	80	77	79	74	78	75	77	74	83	91	93	84	74	70	72	75	73	72	77	88	89	89	85	87	..	79.6
	Min ..	49	42	53	61	..	70	51	50	55	55	48	50	41	41	54	55	65	64	51	53	52	49	52	59	60	56	62	69	69	56	..	54.8
Keokuk	Max..	76	78	80	88	85	89	84	83	90	85	75	75	78	70	76	89	92	84	75	76	76	86	73	72	80	89	92	93	92	88	..	82.2
	Min ..	61	53	62	63	63	68	67	66	68	61	54	50	50	52	57	60	62	65	61	56	55	58	58	59	59	64	70	73	72	64	..	61. 1
Keosauqua*	Max..	78	82	81	87	85	92	86	84	89	77	77	78	80	61	81	92	93	85	70	76	76	86	77	77	84	90	93	95	92	89	..	82.8
	Min ..	56	47	54	65	61	64	67	58	56	56	54	46	45	55	55	54	57	66	62	53	51	54	58	54	57	55	66	68	73	63	..	57.6
Knoxville	Max.	74	78	80	84	87	92	84	81	84	77	76	74	78	73	82	92	95	85	70	73	74	79	79	78	88	87	91	92	88	87	..	81 8
	Min ..	55	47	58	65	60	72	62	67	54	57	53	50	46	58	58	58	64	67	58	55	52	54	56	57	59	55	64	71	73	72	..	59.0
Larrabee	Max..	76	83	83	85	89	85	78	77	78	79	81	80	81	85	87	87	93	69	86	69	75	76	68	77	74	84	88	92	..	89	..	81.0
	Min ..	44	44	56	61	62	65	57	51	54	50	50	50	44	50	47	59	62	59	52	51	47	46	53	56	58	56	61	70	..	54	..	54 1
Le Mars.	Max..	73	79	82	76	86	85	78	75	78	76	77	77	78	80	84	94	92	70	75	67	73	75	67	70	72	76	88	90	85	86	..	78.8
	Min ..	48	41	52	61	60	65	54	50	50	52	47	50	47	45	44	54	65	57	53	49	47	46	55	55	56	54	62	70	62	54	..	53 8
Lenox...	Max..	74	77	79	79	88	90	82	81	85	80	75	74	77	78	86	94	94	87	77	75	77	82	71	75	82	86	87	88	87	85	..	81.7
	Min ..	51	48	57	63	57	72	75	66	53	58	53	52	45	50	51	60	61	61	56	52	48	54	55	56	61	55	61	69	65	60	..	57. 1
Leon	Max..	74	77	80	81	87	87	80	79	95	78	77	75	77	72	85	90	93	89	74	73	78	80	78	78	82	89	90	90	88	88	..	81.6
	Min ..	54	50	57	63	57	60	59	54	54	56	54	52	45	52	55	58	64	68	58	54	50	55	56	56	61	54	62	69	72	60	..	57 3
Little Sioux	Max..	75	80	81	79	87	88	86	79	83	80	78	78	80	83	87	94	93	88	76	74	78	80	78	78	82	89	90	90	88	88	..	82 1
	Min ..	45	44	59	64	62	72	61	54	50	51	56	50	52	52	47	63	71	61	54	50	48	50	54	57	55	59	61	72	64	56	..	56.4
Logan...	Max..	74	82	86	80	88	91	81	82	85	79	82	80	80	82	85	96	98	81	78	75	78	79	71	79	87	86	90	92	91	91	..	83.6
	Min ..	45	48	54	61	59	68	51	49	50	50	51	47	46	47	46	56	63	60	54	50	48	48	54	57	56	56	61	69	64	56	..	53.9
Marshall'n*	Max..	73	78	84	83	86	94	86	80	84	76	80	78	81	68	82	92	95	88	65	71	68	77	77	78	82	87	91	92	88	86	..	81.6
	Min ..	49	45	50	64	59	64	62	56	53	55	48	48	40	52	54	51	59	65	60	51	50	48	51	55	57	51	62	65	70	58	..	55.1
Mason C.	Max..	69	75	80	80	83	88	78	77	74	78	73	75	76	75	84	87	90	82	74	70	97	69	75	79	78	82	85	90	87	85	..	78 6
	Min ..	47	47	53	62	62	62	63	54	54	56	48	48	45	52	58	61	62	66	53	54	52	47	50	58	60	58	65	68	65	60	..	56.5
Massena	Max..	78	82	81	80	88	91	80	80	81	78	80	84	88	80	89	98	96	87	80	76	82	80	80	81	82	91	87	95	88	89	..	84.1
	Min ..	48	48	46	56	57	70	59	55	50	47	50	51	46	50	46	52	62	58	65	51	45	50	55	56	61	54	61	69	64	55	..	53.9
Mt. Ayr.	Max..	78	82	83	81	88	91	80	79	86	80	80	76	78	79	88	96	97	83	76	74	78	84	71	76	83	88	90	91	87	89	..	83 0
	Min ..	50	50	56	63	54	68	59	55	58	54	54	54	45	51	54	60	64	64	66	53	48	55	55	56	62	55	50	69	60	59	..	56.0
Mt. Pleasant	Max..	79	81	85	88	88	92	85	82	88	81	79	78	80	78	79	91	94	86	79	73	73	82	77	77	84	89	93	95	95	87	..	83.6
	Min ..	55	49	55	64	61	69	65	61	56	56	51	49	45	52	56	56	61	64	60	54	52	53	57	56	57	59	63	71	60	61	..	57.8
Mt. Vernon.	Max..	75	82	84	84	81	90	83	82	85	76	81	80	82	68	81	94	98	95	70	71	67	80	85	81	83	86	89	93	85	89	..	82.3
	Min ..	58	48	56	65	61	65	64	57	58	56	48	45	43	49	54	56	63	62	60	52	51	51	52	56	59	66	62	67	71	61	..	56 9
N. Hampton	Max..	65	72	80	79	78	85	80	73	72	71	71	71	78	70	78	85	81	79	70	69	62	64	73	75	77	76	87	89	82	79	..	75.5
	Min ..	49	46	51	62	60	61	61	51	52	55	49	53	43	51	55	53	60	67	59	54	48	47	49	62	61	55	64	65	70	59	..	55.8
Newton.	Max..	75	77	81	81	85	91	81	80	82	75	78	77	79	69	82	90	93	84	70	70	71	77	75	77	80	85	87	92	85	87	..	80.5
	Min ..	54	53	60	66	65	69	62	60	57	57	58	57	52	57	59	68	67	68	59	56	53	54	56	61	61	58	64	70	72	63	..	60.4
Northwood	Max..	66	75	80	81	81	86	78	72	74	78	78	72	74	76	80	86	88	79	69	67	64	64	74	78	78	78	85	88	84	84	..	76.7
	Min ..	46	47	50	62	59	60	60	49	56	55	48	45	42	49	56	59	60	63	57	52	49	46	49	57	59	55	61	66	63	57	..	54 6
Odebolt.	Max..	74	85	83	85	90	89	85	78	79	80	81	82	84	83	80	99	98	85	75	71	75	82	75	73	78	82	89	93	89	91	..	82.8
	Min ..	46	42	52	63	60	66	60	51	56	52	50	45	43	47	46	56	62	58	53	50	47	47	55	54	58	56	60	63	63	53	..	53.9
Ogden...	Max..	73	78	80	79	85	89	83	77	79	76	76	76	79	76	83	91	98	85	76	70	71	77	75	74	79	88	87	90	86	87	..	80.3
	Min ..	48	46	52	63	61	62	61	51	54	55	51	51	48	49	55	56	64	65	56	53	49	52	53	59	59	56	63	69	71	57	..	56.1
Olin	Max..	79	72	81	88	80	88	88	80	80	75	78	71	75	70	78	84	86	83	77	69	66	74	74	79	82	84	88	90	86	82	..	79.1
	Min ..	55	46	50	65	68	63	66	55	53	55	47	44	45	55	57	49	54	60	63	54	51	47	52	52	58	55	62	66	71	62	..	55.8
Omaha Neb.	Max..	73	80	80	79	88	90	81	80	84	76	77	76	79	79	84	94	94	70	75	72	80	80	67	73	74	84	89	90	89	87	..	80.8
	Min ..	54	54	60	65	63	73	66	58	58	60	59	56	53	58	58	65	68	58	56	55	52	61	55	58	58	60	63	73	68	62	..	60.2
Onawa ..	Max..	79	83	80	77	80	87	85	82	84	83	81	77	77	81	86	97	95	78	78	76	81	83	79	72	76	78	88	90	88	85	..	82.4
	Min ..	47	47	54	62	61	69	61	55	55	54	52	49	47	50	50	59	66	62	53	52	49	52	56	57	56	53	61	70	64	59	..	55.2
Osage ...	Max..	67	78	81	81	80	87	80	74	78	76	71	75	77	74	81	90	90	80	72	69	64	65	78	77	80	77	86	90	85	86	..	78.1
	Min ..	47	45	50	62	61	60	60	49	53	55	47	45	42	49	57	58	59	60	59	53	49	46	48	57	60	54	63	65	62	56	..	54 2
Oskaloosa ..	Max..	78	76	82	82	84	93	83	79	85	75	76	74	77	61	80	89	98	84	70	71	73	73	76	75	80	85	89	90	86	84	..	79.8
	Min ..	55	46	55	66	62	71	66	57	55	57	54	49	46	55	55	53	65	68	61	54	53	52	56	57	59	53	64	70	69	62	..	58 1
Ottum'a	Max..	75	83	82	86	87	90	86	83	68	77	79	79	80	83	82	92	96	88	75	75	75	82	86	79	84	90	93	94	87	93	..	82.8
	Min ..	57	50	57	65	64	65	64	59	58	58	56	51	48	56	56	57	66	67	55	68	52	54	58	60	62	63	67	73	63	..	..	59 2
Pacific Jct.	Max..	79	79	81	80	89	92	82	86	82	78	77	77	79	80	86	95	96	85	75	72	80	81	75	77	77	86	87	89	89	89	..	82.5
	Min ..	47	45	55	62	59	70	61	47	59	49	51	50	48	50	45	61	64	59	54	51	49	55	56	59	56	55	60	71	71	59	..	55.9
Pella	Max..	89	82	82	85	87	93	86	84	85	83	83	83	81	77	88	94	95	88	70	73	76	83	81	80	85	90	93	94	90	89	..	84 9
	Min ..	54	50	55	56	60	71	61	58	55	56	54	50	46	55	56	59	65	67	60	54	50	54	55	59	64	56	63	68	72	61	..	58.5
Perry . .	Max..	74	80	83	81	87	90	86	81	84	79	..	78	81	76	85	94	95	84	73	73	75	79	77	76	83	87	89	91	89	89	..	82. 7
	Min ..	50	46	52	64	61	69	61	51	50	53	49	54	49	49	56	54	63	68	57	55	50	48	52	59	60	54	62	70	70	58	..	56. 2
Plover ..	Max..	70	77	83	85	84	86	77	77	75	74	77	74	75	79	83	90	92	77	72	68	77	70	72	73	77	90	91	90	90	88	..	79.7
	Min ..	45	48	50	59	60	63	55	45	48	54	47	47	43	47	52	53	..	59	54	53	48	46	54	58	57	57	63	68	64	74	..	54.3
Pocahontas.	Max..	70	79	80	83	85	87	80	77	75	75	80	78	79	79	85	92	92	77	74	70	70	74	75	70	75	78	88	91	86	84	..	79.6
	Min ..	47	45	53	62	60	65	58	49	53	52	41	45	44	46	52	56	62	58	53	52	48	46	54	57	57	56	62	69	62	61	..	54.1
Preston.	Max..	74	78	79	83	80	86	83	79	81	74	72	72	76	68	75	85	84	82	77	70	66	73	74	76	81	85	86	92	87	81	..	78.5
	Min ..	52	48	46	64	62	61	64	50	53	56	42	39	40	52	57	49	59	53	61	52	51	50	49	48	53	55	59	64	70	54	..	53.9
Redge'y	Max..	71	77	80	85	82	89	83	76	76	74	74	72	75	72	85	91	89	84	70	73	62	67	79	80	80	80	85	92	85	88	..	79.2
	Min ..	48	48	51	64	61	59	61	53	54	55	46	45	43	50	57	59	60	61	60	53	47	51	47	57	61	55	62	67	70	58	..	55.4
Rock R'ds..	Max..	70	74	68	80	78	76	80	78	76	78	80	82	78	82	86	92	90	74	66	79	68	70	68	66	70	76	86	86	82	80	..	76.9
	Min ..	56	54	58	60	50	52	60	54	48	50	54	56	48	44	60	56	58	56	50	42	44	48	52	54	56	60	66	70	70	52	..	54.6
Rockwell C.	Max..	78	76	81	84	87	90	78	77	78	75	80	78	78	77	82	92	95	82	75	68	70	70	75	75	80	85	93	92	89	89	..	80,9
	Min ..	45	45	50	59	62	72	64	48	58	55	50	48	41	48	52	56	63	60	58	50	58	48	48	60	55	58	60	68	64	55	..	55.3
Sac City.	Max..	71	76	78	78	84	85	76	75	75	78	..	..	76	77	83	91	92	81	75	68	72	74	68	68	71	78	85	88	84	83	..	78.0
	Min ..	46	44	52	60	59	66	59	50	52	54	..	..	42	41	49	55	64	60	52	50	47	48	54	57	56	55	61	67	63	54	..	54.2
St.Cha'es	Max..	78	78	78	78	82	87	89	79	82	76	68	78	76	71	81	91	93	82	69	70	72	78	74	75	81	85	88	91	85	85	..	79.6
	Min ..	52	50	52	64	60	69	61	57	54	57	53	52	45	53	57	60	67	60	57	54	51	58	56	58	62	56	63	70	64	61	..	57.8
Sheldon.	Max..	73	78	79	80	86	85	71	74	77	79	80	76	78	80	87	92	93	75	78	67	68	76	65	68	72	75	87	91	82	86	..	78.6
	Min ..	48	48	60	60	62	68	51	48	52	51	47	51	46	48	44	55	62	60	53	52	44	51	53	55	57	56	61	65	60	52	..	53.5
Sibley*..	Max..	68	76	78	77	83	84	75	71	73	74	77	75	77	79	82	89	92	66	73	64	69	70	60	65	69	78	87	87	80	82	..	75.8
	Min ..	43	40	47	62	60	62	54	50	51	51	49	52	41	47	44	53	61	62	52	51	44	42	49	54	55	56	57	60	61	51	..	52.1
Sigour'y	Max..	78	79	85	85	87	94	83	80	85	78	79	77	79	72	82	91	93	84	75	75	73	82	79	80	84	87	91	92	86	87	..	82.7
	Min ..	55	48	55	66	62	69	65	57	55	58	53	48	45	54	55	53	61	65	60	51	51	52	55	57	58	54	62	62	69	62	..	57.2
Sioux C'r	Max..	70	76	79	76	83	82	75	72	75	74	75	73	74	78	82	90	89	66	72	65	71	72	64	66	68	75	84	86	82	83	..	75.8
	Min ..	40	47	50	60	60	70	55	50	45	54	52	50	39	49	47	58	63	59	52	51	47	48	54	55	54	54	61	70	60	57	..	53.7
Sioux C.	Max..	73	77	77	72	85	87	78	75	76	74	74	75	77	78	84	91	91	67	74	68	74	76	61	70	71	77	85	90	83	84	..	77.5
	Min ..	47	45	58	62	68	73	60	54	54	53	51	53	52	51	49	64	66	57	55	52	50	49	56	56	55	61	62	71	62	56	..	56.7
Stockport ..	Max..	74	77	80	83	80	92	83	80	85	75	74	75	78	67	78	85	91	84	72	71	72	81	73	75	79	85	90	92	91	84	..	80.2
	Min ..	57	47	57	68	63	70	65	60	58	59	54	49	47	58	56	55	60	67	62	55	53	55	58	57	59	59	67	70	72	64	..	59.3
Stuart...	Max..	74	82	85	80	88	92	87	83	87	77	80	75	77	83	84	95	94	87	74	75	78	84	73	77	84	87	90	93	87	96	..	83.4
	Min ..	51	50	57	63	60	68	64	55	55	56	54	55	46	53	55	61	67	70	56	..	49	55	55	59	61	56	63	64	72	61	..	58.3

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JUNE, 1906--Concluded.

STATIONS.		DATE.																													Means.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Thurman	Max..	78	80	83	82	93	91	84	83	87	81	79	80	84	81	89	93	96	89	78	75	84	83	74	78	79	87	86	90	90	89	..	84.3
	Min ..	52	44	54	62	60	70	62	59	45	51	52	49	54	49	46	53	70	60	55	54	48	53	57	59	57	55	63	74	70	60	..	56.4
Tipton..	Max	77	79	83	84	85	90	83	81	84	79	79	78	80	69	85	91	94	86	78	73	63	80	81	78	84	88	90	94	85	86	..	82.4
	Min ..	59	53	53	65	63	69	65	61	55	54	53	55	49	56	58	54	65	64	65	56	53	55	56	60	61	65	65	71	72	63	.	60.2
Toledo...	Max..	72	78	82	83	84	92	84	80	84	74	79	..	79	73	81	92	93	85	76	69	69	76	77	77	80	80	89	90	85	85	..	80.9
	Min .	51	46	55	66	61	67	62	53	54	55	51	..	42	54	54	54	60	63	59	51	51	49	52	58	58	52	52	70	73	60	..	58.5
V nton	Max..	70	74	78	77	80	85	87	80	77	..	..	70	70	70	77	85	83	88	79	63	64	67	74	74	74	81	85	87	87	82	..	77.7
	Min ..	50	45	57	65	64	66	63	58	54	..	..	47	55	50	53	52	55	64	60	53	52	49	53	56	59	53	63	69	72	60	..	57.0
Wapello	Max	77	78	80	84	82	85	83	82	86	78	77	77	78	68	75	86	85	89	77	69	67	73	71	71	77	82	86	90	85	80	..	79.3
	Min ..	54	60	58	67	64	68	68	62	59	59	53	50	51	58	54	58	59	65	64	56	63	56	57	53	59	64	63	72	71	65	..	60.5
Washi'ton	Max..	75	77	82	85	81	94	83	80	84	76	75	75	78	63	79	84	92	85	73	71	71	78	76	75	81	86	90	93	85	84	..	80.8
	Min ..	55	48	55	66	61	69	66	59	56	57	51	47	46	56	53	53	62	63	61	54	53	52	55	53	59	57	64	71	65	62	..	58.0
Washta..	Max..	82	80	81	78	87	87	78	72	78	73	77	74	72	80	84	94	93	69	75	70	72	77	68	74	75	80	88	89	87	77	..	79.0
	Min ..	42	40	51	53	53	67	55	45	50	50	44	46	39	44	39	50	60	60	54	48	47	41	50	56	56	50	60	69	62	60	..	51.6
Waterloo*	Max..	72	77	81	83	84	92	85	81	81	74	76	74	78	65	83	92	93	84	68	67	66	73	77	78	80	85	89	91	84	86	..	80.1
	Min ..	50	45	51	65	62	68	64	58	56	56	50	48	45	50	54	55	58	64	65	52	51	48	50	54	59	53	56	68	72	60	..	55.9
Waukee..	Max..	72	78	80	79	84	90	84	80	82	75	76	75	78	74	85	92	94	86	83	83	84	78	76	76	82	88	89	91	87	87	..	82.3
	Min ..	50	50	55	64	61	69	61	55	54	54	53	53	45	54	57	60	66	68	57	54	49	54	59	60	59	54	64	69	72	58	..	57.7
Waverly.	Max..	68	72	79	79	..	88	84	76	75	72	71	72	74	67	80	87	90	80	76	67	65	69	74	76	79	80	85	89	85	81	..	77.2
	Min ..	50	46	54	62	..	61	64	54	54	54	52	48	47	54	57	55	55	64	60	54	53	48	51	54	62	54	64	69	71	60	..	55.6
Webst'r C	Max..	77	80	83	85	87	90	82	76	83	75	82	78	73	76	84	94	93	84	71	73	76	76	78	77	84	87	89	91	87	89	..	82.5
	Min ..	47	41	49	63	62	64	62	44	53	54	49	47	41	48	54	51	61	65	53	53	49	45	53	58	59	53	64	69	63	56	..	54.5
W. Bend.	Max..	69	80	82	85	85	87	77	74	75	75	79	76	78	78	85	94	94	78	73	68	69	63	72	79	75	80	89	84	90	90	..	79.6
	Min ..	44	43	51	62	59	63	53	46	50	54	48	46	41	47	53	57	61	60	53	55	53	48	57	57	57	53	62	62	68	62	..	54.7
Whitten..	Max.	73	79	81	79	85	90	84	80	80	78	76	76	73	73	84	93	96	83	71	63	70	73	76	79	81	85	88	90	90	84	..	80.9
	Min ..	48	45	54	62	50	66	62	53	52	55	49	48	43	53	56	55	63	65	55	50	50	47	50	57	59	51	61	68	70	56	..	55.4
Wilt'n Jct	Max..	72	72	78	80	89	89	88	79	78	78	73	71	72	68	68	82	90	90	82	63	68	72	73	78	79	83	87	90	90	82	..	78.6
	Min ..	56	50	55	63	63	65	65	60	67	57	49	45	47	54	58	58	57	60	64	56	52	54	55	58	..	59	56	70	65	64	..	58.4
Wint'rset	Max..	76	80	81	82	88	92	85	83	86	82	79	78	82	78	88	95	93	90	72	73	78	76	75	79	82	89	92	93	90	89	..	83.6
	Min ..	50	47	56	67	58	71	62	56	54	64	51	53	44	50	55	53	65	64	56	58	59	54	65	58	58	66	62	69	64	58	..	58.2
W'odb'rn	Max..	73	78	84	83	86	91	79	73	82	78	80	72	73	76	81	88	94	89	74	72	73	80	78	78	84	87	91	90	87	82	..	81.6
	Min ..	50	42	48	63	55	70	60	50	48	52	48	48	39	39	55	50	62	65	55	56	49	48	53	50	47	50	63	67	55	57	..	53.2
Zearing	Max..	71	78	80	78	81	89	84	78	79	74	78	77	79	74	82	92	91	83	68	69	69	74	78	77	79	84	87	89	85	85	..	79.8
	Min ..	48	43	48	64	60	64	61	49	49	55	49	47	40	47	54	59	59	64	57	51	49	48	51	57	58	51	68	69	68	58	..	54.1

*At those stations the thermometers are read in the morning, the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

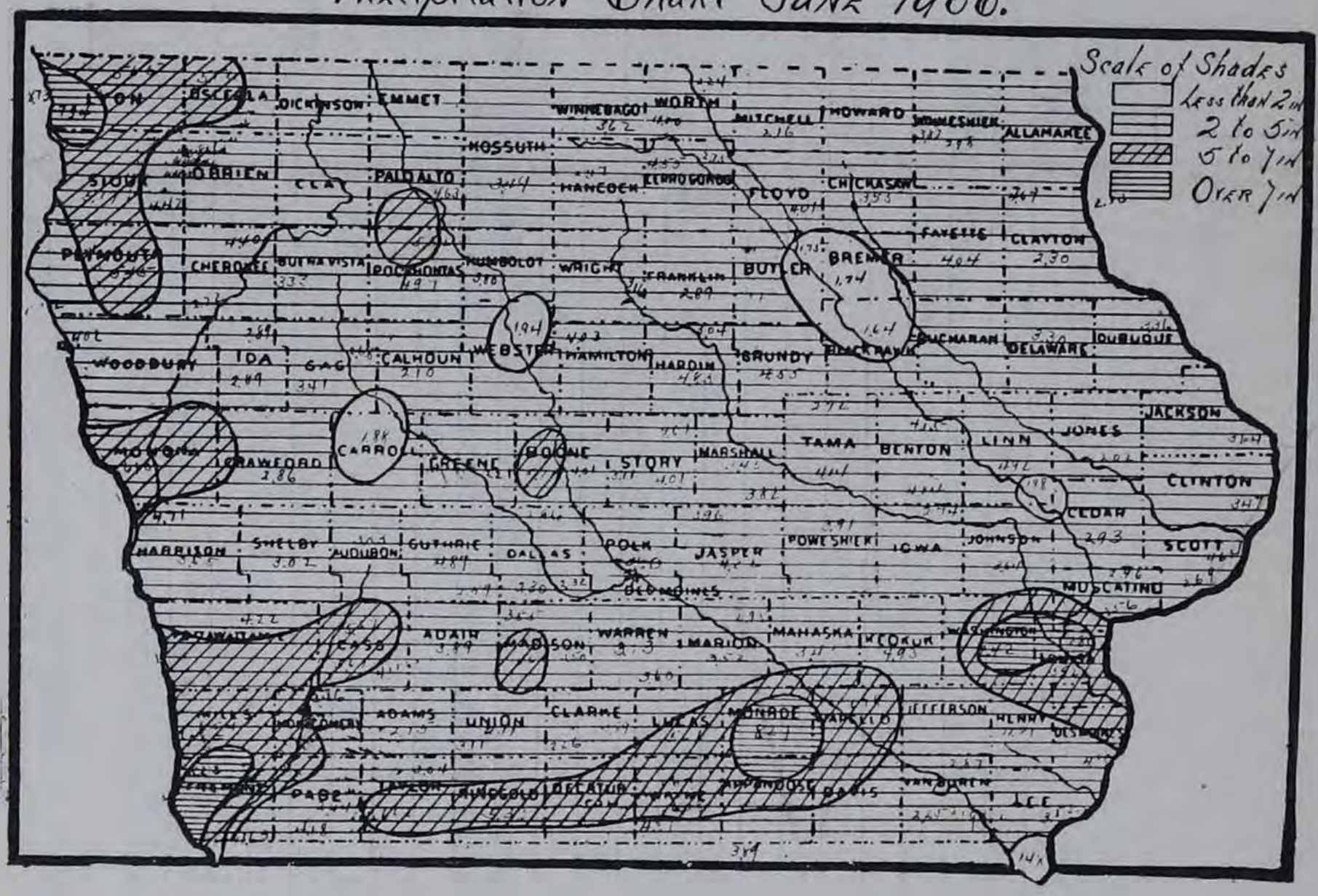
DAILY AND MONTHLY PRECIPITATION FOR JUNE, 1906.

STATIONS.	DAY OF MONTH.																													TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	.32	....	.27	.07	....	...	....	....	....	....	....	...	...	....	....	.43	....	....	.05	.02	....	....	...	.52	..	.43	....	....	2.11
Albia	....	....	....	.40	..	....	5.05	...	....	....	....	....	....	....	T	....	..	....	2.10	.70	.02	....	.02	.08	....	....	.70	....	....	1.20	...	8.27
Algona	....	....	....	.35	.17	.15	....	..	....	....	....	....	....	....	....	....	....	.21	1.57	T	....	....	T	.01	.80	.20	....	....	.20	....	....	3.49
Allerton	....	..	T	.10	.05	....	2.02	....	...	..	....	....	....	T	....	....	....	T	.75	T	...	.08	.11	..	....	....	.44	....	.37	.37	....	4.87
Alta	...	...	....	..	.70	.10	...	....	..	..	....	....	....	....	....	....	....	T	.20	.05	....	....	....	.01	.62	.08	.12	T	.3.	....	....	3 33
Alta [near]	....	..	....	.67	....	.05	....	....	..	..	....	....	....	.94	....	....	....	....	....	.06	....	....	.02	.59	.02	.23	....	....	.17	.45	....	3.23
Alton	....	..	T	T	.05	.72	T	....	..	....	..	....	....	3.23	.24	.06	....	....	.04	.03	.31	.18	.06	.4.	....	....	....	....	....	....	....	4.42
Amana	.02	....	....	.41	....	....	.45	....	..	....	....	...	....	.01	....	....	....	....	1.05	.05	....	....	....	....	....	....	....	.60	....	.09	.82	....	2.74
Ames	....	....	....	3.	..	.32	....	..	...	..	..	....	....	....	..	....	....	.74	1.3.	.06	....	....	....	....	....	....	....	....	.25	....	....	3.71
Atlantic	....	....	.51	....	.05	.04	....	....	....	....	....	..	..	....	....	....	....	2.00	.4.	..	....	.05	..	....	....	....	1.15	....	.9.	.67	..	5.87
Audubon	....	....	....	.61	..	.25	.01	..	...	....	....	....	....	....	....	....	....	.96	.80	....	..	....	....	....	....	.13	.69	....	.15	..	....	3 08
Baxter	....	....	T	.04	....	.10	.04	....	....	....	....	T	..	....	..	....	....	.90	2.11	.08	....	....	....	....	....	..	.60	....	.0.	....	..	5.96
Bedford	....	....	T	.87	...	T	.18	....	..	....	T	..	...	....	..	...	...	2.05	.26	....	....	T	...	T	....	....	1.47	....	1.48	.80	....	6.52
Belle Plaine	...	..	...	.5.	....	....	....	....	....	....	....	....	....	T	....	....	....	T	2.30	T	..	....	....	....	....	.01	.60	....	.20	.4.	....	4.14
Bonaparte	....	..	...	.15	.12	....	.15	.18	...	....	....	....	....	....	T	....	..	....	.7.	....	..	-	.24	....	....	....	....	....	.12	.40	....	2.09
Boone	....	..	...	.24	.05	.08	....	....	..	....	....	....	....	...	..	....	..	....	2.40	.25	....	....	....	T	T	....	.54	.03	....	.42	....	4.01
Britt	....	....	..	.25	.03	.14	....	....	..	....	....	..	..	....	....	....	..	....	1.88	.05	....	T	....	.05	.35	.22	.30	....	.04	....	....	2.47
Buckingham	....	....	..	...	....	.05	....	...	....	....	....	..	T	....	....	....	..	....	.90	.55	...	....	..	....	T	T	.04	....	.85	....	....	2.72
Burlington	....	....	...	T	.17	.45	.1.	T	T	....	....	....	..	.07	.11	...	....	....	1.55	.85	.01	....	....	....	....	...	.34	....	.75	1 35	..	4.80
Carroll	...	....	....	.05	..	.05	....	..	...	....	....	....	..	...	....	T	....	....	.71	....	....	....	....	....	T	....	.25	.03	....	.74	....	1.88
Cedar Rapids	.05	....	...	.21	....	-	.5.	....	....	....	....	....	....	T	....	....	....	.29	T	3.87	.21	....	....	T	....	T	....	....	.48	.30	....	4.92
Chariton	....	....	T	.45	..	....	4.30	T	....	....	....	....	....	T	....	....	....	....	1.2.	....	....	T	T	....	T	....	.08	....	.49	.01	....	5.61
Charles City	....	....	.14	T	.92	....	....	....	....	....	....	T	....	....	....	....	....	.04	.32	.05	.02	.04	..	T	.02	.32	1.3.	....	.89	.01	....	4.01
Clarinda	..	....	....	.25	.06	..	....	....	....	....	....	....	....	....	....	....	....	T	.17	T	....	....	.02	....	T	....	1.71	....	....	.19	....	2.44
Clear Lake	....	....	....	2.00	T	.70	....	....	....	....	....	....	....	....	....	....	....	T	.90	T	....	....	....	....	....	.40	.25	T	.80	T	....	4.55
Clinton	....	....	....	.5.	.09	....	.17	....	....	....	....	..	....	.16	....	....	..	....	....	.05	..	....	....	....	....	....	.28	...	1.18	....	....	8.47
College Springs	...	....	.01	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.75	.22	....	....	....	....	....	....	....	2.60	....	....	.60	....	4.13
Columbus Junct'n	....	....	....	.05	.15	.	.82	..	....	....	....	....	....	.06	....	..	....	....	3.07	.16	.07	..	....	....	....	....	1.19	....	.03	2.20	....	7.80
Corning	....	....	T	.29	..	....	....	..	....	....	....	....	....	....	....	....	....	.61	.24	....	....	.21	T	T	T	....	.77	....	.63	....	....	2.75
Corydon	....	....	...	.06	....	....	3.20	..	....	..	....	....	....	....	....	....	....	.17	1.15	....	..	.03	.08	....	T	....	.31	....	1.10	....	.66	6.08
Creston	.02	....	...	1.02	....	....	.04	....	....	..	....	....	....	....	....	....	....	1.12	.74	....	....	.01	.01	....	....	1.00	....	....	1.48	....	....	5 17
Cumberland	...	....	.18	1.18	....	....	....	....	....	..	....	....	....	....	....	....	....	....	.65	.01	T	....	....	....	....	....	.13	....	.62	.01	....	2.69
Davenport	....	....	....	.09	.31	.62	.12	.01	....	....	....	....	....	.11	.01	....	....	....	.12	T	....	....	....	....	.20	.52	.20	....	.13	....	....	2 08
Decorah	....	..	...	.51	.11	.05	.1.	....	..	....	..	....	....	T	....	..	....	....	.60	.35	.02	....	....	....	....	.68	.45	..	.31	.24	....	3 30
Delaware	....	....	...	.35	....	....	.35	....	....	....	T	....	....	T	....	....	....	1.00	....	....	....	....	....	....	....	.65	.01	.74	....	.11	....	....	2 86
Denison	..	....	....	.22	.05	.07	....	T	....	....	..	....	....	T	....	....	....	.77	.19	T	....	....	....	....	....	....	.34	....	.01	.74	....	3.80
Des Moines	....	....	.55	.15	..	.05	T	....	....	....	....	....	....	....	T	..	..	20	.07	..	..	....	....	....	....	....	.55	.02	....	..	....	2.80
De Soto	.	....	....	.45	....	.21	....	....	....	....	....	....	....	....	..	....	....	.16	1.85	.05	....	....	....	....	....	.58	.07	....	.11	..	....	3.16
Dows	...	....	....	.20	....	.15	....	....	....	....	....	....	....	.04	.01	....	....	....	.05	.05	T	....	....	....	.01	.08	1.15	....	.41	.85	....	3.36
Dubuque	....	....	...	.06	.52	T	.42	..	....	....	....	....	....	....	....	....	....	1.4.	.05	....	....	T	....	....	....	....	.50	....	.36	....	....	3 55
Earlham	.20	....	....	.53	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.52	.10	....	....	....	....	....	.18	.36	....	....	.65	....	2.80
Elkader	...	....	....	.12	.37	....	....	..	....	..	....	....	....	....	....	....	....	.72	....	....	....	....	.25	.15	....	....	....	1.15	....	.95	....	....	3 46
Elliott	T	....	....	.24	....	....	....	..	....	....	....	....	....	T	....	....	....	..	1.60	.15	.10	....	....	....	....	.45	.28	....	.55	....	....	4.04
Fayette	.	....	....	.11	.63	.13	.05	..	....	....	....	....	....	....	....	....	....	..	2.05	.15	.04	....	....	....	.41	.11	....	T	....	T	....	3 63
Forest City	....	....	.	.10	....	.10	.08	....	....	....	....	....	....	....	....	....	....	....	.35	.12	T	....	....	....	T	....	.08	....	.05	.25	....	1.94
Fort Dodge	....	....	....	.05	T	.05	.06	....	....	....	....	....	....	....	....	....	....	....	1.54	....	.17	....	T	....	....	T	T	....	1.29	....	....	3.52
Fort Madison	.10	....	....	.10	....	....	.07	.05	....	....	....	....	....	.20	....	..	....	....	1.00	.07	....	....	T	.04	.00	.01	T	....	.82	....	....	2 89
Galva	....	....	....	.41	.	.05	....	....	....	....	....	....	....	....	....	T	....	.34	....	2.04	.23	....	....	....	....	....	....	.50	T	.80	....	3 82
Gilman	....	....	....	....	....	T	.25	....	....	....	....	....	....	....	....	....	....	3.15	1.80	T	....	....	T	....	T	....	1.79	....	....	3.	....	6.54
Glenwood	..	...	T	T	..	..	...	.	....	....	....	....	....	....	....	..	....	....	.86	.46	.22	....	....	....	.05	.10	1.54	..	.4.	....	....	4 67
Grand Meadow	..	..	...	.06	.12	....	.8.	...	....	....	....	....	....	T	....	....	....	....	.85	.15	....	....	....	....	....	.47	.1.	....	.0.	....	....	1 75
Greene	....	....	....	....	....	.1.	....	....	..	....	....	....	....	....	....	....	....	.28	.70	....	....	T	T	....	T	T	6.	....	.7.	.04	....	3.89
Greenfield	.12	....	T	1.27	..	.02	....	....	....	....	....	....	....	T	....	....	....	.05	3.76	.09	....	....	....	....	....	....	.45	....	.05	.30	....	3.91
Grinnell	.05	....	....	T	....	....	.12	....	....	....	....	....	....	....	....	....	....	1.74	1.05	T	T	T	T	....	....	.02	1.06	....	.42	....	....	4.87
Guthrie Center	.02	....	....	.55	T	....	.0.	....	..	....	....	....	....	....	....	....	....	....	1.60	.2.	....	....	....	.04	....	.54	.06	....	.06	.04	....	2.89
Hampton	....	....	.20	....	.0.	.0.	....	..	....	....	....	....	....	....	....	....	....	1.80	.58	....	....	....	.10	.01	T	.15	.17	.2.	....	.12	....	....	4 23
Hancock	....	....	.25	.02	....	....	....	..	....	....	....	....	....	....	....	....	....	.10	3.00	.04	....	....	....	....	....	....	....	....	....	....	....	4.00
Hanlontown	..	....	....	.30	..	.0.	....	....	T	....	....	T	....	....	....	....	....	1.28	....	T	....	T	T	.01	T	.18	1.25	....	.0.	....	....	3.02
Harlan	..	....	T	.11	....	.00	....	....	....	..	T	....	....	....	....	....	....	.19	.21	....	....	.07	.03	....	.03	....	.50	....	.39	....	....	2.28
Hopeville	....	....	T	.19	....	.0.	.58	....	....	....	....	....	....	....	....	....	....	.22	1.82	.18	....	....	....	.19	....	.12	....	.01	.15	....	....	3 80
Humboldt	....	....	....	.89	.10	.1	....	....	....	....	....	....	....	....	....	....	....	1.00	.72	....	....	....	....	.65	.05	.05	....	.25	....	....	2 89
Ida Grove	....	....	....	.05	....	.08	....	....	....	....	....	....	....	.08	....	....	....	T	1.1.	T	....	....	T	....	....	.04	....	.36	....	....	3.13
Indianola	.11	....	T	.74	....	.15	....	..	....	....	....	....	....	....	....	....	.44	1.34	.15	.23	....	....	.02	.09	1.45	.32	1.40	....	2.06	.24	....	7.94
Inwood	....	....	....	.08	....	.14	....	....	..	....	..	....	....	....	....	....	....	....	.20	.82	.06	....	....	....	....	....	.28	.01	....	.72	..	8.64
Iowa City	....	....	....	.08	.18	....	1.25	....	....	....	....	....	....	....	T	....	....	....	1.04	.71	.61	....	....	....	T	T	.49	....	....	T	....	3.04
Iowa Falls	...	...	..	.15	....	T	.04	....	....	....	....	....	....	....	T	....	....	.67	.08	....	....	....	....	....	....	....	.42	....	.12	....	....	2.21
Jefferson	....	....	....	.42	....	T	....	....	....	....	....	....	....	....	....	....	....	.18	.28	....	....	T	.04	....	....	....	....	....	.37	....	....	1.48
Keokuk	....	....	....	.2.	.18	....	.20	.02	....	....	..	.	....	.10	T	T	....	....	.60	.35	.09	....	.02	.16	T	....	.12	....	....	.40	....	2.25
Keosauqua	....	....	....	....	.30	T	.10	.04	.08	....	....	....	....	T	....	....	....	.45	1.70	T	..	....	....	....	T	....	.55	....	T	.60	..	8.52
Knoxville	....	....	....	.12	....	....	.10	....	..	....	....	....	....	T	....	....	....	.05	1.75	....	....	....	.0	....	....	....	.80	....	.17	.25	....	3.60
Lacona	....	....	T	....	....	....	.5.	..	..	....	....	....	....	....	....	....	.1.	1.22	....	T	....	....	.05	.42	.05	T	.02	....	.18	4.00	....	4.40
Larrabee	.	....	T	T	.30	....	..	....	....	....	....	....	....	....	....	....	....	....	T	2.00	T	....	....	....	....	....	T	09	....	1.29	....	4.64
Le Claire	.39	....	....	..	.5.	15	.07	....	....	....	....	....	....	T	.08	....	....	3.0.	.30	....	....	....	....	.25	.75	T	.15	....	.80	....	....	5.45
Le Mars	....	....	.15	....	....	.60	....	....	....	....	....	..	....	....	....	....	..	.45	.40	....	....	.27	....	....	T	..	.95	....	.5.	.01	....	3.04
Lenox	....	..	.32	.11	....	....	T	....	....	....	....	..	....	....	....	....	..	.12	.21	....	....	.07	.12	..	....	....	.53	....	.09	.12	....	5.04
Leon	...	..	....	.20	....	1.80	1.45	....	....	....	....	....	....	....	....	....	....	1.70	.82	....	....	....	.03	....	.67	.21	.47	....	.95	....	....	4.71
Little Sioux	....	...	....	.42	....	.01	....	....	....	....	....	....	....	....	....	....	....	1.70	.22	....	....	T	T	....	.15	.85	.61	....	.18	....	....	3.55
Logan	....	...	.12	.19	....	..	....	...	....	....	....	....	....	....	....	....	....	....	.37	1.60	.05	..	..	....	....	....	.52	.12	.01	.73	....	3.45
Marshalltown	....	....	....	T	....	T	.05	....	....	....	....	....	....	....	....	....	....	....	.80	....	T	....	....	.13	....	.22	.20	....	.53	....	....	2.75
Mason City	..	...	..	.20	.12	.60	....	....	....	....	....	....	....	....	....	....	....	.80	.55	....	....	.05	....	....	....	.02	.83	..	.86	.02	....	4.15
Massena	.06	....	....	1.45	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	.08	T	....	.95	T	....	....	....	.80	....	.95	....	....	5.33
Mount Ayr	....	....	....	.45	....	1.20	.85	....	....	....	T	....	....	.01	T	..	....	....	1.95	.22	..	..	T	....	....	....	.15	....	.57	1.20	....	4.81
Mt. Pleasant	....	....	....	.19	.11	....	.35	.06	....	....	..	..	...	.02	....	..	..	....	.25	.07	....	..	..	....	....	....	.25	....	.07	.83	....	1.98
Mt. Vernon	....	....	....	T	.15	....	.3.	....	..	....	....	..	....	....	....	....	....	....	.30	.55	.26	....	....	....	....	....	.12	.15	....	1.04	....	3.56
Muscatine	....	....	....	.07	.11	.28	.66	..	....	....	....	....	..	T	.14	....	....	....	.30	.50	....	....	....	....	....	....	.65	....	.58	.01	..	4.01
Nevada	.6	....	.01	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.37	.60	.1.	....	....	....	....	....	....	2 32	....	.12	....	....	3.55
New Hampton	...	....	..	.15	.02	.12	.06	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.66	....	....	.16	.	4.22
Newton	....	....	...	....	....	.51	.04	....	....	....	....	....	....	....	....	....	....	.55	3.30	....	....	....	....	....	....	....	....	....	....	....	....	2.24
Northwood	....	.	....	.14	.18	.08	..	....	....	....	....	....	....	....	....	....	....	.87	.45	.06	.02	....	....	T	.31	.10	.23	....	.29	....	....	2.24
Odebolt	....	....	....	3	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	1.46	....	....	....	....	....	1.10	....	.14	.25	....	....	..	3.41
Ogden	....	..	....	.64	....	.3.	....	....	....	....	....	....	....	....	....	....	....	.28	3.48	....	....	....	....	....	....	....	.65	....	.37	....	....	5.70
Olin	....	....	.01	....	.20	..	.46	....	....	....	....	..	....	T	T	....	....	....	.20	.15	....	....	....	....	....	....	.20	....	.82	....	....	2.02
Omaha, Neb	..	....	.04	T	.01	.03	T	....	....	....	T	....	....	..	....	....	1.59	.99	T	....	....	T	.21	.07	..	1.66	01	....	T	.66	..	5.80
Onawa	..	....	....	.22	.65	.05	....	....	..	..	..	....	....	....	....	....	....	2.05	.55	....	....	....	.03	.20	.65	.25	.65	....	1.40	....	....	6.60
Osage	..	...	..	....	.03	.15	.71	....	....	....	....	....	....	....	....	....	....	....	.30	.09	.01	....	.02	T	....	....	.14	.24	..	.49	....	..	2.16
Oskaloosa	....	....	.17	..	....	T	.85	T	....	....	....	....	....	.82	1.17	T	....	....	....	....	....	....	....	....	....	.85	....	....	.48	.09	....	3 45
Ottumwa	....	....	....	....	....	....	3.75	..	....	....	....	....	....	....	....	....	....	....	1.75	....	....	....	....	....	....	....	.45	....	1.85	....	....	6.78
Pacific Junction	T	....	.04	....	....	T	....	..	....	....	T	....	....	....	....	....	....	1.01	.07	.04	....	T	T	....	....	....	1.40	....	.52	....	....	6 08
Pella	.13	....	....	.04	....	....	.15	....	....	....	....	....	....	....	....	....	....	.18	1.35	....	....	....	....	....	....	....	.48	....	T	.63	....	2.95
Perry	....	....	....	.87	....	T	.05	..	....	....	....	....	....	T	.06	....	....	....	1.28	T	....	....	....	....	....	....	.94	....	.28	....	....	2.98
Plover	....	....	....	.41	....	.82	....	....	....	....	....	....	....	....	....	....	....	....	3.29	.12	..	....	....	.13	1.59	.12	.15	....	.06	.10	....	5 62
Pocahontas	....	....	....	.11	....	.85	....	....	..	....	....	....	....	....	....	....	....	....	3.10	.19	..	..	T	T	1.10	....	....	....	.09	....	....	4.97
Preston	T	....	....	.17	.15	.17	.30	....	....	....	....	....	....	.14	.07	....	....	....	1.04	.8.	T	....	....	....	....	....	.14	T	.16	.41	....	3 61
Ridgeway	....	....	....	.20	.2.	2.02	.02	....	..	....	....	....	....	T	....	....	....	....	.13	.06	.05	....	....	....	.46	.21	.21	..	.28	.02	....	3 87
Rock Rapids	...	.	.55	....	....	....	....	..	....	....	....	....	....	....	....	....	....	1.30	.75	..	..	..	T	.50	....	.65	....	....	1.55	.35	....	5 65
Rockwell City	....	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	.2.	1.75	....	....	....	....	....	....	....	.10	....	....	....	....	2.10
Sac City	..	..	...	.03	....	.12	....	....	....	....	....	....	....	....	....	....	....	1.28	.0.	....	....	....	....	....	.85	T	.05	....	.26	....	..	2.68
Saint Charles	.07	.51	..	.10	..	....	.27	.	...	....	....	....	..	....	T	..	....	.02	1.42	....	....	....	T	....	....	....	.60	....	.51	..	..	3.50

DAILY AND MONTHLY PRECIPITATION FOR JUNE, 1906—CONTINUED.

STATIONS.	DAY OF MONTH.																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sheldon	....	....	T	.07	....	.20	....	....	....	....	....	....	....	....	..	....	....	2.0		.08		....	.07	.05	.25	.80	.25	..	.50	.02	....	3.84
Sibley	....	....	..	....	.46	.15	....	....	....	....	....	....	....		..	....		.17	1.82	.06	T	....	....	.18	.82	.43	.45	..	1.18	....	..	5.12
Sigourney	....	....		.02	.02	....	1.15	T		....		....	.	.06	....	....	....	T	1.18	T	.02	....	....	....	....	....	1.21	..	1.82	....	....	4.93
Sioux Center	....	....	T	.05	....	1.25	..	....	..	....	..	....	..	....	....	....		1.91	.16	T		..	.10	.08	.42	.40	.21	....	.59	....	....	5.17
Sioux City	....	..	T	.03	..	T	....		....	....	T	....	..	....	..	..	1.95	.78	T	T	....	....	.08	.83	.01	T	.07	....	.77	T	....	4.02
Stockport		..	T	T	.15	....	.81	.07	....	....	....	....	....	.02	....	....	....	.14	1.10	....	.04	T	.48	....	....	....	.07	....	.17	.87	....	2.87
Stuart	.07	....	....	.87	....	..	....	....	..	..	..	....	....	....	....	....	....	.66	.67	....	....		....	....	....	21	....	....	.11	....	....	2.59
Thurman	T	....	.40	....	.15	....	....	....	....	....	....	....	....	....	....	....	.	5.20		T	....	T	....	T	T	T	1.15	..	.08	1.30	....	8.23
Tipton	....	....	....	.34	....	....	1.08	....	....	..	....	....	....	....	..	..		....	.17	.05	....	....	....	..	..	....	.22	....	.29	.88	....	2.93
Toledo	....	....	....	T	....	..	.15	....	....	....	....	....	....	....	....	..	....	....	2.40	.30	.	....	....	..	....	.75	..	....	.20	.84	....	4.14
Vinton	....	....	..	.50	....	....	..		....		....	..	....	....		....	....	....	2.08	.45	....	....	....	....	..	....	.25	....	.02	.84	....	4.15
Wapello	....	....	....	.13	....	.15	.19	....	....	....	....	..	....	.18	.05	....	....	....	2.84	.85	.03	....	....	....	....	....	.85	..	15	1.50	....	5.92
Washington	....	..	....		.23	....	.92		..	....	....	..	....	....	....	....	....	....	1.52	....	....	....	....	....	....	..	1.12	....	.88	3.25	....	7.42
Washta	....	....	T	.10	....	.51	....	....	..	....	....	..	..	....	....	....	.18	1.00	....	.11	....	....	.07	.35	.05	.10	....	..	.25	....	....	2.72
Waterloo	....	..	....	T	....	.05	.12	....	....	....	....	....	....	....	.03	....	....	....	.38	.19	....	....	....	....	T	.29	.24	..	.80	.04	....	1.64
Waukee	.06	....	....	.80	..	.14	....	....	....	....	....	....	....	T	....	....	....	T	1.21	....	....	....	T	....	....	....	.45	....	.16	....	....	2.82
Waverly	....	....	....	.85	....	.01	.04	....	....	....	....	....	....	T	....	....	....	....	.34	.18	.04	....	..	....	....	.3?	.09	....	.33	....	....	1.74
Webster City	....	....	..	.41		.32	....	....	....	..	....	....	....	....	..	....	....	.59	1.38	.10	....	....	....	....	....	.83	.11	.28	....	....	..	4.08
West Bend	..	....	....	.87	.01	.08		....	....	....	..	....	....	....	....	....	....	2.45	....	.02	....	....	....	1.3	.18	....	....	.18	....	.02	....	4.63
Whitten	..	..	T	42	....	T	T	....	....	.	....	....	..	T	....	....	....	T	2.95	.84	....	....	..	....	....	....	.57	....	.12	.43	....	4.88
Wilton Juct	....	..	....	.21	.02	.04	.63	....	....	....	....	....	....	....	.08	....	....	....	.52	....	....	....	....	....	....	.14	..	....	.99	.84	..	2.96
Winterset	.09	....	T	.37	....	T	.	....	....	....	....	....	....	....	....	....	....	2.75	1.05	....	....	T	....	....	T	....	.97	....	.47	....	....	5.60
Woodburn	....	....	T	.85	....	.07	.82	T	....	....	....	....	....	T	T	....	....	....	1.15	....	....	.05	.10	....	..	....	.78	....	T	.32	....	3.59
Zearing		....	..	.41	....	.08	....		..		....	....	....		....	....	....	1.08	1.23	.19	.08	....	....		....	....	.66	....	.98	....	..	4.61

Precipitation Chart June 1906.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR JULY, 1906

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA

BERNARD MURPHY, STATE PRINTER

1906

THE IOWA WEATHER AND CROP SERVICE

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St. Charles	C. W. Minard
Sheldon	Dr. A. W. Beach
Sibley	H. G. Doolittle
Sigourney	J. T. Parker
Sioux Center	Jacob de Ruyter
Sioux City	*C. D. Reed
Stockport	C. L. Beswick
Stuart	Dr. J. A. Treat
Thurman	C. R. Paul
Tipton	F. K. Gregg
Toledo	Herbert Giger
Vinton	H. G. Haines
Wapello	Geo. W. Schofield
Washington	Wm. A. Cook
Washta	H L. Felter
Waterloo	M. L. Newton
Waukee	E. J. Leonard
Waverly	H. S Hoover
Webster City	C. D. Carpenter
Whitten	Dr. Frank P. Butler
Wilton Junction	Wm. Lang
Winterset	Dr. Robt. S. Cooper
West Bend	Phil Doweiler
Woodburn	C. B. McDonough
Zearing	C. P. Bean

*U. S. Weather Bureau.

WEATHER-CROP OBSERVERS.

Reporting for the Weekly Bulletin.

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Alta	Jonas Cushman
Audubon	A. H. Edwards
Blairstown	T. H. Weil
Burt	R. Jain
Centerville.	Jacob Harter
Charles City	W. B. Towner
Clarksville	F. M. Russel
Council Bluffs	L. Prouty
Correctionville	Hon. W. B. Chapman
Creston	M. V. Ashby
Danville	Sherman Matthews
Dunlap	Hon. B. F. Roberts
Emerson	D. B. Nims
Fort Dodge	R. W. Blaine
Fruitland	R. T. Hummel
Geneva	Wm. H. Thompson
Gruver	C. Higinbotham
Hartwick	Fred McCulloch
Harlan	H. B. Kees
Humeston	Hon. S. H. Moore
Ida Grove	P. E. Lund
Independence	Geo. H. Wilson
Indianola	H. D. Guthrie
Long Grove	Hon. Chris Marti
Manson	J. D. Skinner
Marshalltown	Hon. S. B. Packard
Mt. Pleasant	W. S. Wright
Milton	Hon. E. C. Holland
Monroe	J. A. Dibel
Nevada	Geo C. White
Northwood	T. L. Bolton
Oakville	Z. W. Steele
Orange City	H. J. Vande Waa
Pella	J. H. Ver Steeg
Preston	J. G. Storm
Pittsburg	G. C. Duffield
Portland (Nora Springs, P. O.)	Arthur Pickford
Platte (Creston R. D.)	M. H. Dibel
Red Oak	Hon. C. L. Stratton
Seymour	L. B. Sager
Stuart	W. W. Bailey
Toledo	W. G. Malin
Van Horne	Spencer Smith
Waukon R. D	T. B. Wiley
Weldon	Ed Worden
Winterset	H A. Kinsman
West Branch	Wrigley Smith
West Union	H. B. Blackman
Wiota	I. S. Coomes
Woodward	George Swisher

U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IN COOPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R SAGE, Section Director
GEO. M. CHAPPEL, Asst Director

VOL. XVII. DES MOINES, IOWA, JULY, 1906. No. 6

IOWA CROP REPORT, AUGUST 1, 1906.

Following is a summary of reports received from correspondents of the Iowa Weather & Crop Service giving estimates of the condition of staple farm crops August 1, 1906:

Corn, 99 per cent; spring wheat, 93; oats, 90; flax, 95; hay, 79; pastures, 83; potatoes, 91; apples, 70; grapes, 94.

Last year at corresponding date, the estimates were: Corn 94 per cent; wheat, 93; oats, 97; flax, 78; potatoes, 92; pastures, 103; apples, 40; grapes, 91.

IOWA FRUIT CROP.

Secretary Greene, of the State Horticultural Society, issued the following report on the condition of fruit in Iowa, August 1, 1906:

Summer apples, 55 per cent.; fall apples, 63; winter apples, 51; peaches, 68; American plums, 53; domestic plums, 33; Japaneese plums, 34; grapes, 80 per cent. of a full crop.

The distribution of the apple crop is somewhat uneven; some orchards are well filled and others scarcely have any fruit. The crop is light in the north central part where it ranges from 15 to 30 per cent., while in the southern part it ranges from 50 to 80 per cent. The quality of the fruit will be better than last year.

Plums will not average much above half a crop, though some trees are carrying all they can bear. The peach crop in the southern part of the state will be the largest gathered since the freeze of 1899. The average in the three southern tiers of counties is 80 per cent. of a full crop. The grape crop is two points better than last year, and is well distributed over the state.

JULY WEATHER AND CROPS.

July was cooler than usual, the average daily temperature being 3.5 degrees below the normal. The mean was 70.9 degrees for the state, and by sections as follows: Northern, 69.7 degrees; central, 71.0 degrees; southern 71.9 degrees. The nights were generally cool, but the day temperatures were sufficiently high to promote the normal advancement of all immature crops. In view of the fact that the average rainfall was only 3.04 inches, or 1.31 inches below the normal, it was fortunate that the nights were cooler than usual, and that the days were not excessively warm. The dewfall was quite heavy and the percentage of humidity of the air was about the normal, serving to mitigate the drouthy conditions prevalent in portions of the state. The distribution of rainfall was very unequal, ranging from less than an inch to over 7.00 inches. The driest areas were in the southeast and the northwest quarters of the state. For the most part there was sufficient moisture in the soil to maintain a steady growth of the corn crop and at the close of the month it was about as well advanced as usual, being in full tassel and earing heavily. The crop as a whole suffered but little damage by drouth and reports as to its condition were quite satisfactory. The month was favorable for harvesting hay, oats, barley, rye and wheat, except in limited portions of the north-central and northeast districts, where the rainfall was excessive. The hay crop was generally secured in good condition, and though the yield was relatively light the quality is much better than has been produced in recent wet years. The same is measurably true as to the oats crop, which was generally short in straw, but well filled and relatively heavy as compared with the last three seasons. Threshing was begun early, and reports of yield have been very good as to barley, oats and winter wheat. The harvest of spring wheat was in progress about the close of the month, and reports indicated that the crop had escaped material damage by rust, and the yield is likely to be about the normal. The reports as to the condition of potatoes indicated about an average crop. There was less than the usual amount of damage to crops by wind storms and hail during the month of July.

CLIMATOLOGY OF THE MONTH.

TEMPERATURE: The monthly mean temperature of July for the state, as shown by the records of 122 stations, was 70.9°, which is 3.5° below the normal. By sections the mean temperatures were as follows: Northern section, 69.7 degrees, which is 3.5 degrees below the normal; Central section 71.0 degrees, which is 3.3 degrees below the normal; Southern section, 71.9 degrees which is 3.8 below the normal. The highest monthly mean was 75.8 degrees at Tipton; and the lowest monthly mean was 67.1 degrees, at Sibley. The highest temperature reported was 102 degrees at Atlantic on the 21st; and the lowest reported was 42 degress at Washta on the 7th and 8th. The greatest daily range of temperature was 46 degrees at Washta; and the average of greatest daily ranges was 34.6 degrees. The average of monthly maximums was 93.6 degrees; and the average of monthly mimimums was 48.8 degrees.

PRECIPITATION. The average precipitation for the state, as shown by records of 131 stations, was 3.04 inches, which is 1.31 inches below the normal. The averages by sections were as follows: Northern section 3.04 inches, which is 1.17 inches below the normal; Central section, 3.09 inches, which is 1.14 inches below the normal; Southern section, 3.00 inches, which is 1.62 inches below the normal. The largest amount reported was 7.05 inches at Independence, the least amount reported was 0.26 of an inch at Tipton. The greatest daily ainfall reported was 2.82 inches at Little Sioux on the 25th. The average number of days on which .01 of an inch or more was reported was 8.

WIND AND WEATHER. The prevailing direction of the wind was northwest. The highest velocity reported was 36 miles an hour from the northwest, at Keokuk on the 22nd. The average number of clear days was 18; partly cloudy days, 10; and cloudy days, 3.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	29.98	30.42	6	29 79	25-28
Davenport	29.97	30.37	6	29.69	28
Des Moines	29.99	30.37	6	29.74	28
Dubuque	29.99	30.44	6	29 71	28
Omaha, Neb	30.00	30 37	6	29 75	27
Keokuk	29.99	30.32	6	29.74	28
Sioux City	29.99	30.36	6	29.80	28
Means	29 99	30 42	6	29 69	28

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	3410	32	S	26
Davenport	3981	25	N W	28
Des Moines	4074	27	S W	19
Dubuque	3674	26	N	22
Keokuk	3941	36	N W	22
LaCrosse, Wis	4007	30	W	28
Omaha, Neb	4539	31	N	25
Sioux City	6306	42	S	18

OBSERVERS' NOTES.

ALBIA—*J. I. Chenoweth.* First half of July was showery; latter part dry, but favorable for harvesting.

ALTA—*David E. Hadden.* July was an ideal month.

ALTON—*W. S. Slagle.* A fine month for all crops and farm work was well advanced; most of the hay crop, barley and oats were harvested, and wheat harvest was in progress at clos of July.

AMANA—*Conrad Schadt.* Month was very dry, with much sunshine and moderate temperature, and free from destructive storms; grain crops are good in amount and quality; drought has affected pastures and hay, but other crops have not appreciably suffered.

BONAPARTE—*B. R. Vale.* Rain 2.81 inches, and showers were very local; temperature of month below normal; no excessively hot winds or warm days.

BRITT—*Geo F. Hardwick.* Rain 4.73. Frequent showers and heavy dews, causing oats to rust; one fifth of corn tasseled at end of month.

CHARITON—*C. C. Burr.* A fine month for harvesting and corn made fine growth; rainfall much below normal.

CLINTON. *Luke Roberts.* Rainfall 5.42 inches, or 1.43 above normal; on the 22nd was a downpour of 2.50 inches in less than 90 minutes, with some wind and hail; mean temqerature of month 1.7° below normal.

CRESTON. *W. L. Gaston.* Rain 1.88; unusually dry; pastures and gardens have suffered, but corn looks well.

ELLIOTT. *Henry Barnes.* A splendid growing month; hay and small grain show average yield and prime quality; fall wheat yields 40 to 45 bushels per acre.

GRAND MEADOW—*F. L. Williams.* The month was favorable for all crops and harvesting was nearly finished; oat crop good

GRINNELL—*A. O. Price.* Rainfall 1.74 inches below normal, and the lowest July temperature since 1899; but crops were secured in fine condition; small grain free from rust.

INWOOD—*F. B. Hanson.* A good month for hay and grain harvest; severe electrical storms on the 21st. and 25th.

MASON CITY—*J. S. Mills.* On the 2nd of July 2.00 inches of rain fell in 45 minutes.

NORTHWOOD—*Chas. H. Dwelle.* On the 25th the worst hailstorm in years damaged crops in a limited area.

OLIN—*N. Potter.* Rain 1.22 inches; corn somewhat damaged by drought; oats and hay crops are good.

PRESTON—*J. G. Storm.* Crops are up to the average, and corn a little in advance of recent years; some damage caused by hail on 28th.

RIDGEWAY—*Arthur Betts.* Rain 3.58; the most sunny July on record—407 hours of sunshine; days warm, and nights uausually cool with heavy dewfall.

ROCK RAPIDS—*W. C. Wyckoff.* An exceptionally fine month for crops; though rainfall was only .92 of an inch.

SHELDON—*A. W. Beach.* A good month for haying and harvest; crops extra good.

WAVERLY—*H. S. Hoover.* A cool month for July; but showers were timely, and crops are growing well.

CROP NOTES

W. C. Brown, vice president of the N. Y. Central Railway System, returning from a tour of observation of the crops in the middle west, expressed the belief that the United States this year will harvest a larger quantity of grain of all sorts than in any previous year, and will market it at better prices, considering the size of the crops. Mr. Brown estimates the Iowa corn crop at 350,000,000 bushels

W. H. C. Woodward, of Marietta township, Marshall county, is reported to have threshed 900 bushels of barley, the product of 18 acres of land,—an average of 50 bushels per acre; and the grain overruns in weight.

The Cedar Rapids Republican says: "There is a corn field near Cedar Papids, 140 acres in extent, which will go 70 bushels to the acre, unless the hopes of that field are blighted in the near future. Some of the land is turned over pasture and meadow and it has been rightly tended to. And yet the average farmer of the state is glad to get a trifle over 30 bushels to the acre and many farmers do not get more than 25 bushels. There is some difference in farms, of course, but there is a still greater difference between farmers."

A farmer in Monona county produced 55 bushels of winter wheat per acre, as shown by actual measurement of the land and careful weighing of the grain. At current price of wheat the land brings a crop worth $31 per acre, or 10 per cent. on $300 land. Iowa farmers are beginning to realize the possibilities of profit in growing winter wheat.

ADVANTAGES OF THE SILO.

Hon. R. M. Washburn, State Dairy Commissioner of Missouri, gives the following summary of the advantages of the silo:

1. Silage keeps young stock thrifty and growing all winter.
2. It produces fat beef more cheaply than does dry feed.
3. It enables cows to produce milk and butter more economically.
4. Silage is more conveniently handled than dry fodder.
5. The silo prevents waste of corn stalks, which contain about one-third the food value of the entire crop.
6. There are no aggravating corn stalks in the manure when silage is fed.
7. The silo will make palatable food of stuff that would not otherwise be eaten.
8. It enables a larger number of animals to be maintained on a given number of acres.
9. It enables the farmer to preserve food which matures at a rainy time of the year, when drying would be next to impossible.
10. In the south, where the rainy season destroys the exposed fodder, the silo will be found invaluable.

WHAT BECOMES OF THE RAINFALL.

Precipitation occurs whenever the air is suddenly cooled below the dew-point. The most effective cause of this is the expansion of air on ascending. This upward movement is caused very largely by cyclonic storms.

Whether forests have any appreciable effect in cooling the air to below the dew-point is uncertain. From the known effects of forests on the temperature and relative humidity of the air, it is reasonable to infer that they may have some such effect, at least to a small degree, and consequently that they have some influence in increasing precipitation. The present evidence, however, derived from many series of observations conducted in Europe and elsewhere, is so conflicting that a definite answer to this question, having the stamp of scientific accuracy, is not possible.

That the excessive destruction of forests is followed by the drying up of streams and springs and by a diminution in the minimum flow of rivers is a well established fact. The forest is the most effective agent known in regulating the disposition of the precipitation after it reaches the ground.

Rainfall escapes from the ground upon which it falls in five ways—through evaporation, transpiration, surface run-off, seepage run-off, and deep seepage. By evaporation is meant the moisture which passes into the atmosphere in the form of vapor from water and soil surfaces and from objects resting upon such surfaces, including vegetation. Transpiration is that portion of the rainfall which sinks into the soil, and which is later taken up by the vegetation through the roots and given off to the atmosphere through the stems and foliage. To this latter should be added, although not actually a part of it, the comparatively small amount of moisture taken up by the vegetation, but which through chemical change becomes a part of the organic vegetable structure. By surface or superficial run-off, is meant that portion of the precipitation which, from the time of falling until its exit from the drainage basin, passes over the surface without gaining access to the soil. On the other hand, by seepage run-off is meant that portion of the rainfall which sinks into the earth, but which later reappears on the surface at lower elevations, and with the surface run-off escapes from the drainage basin in the streams. By deep seepage is meant that portion of the precipitation which sinks into the soil, but to such depths that it does not reappear later on the surface of the drainage basin.

In order that the moisture which falls to the earth in the form of rain and snow should be most efficient in sustaining vegetation and in feeding streams, as little as possible should escape in the form of evaporation. Under the best of conditions a very large part of the annual rainfall is returned to the atmosphere through evaporation.

When land is covered with vegetation a certain amount of the rainfall is taken up by the growing plants. A small part, through chemical change, becomes incorporated into the plant, but the larger part is returned to the atmosphere through transpiration. Although those who have investigated this subject are by no means in accord, there is reason to believe that considerable difference exists in the amount of water taken up by the different types of vegetation in the process of growth. On the whole the forest probably takes up less water from the soil than the average agricultural crop. Risler, from a lengthy series of investigations, reached the conclusion that forests actually take up less than one-half as much water from the soil as the average agricultural crop.

In conclusion, it may be said that although the forest may have, on the whole, but little appreciable effect in increasing the rainfall and the annual run-off, its economic importance in regulating the flow of streams is beyond computation. The great indirect value of the forest is the effect which it has in preventing wind and water erosion, thus allowing the soil on hills and mountains to remain where it is formed, and in other ways providing an adequate absorbing medium at the sources of the water courses of the country. It is the amount of water that passes into the soil, not the amount of rainfall, that makes a region garden or desert.—Pennsylvania Climatological Report January 1905.

DATES OF THUNDERSTORMS.

Northern Section.

Algona—1, 11, 12, 18, 19, 28.
Alta—4, 18, 22, 25.
Alton—18, 22, 31.
Britt—1, 11, 12, 19, 28.
Charles City—2, 10, 11, 12, 14, 16, 18, 19, 27.
Dows—12, 14, 19, 25, 28.
Elkader—11, 12, 14, 16, 19, 28.
Fayette—10, 12, 28.
Grand Meadow—12, 13, 16, 19, 26, 28.
Hampton—1, 2, 11, 12, 14
Hanlontown—10, 18 25.
Inwood—21, 25, 28, 31.
Larrabee—12, 22, 24, 26.
Mason City—1, 2, 3 12, 19, 25, 28.
Northwood—1, 10, 12, 19, 25, 28.
Osage—2, 10, 12, 13, 16, 18 25, 27.
Plover—11, 12, 14, 18, 25, 28.
Pocahontas—11, 12, 25
Ridgeway—2, 12 14, 16, 19, 25, 28
Sheldon 12, 14, 25.
Sioux Center—4, 25, 28, 31.
Washta—18, 25.
Waverly— , 4, 10, 11, 12, 14, 19, 26, 28.
West Bend 4, 12, 18, 22, 25.

Central Section.

Amana—1, 2, 3, 4, 10, 28.
Boone—14, 26, 27
Carroll—4, 16, 18, 25, 26, 28.
Clinton—11, 12, 19
Cedar Rapids—3, 11.
Davenport—1, 3, 4, 11, 12, 22, 28.
Des Moines— , 2, 3, 4, 12, 14, 16, 19, 25, 26, 27.
Dubuque—3, 4, 14, 19, 22, 28, 31.
Galva—12, 25
Grinnell—1, 2, 3, 4, 11, 12, 14, 16, 19, 26, 27, 28.
Guthrie Center—1, 4, 11, 12, 14, 16, 18, 25.
Harlan—1, 4, 12, 16, 8, 25, 31.
Independence—2, 4, 10, 11, 12, 19, 28.
Iowa City—1, 2.
Iowa Falls—1, 2, 3, 4, 10, 11, 12, 14 16, 18, 25, 28.
Jefferson—4, 11.
Little Sioux—1, 2, 12, 16, 18, 25.
Nevada—1, 28.
Olin—1, 3, 4, 11, 12, 14.
Onawa—1, 12, 16, 25.
Perry—4, 18, 25, 26, 28.
Preston 1 , 13, 19, 20, 22, 28, 29.
Sioux City—2, 4, 12, 16, 18, 19, 22, 25, 27, 31.
Waukee—1, 3, 4, 12, 14, 16, 25, 26, 27, 28.
Waterloo—2, 10, 11, 12, 19, 28.
Whitten—1, 2, 3, 12, 13, 14, 16, 19, 22, 28.
Zearing—1, 2, 4, 13, 16, 25, 28.

Southern Section.

Albia—1, 3.
Allerton—1, 2, 3, 10, 26, 27.
Atlantic—1, 4, 16, 25, 27.
Burlington—1, 3, 11, 12, 13, 29.
Columbus Junction—1, 3, 12, 22.
Corning—1, 2, 4, 12, 16, 26 27, 31.
Earlham—1, 2, 4, 12, 14, 16 18, 19, 25, 26.
Elliott—1, 2, 4, 12, 16, 18, 25, 27, 28, 30.
Greenfield—1, 2, 4, 12, 14, 16, 18, 25, 27.
Hancock—4, 12.
Indianola—14, 17.
Keokuk—1, 2, 3, 4, 10, 11, 12, 13, 14, 21, 22, 27.
Keosauqua—10.
Lenox—1, 4, 12, 19, 27.
Massena—16.
Mt. Pleasant—1, 3, 12, 14, 22, 28.
Omaha—1, 4, 12, 16, 18, 20, 25, 27, 31.
Sigourney—3.
Thurman—25, 31.
Woodburn—26.

CLIMATOLOGICAL DATA FOR JULY, 1906.

CENTRAL SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	OBSERVERS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Amana	Iowa	721	27	71.4	- 2.6	92	21	47	16	36	2.02	- 2.18	.93	....	9	19	8	4	NW	
Ames	Story	926	22	70.6	- 4.4	93	10,21	45	16	39	4.06	- .52	1.70	....	13				N	
Baxter	Jasper	998	6	70.2	- 4.2	90	10,11,12,21,27	46	16	33	2.79	- 2.10	.65	..	10	17	8	6	NE	
Belle Plaine	Benton	828	14	71.2	- 2.4	91	10,11,21,22	48	16	32	4.01	† .57	1.70	...	11	17	10	4	SE	
Boone	Boone	1,134	....	71.6	.....	91	10,11,21	52	16	29	3.54	.	.81	....	11	20	10	1	S	
Buckingham	Iowa	.....	6	.....	.....	.....	.....	....	.....	.....	3.25	- 1.15	1.52	....	10	10	20	1	....	
Carroll	Carroll	1,265	16	69.5	- 4.4	92	21	46	7	37	1.52	- 2.88	.66	..	9	23	5	3	.....	
Clinton	Clinton	593	38	72.8	- 1.7	94	22	49	7	34	5.42	† 1.83	2.50		8	19	5	7	NW	
Cedar Rapids	Linn	733	....	72.9	- 2.9	95	21	51	5	40	1.97	- 1.99	.66	....	8	15	13	3	.....	
Davenport	Scott	606	35	73.5	- 1.5	94	21	54	16	25	2.26	- 1.40	1.20	....	8	17	9	5	NW	
Delaware	Delaware	1,083	13	70.0	- 2.6	91	21	49	6,16	29	3.29	- .39	.94	..	10	15	15	1	SW	
Denison	Crawford	1,180	10	69.6	- 4.2	93	11,21,27	44	7	36	1.75	- 2.57	.56		7	23	6	2	S	
Des Moines	Polk	861	27	71.4	- 3.1	91	27	52	24	32	2.67	- .86	.63	..	12	10	18	3	SW	
De Soto	Dallas	866	6	70.4	....	90	11,27	47	25	33	2.59	.....	.99	..	10	24	5	2	SW	
Dubuque	Dubuque	698	33	72.2	- 2.1	91	21	54	16	26	1.57	- 2.71	.35	..	8	17	11	3	NW	
Fort Dodge (a)	Webster	1,126	....	71.0	....	93	10,21	51	16	37	3.51	.	1.20	..	10	...	...	...	.....	
Galva	Ida	1,290	10	63.8	- 5.2	91	11	43	7	40	1.54	- 2.66	.63	...	6	25	3	3	NW	
Gilman	Marshall	1,052	....		.....	.....	.....	....	.....	.....	1.40	- 3.45	.42	.	7	14	15	4	SW	
Grinnell (near)	Poweshiek	1,023	11	70.0	- 4.0	91	11	45	16	34	2.86	- .86	.83	....	9	18	6	7	.....	
Grundy Center	Grundy	976	13	73.6	- 1.4	94	10	50	6	29	4.60	† .42	1.45	..	8	20	6	5	N	
Guthrie Center	Guthrie	1,077	8	71.2	- 2.8	94	21	49	7,16,24	33	3.97	- .57	1.90		14	24	7	0	SW, NW	
Harlan	Shelby	1,193	7	69.6	- 4.8	91	11	48	16	36	4.40	- 1.31	1.02	..	11	9	20	2	SW	
Ida Grove	Ida	1,220	...	69.9	.....	95	11	45	8,30	43	1.05	.....	.65	..	4	....		....	N, NE, SE, S, SW	
Independence	Buchanan	921	40	69.3	- 4.1	91	10	48	16	35	7.05	† 2.33	2.40	...	8	20	7	4	SW	
Iowa City	Johnson	688	45	72.8	- 1.4	96	21	49	16	39	1.42	- 3.08	.78	....	8	22	2	7	SW	
Iowa Falls	Hardin	1,170	11	68.4	- 4.6	92	11	45	16	37	2.85	- 1.01	1.05	....	10	22	3	6	NW	
Jefferson	Greene	.....	....	70.1	.....	92	11	50	7,23	37	4.15	....	.91	....	11	21	6	4	SE	
Le Claire	Scott	576	....	...	.....	.....	.....	....	.....	.....	4.28	.....	2.51	....	8	24	2	5	NW	
Little Sioux	Harrison		....	71.0	.....	91	10	48	23	34	6.84	.....	2.82	..	11	20	8	3	SE	
Logan	Harrison	928	37	71.1	- 3.9	94	11	49	7,16	39	6.95	† 2.04	1.95	..	8	9	21	1	NW	
Marshalltown	Marshall	847	11	70.6	- 3.2	94	11	46	16	36	3.57	- .88	1.23	....	10	...	...	...	.....	
Mount Vernon	Linn	847	37	73.2	- 0.2	98	21	51	6	40	.93	- 3.70	.37		6	16	9	6	SW	
Muscatine	Muscatine	.....	47	....	....	..	.....	.....	.....	..	1.36	- 2.55	.89	....	7	17	7	7	N	
Newton	Jasper	944	16	71.7	- 3.8	91	11	54	16	27	5.27	† 1.39	2.15	..	9	17	13	1	SE	
Nevada	Story	.....	..		.....	.....	.....	....	.....	.....	3.03	.....	.67	....	10	24	2	5	.....	
Odebolt	Sac	1,356	7	72.2	- 3.9	97	21	46	7	41	1.52	- 3.60	.76	....	6	21	7	3	.....	
Ogden	Boone	1,058	10	71.2	- 3.9	93	21	50	16	33	3.89	- .23	.88	....	12	23	4	4	SW	
Olin	Jones	760	7	70.9	- 3.9	91	22	48	16	35	1.22	- 2.38	.50		5	17	13	1	E, NW	
Onawa	Monona	.....	6	71.4	- 4.6	90	10,21,27	53	7,17	29	3.60	- 1.03	1.10	..	9	22	8	6	SW, NW	
Perry	Dallas	975	....	71.8	- 2.1	95	11,21	50	24	39	2.77	.....	1.16		11	7	20	4	.....	
Preston	Jackson	.....	....	69.3	.....	93	22	46	7	37	2.97	.....	1.40		12	17	10	4	NW	
Rockwell City	Calhoun	.....	9	72.4	..	98	4	45	24	36	1.38	- 2.62	.48	..	4	28	2	1	.....	
Sac City (a)	Sac	1,856	24	68.8	- 4.5	92	21	48	7	35	.99	- 2.82	.45	...	5	23	8	0	NW	
Sioux City	Woodbury	1,135	15	70.4	- 3.9	89	10	52	30	34	2.37	- 1.00	1.14	....	8	13	10	8	NW	
Tipton	Cedar	807	8	75.8	† 1.2	96	21	55	16	28	.26	- 4.16	.22	.	2	22	9	0	NW	
Toledo	Tama	856	10	71.1	- 3.8	91	10,11,21	48	16	35	3.66	† .43	1.33	....	12	17	10	4	SW, NW	
Waterloo	Black Hawk	862	17	71.0	- 3.0	94	11	49	16	34	3.01	- 1.23	.77	....	11	17	12	2	.....	
Waukee (a)	Dallas	1,039	....	71.4	.....	92	21	52	1	31	4.93	.....	1.25	....	11	17	12	2	NW	
Webster City	Hamilton	.....	....	71.7		99	11	45	16	41	2.31	.....	1.25	...	5	18	9	4	SE, NW	
Whitten	Hardin	1,030	6	70.2	- 4.5	93	11	47	16	34	4.58	† .81	1.70	..	10	16	12	3	SE	
Wilton Jct	Muscatine	683	9	.....	.....	.....	.....	50	7	.....	4.33	- .94	1.85	....	6	21	10	0	W	
Zearing	Story	718	....	69.8	.....	92	12	45	24	39	3.84	... .	2.09		8	20	5	6	NW	
Average				71.0	- 3.8	92.7		48.6		31.8	30.9	- 1.14			9	19	9	3	NW	

CLIMATOLOGICAL DATA FOR JULY, 1906.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	OBSERVERS.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Algona	Kossuth	1,218	30	70.0	- 3.7	91	10,11	46	16	37	2.05	- 1.62	.74	....	9	22	4	5	NW	
Alta	Buena Vista	1,513	13	69.8	- 2.9	92	11	49	16	33	2.12	- 2.59	1.17	....	7	21	10	0	NW	
Alta (near)	Buena Vista	.....	....	..	.....	.....	.....	.....	.....	.....	2.51	.....	1.50	....	8		....	....	.....	
Alton	Sioux	1,305	....	68.6	.....	89	10,11,21, 27,	45	16	37	1.80	.....	.51		6	22	5	4	N W	
Britt	Hancock	1,236	7	696	- 3.3	92	11,12	46	16	34	4.73	† .41	1.72	....	11	11	19	1	N W	
Charles City	Floyd	1,005	19	68.6	- 5.4	90	12	49	16	31	5.08	† 1.16	1.70	..	13	14	10	7	N W	
Clear Lake	Cerro Gordo	1,241	7	71.2	- 2.7	92	10,11	51	7	38	4.20	- .55	1.30	....	6	23	5	3	N W	
Decorah	Winneshiek	875	10	71.6	- 1.0	94	16	48	6,7	34	5.03	† 1.81	2.39		10	....	....	....	.....	
Dows (a)	Wright	1,142	6	68.4	- 4.6	91	11	44	16,24	41	1.16	- 3.19	.61	....	9	19	9	3	.....	
Elkader	Clayton	727	23	70.8	- 3.2	94	21	47	6,16	38	4.67	† .33	1.91	....	7	19	11	1	NW	
Estherville	Emmet	1,298	9	68.4	- 4.3	91	10,11	48	7,18,19,24	36	4.07	† .19	2.20	....	8	23	0	9	NW	
Fayette	Fayette	1,003	16	68.4	- 3.9	89	11,12,13, 21,27	46	6	34	3.61	- .09	1.25	....	4	....	....	..	NW	
Forest City	Winnebago	1,226	10	70.0	- 2.9	94	11	47	16	33	2.19	- 1.24	1.11	....	5	24	4	3	W	
Grand Meadow	Clayton	1,180	18	70.1	- 0.9	88	11,12,21,	50	7,16	30	4.53	† .21	1.68	..	8	15	11	5	NW	
Greene	Butler	.....	....	70.0	- 5.1	93	11	48	16,17	36	6.04	† 1.85	1.58	..	10	9	12	10	NW	
Hampton	Franklin	1,155	14	71.5	- 1.2	94	21	50	16	33	3.50	- .64	1.24	....	11	....	....	....	NW	
Hanlontown	Worth	.....	..	68.0	.....	91	11	46	16,17	35	1.96	.....	.92	....	6	25	4	2	NW	
Inwood	Lyon	.....	....	68.8	.....	90	10,11	45	23	34	1.29	.....	.67	....	7	24	5	2	SNW	
Larrabee (a)	Cherokee	1,266	15	71.8	- 1.2	96	10	48	23	36	.98	- 3.63	.33		5	22	9	0	SW	
Le Mars	Plymouth	1,274	8	69.3	- 4.6	91	11	48	23,30	38	1.20	- 3.70	.55	....	7	18	13	0	S	
Mason City	Cerro Gordo	1,132	....	71.5	‡ 0.1	91	10,11	50	17	30	6.73	† 3.94	2.46	....	8	15	16	0	SW	
New Hampton	Chickasaw	1,169	6	68.8	- 4.6	89	9	48	16	31	3.51	- .88	1.16	....	9	....	....	....	.....	
Northwood	Worth	1,222	8	68.9	- 3.1	90	10	47	16	32	3.65	- .34	1.27	....	8	18	12	1	SW	
Osage	Mitchell	1,184	13	69.2	- 1.8	92	11	47	16	34	5.97	† 2.48	2.77	....	10	18	6	7	NW	
Plover	Pocahontas	.....	7	70.0	- 4.5	93	11	47	17	38	3.32	- 1.81	2.35	....	7	24	1	6	N	
Pocahontas	Pocahontas			70.7	...	94	10,21	48	23	33	1.69	.....	.63	....	8	22	7	2	NW	
Ridgeway	Winneshiek	1,215	8	72.1	- 4.5	93	12,31	49	16	34	3.58	- 1.51	1.17	....	8	29	2	0	S	
Rock Rapids	Lyons	.....		70.6	- 2.2	92	10,21	46	24	40	.92	- 1.60	.35	....	3	....	....	....	.	
Sheldon	O'Brien	1,422	6	71.1	- 1.9	94	11	47	7,16	40	1.52	- 5.33	.71	....	5	21	7	3	S	
Sibley	Osceola	1,213	10	67.1	- 4.2	91	10	46	16	37	.98	- 2.93	.58	....	7	....	....	....	.....	
Sioux Center	Sioux	.....	7	68.5	- 6.0	89	10	46	17	36	2.04	- 3.34	.53		8	22	4	5	N	
Washta	Cherokee	1,157	....	68.9	.....	94	10,21	42	7,8	46	1.16	- 3.94	.50	....	6	22	7	2	N	
Waverly (a)	Bremer	942	8	69.6	- 4.3	89	10	49	16	30	3.78	- .06	1.75	....	14	9	17	5	.....	
West Bend	Palo Alto	1,197	10	69.6	- 3.3	94	10	47	24	37	2.17	- 1.07	.83	....	8	11	16	4	N	
Average			..	69.7	- 3.5	91.7	.....	47.3	.....	3.54	3.01	- 1.17			8	19	8	3	NW	

SOUTHERN SECTION.

Afton	Union	1,213	11	73.0	- 3.1	97	27	50	16	31	1.76	- 3.01	.61	....	9	....	....	..	SW	
Albia	Monroe	959	8	71.4	- 3.7	91	22	51	6,16	30	3.91	- .22	1.90	....	10	20	7	4	SW	
Allerton	Wayne	.....	....	72.4	.....	95	22	49	16	34	1.79	.....	.40	....	10	23	7	1	NW	
Atlantic	Cass	1,164	13	70.4	- 3.3	102	21	45	16	44	3.91	- .44	1.68	...	9	8	14	9	S	
Bedford	Taylor	.....	6	71.2	- 2.7	92	0	44	17	36	4.96	- .64	2.67	..	10	17	9	5	SE	
Bonaparte	Van Buren	.....	12	72.9	- 3.5	98	22	50	16,24	36	2.91	- .79	.75	....	7	....	....	....	.....	
Burlington	Des Moines	544	8	73.6	.....	95	22	54	7	29	2.26	.....	.84	...	7	21	5	5	SW, NW	
Chariton	Lucas	1,042	9	70.6	- 4.5	94	27	49	16	33	1.55	- 4.63	.45	....	4	24	4	3	NW	
Clarinda	Page	1,009	14	72.0	- 4.3	98	27	49	16	35	3.44	- 1.24	.55	....	10	21	3	7	NE	
CollegeSprings (a)	Page	.....	12	71.5	- 3.9	90	21,27	51	16	30	5.85	† .22	2.88	....	7	17	14	0	SE	
Columbus Jct	Louisa	595	5	71.8	- 3.6	94	22	51	16	27	1.27	- 2.91	.70	....	6	26	5	0	NE	
Corning (a)	Adams	1,117	12	70.2	- 4.3	91	21	49	5	35	3.63	- .84	1.05	....	10	16	15	0	NW	
Corydon	Wayne	1,101	11	73.4	- 3.4	94	27	51	16	36	1.03	- 3.57	.41	....	7	17	9	5	.....	
Creston	Union	.....	....	70.4	..	93	27	48	15	38	1.88	.....	.76	....	10	19	7	5	.....	
Cumberland	Cass	.....	....	.....	.....	.....	.....	.....	.....	.....	3.17	- 2.00	1.01	....	8	22	6	3	S	
Earlham	Madison	.....	....	69.2	.....	91	21	43	24	38	2.28	.....	1.00	....	9	22	6	3	NW	
Elliott	Montgomery	.....	....	72.8	.....	98	11	50	16	44	3.66	.....	1.05	....	9	13	13	0	NW	
Ft. Madison	Lee	516	53	.....	.....	.....	.....	.....	.....	.....	2.16	- 1.95	.88	....	4	12	11	8	S	
Glenwood	Mills	.....	17	70.7	- 6.3	88	21	53	15	27	4.91	† 1.25	1.30	....	6	5	25	1	NW	
Greenfield	Adair	.....	13	72.1	- 2.5	95	27	52	5,16,23	41	3.45	- 1.44	1.20	....	12	22	6	3	S	
Hancock	Pottawattamie	.....	....	70.8	.....	91	27	50	16	31	3.48	.....	.86	...	8	22	7	2	.....	
Hopeville	Clarke	..	13	72.8	- 2.1	94	12,21,27	52	16	32	3.01	- 1.61	.62	....	11	8	22	1	.....	
Indianola	Warren	989		72.0	- 3.6	93	12,27	52	17	33	4.09	† .45	2.40	....	7	24	3	4	S	
Keokuk	Lee	614	35	74.6	- 2.3	97	22	57	16	29	1.46	- 2.64	.78	...	6	18	12	1	SW	
Keosauqua	Van Buren	644	12	73.1	- 3.7	97	23	48	24	41	3.20	- .77	.71		8	8	17	6	.....	
Knoxville	Marion	920	10	71.8	- 4.4	92	11,27	51	7,24	34	3.47	- .99	1.00		7	15	9	7	NW	
Lacona	Warren		....	.....	.....	.....	.....	.....	.....	.....	2.48	- 2.39	.75	...	12	11	15	5	.....	
Lenox	Taylor	1,250	9	71.2	- 3.5	89	21,27	52	16	27	4.14	- 1.08	.72	...	12	21	9	1	N	
Leon	Decatur	1,120	....	72.1	.....	92	27	51	16	31	2.03	.....	.51	....	11	10	9	3	SE	
Massena	Cass	..	..	71.9	.....	96	27	48	16	41	3.35	.....	.70	....	9	17	14	0	NW	
Mount Ayr	Ringgold	1,236	10	73.0	- 2.7	96	19,21	52	6,16	34	2.82	- 2.29	1.10		11	9	20	2	NW	
Mt. Pleasant	Henry	729	22	73.6	- 1.7	97	22	51	7,17	33	1.89	- 1.85	.61	....	7	13	15	3	SW	
Omaha, Neb	Douglas	1,105	34	72.6	- 3.6	90	27	57	17	24	2.85	- 1.90	.88	....	9	13	13	6	SE	
Oskaloosa	Mahaska	843	20	71.0	- 4.4	92	27	49	16	31	2.33	- 1.72	.85		9	24	2	5	NW	
Ottumwa (a)	Wapello	649	10	73.4	- 3.4	94	10,22,27	53	16,18	37	1.32	- 2.97	.73	....	4	21	9	1	.....	
Pacific Junction	Mills	960	7	70.2	- 5.1	90	21	50	16,17,30	33	5.05	† .48	1.45		10	14	14	3	S	
Pella	Marion	.....	....	73.4	.....	95	21,27	52	16	35	3.19	.....	1.16	....	11	18	13	0	SE	
St. Charles	Madison	1,070	4	71.4	.....	91	10,11,27	54	6,16,18	29	3.82	.....	1.56	....	10	19	11	1	NW	
Sigourney	Keokuk	877	7	72.6	- 5.0	94	22	50	16	35	2.49	- 2.19	1.00	....	8		....	....	NW	
Stockport	Van Buren	.....	....	72.2	.....	94	22	51	7,24	33	2.06	.....	.70	...	8	24	4	3	NW	
Thurman	Fremont	.....	8	71.4	- 5.1	92	21	47	16	32	3.83	- 1.60	1.38	..	7	13	13	5	NW	
Wapello	Louisa	588	6	72.2	- 5.2	92	21	54	24	28	1.72	- 1.37	.70	....	8	19	12	0	W	
Washington	Washington	769	23	72.0	- 3.6	92	22	52	7	32	3.19	- .85	2.18	....	6	..	....	..	NW	
Winterset	Madison	1,129	13	72.2	- 2.1	93	11	53	16,17	32	5.48	- .45	1.65		13	15	8	8	NW	
Woodburn	Clarke	961	....	69.8	...	91	27	44	16,17	38	2.29	- 3.12	.90	....	7	18	10	3	NW	
Average		.....	....	71.9	- 3.8	93.5	.....	50.5	.....	33.7	3.00	- 1.62	.....	...	8	17	11	3	NW	
Average for State		.....	....	70.9	- 3.5	92.6	.....	48.8	.....	34.6	3.04	- 1.31	.....	..	8	18	10	3	NW	

s Above normal † Received too late to be computed with means. a. One day missing; b. two days, etc

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR JULY, 1906.

STATIONS.		DATE																															MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max..	89	88	81	82	84	85	86	87	90	93	92	93	90	87	80	84	82	82	82	88	93	88	85	90	90	89	97	88	89	87	84	87.3
	Min ..	58	61	59	56	55	61	63	65	57	64	62	64	65	63	59	50	53	53	65	61	63	64	54	53	58	56	63	65	62	57	61	59.6
Albia*....	Max..	83	79	73	80	76	75	78	82	86	87	88	89	81	84	76	80	76	80	82	85	89	91	80	82	85	85	90	85	86	83	83	82.6
	Min ..	64	62	59	57	58	51	53	56	58	65	65	68	64	64	65	61	51	54	64	65	64	64	56	64	60	58	60	65	62	57	60	60.2
Algona....	Max..	77	79	78	81	80	78	82	83	87	91	91	86	84	75	70	77	76	74	84	89	90	80	89	84	80	84	87	80	83	83	79	82.0
	Min ..	59	61	58	58	55	56	59	52	62	62	62	66	61	63	53	46	49	56	65	59	61	65	52	52	60	60	59	62	62	59	59	58.1
Allerton .	Max..	84	81	75	81	78	79	82	85	89	91	89	91	89	89	75	82	78	84	79	88	93	95	82	88	89	86	93	85	87	88	86	85.2
	Min ..	65	63	59	55	56	5.	58	64	56	64	63	65	65	64	64	49	54	54	66	61	65	62	56	54	58	60	63	65	63	59	62	59.5
Alta*.....	Max..	78	70	77	80	82	76	79	84	87	90	92	85	84	74	68	79	77	75	84	87	91	79	76	85	83	84	88	80	82	83	82	81.3
	Min ..	59	57	56	59	56	54	51	54	53	61	62	66	62	63	52	49	50	53	64	62	61	67	51	53	65	60	61	61	62	54	63	58.2
Alton. ...	Max..	83	75	80	80	80	78	77	84	85	89	89	84	88	76	69	76	75	76	85	87	89	76	77	84	86	85	89	80	80	84	84	81.7
	Min ..	46	55	56	55	60	54	52	51	54	55	57	64	67	56	53	45	48	51	64	58	56	64	50	50	65	55	62	60	61	48	54	55.4
Amana....	Max..	80	77	73	81	75	78	80	85	88	90	91	91	85	87	75	80	78	81	83	89	92	91	81	85	90	86	91	85	86	82	81	83.7
	Min ..	65	63	61	59	57	61	52	56	60	59	63	62	67	63	60	47	55	51	71	60	61	60	56	50	55	58	55	57	64	57	59	59.0
Ames	Max..	80	77	81	83	78	77	79	85	88	93	92	90	88	86	76	77	79	76	79	88	93	86	82	86	81	86	89	82	86	84	75	83.3
	Min ..	64	62	59	58	55	52	54	51	62	56	60	64	64	61	59	45	55	54	68	59	60	62	53	47	57	55	58	65	62	55	60	57.9
Atlantic .	Max..	83	77	80	83	78	77	83	87	90	93	93	92	87	86	76	77	78	73	80	89	102	84	84	88	86	88	94	82	87	89	78	84.8
	Min ..	59	61	66	53	49	49	48	50	48	53	58	60	60	61	58	45	50	60	67	57	58	60	49	48	62	53	62	65	60	49	59	56.0
Baxter . .	Max..	80	78	77	82	80	78	79	84	87	90	90	90	86	86	74	79	78	76	76	87	90	89	80	85	85	85	90	81	84	83	74	82.7
	Min ..	62	61	57	56	55	50	55	54	56	60	62	64	64	63	60	46	52	50	68	59	61	60	54	49	57	56	55	66	60	56	59	57.7
Bedford ..	Max..	87	75	78	81	78	77	81	87	90	92	90	92	90	87	89	76	80	79	81	75	85	91	86	83	86	80	85	91	84	86	91	78	83.8
	Min ..	62	60	58	57	53	51	54	54	54	59	61	61	64	62	61	47	44	54	64	60	63	62	78	55	55	57	64	64	60	55	61	58.5
Belle Pl'e	Max..	82	76	83	79	76	76	84	85	85	91	91	90	85	86	76	80	80	82	78	86	91	91	82	83	85	85	88	83	85	83	79	83.4
	Min ..	62	62	60	59	56	52	56	56	58	60	62	64	63	65	65	48	54	54	65	62	62	62	55	51	59	58	57	62	63	56	60	58.9
Bonapar'e	Max..	83	77	73	81	77	77	79	84	89	90	92	92	87	88	77	81	79	86	92	90	93	98	82	84	89	91	94	90	86	86	87	85.6
	Min ..	64	61	56	58	57	58	51	53	55	63	62	63	66	64	66	50	57	52	70	69	65	63	51	50	59	63	58	66	63	62	69	60.2
Boone* ..	Max.	82	76	79	83	78	77	78	85	85	91	91	87	86	84	73	74	72	75	78	88	91	83	81	85	83	86	90	81	85	84	73	82.4
	Min ..	61	62	60	59	56	54	56	59	62	64	66	67	68	66	58	52	56	58	64	61	65	66	55	56	61	61	64	68	63	58	62	60.8
Britt. ...	Max..	77	81	77	81	80	81	81	84	87	90	92	92	86	78	71	79	76	83	85	88	89	85	77	82	81	82	87	78	83	78	80	82.8
	Min ..	59	61	57	56	53	54	47	53	59	62	63	61	61	62	54	46	47	53	64	59	61	63	50	50	61	58	63	60	60	52	54	55.9
Burlng'n*	Max..	85	76	74	82	76	77	78	84	88	88	90	91	89	88	78	79	79	84	90	87	90	95	89	82	89	89	87	85	87	90	84	84.5
	Min ..	64	62	62	59	60	56	54	56	62	65	66	67	67	66	68	58	58	55	66	71	68	66	59	60	62	65	62	66	63	63	62	62.6
Carroll* ..	Max..	82	73	80	82	78	77	79	86	88	90	91	87	86	83	74	75	79	73	83	87	92	82	78	85	81	86	91	83	85	84	78	82.5
	Min ..	59	59	56	55	53	52	46	49	55	57	57	63	62	59	52	49	49	50	64	64	60	65	52	48	63	59	60	64	60	60	62	58.5
Cedar R*.	Max..	83	74	76	84	78	80	85	86	90	94	94	91	87	88	76	81	81	84	82	92	95	94	86	88	89	87	94	84	89	85	82	85.8
	Min ..	65	63	62	60	61	54	55	59	63	62	54	66	67	66	66	52	54	55	59	63	64	65	57	51	56	60	59	64	65	60	60	60.0
Chariton .	Max..	81	78	75	80	76	76	79	83	87	88	89	89	86	86	76	80	76	79	77	86	92	90	80	86	88	85	94	84	86	88	81	83.2
	Min ..	63	62	56	56	56	51	53	55	54	56	62	63	63	63	63	49	53	51	60	59	63	61	54	54	57	58	64	65	61	57	59	58.1
Charles C.	Max..	76	70	77	79	76	75	78	82	86	89	89	90	84	81	69	75	74	76	80	87	88	79	77	81	82	80	86	78	82	80	78	80.1
	Min ..	60	60	60	67	51	50	49	54	59	58	59	63	62	63	59	49	49	52	64	62	63	64	53	51	56	57	56	63	59	54	59	57.1
Clarinda*	Max..	91	74	79	82	80	79	83	87	91	92	93	93	88	90	76	83	81	80	77	86	95	89	85	90	89	88	93	82	80	82	75	85.6
	Min ..	61	63	57	56	53	52	55	54	53	56	60	61	65	61	60	49	56	63	63	60	62	63	58	54	58	60	68	65	60	58	58	58.3
Clear L ..	Max..	78	75	80	80	79	74	79	85	87	92	93	85	85	79	74	79	78	77	82	89	90	80	80	91	80	84	90	89	83	80	80	82.5
	Min ..	62	58	59	57	54	56	51	57	67	66	60	64	66	64	55	63	58	58	63	62	74	64	54	53	60	60	60	62	63	59	60	59.9
Clinton...	Max..	83	76	79	85	77	79	79	86	90	93	89	92	88	90	81	79	80	84	91	89	92	94	77	82	86	85	88	85	85	83	86	84.9
	Min ..	63	60	64	56	54	56	49	52	57	60	68	68	64	63	66	58	60	52	69	63	64	61	57	52	53	59	58	64	62	59	59	59.7
Col. Spgs.	Max..	85	..	78	83	76	76	79	81	86	89	88	88	84	86	75	80	75	80	81	83	90	85	80	86	85	83	90	80	78	85	75	82.8
	Min ..	62	62	58	58	54	58	58	64	66	64	63	63	64	64	60	51	54	59	67	63	68	65	65	64	64	68	65	68	62	63	61	60.7
Colum. J.	Max..	91	79	74	83	76	78	80	84	88	89	92	92	78	91	70	80	80	85	89	90	92	94	80	84	84	85	88	84	85	84	85	84.5
	Min ..	64	62	62	58	56	62	53	54	53	58	67	66	54	65	64	51	57	56	66	56	68	65	56	58	58	56	55	61	64	63	60	59.0
Corning ..	Max..	84	72	78	79	77	74	81	83	90	89	88	88	86	86	75	81	78	79	77	86	91	85	79	84	86	85	89	79	84	84	..	82.6
	Min ..	63	60	58	60	49	52	52	54	56	60	61	60	59	62	59	50	57	57	56	59	61	65	54	54	60	57	65	65	61	52	..	57.9
Corydon..	Max..	85	82	76	83	76	75	78	86	88	88	88	90	86	85	74	80	81	81	77	89	93	93	85	89	87	88	94	88	88	91	81	84.7
	Min ..	64	64	58	52	57	58	54	56	59	65	63	66	64	64	65	51	54	53	67	64	65	62	55	53	59	60	64	68	62	59	62	60.1
Creston*	Max..	85	74	79	82	78	77	83	85	87	89	90	88	87	88	76	79	78	76	76	87	92	88	83	86	85	87	93	88	82	89	76	83.8
	Min ..	61	65	60	54	55	55	51	51	51	60	60	62	64	61	60	48	49	53	60	60	60	60	55	52	57	57	65	65	60	51	54	57.2
Davenpo't	Max..	81	72	76	82	75	76	78	83	87	91	89	91	86	87	77	79	78	83	89	89	94	93	80	81	86	87	88	84	85	85	84	83.7
	Min ..	65	62	62	61	56	56	55	60	64	67	69	68	66	68	61	54	59	59	74	70	71	69	58	58	62	67	65	65	64	63	64	63.8
Decorah..	Max..	78	74	78	80	78	79	82	84	90	87	92	92	86	86	77	94	80	83	83	89	92	87	79	85	82	82	88	80	83	82	87	83.9
	Min ..	67	58	60	58	58	48	48	54	57	60	61	63	67	69	69	68	51	53	63	62	61	67	56	52	54	62	52	67	61	56	60	59.3
Delaware.	Max..	77	72	74	80	72	75	80	82	86	89	88	86	89	88	74	76	78	82	75	88	91	90	78	85	84	88	88	78	83	80	75	81.3
	Min ..	63	60	59	56	50	49	52	55	59	60	62	64	63	65	62	49	51	64	68	60	64	64	56	52	55	59	60	64	61	55	59	58.7
Denison ..	Max..	83	73	78	82	78	77	80	85	87	90	91	89	86	78	71	80	79	74	82	87	91	83	79	85	84	86	91	81	84	86	81	82.6
	Min ..	60	61	59	56	51	51	44	47	52	54	55	64	64	59	56	46	50	50	65	61	59	63	50	49	63	60	63	76	59	48	61	56.6
Des M....	Max.	82	77	79	82	76	76	77	84	87	89	90	88	86	84	78	75	77	77	77	84	89	87	80	84	81	86	91	81	86	85	75	82.1
	Min ..	61	61	60	59	59	58	54	57	59	63	66	67	66	66	58	53	56	56	67	61	65	65	58	52	60	60	64	68	65	58	63	60.7
De Soto ..	Max..	80	74	78	79	75	74	79	84	87	88	90	89	86	85	75	78	77	76	79	85	89	86	80	86	80	84	90	84	85	84	75	81.6
	Min ..	63	64	60	58	55	54	51	54	55	60	63	67	64	62	60	50	55	52	69	61	62	62	55	56	47	58	63	70	64	55	61	59.1
Dows. ...	Max.	78	76	77	..	81	75	79	84	86	90	91	85	86	81	70	74	76	76	81	89	90	81	78	85	85	83	90	78	82	81	75	81.3
	Min .	62	60	58	..	54	51	46	48	56	57	59	62	60	59	55	44	48	50	65	57	58	63	52	44	57	55	52	63	60	51	56	55.4
Dubuque.	Max..	75	74	77	79	75	76	80	83	85	90	86	89	86	86	75	78	76	81	80	87	91	90	78	83	86	82	88	78	84	80	84	84.2
	Min ..	65	60	62	59	55	54	54	59	63	66	62	68	68	67	68	54	57	57	69	66	65	66	59	57	60	65	63	66	65	61	62	62.2
Earlham .	Max..	82	75	77	81	76	75	80	83	87	90	86	88	86	86	74	78	77	75	76	85	91	85	81	86	83	85	90	83	87	84	88	82.6
	Min ..	61	62	59	52	49	46	47	48	49	53	54	58	61	59	57	48	49	45	67	57	57	69	57	43	54	55	60	55	64	67	62	55.7
Elkader ..	Max..	83	76	82	84	79	81	85	88	93	92	92	93	89	84	76	69	82	88	88	92	94	89	85	88	86	86	92	84	86	84	85	85.3
	Min ..	57	57	57	55	49	47	48	52	55	58	60	61	66	62	63	47	50	52	64	57	61	62	53	50	50	59	56	65	63	53	59	56.4
Elliott....	Max..	86	76	79	83	81	81	86	93	97	95	98	97	87	90	75	86	88	79	89	92	97	86	80	92	90	87	93	87	83	87	80	87.1
	Min ..	62	63	58	57	53	53	53	54	58	58	58	63	66	63	59	50	52	62	68	62	62	64	52	53	61	59	64	66	61	54	62	58.4
Esth'rv'l*	Max	76	72	72	82	78	76	77	84	86	91	91	85	82	71	65	74	76	74	84	88	90	76	77	84	82	85	88	80	83	83	80	80.6
	Min ..	57	57	54	57	53	56	48	58	60	60	59	61	60	60	50	49	49	45	48	56	56	64	49	48	54	58	55	60	60	58	58	55.2
Fayette...	Max..	78	70	78	72	74	70	71	81	86	88	89	89	89	87	..	78	75	85	82	87	89	84	80	84	83	84	89	82	84	79	82	81.8
	Min ..	62	57	58	51	48	46	48	47	60	60	58	62	61	65	..	47	50	53	58	55	58	62	50	50	52	53	55	60	54	60	57	55.2
ForestCy*	Max..	77	75	78	86	80	77	81	85	88	93	94	84	87	79	70	80	78	76	83	89	90	79	82	85	81	83	88	80	82	81	78	82.2
	Min ..	59	61	58	58	55	52	54	53	58	63	62	65	62	63	53	47	49	54	59	60	61	66	52	54	57	60	60	61	61	57	59	57.8
F. Dodge*	Max.	79	72	76	80	79	74	78	83	90	95	95	90	89	89	81	76	79	75	83	90	93	81	81	..	87	85	90	80	83	84	80	83.0
	Min ..	62	64	59	58	58	51	52	53	53	61	66	66	64	63	55	51	52	56	61	64	63	65	52	50	..	56	60	65	63	61	65	59.1
Galva	Max..	80	78	76	81	80	81	79	84	87	89	91	86	86	80	69	78	76	76	85	87	89	85	79	85	85	84	89	84	82	84	85	82.3
	Min ..	58	58	55	51	53	52	48	60	65	69	61	61	57	58	52	48	48	47	65	59	55	65	48	48	62	68	58	60	60	45	50	55.4
Glenwo'd	Max..	83	77	76	80	77	75	77	80	85	86	87	85	85	82	78	77	75	76	81	83	88	85	77	83	82	84	87	83	80	82	77	81.0
	Min ..	61	61	57	60	56	56	55	58	60	59	64	64	61	66	53	55	56	59	70	62	64	67	56	59	68	61	66	65	64	54	63	60.4
Grand M.	Max..	79	70	77	79	75	77	80	82	86	87	88	88	83	84	73	76	77	79	76	86	88	86	77	82	83	82	85	80	82	81	78	80.8
	Min ..	64	58	59	56	52	55	50	58	59	64	62	64	66	64	61	50	51	55	63	65	65	65	55	56	58	65	60	65	62	56	61	54.4
Grene...	Max..	81	73	79	83	80	80	82	88	91	91	93	94	83	82	73	74	78	78	82	90	92	81	81	87	80	83	90	84	84	82	79	83.3
	Min ..	59	60	59	57	52	50	50	52	59	57	58	62	61	63	58	48	48	54	63	60	63	59	52	51	56	56	57	64	60	55	59	56.6
Greenfield. ..	Max..	83	77	80	81	76	78	84	90	91	94	94	90	86	90	80	77	80	81	81	88	91	94	82	90	85	89	95	89	89	89	83	85.7
	Min ..	62	60	57	57	52	53	53	57	61	66	65	60	60	65	62	52	53	55	62	64	64	66	52	56	62	58	65	61	60	55	58	58.5
Grinnell .	Max..	79	77	76	81	77	76	79	83	87	89	91	89	86	86	74	77	77	78	75	87	89	88	79	84	85	84	90	83	84	83	77	82.2
	Min ..	60	60	58	56	55	50	53	52	57	59	60	65	64	62	62	45	51	50	67	59	63	61	52	59	57	55	56	65	60	63	57	57.8
Grundy C	Max.	80	77	77	81	79	78	81	87	92	94	92	92	90	88	74	76	76	78	78	88	90	86	78	84	85	84	91	80	85	80	78	83.2
	Min ..	65	63	58	58	54	50	54	60	68	65	68	70	70	69	66	56	60	60	70	70	78	70	60	60	65	65	68	70	62	61	64	63.2
Guthrie C	Max..	82	77	79	80	78	77	81	87	88	91	92	89	86	83	78	77	81	81	82	87	94	93	79	87	87	86	91	90	85	86	83	84.4
	Min ..	63	62	60	56	52	50	49	51	54	58	62	84	64	64	59	49	53	51	69	60	60	64	54	49	58	60	62	68	62	50	60	57.9
Hampton	Max..	82	77	80	85	83	81	86	88	90	91	91	88	89	81	72	76	81	78	82	93	94	81	83	83	79	84	90	81	84	84	76	83.6
	Min ..	64	63	60	58	55	52	53	56	63	65	61	63	62	64	57	50	51	54	65	64	65	67	54	53	61	60	60	64	61	57	60	59.4
Hancock .	Max..	85	73	78	81	78	76	81	84	88	90	90	90	84	84	73	80	75	75	81	86	90	82	77	85	85	85	91	80	83	85	78	82.4
	Min ..	59	62	56	56	55	56	52	55	55	59	64	65	64	64	60	50	53	56	67	61	64	67	54	56	62	60	65	66	62	54	54	59.1
Hamontown.	Max	75	71	76	78	76	72	80	84	87	88	91	86	88	77	68	76	76	75	84	87	89	79	80	83	80	80	86	84	80	80	76	80.2
	Min ..	60	59	58	57	52	49	48	53	57	68	58	63	61	60	53	46	46	48	64	59	62	51	56	48	61	60	54	52	59	52	57	55.8
Harlan. ..	Max..	84	78	77	81	77	76	80	84	87	89	91	89	85	79	71	77	78	72	84	87	89	79	81	85	85	86	90	80	82	85	79	82.0
	Min..	60	59	56	57	53	54	49	56	51	56	58	61	61	62	59	48	53	51	65	63	59	62	52	51	59	57	63	65	62	49	64	57.1

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JULY, 1906—CONTINUED

STATIONS.		DATE 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	1	31	MEAN.
Hopeville	Max.	83	75	76	83	73	77	83	88	91	91	93	94	87	89	78	80	77	80	76	88	94	89	81	89	88	88	94	82	87		81	84.6
	Min..	62	62	59	57	55	54	56	57	59	64	64	65	64	65	60	52	54	54	66	62	66	65	55	55	60	59	64	65	62		61	60.0
Ida Grv.	Max..	83	75	78	82	79	78	83	88	90	94	95	91	87	77	71	91	80	72	87	89	94	81	81	89	86	88	92	84	85	87	84	84.5
	Min ..	51	59	56	58	51	51	48	45	51	52	54	63	60	58	54	49	48	46	65	57	54	64	59	46	64	58	61	63	62	45	62	55.3
Indep'ce	Max..	88	72	78	80	75	76	80	82	86	91	90	87	85	83	81	74	76	78	78	85	88	88	81	82	82	82	87	78	83	80	79	81.6
	Min ..	62	61	59	57	51	50	49	49	55	56	60	64	65	64	62	48	51	51	66	59	62	61	58	51	58	56	55	60	62	57	59	57.0
Indian'la	Max..	82	79	78	81	77	75	80	84	89	91	90	98	85	81	74	75	74	79	77	86	91	87	91	86	84	86	93	83	86	86	73	83.1
	Min ..	63	63	59	60	56	53	58	55	57	68	67	64	65	63	61	60	52	55	67	67	61	65	64	53	59	59	61	68	63	58	61	60.8
Inwood..	Max..	74	74	80	82	78	79	80	87	89	90	90	84	85	75	70	77	72	76	86	86	89	79	78	84	83	86	89	85	80	84	83	82.2
	Min ..	55	52	52	52	57	54	52	53	57	58	59	66	55	64	50	67	48	58	60	58	59	54	45	52	64	58	61	56	54	50	65	55.5
Iowa C*	Max..	83	79	77	85	81	83	81	86	88	94	92	95	90	90	76	81	81	83	84	91	96	91	85	90	89	89	95	86	88	85	84	86.4
	Min ..	64	63	61	58	55	54	52	56	57	59	65	64	67	65	67	49	54	52	60	64	63	62	57	51	56	59	57	61	64	59	58	59.1
Iowa F*	Max..	80	78	78	80	78	78	80	85	88	91	92	88	85	84	72	75	78	77	80	89	91	84	78	85	81	83	89	78	84	80	78	82.2
	Min ..	57	62	57	56	54	49	49	49	55	54	55	61	60	61	57	45	48	51	54	59	59	60	53	46	49	55	53	55	59	53	56	54.5
Jefferson	Max..	83	75	79	83	78	78	80	85	89	91	92	90	85	81	73	76	73	78	87	90	88	80	84	80	81	84	87	85	86	82	75	82.4
	Min ..	63	61	59	57	55	53	50	53	52	59	61	64	63	62	52	54	55	63	60	61	64	52	50	58	51	60	61	62	57	60	62	57.8
Keokuk	Max..	86	79	75	81	77	78	78	85	89	88	88	91	85	89	82	82	79	88	92	90	92	97	81	84	87	90	90	88	86	87	87	85.5
	Min ..	65	75	61	60	59	57	59	58	61	68	68	67	68	66	68	57	61	57	71	72	72	68	60	57	59	69	64	69	4	65	62	63.8
Keosauqua.*	Max..	85	81	76	87	78	78	82	86	91	90	93	92	88	91	77	84	80	88	93	93	96	97	84	89	90	93	94	90	88	89	89	87.5
	Min ..	65	60	55	58	56	53	51	53	57	62	63	62	61	63	66	50	55	50	63	69	65	62	58	48	54	60	57	65	63	60	57	58.7
Knoxville..	Max..	80	82	75	81	77	77	80	84	83	90	92	91	86	86	75	80	77	81	78	88	91	89	79	85	87	85	92	83	85	85	79	83.5
	Min ..	63	63	57	59	58	54	51	55	59	61	62	66	65	64	64	52	57	52	70	62	64	65	57	51	61	59	61	67	67	57	59	60.1
Larrabee	Max..	81	76	82	85	84	82	85	89	93	96	93	87	89	78	74	80	85	81	81	89	95	82	82	85	89	93	84	..	83	84	87	85.1
	Min ..	59	57	54	59	56	56	67	68	60	68	62	65	57	62	50	55	49	51	66	58	62	65	48	61	60	61	50	..	58	52	63	58.6
Le Mars.	Max..	79	78	79	83	81	79	79	86	88	90	91	82	85	77	70	79	77	77	85	87	89	83	77	86	88	86	90	82	82	82	85	82.3
	Min ..	57	57	58	57	55	52	50	50	54	56	57	64	57	61	53	49	49	51	65	57	57	67	48	50	67	60	62	60	59	48	64	56.3
Lenox...	Max..	83	77	77	78	75	74	80	83	85	88	88	86	82	86	75	78	77	78	78	83	89	86	82	85	88	86	89	86	85	84	80	82.1
	Min ..	61	61	59	57	56	53	56	59	59	65	63	65	64	65	60	62	53	56	65	63	65	67	55	58	62	60	65	65	60	58	62	60.3
Leon	Max..	84	84	78	80	78	80	82	84	86	87	89	89	85	85	77	79	78	82	77	86	90	91	82	86	87	87	92	82	87	86	81	83.9
	Min ..	63	62	60	58	52	55	58	57	59	64	64	65	64	65	63	51	55	54	66	63	65	64	56	55	59	59	63	68	62	61	61	60.3
Little Sioux	Max..	85	76	78	84	81	80	81	85	89	91	90	85	87	84	74	81	78	77	85	87	90	87	80	85	85	86	90	85	82	86	81	83.7
	Min ..	60	59	56	56	55	57	50	53	55	60	60	68	59	63	55	54	52	58	68	60	59	67	48	55	58	61	66	61	59	52	65	58.4
Logan...	Max..	88	76	79	85	85	88	84	88	91	93	94	91	88	80	79	83	83	74	84	89	92	88	82	87	89	87	92	80	83	87	82	85.2
	Min ..	60	61	57	57	55	54	49	52	52	57	59	62	61	62	52	49	52	53	56	59	61	66	52	52	60	58	63	63	60	50	63	57.0
Marshall'n*	Max..	82	80	78	84	80	80	80	85	90	93	94	93	85	87	75	80	78	81	79	89	92	89	82	86	88	86	89	85	80	84	76	84.2
	Min ..	62	61	58	57	54	49	56	57	57	58	62	63	63	62	61	46	51	50	57	59	61	61	52	49	54	55	55	61	60	54	58	56.9
Mason C.	Max..	78	76	78	81	78	78	80	87	88	91	91	87	86	82	75	73	80	79	83	87	90	80	80	84	80	83	87	78	84	83	80	82.1
	Min ..	63	56	59	61	59	57	58	59	65	68	64	66	67	65	58	56	50	57	68	68	70	67	57	54	65	65	60	60	60	57	60	60.9
Massena	Max	86	87	88	84	80	79	84	88	91	95	92	93	89	90	80	82	84	75	82	89	95	82	85	90	85	90	96	90	84	92	86	86.8
	Min ..	56	59	55	60	53	50	50	50	51	55	60	61	62	62	56	48	51	53	66	59	60	63	52	51	63	56	62	64	61	57	60	57.0
Mt. Ayr.	Max..	89	75	80	82	78	78	88	88	88	91	93	89	90	86	74	79	82	81	76	89	96	90	87	90	87	90	94	84	89	91	76	86.0
	Min ..	61	59	58	57	55	52	56	57	58	61	65	66	63	65	60	52	55	54	64	61	66	64	63	56	61	59	64	65	61	60	61	60.0
Mt. Pleasant	Max..	84	81	75	83	79	79	89	85	91	90	92	93	87	90	78	82	78	86	92	89	96	97	84	85	89	90	94	91	86	86	87	86.5
	Min ..	62	62	57	61	56	63	51	55	60	65	65	65	65	64	66	52	51	54	71	69	68	64	55	56	60	64	61	61	63	63	61	60.6
Mt. Vernon.	Max..	82	76	74	86	82	79	83	88	91	96	87	94	91	88	75	80	82	79	81	95	98	89	87	93	85	88	95	95	88	87	79	86.2
	Min ..	62	61	59	59	52	51	56	59	61	63	63	65	66	65	65	53	55	55	70	64	65	66	56	53	59	59	60	65	64	63	58	60.3
N. Hampton	Max..	75	73	76	78	78	74	76	80	89	86	86	86	81	81	72	72	76	76	78	83	86	81	75	80	79	83	84	81	84	82	80	79.7
	Min ..	62	59	63	58	53	52	52	57	58	59	61	62	63	60	59	48	49	49	68	61	63	61	55	54	56	60	58	60	60	55	61	57.9
Newton.	Max..	80	76	74	79	78	76	77	83	87	90	91	90	86	84	75	78	75	78	76	85	90	87	78	84	84	83	90	84	84	82	77	81.9
	Min ..	64	63	67	60	58	55	56	59	62	65	65	68	66	66	64	54	56	56	65	62	65	65	58	57	58	60	64	68	58	59	62	61.5
Northwood	Max..	78	71	78	81	81	74	81	82	87	90	88	89	84	77	70	76	77	80	83	87	89	81	77	81	84	80	85	78	81	81	81	81.0
	Min ..	61	59	58	59	54	49	49	52	61	62	59	62	62	61	54	47	49	50	68	61	61	63	52	50	55	60	56	58	59	56	60	56.8
Odebolt	Max	89	76	80	83	84	84	87	90	95	96	96	87	87	80	73	82	81	79	89	92	97	93	82	90	90	91	94	89	86	90	87	87.1
	Min ..	60	60	56	57	54	60	46	50	56	57	58	65	61	61	54	51	50	51	67	62	60	69	52	51	63	60	61	59	61	50	64	57.4
Ogden...	Max..	83	75	80	83	78	77	79	85	88	92	92	87	87	85	73	73	79	75	79	90	93	87	80	87	83	88	92	85	85	80	79	83.1
	Min ..	63	62	60	58	55	54	56	61	59	59	64	64	62	65	57	50	54	55	67	60	62	65	53	52	59	60	61	67	60	54	61	59.2
Olin	Max..	81	77	73	81	78	73	78	82	85	90	89	88	83	87	77	77	78	82	87	87	90	91	82	82	87	88	86	85	84	87	84	83.0
	Min ..	65	67	60	57	53	52	53	55	56	58	63	64	65	66	67	48	56	51	70	63	62	62	57	49	52	57	58	67	63	55	55	58.8
Omaha Neb.	Max..	86	71	77	81	78	76	79	84	87	89	89	85	88	77	72	76	75	78	82	85	90	79	77	84	85	85	90	80	81	85	78	81.4
	Min ..	66	60	59	62	61	61	57	61	63	67	70	68	64	68	62	59	57	62	70	65	67	68	58	63	65	66	70	67	66	63	65	63.8
Onawa ..	Max..	83	78	79	81	80	78	79	85	88	90	88	86	84	83	75	77	77	83	85	90	89	79	85	84	87	90	87	83	84	83	83	83.0
	Min ..	61	59	57	58	58	57	53	55	58	62	62	66	61	64	57	54	58	55	66	64	61	69	54	55	65	61	66	63	63	55	66	59.9
Osage ...	Max..	79	71	78	81	79	79	80	85	87	87	92	88	88	80	72	72	77	77	82	90	90	79	80	85	81	82	88	77	83	82	78	81.6
	Min ..	56	54	58	57	57	49	50	55	59	59	60	62	61	61	56	47	49	58	62	61	63	64	50	51	56	57	57	62	59	56	60	56.8
Oskaloosa ..	Max..	79	78	72	79	75	76	78	80	86	87	89	89	82	85	74	80	75	80	79	85	89	90	79	84	87	85	92	85	85	84	82	82.3
	Min ..	63	63	62	58	58	54	52	55	59	61	65	67	66	64	66	49	56	52	70	61	63	61	54	50	60	57	61	66	63	58	59	59.8
Ottum'a	Max..	84	80	78	83	81	80	82	85	91	94	93	92	88	78	75	83	79	84	84	89	93	94	82	88	89	87	94	88	87	89	88	85.7
	Min ..	64	65	61	59	59	55	55	57	54	67	66	68	67	66	63	53	57	53	65	..	66	65	59	54	60	63	62	67	63	61	62	61.2
Pacific Jct.	Max..	87	77	77	81	79	77	79	85	86	87	88	87	84	81	73	80	76	77	84	84	90	84	78	84	84	85	89	88	80	84	77	82.2
	Min ..	61	60	56	56	54	54	54	54	53	59	62	64	59	60	60	50	50	57	67	64	60	64	58	55	61	60	65	64	59	50	61	58.2
Pella	Max..	86	84	77	84	81	88	81	85	85	93	93	89	87	86	76	79	81	81	80	91	95	91	84	87	86	88	95	89	88	88	85	85.9
	Min ..	62	67	57	59	58	53	54	59	60	63	66	67	65	66	65	52	55	54	69	63	65	66	56	54	60	59	62	67	63	60	61	60.9
Perry ..	Max..	84	78	79	82	80	78	84	87	91	93	95	93	88	57	75	79	82	79	84	90	95	85	82	89	85	85	93	86	85	85	80	85.1
	Min ..	63	62	60	56	55	53	52	53	56	58	62	65	62	63	59	50	55	52	69	60	61	63	53	50	58	59	62	67	63	54	62	58.6
Plover ..	Max..	88	82	78	83	81	80	83	87	89	92	93	87	83	77	70	82	77	78	82	89	91	79	82	90	82	85	89	80	83	84	80	83.2
	Min ..	58	59	58	57	55	55	58	49	56	56	60	63	61	63	52	49	47	52	64	58	58	63	52	53	63	63	59	62	58	53	56	56.9
Pocahontas.	Max..	79	77	78	83	83	80	81	86	90	94	98	89	85	76	72	80	79	76	86	91	94	80	81	88	81	86	91	81	84	89	82	83.7
	Min ..	59	61	58	57	53	53	51	54	60	60	64	65	61	61	54	50	49	51	65	59	62	66	48	52	63	59	59	61	60	53	62	57.7
Preston.	Max	81	71	73	80	78	75	76	82	87	89	85	88	85	86	78	79	78	81	89	87	90	93	77	88	86	85	88	81	88	80	81	82.4
	Min ..	57	58	59	49	47	50	46	50	55	59	62	60	63	62	63	49	58	48	68	64	60	60	53	49	49	51	57	59	62	60	58	56.2
Redge'y	Max..	81	73	81	82	76	78	82	85	90	91	93	90	88	78	77	80	82	84	91	92	84	87	85	85	86	90	84	92	89	93	85	85.2
	Min ..	63	58	59	57	53	50	53	58	60	61	61	65	65	64	60	49	51	55	64	62	64	66	58	55	57	60	60	66	62	59	60	59.0
Rock R'ds..	Max..	70	70	72	80	82	82	72	90	90	92	88	86	90	86	84	78	76	78	84	88	92	78	80	86	84	88	90	82	84	86	88	83.1
	Min ..	62	54	60	58	70	68	60	60	58	54	60	64	66	58	54	48	54	56	48	60	58	62	54	48	60	58	62	58	58	56	50	58.2
Rockwell C.	Max..	88	79	86	98	85	80	84	90	88	93	93	92	93	85	78	80	80	78	85	92	94	92	80	75	85	78	90	85	85	86	80	85.7
	Min ..	54	51	63	67	54	55	50	54	57	60	64	64	62	63	55	58	50	54	65	62	70	68	65	45	60	60	65	64	65	53	53	59.0
Sac City.	Max..	79	74	77	80	77	75	79	84	87	89	90	86	83	78	71	80	77	76	84	88	92	90	77	85	83	88	89	..	83	82	80	81.9
	Min ..	59	60	57	58	56	55	48	50	55	58	58	62	63	60	59	50	50	49	65	61	59	63	51	50	50	51	60	..	53	52	51	55.8
St.Cha'es	Max..	81	76	76	81	75	75	80	84	88	91	91	90	86	86	71	78	77	76	74	84	90	86	80	85	88	83	91	80	84	85	73	81.9
	Min ..	63	63	59	58	57	54	55	58	60	65	67	68	65	66	60	54	56	54	65	63	67	65	58	58	60	60	63	69	64	59	63	61.0
Sheldon.	Max..	76	72	81	85	83	80	82	89	90	93	94	87	87	82	70	79	81	89	89	89	92	87	78	87	82	87	91	85	84	85	84	87.7
	Min ..	65	52	52	58	54	54	47	49	55	55	59	64	58	54	50	47	49	50	49	58	58	58	50	52	48	57	58	59	58	49	62	54.5
Sibley*..	Max..	75	69	77	80	79	78	78	85	86	91	90	84	84	69	66	73	76	74	86	87	89	75	78	84	81	86	89	78	80	85	82	80.5
	Min ..	54	58	58	55	58	54	47	48	54	56	58	61	55	59	49	46	47	50	54	57	58	61	47	49	53	56	57	58	59	48	52	53.7
Sigour'y	Max..	81	81	76	83	79	80	83	85	88	91	93	92	86	90	79	82	80	85	85	90	93	94	88	86	88	89	93	89	85	87	*5	85.8
	Min ..	62	62	59	57	57	53	52	54	60	62	65	65	66	65	66	50	54	53	67	63	64	62	56	52	55	58	58	64	63	53	60	59.4
Sioux C'r	Max..	76	70	76	79	77	76	76	84	86	89	88	82	85	75	70	75	76	76	85	85	86	79	78	82	83	84	88	79	79	84	83	80.3
	Min ..	56	53	54	58	55	55	53	53	56	60	62	60	61	64	50	50	46	51	65	58	60	65	50	51	65	58	61	58	60	48	63	56.7
Sioux C.	Max..	82	70	78	80	80	76	80	86	88	89	89	80	85	74	71	77	77	76	86	85	89	78	75	84	86	85	88	81	81	83	82	81.3
	Min ..	59	58	55	60	58	57	54	52	66	59	58	67	61	60	54	53	54	60	69	60	61	60	53	54	65	65	69	60	59	52	68	59.4
Stockport ..	Max..	80	77	76	79	76	76	79	81	87	87	90	91	83	87	74	79	75	84	88	88	90	94	80	83	85	88	92	87	84	84	89	83.6
	Min ..	65	63	58	64	58	54	51	54	59	65	65	64	66	65	65	52	57	52	70	71	66	64	58	51	58	64	59	67	65	63	56	60.9

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JULY, 1906--Concluded.

STATIONS.		DATE. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Means.
Thurman	Max..	86	78	79	80	80	77	80	86	85	90	90	86	87	84	78	79	81	79	85	85	92	89	79	86	85	87	91	86	84	88	80	83.8
	Min ..	62	61	57	55	54	53	53	55	54	58	62	64	59	61	62	47	53	57	70	60	62	65	54	54	65	62	64	66	65	52	64	59.0
Tipton..	Max..	83	78	78	86	81	80	83	87	91	95	82	95	90	90	80	83	84	84	87	92	96	95	88	88	88	90	93	88	94	88	83	87.3
	Min ..	65	65	63	66	58	56	56	60	63	64	67	68	68	67	69	55	59	59	78	68	70	69	62	60	62	64	65	70	66	63	69	64.2
Toledo...	Max..	80	77	77	82	78	78	79	84	88	91	91	89	85	88	75	78	78	78	76	87	91	90	81	85	84	85	90	83	85	82	75	82.9
	Min .	64	62	59	58	55	50	57	53	59	60	62	64	64	64	63	48	53	52	69	60	68	62	55	50	61	57	63	66	62	64	60	59.3
Wapello	Max..	78	73	71	67	75	75	74	80	84	85	87	87	83	83	77	78	87	80	87	88	91	89	84	82	84	88	89	84	82	83	81	81.8
	Min ..	64	64	61	60	57	56	55	59	60	63	68	66	67	67	68	59	59	59	70	70	68	64	59	54	59	65	59	69	66	63	60	62.5
Washi'ton	Max..	81	76	74	81	76	77	78	82	85	89	90	90	83	86	76	79	77	82	86	87	91	92	81	82	86	87	90	88	87	84	83	83.4
	Min ..	64	64	58	58	57	53	52	56	60	64	66	66	66	66	62	50	56	55	70	69	67	65	56	54	58	61	58	64	64	60	64	60.7
Washta..	Max..	78	75	78	78	82	78	82	88	90	94	93	91	85	79	72	80	79	75	89	91	94	85	80	89	83	91	93	84	85	85	82	84.3
	Min ..	66	56	54	56	50	50	42	42	50	50	53	52	55	50	50	46	48	45	64	55	52	65	52	62	56	56	60	58	60	48	64	53.5
Waterloo	Max..	82	82	80	84	79	79	82	86	90	93	94	90	87	85	75	79	80	82	78	88	92	89	82	85	85	85	90	80	86	82	79	84.2
	Min ..	63	62	59	59	54	50	51	54	60	60	60	63	64	64	62	49	53	53	59	60	62	64	54	53	55	58	58	60	62	56	52	57.8
Waukee..	Max..	83	77	78	80	75	78	80	86	89	91	90	89	84	88	..	76	78	78	80	85	92	86	79	84	83	85	90	85	84	84	78	82.9
	Min ..	52	63	60	57	53	54	54	56	58	64	65	68	64	66	..	54	56	56	69	61	64	65	54	53	58	58	63	68	64	56	63	59.9
Waverly.	Max..	78	74	77	80	74	74	78	82	86	89	87	87	82	81	72	76	76	78	78	85	88	82	77	82	81	81	87	79	83	79	78	80.4
	Min ..	64	59	60	60	54	52	53	54	59	59	61	65	64	64	61	49	52	52	66	62	63	64	55	52	56	58	57	66	62	56	60	58.7
Webst'r C	Max..	81	87	77	90	85	83	87	88	92	93	99	95	86	91	75	84	81	81	86	92	94	90	82	88	83	86	91	83	87	86	79	86.6
	Min ..	62	61	59	56	54	53	53	50	54	55	61	65	61	61	56	45	50	52	68	59	60	64	52	46	57	58	64	64	60	51	59	56.8
W. Bend.	Max..	80	74	77	80	83	80	84	85	88	94	92	90	83	75	70	78	80	80	87	89	90	77	80	84	82	83	90	79	81	83	83	82.6
	Min ..	60	60	58	57	51	55	48	52	58	57	62	65	60	62	53	48	48	51	65	58	61	63	48	47	60	59	58	60	61	52	57	56.7
Whitten..	Max.	84	76	79	80	82	81	80	87	90	93	93	92	83	84	78	75	75	77	76	86	90	90	79	85	83	82	90	89	82	81	80	83.1
	Min ..	63	62	58	50	50	51	55	53	59	59	62	65	62	63	58	47	48	52	65	60	63	60	53	52	57	55	57	63	58	53	60	57.2
Wilt'n Jct	Max..																																
	Min ..	62	60	60	56	58	52	50	51	59	62	65	65	63	65	52	60	63	55	71	68	66	65	59	54	57	60	66	68	62	60	59	60 4
Wint'rset	Max..	85	81	78	81	80	78	82	87	89	92	93	91	87	85	76	76	78	74	78	86	91	88	81	86	84	88	92	88	86	84	81	84.0
	Min ..	62	64	59	57	55	56	54	57	58	62	66	68	64	65	60	53	53	55	63	62	65	65	54	54	66	59	63	68	63	56	64	60-3
W'odb'rn	Max..	81	78	72	82	76	77	81	84	87	88	90	90	88	89	78	82	70	83	78	86	89	90	82	82	83	81	91	83	86	82	83	83.4
	Min ..	60	62	58	52	51	47	47	47	48	58	57	58	64	59	62	44	50	45	65	56	59	55	54	44	52	54	62	65	62	52	55	55.2
Zearing	Max..	80	78	79	83	79	78	78	83	87	90	91	91	86	83	73	74	77	75	79	87	90	85	80	84	80	84	88	80	83	83	79	82 2
	Min ..	63	63	58	58	53	49	59	62	55	58	60	68	64	61	53	47	52	53	68	60	59	62	54	45	59	58	54	63	61	53	59	57.4

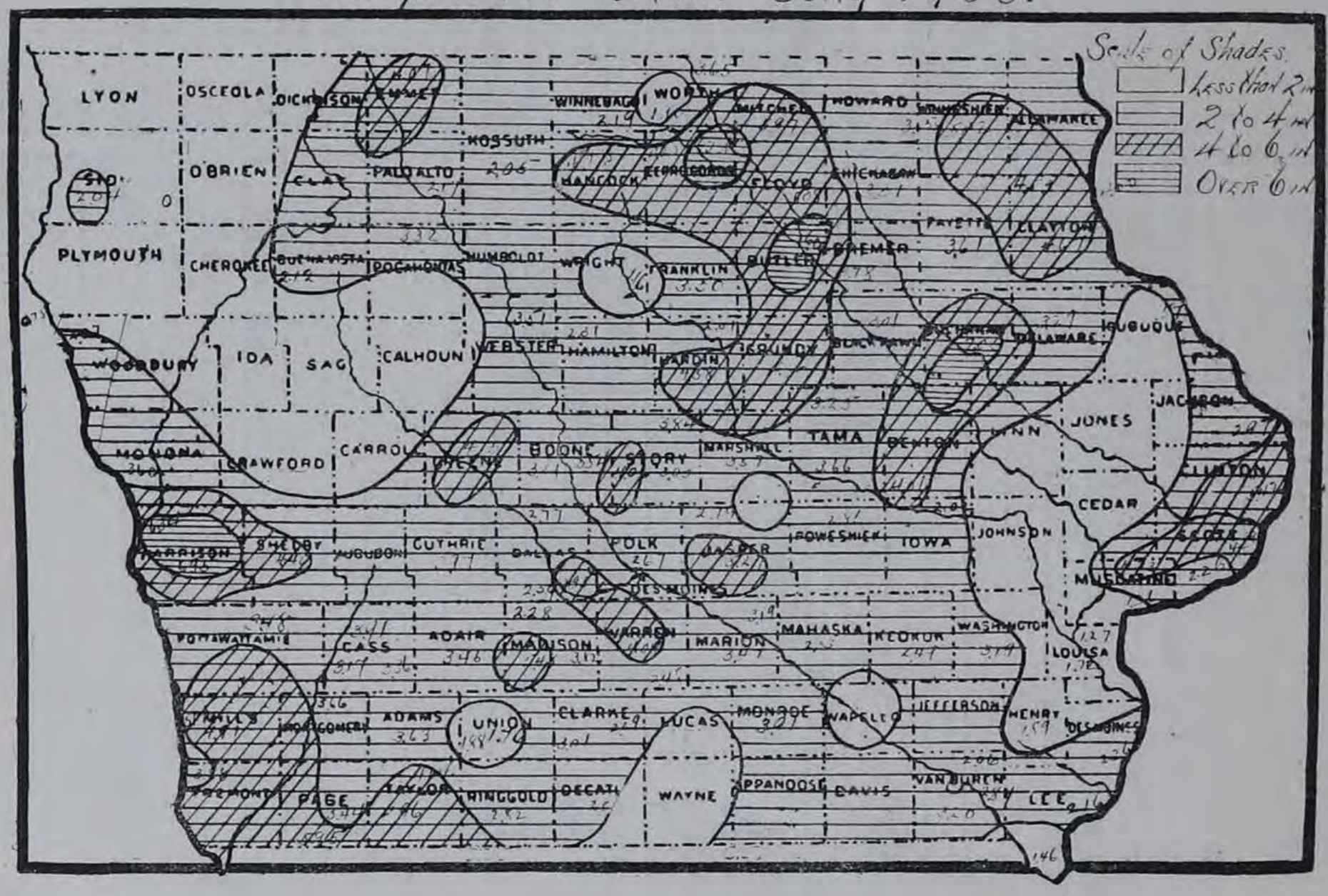
DAILY AND MONTHLY PRECIPITATION FOR JULY, 1906.

STATIONS.	DAY OF MONTH.																													TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	...	.12	..	.10	....	....	....	....	..	....	....	T	....	.18	..	.40	....	.04	.61	...	....	....	....	....	.10		04	...	..	....	.22	1.76
Albia	.38	.01	.35	1 90	.02	....	...	..	....	....	....	....	1.13	....	....	....	.01	....	.04	.01	....	....	....	....	..	T	.06	T	....	....		8.91
Algona	.24	.04	.14	....	..				....	....	T	.52		.0		T	....	.23	.51	..	...	....	....	....	.18		....	.13	....	....	T	2.05
Allerton	.35	.05	.40	..	....	....	....	....	....	.10	....	...	..	.0	T	.09	....	T	.07	....	....	....	..	..	....	.38	.35	....	..	....	.01	1.79
Alta	30		.30	....	T	....	....	....	....	..	..	....	.13	....	.16	....	....	..	.04	....	....	T		....	....	1.17	..	....	....	....	.02	2.12
Alta [near]	T	.24		.02	....	..	....	....	..	..	..	.43	..	.20	....	....	....	....	.06	..	..	.02	...	....	1.59	....	..	....	....	..	.04	2.51
Alton	51	.37			...	....	....	....	...	....	....	T		.47	..	..		.14	....	....	...	T	...	....	.15	....	....	T	..	....	.28	1.80
Amana	.16	.98	.20	.06	.06	....	....		..	....	..	....	.66	.02	...	T	...	....	.02		....	....	....	....	T	T	....	.51	....	....	....	2.02
Ames	.33	.06	....	....	.01	..	....	..	....	..	....	.01	.02	.19	..	.5	....	.01	.05	....	....	....	....	....	15	.94		1.70	....	....	.05	4.06
Atlantic	.37	...		.76	..	....	....	....	....	....	....	.11	....	...	.....	1.08	...	.50	.09	...	.	....	....	....	.15	....	.21	....	....	....	.14	3.91
Baxter	.65	.34	.48	T	....	....	....	..	....	....	....	....	.19	....	....	.17	....	....	.14	....	....	....	..	....	1.	.02	....	.61	....	....	.02	2.79
Bedford	....	.35	.04	.15	....	..	....	....	....	....	....	.31	....	..	....	.57	...	T	2.67	....	....	....	..	....	.08	.03	....	.56	....	....	.20	4.96
Belle Plaine	.40	1.70	.35	.15		....	....	....	..	....	....	20	T	.20	..	.15	...	T	.48	..	..	....	....	....	.12	....	....	.2	....	....	.13	4.01
Bonaparte	.50	.16	.35			....	....		....	.11	....	....	....	.75	....	....	....	....	....	....	....	....	....	....	....	....	.66	.28	....	....	....	2.81
Boone	.10	.10	.01	T	.45	....	....	....	....	....	....	....	.88	....	.46	..	.37	....	.09	.05	....	....	..	....	....	.27	....	.81	T	....	....	3.54
Britt	.72	.05	....	.09	....	..	....	....	..	..	..	1.46	.09	.04	..	.04	....	....	.96	....	....	....	..	....	.06	.02	..	.20	....	....	T	4.73
Buckingham	.17	.05	.46	.14	....	....	....	....	....	....	.10	.21	....	....	....	.09	....	..	.49	....	....	....	....	....	.18	....	....	1.82	....	..	T	8.25
Burlington	.57	.02	.84	.18	....	..	....	....	....	....	....	....	.08	....	....	T	....	....	....	....	....	....	.24	....	....	....	....	....	.33	..	....	2.26
Carroll	..	...	.05	....	.08	....	....	....	....	....	....	....	....	..	.01	....	.14	..	.40	.05	....	....	....	....	T	.66	....	.08	....	....	.05	1.52
Cedar Rapids	.26	.09	.48	.10	.10	....	....	....	....	....	....	.66	....	....	T	....	....	....	T	T	....	....	....	....	....	T	....	.16	.12	....	....	1.97
Chariton	.4	....	.40	....	....	....	....	....	....	....	....	.45	....	T	....	T	....	T	....	....	....	....	....	....	....	.28	....	....	....	....	T	1.56
Charles City	.03	.80	T	.01	....	..	....	....	....	T	....	.45	.01	.90	....	.47	....	.08	.50	....	..	....	....	....	.07	....	.20	1.50	..	....	....	5.03
Clarinda	.95	.4	....		.41	....	....	....	....	....	....	.31	....	....	....	....	.35	..	.05	.05	....	....	....	....	....	.12		.55	....		.24	3.44
Clear Lake	....	.65	.15	T	....	....	....	....	....	T	....	.45	....	..	....	T	....	....	1.30	....	.75	....	....	....	T	....	....	.90	....	..	....	4.20
Clinton	.22	.12	.28	....	..	....	....	..	....	....	....	.88	..	....	..	....	....	....	T	05	..	2.50	....	....	.10	....	....	1.84	..	....	....	5.42
College Springs	1 02			.90	....	....	....	....	....	....	....	2.98	....	....	..	1.06	....	.08	T	....	....	....	....	....	....	.25	..	....	....	....	.3	5.95
Columbus Junct'n	.23	.13	.70	....	....	....	....	....	....	....	....		.05	....	T	T	....	....		.10	....	T	....	....	....		....	.06	....	....	..	1.27
Corning	1.05	.32	.03	T	....	....	..	....	..	....	....	.23	T	....	....	.41	....	.05	T	..	....	....	....	....	....	.21	.59	.39	..		.32	3.63
Corydon	.4	T	.14	..	....	....	....	....	....	....	....	....	....	T	....	.09	....	.01	.04	....	..	....	....	....	....	.24	.10	....	..	....	....	1.03
Creston	.76	.17	T	T	.04	....	....	....	....	..	....	..	T	....	.08	....	.40	....	.07	.01	....	....	....	....	....	.10	.08	.13	....	....	.	1.88
Cumberland	.40	....	.20	.14	....	....	....	....				T	....	....	....	1.01	..	.42	....	....	....	....	....	..	.04	.82	..	....	....	....	.14	3.17
Davenport	....	1 14	.04	.04	....	....	....	....	....	T	..	.01	....	T	T	T	....	T	T	.11	..	.30	....	....			..	1.20	..	....	..	2.26
Decorah	.15	.25	.35	.15	....	....	....	....	....	.05	....	.04	....	.02	..	.05	....		2.8	..	....	.02	....	....	T	T	....	.79	....		.49	5.02
Delaware	....	....	....	.58	....	..	....	....	..	....	....	.18	.22	.24	....	.03	....	.15	.29	....	....	.04	....	....	....	..	..	.85	....	..	..	8.27
Denison	.22	.06	.15	.63	....	....	..	....	....	....	T	.13	....	.03	....	.60	..	T	.10	....	....	....	....	....	.31	....	....	....	....	..	..	1.75
Des Moines	.99	.12	.04	.08	....	....	....	..	..	..	....	....	....	.08	..	.11	....	....	.10	....	....	....	....	....	.16	.14	.25	.20	..	..	T	2.67
De Soto		.05	.02	....	...	....	....	....	....	....	....	.1	....	.04	....	.02	....		.06	....	....	....	....	....	.17	.95	....	....	..	..	.05	2.59
Dows	.07	.26	.26	.03		....	....	..	....	....	....	....	....	T	T	....	....	....	....	.20	T	....	.05	....	....	T	.58	T	....	..	.12	1.16
Dubuque	1.00	.10	....	T	....	....	....	....	....	....	....	.28		.09	....	.16	....	.07	.09	....	..	....	....	....	.06	.43	..	T	T	....	....	1.57
Earlham	....	.46	....	....	....	....	....	....	....	....	T	.50	.2	.25	..	T	.50	....	.85	....	....	....	....	....	....	....	..	1.91	....	..	....	2.28
Elkader	1.05	.37	....	.11	....	..	....	....	....	....	....	....	....	....	....	.45	....	.41	T	....	....	....	....	....	.18	....	.52	.12	....	....	.45	4.67
Elliott	1.10	..	.40	.03	....	....	....	....	....	....	....	....	2.20	..	.14	....	.05	....	T	....	....	.01	....	....	..	T	....	.12	T	....	....	4.07
Estherville	.37	....	T		....	....	....	....	....	....	....	....	.81	....	....	....	....	....	1.11	....	....	....	....	....	....	.15	....	.25	..	....	....	2.19
Forest City	....	.03	.48	.05	....	....	....	....	....	....	....	.12	.48	....	T	....	1.20	....	.08	.03	....	....	....	....	....	.78	....	.80	..	....	....	3.51
Fort Dodge	.75	.25	.3	....	....	....	....	....	....	T	T	T	....	T	....	....	....	T	....	....	T	.86	....	....	T	T	T	T	....	....	....	2.16
Fort Madison	....	.0	.08	.01	....	....	....	....	....	....	....	.68	....	.20	....	....	....	T	T	....	..	....	....	....	.60	....	....	....	....	....	....	1.54
Galva	.37	T	.27	.04	....	....	....	....	....	..	....	T	....	....	.12		....	....	.42	....	....	....	....	....	.13	....	..	....	....	....	.05	1.40
Gilman	....	.85		T	....	....	....	....	....	..	..	1.80	....	T	..	.10	....	.90	....	T	....	....	....	....	.94	....	....	....	....	....	.82	4.91
Glenwood	....	.85	.05	....	....	....	....	....	....	T	....	.34	.68	T	....	.29	....	....	.63	....	....	....	....	....	T	.03	....	1.68	....	..	....	4.53
Grand Meadow	....	.75	.18	....	....	....	....	....	....	.06	....	.80	.22	.67	....	1.58	....	....	3	....	....	....	....	....	.35	....	....	1.15	....	....	....	6.04
Greene	.64	.48	.06	.0	....	....	....	....	....	....	....	.10	.14	T	....	1.20	....	.20	.28	..	....	....	....	....	T	.12	....	.02	..	..	.19	3.45
Greenfield	.78	.28	.83	.06	..	..	..	....	....	....	....	....	....	T	....	.32	....	....	.19	....	....	....	....	....	T	.10	.10	.20	....	....	....	2.86
Grinnell	....	.90	....	....	....	....	..	....	....	.25	....	.20	.50	.5	....	T	....	....	1.45	....	....	....	....	....	.10	....	....	70	....	....	....	4.60
Grundy Center	.15	.23	T	.15	.02	....	....	....	....	....	.02	1.90	....	.90	.01	.04	....	.07	.04	....	..	....	....	....	....	.28	....	.01	....	..	.15	8.97
Guthrie Center	.05	.06	..	T	....	....	....	....	....	.05	.45	.37	....	.70	....	.20	....	.05	....	....	....	....	....	....	.32	....	1.24	.05	....	....	....	3.50
Hampton	.5	.20	..	.55	..	..	....	....	....	..	..	T	....	....	....	.86	....	.61	.25	....	..	....	....	....	.26	....	....	....	....	....	.25	3.48
Hancock	..	.19	....	....	....	....	....	....	....	.04	....	.07	....	....	....	....	....	....	.92	....	....	....	....	....	.19	....	....	.55	....	....	....	1.98
Hanlontown	.98	.47	.02	.34	....	....	....	....	....	....	....	1.02	....	.05	....	.71	....	.32	.05	....	....	..	....	....	.29	T	....	....	....	....	.15	4.40
Harlan	.62	.24	.17	..	....	....	....	....	....	....	....	.52	.15	.23	....	.26	..	T	.50	....	....	....	....	....	.12	....	.10	....	....	..	.07	3.01
Hopeville	....	....	..	....	....	....	..	....	..	....	....	.10	..	.18	....	....	....	.12	....	....	....	....	....	....	.65	....	....	....	....	....	-	1.05
Ida Grove	....	.80	..	.25	....	....	..	....	....	.05	1.75	.80	....	....	....	....	....	....	.80	....	....	....	....	....	.20	....	..	2.40	....	....	....	7.05
Independence	.52	.05	.35	....	....	..	..	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	4.09
Indianola	.03	.04	.02	....	....	..	..	..	....	....	..	....	..	2.40	....	....	.40	T	.32	....	....	....	....	....	....	....	....	....	....	..		1.29
Inwood	.38	.02	.78	.06	.02	....	....	....	....	....	....	....	....	.67	....	....	....	.20	....	....	....	....	....	....	.20	....	..	.07	....	....	....	1.42
Iowa City	T	.03	.17	T	.33	....	....	....	....	....	....	.02	.03	..	....	....	T	....	....	....	....	....	....	....	....	....	....	....	.11	....	....	2.85
Iowa Falls	....	.17	.13	.16	....	....	..	....	..	....	T	T	.61	....	.05	....	.10	....	.17	.10	....	....	..	....	....	.24	..	1.05	T	....	..	4.15
Jefferson	.50	.08	T	....	....	....	....	....	....	....	....	.62	....	.96	.25	..	.05	.15	....	....	....	....	....	....	.83	.72	....	....	....	....	.11	4.46
Keokuk	.75	.07	.71	.65	.05	....	....	..	....	..	....	.02	T	....	T	..	....	....	....	....	....	.04	....	....	....	....	.74	.04	....	....	....	1.46
Keosauqua	1.00	.05	.93	T	T	....	....	....	....	....	....	....	T	....	.25	T	....	....	....	....	....	....	T	....	....	....	....	.71	.04	....	....	3.20
Knoxville	.75	.18	.12	.01	....	.	.	....	....	....	.07	.55	.2	....	....	.39	....	T	T	....	....	....	....	....	T	.35	....	T	....	....	T	3.47
Lacona	....	.26	....	.15	....	....	....	....	....	....	....	.28	....	.18	....	.68	....	....	.05	....	....	....	....	....	.05	.08	..	....	....	....	.03	2.48
Larrabee	.08		.40	....	.02	....	....	....	....	....	T	T	....	.10	....	....	....	T	....	....	....	T	....	.33	....	T	....	....	....	....	.14	.98
Le Claire	T	.17	....	T	....	....	....	....	....	....	....	.01	.39	....	....	T	T	....	....	T	....	....	2.51	....	....	....	.04	.94	....	..		4.23
Le Mars	91	.35	..	.50	....	....	....	....	....	....	....	.15	....	.55	....	....	....	.17	.05	....	..	....	....	....	T	....	.02	....	....	.09		1.20
Lenox	.43	.09	.12	....	....	....	....	....	....	T	....	.63	.03	....	....	.25	..	T	.40	....	..	....	....	....	.13	.03	.40	.35	....	....	.10	4.14
Leon	.97	.94	....	.13	.	....	....	....	....	....	.09	T	.51	.03	.01	.14	.03	T	.47	....	....	....	....	....	....	....	.20	....	....	....	T	2.03
Little Sioux	1 8	.17	..	.12	..	....	....	....	....	....	....	.18	....	.27	.01	.22	....	.55	.2	....	....	..	....	....	2.82	....	....	....	....	....	....	6.34
Logan	.70	.14	.67	.02	.02	....	....	..	....	....	T	1.52	.23	.08	..		.19	....	.03	.12	....	..	....	....	.13	....	..	1.28	.01	....	....	8.57
Marshalltown	.18	2.46	.31	....	....	....	....	....	....	....	....	.92	..	T	....	.23	....	....	1.38	....	..	....	....	....	.10	....	....	1.15	....	....		6.73
Mason City	.67	.33	..	.24	....	..	....	....	..	....	..	T	....	....	....	.70	..	.27	.52	..	....	....	....	....	.20	....	.40	T	....	..	.03	3.36
Massena	.45	.40	.07	.08	....	..	....	....	..	....	....	T	..	.23	T	.30	..	T	1.10	..	....	....	....	....	T	.05	.02	.02	....	....	.10	2.84
Mount Ayr	.61	.05	.38		T	....	....	....	....	....	T	.18	....	.15	....	....	....	....	....	....	....	.09	....	....	....	....	....	.44	T	....	....	1.89
Mt. Pleasant	.20	.05	.37	.24	....	....	....	....	....	....	T	....	....	T	....	....	....	....	T	....	....	.01	....	....	....	....	....	.06	....	....	....	.93
Mt. Vernon	.27	T	.33	.10	.04	....	....	....	....	....	....	....	.05	..	T	T	....	....	T	T	....	....	.39	..	....	....	....	....	.16	....	..	1.36
Muscatine	.63	....	.08	.47	....	....	....	....	....	....	....	.60	.10	.24	....	....	.03	.01	....	....	....	....	....	....	....	....	....	.67	....	....	.16	3.03
Nevada	....	.43		.11	....	....	....	..	..	.01	..	.26	.27	.09	....	T	....	....	1.00	....	....	....	....	....	.01	....	....	1.16	....	....	..	8.31
New Hampton	.78	.18	2.15	.65	....	....	....	....	....	....	....	....	....	....	....	.50	....	....	.78	....	....	....	....	....	.10	.10	....	.0	....	....	....	5.27
Newton	.07	.09	....	....	....	....	....	....	....	.00	....	.46	....	.03	....	....	....	....	1.27	....	....	....	....	..	.55	..	....	1.12	..	....	....	3.65
Northwood	....	....	....	.15	....	....	....	..	....	....	..	.36	....	.10	....	....	....	.12	....	....	....	....	..	....	.70	....	....	....	....	.03	1.54
Odebolt	.04	.23	....	.75	....	.	....	....	....	....	....	.45	....	.28	....	.37	....	.0	.15	....	..	....	....	....	.45	.03	....	.43	....	....	.07	3.89
Ogden	.20	.12	.33	.07	..	..	..	....	....	....	....	.5	....	....	T	....	....	....	T	....	..	....	....	....	....	....	....	T	....	....	....	1.22
Olin	.30	T		.01	....	....	....	....	..	....	..	.60	....	.01	....	.25	....	.88	T	T	..	....	....	....	.37	....	.12	....	....	....	.80	2.85
Omaha, Neb	.10	.01	.01	T	....	..	..	....	..	....	....	.27	....	.36	....	.70	....	1.10	.02	....	....	..	T	....	1.03	....	....	....	....	..	T	3.60
Onawa	.19	.77	02	T	....	....	....	....	....	.05	....	.1	....	.01	....	.87	....	....	2.77	....	....	....	....	....	.08	....	....	1.10	..	..	..	5.97
Osage	.85	.13	.58	.19	....	....	....	....	....	....	....	.15	....	T		.26	....	..	T	....	..	....	....	....	.06	.07	....	.04	..	..	T	2.33
Oskaloosa	.34	....	.17	.24	..	....		....	....	-	..	.01	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	..	1.82
Ottumwa	1.45	5	....	.04	....	..	..	.	....	....	....	.03	....	T	....	.2	....	.71	T	....	..	....	....	....	.60	.50	..	.0	..	....	.92	6.05
Pacific Junction	1.10	.09	.10	.10	.07	.	.	....	..	....	....	....	.28	.03	....	.32	....	....	.02	....	....	....	....	....	....	.15	....	.02	..	.	..	3.19
Pella	....	.24	.32	.01	....	..	....	....	..	....	....	.05	....	.18	....	.06	....	T	.06	....	....	....	....	....	.18	.40	T	1.10	..	....	.03	2.77
Perry	....	.19	..	.07	..	..	....	....	....	....	..	2.85	..	.23	....	T	....	T	.08	..	.03	....	....	....	.38	..	..	..	..	....	....	3.33
Plover	.05	..	.1	..	.04	....	..	....	....	....	....	.27	....	.47	....	....	....	T	....	....	....	....	....	....	.63	....	....	.10	....	....	.03	1.69
Pocahontas	.17	.20	.24	.05	....	....	..	..	..	....	.03	....	.10	..	..	..	.05	....	.07	.49	..	.20	....	....	....	..	....	1.40	.03	..	..	2.97
Preston	....	.85			....	....	....	....		....	....	.41	....	.21	....	.45	....	.10	1.07	..	..	....	....	....	.02	....	..	.47	....	..	..	3.53
Ridgeway	T	.25	..	.32	T	.	..	..	....	..	..	....	....	....	....	....	....	.35	....	..	T	..	..	....	....	....	....	....	....	....	....	.92
Rock Rapids	....	....	....	....	....	....	....	..	..	..	....	..	..	..	..	T	....	.30	....	....	..	....	....	....	.48	.45	.13	..	....	T	1.38
Rockwell City	T	T	....	.06	....	....	....	..	..	..	....	T	....	.3	..	T	....	T	.05	....	..	T	....	....	.45	....	....	....	....	.05	.99
Sac City	.65	.11	.0	.0	....	..	..				....	T	....	.8	....	....	.01	....	.40		..		....	....	.08	1.53	....	....		.07	3.82
Saint Charles		.05		T								....	.2	5	....	T									7					.08	1.52
Sheldon																																

DAILY AND MONTHLY PRECIPITATION FOR JULY, 1906—CONTINUED.

STATIONS.	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sibley	.02	T	.06	....	....	....	....	....	....	....	....	..	....	T	.58	....	.06	...	.15	..	..	...	....	....	.06	....	....	.	....	....	.05	.98
Sigourney	1.00	.55	.54	.04	...	..	...	....	..	....	T	T	.25	....	...	.11	....	...	...	....	....	...	....	....	....	....	..	....	...	...	....	2.49
Sioux Center	.5[illegible]	.3[illegible]	....	.2	....	...	....	.	..	....		....	...	.88	....	T	...	.14	...	...	....	...	....	...	....	....	....	.04	...	...	.24	2.04
Sioux City	T	.11	....	.81	...	....	....	....	....	....	....	.85		1.14		T	....	.17	.11	...	....	T	...	..	.12	....	.06	.	....	...	T	2.27
Stockport	.5[illegible]	.09	.16	.15	....		....	....	....	T	T	.70	T	...	T	...	....	.01	...	T	...	T	...	....	...	....	.18	.28	...	...	...	2.06
Thurman	1.3[illegible]	T	....	.1[illegible]	....	...	..	...	.		....	T	...	....	....	.68	...	.4	T	T	.		...		.87	T	....	.15	....	....	.25	3.83
Tipton	....	.0[illegible]	.23	....	....	....	....	...	...			....	..	....	....	....	....	....	....	....	....	....	....	..	..	....	..	T	...	...		.26
Toledo	.4	1.3[illegible]	.16	...	....	....	....		....	T	T	.30	.35	....		.15	....	...	.35	....	....	....	....	....	....	.20	....	.80	...	...	.10	3.65
Wapello	.14	.1[illegible]	.70		....	....	....	....	..	....		....	.3[illegible]	...	.0		....	....	....	....	....	.04	...	....	.	....	....	.33	.01	...	...	1.72
Washington	.45	.03	1.18	...		..	.		....		.13	.18	...		...	....	....	....	....	....	....	.22	.	....	....	...	.	...	...	....	....	3.19
Washta	T	T	.16	T	....	....	.	....	....	....	....	.06	...	.32	...	....	....	T	.0[illegible]	....	..	....	...	....	.50	..	T	...	....	...	.06	1.16
Waterloo	.04	68	T	.07	..	....	....	....		.04	.19	.23	.16	.05	....	..		...	.77	....	...	....	....	...	.10	.06	..	.62	....	...	T	3.01
Waukee	.5[illegible]	.22	.[illegible]8	1.25	....		....	....		..	....	.50	....	.88	....	.26	.	T	.26	....	...	....	....	...	.11	.24	T	.40	..	...	T	4.93
Waverly	.03	1.75	.05	.0	....	....	....	....	....	.31	..	.05	.45	.05	.	.01	.05	T	.4[illegible]	..	...	....	...	....	.10	.[illegible]4	....	.37	....	...	....	3.78
Webster City	..	....	.18		....	...	....	....	....	.	....	.18	...	.27	...	.43	....	....	T	....	....	....	....	....	..	T	...	1.25	....	...		2.31
West Bend	..	....	.04	..	....			....	..		...	.83		.40	....	T		...	.45	....	....	T	....	..	.18	...	...	.10	....	....	.07	2.17
Whitten	.08	88	T	T	.	...		...	....	T	....	T	.95	.45		.18	.82	....	.82	....	....	..	....	....	.21	.04	...	1.70	...	...	T	4.58
Wilton Juct	....	1.82	....	.1[illegible]	..	...	...	....	....	....	....	....	....	1.85	..	...	...	...	...	.04	...	.06	....	....	....	....	....	....	.10	....	.80	4.83
Winterset	.6	.11	.15	06	....	...	....	....	....		...	.15	.82	1.65	.02	.6[illegible]	...	.02	.63	T	....	...		....	T	.98	.	T	...	....	.07	5.48
Woodburn	.87	.08	.42	T	....	..	....		....	....	....	....		.01	...	24		T	.2[illegible]	...	..	...	...	....	T	.90	....	...		...	T	2.29
Z aring	.14	0		1[illegible]								...	.8	.28		.48	...	...	T	...	.	...			.18	....		2.09	..	...	T	3.84

Precipitation Chart July 1906.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR AUGUST, 1906

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA

BERNARD MURPHY, STATE PRINTER

1906

THE IOWA WEATHER AND CROP SERVICE

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Guthrie Center	D. G. Beardsley
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Pocahontas	F. E. Hronek
Preston	J. G. Storm
Ridgeway	Arthur Betts
Rock Rapids	W. C. Wyckoff
Rockwell City	C. M. Randall
Sac City	Frank Stouffer
St. Charles	C. W. Minard
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U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IN COOPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R. SAGE, Section Director
GEO. M. CHAPPEL, Asst. Director

VOL. XVII. DES MOINES, IOWA, AUGUST, 1906. No. 7

AUGUST WEATHER AND CROPS.

August was a favorable month for the rapid development of corn, potatoes and other late-maturing crops. The average temperature was 74.1°, which is 2.1° above the August normal of the state. It was 3.2° warmer then the preceding month of July, which is normally the warmest month of summer in this latitude. The average rainfall for the state, 3.95 inches, was also above the normal, and .91 of an inch higher than the average for July. The larger amount of the rainfall was recorded in the first half of the month, with high temperatures to promote rapid growth of vegetation and the full earing of the corn crop, which made extraordinary advancement in that most critical period in its development. The distribution of the rainfall, however, was more unequal than usual, coming mainly in the form of light showers purely local in extent. In the southern section the average was 1.16 below the normal, and the heavier amounts occurred in the northern section. At Sibley, Osceola county, the total rainfall for the month was 10.51 inches; while the amount recorded at Allerton, Wayne county, was only 0 92 of an inch. In the latter half of the month the rainfall was much less in amount, and more local in the character of the storms, than in the first half. There was considerable prevalence of drought in the southern half of the state during the latter part of the month, and some complaints of the "firing" of corn were noted in the weekly reports. The amount of damage to the corn crop from the effects of drought was considerable in the aggregate for the southern districts, but it was not sufficient to reduce the probable output below the average in any county. For the state as a whole the corn crop was in a very satisfactory condition at the close of August, giving promise of more than an average yield. Conditions were very favorable for stacking and threshing small grain after the close of the rainy period in the first decade. In the nothern half the soil was sufficiently moist for plowing, in which good progress was made. The crop of late potatoes made fair advancement in all parts where the moisture was sufficient. Pasturage suffered in portions where the drought was most protracted. The early apple crop was much above the output in recent years. The amount of damage by windstorms, hailstorms, and heavy downpours was relatively light as compared with recent years. On the whole August was a very favorable month from the standpoint of the farmers of Iowa.

CLIMATOLOGY OF THE MONTH.

TEMPERATURE.—The monthly mean temperature for the state, as shown by the records of 116 stations, was 74.1°, which is 2.1° above the normal. By sections the mean temperatures were as follows: Northern section, 72.6°, which is 1.9° above the normal; central section, 74.2° which is 2.6° above the normal; southern section, 75.4°, which is 1.8° above the normal. The highest monthly mean was 77.4° at Ottumwa; and the lowest monthly mean was 70 9° at Estherville. The highest temperature reported was 101° at Odebolt on the 16th. The lowest temperature reported was 33° at Washta, on the 27th. The average monthly maximum was 95°, and the average monthly minimum was 43.6°. The greatest daily range was .47° at Washta. The average of greatest daily ranges was 34.2°.

PRECIPITATION.—The average amount of precipitation for the state, as shown by records of 125 stations, was 3.95 inches, which is .38 of an inch above the normal. The averages by sections were as follows: Northern section, 5.14 inches, which is 2.04 inches above the normal; central section, 3.98 inches, which is 0.26 of an inch above the normal; southern section, 2.74 inches, which is 1.16 inches below the normal. The largest amount reported was 10.51 inches at Sibley, Osceola county, and the lowest amount reported was 0.92 of an inch at Allerton, Wayne county. The greatest daily rainfall reported was 4.00 inches at Olin on the 6th. The average number of days on which .01 of an inch or more of rainfall was reported, was 9.

WIND AND WEATHER.—The prevailing direction of the wind for the state was southwest. The highest velocity of wind reported was 32 miles per hour, at Sioux City, on the 1st. The average number of clear days observed at all stations was 17; of partly cloudy days there was an average of 9, and cloudy days 5.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced.	EXTREMES. Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	29.95	30.16	12	29.77	28
Davenport	29.96	30.16	13	29.76	9
Des Moines	29.95	30.20	27	29.74	28
Dubuque	29.97	30.20	12	29.77	29
Omaha, Neb	29.94	30.22	27	29.66	28
Keokuk	29.98	30.16	31	29.83	8, 15, 22, 23, 25
Sioux City	29.95	30.20	27	29.77	15
Means	29.95	30.20	27	29.74	28

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	4125	24	S	28
Davenport	4178	21	NW	19
Des Moines	4616	28	SW	28
Dubuque	4086	24	S	28
Keokuk	4137	24	NW	17
La Crosse, Wis	4443	28	NW	26
Omaha, Neb	4684	29	N	26
Sioux City	7561	32	SE	1

OBSERVERS' NOTES.

ALTA.—*David E. Hadden.* August was warm; the mean temperature being 2° above the 16 year normal; the rainfall was .75 of an inch below the normal for the same period. It was a very favorable month for all farming operations.

ALTON.—*W. S Slagle.* Light frost was observed on morning of August 27, but no damage resulted; corn was all dented and maturing finely at close of month.

AMANA.—*Conrad Schaadt.* The first half of August brought enough rain for all crops; the latter part was dry and warm, and generally favorable for crops and for threshing. On the 8th 1.47 inches of rain fell in 20 minutes.

BLOOMFIELD.—*F. H Roberts.* Corn was in good condition and mostly out of danger at close of the month; pastures were very short, and needing rain.

BONAPARTE.—*B. R. Vale.* August rainfall 4.10 inches, all in local showers; month warm, and quite even in temperature.

BRITT.—*Geo. P. Hardwick.* Excessive precipitation in August, 8.15 inches, retarded grain harvest, and injured quality of grain; also reduced the yield; the belated corn advanced rapidly; pastures are the best in many years.

CHARITON.—*C. C. Burr.* Corn has made good progress; rains have been local in character, and many localities are very dry.

CLINTON.—*Luke Roberts.* Precipitation 5.07 inches, which is in excess of normal, but none too much for growing crops; the mean temperature was 3° in excess of normal, and sunshine 9 per cent below; there was much humidity the last decade.

ELLIOTT.—*Henry Barnes.* An ideal month for corn; early planting was well advanced; yield of small grain was heavy; fall wheat yields 35 to 55 bushels, and spring wheat 17 to 25; oats, 45 to 70 per acre; hay slightly under average.

FOREST CITY.—*J. A. Peters.* A light frost occurred on 27th, but no damage resulted; corn maturing nicely.

GRAND MEADOW.—*F. L. Williams.* The month was wet and hot; much grain went into stack damp; grain yield good; pastures are fine.

GRINNELL.—*A. O. Price.* A fine month for stacking and threshing; rather dry for meadows, pastures and plowing.

INWOOD.—*F. B. Hanson.* August was quite favorable, with some high temperatures and a good supply of moisture; threshing and plowing under way.

KEOSAUQUA.—*J. H. Landes.* A hot, dry month; rainfall only 1.80 inches, in form of local showers; there was no general rain for the county during the month; corn, however, is good, but pastures are light.

OLIN.—*Nathan Potter.* Heavy rains in the first half of the month; the warm weather wrought wonders for corn, bringing it up above the average.

PRESTON.—*J. G. Storm.* Corn is about matured, and promises the heaviest yield ever known here.

RIDGEWAY.—*Arthur Betts.* This has been the warmest August since 1900; plenty of showers, and 312 hours of sunshine; hot days and nights till the 26th. The summer months gave us a mean temperature of 71.2°; rainfall 11.38 inches; clear days, 61; partly cloudy, 31 days.

SHELDON.—*A. W. Beach.* Harvest is all safe but corn, and that is ten days in advance of season.

ERROR IN JULY REVIEW.

Estherville—Mean temperature recorded 68.4° on page 78, should have been 67.9°.

CROP NOTES.

Mr. John Stryker, of Wright county, sent to this office a fine sample of spring wheat grown on his farm this season. In a note inclosed with his crop report Mr. Stryker said: "I believe if people in northern Iowa would use their clover sod for spring wheat they would get fine crops of good milling wheat, and would avoid the risk of damage by cut worms which are very destructive in corn planted on clover sod. After a crop of wheat has been harvested, corn is a safe crop in that system of rotation. By growing more good wheat in Iowa we would not be sending so much money out of the state to buy flour."

The Missouri crop report, issued September 6th says: "The fruit crop is immense. In many localities peaches are given away, and nearly every county in the state reports a surplus of apples."

Among the new and good forage plants recently introduced by the United States Department of Agriculture is the Arabian alfalfa, which grows so rapidly as to produce five crops where the ordinary variety will produce but four. Another is a new variety of timothy, which will yield two crops each season —Indiana Farmer.

Winter wheat has been a profitable crop in Iowa this season, and it seems unaccountable that the acreage is so small. The average yield ranges from 20 to 35 bushels per acre, and the quality of the grain is generally very high. This crop is not duly appreciated by our progressive farmers.

That corn was developed out of some other plant has been a theory accepted by all the investigators of recent years. The most popular theory is that corn and teosinte had a common origin, both of these plants descending from a plant that was a much-branched grass. The corn kernel and corn tassel were formerly grown together and at the present time we sometimes see sports in the corn field where corn kernels grow upon the tassels. In the process of evolution the grain head of teosinte developed from the side tassels of the original grain, while the ear of our ordinary corn developed from the central spike. What part man had in this we do not know, but it is probable that he had a great deal to do with the development of the corn plant as it was found by white men on the discovery of America. It is not many centuries since much of the corn grown had each kernel incased in a separate husk.—Farmers Review.

SPEAKING OF THE WEATHER.

Chicago Chronicle: During the last two or three weeks there has been more than the usual discussion of that interesting and important subject, the weather. The burden of the remarks in this vicinity has been that there never was such weather before and that there never was such weather anywhere else. Both assertions, of course, are in the nature of rhetorical exaggeration.

There has been a good deal worse weather than that of the recent heated term and other sections have suffered from it quite as severely as Chicago has. There is bad weather everywhere on the face of the globe. The perfect climate remains to be found.

Our memories are very short when weather is in consideration. We have just been protesting, for instance, that the hot spell was unprecedented, yet next summer if we have a few days of torridity we will be saying the same thing of that. In respect to the weather we live wholly in the present. We objurgate snow, rain, heat or cold in turn. In matters meteorological we go upon the principle that whatever is is wrong. The good weather is all in the past or in the future.

Men have spent fortunes in search of an ideal climate and they never have found it and they never will. The perfect climate, like the good land, is always in the next county, so to speak. It is never where one happens to be. There are drawbacks everywhere.

It is probable that the south of France enjoys the widest reputation for salubrity of climate of any region in the world, yet Chicagoans who have been there are prepared to testify that they have come nearer to freezing to death in the Riviera than they ever did at home. When the mistral blows—that cold, clammy gale from the northeast—life in the south of France becomes burdensome. It is then that one curses charcoal stoves and yearns for a sizzling steam coil.

Hawaii has been called an earthly paradise, but the monotony of its climate tells on the nerves, and to the native of the temperate zone the absence of frost and snow, with their tonic effect, is a serious drawback. Florida is pleasant during a part of the year, but not the most enthusiastic of its admirers will claim that it is a summer resort. Southern California people say that their section possesses an all-the-year-round climate, but they do not practice their professions. The whole of southern California that has the price goes to the seaside during the summer months. The interior is deserted save by the'can't-get-aways.

And so it is with all the regions that make a specialty of climate. There is always a fly in the ointment—always an "if" or a "but." Distance lends enchantment to the view. Close inspection reveals imperfections. That is because man is not to be satisfied short of his heavenly home. He is likely to criticise the climate even there.

But, so far as mundane climate is concerned, the truth is that really "good" weather in the sense of healthful weather is to be found in those regions where the four seasons follow one another in proper order. Good weather, that is to say, is seasonable weather—hot in summer, cold in winter, bracing in autumn and showery in spring. It is these alternations which render the four seasons enjoyable, since contrast is the secret of human enjoyment.

SHOCK DAMAGED GRAIN.

(Twentieth Century Farmer.)

The damage to shocked grain will this year equal any former season. The old time western pioneer practice of letting grain stand in the shock until opportunity for threshing, still prevails, notwithstanding the admonitions given by the agricultural press, and the hundreds of careful farmers who have set the example of correct methods, by stacking their grain as soon as possible after cutting.

There seems to be but one idea or apology for this unbusiness like plan of handling the small grain crop. The farmer who practices this method claims a saving of handling the grain once. He saves the stacking, this is all. In this effort at saving, he endangers his crop to great loss from rains which cause rot, mold and shattering of grain, a condition of loss which the early stacked grain escapes entirely. Beside the shock threshed grain has never gone through the sweat, a natural requirement to properly fit grain to keep it safely in bin or be stored in bulk without heating and damage.

The loss to the grain crops of the western wheat growing districts, this season, due to the practice of threshing from the shock, will cost the producers millions of dollars that might every dollar have been saved by the stacking of this grain. Besides this great loss to the producer there is a quality loss to the grain that damages every one who has anything to do with it in trade, down to the consumer; and gives the consumer a damaged food product that he should be protected against.

There is but one remedy for this pernicious habit of shock threshing and that is a strict discrimination in quality by the buyer, placing weather damaged wheat as unmerchantable, fit only for feed purposes. It is quite evident that wet harvesting seasons and grain damage will not work the required reform. When this class of grain is bought for what it is worth, and the necessary protection given the handler, miller and consumer that each deserves, there will be more money in stacking than in shock threshing.

DATES OF THUNDER STORMS.

NORTHERN SECTION.

Algona—1, 4, 8, 15, 20, 24, 29.
Alta—2, 4, 6, 15, 28.
Alton—2, 21.
Britt—2, 4, 8, 15, 23.
Charles City—2, 4, 8. 15, 20, 28.
Dows—4, 6, 8, 15, 24.
Elkader—3, 4, 8, 9, 16, 17, 19,23, 24, 25, 27.
Grand Meadow—8, 19.
Humboldt—2, 4, 8, 15.
Inwood—4, 7, 21, 24.
Mason City—2, 4, 6, 7, 8, 15, 20, 23.
Northwood—2, 4, 7, 8, 15, 20, 29.
Osage—2, 4, 6, 7, 8, 19, 25.
Plover—4, 8, 9, 15, 17.
Pocahontas—15, 17.
Ridgway—2, 4, 8, 9, 16, 19, 20, 24, 28.
Rock Rapids—2, 4, 7, 15, 21, 24.
Sheldon—4, 7, 15, 23.
Sibley—2, 4, 8, 15, 21, 28.
Sioux Center—2, 4, 7, 8, 15, 21, 26.
Washta—2, 4.
Waverly—4, 6, 7, 8, 16, 23, 24, 28.
West Bend—2, 4, 8, 15, 19, 19, 23, 28.

CENTRAL SECTION.

Amana—3, 4, 6, 8, 16, 17, 23, 24.
Audubon—4 6, I0.
Boone—1, 4, 7, 8, 9.
Carroll—1, 3, 5, 7, 15.
Clinton—4, 19, 24, 25.
Davenport—1, 4, 5, 6, 8, 17, 19, 23, 24, 25.
Des Moines—1, 4, 6, 8, 15, 17, 18, 23, 24, 28.
DeSoto—17.
Dubuque—4, 5, 6, 8, 16, 19, 23, 24, 25, 28.
Grinnell—2, 3, 4, 5, 6, 7, 15, 17, 18, 19, 20, 24, 29, 30.
Guthrie Center—2, 6, 10, 15.
Harlan—4, 6, 7, 15.
Independence—4, 6, 8, 16.
Iowa City—8, 16, 17.
Iowa Falls—2, 4, 6, 8, 15, 17, 24.
Jefferson—9.
Little Sioux—8.
Marshalltown—8.
Mt. Vernon—3, 4, 5, 23, 30.
Nevada—5, 8, 24.

CLIMATOLOGICAL DATA FOR AUGUST, 1906.

CENTRAL SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES.				SKY.				Prevailing direction of wind.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).	Number rainy days	Number clear days.	Number partly cloudy days.	Number cloudy days.	
Amana	Iowa	741	27	75.0	s 4.2	93	2,16	46	27	32	4.48	s .90	1.74		10	17	11	3	S E
Ames	Story	926	22	73.8	s 1.6	94	16	43	27	35	5.28	s 1.74	1.74	....	8				
Audubon	Audubon	1301	10	73.6	s 1.6	100	16	55	21	45	4.85	s .90	3.50	....	6	18	6	7	SW
Baxter (a)	Jasper.	998	6	73.6	s 2.0	94	16	43	27	34	3.25	- .77	.87	....	11	....			SW
Belle Plaine	Benton	828	14	75.0	s 4.4	96	16,20,28	45	27	33	5.05	s .69	2.08	....	7	17	8	6	S E
Boone	Boone.	1134	....	74.4	.....	95	16	46	27	32	8.11	.....	.90	....	10	17	4	10	.....
Buckingham	Iowa	.....	6	.....	.....	.....	.....	.....	.....	....	7.44	s 2.64	2.68	....	7	14	17	0	.....
Carroll (a)	Carroll	1265	16	73.6	s 2.4	98	16	....	.....	...	2.66	- 1.12	1.05	....	7	23	2	6	.....
Clinton	Clinton	593	38	75.0	s 3.8	94	4	46	28	38	5.07	s 2.02	1.54	....	10	13	8	10	S.SW
Cedar Rapids	Linn	783	....	76.4	s 3.7	96	16	48	27	33	6.03	s 2.78	2.43	....	9	14	14	3	SW
Davenport	Scott	606	35	76.2	s 3.4	94	23	49	27	25	3.51	- .08	1.26	..	11	16	7	8	W
Delaware	Delaware	1083	18	72.5	s 2.7	91	16	44	27	30	4.40	s 1.54	1.42	....	11	20	10	1	S E
Denison (a)	Crawford.	1180	10	73.8	s 1.2	97	16	37	27	41	1.77	- 1.61	.91	....	5	23	8	0	S
Des Moines	Polk.	861	27	74.9	s 2.9	97	16	46	27	29	4.86	s 1.60	3.43	....	11	11	16	4	SW
De Soto	Dallas	866	6	74.8	.....	95	16	44	27	33	3.42		1.06	....	10	19	6	6	SW
Dubuque	Dubuque	698	35	74.2	s 2.6	92	23	48	27	26	4.44	s 1.29	1.41	..	12	13	12	6	S E
Fort Dodge	Webster.	1126	....	74.4	.....	95	16	41	27,28	40	5.60		2.25	....	9	....	....	....	S
Galva	Ida	1290	10	72.0	s 0.6	93	16	36	27	45	8.55	s .21	1.55	....	8	20	7	4	S
Gilman	Marshall	1052	....	.....	.....	.....	.....	....	.....	.....	5.21	s 1.55	1.85	....	7	16	8	7	SW
Grinnell (near)	Poweshiek	1028	11	73.8	s 2.0	94	16,19	41	27	36	1.48	- 2.18	.40	..	11	18	9	4	S W
Guthrie Center	Guthrie	1077	8	74.2	s 1.8	94	16	40	27	36	2.68	- 1.98	1.29	....	9	21	6	4	SW
Harlan	Shelby	1192	7	73.0	s 1.1	94	16	38	27	39	2.91	- 1.70	2.35	....	6	12	13	6	S
Ida Grove (b)	Ida	1220	....	74.2	.....	100	16	34	27	46	1.71		1.11	..	5	....	....	....	S
Independence	Buchanan	921	40	73.8	s 2.6	93	28	45	27	31	2.20	- 1.28	1.20	..	4	22	5	4	SW
Iowa City	Johnson.	638	45	76.0	s 4.4	97	16,28	46	27	35	5.34	s 1.08	2.54	....	11	16	5	10	SW
Iowa Falls	Hardin	1170	11	72.8	s 2.1	92	16	42	27	31	3.61	s .21	1.27	..	9	21	1	9	SW
Jefferson (b)	Greene		....	74.9	.....	96	16	43	27	35	4.49	.....	2.18	..	8	16	12	3	.....
Le Claire	Scott	576	....	.....	.....	.....	.....	....	.....	....	2.27	.....	.62	....	8	19	3	9	SW
Little Sioux	Harrison	.....	.....	74.4	.....	96	16	40	27	40	3.99	.....	1.88	....	7	19	8	4	S E
Logan	Harrison	928	37	74.6	s 2.1	96	16	50	30	35	2.80	- 1.06	1.80		4	15	14	2	N W
Marshalltown	Marshall	947	11	74.8	s 2.8	95	16,19,20	42	27	35	2.55	- 1.02	1.10	....	10	....	....	....	S
Mount Vernon	Linn	847	37	74.9	s 4.7	97	16	45	27	37	4.75	s .18	1.75	....	10	15	8	8	S.S W
Muscatine	Muscatine	.....	47	...		.....	.....	....	.....	....	2.37	- 2.06	.64		11	17	4	10	S
Newton	Jasper.	944	16	75.0	s 2.8	92	16,19	55	28	27	1.83	- 2.04	.47	....	7	16	15	0	S
Nevada	Story	.....	.....	.....	.....	.....	.....	.....	.....	...	3.76	.....	1.59	....	6	...	..	...	.....
Odebolt	Sac	1856	7	75.4	s 0.8	101	16	40	27	42	2.85	- 1.31	.95	....	7	23	3	5	.....
Ogden	Boone	1058	10	73.4	s 0.4	95	16	43	27	35	4.32	s .26	1.40	....	10	18	10	8	SE, N W
Olin	Jones	760	7	73.5	s 2.7	91	4,20	44	27,28	28	7.46	s 3.88	4.00	....	9	16	12	3	SW
Onawa	Monona	..	6	74.8	s 1.8	96	16	46	27	34	7.71	s 3.82	2.78		11	25	2	6	S E
Perry (b)	Dallas	975	....	75.0	.....	94	16	43	23	42	3.84	.....	1.16	....	7		....	....	.....
Preston	Jackson	.....	....	75.1	.....	91	20	45	28	32	8.45	.....	2.50	....	9	15	12	4	SW
Rockwell City	Calhoun	....	9	73.6	s 2.2	95	16,20	43	27	38	6.83	s 3.29	1.92	....	9	28	6	2	.....
Sac City (b)	Sac	1856	24	71.6	s 1.6	93	16	40	27	37	1.69	- 1.67	.70	....	5	24	5	2	NW
Sioux City	Woodbury	1135	15	73.0	s 1.4	96	16	43	27	33	2.74	- .45	.80	....	9	11	10	10	S E
Tipton	Cedar	807	8	77.2	s 6.7	95	16,23	50	27	28	3.80	- 1.89	1.11	....	8	23	5	0	S W
Toledo	Tama	856	10	74.5	s 2.1	94	16	45	27	32	5.60	s 1.78	2.90	....	7	16	12	3	SW
Waterloo	Black Hawk.	862	17	74.8	s 4.0	95	16,20,23	45	27	34	2.87	- .73	.92		10	19	11	1	.....
Waukee (d)	Dallas	1039	....	74.4		92	16	45	27	28	3.81	.....	1.60	...	10	21	7	3	SW
Whitten (c)	Hardin	1080	6	73.1	s 1.2	91	20	42	27	38		.....		.....	....	....	....	....	.....
Wilton Jct (d)	Muscatine	683	9	74.3	s 1.4	91	20,21	47	27	26	2.54	- 1.67	.92	....	8	17	13	1	W
Zearing	Story	718	..	73.4	.....	93	16,19	39	27	35	2.40	.....	.92	..	5	23	6	2	SW
Average		....	.....	74.2	s 2.6	94.6	.....	43.6	....	34.4	3.98	s .23	....	....	8	18	8	5	SW

Olin—3, 4, 6, 8, 17, 24, 25.
Onawa—2, 4, 6, 8, 23
Preston—5, 6, 8, 18, 19, 24.
Sioux City—2, 4, 6, 7, 10, 15 20, 23.
Waterloo—4, 6, 8, 17, 24.
Waukee—15, 17, 23.
Zearing—4, 6, 8, 15, 24.

SOUTHERN SECTION.

Atlantic—2, 15.
Allerton—3, 18, 19, 30.
Bloomfield—5, 6, 9, 10, 16, 17, 30.
Burlington—5, 9, 18, 19, 24, 26, 30.
Columbus Junction—1, 3, 9, 19, 20, 23, 25.
Corning—8, 18.
Corydon—15, 30.
Earlham—6, 15.
Elliott—2, 4.
Ft. Madison—1, 3, 4, 5, 7, 8, 18, 25, 30.
Greenfield—1, 3, 4, 6, 7, 8, 9, 10, 15, 16, 18, 23, 24, 28.
Indianola—4, 5, 6, 7, 8, 15, 16, 17, 18, 19, 20, 28.
Keokuk—1, 3, 4, 8, 9, 16, 17, 18, 23, 25, 30.
Keosauqua—17, 19.
Lenox—18.
Mt. Pleasant—8, 17, 18, 19, 20, 23, 25.
Omaha—2, 4, 6, 7, 8, 23.
Sigourney—8.
Stockport—1, 3, 4, 6, 9, 17, 18, 19, 20, 25, 30.
Woodburn—18.

CLIMATOLOGICAL DATA FOR AUGUST, 1906.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Algona	Kossuth	1,218	30	72 0	s 0.9	93	16	45	27	28	8.88	s 5.18	3.98	....	11	17	4	10	SE	
Alta	Buena Vista	1,513	1	72 3	s 1.5	95	16	43	27	33	3.45	- .39	1.80	....	12	16	12	3	S	
Alta (near)	Buena Vista	.....	...	.....	.....	.....	.....	.....	.....	.....	3 22	.....	1 92	....	8	.....	.....	.....	.....	
Alton	Sioux	1,305	...	73.0	.....	94	16	41	27	34	5.81	.....	1.67	....	6	18	10	3	SE	
Britt	Hancock	1,216	7	72.5	s 2.5	93	16	36	27	36	8.15	s 4.48	3.06	....	11	11	3	7	SW	
Charles City	Floyd	1,005	19	71.8	- 0.2	92	16	42	27	31	4.52	s 1.68	2.46	....	11	6	13	1	SE	
Clear Lake	Cerro Gordo	1,241	7	73.2	s 1.5	93	16	48	27	33	7.09	s 3.03	1.60	....	10	20	3	8	S	
Decorah	Winneshiek	875	10	73 9	s 3 5	93	16-20	45	27	30	7.84	s 6 16	3 50	....	9	...	...	...	.....	
Dows (a)	Wright	1,142	6	74 2	s 2.2	93	20	40	27	38	3.36	- .52	1,22	....	11	17	9	5	SE	
Elkader	Clayton	721	23	74.2	s 3.4	96	16	44	27	36	6.93	s 3 58	2.00	....	10	16	13	2	SE	
Estherville	Emmet	1,298	9	70.9	- 0.1	96	16	44	27	36	3.96	s .66	1.70	....	10	16	0	15	E	
Forest City	Winnebago	1,226	10	72.6	s 1.8	98	16	40	30	38	6.36	s 4.15	3.60	....	8	...	...	...	.....	
Grand Meadow	Clayton	1,150	13	73.2	s 3.2	91	16	46	27	30	5.09	s 2 00	1.10	....	13	10	14	7	SW	
Greene	Butler	.....	...	73.3	s 0.9	94	16	42	27	34	3.65	s .50	1 08	..	12	11	10	10	W	
Hampton	Franklin	1,155	14	74.4	s 4.2	97	16	46	27	37	4.26	s 1.11	1.30	....	9	12	13	6	SW	
Humboldt	Humboldt	1,224	12	72.0	s 5.1	92	16-20	44	27	28	5.53	s 2.47	1.48	....	8	21	3	7	SW	
Inwood	Lyon	.....	...	71.4	....	98	16	42	27	35	7.21	.....	2.10	....	7	23	4	4	S	
Le Mars (k)	Plymouth	1,234	8	72 8	s 0.8	95	16	41	27	36	.....	.....	.....	.....	....	.....	.....	.....	.....	
Mason City	Cerro Gordo	1,132	...	73.2	s 3.6	93	16	45	27	27	5.54	s 2.88	1.70	....	11	10	19	2	SW	
New Hampton	Chickasaw	1,169	6	71.4	s 0.7	89	16	44	27	28	2.30	- .20	1 04	....	6	22	8	1	SE	
Northwood (d)	Worth	1,222	8	73.1	s 3 4	9	16	.....	.....	28	5.65	s 2.08	1.95	....	11	.....	.....	.....	.....	
Osage	Mitchell	1,184	13	72.4	s 4.9	96	16	45	27	31	3.21	s .21	1.00	....	12	16	3	12	S	
Plover (a)	Pocahontas	.....	7	73 6	s 2.6	95	16	51	29	34	5 50	s 1.50	2.57	....	11	19	3	9	.....	
Pocahontas	Pocahontas	.....	....	73 4	.....	95	16	43	27	32	2.87	.....	1.50	....	7	19	5	7	S	
Ridgeway	Winneshiek	1,215	8	74.4	s 1.6	96	18	45	27	34	3.93	s 1.23	1.04	....	10	18	13	0	S	
Rock Rapids	Lyons	....	....	72.1	s 2.2	98	16	41	29	32	3.65	s 1.89	1.45	....	6	....	....	....	.....	
Sheldon	O'Brien	1,422	6	73 0	s 1.1	97	16	40	26	38	5.25	s 1.83	3 04	....	7	18	6	7	SW	
Sibley	Osceola	1,213	10	69.9	s 0.8	97	16	41	27	35	10.51	s 7.26	2 53	....	14	17	3	11	SE, SW	
Sioux Center	Sioux	.....	7	71.2	- 1.0	94	16	45	27	29	5.77	s 1 67	1.95	...	7	19	5	7	S	
Washta	Cherokee	1,157	..	73 0	...	100	16	33	27	47	2.19	- .72	.66	...	8	21	6	4	N	
Waverly (a)	Bremer	942	8	73.5	s 2.4	93	16	45	27	29	2.50	- .03	1.18	...	11	11	18	4	.....	
West Bend	Palo Alto	1,197	10	71 6	s 1.9	95	16	42	15 27	41	6 79	s 3.16	2.98	....	11	14	13	4	S	
Average	.....	....		72.6	s 1.9	94.8	.....	43.1	.....	33.4	5.14	s 2.04	.. ..	....	10	16	9	6	S	

SOUTHERN SECTION.

Afton	Union	1212	11	75.4	s 1 5	97	16	45	27	33	3 63	s .12	1.80	..	9	16	10	5	SW	
Albia	Monroe	959	8	75.0	s 1.9	93	16, 17	41	27	37	1.52	- 2.46	.52	....	9	17	10	4	S	
Allerton	Wayne	.....	...	76 7	....	99	16	42	27	36	.92	.....	.35	....	8	25	4	2	SW	
Atlantic (a)	Cass	1 64	13	75.1	s 4.2	99	16	33	27	45	2.53	- .53	1 40	....	8	7	10	14	S	
Bedford	Taylor	.....	6	74.8	s 1.8	95	16	40	27	41	4 09	- 2.02	1.46	....	8	23	3	5	S	
Bloomfield	Davis	.....	...	76.8	.....	95	17	47	27	31	2.55	.....	.67	....	11	22	6	3	S	
Bonaparte	Van Buren	.....	12	75 6	s 0.7	93	16	45	27	34	4.10	s .27	1.10	....	11	....	....	....	.....	
Burlington	Des Moines	544	8	76 8	....	95	28	51	27	33	3.74	.....	.85	....	10	19	5	7	SW	
Chariton	Lucas	1042	9	74.6	s 0 9	97	16	44	27	31	4.84	s 1.94	3.05	..	6	21	6	4	SW	
Clarinda	Page	1009	14	75.3	s 0.9	100	16	41	27	44	2.52	- 1.19	1 12	..	8	19	2	10	S	
Columbus Jct	Louisa	595	5	75.3	s 3.5	92	16	47	27	29	4.06	- 3.02	1.42	..	10	19	11	1	S	
Corning (a)	Adams	1143	12	74.0	s 1 2	98	16	37	27	40	1.15	s 2.25	.82	...	3	17	10	4	SW	
Corydon	Wayne	1101	11	76.1	s 1.7	97	16	45	27, 28	37	4.36	s .35	2.33	....	9	18	9	6	SW	
Creston ‡	Union	.....	....	74 6	....	98	17	40	27	40	2 97	.....	.78	....	8	19	6	6	.....	
Cumberland	Cass	.....	....	.....	.....	.....	.....	.....	.....	.....	1.86	- 2.89	1.22	...	7	25	3	3	SW	
Earlham (e)	Madison	.....	.....	73.2	.....	95	22	38	27	46	1.80	.....	1.05	....	2	19	7	5	.....	
Elliott	Montgomery	.....	....	76.3	.....	99	16	40	27	39	1.41	.....	1.04	..	4	23	3	0	S	
Ft. Madison	Lee	516	53	.....	.....	...	.....	.....	.....	.....	2 66	- 1.00	.60	..	7	9	15	4	SW	
Glenwood	Mills	.....	17	74.0	- 0.1	93	17	45	27	31	2.10	- 1.41	1.06	....	4	5	26	0	SW	
Greenfield	Adair	.....	15	74.7	s 2.1	95	16	44	27	35	3 08	s .26	.99	....	11	17	13	1	S	
Hancock	Pottawattamie	.....	...	74 2	....	95	16	44	27	32	2.25	.....	1.00	....	5	22	5	4	SE	
Hopeville	Clarke	.....	13	76.4	s 3.3	100	16	44	27	36	1.56	- 1.73	.42	....	10	3	24	4	S	
Indianola (a)	Warren	969	...	75.4	s 2.7	96	16	45	27	32	5 52	s 1.36	1.93	....	9	5	20	6	SW	
Keokuk	Lee	614	35	76.6	s 2.1	95	2	50	27	29	2.87	s .04	1.15	...	10	14	12	5	SW	
Keosauqua	Van Buren	614	12	76.4	s 1.5	99	16	45	27	42	1.80	- 1.69	.42	....	11	5	18	8	.....	
Knoxville	Marion	920	10	75.2	s 1.5	94	16	45	27	30	3 17	- 1.35	1.10	....	7	16	6	9	SW	
Lacona	Warren	.....	....	.....	.....	.....	.....	..	.....	.....	2 27	- 2.88	.92	....	7	17	16	4	.....	
Lenox	Taylor	1250	9	74.7	s 1.5	94	16, 17	45	27	38	2.04	- 1.56	1.10	....	7	24	5	2	S	
Leon	Decatur	1120	....	75.6	.....	96	16	47	27	33	1.91	.....	.65	....	11	20	5	6	SW	
Massena	Cass	.....	.....	.....	.....	.....	.....	38	27	....	1 86	.....	.78	....	11	13	18	0	S	
Mount Ayr	Ringgold	1238	10	76.5	s 2.7	97	16	46	27	37	2.36	- .96	.65	....	12	14	18	4	SW	
Mt. Pleasant	Henry	729	23	76.6	s 4.2	96	16	47	27	31	3.01	- .40	.63	..	15	8	17	6	SW	
Omaha, Neb	Douglas	1105	34	75.8	s 2.1	97	16	52	27	29	2.03	- 1.31	.83	...	9	12	9	10	S	
Oskaloosa	Mahaska	843	20	74.9	s 3.1	93	16, 20	45	28	32	2.42	- .72	1.75	...	8	21	0	10	SW	
Ottumwa	Wapello	649	10	77.4	s 2.4	98	16	47	27	32	1.38	- 2.85	.72	...	4	20	10	1	.....	
Pacific Junction	Mills	960	7	73.7	s 0.3	95	17	40	27	36	1.90	- 2.55	1.00	....	5	13	17	1	S	
Pella	Marion	.....	....	76.4	..	95	2, 16	47	27	34	3.95	.....	1.99	...	8	16	15	0	SE	
St. Charles	Madison	1070	4	76.1	.....	95	16	47	27	34	2.31	.....	1.30	...	7	20	7	4	SW	
Sigourney	Keokuk	877	7	75.2	s 1.0	94	2, 16, 23	44	27	32	2.52	- 1.21	1.05	....	7	3	26	0	SW	
Stockport	Van Buren	.....	..	76.1	.....	95	16	46	27	33	2.10	.....	.50	..	14	23	5	3	SW	
Thurman	Fremont	.....	8	74.6	s 0.4	94	16, 17	41	27	35	4.87	- .56	3 40	....	7	14	11	6	SW	
Wapello	Louisa	588	6	.....	.....	.....	.....	.....	.....	.....	3.06	- 2.19	.64	..	7	....	....	....	.....	
Washington	Washington	709	22	75 1	s 1.9	93	16	46	27	30	2.98	- .51	.97	....	8	....	....	....	SW	
Winterset	Madison	1129	18	75.6	s 3.2	93	16	45	27	32	1.92	- 1.62	.90	....	10	19	8	4	S	
Woodburn	Clarke	961	..	73.8	.....	92	2, 17, 18	40	27	34	5.55	- .86	3 30	....	9	17	12	2	SW	
Average	.....	.....	....	75.4	s 1.8	95.6	.....	44.1	.....	34.7	2.74	- 1.16	.....	....	8	16	11	4	SW	
Average for State	.....	.....	....	74.1	s 2.1	95.0	.....	43.6	.....	34.2	3.95	s .88	.....	....	9	17	9	5	SW	

s Above normal. ‡ Received too late to be computed with means. a. One day missing; b. two days, etc.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF AUGUST, 1906.

STATIONS.		DATE.																															MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max.	92	93	88	84	82	88	87	87	83	87	85	83	89	90	87	97	96	93	93	93	93	93	93	90	85	76	76	83	86	82	82	87.8
	Min.	63	65	64	65	65	65	63	65	63	64	60	57	62	63	65	68	68	67	69	69	69	68	67	69	67	60	45	50	60	56	53	63 0
Al ia*	Max.	90	90	90	87	83	87	82	85	85	87	87	85	86	88	82	93	93	90	92	91	90	90	91	88	89	76	76	82	88	87	81	86.6
	Min.	62	67	66	65	67	63	68	70	67	65	63	58	62	62	60	65	57	67	70	72	71	71	69	69	68	64	41	45	55	57	49	63.5
Algona	Max.	87	88	80	78	80	80	80	80	79	83	80	83	85	82	87	93	85	81	90	91	87	88	83	82	75	70	72	82	75	77	82	82.3
	Min.	62	68	58	63	62	61	65	63	63	63	62	55	60	63	60	68	66	65	67	71	70	69	66	70	68	53	45	52	53	50	54	61.6
Allerton	Max.	93	93	92	87	86	86	84	87	87	87	90	89	89	91	85	99	98	94	94	95	94	94	89	90	90	84	78	84	91	80	80	89.0
	Min.	64	65	66	66	66	69	69	69	66	65	63	58	63	61	61	69	68	71	68	70	69	68	70	71	68	63	42	49	61	63	58	64.4
Alta*	Max.	80	82	87	70	78	75	81	81	80	83	79	82	85	87	86	95	87	84	91	91	88	90	84	84	74	68	76	82	79	80	79	82.5
	Min.	64	67	59	65	62	61	62	62	63	62	61	56	56	65	69	69	70	64	68	72	71	69	68	68	64	52	48	55	52	49	56	62.1
Alton	Max.	88	86	85	80	78	78	81	80	80	84	79	81	86	89	90	96	88	84	92	92	87	87	82	70	77	78	75	77	77	70	82	82 7
	Min.	65	66	62	61	63	64	64	63	61	60	60	52	54	68	71	65	68	61	69	72	70	71	65	65	63	52	41	55	49	46	52	61.3
Amana	Max.	87	93	91	87	83	87	85	83	82	85	85	83	83	85	83	93	88	82	90	92	91	90	91	86	87	78	72	80	81	80	81	85 4
	Min.	68	68	68	64	62	67	70	71	66	67	64	60	59	58	59	65	70	69	70	71	72	71	70	70	70	68	46	48	60	56	54	64.5
Ames	Max.	89	89	90	82	81	82	82	81	81	87	84	83	84	86	83	94	90	88	92	91	91	89	90	85	80	78	75	82	83	88	82	85.0
	Min.	68	64	63	66	64	61	66	67	64	64	61	56	61	60	63	65	71	65	67	68	69	68	68	70	68	58	48	47	59	55	52	62 5
Atlantic	Max.	90	91	90	80	84	90	87	84	81	90	85	87	90	91	91	99	93	95	94	94	92	92	91	89	88	74	81	86	..	84	77	88.1
	Min.	61	67	59	64	63	68	67	70	72	59	56	49	57	65	68	66	67	62	69	69	69	69	66	69	65	58	36	50	..	48	56	62.1
Audubon	Max.	90	89	91	82	83	75	87	85	81	87	82	88	87	90	90	100	95	93	94	94	90	97	90	87	84	73	80	86	85	85	80	87.1
	Min.	62	65	59	64	63	58	60	63	64	59	58	51	57	65	68	65	65	60	68	71	69	67	63	67	66	58	35	49	50	46	44	59.9
Baxter	Max.	..	90	85	83	80	85	83	83	81	85	84	83	83	86	81	94	89	88	92	93	92	90	91	87	83	73	76	82	83	82	83	85.0
	Min.	62	..	68	65	65	64	65	65	63	64	62	57	61	58	61	65	68	64	67	69	70	68	67	70	72	60	43	48	59	53	50	62.3
Bedford	Max.	83	90	90	82	83	84	87	82	82	88	86	88	89	88	90	95	93	92	91	92	89	89	89	87	86	81	81	81	83	86	74	86.6
	Min.	63	65	65	65	61	63	65	65	64	64	60	56	64	64	68	67	67	65	70	70	69	69	71	69	65	56	40	55	58	57	52	63 1
Belle Pl'e	Max.	87	91	89	91	88	89	82	89	78	80	85	84	84	83	86	90	90	87	91	96	93	92	93	85	84	75	78	79	81	79	80	85.9
	Min.	64	67	66	65	67	67	66	65	64	68	66	62	60	64	60	65	67	68	69	70	70	71	75	69	69	63	45	50	58	57	54	64.2
Bonapar'e	Max.	89	91	92	89	86	85	80	88	88	88	89	84	84	85	89	95	90	81	90	91	91	92	90	90	92	78	75	80	89	81	84	86.9
	Min.	65	65	63	67	70	69	70	69	66	66	65	62	58	55	55	65	67	69	69	71	71	72	68	71	68	65	45	50	61	62	54	64.4
Bloomf'ld	Max.	93	94	94	92	82	85	82	85	88	86	90	87	87	89	89	94	95	85	92	93	92	93	90	90	92	82	78	88	91	84	81	88.3
	Min.	67	66	66	68	68	66	70	70	67	66	67	67	60	59	60	64	69	69	69	71	72	71	67	70	69	63	47	49	64	62	59	65.2
Boone*	Max.	89	90	89	82	80	82	82	83	79	87	84	88	85	85	83	95	90	87	92	93	93	91	90	88	78	71	76	84	83	83	83	85.1
	Min.	64	67	64	67	64	62	65	67	64	64	63	53	62	64	65	64	71	68	68	72	71	70	70	71	67	59	46	52	57	54	57	63.8
Britt	Max.	87	88	85	78	81	81	84	82	86	84	78	85	84	88	84	93	84	79	91	91	90	90	85	82	78	69	72	80	80	79	84	83.3
	Min.	63	65	59	60	62	62	67	62	63	63	62	61	62	64	65	66	65	65	66	70	70	69	72	69	67	55	36	50	54	46	53	61.7
Burlng'n*	Max.	90	93	94	92	82	86	81	85	89	85	89	84	83	85	89	94	89	82	92	92	94	92	95	91	94	77	75	81	89	82	84	87.4
	Min.	65	66	66	68	69	69	70	67	66	66	67	65	60	57	59	64	69	69	72	72	73	72	69	70	70	66	51	52	58	62	57	65.2
Carroll*	Max.	87	86	90	76	80	75	84	82	81	85	82	81	87	87	86	98	91	88	92	93	89	90	89	85	78	73	77	85	83	83	81	84.6
	Min.	62	69	60	65	62	60	63	65	62	61	60	62	53	64	67	66	71	62	69	72	71	68	66	68	61	56	..	..	57	49	52	62.7
Cedar R*	Max.	88	94	93	92	84	85	84	80	82	89	88	84	85	87	89	96	89	85	94	94	93	93	94	90	89	74	76	88	88	82	83	87.1
	Min.	63	61	70	66	69	69	69	70	66	68	66	62	61	61	61	63	69	65	69	72	73	73	74	70	71	66	48	55	65	60	59	65.6
Chariton	Max.	91	93	92	84	85	86	83	87	82	86	86	86	87	89	85	97	93	92	91	93	91	91	88	88	85	76	75	82	88	84	78	87.0
	Min.	64	65	65	64	66	67	68	63	63	62	61	58	61	59	60	68	67	64	66	70	69	69	67	69	66	61	44	48	48	50	55	62.3
Charles C.	Max.	85	88	84	78	80	82	81	78	79	84	81	80	81	84	78	92	84	78	89	91	88	88	91	82	76	67	73	80	76	77	82	81.8
	Min.	64	68	61	60	64	63	67	65	65	66	61	57	60	60	64	64	66	63	69	70	72	71	69	68	63	47	42	50	56	49	53	61.9
Clarinda*	Max.	92	94	90	78	85	86	89	86	84	89	88	91	91	92	90	100	99	97	97	97	95	94	91	88	85	75	82	87	93	87	75	89.3
	Min.	61	68	64	66	62	65	61	64	63	62	60	55	61	62	64	66	66	65	67	68	67	69	68	69	58	58	41	43	53	57	53	61.3
Clear L	Max.	88	89	87	88	80	80	80	80	83	85	81	82	86	85	88	98	85	80	91	90	90	91	87	81	80	70	76	81	77	80	83	83.9
	Min.	60	65	63	62	63	62	66	62	64	65	64	58	62	60	65	65	65	67	65	70	72	69	72	67	65	56	48	52	57	56	54	62.6
Clinton	Max.	86	91	91	94	85	87	86	87	83	86	88	83	81	82	87	91	86	85	87	91	91	91	93	89	89	79	72	84	82	79	83	86.8
	Min.	63	64	65	67	70	68	70	70	66	65	68	61	55	51	64	61	67	69	70	70	71	71	70	70	68	58	48	46	59	58	52	63.8
Colum. J.	Max.	86	90	90	90	85	86	84	87	85	84	87	84	83	85	87	92	87	86	91	91	91	91	91	91	88	90	79	72	80	84	79	82	86.0
	Min.	66	66	67	68	65	69	71	70	66	66	67	61	58	58	58	66	68	68	70	70	71	71	69	71	69	64	47	51	55	61	56	64.6
Corning	Max.	87	..	89	81	80	82	85	83	82	86	84	84	87	87	87	98	95	92	91	91	90	89	89	86	83	76	77	82	87	81	78	85.6
	Min.	62	69	63	66	64	64	66	65	63	64	56	53	68	66	70	59	69	63	69	70	70	69	67	69	57	60	37	50	59	56	50	62.3
Corydon	Max.	91	93	94	86	85	84	83	86	85	86	89	86	87	89	82	97	94	91	91	92	92	91	86	88	89	77	78	82	90	85	81	87.5
	Min.	65	67	66	67	67	67	69	69	65	64	63	59	67	62	63	70	68	68	69	70	70	69	69	70	68	63	45	45	62	61	56	64.6
Davenpo't	Max.	85	91	91	91	83	86	81	85	86	84	88	82	81	84	88	93	86	83	89	90	90	90	94	86	90	76	74	80	84	80	82	85.6
	Min.	64	70	71	70	70	70	70	69	68	67	69	62	61	60	64	69	69	70	74	74	74	74	73	69	72	58	49	56	64	62	60	66.8
Decorah	Max.	87	89	88	88	85	87	83	77	82	85	84	83	85	86	80	94	86	83	90	93	91	90	90	90	85	80	73	79	79	77	81	84 8
	Min.	66	68	66	61	72	63	67	64	66	65	61	58	60	62	63	63	64	65	63	70	70	74	70	67	68	53	45	49	58	52	54	63.0
Delaware	Max.	80	89	89	89	83	76	88	79	80	82	82	78	82	83	85	91	87	84	88	90	90	88	90	84	80	76	72	77	80	77	83	83.3
	Min.	62	65	66	66	66	63	65	66	62	63	61	59	55	58	58	62	65	65	63	76	70	79	70	64	67	58	44	47	57	51	58	61.7
Denison	Max.	90	86	89	77	81	74	84	82	81	85	81	84	83	89	88	97	91	89	94	94	91	91	91	85	79	73	78	87	85	85	80	85.3
	Min.	64	69	60	65	63	60	62	64	63	60	57	51	55	67	68	70	70	..	..	72	71	68	67	66	66	56	37	57	55	46	48	61.3
Des M	Max.	90	91	88	87	81	88	84	84	81	87	85	88	85	88	81	97	90	89	90	92	90	90	85	86	82	71	75	83	83	81	79	85 1
	Min.	65	69	64	67	65	67	66	70	65	66	63	62	63	64	65	69	72	68	67	72	72	71	69	69	68	51	46	53	63	59	55	64.7
De Soto	Max.	90	91	87	91	80	83	83	84	80	85	84	85	86	88	83	95	88	87	91	91	92	90	88	84	80	75	77	85	82	83	80	85.4
	Min.	64	68	67	65	66	64	65	66	65	65	62	57	61	63	64	68	70	65	71	72	72	70	68	70	69	61	44	55	62	56	51	64 1
Dows	Max.	88	90	85	86	79	81	82	81	76	82	80	83	84	87	83	92	86	82	92	93	91	90	91	81	76	70	74	..	82	79	85	83.7
	Min.	60	64	58	62	62	60	64	64	60	63	59	55	59	60	64	63	68	65	66	69	69	67	66	67	67	56	40	..	55	41	51	60.8
Dubuque	Max.	80	90	90	87	83	74	82	80	83	84	85	79	82	82	86	91	85	82	86	91	92	89	92	85	88	73	72	78	79	77	82	83 5
	Min.	62	70	70	67	68	67	66	68	65	65	65	63	60	62	61	68	69	67	70	78	74	75	68	67	70	55	48	52	68	57	59	61.9
Earlham	Max.	..	..	..	..	..	89	87	87	86	84	81	89	87	88	86	89	87	88	89	89	90	95	94	91	90	75	84	85	85	83	82	86.9
	Min.	..	..	..	..	..	67	62	63	60	64	59	61	60	67	64	65	65	64	69	70	65	61	62	60	53	49	38	50	57	52	50	59 5
Elkader	Max.	87	93	92	85	86	80	86	78	82	89	89	82	86	88	87	96	91	80	91	95	94	93	93	85	89	75	77	82	81	80	85	86 3
	Min.	64	67	67	63	69	63	65	67	65	63	60	57	56	58	57	60	67	65	66	69	70	72	69	65	67	60	44	45	59	50	52	62 0
Elliott	Max.	93	96	97	87	80	87	85	97	83	91	87	90	98	92	91	99	97	97	94	95	96	93	92	90	85	75	74	84	85	81	82	89.6
	Min.	61	67	61	67	65	65	67	66	63	63	59	58	59	65	70	69	69	66	70	71	71	70	69	70	67	59	40	52	52	54	49	63.1
Esth'rv'l*	Max	88	84	84	70	78	76	80	77	78	84	79	81	85	87	86	96	87	81	94	92	87	87	73	79	73	67	75	80	73	80	80	81.4
	Min.	62	65	60	63	60	63	63	62	61	62	60	53	56	59	66	67	65	64	67	72	71	69	65	62	63	52	44	48	50	46	50	60.4
ForestCy*	Max.	88	88	87	79	85	82	83	82	79	85	80	83	86	86	85	98	85	81	92	92	90	89	85	84	73	73	75	82	80	78	84	83.8
	Min.	62	66	62	62	61	63	66	62	61	64	63	58	62	62	64	65	66	67	67	71	71	69	70	67	62	54	45	47	54	40	52	61 5
F. Dodge*	Max.	90	88	85	83	85	84	82	85	78	84	82	85	88	90	85	95	87	86	93	94	91	91	92	86	86	69	78	85	79	81	84	85.5
	Min.	63	70	62	63	63	64	66	65	64	64	68	57	62	65	66	66	70	68	70	72	72	70	71	73	67	57	45	45	56	51	55	63.4
Galva	Max	90	84	87	81	81	76	85	82	80	83	80	86	87	86	93	87	82	90	90	88	90	87	85	76	70	75	82	80	80	84	83.4	
	Min.	45	63	58	65	64	61	62	63	61	60	60	50	54	66	69	68	69	60	69	72	71	68	68	68	65	53	36	55	51	44	50	60.5
Glenwo'd	Max.	87	86	84	81	79	81	83	80	80	84	82	85	86	87	87	92	93	90	91	91	88	86	88	83	79	77	76	85	84	82	72	84.2
	Min.	61	69	61	56	65	65	66	63	66	63	62	58	62	67	71	69	71	67	72	72	70	69	69	68	66	56	45	58	62	57	56	63 8
Grand M.	Max.	82	81	85	84	82	80	82	75	71	83	82	79	82	82	82	91	83	81	86	90	89	88	89	80	85	78	71	77	75	75	80	81.8
	Min.	63	66	65	65	66	64	64	64	63	65	68	59	58	60	60	61	66	65	68	71	72	72	68	65	67	58	46	54	56	54	56	62 7
Greene	Max.	89	90	88	89	84	83	86	81	80	86	82	84	84	87	84	94	87	82	91	93	91	91	91	85	77	72	76	82	77	79	83	84.5
	Min.	59	67	62	62	64	63	67	65	63	65	61	56	60	60	62	62	67	67	67	70	71	69	70	67	68	59	42	48	56	51	55	62.1
Greenfield	Max.	90	91	91	89	85	86	86	81	85	86	84	80	87	88	88	95	93	92	92	92	92	91	90	90	88	75	79	83	84	78	79	86.5
	Min.	64	67	63	66	65	64	64	62	63	65	62	56	66	64	54	68	70	66	70	69	72	68	68	67	66	62	44	54	55	54	52	62.9
Grinnell	Max.	89	91	89	86	82	86	85	82	79	85	84	83	84	87	81	94	90	87	91	93	92	91	92	88	85	78	73	83	80	80	83	85.7
	Min.	63	64	64	63	64	65	66	64	63	63	61	58	60	60	60	64	67	65	66	68	68	67	65	70	67	60	41	47	59	52	51	61.8
Guthrie C	Max.	87	89	88	88	80	82	84	84	80	84	82	85	87	87	87	94	92	88	93	92	90	90	88	86	82	77	76	85	82	83	80	85.5
	Min.	64	69	62	64	65	60	65	65	64	63	61	53	61	63	62	69	73	62	71	72	72	70	67	71	68	59	40	53	58	52	49	62.8
Hampton	Max.	89	89	88	83	84	81	81	81	80	87	84	85	86	88	88	97	89	85	93	94	89	91	95	85	76	70	78	88	79	82	85	85.3
	Min.	64	67	63	64	64	63	67	65	64	65	63	57	60	62	65	66	69	68	66	72	72	69	71	67	69	57	46	53	59	53	57	63.5
Hancock	Max.	85	89	87	81	80	83	85	82	80	85	82	82	88	89	87	95	93	91	91	92	91	90	70	69	70	68	67	58	44	53	53	55	54	62.9
	Min.	56	67	62	67	65	64	65	65	64	64	62	57	61	63	71	67	69	60	70	70	92	89	90	89	85	82	78	77	85	82	82	78	84.8
Harlan	Max.	88	85	88	80	82	75	85	83	85	85	81	83	87	88	88	94	91	90	91	94	92	90	88	84	80	75	77	85	82	82	80	85.4
	Min.	63	66	69	65	62	63	62	62	63	65	59	52	55	65	68	66	68	63	68	69	69	67	66	69	66	56	33	50	53	48	48	61.2
Hopeville	Max.	91	94	92	82	84	86	87	86	86	86	86	93	92	92	89	100	97	95	94	96	93	94	89	91	87	77	80	85	88	82	78	88.8
	Min.	64	65	67	66	65	64	66	67	65	64	61	58	64	63	66	69	68	68	69	69	69	69	70	70	68	61	44	50	61	59	56	64.1
Humboldt	Max.	90	80	88	78	75	75	76	76	75	80	80	82	82	83	85	93	84	81	88	92	88	85	88	84	78	70	78	82	80	78	84	80 7
	Min.	70	66	60	66	68	63	65	65	62	64	62	56	60	63	65	68	68	66	68	72	73	70	70	74	68	57	44	54	56	50	52	63.4
Ida Grove	Max.	92	85	90	80	81	76	85	82	88	86	82	85	89	90	90	100	92	92	96	95	93	93	89	84	80	73	80	90	..	87	..	86.9
	Min.	65	62	58	66	63	60	62	65	68	70	59	48	53	62	71	69	70	59	68	73	73	70	63	67	65	50	34	55	..	43	..	61.6

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF AUGUST, 1906--Concluded.

STATIONS.		DATE. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Means.
Indep'ce	Max..	82	88	88	84	80	82	84	83	79	85	84	80	81	83	81	92	87	79	91	91	91	89	93	85	85	71	73	81	80	79	81	83.6
	Min...	64	65	66	65	66	64	66	65	64	65	62	57	57	58	59	62	65	67	67	68	71	68	69	66	67	61	45	47	58	51	51	62.1
Indian'la	Max..	92	93	90	82	81	84	87	86	79	88	85	88	88	90	84	93	91	89	91	93	92	91	89	90	83	..	77	82	88	82	78	86.6
	Min ..	65	66	67	66	66	66	66	69	65	64	61	57	61	62	64	69	70	66	70	70	71	70	69	71	69	61	45	51	62	57	56	64.8
Inwood..	Max..	88	87	85	74	77	78	81	80	82	83	80	82	86	88	94	93	89	84	92	90	86	88	79	68	78	70	76	78	76	82	81	82.6
	Min ..	63	65	61	62	58	63	62	62	62	60	56	49	53	67	69	68	69	62	65	71	70	70	62	60	61	48	42	55	46	47	54	60.2
Iowa C	Max..	91	95	94	93	85	84	86	86	83	87	89	87	88	90	87	97	91	85	93	94	93	92	97	92	87	75	77	83	84	84	82	88.2
	Min ..	62	65	63	65	68	68	70	70	65	67	65	60	58	58	59	63	68	69	70	70	73	71	69	70	69	65	46	48	52	57	53	63 8
Iowa F	Max..	87	89	87	83	79	85	84	83	79	84	81	83	83	85	82	92	85	84	91	91	89	90	91	84	79	68	73	80	79	78	83	83.7
	Min ..	53	63	62	63	65	64	63	64	63	64	57	53	57	60	61	64	65	66	66	67	69	67	67	69	69	53	42	48	52	49	48	60.9
Jefferson	Max..	87	88	87	82	78	79	82	83	73	85	83	83	87	87	83	96	90	87	92	92	89	89	89	83	80	81	78	85	..	..	88	85 1
	Min ..	63	61	62	62	69	61	63	65	69	68	60	55	55	63	65	61	78	69	68	72	71	68	69	71	62	67	43	53	..	..	55	63.5
Keokuk	Max..	92	95	91	94	84	83	82	83	89	87	89	83	88	88	90	94	93	77	92	91	91	92	91	89	91	82	73	78	86	80	81	86.8
	Min ..	68	58	67	69	70	70	71	69	66	67	63	65	61	59	61	63	70	70	68	74	74	74	71	71	71	69	50	52	62	61	57	66.5
Keosauqua.*	Max..	93	95	94	93	84	83	81	90	91	89	91	88	87	90	93	99	97	83	93	95	94	95	93	92	94	78	79	83	92	83	85	89.4
	Min ..	60	65	65	65	69	68	70	70	67	67	64	60	57	54	55	59	68	70	70	70	70	71	68	70	69	68	45	47	50	62	52	63.4
Knoxville	Max..	91	93	89	85	82	84	83	83	82	86	84	85	85	88	83	94	90	90	91	93	92	93	91	88	84	79	74	82	83	81	80	86.0
	Min ..	65	67	67	65	67	66	67	68	66	66	65	60	61	60	63	68	68	65	69	73	72	71	69	71	69	61	45	53	63	57	53	64.5
Le Mars.	Max..	90	87	88	85	..	..	..	..	..	..	..	..	..	.	..	95	89	86	92	92	87	88	84	71	79	74	77	78	80	82	82	84.8
	Min ..	64	67	62	60	..	..	..	..	..	..	..	..	..	..	..	67	68	61	70	72	72	70	68	65	63	51	41	58	50	48	51	61.8
Lenox...	Max..	88	88	89	87	79	82	83	82	82	86	83	83	86	87	85	94	94	90	89	90	89	89	87	86	84	78	78	82	87	83	77	85.5
	Min ..	62	66	65	68	65	64	66	64	63	64	62	59	63	64	69	70	69	57	70	69	70	69	68	70	66	61	45	51	61	53	59	63.9
Leon	Max..	92	93	91	85	83	84	84	85	83	85	86	86	84	90	87	96	93	89	90	91	90	90	87	88	85	85	76	83	86	80	79	86.7
	Min ..	64	65	67	66	67	67	68	68	64	65	64	59	63	62	64	63	67	68	69	70	70	70	69	71	68	63	47	50	59	61	55	64.5
Little Sioux	Max..	87	85	89	86	83	78	83	84	83	86	83	80	87	88	89	96	94	92	93	93	89	89	90	76	81	76	80	88	85	84	78	85.6
	Min ..	65	69	62	65	64	65	65	64	62	61	60	55	58	70	71	70	70	61	72	74	73	70	71	65	65	55	40	57	58	49	53	63.2
Logan..	Max..	90	89	90	73	84	80	89	87	82	89	86	84	91	92	90	98	95	92	94	95	91	94	91	84	82	77	78	86	85	82	79	87.2
	Min ..	63	67	60	65	64	63	63	62	62	61	59	54	56	61	61	68	70	64	68	69	68	65	68	67	66	53	58	61	56	50	53	62.1
Marshall'n*	Max..	86	91	91	85	81	87	85	85	82	88	87	85	86	89	81	95	91	89	95	95	94	94	94	89	84	74	77	85	84	84	85	87.0
	Min ..	62	64	65	65	64	64	66	67	64	63	61	53	59	53	60	63	65	65	66	69	69	68	68	69	67	60	42	46	55	52	51	61.6
Mason C.	Max..	86	87	85	80	81	83	83	83	83	85	81	80	83	86	81	93	85	81	92	91	89	89	87	82	81	70	72	80	77	77	82	83.0
	Min ..	64	68	68	64	63	68	64	64	65	65	65	60	53	65	66	66	67	68	67	70	75	70	75	65	68	58	45	51	57	52	55	63.5
Massena	Max..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.....
	Min ..	60	61	68	66	64	63	64	64	61	60	58	62	62	65	68	64	67	65	70	70	70	69	67	69	65	61	38	53	56	58	48	62.1
Mt. Ayr.	Max..	93	94	91	82	87	87	89	87	87	89	89	92	91	93	87	97	95	94	91	95	94	91	92	87	89	78	88	86	92	88	80	89.6
	Min ..	63	64	65	66	64	66	65	65	62	63	62	59	63	63	66	67	67	67	69	68	68	68	67	69	68	61	46	51	57	60	57	63.4
Mt. Pleasant	Max..	90	94	93	91	86	89	88	87	89	86	90	86	85	87	91	93	88	84	92	93	93	91	91	91	92	77	78	80	86	80	83	87.8
	Min ..	65	68	69	68	70	69	70	70	67	66	67	62	59	57	60	67	69	69	70	67	71	72	69	72	70	65	47	52	61	63	57	65.4
Mt. Vernon.	Max..	90	92	95	88	87	81	83	77	82	89	90	87	88	90	83	97	89	81	90	93	92	93	95	91	84	77	71	80	84	84	81	86.7
	Min ..	62	65	67	65	66	70	66	65	63	61	65	59	59	59	60	60	59	66	69	69	71	70	69	67	67	61	45	48	59	56	56	63.1
N. Hampton	Max..	82	84	82	78	79	80	81	76	79	80	82	80	82	81	78	89	85	86	87	83	87	87	80	86	81	75	70	77	76	75	79	81.0
	Min ..	64	67	68	63	64	63	63	63	59	63	62	58	53	58	62	63	67	69	70	68	70	70	65	65	68	57	44	49	56	50	53	61.8
Newton.	Max..	88	90	87	86	79	83	83	83	79	84	84	84	85	83	86	92	89	83	92	91	90	90	90	98	82	74	78	81	81	80	80	84.7
	Min ..	65	67	67	67	66	66	63	67	65	65	64	61	64	62	63	67	70	67	63	69	70	71	70	72	70	68	57	55	63	60	58	65.4
Northwood	Max..	86	90	82	80	80	81	82	82	81	83	79	81	83	84	83	91	82	80	83	90	90	89	82	78	81	69	..	..	..	78	..	82.7
	Min ..	60	66	69	60	61	62	65	65	65	64	61	56	60	60	61	63	65	67	68	70	70	69	68	68	68	53	..	..	..	59	..	63.5
Odebolt.	Max..	93	86	93	88	86	79	85	85	82	87	83	90	91	90	92	101	94	94	96	96	95	95	93	88	80	73	82	87	88	88	82	88.5
	Min ..	65	68	59	65	64	60	64	65	64	62	67	53	51	67	69	68	70	62	70	72	72	69	67	69	66	54	40	55	54	47	52	62.2
Ogden..	Max..	89	89	89	86	82	82	83	85	79	82	85	84	86	83	85	95	90	83	93	92	92	89	83	79	72	72	78	85	83	82	80	84.7
	Min ..	68	66	62	67	61	63	64	65	63	62	60	56	60	63	64	67	72	63	69	70	71	69	71	67	57	57	43	52	52	52	53	62.2
Olin	Max..	83	90	88	91	85	82	85	83	82	82	84	78	80	81	84	89	86	89	86	91	89	90	90	86	83	78	68	67	78	77	81	83.4
	Min ..	64	65	63	65	69	69	68	67	65	65	64	60	57	57	56	62	68	69	68	70	71	72	70	68	68	67	44	44	54	50	70	63.6
Omaha Neb.	Max..	88	84	86	78	80	82	84	82	81	86	82	88	87	88	89	97	91	93	93	93	90	88	88	79	81	70	78	83	84	82	75	84.9
	Min ..	65	66	66	67	66	68	69	68	65	67	64	60	66	70	74	72	75	70	74	75	74	72	70	68	67	57	52	59	62	59	61	66.7
Onawa ..	Max..	83	85	88	83	79	78	83	88	84	85	83	86	89	87	90	98	94	90	95	95	92	92	88	75	79	77	80	84	79	84	77	85.5
	Min ..	65	69	64	67	64	65	64	64	64	63	63	56	59	69	71	70	72	63	70	73	74	71	72	63	65	54	46	56	59	52	55	64.1
Osage ...	Max..	87	88	87	80	83	81	84	80	82	85	82	84	83	81	82	93	85	79	91	92	88	90	87	85	78	79	70	80	75	79	83	83.5
	Min ..	61	66	62	60	63	62	66	63	66	64	61	56	59	59	62	63	64	64	65	69	66	63	69	64	63	57	45	49	55	59	53	61.2
Oskaloosa ..	Max..	91	93	89	88	85	85	83	85	82	84	85	83	85	85	80	93	91	87	92	93	92	92	92	90	85	77	73	83	84	81	81	86.1
	Min ..	66	67	68	62	69	69	70	67	66	64	61	61	53	60	55	70	67	70	71	72	70	69	72	69	61	45	50	64	58	50	51	63.7
Ottum'a	Max..	92	95	93	92	93	85	85	88	86	88	89	89	89	90	87	98	93	88	92	95	95	95	93	93	91	75	78	88	90	85	82	89.2
	Min ..	68	68	67	67	68	68	71	71	68	67	68	64	62	61	62	66	72	70	70	78	74	78	62	62	71	59	47	52	63	63	60	65.6
Pacific Jct.	Max..	86	86	84	79	80	83	84	83	81	85	82	81	85	87	89	94	95	91	90	90	89	88	86	82	81	78	78	84	84	81	75	84.4
	Min ..	61	65	63	64	64	65	65	63	63	65	60	53	65	66	75	67	67	67	70	70	70	68	69	68	67	55	40	53	55	55	52	63.0
Pella	Max..	93	95	93	89	85	85	85	83	83	88	87	85	88	88	85	95	93	90	93	90	93	93	92	91	87	83	78	84	86	84	82	88.1
	Min ..	65	66	67	66	67	65	68	70	65	65	64	61	61	66	64	68	69	67	68	71	71	71	68	71	69	63	47	50	63	57	56	64.8
Perry ..	Max..	89	91	88	83	81	85	84	87	..	88	83	85	93	83	85	91	89	88	92	92	92	91	89	89	88	78	..	85	83	82	83	86.6
	Min ..	64	67	64	62	65	61	66	64	..	63	60	58	61	63	65	67	73	65	70	70	69	69	69	71	68	59	..	43	59	53	52	63.3
Plover ..	Max..	85	89	88	79	84	82	84	83	80	84	83	82	83	89	85	95	88	83	78	93	93	92	93	82	79	..	78	80	80	81	85	84.8
	Min ..	60	61	54	60	59	58	60	63	62	63	63	60	56	64	67	65	66	67	62	65	77	79	69	67	67	..	62	55	51	54	59	62.5
Pocahontas.	Max..	89	89	90	76	83	79	80	83	79	85	80	86	83	89	86	95	87	86	94	94	93	93	86	86	75	69	75	86	80	83	84	84.7
	Min ..	63	69	59	64	63	61	65	62	62	61	60	54	59	65	67	67	68	68	67	72	72	69	68	69	65	54	48	55	58	49	56	62.1
Preston.	Max..	80	89	87	89	84	82	84	82	83	83	86	80	79	79	85	90	84	81	82	91	90	89	90	85	87	81	71	76	79	78	81	83.5
	Min ..	51	64	63	65	63	69	67	69	66	65	64	58	54	54	53	60	67	67	69	72	72	72	70	67	67	69	47	45	60	55	52	62.7
Ridge'y	Max..	87	90	91	87	85	88	80	81	84	89	88	83	85	87	85	96	91	81	90	93	92	92	90	81	85	79	79	81	84	83	85	86.0
	Min ..	62	70	68	62	64	64	63	65	65	66	61	57	60	62	63	64	70	65	70	71	71	72	70	64	69	55	45	50	54	50	55	62.7
Rock R'ds..	Max..	90	88	90	88	78	80	84	80	78	82	80	78	83	88	90	98	90	90	94	94	89	90	88	80	78	78	68	78	72	80	82	84.1
	Min ..	50	60	58	58	60	62	61	63	60	60	56	50	50	53	70	68	68	70	74	72	71	62	64	60	62	62	46	62	44	48	50	60.0
Rockwell C.	Max	86	86	90	80	85	75	65	85	80	84	80	85	86	90	85	95	88	86	92	95	93	93	92	90	80	78	75	85	82	80	81	85.2
	Min ..	62	66	67	58	60	60	62	63	63	62	60	58	58	63	65	65	70	64	67	71	72	70	68	71	66	52	48	52	52	52	52	61.9
Sac City.	Max..	88	84	86	75	79	74	80	81	82	80	79	81	86	87	87	93	86	91	..	..	90	89	88	84	76	68	76	85	79	81	80	82.6
	Min ..	62	65	59	62	63	60	62	64	62	63	61	55	59	61	63	67	70	66	..	..	67	68	63	63	63	51	40	48	54	49	52	60.5
St.Cha'es	Max..	90	91	89	80	81	83	85	85	81	86	86	84	87	89	82	93	94	89	92	94	92	92	88	89	85	85	81	85	88	86	77	85.8
	Min ..	64	67	68	67	67	66	66	68	65	65	63	60	62	65	64	70	72	68	70	71	71	76	69	71	69	60	47	57	63	58	58	65.4
Sheldon.	Max..	90	89	88	79	81	82	84	82	84	87	81	84	85	88	92	97	90	85	92	91	88	83	82	78	73	73	79	79	78	82	80	84.4
	Min ..	62	65	63	62	61	62	64	60	64	61	60	66	66	63	69	69	66	61	66	63	63	70	64	63	50	40	54	53	45	54	58	61.5
Sibley*..	Max..	88	86	85	67	77	80	81	79	80	83	77	81	85	87	91	97	87	85	92	89	86	86	72	76	76	68	78	76	74	80	81	81.6
	Min ..	61	63	61	63	60	61	64	61	62	60	58	52	54	56	67	67	66	62	66	71	66	66	64	61	69	50	41	43	48	44	46	58.2
Sigour'y	Max..	92	94	93	92	81	84	86	84	84	85	85	82	77	82	85	94	93	85	92	90	92	91	91	92	91	81	76	75	76	77	78	85.9
	Min ..	66	65	65	64	67	69	67	69	68	65	64	62	60	59	59	64	68	67	69	70	70	70	73	72	78	65	44	49	61	58	58	64.6
Sioux C'r	Max..	88	86	85	79	79	79	84	79	80	83	77	79	84	86	88	94	86	83	89	89	87	86	80	69	75	72	78	77	75	78	79	81.5
	Min ..	61	66	61	62	61	62	64	62	63	63	59	55	58	68	69	68	67	61	67	69	67	70	63	63	63	50	45	53	50	49	54	60.9
Sioux C.	Max..	86	84	84	74	79	77	81	80	81	83	80	81	86	87	90	96	90	87	92	91	88	88	80	68	79	69	76	83	79	88	78	82.5
	Min ..	66	70	65	63	61	65	66	62	63	64	62	54	61	69	72	71	71	68	73	73	73	72	65	63	63	52	43	60	55	50	59	63.5
Stockport ..	Max..	89	93	92	90	83	84	80	86	86	85	86	85	85	87	90	95	89	83	91	92	92	91	92	90	91	79	72	81	88	80	82	86.7
	Min ..	68	66	64	67	70	65	71	71	68	63	66	63	60	57	57	67	69	70	71	72	73	74	70	71	71	65	46	51	61	64	54	65.5
Thurm'n	Max..	88	83	88	82	80	83	84	82	84	85	84	82	86	88	90	94	94	93	93	91	89	90	85	79	81	76	76	85	88	80	75	85.2
	Min ..	62	66	62	68	65	67	65	65	61	60	62	55	53	61	73	70	68	67	73	73	73	71	71	69	67	57	41	58	57	58	54	64.0
Tipton ..	Max..	87	93	93	92	84	85	86	85	83	87	90	87	85	87	90	95	86	83	90	93	93	91	95	91	91	79	78	80	85	84	82	87.4
	Min ..	66	70	70	68	69	70	70	71	66	67	69	61	63	68	68	68	68	70	71	72	73	73	72	71	71	67	50	52	63	59	60	67.1
Toledo ..	Max..	88	90	89	87	82	85	84	81	79	86	85	83	84	86	82	91	90	85	92	92	91	90	91	85	83	75	74	83	82	81	82	85.2
	Min ..	64	67	67	66	67	68	68	66	65	66	62	59	60	61	62	65	70	62	68	71	71	71	70	70	69	63	43	51	63	53	54	63.8

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR AUGUST, 1906.—Concluded.

STATIONS.		DATE																														MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Wapello	Max.	84	88	88	87	81	81	78	81	84	81	84	81	..	..	..	..	..	..	..	..	..	..	..	..	..	85	83	79	86	83	78	..
	Min.	67	68	67	69	70	70	71	71	68	67	68	68	..	..	..	..	..	..	..	..	..	..	..	..	..	64	60	54	65	53	55	..
Washi'ton	Max	87	91	90	89	84	84	81	85	84	84	86	83	82	85	85	93	87	84	92	90	90	90	91	86	88	75	74	81	85	81	81	85.7
	Min.	66	66	66	63	68	68	69	70	66	66	64	60	58	60	60	63	69	68	70	71	72	71	69	72	69	58	46	51	61	6[illegible]	54	64.5
Washta ..	Max..	90	86	90	77	82	80	80	86	82	86	83	86	90	90	92	100	95	89	95	95	96	93	82	78	78	72	80	85	85	86	82	86.2
	Min	65	65	58	65	66	65	63	65	60	58	58	45	52	65	70	65	65	60	66	65	72	68	70	66	62	52	38	56	46	40	47	59 8
Waterloo	Max.	86	91	90	89	82	85	85	78	82	88	87	83	85	86	81	95	90	81	94	95	93	93	95	87	84	78	76	82	83	82	85	86.0
	Min ..	63	66	67	65	64	65	66	68	65	66	68	58	61	61	61	64	68	68	69	71	73	72	71	67	67	61	45	48	58	54	54	63.5
Waukee..	Max.	86	89	88	80	80	85	85	85	..	..	..	84	85	88	81	92	90	85	90	90	90	89	88	86	86	..	73	80	80	78	80	84.7
	Min	64	67	67	67	65	64	65	68	..	..	..	57	62	64	64	68	70	65	70	71	70	70	69	69	70	..	45	52	62	56	54	64.2
Waverly.	Max..	85	89	87	86	80	80	82	79	79	84	88	81	82	84	81	93	86	79	90	92	91	90	92	84	87	75	65	82	83	83	81	84.7
	Min ..	66	68	66	65	66	65	66	67	65	66	63	59	62	62	63	65	65	68	69	79	72	71	71	62	69	61	45	58	59	61	55	64.0
W. Bend.	Max..	89	88	87	75	83	80	86	87	78	83	77	86	86	87	86	95	84	84	89	90	91	91	81	83	80	67	74	82	78	77	88	83.5
	Min .	61	63	58	64	61	61	63	61	61	61	60	55	55	61	42	64	67	64	66	67	70	67	66	67	65	52	42	52	51	47	52	59.7
Whitten..	Max..	87	..	..	..	90	85	80	81	78	83	83	83	85	86	84	90	90	83	88	91	90	89	90	88	80	73	72	81	80	80	82	84.0
	Min ..	66	..	..	..	65	63	65	67	62	63	60	57	61	60	62	63	67	66	66	68	69	63	75	68	67	53	42	48	59	58	53	62.2
Wilt'n Jct	Max	..	..	..	..	..	..	..	83	83	82	88	83	81	82	84	90	88	83	89	91	91	89	88	88	88	83	70	74	80	78	83	84.1
	Min .	60	66	68	66	67	70	70	70	67	65	65	62	60	57	58	65	68	70	70	71	72	71	70	69	70	65	47	49	62	57	54	64.5
Wint'rset	Max.	92	92	88	83	81	83	86	86	81	86	84	85	87	89	84	93	90	88	91	92	91	91	90	89	85	76	76	84	85	82	80	86.1
	Min ..	68	72	66	66	70	64	65	66	65	67	66	63	63	64	64	64	70	66	70	71	72	70	70	70	69	60	45	53	65	56	55	65.0
W'odb'rn	Max..	90	92	87	85	87	89	88	85	83	83	86	87	85	90	78	91	92	93	87	89	90	90	89	90	85	79	70	79	84	77	79	85.7
	Min ..	62	65	65	62	65	63	65	65	64	63	58	54	58	60	60	68	68	65	67	69	69	69	68	69	68	63	43	45	60	57	48	42.0
Zearing	Max.	86	88	88	84	80	84	82	84	78	85	84	83	83	86	80	93	88	86	93	60	89	90	91	85	79	74	74	81	81	81	83	84.3
	Min ..	62	67	66	64	65	61	65	63	64	65	62	57	59	59	64	65	69	68	63	71	69	68	69	70	67	58	39	51	59	50	51	62.5

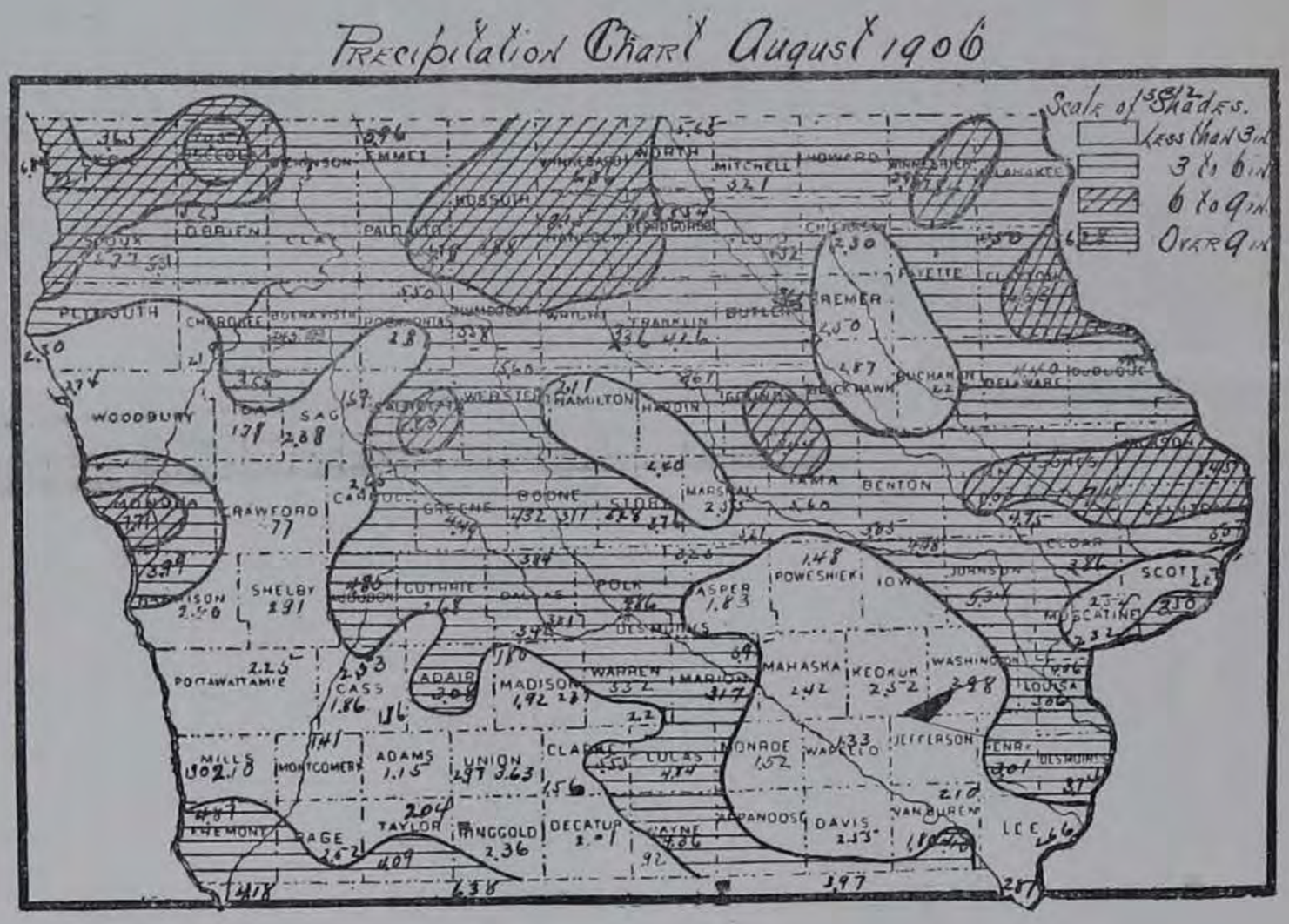
*At those stations the thermometers are read in the morning, the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

DAILY AND MONTHLY PRECIPITATION FOR AUGUST, 1906.

STATIONS.	DAY OF MONTH.																													TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	.42	.04	.33	1.80	.09	.16	..	.55	....	....	....	....	....	....	....	.04	....	....	....	....	.20	....	....	....	....	....	..	..	....	3.63
Albia	.04	....	....	....	.08	T	.11	....	.19	....	.16	....	....	....	....	.29	....	.12	.52	.01	....	....	T	..	....	....	....	....	....	..	T	1.52
Algona	..	.06	....	.90	T	T	.04	3.98	.07	....	....	..	..	....	1.60	....	.07	....	....	.32	T	....	.09	1.25	....	....	....	T	.50	....	....	8.88
Allerton	....	....	.05	.04	.35	T	.34	.02	....	....	.01	....	....	....	T	..	T	.06	.05	....	....	....	..	..	....	....	..	....	..	T	....	.92
Alta	..	.21	.26	....	1.80	....	.11	T	.10	.05	..	....	....	....	.45	....	....	....	....	....	T	T	..	....	.32	.01	....	.14	T	....	....	3.45
Alta [near]	....	.46	..	1.92	.02	.15	....	.20	.02	....	....	....	..	..	.28	....	....	....	....	..	T	....	....	.17	....	....	..	....	....	..	..	3.22
Alton	....	.42	..	1.67	..	.07	T	.87	..	....	....	....	..	....	T	....	..	..	....	....	1.06	..	..	1.22	....	....	....	....	....	....	....	5.31
Amana	.07	....	.54	.09	.14	.28	.71	.06	1.74	....	..	....	....	..	..	....	.68	....	....	T	....	....	....	T	.17	....	....	....	T	....	....	4.48
Ames	.09	....	....	.08	.02	.99	....	1.20	....	..	....	....	....	....	1.74	....	.04	....	....	....	....	....	....	....	1.18	....	....	....	....	....	....	5.28
Atlantic	.12	1.40	....	.40	....	.18	.05	..	....	.24	....	....	....	....	.12	....	....	.07	....	....	....	....	....	....	..	....	....	....	....	....	....	2.53
Audubon	.18	.22	....	.43	....	3.50	....	....	.87	.08	.50	....	....	....	.39	....	.02	T	....	....	....	....	....	....	.02	.01	....	....	....	....	....	4.85
Baxter	.29	.71	....	.05	.17	.64	....	.75	T	.18	....	....	....	....	....	T	.51	....	....	....	....	....	T	.06	....	....	....	....	.47	....	....	8.25
Bedford	....	....	....	1.46	.04	.67	....	....	....	....	....	....	....	....	....	....	.95	.10	....	....	....	....	....	.08	....	....	....	....	....	....	....	4.09
Belle Plaine	....	..	....	.75	T	2.05	.02	1.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5.05
Bloomfield	....	....	.48	.01	.12	.26	..	....	.08	.20	....	....	....	....	....	.10	.04	.67	.01	....	....	....	....	....	....	....	....	....	....	.58	....	2.55
Bonaparte	1.04	....	.06	.06	.45	.07	.07	....	.31	....	....	....	....	....	....	T	.40	1.10	T	....	....	....	....	....	.17	....	....	....	....	.37	....	4.10
Boone	.07	....	.03	....	.24	....	.90	.10	.77	.08	....	....	....	....	15	.67	.10	....	....	....	....	....	..	T	T	....	....	T	....	....	....	3.11
Britt	....	.96	....	3.06	....	.04	.09	2.54	.02	....	....	....	....	....	.50	....	....	T	....	....	....	....	.19	.12	T	....	..	.10	.53	....	....	8 15
Buckingham	....	.87	....	.82	....	2.68	.42	1.58	.10	....	....	..	....	....	T	..	T	..	....	....	....	....	....	.97	....	....	....	....	....	....	....	7.44
Burlington	....	....	....	....	.30	.16	.06	....	.48	....	....	....	....	....	....	....	....	.68	.66	....	T	....	....	.85	....	.16	..	....	....	.33	.06	3.74
Carroll	.86	....	.08	....	1.05	....	.42	....	T	.07	....	....	....	....	.08	.09	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2.65
Cedar Rapids	.23	....	....	....	.61	....	2.43	....	1.70	....	....	....	....	....	....	....	.52	.04	T	.20	....	....	....	T	.10	.20	....	....	T	....	....	6.03
Chariton	..	....	.05	T	.80	.40	.14	T	....	....	....	....	....	....	.40	....	..	3.05	....	....	....	....	....	....	....	....	....	....	....	....	....	4.84
Charles City	....	.18	....	1.39	....	.01	1.40	1.19	....	..	....	....	....	....	.08	....	....	T	.16	.01	....	....	.02	.05	....	....	....	.08	T	..	....	4.52
Clarinda	....	....	.66	....	....	.02	....	1.12	..	..	....	....	....	....	....	....	....	.15	.03	....	..	....	....	.04	.20	....	..	....	....	.80	....	2.52
Clear Lake	....	1.00	....	1.20	T	1.00	.10	1.60	1.05	....	....	....	....	..	.50	....	.05	....	....	.25	....	....	T	T	T	....	....	..	.64	....	....	7.09
Clinton	.34	....	....	.14	.92	1.16	.38	.87	....	....	....	....	..	....	....	..	.34	.32	....	....	....	....	....	.60	....	....	....	....	....	....	....	5.07
Columbus Junct'n	.38	....	T	T	....	.21	.05	..	.68	....	....	....	....	....	....	....	.10	T	.56	.10	....	....	1.42	....	.05	....	....	....	....	.06	....	4.06
Corning	....	T	....	T	.82	....	T	.10	..	....	....	..	....	....	T	....	..	.23	....	..	....	....	T	....	T	....	....	....	....	T	....	1.15
Corydon	T	....	....	.25	.35	.75	.09	.06	....	.02	....	....	....	....	2.33	....	....	....	.03	....	....	....	....	....	....	....	....	....	....	.50	....	4.36
Cumberland	....	.18	....	.02	....	.01	.21	.02	....	....	....	....	....	....	.20	....	....	1.22	....	....	....	....	....	....	....	....	....	....	....	....	....	1.86
Davenport	.08	....	....	.30	.92	.37	.13	.32	.01	....	..	....	....	....	....	T	1.26	.01	.01	....	....	....	T	.09	....	....	....	....	T	....	..	3.50
Decorah	....	T	T	1.51	.08	T	.25	.65	.70	..	..	3.50	....	....	.15	.75	T	....	....	....	....	....	T	.25	....	....	....	....	....	....	....	7.84
Delaware	.10	....	....	1.23	.11	.38	.03	.81	.13	....	....	....	....	....	..	..	1.42	.03	....	....	....	....	....	....	.08	....	....	....	.09	....	....	4.40
Denison	....	.09	....	.34	....	.91	.07	....	....	.36	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.77
Des Moines	.04	.10	T	.12	....	.44	T	.18	.15	....	....	....	....	....	3.43	....	.22	.08	....	....	....	....	T	.01	.09	....	..	T	..	..	....	4.86
De Soto	.12	.08	.05	T	.37	.37	.01	.24	....	....	....	....	....	....	1.06	....	.76	....	....	....	....	....	....	.36	....	....	....	....	....	....	....	8.42
Dows	....	.06	.05	1.22	....	.11	.02	.27	.30	....	....	..	..	....	.53	....	.03	....	....	....	....	....	....	.75	.02	....	....	....	....	....	....	3.36
Dubuque	.20	....	....	1.06	.21	1.01	.01	1.40	.01	T	....	....	..	....	..	.20	..	....	.20	....	..	..	....	.11	.02	....	....	.01	....	....	..	4.44
Earlham	....	T	T	T	..	1.05	....	....	....	....	....	....	..	....	.75	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	1.80
Elkader	.12	....	.70	.98	.33	....	....	1.40	.20	....	....	....	....	....	....	....	....	....	2.00	....	....	....	....	.10	.35	....	....	....	.15	....	....	6.38
Elliott	....	1.04	....	.28	....	.03	....	.06	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	1.41
Estherville	T	.35	.20	T	.01	....	T	1.70	.40	.10	....	....	....	....	.15	....	T	....	....	....	....	....	....	.10	.65	.30	....	T	....	....	....	8.96
Forest City	T	....	.27	3.60	....	....	.10	1.37	.37	....	....	..	....	....	.36	.14	....	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	6.86
Fort Dodge	....	..	.25	....	1.30	....	.25	.80	.20	.40	....	....	....	....	2.25	.05	....	....	....	....	....	....	....	....	.60	....	....	....	....	....	....	5.60
Fort Madison	....	....	....	....	.20	....	.40	.40	....	....	....	....	....	....	....	....	.30	.33	T	....	..	....	....	....	....	.60	..	....	....	.45	....	2.66
Galva	....	.55	.47	1.53	..	.81	.02	.04	.03	T	....	....	....	....	.60	..	....	....	....	....	....	....	....	T	T	....	....	....	....	..	....	3.55
Gilman	....	.97	....	.10	1.30	.51	....	1.85	....	....	....	....	....	....	.11	....	....	....	....	....	....	....	....	.37	....	....	....	....	....	....	....	5.21
Glenwood	....	.70	....	1.06	....	.20	T	T	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.14	2.10
Grand Meadow	.42	....	.67	.13	.38	....	.05	.92	.31	T	..	....	....	....	.03	.23	.02	....	1.10	....	....	....	....	....	.44	....	....	....	.39	....	....	5.09
Greene	....	.43	....	.67	....	.10	.02	1.08	.12	....	....	....	....	..	.13	....	....	....	.60	....	....	....	.05	.10	.03	....	....	....	.32	....	....	3.65
Greenfield	T	.05	.10	.15	.02	.77	.10	.22	T	.99	....	....	..	....	.12	....	....	T	....	....	....	....	.14	.12	....	....	....	T	....	....	....	3.08
Grinnell	T	..	.16	.07	.10	.40	.16	....	.07	.01	....	....	....	....	.15	....	....	.05	.03	T	....	..	....	.28	....	..	....	....	....	....	....	1.48
Guthrie Center	.54	.25	.04	.09	....	1.29	....	.21	.08	.01	....	....	....	....	.17	....	....	....	....	....	....	....	....	T	....	....	....	T	....	....	....	2.68
Hampton	....	1.27	..	.15	....	.33	....	1.30	....	....	..	..	..	....	.30	.05	....	.30	....	....	....	....	....	.28	....	....	....	.28	....	....	..	4.26
Hancock	.05	.25	....	1.06	....	.90	T	T	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	T	T	T	..	....	....	....	..	....	2.25
Harlan	.03	.25	....	.18	....	2.35	T	T	....	.05	....	....	....	..	.05	....	....	....	....	....	....	....	....	.27	T	....	....	T	....	....	....	2.91
Hopeville	....	....	T	.10	.26	.14	.04	.14	.01	.01	....	....	....	....	....	....	.17	....	....	....	....	....	....	.27	....	....	....	....	....	.42	....	1.56
Humboldt	....	1.02	....	1.48	....	.10	....	.85	.50	....	....	....	....	....	1.20	....	.08	....	....	....	....	....	....	....	.35	....	....	....	....	....	....	5.58
Ida Grove	....	.20	....	1.11	....	.28	..	.07	....	....	....	....	..	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.71
Independence	....	..	..	.50	....	.40	..	1.20	.10	....	..	..	....	....	....	..	..	....	....	....	....	....	....	....	T	..	....	T	....	....	....	2.20
Indianola	..	T	....	.27	1.10	1.93	.01	.36	T	....	....	....	....	....	1.45	....	.20	.01	T	T	....	....	....	.19	....	....	....	T	....	....	....	5.52
Inwood	....	....	....	1.64	T	.04	3.10	.08	....	....	....	....	....	T	....	..	....	....	....	....	.56	..	1.86	.93	....	....	....	....	....	....	....	7.21
Iowa City	.21	....	....	.01	.62	.53	.60	....	2.54	....	.19	....	..	....	....	....	.03	.29	..	....	....	....	....	T	.48	.04	....	....	T	....	..	5.34
Iowa Falls	.06	....	.08	....	.14	T	.55	.71	.36	T	.	....	....	....	....	.37	.07	....	....	....	....	....	....	T	1.27	....	....	....	T	....	....	3.61
Jefferson	.60	.58	....	.27	....	2.13	....	.44	.11	T	....	....	....	....	.27	....	....	.08	.36	....	....	....	....	.09	....	....	....	T	....	....	....	4.49
Keokuk	.02	....	.02	....	.14	....	1.15	.02	.54	....	..	....	....	....	....	....	....	.08	.36	....	....	....	....	....	.35	..	....	..	.19	....	....	2.87
Keosauqua	.07	.15	....	.06	.14	T	.24	T	.14	..	....	....	....	....	....	....	....	.03	.33	.19	....	....	..	T	....	.08	....	....	....	.42	....	1.80
Knoxville	....	....	T	T	.50	1.10	....	.35	T	....	....	....	....	....	.57	.20	.05	....	....	....	....	....	....	.40	..	....	....	....	....	....	....	3.17
Lacona	....	.01	.01	.01	.46	.85	....	.08	....	....	....	..	....	....	.92	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	2.27
Le Claire	.06	T	....	....	.49	.11	.51	T	.24	....	....	....	....	....	....	....	....	.39	....	.20	....	....	....	....	.27	....	....	....	....	....	....	2.27
Lenox	....	....	....	.10	.52	.15	T	T	....	....	....	....	....	....	....	....	.02	1.10	....	....	....	....	....	.10	....	....	..	....	..	.05	....	2.04
Leon	....	T	.16	.06	.10	.24	.10	.26	....	....	....	..	....	....	T	.18	.47	T	.25	....	....	....	T	.02	....	....	..	.04	....	.03	..	1.91
Little Sioux	.20	....	....	1.85	....	1.40	.22	.17	....	....	..	....	....	....	.11	..	..	....	....	....	..	....	....	....	....	....	....	....	....	....	....	8.99
Logan	....	.10	....	.81	..	1.80	....	.09	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	2.80
Marshalltown	.03	....	.13	....	.35	.11	.46	T	1.10	.01	....	....	....	....	....	.24	.02	....	....	....	....	....	....	....	.10	T	....	....	....	....	....	2.55
Mason City	..	.90	....	1.28	....	.10	.20	1.70	.10	....	..	..	....	....	.48	....	.02	T	....	.25	....	....	.15	T	.20	....	....	....	.18	....	....	5.54
Massena	.03	.05	.18	.36	....	.78	.02	.03	.02	.21	....	....	....	....	.03	....	....	....	.15	....	....	....	....	....	....	....	....	....	....	....	....	1.86
Mount Ayr	....	....	....	.18	.65	.30	.05	.15	....	.17	....	....	....	....	.48	.06	.05	....	....	....	....	....	.15	.12	....	....	....	....	....	.05	....	2.36
Mt. Pleasant	.50	..	T	.05	.03	.02	.22	.04	.20	....	....	....	....	....	....	....	.36	.27	.02	.63	....	..	.15	....	.33	.16	....	....	....	.05	....	3.01
Mt. Vernon	.43	....	T	.23	.35	.95	.30	1.45	.75	....	..	....	....	....	....	..	.25	T	....	....	....	....	....	.14	T	....	....	....	T	....	....	4.75
Muscatine	.37	.19	....	T	.28	.01	.10	T	.44	....	....	....	..	....	....	....	T	.60	.04	.01	..	..	....	.31	.02	T	..	....	....	....	....	2.32
Nevada	....	....	....	.06	.72	....	....	1.59	....	....	....	....	..	....	.60	....	....	....	..	....	....	....	....	.77	.02	....	....	....	....	....	..	3.76
New Hampton	.10	....	....	1.04	....	.20	T	.63	T	....	....	..	....	....	.03	..	....	....	....	.30	....	....	....	....	T	....	....	....	....	....	....	2.30
Newton	....	.22	..	....	.44	.15	....	.47	....	....	..	....	....	....	.27	....	....	.07	....	....	....	....	....	.21	....	....	....	....	....	....	....	1.83
Northwood	....	.24	....	1.80	.03	.55	.44	1.95	.23	....	....	....	....	....	.43	..	..	....	....	.07	....	....	....	....	.03	....	....	....	.88	....	....	5.65
Odebolt	..	.55	....	.95	....	.20	.04	.16	....	....	..	....	....	.45	....	....	....	....	....	..	....	....	....	.03	....	....	....	....	....	....	....	2 38
Ogden	.08	.01	....	.19	....	1.40	.10	1.58	.04	....	....	....	....	....	1.01	....	T	....	....	....	....	.06	.05	....	....	....	....	....	....	....	....	4.82
Olin	.72	....	T	.15	....	4.00	.20	1.46	.64	....	....	....	....	....	....	..	.09	....	....	....	....	....	....	.12	.08	....	....	.01	....	....	....	7.43
Omaha, Neb	.20	.57	....	.27	..	.88	T	.07	..	.01	....	....	....	..	.01	....	..	....	....	....	....	....	....	.01	T	....	....	....	....	....	T	2.03
Onawa	T	1.60	....	1.10	..	2.78	.03	.12	.17	....	....	....	....	..	.24	....	..	....	....	....	.02	....	1.60	.03	....	....	....	.07	....	....	....	7.71
Osage	....	.27	..	.66	.01	.04	.01	1.00	T	....	.	....	....	....	.26	....	....	....	.16	.32	....	.01	....	....	.41	....	....	T	.06	....	....	3.21
Oskaloosa	....	....	....	.02	.15	1.75	.02	.19	....	.03	....	....	....	....	T	T	T	.04	....	....	....	....	T	.24	....	....	....	....	....	....	....	2.42
Ottumwa	....	....	.39	..	.11	....	....	.72	....	....	....	....	....	....	....	....	....	.11	....	....	....	....	....	....	....	....	....	T	....	....	....	1.33
Pacific Junction	....	.43	....	1.00	....	.25	.06	T	....	....	....	....	....	....	T	..	T	T	..	....	....	....	....	....	....	....	....	....	....	.16	T	1.90
Pella	....	....	.02	....	.21	1.99	.16	.06	.94	....	.40	..	..	....	.13	....	.04	....	....	....	....	....	....	....	....	....	....	T	....	....	....	3.93
Perry	.64	....	.22	.28	T	.87	1.16	.06	....	....	....	....	....	....	1.11	..	T	....	....	....	....	....	....	....	....	....	..	.14	....	....	....	3 84
Plover	....	.29	..	.83	....	.12	.08	3.57	.12	....	....	....	....	....	.87	..	.16	....	....	....	.09	....	....	.28	....	....	....	.02	....	....	..	5.50
Pocahontas	.03	.17	....	....	....	.06	..	1.50	T	.20	....	....	..	....	.89	..	....	....	....	....	....	....	....	....	....	....	..	....	....	....	....	2.87
Preston	.70	....	....	T	.10	2.50	.15	.60	.04	....	..	..	..	....	....	....	..	1.97	.32	..	....	....	....	2.07	....	....	....	.03	....	....	....	8.45
Ridgeway	.01	.63	....	1.04	....	T	.02	.59	.35	T	....	....	....	....	....	T	.	....	.47	.48	....	....	....	.28	....	....	....	....	....	....	..	8.98
Rock Rapids	....	1.20	....	1.45	....	T	.50	T	....	....	....	....	....	....	.20	....	....	....	....	....	.10	....	....	.20	....	....	....	....	....	....	..	3.65
Rockwell City	1.55	.47	....	1.92	..	.18	.40	.25	.15	..	....	..	....	....	1.46	....	....	....	....	....	....	....	....	.45	....	....	....	....	....	....	..	6.83
Sac City	....	.18	....	.70	....	.21	T	.02	....	....	....	....	....	....	.58	..	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	1.69
Saint Charles	....	....	T	T	.37	.40	T	.07	.01	.07	....	....	....	....	1.30	....	T	.09	....	....	....	....	....	T	....	....	....	....	....	....	....	2.81
Sheldon	....	T	..	1.30	....	T	3.04	T	.06	T	....	....	....	....	.15	....	....	....	....	....	.40	....	.28	....	....	....	....	.02	....	....	....	5.25

DAILY AND MONTHLY PRECIPITATION FOR AUGUST, 1906—CONTINUED.

STATIONS.	DAY OF MONTH.																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sibley	....	.49	.07	.95	2.53	....	.05	1.46	.71	.14	1.81	....	....	....	.33	....	....	....	....	..	.04	.28	....	....	1.29	....	....	.02	T	....	....	10.51
Sigourney	.02	....	..	T	.10	.10	1.05	.90	....	....	....	....	....	....	....	T	..	T	....	....	....	....	.17	T	.18	....	....	....	....	....	..	2.52
Sioux Center	....	.58	....	1.48	....	....	....	1.68	T	T	....	....	....	....	.10	....	...	..	....	....	1.95	....	....	.18	T	.10	....	T	....	....	..	5.77
Sioux City	..	.04	....	.80	....	.44	.40	.05	....	....	....	....	....	T	.02	....	....	....	....	.35	T	....	.06	.58	....	....	....	....	....	....	..	..	2.74
Stockport	.11	....	T	.42	.08	.13	.04	....	.35	T	....	....	....	....	..	.08	.11	.28	.05	.03	....	..	....	....	.17	.05	....	....	.25	....	2.10
Thurman	.20	3.40	T	.32	T	.21	.55	....	..	T	....	....	....	....	T	....	T	T	....	....	....	..	....	.04	....	....	....	T	....	.15	....	4.87
Tipton	.47	....	.17	....	1.11	.12	....	.15	.90	....	....	....	....	....	....	....	.81	....	.13	....	....	....	....	....	....	....	....	....	....	....	..	3.86
Toledo	....	....	.25	T	.65	1.15	....	2.90	.15	....	....	....	....	....	T	....	.15	T	....	....	....	....	....	.35	....	....	....	....	....	....	....	5.60
Wapello	.27	..	....	..	.48	.40	.64	T	.46	....	..	..	....	....	....	.48	....	....	..	....	.40	..	....	....	..	....	....	....	....	....	....	3.06
Washington	.25	....	..	.18	.60	.02	.95	..	.46	.28	....	..	....	..	....	....	....	....	.29	....	....	....	..	....	....	....	....	....	....	....	....	2.98
Washta	....	.37	.30	.66	....	.25	.18	....	....	....	....	....	....	....	.06	....	....	....	..	....	.27	....	....	.15	....	....	....	....	....	....		2.19
Waterloo	....	.11	....	.34	.58	.26	....	.81	.02	..	....	....	..	....	.01	....	.04	.05	....	....	....	....	....	.65	....	....	....	....	....	....	....	2.87
Waukee	.28	.02	.01	.02	....	.12	....	.28	....	....	....	....	....	....	1.60	....	.22	....	....	....	....	....	....	.46	....	....	....	....	....	....	....	3.81
Waverly	.02	....	....	.18	.20	.10	.09	1.18	.11	....	....	....	....	....	.01	....	....	....	.16	..	....	....	....	.40	....	....	....	....	.10	....	....	2.59
West Bend	....	.07	....	.90	....	T	.08	2.98	.15	..	....	....	....	....	.95	.51	....	....	.07	....	....	..	....	.63	....	.05	....	.40	....	....	....	6.70
Wilton Juct	....	....	....	.35	....	.10	....	.70	....	....	....	....	....	....	....	.03	.92	....	.35	....	....	....	.02	....	.17	....	....	....	....	....	....	2.52
Winterset	....	....	.05	T	.08	.90	.02	.22	.02	.02	....	....	....	....	.47	....	....	T	.13	..	....	....	....	T	.01	....	....	....	....	....	....	1.94
Woodburn	....	T	.36	....	.20	.23	....	.10	....	.15	....	....	....	....	.90	....	....	3.30	.08	....	....	....	....	....	....	....	....	....	.23	....	....	5.55
Zearing	..	T	....	.07	....	.92	....	.26	....	....	....	....	....	....	.68	..	....	....	....	....	....	....	....	.52	....	....	....	..	....	....	....	2.40
Average	....	....	..	....	....	....	....	....	....	....	....	....	....	.	....	....	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	.....


Precipitation Chart August 1906
Scale of Shades.
Less than 3 in.
3 to 6 in.
6 to 9 in.
Over 9 in.
PLYMOUTH
WOODBURY
MONONA
CRAWFORD
SHELBY
HARRISON
POTTAWATTAMIE
MILLS
FREMONT
PAGE
TAYLOR
RINGGOLD
ADAMS
UNION
CLARKE
DECATUR
WAYNE
APPANOOSE
DAVIS
VAN BUREN
LEE
MONTGOMERY
ADAIR
CASS
MADISON
WARREN
MARION
MONROE
WAPELLO
JEFFERSON
HENRY
LOUISA
MUSCATINE
CLINTON
JACKSON
DUBUQUE
DELAWARE
BUCHANAN
BLACKHAWK
BREMER
FAYETTE
CLAYTON
WINNESHIEK
ALLAMAKEE
HOWARD
MITCHELL
WORTH
CERRO GORDO
FLOYD
CHICKASAW
O'BRIEN
CLAY
PALO ALTO
KOSSUTH
EMMET
DICKINSON
OSCEOLA
SIOUX
CHEROKEE
BUENA VISTA
POCAHONTAS
HUMBOLDT
WRIGHT
FRANKLIN
BUTLER
WEBSTER
HAMILTON
HARDIN
GRUNDY
STORY
MARSHALL
TAMA
BENTON
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CARROLL
GUTHRIE
DALLAS
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JASPER
POWESHIEK
IOWA
JOHNSON
CEDAR
SCOTT
KEOKUK
MAHASKA
MARION
WASHINGTON
LUCAS
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U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR SEPTEMBER, 1906

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA

BERNARD MURPHY, STATE PRINTER

1906

THE IOWA WEATHER AND CROP SERVICE

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Allerton.	.Rex Shriver
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Glenwood	J. P. Jackson
Grand Meadow (Postville P.O.)	F. L. Williams
Greene.	J. L. Cole
Greenfield	J. G. Culver
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Guthrie Center	D. G. Beardsley
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Vinton	H. G. Haines
Wapello	Geo. W. Schofield
Washington	Wm. A. Cook
Washta	H L. Felter
Waterloo	M. L. Newton
Waukee	E. J. Leonard
Waverly	H. S. Hoover
Webster City	C. D. Carpenter
Whitten	Dr. Frank P. Butler
Wilton Junction	Wm. Lang
Winterset	Dr. Robt. S. Cooper
West Bend	Phil Doweiler
Woodburn	C. B. McDonough
Zearing	C. P. Bean

*U. S. Weather Bureau.

WEATHER-CROP OBSERVERS.

Reporting for the Weekly Bulletin.

Agency	J H. Van Zandt
Albia	E. B. Morris
Alta	Jonas Cushman
Audubon	A. H. Edwards
Blairstown	T. H. Weil
Burt	R. Jain
Centerville.	Jacob Harter
Charles City	W. B. Towner
Clarksville	F. M. Russell
Council Bluffs	L. Prouty
Correctionville	Hon. W. B. Chapman
Danville	Sherman Matthews
Dunlap	Hon. B. F. Roberts
Emerson	D. B. Nims
Fort Dodge	R. W. Blaine
Fruitland	R. T. Hummel
Geneva	Wm. H. Thompson
Gruver	C. Higinbotham
Hartwick	Fred McCulloch
Harlan	H. B. Kees
Humeston	Hon. S. H. Moore
Ida Grove	P. E. Lund
Independence	Geo. H. Wilson
Indianola	H. D. Guthrie
Manson	J D. Skinner
Marshalltown	Hon. S.B. Packard
Mt. Pleasant	W. S. Wright
Milton	Hon. E. C. Holland
Monroe	J A. Dibel
Nevada	Geo .C. White
Oakville	Z. W. Steele
Orange City	H. J. Vande Waa
Pella	J. H. Ver Steeg
Preston	J. G. Storm
Pittsburg	G. C. Duffield
Portland (Nora Springs, P. O.)	Arthur Pickford
Platte (Creston R. D.)	M. H. Dibel
Red Oak	Hon. C. L. Stratton
Seymour	L. B. Sager
Stuart	W. W. Bailey
Van Horne	Spencer Smith
Waukon R. D	T. B. Wiley
Weldon	Ed Worden
Winterset	H. A. Kinsman
West Branch	Wrigley Smith
West Union	H. B. Blackman
Woodward	George Swisher

U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IN COOPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R SAGE, Section Director
GEO. M. CHAPPEL, Asst Director

VOL. XVII. DES MOINES, IOWA, SEPT, 1906. No. 8

SEPTEMBER WEATHER AND CROPS.

September was warmer than usual,—with more than the normal amount of rainfall, and an excess of sunshine in the larger part of the state. The average temperature for the state, 67.2°, was 3.4° above the normal. The average rainfall, 4.16 inches, was 0.85 of an inch in excess of the September normal. As in the preceding month of August, the average rainfall in the northern section was much heavier than in central and southern sections. Well distributed showers occurred on the 1st and 2d, but the bulk of the rainfall of the month came in the second decade, with considerable prevalence of cloudy weather during that period. The first and third decades afforded ideal weather conditions for work, and the normal ripening of corn and other late maturing crops. With the high temperatures there was more than usual humidity, and heavy dews were observed nearly every morning. Frosts were reported in various places during the closing week, but no harm resulted to any staple crop. The corn crop was well matured and practically safe at the close of the month. In the larger part of the state the soil was in excellent condition for plowing and seeding fall grain. Reports indicated the seeding of an increased acreage of fall wheat in the southern section and the west central district. The potato crop was well matured, and the harvest shows a variable yield in the southern half of the state. The quality of all crops will be very good. As a whole September was a very favorable ending of a most prolific season.

CLIMATOLOGY OF THE MONTH.

TEMPERATURE: The monthly mean temperature for the state as shown by records of 111 stations was 67.2° which is 3.4° above the normal. By sections the mean temperatures were as follows: Northern section, 65.3°, which is 3.0° above the normal; central section, 67.3°, which is 4 0° above the normal; southern section 68.9°, which is 3.1° above the normal. The highest monthly mean was 71.9° at Ottumwa, and the lowest monthly mean was 62.8° at Sibley. The highest temperature reported was 100° at Clarinda on the 9th; and the lowest reported was 27° at Washta on the 30th. The average monthly maximum was 93 2°, and the average monthly minimum was 37.4°. The greatest daily range was 50° at Washta, and the average of greatest daily ranges was 34 2°.

PRECIPITATION: The average precipitation for the state, as shown by records of 121 stations, was 4.16 inches, which is 0.85 of an inch above the normal. By sections the averages were as follows: Northern section 5 40 inches, which is 2.01 inches above the normal; central section 3.47 inches, which is 0.22 of an inch above the normal; southern section 3.61, which is 0 31 of an inch above the normal. The largest amount reported was 11.10 inches at Thurman, and the least amount reported was 0.64 of an inch at Mt Vernon. The greatest daily rainfall reported was 7.60 inches at Thurman on the 16th and 17th. The average number of days on which .01 of an inch or more fell was 8.

WIND AND WEATHER: The prevailing direction of the wind was southeast, south and southwest. The highest velocity reported was 48 miles an hour from the west at Sioux City on the 15th. The average number clear days was 16; partly cloudy 8, and cloudy 6 days.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced	EXTREME			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	30.04	30.45	30	29.78	2
Davenport	30.03	30.34	27	29.74	12
Des Moines	30.05	30.42	30	29.76	9
Dubuque	30.06	30.44	30	29.76	12
Omaha, Neb	30.02	30.45	30	29.78	9
Keokuk	30.0	30.3	27	29.81	28
Sioux City	30.0	30.45	30	29.70	9
Means	30.0	30.45	30	29.70	9

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity.	Direction.	Date.
Charles City	4026	24	SE	15
Davenport	4669	24	NE	29
Des Moines	4908	28	NE	28
Dubuque	8801	25	N	29
Keokuk	457	25	N	29
La Crosse, Wis	4[illegible]	25	S	10
Omaha, Neb	51[illegible]	3[illegible]	N	29
Sioux City	77	48	W	15

OBSERVER'S NOTES.

AFTON—*N. W. Rowell.* Frost on low ground on morning of the 27th. Frost on uplands on morning of the 30th, but all field crops are out of danger.

ALBIA—*J. I. Chenoweth.* The hottest day of the season was 98° on September 11. A very dry month.

ALGONA—*Dr. F. T. Seeley.* On the 16th from 12 m., to 6 a. m. 3.43 inches of rain fell; light frosts were observed on mornings of the 27th and 30th.

ALLERTON—*Rex Shriver* Corn matured nicely; ground too dry for fall plowing; pastures very short.

ALTA—*David E. Hadden* No killing frost occurred during the month; except the middle decade, the month was ideal. The corn crop was practically safe at close of the month The crop season of 1906 was very favorable, and the yield of all farm products will be among the best on record.

ALTON—*W. S. Slagle.* Frost on 30th killed tender garden truck, but corn matured naturally; the rainy weather from 11th to 21st caused much damage to grain in shocks; first and last decades were ideal.

AMANA—*Conrad Schadl.* September was warm and very dry; corn had good weather for growing and time for ripening; no frost here during the month, pastures, meadows and shallow-rooted plants suffered from drought; plowing was retarded.

BAXTER—*W. R. Vandike.* On the 17th from 5 to 6 p. m. 2.00 inches of rain fell.

BONAPARTE—*B. R. Vale.* An exceedingly hot and dry month, till just at its close. A rainfall of 3.20 inches, from the N. E. occurred on the 28th in about 20 hours.

BRITT—*Geo. P. Hardwick.* No killing frost during the month and corn is a good average crop; pastures good; too wet for plowing; potatoes rotted badly.

CHARITON—*C. C. Burr.* No frost during September and corn ripened nicely; there will be no soft corn this year.

CLINTON—*Luke Roberts.* Sunshine, heat and moisture were ample for agricultural purposes, though the rainfall was .68 of an inch below the normal, causing a little shortage of feed in pastures; farmers in eastern Iowa are pleased with September weather.

CRESTON—*Rev. W. L. Gaston.* Heaviest rainfall of the year occurred this month and greatly revived pastures.

DESOTO—*R. D. Minard.* A favorable month for farm work with rain enough to put the soil in condition for plowing and seeding; the 10th was the hottest day of the season, with a maximum of 96.

EARLHAM—*Geo. Phillips.* A fine month and corn was all safe by the 30th.

FOREST CITY—*J. A. Peters.* No killing frost during September and corn is safe; plowing well finished; a very wet month; total rainfall 7.12 inches.

GARDEN GROVE—*F. L. Williams.* Corn ripened perfectly; no frost to kill any vegetables; there is some damp grain in stacks.

GREENFIELD—*J. G. Culver.* No frost was seen by the observer during the month; all crops out of danger; fall pastures excellent.

HANCOCK—*W. Armstrong.* Corn out of danger; grain nearly all threshed; potato crop medium.

HOPEVILLE—*M. T. Ashley.* A fine month for work; corn crop safe and more than the usual amount cut and in shock.

HUMBOLDT—*H. S. Wells.* Rain 1.82; the corn crop is secure from frost and storm; plowing nearly done.

INWOOD—*F. B. Hanson.* The first and latter parts of the month were favorable for crops and farm work; excessive rainfall from 12th to 21st delayed threshing; corn is all safe.

OLIN—*Nathan Potter.* September has been all that farmers could desire; no frost to hurt anything and corn is all ripe, making an excellent crop.

OSKALOOSA—*Joseph Boyd.* Two of the warmest days of the season were the 9th and 10th.

RIDGWAY—*Arthur Betts.* This has been the warmest September since 1897, with copious showers. There were 252 hours of sunshine; thermometer reached 90° or above on six days. A lovely month.

SHELDON—*A. W. Beach.* A good month for maturing all crops, which are safe from frost; threshing 70 per cent done and plowing well advanced.

STOCKPORT—*C. S. Beswick.* Corn is safe; first frost appeared October 1.

WEST BEND—*Phil Dorweiler.* There was no frost during the month and corn was practically safe at its close.

CROP NOTES.

Numerous estimates of the total output of the Iowa corn crop are being published, the figures ranging from 340 to 400 million bushels. We are waiting for reports from the men who use the husking pegs and weigh the loads hauled from the fields. Unquestionably it is a big crop, as compared with the average of the past twenty years; but it should be remembered that there is a tendency to overestimate the yield in good seasons, and to exaggerate disasters and drawbacks in seasons when adverse conditions have been in evidence.

The Rockford Register states that a Floyd county farmer harvested this season two crops of fine clover hay from nine acres, which brought forth an average of five tons per acre, and that, too, without depleting the fertility of the soil. That's the way to make high priced land a profitable investment, and increase its value year by year.

The Marshall Times-Republican reports a heavy yield of potatoes, of fine quality, grown by farmers in Hardin county, some farms producing 200 bushels per acre. The potato crop is unusually variable in Iowa this year as a result of the unequal distribution of rainfall.

G. L. Tremain of Humboldt, writes as follows: "I have seen fifty-six crops of corn in Iowa. This season's crop is as good as any of the fifty-six."

A GOOD CROP SEASON.

The following paragraphs are copied from a letter dated October 4, addressed to the section director and written by M. W. Cook of Oxford, Iowa.

"That this is an unusually prolific year will not be disputed. The condition of the soil at time of planting was as a rule the very best. There was but little to hinder the live farmer in his work of planting in good season. It is plainly apparent that there has been an awakening among Iowa farmers. Prof. Holden's crusade in the cause of good seed corn is having an excellent effect and his work has aroused enthusiasm along other lines. I have heard more farmers discussing advanced methods this year than for many years, and it seems as if we were about to take as much interest in our field crops as in improving the breeds of our domestic animals. When we do, the average yield will be increased everywhere from 10 to 50 per cent.

"Comparing this year with last year we find about the same area planted to corn, but last year there was a rather poor stand. Many acres upon which there is a large yield this year, were too wet to cultivate last year even if the seed germinated. Upon ground where drainage was good and no loss from washing the crop of last year was nearly as good as it is this year; but about 20 per cent of the land planted last year produced almost nothing, and on that land we find the best crops this year, giving a large increase over last year's crop. I think it will amount to 20 per cent increase.

"Then we note the fact that last year the corn was badly down from Des Moines to the Missouri river and much of the crop was lost from rotting, to say nothing of the shortage which results from corn being lodged before it is fully mature.

"I predict an addition of from 3 to 5 per cent to the cultivable land from tiling which is going on to an extent never approximated in this locality before. Much attention is being given to breaking out wet corners and margins which have heretofore produced nothing but large crops of weeds.

"Take it all in all there has never been a season when the products of fields, orchards and gardens have been more abundant nor of better quality. And moreover, I have never in my

more than fifty years in Iowa seen so much of enthusiasm, nor so much desire to get the best as at the present time. We ought to get a resume of conditions from every county in Iowa; it would make good reading."

LIGHTNING AND INSURANCE.

NEW YORK TRIBUNE.

According to "The Electrical World," the fire insurance companies of the United States have practically decided to increase their rates on farm buildings which are not equipped with suitable lightning rods. This decision is the result of a recent inquiry by one of these corporations, which revealed that there had been a general falling off in the use of lightning rods in the last ten years, and that more than 80 per cent of the losses on farms at present was attributable to lightning.

The device, the invention of which was an outgrowth of Franklin's study of atmospheric electricity, has undergone marked changes in popular valuation in the last fifty or sixty years. At one time great confidence in the utility of the lightning rod was felt by well infomed persons. Any apparent failure to perform its function was then imputed to imperfect construction or a poor contact with moist earth. Eventually, however, it was discovered that some of the disappointments which were experienced in regard to its efficiency could not be accounted for in that manner. Then followed a widespread skepticism, which was in a measure justified, but which now appears to have been too radical.

A few years ago a thorough investigation of the whole subject was undertaken by a special committee of a British society of architects. One of the conclusions reached by that body was that there were two classes of thunderbolts. Against one it was practicable to secure protection, while against the other it was not. So far as we are aware, no attempt was made to determine which of the two was the more numerous class, but the adoption of lightning rods was distinctly recommended. Several modifications in their arrangement were proposed, but on the whole, the committee was convinced that it would be a mistake to dispense with them altogether. The decision of the American insurance companies runs parallel with, but is probably independent of, that advice. These organizations, having satisfied themselves that the chance of destruction is greater when lightning rods are absent than when they have been provided, evidently believe it to be for their own interest to discriminate against risks of the former character.

Property owners might well have said to themselves when they learned what the British architects decided: "Even partial protection is better than no protection at all". Such of them as were unconverted, however, may be led to change their practice, if not their opinions, if they are now obliged to pay higher insurance premiums than they have paid before.

FARMING AS A PROFESSION.

L. H. BAILEY IN THE CENTURY.

The character of farming is changing rapidly. It is coming more and more to be an efficient, profitable and attractive business. With here and there an exception, in the past we have not given much consecutive thought to the business—nothing like as much as the merchant gives to his business or the doctor to his. It has been so "easy" a business that untrained men could succeed in it. The change in economic and social conditions is breaking up the tradition. Farming is becoming more difficult, and the old methods must go. In the future only the well informed and efficient thinking man can succeed; that is, only the educated man.

The country is to offer other advantages to the educated man than merely to be a good farmer. There are good opportunities for leadership on public questions—probably better opportunity and with less competition than in the great cities. The very fact that city representation is increasing in the legislatures should make the able country representative more of a marked man. The growth of the institute movement, of the grange and other rural organizations, gives fresh opportunity to develop leadership of a high order.

It seems to me that by the very nature of the progress we are making, the college man must be on the farm. In fact, college men have been going back from the beginning of the agricultural education movement. Statistics show that a very large percentage actually have returned to farming, and this in spite of the fact that cities have been growing with marvelous rapidity, and that the whole system of agricultural colleges and experiment stations have been developing and calling for men. Considering the limitations under which the agricultural colleges have developed, without sympathy, with the indifference and sometimes the opposition of educators-the very men who should have known better, with wholly inadequate funds, it is little less than marvelous what they have accomplished within a generation. It is probable that the proportion of students of the leading agricultural colleges who now engage in agricultural pursuits is greater than students of colleges of law or of other professional colleges who follow their chosen profession.
No one now questions the value of education to a lawyer or physician; why question its value to a farmer? The educated man will go back to the farm if he is fitted to be a farmer.

DATES OF THUNDER STORMS.

NORHTERN SECTION.

Algona—1, 2, 16, 26.
Alta—1, 9, 11, 16, 18, 19, 20.
Alton—15, 16, 17, 19, 20, 24.
Britt—21, 27.
Dows—1, 2, 11, 15, 16.
Elkader—1, 2, 10, 12, 16, 17, 19.
Charles City—1, 2, 10, 15, 19. 25.
Grand Meadow—2, 10, 15, 16, 19.
Hampton—1, 2, 11, 15, 16, 20, 21, 25.
Inwood—1, 9, 12, 16, 19, 25.
Le Mars—15, 16, 17, 18.
Mason City—1, 2, 12, 15, 16, 20, 21, 26.
Northwood—1, 12, 16, 19, 21, 25.
Osage—1, 2, 11, 16, 19, 25.
Pocahontas—1, 16.
Ridgway—1, 2, 10, 11, 12, 16, 17, 19, 21, 25.
Sheldon—1, 16, 18, 19.
Sioux Center—1, 2, 12, 14, 15, 16, 19, 20.
Washta—1, 2, 11.
West Bend—1, 9, 11, 16, 20.

CENTRAL SECTION.

Amana—12, 16.
Audubon—1, 2, 11, 14, 15, 16.
Baxter—1, 2, 11, 17.
Carroll—12, 17.
Davenport—2, 10, 16, 19, 21.
Des Moines—1, 2, 11, 15, 16, 17.
Dubuque—2, 11, 12, 16, 19.
Grinnell—1, 2, 6, 13, 15, 16, 17.
Guthrie Center—2, 11, 15, 16.
Harlan—1, 2, 11, 12, 14, 15, 16, 17, 18, 19.
Independence—1, 2, 15, 16, 25.
Iowa Falls—1, 2, 11, 15, 16, 17, 20.
Jefferson—16.

CLIMATOLOGICAL DATA FOR SEPTEMBER, 1906.

CENTRAL SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT						PRECIP., IN INCHES.				SKY.			Prevailing direction of wind.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted)	Number rainy days	Number clear days.	Number partly cloudy days.	Number cloudy days.	
Amana	Iowa	7	27	64 2	s 5 5	94	9	32	27	35	1.06	- 2.30	.68		6	16	10	4	S E
Audubon	Audubon	1301	10	65 7	s 2.3	95	8, 9, 10	32	27	41	5 07	s 2.01	1 44	....	13	17	5	8	S W
Baxter	Jasper.	998	6	....	.....	94	9, 10	37	30	....	6 51	s 3.45	4.82	..	8	....			...
Belle Plaine	Benton	828	14	67.4	s 3 7	92	10, 1	39	8	3	2 20	- .70	.96	..	6	15	7	5	S E
Boone	Boone.	1134	....	66.8	....	94	9, 10	39	30	8	3.96	.....	.67	....	9	....	....	....	.....
Buckingham	Iowa	....	6	.....	.....	....	.....	.....	.....	...	2 73	- .11	1.88		8	1	16	1	.....
Carroll	Carroll	1265	1	65.8	s 2.6	93	9	38	27	37	3 3	s - .3	1.	....	11	17	1	1	.....
Clinton	Clinton	59	36	68.4	s 5	9	11, 17	40	27	34	2 54	- .66	2 80	....	8	6	5	5	NE
Cedar Rapids	Linn	783	22	70	s 7.2	95	9	41	30	29	.99	- 1.99	.6	....	3	17	1	2	.....
Davenport	Scott	606	55	70 6	s 5.6	92	17	46	30	29	2.47	- .71	2.80	....	6	20	4	6	E
Delaware	Delaware	1083	15	66.2	s 4	90	11	37	30	29	2.76	- .48	.67		11	1	11	3	S
Denison	Crawford.	1180	10	66 5	s 2 9	95	8, 9	32	30	37	4.81	s 1 6	1.55	..	10	22	5	5	S
Des Moines	Polk.	861	2	67	s 3.7	92	9	43	30	29	3 24	s .40	1.25	....	9	1	1	9	S W
De Soto	Dallas	866	6	68.0		96	10	38	27, 30	34	2 9		1.2	..	7	1	3	1	S W
Dubuque	Dubuque.	695	33	68	s 5.4	92	11	4	30	3	1.7	- 2.31	.8	..	8	17	6	7	S E
Fort Dodge	Webster.	1126	7	66 0	.....	94	8, 10	36	30	35	3.16	.	.80		12	18	3	9	S W
Gilman	Marshall	1052	s								3 78	s 1 15	1.54	....	6	....	....	..	S
Grinnell (near)	Poweshiek	1028	11	68.1	s 4 7	94	10	37	8	35	2.2	- .25	.98		7	1	10	3	.....
Grundy Ct'r (a)	Grundy.	976	15	66.7	s 3 8	93	9	40	29, 30	35	3.7	s .38	1.3	..	3	16	3	11	S E
Guthrie Center	Guthrie	1077	8	66 6	s 3 1	93	8, 10	35	27	40	1 9	- 1.4	.83	..	8	21	5	4	S W
Harlan	Shelby	1192	7	65.7	s 3 6	93	9	34	30	35	4 8	s .89	2.2	...	11	1	12	6	S
Ida Grove (a)	Ida	1220	4	64 6	...	94	8	30	30	43	5.8	.	2 81		10	...	..		S E
Independence	Buchanan	921	40	67.2	s 5 9	93	9	34	30	35	1 5	- 3.20	.55	..	4	19	8	6	S
Iowa City	Johnson.	688	45	70.2	s 6.8	97	16	41	27	40	89	- 2.94	.62	..	6	20	2	8	S E
Iowa Falls	Hardin	1170	11	64.8	s 3.2	90	10, 11	35	27	3	2.89	- .43	.89	....	10	15	3	12	S
Jefferson	Greene		...	66.8	.....	95	10	38	30	39	3.4	....	1.0		9	3	14	3	S W
Le Claire	Scott	576	....		.....	....	.....	.....	.....	.....	2 53	.....	2 83		4	18	8	6	S E
Little Sioux	Harrison	...		67 4	....	95	8	35	30	43	4.0	.	.9	....	11	17	5	8	S E
Logan	Harrison	928	37	66.0	s 2.0	93	8	34	30	37	8.9	s 5 88	3.10	..	5	5	24	1	S W
Marshalltown	Marshall	947	11	67.	s 3	96	9, 10	35	30	32	5.	s 2.46	2 10		10	....	....		S E
Mount Vernon	Linn	847	37	69.8	s 8.1	94	16	40	30	36	.64	- 2 17	86	....	7	28	5	2	W
Muscatine	Muscatine	.....	47	.....	.....	.....	.....	....	.....	.....	2 87	- 1.05	2	...	4	16	8	1	S
Nevada	Story	....	..								4.31	.....	1.3		8	19	3	8	.....
Odebolt	Sac	1356	7	67.8	s 4 2	98	10	35	30	37	7.8	s 4.69	2 30	....	1	17	8	5	.....
Ogden (a)	Boone	1058	10	68 0	s 3.8	94	10	35	30	35	3.6	- .19	1.0	....	8	16	10	4	S
Olin	Jones	76	7	67.4	s 5.9	9	11	40	27	38	2.5	- .80	1 44	....	4	6	14	1	NE
Onawa	Monona.		6	67 5	s 3.4	95	8	38	30	30	4.24	s 1 47	1.10		10	21	3	6	S E
Perry	Dallas	975	8	67 1	..	94	10	35	30	32	2.3	.	.57	....	5	4	19	7	.....
Preston	Jackson	975	.	66.2	....	90	11	39	2	35	2.53	.....	1.50		5	18	8	4	S E
Rockwell City	Calhoun		9	65.4	s 1.2	94	9	32	30	34	4 48	s 1 89	1.38	....	6	9		2	.....
Sac City	Sac	1358	24	64.0	s 3 0	93	9	37	27, 30	35	4.6	s 1.39	1 83	..	12	9	5	6	S W, NW
Sioux City	Woodbury	1135	15	65 4	s 0.2	94	9	35	30	31	8.16	s 5 97	3.15	..	1	12	9	9	S E
Stuart	Guthrie		7	67 4	s 0.0	94	9, 10	39	30	27	3 28	s 1 37	.97	..	6	21	2	7	W
Tipton	Cedar	807	8	71.6	s 6 9	94	16	45	30	29	1.73	- 1.4	1 0	....	4	24	5	1	NE
Toledo	Tama	856	10	67.4	s 3.3	91	9, 10	37	30	31	2.5	- .55	.98	....	5	1	9	4	S E
Waterloo	Black Hawk.	862	17	67.8	s 5 4	95	9, 11	36	30	33	2.59	- .90	1.01	....	8	16	8	6	E
Waukee (c)	Dallas	1039	4	67	....	9	8	....	....	26	2.82	.....	1.1		8			....	S
Webster City	Hamilton			67.4		96	10	34	30	37	4.1	.....	1.80	..	6	1	10	6	S
Wilton Jct	Muscatine	688	9	68 6	s 4 8	89	16, 17	44	27, 30	28	2.94	- .24	1.8	...	4	22	5	3	S, W
Zearing	Story	718	8	67.4	....	92	9, 10	37	30	36	8.5	.	1.20		8	17	6	7	S W
Average				67.	s 4.0	93.4		37 2		34.1	3.47	s .23			8	17	7	6	S E

Little Sioux—1, 2, 14, 16, 17.
Mt. Vernon—11, 16, 17.
Nevada—1, 2.
Onawa—1, 2, 14, 20.
Perry—1, 2.
Preston—2, 21.
Sioux City—1, 2, 9, 14, 15, 16, 20.
Waterloo—2, 15, 16, 17.
Zearing—1, 2, 12.

SOUTHERN SECTION.

Albia—8, 9, 17.
Allerton—2, 8, 11, 12, 17, 18.
Atlantic—2, 14, 15, 16.
Bloomfield—2, 7, 8, 9, 11, 12.
Burlington—10, 13.
Columbus Junction—11, 12, 17, 19.
Corning—17.
Corydon—17.
Earlham—1, 2, 11, 15, 17.
Greenfield—1, 2, 11, 12, 14, 16.
Hancock—16.
Indianola—1, 11 12, 16, 17, 20.
Keokuk—2, 8, 12, 15.
Massena—2, 11, 15, 16, 17.
Mt. Pleasant—2 15.
Omaha—2, 9, 11, 13, 14, 16, 17.
Pella—17.
St. Charles—11.
Sigourney—12.
Stockport—8 11, 15.
Thurman—2 11, 12 14, 16.

CLIMATOLOGICAL DATA FOR SEPTEMBER, 1906.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.	
Algona	Kossuth	1,2'8	80	65 2	s 2.7	89	10	85	80	29	5.89	s 2 23	3.52	....	8	18	4	8	SE
Alta	Buena Vista	1,513	11	65 4	s 2.2	91	8,1[illegible]	36	80	30	4.61	s 1.99	1.80	....	11	16	8	6	S
Alta (near)	Buena Vista	.....	...	.....		.....	.....	.....	.....	.....	4 98		2 0[illegible]	...	11			....	.....
Alton	Sioux	1,905	...	63 4	.....	94	8	3[illegible]	3[illegible]	40	6.11	.....	3 46	....	11	16	6	8	SE
Britt	Hancock	1,236	7	65.[illegible]	s 4.0	90	10	36	80	8[illegible]	5.8[illegible]	s 1.79	2.05	....	7	10	14	6	SW
Charles City	Floyd	1,315	19	65 4	s 1 3	89	10	36	30	33	3.25	s .06	.97	....	12	11	6	13	S
Clear Lake	Cerro Gordo	1,[illegible]	7	66 0	s 4.4	90	10	36	80	8[illegible]	[illegible].00	- .58	.90	....	8	20	0	10	S
Decorah	Winneshiek	875	10	68 1	s 4 2	91	.10	37	80	38	5.50	s 2 06	1.67	....	11	...		...	.....
Dows (a)	Wright	1,142	6	65 3	s 3.7	93	10	33	80	34	3.38	- .41	.74	....	9	15	5	10	S
Elkader	Clayton	727	23	67.0	s 5 0	93	9.11	34	80	37	5 81	s 1 99	1.80	....	7	16	10	4	SE
Estherville	Emmet	1,298	9	63 6	s 2.7	93	10	32	80	31	4 25	s 1.15	1.30	....	8	17	0	13	SE
Forest City	Winnebago	1,326	10	66.7	s 4.4	98	8	38	30	33	7.14	s 3.30	2 67	....	10	14	5	11	S
Grand Meadow	Clayton	1,130	13	65 6	s 3.9	88	11	40	30	33	5.46	s 2 19	1 44	...	11	14	9	7	SW
Greene	Butler	.....	...	66 1	s 2.0	91	10	27	80	33	4.88	s 1.52	2 30	..	10	13	7	10	SW
Hampton	Franklin	1,155	14	68.5	s 6.2	95	8	37	30	38	7.07	s 3 57	4.15	....	9	10	17	3	SE
Humboldt (a)	Humboldt	1,095	12	64.7	s 2.4	88	9	34	30	29	1.83	- 1.62	1.05	...	6	19	1	10	SW
Inwood	Lyon	.....		63.8	.....	95	10	33	30	35	6.42	. ....	1.84	....	10	17	6	7	S
Larrabee	Cherokee	1,236	15	.....	.....	.....	.....	..	.....	.....	.....	.....	.....	...	. .	....	....	....	.....
Le Mars	Plymouth	1,224	8	64 5	s 1.6	92	9.10	32	30	33	8.23	s 5.04	3.00	...	9	15	9	6	S
Mason City	Cerro Gordo	1,132	...	66 2	s 3.2	90	10	37	30	28	5.16	s 3.97	1.40	....	9	9	16	5	SE
New Hampton	Chickasaw	1,149	6	64 8	s 2.2	87	10	38	30	28	4.36	s .61	3.05	...	11	16	8	6	S
Northwood (f)	Worth	1,322	8	64.6	s 4 3	88	10	37	30	3	6.44	s 2.95	3.05	....	11	8	5	7	SE
Osage	Mitchell	1,184	13	65.2	s 5.8	90	8	35	30	33	5.14	s 1.84	1.90	...	10	13	7	10	S
Plover (a)	Pocahontas	.....	7	61 2	s 2.8	93	10	39	27.29	40	7 11	s 3.07	2.27	...	7	....	....	...	S
Pocahontas ‡	Pocahontas		....	63.[illegible]	.....	94	10	34	30	33	5.1[illegible]	. ....	3.10	....	5	17	8	5	S
Ridgeway	Winneshiek	1,215	8	67.7	s 5.5	93	11	38	30	34	6.11	s 1 98	2.15	....	18	15	12	3	S
Rock Rapids ‡	Lyons	.....		63 6	s 0 6	92	10	30	29.30	40	3.75	s 1.45	1.10	...	8	....	....	....	.....
Sheldon	O'Brien	1,422	8	65 4	s 3.0	94	10	33	30	39	6 01	s 1.92	2 80	...	10	17	6	7	SW
Sibley	Osceola	1,21[illegible]	10	62.8	s 1 [illegible]	92	8	35	30	38	5.69	s 2.53	1.94	...	10	18	3	9	SE
Sioux Center	Sioux	.....	7	63 1	s 2 4	89	9.10	36	30	31	6.35	s 1 97	3.50	....	11	17	5	8	S
Washta	Cherokee	1,157	..	65 9	s 3 4	95	20	27	30	50	3.83	- .08	1 00	....	10	1[illegible]	4	8	S
West Bend	Palo Alto	1,197	10	64 5	s 3.7	89	10	36	30	32	6 69	s 3.57	4.39	...	8	10	8	12	S
Average	.....	.....	..	65.8	s 3.0	91.2	.....	35.8	.....	33.9	5.40	s 2.01	.. ...	....	10	15	7	8	S

SOUTHERN SECTION.

Afton	Union	1312	11	67.6	s 2 5	95	9	37	30	34	2.48	- 1.44	1.31	.	5	11	10	9	SW
Albia	Monroe	959	8	69 4	s 5.2	98	10	38	27	40	1.31	- 2.61	.55	....	5	18	5	7	S
Allerton	Wayne	.....	...	70.4	.....	98	9	39	30	35	2.04	.....	1.08	....	8	21	3	6	SW
Atlantic	Cass	1164	13	68.6	s 7.5	95	8	31	30	38	6.53	- 3.86	2 99	...	9	10	10	10	S
Bedford	Taylor	.....	6	68.5	s 5.2	94	9,10	39	27	37	1 98	- 1 54	1.59	...	4	18	6	6	S
Bloomfield	Davis	.....	...	69.9	.....	95	9	42	30	34	3.99	.....	1.02		8	21	8	1	SW
Bonaparte	Van Buren	.....	12	71 0	s 3 3	9[illegible]	9,10,11,16,17	44	27, 30	34	3.91	- .10	3.20	....	4	....	..	....	.....
Burlington	Des Moines	544	8	71 1	....	95	10, 16, 17	46	30	38	5.13	.....	4.32	...	5	20	4	6	NE
Chariton	Lucas	1042	9	68.5	s 2 9	97	9	38	30	34	3.68	- .05	1.80		7	19	4	7	SE
Clarinda	Page	1009	14	68.	s 2.8	100	9	38	27, 28, 30	40	2.26	- .80	66		7	18	3	9	S
Collegeville (d)	Page	.....	12	68.5	s 1.4	92	9, 10	40	27	31	4.42	s 1.96	1.75	....	7	1[illegible]	12	0	.....
Columbus Jct	Louisa	595	5	69.[illegible]	s 5.0	92	11, 16	43	30	31	2.33	- 1.41	1.05		6	21	7	2	NE
Corning	Adams	1107	12	67.2	s 2 1	94	9	37	27	33	3.64	s 1.16	1.07	...	6	18	12	5	SW
Corydon	Wayne	1101	11	69.8	s 3.3	94	8,10	39	30	34	2.48	- 1.33	1.78	...	8	12	18	5	SW
Creston (a)	Union	.....	2	67.2	.....	94	8	39	30	40	4 41	.....	2 05	....	9	17	5	8	.....
Cumberland	Cass	....	7	....	.. ..	.....	.....	....	....	.....	3.33	s .35	2.32	...	4	26	1	3	S
Earlham	Madison	.....	5	65.8		95	9	34	27	42	2.33	.....	2.17	...	6	19	4	7	NW
Elliott ‡	Montgomery	.....	2	66.8	.....	95	9,10	33	30	36	4.26	.....	1.05		10	17	13	0	S
Ft. Madison	Lee	516	53	.....	.....	.....	.....	..	.....	....	4 58	s .79	3.85		3	9	17	4	S
Glenwood	Mills	.....	17	67 3	- 0.6	95	9	40	30	30	5.57	s 3.44	3.00	....	6	7	20	3	SW NW
Hancock	Pottawattamie	.....	15	67 6	s 1.8	95	9	39	3[illegible]	32	4 47	s 1.19	1 41	....	8	20	3	7	S
Hopeville	Clarke		1	67 8	...	95	9	40	30	31	5.60	.....	2.00	....	8	22	3	5	SW
Indianola (a)	Warren	.....	18	69 2	s 2.6	96	8	40	30	31	3 19	- .34	1.20	...	8	7	18	5	S
Keokuk	Lee	969	5	67.6	s 2.0	98	9	39	3[illegible]	3	3 31	- .29	.94	...	8	7	6	17	SE SW
Kosauqua	Van Buren	614	35	71 4	s 5.0	93	17	47	30	27	2.94	s .58	2.04	...	8	7	6	17	SE
Lacona	Warren	644	12	69.1	s 1.7	94	9	41	27	40	3.47	- 1.01	1.52	...	4	19	6	5	SE
Lenox	Taylor	.....	7			.....	.....	....	.....	.....	3 92	s .31	2.50	...	7	8	13	9	.....
Leon ‡	Decatur	1250	9	68.0	s 2.7	9[illegible]	8,9	40	30	32	3.46	s .49	1.60	....	5	....	....	....	.....
Massena	Cass	1120	5	68.[illegible]		93	9	4	30	29	3.85	.....	2.37	...	4	20	7	3	S
Mount Ayr	Ringgold	.....	...	64.2	.....	99	9	36	27	48	3 42	.....	1.05	...	7	18	3	11	SE
Mt. Pleasant	Henry	1238	10	69 8	s 3.1	97	9	4[illegible]	3	33	3.27	s .10	1.42	....	6	12	17	1	SE
Omaha, Neb	Douglas	729	22	70 8	s 7.2	94	16	48	30	31	4.04	s .68	2.12	..	6	14	11	5	SW
Oskaloosa	Mahaska	1105	34	68.7	s 3.9	95	8	42	30	28	4.81	s 1.93	1.52	...	4	14	14	2	SE
Ottumwa	Wapello	849	20	69 2	s 4.8	96	8	42	80	28	4.81	s 1.93	1.52	...	11	10	8	12	S
Pacific Junction ‡	Mills	649	10	71.9	s 5 3	97	9	40	27, 30	37	1.31	- 1.89	.54	...	8	21	0	9	SW
Pella	Marion	960	7	66.4	s 2.5	94	9	43	30	37	1.54	- 2.78	.67	...	6	18	7	5	.....
St. Charles	Madison	....	....	70.6		98	9	35	30	32	5.12	s 2.80	2.01	....	9	15	12	3	N
Sigourney	Keokuk	1070	4	69.0		98	9	39	30	42	2.11	.....	1.82	...	8	16	13	1	SE
Stockport (e)	Van Buren	877	7	70 1	s 5.0	95	9	40	30	32	4.79	.....	1.54	...	10	20	7	3	SW
Thurman	Fremont	.....	5	69.8	.....	94	10	44	30	35	.78	- 2.19	.82	....	4	2	27	1	SW
Wapello (b)	Louisa	.....	8	67.8	s 3 0	94	9	37	30	32	2.09	.....	1.63	.	6	23	4	3	S
Washington	Washington	588	6	70 2	s 5 2	93	18	41	30	32	11.[illegible]0	s 7.89	7 60	....	8	17	5	8	SW
Winterset	Madison	769	23	69 7	s 4.7	93	10	48	30	30	4.47	s 1.55	2.00		7	...	....	.	SE
Woodburn	Clarke	1129	18	67.8	s 2.6	92	9,10	37	30	32	2.20	- .42	1.28	...	4	..	..	...	SW
		961	7	63 2	.....	94	11	34	27	31	4.75	s 1.40	1.35	...	7	12	7	11	SE
Average		.....	.....	68 9	s 3.1	94.9	.....	39.7	.....	34 6	4.30	s .41	1.68	....	8	15	1	[illegible]	SW
Average for State		.....	.....	67.2	s 3.4	93.2	.....	37.4	.. ..	34.2	3 61	s .31	.....	....	6	16	9	5	SW
											4.16	s .85	.....	....	8	16	8	6	S SE SW

s Above normal. ‡ Received too late to be computed with means. a. One day missing; b. two days, etc.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF SEPTEMBER, 1906.

STATIONS.		DATE. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	MEAN.
Afton	Max..	84	82	78	80	83	87	90	93	95	92	94	78	68	74	88	91	82	73	70	74	76	67	75	78	81	71	69	72	70	65	..	79.8
	Min ..	62	64	53	53	49	58	61	64	61	64	65	64	49	46	65	68	63	61	61	50	51	48	49	49	56	55	40	47	56	57	..	55.8
Al ia*....	Max..	80	86	79	78	84	88	87	92	96	98	90	77	64	75	90	93	90	88	80	80	80	77	74	80	84	75	74	67	70	68	..	81.5
	Min ..	57	61	61	55	44	55	67	63	68	66	68	64	50	48	68	68	67	64	60	53	57	54	51	55	56	60	88	44	55	41	..	57.4
Algona...	Max..	77	76	77	77	79	84	87	88	84	89	78	70	64	65	81	82	77	77	80	75	71	65	72	79	79	74	67	72	65	62	..	75.8
	Min ..	59	65	48	52	50	54	61	62	65	96	63	60	47	47	59	63	61	60	61	52	56	54	45	54	58	45	38	45	50	35	..	54.5
Allerton .	Max..	85	79	82	79	86	90	90	95	98	96	92	80	73	74	91	93	88	88	83	79	80	77	72	80	84	75	76	68	73	70	..	82.5
	Min ..	64	66	57	53	50	59	65	65	67	63	67	65	50	47	68	71	65	65	65	53	55	54	49	54	57	60	43	52	59	39	..	58.2
Alta*.....	Max..	81	75	76	79	81	84	98	91	90	91	80	65	65	69	82	79	68	65	70	78	72	71	74	76	82	69	69	73	65	64	..	75.6
	Min ..	58	66	51	52	51	56	64	66	68	67	67	60	47	47	59	64	60	60	61	49	51	52	51	52	59	49	40	43	52	36	..	55.8
Alton. ...	Max..	81	78	77	80	82	86	89	94	92	93	82	69	64	65	82	79	65	64	69	70	68	71	74	74	83	71	68	74	65	64	..	75.8
	Min ..	61	56	47	40	48	53	55	56	52	53	51	53	48	49	60	59	57	58	58	48	50	49	48	52	60	42	39	40	50	32	..	50.9
Amana...	Max..	84	79	77	75	81	84	87	90	94	92	92	81	70	71	85	90	81	87	84	79	78	69	75	77	81	73	72	64	71	65	..	79.6
	Min ..	58	65	55	50	46	52	58	61	65	66	64	65	53	46	62	70	67	66	63	55	56	52	58	53	54	58	39	53	58	40	..	56.9
Atlantic .	Max..	86	77	80	83	87	90	94	95	94	94	85	77	68	70	88	90	77	65	70	78	76	78	76	79	84	74	74	77	69	70	..	80.3
	Min ..	60	65	48	46	45	52	57	60	68	66	67	59	48	47	63	68	63	58	56	43	46	46	46	45	59	50	32	37	52	31	..	52.9
Audubon.	Max..	87	77	76	82	84	89	92	95	95	95	87	75	68	67	87	90	75	67	69	75	77	73	72	79	84	72	71	74	69	67	..	79.0
	Min ..	56	64	49	44	43	50	55	57	67	66	65	60	49	45	61	68	63	59	58	45	50	51	45	44	56	51	82	35	52	37	..	52.4
Baxter . .	Max..	84	77	79	78	83	86	90	93	94	94	92	75	65	72	85	90	79	77	82	77	..	..	..	..	..	..	..	..	..	..	..	....
	Min ..	57	64	52	51	45	53	60	64	67	63	65	62	50	45	62	70	64	64	62	49	..	..	..	..	..	..	41	..	..	37	..	....
Bedford..	Max..	80	87	82	80	87	89	91	93	91	94	93	77	69	73	87	90	83	69	71	78	79	79	70	80	83	75	75	75	70	70	..	80.8
	Min ..	63	66	55	55	50	57	60	62	64	63	67	62	47	49	66	69	64	62	59	51	47	53	44	49	59	57	39	48	60	40	..	56.2
Belle Pl'e	Max..	79	71	77	77	72	79	80	88	89	91	92	92	75	65	67	87	91	78	83	88	80	78	68	73	75	81	76	76	66	70	69	78.8
	Min ..	60	60	54	52	48	55	60	64	67	65	67	63	52	48	55	67	63	65	64	54	57	53	56	53	51	57	43	51	52	39	..	56.6
Bloomf'ld	Max..	86	80	82	76	86	89	88	91	95	92	93	79	66	75	89	93	92	89	90	82	81	78	75	80	83	77	76	62	71	66	..	81.7
	Min ..	65	67	58	55	52	59	64	62	65	63	65	64	51	49	65	70	67	64	59	55	58	56	57	54	59	52	44	55	54	43	..	58.1
Bonapar'e	Max..	84	77	79	75	83	85	87	90	93	93	93	84	75	76	92	93	93	91	91	85	84	81	78	83	86	78	76	63	71	66	..	82.8
	Min ..	65	66	60	55	54	58	63	61	69	68	65	63	52	48	64	71	68	69	61	51	59	55	59	53	56	61	44	55	59	44	..	59.2
Boone* ..	Max..	82	75	77	76	81	85	89	93	94	94	89	75	66	70	86	89	78	73	78	76	75	63	69	77	72	74	71	72	69	66	..	73.1
	Min ..	59	63	53	56	52	55	61	64	67	69	67	64	50	48	65	65	62	62	49	53	53	47	54	55	52	42	46	49	39	..	..	55.6
Britt.	Max..	76	77	71	78	80	85	88	89	89	90	84	77	70	68	82	87	75	72	83	83	75	67	73	75	80	73	67	72	64	63	..	77.1
	Min ..	58	65	47	52	50	53	60	63	65	61	63	60	46	46	59	62	60	62	63	51	55	54	45	55	58	46	38	45	46	26	..	54.2
Burlng'n*	Max..	87	72	80	75	85	89	91	93	94	95	94	88	65	77	92	95	95	83	89	85	84	82	79	84	83	79	77	63	69	67	..	83.4
	Min ..	60	66	62	56	57	59	61	63	65	67	68	66	53	50	54	68	69	64	65	55	57	58	56	53	55	58	49	52	58	46	..	58.8
Carroll* ..	Max..	83	77	76	77	80	84	88	92	93	92	85	78	65	71	84	86	75	68	73	74	75	72	67	76	82	71	69	74	67	65	..	77.1
	Min ..	60	61	51	48	50	55	61	65	70	69	70	64	47	46	51	67	68	59	62	49	53	51	44	49	53	49	36	37	44	37	..	54.0
Cedar R*.	Max..	85	81	80	78	85	89	92	93	96	94	95	85	69	73	88	94	82	89	86	83	79	69	77	81	85	75	74	64	70	66	..	81.9
	Min ..	66	69	57	55	53	57	61	65	68	70	69	67	55	52	64	78	68	68	66	59	60	57	58	53	59	62	45	44	54	41	..	59.8
Chariton.	Max..	84	82	79	77	84	89	91	94	97	95	92	79	71	72	89	91	83	84	80	78	77	72	71	79	83	75	73	67	71	67	..	80.8
	Min ..	61	63	55	53	50	59	64	63	63	62	62	61	50	46	65	70	63	65	60	51	53	54	49	49	49	58	41	53	57	38	.	56.2
Charles C.	Max..	71	74	76	78	78	84	86	89	88	89	87	75	63	68	80	85	77	77	81	76	72	62	73	75	79	68	70	69	64	65	..	76.0
	Min ..	56	58	56	50	46	51	58	62	66	67	65	56	46	47	58	66	65	63	64	59	58	54	49	54	57	48	43	46	48	36	..	54.8
Clarinda*	Max..	85	87	83	84	88	91	95	99	100	69	89	77	98	97	29	90	38	80	87	70	68	80	82	81	82	77	77	77	70	71	..	82.8
	Min ..	65	64	53	55	49	51	59	63	64	68	64	62	47	49	55	65	68	60	57	49	48	50	46	50	47	55	38	38	47	38	..	53.8
Clear L ..	Max..	74	75	77	77	80	82	87	89	87	90	83	75	64	67	80	85	75	73	82	77	72	65	74	76	78	72	68	70	64	68	..	76.2
	Min ..	56	67	52	54	52	55	60	62	64	67	67	62	48	47	57	86	68	61	62	58	55	55	49	55	55	49	42	48	52	36	..	55.9
Clinton...	Max..	86	86	76	75	80	83	84	86	90	88	91	88	70	78	89	92	91	88	89	81	81	77	76	77	81	74	74	61	70	64	..	80.7
	Min ..	52	66	57	52	49	52	54	60	60	64	62	63	54	47	56	67	66	61	65	65	58	52	50	50	50	58	40	53	54	45	..	56.0
C.Springs	Max..	82	83	76	82	85	87	88	90	92	92	..	..	72	74	86	90	80	67	..	75	77	78	70	78	81	73	68	73	70	71	..	79.3
	Min ..	62	62	56	59	54	58	62	65	65	70	..	..	..	51	66	70	66	60	..	51	49	54	47	50	..	57	40	46	57	41	..	56.5
Colum. J.	Max..	85	84	77	75	81	84	87	85	90	90	92	83	79	74	88	92	90	89	85	81	86	81	76	79	81	75	74	65	71	64	..	81.2
	Min ..	63	66	59	54	52	58	62	68	65	67	67	63	52	49	61	61	66	64	68	54	58	54	57	53	56	63	44	56	60	43	..	58.4
Corning..	Max..	83	86	77	78	82	85	89	92	94	92	91	78	64	73	85	88	79	70	69	72	72	79	69	77	81	74	70	77	69	65	..	78.7
	Min ..	54	66	59	51	47	57	61	65	67	68	65	62	46	49	56	69	64	62	60	52	50	50	49	50	60	52	37	41	47	38	..	55.6
Corydon..	Max..	83	80	81	76	85	89	88	91	97	94	88	88	72	74	89	90	88	85	76	76	80	76	73	83	83	79	75	69	59	89	..	81.8
	Min ..	64	66	56	55	50	59	65	66	68	64	67	65	50	49	55	72	65	65	61	53	55	54	51	54	54	58	42	55	59	39	..	57.9
Creston*.	Max..	80	88	79	79	85	88	91	94	92	93	92	79	66	78	84	90	83	70	69	72	77	77	75	78	81	75	72	72	70	..	..	80.0
	Min ..	58	60	53	53	47	48	59	63	67	65	68	64	50	49	50	66	64	61	65	50	51	53	49	47	53	56	40	40	52	39	..	54.5
Davenpo't	Max..	86	7	77	78	84	85	88	89	97	90	91	85	66	74	88	91	92	91	88	81	80	76	76	80	82	76	74	61	69	64	..	80.9
	Min ..	65	69	61	58	55	60	61	66	68	70	71	68	55	53	59	72	69	66	66	62	64	58	56	52	57	51	49	54	53	46	..	60.4
Decorah..	Max..	72	78	75	79	78	83	86	88	90	91	90	78	67	71	77	87	80	79	82	75	78	62	71	73	78	72	68	66	66	63	..	76.6
	Min ..	52	64	52	50	67	50	56	60	63	68	69	62	52	42	58	64	66	66	68	33	59	54	48	54	58	52	40	48	53	37	..	55 6
Delaware.	Max..	75	76	78	76	77	84	86	88	89	83	90	80	70	68	82	88	79	81	83	75	75	65	70	74	77	69	69	61	67	62	..	76.5
	Min ..	55	65	53	53	49	55	58	61	63	64	64	68	51	45	55	70	64	65	62	62	56	59	50	48	51	57	43	60	46	37	..	55.9
Denison ..	Max..	86	76	77	80	83	86	91	95	95	94	88	72	66	66	86	82	70	65	68	75	75	72	73	78	82	69	67	69	64	63	..	77.9
	Min ..	62	64	47	48	50	56	64	68	70	63	69	59	48	48	63	64	61	61	59	50	53	52	46	50	60	48	34	38	55	32	..	54.7
Des M....	Max.	82	78	76	74	80	85	88	91	93	92	86	77	64	71	88	89	79	76	76	76	75	72	67	78	83	78	70	70	69	65	..	78.0
	Min .	60	65	58	55	51	59	65	64	70	69	68	56	52	50	66	69	66	65	57	51	55	56	53	54	60	49	45	51	50	43	..	57.7
De Soto ..	Max..	85	78	75	76	80	87	90	93	95	96	89	77	84	71	89	91	79	73	76	76	75	72	67	78	83	78	70	70	69	65	..	79.4
	Min ..	64	66	63	50	46	55	62	63	69	68	67	64	54	46	62	64	65	63	65	50	51	50	48	49	60	55	38	43	53	33	..	56.6
Dows.	Max..	78	74	77	77	80	84	87	90	90	93	88	74	64	70	85	88	76	74	83	77	74	65	70	76	81	73	69	72	68	65	..	77.4
	Min ..	57	64	49	45	46	50	58	57	64	66	64	61	48	45	58	67	62	60	63	47	53	52	48	54	55	46	34	44	52	33	..	53.2
Dubuque.	Max..	80	78	76	74	82	84	87	88	91	88	92	83	66	69	81	91	83	86	88	80	79	68	67	75	80	72	72	62	68	64	..	78.5
	Min ..	61	62	58	55	52	56	61	65	66	71	69	64	55	50	58	69	66	67	65	67	60	56	54	51	57	62	45	52	51	43	..	58.6
Earlham .	Max..	85	80	78	78	83	88	92	94	95	94	89	78	65	70	87	90	82	70	72	73	76	72	69	77	81	73	71	78	68	67	..	79.2
	Min ..	61	59	50	47	41	50	52	60	67	70	63	62	50	45	62	70	63	62	50	48	50	50	42	45	53	53	34	42	40	36	..	52.4
Elkader ..	Max	72	75	81	80	83	87	90	91	93	89	93	78	66	71	81	91	83	84	87	79	76	76	65	78	81	75	74	65	66	67	..	79.2
	Min ..	54	64	50	49	47	50	55	60	60	62	65	64	52	48	58	65	72	67	61	63	55	53	50	50	54	53	38	43	57	34	..	54.9
Esth'rv'l*	Max..	75	75	78	79	82	84	89	91	88	93	76	65	64	66	80	75	65	68	80	74	72	68	74	75	82	68	67	73	65	64	..	75.2
	Min ..	51	66	47	50	49	52	56	60	61	65	61	59	48	48	50	62	59	58	60	52	52	54	46	52	54	42	34	37	40	32	..	52.0
ForestCy*	Max..	81	77	81	79	83	86	91	93	89	92	83	73	67	67	83	83	75	73	86	79	74	73	80	77	81	72	75	74	65	68	..	78 6
	Min ..	53	59	52	53	51	53	58	62	65	67	65	63	47	47	50	63	63	62	62	54	55	55	49	56	58	47	42	44	49	38	..	54.8
F. Dodge*	Max..	82	75	78	79	82	86	91	94	93	94	87	70	71	68	83	87	74	69	79	76	74	61	70	77	83	72	71	73	68	78	..	78.3
	Min ..	58	60	52	50	50	53	58	56	65	70	69	64	49	48	49	66	64	62	62	50	50	54	47	50	52	49	38	40	42	36	..	58.7
Glenwo'd	Max..	80	78	77	79	81	86	90	94	95	94	86	77	65	70	89	87	72	65	66	75	76	75	70	78	82	76	68	69	70	65	..	77.8
	Min ..	63	65	56	55	53	60	65	64	66	69	69	58	48	50	66	63	61	59	56	55	53	55	48	52	60	56	44	47	50	40	..	56.8
Grand M.	Max..	71	75	75	76	83	82	84	85	87	85	88	75	66	68	75	86	79	81	81	74	73	63	64	72	76	69	67	64	64	62	..	75.0
	Min ..	58	66	51	51	49	49	59	62	65	65	67	63	53	49	55	66	65	66	64	63	58	54	57	45	55	52	41	46	52	40	..	56.2
Greene...	Max..	72	75	77	79	80	85	88	90	88	91	90	77	65	70	83	88	77	77	68	78	72	65	68	76	79	70	69	69	46	54	37	..	77.1
	Min ..	56	59	49	51	47	51	58	61	64	66	65	64	50	46	57	70	64	63	63	57	57	53	48	55	55	48	39	46	54	37	..	55.1
Greenfield. ..	Max..	78	84	76	77	84	88	92	94	95	94	89	78	73	73	86	89	82	70	69	72	72	72	67	74	76	69	67	64	64	62	..	79.4
	Min ..	54	62	51	54	52	62	65	67	68	67	66	64	48	48	63	70	63	60	60	52	52	52	48	50	60	55	46	40	40	39	..	55.9
Grinnell .	Max..	85	76	78	78	83	81	86	91	93	94	91	90	76	78	89	92	82	83	86	80	77	70	75	79	83	73	78	70	70	68	..	80.8
	Min ..	59	63	50	51	48	60	57	62	65	61	62	62	60	46	62	67	63	63	61	47	52	51	52	52	55	51	40	48	56	37	..	55.4
Grundy C	Max..	80	74	74	78	80	85	86	90	93	92	91	70	..	66	87	93	78	78	85	79	75	68	75	78	81	74	70	70	70	66	..	78.9
	Min ..	64	..	71	56	58	50	60	69	71	74	70	48	48	56	52	62	55	55	55	59	46	45	42	50	50	42	45	50	40	40	..	54.6
Guthrie C	Max..	86	78	75	77	81	87	90	93	92	93	86	75	65	69	87	89	76	71	70	70	75	71	68	73	83	75	70	78	69	65	..	78.1
	Min ..	60	65	50	46	46	53	61	65	69	70	69	64	50	47	62	72	64	61	65	47	51	53	46	46	59	52	35	38	53	36	..	55.1
Hampton.	Max..	75	75	84	82	86	87	92	95	91	94	94	75	71	78	85	90	78	75	88	81	75	65	78	79	83	73	78	74	69	75	..	80.7
	Min ..	59	67	53	53	48	54	62	63	67	70	66	63	50	46	59	65	64	63	63	53	53	55	47	55	58	49	42	47	54	37	..	56.3
Hancock.	Max..	85	78	76	82	83	87	92	93	95	92	87	75	75	70	85	88	80	66	79	75	75	70	75	80	75	70	73	68	69	64	..	78.7
	Min ..	64	65	53	59	52	59	64	66	68	70	70	60	49	50	66	71	64	60	59	51	55	47	43	60	58	42	45	50	49	40	..	57.0
Harlan...	Max..	85	77	75	80	83	85	90	92	93	92	86	72	67	67	87	89	75	65	69	73	75	65	69	73	78	72	69	74	67	65	..	77.6
	Min ..	59	64	50	47	48	53	59	61	65	66	67	59	49	47	63	63	62	61	57	50	50	49	46	49	57	51	37	39	53	31	..	53.8
Hopeville	Max..	82	86	76	80	86	90	93	96	95	95	93	77	65	74	89	92	85	77	70	77	78	74	68	80	84	73	81	68	71	67	..	80.4
	Min ..	62	66	56	57	52	60	65	64	66	64	67	63	51	48	67	69	64	68	60	57	52	55	55	51	59	60	48	51	57	40	..	58.1
Humboldt	Max..	73	71	71	75	78	78	85	85	88	77	72	62	75	82	84	72	70	79	74	70	65	..	68	76	80	76	67	72	66	62	..	74.2
	Min..	68	48	51	50	54	62	64	66	66	68	62	49	48	60	62	62	62	63	58	55	54	..	47	52	60	47	38	43	53	34	..	55.2
Ida Grove	Max..	86	78	78	80	85	87	92	94	93	..	93	72	67	64	85	83	72	66	69	59	56	55	53	52	46	50	60	48	34	33	..	78.8
	Min..	46	65	46	47	51	54	60	62	68	..	63	54	42	46	61	65	59	59	59	46	46	46	45	45	50	44	34	37	49	30	..	51.0

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF SEPTEMBER, 1906--CONCLUDED.

STATIONS.		DATE.																														Mean.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Indep'ce	Max..	76	75	78	77	80	84	86	90	93	90	92	77	60	70	84	91	81	83	88	82	73	73	77	77	81	79	74	66	69	66	..	79.2
	Min...	55	65	53	50	48	53	53	60	62	64	62	60	50	45	58	69	64	65	63	57	53	54	57	50	53	52	39	46	56	34	..	55.1
Indian'la	Max..	82	79	76	75	82	86	78	91	93	..	86	76	67	71	87	89	81	78	73	73	75	68	68	78	81	78	70	69	69	66	..	77.2
	Min ..	60	66	55	54	51	62	67	65	69	67	66	64	52	48	66	71	63	64		53	51	53	54	55	55	57	43	50	57	39	..	58.1
Inwood..	Max..	81	79	80	78	83	85	89	92	92	93	73	63	64	63	81	71	63	61	68	68	69	73	74	74	83	71	69	78	68	64	..	75.1
	Min ..	61	62	45	52	55	59	65	66	62	61	57	52	47	49	60	53	55	51	56	48	53	47	48	52	61	41	40	45	42	32	..	52.6
Iowa C	Max..	87	80	84	76	87	91	92	94	96	96	94	81	74	79	93	97	91	96	90	85	80	72	85	84	85	78	81	62	75	72	..	84.6
	Min ..	58	65	57	52	49	50	56	59	63	66	64	64	54	49	52	63	66	63	64	55	56	52	55	51	52	55	41	43	58	43	..	55.8
Iowa F	Max..	77	75	76	76	78	84	86	88	88	90	90	77	84	71	84	88	78	76	83	76	74	65	71	76	79	70	69	70	67	64	..	77.0
	Min ..	54	61	52	48	45	50	55	58	59	56	63	64	50	46	50	62	64	68	65	50	54	52	45	52	58	51	35	40	45	36	..	52.6
Jefferson	Max..	82	76	78	79	87	88	93	94	93	95	87	75	69	63	84	90	77	69	75	72	77	70	66	78	82	75	72	74	69	68	..	78.7
	Min ..	61	62	51	49	48	54	58	60	67	66	66	61	45	45	58	66	64	61	63	48	57	53	47	49	59	50	48	42	53	33	..	54.8
Keokuk	Max..	85	78	68	74	82	85	87	89	90	93	91	84	63	74	90	92	93	90	88	83	83	80	78	81	83	78	75	61	69	64	..	81.3
	Min ..	66	69	64	59	57	61	65	65	66	70	68	68	54	52	64	71	69	65	64	58	65	59	57	54	57	64	50	55	60	47	..	61.4
Keosauqua.*	Max..	87	80	81	78	84	87	89	92	94	92	93	84	67	76	91	91	92	90	81	83	83	81	78	81	85	78	77	67	72	66	..	82.8
	Min ..	53	63	60	53	49	50	58	61	63	63	59	64	51	44	51	65	67	64	57	52	53	54	55	55	55	56	41	43	55	44	..	55.4
Le Mars.	Max..	84	80	77	77	82	84	88	91	92	92	84	69	66	64	83	79	64	63	67	68	68	69	74	75	83	70	69	74	67	65	..	75.5
	Min ..	61	59	47	49	53	55	65	67	68	66	60	54	50	49	62	63	56	57	57	47	52	49	48	53	57	42	36	30	49	42	..	53.4
Lenox...	Max..	80	84	77	77	84	87	90	92	93	91	89	79	63	72	86	88	88	85	72	69	70	75	75	67	77	81	76	70	71	67	64	78.4
	Min ..	62	65	54	55	52	60	64	65	67	66	69	64	49	49	63	70	62	62	61	52	52	53	50	53	60	57	42	51	58	40	..	57.7
Little Sioux	Max..	83	83	81	81	84	87	92	95	94	91	84	74	72	81	87	83	69	64	66	74	77	76	78	78	85	79	73	78	70	70	..	79.7
	Min ..	64	67	49	50	55	61	49	70	71	68	66	58	45	52	64	68	58	60	58	50	49	51	48	55	61	47	38	40	49	35	..	55.2
Logan...	Max..	88	74	79	83	84	87	91	93	92	92	88	75	69	67	80	84	69	66	71	77	78	77	74	78	83	73	70	76	69	65	..	78.4
	Min ..	62	49	54	49	50	55	59	62	65	63	67	60	47	50	65	63	59	50	55	50	50	53	50	50	58	50	38	39	49	34	..	53.6
Marshall'n*	Max..	79	78	80	80	84	88	90	93	96	96	93	78	69	74	87	93	83	80	88	82	79	65	75	81	85	76	75	72	71	70	..	81.3
	Min ..	55	62	50	49	45	48	54	61	64	63	65	63	50	45	48	61	63	64	62	51	52	52	52	52	54	52	38	40	48	35	..	53.8
Mason C.	Max..	75	75	75	76	78	83	86	87	87	90	85	75	65	67	79	85	78	76	83	75	72	66	78	74	79	74	66	73	65	62	..	76.1
	Min ..	57	63	50	54	50	58	63	63	65	68	67	65	48	46	58	65	63	63	53	58	57	54	42	56	53	49	40	46	56	37	..	56.8
Massena	Max..	88	86	83	87	92	92	93	92	99	98	94	82	69	74	90	92	82	79	72	71	80	83	83	81	87	87	75	74	72	71	..	83.5
	Min ..	64	64	51	52	46	55	61	64	65	66	64	62	52	56	63	63	62	59	59	58	48	50	43	49	58	53	36	40	54	37	..	54.8
Mt. Ayr.	Max..	80	87	81	83	88	91	94	96	97	96	95	80	80	75	90	94	88	79	71	76	80	80	69	82	85	74	74	73	71	68	..	82.5
	Min ..	61	65	55	56	53	63	65	64	66	63	67	64	48	48	65	70	63	62	60	53	53	55	50	52	57	57	42	48	52	40	..	57.2
Mt. Pleasant	Max..	86	80	78	77	82	85	88	89	92	92	93	85	78	75	90	94	92	90	89	84	82	79	78	81	83	76	76	65	71	65	..	82.8
	Min ..	63	67	60	56	54	58	64	63	65	67	68	64	51	48	63	71	67	63	62	54	60	57	58	53	58	64	45	54	59	43	..	59.8
Mt. Vernon.	Max..	81	80	84	76	85	89	91	93	93	93	93	78	73	75	88	94	90	91	89	84	81	69	83	83	82	82	79	60	68	72	..	82.6
	Min ..	61	65	55	55	50	59	62	64	64	66	65	63	52	48	56	69	65	64	63	56	56	54	54	50	55	53	43	51	54	40	..	57.1
N. Hampton	Max..	78	78	75	74	74	80	83	84	81	87	83	85	63	66	83	84	76	77	79	72	71	69	70	72	76	76	65	65	66	60	..	74.9
	Min ..	58	57	50	53	43	55	55	62	65	63	63	63	50	47	58	57	61	64	64	61	54	52	48	52	55	48	40	48	49	38	..	54.8
Northwood..	Max..	..	81	72	76	78	83	86	..	85	88	84	..	64	63	79	75	74	75	82	74	70	64	74	73	..	..	..	70	63	65	..	75.2
	Min ..	..	52	50	51	49	53	58	..	64	68	..	60	47	46	56	58	62	62	63	60	55	55	49	54	..	..	..	40	50	57	..	54.1
Odebolt.	Max..	89	77	81	84	86	92	93	95	93	93	88	72	71	63	87	82	70	66	69	75	74	73	77	79	88	76	75	76	73	71	..	79.9
	Min ..	59	63	47	49	50	57	65	65	69	68	68	58	48	47	61	61	61	60	62	49	54	50	45	49	59	47	38	40	51	35	..	54.7
Ogden...	Max..	83	76	77	77	81	86	91	93	93	94	89	88	..	..	86	89	76	72	78	75	75	67	68	76	81	75	70	73	69	67	..	79.8
	Min ..	74	66	51	52	50	51	62	62	67	69	66	65	49	48	59	70	64	62	62	49	53	51	46	51	58	50	39	46	55	35	..	56.1
Olin	Max..	83	81	75	75	78	83	82	87	89	87	91	84	78	69	85	90	85	86	87	76	76	72	73	75	78	70	70	63	69	62	..	78.5
	Min ..	56	66	57	55	48	50	55	60	68	62	66	62	52	46	57	70	65	65	63	60	56	52	52	50	53	49	40	51	60	42	..	56.2
Omaha Neb.	Max..	85	79	77	80	83	85	90	93	95	93	84	73	63	72	87	88	81	67	68	72	77	74	74	77	84	73	71	75	69	67	..	78.2
	Min ..	65	65	58	58	59	64	68	70	72	72	69	56	51	53	68	67	60	58	58	56	55	58	53	56	62	55	47	47	55	42	..	59.2
Onawa ..	Max..	85	82	77	80	83	86	92	95	94	94	87	75	69	66	86	83	69	64	64	72	74	76	76	78	86	79	71	74	69	68	..	78.5
	Min ..	64	66	53	53	54	59	66	67	68	66	68	60	49	51	63	69	58	60	57	52	52	53	50	52	60	51	41	44	52	38	..	56.5
Osage ...	Max..	68	75	78	79	81	84	87	90	88	89	87	74	68	67	77	83	78	76	80	77	71	64	72	74	78	70	70	69	64	66	..	76.1
	Min ..	53	63	49	49	47	51	57	61	63	66	63	63	47	44	56	66	64	62	63	59	56	52	47	53	56	48	38	45	53	35	..	54.3
Oskaloosa ..	Max..	87	80	79	76	83	88	88	92	96	95	89	77	71	75	89	91	86	85	82	78	78	71	74	80	83	74	73	66	70	67	..	80.8
	Min ..	63	66	57	51	46	54	62	62	69	65	67	62	53	49	64	70	66	65	62	49	52	54	57	50	59	61	40	54	60	40	..	57.7
Ottum'a	Max..	86	81	88	80	83	89	91	90	97	94	92	83	81	75	91	94	93	92	85	82	81	75	91	82	85	77	78	63	73	66	..	84.0
	Min ..	68	67	70	57	51	57	66	66	67	65	69	62	53	50	61	69	69	65	63	54	59	57	58	55	58	61	46	51	58	43	..	59.8
Pella	Max..	88	82	84	78	86	89	93	95	98	96	93	80	74	76	90	93	85	88	80	79	78	71	76	84	84	78	75	72	72	71	..	82.9
	Min ..	62	65	55	55	49	59	63	67	69	65	67	64	57	47	64	71	65	65	62	53	56	55	54	54	57	57	42	53	58	39	..	58.3
Perry . .	Max..	84	78	75	77	80	86	90	92	92	94	88	77	66	70	87	90	80	78	77	77	75	69	67	77	82	72	70	73	68	65	..	78.5
	Min ..	62	65	51	50	49	56	60	63	67	67	66	62	50	47	61	65	65	62	62	49	52	53	46	49	59	51	38	43	55	35	..	55.7
Plover ..	Max..	77	78	75	77	85	87	92	92	85	93	78	77	70	68	83	82	72	77	70	76	78	79	80	70	80	70	68	73	70	..	..	78.0
	Min ..	58	51	50	51	48	53	55	59	65	66	65	48	55	48	63	64	53	57	61	63	65	61	60	57	40	46	39	42	39	..	..	54.3
Preston.	Max..	79	82	76	72	76	81	84	85	87	85	90	83	75	69	83	89	85	86	87	79	77	73	72	71	79	78	72	64	68	63	..	78.1
	Min ..	53	63	52	51	47	50	53	59	58	59	60	61	55	43	55	63	62	60	60	65	58	53	50	45	46	60	39	41	59	41	..	54.3
Ridge'y	Max..	69	77	80	80	83	87	91	91	91	90	93	75	67	69	78	90	83	82	87	82	78	65	68	79	81	76	76	71	69	69	..	79.2
	Min ..	57	62	51	54	49	55	61	64	66	68	67	65	51	46	55	70	64	63	63	62	57	54	48	54	47	48	42	46	59	38	..	56.2
Rockwell C.	Max..	73	78	75	73	80	85	91	91	94	93	92	83	65	68	85	85	70	72	70	78	76	68	60	75	82	72	76	76	68	66	..	77.1
	Min ..	50	63	56	50	50	55	62	63	65	65	64	58	48	46	63	60	60	61	60	50	48	51	46	49	52	48	49	48	45	32	..	53.8
Sac City.	Max..	83	76	74	77	79	85	88	90	93	91	80	69	64	65	83	81	81	68	72	71	73	70	69	70	81	76	67	72	65	65	..	75.9
	Min ..	60	59	50	49	49	50	58	62	68	68	68	59	48	47	60	65	61	60	62	52	50	48	45	49	53	48	37	40	38	37	..	53.2
St.Cha'es	Max..	83	80	77	76	86	89	92	98	95	96	88	77	65	73	90	93	82	76	71	73	81	73	68	81	84	75	72	70	69	67	..	80.9
	Min ..	61	67	55	58	51	62	66	66	69	68	65	62	51	47	65	72	64	63	61	53	55	56	53	58	59	57	43	49	58	40	..	58.1
Sheldon.	Max..	80	78	82	80	82	86	91	93	93	94	93	86	84	68	82	78	68	65	74	73	71	76	77	78	86	74	72	80	71	69	..	78.7
	Min ..	58	63	45	47	50	58	63	64	64	65	58	50	45	48	59	57	57	50	59	48	47	49	51	52	60	40	36	41	48	33	..	52.0
Sibley*..	Max..	77	74	80	78	82	85	89	93	90	91	72	60	66	68	80	70	63	64	74	70	69	73	76	75	81	69	70	77	65	67	..	74.9
	Min ..	52	62	45	46	48	51	54	62	63	60	60	58	47	47	48	55	56	56	56	48	48	48	50	52	53	41	38	39	40	35	..	50.6
Sigour'y	Max..	75	76	78	79	86	87	88	92	95	94	93	83	73	76	91	95	90	90	88	83	81	75	78	82	85	75	72	65	72	67	..	82.1
	Min ..	63	64	56	55	51	57	62	63	65	64	66	64	52	49	68	70	66	65	62	52	57	54	57	53	55	61	44	53	60	40	..	58.1
Sioux C'r	Max..	81	77	76	75	79	83	86	88	89	89	80	65	64	63	80	75	63	63	69	68	68	69	63	73	81	70	68	73	64	64	..	78.8
	Min ..	60	65	51	51	50	56	63	64	63	62	54	54	47	58	59	57	56	57	57	48	50	47	48	51	58	43	41	42	40	36	..	53.4
Sioux C.	Max..	87	76	77	77	82	84	89	91	94	93	75	65	66	70	88	75	63	61	67	67	69	72	74	75	86	70	69	77	66	66	..	75.6
	Min ..	62	59	50	53	59	63	67	69	69	69	62	53	49	53	64	58	56	56	55	50	53	55	50	54	61	45	38	48	45	35	..	55.3
Stockport ..	Max..	..	..	..	..	..	..	..	..	..	..	93	81	70	76	91	92	92	91	89	83	81	77	67	83	84	75	75	65	67	64	..	80.3
	Min ..	65	67	60	58	52	58	64	62	65	65	67	64	53	48	64	71	69	65	61	55	60	58	59	55	56	61	45	56	58	44	..	59.4
Stuart...	Max..	85	77	75	76	80	87	90	92	94	94	89	74	65	70	85	90	78	79	71	75	75	71	67	75	81	74	68	72	66	63	..	77.6
	Min ..	64	65	54	58	55	62	67	67	69	69	69	52	50	47	53	71	64	61	63	52	52	53	52	52	60	54	43	45	53	39	..	57.3
Thurm'n	Max..	84	80	71	79	82	84	88	92	94	93	87	74	68	71	87	88	78	67	70	72	76	76	72	77	83	76	70	75	70	66	..	78.3
	Min ..	65	67	52	54	49	55	61	62	70	63	71	63	58	54	67	78	64	60	57	53	53	52	48	52	62	57	38	43	55	37	..	57.3
Tipton ..	Max..	86	79	74	82	84	88	89	91	92	93	93	84	72	75	87	94	89	91	90	84	81	75	80	81	82	78	77	66	71	68	..	82.6
	Min ..	65	68	60	60	55	61	64	66	67	70	68	65	55	51	58	71	69	68	67	61	60	55	57	53	57	64	50	55	59	45	..	60.8
Toledo ..	Max..	79	76	73	74	77	83	85	88	91	91	89	75	72	71	86	89	84	82	83	76	73	70	73	77	80	77	70	67	68	65	..	78.2
	Min ..	54	66	52	51	46	54	59	62	69	66	64	62	52	46	63	70	65	66	63	53	62	55	55	54	55	49	40	49	53	37	..	56.5

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR SEPTEMBER, 1906.—CONCLUDED.

STATIONS.		DATE																													Means.
		1	2	3	4	5	6	7	8	9	10	1	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Wapello	Max	85	78	71	73	79	84	85	89	91	90	89	82	76	76	....	....	92	93	89	84	82	76	88	79	82	76	75	65	65	60	...	0.5
	Min	66	68	62	56	55	59	64	65	66	71	69	60	55	58	....	....	63	65	67	58	68	58	53	54	53	61	48	57	56	41	...	59 9
Washi'ton	Max	85	82	77	75	83	85	88	90	92	93	92	83	64	74	90	92	92	90	88	83	81	76	76	81	83	76	75	62	7	66	...	81.5
	Min ..	64	66	56	55	51	58	62	64	65	66	66	63	51	50	62	70	66	65	63	53	58	54	58	52	56	52	44	52	52	48	....	57.9
Wa-hta ..	Max..	84	80	82	81	85	87	9	94	92	92	84	66	65	68	83	82	70	70	70	95	78	72	74	85	76	75	78	78	64	69	..	79.2
	Min	64	66	42	43	48	50	68	68	78	66	70	55	44	46	60	65	60	60	60	45	53	48	46	62	40	40	32	34	46	27	...	52.6
Waterlo†	Max	78	78	81	80	82	86	90	93	95	93	95	77	65	70	86	91	81	83	85	81	76	66	77	78	82	75	75	70	70	69	..	80.3
	Min ..	57	61	51	51	44	52	57	62	65	67	65	65	51	47	54	61	65	64	63	57	56	55	50	52	54	54	40	47	53	36		55.2
Waukee.	Max	82	75	78	74	76	84	86	89	91	90	85	75	63	70	85	87	80	72	76	74	72	..	..	75	80	70	69	70	67	..	...	77.4
	Min	63	5	54	54	50	58	63	68	67	67	67	62	50	47	63	70	65	63	64	52	52	..	..	50	59	55	43	48	53	..	...	57.8
Web'erCy	Max..	80	78	80	79	83	89	9	92	94	96	92	80	67	78	86	90	80	76	82	78	77	67	76	76	81	78	71	72	69	65		79.9
	Min ..	55	66	50	49	46	54	60	61	65	64	64	66	50	47	60	71	63	63	64	48	64	52	47	52	57	47	34	44	53	33		55.0
W. Bend.	Max..	81	76	75	75	78	83	85	87	88	89	78	70	64	64	82	85	78	72	79	78	72	67	75	7	80	78	66	78	64	61	...	75.4
	Min	57	63	47	50	48	53	60	61	65	64	64	59	47	45	58	62	61	60	63	51	55	52	51	45	59	43	38	41	51	34	....	53.6
Wilt'n Jct	Max..	79	80	74	78	76	75	83	84	83	85	88	84	80	71	84	89	89	87	86	85	80	74	74	74	77	76	72	72	69	63	....	79.1
	Min ..	61	67	59	54	51	55	53	63	64	64	64	55	47	57	65	66	64	61	59	60	55	54	54	54	57	62	43	52	59	44	....	58.2
Wint'rset	Max	84	78	77	76	81	85	89	91	92	92	8	74	68	70	86	89	81	72	71	71	72	70	65	75	80	74	70	70	65	63	...	77 8
	Min	62	66	56	55	50	69	67	65	67	71	65	64	52	48	64	69	69	62	66	61	52	54	49	54	63	54	40	47	55	37	....	58.3
W'odb'rn	Max	84	80	77	78	79	85	90	86	91	89	94	79	71	75	87	89	81	78	73	74	74	72	68	76	78	69	68	71	69	64	....	78.8
	Min ..	61	65	53	55	42	51	53	61	64	63	65	65	49	43	65	70	63	63	56	43	49	49	46	45	55	49	34	42	55	37	....	54.2
Zearing	Max..	78	75	78	78	84	85	88	91	92	92	90	74	69	72	86	89	85	76	83	79	74	72	73	76	81	83	74	75	77	69	...	79.8
	Min ..	59	65	51	48	43	53	59	63	68	66	62	47	50	44	60	72	65	64	63	49	54	50	49	53	57	53	38	43	54	37		55.0

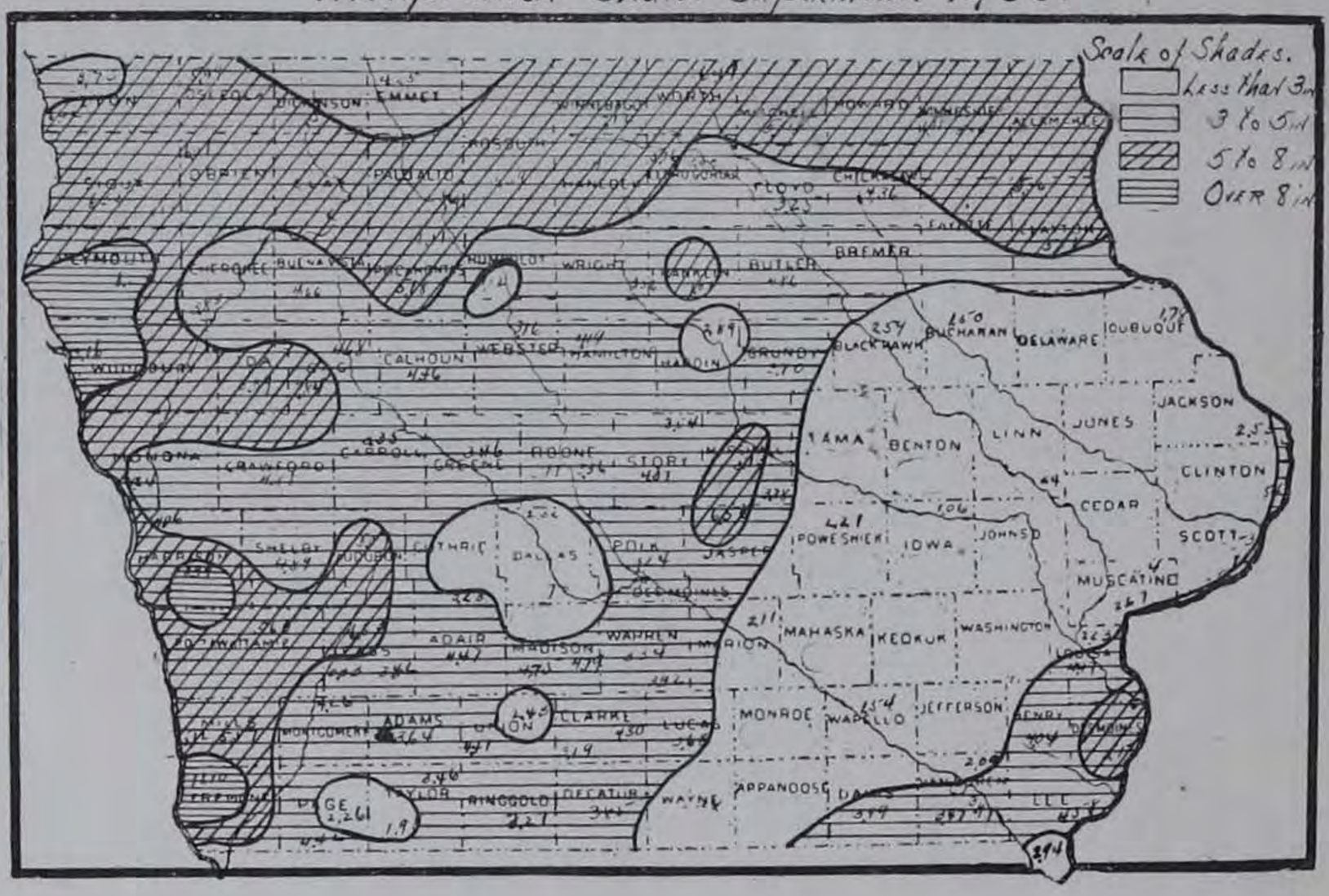
DAILY AND MONTHLY PRECIPITATION FOR SEPTEMBER, 1906.

STATIONS.	DAY OF MONTH.																													TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	.02	33									T	.75					1.81			.02												2.43
Albia		.18	T	.11								37	55	T	T		.10															1.31
Algona	1.15	.07									.07	.05		T		3.57	.20			T	.07					.21						5.39
Allerton	T	.10					T	T			.54	.17		T	.10		1.08	.02	.01	.02							T					2.04
Alta	.20	1.08	.03						.02			.36	.04		.52	1.28	.60	.03	.36		.14											4.66
Alta [near]	1.16	.05							.04		.47	.06		.52		2.00	.05	.22	.18	.23												4.98
Alton	.33										.08	.33		.51	.02	3.46	.07	.27	.48	.49	.09											6.11
Amana	T	.01									.08	.68			.06		.15			.08								T				1.06
Atlantic		1.57									.46	.50		.23	.23	2.99	.14	.21		.20												6.53
Audubon	.75	.63									1.44	.16		.33	.32	.81	.52	.0	.03	.0	.05		.01	T								5.07
Baxter	.08	.23									.82	.74			.19		4.32	.08		.10												6.56
Bedford	T	.09										1.59		T	.20				T	.10												1.98
Belle Plaine	.50	.15					T				.42	10					.96	.07		T												2.20
Bloomfield		.17					.10	.43	.97		1.02	.79			T																	3.99
Bonaparte	.37	.34																			.02						.49					3.91
Boone	.11	.57	.17									.62	.02		.56		.59	.04			.68							1.60	1.60			8.35
Britt	1.89								T			.22				2.05	.25	T		.05	.60					.78					5.84
Buckingham	.47	.07									T	.27				.28	1.38	.12	.17	.02				T			T				2.78
Burlington		.06	.47							T			.08							.08	.07	T					.04	4.32	.01		5.18
Carroll	.37	1.00	.12								T	.17	.04		.40	.10	1.10	.02	.01		.02											3.35
Cedar Rapids		T	T								T	.60				.11	28			T	T							T			.99
Chariton		.33						T			.40	.42		T	.37	.05	1.80	.31		T							T				3.68
Charles City	.70	.97								.01	.37	.14			.11	.56	.04		.01	.29		.01			.04		T				8.25
Clarinda			.07									.66	.27		.53		.58	.10	.10												2.26
Clear Lake		.40										.80			.30	.90	.20			.20	.40				.80						3.00
Clinton		.31											T												.03			2.30			2.54
College Springs											.70	.70		1.75	.10		1.10	.05		.02											4.42
Columbus Junct'n		.32										T					.14		.02		.10						1.05	.70			2.23
Corning		.01									1.07	.75		T	.58		1.06		T	.14											3.64
Corydon		.09									.80	.11			.14	.02	1.78			.02					.02		T				2.48
Creston	.03	.34	.17									.80	.27	T	.21		2.05	.05			.49							T			4.41
Cumberland		.52															2.32	.81	.18												3.53
Davenport	T	.09								T		T							.04		.03					.01		1.94	.36			2.47
Decorah	.25	1.26									.24	1.02			.06	.38	.10		.35	1.67	.05					.17						5.50
Delaware	.06	.67										.35			.38	.02	.21	.38	.54	.11	.03					.03						2.76
Denison	.82	.14									.35	.06		.50	.07	1.55	.63	.01	.08													4.81
Des Moines	.54	.39									.14	.50		.04	.06	.48	.76	T		.33												3.24
De Soto		.24									.26	.84			.29		1.26			.46	.12											2.97
Dows	.58	.64									.23	.07			.23	.74	.17			.65	.05											3.36
Dubuque	T	.83									.05	.28	T		T	.07	.02		.17		T					.01		.85				1.78
Earlham		.72									.52	.36			.36		2.17			.20									T			2.33
Elkader	.30	1.23								.27		.28			T	1.77		.10	1.80		T											5.81
Estherville	.60	.40							T			.15	.15		.35	1.09	1.30	T		.30	T											4.25
Forest City	T	2.05										3			.23	3.67	.48	.06		.08	.48	.10				.77						7.12
Fort Dodge	.85	.40	.20									.80			.20	.06	.75	.07			.06	.17	.03			.07						3.16
Fort Madison		.60							T	.13		T																3.85				4.58
Gilman	.75	.65									.04	.60			.20		1.54	T											T			3.78
Glenwood											T	.15	1.00	.20			3.00	1.07		.15												5.57
Grand Meadow	.45	.39								.18	.10	1.24				.18	1.44	.06		1.07	.01					.24						5.36
Greene	.81	.38									.02	.14			.15	2.30	.38		.15		.45	.08										4.86
Greenfield	T	.55									1.31	26		T	49		1.41	T		.45												4.47
Grinnell	.75	.23					.32					T	.23		.15		.48			T	.05						T					2.21
Grundy Center												1.30						2.10			.30											3.70
Guthrie Center		.37									.27	.22		.01	.20	T	83			.01	.07											1.98
Hampton	.70	.15									.50	.05			.70	4.15				.40	.27				.15							7.07
Hancock	.02	.59									.23	.39		.75			2.00	1.40	.02													5.60
Harlan	T	.58							T		.14	.45		.37	.18	2.27	.01	.77	.08	.04	.05											4.89
Hopeville	.20	.17									.30	1.20			.25		.90	.03		.09												3.19
Humboldt											.15			.16	.14	.28			.04		1.05											1.82
Ida Grove	2.81	.06										.14		.30	33	.92	.47	.53	.11	.21												5 89
Independence	.15	.55										.40			T	T	.40				T				T							1.50
Indianola	.43	.28									.94	.80	T				.25	.37		.07	.20		T									3.34
Inwood	.54	.03										.97		82		.99	.51	.18	1.84	39	.15											6.42
Iowa City	T		.05									T	.01			.03				.15		.03						.62				.89
Iowa Falls	.17	.73	T							T		.10	.07		.18	.20	.89	.03	T		.32	.20						T				2.89
Jefferson	.28	.11									.43	.10		T	.48	1.00	.92	09		.05	T		T									3.46
Keokuk		.68							T			T									.06						1.80	.40			2.94
Keosauqua		.06	.54							.80		.12	.07			.36					T				T			1.52				3.47
Lacona	.01	.01									1.00	.40					2.50															3.92
Le Claire		.03								T			.04									.13						3.85	T			2.59
Le Mars	1.00	.53									T	.35		.65		3.00	.10	.80	1.30	.50	T											8.23
Lenox	T	T										1.14			.35		1.60			.87												3.46
Little Sioux	.03	.38									T	.09		.57	.18	.98	.45	.77	.57	T	.01					.02						4.06
Logan		1.00									T	.25		.55	.75	2.17	.53	.68	3.10	.01												8.99
Marshalltown	.02	.24	.42									.90	.57		.27	.18	2.10	.26			.14											5.10
Mason City	1.40	.90								T		.60			.22	.92	.22			.20	.90					.40						5.76
Massena		.70									1.05	.43			.45		.75		.04													3.42
Mount Ayr	.20	.15									T	1.42			.20		1.20	.10		T												3.27
Mt. Pleasant	T	.41	.01																		T							1.50	2.12			4.04
Mt. Vernon	.01		.02									.10			18				.01		.01							.86				.64
Muscatine	T	.11								T		.07			T						T					.01	T	2 48				3.67
Nevada	1.30	.40									.08	50			.50		1.05			.20	.80											4.31
New Hampton	.42	.56								.02		90				1.40	.47	.05	.16	.03		.25				.10		T				4.86
Northwood	.78	.18						.16				.03			.28	3.05	.12		.55	T	.85	.01			.40							6.44
Odebolt	2.80	1.16							T		.24	.34		.62	2.05		.03	.36	.16	.58	T											7.84
Ogden	1.01	.15									.32	.03			.23	.07	.96			.22												3.11
Olin		.10										.27							1.44													2.58
Omaha, Neb	.01	.69							T		.12	.22		1.18	.07	1.50	.02	.84	.18	.01												4.84
Onawa	.45	.18							T			.10		.85	.10	.10	.50	.75	1.10	.08	.08					T						4.24
Osage	1.90	.87									T	.20			.32	.44	.18		.19	.17	.98											5.14
Oskaloosa	07	.10									.18	.24			.06	.50	.04								.44							1.21
Ottumwa	.21	.02							.34		.12		.67											.02								1.54
Pella	.06	.02										.86			.19	.02	1.32	04			.10					.18						2.11
Perry	.89	.50										.20			43		.57	T		.23												2.32
Plover	1.60								T		1.26			.48	.29	2.27	1.06					.20										7.11
Preston		.44										.10	.09						T		.40						1.50				2.58
Ridgeway	.80	2.15								.08	.02	.64			.05	.90	.08		.94	.14	.11				.13		.07					6.11
Rockwell City	.85										1.15	.18			.15	1.33	.80															4.46
Sac City	1.83	.17							T		1.16	.04		.29	.05	.19	.42	.47	.01	.03	.08											4.68
Saint Charles	.18	.88									1.54	.78			10		1 15	.26	.01	.03	.01											4.79
Sheldon	.90										T			.50	.08	2.80	.25	.85	1.01	.55	.20	02										6.01

DAILY AND MONTHLY PRECIPITATION FOR SEPTEMBER, 1906—CONTINUED.

STATIONS.	DAY OF MONTH.																																TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Sibley	....	.86	....	....	....	....	....	....	..	....	....	.44	.38	T	.41	1.94	.26	.06	1.51	.02	.31	T	T	T	...	....	....	....	....	....	....		5.69
Sigourney	.26	.09		....	....	...	....	....	....	....	T	.33	....		....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....		.78
Sioux Center	.38	.03	....		....	....	....	....		...	....	.65	....	.40	.12	3.50	.04	.20	.76	.11	.16	..	....	....	....	....	....	....	.10	....	....	....	6.35
Sioux City	1.87	.29	....	....	....	....	....		T	....	.04	.18	....	.80	1.37	1.69	.02	.82	.95	.53	T	....	....	....	....	....	....	....	....	....	....	....	8.06
Stockport	..	.10	..	....	....	...	T	.05	T	....	.18	T	...	..	.13	....	...		..	....	T	...	....	....	....	....	....	....	.81	.82	....	....	2.09
Stuart	....	.50	....	....	..	....	....	....	..	....	.97	.27	....	.47	...	..	.81		..	....	.21	....	....	....	....	....	....	....	....	....	....	....	3.28
Thurman	....	T	....	....	....	....	....	....	. .	..	.28	.88	....	....	.68	...	7.60	1.15	.15	.26	.10	....	....	..	....	....	....	....	....	....	....	....	11.10
Tipton	....	.89	....	..	....	....	....		....	....	....	.23	....	....	.11	...	.	...	....	....	..	....	....	....	...	....	....	1.00	....	....	....		1.78
Toledo	.90	30	....	....	....	....	...	....	..	....	..	.23	....	....	.20		.93	..	..	....	....	....	....	....	....	....	....	....	....	....	....		2.56
Wapello	....	.97	.05	....	....	....	....	....	....	.02	....		....		....	....	..	...	.08		.21	....	....	....	....	....	....	1.14	2.00	....	....		4.47
Washington	...	.82	..	....	..	..	....	..	..			.08	....	....	.02	....	....	....	....	....	..	....	....	....	....	....	....	1.28	....	....	....		2.20
Washta	.95	.10	....	....	....	....	....	..	....	....	.32	.08	..	.40	...	1.00	.06	.70	.10	.12	....	....	....	T	....	....	....	....	....	....	....		3.88
Waterloo	.12	.22	....	....	....	..	....	....	....	....	....	.71	....	....	.25	1.01	.15	....	.03	.10	....	....	....	....	....	....	....	....	....	....	....		3.59
Waukee	T	.42	..	....	....	....	....	....	....	....	.09	.51		....	.41	..	1.10	.02	....	.25	.02	....	....	....	....	....	....	....	....	....	....		2.82
Webster City	1.80	.08	....	....	....	....	..	....	....	....	T	....	....	....	.25	.82	.79	....	....	T	.45		....	....	..	....	....	....	....	....	....		4.19
West Bend	1.38	....	....	....	....	....		....	T	....	.40	.02	....	.18		4.89	.21	....	....	.03	.13	....	....	....	....	....	....	....	....	....	....		6.69
Wilton Juct	..	.65	..	....	....	....	..	....	....	....	....	.35	..	..	....	....	....	....	....	.09	....	....	....	....	..	..	....	1.85	....	....	....		2.94
Winterset	T	.15	...	..	....	....	T	..	..	...	1.35	.88		....	.14	....	1.18	T	....	.97	.08	....	....	....	....	....	....	....	....	....	....		4.75
Woodburn	.20	.20	..	....	....	....	....		....	..	.62	.63	....	..	.80		1.68	.10	...	T	.02	....	..	....	....	....	....	T	....	....	....		4.80
Zearing	1.20	.15		....	....							.80	....		.32	.50	....	.18	...	.05	.36												8.54

Precipitation Chart September 1906.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR OCTOBER, 1906

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

INTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA

BERNARD MURPHY, STATE PRINTER

1906

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION OF THE

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METEOROLOGICAL STATIONS AND OBSERVERS.

From the following, weekly and monthly reports of Meteorological data are received by the Iowa Weather and Crop Service.

Afton	N. W. Rowell
Albia.	J. I. Cheroweth
Algona	Dr. F. T. Seeley
Allerton.	Rex Shriver
Alta	D. E. Hadden
Alta (ne	W. J. Minard
Alton .	W. S. Slagle
Aman	Conrad Schadt
Ames	Iowa State College
Atlantic	J. W. Love
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Baxter	W. R. Vandike
Bedford.	E. E. Healy
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Bonaparte	Hon. B. R. Vale
Boone	Carl Fritz Henning
Britt	G. P. Hardwick
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Burlington	I. S Shontz
Carroll	Frank Hughes
Cedar Rapids	Electric Light and Power Co.
Chariton	C. C. Burr
Charles City	*Edward W. McGann
Clarinda	A. S. Van Sandt
Clear Lake	Oscar Stevens
Clinton	Luke Roberts
College Springs	A. M. Finley
Columbus Junction	J. B. Johnston
Corning	Jerome Smith
Corydon	Clara Miller
Creston	Rev. W. L. Gaston
Cumberland	Agent C., B. & Q. R'y
Davenport	*J. M. Sherier
Delaware	Wm. Ball
Decorah.	F. H. Baker
Denison	W. C. Van Ness
Des Moines	*Geo. M. Chappel
De Soto	R. D. Minard
Dows	H. A. Flett
Dubuque	*James H. Spencer
Earlham, R. F. D.	Geo. Phillips
Elkader	Chas. Reinecke
Elliott	Henry Barnes
Estherville	A. O. Peterson
Fayette	R. Z. Latimer
Forest City	J. A. Peters
Fort Dodge	Tobin College
Ft. Madison	Miss L. A. McCready
Galva	F. H. Schleiter
Gilman	Jas. L. Wylie
Grand Meadow (Postville P.O.)	F. L. Williams
Greene.	J. L. Cole
Greenfield	J. G. Culver
Grinnell (near)	A. O. Price
Grundy Center	W.H. Scott
Guthrie Center	D. G. Beardsley
Hampton	E. C. Grenelle
Hancock.	W. Armstrong
Harlan	C. A. Reynolds
Hopeville (Murray R. 2)	M. T. Ashley
Humboldt	H. S. Wells
Ida Grove	R. C. Clifton
Independence	E. F. Wuilke
Indianola	Prof. J. L. Tilton
Inwood	F. D. Hansen
Iowa City.	Prof. Karl E. Guthe
Iowa Falls	J. B. Parmelee
Jefferson.	G. W. Day
Keokuk	*Fred Z. Gosewisch
Keosauqua	J. A. Landes
Knoxville	Casey & Bellville
Lacona	Agent C., B. & Q. R'y
Larrabee	H B. Strever
Lenox	J. L. Hurley
Le Mars	Dr. T. E. Cole
Leon	Millard F. Stookey
Little Sioux	G. H. Gibson
Logan	Glenn H. Stern
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Massena	G. A. Hill
Mount Vernon	Rev. J. W. Hubbard
Mt. Ayr	A. F. Beard
Mt. Pleasant	Prof. J. W. Edwards
Nevada	R. S. Patrick
New Hampton	A. F. Kemman
Newton.	Hon. J. P. Beatty
Northwood	Charles Dwelle
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Ogden	C. L. Zollinger
Olin	Hon. Nathan Potter
Omaha, Neb	*L. A. Welsh
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Osage	G. D. Pattingill
Oskaloosa	Jos. Boyd
Ottumwa	Dr. M. W. Pascoe
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Pella	T. W. Cox
Perry	J. A. Harvey
Plover	J. S Smith
Pocahontas	F. E. Hronek
Preston	J. G. Storm
Ridgeway	Arthur Betts
Rock Rapids	W. C. Wyckoff
Rockwell City	C. M. Randall
Sac City	Frank Stouffer
St. Charles	C. W. Minard
Sheldon	Dr. A. W. Beach
Sibley	H. G. Doolittle
Sigourney	J. T. Parker
Sioux Center	Jacob de Ruyter
Sioux City	*C. D. Reed
Stockport	C. L. Beswick
Stuart	Dr. J. A. Treat
Thurman	C. R. Paul
Tipton	F. K. Gregg
Toledo	I. F. Giger
Vinton	H. G. Haines
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Waterloo	M. L. Newton
Waukee	E. J. Leonard
Waverly	H. S. Hoover
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Whitten	Dr. Frank P. Butler
Wilton Junction	Wm. Lang
Winterset	Dr. Robt S. Cooper
West Bend	Phil Doweiler
Woodburn	C. B. McDonough
Zearing	C. P. Bean

*U. S. Weather Bureau.

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Reporting for the Weekly Bulletin.

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Geneva	Wm. H. Thompson
Gruver	C. Higinbotham
Hartwick	Fred McCulloch
Harlan	H. B. Kees
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Independence	Geo. H. Wilson
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Manson	J D. Skinner
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Nevada	Geo C. White
Oakville	Z. W. Steele
Orange City	H. J. Vande Waa
Pella	J. H. Ver Steeg
Preston	J. G. Storm
Pittsburg	G. C. Duffield
Portland (Nora Springs, P. O.)	Arthur Pickford
Platte (Creston R. D.)	M. H. Dibel
Red Oak	Hon. C. L. Stratton
Seymour	L. B. Sager
Stuart	W. W. Bailey
Van Horne	Spencer Smith
Waukon R. D	T. B. Wiley
Weldon	Ed Worden
Winterset	H. A. Kinsman
West Branch	Wrigley Smith
West Union	A. B. Blackman
Woodward	George Swisher

U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IN COOPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R. SAGE, Section Director
GEO. M. CHAPPEL, Asst. Director

VOL. XVII. DES MOINES, IOWA, OCT, 1906. No. 9

OCTOBER WEATHER AND CROPS.

October was an exceptionally fine and favorable month for all classes of people, having more than the average number of clear days, with less than the average amount of rainfall for the state. The average for the state was 1.96 inches, which is .45 of an inch below the normal. Nearly all of this amount fell in the ten days from the 18th to the 27th. The larger portion was reported from stations in the northern section, and especially the northwestern counties in that section. In the first half of the month conditions were unusually favorable for drying out the corn crop, and husking operations were begun in advance of the usual time for that work. In the larger portion of the state there were but a few days when it was too wet for work in the fields. For harvesting all late maturing crops ideal conditions prevailed, but some complaints were heard from the southern districts that it was too dry for fall seeded crops, and that stock water was scarce on many farms. As a whole, it was a very propitious closing of an unusually productive crop season.

CLIMATOLOGY OF THE MONTH.

TEMPERATURE: The monthly mean temperature for the state, as shown by records of 117 stations, was 50 5°, which is 2° below the normal. By sections the mean temperatures were as follows: Northern sections, 48 4°, which is 2.5° below the normal; central section, 50 8°, which is 1° below the normal; southern section, 52 4°, which is 2.3° below the normal. The highest monthly mean was 54 4°, at St. Charles. The lowest monthly mean was 43° at Rock Rapids. The highest temperature reported was 87° at Ames and Bedford on the 13th and 20th; the lowest was 7°, at Elkader, on the 31st. The average monthly maximum was 78 9°, and the average monthly minimum was 20.4°. The greatest daily range was 56° at Woodburn, and the average of greatest ranges was 36.3°.

PRECIPITATION: The average precipitation for the state, as shown by the records of 126 stations, was 1.96 inches, which is .45 of an inch below the normal. The averages by sections were as follows; Northern section 2 82 inches, which is .63 of an inch above the normal; central section, 1 85 inches, which is .60 of an inch below the normal; southern section 1.20 inches, which is 1 41 inches below the normal. The largest amount reported was 4.25 inches, at Larrabee, and the lowest amount reported was .50 of an inch at Allerton. The greatest daily rainfall reported was 2 60 inches, at Pocahontas on the 22d and 23d. The average number of days on which .01 of an inch or more was reported was 6.

WIND AND WEATHER: The prevailing direction of the wind was northwest, The highest velocity reported was 50 miles per hour, from the northwest, at Sioux City, on the 8th. The average number of clear days was 14; partly cloudy 7, and cloudy days 10.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	30.08	30 62	31	29 5	8.24
Davenport	30.12	30.6	31	29.57	26
Des Moines	30.05	3 61	31	29.64	8
Dubuque	30.04	3 67	1	29.5	26
Omaha, Neb	30.13	3 54	31	29 66	26
Keokuk	30.13	30 6	3	29.62	26
Sioux City	30.11	30.49	31	29.6	26
Means	30.0	30 67	1	29 5	26

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity	Direction.	Date.
Charles City	5693	36	NW	27
Davenport	5738	33	NW	27
Des Moines	5932	31	NW	26
Dubuque	4087	3	NW	4
Keokuk	1205	20	SW	24
La Crosse, Wis	6533	38	NW	8
Omaha, Neb	6 39	4	NW	26
Sioux City	9 96	5	NW	8

OBSERVERS' NOTES.

ALLERTON—*Rex Shriver*. Corn matured nicely; pastures very short and farmers are feeding stock.

ALTA—*David E. Hadden*. October was an ideal month; the entire rainfall occurred during the week beginning the 17th. First killing frost of the season was on the 6th.

ALTON—*W. S Slagle*. Fore part of the month was fine for threshing; corn husking progressing.

AMANA—*C. Schadt*. The first and second decades were very dry; the last decade brought refreshing rains, and much more is needed.

BONAPARTE—*B. A. Vale*. A dry and pleasant month; corn was ready to crib early.

BRITT—*Geo. P. Hardwick*. Vegetable foliage was green until October 6; pastures have been good a month later than usual; some loss of cattle from "black leg".

CHARITON—*C. C. Burr*. Corn matured without injury by frost and more than the usual amount was cribbed in October.

CLINTON—*Luke Roberts*. October sunshine was 20 per cent. less than normal; precipitation was 1 inch below normal; wind movement 100 miles in excess of normal. The maximum velocity was 20 miles an hour; maximum temperature was 76° and minimum 19°.

ESTHERVILLE—*O. C. Peterson*. Light snow fell on the 23d, but amount was too small to be measured.

FOREST CITY—*J. A. Peters*. Fall plowing is well finished; corn picking was delayed by rain in latter half of month.

GRINNELL—*A. O. Price*. This month was very drying for corn and some have it all in crib; it is the soundest and best corn crop grown in years; too dry for plowing.

HOPEVILLE—*M. T. Ashley*. Much fall plowing has been done and a good start made in corn husking.

KEOSAUQUA—*J. H. Landes*. A very dry month, hard on pastures and fall seeded crops, but fine for corn; first killing frost on night of the 9th.

LEON—*M. F. Stookey.* On the nights of the 9th and 10th, we had killing frosts.

OLIN—*N. Potter.* A good month for fall work; corn is well on the way to the cribs and in fine condition.

RIDGEWAY—*Arthur Betts.* This month was 2° warmer than October, 1905. Had 200 hours of sunshine; drouth prevailed till the 17th; first frost since May 7 was observed on the 10th of October; corn died naturally and is a big crop.

WAVERLY—*H. S. Hoover.* Leaves fell almost entirely from the 18th to the 26th; farmers well advanced with plowing, husking, storing potatoes and hauling beets.

CROP NOTES.

The amount of corn harvested to save the fodder has been considerably above the average of recent seasons. In the silo it yields the best results; but there is much feeding value in shredded fodder that was cut in due season and cured under favorable conditions. Five dollars an acre is a moderate estimate of the net value of the fodder in the Iowa cornfields, every acre of which should be utilized.

Sufficient progress has been made in husking to give assurance of a bumper crop of corn in this state. It is likely to be twenty to thirty million bushels in excess of the best crop harvested in any previous season. The quality is extra good. More than three-fourths of this great crop will be consumed on the farms.

THE MISSISSIPPI VALLEY.

Rochester, N.Y., Post: Congressman Cousins, of Iowa, in an elaborate article on the Mississppi valley, avers that the future of that region is greater than the dreams of a Verne. Its possibilities are boundless. Year after year three of the Mississippi valley states—Illinois, Iowa and Missouri—produce nearly a third of the total corn crop of the country. The states of the Mississippi region produce more than half of the total corn crop and about half of the total wheat crop of the country. They produce nearly two-thirds of the oat crop, nearly three-fourths of the barley crop and nearly half of the rye. Nearly half the horses of the United States are in the Mississippi valley, and nearly half the cattle, while the Mississippi states produce more than half the swine. Iowa has more milch cows and produces more butter than any other state, her output representing more than 10 per cent. of the product of the entire country. The creameries of Iowa produce annually 88,000,000 pounds of butter, of the value of $16,000,000; and that is only about half of the whole product, which amounts to more than $30,000,000 annually. That is pretty good for one state. Congressman Cousins is not content with this material prosperity, however. He looks forward to the time when a historian will reveal the wonderful romance of the region and a poet will sing the song of the Father of Waters, and the novelist give to literature an immortal contribution. "And some time," he says, "with all the richness and the happiness of this productive realm, shall come the minstrel of mankind, the soul of song, and sing to all the world the matchless story of development, the strange traditions of the aborigines, the patience of the pioneers, the tireless, toilsome subjugation of the wilderness, the growth of homes, the sad and patriotic sacrifices made for liberty and national endurance, the rise of commerce and construction, the glory of the arts, the love that sits serenely by the fireside in all this realm of acquisition and of loyalty by the father of all waters."

ERROR IN AUGUST REVIEW.

WILTON JUNCTION: Total precipitation recorded 2.54 inches on page 90, and 2.52 inches on page 96, should have been 2.64 inches.

BELATED REPORTS.

AMES: September. Mean temperature 66.8; highest 92° on the 10th; lowest 35° on the 30th; greatest daily range 41; total precipitation 3.14 inches; greatest in 24 hours 1.04 inches; prevailing direction, south. Number of rainy days 10.

GALVA: September. Mean temperature 64.4°; highest 90° on the 8th, 9th and 10th; lowest 31° on the 30th; greatest daily range 35; total precipitation 5.98 inches; greatest in 24 hours 1 70 inches; prevailing direction, south. Number of clear days 17, partly cloudy 7, cloudy 6, rainy 9.

CLIMATOLOGICAL DATA FOR OCTOBER, 1906.

CENTRAL SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	Dates of thunderstorms.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted)		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Amana	Iowa	721	27	51 1	s 1 5	79	4	19	31	35	1 91	- .63	.63	...	7	11	15	5	S E	
Ame	Story	926	22	51.0	s 0 1	87	13	19	31	43	1 72	- .80	.90	..	7	....	...	...	....	
Audubon	Audubon	1301	10	49 6	- 1 6	80	7,13	16	31	52	1 50	- .73	83	....	7	14	7	10	SE,S,NW	23
Baxter	Jasper.	998	6	51 7	3.0	81	4,17	18	31	39	1 39	- 1.32	60		5	13	6	12	N E	
Belle Plaine	Benton	828	14	50.9	s 0.3	81	4	22	31	37	2 03	- 25	1.50	....	7	14	9	8	S E	
Boone	Boone.	1134	.. .	50 8	.....	79	4	22	31	44	1.89	. .	1 27	T	7	17	1	13	.....	
Buckingham	Iowa		6		....	.....	....		.....	.....	1.97	s .13	1 21	...	4	14	15	2	....	
Carroll	Carroll	1265	16	48.6	- 2.7	77	7	19	10	46	1 68	- .58	.86	...	7	16	4	11	.....	
Clinton	Clinton	593	36	50.9	s 0 5	76	3	19	31	34	1 41	- 1 00	.60		8	6	13	12	N E	23
Cedar Rapids	Linn	733	25	50.6	- 0 9	83	4	20	31	44	1 11	- 1.48	66	T	2	5	10	16	....	
Davenport	Scott	606	35	52 6	s 0 5	78	3	27	10	31	1 67	- .95	.71	T	9	11	9	11	NW	29
Delaware	Delaware	1083	13	49 8	s 0 8	78	4	18	31	36	1.46	- .76	.72	...	5	11	13	7	NW	
Denison	Crawford.	1180	10	50.2	- 0 6	79	7	19	10	42	1 66	- 75	1 00	..	4	21	2	8	S	
Des Moines	Polk	861	22	51 6	- 0 6	80	4	24	31	37	1.18	- 1 86	88	...	5	10	7	14	NW	23
De Soto	Dallas	866	6	52,3	.....	82	4	19	31	42	1 24	.....	97	....	5	14	6	11	S E	
Dubuque	Dubuque.	698	33	50 8	s 0 2	77	4	23	31	33	1 70	- 1 01	.60	T	9	7	9	15	S E	8
Fort Dodge	Webster.	1126	7	48.4	.	78	2,6,13	21	10,11	47	2 49	..... .	1 50	...	5	15	3	13	S E	
Galva	Ida	1290	10	47 6	- 3 7	74	3 13	18	10	43	2.92	- 1.25	1.83	..	5	15	4	12	S	
Gilman	Marshall	1052	8	...	.....	.....	... ...		....	...	1 67	- .62	1 01	....	4	13	8	10	S	
Grinnell (*near*)	Poweshiek	1023	11	51 6	- 0.7	82	4	21	31	40	1 86	- .59	.96	...	6	13	8	10	SE NW	18
Grundy Center	Grundy.	976	13	50.2	- 1 2	80	4	20	1,31	44	2.37	- .32	85	...	4	14	6	11	NW	
Guthrie Center	Guthrie	1077	8	50 4	- 2 1	78	4,7	18	31	43	1 55	- 67	89	...	8	20	3	8	NW	23
Harlan	Shelby	1192	7	49 4	- 5 0	77	7	17	31	41	1 27	- 1 76	.70	....	5	9	10	12	S	23,26
Iowa City	Johnson.	683	45	51 6	s 0 5	84	4	19	31	44	1 48	- 1.06	.97		6	16	4	11	S E	
Iowa Falls	Hardin	1170	4	49 0	- 1 3	77	4,13	20	31	41	1 83	- 47	1 04	T	7	17	2	12	SSW,NW	26
Jefferson (*b*)	Greene	.....	..	51 6	.....	80	2,13	21	10	45	1 56	...	.98	...	4	..	....	...	NW	20
Le Claire	Scott	576	...	....	.....	.....	....		...	.....	1.47	-----	.63	....	9	14	4	13	SW	
Little Sioux	Harrison	.....	...	51 4	.....	81	7	19	10	43	2.44	.....	1 02	....	7	16	5	10	S E	
Logan (*f*)	Harrison	928	37	50 2		78	7	19	31	40	2 46	.....	1.12	..	7	8	20	3	NE	
Marshalltown	Marshall	927	11	49.9	- 3 1	83	4	18	31	46	2 07	- .40	1 30		6	....	....	...	S E	
Mount Vernon	Linn	847	37	52 4	s 5 1	82	3	20	31	37	1 06	- 1 34	.63	T	7	18	5	8	....	
Muscatine	Muscatine	.....	47		.....	.....	....		.....	.....	1 75	- 1 29	1 17	T	6	12	8	11	S	
Newton	Jasper.	944	16	53 8	s 2.0	79	4	30	11	27	1 51	- 1 26	.52	...	5	16	5	10	S	
Nevada	Story	.....	...	...	.....	.....	.....	...	.....	.....	1.60	.....	.70		4	..	....	....	.....	
Odebolt	Sac	1356	7	50.8	- 4.6	81	7	21	10 31	45	2 99	- 78	1.20	..	6	22	5	4	.....	
Olin (*b*)	Jones	760	7	50 8	- 1 1	76	4	17	31	35	1 35	- 1 07	.85		3	....		..	.....	
Onawa	Monona.	.....	6	52 6	- 3 6	81	7	24	31	40	4 21	- 1 82	1 98	T	9	23	1	7	NW	20
Perry	Dallas	975	6	51 1	....	81	4	21	31	41	1.74	.....	.....	...	5	...	...	...	.....	
Preston	Jackson	975	...	49.6	.....	74	3,4,13	17	31	37	1 68	.....	.80	..	3	11	15	5	SE,NW	
Rockwell City	Calhoun.	.....	9	49 4	- 3.3	75	3	21	10,31	47	1 90	- .68	1 40	....	2	21	1	9	.....	
Sac City	Sac	1356	24	48 2	- 1 7	75	13	20	31	39	2 36	- .20	1 45	....	4	18	6	7	NW	
Sioux City	Woodbury.	1135	15	50 0	- 1 0	79	7	24	10	38	3.73	s 2 03	1 50	..	9	11	11	9	NW	20
Stuart	Guthrie.		7	51.0	- 5 4	78	4	24	10	42	1 36	- 1.62	1.00	...	4	14	4	13	W	
Tipton (*a*)	Cedar	807	8	53 5	s 0 5	79	4	25	31	34	1 55	- .38	.90	...	3	16	12	3	SE,NW	
Toledo	Tama	856	10	51.0	- 1 5	79	4	19	31	40	1 98	s .11	1.30		5	12	13	6	SE,NW	
Waterloo	Black Hawk	862	17	51 1	s 1.4	83	4	20	31	41	2 25	- 07	1 21	T	7	15	9	7	W	26
Waukee (*c*)	Dallas	1039	4	52 0	....	79	4	22	10,31	34	1 29	.....	77	T	3	13	13	5	NW	
Webster City	Hamilton.		...	50 2	....	78	4	19	31	41	2 37	...	1 00	..	4	13	8	10	S E	
Whitte	Hardin.	1036	6	50 2	- 2 7	79	4	21	10	36	1.74	- .88	.80	T	4	11	10	10	NW	27
Wilton Jct	Muscatine	683	9	51 9	- 0 9	73	3 4	20	31	30	1.90	- .17	1 07	...	5	19	8	4	W	
Zearing	Story	718	3	50 6	....	82	4	17	31	45	1.81	.....	.95	...	3	13	9	9	SW	
Average	.....	.....	...	50 8	- 1.0	79.2	....		20 5	....	40.0	1 85	- .60	.....	T	6	14	7	10	NW	

CLIMATOLOGICAL DATA FOR OCTOBER, 1906.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT. Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	PRECIP., IN INCHES. Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted)	Number rainy days.	SKY. Number clear days.	Number partly cloudy days.	Number cloudy days.	Prevailing direction of wind.	Dates of thunderstorms.
Algona	Kossuth	1,213	30	48 3	- 2.6	75	13	22	31	33	2 62	s .52	1.60	T	6	16	4	11	NW	
Alta	Buena Vista	1,513	13	48 6	- 2.2	76	3	21	10	40	3.52	s 1 35	1 41	0 5	6	16	7	8		
Alta (near)	Buena Vista										3.51		2 01		7					20
Alton	Sioux	1,305		48 8		76	3	22	10	39	3 82		1.78	T	7	19	2	10	NW	
Britt	Hancock	1 236	7	48.2	- 3.5	75	3, 13	21	10, 31	36	2 55	s .37	1 18		6	7	14	10	NW	
Charles City	Floyd	1 015	19	48.2	- 3 4	78	4	22	31	38	1.82	- .57	.70	T	10	8	8	15	N W	
Clear Lake	Cerro Gordo	1,241	7	49.7	- 2 1	75	3, 13	20	31	35	1 86	- 1.02	60		7	17	3	11	S	26
Decorah	Winneshiek	875	10	49 2	- 1 5	77	4	19	31	33	2.24	- .10	.80	T	10					
Dows	Wright	1,142	6	49.0	- 3 6	78	13	18	31	44	2.65	s .30	1 86	T	8	17	3	11	SE	20
Elkader	Clayton	727	23	45.0	- 4 5	81	4, 13	7	31	45	1.81	- .91	.92	T	6	10	10	11	SE	20
Estherville	Emmet	1,298	9	46 8	- 2 3	77	3	19	31	45	3.90	s 2.28	1.75	T	7	20	0	11		25
Forest City	Winnebago	1,226	10	48 4	- 2.1	78	2, 3	22	10, 31	38	2 41	s .04	1.91		5	14	6	11		
Grand Meadow	Clayton	1,180	13	49.0	- 1 0	76	13, 14	20	31	30	1.83	- .74	.88		5	12	5	14	SE	
Hampton	Franklin	1,155	14	51.0	s 0 4	78	4	20	31	41	1 25	- 1 38	75		5	13	14	4	S W	
Humboldt	Humboldt	1,095	12	50.2	s 0 5	77	1	22	31	41	1 25	- 1 38	75		2	13	14	4	S W	
Inwood	Lyon			48 4		77	13	24	10, 31	36	2 39	s .66	1 40		4	17	2	12	NW	
Larrabee	Cherokee	1,266	15	48.2	- 2 3	74	3	18	10	41	3 25		1 00	1 2	9	17	5	9	S	
Le Mars	Plymouth	1,224	8	49.2	- 3.3	75	3, 7	20	10	39	4 25	s 2 41	2 04	T	8	15	7	9	NW	
Mason City	Cerro Gordo	1,132		49 8	s 0 4	74	3	21	10	36	3 60	s 1 75	1.15	T	7	16	7	8	S	
New Hampton	Chickasaw	1,169	6	48.7	- 4 8	74	3	25	10, 31	34	1.75	- .26	.80		7	11	10	10	NW	26
Northwood	Worth	1,222	8	47 4	- 0.6	76	3, 14	20	31	29	2 03	- .52	.70	T	6	14	9	8	S SE NW	
Osage	Mitchell	1,184	13	48 0	s 1 1	73	13	20	31	34	2.29	- .34	75	T	8	17	5	9	N W	
Plover	Pocahontas		7	47 8	- 4.5	74	3	20	31	35	2.33	- .10	.64		9	10	7	14	NW	
Pocahontas	Pocahontas			50.0		77	13, 16	20	31	42	3.92	s 1.61	2 01	1.0	7	16	5	10	N W	
Ridgeway	Winneshiek	1,215	8	50 8	- 3 1	80	13	22	10	44	4 15		2 60	2 0	6	17	5	9	S	
Rock Rapids	Lyons			43 0	- 5 5	70	4	21	31	37	2 75	- 1 13	1.33	T	11	12	11	8	S	
Sheldon	O'Brien	1 422	6	44.2	- 4.2	80	15, 16	20	10	32	3 43	s 1.68	90	3 0	8					
Sibley (c)	Osceola	1,212	10	46 8	- 4 1	76	2	20	10	45	3.81	s 1.81	1.80	T	9	18	3	10	N W	
Sioux Center	Sioux		7	48.2	- 5.0	76	3, 12	20	10	49	3.12	s 1 45	1 40	0.5	9				S NW	
Washta	Cherokee	1,157		49.4		80	1	21	10	44	3 17	s 1.61	1 50	T	6	13	7	11	S	
Waverly	Bremer	942	8	50 5	- 2.9	79	2, 7	14	10	50	3 27	s 1.30	1.20	T	7	19	4	8	S	
West Bend	Palo Alto	1 197	10	48 0	- 1 0	75	4	22	31	36	2.03	- .61	.63	T	8	10	9	12	S	
Average				48 4	- 2.5	76.5	13	21	10, 31	38	2 93	s 1.17	1.25	T	7	11	8	12		23, 26
		..		48 4	- 2.5	76.5	....	20.1	....	38.6	2.82	s .63		0.4	7	14	7	10	NW	

SOUTHERN SECTION.

Afton	Union	1,212	11	52 2	- 1.7	79	17	19	31	35	1.48	- 1 48	.90		4	17	7	7	S W	
Albia	Monroe	959	8	51 8	- 2 6	83	4	22	31	42	.56	- 2.23	31		5	14	8	9		27
Allerton	Wayne			53.4		83	4	21	31	40	50		.30		4	18	7	6	NW	27
Atlantic	Cass	1,164	13	50 4	- 1.6	83	7	16	31	51	1 15	- 1.49	45		7	10	4	17	S E	25
Bedford	Taylor		6	52.9	- 4.2	87	20	19	31	47	1.54	- 1 29	1.00		3	20	2	9	S E	
Bloomfield	Davis			53.1		81	4	20	31	35	1 22		1.00		4	20	10	1	NW	
Bonaparte	Van Buren		12	53.4	- 2.3	81	4	22	11, 31	35	1 20	- .62	1.15		2					
Burlington	Des Moines	544	8	53 0		82	4	24	31	41	1 51		.73		5	17	7	7	N W	
Chariton	Lucas	1,042	5	53 6	- 1.2	83	4	20	31	42	.84	- 1.98	50		2	17	8	6	S E	
Clarinda	Page	1,009	14	52 7	- 1.9	84	7	20	31	54	1 12	- 1 67	70		6	17	4	10		
Colleges Springs (d)	Page		12	53.8	- 3.9	83	2	22	10	41	2 10	- 1.01	1 60		3					
Columbus Jct	Louisa	595	5	53.0	- 2 1	78	4	22	31	36	1 51	- 1 31	1 18		4	24	6	1	NE	
Corning	Adams	1 117	12	51.0	- 3 0	77	7	19	31	44	.98	- 1.58	.81		3	18	2	11	S E	
Corydon	Wayne	1,101	11	53.8	- 1.3	83	4	21	31	40	.63	- 2 24	25		4	16	10	5	S E	
Creston	Union		2	50 2		80	2	19	31	44	1 05		.75		3	15	7	9	N W	
Cumberland	Cass		7								1 10	- 1.71	.92		2	23	3	5	S W	
Earlham	Madison		5	50 6		80	4, 15	14	31	49	1 34		1 00		3	16	8	7	S	21, 23
Elliott	Montgomery		2	51 4		78	7	18	31	49	.57		30		3	18	9	4	S E	
Ft. Madison	Lee	516	53								.60	- 2 15	50		2	8	11	12	S	
Greenfield	Adair		13	50 8	- 2 8	77	4, 7, 13	19	10	35	1.42	- .88	1.04	T	5	17	7	7	S	
Hancock	Pottawattamie		1	50 4		75	7	23	31	32	89		40		5	19	4	8	S	
Hopeville	Clarke		13	52.8	- 1.8	81	7	21	31	37	1 18	- 1.25	58		5	7	14	10	NW	
Indianola (a)	Warren	969	15	52 2	- 2.0	80	4	23	31	38	2 33	s .27	1.13		5	12	4	15	S E	19
Keokuk	Lee	614	35	51.3	s 0.2	80	4	26	31	34	73	- 2 03	67		3	10	11	10	N W	26, 27
Keosauqua	Van Buren	644	12	51 6	- 4 5	80	4	18	31	46	1 34	- 56	1 21		3	6	18	7		
Lacona	Warren		7								76	- 1.93	.60		3	13	14	4		
Lenox	Taylor	1 250	9	52.0	- 2.3	77	7	21	10	35	1 47	- 1.52	.77		3	20	4	7	S	
Leon	Decatur	1,120	5	52.6		78	4	22	31	34	70		43		3	14	2	15	S E	
Masena	Cass			51 8		85	7	17	10, 31	52	88		.50		5	10	18	3	S W	
Mount Ayr	Ringgold	1,236	10	53 8	- 1 5	85	7	21	10	39	1.40	- .99	.75		6	16	4	11	S E	
Mt. Pleasant	Henry	729	22	53.2	s 2.6	78	4	22	31	31	1 12	- 96	.92		3	10	15	6	S E	
Omaha, Neb.	Douglas	1,105	34	52.8		80	7	28	10	29	1 56		89		6	11	7	13	S	20, 21, 22, 23
Oskaloosa	Mahaska	843	20	52.8	s 0.9	82	4	19	31	41	1.26	- 1 07	1.06		4	16	0	15	NW	
Ottumwa	Wapello	619	10	53.6	- 2.1	82	4	22	31	42	1.66	- 1.22	1.42		3	12	9	10		
Pacific Junction	Mills	960	7	50.6	- 5 8	79	7	19	10	41	1 28	- 1.18	.55		4	16	9	6	N	
Pella (c)	Marion		4	53 2		84	4	21	31	41	1 38		.55		4					
St. Charles	Madison	1 070	4	54 4		85	7	20	31	40	.93		.66		4	19	8	4	NW	
Sigourney	Keokuk	877	7	53 5	- 1 9	83	4	21	31	41	1.70	- 1 32	1 27		5	4	24	3	N W	
Stockport	Van Buren		5	54 0		81	4	20	31	35	1.42		1.30		4	16	6	9	S E	
Thurman	Fremont		8	51.4	- 4.9	78	7	22	10, 31	44	1 29	- 2.75	42		6	15	4	12	S W N W	21, 22, 23
Wapello (d)	Louisa	588	6	50 8	- 5 4			25	31	42	1 44	- .78	87		4					
Washington	Washington	769	22	52 6	- 1 4	80	4	22	31	35	1 51	- 62	1.18		5				S E S W	
Winterset	Madison	1,129	13	51 8	- 1 9	78	4	23	31	31	1.07	- 1 30	.78		3	13	7	11	S E	
Woodburn	Clarke	961	7	50.0		85	19	9	31	56	1 26	- 60	70		3	20	6	5	S W	
Average				52 4	- 2.3	81 0		20.5		40 4	1.20	- 1.41		T	4	15	8	8	S E	
Average for State				50.5	- 2 0	78.9		20 4		36 3	1.96	- 45		0 1	6	14	7	10	NW	

s Above normal. ‡ Received too late to be computed with means. *a*. One day missing; *d*. two days, etc.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF OCTOBER, 1906

STATIONS.		DATE																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	Max..	67	72	74	78	62	67	76	70	50	57	73	76	73	68	70	75	79	74	71	68	69	61	53	57	64	64	59	48	52	41	45	64 9
	Min .	35	39	42	46	41	35	45	48	23	23	38	49	48	50	49	50	50	40	37	46	57	48	41	34	29	41	34	25	31	31	19	39.5
Al ia*....	Max.	71	76	80	83	64	68	73	75	49	47	56	74	79	74	71	73	72	66	74	71	69	64	53	50	65	61	46	48	57	40	46	64 4
	Min .	33	36	42	44	44	33	35	48	33	25	26	32	44	52	52	50	52	55	36	41	50	48	46	38	29	33	38	32	34	35	22	39 3
Algona ..	Max.	66	72	73	68	57	66	68	63	44	45	52	67	75	70	61	71	63	63	66	60	55	51	46	4	58	60	47	44	42	40	43	58.1
	Min .	37	39	41	49	37	35	40	41	30	23	25	34	51	47	51	49	48	49	39	50	47	40	42	33	29	44	33	25	35	29	22	38 5
Allerton .	Max	73	78	81	83	71	69	82	75	54	46	57	76	79	76	68	72	68	69	76	72	73	63	58	53	67	65	57	51	56	41	48	66.4
	Min .	35	38	42	49	44	32	44	52	33	22	24	42	52	50	54	51	51	54	37	45	44	49	48	37	28	42	37	25	36	35	21	40.4
Alta*	Max.	69	75	76	65	57	70	75	57	42	59	66	71	75	75	61	73	64	62	68	58	51	41	45	41	60	60	43	48	42	42	42	59.1
	Min .	39	42	43	49	37	32	41	41	27	21	26	32	55	45	49	47	47	46	36	50	48	38	40	40	29	40	33	24	34	30	23	38 2
Alton. . .	Max	70	75	76	69	57	72	75	67	45	45	60	74	73	70	63	71	61	62	66	59	53	41	44	45	60	60	54	48	47	41	45	59 6
	Min .	38	39	42	50	36	31	37	44	28	22	27	35	55	52	53	43	46	45	32	50	40	36	39	33	30	41	34	26	36	31	24	37 9
Amana ...	Max.	67	72	76	79	69	65	71	72	46	44	50	70	78	74	72	73	70	65	70	68	66	61	57	55	60	59	50	45	54	43	44	62 7
	Min .	33	34	37	58	45	31	46	46	36	26	21	34	51	46	48	43	47	49	35	41	50	49	46	39	32	45	36	35	35	30	19	39 5
Ame'.....	Max	71	76	77	81	67	69	75	67	58	48	58	71	87	71	69	74	67	69	73	67	63	55	52	51	67	61	55	47	51	43	46	64 1
	Min .	31	33	38	46	42	29	39	46	29	23	20	35	50	45	50	49	47	52	31	50	49	48	45	36	29	41	33	28	34	31	19	38 0
Atlantic .	Max	76	80	79	75	63	69	83	68	52	48	62	77	78	71	67	71	67	71	76	64	59	55	49	45	65	69	54	53	52	42	50	64 2
	Min .	28	29	32	43	34	28	35	47	30	17	20	36	54	46	50	46	53	48	26	51	49	47	45	32	27	41	32	24	38	29	16	36 5
Audubon.	Max.	74	79	79	70	62	70	80	70	50	48	62	79	80	68	66	72	65	69	79	66	57	53	48	46	64	63	56	51	49	44	48	63 5
	Min .	28	29	31	42	34	28	58	33	30	18	17	33	50	41	50	42	50	42	27	53	49	44	38	33	30	40	35	24	36	28	16	35.8
Baxter . .	Max.	70	76	78	81	65	68	75	75	50	45	55	71	79	72	72	72	81	65	74	70	71	63	54	51	66	55	55	58	54	42	41	64 8
	Min .	34	38	40	49	40	30	41	41	32	23	24	35	57	47	50	45	49	50	34	47	47	48	45	35	27	47	35	28	28	32	18	38.6
Bedford ..	Max..	78	81	78	77	67	70	85	71	50	49	63	77	75	75	70	68	66	69	78	87	73	64	53	46	65	66	61	54	54	41	48	66 4
	Min .	34	36	35	49	42	30	40	47	32	21	22	44	52	52	52	50	52	46	31	50	53	49	44	36	28	39	36	25	39	35	19	39.4
Belle Pl'e	Max.	73	75	77	81	61	65	74	71	46	40	48	68	72	76	72	73	74	66	71	65	68	60	50	51	58	50	38	42	56	40	46	61.5
	Min .	36	37	40	49	45	33	40	55	37	31	32	32	39	50	52	50	50	52	36	39	50	49	45	38	30	39	35	35	37	34	22	40.3
Bloomf'ld	Max.	70	75	79	81	62	67	72	77	53	47	53	74	78	73	69	71	71	67	73	70	69	68	59	55	65	64	56	48	58	43	47	65 0
	Min .	37	40	45	56	50	36	42	51	34	26	24	39	50	48	52	56	47	53	39	43	45	49	47	39	30	46	32	34	35	32	20	41 2
Bonapar'e	Max.	69	74	78	81	71	68	76	78	56	48	52	72	79	74	68	69	76	67	73	70	67	66	64	59	56	65	54	47	57	44	47	65.3
	Min .	40	40	47	62	47	35	44	56	35	26	22	37	49	49	53	53	46	50	35	43	44	48	47	40	30	45	37	36	34	37	22	41.6
Boone * ..	Max	72	76	77	79	60	68	75	67	40	46	55	72	77	70	68	73	66	69	73	67	58	53	49	43	65	60	43	48	50	44	46	61.6
	Min .	40	42	50	51	41	34	38	55	33	24	26	28	38	48	52	52	51	52	41	44	49	48	46	36	30	31	37	27	37	33	22	39 9
Britt.	Max	64	74	75	70	56	66	69	64	44	42	53	67	75	71	63	73	67	63	67	61	56	51	47	46	60	60	47	45	43	38	43	58.7
	Min .	36	41	42	49	37	30	38	42	30	21	25	34	52	46	49	50	46	47	34	50	48	42	42	34	28	43	32	26	30	26	21	37.8
Burlng'n*	Max.	74	74	81	82	60	66	76	79	51	44	48	72	79	75	70	74	75	66	74	72	66	65	64	51	62	63	42	56	62	43	47	64.9
	Min .	44	44	46	50	48	37	39	49	35	29	26	31	41	49	51	51	49	50	42	42	46	47	46	43	34	34	38	36	36	36	24	41 1
Carroll* ..	Max.	70	75	75	71	59	69	77	67	45	48	60	75	76	69	67	72	66	69	72	61	57	47	47	42	64	63	47	50	48	42	47	61 2
	Min .	37	37	42	47	37	30	37	42	30	19	24	29	56	45	49	45	49	47	33	40	48	42	41	31	29	34	34	24	28	32	20	36 1
Cedar R*.	Max	71	76	80	83	61	66	76	71	43	41	49	69	81	77	74	77	72	62	72	73	70	62	57	49	63	59	42	46	53	41	46	63 3
	Min ..	36	36	36	39	47	36	36	48	37	27	23	29	35	50	47	46	45	38	37	38	44	45	45	42	35	34	39	34	34	35	20	37 8
Chariton .	Max.	72	77	80	83	73	69	79	74	56	46	52	75	79	74	67	73	69	68	75	72	72	69	56	54	67	63	60	50	55	41	46	66.0
	Min .	36	39	38	47	44	28	41	52	32	23	23	40	51	48	52	52	49	53	34	45	47	47	45	36	26	43	36	26	36	34	20	41 1
Charles C.	Max.	69	75	76	78	56	65	68	63	57	38	43	66	76	73	74	70	68	57	67	62	58	52	50	46	60	57	41	42	45	39	43	58 5
	Min .	42	37	40	47	36	33	38	38	30	25	25	32	48	46	47	48	44	40	35	45	48	47	45	36	33	41	35	33	34	23	22	37.8
Clarinda.	Max.	76	80	82	76	65	74	84	72	53	52	66	81	80	74	68	77	76	75	80	66	65	60	51	45	69	60	53	56	56	42	51	66 6
	Min .	33	34	34	40	42	36	38	45	33	24	23	27	44	49	52	50	56	54	32	52	52	49	48	35	29	44	36	27	28	36	20	38 8
Clear L ..	Max.	61	74	75	71	69	65	69	62	43	41	50	66	75	70	64	72	64	72	65	60	58	50	49	48	57	58	52	42	49	38	44	59 1
	Min .	52	47	47	58	40	38	43	40	31	24	25	31	50	47	48	47	44	47	43	52	48	45	44	35	32	46	33	32	33	26	20	40 3
Clinton...	Max	66	71	76	75	62	61	67	73	47	41	45	68	75	75	70	75	75	62	68	68	64	64	60	53	51	50	50	45	45	45	45	62.6
	Min .	42	40	42	59	46	36	42	43	34	27	25	35	42	42	41	43	42	42	38	40	49	47	45	40	39	45	38	33	30	29	19	39.2
C. Springs	Max..	82	83	..	..	..	..	74	70	59	49	63	75	76	75	75	70	68	68	72	67	66	65	60	45	64	67	67	51	55	43	47	65 0
	Min .	62	62	56					45	32	22	25	43	52	54	55	50	50	49	31	50	53	49	40	37	27	40	39	27	40	36	23	42 6
Colum. J.	Max	66	72	76	78	70	64	71	76	53	44	50	68	76	74	71	73	71	71	69	69	65	64	64	59	61	63	54	45	57	48	45	64.1
	Min .	56	41	45	62	40	35	47	51	35	26	26	32	50	50	50	48	50	50	41	44	48	47	44	40	33	47	36	36	35	32	22	41.9
Corning..	Max.	68	72	74	72	60	69	77	68	44	46	68	74	74	72	64	68	73	69	70	65	65	58	53	46	64	66	59	49	53	39	45	62.7
	Min .	31	33	37	49	48	31	36	38	31	21	24	43	53	51	53	50	58	49	31	50	53	49	43	35	30	42	35	24	38	33	19	39.3
Corydon..	Max.	73	78	81	83	73	71	82	73	54	49	58	76	79	74	66	73	69	71	77	70	72	67	58	53	67	63	58	52	56	44	48	66.7
	Min .	36	40	41	51	49	34	46	53	32	23	24	41	53	50	54	52	52	54	38	46	46	49	42	37	29	45	36	26	36	35	21	40 8
Creston*.	Max	75	80	76	74	62	75	72	69	49	47	59	75	76	72	70	70	65	71	74	68	60	49	41	46	46	67	50	42	38	42	48	61 5
	Min	36	39	38	44	38	31	36	36	30	20	24	36	50	52	52	48	50	52	51	50	49	50	32	31	32	40	35	24	34	34	19	38.8
Davenpo't	Max	68	71	78	77	64	62	71	74	45	39	45	67	75	74	70	73	74	64	69	68	64	64	60	53	59	61	49	43	54	39	44	61 9
	Min	43	46	49	63	47	38	50	44	35	27	28	36	53	51	50	51	50	49	43	45	51	48	46	41	40	49	37	35	39	30	27	43.3
Decorah. .	Max.	66	70	72	77	62	62	62	64	45	38	46	63	73	72	70	73	68	62	67	62	60	56	57	50	58	55	51	42	44	40	38	58 9
	Min ..	33	39	41	52	43	34	42	42	33	28	28	31	47	47	46	45	46	45	37	42	50	48	47	37	34	47	38	32	34	37	19	39.5
Delaware.	Max..	66	71	75	78	66	61	67	70	44	37	45	65	75	74	72	73	71	64	66	67	64	55	55	52	55	55	50	45	50	42	42	60 4
	Min ..	36	39	39	56	42	32	45	42	33	24	24	33	47	45	48	45	45	47	37	47	49	47	48	40	34	45	35	32	32	28	18	39 2
Denison ..	Max	72	77	77	68	60	72	79	68	49	46	60	76	75	69	65	72	63	67	72	69	60	51	46	47	64	63	57	51	47	45	47	62.1
	Min	35	34	38	47	39	31	36	48	30	19	25	39	53	48	52	47	53	46	30	54	49	42	42	30	30	40	35	25	36	32	20	38.2
Des M....	Max	69	74	76	80	61	68	75	70	43	46	56	72	76	72	69	68	68	68	73	69	63	59	50	46	68	61	45	47	53	43	46	62 4
	Min .	37	38	43	50	43	34	45	41	35	27	27	38	54	50	55	53	53	44	39	50	52	50	43	36	31	40	35	31	37	29	24	40 8
De Soto ..	Max.	69	76	79	82	63	70	79	71	48	49	60	77	80	72	67	72	70	69	75	71	73	58	52	49	67	63	56	50	53	44	50	65 0
	Min ..	30	35	37	47	42	33	42	48	32	23	23	36	54	49	52	50	52	55	34	50	51	50	44	33	29	43	36	28	38	33	19	39.6
Dows.	Max	71	76	77	77	59	68	75	74	46	42	54	70	78	70	69	71	66	64	69	63	57	55	49	48	64	58	55	44	46	40	43	61 2
	Min ..	34	32	39	46	37	26	34	45	32	22	21	32	49	43	49	47	41	49	34	49	46	46	43	34	28	41	33	27	34	27	18	36.7
Dubuque.	Max	68	72	75	77	58	61	65	71	41	38	41	66	76	75	71	74	72	63	69	66	65	58	57	58	57	58	43	44	52	37	44	60 4
	Min .	38	40	42	58	43	37	46	41	32	28	28	36	54	52	48	47	46	46	42	46	50	49	47	38	39	43	37	35	35	28	23	41 1
Earlham .	Max	70	75	77	80	61	69	67	63	45	52	60	70	74	78	80	74	76	72	79	69	63	57	52	49	67	64	57	52	48	47	46	64 3
	Min ..	28	31	34	42	38	29	36	31	21	19	24	37	51	60	56	55	52	49	30	46	51	43	42	30	29	44	35	37	32	22	14	37 0
Elkader ..	Max..	72	77	79	81	65	59	68	60	53	35	41	62	81	79	70	78	65	60	65	60	60	49	50	44	51	50	42	38	38	33	36	58 1
	Min .	32	36	36	48	42	30	37	48	32	23	24	27	42	42	40	33	32	40	25	33	42	40	38	31	27	37	28	23	20	17	7	32 0
Elliott....	Max.	70	73	75	74	63	71	78	69	54	50	63	73	75	76	66	72	68	67	72	64	63	60	57	44	63	66	62	50	57	47	51	64 3
	Min .	33	34	35	47	40	32	39	50	32	20	24	24	54	50	52	50	54	48	32	52	51	49	42	36	28	40	35	23	36	29	18	38.4
Esth'rv'l*	Max	72	76	77	66	56	70	72	59	40	44	55	70	76	70	60	73	66	63	69	58	50	43	45	38	60	61	37	45	42	42	45	58.1
	Min .	37	38	40	46	36	30	35	57	28	22	22	25	35	45	50	40	41	50	40	40	47	36	37	36	29	35	32	24	28	24	19	35 6
ForestCy*	Max..	68	78	78	75	66	67	73	62	38	42	54	70	78	78	75	64	62	61	69	59	54	47	46	43	60	60	35	43	40	42	45	59.1
	Min .	38	42	44	45	34	32	37	49	30	22	25	32	45	48	47	45	50	42	35	46	48	44	43	41	29	34	32	29	31	26	22	37 6
F. Dodge*	Max..	73	78	77	60	62	78	75	76	39	44	57	73	78	72	66	74	64	66	70	63	57	47	49	42	62	48	40	46	45	42	47	60 3
	Min ..	34	36	36	34	28	31	30	34	32	24	24	30	42	48	53	53	51	51	40	42	49	43	43	35	31	34	33	28	29	32	25	36 6
Galva....	Max..	68	73	74	64	57	70	70	50	49	45	59	73	74	70	62	70	65	62	66	59	54	51	45	46	61	60	51	48	45	40	44	58 9
	Min ..	35	35	36	46	35	27	30	29	28	18	23	34	54	45	52	46	50	47	32	50	49	39	40	33	29	38	34	23	37	29	20	36.2
Grand M.	Max..	65	70	72	76	60	58	61	64	42	37	44	62	74	73	69	71	67	64	65	65	56	55	54	53	56	58	50	43	50	36	41	58 4
	Min ..	36	41	42	51	44	32	41	42	32	27	37	31	52	47	47	46	45	45	40	46	46	46	45	37	34	47	35	31	32	27	20	39 5
Greenfield. ..	Max.	68	75	75	77	62	68	77	70	48	48	59	75	77	70	65	71	65	70	72	66	64	56	53	50	65	59	48	52	47	46	47	62 7
	Min ..	38	42	46	46	39	36	44	43	29	19	24	40	46	51	52	48	50	42	46	50	50	44	43	34	28	36	32	24	37	29	20	39.0
Grinnell.	Max.	72	76	70	82	70	67	75	73	52	46	53	73	80	76	71	73	74	66	72	71	68	58	61	65	60	58	55	47	53	42	46	64 7
	Min ..	32	36	40	51	40	28	39	50	32	22	22	35	50	48	50	48	47	52	34	45	48	45	46	26	42	36	32	31	34	32	21	38 5
Grundy C	Max..	70	76	77	80	72	68	73	71	47	42	51	69	79	74	70	73	72	63	69	68	64	55	53	51	62	58	58	55	51	43	45	63 2
	Min .	20	35	38	36	38	32	32	47	34	24	21	21	32	65	49	42	52	52	38	46	49	48	45	36	30	44	35	31	33	32	20	37 3
Guthrie C	Max.	70	75	76	78	61	68	78	68	50	46	58	74	77	69	66	72	65	68	71	65	60	56	50	50	63	61	57	48	49	40	46	62 4
	Min ..	29	32	38	46	39	30	39	49	30	20	22	34	50	47	51	46	49	51	34	50	50	47	48	33	29	43	36	26	39	32	18	38 3
Hampton.	Max..	78	74	74	70°	60	66	72	62	44	45	53	66	75	74	72	73	70	70	68	62	60	54	50	49	63	58	44	45	40	40	44	60 5
	Min .	37	43	44	52	42	34	43	58	37	26	32	30	50	48	50	48	47	52	40	50	52	50	46	40	32	44	36	34	35	32	22	41 5
Hancock .	Max.	68	73	74	64	55	67	75	67	48	45	60	73	74	68	64	71	65	66	70	62	60	53	48	41	61	64	55	50	51	41	46	60 6
	Min .	37	38	41	47	41	35	42	46	32	24	28	43	55	51	52	49	53	48	36	54	51	46	40	36	30	40	34	26	36	31	23	40 2
Harlan. ..	Max	69	73	74	67	60	70	77	64	48	46	60	74	75	67	67	71	65	67	72	61	60	52	48	47	62	64	57	53	51	41	49	61 6
	Min .	31	32	34	44	40	31	38	46	30	18	23	38	52	44	52	46	53	45	31	55	50	44	44	34	27	39	35	22	36	25	17	37.3
Hopeville.	Max.	71	77	79	80	63	69	81	71	51	47	58	78	77	76	67	72	69	68	75	71	70	60	54	44	67	65	54	51	54	40	48	64 6
	Min .	37	42	42	48	43	35	46	51	31	28	25	43	51	51	54	52	51	54	40	49	51	49	44	34	30	43	36	26	39	31	21	41 0
Humboldt	Max.	67	72	74	70	58	68	70	62	50	45	55	71	77	72	65	72	64	66	68	64	58	55	46	50	60	60	58	46	45	40	46	60 5
	Min	36	37	40	48	38	32	38	50	32	24	25	36	51	46	52	50	50	51	35	51	50	42	44	35	30	52	36	28	38	32	24	39 8

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF OCTOBER, 1906--CONCLUDED.

STATIONS.		DATE.																														Mean.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Indian'la	Max	69	74	76	80	63	67	75	69	47	45	55	72	76	71	68	71	68	66	72	68	64	58	53	51	68	59	55	47	52	41	45	62.7
	Min	38	40	44	52	43	35	47	..	33	24	26	40	54	51	53	51	53	54	40	49	50	49	46	37	30	45	..	27	39	28	23	41.8
Inwood .	Max	74	76	77	67	59	73	75	65	49	47	61	75	74	70	63	71	61	66	68	55	50	40	42	42	62	62	47	47	46	48	45	59.9
	Min	41	44	47	47	33	32	35	43	26	18	27	36	55	53	53	41	49	40	35	47	36	35	37	32	30	40	31	20	35	27	23	37.0
Iowa C*	Max	74	82	82	84	62	66	79	73	46	43	52	72	82	78	74	80	70	65	73	73	73	71	59	48	64	59	39	47	54	42	49	65.0
	Min	37	35	37	41	47	34	35	47	38	26	21	29	38	45	46	47	48	51	35	35	45	49	45	41	34	35	38	36	33	35	19	38.1
Iowa F*	Max	68	74	75	77	58	67	71	65	40	43	53	69	77	73	70	73	68	62	68	66	59	59	49	45	62	59	58	44	48	39	43	60.7
	Min	31	33	36	45	39	27	35	50	33	21	24	30	45	47	45	47	42	49	32	45	48	47	43	39	29	41	33	30	38	31	20	37.3
Jefferson	Max	..	80	79	75	68	71	79	70	51	49	60	75	80	72	68	75	65	72	75	64	60	59	52	49	67	64	54	49	45	..	48	64 7
	Min	33	35	38	48	39	33	41	34	31	21	24	36	54	47	52	51	51	50	33	52	50	45	32	33	32	43	25	38	31	..	23	38.5
Keokuk	Max	67	71	77	80	63	66	74	77	58	45	51	72	76	71	68	67	73	67	70	69	65	64	67	50	64	66	51	45	57	42	45	63.8
	Min	44	47	54	63	49	39	52	58	38	29	29	38	49	52	55	54	51	57	40	46	48	47	47	44	35	51	38	36	35	38	26	44.8
Keosauqua *	Max	69	74	78	80	69	67	75	78	65	46	52	72	75	78	69	72	73	70	72	70	67	65	63	56	65	65	46	47	60	45	44	65.4
	Min	37	36	32	43	46	34	34	55	35	27	20	29	45	49	50	50	46	46	34	35	39	46	47	41	30	30	32	36	36	38	18	37.9
Larrabee	Max	68	73	74	66	58	70	74	67	48	45	58	72	73	69	63	71	65	63	66	59	52	42	45	45	60	60	46	48	46	40	44	59.0
	Min	39	40	44	49	37	31	40	42	29	20	24	35	52	47	52	45	45	48	35	51	41	37	40	35	29	40	32	22	24	30	22	37.3
Le Mars.	Max	70	73	75	65	58	71	74	64	48	45	61	74	73	69	64	71	63	70	66	60	56	42	45	45	62	61	53	48	47	42	45	60 0
	Min	36	37	43	47	36	32	46	48	27	21	27	37	54	51	54	42	47	54	34	50	40	37	39	33	30	40	32	24	35	32	23	38.3
Lenox...	Max	68	73	74	73	62	68	77	69	53	44	59	75	75	72	66	69	67	68	72	66	70	59	53	50	63	65	59	49	52	40	46	63.1
	Min	41	43	44	48	41	36	42	51	32	21	26	43	51	52	53	52	52	52	39	49	53	49	42	35	30	43	35	24	36	34	23	41.0
Leon	Max	66	71	73	78	69	66	75	72	52	45	56	74	75	74	66	70	69	68	70	71	69	61	56	53	64	63	61	48	54	41	46	63.7
	Min	38	42	44	49	45	38	46	52	32	24	26	42	53	50	53	52	50	51	40	47	48	49	46	36	30	42	37	27	38	34	22	41.5
Little Sioux	Max	72	78	78	69	63	75	81	70	53	51	65	78	77	70	64	74	63	70	75	64	59	44	47	46	68	69	58	53	49	44	48	63.7
	Min	41	38	50	45	36	32	38	49	30	19	32	45	57	55	53	45	48	42	35	54	42	41	43	82	29	39	35	22	31	34	24	39.2
Marshall'n†	Max	73	79	81	83	63	69	77	71	45	47	55	73	80	76	72	73	73	66	74	70	64	58	51	49	63	56	40	48	52	44	47	63.6
	Min	32	34	38	39	40	30	33	52	32	23	20	27	38	44	46	45	43	49	34	37	48	48	45	37	30	31	34	32	32	32	18	36.2
Mason C.	Max	67	73	74	73	58	65	67	60	45	41	48	66	75	70	67	72	68	60	66	60	56	52	50	47	59	60	55	44	45	40	43	58 9
	Min	38	42	47	52	40	35	42	45	32	25	29	32	50	48	48	50	45	53	40	50	50	47	45	37	32	47	37	34	37	28	25	40.7
Massena	Max	72	83	79	72	66	73	85	71	54	52	64	74	80	72	67	72	65	71	78	75	65	58	55	50	68	72	55	55	54	42	50	66.1
	Min	28	31	35	41	37	31	37	45	29	17	29	35	54	49	54	48	52	41	29	55	55	47	45	34	26	48	32	20	35	30	17	37 5
Mt. Ayr.	Max	75	80	81	81	64	70	85	70	50	50	63	79	80	75	65	71	69	71	78	70	73	61	54	48	68	68	59	53	53	40	50	66.3
	Min	39	45	47	58	44	39	46	50	32	21	25	41	52	50	53	52	50	52	41	49	50	49	43	34	29	40	35	25	36	33	22	41.4
Mt. Pleasant	Max	67	72	76	78	71	64	71	75	55	45	50	69	75	72	71	71	74	66	69	70	65	67	62	57	62	63	55	45	57	44	45	64.0
	Min	40	41	47	62	47	37	47	55	34	28	27	38	50	52	52	51	50	53	40	45	47	43	44	40	30	47	37	37	35	34	22	42 4
Mt. Vernon	Max	75	80	82	81	67	65	78	70	46	38	49	68	79	73	71	76	70	61	73	71	71	64	56	47	62	58	50	50	53	45	50	63.8
	Min	39	43	47	60	45	35	46	46	35	25	24	32	49	48	50	48	49	50	37	48	48	55	43	40	33	44	35	33	32	30	20	40.9
N. Hampton	Max	63	69	76	74	68	62	65	62	43	36	42	63	73	76	72	71	71	60	65	67	56	53	52	48	56	54	51	41	47	38	41	58.5
	Min	36	41	43	48	40	33	48	43	33	25	26	31	48	48	47	45	45	52	37	37	48	47	44	35	34	45	34	32	32	28	20	38.9
Newton.	Max	66	72	75	77	70	66	71	68	53	45	53	70	75	72	70	70	77	65	68	68	65	60	55	51	62	60	54	46	52	42	43	62.6
	Min	43	48	48	55	47	42	48	53	39	32	30	41	55	54	55	53	53	53	45	53	54	51	48	39	35	44	37	32	37	35	32	45.0
Northwood	Max	65	70	72	71	56	65	66	60	40	40	47	64	73	70	66	71	66	60	64	58	55	50	47	45	58	58	53	42	42	48	41	57 5
	Min	36	39	41	46	39	33	39	40	30	28	24	30	45	45	47	48	42	44	38	47	49	46	43	33	29	42	34	31	31	24	20	37 4
Odebolt.	Max	76	80	78	66	65	70	81	69	48	48	63	78	77	72	65	75	65	65	73	62	55	52	45	46	61	63	58	57	45	45	47	62.9
	Min	36	41	43	49	37	31	37	47	29	21	25	33	55	44	50	50	52	56	36	50	48	41	41	33	31	42	34	25	30	29	21	38.6
Olin	Max	63	69	73	76	68	61	70	51	40	47	64	74	76	..	..	74	70	72	66	67	63	62	58	56	57	58	53	44	56	44	43	61.2
	Min	36	35	38	58	47	32	50	37	27	23	30	50	42	..	..	43	40	55	35	59	51	49	45	41	55	44	38	35	31	31	17	40.5
Omaha Neb.	Max	71	75	76	65	62	73	80	66	49	49	63	76	73	70	64	67	62	68	71	63	58	49	49	45	65	69	50	52	51	39	47	61.8
	Min	45	46	50	50	44	44	52	44	33	28	35	47	57	56	55	52	54	48	45	56	43	44	42	38	37	44	39	32	37	33	31	43.9
Onawa ..	Max	75	79	79	69	65	77	81	72	62	55	67	77	73	69	63	75	65	70	69	62	58	46	46	46	69	65	55	55	48	51	50	64.3
	Min	59	41	44	50	41	36	41	51	31	25	29	40	55	51	53	45	50	45	36	54	44	40	41	34	29	49	35	25	36	33	24	40.9
Osage....	Max	68	73	74	73	58	63	66	60	44	38	47	63	68	69	67	71	65	59	65	58	55	53	48	47	59	57	55	41	42	37	41	57 5
	Min	36	39	39	51	38	32	39	43	32	25	26	31	53	45	47	45	43	50	37	47	47	45	44	36	36	41	34	32	33	29	20	38 5
Oskaloosa ..	Max	70	75	79	82	72	67	76	73	51	47	55	73	80	76	72	72	73	66	73	72	69	63	56	52	66	59	53	49	57	43	47	65 1
	Min	35	34	39	52	54	30	42	50	34	25	20	37	55	52	52	50	49	54	35	46	48	49	48	39	30	46	36	33	35	30	19	40.6
Ottum'a	Max	75	79	80	82	62	73	80	71	52	46	53	70	78	73	72	72	74	69	71	71	72	68	58	56	66	65	45	50	51	43	48	65,3
	Min	37	37	43	54	47	36	47	52	36	27	25	36	56	46	57	53	57	53	38	42	49	49	48	41	26	49	37	34	38	31	22	42.0
Pacific Jct.	Max	72	74	75	70	63	72	79	67	51	50	65	77	76	73	65	70	66	69	73	63	57	53	52	45	65	68	57	54	53	42	47	63.3
	Min	36	34	37	45	39	31	39	45	31	19	28	42	55	52	52	44	53	45	31	53	43	43	40	35	28	37	33	22	30	28	22	37.8
Pella ..	Max	73	78	80	84	78	69	78	72	55	55	57	75	80	76	71	..	..	..	76	70	69	64	58	52	67	59	55	50	55	48	48	66.1
	Min	38	40	41	43	45	34	47	54	34	25	26	38	54	50	52	..	..	..	39	46	50	49	47	37	30	45	37	31	36	36	21	40 2
Perry .	Max	69	75	76	81	61	69	75	67	68	46	57	73	77	70	69	73	65	69	72	68	61	55	51	50	65	61	46	48	50	42	46	63.1
	Min	32	34	36	46	40	31	40	47	32	22	24	35	54	46	52	49	51	52	33	49	50	49	49	36	29	42	34	27	39	32	21	39.1
Plover	Max	76	75	74	74	60	70	72	60	45	42	59	65	77	72	66	77	68	60	66	60	56	52	50	42	40	53	62	45	47	42	38	41	59.0
	Min	36	38	37	48	34	28	36	45	28	24	25	30	48	43	47	48	47	38	35	48	43	39	38	32	26	40	41	25	35	31	20	36 5
Pocahontas..	Max	72	76	74	68	68	68	73	60	63	45	57	72	77	70	61	72	65	66	70	63	56	52	45	45	60	60	45	48	48	42	46	60 9
	Min	38	41	43	48	37	31	40	40	29	22	26	36	57	45	51	48	50	49	49	51	48	39	42	33	30	43	33	25	35	31	23	39.1
Preston.	Max	64	70	74	74	66	60	66	72	50	40	42	66	74	72	64	73	73	62	67	67	64	60	58	53	54	58	54	52	51	41	43	60.8
	Min	35	35	37	53	48	35	45	43	36	25	24	29	49	41	42	41	40	52	38	39	50	47	43	40	38	41	43	35	29	25	17	38.5
Ridge'y	Max	75	78	79	80	60	65	70	69	43	40	45	66	78	76	74	79	73	62	73	63	62	53	54	54	59	60	52	49	45	43	46	62.1
	Min	38	43	45	54	40	33	41	41	33	26	26	30	48	50	47	46	46	46	89	47	49	46	45	36	33	47	36	32	33	27	21	39.5
Rock Rapids	Max	50	52	50	56	60	54	50	46	48	46	58	62	68	66	70	70	60	64	64	58	54	52	48	42	40	46	44	42	48	46	42	53.4
	Min	36	32	34	36	32	36	32	30	26	20	30	36	40	38	38	40	36	32	34	36	36	36	34	34	28	32	28	24	30	34	24	32.7
Rockwell C.	Max	68	70	75	70	65	68	70	68	48	48	50	70	73	73	68	72	65	67	68	68	58	53	45	48	60	61	58	46	47	40	45	60.8
	Min	36	35	35	36	36	31	41	41	30	21	22	38	48	42	52	48	50	50	52	52	48	41	41	31	30	44	31	25	35	32	21	37.9
Sac City.	Max	68	74	69	66	58	69	74	64	48	46	60	73	75	69	63	71	65	66	68	61	58	56	47	49	60	61	45	47	42	45	39	59.9
	Min	35	35	38	42	38	31	40	40	29	22	24	35	44	43	51	50	49	42	39	51	44	39	41	34	29	36	33	25	29	22	20	36.5
St.Cha'es	Max	75	81	83	83	62	74	85	69	48	52	62	78	81	74	66	76	68	72	80	71	65	59	54	50	71	64	56	58	53	47	54	66.8
	Min	38	44	47	51	44	35	48	43	32	24	26	40	54	58	53	52	52	54	42	51	51	50	46	38	31	46	36	27	37	31	20	41.9
Sheldon.	Max	76	80	78	69	62	74	78	78	46	50	62	78	75	72	63	73	62	66	72	57	52	41	43	42	65	60	50	48	46	47	47	61.7
	Min	36	39	39	48	34	29	35	45	26	20	26	34	52	49	52	41	45	46	33	49	39	35	38	32	28	40	33	23	36	31	22	36.6
Sibley*	Max	73	75	76	64	57	71	74	54	42	48	59	76	74		72	74	59	69	61	52	48	41	44	38	59		60	46	38	46		58.9
	Min	38	39	42	46	34	29	35	37	28	20	21	27	40	49	..	42	42	46	33	47	47	34	35	32	28	35	..	22	26	30	22	34.7
Sigour'y	Max	71	77	50	83	76	68	76	75	55	49	54	72	81	76	73	75	76	68	72	72	69	65	60	57	64	60	55	47	56	44	47	66.2
	Min	38	36	39	57	46	32	44	54	34	26	23	36	50	48	52	50	48	55	36	43	45	49	46	39	30	45	36	35	35	36	21	40.8
Sioux C'r	Max	76	73	75	65	55	72	73	64	44	44	60	75	71	70	63	70	60	62	66	59	52	40	43	43	59	60	43	46	46	42	43	58.5
	Min	32	42	42	48	36	36	42	43	27	21	26	36	56	52	53	46	46	45	40	48	38	35	35	32	31	41	31	26	36	32	23	38 0
Sioux C.	Max	71	75	76	60	59	75	79	64	44	46	60	75	70	67	60	70	60	64	67	60	54	41	46	44	65	63	46	50	48	41	46	59.5
	Min	43	42	48	47	39	41	41	38	30	24	33	44	55	53	54	46	50	45	39	54	40	38	41	32	34	42	35	28	36	31	28	40.4
Stockport	Max	67	71	78	81	70	65	74	76	54	46	52	72	78	74	79	68	73	64	70	74	66	65	62	57	64	63	56	57	57	45	49	65.4
	Min	40	39	45	60	48	36	47	52	35	27	23	37	48	50	52	54	49	50	36	56	64	48	46	41	32	47	38	35	34	36	20	42.7
Stuart ..	Max	60	70	72	78	60	67	73	72	45	44	65	69	74	60	66	70	67	66	67	69	63	62	59	49	62	62	46	47	51	41	49	61.2
	Min	39	45	47	52	43	37	46	42	30	24	27	27	55	51	52	52	52	53	43	43	50	49	45	36	32	45	35	27	27	32	30	40.9
Thurm'n	Max	68	55	66	70	63	68	78	71	52	48	64	76	75	74	65	66	66	69	71	63	62	54	53	46	64	68	63	64	54	42	42	62.6
	Min	34	35	37	50	42	40	34	50	33	22	27	40	57	55	53	48	54	48	32	53	45	45	40	37	29	42	44	24	37	37	22	40.2
Tipton ..	Max	70	75	78	79	70	65	73	74	48	41	46	66	77	75	72	73	71	63	70	70	67	66	58	55	59	57	52	47	55	48	46	63.4
	Min	44	45	49	62	50	38	48	47	38	29	29	32	51	51	53	51	50	53	42	48	50	50	46	40	36	46	37		35	33	25	43.6
Toledo ..	Max	66	73	77	79	73	64	70	68	58	44	50	69	78	73	71	72	71	66	67	68	61	53	45	48	60	61	58	46	47	40	45	62 6
	Min	32	35	37	53	42	31	41	41	35	24	20	34	53	48	50	47	48	54	34	53	50	49	45	38	30	44	35	34	35	34	19	39.5

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR OCTOBER, 1906.—Concluded.

STATIONS.		DATE																													Means.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Wapello	Max	61	..	..	..	..	69	66	72	53	41	45	68	74	71	68	70	70	64	64	66	62	62	60	59	56	58	54	43	54	45	42	59 9
	Min	44			..	..	39	47	52	37	30	27	36	32	52	51	51	51	54	41	44	50	48	46	41	37	47	38	36	35	34	25	41 7
Washi'ton	Max	68	74	78	80	68	66	74	75	49	45	49	70	78	74	70	75	73	64	73	72	67	68	64	56	64	62	52	47	54	42	48	64 5
	Min ..	39	49	46	62	46	34	46	46	34	26	23	36	51	48	52	50	49	41	38	43	47	48	44	40	31	46	37	36	34	28	22	40 8
Washta ..	Max..	75	80	76	74	66	74	80	70	52	48	58	76	76	75	62	72	65	62	72	60	52	52	52	47	65	65	55	50	46	44	50	62 9
	Min .	30	30	32	52	30	25	32	32	28	14	18	28	55	60	53	42	50	46	30	48	48	50	45	34	28	38	33	20	36	32	18	36 0
Waterloo*	Max	73	78	80	83	66	67	74	68	46	43	50	68	79	78	74	77	72	69	72	69	66	64	53	52	63	56	43	45	51	42	41	63 3
	Min ..	34	37	39	53	39	34	42	40	35	25	24	31	44	47	48	46	44	52	35	46	50	48	45	37	33	43	35	34	35	30	20	38 9
Waukee..	Max	..	70	74	79	59	67	74	69	51	46	56	71	75	71	67	70	68	68	70	70	63	..	56	49	63	62	55	56	.	41	45	63.0
	Min	37	36	56	49	42	34	45	51	32	22	24	38	52	52	53	51	53	53	40	50	50	..	45	36	29	44	34	27	..	33	22	41 0
Waverly	Max	68	75	74	79	58	66	70	65	44	40	49	68	78	76	72	74	70	63	69	69	61	55	52	49	60	59	52	51	49	39	44	61 2
	Min ..	36	39	38	53	42	34	41	44	35	25	21	34	50	49	51	47	46	49	35	47	49	49	45	37	34	45	36	34	35	29	22	39 8
Web'erCy	Max..	68	74	75	78	65	68	72	69	49	45	54	69	77	75	72	73	69	66	71	67	60	57	50	50	62	62	58	49	52	42	45	62 7
	Min ..	30	33	37	46	37	27	37	47	33	21	21	35	48	43	50	50	44	52	32	51	49	40	45	37	29	41	36	26	38	31	19	37 6
W. Bend.	Max	66	72	72	67	58	68	70	62	45	43	54	68	75	72	62	73	66	64	67	62	55	51	45	46	59	59	52	46	43	38	43	58.8
	Min .	37	39	39	45	35	30	37	44	29	21	22	32	48	44	50	49	48	49	36	50	48	40	42	33	28	43	30	24	32	31	21	37 3
Whirten..	Max	75	73	76	79	70	66	73	68	49	45	53	69	70	77	70	71	70	64	68	67	61	59	53	50	60	56	54	44	59	42	44	62 4
	Min	33	38	42	56	38	31	40	46	32	21	24	35	34	46	50	47	46	50	35	47	48	47	44	34	28	42	32	30	34	31	22	38 0
Wilt'n Jct	Max	63	68	73	73	71	60	65	70	56	45	45	64	70	70	70	70	70	68	65	66	64	62	62	58	60	58	58	44	53	44	42	61 6
	Min ..	39	39	44	61	48	36	43	53	38	28	26	34	45	48	49	48	43	56	59	44	48	48	44	43	35	45	39	35	34	35	20	42 2
Wint'rset	Max..	65	70	74	78	63	65	73	63	50	45	56	71	75	71	66	70	67	68	68	68	63	59	53	49	62	62	56	47	52	40	45	61 7
	Min .	37	41	44	48	41	36	45	59	32	25	27	40	60	51	54	52	51	53	41	50	53	50	46	37	31	45	36	27	38	35	23	41 9
W'odb'rn	Max	66	68	71	75	65	65	71	72	62	50	55	65	74	74	69	72	71	82	85	71	78	62	55	53	64	62	55	46	63	45	45	64 9
	Min .	28	30	32	40	42	27	38	46	31	20	19	33	39	46	49	47	38	37	29	41	49	48	47	36	25	44	35	24	35	22	9	35 0
Zearing	Max..	73	77	78	82	69	68	75	69	53	46	50	71	78	79	71	74	70	72	75	69	62	59	57	53	65	62	65	46	51	44	45	64.5
	Min ..	28	33	35	45	34	28	36	48	32	23	19	35	48	44	49	45	40	33	51	42	48	48	46	35	28	43	31	29	35	32	17	36 8

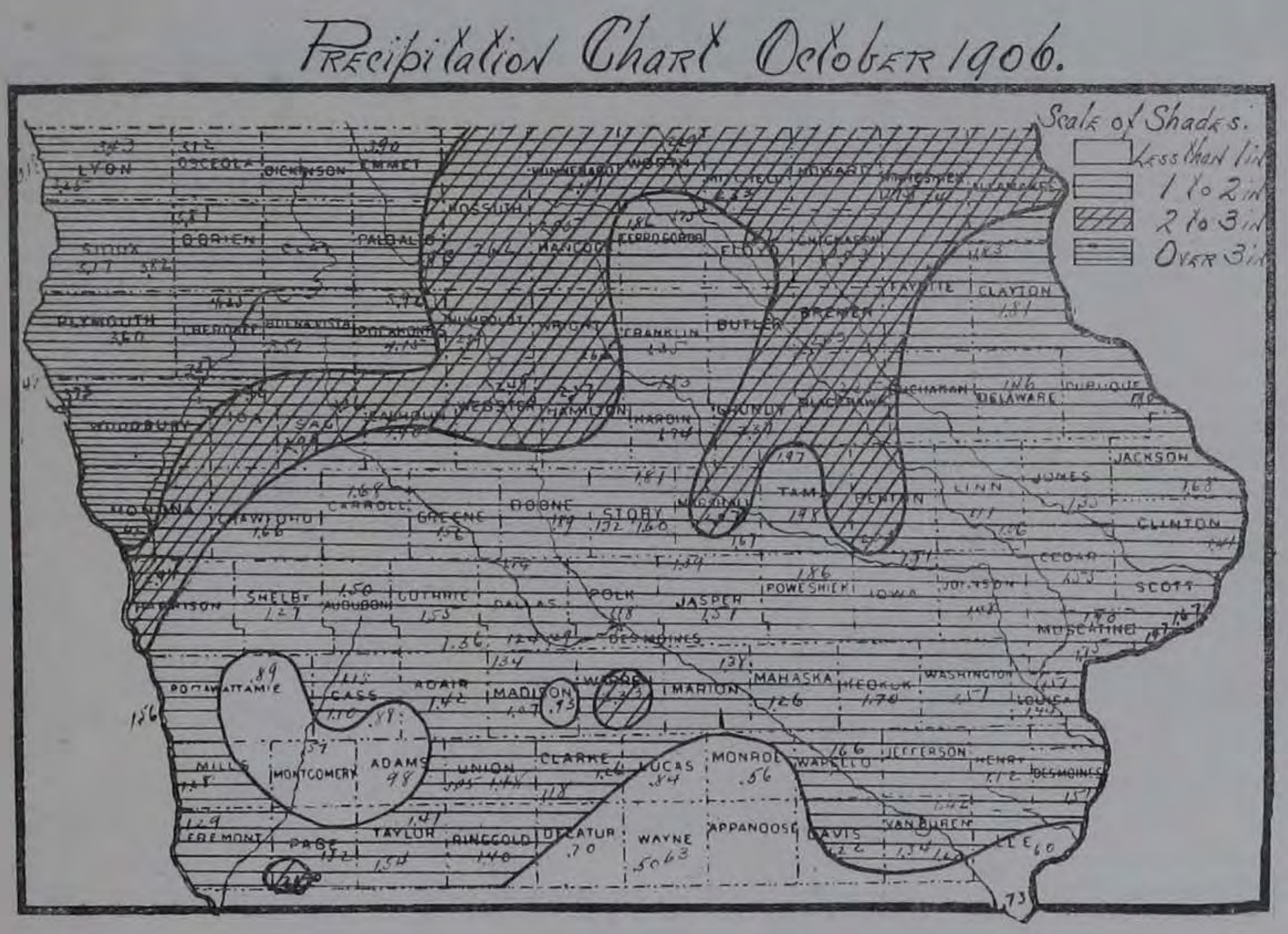
DAILY AND MONTHLY PRECIPITATION FOR OCTOBER, 1906.

STATIONS.	DAY OF MONTH.																													TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton														T				T	.04	T	T	48	.90	07			03					1 48
Albia																																
Algona				T					T						T			T	.04	T	04	11		31	T		06					56
Allerton															T	T		.08		T	.10	.30	1.60	30		.24			T			2.62
Alta															T	T	..	T	..	T	T	.06	.30	.09			05					50
Alta [near]																		.13			.05	54	.96	1 41	19		24					3 52
Alton				07													12			.03	17	67	2.01	32		19						3 51
Amana				03											.04		T	T		T	.97	.48	1 78	.44		04						3 82
Ames																		14			T	07	63	.62		T	41		01			1.91
Atlantic																				02	22	13	90	32	01	T	12					1 72
Audubon																		09	11	24	02	.45	18		06							1.15
Baxter															T					.01	05	18	.83	.07		05	31		T			1.50
Bedford																		14			05	12	60	48								1 39
Belle Plaine																				T	T	1 00	50	04					T			1 54
Bloomfield																	T	12				.02	1.50	01		01	35		.02			2 03
Bonaparte																T		05		T	T		1.00	08			09			T		1 22
Boone																	05							1 15								1 20
Britt										T					T			02			09	.20	02	1 27	15		14					1 89
Buckingham															T					T	08	48	1 18	44		32			05			2 55
Burlington				.09														22				19	1.21			.35			T			1.97
Carroll																		.43						73	.04		22		T			1.51
Cedar Rapids															T			.02			03	31	08	.86	16		22					1 68
Chariton																		T	T		T	T		66	T		45			T		1.11
Charles City				T				T		T					T						T	34	.50	T		T					.84
Clarinda																	13	.29		.04	12	.09	.70	01		01		.08			1 82
Clear Lake						T															06	70		37	.04		T					1.12
Clinton				.08											T		T		10	T	10	10	50	60	T	10	.36		T			1 86
College Springs																			.60		.02		40	.08		.21			02			1.11
Columbus Junct'n				.07																		1.60	.40	10								2 10
Corning															T		T	.06						1.18		T	20					1 51
Corydon																				T	T	15	81	02		T						.98
Creston																						17	.25	.10			.11					63
Cumberland																						28	75		02							1.05
Davenport				.02													.26	37			.02		92	.18								1 10
Decorah							.02			T							T	35			16	.14	52	19		.16	12		01	T		1 67
Delaware																		.23					19	80	.12	02	.28		.16			2 24
Denison																	T				15	.43	1 00	72	.13		37		01			1 46
Des Moines															T			T		T	01	13	87	.08		.15			T			1.66
De Soto																						.10	97	02		02	08					1 18
Dows				.02				T	T	T								15		.05	11	15		07		05	27		01			1 24
Dubuque																	.17	.43			01	.06	45	1 86		36			.04			2 65
Earlham																					T	.25	1 00	16			T					1 70
Elkader																		.16			11	06		09					06			1 34
Elliott																				T	10	17	30	92			50					1.81
Estherville					T											T		.01	T	T	25	25	82	1 75	56	T	25	T				57
Forest City					T												T		T		.10		.86	1.00	05		40		T			3.90
Fort Dodge																		T		T	T	20	23	1 50	11		45	T				2.41
Fort Madison					T														.50							10						2 49
Galva																	T	T		16		.62	1 83	18		.13						.60
Gilman																	T	.07	T	T	T	.40	T	1 01		.19						2 92
Grand Meadow																		.28			.11	T	88				.46		.10			1 67
Greene																																1 83
Greenfield															T					T	T	.12	1 04	12	04	.10			T			1 42
Grinnell																T	T	.17		T	T	.10	40	10		.96	.13					1 86
Grundy Center															T			.01		01	12	.18	89	16		.02	16		T			2 37
Guthrie Center																	.32						70	85					50			1 55
Hampton															T			T		T	T	.28	98	15		15						1.25
Hancock																T	T	T					75	.50		T	T					89
Harlan				T	T										T	T	T	T		T	.06	33	70	10		08			T			1 27
Hopeville															T					.02		.58	.52		.03		03					1.18
Humboldt																					.12	.35	1 40	52								2 39
Indianola															T						02	.28	89	24		T	.90			T		2 33
Inwood				.20													T	.26	01	.05	.72	.18	1 00	81		.02	T					3 25
Iowa City				.03														.10	.04					97	02		32					1.48
Iowa Falls															T			.13	T	.12	.18	.01	1 04	.05		.30			T			1.83
Jefferson																		T	T	T	T	.28	98	15		15						1 56
Keokuk			T													T	T	T	..				66	01		T	06					73
Keosauqua				.01												T	T	T					T	1.21	T		12					1.34
Lacona																				T		.15	60	.01								76
Larrabee				T											.01		T	.02		.40	.75	.60	2 04	.20		.23						4 25
Le Claire				T	04													.63	.02		.02			.61	.02		.06		04	03		1 47
Le Mars				T											T			.24		T	75	.95	1 15	.35		.07	.09					3 60
Lenox																					T	.70	.70	.07								1 47
Leon															T							.23		43	.04							70
Little Sioux																		.10		.01	.20	.90	1 02	10			.11					2 44
Marshalltown															T			.23			04	20		1.30	.08		22		T			2 07
Mason City					T			T										.30		10	.10	.10	80	.10		.25			T			1 75
Massena																				T	08	17	50	.05			.08					88
Mount Ayr															T	T	T				02	52	.75	.06			03		.02			1 40
Mt. Pleasant																	T	06					T	92		T	.14			T		1 12
Mt. Vernon				.01					T									05			T	01		.63		.01	35		T			1.06
Muscatine				T							T							16	.02		.01			1.17	.04		35		T		T	1.75
Nevada																	20					50	.70	20								1 60
New Hampton									T									.45			T	.12	.26	70		.22	T		.28			2 03
Newton															T		T	11			T	.26	52	50			18					1 51
Northwood					.08	.05			T									30			08	.14	71	.75	T	.18						2 29
Odebolt																	03			T	16	.50	20	70			40		T			2.99
Olin																		20		T				.85		T	30		T			1 35
Omaha, Neb				T									T		T	T	T	T		.02	37	.18	84	.14		.01						1 56
Onawa															02			15		.03	.52	1 22	1.98	.17		.10	02					4 21
Osage					.05													.61		.01		.20	40	.61	T	.09	24		09			2 33
Oskaloosa																		10		T			1 06	02	T	.08			T			1 26
Ottumwa																	T	02		T		T	1 42	T	22				T			1 66
Pacific Junction																				T	18	28	.55	.27								1 28
Pella																				T		37	.55	35			11					1 38
Perry															T			T		T	.13	15		1 26		.20						1 74
Plover													.14				16			T	16	37	2.04	.77		.28						3 92
Pocahontas																T	03				04	49	2 60	42		57						4.15
Preston																		65						80			23		T			1 68
Ridgeway				03					T	T								33		.02	07	35	1.33	06		33	02	02	.19			2 75
Rock Rapids																	.30			20	T	30	90	70	.20	20	63					3.43

DAILY AND MONTHLY PRECIPITATIO FOR OCTOBER, 1906—CONTINUED.

STATIONS.	DAY OF MONTH.																															TOTAL.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Rockwell City																							1.40	.50								1 90
Sac City																T				T		.50	1 45	20		21						2.36
Saint Charles																T				T		.22	66	.03		.02						.93
Sheldon				.06											.03		.01	.06		T	.60	.30	1 80	85		10						3 81
Sibley					.09			T								T		.09		.03	35	.24	42	1 40	.30	T	.20					3.12
Sigourney																		T		.06		02	21	1 27		T	.14					1 70
Sioux Center				.05													T	.20			66	.30	1 50	.46		T			T			3 17
Sioux City				T											.02		.12	.10	T	04	.92	1 16	1.12	22		03			T			3.73
Stockport					T										T		T	07			T	T	68	.62		T	.05		T			1.42
Stuart																					.05	30		1.00			01					1 36
Thurman					T								T			T		.20		T	.12	41	.42	12			02					1 29
Tipton																		.23					90			.42						1 55
Toledo																		20				.13	1 30	12			23					1 98
Wapello				.04													.27							.87		T	.26					1.44
Washington				.04														.07						1 18	.04	18						1 51
Washta															T		12			.15	.50	1.00	1 20	.15		15						3 27
Waterloo									T								T	29			.04	07	.71	.54		30	.27		.03			2 25
Waukee															T	T		T		T		22	77	.30						T		1.29
Waverly									T	T								32			14	.08	63	26		20	.35		.05			2 03
Webster City																				T	T	.21	91	1 00			.25					2 37
West Bend															T			07		T	.06	84	1 25	.43		91	27		T			2.93
Whitten															T		T	28		T	T	25	41	80					T			1.74
Wilton Juct																	30						1 07	07		42		04				1.90
Winterset															T					T	T	23	78	.06		T	T			T		1.07
Woodburn																						70		.46			.10					1 26
Zearing																						48	38	95								1.81

Precipitation Chart October 1906.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR NOVEMBER, 1906

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA

BERNARD MURPHY, STATE PRINTER

1906

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION OF THE

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METEOROLOGICAL STATIONS AND OBSERVERS.

From the following, weekly and monthly reports of Meteorological data are received by the Iowa Weather and Crop Service.

Afton	N. W. Rowell
Albia.	J. I. Chenoweth
Algona	Dr. F. T. Seeley
Allerton.	Rex Shriver
Alta	D. E. Hadden
Alta (near)	W. J. Minard
Alton .	W. S. Slagle
Amana	Conrad Schadt
Ames	Iowa State College
Atlantic	J. W. Love
Audubon.	Geo. E. Kellogg
Baxter	W. R. Vandike
Bedford.	E. E. Healy
Belle Plaine	S. P. Vandike
Bonaparte	Hon. B. R. Vale
Boone	Carl Fritz Henning
Britt	G. P. Hardwick
Buckingham (Traer P. O.)	Dr. W. A. Daniel
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Carroll	Frank Hughes
Cedar Rapids	Electric Light and Power Co.
Chariton	C. C. Burr
Charles City	*Edward W. McGann
Clarinda	A. S. Van Sandt
Clear Lake	Oscar Stevens
Clinton	Luke Roberts
College Springs	A. M. Finley
Columbus Junction	J. B. Johnston
Corning	Jerome Smith
Corydon	Clara Miller
Creston	Rev. W. L. Gaston
Cumberland	Agent C., B. & Q. R'y
Davenport	*J. M. Sherier
Delaware	Wm. Ball
Decorah.	F. H. Baker
Denison	W. C. Van Ness
Des Moines	*Geo. M. Chappel
De Soto	R. D. Minard
Dows	H. A. Flett
Dubuque	*James H. Spencer
Earlham, R. F. D.	Geo. Phillips
Elkader	Chas. Reinecke
Elliott	Henry Barnes
Estherville	A. O. Peterson
Fayette	R. Z. Latimer
Forest City	J. A. Peters
Fort Dodge	Tobin College
Ft. Madison	Miss L. A. McCready
Galva	F. H. Schleiter
Gilman	Jas. L. Wylie
Grand Meadow (Postville P.O.)	F. L. Williams
Greene.	J. L. Cole
Greenfield	J. G. Culver
Grinnell (near)	A. O. Price
Grundy Center	W.H. Scott
Guthrie Center	D. G. Beardsley
Hampton	E. C. Grenelle
Hancock.	W. Armstrong
Harlan	C. A. Reynolds
Hopeville (Murray R. 2)	M. T. Ashley
Humboldt	H. S. Wells
Ida Grove	R. C. Clifton
Independence	Austin Cornwall
Indianola	Prof. J. L. Tilton
Inwood	F. D. Jansen
Iowa City.	Prof. Karl E. Guthe
Iowa Falls	J. B. Parmelee.
Jefferson.	Geo. W. Jackson
Keokuk	*Fred Z. Gosewisch
Keosauqua	J. A. Landes
Knoxville	Casey & Belville
Lacona	Agent C., B. & Q. R'y
Larrabee	H. B. Strever
Lenox	J. L. Hurley
Le Mars	Dr. T. E Cole
Leon	Millard F. Stookey
Little Sioux	G. H. Gibson
Logan	Glenn H. Stern
Marshalltown	Mrs. Elizabeth Jones
Mason City	J. S. Mills
Massena	G. A. Hill
Mount Vernon	Rev. J. W. Hubbard
Mt. Ayr	A. F Beard
Mt. Pleasant	Prof. J. W. Edwards
Nevada	R. S. Patrick
New Hampton	A. F. Kemman
Newton.	Hon. J. P. Beatty
Northwood	Charles Dwelle
Odebolt	E. Starner
Ogden	C. L. Zollinger
Olin	Hon. Nathan Potter
Omaha, Neb	*L. A. Welsh
Onawa	C. G. Perkins
Osage	G. D. Pattingill
Oskaloosa	Jos. Boyd
Ottumwa	Dr. M. W. Pascoe
Pacific Junction	H. H. McCartney
Pella	T. W. Cox
Perry	J. A. Harvey
Plover	J. S Smith
Pocahontas	F. E. Hronek
Preston	J. G. Storm
Ridgeway	Arthur Betts
Rock Rapids	W. C. Wyckoff
Rockwell City	C. M. Randall
Sac City	Frank Stouffer
St. Charles	C. W. Minard
Sheldon	Dr. A. W. Beach
Sibley	H. G. Doolittle
Sigourney	J. T. Parker
Sioux Center	Jacob de Ruyter
Sioux City	*C. D. Reed
Stockport	C. L. Beswick
Stuart	Dr. J. A. Treat
Thurman	C. R. Paul
Tipton	F. K. Gregg
Toledo	I. F Giger
Vinton	H. G. Haines
Wapello	Geo. W. Schofield
Washington	Wm. A. Cook
Wa-hta	H L. Felter
Waterloo	M. L. Newton
Wankee	E. J. Leonard
Waverly	H. S. Hoover
Webster City	C. D. Carpenter
Whitten	Dr. Frank P. Butler
Wilton Junction	Wm. Lang
Winterset	Dr. Robt S. Cooper
West Bend	Phil Doweiler
Woodburn	C. B. McDonough
Zearing	C. P. Bean

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U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IN COOPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R. SAGE, Section Director

GEO. M. CHAPPEL, Asst. Director

VOL. XVII. DES MOINES, IOWA, NOV, 1906 .No. 11

IOWA CROPS 1906.

FINAL REPORT FOR THE STATE TOTAL YIELD OF SOIL PRODUCTS. VALUE AT FARM PRICES DECEMBER 1, 1906.

Tabulated reports by counties afford ample evidence that the season of 1906 brought bountiful crops on the well tilled farms of Iowa. In respect to the aggregate of yield and values of staple products, a new record has been scored for this foremost agricultural state.

CORN. The estimated acreage of the corn crop, based upon the returns of the state census of 1905, is about 9,443,960 acres Carefully revised estimates of the yield by counties show an average for the state of 41 bushels per acre, and the total output for the state appears to be 388,348,920 bushels. This is about 42 million bushels above the highest total credited to the state by the state bureau in any previous year. At the average farm price, 33 cents per bushel, the corn crop is now worth $128,155,143. As the greater portion of this crop will be consumed in the state, and marketed in form of live stock and dairy products, the potential value of this great cereal is 10 to 15 cents per bushel above the present selling price. The quality of corn that has been harvested in good season is above the average. It is a good crop to keep, so far as may be practicable, for the lean years that may come in the near future.

WINTER WHEAT. The average yield of winter wheat was 23 bushels per acre. Total yield, 1,566,050 bushels. Average farm price is about 67 cents per bushel; value of crop, $1,049,253.

SPRING WHEAT. Average yield per acre, 15 bushels; total yield, 5,603,880 bushels. Farm value, 63 cents per bushel; value of crop, $3,530,444.

OATS. Average yield 34 bushels per acre; total crop, 142,036,580 bushels, farm price, 27 cents; total value, $38,349,876.

RYE. Average yield, 17½ bushels per acre, total crop, 1,093,160 bushels. Farm price, 48 cents; total value, $520,716.

BARLEY. Average per acre, 26½ bushels; total yield, 14, 858,830 bushels, farm price, 36 cents, total value $5,349,178

FLAX SEED. Average per acre 10.7 bushels, total product, 205,280 bushels. Farm price 97 cents; total value, $200,091.

POTATOES. Average yield per acre, 101 bushels; total product, 11,697,500 bushels, average price 48 cents, total value, $5, 614,800.

HAY (TAME). Average per acre, 1.3 tons, total yield 4,-892,950 tons, farm value December 1, $7.50 per ton, total vaule, $36,697,125.

HAY (WILD) Average per acre, 1.2 tons, total yield, 1,110,690 tons, farm price, $5.50, total value $6,108,795.

PASTURAGE AND GRAZING. This includes pastures, grazing in meadows and grain fields after harvest and in corn fields in fall and winter. Having given this matter much study, making it a subject of interview with many of our best informed farmers, I am willing to stand committed to the proposition that the value of pasturage and grazing is above, rather than below, the total of $90,000,000, with which it has been credited in the following table.

TABULATED CROP SUMMARY.

Crops.	Total Products.	Farm Value Dec. 1.
Corn	388,348,920 bus.	$128,155,143
Winter Wheat	1,566 060 "	1,049,253
Spring Wheat	5,603 880 "	3,530,444
Oats	142,036,580 "	38,349,976
Rye	1,093,160 "	520,716
Barley	14,858,830 "	5,439,178
Flax Seed	205,280 "	200,091
Potatoes	1 697.500 "	5 614,800
Hay (Tame)	4,892.950 tons.	36,697.125
Hay (Wild)	1 110,690 "	6,108 795
Pasturage & Grazing	Estimated	90,000,000
Buckwheat	"	85,000
Sweet Potatoes	"	150,000
Sorghum & Broomcorn	"	195,000
Timothy & Clover Seed	"	1,800,000
Alfalfa & Millet	"	550,000
Sweet corn	"	750,000
Fruit crops	"	6,300,000
Garden truck	"	5,000,000
Total		$330,495,421

The above figures take no account of the increment of value derived from the consumption of the soil products in the live stock industry of this state.

A YEAR OF BIG CROPS.

Secretary Wilson in reviewing the work of his department, says: The economic revolution in the art and science of agriculture continued during 1906, with tremendous results on the national prosperity. The value of crops continues to rush forward beyond comprehension; crops are straining the freight carrying ability of the railroads; and the farmer, alive to the importance of the place that he occupies in the nation, offers this yearly account of himself to the people.

The farm products of the year have a farm value of very nearly $6,800,000,000 nearly $500,000,000 above the value of 1905, and exceeding by more than $2,000,000,000 the figures for the last census.

Corn remains by far the most valuable crop, estimated at $1,100,000,000. Next comes the cotton crop, which, including seed, should be worth to the growers nearly $640,000,000. The value of hay, which is third in order, approaches $600,000,000. Wheat, the fourth crop, may be worth $450,000,000; oats, $300,000,000; potatoes, $150,000,000. Barley, with a value of $65,000,000 shows a gain of of 21 per cent in production in the last seven years. The tobacco crop will be worth about $55,-000,000. A remarkable development is that of the sugar beet, now the ninth crop in value. The production in 1906 is placed at 345,000 long tons, valued at $34,000,000. Seven years ago the value of this crop was $7,000,000. The value of all kinds of sugar, syrup and molasses aggregates $75,000,000.

For 1906 the agricultural exports exceeded similar imports by $433,000,000, while products of all other industries secured at balance in our favor of only $85,000,000. During the last seventeen years the exports of the farmer have exceeded the agricultural imports by $6,000,000,000, while all other products find themselves at the end of the same period with a total on the debtor side amounting to $459,000,000.

If real estate, domestic animals, other livestock, implements and machinery are included, the farmer's capital has increased since the census valuation by probably $8,000,000,000, the present valuation being proba bly $28,000,000,000.

FINAL CROP REPORT, 1906.

AVERAGE PER ACRE AND TOTAL YIELD—BY COUNTIES.

COUNTIES.	Winter Wheat.		Spring Wheat.		Corn.		Oats.		Rye.		Barley.		Flax Seed.		Potatoes.		Hay (Tame).		Hay (Wild).	
	Bushels Per Acre.	Total Bushels.	Bushels Per Acre.	Total Bushels.	Bushels Per Acre.	Total Bushels.	Bushels Per Acre.	Total Bushels.	Bushels Per Acre.	Total Bushels.	Bushels Per Acre.	Total Bushels.	Bushels Per Acre.	Total Bushels.	Bushels Per Acre.	Total Bushels.	Tons Per Acre.	Total Tons.	Tons Per Acre.	Total Tons.
Adair	20	4 400	16	66,960	42	4,162,620	34	1,060 460	20	1 400	26	55 120			70	83,300	1.2	54,490	1 4	7 350
Adams	30	27,300	18	19,440	45	3 380 400	32	520,640	18	2,340	25	53 750			50	35,500	1 1	39,730	1 0	2,110
Allamakee	17	7,140	15	216 300	46	2 578 300	36	1,473,120	16	23,360	26	284,960	10	1,700	105	134,400	1.5	67 140	2.0	3 380
Appanoose	20	14,400			34	1,905,700	30	337 800	21	9 450	20	2,800			64	68,480	1.2	57 500	1.5	1,150
Audubon			17	178,180	44	4,207,720	36	1,084,680	18	1,980	32	232,000			110	112 200	1 5	43,940	1.2	4 290
Benton	20	840	18	14 040	47	4,494,610	40	1,505,200	20	9 000	30	416,100			120	217,200	1.8	86,610	1 2	10 860
Black Hawk			16	6,720	45	4,623,300	33	1 754 610	17	21,250	30	90,300			150	235,500	1 8	63 120	1 4	17 500
Boone			13	23 660	45	4,986,900	35	1,695,400	18	3 960	30	8 400			95	121,600	1 5	37 660	1.5	31 720
Bremer			20	6,400	45	2 826,900	34	1,797,580	22	22,666	30	77,400			96	132 480	1 5	32 800	1 4	30 960
Buchanan	18	2,160	16	2 080	43	3,991 260	35	1,698,550	20	12,600	28	50,960	10	450	130	184 600	1 8	72 820	1 5	16,380
Buena Vista			15	22 050	45	4 703,850	40	2 634,800	16	800	28	73 920	14	3 080	120	157 200	1.5	37 680	1.5	30 420
Butler			15	4,650	40	4,408,800	28	1 939,360	18	17,280	31	36,890	8	480	140	175 000	1.8	46 830	1 4	16 260
Calhoun			17	30,770	42	4 607,820	37	2,350,610	20	3 200	25	91,750	9	810	70	75 600	1 5	33 670	1 2	16 930
Carroll			16	97,920	42	4 841 380	35	2 040 800	18	1 440	28	165,760			110	188 100	1 5	44,560	1.3	18 340
Cass	30	12,300	15	14.460	35	4 102,350	28	826,280	19	3,040	32	104,640			70	99 400	1 5	51 430	1.2	2 620
Cedar	22	12 320	16	9,760	48	5,194 080	36	1,073 520	18	11,160	28	51,960			110	136,400	1 3	62 370	1.0	420
Cerro Gordo			13	10 270	40	3 690 800	32	2,203,200	12	2 160	20	36,400	9	3,690	80	104 800	1 8	54,750	1.5	18,810
Cherokee			16	82,560	41	4.689 620	37	1 189,860	20	1,000	30	192 300			130	157 300	1.8	53,580	1 3	13 350
Chickasaw			12	7,560	37	2 393,160	26	1,721,980	15	7,800	25	95,750	10	18,100	110	150,700	1 4	38,520	1 0	13,110
Clarke	20	3.000			36	1 955 880	31	447 950	22	2 860	25	3.000			80	49 600	1 1	29,640	0 5	150
Clay			15	19 950	38	3,378,960	35	2.108,050	20	1 800	26	193,960	10	1,700	120	112,400	1 8	48,510	1.5	30 180
Clayton	18	11 700	16	38,720	45	3,402,900	35	2 155,300	16	62,560	25	307,750			130	235 300	1 5	78 090	1 0	1 980
Clinton	16	6 720	14	17,360	45	5 440,960	30	2 659 500	23	41.630	30	279 900			98	125 440	1.4	89,960	1.5	6,030
Crawford	20	900	14	254.660	44	6 171 440	35	1.762,950	20	3,600	30	200,700			105	201 600	1.8	75,810	1.5	10,320
Dallas	20	26,400	16	34,880	45	5,580 900	37	1,484,440	20	10,400	25	15,750			70	75,600	1.2	36 740	1 0	180
Davis	18	11 700			35	2 111,900	25	414.000	15	9 750	25	3 710			60	43 800	1 0	50 520	1.0	110
Decatur	21	12 810			36	2 416 320	30	415.500	18	2 700					80	54,400	1 0	46,750	1 0	380
Delaware	22	16,280			45	4,061,700	36	1,409 760	20	29 000	32	280 960			110	130 900	1.3	61 240	1.0	6,060
Des Moines	20	23,600	15	3 900	36	2,340,260	30	816,600	18	27,180	25	14,000			85	83 300	1 2	33,810	1 0	210
Dickinson			16	34,080	34	1 464,600	25	935.250	18	1,080	20	255,000	11	5,060	60	32,400	1.8	24 080	1 5	26 500
Dubuque	22	2,420	16	23 360	40	2 816 400	35	1,721 300	20	18 400	28	155,240			95	188 100	1 3	69,070	1 0	2.140
Emmet			15	12 300	38	2,072 140	36	1.590,480	18	1 260	32	59 200	10	2,100	130	66 300	1 8	31 730	1 0	15.210
Fayette	18	2,520	14	19,740	42	3.911,040	32	2.104,000	16	10 880	22	205,920	9	4 590	95	155,800	1 5	83,860	1.0	12 240
Floyd			12	2,160	36	3,32 ,200	33	2.381 280	17	19 210	22	101.860	10	6,100	90	168 300	1 5	46 360	1 0	5 320
Franklin			15	19 650	42	4,469 220	36	2,779,920	16	1 760	30	33 600			120	129 600	1 5	44,310	1 2	24 160
Fremont	25	76,000	15	23,550	40	4,805,600	30	305 400	20	6 600	25	5,250			90	63 900	1 5	27 040	1 5	6,160
Greene			13	9 230	40	4 494 200	38	1,768,520	22	1 100	30	52 200	8	400	90	74,700	1.1	30 430	1.0	20 130
Grundy			15	14 700	43	4.475 870	35	2 276 050	16	20 480	30	210 300			130	205 400	1 5	37 770	1 0	9 760
Guthrie	22	7,040	13	60,840	39	3 713,190	35	1,348 900	12	1,320	30	63,900			90	54 900	1 2	36,260	1 3	8 890
Hamilton	15	600	15	27,300	42	4 827,140	36	2,140,320	24	600	81	20,770	12	2,560	120	172,800	1 6	48,170	1.5	34,660
Hancock			14	26,740	35	3 087,350	31	2 483 720	16	640	22	44,880	11	4,510	85	79,900	1 3	32 560	1.0	15 940
Hardin			16	37 920	42	4,709 460	36	2,166 480	20	2 600	30	34 200			105	137,550	1.4	39,070	1.0	15,410
Harrison	21	8 420	16	332 960	40	5 606,400	35	880,600	18	3,600	25	37,750			95	140,600	1 8	34,500	1 5	21,160
Henry	20	18,600			0	2 852,400	27	812 970	20	52 200	22	20 900			93	54,870	1.2	38 110	1 0	80
Howard			14	4,340	36	1,822,080	30	1 707 300	16	643	30	276 300	12	25,440	80	76,800	1 8	57,160	1.2	12,260
Humboldt			16	57,760	45	3 339,450	40	1,922,800	20	2 400	32	39.680			140	72,800	1.6	35 470	1 0	15,960
Ida			14	121,940	42	4 024 440	38	1.410 180	20	2,200	31	203.980			105	99,750	1.5	37,570	1 2	4 940
Iowa	30	6 300	18	12 580	40	3 617,200	34	916 320	21	12,390	33	169,290			91	111,930	1 1	48,300	1 0	1 510
Jackson	18	3 960	14	18 200	35	2 549,900	29	829 980	20	24 200	30	153 900			107	123 050	1.5	85 380	1.5	330
Jasper	21	8,610	14	60,220	48	6 738 240	37	1,706 550	20	3,800	30	75 300			112	313 840	1.4	59 400	1 2	2 700
Jefferson	18	22,140			35	2 271,150	28	645 120	15	43 650	25	31,000			70	43 400	1.5	48,120	1 0	60
Johnson	30	13.800	20	5 800	46	4 867 720	32	1,253.120	18	25 560	25	179,000			85	112 200	1 2	60,250	1.0	1,910
Jones			14	8,120	45	3 893,850	30	798,900	16	12 960	31	238,080			102	105,060	1 3	64 320	1 0	460
Keokuk	18	10,980	12	8 640	39	3 993 990	30	964,800	15	24,600	24	102,620			90	81 900	1 4	59,650	1 0	410
Kossuth			15	51 300	40	5 682 800	35	4,209 800	16	2 880	23	71,760	10	8.900	104	154 960	1 5	56,430	1 2	90,330
Lee	19	249 8.0			40	2 604 800	22	453,080	16	63 360	24	2 880			80	89,600	1 1	49,620	1 0	90
Linn			12	25 320	43	5 046,480	36	1,830 600	16	14,720	30	28 800			115	219.650	1 4	84,150	1 2	6,010
Louisa	22	22,660	17	3 570	35	2 555 350	30	718,800	20	53 800	25	15,250			85	52,700	1.3	25 370	1 5	2 430
Lucas	18	27,180	15	13,800	37	2 085 430	28	343 280	16	5 920					105	51,450	1 5	97,230	1 0	310
Lyon			13	238,680	40	3 957 600	36	2,058 120	15	3,150	23	1,106 760	11	1,320	130	166,400	2 0	35,700	1.2	12 500
Madison	22	17 820	18	22,140	44	3,920 840	35	953 050	20	4,200	30	88 200			92	69 000	1 5	62 710	1 2	1,820
Mahaska	21	22,680	18	14,580	42	4 589 340	31	907 680	18	17,820	25	143,500			96	99 840	1.3	51 230	1 0	920
Marion	20	31,200	15	18 150	43	4 328,520	35	955,150	16	5 600	30	45,600			88	78,320	1 4	50 630	1 3	1 410
Marshall	28	24 500	15	27,600	48	5,826,400	40	2 304,400	20	5,500	36	85 680			150	193,500	1 2	41.610	1.0	1,610
Mills	30	55,400	16	65,760	41	4,022,920	35	486 850	20	800	25	20,500			85	73,100	1.5	33,610	2 0	5,820
Mitchell			12	11 640	36	2,088,720	30	2,219,100	15	3,150	22	227,480	10	21,500	75	113.000	1 5	43,540	1 6	4,110
Monona	25	70,250	13	159,510	41	5 384 850	33	636 240	20	4,800	25	160,500			100	121,000	2 0	19 840	1 5	30,160
Monroe	20	8,400	18	14 500	36	1 607 400	25	237 750	14	12,180	20	7.200			106	77,380	1.0	39,470	1 0	220
Montgomery	30	119,400	12	109 680	40	3 968,400	25	364,500	20	1,800	24	62,640			120	91,200	1 0	36,730	1 0	1 280
Muscatine	22	17 820	16	6 700	42	3,200 820	35	651.350	17	54,230	22	214,940			100	182,000	1 5	38,770	2.0	2 140
O'Brien			14	84 420	37	3,820,990	40	2,438.400	15	750	30	753.300	11	3,520	110	125 400	1 5	39 180	1.5	15,360
Osceola			12	49 440	36	2,069,280	33	1 581.680	14	1,260	25	609,500	11	5,060	90	59 300	1 2	20.550	1.0	9,150
Page	30	257,100	15	33.150	42	4,965,240	35	603,600	16	5,600	23	21.160			80	78 120	1 0	38 110	1 0	2,450
Palo Alto			14	16 380	37	3.053,350	35	1,826,300	15	600	24	58 080	8	4,560	130	115,700	1 5	22,310	1 0	35,590
Plymouth			16	802,400	43	7,315.160	34	2 256,920	18	3,240	28	478 240	10	1,600	90	163 800	2 0	50 380	1 2	1 340
Pocahontas			17	18,360	40	3,704 400	35	2.108,400	20	1 600	30	45.600	10	5 600	80	81 600	1 5	26 730	1 0	30 820
Polk	25	25 750	17	25.670	46	5,457 900	33	1 264 560	15	4,650	28	6 720			90	185,400	1 4	50 690	1 2	7 620
Pottawattamie	28	35 560	14	320,740	40	8,724,800	33	1,389,960	15	3,300	25	62,250			100	251.000	1 5	72 360	1 2	14 480
Poweshiek	20	3,000	16	19,680	45	4,837,950	38	1.345,580	18	3,780	30	173.10			90	93 600	1 2	52,930	1.0	1 060
Ringgold	20	8.400	18	3,860	36	2.697,200	26	524,160	20	2,400	29	580			80	49,600	1 1	57.660	1 0	410
Sac			12	25.320	35	4,202,800	35	1,767.850	15	1,050	25	229,500			85	92,650	1 5	48,910	1 5	18,720
Scott	19	19,380	14	25.480	43	3,445.160	33	680,130	18	18,720	24	750 960			120	482,400	1 4	43 030	1 3	5 340
Shelby			12	181.440	40	4,899,200	36	1,104,120	16	3,040	30	217,800			110	118,800	1.2	42 370	1 2	4.480
Sioux	20	22,400	16	516 960	46	6,910,580	40	2,569,200	15	600	31	1.128,710	10	650	120	181,200	1 8	30 230	1 4	28.160
Story	18	2,880	14	13.580	45	5 434 200	37	2,042,030	16	4,640	28	14,280			90	88.200	1 3	39 230	1 0	12 120
Tama			13	37,830	44	5,394,840	32	1,794,240	20	23,400	30	454,800			80	136,800	1.6	96,190	1 5	6 310
Taylor	22	31 460			37	3,183 850	28	481,880	20	7,200	26	36 140			102	63,240	1 5	67 780	1.5	1 570
Union	16	2 720			38	2,387,540	25	450,250	18	1.440	22	5,060			90	70,200	1 0	45 640	1 0	970
Van Buren	19	29 540	10	1 200	43	2 309,530	25	432 250	13	28,210	20	1 200			50	28,000	1 2	58,410	1.0	210
Wapello	15	13.800			38	2,384,120	27	439.560	15	30,600	22	33,440			65	63 700	1.4	51,220	1 0	180
Warren	24	10.080	16	14 560	42	3,871,140	31	678,590	20	4 200	25	20,250			93	81,840	1.4	59,230	1.2	210
Washington	15	13,800	12	1,440	38	3,853,960	33	1,291,150	14	19,040	30	88,800			90	71,100	1 3	51 360	1 0	160
Wayne	16	2 080			33	2,313,630	26	423 540	16	4 240					95	45,600	1 0	70 140	1 0	120
Webster			16	45,120	42	4 713,660	40	2,822,800	18	3,240	30	27,900	12	6,720	80	85 600	1 8	48,970	1 5	46,210
Winnebago			15	64 200	40	2,204,440	30	1,406,100			25	37 000	10	5,600	100	61 000	1 5	26 260	1 0	25,160
Winneshiek	20	32,000	12	34,840	38	2 854 560	33	2,330,130	15	4 200	28	379,360	12	32,520	110	119 900	1 6	75,380	1.0	5,910
Woodbury	22	19,580	15	293 600	45	8,153,550	36	1,515 600	20	13,400	30	387,600			105	159 600	1 9	41.050	1.5	23,620
Worth			15	31,350	38	1,543,560	37	2,240,720	16	640	30	129,300	10	24,900	100	74.000	1 8	44 590	1.2	18,970
Wright			16	33,920	44	4,369,640	35	2,463 850	17	2 720	25	227,500	9	3,060	110	89,100	1 8	46 270	1.5	29,940
Total for State		1 566,050		5,603 880		388,348,920		142,036,580		1,093,160		14,858,830		205.280		11,697,500		4,892 950		1,110.690
									17.5		26.5		10.7		101		1 3		1.2	
			14		41		34													

CLIMATOLOGY OF THE MONTH.

TEMPERATURE. The monthly mean temperature for the state, as shown by the records of 115 stations, was 35.4°, which is 0.2° above the normal for November. By sections the mean temperatures were as follows: Northern section .33.6°, which is 1.0° above the normal; Central section, 35.5°, which is 0.5° above the normal; Southern section, 37.1°, which is 0.9° below the normal. The highest monthly mean was 38.8° at Keokuk. The lowest monthly mean was 31.2° at Sibley. The highest temperature reported was 76° at Corydon, Oskaloosa and St. Charles, on the 6th. The lowest temperature reported was 5° below zero, at Woodburn, on the 22d. The average monthly maximum was 69 6°, and the average monthly minimum was 8.7°. The greatest daily range was 47° at Woodburn; and the average of greatest daily ranges was 32.4°

PRECIPITATION. The average precipitation for the state, as shown by records of 123 stations, was 2.03 inches, which is 0.72 of an inch above the normal. The averages by sections were as follows: Northern section 1.80 inches, which is 0.55 inch above the normal; Central section 2.17 inches, which is 0.76 inch above the normal; Southern section 2.11 inches, which is 0.82 inch above the normal. The largest amount reported was 3.86 inches at Preston; the least amount reported was 0.35 of an inch at Washta. The greatest daily rainfall reported was 2 00 inches at Preston, on the 25th. The average number of days on which .01 inch or more was reported, was 8.

WIND AND WEATHER. The prevailing direction of the wind was Northwest. The highest velocity reported was 48 miles per hour, at Sioux City, on the 1st. The average number of clear days was 9; partly cloudy 7 and cloudy days 14.

ATMOSPHERIC PRESSURE.

STATIONS.	Mean barometer reduced	EXTREMES.			
		Highest reduced barometer.	Date.	Lowest reduced barometer.	Date.
Charles City	30.15	30.63	23	29.24	16
Davenport	30.16	30.62	24	29.52	16
Des Moines	30.16	30.64	28	29.20	16
Dubuque	30.18	30.65	24	29.35	16
Omaha, Neb	30.15	30.65	28	29.25	16
Keokuk	30.16	30.64	24	29.51	16
Sioux City	30.14	30.66	28	29.34	16
Means	30.16	30.66	28	29.20	16

WIND MOVEMENT.

STATIONS.	Number of miles.	Maximum velocity	Direction.	Date.
Charles City	5748	24	NW,SE,NW	9,16,30
Davenport	4797	26	S	16
Des Moines	5402	28	W	16
Dubuque	4843	25	SE	16
Keokuk	4824	31	SW	26
La Crosse, Wis	5661	24	NW	9
Omaha, Neb	6065	30	NW	10
Sioux City	8980	48	S	

NOVEMBER WEATHER AND CROPS.

The monthly mean temperature and average precipitation were slightly above the normal. There were 9 clear days, and 21 cloudy or partly cloudy days as an average for the state. During the first half of the month conditions were fairly good for finishing corn gathering and usual farm operations, The The latter half brought snow flurries and rain, with alternate freezing and thawing, and generally unfavorable weather for outdoor work. At the close of the month the corn harvest was about completed and the ground was generally bare. Fall grain suffered no material damage during the month. There is an ample supply of stock water in the streams and wells for the winter months.

MINIMUM TEMPERATURES.

The lowest temperature registered in November 1906, by a standard thermometer at a co-operative station in Iowa, was 6 degrees below zero, at the station in Woodburn, Clarke county, on the morning of the 22d. This was noteworthy because of the fact that the lowest temperature of that vicinity, and the state at large, was much above that figure. The minimum recorded at Hopeville, Clarke county, was 9 degrees above zero; and at the Chariton station, a few miles east of Woodburn, it was 4 above on that date. The station at Woodburn was recently inspected by an official of the Weather Bureau, who found the instruments in good order, and in the hands of an efficient observer. The only way to account for the notable variation of temperature readings in that section, is the fact that the station at Woodburn is located at a much lower level relatively to the surrounding country, as compared with the other stations named. On very calm and clear nights the colder atmosphere settles into the depressions, as may be noted by the frost lines observed in the valleys.

OBSERVERS' NOTES.

ALLERTON—*Rex Shriaer.* At the close of the month there was some corn unharvested. The condition of the ground was much benefitted by rain and snow.

ALTA—*David E. Hadden.* The first snow storm of the season occurred on the 13th, when 2 inches fell; cooler weather followed, which continued until the close of the month.

ALTON—*W. S. Slagle.* November was too damp for corn picking; about 30 per cent of the crop still in the fields.

AMANA—*Conrad Schadt.* The first decade was mostly fine hazy weather; the second and third brought needed precipitation.

BONAPARTE—*B. R. Vale.* The first half of November was very fine. The latter half was rainy and muddy. There were no severe storms, and temperature only went down to 10° above .

BRITT—*Geo. P. Hardwick.* Excessive cloudiness and damp weather prevailed. Pastures were good the first half of the month. Some fields were too wet for hauling off the crop, so that one-third of the corn was in the fields at close of November. Hay is scarce.

CHARITON—*C. C. Burr.* Ten inches of snow fell in November, making a new record for this station. More than the usual amount of corn is still in the fields.

CLINTON—*Luke Roberts.* Temperature, rainfall, warmest day and coldest day, were each above the normal in November. The corn crop is better in quality than usual; in bushels the crop is not greater than in 1905.

DECORAH—*F. H. Baker.* This has been the most cloudy month of the year, only two bright clear days.

EARLHAM—*Geo. Phillips.* An exceptionally cloudy month. Fifteen per cent of corn was still afield at close of the month.

GRAND MEADOW—*F. L. Williams.* The month was cloudy and wet. Husking corn was nearly completed and a large crop was produced. Some hog cholera in the N. E. part of the country.

GRINNELL—*A. O. Price.* The rainfall was 185 inches above the ten year average, snow interfered with corn harvest.

INWOOD—*F. B. Hanson.* Much bad weather delayed corn husking and threshing. The field of corn is much better than for several years past.

KEOSAUQUA—*J. H. Landes.* Three weeks in November were fine for corn husking; most of the crop has been cribbed.

OLIN—N. *Potter.* November was unusually cloudy, with no severe storms. It was a good month for picking corn and finishing fall work.

RIDGEWAY—*Arthur Belts.* The wettest November on record here. Only 110 hours of sunshine. First decade delightful. This year corn husking continues into December, and the crop is immense.

CLIMATOLOGICAL DATA FOR NOVEMBER, 1906.

CENTRAL SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	Dates of thunderstorms.
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted).		Number clear days.	Number partly cloudy days.	Number cloudy days.		
Amana	Iowa	721	27	36.2	s 3.0	71	6	7	22	27	3.15	s 1.40	94	6 0	10	7	6	17	NW	
Ames‖	Story	926	22	35 7	s 2 5	73	6	1	22	39	1.74	s .64	.41	3 2	11				S	
Audubon	Audubon	1301	10	35 0	s 0 5	68	6	10	13	33	1.02	- .46	.35	3.2	8	11	17	2	NW	
Baxter	Jasper.	998	6	35 4	- 2.0	73	6	4	22	35	3.05	s 2.24	.80	7 5	10	4	11	15	NW	
Belle Plaine	Benton	828	14	34.6	s 0.2	70	6	4	22	30	3.12	s 1.29	1.50	8.7	8	7	13	10	NW	
Boone	Boone.	1134	2	34.8		73	6	11	18, 19 20	32	1.63		.76	3.6	9	9	4	17		
Buckingham †	Iowa		6								2.62		1 10	4 5	7	1	15	14		
Carroll	Carroll	1265	16	33.8	s 0 6	69	6	12	22	37	0 97	- 18	.30	3.0	6	12	2	16		
Clinton	Clinton	593	36	37 1	s 1 6	69	6	15	22,23,24	35	3.46	s 1 66	1.56	3.0	10	5	9	16	SW	
Cedar Rapids	Linn	733	25	35 0	- 0.8	70	6	9	25	36	2 71	s 1 29	1.06	3.0	9	5	10	15		
Davenport	Scott	606	35	38.2	s 1 4	71	6	17	24	26	2 66	s .60	1.32	3 1	9	6	9	15	NW	
Delaware	Delaware	1083	13	34 0	s 2.0	66	6	8	22 24	26	2 80	s 1.19	0.75	5 0	7	7	9	14	NW	
Denison	Crawford.	1180	10	35.7	s 1 3	68	6	10	22	40	1.14	s .24	0.52	2 0	5	17	2	11	N	
Des Moines	Polk	861	27	37 1	s 0.7	73	6	8	22	28	2.29	s .58	1.10	6.2	9	4	7	19	NW	
De Soto	Dallas	866	6	37.1		73	6	6	22	40	1 61		0 38	2.5	8	10	3	17	NW	
Dubuque	Dubuque.	698	33	36 6	s 1.6	66	6	11	24	28	2.95	s .85	1.07	4 6	14	7	6	17	NW	
Galva	Ida	1290	10	33.8	s 1 6	62	6	10	22	34	0 85	- .48	0.35	3.5	4	14	5	11	NW	
Gilman	Marshall	1052	8								3.11	s 2.13	1.17	4.5	8	13	5	12		
Grinnell (*near*)	Poweshiek	1023	11	35.0	- 0 8	74	6	4	22	30	3 35	s 1 83	1.05	6.5	7	5	9	16	NW	
Grundy Center	Grundy.	976	13	34 6	s 1.8	72	6	0	22	35	1.55	s .27	0.45	4.5	4	11	5	14	S	
Guthrie Center	Guthrie	1077	8	35.9	- 0.7	70	6	10	22	33	1 82	s .77	0.87	3 0	8	13	4	13	SW	
Harlan	Shelby	1192	7	35.4	2.0	69	6	9	22	38	1.01	s .21	0.37	3.5	6	4	12	14	S	
Iowa City	Johnson.	683	45	35 4	- 0.1	72	6	8	22	37	3 08	- 24	1 23	4.0	10	10	6	14		
Iowa Falls	Hardin	1170	11	34 1	s 1.9	71	6	1	22	34	2.35	s 1.07	0.84	6 0	9	9	7	14	NW	
Jefferson	Greene			36 0		72	6	10	22	37	1 48		0.36	2.8	9	9	10	11	NW	
Le Claire	Scott	576									2 85		1.23	2 0	10	12	5	13	SE, NW	
Little Sioux	Harrison			36.5		67	5	13	18	35	0 68		0.25	2 5	6	8	7	15	S E	
Logan	Harrison	928	37	36 2	s 0 6	68	5, 6	13	22	34	0.89	- 27	0 39	3.0	3	2	23	5	NW	
Marshalltown	Marshall	947	11	33.6	- 2 1	73	6	1	22, 23	34	1.77	s 44	0.46	6.3	12				NW	
Mount Vernon	Linn	847	37	35.8	s 2.6	67	6	11	22	26	2 61	s 1.49	1.00	5.3	10	7	4	19		
Muscatine	Muscatine		47								2 34		1.24	2.0	7	5	5	20	S	
Nevada	Story										2.82		1 46	7 5	5	13	5	12		
Odebolt	Sac	1356	7	35.0	- 1.0	67	6	13	18, 22	34	0.97	- .15	0.35	2 5	7	13	6	11		
Ogden	Boone	1058	10	36.4	s 1 2	72	6	10	22	32	1.80	s 69	0 50	4.5	9	8	3	19	S E	
Olin(*g*)	Jones	760	7	36.2	- 0.7	67	6	10	22, 24	34										
Onawa	Monona.		6	36.2	- 1 9	67	5	14	18, 19	36	0.50	- 63	0.20	2.0	7	15	6	9	S E	
Perry	Dallas	975	6	35.8		72	6	6	22	35	2.01		1.02	5.0	8					
Preston	Jackson	975		35.0		64	6	13	23	36	3.86		2.00	2 9	8	7	3	20	SW	
Rockwell City	Calhoun.		9	33 7	- 0 3	70	6	12	19	30	2 40	s 1 55	0 75	5 0	5	9	5	16		
Sac City	Sac	1356	24	33 5	s 1.0	66	5	12	18	28	1 07	- 04	0 35	2 0	6	15	4	11	NW	
Sioux City	Woodbury	1135	15	34.5	s 0 2	66	6	13	19	27	0.65	- .17	0 25	2 1	6	4	10	16	NW	
Stuart	Guthrie.		7	36.5	s 1 7	70	6	15	18	28	1.96	s 1 08	0 70	5 0	6	6	6	18	W	
Tipton	Cedar	807	8	37 2	s 1 2	66	6	13	24	23	2 99	s 1 22	1 67		5	9	11	10	SE, NW	
Toledo	Tama	856	10	35 4	- 0.7	72	6	1	22	34	3 21	s 1 68	0 70	6 5	9	10	6	14	NW	
Waterloo	Black Hawk.	862	17	34 8	- 0.4	70	6	2	24	35	2.94	s 1 54	1.18	7 5	11	6	10	14		
Waukee (*a*)	Dallas.	1039	4	37 4		73	6	10	22	31	2.80		0.65	7 0	9	8	7	15	N S, NW	
Webster City	Hamilton.			36.2		72	6	4	22	38	1.59		1.00	4.0	5	9	7	14	NW	
Whitten	Hardin.	1036	6	34.0		70	6	3	24	31	2 17	s 88	0.67	6 0	6	7	7	16	S E	
Wilton Jct	Muscatine	683	9	36 8	- 0 6	66	5	9	24	24	2 96	s 1.16	1.32	0.3	6	11	3	16	W	
Zearing	Story	718	3	35.7	s 0 9	72	6	- 3	22	41	2 95		0 70	3 0	8	9	5	16	NW	
Average				35.5	s 0.5	69.5		7.8		32 7	2.17	s .76		4 2	8	9	7	14	NW	

BELATED REPORTS.

KNOXVILLE—September. Mean temperature 69.5°; highest 96°, on the 9th; lowest 40° on the 30th; greatest daily range 38°; total precipitation 4.76 inches; greatest in 24 hours 3.25 inches; prevailing direction, northeast. Number of clear days 11, partly cloudy 4, cloudy 15, rainy 7.

KNOXVILLE—October. Mean temperature 53.0°; highest 80° on the 4th; lowest 21° on the 31st; greatest daily range 38; total precipitation 1.33 inches; prevailing direction, northwest. Number of clear days 11, partly cloudy 3, cloudy 17, rainy 5.

HUMBOLDT—July. Mean temperature 70.0°; highest 97° on the 20th; lowest 48° on the 6th greatest daily range 35°; total precipitation 1.01 inches; greatest in 24 hours .67 inch; prevailing direction, southwest. Number of clear days 26, partly cloudy 3, cloudy 2, rainy 6.

ERRATA IN SEPTEMBER REVIEW.

CORYDON—Highest temperature recorded 94° on the 8th and 10th, on page 103, should have been 97° on the 9th.

EARLHAM—Total precipitation recorded 2.33 inches on pages 103 and 107, should have been 4.33 inches.

MARSHALLTOWN—Total precipitation recorded 5.13 inches on page 102, should have been 5.10 inches.

STOCKPORT—Mean temperature recorded 69 8° on page 103 should have been 71.2°; mean maximum temperature on page 105, recorded 80 3°, should have been 82.0°; the daily maximum temperatures from the 1st to the 10th, on page 105, that were omitted, should have been 85, 80, 78, 76, 84, 86, 87, 91, 93, and 94 respectively.

CLIMATOLOGICAL DATA FOR NOVEMBER 1906.

NORTHERN SECTION.

STATIONS.	COUNTIES.	Elevation, feet.	Length of record, years.	TEMPERATURE, IN DEGREES FAHRENHEIT.							PRECIP., IN INCHES.				Number rainy days	SKY.			Prevailing direction of wind.	Dates of thunderstorms.	
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall (unmelted)		Number clear days.	Number partly cloudy days.	Number cloudy days.			
Algona	Kossuth	1,213	30	33 5	s 1.6	64	6	9	22	29	1 74	s .48	.58	4.2	11	12	7	11	SE		
Alta	Buena Vista	1,513	13	32 8	s 1.2	63	5	11	18 19	30	1.42	s 25	85	2 0	7	8	9	13	N W		
Alta (near)	Buena Vista										1.68		1 11	2 5	6				E		
Alton	Sioux	1,305		33 6		65	6	11	19	28	56		16	1 1	5	13	3	14	N W		
Britt	Hancock	1 236	7	33.8	s 0.7	70	6	6	22	30	2.03	s 1.05	.41	3.1	9	2	16	12	NW		
Charles City	Floyd	1.015	19	32.9	- 0 1	69	6	0	22	36	3.21	s 1 71	1.16	6.3	9	3	8	10	SE		
Clear Lake	Cerro Gordo	1,241	7	34.0	- 0 3	70	6	13	22	29	1 65	s .82	40	3 0	10	18	1	11	S		
Decorah	Winneshiek	875	10	34 6	s 2 3	68	6	3	24	33	2.65	s 1 06	.69	8.0	11						
Dows	Wright	1,142	6	33.7	† 0 0	72	6	4	22	35	2.37	s .03	60	3 7	9	8	7	15	SE		
Elkader	Clayton	727	23								3.01	s 1.33	1.20	5 5	7	7	9	14	N W		
Estherville	Emmet	1,298	9	32 4	- 3.3	63	6	10	12,18,19	30	1.49	s .22	.95	3 0	4	8	0	22	SE, N W		
Forest City	Winnebago	1,226	10	32 8	s 1.6	69	6	10	22	34	1.11	- .25	.36	0 5	3	6	6	18	W		
Grand Meadow	Clayton	1,180	13	33.8	s 1 6	67	6	5	24	30	2.84	s 1 25	1.40	5.8	10	4	7	19	SE		
Hampton	Franklin	1,155	14	34.1	s 2 0	72	6	10	22	30	2.99	s 1 28	.92	3.8	10	7	13	10	N W		
Humboldt	Humboldt	1,095	12	35.2	s 1 7	68	7	8	23	34	1 40	- .06	.40	4.0	6	16	2	12	N W		
Inwood	Lyon			32 1		65	6	8	19,20	30	.48		21	1 7	7	11	6	13	S & W		
Larrabee	Cherokee	1,266	15	33.2	s 1 3	64	6	10	18	31	1 01	s .03	.30	3.0	6	9	9	12	N W		
Le Mars	Plymouth	1,224	8	33.4	† 0.0	65	6	11	19	28	53	- .53	.30	1'	4	10	6	14	S		
Mason City	Cerro Gordo	1,132		36 0	s 6 6	69	6	13	22,24	28	2.80	s 1 80	.62	4.0	9	7	12	11	N W		
New Hampton	Chickasaw	1,169	6	32.5	- 2 3	65	6	0	24	30	2 73	s .94	.79	6 8	9	12	6	12	SE		
Northwood	Worth	1,222	8	34 0	s 2.1	67	6	10	22	31	2.79	s 1,23	63	5.1	10	9	12	9	N W		
Osage	Mitchell	1,184	13	33 5	s 4 3	67	6	3	21	32	2.80	s 1 35	.70	6.9	11	4	7	19	S		
Plover	Pocahontas		7	33 8	† 0.0	65	6	10	18,22	30	1.52	- .07	30	3.0	7	10	3	17	S		
Pocahontas	Pocahontas			34.3		68	6	12	18, 20,22	32	1 17		44	3 1	6	11	8	11	N W		
Ridgeway	Winneshiek	1,215	8	35 2	- 2 0	70	6	6	21	32	3 69	s 1 74	1.43	7.8	11	7	10	13	S		
Rock Rapids	Lyons			33 3	s 5 3	64	6	8	19	28	.79	- .20	30	2 5	4						
Sheldon	O'Brien	1 422	6	32.7	- 2.9	65	7	9	19	34	1.21	s .56	.50	4 0	9	8	6	16	S		
Sibley (a)	Osceola	1,212	10	31 2	s 0 3	65	6	8	19.20	31	.96	s 09	31	3.0	6						
Sioux Center (a)	Sioux		7	32.4	- 3.1	65	6	10	18,19	30	55	- .02	20	4 0	5	10	5	15	S		
Storm Lake	Buena Vista	1,440	9	34.0	- 2 4	66	4	9	18	31	1 35	s 39	61	1 3	9	6	14	10	SW, NW		
Washta	Cherokee	1,157	9	34.2		66	6	8	22	42	35	- .70	.20	2.0	3	3	9	12	N		
Waverly	Bremer	942	8	34 3	- 0.2	70	6	3	22,24	34	3.10	s 1 62	.76	7 8	12	6	6	18			
West Bend	Palo Alto	1,197	10	33 6	s 2 6	66	6	11	22	29	1 40	s .01	.36	2.0	7	7	8	15			
Average				33 6	s 1.0	66.5		7.8		31.9	1.80	s .55		3.8	8	9	7	14	NW		

SOUTHERN SECTION.

Afton	Union	1,212	11	36.8	s 0 9	72	6	12	22	30	1.90	s 79	60	5.0	6	7	8	15	S		
Albia	Monroe	959	8	36 0	- 3 0	72	6	9	22	30	2.52	.88	1 05	6.5	8	10	5	15	W		
Allerton	Wayne		4	37.4		75	6	5	22	33	2 80		1 00	10 6	9	11	3	16	SW NW		
Atlantic	Cass	1,164	13	36.5	s 2 0	70	6	7	22	43	1.53	s .67	90	3 0	6	5	7	18	S		
Bedford	Taylor		6	36.5	- 3.4	74	6	6	22	43	2 05	s 1.11	.60	5.8	9	12	6	12	SE N W		
Bloomfield	Davis			37 3		75	6	12	22,24	30	2.41		1.02	6.0	7	15	9	6	SE		
Bonaparte	Van Buren		12	38.0	- 0 2	74	6	10	22	30	2.25	s 2.00	.94	2.5	7						
Burlington	Des Moines	544	8	37.7		75	6	14	22,23	35	3 04		1 24	5.0	7	12	5	13	NW		
Chariton	Lucas	1,042	5	36 6	- 2 0	75	6	4	22	35	2.15	s .74	.60	10.0	6	9	10	11	SE		
Clarinda	Page	1,009	14	36 0	- 1 4	72	6,8	10	18	38	1.32	s 29	80	3.8	7	10	2	18	S		
CollegeSprings(d)	Page		12	36.3	- 2.1	73	6	12	22	36	1 06	s .02	.65	2.4	7	9	5	16	SE		
Columbus Jct	Louisa	595	5	37 4	- 1 9	70	6	13	24	25	2 56	s 1.11	.75	3 0	9	17	6	7	S W		
Corning	Adams	1.117	12	35 6	- 1 6	72	6	11	22	31	1.63	s .67	.84	8 0	7	7	10	13	NW		
Corydon	Wayne	1,101	11	37 8	- 0.3	76	6	8	22	26	2 32	s 82	1.00	10 0	7	10	3	17	S W		
Creston	Union		2	35.0		73	6	8	22	41	1 20		.60	3 5	7	10	6	14	SE		
Cumberland	Cass		7								1 33	s .69	.72	5 0	4	19	1	10	S		
Earlham	Madison		5	35 8		72	6	9	13, 22	37	1 67		.44	4 5	8	5	8	17	N W		
Elliott	Montgomery		2	37 4		74	6	12	22	36	0 62		.20	2.0	5	12	9	9	N W		
Ft. Madison	Lee	516	53								2 64	s 48	1 41	7 0	8	5	7	18	S		
Greenfield	Adair		13	36.6	s 0 7	72	6	13	13,18,22	32	2 63	s 1 57	1.49	4.6	8	9	7	14	S		7
Hancock	Pottawattamie		1	37.0		68	5 6	15	18 22	32	0 86		.22	3 0	6	12	4	14	N W		
Hopeville	Clarke		13	37 2	s 1.7	74	6	9	22	39	1.79	s .81	.83	2 5	8	5	11	14	S		
Indianola (a)	Warren	969	15	37 2	- 4 4	72	6	10	22	22	3 20	s 1.90	90	7.5	10						7
Keokuk(c)	Lee	614	35	38.8	† 0 0	73	6	18	22	28	1.92	- 20	.59	4.5	7				SE		
Keosauqua	Van Buren	644	12	37.2	- 2 1	75	6	12	22,23	37	2 13	s 50	.75	3 2	9	5	6	19			
Knoxville	Marion	920	10	37 6	s 0 4	74	6	10	22	27	2 38	s 1.34	1 00	7 5	9	9	4	17	N W		
Lacona	Warren		7								2 77	s 1 69	.96	10.0	9						
Lenox	Taylor	1.250	9	36.8	- 0.6	73	6	12	22	32	1.73	s 60	1 01	4.5	7	11	7	12	S		
Leon	Decatur	1,120	5	37.0		73	6	10	22	27	3 82		1.65	10.7	9	12	0	18	SE		
Mount Ayr	Ringgold	1,236	10	37.4	- 0 5	75	6	10	22	36	2 03	s .75	1 30	5.5	7	9	4	17	N W		
Mt. Pleasant	Henry	729	22	37.8	s 3.1	71	6	13	22	26	2 47	s 88	.81	2.5	10	7	7	16	S E		
Omaha, Neb.	Douglas	1,105	34	38 0	s 1 4	69	6	16	19	25	0.52	- .54	.23	1 8	6	4	8	18	S		6
Oskaloosa	Mahaska	843	20	36 7	† 0 0	76	6	4	22	36	2 03	s .48	1 00	6.5	8	10	0	0			
Pacific Junction	Mills	960	7	37.0	s 0 7	73	6	11	22	36	0 71	s 12	.30	4.1	3	8	13	9	N		
Pella	Marion		4	37.6	- 4 0	75	6	10	22	30	2.53		.77	6 0	9	9	4	17	S E		
St. Charles	Madison	1.070	4	38.6		76	6	13	22	39	1 43		42	5.5	9	13	10	7	N W		
Sigourney	Keokuk	877	7	37.0	- 1.8	73	6	7	22	29	3.37	s 1 87	1.55	5.5	9	1	20	9	S E		
Stockport	Van Buren		5	38 4		73	6	12	22	29	1 79		1 00	2.8	13	9	1	20	S		
Thurman	Fremont		8	37.9	- 0.3	73	6	14	22	39	0.59	- .50	.38	2.5	5	4	6	20	N W		
Wapello (b)	Louisa	588	6	37 8	- 4.2	63	5	15	23, 24	22	2 96	s 1.50	1.00	3.5	8						
Washington	Washington	769	22	36.8	s 1.2	73	6	10	22	30	2.32	s .93	1.25		9				N W		
Winterset	Madison	1,129	13	36 8	- 1 6	71	6	14	22	24	2.28	s 1.07	.73	7 0	6	12	3	15	N W		
Woodburn	Clarke	961	7	36 0		71	6	-5	22	47	2.30	s 1 26	1.32	9.0	4	10	16	4	N W		
Average				37.1	- 0 9	72 8		10.4		32 6	2.11	s .83		5.3	8	9	7	14	NW		
Average for State				35.4	s 0 2	69 6		8 7		32.4	2.03	s 72		4 4	8	9	7	14	N W		

s Above normal. † Received too late to be co nputed with means. *a*. One day missing; *d*. two days, etc.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF NOVEMBER, 1906

STATIONS.		DATE. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	MEAN.
Afton	Max..	51	51	54	60	69	72	62	64	49	52	37	33	38	41	42	52	38	31	25	25	32	4	39	43	41	43	37	37	40	41		45.0
	Min ..	24	37	36	37	44	49	48	40	34	28	25	18	15	28	24	32	24	15	18	19	23	12	23	21	35	31	26	23	29	39		28.6
Albia*....	Max..	54	52	58	58	69	72	63	63	50	55	38	37	37	34	38	55	42	31	27	27	28	39	37	38	43	41	33	40	42	44		44 8
	Min .	25	25	34	38	40	44	50	44	35	31	25	23	14	22	28	33	22	17	18	18	17	9	12	15	30	35	30	23	25	34		27.2
Algona...	Max..	49	48	51	57	63	64	55	56	48	37	33	30	32	35	39	40	37	23	22	24	27	38	32	42	40	39	40	33	37	38		40.3
	Min .	27	32	37	33	36	50	43	35	30	32	26	16	14	25	26	32	21	12	12	14	19	9	20	16	34	30	30	25	25	30		26.7
Allerton .	Max.	54	49	59	65	72	75	66	66	58	57	40	36	35	36	41	54	54	34	25	25	29	38	39	39	39	42	38	40	39	46		46.3
	Min .	24	29	36	37	48	55	51	45	34	29	26	21	13	27	31	32	26	16	18	20	23	5	16	12	35	32	29	23	28	38		28 6
Alta*	Max..	51	48	48	54	63	60	58	55	45	37	30	25	30	41	41	34	23	23	18	24	31	45	35	41	40	30	41	33	38	30		39.1
	Min ..	29	34	37	33	42	49	42	32	29	31	29	17	18	26	21	31	22	11	11	13	20	15	17	20	35	27	26	17	30	28		26.4
Alton. ...	Max..	51	47	48	59	59	65	58	57	50	39	39	30	30	41	40	37	35	24	20	25	32	40	34	41	41	40	40	33	40	40		41.2
	Min ..	30	38	38	31	35	47	37	36	29	31	28	22	19	19	19	33	20	12	11	14	22	12	18	17	36	29	27	17	29	25		26 0
Amana...	Max..	51	51	52	59	60	71	62	55	48	45	36	34	37	39	42	50	53	31	28	29	32	33	33	35	38	43	37	35	36	45		43.3
	Min ..	26	31	36	42	33	52	49	45	35	33	27	23	15	29	34	33	30	19	21	23	26	7	11	9	34	34	31	28	27	33		29.2
Ames.....	Max..	53	47	52	62	68	73	65	59	50	41	36	35	35	34	45	54	44	28	27	27	30	40	38	40	40	42	37	38	41	43		44 1
	Min ..	23	27	33	42	39	50	49	47	33	30	27	19	13	26	32	24	23	15	17	19	22	1	14	11	35	31	30	25	28	33		27 3
Atlantic .	Max..	54	52	52	63	69	70	60	64	52	52	52	37	35	40	45	49	37	30	32	26	33	50	45	45	43	42	41	37	42	43		46 4
	Min ..	27	28	35	29	46	52	40	40	30	25	37	23	10	20	16	32	22	15	15	18	21	7	21	15	36	30	25	19	30	33		26 6
Audubon.	Max..	54	50	50	61	66	68	60	61	50	45	36	32	34	43	41	48	38	27	23	24	33	47	40	43	41	42	40	37	40	42		43 9
	Min ..	26	31	36	28	38	46	44	31	30	25	22	18	10	27	19	34	22	14	16	17	21	18	21	45	35	29	26	20	28	33		26 0
Baxter . .	Max..	53	48	58	64	66	73	62	60	50	45	37	34	35	33	45	50	49	30	27	25	28	36	32	37	39	41	37	35	42	43		43 7
	Min .	18	30	32	41	40	52	48	46	32	27	25	19	14	25	30	30	25	14	16	19	23	4	17	5	33	30	29	24	28	33		27 0
Bedford ..	Max..	53	48	54	61	70	74	66	66	55	53	39	35	35	41	47	51	43	28	26	26	31	49	48	43	42	43	37	41	42	44		46.4
	Min .	26	28	36	28	44	51	46	30	33	25	22	24	11	28	21	32	24	15	15	20	19	6	16	18	36	31	24	19	32	40		26. 6
Belle Pl'e	Max.	51	50	53	61	60	70	53	58	47	40	35	36	34	36	42	40	39	41	28	28	27	33	34	32	24	27	32					41.7
	Min ..	24	29	33	39	40	43	50	45	34	31	25	23	15	25	34	31	27	18	20	20	22	4	6	5	33	34	32	24	27	32		27. 5
Bloomf'ld	Max..	53	51	60	64	70	75	62	64	55	57	40	33	37	35	40	54	42	34	27	28	30	35	39	39	39	46	39	39	39	46		45.7
	Min ..	23	27	36	37	43	49	49	45	34	32	26	25	13	28	32	32	27	18	20	22	21	12	13	12	35	35	31	24	27	38		28 9
Bonapar'e	Max..	53	53	57	67	67	74	60	60	50	54	40	38	40	37	38	55	54	34	28	28	32	35	39	41	42	48	39	36	25	37		46 1
	Min ..	25	29	39	37	38	53	51	43	37	30	27	27	15	29	34	35	27	21	21	24	28	10	13	15	35	36	32	26	37	44		30.0
Boone* ..	Max.	52	46	55	62	67	73	54	59	47	42	33	35	33	33	43	46	35	26	26	25	29	44	39	43	40	37	38	37	42	44		42 8
	Min ..	23	28	35	36	40	49	50	46	33	33	27	19	18	20	27	32	25	11	11	11	18	12	15	21	22	31	30	25	26	32		26 9
Britt.	Max..	50	49	55	58	65	70	59	60	48	37	33	30	34	38	42	41	41	27	23	25	28	38	31	44	40	38	39	37	38	35		41.8
	Min ..	24	32	37	32	35	48	40	40	28	31	25	17	15	26	30	32	19	13	13	14	21	6	22	15	34	30	29	23	21	26		25. 9
Burlng'n*	Max.	54	53	58	68	70	75	59	54	50	51	39	39	39	38	39	56	47	39	27	32	32	38	42	41	51	47	38	36	40	48		46 7
	Min ..	27	30	33	35	36	40	51	43	39	30	28	26	19	19	29	34	31	23	23	22	26	14	14	18	18	36	33	27	27	31		28 7
Carroll* ..	Max..	52	51	50	61	65	69	60	60	47	44	33	32	33	41	40	42	33	27	22	25	33	49	40	44	42	37	42	35	41	40		43 0
	Min ..	26	31	36	29	31	49	47	32	30	28	25	17	15	22	21	22	23	13	14	15	18	12	15	18	26	28	26	19	20	31		24 6
Cedar R*.	Max	52	52	53	62	62	70	54	56	48	42	35	36	36	38	39	54	40	29	20	21	24	13	12	10	9	34	33	28	28	44		43.2
	Min ..	19	27	33	39	32	34	51	42	37	34	28	25	17	16	27	32	31	21	20	24	28	39	40	40	38	43	40	40	39	44		26 9
Chariton .	Max..	54	50	57	64	70	75	66	64	53	54	37	35	36	34	39	52	50	37	26	24	28	39	40	40	38	43	40	40	39	44		45.6
	Min ..	25	28	34	38	40	54	49	42	34	27	25	21	12	26	26	41	26	15	18	19	22	4	11	10	34	32	28	21	28	37		27.7
Charles C.	Max..	50	46	52	59	61	69	57	57	44	38	31	25	16	15	27	30	32	19	16	16	17	17	0	5	1	34	32	31	25	27		39.9
	Min ..	28	31	35	37	34	49	48	42	32	31	25	16	15	27	30	32	19	16	16	17	17	0	5	1	34	32	31	25	27	22		25. 8
Clarinda*	Max..	55	47	54	65	71	72	70	72	51	53	36	36	33	38	45	53	40	32	24	27	36	49	45	46	43	44	40	41	43	44		46 8
	Min ..	28	31	35	37	34	49	48	42	32	31	25	16	15	27	30	32	19	16	16	17	17	0	5	1	34	32	31	25	27	22		25 3
Clear L ..	Max..	55	47	54	65	71	72	70	72	51	53	36	36	33	38	45	53	40	32	24	27	36	49	45	46	43	44	40	41	43	44		46 8
	Min ..	20	28	32	33	33	50	49	34	35	30	27	26	13	21	23	23	23	10	19	18	20	12	18	16	31	24	25	36	38	41		25 3
Clinton...	Max	50	47	52	57	65	70	60	60	50	42	32	31	33	33	43	41	29	15	14	15	20	13	20	15	32	32	31	24	25	30		41.1
	Min ..	25	30	32	35	36	45	45	42	32	32	25	18	16	26	30	41	49	33	31	32	36	32	37	33	43	49	41	41	40	45		27 0
C. Springs	Max..	48	48	54	60	70	73	60	67	57	57	39	35	35	41	46	54	39	29	25	32	35	46	43	45	44	44	38	42	43	45		45 0
	Min ..	24	30	32	40	52	52	47	31	35	27	32	26	15	39	29	33	24	15	16	22	22	12	19	20	38	32	25	22	35	36		29. 2
Colum. J.	Max	50	55	58	58	66	69	62	61	50	39	39	30	25	17	24	31	32	24	23	22	28	30	15	15	15	32	37	38	42	43	45	46 5
	Min ..	25	26	37	35	31	51	40	44	34	32	32	30	25	35	41	46	54	39	29	25	32	35	46	43	45	44	44	32	22	35	36	26. 1
	Max..	48	48	54	60	70	73	60	67	57	57	39	35	35	41	46	54	39	29	16	22	22	12	19	20	38	32	25	22	35	36		45 4
C. Springs	Min ..	24	30	32	40	52	52	47	31	35	27	32	26	15	39	29	33	24	15	16	22	22	12	19	20	38	32	25	22	35	36		29. 5
	Max	50	55	58	58	66	69	62	61	50	39	39	30	25	17	24	31	32	24	23	22	28	30	15	15	15	32	37	38	42	43	45	46 5
Colum. J.	Min ..	25	26	37	35	31	51	40	44	34	32	32	30	25	35	41	46	54	39	29	25	32	35	46	43	45	44	44	32	22	35	36	26. 1
	Max..	48	48	54	60	70	73	60	67	57	57	39	35	35	41	46	54	39	29	16	22	22	12	19	20	38	32	25	22	35	36		45 4
Corning ..	Min ..	24	30	32	40	52	52	47	31	35	27	32	26	15	39	29	33	24	15	16	22	22	12	19	20	38	32	25	22	35	36		29. 5
	Max..	51	52	55	64	64	70	68	54	50	48	37	36	39	39	38	54	53	34	26	25	27	14	14	13	33	33	31	27	27	37		44.2
Colum. J.	Min ..	27	29	29	38	39	50	50	35	34	31	27	24	18	29	34	33	41	29	24	26	32	42	41	42	43	43	37	36	41	38		27. 0
	Max..	51	48	52	60	68	72	62	64	51	49	36	32	34	37	40	32	24	15	17	19	22	11	18	19	19	31	25	21	30	45		47 0
Corning ..	Min ..	28	31	37	32	44	50	48	34	34	28	25	22	12	27	18	32	24	15	17	19	22	11	18	19	39	43	38	43	40	39		28 7
	Max..	55	50	57	65	71	76	70	65	60	55	40	40	35	34	40	52	53	33	29	26	29	40	45	42	39	43	39	32	28	39		45 1
Corydon..	Min ..	24	30	37	39	46	56	51	45	34	30	25	20	12	27	31	33	26	16	18	20	23	8	14	11	35	32	28	23	28	45		24 8
	Max	52	48	58	72	71	73	60	64	51	51	36	34	35	36	41	51	38	30	25	15	19	20	8	12	20	27	31	26	22	30		44 8
Creston*.	Min ..	21	29	34	31	34	35	40	40	34	29	23	19	12	22	22	23	25	15	17	19	22	11	18	19	19	31	25	21	30	45		47 0
	Max	51	52	52	59	64	71	60	60	48	45	38	36	36	38	37	52	50	32	30	32	35	32	36	39	46	51	38	39	38	45		28 7
Davenpo't	Min ..	29	35	37	37	38	54	51	45	39	34	29	25	33	34	42	42	39	37	27	27	28	32	28	36	37	37	37	31	26	23	28	45 1
	Max..	52	49	53	60	61	68	58	54	48	39	32	30	28	22	23	28	32	33	30	19	13	19	24	14	30	4	3	32	40	49		24 8
Decorah. .	Min ..	24	33	37	42	32	48	49	48	32	30	28	22	23	28	32	33	30	19	13	19	24	14	30	4	3	32	40	36	35	35	49	41 4
	Max..	49	50	50	56	60	66	60	56	47	37	36	32	36	35	45	45	48	37	27	27	31	30	30	31	36	40	36	35	35	49		26 7
Delaware.	Min ..	23	26	35	38	33	48	45	41	31	31	26	20	15	25	30	31	31	17	16	23	25	35	50	41	44	42	41	44	38	41	42	44 4
	Max.	54	50	50	60	64	68	61	58	58	44	37	33	31	45	41	44	39	28	23	16	21	10	19	15	36	30	27	18	38	30	29	27 0
Denison ..	Min .	30	36	36	29	44	52	46	32	29	30	27	23	15	27	17	34	23	13	15	16	21	10	19	15	36	30	27	18	38	41	45	44 3
	Max	53	50	53	63	68	73	60	61	49	46	36	27	20	17	28	32	34	26	18	19	22	17	8	20	14	37	32	30	27	30	34	29. 9
Des M....	Min ..	27	33	39	44	43	55	51	44	35	33	27	36	35	39	49	52	42	30	28	28	30	46	41	45	43	41	32	29	23	30	35	45 5
	Max.	53	51	51	64	69	73	63	61	50	47	36	36	35	39	49	52	42	30	28	28	30	46	41	45	43	41	42	40	37	44		28. 7
De Soto ..	Min ..	26	30	36	40	42	48	50	46	33	30	26	19	12	28	28	34	25	16	18	20	25	39	33	40	39	37	37	30	24	30	39	41. 6
	Max	51	47	53	61	66	72	62	59	49	38	35	32	33	32	41	44	42	25	20	25	29	4	16	14	24	29	26	30	40	44		25. 8
Dows. ...	Min ..	26	28	34	35	36	45	47	41	30	29	25	18	13	25	26	40	31	24	13	15	21	4	33	36	40	46	46	39	39	42		42. 9
	Max..	50	53	50	53	61	66	58	63	48	38	35	34	34	38	32	40	49	31	29	29	34	31	33	36	40	40	39	31	35	44		30 4
Dubuque.	Min ..	29	33	37	37	33	53	51	47	35	34	30	26	22	27	37	49	34	28	27	29	34	16	18	11	33	34	32	24	27	32		44. 5
	Max	48	50	50	51	69	72	63	62	60	48	36	34	35	37	49	50	42	27	24	27	30	46	42	44	41	44	41	42	40	37		27 0
Earlham .	Min ..	22	28	34	39	41	50	48	33	32	26	25	18	19	22	24	30	27	16	19	20	22	9	18	16	34	31	22	20	25	35		47 6
	Max..	53	52	56	60	69	74	63	68	62	54	37	25	37	40	48	55	46	27	23	17	18	12	22	15	38	31	25	18	30	35		27. 3
Elliott....	Min ..	27	32	32	32	47	51	43	33	33	28	24	22	13	28	20	34	23	15	22	22	28	42	35	42	40	36	28	38	38	28		40. 6
	Max.	50	50	49	59	62	63	59	55	45	37	33	34	32	42	41	32	24	10	24	24	26	40	30	43	37	36	36	35	26	35		24. 3
Esth'rv'l*	Min ..	22	27	35	31	32	38	36	30	36	30	25	10	15	22	26	40	30	25	13	24	24	16	10	16	14	19	31	25	25	30		39 9
	Max	40	51	55	59	63	69	49	59	45	30	36	33	28	18	18	21	28	31	25	13	14	16	10	16	14	19	31	25	34	39	41	25. 8
ForestCy*	Min ..	27	26	39	25	39	43	48	58	58	48	36	34	32	42	46	40	35	23	19	24	32	44	35	43	42	42	41	34	39	41		41. 7
	Max..	50	49	51	57	61	62	58	58	48	36	30	28	19	14	26	19	30	22	12	15	19	10	18	16	36	29	27	16	29	28		26. 0
Galva....	Min ..	29	35	38	29	39	50	41	31	30	30	28	19	14	26	19	30	22	12	12	15	19	10	18	16	36	36	38	35	35	40		40 6
	Max..	49	50	50	55	60	67	64	55	47	36	34	33	34	36	42	41	45	26	27	17	18	29	29	35	36	38	35	25	24	30		27. 1
Grand M.	Min ..	26	32	36	40	36	46	46	41	32	30	25	20	18	26	30	32	21	17	17	30	31	45	42	44	42	42	42	37	38	45		46. 0
	Max..	55	51	55	60	70	72	62	62	55	50	29	20	17	13	22	30	32	24	13	15	18	21	13	23	19	35	39	37	37	43		27 1
Greenfield. ..	Min ..	24	30	35	37	44	51	48	36	30	45	35	34	41	33	45	48	48	29	28	24	24	33	32	38	35	30	30	29	23	26	40	43 0
	Max..	53	48	53	63	62	74	62	61	51	31	28	25	22	15	25	29	30	14	15	27	19	4	16	8	30	40	40	35	34	24	38	27 1
Grinnell .	Min ..	25	31	33	40	40	53	47	45	31	28	25	22	15	25	34	47	47	30	14	25	27	35	30	38	40	40	31	31	28	15		42. 4
	Max	52	48	50	62	63	72	61	59	52	41	34	31	34	34	27	31	26	15	17	21	23	0	15	3	32	31	31	38	36	42	43	26. 7
Grundy C	Min ..	25	32	32	35	40	50	50	47	33	30	25	21	15	34	38	41	49	42	30	15	17	33	26	31	43	38	49	34	31	24	21	44. 7
	Max..	50	50	50	58	67	70	65	60	54	45	38	32	24	19	11	27	21	33	24	15	17	18	22	10	22	17	42	38	37	33	29	27 1
Guthrie C	Min ..	25	30	37	37	44	48	44	35	32	29	33	38	31	32	41	43	43	25	15	21	25	26	33	30	19	16	34	31	24	24	32	40 7
	Max..	48	52	55	65	68	72	60	51	48	35	33	26	20	15	26	30	31	43	25	15	16	22	10	19	16	34	43	42	41	39	42	27 5
Hampton.	Min ..	24	34	36	35	38	50	48	45	32	33	26	20	15	34	44	44	25	37	27	15	26	17	25	35	47	40	44	43	42	41	22	45. 3
	Max..	52	51	52	63	68	68	62	65	52	51	36	35	34	27	44	25	34	24	15	27	17	23	15	16	25	34	47	40	23	41	41	28. 8
Hancock .	Min ..	27	35	38	35	47	52	46	34	32	31	25	22	17	34	45	44	36	27	15	23	16	25	16	42	46	36	42	30	31	42	34	15 0
	Max..	55	54	50	62	68	69	62	63	54	46	26	20	11	27	16	33	22	13	15	16	21	9	21	16	41	36	40	44	32	35	44	25. 8
Harlan. ..	Min ..	25	31	37	28	39	48	44	29	31	55	52	38	33	36	46	46	33	29	24	24	30	48	41	43	40	44	35	27	23	30	39	45 5
	Max..	53	50	54	63	70	74	64	65	55	52	38	33	36	46	46	46	32	25	18	26	24	9	19	19	35	32	24	36	40	39	40	28 9
Hopeville.	Min .	24	30	37	37	46	51	49	46	35	30	25	19	15	28	26	36	28	42	25	28	40	25	28	40	50	40	38	40	36	30	30	42. 8
	Max	46	50	50	53	58	64	68	61	59	53	40	36	32	33	28	33	36	26	14	16	23	14	22	8	20	16	43	43	37	30	43	27. 6
Humboldt	Min .	24	28	34

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF NOVEMBER, 1906—CONTINUED.

STATIONS.		DATE.																													Mean.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Iowa C*	Max..	55	51	57	64	61	72	53	54	48	46	36	38	38	38	38	53	42	30	28	31	32	35	36	39	46	43	37	43	41	50	..	44.5
	Min...	19	26	32	39	33	38	46	43	37	32	27	24	14	15	28	33	30	20	21	21	26	8	9	9	9	35	34	27	26	31	..	26.4
Iowa F*	Max..	50	47	53	59	67	71	53	60	49	40	33	32	34	33	42	46	34	25	23	26	28	35	32	37	39	36	35	33	40	41	.	41 1
	Min ..	24	30	35	35	40	42	49	45	30	35	26	21	13	26	30	31	26	15	15	18	22	1	18	4	25	33	30	25	23	35	..	27 1
Jefferson	Max..	54	48	50	61	66	78	62	60	50	42	38	36	34	36	43	47	39	28	25	25	30	47	40	45	42	47	40	36	41	43	..	44 2
	Min ..	26	31	37	36	42	41	44	39	31	31	24	24	15	27	22	34	24	16	17	17	21	10	20	20	37	31	29	21	30	33	..	27 9
Keokuk	Max..	..	..	..	67	70	73	63	60	49	53	39	36	40	39	38	57	44	34	26	30	32	35	38	39	48	52	40	35	42	45	..	45.3
	Min ..	..	..		39	43	53	51	45	39	35	29	28	23	31	33	33	32	26	22	25	28	18	19	20	35	39	32	28	29	38	.	32.3
Keosauqua *	Max..	56	53	59	65	70	75	61	62	53	57	49	41	38	38	40	57	47	34	29	31	32	34	37	40	48	46	37	38	42	49	..	47.3
	Min ..	19	28	32	36	35	41	52	45	37	29	27	26	14	14	29	33	29	21	24	22	25	12	12	13	14	30	32	25	25	30	.	27 0
Knoxville ..	Max.	54	50	56	63	69	74	63	63	54	51	38	33	38	38	41	53	50	36	27	26	30	37	36	42	36	42	37	39	40	45	..	45.4
	Min ..	25	33	35	43	42	56	50	50	35	32	27	24	15	28	33	34	27	18	20	22	24	10	18	11	32	34	30	25	30	35	..	29 9
Larrabee	Max..	51	50	50	58	62	64	59	57	45	38	32	31	31	41	40	36	32	23	21	24	31	43	33	42	40	40	40	32	38	38	..	40.9
	Min ..	28	36	39	30	37	52	37	34	28	31	25	19	14	23	29	32	20	10	11	12	18	12	15	17	27	30	27	16	28	26	.	25.4
Le Mars.	Max..	51	46	47	58	58	65	57	55	50	39	35	32	30	42	40	37	33	24	21	24	33	40	34	41	42	40	40	37	40	38	..	41.0
	Min ..	31	39	37	33	38	49	35	35	28	30	29	20	17	20	19	30	20	12	11	14	20	12	17	18	36	28	26	15	28	25		25 7
Lenox ...	Max..	52	48	52	60	69	73	65	65	57	52	39	33	36	37	40	51	47	31	26	26	30	43	40	42	42	43	38	37	41	44	..	45 3
	Min ..	26	29	38	33	48	55	49	33	34	30	24	22	16	27	21	31	24	15	17	18	22	12	22	20	35	30	24	20	32	38		28.2
Leon	Max ..	52	48	56	61	69	73	66	64	59	54	39	33	36	36	39	53	52	34	26	25	30	33	36	32	39	43	36	37	40	46	..	44.9
	Min ..	26	31	37	36	46	53	50	48	35	30	26	20	15	27	29	32	25	17	17	20	23	10	17	17	34	32	27	24	29	39	.	29.1
Little Sioux	Max..	54	51	48	64	67	66	61	63	58	45	38	32	31	47	45	45	37	29	24	26	39	49	40	43	43	43	46	43	41	43	..	45.4
	Min ..	32	39	38	29	49	56	40	33	28	32	27	24	19	18	22	36	22	13	15	17	23	14	17	16	36	30	25	16	35	26		27.6
Logan...	Max..	55	56	50	60	68	68	60	55	53	47	37	34	31	50	44	46	37	27	26	27	36	47	37	45	43	43	43	42	44	43	.	45 1
	Min ..	28	34	39	28	43	52	44	31	31	29	27	24	17	21	22	36	21	14	16	18	22	13	22	17	36	30	26	18	32	30	..	27.4
Marshall'n	Max..	53	48	53	63	64	73	60	60	48	44	35	36	36	33	41	49	37	27	29	26	28	34	35	39	40	38	36	36	42	45	.	42.9
	Min ..	20	23	32	34	37	41	48	48	32	32	25	21	14	17	27	31	26	15	16	17	20	1	1	5	6	31	30	24	24	31	..	24 3
Mason C.	Max..	50	47	52	58	63	69	60	59	53	42	35	33	34	35	43	42	44	30	25	28	27	36	35	41	38	39	40	36	35	40	..	42.3
	Min ..	26	32	37	37	36	46	50	48	42	35	28	22	19	28	32	32	30	18	17	17	25	13	23	13	30	34	30	25	30	32	.	29.6
Mt. Ayr.	Max..	55	47	54	63	72	75	63	68	57	53	47	37	36	37	42	51	45	32	25	25	34	46	44	43	42	44	38	39	41	45	..	46 7
	Min ..	24	29	38	35	48	49	48	42	35	30	26	19	15	27	22	30	23	15	16	20	22	10	22	21	34	30	24	23	29	38	..	28 1
Mt. Pleasant	Max..	51	52	57	65	66	71	61	57	50	51	39	38	39	41	38	54	54	33	29	29	32	31	36	37	41	48	39	37	39	43	..	45 3
	Min .	27	31	39	39	40	55	51	41	37	32	26	24	16	28	33	33	28	21	23	25	27	13	14	15	34	37	32	25	26	36	..	30 3
Mt. Vernon	Max..	52	51	54	62	60	67	62	56	49	42	34	34	37	38	38	50	48	33	27	28	32	35	34	35	36	43	36	42	35	43	..	43 1
	Min ..	26	30	37	40	39	52	52	42	34	33	25	21	15	25	30	31	29	18	20	20	24	11	12	12	30	32	31	26	27	33	..	28 6
N. Hampton	Max..	48	49	50	58	60	65	58	50	48	40	35	30	32	32	38	40	42	27	23	26	27	26	24	30	35	36	36	32	34	37	..	38.9
	Min ..	19	31	36	35	35	50	50	45	32	31	26	20	15	24	30	31	27	15	15	16	21	6	4	0	29	32	30	24	24	30	..	26 1
Northwood	Max..	48	48	51	57	61	67	60	57	50	38	39	31	34	37	42	41	41	24	22	28	28	35	29	42	36	37	38	36	38	38	..	41.1
	Min ..	23	30	30	34	40	43	46	42	32	29	25	20	15	28	32	32	24	13	13	13	21	10	16	11	27	32	34	28	30	20	..	26.8
Odebolt.	Max..	52	51	51	61	64	67	60	59	52	40	35	33	30	44	43	40	38	25	21	25	34	47	37	43	41	41	42	34	39	41	.	43 0
	Min ..	30	34	38	30	41	51	46	32	30	30	28	20	15	26	21	33	23	13	14	16	21	13	20	18	36	29	27	19	28	30	..	27 1
Odgen...	Max..	50	52	51	61	68	72	64	59	52	42	36	33	34	34	41	47	45	35	26	26	29	42	38	42	42	41	47	35	40	42	..	44.3
	Min ..	25	38	35	40	42	50	48	45	32	31	25	17	16	27	29	33	25	18	15	19	23	10	21	20	36	31	30	18	27	33	..	28.6
Otin	Max..	49	..	52	57	63	67	60	56	53	43	36	34	35	39		..	..	.	..	..	33	30	33	33	38	44	38	37	36	45	..	44 0
	Min ..	23	.	27	37	29	49	43	45	36	30	27	23	14	26		..	..	..	..		26	10	13	10	28	35	34	27	26	35	.	28 4
Omaha Neb	Max..	53	48	51	61	68	69	58	67	49	46	33	31	31	49	44	49	36	29	22	25	39	46	38	42	45	42	45	39	45	44		44 8
	Min ..	32	40	41	38	55	50	45	42	35	31	29	25	24	29	31	34	22	17	16	17	23	22	25	26	38	30	28	25	37	32	..	31 3
Onawa ..	Max..	53	49	48	66	67	63	62	60	54	43	38	33	31	47	42	43	37	32	24	27	42	47	43	42	43	43	50	40	41	43	..	45 1
	Min ..	30	36	39	30	43	51	40	35	30	32	28	25	18	17	23	36	22	14	14	17	22	15	20	18	35	28	26	20	33	25	..	27.4
Osage ...	Max..	48	45	50	56	60	67	60	56	51	39	34	30	33	32	40	40	41	28	22	26	28	32	27	35	35	36	36	34	34	37		39 7
	Min ..	20	31	37	36	35	47	48	44	33	30	27	22	19	26	30	33	26	15	15	16	23	8	13	3	32	32	30	26	26	30	..	27 3
Oskaloosa ..	Max.	53	50	58	63	68	76	63	63	53	52	36	36	39	38	42	52	51	31	27	27	30	34	36	42	38	42	37	38	39	46		45.3
	Min ..	25	32	36	42	39	54	51	42	35	27	27	24	12	29	33	28	29	17	19	19	22	4	6	6	34	33	29	24	29	35	..	28 1
Pacific Jct,.	Max..	55	50	53	61	70	73	65	68	52	49	35	33	34	50	47	51	40	29	23	26	26	47	40	44	44	44	42	43	45	44	..	46 1
	Min ..	26	35	39	30	52	54	45	30	32	29	22	26	18	16	25	35	21	15	17	17	20	11	23	19	36	30	24	19	35	35	..	27 9
Pella	Max..	54	49	55	63	68	75	67	61	57	49	36	38	38	41	40	55	50	35	28	38	30	34	36	42	40	43	39	39	38	45		46.1
	Min ..	24	31	35	42	43	54	50	47	35	31	26	23	16	23	32	32	22	17	19	21	24	10	18	12	34	33	30	25	29	37		29 2
Perry ..	Max..	52	47	50	62	68	72	64	61	51	45	36	34	36	38	44	49	38	27	25	27	30	41	37	44	43	41	38	36	41	42	.	44.0
	Min ..	23	30	35	39	39	46	48	45	33	30	25	18	14	27	26	34	24	10	17	19	19	6	22	18	37	31	29	22	30	34	..	27.7
Plover ..	Max..	40	42	52	58	64	65	62	61	50	50	35	34	32	39	40	39	36	21	22	25	30	40	41	38	44	40	39	32	39	38		41 6
	Min ..	25	30	36	31	39	47	48	38	28	30	28	15	17	29	27	32	19	10	12	16	15	10	16	18	34	27	28	22	27	28		26.1
Pocahontas,.	Max..	52	50	55	54	64	68	58	58	47	38	33	34	34	40	40	40	36	25	22	25	36	44	32	39	41	41	42	34	39	39		42.0
	Min ..	23	33	37	33	39	49	44	35	30	32	27	16	18	27	25	33	23	12	13	12	15	12	19	19	31	29	29	24	29	31	..	26.6
Preston.	Max..	43	51	51	56	63	64	54	60	50	39	36	36	37	39	40	44	44	33	30	31	34	31	35	34	40	46	39	37	37	44	..	42.6
	Min ..	19	22	31	31	27	48	37	38	37	28	28	24	26	17	32	32	29	23	22	25	28	14	13	14	30	35	32	22	20	34	..	27 3
Ridge'y	Max..	57	48	51	60	65	70	59	54	45	40	38	36	35	33	40	42	43	31	31	28	32	39	31	38	37	38	36	40	37	41		42.5
	Min ..	27	31	36	40	35	48	50	45	33	33	26	20	17	27	31	32	26	17	17	17	22	13	12	6	33	34	31	25	23	30	..	27.9
Rock Rapids	Max..	50	48	54	52	50	64	60	54	48	38	40	38	31	40	38	40	35	25	16	40	40	38	40	42	40	42	35	32	40	38	..	41.6
	Min	38	36	38	40	36	38	40	36	28	24	26	24	18	20	24	30	18	10	8	12	18	12	18	20	26	28	20	16	24	24	.	25.0
Rockwell C.	Max..	55	50	51	58	52	70	65	62	53	40	35	31	31	38	35	41	42	25	26	25	30	45	37	45	41	42	40	40	41	38	..	42 8
	Min ..	25	24	36	32	31	48	45	37	31	31	25	16	16	21	25	30	19	13	12	16	16	15	20	25	28	28	23	20	15	15		24.6
Sac City.	Max..	50	49	51	58	66	60	58	38	43	45	32	30	32	40	40	40	30	24	24	25	31	45	36	43	41	35	42	33	39	40	..	41 2
	Min ..	24	30	32	31	39	47	45	34	30	33	29	18	15	25	23	29	23	12	13	15	16	17	13	19	33	28	27	19	30	28	.	25.8
St.Cha'es	Max..	59	51	52	69	72	76	62	63	54	49	38	42	37	41	50	52	50	36	27	26	30	52	50	46	42	43	42	37	40	48		47 9
	Min ..	25	30	35	39	47	52	50	47	34	33	26	20	15	27	30	33	25	16	19	20	19	13	21	20	35	31	29	29	30	32	..	29.4
Sheldon.	Max..	52	48	48	50	61	62	65	56	47	40	31	31	30	44	43	46	35	21	20	23	35	44	35	42	41	39	40	31	39	40	.	41.3
	Min ..	29	27	37	30	33	48	34	36	37	30	28	21	15	15	18	33	20	10	9	11	17	10	15	18	33	21	23	14	25	26	..	24.1
Sibley* ..	Max..	51	47	49	60	58	65	60	54	47	36	29	30	30	39	40	35	24	20	16	21	31	41	35	41	39		39	39	37	33	..	39 5
	Min ..	30	32	36	31	39	46	35	34	26	26	27	20	14	22	16	16	21	9	8	8	14	10	11	17	21	28	..	17	22	27		22.9
Sigour'y	Max..	53	50	57	62	65	73	64	59	55	50	39	36	40	37	42	52	55	38	29	27	31	33	35	38	38	43	38	37	37	45	..	45 3
	Min ..	24	29	37	41	39	53	50	43	35	29	26	23	15	28	32	32	28	19	20	22	25	7	9	9	33	34	32	24	27	36		28 7
Sioux C'r	Max..	50	46	46	57	56	65	56	..	58	38	30	29	28	40	38	38	34	22	18	24	30	40	33	39	40	38	40	33	38	38		39.4
	Min ..	23	38	37	32	38	48	34		28	30	27	20	17	23	23	33	20	10	10	12	19	15	16	20	37	28	26	18	28	27	..	25 4
Sioux C.	Max..	52	45	48	60	61	66	60	59	45	39	32	27	32	42	40	39	33	24	21	23	34	43	35	43	43	36	44	37	41	37	..	41.4
	Min ..	33	40	40	34	44	46	56	40	30	31	27	22	21	23	22	33	19	14	13	16	20	16	19	23	30	28	27	20	34	28		27.6
Stockport ..	Max..	54	51	57	66	65	73	64	59	51	54	41	38	39	38	38	54	53	35	28	28	32	38	41	42	41	48	40	39	38	47	..	46 4
	Min ..	25	28	27	57	38	53	49	46	37	36	27	25	15	29	32	33	29	21	22	23	27	12	13	14	34	37	32	25	26	37	..	30 3
Storm Lake.	Max..	58	59	56	66	60	61	58	55	51	42	39	30	30	40	39	39	38	24	20	24	31	45	37	41	40	40	41	36	38	39		42 6
	Min ..	34	33	40	35	40	50	42	33	28	31	27	15	19	15	22	32	21	9	10	12	18	14	17	20	34	27	15	16	26	28		25.4
Stuart .	Max.	54	57	52	58	68	70	65	60	54	47	34	30	39	39	41	55	42	26	24	25	30	41	45	47	43	39	36	35	42	42	..	44 7
	Min .	26	32	38	41	45	50	51	44	33	33	25	18	18	23	26	34	24	15	17	18	22	16	20	23	27	31	27	23	24	25	..	28 3
Thurm'n	Max..	54	49	53	62	70	73	68	69	62	50	39	33	38	47	45	52	41	30	26	25	35	47	42	44	45	45	35	40	44	44	..	46 9
	Min .	30	31	38	30	55	56	45	30	35	27	26	26	27	20	25	34	21	15	18	18	22	14	21	18	38	30	24	20	35	37	..	28 9
Tipton ..	Max..	52	52	52	59	61	66	60	59	49	43	37	38	35	37	43	49	51	35	30	30	32	34	35	36	38	45	37	40	35	44	..	43.8
	Min ..	27	32	39	39	39	53	49	46	38	35	28	25	19	27	28	32	31	23	23	26	27	14	16	13	32	35	32	28	28	34		30.6
Toledo ..	Max..	51	49	53	59	60	72	67	68	55	44	35	34	35	41	49	49	33	25	25	28	32	30	36	38	40	37	35	36	43	..	43 1
	Min ..	25	32	33	42	35	54	49	47	34	32	26	22	14	28	31	32	27	11	22	21	25	1	9	2	34	32	30	24	27	32		27.8
Wapello.	Max..	49	52	..	61	63	59	60	58	50	45	42	37	39	37	38	53	54	40	29	31	32	34	36	36	39	47	39	42	..	45	..	44 5
	Min .	28	37	..	38	37	52	48	40	38	31	29	27	19	29	33	33	32	25	25	27	29	19	15	15	33	37	27	29		40	..	31 1

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR NOVEMBER, 1906.—Concluded.

STATIONS.		DATE																															Means.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Washi'ton	Max.	54	51	56	65	64	73	55	56	50	46	37	38	39	38	40	54	54	33	28	29	32	32	37	40	39	47	37	39	38	46		44.9
	Min.	24	29	37	38	38	54	48	44	36	29	26	22	16	27	32	32	26	19	22	23	23	10	10	10	35	37	29	26	27	35		28.8
Wa-hta ..	Max	52	50	46	50	64	66	60	65	50	46	36	35	28	50	45	40	34	25	25	24	36	50	36	42	46	40	45	36	40	40	..	43 4
	Min ..	30	36	36	30	36	50	38	36	28	28	28	22	13	18	18	34	23	13	13	13	20	8	15	15	20	36	28	13	28	24	..	25 0
Waterloo*	Max..	42	52	55	61	57	70	69	58	48	40	35	33	36	34	43	47	47	28	29	27	29	35	30	37	37	39	37	37	35	43	..	42 3
	Min .	25	32	35	42	34	50	49	42	32	33	23	21	15	27	31	31	28	17	18	19	24	5	10	2	32	32	30	24	24	34	..	27 4
Waukee..	Max	56	50	51	50	68	73	63	63	53	46	37	31	35	36	44	51	46		28	26	29	40	37	46	42	40	34	37	40	42		44.6
	Min ..	25	30	36	40	48	51	50	48	34	30	26	19	16	25	30	35	25		15	20	20	10	24	30	36	32	29	29	29	34	..	30 2
Waverly.	Max.	51	48	51	59	59	70	60	56	48	38	34	33	35	34	42	44	44	28	24	26	28	30	28	37	37	37	35	34	35	40	..	40.8
	Min	22	32	35	42	34	48	50	47	33	33	27	24	16	28	32	32	28	17	18	19	24	3	8	3	33	33	30	25	26	32		27 8
Web'erCy	Max.	52	51	55	60	67	72	65	59	56	45	37	32	35	39	43	45	46	30	26	27	30	42	37	48	46	40	38	37	37	42	..	44 6
	Min ..	25	30	37	34	37	48	47	46	31	33	26	18	14	27	27	33	25	14	16	17	23	4	19	15	35	31	31	26	28	34	..	27 7
W. Bend.	Max..	49	49	54	56	64	66	58	57	51	43	34	29	33	40	38	38	38	23	21	23	27	40	34	45	40	38	39	35	35	38		41 2
	Min	25	32	37	33	35	48	45	37	28	32	25	15	16	27	22	32	22	12	13	14	17	11	20	16	35	30	30	22	24	27	..	26 1
Whitten..	Max..	50	47	52	60	68	70	64	68	54	42	35	32	34	34	41	47	47	31	21	40	28	35	32	32	37	39	34	34	36	40	..	42.8
	Min ..	25	29	30	40	37	39	47	46	30	30	23	19	15	25	30	30	24	13	15	16	22	5	15	3	18	26	29	22	25	30		25 3
Wilt'n Jct	Max	48	50	50	64	66	65	65	53	50	52	38	35	35	38	38	40	50	40	33	32	30	31	54	36	38	39	35	36	37	46		44 1
	Min .	26	26	36	34	52	52	43	38	36	33	28	24	17	26	30	31	30	28	23	26	25	14	12	9	29	33	26	24	25	31		28 9
Wint'rset	Max	50	50	50	59	68	71	63	60	55	49	37	31	35	37	42	51	39	29	25	25	31	39	38	42	41	41	36	36	40	42		43 7
	Min ..	28	32	36	39	44	55	50	46	34	32	26	19	17	28	27	33	26	16	19	20	24	14	23	23	36	32	27	23	30	36	..	29 8
W'odb'rn	Max..	52	52	57	59	67	71	62	63	50	53	48	35	36	47	42	53	51	33	26	25	30	42	41	42	40	42	39	39	41	44		46 1
	Min ..	25	26	32	32	32	50	50	48	34	26	25	13	8	26	30	33	25	14	16	20	22	- 5	5	7	35	32	28	21	26	38		25 8
Zearing.	Max	53	49	52	62	67	72	66	59	55	50	40	34	35	35	40	49	50	32	25	26	28	38	34	37	48	40	44	37	36	42	..	44 5
	Min	25	26	33	44	45	54	50	47	32	28	26	19	11	26	26	30	25	15	11	19	23	- 3	12	4	34	30	30	23	28	33		26.9

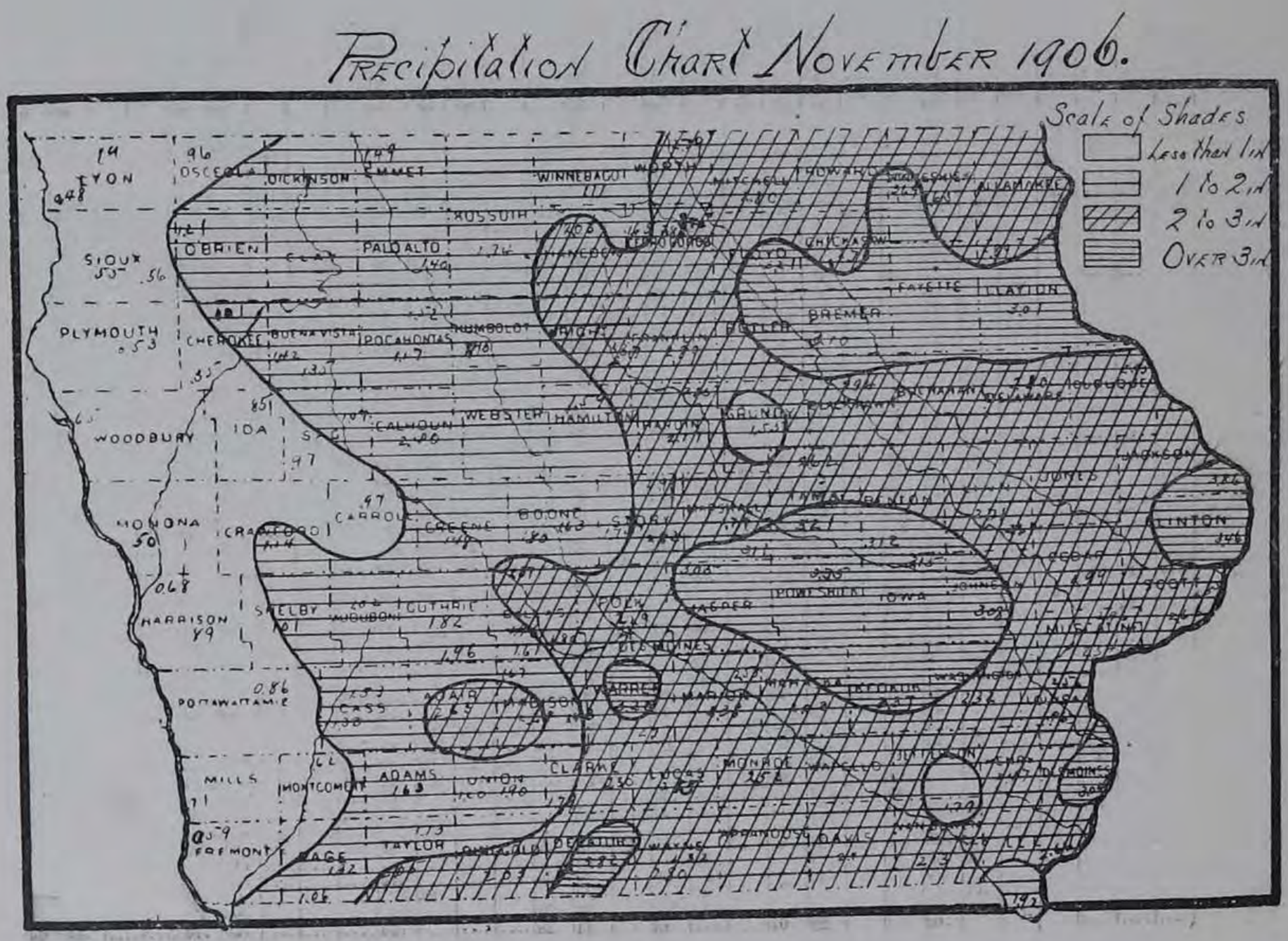
*At these stations thermometers are read in the morning the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs

DAILY AND MONTHLY PRECIPITATION FOR NOVEMBER, 1906.

STATIONS.	DAY OF MONTH.																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	....	....	....	.13	....	....	T	....	....	T	.30	....	..	....	....	....	..	.20	....	....	....	.60	50	....	....	.17	..	....	1 90
Albia	....	....	....	....	....	....	T	T	..	....	T	....	....	.13	T	..	.17	..	....	20	18	.15	....	..	.55	1 05	..	....	..	.09	....	2 52
Algona	....	..	T	..	..	.25	.33	....	....	.25	T	....	.12	.05	..	.15	.04	....	....	..	T	..	....	....	.24	.13	..	....	.16	02	....	1.74
Allerton	....	..	T	....	....	..	04	....	..	T	T	....	T	.24	....	T	....	....	.08	.26	55	....	....	....	1.00	57	....	..	.08	.03	..	2 80
Alta	....	..	....	....	....	....	.85	..	....	....	.08	....	....	.25	....	.01	.03	T	..	..	....	....	....	....	T	.09	....	....	T	.13	....	1 42
Alta [near]	....	....	....	....	....	1 11	....	....	....	06	..	....	.25	..	..	.03	..	..	....	....	....	....	....	....	.10	..	....	....	.13	..	....	1 68
Alton	....	.16	T	....	..	....	.12	....	..	.02	T	....	.11	....	T	15	T	T	....	....	....	....	....	T	T	....	....	..	T	..	....	0 56
Amana	....	....	....	....	..	....	.55	..	....	.21	T	....	....	....	..	.17	.20	....	....	.10	.53	....	....	....	.94	.28	....	....	.13	04	....	3.15
Ames	....	....	....	..	..	..	.21	.02	....	.13	T	....	....	.15	....	14	....	..	....	.15	07	....	..	....	07	.41	..	....	.29	.10	..	1 74
Atlantic	..	....	....	....	....	.05	10	....	....	....	....	....	20	....	..	....	....	....	....	.10	....	....	..	....	.90	....	....	....	.18	....	....	1.53
Audubon	....	..	....	....	....	T	.12	....	....	T	T	..	.15	.13	....	T	..	..	....	.03	....	....	....	....	.35	15	..	....	.08	.01	....	1.02
Baxter	....	..	....	....	....	....	.38	....	..	14	T	....	....	.12	....	72	.04	....	....	....	56	..	....	....	.80	.54	....	..	.28	07	....	3 05
Bedford	....	....	....	....	....	....	11	....	....	....	..	....	.05	40	....	T	....	....	.04	.05	20	..	....	....	.60	.50	....	....	10	....	....	2 05
Bede Plaine	....	....	....	....	....	....	25	..	....	.30	T	....	....	15	....	10	....	....	....	.02	.60	....	....	....	1 50	....	....	....	.20	....	....	3.12
Bloomfield	....	....	....	....	....	....	T	....	....	T	T	....	....	.18	..	08	....	....	T	.25	.35	....	....	....	1.02	.41	....	..	....	12	....	2 41
Bonaparte	....	..	....	....	....	....	....	....	....	15	..	....	....	....	....	T	.10	....	.23	T	.40	....	....	....	.94	.31	....	....	12	....	....	2 25
Boone	....	....	....	..	..	....	.16	....	....	T	.14	T	....	.20	....	T	.10	..	....	T	03	.05	....	....	.05	.76	....	....	T	.14	....	1 63
Britt	....	....	....	....	....	T	.37	..	....	.33	T	....	....	.18	....	.18	....	..	..	....	.05	....	....	....	.41	25	....	..	.18	08	....	2 03
Buckingham	....	....	....	....	T	....	.22	..	....	25	....	....	....	.05	..	30	....	....	....	T	.40	....	....	....	1.10	....	....	....	30	....	....	2.62
Burlington	....	....	....	....	....	....	....	T	....	....	.09	T	....	....	....	....	.17	....	....	.41	.31	.69	....	....	T	1.24	....	....	....	13	....	3.04
Carroll	....	....	....	....	....	....	.20	....	....	....	T	..	....	.30	....	T	T	..	....	....	T	....	....	....	.10	.25	....	....	.02	10	....	0 97
Cedar Rapids	....	..	....	....	..	T	....	.23	..	.21	T	..	....	..	T	T	.45	....	....	.0	09	.38	....	....	.05	1 06	....	....	....	19	....	2 71
Chariton	....	....	..	....	.	....	T	....	T	T	....	.25	..	..	..	..	....	..	T	.1	60	....	....	..	55	.50	..	....	.10	T	....	2.15
Charles City	....	....	....	....	..	.	.64	....	....	38	T	..	T	.03	T	.34	....	T	....	T	.38	....	....	....	.88	.28	..	..	.24	04	..	3 21
Clarinda	....	....	.	....	....	....	.12	....	..	..	....	....	....	.25	....	..	....	T	..	T	T	01	.04	....	T	.80	....	....	.02	.08	....	1.32
Clear Lake	....	....	..	....	....	..	.15	....	....	40	....	....	....	.10	....	15	.05	....	....	....	..	05	.05	....	.30	.15	..	....	25	..	....	1 65
Clinton	....	....	.01	....	....	.06	.06	..	....	.34	....	....	....	....	....	.15	....	....	....	....	1 19	..	....	....	....	1 56	..	....	09	..	....	3.46
College Springs	..	....	.	..	....	....	....	....	....	....	..	....	.04	.10	....	..	....	..	T	..	.10	..	....	....	65	.10	..	..	.06	.01	..	1 06
Columbus Junct'n	....	....	....	....	....	....	.15	....	....	12	T	....	....	T	....	20	..	T	....	.05	.72	....	....	....	.75	.40	....	....	.12	07	....	2 56
Corning	....	..	....	..	T	..	.24	....	....	T	..	....	....	.36	....	T	....	....	....	T	.10	....	....	....	....	.81	....	....	09	T	....	1 63
Corydon	....	.	....	....	....	..	.03	....	....	....	T	....	....	.16	..	T	....	..	.05	.25	27	..	..	....	1.00	.53	....	....	.03	....	..	2 32
Creston	....	....	....	....	....	..	.13	T	....	....	....	....	....	.30	....	....	..	....	....	....	.05	..	..	....	.02	.60	....	....	.02	.08	....	1.20
Cumberland	....	..	....	....	....	....	.10	....	....	....	....	....	.40	....	....	....	....	....	....	....	.72	....	....	....	....	....	....	....	.10	....	....	1.33
Davenport	....	....	T	....	....	T	.11	....	....	.16	T	T	....	....	....	.02	T	....	.04	T	.91	....	....	....	1.27	.05	....	....	.09	01	....	2 66
Decorah	....	..	....	....	T	.29	02	T	....	T	03	T	....	.11	....	.16	.13	....	....	....	.69	....	.	T	.62	.40	....	..	.10	.10	..	2 65
Delaware	....	..	....	..	....	.07	T	....	....	.43	T	....	....	....	....	..	.47	....	....	....	.50	....	....	....	.75	.42	....	....	.16	....	....	2 80
Denison	....	....	....	....	....	T	.35	....	....	T	..	..	15	.05	....	....	....	....	....	....	....	....	....	....	.52	....	....	....	07	....	....	1.14
Des Moines	....	....	....	....	....	T	.20	....	....	02	T	..	18	.01	T	.08	....	....	....	.01	.45	....	....	....	1.10	T	.	....	.24	....	....	2 29
De Soto	....	.	..	..	....	....	.40	....	....	T	....	T	T	.10	....	.06	....	....	....	T	.15	....	....	..	.35	.38	....	....	.13	04	....	1 61
Dows	....	....	....	....	....	....	25	....	....	.15	....	..	....	.20	.	.22	....	....	....	....	.15	....	....	....	.60	.53	....	....	.21	.06	....	2 37
Dubuque	..	....	T	....	.02	.01	.02	.01	....	44	T	T	....	T	....	13	.05	....	02	.03	1 06	....	..	....	.98	11	....	....	.06	.01	....	2 95
Earlham	....	.	....	....	..	..	.30	..	....	T	T	T	....	.25	....	03	....	....	T	T	.20	.	..	....	.44	.39	....	....	.09	.02	....	1 67
Elkader	..	....	.	....	01	....	.05	..	..	.31	T	....	..	....	..	.31	....	....	....	T	.85	....	....	....	1 20	....	....	....	.25	....	....	3.01
Elliott	....	....	....	..	T	....	.20	.05	....	....	....	....	.20	....	....	....	....	....	....	....	T	....	....	....	.12	T	....	....	.05	....	....	0 62
Estherville	....	....	T	....	....	....	.95	....	....	.10	T	....	30	..	T	....	T	....	....	....	T	....	....	T	.14	....	....	....	T	T	....	1.49
Forest City	....	....	....	.	....	....	.06	T	....	.10	.22	....	..	.05	....	.05	.12	....	....	....	T	....	....	....	.06	.30	..	....	....	.15	....	1.11
Fort Dodge	....	....	....	....	....	....	..	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	
Fort Madison	....	....	....	....	....	T	T	....	.	T	T	....	....	....	....	.20	....	....	....	.41	1 41	....	....	....	45	....	....	....	.12	.05	....	2.64
Galva	....	....	....	..	....	.35	10	....	..	....	....	....	35	....	....	....	....	....	....	....	....	....	..	....	....	....	....	....	.05	....	..	85
Gilman	....	....	....	...	T	....	29	....	.	.20	....	....	....	05	....	....	.20	....	T	T	.40	.	....	....	1 17	.55	....	....	25	....	....	3 11
Grand Meadow	....	....	....	....	....	....	.05	....	....	28	T	....	....	.05	....	07	.31	....	....	....	45	....	....	....	....	1.40	....	....	....	23	....	2 84
Greenfield	....	....	....	....	....	....	.27	.10	....	T	T	..	.04	.36	....	T	....	....	....	T	.07	....	..	....	1 00	.49	....	....	.26	.04	....	2 63
Grinnell	....	....	....	....	T	....	.38	....	....	T	....	....	....	.15	....	....	.30	....	....	T	50	....	....	....	1.05	.67	..	....	.30	....	..	3 35
Grundy Center	....	....	....	..	....	....	.25	....	....	T	..	....	....	T	....	....	....	....	....	T	45	....	....	....	35	....	....	....	.50	....	....	1 55
Guthrie Center	....	....	....	..	....	....	.87	....	....	T	T	....	.01	.02	....	.02	T	....	....	T	T	....	....	....	.30	23	....	....	08	.01	....	1 82
Hampton	....	....	....	....	....	....	.42	....	....	.18	....	....	.10	....	.10	.06	....	....	....	.10	.22	....	....	.34	.92	....	....	.45	....	....	....	2.89
Hancock	....	....	....	T	....	T	.11	T	....	....	....	....	.22	....	....	.03	....	....	....	.10	....	....	....	....	.22	.10	....	....	08	T	....	0 86
Harlan	....	T	..	....	....	.10	....	..	....	T	T	T	.37	....	....	T	....	....	T	.05	T	....	....	T	.34	.08	....	T	.07	T	....	1 01
Hopeville	....	....	....	..	....	....	....	....	....	....	T	....	.06	.20	T	....	....	.10	T	.01	.18	....	....	....	83	34	....	....	.07	..	....	1.79
Humboldt	....	....	....	....	....	..	....	33	....	....	12	....	..	....	....	40	..	.05	..	....	....	T	....	....	....	25	.25	....	....	....	....	1 40
Indianola	....	..	..	..	.	..	.22	T	....	.02	T	T	.02	.23	....	.90	....	....	....	.01	.50	....	....	....	69	.39	..	....	.22	T	....	3 20
Inwood	..	.05	.02	..	T	01	....	....	....	07	.	....	.11	.	....	.21	T	T	....	....	....	T	T	..	.01	T	..	....	....	....	....	0 48
Iowa City	....	....	..	....	....	01	.01	17	..	....	.10	T	....	....	..	....	....	....	....	.17	.10	.69	....	....	50	1 23	T	....	....	10	....	3.08
Iowa Falls	....	.	....	....	....	....	.29	05	....	.13	T	....	.10	....	.05	.21	....	T	....	....	.45	....	....	....	.10	.74	.	....	....	.22	....	2.35
Jefferson	....	....	....	....	....	T	36	03	.	.05	T	T	T	.22	....	.05	....	....	....	T	.04	....	....	....	.33	.25	....	....	15	T	....	1 48
Keokuk	....	....	....	....	....	....	T	T	..	T	T	T	....	T	....	.15	....	....	12	14	.59	....	....	....	.58	....	....	....	08	.26	.	1 92
Keosauqua	....	....	..	....	....	T	T	T	..	....	.05	T	....	.05	T	T	.09	....	..	.07	.11	.45	..	....	.45	.75	T	....	....	.11	..	2.13
Knoxville	....	....	....	....	....	....	.12	....	..	.10	T	....	....	.15	....	.15	T	....	T	.10	.50	....	....	....	1.00	.10	....	....	.16	....	....	2 38
Lacona	....	.	....	....	....	T	.05	..	....	....	....	....	....	.20	.10	....	....	....	T	.10	.60	....	....	.10	95	.39	..	..	27	....	....	2 77
Larrabee	....	.15	T	....	....	.10	....	....	....	.12	T	....	.30	....	....	.26	....	....	....	....	....	....	....	....	T	....	....	....	.08	....	....	1 01
Le Claire	....	.	....	.01	.	..	....	.04	....	....	.09	T	....	....	....	....	.06	....	....	.10	.13	1.10	....	....	.13	1.10	....	....	....	09	..	2 85
Le Mars	....	.30	....	..	....	....	.18	....	....	.03	....	....	T	....	....	.02	T	....	....	....	....	....	....	....	T	....	....	....	T	..	....	0 53
Lenox	....	....	....	....	....	....	.15	....	....	....	....	....	.06	.24	....	....	....	....	....	....	.15	....	....	....	.60	.41	....	....	12	..	....	1 73
Leon	....	....	....	....	....	....	.17	....	....	T	T	..	....	.22	....	T	....	....	.10	.30	.45	..	....	....	1 65	.75	....	....	13	.05	....	3 82
Little Sioux	....	..	....	....	....	.18	.10	....	....	....	....	....	.25	....	..	02	....	....	..	....	....	....	....	....	.10	....	....	....	....	03	....	0 68
Logan	..	..	....	....	....	20	....	....	....	..	T	T	.30	..	..	T	....	....	....	T	....	....	....	....	.39	....	....	T	....	....	....	0 89
Marshalltown	.	....	....	..	....	..	.37	01	....	....	.26	01	....	.09	....	09	.17	....	....	....	.02	.46	....	....	07	.17	....	....	....	05	....	1 77
Mason City	....	....	....	....	....	..	57	.	....	33	....	....	....	10	..	10	.15	....	....	....	.30	....	....	....	38	62	..	....	25	....	....	2 80
Mount Ayr	....	....	....	....	....	....	.15	....	....	T	T	T	.05	....	....	T	....	....	.08	T	.30	....	..	....	.75	.55	.	....	15	T	....	2 03
Mt. Pleasant	....	....	....	....	....	T	.12	....	....	.07	T	....	....	T	....	01	.14	....	07	T	.65	....	....	....	.81	.40	....	....	.14	.06	....	2.47
Mt. Vernon	....	....	T	..	T	..	09	T	..	20	T	..	....	T	..	10	.08	....	T	02	.52	....	....	....	1.00	.45	..	....	.10	.05	....	2.61
Muscatine	....	....	....	....	....	....	....	.01	....	....	.01	....	....	....	....	T	.28	....	....	T	.01	.78	....	....	T	1.24	....	....	....	04	....	2 34
Nevada	....	....	..	.	....	.	....	46	....	.14	....	....	....	.33	....	....	....	....	....	....	.43	....	....	....	1.46	....	....	....	....	....	....	2 82
New Hampton	....	....	....	....	....	02	27	T	..	T	....	....	....	.10	..	12	....	....	....	....	.79	..	....	....	.57	.65	....	....	.15	06	....	2 73
Newton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..
Northwood	....	..	..	..	....	..	.48	....	....	14	.02	....	....	.05	T	.25	20	....	....	....	30	....	....	....	.63	.50	....	....	.22	....	....	2.79
Odebolt	....	....	..	....	....	03	35	....	....	.07	..	....	.25	....	..	.05	..	..	....	....	..	....	....	....	.15	....	....	....	.07	....	....	0 97
Ogden	....	..	..	..	....	..	.23	....	....	10	..	..	T	35	..	.03	04	....	....	....	.10	....	....	....	.50	.34	....	....	.11	....	..	1 80
Omaha, Neb	..	T	T	. .	....	.07	....	....	....	....	T	....	.16	....	....	T	..	..	....	.05	T	....	....	....	.21	02	....	T	.01	....	....	0 52
Onawa	..	....	....	..	..	.08	08	..	....	..	..	..	.20	T	....	03	.07	....	..	....	....	....	....	....	.02	T	....	T	T	02	....	0 50
Osage	..	....	....	..	..	..	.62	....	..	.22	.01	....	....	13	....	11	29	....	....	....	.32	....	....	....	20	.70	....	....	.14	06	....	2 80
Oskaloosa	....	....	..	..	....	....	.05	..	....	.05	..	....	....	13	....	18	....	....	.22	....	.30	....	..	....	1 00	....	....	....	10	....	....	2 03
Pacific Junction	....	....	....	....	....	....	....	....	....	....	..	....	.26	....	....	T	....	....	T	.15	....	.	....	....	.30	....	....	....	T	....	....	0 71
Pella	....	..	....	..	..	..	10	....	....	.05	..	....	....	.14	..	T	22	....	....	06	.50	....	....	....	.77	51	....	....	18	....	....	2 53
Perry	....	....	....	....	..	..	15	T	....	05	T	T	T	.30	....	....	.10	....	....	.10	10	....	....	....	....	1 02	..	....	.19	....	....	2 01
Plover	....	....	..	....	....	.19	27	..	..	18	T	..	.30	....	....	.12	....	....	....	....	T	....	....	....	23	....	....	....	23	....	....	1 52
Pocahontas	..	....	....	..	....	....	44	....	..	11	....	....	....	26	....	.02	....	....	....	....	....	....	....	....	....	19	....	....	....	15	..	1.17
Preston	....	....	....	..	....	01	....	.09	..	28	.09	..	....	....	....	45	..	21	....	....	95	20	....	....	2.00	....	..	..	....	....	..	3 86
Ridgeway	....	....	....	.	....	.09	.24	.02	....	.05	.01	....	..	12	....	..	..	..	....	T	1 10	..	....	....	1 43	01	..	....	.17	....	....	3 69
Rock Rapids	....	....	....	....	....	T	30	....	....	24	....	.20	....	T	.05	T	....	....	....	....	....	....	....	....	....	T	....	T	....	....	....	0.79
Rockwell City	....	..	....	....	....	.35	....	....	..	20	T	....	.50	....	....	..	....	....	....	....	....	....	....	....	60	....	....	....	75	....	....	2 40

DAILY AND MONTHLY PRECIPITATION FOR NOVEMBER, 1906—CONTINUED.

STATIONS.	DAY OF MONTH.																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Fac City	...	...	...	...	...	20	.12	....	....	.05	T	.2(	....	..	...	....	...	...	...	T	..	...	...	...	.3(	...	...	T	.15	...	....	1 07
Saint Charles	....	..	..	...	....	..	.16	...	...	T	T	T	.05	.25	...	.62	..	..	T	.02	.26	...	...	..	.4:	...	...	...	22	.03	...	1.43
Sheldon	...	.20	.03	...	...	.05		...	...	.08	T	T	.50	..	....	.30	T	T	....	...	..	...	...	T	0(	01	...	...	.03	..	...	1 21
Sibley	...	...	.07	...	...	..	15	...	...	.04	T	...	...	.30	...	.31	.09	...	..	..	..	...	...	...	..	T	...	...	T	..	...	96
Sigourney	...	..	....	..	...	T	T	...		16	....	...	..	.07	...	.08	...	...	.03	.11	.80	..	...	...	1 5(	.42	...	...	.05	T	...	3.37
Sioux Center	....	.09	.	...	...	.03	...	...	....	.03	....	...	.20	..	...	.20	..	T	....	...	..	....	..	....	.	T	...	..	T	...	...	.55
Sioux City	....	.12	....	.	...	.16	.	..	...	.02	T	T	.25	...	....	.08	T	T	...		...	...	...	T	T	...	.02	T	...	...	.65
Storm Lake	...	..	....	..	...	.61	.20	...	..	.08	...	...	.09	..		.01	.03	...			...	...	...	...	.12	01	..	..	.20	..	....	1.35
Stockport	...	...	....	...	...	.02	.07	...	...	01	T	...	..	.01	T	.01	.10	..	.01	.01	.41	...	...	...	.6(	.33	...	....	.11	.03	...	1.79
Stuart	....	...	...	...	...	.	.35	.	...	.	...	..	.12	...	....	.01	....	...		...	.70	...		...	65		....	.13	.	...	...	1.96
Thurman	...	....	T	...	....	T	05	.	...	T	T	T	.12	...	....	.02	...	...	T	.02	T	....	...	...	...	38	...	....	T	T	....	.59
Tipton	...	...	....	...	....	...	.06	...	..	.04	...	...	.	..	. .	.26		...	....	..	.96	...	...	...	..	1.67	...	....	..		....	2.99
Toledo	...	...	....	...	...	...	.23	...	....	.24	..	...	...	.05	....	.36	...	...	...	.	60	...	..	...	.65	70	...	.	.30	.08	...	3 21
Wapello	....	....	....	....	...	...	26	...	..		.14	...	...	T	...	...	.10	...	.09	T	1 00	....	....	...	.77	.47	....	.13	....	..	....	2 96
Washington	...	...	T	...	..	.	.08	....	...	.03	T	...		...	. .	.	08	...	.01	.02	.74	..	...	...	1 25		....	...	.8	.03	...	2.32
Washta	.	T	T	...	.	.20	..	...	...	.03	...	...	.12	...	...	T	T	..	...	...	...	....	....	...	T		...	...	T	.	....	.35
Waterloo	...	...	...	....	T	.04	.17	...	...	.22	T	...		.04	...	.13	...	...	...	.09	.74	....	....	..	.61	57	...	...	.18	.15	...	2 94
Waukee	...	..	...	...	..	...	48	...		.02	T	...	T	.40	...	.15	...	....	...	T	.30	...	...	...	.65	.40	....	...	.30	.10	...	2.80
Waverly	...	....	...	....	T	.01	.20	..		.40	T	...	...	.04	...	.11	.15	...	...	.03	70	...	...	...	.76	45	...	....	.21	.04	..	3.10
Webster City	...	....	....	....	....	...	T	...	....	T	....	...	..	30	...	..	T		....	.	10	...	...	...	1.00	...	.11	...	.08	....	...	1 59
West Bend	....	....	...	...	....	.36	...	....	....	.20	.	..	.22	..	...	.06	.10	....	....	T	T	..	....	...	.30	...	...	....	16	..	....	1.40
Whitten	....	...	...	...	...	..	.67	....	..	T	T	...	...	.10	...	T	...	...	....	T	.50	...	..	...	50	...	...		.25	.15	...	2.17
Wilton Juct	....	...	...	...	...	.49	...	....	...	....	T	...	...	T	...	.39	...	...	..	.	.60	....	.03	..	1.32	...	....	....	.13	....	...	2.96
Winterset	...	....	...	...	....	T	.14	T	....	T	T	...	. .	.40	...	T	...	..	..	T	.30	...	...	...	.7(	53	...	....	18	..	..	2.28
Woodburn	...	....	....	...	..	...	T	T	..	T	T	...	..	.30		T	....	...	T	T	.60	...	...	..	...	1 32	....	...	.08	.	....	2 30
Zearing	...	.	...	...	....	.45	...	...	.35	T	...	...	.15	.	...	.35	..	...	....	...	.40	...	...	...	.7(		....	..	30	25	..	2.95



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR DECEMBER, 1906,

AND

ANNUAL SUMMARY FOR 1906.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1907

THE IOWA WEATHER AND CROP SERVICE

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Allerton	Rex Shriver
Alta	D. E. Hadden
Alta (near)	W. J. Minard
Alton	W. S. Slagle
Amana	Conrad Schadt
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Bonaparte	Hon. B. R. Vale
Boone	Carl Fritz Henning
Britt	G. P. Hardwick
Buckingham (Traer P. O.)	Dr. W. A. Daniel
Burlington	I. S. Shontz
Carroll	Frank Hughes
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Chariton	C. C. Burr
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Clarinda	A. S. Van Sandt
Clear Lake	Oscar Stevens
Clinton	Luke Roberts
College Springs	A. M. Finley
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Creston	Rev. W. L. Gaston
Cumberland	Agent C., B. & Q. R'y
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Delaware	Wm. Ball
Decorah	F. H. Baker
Denison	W. C. Van Ness
Des Moines	*Geo. M. Chappel
De Soto	R. D. Minard
Dows	H. A. Flett
Dubuque	*James H. Spencer
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Elkader	Chas. Reinecke
Elliott	Henry Barnes
Estherville	A. O. Peterson
Fayette	R. Z. Latimer
Forest City	J. A. Peters
Fort Dodge	Tobin College
Fort Madison	Miss L. A. McCready
Galva	F. H. Schleiter
Gilman	Jas. L. Wylie
Grand Meadow (Postville P. O.)	F. L. Williams
Greene	J. L. Cole
Greenfield	J. G. Culver
Grinnell (near)	A. O. Price
Grundy Center	W. H. Scott
Guthrie Center	D. G. Beardsley
Hampton	E. C. Grenelle
Hancock	W. Armstrong
Harlan	C. A. Reynolds
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Humboldt	H. S. Wells
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Inwood	F. D. Hanson
Iowa City	Prof. Karl E. Guthe
Iowa Falls	J. B. Parmelee
Jefferson	Geo. W. Jackson
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Keosauqua	J. A. Landes
Knoxville	Casey & Bellville
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Logan	Glenn H. Stern
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Perry	J. A. Harvey
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Pocahontas	F. E. Hronek
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Ridgeway	Arthur Betts
Rock Rapids	W. C. Wyckoff
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Weldon	Ed Worden
Winterset	H. A. Kinsman
West Branch	Wrigley Smith
West Union	H. B. Blackman
Woodward	George Swisher

U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

CENTRAL OFFICE: WASHINGTON, D. C.

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

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VOL. XVII. DES MOINES, IOWA, DEC., 1906. NO. 12

DECEMBER WEATHER AND CROPS.

December was slightly warmer than usual, the daily mean temperature for the state being 2.7° above the normal. It was, on the whole, a pleasant and comfortable winter month, with nc protracted periods of cold weather. The precipitation was slightly above the normal, and the largest part of it was in the form of rain. There was an excess of cloudiness, but there was less than the usual number of severe storms. Conditions were generally favorable for finishing the work of husking corn, and the other usual farm operations. Winter wheat and rye were not exposed to harm, and these crops were in fair condition at close of the month.

CLIMATOLOGY OF THE MONTH.

TEMPERATURE.—The monthly mean temperature for the state, as shown by records of 116 stations, was 25.7°, which is 2.7° above the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 23.5°, which is 3.5° above the normal; Central section, 24.2°, which is 1.1° above the normal; Southern section, 29.5°, which is 3.9° above the normal. The highest monthly mean was 31.6° at Keokuk, and the lowest monthly mean was 19.9° at Elkader. The highest temperature reported was 65° at Allerton, Chariton, Corydon and Clarinda on the 5th and 12th. The lowest temperature reported was -9° at Washta on the 18th. The average monthly maximum was 50.3°, and the average monthly minimum was -2.7°. The greatest daily range was 43° at Iowa City, Keosauqua, Mount Pleasant and Stockport. The average of greatest daily ranges was 32.6°.

PRECIPITATION.—The average precipitation for the state, as shown by records of 113 stations was 1.43 inches, which is .18 of an inch above the normal. By sections the averages were as follows: Northern section, 1.12 inches, which is .07 of an inch above the normal; Central section 1.47 inches, which is .13 of an inch above the normal; Southern section, 1.71 inches, which is .34 of an inch above the normal. The largest amount reported was 2.81 inches at Independence. The least amount reported was .37 of an inch at Estherville. The greatest daily rainfall reported was 2.15 inches, at Bloomfield, on the 30th. The average number of days on which .01 inch or more was reported was 6.

WIND AND WEATHER.—The prevailing direction of the wind was northwest. The highest velocity of wind reported was 47 miles per hour, from the northwest, at Sioux City on the 13th. The average number of clear days was 11; partly cloudy 7; cloudy days 13.

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	30.18	30.71	23	29.59	30
Davenport	30.18	30.16	18	29.42	30
Des Moines	30.18	30.71	18	29.54	5
Dubuque	30.20	30.72	18	29.44	30
Omaha, Neb.	30.18	30.70	18	29.58	5
Keokuk	30.20	30.70	23	29.50	5
Sioux City	30.18	30.67	1	29.64	5
Means	30.19	30.72	18	29.42	30

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	6718	32	NW	7
Davenport	5815	29	NW	6
Des Moines	6250	31	NW	6
Dubuque	5483	24	NW	6
Keokuk	5696	23	SW	13
La Crosse, Wis	5954	24	N	23
Omaha, Neb	6981	36	NW	6
Sioux City	9966	47	NW	13

OBSERVERS' NOTES.

AFTON.—*N. W. Rowell.* An unusual month; temperature high; no snow or wind; compares with month of October back in the sixties.

ALTA.—*David E. Hadden.* The month was pleasant; no snow fell, except light flurries on the closing days.

ALTON.—*W. S. Slagle.* A fine month to finish corn picking; about five per cent of corn still in field. Bees were out on the 2d.

AMANA.—*C. Schadt.* December was mild with a few cold days, was mostly dry and the roads were good. Total snowfall about five inches.

BONAPARTE.—*B. R. Vale.* Precipitation, 2.20 inches. A mild month; only reached zero once.

BRITT.—*Geo.P. Hardwick.* First half excessively cloudy; latter half favorable for finishing corn husking.

CHARITON.—*C. C. Burr.* No severe storm during December, and very little snow.

CLINTON.—*Luke Roberts.* Rainfall 2.05; .20 of an inch above the normal; excessive cloudiness.

DESOTO.—*R. D. Minard.* Not a flake of snow till the 20th; then a trace, and again on the 31st.

ELKADER.—*C. Reinecke.* Total precipitation for 1906, 38.02 inches; total snowfall, 41.50 inches. The highest temperature of the year was 96°, and the lowest 25° below zero. Mean temperature, 45.5°.

FOREST CITY.—*J. A. Peters.* The "oldest inhabitant" never saw a finer December. Even the "tourist" delayed his annual California trip, and the farmer smiles because his haystacks are still in evidence.

GRINNELL.—*A. O. Price.* Precipitation about normal. Lowest temperature, 3° below zero. But little snow, and the month was favorable for farm work.

INWOOD.—*F. B. Hanson.* Fine weather prevailed the greater

CLIMATOLOGICAL DATA FOR DECEMBER, 1906.

CENTRAL SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIPITATION IN INCHES				SKY				Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)	Number of rainy days	Number clear days	Number partly cloudy days	Number cloudy days		
Amana	Iowa	721	27	27.4	†5.4	49	13	-2	23	30	2.23	†.74	1.53	5.5	5	6	10	13	NW	
Ames	Story	926	22	27.0	*5.2	51	28	-5	18	36	.70	-.32	.61	.8	4	18	6	7	N	
Audubon	Audubon	1,301	10	27.0	†3.9	50	28	-6	18	36	1.07	-.18	.44	.0	5	7	7	17	S SW NW	
Baxter (a)	Jasper	998	6	26.4	†4.0	49	13	-4	18	32	1.41	†.45	.70	1.5	5	8	9	14	NW	
Belle Plaine	Benton	828	14	23.8	-0.2	47	13	-3	26	24	2.22	†.73	1.35	6.9	8	7	10	14	NW	
Boone	Boone	1,134	2	24.5	.....	50	28	-2	18	38	1.32	.....	.60	.5	5	14	4	13	N	
Buckingham	Iowa	.....	6	.....	.....	.....	.....	.....	.....	.....	1.71	†.71	1.03	.....	3	4	18	9	.....	
Carroll	Carroll	1,265	16	24.0	†1.0	51	28	-5	18	40	1.04	-.04	.53	T	4	13	5	13	.....	
Clinton	Clinton	593	36	28.6	†3.5	48	14	3	23	36	2.05	†.24	1.56	1.0	8	4	11	16	SE	
Cedar Rapids	Linn	723	25	26.0	†0.7	48	13	-3	24	33	1.47	-.14	1.00	3.8	4	7	11	13	S	5
Davenport	Scott	606	35	29.2	†1.4	54	14	4	23	30	1.61	-.12	1.09	0.6	9	5	7	19	NW	
Delaware	Delaware	1,083	13	24.3	†3.1	44	2	-1	23	28	1.52	†.00	.89	3.0	4	10	9	12	NW	
Des Moines	Polk	861	27	28.1	†1.3	52	13	1	18	30	1.46	†.02	.95	0.6	6	6	8	17	NW	
De Soto	Dallas	866	6	28.4	.....	52	13	-5	18	33	1.14	.....	.72	T	3	13	2	16	NW	
Dubuque	Dubuque	698	33	26.9	†1.0	45	13	3	7	28	2.04	†.23	1.46	0.6	10	7	6	18	NW	
Fort Dodge (a)	Webster	1,126	7	23.4	.....	47	28	-4	18	40	1.21	.....	.61	0.5	3	.....	.....	.....	S	
Galva	Ida	1,290	10	25.2	†3.6	46	2	-6	18	32	.86	†.62	.54	.0	2	13	8	10	S	
Gilman	Marshall	1,052	8	.....	.....	.....	.....	.....	.....	.....	.42	-.48	.32	1.0	2	14	7	10	S	
Grinnell	Poweshiek	1,023	11	26.0	†.18	48	13	-3	18, 23	28	1.73	†.44	1.05	2.2	7	11	3	17	SE	
Grundy Center	Grundy	976	13	26.0	†3.8	48	13, 14	-4	18	30	1.70	†.45	.90	.....	3	15	2	14	S	
Guthrie Center	Guthrie	1,077	8	27.8	†6.5	49	13, 28	-6	18	34	.98	-.29	.50	T	4	15	3	13	NW	
Harlan	Shelby	1,192	7	26.8	†4.6	52	28	-7	18	39	1.23	†.16	.44	T	5	7	7	17	NW	4
Independence	Buchanan	921	40	23.8	†2.1	42	2, 28	-5	23	30	2.81	†1.33	2.00	6.0	4	15	5	11	S NW	
Iowa City	Johnson	683	45	26.5	†2.4	48	3, 8, 13	-2	23	43	1.64	-.02	.79	3.0	6	11	5	15	S W NW	
Iowa Falls	Hardin	1,170	11	23.6	†3.1	45	26	-5	18	31	1.54	†.38	.83	1.5	6	16	2	13	SW NW	
Le Claire	Scott	576	.....	.....	.....	.....	.....	.....	.....	.....	1.52	.....	.81	0.5	10	8	8	15	SW NW	
Little Sioux	Harrison	.....	.....	28.4	.....	53	28	-3	18	37	.88	.....	.69	.0	5	12	6	13	SE	
Logan	Harrison	928	37	27.6	†2.7	51	12	-2	18	29	1.36	†.01	.58	0.5	5	6	18	7	NW	
Marshalltown	Marshall	947	11	24.1	-1.4	48	13	-4	18	38	1.23	-.25	.50	2.0	5	.....	.....	.....	NW	
Mt. Vernon	Linn	847	37	26.4	†2.3	46	13	-4	23	31	1.95	†.29	1.00	3.7	7	14	3	14	.....	
Muscatine	Muscatine	.....	47	.....	.....	.....	.....	.....	.....	.....	1.74	-.54	.68	0.7	6	7	8	16	S	
Nevada	Story	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.14	.....	.58	T	2	14	11	6	.....	
Odebolt	Sac	1,356	7	26.7	†5.4	49	28	-5	18	31	.85	-.25	.45	.....	2	15	6	10	.....	
Ogden	Boone	1,058	10	26.8	†3.4	49	13	-3	18	30	1.05	†.04	.57	T	2	12	4	15	NW	
Olin	Jones	760	7	27.4	†4.6	46	13	2	23	27	1.54	†.08	.95	2.2	5	9	5	17	E	
Onawa	Monona	.....	6	27.4	†3.0	49	28	0	18	32	1.03	-.05	.55	0.5	5	12	2	17	SE NW	
Perry	Dallas	975	6	27.2	.....	50	13	-4	18	32	1.21	.....	.80	0.2	5	.....	.....	.....	SE	
Preston	Jackson	975	.....	27.4	.....	46	14	2	23, 24	27	2.37	.....	1.65	1.0	4	9	4	18	SE	
Rockwell City	Calhoun	.....	9	26.1	†5.2	45	3,4,12,13	-3	18	31	.....	.....	.....	.....	.....	16	4	11	.....	
Sioux City	Woodbury	1,135	15	25.0	-2.8	50	2	2	18	28	.99	†.11	.50	0.6	5	6	7	18	NW	
Stuart (a)	Guthrie	.....	7	26.0	†5.2	53	13	-2	18	40	1.43	†.70	.81	.0	3	6	5	20	S	
Tipton	Cedar	807	8	28.0	.....	46	13	3	23	28	1.86	-.04	1.39	T	2	12	5	14	NW	
Toledo	Tama	856	10	26.6	.....	49	13	-3	23	29	1.62	†.48	.97	1.5	4	12	5	14	SE	
Waterloo	Black Hawk	862	17	26.2	†5.1	46	2, 4	-5	23	29	2.10	†.96	1.40	.....	3	9	9	13	NW	
Waukee	Dallas	1,039	4	28.0	.....	51	13	-4	18	36	2.02	.....	1.50	2.0	5	13	1	17	NW	
Webster City	Hamilton	.....	.....	25.9	.....	48	26	-7	18	30	.96	.....	.50	T	2	11	11	9	NW	
Whitten	Hardin	1,036	6	25.5	†6.2	47	13	-5	18	32	1.70	†.53	1.00	2.0	5	12	7	12	SE	
Wilton Junction	Muscatine	683	9	28.9	†3.3	48	13, 14	2	22	30	1.75	†.30	1.42	.0	2	13	4	14	SW	
Zearing	Story	718	3	26.8	.....	54	4	-5	18	36	1.38	.....	.80	0.4	3	9	5	17	SW	
Average		.....	.....	24.2	†1.1	46.3	.....	-2.5	.....	.....	32.4	1.47	†.13	.....	1.3	5	11	7	13	NW	

part of December. A finer Christmas has not been known here. Corn husking was completed late on account of bad weather in previous month.

LARRABEE.—*H. B. Strever.* A very mild month. Corn husking was completed about Christmas.

LEON.—*Morris Gardner.* Ground was very dry up to the 30th. There was very little snow during the month. The temperature was nearly 6° above the normal.

RIDGEWAY.—*Arthur Betts.* One of the mild Decembers, with much damp, cloudy weather and south winds; 122 hours of sunshine, or 44 per cent; ground froze up on the 6th, and there were wild flowers and grass as green as in June. Twenty days of thawing temperature.

THE YEAR 1906.

CLIMATOLOGICAL DATA COMPILED AT RIDGEWAY, WINNESHIEK COUNTY, IOWA.

Mean annual temperature, 47.8°.
Mean daily maximum temperature, 58.6°.
Mean daily minimum, 37.0°.
Total waterfall, 44.33 inches.
Total snowfall, 49 inches.
Hours of thawing tempetature, 6335, or 72 per cent.
Prevailing direction of the wind, south.
Number of clear days, 160; cloudy days, 73; fair days, 132.
Latest frost in spring, May 7; earliest frost in fall, October 10; frostless period 155 days.
Total number of windstorms, 9.
Number days below zero, 12.
Solar rainbows were observed on 19 days, and time of total continuance was 390 minutes.

HOURS OF FOG AT RIDGEWAY.

Year	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Dec.	Annual
1900	112	43	24	14	19	0	0	0	18	29	107	69	435
1901	59	0	39	0	0	0	0	0	9	9	17	85	218
1902	64	16	17	18	18	8	0	19	26	12	52	27	277
1903	52	22	123	22	10	0	24	61	26	17	17	6	383
1904	15	97	28	0	4	0	6	6	15	7	8	36	225
1905	23	80	174	49	0	15	17	46	60	5	0	12	481
1906	112	23	55	41	30	19	0	26	32	15	61	176	580
Average	62	40	66	19	12	6	7	23	27	13	37	59	371

ARTHUR BETTS.

CLIMATOLOGICAL DATA FOR DECEMBER, 1906—Continued.

NORTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIPITATION IN INCHES				Number of rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
Algona	Kossuth	1,213	30	23.4	†3.1	45	2	-6	18	31	.80	-.25	.38	0.5	3	15	4	12	SE NW	
Alta	Buena Vista	1,513	13	23.1	†2.3	46	2	-4	18	29	.85	-.18	.52	0.2	6	10	11	10	S	
Alta (near)	Buena Vista	.....	.....	.....	.....	.....	.....	.....	.....	.....	.82	.....	.45	.....	4	.....	.....	.....	.....	
Alton	Sioux	1,305	.....	24.9	.....	49	2	-2	18	31	.69	.....	.48	1.5	3	17	0	14	NW	
Britt	Hancock	1,236	7	23.4	†6.3	45	29	-6	18	32	.78	-.01	.44	.8	4	8	13	10	NW	
Charles City (‡)	Floyd	1,015	19	22.6	†1.6	46	2	-9	23	31	1.22	-.14	.66	4.5	6	5	6	20	SE	
Clear Lake	Cerro Gordo	1,241	7	23.6	†5.0	40	2,4,26,28	-3	18	26	.97	†.32	.60	1.3	4	20	0	11	N	
Decorah	Winneshiek	875	10	23.8	†3.4	44	2	-5	23	28	2.02	†.66	.85	6.0	7	.....	.....	.....	.....	
Dows (a)	Wright	1,142	6	24.3	†4.5	46	26, 28	-6	18	30	.68	-.21	.54	0.8	3	.....	.....	.....	NW	
Elkader	Clayton	727	23	19.9	-1.7	45	28	-7	6, 7	33	2.05	†.12	1.40	3.5	4	12	4	15	SE	
Estherville	Emmet	1,298	9	20.9	†4.5	50	2	-8	18	40	.37	-.22	.22	T	2	11	0	20	NW	
Fayette	Fayette	1,003	16	23.7	†2.3	45	2	-8	23	29	2.64	†1.21	1.57	6.2	5	10	6	15	NW	
Forest City	Winnebago	1,226	10	20.8	†1.4	46	2	-5	18	35	.50	-.41	.20	1.0	6	11	3	17	E	
Grand Meadow	Clayton	1,180	13	23.3	†1.8	42	2	-2	7	27	1.96	†.40	.85	4.0	5	8	6	17	NW	
Hampton	Franklin	1,155	14	24.2	†3.3	47	4, 28	-4	18	29	1.52	†.20	.50	1.4	7	8	11	12	NW	
Humboldt	Humboldt	1,095	12	25.7	.....	46	2	0	23	32	.62	-.14	.42	.0	2	13	1	17	SE NW	
Inwood	Lyon	.....	3	23.3	.....	47	28	-4	18	31	.76	.....	.48	1.0	5	12	5	14	S	
Larrabee	Cherokee	1,266	15	24.2	†2.3	49	2	-5	18	30	.40	-.67	.19	T	4	10	13	8	SW	
Le Mars	Plymouth	1,224	8	24.6	†3.1	48	2	-4	18	29	.98	-.11	.50	T	2	10	7	14	S	
Mason City	Cerro Gordo	1,132	10	25.0	†4.6	47	2	-2	23	24	1.40	†.74	.48	3.0	5	9	11	11	NW	
New Hampton	Chickasaw	1,169	6	22.4	†4.5	43	2	-5	15	25	1.36	†.69	.70	4.0	4	17	5	9	NW	
Northwood (a)	Worth	1,222	8	22.6	†3.5	46	2	-4	7, 18	31	1.36	†.45	.36	6.1	7	12	8	11	NW	
Osage (a)	Mitchell	1,184	13	22.8	†3.7	43	2	-4	7, 18, 23	24	1.55	†.27	.60	4.1	7	9	6	16	S	
Plover	Pocahontas	.....	7	24.2	†4.3	48	4	-6	18	30	.59	-.16	.22	T	4	13	2	16	S	
Pocahontas	Pocahontas	.....	3	25.2	.....	47	2, 28	-3	18	29	.70	.....	.43	T	3	16	4	11	S	
Ridgeway	Winneshiek	1,215	8	24.4	†3.2	48	28	-3	7	30	2.37	-.13	1.39	6.2	8	9	9	13	S	
Rock Rapids	Lyon	.....	9	21.5	†1.8	50	29	-6	16	28	1.05	†.44	.50	3.0	3	.....	.....	.....	.....	
Sheldon	O'Brien	1,422	6	25.4	†6.4	50	28	-6	18	35	.60	-.30	.30	.5	5	12	7	12	S	
Sibley	Osceola	1,212	10	21.0	†1.9	53	2	-5	18	42	.99	†.13	.45	0.8	4	.....	.....	.....	NW	
Sioux Center	Sioux	.....	7	24.0	†4.3	47	10	-4	18	29	1.12	†.24	.55	2.0	5	12	2	17	S	
Storm Lake	Buena Vista	1,440	9	23.4	†3.2	47	28	-6	18	35	.77	-.15	.51	1.5	8	13	5	13	N S	
Washta	Cherokee	1,157	9	25.6	.....	50	28	-9	18	35	.60	-.57	25	.0	3	9	9	13	S	
Waverly	Bremer	942	8	26.1	†5.4	45	30	0	18	30	1.94	†.86	1.02	4.7	6	.....	.....	.....	.....	
West Bend	Palo Alto	1,197	10	23.7	†3.8	45	2	-7	18	30	.81	-.18	3.5	T	4	8	9	14	.....	
Average	.....	.....	.....	23.5	†3.3	46.5	.....	-4.8	.....	30.5	1.12	†.07	.....	2.1	5	12	6	13	NW	

SOUTHERN SECTION.

Afton	Union	1,212	11	29.6	†4.8	59	13	-2	18	34	1.85	†.57	1.18	T	4	9	8	14	SW	
Albia	Monroe	959	8	27.6	†4.2	64	5	-1	18, 23	41	1.97	†.97	.77	1.0	6	11	4	16	SW	
Allerton	Wayne	.....	4	31.0	.....	65	5	0	18	39	1.89	.....	1.35	0.5	5	12	5	14	NW	
Atlantic	Cass	1,164	13	28.2	†5.7	55	5	-4	18	40	1.30	-.08	1.00	T	2	6	5	20	S NW	
Bedford	Taylor	.....	6	30.1	†6.9	61	13	-4	18	35	1.33	†.41	.80	0.2	5	13	4	14	NW	
Bloomfield	Davis	.....	.....	30.0	.....	63	5	0	23	34	2.55	.....	2.15	1.5	4	6	9	16	NW	
Bonaparte	Van Buren	.....	12	29.7	†1.9	59	5	-1	23	39	2.20	†.75	1.60	1.3	5	.....	.....	.....	.....	
Burlington	Des Moines	544	8	29.3	.....	59	5	3	23, 24	36	2.19	.....	.72	.....	8	11	7	13	NW	
Chariton	Lucas	1,042	9	30.1	*4.5	65	5	-1	18	37	1.60	†.08	.90	T	3	10	7	14	NW	
Clarinda	Page	1,009	14	28.9	†2.4	65	12	-1	18, 19	40	1.22	-.02	1.00	T	3	8	13	10	S	
College Springs (a)	Page	.....	12	30.6	†3.6	61	13	-1	18	31	1.50	-.09	.75	.0	3	12	13	6	NW	
Columbus Junction	Louisa	595	5	29.8	†4.8	55	14	2	23	34	2.01	†.52	1.32	1.5	4	8	14	9	SE	
Corning	Adams	1,117	12	29.2	†2.0	56	5, 13	-3	18	31	1.35	†.11	1.08	T	2	7	12	12	NW	
Corydon	Wayne	1,101	11	31.4	*5.6	65	5	0	18	33	1.77	†.15	1.38	T	5	10	7	14	NW	
Creston	Union	.....	2	27.6	.....	57	13	1	19	37	.87	.....	.65	.0	3	12	4	15	SE	
Cumberland	Cass	.....	7	.....	.....	.....	.....	.....	.....	.....	2.00	†1.04	.92	.0	3	21	5	5	S	
Earlham	Madison	.....	5	28.8	.....	55	6	-4	18	35	1.26	.....	.69	T	4	9	6	16	.....	
Elliott	Montgomery	.....	2	28.6	.....	54	5	-2	18	34	.39	.....	.24	.0	3	13	8	10	S NW	
Fort Madison	Lee	516	53	.....	.....	.....	.....	.....	.....	.....	1.68	-.32	1.10	2.0	5	6	5	20	N	
Greenfield	Adair	.....	13	28.0	†3.5	56	5, 13	-5	18	33	1.59	†.24	.66	T	4	11	10	10	S SW NW	
Hancock	Pottawattamie	.....	1	28.6	.....	54	5	-1	18	31	.95	.....	.47	T	3	14	1	16	N	
Hopeville	Clarke	.....	13	29.8	†4.3	60	5, 13	-1	18	31	1.77	†.66	1.03	T	5	5	12	14	S	
Indianola (a)	Warren	969	15	28.6	†3.4	55	13	-1	18	34	2.40	†.99	1.34	0.2	7	14	2	15	SE	
Keokuk	Lee	614	35	31.6	†1.8	62	5, 13	4	23	33	1.90	-.06	1.10	T	8	7	9	15	NW	
Keosauqua	Van Buren	644	12	29.1	†2.1	61	5	-1	23, 24	43	2.29	†.75	1.50	2.0	8	6	7	18	.....	
Lacona	Warren	.....	7	.....	.....	.....	.....	.....	.....	.....	2.54	†.89	1.29	2.0	5	11	14	6	.....	
Lenox	Taylor	1,250	5	29.6	†5.4	58	*13	-2	18	32	1.48	†.20	.93	T	4	16	6	9	NW	
Leon	Decatur	1,120	5	31.0	.....	62	5	1	18	37	1.63	.....	1.00	T	4	14	5	12	NW	
Massena	Cass	.....	.....	27.7	.....	55	5	-5	18	31	1.51	.....	.81	T	4	9	9	13	SE S	
Mt. Ayr	Ringgold	1,236	10	30.0	†5.4	61	13	1	17	35	1.48	†.16	.70	0.5	6	8	10	13	NW	
Mt. Pleasant	Henry	729	22	30.0	†4.2	58	5	1	23	43	2.41	†1.20	1.66	1.4	8	7	10	14	SE NW	
Omaha, Nebr	Douglas	1,105	34	29.0	†2.3	54	28	6	18	31	1.26	†.25	1.08	T	4	4	9	18	S	
Oskaloosa	Mahaska	843	20	28.6	†2.8	52	13	-2	23	32	1.41	†.13	1.00	.8	5	10	0	21	NW	
Ottumwa	Wapello	649	10	29.6	.....	55	13	3	23	28	.....	.....	.....	.....	.....	7	7	17	.....	
Pacific Junction	Mills	960	7	29.2	†4.4	54	5, 12, 13	-2	18	38	1.19	†.23	.87	T	3	7	15	9	N	
Pella	Marion	.....	4	29.1	.....	54	14	2	18, 23	32	1.64	.....	1.20	T	4	11	6	14	SE	
St. Charles	Madison	1,070	4	30.8	.....	62	28	-2	18	40	2.15	.....	1.24	.3	6	11	7	13	NW	
Sigourney	Keokuk	877	7	28.8	†3.9	50	13	-1	23	32	2.38	†.97	1.35	3.8	7	1	17	13	E	6
Stockport	Van Buren	.....	5	30.0	.....	60	5	-2	23	43	2.20	.....	1.60	1.0	5	8	6	17	S	
Thurman	Fremont	.....	8	29.6	†6.4	56	5	-2	18	31	.51	-1.27	.51	T	1	5	11	15	NW	
Wapello	Louisa	588	6	30.0	†3.0	54	14	3	23	30	1.64	†.30	.88	1.0	5	8	9	14	SE	
Washington	Washington	769	22	28.4	†4.4	53	13	-2	23	31	2.35	†.88	1.74	6.9	6	.....	.....	.....	NW	
Winterset	Madison	1,129	13	29.4	†4.2	56	5	-1	18	34	2.22	†.85	1.56	T	3	10	6	15	SE NW	
Woodburn	Clarke	961	7	31.0	.....	63	5	0	22	31	2.05	†.79	1.70	T	3	6	6	19	NW	
Average	.....	.....	.....	29.5	†3.9	58.1	.....	-0.7	.....	34.8	1.71	†.34	.....	0.7	7	9	8	14	NW	
State average	.....	.....	.....	25.7	†2.7	50.3	.....	-2.7	.....	32.6	1.43	†.18	.....	1.4	6	11	7	13	NW	

‡ Received too late to be computed with means. (a) One day missing; (b) two days, etc.
† or * indicates plus.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF DECEMBER, 1906

STATIONS		DATE																														MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	max.	40	46	41	44	57	48	23	42	36	30	34	49	59	51	27	41	32	25	38	33	33	25	27	31	40	50	47	47	40	34	34	38.8
	min.	25	24	30	28	40	14	6	16	25	23	23	30	41	17	11	16	7	-2	13	29	20	11	8	15	18	22	19	19	28	32	24	20.4
Albia*	max.	33	43	41	45	64	28	22	50	31	28	37	51	58	28	26	42	20	27	38	33	28	24	25	25	32	50	30	49	34	34	32	35.7
	min.	25	23	32	29	31	27	5	9	20	28	23	24	36	25	15	12	12	-1	1	28	21	10	-1	5	18	20	25	21	22	33	31	19.6
Algona	max.	32	45	37	42	35	33	16	31	25	25	33	39	36	35	25	27	18	21	35	34	26	19	27	26	37	39	29	42	44	33	33	31.6
	min.	9	21	27	26	31	2	-2	14	15	15	16	27	31	12	5	14	0	-6	15	21	14	5	0	17	15	24	11	17	25	31	19	15.2
Allerton	max.	41	44	42	46	65	55	20	52	35	30	33	49	60	57	28	41	34	28	38	34	32	27	30	28	42	50	44	51	41	34	33	40.1
	min.	27	24	33	28	42	16	7	17	28	24	23	32	42	23	13	18	10	0	15	28	22	11	1	17	24	25	23	19	28	32	29	22.0
Alta*	max.	29	46	32	43	34	11	17	33	24	23	34	35	33	17	23	27	10	25	36	34	24	23	27	29	37	38	31	45	38	32	20	29.4
	min.	13	25	26	27	30	10	0	15	14	16	17	30	29	7	4	15	1	-4	18	25	14	11	2	19	16	29	15	19	31	31	16	16.8
Alton	max.	32	49	44	41	36	35	24	30	25	36	25	42	36	35	27	26	20	25	34	33	27	29	34	41	40	40	33	44	41	39	34	34.1
	min.	14	20	23	26	32	4	2	11	11	14	11	17	32	8	5	13	2	-2	20	21	16	4	20	16	17	23	17	16	26	31	15	15.7
Amana	max.	34	42	43	46	41	40	19	40	32	32	33	45	49	47	26	41	30	25	36	33	30	24	21	25	32	39	38	35	33	36	33	34.8
	min.	19	21	31	27	37	10	4	18	24	27	25	29	37	24	12	14	12	1	15	25	22	6	-2	7	24	21	26	22	26	33	26	20.1
Ames	max.	35	46	43	43	41	40	19	38	29	30	34	45	49	50	27	37	25	24	48	34	29	25	28	26	39	48	42	51	35	35	36	36.5
	min.	17	23	30	23	36	8	3	16	23	18	17	24	35	17	9	12	6	-5	12	26	19	8	0	17	15	22	19	15	26	31	23	17.6
Atlantic	max.	39	48	41	44	55	38	23	42	30	29	36	50	51	33	25	39	24	28	38	35	30	27	29	33	44	45	40	54	37	35	34	37.3
	min.	25	24	25	26	36	11	7	16	23	21	20	31	33	15	11	9	8	-4	16	26	21	12	3	23	12	28	20	14	28	32	24	19.2
Audubon	max.	36	41	40	42	47	38	29	37	30	28	35	47	48	35	27	34	25	26	36	35	27	25	30	32	42	43	40	50	39	34	33	35.8
	min.	22	25	27	26	38	10	5	16	20	20	20	31	35	11	9	13	6	-6	16	27	18	12	1	18	10	26	16	14	22	32	22	18.1
Baxter	max.	35	45	41	42	41	40	17	40	33	29	33	43	49	48	25	38	23	24	33	34	33	24	25	18	-	-	21	18	25	29	24	35.2
	min.	17	24	29	26	36	8	2	15	23	22	20	26	37	18	8	8	8	-4	13	25	18	7	1	13	15	51	46	51	38	36	34	17.7
Bedford	max.	41	46	49	44	56	43	21	49	35	30	35	46	61	45	28	40	33	28	39	36	32	28	32	44	20	27	21	16	28	32	26	39.6
	min.	27	28	30	30	42	13	6	18	26	22	22	23	40	15	13	11	9	-4	14	29	21	13	1	19	20	39	38	36	34	34	30	20.6
Belle Pl'e	max.	35	41	40	46	36	26	10	34	27	27	30	42	47	27	22	20	12	25	32	26	24	12	10	16	31	39	36	34	34	30	22	29.6
	min.	19	25	30	26	34	10	3	10	20	24	22	20	35	25	10	12	-2	12	23	20	22	6	-3	10	16	20	22	20	22	26	22	18.1
Bloomfl'd	max.	43	40	39	43	63	47	20	51	36	32	33	49	59	56	27	40	34	27	37	33	32	23	23	25	33	46	43	48	37	36	34	38.4
	min.	25	23	31	28	40	13	6	18	29	25	24	31	46	26	14	17	12	2	15	26	22	10	0	14	22	19	23	23	27	32	29	21.7
Bonapa'e	max.	42	38	39	41	59	53	21	53	34	32	32	49	54	55	27	36	31	30	37	32	30	25	-1	10	25	41	39	44	32	36	34	37.3
	min.	23	21	30	27	39	14	7	20	30	28	26	32	47	26	15	13	4	15	24	24	10	25	25	25	40	45	34	50	34	32	30	22.1
Boone*	max.	36	45	42	42	40	21	18	38	28	25	36	46	47	26	24	35	14	24	38	33	27	25	4	17	18	18	29	43	45	33	32	33.0
	min.	18	17	31	28	31	21	2	5	18	20	12	23	33	11	8	10	6	-2	0	18	21	9	2	4	17	36	43	29	43	45	33	16.0
Britt	max.	34	44	38	44	36	33	21	31	26	26	32	39	37	36	27	27	16	22	34	31	25	17	3	16	17	22	11	13	25	31	18	31.9
	min.	10	20	26	26	31	1	-3	14	17	17	15	25	30	15	5	12	0	-6	13	20	14	3	0	16	17	33	39	34	43	38	37	14.8
Burl'g'n*	max.	36	38	43	43	59	32	28	54	34	33	36	50	58	36	26	34	16	9	11	19	25	12	3	3	17	23	24	26	26	28	33	36.6
	min.	28	23	31	29	29	32	7	8	28	31	28	27	36	35	18	16	12	3	16	19	25	21	26	29	44	42	35	51	37	33	27	22.0
Carroll*	max.	33	46	35	42	42	18	21	37	26	23	36	49	60	57	24	41	24	25	34	36	28	21	2	4	15	15	16	16	16	19	27	32.7
	min.	20	21	29	27	34	17	4	7	17	17	15	25	30	15	5	12	0	-6	13	20	14	3	0	16	17	33	39	34	43	38	37	15.4
Cedar R*	max.	32	43	41	45	39	30	24	38	31	31	33	36	50	36	26	34	16	16	30	32	25	19	29	27	34	40	21	21	24	24	26	33.2
	min.	22	19	32	28	28	29	5	5	23	24	25	24	31	33	12	10	14	3	14	17	24	10	-1	-3	16	21	42	51	40	34	33	18.7
Chariton	max.	40	48	41	43	65	50	19	48	37	30	34	48	61	57	29	42	35	25	38	33	27	25	27	29	37	38	31	45	38	32	20	39.5
	min.	24	22	30	27	40	18	6	16	30	23	22	30	42	20	12	15	10	-1	14	27	21	10	0	16	19	24	22	18	27	31	28	20.7
Clarinda*	max.	40	49	50	54	54	32	38	42	31	26	37	65	61	41	22	40	21	28	39	35	30	24	30	34	44	50	37	53	43	36	31	39.3
	min.	28	28	31	30	32	22	8	17	17	21	25	35	37	35	22	38	20	9	20	34	18	14	5	5	18	19	21	17	17	31	26	18.5
Clear La'e	max.	35	40	37	40	33	31	15	31	35	19	19	26	32	16	5	16	0	-3	14	22	16	2	20	21	10	15	25	12	18	25	18	31.6
	min.	11	20	30	25	30	5	3	10	18	18	33	35	47	46	48	30	38	31	31	34	34	31	26	24	29	35	38	38	39	34	38	15.7
Clinton	max.	31	38	41	41	40	40	22	41	41	33	35	47	46	48	30	38	31	24	34	34	25	11	3	5	24	20	31	27	25	34	28	35.8
	min.	20	23	29	25	36	13	7	17	26	29	28	29	34	27	15	16	15	9	14	35	31	29	37	36	37	51	45	48	37	37	33	21.5
College Sp	max.	40	48	47	48	57	39	25	47	35	29	37	53	61	36	29	40	30	-1	30	37	32	15	6	21	21	21	22	19	32	33	27	39.4
	min.	28	28	31	31	39	13	9	20	28	-	21	32	51	33	16	13	15	10	-1	15	26	24	15	26	29	35	40	40	42	35	36	21.7
Colum's J	max.	40	40	39	47	49	46	21	49	36	33	34	48	55	29	13	29	15	10	29	33	30	24	21	25	32	39	38	35	33	36	33	37.6
	min.	23	22	31	28	39	12	6	19	26	35	29	35	50	38	28	39	17	14	28	34	33	26	27	31	41	49	44	49	36	35	33	21.9
Corning	max.	39	46	41	44	56	43	12	7	18	24	21	22	31	37	15	11	15	7	16	29	19	11	30	28	42	50	45	53	48	34	34	37.9
	min.	26	26	30	31	45	60	20	52	41	31	34	49	60	59	29	43	34	10	0	15	28	11	1	17	24	25	23	20	27	32	29	20.5
Corydon	max.	42	46	45	45	65	60	6	17	28	25	22	31	43	23	12	12	39	18	26	38	33	28	27	30	42	49	33	52	52	46	29	41.4
	min.	26	23	22	28	41	17	6	17	28	27	40	49	57	28	29	39	18	26	38	33	28	27	26	30	42	49	33	52	22	33	26	21.3
Creston*	max.	36	46	42	51	52	24	21	42	38	27	40	49	57	30	17	12	15	7	2	1	17	12	3	6	17	18	19	20	34	38	34	37.1
	min.	26	25	31	30	32	13	7	11	21	21	23	33	47	54	54	26	37	27	31	35	33	21	8	25	27	25	24	38	27	33	28	18.1
Davenp't	max.	34	37	42	46	43	39	9	22	44	34	27	29	27	33	37	40	26	15	21	14	10	19	23	33	27	38	37	38	19	38	34	35.7
	min.	23	26	29	29	37	35	33	14	30	28	27	32	37	37	36	22	32	19	25	33	25	20	5	-5	0	17	16	20	38	20	32	22.7
Decorah	max.	29	44	39	27	32	5	-2	13	20	23	22	30	33	18	8	15	4	30	25	31	31	30	20	22	25	31	36	36	21	34	28	31.2
	min.	12	24	28	27	32	5	15	35	30	28	30	40	41	40	25	7	13	8	0	10	21	16	7	-1	25	6	20	20	38	21	20	32.1
Delaware	max.	30	44	39	39	35	35	15	35	30	20	21	30	40	41	32	25	27	13	39	37	35	28	26	29	37	48	31	48	21	34	29	32.5
	min.	12	16	25	23	31	8	0	15	32	20	30	34	49	52	32	27	39	18	26	37	17	26	9	17	27	40	27	22	37	33	24	20.8
Des Mo's	max.	33	46	42	43	46	37	7	6	18	26	22	23	31	32	20	13	18	7	1	17	25	29	11	29	17	19	44	48	22	36	34	37.2
	min.	22	30	32	30	37	44	22	39	34	29	35	49	52	38	28	38	24	7	27	40	29	18	1	28	17	35	26	38	19	29	25	19.5
De Soto	max.	35	47	42	44	47	44	5	22	39	34	29	23	30	38	17	11	14	23	22	15	29	22	5	27	9	26	46	38	15	46	39	33.0
	min.	22	23	32	28	39	11	5	14	35	24	23	23	30	39	25	30	23	5	37	14	34	26	22	3	24	13	37	37	16	43	24	15.6
Dows	max.	31	45	40	44	39	35	14	-1	35	28	—	—	—	14	33	30	25	45	30	37	32	29	22	5	27	9	26	52	26	34	26	33.7
	min.	11	21	30	26	32	5	-1	20	13	19	30	26	30	33	16	12	24	12	37	18	39	21	9	26	10	22	7	26	17	39	21	20.1
Dubuque	max.	30	45	41	43	37	34	6	3	20	22	29	39	50	53	33	16	20	37	39	21	32	21	29	22	7	26	13	45	21	50	33	38.2
	min.	18	24	30	27	34	6	55	20	40	34	29	39	50	53	47	37	39	21	35	34	32	29	9	19	28	34	16	33	19	50	27	19.5
Earlham	max.	45	43	41	44	48	32	12	6	15	21	22	21	21	33	16	20	16	35	21	32	26	24	32	21	29	22	6	16	45	34	41	27.5
	min.	32	32	28	29	32	22	20	10	30	23	20	21	32	31	30	16	10	36	13	26	24	22	7	26	10	22	7	26	17	39	21	12.3
Elkader	max.	15	32	28	23	22	20	-7	-7	10	10	30	38	53	28	16	0	35	10	36	13	16	39	16	34	16	33	23	42	17	41	24	38.2
	min.	0	5	18	12	19	-7	37	20	30	30	10	29	48	53	35	13	36	25	8	19	36	27	30	20	24	37	20	24	13	27	20	19.0
Elliott	max.	45	47	47	47	54	37	11	7	17	24	20	18	18	34	13	11	26	19	8	27	16	35	20	31	28	15	28	31	13	39	31	30.4
	min.	25	27	29	29	33	7	20	29	25	24	11	35	39	35	21	28	19	-2	23	-5	34	15	6	18	4	16	2	22	8	23	12	11.4
Esth'rv'e*	max.	28	50	38	41	24	24	2	-5	2	12	27	12	31	22	9	35	4	21	7	25	5	25	19	3	26	9	20	40	18	37	20	31.5
	min.	7	10	25	24	35	33	5	23	36	26	27	31	40	26	18	23	7	25	5	30	7	29	14	32	15	35	11	39	13	37	15	15.9
Fayette	max.	37	45	38	40	35	32	33	0	15	26	20	24	35	23	15	25	5	-1	22	33	31	22	16	2	22	8	23	9	19	3	26	29.1
	min.	21	22	22	22	32	5	9	20	30	25	24	17	26	11	23	5	25	7	29	14	32	15	35	11	39	13	37	15	35	18	31	12.6
Forest C.*	max.	31	46	34	39	40	9	8	-4	1	18	26	16	35	17	43	32	30	7	29	14	32	15	4	22	8	23	9	19	3	26	9	31.1
	min.	8	11	29	26	29	8	15	18	34	26	26	35	43	24	17	35	22	11	4	19	3	22	4	28	5	26	7	29	4	26	0	15.8
Ft. Dodge*	max.	29	45	38	44	38	15	14	1	5	18	21	19	33	30	30	38	33	8	36	20	23	6	26	30	20	28	5	26	7	29	4	33.8
	min.	—	14	28	29	31	14	1	5	34	18	25	33	43	39	33	6	29	14	3	22	4	28	5	26	7	29	4	25	11	16	4	16.7
Galva	max.	33	46	41	43	40	36	24	2	34	17	26	36	38	30	20	6	20	6	23	32	15	36	19	3	26	9	20	5	24	4	25	30 3
	min.	15	24	29	26	34	6	32	13	32	36	22	23	30	38	32	15	32	4	28	5	26	7	29	4	25	11	16	4	19	3	22	16.3
Gr. Mead	max.	30	42	37	40	34	32	5	-2	13	33	22	23	30	20	46	33	9	23	5	26	15	36	18	38	12	30	15	36	24	31	25	37.8
	min.	11	17	27	25	32	42	23	38	33	22	30	35	48	34	20	6	23	9	26	20	25	19	3	26	9	20	5	24	4	25	11	18.3
Greenfl'd	max.	37	45	40	46	27	40	9	4	15	22	32	28	45	28	44	20	8	25	8	25	8	25	9	27	16	36	20	40	18	42	20	33.9
	min.	22	23	27	27	40	9	37	16	40	32	22	28	39	20	48	20	8	25	8	25	8	25	9	27	16	36	20	40	18	42	20	18.1
Grinnell*	max.	30	44	40	42	39	35	8	2	14	32	22	28	41	20	48	20	8	25	8	25	8	25	9	27	16	36	20	40	18	42	20	34.5
	min.	17	28	29	25	35	8	35	19	36	32	22	30	41	25	48	36	25	8	25	8	25	9	27	16	36	20	40	18	42	20	49	17.6
Grundy C.	max.	43	44	39	45	40	28	5	44	37	32	32	30	48	38	40	36	21	14	19	26	5	23	4	25	12	24	8	30	17	41	19	36.6
	min.	14	21	30	28	46	37	10	5	16	36	22	23	32	39	14	35	18	31	16	35	18	34	16	23	13	9	42	19	47	20	50	19.1
Guthrie C.	max.	36	45	42	45	37	10	33	15	36	26	20	28	40	32	18	8	25	9	27	14	35	16	4	24	0	27	4	32	27	39	32	31.9
	min.	21	24	29	27	47	36	4	0	15	20	23	25	35	20	40	25	13	6	30	11	15	31	18	35	16	3	24	0	27	4	25	16.6
Hampton	max.	35	45	36	47	36	33	10	24	40	32	28	41	49	41	32	25	13	8	0	10	21	16	7	25	31	20	20	48	21	34	29	37.0
	min.	10	21	31	27	32	4	38	10	19	22	20	31	39	32	18	7	27	13	39	37	35	28	16	27	17	40	19	44	22	37	33	20.2
Hancock	max.	36	47	42	43	54	38	10	7	19	32	30	34	49	52	32	27	39	18	26	37	35	28	26	37	40	48	31	48	22	29	33	35.4
	min.	24	29	30	31	38	10	7	19	32	30	34	49	52	32	25	7	13	8	0	10	21	16	7	-1	25	6	20	20	38	21	20	20.8

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF DECEMBER, 1906—Continued.

STATIONS		DATE																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Harlan ...	max.	43	46	40	41	48	37	25	39	30	27	33	48	47	33	27	36	24	27	37	34	28	24	28	35	45	42	39	52	38	35	33	36.2
	min.	22	23	28	26	37	8	5	16	21	18	16	28	33	10	9	11	5	-7	13	23	19	13	1	18	13	25	16	13	27	31	21	17.5
Hopeville	max.	40	46	41	43	60	43	21	45	34	29	33	49	60	43	29	42	25	27	38	34	33	27	30	30	42	50	44	51	35	34	33	38.4
	min.	26	25	31	28	42	13	7	18	26	23	23	32	41	19	13	16	8	-1	14	29	19	12	3	16	21	25	21	20	29	32	26	21.2
Indep'd'e	max.	33	42	38	41	35	34	14	36	28	30	30	39	41	38	24	34	28	24	34	30	30	21	20	21	28	38	38	42	32	33	32	31.9
	min.	5	12	20	22	22	8	1	14	20	22	20	25	32	20	10	10	9	-2	10	22	20	6	-5	9	20	18	22	20	23	30	20	15.6
Indianola	max.	36	45	40	42	48	46	20	38	34	30	34	48	55	—	26	40	26	21	37	34	32	24	25	26	40	49	45	45	40	34	33	36.4
	min.	23	24	31	28	39	12	6	18	26	23	22	31	44	19	12	18	9	-1	17	29	20	11	2	17	19	26	20	22	22	32	25	20.8
Inwood...	max.	29	42	39	41	33	31	22	30	21	25	35	39	35	34	28	27	15	22	32	29	26	22	26	32	43	40	32	47	39	37	31	31.7
	min.	9	19	23	25	30	4	-1	12	9	6	20	28	32	4	4	11	1	-4	20	13	16	12	4	21	17	27	14	16	26	30	13	14.9
Iowa City*	max.	33	42	48	47	40	29	25	48	33	30	32	46	48	31	24	42	20	29	37	32	27	15	29	25	36	40	32	44	35	36	33	34.5
	min.	21	20	32	26	27	29	4	5	22	26	26	25	32	30	12	12	13	2	2	15	24	7	-2	0	16	18	23	23	24	27	32	18.5
Iowa Falls	max.	31	43	37	44	37	21	18	34	27	25	33	41	42	25	23	31	14	22	35	32	26	15	21	23	32	45	31	42	35	34	26	30.5
	min.	14	25	26	26	29	20	0	3	20	21	20	21	32	21	7	12	5	-5	15	22	19	4	-3	12	16	25	20	18	25	28	24	16.8
Keokuk...	max.	36	38	41	46	62	46	22	53	39	34	36	53	62	56	30	34	27	31	38	33	29	27	24	26	33	43	41	41	34	39	36	38.4
	min.	29	27	33	30	40	16	9	20	32	29	27	33	48	30	17	21	19	11	18	23	24	12	4	18	23	27	31	26	28	33	31	24.8
Keosa'q'a	max.	40	40	39	44	61	43	35	51	43	32	44	51	59	34	28	37	30	29	37	33	29	22	22	26	34	41	30	45	37	37	35	37.7
	min.	28	21	32	24	28	31	8	8	24	30	26	32	26	31	16	15	16	5	4	18	24	12	-1	-1	19	21	26	26	26	29	32	20.5
Larrabee,	max.	31	49	40	43	38	33	22	33	25	25	32	42	38	31	25	27	13	25	35	32	26	23	22	31	42	39	32	45	42	34	31	32.5
	min.	12	24	26	27	33	5	1	16	13	16	18	29	30	7	5	12	2	-5	17	24	11	10	2	20	15	29	15	16	24	30	17	16.0
Le Mars ..	max.	31	48	40	40	37	35	24	31	25	25	35	42	38	30	28	27	11	25	32	30	25	22	26	34	40	40	32	43	40	38	32	32.5
	min.	14	23	27	28	33	7	4	17	11	10	19	29	30	7	6	10	4	-4	19	20	18	13	2	22	17	28	16	16	25	31	16	16.7
Lenox	max.	40	46	42	44	56	46	22	42	36	29	34	50	58	46	28	39	33	26	39	34	33	25	27	31	42	49	46	49	44	35	34	38.9
	min.	27	27	31	28	41	14	6	17	25	21	22	30	40	14	11	16	6	-2	13	28	19	11	3	16	18	25	19	18	28	31	24	20.2
Leon.....	max.	42	45	41	45	62	47	23	46	36	37	34	49	60	58	29	41	37	36	38	33	33	26	28	30	41	49	47	48	41	34	38	40.1
	min.	27	24	32	27	43	16	7	18	28	25	23	31	43	21	13	17	9	1	11	29	22	12	13	12	23	25	23	19	28	33	32	21.8
Lit. Sioux	max.	36	49	47	45	49	38	25	39	33	29	36	50	48	32	33	35	27	28	35	35	29	26	28	37	44	43	37	53	43	40	35	37.5
	min.	20	27	25	32	37	10	4	16	18	14	20	31	31	10	6	17	7	-3	20	19	21	13	8	23	21	31	16	16	34	32	21	19.3
Logan	max.	42	47	40	42	48	37	26	40	33	28	34	51	45	29	28	35	28	27	37	36	29	27	27	36	44	41	38	50	39	38	28	36.5
	min.	28	22	30	31	32	9	6	18	21	18	19	28	27	11	8	14	7	-2	15	21	21	14	3	21	17	28	19	11	29	32	19	18.6
Mars'll'n*	max.	32	43	46	46	39	24	21	39	29	27	34	44	48	27	23	35	17	23	36	33	28	15	21	24	34	46	29	44	34	34	29	32.4
	min.	17	15	29	26	28	23	2	4	18	23	21	22	32	23	8	8	8	-4	-2	17	20	5	-3	-2	17	20	23	20	21	25	27	15.8
Mason C'y	max.	33	47	40	42	37	34	13	34	25	23	32	40	38	35	24	24	20	23	35	34	32	22	20	25	29	44	38	41	40	36	32	32.0
	min.	11	23	32	28	34	5	0	13	20	20	20	30	35	20	8	20	3	0	17	27	19	3	-2	14	18	22	15	21	27	32	22	18.0
Massena..	max.	40	39	41	44	55	39	20	42	32	27	34	46	52	40	30	40	23	25	37	35	32	27	28	30	42	45	44	54	39	34	33	37.1
	min.	28	23	28	27	39	8	8	15	20	19	20	28	38	12	9	13	5	-5	12	28	17	10	0	15	11	26	16	15	29	30	22	18.3
Mt. Ayr ..	max.	40	47	44	45	60	43	22	48	33	29	34	55	61	42	30	31	29	39	34	34	28	28	28	30	45	45	45	54	40	34	34	39.2
	min.	27	26	32	28	41	13	8	17	26	23	23	31	41	17	12	8	1	14	29	22	11	4	4	15	19	25	21	19	28	32	25	20.7
Mt. Pleas't	max.	42	39	42	43	58	55	21	48	35	33	33	48	52	55	29	37	32	28	35	35	31	27	23	26	34	40	40	42	35	36	34	37.7
	min.	25	23	31	27	39	14	7	20	29	29	26	31	43	28	14	17	15	4	16	23	25	10	1	12	23	22	27	25	27	32	30	22.4
Mt. Ver'n.	max.	35	42	42	43	39	36	16	43	32	32	30	43	46	37	24	40	29	27	34	32	32	22	27	24	36	36	36	44	34	34	34	34.2
	min.	18	20	30	24	33	16	2	15	22	23	22	27	37	24	9	13	11	1	13	21	22	5	-4	10	21	19	24	21	25	29	24	18.6
N.Hamp'n	max.	31	43	35	37	34	33	13	32	28	26	29	37	38	36	22	30	15	19	32	30	27	20	18	20	25	35	36	36	33	33	32	29.5
	min.	10	17	28	24	31	5	-3	13	18	21	20	27	34	20	-5	13	2	-1	12	24	14	1	-4	8	19	20	16	17	25	29	18	15.3
Northw'd	max.	28	46	41	38	33	31	14	29	25	25	31	38	38	34	23	28	16	21	34	34	24	14	21	23	28	39	28	40	37	34	31	29.9
	min.	8	23	25	26	31	0	-4	14	17	19	19	28	34	16	4	14	0	-4	14	24	14	4	-2	10	20	20	12	17	23	30	—	15.2
Odebolt ..	max.	34	43	41	42	40	39	24	35	30	26	31	44	42	36	27	31	25	26	35	35	29	24	30	41	44	38	38	49	39	35	32	35.0
	min.	16	26	30	27	35	9	4	17	19	19	18	30	34	10	6	19	6	-5	19	25	15	10	4	20	16	30	16	18	27	32	19	18.4
Ogden	max.	35	45	40	42	41	40	17	38	32	29	34	46	49	47	25	35	24	23	39	33	29	25	27	25	40	40	39	48	35	35	34	35.2
	min.	18	22	31	28	37	10	3	17	22	18	17	28	36	15	8	15	7	-3	15	19	20	9	1	17	18	23	18	20	29	32	22	18.5
Olin.....	max.	40	40	42	44	39	39	19	39	35	31	33	45	46	44	29	39	35	27	33	33	31	25	22	25	32	38	37	39	39	35	34	35.1
	min.	20	20	30	25	34	12	5	17	23	27	25	27	38	27	11	13	15	3	11	22	24	8	2	6	22	17	27	22	23	31	27	19.8
Omaha,N.	max.	35	50	47	44	52	31	23	40	28	27	35	54	50	27	28	35	17	28	37	35	29	25	28	36	42	43	34	54	40	34	30	36.1
	min.	24	31	34	37	31	8	8	21	24	18	22	32	23	13	14	17	9	6	20	26	23	18	12	25	23	30	21	23	34	30	24	22.0
Onawa....	max.	38	48	45	41	45	38	25	38	30	32	37	46	42	30	35	33	26	28	34	33	28	26	25	34	42	41	38	49	40	40	35	36.2
	min.	20	24	27	27	37	11	7	17	17	17	14	19	28	29	10	9	14	7	0	17	21	20	14	7	20	16	27	18	17	28	32	20	18.5
Osage.....	max.	30	43	38	36	34	32	12	28	25	26	30	36	36	35	21	29	23	20	33	31	30	18	19	21	..	39	37	37	35	34	32	30.0
	min.	9	20	28	26	32	4	-4	12	18	21	20	27	34	20	6	14	2	-4	14	25	15	2	-4	9	..	20	14	16	22	30	19	15.6
Oskaloosa	max.	35	45	41	43	48	42	20	41	36	30	33	48	52	49	26	42	30	27	38	34	31	22	24	25	34	48	42	45	38	35	33	36.7
	min.	22	21	30	27	38	10	4	19	26	24	23	29	44	24	12	15	11	0	15	27	22	9	-2	16	16	21	24	21	28	32	28	20.5
Ottumwa .	max.	31	42	42	43	52	30	22	48	34	30	38	48	55	30	24	44	21	29	38	32	29	22	22	28	35	48	40	50	35	37	34	35.9
	min.	27	25	33	30	43	12	8	20	30	28	26	33	46	22	16	20	14	5	17	24	22	10	3	17	20	26	26	25	24	34	31	23.2
PacificJn.	max.	38	50	48	44	54	35	24	42	34	29	35	54	54	30	30	36	29	27	39	37	40	29	32	39	43	46	37	50	38	36	34	38.5
	min.	26	27	26	29	35	10	7	19	25	19	18	30	20	13	10	14	10	-2	15	23	24	15	6	23	19	28	19	12	32	33	29	19.8
Pella.....	max.	40	45	42	43	48	44	18	42	39	31	33	47	50	54	27	43	33	27	38	34	33	26	25	27	35	49	45	45	42	35	34	37.9
	min.	21	23	32	28	38	13	5	16	26	25	22	28	41	22	12	16	11	2	14	27	22	9	2	11	18	21	24	20	27	31	22	20.3
Perry.....	max.	35	46	40	43	43	42	21	38	30	30	35	48	50	40	27	35	22	25	39	34	28	25	26	28	40	47	40	47	35	35	33	35.7
	min.	20	25	31	28	38	10	5	17	23	18	18	30	37	15	10	14	6	-4	16	27	18	10	0	16	16	23	17	17	26	32	22	18.7
Plover....	max.	32	47	46	48	45	32	25	32	25	25	32	40	36	41	36	28	15	20	36	31	30	20	27	30	39	41	39	45	40	38	31	33.0
	min.	10	22	27	27	32	2	-1	15	16	17	16	27	30	33	5	15	5	-6	15	12	0	7	0	15	16	20	15	17	26	31	18	15.3
Pocahon's	max.	32	47	38	45	38	34	19	34	26	28	34	42	39	35	22	28	16	25	38	37	25	25	28	30	42	40	33	47	40	33	31	33.3
	min.	12	24	29	28	33	5	1	16	16	18	19	28	30	11	6	11	3	-3	16	24	15	8	2	18	17	25	17	20	28	31	19	17.0
Preston ..	max.	41	40	39	40	37	38	18	39	33	32	33	45	44	46	30	39	34	29	33	33	30	26	23	26	33	35	38	40	34	36	35	34.8
	min.	20	19	30	25	33	13	5	12	23	28	26	25	37	28	13	15	14	5	12	18	25	14	2	2	23	20	29	23	21	31	27	19.9
Ridgeway	max.	33	46	41	35	34	32	15	32	30	32	33	37	38	39	24	40	19	26	35	33	28	20	27	21	27	40	33	48	37	34	33	32.3
	min.	11	21	29	26	31	5	-3	15	18	23	20	28	35	19	6	15	3	0	16	24	18	2	-2	5	20	20	16	18	23	30	15	16.4
Rock Rap.	max.	36	40	36	34	36	12	14	26	22	28	34	38	30	26	20	22	10	32	18	20	25	20	22	32	42	40	32	40	50	40	36	29.5
	min.	12	16	18	20	20	2	0	10	10	12	20	32	6	6	4	-6	0	20	8	10	11	4	12	20	26	26	16	20	28	20	16	13.5
Rock'll Cy	max.	30	40	45	45	40	39	20	35	30	30	36	45	45	38	25	30	25	25	38	36	25	25	28	40	41	43	38	40	40	40	35	35.2
	min.	14	20	23	28	34	8	2	16	20	23	19	30	30	10	7	19	4	-3	15	22	19	8	4	18	15	16	17	20	24	26	18	17.0
St. Charl's	max.	42	49	46	43	60	45	45	42	35	30	35	49	56	48	34	45	26	34	41	35	32	33	31	28	51	50	45	62	34	34	34	41.1
	min.	23	23	29	28	39	10	5	16	25	23	22	32	47	17	11	18	8	-2	16	29	18	11	2	16	17	27	19	22	29	32	25	20.5
Sheldon ..	max.	32	48	40	45	36	32	18	35	25	28	31	38	36	34	25	27	14	21	33	32	27	24	26	31	43	39	35	50	40	38	32	36.0
	min.	11	24	26	21	32	4	0	11	10	11	13	31	32	6	4	11	0	-6	17	17	11	10	2	19	15	27	15	15	27	32	11	14.8
Sibley*...	max.	29	53	39	42	32	6	18	27	26	26	38	36	34	18	26	23	10	25	32	25	23	22	29	28	42	39	32	48	38	38	17	29.7
	min.	10	11	26	25	27	2	-3	3	7	12	13	22	32	6	3	9	-1	-5	2	18	10	8	1	12	17	20	15	16	18	30	14	12.3
Sigourn'y	max.	40	42	41	43	47	45	19	42	38	32	32	47	50	49	27	40	36	27	36	33	31	27	23	25	33	43	39	43	40	35	34	36.7
	min.	22	21	29	27	38	13	6	17	26	27	25	27	37	26	12	16	12	3	14	25	23	9	-1	14	22	19	25	22	28	32	29	20.8
Sioux Cen	max.	30	40	40	42	34	32	23	22	22	47	38	40	35	29	26	25	14	24	32	28	26	21	28	33	40	39	31	42	40	37	31	32.0
	min.	11	25	28	27	31	3	0	10	10	20	17	30	28	5	4	11	0	-4	18	18	15	13	3	20	16	26	15	18	28	31	17	16.0
Sioux C'y	max.	33	50	42	39	38	27	22	33	24	25	37	45	35	22	31	28	14	28	35	28	25	21	25	34	41	40	34	47	41	34	26	32.4
	min.	16	27	30	31	27	6	5	15	13	9	21	31	17	8	9	9	4	2	22	22	18	14	8	22	20	25	18	19	33	26	16	17.5
Stockport	max.	40	39	42	40	60	58	21	51	50	33	32	48	53	57	27	37	33	32	37	34	32	30	26	24	34	39	38	46	35	36	34	38.6
	min.	23	21	32	21	32	15	7	20	29	27	26	31	47	25	15	15	15	4	15	24	23	10	-2	10	22	21	26	25	27	32	30	21.5
Storm L'e	max.	32	46	40	43	37	37	19	33	26	26	30	41	39	36	26	27	19	10	35	33	26	44	25	28	41	41	40	47	37	37	33	33.4
	min.	12	23	26	26	31	3	-2	14	13	15	16	29	27	5	2	16	-1	-6	0	24	12	10	1	15	16	14	16	14	13	24	3	13.3
Stuart*...	max.	45	37	48	49	23	32	36	28	30	37	49	53	28	35	35	12	25	38	34	26	24	28	33	44	46	30	47	37	34	29	..	35.1
	min.	22	23	30	30	22	12	5	16	19	23	23	29	18	15	10	12	2	-2	0	20	11	11	4	18	19	20	18	18	24	28	26	17.0
Thurman	max.	40	48	47	46	56	37	24	36	35	30	35	55	51	35	30	38	30	27	37	37	29	30	29	38	42	48	43	49	42	36	32	38.5
	min.	27	29	31	31	37	12	7	15	25	19	19	30	32	15	12	12	10	-2	19	25	23	17	5	22	15	28	21	18	28	32	25	20.6
Tipton....	max.	35	39	43	45	39	39	19	40	32	32	31	44	46	44	27	30	32	27	33	31	31	24	25	24	32	38	37	40	34	35	39	34.4
	min.	22	23	32	27	35	11	6	18	25	28	25	29	40	27	14	16	17	8	16	23	24	10	3	13	24	20	28	24	25	31	27	21.6

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF DECEMBER, 1906—CONTINUED.

STATIONS		DATE																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Toledo ...	max.	33	42	39	45	41	39	17	38	34	30	30	43	49	48	25	35	30	23	35	33	21	25	21	22	33	44	43	40	38	35	33	34.7
	min.	18	21	31	27	35	10	3	16	23	25	23	29	32	22	10	15	8	-2	15	15	21	6	-3	9	21	22	24	19	26	30	26	18.6
Wapello ..	max.	42	38	42	42	50	46	29	42	34	34	32	44	49	54	32	34	33	30	34	22	31	25	29	25	32	38	38	43	34	36	35	36.7
	min.	26	24	32	29	38	16	9	20	33	30	27	32	38	30	16	19	19	8	18	23	25	12	3	11	24	23	30	22	23	33	30	23.3
Wash'g'n	max.	35	40	43	45	46	41	21	44	33	32	32	47	53	52	25	42	28	29	37	33	30	22	24	25	34	42	39	40	34	36	34	36.1
	min.	24	24	30	26	37	10	5	19	26	26	24	30	38	23	12	16	11	2	14	24	22	6	-2	10	22	22	26	24	26	33	29	20.6
Washta...	max.	34	44	40	47	45	34	24	34	25	30	38	45	45	30	28	32	22	26	32	32	27	25	27	32	42	40	36	50	40	34	32	34.6
	min.	15	24	24	27	32	8	3	16	15	15	24	30	30	8	5	15	4	-9	22	18	18	12	-2	22	18	30	15	16	16	22	18	16.5
Waterloo*	max.	42	46	40	46	39	35	20	39	29	29	31	42	43	36	25	37	19	25	37	32	26	18	24	23	32	42	34	42	32	35	30	32.2
	min.	16	23	29	25	33	13	2	19	23	23	22	28	36	25	9	15	7	-1	22	26	18	3	-5	13	21	29	22	18	25	30	28	19.3
Waukee ..	max.	35	45	40	42	42	45	20	38	32	29	34	46	51	47	25	27	26	25	38	35	33	25	25	27	40	47	42	45	38	34	34	35.9
	min.	20	24	30	28	39	9	5	17	24	23	22	30	43	17	10	16	5	-4	15	29	17	18	2	16	18	25	18	20	29	32	24	20.0
Waverly .	max.	32	44	37	42	35	35	17	35	28	27	31	39	41	38	23	33	23	22	34	32	29	20	24	32	37	42	43	44	42	45	42	33.8
	min.	14	22	28	27	33	6	1	16	22	23	22	28	36	22	9	15	6	0	14	26	18	5	4	15	15	20	18	28	30	35	12	18.4
Webster C	max.	35	45	39	46	44	39	19	31	30	28	33	43	45	42	25	33	22	22	38	36	31	26	28	27	37	48	42	44	42	35	33	35.1
	min.	14	21	31	28	35	9	1	10	21	20	12	25	34	17	7	18	4	-7	13	20	20	7	-2	17	14	22	12	14	25	31	24	16.7
W. Bend .	max.	31	45	37	44	36	34	17	31	25	23	33	41	36	34	25	27	19	22	37	35	25	19	25	28	37	41	35	40	42	35	31	31.9
	min.	10	20	29	25	32	4	-2	14	16	16	16	27	31	11	5	14	1	-7	15	22	17	7	-1	17	13	24	14	16	26	31	19	15.5
Whitten ..	max.	33	42	38	44	41	38	16	35	31	36	33	40	47	46	23	34	28	22	35	34	33	24	21	24	33	45	42	43	39	34	32	34.4
	min.	8	19	30	26	33	6	0	14	21	22	22	25	35	18	6	12	5	-5	12	23	19	4	-4	12	18	20	20	16	27	29	22	16.6
Wilton Jn	max.	40	38	42	45	40	40	40	40	35	35	34	44	48	48	29	35	30	27	33	34	32	32	26	33	37	37	36	36	35	35	37	36.5
	min.	20	25	29	25	35	4	18	18	25	23	23	28	34	29	8	15	10	4	13	21	25	2	9	21	19	28	24	30	28	32	29	21.3
Winterset	max.	36	44	40	43	56	46	32	37	33	30	34	47	54	47	26	38	28	25	38	35	32	25	26	28	40	47	45	46	36	34	33	37.5
	min.	23	25	32	29	41	12	7	17	25	24	23	31	43	19	12	17	7	-1	16	30	20	11	4	17	19	27	18	21	30	32	26	21.2
Woodb'rn	max.	42	48	42	44	63	42	22	48	37	51	42	58	59	44	32	42	32	39	33	39	28	31	29	28	42	52	42	52	36	34	34	40.9
	min.	20	22	26	24	40	12	7	15	26	22	23	32	41	20	12	18	9	14	27	18	11	0	15	16	22	32	20	22	25	32	27	21.0
Zearing...	max.	35	44	40	45	42	40	28	40	30	30	33	43	48	54	28	36	31	23	38	35	33	25	27	24	37	47	41	47	34	34	33	36.3
	min.	16	21	29	25	35	5	2	15	22	20	20	27	33	18	8	12	7	-5	15	24	18	6	-1	9	15	23	23	17	25	30	24	17.4

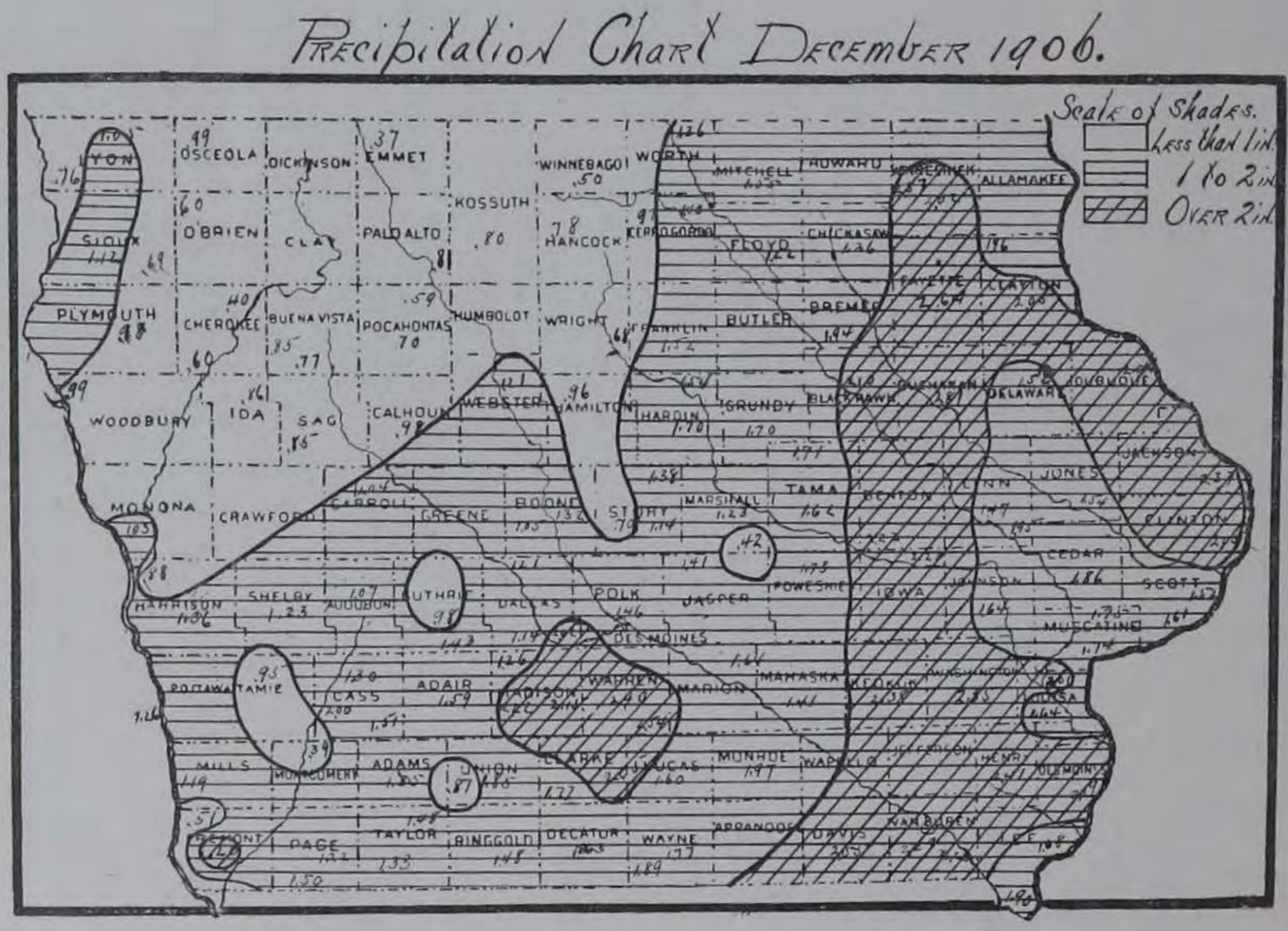
* At these stations thermometers are read in the morning; the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

DAILY AND MONTHLY PRECIPITATION FOR DECEMBER, 1906.

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	T	.43	....	....	....	....	....	T	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.07	....	.17	1.18	....	1.85
Albia	....	....	....	....	.35	.10	....	....	....	T	....	....	T	T	....	....	....	....	....	T	.08	....	....	....	T	....	.02	....	....	.65	.77	1.97
Algona	....	....	....	....	.35	T	....	....	....	T	....	....	.07	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	.38	....	.80
Allerton	....	T	....	T	.27	....	....	....	T	T	....	T	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	T	....	.19	1.35	.03	1.89
Alta	....	....	....	....	.52	.03	....	....	....	....	....	....	.01	.07	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.10	.12	.85
Alta (near)	....	....	....	.45	.03	....	....	....	....	....	....	....	.04	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.30	....	.82
Alton	....	....	....	T	.48	....	....	....	....	....	....	....	.06	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.15	....	.69
Amana	....	....	....	....	.41	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.12	.03	....	....	....	T	....	T	....	....	1.53	.14	2.23
Ames	....	....	....	....	.04	....	....	....	....	....	....	....	.01	....	....	....	....	....	....	.04	....	....	....	....	....	....	....	....	....	.61	....	.70
Atlantic	....	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	1.00	....	....	1.30
Audubon	....	....	....	.06	.36	....	....	....	....	....	....	....	.01	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	.44	....	1.07
Baxter	....	....	....	....	.56	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.09	....	....	....	....	....	.02	....	....	.70	.04	1.41
Bedford	....	....	....	.02	.15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.01	....	T	....	....	....	....	T	....	.35	.80	T	1.33
Belle Plaine	....	....	....	....	.33	T	....	....	....	T	....	....	.03	....	....	....	....	....	.10	.10	....	....	....	.15	.04	.12	....	....	....	1.35	....	2.22
Bloomfield	....	....	....	T	....	....	....	....	T	T	....	....	....	....	....	....	....	....	....	.01	T	.10	....	....	....	....	....	....	.29	2.15	....	2.55
Bonaparte	....	T	....	T	.37	.07	....	....	T	....	....	....	....	....	....	....	....	....	....	.13	....	....	....	....	.03	....	....	....	....	1.60	....	2.20
Boone	....	....	....	....	.59	.03	T	....	....	....	....	....	T	....	....	....	....	....	....	.03	T	....	....	....	....	....	T	....	....	.60	.07	1.32
Britt	....	....	....	....	.22	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.02	....	....	....	....	....	....	....	....	....	.44	.10	.78
Buckingham	....	....	....	....	.62	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.06	....	....	....	....	....	....	....	....	....	1.03	....	1.71
Burlington	.02	....	....	....	.58	T	....	....	....	T	....	....	.04	....	....	....	....	....	....	....	.07	....	....	....	T	....	.02	....	....	.52	.72	2.19
Carroll	....	....	....	....	.53	.10	....	....	....	....	....	....	T	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.36	T	1.04
Cedar Rapids	....	....	....	....	.24	T	T	....	....	....	....	....	....	T	....	....	....	....	....	....	.20	....	....	....	.03	....	T	....	....	T	1.00	1.47
Chariton	....	....	....	....	.55	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	T	....	.15	.90	T	1.60
Charles City	....	....	....	....	.35	.01	....	....	....	T	....	....	.04	....	....	....	....	....	....	.16	T	....	....	T	....	....	....	....	.10	.56	....	1.22
Clarinda	....	....	....	....	.16	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	T	....	....	....	....	T	....	....	....	1.00	.06	1.22
Clear Lake	....	....	....	....	.25	T	T	....	....	....	....	T	T	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	.60	.07	.97
Clinton	....	....	....	....	.33	....	....	....	....	....	.02	....	.06	....	....	....	....	....	....	.03	T	T	....	....	....	....	.05	....	T	....	1.56	2.05
College Springs	....	....	....	....	.15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.75	.60	....	1.50
Columbus Junc.	....	....	....	....	.52	....	....	....	....	T	....	....	....	....	....	....	....	....	....	T	.05	....	....	....	T	....	....	....	T	1.32	.12	2.01
Corning	....	....	....	.27	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	T	T	T	....	....	....	....	....	....	....	1.08	....	1.35
Corydon	....	....	....	T	.22	....	....	....	T	....	....	....	....	....	....	....	....	....	....	.03	....	....	....	....	....	T	....	....	.13	1.38	.01	1.77
Creston	....	....	....	....	....	....	....	....	....	....	T	T	T	....	....	....	....	....	....	T	....	....	....	....	....	....	.02	....	....	.65	.20	.87
Cumberland	....	....	....	....	....	....	.80	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.92	.28	....	2.00
Davenport	....	....	....	.01	.34	T	....	....	T	T	....	....	.01	T	....	....	....	....	....	.03	.01	T	....	....	....	.02	.01	T	.10	1.08	....	1.61
Decorah	....	....	....	....	.32	.02	....	....	....	....	....	T	.08	.02	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	.85	.53	2.02
Delaware	....	....	....	....	.50	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	.08	....	....	....	....	....	....	....	....	....	.89	....	1.52
Des Moines	....	....	....	.34	.11	T	....	....	....	T	....	T	T	....	....	....	....	....	....	.05	....	....	....	....	....	.01	....	....	.47	.48	....	1.46
De Soto	....	....	....	T	.30	....	....	....	T	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	T	....	....	.12	.72	T	1.14
Dows	....	....	....	....	.54	T	....	....	....	....	....	....	.10	....	....	....	....	....	....	.04	....	....	....	....	....	....	....	....	....	....	....	.68
Dubuque	....	....	....	T	.33	.03	....	....	T	T	....	....	.07	T	.01	....	....	T	....	.01	.01	T	....	....	....	.02	.01	....	.10	1.45	T	2.04
Earlham	....	....	....	T	.43	T	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	T	....	.11	.69	.03	1.26
Elkader	....	....	....	....	.46	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	.14	....	....	....	....	....	....	....	....	....	1.40	....	2.05
Elliott	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.24	.05	....	.39
Estherville	....	....	....	....	.22	.15	....	....	....	T	....	T	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	T	.37
Fayette	....	....	....	....	.64	T	....	....	....	....	T	T	T	.07	....	....	....	....	....	.17	....	....	....	....	....	....	....	....	....	1.57	.19	2.64
Forest City	....	....	....	....	.10	.05	....	....	....	....	....	....	.05	.05	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	.20	.05	.50
Fort Dodge	....	....	....	....	.61	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.55	.05	1.21
Fort Madison	....	T	....	.36	T	....	....	....	.02	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.10	....	1.68
Galva	....	....	....	....	.54	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	.10	....	T	....	....	.32	....	.86
Gilman	....	....	....	....	....	T	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.32	T	.42
Grand Meadow	....	....	....	....	....	.60	....	....	....	....	....	T	.11	....	....	....	....	....	....	.10	....	....	....	....	T	....	T	....	....	.85	.30	1.96
Greenfield	T	....	....	.01	.63	....	....	....	T	....	....	....	T	....	....	....	....	....	....	T	T	T	....	....	....	....	....	....	....	.66	.13	1.59
Grinnell	....	....	....	....	.45	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	.10	.04	....	....	....	.04	....	....	....	.16	1.00	.05	1.73
Grundy Center	....	....	....	....	.90	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	.70	....	1.70
Guthrie Center	....	....	....	.02	.34	T	....	....	....	....	T	....	T	....	....	....	....	....	....	T	T	T	....	....	....	T	....	....	.12	.50	T	.98
Hampton	....	....	....	.40	.12	....	....	....	....	....	....	....	.12	....	....	....	....	....	.05	.04	....	....	....	....	....	....	....	....	.50	.29	....	1.52
Hancock	....	....	....	....	.24	T	....	....	....	....	....	....	T	....	....	....	....	....	....	....	T	T	....	....	....	T	....	....	.24	.47	....	.95
Harlan	....	....	....	.07	.32	T	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	T	T	....	....	....	T	....	....	.38	.44	....	1.23
Hopeville	....	....	....	.01	.24	....	....	....	....	....	....	T	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.07	....	.42	1.03	....	1.77
Independence	....	....	....	....	.60	....	....	....	....	....	....	....	.01	....	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	2.00	....	2.81
Indianola	....	....	....	.10	.55	....	....	....	T	T	....	T	....	....	....	....	....	....	....	.05	....	....	....	....	....	T	.01	....	.34	1.34	.01	2.40
Inwood	....	....	....	T	.24	.01	....	....	T	....	....	....	.02	T	....	....	....	....	....	T	T	....	....	....	....	....	....	....	....	.48	.01	.76
Iowa City	....	....	....	....	.30	.06	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.10	....	....	....	.01	....	....	....	....	.38	.79	1.64
Iowa Falls	....	....	....	....	.45	.10	....	....	....	T	....	....	....	.06	....	....	....	....	....	T	.10	....	....	....	....	....	T	....	....	.55	.28	1.54
Keokuk	....	T	....	.10	.36	....	T	....	.09	....	....	....	....	T	....	....	....	....	....	.04	....	....	....	.01	....	....	.06	....	.26	.98	....	1.90
Keosauqua	.02	....	....	....	.40	.01	....	....	....	.02	....	T	....	....	....	....	....	....	....	T	.10	....	....	....	.10	....	T	....	....	.60	1.04	2.29
Lacona	....	....	....	.20	.39	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	.16	....	....	....	....	....	....	....	....	.50	1.29	....	2.54
Larrabee	....	....	....	T	.12	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	T	T	....	....	....	....	....	....	.10	.13	....	.40
Le Claire	.01	....	....	....	.17	.14	T	....	....	....	....	....	.01	.02	....	....	....	....	....	....	.02	.02	....	....	....	....	.01	....	....	.31	.81	1.52
Le Mars	....	....	....	T	.50	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	.48	....	.98
Lenox	....	....	....	T	.24	....	....	....	T	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	.29	.93	.02	1.48
Leon	....	....	....	....	.24	....	....	....	T	....	....	....	T	....	....	....	....	....	....	.04	....	....	....	....	....	....	....	....	.35	1.00	....	1.63
Little Sioux	....	....	....	.04	.13	....	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.27	.42	....	.88
Logan	....	....	....	.12	.19	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	.42	.58	....	1.36
Marshalltown	....	....	....	....	.25	.09	....	....	....	....	....	T	T	.02	....	....	....	....	....	T	.15	....	....	....	....	....	T	....	....	.50	.22	1.23
Mason City	....	....	....	....	.47	....	....	....	....	....	....	....	.15	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	.48	.20	1.40
Massena	....	....	....	.06	.42	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	.22	.81	T	1.51
Mt. Ayr	....	....	....	....	.25	....	....	....	....	....	T	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	.03	....	.30	.70	.10	1.48
Mt. Pleasant	....	....	....	T	.41	....	....	....	T	T	....	....	.05	....	....	....	....	....	....	.06	.05	....	....	....	.03	....	T	....	.04	1.66	.11	2.41
Mt. Vernon	....	....	....	....	.36	.20	....	....	T	....	....	....	.02	....	....	....	....	....	....	.10	....	....	....	....	....	.01	....	....	....	1.00	.26	1.95
Muscatine	....	....	....	....	.50	....	.02	....	....	....	....	....	T	....	....	....	....	....	....	....	.05	....	....	....	....	....	.04	....	....	.45	.68	1.74
Nevada	....	....	....	....	....	....	....	....	....	....	....	....	....	.56	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.58	....	1.14
New Hampton	....	....	....	....	.48	....	....	....	....	....	....	T	.04	....	....	....	....	....	....	.10	.04	....	....	....	T	....	....	....	....	T	.70	1.36
Northwood	....	....	....	....	.18	.02	....	....	....	....	....	.02	.13	....	....	....	....	....	....	.30	....	....	....	....	....	T	....	....	....	.36	.35	1.36
Odebolt	....	....	....	....	.40	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	.45	....	.85
Ogden	....	....	....	T	.48	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	.57	....	1.05
Olin	....	....	....	....	.46	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.02	.01	T	....	....	....	....	T	....	....	.95	.10	1.54
Omaha, Neb	....	....	....	.17	T	T	....	....	T	T	....	....	.01	....	....	....	....	....	....	T	T	T	....	....	....	T	....	....	.88	.20	....	1.26
Onawa	....	....	....	.10	.15	T	....	....	....	T	T	....	....	....	....	....	....	....	....	....	T	.05	....	....	....	....	....	....	.18	.55	....	1.03
Osage	....	....	....	....	.44	.03	....	....	....	....	....	T	.03	....	....	....	....	....	....	.20	.05	....	....	....	....	....	....	....	....	.60	.20	1.55
Oskaloosa	....	....	....	.06	.29	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.04	.02	....	....	....	....	....	....	....	.05	.95	....	1.41
Pacific Junction	....	....	....	.02	T	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	T	....	....	.87	.30	....	1.19
Pella	....	....	....	T	.38	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.04	T	....	....	....	T	....	....	....	.02	1.20	....	1.64
Perry	....	....	....	T	.35	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.02	....	....	....	....	....	T	.04	....	....	....	.80	1.21
Plover	....	....	....	.12	.16	....	....	....	....	....	....	....	.09	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.22	T	....	.59
Pocahontas	....	....	....	....	.43	....	....	....	....	....	....	....	....	.06	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.21	.70
Preston	....	....	....	....	.45	.17	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	1.65	....	2.37
Ridgeway	....	....	....	....	.47	.01	....	.01	....	T	....	.06	.10	.03	....	....	....	....	....	.30	....	....	....	....	....	....	....	....	....	1.39	....	2.37
Rock Rapids	....	....	....	T	.50	.05	....	....	....	....	....	.30	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	T	.20	....	1.05
St. Charles	....	....	....	.03	.57	....	....	....	T	....	....	....	.01	....	....	....	....	....	....	.04	....	....	....	....	T	T	....	.26	1.24	T	2.15
Sheldon	....	....	....	....	.20	.03	....	T	....	T	T	.02	.05	T	....	....	....	....	....	T	....	T	....	....	....	....	....	....	.30	T	.60
Sibley	....	....	....	....	.45	.08	....	....	....	....	....	....	.01	T	....	....	....	....	....	....	T	T	....	....	....	....	....	....	....	.45	T	.99
Sigourney	....	....	....	....	.47	.20	....	....	....	T	....	....	T	....	....	....	....	....	....	.10	.05	....	....	....	.06	....	....	....	....	1.35	.15	2.38

DAILY AND MONTHLY PRECIPITATION FOR DECEMBER, 1906—Continued.

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sioux Center	....	....	....	.02	.55	....	....	....	....	....	....	....	T	.12	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.43	....	1.12
Sioux City	....	....	....	.35	.16	T	....	T	T	....	T	T	T	....	....	....	....	....	....	....	.01	T	....	....	....	T	....	....	.30	.17	T	.99
Stockport	....	T	....	T	.38	....	....	....	T	T	....	....	....	....	....	....	....	....	....	.12	T	....	....	....	T	....	T	....	.07	1.60	.03	2.20
Storm Lake	....	....	....	.06	.51	....	....	....	....	....	....	.02	.02	....	....	....	....	....	....	....	....	.01	....	....	....	....	.10	....	....	.03	.02	.77
Stuart	....	....	....	.45	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.81	.17	1.43
Thurman	....	....	....	T	....	....	....	....	T	T	T	....	....	....	....	....	....	....	....	....	T	T	....	....	....	T	....	....	....	.51	....	.51
Tipton	....	....	....	....	....	.47	....	....	....	....	....	....	T	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	1.39	....	1.86
Toledo	....	....	....	....	.50	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	.97	.05	1.62
Wapello	....	....	....	....	.42	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.03	....	....	....	....	....	.08	....	....	.88	.23	4.64
Washington	....	....	....	....	.43	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.11	....	....	....	....	.02	....	.05	....	....	1.18	.56	2.35
Washta	....	....	....	.25	T	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.25	.10	....	.60
Waterloo	....	....	....	....	.54	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.16	....	....	....	....	T	....	....	....	....	1.40	....	2.10
Waukee	....	....	....	T	.30	T	....	....	....	....	....	....	.02	....	....	....	....	....	....	.15	....	....	....	....	....	T	....	....	T	1.50	.05	2.02
Waverly	....	....	....	....	.61	T	....	....	....	....	....	....	.04	....	....	....	....	....	....	.17	....	....	....	....	.03	....	....	....	....	1.02	.07	1.94
Webster City	....	....	....	....	.46	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.50	T	.96
West Bend	....	....	....	....	.35	.03	....	....	....	T	....	T	.08	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	.35	....	.81
Whitten	....	....	....	....	1.00	T	....	....	....	....	....	....	T	....	....	....	....	....	....	.10	....	....	.05	....	....	T	....	....	....	.50	.05	1.70
Wilton Junction	....	....	....	....	.33	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.42	....	1.75
Winterset	....	....	....	T	.62	....	....	....	....	....	....	T	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	.04	1.56	....	2.22
Woodburn	....	....	....	T	.35	T	....	....	....	....	....	....	....	T	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	1.70	T	2.05
Zearing	....	....	....	.80	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	....	....	.55	T	1.38



APPENDIX.

ANNUAL SUMMARY, 1906.

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CLIMATOLOGY OF THE YEAR 1906.

BAROMETER.—The mean pressure of the atmosphere for the year 1906 was 30.05 inches. The highest observed pressure was 30.79 inches on February 5th at Dubuque. The lowest pressure was 28.71 inches on January 3d at Dubuque. The range for the State was 2.08 inches.

TEMPERATURE.—The mean temperature for the state was 48.7°, which is 1° above the normal. The highest temperature reported was 102° on July 21st, at Atlantic. The lowest temperature reported was 32° below zero on February 10th, at Inwood, Lyon county. The range for the year was 134°.

PRECIPITATION.—The average amount of rain and melted snow for the year, as shown by complete records of 107 stations was 31.23 inches, which is .49 of an inch below the normal, and 5.28 inches below the average amount in 1905. The greatest amount recorded at any station for the year was 44.34 inches at Ridgeway, Winneshiek county. The least amount recorded was 20.63 inches at Elliott, Montgomery county. The greatest monthly rainfall was 11.10 inches at Thurman in September. The least monthly precipitation was 0.20 of an inch at Baxter and Sibley in February. The greatest amount in any twenty-four consecutive hours was 7.60 inches at Thurman on September 16th and 17th. The average number of days on which .01 of an inch or more of rain fell was ninety-two.

WIND AND WEATHER.—The prevailing direction of wind was northwest. The highest velocity reported was fifty-eight miles per hour in Sioux City, from the northwest on March 21st. The average daily movement of wind was 205 miles. There were 163 clear days; 97 partly cloudy, and 105 cloudy days; as against 164 clear days, 98 partly cloudy, and 103 cloudy days in 1905.

CLIMATE AND CROP REVIEW, 1906.

The year 1906 was exceptionally favorable for agriculture and other industries in Iowa. The tabulated records of all stations show that the mean temperature of the state was 48.7°, which is 1° above the normal. The winter was mild and favorable for the protection of fall seeded crops, and for the care of farm animals. The average amount of precipitation for the year was 31.23 inches, which is about half an inch below the normal for Iowa. The distribution of rainfall was variable, the heaviest amounts being reported in the eastern half of the northern section, and the least amounts were in the southern section. But in all parts there was sufficient moisture to produce more than an average yield of the great staples on which the prosperity of the state depends.

January was 4.8° warmer than the average, and February also brought an excess of 4.2°. Both months had a small excess of precipitation. March was relatively much colder, the mean temperature being 5.7° below the normal. The snow fall was heavier and the weather was more stormy and inclement than during the preceding winter months. Conditions were not favorable for field work, and farm stock required more care and forage than usual at that period. The last five days of the month were springlike.

The mean temperature of April, 52.5°, was about 3.1° above the normal; and the rainfall, 2.42 inches, was .46 of an inch below the normal for the state. The first half of the month was showery and cloudy; but the latter half was generally fair and warm, affording good conditions for spring plowing, which progressed rapidly, with the soil in good tilth and warm enough to insure germination of grain and grass. At the close of April the season was about normal in respect to the growth of grasses and foliage. Farm work, however, was somewhat belated by wet weather in March and the early part of April.

May was about normal in temperature, the mean being 60.8° for the state. There were sharp fluctuations in temperature, with frosts in all districts about the 6th to the 9th, and on the 28th, though not materially harmful to vegetation and fruit. The average rainfall was 3.54 inches, which is 0.70 of an inch below the normal for the state. The distribution was unequal, the northern section having an excess of 1.40 inches, while the central section was deficient 1.09 inches, and the southern section was deficient 2.42 inches. In portions of the southern section the dry weather was somewhat unfavorable for pastures, meadows and spring seeded crops. The conditions, however, were

favorable for planting corn, and the moisture was sufficient to secure a good stand.

June was slightly cooler than normal, the mean temperature being 67.9°, which is 1.7° below the normal. The average rainfall was 3.92 inches, which is 0.63 of an inch below the normal. In the southern section, where there was greatest need of moisture, the average was 4.50 inches. The greater part of the rainfall came in the latter half of the month, affording timely relief from droughty conditions prevalent in nearly all districts. The dry weather in early June was favorable for corn, which made a fine growth and had been thoroughly cultivated. There was sufficient moisture in the soil to maintain a healthy growth of the corn plant, and at the close of the month nearly all fields gave promise of a heavy yield. Oats, barley and wheat made fairly good stands, but headed out shorter than usual. The hay crop was lighter than usual, but the quality was excellent. As a whole, June was an ideal month for farming operations, and the staple crops were above the ten-year average on July 1st.

The average daily temperature in July was 3.5° below the normal for the state, the mean being 70.9°. The nights were cool, but the day temperatures were sufficiently high to maintain the normal growth of corn and other immature crops. The average rainfall was 3.04 inches, which is 1.31 inches below the normal. The cool nights brought heavy dews, and the humidity of the air was about normal, serving to mitigate the droughty conditions in districts where the rainfall was lightest. The distribution of rainfall was quite unequal, ranging from less than two inches in about one-fourth of the state to more than 5.00 inches in a large area. The driest areas were in the southeast and the northwest quarters of the state. Except in a very small area there was sufficient moisture to maintain a healthy growth of corn, which was generally well advanced and promising at the close of the month. Hay and small grain were harvested in good season, under favorable conditions to maintain a good quality of these crops. There was less than usual damage by windstorms and hail in July.

August was the warmest month of the season, the average temperature for the state being 74.1°, which is 2.1° above the normal. It was 3.2° warmer than July, which is usually the warmest month of the summer in this latitude. The average rainfall was 3.95 inches, which is 0.38 of an inch above the normal. The distribution was unequal, the northern section having nearly twice as much moisture as the average of the southern section. The larger portion of the rainfall came in the first decade, and the balance of the month was favorable for harvesting, threshing and other field work. At the close of the month the corn crop was in a very satisfactory condition, and much of it well advanced toward maturity, giving promise of more than an average yield. The summer months were favorable for apples, peaches, cherries and most of the small fruit crops, and garden truck.

September was warmer than usual, with more than the normal amount of rainfall, and excess of sunshine in the larger part of the state. The mean temperature was 67.2°, which was 3.4° above the normal. The average rainfall was 4.16 inches, or 0.85 of an inch in excess of the September normal. The northern and western districts received much more than the other parts of the state. The bulk of the rainfall came in the second decade, and the balance of the month afforded ideal conditions for farm operations, and the normal ripening of corn and other late maturing crops. The month was wholly exempt from damaging frosts. Conditions were favorable for fall plowing, and seeding fall wheat and rye. All crops were well matured at the close of the month.

October was exceptionally fine, having more than the average number of clear days, and less than the average amount of rainfall. The average temperature for the state was 50.5°, which is 2° below the normal. The average rainfall was 1.96 inches, which is 0.45 of an inch below the normal. Nearly all the rainfall occurred in the ten days from the 18th to the 27th. In the first half of the month conditions were unusually favorable for drying out the bulky corn crop, and husking was begun somewhat earlier than usual. There were but few days too wet for work in the fields. All late maturing crops were harvested under favorable conditions.

November was slightly above the normal in temperature and precipitation. The monthly mean temperature was 35.4°, and the average precipitation was 2.03 inches, which is about 0.72 of an inch above the normal. During the first half of the month conditions were fairly good for husking corn and other field work, and at the close of the month the bulk of the largest corn crop ever produced in Iowa was well secured. In the latter half of the month snow flurries, and alternate freezing and thawing, hindered work to some extent.

December was about 2.7° warmer than usual, the average temperature being 25.7°. The average precipitation, which was mostly in the form of rain, was 1.43 inches, or 0.18 of an inch above the normal. As a whole, it was unusually mild and favorable for outdoor work and the care of stock.

The year 1906 closed as it began, with moderate temperature and favorable weather conditions, typical of the most productive year known in Iowa during the last quarter of a century.

ERRATA IN ANNUAL SUMMARY, 1905.

DAVENPORT.—Last killing frost in spring recorded on April 18th page 8, should have been April 15th.

DUBUQUE.—The first killing frost in autumn recorded on October 12th, page 8, should have been October 21st.

SIOUX CITY.—The last killing frost in spring recorded on April 24th, page 8, should have been April 18th. The first killing frost in autumn recorded on October 20th, page 8, should have been October 21st.

COLLEGE SPRINGS.—The monthly precipitation recorded as 1.40 inches on page 20, for February should have been 1.58 inches. The monthly precipitation recorded as 2.49 inches on page 20, for April, should have been 1.49 inches. The annual precipitation recorded as 31.20 inches on pages 13 and 20, should have been 31.88 inches.

COLUMBUS JUNCTION.—The annual precipitation recorded as 35.91 inches on page 20, should have been 32.91 inches.

ESTHERVILLE.—The monthly precipitation for December, recorded as trace, on page 20, should have been .25 of an inch. The annual precipitation recorded as 39.19 inches on pages 13 and 20, should have been 39.44 inches.

SAC CITY.—The monthly precipitation for July, recorded as 8.65 inches, on page 21, should have been 3.65 inches.

CLIMATOLOGICAL DATA FOR THE YEAR 1906.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE IN DEGREES, FAH.					PRECIPITATION, INCHES							No. rainy days	SKY			Prevailing direction of wind
				Annual mean	Highest	Date	Lowest	Date	Length of rec., yrs.	Total for year	Greatest monthly	Month	Least monthly	Month	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days	
Afton	Union	1,212	12	50.4	98	June 17	- 8	Feb. 15	13	25.99	4.25	April	.40	Jan.	30.0	73	.....	.....	.....	SW
Albia	Monroe	959	9	49.4	93	Aug. 16	- 9	Jan 8	9	30.94	8.27	June	.56	Oct.	35.0	92	.....	.....	.....	.....
Algona	Kossuth	1,213	31	46.4	93	Aug. 16	-20	Feb. 15	34	36.93	8.88	July	.80	Dec.	29.9	100	181	67	117	NW
Allerton	Wayne	.....	...	50.8	99	Aug. 16	- 7	Jan. 8	....	25.43	4.87	June	.50	Oct.	35.8	107	214	62	89	NW
Alta	Buena Vista	1,513	14	46.0	95	Aug. 16	-16	Feb. 10*	16	31.22	5.12	May	.72	Jan.	30.7	110	.....	.....	.....	.....
Alta (near)	Buena Vista	.....	.....	.....	.....	.....	.....	.....	.....	32.27	5.68	May	.60	Jan.	.....	95	.....	.....	.....	.....
Alton	Sioux	1,305	....	46.6	96	Aug. 16	-17	Feb. 10	....	33.89	6.31	May	.38	Jan.	18.8	87	200	67	98	NW
Amana	Iowa	721	28	49.3	93	Aug. 2	-11	Feb. 15	31	27.94	4.48	Aug.	1.06	Sep.	32.4	98	143	141	91	NW
Ames	Story	926	23	48.6	95	June 17	-16	Feb. 15	29	27.22	5.28	Aug.	.28	Feb.	20.5	98	.....	.....	.....	.....
Atlantic	Cass	1,164	14	49.3	102	July 21	-16	Feb. 15	16	33.57	6.53	Sept.	.80	Jan.	29.5	83	86	107	172	S
Audubon	Audubon	1,301	11	48.4	100	Aug. 16	-19	Feb. 15	....	27.79	5.07	Sept.	.53	Feb.	22.7	90	150	95	120	NW
Baxter	Jasper	998	7	.....	95	June 17	-11	Feb. 15	7	30.58	6.56	Sept.	.20	Feb.	31.5	93	.....	.....	.....	NW
Bedford	Taylor	.....	7	49.6	97	June 16	-12	Mar 17	7	32.82	6.52	June	1.24	Jan.	33.7	85	193	61	111	SE
Belle Plaine	Benton	828	15	47.6	96	Aug. 16	-15	Jan. 8	17	36.31	5.05	Aug.	1.98	Feb.	67.2	103	143	112	110	SE
Bonaparte	Van Buren	.....	13	51.1	98	July 22	- 4	Jan. 8 Mar. 17	15	30.49	4.10	Aug.	1.20	Oct.	24.3	80	.....	.....	.....	.....
Boone	Boone	1,134	....	47.9	95	Aug. 16	-10	Jan. 8	....	29.65	4.01	June	1.32	Dec.	33.4	102	.....	.....	.....	.....
Britt	Hancock	1,236	8	46.4	93	Aug. 16	-18	Feb. 10	10	38.95	8.15	Aug.	.78	Dec.	21.7	96	86	195	84	NW
Buckingham	Iowa	.....	.....	.....	.....	.....	.....	.....	7	33.89	7.44	Aug.	1.26	Feb.	.....	74	.....	.....	.....	.....
Burlington	Des Moines	544	9	51.5	95	July 22 Aug. 23 Sept. 10	- 3	Dec. 23*	11	37.30	5.13	Sept.	1.51	Oct.	.....	104	.....	.....	.....	.....
Carroll	Carroll	1,265	87	47.2	98	Aug. 16	-22	Feb. 15	17	22.79	3.35	Sept.	.17	Jan.	35.0	82	.....	.....	.....	.....
Cedar Rapids	Linn	733	24	49.1	96	Aug. 16 Sept. 9	-11	Feb. 15*	24	27.91	6.03	Aug.	.60	Feb.	27.2	84	....	....	....	.....
Chariton	Lucas	1,042	10	49.8	97	Aug. 16 Sept. 9	-10	Jan. 8	12	30.59	5.61	June	.84	Oct.	48.0	63	209	67	89	SE
Charles City	Floyd	1,015	20	45.2	92	Aug. 16	-22	Feb. 15	16	37.61	6.26	May	1.22	Dec.	60.7	117	84	110	171	SE
Clarinda	Page	1,009	15	50.1	100	Aug. 16 Sept. 9	- 9	Mar. 17	17	22.88	3.44	July	.82	Jan.	42.7	86	....	....	....	.....
Clear Lake	Cerro Gordo	1,241	8	46.8	98	Aug. 16	-13	Feb. 9	8	36.50	7.09	Aug.	.40	Feb.	26.8	80	225	30	110	S
Clinton	Clinton	593	37	50.0	94	June 38 July 22 Aug. 4	0	Jan. 9 Feb. 5*	39	38.56	5.42	July	1.41	Oct.	23.0	96	118	111	136	SW
College Springs	Page	.....	13	50.8	97	June 26	- 9	Mar. 17	15	32.93	5.95	July	.45	Jan.	31.4	73	.....	.....	.....	.....
Columbus Jn.	Louisa	595	6	50.9	94	July 22	- 5	Jan. 8	6	32.63	7.80	June	1.51	Oct.	29.9	91	235	77	53	NE, SE
Corning	Adams	1,117	13	49.2	96	Aug. 16	- 8	Mar. 17	14	25.36	3.64	Sept.	.98	Oct.	41.9	69	154	129	82	NW
Corydon	Wayne	1,101	12	51.0	97	Aug. 16 Sept. 9	- 8	Jan. 8	14	27.86	6.08	June	.63	Oct.	.....	89	170	93	102	SW
Creston	Union	.....	....	48.8	99	Aug. 17	-11	Jan. 17	....	23.90	4.41	Sept.	.65	Feb.	34.6	76	.....	.....	.....	.....
Cumberland	Cass	.....	....	.....	.....	.....	.....	.....	8	27.11	5.67	June	.50	Feb.	34.0	58	248	46	71	S
Davenport	Scott	606	36	50.9	94	July 21 Aug. 23	0	Feb. 5	16	27.93	3.50	Aug.	1.61	Dec.	20.7	115	135	107	123	NW
Decorah	Winneshiek	875	11	46.9	94	July 16	-23	Feb. 15	13	40.65	7.84	Aug.	.71	Feb.	42.6	107	.....	.....	.....	.....
Delaware	Delaware	1,083	14	46.5	91	July 21 Aug. 16	-10	Jan. 8	16	28.08	4.40	Aug.	.43	Feb.	20.7	92	151	138	76	NW
Denison	Crawford	1,180	11	.....	97	Aug. 16	-22	Feb. 15	12	.....	4.81	Sept.	.50	Jan.	.....	.....	.....	.....	.....	.....
Des Moines	Polk	861	28	49.8	97	Aug. 16	-12	Feb. 15	28	29.44	4.86	Aug.	.86	Feb.	43.7	107	96	149	120	NW
De Soto	Dallas	866	7	49.8	96	Sept. 10	-24	Feb. 15	7	23.69	3.42	Aug.	.61	Feb.	32.2	98	205	47	113	SW, NW
Dows	Wright	1,142	7	46.3	93	Aug. 20 Sept. 10	-17	Feb. 10	7	28.72	4.19	May	.68	Dec.	27.1	99	....	....	....	.....
Dubuque	Dubuque	698	34	48.7	92	June 28 Aug. 23 Sept. 11	-14	Feb. 15	34	28.60	4.44	Aug.	.93	Feb.	27.8	122	144	105	116	NW
Earlham	Madison	.....	5	48.3	95	Aug. 22 Sept. 9	-22	Feb. 15	5	27.41	4.33	Sept.	1.17	Feb.	47.5	68	180	76	109	NW
Elkader	Clayton	727	24	.....	96	Aug. 16	-25	Feb. 15	27	37.84	6.33	Aug.	1.00	Feb.	41.5	80	161	108	96	SE, NW
Elliott	Montgomery	.....	....	50.8	99	Aug. 16	- 7	Feb. 14 Mar. 18	....	20.63	4.26	Sept.	.57	Oct.	29.0	69	178	141	46	S
Estherville	Emmet	1,298	10	44.9	96	Aug. 16	-18	Feb. 10*	9	.....	.....	.....	.....	.....	19.0	76	.....	.....	.....	.....
Fayette	Fayette	1,003	17	.....	.....	.....	-27	Feb. 15	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Forest City	Winnebago	1.226	11	45.8	98	Aug. 16	-15	Feb. 10	13	35.18	7.12	Sept.	.90	Jan.	18.5	84	.....	.....	.....	.....
Fort Dodge	Webster	1,126	7	46.8	95	Aug. 16	-19	Feb. 15	7	33.20	6.10	May	.67	Feb.	23.9	96	.....	.....	.....	.....
Fort Madison	Lee	516	....	.....	.....	.....	.....	.....	57	31.14	4.58	Sept.	.60	Oct.	40.6	71	100	134	131	S
Galva	Ida	1,290	11	.....	93	Aug. 16	-16	Feb. 15	13	28.53	5.98	Sept.	.47	Jan.	23.4	79	210	58	97	S
Gilman	Marshall	1,052	....	.....	.....	.....	.....	.....	8	.....	5.21	Aug.	.42	Dec.	.....	.....	.....	.....	.....	S
Grand Meadow	Clayton	1,180	14	46.2	91	Aug. 16	-15	Jan. 8	16	37.87	5.36	Sept.	.93	Apr.	.....	106	126	100	139	NW
Greenfield	Adair	.....	14	49.9	99	June 16	-15	Feb. 15	16	30.53	4.47	Sept.	1.00	Feb.	38.1	91	194	88	83	S
Grinnell	Poweshiek	1,023	12	48.3	94	June 17 Aug. 16 Sept. 10	-12	Jan. 8 Feb. 5	....	26.79	3.91	June	.91	Feb.	40.7	95	146	97	122	.....
Grundy Center	Grundy	976	14	48.3	98	Aug. 16	-15	Jan. 8	16	30.98	4.60	July	.80	Feb.	.....	61	174	64	127	S
Guthrie Center	Guthrie	1,077	9	49.2	94	June 16 July 21 Aug. 16	-23	Feb. 15	11	27.34	4.87	June	.98	Dec.	35.3	104	206	78	81	SW
Hampton	Franklin	1,155	15	48.0	97	Aug. 16	-13	Jan. 8 Feb. 10*	17	35.61	7.07	Sept.	1.04	Feb.	36.4	98	110	166	89	.....
Hancock	Pottawatta'ie.	.....	....	49.6	95	Aug. 16 Sept. 9	- 8	Feb. 14*	....	28.07	5.60	Sept.	.75	Jan.	21.3	72	....	....	....	.....
Harlan	Shelby	1,192	8	48.4	94	June 16 Aug. 16	-15	Feb. 15	8	29.66	4.89	Mar. Sept.	.45	Jan.	22.6	87	100	156	109	S
Hopeville	Clarke	.....	14	50.5	100	Aug. 16	- 7	Jan. 8 Mar. 17	16	24.00	3.19	Sept.	1.01	Jan.	.....	97	81	195	89	S
Humboldt	Humboldt	1,095	13	46.9	92	June 17 July 17 Aug. 16	-17	Feb. 10*	18	33.00	6.85	May	.25	Feb.	18.0	.....	.....	.....	.....	NW
Independence	Buchanan	921	41	.....	93	Aug. 23 Sept. 9	-14	Jan. 8	39	.....	7.05	July	.....	.....	.....	....	....	....	....	.....
Indianola	Warren	969	16	50.2	96	Aug. 16	-12	Feb. 15	16	32.47	5.52	Aug.	1.16	Mar.	35.2	91	.....	.....	.....	.....
Inwood	Lyon	.....	....	45.9	98	Aug. 16	-32	Feb. 10	....	35.73	7.94	June	.21	Feb.	14.7	91	195	79	91	S
Iowa City	Johnson	683	46	49.0	97	Aug. 16 Sept. 16	-10	Feb. 15	44	28.14	5.34	Aug.	.89	Sep.	27.3	103	....	....	....	.....
Iowa Falls	Hardin	1,170	12	46.2	94	June 17	-17	Feb. 10	14	29.40	3.61	Aug.	1.32	Feb.	38.5	102	.....	.....	.....	.....

CLIMATOLOGICAL DATA FOR THE YEAR 1906—CONTINUED.

STATIONS	COUNTIES	Elevation, feet.	Length of record, years	TEMPERATURE IN DEGREES, FAH.					PRECIPITATION, INCHES							Number rainy days.	SKY			Prevailing direction of wind.
				Annual mean.	Height.	Date.	Lowest.	Date.	Length of rec., yrs.	Total for years.	Greatest monthly.	Month.	Least monthly.	Month.	Total snowfall (unmelted).		No. clear days.	No. partly cloudy days.	No. cloudy days.	
Jefferson	Greene	.....	....	.....	96	Aug. 16	-18	Feb. 15	7	.....	4.49	Aug.	.88	Feb.	.....	.....	.....	.....	.....	NW SW
Keokuk	Lee	614	36	52.6	97	July 22	0	Feb. 5	35	25.01	2.94	Sept.	.73	Oct.	25.1	91	.....	.....	.....	.....
Keosauqua	Van Bursn	644	13	50.4	99	Aug. 16	- 5	Jan. *8	15	29.31	3.83	May	1.34	Oct.	37.1	104	.....	.....	.....	.....
Knoxville	Marion	920	11	.....	95	June 17	- 8	Jan. 8; Feb. 15	9	.....	4.76	Sept.	.....	.....	.....	....	....	....	....	.....
Lacona	Warren	.....	....	.....	....	.....	.....	.....	8	28.15	3.92	Sept.	.76	Oct.	57.3	83	.....	.....	.....	.....
Larrabee	Cherokee	1,266	16	47.3	96	July 10	-20	Feb. 10	17	30.58	4.99	Sept.	.40	Dec.	29.5	86	....	.....	.....	.....
Le Claire	Scott	576	....	.....	....	.....	.....	.....	....	32.06	4.64	June	1.47	Oct.	21.0	104	182	46	137	SW
Le Mars	Plymouth	1,224	9	47.1	95	Aug. 16	-17	Feb. 15	11	.....	8.23	Sept.	.40	Jan.	22.0	.....	.....	.....	.....	S
Lenox	Taylor	1,250	10	49.9	94	June 16; Aug. 16	-10	Jan. 8	12	26.17	4.14	July	.81	Jan.	25.8	85	214	82	69	S
Leon	Decatur	1,120	5	50.7	96	Aug. 16	- 6	Jan. 8	5	29.04	5.04	June	.70	Octt	44.2	89	211	37	117	SE
Little Sioux	Harrison	.....	....	50.1	96	Aug. 16	-12	Feb. 14	....	35.05	6.34	July	.68	Nov.	29.3	94	183	83	99	SE
Logan	Harrison	928	38	49.6	98	June 17	-14	Feb. 15	7	37.48	8.99	Sept.	.85	Jan.	31.0	81	101	208	56	NW
Marshalltown	Marshall	947	12	47.6	96	June 17; Sept. 9	-15	Feb. 15	13	29.35	5.10	Sept.	.66	Feb.	38.3	101	....	....	....	.....
Mason City	Cerro Gordo	1,132	12	47.4	93	Aug. 16	-13	Feb. 15	12	42.13	7.00	May	1.15	Jan.	35.4	89	115	173	77	NW
Mt. Ayr	Ringgold	1,236	11	51.2	97	June 17; Aug. 16; Sept. 9	- 6	Jan. 8; Mar. 17	13	30.62	5.33	June	1.40	Oct.	48.4	94	138	126	101	.....
Mt. Pleasant	Henry	729	23	51.3	97	July 22	- 6	Jan. 8	13	32.47	4.81	June	1.12	Oct.	31.0	107	125	150	90	SE
Mt. Vernon	Linn	847	38	49.4	98	July 21	-11	Jan. 8	11	25.03	4.75	Aug.	.64	Sept.	32.7	104	181	64	120	.....
Muscatine	Muscatine	.....	....	.....	....	.....	.....	.....	48	29.01	3.56	June	1.36	July	21.6	102	145	60	160	S
Nevada	Story	.....	....	.....	....	.....	.....	.....	.....	.....	4.31	Sept.	.....	.....	.....	.....	.....	.....	.....	.....
New Hampton	Chicasaw	1,169	7	45.6	89	June 28; July 9; Aug. 16	-17	Jan. 8	10	32.54	4.97	May	1.09	Feb.	.....	93	.....	.....	.....	.....
Northwood	Worth	1,222	9	45.9	91	Aug. 16	-15	Feb. 10	11	41.59	9.61	May	1.07	Feb.	32.3	108	.....	.....	.....	NW
Odebolt	Sac	1,356	8	49.0	101	Aug. 16	-14	Feb. 15	9	31.44	7.84	Sept.	.60	Jan.	.....	74	223	58	84	.....
Ogden	Boone	1,058	11	.....	95	Aug. 16	.....	.....	12	.....	5.70	June	.....	.....	.....	.....	.....	.....	.....	.....
Olin	Jones	760	8	48.6	91	July 22; Aug. 1; Sept. 11	-11	Feb. 15	8	.....	7.46	Aug.	.....	.....	25.5	.....	.....	.....	.....	NW
Omaha, Neb	Douglas	1,105	35	51.1	97	Aug. 16	- 8	Feb. 14	36	27.59	5.30	June	.52	Nov.	29.2	97	96	112	157	S
Onawa	Monona	.....	7	50.1	97	June 16	-10	Feb. 14	7	40.59	7.71	Aug.	.50	Nov.	31.6	103	234	35	96	SE
Osage	Mitchell	1,184	14	45.9	96	Aug. 16	-14	Jan. 8; Feb. 15	19	40.64	8.10	May	1.55	Dec.	47.2	113	134	75	156	S, NW
Oskaloosa	Mahaska	843	21	49.9	96	Sept. 9	-11	Jan. 8	29	21.16	3.45	June	.78	Feb.	35.4	95	204	7	154	NW
Ottumwa	Wapello	649	11	51.6	98	Aug. 16	- 5	Jan. 8	13	.....	6.78	June	.....	.....	.....	56	152	104	109	.....
Pacific Junc	Mills	960	8	49.9	96	June 17	-10	Mar. 17	8	28.64	6.08	June	.62	Jan.	31.4	75	146	151	68	S
Pella	Marion	.....	6	51.3	98	Sept. 9	-10	Jan. 8	5	27.34	3.95	Aug.	1.08	Mar.	39.6	99	.....	.....	.....	SE
Perry	Dallas	975	6	49.1	95	June 17; July 11	-17	Feb. 15	6	27.87	3.84	Aug.	.80	Feb.	39.6	84	....	....	....	.....
Plover	Pocahontas	.....	8	47.0	95	Aug. 16	-21	Feb. 10	9	.....	7.11	Sept.	.44	Feb.	18.5	.....	.....	.....	.....	.....
Pocahontas	Pocahontas	.....	....	47.5	95	Aug. 16	-18	Feb. 10*	....	31.53	5.18	Sept.	.61	Jan.	26.5	81	189	88	88	S
Ridgway	Winneshiek	1,215	9	47.8	96	Aug. 16	-13	Feb. 5	9	44.34	6.11	Sept.	1.32	Feb.	....	128	160	132	73	S
Rock Rapids	Lyons	.....	9	.....	98	Aug. 16	-21	Feb. 10	9*	.....	5.65	June	.35	Feb.	.....	.....	.....	.....	.....	.....
Rockwell City	Calhoun	.....	10	.....	98	July 4	-15	Feb. 15	11	.....	6.86	May	1.20	Jan.	.....	.....	.....	.....	.....	.....
Sac City	Sac	1,356	25	.....	93	Aug. 16; Sept. 9	-17	Feb. 15	31	.....	4.68	Sept.	.77	Jan.	.....	....	....	....	....	NW
Saint Charles	Madison	1,070	5	50.9	98	Sept. 8	-12	Feb. 15	6	28.93	4.79	Sept.	.93	Oct.	32.0	97	202	89	74	NW
Sheldon	O'Brien	1,422	7	47.0	97	Aug. 16	-23	Feb. 10	7	36.68	6.01	Sept.	.60	Dec.	29.2	99	190	68	107	S
Sibley	Osceola	1,212	11	44.3	97	Aug. 16	-19	Feb. 9*	13	37.17	10.51	Aug.	.19	Feb.	15.3	96	....	....	....	.....
Sigourney	Keokuk	877	8	50.7	95	Sept. 9	-10	Jan. 8	11	31.20	4.93	June	.78	Sept	51.3	85	.....	.....	.....	NW
Sioux Center	Sioux	.....	8	45.8	94	Aug. 16	-18	Feb. 10	8	36.58	8.00	May	.55	Nov.	26.5	87	.....	.....	.....	S
Sioux City	Woodbury	1,135	16	47.8	96	Aug. 16	-14	Feb. 14	18	31.41	8.06	Sept.	.50	Jan.	29.8	99	116	101	148	NW
Stockport	Van Buren	.....	....	51.3	95	Aug. 16	- 5	Jan. 8; Mar. 17	5	26.44	3.45	Mar.	1.42	Oct.	45.8	110	195	52	118	NW
Stuart	Guthrie	.....	8	.....	....	.....	-15	Feb. 15	....	.....	.....	.....	1.29	Feb.	.....	.....	.....	.....	.....	.....
Thurman	Fremont	.....	9	50.6	98	June 16	-14	Mar. 17	10	38.54	11.10	Sept.	.51	Dec.	.....	71	132	111	122	NW
Tinton	Cedar	807	9	51.2	96	July 21	- 2	Jan. 8*	9	25.77	3.86	Aug.	.....	.....	.....	57	220	90	55	NW
Toledo	Tama	856	11	48.7	94	Aug. 16	-13	Jan. 8	12	33.99	5.60	Aug.	.95	Feb.	49.0	86	.....	.....	.....	NW
Wapello	Louisa	588	7	.....	....	.....	- 0	Jan. 8; Feb. 10	9	33.42	5.92	June	1.44	Oct.	20.8	84	....	....	....	.....
Washington	Washington	769	23	50.0	93	Aug. 16; Sept. 10	- 9	Jan. 8	16	33.72	7.42	June	1.51	Ap.; Oct.	.....	83	....	....	....	NW
Washta	Cherokee	1,157	....	47.4	100	Aug. 16	-24	Feb. 15	9	24.95	4.28	May	.35	Nov.	16.9	76	187	82	96	S
Waterloo	Black Hawk	862	18	48.0	95	Aug. 16; Sept. 9	-17	Feb. 15	26	28.58	3.35	May	1.20	Feb.	.....	102	....	....	....	.....
Waukee	Dallas	1,039	....	49.7	94	June 17	-13	Feb. 15	....	33.57	4.93	July	1.29	Oct.	65.8	98	.....	.....	.....	NW
Waverly	Bremer	942	9	.....	93	Aug. 16	-18	Feb. 15	11	.....	3.78	July	1.43	Feb.	43.1	103	.....	.....	.....	.....
Webster City	Hamilton	.....	....	48.7	99	July 11	-19	Feb. 15	....	29.37	4.19	Sept.	.96	Dec.	30.0	61	170	90	105	SE
West Bend	Palo Alto	1,197	11	46.5	95	Aug. 16	-20	Feb. 10	13	36.39	6.69	Sept.	.81	Dec.	17.9	93	106	145	114	.....
Whitten	Hardin	1,036	7	.....	96	June 17	-17	Jan. 8	9	.....	.....	.....	.50	Feb.	36.0	.....	.....	.....	.....	SE
Wilton Junct*	Muscatine	683	10	.....	....	.....	- 5	Jan. 8	12	.....	4.33	July	1.30	Feb.	.....	76	215	68	82	W
Winterset	Madison	1,129	14	50.2	96	June 17	-14	Feb. 15	16	34.02	5.60	June	.95	Feb.	41.0	80	162	87	116	NW
Woodburn	Clarke	961	....	94.2	94	June 17; Sept. 11	-12	Jan. 15	8	32.73	5.55	Aug.	1.26	Oct.	39.5	68	172	106	87	NW
Zearing	Story	718	....	48.0	93	June 17; Aug. 16	-16	Jan. 15	....	29.99	4.61	June	.75	Feb.	25.9	86	177	73	115	SW
Average		.....	....	48.7	....	.....	.....	.....	....	31.23	.....	.....	.....	.....	.....	92	163	97	105	NW
Extremes and date		.....	....	.....	102	July 21	-32	Feb. 10	....	.....	11.10	Sept.	.20	Feb.	.....	.....	.....	.....	.....	.....

*And other dates.

MONTHLY MAXIMUM AND MINIMUM TEMPERATURES FOR 1906 WITH DATES.

STATIONS		Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
		Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date
Afton	Max	52	20	60	22	58	1	87	24	86	25	98	17	97	27	97	16	95	9	79	17	72	6	59	13
	Min	- 7	8	- 8	15	- 2	17	27	1	31	6	42	13	50	16	45	27	37	30	19	31	12	22	- 2	18
Albia	Max	60	20	62	22	59	2	85	24	85	17	91	* 6	91	22	93	*16	98	10	83	4	72	6	64	5
	Min	- 9	8	- 6	* 5	- 4	17	26	1	30	6	44	*13	51	* 6	41	27	38	27	22	31	9	22	- 1	*18
Algona	Max	49	29	52	22	53	1	85	24	87	11	90	17	91	*10	93	16	89	10	75	13	64	6	45	2
	Min	-11	8	-20	15	- 2	16	25	6	26	7	43	13	46	16	45	27	35	30	22	31	9	22	- 6	18
Allerton	Max	54	20	55	18	56	30	79	24	86	17	93	17	95	22	99	16	98	9	83	4	75	6	65	5
	Min	- 7	8	- 5	5	- 5	17	28	1	30	* 6	44	13	49	16	42	27	39	30	21	31	5	22	0	18
Alta	Max	53	29	55	22	55	1	90	24	88	11	93	17	92	11	95	16	91	* 8	76	3	63	5	46	2
	Min	-11	8	-16	*10	- 4	11	27	* 4	29	6	45	* 1	49	16	43	27	36	30	21	10	11	*18	- 4	18
Alton	Max	52	31	58	22	52	30	89	24	89	11	91	17	89	*10	96	16	94	8	76	3	65	6	49	2
	Min	- 9	8	-17	10	- 5	16	26	6	30	9	41	22	45	16	41	27	32	30	22	10	11	19	- 2	18
Amana	Max	49	20	55	22	54	* 2	82	24	88	23	92	* 6	92	21	93	* 2	94	9	79	4	71	6	49	13
	Min	- 9	8	-11	15	2	17	26	1	29	7	43	13	47	16	46	27	39	27	19	31	7	22	- 2	23
Ames	Max	19	28	58	22	59	2	86	24	86	11	95	17	93	*10	94	16	92	10	87	13	73	6	51	28
	Min	-10	8	-16	15	2	17	25	1	29	* 6	42	13	45	16	43	27	35	30	19	31	1	22	- 5	18
Atlantic	Max	55	28	63	22	60	1	89	24	86	11	98	17	102	21	99	16	95	8	83	7	70	6	55	5
	Min	- 5	8	-16	15	-11	17	24	6	25	9	37	13	45	16	36	27	31	30	16	31	7	22	- 4	18
Audubon	Max	55	29	60	22	59	1	90	24	88	11	90	28	94	*21	100	16	95	* 8	80	* 7	68	6	50	28
	Min	-10	8	-19	15	- 4	17	28	* 1	27	* 6	38	*14	44	16	35	27	32	27	16	31	10	13	- 6	18
Baxter	Max	50	*20	57	22	58	2	86	24	85	11	95	17	90	*10	94	16	94	* 9	81	* 4	73	6	49	13
	Min	- 4	9	-11	15	- 3	17	25	1	27	9	41	13	46	16	43	27	37	30	18	31	4	22	- 4	18
Bedford	Max	57	20	55	23	56	30	76	24	85	22	97	16	92	10	95	16	94	* 9	87	20	74	6	61	13
	Min	- 5	8	- 7	5	-12	17	27	6	26	9	42	2	44	17	40	27	39	27	19	31	6	22	- 4	18
Belle Plaine	Max	42	29	51	22	55	2	83	*24	86	*13	91	*27	91	*10	96	*16	92	*10	81	4	70	6	47	13
	Min	-15	8	-14	15	- 2	17	26	1	27	7	45	13	48	16	45	27	39	30	22	31	4	22	- 3	23
Bonaparte	Max	66	20	60	22	58	2	85	24	88	17	93	* 6	98	22	95	16	93	* 9	81	4	74	6	59	5
	Min	- 4	8	- 3	5	- 4	17	25	1	28	7	45	13	50	*16	45	27	44	*27	22	*11	10	22	- 1	23
Boone	Max	51	28	58	22	58	2	86	24	86	11	94	17	91	*10	95	16	94	* 9	79	4	73	6	50	28
	Min	-10	8	- 9	10	2	17	27	1	31	6	43	13	52	16	46	27	39	30	22	31	11	*18	- 2	18
Britt	Max	47	29	54	22	55	1	86	24	87	11	91	17	92	*11	93	16	90	10	75	* 3	70	6	45	29
	Min	-17	8	-18	10	- 2	16	27	1	24	7	41	13	46	16	36	27	36	30	21	*10	6	22	- 6	18
Burlington	Max	65	20	59	22	59	2	83	25	89	17	93	28	95	22	95	23	95	*10	82	4	75	6	59	5
	Min	- 1	8	0	5	0	17	28	1	31	7	50	12	54	7	51	27	46	30	24	31	14	*22	- 3	*23
Carroll	Max	56	28	63	22	59	1	90	24	87	11	93	17	92	21	98	16	93	9	77	7	69	6	51	28
	Min	-11	* 8	-22	15	- 1	20	26	* 1	28	* 6	38	22	46	7	.....	.....	36	27	19	10	12	22	- 5	18
Cedar Rapids	Max	53	20	56	23	53	* 1	84	24	90	*17	94	* 6	95	21	96	16	96	9	83	4	70	6	48	13
	Min	- 8	* 8	-11	*15	3	*17	25	1	30	7	47	13	51	5	48	27	41	30	20	31	9	25	- 3	24
Chariton	Max	60	20	60	22	56	2	84	24	84	17	91	17	94	27	97	16	97	9	83	4	75	6	65	5
	Min	-10	8	- 7	15	- 8	17	27	1	31	* 6	44	* 2	49	16	44	27	38	30	20	31	4	22	- 1	18
Charles City	Max	44	29	44	22	51	30	78	24	85	11	88	17	90	12	92	16	89	10	78	4	69	6	46	2
	Min	-19	8	-22	15	0	16	27	1	27	7	44	13	49	16	42	27	36	30	22	31	0	22	- 9	23
Clarinda	Max	58	29	65	22	57	30	90	24	89	11	99	*16	98	27	100	16	100	9	84	7	72	* 6	65	12
	Min	- 4	* 8	- 6	* 5	- 9	17	27	6	29	* 6	38	21	49	16	41	27	38	*27	20	31	10	18	- 1	18
Clear Lake	Max	44	*28	50	22	50	30	85	24	83	11	90	*16	92	*10	98	16	90	10	75	* 3	70	6	40	* 2
	Min	- 5	22	-13	9	- 1	16	26	1	31	6	44	13	51	7	48	27	36	30	20	31	13	22	- 3	18
Clinton	Max	59	20	54	22	53	*26	85	25	91	17	94	28	94	22	94	4	91	*11	76	3	69	6	48	14
	Min	0	9	0	* 5	2	17	22	1	30	* 7	43	*12	49	7	46	28	40	27	19	31	15	*22	3	23
College Springs	Max	53	20	62	22	58	1	87	24	85	14	97	26	90	*21	95	17	92	* 9	83	2	73	6	61	13
	Min	- 2	8	- 4	5	- 9	17	29	15	29	9	45	2	51	16	41	27	40	27	22	10	12	22	- 1	18
Columbus Junction	Max	64	20	57	22	57	* 2	81	25	89	17	93	28	94	22	92	16	92	*11	78	4	70	6	55	14
	Min	- 5	8	- 2	5	- 2	17	26	1	32	* 6	46	13	51	16	47	27	43	30	22	31	13	24	2	23
Corning	Max	51	28	60	22	56	1	86	24	84	*11	94	*16	91	21	96	16	94	9	77	7	72	6	56	* 5
	Min	- 6	8	- 6	* 5	- 8	17	26	6	29	* 6	43	13	49	5	37	27	37	27	19	31	11	22	- 3	18
Corydon	Max	62	20	62	22	59	30	85	24	86	17	90	* 6	94	27	97	16	97	9	83	4	76	6	65	5
	Min	- 8	8	- 6	* 5	- 5	17	27	1	30	6	45	13	51	16	45	*27	39	30	21	31	8	22	0	*18
Creston	Max	50	*28	60	22	57	1	86	24	84	11	93	17	93	27	99	17	94	8	80	2	73	6	57	13
	Min	- 7	* 8	- 7	15	-11	17	27	1	27	6	42	13	48	16	40	27	39	30	19	31	8	22	1	19
Davenport	Max	63	20	55	22	54	2	80	25	88	17	93	28	94	21	94	23	92	17	78	3	71	6	54	14
	Min	1	8	0	5	6	17	28	1	34	7	48	12	54	16	49	27	46	30	27	10	17	24	4	23
Decorah	Max	43	28	48	22	52	30	82	25	87	17	93	28	94	16	93	*16	91	10	77	4	68	6	44	2
	Min	-12	8	-23	15	3	*12	27	1	29	7	42	13	48	* 6	45	27	37	30	19	31	3	24	- 5	23
Delaware	Max	45	20	48	22	52	30	77	25	83	*23	88	28	91	21	91	16	90	11	78	4	66	6	44	2
	Min	-10	8	- 9	* 5	1	17	25	1	27	7	42	13	49	* 6	44	27	37	30	18	31	8	*22	- 1	23
Denison	Max	58	29	61	22	61	1	90	24	87	11	95	17	91	*11	97	16	95	* 8	79	7	68	6	.....	.....
	Min	- 8	8	-22	15	1	17	24	6	29	9	41	2	44	7	37	27	32	30	19	10	10	22	.....	.....
Des Moines	Max	54	20	61	22	58	2	86	24	84	11	92	17	91	27	97	16	92	9	80	4	73	6	52	13
	Min	- 8	8	-12	15	1	17	29	1	33	9	48	13	52	24	46	27	43	30	24	31	8	22	1	18
De Soto	Max	52	28	60	22	59	2	86	24	84	11	92	17	90	*11	95	16	96	10	82	4	73	6	52	13
	Min	-10	8	-24	15	- 4	17	28	* 1	31	* 6	45	13	47	25	44	27	38	*27	19	31	6	22	- 5	18
Dows	Max	46	28	54	22	54	30	86	24	86	11	91	17	91	11	93	20	93	10	78	13	72	6	46	*26
	Min	-15	8	-17	10	0	15	26	1	27	7	41	13	44	*16	40	27	33	30	18	31	4	22	- 6	18
Dubuque	Max	59	20	53	29	53	30	81	25	87	17	92	28	91	21	92	23	92	11	77	4	66	6	45	13
	Min	- 4	8	-14	15	5	15	27	1	34	6	50	13	54	16	48	27	43	30	23	31	11	24	3	7
Earlham	Max	51	28	59	22	57	1	85	24	85	11	93	17	91	21	95	22	95	9	80	* 4	72	6	55	6
	Min	-11	8	-22	15	- 6	17	23	* 6	26	6	37	13	43	24	38	27	34	27	14	31	9	*13	- 4	18
Elkader	Max	49	28	51	22	55	30	83	25	89	23	94	*16	94	21	96	16	93	* 9	81	* 4	.....	.....	45	28
	Min	-12	8	-25	15	4	15	23	1	28	9	39	13	47	* 6	44	27	34	30	7	31	.....	.....	- 7	* 6
Elliott	Max	57	29	60	22	62	1	90	24	88	*23	98	17	98	11	99	16	95	* 9	78	7	74	6	54	5
	Min	- 5	8	- 7	14	- 7	18	27	6	29	6	43	* 2	50	16	40	27	33	30	18	31	12	22	- 2	18
Estherville	Max	53	26	56	22	52	30	89	24	90	11	91	17	91	*10	96	16	93	10	77	3	63	6	50	2
	Min	-10	8	-18	*10	- 4	*11	25	* 1	24	7	42	13	48	* 7	44	27	32	30	19	31	10	*12	- 8	18
Fayette	Max	46	20	47	22	53	30	80	25	88	25	90	28	89	*11	.....	.....	.....	.....	.....	.....	70	6	45	2
	Min	-16	8	-27	15	2	*12	21	1	25	7	41	1	46	6	.....	.....	.....	.....	.....	.....	2	24	- 8	23
Forest City	Max	48	29	53	22	52	30	84	24	88	11	91	16	94	11	98	16	93	8	78	* 2	69	6	46	2
	Min	-14	8	-15	10	- 1	16	28	1	27	7	41	12	47	16	40	30	38	30	22	*10	10	22	- 5	18
Fort Dodge	Max	50	29	57	22	56	1	89	24	87	11	93	17	93	*10	95	16	94	* 8	78	* 2	70	6	47	28
	Min	-11	* 8	-19	15	2	*15	27	1	30	7	42	13	51	16	45	*27	36	30	24	*10	10	22	- 4	18
Galva	Max	54	29	51	*12	57	1	89	24	81	*11	92	17	91	11	93	16	90	* 8	74	* 3	62	6	46	2
	Min	-10	8	-16	15	0	16	28	10	30	* 6	40	* 2	43	7	36	27	31	30	18	10	10	22	- 6	18
Grand Meadow	Max	44	20	46	22	48	30	81	25	84	*16	88	28	88	*11	91	16	88	11	76	4	67	6	42	2
	Min	-15	8	-14	5	0	16	25	1	27	7	45	13	50	* 7	46	27	40	30	20	31	5	24	- 2	7
Greenfield	Max	50	28	60	22	58	1	88	24	89	12	99	16	95	27	95	16	95	9	77	* 4	72	6	56	* 5
	Min	-10	8	-15	15	- 5	17	26	6	27	6	41	13	52	* 5	44	27	39	30	19	10	13	*13	- 5	18
Grinnell	Max	52	20	56	22	56	2	84	24	83	*11	94	17	91	11	94	*16	94	10	82	4	74	6	48	13
	Min	-12	8	-12	5	- 2	17	25	1	28	6	43	13	45	16	41	27	37	30	21	31	4	22	- 3	*18
Grundy Center	Max	45	28	49	22	54	* 2	81	25	86	*11	94	17	94	10	98	16	93	9	80	4	72	6	48	*13
	Min	-15	8	-13	*10	0	22	25	1	28	7	40	13	50	6	48	30	40	*29	20	* 1	0	22	- 4	18
Guthrie Center	Max	52	29	60	22	58	1	88	24	86	11	94	*16	94	21	94	16	93	* 8	78	* 4	70	6	49	*13
	Min	-10	8	-23	15	- 1	17	26	6	29	* 6	39	13	49	* 7	40	27	35	27	18	31	10	22	- 6	18

MONTHLY MAXIMUM AND MINIMUM TEMPERATURES FOR 1906 WITH DATES—CONTINUED.

STATIONS		Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
		Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date
Hampton	Max	50	28	55	22	57	30	81	*24	88	11	94	17	94	21	97	16	95	8	78	1	72	6	47	* 4
	Min	-13	8	-13	*10	1	*15	25	1	28	7	44	13	50	16	46	27	37	30	22	31	10	22	- 4	18
Hancock	Max	57	29	61	22	60	1	89	24	85	11	94	*16	91	27	95	16	95	9	75	7	68	* 5	54	5
	Min	- 4	8	- 8	*14	- 5	17	29	6	32	* 6	46	13	50	16	44	27	40	30	23	31	15	*18	- 1	18
Harlan	Max	57	29	60	22	60	1	89	24	85	11	94	*16	91	11	94	16	93	9	77	7	69	6	52	28
	Min	- 7	8	-15	15	- 7	17	26	6	28	9	42	2	48	16	38	27	34	30	17	31	9	22	- 7	18
Hopeville	Max	59	20	62	22	57	26	86	24	84	*14	96	17	94	*12	100	16	96	8	81	7	74	6	60	* 5
	Min	- 7	8	- 5	5	- 7	17	29	6	31	* 6	42	21	52	16	44	27	40	30	21	31	9	22	- 1	18
Humboldt	Max	50	29	55	22	54	1	78	*24	82	*11	92	17	97	20	92	*16	88	9	77	13	68	7	46	2
	Min	-10	8	-17	*10	- 1	15	28	* 1	27	7	43	13	48	6	44	27	34	30	24	*10	8	23	0	23
Independence	Max	42	20	47	*22	54	30	78	25	85	17	92	17	91	10	93	23	93	9	.....	.....	.....	.....	42	* 2
	Min	-14	8	-10	*10	3	15	24	1	29	7	41	13	48	16	45	27	34	30	.....	.....	.....	.....	- 5	23
Indianola	Max	63	30	61	22	58	* 1	87	24	85	*11	94	17	93	*12	96	16	93	9	80	4	72	6	55	13
	Min	- 9	8	-12	15	- 3	17	28	1	31	* 6	46	13	52	17	45	27	39	30	23	31	10	22	- 1	18
Inwood	Max	56	26	59	22	53	30	89	24	93	11	91	16	90	*10	98	16	93	10	77	3	65	6	47	28
	Min	-15	8	-32	10	- 7	16	23	15	28	* 6	42	* 1	45	23	42	27	32	30	18	10	8	*19	- 4	18
Iowa City	Max	58	20	54	22	54	* 2	83	24	87	17	96	17	96	21	97	*16	97	16	84	4	72	6	48	* 3
	Min	- 9	8	-10	15	3	17	23	1	25	7	45	13	49	16	46	27	41	27	19	31	8	22	- 2	23
Iowa Falls	Max	43	*28	53	22	53	30	84	24	86	11	91	17	92	11	92	16	90	*10	77	* 4	71	6	45	26
	Min	-15	8	-17	10	2	15	25	1	24	7	40	13	45	16	42	27	35	27	20	31	1	22	- 5	18
Jefferson	Max	54	29	60	22	59	2	87	24	86	11	93	17	92	11	96	16	95	10	80	* 2	72	6	.....	.....
	Min	-11	8	-18	15	4	*17	28	6	30	6	41	*13	50	* 7	43	27	33	30	21	10	10	22	.....	.....
Keokuk	Max	69	20	61	22	59	2	85	24	90	17	93	28	97	22	95	2	93	17	80	4	73	6	62	* 5
	Min	1	8	0	5	4	17	29	1	34	* 7	50	12	57	16	50	27	47	30	26	31	18	22	4	23
Keosauqua	Max	66	20	61	22	60	2	86	24	91	17	95	28	97	22	99	16	94	9	80	4	75	6	61	5
	Min	- 5	* 8	- 1	* 5	- 2	*17	23	1	27	7	45	13	48	24	45	27	41	27	18	31	12	*22	- 1	*23
Knoxville	Max	56	20	61	22	59	2	86	24	87	17	95	17	92	*11	94	16	96	9	80	4	74	6	.....	.....
	Min	- 8	8	- 8	15	- 2	17	26	1	30	7	46	13	51	* 7	45	27	40	30	21	31	10	22	.....	.....
Larrabee	Max	53	29	57	22	56	1	90	24	89	11	93	17	96	10	95	16	91	* 8	74	* 3	64	6	49	2
	Min	-12	8	-20	10	- 6	16	24	6	30	6	44	* 1	48	23	43	27	.....	.....	20	10	10	18	- 5	18
Le Mars	Max	55	31	58	22	57	1	90	24	91	11	94	16	91	11	95	16	92	* 9	75	3	65	6	48	2
	Min	-10	8	-17	15	- 2	16	25	6	28	9	41	2	48	*23	41	27	32	30	21	10	11	19	- 4	18
Lenox	Max	52	*20	60	22	57	1	86	24	84	11	94	*16	89	*21	94	*16	92	* 8	77	7	73	6	58	13
	Min	-10	8	- 7	* 5	- 9	17	28	* 6	30	6	45	13	52	16	45	27	40	30	21	10	12	22	- 2	18
Leon	Max	60	20	61	22	55	* 1	84	24	84	*17	93	17	92	27	96	16	93	9	78	4	73	6	62	5
	Min	- 6	8	- 4	5	- 2	17	29	1	32	9	45	13	51	16	47	27	41	30	22	31	10	22	1	18
Little Sioux	Max	61	29	64	22	64	1	92	24	88	11	94	16	91	10	96	16	95	8	81	7	67	5	53	28
	Min	-10	8	-12	14	- 1	17	26	15	29	6	44	2	48	23	40	27	35	30	19	10	13	18	- 3	18
Logan	Max	57	29	61	22	64	1	92	24	89	11	98	17	94	11	96	16	93	8	78	7	68	* 5	51	12
	Min	- 1	22	-14	15	- 4	17	27	* 6	31	6	43	2	49	* 7	50	30	34	30	19	31	13	22	- 2	18
Marshalltown	Max	50	20	57	22	58	2	87	24	88	11	96	17	94	11	95	*16	96	* 9	83	4	73	6	48	13
	Min	-12	* 8	-15	15	1	15	25	1	26	7	40	13	46	16	42	27	35	30	18	31	1	*22	- 4	18
Mason City	Max	49	29	44	*20	51	30	80	24	85	11	90	*17	91	*10	93	16	90	10	74	3	69	6	47	2
	Min	-12	8	-13	15	0	16	27	1	30	7	45	13	50	17	45	27	37	30	25	*10	13	*22	- 2	23
Mt. Ayr	Max	61	28	64	22	59	1	86	24	86	*18	97	17	96	*19	97	16	97	9	85	7	75	6	61	13
	Min	- 6	8	- 5	4	- 6	17	28	* 1	31	* 6	45	13	52	* 6	46	27	40	30	21	10	10	22	1	17
Mt. Pleasant	Max	65	20	57	22	58	2	83	24	91	31	95	*28	97	22	96	16	94	16	78	4	71	6	58	5
	Min	- 6	8	- 3	5	- 3	17	23	1	29	7	45	13	51	* 7	47	27	43	30	22	31	13	22	1	23
Mount Vernon	Max	55	20	55	22	58	30	84	24	88	17	95	18	98	21	97	16	94	16	82	3	67	6	46	13
	Min	-11	8	- 7	*10	0	17	25	1	30	* 6	43	13	51	6	45	27	40	30	20	31	11	22	- 4	23
New Hampton	Max	46	12	44	22	50	30	78	27	85	23	89	28	89	9	89	16	87	10	76	* 3	65	6	43	2
	Min	-17	8	-14	* 5	0	16	25	1	28	7	42	13	48	16	44	21	38	30	20	31	0	24	- 5	15
Northwood	Max	46	29	45	*20	50	30	77	24	85	11	88	28	90	10	91	16	88	10	73	13	67	6	46	2
	Min	-13	8	-15	*10	- 1	16	25	1	28	7	42	13	47	16	.....	.....	37	30	20	31	10	22	- 4	* 7
Odebolt	Max	54	29	58	22	57	1	91	24	95	11	99	16	97	21	101	16	98	10	81	7	67	6	49	28
	Min	-10	8	-14	15	1	16	22	6	28	6	42	2	46	7	40	27	35	30	21	*10	13	*18	- 5	18
Ogden	Max	.....	.....	57	22	58	2	86	24	87	11	93	17	93	21	95	16	94	10	.....	.....	72	6	49	13
	Min	.....	.....	-11	15	2	*17	28	* 1	29	6	43	13	50	16	43	27	35	30	.....	.....	10	22	- 3	18
Olin	Max	51	20	52	22	63	26	79	25	86	17	90	28	91	22	91	* 4	91	11	76	4	67	6	46	13
	Min	- 5	* 8	-11	15	- 1	17	25	1	25	7	44	12	48	16	44	*27	40	27	17	31	10	*22	2	23
Omaha, Nebr	Max	58	29	64	22	63	1	90	24	86	11	94	16	90	27	97	16	95	8	80	7	69	6	54	28
	Min	- 3	8	- 8	14	1	17	34	6	36	6	52	21	57	17	52	27	42	30	28	10	16	19	6	18
Onawa	Max	61	31	62	22	63	1	94	24	91	11	97	16	90	*10	96	16	95	8	81	7	67	5	49	28
	Min	- 6	8	-10	14	2	17	26	6	30	6	47	* 1	53	* 7	46	27	38	30	24	31	14	*18	0	18
Osage	Max	45	29	44	23	50	30	77	24	86	11	90	*16	92	11	96	16	90	8	74	3	67	6	43	2
	Min	-14	8	-14	15	1	16	27	1	29	7	42	13	47	16	45	27	35	30	20	31	3	24	- 4	* 7
Oskaloosa	Max	55	20	60	22	57	2	86	24	86	17	93	* 6	92	27	93	*16	96	9	82	4	76	6	52	13
	Min	-11	8	- 7	5	- 2	17	26	1	28	7	46	* 2	49	16	45	26	40	*27	19	31	4	22	- 2	23
Ottumwa	Max	64	20	59	22	57	* 2	88	24	89	17	96	17	94	*10	98	16	97	9	82	4	72	6	55	13
	Min	- 5	8	- 3	5	2	17	28	1	32	* 7	48	13	53	*16	47	27	43	30	22	31	10	23	3	23
Pacific Junction	Max	56	29	64	22	65	1	90	23	85	11	96	17	90	21	95	17	94	9	79	7	73	6	54	* 5
	Min	- 3	8	- 8	14	-10	17	27	6	30	9	45	* 2	50	*16	40	27	35	30	19	10	11	22	- 2	18
Pella	Max	55	20	59	22	64	2	88	24	88	*17	95	17	95	*21	95	* 2	98	9	84	4	75	6	54	14
	Min	-10	8	- 6	* 5	0	17	26	1	31	6	46	13	52	16	47	27	39	30	21	31	10	22	2	*18
Perry	Max	50	29	53	22	58	* 2	89	24	87	*11	95	17	95	*11	94	16	94	10	81	4	72	6	50	13
	Min	-11	8	-17	15	- 1	*17	27	1	30	9	42	13	50	24	43	28	35	30	21	31	6	22	- 4	18
Plover	Max	49	29	53	22	56	1	89	24	88	11	92	17	93	11	95	16	93	10	77	*13	65	6	48	4
	Min	-12	8	-21	10	- 3	16	26	6	27	7	43	* 2	47	17	51	29	39	*27	20	31	10	*18	- 6	18
Pocahontas	Max	54	29	55	22	53	1	89	24	90	11	92	*16	94	*10	95	16	94	10	77	13	68	6	47	* 2
	Min	-13	8	-18	*10	- 2	16	28	* 1	28	6	41	11	48	23	43	27	34	30	22	10	12	*18	- 3	18
Ridgeway	Max	50	27	49	22	56	30	82	25	87	23	92	28	93	*12	96	16	93	11	80	4	70	6	48	28
	Min	- 9	8	-13	5	3	*12	27	1	30	* 6	43	13	49	16	45	27	38	30	21	31	6	24	- 3	7
Rock Rapids	Max	54	27	60	22	64	30	82	24	.....	.....	92	16	92	*10	98	16	92	10	70	*15	64	6	50	29
	Min	-12	8	-21	10	- 4	16	26	5	.....	.....	42	20	46	24	44	29	30	*29	20	10	8	19	- 6	16
Rockwell City	Max	51	*28	56	22	56	* 1	.....	.....	87	11	95	*17	98	4	95	16	94	9	75	3	70	6	45	* 3
	Min	-11	8	-15	15	1	15	.....	.....	29	6	41	13	45	24	43	27	32	30	21	*10	12	19	- 3	18
Sac City	Max	53	29	56	22	55	1	89	24	86	11	92	17	92	22	93	16	93	9	75	13	66	5	.....	.....
	Min	-10	8	-17	15	1	16	26	6	30	6	41	14	48	7	40	27	37	*27	20	31	12	18	.....	.....
St. Charles	Max	64	28	63	22	61	1	86	24	84	11	93	17	91	*10	95	16	98	8	85	7	76	6	62	28
	Min	- 8	8	-12	15	- 1	17	28	1	32	* 6	45	13	54	* 6	47	27	40	30	20	31	13	22	- 2	18
Sheldon	Max	55	28	62	22	55	30	92	24	92	11	93	17	94	11	97	16	94	10	80	2	65	7	50	28
	Min	-15	8	-23	10	- 7	16	24	6	29	* 6	43	* 1	47	* 7	40	26	33	30	20	10	9	19	- 6	18
Sibley	Max	54	26	59	22	52	29	90	24	92	11	92	17	91	10	97	16	92	8	76	* 3	65	6	53	2
	Min	-14	8	-19	* 9	- 6	16	25	6	25	6	40	2	46	16	41	27	35	30	20	10	8	*19	- 5	18
Sigourney	Max	55	20	53	22	59	2	86	24	88	*17	94	6	94	22	94	* 2	95	* 9	83	4	73	6	50	13
	Min	-10	8	- 6	2	- 2	17	25	1	29	7	45	13	50	16	44	27	40	30	21	31	7	22	- 1	23
Sioux Center	Max	53	*26	59	22	51	30	88	24	89	11	90	16	89	10	94	16	89	* 9	76	1	65	6	47	10
	Min	-10	8	-18	10	- 5	16	26	6	26	6	39	13	46	17	45	27	36	30	21	10	10	*18	- 4	18
Sioux City	Max	57	31	61	22	59	1	88	25	89	11	91	16	89	10	96	16	94	9	79	7	66	6	50	2
	Min	- 7	8	-14	14	- 2	16	29	6	31	6	45	2	52	30	43	27	35	30	24	10	13	19	2	18
Stockport	Max	65	20	60	22	58	2	85	24	87	17	92	* 6	94	22	95	16	94	10	81	4	73	6	60	5
	Min	- 5	8	- 3	5	5	17	24	1	28	7	47	* 2	51	* 7	46	27	44	30	20	31	12	22	- 2	23

MONTHLY MAXIMUM AND MINIMUM TEMPERATURES FOR 1906 WITH DATES—CONTINUED.

STATIONS		Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
		Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date
Stuart	Max	49	29	59	22	58	* 1	78	12	89	*23	96	30	.....	.....	.....	.....	94	* 9	78	4	70	6	53	13
	Min	2	22	-15	15	- 1	17	26	6	31	7	46	13	.....	.....	.....	.....	39	30	24	10	15	18	- 2	18
Thurman	Max	54	*29	64	22	62	1	90	24	87	11	98	16	92	21	94	*16	94	9	78	7	73	6	56	5
	Min	- 3	8	- 8	15	-14	17	28	* 6	28	9	44	2	47	16	41	27	37	30	22	*10	14	22	- 2	18
Tipton	Max	60	20	55	22	53	30	80	25	90	17	94	*17	96	21	95	*16	94	16	79	4	66	6	46	13
	Min	- 2	* 8	0	*10	4	17	29	1	32	7	49	13	55	16	50	27	45	30	25	31	13	24	3	23
Toledo	Max	48	20	54	22	56	2	86	24	86	*11	93	17	91	*10	94	16	91	* 9	79	4	72	6	49	13
	Min	-13	8	-12	15	0	*15	26	1	27	7	42	13	48	16	43	27	37	30	19	31	1	22	- 3	23
Wapello	Max	61	20	55	21	54	* 2	81	*25	89	17	90	28	91	21	.....	.....	93	18	.....	.....	63	5	54	14
	Min	0	8	0	10	2	17	28	1	32	7	50	12	54	24	.....	.....	41	30	25	31	15	*23	3	23
Washington	Max	62	20	59	22	58	2	84	24	87	*16	92	* 6	92	22	93	16	93	10	80	4	73	6	53	13
	Min	- 9	8	- 4	5	- 2	17	26	1	30	7	46	13	52	7	46	27	43	30	22	31	10	22	- 2	23
Washta	Max	54	*28	58	22	58	1	91	24	84	22	94	16	94	*10	100	16	95	20	80	* 2	66	6	50	28
	Min	-13	8	-24	15	- 2	15	25	* 6	26	6	39	*13	42	* 7	33	27	27	30	14	10	8	22	- 9	18
Waterloo	Max	46	20	48	22	55	30	83	24	87	23	93	17	94	11	95	*16	95	* 9	83	4	70	6	46	* 2
	Min	-13	8	-17	15	5	15	26	1	28	7	45	* 2	49	16	45	27	36	30	20	31	2	24	- 5	23
Waukee	Max	48	29	58	22	58	2	86	24	85	11	94	17	92	21	92	16	91	9	79	4	73	6	51	13
	Min	-10	8	-13	15	- 3	17	27	1	30	6	45	13	52	1	45	27	.....	.....	22	*10	10	22	- 4	18
Waverly	Max	42	29	45	22	52	30	82	24	86	11	90	17	89	10	93	16	.....	.....	79	4	70	6	45	30
	Min	-12	8	-18	15	5	*15	28	1	29	7	46	2	49	16	45	27	.....	.....	22	31	3	*22	0	18
Webster City	Max	47	29	55	22	57	2	87	24	88	23	98	17	99	11	97	*16	96	10	78	4	72	6	48	26
	Min	-16	8	-19	15	3	15	22	1	26	7	41	* 2	45	16	48	29	33	30	19	31	4	22	- 7	18
West Bend	Max	51	29	54	22	57	1	86	24	87	11	94	*16	94	10	95	16	89	10	75	13	66	6	45	2
	Min	-13	8	-20	10	- 4	16	25	* 1	27	7	41	13	47	24	42	*15	36	30	21	*10	11	22	- 7	18
Whitten	Max	42	20	53	22	53	* 1	79	*24	87	23	96	17	93	11	91	20	.....	.....	79	4	70	6	47	13
	Min	-17	8	-15	*10	- 2	17	24	1	25	7	43	13	47	16	42	27	.....	.....	21	10	3	24	- 5	18
Wilton Junction	Max	59	20	46	13	54	*30	83	25	.....	.....	90	*17	.....	.....	91	*20	89	*16	73	* 3	66	5	48	*13
	Min	- 5	8	- 2	5	1	17	30	11	30	7	45	12	50	7	47	27	44	*27	20	31	9	24	2	22
Winterset	Max	47	*20	58	22	56	1	87	24	86	11	96	17	93	11	93	16	92	* 9	78	4	71	6	56	5
	Min	-10	8	-14	15	- 3	17	27	* 1	31	6	44	13	53	*16	45	27	37	30	23	31	14	22	- 1	18
Woodburn	Max	57	20	60	22	57	1	83	24	87	17	94	17	91	27	92	* 2	94	11	85	19	71	6	63	5
	Min	- 8	8	-12	15	- 9	17	24	2	27	* 6	39	*13	44	*16	40	27	34	27	9	31	- 5	22	0	22
Zearing	Max	44	28	55	22	56	2	85	24	86	11	93	17	92	12	93	*16	92	* 9	82	4	72	6	54	14
	Min	-12	8	-16	15	0	19	25	1	26	7	40	13	45	24	39	27	37	30	17	31	- 3	22	- 5	18

*And other dates.

MONTHLY AND ANNUAL MEAN TEMPERATURES FOR 1806, WITH DEPARTURES FROM THE NORMAL.

STATIONS	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Annual	
	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.
Afton	27.8	†4.4	26.9	†5.1	28.2	-7.0	54.3	†3.0	62.5	-0.6	70.5	-1.1	73.0	-3.1	75.4	†1.5	67.6	†2.5	52.2	-1.7	36.8	†0.9	29.6	†4.8	50.4	†0.7
Albia	27.0	†1.8	24.3	†4.6	27.2	-10.3	53.0	†2.6	61.4	-0.8	68.3	-1.8	71.4	-3.7	75.0	†1.9	69.4	†5.2	51.8	-2.8	36.0	-3.0	27.6	†4.2	49.4	†0.2
Algona	22.8	†6.3	19.8	†2.8	25.8	-4.2	50.6	†2.3	58.5	-1.0	66.4	-3.3	70.0	-3.7	72.0	†0.9	65.2	†2.7	48.3	-2.3	33.5	†1.6	23.4	†3.1	46.4	†0.4
Allerton	27.7	.....	28.4	.....	28.0	.....	54.0	.....	61.1	.....	68.9	.....	72.4	.....	76.7	.....	70.4	.....	53.4	.....	37.4	.....	31.0	.....	50.8	.....
Alta	23.0	†6.2	19.1	-0.1	23.0	-6.4	50.2	†2.6	59.0	†0.4	66.0	-2.5	69.8	-2.9	72.3	†1.5	65.4	†2.2	48.6	-2.2	32.8	†1.2	23.1	†2.3	46.0	†0.2
Alton	25.0	.....	21.8	.....	25.9	.....	51.0	.....	59.6	.....	65.0	.....	68.6	.....	72.0	.....	63.4	.....	48.8	.....	33.6	.....	24.9	.....	46.6	.....
Amana	24.6	†8.8	24.4	†4.4	28.9	-2.5	52.9	†4.2	62.0	†2.0	69.0	-0.7	71.4	-2.6	75.0	†4.2	68.2	†5.5	51.1	†1.5	36.2	†3.0	27.4	†5.4	49.3	†2.8
Ames	24.8	†7.7	24.3	†2.7	27.8	-4.7	52.7	†3.6	60.8	†1.2	68.1	-1.9	70.6	-4.4	73.8	†1.6	66.8	†3.4	51.0	†0.1	35.7	†2.5	27.0	†5.2	48.6	†1.4
Atlantic	28.2	†8.0	26.9	†6.2	27.0	-6.5	53.1	†3.8	61.4	†1.8	67.4	-2.3	70.4	-3.3	75.1	†4.2	66.6	†7.5	50.4	-1.6	36.5	†2.0	28.2	†5.7	49.3	†2.1
Audubon	27.8	†8.4	25.8	†6.6	27.3	-5.3	52.8	†2.9	61.2	†0.9	66.3	-2.5	69.1	-3.8	73.5	†1.6	65.7	-2.3	49.6	-1.6	35.0	†0.5	27.0	†3.9	48.4	†1.2
Baxter	25.6	†4.3	23.4	†6.6	26.8	-9.6	53.4	†4.1	60.4	-1.7	67.7	†0.2	70.2	-4.2	73.6	†2.0	.....	.....	51.7	-3.0	35.4	-2.0	26.4	†4.0	.....	.....
Bedford	27.4	†2.2	27.8	†8.8	26.9	-8.4	51.2	†1.2	59.7	-3.1	68.6	†1.0	71.2	-2.7	74.8	†1.3	68.5	†5.2	52.9	-4.2	36.5	-3.4	30.1	†6.9	49.6	†0.4
Belle Plaine	22.0	†3.6	21.4	†0.8	26.6	-5.9	51.4	†5.7	60.4	†1.1	66.9	-2.9	71.2	-2.4	75.0	†4.4	67.4	†3.7	50.9	†0.3	34.6	†0.2	23.8	-0.2	47.6	†0.7
Bonaparte	28.0	†4.4	27.4	†4.5	28.8	-8.4	54.7	†2.9	63.6	†0.7	69.7	-2.7	72.9	-3.5	75.6	†0.7	71.0	†3.3	53.4	-2.3	38.0	-0.2	29.7	†1.9	51.1	†0.1
Boone	24.3	.....	21.4	.....	26.4	.....	51.4	.....	60.2	.....	68.3	.....	71.6	.....	74.4	.....	66.8	.....	50.8	.....	34.8	.....	24.5	.....	47.9	.....
Britt	21.6	†3.9	20.2	†3.2	26.2	-2.6	50.3	†3.5	58.6	-0.5	66.2	-1.6	69.6	-3.3	72.5	†2.5	65.6	†4.0	48.2	-3.5	33.8	†0.7	23.4	†6.3	46.4	†1.0
Burlington	30.2	.....	28.7	.....	30.6	.....	54.6	.....	63.4	.....	70.0	.....	73.6	.....	76.3	.....	71.1	.....	53.0	.....	37.7	.....	29.3	.....	51.5	.....
Carroll	25.0	†5.4	22.8	†3.8	26.5	-5.0	51.6	†2.6	59.6	†0.1	65.6	-3.9	69.5	-4.4	73.6	†2.4	65.6	†2.5	48.6	-2.7	33.8	†0.6	24.0	†1.0	47.2	†0.2
Cedar Rapids	23.7	†5.4	21.5	†1.0	27.2	-5.6	52.7	†4.3	62.0	†2.0	70.2	-0.5	72.9	-2.9	76.4	†3.7	70.8	†7.2	50.6	-0.9	35.0	-0.8	26.0	†0.7	49.1	†1.1
Chariton	27.1	†1.7	27.0	†4.8	27.8	-7.9	53.3	†1.6	61.2	-1.5	67.7	-2.7	70.6	-4.5	74.6	†0.9	68.5	†2.9	53.6	-1.2	36.6	-2.0	30.1	†4.5	49.8	-0.3
Charles City	19.4	†2.9	17.3	-0.5	24.4	-6.9	49.2	†0.5	57.8	-2.1	64.5	-5.0	68.8	-5.2	71.8	-0.2	65.4	†1.3	48.2	-3.4	32.9	-0.1	22.6	†1.6	45.2	-1.4
Clarinda	28.7	†6.0	26.2	†3.2	26.2	-9.0	54.0	†2.0	62.6	†0.9	70.2	-1.6	72.0	-4.3	75.3	†0.9	68.3	†2.3	52.7	-1.9	36.0	-1.4	28.9	†2.4	50.1	†0.0
Clear Lake	21.8	†4.3	20.7	†7.4	24.8	-6.4	50.8	†3.1	58.8	-2.5	66.8	-1.7	71.2	-2.7	73.2	†1.8	66.0	†4.4	49.7	-2.1	34.0	†0.3	23.6	-5.0	46.8	†0.9
Clinton	27.4	†8.2	25.4	†3.4	29.9	-2.9	53.0	†4.4	62.5	†1.6	69.0	-0.9	72.3	-1.7	75.0	†3.8	68.4	†5.3	50.9	†0.5	37.1	†1.6	28.6	†3.5	50.0	†2.3
College Springs	29.8	†5.6	29.0	†5.2	28.2	-7.9	55.1	4.4	62.8	†1.4	69.6	-1.9	71.5	-3.9	74.4	†0.2	67.9	†0.8	53.8	-3.9	36.3	-2.1	30.6	†3.6	50.8	†0.1
Columbus Junction	27.6	†5.5	27.0	†8.2	30.4	-9.3	54.6	†4.9	64.0	†1.0	70.6	†2.1	71.8	-3.6	75.3	†3.5	69.8	†5.0	53.0	-2.1	37.4	-1.9	29.8	†4.8	50.9	†1.5
Corning	27.4	†5.1	26.7	†4.5	26.6	-9.1	53.4	†2.7	61.2	†0.2	67.8	-2.6	70.2	-4.3	74.0	†1.2	67.2	†2.1	51.0	-3.0	35.6	-1.6	29.2	†2.0	49.2	-0.2
Corydon	27.5	†6.0	28.4	†6.6	28.2	-7.9	55.0	†3.2	62.6	†0.8	69.0	-1.8	72.4	-3.4	76.0	†1.7	69.8	†3.3	53.8	-1.3	37.8	-0.3	31.4	†5.6	51.0	†1.0
Creston	27.8	.....	26.0	.....	25.8	.....	52.0	.....	60.6	.....	68.4	.....	70.4	.....	74.6	.....	67.2	.....	50.2	.....	35.0	.....	27.6	.....	48.8	.....
Davenport	28.4	†8.4	26.2	†0.9	29.2	-5.7	53.6	†3.9	62.8	†2.1	69.8	-1.1	73.5	-1.5	76.2	†3.4	70.6	†5.9	52.6	†0.5	38.2	†1.4	29.2	†1.4	50.9	†1.6
Decorah	21.2	†4.7	18.2	†3.2	26.0	-4.3	51.2	†2.5	59.0	-1.2	67.6	-0.2	71.6	-1.0	73.9	†3.4	66.1	†4.2	49.2	-1.5	34.6	†2.3	23.8	†3.4	46.9	†1.3
Delaware	21.5	†5.7	20.4	†4.2	25.2	-5.1	50.2	†4.2	58.4	-0.3	66.0	-2.6	70.0	-2.6	72.5	†2.7	66.2	†4.8	49.8	†0.8	34.0	†2.0	24.3	†3.1	46.5	†1.4
Denison	27.5	†6.4	24.6	†6.0	27.8	-4.1	52.6	†3.3	59.8	-0.8	66.8	-2.1	69.6	-4.2	73.3	†1.2	66.3	†2.9	50.2	-0.6	35.7	†1.3	.....	.....	.....	.....
Des Moines	27.2	†9.7	25.4	†2.3	28.6	-6.1	53.8	†3.3	61.9	†1.5	69.6	-0.5	71.4	-3.1	74.9	†2.9	67.8	†3.7	51.6	-0.6	37.1	†0.7	28.1	†1.3	49.8	†1.3
De Soto	28.0	.....	26.6	.....	27.9	.....	53.8	.....	62.0	.....	68.4	.....	70.4	.....	74.8	.....	68.0	.....	52.3	.....	37.1	.....	28.4	.....	49.8	.....
Dows	21.8	†2.5	20.8	†5.4	25.4	-4.5	50.4	†2.0	58.2	-1.5	65.6	-2.1	68.4	-4.6	72.2	†2.2	65.3	†3.7	49.0	-3.6	33.7	†0.0	24.3	†4.5	46.3	†0.3
Dubuque	25.2	†7.9	22.4	-0.2	27.2	-5.7	52.3	†3.7	60.4	†0.5	68.0	-1.5	72.2	-2.1	74.2	†2.6	68.6	†5.4	50.8	†0.2	36.6	†1.6	26.9	†1.0	48.7	†1.1
Earlham	26.4	.....	24.8	.....	26.4	.....	52.6	.....	60.2	.....	66.2	.....	69.2	.....	73.2	.....	65.8	.....	50.6	.....	35.8	.....	28.8	.....	48.3	.....
Elkader	22.3	†7.9	20.4	†2.3	26.9	-4.0	52.3	†4.1	60.2	-0.7	67.7	-1.8	70.8	-3.2	74.2	†3.4	67.0	†5.0	45.0	-4.5	.....	.....	19.9	-1.7	.....	.....
Elliott	30.4	.....	28.0	.....	28.4	.....	56.2	.....	63.8	.....	70.0	.....	72.8	.....	76.3	.....	66.8	.....	51.4	.....	37.4	.....	28.6	.....	50.8	.....
Estherville	22.1	†5.8	19.5	†3.5	23.0	-4.1	49.0	†0.7	58.1	-0.6	65.0	-3.6	67.9	-4.8	70.9	-0.1	63.6	†2.7	46.8	-2.3	32.4	†3.3	20.9	†4.5	44.9	†0.4
Fayette	20.8	†3.9	17.6	†0.2	25.3	-4.9	49.6	†2.4	58.0	†0.3	65.5	-2.7	68.4	-3.9	.....	.....	.....	.....	.....	.....	33.1	†0.6	23.7	†2.3	.....	.....
Forest City	21.0	†2.8	18.8	†3.8	23.7	-4.7	49.6	†1.6	58.4	-1.2	66.4	-1.7	70.0	-2.9	72.6	†1.8	66.7	†4.4	48.4	-2.1	32.8	†1.6	20.8	†1.4	45.8	†0.4
Fort Dodge	22.6	.....	19.9	.....	26.0	.....	50.4	.....	58.3	.....	66.4	.....	71.0	.....	74.4	.....	66.0	.....	48.4	.....	34.2	.....	23.4	.....	46.8	.....
Galva	25.6	†7.1	22.0	†4.2	.....	.....	52.8	†3.5	59.6	-1.1	64.8	-4.2	68.8	-5.2	72.0	†0.6	64.4	-0.1	47.6	-3.7	33.8	†1.6	25.2	†3.6	.....	.....
Grand Meadow	21.6	†5.7	18.6	†1.6	25.0	-5.2	50.2	†2.7	58.2	†0.0	66.4	-0.6	70.1	-0.9	72.2	†3.2	65.6	†3.9	49.0	-1.0	33.8	†1.6	23.3	†1.8	46.2	†1.1
Greenfield	27.6	†5.9	26.2	†4.9	27.4	-6.5	54.6	†4.0	63.2	†2.7	70.2	-0.4	72.1	-2.5	74.7	†2.1	67.6	†1.8	50.8	-2.8	36.6	†0.7	28.0	†3.5	49.9	†1.1
Grinnell	24.4	†6.9	22.8	†1.7	27.2	-5.5	52.6	†2.2	61.0	†0.8	67.6	-2.7	70.0	-4.0	73.8	†2.0	68.1	†4.7	51.6	-0.7	35.0	-0.8	26.0	†1.8	48.3	†0.5
Grundy Center	22.8	†5.9	21.4	†3.8	26.9	-4.6	51.6	†3.9	60.6	†1.9	68.0	-1.1	73.6	†1.4	77.2	†6.5	66.7	†3.8	50.2	-1.2	34.6	†1.8	26.0	†3.8	48.3	†2.2
Guthrie Center	27.5	†5.5	25.3	†5.4	27.2	-6.4	53.6	†3.5	62.2	†1.2	68.4	-1.2	71.2	-2.8	74.2	†1.8	66.6	†3.1	50.4	-2.1	35.9	-0.7	27.8	†6.5	49.2	†1.2
Hampton	23.2	†7.7	21.8	†4.3	26.9	-1.7	51.8	†4.2	59.8	†1.4	68.4	†0.2	71.5	-1.2	74.4	†4.2	68.5	†6.2	51.0	†0.4	34.1	†2.0	24.2	†3.3	48.0	†2.6
Hancock	28.8	.....	27.0	.....	28.1	.....	52.0	.....	61.7	.....	68.6	.....	70.8	.....	74.2	.....	67.8	.....	50.4	.....	37.0	.....	28.6	.....	49.6	.....
Harlan	27.4	*5.0	25.4	†8.9	27.2	-7.0	52.6	†3.8	61.0	-0.7	67.2	-1.5	69.6	-4.8	73.0	†1.1	65.7	†3.6	49.4	-5.0	35.4	-2.0	26.8	†4.6	48.4	†0.5
Hopeville	28.0	†6.2	27.6	†5.7	27.3	-7.0	53.8	†3.6	61.9	†1.5	69.2	-1.3	72.3	-2.1	76.4	†3.3	69.2	†2.6	52.8	-1.8	37.2	†1.7	29.8	†4.3	50.5	†1.4
Humboldt	24.9	†7.4	21.4	†4.0	27.8	-1.9	51.2	†2.1	57.6	-2.7	66.2	-3.8	66.2	-7.7	72.0	†5.1	64.7	†2.4	50.2	†0.5	35.2	†1.7	25.7	†2.9	46.9	†0.8
Indianola	27.7	†8.7	26.0	†3.5	28.4	-9.6	55.2	†3.5	62.4	†1.5	69.4	-1.0	72.0	-3.6	75.4	†2.7	67.6	†2.0	52.2	-2.0	37.2	-4.4	28.6	†3.4	50.2	†0.4
Inwood	23.4	.....	21.4	.....	23.9	.....	50.7	.....	58.8	.....	65.1	.....	68.8	.....	71.4	.....	63.8	.....	48.4	.....	32.1	.....	23.3	.....	45.9	.....
Iowa City	23.9	†4.8	22.0	-0.9	27.4	-6.2	51.2	†4.9	61.0	†0.7	69.6	†0.3	72.8	-1.4	76.0	†4.4	70.2	†6.8	51.6	†0.5	35.4	-0.1	26.5	†2.4	49.0	†1.4
Iowa Falls	22.2	†6.8	19.8	†4.5	26.0	-4.8	49.6	†2.1	58.2	-1.5	66.0	-2.5	68.4	-4.6	72.3	†2.1	64.8	†3.2	49.0	-1.3	34.1	†1.9	23.6	†3.1	46.2	†0.8
Jefferson	25.8	.....	25.8	.....	28.6	.....	53.3	.....	60.9	.....	67.2	.....	70.1	.....	74.3	.....	66.8	.....	51.6	.....	36.0	.....	.....	.....	.....	.....
Keokuk	31.6	†8.4	29.2	†0.9	30.1	-7.5	56.2	†4.2	65.5	†2.9	71.6	-0.9	74.6	-2.3	76.6	†2.1	71.4	†5.0	54.3	†0.2	38.8	†0.0	31.6	†1.8	52.6	†1.2
Keosauqua	27.2	†3.4	25.6	†1.5	28.3	-9.7	54.2	†1.4	63.1	-0.1	70.2	-2.8	73.1	-3.7	76.4	†1.5	69.1	†1.7	51.6	-4.5	37.2	-2.1	29.1	†2.1	50.4	-0.9
Knoxville	27.2	†2.8	27.1	†5.5	29.0	-8.0	55.1	†2.6	63.2	†0.1	70.4	-1.7	71.8	-4.4	75.2	†1.5	69.5	†3.6	53.0	-1.1	37.6	†0.4	.....	.....	.....	.....
Larrabee	24.2	†6.3	21.3	†3.1	26.0	-3.2	52.0	†3.9	61.4	†2.9	67.6	-1.3	71.8	-1.2	72.7	†1.5	64.8	†1.7	48.2	-2.3	33.2	†1.3	24.2	†2.3	47.3	†1.2
Le Mars	24.6	†3.6	23.1	†5.8	26.4	-5.4	51.4	†1.7	60.3	-0.3	66.0	-2.9	69.3	-4.6	72.8	†0.8	64.5	†1.6	49.2	-3.3	33.4	†0.0	24.6	†3.1	47.1	†0.0
Lenox	27.5	†2.6	27.0	†5.0	26.6	-8.3	53.6	†2.4	62.2	†0.1	69.4	-0.8	71.2	-3.5	74.7	†1.5	68.0	†2.7	52.0	-2.3	36.8	-0.6	29.6	†5.4	49.9	†0.4
Leon	28.1	.....	28.3	.....	28.5	.....	54.8	.....	62.7	.....	69.4	.....	72.1	.....	75.6	.....	68.6	.....	52.6	.....	37.0	.....	31.0	.....	50.7	.....
Little Sioux	28.6	.....	27.6	.....	28.6	.....	55.2	.....	63.0	.....	69.2	.....	71.0	.....	74.4	.....	67.4	.....	51.4	.....	36.5	.....	28.4	.....	50.1	.....
Logan	27.8	†8.6	26.8	†3.2	29.2	-4.9	54.0	†4.0	62.6	†1.4	68.8	-1.3	71.1	-3.9	74.6	†2.1	66.0	†2.0	50.2	-2.1	36.2	†0.6	27.6	†2.7	49.6	†1.0
Marshalltown	23.2	†3.1	21.0	†1.0	26.4	-5.8	51.5	†1.9	60.4	†0.3	68.4	-1.0	70.6	-3.2	74.3	†2.3	67.3	†3.1	49.9	-3.1	33.6	-2.1	24.1	-1.4	47.6	-0.4
Mason City	23.2	†8.0	21.3	†6.4	25.9	-2.0	50.4	†1.0	58.8	-0.2	67.6	†0.0	71.5	†0.1	73.2	†3.6	66.2	†3.2	49.8	†0.4	36.0	†6.6	25.0	†4.6	47.4	†2.6
Mt. Ayr	29.0	†5.1	29.6	†7.8	28.0	-7.5	54.5	†3.0	62.8	†0.4	69.5	-1.2	73.0	-2.7	76.5	†2.7	69.8	†3.1	53.8	-1.5	37.4	-0.5	30.0	†5.4	51.2	†1.2
Mt. Pleasant	28.0	†10.0	26.4	†2.6	29.9	-4.6	54.1	†3.0	64.1	†2.7	70.7	-0.4	73.6	-1.7	76.6	†4.2	70.8	†7.2	53.2	†2.6	37.8	†3.1	30.0	†4.2	51.3	†2.7
Mount Vernon	23.8	†7.1	23.6	†2.0	28.2	-1.7	53.2	†6.7	61.8	†2.4	69.6	†0.2	73.2	-0.2	74.9	†4.7	69.8	†8.1	52.4	†5.1	35.8	†2.6	26.4	†2.3	49.4	†3.3
New Hampton	20.4	†0.1	18.7	†4.8	24.8	-5.8	50.6	†2.0	58.0	-1.3	65.6	-3.0	68.8	-4.6	71.4	†0.7	64.8	†2.2	48.7	-4.8	32.5	-2.3	22.4	†4.5	45.6	-0.6
Northwood	20.7	†3.6	21.1	†5.7	25.0	-4.4	49.8	†2.1	58.0	-0.9	65.6	-1.2	68.9	-3.1	73.1	†3.4	64.6	†4.3	47.4	-0.6	34.0	†2.1	22.6	†3.5	45.9	†1.2
Odebolt	26.8	†4.2	23.6	†6.0	27.7	-5.3	52.8	†3.1	61.7	-0.2	68.4	-2.4	72.2	-3.9	75.4	†0.8	67.3	†4.2	50.8	-4.6	35.0	-1.0	26.7	†5.4	49.0	†0.5
Ogden	.....	.....	24.2	†4.8	26.6	-6.6	53.0	†2.5	60.0	-1.4	68.2	-1.4	71.2	-3.7	73.4	†0.4	68.0	†3.3	.....	.....	36.4	†1.2	26.8	†3.4	.....	.....
Olin	25.3	†2.7	23.8	†9.5	29.0	-4.0	51.1	†4.4	60.8	-0.2	67.4	-2.2	7.09	-3.9	73.5	†2.7	67.4	†5.9	50.8	-1.1	36.2	-0.7	27.4	†4.6	48.6	†1.5
Omaha, Nebr	30.2	†11.0	28.4	†3.4	28.6	-6.9	55.4	†4.4	63.0	†1.3	70.5	-1.0	72.6	-3.6	75.8	†2.1	68.7	†3.9	52.8	-0.1	38.0	†1.4	29.0	†2.3	51.1	†1.5
Onawa	28.8	†4.8	26.8	†7.3	28.6	-8.6	54.6	†4.0	63.2	-0.5	69.3	-0.4	71.4	-4.6	74.8	†1.3	67.5	†3.4	52.6	-3.6	36.2	-1.9	27.4	†3.0	50.1	†0.3
Osage	20.8	†6.8	19.2	†4.8	25.1	-2.3	50.2	†4.7	57.8	†0.7	66.2	-0.2	69.2	-1.8	72.4	†4.9	65.2	†5.8	48.0	†1.1	33.5	†4.3	22.8	†3.7	45.9	†2.7
Oskaloosa	25.6	†6.6	25.5	†4.2	28.6	-5.6	54.2	†3.9	62.8	†2.4	69.0	-0.9	71.0	-4.4	74.9	†3.1	69.2	†4.8	52.8	†0.9	36.7	†0.0	28.6	†2.8	49.9	†1.5
Ottumwa	28.7	†3.9	26.6	†3.7	30.0	-7.6	55.4	†2.6	63.9	†0.1	71.0	-1.4	73.4	-3.4	77.4	†2.4	71.9	†5.3	53.6	-2.1	38.2	-1.0	29.6	†2.2	51.6	†0.4
Pacific Junction	28.5	†3.9	28.3	†9.3	28.5	-7.6	55.3	†4.9	62.2	-0.4	69.2	-0.3	70.2	-5.1	73.7	†0.3	66.4	†2.5	50.6	-5.8	37.0	†0.7	29.2	†4.4	49.9	†0.6
Pella	26.6	.....	27.0	.....	29.8	.....	55.5	.....	64.4	.....	71.7	.....	73.4	.....	76.4	.....	70.6	.....	53.2	.....	37.6	.....	29.1	.....	51.3	.....
Perry	24.1	.....	24.4	.....	28.8	.....	53.0	.....	61.3	.....	69.4	.....	71.8	.....	75.0	.....	67.1	.....	51.1	.....	35.8	.....	27.2	.....	49.1	.....
Plover	24.0	†3.0	19.5	†2.8	26.4	-4.0	51.4	†3.2	59.8	-0.6	67.0	-1.6	70.0	-4.5	73.6	†2.6	66.2	†2.8	47.8	-4.5	33.8	†0.0	24.2	†4.3	47.0	†0.3
Pocahontas	24.6	.....	21.6	.....	26.4	.....	51.3	.....	59.9	.....	66.8	.....	70.7	.....	73.4	.....	66.0	.....	50.0	.....	34.3	.....	25.2	.....	47.5	.....
Ridgeway	23.2	†0.9	20.6	†3.5	27.5	-3.9	51.8	†3.2	58.7	-1.9	67.3	-1.9	72.1	-4.5	74.4	†1.6	67.7	†5.5	50.8	-3.1	35.2	-2.0	24.4	†3.2	47.8	†0.0
Rock Rapids	22.4	†7.6	21.8	†4.8	24.0	-5.8	49.9	†1.3	.....	.....	65.8	-2.6	70.6	-2.2	72.0	†2.2	63.6	†0.6	43.0	-4.5	33.3	†5.3	21.5	†1.6	.....	.....
Rockwell City	26.5	†5.3	22.6	†5.8	28.1	-3.3	.....	.....	59.3	-1.3	68.1	-0.8	72.4	-1.5	73.6	†2.2	65.4	†1.2	49.4	-3.3	33.7	-0.3	26.1	†5.2	.....	.....
Sac City	25.6	†9.1	21.9	†4.3	26.4	-3.4	51.8	†3.6	60.5	†2.8	66.1	-2.5	68.8	-4.5	71.6	†1.6	64.6	†3.0	48.2	-1.7	33.5	†1.0	.....	.....	.....	.....
St. Charles	29.0	.....	27.5	.....	28.5	.....	54.9	.....	62.4	.....	68.7	.....	71.4	.....	76.1	.....	69.0	.....	54.4	.....	38.6	.....	30.8	.....	50.9	.....
Sheldon	24.6	†2.8	21.2	†7.0	24.7	-4.1	51.4	†3.2	59.3	†0.3	66.0	-0.5	71.1	-1.9	73.0	†1.6	65.4	†3.0	49.2	-4.2	32.7	-2.9	25.4	†6.4	47.0	†0.9
Sibley	21.2	†4.6	18.6	†3.2	22.8	-6.8	48.4	†0.4	57.5	-1.1	64.0	-3.1	67.1	-4.2	69.9	†0.8	62.8	†1.6	46.8	-4.1	31.2	†0.3	21.0	†1.9	44.3	-0.5
Sigourney	26.8	†2.7	25.9	†4.5	29.7	-6.2	55.0	†2.8	63.9	-0.3	70.0	-2.3	72.6	-5.0	75.2	†1.0	70.1	†5.0	53.5	-1.9	37.0	-1.8	28.8	†3.9	50.7	†0.2
Sioux Center	23.4	†1.8	21.6	†6.0	24.1	-8.9	50.0	†1.7	58.6	-2.4	64.8	-4.2	68.5	-6.0	71.2	-1.0	63.1	†2.4	48.2	-5.0	32.4	-3.1	24.0	†4.3	45.8	-1.2
Sioux City	26.4	†10.1	23.2	†4.2	26.2	-5.4	52.0	†1.4	60.6	†2.2	67.1	-3.2	70.4	-3.9	73.0	†1.4	65.5	†0.3	50.0	-1.0	34.5	†0.2	25.0	-2.8	47.8	†0.3
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MONTHLY AND ANNUAL MEAN TEMPERATURES FOR 1906 WITH DEPARTURES FROM THE NORMAL—CONTINUED.

STATIONS	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Annual	
	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.
Stockport	28.2	.....	28.2	.....	29.9	.....	54.8	.....	62.8	.....	69.8	.....	72.2	.....	76.1	.....	70.7	.....	54.0	.....	38.4	.....	30.0	.....	51.3	.....
Stuart	27.5	†5.5	24.8	†5.1	27.4	–4.3	52.4	†3.2	62.2	†0.1	70.8	†0.0	.....	.....	.....	.....	67.4	†0.0	51.0	–5.4	36.5	†1.7	26.0	†5.2	.....	.....
Thurman	29.2	†3.0	27.6	†7.4	27.6	–9.3	55.6	†3.8	63.5	†0.2	70.4	–1.8	71.4	–5.1	74.6	†0.4	67.8	†2.0	51.4	–4.9	37.9	–0.3	29.6	†6.4	50.6	†0.2
Tipton	26.5	†6.3	26.2	†4.8	29.0	–6.9	54.0	†5.5	63.6	†2.9	71.3	†2.0	75.8	†1.2	77.2	†6.7	71.6	†6.9	53.5	†0.5	37.2	†1.2	28.0	†4.2	51.2	†2.9
Toledo	24.0	†4.3	23.2	†3.6	27.6	–4.6	53.2	†2.6	61.8	†0.0	68.7	–2.0	71.1	–3.8	74.5	†2.1	67.4	†3.3	51.0	–1.5	35.4	–0.7	26.6	†3.4	48.7	†0.6
Wapello	28.9	†1.9	27.2	†6.4	29.6	–5.4	55.4	†3.5	63.4	–1.0	69.9	–1.6	72.2	–5.2	.....	.....	70.2	†5.2	50.8	–5.4	37.8	–4.2	30.0	†3.0	.....	.....
Washington	26.8	†5.6	26.4	†5.0	28.8	–5.8	52.2	†1.3	62.5	†1.1	69.2	–4.0	72.0	–3.6	75.1	†1.9	69.7	†4.7	52.6	–1.4	36.8	†1.2	28.4	†4.4	50.0	†0.9
Washta	25.6	.....	23.6	.....	27.0	.....	50.2	.....	60.1	.....	65.3	.....	68.9	.....	73.0	.....	65.9	.....	49.4	.....	34.2	.....	25.6	.....	47.4	.....
Waterloo	22.3	†4.5	20.6	†2.4	27.9	–2.3	51.3	†4.1	59.9	–0.1	68.0	–0.7	71.0	–3.0	74.8	†4.0	67.8	†5.4	51.1	†1.4	34.8	–0.4	26.2	†5.1	48.0	†1.7
Waukee	26.2	.....	25.0	.....	27.6	.....	53.8	.....	62.7	.....	70.0	.....	71.4	.....	74.4	.....	67.6	.....	52.0	.....	37.4	.....	28.0	.....	49.7	.....
Waverly	22.2	†2.5	20.2	†2.2	27.0	–4.2	51.3	†3.8	60.0	–1.4	66.4	–2.4	69.6	–4.3	73.8	†2.4	.....	.....	50.5	–2.9	34.3	–0.2	26.1	†5.4	.....	.....
Webster City	24.6	.....	22.9	.....	28.4	.....	52.5	.....	61.4	.....	68.5	.....	71.7	.....	74.9	.....	67.4	.....	50.2	.....	36.2	.....	25.9	.....	48.7	.....
West Bend	23.7	†6.1	20.4	†3.9	25.6	–3.6	50.8	†4.0	59.0	–0.3	67.2	–0.6	69.6	–3.3	71.6	†1.9	64.5	†3.7	48.0	–1.0	33.6	†2.6	23.7	†3.8	46.5	†1.4
Whitten	22.0	†1.7	21.7	†6.6	27.0	–4.0	51.4	†3.3	60.4	†0.6	68.2	–0.1	70.2	–4.5	73.1	†2.2	.....	.....	50.2	–2.7	34.0	–0.8	25.5	†6.2	.....	.....
Wilton Junction	26.4	†3.6	25.0	†5.2	29.0	–5.3	54.4	†3.5	.....	.....	68.5	–2.6	.....	.....	74.3	†1.4	68.6	†4.3	51.9	–0.9	36.8	–0.6	28.9	†3.3	.....	.....
Winterset	26.4	†4.9	26.0	†4.4	27.4	–6.7	54.5	†3.3	63.8	†2.5	70.9	†0.6	72.2	–2.1	75.6	†3.2	67.8	†2.6	51.8	–1.9	36.8	–1.6	29.4	†4.2	50.2	†1.1
Woodburn	27.0	.....	26.6	.....	29.0	.....	53.2	.....	61.3	.....	67.4	.....	69.3	.....	73.8	.....	66.2	.....	50.0	.....	36.2	.....	31.0	.....	49.2	.....
Zearing	23.4	.....	22.6	.....	27.2	.....	51.8	.....	59.9	.....	67.0	.....	69.8	.....	73.4	.....	67.4	.....	50.6	.....	35.7	.....	26.8	.....	48.0	.....

† Indicates plus.

DATE OF LAST KILLING FROST IN SPRING AND FIRST IN FALL IN IOWA FOR 1906.

Stations	Killing Frost		Stations	Killing Frost	
	Last in Spring	First in Autumn		Last in Spring	First in Autumn
Afton	May 6	October 9	Iowa Falls	May 28	October 1
Albia	May 9	October 10	Jefferson	May 6	October 9
Algona	May 7	October 9	Keokuk	April 1	October 10
Allerton	May 9	October 10	Keosauqua	May 9	October 3
Alta	May 9	October 6	Knoxville	May 7	October 10
Alton	May 9	September 30	Larrabee	May 7	October 6
Amana	May 9	October 6	LeMars	May 9	September 30
Ames	May 9	October 6	Lenox	May 9	October 6
Atlantic	May 28	September 27	Leon	May 9	October 9
Audubon	May 9	September 27	Little Sioux	May 6	October 10
Baxter	May 10	October 10	Logan	May 9	October 9
Bedford	May 9	October 6	Marshalltown	May 9	October 1
Belle Plaine	May 9	October 10	Mason City	May 7	October 9
Bonaparte	May 9	October 10	Mount Ayr	May 9	October 10
Boone	May 6	October 10	Mount Pleasant	May 9	October 10
Britt	May 9	October 6	Mount Vernon	May 9	October 10
Burlington	May 9	October 10	New Hampton	May 9	October 10
Carroll	May 9	October 10	Newton	May 9	October 10
Cedar Rapids	May 7	October 1	Northwood	May 7	October 9
Chariton	May 9	October 1	Odebolt	May 6	October 6
Charles City	May 9	October 6	Ogden	May 9	
Clarinda	May 9	October 1	Olin	May 10	October 9
Clear Lake	May 7	October 9	Onawa	May 6	October 9
Clinton	May 9	October 10	Osage	May 7	October 6
College Springs	May 9	October 9	Oskaloosa	May 9	October 6
Columbus Junction	May 7	October 10	Ottumwa	May 9	October 10
Corning	May 9	October 1	Pacific Junction	May 9	October 10
Corydon	May 9	October 9	Pella	May 9	October 10
Creston	May 9	October 9	Perry	May 9	October 9
Davenport	May 7	October 10	Plover	May 9	October 6
Decorah	May 28	October 10	Pocahontas	May 7	October 6
Delaware	May 10	October 10	Preston	May 10	October 10
Denison	May 28	September 30	Ridgeway	May 7	October 10
Des Moines	April 1	October 10	Rockwell City	May 9	October 6
De Soto	May 7	October 1	Sac City	May 7	October 9
Dows	May 9	October 1	St. Charles	May 9	October 9
Dubuque	May 9	October 10	Sheldon	May 28	October 6
Earlham	May 9	October 1	Sibley	May 9	October 6
Elkader	May 28	October 1	Sigourney	May 9	October 6
Elliott	May 9	October 9	Sioux Center	May 8	October 1
Estherville	May 8	September 30	Sioux City	May 6	September 30
Forest City	May 8	October 6	Stockport	May 9	October 10
Fort Dodge	May 7	October 5	Stuart	May 7	October 9
Galva	May 28	October 6	Thurman	May 9	October 9
Glenwood	May 6		Tipton	May 7	October 10
Grand Meadow	May 9	October 6	Toledo	May 9	October 10
Greenfield	May 9	October 9	Vinton	May 7	October 1
Grinnell	May 9	October 1	Wapello	May 7	October 10
Grundy Center	May 7	October 1	Washington	May 9	October 10
Guthrie Center	May 10	October 1	Washta	May 28	September 27
Hampton	May 7	October 10	Waterloo	May 9	October 10
Hancock	May 9	October 6	Waukee	May 9	October 6
Hanlontown	May 9		Waverly	May 7	October 10
Harlan	May 9	October 1	Webster City	May 28	October 10
Hopeville	May 9	October 9	West Bend	May 9	October 9
Humboldt	May 7	October 6	Whitten	May 9	October 1
Ida Grove	May 28	September 30	Wilton Junction	May 7	October 10
Independence	May 9		Winterset	May 6	October 9
Indianola	May 9	October 10	Woodburn	May 9	October 1
Inwood	May 28	September 30	Zearing	May 9	October 1
Iowa City	May 9	October 10			

MONTHLY AND ANNUAL PRECIPITATION FOR 1906 WITH DEPARTURES FROM NORMAL.

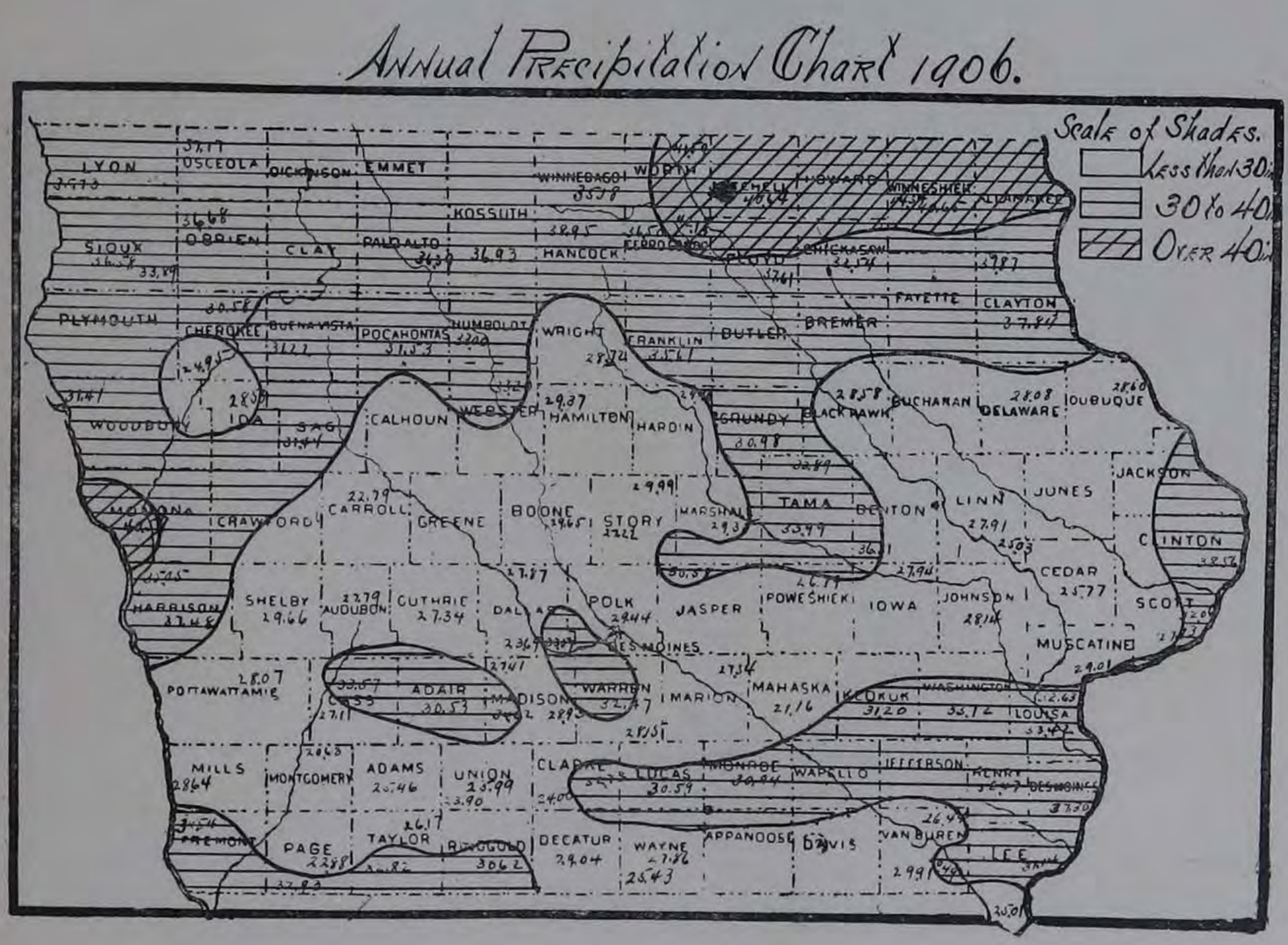
STATIONS	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Annual	
	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.
Afton	.40	- .41	1.00	- .04	2.21	- .09	4.25	† .58	2.97	-1.74	2.11	-2.19	1.76	-3.04	3.63	†.12	2.43	-1.44	1.48	-1.48	1.90	†.79	1.85	†.57	25.99	-8.37
Albia	2.12	† .86	1.99	† .67	2.01	† .13	1.87	-1.08	2.89	-1.23	8.27	†4.70	3.91	-.22	1.52	-2.46	1.31	-2.61	0.56	-2.23	2.52	†.88	1.97	†.97	30.94	-1.62
Algona	1.11	† .31	1.46	† .16	2.88	†1.32	2.08	- .48	4.43	† .98	3.49	-.90	2.05	-1.62	8.88	†5.17	5.39	†2.23	2.62	†.52	1.74	†.48	.80	-.25	36.93	†7.92
Allerton	1.61	.....	2.11	.....	1.45	.....	2.93	.....	2.52	.....	4.87	.....	1.79	.....	.92	.....	2.04	.....	0.50	.....	2.80	.....	1.89	.....	25.43	.....
Alta	.72	† .07	1.61	† .86	1.95	† .13	2.47	- .77	5.12	† .90	3.33	-2.33	2.12	-2.59	3.45	-.39	4.06	†1.99	3.52	†1.35	1.42	†.25	.85	-.18	31.22	-.71
Alta (near)	.60	.....	1.55	.....	1.98	.....	2.51	.....	5.68	.....	3.23	.....	2.51	.....	3.22	.....	4.98	.....	3.51	.....	1.68	.....	.82	.....	32.27	.....
Alton	.38	.....	1.08	.....	1.32	.....	2.09	.....	6.31	.....	4.42	.....	1.80	.....	5.31	.....	6.11	.....	3.82	.....	0.56	.....	.69	.....	33.89	.....
Amana	2.91	†1.47	1.60	† .33	1.74	- .26	1.98	- .90	2.12	-2.34	2.74	-1.75	2.02	-2.18	4.48	†.90	1.06	-2.30	1.91	-.83	3.15	†1.40	2.23	†.74	27.94	-5.72
Ames	1.12	† .15	.28	- .56	.58	- .90	3.16	† .41	1.73	-2.50	3.71	-1.04	4.06	-.52	5.28	†1.74	3.14	-.39	1.72	-.80	1.74	†.64	.70	-.32	27.22	-4.09
Atlantic	.80	† .04	.99	† .03	1.97	† .01	4.34	†1.30	2.65	-1.52	5.87	†.19	3.91	-.44	2.53	-.53	6.53	†3.86	1.15	-1.49	1.53	†.67	1.30	-.08	33.57	†2.04
Audubon	.71	† .05	.53	- .27	1.33	- .45	2.96	†1.04	2.86	-1.06	3.03	-.74	2.86	-1.06	4.85	†.90	5.07	†2.01	1.50	-.73	1.02	-.46	1.07	-.18	27.79	-.95
Baxter	1.33	† .68	.20	- .69	1.54	- .71	2.60	- .63	2.50	-2.98	3.96	-.46	2.79	-2.10	3.25	-.77	6.56	†3.45	1.39	-1.32	3.05	†2.24	1.41	†.45	30.58	-2.84
Bedford	1.24	† .42	1.71	† .90	2.36	- .17	3.59	† .75	1.45	-4.67	6.52	†2.29	4.96	-.64	4.09	-2.02	1.98	-1.54	1.54	-1.29	2.05	†1.11	1.33	†.41	32.82	-4.45
Belle Plaine	3.46	†1.94	1.88	† .58	3.07	† .47	2.07	-1.54	3.06	-1.38	4.14	-.09	4.01	†.37	5.05	†.69	2.20	-.70	2.03	-.25	3.12	†1.29	2.22	†.73	36.31	†2.11
Bonaparte	1.74	† .17	2.47	†1.23	2.40	- .28	2.46	- .93	2.92	-1.11	2.09	-2.15	2.81	-.79	4.10	†.27	3.91	-.10	1.20	-.62	2.25	†.25	2.20	†.75	30.49	-3.31
Boone	1.73	.....	1.52	.....	2.02	.....	3.32	.....	2.20	.....	4.01	.....	3.54	.....	3.11	.....	3.36	.....	1.89	.....	1.63	.....	1.32	.....	29.65	.....
Britt	1.14	† .55	.96	- .01	2.86	†1.52	3.13	†1.06	4.31	† .62	2.47	-2.61	4.73	†.41	8.15	†4.48	5.84	†1.79	2.55	†.37	2.03	†1.05	.78	-.01	38.95	†9.82
Buckingham	3.11	†2.39	1.26	† .32	2.30	† .11	1.50	- .98	3.23	- .61	2.72	-2.44	3.25	-1.15	7.44	†2.64	2.78	-.11	1.97	†.13	2.62	†1.64	1.71	†.71	33.89	†2.65
Burlington	3.23	.....	2.40	.....	4.55	.....	2.63	.....	1.82	.....	4.80	.....	2.26	.....	3.74	.....	5.13	.....	1.51	.....	3.04	.....	2.19	.....	37.30	.....
Carroll	.87	† .01	1.79	† .71	2.22	- .13	2.01	-1.51	2.81	-1.60	1.88	-2.95	1.52	-2.38	2.65	-1.12	3.35	†.23	1.68	-.58	0.97	-.18	1.04	-.04	22.79	-9.54
Cedar Rapids	2.08	† .64	.60	- .95	1.60	- .58	1.15	-1.83	3.28	-1.24	4.92	†1.00	1.97	-1.90	6.03	†2.78	0.99	-1.90	1.11	-1.48	2.71	†1.29	1.47	-.14	27.91	-4.31
Chariton	2.00	† .89	1.60	† .56	1.70	† .20	2.78	- .71	2.23	-2.04	5.61	†1.34	1.56	-4.68	4.84	†1.94	3.68	-.05	0.84	-1.98	2.15	†.74	1.60	†.08	30.59	-3.71
Charles City	1.99	†1.00	1.45	† .36	3.47	†1.62	1.33	-1.21	6.26	†2.21	4.01	-1.12	5.08	†1.16	4.52	†1.68	3.25	†.06	1.82	-.57	3.21	†1.71	1.22	-.14	37.61	†6.76
Clarinda	.82	- .15	1.54	† .52	2.06	† .16	2.82	- .49	1.32	-3.47	2.44	-2.67	3.44	-1.24	2.52	-1.19	2.26	-.30	1.12	-1.67	1.32	†.29	1.22	-.02	22.88	-10.23
Clear Lake	.90	† .38	.40	- .45	4.23	†3.01	.85	-1.06	6.80	†1.20	4.55	†.16	4.20	-.55	7.09	†3.03	3.00	-.58	1.86	-1.02	1.65	†.82	.97	†.32	36.50	†5.26
Clinton	3.25	†1.40	2.37	† .26	2.86	- .16	2.22	- .71	4.44	- .16	3.47	-1.21	5.42	†1.33	5.07	†2.02	2.54	-.56	1.41	-1.00	3.46	†1.56	2.05	†.24	38.56	†3.01
College Springs	.45	- .11	1.32	† .42	1.92	† .07	2.53	-1.14	1.67	-3.27	4.18	-.25	5.95	†.22	5.83	†2.39	4.42	†1.96	2.10	-1.01	1.06	†.02	1.50	-.09	32.93	-0.79
Columbus Junction	2.45	†1.57	2.10	† .91	2.98	† .59	1.64	-1.62	2.02	-1.67	7.80	†3.53	1.27	-2.91	4.06	-3.02	2.23	-1.41	1.51	-1.31	2.56	†1.11	2.01	†.52	32.63	-3.71
Corning	1.33	† .58	1.03	† .23	2.47	† .72	3.49	† .40	1.91	-2.82	2.75	-1.44	3.63	-.84	1.15	-2.25	3.64	†1.16	.98	-1.58	1.63	†.67	1.35	†.11	25.36	-5.06
Corydon	1.39	- .22	2.03	† .61	1.56	- .51	1.88	-1.24	2.33	-2.64	6.08	†1.75	1.03	-3.37	4.36	†.35	2.48	-1.38	.63	-2.24	2.32	†.82	1.77	†.15	27.86	-7.92
Creston	1.26	.....	.65	.....	1.85	.....	3.36	.....	1.29	.....	3.11	.....	1.88	.....	2.97	.....	4.41	.....	1.05	.....	1.20	.....	.87	.....	23.90	.....
Cumberland	1.40	† .66	.50	- .21	2.62	† .16	2.40	† .46	1.73	-2.28	5.67	†1.61	3.17	-2.00	1.86	-2.89	3.33	†.35	1.10	-1.71	1.33	†.69	2.00	†1.04	27.11	-4.12
Davenport	2.14	† .47	2.21	† .64	2.20	† .04	1.92	- .86	2.60	-1.72	2.69	-1.70	2.26	-1.40	3.50	-.08	2.47	-.71	1.67	-.95	2.66	†.60	1.61	-.12	27.93	-5.79
Decorah	2.88	†1.79	.71	- .27	3.18	†1.22	.97	-1.72	5.56	†1.19	2.08	-2.18	5.02	†1.81	7.84	†6.16	5.50	†2.06	2.24	-.10	2.65	†1.06	2.02	†.66	40.65	†11.68
Delaware	1.72	† .71	.43	- .45	2.06	† .23	1.54	-1.50	2.80	-1.32	3.30	-.98	3.29	-.39	4.40	†1.54	2.76	-.48	1.46	-.76	2.80	†1.19	1.52	†.00	28.08	-2.21
Denison	.50	- .06	1.25	† .61	4.11	†2.48	2.89	-1.07	2.70	- .90	2.86	-.72	1.75	-2.57	1.77	-1.61	4.81	†1.60	1.66	-.75	1.14	†.24	.....	.....	.....	.....
Des Moines	2.07	† .73	.80	- .42	1.84	† .38	2.96	† .17	2.21	-2.49	3.80	-1.56	2.67	-.86	4.86	†1.60	3.24	†.04	1.18	-1.86	2.29	†.58	1.46	†.02	29.44	-3.67
De Soto	1.74	.....	.61	.....	1.32	.....	3.01	.....	1.74	.....	2.30	.....	2.59	.....	3.42	.....	2.97	.....	1.24	.....	1.61	.....	1.14	.....	23.69	.....
Dows	1.85	†1.31	1.02	† .12	2.54	† .55	2.38	- .67	4.19	- .88	3.16	-1.92	1.16	-3.19	3.36	-.52	3.36	-.41	2.65	†.30	2.37	†.03	.68	-.21	28.72	-5.49
Dubuque	2.72	†1.04	.93	- .53	2.36	† .09	1.16	-1.63	3.59	- .40	3.36	-1.84	1.57	-2.71	4.44	†1.29	1.78	-2.31	1.70	-1.01	2.95	†.85	2.04	†.23	28.60	-6.93
Earlham	2.00	.....	1.17	.....	2.94	.....	3.37	.....	1.70	.....	3.55	.....	2.28	.....	1.80	.....	4.33	.....	1.34	.....	1.67	.....	1.26	.....	27.41	.....
Elkader	2.40	†1.05	1.00	- .12	3.11	†1.28	1.65	-1.20	3.70	- .35	2.30	-1.90	4.67	†.33	6.33	†3.53	5.81	†1.99	1.81	-.94	3.01	†1.33	2.05	†.12	37.84	†5.12
Elliott	.70	.....	.73	.....	1.78	.....	2.16	.....	.89	.....	3.46	.....	3.66	.....	1.41	.....	4.26	.....	.57	.....	0.62	.....	0.39	.....	20.63	.....
Estherville	1.15	† .80	.58	- .04	1.22	- .19	.71	-1.75	3.15	† .02	.....	.....	4.07	†.19	3.96	†.66	4.25	†1.15	3.90	†2.28	1.49	†.32	0.37	-.22	.....	.....
Fayette	3.44	†2.21	.90	- .17	2.99	† .73	3.63	† .43	2.84	-2.00	4.04	-1.81	3.61	-.09	.....	.....	.....	.....	.....	.....	3.12	†1.47	2.64	†1.21	.....	.....
Forest City	.90	† .26	1.15	† .38	3.06	†1.58	1.59	-1.01	5.17	†1.37	3.62	-1.44	2.19	-1.24	6.36	†4.15	7.12	†3.30	2.41	†.04	1.11	-.25	0.50	-.41	35.18	†6.73
Fort Dodge	.92	.....	.67	.....	3.00	.....	2.40	.....	6.10	.....	1.94	.....	3.51	.....	5.60	.....	3.16	.....	2.49	.....	2.20	.....	1.21	.....	33.20	.....
Fort Madison	2.79	† .90	2.29	† .33	3.85	† .87	2.11	-1.18	2.26	-2.60	3.52	-.82	2.16	-1.95	2.66	-1.00	4.58	†.79	.60	-2.15	2.64	†.48	1.68	-.32	31.14	-6.65
Galva	.47	† .12	1.17	† .70	1.45	† .06	2.24	- .52	4.61	†1.31	2.89	-1.34	1.54	-2.66	3.55	†.21	5.98	†1.98	2.92	†1.25	0.85	-.48	0.86	†.02	28.53	†.65
Gilman	.88	† .38	.88	- .13	.....	.....	2.38	- .12	1.83	-2.17	3.82	-1.08	1.40	-3.45	5.21	†1.55	3.78	†1.15	1.67	-.62	3.11	†2.13	0.42	-.48	.....	.....
Grand Meadow	2.13	† .95	1.17	† .05	2.86	† .76	.93	-2.20	4.50	- .65	4.67	-.59	4.53	†.21	5.09	†2.59	5.36	†2.19	1.83	-.74	2.84	†1.25	1.96	†.40	37.87	†4.22
Greenfield	1.57	† .67	1.00	- .04	1.73	- .51	3.16	† .03	2.54	-2.06	3.89	-1.22	3.45	-1.44	3.08	†.26	4.47	†1.19	1.42	-.88	2.63	†1.57	1.59	†.24	30.53	-2.19
Grinnell	1.95	† .79	.91	† .04	1.96	† .17	2.16	-1.36	2.41	-2.24	3.91	-.98	2.86	-.86	1.48	-2.18	2.21	-.25	1.86	-.59	3.35	†1.83	1.73	†.44	26.79	-5.19
Grundy Center	2.25	†1.54	.80	† .08	2.78	†1.12	2.04	-1.34	2.92	-2.03	4.55	-1.29	4.60	†.42	1.72	-1.85	3.70	†.38	2.37	-.32	1.55	†.27	1.70	†.45	30.98	-2.67
Guthrie Center	1.20	† .67	1.34	† .67	1.66	† .26	3.18	† .71	2.11	-2.46	4.87	†.81	3.97	-.57	2.68	-1.98	1.98	-1.48	1.55	-.67	1.82	†.77	0.98	-.29	27.34	-3.56
Hampton	1.14	† .04	1.04	- .07	3.08	† .82	3.65	† .21	3.32	- .85	2.89	-2.34	3.50	-.64	4.26	†1.11	7.07	†3.57	1.25	-1.38	2.89	†1.28	1.52	†.20	35.61	†1.95
Hancock	.75	.....	1.14	.....	2.02	.....	2.49	.....	3.42	.....	4.22	.....	3.48	.....	2.25	.....	5.60	.....	.89	.....	0.86	.....	0.95	.....	28.07	.....
Harlan	.45	- .23	.88	† .12	1.26	- .44	3.45	† .97	4.89	† .53	3.02	-2.26	4.40	-1.31	2.91	-1.70	4.89	†.89	1.27	-1.76	1.01	†.21	1.23	†.16	29.66	-4.82
Hopeville	1.01	† .11	1.08	† .31	2.27	† .59	2.88	- .54	2.00	-2.76	2.26	-2.09	3.01	-1.61	1.56	-1.73	3.19	-.34	1.18	1.25	1.79	†.81	1.77	†.66	24.00	-7.84
Humboldt	.43	- .22	.25	- .45	3.34	†1.89	2.72	- .02	6.85	†2.97	3.80	-.87	3.80	-.14	5.58	†2.47	1.82	-1.62	2.39	†.66	1.40	-.06	.62	-.14	33.00	†4.47
Independence	3.30	†1.93	.47	- .58	.71	-1.08	.53	-1.68	1.00	-3.17	.....	.....	7.05	†2.33	2.20	-1.23	1.50	-3.20	.....	.....	.....	.....	2.81	†1.33	.....	.....
Indianola	1.46	† .31	1.32	† .57	1.16	- .03	2.59	- .69	1.93	-2.77	3.13	-.95	4.09	†.45	5.52	†1.36	3.34	†.29	2.33	†.27	3.20	†1.90	2.40	†.99	32.47	†1.07
Inwood	.28	.....	.21	.....	1.07	.....	1.28	.....	5.54	.....	7.94	.....	1.29	.....	7.21	.....	6.42	.....	3.25	.....	0.48	.....	.76	.....	35.73	.....
Iowa City	2.51	† .77	1.73	† .22	2.25	- .23	1.83	-1.31	2.33	-2.01	3.64	-.99	1.42	-3.08	5.34	†1.08	0.89	-2.94	1.48	-1.06	3.08	†.76	1.64	-.02	28.14	-8.81
Iowa Falls	2.02	†1.18	1.32	† .37	2.77	†1.16	2.24	- .91	2.94	- .61	3.04	-1.73	2.85	-.99	3.61	†.21	2.89	-.43	1.83	-.47	2.35	†1.07	1.54	†.38	29.40	-0.77
Jefferson	1.13	.....	.88	.....	1.89	.....	2.42	.....	3.17	.....	2.21	.....	4.15	.....	4.49	.....	3.46	.....	1.56	.....	1.48	.....	.....	.....	.....	.....
Keokuk	2.40	† .68	2.50	† .79	2.82	† .64	2.16	-1.05	1.83	-2.24	1.48	-3.06	1.46	-2.64	2.87	†.04	2.94	-.58	0.73	-2.03	1.92	-.20	1.90	-.06	25.01	-9.71
Keosauqua	2.37	†1.45	2.77	†1.35	2.24	- .24	2.22	-1.62	3.83	- .51	2.25	-1.81	3.20	-.77	1.80	-1.69	3.47	-1.01	1.34	-.56	2.13	†.50	2.29	†.75	29.91	-4.16
Knoxville	2.75	†1.82	1.35	† .37	1.70	† .20	2.74	- .42	1.87	-1.49	3.52	-.30	3.47	-.99	3.17	-1.35	4.76	†1.25	1.33	-1.07	2.38	†1.34	.....	.....	.....	.....
Lacona	1.81	† .39	1.63	† .38	1.97	- .72	3.04	† .20	1.36	-4.56	3.60	-.74	2.48	-2.39	2.27	-2.88	3.92	†.31	.76	-1.93	2.77	†1.69	2.54	†.89	28.15	-9.36
Larrabee	.56	- .01	1.57	† .82	1.35	- .30	2.58	- .41	4.27	† .32	4.40	-1.50	.98	-3.68	4.22	†.88	4.99	†2.11	4.25	†2.41	1.01	†.03	0.40	-.67	30.58	0.00
Leclaire	2.15	.....	2.51	.....	2.80	.....	2.14	.....	2.90	.....	4.64	.....	4.28	.....	2.27	.....	2.53	.....	1.47	.....	2.85	.....	1.52	.....	32.06	.....
Le Mars	.40	- .29	1.16	† .55	.....	.....	2.49	-1.13	5.87	†2.28	5.45	†1.43	1.20	-3.70	.....	.....	8.23	†5.04	3.60	†1.75	0.53	- .53	0.98	- .11	.....	.....
Lenox	.81	† .18	2.35	†1.70	1.59	- .26	3.07	† .05	.99	-3.72	3.01	-1.09	4.14	-1.08	2.04	-1.56	3.46	† .49	1.47	-1.52	1.73	† .60	1.48	† .20	26.17	- 6.01
Leon	1.60	.....	1.63	.....	2.39	.....	3.04	.....	1.40	.....	5.04	.....	2.03	.....	1.91	.....	3.85	.....	.70	.....	3.82	.....	1.63	.....	29.04	.....
Little Sioux	.79	.....	1.60	.....	2.45	.....	3.06	.....	4.05	.....	4.71	.....	6.34	.....	3.99	.....	4.06	.....	2.44	.....	0.68	.....	0.88	.....	35.05	.....
Logan	.85	- .27	1.00	- .20	2.46	† .56	2.44	- .43	3.73	- .46	3.55	-2.15	6.95	†2.04	2.80	-1.06	8.99	†5.88	2.46	- .02	0.89	- .27	1.36	† .01	37.48	† 3.63
Marshalltown	2.21	†1.27	.66	- .12	2.06	† .13	2.18	- .93	2.50	-2.24	3.45	-1.49	3.57	- .88	2.55	-1.02	5.10	†2.43	2.07	- .40	1.77	† .44	1.23	- .25	29.35	- 3.06
Mason City	1.15	- .04	1.55	† .99	3.80	†2.46	1.90	-1.44	7.00	†3.05	2.75	-4.29	6.73	†3.94	5.54	†2.88	5.76	†3.91	1.75	- .26	2.80	†1.80	1.40	† .74	42.13	†13.74
Mt. Ayr	1.65	† .62	1.78	† .62	1.58	- .35	4.13	† .98	2.79	-2.60	5.33	† .89	2.82	-2.29	2.36	- .96	3.27	† .10	1.40	- .99	2.03	† .75	1.48	† .16	30.62	- 3.07
Mt. Pleasant	2.06	† .83	2.91	†1.87	3.36	†1.03	2.81	- .24	1.58	-2.76	4.81	† .60	1.89	-1.85	3.01	- .90	4.04	† .68	1.12	- .96	2.47	† .88	2.41	†1.20	32.47	† 0.38
Mount Vernon	2.68	†1.37	1.30	† .23	2.03	† .00	1.92	-1.11	3.18	- .91	1.98	-1.77	.93	-3.70	4.75	† .18	0.64	-2.17	1.06	-1.34	2.61	†1.49	1.95	† .29	25.03	- 7.44
Muscatine	2.53	† .72	2.78	† .70	2.72	- .07	1.75	-1.66	3.49	- .89	3.56	-1.30	1.36	-2.55	2.32	-2.06	2.67	-1.05	1.75	-1.29	2.34	† .04	1.74	- .54	29.01	- 9.95
Nevada	.....	.....	.....	.....	2.08	.....	2.57	.....	3.57	.....	4.01	.....	3.03	.....	3.76	.....	4.31	.....	1.60	.....	2.82	.....	1.14	.....	.....	.....
New Hampton	1.61	† .78	1.09	† .02	4.03	†2.38	1.20	- .73	4.97	† .50	3.55	- .93	3.31	- .38	2.30	- .20	4.36	† .61	2.03	- .52	2.73	† .94	1.36	† .69	32.54	† 3.16
Northwood	1.32	† .67	1.07	- .69	3.38	†1.78	1.79	- .52	9.61	†5.19	2.24	-2.57	36.5	- .34	5.65	†2.03	6.44	†2.95	2.29	- .34	2.79	†1.23	1.36	† .45	41.59	†10.44
Odebolt	.60	† .28	1.92	†1.17	1.80	- .19	3.10	† .39	4.06	†1.29	3.41	- .90	1.52	-3.60	2.38	-1.31	7.84	†4.69	2.99	† .78	0.97	- .15	0.85	- .25	31.44	† 2.20
Ogden	.....	.....	1.34	† .75	1.67	† .15	2.81	- .14	3.04	-2.12	5.70	† .82	3.89	- .23	4.32	† .26	3.11	- .69	.....	.....	1.80	† .69	1.05	† .04	.....	.....
Olin	3.45	†2.37	1.84	† .51	2.04	- .41	1.23	- .95	5.01	† .48	2.02	-1.50	1.22	-2.38	7.46	†3.88	2.58	- .80	1.35	-1.07	.....	.....	1.54	† .08	.....	.....
Omaha, Nebr	.60	- .09	.71	- .08	1.75	† .25	3.67	† .54	2.50	-1.87	5.30	- .37	2.85	-1.90	2.03	-1.31	4.84	†1.93	1.56	- .91	0.52	- .54	1.26	† .25	27.59	- 4.10
Onawa	.93	- .21	1.69	† .74	2.00	† .47	3.47	† .48	4.61	† .23	6.60	†1.40	3.60	-1.03	7.71	†3.82	4.24	†1.47	4.21	†1.82	0.50	- .63	1.03	- .05	40.59	† 8.51
Osage	2.00	†1.12	1.56	† .38	4.17	†2.60	1.65	- .92	8.10	†3.87	2.16	-2.36	5.97	†2.43	3.21	† .21	5.14	†1.64	2.33	- .10	2.80	†1.35	1.55	† .27	40.64	†10.40
Oskaloosa	1.24	† .36	.78	- .29	1.55	- .34	1.63	-1.15	1.85	-1.72	3.45	- .68	2.33	-1.72	2.42	- .72	1.21	-1.89	1.26	-1.07	2.03	† .48	1.41	† .13	21.16	- 8.61
Ottumwa	1.27	- .32	2.67	†1.43	2.84	† .93	2.40	- .68	2.40	-2.42	6.78	†2.99	1.32	-2.97	1.33	-2.35	1.54	-2.78	1.66	-1.22	1.72	† .04	.....	.....	.....	.....
Pacific Junction	.62	† .19	.90	† .42	2.11	† .68	2.27	- .34	1.41	-3.58	6.08	†1.65	5.05	† .48	1.90	-2.55	5.12	†2.80	1.28	-1.18	0.71	† .12	1.19	† .23	28.64	- 1.08
Pella	2.57	.....	1.35	.....	1.08	.....	2.58	.....	2.01	.....	2.95	.....	3.19	.....	3.95	.....	2.11	.....	1.38	.....	2.53	.....	1.64	.....	27.34	.....
Perry	1.35	.....	.80	.....	2.39	.....	3.38	.....	3.10	.....	2.96	.....	2.77	.....	3.84	.....	2.32	.....	1.74	.....	2.01	.....	1.21	.....	27.87	.....
Plover	.61	† .10	.44	- .21	1.88	† .50	2.59	† .81	.....	.....	5.62	†1.50	3.32	-1.81	5.50	†1.50	7.11	†3.07	3.92	†1.61	1.52	- .07	0.59	- .16	.....	.....
Pocahontas	.61	.....	1.52	.....	3.01	.....	2.61	.....	3.05	.....	4.97	.....	1.69	.....	2.87	.....	5.18	.....	4.15	.....	1.17	.....	0.70	.....	31.53	.....
Ridgeway	4.71	†3.01	1.32	-1.35	4.41	†1.92	1.56	- .55	6.04	† .89	3.87	- .65	3.58	-1.51	3.93	†1.23	6.11	†1.98	2.75	-1.13	3.69	†1.74	2.37	- .13	44.34	† 5.45
Rock Rapids	.75	† .12	.35	† .21	.75	- .84	2.05	1.70	.....	.....	5.65	†1.91	.92	-1.60	3.65	†1.89	3.75	†1.45	3.43	-1.68	0.79	- .20	1.05	† .44	.....	.....

MONTHLY AND ANNUAL PRECIPITATION FOR 1906 WITH DEPARTURES FROM NORMAL—CONTINUED.

STATIONS	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Annual	
	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.
Rockwell City	1.20	† .57	2.35	†1.84	3.60	†1.30	.....	.....	6.86	†3.52	2.10	–2.40	1.38	–2.62	6.83	†3.29	4.46	†1.39	1.90	– .68	2.40	†1.65	.....	.....	.....	.....
Sac City	.77	– .18	1.87	†1.05	1.47	– .18	2.75	– .24	3.16	– .47	2.68	–2.21	.99	–2.82	1.69	–1.67	4.68	†1.39	2.36	– .20	1.07	– .04	.....	.....	.....	.....
St. Charles	1.40	.....	.94	.....	2.45	.....	2.49	.....	2.72	.....	3.50	.....	3.82	.....	2.31	.....	4.79	.....	.93	.....	1.43	.....	2.15	.....	28.93	.....
Sheldon	1.12	† .73	1.07	† .39	2.57	†1.61	4.16	†2.68	5.52	†1.90	3.84	–.33	1.52	–5.33	5.25	†1.83	6.01	†1.92	3.81	†1.81	1.21	† .50	0.60	– .30	36.68	† 7.41
Sibley	.52	– .02	.19	– .28	2.08	† .91	2.81	† .12	4.20	† .85	5.12	† .99	.98	–2.93	10.51	†7.26	5.69	†2.53	3.12	†1.45	0.96	† .09	0.99	† .13	37.17	†11.10
Sigourney	4.21	†2.97	1.97	† .62	2.17	† .28	1.48	–2.12	3.20	– .78	4.93	†1.24	2.49	–2.19	2.52	–1.21	0.78	–2.19	1.70	–1.32	3.37	†1.87	2.38	† .97	31.20	– 1.86
Sioux Center	.65	† .38	.60	– .18	1.37	† .12	1.79	–1.34	8.00	†4.18	5.17	† .87	2.04	–3.34	5.77	†1.67	3.35	†1.97	3.17	†1.61	0.55	– .02	1.12	† .24	36.58	† 6.16
Sioux City	.50	– .13	1.34	† .79	.89	– .35	3.94	† .92	2.18	–1.49	4.02	† .22	2.37	–1.00	2.74	– .45	8.06	†5.97	3.73	†2.03	0.65	– .17	0.99	† .11	31.41	† 6.45
Stockport	1.79	.....	2.70	.....	3.45	.....	2.17	.....	1.80	.....	2.87	.....	2.06	.....	2.10	.....	2.09	.....	1.42	.....	1.79	.....	2.20	.....	26.44	.....
Stuart	1.30	† .71	1.29	† .72	2.65	† .00	2.62	– .59	2.01	–2.44	2.59	–1.38	.....	.....	.....	.....	3.23	†1.37	1.36	–1.62	1.96	†1.08	1.43	† .70	.....	.....
Thurman	.70	– .01	1.10	– .22	2.46	† .68	2.60	– .84	1.21	–3.50	8.23	† .69	3.88	–1.60	4.87	– .56	11.10	†7.89	1.29	–2.75	0.59	– .50	0.51	–1.27	38.54	– 1.99
Tipton	2.76	†1.59	1.27	† .04	2.23	– .87	1.21	–2.56	3.12	–2.19	2.93	– .80	.26	–4.16	3.66	–1.39	1.73	–1.46	1.55	– .38	2.99	†1.22	1.86	– .04	25.77	–11.00
Toledo	2.33	†1.52	.95	† .26	2.22	† .47	2.35	– .68	3.37	– .34	4.14	† .54	3.66	† .43	5.60	†1.78	2.56	– .55	1.98	† .11	3.21	†1.68	1.62	† .48	33.99	† 5.70
Wapello	2.04	†1.33	2.72	†1.26	3.05	† .53	1.56	– .68	2.84	– .75	5.92	†3.00	1.72	–1.37	3.06	–2.19	4.47	†1.55	1.44	– .78	2.96	†1.50	1.64	† .30	33.42	† 3.70
Washington	2.51	†1.06	2.56	†1.40	3.14	† .97	1.51	–1.11	2.03	–1.40	7.42	†4.19	3.19	– .35	2.98	– .51	2.20	– .42	1.51	– .62	2.32	† .93	2.35	† .88	33.72	† 5.02
Washta	.64	† .23	1.15	† .53	.63	– .62	4.13	†2.40	4.28	†1.07	2.72	–1.69	1.16	–3.94	2.19	– .72	3.83	– .08	3.27	†1.30	0.35	– .70	0.60	– .57	24.95	– 2.79
Waterloo	2.94	†1.99	1.20	† .22	2.14	† .31	1.55	–1.44	3.35	–1.03	1.64	–2.86	3.01	–1.23	2.87	– .73	2.59	– .90	2.25	– .07	2.94	†1.54	2.10	† .96	28.58	– 3.24
Waukee	2.40	.....	1.40	.....	3.25	.....	4.07	.....	2.46	.....	2.32	.....	4.93	.....	3.81	.....	2.82	.....	1.29	.....	2.80	.....	2.02	.....	33.57	.....
Waverly	1.80	† .87	1.43	† .31	2.51	† .55	1.70	–1.35	2.73	–1.89	1.74	–2.74	3.78	– .06	2.50	– .03	.....	.....	2.03	† .61	3.10	†1.62	1.94	† .86	.....	.....
Webster City	1.50	.....	1.68	.....	2.83	.....	3.27	.....	3.03	.....	4.03	.....	2.31	.....	2.11	.....	4.19	.....	2.37	.....	1.59	.....	0.96	.....	29.37	.....
West Bend	.85	† .23	1.01	† .20	2.66	†1.02	1.66	–1.15	4.79	†1.95	4.63	† .82	2.17	–1.67	6.79	†3.16	6.69	†3.51	2.93	†1.17	1.40	† .01	0.81	– .18	36.39	† 9.07
Whitten	1.90	†1.33	.50	– .06	1.71	† .77	3.06	†1.00	3.56	– .20	4.83	–1.43	4.58	† .81	.....	.....	.....	.....	1.74	– .88	2.17	† .88	1.70	† .53	.....	.....
Wilton Junction	3.12	†1.74	1.30	– .10	.....	.....	2.04	– .83	3.79	– .53	2.96	– .32	4.33	– .94	2.64	–1.57	2.94	– .24	1.90	– .17	2.96	†1.16	1.75	† .30	.....	.....
Winterset	1.60	† .66	.95	† .06	2.31	† .27	3.36	– .30	2.48	–2.09	5.60	– .24	5.48	– .45	1.92	–1.62	4.75	†1.40	1.07	–1.30	2.28	†1.07	2.22	† .85	34.02	– 1.69
Woodburn	1.73	† .72	1.60	† .39	2.56	†1.04	3.14	† .55	2.36	–3.03	3.59	– .40	2.29	–3.12	5.55	– .86	4.30	† .41	1.26	– .60	2.30	†1.26	2.05	† .79	32.73	– 2.85
Zearing	1.28	.....	.75	.....	2.11	.....	2.82	.....	2.50	.....	4.61	.....	3.84	.....	2.40	.....	3.54	.....	1.81	.....	2.95	.....	1.38	.....	29.99	.....

† Indicates plus.

Annual Precipitation Chart 1906.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR JANUARY, 1907.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1907

THE IOWA WEATHER AND CROP SERVICE

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Britt	G. P. Hardwick
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Cedar Rapids	Electric Light and Power Co.
Chariton	C. C. Burr
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Clear Lake	Oscar Stevens
Clinton	Luke Roberts
College Springs	A. M. Finley
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Denison	W. C. Van Ness
Des Moines	*Geo. M. Chappel
De Soto	R. D. Minard
Dows	H. A. Flett
Dubuque	*James H. Spencer
Earlham, R. F. D.	Geo. Phillips
Elkader	Chas. Reinecke
Elliott	Henry Barnes
Estherville	A. O. Peterson
Fayette	R. Z. Latimer
Forest City	J. A. Peters
Fort Dodge	Tobin College
Fort Madison	Miss L. A. McCready
Galva	F. H. Schleiter
Gilman	Jas. L. Wylie
Grand Meadow (Postville P. O.)	F. L. Williams
Greene	J. L. Cole
Greenfield	Dr. Geo. Brooks
Grinnell (near)	A. O. Price
Grundy Center	W. H. Scott
Guthrie Center	D. G. Beardsley
Hampton	E. C. Grenelle
Hancock	W. Armstrong
Harlan	C. A. Reynolds
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Jefferson	Geo. W. Jackson
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Rockwell City	C. M. Randall
Sac City	Frank Stouffer
St. Charles	C. W. Minard
Sheldon	Dr. A. W. Beach
Sibley	H. G. Doolittle
Sigourney	J. T. Parker
Sioux City	Jacob de Ruyter
Sioux City	*C. D. Reed
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Stuart	Dr. J. A. Treat
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U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

CENTRAL OFFICE: WASH NGTON, D. C.

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R. SAGE.....Section Director.
GEO. M. CHAPPEL, Assistant Director.

VOL. XVIII. DES MOINES, IOWA, JAN., 1907. No. 1

JANUARY WEATHER AND CROPS.

The average of cloudiness for the state was in excess of the normal for January. The Northern section received the brunt of cold weather. The average temperature for that section was 14°, which is 3.6° degrees below the normal. In the Central and Southern sections the mean temperature was slightly above the normal. At the Central station there was but one cold wave, and zero temperatures were recorded only on the 26th and 30th. It was an unusually mild and favorable month for all kinds of outside business operations, and especially favorable for live stock. Conditions were generally good for fall wheat and rye, though the snowfall was light in the larger part of the state.

CLIMATOLOGY OF THE MONTH.

TEMPERATURE.—The monthly mean temperature for the state, as shown by the records of 115 stations, was 18.8°, which is 1.0° below the normal for January. By sections the mean temperatures were as follows: Northern section, 14.0°, which is 3.6° below the normal; Central section, 19.4°, which is 0.2° above the normal; Southern section 23.1°, which is 0.6° above the normal. The highest monthly mean temperature was 28.9°, at Keokuk, and the lowest monthly mean was 8.0° at Rock Rapids. The highest temperature reported was 68° at Keokuk, on the 7th, and lowest was 22° below zero, at Forest City and Inwood, on the 30th. The average monthly maximum was 45.4°, and the average monthly minimum was -11.5°. The greatest daily range was 46° at Onawa; and the average of greatest daily ranges was 33.2°.

PRECIPITATION.—The average precipitation for the state, as shown by the records of 123 stations, was 1.52 inches, which is .57 of an inch above the normal. The averages by sections were as follows: Northern section, .96 of an inch, which is .20 of an inch above the normal; Central section, 1.41 inches, which is .37 of an inch above the normal; Southern section, 2.20 inches, which is 1.15 inches above the normal. The largest amount reported was 5.30 inches at Burlington, and the least amount reported was .10 of an inch at Atlantic. The greatest daily rainfall reported wat 2.69 inches at Keokuk, on the 18th-19th. The average number of days on which .01 of an inch or more was reported was 7.

WIND AND WEATHER.—The prevailing direction of the wind was northwest. The highest velocity reported was 66 miles per hour, from the northwest, at Sioux City on the 19th. The average number of clear days was 8; partly cloudy 7, and cloudy days 16.

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	30.22	30.79	22	29.30	19
Davenport	30.20	30.74	22	29.29	19
Des Moines	30.22	30.76	22	29.29	19
Dubuque	30.23	30.78	22	29.25	19
Omaha, Neb.	30.21	30.72	22	29.35	19
Keokuk	30.22	30.75	23	29.34	19
Sioux City	30.22	30.75	22	29.38	19
Means	30.22	30.79	22	29.25	19

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	6541	36	NW	19
Davenport	5865	38	NW	19
Des Moines	6072	28	NW	19
Dubuque	5405	26	W	20
Keokuk	5347	36	NW	19
La Crosse, Wis	5342	33	W	20
Omaha, Neb	7055	41	NW	19
Sioux City	10374	66	NW	19

OBSERVERS' NOTES.

ALGONA.—*Dr. F. T. Seeley.* A thunderstorm with hail and sleet occurred on morning of the 7th.

ALTA.—*David E. Hadden.* January was cold and dry, the mean temperature being 2.5° below the 17-year normal. The precipitation was .10 of an inch below the average. Thunderstorm on the 7th—the first ever noted here in January.

AMANA.—*C. Schadt.* January was mild, with thunderstorm on morning of the 7th. There was heavy rainfall on the 19th, which caused high water in streams.

AUDUBON.—*Geo. E. Kellogg.* Most foggy and mild January we have had for years.

BONAPARTE.—*B. R. Vale.* Precipitation 4.48 inches, which is in excess of any recorded in January in 16 years. Temperature only went down to zero once. A foot of snow fell, but only remained four days.

BRITT.—*Geo. P. Hardwick.* January was damp, with excessive cloudiness and little snow. Temperature was below average. Thunderstorm occurred on morning of the 7th.

CHARITON.—*C. C. Burr.* An unusual number of damp and foggy days occurred in January. Eighty per cent of weather forecasts were verified.

CLINTON.—*Luke Roberts.* January, 1907, had the highest per cent of cloudiness of any month during the last 29 years. The records show 76 per cent of cloudiness. There were 21 cloudy and 6 partly cloudy days. It was the fourth consecutive month with abnormal cloudiness. The mean temperature was 5.5° above the normal for the past 29 years. The precipitation was 1.89 inches above the normal.

CRESTON.—*W. L. Gaston.* A very unusual and heavy thunderstorm occurred in the early morning of January 7th.

FOREST CITY.—*J. A. Peters.* The forepart of January was exceptionally fine; the latter part was colder, but there were no severe storms.

FORT MADISON.—*L. A. McCready.* Thunderstorms occurred on the 7th and 19th; on latter date it was severe, the lightning causing some damage.

GRINNELL.—*A. O. Price.* A thunderstorm occurred on the 7th, and a house was struck by lightning. Eight inches of snow fell during the month.

INWOOD.—*F. B. Hanson.* January was damp and cloudy. The solar halo on the 20th was the brightest I ever observed.

KEOSAUQUA.—*J. H. Landes.* A cloudy month, with 4.62 inches of precipitation; only one touch of zero weather. Ice on the river was not thick enough to put up; but a good quality of nine-inch ice is on the ponds.

RIDGEWAY.—*Arthur Betts.* A fine winter month; a great ice period was from the 7th to the 17th. A hard thunderstorm occurred on the 7th; there were seventy flashes of lightning and four discharges that shook the house and made the windows rattle.

SHELDON.—*A. W. Beach.* A cloudy month with three foggy days. The minimum went down to zero almost every day from 20th to 31st.

STOCKPORT.—*C. L. Beswick.* Lightning struck and burned a barn in the early morning of the 7th. It was a fine month for stock.

WAUKEE.—*E. J. Leonard.* January was generally favorable, with no extreme or sudden changes. During the last twenty days the temperature went above freezing but once, and below zero only three times.

THUNDERSTORMS IN JANUARY.

Observers in all sections of the state report the occurrence of heavy thunderstorms with some damaging strokes of lightning, on the morning of January 7th. At the central station the electric discharges occurred during a shower of rain and sleet. In Marshall county, near St. Anthony, lightning struck a large barn, causing a total loss of the building and contents, including two horses and six cows, the loss exceeding $2,000. At a number of other points damage was caused by the heavy discharges of lightning. It was a phenomenal storm in extent and severity.

NOTES AND COMMENTS.

Prof. P. G. Holden, of the Iowa State College of Agriculture, says: "If the cornfields of Iowa were mine and I could give but one order, that order would be 'Test six kernels of corn from every ear of seed intended for planting.'" That's the golden text of Holden's corn gospel, the faithful observance of which would add millions to the annual output of this state.

Prof. L. H. Pammel, of the department of Botany, Iowa State College, says: "Have your seeds examined. Can the farmers of Iowa afford to buy seed of grasses and clover far below the usual standards of vitality and sow their fields with Canada thistle, dock, dodder and other noxious weeds." This is a timely word of caution. Test seed corn and carefully examine seeds of clover and the grasses.

"The officials of the Weather Bureau believe that the time will come when we shall be able to predict the general character of the weather of a season and possibly of a month for several months in advance, but no reliable meteorologist believes for a moment that we shall be able to predict, several weeks or months in advance, the character of any day or the movements of any particular area of storm or fair weather across the country."—J. Warren Smith, Columbus, Ohio.

The feeding value of corn and forage crops grown in 1906 is found to be much better than were the like products in the preceding wet seasons. The best results in quality are brought forth in the seasons which are a little below the normal as to rainfall, especially during the first half of the growing season.

CLIMATE NOT CHANGING.

WEATHER RECOLLECTIONS NOT TRUSTWORTHY.

(From New York Tribune Bureau.)

WASHINGTON, Feb. 6.—Prof. Willis L. Moore, chief of the Weather Bureau, is rejoicing that the country has been swept by a blizzard during the last few days, for the reason that he believes that it is the only way to convince people of the error in the idea that the winters are becoming milder and the climate is changing. He sees financial ruin to many as a result of entertaining these conceptions, so nothing suits him better than to have experience give dreamers some pointed lessons.

"Why, the blizzard of 1888," Professor Moore will say in his meditations: "when you get old enough you will be telling your boys that that occurred every winter when you were a youngster, and that the weather is not what it used to be."

Shortly after Adam and Eve began to take interest in affairs arose the story about the climate growing milder, the professor believes. He is able to trace back this weakness in perception and memory to Thomas Jefferson, and Professor Moore has such confidence in Jefferson that he regards him as typical of human nature through the centuries past. The chief of the Weather Bureau points out in papers at the State Department where Jefferson wrote: "It is apparent that the climate of Virginia is changed. The old inhabitants here tell me that they remember when snow lay on the ground four months every year and they rode in sleighs. Now it is rare that we get enough snow to have a sleigh ride. It is apparent that the climate of Virginia has changed since 1607, when the settlers came into Jamestown."

"There has been a great deal of clearing in the thickly wooded country of Virginia since 1607," ventured Professor Moore, "but really that would not change it. The change was in the men who were telling the story. We measure things by a different standard as we grow older. Every man when he gets to be fifty years of age will look back and think of one great snowstorm, and he will say: 'We had snow four feet deep all winter long,' because all he remembers as he thinks back is the one snowstorm. He remembers the abnormal, and his mind brings it down to the present day and compares it with the average. But it is not a fair comparison."

Along this line Professor Moore predicts that this country is due for a long period of drouth. The present long period of abundant rainfall over the great cereal plains, for about six years, is the longest of which the Weather Bureau has any records. Professor Moore is certain that there will be a shortage in rainfall soon equal in amount to the excess during the last six years. This is based on the records of the bureau, which show that the average rainfall during the first ten years of a period of thirty, forty or fifty years is precisely the same as the average of the last ten. Many persons write to the bureau, saying that they have been advised to buy land in a region formerly classed as arid. It is offered for sale to them on the ground that there has been a permanent change in the climate. Invariably Professor Moore answers that the climate has not changed.

Professor Moore points out that the country does not need as much rain as it did formerly to make the land productive. The virgin soil is being broken up and trees are being planted. While this does not increase the rainfall, as is sometimes stated, it makes the same amount more efficient and more profitable because the soil is broken up and there will not be so much to run off. There is not so much evaporation, the ground absorbing it more thoroughly.

CLIMATOLOGICAL DATA FOR JANUARY, 1907.

CENTRAL SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Date of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
Amana	Iowa	721	28	21.7	†5.9	46	19	- 6	26	25	2.68	†1.24	1.40	7.4	9	5	9	17	NW	7
Ames	Story	926	23	19.0	†1.9	47	5	-13	30	33	.79	- .20	.23	4.0	7	9	8	14	N	
Audubon	Audubon	1,301	11	19.8	†0.4	44	2, 5	-12	30	35	.38	- .28	.10	2.3	9	11	2	18	NW	7
Baxter	Jasper	998	7	19.6	†1.7	48	5	-12	26	30	1.07	† .42	.38	5.5	5	5	12	14	NE,NW	7, 19
Belle Plaine	Benton	828	15	20.3	†1.9	44	19	- 9	26	23	2.67	†1.15	1.02	9.5	9	9	4	18	S E	7
Buckingham	Tama	.....	7	.....	.....	.....	.....	.....	.....	.....	.85	† .13	.32	....	4	2	16	13	.....	
Carroll	Carroll	1,265	17	16.0	-3.6	45	5	-15	30	38	.39	- .47	.16	1.0	3	17	1	13	.....	
Clinton	Clinton	593	37	24.4	†5.2	48	19	- 5	26	26	3.76	†1.91	1.84	8.6	11	4	6	21	W	2, 7
Cedar Rapids	Linn	733	25	19.4	†1.1	49	18	- 7	26	35	2.57	†1.13	.97	5.6	11	6	14	11	NW	8
Davenport	Scott	606	36	24.1	†4.1	49	19	- 5	26	33	3.55	†1.88	1.57	9.8	12	8	4	19	NW	7
Delaware	Delaware	1,083	14	18.0	†2.2	44	19	-12	26	30	1.51	† .50	.70	2.7	8	7	10	14	NW	
Denison (*b*)	Crawford	1,180	11	18.8	-2.3	45	2	-13	30	34	.12	- .44	.10	1.2	2	....	....	....	N	
Des Moines	Polk	861	28	20.4	†2.9	48	5	- 7	30	37	.87	- .47	.30	5.3	9	2	10	19	NW	7, 19
De Soto	Dallas	866	7	20.7	.....	50	5	-10	30	32	.52	.....	.15	2.5	4	9	5	17	NW	
Dubuque	Dubuque	698	34	19.8	†2.5	49	19	- 8	26	41	1.72	† .04	1.00	4.4	10	5	7	19	NW	7
Fort Dodge	Webster	1,126	7	15.6	.....	43	5	-15	30	33	.70	.....	.25	3.5	6	14	0	17	.....	7
Galva	Ida	1,290	11	15.4	-3.1	42	2	-17	30	34	.32	- .03	.22	3.2	2	9	10	12	NW	
Gilman	Marshall	1,052	8	.....	.....	.....	.....	.....	.....	.....	1.96	†1.46	.90	....	4	6	10	15	.....	
Grinnell	Poweshiek	1,023	12	19.4	†1.9	47	5	-11	26	31	2.40	†1.24	1.05	8.0	8	6	5	20	NE,NW	7
Grundy Center	Grundy	976	14	19.3	†2.4	44	5	-13	30	35	.70	- .01	.40	2.0	6	11	0	20	NW	
Guthrie Center	Guthrie	1,077	9	20.2	-1.8	45	5	-13	30	31	.48	- .05	.15	2.3	8	12	6	13	SE,NW	
Harlan	Shelby	1,192	8	19.6	-2.8	47	2	-11	30	36	.60	- .08	.27	1.8	6	4	10	17	NW	7
Indep'dence(*d*)	Buchanan	921	41	16.1	†1.4	.....	.....	-10	26	23	.52	- .85	.20	4.0	5	.....	.....	.....	NW	
Iowa City	Johnson	683	46	20.8	†1.7	49	5	- 8	26	36	2.12	† .38	.83	8.5	11	10	5	16	.....	7
Iowa Falls	Hardin	1,170	12	16.7	†1.3	40	5	-13	30	32	1.05	† .21	.20	4.7	9	10	4	17	NW	7, 19
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	3.34	.....	1.01	13.2	12	10	2	19	NE,E, NW	7
Little Sioux (*d*)	Harrison	.....	....	19.6	.....	45	2, 4, 21	-12	30	42	.21	.....	.10	1.0	3	.....	.....	.....	.....	7
Logan	Harrison	928	38	19.4	†0.2	44	4, 5	-10	30	37	.50	- .62	.30	5.0	2	4	19	8	NW	
Marshalltown	Marshall	947	12	17.9	-2.2	44	5	-11	26, 30	33	.90	- .04	.15	2.4	11	.....	.....	.....	NW	7
Mt. Vernon	Linn	847	38	20.1	†3.4	46	5	-10	26	28	2.63	†1.32	1.47	10.7	12	8	4	19	NE	
Muscatine	Muscatine	.....	48	.....	.....	.....	.....	.....	.....	.....	3.77	.....	1.02	9.2	12	7	2	22	NE,NW	
Nevada	Story	.....	....	.....	.....	.....	.....	.....	.....	.....	.88	.....	.29	4.5	8	13	11	7	.....	7
Odebolt	Sac	1,356	8	17.4	-5.2	42	2, 5	-13	30	34	.34	† .02	.20	3.2	3	15	1	15	.....	
Ogden	Boone	1,058	11	19.0	-2.5	43	4, 5	-13	30	32	.63	† .04	.24	3.0	6	10	4	17	NW	
Olin (*a*)	Jones	760	8	21.7	-0.9	45	19	- 7	26	31	4.62	†3.54	2.00	11.8	9	8	5	18	NE	7
Onawa	Monona	.....	7	19.3	-4.7	50	21	-10	30	46	.38	- .76	.18	2.0	3	12	5	14	NW	
Perry	Dallas	975	6	19.8	.....	44	5	-12	30	32	1.18	.....	.50	6.8	6	1	13	17	.....	
Rockwell City	Calhoun	.....	10	17.8	-3.4	42	5, 19	-15	30	31	.30	- .33	.10	3.0	4	14	4	13	.....	
Sac City	Sac	1,356	25	.....	.....	.....	.....	-16	30	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Sioux City	Woodbury	1,135	16	15.0	-1.3	45	21	-14	30	39	.41	- .22	.24	6.4	5	4	7	20	NW	
Stuart (*a*)	Guthrie	.....	8	20.2	.....	45	4	-11	30	33	.58	- .01	.35	....	4	8	2	21	.....	
Tipton	Cedar	807	9	23.2	†3.0	46	5, 19	- 5	26	27	2.43	†1.26	1.07	6.1	6	9	10	12	NW	
Toledo (*a*)	Tama	856	11	19.8	†0.1	44	19	- 9	26	31	1.17	† .36	.40	4.8	7	.....	.....	.....	.....	
Waterloo	Black Hawk	862	18	17.8	†0.0	43	19	-14	30	33	1.43	† .48	.54	5.0	7	5	8	18	NW	
Waukee	Dallas	1,039	4	20.2	.....	43	5	- 9	30	30	1.77	.....	.50	8.2	8	12	2	17	N	7
Webster City	Hamilton	.....	....	18.7	.....	42	5	-16	30	32	.76	.....	.20	4.0	5	11	3	17	NW	
Whitten	Hardin	1,036	6	17.7	-2.3	41	5	-15	30	29	1.65	†1.08	.50	2.0	5	6	8	17	NW	6
Wilton Junct'n	Muscatine	683	10	24.1	†1.3	45	19	- 7	26	32	2.75	†1.37	1.67	.5	7	11	2	18	W	
Zearing	Story	718	3	19.8	.....	48	5, 6, 7	-11	30	33	.70	.....	.30	3.0	3	9	4	18	E	1, 7
Averages	.....	.....	....	19.4	†0.2	44.8	.....	-11.3	.....	32.7	1.41	† .37	.....	5.0	7	8	7	16	NW	

OBITUARY.

E. R. Reeve, late co-operative observer of the Weather Bureau at Albia, Iowa, died at his residence in that city, on January 15, 1907, aged about 70 years. Mr. Reeve served as observer from 1901 to 1905, and gave up the work reluctantly on account of failing health. He was very faithful and efficient in whatever work he undertook to perform, and his services as an observer were highly appreciated at this office, at which he was a frequent and ever welcome visitor during the latter years of his useful life.

John G. Culver died at his home in Greenfield, Adair county, January 8, 1907, aged 58 years. Mr. Culver served as a co-operative observer at Greenfield for the past sixteen years and gave to that voluntary service as much fidelity as he displayed in his profession as an attorney and in various official positions. His generous and efficient work is duly appreciated, and we add a tribute of esteem and honor to the memory of the departed citizen.

ERRATA IN NOVEMBER REVIEW.

ALBIA—Total snowfall recorded 6.5 inches on page 127, should have been 8.5 inches.

CUMBERLAND—Total precipitation recorded 1.33 inches on pages 127 and 131, should have been 1.32 inches.

EARLHAM—Date on minimum, recorded 13th and 22d, on page 127, should have been 22d.

LENOX—Mean temperature recorded 36.8° on page 127, should have been 36.7°; mean temperature recorded 45.3° on page 129, should have been 44.2°.

OGDEN—Mean maximum temperature recorded 44.3° on page 129, should have been 44.2°.

PELLA—Total snowfall recorded 6.0 inches on page 127, should have been 6.5 inches.

SIGOURNEY—Mean temperature recorded 37.0° on page 127, should have been 36.8°; mean maximum temperature recorded 45.3° on page 129, should have been 44.9°.

CLIMATOLOGICAL DATA FOR JANUARY, 1907—CONTINUED.

NORTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT: Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	PRECIP., IN INCHES: Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)	No. rainy days	SKY: Number clear days	Number partly cloudy days	Number cloudy days	Prevailing direction of wind	Dates of thunderstorms
Algona	Kossuth	1,213	31	13.6	- 2.9	39	4,5	-19	30	31	.69	- .11	.20	7.3	7	7	10	14	NW	7
Alta	Buena Vista	1,513	14	13.6	- 3.2	40	2,4	-16	30	39	.61	- .04	.20	4.8	9	8	10	13	NW	7
Alta [near]	Buena Vista	.....	.....	.....	.....	.....	.....	.....	.....	.....	.78	.....	.30	6.5	7	.....	.....	.....	.....	
Alton	Sioux	1,305	.....	14.8	.....	40	4	-16	30	34	.35	.....	.15	3.5	4	9	8	14	NW	
Britt	Hancock	1,236	8	13.9	- 3.8	40	4,5	-20	30	35	.75	† .16	.30	6.3	9	4	14	13	NW	7
Charles City	Floyd	1,015	20	13.5	- 3.0	40	5	-20	30	34	1.13	† .14	.30	8.4	8	3	9	19	NW	7
Clear Lake	Cerro Gordo	1,241	8	14.6	- 2.9	40	5	-20	30	29	.81	† .29	.40	6.1	6	16	2	13	S	7
Decorah	Winneshiek	875	11	14.8	- 1.7	41	5	-16	30	30	1.47	† .38	.49	10.0	8	.....	.....	.....	.....	7
Dows	Wright	1,142	7	15.8	- 3.5	43	5	-18	30	33	.84	† .30	.35	3.2	8	.....	.....	.....	NW	7,19
Elkader	Clayton	727	24	18.3	† 3.9	46	5	-17	30	36	1.67	† .32	.70	6.5	6	9	4	18	NW	7
Estherville	Emmet	1,298	10	10.8	- 5.5	40	4	-19	30	40	.72	† .37	.30	8.0	3	10	0	21	NW	6
Fayette ‡	Fayette	1,003	17	16.4	.....	43	19	-13	30	30	2.06	.....	.91	5.0	8	8	3	20	NW	7,19
Forest City	Winnebago	1,226	11	11.8	- 6.4	40	4	-22	30	40	.95	† .31	.50	7.5	5	12	1	18	E	7
Grand Meadow	Clayton	1,180	14	15.8	- 0.1	44	19	-15	30	34	1.74	† .56	.46	6.7	8	7	5	19	NW	7
Hampton	Franklin	1,155	15	15.0	- 0.5	46	5	-16	30	30	1.63	† .53	.45	5.5	9	4	12	15	NW	7
Humboldt (c)	Humboldt	1,095	13	17.7	† 0.2	42	5	-18	30	33	.16	.....	.16	4.0	1	6	3	22	NW	
Inwood	Lyon	.....	3	11.6	.....	41	4	-22	30	40	.79	.....	.25	6.2	8	9	10	12	NW	
Larrabee (a)	Cherokee	1,266	16	14.4	- 3.5	41	2,4	-16	30	36	.51	- .06	.27	4.0	5	8	9	14	NW	7
Le Mars	Plymouth	1,224	9	14.3	- 6.7	40	4	-17	30	36	.20	- .49	.18	2.5	2	8	10	13	NW	
Mason City	Cerro Gordo	1,132	10	16.5	† 1.3	40	4,5	-17	30	34	1.29	† .10	.42	4.7	7	7	10	14	NW	7
New Hampton	Chickasaw	1,169	7	14.0	- 6.3	35	4,19	-16	30	27	1.49	† .66	.41	4.0	5	5	11	15	E,NW	7
Northwood	Worth	1,222	9	13.0	- 4.1	39	4	-21	30	36	1.35	† .70	.90	10.6	5	9	7	15	NW	7
Osage	Mitchell	1,184	14	14.2	† 0.2	36	4,5	-20	30	30	1.31	† .43	.58	4.9	6	6	9	16	NW	7
Plover	Pocahontas	.....	8	14.0	- 7.0	41	4	-18	30	33	.50	- .01	.20	5.0	3	.....	.....	.....	NW	7,19
Pocahontas	Pocahontas	.....	3	15.6	.....	41	5	-16	30	31	.55	.....	.43	5.4	4	12	3	16	NW	7
Ridgeway	Winneshiek	1,215	9	14.5	- 7.8	45	5	-18	30	29	2.78	† 1.08	.81	9.8	13	8	9	14	S	7
Rock Rapids	Lyon	.....	9	8.0	- 6.2	40	4	-16	30	28	.40	- .23	.40	4.0	1	.....	.....	.....	N	
Sheldon	O'Brien	1,422	7	12.2	- 9.6	41	4	-21	30	36	.83	† .44	.40	7.0	5	8	9	14	NW	
Sibley (a)	Osceola	1,212	11	9.4	- 7.2	39	4	-16	30	40	.67	† .13	.40	4.8	4	.....	.....	.....	NW	
Sioux Center	Sioux	.....	8	12.8	- 8.8	38	4	-18	29	37	.55	† .28	.30	5.5	3	5	8	18	NW	10
Storm Lake	Buena Vista	1,440	10	13.6	- 5.6	40	2,5	-21	30	44	.89	† .19	.40	9.0	9	8	8	15	NW	7
Washta	Cherokee	1,157	9	15.6	.....	44	2,4,5	-20	30	33	.53	† .12	.20	3.5	5	11	5	15	NW	6
Waverly	Bremer	942	9	17.1	- 2.6	38	5	-15	30	27	1.43	† .50	.39	6.1	9	2	9	20	NW	7,19
West Bend	Palo Alto	1,197	11	14.2	- 3.4	40	4	-17	30	31	.62	‡ .00	.30	4.3	6	6	7	18	NW	7
Average	.....	.....	.....	14.0	- 3.6	40.6	.....	-18.0	.....	33.9	0.96	† .20	.....	6.0	6	8	7	16	NW	

SOUTHERN SECTION.

Afton	Union	1,212	12	20.8	-2.6	45	5,19	- 6	30	34	1.25	† .44	.35	5.0	5	10	2	19	SW	7,19
Albia	Monroe	959	9	21.4	-3.8	50	5	- 2	26	40	2.19	† .93	.85	9.5	7	7	9	15	W	
Allerton	Wayne	.....	5	24.4	.....	50	5	- 4	26	35	2.79	.....	1.21	9.9	9	8	3	20	NW	7,19
Atlantic	Cass	1,164	14	21.3	† 1.1	50	5	- 7	30	32	.10	- .86	.10	1.0	1	7	7	17	N,NW	7,19
Bedford	Taylor	.....	7	22.6	- 2.6	49	5	- 8	27	36	1.46	† .64	.38	5.7	10	7	7	17	SE	
Bloomfield	Davis	.....	.....	25.1	.....	51	5	- 1	26	32	3.56	.....	1.63	9.7	9	8	4	19	NW	
Bonaparte	Van Buren	.....	13	25.8	† 2.2	57	7	- 4	26	27	4.88	† 3.31	1.98	12.5	10	.....	.....	.....	.....	7,8
Burlington	Des Moines	544	9	25.8	.....	56	7	- 3	26,27	36	5.30	.....	1.63	12.0	12	8	3	20	E	7,8
Chariton	Lucas	1,042	10	23.0	- 2.4	50	5	- 6	26	26	2.52	† 1.41	1.15	7.0	5	.....	.....	.....	NW	7
Clarinda	Page	1,009	15	22.2	- 0.5	53	2	- 3	26,30	37	1.00	† .03	.26	4.6	12	10	3	18	NE	7
College Spgs(a)	Page	.....	13	24.0	- 0.2	51	2	- 5	27	35	.84	† .28	.16	4.1	7	.....	.....	.....	NW	7
Columbus Jct.	Louisa	595	6	25.2	† 3.1	47	5,19	- 5	26	28	3.45	† 2.57	1.42	15.5	9	9	10	12	NW	7,8
Corning	Adams	1,117	13	21.9	- 0.4	45	5	- 5	30	34	1.57	† .82	.68	4.3	6	10	6	15	NW	
Corydon	Wayne	1,101	12	24.5	† 3.0	50	5	- 5	26	35	2.21	† .60	.92	9.0	9	7	7	17	NE	7
Creston	Union	.....	2	20.4	.....	49	5	- 6	30	35	1.71	.....	.82	6.0	6	7	8	16	NW	7
Cumberland	Cass	.....	8	.....	.....	.....	.....	.....	.....	.....	.73	- .01	.42	3.0	3	21	2	8	SW	
Earlham	Madison	.....	5	20.2	.....	48	5	- 9	26,30	35	1.49	.....	.56	6.5	7	5	5	21	NW	7
Elliott	Montgomery	.....	2	21.6	.....	49	2	- 7	30	34	.29	.....	.15	2.5	3	12	10	9	NE	
Fort Madison	Lee	516	54	.....	.....	.....	.....	.....	.....	.....	4.02	† 2.13	2.67	9.5	7	3	6	22	S	
Hancock (a)	Pottawatta'e	.....	1	21.4	.....	.....	.....	- 8	30	.....	.18	.....	.18	2.0	1	13	3	15	NW	
Hopeville	Clarke	.....	14	22.1	† 0.3	48	5	- 5	26,30	33	1.26	† .36	.44	.....	7	3	7	21	NE	7,18
Indianola (a)	Warren	969	16	21.4	† 2.4	48	19	- 6	30	29	2.01	† .86	.71	6.5	8	6	5	20	.....	
Keokuk	Lee	614	36	28.9	† 5.7	68	7	- 2	26	32	5.07	† 3.35	2.69	6.9	12	5	13	13	N	7,19
Keosauqua	Van Buren	644	13	24.8	† 1.0	54	7	- 2	26,27	30	4.62	† 3.70	2.05	10.0	13	5	2	24	.....	1
Lacona	Warren	.....	8	.....	.....	.....	.....	.....	.....	.....	2.66	† 1.24	.94	7.0	7	5	17	9	.....	
Lenox	Taylor	1,250	10	22.3	- 2.6	46	5	- 8	30	35	1.50	† .87	.47	4.3	9	13	1	17	S	
Leon	Decatur	1,120	5	24.2	.....	47	5,19	- 3	26,30	30	1.84	.....	.80	4.2	6	13	2	16	SE,SW	7,8,19
Massena	Cass	.....	.....	20.5	.....	52	5	-10	30	41	‡56	.....	.12	3.5	6	7	8	16	N,NE,SE	
Mt. Ayr	Ringgold	1,236	11	23.4	- 0.5	52	5	- 4	26	36	1.96	† .93	.46	9.0	11	9	5	17	NE	
Mt. Pleasant	Henry	729	23	25.8	† 7.8	52	7	- 5	26	27	4.65	† 3.42	1.99	13.1	12	7	6	18	NW	6
Omaha, Neb	Douglas	1,105	35	20.3	† 1.1	49	2	- 7	30	35	.53	- .16	.23	3.6	10	4	6	21	N	
Oskaloosa	Mahaska	843	21	22.4	† 3.4	49	5	- 6	26	29	1.93	† 1.05	.90	8.8	8	9	4	21	NW	
Ottumwa	Wapello	649	11	24.2	- 0.6	51	5	- 4	26	28	3.10	† 1.51	1.31	10.8	8	4	8	19	.....	
Pacific Junct'n	Mills	960	7	21.6	- 3.0	52	2	- 5	27,30	32	.52	† .09	.22	3.7	7	4	12	15	N,SE	
Pella	Marion	.....	4	23.1	.....	57	5	- 6	26	35	2.46	.....	.77	7.8	9	11	6	14	NW	19
St. Charles	Madison	1,070	6	22.6	.....	56	5	- 6	26,30	37	1.87	.....	.75	4.5	5	8	8	15	NW	7
Sigourney	Keokuk	877	8	24.0	- 0.1	48	5	- 7	26	32	1.89	† .65	.50	13.2	10	1	20	10	NW	7,8
Stockport	Van Buren	.....	5	25.8	.....	54	7	- 4	26	40	3.80	.....	1.68	11.5	11	8	1	22	NW	7,8,19
Thurman	Fremont	.....	9	22.6	- 3.6	57	5	- 5	27	34	.78	† .07	.42	3.7	6	6	6	19	NE	7
Wapello	Louisa	588	7	25.5	- 1.5	46	19	- 2	26	26	3.95	† 3.24	1.51	14.5	12	8	6	17	NW	7
Washington	Washington	769	23	22.9	† 1.7	50	5	- 7	26	29	3.29	† 1.84	1.48	8.7	12	.....	.....	.....	NW	
Winterset	Madison	1,129	14	21.8	† 0.3	44	5	- 7	30	28	1.68	† .74	.50	7.0	6	6	9	16	NW	7
Woodburn	Clarke	961	8	23.4	.....	50	19	- 7	26	35	1.18	† .17	.41	6.0	7	7	4	20	NW	7
Average	.....	.....	.....	23.1	† 0.6	50.8	.....	- 5.3	.....	32.9	2.20	† 1.15	.....	7.1	8	8	7	16	NW	
State aver.	.....	.....	.....	18.8	- 1.0	45.4	.....	-11.5	.....	33.2	1.52	† .57	.....	6.0	7	8	7	16	NW	

‡ Received too late to be computed with means. *a*. One day missing; *b*. two days. † means plus

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JANUARY, 1907

STATIONS		DAY OF MONTH																														MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton.....	max.	33	43	41	41	45	42	36	33	19	39	32	33	28	28	17	25	34	33	45	26	36	33	29	29	21	19	19	27	35	18	28	28.0
	min.	24	32	15	14	25	24	25	14	6	15	20	26	20	15	2	10	22	25	26	3	2	1	9	19	7	-5	-1	10	10	-6	11	13.5
Albia*....	max.	36	40	24	40	50	32	38	28	25	42	31	31	23	25	18	27	32	48	48	12	36	14	30	30	12	16	23	25	34	25	30	30.0
	min.	23	30	20	14	10	23	25	25	8	8	18	22	22	19	8	7	18	25	29	5	3	3	2	13	6	-8	-7	12	16	-2	0	12.8
Algona...	max.	26	37	27	39	39	23	25	25	16	28	27	25	26	20	7	23	27	29	32	11	25	20	21	25	7	17	15	11	9	12	23	22.5
	min.	13	24	7	7	21	14	15	6	-3	10	13	13	8	2	-8	5	20	21	8	-6	-2	-10	0	6	-6	-13	-5	-4	-6	-19	10	4.6
Allerton..	max.	32	42	41	40	50	43	38	34	22	43	35	30	29	29	20	25	31	32	47	30	40	36	29	30	24	15	24	24	38	22	30	32.4
	min.	24	32	19	11	29	24	29	21	10	16	22	28	22	20	8	10	24	27	30	6	5	6	10	23	8	-4	0	8	22	-1	17	16.3
Alta*.....	max.	35	40	24	40	38	19	25	11	20	29	25	25	24	11	12	22	22	32	29	8	33	9	23	18	3	17	15	8	5	13	24	21.3
	min.	16	20	4	8	24	13	16	10	-3	11	15	23	15	11	-7	5	12	16	22	-7	3	-6	6	9	-3	-11	-8	-1	4	-16	-15	6.0
Alton.....	max.	29	40	22	40	36	25	25	23	17	30	31	29	25	24	10	22	22	29	31	6	35	26	27	28	10	14	15	11	8	12	24	23.4
	min.	16	21	4	17	22	12	14	6	-3	12	17	15	10	4	-7	7	12	18	3	-6	1	5	8	8	-3	-9	-6	-1	-2	-16	10	6.0
Amana...	max.	32	36	36	35	43	34	40	34	17	36	32	31	31	29	17	30	36	34	46	28	24	21	21	31	20	12	19	17	29	17	34	29.1
	min.	20	32	21	13	28	24	31	17	6	12	19	18	13	17	8	16	25	30	28	3	3	2	8	19	2	-6	1	8	13	-4	17	14.3
Ames.....	max.	32	39	40	43	47	36	32	29	19	35	30	30	32	28	15	26	29	32	42	20	27	22	24	29	14	16	21	18	23	15	25	28.1
	min.	18	18	13	10	26	20	22	12	2	14	16	19	16	11	1	11	24	24	18	0	1	-3	6	13	0	-9	-3	3	4	-13	12	9.9
Atlantic..	max.	33	47	31	45	50	30	31	25	24	42	30	34	29	28	17	26	30	32	41	22	36	26	29	32	16	20	22	23	30	15	16	29.5
	min.	27	31	13	13	26	24	23	12	4	18	15	26	18	17	1	13	23	24	22	3	3	3	11	16	5	-6	-2	10	8	-7	12	13.1
Audubon.	max.	31	44	31	42	44	30	32	26	20	34	29	32	30	25	10	23	28	30	36	31	38	29	28	28	17	20	21	17	21	14	22	27.8
	min.	22	31	10	10	25	19	21	12	3	15	18	21	16	10	-1	10	21	22	21	-1	3	19	18	16	3	-7	-5	6	4	-12	12	11.7
Baxter...	max.	33	38	39	40	48	39	35	33	20	39	32	30	32	27	16	26	32	32	43	22	26	23	22	28	16	15	21	15	26	19	27	28.8
	min.	18	29	13	10	25	21	24	14	3	10	15	18	15	13	2	10	23	24	22	-1	-1	-2	6	14	3	-12	-4	4	6	-10	10	10.4
Bedford..	max.	33	48	39	45	49	32	36	32	21	41	32	32	29	28	15	24	32	30	48	28	38	36	31	30	21	18	24	28	37	15	28	31.6
	min.	25	32	16	10	28	22	17	18	9	14	25	27	22	14	4	9	22	20	28	6	2	5	11	21	9	-6	-8	1	12	-3	14	13.7
Belle Pl'e	max.	30	38	30	34	42	38	35	30	35	32	30	28	27	22	11	24	34	40	44	12	19	10	20	28	15	14	20	16	26	12	33	26.7
	min.	20	28	20	12	22	24	30	22	15	17	20	22	15	18	5	10	23	28	35	2	5	0	5	18	4	-9	0	5	12	-8	12	13.9
Bloomfi'd	max.	33	41	40	39	51	41	48	35	20	42	34	34	32	34	21	28	33	33	50	32	39	31	26	35	25	15	22	28	36	30	32	33.6
	min.	27	32	20	9	29	22	30	18	10	16	21	21	23	20	9	12	26	30	31	7	7	6	10	21	6	-1	3	8	22	0	21	16.6
Bonapa'e	max.	33	40	39	38	51	38	57	39	23	42	31	33	36	32	20	27	33	33	47	31	34	27	25	36	26	14	23	26	35	31	32	33.3
	min.	29	33	22	10	29	30	33	23	11	14	22	26	24	20	11	14	27	31	31	8	7	8	11	22	6	-4	5	12	23	5	23	18.3
Britt.....	max.	26	37	36	40	40	25	29	23	15	29	27	24	26	18	7	23	31	31	34	21	24	19	20	23	12	17	17	10	10	15	27	23.7
	min.	10	14	8	6	23	15	17	6	-3	9	13	12	8	3	-6	5	20	21	21	-7	-8	-11	-1	5	-8	-15	-9	-5	-7	-20	10	4.1
Burl'g'n*	max.	36	42	33	36	51	48	56	34	25	42	33	39	39	33	24	31	34	53	46	16	34	20	32	39	18	15	26	28	34	28	31	34.2
	min.	29	29	32	15	15	31	36	29	11	11	23	23	25	26	13	13	24	30	32	8	7	12	10	14	11	-3	-3	5	15	10	10	17.5
Carroll*..	max.	36	44	24	43	45	25	27	18	23	34	26	29	27	17	14	23	27	34	33	10	36	10	27	24	9	20	21	17	12	18	26	24.5
	min.	20	21	9	9	23	17	16	16	1	1	17	17	13	15	-3	-3	14	21	23	-2	-2	-1	-1	9	3	-8	-5	-4	2	-15	14	7.6
Cedar R*.	max.	34	39	25	35	44	36	39	28	24	35	31	28	30	22	17	28	33	49	47	9	23	10	26	30	12	13	19	16	25	25	31	27.8
	min.	18	19	20	13	14	26	24	25	7	6	19	18	8	19	9	8	20	26	28	3	3	4	2	9	6	-7	-6	0	6	-4	-4	10.9
Chariton.	max.	32	41	36	41	50	40	36	32	21	42	34	32	29	26	18	26	32	32	46	29	37	30	29	29	21	14	23	23	35	22	30	31.2
	min.	24	31	17	12	29	23	27	20	8	14	14	27	18	17	5	10	24	25	28	5	4	4	9	19	8	-6	0	9	21	-4	15	14.7
Charles C.	max.	27	35	22	38	40	26	31	25	14	28	26	21	23	18	6	26	28	32	35	2	17	12	16	24	5	9	14	5	11	14	22	21.0
	min.	12	23	11	10	25	20	22	4	0	14	15	12	13	5	-1	10	24	25	1	-5	-3	-8	-2	5	-10	-12	-5	-4	-10	-20	14	6.0
Clarinda*	max.	40	53	35	46	50	32	35	34	26	43	31	34	30	25	15	25	30	44	40	18	43	15	34	30	16	16	32	27	37	21	27	31.7
	min.	26	27	15	12	21	24	24	21	9	10	21	24	22	22	5	5	15	23	26	6	6	6	6	13	9	-3	-3	0	12	-3	-3	12.8
Clear La'e	max.	24	36	34	37	40	35	30	26	15	20	26	25	25	26	18	22	26	30	32	18	23	20	16	24	12	14	15	11	8	9	22	23.2
	min.	10	22	9	9	23	16	18	10	3	9	13	15	9	6	-5	4	20	20	17	-6	-5	-11	-2	10	5	-14	5	-5	-1	-20	5	6.1
Clinton...	max.	33	39	39	35	46	46	44	40	20	36	34	33	37	35	28	30	35	37	48	27	25	23	20	34	21	14	20	20	29	23	35	31.8
	min.	23	33	25	15	25	25	38	19	9	10	23	21	20	20	15	19	27	31	27	6	5	5	10	20	1	-5	4	10	15	7	22	16.9
College Sp	max.	33	51	32	45	48	33	35	30	22	41	31	33	31	28	15	24	32	33	48	26	40	35	33	33	21	20	20	29	34	18	28	31.7
	min.	32	27	..	14	28	28	30	17	10	22	24	30	24	15	6	11	24	27	26	8	5	8	14	22	10	-2	-5	4	..	-2	18	16.4
Colum's J	max.	35	42	42	42	47	42	44	39	22	40	36	34	35	32	20	27	37	38	47	33	30	25	25	35	26	14	20	26	35	27	35	33.3
	min.	27	33	22	13	28	29	33	20	9	13	21	22	18	18	11	15	25	31	33	5	7	6	10	20	3	-5	3	13	18	2	24	17.0
Corning..	max.	33	44	41	43	45	34	34	31	21	39	30	33	29	29	15	24	30	31	43	22	39	34	29	28	20	20	18	24	33	17	26	30.3
	min.	25	32	13	14	28	23	25	15	7	17	21	27	20	13	2	10	21	25	21	3	5	3	3	19	7	-3	-3	6	8	-5	15	13.5
Corydon..	max.	33	42	41	41	50	44	38	35	24	43	35	31	31	30	22	26	32	32	48	30	39	37	29	30	24	16	24	24	37	22	29	32.9
	min.	25	32	18	13	30	24	29	21	9	16	22	28	22	21	7	10	25	27	29	5	4	4	10	22	7	-5	0	9	21	-2	16	16.1
Creston*..	max.	37	43	22	40	49	32	35	24	33	40	28	33	28	22	14	25	30	45	42	16	38	20	29	29	22	16	22	33	20	24	26	29.6
	min.	26	26	15	15	22	20	21	20	7	8	10	21	20	20	3	1	15	25	25	3	3	2	7	12	7	-3	-2	1	8	-6	-5	11.2
Davenp't	max.	33	40	39	35	49	45	47	35	17	39	34	32	36	30	20	29	34	36	49	16	30	23	21	34	17	13	20	20	31	25	35	31.1
	min.	25	33	22	17	32	30	35	17	9	14	24	25	22	16	14	19	28	31	16	5	6	6	10	17	0	-5	4	14	12	8	25	17.1
Decorah..	max.	25	37	36	33	41	27	33	32	13	28	23	22	26	22	10	29	31	32	39	12	17	4	15	25	8	8	14	12	13	12	28	22.8
	min.	12	22	15	9	25	19	23	7	0	9	13	13	12	7	0	11	24	27	17	-4	-3	-8	-1	9	-7	-12	-5	-4	-1	-16	-2	6.8
Delaware.	max.	25	35	34	31	40	37	37	35	15	30	27	26	29	27	15	27	31	33	44	30	20	20	15	29	17	10	15	13	20	20	30	26.4
	min.	20	22	18	10	21	21	30	13	1	5	15	15	10	10	4	11	21	26	29	0	-1	-4	0	10	-1	-12	-4	1	7	-10	7	9.5
Denison..	max.	31	45	29	44	44	38	27	..	..	34	29	29	27	25	11	23	25	30	35	23	38	33	30	28	15	21	21	17	18	15	24	27.9
	min.	20	29	8	10	28	17	10	..	..	15	15	20	14	10	-2	8	20	22	22	-1	3	0	8	14	1	-9	-5	3	1	-13	13	9.7
Des Mo's.	max.	32	41	25	44	48	29	34	28	19	38	31	33	32	27	17	28	30	32	44	11	31	26	26	30	12	19	20	18	29	18	28	28.4
	min.	23	25	15	14	29	22	25	11	6	19	21	20	20	12	5	12	25	26	7	3	8	2	8	12	1	-5	2	8	1	-7	18	12.5
De Soto ..	max.	32	41	36	43	50	34	32	28	23	39	29	33	31	29	15	25	33	32	42	22	35	27	28	23	15	19	24	17	26	15	25	29.1
	min.	23	31	13	11	29	20	23	15	4	14	20	24	18	13	1	11	24	25	22	2	4	0	7	15	3	-7	-2	8	5	-10	15	12.3
Dows.....	max.	25	36	36	41	43	34	32	25	15	29	26	26	28	26	9	24	27	29	35	21	23	21	19	24	10	16	16	13	14	11	21	24.4
	min.	14	24	10	8	22	11	19	10	-1	12	14	18	12	9	-2	5	22	22	20	-4	-3	-8	1	10	-2	-12	-6	-2	2	-18	10	7.2
Dubuque.	max.	30	38	38	36	46	43	40	35	16	35	29	29	31	28	18	30	34	34	49	8	20	15	18	30	10	10	18	12	20	17	31	27.4
	min.	16	30	16	14	29	25	32	10	4	10	20	20	21	14	9	18	27	30	8	1	1	1	3	10	-6	-8	0	4	9	-5	17	12.3
Earlham..	max.	31	46	39	42	48	38	32	28	28	31	32	31	30	26	16	22	26	29	41	25	36	28	22	27	22	18	19	17	24	13	22	28.7
	min.	23	31	13	16	24	18	22	16	-5	14	25	16	18	16	0	12	16	20	25	2	1	0	8	15	11	-9	-4	9	8	-9	13	11.8
Elkader..	max.	26	36	36	37	46	34	36	34	17	31	30	26	28	26	17	29	32	34	35	32	18	17	17	28	14	10	18	12	16	12	31	26.3
	min.	11	25	20	12	27	28	28	15	0	2	18	20	15	17	5	13	17	28	32	-1	-1	-4	0	12	-4	-11	-4	0	7	-17	10	10.3
Elliott....	max.	39	49	33	44	45	30	33	33	23	39	31	36	36	28	12	23	28	32	32	15	36	35	33	33	16	27	19	28	32	19	27	30.5
	min.	26	33	13	13	27	22	23	13	6	13	17	28	20	12	4	11	23	25	15	3	2	2	10	16	5	-5	-3	7	7	-7	15	12.8
Esth'rv'e*	max.	35	37	24	40	26	20	25	10	22	27	24	17	23	7	13	21	23	30	32	6	29	8	28	20	2	16	16	4	3	14	26	20.3
	min.	10	12	4	7	19	10	11	8	-5	-3	13	13	8	2	-13	-12	12	19	21	-8	-3	-13	-12	8	-7	-14	-6	-6	-5	-19	-12	1.3
Forest C.*	max.	33	36	22	40	34	24	24	12	22	27	23	20	27	8	15	23	25	32	32	5	20	6	23	23	0	16	15	7	7	15	26	20.7
	min.	9	13	9	7	22	18	16	15	-2	-2	13	14	15	7	-5	-5	15	20	23	-7	-5	-12	-11	5	-5	-16	-11	-5	-5	-22	-14	3.0
Ft. Dodge*	max.	35	40	20	41	43	26	27	16	23	30	27	22	28	14	16	24	27	32	32	9	14	27	26	27	5	20	17	17	16	18	28	24.1
	min.	18	20	10	10	20	17	17	14	10	12	17	17	13	14	-4	-4	16	23	24	-4	-2	-4	5	11	3	-9	-7	-3	-2	-15	-15	7.2
Galva.....	max.	30	42	25	41	39	27	26	25	17	30	26	22	29	26	13	23	24	29	32	10	34	30	29	27	13	18	16	13	12	11	21	24.5
	min.	19	23	6	8	22	15	18	7	-3	10	15	18	13	-5	-6	8	17	21	9	-5	3	-4	8	11	-2	-11	-7	1	-2	-17	7	6.4
Gr. Mead.	max.	24	34	34	33	40	32	34	32	13	29	25	23	26	22	11	26	30	32	44	29	11	11	13	26	14	8	13	8	13	11	25	23.6
	min.	9	21	18	9	25	19	25	10	-1	6	13	15	15	11	0	8	24	26	29	-5	-5	-9	-4	11	-6	-14	-6	-4	4	-15	5	7.9
Grinnell*.	max.	30	35	35	38	47	40	33	32	20	34	32	30	30	25	22	25	32	32	44	30	24	20	22	27	17	12	20	12	25	15	28	28.0
	min.	20	20	14	10	26	30	25	16	3	10	15	21	13	13	2	10	22	25	30	-1	-1	-3	5	15	2	-11	-3	4	3	-8	10	10.9
Grundy C.	max.	30	36	38	38	44	42	36	32	20	34	35	30	27	28	15	28	30	33	30	30	25	25	20	28	24	13	20	20	22	13	26	28.1
	min.	15	22	21	21	33	25	25	14	4	10	13	19	15	12	2	8	24	25	25	-5	0	-5	3	15	0	10	-3	0	5	-13	10	10.5
Guthrie C.	max.	34	43	40	43	45	39	31	29	19	35	30	30	30	26	13	24	39	33	40	25	33	30	27	27	16	19	20	20	21	14	24	29.0
	min.	23	31	12	12	27	18	21	14	2	14	18	23	17	11	-1	8	23	24	24	0	6	-1	7	16	3	-9	-3	6	4	-13	12	11.3
Hampton.	max.	24	35	34	40	46	30	30	25	14	27	25	25	27	20	8	25	27	31	36	11	20	16	18	21	9	14	13	9	11	13	22	22.8
	min.	13	24	11	10	25	18	20	10	0	10	20	16	13	8	-1	6	23	23	11	-4	-2	-7	1	9	-5	-12	-4	-2	-2	-16	10	7.3
Hancock.	max.	32	50	30	44	45	29	31	27	24	37	30	35	30	29	14	27	32	35	40	..	44	41	31	28	15	20	21	24	30	16	24	30.4
	min.	23	30	11	14	29	21	23	12	5	18	18	26	19	11	1	10	22	20	4	3	3	12	10	15	4	-4	0	12	6	-8	15	12.4
Harlan ...	max.	32	47	29	45	44	29	29	26	22	37	28	32	31	26	12	24	28	30	35	21	38	31	31	28	15	22	23	23	23	19	24	28.5
	min.	21	29	9	9	23	19	20	11	3	15	17	22	16	10	0	11	21	22	21	0	3	1	8	15	4	-9	-6	8	3	-11	13	10.6

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JANUARY, 1907—Continued.

STATIONS		DATE																														MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Hopeville	max.	32	43	40	41	48	39	36	30	23	41	29	31	28	27	13	24	33	32	41	20	37	31	29	29	15	17	22	26	35	17	27	30.2
	min.	25	32	17	14	29	22	26	15	8	16	21	26	21	13	3	10	24	26	20	6	4	3	10	15	4	-5	-1	11	8	-5	17	14.0
Humboldt	max.	29	25	40	30	42	..	42	30	28	28	18	28	30	29	26	10	25	28	30	33	25	20	24	28	12	18	15	..	..	15	34	26.5
	min.	17	15	16	8	9	..	24	17	19	12	-2	15	18	11	8	-5	8	24	12	22	0	-6	5	12	-2	-5	0	..	..	-18	15	8.9
Indep'd'e	max.	24	35	34	30	33	34	33	32	14	30	27	26	27	25	12	26	..	..	..	..	18	20	15	25	16	9	14	12	18	10	25	23.1
	min.	10	22	20	10	22	21	26	14	2	8	18	17	14	12	4	10	..	..	..	0	0	-3	-2	14	-2	-10	-2	2	9	10	10	9.1
Indianola	max.	32	41	40	42	46	..	33	30	17	38	30	32	29	28	15	25	30	32	48	22	34	29	26	29	17	17	20	18	30	15	26	29.0
	min.	23	31	19	14	30	22	25	16	6	16	20	20	21	13	3	11	24	25	22	6	5	1	8	16	4	-5	1	10	8	-6	15	13.7
Inwood...	max.	26	38	17	41	35	18	21	20	17	27	27	26	21	19	9	19	19	27	29	6	33	28	25	28	8	10	12	8	3	7	29	21.1
	min.	14	17	-2	1	16	8	11	3	-9	13	16	12	8	1	-10	7	0	11	5	-9	-2	-7	5	8	-6	-12	-10	-3	-3	-22	6	2.2
Iowa City*	max.	34	37	27	36	49	37	41	28	24	39	34	32	32	24	22	28	34	48	48	10	27	15	28	31	9	13	21	21	30	26	33	29.6
	min.	21	22	23	14	15	25	27	26	7	7	19	21	14	19	9	9	20	23	30	4	4	3	3	12	7	-8	-7	2	9	-3	-3	12.1
Iowa Falls	max.	33	36	22	39	40	28	32	21	23	30	28	23	26	16	16	26	30	37	37	7	22	9	22	25	4	14	18	16	17	19	27	24.0
	min.	15	21	13	9	26	19	25	19	0	18	16	16	13	15	0	6	15	24	26	-3	0	-5	-2	18	-2	-11	-4	-1	6	-13	11	9.4
Keokuk...	max.	36	44	34	38	57	57	68	48	26	39	33	35	40	33	24	30	33	34	53	33	42	38	26	43	28	15	23	29	38	33	33	36.8
	min.	30	34	23	14	30	38	40	26	12	18	26	30	30	24	14	16	29	31	33	10	10	11	12	23	8	-2	8	14	25	12	23	21.0
Keosa'q'a	max.	37	41	28	39	50	37	54	40	34	42	33	35	33	28	23	30	33	48	47	16	34	15	33	36	25	17	22	28	36	28	33	33.4
	min.	29	29	27	12	12	27	31	27	12	12	22	25	25	24	12	12	22	28	31	9	8	10	8	15	11	-2	-2	4	15	5	5	16.3
Larrabee	max.	28	41	19	41	36	25	26	23	15	31	29	25	27	23	8	22	21	28	30	4	34	25	27	27	9	12	15	11	..	24	10	22.7
	min.	17	19	3	5	22	14	15	4	-4	14	16	15	11	2	-4	2	15	20	4	-7	2	-6	6	9	-6	-11	-7	0	..	-16	10	6.1
Le Mars ..	max.	29	39	20	40	34	19	25	21	17	30	30	26	25	24	12	20	20	29	31	5	39	32	27	27	11	15	12	13	8	11	22	23.0
	min.	15	20	4	8	17	11	16	7	-3	10	17	16	11	5	-6	8	10	17	5	-5	3	-3	7	17	-2	-9	-6	0	0	-17	8	5.6
Lenox	max.	32	44	42	42	46	43	35	31	20	40	34	32	30	28	17	23	31	32	45	27	37	36	30	29	23	19	19	25	34	16	27	31.3
	min.	24	31	14	12	27	20	26	18	6	16	20	26	20	14	0	9	21	24	25	3	3	1	9	20	7	-5	-3	8	11	-8	14	13.3
Leon.....	max.	38	43	43	40	47	42	38	33	22	41	35	31	29	28	17	25	33	32	47	28	34	34	29	30	24	17	20	26	37	20	29	32.0
	min.	35	36	18	13	39	24	28	21	9	15	22	27	27	17	5	11	24	21	28	6	5	4	11	23	7	-3	0	10	20	-3	17	16.4
Lit. Sioux	max.	33	45	31	45	39	22	26	25	20	37	32	..	..	..	..	21	23	31	35	23	45	39	33	29	17	22	23	22	22	16	28	29.0
	min.	20	28	18	11	22	12	18	10	0	11	18	..	..	..	..	14	13	22	23	0	3	2	11	17	2	-8	-7	8	4	-12	13	10.1
Logan	max.	33	41	28	44	44	22	27	24	20	38	32	30	30	28	12	21	24	31	34	21	41	35	31	29	15	22	21	22	25	16	29	28.1
	min.	21	27	9	12	21	14	20	10	10	16	17	22	17	10	2	12	16	23	21	1	4	2	3	15	5	-8	-5	11	5	-10	13	10.8
Mars'll'n*	max.	34	37	24	39	44	30	33	24	25	35	30	30	31	21	19	27	31	42	43	25	24	13	25	27	25	14	19	19	24	21	29	27.9
	min.	18	20	15	11	15	21	22	21	2	2	15	17	15	16	3	2	17	25	25	-1	-1	-3	-4	9	4	-11	-10	-1	3	-11	-11	7.9
Mason C'y	max.	22	35	35	40	40	35	37	30	17	29	27	27	22	20	12	27	29	39	35	30	29	20	18	25	12	15	17	12	12	10	25	24.7
	min.	13	22	10	12	25	20	25	12	0	10	15	17	12	10	-3	7	25	25	30	-4	-2	-8	3	12	-2	-11	-6	-2	0	-17	8	8.3
Massena..	max.	32	43	40	43	52	35	32	29	23	42	30	35	29	27	12	28	28	29	40	25	39	30	29	28	17	19	21	22	32	15	24	30.0
	min.	22	32	10	11	26	18	21	13	3	15	16	24	16	8	2	11	21	22	22	0	-2	-1	7	15	4	-8	-5	7	5	-10	12	11.0
Mt. Ayr ..	max.	33	44	42	43	52	41	39	32	26	44	32	32	29	29	15	24	30	32	48	27	41	35	32	30	20	17	23	27	37	18	29	32.4
	min.	25	31	16	13	27	22	28	17	9	15	22	27	21	14	4	9	22	26	25	4	5	5	10	19	7	-4	-1	10	10	-2	15	14.5
Mt. Pleas't	max.	34	41	40	38	47	42	52	40	23	41	34	35	37	33	20	29	35	36	49	32	33	28	25	36	27	14	21	28	35	32	35	33.9
	min.	29	32	23	12	30	30	34	23	10	15	20	23	20	19	12	15	26	31	32	6	6	8	11	21	6	-5	4	12	19	6	23	17.8
Mt. Ver'n.	max.	31	34	34	32	46	37	39	33	15	35	32	29	31	28	18	28	34	33	44	24	27	20	19	32	13	14	22	22	25	17	32	28.6
	min.	12	30	20	11	26	25	31	15	4	7	17	15	12	13	7	10	14	27	24	1	1	0	5	16	0	-10	-1	6	11	-5	16	11.6
N.Hamp'n	max.	20	34	34	35	34	30	32	30	13	27	24	20	24	22	9	20	27	29	35	20	15	15	12	23	12	5	12	10	10	10	22	21.5
	min.	8	20	12	8	24	20	22	11	-1	11	13	14	10	9	-2	5	20	25	29	-5	-5	-9	-4	12	-7	-14	-7	-5	2	-16	6	6.4
Northw'd	max.	25	34	33	39	36	28	27	21	12	27	23	19	25	17	5	26	25	28	33	5	18	15	17	19	5	11	15	12	10	15	25	22.2
	min.	12	21	7	7	23	17	17	5	-3	8	11	12	9	4	-6	1	22	23	5	-6	-7	-12	-6	5	-5	-15	-8	-7	-3	-21	8	3.8
Odebolt ..	max.	29	42	28	41	42	32	26	25	20	32	29	27	27	26	14	22	25	29	33	19	37	31	30	26	14	20	20	15	14	12	20	26.0
	min.	19	28	7	10	23	17	19	10	-1	14	17	19	14	9	-3	9	20	21	18	-3	3	-1	8	9	0	-9	-4	3	0	-13	11	8.8
Ogden	max.	30	40	37	43	43	35	30	28	17	34	29	28	31	25	11	27	29	30	35	25	27	25	24	28	16	19	19	19	21	14	25	27.2
	min.	19	30	11	11	26	19	21	14	2	10	16	22	15	11	-1	11	24	24	25	0	2	2	6	15	-3	-8	2	4	5	-13	13	10.8
Olin.....	max.	29	36	36	33	44	43	43	40	22	35	31	31	33	31	21	29	36	36	45	34	22	22	19	..	10	11	17	17	25	23	32	29.5
	min.	21	28	24	13	26	23	33	21	5	9	19	18	8	19	10	16	23	29	33	3	2	2	6	..	3	-7	0	8	13	-3	12	13.9
Omaha,N.	max.	36	49	23	44	42	23	28	24	22	39	30	30	29	28	15	23	26	33	34	16	44	24	32	29	15	20	20	26	26	15	25	28.1
	min.	24	19	12	20	18	15	23	7	7	22	23	27	21	8	4	15	18	24	10	6	9	5	14	11	1	0	2	14	0	-7	15	12.5
Onawa....	max.	33	42	28	45	37	21	27	25	20	37	31	30	27	27	13	21	24	34	30	20	50	42	33	28	14	22	25	20	20	15	33	28.3
	min.	20	27	10	12	20	11	17	11	4	15	17	23	18	10	1	10	12	22	19	0	4	2	10	14	4	-6	-2	8	4	-10	12	10.3
Osage.....	max.	21	35	34	36	36	33	31	28	13	27	23	21	22	21	9	25	27	28	33	20	15	15	16	22	12	8	14	11	9	10	24	21.9
	min.	10	20	12	9	25	19	21	12	-1	8	14	15	11	8	-4	5	23	24	25	-5	-5	-11	-4	12	-5	-14	-6	-6	0	-20	7	6.4
Oskaloosa	max.	33	38	38	42	49	36	36	32	18	40	32	32	30	26	16	27	35	34	47	27	30	24	25	30	18	16	21	20	33	19	30	30.1
	min.	23	32	19	13	29	24	29	18	8	13	18	24	20	16	6	12	23	29	27	4	3	2	8	18	4	-6	0	11	12	-4	17	14.6
Ottumwa .	max.	38	42	36	41	51	36	40	28	20	42	32	32	32	28	16	28	33	38	48	14	32	14	31	29	15	20	23	25	34	23	32	30.9
	min.	26	36	22	13	28	27	33	19	10	22	22	28	25	22	10	9	25	32	20	7	11	5	13	16	8	-4	4	15	14	0	27	17.6
PacificJn.	max.	34	52	30	45	43	25	29	26	24	40	31	43	32	30	15	29	30	33	35	20	39	30	29	33	30	8	22	26	25	17	25	30.0
	min.	25	30	13	13	25	17	20	12	11	20	18	27	22	10	4	11	19	25	19	5	5	6	9	12	7	-4	-5	11	8	-5	15	13.1
Pella.....	max.	33	42	39	42	57	43	36	34	22	44	34	33	34	29	19	29	33	32	46	31	28	37	24	28	22	15	21	18	30	29	31	31.7
	min.	22	31	17	13	23	23	28	21	7	14	19	25	19	18	5	12	24	25	31	3	5	2	9	13	6	-6	1	10	13	-5	14	14.5
Perry.....	max.	33	40	35	43	44	34	31	29	19	35	30	30	32	29	14	27	30	32	38	21	30	27	26	28	14	19	21	19	24	16	26	28.3
	min.	20	31	12	11	26	20	22	13	3	14	18	23	17	11	0	12	24	25	19	0	3	-1	8	13	1	-7	-3	6	3	-12	14	11.2
Plover....	max.	30	40	30	41	40	26	27	20	17	..	30	30	23	9	20	25	28	30	30	9	27	25	28	25	..	18	17	10	7	12	12	23.7
	min.	18	24	5	6	22	15	18	3	-4	..	17	16	-4	-8	5	5	21	20	9	-4	-2	-8	-3	9	..	-12	-6	-3	0	-18	-7	4.3
Pocahon's	max.	29	40	25	40	41	29	26	23	17	30	29	28	28	20	9	25	29	29	32	10	30	24	24	28	8	20	19	12	8	14	26	24.3
	min.	17	25	7	9	22	15	17	8	-2	12	16	15	10	4	-7	8	21	22	9	-5	3	-6	7	8	-3	-10	-5	-1	3	-16	14	6.8
Ridgeway	max.	25	36	36	34	45	30	34	30	19	29	23	25	27	21	8	26	32	33	42	13	13	12	15	27	12	7	20	12	9	9	27	23.5
	min.	7	25	12	7	24	19	22	7	-2	8	12	11	10	7	-3	8	21	26	13	-5	-6	-10	-3	12	-8	-17	-8	-6	-5	-18	9	5.5
Rock Rap.	max.	34	6	20	40	32	16	24	8	18	8	20	18	16	8	10	20	32	16	4	26	10	26	16	4	0	0	6	11	0	8	14	15.2
	min.	6	0	6	30	16	10	6	0	-6	-6	10	8	4	0	-12	10	4	-2	-10	-2	-10	10	0	-6	-8	-10	-8	-3	-6	-16	10	0.8
Rock'll Cy	max.	30	42	35	40	42	32	28	26	19	32	28	28	28	25	16	35	30	30	42	22	30	24	28	28	13	22	20	15	15	14	26	27.4
	min.	20	28	9	11	25	16	15	11	0	10	12	19	12	9	-5	8	22	23	19	-3	0	-3	6	8	2	-8	-4	0	-1	-15	12	8.2
Sac City..	max.	35	40	34	41	40	26	25	17	22	33	27	29	27	12	14	22	26	32	38	..	..	..	..	..	..	..	..	..	..	..	..	....
	min.	18	34	7	9	18	14	13	13	-2	15	16	23	11	9	-5	6	12	13	25	-1	2	-3	4	9	-2	-9	-5	-3	4	-16	6	7.5
St. Charl's	max.	32	42	40	44	56	40	34	30	30	44	31	34	30	29	15	25	32	33	45	25	40	33	38	30	15	18	28	23	33	16	26	31.9
	min.	24	32	15	14	29	22	25	15	6	16	20	25	20	12	2	11	24	18	25	3	3	1	8	14	5	-6	-1	10	9	-6	15	13.2
Sheldon ..	max.	26	39	19	41	34	19	24	21	17	29	29	24	21	19	10	19	19	28	30	9	34	27	25	25	8	-13	-9	-2	5	-21	8	21.4
	min.	14	16	1	6	17	12	12	5	-7	12	15	9	9	3	-10	5	11	16	7	-9	-2	-9	-1	8	-5	-12	-12	-2	0	12	..	3.0
Sibley*...	max.	33	36	24	39	24	18	23	8	19	27	23	15	20	4	12	18	20	29	29	8	32	10	27	14	0	..	12	12	8	-16	-10	18.3
	min.	13	14	0	1	13	10	10	4	-7	-7	13	13	7	1	-13	-12	12	12	20	-9	-8	-12	-10	12	27	15	20	21	33	30	33	0.6
Sigourn'y	max.	33	38	38	38	48	45	39	37	24	39	34	32	31	30	21	27	36	35	46	32	28	28	31	27	6	-7	1	11	15	-2	18	32.1
	min.	26	31	21	13	27	27	31	23	8	11	19	25	21	20	8	13	25	30	32	4	3	3	9	18	6	-6	1	9	8	30	22	15.8
Sioux Cen	max.	28	37	16	38	33	23	24	20	18	28	29	25	23	22	8	19	19	28	30	3	35	25	25	25	8	-10	-7	-2	13	8	8	22.1
	min.	14	16	1	4	17	10	13	2	-6	13	16	12	9	0	-10	7	8	15	0	-8	-2	-8	2	6	-6	-10	-7	-2	12	8	8	3.4
Sioux C'y	max.	34	42	16	45	35	18	22	19	21	32	31	28	24	20	11	20	23	31	31	6	45	13	30	29	9	-5	1	2	13	13	22	23.5
	min.	19	12	5	15	10	9	18	2	-1	21	20	16	14	2	-4	11	7	23	3	-3	6	0	11	9	-4	-5	-4	-1	-9	-14	9	6.5
Stockport	max.	33	40	40	38	53	38	54	48	26	43	33	33	33	32	21	28	34	34	49	35	35	26	27	35	27	14	20	29	35	26	33	33.9
	min	28	32	23	12	29	28	32	22	11	15	21	24	22	20	10	14	25	30	32	7	6	8	10	21	5	-4	4	14	22	4	22	17.7
Storm L'e	max.	28	40	26	26	40	28	25	24	22	30	27	25	25	24	9	21	23	27	31	16	34	35	26	27	15	17	15	13	10	23	19	23.7
	min.	19	13	4	2	24	11	14	4	-6	11	14	14	8	4	-10	3	16	18	13	-10	-3	-9	3	8	-6	-13	-9	-4	6	-21	4	3.4
Stuart	max.	38	44	26	45	43	28	32	22	18	36	30	31	30	30	15	34	33	42	41	23	33	30	29	28	14	19	19	26	29	22	29	29.6
	min.	23	14	12	13	23	19	21	11	4	.	19	26	17	13	0	11	20	24	22	1	2	-1	7	13	5	-6	-2	-1	2	-11	20	10.9
Thurman	max.	34	50	32	46	57	28	31	28	22	42	32	33	32	30	14	25	28	33	39	27	42	35	33	33	17	19	18	15	25	14	25	30.8
	min.	25	31	14	12	28	19	19	14	8	19	21	29	23	14	5	11	22	25	25	7	8	8	12	17	9	-4	2	7	9	-4	14	14.3
Tipton....	max.	30	35	35	34	46	42	40	36	20	36	32	24	20	31	21	26	32	42	46	31	23	22	18	31	23	11	20	17	31	20	30	29.9
	min.	20	30	24	14	29	31	34	20	10	11	22	24	20	20	13	17	25	30	31	5	5	6	10	18	3	-5	2	12	14	2	18	16.6

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JANUARY, 1907—CONTINUED.

STATIONS		DATE																														MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Toledo ...	max.	28	36	36	38	43	41	32	..	18	34	30	20	31	27	17	26	32	32	44	32	23	22	20	28	21	12	17	15	24	15	29	28.1
	min.	19	25	12	12	21	23	17	..	4	11	12	21	15	15	4	11	25	27	31	1	1	-2	5	12	3	-9	-1	4	9	-8	12	11.4
Wapello..	max.	37	40	40	33	45	39	44	40	30	33	34	37	33	33	23	26	32	34	46	34	28	25	21	33	28	14	19	25	31	28	32	32.2
	min.	28	32	26	14	28	30	35	25	12	14	23	25	20	22	13	16	20	32	33	8	8	10	12	20	6	-2	6	15	20	10	23	18.8
Wash'g'n	max.	34	39	37	36	50	38	42	34	20	41	33	35	33	29	17	27	33	34	47	22	32	21	24	33	18	14	22	22	32	24	33	30.8
	min.	25	32	23	14	28	28	32	14	8	12	20	22	20	17	9	14	24	30	22	4	4	4	9	17	2	-7	2	11	17	-1	12	15.0
Washta...	max.	28	44	25	44	44	22	26	24	18	33	30	24	26	25	12	20	22	28	30	15	38	30	30	20	15	10	18	12	10	11	20	24.3
	min.	18	25	5	15	20	15	18	10	-4	13	14	18	13	7	-5	-8	14	20	15	-5	3	-3	4	5	-2	-12	-9	1	0	-20	11	6.8
Waterloo*	max.	30	36	32	36	41	29	33	26	17	32	28	27	28	26	15	30	30	33	43	9	21	10	19	27	30	15	19	11	20	14	28	25.6
	min.	14	32	15	11	26	22	26	14	2	10	16	17	15	12	3	12	26	26	21	-1	1	-3	3	2	-3	-9	-3	1	0	-14	13	9.9
Waukee ..	max.	32	40	39	42	43	39	32	29	17	36	31	30	30	27	16	26	32	32	42	26	30	28	27	29	15	19	20	17	26	15	25	28.8
	min.	22	31	13	12	27	20	20	15	4	13	19	21	18	13	1	12	24	25	25	2	3	0	7	9	0	-7	-1	8	1	-9	14	11.7
Waverly .	max.	34	35	34	35	38	31	33	30	13	30	29	25	26	24	11	28	29	31	37	14	20	20	18	25	12	11	16	14	16	12	24	24.4
	min.	15	28	14	12	27	21	27	11	3	11	17	18	15	10	3	10	25	27	14	-1	0	-4	2	12	-3	-9	-2	0	4	-15	12	9.8
Webster C	max.	28	38	38	41	42	39	33	28	18	34	28	28	29	27	14	28	34	31	35	20	25	23	18	29	15	18	22	23	29	12	26	27.8
	min.	17	26	10	9	19	18	20	14	1	12	16	19	14	11	-4	8	24	23	28	-2	1	-5	5	15	2	-10	-4	1	4	-16	13	9.6
W. Bend .	max.	26	38	32	40	38	25	21	23	15	29	30	25	25	21	6	24	27	28	31	17	26	21	24	26	10	17	16	8	8	14	25	23.2
	min.	15	15	6	5	21	14	16	9	-5	10	15	15	8	5	-7	5	21	21	17	-4	-3	-8	2	10	-4	-14	-8	-2	-4	-17	10	5.3
Whitten ..	max.	28	36	36	37	41	37	32	30	20	31	30	28	28	24	14	29	32	32	39	25	25	23	20	26	14	13	18	16	21	11	26	26.5
	min.	16	25	12	8	35	19	22	5	-1	9	15	20	13	12	0	7	23	24	23	-4	-2	-3	2	14	0	-12	-5	-1	5	-15	11	8.9
Wilton Jn	max.	33	37	37	35	44	44	42	40	39	37	32	30	34	32	22	31	35	35	45	35	25	34	35	32	30	10	17	18	30	25	33	32.5
	min.	24	30	25	14	26	26	35	23	7	9	20	24	15	19	11	17	25	30	33	4	3	3	7	18	3	-7	1	10	13	2	18	15.7
Winterset	max.	32	41	40	41	44	37	32	29	17	37	29	32	28	28	14	25	32	32	43	26	33	30	28	28	19	19	18	21	31	16	25	29.3
	min.	25	32	15	15	30	21	24	17	7	15	21	27	20	14	3	12	24	26	26	3	5	2	9	18	6	-5	0	11	8	-7	16	14.2
Woodb'rn	max.	33	43	42	42	48	36	37	41	31	41	32	32	29	28	15	25	32	32	50	31	38	33	33	30	24	23	24	24	36	18	27	32.6
	min.	25	32	17	13	29	22	26	20	18	18	20	25	21	12	4	10	23	25	30	5	3	2	9	15	7	-7	0	5	10	-5	16	14.3
Zearing...	max.	27	38	45	40	48	48	48	39	17	34	32	31	30	31	16	37	39	31	42	28	30	26	22	28	17	14	20	19	22	15	25	29.4
	min.	18	27	12	10	22	21	20	14	2	10	15	20	14	13	1	9	24	24	27	-3	0	-3	5	15	1	-10	-3	2	6	-11	11	10.1

*At these stations thermometers are read in the morning; the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

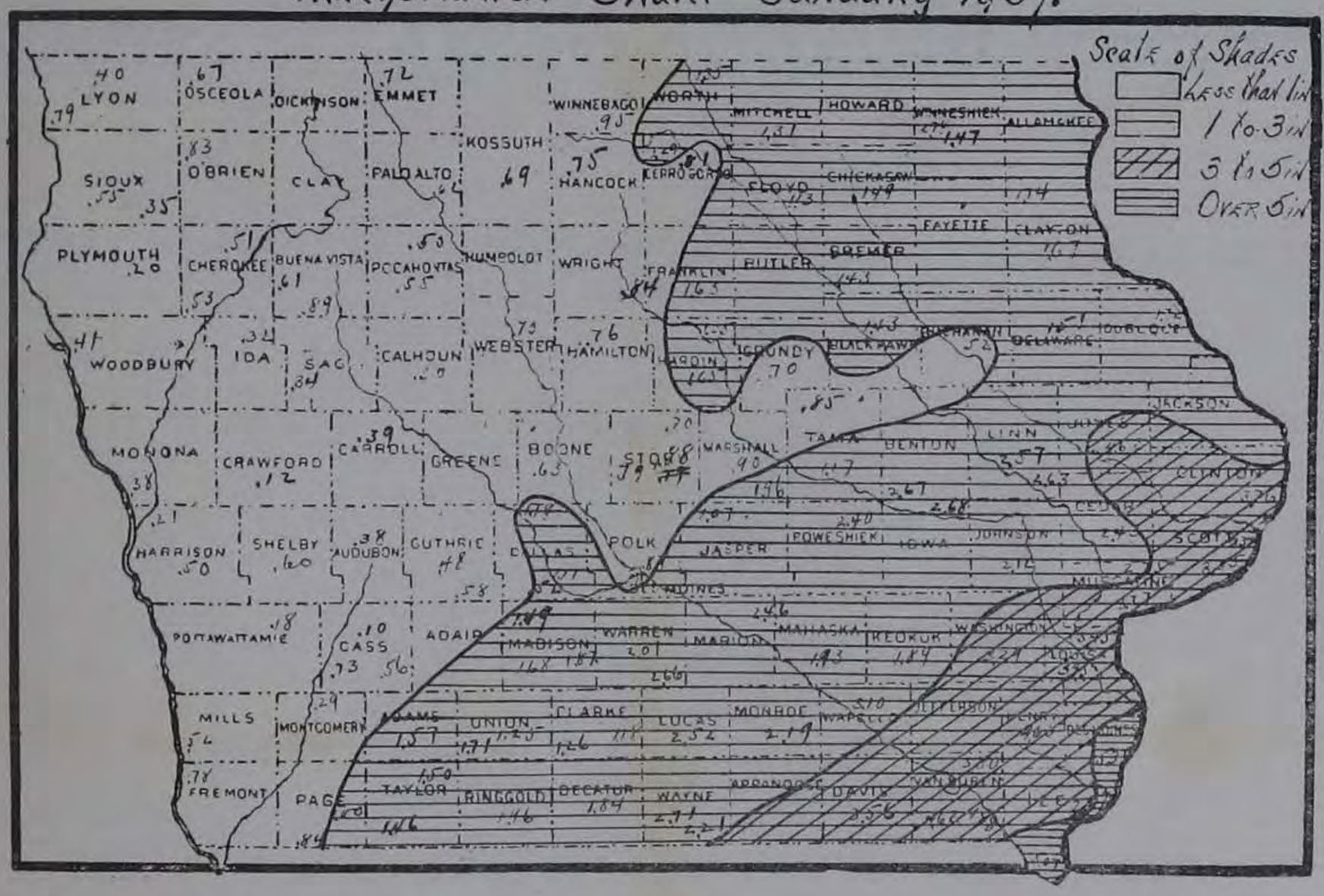
DAILY AND MONTHLY PRECIPITATION FOR JANUARY, 1907.

STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	.10	....	....	....	....	.35	....	....	....	....	T	....	.30	.20	....	....	....	.30	T	....	....	....	....	....	....	....	....	....	....	....	....	1.25
Albia	....	T	.30	T	....	....	.03	.03	....	....	....	T	T	....	.33	.42	T	T	.85	.23	....	....	....	....	....	....	....	....	....	....	T	2.19
Algona	.02	.17	....	....	....	....	.07	....	....	....	....	....	....	....	....	T	T	T	.07	....	....	....	....	....	....	....	T	.08	.20	....	.08	.69
Allerton	....	.33	.02	....	....	....	.15	....	....	T	T	.02	T	....	.38	.36	.25	T	1.21	....	....	....	....	....	....	....	T	....	....	....	.07	2.79
Alta	....	.18	....	....	....	....	.10	....	....	....	....	T	....	....	....	.05	....	....	.02	....	....	....	....	....	T	....	....	.03	.20	T	.03	.61
Alta (near)	.20	.05	....	....	....	....	.05	....	....	....	....	....	....	....	....	.05	....	....	.08	....	....	....	....	....	....	....	....	.30	....	....	.05	.78
Alton	.05	.10	....	....	....	....	T	....	....	....	....	....	....	....	....	T	T	....	T	....	....	....	....	....	....	....	T	.15	.05	....	T	.35
Amana	....	.31	....	....	....	....	.27	....	....	....	....	.13	....	....	.10	.34	T	....	1.40	.02	....	....	T	....	T	....	....	.05	T	....	.06	2.68
Ames	....	.13	....	....	....	....	.23	T	....	.06	....	....	.05	....	....	.06	....	....	.11	....	....	....	....	....	....	....	....	.03	....	....	.12	0.79
Atlantic	T	T	....	....	....	....	T	....	....	....	....	....	....	.10	T	....	....	....	T	....	....	....	....	....	....	....	....	T	....	T	....	0.10
Audubon	.04	.01	....	....	....	.01	.05	....	....	....	....	T	....	....	T	.05	....	....	.10	.01	....	....	....	....	....	....	....	.10	....	.01	....	.38
Baxter	....	....	....	....	....	....	.38	....	....	....	....	....	....	....	T	.23	....	....	.34	....	....	....	....	....	....	....	....	.05	....	....	.07	1.07
Bedford	T	.38	....	....	....	....	.30	....	....	T	.02	....	T	.05	.15	.31	.10	T	.08	....	....	....	....	....	....	.05	....	....	....	....	.02	1.46
Belle Plaine	.45	....	....	....	....	....	.45	....	....	....	....	.15	.05	....	.10	.20	T	....	1.02	....	....	....	....	....	T	....	....	.15	T	....	.10	2.67
Bloomfield	....	.38	T	....	....	....	.28	....	....	....	T	.08	T	T	.49	.32	.26	.02	1.63	T	....	....	....	....	....	....	....	....	....	....	.10	3.56
Bonaparte	....	.21	T	....	....	....	.45	.27	....	....	.05	....	.09	....	.55	.60	.53	T	1.98	....	....	....	....	....	....	....	T	....	....	....	.15	4.88
Britt	....	.06	....	....	....	....	.12	....	....	....	....	....	....	....	....	.07	.03	....	.08	.05	....	....	....	....	....	....	....	.02	.02	.30	....	....	.75
Buckingham	....	.15	....	....	....	....	.30	....	....	....	....	....	....	T	....	.08	....	....	.32	....	....	....	....	....	....	....	....	....	....	....	.23	.85
Burlington	....	....	.15	T	....	....	.08	.65	....	....	....	.08	.07	....	.65	.71	.51	.02	1.63	.52	....	....	....	....	....	....	....	....	....	....	....	5.30
Carroll	....	.16	....	....	....	....	T	....	....	....	....	T	....	....	....	T	....	....	.13	T	....	....	....	....	....	....	....	T	.10	....	....	.39
Cedar Rapids	....	....	.47	....	....	....	.16	.27	....	T	....	.08	T	T	.06	.15	T	T	.97	.27	....	....	T	....	T	T	....	T	.05	.05	.04	2.57
Chariton	.55	T	....	....	....	....	.27	....	....	....	....	....	....	....	.20	.35	T	....	1.15	....	....	....	....	....	....	....	....	....	....	....	T	2.52
Charles City	T	.18	....	....	....	....	.30	....	....	....	....	T	....	....	....	.02	....	....	.28	T	T	....	....	....	T	....	T	.04	.18	.04	.09	1.13
Clarinda	....	.13	....	....	....	....	.26	....	....	T	....	T	....	....	.22	.23	T	T	.07	.02	....	....	....	....	....	....	.04	....	....	....	.03	1.00
Clear Lake	....	T	....	....	....	....	.20	....	....	....	....	....	....	....	....	.05	T	T	.03	....	T	....	....	....	....	....	....	.03	.40	....	.10	0.81
Clinton	....	.08	....	....	....	....	.89	....	....	....	.23	....	.03	.08	....	.23	.11	....	1.84	....	....	....	....	....	....	....	....	....	.08	....	.19	3.76
College Springs	.15	.16	....	....	....	....	.12	T	....	....	....	....	....	.16	.10	.10	T	....	....	....	....	....	....	....	....	.05	....	....	....	....	T	.84
Columbus Junc.	....	.17	T	....	....	....	.30	.10	....	....	T	.18	.08	....	.30	.55	.25	T	1.42	T	....	....	....	....	....	....	....	T	T	T	.10	3.45
Corning	.12	....	....	....	....	....	.68	T	....	....	....	....	....	.07	.25	....	....	....	.42	....	....	....	....	....	....	.03	....	T	T	T	T	1.57
Corydon	....	.27	T	....	....	....	.11	....	....	....	T	.01	T	....	.34	.36	.16	.01	.92	T	....	....	....	T	....	....	T	....	....	....	.03	2.21
Creston	....	.03	....	....	....	....	.82	T	....	....	....	T	....	....	.30	.20	....	T	.26	.10	....	....	....	....	....	....	T	T	....	T	....	1.71
Cumberland	....	....	....	....	....	.42	....	....	....	....	....	....	.01	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.73
Davenport	....	03	T	....	....	....	.94	T	....	T	.24	T	.02	.15	.06	.39	.03	.30	1.30	....	....	....	T	T	T	....	....	.03	T	T	.06	3.55
Decorah	....	.15	....	....	....	....	.30	....	....	....	.05	....	T	T	T	T	T	T	.49	.09	.04	T	T	....	....	....	....	....	.25	....	.10	1.47
Delaware	....	.37	.02	....	....	....	.21	....	....	....	....	.05	....	....	....	....	....	....	.70	.02	....	....	....	....	....	....	....	.07	.07	....	....	1.51
Denison	....	.02	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	.12
Des Moines	T	.11	....	....	....	T	.30	....	....	....	T	....	T	.01	.12	.02	T	.06	.21	....	....	....	T	....	T	T	....	T	.03	T	.01	T	0.87
De Soto	T	.12	....	....	....	T	.10	....	....	....	....	T	....	T	T	.15	....	T	.15	....	....	....	....	....	....	....	....	T	....	....	T	.52
Dows	....	.06	....	....	....	....	.35	....	....	....	....	....	....	....	....	.02	....	....	.12	.02	....	....	....	....	....	....	T	.08	.12	....	.07	.84
Dubuque	....	.26	....	....	....	T	.19	....	....	T	.01	....	T	....	....	.04	T	T	1.00	.01	.01	....	T	T	T	....	....	.06	.08	T	.06	1.72
Earlham	T	.17	....	....	....	....	.21	....	....	....	T	T	....	T	.10	.30	....	T	.56	....	....	....	....	....	....	....	....	.10	T	....	.05	1.49
Elkader	....	.27	....	....	....	....	.30	....	....	....	....	....	....	....	....	.05	....	T	.70	....	T	....	....	....	....	....	....	T	.20	....	.15	1.67
Elliott	.04	....	....	....	....	....	T	....	....	....	....	....	....	.10	.15	....	....	....	....	....	....	....	....	....	....	T	....	....	....	T	....	.29
Estherville	....	.27	....	....	....	T	.15	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	T	.30	....	....	0.72
Forest City	....	T	....	....	....	....	.20	....	....	....	....	....	....	....	....	T	....	T	....	.10	....	T	....	....	....	....	....	....	.50	.10	.05	.95
Fort Dodge	T	.05	....	....	....	....	.10	....	....	....	T	....	....	....	....	T	....	....	.25	T	....	....	....	T	....	....	....	.05	.20	.05	....	.70
Fort Madison	....	.15	....	....	....	....	.15	....	....	....	T	....	.10	.20	.50	....	....	....	2.67	....	....	....	....	....	....	....	....	....	....	.25	....	4.02
Galva	.10	....	....	....	....	....	T	....	....	....	....	....	....	....	.20	....	T	.90	....	....	....	....	....	....	....	....	....	.22	....	....	....	.32
Gilman	....	.58	....	....	....	.28	....	....	....	....	....	T	T	....	T	.02	....	.03	.43	.10	....	....	....	....	....	....	....	....	....	....	....	1.96
Grand Meadow	....	.20	....	....	....	....	.46	....	....	....	....	.05	....	....	T	.25	....	T	.95	.10	....	....	....	....	....	....	....	....	.35	....	.15	1.74
Grinnell	....	.40	....	....	....	....	.45	....	....	....	....	....	....	....	....	.05	....	....	....	.05	....	....	....	....	....	....	....	.05	.05	....	.10	2.40
Grundy Center	....	.10	....	....	....	....	.40	....	....	....	....	....	....	....	....	.15	T	....	.07	....	....	....	....	....	....	....	....	T	.05	....	.05	0.70
Guthrie Center	.01	.02	....	....	....	....	.08	T	....	....	....	.02	....	T	....	.08	....	....	.25	.05	....	....	....	....	....	....	....	.10	T	....	.03	.48
Hampton	.05	.30	....	....	....	....	.45	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.25	.05	.15	....	1.63
Hancock	T	....	....	....	....	....	....	....	....	....	....	T	....	T	.18	T	....	T	....	....	....	....	....	....	....	....	....	T	T	....	T	0.18
Harlan	.27	....	....	....	....	T	.18	....	....	....	....	T	T	....	T	.03	T	....	.08	....	....	....	....	....	....	....	T	.03	T	T	.01	.60
Hopeville	T	.14	....	....	....	....	.15	....	....	....	....	....	....	.07	.13	.24	.09	T	.44	....	....	....	....	....	....	....	....	....	....	....	....	T	1.26
Independence	....	.07	....	....	....	....	.05	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	.20	.10	....	.52
Indianola	T	.22	T	....	....	T	.71	....	....	T	T	.02	T	T	.15	.30	....	....	.48	....	....	....	....	T	....	....	....	.09	T	....	.04	2.01
Inwood	.22	.10	....	....	T	T	.04	....	....	T	....	T	.02	....	....	T	T	T	.01	....	....	....	....	....	T	....	.01	.25	.14	....	T	0.79
Iowa City	....	.11	....	....	....	....	.16	.05	....	T	....	.09	T	....	.08	.32	....	....	.83	.38	....	....	....	....	....	....	....	.01	.04	....	.05	2.12
Iowa Falls	T	.10	.15	....	....	....	.19	....	....	....	....	T	T	....	....	.07	....	T	12	.07	....	....	....	T	....	T	T	.03	.20	....	.12	1.05
Keokuk	T	.16	.02	....	....	....	.42	....	....	....	.05	....	.06	.25	.35	.70	.05	.98	1.77	....	....	....	....	....	....	....	T	....	....	T	.26	5.07
Keosauqua	....	.02	.19	T	....	....	.32	.11	....	....	....	.04	.08	....	.44	.51	.52	.18	1.50	.55	....	....	T	....	....	....	....	....	....	....	.16	4.62
Lacona	....	.33	....	....	....	....	.59	....	....	....	....	....	....	....	.30	.30	.08	....	.94	....	....	....	....	....	T	....	....	T	.27	....	....	.12	2.66
Larrabee	.08	....	....	....	....	T	.12	....	....	....	T	T	....	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	.51
Le Claire	....	....	.07	....	....	....	.07	.59	....	T	....	.21	.02	....	.13	.20	.26	T	1.01	.68	....	....	....	....	T	....	T	....	T	T	.07	3.34
Le Mars	T	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.18	.02	....	T	0.20
Lenox	.03	.22	....	....	....	....	.38	....	....	....	....	....	....	.10	.07	.19	....	....	.47	....	....	....	....	....	....	.02	....	....	....	....	.02	1.50
Leon	....	.25	....	....	....	....	.14	....	....	T	....	.02	....	T	.33	.30	T	T	.80	....	....	....	....	....	....	....	.02	....	....	....	....	1.86
Little Sioux	.10	.03	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.08	....	....	....	.21
Logan	.20	....	....	....	....	....	....	T	....	....	T	T	....	T	....	....	....	....	T	....	....	....	....	....	....	....	....	.30	T	....	....	0.50
Marshalltown	....	.03	.13	....	....	....	.15	....	....	....	....	.05	....	....	.02	.15	....	....	.15	.05	....	....	....	....	....	....	....	.02	.05	....	.10	0.90
Mason City	....	.20	....	....	....	....	.42	....	....	....	....	....	....	....	....	.05	T	....	.20	.05	....	....	....	....	....	....	....	T	.25	....	.12	1.29
Massena	....	.10	....	....	....	....	.10	....	....	....	....	....	....	.03	.12	.12	....	....	.09	....	....	....	....	....	....	.05	....	....	....	T	....	T	0.56
Mt. Ayr	.10	.20	....	....	....	....	.25	....	....	....	T	....	....	.20	.25	.25	.09	.46	.05	....	....	....	....	....	T	....	T	....	....	....	.06	1.96
Mt. Pleasant	....	.23	.03	....	....	....	.34	T	....	....	T	.32	.10	.02	.32	.48	.42	T	1.99	.05	....	....	....	....	T	....	....	.06	.02	T	.15	4.65
Mt. Vernon	....	....	....	....	....	....	.33	....	....	....	....	.16	.01	....	.08	.30	.01	.01	1.49	.03	....	....	T	....	....	....	....	T	.01	T	.13	2.63
Muscatine	....	....	.16	T	....	....	.25	1.00	T	....	....	.18	.03	T	.20	.30	.15	T	1.02	.40	....	....	....	....	....	....	....	....	....	....	.07	3.77
Nevada	....	.10	....	....	....	....	.10	....	....	....	....	....	....	....	....	.06	....	....	.29	.06	....	.06	....	....	....	....	....	T	.30	....	.14	0.88
New Hampton	....	.30	....	....	....	....	.38	....	....	....	....	....	....	....	....	T	T	....	.41	....	T	....	....	....	....	....	....	....	.90	....	.10	1.49
Northwood	....	....	....	....	....	....	.22	....	....	....	....	T	T	....	....	....	....	....	.12	....	.01	....	....	....	....	....	....	....	....	....	.10	1.35
Odebolt	.12	....	....	....	....	....	....	....	....	....	....	....	.02	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.20	T	....	....	0.34
Ogden	T	.09	....	....	....	....	T	....	....	....	....	....	T	....	....	.05	....	....	.24	....	....	....	....	....	....	....	....	.10	.10	....	.05	0.63
Olin	....	....	.30	....	....	....	1.20	....	....	....	....	.45	....	....	.05	.30	....	....	2.00	.05	....	....	T	....	T	....	.01	.10	.07	....	.10	4.62
Omaha, Neb	.23	T	....	....	....	T	.04	T	....	....	....	.01	....	T	.10	.04	.01	T	T	.05	....	....	....	....	T	....	T	.03	T	T	.01	0.53
Onawa	.10	.18	....	....	T	T	....	T	....	....	....	T	T	T	T	....	T	....	.05	....	....	....	....	....	T	....	....	.10	T	....	T	0.38
Osage	....	.19	....	....	....	....	.58	....	....	....	....	T	T	....	....	.01	....	....	.17	....	....	....	....	....	....	....	T	....	.25	....	.11	1.31
Oskaloosa	....	.12	....	....	....	....	.30	....	....	....	....	....	....	....	.27	.28	....	....	.90	....	....	....	....	....	....	....	....	.02	....	....	.04	1.93
Ottumwa	....	.26	.02	....	....	....	.39	....	....	....	....	.08	.06	T	....	.50	.48	....	1.31	....	....	....	....	....	....	....	.01	....	....	T	T	.03	3.10
Pacific Junction	.15	....	....	....	....	T	.01	T	....	....	T	T	T	.22	.04	.06	....	T	T	....	....	....	....	....	....	....	....	.03	....	....	.10	.52
Pella	....	.28	....	....	....	....	.49	....	....	....	....	.03	....	....	.23	.45	T	T	.77	.08	....	....	....	....	....	....	....	.08	T	....	.05	2.46
Perry	....	.50	....	....	....	....	T	....	....	....	....	T	....	....	....	.10	....	T	.40	.05	....	....	....	....	....	....	....	.20	.20	....	....	1.18
Plover	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	T	.15	.28	....	....	0.50
Pocahontas	....	.11	....	....	....	....	.01	....	....	....	....	....	....	T	....	T	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.55
Ridgeway	....	.32	....	....	....	....	.51	....	....	....	....	.01	T	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.16	.81	.23	....	2.78
Rock Rapids	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	T	.01	T	.03	.60	.04	.04	....	T	.01	T	....	.01	.16	T	T	....	.40
Rockwell City	.10	....	....	....	....	....	.10	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	T	T	....	....	.40	T	....	.05	0.30
St. Charles	....	.15	....	....	....	....	.75	....	....	....	T	T	....	.10	....	.37	T	T	.50	....	....	....	....	....	....	....	....	....	....	....	....	....	1.87
Sheldon	.20	.20	....	....	....	T	.02	....	....	....	T	T	....	....	....	T	T	T	.01	....	....	....	....	....	....	....	....	.40	T	....	T	0.83
Sibley	T	.20	....	....	....	....	T	....	....	....	T	....	....	....	T	....	T	.05	....	....	....	....	....	....	....	....	....	T	.40	....	.02	0.67
Sigourney	....	.30	....	T	....	....	.33	T	....	....	....	.08	T	....	.28	.50	.12	T	.01	.17	....	....	....	....	....	....	....	.05	....	....	.05	1.89

DAILY AND MONTHLY PRECIPITATION FOR JANUARY, 1907—CONTINUED.

STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sioux Center	.20	....	....	....	....	T	....	....	....	....	T	....	....	....	....	....	T	T	T	....	....	....	....	....	....	....	T	.30	.05	....	....	.55
Sioux City	.14	T	....	....	T	.01	T	T	....	....	T	T	T	T	.02	T	T	T	T	....	T	T	....	T	T	....	.02	.22	T	T	T	0.41
Stockport	....	.19	.02	....	....	..	.40	.07	....	....	T	.10	T	T	.18	.58	.47	.01	1.68	....	....	....	T	....	....	....	....	....	....	....	.10	3.80
Storm Lake	.02	....	....	....	....	....	.01	....	....	....	....	.01	.01	....	....	.02	....	....	....	....	....	....	....	....	....	....	.01	.20	.20	.40	.01	0.89
Stuart	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.08	.35	....	....	....	....	....	....	....	....	....	....	....	.10	....	.05	....	0.58
Thurman	....	.42	....	....	....	....	.15	T	....	T	T	T	T	.10	....	.05	T	T	T	T	....	T	....	T	....	....	.05	.01	T	T	T	0.78
Tipton	....	.38	....	....	....	....	.37	....	....	....	....	....	....	....	.18	.32	....	....	1.07	....	....	....	....	....	....	....	....	....	T	....	.11	2.43
Toledo	....	.30	....	....	....	....	....	....	....	....	....	.02	....	....	....	.20	....	....	.40	.05	....	....	....	....	....	....	....	.05	T	....	.15	1.17
Wapello	....	.03	.05	.01	....	....	.34	....	....	....	....	.33	....	....	.60	.75	.24	.03	1.51	.02	....	....	....	....	....	....	....	....	....	.04	....	3.95
Washington	....	.18	....	....	....	....	.15	.19	....	....	....	.11	.01	....	.26	.52	.19	....	1.48	.10	....	....	....	....	....	....	....	.02	....	....	.08	3.29
Washta	.15	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	.03	....	....	....	T	....	T	....	....	T	.20	.05	....	....	.53
Waterloo	....	.24	....	....	....	T	.34	....	....	....	....	....	....	....	....	.10	....	....	.54	....	....	....	....	....	....	....	....	.06	.05	....	.10	1.43
Waukee	T	.50	....	....	....	....	.25	....	....	....	....	.02	....	T	.05	.25	T	T	.35	....	....	....	....	T	....	....	....	.20	....	....	.15	1.77
Waverly	....	.21	.01	....	....	....	.39	....	....	....	....	....	....	....	....	.05	.01	T	.31	....	....	....	....	....	....	....	T	.05	.30	....	.10	1.43
Webster City	....	.16	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	.20	....	T	.10	....	0.76
West Bend	....	.08	....	....	....	....	.11	....	....	....	....	....	....	....	....	T	.01	....	.02	....	....	....	....	....	....	....	T	....	.30	....	.10	.62
Whitten	....	.50	....	....	....	....	.50	....	....	....	....	....	....	....	....	.05	....	....	.50	....	....	....	....	....	....	....	....	.10	....	....	....	1.65
Wilton Junction	....	.23	....	....	....	....	.65	....	....	....	.16	....	....	.01	.02	....	....	1.67	....	....	....	....	....	....	....	....	....	....	....	.01	....	2.75
Winterset	T	.18	....	....	....	T	.50	....	....	....	....	....	....	T	.25	.35	....	T	.30	....	....	....	....	....	....	....	....	.10	....	....	T	1.68
Woodburn	....	.17	....	....	....	....	.41	T	....	T	....	T	T	T	.30	.20	T	T	....	.05	....	....	....	T	....	....	....	....	....	....	.05	1.18
Zearing	....	.20	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	.70

Precipitation Chart for January 1907.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR FEBRUARY, 1907.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1907

THE IOWA WEATHER AND CROP SERVICE

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West Branch	Wrigley Smith
West Union	H. B. Blackman
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U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

CENTRAL OFFICE: WASHINGTON, D. C.

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R. SAGE.....Section Director.
GEO. M. CHAPPEL, Assistant Director.

VOL. XVIII. DES MOINES, IOWA, FEB., 1907. No. 2

THE WINTER OF 1906-07.

The mean temperature of the three winter months was 23.1°, which is 2.4° above the normal for the state. The highest temperature reported was 69° at Keokuk on January 7th. The lowest temperature reported was -31°, at Washta, on February 5th. The average precipitation for the state was 3.66 inches, which is .43 of an inch above the normal. The coldest period of the winter occurred in the first week in February. The winter was slightly colder than the winter of 1905-06, and was 7.3° warmer than the winter of 1904-05. This illustrates the fluctuation of the average winter temperature in this latitude. Fifty to sixty years ago such mild winters were of frequent occurrence in this state. The extremely cold winter of 1856-57 was followed the next year by a season of extraordinary mildness, as shown by the records of that period. Since the earliest settlements were made in the territory west of the Mississippi the historic records show practically the same climatic conditions, with alternately wet and dry summers and mild and severe winters, as have been noted within the last twenty years. On the average mild winters have been more in evidence than the opposite extreme.

FEBRUARY WEATHER AND CROPS.

The coldest weather of the winter occurred in the first week in February. This was followed by two weeks of unusually mild weather, with favorable conditions for outside work and the care of live stock. The last week was more nearly normal in temperature, closing with an ice storm of considerable severity, tho not materially damaging to fruit trees and other property. During the warm period conditions were favorable for work in the fields, and in a few localities a beginning was made in seeding spring wheat. Wheat seeding in February has been occasionally noted in moderate winters since the early settlement of this state.

CLIMATOLOGY OF THE MONTH.

TEMPERATURE.—The monthly mean temperature for the state, as shown by records of 116 stations, was 25°, which is 5.8° above the normal. By sections the mean temperatures were as follows: Northern section, 22.1°, which is 5.8° above the normal; Central section, 25.1°, which is 5.7° above the normal; Southern section, 27.7°, which is 5.9° above the normal. The highest monthly mean was 30.2°, at Keokuk, and the lowest monthly mean was 19.5°, at Sibley. The highest temperature reported was 65°, at St. Charles, on the 16th, and the lowest reported was -31°, at Washta, on the 5th. The average monthly maximum was 55.5°, and the average monthly minimum was -17.9°. The greatest daily range was 51°, at Sibley, and the average of greatest daily ranges was 37.5°.

PRECIPITATION.—The average precipitation for the state, as shown by records of 126 stations, was .71 of an inch, which is .32 of an inch below the normal. The averages by sections were as follows: Northern section, .80 of an inch, which is .13 of an inch below the normal; Central section, .72 of an inch, which is .29 of an inch below the normal; Southern section, .61 of an inch, which is .53 of an inch below the normal. The largest amount reported was 1.95 inches, at Rockwell City and Thurman, and the least amount reported was .06 of an inch, at Stockport. The greatest daily precipitation reported was 1.26 inches, at Britt, on the 28th. There was an average of 4 days on which .01 of an inch or more was reported.

WIND AND WEATHER.—The prevailing direction of the wind was northwest. The highest velocity reported was 52 miles an hour, from the northwest, at Sioux City on the 1st. The average number of clear days was 14, partly cloudy 6, and cloudy 8.

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	.....	30.64	3	29.61	1
Davenport	30.16	30.59	22	29.64	18
Des Moines	30.18	30.65	3	29.61	18
Dubuque	30.19	30.63	3	29.66	18
Omaha, Neb.	30.18	30.68	3	29.67	1
Keokuk	30.18	30.58	22	29.71	18
Sioux City	30.17	30.70	3	29.72	18
Means	30.18	30.70	3	29.61	1-18

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	6105	36	NW	13
Davenport	5651	34	NW	2
Des Moines	5639	30	NW	2
Dubuque	5070	27	NW	13
Keokuk	5089	30	NW	2
La Crosse, Wis.	5891	30	NW	2
Omaha, Neb.	6298	37	NW	13
Sioux City	9440	52	NW	1

OBSERVERS' NOTES.

ALGONA.—*F. T. Seeley.* On the evening of the 9th, between 7 and 8 o'clock, there was a fine display of northern lights.

ALLERTON.—*Rex Shriver.* A brilliant display of aurora borealis was observed on the evening of the 9th, with bands of light arching from east to west.

ALTA.—*David E. Hadden.* Bright aurora in the evening of the 9th. First week was very cold, but rest of the month was moderate.

ALTON.—*W. S. Slagle.* Bees were out several days this month. Maple sap flowed on 16th.

AMANA.—*C. Schadt.* Brilliant aurora on the 9th. Coldest day was the 6th, when the mercury went down to 16 below zero.

BONAPARTE.—*B. R. Vale.* Precipitation .10 of an inch, the lowest in 16 years. No storms. Spring birds in evidence the past week.

BOONE.—*Carl F. Henning.* On February 17th caught a frog in a meadow stream; on the 18th ducks were migrating; geese observed on the 19th; first robin on the 26th.

BRITT.—*Geo. P. Hardwick.* Mild weather fortunate, with hay crop short and fuel not plentiful.

CLINTON.—*Luke Roberts.* The mean temperature was 4.1° above the normal. Only five Februaries during last 29 years gave a higher mean temperature. There were 4 days with temperature below zero. Aurora observed on 9th.

GRINNELL.—*A. O. Price.* This has been the warmest February since 1896.

LEON.—*Morris Gardner.* This has been one of the finest Februaries ever experienced here. An auroral display was observed on evening of the 9th, from 7 to 9 o'clock. Darting rays of light, some of them reaching nearly to the zenith, traveled from west to east.

OLIN.—*Nathan Potter.* February was one of the finest winter months I remember in my 63 years in eastern Iowa. Stock in fine condition.

PLOVER.—*J. S. Smith.* Geese and ducks were going north on the 14th; in 1885 they came on February 8th.

RIDGEWAY.—*Arthur Betts.* Warmest February since 1898 and the driest recorded. There were 177 hours of sunshine, or 60 per cent. A magnificent auroral display on the evening of 9th. The mean temperature of the three winter months at Ridgeway was 20.4°. Precipitation 6.00 inches. There were 21 days with temperature below zero and 45 days with thawing temperature. The snowfall measured 21 inches.

BELATED REPORTS.

BOONE.—January—Mean temperature 16.8°; highest 47° on the 5th; lowest -13° on the 30th and 31st; greatest daily range 41°; total precipitation 1.42 inches; greatest in 24 hours .80 of an inch; total snowfall 2.3 inches. Prevailing direction, northwest. Number of clear days 13, partly cloudy 5, cloudy 13, rainy 8.

KNOXVILLE.—January—Mean temperature 23.3°; highest 48° on the 5th and 19th; lowest -4° on the 30th; greatest daily range 32°; total precipitation 2.61 inches; greatest in 24 hours .96 of an inch; total snowfall 7.5 inches. Prevailing direction, northeast. Number of clear days 6, partly cloudy 4, cloudy 21, rainy 8.

ERRATA IN NOVEMBER REVIEW.

STUART.—Mean temperature recorded 36.5° on page 126, should have been 36.2; highest temperature recorded 70° on the 6th, page 126, should have been the 5th; mean maximum temperature recorded 44.7° on page 129, should have been 44.0°; the daily maximum temperatures recorded on page 129, should be set back one day, and the maximum of the 30th is 34°.

THE SALTON SEA.

EXAGGERATED STATEMENTS AS TO ITS EFFECTS ON CLIMATE.

The following article, written by the Section Director of Iowa, was published in the Des Moines *Register and Leader*, March 10, 1907:

To the Editor: The editorial published in your issue of the 3d inst., entitled "Millions in the Salton Sea," should be taken cum grano salis. Thus taken it may serve a good purpose as an illustration of popular error and general misinformation relative to drouths, rainmaking, change of climate, etc.

The article presents in a plausible form the extravagant claims that are being put forth relative to the marvelous potency of the so-called Salton sea as an irrigation plant, or vapor-making caldron, for the reclamation of the arid valleys of the southwest. I am well assured that the editorial writer did not give his personal assent to the theories and assertions which he briefly summarized. The substance of the matter is well condensed in the following paragraph:

The presence of the Salton sea, with the attendant evaporation, is held responsible for the unprecedented rainfall this winter in Arizona, New Mexico and lower California. For the first time in the knowledge of men rain and snow have been known in the Death valley. The effects of the sea have been felt as far away as Texas, while it is claimed the presence of this great body of water will do away with the hot winds of summer which sweep up from the southwest and devastate the fertile plains of Kansas and Nebraska.

Some of the sensational magazines are exploiting this theory, which is being disseminated in the advertising literature sent out by land syndicates doing business in the semi-arid region; and the legislatures of Utah and Texas recently passed resolutions praying the congress to pass an act to allow the Colorado river to continue to flow in the newly formed channel to the Salton sink. Yes, there are "millions in the Salton sea" for the land speculators if they succeed in making the people believe the story as to the miracle of transformation that is being caused by that famous pool in the desert.

The story is very pleasing and a pity it is that it isn't true. It is not sustained by well attested facts, and it will not bear scientific analysis.

In the first place it is not true that the rainfall this winter has been unprecedented in Arizona, New Mexico, Lower California, or in any other portion of the west. It has been above the average in considerable areas, but not above the maximum of other years preceding the overflow of the Colorado into the Salton sink. The overflow occurred in June, 1905, and was caused by the floods resulting from the melting of the heavy snowfall in the mountains of Utah in the preceding winter. In 1891 there was unusually high water, which caused much damage in that sunken region. The amount of precipitation in all that country is a variable quantity. All the irrigated lands in the valleys depend upon the normal deposit of snow upon the mountains during the winter season.

In the last twenty-five years the precipitation at Los Angeles has ranged from a minimum of 5.53 inches per year, to a maximum of 38.26 inches. During six seasons of that period the amount exeeded twenty inches. In seven seasons the amount fell below 9 inches. In 1905, after a protracted dry spell a professional rainmaker struck a bargain with the enterprising men of Los Angeles to produce 18 inches of rain before May 1st for the sum of $1,000—no rain, no pay. The amount that winter was above 20 inches, and the faker won his wager. And it has continued to be above normal for the two succeeding seasons without the aid of the rainmaker. This illustrates the fluctuation of rainfall in all that region.

Again the statement is not true that for the first time in the knowledge of man rain and snow fell in the Death Valley during the past winter. The average rainfall in that valley is about five inches per year, and that signifies that it varies from eight or ten inches down to about nothing. The mountains catch most of the precipitation, but it occasionally spills over into the superheated valley. There is not a square mile of land on the continent which has been entirely rainless in all years. There is no basis whatever for the statement that anything unprecedented has happened since that Salton puddle was so badly wet up.

The National Geographic Magazine for January, 1907, contains a very interesting and thoroughly scientific paper on the new inland sea, written by Arthur P. Davis, assistant chief engineer of the United States reclamation service. It is well illustrated by photographic views showing the extent of damage wrought by the new channel in the irrigated portion of the Imperial valley, and an excellent relief map of the lower Colorado river. Mr. Davis has made an exhaustive study of that interesting region, and he is a recognized authority in the government service.

According to Mr. Davis, the area of the Salton sea is a little over 400 square miles, and its average depth is about ninety feet. If the river discharges no more water into the sink, Mr. Davis estimates that it will dry up in ten or twelve years. That is to

CLIMATOLOGICAL DATA FOR FEBRUARY, 1907.

CENTRAL SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days	
Amana	Iowa	721	28	26.2	†6.2	52	26	-16	6	37	0.32	-.95	.12	2.5	6	11	9	8	NW
Ames	Story	926	23	25.7	†4.1	55	17	-21	5	39	0.55	-.29	.38	3.2	4	16	2	10	N
Audubon	Audubon	1,301	11	25.4	†6.2	57	17	-24	6	45	0.96	†.16	.56	4.0	4	15	5	8	NW
Baxter	Jasper	998	7	25.7	†8.9	57	26	-18	5	40	0.40	-.49	.14	3.0	4	17	3	8	NW
Belle Plaine	Benton	828	15	23.7	†3.1	55	26	-18	5	34	0.97	-.33	.45	5.0	6	13	6	9	S
Boone	Boone	1,134	2	24.4	.....	56	17	-18	5, 6	34	0.69	.....	.35	3.0	5	19	1	8	NW
Buckingham	Tama	.....	7	.....	.....	.....	.....	.....	.....	.....	0.79	-.15	.48	1.5	3	7	17	4	.....
Carroll	Carroll	1,265	17	23.8	†4.8	57	17	-20	5	42	1.10	†.02	.45	6.5	7	15	2	11	.....
Cedar Rapids	Linn	733	25	23.4	†2.9	54	17, 26	-15	6	41	0.41	-1.14	.30	4.1	3	7	16	5	.....
Clinton	Clinton	593	37	26.2	†4.2	55	18	-10	6	34	0.35	-1.76	.17	8.0	3	11	7	10	.....
Davenport	Scott	606	36	27.6	†2.3	58	18	-6	5	33	0.22	-1.35	.12	4.6	3	11	5	12	NW
Delaware	Delaware	1,083	14	21.0	†4.8	47	26	-13	3, 5	35	0.34	-.54	.20	4.5	5	17	4	7	NW
Denison	Crawford	1,180	11	25.7	†7.1	59	17	-25	5	41	0.44	-.20	.20	4.4	4	19	0	9	N
Des Moines	Polk	861	28	27.6	†6.5	56	17	-12	5	29	0.93	-.35	.60	5.3	6	6	12	10	NW
De Soto (a)	Dallas	866	7	26.0	†6.6	.....	.....	-23	5	38	0.59	-.34	.33	3.0	4	....	....	....	NW
Dubuque	Dubuque	698	34	23.9	†1.3	52	26	-14	6	40	0.52	-.94	.28	6.9	9	13	6	9	NW
Fort Dodge	Webster	1,126	7	23.7	†8.4	57	17	-21	5, 6	49	0.57	-.14	.47	1.0	3	17	3	8	S
Galva	Ida	1,290	11	24.6	†6.8	56	17	-24	5	42	0.90	†.43	.62	2.8	3	14	7	7	NW
Gilman	Marshall	1,052	8	.....	.....	.....	.....	.....	.....	.....	0.30	-.71	.30	3.0	1	16	7	5	N
Grinnell	Poweshiek	1,023	12	25.5	†4.4	56	26	-19	5	36	0.735	-.14	.25	5.5	4	14	4	10	NW
Grundy Center	Grundy	976	14	24.4	†6.8	52	17	-20	6	41	0.85	†.13	.40	2.5	5	19	3	6	NW
Guthrie Center	Guthrie	1,077	9	25.6	†5.7	55	17	-22	5	40	0.91	†.24	.55	5.5	3	19	1	8	NW
Harlan	Shelby	1,192	8	26.2	†9.7	60	17	-19	5	38	1.10	†.34	.53	4.4	6	10	11	7	NW
Indep'dence	Buchanan	921	41	22.2	†0.4	48	17, 26	-20	6	36	0.64	-.41	.30	6.0	4	17	5	6	SE
Iowa City	Johnson	683	46	24.8	†1.9	56	26	-16	6	40	0.22	-1.29	.13	3.0	3	12	7	9	.....
Iowa Falls	Hardin	1,170	12	21.8	†6.5	51	17	-21	6	35	0.79	-.16	.40	6.5	4	....	....	....	NW
Jefferson(b)	Greene	.....	....	26.4	.....	58	17	-21	5	38	0.36	.....	.25	3.5	3	....	....	....	N
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	0.41	.....	.31	5.5	2	12	3	13	SW, NW
Little Sioux	Harrison	.....	2	26.4	.....	61	17	-22	5	42	1.19	.....	.47	5.2	5	16	4	8	NW
Logan	Harrison	928	38	26.6	†3.0	60	17	-17	5	40	1.63	†.43	.41	9.0	6	13	9	6	NW
Marshalltown	Marshall	947	12	23.2	†3.2	55	17, 26	-18	5	36	0.55	-.23	.18	6.2	5	....	....	....	SE
Mt. Vernon	Linn	847	38	25.6	†4.0	58	26	-14	5	35	0.45	-.62	.11	6.7	7	18	3	7	N
Muscatine	Muscatine	.....	48	.....	.....	.....	.....	.....	.....	.....	0.26	-1.82	.17	4.5	3	6	9	13	N
Nevada	Story	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.93	.....	.58	4.2	4	21	0	7	.....
Odebolt	Sac	1,356	8	26.2	†8.6	59	17	-19	5	43	0.95	†.20	.60	4.0	2	17	4	7	.....
Ogden	Boone	1,058	11	26.0	†6.6	55	17	-19	5	38	0.35	-.24	.32	3.5	2	18	1	9	NW
Olin (a)	Jones	760	8	24.0	†9.7	57	19	-19	6	44	1.56	†.23	1.24	7.0	5	12	9	7	NW
Onawa	Monona	.....	7	27.6	†8.1	61	17	-16	5	43	0.90	-.05	.35	5.5	5	15	5	8	NW
Perry (a)	Dallas	975	6	25.8	†7.2	57	17	-23	5	36	0.81	-.17	.36	3.5	4	....	....	....	.....
Rockwell City	Calhoun	.....	10	25.2	†8.4	55	17	-21	5	40	1.95	†1.44	1.00	9.5	4	20	1	7	.....
Sac City	Sac	1,356	25	.....	.....	56	17	.....	.....	.....	1.05	†.23	.30	3.5	4	....	....	....	.....
Sioux City	Woodbury	1,135	16	24.3	†5.3	60	17	-22	5	37	0.85	†.30	.51	11.3	6	8	8	12	NW
Stuart	Guthrie	.....	8	24.6	†4.9	53	17	-18	5	33	1.52	†.95	.50	6.0	7	11	6	11	NW
Tipton	Cedar	807	9	27.0	†5.6	53	18	-4	3, 5, 6	30	0.17	-1.06	.11	1 7	3	17	5	6	NW
Toledo	Tama	856	11	25.1	†4.5	52	17, 26	-17	6	38	0.51	-.18	.30	4.3	4	18	3	7	NW
Waterloo	Black Hawk	862	18	24.1	†5.9	54	17	-18	5	34	0.57	-.41	.24	4.0	5	14	8	6	NW
Waukee	Dallas	1,039	4	26.5	.....	53	17	-22	5	37	0.97	.....	.50	8.0	6	18	1	9	NW
Webster City	Hamilton	.....	....	24.8	.....	53	17	-22	5	38	1.06	.....	.46	6.0	5	18	3	7	NW
Whitten	Hardin	1,036	6	23.2	†8.1	52	17	-20	5	47	0.30	-.26	.20	3.0	2	14	6	8	NW
Wilton Junct'n	Muscatine	683	10	26.1	†6.3	54	18	-13	6	35	0.29	-1.11	.27	0.2	2	18	3	7	NW
Averages	.....	.....	....	25.1	†5.7	55.4	.....	-18.2	.....	38.2	0.72	-.29	.....	4.7	4	15	5	8	NW

say, the evaporation amounts to about seven feet per year, or an average of seven inches per month. This gives a basis for figuring as to the total amount of water to be drawn from that sea in form of vapor for irrigating the arid lands in Arizona, New Mexico, western Texas and a portion of Utah—two or three hundred thousand square miles in all. Spread out over all that area, the seven feet of water per year drawn from the Salton sea would be exceedingly thin—scarcely enough to lay the dust of the desert in that region.

Let's figure a little: Four hundred square miles of the Salton sea would cover less than three-fourths of Polk county. Now, if we had a lake in Polk county seven feet deep, covering an area of 400 square miles, and if it were all evaporated at one time and spread out equally over this state in a shower, it would amount to about .70 of an inch of water. That's the size of it for practical irrigation.

If that Salton sea were a veritable boiling caldron serving as an evaporator continually—boiling itself dry every year—it would come far short of what the story writers and real estate promoters are now claiming as to its effects.

In closing this short review I copy the following paragraphs of Mr. Davis' paper:

"Some persons have suggested that the existence of the Salton sea during the past year has had a tremendous effect upon the climate in that vicinity in Arizona, and even as far east as Texas and New Mexico. Much publicity has been given to this idea, it having been caught up by the newspapers as something worthy of a story.

"The absurdity of any such idea may be inferred when we notice that only a short distance to the southward of the Salton sea occurs the great inland gulf of California, which is hundreds of times larger than the Salton sea, and yet there is no very marked influence upon the climate. Besides being so much larger, the gulf of California is somewhat nearer Arizona, New Mexico and Texas, and is separated from them by fewer mountain chains. If any influence could be exercised by the Salton sea, hundreds or even thousands of times as much would be exercised by the gulf itself; yet no such influence can be detected in that vicinity.

"Those who hold to this idea apparently ignore or neglect the fact that the same causes that have led to the creation of the Salton sea, have led to the cutting down of the bed of the Colorado river and the prevention of its normal annual overflow at Yuma and all points below there. The great delta, therefore, which is annually overflowed under normal conditions has received no such overflow since the river has been running into the Salton sea, at least during the present high-water season, and this fact itself would counteract any influence that might have been exerted by the evaporation from the surface of the Salton sea.

"Climate is the result of great cosmic influences; so great and extensive that the Salton sea would be a negligible quantity beside them."

CLIMATOLOGICAL DATA FOR FEBRUARY, 1907—CONTINUED.

NORTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
Algona	Kossuth	1,213	31	22.0	†5.0	52	17	-25	5	38	.99	- .31	.70	6.5	5	19	3	6	NW	
Alta (*a*)	Buena Vista	1,513	14	22.8	†3.6	58	17	-20	5	33	.92	† .17	.66	3.3	6	15	6	7	N, NW	
Alta [near]	Buena Vista	.....	.....	.....	.....	.....	.....	.....	.....	.....	.45	.....	.22	2.3	5	.....	.....	.....	.....	
Alton	Sioux	1,305	.....	24.2	.....	57	17	-22	5	46	.55	.....	.40	5.5	3	14	9	5	NW	
Britt	Hancock	1,236	8	21.6	†4.6	50	17	-25	5	42	1.48	† .51	1.26	2.7	6	9	12	7	NW	
Charles City	Floyd	1,015	20	20.0	†2.2	50	17	-24	6	37	.84	- .25	.51	5.3	5	8	9	11	NW	
Clear Lake	Cerro Gordo	1,241	8	21.9	†8.6	49	17	-20	5	32	.75	- .10	.50	2.5	3	21	1	6	N	
Decorah	Winneshiek	875	11	20.6	†5.6	46	17	-23	6	40	.49	- .49	.40	4.5	3	.....	.....	.....	.....	
Dows	Wright	1,142	7	22.4	†8.2	52	17	-22	5	41	.69	- .61	.42	2.8	3	15	5	8	NW	
Elkader	Clayton	727	24	22.6	†4.5	54	26	-25	6	40	.62	- .50	.21	7.0	5	18	2	8	NW	
Estherville	Emmet	1,298	10	19.8	†3.8	57	17	-25	5	49	.70	† .08	.50	5.0	2	13	0	15	NW	
Fayette	Fayette	1,003	17	21.0	†3.6	48	17	-23	6	39	.71	- .55	.32	7.1	6	16	5	7	NW	
Forest City	Winnebago	1,226	11	20.0	†5.0	53	17	-21	5,11	42	1.30	- .53	1.00	3.0	2	14	5	9	W, NW	
Grand Meadow	Clayton	1,180	14	20.6	†3.6	46	16	-17	6	39	.84	- .28	.20	5.5	6	13	6	9	NW	
Hampton	Franklin	1,155	15	23.1	†5.6	54	17	-20	5	40	1.69	- .58	.90	6.8	6	10	13	5	NW	
Humboldt (*c*)	Humboldt	1,095	13	25.8	†8.4	54	17	-14	3	39	.80	† .10	.65	1.5	3	.....	.....	.....	NW	
Inwood (*a*)	Lyon	.....	3	22.6	.....	59	17	-25	5	42	.60	.....	.35	6.9	5	16	6	6	SE	
Larrabee	Cherokee	1,266	16	23.6	†5.4	56	17	-22	5	41	.78	† .03	.30	6.6	5	14	7	7	NW	
Le Mars	Plymouth	1,224	9	24.0	†6.7	56	17	-24	5	42	.92	† .31	.55	10.0	3	14	10	4	N	
Mason City	Cerro Gordo	1,132	10	22.4	†7.5	50	17	-18	5	38	.85	† .29	.40	4.5	4	10	10	8	NW	
New Hampton	Chickasaw	1,169	7	20.2	†6.3	45	17	-18	5	41	.34	- .73	.24	4.0	2	19	5	4	W	
Northwood	Worth	1,222	9	20.4	†5.0	47	17	-22	5	35	.46	- .70	.30	4.6	4	16	8	4	NW	
Osage	Mitchell	1,184	14	21.4	†7.0	48	24	-20	5	41	.78	- .40	.28	5.3	5	16	5	7	NW	
Plover (*b*)	Pocahontas	.....	8	22.2	†5.5	55	17	-26	5	33	.33	- .32	.23	1.0	2	16	4	8	N	
Pocahontas	Pocahontas	.....	3	23.8	.....	55	17	-24	5	37	.16	.....	.61	5.2	5	13	7	8	NW	
Ridgeway	Winneshiek	1,215	9	22.3	†5.2	54	26	-18	3,5	43	.85	-1.82	.55	5.1	7	14	6	8	S	18
Sheldon	O'Brien	1,422	7	23.1	†8.9	60	17	-23	5	41	1.15	† .47	.80	11.0	6	17	3	8	N	
Sibley	Osceola	1,212	11	19.5	†4.1	58	17	-23	5	51	.57	† .10	.25	5.7	6	.....	.....	.....	NW	
Sioux Center	Sioux	.....	8	22.6	†7.0	55	17	-21	5	40	.85	† .07	.40	8.5	6	15	3	10	NW	
Storm Lake	Buena Vista	1,440	10	23.2	†8.2	54	17	-27	5	45	.65	† .00	.46	2.1	6	15	7	6	NW	
Washta	Cherokee	1,157	9	24.0	.....	60	17	-31	5	38	.75	† .13	.50	3.5	3	16	3	9	N	
Waverly	Bremer	942	9	22.8	†4.8	49	17	-18	5,6	38	.57	- .55	.25	4.8	4	11	10	7	NW	
West Bend	Palo Alto	1,197	11	22.1	†5.6	53	17	-24	5	37	.97	† .16	.65	3.2	4	12	7	9	N	
Average	.....	.....	.....	22.1	†5.8	52.9	.....	-22.2	.....	40.0	.80	- .13	.....	4.9	4	14	6	8	NW	

SOUTHERN SECTION.

Afton	Union	1,212	12	27.6	†5.8	54	17	-15	5	35	.78	-.26	.40	6.0	3	14	4	10	SW	
Albia (*a*)	Monroe	959	9	27.3	†7.6	58	15, 17	-13	5, 6	32	.11	-1.21	.11	1.0	1	9	10	9	.....	
Allerton	Wayne	.....	5	28.8	†7.1	58	17	-13	5	32	.51	-.83	.21	2.5	6	17	2	9	NW	
Atlantic	Cass	1,164	14	27.1	†6.4	59	17	-20	5	37	.98	†.02	.36	3.0	5	10	6	12	NW	
Bedford	Taylor	.....	7	27.4	†8.4	59	17	-13	5, 6	32	1.02	†.21	.30	8.1	8	16	4	8	NW	
Bloomfield	Davis	.....	.....	29.2	.....	58	15	-11	5	31	.16	.....	.13	2.0	2	15	7	6	SE	
Bonaparte	Van Buren	.....	13	28.6	†5.7	59	18	-11	6	33	.10	-1.14	.10	1.0	1	.....	.....	.....	.....	
Burlington	Des Moines	544	9	28.0	†4.6	64	18	-8	5	35	.26	-1.65	.15	3.0	3	13	5	10	NW	
Chariton	Lucas	1,042	10	27.4	†5.2	57	16, 26	-16	5	33	.25	-.79	.25	2.0	1	16	7	5	W	
Clarinda	Page	1,009	15	26.7	†3.7	61	17	-12	5	31	.66	-.36	.22	6.2	6	14	5	9	NE	
College Spgs	Page	.....	13	27.6	.....	57	17	-12	5	32	1.32	.....	.72	6.0	4	16	6	6	NW	
Columbus Jct.	Louisa	595	6	28.4	†9.6	58	18	-8	6	33	.23	-.96	.10	2.7	3	16	7	5	NW	
Corning	Adams	1,117	13	26.6	†4.4	58	13	-15	6	35	1.08	†.28	.40	7.0	6	15	6	7	NW	18
Corydon	Wayne	1,101	12	29.0	†7.2	59	16, 17	-15	5	34	.23	-1.19	.12	1.0	6	14	5	9	NW	
Creston	Union	.....	2	26.0	.....	57	17	-15	5	36	.45	.....	.10	3.5	6	15	3	10	NW	18‡‡
Cumberland	Cass	.....	8	.....	.....	.....	.....	.....	.....	.....	1.11	†.40	.50	6.0	4	18	3	7	NE, SW	
Earlham	Madison	.....	5	24.6	†6.6	57	26	-19	5	36	.73	†.39	.40	6.5	5	16	2	10	NW	
Elliott	Montgomery	.....	2	26.6	.....	55	17	-18	5	34	1.25	.....	.60	6.5	5	15	9	4	S	
Fort Madison	Lee	516	54	.....	.....	.....	.....	.....	.....	.....	.20	-1.76	.20	2.0	1	8	7	13	S	
Hancock	Pottawatta'e	.....	1	26.8	.....	56	17	-15	5, 6	41	.93	.....	.50	4.5	4	19	1	8	NW	
Hopeville	Clarke	.....	14	27.5	†6.0	57	17	-15	5	33	.52	-.25	.28	2.3	6	6	13	9	NE	
Indianola	Warren	969	16	28.0	†5.5	58	26	-12	5	37	.77	†.02	.30	3.8	6	6	6	16	NE	
Keokuk	Lee	614	36	30.2	†1.9	62	18	-6	5	27	.10	-1.61	.07	1.3	4	9	10	9	NW	
Keosauqua	Van Buren	644	13	25.2	†1.1	59	18	-10	5	36	.15	-1.27	.12	1.5	3	3	6	19	.....	
Knoxville	Marion	920	11	28.3	.....	57	17	-14	5	35	.45	-.53	.20	3.5	4	14	5	9	NW	
Lacona	Warren	.....	8	.....	.....	.....	.....	.....	.....	.....	.84	-.41	.38	.....	6	7	15	6	.....	
Lenox	Taylor	1,250	10	27.0	†5.0	55	17	-16	5	31	.83	†.18	.36	4.7	5	18	3	7	NW	
Leon	Decatur	1,120	5	28.5	†6.6	64	18	-13	5	39	.99	-.15	.80	3.7	6	19	0	9	SE	
Massena	Cass	.....	.....	27.2	.....	59	16	-17	5	37	.73	.....	.25	4.4	8	14	7	7	NW	18
Mt. Ayr	Ringgold	1,236	11	28.6	†6.8	59	17, 26	-13	5	33	1.22	†.06	.45	8.8	7	12	6	10	NW	
Mt. Pleasant	Henry	729	23	29.0	†5.2	59	18	-9	5, 6	31	.21	-.83	.10	2.8	4	13	4	11	SW, NW	
Omaha, Neb	Douglas	1,105	35	27.8	†2.8	59	17	-12	5	32	1.45	†.66	.74	9.9	8	9	6	13	NW	
Oskaloosa	Mahaska	843	21	28.0	†6.7	55	17, 26	-14	5	34	.32	-.75	.15	2.5	4	18	0	10	NW	
Ottumwa	Wapello	649	11	29.0	†6.1	59	17	-9	5	31	.65	-.59	.51	1.5	3	9	9	10	.....	
Pella	Marion	.....	4	28.6	.....	55	17, 19, 26	-14	5	35	.24	.....	.11	2.8	4	17	5	6	NW	18
St. Charles	Madison	1,070	6	29.8	†8.9	65	16	-16	5	39	.55	-.45	.20	4.5	6	14	5	9	NW	
Sigourney	Keokuk	877	8	27.6	†6.2	54	26	-11	5	34	.50	-.85	.25	3.5	4	3	22	3	NW	
Stockport	Van Buren	.....	5	28.4	.....	57	15, 16, 18, 26	-13	6	36	.06	-1.31	.03	2.5	2	13	3	12	NW	
Thurman	Fremont	.....	9	26.5	†6.3	61	16	-17	5	36	1.95	†.63	.60	12.0	9	15	3	10	NW	18
Wapello (*j*)	Louisa	588	7	26.8	†6.0	.....	.....	-3	5	33	.20	-1.26	.11	5.5	3	.....	.....	.....	.....	
Washington	Washington	769	23	27.4	†6.0	59	18	-10	5, 6	33	.23	-.93	.12	.....	3	8	15	5	NW	
Winterset	Madison	1,129	14	27.2	†5.6	54	16	-16	5	34	.55	-.34	.30	3.0	2	10	7	11	NW	
Woodburn	Clarke	961	8	28.0	.....	58	16, 17, 26	-18	6	38	.40	-.71	.20	4.0	4	14	5	9	SW, NW	
Average	.....	.....	.....	27.7	†5.9	58.2	.....	-13.2	.....	34.2	.61	-.53	.....	4.1	4	13	6	9	NW	
State aver.	.....	.....	.....	25.0	†5.8	55.5	.....	-17.9	.....	37.5	.71	-.32	.....	4.6	4	14	6	8	NW	

‡ Received too late to be included in average. *a*, one day missing; *b*, two days; *c*, three days, etc. † means plus.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF FEBRUARY, 1907

STATIONS		DAY OF MONTH																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28				
Afton	max.	35	32	8	3	4	22	24	40	43	39	42	49	49	45	52	53	54	46	43	38	24	29	28	46	49	53	49	41	..	..	..	37.1
	min.	24	-3	-6	-5	-15	-7	15	13	24	32	24	24	32	25	30	33	27	37	23	21	7	9	18	25	21	24	26	30	..	..	..	18.1
Albia*	max.	..	10	-1	1	7	18	27	38	46	37	38	49	54	42	58	52	58	56	47	27	21	23	29	47	51	58	45	50	..	..	..	36.6
	min.	24	..	-4	-4	-13	-13	5	12	25	25	28	23	25	25	25	32	34	40	23	25	8	7	11	22	22	26	26	28	..	..	..	18.0
Algona	max.	33	29	-2	1	0	12	17	37	40	35	32	45	43	39	47	45	52	44	45	34	16	22	29	42	46	38	30	33	..	..	..	31.6
	min.	17	-9	-15	-12	-25	-15	-6	10	27	27	19	18	29	20	30	29	26	29	25	14	-3	2	13	20	18	23	19	20	..	..	..	12.5
Allerton	max.	34	32	8	4	8	20	26	41	46	39	43	50	51	45	55	57	58	54	45	38	24	22	26	43	49	57	50	49	..	..	..	38.4
	min.	27	0	-4	-4	-13	-10	12	13	24	31	26	25	32	26	30	31	29	35	24	24	9	10	17	25	25	30	27	37	..	..	..	19.2
Alta*	max.	35	0	-2	-4	2	16	20	41	43	33	41	51	45	42	48	51	58	39	48	..	19	20	26	43	49	46	32	21	..	..	..	31.7
	min.	13	-10	-12	-10	-20	-17	-2	16	20	27	22	25	30	23	30	30	28	35	22	..	0	7	16	20	21	26	19	19	..	..	..	14.0
Alton	max.	39	38	-2	1	0	20	22	40	44	35	42	51	44	42	46	48	57	49	46	55	20	23	32	41	47	38	24	23	..	..	..	33.8
	min.	18	-8	-11	-9	-22	-5	-3	14	27	28	22	24	29	23	28	30	26	30	24	17	3	12	19	19	22	22	16	15	..	..	..	14.6
Amana	max.	37	35	4	1	6	17	27	38	43	35	34	41	47	37	48	47	50	51	43	35	22	24	31	43	44	52	38	46	..	..	..	34.9
	min.	30	0	-7	-4	-13	-16	16	1	20	29	25	18	29	21	27	31	26	36	26	22	7	6	21	27	23	25	28	35	..	..	..	17.5
Ames	max.	36	34	2	-2	7	18	26	41	43	37	37	50	49	42	52	53	55	45	49	40	22	22	27	47	51	53	35	39	..	..	..	36.0
	min.	23	-5	-11	-8	-21	-18	11	5	19	29	24	22	26	24	28	32	24	32	22	20	3	6	20	26	19	22	28	30	..	..	..	15.4
Atlantic	max.	34	32	10	4	14	20	30	44	45	40	48	54	41	45	55	57	59	48	45	38	23	21	28	48	50	54	38	38	..	..	..	38.0
	min.	26	3	-5	-6	-20	-17	11	13	19	31	24	23	24	25	33	26	22	34	21	22	8	10	19	23	17	20	25	29	..	..	..	16.2
Audubon	max.	32	30	2	0	-3	21	25	45	44	37	44	50	47	44	52	52	57	48	47	38	28	22	27	48	50	50	34	36	..	..	..	36.0
	min.	21	-8	-8	-7	-22	-24	4	9	19	29	23	24	28	25	30	29	24	33	22	20	5	9	18	22	17	19	24	26	..	..	..	14.7
Baxter	max.	37	35	4	-1	4	14	28	37	47	36	36	47	48	42	52	51	55	48	47	37	22	25	27	45	49	57	35	42	..	..	..	35.9
	min.	24	-5	-11	-8	-18	-12	13	9	21	24	26	19	27	22	29	30	26	31	22	20	2	2	18	24	18	23	26	32	..	..	..	15.5
Bedford	max.	33	33	8	2	6	19	23	41	43	39	51	54	51	43	55	56	59	52	42	35	23	19	27	41	52	55	49	46	..	..	..	37.8
	min.	26	-2	-5	-7	-13	-13	13	7	30	30	23	24	27	26	28	27	23	34	21	22	5	-1	18	24	20	36	26	30	..	..	..	17.1
Belle Pl'e	max.	33	30	10	2	5	18	27	38	40	37	34	40	43	37	35	35	40	37	36	27	23	19	25	44	42	55	34	38	..	..	..	31.6
	min.	30	-1	-9	-9	-18	-16	12	6	20	30	24	16	28	19	27	31	25	26	24	23	4	3	19	26	20	24	27	31	..	..	..	15.8
Bloomfi'd	max.	36	33	10	10	11	18	28	40	46	38	38	46	55	43	58	50	57	57	45	36	26	24	28	47	48	56	46	52	..	..	..	38.6
	min.	26	3	-2	-3	-11	-9	17	13	25	29	28	22	31	26	39	33	26	37	22	25	9	8	21	26	23	28	27	35	..	..	..	19.8
Bonapa'e	max.	37	33	9	7	7	18	26	38	40	38	38	44	54	40	56	52	55	59	47	35	25	24	29	47	47	54	46	54	..	..	..	37.8
	min.	29	4	-2	-1	-9	-11	14	5	22	31	29	21	32	25	28	31	27	36	26	25	11	8	21	27	24	28	27	38	..	..	..	19.5
Boone*	max.	34	7	-1	-3	6	16	23	41	43	36	37	52	49	43	54	54	56	46	49	25	18	20	32	48	50	53	36	37	..	..	..	34.3
	min.	17	-6	-11	-10	-18	-18	2	11	16	30	23	22	23	23	25	33	31	37	23	20	3	4	10	20	22	24	24	29	..	..	..	14.6
Britt	max.	36	26	8	6	0	8	18	37	44	33	32	43	41	37	44	46	50	40	44	33	17	24	31	40	41	46	30	34	..	..	..	31.8
	min.	20	-9	-15	-14	-25	-18	-5	-5	18	24	14	12	26	18	26	27	25	29	29	15	-5	0	20	20	24	21	20	25	..	..	..	11.3
Burl'g'n*	max.	39	14	5	9	14	20	27	37	41	40	33	44	51	42	57	54	54	64	47	33	25	24	30	48	46	52	47	55	..	..	..	37.6
	min.	28	14	0	0	-8	-6	0	13	18	26	29	22	22	24	24	31	29	29	27	27	14	9	10	22	26	26	27	29	..	..	..	18.3
Carroll*	max.	32	4	0	-2	5	18	24	44	43	37	42	52	48	45	53	54	57	45	49	24	21	21	26	49	50	50	34	31	..	..	..	34.1
	min.	16	-7	-10	-10	-20	-18	-1	2	19	29	24	22	24	24	25	30	26	29	21	19	4	4	12	20	21	22	23	25	..	..	..	13.4
Cedar R*	max.	36	10	2	-1	11	18	27	37	40	35	31	41	45	36	47	47	54	50	45	27	17	22	31	44	43	54	36	45	..	..	..	33.2
	min.	23	6	-7	-9	-11	-15	-12	-4	15	21	24	17	20	20	20	32	26	26	26	25	8	4	5	20	24	21	24	28	..	..	..	13.5
Chariton	max.	35	32	8	0	6	19	27	39	45	40	42	50	51	46	56	57	58	52	47	42	25	20	26	44	50	57	45	42	..	..	..	37.9
	min.	20	-1	-5	-6	-16	-11	16	10	22	31	24	22	32	25	27	32	28	36	23	24	8	8	17	25	23	24	27	31	..	..	..	17.0
Charles C.	max.	33	0	-5	-4	3	13	23	34	38	31	26	38	40	53	43	44	50	42	43	25	11	21	27	39	42	42	30	35	..	..	..	28.5
	min.	11	-12	-15	-13	-20	-24	8	-1	15	24	14	13	22	15	28	27	26	29	22	10	-1	2	17	26	19	23	26	28	..	..	..	11.4
Clarinda*	max.	34	12	2	2	9	22	26	47	50	41	50	55	52	47	57	58	61	48	46	32	21	24	30	43	50	56	44	31	..	..	..	37.5
	min.	20	1	-4	-5	-12	-9	2	9	13	23	26	25	25	26	26	28	25	25	23	24	7	4	13	20	20	25	25	28	..	..	..	15.9
Clear La'e	max.	31	30	5	-5	5	15	15	32	42	35	30	40	41	34	45	43	49	45	43	36	20	22	27	40	45	44	30	34	..	..	..	31.2
	min.	19	9	-17	-14	-20	-17	-2	2	20	26	15	11	26	17	28	30	29	32	22	15	-4	2	16	22	18	22	20	26	..	..	..	12.6
Clinton	max.	40	35	5	9	14	24	28	35	40	35	29	39	47	36	50	49	49	55	44	34	20	23	33	45	41	48	38	49	..	..	..	35.5
	min.	31	2	-3	-3	-1	-10	8	2	18	24	19	14	27	18	21	30	26	31	27	20	10	4	17	29	25	23	27	33	..	..	..	16.8
College S.	max.	34	31	7	6	4	22	23	44	44	40	46	50	51	43	54	56	57	44	41	38	25	23	30	40	48	53	45	37	..	..	..	37.0
	min.	27	-1	-2	-4	-12	1	9	11	20	29	28	25	30	25	30	29	30	29	23	25	8	3	22	18	22	28	26	28	..	..	..	18.1
Colum's J	max.	39	35	8	6	10	23	28	37	44	37	36	42	51	40	52	50	53	58	43	35	24	26	34	45	45	51	44	56	..	..	..	37.6
	min.	29	2	-4	-2	-7	-8	16	11	23	29	28	18	31	21	28	30	28	37	24	23	10	7	23	28	24	28	27	37	..	..	..	19.3
Corning	max.	33	32	6	1	4	19	23	39	43	38	43	49	58	43	52	54	54	47	41	35	22	20	27	42	46	53	44	43	..	..	..	36.1
	min.	25	-3	-6	-7	-14	-15	12	11	21	28	25	26	30	28	33	28	25	34	23	21	5	2	18	24	22	27	25	30	..	..	..	17.1
Corydon	max.	34	33	9	4	12	20	28	40	44	39	43	50	53	45	57	59	59	54	48	38	25	20	26	45	50	58	52	50	..	..	..	39.1
	min.	27	-1	-5	-5	-15	-11	16	11	24	31	26	23	33	25	30	32	29	36	23	25	8	9	17	26	23	27	27	37	..	..	..	18.9
Creston*	max.	33	20	0	2	4	19	27	40	44	43	50	51	50	44	54	55	57	46	44	24	22	25	33	48	50	52	48	36	..	..	..	36.5
	min.	7	3	-6	-6	-15	-13	4	4	16	16	26	27	29	26	26	30	26	30	23	24	7	11	14	18	22	28	26	28	..	..	..	15.4
Davenp't	max.	40	35	4	6	14	20	26	36	40	36	29	41	52	35	51	48	51	58	44	35	21	23	32	45	42	51	41	50	..	..	..	35.9
	min.	30	2	-4	-2	-6	-1	12	11	27	25	23	18	29	20	28	33	32	32	28	21	10	7	19	28	26	26	30	34	..	..	..	19.2
Decorah	max.	34	6	-3	-2	7	13	24	34	39	37	31	39	40	30	41	43	46	42	41	37	18	23	28	39	43	45	44	45	..	..	..	30.9
	min.	12	-7	-16	-12	-18	-23	-2	-1	-1	25	25	9	23	11	20	25	23	34	22	17	-2	1	11	26	19	20	20	19	..	..	..	10.4
Delaware	max.	35	30	0	-1	6	15	26	30	40	31	28	35	42	35	42	40	45	44	40	37	16	20	30	40	39	47	33	36	..	..	..	30.8
	min.	20	-5	-13	-11	-13	-11	8	6	16	21	11	10	20	12	19	16	26	32	21	11	1	-2	10	20	20	20	20	26	..	..	..	11.1
Denison	max.	35	34	1	0	0	18	23	46	44	41	46	54	48	45	51	53	59	49	50	43	23	21	28	45	49	45	33	34	..	..	..	36.4
	min.	21	-7	-8	-8	-25	-18	-2	13	23	30	21	23	25	25	31	31	24	34	21	20	5	10	19	23	22	24	22	20	..	..	..	15.0
Des Mo's	max.	38	25	3	2	7	19	25	40	44	38	38	51	50	44	53	54	56	49	46	35	20	20	27	48	50	55	38	42	..	..	..	36.3
	min.	25	-3	-7	-4	-12	-10	14	15	25	32	28	24	29	27	33	35	29	32	26	17	6	10	19	26	26	27	30	31	..	..	..	18.9
De Soto	max.	35	32	4	0	4	20	26	41	43	38	42	50	48	45	54	57	..	49	48	35	23	21	27	46	51	55	38	40	..	..	..	36.0
	min.	23	-5	-8	-7	-23	-18	13	9	21	31	24	23	28	26	31	25	..	33	24	22	6	9	18	26	21	25	28	29	..	..	..	16.1
Dows	max.	33	33	-2	-4	3	12	18	35	38	35	30	44	44	37	47	48	52	46	45	39	18	20	25	42	45	43	30	36	..	..	..	31.9
	min.	20	-8	-15	-10	-22	-19	2	0	19	27	19	13	27	20	29	29	27	32	22	16	-2	2	18	22	18	21	23	29	..	..	..	12.8
Dubuque	max.	37	35	0	0	9	17	29	35	39	34	26	37	47	32	45	46	50	49	45	32	16	17	30	42	39	52	33	44	..	..	..	32.8
	min.	26	-5	-10	-8	-8	-14	9	2	17	25	17	12	27	16	26	32	28	33	26	16	5	2	13	26	24	25	25	32	..	..	..	15.0
Earlham	max.	19	14	9	0	-1	18	26	41	44	39	41	44	47	49	50	53	55	48	41	37	27	19	25	47	51	57	40	37	..	..	..	34.9
	min.	0	-5	-7	-5	-19	-18	8	10	18	31	23	20	21	27	22	23	25	21	29	23	5	9	16	24	21	26	27	26	..	..	..	14.3
Elkader	max.	37	35	1	0	9	15	30	36	40	36	28	40	46	36	45	49	53	41	44	37	20	32	32	43	43	54	33	36	..	..	..	34.0
	min.	13	-5	-8	-19	-8	-25	8	-6	10	25	10	10	20	14	19	26	19	36	23	19	2	0	15	24	21	20	25	27	..	..	..	11.2
Elliott	max.	36	30	5	1	3	26	23	42	46	40	46	50	50	43	53	54	55	47	45	37	27	27	35	42	47	50	38	40	..	..	..	37.1
	min.	25	-4	-6	-7	-18	-11	5	11	20	28	24	24	25	33	29	29	25	34	22	22	5	3	20	23	19	23	25	27	..	..	..	16.2
Esth'rv'e*	max.	35	0	-3	-5	3	12	16	40	41	32	36	50	44	41	46	48	57	39	45	23	15	20	28	40	50	30	28	23	..	..	..	29.8
	min.	13	-10	-20	-15	-25	-16	-9	-9	9	26	18	20	25	22	23	32	27	32	24	15	-2	-2	11	16	18	20	16	15	..	..	..	9.8
Fayette	max.	35	33	-3	-2	6	16	27	34	39	32	27	38	45	30	41	41	48	40	42	33	16	20	29	41	42	47	35	35	..	..	..	31.0
	min.	22	-6	-14	-11	-16	-23	0	-3	16	22	12	11	21	14	22	22	23	32	22	16	0	-4	16	27	20	20	24	27	..	..	..	11.1
Forest C.*	max.	32	-3	-3	-2	8	11	16	38	39	31	32	43	40	37	45	50	53	40	43	21	11	23	27	39	47	35	33	34	..	..	..	29.3
	min.	16	-9	-17	-11	-21	-18	-3	-4	16	25	17	12	17	18	27	30	30	35	22	15	-5	-3	9	19	17	21	19	22	..	..	..	10.6
Ft. Dodge*	max.	34	10	3	-3	3	15	22	46	47	43	49	50	46	42	50	50	57	40	48	25	18	22	28	45	51	43	34	34	..	..	..	34.0
	min.	17	-7	-11	-9	-21	-21	-3	-3	16	24	19	30	31	23	24	32	27	38	24	18	1	2	12	21	20	23	24	25	..	..	..	13.4
Galva	max.	36	33	-1	2	0	20	21	42	43	39	42	50	45	41	49	49	56	47	46	36	20	32	30	43	48	40	33	33	..	..	..	34.8
	min.	18	-9	-11	-11	-24	-14	-3	13	25	29	21	23	30	24	29	31	26	32	22	18	2	9	18	19	23	23	20	19	..	..	..	14.4
Gr. Mead.	max.	36	33	-3	-4	5	15	24	33	42	35	28	36	41	32	44	46	45	42	41	33	16	20	28	38	38	32	30	33	..	..	..	30.0
	min.	15	-6	-15	-15	-15	-17	5	1	19	22	7	11	26	10	21	26	26	33	21	16	-2	-2	13	25	18	23	24	24	..	..	..	11.2
Grinnell	max.	35	32	2	-2	5	15	24	37	45	35	35	44	48	40	49	49	55	51	45	39	19	22	28	45	49	56	47	42	..	..	..	35.4
	min.	23	-4	-10	-8	-19	-11	15	6	21	29	25	19	28	20	27	29	26	35	22	19	2	2	18	24	18	24	25	31	..	..	..	15.6
Grundy C.	max.	34	35	4	4	3	12	26	36	40	36	31	43	44	38	47	48	52	46	45	40	20	21	28	42	43	50	32	37	..	..	..	33.5
	min.	23	-6	-13	-9	-19	-20	12	10	22	28	21	15	26	20	30	32	28	35	24	20	1	2	19	26	21	24	28	31	..	..	..	15 4
Guthrie C.	max.	35	34	9	1	1	20	23	41	43	42	40	49	48	42	51	52	55	48	45	40	24	20	27	41	50	51	37	36	..	..	..	35.8
	min.	22	-6	-9	-7	-22	-17	6	11	22	31	23	23	20	25	32	33	25	35	23	21	5	9	18	24	13	21	25	27	..	..	..	15.5
Hampton	max.	34	31	-5	-3	11	13	23	36	38	35	32	42	42	36	46	52	54	42	41	34	16	20	26	40	46	42	32	36	..	..	..	31.9
	min.	21	-9	-15	-10	-20	-13	8	5	26	26	20	14	29	19	30	31	29	32	24	16	-2	0	17	24	20	25	25	29	..	..	..	14.3

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF FEBRUARY, 1907—CONTINUED.

STATIONS		DATE																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28				
Hancock .	max.	42	37	11	3	3	21	25	43	45	40	48	50	50	43	51	53	56	47	50	39	19	23	30	41	46	46	35	37	..	..	..	36.9
	min .	23	-4	-6	-5	-15	-15	4	14	25	25	25	27	26	25	29	32	27	34	34	17	5	5	20	20	25	25	25	23	..	..	..	16.8
Harlan ...	max.	34	32	3	2	8	22	28	47	44	39	47	52	50	45	53	54	60	50	49	40	23	24	31	45	50	47	33	36	..	..	..	37.4
	min .	21	-6	-8	-7	-19	-12	0	10	20	30	22	22	25	24	26	28	24	34	20	20	6	9	18	20	21	20	24	24	..	..	..	14.9
Hopeville	max.	34	31	6	0	3	19	28	40	45	37	45	51	50	43	53	56	57	51	43	34	24	22	26	46	49	56	50	43	..	..	..	37.2
	min .	24	-2	-6	-7	-15	-9	14	12	24	32	26	25	33	26	30	32	30	34	24	23	7	11	18	25	25	27	27	31	..	..	..	18.6
Humboldt	max.	36	32	0	0	19	...	...	..	40	42	38	36	47	40	50	48	54	48	46	38	20	23	29	44	49	44	32	35	..	..	..	35.6
	min .	20	-7	-14	-12	-12	...	...	..	6	26	28	19	22	23	30	30	26	34	24	18	0	6	20	22	20	24	23	27	..	..	..	16.1
Indep'd'e	max.	34	34	-2	-5	-4	12	23	32	36	34	26	36	40	35	42	40	48	40	41	38	18	18	28	40	40	48	42	46	..	..	..	30.7
	min .	25	-2	-12	-10	-15	-20	12	4	14	24	18	15	22	18	26	30	25	34	25	18	0	0	15	25	20	20	25	30	..	..	..	13.8
Indianola	max.	33	33	5	2	3	30	23	39	42	36	38	50	48	42	52	54	56	49	46	36	24	20	27	45	49	58	42	43	..	..	..	36.6
	min .	25	-2	-6	-7	-12	-7	16	14	26	30	27	24	33	26	32	34	29	36	24	24	6	9	18	26	28	27	30	32	..	..	..	19.4
Inwood...	max.	40	32	-2	-2	0	20	24	41	42	37	43	52	44	45	47	..	59	40	51	34	21	20	30	44	47	42	22	20	..	..	..	33.1
	min .	13	-10	-13	-12	-25	-10	-9	15	26	25	21	22	27	21	30	..	25	25	21	16	3	8	18	18	27	22	14	12	..	..	..	12.2
Iowa City*	max.	37	7	3	4	10	17	30	39	43	34	35	44	50	38	50	48	55	52	45	27	17	24	31	44	48	56	40	49	..	..	..	34.9
	min .	26	7	-6	-7	-11	-16	-1	-1	18	24	24	18	21	21	21	31	25	25	26	26	9	4	7	21	21	21	25	31	..	..	..	14.6
Iowa Falls	max.	35	3	-3	-5	2	14	22	35	43	32	34	42	43	36	47	45	51	42	45	22	11	23	28	42	46	47	35	38	..	..	..	30.5
	min .	19	-6	-14	-9	-18	-21	-2	1	17	27	21	15	20	20	25	30	26	35	23	19	-1	0	17	25	19	22	24	29	..	..	..	13.0
Jefferson.	max.	..	34	9	11	6	18	25	43	..	42	40	52	50	45	54	55	58	47	50	40	25	18	25	48	51	53	35	35	..	..	..	37.3
	min .	..	-4	-9	-7	-21	-14	2	12	..	24	25	24	29	25	32	32	26	32	22	20	4	10	18	21	22	22	26	27	..	..	..	15.4
Keokuk...	max.	39	35	11	8	7	22	24	41	42	39	34	46	55	43	53	52	54	62	44	38	27	23	29	46	45	50	48	53	..	..	..	38.2
	min .	30	6	1	1	-6	-3	18	14	29	31	30	25	34	27	31	33	30	41	27	27	14	10	20	28	27	30	27	39	..	..	..	22.2
Keosa'q'a	max.	37	18	6	7	8	19	28	39	42	38	38	45	54	41	54	49	55	59	45	32	23	25	32	36	48	54	47	56	..	..	..	37.0
	min .	28	12	0	0	-10	-7	1	3	19	21	29	20	20	26	26	32	24	24	26	26	12	10	11	23	24	21	26	26	..	..	..	13.3
Knoxville	max.	38	34	6	0	5	19	27	40	40	37	38	49	50	43	54	50	57	52	46	38	23	25	28	46	52	56	47	48	..	..	..	37.4
	min .	28	-1	-6	-3	-14	-8	16	14	23	31	28	23	32	25	31	34	27	37	25	23	6	9	20	27	24	25	27	35	..	..	..	19.2
Larrabee,	max.	37	32	-2	-1	-1	21	20	41	44	37	42	50	45	42	47	49	56	43	47	30	18	23	31	42	48	38	32	25	..	..	..	33.6
	min .	17	-9	-11	-13	-22	-11	-8	13	29	27	22	22	29	22	31	31	26	28	22	14	1	7	18	19	21	22	19	18	..	..	..	13.7
Le Mars ..	max.	38	34	-1	-1	-1	20	22	42	44	38	40	50	44	43	46	48	56	50	46	40	21	21	34	42	46	38	24	24	..	..	..	33.9
	min .	14	-8	-11	-8	-24	-8	-5	15	25	22	20	23	26	22	29	30	27	33	23	17	4	11	18	20	22	24	16	14	..	..	..	14.0
Lenox	max.	34	32	9	2	2	20	24	40	43	40	49	44	49	43	52	53	55	49	42	37	23	20	27	42	47	52	47	45	..	..	..	36.5
	min .	24	4	-9	-7	-16	-11	12	11	24	30	25	25	32	25	30	30	27	35	22	21	4	5	17	24	25	26	25	30	..	..	..	17.5
Leon.....	max.	34	34	8	2	4	20	26	38	43	38	41	47	50	46	54	54	53	64	63	38	24	23	27	45	49	47	53	46	..	..	..	38.2
	min .	26	-1	-5	-5	-13	-7	12	11	24	31	26	24	31	26	29	32	29	36	24	23	8	11	18	25	24	27	24	36	..	..	..	18.8
Lit. Sioux	max.	40	37	3	1	2	22	27	52	48	40	51	57	49	50	54	54	61	54	51	46	22	20	30	44	49	42	31	31	..	-	..	38.1
	min .	21	-5	-7	-6	-22	-6	-5	16	24	27	20	22	24	19	30	27	24	34	19	20	4	7	18	15	24	29	22	19	..	..	..	14.8
Logan	max.	38	35	5	2	3	20	25	50	45	41	49	55	47	46	51	54	60	50	51	44	21	20	32	41	41	43	41	32	..	..	..	37.2
	min .	21	-5	-6	-5	-17	-6	-1	14	35	30	22	23	26	28	24	27	25	34	20	20	5	6	18	18	22	26	30	18	..	..	..	16.1
Mars'll'n*	max.	37	7	2	-1	8	11	27	38	44	35	37	46	47	41	51	50	55	45	46	33	17	23	29	46	50	55	36	41	..	..	..	34.1
	min .	21	-4	-11	-10	-18	-18	-4	6	15	25	25	17	18	20	20	30	24	26	23	21	1	1	7	20	19	19	23	28	..	..	..	12.3
Mason C'y	max.	35	32	0	0	5	12	20	36	42	33	27	40	42	36	46	45	50	42	44	35	18	20	28	40	44	37	30	37	..	..	..	31.3
	min .	20	-6	-14	-12	-18	-16	4	8	25	25	19	12	25	16	30	30	28	32	22	18	-2	4	17	20	20	22	22	28	..	..	..	13.5
Massena..	max.	32	31	5	3	10	20	30	45	47	42	47	52	52	49	58	59	58	48	46	39	27	21	26	51	50	58	40	39	..	..	..	39.1
	min .	21	-5	-9	-7	-17	-14	10	8	18	28	24	25	28	23	24	27	25	35	20	20	4	9	11	22	21	24	23	27	..	..	..	15.2
Mt. Ayr ..	max.	33	31	7	5	8	20	30	42	45	40	50	55	52	45	57	58	59	49	42	35	25	20	26	51	51	59	50	45	..	..	..	38.9
	min .	25	-2	-5	-5	-13	-5	15	10	25	30	25	25	32	25	27	30	30	34	23	20	7	9	17	25	25	27	26	30	..	..	..	18.3
Mt. Pleas't	max.	39	34	9	10	10	22	29	37	43	38	35	43	52	40	55	52	52	59	44	37	26	27	30	47	46	51	46	55	..	..	..	38.1
	min .	30	5	-1	0	-9	-9	17	11	24	30	29	21	33	23	28	30	27	37	25	25	10	7	20	28	24	29	26	37	..	..	..	19.9
Mt.Ver'n.	max.	34	32	2	-2	13	16	31	35	42	33	36	42	48	41	49	51	52	48	47	37	18	25	34	44	47	58	40	45	..	..	..	35.6
	min .	27	-2	-10	-7	-14	-8	12	7	21	26	20	15	25	17	24	30	28	34	24	18	4	2	17	26	22	23	27	32	..	..	..	15.7
N.Hamp'n	max.	34	32	-5	-6	0	6	20	30	36	34	26	35	37	33	40	40	45	40	41	35	18	18	26	37	38	42	31	34	..	..	..	28.5
	min .	18	-9	-17	-14	-18	-12	9	5	12	22	14	13	22	13	25	29	27	33	22	15	-4	-4	13	25	19	22	25	28	..	..	..	11.9
Northw'd	max.	35	25	-4	2	2	12	20	35	45	34	31	38	39	33	43	42	47	41	42	32	17	25	42	32	41	37	29	27	..	..	..	30.1
	min .	20	-10	-18	-15	-22	-17	-4	1	23	25	16	10	25	15	25	30	25	30	20	12	-5	-1	17	12	13	21	20	20	..	..	..	10.6
Odebolt ..	max.	35	35	1	2	5	20	26	44	45	36	46	54	46	44	50	51	59	51	54	41	22	21	28	45	50	42	42	32	..	..	..	36.7
	min .	20	-8	-9	-7	-19	-12	0	15	25	29	24	25	30	25	29	31	27	33	24	19	4	11	18	20	22	24	22	21	..	..	..	15.8
Ogden	max.	35	33	3	1	5	18	20	40	43	37	37	49	48	40	52	52	55	47	47	42	23	19	26	46	50	52	34	37	..	..	..	35.4
	min .	22	-5	-10	-7	-19	-11	8	12	24	30	25	23	30	25	31	31	28	34	22	20	4	7	19	21	21	22	27	28	..	..	..	16.5
Olin.....	max.	38	35	3	3	10	20	25	32	42	35	30	38	44	38	46	46	48	43	57	21	21	31	31	42	39	49	45	46	..	..	..	33.9
	min .	29	1	-8	-6	-10	-19	16	-6	14	..	18	12	21	18	23	30	26	26	21	7	4	4	16	27	21	23	28	32	..	..	..	14.0
Omaha,N.	max.	37	14	1	1	4	24	22	48	46	30	35	33	31	31	28	33	35	33	31	28	18	9	13	21	26	30	25	25	19	..	..	36.1
	min .	14	-3	-6	-7	-12	2	4	16	30	35	33	31	31	28	33	35	33	31	28	18	9	13	21	26	30	25	25	19	..	..	..	19.4
Onawa....	max.	40	37	10	6	14	21	30	53	48	42	54	57	48	53	54	54	61	53	54	44	27	24	30	47	49	44	29	29	..	..	..	39.7
	min .	20	-6	-8	-4	-16	-4	0	13	24	28	23	23	26	23	26	27	24	34	22	22	7	10	18	20	23	25	20	18	..	..	..	15.6
Osage.....	max.	33	32	-4	-2	3	12	20	33	38	36	37	37	44	34	44	44	47	43	41	35	19	21	26	48	41	39	29	33	..	..	..	30.8
	min .	19	-9	-17	-13	-20	-14	5	4	21	26	15	11	24	13	25	30	26	33	21	15	-4	-1	15	24	12	23	23	25	..	..	..	11.9
Oskaloosa	max.	38	34	8	0	16	18	27	39	44	37	37	47	50	41	54	49	55	53	45	35	23	25	28	47	49	55	40	47	..	..	..	37.2
	min .	28	0	-6	-4	-14	0	15	16	21	31	29	21	30	25	29	31	26	35	24	23	6	6	20	22	24	25	27	33	..	..	..	18.7
Ottumwa .	max.	39	15	3	4	6	19	26	40	46	32	38	46	54	42	58	48	59	55	42	29	20	22	29	52	50	56	45	51	..	..	..	37.2
	min .	29	6	-2	-1	-9	-4	15	14	23	32	30	24	34	26	34	34	28	36	26	24	10	9	18	28	24	29	28	38	..	..	..	20.8
Pella.....	max.	37	34	8	6	8	28	27	38	44	39	35	48	48	44	53	50	55	53	55	43	24	23	28	47	50	55	53	44	..	..	..	38.5
	min .	22	-1	-6	-4	-14	-6	15	12	24	31	29	21	31	24	30	33	28	39	24	23	6	7	19	26	23	25	26	34	..	..	..	18.6
Perry.....	max.	36	...	3	3	5	20	22	42	41	36	38	50	48	42	50	52	57	47	47	30	18	23	31	42	48	38	32	25	..	..	..	36.1
	min .	..	-5	-9	-6	-23	-16	7	10	22	30	23	23	25	25	30	31	26	32	22	21	4	9	18	22	21	21	27	28	..	..	..	15.5
Plover....	max.	36	26	...	4	0	14	20	..	40	46	40	47	47	41	48	49	55	43	42	34	18	19	28	43	50	37	32	32	..	..	..	32.0
	min .	18	-6	-15	-11	-26	-15	-6	..	..	28	29	20	22	20	28	27	25	30	25	17	-2	5	13	21	17	20	18	17	..	..	..	12.3
Pocahon's	max.	36	30	0	-1	0	18	22	43	15	37	38	48	45	42	49	49	55	44	46	27	16	20	28	43	50	38	32	32	..	..	..	33.3
	min .	19	-7	-9	-12	-24	-11	-5	11	29	27	22	23	29	23	30	31	27	30	23	15	0	8	18	22	19	23	21	20	..	..	..	14.4
Ridgeway	max.	34	34	3	-4	9	16	33	40	42	37	27	38	47	35	47	52	50	45	45	32	20	25	27	45	40	54	31	34	..	..	..	33.5
	min .	13	-9	-18	-15	-18	-14	3	6	18	25	8	13	25	10	23	28	26	31	21	14	-3	-3	14	24	17	23	23	25	..	..	..	11.1
Rock'll Cy	max.	36	32	3	3	3	21	25	40	41	38	38	48	41	42	50	52	55	46	48	40	21	21	35	40	50	40	34	35	..	..	..	34.9
	min .	21	-8	-11	-9	-21	-8	-3	12	28	16	23	23	30	30	35	35	28	32	23	18	2	8	18	20	30	20	22	24	..	..	..	15.6
Sac City..	max.	..	...	...	...	...	...	...	..	47	40	39	50	47	42	50	50	56	48	47	45	21	20	29	45	49	43	32	36	..	..	..	.....
	min .	..	...	...	...	...	...	...	..	32	28	22	22	30	24	29	32	27	32	23	17	2	9	11	20	20	22	20	20	..	..	..	.....
St.Charl's	max.	37	33	7	4	16	21	35	44	46	42	47	55	55	48	59	65	62	50	52	36	27	20	29	52	56	63	45	43	..	..	..	41.0
	min .	24	-1	-6	-5	-16	-7	16	14	28	30	25	23	34	25	31	34	30	33	23	23	6	9	17	26	24	24	27	30	..	..	..	18.6
Sheldon ..	max.	40	32	9	-2	-3	17	24	42	45	36	46	51	41	46	48	53	60	48	45	35	20	20	29	44	48	41	21	21	..	..	..	34.2
	min .	16	-9	-13	-12	-23	-16	-7	15	4	26	21	26	26	26	27	30	30	30	20	15	0	9	16	18	21	18	16	16	..	..	..	12.0
Sibley*...	max.	39	-2	-2	-6	4	16	22	44	44	36	42	52	42	43	46	50	58	38	46	20	18	20	28	41	48	27	21	18	..	..	..	29.8
	min .	13	-10	-15	-15	-23	-21	-10	-7	19	21	19	19	26	21	20	29	26	29	22	14	-2	-2	13	12	19	21	15	12	..	..	..	9.2
Sigourn'y	max.	38	35	7	5	8	18	27	39	44	40	36	43	48	41	43	49	53	53	44	41	25	26	30	46	48	54	49	50	..	..	..	37.1
	min .	27	1	-4	-2	-11	-10	15	10	23	30	29	19	30	23	28	30	26	37	24	24	7	7	21	17	21	26	26	34	..	..	..	18.1
Sioux Cen	max.	37	30	-3	-2	-1	19	22	40	42	34	40	49	42	40	45	47	55	43	46	33	19	21	30	40	47	37	22	19	..	..	..	31.9
	min .	15	-10	-18	-13	-21	-11	-6	16	28	27	22	24	26	22	32	32	27	32	23	22	5	10	18	20	22	19	15	13	..	..	..	13.4
Sioux C'y	max.	43	6	-2	-3	-1	25	26	46	45	36	47	54	44	48	48	47	60	45	46	27	19	20	30	41	48	35	24	19	..	..	..	33.0
	min .	6	-8	-10	-18	-22	-1	-4	16	28	30	25	29	29	26	34	33	30	30	26	11	7	14	20	27	28	19	17	14	..	..	..	15.6
Stockport	max.	36	33	10	6	10	17	28	39	44	30	38	37	45	56	42	57	57	56	57	42	38	23	28	29	37	50	57	46	..	..	..	38.3
	min .	28	4	-1	0	-10	-13	13	3	20	31	29	20	32	24	28	31	25	38	25	19	11	8	21	17	23	28	25	36	..	..	..	18.4
Storm L'e	max.	34	33	-1	-5	3	17	20	41	43	39	40	49	44	43	49	50	54	46	49	41	20	18	25	44	47	47	31	33	..	..	..	34.1
	min .	15	-12	-16	-14	-27	-13	-6	11	26	27	22	22	30	22	22	31	27	32	21	15	-2	-2	14	20	21	22	17	17	..	..	..	12.2
Stuart	max.	39	10	0	0	9	22	23	39	41	34	40	48	48	44	53	51	51	43	44	30	15	25	38	44	47	51	37	38	..	..	..	34.5
	min .	20	-5	-9	-7	-18	-10	-10	12	18	19	26	26	28	25	26	26	32	32	23	10	5	10	14	14	25	26	26	29	..	..	..	14.8

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF FEBRUARY, 1907—CONTINUED.

STATIONS		DATE																													NAME
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28				
Thurman	max.	37	33	8	1	10	22	24	38	46	42	48	50	51	45	53	61	59	55	42	39	23	20	31	42	42	48	33	33	..	..	..	37.0
	min.	24	-2	-5	-5	-17	-14	-4	13	20	30	28	24	27	26	32	28	25	35	22	22	9	4	17	17	21	24	25	22	..	..	..	16.0
Tipton....	max.	35	33	5	4	12	15	27	34	39	35	31	40	48	37	49	48	51	53	45	37	23	24	30	44	44	52	43	49	..	..	..	35.2
	min.	28	3	-4	-3	-4	-4	15	8	23	23	23	16	29	20	27	31	31	36	27	23	10	7	20	27	25	25	30	33	..	..	..	18.8
Toledo ...	max.	37	35	5	-2	5	14	24	35	41	37	32	43	44	38	46	57	52	48	42	41	22	22	29	44	46	52	42	41	..	..	..	34.4
	min.	26	-3	-10	-8	-16	-17	13	5	18	30	24	17	26	20	28	30	26	37	23	22	3	4	20	26	19	19	27	33	..	..	..	15.8
Wapello ..	max.	36	35	9	8	13	26	33	35	34	..	..	..	..	..	..	46	50	..	..	..	55	43	30	41	43	47	..	53	..	..	..	35.4
	min.	28	8	0	1	-3	10	6	21	29	..	..	..	..	..	..	39	29	..	..	..	14	10	20	29	27	29	..	28	..	..	..	18.1
Wash'g'n	max.	37	34	6	6	9	18	28	39	42	37	33	44	53	40	55	51	55	59	46	34	23	25	30	43	46	54	42	50	..	..	..	37.1
	min.	28	1	-4	-2	-10	-10	4	8	22	30	27	18	32	22	28	30	26	34	24	23	8	6	20	27	22	26	26	26	..	..	..	17.6
Washta...	max.	38	10	1	1	6	20	24	44	44	36	47	53	47	45	50	52	60	50	51	42	32	20	29	48	50	41	30	30	..	..	..	35.8
	min.	10	-9	-11	-9	-31	-18	-8	10	20	28	18	20	21	24	28	28	23	28	20	18	4	10	19	18	20	24	18	19	..	..	..	12.2
Waterloo*	max.	36	20	3	0	9	15	28	36	41	36	30	41	45	35	48	47	54	49	45	30	19	21	30	45	45	51	32	37	..	..	..	33.1
	min.	20	-4	-12	-9	-18	-16	15	2	19	29	20	15	25	19	27	30	26	35	25	19	2	3	19	27	22	25	27	32	..	..	..	15.1
Waukee ..	max.	37	33	5	4	3	20	21	40	42	36	38	48	48	40	50	51	53	47	44	38	23	20	27	44	48	51	37	40	..	..	..	35.3
	min.	23	-4	-8	-1	-22	-11	14	12	24	30	30	22	28	22	30	33	28	34	24	22	5	15	18	23	23	28	23	30	..	..	..	17.7
Waverly .	max.	35	34	-3	-2	6	15	23	34	40	34	30	39	42	34	45	44	49	42	44	36	19	21	28	41	42	41	32	36	..	..	..	31.5
	min.	24	-4	-13	-9	-18	-18	10	0	14	26	18	15	25	17	27	32	26	34	24	19	2	3	17	28	22	25	27	30	..	..	..	14.0
W. Bend .	max.	36	29	-3	0	-3	15	17	38	39	37	34	46	43	38	46	46	53	46	45	34	16	24	30	41	48	39	30	32	..	..	..	32.0
	min.	19	-8	-14	-11	-24	15	-8	9	27	27	20	19	27	19	28	27	25	31	19	15	-2	2	17	19	17	19	19	20	..	..	..	12.2
Whitten ..	max.	35	34	3	-2	5	10	26	36	42	36	35	40	45	38	48	46	52	46	46	20	25	26	28	45	48	50	34	40	..	..	..	33.5
	min.	22	-13	-15	-12	-20	-15	11	7	20	26	22	18	16	18	27	29	26	34	18	-1	2	3	19	24	19	22	27	31	..	..	..	13.0
Wilton Jn	max.	37	35	10	5	10	22	26	33	41	42	36	35	45	45	47	45	48	54	40	40	24	22	30	42	39	46	45	53	..	..	..	35.4
	min.	28	3	-5	-4	-9	-13	16	2	20	26	20	14	27	19	19	29	25	35	25	24	15	4	20	28	20	21	28	33	..	..	..	16.8
Winterset	max.	35	32	6	1	2	20	23	38	41	37	40	47	48	41	51	54	53	46	43	38	25	21	27	43	49	52	44	40	..	..	..	35.6
	min.	24	-2	-6	-4	-16	-7	15	13	25	32	26	24	32	26	31	30	32	37	23	25	6	10	17	26	24	25	27	30	..	..	..	18.8
Woodb'rn	max.	36	33	9	2	8	20	28	40	45	40	44	51	54	45	57	58	58	54	48	35	25	22	28	47	50	58	50	44	..	..	..	38.9
	min.	25	-1	-5	-7	-16	-18	16	2	33	28	21	20	32	25	28	28	22	42	22	23	7	8	17	25	17	22	27	32	..	..	..	17.0

*At these stations thermometers are read in the morning; the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

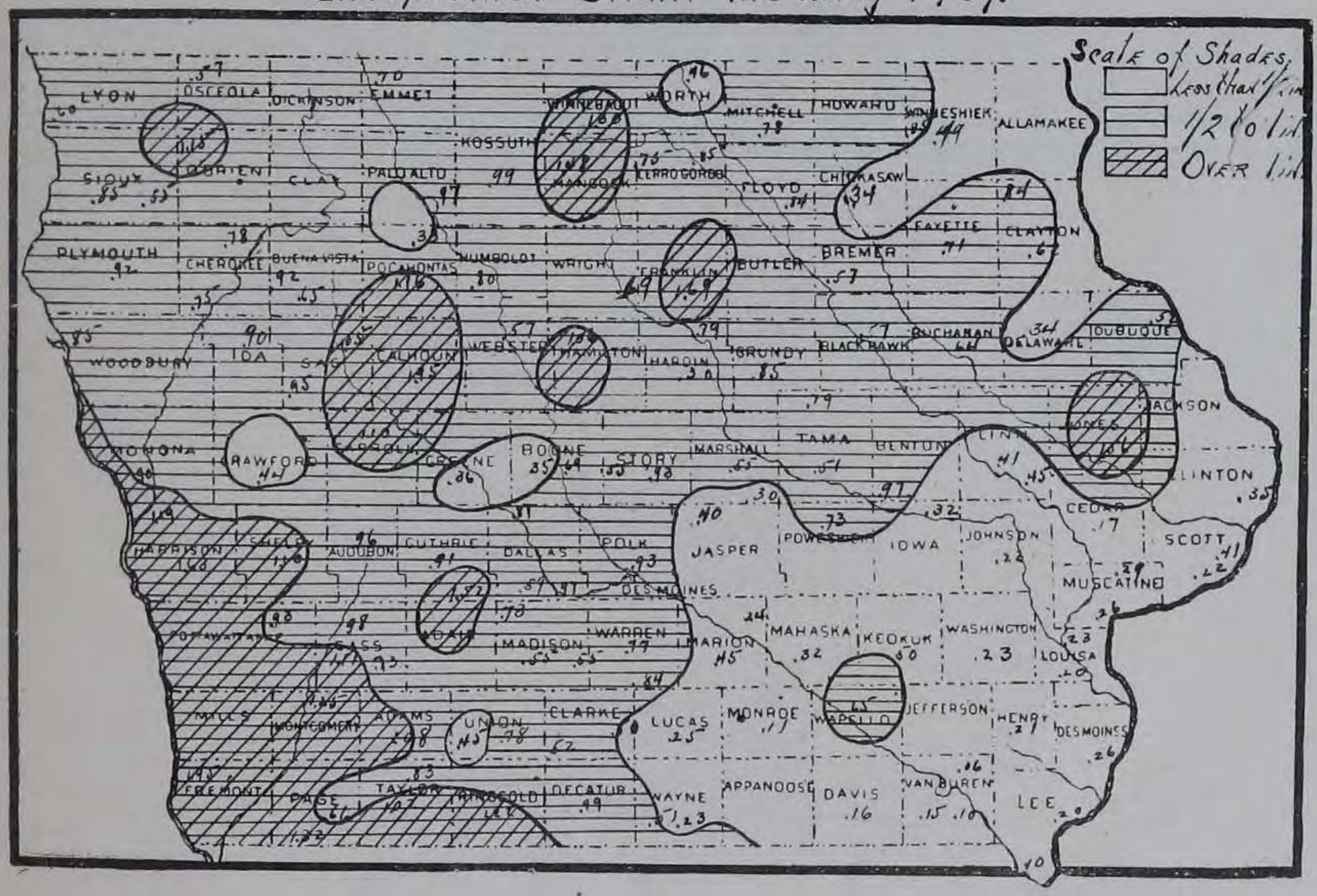
DAILY AND MONTHLY PRECIPITATION FOR FEBRUARY, 1907.

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28				
Afton	....	....	....	.40	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	T	....	....	....	T	.18	....	....	....	.78
Albia	....	....	T	T	.11	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	.11
Algona	....	....	....	.12	....	.11	....	....	....	....	....	....	....	....	....	....	....	....	....	.04	....	....	....	T	....	....	.02	.70	....	....	....	.99
Allerton	....	T	.02	.13	....	.02	....	....	....	....	....	....	....	....	....	....	....	.05	....	T	....	.08	T	....	....	....	T	.21	....	....	....	.51
Alta	.01	....	....	.15	.03	.01	.03	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.03	T	....	....	....	.66	....	....	....	.92
Alta (near)	....	....	.15	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.03	....	....	....	....	....	.22	....	....	....	.45
Alton	....	....	....	.10	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	.05	T	....	....	....	T	.40	....	....	....	.55
Amana	....	....	....	.12	.01	.06	.06	....	....	....	....	....	....	....	....	....	....	.01	....	T	....	....	T	....	....	....	....	.06	....	....	....	.32
Ames	....	....	....	.10	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	....	T	....	....	....	T	.38	....	....	....	.55
Atlantic	T	....	T	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	.05	....	.05	....	....	....	....	.32	.36	....	....	....	.98
Audubon	....	....	.01	.38	....	.01	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	T	....	....	....	....	....	.56	....	....	....	.96
Baxter	....	....	....	.12	....	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.06	.14	....	....	....	.40
Bedford	....	T	.07	.30	....	.02	....	....	....	....	....	....	....	....	....	....	....	T	....	.12	.17	.15	....	....	....	....	.01	.18	....	....	....	1.02
Belle Plaine	....	....	....	.20	....	.20	.05	....	....	....	....	....	....	....	....	....	....	.02	....	.05	....	....	T	....	....	....	....	.45	....	....	....	.97
Bloomfield	....	....	T	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.13	....	....	....	.16
Bonaparte	....	T	T	.10	....	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	T	....	....	....	.10
Boone	T	....	....	.07	.18	....	.08	....	....	....	....	....	....	....	....	....	....	....	T	T	T	....	.01	....	....	....	....	.35	....	....	....	.69
Britt	.02	....	....	.05	....	.10	.02	....	....	....	....	....	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	1.26	....	....	....	1.48
Buckingham	....	....	....	.48	....	.12	T	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	.19	....	....	....	.79
Burlington	....	T	....	....	.15	....	.07	T	....	....	....	....	....	....	....	....	....	....	T	....	T	....	T	.04	....	....	....	....	....	....	....	.26
Carroll	....	....	....	.25	.35	.01	.01	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	.01	....	....	....	....	....	.45	....	....	....	1.10
Cedar Rapids	T	T	T	T	.10	....	.30	T	....	....	....	....	....	....	....	....	....	....	T	.01	T	....	....	T	....	....	....	T	....	....	....	.41
Chariton	....	....	....	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	T	....	....	....	....	....	T	....	....	....	.25
Charles City	....	....	....	.08	....	.18	....	....	....	....	....	....	....	....	....	....	....	T	....	.03	....	....	T	T	....	....	.04	.51	....	....	....	.84
Clarinda	....	....	.04	.03	.07	T	....	....	....	....	....	....	....	....	....	....	....	T	....	.22	....	.08	....	....	....	....	....	.22	....	....	....	.66
Clear Lake	....	....	....	T	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	T	.50	....	....	....	.75
Clinton	....	....	....	.11	....	....	.17	....	....	....	....	....	....	....	....	....	....	....	....	.07	....	....	....	....	....	....	....	....	....	....	....	.35
College Springs	....	....	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	.20	....	.15	....	....	....	....	....	.72	....	....	....	1.32
Columbus Junc.	....	T	....	.10	T	.10	....	....	....	....	....	....	....	....	....	....	....	T	....	T	....	....	.03	....	....	....	....	....	....	....	....	.23
Corning	....	....	.07	.15	....	.07	....	....	....	....	....	....	....	....	....	....	....	....	....	.22	....	.17	....	....	....	....	T	.40	....	....	....	1.08
Corydon	....	T	.02	.03	T	T	....	....	....	....	....	....	....	....	....	....	....	.02	....	T	....	.02	.02	....	....	....	T	.12	....	....	....	.23
Creston	....	.05	.05	.10	.10	.05	....	....	....	....	....	....	....	....	....	....	....	....	T	T	....	....	T	....	....	....	....	.10	....	....	....	.45
Cumberland	.50	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	.41	....	....	....	1.11
Davenport	....	T	....	.12	T	.07	.03	....	....	T	....	....	....	....	....	....	....	T	....	T	....	....	T	T	....	....	....	....	....	....	....	.22
Decorah	....	....	....	.05	....	.40	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	T	....	....	T	.04	....	....	....	.49
Delaware	....	....	....	.03	....	.20	....	....	....	....	....	....	....	....	....	....	....	.02	....	.02	....	....	....	....	....	....	....	.07	....	....	....	.34
Denison	....	....	T	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.10	....	....	....	....	.12	.02	....	....	....	.44
Des Moines	....	....	T	.18	....	.06	T	....	....	....	....	....	....	....	....	....	....	.04	T	T	....	.02	T	....	....	....	.03	.60	....	....	....	.93
De Soto	....	....	T	.17	....	T	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	T	....	....	....	....	.04	.33	....	....	....	.59
Dows	....	....	....	.07	....	.20	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	.42	....	....	....	.69
Dubuque	T	.02	....	.06	....	.27	.01	....	T	....	T	....	T	....	....	....	....	.02	.02	.10	....	....	....	T	....	....	.01	.01	....	....	....	.52
Earlham	T	....	.10	.40	T	.10	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	.05	T	....	....	....	T	.08	....	....	....	.73
Elkader	....	....	....	.12	....	.21	....	....	....	....	....	....	....	....	....	....	....	.08	....	.06	....	....	....	....	....	....	....	.15	....	....	....	.62
Elliott	....	....	.05	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	....	.20	....	....	....	....	T	.60	....	....	....	1.25
Estherville	....	....	....	.20	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	T	....	....	....	....	....	....	....	.50	....	....	....	.70
Fayette	....	....	....	.15	....	.32	.06	....	....	....	....	....	....	....	....	....	....	T	....	.07	....	....	....	....	....	....	....	.11	....	....	....	.71
Forest City	....	....	....	T	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	1.00	....	....	....	1.30
Fort Dodge	....	....	....	.05	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	.47	....	....	....	.57
Fort Madison	....	T	T	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	T	T	....	....	....	T	....	....	....	....	....	....	....	....	.20
Galva	....	....	....	.18	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	T	.62	....	....	....	.90
Gilman	....	....	....	T	....	....	.30	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	T	....	....	....	T	....	....	....	.30
Grand Meadow	....	....	....	.10	....	.20	.20	....	....	....	....	....	....	....	....	....	....	.14	....	.05	....	....	....	....	....	T	....	.15	....	....	....	.84
Grinnell	....	....	....	.15	....	.18	....	....	....	....	....	....	....	....	....	....	....	T	....	T	....	....	.15	....	....	....	....	.25	....	....	....	.73
Grundy Center	....	....	....	.10	....	.10	....	....	....	....	....	....	....	....	....	....	....	.40	....	.05	....	....	....	....	....	....	....	.20	....	....	....	.85
Guthrie Center	....	....	T	.55	....	T	T	....	....	....	....	....	....	....	....	....	....	T	....	T	....	T	....	....	....	....	.03	.33	....	....	....	.91
Hampton	....	....	.06	.10	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	.16	....	....	....	....	....	....	....	....	.17	.90	....	....	....	1.69
Hancock	....	....	T	.23	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.16	....	.04	....	....	....	....	....	T	.50	....	....	....	.93
Harlan	....	....	T	.24	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	.09	....	....	....	....	....	.53	.20	....	....	....	1.10
Hopeville	....	T	.06	.10	....	.02	....	....	....	....	....	....	....	....	....	....	....	T	....	T	....	.05	....	....	....	....	....	.01	.28	....	....	....	.52
Humboldt	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	T	....	....	....	....	....	....	....	.65	....	....	....	.80
Independence	....	....	....	.20	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	.04	....	....	....	.64
Indianola	....	....	.02	.30	T	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	T	....	....	....	.23	.15	....	....	....	.77
Inwood	T	T	....	.06	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	.07	T	....	....	....	T	.35	....	....	....	.60
Iowa City	....	....	....	T	.05	....	.13	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	.04	....	....	....	.22
Iowa Falls	T	....	....	....	.15	....	.40	....	....	....	....	....	....	....	....	....	....	....	T	.10	....	....	....	T	....	....	....	.14	....	....	....	.79
Jefferson	....	....	....	.25	....	.10	....	....	....	....	....	....	....	....	....	....	....	T	....	T	....	T	....	....	....	....	T	.01	....	....	....	.36
Keokuk	....	T	T	.07	....	.01	T	....	....	....	....	....	....	....	....	....	....	.01	....	T	....	....	.01	....	....	....	....	....	....	....	....	.10
Keosauqua	....	.03	....	.02	.10	....	T	....	....	....	....	....	....	....	....	....	....	T	....	....	T	....	T	T	....	....	....	T	....	....	....	.15
Knoxville	....	....	....	.20	....	.10	.05	....	....	....	....	....	....	....	....	....	....	T	....	....	....	T	....	....	....	....	....	....	.10	....	....	....	.45
Lacona	....	.08	.10	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	.08	....	....	....	.10	....	....	....	....	....	....	.38	....	....	....	.84
Larrabee	....	....	....	.19	....	.07	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.07	....	....	....	....	....	....	.45	....	....	....	.78
Le Claire	T	....	....	T	.10	....	.31	T	....	....	....	T	....	....	....	....	....	....	T	T	T	....	....	T	....	....	....	....	....	....	....	.41
Le Mars	....	....	....	.28	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.09	....	....	....	....	T	.55	....	....	....	.92
Lenox	....	....	.05	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	.07	....	....	....	....	T	.36	....	....	....	.83
Leon	.05	T	.01	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	T	.02	....	....	....	.01	.80	....	....	....	.99
Little Sioux	....	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.15	....	.11	....	....	....	....	.26	.47	....	....	....	1.19
Logan	....	....	T	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.30	.10	.20	....	....	....	....	.32	.41	....	....	....	1.63
Marshalltown	....	....	....	.01	.17	....	.18	T	....	....	....	....	....	....	....	....	....	....	T	.02	T	....	....	....	....	....	....	.17	....	....	....	.55
Mason City	....	....	....	.10	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	.40	....	....	....	.85
Massena	.03	....	.20	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	.05	T	....	.03	.05	....	....	....	....	.02	.25	....	....	....	.73
Mt. Ayr	....	....	.10	.25	....	.02	....	....	....	....	....	....	....	....	....	....	....	T	....	.05	....	.20	....	....	....	....	.15	.45	....	....	....	1.22
Mt. Pleasant	....	T	T	.10	.02	.05	.04	....	....	....	....	....	....	....	....	....	....	T	....	T	....	....	T	....	....	....	....	....	T	....	....	....	.21
Mt. Vernon	....	....	....	.11	.01	.11	.10	....	....	....	....	....	....	....	....	....	....	T	....	.02	....	....	T	.07	....	....	....	.03	....	....	....	.45
Muscatine	....	T	....	T	.08	T	.17	....	....	....	....	....	....	....	....	....	....	....	T	T	....	....	T	.01	....	....	....	T	....	....	....	.26
Nevada	....	....	....	.08	....	.18	....	....	....	....	....	....	....	....	....	....	....	T	....	.09	....	....	....	....	....	....	....	.58	....	....	....	.93
New Hampton	....	....	....	T	....	.24	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	T	T	....	....	....	.34
Northwood	....	....	....	.05	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	.01	....	....	....	T	....	....	....	.46
Odebolt	....	....	....	.35	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.60	....	....	....	.95
Ogden	....	....	....	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	T	....	T	....	....	....	....	T	.32	....	....	....	.35
Olin	....	....	....	.08	.08	.08	.24	....	....	....	....	....	....	....	....	....	....	T	....	.08	....	....	T	....	....	....	....	....	....	....	....	.56
Omaha, Neb	T	T	.07	.24	.01	.01	T	....	....	....	....	....	....	....	....	....	....	....	T	T	.23	....	.12	....	....	....	.63	.14	....	....	....	1.45
Onawa	....	....	T	.25	....	T	T	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	.10	....	....	....	....	.10	.35	....	....	....	.90
Osage	....	....	....	.10	....	.28	.12	....	....	....	....	....	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	T	.25	....	....	....	.78
Oskaloosa	T	....	T	.14	....	.01	.02	....	....	....	....	....	....	....	....	....	....	T	....	T	....	T	....	....	....	....	....	.15	....	....	....	.32
Ottumwa	....	T	....	.12	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.51	....	....	....	.65
Pella	....	T	....	.08	....	.03	.02	....	....	....	....	....	....	....	....	....	....	T	....	T	....	....	....	....	....	....	....	.11	....	....	....	.24
Perry	....	....	....	.30	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	.05	T	....	....	....	T	.36	....	....	....	.81
Plover	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	T	....	....	....	....	....	.23	....	....	....	.33
Pocahontas	....	T	....	.34	....	.13	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	.03	....	....	....	....	....	.61	....	....	....	1.16
Ridgeway	....	.15	....	.04	....	.55	....	....	....	....	....	....	....	....	....	....	....	.02	....	.03	....	....	....	T	....	....	.01	.05	....	....	....	.85
Rockwell City	....	....	....	.50	....	.40	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	1.00	....	....	....	1.95
Sac City	....	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	.25	....	....	....	....	.45	.05	....	....	....	1.05

DAILY AND MONTHLY PRECIPITATION FOR FEBRUARY, 1907—CONTINUED.

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28				
St. Charles	....	....	.02	.20	....	.03	T	....	....	....	....	....	T	....	....	....	....	.02	....	T	....	.08	....	....	....	....	T	.20	....	....	....	.55
Sheldon	T	....	....	.10	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	.05	....	....	....	....	.05	.80	....	....	....	1.15
Sibley	T	....	....	.10	.05	T	.10	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	....	.05	....	....	....	....	.25	....	....	....	.57
Sourigney	....	....	....	.14	....	.07	T	....	....	....	....	....	....	....	....	....	....	T	....	T	....	....	.04	....	....	....	....	.25	....	....	....	.50
Sioux Center	....	....	....	.10	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	.10	T	....	....	....	.10	.40	....	....	....	.85
Sioux City	T	T	.04	.22	....	T	....	....	....	....	....	....	T	....	....	....	....	....	....	.02	....	.04	....	....	....	....	.34	.19	....	....	....	.85
Stockport	....	T	T	.03	T	.03	T	....	....	....	....	....	....	....	....	....	....	T	....	T	....	....	T	....	....	....	....	....	....	....	....	.06
Storm Lake	.02	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.03	....	.02	....	....	....	....	.02	.46	....	....	....	.65
Stuart	....	....	....	.30	.10	.15	....	....	....	....	....	....	....	....	....	....	....	.22	....	T	....	.05	....	....	....	....	.50	.20	....	....	....	1.52
Thurman	....	.10	.25	.25	.05	.10	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	.30	.20	....	....	....	....	....	.60	....	....	....	1.95
Tipton	....	....	....	.11	....	.04	.02	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.17
Toledo	....	....	....	.30	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	.08	....	....	....	.51
Wapello	....	....	....	.11	.05	.04	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	.20
Washington	....	....	....	.06	....	....	.12	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	.23
Washta	....	....	....	.20	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	.05	....	....	....	....	.50	....	....	....	....	.75
Waterloo	....	....	....	.09	....	.24	....	....	....	....	....	....	....	....	....	....	....	.02	....	.08	....	....	....	....	....	....	T	.14	....	....	....	.57
Waukee	....	....	.05	.50	....	.10	....	....	....	....	....	....	....	....	....	....	....	T	....	T	....	.15	....	....	....	....	.12	.05	....	....	....	.97
Waverly	....	....	....	.13	....	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	T	....	....	....	T	.09	....	....	....	.57
West Bend	....	....	....	.10	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	T	....	T	....	....	T	.65	....	....	....	.97
Wilton Junction	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.27	....	....	....	.29
Winterset	....	....	T	.30	....	T	....	....	....	....	....	....	....	....	....	....	....	T	....	T	....	T	T	....	....	....	T	.25	....	....	....	.55
Woodburn	....	.05	.05	.20	....	T	T	....	....	....	....	....	....	....	....	....	....	T	....	T	....	....	.10	....	....	....	T	T	....	....	....	.40

Precipitation Chart February 1907.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR MARCH, 1907.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1907

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

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Algona	Dr. F. T. Seeley
Allerton	Rex Shriver
Alta	D. E. Hadden
Alta (near)	W. J. Minard
Alton	W. S. Slagle
Amana	Conrad Schadt
Ames	Iowa State College
Atlantic	J. W. Love
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Baxter	W. R. Vandike
Bedford	E. E. Healy
Belle Plaine	S. P. Vandike
Bloomfield	F. H. Roberts
Bonaparte	Hon. B. R. Vale
Boone	Carl Fritz Henning
Britt	G. P. Hardwick
Buckingham (Traer P. O.)	Dr. W. A. Daniel
Burlington	I. S. Shontz
Carroll	Frank Hughes
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Chariton	C. C. Burr
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Clear Lake	Oscar Stevens
Clinton	Luke Roberts
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Corydon	Clara Miller
Creston	Rev. W. L. Gaston
Cumberland	Agent C., B. & Q. R'y
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Delaware	Wm. Ball
Decorah	F. H. Baker
Denison	W. C. Van Ness
Des Moines	*Geo. M. Chappel
De Soto	R. D. Minard
Dows	H. A. Flett
Dubuque	*James H. Spencer
Earlham, R. F. D.	Geo. Phillips
Elkader	Chas. Reinecke
Elliott	Henry Barnes
Estherville	A. O. Peterson
Fayette	R. Z. Latimer
Forest City	J. A. Peters
Fort Dodge	Tobin College
Fort Madison	Miss L. A. McCready
Galva	F. H. Schleiter
Gilman	Jas. L. Wylie
Grand Meadow (Postville P. O.)	F. L. Williams
Greene	J. L. Cole
Greenfield	Dr. Geo. Brooks
Grinnell (near)	A. O. Price
Grundy Center	W. H. Scott
Guthrie Center	D. G. Beardsley
Hampton	E. C. Grenelle
Hancock	W. Armstrong
Harlan	C. A. Reynolds
Hopeville (Murray R. 2)	M. T. Ashley
Humboldt	H. S. Wells
Independence	Austin Cornwall
Indianola	Prof. J. L. Tilton
Inwood	F. D. Hanson
Iowa City	Prof. Karl E. Guthe
Iowa Falls	J. B. Parmelee
Jefferson	Geo. W. Jackson
Keokuk	*Fred Z. Gosewisch
Keosauqua	J. A. Landes
Knoxville	Casey & Bellville
Lacona	Agent C., B. & Q. Ry.
Larrabee	H. B. Streever
Lenox	J. L. Hurley
LeMars	Dr. T. E. Cole
Leon	J. Morris Gardner
Little Sioux	G. H. Gibson
Logan	Glenn H. Stern
Marshalltown	Mrs. Elizabeth Jones
Mason City	J. S. Mills
Massena	G. A. Hill
Mount Vernon	Rev. J. W. Hubbard
Mount Ayr	A. F. Beard
Mount Pleasant	Prof. J. W. Edwards
Nevada	R. S. Patrick
New Hampton	A. F. Kemman
Newton	Hon. J. P. Beatty
Northwood	Charles Dwelle
Odebolt	E. Starner
Ogden	C. L. Zollinger
Olin	Hon. Nathan Potter
Omaha, Neb.	*L. A. Welsh
Onawa	C. G. Perkins
Osage	G. D. Pattingill
Oskaloosa	Jos. Boyd
Ottumwa	Dr. M. W. Pascoe
Pacific Junction	H. H. McCartney
Pella	T. W. Cox
Perry	J. A. Harvey
Plover	J. S. Smith
Pocahontas	F. E. Hronek
Ridgeway	Arthur Betts
Rock Rapids	W. C. Wyckoff
Rockwell City	C. M. Randall
Sac City	Frank Stouffer
St. Charles	C. W. Minard
Sheldon	Dr. A. W. Beach
Sibley	H. G. Doolittle
Sigourney	J. T. Parker
Sioux Center	Jacob de Ruyter
Sioux City	*C. D. Reed
Stockport	C. L. Beswick
Storm Lake	Prof. Ralph H. Carr
Stuart	Dr. J. A. Treat
Thurman	C. R. Paul
Tipton	F. K. Gregg
Toledo	I. F. Giger
Wapello	Geo. W. Schofield
Washington	Wm. A. Cook
Washta	H. L. Felter
Waterloo	M. L. Newton
Waukee	E. J. Leonard
Waverly	H. S. Hoover
Webster City	C. D. Carpenter
Whitten	Dr. Frank P. Butler
Wilton Junction	Wm. Lang
Winterset	Dr. Robert S. Cooper
West Bend	Phil. Dorweiler
Woodburn	C. B. McDonough
Zearing	C. P. Bean

*U. S. Weather Bureau.

WEATHER-CROP OBSERVERS.

Reporting for the Weekly Bulletin.

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Alta	Jonas Cushman
Audubon	A. H. Edwards
Blairstown	T. H. Weil
Burt	R. Jain
Centerville	Jacob Harter
Charles City	W. B. Towner
Clarksville	F. M. Russell
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Danville	Sherman Matthews
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Geneva	Wm. H. Thompson
Gruver	C. Higinbotham
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Independence	George H. Wilson
Indianola	H. D. Guthrie
Manson	J. D. Skinner
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Mount Pleasant	W. S. Wright
Milton	Hon. E. C. Holland
Monroe	J. A. Dibel
Nevada	Geo. C. White
Oakville	Z. W. Steele
Orange City	H. J. Vande Waa
Pella	J. H. Ver Steeg
Preston	J. G. Storm
Pittsburg	G. C. Dunfield
Portland (Nora Springs, P. O.)	Arthur Pickford
Platte (Creston R. D.)	M. H. Dibel
Red Oak	Hon. C. L. Stratton
Seymour	L. B. Sager
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Van Horne	Spencer Smith
Weldon	Ed Worden
Winterset	H. A. Kinsman
West Branch	Wrigley Smith
West Union	H. B. Blackman
Woodward	George Swisher

U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

CENTRAL OFFICE: WASHINGTON, D. C.

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R. SAGE.....Section Director.
GEO. M. CHAPPEL, Assistant Director.

VOL. XVIII. DES MOINES, IOWA, MARCH, 1907. NO. 3

MARCH WEATHER AND CROPS.

The month was phenomenally mild, with less than the average amount of precipitation. The first half of the month was typical March weather, with alternate freezing and thawing; but the latter part was excessively warm and bright, the maximum temperatures during the last decade ranging from 70° to 90° in the southern and central sections. The surface dried rapidly, and farming operations were begun ten days to two weeks earlier than usual. The average rainfall was about a half-inch less than normal, and the greater part of it fell about the first two and the last three days of the month. With the exception of March, 1894, and 1905, it was the warmest March recorded since 1890. There was a great quickening of all vegetation, as evidenced by green coloring of the woods and fields. In large portions of the State seeding was in progress from the 20th to the 28th and a large acreage was plowed preparatory to the planting of corn. At a number of stations the maximum temperature exceeded 90°.

The following table gives the mean temperature and average precipitation for the State for each March since 1890:

Years	Temperature Degrees	Precipitation Inches
1890	28.0	1.57
1891	26.8	2.60
1892	31.9	2.22
1893	31.9	2.14
1894	41.0	2.30
1895	34.4	0.83
1896	30.9	1.10
1897	32.0	2.39
1898	37.5	1.94
1899	24.5	1.62
1900	30.7	2.06
1901	32.2	2.64
1902	39.1	1.45
1903	38.8	1.38
1904	34.8	2.18
1905	41.5	2.04
1906	27.1	2.34
1907	40.6	1.35
Normals	33.0	1.90

CLIMATOLOGY OF THE MONTH.

TEMPERATURE.—The monthly mean temperature for the State, as shown by the records of 116 stations, was 40.6°, which is 7.6° above the normal. By sections the mean temperatures were as follows: Northern section, 36.7°, which is 6.9° above the normal; Central section, 41.1°, which is 8.2° above the normal; Southern section, 44.1°, which is 8.0° above the normal. The highest monthly mean was 47.6°, at Keokuk. The lowest monthly mean was 31.8°, at Sibley. The highest temperature reported was 92°, at Clarinda and Massena, on the 25th. The lowest temperature reported was 7° below zero, at Inwood, Lyon county, on the 2d. The average monthly maximum was 84.0°; and the average monthly minimum was 10.2°. The greatest daily range was 59°, at St. Charles, and the average of greatest daily ranges was 44.6°.

PRECIPITATION.—The average precipitation for the State, as shown by records of 124 stations, was 1.35 inches, which is 0.55 of an inch below the normal. The averages by sections were as follows: Northern section, 1.19 inches, which is 0.44 of an inch below the normal; Central section, 1.20 inches, which is 0.79 of an inch below the normal; Southern section, 1.66 inches, which is 0.43 of an inch below the normal. The largest amount reported was 5.05 inches at Keokuk. The least amount reported was 0.23 of an inch at Washta. The greatest daily rainfall was 3.50 inches, at Keokuk, on the 28th-29th. The average number of days reported on which .01 or more of precipitation fell was 6.

WIND AND WEATHER.—The prevailing direction of the wind was northwest. The highest velocity reported was 40 miles per hour, from the south, at Sioux City, on the 24th, and from the southwest, at Des Moines, on the 26th. The average number of clear days was 14, partly cloudy 7, and cloudy 10.

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	30.04	30.70	31	29.46	21
Davenport	30.03	30.65	31	29.51	21
Des Moines	30.04	30.72	31	29.51	21
Dubuque	30.04	30.71	31	29.47	29
Omaha, Neb.	30.02	30.70	31	29.49	26
Keokuk	30.06	30.66	31	29.58	21
Sioux City	30.03	30.71	31	29.50	26
Means	30.04	30.72	31	29.46	21

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	6707	28	SE	21
Davenport	6868	30	NW	23
Des Moines	7319	40	S W	26
Dubuque	5868	26	S	26
Keokuk	6817	36	E	29
La Crosse, Wis.	5734	28	W	29
Omaha, Neb.	7204	34	N	7
Sioux City	9633	40	S	24

OBSERVERS' NOTES.

ALBIA.—*J. F. Chenoweth.* The season is about ten days early; leaves and fruit buds well started.

ALGONA.—*Dr. F. T. Seeley.* Robins were observed on the 18th; frogs were heard on 23d.

ALLERTON.—*Rex Shriver.* Month was unusually warm; nearly all oats were sown and many gardens planted. Frost on 30th and 31st caused damage.

ALTA.—*David E. Hadden.* A very pleasant month; the latter half was warm and dry. The maximum temperature (85°) on the 26th was the highest on record for March.

ALTON.—*W. S. Slagle.* A very fine month; seeding far advanced; rain was needed.

AMANA.—*Conrad Schadt.* The high temperature in the first half of the third decade gave a powerful stimulant to vegetation. Flower and leaf buds came near being fully developed, but were happily checked by colder weather at the close of the month; grass plats are as green as in summer.

ATLANTIC.—*J. W. Love.* On the 25th the temperature reached 91°—the highest ever recorded at this station in March.

BAXTER.—*W. R. Vandike.* A severe electric storm occurred on night of the 28th. Lightning struck and burned a stack on farm of E. Jontz.

BONAPARTE.—*B. R. Vale.* Precipitation, 2.00 inches; fell mostly at close of the month. It was an exceptionally warm March; much seeding was done between 14th and 28th.

BRITT.—*Geo. P. Hardwick.* The growth of vegetation began unusually early; seeding small grain and plowing were well begun in March.

CHARITON.—C. C. Burr. Oats were about all sown in March. Grass made a fine start; stock wintered better than usual.

CLINTON.—*Luke Roberts.* This has been the warmest March during the last 29 years. The mean temperature was 8.8° above the normal. The maximum, 83°, was 14° above the normal. The movement of wind was 4,240 miles, which is 1,500 miles below the normal. The warmest day, the 26th, had a mean of 62.5°.

FOREST CITY.—*J. A. Peters.* The 26th was the warmest March day since 1895. Some wheat was sown the last day.

GRAND MEADOW.—*F. L. Williams.* The first robin was heard on the 24th; first sod plowing was done on 20th. Month was unusually warm.

INWOOD.—*F. B. Hanson.* The temperature for March was above average, and spring began early; some seeding was done during the last decade; grass and buds were well started.

IOWA FALLS.—*J. B. Parmelee.* On the 15th robins, bluebirds and blackbirds were observed. On the 16th noted wild geese, and meadow-larks; and on the 21st frogs were croaking.

KEOSAUQUA.—*J. H. Landes.* Up to the 28th the month was remarkably dry. Very high temperatures were recorded from 21st to 28th. Oats all sown and much of it was up at end of month.

LEON.—*Morris Gardner.* This has been the driest March in six years. From the 16th to the 30th it was unseasonably warm. Ground was in extra fine condition and oats were about all sown. A small tornado did some damage in the western part of the county on the afternoon of the 28th.

MOUNT AYR.—*A. F. Beard.* A tornado at 6:30 P.M. of the 28th, blew down houses, barns and cribs in the southeast part of the county.

OLIN.—*Nathan Potter.* It was the finest and warmest March for many years. Good progress was made in plowing and seeding the last week.

PACIFIC JUNCTION.—*H. H. McCartney.* The warmest March day of the record here was the 25th. The maximum was 91° and the minimum 56°; the mean 73.5°.

RIDGEWAY.—*Arthur Betts.* A warm March, with prevailing wind northwest. There were 220 hours of sunshine, with thawing temperature 63 per cent of the month; spring work has been in progress since the 24th.

STOCKPORT.—*C. L. Beswick.* Oats seeding began about the 20th; peach buds showed color but were checked by hard freeze on the 31st.

ERRATA IN JANUARY REVIEW.

ALGONA.—Mean temperature recorded 13.6°, on page 6, should have been 13.5°. Mean minimum temperature recorded 4.6°, on page 7, should have been 4.5°.

CLEAR LAKE.—Total snowfall recorded 6.1 inches, on page 6, should have been 6.2 inches.

ERRATA IN FEBRUARY REVIEW.

DENISON.—The precipitation on the 27th, recorded .12 of an inch, on page 22, should be 1.16 inches. The total precipitation recorded was .44 of an inch, on pages 17 and 22, should be 1.48 inches.

BELATED REPORT.

ROCK RAPIDS.—Mean temperature 20.4°; highest 60°, on the 17th; lowest 23°, on the 5th; greatest daily range 30°; total precipitation .75 of an inch; greatest in 24 hours .40 of an inch; total snowfall 7.5 inches. Number of clear days 11, partly cloudy 3, cloudy 14, rainy 5.

A MARCH TORNADO.

The period of excessive heat in the last week of March culminated in severe local storms in the southern section, on the afternoon of the 28th. A news special from Clarinda, dated March 28th, gave the following report of a tornado which originated in Missouri and traversed the southeastern portion of Page county, Iowa, on the evening of that date. The special says:

A tornado started this afternoon at 4:30, a mile and a half north of Clearmont, Mo., and traveled northward, passing one mile east of the town of Braddyville, Page county, Iowa, just north of the State line. There was no electrical disturbance, but the storm was accompanied by darkness and a loud roaring. The genuine tornado seemed to start north of Clearmont. Its work was as follows:

It demolished the barn and house of John Burch, the barn and outbuildings of J. M. Hunt and probably destroyed the home of Ira Hodges, for no word has been heard from the family. Near Braddyville the tornado tore into splinters the house, barn and outbuildings of Will Akin, set Jim Burgess' house in the road, and completely destroyed the barns of Henry Lush, Eathen Kelly and Lawrence Snodgrass, all well known Page county farmers. No deaths are yet known. The tornado followed the course of Buchanan creek for some distance before it spent itself. The most damage was done near Braddyville.

At Kelly's and Stanton's farm some marvelous freaks were wrought. Three cows grazing beside a fence on the Kelly farm were lifted into the air and deposited unhurt on the pasture of a farmer named Stanton just across the fence, which itself was unmoved and unshaken.

The cows are eclipsed, however, by the mule. The animal was standing by the barn when the swirling wind hit the building. The upper half of the barn was sheared off and deposited on the mule and in a second more a water tank blew down on top of the barn and mule. The animal was dug out uninjured.

Five tons of hay laying on the second story of the barn were left untouched although the roof and sides had been torn off.

A similar curious happening with regard to a quantity of hay occurred at the Stanton barn. The hay in this case was laying on the first floor and it was left there although the walls and rest of the building except the floor were lifted high and dropped down nearby. Remarkable as were these events they are vouched for by a number of thoroughly credible eye-witnesses.

MARCH PHENOMENALLY MILD.

EXTRACTS FROM THE NATIONAL WEATHER BULLETIN FOR MARCH, 1907.

The marked features of the month were the phenomenally high temperatures of the second and third decades over a large part of the country east of the Rocky Mountains, the exceptionally light precipitation in the southern states, and the cold, wet weather over a greater part of California and in Oregon.

At the close of the month the season was reported to be from two to four weeks in advance of the average in the central valleys and southern states.

As a whole the weather conditions were generally favorable for farming operations in the districts east of the Rocky Mountains.

Over much the greater part of the country March averaged milder than usual, and throughout the central valleys and southern states and over a large part of the lake region the temperature excess ranged from 6 degrees to 12 degrees per day. While the temperature averaged above the normal almost continuously throughout the month over a large part of the country, the marked excess in the districts east of the Rocky Mountains was due principally to the phenomenally warm weather that prevailed during the last decade. Generally the month averaged cooler than usual in the Pacific Coast states, over a small area comprising northeastern Montana and northwestern North Dakota, and in Maine. As a whole, the deficiency in temperature in these districts was very slight, except in northern California, where it ranged from 3 degrees to 6 degrees per day.

In the plateau regions, California and southern Oregon, the precipitation during March was greater than the average, a marked excess, ranging from 2 to more than 5 inches, occurring in the middle plateau and middle Pacific Coast regions. In the Ohio valley, portions of the central Mississippi and lower Missouri valleys, and over the greater part of the lake region, the precipitation was also above the average, the excess ranging from 1 inch to more than 2 inches over portions of these districts. On the north Pacific Coast, over the eastern Rocky Mountain slope, and generally throughout the Atlantic Coast and Gulf districts, the precipitation was lighter than usual, the deficiency in the central and east Gulf states ranging from 2 to more than 5 inches.

At the close of the month there was practically no snow on the ground east of the Rocky Mountains, except over the western portion of the upper Michigan peninsula, where a depth of 4 inches still remains.

WEATHER AND CROP NOTES.

The Commercial West, in its issue of March 30th, said: "Contrary to all indications and expectations of six weeks ago, wheat seeding now promises to be early throughout the northwest. Seeding has already begun in South Dakota and along the C., M. & St. P. road in southern Minnesota. Some stations on the St. Louis road also report having begun in the fields the 27th. In southern North Dakota harrowing is being done on the high lands preparatory to an early start of seeding. The only part of the northwest that may be delayed on account of late-lying snow is the northwestern part of North Dakota. In the western part of the Red River valley the ground is rapidly drying out and there is a probability that seeding will begin by April 10th to 15th, the earliest in five years. Had anyone made the prediction two months ago that conditions throughout the northwest would, the latter part of March, be so favorable for early seeding, he would have been regarded as wanting in reason."

Favorable conditions for early seeding of spring wheat indicate an increase in the acreage of that cereal in Iowa as compared with last year. The oats crop is also likely to be somewhat larger in area, as a result of fine weather in March, generally excellent tilth of the soil, and the large acreage of plowing done last fall.

IOWA WINTERS IN PIONEER YEARS.

[Cedar Rapids Republican]

The Register and Leader has joined the men who believe that the Iowa winters have been changing. The Des Moines paper refers to the sufferings that were endured by the men who in 1857 marched from Fort Dodge to the relief of the northwest settlements against the Sioux Indians. The sufferings of that expedition are historic. Lieutenant Mason, a member of the expedition, has left the following testimony:

How we survived those fearful nights I do not know, when the mercury sank to 34 degrees below zero the last night. The poor boys were slowly freezing and many of them were insane; I think all of us were more or less insane the last night. The tongues of many of the men were hanging out, and the blood was running from the mouth or nose as we got up in the morning.

"It must be remembered," says the Des Moines paper, "that all this took place in April, when Easter bonnets are being worn nowadays and spring is here in all its glory. Iowa does not have such old-fashioned blizzards nowadays," it exclaims by way of conclusion. But may that one year not have been an exception. The sons of old settlers have often heard how the farmers used to sow wheat in March, and even in February. In early Iowa they sowed wheat in March more often than they had such blizzards in April.

The Register and Leader should be more careful than to cite the blizzard in which the Spirit Lake rescuing party was caught as a usual experience. It was unusual. It was so extraordinarily exceptional that no general conclusions as to Iowa weather ought to be drawn from it. It was as exceptional as the Camanche cyclone. Such disturbances of the weather will come now and then. The April blizzard of 1857 may have been a solitary instance. It probably was. It was the freak of a few days. The snows had been melting, the creeks were filled until they seemed like impassable rivers to the rescuing party. Then all of a sudden the wind veered to the northwest and the blizzard came, which sent the thermometer, it is estimated, down to 30 degrees below zero. But it lasted for only a few days, then it began to thaw again. But such blizzards were not more usual then than they are now. New York had one in 1888, in March, we believe, which

was responsible for the death of Roscoe Conkling, who was caught in it. That was in the old and thickly settled part of the country, right in New York City. We should be careful not to measure the weather of a country from such exceptional disturbances.

If the editor of the Register and Leader will read the early records of the Jesuits and traders, from Canada, among the Sioux Indians, he will find that the winters then were about as they are now. Those records date back 150 years before the Spirit Lake massacre.

Coming down to more modern times, that is to the fifties of the last century, the period cited by the Register and Leader, we have the testimony of a writer who came to Iowa from Holland and traveled in Iowa and published his observations in a series of letters in 1858—this is a rare Iowa book, a copy of which is in the possession of Mr. L. A. Brewer of this city. He gave a most favorable report of the winters in Iowa. He recorded among other things that the pioneer Americans were in the habit of going about so lightly clothed "that many times their bare bosoms were visible." That was in the coldest winter weather. While it is given as an evidence of the hardihood of the pioneers, it also carries with it the conclusion that the winters at that time were mild—as mild as they are now.

But we should not draw from this record the conclusion that the Iowa winters were milder then than they are now, no more than we should draw from the Spirit Lake incident the conclusion that they were colder than now. There were both mild and cold winters then as there are both mild and cold winters now. The weather of Iowa has not changed a great deal. It has probably not changed at all. The average must be about the same.

Another thing we should bear in mind and that is that men are better prepared against the cold now; their houses are warmer, their clothing is more ample. A man who lived in a dugout in 1857, or who was making his way across an unsettled prairie was more exposed than the man who now lives in a steam-heated house and who travels in a steam-heated railroad coach. The early railroads were naturally more often blockaded than they are now. Then the roads ran across barren prairies. Now they are protected by snow fences at all deep cuts, and the roadbeds are better and the engines more powerful and equipped with snow plows. But it is within the experience of the last three winters that some Iowa roads were blocked with snow for a week at a time, and that in spite of all the equipment and the men with which the tracks can be cleared.

The weather in Iowa has not changed. It only seems so.

CLIMATOLOGICAL DATA FOR MARCH, 1907.

CENTRAL SECTION

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Date of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
Amana	Iowa	721	28	42.4	†11.0	84	26	17	14	44	1.05	- .95	.44	3.1	9	12	7	12	NW	28
Ames	Story	926	23	40.7	† 8.2	88	25	3	14	43	.27	-1.21	.20	2.2	3	19	1	11	N&S	
Audubon	Audubon	1,301	11	41.1	† 8.5	89	25	8	14	50	.46	-1.32	.35	4.1	5	17	6	8	NE	
Baxter	Jasper	998	7	41.4	† 5.0	87	26	6	14	50	2.65	† .40	1.17	3.5	6	13	5	13	NE,NW	23, 29
Belle Plaine (*d*)	Benton	828	15	41.2	† 8.7	85	26	13	14	43	.82	-1.78	.35	1.5	7	15	6	10	S	
Boone	Boone	1,134	2	39.4	.....	88	25	9	14	55	.87	.....	.61	2.0	6	....	....	....	.....	
Buckingham	Tama	.....	7	.....	.....	.....	.....	.....	.....	.....	1.44	- .75	.64	1.1	6	6	17	8	.....	
Carroll	Carroll	1,265	17	39.0	† 7.5	87	26	9	14	53	.50	-1.85	.20	3.9	5	14	1	16	.....	
Cedar Rapids	Linn	733	25	40.4	† 7.6	85	21, 26	13	3	53	.76	-1.42	.22	1.8	8	8	20	3	NW	29
Clinton	Clinton	593	37	43.2	†10.4	83	26	19	3	45	2.10	- .92	1.43	1.5	8	11	7	13	.....	28
Davenport	Scott	606	36	43.7	† 8.3	82	21	20	2	41	1.79	- .37	1.31	2.4	8	11	7	13	NW	23, 28, 29
Delaware	Delaware	1,083	14	38.9	† 8.6	80	26	11	14	40	.73	-1.10	.20	2.2	7	10	15	6	NW	28
Denison (*a*)	Crawford	1,180	11	41.0	† 9.1	87	26	10	14	44	.88	- .75	.25	4.6	6	....	....	....	N	
Des Moines	Polk	861	28	42.9	† 7.2	88	25	14	14	47	1.18	- .28	.65	3.6	7	5	16	10	SW	28
De Soto	Dallas	866	7	42.6	† 5.7	88	25	8	14	50	.67	-1.05	.39	4.0	4	20	2	9	NW	28
Dubuque	Dubuque	698	34	41.0	† 7.9	82	26	16	2	42	.99	-1.28	.52	1.9	11	11	8	12	SE	25, 28
Fort Dodge	Webster	1,126	7	38.4	† 5.0	86	26	11	2, 14	49	1.16	-1.10	.40	1.5	7	11	7	13	NW	
Galva	Ida	1,290	11	38.9	† 6.4	84	26	10	2	45	.30	-1.09	.15	.5	3	18	3	10	S	
Gilman	Marshall	1,052	8	.....	.....	.....	.....	.....	.....	.....	1.38	- .57	.78	3.0	4	12	13	6	S	
Grinnell	Poweshiek	1,023	12	43.0	†10.3	87	26, 27	10	3	45	1.30	- .49	.55	5.5	6	13	9	9	NW	28
Grundy Center	Grundy	976	14	40.2	† 8.7	85	26	9	14	46	1.30	- .36	.95	2.0	4	19	0	12	N	
Guthrie Cen. (*a*)	Guthrie	1,077	9	41.2	† 7.6	.....	.....	10	14	46	.93	- .47	.47	3.0	6	17	5	9	NW	28
Harlan	Shelby	1,192	8	41.8	† 7.6	90	25	7	14	48	.40	-1.30	.20	3.5	5	11	9	11	NW	
Indep'dence	Buchanan	921	41	40.6	†10.7	84	26	14	2, 14	49	1.85	† .06	1.00	3.0	8	21	2	8	NW	26, 28
Iowa City	Johnson	683	46	42.4	† 8.8	86	21, 25	19	2, 3	52	1.59	- .89	1.07	2.0	7	14	4	13	NW	28
Iowa Falls	Hardin	1,170	12	37.8	† 7.0	84	26	-1	14	49	1.97	† .36	.89	5.5	5	14	5	12	NW	28
Jefferson (*a*)	Greene	.....	....	42.0	.....	88	25	10	14	43	1.26	.....	1.01	2.0	3	....	....	....	N	
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	1.83	.....	1.30	4.0	7	14	5	12	SW	
Little Sioux	Harrison	.....	2	42.0	.....	88	21, 26	8	1, 2	46	.54	.....	.20	4.2	6	17	4	10	NE	
Logan	Harrison	928	38	41.9	† 7.8	89	25	11	1	43	.54	-1.36	.40	4.0	2	9	15	7	NW	
Marshalltown	Marshall	947	12	41.8	† 9.6	87	25, 26	5	14	55	3.22	†1.29	1.85	4.0	7	8	6	17	SE	
Mt. Vernon	Linn	847	38	41.8	†11.9	83	26	16	2	47	2.04	† .01	1.20	3.2	7	19	3	9	NW	28, 29
Muscatine	Muscatine	.....	48	.....	.....	.....	.....	.....	.....	.....	1.65	-1.14	1.07	3.5	6	11	10	10	S	
Newton	Jasper	944	17	42.1	.....	86	25	13	14	47	.90	.....	.35	4.0	5	....	....	....	.....	
Odebolt	Sac	1,356	8	40.1	† 7.1	86	26	12	1, 2	50	.26	-1.73	.15	0.5	3	18	4	9	.....	
Olin	Jones	760	8	42.1	† 9.0	81	26	18	2	44	2.18	- .27	.78	2.0	5	14	8	9	NW	28
Onawa	Monona	.....	7	41.8	† 4.6	88	26	9	1	50	.45	-1.08	.15	3.2	7	18	2	11	SE	
Perry	Dallas	975	6	41.4	† 4.5	89	25	8	14	49	1.13	-1.01	.56	4.1	6	3	20	8	.....	28
Rockwell City	Calhoun	.....	10	40.8	† 9.4	86	26	9	14	40	.60	-1.70	.30	3.0	2	21	0	10	.....	
Sac City (*b*)	Sac	1,356	25	38.6	† 8.8	82	26	12	2	49	.48	-1.17	.10	2.0	7	20	3	8	NW	
Sioux City	Woodbury	1,135	16	38.4	† 5.8	81	21	0	2	40	.26	- .98	.14	2.9	5	10	5	16	NW	
Stuart	Guthrie	.....	8	40.7	† 9.0	85	25	14	14	42	.46	-2.19	.30	4 5	3	11	6	14	NW	28
Tipton	Cedar	807	9	44.0	† 8.1	83	26	19	2	43	2.14	- .96	1.73	....	5	18	3	10	NW	
Toledo	Tama	856	11	41.4	† 9.2	86	26	10	14	50	1.35	- .40	.55	2.5	5	13	8	10	NW	
Waterloo	Black Hawk	862	18	40.4	†10.2	86	26	3	14	45	2.26	† .43	.96	3.0	7	11	9	11	NW	25, 29
Waukee	Dallas	1,039	4	41.4	.....	86	26	11	14	41	1.27	.....	.70	4.6	7	14	5	12	NW	
Webster City	Hamilton	.....	....	39.9	.....	85	25, 26	3	4	53	1.94	.....	.87	4.5	5	13	6	12	NW	
Whitten	Hardin	1,036	6	39.6	† 8.6	84	26	4	14	44	.79	- .15	.25	3.0	6	9	9	13	NW	29
Wilton Junct'n	Muscatine	683	10	44.0	† 9.7	81	23	18	2	46	1.68	-1.03	1.61	0.2	3	14	7	10	W	
Zearing	Story	718	3	39.5	.....	87	25	8	3	47	1.45	.....	1.00	2.7	4	16	6	9	SW	28
Averages	.....	.....	....	41.1	† 8.2	85.5	.....	10.6	.....	46.6	1.20	- .79	.....	2.9	6	14	7	10	NW	

‡ Received too late to be included in average. *a*, one day missing; *b*, two days; *c*, three days, etc. † means plus

CLIMATOLOGICAL DATA FOR MARCH, 1907—CONTINUED.

NORTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
Algona	Kossuth	1,213	31	36.0	†6.0	83	26	3	2	41	1.04	-.52	.25	7.0	8	15	7	9	SE	28
Alta	Buena Vista	1,513	14	37.4	†8.0	85	26	7	2	48	.54	-1.28	.25	2.1	8	16	6	9	S	
Alta [near]	Buena Vista	.....	.....	.....	.....	.....	.....	.....	.....	.....	.46	.....	.15	3.7	5	.....	.....	.....	.....	
Alton	Sioux	1,305	.....	37.2	.....	79	26	-3	2	36	1.24	.....	.56	6.5	6	19	3	9	NW	
Britt	Hancock	1,236	8	36.0	†7.8	82	26	5	2	38	1.65	† .31	.85	3.9	7	6	17	8	NW	23
Charles City	Floyd	1,015	20	36.0	†7.6	84	26	7	14	39	2.17	† .32	1.13	5.8	8	8	11	12	NW	28
Clear Lake	Cerro Gordo	1,241	8	36.2	†5.0	81	26	6	2	36	.80	† .42	.45	3.0	6	24	2	5	N	
Decorah	Winneshiek	875	11	37.0	†6.7	83	26	10	14	48	1.96	‡ .00	.87	5.5	7	.....	.....	.....	.....	
Dows	Wright	1,142	7	37.2	†4.1	83	25	5	14	48	1.61	-.61	.68	2.2	7	12	6	13	NW	26, 28
Elkader	Clayton	727	24	39.2	†8.3	85	26	8	14	46	1.56	-.27	.60	4.5	7	16	6	9	NW	25, 28
Estherville	Emmet	1,298	10	34.0	†6.9	83	26	-6	2	45	.60	-.81	.20	4.0	3	13	0	18	NW	
Fayette	Fayette	1,003	17	37.6	†7.4	83	26	5	14	43	1.33	-.93	.45	5.4	7	14	8	9	SE	25, 28
Forest City	Winnebago	1,226	11	34.8	†6.4	84	26	3	2	45	1.39	-.09	.94	2.8	4	13	6	12	N	
Grand Meadow	Clayton	1,180	14	37.0	†6.8	81	25, 26	10	14	45	1.63	-.47	.50	4.8	8	11	11	9	NW	23, 25, 28
Hampton	Franklin	1,155	15	37.8	†9.2	85	26	9	14	46	2.75	†.49	2.05	5.6	6	6	18	7	NW	28
Humboldt	Humboldt	1,095	13	37.8	†8.1	80	25	7	2	36	1.09	-.36	.36	.....	6	16	2	13	NW	29
Inwood	Lyon	.....	3	36.4	.....	76	21, 24	-7	2	42	.51	.....	.12	2.7	7	14	10	7	NE	
Larrabee	Cherokee	1,266	16	37.2	†8.0	82	26	2	2	39	.30	-1.35	.15	1.6	3	15	7	9	NW	28
Le Mars (a)	Plymouth	1,224	9	37.2	†5.4	78	26	-3	2	34	.50	- .87	.40	1.0	2	14	9	8	S	
Mason City	Cerro Gordo	1,132	10	37.2	†9.3	82	26	8	2	43	1.57	† .23	.55	3.5	7	10	13	8	NW	27, 28, 29
New Hampton	Chickasaw	1,169	7	36.2	†5.6	80	26	5	14	38	1.90	† .25	1.12	5.5	5	15	10	6	W	28
Northwood (a)	Worth	1,222	9	35.2	†5.8	80	26	5	2	37	2.70	†1.10	1.20	7.5	10	18	7	6	NW	23, 28, 29
Osage	Mitchell	1,184	14	36.1	†8.7	82	26	8	2	41	1.32	- .25	.69	2.0	8	11	9	11	NW	23, 25, 26
Plover (a)	Pocahontas	.....	8	36.0	†5.6	84	25, 26	5	2	43	.40	- .98	.10	3.5	5	18	2	11	NW	26, 28
Pocahontas	Pocahontas	.....	3	37.4	.....	87	26	8	2	45	.63	.....	.19	4.8	6	16	6	9	NW	28
Ridgeway	Winneshiek	1,215	9	37.4	†6.4	83	26	10	2, 14	43	2.90	† .41	1.00	5.1	12	14	10	7	NW	23,25,26,28
Rock Rapids	Lyon	.....	9	37.2	†7.4	76	24	-2	2	34	.80	- .79	.40	4.0	3	15	6	10		
Sheldon	O'Brien	1,422	7	37.2	†8.4	80	26	-4	2	40	.62	- .34	.20	3.5	5	18	7	6	SE	
Sibley	Osceola	1,212	11	31.8	†2.2	78	26	-4	2	42	.61	- .56	.20	4.6	4	11	8	12	NW	
Sioux Center	Sioux	.....	8	36.2	†3.2	74	24, 26	3	2	37	.33	- .92	.10	2.5	5	16	8	7	S	23
Washta	Cherokee	1,157	9	38.2	.....	86	26	1	2	49	.23	-1.02	.15	0.5	2	15	7	9	N	
Waverly	Bremer	942	9	39.0	†7.8	84	26	5	14	42	1.72	- .24	.99	5.0	8	10	9	12	NW	25
West Bend	Palo Alto	1,197	11	36.2	†7.0	83	26	2	2	42	.57	-1.07	.20	4.3	5	12	7	12	.....	
Average	.....	.....	....	36.7	†6.9	78.6	.....	3.7	.....	41.6	1.19	- .44	.....	4.0	6	14	7	10	NW	

SOUTHERN SECTION.

Afton	Union	1,212	12	43.5	† 8.3	88	25	18	14	51	1.95	- .35	.62	8.0	7	10	10	11	NE	
Albia	Monroe	959	9	42.9	† 5.4	88	21	17	14	54	1.43	- .45	.50	8.0	5	11	9	11	E, W, NW	29
Allerton	Wayne	.....	5	45.3	† 7.1	87	25	18	14	43	1.90	- .55	.80	5.9	7	19	3	9	NW	28
Atlantic	Cass	1,164	14	42.4	† 8.9	91	25	3	14	53	.77	-1.19	.37	4.0	4	10	10	11	S	28
Bedford	Taylor	.....	7	45.2	† 9.9	89	25	15	14	44	1.95	- .58	.63	5.0	6	15	3	13	NE	28
Bloomfield	Davis	.....	.....	45.4	.....	87	21, 25	20	14	39	2.38	.....	.78	9.8	7	16	6	9	NW	28
Bonaparte	Van Buren	.....	13	45.2	† 8.0	88	21	21	2	44	2.00	- .68	1.10	2.3	5	.....	.....	.....	.....	
Burlington	Des Moines	544	9	45.4	† 6.2	88	21	21	2	53	2.54	- .34	1.01	7.0	8	16	5	10	SE, NW	29
Chariton	Lucas	1,042	10	43.4	† 7.7	88	21	15	14	47	1.90	† .40	.95	8.0	4	17	5	9	SE	
Clarinda	Page	1,009	15	44.3	† 9.1	92	25	17	1, 2	47	1.22	- .68	.55	7.0	5	14	7	10	NE	
Columbus Jct.	Louisa	595	6	44.2	† 4.5	84	21	19	2	42	2.65	† .26	1.25	5.0	5	18	4	9	SE, NW	28
Corning	Adams	1,117	13	43.4	† 7.7	87	25	15	1	45	.79	- .96	.50	4.8	3	12	10	9	NE	28
Corydon	Wayne	1,101	12	45.2	† 9.1	87	25	17	14	40	1.56	- .51	.60	7.4	8	14	6	11	NE	28
Cumberland	Cass	.....	8	.....	.....	.....	25	19	1, 2	52	2.22	.....	.84	7.0	6	8	13	10	N	
Earlham	Madison	.....	5	41.1	† 6.9	87	.....	.....	.....	.....	.38	-2.08	.32	5.0	3	26	2	3	SW	
Elliott	Montgomery	.....	2	43.0	.....	87	27	15	31	51	.83	- .93	.43	4.0	3	11	6	14	NW	27, 30
Fort Madison	Lee	516	54	.....	.....	.....	25	11	1	46	.30	.....	.20	3.0	2	19	8	4	NW	28
Greenfield	Adair	.....	14	.....	.....	88	.....	.....	.....	.....	2.34	- .64	1.33	7.0	8	8	11	12	S	
Hancock	Pottawatta'e	.....	1	42.8	.....	88	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Hopeville (a)	Clarke	.....	14	43.8	† 9.5	89	25	10	13	52	.28	.....	.20	2.5	3	21	0	10	SW	
Indianola	Warren	969	16	43.2	† 5.2	87	25	18	14	47	1.29	- .39	.53	3.0	6	6	14	11	NE, S	28
Keokuk	Lee	614	36	47.6	† 9.7	88	25	15	14	46	1.50	† .31	.73	5.6	8	7	9	15	NW	25, 27
Keosauqua	Van Buren	644	13	44.7	† 6.7	88	21	25	2	40	5.05	†2.87	3.50	6.5	9	18	6	7	SW	12,23,27,28
Lacona	Warren	.....	8	.....	.....	.....	21	21	2	53	2.38	- .10	1.38	8.0	5	3	13	15	.....	28
Lenox	Taylor	1,250	10	44.0	† 9.1	87	.....	.....	.....	.....	1.66	-1.03	.84	.....	4	11	15	5	.....	28
Leon	Decatur	1,120	5	44.4	† 6.4	86	25	17	1	45	1.76	- .09	.79	4.3	6	18	4	9	S	
Massena	Cass	.....	.....	43.0	.....	92	25	18	14	44	.94	-1.82	.53	5.0	5	21	0	10	NE	29
Mt. Ayr	Ringgold	1,236	11	44.8	† 9.3	90	25	10	14	49	.54	.....	.34	2.0	4	10	19	2	SE, S	28
Mt. Pleasant	Henry	729	23	45.0	†10.5	86	25	17	14	48	2.92	† .99	.92	6.8	7	11	8	12	NW	
Omaha, Neb	Douglas	1,105	35	43.5	† 7.5	91	21	20	2	42	2.70	† .37	.83	6.4	10	10	12	9	NW	
Oskaloosa	Mahaska	841	21	43.8	† 9.6	87	25	13	1	41	0.29	-1.21	.21	2.7	4	7	5	19	N	
Ottumwa	Wapello	649	11	46.6	† 9.0	88	25, 26	16	14	47	.76	-1.13	.27	4.4	5	17	0	14	NW	
Pacific Jct.	Mills	960	7	43.7	† 7.6	91	21	21	3, 14	42	1.68	- .23	1.33	3.5	4	11	10	10	.....	
Pella	Marion	.....	4	43.9	.....	88	25	8	14	45	.66	- .77	.24	4.8	4	7	16	8	E	
St. Charles	Madison	1,070	6	43.8	† 5.6	90	25	16	14	47	.96	.....	.34	3.6	8	15	6	10	NW	29
Sigourney	Keokuk	877	8	44.0	† 8.1	86	25	17	14	59	2.18	† .24	.85	6.1	8	20	1	10	NW	
Stockport	Van Buren	.....	5	45.4	.....	87	21, 25	18	14	47	1.29	- .60	.68	5.0	4	3	20	8	NW	28
Thurman	Fremont	.....	9	43.4	† 6.5	90	21	20	2	44	1.39	-1.13	.90	7.0	6	16	5	10	NW	28
Washington	Washington	769	23	43.4	† 8.8	86	25	8	8	44	.70	-1.08	.28	0.8	4	10	10	11	SW	
Winterset	Madison	1,129	14	44.8	†10.7	87	25	18	2	43	2.62	† .45	1.25	.....	4	10	11	10	NW	
Woodburn	Clarke	961	8	43.6	.....	88	25	15	14	46	1.96	- .08	.75	4.5	7	14	8	9	NW	28
Average	.....	.....	....	44.1	† 8.0	88.0	.....	15	14	47	3.52	-2.00	1.00	13.0	6	15	7	9	NE	29
Average	.....	.....	....	44.1	† 8.0	88.0	.....	16.2	.....	45.9	1.66	- .43	.....	5.5	6	13	8	10	NW	
State aver.	.....	.....	....	40.6	† 7.6	84.0	.....	10.2	.....	44.6	1.35	- .55	.....	4.1	6	14	7	10	NW	

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF MARCH, 1907

STATIONS		DAY OF MONTH																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Albia*	max.	28	29	40	36	31	37	37	43	36	44	40	38	31	46	60	64	53	58	65	58	88	75	81	75	87	85	65	65	61	55	46	53.5
	min.	26	18	23	29	28	21	26	27	28	29	29	29	27	17	21	40	29	28	30	31	34	49	51	40	46	57	48	44	43	31	21	32.3
Algona	max.	26	27	30	36	29	27	33	33	37	39	36	36	29	41	50	59	38	43	49	49	71	64	59	68	80	83	62	50	53	42	40	45.8
	min.	13	3	15	20	15	11	25	13	27	22	30	27	19	12	27	36	26	25	35	28	36	33	41	32	46	42	35	32	35	27	23	26.2
Allerton	max.	37	42	43	36	40	36	37	43	39	45	40	39	37	48	61	63	55	56	66	60	86	77	81	76	87	83	75	60	66	56	48	55.4
	min.	24	21	29	30	30	23	30	27	31	30	32	33	29	18	31	37	31	29	47	32	43	50	59	46	52	60	47	44	42	30	23	35.2
Alta*	max.	18	30	31	35	28	31	30	37	35	42	38	30	25	45	55	55	44	44	50	54	78	62	68	76	79	85	59	49	53	46	50	47.2
	min.	12	7	13	26	21	18	28	15	27	24	30	30	18	15	27	37	26	29	43	28	30	41	41	38	48	43	30	34	36	26	18	27.7
Alton	max.	21	28	32	41	35	28	33	36	37	39	38	37	30	44	53	53	44	45	50	55	72	65	68	74	73	79	64	56	50	42	49	47.5
	min.	8	-3	9	25	18	14	27	11	27	26	31	26	19	19	27	35	26	30	36	30	36	36	43	40	48	43	28	32	35	29	22	26.9
Amana	max.	43	37	34	40	36	34	37	41	38	44	39	41	37	42	56	62	54	49	60	53	82	71	78	63	83	84	72	55	59	50	42	52.1
	min.	26	18	23	25	26	21	32	25	28	31	30	35	29	17	31	39	29	29	41	33	38	47	51	36	42	59	47	37	43	28	22	32.8
Ames	max.	33	34	35	37	33	31	35	42	37	45	40	40	33	43	58	63	46	50	58	56	80	72	70	73	88	85	74	55	58	48	46	51.5
	min.	20	16	22	27	24	19	28	24	29	23	31	22	23	3	27	39	28	28	37	30	37	42	52	35	48	57	40	34	38	26	19	29.9
Atlantic	max.	29	42	43	38	42	32	35	46	35	43	42	42	32	47	60	63	52	52	65	56	88	74	73	80	91	88	73	57	65	42	54	54.2
	min.	17	17	24	29	28	24	26	20	30	26	32	31	23	3	28	38	31	30	32	31	35	39	52	32	54	62	37	31	37	26	20	30.5
Audubon	max.	28	40	38	37	35	30	34	43	35	44	40	40	31	45	58	60	47	50	59	60	85	73	71	78	89	86	76	53	58	46	53	52.3
	min.	15	15	25	30	29	21	29	27	28	25	31	29	21	8	31	37	29	30	36	29	35	42	49	31	48	52	37	31	37	23	16	29.9
Baxter	max.	38	35	34	36	36	31	36	42	36	43	39	40	37	44	56	63	58	59	60	56	85	72	77	71	86	87	74	54	58	48	44	52.7
	min.	21	16	22	25	23	19	27	24	26	28	29	31	24	6	30	37	28	27	40	28	35	42	49	32	46	60	41	36	38	27	20	30.2
Bedford	max.	31	44	46	41	45	33	38	44	37	41	44	45	34	48	65	65	60	55	70	66	88	72	65	78	89	83	73	65	64	49	52	55.8
	min.	19	17	24	30	27	25	31	19	31	28	32	32	27	15	30	41	32	30	46	33	44	50	59	49	55	62	53	39	39	31	24	34.6
Bloomfi'd	max.	48	40	43	36	41	35	40	44	41	41	39	40	38	46	61	65	58	54	68	57	87	79	83	75	87	83	74	61	65	58	46	55.9
	min.	27	21	28	28	27	22	32	27	30	30	27	35	28	20	30	41	30	29	44	32	43	53	53	40	48	64	52	45	43	31	24	35.0
Bonapa'e	max.	48	37	40	36	39	35	41	43	37	43	41	41	37	46	61	64	55	55	68	56	88	77	82	69	86	82	69	59	64	56	44	54.8
	min.	21	28	25	28	28	25	32	28	30	29	25	36	30	24	31	36	32	30	46	32	44	55	58	40	47	59	49	46	31	25	25	35.7
Boone*	max.	22	33	35	35	33	33	33	41	38	45	39	37	28	43	58	62	46	50	57	54	86	63	67	74	88	85	63	50	57	47	46	49.9
	min.	19	16	19	25	25	20	23	24	24	26	31	30	23	9	10	37	30	29	30	30	31	41	60	56	67	81	82	63	52	50	44	46.4
Britt	max.	33	29	32	38	28	30	34	34	42	40	37	30	28	20	10	24	33	25	25	35	28	35	36	43	29	45	46	34	31	33	24	25.5
	min.	15	5	16	17	16	9	26	10	26	20	30	28	20	10	24	33	25	25	35	28	35	36	43	29	45	82	70	67	59	59	46	55.7
Burl'g'n*	max.	38	39	40	37	42	36	42	47	37	45	43	42	38	48	61	64	57	59	71	56	88	80	82	67	84	45	49	63	53	53	35	35.1
	min.	37	21	22	27	29	24	25	29	29	30	28	30	32	28	22	36	35	30	30	34	35	50	57	45	45	49	63	53	53	35	25	50.4
Carroll*	max.	24	39	37	35	34	32	32	40	35	45	38	34	27	43	59	61	46	50	57	57	84	63	72	77	86	87	64	50	58	47	50	50.4
	min.	14	14	19	23	26	21	22	20	22	24	26	28	20	9	18	36	28	29	30	29	31	37	44	38	42	48	36	35	36	29	22	27.6
Cedar R*	max.	42	37	36	39	35	33	36	43	38	44	41	42	33	40	59	64	41	49	60	54	85	70	77	63	84	85	65	61	56	51	44	51.8
	min.	34	18	13	19	27	19	20	26	25	29	30	31	28	18	17	31	28	29	29	31	32	39	41	32	33	40	52	39	40	30	23	29.1
Chariton	max.	36	40	40	40	37	34	36	43	39	46	39	38	36	46	61	63	57	54	64	59	88	75	78	76	86	84	70	57	65	55	45	54.4
	min.	25	19	28	27	26	22	30	26	30	28	31	32	27	15	18	28	27	28	44	29	41	46	54	39	51	60	45	41	42	28	21	32.5
Charles C.	max.	33	26	28	34	27	28	34	36	38	44	41	42	33	40	59	64	41	49	60	54	85	70	74	80	92	86	66	68	62	45	53	56.1
	min.	19	10	14	21	16	15	26	17	27	27	31	30	19	7	28	33	24	23	32	28	35	36	51	49	56	58	42	40	38	32	24	32.5
Clarinda*	max.	30	45	46	40	45	37	38	43	35	40	44	40	30	50	64	67	59	55	70	67	91	76	74	80	92	86	66	68	62	45	53	56.1
	min.	17	17	24	28	29	26	27	20	23	30	40	32	26	18	20	31	33	32	45	36	51	49	49	37	45	56	42	40	38	32	24	32.5
Clear La'e	max.	34	25	28	34	31	30	35	36	37	43	40	45	40	40	49	50	45	45	50	48	70	62	58	62	75	81	70	54	50	42	35	46.4
	min.	18	6	12	21	15	14	26	15	26	26	30	28	20	15	27	37	26	25	23	36	27	34	37	28	42	45	36	34	34	26	18	26.1
Clinton	max.	42	37	37	41	37	37	38	42	41	44	30	27	37	30	29	27	38	30	31	37	32	36	47	50	37	40	57	47	37	43	28	22	32.8
	min.	28	20	19	20	24	20	30	28	28	42	45	45	41	39	44	58	63	55	53	66	55	84	73	83	64	83	83	74	61	61	55	43	54.5
Colum's J	max.	50	36	36	42	37	37	41	42	42	45	45	41	39	44	58	63	55	53	66	55	84	73	83	64	83	83	74	61	61	55	43	54.5
	min.	28	19	25	26	29	22	33	26	30	29	27	35	28	24	32	38	30	29	46	32	42	54	72	71	75	87	84	76	62	63	53	48	53.4
Corning	max.	31	42	41	37	39	31	35	39	34	38	41	40	34	46	60	56	38	43	59	53	82	72	71	77	87	84	76	62	63	53	48	53.4
	min.	15	19	27	30	28	24	30	22	30	29	32	31	25	19	33	40	30	29	42	30	37	42	52	35	48	57	40	34	38	26	19	29.9
Corydon	max.	38	42	44	38	40	34	37	48	41	44	40	40	38	49	62	64	59	56	65	60	82	78	79	76	87	83	71	58	67	56	51	55.7
	min.	24	20	28	30	28	23	30	27	31	29	32	33	28	17	32	38	29	29	48	31	42	49	60	41	51	61	47	44	42	31	22	34.7
Creston*	max.	28	42	41	35	38	35	34	40	33	38	29	32	33	45	60	63	52	52	65	56	88	74	73	80	91	88	73	57	65	42	54	54.2
	min.	19	19	26	30	28	24	26	26	30	38	43	43	43	38	42	58	62	47	52	63	53	82	73	79	62	81	81	69	57	62	52	42	52.2
Davenp't	max.	44	38	36	37	36	24	33	39	31	30	30	28	37	32	28	33	42	33	32	41	33	41	56	47	73	80	54	62	37	31	37	26	20	32.4
	min.	26	20	22	27	24	22	31	29	30	30	28	37	32	40	52	58	37	38	52	50	70	62	67	62	78	83	79	76	50	45	38	48.6
Decorah	max.	45	28	32	34	33	32	36	37	41	44	39	38	32	40	52	58	39	40	52	50	76	66	73	60	78	80	71	54	55	53	38	49.1
	min.	19	12	13	14	18	15	22	17	18	17	30	30	23	10	30	32	28	23	22	23	23	41	40	45	36	38	54	45	35	39	22	18	28.7
Delaware	max.	37	32	31	40	34	29	35	37	38	43	38	41	35	39	51	60	47	50	57	56	85	73	70	77	80	87	66	55	56	49	53	51.9
	min.	23	12	14	20	20	14	29	20	23	25	26	31	25	11	26	35	27	26	36	37	37	37	46	38	55	45	34	32	38	26	16	30.1
Denison	max.	23	..	38	36	35	30	34	42	36	45	40	39	31	45	59	59	47	50	56	61	56	86	70	74	74	88	84	63	62	62	48	45	52.5
	min.	13	..	13	29	27	22	28	20	27	24	33	28	21	10	33	36	30	30	30	40	30	41	40	45	38	55	45	34	32	38	25	33.3
Des Mo's	max.	31	37	37	39	35	34	37	42	38	41	41	41	39	46	60	64	48	52	60	61	56	86	69	72	76	88	85	70	54	54	61	48	51	52.8
	min.	20	20	26	31	24	23	31	28	31	32	33	30	21	14	34	38	32	31	37	31	39	49	50	40	50	55	43	42	33	39	26	19	32.3
De Soto	max.	31	40	40	38	37	33	35	43	36	43	41	40	31	46	60	64	48	53	60	59	86	69	72	76	88	85	62	41	33	39	26	19	32.3
	min.	22	18	27	31	26	23	30	26	30	26	33	36	29	8	33	39	29	30	42	31	36	44	52	39	51	62	41	31	39	26	19	47.1
Dows	max.	31	28	28	34	31	28	31	36	35	43	36	39	29	40	52	58	40	45	51	51	80	64	61	67	83	82	72	52	53	44	41	47.1
	min.	17	10	19	24	20	15	27	17	27	26	30	28	21	5	26	35	28	26	35	28	32	36	46	30	45	51	36	34	35	27	18	27.4
Dubuque	max.	41	34	33	42	32	33	37	41	38	45	40	45	34	42	55	62	38	44	59	60	80	64	67	74	88	85	63	50	57	47	46	50.3
	min.	23	16	18	24	22	18	28	27	26	30	30	33	24	22	32	38	29	26	35	30	39	49	42	30	36	39	49	42	38	22	19	31.5
Earlham	max.	34	37	40	37	37	31	35	42	36	41	40	40	33	48	59	64	50	52	61	59	86	78	69	71	73	80	63	50	57	47	46	53.7
	min.	25	23	25	26	27	22	29	20	28	25	32	31	24	18	20	37	27	29	40	29	36	29	30	37	34	31	29	38	30	29	15	28.5
Elkader	max.	32	36	32	39	33	32	37	43	40	48	40	39	33	40	56	63	44	39	56	52	79	68	70	64	82	85	76	53	55	49	43	50.5
	min.	26	14	14	9	22	16	28	21	36	42	47	47	43	46	59	62	51	54	65	62	85	71	70	76	87	85	73	55	60	47	52	27.8
Elliott	max.	29	43	41	41	41	34	36	41	36	42	47	47	43	46	59	62	51	54	65	62	85	71	70	76	87	85	73	55	60	47	52	54.2
	min.	11	19	29	19	27	26	28	18	31	22	31	32	23	14	30	38	32	30	36	32	39	40	60	52	74	77	62	49	38	36	32	31.8
Esth'rv'e*	max.	22	29	30	35	36	30	31	33	36	38	35	31	25	53	51	32	35	30	35	40	60	54	83	70	74	77	60	50	50	40	40	44.8
	min.	14	-6	6	15	13	4	20	10	17	20	22	27	16	15	32	55	33	25	41	30	48	73	62	39	58	65	30	29	35	25	17	23.1
Forest C.*	max.	22	24	28	32	24	29	31	40	40	42	35	30	28	19	14	20	30	28	30	28	31	41	63	64	74	85	82	58	49	39	33	44.7
	min.	16	3	8	16	14	10	20	13	19	24	30	38	34	26	44	55	36	48	53	69	81	63	64	74	86	84	70	57	65	55	45	24.9
Ft. Dodge*	max.	24	31	33	33	30	32	32	37	39	43	40	45	40	40	49	50	45	45	50	48	70	62	58	62	75	81	70	54	50	42	35	46.4
	min.	18	11	14	21	22	18	25	19	20	26	32	30	23	11	17	17	27	25	30	28	34	77	74	76	78	84	75	61	52	44	42	48.8
Galva	max.	23	32	31	39	33	29	33	39	38	43	38	36	30	44	55	59	44	49	53	47	71	59	64	74	85	86	61	51	54	45	36	28.1
	min.	11	10	16	27	24	20	28	17	27	19	24	30	27	14	20	36	27	25	30	28	32	40	44	36	50	48	37	38	36	29	20	49.5
Gr. Mead	max.	36	30	30	35	29	29	40	37	40	45	37	39	32	44	55	59	44	45	53	47	71	59	64	74	85	86	66	68	62	45	53	56.1
	min.	20	11	12	19	18	14	26	17	24	25	29	39	38	40	44	57	62	56	61	54	85	75	79	70	75	57	46	61	40	40	43	28.3
Grinnell	max.	42	34	28	36	34	31	36	46	38	28	29	36	27	20	13	29	40	29	40	30	40	43	75	71	65	84	85	77	59	54	48	41	50.7
	min.	22	15	10	29	24	20	30	23	38	38	44	39	40	35	40	54	61	48	45	57	52	81	35	39	47	30	43	58	40	33	38	26	20	29.7
GrundyC.	max.	36	34	32	38	36	31	36	46	38	28	27	30	26	9	28	38	36	30	37	30	33	77	39	50	38	52	62	39	32	50	25	51.3
	min.	22	14	20	25	23	17	28	24	27	38	42	41	33	43	57	33	40	23	30	41	30	37	39	50	38	52	62	38	32	51	43	31.2
GuthrieC.	max.	30	39	37	37	35	31	34	40	38	29	22	32	31	23	10	42	54	60	40	43	52	52	80	67	37	45	29	43	46	35	27	47.7
	min.	17	17	26	31	29	22	29	22	29	32	48	37	39	29	42	54	60	40	43	52	52	80	67	37	45	29	43	46	35	35	27	28.0
Hampton	max.	33	28	31	36	31	28	32	38	32	29	48	30	22	9	28	37	29	27	38	28	34	72	37	45	36	78	80	71	54	58	46	53.5
	min.	17	10	18	24	21	15	27	15	27	35	41	43	42	48	57	59	61	50	52	64	62	83	72	49	42	54	88	86	60	37	36	32.1
Hancock	max.	25	42	40	38	40	31	25	29	21	30	27	33	30	10	28	30	37	30	30	39	64	61	72	48	36	50	89	87	76	55	48	53.6
	min.	15	19	27	31	31	25	29	21	30	36	46	41	40	32	45	59	61	48	51	30	64	61	72	48	36	50	84	53	35	35	36	29.9
Harlan	max.	25	40	39	40	40	34	34	45	36	46	41	40	32	40	52	58	40	45	54	51	76	66	73	60	78	80	71	54	55	53	38	53.5
	min.	13	14	24	30	29	23	28	20	28	35	44	48	40	40	32	36	64	51	54	65	61	88	75	74	77	89	84	59	43	42	..	31	23	34.0
Hopeville	max.	31	40	41	35	38	32	35	44	35	48	40	40	32	40	52	58	37	30	46	31	41	48	64	60	70	89	79	66	55	53	44	43	47.2
	min.	22	20	29	30	27	24	31	26	31	30	43	41	32	38	43	35	58	44	45	50	53	72	38	44	34	48	46	37	34	37	30	20	28.5
Humboldt	max.	29	32	32	35	35	29	33	28	33	16	28	25	33	30	18	12	28	38	28	28	40	30	36	37	41	42	39	32	38	26	16	30.1
	min.	14	7	18	24	20	16	28	16	28	25	33	30	18	12	28	38	28	28	40	30	38	64	44	34	48	46	37	32	38	26	16	30.1

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF MARCH, 1907—CONTINUED.

STATIONS		DATE																														MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Indep'd'e	max	36	32	32	38	34	30	34	38	36	42	42	39	35	38	53	59	54	59	65	62	82	72	73	63	83	84	76	55	56	48	44	51.4
	min	22	14	18	24	12	15	28	22	26	26	28	32	25	14	26	36	32	38	40	45	45	48	37	39	34	42	33	34	30	26	19	29.7
Indianola	max.	32	36	37	36	36	32	36	42	36	42	40	40	35	45	60	62	50	52	61	58	86	74	75	75	87	84	71	56	63	48	45	52.6
	min.	21	19	27	30	28	26	30	28	30	30	30	33	27	15	35	32	30	32	41	31	40	46	54	40	52	63	45	40	41	32	22	33.9
Inwood...	max	18	35	39	39	36	26	31	34	35	37	35	35	32	47	53	53	43	53	52	55	76	68	71	76	74	74	60	57	51	45	50	48.1
	min	1	-7	7	25	11	14	25	4	26	19	30	25	29	21	25	35	26	29	36	30	36	30	40	39	43	40	25	29	34	27	20	24.6
Iowa City*	max.	34	38	36	38	36	34	38	46	38	45	41	41	35	44	60	64	50	51	63	58	86	79	79	68	86	85	68	60	56	52	46	53.4
	min	33	19	19	24	27	21	22	25	26	30	27	31	29	21	21	35	29	28	31	32	34	43	48	36	38	45	51	50	42	30	24	31.3
Iowa Falls	max.	24	30	30	37	29	31	34	36	38	43	38	38	28	39	52	59	41	46	54	53	81	61	68	68	83	84	60	49	54	46	41	47.6
	min	23	12	20	25	22	17	25	19	25	27	30	31	25	-1	26	31	30	27	35	30	32	36	45	31	40	47	39	36	37	26	21	28.0
Jefferson.	max	33	38	37	36	44	41	45	43	36	45	39	39	42	44	59	52	49	51	58	56	81	75	69	77	88	87	77	56	..	58	49	53.5
	min	21	16	21	30	26	21	22	20	28	25	32	30	20	10	31	42	29	30	40	30	38	40	48	39	53	59	39	36	..	28	20	30.5
Keokuk...	max.	49	40	41	37	41	34	43	43	39	39	42	49	37	46	61	63	58	57	74	56	88	82	80	68	85	81	72	65	72	58	44	56.2
	min.	29	25	30	30	30	25	33	28	32	29	28	37	32	27	35	44	38	30	53	35	48	62	65	44	48	66	62	52	48	36	28	39.0
Keosa'q'a	max.	36	40	40	38	40	37	42	44	39	44	42	40	35	47	61	65	56	61	70	58	88	78	83	72	87	83	65	64	61	58	46	55.5
	min.	32	21	24	24	27	24	27	28	28	30	27	32	30	24	24	35	31	31	32	32	35	48	55	38	46	52	60	50	48	31	25	33.9
Larrabee.	max.	18	26	30	42	33	28	35	36	36	42	38	36	30	43	54	52	42	47	53	57	74	65	68	74	76	82	57	49	53	45	51	47.5
	min.	9	2	6	24	14	14	28	12	28	25	30	27	18	13	26	38	27	29	35	29	35	40	37	39	48	48	30	34	31	27	29	26.8
Le Mars ..	max.	19	31	33	39	34	27	33	36	36	40	36	37	31	44	54	54	45	45	53	57	75	66	71	76	73	78	59	50	..	49	51	47.7
	min.	5	-3	12	27	22	17	27	16	26	27	26	27	20	18	26	35	27	30	39	29	35	34	41	38	49	45	27	31	..	29	19	26.7
Lenox	max.	32	41	41	38	40	36	36	40	39	39	42	42	36	45	60	62	59	53	65	63	86	80	72	77	87	82	76	60	63	55	50	54.7
	min.	17	19	26	30	28	23	30	23	30	29	31	31	25	19	30	38	30	29	45	31	41	48	56	43	53	58	41	40	39	31	22	33.4
Leon.....	max.	37	40	42	36	37	37	37	41	50	39	42	41	37	50	59	62	58	55	64	60	85	76	75	75	86	81	72	58	65	55	47	54.5
	min.	22	21	28	30	28	23	30	26	30	29	32	32	27	18	25	39	31	29	49	31	41	50	59	40	54	60	45	43	41	30	23	34.4
Lit. Sioux	max.	24	42	37	40	40	33	36	44	39	38	40	38	31	46	62	61	51	48	58	62	88	76	73	79	85	88	62	59	60	49	53	53.0
	min.	8	8	21	30	28	25	30	18	29	24	31	28	21	15	34	39	32	32	40	31	42	37	44	43	60	57	33	31	33	35	23	31.0
Logan	max.	34	39	43	40	40	35	36	41	36	40	41	41	35	46	61	62	48	49	62	62	83	71	70	78	89	83	73	53	57	46	52	53.1
	min.	11	15	26	28	30	25	29	19	28	24	31	28	21	14	31	36	34	31	40	31	40	42	46	36	54	51	33	34	34	28	21	30.7
Mars'll'n*	max.	26	36	34	38	36	36	35	42	37	45	40	41	30	43	58	63	46	48	61	56	85	68	75	70	87	87	64	57	56	50	44	51.5
	min.	23	15	16	23	23	18	22	25	25	27	29	32	25	5	8	29	27	26	29	21	30	38	42	33	40	47	41	33	38	27	20	27.0
Mason C'y	max.	35	27	28	36	30	27	35	36	40	42	37	36	30	42	49	57	40	40	50	49	72	65	60	60	80	82	75	50	50	40	37	46.4
	min.	20	8	14	26	18	14	26	16	28	28	32	30	22	15	30	37	28	28	36	29	29	38	43	32	42	45	38	34	37	28	18	28.0
Massena..	max.	31	45	45	38	43	32	34	50	36	44	42	42	34	52	62	69	55	51	51	64	89	75	80	80	92	87	74	55	67	47	59	55.6
	min.	15	16	24	28	25	22	22	21	29	22	30	30	21	10	30	38	29	27	29	29	40	45	45	40	54	65	38	36	36	25	17	30.3
Mt. Ayr ..	max.	32	45	45	37	44	32	37	45	37	37	42	42	35	49	64	68	57	54	67	66	89	78	74	79	90	83	70	64	69	49	53	55.9
	min.	19	19	28	30	29	23	29	25	30	29	31	31	25	17	30	38	30	28	45	31	41	48	59	42	52	59	44	44	35	32	23	33.7
Mt. Pleas't	max.	49	37	38	40	38	36	42	44	40	40	43	41	38	45	59	63	55	55	67	55	86	78	83	68	84	83	73	59	64	55	43	54.9
	min.	27	20	26	27	28	23	32	27	31	29	26	37	30	24	31	36	30	29	47	31	44	53	56	38	45	58	55	47	46	30	24	35.1
Mt. Ver'n.	max.	40	40	45	40	35	31	36	49	36	48	38	43	37	47	58	62	47	49	60	57	83	75	76	70	82	83	73	54	57	52	49	53.3
	min.	24	16	18	23	24	18	28	23	23	28	27	34	27	18	29	32	28	26	40	29	36	45	51	31	37	51	50	40	40	28	19	30.4
N.Hamp'n	max.	34	25	28	33	31	27	33	34	38	41	39	36	32	36	47	55	49	38	45	47	72	64	63	59	78	80	72	50	50	41	35	45.6
	min.	20	10	13	20	18	14	25	17	25	26	29	30	22	5	27	35	28	22	25	27	34	36	45	31	39	48	38	35	36	25	24	26.7
Newton...	max.	41	36	36	42	34	36	38	42	40	46	42	43	32	46	52	62	50	50	60	54	84	76	75	70	86	85	77	59	57	49	44	53.0
	min.	20	16	18	28	22	20	28	28	28	28	30	30	22	13	30	38	29	30	40	30	37	37	51	32	47	61	43	40	40	30	21	31.2
Northw'd	max.	34	21	26	35	35	27	33	36	43	42	39	38	34	40	47	53	36	41	38	49	68	58	55	59	78	80	69	51	47	38	37	44.7
	min.	15	5	10	..	15	13	25	13	26	24	28	33	20	10	27	32	25	19	33	26	32	38	40	31	41	44	36	33	33	24	17	25.6
Odebolt ..	max.	22	35	33	35	34	39	37	42	36	45	39	37	30	45	58	57	50	50	54	61	81	75	70	74	83	86	64	56	54	46	54	51.0
	min.	12	12	20	28	26	20	27	18	26	25	31	28	20	14	31	36	30	30	41	30	31	42	43	38	51	46	33	32	36	30	19	29.2
Olin.....	max.	44	35	35	42	37	33	38	39	38	43	41	43	40	40	55	60	56	47	62	51	80	71	[illegible]	30	80	81	74	57	58	51	41	51.9
	min.	28	18	20	21	25	19	30	26	27	30	27	36	29	22	27	36	28	28	36	31	36	52	49	33	40	57	56	40	44	27	22	32.3
Omaha,N.	max.	26	44	39	38	42	33	37	39	35	39	43	37	29	47	62	63	50	52	61	62	87	68	72	78	91	86	58	54	56	45	51	52.4
	min.	13	24	29	32	30	28	29	24	32	29	33	29	22	21	37	39	34	33	44	35	46	50	48	59	59	46	35	42	38	35	27	34.6
Onawa....	max.	30	45	39	40	45	37	34	45	39	40	40	39	32	50	64	58	54	50	57	59	85	77	77	78	84	88	66	63	56	52	58	54.2
	min.	9	11	20	30	28	23	28	18	27	25	30	27	22	15	28	35	30	30	37	28	35	38	42	38	54	50	30	33	34	32	22	29.3
Osage.....	max.	33	24	28	32	31	27	34	38	39	44	36	36	30	43	49	54	41	38	49	49	71	63	58	61	80	82	72	50	48	40	37	45.7
	min.	19	8	13	15	17	14	25	17	25	26	30	29	21	13	29	34	27	22	32	27	33	37	43	31	39	46	36	34	34	25	19	26.5
Oskaloosa	max.	43	37	38	38	37	36	38	44	37	45	40	40	37	45	59	63	55	53	65	58	86	74	80	72	87	87	70	56	62	49	45	54.1
	min.	24	19	26	29	27	22	32	27	30	27	29	33	28	16	32	41	28	29	39	30	39	47	51	37	47	63	47	40	43	31	22	33.4
Ottumwa.	max.	41	51	45	38	42	37	37	44	38	44	42	40	34	47	62	72	55	54	68	58	88	75	82	72	85	86	66	65	60	55	56	56.1
	min.	31	31	21	29	30	24	33	28	33	29	30	36	30	21	34	44	34	31	45	32	46	53	57	40	50	68	54	56	45	34	25	37.2
Pacific Jc.	max.	28	42	42	43	44	35	35	42	35	42	49	43	33	48	62	64	54	52	67	66	87	75	72	79	91	86	75	57	59	48	54	55.1
	min.	14	19	19	31	29	29	25	19	31	29	34	31	24	8	30	37	37	30	35	30	42	45	50	39	56	62	35	38	36	32	24	32.3
Pella.....	max.	38	36	37	37	36	36	37	44	40	47	39	41	38	45	59	63	59	52	64	56	85	79	78	72	88	85	77	59	60	54	48	54.5
	min.	23	19	25	30	28	22	29	27	30	29	30	32	27	16	31	40	29	29	41	30	38	46	54	38	47	63	46	39	41	31	22	33.3
Perry.....	max.	32	37	35	37	33	32	33	40	36	44	40	40	32	44	58	63	47	50	58	57	86	70	69	70	89	86	73	55	59	47	48	51.6
	min.	19	17	23	30	25	22	29	23	29	23	32	31	24	8	30	38	29	30	37	30	37	41	50	38	49	61	40	34	38	27	19	31.1
Plover....	max.	32	25	30	40	32	28	33	36	36	43	37	35	27	43	45	55	40	43	50	52	71	..	63	74	84	84	63	50	53	43	53	46.7
	min.	14	5	14	14	18	20	25	13	27	23	30	27	20	10	28	31	25	25	25	27	35	..	38	31	42	42	35	30	37	28	17	25.3
Pocahon's	max.	25	33	34	37	32	28	33	38	38	43	38	37	29	45	54	46	41	45	51	52	77	64	63	75	82	87	59	51	54	45	46	47.8
	min.	15	8	15	27	20	17	27	17	28	24	31	27	19	9	28	27	28	27	35	29	32	39	39	33	47	42	34	31	35	29	19	27.0
Ridgeway	max.	36	34	35	37	33	30	38	45	38	48	37	44	32	44	50	59	36	36	54	50	74	62	64	61	80	83	70	50	50	45	40	48.2
	min.	18	10	12	21	18	14	26	17	23	25	30	29	22	10	29	35	25	21	33	27	33	37	40	33	37	44	40	34	37	26	18	26.6
Rock Rap*	max.	28	14	36	38	38	36	34	36	36	34	34	36	34	38	48	52	34	44	70	68	74	70	74	76	72	70	60	50	48	40	50	47.5
	min.	6	-2	8	12	30	30	26	28	20	26	28	20	18	20	26	28	26	32	36	40	42	38	40	42	40	42	28	28	30	26	22	27.0
Rock'll Cy	max.	40	38	35	35	35	30	30	38	38	45	40	37	31	45	55	58	55	55	55	65	80	73	65	75	85	86	68	65	55	47	45	51.7
	min.	26	18	12	28	23	19	23	18	28	25	32	27	21	9	28	28	30	35	39	40	40	53	35	45	45	48	35	35	35	29	20	30.0
Sac City..	max.	23	34	33	35	35	34	36	37	36	42	38	33	30	45	55	57	45	49	53	54	79	67	67	75	81	82	77	..	..	..	..	49.3
	min.	13	12	17	26	18	17	21	20	27	25	28	26	19	13	28	31	28	29	32	28	34	41	41	47	47	45	33	33	35	29	19	27.8
St. Charl's	max.	32	42	46	36	42	32	36	46	36	45	42	40	35	50	63	66	50	54	65	61	89	71	70	81	90	86	71	55	60	49	53	54.6
	min.	21	19	26	30	29	23	30	27	30	30	32	32	26	17	33	39	28	29	45	30	30	45	43	40	51	63	43	39	40	30	20	32.9
Sibley *...	max.	20	32	32	35	26	29	30	36	34	38	35	30	29	45	55	50	41	44	47	54	71	60	68	75	75	78	56	50	48	41	48	45.5
	min.	12	-4	2	7	11	6	18	4	4	22	25	25	17	17	20	26	26	26	30	28	29	33	33	35	38	39	27	27	23	25	19	18.1
Sigourn'y	max.	47	36	38	38	37	36	41	44	38	42	41	41	39	44	59	63	56	54	65	56	86	80	81	69	86	85	74	59	61	53	45	54.6
	min.	26	19	24	27	28	21	31	26	29	29	26	34	28	18	31	38	29	29	44	31	39	49	54	37	45	60	48	40	43	30	22	33.4
Sioux Cen	max.	17	26	33	42	34	27	32	34	36	37	35	37	29	42	52	51	41	44	50	55	72	67	68	74	72	74	56	51	47	41	49	46.0
	min.	5	3	8	26	17	11	25	10	26	24	31	25	19	21	28	31	25	29	38	29	35	36	41	41	46	43	27	33	34	24	30	26.5
Sioux C'y	max.	20	38	34	37	31	31	35	34	36	38	38	33	30	46	61	54	46	46	54	56	81	61	71	76	73	80	62	49	49	45	51	48.3
	min.	3	0	17	30	24	23	23	14	27	27	32	25	19	19	30	33	30	31	35	32	41	43	42	48	50	36	29	37	35	27	22	28.5
Stockport	max.	49	49	40	40	40	34	40	46	46	47	41	41	37	47	60	63	58	55	66	57	87	78	81	71	86	83	66	57	63	57	44	55.8
	min.	28	20	26	29	25	23	32	27	32	28	25	37	30	23	32	38	30	30	45	31	43	54	50	40	47	62	56	47	43	31	24	35.1
Stuart	max.	20	39	37	40	33	35	36	43	38	43	42	37	28	43	57	60	50	55	60	59	61	67	70	76	85	82	61	56	57	46	42	50.3
	min.	18	18	24	28	30	21	28	25	27	25	32	31	23	14	15	36	29	30	44	31	34	35	48	42	53	53	40	40	38	29	21	31.1
Thurman	max.	28	42	44	41	37	32	32	32	33	39	47	44	35	48	62	64	55	54	68	65	82	75	73	78	90	86	75	65	59	54	53	54.6
	min.	15	19	25	32	18	14	22	8	19	31	32	32	25	15	34	39	34	30	42	32	38	48	52	37	60	75	36	37	37	34	25	32.2
Tipton....	max.	43	39	39	38	38	37	37	46	37	45	39	47	40	44	58	63	59	48	62	55	81	75	79	65	81	83	72	58	58	49	47	53.6
	min.	27	19	22	25	26	30	21	26	30	30	28	36	30	26	31	39	32	31	45	33	38	51	50	38	40	58	54	45	44	34	25	34.3
Toledo ...	max.	39	34	32	39	36	32	35	39	37	41	39	40	38	40	55	60	56	48	59	54	82	82	74	65	85	86	75	55	57	57	42	52.0
	min.	24	16	23	25	24	18	29	25	22	27	30	32	28	10	30	40	28	27	40	30	32	42	51	34	45	61	43	33	39	27	21	30.8
Wash'g'n	max.	46	37	37	38	39	35	40	45	38	43	40	40	36	46	61	64	53	53	65	55	86	74	83	66	86	85	68	52	60	52	45	53.8
	min.	24	18	26	26	24	21	32	24	30	28	28	36	28	21	31	36	28	28	40	31	40	49	49	37	43	60	50	43	39	30	23	33.0
Washta...	max.	22	36	34	35	32	28	33	39	36	43	38	37	30	49	58	58	49	48	52	60	80	64	71	78	80	86	61	50	54	43	52	49.5
	min.	10	1	15	25	24	20	28	13	28	24	31	27	20	10	25	25	25	31	42	30	31	37	40	42	52	44	30	30	35	25	15	26.9

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF MARCH, 1907—CONTINUED.

STATIONS		DATE																													NAME
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Waterloo*	max.	32	34	34	39	33	31	34	41	38	45	40	40	35	39	54	64	55	47	56	53	81	76	73	63	83	86	65	58	54	53	42	50.9
	min.	23	15	18	25	23	19	28	23	28	28	30	32	27	3	30	38	30	22	35	31	36	42	49	32	42	54	42	36	40	28	21	30.0
Waukee ..	max.	31	36	36	37	34	33	35	38	35	40	40	40	35	42	52	61	48	52	50	55	83	69	67	73	85	86	72	51	51	45	46	50.3
	min.	15	18	26	30	27	26	29	26	27	28	33	32	24	11	33	38	28	30	42	42	42	50	40	39	50	50	41	38	39	30	29	32.4
Waverly .	max.	37	30	31	37	33	29	36	37	39	44	37	39	33	37	53	63	45	43	53	51	78	66	68	62	82	84	72	53	53	45	38	48.6
	min.	22	13	17	24	22	18	28	21	28	27	31	32	25	5	28	38	30	26	35	30	36	38	48	32	42	50	42	35	39	27	21	29.4
Websr. Cy	max.	33	32	32	36	37	39	35	37	39	44	42	38	30	40	53	60	46	47	55	53	82	79	64	70	85	85	76	59	56	53	45	51.0
	min.	20	13	21	25	18	22	20	20	29	27	31	30	22	3	27	37	30	27	38	30	29	37	49	34	47	51	39	34	37	27	19	28.8
W. Bend .	max.	27	28	31	41	32	27	32	33	39	42	37	36	28	42	51	55	39	43	49	52	75	65	60	72	81	83	60	50	53	41	42	46.6
	min.	15	2	15	20	14	11	25	10	27	22	30	27	18	10	27	36	27	26	36	27	33	36	39	31	45	42	34	33	35	26	17	25.7
Whitten ..	max.	38	32	30	36	35	30	34	38	37	43	39	39	36	39	52	60	54	46	57	52	79	72	70	66	83	84	73	76	55	48	49	51.0
	min.	27	11	21	23	20	11	27	32	22	18	28	28	22	4	27	35	28	26	38	29	35	38	45	32	44	55	36	32	37	27	18	28.2
Wilton Jn	max.	45	30	35	40	35	37	39	38	39	38	40	40	40	40	55	69	60	49	64	60	80	79	81	80	80	80	75	76	70	75	45	55.3
	min.	30	18	21	22	19	31	26	24	28	29	25	37	28	26	28	39	28	29	42	31	35	48	50	34	39	56	54	45	42	28	23	32.7
Winterset	max.	31	38	38	37	36	32	35	40	38	40	41	39	35	44	57	61	53	52	61	60	85	75	72	75	87	84	76	55	60	52	47	52.8
	min.	22	24	28	31	29	22	30	26	30	30	32	32	26	15	33	38	29	30	43	30	39	44	52	41	52	60	42	40	40	31	21	36.8
Woodb'rn	max.	34	42	43	42	40	34	38	44	37	42	37	40	35	47	62	67	52	55	55	60	87	77	77	77	88	83	73	57	64	56	47	54.6
	min.	22	22	27	28	24	22	24	27	28	28	32	32	27	15	30	47	28	30	42	30	40	46	48	32	51	62	45	34	41	26	21	32.6
Zearing...	max.	38	32	32	36	37	30	33	42	37	44	39	39	35	42	55	61	49	47	50	56	60	80	70	70	87	86	81	64	56	48	47	51.1
	min.	21	15	8	20	20	18	25	22	27	15	30	30	27	24	27	37	28	26	28	29	30	33	40	31	44	51	39	31	36	34	19	27.9

* At these stations thermometers are read in the morning; the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

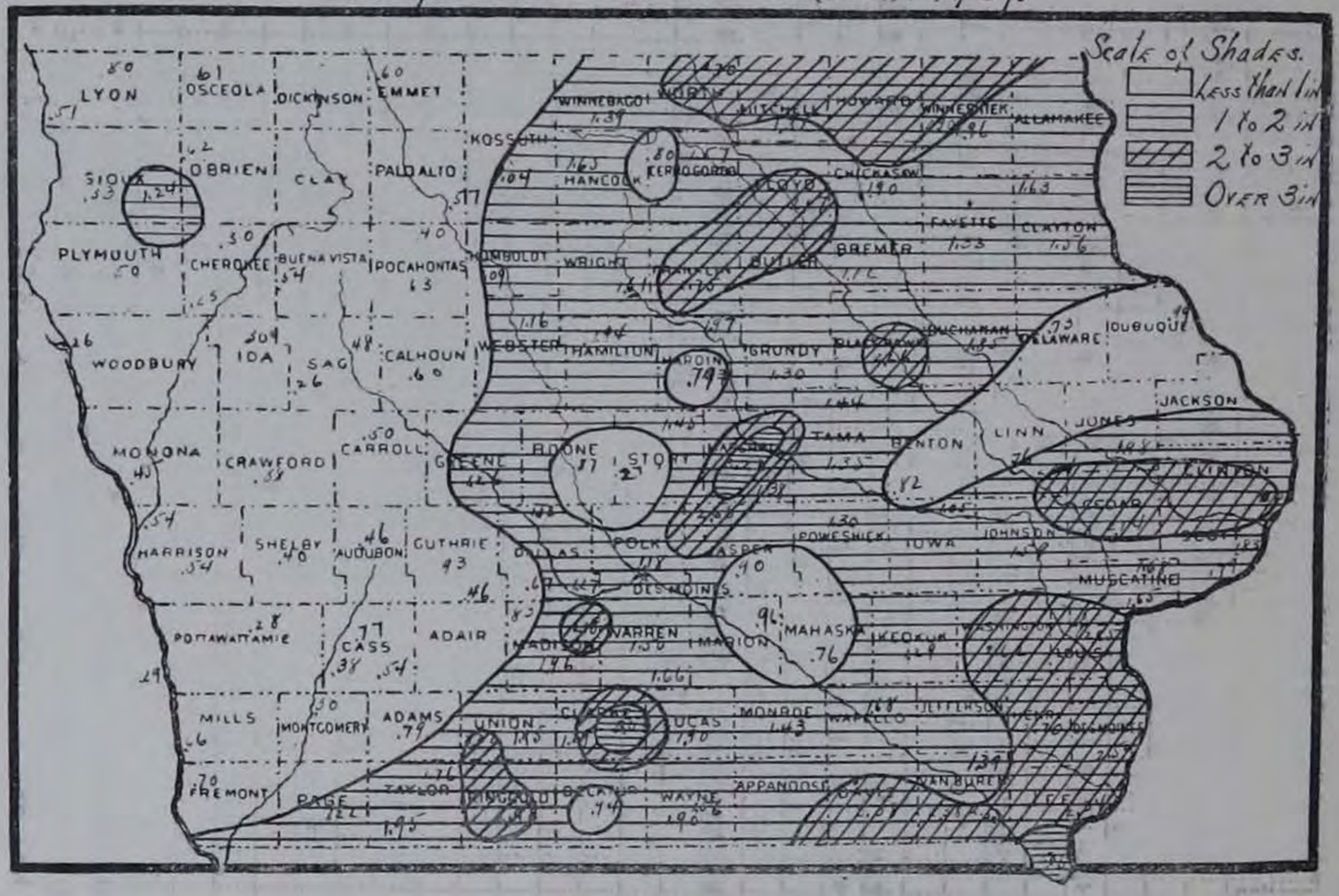
DAILY AND MONTHLY PRECIPITATION FOR MARCH, 1907.

STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Albia	.10	....	....	T	.29	....	....	....	....	.46	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.50	....	.08	1.43
Algona	.22	....	....	....	....	.09	.20	....	....	....	....	T	.09	....	....	....	.07	....	....	....	....	....	T	....	....	....	.02	.10	.25	....	....	1.04
Allerton	.37	....	....	T	....	T	....	....	.50	.06	....	....	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.80	.04	.10	....	1.90
Alta	.08	....	....	T	.02	....	.25	....	....	....	....	.02	.04	.02	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	.09	T	....	.54
Alta (near)	....	....	....	.02	....	.10	.15	....	....	....	T	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.09	....	....	.46
Alton	.20	....	....	.56	....	.30	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	....	.04	.09	....	....	1.24
Amana	.14	....	....	....	....	....	.10	....	.04	.21	.04	.02	.06	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.24	.20	....	....	1.05
Ames	....	....	....	T	....	T	T	....	....	.05	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	....	....	.27
Atlantic	....	....	....	.15	....	....	....	....	.05	....	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.37	....	T	....	.77
Audubon	.01	....	....	.05	....	.01	....	....	....	....	....	....	.35	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	.04	....	.46
Baxter	1.04	....	....	....	....	....	.03	....	.20	....	....	T	.10	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.11	1.17	T	....	2.65
Bedford	.40	....	....	....	....	.01	....	....	.52	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.63	.20	.19	....	1.95
Bloomfield	.15	....	....	.12	....	....	....	....	.61	.23	.45	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.78	....	.04	....	2.38
Bonaparte	.10	....	....	.16	....	....	....	....	.08	....	T	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.10	.56	....	....	2.00
Boone	.61	....	....	....	T	....	.02	....	....	T	....	.02	.02	.18	....	....	....	....	....	....	....	....	T	....	....	....	....	....	.02	....	T	.87
Britt	.24	....	....	....	....	.05	.16	....	....	....	T	....	.03	....	....	....	.12	....	....	....	....	....	T	....	....	T	....	.20	.85	....	....	1.65
Buckingham	.56	....	....	....	....	....	.13	....	T	.04	.03	....	.04	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.64	....	....	1.44
Burlington	.14	....	....	....	.26	....	....	....	....	1.01	....	.04	....	.05	....	....	....	....	....	....	....	....	....	.07	....	....	.06	....	.91	....	....	2.54
Carroll	.04	....	....	.15	....	....	....	....	....	....	....	.01	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	T	....	.50
Cedar Rapids	.19	T	....	....	....	T	.12	....	....	.08	....	.07	....	.08	....	....	....	....	....	....	....	....	....	T	....	....	T	....	.22	....	....	.76
Chariton	.33	....	....	.40	....	T	....	....	.95	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.22	T	T	T	1.90
Charles City	.50	T	....	....	....	.13	.15	....	T	....	.03	.02	.13	....	....	....	.08	....	....	....	....	....	T	....	....	....	....	1.02	.11	....	....	2.17
Clarinda	.50	....	....	....	....	T	....	....	....	.55	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.13	....	.04	1.22
Clear Lake	T	....	....	....	....	.03	.20	....	....	....	....	T	.02	....	....	....	.05	....	....	....	....	....	T	....	....	....	....	....	.45	....	....	.80
Clinton	.19	....	....	....	....	....	.14	....	.24	....	.02	....	.08	....	....	....	....	T	....	....	....	....	T	....	....	....	T	.05	1.43	....	....	2.10
Columbus Junc.	.28	....	....	T	....	....	....	....	.22	.20	T	....	T	....	....	....	....	....	....	....	....	....	T	....	....	....	....	1.25	.70	T	....	2.65
Corning	....	....	....	T	....	T	....	....	.50	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.24	....	.05	....	.79
Corydon	.33	....	....	.04	....	.01	....	....	.60	.10	....	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.39	.02	.07	....	1.56
Creston	.64	....	....	.20	T	T	.02	....	....	.50	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.84	....	.02	2.22
Cumberland	....	....	....	.05	....	T	....	....	....	....	....	....	....	....	.32	....	....	....	....	....	....	....	....	....	....	....	....	T	.01	....	....	.38
Davenport	.14	....	....	....	....	.01	.01	....	.26	T	.01	....	T	T	....	....	....	T	....	....	....	....	.05	....	....	....	....	1.24	.07	T	....	1.79
Decorah	.87	....	....	....	....	....	.24	....	....	....	.16	.08	.10	....	T	....	.10	T	....	....	....	....	T	....	....	....	....	....	.41	....	....	1.96
Delaware	.15	....	....	....	....	.16	....	....	....	.02	....	.10	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	.02	....	....	.73
Denison	.15	....	....	.20	....	.25	....	....	....	....	.06	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	....	....	.88
Des Moines	.16	T	....	.03	....	.01	T	....	.19	....	T	....	.13	....	....	....	....	....	....	....	....	....	T	....	....	T	....	.65	....	.01	....	1.18
De Soto	.39	....	....	.05	....	T	....	....	T	.08	....	....	.15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	T	T	....	.67
Dows	.60	....	....	....	....	.02	.10	....	....	....	....	.02	.14	....	....	....	T	....	....	....	....	....	....	....	....	T	....	.68	.05	....	....	1.61
Dubuque	.19	....	....	....	....	T	.08	....	.02	.01	.04	....	.08	....	....	....	.01	.01	....	....	....	....	T	....	.03	....	....	.45	.07	....	....	.99
Earlham	.43	....	....	....	....	....	....	....	.20	....	T	....	.20	....	....	....	....	....	T	....	T	....	....	....	....	T	....	....	....	T	....	.83
Elkader	.32	....	....	....	....	....	.28	....	....	....	.08	....	.10	....	....	....	.02	....	....	....	....	....	T	....	.16	....	....	.60	....	....	....	1.56
Elliott	....	....	....	T	....	....	....	....	.20	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	T	....	.30
Estherville	.20	....	....	....	....	....	.20	....	....	....	....	....	....	T	....	....	T	T	....	....	....	....	....	....	....	....	....	....	.20	....	....	.60
Forest City	.20	....	....	....	....	....	.20	....	....	....	....	T	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	....	.94	....	....	1.39
Fort Dodge	.40	....	....	....	....	....	.25	....	....	....	....	.03	....	.10	....	....	....	....	....	....	....	....	....	....	....	.03	T	....	.30	....	.05	1.16
Fort Madison	.13	....	....	.10	....	....	....	....	.60	....	.18	T	T	....	....	....	....	....	....	....	....	....	....	....	....	T	....	1.33	....	....	....	2.34
Galva	....	....	....	.10	....	.15	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	.30
Gilman	.78	....	....	....	....	....	....	....	....	.20	....	....	.10	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	.30	....	....	1.38
Grand Meadow	.50	....	....	....	....	T	.20	....	....	....	....	.20	....	.25	....	....	.02	....	....	....	....	....	.08	....	.04	....	....	....	.34	....	....	1.63
Grinnell	.55	....	....	.15	....	T	T	....	....	.20	....	.10	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.17	.13	....	....	1.30
Grundy Center	.95	....	....	....	....	T	....	....	....	T	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	.10	....	....	1.30
Guthrie Center	.47	....	....	.10	....	.01	T	....	....	.10	T	....	.20	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.05	....	T	....	.93
Hampton	....	....	....	....	....	.36	....	....	....	....	.06	....	.24	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2.05	.04	....	....	2.75
Hancock	....	....	....	.05	....	T	....	....	....	T	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.03	....	.28
Harlan	.02	....	....	.09	....	.01	T	....	....	....	....	....	.20	....	....	....	....	....	T	....	....	....	T	....	....	....	....	T	....	.08	....	.40
Hopeville	....	....	....	.07	....	T	....	....	.30	.01	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.34	.53	.04	....	1.29
Humboldt	.35	....	....	....	....	....	.20	....	....	....	.01	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	....	.12	.36	....	....	1.09
Independence	1.00	....	....	....	....	....	T	....	....	....	....	.05	.30	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.10	.40	....	....	1.85
Indianola	.73	T	....	.13	....	.01	T	....	.20	.10	....	....	.03	....	....	....	....	....	T	....	....	....	T	....	....	....	T	.13	.17	T	....	1.50
Inwood	.04	....	....	.06	....	.10	.03	....	....	....	....	....	....	....	....	....	.08	....	T	....	....	....	....	....	....	....	....	.08	.12	....	....	.51
Iowa City	.15	....	....	....	....	....	.02	....	....	.25	....	.05	....	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.07	.02	....	1.59
Iowa Falls	.89	T	....	....	....	....	.28	....	....	....	....	.03	T	.45	....	....	....	T	....	....	....	....	....	T	....	....	....	....	.32	T	....	1.97
Jefferson	.05	....	....	T	....	....	....	....	....	....	T	....	.20	....	....	....	....	....	T	....	....	....	T	....	....	....	....	1.01	....	T	....	1.26
Keokuk	.28	....	....	.09	....	T	....	....	.53	....	.16	.37	.05	....	....	....	....	....	....	....	....	.07	....	....	....	....	....	3.46	.04	....	....	5.05
Keosauqua	.13	.02	....	T	.15	T	T	....	....	.70	....	....	T	T	....	....	....	....	....	....	....	....	....	T	....	....	....	T	1.38	T	....	2.38
Lacona	.50	....	....	....	....	....	....	....	....	....	.06	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.84	....	.26	....	1.66
Larrabee	....	....	....	T	....	....	T	....	....	....	T	T	.06	....	....	....	.09	....	....	....	....	....	....	....	....	....	....	.15	....	....	....	.30
Le Claire	.07	.11	....	....	....	....	.06	T	....	.23	....	.04	....	T	....	....	....	....	T	....	....	....	....	.02	....	....	....	....	1.30	....	....	1.83
Le Mars	....	....	....	T	....	.10	....	....	....	.03	....	....	T	....	....	....	T	....	T	....	....	....	....	....	....	....	....	T	.40	....	....	.50
Lenox	.40	....	....	T	....	T	....	....	.40	.03	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.79	.07	.07	....	1.76
Leon	....	....	....	T	....	....	....	....	.53	.02	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.23	.04	.12	....	.94
Little Sioux	.12	....	....	.08	....	....	....	....	....	....	.05	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.01	.08	....	.54
Logan	....	....	....	.40	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.14	....	....	.54
Marshalltown	.90	....	....	....	....	....	.10	....	....	.08	....	T	.04	.24	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.85	....	.01	3.22
Mason City	.55	....	....	....	....	.30	....	....	....	....	....	.05	T	....	....	....	.05	....	....	....	....	....	....	....	T	....	....	.20	.32	.10	....	....	1.57
Massena	.34	....	....	....	....	....	....	....	....	.05	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.05	T	....	.54
Mt. Ayr	.70	....	....	....	....	.10	....	....	.70	....	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.92	.25	.20	....	2.92
Mt. Pleasant	.34	T	....	.34	.01	T	....	....	.39	.31	.03	T	T	.03	....	....	....	....	....	....	....	....	T	....	....	....	....	.83	.36	.06	....	2.70
Mt. Vernon	....	....	....	....	....	T	.14	....	.10	.14	....	.13	....	.03	....	....	....	T	....	....	....	....	T	....	....	....	....	.30	1.20	....	....	2.04
Muscatine	.15	.03	....	....	....	....	T	....	....	.34	....	.01	....	T	....	....	....	....	T	....	....	....	....	.05	....	....	....	....	1.07	....	....	1.65
New Hampton	1.12	....	....	....	....	T	.25	....	....	....	T	....	.20	....	....	....	.10	....	....	....	....	....	....	T	T	T	....	....	.23	....	....	1.90
Newton	.35	....	....	....	....	....	....	....	....	.26	....	....	.06	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	.18	....	....	.90
Northwood	1.20	.05	....	....	....	....	.20	....	....	....	.01	.02	.10	....	....	....	.20	....	.04	....	....	....	....	....	....	....	....	.18	.70	....	....	2.70
Odebolt	....	....	....	T	....	.05	....	....	....	....	T	....	.06	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	....	.26
Olin	.50	....	....	....	....	T	.30	....	.20	.20	.20	....	T	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.78	....	....	....	1.98
Omaha, Neb	.01	....	....	.02	....	T	....	....	T	....	....	....	.21	....	....	....	....	....	T	....	....	....	....	....	....	....	....	T	....	.05	....	.29
Onawa	.05	....	....	.15	....	.05	T	....	....	....	....	....	.07	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.01	.04	.08	....	.45
Osage	.69	....	....	....	.05	.10	....	....	....	....	....	.07	.02	....	....	....	.06	....	....	....	....	....	T	....	....	....	T	.02	.31	....	....	1.32
Oskaloosa	.18	T	T	.08	....	T	....	....	.20	....	....	....	.03	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.27	....	T	....	.76
Ottumwa	....	....	....	.02	....	....	....	....	.32	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.33	....	.01	....	1.68
Pacific Junction	....	....	....	T	....	....	....	....	.24	T	....	....	.24	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	.16	....	.66
Pella	.34	....	....	.03	....	....	....	....	.20	.04	....	....	.03	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	.18	.11	....	....	.96
Perry	.56	....	....	.06	....	T	....	....	....	.05	T	.04	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.12	....	....	1.13
Plover	.10	....	....	....	....	.10	....	....	....	....	T	....	.05	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	.40
Pocahontas	.08	....	....	....	....	.19	....	....	....	....	....	.03	....	.12	....	....	....	.05	....	....	....	....	....	....	....	....	....	....	.16	....	....	.63
Ridgeway	1.00	....	....	....	....	.04	.32	....	....	....	.10	....	.27	....	.01	....	.12	.03	....	....	....	....	.02	....	.03	T	....	.90	.06	....	....	2.90
Rock Rapids	....	T	....	....	....	.10	....	....	....	....	T	....	....	....	....	....	.30	....	....	....	....	....	....	....	....	....	....	.40	....	....	....	.80
Rockwell City	....	....	....	T	....	T	....	....	....	....	T	.30	....	....	....	....	....	....	....	....	....	....	T	....	....	....	T	.30	....	....	....	.60
Sac City	.05	....	....	T	.02	.02	....	....	....	....	.10	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	.09	....	....	.48
St. Charles	.85	....	....	.30	....	.05	....	....	.33	.03	....	....	.03	....	....	....	....	T	....	....	....	....	T	....	....	....	T	.38	.21	T	....	2.18
Sibley	.18	....	....	....	....	T	.20	....	....	....	....	T	....	....	....	....	T	.09	T	....	....	....	....	....	....	....	....	....	.14	....	....	.61
Sigourney	.18	....	....	T	....	T	....	....	.40	....	T	....	.03	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.68	T	....	....	1.29
Sioux Center	....	....	....	.10	....	.10	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	....	.05	.03	....	....	.33

DAILY AND MONTHLY PRECIPITATION FOR MARCH, 1907—CONTINUED.

STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sioux City	T	....	....	.05	....	.13	.01	....	....	....	T	T	.05	....	....	....	T	....	T	....	....	....	....	....	....	....	....	.02	....	T	....	26
Stockport	.10	....	....	.18	T	T	....	....	.16	.05	T	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.56	.34	T	....	1.39
Stuart	....	....	....	.15	....	....	....	....	....	....	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.01	....	....	....	.46
Thurman	.05	....	....	....	....	....	....	....	.22	.28	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.03	....	.10	....	.70
Tipton	....	....	....	....	....	....	....	....	.11	.23	.07	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	T	....	1.73	....	....	2.14
Toledo	.55	....	....	....	....	....	.15	....	.15	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.40	....	....	....	1.35
Washington	.08	....	....	....	....	....	....	....	....	.49	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.80	.25	....	....	2.62
Washta	....	....	T	....	....	.15	....	....	....	....	....	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.08	....	....	....	.23
Waterloo	.76	....	....	....	....	T	.14	....	....	....	....	.05	.24	....	....	....	....	T	....	....	....	....	T	....	.05	....	....	.06	.96	....	....	2.26
Waukee	.70	....	....	.06	....	T	T	....	.05	.15	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.08	....	.03	....	1.27
Waverly	.99	....	....	....	....	T	.20	....	....	....	.01	.05	.30	....	....	....	....	....	....	....	....	....	T	....	.01	....	....	.06	.10	....	....	1.72
Webster City	.51	....	....	....	.05	.11	....	....	....	....	T	....	.40	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.87	....	....	1.94
West Bend	.20	....	....	....	....	....	.17	....	....	....	T	....	.05	....	....	.03	....	....	....	....	....	....	....	....	....	....	....	T	.12	....	....	.57
Whitten	.25	....	....	....	....	T	.10	....	....	.10	T	....	.20	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	.08	....	....	.79
Wilton Junction	....	....	....	....	....	....	....	....	.02	....	.05	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	.06	....	....	....	....	1.68
Winterset	.75	....	....	.35	T	T	....	....	.10	.15	....	....	.05	....	....	....	....	....	T	....	....	....	....	....	....	....	....	1.61	....	....	....	1.96
Woodburn	.95	....	....	.30	....	....	....	....	....	1.00	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.08	.48	T	....	3.52
Zearing	1.00	....	....	....	....	....	....	....	.12	....	....	....	.21	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.33	.90	.04	....	1.45
																												.12	....	....	....	

Precipitation Chart March 1907.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR APRIL, 1907.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1907

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION OF THE

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METEOROLOGICAL STATIONS AND OBSERVERS.

From the following, weekly and monthly reports of Meteorological data are received by the Iowa Weather and Crop Service.

Afton	N. W. Rowell
Albia	J. I. Chenoweth
Algona	Dr. F. T. Seeley
Allerton	Rex Shriver
Alta	D. E. Hadden
Alta (near)	W. J. Minard
Alton	W. S. Slagle
Amana	Conrad Schadt
Ames	Iowa State College
Atlantic	J. W. Love
Audubon	Geo. E. Kellogg
Baxter	W. R. Vandike
Bedford	E. E. Healy
Belle Plaine	S. P. Vandike
Bloomfield	F. H. Roberts
Bonaparte	Hon. B. R. Vale
Boone	Carl Fritz Henning
Britt	G. P. Hardwick
Buckingham (Traer P. O.)	Dr. W. A. Daniel
Burlington	I. S. Shontz
Carroll	Frank Hughes
Cedar Rapids	Electric Light and Power Co.
Chariton	C. C. Burr
Charles City	*Edward W. McGann
Clarinda	A. S. Van Sandt
Clear Lake	Oscar Stevens
Clinton	Luke Roberts
College Springs	A. M. Finley
Columbus Junction	J. B. Johnston
Corning	Jerome Smith
Corydon	Clara Miller
Creston	Rev. W. L. Gaston
Cumberland	Agent C., B. & Q. R'y
Davenport	*J. M. Sherier
Delaware	Wm. Ball
Decorah	F. H. Baker
Denison	W. C. Van Ness
Des Moines	*Geo. M. Chappel
De Soto	R. D. Minard
Dows	H. A. Flett
Dubuque	*James H. Spencer
Earlham, R. F. D.	Geo. Phillips
Elkader	Chas. Reinecke
Elliott	Henry Barnes
Estherville	A. O. Peterson
Fayette	R. Z. Latimer
Forest City	J. A. Peters
Fort Dodge	Tobin College
Fort Madison	Miss L. A. McCready
Galva	F. H. Schleiter
Gilman	Jas. L. Wylie
Grand Meadow (Postville P. O.)	F. L. Williams
Greene	J. L. Cole
Greenfield	Dr. Geo. Brooks
Grinnell (near)	A. O. Price
Grundy Center	W. H. Scott
Guthrie Center	D. G. Beardsley
Hampton	E. C. Grenelle
Hancock	W. Armstrong
Harlan	C. A. Reynolds
Hopeville (Murray R. 2)	M. T. Ashley
Humboldt	H. S. Wells
Independence	Austin Cornwall
Indianola	Prof. J. L. Tilton
Inwood	F. D. Hanson
Iowa City	Prof. Karl E. Guthe
Iowa Falls	J. B. Parmelee
Jefferson	Geo. W. Jackson
Keokuk	*Fred Z. Gosewisch
Keosauqua	J. A. Landes
Knoxville	Casey & Bellville
Lacona	Agent C., B. & Q. Ry.
Larrabee	H. B. Streever
Lenox	J. L. Hurley
LeMars	Dr. T. E. Cole
Leon	J. Morris Gardner
Little Sioux	G. H. Gibson
Logan	Glenn H. Stern
Marshalltown	Mrs. Elizabeth Jones
Mason City	J. S. Mills
Massena	G. A. Hill
Mount Vernon	Rev. J. W. Hubbard
Mount Ayr	A. F. Beard
Mount Pleasant	Prof. J. W. Edwards
Nevada	R. S. Patrick
New Hampton	A. F. Kemman
Newton	Hon. J. P. Beatty
Northwood	Charles Dwelle
Odebolt	E. Starner
Ogden	C. L. Zollinger
Olin	Hon. Nathan Potter
Omaha, Neb.	*L. A. Welsh
Onawa	C. G. Perkins
Osage	G. D. Pattingill
Oskaloosa	Jos. Boyd
Ottumwa	Dr. Jas. A. Hull
Pacific Junction	H. H. McCartney
Pella	T. W. Cox
Perry	J. A. Harvey
Plover	J. S. Smith
Pocahontas	F. E. Hronek
Ridgeway	Arthur Betts
Rock Rapids	W. C. Wyckoff
Rockwell City	C. M. Randall
Sac City	Frank Stouffer
St. Charles	C. W. Minard
Sheldon	Dr. A. W. Beach
Sibley	H. G. Doolittle
Sigourney	J. T. Parker
Sioux Center	Jacob de Ruyter
Sioux City	*C. D. Reed
Stockport	C. L. Beswick
Storm Lake	Prof. Ralph H. Carr
Stuart	Dr. J. A. Treat
Thurman	C. R. Paul
Tipton	F. K. Gregg
Toledo	I. F. Giger
Wapello	Geo. W. Schofield
Washington	Wm. A. Cook
Washta	H. L. Felter
Waterloo	M. L. Newton
Waukee	E. J. Leonard
Waverly	H. S. Hoover
Webster City	C. D. Carpenter
Whitten	Dr. Frank P. Butler
Wilton Junction	Wm. Lang
Winterset	Dr. Robert S. Cooper
West Bend	Phil. Dorweiler
Woodburn	C. B. McDonough
Zearing	C. P. Bean

*U. S. Weather Bureau.

WEATHER-CROP OBSERVERS.

Reporting for the Weekly Bulletin.

Agency	J. H. Van Zandt
Albia	E. B. Morris
Alta	Jonas Cushman
Audubon	A. H. Edwards
Blairstown	T. H. Weil
Burt	R. Jain
Centerville	Jacob Harter
Charles City	W. B. Towner
Clarksville	F. M. Russell
Council Bluffs	L. Prouty
Correctionville	Hon. W. B. Chapman
Danville	Sherman Matthews
Dunlap	Hon. B. F. Roberts
Fort Dodge	R. W. Blaine
Fruitland	R. T. Hummel
Geneva	Wm. H. Thompson
Gruver	C. Higinbotham
Hartwick	Fred McCulloch
Harlan	H. B. Kees
Humeston	Hon. H. S. Moore
Ida Grove	P. E. Lund
Independence	George H. Wilson
Indianola	H. D. Guthrie
Manson	J. D. Skinner
Marshalltown	Hon. S. B. Packard
Mount Pleasant	W. S. Wright
Milton	Hon. E. C. Holland
Monroe	J. A. Dibel
Nevada	Geo. C. White
Oakville	Z. W. Steele
Orange City	H. J. Vande Waa
Pella	J. H. Ver Steeg
Preston	J. G. Storm
Pittsburg	G. C. Duffield
Portland (Nora Springs, P. O.)	Arthur Pickford
Platte (Creston R. D.)	M. H. Dibel
Red Oak	Hon. C. L. Stratton
Seymour	L. B. Sager
Stuart	W. W. Bailey
Van Horne	Spencer Smith
Weldon	Ed Worden
Winterset	H. A. Kinsman
West Branch	Wrigley Smith
West Union	H. B. Blackman
Woodward	George Swisher

U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

CENTRAL OFFICE: WASHINGTON, D. C.

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R. SAGE.....Section Director.
GEO. M. CHAPPEL, Assistant Director.

VOL. XVIII. DES MOINES, IOWA, APRIL, 1907. No. 4

APRIL WEATHER AND CROPS.

The month was a record-breaker as to temperature and precipitation. The tabulated reports for the State show that it was the coldest and driest April of which we have State-wide records. The most noteworthy feature was the remarkable equableness of low temperature throughout the month. On the average, ice-forming temperatures were recorded on two-thirds of the mornings in April. The temperature for the State was 41.5°, which is 7.7° below the normal. At the Des Moines station, and in the southern section, April was nearly one degree a day colder than the preceding month of March. The northern section was relatively warmer. The average monthly minimum was 16.4°, which indicates the persistence and severity of freezing weather. The average precipitation was 1.32 inches, which is less than half the normal amount for April. The driest part of the State was the northern section, in which the average precipitation was .84 of an inch, or less than one-third the normal. In view of the extremely low temperature the prevalent dryness was a favorable condition, serving to prevent some measure of the damage to crops and fruit that might have resulted if the soil had been saturated. Despite the adverse conditions affecting germination of seed and growth of vegetation, very excellent progress was made in seeding and in preparation of the soil for planting corn, potatoes, etc. There was a much larger area in readiness for the planter than is usually seen at the close of April, and the soil was in extra fine tilth in all parts of the State. Unquestionably material damage was caused by the protracted period of freezing weather. The field crops suffered considerably, and in the southern districts early varieties of fruit were badly damaged.

The following table gives the mean temperature and average precipitation for Iowa, for each April since 1890.

Years	Temperature Degrees	Precipitation Inches
1890	51.8	1.78
1891	50.6	2.15
1892	45.4	4.75
1893	45.5	4.21
1894	51.7	3.07
1895	54.2	2.62
1896	54.5	5.02
1897	47.9	5.35
1898	48.1	2.56
1899	48.9	2.40
1900	52.2	2.67
1901	49.9	1.79
1902	48.2	1.71
1903	49.8	2.98
1904	44.1	3.63
1905	47.5	3.03
1906	52.5	2.42
1907	41.5	1.32
Normals	49.2	2.91

CLIMATOLOGY OF THE MONTH.

TEMPERATURE.—The monthly mean temperature for the State, as shown by records of 119 stations, was 41.5°, which is 7.7° below the normal. By sections the mean temperatures were as follows: Northern section, 39.2°, which is 8.7° below the normal; Central section, 41.9°, which is 6.8°, below the normal; Southern section, 43.4°, which is 7.7°, below the normal. The highest monthly mean was 46.3°, at Keokuk. The lowest monthly mean was 35.9°, at Sibley. The highest temperature reported was 80°, at Clarinda on the 24th. The lowest temperature reported was 10°, at Earlham on the 14th, and at Washta on the 17th. The average monthly maximum was 71.6°, and the average monthly minimum was 16.4°. The greatest daily range was 54°, at Woodburn; and the average of greatest daily ranges was 38.2°.

PRECIPITATION.—The average precipitation for the State, as shown by records of 125 stations, was 1.32 inches, which is 1.59 inches below the normal. By sections the averages were as follows: Northern section, .84 of an inch, which is 1.81 inches below the normal; Central section, 1.27 inches, which is 1.66 inches below the normal; Southern section, 1.84 inches, which is 1.30 inches below the normal. The largest amount reported was 3.22 inches at Burlington. The least amount reported was .24 of an inch at Inwood. The greatest daily rainfall reported was 1.50 inches, at Pacific Junction on the 28th. The average number of days on which .01 of an inch or more was reported was 6.

WIND AND WEATHER.—The prevailing direction of the wind was northwest. The highest velocity reported was 52 miles per hour, from the northwest, at Sioux City on the 11th. The average number of clear days was 12, partly cloudy 8, and cloudy 10.

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	30.03	30.52	1	29.50	7
Davenport	30.00	30.60	1	29.39	7
Des Moines	30.04	30.51	1	29.53	7
Dubuque	30.02	30.62	1	29.44	7
Omaha, Neb.	30.05	30.45	20	29.59	24
Keokuk	30.02	30.59	1	29.60	24
Sioux City	30.06	30.47	20	29.62	24
Means	30.06	30.62	1	29.39	7

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	7839	36	NW	8
Davenport	6717	32	NW	12
Des Moines	7297	32	SW	24
Dubuque	5632	26	NW	11
Keokuk	5995	29	SW	24
La Crosse, Wis.	6343	32	N	12
Omaha, Neb.	8494	43	NW	24
Sioux City	11600	52	NW	11

OBSERVERS' NOTES.

AFTON.—*N. W. Rowell.* Ice was noted 18 mornings this month. I have been in Iowa since 1847 and have not seen so cold an April in all these years.

ALBIA.—*J. I. Chenoweth.* March and April seem to have changed places. Mercury went down to 21° on the 26th, which is the lowest ever recorded here in the last decade of April.

ALTA.—*David E. Hadden.* An unusually cold April; freezing weather nearly every day.

ALTON.—*W. S. Slagle.* Heavy frost nearly every night in April; crops and foliage at a standstill; many young pigs lost from effects of cold weather.

AMANA.—*Conrad Schadt.* Temperature was at or below the freezing point on 15 mornings; the fruit buds which came near development in March remained nearly dormant the greater part of April; deficiency of moisture in the ground and plants seems to have served as a protection; 4 inches of snow on morning of the 30th crowned the April weather.

BONAPARTE.—*B. R. Vale.* Precipitation 2.44 inches; ice was in evidence 16 mornings; the average minimum temperature of April was 33.5°, or 11.5° colder than the last half of March.

CHARITON.—*C. C. Burr.* Vegetation made little progress in April. Mercury rose 12° higher in March than in April.

CLINTON.—*Luke Roberts.* The mean temperature was 6.3° below the normal; it was the coldest April during the last 26 years; the minimum was 32° or below on 16 days; the lowest was 21°, on the 14th and 17th. Some damage to fruit, but extent of injury is not known.

ESTHERVILLE.—*A. O. Peterson.* Sleet during night of April 28th remained on trees and grass 48 hours.

GRINNELL.—*A. O. Price.* April was too cold for normal growth of crops; ground was in fine order for planting corn.

INWOOD.—*F. B. Hanson.* April was very backward, with freezing temperature on 22 mornings. Crop growth slow, but farm work is well advanced.

LARRABEE.—*H. B. Streever.* April was remarkably cold and dry. Seeding was begun on April 1st and was completed before the 15th.

LEON.—*Morris Gardner.* The coldest April ever experienced here; on morning of the 30th there was an inch of snow on the ground and icicles hung among peach and cherry bloom. Fruit nearly all killed and oats damaged.

MOUNT AYR.—*A. F. Beard.* The temperature was at or below freezing on 19 days in April; five inches of snow fell on the 29th; ice was quarter of an inch thick.

MOUNT VERNON.—*J. W. Hubbard.* The most remarkable April in 20 years; average temperature 8° below the normal.

NORTHWOOD.—*Chas. H. Dwelle.* The weather was cold, but not excessively wet. The general condition is better than it was last year at the close of April.

OLIN.—*Nathan Potter.* A cold month; pastures are ten days late; five or six inches of snow fell on the 29th, with rain and sleet, and snow banks were seen on north side of buildings on May 3d at sundown.

POCAHONTAS.—*F. E. Hronek.* The coldest April ever known here, with 26 frosts. Much corn ground in fine condition for planting, and some planting done at close of the month; oats coming, and thin stand.

RIDGEWAY. *Arthur Betts.* Coldest April on record; only 2.8° warmer than March; there were 241 hours of sunshine; 81 per cent of the month was thawing temperature.

STOCKPORT.—*C. L. Beswick.* The worst storm on live stock for 1907 began about noon on the 29th, the temperature about freezing, turning to snow in the night. Peaches, plums, cherries and apples were in bloom. Temperature of April was 1.6° below that of March.

WAUKEE.—*E. J. Leonard.* Month very cold and backward, ending with a storm considered the worst of the winter.

BETTER METHODS WITH FUEL.

(St. Louis Globe-Democrat.)

The geologists of the United States see nothing deserving to be called a discovery in the treatment of so-called coal ashes with a solution of salt and oxalic acid to restore the properties of fuel. In the first place, what is termed ashes is largely composed of imperfectly consumed coal, which burns readily if sifted out. A hundred pounds of coal, if fully burned, leaves only from three to ten pounds of ashes. Something added to ashes might burn by generating a gas or otherwise, but absolute ashes are past combustion. It has long been known that the present uses of coal as fuel are attended with immense waste. Often half the energy in a pound of coal is lost, and inventors have been much occupied with devising a more economic system. A subject to which Edison has given thought, though without practical results, is a more direct generation of electricity from coal. As now utilized, coal often makes as much "ashes" in bulk as the original quantity, a fact showing clearly that good fuel is thrown away. If all was consumed and put to the purpose intended, a later chemical process, entailing labor and other expense, would not be called for.

But this experiment with ashes serves to direct public attention to the importance of the fuel question throughout its whole range, and to the large number of experiments going on for its solution. All the wasted fuel is not sent to the ash heap. Some is poured into the atmosphere in the form of smoke and soot, to the serious detriment of health and property. A London surgeon has just set forth that the lungs of dwellers in cities are often blackened with soot and are never entirely free from it. Large quantities of fuel can be obtained at the mines from what is now thrown aside as waste. The briquettes sold in Germany at a much lower rate than coal are a better fuel for domestic uses, and would have been introduced in this country long ago but for the prodigal habits that have already depleted timber resources. Denatured alcohol has been hailed as a new fuel supply. Over 25,000,000 gallons of this article are employed annually in Germany in providing power, light and heat, an increase of several hundred per cent in a few years. The French government awards prizes for machinery driven by alcohol.

Every householder in the United States, as well as every manufacturer, realizes that the whole existing fuel system is wastefully defective. The growing popularity of apartment houses in cities is chiefly the result of the banishment of the individual furnace from the household cares. As a contrivance for heating it is costly, falling short in every way, and the ashpit is replenished about as fast as the coal bin. A smokeless fuel, a fuel that is thoroughly consumed and that can be depended on to give an evenly regulated heat at all temperatures, would be a great boon to the centers of population. Any advance the chemists or other scientists can make will be welcome. The salt and oxalic acid formula at least serves to impress the truth that tens of millions in money is thrown away by present fuel methods, and that dwellers in cities breathe an atmosphere perpetually tainted with the waste of coal. Reform will certainly come, though it may be by short steps, unless some surprising revelation occurs.

ERRATA IN FEBRUARY REVIEW.

CHARITON.—Maximum temperature recorded 57° on the 16th and 26th, on page 18, should have have been 58° on the 17th.

DENISON—Total snowfall recorded 4.4 inches on page 17, should have been 14.8 inches.

OLIN—Mean temperature recorded 24.0° on page 17, should have been 23.6°. Mean maximum temperature recorded 33.9° on page 20, should have been 33.1°. The maximum temperature of 57° recorded on 19th, page 20, should have been 37°.

PERRY—The total snowfall recorded, 3.5 on page 17, should have been 4.5 inches.

PLOVER.—The mean temperature recorded, 22:2 on page 18, should have been 23.3°. Mean maximum temperature recorded, 32.0 on page 20, should have been 34.3°.

BELATED REPORTS.

KNOXVILLE.—March. Mean temperature 43.8°; highest 87°, on the 25th; lowest 17° on the 14th; greatest daily range 47°; total precipitation 1.20 inches; greatest in 24 hours .50 of aninch; total snowfall 3.0 inches. Prevailing direction, northeast. Number of clear days 13, partly cloudy 6, cloudy 11, rainy 5.

ELECTRICITY ON THE FARM.

ELECTRIC NEWS SERVICE: E. B. Miner of Oriskany Falls, N. Y., has solved the problem of progressive farming. He has made a success of kid glove farming and now can do the hardest work on the premises without a backache. The heavy work on the Miner farm, and most of the lighter work, too, is done by electricity while the farmer and his good family stand idly by and watch the wheels go round.

There is a little creek running through Mr. Miner's farm and he has merely put the stream to work and is doing the playing himself. This stream he has harnessed to run a small dynamo, which in turn gives him electric light, heat and power for his home and farm buildings. A small dam of the flow type was built of concrete. The fall is about six feet. A small power house was equipped with a water wheel and a 250 volt generator. The electricity is carried to the house and barn by cables.

At the spacious farmhouse electricity lights all the rooms, heats a number of apartments; runs the sewing machine and will also be used to cook the food. The cream is separated by electricity and the heavy barrel churn is run by the same power. A small motor drives the buzz saw, the grindstone, and feed cutters, the fanning mill, and pumps the water.

The cost of the plant was trifling considering what it does. It runs night and day and requires practically no attention further than oiling twice a week.

CLIMATOLOGICAL DATA FOR APRIL, 1907.

CENTRAL SECTION

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Date of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
Amana	Iowa	721	28	43.4	- 5.3	73	24	20	14	37	1.66	- 1.22	.72	4.0	9	11	8	11	NW	24, 28
Ames	Story	926	23	42.0	- 7.1	72	22	13	15	37	.67	- 2.08	.32	....	7	14	7	9	S	
Audubon	Audubon	1,301	11	42.0	- 7.7	74	22	11	14	44	.61	- 1.31	.23	1.5	5	9	8	13	NW	18
Baxter	Jasper	998	7	42.6	- 6.7	72	22, 24	16	14	40	1.25	- 1.98	.34	4.0	8	10	9	11	NW	28
Belle Plaine	Benton	828	15	42.6	- 3.1	74	22	17	14	42	1.84	- 1.77	.80	8.0	7	10	10	10	S	
Boone	Boone	1,134	2	40.4	.....	71	22	17	14	39	.83	.....	.30	T	5	14	2	14	NW	28
Buckingham	Tama	.....	7	.....	.....	.....	.....	.....	.....	.....	.63	- 1.85	.36	....	3	6	20	4		
Carroll	Carroll	1,265	17	39.6	- 9.4	73	22	12	17	40	.66	- 2.86	.27	0.2	7	20	2	8		
Cedar Rapids	Linn	733	25	41.8	- 6.6	72	22, 24	21	14	41	1.31	- 1.67	.50	2.5	8	11	14	5		
Clinton	Clinton	593	37	43.6	- 5.0	75	24	21	14, 17	45	2.56	- .37	.94	0.5	9	9	8	13	N	24, 28
Davenport	Scott	606	36	43.0	- 7.2	74	24	24	14	33	1.90	- .88	.82	0.6	10	12	6	12	NW	24, 28
Delaware	Delaware	1,083	14	39.8	- 6.2	70	22	17	14	38	1.03	- 2.01	.42	2.0	5	14	10	6	NW	28
Denison ‡ (a)	Crawford	1,180	11	40.4	- 8.9	72	24	11	17	38	.85	- 3.11	.34	T	5	20	0	10	N	
Des Moines	Polk	861	28	42.2	- 8.4	72	24	19	17	35	1.48	- 1.31	.64	8.7	10	6	14	10	NW	28
De Soto	Dallas	866	7	42.6	- 8.1	75	24	12	14	40	1.23	- 1.77	.40	4.0	7	14	4	12	NW	
Dubuque	Dubuque	698	34	41.6	- 8.3	69	22, 24	24	14	31	2.48	- .31	.79	1.6	7	11	4	15	NW	28
Fort Dodge	Webster	1,126	7	38.8	- 8.6	72	22	15	14, 15	47	.91	- 2.26	.35	T	4	16	2	12	NW	
Galva	Ida	1,290	11	39.2	-10.1	70	22	11	17	42	.69	- 2.07	.37	.0	4	17	2	11	NW	
Gilman	Marshall	1,052	8	.....	.....	.....	.....	.....	.....	.....	1.45	- 1.05	.50	5.0	6	16	5	9	N	
Grinnell	Poweshiek	1,023	12	43.6	- 6.8	71	22	16	17	35	2.19	- 1.33	.65	6.5	9	12	7	11	N, NE	28
Grundy Center	Grundy	976	14	42.2	- 5.5	71	22	18	14	38	.96	- 2.42	.37	T	3	17	2	11	NW	
Guthrie Center	Guthrie	1,077	9	42.2	- 7.9	73	24	11	14	41	1.03	- 1.44	.41	3.0	9	15	9	6	NW	24
Harlan	Shelby	1,192	8	42.4	- 6.4	75	24	12	17	48	.87	- 1.61	.26	2.6	8	8	11	11	N	28
Indep'dence	Buchanan	921	41	41.0	- 6.2	69	22, 27	18	13	39	.94	- 1.27	.45	T	3	20	0	10	NW	
Iowa City	Johnson	683	46	42.3	- 4.3	72	24	21	14, 17	40	1.58	- 1.56	.66	1.0	9	13	4	13	NW	28
Iowa Falls	Hardin	1,170	12	40.0	- 7.5	72	22	15	14	44	1.02	- 2.13	.46	T	4	11	6	13	NW	
Jefferson (j)	Greene	.....	....	43.5	.....	73	.....	15	4	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	2.01	.....	.80	0.5	9	12	1	17	N, SW	
Little Sioux	Harrison	.....	2	42.4	.....	74	24	15	17	38	.82	.....	.40	T	7	17	3	10	NW	
Logan	Harrison	928	38	42.0	- 8.0	74	24	15	17	36	1.22	- 1.65	.60	6.8	4	....	....	....	NW	
Marshalltown	Marshall	947	12	41.2	- 8.4	72	22	16	14	37	.87	- 2.24	.26	T	5	....	....	....	NW	
Mt. Vernon	Linn	847	38	42.7	- 3.8	71	23	18	14	39	2.05	- .98	.77	4.5	9	....	....	....	NW	
Muscatine	Muscatine	.....	48	.....	.....	.....	.....	.....	.....	.....	2.22	- 1.19	.68	T	10	9	6	15	E	
Newton	Jasper	944	17	43.4	.....	71	24	18	14	37	1.49	.....	.56	8.0	6	12	9	9	N	
Odebolt	Sac	1,356	8	40.8	- 8.9	75	22	14	17	40	.67	- 2.04	.27	....	4	19	2	9		
Ogden	Boone	1,058	11	42.2	- 8.3	72	22	14	17	35	.83	- 2.12	.35	....	4	14	6	10	NW	
Olin	Jones	760	8	43.0	- 3.7	71	24	20	14	33	2.37	† .19	.76	5.0	6	14	8	8	NW	24, 28
Onawa	Monona	.....	7	43.0	- 7.6	76	22	18	13, 17	44	.74	- 2.25	.30	3.0	6	18	5	7	NW	
Perry	Dallas	975	6	42.4	- 4.9	74	22	13	14	41	.95	- 1.98	.34	....	7	....	....	....		
Rockwell City	Calhoun	.....	10	41.8	- 6.4	72	22, 24	15	17	36	.96	- 1.45	.45	....	3	17	2	11		
Sac City (a)	Sac	1,356	25	40.4	- 7.8	69	22	14	17	40	.54	- 2.45	.14	....	5	18	1	11	NW	
Sioux City	Woodbury	1,135	16	40.2	- 8.3	71	22	19	13	32	.81	- 2.21	.40	0.9	5	7	8	15	NW	
Tipton	Cedar	807	9	44.1	- 4.4	71	24	22	14	34	2.07	- 1.70	.79	....	7	12	11	7	NW	
Toledo	Tama	856	12	42.2	- 8.4	69	22, 24	18	14	35	1.40	- 1.63	.35	3.0	7	15	6	9	NW	
Waterloo	Black Hawk	862	18	42.2	- 5.0	72	22	20	14	35	.94	- 1.95	.36	T	5	13	11	6	NW	
Waukee	Dallas	1,039	4	42.4	.....	74	24	15	14	35	1.58	.....	.60	7.7	10	12	10	8	NW	28
Webster City	Hamilton	.....	....	41.7	.....	74	22	13	14	41	.93	.....	.43	....	4	16	8	6	NW	
Whitten	Hardin	1,036	6	41.9	- 6.2	73	22	15	14	36	.92	- 1.14	.35	T	6	14	6	10	NW	
Wilton Junct'n	Muscatine	683	10	43.5	- 7.4	75	24	19	13	38	1.76	- 1.11	.72	....	6	13	14	3	W	
Zearing (f)	Story	718	3	40.5	.....	70	24	15	8, 16	38	.90	.....	.50	....	2	....	....	....		
Averages	.....	.....	....	41.9	- 6.8	72.3	.....	16.5	.....	38.5	1.27	- 1.66	.....	2.6	6	13	7	10	NW	

CLIMATOLOGICAL DATA FOR APRIL, 1907—CONTINUED.

NORTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
Algona	Kossuth	1,213	31	38.8	-9.5	68	23	13	14	36	.76	-1.80	.23	T	4	16	6	8	N	
Alta	Buena Vista	1,513	14	38.4	-9.2	71	22	15	13, 17	38	.60	-2.64	.32	.5	4	10	12	8	N	
Alta [near]	Buena Vista	.....	....	.....	.....	.....	.....	.....	.....	.....	.69	.....	.25	.2	4	....	....	....	.....	
Alton	Sioux	1,305	....	38.9	.....	68	22	15	17	38	.59	.....	.41	2.0	4	14	8	8	NW	
Britt	Hancock	1,236	8	38.8	-8.0	69	22	14	14	40	.87	-1.20	.31	T	6	6	16	8	NW	
Charles City	Floyd	1,015	20	38.8	-7.5	66	22	18	14	35	.87	-1.67	.31	T	4	9	5	16	NW	
Clear Lake	Cerro Gordo	1,241	8	38.8	-8.9	67	22	18	17	32	1.06	- .85	.38	....	3	14	1	15	NW	
Decorah	Winneshiek	875	11	40.6	-8.1	68	22	18	14	31	.72	-1.97	.31	....	4	....	....	....	.....	
Dows	Wright	1,142	7	39.6	-7.7	71	22	14	14	41	1.11	-1.31	.48	T	4	15	4	11	NW	
Elkader	Clayton	727	24	41.6	-6.6	73	22	18	14	38	.97	-1.88	.45	T	3	10	12	8	NW	
Estherville	Emmet	1,298	10	37.2	-11.1	67	22	13	14	38	.63	-1.83	.25	....	3	16	0	14	NW	
Fayette	Fayette	1,003	17	39.9	-7.3	70	22	16	14	40	1.03	-2.17	.36	T	4	12	12	6	NW	
Forest City	Winnebago	1,226	11	38.0	-10.0	69	22	17	14, 17	38	.73	-1.87	.34	T	5	16	3	11	N	
Grand Meadow	Clayton	1,180	14	39.8	-7.7	69	22	19	14	32	1.12	-2.01	.42	T	4	9	9	12	NW	
Hampton	Franklin	1,155	15	40.6	-7.0	72	22	18	17	41	1.19	-2.25	.46	T	5	6	13	11	NW	
Humboldt	Humboldt	1,095	13	40.6	-8.5	69	22	14	14	38	.81	-1.93	.50	....	3	13	8	9	NW	28
Inwood (a)	Lyon	.....	3	39.0	.....	70	22	12	17	40	.24	.....	.10	.8	4	....	....	....	N, NE	
Larrabee	Cherokee	1,266	16	39.7	-8.4	73	22	13	17	40	.30	-2.69	.25	.6	2	9	12	9	NW	14
Le Mars	Plymouth	1,224	9	39.5	-10.2	70	22	11	13	38	.....	.....	.....	.....	....	12	10	8	N	
Mason City	Cerro Gordo	1,132	10	40.0	-9.4	66	22	18	14, 17	39	1.14	-2.20	.42	....	4	10	11	9	NW	
New Hampton	Chickasaw	1,169	7	39.0	-9.6	64	22	18	14, 17	30	.85	-1.08	.32	T	5	13	6	11	NW	
Northwood	Worth	1,222	9	38.8	-8.9	64	22	17	14, 17	31	1.03	-1.28	.35	.4	6	17	4	9	NW	
Osage	Mitchell	1,184	14	39.2	-6.3	67	22	19	14, 17	33	1.24	-1.33	.53	0	5	9	7	14	NW	
Plover	Pocahontas	.....	8	39.0	-9.2	69	22	14	17	48	.62	-1.16	.16	T	5	18	2	10	N, NW	24
Pocahontas	Pocahontas	.....	3	39.6	.....	72	22	16	17	35	.65	.....	.26	.5	4	16	5	9	NW	24
Ridgeway	Winneshiek	1,215	9	40.2	-8.4	72	22	20	14, 17	37	1.01	-1.10	.41	.4	7	13	8	9	S	
Rock Rapids	Lyon	.....	9	36.8	-11.8	70	22	16	13, 14	40	1.05	-2.70	.50	.5	3	15	8	7	N	
Sheldon	O'Brien	1,422	7	39.4	-8.8	71	3, 22	12	17	42	.91	- .57	.37	1.0	6	14	7	9	NW	15
Sibley	Osceola	1,212	11	35.9	-12.1	69	22	13	17	44	.67	-2.02	.25	.6	6	....	....	....	NW	
Sioux Center	Sioux	.....	8	38.6	-9.7	68	22	15	13	36	1.39	-1.74	.92	2.5	5	11	5	14	NW	15
Storm Lake	Buena Vista	1,440	10	39.1	-7.3	70	22, 23	13	17	36	.83	-1.47	.41	.5	5	8	13	9	NW	
Washta	Cherokee	1,157	9	39.2	.....	74	22	10	17	42	.61	-1.12	.32	1.0	4	16	5	9	N	
Waverly	Bremer	942	9	41.2	-6.2	71	22	20	14, 17	35	.95	-2.10	.33	T	6	7	8	15	NW	
West Bend	Palo Alto	1,197	11	38.8	-8.0	67	22, 27	14	14, 17	38	.51	-2.31	.17	T	4	10	12	8	N, NW	
Average	.....	.....	....	39.2	-8.7	66.2	.....	15.5	.....	37.6	.84	-1.81	.....	.4	4	12	8	10	NW	

SOUTHERN SECTION.

Afton	Union	1,212	12	43.0	-8.3	78	24	16	14	37	1.92	-1.75	.83	10.7	7	9	11	10	NE	23
Albia	Monroe	959	9	41.8	-8.6	76	24	16	14	38	1.18	-1.77	.45	2.0	6	14	3	13	NE, NW	
Allerton	Wayne	.....	5	43.8	-6.5	77	24	17	14	36	1.59	-1.61	.38	T	11	16	2	12	NW	4
Atlantic	Cass	1,164	14	42.0	-7.3	75	24	11	14, 17	50	.94	-2.10	.42	1.5	4	8	9	13	N	28
Bedford	Taylor	.....	7	42.6	-7.4	73	23	16	17	42	1.83	-1.01	.60	8.2	9	10	7	13	NE	
Bloomfield	Davis	.....	....	44.9	.....	77	24	20	14, 17	36	2.22	.....	.74	1.0	7	17	6	7	NW	28
Bonaparte	Van Buren	.....	15	45.2	-6.6	78	24	21	14	36	2.45	- .88	.90	T	9	....	....	....	.....	
Burlington	Des Moines	544	9	43.4	-8.9	78	24	23	14, 17	35	3.22	† .06	1.22	2.0	10	16	1	13	NW	28, 29
Chariton	Lucas	1,042	10	42.8	-8.9	76	24	16	14	38	1.03	-2.46	.43	1.0	4	17	8	5	N, SE	
Clarinda	Page	1,009	15	41.7	-10.3	80	24	17	17	46	2.01	-1.30	.55	14.0	12	15	3	12	NW	
Columbus Jct.	Louisa	595	6	44.6	-5.1	76	22, 24	21	17	43	1.55	-1.71	.58	.5	8	14	11	5	NW	24, 28
Corning	Adams	1,117	13	41.6	-9.1	77	24	13	17	38	2.28	- .81	.70	11.0	7	13	8	9	NW	15, 28
Corydon	Wayne	1,101	12	44.3	-7.8	76	24	18	14, 17	35	1.47	-1.65	.40	1.0	10	13	9	8	NW	
Creston	Union	.....	2	40.6	.....	75	24	16	17	38	1.81	.....	.50	5.0	8	14	4	12	NE, SW	
Cumberland	Cass	.....	8	.....	.....	.....	.....	.....	.....	.....	1.24	- .70	.60	9.0	6	18	4	8	NE	
Earlham	Madison	.....	5	41.7	-6.1	76	24	10	14	41	1.53	-2.13	.59	11.5	9	11	7	12	NW	
Elliott	Montgomery	.....	2	42.8	.....	73	3, 27	15	17	41	2.03	.....	.50	10.0	7	14	11	5	NW	28
Fort Madison	Lee	516	54	.....	.....	.....	.....	.....	.....	.....	2.41	- .88	1.00	....	5	6	10	14	S	
Greenfield (a)	Adair	.....	14	40.8	-9.8	75	24	15	17, 18	42	1.45	-1.68	.65	....	8	13	8	9	S, NW	
Hancock	Pottawatta'e	.....	1	43.0	.....	75	24	18	14	41	.92	.....	.36	3.0	6	17	6	7	NW	
Hopeville	Clarke	.....	14	43.0	-7.2	78	24	18	14, 17	37	1.35	-2.07	.50	.0	9	7	13	10	.....	7, 15, 27
Indianola (a)	Warren	969	16	42.8	-8.9	74	24	18	14	33	1.73	-1.55	.82	7.2	10	6	11	13	NW	28
Keokuk	Lee	614	36	46.2	-5.8	77	24	25	17	34	2.02	-1.19	.76	.5	10	15	9	6	NW	29
Keosauqua	Van Buren	644	14	43.4	-9.4	78	24	22	14, 17	39	2.40	-1.44	1.00	.5	5	7	9	14	.....	
Knoxville	Marion	920	11	44.2	.....	78	24	19	14	36	1.76	-1.40	.60	4.8	6	10	5	15	NW	
Lacona	Warren	.....	8	.....	.....	.....	.....	.....	.....	.....	2.06	- .78	.69	6.0	6	7	18	5	.....	
Lenox	Taylor	1,250	10	42.6	-8.6	76	24	17	14, 17	35	1.58	-1.44	.60	7.8	9	11	10	9	NW	
Leon	Decatur	1,120	5	43.2	-8.1	76	24	19	14, 17	36	1.55	-1.87	.59	1.0	10	13	8	9	NW	28
Massena	Cass	.....	....	42.0	.....	79	24	11	17	43	1.68	.....	.50	10.8	8	7	18	5	NW	
Mt. Ayr	Ringgold	1,236	11	43.4	-8.1	78	24	19	14	35	2.08	-1.07	.60	5.2	10	8	12	10	NW	28
Mt. Pleasant	Henry	729	23	45.4	-5.7	78	24	22	14, 17	35	2.71	- .34	.81	T	10	10	12	8	NW	3, 18, 27
Omaha, Neb	Douglas	1,105	35	42.8	-7.7	73	24	23	13	35	1.31	-1.82	.60	5.9	9	6	9	15	N	15, 24, 28
Oskaloosa	Mahaska	843	21	43.4	-6.9	76	24	16	14	39	1.47	-1.31	.62	2.0	8	16	0	14	NW	
Ottumwa	Wapello	649	11	45.6	-7.2	78	24	24	13,14,17	39	1.71	-1.37	.75	T	4	13	9	8	.....	
Pacific Jct (a)	Mills	960	8	43.4	-7.0	78	24	16	17	42	2.71	† .10	1.50	6.3	6	5	17	8	N	
Pella	Marion	.....	4	45.4	.....	76	24	19	17	44	1.69	.....	.62	4.0	8	12	8	10	NW	
St. Charles	Madison	1,070	6	44.1	-6.5	75	24	18	17	36	1.91	-1.61	.88	8.6	9	17	5	8	NW	
Sigourney	Keokuk	877	8	45.2	-7.0	75	24	19	17	40	1.99	-1.61	.76	4.0	9	2	22	6	NW	29
Stockport	Van Buren	.....	5	43.8	.....	75	24	20	14	35	2.33	- .95	.85	2.0	11	11	7	12	NW	3, 24
Thurman	Fremont	.....	9	43.6	-8.2	77	24	17	17	40	2.31	-1.13	.90	16.0	9	10	12	8	NW	15,17,24,28
Wapello (c)	Louisa	588	7	44.7	-7.2	72	24	20	17	33	2.21	- .03	.62	0.5	9	....	....	....	NW	
Washington	Washington	769	23	43.4	-7.5	74	24	19	14	36	1.69	- .93	.56	....	6	7	16	7	NW	
Winterset	Madison	1,129	14	43.4	-7.8	75	24	18	14, 17	35	1.90	-1.76	.75	8.5	9	10	9	11	NW	
Woodburn	Clarke	961	8	42.9	.....	76	24	13	14	54	1.78	- .81	.69	7.0	5	12	8	10	NW	
Average	.....	.....	....	43.4	-7.7	76.2	.....	17.3	.....	38.6	1.84	-1.30	.....	5.0	8	11	9	10	NW	
State aver.	.....	.....	....	41.5	-7.7	71.6	.....	16.4	.....	38.2	1.32	-1.59	.....	2.7	6	12	8	10	NW	

‡ Received too late to be included in average. *a*, one day missing; *b*, two days; *c*, three days, etc. † means plus

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF APRIL, 1907

STATIONS		DAY OF MONTH																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Afton.....	max.	57	63	67	60	46	43	54	42	50	54	62	53	43	53	61	48	48	39	49	57	59	70	70	78	48	59	72	63	41	46	..	55.2
	min.	28	39	42	46	33	31	35	32	25	23	30	28	19	16	36	24	18	32	32	28	28	33	38	45	31	23	35	37	30	23	..	30.7
Albia*.....	max.	55	61	65	68	38	46	58	41	48	51	62	37	44	50	67	45	48	39	49	53	60	68	70	76	48	56	67	57	36	48	..	53.7
	min.	27	32	39	46	35	28	30	32	25	21	27	32	22	16	31	26	18	22	33	27	26	35	38	38	34	21	31	37	34	30	..	29.8
Algona.....	max.	55	65	63	54	37	45	55	40	42	49	59	37	37	49	57	36	42	41	48	50	58	66	68	55	42	54	59	38	38	50	..	49.6
	min.	28	39	39	35	29	28	33	30	22	20	36	27	19	13	35	20	15	27	25	23	25	35	37	35	28	21	33	29	29	25	..	28.0
Allerton..	max.	55	58	61	66	50	41	58	48	49	50	61	52	43	50	64	50	47	38	48	51	59	66	70	77	70	56	67	59	47	48	..	55.3
	min.	27	39	46	42	35	30	38	32	27	23	37	30	22	17	36	26	19	34	33	30	28	33	39	47	34	21	34	45	32	31	..	32.3
Alta*.....	max.	60	66	65	44	37	39	54	42	48	49	57	34	39	54	52	39	37	37	48	49	58	71	66	58	45	58	63	36	37	53	..	49.8
	min.	29	38	37	41	27	28	29	30	25	21	23	27	15	17	29	19	15	18	25	21	23	33	35	40	28	25	31	27	28	23	..	26.9
Alton.....	max.	62	65	66	58	38	37	54	44	46	46	56	41	39	53	50	46	39	38	47	48	58	68	64	56	44	55	49	36	40	52	..	49.8
	min.	32	42	38	36	28	31	33	30	27	21	31	26	17	19	36	19	15	24	24	22	21	30	34	37	26	32	31	27	29	21	..	28.0
Amana.....	max.	53	62	63	65	46	49	54	46	45	49	60	48	42	50	65	43	48	42	51	55	61	70	66	73	48	55	65	62	50	48	..	54.5
	min.	25	36	47	46	33	27	40	35	29	24	32	31	25	20	36	26	21	34	33	28	24	34	38	39	35	24	32	50	33	28	..	32.2
Ames.....	max.	57	59	41	69	58	44	45	58	51	48	51	62	45	42	50	63	46	41	47	53	59	72	68	70	48	55	67	62	42	53	..	54.2
	min.	27	30	17	35	41	33	29	37	32	25	27	40	30	20	13	36	24	32	27	27	21	35	37	39	33	19	33	38	31	27	..	29.8
Atlantic..	max.	61	64	72	57	44	40	60	49	54	54	63	46	47	55	63	47	41	38	50	54	58	74	73	75	47	60	69	61	45	55	..	55.9
	min.	31	43	44	33	32	31	36	31	21	19	34	29	20	11	24	23	11	30	23	23	16	24	37	41	30	15	38	33	31	25	..	28.0
Audubon..	max.	60	62	73	59	42	40	58	53	52	51	61	46	43	54	57	46	37	37	54	55	60	74	70	73	47	61	68	52	46	55	..	54.9
	min.	26	44	43	41	31	30	36	31	23	18	31	28	18	11	37	22	30	29	22	24	16	32	37	39	32	22	33	32	30	23	..	29.0
Baxter.....	max.	55	65	69	61	44	45	56	46	46	51	62	51	42	50	66	44	45	45	50	54	59	72	67	72	47	66	68	61	42	52	..	55.1
	min.	25	35	40	42	32	26	39	32	25	20	38	29	20	16	35	23	16	31	29	26	26	32	37	39	33	22	33	42	30	26	..	30.0
Bedford....	max.	58	60	63	65	44	38	58	47	53	54	62	52	46	51	62	47	47	35	48	52	58	68	73	70	47	57	68	62	43	46	..	54.5
	min.	31	40	45	39	33	31	37	32	25	21	35	29	20	19	36	25	16	31	33	28	22	26	33	44	31	21	37	39	41	23	..	30.8
Belle Pl'n	max.	52	61	63	58	40	48	52	42	48	53	59	36	45	50	65	43	50	50	52	56	59	74	73	66	47	54	66	65	57	35	..	54.0
	min.	26	35	41	46	32	25	38	32	27	22	36	30	24	17	35	25	18	32	29	27	24	32	40	45	34	22	36	50	33	26	..	31.3
Bloomfi'd..	max.	53	61	62	67	49	45	58	47	49	50	59	54	45	49	65	48	48	43	50	54	60	68	70	77	71	57	67	65	56	51	..	56.6
	min.	28	35	44	49	35	28	39	32	26	25	39	32	23	20	35	27	20	35	33	30	29	35	43	45	35	25	33	51	33	32	..	33.2
Bonapa'e..	max.	52	59	63	65	53	46	57	48	49	50	59	53	44	48	63	49	49	45	49	55	61	68	69	78	70	55	65	71	64	50	..	56.9
	min.	28	35	47	43	35	29	41	35	28	25	39	32	25	21	35	28	22	35	33	29	25	32	41	46	37	27	32	51	35	33	..	33.5
Boone*.....	max.	56	63	69	55	39	43	56	41	47	50	61	37	41	50	61	41	41	39	49	53	58	71	67	69	45	55	66	45	36	52	..	51.9
	min.	27	29	40	42	32	28	29	30	25	23	26	30	20	17	22	24	18	20	26	27	27	37	37	43	33	26	34	35	31	27	..	28.8
Britt.....	max.	57	66	65	53	41	48	50	38	41	50	60	37	37	49	52	36	46	43	53	49	58	69	64	53	45	55	62	39	38	52	..	50.2
	min.	24	37	38	30	29	37	34	31	22	20	34	27	20	14	34	21	17	27	24	23	21	29	35	33	28	20	35	30	27	24	..	27.5
Burl'g'n*..	max.	50	59	61	67	37	50	56	41	48	51	59	37	46	47	60	45	50	47	49	57	61	69	71	78	46	55	66	71	41	51	..	54.2
	min.	28	31	38	43	37	29	31	35	29	26	29	32	27	23	29	28	23	26	33	30	34	38	42	46	38	31	33	36	41	32	..	32.6
Carroll*..	max.	60	65	69	48	37	40	58	44	50	49	61	38	43	54	58	43	41	38	49	53	58	73	68	71	47	57	65	38	37	54	..	52.2
	min.	24	35	39	38	29	29	30	29	23	20	28	28	17	13	27	21	12	22	23	23	20	33	36	43	31	20	32	30	29	25	..	27.0
Cedar R*..	max.	52	63	62	66	42	49	54	43	46	52	60	38	42	51	63	43	49	41	51	56	61	72	67	72	49	54	66	60	38	51	..	53.8
	min.	23	28	37	46	33	26	27	35	29	25	25	31	26	21	22	26	22	22	30	29	26	34	38	41	36	24	27	36	36	30	..	29.7
Chariton..	max.	56	59	63	66	51	42	57	52	50	50	62	46	43	50	64	49	44	40	48	52	59	66	69	76	50	56	68	60	46	48	..	54.7
	min.	27	38	44	43	34	29	37	31	25	22	37	29	20	16	35	24	17	32	33	27	26	28	36	46	33	21	32	44	31	27	..	30.8
Charles C..	max.	52	64	60	51	44	48	46	37	41	45	57	35	37	46	57	38	42	41	48	51	57	66	62	53	40	51	61	44	39	48	..	48.7
	min.	27	35	40	33	30	26	36	30	26	24	30	29	24	18	30	23	20	29	30	28	22	37	38	33	26	22	33	32	30	29	..	29.0
Clarinda*..	max.	61	59	66	64	40	40	57	49	55	54	65	43	47	54	62	45	46	35	50	53	61	69	75	80	50	60	70	45	36	48	..	54.6
	min.	26	32	44	39	33	33	33	33	29	23	28	30	21	19	25	25	17	23	30	27	23	28	31	41	31	22	24	40	32	22	..	28.8
Clear La'e..	max.	54	65	57	41	46	49	42	41	41	45	54	38	38	50	54	40	42	41	51	52	53	67	64	58	43	54	56	40	37	51	..	48.8
	min.	25	36	35	28	27	35	33	31	23	21	34	28	20	18	35	20	17	28	28	25	30	38	40	35	29	22	35	33	29	27	..	28.8
Clinton....	max.	50	65	66	66	51	54	51	42	47	46	56	46	44	52	55	45	50	45	51	54	71	70	66	75	48	52	67	67	50	49	..	55.0
	min.	24	33	39	46	31	26	41	35	30	27	33	27	27	21	35	27	21	32	26	28	35	34	44	30	37	29	31	50	36	32	..	32.2
Colum's J..	max.	51	62	63	64	56	51	51	48	46	49	58	54	42	48	63	50	50	50	49	55	60	76	62	76	69	55	66	64	59	48	..	56.5
	min.	26	33	45	45	33	28	41	32	26	24	35	25	24	22	34	25	21	37	32	29	27	33	40	47	35	29	35	49	34	31	..	32.6
Corning....	max.	58	60	63	61	45	38	56	46	51	50	62	49	43	52	62	48	43	36	46	50	58	66	69	77	46	56	68	58	41	44	..	53.4
	min.	30	41	44	40	32	31	37	33	24	21	35	28	19	16	37	25	13	30	32	28	20	32	30	41	31	18	36	39	30	23	..	29.9
Corydon....	max.	56	58	63	67	50	42	60	52	52	52	63	55	46	51	67	50	47	40	49	55	61	66	72	76	61	56	68	64	49	53	..	56.7
	min.	28	39	46	44	35	30	38	31	26	22	28	30	21	18	36	26	18	34	33	28	28	34	37	48	34	24	34	45	32	31	..	31.9
Creston*..	max.	57	60	62	61	47	43	56	45	50	50	60	42	43	50	61	47	42	44	46	51	56	65	69	75	46	55	66	45	34	45	..	52.4
	min.	30	32	42	42	32	30	31	32	26	22	25	28	20	18	30	24	16	20	32	29	22	34	31	38	31	23	32	37	31	23	..	28.8
Davenp't....	max.	47	60	59	67	44	51	51	40	45	48	54	39	41	46	55	42	47	42	48	53	57	65	65	74	45	50	62	64	47	49	..	51.9
	min.	28	34	46	44	31	28	40	35	30	27	37	32	27	24	33	28	24	34	32	32	37	39	46	41	37	33	32	47	35	31	..	34.1
Decorah....	max.	53	63	58	59	48	53	44	40	42	48	50	39	39	49	53	43	48	51	50	54	59	68	63	50	42	57	62	46	39	54	..	50.8
	min.	23	37	38	37	30	27	38	34	27	23	34	30	25	18	35	28	23	30	29	27	23	38	38	33	32	22	35	38	33	28	..	30.4
Delaware..	max.	50	62	56	63	37	49	47	42	42	45	57	39	38	47	58	41	48	42	47	54	58	70	62	67	46	51	63	56	42	50	..	51.0
	min.	21	32	40	42	28	22	37	31	25	21	21	26	21	17	31	24	18	28	26	27	26	32	38	39	32	22	28	41	32	28	..	28.5
Denison....	max.	61	64	68	59	42	39	56	52	51	49	59	44	42	54	55	45	40	38	49	51	58	71	68	72	47	57	68	49	38	52	..	53.3
	min.	—	44	42	36	29	31	27	—	22	19	25	23	18	13	40	22	11	29	24	15	20	35	34	37	31	21	36	30	29	24	..	27.4
Des Mo's..	max.	56	62	66	61	39	43	57	43	49	49	61	39	42	49	62	42	42	40	49	52	58	68	67	72	46	55	67	49	38	50	..	52.4
	min.	30	41	48	39	32	30	38	32	27	25	37	29	22	19	36	26	19	34	30	31	27	37	41	37	34	25	36	38	32	31	..	32.1
De Soto....	max.	58	63	68	61	44	44	58	46	50	50	62	42	44	52	62	44	44	38	49	53	60	73	70	75	48	58	69	62	41	54	..	54.7
	min.	28	42	44	43	33	30	37	32	26	22	40	30	20	12	37	23	16	32	30	26	21	35	33	42	32	18	36	38	31	27	..	30.5
Dows.....	max.	54	65	65	57	40	46	52	43	43	49	58	38	38	49	59	38	41	39	49	51	58	71	64	64	43	54	64	56	38	50	..	51.2
	min.	26	36	36	37	29	26	35	32	23	21	37	28	20	14	36	22	16	30	21	23	21	30	32	35	30	19	33	35	29	26	..	27.9
Dubuque....	max.	48	62	60	64	39	48	42	39	43	46	57	40	39	45	57	41	44	41	50	52	58	69	63	69	44	48	61	56	40	51	..	50.5
	min.	26	36	44	36	30	26	38	34	30	28	35	30	27	24	33	28	25	31	31	32	30	42	42	38	36	29	35	40	32	33	..	32.7
Earlham....	max.	64	62	66	60	44	42	57	62	50	52	63	48	43	51	63	47	43	37	47	48	51	54	61	76	46	56	70	59	40	48	..	53.7
	min.	31	29	49	39	32	30	37	31	24	19	31	29	19	10	37	23	12	31	30	28	31	30	42	41	31	17	35	39	31	23	..	29.7
Elkader....	max.	51	66	58	65	46	50	46	40	47	50	50	41	42	50	53	43	53	43	52	56	59	73	66	55	52	55	66	60	40	56	..	52.8
	min.	23	35	40	41	31	26	38	34	29	23	33	30	25	18	36	27	21	29	28	28	21	36	35	36	34	21	32	40	29	30	..	30.3
Elliott....	max.	62	62	73	59	44	40	57	47	52	55	61	46	42	55	60	60	48	46	49	50	58	68	69	69	47	59	73	62	49	52	..	55.8
	min.	29	43	45	38	32	33	38	32	28	21	36	30	20	18	37	24	15	30	26	25	21	27	31	41	30	20	37	34	32	23	..	29.9
Esth'rv'e*..	max.	59	66	65	42	37	45	54	39	44	46	58	35	48	51	52	36	38	42	48	53	60	67	65	44	42	56	48	34	38	51	..	48.8
	min.	25	30	31	32	27	26	29	30	23	21	23	26	17	13	36	18	14	17	25	21	22	35	34	37	27	24	28	26	27	22	..	25.5
Forest C.*..	max.	55	66	62	44	40	46	48	36	42	48	59	34	35	48	55	37	43	41	49	55	59	69	64	51	41	53	55	38	37	51	..	48.7
	min.	26	28	38	39	29	27	27	31	22	21	24	27	20	17	31	19	17	19	28	23	27	32	36	40	29	24	30	32	28	26	..	27.2
Ft. Dodge*..	max.	58	67	65	46	39	45	55	40	44	52	58	35	38	51	57	39	39	38	48	52	58	72	66	68	45	56	63	40	37	52	..	50.8
	min.	25	33	41	40	31	29	30	32	25	21	22	30	20	15	15	24	17	17	26	19	22	25	38	40	31	21	28	32	31	26	..	26.9
Galva.....	max.	61	62	65	58	40	40	59	46	47	50	51	42	39	55	47	47	42	38	47	48	57	70	65	66	43	58	67	37	38	52	..	51.2
	min.	28	42	35	35	28	30	33	30	24	18	33	27	16	13	36	20	11	28	22	22	15	32	35	37	30	19	35	28	29	21	..	27.1
Gr. Mead....	max.	47	62	62	62	43	47	45	40	41	46	58	40	36	47	54	40	44	46	53	52	57	69	57	52	42	51	63	55	37	50	..	49.9
	min.	23	33	37	42	28	25	35	32	26	21	36	28	22	19	34	24	20	26	30	26	28	38	41	35	31	25	31	35	32	28	..	29.7
Greenfi'ld..	max.	57	63	66	60	45	39	56	51	51	50	61	45	44	51	61	48	42	37	49	52	56	68	70	75	47	56	67	62	39	46	..	53.8
	min.	30	30	44	41	31	30	29	28	23	19	—	19	18	18	31	22	15	15	30	26	25	35	34	40	30	23	37	35	30	18	..	27.8
Grinnell....	max.	51	66	67	65	49	47	55	51	46	49	62	56	43	47	67	46	45	43	48	54	66	71	65	67	53	56	68	62	45	49	..	55.3
	min.	28	36	46	47	32	27	45	25	26	21	40	26	20	17	43	24	16	32	28	27	27	54	40	45	32	21	33	45	30	22	..	31.8
Grundy C....	max.	54	65	66	60	44	48	53	47	45	47	60	57	40	48	63	42	44	43	50	53	59	71	68	67	44	55	67	61	40	59	..	54.0
	min.	25	34	41	43	32	30	30	27	25	22	36	22	22	18	34	21	19	31	30	27	21	37	36	42	32	20	52	40	31	31	..	30.4
Guthrie C....	max.	59	63	70	62	45	41	57	53	50	51	60	51	42	52	59	50	42	38	47	51	57	71	68	73	45	57	67	64	38	52	..	54.5
	min.	29	43	43	41	32	31	37	32	25	22	37	30	20	11	37	23	12	31	25	26	20	38	37	41	33	17	35	34	31	27	..	30.0
Hampton....	max.	55	66	61	55	41	48	52	41	44	48	58	37	39	49	58	38	46	41	52	55	60	72	68	61	47	56	61	47	38	54	..	51.6
	min.	26	31	48	36	30	27	35	32	24	23	35	28	21	20	34	22	18	30	29	26	26	31	38	36	31	22	35	36	30	27	..	29.6
Hancock....	max.	61	63	70	55	44	39	58	48	52	53	62	48	42	54	58	44	48	38	47	49	58	71	70	75	47	58	69	63	37	54	..	54.5
	min.	31	43	45	43	31	32	37	32	27	23	45	29	19	18	37	23	29	29	23	37	26	30	36	40	30	25	38	33	31	26	..	31.6

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF APRIL, 1907—CONTINUED.

STATIONS		DATE																															MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Harlan ...	max.	64	63	73	63	41	39	58	53	51	53	61	46	44	58	56	46	45	37	51	52	59	74	73	75	48	62	71	53	37	55	..	55.4
	min.	29	43	42	39	31	31	36	32	26	21	35	29	18	15	38	22	12	29	29	25	28	26	37	40	32	19	35	32	30	23	..	29.5
Hopeville	max.	57	62	64	64	45	42	56	47	50	55	62	46	43	52	63	46	45	37	48	51	59	69	71	78	47	58	72	60	41	46	..	54.5
	min.	29	39	46	42	34	31	37	32	26	22	37	29	20	18	34	25	18	32	32	29	28	34	37	41	32	25	37	40	31	24	..	31.4
Humboldt	max.	57	66	65	58	40	48	56	48	44	50	58	40	40	52	56	45	42	40	50	52	58	69	64	62	42	56	64	42	40	52	..	51.9
	min.	28	40	40	37	32	30	36	33	24	20	38	30	20	14	38	24	15	30	23	23	20	35	34	38	30	20	35	32	32	24	..	29.2
Indep'd'e	max.	51	63	61	63	56	56	49	47	44	47	59	43	41	47	61	40	44	44	50	53	57	69	65	66	44	52	69	48	41	50	..	52.7
	min.	24	34	31	32	32	23	38	32	27	23	34	29	18	23	34	24	20	31	26	27	22	33	39	37	33	22	30	40	32	29	..	29.3
Indianola	max.	55	61	65	62	44	43	56	49	49	50	61	50	42	49	63	..	42	39	48	52	50	68	69	74	47	55	68	63	47	47	..	54.1
	min.	31	41	47	44	33	29	37	31	26	23	39	31	21	18	37	25	19	33	32	29	20	35	..	44	32	25	36	42	32	25	..	31.6
Inwood...	max.	65	67	69	63	55	..	60	48	49	45	57	38	41	51	53	43	38	39	49	50	61	70	65	55	44	56	55	33	40	54	..	52.2
	min.	34	37	35	35	26	..	31	28	23	19	29	25	15	16	36	17	12	23	20	17	21	34	29	36	21	26	29	26	25	20	..	25.7
Iowa City*	max.	54	63	63	68	44	54	54	40	46	52	58	37	43	50	65	43	49	43	50	58	60	68	69	72	49	58	67	61	38	56	..	54.4
	min	25	28	37	45	33	27	28	35	30	24	27	31	26	21	25	26	21	23	32	28	25	33	38	40	37	27	31	36	37	31	..	30.2
Iowa Falls	max.	55	67	66	54	42	51	53	45	43	46	59	37	39	49	62	39	45	42	50	52	59	72	63	66	42	56	68	47	38	45	..	51.7
	min.	25	35	39	39	31	28	33	32	25	22	32	30	22	15	23	23	17	28	26	26	20	28	37	40	32	19	28	36	32	29	..	28.4
Jefferson.	max	59	64	71	53	41	42	58	53	50	53	62	47	45	52	61	..	..	..	..	..	..	..	73	..	69	..	..	41	37	54	..	54.2
	min.	30	40	43	38	32	30	37	32	26	20	37	32	20	15	38	..	..	..	..	..	..	..	60	..	35	..	..	34	31	25	..	32.8
Keokuk...	max.	49	59	61	62	59	47	55	50	48	48	57	53	42	48	61	57	47	44	46	53	59	66	69	77	72	52	62	75	71	50	..	56.6
	min.	30	35	46	45	37	30	43	36	29	28	41	32	26	26	35	31	25	39	33	32	34	41	48	48	39	32	35	50	37	32	..	35.8
Keosa'q'a	max.	54	60	63	67	39	48	58	42	49	52	60	39	45	50	65	45	50	46	52	56	62	70	70	78	53	57	66	72	50	51	..	55.6
	min.	25	30	37	43	37	29	30	35	28	26	30	33	25	22	32	29	22	25	34	29	24	31	36	42	37	27	30	38	38	33	..	31.2
Larrabee,	max.	61	67	66	56	38	38	58	46	49	60	57	41	44	56	53	43	38	39	48	53	59	73	65	54	48	60	60	39	42	58	..	52.3
	min.	29	42	38	38	28	31	32	29	22	19	35	24	15	16	35	19	13	25	22	21	22	31	35	36	29	21	32	28	28	18	..	27.1
Le Mars ..	max.	64	68	68	64	39	37	57	46	48	46	55	42	41	54	55	38	40	39	47	50	60	70	68	56	46	60	60	40	41	55	..	51.8
	min.	34	44	38	37	26	31	31	30	26	20	30	25	11	17	32	20	14	25	22	21	33	34	33	37	28	25	31	27	28	17	..	27.2
Lenox	max.	58	60	61	62	50	38	51	53	52	52	62	52	44	52	62	51	43	36	47	51	58	67	70	76	50	58	70	62	42	44	..	54.5
	min.	29	39	44	40	32	30	37	31	25	23	36	28	19	17	36	24	17	30	32	29	26	32	36	48	30	25	37	37	29	22	..	30.7
Leon.....	max.	56	59	63	64	40	44	61	55	50	51	61	54	42	51	62	48	44	37	46	51	60	66	69	76	52	57	69	61	45	47	..	54.7
	min.	29	39	42	35	31	32	36	32	31	23	35	30	21	19	36	25	19	32	33	29	32	30	38	47	33	26	35	42	31	28	..	31.7
Lit. Sioux	max.	65	64	67	62	42	39	59	53	52	49	62	50	43	55	55	49	40	37	48	50	59	73	70	74	48	58	69	46	40	54	..	54.4
	min.	35	48	46	38	31	33	34	32	24	20	32	29	17	21	39	23	15	29	25	25	22	35	35	43	33	26	42	32	31	19	..	30.5
Logan	max.	63	66	70	56	41	38	54	52	52	50	61	45	42	44	56	45	44	43	48	49	58	70	70	74	47	69	69	43	37	53	..	53.6
	min.	33	44	45	39	31	33	37	30	26	22	36	29	19	24	26	23	15	24	26	27	21	34	36	38	33	36	37	32	30	24	..	30.3
Mars'llt'n	max.	56	67	68	64	42	47	55	42	47	50	60	37	44	51	66	43	46	47	51	55	60	72	68	71	47	57	69	56	37	54	..	54.3
	min.	25	30	39	45	33	22	27	32	25	21	24	30	21	16	29	23	17	20	30	27	23	35	35	38	33	20	25	37	32	28	..	28.1
Mason C'y	max.	54	64	62	55	40	47	50	40	43	46	59	40	38	57	54	37	42	44	50	50	57	66	65	54	42	52	58	48	40	50	..	50.1
	min.	28	34	38	37	30	28	38	32	25	22	36	28	22	18	35	22	18	28	28	26	28	36	42	35	30	25	35	36	30	28	..	29.9
Massena..	max.	59	64	69	62	42	39	60	50	59	57	69	52	49	52	64	52	45	37	49	52	61	69	75	79	50	58	67	62	37	47	..	56.4
	min.	25	40	42	38	29	29	34	28	20	19	35	26	16	12	36	20	11	28	25	25	18	29	32	47	28	16	35	33	28	20	..	27.5
Mt. Ayr ..	max.	59	59	58	65	46	40	59	50	53	52	63	51	45	53	64	48	46	38	48	55	58	70	73	78	49	61	71	60	41	47	..	55.3
	min.	29	40	45	41	33	30	36	31	26	22	36	29	20	19	36	25	20	32	32	29	30	32	42	43	31	26	36	40	30	24	..	31.5
Mt.Pleas't	max.	51	60	65	65	59	49	55	50	47	50	58	54	43	48	64	53	49	48	49	54	60	69	68	78	68	56	67	71	64	49	..	57.4
	min.	28	34	45	43	34	28	41	35	28	25	36	32	25	22	34	27	22	36	32	29	29	35	43	48	37	28	32	51	35	32	..	33.5
Mt.Ver'n.	max.	54	59	58	67	47	52	50	44	44	54	58	48	42	52	64	42	52	41	53	59	62	60	71	69	49	60	69	59	48	58	..	54.8
	min.	24	33	44	46	30	24	38	33	26	22	35	28	23	18	32	24	20	31	28	28	30	31	41	35	34	26	30	48	30	27	..	30.6
N.Hamp'n	max.	50	62	56	55	42	48	45	41	42	43	56	40	37	45	54	42	42	42	48	49	56	64	61	54	41	50	61	58	38	49	..	49.0
	min.	25	33	38	38	29	25	36	31	26	21	33	28	23	18	34	22	18	28	29	27	24	34	38	35	30	22	31	36	30	28	..	29.0
Newton...	max.	56	64	68	63	49	47	57	48	46	50	61	54	42	51	65	46	44	45	48	53	60	70	67	71	47	58	70	63	46	50	..	55.3
	min.	27	35	45	46	34	28	38	33	26	23	39	31	21	18	36	25	19	33	29	28	28	33	33	43	33	24	34	44	32	26	..	31.5
Northw'd	max.	53	58	61	52	48	50	45	38	42	47	58	38	37	47	54	37	45	48	53	51	57	64	62	51	43	52	58	41	40	50	..	49.3
	min.	25	33	37	35	29	27	35	31	23	20	33	27	20	17	34	20	17	27	27	24	27	37	41	33	29	21	34	32	28	26	..	28.3
Odebolt ..	max.	61	65	66	60	39	40	56	46	49	53	58	43	40	56	52	47	42	38	49	52	60	75	72	68	46	59	68	42	37	55	..	53.1
	min.	30	44	39	37	29	30	30	30	19	20	35	28	17	16	36	21	14	29	24	23	20	38	36	38	30	21	36	30	30	22	..	28.4
Ogden	max.	58	65	69	63	44	45	58	49	49	52	62	49	45	51	61	48	40	41	50	54	58	72	68	69	47	55	65	61	39	53	..	54.7
	min.	28	37	42	40	32	29	37	30	24	19	38	30	19	16	36	23	14	31	25	25	24	37	38	39	33	22	35	35	31	26	..	29.8
Olin.....	max.	48	60	60	65	55	48	49	45	44	47	55	54	40	45	60	48	47	44	50	52	57	67	63	71	64	50	61	60	52	46	..	53.6
	min.	25	32	52	47	32	26	40	35	28	24	36	30	25	20	34	26	22	32	29	26	24	47	35	38	35	30	30	47	33	29	..	32.3
Omaha,N.	max.	64	61	69	55	41	40	58	48	50	49	60	39	41	52	55	40	38	35	47	47	58	70	69	73	45	56	66	39	37	50	..	51.7
	min.	37	48	48	39	33	34	39	34	34	29	36	30	23	26	39	25	26	30	27	31	33	39	44	38	33	33	38	34	32	27	..	34.0
Onawa....	max.	66	66	69	67	42	39	59	55	54	50	58	50	47	55	56	52	42	40	47	56	62	76	75	71	53	60	68	43	41	58	..	55.9
	min.	32	44	41	40	30	33	33	30	27	23	36	27	18	20	38	22	18	30	23	25	22	32	35	49	31	26	36	31	30	22	..	30.1
Osage.....	max.	53	65	60	53	47	48	44	44	42	46	57	37	37	48	53	38	43	43	49	54	58	67	63	55	42	54	54	44	37	51	..	49.5
	min.	25	33	37	35	28	26	35	30	24	22	33	26	23	19	34	22	19	27	31	27	25	35	41	33	29	23	34	34	29	28	..	28.9
Oskaloosa	max.	56	65	68	67	43	48	57	48	48	51	62	52	44	51	67	45	47	41	50	53	62	70	68	76	47	59	69	60	50	48	..	55.7
	min.	22	37	41	41	33	29	39	32	26	22	39	31	22	16	36	25	18	34	30	27	24	33	37	47	34	20	33	48	32	29	..	31.2
Ottumwa .	max.	55	64	64	69	57	54	56	47	68	50	60	39	48	55	44	55	50	45	52	55	60	74	70	78	50	62	72	65	38	49	..	56.8
	min.	32	48	52	43	39	37	30	37	31	26	28	34	24	24	27	28	24	28	34	31	30	35	42	50	36	36	34	40	36	32	..	34.3
Pacific Jc.	max.	64	64	71	60	43	..	60	50	53	52	61	47	43	56	69	47	42	36	50	49	60	70	72	78	47	60	65	49	38	54	..	55.6
	min.	31	42	46	38	33	39	35	33	28	23	36	30	21	20	39	38	16	31	29	26	20	28	32	43	30	23	38	33	31	27	..	31.3
Pella.....	max.	57	66	68	75	49	47	57	53	48	54	62	54	45	52	65	55	56	43	55	55	61	70	70	76	64	69	70	64	50	50	..	58.7
	min.	27	36	46	48	33	28	38	32	26	23	39	31	21	20	35	25	19	33	30	29	29	35	40	48	33	25	33	46	32	27	..	32.2
Perry.....	max.	59	67	72	55	42	45	58	49	48	53	63	45	43	53	61	46	43	41	49	53	61	74	69	73	47	53	70	62	40	54	..	55.0
	min.	27	41	43	39	33	30	37	31	25	20	38	30	19	13	36	23	15	33	26	25	22	33	36	40	34	20	33	35	31	27	..	29.8
Plover....	max.	59	61	67	55	38	39	54	43	42	52	59	35	42	63	53	37	43	39	50	51	53	69	66	55	42	58	67	35	38	54	..	50.6
	min.	28	37	35	34	30	29	31	30	23	20	35	27	17	15	34	20	14	28	22	24	22	31	34	35	29	21	35	32	28	24	..	27.5
Pocahon's	max.	59	68	65	65	39	43	51	41	45	52	59	35	40	52	55	39	43	38	49	50	60	72	68	57	43	58	65	37	36	55	..	51.3
	min.	29	38	42	35	29	29	33	31	24	19	35	28	18	17	30	21	16	28	24	22	23	33	33	35	29	24	35	29	29	23	..	28.0
Ridgeway	max.	52	63	58	60	46	49	42	38	47	48	64	42	43	48	55	46	48	44	54	55	61	72	70	49	43	52	57	43	38	53	..	51.3
	min.	24	34	37	38	29	25	36	32	26	22	33	28	22	20	33	23	20	25	29	26	25	35	38	35	30	25	33	36	31	26	..	29.2
Rock Rap.	max.	62	64	50	44	36	32	44	50	44	54	34	36	38	36	44	34	40	40	50	48	60	70	60	46	42	44	40	42	38	54	..	45.9
	min.	38	42	36	30	26	28	32	30	26	28	30	30	16	16	26	20	26	30	20	20	22	30	32	28	32	30	24	32	28	22	..	27.7
Rock'll Cy	max.	58	60	68	58	58	59	55	56	55	53	58	46	45	54	48	48	40	38	50	51	58	72	65	72	45	57	68	38	40	52	..	54.2
	min.	29	39	41	39	35	38	35	29	25	20	38	29	18	18	30	21	15	29	25	23	28	38	35	38	30	25-	33	30	30	23	..	29.5
St. Charl's	max.	60	62	66	65	47	42	59	50	52	51	63	43	46	53	68	46	46	38	58	55	60	70	73	75	49	58	70	61	43	49	..	55.9
	min.	39	41	44	43	54	30	37	31	26	23	39	30	20	19	37	25	18	33	32	29	29	36	38	47	32	25	34	41	31	25	..	32.3
Sheldon ..	max.	63	68	71	70	55	37	56	45	45	45	52	38	43	54	52	45	38	39	50	53	61	71	67	59	46	58	52	36	41	56	..	52.2
	min.	30	38	36	35	27	30	32	30	25	25	29	26	15	16	32	18	12	25	20	21	20	29	34	36	25	23	32	26	27	20	..	26.5
Sibley *...	max.	62	68	67	43	35	36	54	41	44	44	54	32	38	53	48	37	36	38	47	49	55	69	64	41	43	57	37	31	36	53	..	47.1
	min.	21	33	35	36	26	26	30	29	25	20	21	26	16	15	25	18	13	16	22	20	20	25	32	37	25	26	29	26	26	21	..	24.7
Sigourn'y	max.	54	63	67	67	52	51	58	52	47	51	62	55	44	51	67	50	49	47	51	55	61	73	68	75	67	59	69	62	57	50	..	57.8
	min.	26	36	46	47	34	28	40	35	27	23	37	31	23	20	36	26	19	34	31	29	26	33	40	48	35	22	32	50	32	30	..	32.5
Sioux Cen	max.	62	66	66	58	36	36	55	44	46	46	53	37	38	52	48	48	38	39	48	45	58	68	65	56	55	56	46	33	38	52	..	49.6
	min.	32	33	35	36	27	29	28	29	26	26	32	25	15	17	36	19	17	25	20	26	28	32	35	37	26	26	29	27	29	23	..	27.5
Sioux C'y	max.	65	65	65	52	40	38	56	46	48	47	55	36	39	51	49	38	38	36	45	48	58	71	65	60	44	56	59	41	40	53	..	50.1
	min.	36	46	43	36	28	33	35	31	29	24	31	26	19	23	30	22	20	29	27	27	31	39	38	36	31	30	31	29	29	24	..	30.4
Stockport	max.	52	57	60	64	46	49	55	44	47	50	59	44	43	50	63	44	50	47	50	54	60	68	68	75	51	58	65	69	61	47	..	55.0
	min.	27	35	39	43	34	28	40	34	28	25	39	32	24	20	35	27	21	35	33	29	25	34	40	41	36	26	32	51	35	32	..	32.7
Storm Lk.	max.	58	63	66	59	38	38	56	43	45	45	55	48	38	50	51	55	46	36	46	48	55	70	70	56	42	54	60	37	36	52	..	50.5
	min.	22	40	38	35	26	28	33	30	24	18	34	27	15	19	36	26	13	24	21	25	28	35	34	36	28	27	35	26	27	20	..	27.7
Thurman	max.	64	58	69	60	45	40	60	54	54	52	62	55	43	54	59	52	42	36	48	50	58	68	71	77	48	59	72	64	40	49	..	55.4
	min.	35	48	45	43	33	35	40	35	28	24	38	30	22	20	42	26	17	32	29	28	21	33	31	45	31	22	38	35	31	19	..	31.9

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF APRIL, 1907—CONTINUED.

STATIONS		DATE																													NAME
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Tipton....	max.	50	58	57	66	52	51	51	43	47	53	55	48	45	48	60	45	50	44	51	56	59	69	68	71	57	53	65	58	53	53	..	54.5
	min.	28	35	45	47	34	27	40	35	29	25	37	31	25	22	34	27	24	34	30	30	31	35	44	46	38	33	31	49	34	31	..	33.7
Toledo ...	max.	54	65	65	63	46	48	53	47	44	46	59	49	41	48	63	43	44	43	51	55	58	69	64	69	47	54	67	61	44	50	..	53.7
	min.	26	31	46	46	33	21	38	23	27	22	36	30	22	18	35	20	19	33	31	27	24	35	42	40	34	20	32	43	32	28	..	30.8
Wapello..	max.	49	59	59	63	..	55	42	..	52	49	51	57	53	46	49	58	53	44	50	56	63	..	68	72	66	54	63	65	62	49	..	55.8
	min.	28	34	45	47	..	34	28	..	33	31	27	37	32	28	25	29	20	36	32	30	30	..	37	42	39	31	33	50	37	33	..	33.6
Wash'g'n	max.	52	61	63	66	45	48	56	44	48	51	59	43	45	49	64	46	49	46	49	55	60	68	69	74	48	57	67	62	48	50	..	54.7
	min.	26	34	46	45	33	28	40	34	28	22	36	31	24	19	34	26	20	34	32	28	26	33	40	44	34	25	31	48	34	31	..	32.2
Washta...	max.	63	65	68	52	38	37	58	47	50	45	60	41	42	54	53	43	40	40	49	52	52	74	66	60	58	58	67	38	43	56	..	52.3
	min.	34	36	32	36	26	31	34	30	19	16	34	28	12	12	38	20	10	27	18	20	15	45	30	27	24	20	34	28	30	16	..	26.1
Waterloo*	max.	53	64	62	62	41	50	52	40	45	47	61	37	42	50	62	42	46	44	51	54	60	72	67	67	47	53	65	48	39	53	..	52.5
	min.	27	36	44	47	33	26	38	33	28	23	37	29	25	20	36	25	21	32	30	29	25	38	38	42	34	23	33	45	33	29	..	32.0
Waukee..	max.	55	65	68	55	46	41	55	51	46	50	52	52	40	48	65	47	45	38	48	52	52	70	66	74	47	57	69	61	42	56	..	53.8
	min.	28	40	40	42	33	30	40	30	25	20	38	30	20	15	37	24	16	33	28	27	26	35	37	44	32	23	37	39	32	26	..	30.9
Waverly .	max.	53	65	60	58	43	50	48	42	42	45	50	40	39	49	60	40	44	42	49	52	59	71	65	61	42	54	64	59	39	50	..	51.2
	min.	37	34	43	40	31	26	37	32	27	23	36	29	25	20	37	24	20	31	29	28	24	38	37	37	33	23	35	38	32	30	..	31.2
Websr. Cy	max.	57	62	69	62	42	48	56	50	45	53	64	45	40	50	65	40	49	41	52	54	59	74	60	68	45	56	62	61	40	52	..	54.0
	min.	32	37	40	38	32	30	33	33	25	21	38	30	20	13	37	23	15	30	22	23	18	38	37	39	32	18	34	35	31	27	..	29.4
W. Bend .	max.	57	65	64	57	38	45	53	42	42	51	59	38	37	52	53	36	44	40	49	48	58	67	64	55	41	56	67	36	37	52	..	50.1
	min.	26	38	36	35	28	29	33	30	22	18	35	28	19	14	36	20	14	26	23	21	22	33	36	36	29	22	33	29	29	22	..	27.4
Whitten ..	max.	55	65	67	61	47	49	53	48	45	48	59	51	42	49	62	46	46	45	49	53	60	73	64	69	45	55	67	64	42	50	..	54.3
	min.	20	35	40	44	30	21	35	30	24	19	35	28	20	15	33	32	16	30	29	25	24	51	36	40	31	20	32	38	30	22	..	29.5
Wilton Jn	max.	45	42	60	65	62	49	50	50	45	47	55	52	51	50	59	59	49	49	50	53	57	68	66	75	72	56	64	63	60	47	..	55.7
	min.	24	39	39	42	32	25	40	34	29	22	34	31	19	20	33	26	21	33	31	27	25	30	37	40	35	28	30	48	35	30	..	31.3
Winterset	max.	58	65	67	61	47	44	56	51	49	50	60	54	43	52	62	52	43	39	47	52	59	68	68	75	48	59	71	64	42	47	..	55.1
	min.	30	41	43	43	34	31	38	32	26	22	38	30	20	18	37	24	18	33	32	28	27	36	35	48	32	24	36	38	32	22	..	31.6
Woodb'rn	max.	55	59	65	65	48	42	57	48	52	50	63	52	45	51	67	47	41	38	50	52	59	67	70	76	63	57	68	63	46	47	..	55.4
	min.	27	40	45	40	35	30	37	32	26	22	38	30	20	13	36	25	15	33	33	27	20	29	31	47	32	17	32	42	32	26	..	30.4
Zearing...	max.	57	65	67	59	45	46	55	46	46	51	60	52	43	50	64	50	46	33	33	27	20	29	31	70	45	56	68	62	41	54	..	54.1
	min.	26	37	35	39	26	30	31	15	19	21	37	17	18	16	30	15	17	..	..	..	..	..	..	40	33	18	32	34	31	28	..	26.9

*At these stat ons thermometers are read in the morning; the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

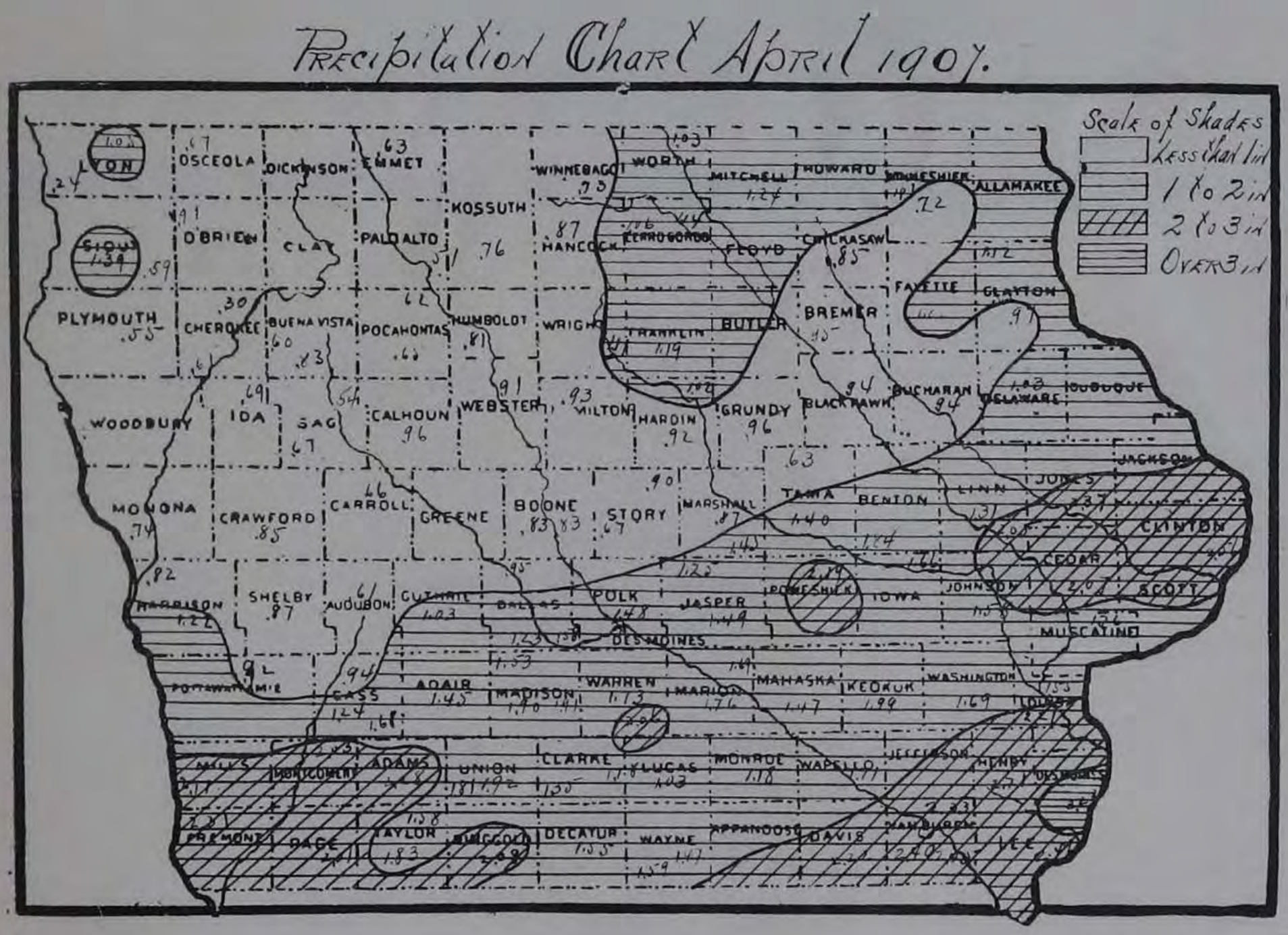
DAILY AND MONTHLY PRECIPITATION FOR APRIL, 1907.

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	....	....	.24	....	T	....	....	.19	....	....	T	.15	....	....	.20	....	....	....	....	....	....	.04	....	....	.27	.83	....	....	1.92
Albia	....	....	....	.10	.01	....	.40	T	....	....	....	....	....	....	T	....	....	....	.20	....	....	....	....	....	....	T	....	T	.02	.45	....	1.18
Algona	....	....	....	....	....	T	.20	T	....	....	T	T	....	....	T	....	....	T	....	....	....	....	....	.23	....	....	.15	.18	....	....	....	.76
Allerton	....	....	.11	.04	T	.30	.30	T	....	....	....	T	....	....	.19	....	T	.16	.03	....	....	....	....	....	.01	....	....	.05	.38	.02	....	1.59
Alta	....	....	....	....	....	....	.32	T	....	....	.11	....	T	....	....	....	....	.03	.05	....	....	....	....	T	....	....	....	....	.20	....	....	.60
Alta (near)	....	....	....	....	....	.35	....	....	....	....	....	....	....	....	....	....	T	.02	....	....	....	....	....	.07	....	....	....	.25	....	....	....	.69
Alton	....	....	....	....	....	.41	T	....	....	....	....	....	....	....	.08	....	T	.07	....	....	....	....	T	....	....	....	T	.03	....	....	....	.59
Amana	....	....	T	....	....	....	.34	T	....	....	....	T	....	....	.03	....	....	.02	.03	....	....	....	....	.23	.01	....	....	.14	.72	.14	....	1.66
Ames	....	....	....	....	....	....	....	.32	.01	....	....	....	....	....	....	.01	....	.04	.01	....	....	....	....	....	.11	....	....	.14	....	....	....	.67
Atlantic	....	....	....	....	....	.36	....	T	T	....	T	....	....	.01	T	....	T	.15	....	....	....	....	....	T	T	....	....	.42	....	....	....	.94
Audubon	....	....	....	....	....	.14	.01	....	....	....	.05	....	....	....	....	....	T	.15	....	....	....	....	....	....	....	....	....	.23	....	....	....	.61
Baxter	....	....	....	....	....	.10	.30	....	....	....	....	T	....	....	.02	....	....	.11	.05	....	....	....	....	.10	T	....	....	.23	.34	....	....	1.25
Bedford	....	.05	....	....	....	.46	10	T	T	....	.07	....	....	T	.22	....	T	.24	....	....	....	....	....	....	.06	....	....	.03	.60	....	....	1.83
Belle Plaine	....	....	....	.02	....	....	.45	T	....	....	....	T	....	....	.06	....	....	.10	....	....	....	....	....	.06	T	....	....	....	.35	.80	....	1.84
Bloomfield	....	....	.74	.04	....	.20	.46	T	....	....	....	....	....	....	T	....	....	T	.17	....	....	....	....	....	....	....	....	T	.50	.11	....	2.22
Bonaparte	....	....	.90	....	....	.37	T	T	....	....	....	T	....	....	.07	....	....	.05	.05	....	....	....	....	T	.06	....	....	.13	.65	.17	....	2.45
Boone	....	....	....	....	....	....	.30	T	T	....	T	....	....	....	.03	....	....	....	.12	....	....	....	....	.08	....	....	....	....	.30	....	....	.83
Britt	....	....	....	....	....	T	.23	T	....	....	....	....	....	....	.02	....	T	T	....	....	....	....	....	.31	....	....	.06	.23	.02	....	....	.87
Buckingham	....	....	....	....	....	....	.36	T	....	....	....	T	....	....	....	....	....	T	....	....	....	....	....	.10	....	....	T	.17	....	....	....	.63
Burlington	....	....	....	.65	....	....	.74	T	.02	....	.03	.03	....	....	.10	....	....	....	.16	....	....	....	....	....	T	.01	....	.26	T	1.22	....	3.22
Carroll	....	....	....	....	....	....	.27	.02	....	....	.04	....	....	....	.01	....	....	.02	.06	....	....	....	....	T	....	....	....	....	.24	....	....	.66
Cedar Rapids	....	....	....	T	T	....	.31	.04	T	....	....	T	T	....	.02	.08	....	....	.05	....	....	....	....	T	.06	T	....	....	.25	.50	....	1.31
Chariton	....	T	T	T	....	T	.43	T	....	....	....	....	....	....	.18	....	T	.12	T	....	....	....	....	....	....	....	....	T	.30	....	....	1.03
Charles City	....	....	....	....	....	....	.31	T	....	....	....	T	....	....	.01	....	....	T	....	....	....	....	....	.29	....	....	....	.26	....	....	....	.87
Clarinda	....	....	.03	....	....	....	.50	....	....	....	.10	....	....	....	.29	....	....	.16	.31	....	....	....	....	T	.09	T	....	....	.07	.55	....	2.01
Clear Lake	....	....	....	....	....	.35	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	.38	....	....	T	.33	T	....	....	1.06
Clinton	....	....	.24	....	....	....	.94	....	....	....	.05	....	....	....	.12	....	....	.06	....	....	....	....	....	T	.29	....	....	T	....	.86	....	2.56
Columbus Junc.	....	....	T	.37	....	....	T	T	....	....	.05	T	....	....	.06	....	....	.10	.10	....	....	....	....	....	T	....	....	.15	.58	.14	....	1.55
Corning	....	T	....	....	....	.60	....	T	.03	....	T	....	....	....	.16	....	T	.21	....	....	....	....	....	....	.15	....	....	.43	.70	....	....	2.28
Corydon	....	....	.13	.02	....	.16	.27	....	....	....	....	....	....	....	.18	....	T	.16	.04	....	....	....	....	....	T	....	....	.06	.40	.05	....	1.47
Creston	....	....	.01	....	....	T	.46	....	T	....	T	T	....	....	.17	....	....	T	.20	....	....	....	....	....	.05	.02	....	T	.40	.50	....	1.81
Cumberland	....	T	....	....	....	....	.21	.10	....	....	....	....	....	....	.10	....	....	.13	....	....	....	....	....	....	.10	....	....	....	.60	....	....	1.24
Davenport	....	....	.08	....	....	.28	.47	.01	....	....	T	T	....	....	.02	....	....	.11	T	....	....	....	....	.10	T	....	....	.01	.77	.05	....	1.90
Decorah	....	....	....	....	....	....	.11	T	....	....	....	T	....	....	.06	....	....	....	....	....	....	....	....	.24	....	....	....	.31	....	....	....	.72
Delaware	....	....	....	.01	....	....	.42	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	.17	....	....	....	.23	.20	....	....	1.03
Denison	....	....	....	....	....	.34	.02	....	T	T	.25	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	.14	....	....	....	.85
Des Moines	....	....	....	....	....	.35	T	T	....	....	.01	T	....	.05	.01	....	....	.12	.02	....	....	....	....	.01	.01	....	T	.26	.64	....	....	1.48
De Soto	....	....	....	....	....	.13	.14	T	....	....	....	....	....	....	T	....	....	.17	.07	....	....	....	....	....	.01	....	....	.31	.40	T	....	1.23
Dows	....	....	....	....	....	....	.48	T	....	....	....	T	....	....	.05	....	....	T	....	....	....	....	....	.18	....	....	T	.40	....	....	....	1.11
Dubuque	....	....	.27	.02	....	.11	.52	T	....	....	....	T	....	....	T	....	....	T	....	....	....	....	T	.11	....	....	T	.66	.79	....	....	2.48
Earlham	....	T	....	....	....	.17	.11	T	....	....	....	T	....	....	.04	....	T	.11	.06	....	....	T	....	T	.10	....	....	.30	.59	.05	....	1.53
Elkader	....	....	....	....	....	....	.45	T	....	....	....	T	....	....	T	....	....	....	....	....	....	....	....	.25	....	....	....	.27	....	....	....	.97
Elliott	....	T	....	....	....	.39	....	....	T	....	.09	....	....	....	.07	....	T	.40	....	....	....	....	....	....	.10	....	....	.48	.50	....	....	2.03
Estherville	....	....	....	....	....	....	.25	T	....	....	T	....	....	....	T	....	....	....	....	....	....	....	....	.15	T	....	....	.23	....	....	....	.63
Fayette	....	....	....	....	....	....	.33	T	....	....	....	T	....	....	T	....	....	T	....	....	....	....	....	.34	....	....	....	.36	....	....	....	1.03
Forest City	....	....	....	....	....	....	.08	....	....	....	....	T	....	....	T	....	....	....	....	....	....	....	....	.26	.08	....	....	.21	.10	....	....	.73
Fort Dodge	....	....	....	....	T	....	.35	T	....	....	....	....	....	....	T	....	....	....	T	....	....	....	....	.11	....	....	....	.15	.30	....	....	.91
Fort Madison	....	....	.53	....	....	.54	....	T	....	....	....	....	....	....	T	....	....	.24	....	....	....	....	....	....	.10	....	....	1.00	....	....	....	2.41
Galva	....	....	....	....	....	.37	....	....	....	....	....	....	....	....	....	....	....	.08	....	....	....	....	....	.07	....	....	....	.17	....	....	....	.69
Gilman	....	....	....	....	....	....	.31	....	....	....	....	....	....	....	.02	....	....	.07	....	....	....	....	....	.10	....	....	....	.45	.50	....	....	1.45
Grand Meadow	....	....	....	....	....	....	.42	T	....	....	T	.02	....	....	T	....	....	....	....	....	....	....	....	.32	....	....	....	.36	....	....	....	1.12
Greenfield	....	T	....	....	....	.21	.10	....	....	....	....	....	....	....	.04	....	T	.20	.04	....	....	....	....	....	.03	....	....	.18	.65	....	....	1.45
Grinnell	....	....	T	.05	....	T	.50	T	....	....	....	....	....	....	.10	.10	....	.15	....	....	....	....	....	.19	.05	....	....	.40	.65	....	....	2.19
Grundy Center	....	....	....	....	....	....	.35	....	....	....	....	T	....	....	T	....	....	T	T	....	....	....	....	.24	....	....	....	.37	T	....	....	.96
Guthrie Center	....	....	....	....	....	.14	.13	T	....	T	.01	T	....	....	.03	....	T	.16	.09	....	....	....	....	.05	T	....	....	.41	.01	....	....	1.03
Hampton	....	....	....	....	....	.46	....	T	....	....	....	....	....	....	.04	....	....	.05	....	....	....	....	....	.31	....	....	....	.33	....	....	....	1.19
Hancock	....	....	....	....	....	.26	....	....	T	....	.03	....	....	....	.04	....	.20	....	....	....	....	....	....	....	.03	....	....	.36	....	....	....	.92
Harlan	....	....	....	....	....	.26	.09	T	.01	....	.06	....	....	....	....	....	T	.23	.01	....	....	....	....	.03	....	....	....	.18	....	....	....	.87
Hopeville	....	T	T	....	....	.38	.05	T	....	....	T	....	....	....	.17	....	T	.19	.01	....	....	....	....	T	.03	....	.01	.01	.50	....	....	1.35
Humboldt	....	....	....	....	....	....	.30	....	....	....	....	....	....	....	T	....	....	.01	....	....	....	....	....	....	....	....	....	.50	....	....	....	.81
Independence	....	....	....	....	....	....	.23	T	....	....	....	T	....	....	T	....	....	....	....	....	....	....	....	.26	....	....	....	.45	....	....	....	.94
Indianola	....	T	T	....	....	.21	.19	T	....	....	T	T	....	....	.06	....	....	.10	.09	....	....	....	....	.01	.03	....	....	.20	.82	.02	....	1.73
Inwood	....	....	....	....	....	....	T	T	T	....	....	....	....	....	....	....	T	.10	....	....	....	....	....	.03	....	....	.07	.04	T	....	....	.24
Iowa City	....	....	....	.02	T	....	.43	.01	....	....	....	....	....	....	.01	.04	....	....	.09	....	....	....	....	T	.10	....	....	....	.22	.66	....	....	1.58
Iowa Falls	....	....	....	....	....	....	.46	T	T	....	....	T	T	....	T	....	....	....	.07	....	....	....	....	.16	T	....	....	....	.33	....	....	....	1.02
Keokuk	....	....	.37	....	....	.38	.02	T	....	....	T	T	....	....	.07	....	....	.14	....	....	....	....	....	....	.06	....	.20	.02	.67	.09	....	....	2.02
Keosauqua	....	....	T	1.00	....	....	.40	T	T	....	T	....	....	....	T	T	....	....	.12	....	....	....	....	....	T	T	....	.08	T	.80	....	....	2.40
Knoxville	....	....	T	T	....	T	.39	T	....	....	....	....	....	....	.10	....	....	.08	....	....	....	....	....	T	.03	....	....	.56	.60	....	....	1.76
Lacona	....	....	.01	....	....	.57	....	....	....	....	....	....	....	....	....	....	....	.14	....	....	....	....	....	T	.10	....	....	.55	.69	....	....	2.06
Larrabee	....	....	....	....	....	.25	T	....	....	....	....	T	....	T	....	....	....	.05	....	....	....	....	....	T	....	....	T	....	....	....	....	.30
Le Claire	....	....	....	.09	T	....	.80	.18	T	....	....	.02	....	....	....	.04	....	....	.11	....	....	....	....	T	.07	....	T	T	.02	.68	....	....	2.01
Lenox	....	.02	....	....	....	.40	.10	....	.04	....	T	....	....	....	.15	....	T	.12	....	....	....	....	....	....	.06	....	....	.09	.60	....	....	1.58
Leon	....	T	.04	....	T	....	.59	.01	....	....	....	....	....	....	....	.14	T	.14	.06	....	....	....	....	....	.01	....	....	.08	.46	.02	....	1.55
Little Sioux	....	....	....	....	....	.40	....	....	....	....	.10	....	....	....	T	....	.03	.21	.02	....	....	....	....	.02	....	....	....	.04	....	....	....	.82
Logan	....	....	....	....	....	.30	T	T	T	....	.11	....	....	....	....	....	.08	.60	....	....	....	....	....	T	....	....	....	.13	....	....	....	1.22
Marshalltown	....	....	....	....	....	....	.37	T	T	....	....	....	T	....	.04	T	....	....	.06	....	....	....	....	.14	T	....	....	....	.26	....	....	....	.87
Mason City	....	....	....	....	....	....	.38	....	....	....	....	T	....	....	.05	....	....	....	....	....	....	....	....	.29	....	....	....	.42	....	....	....	1.14
Massena	....	T	....	....	....	.25	.03	....	.02	....	....	....	....	....	.15	....	....	.35	....	....	....	....	....	....	.05	....	....	.33	.50	....	....	1.68
Mt. Ayr	....	T	T	....	....	.50	.07	T	T	....	T	....	....	T	.20	....	.03	.20	.05	....	....	....	....	....	.05	....	....	.33	.60	.05	....	2.08
Mt. Pleasant	....	....	.51	.18	....	.05	.39	T	....	....	.04	T	....	....	.15	....	....	.18	....	....	....	....	....	....	T	....	....	.20	.81	.20	....	2.71
Mt. Vernon	....	....	....	....	....	....	.50	.01	....	....	.01	T	....	....	.04	....	....	.06	....	....	....	....	....	.15	.03	....	....	.48	.77	....	....	2.05
Muscatine	....	....	....	.18	....	....	.68	.10	.01	....	....	T	....	....	.01	.08	....	....	.16	....	....	....	....	....	.33	....	....	T	.02	.65	....	....	2.22
New Hampton	....	....	....	....	....	....	.22	T	....	....	....	T	....	....	.02	....	....	....	....	....	....	....	....	.27	.02	....	....	.32	....	....	....	.85
Newton	....	....	....	....	....	....	.42	....	....	....	....	....	....	....	....	....	....	.07	.05	....	....	....	....	.04	....	....	....	.35	.56	....	....	1.49
Northwood	....	....	....	....	....	....	.33	T	....	....	T	.01	T	....	.04	....	....	....	....	....	....	....	....	.35	....	....	.06	.24	....	....	....	1.03
Odebolt	....	....	....	....	....	.27	....	....	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	.15	....	....	....	....	.05	....	....	.67
Ogden	....	....	....	....	....	T	.35	....	....	....	....	....	....	....	T	....	....	.08	.07	....	....	....	....	....	....	....	....	.33	....	....	....	.83
Olin	....	....	T	.21	....	....	.70	T	....	....	....	T	....	....	.13	....	....	T	....	....	....	....	....	.17	....	T	....	.40	.76	....	....	2.37
Omaha, Neb	....	....	....	....	....	.34	.01	....	....	....	.17	....	....	.05	.01	....	.15	.46	T	....	....	....	....	T	.01	....	....	.11	....	....	....	1.31
Onawa	....	....	....	....	....	.15	....	T	T	....	.15	....	....	....	.06	....	.02	.30	....	....	....	....	....	....	....	....	....	.06	....	....	....	.74
Osage	....	....	....	....	....	....	.30	....	....	....	....	T	....	....	.06	....	....	....	....	....	....	....	....	.53	....	....	....	.33	.02	....	....	1.24
Oskaloosa	....	....	.04	T	....	.23	.18	T	T	....	....	....	....	.08	....	....	....	.06	....	....	....	....	....	T	T	....	.23	.03	.62	....	....	1.47
Ottumwa	....	....	....	....	....	.75	....	.25	....	....	....	....	....	....	....	....	....	.01	....	....	....	....	....	....	....	....	....	T	.70	....	....	1.71
Pacific Junction	....	T	....	....	....	.58	....	....	....	....	....	....	....	T	....	....	.15	.30	....	....	....	....	....	....	.13	....	....	1.50	.05	....	....	2.71
Pella	....	....	....	T	T	....	.43	T	....	....	....	....	....	....	.07	....	....	.07	.05	....	....	....	....	.01	T	....	....	.32	.62	.12	....	1.69
Perry	....	....	....	....	....	....	.34	....	....	....	....	....	....	....	.06	....	....	.06	.08	....	....	....	....	.07	....	....	....	.34	....	....	....	.95
Plover	....	....	....	....	....	.16	....	T	....	....	T	T	....	....	.10	....	....	T	....	....	....	....	....	.16	....	....	.08	12	....	....	....	.62
Pocahontas	....	....	....	....	....	....	.21	T	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	.26	....	....	....	....	.13	....	....	.65
Ridgeway	....	....	....	....	....	....	.16	.01	....	....	T	.01	....	....	.05	....	....	....	....	....	....	....	....	.41	....	....	....	.36	.01	....	....	1.01
Rock Rapids	....	....	....	....	....	.50	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	.50	....	....	....	....	1.05
Rockwell City	....	....	....	....	....	.45	....	....	....	....	....	....	....	....	....	....	T	T	....	....	....	....	....	.20	....	....	T	.31	....	....	....	.96
Sac City	....	....	....	....	....	.08	.14	....	....	T	....	....	....	....	....	....	....	.08	....	....	....	....	....	.12	....	....	....	.12	....	....	....	.54

DAILY AND MONTHLY PRECIPITATION FOR APRIL, 1907—CONTINUED.

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
St. Charles	....	T	....	....	T	.23	.18	T	....	....	....	T	....	....	.06	....	....	.13	.15	....	....	....	....	T	.04	....	....	.21	.88	.03	....	1.91
Sheldon	....	....	....	....	....	.37	....	.01	....	....	....	T	....	....	.02	....	T	.11	....	....	....	....	....	.10	....	....	.30	T	....	....	....	.91
Sibley	....	....	....	.04	....	....	.25	....	....	....	....	....	....	....	....	....	....	T	.06	....	....	....	....	.10	.02	....	....	.20	....	....	....	.67
Sigourney	....	....	.15	....	....	....	.47	T	....	....	.02	T	....	....	.07	....	....	.10	T	....	....	....	....	.04	....	....	.20	.18	.76	....	....	1.99
Sioux Center	....	....	....	....	T	.31	....	T	....	....	....	T	....	....	....	....	.05	.92	....	....	....	....	....	T	....	....	.03	.08	....	....	....	1.39
Sioux City	....	....	....	....	....	.40	....	T	T	....	.23	....	....	.02	....	....	.06	.10	....	....	....	....	....	T	....	....	T	T	....	....	....	.81
Stockport	....	....	.58	.12	T	.03	.40	.02	T	....	....	....	....	....	.05	....	....	.09	.04	....	....	....	....	T	T	....	....	.15	.65	.20	....	2.33
Storm Lake	....	....	....	....	....	.14	.11	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	.12	....	....	....	.41	....	....	....	.83
Thurman	....	T	....	....	....	.51	.06	T	T	....	.13	....	....	T	.06	....	.02	.35	....	....	....	....	....	T	.12	....	T	.16	.90	....	....	2.31
Tipton	....	....	.22	....	....	....	.79	....	....	....	....	....	....	....	.06	....	....	.08	....	....	....	....	....	....	.07	....	....	.15	....	.70	....	2.07
Toledo	....	....	....	....	....	....	.35	T	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	....	.20	....	....	....	.30	....	.35	....	1.40
Wapello	....	....	....	.45	....	.49	....	....	T	....	....	.05	....	....	....	....	....	.20	.08	....	....	....	....	....	.10	....	....	.11	.62	.11	....	2.21
Washington	....	....	.38	....	....	....	.35	T	....	....	....	....	....	.02	....	....	....	....	.25	....	....	....	....	....	....	....	....	.13	....	.56	....	1.69
Washta	....	....	....	....	....	.32	....	T	....	....	.07	....	....	....	T	....	T	.12	....	....	....	....	....	....	....	....	....	.10	....	....	....	.61
Waterloo	....	....	....	....	....	....	.36	T	....	....	....	T	....	....	.01	....	....	.06	....	....	....	....	....	.17	....	....	....	.34	....	....	....	.94
Waukee	....	T	....	....	....	.09	.30	....	....	....	.02	T	....	....	.09	....	....	.07	.11	....	....	....	....	.05	.02	....	T	.23	.60	....	....	1.58
Waverly	....	....	....	....	....	....	.33	T	....	....	....	T	....	....	.01	....	....	.02	.03	....	....	....	....	.29	....	....	....	.27	....	....	....	.95
Webster City	....	....	....	....	....	T	.35	....	....	....	....	....	....	....	....	....	....	.02	....	....	....	....	....	.13	....	....	....	.43	....	....	....	.93
West Bend	....	....	....	....	....	.16	....	T	....	....	....	....	....	....	.01	....	....	T	....	....	....	....	....	.17	....	....	T	.17	....	....	....	.51
Whitten	....	....	....	....	....	....	.35	T	....	....	....	T	....	....	.08	....	....	.04	T	....	....	....	....	.12	....	....	....	.27	.06	....	....	.92
Wilton Junction	....	....	.11	....	....	....	.72	....	....	....	....	....	....	.03	....	....	....	.16	....	....	....	....	....	.05	....	....	....	....	.69	....	....	1.76
Winterset	....	....	T	....	T	T	.36	T	....	....	T	....	....	....	.04	....	T	.08	.10	....	....	....	....	.02	.02	....	....	.28	.75	.25	....	1.90
Woodburn	....	T	T	....	....	....	.54	T	....	....	....	T	....	....	.11	....	T	....	.21	....	....	....	....	....	.11	....	....	....	....	.81	....	1.78
Zearing	....	....	....	....	....	.40	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.50	....	....	....	.90

Precipitation Chart April 1907.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR MAY, 1907.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1907

THE IOWA WEATHER AND CROP SERVICE

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Sibley.....H. G. Doolittle
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U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

CENTRAL OFFICE: WASHINGTON, D. C.

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R. SAGE.....Section Director.
GEO. M. CHAPPEL, Assistant Director.

VOL. XIV. DES MOINES, IOWA, MAY, 1907. No. 5

MAY WEATHER AND CROPS.

Following the coldest April of record in this state, the month of May 1907 is also a record-breaker as to the temperature. The average for the state, according to the records of 120 stations, was 53.5°, which is 7.2° below the normal. The lowest temperatures were recorded on the 3d and 4th, and the average monthly minimum for the state was 22.1°. Frosts were reported in all districts in every week during the month. At the central station light frosts were noted on the 2d, 8th, 20th and 27th; heavy frosts on the 1st, 11th and 16th and killing frost on the 4th. Light snow flurries were reported in all sections on the 3d and 15th. There was a deficiency of sunshine, the number of clear days being 11, cloudy days 10 and partly cloudy 10. The average precipitation for the state was 3.48 inches, which is .78 of an inch below the normal for May. During the first and second decades there were general complaints of lack of moisture for the germination of seed and the growth of grass and small grain. In a considerable area the drought became somewhat serious. But during the last decade there were copious showers with generally sufficient rainfall to break the drought and replenish the supply of water for stock. The average for the northern section was 2.74 inches, and in a number of counties moisture was deficient at the close of the month.

The dry weather was favorable for plowing and preparation of soil for planting and the bulk of the corn acreage was planted under ideal conditions of soil. It is estimated that four-fifths of the crop was planted by the 20th of the month, tho the temperature was not favorable for germination. In the last decade the weather was generally cloudy, showery and unseasonably cool; and under these adverse conditions field work was delayed and germination of corn was slow and unsatisfactory, necessitating more than the usual amount of replanting. The stand obtained was generally below the average and at the close of the month the condition of corn was rated several points below the normal. The wet and cool weather of the last decade however was favorable for meadows, pastures, oats, wheat, rye and barley and the condition of these crops was materially improved. The cold weather of April and May greatly damaged orchard fruits and retarded the growth of garden truck. Small fruits, tho later than usual, give promise of better yield than was anticipated.

The following table gives the mean temperature and average precipitation in Iowa, for each May from 1890 to 1907, inclusive.

Years	Temperature Degrees	Precipitation Inches
1890	57.7	3.56
1891	58.3	3.18
1892	54.0	8.77
1893	56.6	3.45
1894	61.1	1.87
1895	61.7	3.19
1896	65.5	6.68
1897	59.6	1.92
1898	59.6	4.67
1899	60.2	6.23
1900	63.2	3.31
1901	60.7	2.35
1902	63.8	5.39
1903	61.6	8.55
1904	59.6	3.78
1905	58.3	5.95
1906	60.8	3.54
1907	53.5	3.48
Normals	60.7	4.26

IOWA CROP REPORT. JUNE 1, 1907.

ACREAGE OF FARM CROPS. ESTIMATED CONDITION OF STAPLE CROPS. FRUIT AND LIVE STOCK.

Reports received June 1st from correspondents of the Iowa Weather and Crop Service show a slight increase in the acreage of corn, and a small general decrease in the area seeded to spring wheat, oats, rye and barley. The estimated condition of all crops is below the average of recent years, as a result of unseasonable weather in April and May. Considering the adverse conditions prevalent since April 1st the estimates are materially higher than had been anticipated.

CORN.—The dry weather prevalent in April and the larger part of May was favorable for plowing and preparation of soil for this great staple, and this resulted in an average increase of 3 per cent as compared with the acreage planted in 1906. So the acreage of corn is about 103; and the average condition on June 1st was rated at 88 per cent. Last year at corresponding date it was 99 per cent.

WHEAT.—There appears to be a reduction of about 6 per cent in the area of spring wheat. The condition of winter wheat is 91 per cent and spring wheat 88. Last year the estimates were 98 per cent.

OATS.—The acreage of oats is placed at 98 per cent and the average condition 89 per cent. Last year the condition on June 1st was 96 per cent.

BARLEY.—Acreage seeded, compared with last year 94 per cent (decrease 6 per cent); and the average condition is 81 per cent.

RYE.—Acreage 91; estimated condition 90 per cent, as compared with 97 per cent last year.

FLAX.—Area seeded 87 per cent, condition, 83 per cent.

POTATOES.—Acreage planted 100 per cent; condition 86 per cent. Last year condition 101 per cent.

MEADOWS.—Reports indicate a slight reduction in the area of meadows, the acreage being about 95 per cent. The condition is placed at 74 per cent. The condition last year was 92 per cent. The hay crop is likely to be 20 to 25 per cent of an average.

Pastures are about 100 per cent in acreage, and 80 per cent in condition.

CONDITION OF FRUIT.—Apples, 55 per cent; peaches, 27; plums, 42; cherries, 30; grapes, 80, strawberries, 78; raspberries, 81; blackberries, 86.

CONDITION OF LIVE STOCK.—Cattle, 85 per cent; hogs, 96; horses, 98, sheep, 97; foals, 95; spring pigs, 83.

The acreage of crops cannot be tabulated until the returns of the township assessors are received from all the counties. The complete report of acreage will probably be published in July.

CLIMATOLOGY OF THE MONTH.

TEMPERATURE.—The monthly mean temperature for the state, as shown by records of 120 stations, was 53.5°, which is 7.2° below the normal. By sections the mean temperatures were as follows: Northern section, 51.4°, which is 7.9° below the normal; Central section, 53.6°, which is 7.1°, below the normal; Southern section, 55.5°, which is 6.7°, below the normal. The highest monthly mean was 57.6°, at Keokuk, and the lowest monthly mean was 48.0°, at Sibley. The highest temperature reported was 96° at Elliot, on the 22d, and the lowest was 14° at Whitten, on the 4th. The average monthly maximum was 86.4°, and the average monthly minimum was 22.1°. The greatest daily range was 66°, and the average of greatest daily ranges was 46.3°.

PRECIPITATION.—The average precipitation for the state, as shown by records of 126 stations, was 3.48 inches, which is .78 of an inch below the normal. The averages by sections were as follows: Northern section, 2.74 of an inch, which is 1.30 inches below the normal; Central section, 3.87 inches, which is .38 of an inch below the normal; Southern section, 3.84 inches, which is .64 of an inch below the normal. The largest amount reported was 7.68 inches at Tipton, and the least amount reported was .71 of an inch at Clear Lake. The greatest daily rainfall reported was 4.50 inches at Tipton, on the 23d. The average number of days on which .01 of an inch or more of rainfall was reported was 10.

WIND AND WEATHER.—The prevailing direction of the wind was north, southeast, south and southwest. The highest velocity reported was 52 miles per hour from the south at Sioux City, on the 12th. The average number of clear days was 11, partly cloudy 10, and cloudy days 10.

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	.....	30.35	3	29.35	12
Davenport	29.96	30.32	21	29.54	12
Des Moines	29.96	30.33	4	29.41	12
Dubuque	29.99	30.33	21	29.50	12
Omaha, Neb.	29.94	30.38	3	29.30	12
Keokuk	29.98	30.34	4	29.58	12
Sioux City	29.96	30.43	3	29.41	13
Means	29.96	30.43	3	29.30	12

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	6462	31	SW	12
Davenport	6015	31	S	12
Des Moines	6733	47	SW	12
Dubuque	5294	28	S	12
Keokuk	5061	25	NW	26
La Crosse, Wis.	6140	31	N	26
Omaha, Neb.	7734	36	N	2
Sioux City	11082	52	S	12

OBSERVERS' NOTES.

ALBIA.—*J. I. Chenoweth.* A cold, backward month; first half dry, and in latter half there was too much rain at a time; temperature was down to 32° on the 20th and 35° on 27th.

ALTA.—*David E. Hadden.* May was phenomenally cold. The first half was very dry, and frequent rains in latter half brought the total up to nearly the normal.

ALTON.—*W. S. Slagle.* There were too many frosts for garden truck, but small grain is looking well; some corn replanted on account of poor seed.

AMANA.—*Conrad Schadt.* May was unusually cold; fire was needed in dwellings most every day; the weather was unfavorable for vegetation.

AMES.—*G. V. Welch.* Good rains in the third week of May effectually broke the spring drought.

BONAPARTE.—*B. R. Vale.* Except the second week the month was cold, cloudy and wet. Precipitation 6.20 inches, the greatest since May, 1899.

BOONE.—*Carl Fritz Henning.* On May 15th it began snowing at 8.15 a. m. and was raining, snowing and sleeting at times during the day. On May 17th corn was coming up.

BRITT.—*Geo. P. Hardwick.* Unseasonably cold, with excessive cloudiness and much freezing temperature; vegetation was very late, pasturage 15 days late; corn was not all planted at end of month.

CHARITON.—*C. C. Burr.* Early planted corn made a fair stand, surface was dry until the 21st.

CLARINDA.—*A. S. Van Sandt.* Cool and dry, corn plowing was just begun at end of the month.

CLINTON.—*Luke Roberts.* May was 5.4° per day below the normal, and the coldest May since 1882. All food and forage plants are very late; the soil has been in good condition and farmers are well up in their work; but plants can not grow without heat.

ELLIOTT.—*Henry Barnes.* A good stand of corn and small grain and grass have done fairly well.

ESTHERVILLE.—*A. O. Peterson.* There was a heavy snowstorm on the 15th, which melted as it reached the ground.

FOREST CITY.—*J. A. Peters.* The season is very late; fruit tree bloom came three weeks later than last year, grass is short, and small grain has made slow growth.

GRINNELL.—*A. O. Price.* Five inches of rain fell during last third of May. It was the coldest May on record.

INWOOD.—*F. B. Hanson.* The first and second decades in May were quite dry and favorable for farm work; the season is about two weeks late; frost on 26th caused some damage to fruit.

LEON.—*Morris Gardner.* It was a very cold May; fruit was about all killed and crops are very backward; some corn replanted.

OLIN.—*Nathan Potter.* It was a cold month. The soil is in good condition and farm work is well done; corn making slow growth.

POCAHONTAS.—*F. E. Hronek.* May was 8° colder than last year. The ground was in excellent condition for planting, but too cool for good growth; much corn was replanted.

RIDGEWAY.—*Arthur Betts.* It was the coldest and driest May on record; there were 248 hours of sunshine; vegetation slow. The total ice formation in April was 6.8 inches; in May 1.2 inches.

WAUKEE.—*E. J. Leonard.* The month was unusually cold and dry up to the 20th; all crops improved by rains since that date.

WAVERLY.—*H. S. Hoover.* First half of May very cold and dry. Four mornings ice was found, and snow fell on 10th and 15th.

MAY WEATHER AT DES MOINES.

The month of May 1907 will pass into history as a record-breaker, the average temperature for the month, 54.2°, being the lowest recorded at this station since its establishment in 1878. The average of all the years of record here is 60.9°. The station records show that in the years 1882, 1888 and 1892 the means for May were a fraction below 55°, but generally it has been a warm month in this valley. This year it was persistently cool, and

there were only eight days on which the mean equaled or exceeded the normal. On twenty-two days the temperature ranged from normal to 22° below the normal. The sunshine was also abnormally deficient. The amount of sunshine for the month averaged 6.5 hours daily, or about 45 per cent of the possible amount. The rainfall, 3.97 inches, was slightly below the normal. On the whole it was a month to be remembered with a shivering sensation.

THE COLD SUMMER OF 1816.

(New York Tribune, June 5.)

The remarkable weather of the present "summer," marked as it has been by low temperature and absence of sunshine, with a record June 2 of 45 degrees, recalls the famous spring and summer of 1816, which was summer in name only.

In every month of that year there was frost and snow. June was a terror. Snow fell a foot deep on the level. One day in July the thermometer got down to 44 degrees. Ice formed in August, and in September heavy snow came again. No crops were grown. Flour was worth $13 a barrel, and there was widespread suffering.

"Niles's Weekly Register" for the year 1816 and other papers of the time contain vivid descriptions of the snowfalls, hails and frosts which beset the country. The people of 1816 had the same trouble in finding explanations for their freak weather as those of 1907. It was interesting to note that the sunspot theory was tossed out then as now.

In the "Register" of Saturday, August 10, 1816, there appeared the following under the title "Climate of the United States":

"This summer has hitherto been extremely cold, with the exception of a very few days that were extremely warm. The air has been overcharged with vapors for the principal part of the time, while the want of rain has been felt almost everywhere, but particularly in the central parts of Pennsylvania and through the great range of Appalachian mountains. This is evidently owing to the chilliness which has retarded nature's great process of evaporation and depressed the range of the clouds.

"As to cold, I should imagine that snows in June and frosts in July might well be matters of remark. At Quebec, in the beginning of June, the papers had just time to announce the appearance of summer weather and inform us that on account of the backwardness of vegetation, the late frosts had done little damage, when a snow began on the 6th of that month, which continued to fall at intervals for three days, and left the ground covered to the depth of a foot and upward in some places.

"Great numbers of birds fled from the forests to the houses, and in Quebec many were found dead in the streets.

"Some kinds of trees shed their leaves, which were then only half grown. The crops were protected by the snow from the very severe frosts that followed, and the orchard trees were very little affected as their buds had hardly been opened; but the wild fruit trees which were in blossom, as well as several kinds of garden plants, suffered severely. The Canadians remark that the last summer was very backward, but that the present is the coldest they have ever seen."

BELATED REPORTS.

NEVADA.—March. Total precipitation .77 of an inch; greatest in 24 hours .48 of an inch; total snowfall 3.2 inches; Number of clear days 13, partly cloudy 1, cloudy 17, rainy 4.

WAPELLO.—March. Mean temperature 44.4°; highest 85° on the 25th; lowest 22° on the 2d; greatest daily range, 40°; total precipitation, 1.55 inches; greatest in 24 hours, .86 of an inch on the 27th; total snowfall, 1.2 inches; number of rainy days, 4.

NEVADA.—April. Total precipitation .44 of an inch; greatest in 24 hours .18 of an inch; total snowfall, trace. Number of clear days 22, partly cloudy 0, cloudy 8, rainy 5.

STUART.—April. Mean temperature 42.4°; highest 75° on the 24th; lowest 19° on the 13th and 14th; greatest daily range 40°. Total precipitation 1.33 inches; greatest in 24 hours .40 of an inch on the 28th; total snowfall 1.0 inch. Prevailing direction, northwest. Number of clear days 12, partly cloudy 5, cloudy 13, rainy 9.

ERRATA IN MARCH REVIEW.

MARSHALLTOWN.—Mean temperature recorded 41.8° on page 30, should have been 39.2°. Mean maximum temperature recorded 51.5° on page 33, should have been 51.4.

MT. VERNON.—The date of the maximum temperature recorded as being the 26th, page 30, should have been the 21st and 26th.

CLIMATOLOGICAL DATA FOR MAY, 1907.

CENTRAL SECTION

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Date of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
Amana	Iowa	721	28	54.7	-5.3	83	12	24	4	42	3.70	- .76	1.92	1.0	11	11	8	12	SW	13, 22, 23
Ames	Story	926	23	53.4	-6.2	85	12	18	4	47	3.54	- .69	1.53	0.1	15	12	8	11	S,SW	
Audubon	Audubon	1,301	11	54.0	-6.3	92	12	20	4	51	2.89	-1.03	.80	.2	14	8	8	15	SE	9
Baxter	Jasper	998	7	53.7	-8.4	86	12	21	4	46	5.37	- .11	2.86	.5	13	9	8	14	SW	23
Belle Plaine	Benton	828	15	.....	.....	.....	.....	.....	.....	.....	3.90	- .54	1.45	0.2	10	13	4	14	SE	
Boone	Boone	1,134	2	51.8	.....	85	12	21	4	49	3.13	.....	1.16	T	12	12	6	13	.....	16, 22
Buckingham	Tama	.....	7	.....	.....	.....	.....	.....	.....	.....	2.45	-1.39	.97	T	9	4	20	7	.....	
Carroll	Carroll	1,265	17	52.2	-7.3	88	12	18	4	54	2.85	-1.56	.69	....	13	17	1	13	.....	17, 21, 24
Cedar Rapids	Linn	593	37	53.0	-7.0	84	12, 13, 25	27	4	48	3.12	-1.40	1.51	....	9	10	12	9	.....	22
Clinton	Clinton	733	25	55.0	-5.9	86	13	26	4	42	4.45	- .15	1.63	....	10	9	8	14	S	14,22,25,26
Davenport	Scott	606	36	54.8	-6.7	82	13	29	4	33	4.33	† .01	2.14	T	10	9	9	13	E	14,22,23,26
Delaware	Delaware	1,083	14	52.0	-6.7	81	12, 13	22	4	41	4.59	† .47	1.81	.7	11	9	15	7	S	14, 23
Denison (*b*)	Crawford	1,180	11	52.0	-8.6	86	12	17	2, 3, 4	43	3.50	- .10	1.06	2.3	9	....	....	....	.....	[24
Des Moines	Polk	861	28	54.2	-7.4	84	12	26	4	41	3.97	- .73	1.47	1.3	14	4	14	13	SW	13,16,22,23
De Soto	Dallas	866	7	54.5	-8.4	85	12	21	4	44	3.47	- .47	1.20	T	11	14	3	14	SE	23
Dubuque	Dubuque	698	34	52.8	-8.0	80	13	29	4	40	2.66	-1.33	1.09	....	10	6	13	12	S	8,13,22,23
Fort Dodge	Webster	1,126	7	51.4	-8.6	88	12	21	4	49	3.92	- .63	1.30	T	11	....	....	....	.....	
Galva	Ida	1,290	11	52.2	-8.5	88	12	18	4	55	3.54	† .24	1.63	....	8	14	10	7	S	
Gilman	Marshall	1,052	8	.....	.....	.....	.....	.....	.....	.....	3.08	- .92	1.45	....	8	11	10	10	E	
Grinnell	Poweshiek	1,023	12	54.8	-5.4	84	12	22	4	43	5.49	† .84	2.73	1.5	13	9	7	15	SW	14,17,21,23
Grundy Center	Grundy	976	14	52.4	-6.3	84	12	20	4	38	3.95	-1.00	1.40	T	7	16	2	13	S	
Guthrie Center	Guthrie	1,077	9	54.8	-6.5	87	12	19	4	53	3.25	-1.32	.99	0.7	14	15	5	11	NW	21, 22, 27
Harlan	Shelby	1,192	8	53.6	-8.1	87	12	19	4	55	2.87	-1.49	.65	0.1	15	7	7	17	S	21, 24
Indep'dence	Buchanan	921	41	52.2	-7.5	84	12	21	4	42	4.33	† .16	3.06	T	7	14	8	9	SW	14, 22, 24
Iowa City	Johnson	683	46	53.5	-6.8	83	12, 25	25	4	47	5.47	†1.13	2.24	....	10	16	3	12	S,SW	13, 22
Iowa Falls	Hardin	1,170	12	51.2	-8.5	86	12	18	4	49	4.37	† .82	2.73	....	8	8	9	14	SW	22, 23, 24
Jefferson	Greene	1,052	6	54.2	.....	86	12	19	4	50	3.26	.....	1.08	T	8	15	9	7	N	
Le Claire	Scott	576	8	.....	.....	.....	.....	.....	.....	.....	5.04	.....	2.60	....	13	16	1	14	NE	
Little Sioux (*a*)	Harrison	.....	2	55.6	.....	89	12	27	4	58	1.35	.....	.38	....	10	....	....	....	SE	
Logan	Harrison	928	38	54.8	-6.4	87	12, 16	21	4	44	1.77	-2.42	.66	T	7	3	26	2	NW	
Marshalltown	Marshall	947	12	53.1	-8.0	86	12	20	4	50	3.02	-1.72	1.42	T	11	....	....	....	S	23
Mt. Vernon	Linn	847	38	54.4	-5.0	85	17	24	4	43	4.32	- .23	2.50	1.4	10	13	4	14	.....	
Muscatine	Muscatine	.....	48	.....	.....	.....	.....	.....	.....	.....	4.04	- .34	1.45	T	12	11	6	14	E	
Newton	Jasper	944	17	54.4	.....	85	12	23	4	42	6.53	.....	4.00	T	10	11	7	13	S	
Nevada	Story	996	2	.....	.....	.....	.....	.....	.....	.....	3.11	.....	1.10	.5	11	....	....	....	.....	21, 22, 23
Odebolt	Sac	1,356	8	54.4	-7.5	90	12	22	4	54	4.85	†2.08	2.12	....	9	18	4	9	.....	
Ogden	Boone	1,058	11	54.1	-7.3	89	12	21	4	51	4.05	-1.11	1.45	T	11	16	5	10	SE	
Olin (*a*)	Jones	760	8	53.4	-7.6	80	12, 13	25	4	38	2.89	-1.64	.99	1.2	6	11	10	10	S	13, 21
Onawa	Monona	1,051	7	57.1	-6.6	91	12	26	1, 4	59	1.46	-2.92	.48	T	9	15	6	10	SE	21, 24
Perry	Dallas	975	6	54.5	-7.4	89	12	20	4	53	5.25	† .25	1.84	.5	8	4	16	11	.....	22
Rockwell City	Calhoun	.....	10	53.2	-7.4	90	12	17	3	50	4.83	†1.49	2.50	2.0	9	20	2	9	.....	
Sac City (*a*)	Sac	1,356	25	52.4	-5.3	88	12	20	4	43	5.18	†1.55	2.38	....	8	17	6	8	NE	[22,23,24
Sioux City	Woodbury	1,135	16	52.6	-8.2	90	12	28	3	47	2.48	-1.19	1.81	0.7	10	6	8	17	NE	12,13,16,21
Stuart	Guthrie	1,216	8	55.4	-6.7	84	12	27	3, 4	46	3.56	- .89	1.37	....	11	14	6	11	N	
Tipton	Cedar	807	9	55.1	-5.6	80	12	29	4	36	7.68	†2.37	4.50	....	7	15	9	7	NE	
Toledo	Tama	856	12	53.8	-8.0	83	12	22	4	42	3.81	† .10	2.25	....	7	11	10	10	SE,SW	
Waterloo	Black Hawk	862	18	52.0	-8.0	85	12	22	4	51	3.06	-1.32	1.54	T	9	7	13	11	SE	
Waukee	Dallas	1,039	4	55.0	.....	86	12	24	4	47	3.06	.....	1.07	1.0	9	11	10	10	SW	23
Webster City	Hamilton	.....	2	53.8	.....	86	12, 13	17	4	52	4.58	.....	1.86	T	9	7	16	8	SE	
Whitten	Hardin	1,036	7	53.7	-6.1	85	12, 13	14	4	45	4.40	† .76	1.90	T	8	11	10	10	NE,SW	22, 23, 24
Wilton Junct'n	Muscatine	683	10	54.5	-7.9	82	12	23	4	43	5.49	†1.17	3.10	....	8	12	9	10	W	
Zearing	Story	718	3	52.2	.....	89	17	18	4	50	.....	.....	.....	....	....	14	8	9	NW	
Average		.....	....	53.6	-7.1	85.7	.....	22.0	.....	46.7	3.87	- .38	.....	0.4	10	11	9	11	S,SW	

NORTHERN SECTION.

Algona	Kossuth	1,213	31	50.4	-9.1	87	12	21	4	49	1.97	-1.48	.55	1.0	12	14	6	11	NE,SE	16
Alta	Buena Vista	1,513	14	50.6	-8.0	88	12	24	4	53	3.39	- .83	1.14	.5	11	9	14	8	NE,S,NW	16
Alta [near]	Buena Vista	.....	12	.....	.....	.....	.....	.....	.....	.....	3.77	.....	1.50	....	12	....	....	....	.....	[25
Alton	Sioux	1,305	....	51.7	.....	90	12	24	1, 4	56	5.95	.....	2.95	1.5	11	12	9	10	NW	17,21,23,24
Britt	Hancock	1,236	8	50.2	-8.9	87	12	19	4	53	1.81	-1.88	.54	.7	11	2	19	10	SW,NW	22, 24 [24
Charles City	Floyd	1,015	20	49.6	-9.9	84	12	20	4	43	2.11	-1.94	.75	0.4	15	4	12	15	N	13,14,16,22
Clear Lake	Cerro Gordo	1,241	8	51.4	-9.9	82	12	22	4	39	.71	-4.89	.50	....	5	21	0	10	N,S	
Decorah	Winneshiek	875	11	52.6	-7.6	86	12	22	4	42	1.82	-2.55	.46	....	10	....	....	....	.....	
Dows	Wright	1,142	7	50.8	-8.5	88	12	17	4	42	3.20	-2.20	1.00	T	10	10	11	10	S	
Elkader	Clayton	727	24	52.8	-8.1	85	12	21	4	66	2.04	-2.01	.45	.5	9	7	16	8	NW	14, 22
Estherville	Emmet	1,298	10	48.9	-9.8	89	12	21	4	53	3.82	† .69	2.25	....	9	11	0	20	NW	
Fayette	Fayette	1,003	17	51.0	-6.7	84	12	18	4	43	2.34	-2.50	.97	0.6	9	8	13	10	NE	23
Forest City	Winnebago	1,226	11	49.2	-10.4	88	13	22	4	52	1.01	-2.76	.61	1.8	6	14	4	13	N	
Grand Meadow	Clayton	1,180	14	52.0	-6.2	82	12	22	4	38	2.18	-2.97	.50	.8	10	6	15	10	SW	
Greene	Butler	.....	....	52.1	.....	86	12	21	4	44	2.99	.....	1.30	1.0	11	5	9	17	W	22
Hampton	Franklin	1,155	15	52.0	-6.4	86	12	22	4	35	3.99	- .18	1.74	T	12	6	16	9	NW	22,23
Humboldt	Humboldt	1,095	13	52.8	-7.5	88	12	20	4	51	3.49	- .39	1.17	....	10	13	7	11	NW	
Inwood	Lyon	1,474	3	50.9	.....	93	12	22	3	52	2.21	.....	1.23	2.5	12	11	10	10	N,NE,SW	13,21,24,25
Larrabee	Cherokee	1,266	16	52.6	-5.9	88	16	21	4	56	2.89	-1.06	1.53	1.0	12	7	15	9	NE	16,17,21-3-4
Le Mars	Plymouth	1,224	9	52.4	-8.2	92	12	17	1	56	4.42	† .83	1.80	T	12	7	16	8	N	13,16,21-4-5
Mason City	Cerro Gordo	1,132	10	51.4	-7.6	90	12	24	4	46	1.31	-2.64	.77	....	9	7	15	9	NW	23
New Hampton	Chickasaw	1,169	7	50.4	-8.9	83	12	23	4	39	2.09	-2.38	.66	1.0	10	13	9	9	N	14
Northwood	Worth	1,222	9	50.2	-8.7	85	12	20	4	44	1.31	-3.10	.57	.4	10	13	9	9	NE,SW	
Osage (*l*)	Mitchell	1,184	14	53.3	-3.8	83	13	.....	.....	43	.....	.....	.....	....	....	....	....	....	.....	
Plover	Pocahontas	1,426	8	51.0	-9.4	92	12	20	4	54	3.65	† .37	1.40	....	8	15	5	11	N	20, 21
Pocahontas	Pocahontas	.....	3	52.3	.....	90	12	22	4	52	2.79	.....	.94	2.6	11	10	11	10	S	16,22,23,24
Ridgeway	Winneshiek	1,215	9	51.2	-9.4	86	12	22	4	42	1.90	-3.25	.36	1.0	13	11	13	7	S	13,14,17,22-5
Rock Rapids	Lyon	1,358	9	50.4	-6.8	92	12	22	3	46	2.60	- .79	1.00	5.5	6	10	11	10	N	[31
Sheldon	O'Brien	1,422	7	51.6	-7.4	91	12	22	4	53	3.22	- .40	.90	2.0	11	14	6	11	S	21,23,24,25
Sibley	Osceola	1,212	11	48.0	-10.6	89	12	22	4	54	1.75	-1.60	.71	2.0	9	....	....	....	NE	
Sioux Center	Sioux	.....	8	50.9	-10.1	89	12	21	10	47	3.45	- .37	1.70	T	9	6	16	9	NE	17,23,24,25
Storm Lake (*j*)	Buena Vista	1,440	10	56.2	-1.8	84	12	.....	.....	47	.....	.....	.....	....	....	....	....	....	.....	
Washta	Cherokee	1,157	9	51.6	.....	89	12	18	4	60	4.44	†1.23	2.06	....	9	11	11	9	N	20,23
Waverly	Bremer	948	9	53.0	-8.4	85	12	21	4	41	3.23	-1.39	.92	1.0	13	4	14	13	.....	7,13,22,24
West Bend	Palo Alto	1,197	11	50.6	-8.7	87	12	20	4	54	2.39	- .45	.80	T	12	7	12	12	.....	16, 24
Average		.....	....	51.4	-7.9	87.3	.....	21.0	.....	48.4	2.74	-1.30	.....	1.1	10	10	11	10	N	

CLIMATOLOGICAL DATA FOR MAY, 1907—CONTINUED.

SOUTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
Afton	Union	1,212	12	56.4	-6.7	89	22	23	4	45	2.26	-2.45	.66	1.8	10	8	10	13	SW	
Albia	Monroe	959	9	53.9	-8.3	84	22	21	4	43	6.58	†2.46	2.40	1.0	11	17	2	12	W	23
Allerton	Wayne		4	55.6	-5.4	85	22	19	4	38	3.28	-1.23	.87	2.3	11	18	2	11	SE,SW	14,21,23,24
Atlantic	Cass	1,164	14	54.0	-5.6	87	12	18	4	60	2.19	-1.98	.80	1.5	8	5	10	16	S	21, 22
Bedford	Taylor		7	54.9	-7.9	86	22	19	4	45	3.68	-2.44	2.35	....	9	10	6	15	SE	
Bloomfield	Davis	881	....	57.0	.....	84	22	22	4	38	6.37	.....	1.66	4.0	11	16	10	5	SE	23
Bonaparte	Van Buren		15	55.8	-7.1	83	22	25	4	38	6.20	†2.17	2.92	2.5	12	....	....	....	.....	
Burlington	Des Moines	544	9	55.8	-8.8	84	22	26	4	44	2.74	-1.21	.61	....	14	17	6	8	SE,S	
Chariton	Lucas	1,042	10	54.9	-7.8	87	22	19	4	42	4.32	† .05	1.28	1.0	9	14	11	6	SE	
Clarinda	Page	1,009	15	55.4	-6.3	92	22	21	4	54	3.25	-1.54	1.62	T	13	17	2	12	NE	[25
Columbus Jct	Louisa	595	6	56.0	-7.0	85	22	27	4	37	6.68	†2.99	2.80	.2	9	17	8	6	S	14,22,23,24
Corning	Adams	1,117	13	54.5	-6.5	87	22	23	4	48	2.74	-1.99	1.57	1.5	5	10	11	10	NE,SE	21, 24
Corydon	Wayne	1,101	12	55.8	-6.0	85	22	21	4	40	3.37	-1.60	.84	3.0	9	13	8	10	SE,NW	
Creston	Union	1,312	2	52.8	.....	86	22	23	4	44	2.62	.....	1.10	.4	11	15	5	11	S	
Cumberland	Cass		8	.....	.....	.....	.....	.....	.....	.....	2.46	-1.55	.84	T	8	21	2	8	S	
Earlham	Madison		5	53.0	-7.0	83	12, 13	19	4, 6	46	3.23	-1.54	.81	1.0	10	11	5	15	SW	14, 21, 23
Elliott	Montgomery		2	57.0	.....	96	22	23	4	58	3.20	.....	1.50	1.6	12	13	13	5	SE	16, 21
Fort Madison	Lee	516	54	.....	.....	.....	.....	.....	.....	.....	3.00	-1.86	1.46	....	8	9	9	13	S	
Greenfield (*h*)	Adair		14	55.3	-5.2	84	12	26	3	46	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Hancock	Pottawatta'e	1,113	1	55.0	.....	88	12	25	4	39	3.35	.....	1.08	1.0	10	12	11	8	NW	
Hopeville	Clarke		14	55.8	-4.6	88	22	25	4	46	2.20	-2.56	.64	....	9	8	14	9	.....	13, 21
Indianola (*a*)	Warren	969	16	55.0	-5.9	83	12	25	4	36	4.98	† .28	1.04	T	13	10	7	14	NW	13,22,23,24
Keokuk	Lee	614	36	57.6	-5.6	84	23	28	4	34	3.44	- .63	1.52	T	11	18	6	7	SE,SW	14,18,23,24
Keosauqua	Van Buren	644	15	55.8	-7.4	85	22	24	4	46	5.43	-1.09	2.51	1.0	11	10	8	13	.....	24
Knoxville	Marion	920	11	56.1	.....	86	22	25	4	40	4.74	.....	2.10	2.2	12	10	5	16	NE	
Lacona	Warren		7	.....	.....	.....	.....	.....	.....	.....	4.68	-1.24	1.10	2.0	10	7	19	5	.....	
Lenox	Taylor	1,250	10	55.8	-6.3	88	22	25	4	46	2.35	-2.36	1.00	1.0	9	14	7	10	S	14, 21
Leon	Decatur	1,120	5	56.1	-6.8	85	22	26	4	34	2.86	-1.59	1.08	3.0	9	22	0	9	S	13, 18
Massena	Cass		2	53.8	.....	86	22, 25	20	4	52	2.11	.....	.76	1.5	13	10	15	6	S	
Mt. Ayr	Ringgold	1,236	11	55.8	-6.6	89	22	24	4	46	7.13	†1.74	3.25	1.0	13	12	8	11	NE	
Mt. Pleasant	Henry	729	23	56.6	-4.8	*85	22	25	4	35	5.76	†1.42	2.32	T	12	15	6	10	SE,SW	13,22,24
Omaha, Neb	Douglas	1,105	35	55.4	-7.1	87	12	26	3	45	1.58	-2.79	.33	1.3	13	5	9	17	N	16,17,21,22
Oskaloosa	Mahaska	843	21	55.8	-4.6	85	22	24	4	42	4.43	† .86	2.13	....	13	15	1	15	SW	[24
Ottumwa	Wapello	649	11	56.2	-7.6	86	22	25	4	42	5.63	† .81	1.90	0.7	7	14	7	10	NE,SE	
Pacific Jct	Mills	960	8	56.0	-6.6	91	22	25	4	56	1.88	-3.11	.35	1.8	11	7	18	6	S	16
Pella	Marion		4	57.0	.....	85	12	26	4	43	5.49	.....	3.85	....	12	11	11	9	SE	14, 22
St. Charles	Madison	1,070	6	54.2	-7.7	83	22	25	4	40	3.87	-1.05	.73	0.5	13	15	7	9	NE,SE	
Sigourney	Keokuk	877	8	56.1	-8.1	86	22	24	4	40	2.88	-1.10	.92	4.3	11	1	19	11	SW	14, 22
Thurman	Fremont		9	57.1	-6.2	93	22	24	4	59	1.43	-3.28	.40	1.0	9	9	11	11	NW	14,16,18,23
Wapello	Louisa	588	7	55.3	-9.1	81	22	29	4, 5	35	5.39	†1.80	2.25	....	11	17	8	6	SE	22,23,25
Washington	Washington	769	23	55.1	-6.3	84	22	24	4	40	4.47	†1.04	1.62	....	10	7	16	8	SW	13
Winterset	Madison	1,129	14	55.9	-5.4	86	12	25	4	45	3.28	-1.29	.82	1.0	10	8	11	12	S	23
Woodburn	Clarke	961	8	55.4	.....	90	12	19	4	48	3.78	-1.61	1.20	2.0	12	10	13	8	SE	
Average			....	55.5	-6.7	86.3	.....	23.3	.....	43.9	3.84	- .64	.....	1.4	11	12	9	10	SE	
State aver			....	53.5	-7.2	86.4	.....	22.1	.....	46.3	3.48	- .78	.....	1.0	10	11	10	10	N,SE,S,SW	

‡ Received too late to be included in average. *a*, one day missing; *b*, two days; *c*, three days,etc. † means plus.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF MAY, 1907

STATIONS		DAY OF MONTH																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	max.	59	67	56	54	58	64	67	69	79	70	66	84	84	59	44	77	81	75	74	69	67	89	85	82	83	74	67	71	62	58	57	69.4
	min.	31	34	37	23	38	38	43	36	40	37	32	50	59	37	32	32	54	51	50	35	45	53	60	59	60	45	32	48	51	51	51	43.4
Albia*	max.	57	65	35	49	52	63	64	71	79	61	65	81	81	45	45	71	78	73	72	63	65	84	76	77	80	68	58	65	56	60	62	65.2
	min.	32	35	33	21	27	40	42	43	41	38	33	38	63	43	35	36	42	54	50	32	42	45	61	58	58	55	35	40	45	51	53	42.6
Algona	max.	60	52	43	52	65	67	64	60	72	53	59	87	80	49	40	80	73	68	61	62	55	75	58	56	74	64	60	69	69	60	58	62.7
	min.	27	31	24	21	33	31	29	33	40	31	30	48	48	37	32	31	45	46	42	28	44	46	50	50	50	41	31	42	44	46	50	38.1
Allerton	max.	57	66	57	47	52	63	66	70	79	67	61	81	81	73	44	73	81	73	71	66	57	85	83	78	81	69	58	66	61	61	61	67.4
	min.	31	34	28	19	35	42	44	40	41	39	33	49	59	40	34	34	57	55	48	35	45	55	62	61	60	47	34	39	50	51	53	43.7
Alta*	max.	60	50	45	51	65	68	60	68	78	51	68	88	73	43	47	85	75	69	66	65	65	79	56	58	73	50	61	67	62	58	54	63.2
	min.	26	32	25	24	30	36	30	31	32	32	30	40	64	36	31	32	36	47	44	30	36	44	50	50	52	41	31	35	47	50	50	37.9
Alton	max.	64	57	47	52	64	68	60	68	71	51	70	90	84	45	54	85	75	68	64	65	70	72	65	58	65	55	62	68	62	63	56	64.5
	min.	24	31	25	24	30	29	30	33	40	32	31	58	44	33	32	29	42	46	42	29	44	56	50	51	52	42	33	42	50	50	51	38.9
Amana	max.	56	65	57	53	54	63	66	72	79	69	59	83	82	76	46	72	77	75	71	64	60	81	69	61	81	74	57	69	61	63	66	67.1
	min.	31	32	32	24	40	38	39	42	37	39	30	46	59	44	36	33	55	48	47	31	42	51	56	52	55	45	36	38	47	53	54	42.3
Ames	max.	57	65	47	50	58	64	64	66	82	66	61	85	84	60	43	80	77	76	72	65	59	80	75	65	80	75	61	67	61	62	67	66.9
	min.	27	31	26	18	37	35	37	37	35	34	27	44	57	40	34	33	51	46	47	30	45	47	53	51	53	44	34	40	45	52	49	40.0
Atlantic	max.	58	68	45	52	63	67	68	72	81	67	68	87	79	52	45	85	80	74	75	66	62	80	74	73	80	67	65	71	64	57	55	67.7
	min.	25	30	27	18	39	35	36	35	29	35	36	56	52	37	33	25	49	45	45	34	40	58	58	56	58	42	31	38	50	50	51	40.4
Baxter	max.	58	67	55	51	57	65	65	67	81	70	59	86	84	65	45	76	77	74	74	64	55	82	74	67	80	73	59	68	60	60	60	67.0
	min.	29	34	26	21	35	36	43	37	40	34	27	45	60	40	34	30	52	50	44	31	43	46	52	52	53	43	33	39	45	50	48	40.4
Bedford	max.	58	67	54	51	57	62	68	69	79	72	65	82	81	57	45	78	81	75	74	70	66	86	71	68	70	66	64	68	60	56	58	67.0
	min.	27	33	28	19	37	39	39	37	34	38	35	56	57	36	32	28	55	54	46	37	44	61	60	62	56	49	39	39	48	51	52	42.8
Bloomfl'd	max.	57	64	55	53	51	64	68	73	81	70	59	82	83	78	45	73	80	75	73	66	57	84	81	79	83	76	59	72	62	63	66	68.8
	min.	33	34	31	22	47	41	46	43	43	42	33	47	62	44	36	38	57	58	52	37	45	48	62	58	62	43	37	40	50	52	54	45.1
Bonapa'e	max.	57	63	51	53	46	61	66	73	78	65	57	81	80	74	47	68	78	74	72	63	55	73	80	78	81	75	58	66	60	62	68	66.9
	min.	33	34	33	25	38	42	43	45	40	45	32	48	60	45	37	34	54	58	53	38	45	48	62	52	62	47	36	39	51	53	55	44.7
Boone*	max.	56	65	43	49	57	63	63	65	80	50	70	85	81	44	42	81	77	73	71	65	64	79	61	65	80	51	59	67	58	59	54	64.1
	min.	30	34	28	21	30	38	34	35	35	32	32	33	62	41	33	32	36	51	48	31	39	45	52	51	51	51	33	36	49	50	51	39.6
Britt	max.	60	53	41	54	65	70	69	66	70	51	59	87	85	49	40	80	73	68	59	64	59	76	59	57	77	60	60	69	69	59	55	63.3
	min.	27	29	25	19	33	25	29	33	34	29	30	46	48	36	32	27	44	44	40	27	45	47	49	49	50	41	31	37	44	48	50	37.0
Burl'g'n*	max.	57	62	42	52	46	64	66	73	77	62	57	80	83	60	48	61	79	77	72	62	58	84	79	79	83	79	58	68	63	65	69	66.6
	min.	32	36	40	26	32	42	44	46	47	47	33	36	54	58	39	34	41	59	52	40	42	46	55	57	58	61	36	41	48	53	57	44.9
Carroll*	max.	58	64	47	52	65	65	64	68	82	51	68	88	78	44	50	83	77	70	71	65	66	83	61	65	75	52	62	68	57	58	55	65.1
	min.	29	33	27	18	35	34	31	32	35	33	29	43	62	37	32	29	49	46	46	30	43	45	52	52	52	43	32	41	48	49	51	39.3
Cedar R*	max.	58	66	38	53	52	64	67	72	81	52	58	84	84	48	45	72	81	77	71	65	61	79	60	58	84	68	59	69	62	66	69	65.0
	min.	31	33	35	27	29	33	34	44	40	39	30	36	52	46	36	34	37	50	50	34	38	48	54	51	52	53	37	38	42	51	54	40.9
Chariton	max.	58	65	55	49	54	64	66	67	79	60	62	82	81	76	46	75	80	78	72	71	61	87	80	78	80	74	58	67	61	58	61	67.9
	min.	31	32	28	19	38	40	42	37	38	37	32	48	58	39	33	33	57	54	49	33	33	49	58	58	59	45	34	37	49	50	50	41.9
Charles C.	max.	58	62	40	46	59	64	64	58	73	50	56	84	82	43	39	73	70	68	60	59	60	76	55	55	76	57	56	68	65	62	57	61.1
	min.	27	31	23	20	35	28	33	37	37	30	29	46	47	36	32	30	49	44	36	29	46	50	49	49	50	42	33	39	44	51	49	38.1
Clarinda*	max.	59	68	43	53	56	64	68	70	83	66	68	86	84	44	50	85	84	76	76	67	69	92	84	76	85	60	66	72	69	57	57	68.9
	min.	24	33	27	21	31	39	44	38	48	39	36	40	63	39	34	31	40	52	46	38	42	45	61	61	60	48	36	38	47	47	52	41.8
Clear La'e	max.	59	55	56	49	62	67	64	61	73	55	59	82	80	55	40	72	75	69	60	72	56	79	55	55	78	57	60	68	67	60	55	63.1
	min.	35	37	25	22	35	35	31	34	43	27	29	44	55	38	32	33	53	47	43	32	44	48	48	48	50	45	32	44	45	50	49	39.8
Clinton	max.	59	63	46	55	51	64	70	75	79	61	50	82	86	73	57	68	79	78	75	61	68	77	67	59	82	77	58	69	66	72	68	67.4
	min.	31	31	35	26	41	40	39	39	37	38	28	40	60	47	39	32	56	49	52	38	44	52	52	52	53	41	34	36	48	55	55	42.6
Colum's J	max.	60	64	54	54	58	65	68	73	78	67	58	81	82	77	48	68	77	74	72	63	61	85	73	69	82	61	57	67	60	67	78	67.8
	min.	35	35	32	27	39	40	45	45	41	43	31	45	59	44	37	34	54	55	51	36	44	51	59	55	57	45	36	41	49	53	55	44.3
Corning	max.	55	64	56	49	55	61	66	67	78	64	66	84	82	55	43	79	78	76	73	64	62	87	80	77	83	69	63	58	57	56	56	66.5
	min.	28	34	27	23	43	38	40	36	36	37	32	52	54	37	32	31	52	52	48	35	44	57	60	60	61	46	31	42	45	52	51	42.5
Corydon	max.	58	66	61	48	54	61	66	71	79	72	61	81	80	77	45	74	79	74	74	65	57	85	83	77	81	77	62	66	63	59	60	67.6
	min.	32	36	29	21	39	43	44	40	42	39	34	48	60	40	34	34	58	55	50	35	45	50	61	60	61	47	34	41	51	52	52	44.1
Creston*	max.	55	64	39	48	54	61	64	67	77	58	68	82	80	43	42	76	76	72	72	61	63	86	79	77	81	58	61	66	57	56	55	64.5
	min.	25	35	30	23	32	38	42	36	39	36	33	49	54	37	32	32	38	52	49	36	38	45	60	59	60	50	32	37	46	49	57	41.1
Davenp't	max.	55	60	48	51	48	62	65	71	76	58	55	79	82	67	45	65	79	75	70	59	60	77	63	62	80	75	58	66	62	67	68	64.8
	min.	37	39	32	29	41	42	46	43	45	38	33	46	61	44	37	36	56	57	48	40	45	54	54	52	54	42	36	43	52	56	53	44.9
Decorah	max.	63	67	48	47	62	68	67	74	75	52	57	86	83	65	73	77	75	73	72	62	68	62	54	56	65	64	58	72	73	64	63	66.0
	min.	27	33	29	22	35	30	35	36	38	32	29	45	63	37	41	35	46	45	43	30	31	48	48	50	51	40	33	35	47	52	53	39.2
Delaware	max.	58	63	54	54	54	63	67	62	79	62	54	81	81	73	43	68	72	71	67	61	65	75	60	53	74	67	55	67	69	63	63	64.5
	min.	28	31	29	22	37	34	39	40	38	35	27	41	56	42	35	31	53	47	43	31	40	49	48	46	47	40	32	37	46	51	50	39.5
Denison	max.	59	62	47	51	63	67	65	68	82	73	69	86	55	49	49	85	76	70	71	65	62	83	76	66	75	68	61	67	57	59	55	65.8
	min.	28	17	17	17	39	35	31	32	39	31	33	55	48	36	32	..	48	46	46	30	..	50	53	52	..	43	32	39	47	45	50	38.2
Des Mo's	max.	55	64	43	48	57	63	62	66	79	55	61	84	82	47	44	76	76	71	71	64	55	80	71	69	82	64	60	65	58	58	59	64.2
	min.	33	37	29	26	40	43	46	41	43	40	34	51	47	39	36	35	59	56	48	37	47	55	56	55	56	45	36	43	52	53	52	44.2
De Soto	max.	58	66	46	51	63	68	66	70	82	69	64	85	84	54	45	79	78	72	74	68	57	84	74	70	80	70	63	69	62	57	54	67.0
	min.	31	33	27	21	38	39	42	38	38	36	30	50	54	39	34	32	55	52	46	32	46	50	56	55	56	45	34	40	51	51	51	42.0
Dows	max.	58	59	42	49	60	65	63	62	77	59	60	88	83	55	40	79	74	70	63	63	56	81	66	57	76	69	58	68	62	60	55	63.8
	min.	26	30	27	17	37	28	31	34	36	32	24	46	54	38	31	28	49	42	43	27	45	36	49	49	50	42	32	40	43	48	48	37.8
Dubuque	max.	57	62	42	50	50	63	64	60	78	50	54	80	80	62	43	66	75	73	67	58	63	73	56	55	79	67	56	67	66	67	65	62.8
	min.	35	38	32	29	42	36	42	39	38	36	33	43	60	43	36	34	57	50	44	37	45	53	50	50	51	39	36	40	48	54	52	42.6
Earlham	max.	55	65	53	48	57	53	64	70	80	69	63	83	83	56	44	78	79	72	75	64	56	81	74	72	80	71	60	65	58	55	54	65.7
	min.	28	32	27	19	35	19	38	33	34	35	27	51	56	38	34	31	54	54	45	29	44	50	58	55	57	44	33	39	49	50	51	40.3
Elkader	max.	61	69	52	55	57	67	66	67	81	60	55	85	82	77	64	70	68	73	66	66	66	78	60	56	72	71	57	70	68	64	63	66.6
	min.	25	30	33	21	39	29	35	41	34	33	27	45	46	44	36	35	52	38	39	28	40	54	50	50	50	43	31	34	43	52	52	39.0
Elliott	max.	54	68	56	58	68	67	71	73	82	69	71	86	74	50	57	87	85	75	74	73	69	96	78	81	83	65	71	74	65	56	56	70.7
	min.	31	34	36	23	44	37	37	37	35	37	34	58	50	37	34	29	51	47	50	39	44	60	62	59	60	46	35	43	50	51	51	43.3
Esth'rv'e*	max.	62	46	44	50	63	67	55	63	68	51	60	89	62	44	41	80	74	75	66	60	55	68	66	55	60	50	60	70	66	58	55	62.4
	min.	28	32	23	21	30	32	28	29	30	30	28	36	37	36	31	31	39	44	36	28	36	43	48	49	49	40	32	36	43	43	48	35.4
Fayette	max.	60	67	44	49	56	65	63	62	77	50	56	84	81	65	40	71	74	72	63	61	65	77	58	55	77	65	57	68	66	66	62	63.7
	min.	23	33	30	18	34	27	32	40	34	31	26	42	60	40	34	34	51	42	41	26	40	51	49	49	50	38	32	33	44	52	50	38.2
Forest C.*	max.	60	52	42	45	65	66	64	61	71	51	56	88	82	40	38	75	75	67	58	62	57	76	56	55	75	47	60	71	66	60	54	61.1
	min.	29	31	25	22	29	31	30	34	34	32	29	36	56	38	31	30	34	47	41	30	38	47	50	50	50	42	31	36	45	50	51	37.4
Ft. Dodge*	max.	59	57	45	50	65	66	64	64	72	52	63	88	82	42	39	82	77	71	66	66	65	83	59	60	77	50	60	69	59	60	55	63.5
	min.	29	33	27	21	29	37	32	35	35	33	32	40	62	40	33	33	36	48	49	31	39	46	52	51	53	43	32	38	47	51	52	39.3
Gr. Mead.	max.	58	65	50	47	55	65	65	62	75	53	54	82	81	73	44	72	72	72	62	59	65	74	55	55	68	57	56	68	67	68	63	63.3
	min.	28	38	30	22	35	30	36	38	41	30	27	44	60	42	35	35	50	47	41	31	43	48	47	48	50	40	32	36	47	50	50	40.7
Greene	max.	60	62	42	50	64	69	65	64	79	57	61	86	84	59	40	74	75	70	64	65	63	84	61	56	79	70	61	71	65	62	56	65.1
	min.	30	34	28	21	34	28	31	37	39	32	27	46	59	40	33	30	48	45	43	28	46	50	49	50	49	41	32	40	43	50	49	39.1
Greenfl'ld	max.	54	64	56	..	..	..	..	..	..	..	63	84	80	61	41	78	79	72	74	76	60	62	79	73	80	75	60	65	57	55	..	67.3
	min.	33	42	26	..	..	..	..	..	..	..	33	52	60	37	31	32	52	50	45	31	44	54	54	56	59	43	31	44	49	37	..	43.3
Grinnell	max.	57	67	58	51	55	65	67	67	81	75	59	84	83	67	45	76	77	75	72	64	57	80	78	65	81	72	58	64	62	61	61	67.2
	min.	32	33	28	22	39	40	45	38	40	36	32	46	62	42	35	33	55	50	48	30	46	47	55	53	50	44	34	39	56	55	50	42.4
Grundy C.	max.	58	67	58	55	57	65	65	60	60	60	60	84	82	66	40	73	76	75	60	65	56	75	58	60	78	73	56	75	61	63	58	64.5
	min.	28	34	28	20	38	32	39	38	33	33	25	46	60	40	33	31	46	58	46	28	45	49	49	50	52	43	34	40	46	50	51	40.2
Guthrie C.	max.	58	65	50	54	62	63	66	68	80	74	68	87	82	67	41	83	80	77	72	68	61	80	76	70	79	77	63	70	68	58	58	68.5
	min.	30	34	27	19	37	35	37	35	37	35	28	54	57	39	33	30	52	48	44	32	46	51	55	53	56	45	33	40	49	51	51	41.1
Hampton	max.	60	63	44	50	62	68	63	64	78	55	58	86	84	58	39	78	81	69	64	65	54	85	65	56	78	72	58	70	61	61	55	64.6
	min.	29	33	28	22	36	33	32	31	42	33	27	46	58	39	32	32	49	46	44	30	46	48	50	49	51	42	32	41	46	50	48	39.5
Hancock	max.	60	60	51	52	60	65	69	70	80	73	68	88	79	51	51	84	80	74	75	68	63	78	75	76	78	69	62	68	60	56	55	67.7
	min.	29	30	26	25	39	38	38	35	41	35	33	59	51	36	32	33	52	48	47	38	40	60	58	57	58	45	34	45	50	50	51	42.4
Harlan	max.	63	66	46	55	57	65	65	68	80	67	68	87	80	49	49	85	79	71	73	64	63	79	73	71	75	68	62	68	62	56	56	66.8
	min.	25	27	25	19	38	38	36	34	36	34	30	57	49	36	32	30	51	48	44	35	45	58	55	53	55	44	33	40	48	44	49	40.3

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF MAY, 1907—CONTINUED.

STATIONS		DATE																														MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Hopeville	max.	60	68	51	51	56	64	69	69	79	65	65	84	83	58	44	78	80	74	74	67	59	88	85	79	83	67	69	70	60	58	59	68.0
	min.	32	33	28	25	39	39	43	35	43	38	34	52	58	37	33	32	56	55	50	35	45	53	60	60	62	46	34	39	51	51	53	43.6
Humboldt	max.	60	55	43	53	64	78	66	64	72	62	64	88	85	55	41	83	74	74	66	63	60	78	64	60	72	72	58	70	62	62	58	65.4
	min.	28	30	27	20	39	30	32	34	44	34	28	51	55	35	35	32	49	46	45	30	45	48	52	50	58	43	33	43	46	50	50	40.1
Indep'd'e	max.	57	64	53	50	53	64	65	64	79	57	56	84	82	70	44	72	75	73	65	60	62	75	66	56	80	75	56	66	61	64	66	65.0
	min.	26	31	30	21	34	34	40	41	37	33	26	41	43	42	34	34	53	47	46	30	42	50	50	49	50	41	34	38	44	51	5	39.5
Indianola	max.	56	64	53	48	57	62	62	67	79	70	60	83	81	61	44	75	75	74	72	65	60	76	76	69	80	73	59	66	60	57	60	65.9
	min.	33	36	28	25	39	40	42	38	43	37	33	50	61	40	35	35	59	52	49	..	46	53	57	56	57	46	35	42	51	52	51	44.1
Inwood	max.	68	54	49	50	61	67	53	69	63	50	71	93	85	41	55	85	74	77	63	64	72	74	60	55	59	58	64	72	65	63	60	61.5
	min.	28	20	22	25	30	31	29	31	41	29	30	50	41	32	31	33	43	40	39	23	43	51	49	40	51	40	28	44	49	48	51	37.3
Iowa City*	max.	56	65	39	53	59	68	66	70	78	57	61	83	81	49	44	67	81	77	72	66	60	79	62	64	83	68	59	69	60	66	71	65.3
	min	26	31	36	25	30	40	40	42	38	41	30	36	55	46	37	34	37	50	51	31	42	47	57	52	52	57	37	37	47	52	54	41.7
Iowa Falls	max.	59	65	42	53	62	66	64	65	79	51	62	86	84	45	42	80	78	72	65	67	60	83	55	58	78	50	59	68	63	62	54	63.8
	min.	25	30	29	18	35	29	35	36	35	34	26	45	60	43	34	31	35	46	45	30	36	49	51	51	51	49	33	35	44	50	51	38.7
Jefferson.	max	53	60	68	51	61	65	65	65	83	66	65	86	80	55	42	82	77	71	72	68	61	85	79	68	79	71	62	69	67	58	55	67.6
	min.	32	30	22	19	38	35	32	35	42	34	30	55	55	40	34	32	51	47	44	28	46	51	54	52	54	45	33	42	49	50	50	40.7
Keokuk	max.	56	61	57	53	49	59	65	72	76	71	57	82	83	79	46	69	78	76	70	65	56	83	84	80	83	77	58	67	61	65	70	63.0
	min.	35	38	33	28	40	44	49	50	47	48	34	49	61	45	38	37	56	60	54	43	45	50	63	57	73	48	38	44	51	53	57	46.7
Keosa'q'a	max.	58	65	44	54	49	65	67	74	80	63	64	84	84	61	48	71	80	75	74	61	58	85	83	80	84	72	60	68	62	63	70	68.1
	min.	32	30	36	24	29	43	43	41	39	44	33	38	50	49	38	33	41	58	53	38	45	48	57	57	60	59	38	39	50	53	55	43.6
Knoxville	max.	59	67	59	52	57	64	67	68	79	70	61	83	83	71	45	76	80	74	73	67	61	86	75	72	83	76	61	70	63	60	62	68.5
	min.	33	36	29	25	39	40	45	39	43	38	32	49	62	40	35	36	49	53	50	35	47	49	60	55	58	45	36	42	51	52	51	43.7
Larrabee	max.	65	52	51	55	68	69	63	73	75	54	72	81	77	48	53	88	80	75	68	71	72	..	62	56	76	61	66	73	67	62	54	66.2
	min.	26	30	25	21	31	40	29	33	45	32	31	50	46	33	33	32	46	45	41	28	44	53	50	57	53	43	30	43	47	50	50	39.1
Le Mars	max.	65	59	49	51	65	69	60	70	76	51	72	92	82	46	56	87	82	69	67	68	73	80	70	60	68	56	63	72	63	62	57	66.5
	min.	17	31	25	22	36	31	28	32	42	31	32	57	46	34	32	31	46	46	45	28	45	58	50	50	52	41	31	42	37	42	47	38.2
Lenox	max.	58	66	58	50	55	61	67	60	79	75	65	83	82	61	42	78	78	77	75	71	62	88	82	76	82	73	63	68	64	56	57	68.4
	min.	29	35	26	25	38	38	43	36	41	37	34	52	60	36	32	37	53	52	49	36	44	58	60	61	60	45	31	41	50	50	51	43.1
Leon	max.	59	66	57	51	56	62	68	68	77	68	63	82	81	62	41	74	80	73	74	67	62	85	84	80	80	70	62	68	58	67	61	67.9
	min.	32	35	28	26	39	42	49	38	43	42	33	52	61	38	32	32	56	60	49	44	37	52	61	60	60	45	34	41	50	51	52	44.3
Lit. Sioux	max.	61	57	49	52	64	68	65	70	82	76	72	89	86	48	53	88	80	73	74	67	63	85	77	68	76	65	65	70	64	..	57	69.2
	min.	31	39	29	27	40	40	30	28	45	35	36	59	46	35	32	30	48	48	45	38	48	62	57	54	56	44	29	48	51	..	52	42.1
Logan	max.	59	61	79	50	58	64	66	68	82	68	71	87	84	49	56	87	80	70	74	61	67	81	74	69	75	65	69	61	61	59	68	67.6
	min.	29	32	26	21	33	37	37	32	38	35	31	53	48	35	36	54	50	47	47	38	45	61	56	54	53	43	44	46	48	46	47	42.0
Mars'll't'n	max.	60	68	43	53	58	68	66	68	82	62	66	87	84	45	44	76	78	76	72	65	64	83	64	63	82	55	58	72	61	64	62	66.7
	min.	30	35	28	20	29	33	42	38	36	34	27	36	58	43	31	32	40	47	45	30	40	47	51	50	55	52	33	39	39	50	50	39.5
Mason C'y	max.	58	50	40	50	63	66	65	62	71	56	56	90	83	60	42	75	73	68	60	60	56	75	60	55	77	70	62	70	63	63	58	63.1
	min.	30	35	26	24	35	29	30	35	42	32	32	44	60	40	33	32	47	45	45	28	47	49	50	50	50	42	32	43	44	50	47	39.6
Massena	max.	54	69	52	52	62	63	67	69	81	70	64	83	80	54	43	81	78	72	77	65	59	86	77	75	86	73	64	67	62	54	52	67.5
	min.	27	32	24	20	36	35	38	35	34	34	29	50	54	34	30	29	50	50	45	33	42	56	58	55	53	45	30	40	49	50	50	40.2
Mt. Ayr	max.	60	68	58	51	56	61	68	70	80	70	65	83	83	58	43	78	81	73	76	65	63	89	85	75	82	74	66	70	59	56	60	68.6
	min.	32	36	27	24	39	39	43	37	43	37	33	50	52	35	32	32	54	54	49	36	43	56	60	60	59	46	32	46	49	50	51	43.1
Mt. Pleas't	max.	58	62	54	54	48	65	67	73	78	71	58	81	82	78	46	69	79	74	73	62	59	85	77	80	83	78	58	68	62	64	68	68.2
	min.	35	35	32	25	37	42	44	45	43	45	31	46	60	44	38	35	55	58	51	38	46	49	60	57	60	46	37	42	51	52	54	44.9
Mt. Ver'n.	max.	57	66	55	53	49	66	62	70	81	69	59	81	78	75	46	66	85	77	72	68	58	76	66	57	82	76	60	69	59	64	66	66.7
	min.	32	36	31	24	39	35	42	42	38	37	30	44	58	43	35	32	54	50	47	33	44	50	53	50	52	45	34	39	47	53	53	42.0
N. Hamp'n	max.	58	62	47	45	58	63	64	58	73	56	51	83	80	54	42	72	70	60	60	59	61	77	61	55	73	73	55	67	65	62	60	62.2
	min.	28	31	27	23	33	31	34	37	37	28	28	44	54	40	33	32	48	47	42	30	42	49	48	48	49	40	32	37	44	50	49	38.5
Newton	max.	58	67	55	52	57	65	65	67	80	69	62	85	82	67	45	76	78	74	72	65	59	79	73	67	79	71	59	67	60	61	58	66.9
	min.	32	33	29	23	39	40	41	39	42	36	33	46	60	42	35	34	54	52	42	34	34	47	54	53	54	44	35	40	48	52	49	41.8
Northw'd	max.	60	56	41	46	62	65	65	61	68	53	58	85	84	53	40	75	72	65	62	60	60	70	58	55	75	66	59	70	72	68	57	62.6
	min.	26	30	24	20	31	27	30	34	37	31	30	44	53	38	32	31	45	43	40	29	45	45	47	49	51	41	31	39	43	53	50	37.7
Odebolt	max.	62	56	47	51	69	71	65	75	83	69	75	90	84	48	47	85	82	73	70	70	64	87	83	86	75	70	61	71	61	61	56	69.4
	min.	26	34	27	22	40	34	32	33	45	33	40	29	47	31	32	31	50	46	44	29	45	53	52	52	53	42	33	43	50	47	49	39.5
Ogden	max.	58	65	49	52	59	65	64	65	81	71	63	89	83	58	43	82	78	73	71	66	62	85	75	67	79	74	60	86	62	60	53	67.7
	min.	30	31	27	21	38	37	35	36	41	35	31	49	58	40	33	31	51	48	44	29	45	48	53	52	54	44	32	42	41	51	49	40.5
Olin	max.	56	60	55	51	52	61	67	69	74	50	56	80	80	76	46	65	76	73	70	60	62	79	70	58	78	75	56	65	65	67	67	65.1
	min.	30	30	32	25	39	37	39	41	..	35	27	42	59	46	36	34	52	47	45	34	40	50	53	53	52	44	34	34	47	59	54	41.7
Omaha, N.	max.	57	57	46	50	58	60	64	67	79	59	72	87	70	39	57	86	80	71	72	64	69	84	74	76	74	59	62	68	58	56	56	65.5
	min.	37	31	26	33	42	46	43	36	49	37	41	63	39	33	33	41	56	52	48	41	49	64	59	60	59	43	38	50	50	50	51	45.3
Onawa	max.	66	62	56	56	67	70	66	76	85	79	74	91	87	47	61	90	84	75	75	69	69	86	79	67	75	73	70	73	69	61	59	72.5
	min.	26	34	28	26	39	36	32	31	39	34	32	57	47	35	32	31	52	50	47	38	48	61	55	53	55	44	34	45	52	47	52	41.7
Osage	max.	..	..	..	..	..	..	..	..	..	..	..	..	83	62	40	72	77	63	60	66	61	77	60	54	70	68	61	71	70	61	59	65.3
	min.	..	..	..	..	..	..	..	..	..	..	..	..	50	39	30	29	45	42	42	27	43	48	47	48	48	41	31	34	42	49	49	41.3
Oskaloosa	max.	59	67	58	54	55	65	67	70	80	67	61	83	84	76	47	74	78	72	72	63	58	85	73	72	82	72	57	67	61	61	61	67.8
	min.	32	33	31	24	41	41	40	40	38	39	33	47	63	43	36	36	57	54	50	33	48	49	58	55	59	46	36	39	51	53	53	43.8
Ottumwa	max.	66	66	43	52	60	65	71	76	83	65	61	82	82	47	45	67	84	74	72	65	65	86	82	84	83	60	52	63	66	67	66	67.7
	min.	35	36	35	24	34	41	44	34	41	41	34	42	62	45	37	38	49	59	42	39	48	46	63	58	61	45	38	42	54	54	54	44.7
Pacific Jc.	max.	60	62	50	53	60	62	69	68	79	72	72	87	78	46	52	86	82	77	73	67	70	91	80	80	77	70	66	73	65	57	54	69.0
	min.	28	34	26	25	40	40	38	37	40	38	36	59	46	36	33	30	50	50	48	40	46	62	60	61	62	45	30	44	49	52	50	43.0
Pella	max.	64	68	62	52	58	64	66	70	80	76	61	85	84	79	45	78	83	77	75	71	65	84	74	70	84	80	64	70	65	63	63	70.3
	min.	34	35	30	26	39	40	45	39	44	38	31	47	63	42	35	35	57	52	49	39	47	47	60	54	57	46	35	41	50	52	51	43.7
Perry	max.	61	69	45	54	60	64	68	68	83	69	66	89	86	56	44	84	78	73	73	69	62	85	75	69	82	68	62	70	63	60	54	68.0
	min.	30	30	28	20	38	36	39	37	37	36	30	52	55	40	34	31	54	48	45	30	46	49	54	52	55	45	31	41	41	52	51	41.0
Plover	max.	63	50	44	56	62	71	67	65	72	53	65	92	82	48	36	84	74	69	65	65	58	74	67	65	72	74	63	71	68	60	58	64.9
	min.	24	30	24	20	32	27	28	32	37	30	30	49	48	36	32	28	44	45	27	43	44	47	50	48	49	44	30	38	44	45	48	37.2
Pocahon's	max.	62	52	45	54	66	70	66	66	76	75	65	90	82	48	40	83	77	70	65	67	65	79	58	59.	79	61	63	71	66	61	56	65.8
	min.	23	30	26	22	37	31	30	33	41	32	28	50	48	37	32	31	45	45	43	29	45	54	50	50	51	40	31	41	47	50	50	38.8
Ridgeway	max.	60	69	43	44	60	68	65	63	79	54	54	86	84	63	43	75	74	73	63	60	65	67	52	55	65	57	60	71	70	62	61	63.4
	min.	30	35	26	22	33	34	33	36	40	30	28	44	60	41	34	34	48	43	39	31	42	48	48	49	49	36	33	38	48	50	51	39.1
Rock Rap.	max.	64	38	50	54	60	66	60	54	58	62	70	92	80	40	54	80	70	64	56	64	68	72	60	55	55	66	58	70	74	64	62	62.8
	min.	30	26	22	28	30	30	32	34	32	32	32	54	40	32	32	34	42	40	28	34	40	54	50	52	46	50	30	42	60	50	42	38.1
Rock'll Cy	max.	61	60	45	55	65	70	67	65	82	54	70	90	84	55	43	81	84	78	78	68	65	83	73	62	78	65	61	66	64	69	55	67.7
	min.	30	30	17	24	38	37	30	33	44	33	43	48	54	39	32	34	38	40	40	30	45	49	43	51	43	40	32	45	47	50	40	38.7
Sac City	max.	58	55	44	50	64	66	63	67	78	57	66	88	82	45	47	82	79	71	66	65	63	80	70	60	74	70	60	67	62	60	57	65.7
	min.	26	33	26	20	..	35	31	32	42	32	29	54	43	32	31	29	49	46	46	29	44	50	51	51	52	42	32	42	48	50	49	39.2
St. Charl's	max.	52	66	43	51	58	64	66	67	80	63	63	72	82	52	45	75	77	73	74	63	56	83	74	71	79	66	59	67	59	57	58	65 0
	min.	32	35	28	25	39	40	45	37	46	37	32	50	50	39	34	35	58	52	49	34	45	50	58	57	58	46	35	42	51	51	51	43.3
Sheldon	max.	66	51	50	50	64	68	58	71	72	53	68	91	87	63	55	85	78	70	65	66	72	75	58	57	66	57	63	72	68	62	57	65.7
	min.	26	29	24	22	29	28	29	30	38	30	30	54	43	32	32	32	42	42	40	27	45	51	49	50	50	43	31	42	47	49	51	37.6
Sibley*	max.	64	44	45	49	62	66	52	67	66	49	68	89	48	38	51	82	76	65	58	63	67	71	55	54	60	50	62	69	66	60	58	60.5
	min.	24	30	24	22	30	30	29	28	29	30	29	35	48	35	31	30	37	42	38	28	33	45	48	49	49	41	29	34	45	48	50	35.5
Sigourn'y	max.	59	65	59	57	53	67	68	72	80	70	61	83	84	77	47	73	80	75	74	66	58	86	77	73	83	73	59	67	62	65	63	68.9
	min.	32	34	31	24	40	40	42	42	40	39	32	45	60	44	36	33	54	52	49	36	45	48	58	55	58	46	35	40	48	53	52	43.3
Sioux Cen	max.	65	55	47	49	61	68	56	68	63	46	70	89	83	43	54	84	76	65	61	65	72	73	65	57	63	52	62	63	65	63	55	63.3
	min.	26	31	25	23	32	32	32	32	39	21	32	53	43	32	32	37	46	43	42	28	45	55	50	51	51	41	32	42	48	48	50	38.5
Sioux C'y	max.	61	48	48	49	63	65	58	68	78	49	72	90	68	37	57	88	76	67	66	61	68	83	59	62	72	53	63	68	58	60	56	63.5
	min.	34	30	28	30	39	40	30	36	36	34	38	62	36	32	32	40	51	49	42	35	49	56	53	54	52	40	35	48	52	48	53	41.7
Storm Lk.	max.	..	..	..	..	..	..	..	..	..	..	75	84	80	48	45	80	79	68	64	68	73	76	70	58	72	73	60	65	64	57	57	67.4
	min.	..	..	..	..	..	..	..	..	..	..	58	60	46	34	30	33	47	46	44	27	49	53	49	50	52	40	32	45	49	50	50	45.0
Stuart	max.	59	68	51	59	59	67	67	75	73	71	69	84	83	61	44	79	78	74	73	67	66	80	73	70	80	73	60	75	69	69	61	68.6
	min.	45	38	27	27	39	34	45	40	45	39	36	45	60	34	33	33	32	46	46	34	47	52	58	55	56	44	35	50	42	50	46	42.3

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF MAY, 1907—CONTINUED.

STATIONS		DATE																															NAME
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Thurman	max.	59	63	57	54	55	60	68	68	70	72	75	88	78	59	58	87	84	78	75	71	84	93	84	79	79	74	65	72	68	57	57	70.7
	min.	28	36	26	24	40	38	37	38	35	39	38	60	50	37	34	28	52	54	49	40	48	66	60	61	61	47	29	40	49	52	52	43.5
Tipton	max.	55	63	53	53	47	57	67	68	78	68	57	80	79	75	45	65	79	77	71	65	60	75	65	58	78	73	60	66	60	65	68	65.5
	min.	35	38	35	29	39	42	45	48	42	43	33	44	60	45	38	36	54	54	52	40	46	51	53	51	53	47	38	41	50	49	54	44.7
Toledo	max.	57	65	55	50	55	64	67	64	78	71	58	83	82	76	43	74	76	72	70	62	58	80	75	61	79	76	57	67	62	65	62	66.3
	min.	30	35	29	22	39	34	43	40	37	36	28	41	61	42	34	32	55	47	46	32	42	49	57	51	53	44	34	39	46	51	51	41.3
Wapello	max.	55	60	52	51	50	46	55	62	71	77	70	74	78	79	74	57	75	70	70	62	59	81	74	68	75	70	56	62	68	61	64	65.4
	min.	32	33	34	29	29	40	39	42	47	43	45	45	46	61	39	43	54	56	51	40	44	52	60	55	58	36	39	42	50	53	53	45.2
Wash'g'n	max.	57	64	52	52	48	64	66	72	80	61	59	83	82	73	45	69	77	75	72	62	56	84	72	68	82	71	59	62	69	65	67	66.4
	min.	33	36	33	21	39	40	42	44	40	40	31	46	60	43	36	33	54	54	50	36	44	51	60	55	58	43	35	40	48	52	54	43.8
Washta	max.	64	50	46	50	60	66	65	66	82	54	70	89	80	45	54	88	78	70	70	65	70	74	63	60	71	60	63	70	60	60	55	65.1
	min.	22	30	27	18	34	29	27	32	39	32	37	52	45	34	32	28	43	42	46	23	48	59	52	52	54	42	30	43	46	44	51	38.2
Waterloo*	max.	59	68	41	52	55	67	65	64	81	51	61	85	82	46	45	75	75	75	68	64	61	78	54	57	79	54	58	69	62	64	63	64.1
	min.	29	35	31	22	41	32	39	41	41	35	39	34	61	44	35	31	37	47	46	32	46	49	52	51	52	54	31	41	45	51	52	41.0
Waukee	max.	57	63	55	50	59	63	66	69	80	72	64	86	85	59	48	79	79	74	74	67	57	81	75	69	79	74	63	67	63	57	54	67.4
	min.	32	35	28	24	38	39	43	39	42	36	32	49	59	49	38	32	56	53	48	32	47	49	52	54	56	40	33	41	51	51	51	42.6
Waverly	max.	59	72	59	51	58	64	64	62	79	58	58	85	82	68	42	73	74	72	64	60	63	79	60	56	79	73	57	68	62	62	59	65.2
	min.	28	33	33	21	38	33	37	39	38	33	29	47	62	42	35	33	51	45	46	32	46	52	50	50	52	43	34	39	45	52	51	40.9
Websr. Cy	max.	62	71	46	56	65	71	70	62	83	59	61	86	86	58	41	82	77	74	85	65	58	84	77	60	79	68	59	70	64	62	57	67.7
	min.	25	29	29	17	40	29	31	35	36	33	29	57	58	41	34	30	51	44	45	28	47	48	51	51	53	43	32	42	45	50	51	39.8
W. Bend	max.	61	51	42	54	62	71	67	67	70	50	63	87	78	49	38	83	73	67	59	65	60	73	58	56	77	62	63	73	73	61	57	63.5
	min.	26	30	26	20	34	27	30	33	41	29	39	49	47	36	32	23	45	44	42	29	43	46	50	50	51	41	29	40	46	46	50	37.8
Whitten	max.	59	67	58	54	60	67	65	65	79	75	60	85	85	73	44	75	77	74	68	66	63	81	79	60	78	77	60	68	65	64	58	68.0
	min.	29	32	27	14	38	35	38	37	38	33	30	45	57	38	32	30	52	47	45	29	47	47	49	49	51	42	32	39	45	49	46	39.4
Wilton Jn	max.	58	62	61	51	50	62	69	71	78	77	57	82	80	47	46	65	77	76	72	72	65	78	75	62	78	77	76	65	65	65	68	67.3
	min.	30	31	33	23	37	37	40	41	37	40	28	57	47	36	34	33	54	50	52	34	41	52	50	52	55	46	33	36	48	54	52	41.7
Winterset	max.	56	66	56	50	58	62	65	68	80	76	66	86	84	65	43	78	80	79	75	70	60	81	77	73	81	79	64	70	64	59	55	68.6
	min.	32	35	28	25	39	39	43	37	42	36	34	52	62	39	34	33	55	50	48	33	43	51	59	57	58	46	33	41	51	51	52	43.2
Woodb'rn	max.	57	66	57	49	55	64	65	69	80	70	62	90	82	67	45	76	79	74	76	68	63	87	87	79	82	75	60	68	60	60	62	68.8
	min.	28	35	29	19	38	37	38	35	32	37	29	50	61	39	34	28	59	52	48	32	45	50	59	59	59	46	34	37	50	50	52	42.0
Zearing	max.	57	67	41	50	58	56	65	65	81	63	65	87	83	62	44	79	80	74	70	66	5[illegible]	82	73	60	80	73	58	67	60	55	64	66.1
	min.	28	34	22	18	37	30	35	37	35	35	24	46	58	40	34	29	63	39	45	30	38	38	52	50	45	42	34	39	44	40	46	38.3

* At these stations thermometers are read in the morning; the maximum temperature then observed appears in the maximum column for the preceding day, on which it nearly always occurs.

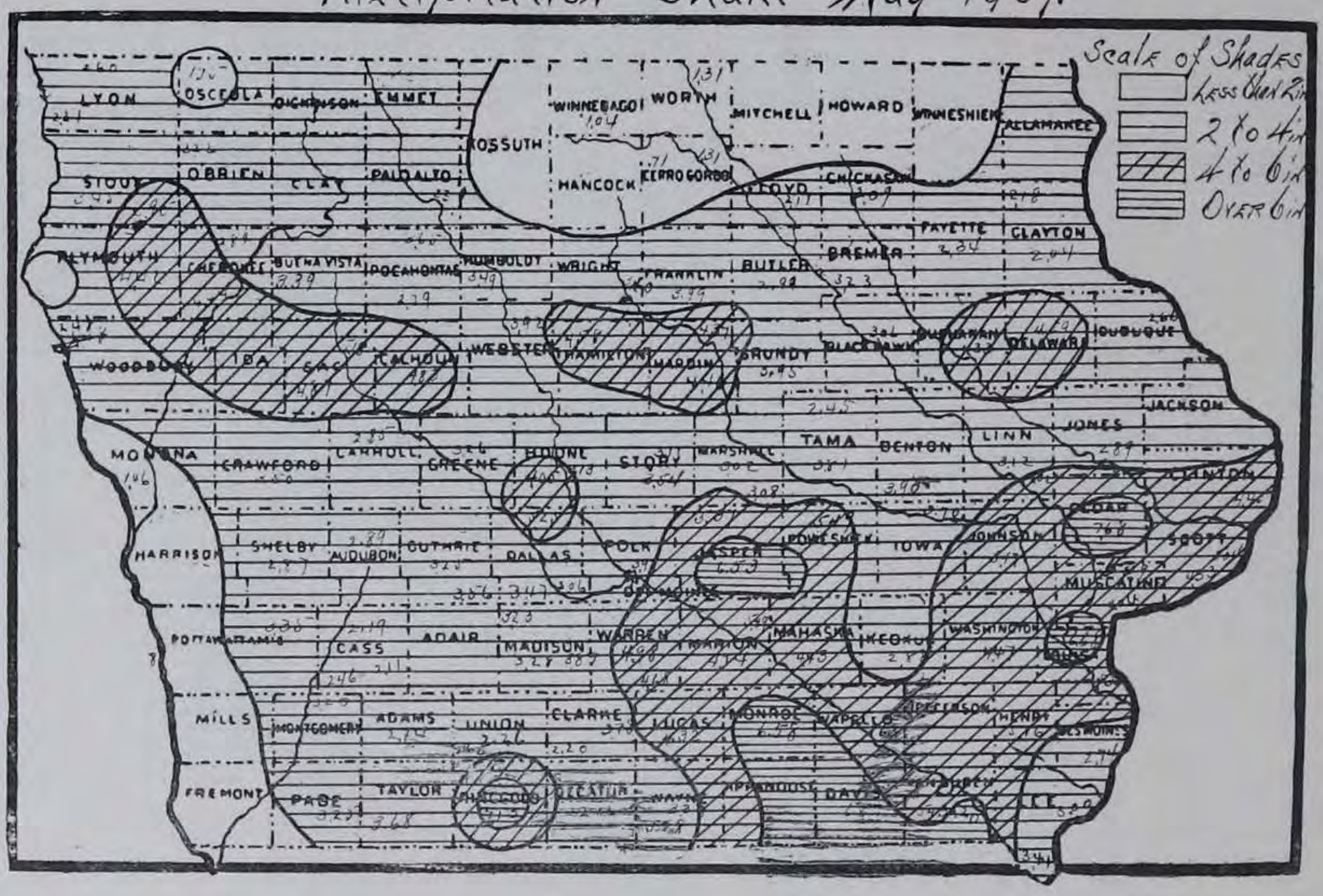
DAILY AND MONTHLY PRECIPITATION FOR MAY, 1907.

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	.08	....	.07	T	....	....	....	....	....	....	....	.19	.10	....	....	....	....	....	.66	....	.03	.01	....	.05	....	....	....	.40	.67	2.26
Albia	....	....	....	.16	....	.04	....	....	....	....	....	....	....	.65	.08	.03	....	....	T	....	....	.74	....	2.40	.75	.02	.01	....	....	T	1.70	6.58
Algona	....	T	....	....	....	....	....	....	....	.03	....	....	T	.04	.10	.02	.13	....	....	....	.28	.03	.02	.52	.22	.03	....	....	....	T	.55	1.97
Allerton	....	....	.23	....	.03	....	....	....	....	....	....	....	....	.56	.06	T	....	T	.12	....	.87	....	.09	.27	.38	T	....	....	T	.22	.45	3.28
Alta	....	....	T	....	....	....	....	T	....	....	....	....	....	....	.10	.19	.30	....	.03	....	.60	.03	.12	1.14	.24	.03	.08	....	....	....	.53	3,39
Alta (near)	....	....	....	....	....	....	T	....	....	....	....	....	....	.06	.07	.17	....	.05	....	T	.55	.04	.38	1.50	....	.12	....	....	....	.02	.81	3.77
Alton	....	....	....	....	....	....	....	....	....	....	....	....	.10	.07	.08	....	.14	....	....	T	.24	.04	.85	1.24	2.95	.05	....	....	....	....	.19	5.95
Amana	....	....	.10	....	.05	....	....	....	....	T	....	....	....	.44	.03	....	....	....	....	....	T	.22	1.92	.05	.63	.03	....	....	....	.13	.10	3.70
Ames	....	....	.01	....	.06	....	....	....	....	....	....	....	....	.05	.03	.02	.04	....	....	....	.31	....	.81	.11	.33	.07	.01	....	.01	.15	1.53	3.54
Atlantic	....	....	.15	....	T	....	....	....	....	....	....	....	....	.10	T	....	....	....	....	....	.80	.10	.21	....	....	T	....	....	.25	.15	.43	2.19
Audubon	....	....	.02	....	.17	....	....	....	.03	....	....	....	....	.01	.08	....	.02	....	.01	....	.80	.01	.73	.02	....	....	....	....	.18	.18	.63	2.89
Baxter	....	.01	.07	....	.02	....	....	....	....	....	....	....	....	.23	.05	....	.02	....	....	....	.32	T	1.05	.01	.33	.07	....	....	....	.33	2.86	5.37
Bedford	....	T	.07	....	.09	T	....	....	....	....	....	....	....	.33	.09	....	.08	.03	....	....	2.35	....	....	....	....	T	....	....	....	.38	.26	3.68
Belle Plaine	....	....	.02	....	.03	....	....	....	....	....	....	....	....	.27	.10	....	....	....	....	....	....	....	1.45	.65	.21	.20	....	....	.15	....	.82	3.90
Bloomfield	....	....	.18	....	.05	....	....	....	....	....	....	....	....	1.05	.05	....	....	....	.09	.65	....	....	1.13	1.01	.47	....	....	....	....	.03	1.66	6.37
Bonaparte	....	....	.25	....	.08	....	....	....	....	....	....	....	....	1.70	.03	....	....	....	.13	....	.35	....	.06	.42	2.92	....	....	....	.03	.08	.15	6.20
Boone	....	....	.02	T	.07	.02	....	T	....	T	....	....	....	....	.02	.09	.02	....	T	....	....	.31	1.06	.12	.14	....	.10	....	....	T	1.16	3.13
Britt	....	....	....	....	....	....	....	.05	....	.04	....	....	....	.07	.06	....	.06	....	....	....	.09	....	.09	.34	.43	.04	....	....	....	T	.54	1.81
Buckingham	....	....	T	T	.05	....	....	....	T	....	....	....	....	.15	.07	T	....	....	....	....	T	T	.60	.25	.25	....	....	....	.03	.97	.08	2.45
Burlington	....	....	....	.25	....	.18	.01	....	....	....	....	....	....	.61	.46	.08	....	....	.16	.16	....	.07	.02	.26	.31	.05	T	....	T	....	.12	2.74
Carroll	....	....	....	....	.04	....	....	....	....	....	....	....	....	....	.05	.12	.09	....	.05	....	.20	.69	.34	.40	.01	.04	.13	....	....	....	.69	2,85
Cedar Rapids	....	....	....	.05	....	.05	....	....	....	T	....	....	....	.36	.04	T	T	....	....	....	....	T	1.51	.40	.49	T	.02	....	....	T	.20	3.12
Chariton	....	....	.12	....	T	T	....	....	....	....	....	....	....	.28	.12	....	....	....	....	....	.75	....	.15	1.07	.40	....	....	....	T	.15	1.28	4.32
Charles City	....	....	....	....	....	....	T	.03	....	.04	....	....	.04	.36	.03	.01	.01	....	....	....	.01	.06	.17	.33	.17	.05	....	....	T	.05	.75	2.11
Clarinda	....	....	T	.09	....	....	....	....	....	....	....	....	....	.08	T	.08	.09	.03	.03	....	1.62	....	....	.63	.03	....	....	....	T	....	.57	3.25
Clear Lake	....	....	....	....	....	....	....	.05	....	.01	....	....	....	....	T	....	....	....	....	....	....	....	.05	.50	.10	....	....	....	....	....	....	.71
Clinton	....	....	.22	....	.11	....	....	....	....	....	....	....	....	.56	T	....	....	....	....	....	.01	....	3.08	....	.21	.20	....	....	.02	.04	....	4.45
Columbus Junc.	....	....	.10	....	.07	....	....	....	....	....	....	....	....	1.13	T	....	....	....	....	....	T	.64	2.80	.55	1.19	.09	....	....	T	.11	....	6.68
Corning	....	T	.18	....	T	T	....	....	....	....	....	....	....	.15	.19	....	....	....	....	....	1.57	....	....	T	....	T	....	....	T	.68	T	2.74
Corydon	....	....	.15	....	.03	....	....	....	....	....	....	....	....	.39	.03	T	....	....	....	....	.84	....	....	.40	.32	T	....	....	T	.38	.83	3.37
Creston	....	....	T	.02	.08	....	....	....	....	....	....	....	....	.26	.07	.12	.02	....	T	....	.22	.62	.01	T	.10	....	....	....	....	T	1.10	2.62
Cumberland	....	....	....	....	.06	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	.65	....	....	.50	.10	.01	....	....	....	.10	.84	2.46
Davenport	....	....	.22	....	.06	....	....	....	....	T	....	....	....	.61	.01	....	T	....	T	....	T	.99	1.56	.06	.49	.26	....	....	T	.07	T	4.33
Decorah	....	....	....	....	....	....	....	.09	....	.03	....	....	....	.24	T	.03	T	....	....	....	T	.30	.05	.25	.33	.04	....	....	....	T	.46	1.82
Delaware	....	....	.07	....	.02	....	....	T	....	....	....	....	....	.35	.04	....	T	....	....	....	.08	.06	1.59	1.81	.45	.02	....	....	T	....	.10	4.59
Denison	....	....	.01	....	....	....	T	....	T	....	....	....	....	.02	.23	....	....	....	....	....	.61	....	1.06	.88	....	.11	....	....	....	.03	.55	3.50
Des Moines	....	T	.11	....	.01	.01	....	....	....	....	....	....	.30	.04	.06	T	T	T	....	....	.25	.06	.52	.36	.73	.02	....	....	T	.74	.76	3.97
De Soto	....	T	.20	....	....	....	....	....	....	....	....	....	....	.12	.09	....	....	....	....	....	.33	.01	1.20	.13	.20	.02	....	....	....	.32	.85	3.47
Dows	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	.04	....	....	....	....	.14	.03	.37	1.00	.64	.12	....	....	....	.08	.76	3.20
Dubuque	....	T	.02	....	.06	....	....	T	....	T	....	....	.34	.57	T	T	.01	....	....	....	T	.03	.45	1.06	.10	T	....	....	....	T	.02	2.66
Earlham	....	T	.07	....	T	....	....	....	....	....	....	....	....	.10	.06	....	....	....	....	....	.70	....	.79	.08	.21	.02	....	....	T	.39	.81	3.23
Elkader	....	T	....	....	.05	....	....	T	....	.04	....	....	....	.40	....	....	....	....	....	....	.05	.05	.70	....	.45	.08	....	....	....	.22	....	2.04
Elliott	....	....	....	.16	.08	....	....	....	....	....	....	....	....	.06	.10	T	.11	....	....	....	1.50	....	.07	.20	....	.10	....	....	.11	.21	.50	3.20
Estherville	....	....	....	....	....	....	....	....	....	T	.10	....	....	....	.15	.17	....	T	....	....	.25	.12	.10	.60	2.25	.08	T	....	....	....	T	3.82
Fayette	....	....	T	....	.05	....	....	.07	....	.07	....	....	T	.05	T	T	T	....	....	....	.17	T	.97	....	.23	.13	....	....	T	....	.60	2.34
Forest City	....	....	....	....	....	....	....	T	....	....	T	....	....	....	.10	.08	T	T	....	....	....	T	T	.28	.33	.05	T	....	....	....	.20	1.04
Fort Dodge	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.14	.07	.15	T	T	....	T	.28	.63	1.30	.33	.15	.12	....	....	.05	.70	3.92
Fort Madison	....	....	.25	....	T	....	....	....	....	....	....	....	....	1.46	.15	....	....	.21	....	....	.13	....	....	.56	.14	.10	....	....	T	T	....	3.00
Gilman	....	....	.09	....	T	....	....	T	T	....	....	....	....	.21	T	....	T	....	....	....	....	.09	.57	....	.21	.05	....	....	....	.41	1.45	3.08
Grand Meadow	....	T	T	....	T	....	T	.10	....	.08	....	....	....	.13	T	T	....	....	....	....	.02	.10	.13	.50	.50	.12	....	....	....	....	.50	2.18
Greene	....	....	....	....	....	....	....	....	....	.10	....	....	....	.25	.03	T	.04	....	....	....	....	.05	.23	.73	.15	.06	....	....	.05	T	1.30	2.99
Grinnell	....	....	.15	....	....	....	T	....	....	....	....	....	....	.20	.05	.02	T	T	.02	....	.25	.05	1.65	.11	.21	.05	....	....	T	.28	2.45	5.49
Grundy Center	....	....	T	....	....	....	....	....	....	....	....	....	....	.36	T	....	....	....	....	....	....	.11	.48	1.10	.35	T	....	....	T	.15	1.40	3.95
Guthrie Center	....	....	.08	....	.08	....	....	....	....	T	....	....	....	.07	.15	....	.02	....	.02	....	.68	T	.82	.03	.04	.07	....	....	.07	.13	.99	3.25
Hampton	....	....	....	....	T	....	....	....	....	.03	....	....	....	.02	.08	.10	....	....	....	....	.08	.14	1.17	.43	....	.12	....	....	.08	.15	1.59	3.99
Hancock	....	....	.09	....	.11	T	....	....	....	....	....	....	....	T	.05	T	....	....	T	....	1.08	T	.21	.95	....	.13	....	....	.11	.25	.37	3.35
Harlan	....	....	.01	....	.24	....	....	....	.03	....	....	....	....	.02	.14	T	....	....	.02	....	.65	.02	.24	.57	.01	.08	....	....	.11	.13	.60	2.87
Hopeville	....	T	.05	....	.04	T	....	....	....	....	....	....	....	.12	.08	T	....	....	....	....	.55	....	.24	.05	....	T	....	....	T	.64	.43	2.20
Humboldt	....	....	....	....	....	....	....	....	....	....	....	....	....	.04	....	....	.10	....	.12	....	.40	.01	.10	.80	1.17	.14	....	....	....	....	.61	3.49
Independence	....	T	T	....	.24	....	....	....	....	T	....	....	....	.30	T	....	....	....	....	....	....	.06	.53	3.06	.11	T	....	....	.03	T	....	4.33
Indianola	....	....	.15	....	1.04	T	....	....	....	....	....	....	....	.32	.09	.01	....	....	....	....	.58	.11	.25	.42	.78	.01	....	....	T	.45	77	4.98
Inwood	....	T	....	....	....	.02	.01	....	....	.01	....	....	.34	.16	.15	....	....	....	....	T	T	.03	.21	1.23	.01	.03	....	....	....	....	.01	2.21
Iowa City	....	....	....	.10	T	.11	....	....	....	....	....	....	....	1.11	.01	.01	....	....	....	....	....	....	2.24	.69	.95	....	.01	....	....	....	.24	5.47
Iowa Falls	....	....	T	....	T	....	....	T	....	....	....	....	....	T	T	.05	.03	T	T	....	T	T	.46	2.73	.41	T	.07	....	....	.02	.60	4.37
Jefferson	....	....	T	....	T	....	....	....	....	....	....	....	....	.14	.07	T	.35	....	T	....	.47	T	1.08	....	T	.09	....	....	.13	....	.93	3.26
Keokuk	....	....	.16	....	.13	.01	.01	....	....	....	....	....	....	1.52	.05	....	T	.26	....	....	.21	....	T	1.01	....	....	....	....	....	.07	.01	3.44
Keosauqua	....	....	....	.18	T	.07	....	....	....	....	....	....	....	1.20	.35	T	.05	T	.15	....	....	.47	....	.09	2.51	....	.03	....	T	....	.33	5.43
Knoxville	....	....	.14	....	.10	....	....	....	....	....	....	....	....	.20	.08	....	T	....	....	....	.38	.04	.30	.15	.90	.02	....	....	T	.33	2.10	4.74
Lacona	....	.30	....	....	.25	....	....	....	....	....	....	....	....	.30	T	....	....	....	....	....	1.10	....	.22	.48	.40	.08	....	....	....	.45	1.10	4.68
Larrabee	....	T	....	....	....	....	T	....	....	....	....	....	....	.05	.13	.02	.06	.01	....	....	.38	.01	.25	1.53	....	.03	....	....	....	.03	.39	2.89
Le Claire	....	....	....	.22	....	.12	....	....	T	....	....	....	....	.31	.25	.01	....	....	....	....	T	.02	2.60	.40	.82	.08	.06	....	....	.06	.09	5.04
Le Mars	....	T	....	....	....	....	T	....	....	....	....	....	.08	.03	.06	....	.12	....	.05	....	.10	.02	.80	1.80	1.00	.13	....	....	....	....	.23	4.42
Lenox	....	....	.10	....	.10	T	....	....	....	....	....	....	....	.30	.05	....	....	....	....	....	1.00	....	....	.10	.15	....	....	....	....	.41	.14	2.35
Leon	....	....	.09	....	.02	....	....	....	....	....	....	....	....	.19	.04	....	....	....	.06	....	1.08	....	....	.20	....	....	....	....	....	.67	.51	2.86
Little Sioux	....	....	....	....	T	....	....	....	....	....	....	....	....	.05	.03	....	....	....	.05	....	.32	....	.11	.29	.03	.06	....	....	.03	....	.38	1.35
Logan	....	....	T	....	.18	....	....	....	T	....	....	....	....	T	.10	....	T	....	T	....	.66	....	.49	.10	....	.16	....	....	....	.08	....	1.77
Marshalltown	....	....	T	.07	.01	T	....	....	....	....	....	....	....	.30	.02	.06	T	....	....	....	....	....	.49	.32	.22	....	.09	....	....	.02	1.42	3.02
Mason City	....	....	....	....	....	....	....	.02	....	.02	....	....	....	.02	.03	....	.05	....	....	....	T	T	.10	.15	.15	T	....	....	....	....	.77	1.31
Massena	....	....	.10	....	.05	....	....	....	....	....	....	....	....	.10	.18	....	.01	....	....	....	.53	....	.07	.03	.02	.01	....	....	.02	.23	.76	2.11
Merrill	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	....	....	.02	....	.03	.30	....	.14	1.10	1.05	.05	.05	....	....	....	.14	2.90
Mt. Ayr	....	....	.15	....	.05	T	....	....	....	....	....	....	....	.16	.16	....	....	.02	....	....	2.20	....	3.25	.10	.10	.05	....	....	.02	.65	.22	7.13
Mt. Pleasant	....	....	.28	T	.10	....	....	....	....	....	....	....	....	1.59	.05	....	....	....	T	....	.21	....	.35	.56	2.32	.14	....	....	.03	.12	.01	5.76
Mt. Vernon	....	....	.14	....	.06	....	....	....	....	....	....	....	....	.65	.02	....	....	....	....	T	....	.25	2.50	.11	.38	.08	....	....	T	T	.13	4.32
Muscatine	....	....	....	.10	....	.10	....	....	.03	....	....	....	....	1.08	.17	.02	....	....	T	....	....	....	1.45	.35	.48	.02	.12	....	....	....	.12	4.04
Nevada	....	....	.03	....	....	....	....	....	....	....	....	....	....	.06	.05	.02	....	....	....	....	.51	.02	.63	T	.47	.07	....	....	T	.15	1.10	3.11
New Hampton	....	....	....	....	....	....	T	.05	....	.05	....	....	....	.08	T	.03	T	....	....	....	T	.14	.35	.38	.30	.05	....	....	....	T	.66	2.09
Newton	....	....	.15	....	T	....	....	....	....	....	....	....	....	.20	.03	....	....	....	....	....	.34	.04	1.03	....	.30	.04	....	....	....	.40	4.00	6.53
Northwood	....	....	....	....	....	....	....	.03	....	.01	....	....	....	.03	.05	T	....	....	....	....	....	.05	.20	.10	.25	.02	....	....	....	....	.57	1.31
Odebolt	....	....	....	....	....	....	T	T	....	....	....	....	....	.04	.18	....	.25	.04	....	....	.64	....	.68	2.12	....	.20	....	....	....	....	.72	4.87
Ogden	....	....	T	....	.11	....	....	....	....	....	....	....	....	T	.07	.21	.17	....	....	....	.31	....	1.45	.08	.08	.08	....	....	....	.08	1.41	4.05
Olin	....	....	.12	....	.07	....	....	T	....	....	....	....	....	.86	T	....	....	....	....	....	....	....	.99	.07	.78	....	....	....	T	T	....	2.89
Omaha, Neb	....	T	.13	....	.18	T	....	....	....	....	....	....	....	.01	.01	.05	.01	T	....	T	.11	.08	.25	.31	....	T	....	....	.11	.30	.03	1.58
Onawa	....	....	....	T	....	....	T	....	....	....	....	....	....	.05	.04	....	T	T	.02	....	T	.03	.48	.34	.02	.11	....	....	....	....	.37	1.46
Oskaloosa	....	....	.12	....	.04	T	....	....	....	....	....	....	.60	.05	.04	....	....	....	....	....	.25	.23	.41	.15	.24	.01	....	....	T	.16	2.13	4.43
Ottumwa	....	....	.02	....	.05	....	....	....	....	....	....	....	....	1.20	.05	....	....	....	....	....	.56	....	....	1.85	....	....	....	....	....	....	1.90	5.63
Pacific Junction	....	....	.18	....	.17	.04	....	....	....	....	....	....	....	.02	T	.13	....	.14	T	T	.21	....	.32	T	....	T	....	....	.09	.23	.35	1.88
Pella	....	....	.14	....	.06	T	....	....	....	....	....	....	....	.22	.05	....	....	....	....	....	.22	.08	.21	.09	.37	.02	....	....	....	.18	3.85	5.49
Perry	....	T	.04	....	.07	....	....	....	T	....	....	....	....	T	.08	T	.18	....	....	....	.31	....	1.84	T	1.14	T	....	....	T	....	1.59	5.25
Plover	....	T	T	....	....	....	T	....	....	T	....	....	....	.08	.21	....	.40	....	....	....	.38	T	.29	1.40	....	.08	....	....	T	....	.81	3.65
Pocahontas	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.26	.06	.09	.01	....	....	.38	.08	.08	.78	.06	.05	....	....	....	....	.94	2.79
Ridgeway	....	....	....	T	....	....	T	.22	....	.14	T	T	.04	.16	.01	T	.03	T	....	....	.06	.19	.12	.12	.36	.09	....	....	....	T	.36	1.90
Rock Rapids	....	....	....	....	....	....	....	T	T	.05	....	....	.50	.30	.50	....	....	....	....	....	....	....	T	1.00	.25	T	....	....	....	....	....	2.60

DAILY AND MONTHLY PRECIPITATION FOR MAY, 1907—CONTINUED.

STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Rockwell City	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	.06	....	.06	....	....	.45	....	.40	2.50	....	.35	....	....	....	.06	.75	4.83
Sac City	....	....	....	....	....	....	....	....	....	....	....	....	....	.03	.13	T	....	....	.12	....	1.03	....	.59	2.38	....	.19	....	....	....	T	.71	5.18
St. Charles	....	T	.06	....	.03	.03	....	....	....	....	....	....	....	.43	.08	.02	....	....	....	....	.75	....	.37	.60	.16	.04	....	....	T	.57	.73	3.87
Sheldon	....	T	....	....	....	....	T	....	....	.05	....	....	.25	.05	.20	T	T	....	....	....	.05	.05	.70	.90	.70	.02	....	....	....	....	.25	3.22
Sibley	....	....	....	....	....	....	....	T	....	....	.05	....	.22	....	.20	T	....	....	....	....	.10	T	.22	.22	.71	T	.02	....	....	....	.01	1.75
Sigourney	....	....	.43	....	.05	T	....	....	....	....	....	....	....	.60	.06	....	....	....	....	....	.13	.17	.40	.03	....	.04	....	....	T	.05	.92	2.88
Sioux Center	....	T	....	....	....	....	T	....	....	T	....	....	T	.04	.03	....	.05	....	....	T	.03	....	.60	1.70	.85	.04	....	....	....	....	.11	3.45
Sioux City	....	T	....	T	....	....	T	....	....	....	....	T	.02	.08	T	.04	T	.07	....	....	.03	.02	.91	1.05	T	.14	....	....	....	....	.12	2.48
Stuart	....	....	.05	....	.04	....	....	....	....	....	....	....	....	.05	.11	.04	....	.12	....	....	.65	.65	....	.01	....	....	....	....	....	.47	1.37	3.56
Thurman	....	....	.09	....	.14	T	....	....	T	....	....	....	....	T	T	.03	....	.18	....	T	....	T	.40	.10	....	T	....	....	.02	.26	.21	1.43
Tipton	....	....	.10	....	.09	....	....	....	....	....	....	....	....	1.72	....	....	....	....	....	....	....	....	4.50	.68	.40	....	....	....	....	.19	....	7.68
Toledo	....	....	.50	....	....	....	....	....	....	....	....	....	....	.20	.05	....	....	....	....	....	....	....	.65	....	.16	....	....	....	....	....	2.25	3.81
Wapello	....	....	.07	....	....	.07	....	....	....	....	....	....	....	1.12	.02	....	....	....	....	....	....	.05	2.25	.03	1.41	.22	....	....	T	.15	....	5.39
Washington	....	....	.07	....	.06	....	....	....	....	....	....	....	....	1.62	....	....	....	....	....	....	....	.02	.99	....	1.54	.05	....	....	....	....	.12	4.47
Washta	....	T	....	....	....	....	....	....	....	....	....	....	....	.02	.09	.06	....	.07	....	....	.32	T	2.06	.88	....	.26	....	....	....	T	.68	4.44
Waterloo	....	T	T	....	.07	....	....	T	....	T	....	....	....	.15	.07	....	T	....	....	....	....	.06	.17	1.54	.22	.11	....	....	T	.67	....	3.06
Waukee	....	T	.10	....	T	T	....	....	T	....	....	....	....	.09	.04	....	.02	....	....	....	.35	....	1.07	T	....	.04	....	....	T	.35	1.00	3.06
Waverly	....	....	....	....	.01	....	T	....	....	.01	....	....	....	.36	.04	.02	.06	....	....	....	T	.02	.55	.90	.19	.12	....	....	.03	T	.92	3.23
Webster City	T	....	....	....	T	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	.27	.04	1.34	1.86	.08	.12	....	....	.12	T	.70	4.58
West Bend	....	....	....	....	....	....	T	....	....	.03	....	....	.01	.02	.06	.13	T	....	....	....	.45	.01	.07	.80	.23	.05	....	....	....	T	.53	2.39
Whitten	....	....	T	....	....	....	T	....	T	T	....	....	....	.48	T	T	.10	....	....	....	T	T	.75	.62	.37	.06	....	....	T	.12	1.90	4.40
Wilton Junction	....	....	.14	....	.09	....	....	....	....	....	....	.82	.24	....	....	....	....	....	....	....	....	3.10	.40	.59	....	.11	....	....	....	T	....	5.49
Winterset	....	T	.10	....	.07	T	....	....	....	....	....	....	....	.28	.08	....	....	....	T	....	.82	....	.46	.03	.38	T	....	....	T	.36	.70	3.28
Woodburn	....	....	.18	....	.04	.02	....	....	....	....	....	....	.13	.05	.08	....	....	....	T	....	.73	....	.58	.54	.18	T	....	....	....	1.20	.05	3.78

Precipitation Chart May 1907.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR JUNE, 1907.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1907

THE IOWA WEATHER AND CROP SERVICE

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Allerton	Rex Shriver
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Alta (near)	W. J. Minard
Alton	W. S. Slagle
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Ames	Iowa State College
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Baxter	W. R. Vandike
Bedford	E. E. Healy
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Bonaparte	Hon. B. R. Vale
Boone	Carl Fritz Henning
Britt	G. P. Hardwick
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Carroll	Frank Hughes
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Chariton	C. C. Burr
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De Soto	R. D. Minard
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Elliott	Henry Barnes
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Greene	J. L. Cole
Greenfield	Dr. Geo. Brooks
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Guthrie Center	D. G. Beardsley
Hampton	E. C. Grenelle
Hancock	W. Armstrong
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Washington	Wm. A. Cook
Washta	H. L. Felter
Waterloo	M. L. Newton
Waukee	E. J. Leonard
Waverly	H. S. Hoover
Webster City	C. D. Carpenter
Whitten	Dr. Frank P. Butler
Wilton Junction	Wm. Lang
Winterset	Dr. Robert S. Cooper
West Bend	Phil. Dorweiler
Woodburn	C. B. McDonough
Zearing	C. P. Bean

*U. S. Weather Bureau.

WEATHER-CROP OBSERVERS.

Reporting for the Weekly Bulletin.

Agency	J. H. Van Zandt
Albia	E. B. Morris
Alta	Jonas Cushman
Audubon	A. H. Edwards
Blairstown	T. H. Weil
Burt	R. Jain
Centerville	Jacob Harter
Charles City	W. B. Towner
Clarksville	F. M. Russell
Council Bluffs	L. Prouty
Correctionville	Hon. W. B. Chapman
Danville	Sherman Matthews
Dunlap	Hon. B. F. Roberts
Fruitland	R. T. Hummel
Geneva	Wm. H. Thompson
Hartwick	Fred McCulloch
Harlan	H. B. Kees
Humeston	Hon. H. S. Moore
Ida Grove	P. E. Lund
Independence	George H. Wilson
Indianola	H. D. Guthrie
Manson	J. D. Skinner
Marshalltown	Hon. S. B. Packard
Mount Pleasant	W. S. Wright
Milton	Hon. E. C. Holland
Monroe	J. A. Dibel
Nevada	Geo. C. White
Oakville	Z. W. Steele
Orange City	H. J. Vande Waa
Pella	J. H. Ver Steeg
Preston	J. G. Storm
Pittsburg	G. C. Duffield
Portland (Nora Springs, P. O.)	Arthur Pickford
Platte (Creston R. D.)	M. H. Dibel
Red Oak	Hon. C. L. Stratton
Seymour	L. B. Sager
Stuart	W. W. Bailey
Van Horne	Spencer Smith
Weldon	Ed Worden
Winterset	H. A. Kinsman
West Branch	Wrigley Smith
West Union	H. B. Blackman
Woodward	George Swisher

U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

CENTRAL OFFICE: WASHINGTON, D. C.

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R. SAGE.....Section Director.
GEO. M. CHAPPEL, Assistant Director.

VOL. XVIII. DES MOINES, IOWA, JUNE, 1907. No. 6

IOWA CROP REPORT, JULY 1, 1907.

Following is a summary of reports received from crop correspondents of the Iowa Weather and Crop Service, showing the estimated condition of the staple crops July 1, 1907.

CORN, 76 per cent; spring wheat, 90; oats, 89; barley, 90; rye, 94; flax, 91; hay crop, 78; pastures, 92; potatoes, 98; apples, 42; grapes, 80.

The relatively low estimate of corn is due to the deficient stand, as compared with the average.

CONDITIONS LAST YEAR. Corn, 99 per cent; wheat, 94; oats, 84, barley, 91; rye, 93; flax, 92; potatoes, 94; hay, 75; apples, 70; grapes 85.

JUNE WEATHER AND CROPS.

The average daily temperature of June for the state was 66.5°, which is about 3° below the normal. There have been but two cooler Junes since state-wide records have been compiled. In 1902 the average was 65.2°, and in 1903 it was 64.6°. Following the coldest April and May on record, June came in with nearly seasonable temperature, but the daily average of the first decade was 6° to 8° below the normal, with almost continuous wet and partly cloudy weather from the 2d to the 11th. The second decade brought more sunshine and higher temperature, with conditions more favorable for field work and growth of crops. The average rainfall for the month was 5.35 inches, which is 0.79 of an inch above the normal. The northern section received an average of 5.67 inches, the central section 4.98 inches, and the southern section 5.41 inches. The greater part of the rainfall came about the 3d to the 10th, and from the 21st to the 25th. For the state there was an average of 14 clear and 9 partly cloudy days, so there was sufficient sunshine to promote normal growth of cereals, and an abundance of moisture for pasture, potatoes and garden truck. In the larger part of the state conditions were favorable for cultivation of corn during most of the latter half of the month, and except on very low and undrained lands the corn fields were fairly well cleaned out before the first of July. As compared with the average, the corn crop was about eight to ten days late at the close of June, and the stand was 20 to 30 per cent below the normal. June as a whole was a fairly good month for the staple crops, especially the grasses and small grain. The pastures were at their best most of the month, and meadows were greatly improved by the copious showers, giving promise of a better hay crop than was deemed possible at the close of May. A good start was made in harvesting clover during the last week in June. Timothy meadows were in bloom, and other grasses reinforced the meadows where soil conditions were favorable. Early potatoes were extra good and the late planted fields developed finely. All kinds of garden truck made luxuriant growth. Among the fruits the strawberry crop brought a fair yield, and other varieties of berries were quite promising at the end of June. Apples were doing well in the Northern section, but in the Southern section they were very much below an average.

The following table gives the mean temperature and average precipitation in Iowa, for each June from 1890 to 1907, inclusive.

Years	Temperature Degrees	Precipitation Inches
1890	72.7	7.76
1891	69.1	5.36
1892	69.2	5.19
1893	71.2	3.93
1894	73.2	2.67
1895	69.7	4.32
1896	69.1	3.16
1897	69.1	3.81
1898	71.4	4.72
1899	70.7	5.04
1900	69.7	3.98
1901	72.3	3.71
1902	65.2	7.16
1903	64.6	2.86
1904	67.1	3.45
1905	69.9	5.53
1906	67.9	3.92
1907	66.5	5.35
Normals	69.4	4.56

IOWA FRUIT CROPS.

A summary of the reports on the condition of the fruit crop in Iowa for July is as follows:

Summer apples, 31%; Fall apples, 32%; Winter apples, 32%; pears, 8%; cherries, 7%; American plums, 17%; Japanese plums, 5%; European plums, 12%; peaches, 24%; grapes, 78%; red raspberries, 60%; black raspberries, 72%; blackberries, 84%; currants, 38%; gooseberries, 46%; and strawberries, 71% of a full crop.

The distribution of the apple crop is about as follows: 10 to 25% in the southern third of the state; 20 to 45% in the central, and 30 to 65% in the northern section. Plums, pears and cherries will be scarce. Peaches about quarter of a crop; a large per cent of it will be from seedling trees. Raspberries, blackberries and grapes are in good condition.

Insects and fungus have not injured the tree fruits to any extent and they promise to make up in quality what they lack in quantity.

Yours truly,

WESLEY GREENE.

Des Moines, July 6, 1907.

CLIMATOLOGY OF THE MONTH.

TEMPERATURE.—The monthly mean temperature for the state, as shown by records of 120 stations, was 66.5°, which is 2.9° below the normal. By sections the mean temperatures were as follows: Northern section 65.2°, which is 3.0° below the normal; Central section, 66.7°, which is 2.8° below the normal; Southern section, 67.7°, which is 2.8° below the normal. The highest monthly mean was 70.0° at Thurman, and the lowest monthly mean was 63.2° at Estherville. The highest temperature reported was 98° at Clarinda, on the 16th; and the lowest reported was 36° at Atlantic on the 2d. The average monthly maximum was 92.6°, and the average monthly minimum was 42.4°. The great-

est daily range was 44° at Audubon and Atlantic. The average of greatest daily ranges was 34.2°.

PRECIPITATION.—The average precipitation for the state, as shown by records of 129 stations, was 5.35 inches, which is 0.79 of an inch above the normal. The averages by sections were as follows: Northern section, 5.67 inches, which is 1.03 inches above the normal; Central section, 4.98 inches, which is 0.45 of an inch above the normal; Southern section, 5.41 inches, which is 0.90 of an inch above the normal. The largest amount reported was 9.33 inches at Northwood, and the least amount reported was 2.07 inches at Davenport. The greatest daily rainfall reported was 3.60 inches at Clear Lake and Waukee on the 9th. The average number of days on which .01 of an inch or more was reported was 11.

WIND AND WEATHER.—The prevailing direction of the wind was southwest. The highest velocity reported was 44 miles per hour, from the west, at Sioux City on the 23d. The average number of clear days was 14, partly cloudy 9 and cloudy 7.

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	29.90	30.16	18	29.51	10
Davenport	29.90	30.22	17	29.53	10
Des Moines	29.90	30.18	17	29.48	10
Dubuque	29.92	30.20	17	29.57	10
Omaha, Neb.	29.87	30.19	18	29.48	9
Keokuk	29.91	30.25	17	29.55	10
Sioux City	29.87	30.20	26	29.48	10
Means	29.90	30.25	17	29.48	10

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	4945	36	W	30
Davenport	5236	34	W	10
Des Moines	5980	31	NW	4
Dubuque	4696	24	S	22
Keokuk	4269	28	SE	21
La Crosse, Wis.	4761	36	N	25
Omaha, Neb.	6136	36	SW	22
Sioux City	9035	44	W	23

OBSERVERS' NOTES.

ALTA.—*David E. Hadden.* The first decade of June was cool, wet and cloudy; balance of the month was warm and dry. Precipitation was 1.88 inches below the seventeen-year average.

ALTON.—*W. S. Slagle.* From the 11th conditions were favorable for all crops; corn advanced rapidly the last half of the month.

AUDUBON.—*Geo. E. Kellogg.* Very heavy rain, accompanied by hail, caused some damage to crops east of station on 29th and 30th.

BONAPARTE.—*B. R. Vale.* Rain 5.43 inches in June, following 6.20 in May. First ten days and last ten days were too wet for work in fields. Up to the last of June there has been seven inches excess of rain over 1906 for same period.

BRITT.—*Geo. P. Hardwick.* There were no serious storms in June; temperature was slightly below the normal.

CHARITON—*C. C. Burr.* Vegetation made rapid growth in June, but all crops were ten days late.

CLINTON.—*Luke Roberts.* The mean temperature was 2.3° below the normal, and rainfall was .77 of an inch below. The wind movement was 355 miles less than normal. The warmest day was 77°, and the coldest 54°. Crop growth was still in arrears at the close of the month.

CRESTON.—*Rev. W. L. Gaston.* Vegetation made remarkable growth, and the hay crop is much better than was promised a month ago.

ELLIOTT.—*H. Barnes.* On first of June season was ten days late; at its close it is nearly normal. Corn small, but good color; small grain an average.

FOREST CITY.—*J. A. Peters.* More rain has fallen during the month than in any June since establishment of this station, in 1884. Corn is three weeks behind average season; some fields not cultivated yet and none more than twice.

HUMBOLDT.—*H. S. Wells.* Rain 3.41 inches, and showers were frequent enough for all crops.

INWOOD.—*F. B. Hanson.* The season is late, but weather in June was an improvement over April and May, and crop prospects, except corn, are nearly up to the normal. The temperature was 1 degree above June, 1906.

KEOSAUQUA.—*J. H. Landes.* It was a cool June; corn backward, but was making fine progress at close of the month; grass, wheat and oats are good.

LARRABEE.—*H. B. Strever.* Small grain improved materially during the month; corn was backward; a hailstorm on 30th did slight damage to crops.

LEON.—*Morris Gardner.* A good month for crops, with no bad storms.

OLIN.—*Nathan Potter.* June was a fine month for farm work; corn made rapid growth the last fifteen days; meadows and oats were up to average at close of month.

POCAHONTAS.—*F. E. Hronek.* The forepart of June was wet and cloudy, but the latter half was favorable; corn was about two weeks late but doing well.

RIDGEWAY.—*Arthur Betts.* As a whole the month was cool, but June, 1902, was cooler. There were 309 hours of sunshine; plenty of showers and heavy dewfall. Three gales.

SHELDON.—*A. W. Beach.* June was a good growing month; corn about ten days late, but promising 75% of a crop.

SIBLEY—*Frances C. Doolittle.* A furious storm of rain and hail struck this vicinity at 12:45 P. M., on the 30th, destroying many shade trees and damaging crops and gardens.

STOCKPORT.—*C. L. Beswick.* A good month for general farm work. Temperature did not reach the high point scored in March, by one degree. Rain 2.94 inches.

WAUKEE.—*E. J. Leonard.* Rain abundant. Very heavy shower on the 9th, when 3.60 inches fell in two hours, doing much damage.

WAVERLY.—*H. S. Hoover.* Corn improved the last week, and weeds were well subdued. There was a little more rain than was needed for corn, and not enough sunshine.

WEST BEND.—*Phil Dorweiler.* First half of June was cool and backward, but latter half was seasonable. On 30th a great thunderstorm with high wind and hail damaged crops and wrecked some small buildings.

ZEARING.—*Ward Bean.* In general the month was favorable, with many warm days and a moderate amount of rain.

WIND POWER ON THE FARM.

(Baltimore American)

There is abundant evidence that the American farmer is keeping up with the procession. He has been doing farm work by steam power for several decades, but the utilization of electric energy for farming operations has proved baffling generally to those ambitious soil-tillers who are on the watch for methods of betterment. An Indiana farmer, however, seems to have demonstrated that an ordinary farm windmill can be harnessed with satisfactory results to a dynamo. The difficulty with a windmill as a motive power is that it does not work when the wind is not blowing; it has generally been regarded as too irregular and uncertain for anything beyond pumping water into a big tank.

The Indiana farmer has avoided trouble from the uncertainty of the blowing of the wind by connecting a storage battery with the dynamo. The electric plant, which has been installed in the basement of his home, is used for lighting the house and the premises. The storage battery supplies current sufficient to last six or seven days, so that there is no danger of a failure of the lights, unless there is a deadly calm that lasts for more than a week. The Indiana farmer, according to the published statements, is using his plant for lighting purposes only and not for power for driving machinery. The important fact, however, is that he has solved the problem of a steady current that they may be used at will. If a windmill electric plant can be used for lighting, it can be depended upon for driving power. We hear much in these days of water-power transmuted to electric energy. In the case of this windmill contrivance there are two transmutations. First, wind-power is turned to water-power and then water-power changed to electric energy.

ARE OUR FARMS TOO LARGE?

[Farmers' Review.]

The American farmer has always had before him the temptation to grasp a large amount of land. This is not surprising when we consider what his education has been. It has been seven or more generations since our ancestors settled in this country and during all of that time the descendants of the old settlers have had the thirst for land bred into them. This was because in the beginning of the development of this country, land was very easily obtained, and the most common way for men to enrich themselves was to get possession of large tracts of land.

But today the new conditions are in conflict with the tendency to own land for the mere sense of owning it. Before a man buys more land he should first sit down and consider whether he can use that land. He should also consider more carefully the question of whether he can not more fully use the land he has. Today there are multitudes of families that are made miserable by the possession of too much land.

A man known to the writer had eighty acres of land located within a few miles of a thriving town. He had only himself and wife to provide for, and he found it hard to get help even to take care of the eighty acres. But he had always owned a farm of from half to a square mile in area, and he was miserable on his little piece of eighty acres. His wife wanted to stay there, for she had been overworked on the big farm. But he insisted on selling the nice little farm and then moved to the city while waiting to get hold of a big farm.

What the country needs is a large number of well-tilled small farms. That means more independent farmers and fewer hired men. It means a solution of the hired help problem. It means more families in a township and that, too, of families that own the land on which they are located. Such people thrill with the delights of ownership. They are a help to the communities. Their children do not have to rush to the cities to make a living. More farms mean better schools. It means more electric lines running here and there over the country; for the electric lines go where populations are sufficiently dense to insure them patronage. If the American farmer does not get down to this idea the foreigner will take his land. The foreigner comes in from his little piece of land in Europe. He has been accustomed there to farm intensively a little piece of territory. He takes a small piece here and is contented with it. He works and his family works. They have no hired help problem. They soon own the land on which the American farmer was lord, but on which he had a mortgage. The thirst can no longer be gratified without the danger of losing even the land necessary for the support of the farmer's family.

BELATED REPORT.

STOCKPORT—May mean temperature, 55.6°; highest, 82° on the 12th; lowest, 25° on the 4th; greatest daily range, 37°; total precipitation, 4.83 inches; greatest in 24 hours, 2.33 inches. Total snowfall, 2.0 inches; prevailing direction of the wind, southeast. Number of clear days, 14; partly cloudy, 7; cloudy, 10; rainy, 12.

ERROR IN MAY REVIEW.

DAVENPORT—Greatest precipitation in 24 hours recorded 2.14 inches on page 54, should have been 2.23 inches.

DATES OF THUNDERSTORMS.

NORTHERN SECTION.

Algona, 4, 9, 15, 30. Alta, 9, 15, 21, 25, 29, 30. Alton, 9, 17. Britt, 9. Charles City, 9, 10, 15, 18, 21, 24, 30. Dows, 9, 15, 24, 30. Elkader, 9, 22, 23, 24, 30. Grand Meadow, 30. Inwood, 16, 17, 23, 30. Larrabee, 4, 10, 17, 21, 24, 30. Mason City, 4, 9, 15, 23, 30. New Hampton, 10, 22, 30. Northwood, 9, 24, 30. Osage, 3, 9, 10, 15, 22, 23, 24, 30. Plover, 3, 7, 9, 15, 22, 23, 29, 30. Pocahontas, 9. Ridgeway, 9, 10, 15, 18, 21, 22, 24, 30. Sheldon, 4, 6, 10, 21. Sioux Center, 6, 10, 15, 17, 23, 30. Washta, 29, 30. Waverly, 4, 9, 10, 14, 21, 22, 23, 24, 30. West Bend, 4, 9, 15, 21, 29, 30.

CENTRAL SECTION.

Amana, 4, 9, 10, 22, 23, 24, 30. Audubon, 3, 4, 18, 25, 29, 30. Baxter, 9. Boone, 4, 6, 9, 23, 24, 30. Carroll, 22, 24, 25, 29. Clinton, 10, 18, 21, 23. Davenport, 4, 9, 10, 18, 21, 22, 23, 24, 30. Delaware, 10, 22, 25, 30. Des Moines, 6, 7, 9, 21, 22, 23, 24, 30. De Soto, 23, 25, 30. Dubuque, 9, 10, 11, 21, 23, 24, 30. Grinnell, 4, 10, 22, 23, 25. Guthrie Center, 9, 21, 22, 24, 29, 30. Harlan, 7, 9, 23, 24, 30. Independence, 9, 10, 15, 21, 22, 23, 24, 25, 30. Iowa City, 9, 25, 30. Iowa Falls, 5, 9, 16, 22, 23. Little Sioux, 4, 9, 10, 22, 24, 29. Marshalltown, 7, 22, 23, 25. Olin, 9, 21, 23, 24. Onawa, 18, 23, 24, 25. Perry, 9, 24, 30. Sioux City, 9, 10, 14, 16, 17, 22, 24, 29, 30. Waterloo, 9, 10, 15, 23, 24, 30. Waukee, 9, 23, 25, 30. Whitten, 4, 9, 21, 22, 23, 24, 25, 30. Zearing, 9, 22, 23, 30.

SOUTHERN SECTION.

Afton, 5, 9, 22, 25. Albia, 10, 14, 24. Allerton, 7, 10, 18, 22, 23, 25. Atlantic, 6, 14, 24. Burlington, 10, 22, 23. Chariton, 25, 30. Columbus Junction, 4, 9, 10, 15, 18, 21, 22, 23, 24, 25. Corning, 6, 9, 12, 24, 29, 30. Earlham, 9, 21, 22, 23, 24, 25, 30. Elliott, 6, 21, 22, 24, 25, 29. Fort Madison, 6, 9, 20, 21, 23, 24, 30. Hopeville, 9, 21, 22, 25, 30. Indianola, 10, 11, 30. Keokuk, 6, 7, 9, 10, 18, 19, 21, 22, 23, 24, 30. Keosauqua, 9. Lenox, 6, 7, 9, 25, 30. Leon, 7, 9, 10, 22, 23, 25, 30. Massena, 3, 8, 22, 25, 30. Mount Ayr, 22. Mount Pleasant, 8, 21, 22, 23, 24, 25, 29. Omaha, 6, 7, 9, 12, 21, 22, 23, 24, 29. Sigourney, 9, 10, 17, 21, 22, 23, 24, 30. Stockport, 4, 9, 10, 21, 22, 23, 25, 30. Wapello, 7, 9, 10, 21, 22, 30. Winterset, 21, 23, 30. Woodburn, 6, 9, 23, 25, 30.

CLIMATOLOGICAL DATA FOR JUNE, 1907.

CENTRAL SECTION

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)	No. rainy days	No. clear days	No. partly cloudy days	No. cloudy days	
Amana	Iowa	721	28	66.8	-2.9	90	16, 17	42	2, 6	36	7.54	†3.05	1.67	....	13	12	14	4	
Ames (a)	Story	926	23	64.9	-5.1	90	16	40	2, 3	39	3.26	-1.49	1.04	....	13	11	13	6	S
Audubon	Audubon	1,301	11	67.0	-1.8	96	16	38	2	44	3.65	-0.12	.75	....	11	15	9	6	NW
Baxter	Jasper	998	7	65.5	-2.0	90	16	44	6	32	5.47	†1.05	2.07	....	12	12	13	5	NW
Belle Plaine	Benton	828	15	.....	.....	.....	.....	42	6	.....	7.16	†2.93	1.50	....	13	15	10	5	NE, SW
Boone	Boone	1,134	2	65.8	.....	93	16	45	1	33	4.93	.....	1.78	....	11	12	7	11	
Buckingham	Tama	.....	7	.....	.....	.....	.....	.....	.....	.....	5.15	-0.01	1.53	....	10	7	19	4	
Carroll (b)	Carroll	1,265	17	66.4	-3.1	92	16	41	5	36	5.11	†0.27	1.04	....	14	16	1	13	
Cedar Rapids	Linn	733	25	67.2	-3.5	94	17	45	6, 7	35	6.05	†2.13	1.14	....	11	8	19	3	
Clinton	Clinton	593	37	67.6	-2.3	92	17	42	6	40	3.60	-1.08	1.28	....	14	10	10	10	
Davenport	Scott	606	36	67.9	-3.0	90	17	47	5	26	2.07	-2.32	.73	....	12	12	9	9	SW
Delaware	Delaware	1,083	14	65.2	-3.4	88	16	43	3	35	6.53	†2.25	2.26	....	12	12	13	5	S
Denison (a)	Crawford	1,180	11	65.4	-3.5	91	16	41	2	37	3.35	-0.23	.86	....	11				
Des Moines	Polk	861	28	67.2	-3.2	91	16	47	2	31	4.13	-1.23	1.27	....	11	7	17	6	SW
De Soto	Dallas	866	7	66.2	-3.2	90	16	43	2	36	6.54	†2.48	1.81	....	11	14	6	10	SE
Dubuque	Dubuque	698	34	66.4	-3.1	90	17	46	6	29	4.08	-1.12	1.34	....	11	11	12	7	S
Fort Dodge	Webster	1,126	7	66.2	-0.4	94	16	44	2	35	4.11	†0.30	.80	....	10				
Galva	Ida	1,290	11	65.8	-3.2	90	24	42	2, 5	36	3.30	-0.93	.88	....	9	18	7	5	S
Gilman	Marshall	1,052	8	.....	.....	.....	.....	.....	.....	.....	4.10	-0.80	1.41	....	10	10	11	9	SE
Grinnell	Poweshiek	1,023	12	67.9	-2.4	91	16	45	1, 2, 5, 6	33	4.91	†0.02	2.00	....	8	13	11	6	SW
Grundy Center	Grundy	976	14	65.2	-3.9	90	16, 17	42	2	30	6.28	†0.44	1.20	....	10	19	2	9	S
Guthrie Center	Guthrie	1,077	9	67.6	-2.0	94	16	41	1, 2	39	5.67	†1.61	1.36	....	15	15	7	8	SW
Harlan	Shelby	1,192	8	66.5	-2.2	91	24	40	2	38	3.13	-2.15	.67	....	12	11	13	6	NW
Indep'dence	Buchanan	921	41	64.6	-4.5	86	17	41	6	31	7.12	†2.09	1.94	....	12	16	10	4	SW
Iowa City	Johnson	683	46	68.0	-1.3	92	18	44	2, 6	30	6.04	†1.41	2.45	....	10	18	2	10	S
Iowa Falls	Hardin	1,170	12	65.0	-3.5	91	16	41	2	38	5.89	†1.12	1.03	....	14	....	....	....	SW
Jefferson	Greene	1,052	6	66.6	.....	93	16	44	2, 5	36	4.46	.....	1.16	....	10	13	14	3	N
Le Claire	Scott	576	8	.....	.....	.....	.....	.....	.....	.....	3.82	.....	1.12	....	10	21	4	5	SW
Little Sioux	Harrison	.....	2	68.2	.....	93	16	39	5	38	3.61	.....	.94	....	13	20	5	5	SE
Logan	Harrison	928	38	67.6	-2.5	92	16, 29	42	4	32	4.28	-1.42	1.52	....	9	8	18	4	NW
Marshalltown	Marshall	947	12	66.6	-2.8	90	16, 17	46	1	32	3.77	-1.17	1.00	....	12	15	4	11	SW
Mt. Vernon	Linn	847	38	67.0	-2.4	91	17, 18	44	5, 6	39	4.34	†0.59	1.15	....	13	15	10	5	
Muscatine	Muscatine	.....	48	.....	.....	.....	.....	.....	.....	.....	4.21	-0.65	1.14	....	11	8	9	13	
Newton	Jasper	944	17	67.1	.....	90	16	43	1	31	3.69	.....	1.20	....	10	16	7	7	SE
Odebolt	Sac	1,356	8	68.6	-2.2	95	16	42	5	37	4.48	†0.17	.90	....	10	21	2	7	
Olin (a)	Jones	760	8	66.2	-3.4	88	17	40	6	34	5.23	†1.71	1.75	....	7	15	11	4	
Onawa	Monona	1,051	7	69.5	-0.2	94	16	44	5	33	4.52	-0.68	.97	....	14	22	3	5	NW
Perry	Dallas	975	6	67.1	-3.2	94	16	44	1, 2	37	8.69	†4.00	3.50	....	11				
Rockwell City	Calhoun	.....	10	66.5	-2.4	93	16	43	5	32	4.11	-0.39	1.15	....	9	18	6	6	
Sac City	Sac	1,356	25	65.2	-3.4	90	16, 23	40	7	32	5.45	†0.56	1.37	....	9	21	7	2	SE
Sioux City	Woodbury	1,135	16	67.4	-2.0	92	16	44	5	29	4.21	†0.41	1.54	....	10	7	14	9	SE
Stuart (a)	Guthrie	1,216	8	67.3	-3.5	94	17	45	2	33	8.40	†4.43	2.10	....	10	18	4	8	NW
Tipton	Cedar	807	9	68.8	-0.5	92	17	47	5	30	4.00	†0.27	1.66	....	6	20	8	2	S, NW
Toledo	Tama	856	12	65.6	-5.1	91	17	42	6	30	5.21	†1.61	1.05	....	11	14	8	8	SE
Waterloo	Black Hawk	862	18	66.2	-2.5	92	17	43	6	35	6.41	†1.91	1.24	....	11	11	12	7	SE
Waukee	Dallas	1,039	4	67.8	.....	92	16	41	1	34	8.35	.....	3.60	....	12	19	5	6	SE, S
Webster City	Hamilton	.....	2	67.2	.....	95	17	41	2	41	5.04	.....	1.48	....	11	10	11	9	SE
Whitten	Hardin	1,036	7	65.8	-2.5	92	16	42	1	35	5.28	-0.98	1.10	....	11	14	11	5	SE
Wilton Junct'n	Muscatine	683	10	67.5	-3.6	94	18	43	6	31	3.68	†0.40	1.12	....	9	19	4	7	W
Zearing	Story	718	3	65.4	.....	91	16	40	2	39	4.75	.....	1.50	....	8	15	8	7	NW
Average				66.7	-2.8	95.6		42.7		34.4	4.98	†.45		....	11	14	9	7	SE

CLIMATOLOGICAL DATA FOR JUNE 1907—CONTINUED.

NORTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
Algona	Kossuth	1,213	31	65.3	-4.4	91	24	43	5	31	5.12	†0.73	1.52	....	10	18	4	8		
Alta	Buena Vista	1,513	14	65.4	-3.1	91	16	42	5	31	3.58	-2.08	0.81	....	10	15	10	5	NW	
Alta [near]	Buena Vista	.....	12	.....	.....	.....	.....	.....	.....	.....	5.23	.....	1.25	....	11					
Alton	Sioux	1,305	....	65.6	.....	92	16	43	5	31	4.56	.....	1.62	....	8	13	12	5	SE, NW	
Britt	Hancock	1,236	8	65.2	-2.6	90	16, 24	43	5	34	4.75	†0.27	1.54	....	11	7	19	4	SE	
Charles City	Floyd	1,015	20	63.6	5.2	88	16	41	6	36	7.38	†2.25	2.27	....	13	4	14	12	SE	
Clear Lake	Cerro Gordo	1,241	8	65.8	-2.7	90	16	44	5, 6	33	8.86	†4 47	3.60	....	11	21	0	9	S	
Decorah	Winneshiek	875	11	65.6	-2.2	92	17	41	2	40	5.41	†1.15	1.03	....	12					
Dows	Wright	1,142	7	64.2	-2.0	93	16	40	2	37	5.29	†1.00	1.47	....	10	14	6	10		
Elkader	Clayton	727	24	66.4	-3.1	95	17	40	2, 6	40	5.04	†0.81	.94	....	10	14	11	5	NW	
Elma‡	Howard	.....	.....	.....	.....	92	17	.....	.....	.....	3.57	.....	.90	....	11	5	12	13	S	
Estherville	Emmet	1,298	10	63.2	-5.4	91	16	42	5	33	6.12	†3.03	1.46	....	11	17	0	13	NW	
Fayette (a)	Fayette	1,003	17	64.3	-3.9	89	16, 17	39	6	32	6.99	†1.14	2.48	....	13	....	....	....	SE	
Forest City	Winnebago	1,226	11	65.0	-3.1	90	16, 24	43	5	30	8.53	†3.47	3.38	....	15	18	7	5	E, S	
Grand Meadow	Clayton	1,180	14	64.8	-2.2	89	17	43	1	29	5.03	-0.23	1.20	....	11	10	8	12	SW	
Greene	Butler	.....	8	65.1	.....	92	16	41	6	38	7.62	.....	1.43	....	13	9	6	15	SE	
Hampton	Franklin	1,155	15	65.6	-2.6	93	16	43	1, 6	35	5.30	†0.07	1.35	....	12	4	22	4	SE	
Humboldt	Humboldt	1,095	13	66.0	-4.0	92	16	43	2	35	3.41	-1.26	1.00	....	11	21	3	6	SE	
Inwood	Lyon	1,474	3	65.1	.....	93	16	38	5	36	4.98	.....	1.49	....	9	17	9	4	E	
Larrabee (a)	Cherokee	1,266	16	67.5	-1.4	95	16	40	5	34	5.27	-0.63	1.65	....	8	12	14	4	SE	
Le Mars	Plymouth	1,224	9	66.6	-2.3	93	16	42	5	34	4.04	†0.02	1.27	....	7	9	15	6	SE	
Mason City	Cerro Gordo	1,132	10	65.9	-1.7	92	16	44	1	35	7.03	-0.01	2.45	....	11	7	18	5	S, SE	
New Hampton	Chickasaw	1,169	7	63.6	-5.0	87	17	42	6	29	6.15	†1.67	1.43	....	13	17	8	5	S	
Northwood (b)	Worth	1,222	9	63.4	-3.4	90	16	42	6	33	9.33	†5.52	3.50	....	10	15	9	6	SW	
Osage	Mitchell	1,184	14	64.0	-2.4	90	16, 17	38	1	37	6.82	†2.30	1.50	....	10	15	0	15	NW	
Plover	Pocahontas	1,426	8	66.5	-2.1	93	16	40	5	36	6.01	†1.98	1.63	....	11	17	5	8	S	
Pocahontas	Pocahontas	.....	3	66.1	.....	92	16, 24	43	5	36	4.31	.....	1.35	....	9	16	9	5	S	
Ridgeway	Winneshiek	1,215	9	65.1	-4.1	90	17, 24	42	1	34	5.60	†1.08	1.07	....	14	16	11	3	S	
Rock Rapids	Lyon	1,358	9	64.6	-4.4	94	16	40	5	36	6.57	†2.83	2.10	....	8	....	....	....	N	
Sheldon	O'Brien	1,422	7	66.2	-0.3	94	16, 29	40	5	40	6.53	†2.36	2.00	....	10	16	9	5	E	
Sibley	Osceola	1,212	11	63.4	-3.7	90	16	39	5	34	5.41	†1.28	1.20	....	12	....	....	....	SE	
Sioux Center	Sioux	.....	8	64.9	-4.1	90	16	40	5	28	3.77	-0.53	1.00	....	9	16	9	5	SW	
Storm Lake	Buena Vista	1,440	10	66.6	-1.4	94	24	43	5	37	4.15	-0.73	1.10	....	15	13	12	5	NW	
Washta	Cherokee	1,157	9	66.4	.....	92	16	40	2	41	3.39	-1.02	0 70	....	9	15	10	5	N	
Waverly	Bremer	948	9	64.6	-4.2	88	17	43	2, 6	33	5.89	†1.41	1.30	....	13	4	16	10		
West Bend	Palo Alto	1,197	11	66.7	-1.1	93	16, 17	42	5	25	4.97	†1.17	1.61	....	9	12	13	5	S	
Average	.....	.....	....	65.2	-3.0	91.4	.....	41.4	.....	34.5	5.67	†1.03	.....	....	11	3	10	7	SE	

SOUTHERN SECTION.

Afton	Union	1,212	12	68.9	-2.7	93	16	44	1, 5	33	5.75	†1.45	1.57	....	9	13	9	8	SW	
Albia	Monroe	959	9	66.2	-3.9	88	24	43	2	32	6.27	†2.70	1.60	....	12	13	7	10	SW	
Allerton	Wayne	.....	4	66.8	-1.3	88	16, 17, 24	44	5	33	4.32	-.37	1.00	....	10	19	7	4	SW	
Atlantic	Cass	1,164	14	67.3	-2.4	94	17	36	2	44	5.13	-.55	1.34	....	9	6	12	12	S	
Bedford	Taylor	.....	7	67.6	†0.0	91	16	40	2	39	4.85	†.62	1.13	....	13	15	8	7	SE	
Bloomfield	Davis	.....	....	68.6	.....	91	18	41	5	31	5.08	.....	.96	....	11	19	7	4	NW	
Bonaparte	Van Buren	.....	15	67.6	-4.8	87	18, 24, 30	44	6	30	5.43	†1.18	1.85	....	11					
Burlington	Des Moines	544	9	68.0	-2.8	89	18	43	5	27	3.27	-1.99	1.09	....	10	13	8	9	SW	
Chariton	Lucas	1,042	10	66.2	-4.2	88	16, 24	43	5	33	4.89	†.62	1.42	....	9	18	6	6		
Clarinda	Page	1,009	15	68.6	-3.2	98	16	42	2	42	6.01	†.90	2.05	....	11	13	1	16	NE,SE	
Columbus Jct	Louisa	595	6	67.8	-0.7	89	17, 18	45	5, 6	29	4.99	†.72	1.45	....	10	18	9	3	SE	
Corning	Adams	1,117	13	67.4	-3.0	91	16, 24	39	2	40	4.61	†.42	1.59	....	9	14	11	5	NE,SW, NW	
Corydon	Wayne	1,101	12	67.4	-3.4	87	16, 17, 24	44	5	29	5.29	†.96	1.48	....	9	16	8	6		
Creston	Union	1,312	2	65.4	.....	90	16	41	6	33	4.13	.....	1.20	....	9	13	7	10	S	
Cumberland	Cass	.....	8	.....	.....	.....	.....	.....	.....	.....	6.28	†2.22	1.25	....	12	17	2	11	S	
Earlham	Madison	.....	5	65.0	-0.2	89	16	41	2	36	6.99	†2.46	1.70	....	10	13	6	11	NW	
Elliott	Montgomery	.....	2	69.4	.....	96	24	41	2	43	3.59	.....	.95	....	11	17	9	4	SE	
Fort Madison	Lee	516	54	.....	.....	.....	.....	.....	.....	.....	4.82	-.48	1.75	....	10	7	12	11	S	
Greenfield	Adair	.....	14	66.3	-4.3	89	16	43	5	32	7.38	†2.27	1.90	....	12	17	6	7	S	
Hancock	Pottawatta'e	1,113	1	68.3	.....	92	24	45	2	33	3.30	.....	.89	....	11	21	3	6	SW	
Hopeville	Clarke	.....	14	67.8	-2.7	93	16	44	5	33	4.67	†.32	.85	....	9	6	18	6		
Indianola	Warren	969	16	67.4	-3.0	89	16, 24	46	2	31	5.61	†1.53	1.65	....	10	10	9	11	SW	
Keokuk	Lee	614	36	69.1	-3.4	90	30	47	5	27	6.30	†1.76	2.22	....	11	18	11	1	NW	
Keosauqua	Van Buren	644	15	68.4	-4.6	91	18	43	6	30	3.75	-.31	1.73	....	9	5	16	9		
Knoxville	Marion	920	11	68.0	-4.1	91	24	46	2	34	5.18	†1.36	1.42	....	11	14	9	7	SE	
Lacona	Warren	.....	7	.....	.....	.....	.....	.....	.....	.....	6.55	†2.21	1.75	....	13	7	13	10		
Lenox (a)	Taylor	1,250	10	68.2	-2.0	91	16	44	5	31	7.37	†3.24	1.47	....	11	18	7	5	S	
Leon	Decatur	1,120	5	68.0	-0.8	92	16	42	2	37	5.55	†.77	1.32	....	11	20	5	5	S	
Massena	Cass	.....	2	67.1	.....	94	16	40	5	39	4.76	.....	1.16	....	14	8	5	17	S	
Mt. Ayr	Ringgold	1,236	11	67.8	-2.9	93	16	43	5	33	7.80	†3.36	1.92	....	15	12	13	5	E	
Mt. Pleasant	Henry	729	23	68.3	-2.8	90	17, 18	47	1,2,5,6	30	5.61	†1.40	1.73	....	13	10	15	5	SW	
Omaha, Neb	Douglas	1,105	35	69.4	-2.2	94	16	47	5	25	4.69	-.98	1.75	....	11	8	14	8	S	
Oskaloosa	Mahaska	843	21	66.2	-3.7	90	16	39	2	37	6.68	†2.55	1.37	....	11	17	0	13	SW	
Ottumwa	Wapello	649	11	69.0	-3.4	93	24	48	1, 6	33	7.07	†3.28	1.59	....	10	16	5	9	SE	
Pacific Jct	Mills	960	8	69.0	-0.5	92	29	41	2	43	4.09	-.33	1.97	....	11	13	12	5	S	
Pella (a)	Marion	877	4	69.0	.....	92	16, 24	45	1	33	6.24	.....	1.57	....	13					
St. Charles	Madison	1,070	6	66.6	-2.0	91	16	45	1	32	7.31	†2.97	1.92	....	13	17	7	6	NW	
Sigourney (a)	Keokuk	877	8	67.8	-4.5	91	15, 23	40	5	29	5.93	†2.24	1.57	....	11	3	25	2	NW	
Stockport	Van Buren	.....	5	66.6	.....	86	18	45	6	28	3.94	-2.91	2.05	....	10	15	6	9	SE	
Thurman	Fremont	.....	9	70.0	-2.2	93	24	40	2	43	4.84	-2.70	1.08	....	15	9	16	5	SW	
Wapello	Louisa	588	7	66.8	-4.7	87	17, 18	47	5, 6	24	4.27	†1.35	.84	....	12	13	15	2	SW	
Washington (c)	Washington	769	23	65.2	-8.0	88	17, 18	44	2	32	5.48	†2.25	1.04	....	8					
Winterset	Madison	1,129	14	69.0	-1.3	94	16	44	1	34	7.06	†1.22	1.55	....	11	16	8	6	S	
Woodburn	Clarke	961	8	66.2	.....	90	16	38	2	40	5.12	†1.13	1.32	....	9	12	13	5	SE, SW, NW	
Average	.....	.....	....	67.7	-2.8	90.9	.....	43.1	.....	33.6	5.41	†.90	.....	....	11	14	9	7	SW	
State aver	.....	.....	....	66.5	-2.9	92.6	.....	42.4	.....	34.2	5.35	†.79	.....	....	11	14	9	7	SE	

‡ Received too late to be included in average. *a*, one day missing; *b*, two days; *c*, three days, etc. † means plus.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JUNE, 1907

STATIONS		DAY OF MONTH																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Afton.....	max.	71	81	75	70	74	72	67	70	77	74	83	80	79	82	89	93	90	86	82	87	81	86	89	92	84	78	81	85	86	88	..	81.1
	min.	44	48	58	52	44	48	52	53	60	56	52	54	57	62	62	65	65	64	56	53	65	61	63	71	60	53	52	52	58	60	..	56.7
Albia.....	max.	68	75	64	68	67	62	67	65	80	71	78	73	74	72	83	87	86	85	77	81	81	80	84	88	75	72	72	78	82	85	..	76.0
	min.	46	43	56	50	46	46	52	52	52	57	54	52	54	56	61	64	64	64	60	55	64	62	64	71	60	52	52	56	61	64	..	56.3
Algona ...	max.	71	77	69	66	68	64	57	66	64	68	75	72	73	76	72	90	89	77	77	81	82	81	82	91	74	70	77	82	87	88	..	75.5
	min.	46	46	53	48	43	47	50	51	56	58	52	51	51	59	61	66	64	64	54	50	59	64	64	66	59	49	46	52	61	62	..	55.1
Allerton..	max.	67	78	68	67	68	63	69	68	80	72	80	77	73	78	85	88	88	87	78	82	79	80	84	88	80	73	74	80	80	87	..	77.4
	min.	45	45	55	50	44	48	53	53	60	51	52	55	54	62	63	64	61	62	61	54	64	66	63	72	61	50	51	53	58	60	..	56.3
Alta.....	max.	71	78	69	63	67	56	59	64	65	69	76	71	75	79	80	91	89	74	77	83	78	82	86	89	75	70	77	83	88	86	..	75.7
	min.	49	50	52	50	42	46	52	51	52	58	51	51	53	55	63	63	64	63	53	52	61	64	62	65	57	50	51	54	58	62	..	55.1
Alton.....	max.	71	74	70	63	65	63	59	63	68	69	76	71	76	80	82	92	88	72	72	80	79	83	84	86	73	71	77	83	89	82	..	75.4
	min.	48	45	53	50	43	52	52	52	59	57	53	51	53	63	65	70	63	61	54	49	60	63	63	66	56	48	47	54	64	64	..	55.9
Amana...	max.	72	78	71	69	68	69	57	68	72	70	78	72	77	82	83	90	90	88	78	84	86	82	86	87	73	70	75	81	85	87	..	77.6
	min.	47	42	57	51	46	42	54	53	54	61	52	53	51	52	57	62	64	63	61	56	64	66	67	67	62	54	51	55	56	64	..	56.1
Ames.....	max.	74	78	73	67	70	61	58	66	68	71	80	73	76	80	83	90	89	81	82	81	82	82	85	88	74	72	75	81	85	85	..	77.0
	min.	41	40	40	49	46	45	52	52	58	67	54	50	50	59	61	64	65	64	53	53	50	57	65	54	55	43	..	42	48	53	..	52.8
Atlantic..	max.	71	80	69	68	71	64	62	67	71	73	82	80	77	80	90	93	94	77	79	86	78	85	87	93	81	79	79	85	90	89	..	79.3
	min.	46	36	56	50	43	44	53	53	61	58	53	51	58	62	64	69	62	64	48	46	64	66	61	69	61	45	48	46	63	60	..	55.3
Audubon..	max.	72	82	70	66	70	61	60	67	75	71	79	70	76	81	91	96	92	79	82	90	82	89	89	94	78	74	75	85	89	86	..	79.0
	min.	41	38	52	51	42	46	51	52	59	57	50	50	55	62	63	63	64	65	58	50	60	66	61	70	62	48	48	46	58	59	..	54.9
Baxter ...	max.	67	78	70	69	68	64	60	66	70	69	79	73	75	79	85	90	89	81	78	83	81	79	84	88	72	71	71	82	83	86	..	76.3
	min.	47	46	54	49	45	44	51	51	56	56	52	49	49	57	60	63	64	62	54	58	63	63	63	63	61	50	47	52	50	62	..	54.7
Bedford..	max.	70	79	68	69	72	67	73	69	75	75	83	81	76	82	87	91	87	87	78	84	76	82	84	89	80	77	76	83	87	84	..	79.0
	min.	45	40	57	50	43	47	55	53	63	56	50	56	58	64	64	68	58	60	57	50	64	64	62	71	60	49	49	50	60	59	..	56.1
B. Plaine.	max.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....
	min.	44	45	58	51	45	42	53	52	51	50	54	51	50	56	62	61	64	61	57	59	66	65	68	66	61	53	52	57	58	65	..	55.9
Bloomfl'd	max.	68	77	68	73	71	65	89	72	80	72	81	77	75	81	85	89	90	91	82	84	82	79	85	90	79	75	75	81	84	90	..	79.7
	min.	44	47	54	51	41	45	54	54	60	58	54	56	56	60	60	62	61	65	64	57	66	66	64	71	62	55	57	57	60	62	..	57.4
Bonapa'e	max.	69	75	75	72	68	71	77	67	78	73	79	74	74	79	83	86	86	87	78	83	84	79	83	87	77	71	74	78	83	87	..	77.9
	min.	48	45	55	54	46	44	53	55	59	59	54	53	55	59	59	61	61	64	64	57	66	65	65	70	63	54	53	55	58	63	..	57.2
Boone.....	max.	69	79	63	64	68	59	59	65	65	70	78	72	75	79	82	93	90	80	79	82	81	83	86	88	74	73	74	82	84	84	..	75.7
	min.	45	46	53	51	46	49	52	51	52	57	54	51	52	52	62	66	66	66	55	57	63	65	64	61	63	53	52	54	60	62	..	56.0
Britt.....	max.	71	78	70	67	69	70	58	71	64	72	73	70	75	78	76	90	89	78	74	81	83	83	82	90	73	68	77	82	86	85	..	76.1
	min.	44	44	51	47	43	47	51	51	54	56	51	50	51	57	60	65	65	64	51	59	60	64	63	64	59	46	45	50	59	60	..	54.4
Burl'g'n.	max.	71	75	72	72	71	72	76	67	78	73	80	74	77	82	84	87	88	89	81	83	85	76	82	80	78	73	76	79	84	88	..	78.4
	min.	49	48	53	54	43	47	53	54	54	59	57	55	56	57	57	63	63	67	66	59	65	65	66	70	63	54	53	59	57	63	..	57.6
Carroll...	max.	71	78	67	66	..	..	..	64	68	72	79	72	75	79	86	92	88	77	78	82	78	83	89	91	77	74	73	82	87	84	..	78.2
	min.	47	42	52	50	41	49	50	51	52	56	51	50	53	55	62	68	64	64	51	47	61	66	61	60	60	50	48	52	62	61	..	54.5
Cedar R..	max.	72	82	65	70	69	72	56	69	71	69	78	71	78	82	84	86	94	91	82	86	89	82	84	85	75	72	74	83	86	90	..	78.2
	min.	47	47	47	54	47	45	45	52	53	53	56	54	53	54	54	62	66	67	62	60	64	65	65	68	64	54	53	55	58	63	..	56.2
Chariton.	max.	68	78	73	68	68	65	65	66	78	72	79	74	74	76	84	88	87	84	77	82	80	82	85	88	78	72	73	80	82	86	..	77.1
	min.	45	45	49	50	43	47	51	52	59	55	51	54	55	60	60	64	60	61	58	54	64	61	63	71	60	49	50	54	57	60	..	55.4
Clarinda.	max.	72	84	66	71	73	63	76	72	78	77	87	82	79	85	93	98	93	85	81	87	77	87	87	95	76	80	84	84	90	87	..	81.6
	min.	47	42	49	50	45	48	52	54	56	58	50	56	57	65	65	67	61	63	55	50	57	56	62	64	60	50	51	51	62	60	..	55.4
Clear La'e	max.	70	75	65	67	72	77	55	70	64	68	73	72	72	79	73	90	87	81	74	87	84	82	80	87	72	70	69	80	87	88	..	75.7
	min.	45	45	53	45	44	44	50	50	53	58	55	54	50	50	69	63	65	62	62	65	57	65	63	64	60	50	50	60	65	65	..	56.0
Clinton...	max.	75	77	70	75	72	75	59	73	73	75	81	73	77	83	81	91	92	90	85	85	89	85	85	85	79	74	80	82	85	91	..	79.9
	min.	48	44	52	48	46	42	52	53	52	60	51	51	56	56	57	51	56	63	63	55	64	67	65	66	62	55	51	57	54	58	..	55.2
Colum's J	max.	70	76	70	72	68	74	67	69	75	73	79	73	72	82	85	88	89	89	81	85	86	80	85	85	77	77	77	80	85	88	..	78.6
	min.	47	48	54	53	45	45	53	53	55	60	54	54	54	54	57	62	63	65	64	57	66	65	67	70	63	54	53	55	60	63	..	57.1
Corning..	max.	70	79	74	69	71	62	68	67	74	73	82	78	76	80	88	91	88	81	79	83	76	84	84	91	82	76	74	83	86	86	..	78.5
	min.	46	39	57	51	43	49	52	53	61	56	45	56	57	62	63	63	63	61	53	48	66	67	63	72	62	49	49	54	62	60	..	56.2
Corydon.	max.	70	79	74	69	71	66	69	67	79	74	81	77	73	76	84	87	87	86	80	82	77	80	83	87	80	76	75	81	80	85	..	77.8
	min.	46	46	57	50	44	48	52	53	60	56	52	55	56	61	63	65	62	63	60	54	65	63	63	77	62	52	53	55	60	60	..	57.1
Creston..	max.	68	77	62	63	68	60	65	68	72	72	78	76	75	78	85	90	86	81	76	80	75	82	83	88	71	74	73	79	80	83	..	75.6
	min.	45	44	58	50	49	41	52	52	53	57	50	55	57	58	54	66	67	63	55	50	58	61	63	69	61	50	50	51	60	61	..	55.3
Decorah..	max.	74	80	64	81	69	74	61	75	69	73	61	68	78	82	78	91	92	79	78	82	85	84	77	90	74	70	75	83	87	82	..	77.2
	min.	42	41	53	50	48	42	52	46	52	58	53	54	48	49	58	59	68	63	57	59	57	67	65	62	60	50	48	48	47	65	..	54.0
Delaware.	max.	70	80	68	67	66	76	60	68	67	69	71	66	73	78	79	88	87	84	81	85	85	79	82	85	74	71	78	83	85	85	..	76.3
	min.	44	45	43	47	44	46	46	48	50	60	50	52	52	50	55	55	59	64	59	58	62	65	65	64	65	51	50	52	57	62	..	54.0
Denison..	max.	70	78	72	65	67	64	62	65	70	71	77	74	75	80	89	91	86	77	76	81	82	83	84	89	78	72	74	82	88	88	..	77.0
	min.	49	41	52	50	43	46	52	50	49	56	49	49	57	..	58	58	63	64	49	46	55	62	61	65	60	50	48	53	63	64	..	53.9
De Soto ..	max.	69	79	71	67	70	68	60	64	72	71	78	72	73	77	85	90	88	79	77	80	79	81	84	87	71	71	70	79	82	82	..	75.9
	min.	45	43	56	52	46	47	52	52	60	57	54	52	55	62	64	68	65	66	55	53	63	64	64	63	62	53	51	53	61	61	..	56.6
Dows	max.	71	77	69	64	68	63	56	66	65	66	74	71	74	79	74	93	90	78	75	81	83	82	84	88	71	68	74	80	86	82	..	75.1
	min.	42	40	51	48	43	42	50	51	53	58	52	50	49	56	59	65	65	62	52	49	57	64	62	60	60	49	46	49	59	59	..	53.4
Earlham .	max.	69	77	66	68	69	59	61	63	71	73	78	75	74	77	84	89	85	79	78	80	77	80	82	86	71	73	73	80	81	82	..	75.1
	min.	44	41	55	49	44	42	50	52	59	56	53	50	55	62	63	66	64	63	53	48	60	62	64	70	62	48	47	47	60	59	..	54.9
Elkader ..	max.	75	80	70	70	76	75	65	75	70	70	64	70	76	85	83	94	95	87	82	85	89	82	77	92	82	71	74	86	86	82	..	78.9
	min.	44	40	56	52	46	40	51	48	54	60	50	56	51	47	50	57	66	62	57	54	57	65	64	63	64	50	48	51	54	62	..	54.0
Elliott....	max.	73	84	72	71	80	64	69	72	83	75	83	84	79	86	92	95	93	80	76	89	75	88	93	96	75	75	78	90	94	93	..	81.9
	min.	42	41	54	52	45	49	54	54	63	57	48	55	59	65	65	68	63	65	57	48	65	65	63	72	62	50	50	50	63	62	..	56.9
Esth'rv'e.	max.	73	78	73	63	69	60	56	68	64	67	73	68	73	77	82	91	88	72	75	82	80	82	82	88	73	70	89	83	85	87	..	72.4
	min.	46	45	51	51	42	46	49	50	51	57	52	50	51	56	61	60	64	62	52	49	57	62	63	64	56	47	48	55	60	63	..	54.0
Fayette...	max.	71	77	64	69	69	71	56	70	67	68	67	69	..	80	78	89	89	79	77	79	82	79	77	86	72	69	71	80	84	82	..	74.9
	min.	45	57	53	46	44	39	51	49	54	55	51	51	..	47	55	57	67	61	52	54	57	65	65	62	60	49	46	50	54	62	..	53.7
Forest C..	max.	73	79	69	63	69	65	57	71	63	67	72	72	76	79	78	90	89	79	76	81	83	81	80	90	76	70	75	81	85	80	..	75.6
	min.	46	45	53	51	43	45	51	51	53	55	52	54	51	55	60	60	66	61	53	54	60	65	63	65	60	45	50	51	55	63	..	54.5
Ft. Dodge.	max.	77	79	66	65	68	60	59	66	65	68	76	74	76	79	78	94	91	79	83	77	83	84	86	90	75	70	72	84	88	87	..	76.6
	min.	47	44	53	52	45	48	52	52	53	57	54	52	52	56	62	65	69	66	54	58	52	66	63	66	62	51	50	53	60	64	..	55.9
Galva.....	max.	70	78	70	67	68	68	62	65	67	70	75	73	75	79	80	89	88	78	75	81	81	83	88	90	78	71	77	82	88	85	..	76.7
	min.	50	42	52	50	42	49	49	52	59	58	51	47	50	62	64	68	61	58	50	45	58	65	62	65	58	47	47	51	61	61	..	54.8
Gr. Mead.	max.	69	66	74	71	67	72	56	72	66	69	63	67	76	79	78	88	89	79	76	79	84	80	76	87	75	69	72	80	84	81	..	74.8
	min.	43	54	47	46	45	45	50	46	51	59	51	53	51	50	55	60	67	59	56	56	59	65	66	67	62	49	50	57	60	62	..	54.7
Greenfl'ld	max.	70	77	75	66	68	67	63	65	70	70	78	74	75	78	81	89	81	80	77	82	82	81	83	88	82	75	71	80	82	83	..	76.4
	min.	44	45	54	51	43	49	51	52	60	56	52	55	56	62	63	67	65	64	53	51	61	63	62	72	61	50	51	55	62	56	..	56.2
Greene ...	max.	72	80	70	62	70	69	57	74	65	70	74	74	79	83	72	92	91	81	76	85	83	83	83	90	73	71	74	85	85	79	..	76.7
	min.	44	42	53	45	45	41	52	50	50	49	52	53	49	50	58	60	68	63	53	53	59	65	63	63	61	48	46	50	58	61	..	53.5
Grundy C.	max.	68	78	74	67	67	65	56	68	68	64	76	72	76	80	80	90	90	85	80	80	83	81	85	87	72	69	72	81	84	89	..	76.2
	min.	43	42	52	47	46	43	52	52	52	58	54	50	50	52	55	61	67	55	54	56	60	65	60	60	60	50	46	57	64	60	..	54.1
Grinnell..	max.	68	78	73	69	73	65	58	67	72	69	77	74	74	81	83	91	89	85	79	83	83	81	85	90	83	73	74	82	85	87	..	77.7
	min.	45	45	57	50	45	45	52	52	57	56	53	49	51	57	61	62	70	62	68	67	64	68	66	62	67	63	65	60	64	60	..	58.1
Guthrie C.	max.	72	80	80	66	72	70	60	64	69	72	79	78	75	79	88	94	92	87	79	87	85	86	86	92	84	75	71	85	87	87	..	79.4
	min.	41	41	53	52	45	46	52	53	60	57	54	50	56	64	64	69	66	66	52	49	63	61	63	66	63	50	50	50	62	61	..	56.0
Hampton.	max.	74	79	70	65	68	66	55	70	65	67	75	73	78	81	73	93	91	80	76	82	83	82	80	87	73	69	73	81	86	81	..	75.9
	min.	43	44	53	49	45	43	51	51	53	58	54	52	51	55	59	65	69	65	54	55	59	65	63	65	63	50	50	52	60	63	..	55.3
Hancock .	max.	70	78	69	69	68	61	66	66	79	72	79	78	78	83	89	91	87	83	71	82	76	84	85	92	85	79	77	83	88	88	..	78.6
	min.	47	45	53	52	53	54	54	53	62	58	51	55	58	64	64	70	62	66	54	52	66	67	61	72	63	53	52	53	64	62	..	58.0
Harlan ...	max.	71	78	69	67	68	61	62	65	74	71	79	78	77	81	89	90	87	78	76	82	75	84	86	91	82	74	73	83	87	88	..	77.5
	min.	47	40	52	51	43	47	52	53	60	57	51	53	57	63	64	68	63	67	49	47	64	65	59	71	61	47	48	48	59	59	..	55.5
Hopeville	max.	69	79	65	67	70	62	67	68	82	73	80	77	75	79	89	93	90	85	79	87	82	82	85	90	79	74	77	84	86	90	..	78.8
	min.	46	46	56	51	44	48	53	53	61	57	52	55	57	62	63	65	63	62	57	52	64	63	63	72	60	52	52	54	58	60	..	56.7

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JUNE, 1907—CONTINUED.

STATIONS		DATE																														MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	25	24	25	26	27	28	29	30	
Humboldt	max.	70	78	70	64	66	62	59	67	65	68	75	70	74	80	75	92	90	78	75	82	83	81	81	88	72	69	76	82	88	86	..	75.5
	min.	45	43	52	52	45	48	53	53	58	59	55	50	50	60	64	64	68	66	52	50	60	65	64	64	60	49	64	62	62	60	..	56.6
Indep'd'e	max.	71	76	71	69	66	69	56	71	68	68	74	70	78	78	72	84	86	84	80	78	82	80	78	85	77	68	68	78	83	84	..	75.1
	min.	42	45	54	46	45	41	51	51	52	56	51	51	51	50	54	60	66	60	58	58	60	70	63	62	63	49	51	51	56	58	..	54.2
Indianola	max.	70	77	66	68	63	64	65	71	69	71	79	72	73	77	85	89	88	82	78	82	80	81	85	89	84	72	70	80	82	85	..	76.6
	min.	62	46	52	47	52	54	55	61	52	57	55	55	56	62	63	67	66	64	57	58	66	65	65	67	62	54	53	56	61	59	..	58.3
Inwood...	max.	76	77	73	64	69	64	56	67	66	67	79	72	75	79	83	93	85	76	70	81	84	78	84	86	76	73	78	85	89	82	..	76.2
	min.	44	49	51	48	38	51	51	51	56	54	50	52	53	62	65	67	61	52	46	51	61	58	61	63	53	45	46	54	63	65	..	54.0
Iowa City.	max.	74	82	69	70	70	70	59	70	75	69	79	76	82	86	87	91	91	92	82	87	88	82	86	90	77	74	76	84	87	89	..	79.8
	min	47	44	56	49	47	44	52	53	53	56	55	53	52	54	57	60	61	64	63	57	63	65	66	69	63	55	52	57	57	62	..	56.2
Iowa Falls	max.	69	79	63	66	68	65	57	70	66	68	75	72	77	82	77	91	90	83	77	83	84	82	86	88	72	69	76	83	85	86	..	76.3
	min.	45	41	49	49	45	42	47	52	53	55	53	51	51	54	54	62	67	64	53	52	56	65	64	64	61	50	47	51	56	62	..	53.8
Jefferson.	max	72	80	77	73	69	67	60	61	66	71	79	75	77	80	81	93	90	82	79	83	83	84	88	90	74	74	73	83	80	86	..	77.7
	min.	45	44	46	51	44	50	52	52	60	58	53	50	55	62	64	68	61	66	51	52	64	62	64	61	63	50	52	50	51	60	..	55.4
Keosa'q'a	max.	70	79	71	72	70	68	77	70	81	74	82	75	78	81	84	88	90	91	84	85	85	81	87	88	79	75	78	83	85	89	..	80.0
	min.	48	44	53	53	47	43	53	55	55	59	55	52	56	60	58	60	65	64	65	55	63	66	65	71	63	52	51	53	54	62	..	56.7
Knoxville	max.	68	80	76	69	70	66	63	66	79	73	80	76	76	80	87	90	90	86	80	85	81	84	88	91	83	72	72	82	84	88	..	78.8
	min.	47	46	58	52	47	47	52	53	60	56	54	52	54	60	61	66	65	63	59	56	66	64	64	68	62	53	52	55	60	63	..	57.2
Le Mars ..	max.	73	77	73	65	69	62	60	64	71	71	77	75	77	82	90	93	89	75	74	82	78	84	85	88	79	73	78	85	89	86	..	77.5
	min.	45	45	50	48	42	52	52	52	59	53	51	50	55	64	65	71	64	63	51	48	62	63	62	66	56	49	50	56	61	62	..	55.6
Lenox	max.	69	80	78	69	72	70	68	68	73	73	82	80	75	80	..	91	88	86	77	84	80	88	84	90	87	75	75	83	83	86	..	79.1
	min.	45	45	57	51	44	51	53	53	61	56	51	57	56	62	..	68	66	63	57	64	65	65	62	71	61	52	52	54	61	58	..	57.3
Leon.....	max.	68	79	65	69	72	61	68	70	82	74	82	76	76	82	87	92	89	86	78	86	84	83	85	90	79	75	75	83	83	88	..	78.9
	min.	47	42	57	50	44	49	55	53	64	56	52	56	58	64	63	66	62	63	55	60	63	63	63	72	61	52	56	53	60	61	..	57.3
Lit. Sioux	max.	72	80	77	68	70	66	65	66	72	73	81	81	79	85	91	93	90	75	78	82	79	85	86	91	78	77	78	85	91	90	..	79.5
	min.	44	42	53	53	39	53	55	54	62	59	46	58	59	60	68	73	64	64	52	48	63	65	61	67	60	49	51	58	65	65	..	57.0
Larrabee.	max.	77	77	72	64	74	62	60	66	..	73	84	70	75	81	85	95	89	78	81	88	80	88	83	93	82	78	82	87	92	84	..	79.3
	min.	47	46	54	49	40	54	52	52	..	58	52	51	53	63	64	70	63	62	52	51	59	64	62	62	57	48	50	54	63	62	..	55.7
Logan	max.	72	80	72	70	78	61	65	67	72	74	81	80	79	85	91	92	88	75	77	76	82	85	86	91	78	75	75	83	92	91	..	79.1
	min.	51	57	54	42	46	49	49	52	63	59	49	54	59	65	66	69	65	64	49	46	48	62	60	70	61	49	50	52	63	64	..	56.2
Mars'll't'n	max.	70	78	60	68	68	66	56	66	70	70	78	74	76	86	80	90	90	80	79	83	82	80	84	88	72	72	74	81	84	87	..	76.4
	min.	46	62	58	56	52	48	54	52	52	58	54	54	50	54	60	64	66	62	54	56	63	65	63	64	62	52	50	55	58	63	..	56.9
Mason C'y	max.	74	80	70	65	71	65	58	72	65	70	75	71	76	79	75	92	90	80	79	83	84	84	83	88	72	69	74	83	86	79	..	76.4
	min.	44	45	53	47	45	45	52	52	52	56	54	54	50	54	58	63	68	66	54	55	60	67	64	66	64	50	46	50	64	64	..	55.4
Massena..	max.	71	80	72	72	74	70	64	66	73	74	84	78	76	80	88	94	89	80	79	84	78	84	85	93	85	78	76	84	86	85	..	79.4
	min.	44	41	50	42	40	41	52	52	60	55	47	54	52	65	63	68	63	63	54	48	63	62	61	72	62	50	49	54	60	60	..	54.8
Mt. Ayr ..	max.	72	81	68	70	73	63	75	70	79	75	83	80	80	81	88	93	89	89	83	86	76	85	86	91	80	79	79	83	83	87	..	80.2
	min.	44	47	55	51	43	51	53	53	60	55	50	56	56	48	62	66	63	61	58	56	63	60	61	61	60	55	53	55	50	59	..	55.5
Mt. Pleas't	max.	70	77	73	73	69	71	73	68	78	74	80	75	77	82	84	88	90	90	82	85	86	80	86	86	77	73	75	80	85	89	..	79.2
	min.	47	47	55	54	47	47	52	54	56	59	56	55	54	55	61	64	54	67	64	58	64	65	60	68	62	54	53	57	58	64	..	57.4
Mt. Ver'n.	max.	76	85	70	69	65	65	64	69	72	66	78	75	82	84	83	89	91	91	82	84	84	79	83	87	75	73	76	83	81	86	..	78.2
	min.	45	46	55	47	44	47	50	50	52	62	52	53	51	54	59	60	62	64	60	64	64	63	64	63	61	52	52	58	58	62	..	55.8
N. Hamp'n	max.	69	75	66	66	65	69	58	69	67	68	65	68	74	78	78	86	87	83	83	77	81	77	75	80	72	67	69	78	82	78	..	73.7
	min.	43	46	52	47	45	42	50	47	53	58	51	54	50	50	57	59	65	60	53	56	58	57	64	63	61	48	49	50	56	62	..	53.5
Newton...	max.	68	77	70	65	68	68	59	64	72	70	77	74	76	80	85	90	89	89	78	83	84	80	84	88	82	70	72	80	84	87	..	77.1
	min.	43	46	56	51	47	47	46	52	57	58	53	59	53	59	62	64	66	64	58	60	64	65	65	64	61	53	62	55	60	63	..	57.1
Northw'd	max.	73	78	68	67	68	70	59	71	62	58	70	71	75	78	73	90	89	81	..	82	83	73	68	88	73	..	68	74	75	80	..	73.8
	min.	48	45	33	46	43	42	48	48	51	52	52	53	49	50	58	68	68	63	..	53	56	64	63	61	60	..	47	48	50	61	..	52.9
Odebolt ..	max.	74	81	73	65	72	72	60	65	67	71	79	84	80	84	89	95	92	76	83	88	85	87	93	93	86	76	79	87	92	91	..	80.6
	min.	49	44	52	60	42	50	52	52	59	57	53	51	53	62	64	70	63	64	51	50	62	65	70	68	59	50	50	52	61	64	..	56.6
Olin.....	max.	70	76	68	71	67	74	60	69	71	73	76	71	74	77	84	86	88	87	79	83	86	80	82	83	75	71	76	80	85	85	..	76.9
	min.	47	44	52	56	45	40	51	52	51	62	53	52	50	51	54	57	60	64	62	59	61	67	66	67	65	58	52	55	54	61	..	55.6
Onawa....	max.	76	79	74	68	75	75	64	65	72	75	83	82	78	83	93	94	93	75	82	85	84	86	88	89	86	78	80	85	92	90	..	81.0
	min.	47	46	54	52	44	54	54	53	60	58	50	56	58	65	66	72	67	65	54	52	63	64	62	67	60	52	55	57	67	65	..	58.0
Osage.....	max.	75	78	74	67	69	69	60	74	66	65	67	72	78	80	74	90	90	82	78	81	82	81	76	88	74	70	71	84	85	79	..	76.0
	min.	38	41	51	46	44	40	49	46	52	56	50	53	47	48	57	60	65	62	52	53	57	63	62	59	56	45	45	47	56	61	..	52.0
Oskaloosa	max.	68	76	70	69	67	63	64	66	76	70	78	72	73	79	85	90	89	86	77	83	83	80	83	89	83	68	67	67	74	77	..	75.7
	min.	48	39	59	50	47	44	52	52	59	57	55	50	54	59	62	63	64	65	60	54	67	64	65	67	61	53	53	56	60	60	..	56.6
Ottumwa.	max.	73	82	75	70	71	69	68	67	79	72	78	78	80	84	85	91	92	92	81	85	84	84	84	93	77	74	75	80	85	89	..	79.9
	min.	48	49	56	52	49	48	53	54	55	59	56	54	55	60	64	63	61	67	63	58	67	64	66	70	63	55	54	58	61	64	..	58.2
Pacific Jc.	max.	73	84	76	67	73	65	70	70	79	74	84	82	81	86	91	91	89	78	76	82	76	84	89	91	75	76	75	83	92	90	..	80.1
	min.	48	41	53	50	44	52	56	54	64	57	48	57	60	65	66	68	64	65	52	50	65	65	60	69	62	70	50	55	63	62	..	57.8
Pella.....	max.	72	81	78	68	71	70	65	66	77	72	80	80	78	82	86	92	91	90	83	87	85	84	89	92	86	..	75	84	86	87	..	80.6
	min.	45	48	56	52	47	47	51	52	59	56	54	54	53	59	62	63	65	61	59	59	67	64	64	66	62	..	53	57	61	63	..	57.3
Perry.....	max.	71	81	72	67	70	63	61	67	69	71	78	76	78	82	87	94	90	73	79	79	84	86	89	90	69	73	73	83	87	89	..	77.7
	min.	44	44	53	52	46	49	53	53	59	57	53	51	55	62	63	67	66	65	53	53	63	66	65	59	63	51	53	52	61	63	..	56.5
Plover....	max.	76	80	76	67	70	61	62	67	64	72	76	72	74	79	76	93	92	79	76	84	84	84	85	89	77	71	80	85	89	88	..	77.6
	min.	46	44	50	47	40	49	46	48	49	55	57	50	48	49	58	60	65	61	63	60	48	58	64	62	65	59	49	47	50	57	..	55.4
Pocahon's	max.	71	80	68	65	70	60	60	67	65	70	76	73	76	80	77	92	89	76	77	80	81	82	87	92	76	70	80	85	90	88	..	76.8
	min.	46	47	51	49	43	49	51	51	57	57	52	53	51	59	69	67	64	63	65	50	60	63	62	60	59	48	49	49	61	58	..	55.4
Ridgeway	max.	72	80	65	75	71	71	58	72	65	71	60	68	74	80	76	89	90	83	80	82	83	79	78	90	75	72	72	85	84	81	..	76.0
	min.	42	50	53	48	45	45	50	45	52	47	51	53	48	50	57	60	70	63	54	56	58	65	64	62	60	47	49	51	58	63	..	54.2
Rock Rap.	max.	74	68	74	68	66	60	60	64	68	72	70	70	74	80	90	94	80	72	74	80	80	84	84	90	70	72	78	86	90	86	..	75.9
	min.	46	50	48	46	40	50	48	50	50	52	52	48	46	54	68	68	60	58	50	50	54	52	54	54	50	46	46	54	56	64	..	52.1
Rock'll Cy	max.	70	75	80	68	68	60	62	70	70	68	70	70	78	73	80	93	92	80	75	80	70	85	90	92	75	75	78	85	90	88	..	77.0
	min.	46	49	48	50	43	51	53	53	58	55	54	52	55	54	56	58	66	66	65	53	53	62	63	68	63	58	56	53	60	60	..	56.0
Sac City ..	max.	70	78	72	64	67	57	60	69	67	70	77	71	74	78	81	90	88	76	76	81	78	84	90	89	74	72	77	82	87	86	..	76.2
	min.	48	46	51	50	44	41	40	50	47	57	58	49	53	61	63	69	63	57	53	49	49	65	62	61	59	51	51	52	62	63	..	54.1
St. Charl's	max.	69	78	65	67	67	60	63	64	75	70	77	74	72	77	86	91	87	83	78	83	78	79	83	88	73	71	73	80	82	83	..	75.9
	min.	45	46	55	51	46	50	51	52	60	56	53	55	56	61	64	68	61	64	57	57	66	62	64	68	62	54	54	54	61	62	..	57.2
Sheldon ..	max.	78	78	76	65	70	67	65	61	66	71	77	75	78	83	83	94	90	78	78	77	78	85	89	92	78	75	78	86	94	86	..	78.4
	min.	49	51	50	49	40	50	49	51	53	56	51	47	53	61	63	68	60	60	50	57	58	62	63	64	52	46	45	48	54	61	..	54.0
Sibley	max.	73	77	72	60	68	58	57	64	63	67	74	71	75	78	78	90	87	71	73	81	76	82	82	88	72	69	76	82	87	79	..	74.3
	min.	45	43	50	49	39	42	51	50	52	57	51	48	51	54	62	63	61	61	49	49	51	60	61	64	53	47	46	50	55	61	..	52.5
Sigourn'y	max.	72	79	70	70	69	68	66	70	75	72	79	78	82	86	91	90	90	80	85	85	82	87	91	77	72	76	81	..	86	88	..	79.2
	min.	47	45	56	51	40	45	52	52	57	57	53	52	57	60	62	63	64	61	55	66	65	64	67	62	53	52	55	..	58	63	..	56.3
Sioux Cen	max.	72	77	71	66	67	60	60	63	69	69	75	71	75	79	83	90	86	73	73	80	78	82	84	85	74	72	77	82	88	82	..	75.4
	min.	46	48	52	48	40	50	50	49	53	57	49	50	51	61	61	67	61	62	52	53	58	61	61	65	52	50	50	54	60	62	..	54.4
Stockport	max.	67	73	67	69	67	65	79	67	77	74	77	71	73	79	80	84	85	86	78	81	81	77	81	85	73	70	72	77	81	85	..	76.0
	min.	48	46	55	53	47	45	53	54	59	59	55	56	55	60	61	61	63	66	62	57	53	65	65	72	62	55	54	57	56	63	..	57.2
Storm Lk.	max.	70	75	71	66	67	60	58	63	65	68	74	75	73	76	82	91	90	75	80	87	83	83	88	94	82	77	80	84	92	90	..	77.3
	min.	47	49	52	50	43	52	52	52	58	57	53	50	53	61	63	68	62	61	52	50	66	63	62	66	55	50	50	54	64	64	..	56.0
Stuart	max.	68	78	73	68	69	67	61	61	73	71	78	71	74	80	88	93	94	86	78	87	84	84	..	..	71	76	75	85	86	89	..	77.4
	min.	46	45	54	56	46	52	52	52	52	52	55	55	56	63	65	65	68	68	57	58	58	69	65	63	63	54	54	52	60	62	..	57.2
Thurman	max.	73	83	80	71	74	74	73	70	79	76	85	80	81	87	92	94	91	85	78	86	84	87	90	93	76	78	79	85	91	92	..	82.2
	min.	48	40	55	52	44	44	55	54	65	58	50	57	60	66	67	72	67	66	53	50	65	67	62	67	64	52	52	54	65	62	..	57.8
Tipton....	max.	70	80	71	74	72	70	58	69	71	68	79	74	78	83	85	89	92	91	86	86	87	80	84	86	79	77	77	83	85	88	..	79.1
	min.	48	50	56	53	47	50	52	52	53	61	55	55	55	57	60	64	64	66	66	62	67	65	66	67	65	56	57	60	62	65	..	58.5
Toledo ...	max.	69	73	70	70	66	69	56	67	70	67	72	72	75	79	81	89	91	84	78	82	83	79	83	88	73	70	72	82	85	86	..	76.0
	min.	45	43	56	49	46	42	52	52	53	57	54	52	49	56	59	60	62	60	56	59	63	66	66	60	62	52	50	55	60	63	..	55.3
Wapello ..	max.	68	74	71	70	70	68	67	65	71	71	75	70	73	77	74	85	87	87	79	83	80	74	78	78	73	68	71	76	80	83	..	74.9
	min.	48	48	54	56	47	47	54	54	56	62	56	55	58	56	58	64	65	67	67	59	65	66	67	70	64	55	58	59	58	65	..	58.6

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JUNE, 1907—CONTINUED.

STATIONS		DATE																													NAME
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Wash'g'n	max.	70	76	67	72	70	68	63	67	73	71	79	73	75	80	82	82	88	88	80	..	..	..	..	..	75	70	72	77	82	87	..	75.5
	min.	46	44	56	51	46	46	52	52	54	60	54	53	53	55	58	62	63	65	62	56	..	..	..	..	60	53	50	57	58	63	..	55.0
Washta...	max.	73	80	70	66	65	60	63	64	66	72	76	76	76	76	85	92	91	76	86	84	80	84	88	91	75	74	78	85	90	87	..	77.6
	min.	45	40	50	54	54	46	53	55	59	56	46	48	56	67	70	70	58	62	64	43	57	64	62	62	55	45	44	48	62	62	..	55.2
Waterloo.	max.	71	79	60	70	69	69	56	70	68	69	77	72	77	80	80	91	92	83	80	82	85	80	82	88	74	75	72	83	85	85	..	76.8
	min.	45	44	57	50	47	43	51	52	53	55	55	54	52	52	58	60	66	64	56	58	62	66	65	66	63	50	49	54	58	66	..	55.7
Waukee..	max.	69	79	64	67	71	67	60	64	71	70	78	75	75	80	88	92	89	80	79	85	80	85	85	89	73	84	85	85	86	85	..	78.0
	min.	41	45	56	51	45	50	52	54	59	57	53	52	55	62	64	67	66	66	56	57	62	64	65	60	61	60	64	62	64	62	..	57.7
Waverly .	max.	68	76	70	67	66	69	56	69	66	67	73	68	74	78	75	87	88	80	74	78	82	79	78	86	72	68	66	78	82	80	..	74.0
	min.	44	43	53	46	46	43	51	52	53	58	52	54	51	52	61	61	68	65	55	56	61	66	64	65	63	57	48	51	59	61	..	55.3
Websr. Cy	max.	70	82	72	74	71	65	60	70	66	69	81	73	75	80	77	94	95	85	80	88	87	86	89	93	73	76	80	88	88	95	..	79.4
	min.	44	41	52	49	44	45	52	52	57	58	53	50	48	59	62	65	67	64	52	49	59	65	64	64	63	50	47	49	60	63	..	54.9
W. Bend .	max.	72	78	73	61	73	68	59	70	65	75	74	73	77	81	78	93	93	74	73	88	87	89	84	91	74	69	86	88	92	92	..	78.3
	min.	47	45	52	49	42	47	51	52	56	59	52	49	49	58	61	65	63	63	51	52	58	65	64	65	59	47	49	53	60	57	..	54.7
Whitten ..	max.	68	79	77	65	68	69	56	67	69	68	76	76	76	81	81	92	91	84	78	85	85	81	85	90	77	72	75	84	87	89	..	77.7
	min.	42	44	50	45	43	43	50	50	53	57	51	50	48	56	60	61	65	63	52	55	63	64	62	64	58	49	49	53	60	60	..	54.0
Wilton Jn	max.	70	75	73	67	71	71	70	69	71	71	80	79	77	81	86	88	87	94	92	84	80	81	83	85	83	76	78	81	85	87	..	79.2
	min.	46	47	54	56	45	43	54	52	52	63	54	52	52	52	54	59	60	63	64	55	62	65	66	67	64	50	50	56	55	61	..	55.8
Winterset	max.	70	81	80	68	73	67	63	66	74	73	82	77	78	80	88	94	91	88	82	86	84	85	87	92	90	76	76	85	86	85	..	80.2
	min.	44	47	58	52	47	49	53	53	60	57	54	55	57	63	64	67	66	64	55	55	66	63	64	70	63	54	53	55	61	62	..	57.7
Woodb'rn	max.	69	78	78	71	69	65	67	67	82	73	80	75	75	79	87	90	89	87	79	84	80	82	85	89	80	75	73	80	83	85	..	78.5
	min.	44	38	58	47	44	41	51	52	60	51	51	49	56	57	61	65	58	58	55	47	63	62	62	72	61	46	46	47	59	60	..	54.0
Zearing...	max.	69	79	66	67	66	63	57	67	60	68	76	75	77	80	79	91	89	81	77	81	82	80	84	88	73	70	74	82	84	89	..	75.8
	min.	44	40	52	47	49	53	52	51	50	57	49	55	48	56	59	65	65	65	55	55	59	65	63	65	63	52	45	52	60	61	..	55.1

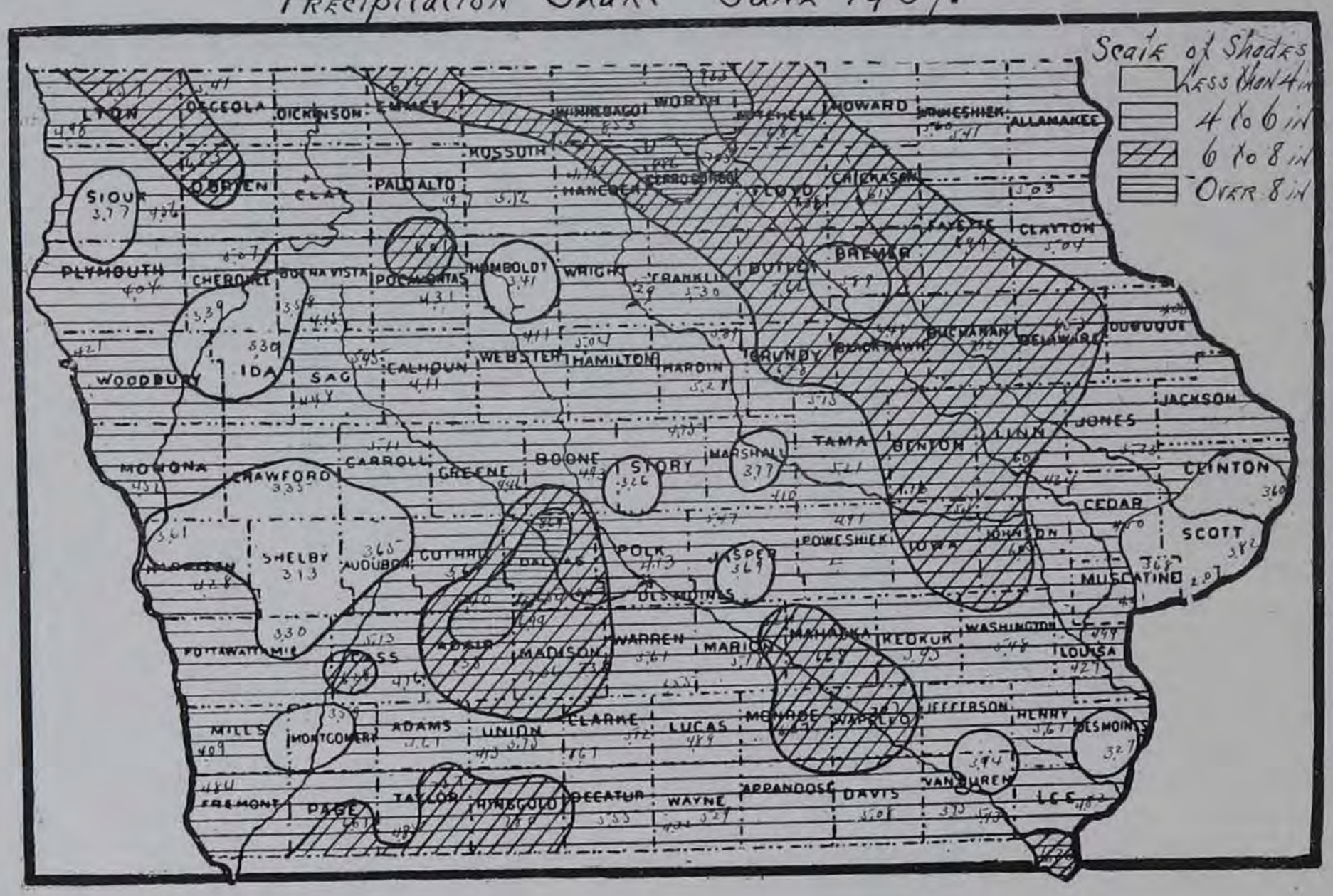
DAILY AND MONTHLY PRECIPITATION FOR JUNE, 1907.

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	.21	....	....	.17	1.57	....	1.19	.14	....	....	....	....	....	....	....	....	....	....	.25	1.05	.67	....	.50	....	....	....	....	....	....	5.75
Albia	.22	....	....	.23	.03	....	.90	T	.08	1.37	.09	....	....	....	.09	....	....	....	....	....	....	1.60	.32	....	1.32	.02	....	....	....	....	....	6.27
Algona	....	T	.55	.11	....	.50	.25	....	.60	.29	....	....	....	....	1.10	....	....	....	....	....	....	.10	.10	....	....	....	....	....	....	1.52	....	5.12
Allerton	....	....	.18	T	....	.15	.83	T	.01	.81	....	....	T	T	....	....	....	T	.04	....	.38	.52	.40	....	1.00	....	....	....	T	T	....	4.32
Alta	.35	....	.58	.48	.03	T	.44	T	.01	.70	.17	....	....	....	....	....	....	.01	....	....	....	.81	....	....	....	....	....	....	....	....	....	3.58
Alta (near)	....	....	.72	.38	....	.26	.05	....	1.25	.23	....	....	....	....	....	....	....	.03	....	....	.78	....	.09	....	.27	....	....	....	....	1.17	....	5.23
Alton	....	T	T	.58	....	.83	.49	T	.29	1.62	....	....	....	....	....	....	.57	....	....	....	.14	....	.04	....	....	....	....	....	....	T	....	4.56
Amana	....	....	.17	.17	....	.10	1.67	....	1.34	1.09	....	....	....	....	.08	....	....	....	....	....	.06	.89	.25	.59	1.12	....	....	....	....	.01	....	7.54
Ames	....	.01	.73	.04	....	.10	.23	....	1.04	.22	....	....	....	....	....	....	....	....	....	....	....	.10	.50	.23	.01	....	.01	....	....	.04	....	3.26
Atlantic	....	....	.56	....	....	1.34	.25	....	.14	.09	....	....	....	.60	....	....	....	.75	....	....	.12	.09	....	1.00	.19	....	....	....	T	....	....	5.13
Audubon	....	....	.67	.05	....	.45	.39	T	.75	.06	....	....	....	....	....	....	....	.05	....	....	.11	....	.25	....	.52	....	....	....	....	.35	....	3.65
Baxter	....	....	.55	.13	....	.14	.75	.01	2.07	.22	....	....	....	....	....	....	....	....	....	....	T	.73	.44	.02	.34	....	....	....	....	.07	....	5.47
Bedford	....	....	.35	.03	....	.48	.78	....	.11	.04	....	.25	....	....	....	....	....	.12	....	....	.23	.57	.43	T	1.13	....	T	....	.33	T	....	4.85
Belle Plaine	.12	....	.52	.15	....	1.31	....	....	.90	1.22	.11	....	....	....	.25	....	....	....	....	....	....	.67	.15	.05	1.50	....	....	....	....	.21	....	7.16
Bloomfield	....	....	.05	.03	....	.11	.82	.02	.94	.75	....	....	....	....	....	....	....	....	....	....	.39	.96	.28	....	.73	....	....	....	....	....	....	5.08
Bonaparte	....	....	.08	.02	....	.06	.60	....	.21	1.50	....	....	....	....	....	....	....	....	....	....	.28	1.85	.08	.30	.45	....	....	....	....	T	....	5.43
Boone	.54	....	.40	.73	.05	....	.34	T	T	1.78	.10	....	....	....	....	....	....	....	....	....	T	.16	.44	.33	.06	....	....	T	....	....	....	4.93
Britt	....	....	.68	.13	....	.22	.30	....	1.54	.40	.19	....	....	....	.66	....	....	....	....	....	....	.06	.30	....	....	....	....	....	....	.27	....	4.75
Buckingham	....	....	.58	.26	....	T	.02	....	.95	.48	....	....	....	....	.20	....	....	....	....	....	T	.30	.58	1.53	....	....	....	....	....	.25	....	5.15
Burlington	....	....	....	.13	.03	....	.50	....	T	1.09	.03	....	....	....	....	....	....	....	....	....	....	.41	.60	.09	.36	.03	....	T	....	....	....	3.27
Carroll	.22	....	.88	.27	T	T	.68	.02	.05	.88	.01	....	T	.01	....	....	....	....	....	....	T	.11	.11	.78	.05	....	....	T	....	1.04	....	5.11
Cedar Rapids	....	....	T	.48	.10	....	1.10	.31	T	1.14	.29	....	....	....	....	....	....	....	....	....	....	1.09	.99	.13	.42	....	....	....	....	....	....	6.05
Chariton	....	....	.40	T	....	T	1.42	....	.15	.60	....	....	T	....	....	....	....	....	T	....	.10	.40	.18	....	.84	....	....	....	....	.80	....	4.89
Charles City	....	....	1.00	.18	....	.01	.38	....	1.02	.52	....	....	....	....	.82	....	....	.04	....	....	.04	.73	.25	.12	....	....	....	....	....	2.27	....	7.38
Clarinda	.05	....	....	.40	....	....	2.05	....	....	.30	....	.34	....	....	....	....	....	....	.17	....	....	.52	.44	....	1.63	....	....	.03	....	.08	....	6.01
Clear Lake	....	....	.70	.35	....	....	.50	....	3.60	.20	....	....	....	....	1.45	....	....	.11	....	....	....	.80	.20	.10	....	....	....	....	....	.85	....	8.86
Clinton	....	....	....	.19	....	....	.76	....	.14	.28	.64	....	....	....	....	....	....	.11	....	....	.05	.07	1.28	.06	.01	....	....	.01	....	....	....	3.60
Columbus Junc.	....	....	.05	.16	....	.05	.65	....	1.15	.80	....	....	....	....	....	....	....	T	....	....	T	1.45	.42	.06	.20	....	....	....	....	....	....	4.99
Corning	....	....	.26	T	....	1.59	....	....	.87	T	....	....	.02	....	....	....	....	....	....	....	.42	.41	....	.56	....	....	T	....	.08	.40	....	4.61
Corydon	....	....	.21	T	....	.17	1.48	T	.02	.63	....	....	T	....	....	....	....	....	....	....	.28	.57	.43	....	.77	....	....	....	....	.73	....	5.29
Creston	.05	....	....	.20	....	....	1.20	T	T	.41	.09	....	....	T	....	....	....	....	T	....	....	.85	.78	.02	.53	....	....	T	....	....	....	4.13
Cumberland	....	....	.50	....	....	.37	1.25	.52	.08	....	....	....	....	....	....	....	....	.10	....	....	.13	1.12	.67	.51	....	....	....	....	.11	.92	....	6.28
Davenport	....	....	.03	.09	....	.09	.22	T	.35	.08	....	....	....	....	....	....	....	.06	....	....	.13	.01	.73	.18	T	....	....	T	....	.10	....	2.07
Decorah	....	....	1.03	.23	....	....	.45	....	.38	.94	.64	08	....	....	.32	....	....	....	....	....	.09	.34	.49	....	....	....	....	....	....	.42	....	5.41
Delaware	....	....	.69	.25	....	....	1.60	....	.34	.79	.12	.01	....	....	T	....	....	....	....	....	....	2.26	.11	.03	.08	....	....	....	....	.25	....	6.53
Denison	....	....	.86	.14	....	.31	.14	....	.42	.04	....	....	....	....	....	....	....	....	....	....	.25	.50	.04	.14	.51	....	....	T	....	....	....	3.35
Des Moines	....	....	.34	.04	....	.99	.28	....	.47	.16	....	....	....	....	....	....	....	T	....	....	T	.40	.60	.53	.07	....	T	....	....	.25	....	4.13
De Soto	T	....	.37	.03	....	.22	1.13	....	1.81	.29	....	....	....	....	....	....	....	....	....	....	.14	.24	.33	....	1.28	....	T	....	....	.70	....	6.54
Dows	....	....	1.47	.23	....	.72	....	....	.82	.22	....	....	....	....	.05	....	....	....	....	....	....	.41	.32	.80	....	....	....	....	....	.25	....	5.29
Dubuque	....	....	37	.06	....	T	1.34	....	.39	.21	.59	T	....	....	....	....	....	....	....	....	.08	.42	.38	.04	.01	....	....	....	....	.19	....	4.08
Earlham	....	....	.30	T	....	.33	1.32	....	1.70	.09	....	....	T	....	....	....	....	T	....	....	.28	.63	.67	....	.53	....	....	....	....	1.14	....	6.99
Elkader	....	....	.94	.34	....	....	.65	....	.36	.55	.28	....	....	....	T	....	....	....	....	....	....	.70	.68	....	.09	....	....	....	....	.45	....	5.04
Elliott	....	....	.45	....	....	.45	.95	....	.41	.09	....	....	....	....	....	....	....	.15	....	....	.15	.09	....	.23	.42	....	T	....	20	....	....	3.59
Estherville	.13	....	T	T	.20	....	1.40	.20	.40	1.46	.20	....	....	....	.10	.88	....	T	....	....	....	1.10	.05	....	....	....	....	....	....	T	....	6.12
Fayette	....	....	1.40	.16	....	T	.92	.51	....	.75	.10	....	....	....	.12	....	....	.10	....	....	.12	.88	1.60	.07	....	....	....	....	....	.26	....	6.99
Forest City	.08	....	.30	.23	.05	....	.40	.04	.32	3.00	.38	....	....	....	.57	1.04	....	....	....	....	....	.30	.40	.12	....	....	....	....	....	1.30	....	8.53
Fort Dodge	.08	....	.80	.60	.23	....	.40	T	.09	.80	.18	....	....	....	....	....	....	....	....	....	....	.28	.65	....	T	....	....	....	....	....	....	4.11
Fort Madison	....	....	.40	.08	....	.10	....	T	.21	1.75	....	....	....	....	....	....	....	....	....	....	.61	.38	.09	....	.25	....	....	....	....	.75	....	4.82
Galva	T	....	.88	.32	....	.26	....	....	.50	.25	....	....	....	....	....	....	....	....	....	....	.30	.48	.07	T	....	....	....	....	....	.24	....	3.30
Gilman	....	....	.45	.07	....	....	.45	....	1.41	.19	.07	....	....	....	....	....	....	....	....	....	T	.38	.23	.67	....	....	....	....	....	.18	....	4.10
Grand Meadow	....	1.20	....	.15	....	....	.70	....	.31	.37	.33	.05	....	....	T	....	....	....	....	....	T	1.02	.46	T	.03	....	....	....	....	.41	....	5.03
Greene	....	....	1.23	.14	....	.08	.40	....	1.34	.43	.05	....	....	....	.53	....	....	T	....	....	.61	.47	.46	.45	....	....	....	....	....	1.43	....	7.62
Greenfield	.01	....	.47	.06	....	.28	1.87	T	1.90	.06	....	....	....	....	....	....	....	T	T	....	.18	.35	.74	....	.31	....	....	....	....	1.15	....	7.38
Grinnell	....	....	.25	.10	....	.11	1.33	T	....	.45	....	....	....	....	....	....	....	....	....	....	....	.47	.15	.05	2.00	....	....	....	....	....	....	4.91
Grundy Center	....	....	1.20	.20	....	T	.90	....	.73	.30	....	....	....	....	.32	....	....	....	....	....	T	.88	.40	1.00	....	....	....	....	....	.35	....	6.28
Guthrie Center	.01	....	.83	.06	....	.38	.77	.01	.44	.03	....	....	T	....	....	....	....	.02	....	....	.15	.10	.16	T	1.36	....	.05	....	....	1.30	....	5.67
Hampton	....	....	1.35	.14	....	.15	.30	.05	.89	.17	....	....	....	....	.18	....	....	....	....	....	.60	....	.77	.18	....	....	....	....	....	.52	....	5.30
Hancock	....	....	.49	....	....	.89	.73	....	.15	.08	....	....	....	....	....	....	....	.18	....	....	.06	.03	.06	....	.56	....	....	....	.07	....	....	3.30
Harlan	....	....	.67	.04	....	.61	.30	....	.55	.19	....	....	....	....	....	....	....	T	....	....	.12	....	.03	....	.47	T	.02	....	.03	.10	....	3.13
Hopeville	....	....	.33	....	....	.50	.80	....	.70	.46	....	....	....	....	....	....	....	T	....	....	.33	.85	....	....	.58	....	T	....	T	.12	....	4.67
Humboldt	....	....	1.00	.22	....	.20	.13	....	.61	.10	....	....	....	....	....	....	....	....	....	....	.30	.06	.20	.24	....	....	....	....	....	.35	....	3.41
Independence	....	....	.50	.21	....	T	.84	....	.55	1.94	....	....	....	....	.24	....	....	....	....	....	.08	.83	.36	.91	.26	....	....	....	....	.40	....	7.12
Indianola	T	....	T	....	.10	1.65	....	.10	.20	.48	....	....	.03	....	....	....	....	....	....	....	T	.32	.25	....	.85	....	T	....	....	1.63	....	5.61
Inwood	....	.01	T	.78	....	.97	.05	T	.66	.44	....	....	....	....	....	T	.54	.04	....	....	....	T	1.49	....	....	....	....	....	....	T	....	4.98
Iowa City	....	....	....	T	.12	....	1.02	.05	.48	2.45	.01	....	....	....	....	.01	....	....	....	....	....	1.43	.12	....	.35	....	....	....	....	....	....	6.04
Iowa Falls	1.03	....	.43	.92	.22	....	.48	.03	.04	.71	.16	....	....	....	....	.07	....	....	....	....	....	.49	.85	.16	.30	....	....	....	....	....	....	5.89
Jefferson	....	....	1.16	.11	....	.25	.35	....	.56	.11	....	....	....	....	....	....	....	....	....	....	.20	T	.10	1.10	T	....	T	....	T	.52	....	4.46
Keokuk	....	....	.20	T	....	.46	.55	T	1.98	.27	....	....	....	....	....	....	....	....	.02	T	.28	1.56	.06	....	.22	....	T	....	....	.70	....	6.30
Keosauqua	.12	....	....	.08	....	....	.70	T	.04	1.69	.02	....	....	....	....	....	....	....	T	....	....	.49	.09	....	.52	....	....	....	....	....	....	3.75
Knoxville	....	....	.19	T	....	.20	1.42	....	.30	.34	....	....	....	.31	....	....	....	....	....	....	T	.73	.45	.15	.59	....	....	....	....	.50	....	5.18
Lacona	....	....	.28	....	....	.42	1.20	.24	.60	.28	....	....	.08	....	....	....	.20	....	....	....	.30	.40	.32	....	.48	....	....	....	....	1.75	....	6.55
Larrabee	....	T	.45	T	....	.55	.12	....	1.65	.60	....	....	....	....	....	....	T	....	....	....	.70	....	....	.01	....	....	....	....	....	1.19	....	5.27
Le Claire	....	....	....	1.12	.07	....	.40	.01	....	.45	.10	T	....	....	....	....	....	....	.21	....	....	.18	1.01	T	.27	....	....	....	....	....	....	3.82
Le Mars	....	....	....	....	....	.75	.15	....	.29	1.17	....	....	....	....	....	....	1.27	....	....	....	.21	....	.20	T	....	....	....	....	....	T	....	4.04
Lenox	....	....	.27	....	....	.45	1.27	....	1.47	.15	....	....	....	....	....	....	....	T	.05	....	.35	.46	.35	....	1.45	....	T	....	T	1.10	....	7.37
Leon	....	....	.38	....	....	.21	1.23	....	.44	.35	....	....	....	....	....	....	....	.23	....	....	.18	.35	.21	....	1.32	....	....	....	....	.65	....	5.55
Little Sioux	.01	....	.70	.30	....	.58	.05	....	.43	.12	....	....	....	....	....	....	....	.04	....	....	.94	.04	....	.26	.11	....	....	....	.03	....	....	3.61
Logan	....	....	.51	.29	....	.55	.12	....	.66	....	....	....	....	....	....	....	....	.12	....	....	.44	....	....	T	1.52	T	T	....	T	.07	....	4.28
Marshalltown	.06	....	.01	.04	.03	....	1.00	T	.80	.40	.07	....	....	....	....	....	....	....	....	....	....	.68	.38	.03	.27	....	....	....	....	....	....	3.77
Mason City	....	....	.80	.15	....	.05	.28	....	2.45	.30	....	....	....	....	1.05	....	....	T	....	....	.05	.35	.50	T	....	....	....	....	....	1.05	....	7.03
Massena	....	....	.60	....	....	.20	1.16	....	.12	.07	....	....	....	....	....	....	....	.06	.03	....	.15	.50	.23	....	.55	....	.02	....	.02	1.05	....	4.76
Merrill	.03	....	.30	.40	....	1.00	....	....	....	1.00	.16	....	....	....	....	....	....	1.18	....	....	....	.12	.40	....	....	....	....	....	....	....	....	4.59
Mt. Ayr	.04	....	.40	....	....	.43	1.07	.02	.53	.16	....	.15	....	....	....	....	....	.02	....	....	.50	1.92	.47	T	1.46	....	....	....	.03	.60	....	7.80
Mt. Pleasant	....	....	.06	.03	....	.10	.60	....	.42	1.33	.05	....	....	....	....	....	....	....	....	....	.19	1.73	.02	.20	.82	....	....	....	....	.06	....	5.61
Mt. Vernon	....	....	.36	.17	....	.10	.16	.06	.50	.92	.10	T	....	....	T	....	....	....	....	....	.15	1.15	.33	.33	....	....	....	....	....	.01	....	4.34
Muscatine	....	....	....	.05	.07	....	.67	T	.03	.73	.01	....	....	....	....	....	....	....	.57	....	....	.90	1.14	T	.02	.02	....	....	....	....	....	4.21
Nevada	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
New Hampton	....	....	.96	.15	.01	T	.44	....	.47	1.43	.05	....	....	....	.23	....	....	....	....	....	.19	1.19	.07	.02	....	....	....	....	....	.94	....	6.15
Newton	....	....	.27	.10	....	.10	1.20	....	.77	.27	....	....	....	....	....	....	....	....	....	....	....	.31	....	.04	1.40	....	T	....	....	.23	....	3.69
Northwood	....	....	.45	.09	....	....	.65	....	3.50	1.12	.05	....	....	....	.68	....	....	....	....	....	.08	.41	....	....	....	....	....	....	....	2.30	....	9.33
Odebolt	....	....	.86	.35	....	.25	.37	....	.90	.15	....	....	....	....	....	....	....	....	....	....	.33	.64	.08	....	....	....	....	....	....	.55	....	4.48
Ogden	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Olin	....	....	.02	.01	....	T	1.75	....	1.05	.55	....	....	....	....	....	....	....	....	....	....	....	1.63	.22	T	T	....	....	....	....	T	....	5.23
Omaha, Neb.	....	....	.23	.16	....	1.75	T	....	.13	.11	....	.83	....	....	....	....	....	.20	....	....	.82	T	T	.36	.04	....	T	....	.06	T	....	4.69
Onawa	.05	....	.88	.08	....	.80	.02	....	.97	.54	....	....	....	....	....	....	....	.25	....	....	.65	.05	.05	.01	.15	....	....	....	.02	....	....	4.52
Osage	....	....	.95	.17	....	....	.36	....	1.50	.90	....	....	....	....	.65	....	....	....	....	....	....	.40	.18	.21	....	....	....	....	....	1.50	....	6.82
Oskaloosa	....	....	.25	....	....	.15	1.21	.60	.63	....	....	....	....	....	....	....	....	....	....	.02	T	1.37	.38	.03	.78	....	....	....	.06	1.20	....	6.68
Ottumwa	....	....	.03	.03	....	.95	T	....	1.59	.25	....	....	....	....	....	....	....	....	....	T	1.33	.20	.04	....	1.10	....	....	....	....	1.55	....	7.07
Pacific Junction	....	....	.40	.22	....	.80	1.17	....	.05	.08	....	.12	....	....	....	....	....	.60	....	....	.06	....	....	....	.56	....	T	....	.03	....	....	4.09
Pella	....	....	.24	.09	....	.06	1.57	.02	.83	.53	....	....	....	....	....	....	....	....	....	....	.04	1.29	.17	.11	.84	....	....	....	....	.45	....	6.24
Perry	....	....	.84	.18	....	....	.64	T	2.06	.28	....	....	....	....	....	....	....	....	....	....	.13	.23	.35	3.50	.12	....	T	....	....	.36	....	8.69
Plover	....	T	.84	.40	....	.28	.30	....	1.63	.18	....	....	....	....	.38	....	....	....	....	....	.48	.21	....	....	....	....	....	....	.06	1.25	....	6.01

DAILY AND MONTHLY PRECIPITATION FOR JUNE, 1907—CONTINUED.

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Pocahontas	....	....	1.04	.52	....	.26	.16	....	1.35	....	.10	....	....	....	.28	....	....	....	....	....	.25	....	....	....	....	....	....	....	T	.35	....	4.31
Ridgeway	....	....	1.07	.13	....	.08	.24	....	.29	.63	.33	.01	....	....	.22	....	....	.17	....	....	.12	1.01	.74	....	....	....	....	....	....	.56	....	5.60
Rock Rapids	....	.02	....	.72	....	1.32	.38	T	.71	.70	....	....	....	....	....	T	2.10	T	....	....	T	T	.62	....	....	....	....	....	....	....	....	6.57
Rockwell City	....	....	1.15	.30	....	.25	.06	....	.45	....	....	....	....	....	....	....	....	....	....	....	.45	....	....	....	.15	....	....	....	.40	.90	....	4.11
Sac City	....	....	1.13	.39	....	.20	.40	....	.68	.12	....	....	....	....	....	....	....	....	....	....	....	.10	....	1.06	....	....	....	....	....	1.37	....	5.45
St. Charles	....	....	.24	.03	....	.25	1.31	.01	.90	.35	....	....	.23	T	....	....	....	....	T	....	.30	1.92	.41	....	.32	....	....	....	....	1.04	....	7.31
Sheldon	....	T	T	1.26	....	1.00	.40	....	.60	2.00	.02	....	....	....	....	....	.50	....	....	....	.12	....	.18	....	T	....	....	....	....	.45	....	6.53
Sibley	.04	....	.03	.31	.08	....	1.20	.20	.29	.83	.76	....	....	....	....	....	....	.65	....	....	....	.35	.67	....	....	....	....	....	....	....	....	5.41
Sigourney	....	....	.07	.09	....	1.20	T	....	1.57	.30	....	....	....	....	....	....	.13	....	....	.04	.66	.57	T	.40	....	....	....	....	....	.90	....	5.93
Sioux Center	....	T	.02	.53	....	.42	.40	....	.22	.98	....	....	....	....	....	....	1.00	....	....	....	.08	....	.12	....	....	....	....	....	....	T	....	3.77
Sioux City	....	.05	.35	.10	....	1.16	T	T	.25	1.29	....	....	....	.07	....	....	.79	....	....	....	.14	T	T	....	....	....	.01	....	T	T	....	4.21
Stockport	....	....	.02	.04	....	.07	.55	....	T	2.05	....	....	....	....	....	....	....	....	....	....	.38	.16	.10	.11	.46	....	T	....	....	T	....	3.94
Storm Lake	....	.01	.76	.04	....	.25	.17	.03	.58	.19	....	....	....	....	.04	....	....	.08	....	....	.30	.53	....	.01	.06	....	....	....	....	1.10	....	4.15
Stuart	....	....	.66	.06	....	.10	1.22	....	2.10	.08	....	....	....	....	....	....	....	....	....	....	.31	.91	....	1.31	....	....	....	....	....	1.65	....	8.40
Thurman	....	....	.23	.06	....	1.08	.76	....	.33	.24	....	.24	....	....	....	....	....	.28	....	....	.15	.18	.35	.40	.45	....	T	....	.04	.05	....	4.84
Tipton	....	....	....	.05	....	....	1.03	....	.40	.76	....	....	....	....	....	....	....	....	....	....	....	1.66	....	.10	T	....	....	....	....	....	....	4.00
Toledo	....	....	.55	.23	....	.12	1.05	....	.94	.35	....	....	....	....	.25	....	....	....	....	....	....	.20	.77	.55	....	....	....	....	....	.20	....	5.21
Wapello	....	....	....	.14	....	.03	.43	....	.45	.84	....	....	....	....	....	....	....	....	....	.16	.61	.69	.10	.56	.16	....	....	....	....	.10	....	4.27
Washington	....	....	.03	....	....	....	.78	1.04	.86	.03	....	....	....	....	....	....	....	....	....	....	....	1.30	.91	....	.18	....	....	....	....	.35	....	5.48
Washta	....	T	.50	.25	....	.63	....	....	.62	.22	....	....	....	....	....	....	.06	....	....	....	.70	....	....	T	....	....	....	....	.33	.08	....	3.39
Waterloo	....	....	.83	.19	....	T	.73	T	.85	.99	T	....	....	....	.29	....	....	....	....	....	.07	.46	.32	.44	....	....	....	....	....	1.24	....	6.41
Waukee	....	....	.50	.10	....	.12	1.18	T	3.60	.25	....	....	.02	....	....	....	....	T	....	....	.03	.10	.68	T	1.40	....	T	....	....	.37	....	8.35
Waverly	....	....	1.30	.13	....	.01	.96	....	.61	.42	.05	....	....	....	.43	....	....	....	....	....	.05	.89	.29	.30	....	....	....	....	....	.45	....	5.89
Webster City	....	....	1.30	.11	....	.20	.19	....	.48	.18	....	....	....	....	....	....	....	....	....	....	.17	.13	.73	.27	....	....	....	....	....	.28	....	5.04
West Bend	....	T	.59	.13	....	.50	.28	....	.07	.83	.28	....	....	....	.40	....	....	....	....	....	.28	....	....	....	....	....	....	....	T	1.61	....	4.97
Whitten	....	....	1.10	.20	....	.13	.67	....	.68	.25	....	....	....	....	T	....	....	....	....	....	T	.80	.35	.05	.57	....	....	....	....	.48	....	5.28
Wilton Junction	....	....	.19	.12	....	.63	.07	....	1.12	.08	....	....	....	....	....	....	....	....	....	....	.63	....	.42	.42	....	....	....	....	....	....	....	3.68
Winterset	....	....	.25	.03	....	.15	1.30	T	1.55	.28	....	....	T	....	....	....	....	....	T	....	.33	.97	.63	....	.37	....	T	....	....	1.20	....	7.06
Woodburn	....	....	.29	T	....	.30	1.07	....	.19	.46	....	....	T	....	....	....	....	....	T	....	T	.56	.13	....	.80	....	T	....	T	1.32	....	5.12
Zearing	....	....	.70	.15	....	.30	....	....	1.50	.20	....	....	....	....	....	....	....	....	....	....	....	.35	.63	T	T	....	....	....	....	.92	....	4.75

Precipitation Chart June 1907.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR JULY, 1907.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1907

THE IOWA WEATHER AND CROP SERVICE

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Algona	Dr. F. T. Seeley
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Decorah	F. H. Baker
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De Soto	R. D. Minard
Dows	H. A. Flett
Dubuque	*James H. Spencer
Earlham, R. F. D.	Geo. Phillips
Elkader	Chas. Reinecke
Elliott	Henry Barnes
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Galva	F. H. Schleiter
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Greenfield	Dr. Geo. Brooks
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Guthrie Center	D. G. Beardsley
Hampton	E. C. Grenelle
Hancock	W. Armstrong
Harlan	C. A. Reynolds
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Perry	J. A. Harvey
Plover	J. S. Smith
Pocahontas	F. E. Hronek
Ridgeway	Arthur Betts
Rock Rapids	W. C. Wyckoff
Rockwell City	C. M. Randall
Sac City	Frank Stouffer
St. Charles	C. W. Minard
Sheldon	Dr. A. W. Beach
Sibley	H. G. Doolittle
Sigourney	J. T. Parker
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Sioux City	*C. D. Reed
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*U. S. Weather Bureau.

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West Union	H. B. Blackman
Woodward	George Swisher

U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

CENTRAL OFFICE: WASHINGTON, D. C.

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R. SAGE.....Section Director.
GEO. M. CHAPPEL, Assistant Director.

VOL. XVIII. DES MOINES, IOWA, JULY, 1907. No. 7

IOWA CROP REPORT, AUGUST 1, 1907.

Following is a summary of reports received from crop correspondents of the Iowa Weather and Crop Service, showing the estimated condition of the staple crop August 1, 1907.

CORN, 79 per cent; spring wheat, 85; oats, 76; barley, 85; flax, 88; hay, 80; potatoes, 90; pastures, 100; apples, 40; grapes, 84.

CONDITIONS LAST YEAR. Corn, 99 per cent; wheat, 93; oats, 90; flax, 95; hay, 79; pastures, 83; potatoes, 91; apples, 70; grapes, 94.

ACREAGE OF IOWA CROPS.

On another page of this report will be found a table showing the estimated acreage, by counties, of the staple farm crops of Iowa, for the season of 1907. The basis of estimates of the area planted this season is the tabulated report of township assessors as to the acreage harvested in 1906. By comparison with the tables in the State Census of 1905, it will be seen that there appears to be a decrease in the acreage of corn. In recent years correspondents have reported an increase in the acreage of that great staple, which the township assessors in their house to house canvas have not been able to verify. The official figures of the assessors must be accepted as the basis of estimates in the final report of this year's soil products.

JULY WEATHER AND CROPS.

The average temperature of July was very nearly the normal, but the rainfall was very much in excess in all districts. The average for the state was 7.27 inches, which is very nearly 3 inches above the normal for July. The distribution by districts was very nearly equal, and every station reported some excess of moisture. Rain fell in measurable amount every day in the month in some part of the state. And yet there were, on an average, 16 clear days and 11 partly cloudy days. There was an ample amount of sunshine, and there was no material check in the growth of vegetation. The bulk of the rainfall came from the 3d to the 10th, and from the 13th to the 25th. And nearly every shower observed during the month was accompanied by lightning, with occasional windsqualls and scattered areas of hail. In a very considerable part of the state the excess of moisture retarded field work more than half the number of working days. In the first decade there was much difficulty experienced in cleaning out the corn fields, and only the well drained lands received the requisite amount of cultivation. The upland corn that received thorough cultivation made very excellent progress, and was fairly well advanced at the close of the month. The frequent showers interfered materially with the harvest of hay and small grain. Considerable amount of hay was badly damaged, but the crop was mostly in stack or barn at the close of the month. The heat and humidity caused rust of oats and spring wheat, and barley was discolored by wet weather during the harvest. Potatoes, pastures and garden truck made fine growth during the month.

The following table gives the mean temperature and average precipitation in Iowa for each July from 1890 to 1907, inclusive.

Years	Temperature Degrees	Precipitation Inches
1890	75.6	1.98
1891	68.6	4.22
1892	73.0	5.29
1893	75.0	3.33
1894	76.4	0.63
1895	72.1	3.40
1896	73.6	6.90
1897	75.6	3.26
1898	73.4	2.98
1899	73.1	3.07
1900	73.4	6.15
1901	82.4	2.34
1902	73.1	8.67
1903	72.9	4.83
1904	70.6	4.41
1905	70.6	2.91
1906	70.9	3.04
1907	73.7	7.27
Normals		

CLIMATOLOGY OF THE MONTH.

TEMPERATURE.—The monthly mean temperature for the state, as shown by records of 117 stations, was 73.7°, which is 0.4° below the normal. By sections the mean temperatures were as follows: Northern section, 71.9°, which is 1.1° below the normal; Central section, 74.1°, which is 0.1° below the normal; Southern section, 75.1°, which is 0.1° below the normal. The highest monthly mean was 76.9° at Ottumwa, and the lowest monthly mean was 69.1° at Fayette. The highest temperature reported was 1.02° at Thurman, on the 5th, and the lowest temperature reported was 41° at Alton, on the 2d. The average monthly maximum was 93.9°, and the average monthly minimum was 53.6°. The greatest daily range was 42° at Estherville. The average of greatest daily ranges was 30.4°.

PRECIPITATION.—The average precipitation for the state, as shown by the records of 126 stations, was 7.27 inches, which is 2.92 inches below the normal. The averages by sections were as follows: Northern section, 7.02 inches, which is 2.79 inches above the normal; Central section, 7.23 inches, which is 2.93 inches above the normal; Southern section, 7.56 inches, which is 3.02 inches above the normal. The largest amount reported was 13.66 inches at Belle Plaine; the least amount reported was 3.97 inches at Elkader. The greatest daily rainfall reported was 5.30 inches at Belle Plaine, on the 9th. The average number of days on which .01 of an inch or more was reported was 13.

WIND AND WEATHER.—The prevailing direction of the wind was southwest; the highest velocity reported was 48 miles per

hour, from the north, at Sioux City, on the 18th. The average number of clear days was 16; partly cloudy 11, and cloudy, 4.

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	29.92	30.13	2	29.55	15
Davenport	29.92	30.16	3	29.62	15
Des Moines	29.93	30.15	17	29.62	14
Dubuque	29.93	30.15	18	29.55	15
Omaha, Neb.	29.91	30.17	17	29.52	14
Keokuk	29.95	30.15	3	29.68	15
Sioux City	29.92	30.14	17	29.63	14
Means	29.93	30.16	3	29.55	15

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	3934	24	Sw	3
Davenport	4492	27	S	15
Des Moines	5190	36	W	4
Dubuque	4265	26	SW	21
Keokuk	4017	21	NW	20
La Crosse, Wis	4514	32	N	21
Omaha, Neb	5341	48	N	6
Sioux City	7604	48	N	18

OBSERVERS' NOTES.

AFTON.—*N. W. Rowell.* Rain 5.96 inches—the greatest rainfall in July since 1902, when we had 8.67 inches.

ALLERTON.—*Rex Shriver.* Rain 9.12 inches. Harvest delayed by wet weather; oats badly damaged.

ALTA.—*David E. Hadden.* Rain 9.55 inches. During the first and second decades thunderstorms were of almost nightly occurrence, and lightning did considerable damage; the last decade was dry and very favorable for haying and harvesting.

ALTON.—*W. S. Slagle.* A good month for all crops; barley cutting commenced on 23d and early oats on 26th.

AMANA.—*Conrad Schadt.* The frequent and heavy rains during the middle decade caused great local floods and delayed harvest work.

AUDUBON.—*Geo. E. Kellogg.* Hail did some damage on the 6th and 7th; and high wind on night of the 18th.

BONAPARTE.—*B. R. Vale.* Rain 7.64 inches; twelve rainy days; conditions were more favorable at close of the month.

BRITT.—*Geo. P. Hardwick.* Rain 8.31 inches. But one clear and one cloudy day; no extremes in temperature; electric storms were frequent, with sharp lightning. Hay and grain harvest came together.

CHARITON.—*C. C. Burr.* Frequent showers damaged hay and delayed harvest; corn made rapid growth.

CLINTON.—*Luke Roberts.* The mean temperature of July was 73.9°, which is 0.5° above normal; the rainfall was 8.53 inches, which is double the normal amount; bulk of it fell the first decade; sunshine was 60%.

ELLIOTT.—*H. Barnes.* Rain 13.52 inches; despite the rain farm work progressed rapidly, with comparatively small loss; small grain and hay were harvested mostly in good condition; the corn crop is promising.

ELMA.—*H. A. Moore.* Crops are all doing well and harvesting is well under way; corn is looking fine.

FOREST CITY.—*J. A. Peters.* Rain 6.64 inches; temperature was one degree below the normal; some damage was done by hail on 3d.

GRAND MEADOW.—*F. L. Williams.* The month was showery; favorable for corn; oats were rusty; barley mostly in shock at end of the month; hay crop fair and pastures fine.

GRINNELL.—*A. O. Price.* Rain 8.88 inches—5 inches above the normal; exceeded but once in last twelve years, and that was in 1902, when the amount was 11.57 inches.

HANCOCK.—*W. Armstrong.* Corn plowing was completed on 12th, and haying was finished at close of the month; oats and wheat were ripe the 28th and badly rusted.

HUMBOLDT.—*H. S. Wells.* Rain 9.36 inches; grain being harvested, oats were badly krinkled and short; hay good quality; corn is recovering and looking well.

INWOOD.—*F. B. Hanson.* There were eighteen days with one-hundredth of an inch or more of rain in July; work was delayed and some hay damaged; early oats were lodged badly by heavy showers on the 21st.

KEOSAUQUA.—*J. H. Landes.* Rain 9.24 inches, which fell on fifteen days; it was too wet for harvesting, resulting in a big loss in the oats crop; hay crop is good, with prospect of well filled mows and good quality of timothy and clover.

LARRABEE.—*H. B. Strever.* A good growing month, but too wet for tillage of corn and hay making.

LEON.—*Morris Gardner.* This was one of the wettest Julys ever known; rain nearly all fell at night; so there was a large percentage of sunshine.

OLIN.—*Nathan Potter.* Rain 6.90 inches. July was characterized by an unusual number of thunderstorms, causing delay in corn plowing and later retarding haying.

OSKALOOSA.—*Jos. Boyd.* The month was very showery and hay was damaged to some extent.

PERRY.—*J. A. Harvey.* There was but one wholly clear day this month.

PLOVER.—*J. S. Smith.* Thunder was heard eighteen days this month, and rain fell seven nights in succession—14th to 20th inclusive.

POCAHONTAS.—*F. E. Hronek.* Rain, 8.80. Oats damaged by excessive rains; corn is two weeks behind; storms occurred usually at night.

RIDGEWAY.—*Arthur Betts.* Large amount of rainfall and heavy dews; temperature about 1° below the normal; there were 346 hours of sunshine, and only one wholly cloudy day.

ROCK RAPIDS.—*W. C. Wyckoff.* The month was characterized by the most severe electric storms ever experienced in this vicinity.

STOCKPORT.—*C. L. Beswick.* There was considerable loss of oats by excessive moisture during the second decade. Threshers report yield from 30 to 50 bushels per acre the last of the month.

THURMAN.—*C. R. Paul.* A severe wind and hailstorm occurred on night of the 6th, about seven miles north of this place. Crops were totally destroyed in path of the storm.

WEST BEND.—*Phil. Dorweiler.* The month was favorable for all crops, but heavy rains prevented cultivation of corn, which is backward.

ZEARING.—*Ward C. Bean.* July closed clear and warm; a good share of the oats crop was in shock, and most of the corn was tassled by the end of the month.

ERRATA IN JUNE REVIEW.

EARLHAM.—Mean temperature recorded 65.0° on page 67, should have been 65.1°. Mean maximum temperature recorded 75.1°, on page 68, should have been 75.3°.

GUTHRIE CENTER.—Mean temperature recorded 67.6°, on page 66, should have been 67.7°.

BELATED REPORT.

NEVADA.—June. Total precipitation 4.67 inches; greatest in 24 hours 1.44 inches on the 23d; number of rainy days 11.

IOWA CROPS, 1907—NUMBER OF ACRES BY COUNTIES.

COUNTIES	Winter Wheat Acres	Spring Wheat Acres	Corn Acres	Oats Acres	Barley Acres	Rye Acres	Flax Acres	Potatoes Acres	Hay (Tame) Acres	Hay (Wild) Acres	Pastures Acres
Adair	54	2,540	92,680	34,670	2,370	95	.....	970	48,190	4,420	111,510
Adams	773	1,310	74,640	21,390	1,720	180	.....	580	32,550	2,380	87,040
Allamakee	1,135	670	43,410	69,640	11,810	770	310	1,140	43,190	,990	103,900
Appanoose	957	20	56,920	20,450	110	610	.....	650	77,020	2,070	138,410
Audubon	40	7,530	91,420	35,860	5,890	15	.....	780	32,590	4,020	81,910
Benton	33	460	130,710	70,880	11,620	310	.....	1,580	47,170	10,220	105,570
Black Hawk	32	140	92,140	53,170	4,100	1,640	.....	2,860	30,420	11,410	88,360
Boone	45	1,630	103,740	53,140	740	280	.....	1,090	24,610	18,930	81,640
Bremer	27	150	60,240	50,720	3,420	630	110	2,250	19,670	21,510	69,490
Buchanan	14	110	85,890	50,590	3,050	490	60	1,010	37,980	14,510	100,830
Buena Vista	26	1,320	101,450	74,510	1,140	110	420	1,280	22,920	19,690	79,280
Butler	5	210	103,290	70,250	2,110	1,310	.....	1,480	24,110	11,910	88,060
Calhoun	35	710	108,920	70,920	2,050	210	310	1,040	18,230	19,100	71,270
Carroll	71	7,410	105,860	57,580	3,940	70	90	1,750	23,770	13,360	76,380
Cass	1,440	8,610	110,120	40,810	3,390	160	.....	1,290	42,180	2,890	102,250
Cedar	364	970	102,430	32,180	13,120	560	.....	1,120	46,250	310	96,410
Cerro Gordo	.....	430	93,690	75,410	2,010	790	610	1,390	31,570	12,610	73,860
Cherokee	83	3,610	110,750	70,160	3,530	20	60	1,280	29,670	13,810	82,070
Chickasaw	40	560	59,110	62,610	4,520	450	2,580	1,150	24,610	15,830	61,780
Clarke	558	40	54,340	16,230	420	190	.....	420	47,170	240	90,600
Clay	101	1,120	78,490	65,840	1,590	120	160	780	28,740	18,530	68,140
Clayton	1,044	1,280	75,830	58,320	13,210	2,020	20	1,750	51,410	3,220	134,700
Clinton	465	1,380	116,760	39,540	8,210	1,230	.....	1,340	51,180	4,120	126,570
Crawford	131	19,310	137,820	58,910	3,620	120	.....	1,760	44,910	7,580	118,400
Dallas	584	1,290	113,510	44,820	1,370	480	.....	690	27,540	8,140	99,580
Davis	1,013	.....	49,590	18,920	60	1,240	.....	520	43,130	60	204,650
Decatur	1,342	.....	58,010	16,210	40	640	.....	470	44,710	710	101,240
Delaware	42	170	92,560	40,120	13,120	1,210	40	1,380	52,110	7,310	107,950
Des Moines	3,327	20	64,160	23,660	780	1,120	.....	1,140	26,330	560	79,300
Dickinson	.....	1,060	42,620	42,070	3,270	90	790	620	15,080	17,290	41,450
Dubuque	99	1,050	66,870	45,260	5,810	360	.....	2,460	48,120	2,170	117,380
Emmet	38	710	47,720	43,210	590	110	690	490	18,710	12,400	46,010
Fayette	185	810	89,690	65,510	1,820	320	930	1,610	54,510	12,860	131,980
Floyd	17	180	82,380	72,120	2,550	830	1,020	1,520	32,230	4,980	63,910
Franklin	.....	1,610	102,450	75,570	1,450	370	360	1,420	27,410	16,130	82,110
Fremont	2,660	3,230	125,350	15,030	130	320	.....	590	21,210	4,210	70,340
Greene	34	350	110,230	49,560	1,630	260	60	1,020	25,140	16,230	82,110
Grundy	57	880	99,890	66,290	5,680	50	20	2,980	23,410	8,960	68,730
Guthrie	224	2,820	87,420	33,410	1,550	140	.....	920	35,160	5,850	85,530
Hamilton	287	1,940	104,810	62,210	530	90	300	1,030	24,830	20,480	78,070
Hancock	34	1,810	79,520	80,700	1,680	120	520	850	21,910	16,780	66,390
Hardin	100	2,470	104,180	61,250	1,370	150	50	1,190	24,970	15,790	85,070
Harrison	2,630	23,210	133,840	24,510	2,350	910	.....	1,350	21,120	13,050	91,110
Henry	1,180	.....	72,980	28,410	520	1,520	.....	580	25,250	50	81,740
Howard	46	740	46,560	51,160	7,780	340	8,270	770	36,480	11,170	64,450
Humboldt	.....	3,050	75,110	55,130	910	110	270	670	20,940	15,580	55,510
Ida	252	6,390	85,250	38,750	7,860	40	.....	940	26,280	3,540	60,050
Iowa	367	1,070	94,500	39,640	2,490	520	.....	1,190	48,370	940	103,030
Jackson	349	1,230	71,240	31,730	6,690	110	.....	1,230	63,110	1,810	155,390
Jasper	420	4,020	130,370	51,690	1,680	520	.....	1,350	46,290	2,270	143,810
Jefferson	1,951	110	57,310	22,410	640	1,720	.....	430	33,810	40	93,730
Johnson	247	820	104,530	47,350	4,750	1,460	.....	1,350	52,660	1,920	104,260
Jones	38	350	76,670	28,850	7,370	750	.....	1,180	51,700	880	115,300
Keokuk	865	640	91,490	35,270	3,190	900	.....	820	44,920	260	103,660
Kossuth	40	4,210	130,890	115,420	2,520	410	1,420	1,570	34,520	58,970	124,950
Lee	9,287	.....	58,080	21,460	70	3,120	.....	1,380	39,410	3,090	108,610
Linn	66	730	105,610	48,590	1,290	780	.....	1,920	46,480	5,770	115,120
Louisa	3,292	80	64,360	22,760	510	1,920	.....	590	18,410	490	60,260
Lucas	798	50	48,560	13,180	110	540	.....	410	41,020	780	85,410
Lyon	254	8,500	88,670	75,050	3,640	110	41	1,360	17,120	11,270	52,220
Madison	336	940	87,620	23,520	3,410	330	.....	690	41,220	22,210	130,610
Mahaska	655	890	90,470	32,430	3,220	410	.....	960	35,710	1,130	93,580
Marion	1,472	2,380	99,210	28,260	2,420	450	.....	720	35,130	890	115,280
Marshall	333	2,310	103,390	54,110	1,580	380	35	1,520	36,970	2,230	84,930
Mills	1,446	4,850	90,570	15,620	1,090	270	.....	780	20,250	5,070	60,540
Mitchell	90	620	57,260	70,910	7,240	210	5,860	1,270	28,210	2,840	57,050
Monona	10,167	10,160	127,480	28,620	2,710	340	160	1,210	10,610	16,550	85,580
Monroe	1,474	40	38,120	9,340	290	320	.....	520	32,860	150	88,320
Montgomery	2,499	9,410	91,550	18,070	1,680	70	.....	670	29,120	1,110	71,720
Muscatine	963	820	68,060	20,690	8,940	2,730	.....	2,210	24,510	1,660	67,730
O'Brien	130	3,050	80,650	61,650	13,110	110	190	1,330	27,130	11,070	58,370
Osceola	.....	2,070	51,670	70,270	8,710	240	910	580	18,160	9,380	34,830
Page	6,320	4,560	110,270	19,620	1,390	650	.....	930	31,430	4,240	101,140
Palo Alto	12	720	63,670	56,910	690	60	760	1,220	14,290	31,890	56,530
Plymouth	2,048	44,050	173,510	82,420	10,510	170	410	1,820	27,020	24,780	112,480
Pocahontas	.....	510	96,840	78,670	630	130	910	1,020	16,980	28,230	70,760
Polk	828	3,040	101,300	41,140	470	320	.....	2,050	27,240	6,950	82,630
Pottawattamie	1,020	19,210	190,650	45,240	2,080	270	.....	2,740	43,690	11,580	133,130
Poweskiek	13	1,140	100,990	40,250	4,010	190	.....	980	43,780	2,290	113,060
Ringgold	731	40	66,010	19,820	160	290	.....	420	49,660	370	111,690
Sac	115	2,050	114,220	63,090	5,290	50	170	1,070	26,750	13,970	81,060
Scott	1,297	2,210	79,380	24,280	29,480	1,220	.....	6,340	36,710	5,100	67,050
Shelby	185	15,240	122,360	43,530	7,020	110	90	1,270	37,710	6,450	90,650
Sioux	937	32,120	151,270	76,480	28,460	100	120	1,410	23,460	20,010	78,610
Story	199	620	110,220	50,120	720	250	40	820	28,050	12,890	74,680
Tama	22	2,520	115,210	54,680	12,120	400	.....	1,880	51,370	4,580	121,260
Taylor	2,309	190	80,380	19,210	1,870	710	.....	610	44,720	1,510	116,090
Union	313	90	52,040	16,290	440	110	.....	640	35,810	1,220	81,100
Van Buren	2,166	.....	51,160	18,830	80	1,850	.....	490	41,600	210	185,630
Wapello	1,742	80	58,740	17,690	660	1,030	.....	820	30,500	10	84,290
Warren	928	990	82,960	25,280	1,210	410	.....	1,030	44,280	1,450	109,020
Washington	1,030	230	87,380	40,390	1,460	690	.....	680	38,940	110	94,310
Wayne	398	.....	73,400	21,840	20	310	410	510	66,130	3,020	124,160
Webster	5	3,240	112,840	78,490	860	140	.....	1,160	22,380	31,660	97,930
Winnebago	.....	4,080	49,150	42,320	1,520	70	1,810	680	14,750	19,370	46,450
Winneshiek	457	3,170	73,460	71,170	15,860	380	7,210	1,170	47,240	11,920	117,960
Woodbury	3,536	15,480	172,050	55,260	6,770	460	,150	1,790	23,160	16,580	93,090
Worth	21	1,760	40,640	59,420	2,360	160	3,730	620	18,140	14,150	51,860
Wright	.....	3,340	99,300	79,180	1,180	10	318	990	32,280	10,980	73,400
Total for State	85,785	335,340	8,858,080	4,536,170	397,210	52,450	42,790	117,350	3,372,470	896,260	9,088,480

CLIMATOLOGICAL DATA FOR JULY, 1907.

NORTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
Algona	Kossuth	1,213	31	71.6	-2.1	92	4	53	2	27	6.75	†3.08	2.16	....	15	20	8	3	SE	
Alta	Buena Vista	1,513	14	71.6	-1.1	93	4	54	26	31	9.55	†4.80	2.49	....	17	13	16	2	NW	
Alta [near]	Buena Vista		12								7.83		2.09	....	12					
Alton	Sioux	1,305	....	71.4		97	4	41	2	41	5.36		1.27	....	15	22	7	2	NW	
Britt	Hancock	1,236	8	72.8	-0.1	91	4	50	2	31	8.31	†3.99	2.34	....	14	1	29	1	SW	
Charles City	Floyd	1,015	20	71.2	-2.3	91	4	53	2,30	31	5.58	†2.00	1.54	....	15	6	17	8	NW	
Clear Lake	Cerro Gordo	1,241	8	73.0	-0.9	90	5	50	1	25	8.34	†3.59	2.25	....	12	26	0	5	S	
Decorah	Winneshiek	875	11	72.5	-0.1	93	5	53	2,27	30	4.35	†1.14	1.18	....	12					
Dows *a*	Wright	1,142	7	71.7	†0.2	91	5	53	2,27	30	7.87	†2.56	1.87	....	15	18	11	2	SW	
Elkader	Clayton	727	24	74.0	†0.0	96	4,5	51	27,30	36	3.97	- .37	1.00	....	12	22	7	2	NW	
Estherville	Emmet	1,298	10	69.2	-3.5	94	5	46	30	42	6.73	†2.85	2.20	....	16	21	0	10	E	
Fayette *k*	Fayette	1,003	17	69.1	-3.2	92	3,4	53	1	34										
Forest City	Winnebago	1,226	11	71.6	-1.3	90	3,4,5	54	2	32	6.64	†3.21	1.50	....	16	20	9	2	SW	
Grand Meadow	Clayton	1,180	14	71.4	†0.4	89	5,21	52	2	26	6.09	†2.37	1.14	....	16	8	21	2	SW	
Greene	Butler		8	72.8		95	4	53	2	34	6.71		1.40	....	13	8	12	11	W	
Hampton	Franklin	1,155	15	72.8	†0.1	93	4	54	2	29	12.05	†7.91	3.10	....	17	6	20	5		
Humboldt	Humboldt	1,095	13	71.5	-2.4	91	4	44	15	34	9.36	†5.42	1.95	....	13	19	6	6	NW	
Inwood	Lyon	1,474	3	71.2		96	4	51	2	34	5.65		2.14	....	18	19	9	3	SW	
Larrabee	Cherokee	1,266	16	73.4	†0.4	96	4	54	2	30	4.69	† .03	.85	....	13	10	20	1	SW	
Le Mars	Plymouth	1,224	9	71.8	-2.1	97	4	50	2	34	6.50	†1.60	1.78	....	11	21	10	0	SW	
Mason City	Cerro Gordo	1,132	10	73.6	†2.2	92	21	55	2,26	30	11.20	†8.41	4.25	....	15	8	22	1	NW	
Merrill	Plymouth										6.88		1.10	....	13					
New Hampton	Chickasaw	1,169	7	70.7	-2.7	88	4,5	52	2	28	7.22	†3.53	1.53	....	14	23	5	3	W	
Northwood *c*	Worth	1,222	9	72.2	†0.2	91	4	54	2	28	5.05	†1.06	1.30	....	9	20	11	0	SW	
Osage	Mitchell	1,184	14	72.1	†1.1	95	5	52	2,26,27	31	4.45	† .91	1.30	....	11	20	0	11	S,NW	
Plover	Pocahontas	1,426	8	71.4	-3.1	95	4	50	2,26,27	33	5.44	† .31	1.00	....	11	20	6	5	S,SW	
Pocahontas	Pocahontas		3	72.4		95	4	53	2	31	8.80		2.27	....	14	21	8	2	NW	
Ridgeway	Winneshiek	1,215	9	72.9	-3.7	93	5	51	2	36	5.96	† .87	1.77	....	15	18	12	1	S	
Rock Rapids	Lyon	1,358	9	71.2	-1.6	98	4	50	2	34	6.04	†3.52	2.90	....	9				S	
Sheldon	O'Brien	1,422	7	72.8	-0.2	98	4	51	26	35	4.77	-2.08	1.75	....	13	19	8	4	SE	
Sibley	Osceola	1,212	11	69.5	-1.8	95	4	50	2	35	6.59	†2.68	1.26	....	15	19	3	9	NW	
Sioux Center	Sioux		8	71.0	-3.5	94	4	53	26	31	4.30	-1.08	1.23	....	14	19	10	2	S	
Storm Lake	Buena Vista	1,440	10	73.0	-0.1	95	5,25	50	5	40	7.88	†3.60	1.54	....	16	15	13	3	SW	
Washta	Cherokee	1,157	9	72.7		95	4	50	2,17	36	9.53	†4.43	2.00	....	10	14	13	4	N	
Waverly	Bremer	948	9	72.0	-1.9	90	4,5	55	2	28	9.43	†5.95	1.69	....	12	5	21	5		
West Bend	Palo Alto	1,197	11	72.0	-0.9	92	4	53	2,26	32	7.70	†3.86	2.94	....	13	12	15	4		
Average			....	71.9	-1.1	93.2		51.4		32.2	7.02	†2.79		....	14	15	12	4	SW	

SOUTHERN SECTION.

Afton	Union	1,212	12	76.2	†0.1	96	5,8	53	27	32	5.96	†1.16	1.78	....	13	15	11	5	SW	
Albia	Monroe	959	9	73.8	-1.3	90	5,8	57	1	28	9.36	†5.23	2.13	....	17	14	10	7	SW	
Allerton	Wayne		4	74.9	†2.3	93	5	56	1,27	28	9.12	†4.55	2.45	....	17	22	8	1	SW	
Atlantic	Cass	1,164	14	74.6	†0.9	96	5,8,23	49	27	36	5.93	†1.58	1.19	....	11	9	13	9	S	
Bedford	Taylor		7	75.2	†1.3	94	23,24	54	12,27	32	6.93	†1.33	1.91	....	9	21	4	6	S	
Bloomfield	Davis	881	....	75.9		94	4,8	56	27	28	12.96		3.90	....	13	17	13	1	SW	
Bonaparte	Van Buren		15	74.6	-1.8	90	8	57	27	25	7.64	†4.04	1.45	....	12					
Burlington	Des Moines	544	9	75.0	-0.4	92	5	58	3,27	28	7.87	†4.63	1.81	....	15	16	12	3	SW,NW	
Chariton	Lucas	1,042	10	74.2	-0.9	92	8	54	27	26	5.08	-1.16	1.83	....	9	20	7	4	N,SW	
Clarinda	Page	1,009	15	76.0	-0.3	101	5	53	27	35	5.62	† .94	2.72	....	10	17	4	10	S	
Columbus Jct	Louisa	595	6	74.4	-1.0	92	5	57	27	26	5.88	†1.70	1.35	....	12	26	4	1	SW	
Corning	Adams	1,117	13	74.8	†0.3	97	5	53	12,27	32	5.79	†1.32	1.81	....	9	16	13	2	SE	
Corydon	Wayne	1,101	12	75.2	-0.6	92	5	58	1,12	27	5.14	† .74	1.15	....	11	16	9	6	SW	
Creston	Union	1,312	2	73.6		93	5	55	27	26	6.64		1.42	....	15	16	6	9	S	
Cumberland	Cass		8								10.76	†5.59	2.90	....	9	25	4	2	S	
Earlham	Madison		5	73.5	†3.5	92	5	49	27	30	8.47	†3.63	4.35	....	10	21	7	3	SE	
Elliott	Montgomery		2	76.4		98	5	55	1,12,27	38	13.52		5.00	....	12	24	7	0	S	
Fort Madison	Lee	516	54								9.52	†5.41	1.50	....	11	5	15	11		
Greenfield *a*	Adair		14	73.5	-1.1	94	4	55	27	28	8.42	†3.53	3.30	....	15	22	6	3		
Hancock	Pottawatta'e	1,113	1	74.4		97	5	56	27	30	6.40		1.34	....	13	25	4	2	SE	
Hopeville	Clarke		14	75.2	†0.8	95	8,23	54	27	32	11.65	†7.03	5.00	....	13	5	23	3		
Indianola	Warren	969	16	74.7	-0.9	92	5	57	27	25	6.59	†2.95	1.78	....	10	15	12	4	SW	
Keokuk	Lee	614	36	76.6	-0.4	94	8	58	27	25	6.26	†2.33	2.24	....	14	20	11	....	S	
Keosauqua	Van Buren	644	15	76.0	-0.8	95	8	55	27	30	9.24	†5.27	1.85	....	15	4	18	9		
Lacona	Warren		7								4.41	- .46	1.40	....	11	6	18	7		
Lenox	Taylor	1,250	10	75.0	†0.3	94	5	56	27	27	7.51	†2.29	2.85	....	9	24	6	1	S	
Leon	Decatur	1,120	5	76.5	†3.3	95	5	50	27	37	7.84	†3.42	2.05	....	13	24	7	0	S	
Massena	Cass		2	75.1		98	5	54	27	30	8.70		3.80	....	12	11	20	0	SE	
Mt. Ayr	Ringgold	1,236	11	75.4	-0.3	96	23	51	31	32	8.70	†3.59	3.71	....	12	12	18	1	SW	
Mt. Pleasant	Henry	729	23	75.6	†0.3	92	4,5,8	57	1,27	26	7.41	†3.67	1.08	....	12	9	21	1	SW	
Omaha, Neb	Douglas	1,105	35	75.8	-0.7	97	5	61	11	28	6.45	†2.12	1.76	....	12	11	14	6	SE	
Oskaloosa	Mahaska	843	21	74.2	-1.2	90	4,5	55	27	24	4.49	† .44	1.35	....	14	23	8	0	SW	
Ottumwa	Wapello	649	11	76.9	†0.1	96	8	58	27	29	10.04	†5.75	3.15	....	13	21	6	4	SW,NW	
Pacific Jct	Mills	960	8	75.4	†0.1	99	5	54	1	32	9.56	†4.99	3.70	....	10	11	20	0	S	
Pella	Marion	877	4	76.6		93	5,9,19,23	57	27	30	6.37		1.53	....	15	19	11	1	SW	
St. Charles	Madison	1,070	6	74.8	†0.7	93	5	57	27	29	4.89	- .90	1.85	....	10	18	13	0	SW	
Sigourney *a*	Keokuk	877	8	75.0	-2.6	92	4,5	57	27	28	7.27	†2.59	1.85	....	11	1	30	0	NW	
Stockport	Van Buren		5	74.3		90	5	58	27	22	8.08	†3.19	1.46	....	12	20	6	5	SW	
Thurman	Fremont		9	76.6	†0.1	102	5	54	1	31	6.80	†1.32	3.30	....	8	10	16	5	SE	
Wapello	Louisa	588	7	73.6	-3.8	88	5	58	3,27	23	6.23	†3.14	1.74	....	13	16	14	1	SW	
Washington	Washington	769	3	73.6	-2.0	91	5	57	27	24	6.75	†3.21	1.32	....	13	12	12	7	SW	
Winterset	Madison	1,129	24	76.2	†1.9	97	5	56	27	29	6.72	† .79	3.57	....	11	21	6	4	S	
Woodburn	Clarke	961	18	74.2		92	8,23	49	27	32	6.32	† .91	1.61	....	10	14	15	2	SW	
Average			....	75.1	-0.1	94.1		55.2		29.0	7.56	†3.02		....	12	16	11	4	SW	
State aver			....	73.7	-0.4	93.9		53.6		30.4	7.27	†2.92		....	13	16	11	4	SW	

‖ Received too late to be included in average. *a* one day missing; *b* two days; *c* three days, etc. † means plus.

CLIMATOLOGICAL DATA FOR JULY 1907—CONTINUED.

CENTRAL SECTION

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
Amana	Iowa	721	28	74.6	†0.6	94	5	55	27	28	8.83	†4.63	3.41	....	11	17	13	1	SW	
Ames ‖	Story	926	23	*b*69.8	-5.2	*c* 96	5	44	27	39	5.32	† .74	1.05	....	13	10	19	2	S	
Audubon	Audubon	1,301	11	73.2	†0.3	96	5	49	27	38	4.99	†1.07	1.75	....	16	16	7	8	.....	
Baxter	Jasper	998	7	*a*73.4	-1.0	*a* 94	5	53	27	29	8.55	†3.66	2.43	....	14	17	10	4	SE	
Belle Plaine	Benton	828	15	70.5	-3.1	89	23	55	27	28	13.66	†10.02	5.30	....	11	16	11	4	SE	
Boone	Boone	1,134	2	74.4	.....	96	5	58	2,26,27	28	4.63	.....	1.01	....	16	15	12	4	.....	
Buckingham	Tama	.....	7	.....	.....	.....	.....	.....	.....	.....	6.92	†2.52	2.40	....	13	7	24	0	.....	
Carroll	Carroll	1,265	17	71.8	-2.1	94	4,5	50	7,9	37	7.52	†3.62	2.10	....	13	17	0	14	.....	
Cedar Rapids	Linn	733	25	75.2	-0.6	97	5	52	27	32	8.14	†4.27	1.47	....	15	6	21	4	.....	
Clinton	Clinton	593	37	74.6	†0.6	95	5	51	3	35	8.53	†4.44	1.84	....	11	12	13	6	NW	
Davenport	Scott	606	36	75.3	-0.1	95	5	57	3	26	7.13	†3.58	2.39	....	12	15	13	3	SW	
Delaware	Delaware	1,083	14	73.0	†0.4	94	5	53	2	29	7.48	†3.80	1.02	....	13	13	16	2	S	
Denison	Crawford	1,180	11	73.4	-0.4	96	4	52	17	31	4.14	- .18	.72	....	13	22	8	1	S	
Des Moines	Polk	861	28	75.2	-0.3	94	5	58	1	26	10.20	†6.34	3.83	....	16	5	23	3	SW	
De Soto	Dallas	866	7	73.6	†1.0	92	5	55	27	25	9.60	†4.31	3.36	....	14	20	6	5	SW	
Dubuque	Dubuque	698	34	73.6	-1.1	93	5	55	2	27	5.15	† .85	1.05	....	14	12	15	4	NW	
Gilman	Marshall	1,052	8	.....	.....	.....	.....	.....	.....	.....	6.20	†1.35	1.72	....	9	7	14	10	SW	
Grinnell	Poweshiek	1,023	12	74.5	†0.5	92	5	56	27,30	29	8.88	†5.16	2.71	....	12	20	7	4	NW	
Grundy Center	Grundy	976	14	74.3	†2.0	95	5	55	2,30	31	6.67	†2.49	2.60	....	11	23	5	3	W, NW	
Guthrie Center	Guthrie	1,077	9	75.2	†1.2	96	5	51	17,27	32	6.56	†2.02	1.75	....	16	19	10	2	SW	
Harlan	Shelby	1,192	8	*a*73.7	-0.7	96	5	*a*52	27	33	4.96	- .75	1.28	....	14	9	19	3	SW	
Indep'dence	Buchanan	921	41	72.4	-1.0	91	4	53	2	27	8.11	†3.39	2.10	....	14	22	6	3	SW	
Iowa City	Johnson	683	46	75.2	†1.0	94	5	56	27	30	9.21	†4.71	2.66	....	14	13	9	9	.....	
Iowa Falls	Hardin	1,170	12	72.4	-0.6	93	4	54	2,27	32	7.06	†3.22	1.78	....	16	19	2	10	SW	
Jefferson	Greene	1,052	2	75.0	.....	96	4,5	54	27	30	4.07	.....	1.40	....	9	18	13	0	S	
Le Claire	Scott	576	8	.....	.....	.....	.....	.....	.....	.....	7.14	.....	1.80	....	15	18	6	7	NW	
Little Sioux	Harrison	.....	....	74.6	.....	97	5	54	17	29	8.29	.....	1.96	....	11	18	12	1	SE	
Logan	Harrison	928	38	73.7	-1.3	97	5	52	26	31	5.04	† .13	1.08	....	10	11	18	2	NW	
Marshalltown	Marshall	947	12	73.4	-0.4	93	5	53	27	32	7.56	†3.11	1.42	....	16	18	9	4	S	
Mt. Vernon	Linn	947	38	74.2	†0.8	95	4,5	55	2,27	31	7.51	†2.88	2.20	....	14	20	5	6	.....	
Muscatine	Muscatine	.....	48	.....	.....	.....	.....	.....	.....	.....	7.97	†4.06	2.10	....	12	6	15	10	S	
Newton	Jasper	944	17	74.0	.....	92	5	56	27	23	8.31	.....	1.85	....	13	15	15	1	S	
Nevada	Story	996	2	.....	.....	.....	.....	.....	.....	.....	5.37	.....	1.01	....	9	....	....	....	.....	
Odebolt	Sac	1,356	8	74.8	-1.3	97	4,5	53	27	31	8.49	†3.37	2.40	....	12	21	9	1	.....	
Ogden	Boone	1,058	11	74.4	-0.5	94	5	55	27	30	6.31	†2.19	1.30	....	12	22	6	3	SW	
Olin	Jones	760	8	73.6	-1.2	91	5,24	53	3	31	6.90	†3.30	1.82	....	11	18	12	1	NW	
Onawa	Monona	1,051	7	75.2	-0.8	96	4,5	57	17,27	29	5.31	† .68	1.05	....	15	26	5	0	SW	
Perry	Dallas	975	6	75.2	†0.6	95	5	55	27	30	7.36	†2.75	1.60	....	13	....	....	....	.....	
Rockwell City	Calhoun	.....	10	74.7	†0.8	94	4,5	53	1	32	4.59	† .59	1.50	....	11	27	3	1	.....	
Sac City	Sac	1,356	25	72.2	-1.1	92	4,5	53	27	32	7.56	†3.75	2.64	....	11	22	6	3	NW	
Sioux City	Woodbury	1,135	16	73.0	-1.2	98	4	53	2	32	5.78	†2.17	2.04	....	13	9	15	7	S	
Stuart	Guthrie	1,216	8	75.3	-1.0	96	5	55	27	30	7.48	†2.51	2.50	....	11	19	6	6	W	
Tipton	Cedar	807	9	76.4	†1.8	96	5	59	3	26	8.48	†4.06	3.71	....	7	19	8	4	SW	
Toledo	Tama	856	12	74.4	-0.5	92	5	57	2,30	32	9.83	†6.60	2.10	....	9	20	8	3	NW	
Waterloo	Black Hawk	862	18	74.4	†0.4	95	4	56	2,27	31	4.80	† .56	.91	....	13	19	10	2	SW	
Waukee	Dallas	1,039	4	74.6	.....	97	5	56	27	27	9.78	.....	3.00	....	12	20	10	1	S	
Webster City	Hamilton		2	75.0	.....	97	5	53	27	33	7.70	.....	2.00	....	13	8	20	3	SW, NW	
Whitten *b*	Hardin	1,036	7	73.8	-0.9	95	5	55	2	32	4.64	† .87	1.25	....	10	19	10	2	SE	
Wilton Junct'n	Muscatine	683	10	75.0	-0.4	94	5,6	55	27	27	9.52	†4.25	3.70	....	12	21	8	2	W	
Zearing	Nevada	718	3	73.6	.....	94	5	52	27	32	5.27	.....	1.54	....	11	18	11	2	NW	
Average		.....	....	74.1	-0.1	94.5	.....	54.2	.....	30.1	7.23	†2.95	.....	....	13	16	11	4	SW	

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DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JULY, 1907

STATIONS		DAY OF MONTH																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	max.	86	85	90	94	96	93	92	96	95	87	81	88	87	92	87	88	85	89	94	90	93	89	95	86	81	80	82	84	84	85	81	88.2
	min.	68	57	69	67	68	71	63	69	71	65	62	59	61	67	64	68	60	64	62	69	71	68	62	64	68	59	53	62	59	61	61	64.3
Albia	max.	81	78	85	89	90	83	85	90	87	84	77	81	83	83	81	84	80	87	87	82	88	85	88	86	78	75	75	79	81	83	80	83.1
	min.	57	62	60	61	71	70	65	70	72	67	63	58	64	67	68	62	62	66	67	64	65	71	64	68	66	61	58	68	58	58	62	64.4
Algona	max.	75	79	88	92	90	79	85	87	77	71	78	82	83	83	79	82	82	83	84	82	88	78	87	86	88	76	77	83	81	85	82	82.3
	min.	58	53	62	65	70	61	64	62	61	61	57	57	62	64	63	63	55	62	63	63	66	63	58	66	67	55	55	62	58	57	58	61.0
Allerton	max.	84	80	87	90	93	88	87	92	90	86	77	84	84	83	83	86	83	86	91	84	89	86	90	91	87	77	75	79	82	84	80	85.1
	min.	56	62	59	65	70	68	65	72	70	66	63	57	65	69	68	68	63	66	64	66	72	71	65	67	71	61	56	61	60	59	61	64.7
Alta	max.	70	81	89	93	90	80	84	85	77	74	77	82	83	83	79	80	81	86	84	83	87	79	91	85	87	76	79	83	81	86	82	82.5
	min.	60	55	59	65	69	62	62	64	64	63	56	58	62	62	60	60	55	60	60	65	64	63	60	66	67	54	55	58	58	60	58	60.6
Alton	max.	74	82	92	97	90	80	83	84	80	73	77	81	83	80	76	76	80	83	83	83	87	83	88	86	86	77	78	82	81	85	82	82.3
	min.	55	41	62	65	70	63	63	63	62	63	57	55	62	62	58	65	53	60	61	63	66	63	62	66	68	57	56	64	56	56	60	60.5
Amana	max.	81	79	86	92	94	87	87	86	82	85	76	84	83	82	83	83	82	89	87	85	90	85	89	88	84	78	77	83	83	85	82	84.4
	min.	59	59	58	67	72	66	65	70	65	67	63	60	62	66	69	67	63	62	70	70	72	71	62	71	69	62	55	62	61	57	65	64.7
Atlantic	max.	87	86	91	95	96	91	89	96	92	85	82	86	85	90	86	86	85	89	93	90	92	88	96	86	87	77	78	86	86	86	86	88.0
	min.	51	61	61	68	70	67	63	65	71	66	56	50	62	63	61	66	51	63	61	69	71	64	59	63	65	57	49	61	50	52	58	61.1
Audubon	max.	82	80	90	95	96	84	88	88	93	89	79	88	88	88	82	82	80	88	88	88	91	81	92	83	90	75	78	82	82	85	80	85.6
	min.	53	59	59	65	67	67	63	68	68	65	54	50	58	66	60	64	52	62	62	64	72	64	59	65	68	58	49	62	53	52	61	60.9
Baxter	max.	81	80	87	92	94	85	86	87	85	84	77	84	83	86	82	84	82	87	86	81	89	83	86	87	85	79	82	..	81	84	81	84.3
	min.	56	57	58	65	70	62	64	69	65	65	62	57	61	68	65	64	58	61	62	67	71	66	58	66	68	59	53	61	54	63	63	62.5
Bedford	max.	87	83	87	91	92	91	87	92	91	87	80	86	84	86	84	84	83	87	92	90	90	88	94	94	87	79	74	81	85	88	81	86.6
	min.	57	63	59	66	70	71	62	70	69	67	62	54	64	65	64	70	58	63	63	71	72	70	65	67	69	59	54	64	58	55	61	63.9
B. Plaine	max.	65	71	72	78	80	77	76	75	72	70	67	69	70	72	71	69	70	79	78	81	87	88	89	85	88	78	76	83	80	79	83	76.7
	min.	58	59	60	64	69	71	65	70	65	67	64	59	63	67	69	67	62	64	66	69	70	68	61	68	69	68	55	62	60	57	58	64.3
Bloomfl'd	max.	86	78	87	94	91	89	88	94	90	86	82	84	85	82	86	83	84	90	91	90	89	88	89	90	86	78	76	81	84	85	83	86.1
	min.	58	66	59	66	71	71	64	72	71	67	64	60	65	67	68	68	66	66	65	63	72	74	72	69	62	69	56	63	61	59	64	65.7
Bonapa'e	max.	81	78	83	89	89	86	85	90	87	87	77	82	82	79	84	84	82	86	88	82	88	86	88	87	84	76	76	78	82	84	82	83.6
	min.	58	63	59	67	71	70	65	72	71	69	66	60	62	63	64	69	67	65	67	67	72	72	66	64	70	65	57	64	61	59	66	65.5
Boone	max.	82	82	89	93	96	83	87	86	84	81	80	83	84	83	82	85	83	89	88	84	90	85	89	87	93	77	77	87	84	86	85	85.3
	min.	61	58	62	65	70	65	64	69	65	66	60	59	62	66	64	64	59	63	63	69	66	67	62	68	69	58	58	64	60	59	63	63.5
Britt	max.	75	81	87	91	87	80	84	79	77	72	77	80	84	84	78	85	83	83	85	82	89	77	87	88	87	73	80	82	78	84	83	82.0
	min.	56	50	59	62	67	60	65	64	62	60	57	58	59	68	66	67	67	68	69	67	74	65	68	73	65	57	64	61	63	66	66	63.6
Burl'g'n	max.	83	89	83	90	92	86	85	91	87	85	75	85	84	80	85	84	83	88	88	83	89	87	89	85	82	72	78	79	83	84	82	84.4
	min.	59	61	58	62	72	70	65	67	71	68	66	60	64	64	65	69	68	65	68	68	68	72	66	70	68	67	58	61	62	60	67	65.5
Carroll	max.	81	79	89	94	94	83	87	86	84	81	79	82	82	85	80	83	82	86	87	87	89	82	91	85	91	76	76	84	82	82	82	84.2
	min.	56	55	60	66	71	66	50	53	50	64	57	56	60	59	60	61	54	64	60	65	65	65	59	65	66	56	53	55	55	55	57	59.3
Cedar R.	max.	84	81	88	96	97	81	87	88	83	84	74	86	85	82	83	85	85	90	89	87	93	87	92	89	85	78	81	86	86	89	82	85.9
	min.	61	58	60	64	71	70	63	68	65	65	64	66	64	64	66	66	64	63	66	70	72	71	63	66	69	62	52	61	61	60	62	64.4
Chariton	max.	82	79	86	90	91	87	87	92	89	84	80	83	83	84	83	85	82	88	90	86	89	83	90	85	81	86	74	80	81	83	82	84.7
	min.	56	61	59	66	70	68	64	71	70	65	62	57	63	68	68	67	61	64	64	66	71	69	64	65	69	60	54	61	58	57	61	63.8
Ch'rls Cty	max.	74	75	87	91	90	79	85	84	76	73	78	81	83	80	78	82	80	81	82	82	89	79	85	87	86	75	77	82	79	84	81	81.5
	min.	58	53	59	63	70	65	63	64	63	60	60	55	61	62	63	62	57	62	63	62	71	64	58	65	65	54	54	60	57	53	59	60.8
Clarinda	max.	90	87	95	100	101	92	90	96	95	90	81	86	85	90	84	84	84	90	94	92	96	90	95	92	89	80	76	84	86	90	85	89.3
	min.	60	64	60	66	68	70	62	68	68	66	61	56	62	65	63	63	57	61	64	68	70	70	66	58	68	59	53	60	56	56	60	62.8
Clear La'e	max.	75	76	85	89	90	81	85	87	80	72	78	83	84	84	80	83	81	80	84	82	84	80	87	86	88	75	80	85	84	84	85	82.5
	min.	50	65	65	65	70	64	70	62	66	60	65	58	62	62	65	63	60	59	65	62	70	64	70	65	65	62	65	62	65	62	60	63.5
Clinton	max.	83	76	86	94	95	84	89	88	85	89	75	85	86	82	84	87	85	89	89	86	92	86	87	91	85	77	80	82	85	85	84	85.5
	min.	59	59	51	65	69	67	63	65	68	66	64	58	60	66	70	65	67	62	69	65	70	69	63	70	70	60	54	64	57	57	65	63.8
Colum's J	max.	82	79	84	90	92	86	86	88	88	87	75	83	83	82	83	86	82	88	87	83	89	84	89	90	83	77	79	80	82	83	81	84.2
	min.	60	62	58	66	71	70	64	71	61	69	65	60	60	67	69	69	61	64	67	62	67	71	64	67	65	64	57	63	62	60	65	64.5
Corning	max.	83	80	89	93	97	88	87	93	90	86	79	85	86	88	82	84	81	85	90	86	92	85	93	84	82	78	78	81	86	81	81	85.6
	min.	55	62	62	68	69	72	65	70	71	67	61	53	65	66	63	70	56	63	62	72	72	68	64	68	69	59	53	64	54	56	62	63.9
Corydon	max.	85	82	86	89	92	89	87	91	88	84	80	84	82	82	85	80	82	86	91	84	88	88	89	90	81	77	73	84	84	84	83	84.8
	min.	58	63	61	66	70	69	65	72	71	66	63	58	65	68	68	68	63	65	64	67	72	70	65	66	71	60	77	62	59	60	61	65.6
Creston	max.	83	79	87	91	93	85	86	90	88	83	76	81	82	85	82	85	80	85	88	84	90	83	90	82	79	74	75	80	81	81	80	83.5
	min.	57	62	62	66	70	73	65	69	72	67	61	57	61	67	67	63	59	63	63	66	70	68	63	66	68	60	55	60	60	58	61	63.8
Dav'np'rt	max.	83	75	83	93	95	84	86	85	86	84	74	83	84	79	82	85	84	88	88	84	89	86	88	89	80	77	76	80	83	85	83	83.9
	min.	62	59	57	71	75	69	66	68	66	68	65	61	67	66	71	70	67	67	71	71	73	71	65	71	68	64	61	67	63	61	68	66.7
Decorah	max.	77	79	88	92	93	82	88	84	78	78	79	83	84	82	80	85	82	83	84	84	91	81	87	89	88	77	79	82	80	87	80	83.4
	min.	59	53	58	62	74	72	61	64	65	58	63	56	58	62	69	61	58	60	63	62	70	67	58	65	66	57	53	60	58	58	61	61.6
Delaware	max.	80	74	86	93	94	82	87	86	78	83	73	83	82	80	82	83	81	87	84	87	87	87	90	86	88	79	79	83	81	85	81	83.4
	min.	58	53	56	64	72	66	64	67	62	65	61	58	61	64	68	63	60	61	66	65	71	66	60	70	65	57	56	63	58	56	64	62.6
Denison	max.	84	82	91	96	95	84	87	86	86	81	77	83	84	85	80	83	82	88	86	88	89	83	92	86	93	83	79	83	83	85	83	85.4
	min.	53	56	63	68	73	63	64	67	65	65	56	53	62	63	60	65	52	61	60	62	73	63	60	64	67	57	54	63	53	54	60	61.3
Des Moins	max.	84	80	88	92	94	81	89	89	88	84	81	82	84	87	82	85	82	88	90	85	90	85	89	82	84	77	73	84	82	83	83	84.7
	min.	58	61	63	71	74	69	68	75	69	65	62	60	65	68	65	68	62	65	65	65	74	70	66	69	70	62	59	65	63	60	65	65.8
De Soto	max.	80	78	86	90	92	84	85	87	87	81	76	80	83	85	79	82	79	85	86	84	89	82	88	83	82	74	74	81	80	80	80	82.6
	min.	58	61	61	70	72	68	66	71	69	67	60	58	62	72	64	68	60	63	64	66	72	69	64	68	70	61	55	63	61	58	63	64.6
Dows	max.	74	82	87	..	91	80	86	84	78	76	77	82	84	85	79	81	86	86	85	83	87	82	87	85	87	75	78	82	79	85	80	82.4
	min.	58	53	59	..	65	62	62	66	61	63	58	56	57	66	64	62	54	60	62	64	72	69	58	63	65	55	53	62	58	55	68	61.0
Dubuque	max.	78	74	84	89	93	78	86	86	78	79	76	82	83	77	83	84	82	85	85	85	91	83	88	87	84	76	78	82	81	84	81	82.6
	min.	61	55	57	68	70	67	65	66	65	67	63	61	63	64	68	65	65	62	71	68	70	68	65	69	69	61	58	65	62	58	65	64.5
Earlham	max.	82	80	87	89	92	85	87	89	87	85	77	82	82	86	83	85	80	86	89	84	88	82	89	81	82	76	75	82	80	80	81	83.6
	min.	53	60	67	69	70	70	65	67	70	67	59	59	60	68	63	65	56	61	63	65	71	67	59	63	68	59	49	61	57	67	66	63.4
Elkader	max.	81	81	90	96	96	85	89	84	77	74	82	86	86	80	84	86	87	87	85	88	94	86	90	91	92	83	83	86	85	90	85	86.1
	min.	58	52	55	60	75	67	61	63	64	62	63	55	57	65	60	62	68	60	74	62	72	67	59	70	65	55	51	63	57	51	63	61.8
Elliott	max.	93	89	94	96	98	90	91	96	97	91	80	89	89	90	81	91	85	90	90	90	97	85	96	87	89	77	82	88	83	93	82	89.3
	min.	55	63	62	62	72	71	64	69	71	67	59	55	64	63	62	67	57	62	63	72	65	63	65	64	67	59	55	69	57	58	62	63.4
Esth'rv'e	max.	70	80	90	94	90	90	86	82	84	65	75	81	84	82	79	80	81	82	84	80	87	77	86	85	88	72	77	82	80	88	80	82.0
	min.	56	50	56	64	63	63	60	56	62	58	56	60	59	61	60	60	56	62	61	60	54	52	48	54	55	53	54	57	49	46	47	56.5
Forest C.	max.	73	78	90	90	90	82	85	84	75	70	79	82	81	85	80	82	83	84	85	84	86	79	86	85	87	77	78	82	82	87	82	82.4
	min.	59	54	58	65	68	67	61	62	64	59	57	59	62	60	65	63	56	62	62	63	65	63	60	64	66	55	56	60	58	58	57	60.9
Gr. Mead	max.	77	75	85	88	89	79	84	84	76	74	76	81	82	78	82	82	80	81	82	83	89	80	84	87	85	75	78	81	80	83	79	81.3
	min.	59	52	57	62	72	65	61	65	65	60	61	58	59	62	68	60	58	60	60	62	70	66	60	69	65	55	55	61	59	57	60	61.4
Greene	max.	75	81	87	95	93	82	82	87	77	72	80	85	87	85	83	83	85	87	86	85	90	82	89	85	88	79	80	85	84	88	83	84.2
	min.	58	53	58	61	71	66	64	64	63	60	60	56	60	63	68	63	56	62	63	63	72	65	59	65	64	55	55	60	58	54	60	61.3
Greenfl'ld	max.	84	80	86	90	94	85	85	90	87	83	78	83	82	85	82	85	..	85	88	85	89	84	90	83	83	77	75	81	81	80	80	84.0
	min.	57	60	63	69	70	70	64	68	68	65	58	57	63	67	61	67	..	57	63	68	72	66	62	62	62	58	55	60	57	61	60	63.0
Grinnell	max.	82	80	87	91	92	88	86	85	81	85	78	84	84	86	82	85	81	88	88	84	89	85	88	89	84	78	78	83	81	85	81	84.5
	min.	59	59	62	66	71	63	64	71	57	66	63	57	71	68	67	67	60	71	67	70	71	69	67	68	68	60	56	62	59	56	63	64.5
GrundyC.	max.	76	77	88	94	95	86	85	86	79	85	85	82	83	86	85	83	85	90	91	92	94	93	94	86	88	78	78	82	80	86	82	85.6
	min.	60	55	60	65	71	66	65	67	63	64	61	59	62	56	68	64	63	62	64	67	65	67	63	70	66	56	65	62	60	55	63	63.0
GuthrieC.	max.	81	82	90	94	96	86	89	89	92	84	80	85	85	88	85	84	83	90	90	90	92	91	93	92	88	78	78	89	85	84	82	86.9
	min.	58	59	61	71	73	70	65	68	68	67	59	56	61	71	63	66	51	64	63	66	73	66	61	67	70	59	51	64	58	56	62	63.5
Hampton	max.	74	79	89	93	91	80	85	85	77	73	78	82	84	85	80	82	82	85	85	83	89	82	89	84	86	79	79	84	80	87	82	83.0
	min.	60	54	61	64	72	65	65	66	63	62	59	59	62	65	67	69	58	62	64	64	72	65	58	63	66	56	55	63	59	58	61	62.5
Hancock	max.	87	83	90	95	97	91	86	90	88	85	78	83	83	86	82	85	82	87	87	87	90	85	91	85	82	79	75	81	80	82	80	85.2
	min.	57	62	62	67	70	68	65	68	70	64	59	59	64	65	61	65	58	63	63	69	72	67	64	65	69	59	56	62	59	58	62	63.6
Harlan	max.	86	83	90	95	96	86	86	88	90	85	79	84	84	90	82	84	83	88	87	87	90	85	91	83	89	76	76	82	83	84	82	85.6
	min.	53	59	59	62	71	65	64	67	69	67	57	58	60	63	61	65	53	63	61	66	72	64	62	65	68	57	52	..	55	55	61	61.8
Hopeville	max.	85	81	89	92	94	90	88	95	93	86	77	87	85	89	86	86	83	87	92	86	90	86	95	88	85	75	77	81	82	85	79	86.3
	min.	57	62	59	68	70	72	64	70	71	65	62	59	62	67	66	68	60	64	63	70	70	70	63	64	69	60	54	61	59	61	61	64.2

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JULY, 1907—CONTINUED.

STATIONS		DATE																														MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Humboldt	Max.	74	73	88	91	90	78	82	85	79	74	77	82	85	82	78	81	78	81	83	81	88	80	88	86	87	75	80	82	80	86	82	81.8
	Min.	58	54	64	64	70	66	65	66	62	64	54	54	92	66	44	62	54	62	63	64	68	64	60	68	68	56	56	64	58	58	58	61.2
Indep'd'e	Max.	78	75	85	91	90	85	85	84	79	78	77	81	81	79	81	83	81	84	84	83	89	84	85	86	85	82	76	81	80	85	81	82.5
	Min.	59	53	58	64	72	67	64	63	63	65	62	59	62	61	69	68	62	60	63	65	68	68	59	66	66	55	55	59	60	56	64	62.4
Indianola	Max.	80	80	87	90	92	84	87	88	88	85	78	82	83	87	82	87	80	88	88	84	89	84	89	83	78	77	73	82	81	83	81	83.9
	Min.	61	63	62	70	72	71	66	72	70	62	63	60	64	72	66	69	61	65	65	66	73	69	64	66	70	61	57	63	61	62	63	65.5
Inwood...	max.	74	85	93	96	90	81	86	86	77	71	82	81	83	80	77	77	83	85	85	83	86	80	88	86	87	78	76	83	84	89	82	83.0
	min.	57	51	62	67	68	65	60	60	61	57	55	53	62	59	56	63	53	59	60	62	64	59	61	66	65	50	56	62	54	58	56	59.4
Iowa City.	max.	84	81	85	93	94	88	86	90	89	84	78	87	86	83	82	84	84	89	90	87	92	88	91	89	83	83	78	84	85	88	85	86.1
	min.	59	59	57	63	73	70	65	68	65	65	64	61	62	66	66	67	64	63	68	69	69	71	64	66	69	63	56	61	61	59	63	64.4
Iowa Falls	max.	76	80	90	93	90	81	86	87	79	75	78	83	84	87	82	84	85	88	85	85	90	80	89	87	88	76	79	82	80	85	80	83.7
	min.	57	54	58	64	69	68	64	68	63	62	60	56	59	63	68	64	55	59	66	66	67	66	58	60	66	56	54	56	58	55	57	61.2
Jefferson.	max.	80	80	90	96	96	87	89	88	87	81	80	84	85	88	82	85	82	90	88	89	90	89	91	87	93	80	78	85	85	86	85	86.3
	min.	58	57	60	73	73	65	65	78	66	68	58	58	61	71	63	66	57	68	63	66	72	65	60	68	68	57	54	64	56	58	62	63.8
Keokuk ..	max.	83	79	85	91	91	89	90	94	92	87	77	85	85	81	86	84	86	88	90	87	80	86	91	93	86	78	75	76	81	84	81	85.5
	min	62	65	60	70	72	72	66	74	72	69	66	61	66	68	69	68	70	68	69	64	74	75	69	73	74	67	58	65	64	61	68	67.7
Keosa'q'a	max.	84	80	87	93	92	89	90	95	92	88	78	86	83	82	87	86	84	91	90	88	90	88	91	91	86	78	77	81	84	86	83	86.5
	min.	58	64	57	67	70	70	65	72	73	68	66	59	62	66	68	70	67	63	67	64	66	72	65	69	70	66	55	62	66	58	65	65.5
Larrabee.	max	69	78	93	96	91	84	88	83	76	71	83	86	86	79	85	82	86	91	88	88	90	84	92	84	89	79	79	86	85	86	85	84.6
	min.	59	51	64	66	71	62	63	64	62	60	55	58	62	62	58	65	56	61	76	64	67	59	59	66	72	61	60	65	57	60	58	62.1
Le Mars ..	max.	77	84	92	97	87	82	85	85	80	74	77	99	82	82	77	77	80	82	84	84	87	83	87	83	85	79	78	81	80	82	79	82.3
	min	51	50	64	67	67	63	61	62	70	64	56	57	66	60	58	66	55	60	62	64	68	64	64	66	68	55	55	66	56	57	58	61.3
Lenox	max	81	81	88	92	94	92	86	92	90	86	79	84	84	84	82	84	80	85	90	89	90	88	92	90	82	79	74	81	80	83	81	85.3
	min.	58	62	62	67	70	71	63	70	71	67	61	58	65	66	63	70	60	63	63	73	72	69	64	67	70	60	56	63	62	60	62	64.8
Leon.....	max.	82	84	88	92	95	90	91	89	88	86	80	85	86	89	85	86	82	91	86	90	91	85	93	90	86	77	87	82	82	85	81	86.6
	min.	56	58	60	67	68	74	76	78	76	74	64	60	70	69	68	68	63	69	75	72	74	70	65	66	69	55	50	62	60	60	61	66.4
Lit. Sioux	max.	84	85	92	96	97	87	88	89	91	83	80	82	84	84	83	81	82	88	88	87	91	85	92	85	90	84	78	83	84	86	83	86.2
	min.	55	58	66	69	70	65	65	71	68	67	55	56	66	61	61	65	54	60	62	70	73	65	64	65	66	56	55	64	57	60	60	62.9
Logan	max.	84	85	91	95	97	88	88	90	91	85	79	83	85	87	82	82	82	88	88	88	91	84	92	84	88	78	78	83	82	83	81	85.9
	min.	57	56	63	64	70	67	64	61	68	60	56	55	63	65	60	65	53	61	61	69	73	65	61	66	58	52	63	54	54	61	60	61.5
Mars'llt'n	max.	82	81	88	92	93	81	85	85	85	81	78	83	83	87	83	84	84	88	88	88	89	84	88	88	90	78	76	84	83	87	84	84.8
	min.	58	56	59	65	72	64	63	69	64	66	62	57	60	65	67	66	58	61	64	67	67	67	58	61	69	59	53	55	58	55	58	62.0
Mason C'y	max.	76	78	87	91	90	85	85	89	80	74	81	83	85	86	84	85	84	84	85	85	92	80	88	91	88	77	80	84	82	86	83	84.1
	min.	58	55	65	65	70	67	67	65	66	60	58	56	65	67	62	66	56	65	65	67	68	67	60	70	70	55	58	62	58	56	63	63.0
Massena..	max.	85	83	91	96	98	92	88	94	91	87	82	85	84	88	85	87	83	88	92	88	92	85	93	85	86	78	76	85	85	83	85	87.1
	min.	57	61	61	66	70	69	64	68	71	67	58	55	64	66	62	62	57	64	63	70	72	62	63	65	69	59	54	62	58	56	61	63.1
Mt. Ayr ..	max.	88	84	89	93	92	89	91	95	91	86	80	86	83	85	87	87	83	88	93	87	90	89	96	94	85	79	73	85	85	88	83	87.2
	min.	57	62	61	65	66	66	61	69	68	66	62	60	64	65	65	67	61	63	62	72	71	69	64	66	70	60	56	62	59	61	51	63.6
Mt. Pleas't	max.	83	80	86	92	92	87	86	92	89	88	82	85	85	81	85	85	83	85	88	82	90	86	90	88	81	77	78	79	84	85	83	85.1
	min.	57	62	60	78	72	72	65	73	70	68	65	60	64	65	69	68	66	65	67	67	72	72	65	69	65	65	57	63	61	61	67	66.1
Mt. Ver'n.	max.	81	81	86	95	95	85	86	87	81	81	78	85	83	78	85	82	87	85	91	88	90	86	91	84	82	84	74	87	82	89	83	84.9
	min.	60	55	57	66	68	62	64	66	64	65	62	60	62	62	71	68	62	61	68	68	70	69	60	69	68	60	55	62	60	60	64	63.5
N.Hamp'n	max.	78	78	85	88	88	81	84	82	78	74	76	78	80	78	78	81	78	80	80	80	87	78	83	85	84	79	77	80	78	82	80	80.6
	min.	58	52	57	61	69	68	62	64	64	59	60	57	60	62	67	62	56	61	62	63	71	64	57	66	64	54	55	60	57	56	57	60.8
Newton...	max.	81	78	86	91	92	85	86	88	86	88	76	80	84	87	80	81	80	87	86	82	89	83	88	83	82	78	75	80	80	83	81	83.4
	min.	60	60	60	68	72	64	64	71	66	66	62	60	60	68	66	68	61	64	65	65	72	70	62	68	69	60	56	70	61	61	65	64.6
Northw'd	max.	73	78	86	91	88	79	84	86	81	..	..	82	85	86	84	83	80	..	82	86	89	83	86	88	88	75	82	81	82	82	85	83.4
	min.	57	54	62	63	70	65	60	59	61	..	..	60	58	60	64	60	55	..	63	63	68	63	65	68	66	55	55	59	58	60	58	61.0
Odebolt ..	max.	76	87	93	97	97	91	88	91	82	81	81	86	88	90	85	82	87	92	91	90	90	86	95	90	92	83	84	85	85	90	88	87.8
	min.	59	57	64	67	74	61	61	67	64	65	55	55	61	63	60	63	56	62	60	63	70	64	60	65	67	60	53	64	57	56	60	61.7
Ogden	max.	83	83	89	93	94	85	90	88	86	82	80	85	86	89	83	86	83	89	86	86	90	85	90	88	92	77	78	85	78	85	83	85.7
	min.	58	57	62	68	72	65	64	70	65	66	59	57	62	64	64	66	57	63	63	66	73	65	60	69	67	58	55	63	58	58	62	63.1
Olin.....	max.	83	75	84	90	91	85	84	85	81	86	74	81	83	80	80	84	80	85	84	86	90	84	86	91	83	78	80	81	81	80	81	83.1
	min.	69	57	53	64	71	67	64	66	67	67	64	58	60	65	69	65	64	61	69	67	70	70	61	73	69	61	55	62	61	54	64	64.1
Omaha, N	max.	84	84	92	96	97	88	88	91	91	82	76	81	85	83	78	81	82	85	89	90	93	85	92	80	84	76	75	82	81	87	79	85.1
	min.	64	66	68	73	76	66	67	72	69	67	61	65	68	63	63	66	62	62	63	74	75	70	64	67	71	62	62	65	63	67	64	66.6
Onawa....	max.	80	86	93	96	96	89	86	88	88	81	78	83	86	85	81	81	81	87	87	90	90	89	91	87	87	85	79	84	85	84	84	86.0
	min.	58	60	67	67	73	66	65	70	67	67	58	59	65	63	61	67	57	63	63	71	74	69	65	67	69	59	57	66	60	64	62	64.5
Osage.....	max.	76	78	88	92	95	89	89	84	78	77	82	86	84	83	83	86	86	86	86	84	87	83	87	90	90	81	79	86	82	88	84	84.8
	min.	57	52	59	64	69	64	60	61	61	56	58	55	65	60	67	60	56	60	56	60	66	63	56	63	64	52	52	57	57	54	57	59.4
Oskaloosa	max.	81	77	84	90	90	85	86	88	87	80	76	83	86	83	80	84	80	86	86	83	89	84	87	84	80	78	75	78	81	82	81	83.0
	min.	58	63	61	68	72	70	65	70	68	68	64	59	65	67	69	70	64	65	68	65	71	70	63	69	69	63	55	62	61	59	64	65.3
Ottumwa.	max.	85	83	90	95	95	87	93	96	93	87	80	88	86	84	88	86	87	94	91	88	92	88	92	88	80	81	78	84	84	86	84	87.5
	min.	59	64	63	68	74	73	66	74	70	70	65	62	66	69	69	68	66	66	63	62	63	72	68	70	73	62	58	64	62	60	66	66.3
Pacific Jc.	max.	86	85	91	97	99	93	90	94	91	86	77	85	87	86	86	83	85	87	93	93	96	89	96	85	80	80	83	82	82	88	80	87.6
	min.	54	63	62	65	70	68	58	65	69	68	59	56	63	62	62	65	55	61	64	72	72	69	66	65	70	58	63	55	56	60	61	63.1
Pella.....	max.	84	84	88	92	93	90	90	92	93	88	82	87	87	88	86	89	86	92	93	89	92	89	93	89	82	82	78	85	87	87	86	87.8
	min.	59	62	61	68	72	71	66	73	67	67	63	60	65	69	68	69	63	65	67	63	72	72	63	68	68	61	57	62	61	61	64	65.4
Perry.....	max.	81	82	90	94	95	85	90	88	88	85	79	84	85	90	84	86	84	91	88	88	92	85	91	85	91	78	78	84	83	86	84	86.3
	min.	58	59	61	68	72	68	66	71	67	66	59	58	62	71	64	67	59	64	64	67	72	66	61	69	69	59	55	64	59	59	63	64.1
Plover....	max.	71	81	92	95	92	82	87	88	79	75	77	84	86	85	80	85	83	84	83	84	91	78	88	91	90	77	83	84	83	88	83	84.2
	min.	51	50	61	62	63	61	60	61	59	60	59	55	58	60	59	60	59	60	61	60	64	61	61	64	65	50	50	57	55	55	51	58.5
Pocahon's	max.	72	82	89	95	91	81	86	87	80	75	77	84	85	85	80	84	83	85	85	82	89	79	90	85	89	77	83	85	82	89	82	83.8
	min.	58	53	62	65	73	63	65	65	60	62	66	56	62	63	60	62	56	62	62	63	63	63	60	67	67	54	54	54	56	58	57	61.0
Ridgeway	max.	81	77	90	90	93	87	90	84	80	77	80	85	84	80	83	84	87	83	86	86	91	85	87	92	90	77	77	88	86	92	86	85.1
	min.	59	51	57	61	71	65	61	62	63	58	61	56	60	62	70	60	56	60	63	62	70	65	57	66	63	54	56	60	58	56	59	60.7
Rock Rap.	max.	72	82	94	98	88	84	85	90	80	74	80	82	84	80	84	76	82	84	82	82	84	80	88	81	88	86	84	82	82	86	82	83.5
	min.	56	50	60	64	70	64	59	56	64	60	58	52	62	64	64	58	52	62	52	60	60	60	60	64	66	52	54	56	54	56	56	58.9
Rock'll Cy	max.	80	85	90	94	94	86	86	90	85	80	85	80	87	86	86	86	86	86	86	86	88	92	85	92	92	90	90	82	85	85	90	85	86.9
	min.	53	56	63	68	68	66	65	68	63	63	63	58	60	66	63	63	63	65	63	65	65	63	60	65	65	60	55	65	58	60	60	62.5
Sac City .	max.	74	80	88	92	92	83	85	85	81	78	77	80	83	82	80	80	80	87	85	84	86	82	90	85	89	82	78	82	81	85	80	83.1
	min.	68	55	56	60	68	67	68	62	63	64	56	57	56	62	61	62	56	62	60	65	65	63	60	66	67	56	53	63	59	64	60	61.4
St. Charl's	max.	82	78	87	91	93	82	88	90	88	85	78	89	83	88	81	86	80	86	88	84	90	84	89	83	79	75	74	81	80	82	80	84.0
	min.	59	62	62	70	72	71	66	72	71	67	61	60	64	71	65	68	61	65	64	67	73	70	64	68	70	61	57	63	67	62	63	65.7
Sibley	max.	70	80	90	95	88	81	85	86	76	66	77	80	84	79	77	75	81	82	82	81	86	77	85	82	87	76	76	82	81	86	79	81.0
	min.	57	50	55	63	69	64	61	59	62	61	56	53	57	59	57	59	51	54	60	61	63	60	58	61	65	53	52	52	55	56	55	58.0
Sigourn'y	max.	82	80	87	92	92	85	89	90	86	78	85	85	85	83	87	..	83	91	89	84	89	85	89	88	83	78	76	82	83	85	82	85.1
	min.	58	62	59	66	72	70	65	74	68	64	60	64	69	68	69	..	63	64	67	66	72	70	63	67	65	62	57	62	61	59	64	65.0
Sioux Cen	max.	73	82	90	94	88	81	84	86	77	71	77	81	83	78	77	75	81	83	82	83	83	77	90	82	86	76	80	80	82	86	80	81.5
	min.	55	55	62	63	68	63	53	63	62	62	58	58	62	62	58	62	56	60	62	62	65	62	60	65	66	53	55	65	57	60	58	60.4
Sioux City	max.	76	85	93	98	92	80	85	84	76	76	78	81	84	78	78	76	80	86	85	86	89	80	92	85	86	77	77	82	83	85	81	83.0
	min.	58	53	68	70	72	64	67	68	67	59	58	61	65	60	60	61	56	62	62	65	70	65	65	68	64	57	60	65	59	63	60	63.0
Stockport	max.	79	77	83	88	90	83	83	89	85	82	79	80	80	79	81	82	79	84	85	81	86	82	86	85	80	78	75	77	79	80	78	81.8
	min.	63	63	61	69	72	69	65	73	71	70	61	62	65	68	69	70	68	66	68	66	72	73	67	71	70	66	58	65	63	60	68	66.8
Storm Lk.	max.	74	86	92	94	95	80	85	86	79	74	78	84	89	86	81	80	84	87	86	83	88	86	93	93	95	81	87	86	85	92	86	85.6
	min.	59	62	65	66	50	62	62	63	64	61	55	56	60	60	60	64	54	62	60	62	65	62	62	68	67	65	55	55	57	59	65	60.5
Stuart	max.	84	81	90	95	96	94	90	90	91	86	77	88	87	90	83	84	85	88	88	87	92	83	94	87	83	75	80	83	85	90	89	86.9
	min.	60	61	63	69	72	70	70	70	70	65	59	64	60	60	64	66	60	65	64	65	65	66	63	67	60	60	55	62	60	60	60	63.7
Thurman	max.	88	89	93	98	102	93	90	94	94	89	83	85	87	85	83	83	85	88	92	91	95	88	95	87	85	84	77	84	85	88	82	88.5
	min.	54	64	61	68	72	71	63	68	72	70	62	55	69	63	64	67	55	62	66	71	73	70	67	69	70	59	55	65	57	57	61	64.6
Tipton....	max.	87	88	86	95	92	90	88	90	85	85	78	85	84	78	82	83	86	87	90	86	91	90	91	90	80	82	80	84	87	88	87	86.3
	min.	62	60	59	69	73	67	66	70	66	68	65	67	65	65	69	69	66	66	70	68	71	72	66	68	70	65	61	65	63	62	68	66.5

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JULY, 1907—CONTINUED.

STATIONS		DATE																													NAME.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Toledo ...	max.	82	80	86	91	92	85	87	85	83	81	77	84	84	84	80	83	84	86	87	88	90	86	87	91	87	80	79	84	83	86	81	84.6
	min.	59	57	69	68	73	63	65	69	65	67	63	59	63	65	73	66	59	63	63	66	72	68	59	69	69	60	59	62	58	57	64	64.3
Wapello ..	max.	80	77	81	87	88	82	84	86	85	81	73	77	78	78	81	80	78	82	84	79	85	82	84	83	76	75	71	75	79	79	79	80.3
	min.	61	63	58	67	73	71	66	73	64	71	67	66	64	67	69	70	68	65	70	68	71	73	66	72	69	65	58	65	62	61	67	66.8
Wash'g'n	max.	82	77	84	90	91	82	84	86	86	85	75	82	82	80	80	84	81	83	87	81	88	84	86	86	77	76	75	78	82	82	81	82.5
	min.	58	61	58	66	71	67	64	70	65	68	64	60	64	66	68	70	64	64	66	67	71	70	63	68	66	62	57	62	60	58	66	64.6
Washta...	Max.	80	85	91	95	94	84	85	85	80	78	80	83	85	84	82	80	82	88	87	85	90	88	91	90	92	78	80	89	84	88	86	85.5
	Min.	62	50	62	62	70	62	62	67	65	61	55	53	63	63	60	64	50	63	60	65	68	62	60	64	66	54	52	53	52	53	54	59.9
Waterloo.	Max.	80	79	88	95	93	83	88	86	81	78	80	84	86	81	83	85	84	87	87	86	93	83	89	89	90	79	80	85	85	88	88	85.3
	Min.	59	56	57	64	74	69	66	69	65	65	63	59	62	66	69	65	60	73	65	66	69	68	61	64	68	68	56	60	60	58	61	63.4
Waukee :	Max.	80	83	87	92	97	90	89	91	90	83	77	73	83	89	83	82	82	88	90	85	89	84	91	83	80	80	77	83	81	83	81	84.7
	Min.	58	61	62	70	70	70	66	68	69	67	59	59	62	72	65	67	60	65	64	65	72	68	70	69	60	60	56	60	61	60	61	64.4
Waverly .	max.	75	75	86	90	90	80	84	83	76	72	77	78	83	80	79	82	79	82	82	81	88	83	85	82	85	78	78	81	79	83	80	81.2
	min.	59	55	60	62	73	67	65	67	63	64	62	59	61	65	69	64	59	62	65	63	72	67	60	65	66	57	56	62	59	57	64	62.9
Websr. Cy	max.	82	85	89	94	97	85	90	87	87	81	80	90	83	92	85	87	87	88	88	89	93	85	91	95	93	75	83	88	84	92	86	87.5
	min.	57	54	61	68	73	63	66	68	64	65	59	57	60	69	67	64	56	63	63	67	73	65	58	66	68	56	53	64	56	55	62	62.6
W. Bend .	max.	72	85	89	92	88	89	86	91	76	71	76	84	85	85	83	82	83	82	82	85	88	75	89	91	88	74	82	82	80	85	82	83.3
	min.	58	53	61	65	71	61	63	65	61	61	56	56	60	64	62	63	56	61	61	64	66	62	58	66	67	53	56	60	55	56	57	60.6
Whitten ..	max.	77	81	89	94	95	88	86	86	85	76	77	83	84	85	83	..	..	87	88	86	91	86	90	89	90	81	80	85	83	88	87	85.5
	min.	57	55	58	66	70	62	64	67	64	67	60	57	60	67	57	..	..	57	63	67	72	65	58	65	68	56	56	63	58	57	63	62.0
Wilton Jn	max.	85	83	84	92	94	94	87	85	86	85	75	84	83	83	82	84	86	90	88	89	85	88	90	89	88	80	79	82	85	85	83	85.6
	min.	58	58	56	66	72	69	64	70	66	67	61	59	61	65	70	67	60	70	69	70	70	63	71	69	64	64	55	63	60	57	65	64.5
Winterset	max.	81	83	91	94	97	95	92	94	93	89	81	87	87	90	84	85	83	88	90	88	92	88	93	88	82	79	78	84	83	82	81	87.2
	min.	57	62	62	70	72	72	66	71	71	67	62	60	63	70	64	69	60	65	65	69	72	69	64	67	70	60	56	63	60	61	63	65.2
Woodb'rn	max.	84	80	87	91	91	87	88	92	90	87	79	84	85	86	86	87	77	87	91	84	90	87	92	87	80	82	79	82	84	85	82	85.6
	min.	54	61	56	67	70	68	65	71	70	66	62	55	62	62	67	76	58	61	63	68	72	68	60	65	68	58	49	58	58	53	60	62.9
Zearing...	max.	79	81	88	92	94	85	84	86	82	79	77	83	84	87	80	84	83	87	86	84	90	85	88	87	89	83	79	84	81	86	82	84.5
	min.	57	56	60	67	71	62	65	68	63	65	61	57	62	68	66	64	57	64	64	67	73	57	62	65	68	57	52	64	61	54	63	62.6

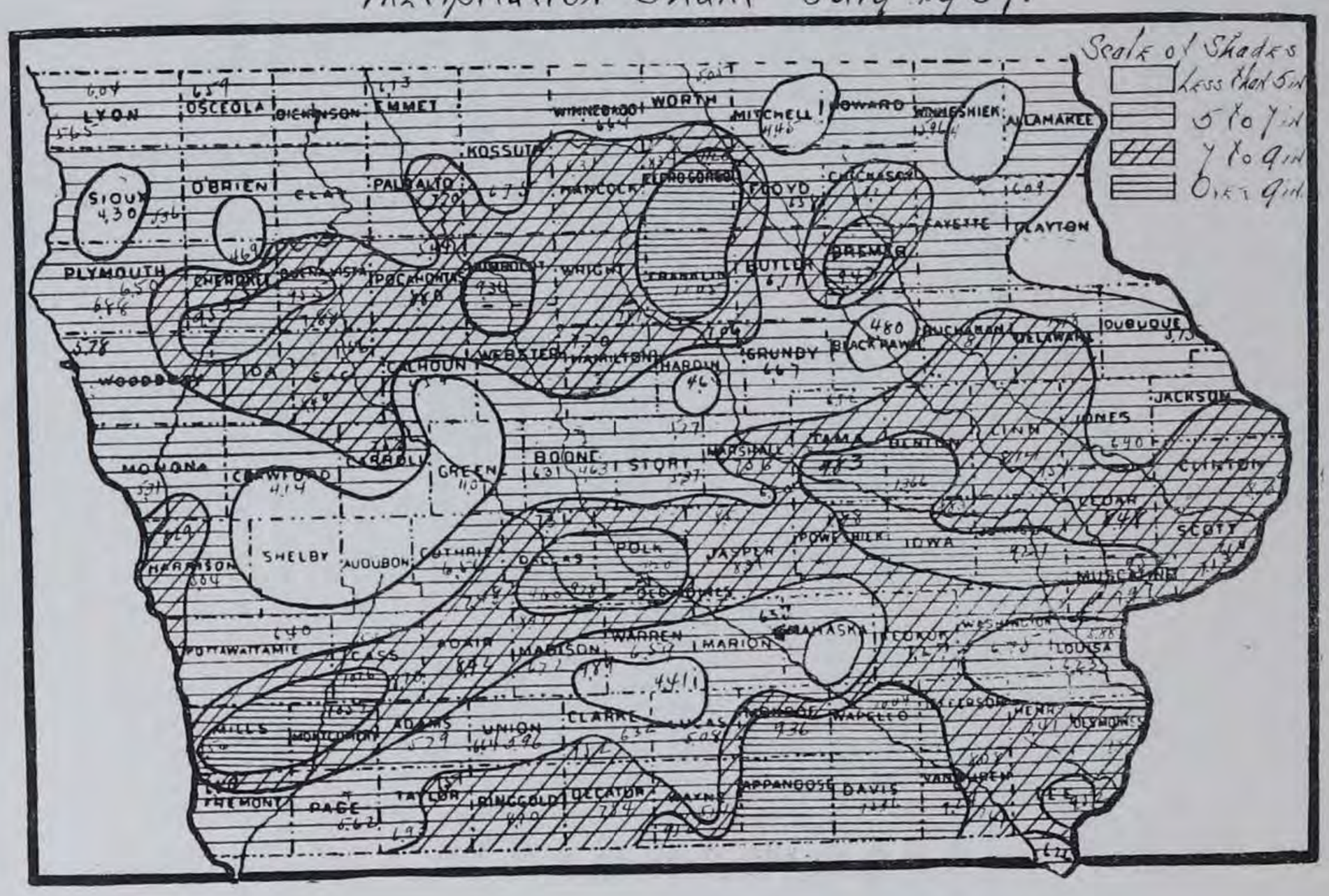
DAILY AND MONTHLY PRECIPITATION FOR JULY, 1907.

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	.16	....	....	....	....	....	.54	....	....	.36	....	....	....	.07	1.78	.17	....	.67	.07	T	....	.17	....	.15	.86	....	....	....	....	.05	.91	5.96
Albia	.75	.05	....	....	....	....	.33	....	....	.55	1.14	....	....	.04	.60	.93	....	.03	.23	1.71	2.13	.13	....	.07	.36	.11	....	....	....	....	.20	9.36
Algona	T	....	.02	.52	T	.88	....	....	2.16	.77	....	....	....	.18	.35	.44	....	.54	.26	.08	.02	....	.38	....	.10	....	....	....	....	....	.05	6.75
Allerton	.40	T	....	....	....	....	2.45	....	.10	.06	.25	....	....	.24	1.27	.87	.02	.17	.48	.48	....	.40	....	.19	.15	....	T	.06	....	T	1.53	9.12
Alta	1.10	.09	....	T	....	2.12	.37	.02	.07	.50	1.51	....	....	.53	1.40	.48	.02	.52	.48	.29	.02	....	....	....	.03	....	....	....	....	....	....	9.55
Alta (near)	.08	....	....	....	....	2.09	.20	....	.18	1.10	....	....	....	.68	.98	.50	....	.53	.72	.69	....	T	.08	....	....	....	....	....	....	T	....	7.83
Alton	.26	....	.06	....	....	.44	.14	....	.26	.99	....	....	.09	.26	1.27	.10	....	.60	.31	.08	.17	....	T	.33	....	....	....	....	....	T	....	5.36
Amana	.15	....	....	....	....	.25	....	....	3.41	1.76	.20	....	T	.93	.91	.36	.03	T	T	.37	....	T	....	T	.46	....	....	....	....	....	....	8.83
Atlantic	....	....	....	....	....	.47	.17	....	.19	....	....	....	....	1.08	....	1.19	....	.57	.23	....	....	....	.21	.28	.44	....	....	....	....	1.10	....	5.93
Audubon	....	.59	....	....	....	.10	.21	....	....	.02	....	....	....	.27	.22	1.75	....	.37	.17	.30	....	....	T	.10	.37	....	....	....	....	.03	.49	4.99
Baxter	.03	12	....	....	....	.79	.02	....	.99	.08	....	....	....	....	2.43	1.78	....	.48	.08	.72	....	.63	....	.15	.25	....	....	....	....	....	....	8.55
Bedford	....	....	....	....	....	....	1.91	....	....	.01	....	....	.06	1.06	1.59	.16	....	.55	....	T	....	....	....	....	.09	....	....	T	....	T	1.50	6.93
Belle Plaine	....	....	....	....	....	.95	....	....	5.30	.30	1.83	....	....	1.09	1.12	2.10	....	....	....	.55	....	.22	....	.03	.17	....	....	....	....	....	....	13.66
Bloomfield	.38	....	....	....	....	T	.75	....	....	.61	2.65	....	....	1.05	.37	.56	....	.04	3.90	2.23	....	....	....	.25	.10	....	....	....	....	....	.07	12.96
Bonaparte	.73	....	....	....	....	....	.31	....	....	1.05	1.45	....	....	.75	.40	.47	....	....	1.15	.60	.51	....	....	.17	.05	....	....	....	....	....	....	7.64
Boone	.09	.10	....	.04	....	.02	.14	T	.54	1.01	.70	....	....	....	.62	T	....	.50	.07	.35	.27	T	....	....	.12	.03	....	....	....	....	.03	4.63
Britt	....	....	.13	.10	....	.70	T	....	.95	2.34	....	....	....	.43	.24	.32	....	.27	.30	.07	.03	....	T	2.20	.23	....	T	....	....	T	....	8.31
Buckingham	.25	....	....	....	....	1.73	T	.04	2.40	.31	....	....	....	T	.90	.61	....	.14	.11	.15	.10	....	.10	.08	T	....	....	....	....	....	T	6.92
Burlington	1.26	....	....	....	....	....	.37	....	....	1.54	1.04	T	....	.04	1.81	.41	.15	....	.54	.16	.32	....	....	.07	.08	.05	....	....	.03	....	....	7.87
Carroll	1.10	.32	....	....	....	.10	.15	....	....	2.10	1.00	....	....	....	.40	.15	....	.50	.30	1.00	....	....	....	....	.30	....	....	....	....	....	.10	7.52
Cedar Rapids	.06	....	....	....	....	....	1.31	.12	1.47	.64	1.24	....	....	1.24	.95	....	.56	....	.03	....	.06	.15	....	T	.26	.05	....	....	....	....	....	8.14
Chariton	....	....	....	....	....	....	.47	....	....	1.48	.26	....	....	T	1.83	.10	....	.15	T	T	....	T	....	.35	.10	....	T	....	....	T	.34	5.08
Charles City	....	....	.05	....	.06	.38	1.14	T	.31	1.54	T	....	....	.81	.23	.23	....	.17	.60	....	.01	....	.02	....	T	....	....	....	....	.01	.02	5.58
Clarinda	....	....	....	....	....	....	2.72	....	....	....	....	....	T	.18	.75	.07	.03	.89	....	....	....	.08	....	....	.02	.06	....	....	....	....	.82	5.62
Clear Lake	....	....	1.20	....	.10	1.65	.02	....	.40	2.25	....	....	....	1.30	....	.28	....	.30	.20	T	.10	....	....	.54	T	....	....	....	....	T	T	8.34
Clinton	....	....	....	....	....	1.84	....	1.52	....	2.70	....	....	....	.40	.18	.18	....	....	....	....	....	.98	....	.43	.30	....	....	....	....	....	....	8.53
Columbus Junc.	.21	....	....	....	....	.48	....	....	.55	.47	.35	....	....	.38	.47	.86	.11	....	.47	.18	....	....	....	....	1.35	....	....	....	....	....	....	5.88
Corning	....	.22	....	....	....	....	1.30	....	.17	T	....	....	....	.76	.12	....	....	.80	.20	....	T	....	....	T	.41	....	....	....	....	1.81	....	5.79
Corydon	....	T	....	....	....	....	.68	....	....	.68	.09	....	....	.09	1.15	.52	....	.16	.46	T	....	.03	....	.42	.30	....	T	....	....	....	.56	5.14
Creston	.59	....	....	....	....	....	.59	.02	....	1.31	.02	....	....	....	1.42	.05	.04	.70	.15	....	....	.56	....	.19	.18	.27	....	....	....	....	.55	6.64
Cumberland	T	....	....	....	....	....	.42	....	1.14	....	.52	....	....	....	2.90	2.55	.70	....	....	....	....	....	.63	.70	....	....	....	....	....	1.20	....	10.76
Davenport	....	....	....	....	....	.04	....	1.03	1.30	2.38	T	....	....	.35	.10	.50	....	....	.13	.01	.04	T	....	.22	1.03	....	....	....	....	....	....	7.13
Decorah	....	....	....	T	....	T	.23	.52	.25	....	1.04	....	....	....	1.18	.11	.25	....	.09	.25	....	.20	.04	....	T	....	....	....	T	....	.19	4.35
Delaware	....	....	....	....	T	.46	....	.66	.90	.99	.10	....	....	1.02	.71	.28	....	....	.27	....	.44	.98	....	.07	.60	....	....	....	....	....	....	7.48
Denison	.07	....	....	....	....	.17	.20	....	.21	.31	....	....	....	.21	.26	.47	....	.61	.54	.72	....	T	....	.11	.23	....	....	....	....	....	....	4.14
Des Moines	.11	.03	T	....	....	.15	.02	....	.16	.54	....	....	....	3.03	.80	1.74	....	.58	.01	2.41	T	....	T	.08	.42	....	....	....	....	.04	.08	10.20
De Soto	.02	.11	....	....	....	.13	.13	....	T	1.40	....	....	....	....	3.36	1.70	....	.30	.08	1.10	.07	....	....	.13	.83	....	....	....	....	....	.24	9.60
Dows	....	....	....	.28	....	.31	....	.10	1.03	.37	....	....	.03	.33	.30	1.87	....	.87	1.24	.05	....	....	.89	.18	.02	....	....	....	....	....	T	7.87
Dubuque	....	....	.25	....	T	.32	.29	.44	.18	.96	.09	....	T	.82	.07	.13	....	....	.01	....	1.05	....	T	.48	.06	....	....	....	....	....	....	5.15
Earlham	....	.05	....	....	....	....	.15	....	T	.77	....	....	....	....	4.35	.95	....	.31	.09	.51	T	....	....	.24	.49	....	....	....	....	.56	....	8.47
Elkader	....	....	.20	....	....	.25	....	.33	.10	1.00	.05	....	....	.70	.35	.20	....	....	.18	....	.35	....	....	....	....	....	....	....	....	....	.26	3.97
Elliott	....	.08	....	....	....	....	2.38	....	....	.93	....	....	....	1.10	5.00	1.30	....	.88	.40	....	....	....	....	.90	.18	....	....	....	....	.10	.27	13.52
Estherville	.10	T	.18	....	....	T	.30	.11	.37	.08	1.10	....	....	.10	2.20	.20	.14	.15	.35	....	.60	T	....	....	....	.43	....	T	....	....	.32	6.73
Forest City	....	....	....	1.00	....	....	.27	.05	.15	.03	1.00	....	....	1.50	.08	.20	.10	.20	.20	....	.63	....	....	1.00	....	.15	....	T	....	....	.08	6.64
Fort Madison	....	....	....	....	....	1.20	.30	....	T	1.50	1.15	....	....	.56	.45	1.18	....	....	.99	1.20	....	....	....	.71	.28	....	....	....	....	T	....	9.52
Gilman	T	....	....	....	....	.95	....	....	1.19	.58	....	....	....	....	1.07	1.72	....	.07	....	.33	.22	....	....	T	.07	....	....	....	....	....	T	6.20
Grand Meadow	....	....	.15	....	.01	.10	.08	.40	.05	1.05	.06	....	....	1.03	.26	1.00	....	.05	.50	....	1.14	....	....	.06	....	....	....	....	....	....	.15	6.09
Greene	....	....	.20	....	....	.54	....	.40	.82	.65	.05	....	....	1.40	.36	.87	....	.18	.65	....	....	....	....	.38	.21	....	....	....	....	....	....	6.71
Greenfield	....	....	....	....	....	....	.18	....	.61	T	....	....	....	T	3.30	.70	....	.47	.09	....	....	.20	....	1.29	.20	....	....	....	....	.20	1.18	8.42
Grinnell	.25	....	....	....	....	.96	....	....	.80	2.71	....	....	....	T	.97	1.73	....	.10	.02	.77	....	.37	T	T	.14	....	....	....	....	....	.06	8.88
Grundy Center	....	....	....	....	....	.50	T	....	2.60	.41	....	....	....	.60	....	.15	....	.25	.72	.10	....	.22	....	.62	.50	....	....	....	....	....	....	6.67
Guthrie Center	T	.37	.02	....	.08	.01	.21	....	.15	.81	....	....	....	....	.75	1.75	....	.43	.04	.63	....	....	T	.08	.10	.01	....	....	....	T	1.12	6.56
Hampton	....	....	.35	....	T	.50	.52	....	1.45	.86	....	....	.85	.25	....	2.25	....	.40	.82	.04	.05	....	.02	3.10	.40	....	....	....	.03	.16	12.05
Hancock	....	.10	T	....	....	.06	1.34	....	.30	.12	....	....	....	.13	1.09	.88	....	.78	.62	....	....	....	....	.74	.14	....	....	....	....	.10	6.40
Harlan	....	.23	T	....	....	.26	.46	....	....	.02	....	....	....	.10	.46	1.28	....	.48	.46	T	....	T	.01	.69	.12	....	....	....	....	.08	.31	4.96
Hopeville	....	....	....	....	....	....	.76	....	.08	.73	....	....	....	.30	1.91	.33	....	.42	.55	5.00	....	T	....	.22	.18	....	....	....	....	.10	1.07	11.65
Humboldt	....	....	.12	1.80	....	1.50	....	....	.64	.80	....	....	....	.40	.16	1.95	....	.43	.78	....	.24	....	....	.50	.04	....	....	....	....	....	....	9.36
Independence	....	....	.15	....	....	.40	....	2.10	.87	.90	.02	....	....	1.02	1.00	.25	....	.08	.52	....	.13	....	....	.28	.39	....	....	....	....	....	....	8.11
Indianola	....	....	....	....	....	T	.23	....	T	.41	....	....	....	....	1.78	.85	....	.35	.05	1.27	....	T	....	.38	.98	....	....	....	....	T	.29	6.59
Inwood	.05	....	....	....	....	.04	.02	....	.11	.43	....	....	T	.79	.92	.02	....	.38	.50	.06	2.14	.01	.04	T	.02	....	.04	.07	....	.01	T	5 65
Iowa City	.32	....	....	....	....	....	.14	....	1.82	.72	2.66	....	....	1.07	.99	.05	.89	....	.88	....	.29	T	....	.01	.15	.02	....	....	....	....	....	9.21
Iowa Falls	.38	T	....	T	....	.11	.16	T	1.34	.35	.16	....	....	.53	.42	.30	.20	.20	1.78	....	.10	T	....	.36	.57	.10	....	....	....	....	T	7.06
Jefferson	T	.26	....	....	....	T	T	....	1.40	.16	....	....	....	T	.42	.59	....	.42	.17	.55	....	....	....	....	.10	....	....	....	....	....	....	4.07
Keokuk	....	T	....	....	....	.11	.07	....	.40	.90	.08	....	....	.17	.40	2.24	....	T	.77	.83	....	.07	....	.02	.01	....	T	.19	....	....	....	6.26
Keosauqua	.67	T	T	....	....	....	.57	....	....	.54	1.16	....	....	1.00	.85	.59	.23	....	1.72	.42	1.21	.03	....	.03	.10	.13	....	T	T	....	T	9.24
Lacona	....	....	....	....	....	....	.48	....	....	.40	....	....	....	.01	1.40	.28	....	.25	.01	.50	....	.18	....	.68	....	....	....	....	....	....	.22	4.41
Larrabee	.41	....	....	....	T	.45	.02	.01	.10	.67	....	....	.85	.75	....	.27	....	.20	.27	.05	....	T	T	.64	....	....	....	....	....	T	....	4.69
Le Claire	.07	....	....	....	....	....	.09	.10	1.22	.32	1.80	....	....	.04	.74	.06	.14	....	.14	T	....	.44	....	1.10	.70	.18	....	....	....	....	....	7.14
Le Mars	....	....	....	....	....	.70	.61	....	.35	1.78	....	....	....	.51	.42	.10	....	.80	.38	.81	T	....	T	.04	....	....	....	T	....	....	....	6.50
Lenox	....	T	....	....	....	....	2.85	....	....	.68	....	....	....	.13	1.50	.30	....	.50	.05	....	....	....	....	T	T	....	....	....	....	.10	1.40	7.51
Leon	....	....	....	....	....	....	1.80	....	.72	....	.33	....	....	....	2.05	.55	.40	.20	....	....	....	.92	....	.02	.08	....	T	.02	....	.05	.70	7.84
Little Sioux	....	....	....	....	....	.14	1.40	....	....	.40	....	....	....	.87	.10	1.96	....	81	.95	....	....	....	.03	1.59	....	....	....	T	....	.04	....	8.29
Logan	....	.14	....	....	....	.10	.80	....	....	.15	....	....	....	.28	.64	1.08	....	.63	.48	....	....	....	....	.74	....	....	....	....	....	....	....	5.04
Marshalltown	.12	....	....	....	....	.62	.51	....	1.42	.45	.58	....	....	....	1.06	.03	1.12	.21	.01	....	.71	.27	....	....	.42	.01	....	....	....	....	.02	7.56
Mason City	....	....	4.25	....	....	2.10	.06	....	.34	1.65	....	....	....	1.50	.05	.15	....	.25	.25	.20	.05	....	.05	.25	T	....	....	....	....	....	.05	11.20
Massena	....	.04	....	....	....	....	.33	....	....	.67	....	....	....	.03	3.80	1.23	....	.55	.23	....	....	.06	....	.42	.31	....	....	....	....	T	1.03	8.70
Merrill	....	.23	....	....	....	.62	.21	....	.38	.90	.70	....	....	.50	.58	.13	....	.86	.62	1.10	....	....	....	....	....	....	....	.05	....	....	....	6.88
Mt. Ayr	....	.03	....	....	....	T	2.54	....	....	....	....	....	....	.45	3.71	.10	....	.50	.22	.08	....	.18	....	.02	.12	....	T	T	....	T	.75	8.70
Mt. Pleasant	1.04	.05	....	....	....	....	.38	....	....	.40	.78	....	....	.90	.57	.65	....	....	1.08	.82	....	T	....	.04	.70	....	....	T	....	....	....	7.41
Mt. Vernon	.07	....	T	....	....	1.32	....	....	2.20	1.50	.25	....	....	.80	.60	.18	....	....	.01	.11	....	.04	....	.25	.10	.08	....	....	....	....	....	7.51
Muscatine	.18	....	....	....	....	....	.20	....	1.86	.32	2.10	....	....	.30	.35	.20	1.22	....	.25	T	.26	....	....	....	.63	.10	....	....	....	....	....	7.97
Nevada	....	....	....	....	....	.93	....	....	.73	....	....	....	....	....	.63	.63	....	.37	....	1.01	....	....	....	.23	.71	....	.13	....	....	....	....	5.37
New Hampton	....	....	.58	....	....	.31	.02	1.53	.20	1.31	.07	....	....	.74	.27	.38	....	.07	1.30	....	.35	....	....	.09	....	....	....	....	....	....	....	7.22
Newton	T	.14	....	....	....	.45	....	....	1.85	.60	....	....	....	.15	1.55	1.65	....	.15	.17	.75	....	.48	....	.10	.27	....	....	....	....	....	....	8.31
Northwood	....	....	....	....	....	.14	.28	....	1.25	....	....	....	....	1.30	....	.30	....	.14	.16	....	1.10	....	....	....	....	....	....	....	....	.38	....	5.05
Odebolt	.02	....	....	....	....	.51	.26	....	.15	.75	....	....	....	.35	.75	2.40	....	.75	.83	1.67	....	....	....	....	....	....	....	....	....	....	.05	8.49
Ogden	.13	....	....	....	....	.14	.06	....	1.25	1.21	....	....	....	....	.67	.09	....	.62	.16	1.30	....	....	....	....	.50	....	....	....	....	....	.18	6.31
Olin	....	....	....	....	....	1.47	....	.32	1.82	....	1.33	....	....	.74	.31	.10	....	....	.01	T	....	.10	....	.30	.40	....	....	....	....	....	....	6.90
Omaha, Neb	....	....	....	....	....	.60	.29	....	.54	.18	....	T	.08	1.76	T	.93	....	1.02	T	....	T	T	.62	.03	.03	....	....	....	....	.37	....	6.45
Onawa	....	.02	.02	....	....	.22	.72	....	....	.73	....	....	....	1.05	.08	.40	....	.60	.64	....	....	....	.02	.67	.05	....	....	.04	....	.05	T	5.31
Osage	....	....	.15	....	....	.59	....	.30	....	1.30	....	....	....	.95	.20	.17	....	.23	.23	....	.12	.21	....	....	....	....	....	....	....	....	....	4.45
Oskaloosa	.02	....	....	....	....	T	.16	....	.12	.17	T	....	....	.17	.90	.20	....	.05	.26	1.09	....	.68	.10	.52	....	....	....	T	....	....	.05	4.49
Ottumwa	....	....	....	....	....	.30	....	....	.40	.45	....	....	.10	....	.58	2.02	.18	3.15	1.45	1.00	....	....	....	.10	.25	....	....	....	....	.06	....	10.04
Pacific Junction	....	....	T	....	.05	....	3.70	....	....	.30	....	T	.26	1.53	.30	1.16	....	1.93	....	....	....	....	....	T	T	....	....	....	....	.05	.28	9.56
Pella	1.44	.04	....	....	....	....	.07	....	T	.09	.12	....	....	.12	1.10	.49	.21	.07	1.53	....	.16	....	.04	.83	....	....	....	....	....	....	.06	6.37
Perry	T	.64	.06	....	....	.08	.09	....	1.35	.88	....	....	....	....	.72	.63	....	.49	.12	1.60	....	....	....	....	.70	....	....	....	....	....	....	7.36
Plover	....	....	T	....	....	1.00	....	....	.80	.77	....	....	....	.45	.73	.44	.37	.38	.26	.16	....	....	....	T	.08	....	....	....	....	....	T	5.44
Pocahontas	.04	....	.14	...	T	2.27	....	1.51	.07	.55	....	....	.47	.48	....	.80	....	.47	.73	.50	....	....	....	.67	.10	....	....	....	....	....	....	8.80
Ridgeway	....	.08	....	....	.07	.06	1.77	.02	....	.82	....	....	....	1.15	.38	.19	....	.12	.38	....	.57	....	.02	....	....	....	.02	....	....	.31	....	5.96
Rock Rapids	.22	T	....	....	....	T	T	T	T	.53	....	....	....	.06	.94	T	....	.40	.70	....	2.90	....	.17	....	....	....	T	....	....	.12	T	6.40
Rockwell City	.06	....	....	....	....	....	....	T	.53	1.50	....	....	....	.35	.35	.20	....	.35	35	.30	....	....	....	....	.30	....	....	....	.30	....	....	4.59
Sac City	.11	....	....	..	T	T	.56	....	.38	.93	....	....	....	.48	.80	2.61	....	.55	.57	.33	....	....	....	....	....	....	....	....	....	.21	....	7.56

DAILY AND MONTHLY PRECIPITATION FOR JULY, 1907—CONTINUED.

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
St. Charles	.01	.05	....	....	....	....	.26	....	....	.37	....	....	....	....	1.85	.82	....	.50	....	.27	....	T	....	.40	.09	.27	T	....	....	....	....	4.89
Sibley	.56	.01	.13	....	....	T	.30	....	.10	T	.48	....	....	.25	.82	T	.03	.38	.76	....	1.26	....	....	.47	....	....	....	.02	....	....	1.02	6.59
Sigourney	....	....	....	....	....	.25	.08	.26	.22	....	....	....	T	.90	1.07	....	....	T	.91	1.85	....	.18	....	.05	1.50	....	....	....	....	....	T	7.27
Sioux Center	.14	....	.07	....	T	.18	....	....	.53	.68	....	....	.07	.10	1.23	....	....	.42	.25	.04	.54	T	T	....	.03	....	.02	....	....	T	....	4.30
Sioux City	T	....	....	....	....	1.38	.02	T	.01	.20	....	....	.38	.28	....	.31	....	1.65	1.16	.06	....	T	.01	T	T	....	....	.26	....	.06	....	5.78
Stockport	1.04	....	....	....	....	T	.39	....	....	.99	1.46	....	....	.31	.39	.74	....	T	1.11	1.44	....	T	....	.10	.10	....	T	T	....	....	.01	8.08
Storm Lake	.04	....	....	....	.01	1.14	.11	.01	.28	.59	....	....	.01	1.54	1.20	1.00	....	.59	.85	.45	....	....	....	.05	....	....	....	....	....	....	....	7.88
Stuart	.10	....	....	....	....	....	....	....	....	.29	....	....	....	....	2.50	1.55	....	.45	.10	.04	.45	.06	....	.29	1.65	....	....	....	....	....	....	7.48
Thurman	....	....	....	....	....	....	3.30	....	T	T	....	....	.10	.85	.75	T	....	1.25	....	....	T	....	....	T	.15	....	T	....	....	.18	.22	6.80
Tipton	....	....	....	....	....	.15	....	....	3.71	2.00	....	....	....	1.38	.51	.17	....	....	....	T	....	....	....	.56	....	....	....	....	....	....	....	8.48
Toledo	....	....	....	....	....	.95	....	....	1.50	2.10	....	....	....	1.05	1.75	1.70	....	.20	....	.18	....	....	....	....	.40	....	....	....	....	....	....	9.83
Wapello	.18	....	....	....	....	.34	.01	....	.19	1.74	.82	....	....	.45	.45	.46	....	....	.34	.38	....	T	T	.02	.85	....	....	....	....	....	....	6.23
Washington	....	.06	....	....	....	.45	.03	....	1.32	.92	....	....	....	.33	.50	.54	....	....	.16	1.31	.02	....	....	.01	1.10	....	....	....	....	....	....	6.75
Washta	.14	....	....	....	....	1.78	.55	T	.72	.90	....	....	....	1.77	....	.42	....	.55	.70	2.00	....	T	T	....	T	....	....	....	....	....	....	9.53
Waterloo	....	....	....	....	T	.22	....	.69	.32	.03	....	....	....	.91	.66	.30	....	.21	.41	....	.11	....	....	.11	.81	....	....	....	....	....	.02	4.80
Waukee	....	.08	....	....	....	.08	.10	....	.05	1.03	....	....	....	....	3.00	2.10	....	.42	.04	2.63	....	....	....	.10	....	....	....	....	....	....	.15	9.78
Waverly	....	....	....	....	....	.49	....	1.27	.87	.53	....	....	....	1.69	.40	1.55	....	.20	.75	T	T	....	.82	.56	.30	....	....	....	....	....	....	9.43
Webster City	....	....	.19	....	....	1.52	.58	....	2.00	.84	....	....	.14	....	.59	.38	....	.53	.28	.11	....	....	....	.53	T	....	....	....	....	.01	....	7.70
West Bend	T	....	.08	.14	T	.85	....	....	2.94	.95	....	....	.25	T	1.07	.46	....	.58	.26	.01	T	....	....	.01	.10	....	T	....	....	....	....	7.70
Whitten	.12	....	....	....	....	.97	....	.03	1.25	.20	....	....	....	.30	.75	....	....	.39	.49	.14	....	....	....	T	....	....	....	....	....	....	T	4.64
Wilton Junction	.19	....	....	....	....	....	.15	3.70	.08	2.48	....	....	....	.94	.47	.42	.04	....	....	.15	....	.14	.76	....	....	....	....	....	....	....	....	9.52
Winterset	....	.04	....	....	....	....	.22	....	....	.11	....	....	....	....	3.57	.92	....	.55	.05	.08	....	T	....	.21	.24	....	....	T	....	T	.73	6.72
Woodburn	....	T	....	....	....	....	....	....	1.12	.74	....	....	....	1.61	....	....	....	.51	.08	.01	....	T	....	.50	.20	....	....	....	....	T	1.55	6.32
Zearing	....	....	....	....	....	1.23	....	....	1.54	.50	....	....	....	....	.57	.13	....	.32	.08	.24	....	....	....	.26	.35	....	....	....	....	....	.05	5.27

Precipitation Chart July 1907.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR AUGUST, 1907.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1907

THE IOWA WEATHER AND CROP SERVICE

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U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

CENTRAL OFFICE: WASHINGTON, D. C.

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R. SAGE.....Section Director.
GEO. M. CHAPPEL, Assistant Director.

VOL. XVIII. DES MOINES, IOWA, AUGUST, 1907. No. 8

GENERAL SUMMARY.

There were in this month no wide departures from the normals of temperature, precipitation, sunshine and humidity. During the past eighteen years there have been ten warmer Augusts and seven that were slightly colder. The mean temperature for the State was less than a degree below the normal, while in the southern section there was an average excess of about the same amount. The lowest temperatures occurred about the 2nd to the 4th, and the 20th to the 22nd. The warmest day was the 31st. The warm periods during the month were characterized by excessive humidity.

The precipitation, which averaged 0.57 of an inch above the normal, was unevenly distributed, ranging from a little above 1 inch to nearly 10 inches. About one-fourth of the State received less than 3.00 inches of rainfall. The records indicate that the heaviest downpours occurred in eastern districts, and the amounts reported in the western districts were generally below the normal. While there were some complaints of shortage of moisture, there were many more reports of damage by excess of rainfall during the month. There were three periods of general showers during the month—4th to 7th, 14th to 18th, and 26th to 29th. There were light scattered showers in portions of the State nearly every day, and nearly all showers were accompanied by lightning. Severe local windstorms were reported on the 6th, the 16th and the 29th.

The number of clear days was in excess of the average.

The following table gives the mean temperature and average precipitation for each August from 1890 to 1907, inclusive:

Years	Temperature—Degrees	Precipitation—Inches	Years	Temperature—Degrees	Precipitation—Inches
1890	68.4	3.41	1899	74.4	3.68
1891	69.1	4.24	1900	77.4	4.65
1892	71.4	2.24	1901	73.8	1.20
1893	69.4	2.32	1902	69.1	6.58
1894	74.6	1.58	1903	69.1	6.64
1895	71.9	4.43	1904	69.1	3.43
1896	71.7	3.52	1905	74.3	4.05
1897	68.9	1.86	1906	74.1	3.95
1898	71.2	3.44	1907	71.1	4.33
Normals				71.9	3.76

THE SUMMER OF 1907.

The tabulated records for the State for the months of June, July and August show that the past summer was some colder than usual, and received a considerable excess of rainfall. The mean temperature of June was 66.5°, which is 2.9° below the normal. July's average was 73.7°, which is 0.4° below the normal. August scored an average of 71.1°, which is 0.8° below the normal. This indicates an average daily deficiency of 1.4° in the summer's temperature. The rainfall averages by months were as follows: June, 5.35 inches; July, 7.27 inches; August, 4.33 inches. The total was 21.13 inches, which is 4.28 inches in excess of the very copious normal summer rainfall of Iowa. These figures afford a sufficient explanation of the general shortage of corn and small grain.

AUGUST WEATHER AND CROPS.

As a whole the month was favorable for the normal advancement of all immature crops. The average temperature was nearly the normal, which is quite high in this midland region. The nights were generally cooler than usual, but there was sufficient heat by day to promote the healthful growth of vegetation. Except in a limited area there was an ample supply of moisture in the soil and the large percentage of humidity was evidenced by very heavy dews. The conditions were especially favorable for the growth of the grasses in pastures and meadows and the healthful development of the corn crop. The truck gardens and all minor farm crops were doing notably well at the close of the month. Though it was rather showery for August, yet there were more than the usual number of clear days, with ample sunshine, and this afforded favorable conditions for finishing up the harvest of hay and small grain and thrashing from the shock. In portions of the eastern districts, however, the excessive rainfall materially retarded the usual farm operations. The drawbacks were chiefly local and temporary.

CLIMATOLOGY OF THE MONTH.

TEMPERATURE.—The monthly mean temperature for the State, as shown by records of 113 stations, was 71.1°, which is 0.8° below the normal. By sections the mean temperatures were as follows: Northern section, 69.5°, which is 0.9° below the normal; Central section, 71.0°, which is 0.8° below the normal; Southern section, 72.7°, which is 0.8° above the normal. The highest monthly mean was 75.3° at Ottumwa. The lowest monthly mean was 67.6° at Sibley. The highest temperature reported was 99° at Ottumwa on the 31st. The lowest temperature reported was 37° at Osage on the 13th. The average monthly maximum was 92.9°; the average monthly minimum was 46.9° The greatest daily range was 49° at Osage. The average of greatest daily ranges was 32.2°.

PRECIPITATION.—The average precipitation for the State, as shown by records of 123 stations, was 4.33 inches, which is 0.57 of an inch above the normal. The average by sections was as follows: Northern section, 3.99 inches, which is 0.86 of an inch above the normal; Central section, 4.69 inches, which is 0.82 of an inch above the normal; Southern section, 4.30 inches, which is 0.54 of an inch above the normal. The largest amount reported was 9.67 inches at Delaware. The least amount reported was 1.05 inches at Rock Rapids. The greatest daily rainfall was 4.95 inches at Boone, on the 28th-29th. The average number of days on which .01 of an inch or more was reported was 9.

WIND AND WEATHER.—The prevailing direction of the wind was south. The highest velocity reported was 55 miles per hour, from the southeast, at Sioux City, on the 7th. The average number of clear days was 17, partly cloudy 9, cloudy 5.

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	29.99	30.32	20	29.72	26
Davenport	30.00	30.28	21	29.74	26
Des Moines	29.99	30.34	20	29.68	26
Dubuque	30.01	30.31	20	29.76	11
Omaha, Neb.	29.96	30.34	20	29.65	10
Keokuk	30.01	30.26	21	29.76	26
Sioux City	29.96	30.39	20	29.69	26
Means	29.99	30.39	20	29.68	26

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	4747	26	SE	8
Davenport	4734	26	NW	26
Des Moines	5345	33	N	29
Dubuque	4446	42	N	6
Keokuk	3998	30	N	6
La Crosse, Wis	4909	50	NW	11
Omaha, Neb	5512	36	NW	11
Sioux City	8987	55	SE	7

OBSERVERS' NOTES.

AFTON—*N. W. Rowell.* On the afternoon of the 16th a tornado passed through a portion of Sand Creek township, Union county. It was about 300 feet wide and passed over three miles of country. No lives were lost. Two persons were slightly injured.

ALTA—*David E. Hadden.* Only light showers occurred during August. The total rainfall was much below the normal. The month was quite free from destructive storms.

ALTON—*W. S. Slagle.* It was a good month for crops; harvest work was completed without interference of bad weather; light frosts were noted on the 2nd and 3rd and hail on the 26th, but no damage resulted.

BONAPARTE—*B. R. Vale.* A wet month—8.42 inches of rain; cool till about the close; last two days the warmest of the season; in the last four months the rainfall has been 27.70 inches.

BOONE—*Carl Fritz Henning.* During the night of the 28th a severe thunderstorm occurred; several barns near Boone were burned and cattle were killed by lightning. Next morning many dead sparrows were found in the parks and other places in the city, having been killed by heavy rainfall—4.95 inches.

BRITT—*Geo. P. Hardwick.* Frequent showers, heavy dews and excessive cloudiness made poor harvest weather; corn yield about half an ordinary crop; oats about 21 bushels per acre.

CHARITON—*C. C. Burr.* Weather conditions in August were about normal until the last three days; the heat period at close was seldom equaled; corn was doing well at close of the month.

ELLIOTT—*Henry Barnes.* A good month for farming and crops; pastures remarkably good; corn doing well.

INWOOD—*F. B. Hanson*—Month favorable, with but little rain; oats light, weighing 20 to 30 pounds per bushel; barley quite good.

KEOSAUQUA—*J. H. Landes.* August was a good month for maturing corn; also for fall pasture and plowing; rainfall 7.10 inches.

LEON—*Morris Gardner.* On the 16th a small tornado developed about 15 miles northwest of this place, destroying several buildings and causing the death of a child.

OLIN—*Nathan Potter.* August was changeable, with an abundance of rain; much of the oat crop was damaged by exposure in the shock; hay was put up in good condition the first half of the month.

POCAHONTAS—*F. E. Hronek.* August was favorable for field work; every rainstorm was accompanied by lightning.

RIDGEWAY—*Arthur Betts.* Rain, 7.97; the wettest August on record here; only one cooler in the past ten years (1903), and still there were no cloudy days; there were 321 hours of sunshine, or about 74 per cent. Sunset beams on 31st spanned the entire heavens and was the finest display observed in 40 years, lending a great glory to a clear sky.

WAVERLY—*H. S. Hoover.* Corn has improved more than could have been looked for, with the cool nights we have had; pastures have been very good; sugar beets are improving, but are uneven.

DESTRUCTIVE WINDSTORMS.

August, 1907, was characterized by more than the usual number of storms of considerable severity, but happily they were limited to narrow areas. The most destructive windstorm occurred in the north central district on the afternoon of the 6th. The descriptions and photographic views of the wreckage in the pathway of the storm indicate that it was a tornado, though its direction, northwest to southeast, was quite unusual for a storm of that distinctive type. It apparently originated near Keister, Minnesota, and swept through the northeast corner of Winnebago county, across the southwest corner of Worth county, thence diagonally across Cerro Gordo, expending its force in a widespread squall. The following description was furnished by Mr. C. H. Dwelle, co-operative observer at Northwood:

The storm occurred about 4:15 to 5 p. m. It was a little singular in the fact that it traveled from N. N. W. to S. S. E. at a moderate rate of speed, giving those who were in its path ample time to seek shelter. Other storms of this type in past history have traveled from S. W. to N. E. This storm first appeared near Keister, Minn., and passed within two miles west of Lake Mills. In Winnebago county it destroyed the buildings on the farms of O. G. Rugstad, Martin Peterson and H. Sunderland. Messrs. Ole Johnson, Chas. Kettleson, K. Hagen and I. Ness lost barns, outbuildings, crops and some stock. The heavy wooden bridge of the M. & St. L. railway over Lime creek was also demolished.

The first damage in Worth county seems to have been on the farm of L. L. Ramsay, near the county line. Here the outbuildings were destroyed. Next to him, on the Andrew Nelson place, everything was swept clean, not a board remaining of the house and outbuildings. Corn was stripped to the ground and small grain was thrashed and matted into the soft earth. This was the general appearance where the storm was at its worst. The Osmund Tweed place in Fertile township presented the most pathetic scene. Mr. Tweed, wife and son were killed, their bodies being carried some distance away. The family

sought shelter in the grove instead of the cellar and all perished except a servant girl, who was only a few feet away and uninjured. The mutilated body of Mrs. Tweed was found in the grove on the Petersburg farm. At this point the storm seemed to abate somewhat, but the place was covered with debris. Scores of cattle, horses, hogs and chickens were scattered over the fields. The storm was bearing down towards the village of Hanlontown, causing great consternation, but it seemed to be lifted into the air and left only traces of its force. It was evidently the same storm which damaged so many buildings in Clear Lake and injured two persons, also unroofing a church in Rockwell. It is of interest to note the fact that all persons who sought refuge in their cellars were safe from anything worse than slight bruises. The Tweed family first went into their cellar, and then left it to seek shelter in the grove.

Mr. Dwelle adds that on the day of the storm it was extremely sultry, with a strong southwest wind; about 5 p. m. the wind veered suddenly to the northwest and continued through the night. At Northwood it was a severe electrical storm.

SMALL TORNADO IN UNION COUNTY.

The Afton Star-Enterprise of Aug. 22d contained a report of a tornado which swept over a portion of Sand Creek township, Union county, on the afternoon of Aug. 16th. It first struck the home of John Shields and destroyed the house. Mrs. Shields and child were carried about two hundred feet and were left unharmed, lying on the straw tick of a bed on which they had taken refuge when the storm came. The Star-Enterprise said:

"The storm was a genuine tornado, and not a cyclone that many people persist in calling it. It was attended by a dark funnel shape cloud whose spiral swept back and forth in a zig-zag fashion, the lower edge touching the ground and destroying everything in its path. Shortly after demolishing the Shield's home, the cloud ascended into the air and gradually disappeared. It was accompanied by the usual roaring, rumbling sound which was heard by people living several miles beyond its range."

In the copy of the Star-Enterprise from which this report is clipped we find the following editorial article, written by the editor. A. T. Burrows, who served several years as an official in the U. S. Weather Bureau, and is well qualified to write on this topic.

TORNADOES AND CYCLONES.

In the minds of many people these two terms may be used interchangeably to indicate a storm of surpassing severity where buildings are blown down, people killed or injured, trees uprooted, etc. But the difference between a tornado and a cyclone is as wide as the difference between Niagara and the ebb and flow of the tide. A tornado is not a cyclone, and a cyclone is far from being a tornado.

Briefly, a tornado is the kind of a storm that visited Sand Creek township last Friday. It is invariably acompanied by a funnel-shaped cloud which whirls and dances about with fearful menace as its sweeps its destructive path over the land. A tornado most frequently occurs in this section in the afternoon or evening of a warm sultry day in the late spring or summer. None has been known to occur here in the winter, but they do manifest themselves in the extreme southern states as early as February. These storms are local in character, the most destructive efforts being usually confined to a strip not over a quarter of a mile wide and from a few miles to a hundred miles in length. The storm is of short duration and of irresistable fury. Its destructive effect is largely due to the whirling vortex of cloud in the funnel in which exists an almost complete vacuum. This vacuum draws up the air in its neighborhood with such enormous force that ordinary buildings can not withstand the pressure on their sides and collapse as if by magic. The wind seems to come from every direction, but after the passage of the storm it will be found that it blew from either side diagonally toward the center.

Now the ordinary cyclone known to meteorologists is nothing like this. Two or three of them pass over Union county every week, winter and summer, spring and fall. They are usually acompanied by clouds and generally rain or snow, depending upon the season of the year. The temperature warms up as they approach and falls again as they pass on east.

Generally speaking, a cyclone is a vast storm movement traveling across the country from southwest to northeast, of from 500 to 1,000 miles in diameter, whose daily movement is usually 400 or 500 miles toward the Atlantic ocean. The winds that circulate through and about this vast storm area are warm and moist in the east and southeast sections and frequently bring rains; the south or southwest winds that succeed them are the warm winds of summer as well as winter, while the sharp blasts from the northwest which in winter signal the advent of a severe cold spell mark the passing of the cyclone and the arrival of another kind of weather, acting upon a somewhat different principle. The winds in the front part of a cyclone, being warm winds, rise and laden as they are with moisture, form clouds when they reach the cool atmosphere 5,000 and 10,000 feet above the earth's surface. If the condensation proceeds rapidly enough precipitation begins and thus our summer rains are formed and our winter snows are caused to fall.

In a cyclone the wind may be strong or it may be weak or vacillating, depending upon the energy of the storm itself, as their strength varies greatly with the season and other meteorological influences. The thunderstorm is a by-product of a general cyclone and usually occurs in the southeast quadrant of the cyclone. Here too is where tornadoes may be looked for as they are a special form of thunderstorm, excessively developed by peculiar favorable circumstances not clearly understood by scientists.

CLIMATOLOGICAL DATA FOR AUGUST, 1907.

NORTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
Algona	Kossuth	1,213	31	69.3	-1.8	91	6	45	20	30	5.45	†1.74	1.81	....	8	23	3	5	SE	
Alta	Buena Vista	1,513	14	69.4	-1.4	93	10,18	45	2	32	1.90	-1.94	.66	....	12	20	9	2	S	
Alta [near]	Buena Vista	.....	12	.....	.....	.....	.....	.....	.....	.....	2.52	.....	.75	....	11	...	...	...	.....	
Alton	Sioux	1,305	....	70.8	.....	94	10,18	42	3	35	2.83	.....	.99	....	7	23	4	4	SE	
Britt	Hancock	1,236	8	71.4	†1.4	92	6	45	20,25	33	4.48	†0.81	1.29	....	11	2	26	3	NW	
Charles City	Floyd	1,015	20	67.9	-2.8	91	31	45	3	32	6.72	†3.30	2.12	....	10	12	13	6	NW	
Clear Lake	Cerro Gordo	1,241	8	70.8	-0.6	91	6	48	3,30	30	3.53	-0.53	1.40	....	6	24	3	4	S	
Decorah	Winneshiek	875	11	68.8	-1.7	89	10	45	4	34	7.76	†6.08	3.25	....	8	...	...	...	.....	
Dows	Wright	1,142	7	68.5	-1.4	91	6	43	25	35	3.01	-1.45	.59	....	10	20	5	6	NW	
Elkader	Clayton	727	24	70.6	-0.2	96	31	44	25	38	4.73	†1.93	1.25	....	10	21	5	5	SE	
Elma	Howard	.....	....	.....	.....	89	6,31	.....	.....	.....	7.37	.....	2.57	....	13	14	12	5	S	
Estherville	Emmet	1,298	10	.....	.....	93	18,31	.....	.....	.....	3.91	†0.61	2.10	....	6	13	0	18	E	
Fayette *a*	Fayette	1,003	17	67.8	-1.7	90	31	43	20,25	35	4.18	†1.28	.99	....	8	....	....	....	.....	
Grand Meadow	Clayton	1,180	14	68.2	-0.8	88	31	47	3	26	5.27	†2.77	1.90	....	13	12	11	8	SE	
Greene	Butler	.....	8	69.6	.....	93	6	46	3	34	7.22	†4.07	1.60	....	12	10	9	12	W	
Hampton	Franklin	1,155	15	70.3	†0.1	93	31	48	3	29	3.69	†0.54	1.04	....	12	10	18	3	SE	
Humboldt	Humboldt	1,095	13	69.7	†2.8	92	6	46	3,20	30	3.70	†0.59	1.28	....	8	22	6	3	SE	
Inwood	Lyon	1,474	3	70.6	.....	96	18	41	3	40	1.45	.....	.95	....	6	24	3	4	SE	
Le Mars	Plymouth	1,224	9	69.8	-2.2	92	10	42	3,20	34	1.09	-1.62	.25	....	9	23	7	1	SE,S	
Mason City	Cerro Gordo	1,132	10	69.6	†1.0	91	6	46	20	32	5.72	†3.06	1.72	....	9	15	14	2	NW	
New Hampton	Chickasaw	1,169	7	67 7	-3.0	86	6,10,31	47	3,20	26	5.20	†2.70	1.64	....	13	23	4	4	S	
Northwood *a*	Worth	1,222	9	68.6	-1.1	89	31	45	3	29	4.86	†1.24	2.00	....	7	19	9	3	SE	
Osage	Mitchell	1,184	14	67.8	†0.3	92	31	37	13	49	3.15	†0.15	.78	....	9	22	0	9	NW	
Plover *c*	Pocahontas	1,426	8	69.9	-1.1	95	6	43	25	42	3.67	-0.33	1.15	....	8	....	....	....	S	
Pocahontas	Pocahontas	.....	3	70.5	.....	94	6	45	2,3,20	33	2.98	.....	.97	....	7	24	5	2	S	
Ridgeway	Winneshiek	1,215	9	69.4	-3.4	94	31	45	20	33	7.97	†5.27	3.43	....	12	17	14	0	S	
Rock Rapids	Lyon	1,358	9	70.6	†0.8	94	18,31	48	24,25,26	38	1.05	-0.71	.40	....	4	....	....	....	S	
Sheldon *c*	O'Brien	1,422	7	71.6	†0.2	95	10,31	42	4,20	43	2.51	-0.91	.90	....	9	24	6	1	.....	
Sibley	Osceola	1,212	11	67.6	-1.5	93	10	44	3,20	37	2.66	-0.59	1.05	....	7	....	....	....	SE	
Sioux Center *a*	Sioux	.....	8	70.6	-1.6	94	10	46	2	33	1.88	-2.22	.96	....	6	20	8	3	S	
Washta	Cherokee	1,157	9	70.4	.....	95	10	39	2	45	2.31	-0.60	.50	....	10	20	9	2	S	
Waverly	Bremer	948	9	69.0	-2.4	90	31	49	3,4,25	27	3.33	†0.80	.71	....	14	16	10	5	.....	
West Bend	Palo Alto	1,197	11	69.2	-0.5	93	6	44	20	30	3.59	-0.04	.86	....	10	18	8	5	S	
Average	.....	....	.....	....	69.5	-0.9	92.2	.....	44.5	.....	34.1	3.99	†0.86	.....	....	9	18	8	5	S	

SOUTHERN SECTION.

Afton	Union	1,212	12	72.2	-1.7	94	10	50	2,3,20,23	33	5.13	†1.62	2.19	....	10	13	11	7	SW	
Albia	Monroe	959	9	71.8	-1.3	93	31	49	2, 3	26	4.25	†.27	1.11	....	9	17	6	8	S	
Allerton *f*	Wayne	.....	5	71.9	-1.2	93	10	51	3	30	.....	.....	.....	....	...	...	...	...	SW	
Atlantic *a*	Cass	1,164	14	71.6	†0.7	96	10	42	2, 3	38	2.56	-.50	1.55	....	6	9	8	14	S	
Bedford	Taylor	.....	7	73.8	†0.3	94	10, 31	47	2	34	3.22	†2.89	1.20	....	9	18	11	2	SE	
Bloomfield	Davis	881	....	73.4	.....	94	6, 30	51	2	28	4.30	†.47	2.64	....	6	21	8	2	S	
Bonaparte	Van Buren	.....	15	72.7	-2.2	92	27, 30, 31	52	2, 22, 25	26	8.42	†4.59	3.20	....	7	....	....	....	.....	
Burlington	Des Moines	544	9	73.2	-1.0	97	31	52	2, 3, 25	27	6.96	†1.65	3.02	....	9	17	11	3	.....	
Chariton	Lucas	1,042	10	71.7	-2.0	95	31	48	2	36	3.89	†.99	1.12	....	6	18	7	6	SE	
Clarinda	Page	1,009	15	73.8	-0.6	97	10	48	2, 21	35	5.20	†1.49	2.05	....	12	19	8	4	S	
Columbus Jct	Louisa	595	6	72.0	†0.2	92	11, 31	51	2, 22, 25	27	4.09	-2.99	1.32	....	8	23	7	1	SE	
Corning	Adams	1,117	13	72.0	-0.8	93	10	43	21	37	7.32	†3.92	2.38	....	8	13	16	2	SE	
Corydon	Wayne	1,101	12	73.0	-1.3	95	30, 31	50	2	29	4.48	†.47	1.67	....	9	20	9	2	S, NW	
Creston	Union	1,312	2	70.8	.....	92	10	42	2	29	3.80	.....	1.34	....	5	16	5	10	SW, NW	
Cumberland	Cass	.....	8	.....	.....	.....	.....	.....	.....	.....	1.87	-2.88	.62	....	5	28	2	1	S	
Earlham	Madison	.....	5	*d*72.2	†2.2	91	6	*b*45	3	30	4.35	-.78	1.43	....	8	20	5	6	SE	
Elliott	Montgomery	.....	2	72.8	.....	97	10	48	2	39	3.20	.....	2.00	....	2	22	9	0	S	
Fort Madison	Lee	516	54	.....	.....	.....	.....	.....	.....	.....	8.00	†4.34	2.60	....	9	9	15	7	S, SW	
Greenfield	Adair	.....	14	*b*71.4	-1.2	*a*92	10	*b*49	2	33	5.25	†2.43	1.80	....	9	....	....	....	SE	
Hancock	Pottawatta'e	1,113	1	72.0	.....	91	10, 26	49	2	30	2.33	.....	1.32	....	6	22	7	2	SE	
Hopeville	Clarke	.....	14	72.7	-0.4	96	30	50	2, 3	32	3.27	-0.2	1.05	....	9	6	24	1	S	
Indianola	Warren	969	16	72.2	-0.5	93	31	51	2	32	3.09	-1.07	1.40	....	7	20	3	8	SW	
Keokuk	Lee	614	36	74.2	-0.4	95	31	53	22	27	5.50	†2.26	2.05	....	9	18	11	2	SE, S	
Keosauqua	Van Buren	644	15	72.9	-2.1	94	31	49	25	34	7.10	†3.61	3.93	....	6	4	16	11	.....	
Knoxville	Marion	920	11	73.0	-0.7	93	6, 31	50	2	25	4.40	-.12	2.10	....	6	9	13	9	SE	
Lacona	Warren	.....	7	.....	.....	.....	.....	.....	.....	.....	3.55	-1.60	1.38	....	9	9	15	7	.....	
Lenox	Taylor	1,250	10	72.5	-0.7	92	10	49	2	27	3.46	-.14	1.13	....	8	27	2	2	S	
Leon	Decatur	1,120	5	73.4	†0.3	94	10	49	2	34	2.30	-3.64	1.14	....	9	26	3	2	S	
Massena	Cass	.....	2	73.0	.....	97	31	47	2, 3	34	4.78	.....	2.38	....	9	8	23	0	S	
Mt. Ayr	Ringgold	1,236	11	74.0	†0.2	95	30, 31	50	2	34	3.12	-.20	1.85	....	8	15	13	3	SW	
Mt. Pleasant	Henry	729	23	73.2	†0.8	93	30, 31	52	3, 22, 25	27	4.89	†.98	1.25	....	7	10	18	3	SE	
Omaha, Neb	Douglas	1,105	35	74.8	†0.4	94	18	55	2	25	3.03	-.59	1.19	....	6	11	15	5	S	
Oskaloosa	Mahaska	843	21	72.0	†0.2	92	6, 31	49	25	29	3.72	†.58	1.19	....	9	24	0	7	SW	
Ottumwa	Wapello	649	11	75.3	†0.3	99	31	53	2	31	5.76	†2.08	2.20	....	6	18	10	3	SE	
Pacific Jct	Mills	960	8	73.0	-0.4	94	10	50	2, 22	31	2.45	-2.00	1.16	....	5	15	15	1	SE	
Pella	Marion	877	4	73.2	.....	95	6	50	2	29	5.85	.....	2.47	....	14	15	13	3	NW	
St. Charles	Madison	1,070	6	72.8	-0.4	94	31	51	2	27	1.69	-2.67	1.01	....	8	21	10	0	S	
Sigourney	Keokuk	877	8	72.2	-1.8	93	31	50	2	29	3.57	-.16	.83	....	10	....	....	....	SE	
Stockport	Van Buren	.....	5	72.0	.....	91	30, 31	53	4, 22, 25	27	5.00	-.07	1.83	....	7	20	7	4	S	
Thurman	Fremont	.....	9	73.8	-0.4	93	10	49	2	30	3.44	-1.99	1.22	....	8	14	11	6	SE	
Wapello *d*	Louisa	588	7	71.8	-3.1	88	31	54	2,3,4,22	27	4.59	-.66	1.04	....	8	....	....	....	SE	
Washington	Washington	769	23	71.2	-2.0	91	31	50	2, 3, 25	25	3.67	†.18	1.05	....	8	11	13	7	NE, SE	
Winterset	Madison	1,129	14	72.5	†0.1	94	6	50	3	29	4.37	†.83	1.44	....	10	17	11	3	S	
Woodburn *b*	Clarke	961	8	71.4	.....	94	10, 30, 31	45	23,24,25	37	3.51	-2.90	1.48	....	7	....	....	....	NW	
Average	.....	.....	....	72.7	†0.8	93.7	.....	49.4	.....	30.5	4.30	†.54	.....	....	8	16	10	5	S	
State aver	.....	.....	....	71.1	-0.8	92.9	.....	46.9	.....	32.2	4.33	†.57	.....	....	9	17	9	5	S	

‖ Received too late to be included in average. *a* one day missing; *b* two days; *c* three days, etc. † means plus.

CLIMATOLOGICAL DATA FOR AUGUST 1907—CONTINUED.

CENTRAL SECTION

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
Amana	Iowa	721	28	70.7	-0.1	92	31	48	22,25	30	2.20	-1.38	.75	....	10	16	11	4	SE	
Ames	Story	926	23	.....	.....	91	31	....	.....	.....	6.15	†2.61	4.26	....	9	13	16	2	.....	
Audubon	Audubon	1,301	11	71.2	-0.7	93	6	42	3	41	2.60	-1.35	1.05	....	7	15	6	10	S	
Baxter	Jasper	998	7	69.7	-1.9	91	31	46	25	32	5.85	†1.83	2.65	....	11	17	10	4	SE	
Belle Plaine	Benton	828	15	69.6	-1.0	91	10	47	25	31	2.73	-1.63	1.20	....	11	13	12	6	SE	
Boone	Boone	1,134	2	71.4	.....	94	7	49	3,20	27	6.71	.....	4.95	....	12	....	....	....	.....	
Buckingham	Tama	.....	7	.....	.....	.....	.....	.....	.....	.....	6.08	†1.28	2.15	....	10	9	21	1	.....	
Carroll	Carroll	1,265	17	69.1	-2.1	92	6,10	44	3	32	4.25	†0.48	3.02	....	7	23	1	7	.....	
Cedar Rapids	Linn	733	25	71.6	-1.1	94	31	51	4,22,25	36	4.11	†0.86	1.30	....	12	9	17	5	.....	
Clinton‖	Clinton	593	37	70.6	-0.6	94	11	47	22,25	32	7.73	†4.68	2.65	....	11	14	12	5	NW	
Davenport	Scott	606	36	72.0	-1.0	93	31	53	2	26	6.48	†2.84	1.95	....	10	11	11	9	E	
Delaware	Delaware	1,083	14	68.5	-1.3	88	10,31	48	2,3	24	9.67	†6.81	2.95	....	10	17	11	3	SE	
Des Moines	Polk	861	29	72.0	-1.0	93	31	51	2	26	5.03	†1.42	2.41	....	9	7	18	6	S	
De Soto	Dallas	866	7	71.0	-2.3	90	6,7,10	48	25	29	4.68	-1.67	1.49	....	9	20	3	8	SE	
Dubuque	Dubuque	698	34	70.2	-1.8	92	31	51	2	25	5.85	†2.81	2.55	....	12	14	9	8	NW	
Fort Dodge	Webster	1,126	7	a70.8	-0.6	a95	6	45	4	33	3.15	-2.49	.77	....	12	....	....	....	.....	
Gilman	Marshall	1,052	8	.....	.....	.....	.....	.....	.....	.....	3.63	-0.03	1.62	....	7	11	12	8	S	
Grinnell	Poweshiek	1,023	12	71.7	-0.1	93	31	47	2	28	6.14	†2.48	2.10	....	12	13	10	8	SE	
Grundy Center	Grundy	976	14	70.4	-0.3	93	6,31	48	3,20,25	32	6.63	†3.06	1.60	....	7	24	0	7	S	
Guthrie Center	Guthrie	1,077	9	71.4	-1.0	92	10	42	2,25	37	3.80	-0.86	1.64	....	11	20	6	5	SW	
Harlan	Shelby	1,192	8	71.4	-0.5	93	10,18,31	45	2,3	37	2.71	-1.90	1.07	....	7	11	14	6	S	
Indep'dence	Buchanan	921	41	68.4	-1.8	90	31	47	4,26	28	8.44	†5.01	2.62	....	12	21	5	5	S,SW	
Iowa City	Johnson	683	46	72.4	†0.8	96	31	49	25	32	2.98	-1.28	.74	....	10	14	9	8	.....	
Iowa Falls	Hardin	1,170	12	68.8	-1.4	91	6	45	25	34	5.56	†2.16	1.56	....	11	....	....	....	S,SW,NW	
Jefferson	Greene	1,052	2	72.2	.....	94	7	46	3	33	.....	.....	.....	....	6	14	15	2	S	
Le Claire	Scott	576	8	.....	.....	.....	.....	.....	.....	.....	4.66	.....	1.30	....	9	14	9	8	SW	
Little Sioux	Harrison	.....	3	72.6	.....	95	6	45	3	37	2.14	.....	.65	....	6	23	3	5	SE	
Logan	Harrison	928	38	72.2	-0.3	94	6,10	44	25	33	3.40	-0.46	1.60	....	3	7	22	2	SE	
Marshalltown	Marshall	947	12	69.8	-2.2	91	7	45	25	31	6.64	†3.07	2.81	....	11	15	3	13	SE	
Mt. Vernon	Linn	947	38	71.2	†1.0	94	31	49	2	33	4.59	†0.02	1.40	....	15	18	4	9	.....	
Muscatine	Muscatine	.....	48	.....	.....	.....	.....	.....	.....	.....	5.16	†0.78	1.85	....	9	9	18	4	S	
Newton	Jasper	944	17	71.9	-0.3	93	6	50	2	27	5.41	†1.54	3.05	....	11	20	6	5	SE	
Nevada	Story	996	2	.....	.....	.....	.....	.....	.....	.....	4.59	.....	2.03	....	10	19	5	7	.....	
Odebolt	Sac	1,356	8	72.6	-2.0	96	6,10,18	43	3	42	2.42	-1.27	.96	....	7	24	5	2	.....	
Ogden	Boone	1,058	11	71.4	-1.6	92	6,10,31	45	3	30	5.92	†1.86	3.95	....	9	23	2	6	NW	
Olin	Jones	760	8	69.9	-0.9	90	31	47	4,22,25	34	8.74	†5.16	2.78	....	7	16	12	3	NW	
Onawa	Monona	1,051	7	73.9	†0.4	95	6	49	3	30	3.20	-0.69	1.75	....	6	26	1	4	SE	
Perry	Dallas	975	6	71.6	-0.9	94	6	47	3,25	31	5.71	†0.29	3.84	....	9	....	....	....	.....	
Rockwell City	Calhoun	.....	10	71.6	†0.2	95	6,10	47	2,3	30	2.30	-1.24	.50	....	7	29	0	2	.....	
Sac City	Sac	1,356	25	69.1	-0.9	92	6	46	20	26	3.11	-0.25	1.30	....	8	25	4	2	NW	
Sioux City	Woodbury	1,135	16	71.4	-1.2	94	10	45	3	33	1.53	-1.47	.94	....	11	13	13	5	SE	
Tipton	Cedar	807	9	a73.4	†2.9	93	31	a54	3,25	28	2.98	-2.27	.99	....	9	19	9	3	SE	
Toledo	Tama	856	12	70.3	-2.1	91	31	46	25	30	4.24	†0.32	1.55	....	5	....	....	....	.....	
Waterloo	Black Hawk	862	18	71.0	†0.2	95	31	48	3	31	4.94	†1.34	1.01	....	10	16	11	4	SE	
Waukee	Dallas	1,039	4	71.2	.....	91	6	49	2	34	4.76	.....	2.06	....	10	19	11	1	S	
Webster City	Hamilton	.....	2	70.8	.....	95	6,31	43	3,24	43	2.56	.....	.50	....	9	....	....	....	SE	
Whitten	Hardin	1,036	7	70.4	-0.5	90	6,31	44	19	38	6.06	†2.17	2.00	....	9	16	10	5	SE	
Wilton Junct'n	Muscatine	683	10	71.2	-1.7	94	11	42	25	34	6.23	†2.02	2.32	....	9	21	7	3	W	
Zearing	Nevada	718	3	70.2	.....	92	31	44	25	35	3.73	.....	.93	....	10	19	5	7	SE	
Average	.....	.....	....	71.0	-0.8	92.7	.....	46.8	.....	32.0	4.69	†.82	.....	....	9	17	9	5	SE	

‖ Received too late to be included in average. *a* one day missing, *b* two days; *c* three days, etc. † means plus.

DATES OF THUNDERSTORMS.

NORTHERN SECTION.

Algona, 4, 6, 11, 19, 26, 29, 30. Alta, 4, 5, 7, 10, 11, 12, 15, 19, 26, 29, 30. Alton, 10, 11, 19, 26, 30. Charles City, 5, 11, 15, 19, 26, 29. Dows, 6, 8, 11, 19, 26, 29, 30. Elkader, 6, 10, 15, 19, 26, 29. Elma, 6, 15, 26, 29. Fayette, 4, 6, 9, 15, 19, 26, 29. Grand Meadow, 5, 6, 15, 16, 19, 26. Inwood, 18, 19, 26, 30. Le Mars, 8, 11, 15, 16, 19, 26, 29. Mason City, 6, 11, 15, 19, 26, 29. Northwood, 6, 10, 19, 26, 29. Plover, 4, 7, 8, 10, 11, 14, 18, 28, 29, 30, 31. Pocahontas, 4, 8, 11, 15, 19, 21, 26, 29, 30. Ridgeway, 6, 11, 15, 19, 26, 29. Sheldon, 10, 15, 19, 21, 26, 30. Sioux Center, 10, 14, 17, 19, 26. Washta, 11, 19, 28, 29, 30. Waverly, 1, 6, 8, 11, 15, 19, 26, 29, 30. West Bend, 1, 4, 18, 26, 29.

CENTRAL SECTION.

Amana, 6, 8, 15, 16, 29. Audubon, 4, 6, 8, 18, 26, 29. Baxter, 6, 7, 29. Cedar Rapids, 6, 8, 15, 16, 26, 27, 29. Davenport, 6, 15, 16, 17, 19, 26, 29, 30, 31. Delaware, 6, 7, 8, 15, 16, 19, 26, 29. Des Moines, 5, 6, 7, 8, 16, 17, 26, 29. Dubuque, 6, 11, 15, 19, 26, 29, 31. Grinnell, 6, 7, 8, 16, 17, 20, 29. Guthrie Center, 6, 8, 11, 15, 16, 26, 28, 29. Harlan, 4, 8, 11, 19, 26, 29. Independence, 6, 15, 19, 26, 29. Iowa City, 6, 7, 15, 16, 26, 29. Iowa Falls, 1, 6, 7, 8, 11, 13, 15, 19, 26, 29, 30. Little Sioux, 8, 29. Nevada, 4, 6, 7, 8, 25, 29. Olin, 1, 6, 15, 16, 19, 26. Onawa, 4, 6, 8, 29. Perry, 8, 11, 15, 28, 29. Sioux City, 5, 7, 11, 15, 18, 19, 25, 26, 29. Waterloo, 1, 6, 15, 19, 26. Waukee, 8, 15, 16, 17, 29. Whitten, 5, 6, 7, 8, 16, 26, 28. Zearing, 6, 7, 8, 26, 29.

SOUTHERN SECTION.

Albia, 5, 7, 8, 15. Allerton, 7, 8, 17, 19. Atlantic, 4, 7, 14, 15. Bloomfield, 6, 7, 16, 17. Burlington, 2, 5, 7, 8, 16, 17, 20. Chariton, 8, 15, 16. Clarinda, 5, 8, 15, 16, 17, 28. Columbus Junction, 5, 7, 8, 16, 17, 19, 30. Corning, 4, 15, 16. Earlham, 7, 8, 15, 16, 17, 26, 29. Elliott, 4, 5, 8, 15, 16, 19, 27, 28, 29. Fort Madison, 4, 6, 15, 16, 19, 26, 27. Keokuk, 1, 6, 7, 8, 16, 17, 19, 31. Hopeville, 8, 16, 17. Indianola, 6, 7, 8, 15, 16. Keosauqua, 15, 16, 26. Leon, 8, 15, 16, 17. Massena, 5, 8, 16. Mount Pleasant, 1, 15, 16, 29. Omaha, 4, 6, 7, 11, 15, 19, 26, 28, 29. Oskaloosa, 6, 7, 16, 28. Pella, 7, 8, 16, 17, 29. Sigourney, 6, 7, 8, 16, 17, 29. Stockport, 5, 7, 8, 16, 17, 27. Thurman, 6, 7, 8, 16, 17, 28, 29. Winterset, 5, 7, 8, 16, 29.

BELATED REPORT.

KNOXVILLE.—July. Mean temperature, 76.0°; highest, 92° on the 4th, 5th and 9th; lowest, 56° on the 27th; greatest daily range, 26°; total precipitation, 6.66 inches; greatest in 24 hours, 2.95 inches; prevailing direction, southwest. Number of clear days, 6; partly cloudy, 20; cloudy, 5; rainy, 12.

DAILY MINIMUM AND MAXIMUM TEMPERATURES FOR THE MONTH OF AUGUST, 1907

STATIONS		DAY OF MONTH																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton.....	max	84	75	78	80	88	93	85	89	88	94	82	83	83	88	88	88	84	89	84	71	75	78	82	81	84	87	85	84	90	92	93	84.7
	min	60	50	50	52	60	67	66	66	71	69	65	55	59	62	56	56	63	65	63	50	51	51	50	58	51	57	64	63	65	67	68	59.7
Albia.....	max.	81	70	74	78	84	91	86	84	79	90	84	81	82	79	83	86	82	87	88	69	72	77	80	79	77	85	82	82	89	90	93	82.1
	min.	60	49	49	55	62	65	66	67	67	68	73	56	58	65	63	63	65	66	74	52	52	53	57	59	51	59	63	62	67	69	71	61.5
Algona ...	max.	74	70	74	75	83	91	82	79	85	89	84	80	83	83	80	81	87	89	83	70	73	75	83	75	77	75	78	72	79	86	90	80.2
	min.	59	48	48	52	60	67	56	65	66	71	64	51	60	59	62	55	56	67	59	45	54	53	60	52	47	59	61	59	64	63	68	58.4
Allerton..	max.	83	71	76	76	86	92	89	84	80	93	88	83	81	79	85	89	83	87	89	71	79	76	81	80	83	..	..	..	..	..	..	82.6
	min.	59	49	51	53	62	67	69	67	70	70	72	58	60	64	64	60	66	67	64	53	54	52	64	62	53	..	..	..	..	..	..	61.2
Alta.....	max.	73	70	76	68	85	92	85	87	88	93	77	83	84	85	85	83	89	93	75	73	77	78	80	80	74	88	83	67	80	90	90	81.6
	min.	59	45	47	51	58	60	57	60	67	71	61	52	55	59	62	54	57	62	57	47	48	52	55	52	51	59	60	61	62	65	67	57.2
Alton	max.	79	71	75	74	85	92	87	85	92	94	92	83	85	86	84	81	87	94	85	70	75	78	85	80	79	84	83	78	80	89	92	83.4
	min.	60	45	42	58	57	68	55	67	72	71	62	48	59	61	65	54	54	70	58	46	55	50	56	49	52	59	53	61	61	65	69	58.1
Amana ...	max.	78	72	74	78	85	90	84	75	87	90	85	82	84	81	78	85	84	86	86	70	72	77	81	77	78	75	76	75	83	89	92	80.9
	min.	61	51	50	49	65	65	63	66	65	68	72	56	58	60	61	61	66	66	69	53	51	48	58	59	48	57	64	61	67	68	69	60.5
Ames.....	max.	77	73	75	76	87	89	86	84	86	92	85	83	83	82	86	86	84	89	83	71	76	79	82	80	76	84	81	71	85	90	91	82.3
	min.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....
Atlantic ..	max.	83	77	80	77	91	94	90	89	91	96	85	87	84	86	91	..	87	93	83	75	80	80	79	86	79	92	91	74	91	95	95	86.0
	min.	55	42	42	55	52	66	60	66	68	71	65	48	62	63	49	..	64	67	64	45	47	46	62	47	44	62	52	58	64	65	68	57.3
Audubon.	max.	72	71	74	77	85	93	84	87	87	92	84	89	89	89	90	92	89	92	86	69	74	79	81	81	77	90	83	74	84	89	89	83.6
	min.	58	44	42	51	55	66	60	67	70	72	65	48	50	60	71	78	62	67	63	49	50	46	62	51	50	57	53	57	64	70	66	58.8
Baxter ...	max.	78	71	73	75	85	90	84	82	85	89	84	80	81	80	80	84	82	87	84	68	73	76	80	76	78	82	80	73	84	88	91	80.7
	min.	58	50	47	49	59	61	62	66	68	70	69	53	57	59	60	58	62	65	65	48	50	50	59	55	46	59	61	59	64	68	62	58.7
Bedford ..	max.	84	75	80	74	90	91	90	86	88	94	88	88	82	87	88	89	85	91	85	75	79	78	82	85	85	88	87	86	92	93	94	85.8
	min.	55	47	50	55	56	70	71	67	72	73	72	56	64	65	72	56	64	68	62	51	52	50	65	60	50	61	60	66	67	65	78	61.9
B. Plaine.	max.	80	73	76	72	89	90	80	80	86	91	80	81	88	81	78	84	84	86	81	72	73	76	72	71	75	78	77	75	81	89	88	80.0
	min.	58	50	48	56	62	64	62	64	63	60	64	56	59	62	62	60	64	63	72	51	52	52	56	55	47	56	55	61	66	70	68	59.3
Bloomfl'd	max.	85	75	76	77	89	94	89	86	84	93	89	84	84	81	85	91	83	89	91	73	75	77	84	81	81	84	85	83	85	94	91	84.5
	min.	60	51	52	54	64	66	66	67	66	69	71	60	58	65	63	65	64	65	69	54	54	52	62	62	53	58	69	65	69	69	73	62.4
Bonapa'e	max.	84	73	75	78	85	90	86	82	83	89	91	80	83	77	82	85	80	84	89	71	73	76	80	80	78	82	92	82	89	92	92	82.7
	min.	60	52	54	53	66	67	67	68	66	69	73	61	57	66	63	65	63	65	68	55	55	52	61	64	52	58	70	65	69	70	70	62.7
Boone. ...	max.	78	74	76	75	87	94	85	84	86	92	80	85	83	82	82	87	85	90	77	71	75	79	81	80	76	85	82	70	85	91	93	82.3
	min.	62	50	49	54	60	65	63	66	68	70	73	55	65	60	62	60	61	66	72	49	53	52	58	57	50	60	61	60	62	65	70	60.6
Britt.....	max.	73	70	70	77	83	92	81	82	87	90	83	82	83	84	82	83	88	89	82	68	78	76	82	74	78	76	88	74	82	86	90	81.1
	min.	57	55	55	62	68	73	71	68	70	76	67	67	73	70	70	53	55	68	60	45	53	52	59	50	45	68	60	50	63	62	70	61.8
Burl'g'n.	max.	85	73	75	79	86	91	87	83	87	93	95	83	86	77	81	88	80	87	91	72	74	78	80	81	79	83	87	85	90	96	97	84.2
	min.	61	52	52	53	59	67	67	67	65	67	71	62	60	65	66	64	63	63	70	58	56	54	56	65	52	58	63	66	68	69	71	62.3
Carroll...	max.	77	73	75	73	85	92	84	85	85	92	85	83	82	82	83	86	86	91	75	70	75	72	70	80	75	88	83	72	81	90	89	81.5
	min.	59	45	44	48	57	60	60	62	67	70	65	66	52	59	52	54	56	60	62	46	47	50	54	50	50	50	56	60	63	66	68	56.7
Cedar R. .	max.	80	74	77	82	89	90	85	78	88	92	87	86	88	84	79	87	87	88	85	71	73	80	80	78	81	75	76	73	83	90	94	82.6
	min.	63	52	52	51	53	66	65	66	64	65	70	59	61	61	63	64	65	66	70	54	52	51	54	61	51	54	62	61	63	66	70	60.5
Chariton .	max.	81	72	75	76	87	91	88	86	80	92	85	82	81	79	85	87	83	88	85	69	75	76	81	79	80	86	83	83	92	94	95	83.1
	min.	63	48	50	52	60	67	67	66	67	67	68	56	59	62	62	59	64	65	63	52	53	51	62	59	50	50	63	62	66	67	70	60.3
Ch'rls Cty	max.	73	69	71	76	83	88	83	73	85	89	79	81	84	82	72	82	85	87	77	67	73	75	79	73	78	69	73	72	80	84	91	78.5
	min.	52	49	45	48	62	65	58	65	65	67	66	52	60	58	60	57	55	67	54	48	51	51	59	51	46	59	57	54	63	64	68	57.3
Clarinda .	max.	88	79	80	74	92	96	93	90	90	97	81	87	83	86	88	89	87	93	85	77	80	80	82	88	84	92	93	86	94	96	96	87.3
	min.	58	48	51	56	57	62	70	62	70	71	71	54	57	63	64	56	65	66	73	51	48	50	54	59	51	60	61	62	68	66	67	60.4
Clear La'e	max.	75	73	74	75	83	91	83	78	88	90	85	84	85	85	75	80	87	90	80	78	85	78	81	78	79	73	76	74	80	85	89	81.2
	min.	62	52	48	55	63	67	62	65	65	70	65	65	65	60	58	60	60	67	65	48	62	52	60	55	52	55	58	55	63	65	70	60.3
Colum's J	max.	82	72	74	78	85	87	85	80	86	90	92	84	85	81	81	86	83	85	89	71	74	78	80	78	78	79	85	80	80	90	92	82.3
	min.	61	51	52	52	64	66	66	66	64	69	72	60	62	64	64	65	63	65	70	54	53	51	58	62	51	59	70	63	60	68	71	61.8
Corning ..	max.	82	73	75	75	85	91	89	85	86	93	86	82	81	81	88	84	82	89	81	70	73	76	80	81	88	85	86	87	87	91	90	83.3
	min.	59	48	48	56	48	69	69	67	72	72	71	53	62	64	65	57	64	68	64	52	43	52	64	52	63	58	63	61	63	68	69	60.8
Corydon .	max.	83	74	77	75	89	91	87	83	81	92	84	85	84	78	85	86	82	88	86	74	77	76	80	81	82	86	86	82	93	95	95	83.8
	min.	60	50	51	54	62	69	67	67	69	67	69	57	60	65	63	61	65	66	65	53	54	58	63	60	53	58	65	67	67	69	72	62.1
Creston. .	max.	81	72	74	68	85	91	86	85	85	92	79	80	80	79	85	85	86	88	82	69	74	75	78	80	78	84	87	84	80	87	90	81.8
	min.	60	42	48	52	59	67	68	67	68	70	73	55	55	64	65	59	60	66	68	51	52	53	54	59	50	58	61	54	65	66	68	59.9
Dav'np'rt	max.	80	71	73	77	85	84	86	76	86	89	91	83	85	82	80	86	83	85	90	70	71	78	80	78	79	77	79	76	82	87	93	81.4
	min.	58	53	54	56	65	64	66	65	65	69	67	60	63	66	68	65	65	67	67	56	54	55	60	61	53	62	67	66	66	70	69	62.6
Decorah..	max.	73	68	72	74	83	85	82	73	87	89	84	80	84	84	78	82	84	86	82	67	71	73	74	81	80	71	72	74	76	81	88	78.6
	min.	58	51	48	45	64	62	61	64	65	67	69	53	57	59	62	63	56	65	62	50	52	51	49	60	59	59	62	56	64	67	67	58.9
Delaware.	max.	77	70	74	76	82	79	79	72	84	88	83	79	84	81	78	80	83	83	80	66	71	75	78	75	78	68	76	76	81	82	88	78.3
	min.	59	48	48	49	63	62	60	61	62	65	66	55	62	60	59	63	62	65	65	49	50	49	56	56	49	57	65	60	64	65	67	58.7
Des Moins	max.	78	73	75	76	87	91	85	85	84	92	81	83	82	80	84	85	84	89	82	71	73	77	81	80	76	86	80	73	87	91	93	82.1
	min.	60	51	53	55	63	66	68	68	71	69	66	58	64	65	63	62	65	68	60	54	56	54	63	57	52	60	64	64	63	70	71	62.0
De Soto ..	max.	78	71	72	75	83	90	90	83	83	90	85	80	80	79	84	81	82	88	82	70	72	76	80	79	75	86	81	75	83	87	88	80.9
	min.	63	51	49	53	62	68	66	67	71	70	68	56	61	62	64	58	64	68	65	50	54	52	64	57	48	57	64	61	65	69	70	61.2
Dows	max.	75	70	72	74	84	91	86	79	86	89	83	81	82	81	78	82	85	88	84	69	73	76	81	76	78	75	79	71	83	88	90	80.3
	min.	58	48	46	48	62	65	58	64	65	70	65	50	59	56	59	55	53	65	60	45	52	47	59	48	43	55	57	54	61	65	66	56.7
Dubuque.	max.	76	67	72	76	83	84	83	71	85	89	87	81	85	84	78	85	85	85	84	69	72	75	79	76	76	68	80	76	81	84	92	79.6
	min.	63	51	53	52	63	63	63	63	63	68	64	60	62	61	65	66	66	66	61	54	52	53	58	57	52	59	64	65	64	66	67	60.8
Earlham .	max.	79	72	75	77	87	91	89	86	84	91	84	82	87	89	84	85	83	84	81	84	80	79	74	80	83	85	82	81	87	88	90	83.3
	min.	54	46	45	49	60	62	63	67	71	69	69	65	64	66	68	69	62	60	62	65	60	52	57	62	..	..	..	..	..	..	..	61.1
Elkader ..	max.	86	71	76	80	86	86	87	73	90	90	88	88	90	88	76	76	90	86	81	71	78	79	80	80	82	67	80	75	76	86	96	81.9
	min.	59	48	46	45	63	61	68	63	64	64	76	62	65	58	60	63	58	64	69	48	49	47	57	54	44	57	63	58	63	66	76	59.3
Elliott....	max.	85	79	79	79	88	95	90	95	94	97	84	86	86	83	91	87	93	94	82	72	78	81	84	82	87	94	88	86	95	94	94	87.2
	min.	58	48	50	56	57	71	67	67	71	71	69	54	60	65	55	55	55	55	55	50	49	50	50	49	50	65	57	57	66	66	65	58.5
Elma.	max.	72	72	71	76	80	89	80	74	86	89	80	78	84	81	76	79	84	86	78	65	73	75	78	72	76	68	73	74	77	82	89	78.0
	min.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....
Esth'rv'e.	max.	80	79	74	72	86	92	83	78	84	91	76	84	94	86	85	83	88	93	71	72	75	77	83	77	80	80	80	71	77	87	93	81.3
	min.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....
Fayette...	max.	75	70	73	78	83	86	81	72	85	88	..	81	84	80	76	82	83	85	76	68	73	76	77	75	78	67	75	73	80	84	90	78.5
	min.	60	58	45	44	64	60	59	63	65	66	..	51	53	56	61	61	56	64	60	43	48	46	59	54	43	57	64	55	65	63	68	57.0
Ft. Dodge	max.	80	71	74	75	85	95	88	85	88	93	77	84	85	86	84	85	90	92	76	72	77	81	83	79	78	81	82	..	84	91	93	83.1
	min.	60	50	47	45	58	63	61	65	67	68	68	54	59	61	64	59	57	63	63	48	53	53	57	54	58	49	60	62	63	66	69	58.5
Gr. Mead.	max.	74	68	73	79	81	84	80	71	85	87	80	79	83	82	77	80	83	83	76	66	72	74	78	75	75	66	68	74	77	84	88	77.5
	min.	58	48	47	49	62	60	60	64	65	65	66	55	65	65	60	62	59	65	62	48	51	50	56	55	50	58	62	57	65	66	68	58.8
Greenfi'ld	max.	78	72	..	75	81	91	88	85	87	92	86	86	82	79	84	86	83	89	82	72	75	76	78	80	78	88	85	75	89	90	90	82.7
	min.	58	49	..	56	59	69	64	65	71	70	69	54	59	63	64	60	50	..	62	49	52	51	63	55	54	60	61	63	69	66	70	60.5
Greene ...	max.	76	72	75	75	87	93	84	73	89	90	82	86	87	84	76	85	87	90	80	70	76	79	82	77	80	69	73	75	83	88	92	81.1
	min.	59	49	46	47	62	64	57	64	65	67	66	52	59	59	60	60	56	67	62	47	52	50	59	52	47	59	59	55	64	65	68	58.0
Grinnell..	max.	79	71	75	78	85	92	88	83	86	89	84	82	83	81	81	84	84	87	83	69	73	78	81	78	78	81	81	73	87	92	93	81.9
	min.	59	47	53	51	62	64	62	67	69	70	73	54	57	61	61	61	..	65	65	56	50	52	59	64	64	62	63	59	65	68	69	61.1
GrundyC.	max.	76	72	73	78	85	93	86	76	86	89	87	81	84	81	78	85	84	87	83	70	75	77	81	77	80	73	75	71	84	89	93	80.9
	min.	60	50	48	50	64	68	61	64	67	68	66	54	61	59	60	60	60	66	65	48	50	51	60	55	48	58	61	58	63	67	70	59.4
GuthrieC.	max.	80	79	76	75	86	92	90	85	86	92	87	84	82	82	86	85	86	90	86	73	75	78	81	81	77	89	85	78	84	89	90	83.5
	min.	60	42	45	53	59	68	62	67	72	71	67	53	58	61	64	55	63	68	64	49	52	49	63	54	42	58	58	61	65	71	68	59.4
Hampton.	max.	74	70	73	74	86	92	87	76	87	90	82	84	85	84	76	84	87	89	82	73	77	78	83	77	79	72	78	70	84	90	93	81.2
	min.	60	50	48	51	63	66	60	67	65	72	63	56	61	59	59	60	60	67	64	49	53	53	61	54	52	59	60	58	62	61	69	59.4
Hancock .	max.	80	76	75	71	85	90	89	86	88	91	86	82	82	81	85	85	85	90	85	70	70	77	83	82	79	91	87	78	84	89	90	82.9
	min.	58	49	50	57	59	70	65	67	72	74	65	55	60	65	65	55	65	68	63	50	54	53	63	56	53	63	58	63	65	67	70	61.2
Harlan ...	max.	78	72	77	74	86	92	87	86	90	93	83	84	84	84	87	84	89	93	85	72	79	80	81	83	76	91	86	76	86	92	93	84.0
	min.	58	45	45	55	55	67	61	66	72	73	65	50	57	62	50	64	62	67	63	49	52	49	62	51	48	61	54	61	64	68	67	58.8

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF AUGUST, 1907—CONTINUED.

STATIONS		DATE																														MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Hopeville.	Max.	83	72	77	78	81	83	88	88	86	93	83	83	83	82	89	89	85	89	85	70	72	78	82	80	85	87	84	83	92	96	95	83.9
	Min.	61	50	50	53	61	68	69	67	70	69	67	56	61	63	64	59	66	67	64	52	54	52	64	58	53	58	65	62	66	69	70	61.5
Humboldt	Max.	74	70	72	75	82	92	83	82	80	90	86	80	82	83	80	81	86	90	88	69	72	76	83	75	78	77	78	70	80	88	86	80.3
	Min.	60	50	46	53	62	68	61	67	61	72	66	53	60	60	62	57	56	68	59	46	54	51	63	50	48	60	60	60	62	68	68	59.1
Indep'd'e	Max.	75	70	71	75	84	85	85	72	85	87	80	81	83	81	76	82	83	84	80	67	72	74	77	75	77	70	73	72	83	86	90	78.5
	Min.	59	49	48	47	63	68	60	61	64	64	58	54	59	60	60	59	61	69	59	49	57	49	56	57	59	47	64	57	59	60	68	58.2
Indianola	max.	78	71	74	76	87	91	84	84	82	92	86	83	81	79	82	86	83	88	84	71	74	77	81	79	77	85	82	75	88	92	93	82.1
	min.	68	51	52	55	55	69	66	67	70	69	71	58	58	65	64	61	64	66	65	52	54	54	64	60	54	59	65	65	65	69	72	62.2
Inwood...	max.	74	72	77	74	85	91	85	83	92	94	89	85	84	86	87	89	86	96	87	74	76	78	90	82	76	89	85	75	84	90	94	84.2
	min.	54	42	41	59	53	66	55	66	69	74	58	45	56	61	65	50	58	70	54	45	53	51	55	47	53	64	53	59	62	62	69	57.1
Iowa City.	max.	80	72	76	82	89	91	90	79	91	94	86	87	89	84	83	90	85	90	85	76	78	82	79	79	80	80	80	73	86	95	96	84.1
	min.	62	51	51	50	58	65	64	66	61	64	71	58	60	64	62	63	65	66	66	56	53	50	54	61	49	58	61	63	65	68	71	60.6
Iowa Falls	max.	80	70	71	76	85	91	84	78	87	89	76	83	82	81	79	83	84	87	75	67	75	76	81	75	79	74	77	70	83	88	90	79.9
	min.	59	49	46	49	53	65	62	62	66	73	72	51	53	59	60	58	56	59	68	49	54	49	58	52	45	54	60	57	59	65	69	57.8
Jefferson.	max.	80	75	78	75	89	90	94	85	88	90	93	85	85	85	85	84	89	93	87	85	79	80	82	84	76	86	86	75	80	85	88	84.4
	min	62	47	46	52	60	63	61	67	72	73	67	54	58	61	64	60	55	68	61	66	53	54	60	52	47	58	59	61	65	66	67	60.0
Keokuk ..	max.	85	74	75	77	87	91	86	84	84	91	95	81	84	76	82	89	79	86	91	72	74	73	81	81	81	84	88	84	91	94	95	83.7
	min.	63	54	56	56	67	68	68	69	66	72	76	64	60	68	66	67	63	66	72	58	54	53	64	69	54	60	72	67	68	73	72	64.7
Keosa'q'a	max	85	74	77	78	89	93	89	85	84	90	92	83	84	78	84	91	83	86	90	75	75	76	84	81	83	84	86	84	92	93	94	84.6
	min.	61	52	53	50	60	65	67	68	66	67	72	60	55	61	62	67	61	65	71	55	54	50	53	63	49	57	66	64	67	69	68	61.2
Knoxville	max.	84	74	76	78	88	93	89	88	88	92	89	83	83	81	83	87	84	88	85	70	73	78	83	78	79	75	79	78	89	92	93	83.2
	min.	66	50	53	55	62	69	66	66	70	70	74	59	60	94	62	62	64	67	68	53	53	53	64	63	51	67	67	62	65	68	72	62.7
Le Mars ..	max.	77	70	72	73	82	89	83	85	88	92	89	80	82	83	84	80	86	91	87	71	72	75	83	80	74	85	80	75	78	86	88	81.3
	min.	59	45	42	58	57	68	55	67	72	74	62	49	59	61	66	52	52	70	59	42	52	52	62	48	50	64	55	62	60	65	70	58.4
Lenox	max.	82	73	76	74	86	90	87	85	85	92	88	80	79	81	87	85	84	88	84	69	72	75	80	82	80	86	85	83	88	90	90	82.8
	min.	59	49	51	56	59	70	69	66	72	71	71	56	62	64	65	58	65	67	63	52	55	53	64	61	56	62	64	63	66	69	69	62.2
Leon.....	max.	84	83	75	78	87	92	89	86	86	94	90	82	83	81	87	87	83	89	86	70	75	76	82	80	82	87	84	83	83	84	92	83.9
	min.	58	49	55	58	60	64	68	71	70	70	70	53	60	65	65	60	67	66	55	54	55	55	67	65	59	62	69	68	70	71	75	63.0
Lit. Sioux	max.	79	72	77	71	87	95	90	90	90	93	89	86	85	85	88	88	89	93	89	76	78	79	85	83	78	93	88	79	79	91	92	85.1
	min.	58	46	45	62	55	72	60	68	75	70	62	49	62	62	68	53	60	71	62	47	52	55	62	52	52	61	57	65	62	69	72	60.2
Logan	max.	78	72	78	70	88	94	90	89	91	94	86	85	85	87	86	85	89	92	86	74	77	79	82	83	77	92	87	75	82	91	92	84.4
	min.	56	46	47	57	55	64	60	64	74	74	67	69	67	65	61	62	60	69	63	48	52	51	63	52	44	64	56	52	66	67	68	60.1
Mars'llt'n	max.	79	79	76	76	88	91	85	79	85	91	80	84	83	80	79	86	84	87	81	71	75	77	82	79	79	80	74	71	85	89	93	81.4
	min.	61	49	47	48	61	62	62	63	66	67	72	53	56	59	60	60	61	61	72	48	50	49	50	54	45	58	60	58	60	65	65	58.1
Mason C'y	max.	77	71	72	77	84	91	84	78	87	90	85	83	83	84	74	81	85	89	78	67	72	75	82	75	80	72	76	75	81	86	90	80.1
	min.	65	48	46	50	63	65	56	67	67	70	65	52	63	64	60	58	56	67	65	46	52	54	60	53	48	60	58	56	63	67	69	59.1
Massena..	max.	85	77	79	73	89	94	89	88	90	94	88	84	84	84	81	89	86	92	85	74	80	84	82	86	81	91	90	80	95	96	97	86.1
	min.	56	47	47	55	57	70	66	67	70	72	60	51	59	69	64	55	64	68	64	51	51	51	64	56	49	61	57	52	65	67	68	59.9
Mt. Ayr ..	max.	85	77	80	80	92	92	89	89	89	97	85	85	83	84	89	88	86	93	83	74	78	79	82	86	85	87	89	86	93	95	95	86.3
	min.	58	50	53	54	58	69	69	66	70	69	70	57	62	64	64	59	65	66	62	52	53	52	63	60	57	58	66	65	65	69	69	61.7
Mt. Pleas't	max.	84	70	76	80	86	92	87	83	87	91	91	81	85	81	82	87	82	86	81	71	73	77	82	79	79	83	86	88	90	93	93	83.4
	min.	60	56	52	55	64	65	66	67	65	70	74	61	60	65	64	64	61	66	70	55	55	52	61	65	52	60	71	64	68	70	71	62.9
Mt.Ver'n.	max.	77	73	78	76	88	86	91	79	90	90	84	88	88	83	76	88	87	86	83	73	78	80	76	79	79	74	77	72	83	92	94	82.2
	min.	61	49	51	62	62	66	63	59	58	68	71	55	61	62	62	61	64	65	68	52	50	51	55	60	50	59	58	60	65	69	69	60.2
N.Hamp'n	max.	70	68	70	75	81	86	81	76	83	86	83	78	81	79	73	79	81	83	80	76	70	72	78	75	75	68	74	72	77	81	86	77.8
	min.	60	48	47	50	63	63	59	63	63	67	66	54	59	59	59	58	57	67	61	47	50	50	58	53	49	58	57	57	63	67	68	58.1
Newton...	max.	79	71	74	78	84	93	85	82	85	90	85	82	83	82	81	82	81	88	82	70	73	77	81	83	82	80	80	75	81	87	88	81.4
	min.	62	50	51	52	62	66	65	67	69	72	70	58	62	62	62	62	64	66	68	51	53	56	65	66	63	60	64	60	65	72	68	62.4
Northw'd	max.	74	70	72	75	83	88	83	77	..	83	84	81	82	83	75	80	84	87	80	66	73	74	78	77	77	70	75	73	77	83	89	78.4
	min.	59	50	45	58	62	64	57	61	..	62	56	61	59	62	59	61	59	68	60	47	53	61	58	58	62	59	58	55	63	63	69	58.9
Odebolt ..	max.	80	70	82	73	90	96	91	91	93	96	87	91	90	90	88	89	93	96	85	77	83	83	83	83	78	91	86	80	84	94	94	86.7
	min.	60	46	43	55	57	68	59	61	74	71	67	49	60	60	63	53	56	68	60	47	50	49	61	50	58	50	58	61	61	67	69	58.4
Ogden	max.	78	73	77	76	86	92	87	87	88	92	87	85	84	83	85	87	85	90	83	72	76	79	82	80	76	86	84	74	85	60	92	83.3
	min.	61	47	45	52	59	68	56	67	70	71	67	55	61	60	62	65	59	60	63	48	52	51	61	53	48	60	58	61	65	67	69	59.4
Olin.....	max.	79	72	72	72	83	84	81	75	83	88	85	89	87	82	81	81	82	83	87	73	70	74	80	74	75	74	79	76	83	84	90	79.9
	min.	57	49	50	47	64	62	63	63	69	67	75	55	60	59	62	62	65	65	72	50	50	47	53	58	47	55	64	63	67	69	69	59.9
Onawa....	max.	82	76	78	76	85	95	91	90	90	94	92	83	82	85	87	84	89	94	93	74	78	78	88	87	79	91	87	81	76	89	93	85.4
	min.	62	50	49	60	56	70	62	67	74	76	62	55	63	65	68	56	62	72	65	53	57	54	65	57	56	66	60	66	66	69	72	62.4
Omaha, N	max.	79	72	76	70	87	92	89	89	91	94	81	83	83	84	88	86	86	94	82	74	76	76	85	81	80	93	87	78	84	92	92	84.1
	min.	61	55	58	62	63	74	68	69	75	76	64	61	67	67	70	63	69	72	61	57	59	57	64	62	62	68	66	66	68	73	74	65.5
Osage.....	max.	78	82	79	79	82	83	89	79	88	89	82	86	86	83	74	84	87	87	80	74	77	76	71	81	74	72	74	73	83	86	92	81.0
	min.	66	62	63	65	61	59	59	51	50	49	47	43	37	57	58	57	55	67	61	46	49	47	44	44	40	56	58	51	61	62	67	84.6
Oskaloosa	max.	81	74	74	79	84	92	86	83	85	90	86	82	84	81	81	84	81	87	86	69	74	77	80	78	78	82	80	78	88	91	92	82.2
	min.	60	51	50	52	63	67	64	63	69	70	72	57	59	64	61	63	65	67	68	54	55	54	62	61	49	59	67	64	67	68	69	61.7
Ottumwa .	max.	84	74	78	80	89	94	93	90	86	94	88	88	85	82	85	95	85	90	91	78	83	85	85	82	84	85	83	85	96	97	99	86.9
	min.	64	53	54	55	64	68	66	68	70	74	61	61	62	67	64	66	65	66	74	55	55	54	58	62	60	60	68	65	68	73	75	63.7
Pacific Jc.	max.	81	78	78	72	86	91	91	90	90	94	88	82	83	85	90	85	87	91	85	72	75	76	86	80	81	91	87	83	89	91	91	84.8
	min.	59	50	52	58	55	70	69	65	70	74	65	54	61	63	66	54	66	68	65	53	55	50	60	55	53	67	56	64	65	67	66	61.1
Pella.....	max.	82	75	78	79	88	95	89	89	87	93	88	86	85	86	81	87	85	90	85	74	76	77	83	81	81	85	83	77	89	94	94	84.6
	min.	61	50	51	53	61	67	64	62	68	71	76	58	62	63	63	63	63	66	69	52	54	52	63	61	53	60	65	63	65	69	69	61.8
Perry.....	max.	78	74	77	77	87	94	85	88	88	93	84	83	84	83	85	86	86	91	83	72	76	80	84	80	78	88	81	78	86	90	91	83.5
	min.	60	48	47	53	59	68	63	67	73	71	67	55	59	61	64	56	62	68	64	48	48	49	62	56	47	58	59	60	65	68	69	59.8
Plover....	max.	83	70	70	75	84	95	84	86	86	91	83	82	85	81	82	87	93	82	85	84	90	..	..	..	85	79	79	80	83	88	90	83.8
	min.	51	50	45	48	58	59	55	64	63	67	63	58	55	58	51	50	67	54	43	58	55	..	..	..	43	56	58	56	60	60	63	56.0
Pocahon's	max.	75	70	78	73	86	94	85	85	87	93	84	85	83	85	85	84	89	93	80	73	78	79	84	78	77	82	81	70	83	90	93	82.6
	min.	59	45	45	53	60	67	56	65	70	69	63	60	63	62	57	54	56	67	60	45	53	53	61	52	47	61	55	60	60	65	68	58.4
Ridgeway	max.	76	72	73	77	86	88	87	73	90	92	83	86	89	84	80	84	90	88	80	72	75	76	81	80	82	65	73	73	77	83	94	80.9
	min.	54	48	46	50	64	62	59	63	61	68	62	55	59	60	60	60	58	67	57	45	50	51	58	54	49	58	60	56	64	64	69	57.8
Rock Rap.	max.	82	80	76	76	84	90	86	86	84	86	86	84	86	88	88	86	90	94	84	86	76	80	86	76	84	86	82	80	82	84	94	84.3
	min.	58	52	54	56	54	60	52	64	70	70	64	58	56	62	64	58	60	68	52	54	50	50	50	48	48	48	54	52	56	58	60	56.8
Rock'll Cy	max.	78	77	76	75	87	95	85	86	93	95	85	86	86	85	86	85	87	93	85	72	73	78	83	73	76	86	86	78	86	90	91	83.8
	min.	58	47	47	54	58	68	60	65	68	68	66	63	64	63	63	58	58	68	60	48	53	58	53	53	53	58	58	61	62	65	68	59.5
Sac City ..	max.	70	70	73	70	83	92	83	88	85	91	81	80	81	82	83	82	85	91	80	69	74	77	80	74	74	77	72	80	81	85	88	80.0
	min.	55	48	47	53	68	68	48	66	70	70	62	51	61	59	62	55	55	65	55	46	51	48	60	49	47	57	61	62	61	67	67	58.2
St. Charl's	max.	81	71	76	76	86	92	85	84	84	93	83	81	83	83	80	86	85	90	83	70	75	79	83	80	82	85	83	83	89	93	94	83.2
	min.	61	51	60	55	62	68	62	67	71	69	69	58	63	64	61	60	65	67	66	52	54	53	64	61	55	58	65	63	63	70	71	62.3
Sheldon ..	max.	..	..	..	72	88	94	83	89	94	95	89	86	87	86	86	86	89	94	83	75	78	86	89	86	76	87	85	80	86	90	95	86.2
	min.	..	..	..	42	45	66	56	66	69	73	46	47	55	62	59	51	53	69	56	42	52	59	62	46	46	62	58	59	62	63	68	56.9
Sibley	max.	70	69	74	69	84	90	85	81	89	93	75	83	85	86	85	82	88	92	72	72	75	77	86	78	77	82	80	74	78	89	90	81.0
	min.	54	45	44	49	56	56	55	58	65	69	59	48	49	57	59	51	52	55	55	44	45	52	54	48	48	52	58	58	60	61	64	54.2
Sigourn'y	max.	82	72	77	79	86	91	86	85	89	92	87	83	84	82	80	85	82	87	89	72	75	79	82	78	80	84	83	78	88	92	93	83.3
	min.	61	50	51	53	63	65	63	67	61	64	77	58	59	64	62	62	64	65	69	54	54	52	60	61	51	58	61	64	67	68	70	61.2
Sioux Cen	max.	75	70	76	72	86	90	86	87	92	94	86	84	86	86	85	81	88	93	85	70	75	78	86	79	72	84	..	71	80	88	89	82.5
	min.	58	46	48	57	58	66	56	62	78	73	59	51	58	60	63	56	57	76	56	47	53	51	60	51	53	58	..	60	63	63	68	58.8
Sioux City	max.	72	71	74	72	85	94	86	91	89	94	76	82	82	83	87	84	87	93	75	72	75	78	89	82	74	89	84	70	79	89	91	82.2
	min.	57	50	45	62	63	67	58	68	71	76	57	51	66	65	65	58	54	71	57	49	55	55	63	54	55	66	60	62	62	67	72	60.7
Stockport	max.	82	71	72	77	82	90	83	81	83	89	88	78	81	76	82	83	77	84	87	69	71	75	81	77	77	81	84	82	86	91	91	81.0
	min.	60	55	54	53	63	63	69	69	67	69	69	61	58	67	64	67	63	66	68	55	55	53	65	64	53	60	71	65	70	70	71	63.1
Thurman	max.	83	76	79	72	86	92	91	91	90	93	89	83	82	84	91	85	85	97	89	73	75	76	86	83	84	92	88	84	87	91	91	85.4
	min.	54	49	50	62	57	74	71	68	70	75	68	55	62	64	67	55	67	69	61	53	54	51	62	57	54	67	58	65	69	66	73	62.2
Tipton....	max.	82	74	77	78	87	85	89	78	89	91	91	88	86	82	78	88	87	88	89	77	77	80	80	80	82	76	82	73	82	91	93	83.2
	min.	63	59	54	56	64	67	66	66	65	70	74	60	65	66	65	65	66	66	73	57	56	55	57	63	54	61	69	..	65	71	70	63.6

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF AUGUST, 1907—CONTINUED.

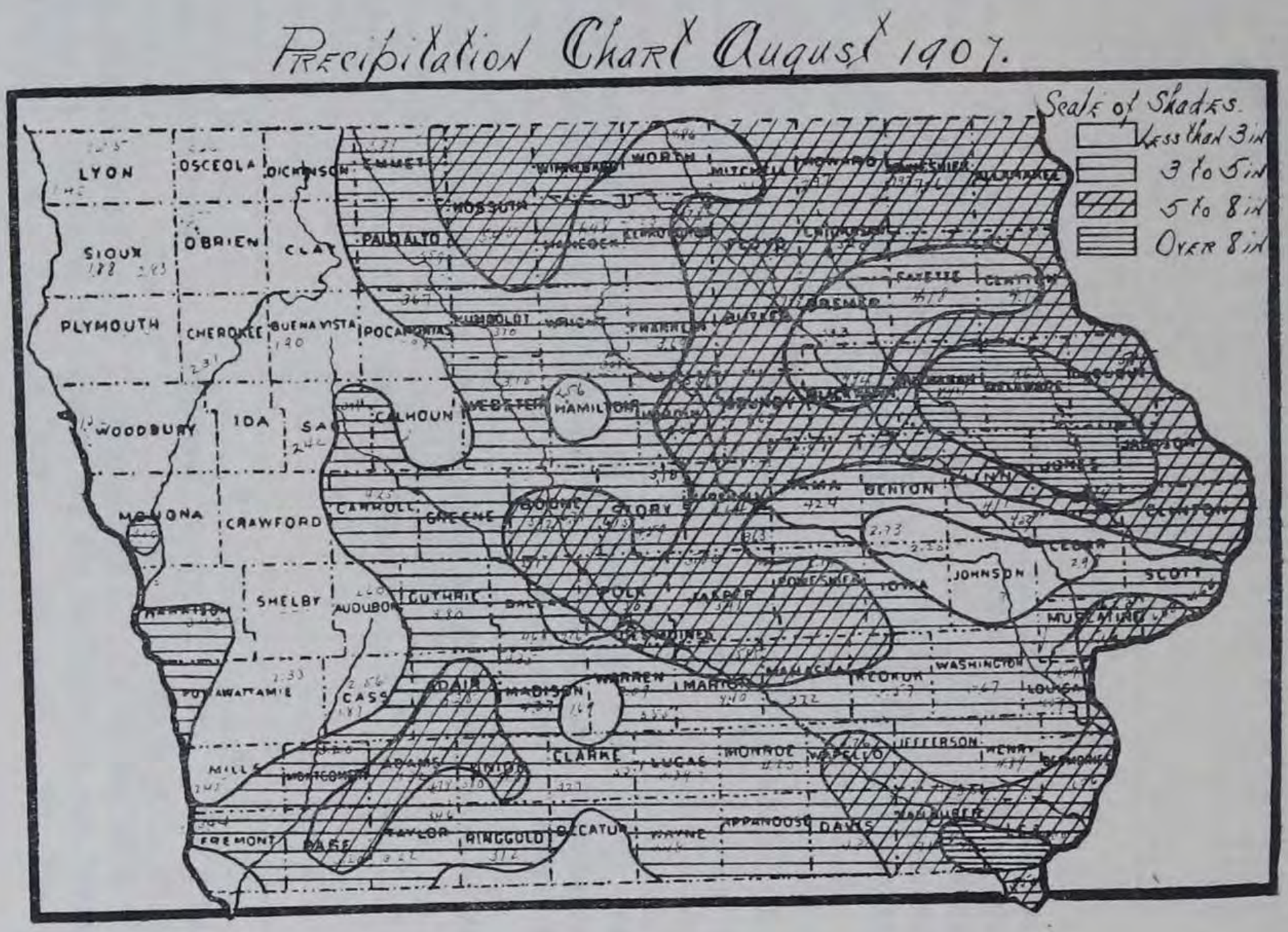
STATIONS		DATE																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Toledo ...	max.	79	72	74	78	85	89	88	75	84	88	84	81	83	81	78	83	84	86	84	74	71	76	79	76	76	76	75	78	83	87	91	80.6
	min.	61	50	47	48	64	65	63	66	67	69	68	54	60	60	65	61	63	66	67	50	50	48	60	56	46	58	64	69	66	68	71	60.0
Wapello ..	max	79	70	73	74	79	81	81	75	84	86	87	80	81	75	79	82	82	82	85	73	72	74	78	78	84	..	..	..	..	87	88	79.6
	min.	67	54	54	54	64	67	67	65	66	70	76	62	69	67	65	66	69	66	72	58	56	54	61	65	57	..	..	..	..	77	73	64.1
Wash'g'n	max.	81	72	74	76	84	90	85	78	85	89	88	81	82	79	80	85	80	85	87	70	72	76	79	78	75	79	82	76	85	90	91	81.1
	min.	60	50	50	52	64	66	65	66	64	69	67	60	59	64	62	64	64	64	65	54	53	52	58	58	50	58	69	64	68	68	71	61.2
Washta...	Max.	76	73	78	70	88	93	85	89	92	95	85	86	87	86	87	86	85	94	84	85	75	80	74	73	90	81	86	80	82	80	82	83.5
	Min.	54	39	58	64	55	62	55	68	72	73	62	44	55	60	60	60	50	70	58	40	52	62	45	44	62	44	52	60	60	64	70	57.2
Waterloo.	Max	78	75	76	79	87	91	86	75	88	92	82	86	87	84	88	86	87	88	78	72	75	79	81	80	82	72	76	73	83	89	95	82.3
	Min.	61	52	48	51	65	66	61	64	62	67	70	55	58	60	62	61	61	67	72	49	51	50	55	57	49	59	61	59	60	67	68	59.6
Waukee ..	Max.	78	71	77	77	85	91	84	84	84	90	83	82	83	80	85	83	84	88	82	69	72	77	83	78	86	80	73	77	86	85	88	81.5
	Min.	60	49	50	54	60	68	65	70	71	71	71	56	61	63	64	59	64	77	56	51	51	52	63	50	52	62	58	51	63	61	70	60.9
Waverly .	max.	75	69	70	69	82	88	81	74	84	87	83	80	82	81	74	82	83	86	80	67	72	75	79	75	76	69	74	71	81	84	90	78.2
	min.	60	51	49	49	65	65	61	63	66	69	68	55	64	60	62	59	59	67	63	50	53	52	59	56	49	59	63	58	64	67	70	59 8
Websr. Cy	max.	83	78	77	78	90	95	88	85	90	90	84	86	80	85	83	89	86	80	70	79	83	85	80	86	89	79	75	85	80	89	95	83.9
	min.	61	48	43	50	60	67	60	67	67	71	66	50	61	58	62	56	61	59	45	51	48	60	50	43	59	56	58	63	59	67	67	57.8
W. Bend .	max.	72	71	73	75	84	93	82	87	88	92	81	80	82	81	83	81	84	89	80	68	73	94	83	73	80	79	77	75	83	88	88	81.3
	min.	58	46	45	51	58	67	58	65	66	72	60	48	57	56	61	53	54	67	58	44	53	49	60	49	47	59	58	57	62	64	67	57.0
Whitten ..	max.	83	82	75	78	85	90	86	80	85	89	85	83	83	83	80	83	80	83	81	82	70	73	76	81	80	81	75	75	82	81	88	81.5
	min.	59	60	56	50	62	65	61	65	62	68	70	53	61	62	69	58	60	62	44	48	53	50	60	61	48	59	58	63	64	67	68	59.4
Wilton Jn	max.	82	78	75	78	85	85	85	83	86	90	94	90	85	83	80	80	84	85	90	77	74	77	82	78	76	78	81	81	83	88	90	82.7
	min.	59	50	50	50	64	65	63	65	64	62	75	57	58	60	64	63	65	60	71	53	52	49	55	46	42	57	68	64	66	62	70	59.8
Winterset	max.	80	73	76	78	82	94	89	88	86	93	89	82	84	82	82	82	83	89	83	73	75	77	82	80	81	86	82	76	84	90	90	82.9
	min.	70	51	50	55	61	69	67	67	72	70	73	57	61	64	64	58	64	68	67	56	64	53	64	54	54	59	63	55	55	70	71	62.1
Woodb'rn	max.	83	75	76	75	88	92	89	85	85	94	86	83	81	81	87	90	85	89	88	76	76	..	..	81	82	87	85	84	91	94	94	84.9
	min.	57	45	45	47	60	67	65	66	57	61	66	54	55	60	62	56	61	66	64	51	50	..	..	45	45	59	60	59	66	66	65	57.8
Zearing...	max.	75	71	74	82	86	91	87	81	87	90	86	84	83	82	81	85	84	83	81	72	78	78	82	77	80	77	79	77	84	90	92	82.1
	min.	58	47	46	47	57	65	62	67	69	70	69	52	57	58	61	58	58	67	64	47	48	47	61	54	44	56	60	57	64	68	66	58.2

DAILY AND MONTHLY PRECIPITATION FOR AUGUST, 1907.

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	.64	....	.04	....	1.31	....	....	....	....	....	.20	....	2.19	.34	....	.04	....	.02	....	....	....	....	.20	....	.15	....	....	....	5.13
Albia	....	....	....	....	1.11	.01	.19	.45	....	.02	.02	....	....	....	T	.61	1.83	....	....	.01	....	....	....	....	....	....	....	....	....	....	....	4.25
Algona	.21	....	....	.90	T	.03	....	.80	....	....	T	....	....	....	T	....	....	....	1.06	....	T	....	....	....	....	1.81	....	T	.24	.40	....	5.45
Alta	....	....	....	....	.66	.09	....	.13	....	....	.08	....	.01	....	....	.04	....	....	.04	....	.17	....	....	....	....	.01	.01	T	.52	.14	....	1.90
Alta (near)	....	....	....	.75	.27	....	....	.17	....	T	.09	....	....	....	.10	....	....	....	.02	....	.24	....	....	....	....	.03	....	.24	.32	.29	....	2.52
Alton	....	....	....	.11	....	.03	....	....	....	T	T	....	....	....	.96	....	T	....	.58	....	.05	....	....	....	T	.99	....	T	T	.11	....	2.83
Amana	T	....	....	.07	.11	.05	.23	.21	....	....	T	....	....	....	.12	.39	.25	....	T	....	T	....	....	....	....	T	....	.02	.75	....	....	2.20
Ames	....	....	....	.33	.01	.03	.36	.67	....	....	T	....	....	....	.01	T	....	T	T	....	T	....	....	....	....	.38	....	.10	4.26	....	....	6.15
Atlantic	....	....	....	.30	T	....	....	1.55	....	....	....	....	....	.28	.10	....	....	....	....	....	....	....	....	....	....	T	....	.19	.14	....	....	2.56
Audubon	....	....	....	.27	....	....	....	.79	....	....	....	....	....	....	.05	....	....	....	.26	....	....	....	....	....	....	T	....	.17	1.05	.01	....	2.60
Baxter	....	....	....	.15	.02	1.65	.57	.45	....	....	....	....	....	....	T	.12	.06	....	....	....	....	....	....	....	....	.07	....	.08	2.65	....	.03	5.85
Bedford	....	....	....	.11	.15	....	....	1.20	....	....	....	....	....	.31	....	.05	.72	....	.06	T	T	....	T	....	....	.15	....	.47	....	....	....	3.22
Belle Plaine	.04	....	....	.12	....	....	.30	.02	.33	....	.03	....	....	....	.10	.32	....	....	.23	....	....	....	....	....	....	....	....	.04	1.20	....	....	2.73
Bloomfield	....	....	....	.03	....	.61	....	....	....	....	....	....	....	....	.05	.51	2.64	....	....	....	....	....	....	....	....	.46	....	....	....	....	....	4.30
Bonaparte	....	....	....	....	.77	....	.60	.30	....	....	....	....	....	....	....	1.80	3.20	....	....	....	....	....	....	....	....	....	.40	....	....	....	1.35	8.42
Boone	....	....	....	....	.45	.04	.50	.27	.05	....	....	.01	....	....	....	.23	....	....	.07	T	.02	....	....	....	....	....	.12	....	4.95	T	....	6.71
Britt	.06	....	....	.73	.03	....	....	.25	....	....	.26	....	....	....	....	.12	....	....	1.29	....	.10	....	....	....	....	1.28	....	T	.25	.11	....	4.48
Buckingham	....	....	....	.15	....	1.11	....	.57	....	....	.12	....	....	....	2.15	....	....	....	.08	....	T	....	....	....	....	.50	....	.25	.70	.45	....	6.08
Burlington	....	.04	....	....	.58	....	1.02	.30	.04	....	....	....	....	....	T	3.02	1.85	....	....	.07	....	....	....	....	....	....	.04	....	T	....	....	6.96
Carroll	....	....	....	....	.30	....	....	.40	....	....	....	....	....	.15	....	....	....	....	.34	....	....	....	....	....	....	....	....	.03	3.02	.01	....	4.25
Cedar Rapids	T	.06	....	....	.05	T	.55	.10	.20	....	T	....	....	....	....	.89	.10	....	....	.16	T	T	....	....	....	....	.58	....	1.30	.07	.05	4.11
Chariton	....	....	....	1.05	....	....	T	1.12	T	....	T	....	....	....	.30	.90	.40	....	.12	....	....	....	....	....	....	....	....	....	....	....	....	3.89
Charles City	T	....	....	.57	.01	.44	....	.11	....	....	.24	....	....	....	.56	....	T	....	1.12	....	.06	....	....	....	....	1.49	....	....	2.12	....	....	6.72
Clarinda	....	....	....	....	.48	....	....	.76	....	....	05	....	....	....	1.21	.20	2.05	....	....	.07	T	....	....	....	....	....	....	.38	T	....	....	5.20
Clear Lake	....	....	....	.70	....	.20	....	.10	....	....	....	....	....	....	T	....	....	....	.85	....	....	....	....	....	....	1.40	....	T	.28	....	....	3.53
Columbus Junc.	....	....	....	T	.70	.10	.83	....	....	....	....	....	....	....	.12	1.32	.35	....	....	....	....	....	....	....	....	.02	....	....	....	.65	....	4.09
Corning	....	....	....	.91	....	....	....	1.66	....	....	T	....	....	....	1.92	2.38	....	....	.07	....	T	....	....	....	T	....	....	.38	T	....	....	7.32
Corydon	T	....	....	.18	.01	.82	T	.82	T	....	....	....	....	T	.13	.78	1.67	....	.01	....	....	....	....	....	....	T	....	.06	....	....	....	4.48
Creston	....	....	....	....	.90	....	....	1.32	T	....	....	....	....	....	T	1.34	....	....	T	.05	....	....	....	....	....	....	....	.19	T	....	....	3.80
Cumberland	....	....	....	.51	....	....	....	....	....	....	....	....	....	....	....	.62	....	....	....	....	....	....	....	....	....	....	....	.52	.10	....	.12	1.87
Davenport	....	....	....	.24	.01	1.34	....	.03	....	....	....	....	....	....	.35	.72	.01	....	T	....	T	....	....	....	....	1.95	....	T	.71	1.12	....	6.48
Decorah	....	....	....	.06	.60	.94	....	....	....	....	.41	....	....	....	.70	....	....	....	....	3.25	....	....	....	....	1.40	....	....	.40	....	....	....	7.76
Delaware	.02	....	....	....	.26	1.06	.64	.62	....	....	....	....	....	....	.88	1.70	....	....	.43	....	....	....	....	....	....	2.95	....	....	1.11	....	....	9.67
Des Moines	....	....	....	.15	T	.97	....	.54	....	....	T	....	....	....	.15	.67	.03	....	T	....	T	....	....	....	....	.10	....	.07	2.35	....	....	5.03
De Soto	....	....	....	.22	....	.09	.93	.98	....	....	....	....	....	....	T	.37	.38	....	T	....	T	....	....	....	....	.04	....	.18	1.49	....	....	4.68
Dows	T	....	....	.45	....	.31	....	.24	....	....	.05	....	....	....	.07	....	....	....	.49	....	....	....	....	....	....	.43	....	.17	.59	.21	....	3.01
Dubuque	T	....	....	.07	.01	1.17	....	.22	.65	....	.01	....	....	....	2.55	....	....	T	.10	....	T	....	....	....	....	.34	....	.05	.57	....	.11	5.85
Earlham	....	....	....	.12	....	....	.05	1.09	....	....	....	....	....	....	T	1.43	.33	....	....	....	....	T	....	....	....	.58	....	.10	.65	....	....	4.35
Elkader	....	....	....	.45	....	.60	.18	.19	.76	....	.12	....	....	....	1.25	....	....	....	.50	....	....	....	....	....	....	.27	....	T	.41	....	....	4.73
Elliott	....	....	....	.42	.10	....	....	2.00	....	....	....	....	....	....	.05	.02	....	....	T	....	....	....	....	....	....	....	T	.41	.20	....	....	3.20
Elma	....	....	....	.21	.42	.55	....	.14	.23	....	.43	....	....	....	.56	.02	....	....	2.57	....	.11	....	....	....	....	.54	....	.02	1.57	T	....	7.37
Estherville	T	T	....	....	.57	....	....	....	.07	....	.12	....	....	....	....	T	....	....	.85	T	T	....	....	....	....	2.10	.20	....	....	T	....	3.91
Fayette	....	....	....	.54	....	.99	....	....	.11	....	....	....	....	....	.85	....	....	....	.77	....	....	....	....	....	....	.27	....	....	.65	....	....	4.18
Fort Dodge	....	....	....	.15	.05	.23	.21	.44	.44	....	.04	....	.06	....	....	.11	....	....	.23	....	....	....	....	....	....	....	.42	....	.77	....	....	3.15
Fort Madison	....	....	....	.55	....	1.45	....	T	....	....	....	....	....	T	1.55	2.60	....	....	.20	....	....	....	....	....	....	T	1.65	....	....	....	....	8.00
Gilman	....	....	....	....	.10	.21	.88	.42	....	....	....	....	T	....	.10	.10	....	....	....	....	....	....	....	....	....	.20	T	....	1.62	....	....	3.63
Grand Meadow	.03	....	....	....	.76	1.90	....	.03	.02	....	.20	....	....	....	.54	.38	....	....	.81	....	.03	....	....	....	....	.17	....	T	.40	....	....	5.27
Greene	....	....	....	.60	.48	.15	1.60	.21	....	....	.35	....	....	....	.10	....	....	....	1.30	....	.10	....	....	....	....	1.38	....	....	.90	.05	....	7.22
Greenfield	....	....	....	.17	.03	....	....	1.80	....	....	T	....	....	....	.04	62	1.26	....	....	....	....	....	....	....	....	.30	....	.23	.80	....	....	5.25
Grinnell	....	....	....	.11	.05	1.00	.90	.49	....	....	....	....	....	....	.01	.70	.40	....	.12	....	....	....	....	....	....	.20	....	.06	2.10	T	....	6.14
Grundy Center	T	....	....	.63	....	....	1.60	.85	....	....	....	....	....	....	T	1.00	....	....	....	....	....	....	....	....	....	.70	....	T	1.00	.85	....	6.63
Guthrie Center	....	....	....	.25	....	....	.28	.89	....	....	.05	....	....	....	.28	.02	....	....	.01	....	....	....	....	....	....	.16	....	.20	1.64	.02	....	3.80
Hampton	....	....	....	.70	....	.08	.12	.55	....	....	08	.08	....	....	.06	....	....	....	.40	.12	....	....	....	....	....	.40	....	1.04	....	.06	....	3.69
Hancock	....	....	....	.35	....	....	....	1.32	....	....	.03	....	....	....	T	T	....	....	.03	....	....	....	....	....	....	T	....	.31	.29	....	....	2.33
Harlan	....	....	....	.59	....	....	....	1.07	....	T	.04	....	....	....	T	.01	....	....	.01	....	T	....	....	....	T	T	....	.30	.69	....	....	2.71
Hopeville	....	....	....	.36	....	....	....	.82	....	....	....	....	....	.01	.11	1.05	.70	....	.02	....	T	....	....	....	....	.03	....	.17	T	....	....	3.27
Humboldt	....	....	....	1.08	....	....	....	1.28	....	....	.12	....	....	....	.04	....	....	....	.36	....	.18	....	....	....	....	....	....	.22	.42	....	....	3.70
Independence	.05	....	....	.57	....	.05	....	.89	....	....	.10	....	....	....	2.54	....	....	....	.38	....	.02	....	....	....	....	1.15	.02	.05	2.62	....	....	8.44
Indianola	....	....	....	....	....	....	.43	.56	....	....	....	....	....	T	1.40	T	T	....	T	....	.01	....	....	....	....	.09	....	.04	.56	....	....	3.09
Inwood	....	....	....	.09	....	....	....	....	....	....	....	T	....	....	.06	T	T	....	.95	....	.01	....	....	....	....	.19	....	....	....	.15	....	1.45
Iowa City	....	....	....	....	.33	.05	.39	.10	.03	....	....	T	....	....	....	.56	.28	....	....	T	....	....	....	....	....	....	.30	T	.74	.20	....	2.98
Iowa Falls	.15	....	....	....	.56	T	1.56	.20	.73	....	T	T	T	.15	....	.17	....	....	.27	T	T	....	....	....	....	....	.50	....	.90	.37	....	5.56
Keokuk	.01	....	....	.06	....	1.42	.19	.18	....	....	....	....	....	.02	....	2.05	1.23	....	.34	....	....	....	....	....	....	T	....	....	....	....	....	5.50
Keosauqua	....	....	....	....	.62	T	.22	.31	....	....	....	....	....	....	....	1.12	3.93	T	....	T	....	....	....	....	....	....	.90	....	T	....	....	7.10
Knoxville	....	....	....	.26	....	....	.68	.42	....	....	....	....	....	T	.05	2.10	....	....	T	....	....	....	....	....	....	....	....	T	.89	....	....	4.40
Lacona	....	....	....	.12	....	....	.02	1.00	....	....	....	....	....	....	.12	1.38	.22	....	....	....	.01	....	....	....	....	....	....	.01	.07	....	....	3.55
Le Claire	....	T	....	....	.36	T	1.30	....	.02	....	....	....	....	....	....	.95	.08	....	....	.03	....	T	....	....	....	....	.80	....	.70	.42	....	4.66
Le Mars	....	....	....	.25	T	.15	....	T	....	....	.01	....	....	....	.04	T	....	....	.09	....	T	....	....	....	T	.25	....	.18	.09	.03	....	1.09
Lenox	....	....	....	.40	.11	....	....	1.13	....	....	....	....	....	....	T	.47	.80	....	.05	....	....	....	....	....	....	.10	....	.40	....	....	....	3.46
Leon	....	....	....	.10	....	....	....	1.14	....	....	....	....	.04	.02	.45	.06	.13	....	.05	....	....	....	....	....	....	T	.31	....	....	....	....	2.30
Little Sioux	....	....	....	.54	.01	....	....	.42	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	.08	....	....	.65	.44	....	....	2.14
Logan	....	....	....	.36	T	....	....	1.44	....	....	T	T	....	....	T	....	....	....	T	....	....	....	....	....	....	....	....	1.60	....	....	....	3.40
Marshalltown	....	....	....	....	.17	.38	.62	.24	.80	T	.72	....	....	....	....	.18	....	....	.10	....	T	....	....	....	....	....	.60	....	2.81	.02	....	6.64
Mason City	T	....	....	.73	....	.90	....	T	....	....	.20	....	....	....	.32	....	....	....	1.72	....	.08	....	....	....	....	1.12	....	T	.60	.05	....	5.72
Massena	....	....	....	.40	.02	....	....	2.38	....	....	....	....	....	....	.13	.08	1.05	....	....	....	....	....	....	....	....	.01	....	.45	.26	....	....	4.78
Mt. Ayr	....	....	....	.14	....	T	....	1.85	....	....	T	....	....	....	.21	.10	.03	....	.14	....	....	....	....	....	....	.35	....	.30	....	....	....	3.12
Mt. Pleasant	T	....	....	T	.95	.48	.90	.11	....	....	....	....	T	....	T	1.16	1.25	....	....	....	....	....	....	....	....	T	....	....	T	.04	T	4.89
Mt. Vernon	.08	....	....	.02	.14	.02	.32	.30	....	....	T	....	....	....	.17	.83	.08	....	.01	....	T	....	....	....	....	.02	1.17	.02	1.40	.01	....	4.59
Muscatine	....	....	....	....	....	.56	.10	.60	.05	....	....	....	....	....	....	1.85	.60	....	....	....	....	....	....	....	....	....	.03	....	.65	.72	....	5.16
Nevada	....	....	....	.13	....	.30	.25	.96	....	....	....	....	....	.04	....	.04	....	....	T	.02	....	....	....	....	....	.75	....	.07	2.03	....	....	4.59
New Hampton	....	....	....	.18	.62	.10	.25	.05	....	....	.38	....	....	....	.35	.07	....	....	1.64	....	.07	....	....	....	....	.46	.03	T	1.00	....	....	5.20
Newton	....	....	....	....	.18	.18	.37	.23	....	....	....	....	....	....	.05	.59	.40	....	.06	....	....	....	....	....	....	.25	....	.05	3.05	....	T	5.41
Northwood	....	....	....	.53	....	.55	....	....	....	.72	....	....	....	....	.01	....	....	....	2.00	....	....	....	....	....	....	.61	T	T	.44	T	T	4.86
Odebolt	....	....	....	.45	....	.02	....	.32	....	....	....	....	....	....	....	.12	....	....	....	....	....	....	....	....	....	....	....	.50	.96	.05	....	2.42
Ogden	....	....	....	.42	....	.21	.50	.29	....	....	....	....	....	....	.19	....	....	....	.09	....	....	....	....	....	....	.06	....	.21	3.95	....	....	5.92
Olin	T	....	....	....	....	.90	....	.27	....	....	T	....	....	....	.27	2.78	....	....	T	....	....	....	T	....	....	1.81	....	....	2.25	.46	....	8.74
Omaha, Neb	....	....	....	1.11	....	.08	1.18	.01	....	....	T	....	....	....	T	T	....	....	T	....	T	....	T	....	....	T	....	.63	.02	....	....	3.03
Onawa	....	....	....	.13	....	.02	....	1.75	....	....	T	....	....	....	T	....	....	....	....	....	....	....	....	....	.14	T	....	.52	.64	....	....	3.20
Osage	....	....	....	.48	.19	.28	....	.11	....	....	.78	....	....	....	.24	....	....	....	....	....	.06	....	....	....	....	.56	....	....	.45	....	....	3.15
Oskaloosa	....	....	....	.53	.12	.25	T	.30	....	....	T	....	....	.02	.08	1.19	1.03	....	T	T	T	....	....	....	....	T	....	T	.20	....	....	3.72
Ottumwa	....	....	....	1.35	1.00	.01	....	.30	....	....	....	....	....	....	.90	2.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5.76
Pacific Junction	....	....	....	....	.66	....	....	1.16	....	....	....	....	....	....	T	....	.09	....	T	....	T	....	....	....	....	....	....	.45	.09	....	....	2.45
Pella	T	....	....	.11	.16	.01	.46	.26	....	....	....	....	....	....	.13	.22	2.47	....	.03	....	.01	....	....	....	....	.03	....	.01	1.61	....	.34	5.85
Perry	....	....	....	.33	....	.04	.40	.54	....	....	T	....	....	....	.12	....	....	....	T	....	.02	....	....	....	....	.33	....	.09	3.84	....	....	5.71
Plover	....	....	....	.95	....	....	....	.55	....	T	T	....	....	.08	....	....	....	.46	....	....	....	....	....	....	....	.22	....	.14	1.15	.12	....	3.67
Pocahontas	....	....	....	.97	T	....	....	T	....	....	T	....	....	....	....	....	....	....	22	....	.13	....	....	....	....	.75	....	.06	.79	.06	....	2.98
Ridgeway	.05	....	....	.54	....	1.37	....	....	....	....	.47	....	....	....	.74	....	....	....	3.43	....	.07	....	....	....	....	.88	....	.10	.28	.02	.02	7.97
Rock Rapids	....	....	....	.40	....	....	....	T	....	....	....	....	....	....	....	....	....	.30	....	T	T	....	....	....	....	.10	....	....	....	.25	....	1.05
Rockwell City	....	....	....	.50	....	.10	....	.50	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	....	....	....	.20	....	.35	.50	....	....	2.30
Sac City	....	....	....	.43	....	....	....	.61	....	.03	.07	....	....	....	.20	....	....	....	T	....	....	....	....	....	....	....	....	.45	1.30	.02	....	3.11
St. Charles	....	....	....	.15	....	.15	....	1.01	....	....	....	....	....	....	.01	.15	.06	....	....	....	....	....	....	....	....	.14	....	.02	....	....	....	1.69
Sheldon	....	....	....	.25	....	....	....	....	.02	.01	....	....	....	....	.22	....	....	....	.85	....	.05	....	....	....	T	.90	....	.01	....	.20	....	2.51

DAILY AND MONTHLY PRECIPITATION FOR AUGUST, 1907—Continued.

STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sibley	.22	....	....	....	.37	....	....	.26	....	....	....	....	....	....	....	....	....	....	.66	....	.06	....	....	....	....	1.05	T	....	....	.04	....	2.66
Sigourney	T	....	....	.05	.47	.44	.17	.19	....	....	....	....	T	....	.07	.83	.70	....	T	....	.62	....	....	....	....	T	.96	T	....	.60	....	.05	3.57
Sioux Center	....	....	....	.06	....	....	....	....	....	.02	....	....	....	.19	....	T	T	....	.62	....	.01	.01	....	....	....	.06	.03	....	.94	.01	.05	....	1.53
Sioux City	....	....	....	.15	T	....	.04	....	....	....	.08	....	....	....	.15	T	....	T	.01	.01	....	....	....	....	....	....	T	.08	T	....	....	T	5.00
Stockport	....	....	....	T	.86	.01	.59	.26	....	....	....	....	T	T	T	1.83	1.37	....	....	....	....	....	....	....	....	T	....	.35	.15	....	....	3.44
Thurman	....	....	....	.30	.91	.02	....	1.22	....	....	T	....	....	....	.26	....	.23	....	T	....	T	....	....	....	....	T	....	T	.99	.03	....	2.98
Tipton	....	....	....	....	.29	.07	.33	....	....	....	....	....	....	....	.55	....	....	....	.16	....	....	....	....	....	....	.04	.52	T	1.15	....	....	4.24
Toledo	....	....	....	.18	....	1.55	....	....	....	....	....	....	....	....	....	....	....	....	.16	....	....	....	....	....	....	.20	....	....	....	1.04	....	4.59
Wapello	....	....	....	....	.85	.08	.97	.11	....	....	....	....	....	....	....	.50	.99	....	.05	....	....	....	....	....	....	....	....	....	.78	....	....	3.67
Washington	....	....	....	....	.50	.43	41	....	....	....	....	....	....	....	.02	1.03	.50	....	....	....	....	....	....	....	....	....	....	....	.50	.43	.04	....	2.31
Washta	....	....	....	.50	.05	....	.10	....	....	....	.04	....	....	....	.25	....	....	....	.20	....	....	....	....	T	....	.20	....	.50	....	T	....	4.94
Waterloo	.08	....	....	.64	....	.53	....	.63	....	....	.06	....	....	....	....	.88	....	....	.29	....	.03	....	....	....	....	.79	....	1.01	....	....	....	4.76
Waukee	....	....	....	.32	....	.24	.35	1.10	....	....	T	....	....	....	.04	.22	.22	....	T	....	T	....	....	....	.03	....	.18	....	2.06	....	....	3.33
Waverly	T	....	....	.45	.06	.71	....	.37	....	....	.04	....	....	....	.09	.05	....	....	.31	....	.03	....	....	....	....	.63	.01	.02	.54	.02	....	2.56
Webster City	....	....	....	.50	....	.20	.22	.28	....	....	T	....	....	....	.10	....	....	....	....	....	....	....	....	....	.25	....	.22	.59	T	.20	....	3.59
West Bend	.02	....	....	.86	....	....	....	.84	....	....	T	....	....	....	.08	....	....	....	.68	....	.07	....	....	....	....	.53	....	.03	.26	.22	....	6.06
Whitten	T	....	....	.52	.13	.13	2.00	.40	....	....	....	....	....	....	T	1.36	....	....	....	....	T	....	....	....	....	.50	.12	.90	....	....	....	6.23
Wilton Junction	....	....	....	.41	.14	.20	.06	....	....	....	....	....	....	....	.69	.09	....	....	....	....	....	....	....	....	....	2.32	....	.85	1.47	....	....	4.37
Winterset	..	....	....	.10	T	....	.02	1.10	....	....	....	....	....	....	.30	1.44	.55	....	.02	....	T	....	....	....	....	.20	....	.10	.54	....	....	3.51
Woodburn	....	....	....	.86	....	....	T	.72	....	....	....	....	....	....	.22	1.48	.16	T	.05	....	T	....	....	....	....	T	....	.02	....	....	....	3.73
Zearing	....	....	....	.26	.17	.18	.44	.78	....	....	....	....	....	....	.05	.18	....	....	T	....	....	....	....	....	....	.68	....	.06	.93	....	....	



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR SEPTEMBER, 1907.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1907

THE IOWA WEATHER AND CROP SERVICE

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U. S. DEPARTMENT OF AGRICULTURE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

CENTRAL OFFICE: WASHINGTON, D. C.

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R. SAGE.....Section Director.
GEO. M. CHAPPEL, Assistant Director.

VOL. XVIII. DES MOINES, IOWA, SEPTEMBER, 1907. No. 9

GENERAL SUMMARY.

The mean temperature of September was very nearly the normal, but it was characterized by sudden changes, causing the impression of unusual coldness. The average, however, was only seven-tenths of a degree below the normal. The second decade was much the warmer period in the month, the mean at the central station being 73 degrees. The average of the last decade was about 20 degrees lower than the preceding ten days. During the past 18 years there have been five colder and twelve warmer Septembers. During the last decade of the month light frost was reported on the morning of the 22d, and heavy to killing frost visited every county in the state on the morning of the 25th. This was an unusual visitation in this state. The average rainfall was about .60 of an inch below the normal. There was the usual inequality in its distribution. About one-fifth of the state received less than 2.00 inches. The heaviest amounts were reported in the northeast and east central districts. The principal showery weather occurred from the 6th to the 10th, 16th to 20th and 26th to 30th. The percentage of sunshine was about the normal. The average number of clear days was 15, and cloudy days 6. The most damaging storms of wind and hail during the month occurred on the afternoon and evening of the 7th, in a pathway several miles in width, extending from Palo Alto and Pocahontas to Warren county, the direction of the storm being northwest to southeast.

The following table gives the mean temperature and average precipitation for the state, for each September from 1890 to 1907, inclusive.

Years	Temperature Degrees	Precipitation Inches
1890	59.3	2.97
1891	67.3	1.33
1892	64.7	1.53
1893	64.7	2.34
1894	65.1	3.57
1895	66.8	3.03
1896	58.5	4.09
1897	70.9	2.04
1898	65.3	2.69
1899	62.5	0.93
1900	64.4	4.08
1901	63.3	4.77
1902	59.1	4.35
1903	60.8	3.81
1904	64.0	2.78
1905	65.8	3.81
1906	67.2	4.16
1907	62.8	2.76
Normals	63.5	3.36

SEPTEMBER WEATHER AND CROPS.

The month opened with high temperature, but the average of the first week was below the normal, the average daily deficiency in temperature being about 2 degrees. The nights were cool, but there was more than the usual amount of sunshine and warmth by day to promote the ripening of corn, which was then about two weeks late. The second week was cold and showery in the first three days, but the latter part was warm enough to give a slight excess in temperature with more than the normal amount of sunshine. At the close of that week the early planted corn was sufficiently well matured to begin the work of cutting in the central and southern districts. The third week brought five abnormally warm days, with brisk, drying winds, which were very favorable for hastening the ripening process of the belated portion of the corn crop. At the close of that week it was estimated that about 70 per cent of the crop was fairly well prepared to withstand the heavy frost which came on the morning of the 25th, in the early part of the closing week of the month. That week was abnormally cold, the average daily deficiency in temperature being about 6 to 8 degrees. Reports indicated that it was a killing frost in exposed localities in the northern half of the state. In the southern half there was not more than ten per cent of the crop exposed to damage by frost. In the north central and northeast districts there will be more than the usual amount of corn below the commercial standard of ripeness.

CLIMATOLOGY OF THE MONTH.

TEMPERATURE.—The monthly mean temperature for the state, as shown by the records of 110 stations, was 62.8°, which is 0.7° below the normal. By sections the mean temperatures were as follows: Northern section, 60.8°, which is 1.2° below the normal; Central section, 62.9°, which is 0.5° below the normal; Southern section, 64.7°, which is 0.5° below the normal. The highest monthly mean was 66.6° at Keokuk and Leon. The lowest monthly mean was 58.0° at Sibley. The highest temperature reported was 98° at Clarinda and Thurman on the 1st. The lowest temperature reported was 25° at Elma on the 25th. The average monthly maximum was 89.5°, and the average monthly minimum was 31.8°. The greatest daily range was 51° at Storm Lake and Washta, and the average of greatest daily ranges was 36.3°.

PRECIPITATION.—The average precipitation for the state, as shown by the records of 118 stations, was 2.76 inches, which is 0.60 of an inch below the normal. The averages by sections were as follows: Northern section, 2.71 inches, which is 0.66 of an inch below the normal; Central section, 3.02 inches, which is 0.21 of an inch below the normal; Southern section, 2.54 inches, which is 0.95 of an inch below the normal. The largest amount reported was 6.06 inches at Ridgeway. The least amount reported was 1.38 inches at Washington. The greatest daily rainfall reported was 3.15 inches at Olin on the 27th and 28th. There was an average of 8 days on which .01 of an inch or more rainfall was reported.

WIND AND WEATHER.—The prevailing direction of the wind was northwest. The highest velocity reported was 42 miles per hour, from the northwest, at Sioux City on the 23d. The average number of clear days was 15; partly cloudy, 9; cloudy, 6.

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	29.99	30.33	25	29.47	23
Davenport	29.99	30.30	25	29.44	23
Des Moines	30.00	30.35	25	29.51	23
Dubuque	30.00	30.34	30	29.44	23
Omaha, Neb.	29.98	30.32	25	29.58	23
Keokuk	30.02	30.33	25	29.52	23
Sioux City	29.98	30.31	25	29.66	23
Means	29.99	30.35	25	29.44	23

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	4693	26	NW	24
Davenport	4722	24	NW	24
Des Moines	5607	29	SW	19
Dubuque	4694	26	NW	24
Keokuk	4200	24	NW	24
La Crosse, Wis	5266	32	SE	19
Omaha, Neb	5745	38	N	27
Sioux City	8309	42	NW	23

BELATED REPORTS.

STUART.—August. Mean temperature, 73.0°; maximum temperature, 94°, on the 5th; minimum temperature, 50°, on the 22d; greatest daily range, 36°. Total precipitation, 5.39 inches; greatest amount in 24 hours, 1.54 inches; number of rainy days, 12; prevailing direction of the wind, southeast.

FOREST CITY.—August. Mean temperature, 68.8°; maximum temperature, 91°, on the 7th; minimum temperature, 46°, on the 20th; greatest daily range, 33°; total precipitation, 3.97 inches; greatest amount in 24 hours, 1.35 inches; number of rainy days, 8; number of clear days, 22; number of partly cloudy days, 4; number of cloudy days, 5.

LARRABEE.—August. Mean temperature, 71.5°; maximum temperature, 94°, on the 10th; minimum temperature, 46°, on the 2d, 3d and 20th; greatest daily range, 37°; total precipitation, 1.83 inches; greatest amount in 24 hours, 0.65 of an inch; number of rainy days, 11; number of clear days, 16; number of partly cloudy days, 13; number of cloudy days, 2.

ERRATA IN AUGUST REVIEW.

MARSHALLTOWN.—Maximum temperature recorded, 91°, on the 7th, on page 91, should read 93°, on the 31st.

With great sorrow we announce the death of J. W. Hubbard, D. D., of Mount Vernon, Iowa, who passed away on September 29, 1907, after a brief illness, at the age of 80 years. Since January, 1892, Dr. Hubbard has been associated with the state and national weather service, rendering efficient assistance as cooperative observer at Mechanicsville and Mount Vernon for more than fifteen years. His generous and faithful work as a volunteer observer was characteristic of the man throughout the sixty years of his active and useful life. His life mission was to serve his fellow men, and his memory is enshrined in the hearts of all who enjoyed the benefit of his ministrations.

OBSERVERS' NOTES.

AFTON.—*N. W. Rowell.* Frost on 22d and 24th, but corn was advanced and no damage resulted, except on bottoms. Month cold and wet at close, but rain was needed.

ALBIA.—*J. I. Chenoweth.* Temperature went up to 90° on 18th and 19th, and down to 32° on night of 24th. Froze ice and checked vegetation.

ALLERTON.—*Rex Shriver.* Very little damage done by frost, corn ripened fairly well.

ALTA.—*David E. Hadden.* First light frost of the season on the morning of the 25th. During thunderstorm on morning of the 16th lightning struck and burned a large barn near town.

ALTON.—*W. S. Slagle.* Killing frost of the 25th caught about 10 to 20 per cent of the corn unripe; soil is in fine condition for plowing.

AMANA.—*C. Schadt.* First and second decades were warm and helped the corn crop, which was belated. In the third decade the temperature dropped to near the freezing point, first ice of the season formed on 25th; soaking rains put the soil in workable condition.

AUDUBON.—*Geo. E. Kellogg.* Killing frost on the 25th did no damage to corn.

BONAPARTE.—*B. R. Vale.* Rain, 1.99; a cold, dry month; plowing and seeding difficult; no damage from frost.

BRITT.—*Geo. P. Hardwick.* All field crops are short, except hay and pasturage; frost cut off the already short corn crop, and prevented cutting a large acreage for fodder; flax, millet and buckwheat fair, but acreage small.

BOONE.—*Carl Fritz Henning.* Heavy frost on 25th damaged late corn to some extent.

CHARITON.—*C. C. Burr.* The freeze on 25th injured all late planted corn; on low lands all foliage was killed; pastures good.

ELMA.—*H. A. Moore.* Storms on 17th and 18th did much damage; barns were struck; cattle and horses were killed by lightning.

FOREST CITY.—*J. A. Peters.* Killing frost on 25th; about 50 per cent of the corn crop was safe.

GRAND MEADOW.—*F. L. Williams.* The month was wet, with extremes of temperature; corn was killed by frost on 25th; about three-fourths of the crop was ripe; pastures are extra good.

GRINNELL.—*A. O. Price.* Average temperature was 1° below the ten years' normal; rainfall was one-half inch below average; pasture are good.

HANCOCK.—*W. Armstrong.* Corn was doing nicely at close of September; potato crop is fair; oat crop very light.

HOPEVILLE.—*M. L. Ashley.* On the morning of the 25th a white frost occurred; heavier on low ground; no harm done on uplands; corn is safe, and considerable cut.

HUMBOLDT.—*H. S. Wells.* Very little corn was cut up before the frost on the 25th, but much has been cut since.

INDIANOLA.—*John L. Tilton.* A very severe hailstorm passed northwest-southeast across the county on evening of the 7th, the path being about 1 to 3 miles wide. It passed about 3 miles northeast of Indianola. It was destructive to corn, and dented pumpkins.

INWOOD.—*F. B. Hanson.* First half of month was quite warm and dry; heavy thunderstorms occurred 14th to 19th. About 85 to 90 per cent of corn was safe from damage by the first frost on 25th and 26th.

OLIN.—*N. Potter.* A very favorable month for farm work and ripening the corn crop up to the 25th; last five days wet and cloudy.

PACIFIC JUNCTION.—*H. H. McCartney.* Unseasonable weather, hot and cold, dry and wet; do not remember a similar September, though I can recall weather conditions since 1855.

PLOVER.—*J. S. Smith.* Hail on the 7th, about 8 miles in width, started in Palo Alto county 15 miles northwest, causing almost total loss of corn which was in milk at that time.

POCAHONTAS.—*F. E. Hronek.* Frost on 25th killed garden truck and damaged late corn; about 75 per cent was out of danger.

RIDGEWAY.—*Arthur Betts.* Temperature of September, 2° below normal; 255 hours of sunshine; frost on 25th ruined the corn crop. Rainfall for the last 4 months was 25.59 inches.

SHELDON.—*A. W. Beach.* A good month to mature late corn, and most of it was safe; a good crop of potatoes being harvested; soil is in good condition to finish fall plowing.

WAUKEE.—*E. J. Leonard.* Heavy frost on 25th killed most vegetation, except on very high and protected ground; very little damage to corn, however.

WAVERLY.—*H. S. Hoover.* A cloudy month and cooler than the average; a heavy frost on 25th killed all delicate plants; no corn escaped on high or low lands.

ZEARING.—*Ward C. Bean.* Frost on 25th did considerable damage to corn, injuring it for shocking.

CLIMATOLOGICAL DATA FOR SEPTEMBER, 1907.

SOUTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)	No. rainy days	Number clear days	Number partly cloudy days	Number cloudy days	
Afton	Union	1,212	12	65.0	-0.1	92	1, 18	35	25	42	2.35	-1.52	0.96	....	5	14	7	9	SW	
Albia	Monroe	959	9	63.6	-0.6	90	1, 17, 18	32	25	34	1.60	-2.32	0.63	....	7	15	8	7	W	
Allerton	Wayne	.....	5	64.9	-0.4	93	1	32	25	34	1.93	-2.78	0.76	....	8	22	3	5	NW	
Atlantic	Cass	1,164	14	63.0	†3.9	93	1, 6, 16, 18	27	25	48	3.00	†0.33	1.12	....	4	3	14	13	NW	
Bedford	Taylor	.....	7	64.5	†1.2	96	1	29	25	45	2.25	-1.27	0.98	....	7	16	6	8	S	
Bloomfield	Davis	881	....	65.0c	.....	91	16, 17, 18	34	25	34	2.96	.....	1.46	....	9	19	6	5	NW	
Bonaparte	Van Buren	.....	15	64.4	-3.3	90	18	33	25	30	1.99	-2.02	0.90	....	7	....	....	....		
Burlington	Des Moines	544	9	65.6	-0.7	93	1	36	25	33	1.89	-1.35	0.70	....	8	21	4	5	SW	
Chariton	Lucas	1,042	10	64.4	-1.2	92	1	31	25	37	2.07	-0.66	0.80	....	4	21	3	6	N	
Clarinda	Page	1,009	15	64.4	-1.6	98	1	33	25	43	2.95	†0.39	0.68	....	9	22	1	7	S	
Columbus Jct	Louisa	595	6	64.7	-0.1	90	1	33	25	39	1.62	-2.02	0.87	....	6	19	9	2	S	
Corning	Adams	1,117	13	63.4	-1.7	91	1	30	25, 26	41	2.30	-0.18	0.95	....	4	18	8	4	NW	
Corydon	Wayne	1,101	12	65.7	-0.8	94	1	34	25	36	1.92	-1.94	1.01	....	5	20	3	7	NW	
Creston	Union	1,312	2	62.4	.....	89	18	31	25	37	2.51	.....	1.02	....	6	19	2	9	NW	
Cumberland	Cass	.....	8	.....	.....	.....	.....	.....	.....	.....	3.38	†0.40	1.32	....	4	24	2	4	S	
Earlham	Madison	.....	5	64.8	†2.7	89	16, 18	33	21	40	3.03	-0.76	1.37	....	4	19	5	6	NW	
Elliott	Montgomery	.....	2	65.2	.....	94	16	32	25	44	2.80	.....	1.22	....	6	20	10	0	S	
Fort Madison	Lee	516	54	.....	.....	.....	.....	.....	.....	.....	1.56	-2.23	0.82	....	3	12	12	6		
Greenfield	Adair	.....	14	63.2	-2.6	89	1	34	25	38	3.12	-0.16	1.04	....	5	....	....	....	S	
Hancock	Pottawatta'e	1,113	1	63.4	.....	89	1, 15, 17, 18	33	25	33	3.46	.....	1.26	....	7	18	7	5	NW	
Hopeville	Clarke	.....	14	65.0	-1.1	93	1	35	25	37	1.89	-1.64	0.80	....	5	12	13	5	NW	
Indianola	Warren	969	16	64.4a	-1.2	90	18	35	25	30	2.03	-1.02	0.86	....	10	....	....	....	NW	
Keokuk	Lee	614	36	66.6	†0.2	94	1	37	25	27	1.94	-2.03	0.64	....	9	17	7	6	NW	
Keosauqua	Van Buren	644	15	64.0	-3.4	97	1	33	25, 26	36	2.78	-1.70	1.21	....	8	7	16	7	S	
Lacona	Warren	.....	7	.....	.....	.....	.....	.....	.....	.....	4.96	†1.35	1.25	....	8	7	15	8		
Lenox	Taylor	1,250	10	65.0	-0.3	91	13	34	25	38	3.16	†0.19	0.95	....	8	20	5	5	S	
Leon	Decatur	1,120	5	66.6	†1.8	91	1	38	24	32	2.22	-2.58	0.75	....	7	23	2	5	S	
Mt. Ayr	Ringgold	1,236	11	65.6	-1.1	96	1	37	25	38	2.85	-0.32	1.08	....	8	16	8	6	SW	
Mt. Pleasant	Henry	729	23	65.5	-1.9	91	1, 18	34	25	29	2.04	-1.32	0.80	....	8	14	11	5	NW	
Omaha, Neb	Douglas	1,105	35	66.2	†0.4	92	17	41	28	36	2.35	-0.68	0.83	....	6	9	12	9	S	
Pacific Jct	Mills	960	8	64.0	-0.1	91	16, 17, 18	33	25	45	3.99	†1.67	1.90	....	8	13	14	3	S	
Pella c	Marion	877	4	66.0	.....	92	18	36	25	35	2.70	.....	1.75	....	9	....	....	....		
St. Charles	Madison	1,070	6	65.2	-0.2	92	16	35	25	37	1.99	-1.65	0.85	....	9	19	7	4	SW	
Sigourney	Keokuk	877	8	64.8	-0.3	91	18	32	25	33	2.71	-0.26	1.15	....	9	1	24	5	NW	
Stockport	Van Buren	.....	5	64.9	.....	90	18	35	25	29	2.66	-2.62	0.88	....	10	20	3	7	S	
Thurman	Fremont	.....	9	65.2	-0.6	98	1	34	25	42	4.75	†1.54	1.30	....	7	12	10	8	NW	
Wapello	Louisa	588	7	65.3	†0.3	88	1, 18, 19	37	25	29	2.21	-0.71	1.30	....	7	12	14	4	W	
Washington	Washington	769	23	63.4	-1.6	89	1, 18	32	25	31	1.38	-1.24	0.78	....	7	8	20	2	SW	
Winterset	Madison	1,129	14	64.5	-0.7	89	17, 18	36	25	34	2.45	-0.90	0.90	....	8	16	8	6	S, NW	
Average				64.7	-0.5	91.9	.....	33.8	.....	36.3	2.54	-0.95	.....	....	7	16	9	5	NW	
State aver				62.8	-0.7	89.5	.....	31.8	.....	36.3	2.75	-0.61	.....	....	8	15	9	6	NW	

NORTHERN SECTION.

Algona	Kossuth	1,213	31	60.6	-1.9	86	18	29	25	35	1.51	-1.65	1.07	....	5	17	6	7	NE	
Alta	Buena Vista	1,513	14	61.0	-2.2	89	18	34	25, 28	38	1.45	-1.22	0.34	....	6	13	12	5	S	
Alta [near]	Buena Vista	.....	12	.....	.....	.....	.....	.....	.....	.....	2.36	.....	0.60	....	11	....	....	....		
Alton	Sioux	1,305	....	61.1	.....	88	13	32	25	36	2.92	.....	2.17	....	7	14	9	7	NW	
Britt	Hancock	1,236	8	59.9	-1.7	88	18	28	25	37	1.82	-2.23	0.88	....	9	2	22	6	NW	
Charles City	Floyd	1,015	20	59.2	-2.5	83	15	29	25	31	3.65	†0.45	1.25	....	9	4	16	10	NW	
Clear Lake	Cerro Gordo	1,241	8	62.0	-1.4	87	14	35	25	42	1.80	-1.78	0.80	....	5	20	1	9	S	
Decorah	Winneshiek	875	11	60.0	-1.9	86	1	31	25	30	5.75	†2.31	2.51	....	8	....	....	....		
Dows	Wright	1,142	7	60.6	-1.3	88	18	26	25	39	2.13	-1.55	0.73	....	8	17	6	7	NW	
Elkader	Clayton	727	24	62.2	†0.2	89	13	29	25	38	4.07	†0.25	1.65	....	9	15	13	2	SE, NW	
Elma	Howard	.....	....	58.5b	.....	82	15	25	25	34	2.63	.....	1.17	....	11	14	14	2	N	
Estherville	Emmet	1,298	10	58.8	-1.1	87	18	31	25	35	1.95	-1.15	1.00	....	4	17	0	13	E	
Fayette‖	Fayette	1,003	17	59.7a	.....	85	15	27	25	36	3.58	.....	1.08	....	8	18	7	5	NW	
Forest City	Winnebago	1,226	11	60.0	-2.3	88	18	31	25	36	1.73	-2.09	1.55	....	5	18	2	10	SW	
Grand Meadow	Clayton	1,180	14	60.6	-1.1	83	15, 16	32	25	27	4.64	†1.47	1.50	....	9	8	15	7	NW	
Greene	Butler	.....	8	61.2	.....	87	16	30	25	35	2.68	-0.66	1.14	....	9	2	12	16	W	
Hampton	Franklin	1,155	15	62.4	†0.1	89	18	33	25	34	2.66	-0.84	1.00	....	9	12	12	6		
Humboldt	Humboldt	1,095	13	61.6	-0.7	87	18	31	25	37	1.65	-1.79	0.75	....	8	22	3	5	SE	
Inwood	Lyon	1,474	3	60.6	.....	90	13	26	28	40	3.38	.....	1.11	....	11	18	6	6	S, NW	
Le Mars	Plymouth	1,224	9	60.9	-2.0	86	18	30	28	36	1.59	-1.60	0.92	....	7	18	8	4	NW	
Mason City	Cerro Gordo	1,132	10	61.3	-1.7	84	15, 18	30	25	34	2.08	†0.23	0.98	....	10	12	13	5	NW	
New Hampton	Chickasaw	1,169	7	59.2	-3.4	82	1, 15	28	25	33	3.75	.....	1.42	....	10	16	8	6	NW	
Northwood	Worth	1,222	9	60.6d	†0.3	83	18	32	25	30	1.48	-2.01	0.63	....	8	18	8	4	NW	
Osage	Mitchell	1,184	14	60.2	†0.8	86	16	29	25	37	3.98	†0.48	1.30	....	7	12	8	10	NW	
Plover	Pocahontas	1,426	8	59.2	-4.2	89	19	26	24	43	2.85	-1.19	1.26	....	5	20	5	5	N	
Pocahontas	Pocahontas	.....	3	61.4	.....	90	18	30	25	34	1.97	.....	0.81	....	8	17	9	4	S	
Ridgeway	Winneshiek	1,215	9	61.2	-1.0	90	1, 16	28	25	37	6.06	†1.93	2.53	....	14	15	12	3	S	
Sheldon	O'Brien	1,422	7	61.4	-1.0	89	18	29	25, 28	42	3.03	-1.06	1.85	....	8	16	10	4	NE, S	
Sibley	Osceola	1,212	11	58.0	-3.2	86	13, 18	30	25, 28	39	3.45	†0.29	1.27	....	8	21	2	7	SE, NW	
Sioux Center	Sioux	.....	8	60.6	-0.1	86	13, 18	33	28	32	2.51	-1.87	2.15	....	6	16	7	7	SW	
Storm Lake	Buena Vista	1,440	10	63.8a	†0.3	95a	13	31	25	51	1.94	-1.08	9.60	....	9	18	9	4	NW	
Washta	Cherokee	1,157	9	60.4	.....	88	18, 19	27	25	51	1.62	-2.29	0.50	....	6	20	7	3	N	
Waverly	Bremer	948	9	61.4	-1.1	84	15, 16	32	25	29	2.65	-0.55	0.73	....	10	7	13	10	S	
West Bend	Palo Alto	1,197	11	60.2	-0.6	87	17	30	25	37	1.84	-1.34	1.22	....	8	8	15	7	S	
Average				60.8	-1.2	86.9	.....	29.9	.....	36.5	2.71	-0.66	.....	....	8	14	9	7	NW	

‖ Received too late to be computed with means. *a* one day missing, *b* two days; *c* three days, etc. † means plus.

CLIMATOLOGICAL DATA FOR SEPTEMBER, 1907—CONTINUED.

CENTRAL SECTION

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
Amana	Iowa	721	28	63.2	†0.5	88	1, 15, 18	31	25	31	4.18	†0.82	1.68	....	9	16	10	4	NW	
Ames	Story	926	23	62.4	-10	90	18	28	25	37	2.14	-1.39	0.90	....	9	16	10	4	N, S	
Audubon	Audubon	1,301	11	61.8	-1.6	90	17, 18	27	25	43	1.68	1.38	0.79	....	4	17	6	7	NW	
Baxter	Jasper	998	7	62.3	-0.1	89	18	30	25	38	2.44	-0.67	1.03	....	12	15	11	4	NW	
Belle Plaine	Benton	828	15	62.6	-1.1	87	15, 18	31	25	32	3.85	†0.95	1.85	....	8	12	9	9	S, NW	
Boone	Boone	1,134	2	62.8	.....	90	18	34	25	38	2.66	.....	0.75	....	10	16	8	6		
Buckingham	Tama	.....	7	.....	.....	.....	.....	.....	.....	.....	3.32	†0.43	2.00	....	4	10	17	3		
Carroll	Carroll	1,265	17	61.2	-1.9	87	17, 18	30	25	36	2.22	-0.90	0.81	....	10	18	3	9		
Cedar Rapids	Linn	733	25	63.0	-0.6	90	16, 18	34	25, 26	35	5.22	†2.33	2.01	....	9	8	19	3		
Clinton	Clinton	593	37	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....		
Davenport	Scott	606	36	64.0	-0.7	91	1	36	25	27	3.55	† .41	1.53	....	11	12	12	6	NW	
Delaware	Delaware	1,083	14	61.2	-0.2	87	1	32	25	27	4.80	†1.56	1.21	....	10	11	15	4	NW	
Denison	Crawford	1,180	11	62.8	-0.6	88	16, 17	30	25	46	2.43	-0.28	0.82	....	6	24	3	3	N, S	
Des Moines	Polk	861	28	63.8	-1.2	90	18	35	25	37	2.40	-0.67	0.92	....	6	11	12	7	NW	
De Soto	Dallas	866	7	63.6	-1.2	90	18	32	25	38	3.14	†0.06	1.26	....	6	19	2	9	SW	
Dubuque	Dubuque	698	34	61.7	-1.9	88	1	36	25	27	6.01	†2.42	2.05	....	14	8	11	11	NW	
Fort Dodge	Webster	.....	...	61.4	-1.2	91	18	30	25	38	1.97	-2.60	0.70	....	7	21	2	7	SW	
Gilman	Marshall	1,052	8	.....	.....	.....	.....	.....	.....	.....	2.98	†0.35	1.75	....	8	10	17	3	SW	
Grinnell	Poweshiek	1,023	12	63.8	†0.4	91	18	28	25	36	2.09	-0.37	1.35	....	9	14	10	6	N	
Grundy Center	Grundy	976	14	62.6	-0.3	90	18	31	25	34	2.81	-0.51	0.95	....	7	21	5	4	S	
Guthrie Center	Guthrie	1,077	9	63.8	†0.3	90	18	30	25	37	2.38	-1.08	0.98	....	10	18	7	5	SW	
Harlan	Shelby	1,192	8	63.0	†0.9	92	16	29	25	44	2.14	-1.86	1.00	....	8	12	10	8	S	
Indep'dence	Buchanan	921	41	61.5	†0.1	88	17	30	25	31	4.04	-0.66	1.40	....	10	17	4	9	NW	
Iowa City	Johnson	683	46	63.7	†0.3	92	18	33	25	37	2.85	-0.98	0.90	....	10	18	3	9		
Iowa Falls	Hardin	1,170	12	60.4	-1.2	87	18	28	25	37	2.01	-1.31	0.80	....	7	22	3	5	NW	
Jefferson	Greene	1,052	2	63.8	.....	93	1	31	25	41	2.71	.....	0.89	....	6	16	10	4	N	
Le Claire	Scott	576	8	.....	.....	.....	.....	.....	.....	.....	4.84	.....	.....	.....	11	16	7	7	SW, W	
Little Sioux	Harrison	.....	2	64.9	.....	93	17	31	25	46	1.96	.....	0.72	....	6	19	6	5	SE	
Marshalltown	Marshall	947	12	62.1	-2.1	89	18	30	25	35	2.59	-0.08	0.99	....	8	16	3	11	S	
Mt. Vernon	Linn	947	38	62.9	†1.2	90	1	32	25	33	4.65	†1.84	1.70	....	12	....	....	....		
Nevada	Story	996	2	.....	.....	.....	.....	.....	.....	.....	2.41	.....	1.43	....	5	19	6	5		
Odebolt	Sac	1,356	8	62.8	-0.3	92	17	32	25	41	4.00	†0.85	2.42	....	9	14	12	4		
Olin	Jones	760	8	c63.1	†1.6	88	1, 16	31	25	.....	5.71	†1.33	3.15	....	9	....	....	....	NW	
Onawa	Monona	1,051	7	65.6	†1.5	93	19	38	25	38	2.02	-0.75	0.70	....	9	22	5	3	NW	
Perry	Dallas	975	6	62.8	-1.6	90	18	32	25	39	2.37	-0.33	0.73	....	....	....	....	....		
Rockwell City	Calhoun	.....	10	63.0	-1.2	90	17, 18	37	25	38	2.51	-0.56	1.25	....	6	....	....	....		
Sac City	Sac	1,356	25	61.9	†0.3	87	18	32	25	36	2.80	-0.49	1.11	....	7	18	7	5	SW	
Sioux City	Woodbury	1,135	16	62.0	-2.1	90	18	33	25	38	2.03	-0.44	0.75	....	10	11	12	7	NW	
Stuart	Guthrie	1,216	8	63.8	-3.6	90	18	36	25, 26	37	1.68	-0.18	0 88	....	2	16	7	7	N	
Tipton	Cedar	807	9	65.0	†0.3	93	1	37	25	28	3.74	†0.55	0.90	....	7	17	11	2	NW	
Toledo	Tama	856	12	62.4	-1.7	88	18	31	25	35	2.70	-0.41	1.25	....	7	20	7	3	NW	
Waterloo	Black Hawk	862	18	63.1	†0.7	88	15, 16	32	25	33	3.26	-0.23	1.13	....	12	20	5	5	NW	
Waukee	Dallas	1,039	4	63.8	.....	92	18	34	25	37	3.55	.....	1.06	....	8	21	6	3	NW	
Webster City	Hamilton	.....	2	62.6	.....	91	16	27	25	41	2.11	.....	1.01	....	3	15	10	5	NW	
Whitten	Hardin	1,036	7	62.0	-0.6	89	1, 18	30	25	33	2.63	-0.89	0.91	....	6	14	13	3	NW	
Wilton Junct'n	Muscatine	683	10	63.6	-0.7	90	1	37	22	32	3.38	†0.20	1.00	....	9	15	9	6	W	
Zearing	Nevada	718	3	62.4	.....	90	18	28	25	37	2.10	.....	0.80	....	8	16	10	4	NW	
Average	.....	.....	....	62.9	-0.5	89.8	.....	31.8	.....	36.2	3.02	-0.21	.....	....	8	16	8	6	NW	

| Received too late to be computed with means. *a* one day missing; *b* two days; *c* three days, etc. † means plus.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF SEPTEMBER, 1907

STATIONS		DAY OF MONTH																														MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Afton	max	92	76	78	70	80	82	86	78	73	70	78	83	85	85	88	90	91	92	84	77	73	72	87	77	65	61	56	60	54	55	76.6
	min	66	61	51	50	49	52	62	53	52	45	48	49	60	59	64	69	67	70	67	55	45	39	45	57	35	49	48	45	40	49	53.4
Albia	max	90	73	76	69	75	79	84	70	70	67	76	82	84	84	87	88	90	90	87	68	75	69	79	61	62	62	55	61	58	56	74.2
	min	69	62	47	51	49	53	63	51	46	49	46	48	60	59	63	67	69	71	69	64	47	39	45	52	32	35	47	47	42	46	52.9
Algona	max	80	71	70	69	74	73	76	66	68	67	75	78	82	81	83	80	84	86	83	75	62	66	74	64	64	68	56	61	50	49	71.2
	min	65	54	49	55	48	52	60	47	44	41	43	50	61	57	59	65	60	68	65	48	43	37	39	41	29	48	47	36	41	43	49.9
Allerton	max	93	78	77	70	79	80	86	75	76	69	80	79	85	85	88	91	90	90	85	77	76	71	80	75	65	61	57	62	57	57	76.5
	min	69	62	46	51	49	53	60	55	47	49	46	51	60	57	63	71	67	68	67	60	46	38	46	54	32	49	48	48	40	48	53.3
Alta	max	82	73	73	69	75	78	80	72	66	66	78	84	86	82	82	80	87	89	85	67	61	72	78	55	67	68	54	64	51	52	72.5
	min	63	54	48	51	54	56	58	45	45	45	50	51	57	59	59	63	60	61	68	47	45	39	40	41	34	37	45	34	35	40	49.5
Alton	max	81	73	72	69	74	81	83	70	67	69	78	82	88	73	79	77	86	87	86	67	63	72	78	71	67	70	61	63	59	48	73.1
	min	64	53	46	53	43	57	56	44	47	50	42	48	53	56	52	52	61	70	67	49	44	38	40	42	32	45	46	43	38	41	49.1
Amana	max	88	75	75	70	75	76	81	71	71	72	75	79	83	84	88	86	86	88	87	78	72	66	76	67	59	62	52	59	59	55	73.8
	min	69	61	48	54	48	49	62	59	44	49	46	48	57	58	64	70	67	66	68	59	44	37	46	47	31	43	49	47	38	48	52.5
Ames	max	81	72	75	70	77	76	82	70	70	67	78	81	85	85	85	88	88	90	86	77	69	68	81	70	65	65	50	64	56	51	74.1
	min	64	58	48	54	47	50	56	50	43	42	43	47	58	59	60	69	68	70	66	53	42	35	44	42	28	48	45	45	38	45	50.6
Atlantic	max	93	75	81	67	83	93	91	72	75	71	82	86	86	87	88	93	92	93	86	78	74	70	84	71	70	67	56	65	53	54	77.9
	min	64	60	39	41	40	46	55	44	46	39	34	42	62	60	62	69	67	70	67	50	37	30	43	44	27	45	46	36	35	44	48.1
Audubon	max	80	72	75	66	75	80	83	68	69	67	78	83	85	86	86	88	90	90	86	77	68	71	83	73	65	65	55	61	55	54	74.5
	min	66	59	43	47	43	47	58	49	45	42	35	43	58	60	63	64	64	69	66	51	38	31	45	49	27	43	47	38	37	44	49.0
Baxter	max	83	73	74	69	75	74	75	81	69	68	76	80	83	83	86	87	87	89	84	77	71	66	79	69	64	62	55	62	56	53	73.7
	min	65	57	47	51	49	51	57	52	44	46	45	48	59	59	62	67	64	69	66	55	43	34	41	46	30	46	46	44	40	45	50.9
Bedford	max	96	75	80	74	79	85	89	79	75	69	81	85	85	86	84	91	91	91	86	79	77	71	84	78	70	65	60	56	54	57	77.7
	min	62	62	45	49	47	50	56	51	51	45	40	49	61	57	63	70	66	71	67	55	40	33	39	52	29	51	49	42	38	50	51.3
B. Plaine	max	86	78	72	73	70	73	80	70	71	72	75	79	83	86	87	85	83	87	83	80	70	69	71	59	60	59	60	57	54	55	72.9
	min	69	60	55	50	60	47	58	56	44	47	45	50	58	58	63	68	68	65	67	60	46	37	44	46	31	45	46	45	37	46	52.4
Bloomfi'd	max	..	..	..	..	..	..	86	77	73	72	80	85	85	87	90	91	91	91	90	77	79	71	81	65	65	59	58	58	60	59	76.2
	min	70	61	49	53	52	54	60	57	47	47	48	52	59	58	64	69	68	70	69	56	48	41	47	44	34	48	48	47	42	48	53.7
Bonapa'e	max	89	80	75	72	75	77	86	73	71	72	75	80	82	83	87	86	88	90	88	75	77	68	78	70	62	61	61	57	62	60	75.3
	min	63	61	49	53	52	49	61	61	47	46	49	52	53	58	64	68	68	69	68	60	49	38	48	53	33	48	49	49	37	50	53.5
Boone	max	84	73	76	71	75	76	84	69	70	67	78	82	85	85	86	89	89	90	82	70	69	68	81	59	65	60	50	63	55	54	73.5
	min	69	60	50	53	52	54	59	52	50	46	46	50	58	62	62	69	63	63	68	53	45	41	43	47	34	35	47	43	43	44	52.0
Britt	max	78	70	68	75	76	75	74	65	70	68	75	80	84	82	85	80	85	88	84	62	61	65	59	53	65	69	56	61	54	52	70.6
	min	66	54	48	55	47	54	57	48	43	40	40	50	61	58	60	62	60	65	65	48	41	35	41	38	28	49	46	37	40	40	49.2
Burl'g'n	max	93	79	77	76	77	81	88	70	71	77	77	83	84	85	88	88	90	91	90	78	79	70	78	65	65	63	59	53	67	61	76.8
	min	72	64	50	52	51	53	55	62	50	52	49	53	58	59	62	67	70	70	70	65	50	39	45	50	36	37	49	50	44	46	54.3
Carroll	max	80	75	76	69	74	79	82	69	68	68	76	81	83	82	84	86	87	87	83	68	67	71	79	57	64	62	50	62	54	53	72.5
	min	69	57	46	50	47	51	59	47	46	42	41	48	58	62	64	68	61	62	69	48	43	37	43	45	30	35	47	37	39	48	50.0
Cedar R.	max	88	74	75	71	77	78	80	71	75	72	77	83	84	87	90	87	87	90	89	70	71	66	74	58	63	63	53	58	59	56	74.2
	min	70	62	53	52	52	51	53	60	46	46	49	48	51	60	60	66	69	65	65	64	48	39	40	47	34	34	48	47	39	39	51.9
Chariton	max	92	78	77	68	76	80	85	77	75	69	81	84	85	86	89	91	91	91	86	75	75	71	81	77	65	59	54	61	59	55	76.4
	min	67	59	47	50	49	52	58	54	48	49	44	51	60	57	61	68	67	69	66	58	43	37	44	52	31	47	47	46	38	49	52.3
Ch'rls Cty	max	80	69	68	68	72	69	71	65	70	67	74	79	82	82	83	83	80	82	82	67	62	63	71	52	60	65	56	60	58	54	69.8
	min	63	50	49	53	49	50	59	44	44	42	43	48	59	61	62	61	61	64	66	44	38	37	42	34	29	47	46	40	38	39	48.7
Clarinda	max	98	77	82	69	82	86	92	82	75	74	82	86	87	87	88	95	92	91	85	75	77	73	87	69	71	68	50	68	54	60	78.7
	min	63	63	47	48	47	49	52	51	51	49	43	46	54	56	57	66	66	62	66	54	43	37	44	47	33	36	49	40	40	44	50.1
Clear La'e	max	76	70	70	70	75	70	74	68	70	84	65	80	83	87	82	84	82	86	83	75	70	73	72	60	60	67	56	60	57	55	72.1
	min	65	55	52	55	52	52	54	55	48	42	55	52	58	60	65	65	60	65	67	52	49	45	44	41	35	49	46	40	45	38	52.0
Colum's J	max	90	80	74	71	75	79	83	73	72	70	75	80	81	82	87	85	87	89	87	78	75	66	76	72	72	63	57	56	64	63	75.4
	min	70	63	49	52	51	52	61	60	48	49	48	53	58	58	65	68	69	69	69	61	49	39	47	46	33	46	48	48	41	50	54.0
Corning	max	91	74	77	67	74	81	85	69	71	69	77	83	83	84	86	89	88	88	81	76	71	70	84	76	65	63	57	61	56	57	75.1
	min	66	60	45	46	44	52	66	52	53	45	41	52	61	59	63	69	66	71	67	54	43	36	43	51	30	30	48	43	43	49	51.6
Corydon	max	94	81	82	71	79	81	88	79	75	71	82	85	85	86	88	91	90	91	86	79	77	72	82	74	67	59	56	66	58	56	77.7
	min	68	57	47	50	50	53	61	55	47	49	47	53	61	59	64	70	68	69	68	59	47	39	46	52	34	50	48	48	42	49	53.7
Creston	max	89	75	76	67	75	79	85	71	69	67	71	82	84	85	87	88	88	89	82	72	71	70	80	61	63	60	50	61	53	56	73.5
	min	67	63	57	48	48	50	58	52	51	43	46	48	55	58	59	58	67	68	66	56	42	37	43	45	31	40	48	44	40	48	51.2
Dav'np'rt	max	91	75	73	68	74	76	82	72	72	65	74	80	80	83	86	86	81	84	87	78	74	66	74	60	59	60	57	55	60	60	73.1
	min	70	56	52	55	52	56	63	55	51	55	51	57	61	62	67	70	67	65	71	57	47	42	50	41	36	48	49	49	43	50	54.9
Decorah	max	86	75	67	69	71	68	71	64	70	68	72	77	80	82	84	83	80	83	85	64	64	71	58	56	52	63	58	59	60	58	69.9
	min	68	56	51	55	46	47	59	52	43	43	45	47	58	64	65	71	60	62	52	44	37	46	42	41	31	45	48	45	37	39	50.0
Delaware	max	87	71	70	69	71	74	73	65	70	71	73	77	79	80	83	82	77	79	83	75	68	66	68	63	58	62	55	56	60	56	70.7
	min	69	58	48	54	47	52	56	55	44	49	47	50	58	58	62	68	63	62	67	58	45	47	42	43	32	43	50	44	38	45	51.8
Dennison	max	83	73	76	67	76	81	84	68	70	69	80	84	85	85	86	88	88	87	85	79	65	74	82	73	68	68	56	63	54	52	75.0
	min	69	58	46	48	44	53	59	47	46	43	39	53	62	63	66	69	62	70	68	50	40	36	36	45	30	45	47	35	43	44	50.7
Des Moins	max	86	74	77	68	75	78	83	69	70	67	78	82	85	85	87	89	89	90	84	70	71	67	82	65	63	60	52	63	57	54	74.0
	min	68	57	51	56	51	55	61	53	52	48	48	53	64	63	66	72	65	72	63	56	45	42	45	41	35	49	48	46	42	43	53.7
De Soto	max	83	74	75	67	73	78	82	68	69	67	76	82	84	84	87	89	89	90	83	77	71	69	83	73	65	59	52	62	56	54	74.0
	min	68	63	49	53	51	52	59	52	51	45	45	49	63	62	66	72	67	75	68	55	44	38	45	52	32	47	48	43	40	46	53.3
Dows	max	81	73	71	69	75	73	78	67	69	66	76	81	84	83	85	86	87	88	83	77	64	65	75	66	65	69	51	62	57	50	72.5
	min	62	56	45	54	48	47	56	49	41	38	39	46	59	59	63	65	60	66	66	49	40	34	39	42	26	47	46	38	37	43	48.7
Dubuque	max	88	71	68	68	71	73	74	67	71	69	72	79	79	82	84	84	77	78	85	69	71	64	69	59	57	61	51	57	62	58	70.6
	min	67	56	52	55	52	50	60	51	47	53	50	52	61	60	67	70	64	63	65	56	45	40	47	42	36	44	48	44	40	47	52.8
Earlham	max	87	84	80	76	76	79	83	67	72	68	78	83	84	85	87	89	88	89	76	75	70	76	78	70	69	76	70	75	82	80	78.4
	min	65	62	58	45	46	48	60	49	48	41	38	44	59	59	68	69	67	70	55	50	33	39	39	41	35	47	50	51	50	48	51.1
Elkader	max	86	75	71	71	72	71	75	71	76	72	76	83	89	86	87	86	82	78	85	78	69	65	71	59	61	67	50	64	62	56	73.1
	min	67	55	46	55	45	46	58	56	40	46	48	45	57	61	66	69	63	64	66	61	42	35	45	45	29	42	49	46	44	44	51.2
Elliott	max	93	76	77	68	78	82	87	78	74	74	86	86	88	88	90	94	91	91	87	77	70	72	84	68	68	68	58	62	58	55	77.6
	min	65	68	46	46	40	62	62	51	53	44	42	48	62	60	63	68	68	69	68	55	43	38	43	53	32	49	49	49	39	45	52.7
Elma	max	81	77	68	66	70	66	70	63	67	67	72	77	80	81	82	81	78	79	81	76	60	62	71	68	59	65	56	57	57	55	69.7
	min	..	..	..	..	45	49	58	55	38	39	39	46	49	60	61	66	60	63	66	52	39	33	40	42	25	45	45	41	35	38	47.3
Esth'rv'e	max	80	71	70	70	75	75	78	56	69	66	78	83	86	80	78	72	82	87	85	67	58	70	74	53	65	66	56	62	45	53	70.3
	min	64	52	49	54	45	47	54	46	43	49	43	51	55	54	51	48	59	61	65	46	44	40	40	39	31	38	44	34	35	37	47.3
Forest C'y	max	78	76	70	71	76	72	75	68	73	68	76	81	85	84	84	82	85	88	85	70	59	65	75	51	66	68	56	66	52	52	71.9
	min	55	52	53	57	48	50	54	47	42	37	44	46	54	59	59	64	60	60	64	49	43	38	39	40	31	36	46	37	37	39	48.0
Ft. Dodge	max	81	71	73	70	77	74	78	67	69	67	78	70	84	85	85	86	89	91	85	68	62	70	78	55	67	70	52	62	54	54	72.4
	min	68	58	49	53	49	50	50	49	49	44	43	45	52	61	65	69	62	70	69	50	47	40	42	43	30	32	48	39	40	44	50.3
Gr. Mead	max	82	70	69	69	71	70	72	65	70	71	72	77	79	80	83	83	78	77	82	77	65	65	65	58	56	62	55	58	60	56	69.9
	min	67	55	50	54	48	50	57	55	44	45	46	50	60	61	65	67	62	62	65	56	44	39	45	42	32	45	47	44	40	42	51.3
Greene	max	82	72	70	69	76	72	74	67	71	70	77	82	84	85	85	87	83	85	83	75	63	63	73	61	65	65	56	60	60	54	72.3
	min	67	55	49	53	49	50	59	52	45	43	43	47	59	59	61	61	62	63	66	51	42	37	42	42	30	47	48	39	39	42	50.1
Greenfi'ld	max	89	74	77	70	76	79	85	68	71	69	72	83	83	79	85	88	88	..	82	82	70	68	82	82	66	60	50	64	53	53	74.1
	min	67	62	48	48	48	54	63	49	51	42	47	54	63	60	65	70	70	..	61	50	46	45	44	44	34	48	47	43	45	45	52.2
Grinnell	max	86	78	75	68	76	78	81	71	71	69	76	82	85	84	88	88	90	91	87	79	72	67	79	69	63	63	51	63	57	56	74.8
	min	67	59	45	50	56	52	59	53	50	56	44	49	49	58	63	68	68	69	70	59	42	55	42	47	28	47	47	46	42	47	52.9
Grundy C.	max	84	75	72	70	75	76	77	69	73	70	78	81	84	84	86	89	86	90	85	79	67	66	76	68	64	69	51	51	57	53	73.5
	min	69	58	49	44	50	50	60	52	45	44	44	52	60	60	64	69	63	65	68	54	45	36	43	44	31	48	48	45	45	45	51.7
Guthrie C.	max	85	76	71	70	76	80	83	83	71	69	78	88	84	85	87	89	89	90	84	78	69	70	82	76	61	61	55	60	56	54	75.3
	min	69	60	46	52	48	52	64	50	50	42	41	51	64	63	66	71	66	73	69	53	42	35	43	50	30	47	48	40	40	45	52.3
Hampton	max	81	72	70	67	76	73	77	67	72	69	78	83	85	85	86	88	86	89	85	76	63	66	75	65	66	69	53	65	57	51	73.2
	min	67	56	50	55	50	52	60	51	46	43	46	53	60	61	65	67	61	64	68	51	47	40	41	42	33	48	48	40	42	43	51.7
Hancock	max	89	73	78	66	76	80	85	68	69	69	77	83	85	85	85	89	89	89	83	69	70	72	84	72	65	65	59	61	55	54	74.8
	min	66	62	46	50	46	52	60	50	51	45	44	54	62	61	64	68	68	70	60	52	45	39	45	51	33	48	46	39	42	45	52.1

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF SEPTEMBER, 1907—CONTINUED.

STATIONS		DATE																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	25	24	25	26	27	28	29	30		
Harlan	Max.	82	74	77	66	80	82	86	68	71	70	82	85	86	86	85	92	90	90	86	78	69	74	85	73	69	68	56	62	54	53	..	76.0
	Min.	65	60	44	49	44	50	56	50	48	42	38	47	62	60	64	64	64	69	68	51	40	34	41	47	29	46	46	38	39	44	..	50.0
Hopeville	Max.	93	74	79	68	82	83	86	71	77	70	82	85	87	87	90	91	92	92	85	77	75	75	83	70	67	61	55	61	54	56	..	76.9
	Min.	68	62	50	50	49	53	61	52	50	46	47	51	60	57	62	70	66	69	66	58	47	39	46	45	35	50	48	46	41	49	..	53.1
Humboldt	Max.	83	70	70	70	74	74	78	67	70	66	74	80	82	83	86	8	84	87	82	77	62	67	75	68	68	55	59	51	64	50	..	71.9
	Min.	67	56	50	56	50	50	59	48	48	44	42	50	62	60	64	64	60	68	68	50	45	39	43	44	31	48	38	44	45	44	..	51.2
Indep'd'e	max.	84	75	70	68	74	72	73	70	71	69	74	79	82	82	84	84	88	84	84	78	68	64	73	68	58	62	53	61	58	54	..	72.1
	min.	68	58	49	53	48	50	58	57	41	48	46	48	58	57	61	67	63	63	63	56	43	35	44	45	30	46	46	45	36	45	..	50.9
Indianola	max.	86	73	75	66	65	78	83	68	70	65	78	82	83	84	86	88	88	90	83	77	72	68	..	80	63	59	61	62	55	54	..	73.9
	min	69	61	50	53	52	55	62	53	52	43	48	54	63	62	66	76	69	72	69	56	47	41	..	46	35	49	48	47	43	48	..	54.8
Inwood	max.	89	77	76	70	76	88	86	72	68	75	83	84	90	68	74	76	84	80	86	68	64	75	79	65	69	67	55	66	55	51	..	73.9
	min.	59	47	44	44	40	52	53	41	42	47	44	54	66	53	50	56	60	66	64	45	46	41	39	39	31	45	44	26	41	38	..	47.2
Iowa City	max	91	76	76	72	77	77	83	72	77	71	79	85	86	87	88	87	89	92	90	71	74	69	76	60	66	61	53	58	59	57	..	75.3
	min.	69	63	49	53	51	51	54	60	47	48	48	48	50	57	59	68	67	66	68	65	46	38	42	48	33	35	48	48	39	45	..	52.1
Iowa Falls	max	82	70	71	69	75	75	77	67	71	68	75	80	82	83	84	86	85	87	83	68	65	65	75	55	62	67	51	60	59	51	..	71.6
	min	65	57	47	53	47	46	51	51	42	42	41	45	55	60	61	64	63	63	66	53	45	35	38	42	28	45	48	44	37	40	..	49.1
Jefferson	max	93	80	79	78	79	80	84	86	72	69	75	85	85	85	85	91	89	90	84	78	70	70	83	74	68	62	55	65	55	51	..	76.7
	min.	68	58	47	47	47	48	49	49	47	43	44	44	61	62	65	72	63	69	69	51	45	40	43	40	31	47	48	39	42	45	..	50.8
Keokuk	max	94	82	75	73	76	79	89	77	73	68	77	81	82	84	88	89	89	89	88	76	77	69	79	71	61	59	62	58	65	61	..	75.4
	min.	74	65	51	55	52	54	63	62	51	53	51	55	59	60	66	71	73	72	72	65	53	44	52	53	37	48	49	49	43	53	..	56.8
Keosa'q'a	max.	94	78	77	74	77	80	87	73	72	72	79	83	83	85	88	88	90	89	88	72	77	69	79	63	63	60	60	57	62	61	..	76.0
	min.	68	64	48	51	52	48	51	60	45	45	48	48	50	57	58	68	68	68	68	65	48	36	48	48	33	33	49	49	36	48	..	51.9
Le Mars	max.	84	72	72	67	72	79	82	70	65	70	75	79	85	76	80	78	82	86	84	73	60	72	78	76	64	65	60	60	54	48	..	72.3
	min.	63	52	46	50	43	56	56	45	45	49	40	54	65	55	50	61	62	70	69	49	47	42	42	44	32	45	45	30	38	41	..	49.5
Lenox	max.	90	78	78	74	75	81	85	80	69	67	77	82	91	83	85	88	87	88	85	79	72	70	82	79	64	61	58	61	56	56	..	76.0
	min.	68	64	49	50	49	52	61	52	53	44	47	53	77	60	64	70	66	70	67	55	46	41	44	51	34	50	47	43	42	50	..	54.0
Leon	max.	91	88	87	77	79	80	81	69	72	67	69	75	85	82	88	90	90	90	85	81	72	80	73	63	59	56	60	56	57	58	..	75.3
	min.	69	69	63	54	52	56	60	58	58	52	57	60	60	69	73	70	71	72	70	60	49	48	57	38	50	48	48	43	51	52	..	57.9
Lit. Sioux	max.	87	75	78	71	77	82	85	78	73	74	81	85	89	87	87	91	93	92	89	83	67	78	86	79	68	67	62	66	56	54	..	78.0
	min.	67	59	45	46	43	60	57	47	43	45	41	58	65	64	65	67	66	71	70	50	45	39	40	49	31	50	48	34	46	43	..	51.8
Mars'll't'n	max.	85	74	75	76	76	76	82	71	70	70	78	82	84	84	85	88	87	89	84	71	70	65	78	59	65	65	51	63	56	53	..	73.7
	min.	69	58	48	49	49	49	53	52	44	45	44	46	49	61	62	68	67	64	68	59	45	37	44	45	30	31	48	46	38	46	..	50.5
Mason C'y	max.	82	70	69	69	75	71	74	65	70	67	73	78	82	82	84	83	83	84	83	76	58	63	72	65	64	65	58	66	60	56	..	71.6
	min.	68	53	50	56	50	51	60	50	43	42	43	46	60	60	65	67	63	67	68	52	46	40	40	40	30	52	45	39	43	40	..	51.0
Mt. Ayr	max.	96	77	81	72	80	86	90	77	76	70	83	87	88	87	90	91	91	92	85	77	77	72	83	73	69	61	55	65	53	57	..	78.0
	min.	67	61	49	50	49	53	61	52	52	45	48	50	60	59	63	68	66	69	65	55	49	41	45	52	36	49	47	45	44	44	..	53.1
Mt. Pleas't	max.	91	81	75	72	75	79	85	74	73	72	75	80	81	84	88	87	89	91	89	80	75	68	77	72	60	63	61	56	64	62	..	76.0
	min.	70	62	50	52	51	53	69	61	48	50	49	53	58	59	65	69	69	70	69	62	50	40	48	54	34	48	48	48	41	50	..	55.0
Mt. Ver'n.	max.	90	76	72	69	75	72	79	70	76	68	77	82	81	83	85	85	84	87	85	77	71	63	69	66	65	60	55	58	58	58	..	73.2
	min.	69	61	50	55	49	53	58	58	46	51	46	53	54	56	63	68	64	63	67	60	45	37	46	46	32	45	47	46	42	47	..	52.6
N.Hamp'n	max.	82	71	67	67	71	67	69	66	73	66	71	73	76	78	82	80	78	78	80	75	61	62	61	70	57	66	61	66	57	55	..	69.5
	min.	67	51	50	50	47	51	58	55	44	43	44	48	49	58	60	65	61	63	60	53	40	31	40	40	28	45	47	42	41	39	..	49.0
Northw'd	max.	78	69	68	66	73	69	72	65	67	67	73	78	81	81	82	77	79	83	82	75	55	..	72	..	62	65	56	..	53	55	..	70.5
	min.	66	53	52	51	50	52	59	50	44	40	46	51	60	..	65	63	60	63	65	50	43	..	..	40	32	45	44	..	40	37	..	50.8
Odebolt	max.	87	74	77	70	80	83	86	70	74	70	83	88	88	88	87	90	92	91	87	80	65	74	80	75	70	70	67	66	55	50	..	74.3
	min.	68	56	48	50	47	53	60	46	48	44	42	54	53	62	65	67	62	69	67	48	45	39	44	44	32	44	48	44	44	42	..	51.2
Olin	max.	88	78	73	69	74	75	78	69	70	63	70	76	78	79	84	88	82	82	85	77	70	64	70	64	55	61	53	..	..	..	..	73.1
	min.	63	58	48	59	48	49	59	56	45	56	47	47	55	56	63	70	68	65	67	60	44	36	46	49	31	41	48	..	..	..	..	53.1
Omaha, N	max.	84	74	79	66	75	82	84	68	67	73	78	82	89	88	86	91	92	91	88	71	68	79	86	69	65	66	53	64	53	57	..	75.6
	min.	68	64	56	54	54	62	64	54	51	51	53	59	65	65	65	72	70	73	69	54	54	50	50	47	44	51	48	41	48	47	..	56.8
Onawa	max.	89	77	77	73	76	84	83	73	70	74	81	84	89	85	83	88	91	93	87	75	68	78	85	77	68	65	63	64	59	53	..	77.1
	min.	68	61	51	54	48	60	61	51	50	52	47	54	65	62	60	67	66	71	71	52	50	43	47	50	38	48	50	39	46	44	..	54.2
Osage	max.	83	74	70	72	78	67	76	68	71	69	79	82	82	82	83	86	81	83	83	77	64	62	75	67	66	60	56	65	51	55	..	72.2
	min.	65	52	49	52	48	49	56	51	39	38	44	48	59	57	60	66	59	62	62	48	39	34	40	37	29	46	42	37	39	35	..	48.1
Pacific Jc.	max.	88	74	78	67	77	81	84	70	67	73	78	84	87	87	87	91	91	91	90	78	70	77	85	70	70	70	58	65	53	55	..	76.5
	min.	65	60	48	47	44	55	57	49	49	45	41	53	63	59	63	65	66	69	69	53	46	37	40	49	33	47	47	35	40	48	..	51.4
Pella	max.	90	81	77	73	77	81	85	77	73	..	..	..	85	86	89	91	91	92	86	81	73	69	80	75	65	63	53	65	57	56	..	76.7
	min.	70	64	49	55	52	54	62	55	56	..	..	..	60	60	65	70	69	72	69	59	47	40	45	51	36	48	47	47	42	48	..	55.3
Perry	max.	82	72	76	69	75	78	82	68	69	68	77	82	84	84	86	87	87	90	83	76	68	68	81	70	64	61	53	61	57	53	..	73.7
	min.	67	58	47	53	48	52	58	50	46	43	49	49	63	61	64	69	65	70	67	53	43	37	42	46	32	47	48	41	41	46	..	51.8
Plover	max.	80	77	70	72	78	76	80	68	70	58	68	80	83	85	81	85	87	88	89	74	63	66	76	66	63	73	70	60	50	43	..	72.6
	min.	63	53	44	50	44	48	57	42	42	40	40	48	52	53	54	55	61	62	64	43	37	32	33	26	38	40	41	30	42	39	..	45.8
Pocahon's	max.	82	73	72	70	75	77	80	66	71	66	78	82	85	84	86	80	87	90	85	67	69	72	69	64	67	67	55	60	53	48	..	72.7
	min.	64	55	47	53	45	54	59	46	50	45	44	52	56	65	59	63	60	68	67	47	40	41	40	37	30	47	47	34	42	42	..	50.0
Ridgeway	max.	90	75	71	71	76	66	75	70	74	74	77	80	84	85	86	90	80	79	82	75	67	65	71	57	65	64	55	62	61	59	..	72.9
	min.	64	54	50	54	48	53	58	48	43	43	45	50	59	60	63	65	59	62	68	50	42	35	42	38	28	40	45	43	40	35	..	49.5
Rock'll Cy	max.	80	75	74	76	78	80	84	68	70	68	70	80	85	85	89	85	90	90	85	78	65	68	80	73	60	68	60	60	50	50	..	74.1
	min.	65	61	55	48	50	58	60	45	48	44	45	50	55	62	60	68	65	68	68	48	48	42	42	43	37	48	48	44	38	43	..	51.9
Sac City	max.	80	70	72	68	74	78	83	78	69	65	75	80	84	82	83	82	86	87	84	74	63	70	78	72	64	66	58	60	53	50	..	72.9
	min.	65	55	47	53	47	51	59	58	46	44	44	49	60	60	64	65	61	70	70	48	45	39	42	43	32	45	47	36	43	40	..	50.9
St. Charl's	max.	90	74	79	69	78	80	86	71	73	69	80	85	86	87	89	92	90	90	83	77	73	70	83	73	66	57	52	63	55	55	..	75.8
	min.	70	59	50	53	52	55	63	53	53	47	48	55	63	61	66	72	69	71	69	57	47	42	46	45	35	49	47	46	44	48	..	54.5
Sheldon	max.	83	74	72	79	79	81	85	72	76	70	82	85	88	72	78	78	87	89	86	72	65	74	79	70	70	73	59	68	58	49	..	75.1
	min.	61	45	44	54	55	53	55	43	43	46	43	48	63	53	51	58	61	65	69	46	43	38	37	39	29	43	43	29	38	40	..	47.8
Sibley	max.	81	72	69	69	75	78	82	68	66	66	78	84	86	67	72	72	82	86	85	66	60	71	76	54	66	67	54	63	43	53	..	70.4
	min.	60	50	45	47	42	42	56	44	44	48	44	45	53	53	53	56	57	59	68	46	43	37	40	38	30	31	41	30	31	38	..	45.7
Sigourn'y	max.	89	79	77	72	76	78	83	75	72	71	78	83	85	86	88	88	89	91	88	81	74	69	80	72	64	63	56	59	60	58	..	76.1
	min.	68	62	49	53	51	52	60	59	46	48	48	51	58	57	63	69	69	69	68	61	47	38	46	51	32	48	48	47	39	49	..	53.5
Sioux Cen	max.	81	72	72	69	75	81	83	68	67	70	78	82	86	72	76	76	83	86	84	67	59	72	77	66	66	68	56	62	52	48	..	71.8
	min.	62	52	52	52	47	55	55	45	42	49	47	53	63	53	52	59	61	67	67	43	43	40	40	49	35	40	45	33	37	41	..	49.3
Sioux City	max.	80	75	75	67	74	85	82	68	66	72	79	82	89	77	83	84	89	90	87	69	62	75	82	61	66	66	53	63	51	54	..	73.5
	min.	63	54	49	52	46	60	57	47	44	46	41	58	63	56	53	64	62	71	62	51	49	43	48	38	33	49	42	35	40	43	..	50.6
Stockport	max.	89	85	73	70	73	77	83	73	71	69	74	81	82	83	87	86	89	90	89	75	75	67	78	69	59	59	59	58	60	60	..	74.8
	min.	71	63	51	64	53	49	62	59	47	49	50	52	58	58	65	69	69	70	69	63	50	39	50	50	35	49	49	48	38	50	..	55.0
Storm L.	max.	92	..	86	82	88	86	95	86	70	84	89	94	95	94	84	88	86	92	89	69	64	72	80	69	73	71	58	70	53	47	..	79.5
	min.	64	54	46	52	45	55	56	43	44	46	43	43	61	62	56	44	63	68	45	54	43	39	40	41	31	46	46	34	40	39	..	48.1
Stuart	max.	85	73	76	69	76	79	82	70	72	68	77	81	85	85	87	88	89	90	85	80	75	71	81	71	64	62	50	59	56	56	..	74.7
	min.	64	64	51	53	51	51	63	51	52	45	57	55	59	58	58	69	66	70	68	54	46	44	44	51	36	36	45	42	43	45	..	53.0
Thurman	max.	98	74	78	70	74	82	85	68	67	68	70	82	88	87	87	90	91	91	88	82	70	77	85	68	65	68	60	62	54	58	..	76.2
	min.	65	62	48	49	45	54	58	54	51	50	48	60	66	67	68	69	72	73	71	55	44	38	43	51	34	50	49	40	39	50	..	54.1
Tipton	max.	93	79	75	68	77	76	82	74	69	75	77	80	82	84	87	84	85	87	86	77	75	65	77	66	64	58	52	57	58	57	..	74.2
	min.	73	65	54	56	53	56	59	60	55	52	51	55	59	59	65	68	67	65	70	63	49	42	49	50	37	48	48	48	44	51	..	55.7
Toledo	max.	85	73	72	68	72	74	79	71	71	67	73	79	83	83	85	85	87	88	85	80	70	67	74	67	60	62	51	61	56	55	..	72.8
	min.	72	59	48	53	49	49	59	55	43	48	44	44	59	60	65	70	66	67	69	59	45	35	45	46	31	47	47	45	36	46	..	52.0
Wapello	max.	88	82	73	71	74	72	83	73	71	68	75	79	81	82	85	87	87	88	88	80	79	66	75	68	60	59	56	57	58	58	..	74.0
	min.	71	65	57	55	57	53	63	63	51	54	51	54	60	61	67	71	72	70	71	63	50	41	51	52	37	47	48	50	42	51	..	56.6
Wash'g'n	max.	89	75	75	70	73	75	83	71	70	71	76	80	82	84	88	85	88	89	88	75	75	67	77	65	61	61	56	56	60	59	..	74.1
	min.	69	56	48	52	50	52	62	55	46	49	47	52	58	58	64	69	68	69	69	56	47	38	46	43	32	46	48	47	39	50	..	52.8
Washta	max.	84	74	76	69	68	80	85	70	70	72	80	80	83	82	80	86	84	88	88	69	66	84	68	70	70	70	56	66	50	50	..	73.9
	min.	62	52	40	49	39	56	54	40	42	48	37	48	50	52	52	60	61	70	64	50	40	33	42	46	27	40	42	29	40	40	..	46.8
Waterloo	max.	87	75	75	73	77	75	77	70	77	75	78	83	85	86	88	88	85	86	86	71	71	67	75	60	65	66	51	64	59	55	..	74.3
	min.	69	59	50	53	50	51	55	56	44	47	46	48	58	60	62	68	65	65	65	69	46	38	45	45	32	33	48	46	39	46	..	51.9

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF SEPTEMBER, 1907—CONTINUED.

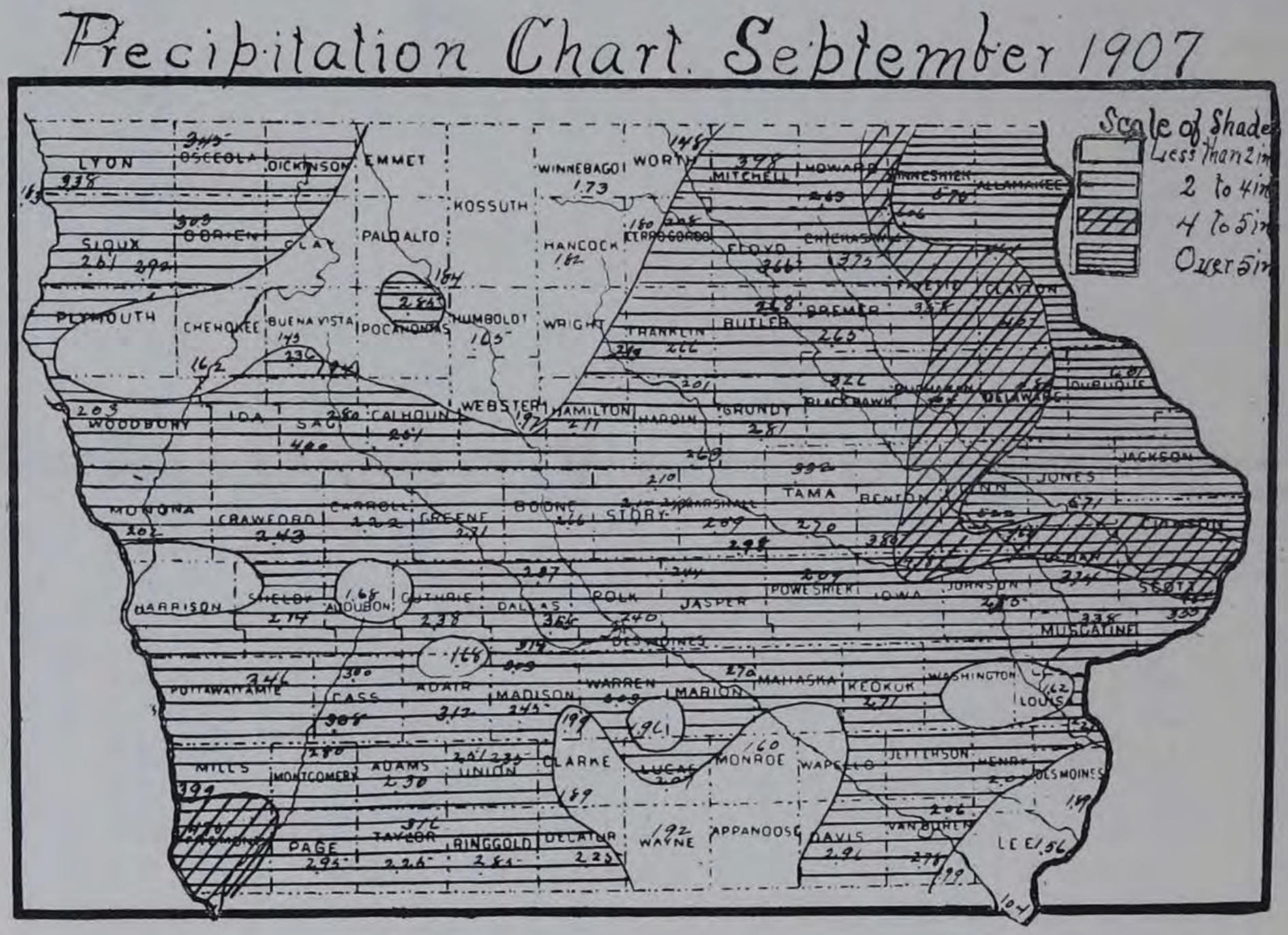
STATIONS		DATE																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Waukee ..	Max.	83	73	75	68	72	77	81	66	69	66	80	80	83	82	85	86	88	92	90	76	70	67	80	72	67	59	54	58	58	54	..	73.7
	Min.	67	63	48	54	63	54	59	50	49	46	54	62	63	60	65	70	67	70	65	52	45	40	43	47	34	46	48	45	42	48	..	54.0
Waverly .	max.	81	71	69	68	72	70	72	66	68	67	73	78	82	82	84	84	82	82	81	78	64	64	72	63	60	62	51	60	58	53	..	70.6
	min.	68	58	59	56	51	50	59	55	45	47	45	49	59	62	62	68	63	65	68	54	44	37	44	44	32	48	48	45	40	45	..	52.3
Websr. Cy	max.	84	75	77	73	81	77	82	71	74	70	79	83	85	87	89	91	89	90	85	81	72	67	80	72	65	70	56	55	59	53	..	75.7
	min.	65	56	45	55	45	49	55	49	42	40	39	42	59	57	61	66	66	67	66	52	42	35	40	45	27	49	48	41	37	44	..	49.5
W. Bend .	max.	79	69	70	69	74	75	78	66	72	68	75	78	83	82	85	78	87	86	83	75	59	67	75	65	63	70	57	60	50	48	..	71.5
	min.	63	52	45	54	46	53	57	45	44	42	41	49	60	56	60	62	60	66	66	47	43	37	38	41	30	48	47	33	42	42	..	49.0
Whitten ..	max.	89	73	73	70	74	76	80	71	72	69	74	80	83	84	82	88	83	89	84	75	67	64	75	66	62	67	54	59	56	55	..	73.1
	min.	68	58	47	52	48	52	58	51	44	44	43	50	59	59	66	68	62	67	67	50	41	36	42	43	30	47	46	42	40	44	..	50.8
Wilton Jn	max.	90	80	72	72	74	75	80	77	71	70	72	78	80	80	85	83	83	83	86	85	75	69	72	72	57	60	55	58	60	57	..	73.7
	min.	70	60	47	52	49	55	60	57	46	51	47	48	56	56	62	70	64	65	67	65	45	37	47	52	43	42	48	48	48	48	..	53.5
Winterset	max.	85	76	76	71	75	80	87	78	71	68	76	82	84	85	87	88	89	89	83	78	69	68	80	73	63	59	55	59	55	54	..	74.8
	min.	68	64	49	53	50	54	64	52	53	45	48	52	62	60	65	71	69	70	68	55	47	41	46	52	36	48	48	45	43	49	..	51.2
Zearing...	max.	84	71	73	70	75	75	80	68	70	79	78	81	84	84	86	89	87	90	84	78	68	65	78	66	65	67	57	63	54	52	..	74.0
	min.	67	58	46	54	47	47	58	52	41	42	42	48	59	60	63	69	63	69	67	53	42	36	42	45	28	49	48	44	36	45	..	50.7

DAILY AND MONTHLY PRECIPITATION FOR SEPTEMBER, 1907.

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Afton	T	....	....	....	....	....	....	.14	....	....	....	....	....	....	....	....	....	....	....	.54	....	....	....	....	....	....	.96	....	.23	.48	....	2.35
Albia	....	.25	....	....	....	....	....	.13	....	....	....	....	....	....	....	T	.05	....	.63	....	....	....	....	....	....	....	.30	.16	T	.08	....	1.60
Algona	....	....	....	....	....	T	.10	....	T	....	....	....	....	....	....	.03	1.07	....	....	.16	....	T	T	....	....	....	....	....	.15	T	....	1.51
Allerton	....	.11	....	....	....	....	....	.12	T	.01	....	....	....	....	....	T	....	....	....	.76	....	....	....	....	....	T	.30	.02	.20	.41	....	1.93
Alta	....	T	....	....	T	T	....	.34	....	.12	....	....	....	....	....	.25	.32	....	....	.30	....	....	T	....	....	....	T	....	....	.12	....	1.45
Alta (near)	.05	....	....	....	....	.02	.60	....	....	.08	....	....	....	....	....	.23	.50	....	.42	....	....	.02	....	....	....	....	.02	....	.12	.30	....	2.36
Alton	.02	....	....	....	....	.07	T	....	T	.22	....	....	....	....	T	.07	2.17	....	....	....	....	....	....	....	....	....	....	....	.26	.11	....	2.92
Amana	....	....	....	T	....	....	T	.01	....	....	....	....	....	....	....	.16	.09	T	....	.88	....	.02	....	....	....	.41	1.68	.90	....	.03	....	4.18
Ames	....	....	....	....	....	.02	.08	....	....	.12	....	....	....	....	....	T	.02	....	....	.60	....	T	....	....	T	....	.90	.05	.10	.25	....	2.14
Atlantic	T	....	....	....	....	....	T	....	.19	....	....	....	....	....	....	....	....	....	.95	....	....	....	....	....	....	....	1.12	....	....	.74	....	3.00
Audubon	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.01	....	....	....	.33	....	....	....	....	....	T	.79	....	....	.55	....	1.68
Baxter	....	....	....	.02	....	T	.07	.01	....	.45	....	....	....	....	....	.12	.04	....	....	.41	....	.01	....	....	....	.10	1.03	.06	....	.12	....	2.44
Bedford	....	.14	....	....	....	T	....	.25	T	.10	....	....	....	....	....	....	....	....	....	.35	....	....	....	....	....	T	.98	.05	....	.38	....	2.25
Belle Plaine	....	....	....	....	....	T	....	T	....	....	....	....	....	....	....	.40	.15	....	....	.80	....	.04	....	....	....	.25	1.85	.27	....	.09	....	3.85
Bloomfield	....	.02	....	....	....	....	....	.02	....	....	....	....	....	....	....	.12	....	....	....	1.46	....	....	....	....	....	.20	.49	.05	.30	.30	....	2.96
Bonaparte	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	.20	....	....	....	.90	....	....	....	....	....	.40	.35	....	.06	.05	....	1.99
Boone	....	.01	....	....	....	T	....	.54	....	.47	....	....	....	....	....	....	.12	.03	....	.43	....	....	.02	....	....	T	.25	.75	....	.04	....	2.66
Britt	....	....	....	T	....	.05	.12	.28	.15	....	....	....	....	....	....	.03	.88	....	....	.15	....	....	....	....	....	T	.09	....	.07	T	....	1.82
Buckingham	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	.51	....	....	.79	....	....	T	....	....	....	2.00	....	....	....	....	3.32
Burlington	....	....	....	....	....	....	....	....	....	.01	.02	....	....	....	....	.02	.02	....	....	.48	....	....	....	....	....	T	.56	.70	T	.08	....	1.89
Carroll	....	.47	....	....	....	....	T	.15	T	.02	....	....	....	....	....	....	.23	....	....	.42	....	....	.01	....	....	....	.05	.81	.01	.05	....	2.22
Cedar Rapids	....	T	....	....	T	....	....	....	....	....	....	....	....	....	....	....	.16	.31	....	1.95	....	....	.07	T	....	....	.72	2.01	....	....	....	5.22
Chariton	....	....	....	....	....	....	....	.18	....	....	....	....	....	....	....	T	....	....	....	.65	....	....	....	....	....	T	.80	T	T	.44	....	2.07
Charles City	....	....	....	T	....	.81	.36	.14	T	....	....	....	....	....	....	.42	1.25	....	....	.29	....	T	.01	....	....	....	.33	....	.04	T	....	3.65
Clarinda	....	.12	T	T	....	....	....	.33	....	.45	....	....	....	....	....	....	....	....	....	.30	....	....	....	....	....	....	.20	.68	....	.87	....	2.95
Clear Lake	....	....	....	T	....	T	.30	....	....	....	....	....	....	....	....	.50	.80	....	....	.10	....	....	T	....	....	....	T	....	T	....	....	1.80
Columbus Junc.	....	.17	....	....	....	....	....	....	....	.05	....	....	....	....	....	.03	T	....	T	.42	....	....	....	....	....	T	.87	.08	T	T	....	1.62
Corning	T	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	....	....	....	.47	....	....	....	....	....	....	....	.95	....	....	.85	....	2.30
Corydon	....	T	....	....	....	....	....	.16	....	T	....	....	....	....	....	T	....	....	....	1.01	....	....	....	....	....	T	.29	.06	....	.40	....	1.92
Creston	....	....	....	....	....	....	....	.16	....	.10	....	....	....	....	....	....	....	....	....	.45	....	....	....	....	....	....	.40	1.02	T	.38	....	2.51
Cumberland	.18	....	....	....	....	....	....	....	....	....	....	....	....	.73	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.15	1.32	....	3.38
Davenport	....	.04	T	.05	....	T	.23	....	....	.35	....	....	....	....	T	01	.49	.05	....	.27	....	T	T	....	....	.88	1.13	.05	....	T	....	3.55
Decorah	....	....	....	....	....	....	.75	.25	....	....	....	....	....	....	....	.23	1.00	2.51	.60	....	T	T	....	....	....	....	.30	.11	T	....	....	5.75
Delaware	....	....	....	.09	....	....	.52	.19	....	....	....	....	....	....	....	.18	.72	.46	....	.96	....	.15	....	....	....	....	1.21	.32	....	....	....	4.80
Denison	....	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	.57	.	....	.52	....	....	....	....	....	....	.82	....	.07	.43	....	2.43
Des Moines	....	....	....	....	....	T	.62	....	.09	T	....	....	....	....	....	.01	T	....	.41	.02	....	.02	....	....	....	.01	.92	....	T	.30	....	2.40
De Soto	....	....	....	....	....	....	.60	.07	....	....	....	....	....	....	....	....	....	....	....	.68	....	T	....	....	....	T	1.26	.05	....	.48	....	3.14
Dows	....	....	....	....	....	....	.13	....	....	....	....	....	....	....	....	.05	.70	....	....	.29	....	.02	....	....	....	T	....	.73	.11	.10	....	2.13
Dubuque	....	....	....	.05	....	.04	.33	.09	....	.14	....	....	....	....	....	.16	.90	1.34	T	.58	....	.05	.01	....	....	.26	2.04	.01	T	....	....	6.01
Earlham	....	....	....	....	....	....	T	.22	....	....	....	....	....	....	....	....	....	....	....	.54	....	....	....	....	....	.90	1.37	....	T	....	....	3.03
Elkader	....	....	....	T	....	.10	.65	.10	....	....	....	....	....	....	....	.10	1.65	.28	....	.23	....	.06	....	....	....	....	.90	....	T	....	....	4.07
Elliott	.15	.03	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	.50	....	....	....	....	....	....	1.22	....	.18	.72	....	2.80
Elma	....	....	....	.03	....	.07	.34	.08	.01	....	....	....	....	....	....	....	1.17	.21	T	.57	....	T	....	....	....	T	.05	.05	.05	....	....	2.63
Estherville	....	....	....	....	....	T	T	.15	....	T	....	....	....	....	....	.30	1.00	....	....	.50	....	....	T	....	....	....	T	....	....	....	....	1.95
Forest City	....	....	....	....	....	....	....	T	T	.03	....	....	....	....	....	.20	1.35	....	....	.10	....	....	T	....	....	....	....	T	....	.05	....	1.73
Fort Dodge	....	....	....	....	.05	....	....	.20	....	....	....	....	....	....	....	.13	.46	....	....	.70	....	....	....	....	....	....	T	.38	....	.05	....	1.97
Fort Madison	....	....	....	T	....	....	....	....	....	T	....	....	....	....	....	T	....	....	....	.82	....	....	....	....	....	....	.69	.05	....	....	....	1.56
Gilman	....	....	....	T	....	....	.02	....	....	....	....	....	....	....	....	....	.10	....	....	.70	....	.08	....	....	....	.10	1.75	.14	....	.09	....	2.98
Grand Meadow	....	....	....	T	....	....	.99	.03	....	....	....	....	....	....	....	.05	1.50	1.10	....	.50	....	.10	....	T	....	T	....	.25	T	T	....	4.64
Greene	....	....	....	....	....	....	.12	.14	.10	....	....	....	....	....	....	.35	1.14	....	....	.30	....	....	....	....	....	....	.35	.08	.10	....	....	2.68
Greenfield	....	....	....	....	....	....	....	.60	T	....	....	....	....	....	....	....	....	....	....	.70	....	....	....	....	....	....	1.04	....	.13	.65	....	3.12
Grinnell	....	....	....	T	....	....	....	.06	....	.09	....	....	....	....	....	....	.15	....	....	.27	....	.04	....	....	....	.05	1.15	.20	....	.08	....	2.09
Grundy Center	....	....	....	....	....	....	T	.06	....	....	....	....	....	....	....	T	.75	....	....	.60	....	.10	....	....	....	.15	.95	.20	T	T	....	2.81
Guthrie Center	T	.09	....	T	....	....	.10	.06	.02	....	....	....	....	....	T	....	.01	T	....	.39	....	.01	....	....	....	T	.98	.05	....	.67	....	2.38
Hampton	....	....	....	....	....	.03	.25	....	.05	....	....	....	....	....	.08	....	1.00	....	.35	....	....	.02	....	....	....	....	.78	....	.10	....	....	2.66
Hancock	....	.10	....	....	....	T	.20	.12	....	....	....	....	....	....	....	....	....	....	....	1.07	....	....	....	....	....	....	1.26	....	.13	.58	....	3.46
Harlan	.01	....	....	....	....	T	.27	.02	....	....	....	....	....	....	T	....	.30	....	....	.06	....	T	....	....	....	T	1.00	....	.02	.46	....	2.14
Hopeville	....	....	....	....	....	T	T	.05	....	....	....	....	....	....	....	....	....	....	T	.43	....	....	....	....	....	....	.80	....	.26	.35	....	1.89
Humboldt	.02	....	....	....	....	....	.12	....	....	....	....	....	....	....	....	.10	.75	....	....	.38	....	T	....	....	....	.15	....	....	.08	.05	....	1.65
Independence	....	....	....	.02	....	....	1.05	....	....	....	....	....	....	....	....	....	.85	.20	....	.33	....	.07	....	....	....	.08	1.40	.03	.01	....	....	4.04
Indianola	....	....	....	T	....	....	.45	.07	T	.07	....	....	....	....	....	T	....	....	....	.04	....	.02	....	....	....	.03	.86	.05	.05	.39	....	2.03
Inwood	13	....	....	....	....	.07	T	....	.01	T	....	....	....	.08	.04	.54	1.11	.80	.43	....	....	T	....	....	....	T	T	....	.14	.03	....	3.38
Iowa City	....	....	....	....	.02	....	.23	....	....	....	.07	....	....	....	....	....	.25	.21	....	.64	....	....	.03	....	....	....	.49	.90	.01	....	....	2.85
Iowa Falls	....	T	....	....	T	....	T	.08	....	....	....	....	....	....	....	T	.57	....	....	.35	....	....	.06	T	....	....	.10	.80	....	.05	....	2.01
Jefferson	....	....	....	....	....	....	.24	....	.24	....	....	....	....	....	....	....	.35	....	....	.60	....	....	....	....	....	T	.89	....	T	.39	....	2.71
Keokuk	.11	.02	....	....	....	....	....	....	....	.13	....	....	....	....	....	T	....	....	.13	.64	....	....	....	....	....	.27	.56	.03	....	.05	....	1.94
Keosauqua	.38	....	....	....	....	....	....	.01	....	....	....	....	....	....	....	....	10	....	....	1.21	....	....	....	....	....	....	.60	.28	.01	.19	....	2.78
Lacona	....	....	....	....	....	....	1.25	....	.68	....	....	....	....	....	....	.01	....	....	....	.84	....	....	28	....	....	....	1.12	....	.38	.40	....	4.96
Le Claire	T	.02	....	....	.02	....	.55	....	....	T	.08	....	....	....	....	.03	.35	1.12	....	.30	....	....	....	T	.02	....	1.40	.95	T	....	....	4.84
Le Mars	T	....	....	....	....	.05	.05	....	....	.06	....	....	....	....	....	.06	.92	....	T	....	....	T	....	....	....	T	T	....	.30	.15	....	1.59
Lenox	....	....	....	....	....	....	....	.12	.60	.15	....	....	....	....	....	....	....	....	....	.48	....	....	....	....	....	T	.95	.10	.31	.45	....	3.16
Leon	....	....	....	....	....	....	....	.17	....	.11	....	....	....	....	....	T	....	....	....	.75	....	....	....	....	T	.35	....	.25	.35	.27	....	2.25
Little Sioux	....	T	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	.02	....	....	.46	....	....	....	....	....	....	.57	....	.09	.72	....	1.96
Marshalltown	....	....	....	....	....	....	....	.02	....	.04	....	....	....	....	....	.20	....	.40	....	.75	....	....	T	....	....	....	.18	.99	.01	....	....	2.59
Mason City	....	....	....	.10	....	T	.15	.25	.05	....	....	....	....	....	....	.07	.98	.07	....	.25	....	....	....	....	....	....	.08	....	.08	....	....	2.08
Mt. Ayr	....	.13	....	....	....	....	....	.35	....	....	....	....	....	....	....	.02	....	....	T	.51	....	....	....	....	....	.10	1.08	....	.31	.35	....	2.85
Mt. Pleasant	....	.12	T	....	....	....	....	.01	....	.02	....	....	....	....	....	.07	....	....	....	.80	....	T	....	....	....	.31	.57	.09	T	.05	....	2.04
Mt. Vernon	....	.01	....	.07	....	T	.18	....	....	.22	....	....	....	....	....	.02	.68	.02	....	.78	....	.22	T	....	....	.05	1.70	.70	....	....	....	4.65
Nevada	....	....	....	....	T	....	.08	....	....	....	....	....	....	T	....	T	.55	....	....	....	....	....	....	....	....	....	1.43	....	.16	.19	....	2.41
New Hampton	....	....	....	....	....	.05	1.42	.07	....	....	....	....	....	....	....	.26	.97	.04	....	.34	T	....	....	.10	....	....	.42	.04	.04	....	....	3.75
Northwood	....	....	....	....	....	....	.34	.03	....	....	....	....	....	....	....	.04	.63	.13	....	.27	....	....	.03	....	....	....	....	....	.01	....	....	1.48
Odebolt	.03	....	....	....	....	.09	.12	....	....	....	....	....	....	....	.18	.42	....	....	2.42	....	....	....	....	....	....	....	.25	....	.12	.37	....	4.00
Olin	....	....	....	.02	....	....	.57	....	....	.23	....	....	....	....	....	.06	.46	.32	....	.90	....	T	T	....	....	....	2.00	1.15	....	....	....	5.71
Omaha, Neb.	T	....	....	....	....	T	.59	T	....	.07	....	....	....	....	T	....	....	....	.01	....	....	....	....	....	....	....	.83	....	.12	.73	....	2.35
Onawa	T	.02	....	....	....	.07	....	....	....	.07	....	....	....	....	....	....	.30	....	.12	.03	....	....	....	....	....	....	.56	....	.15	.70	....	2.02
Osage	....	....	....	....	....	....	.30	.50	....	.20	....	....	....	....	....	T	1.10	1.30	....	.40	....	T	....	....	....	....	....	.18	T	....	....	3.98
Pacific Junction	.04	....	....	....	....	....	.18	.08	....	.06	....	....	....	....	T	....	....	....	....	.83	....	....	....	....	....	....	1.90	....	.15	.75	....	3.99
Pella	....	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	.03	....	....	.45	....	.03	....	....	....	.01	1.75	.27	.02	.12	....	2.70
Perry	T	....	....	T	....	....	.73	....	....	....	....	....	....	....	....	....	.06	....	....	.36	....	T	....	....	....	....	.75	....	T	.47	....	2.37
Plover	....	....	....	....	....	.06	.70	....	....	....	....	....	....	....	....	....	1.26	....	....	.27	....	T	....	....	....	....	....	....	.08	.48	....	2.85
Pocahontas	....	....	....	....	....	....	.81	....	.03	....	....	....	....	....	....	.16	....	.46	....	.37	....	....	....	....	....	....	....	.03	.05	.06	....	1.97
Ridgeway	T	....	T	.04	....	.24	.23	.21	.01	....	....	....	....	....	....	.14	2.53	1.66	.56	....	....	.05	.02	....	....	T	.28	....	.05	.04	....	6.06
Rockwell City	....	....	....	....	T	....	.30	....	....	....	....	....	....	....	....	T	.26	....	1.25	....	....	....	....	....	T	....	.40	....	.10	.20	....	2.51
Sac City	....	....	....	....	....	....	.06	....	.23	....	....	....	....	....	....	....	.42	....	....	1.11	....	T	....	....	....	....	.50	....	.15	.33	....	2.80
St. Charles	....	....	....	....	....	....	.30	.07	.01	.05	....	....	....	....	....	....	....	....	....	....	....	.02	....	....	....	T	.85	.06	.11	.52	....	1.99
Sheldon	T	....	....	T	....	T	.55	....	....	.30	....	....	....	T	.05	.08	1.85	....	.02	....	....	....	....	....	....	....	T	....	.13	.05	....	3.03
Sibley	....	....	....	....	....	.05	T	.31	T	.07	....	....	....	T	....	.87	1.27	....	.15	.71	....	....	T	....	....	....	....	....	....	.02	....	3.45
Sigourney	....	.17	....	....	....	....	....	.04	....	....	....	....	....	....	....	.17	.02	....	1.15	....	....	T	....	....	....	.08	.80	.15	T	.13	....	2.71
Sioux Center	T	....	....	T	....	.05	T	....	T	03	....	....	....	....	T	....	2.15	....	.08	....	....	T	....	....	....	T	T	....	.09	.11	....	2.51
Sioux City	.03	....	....	....	....	.05	T	....	T	.01	....	....	....	T	.13	.11	.64	....	.29	....	....	T	....	....	....	T	.02	....	.14	.61	....	2.03
Stockport	....	.15	....	T	....	....	....	.03	....	....	....	....	....	....	....	.05	....	....	.03	.85	....	....	.01	T	....	....	.35	.44	.08	.05	.03	....	2.06
Storm Lake	....	....	....	....	....	....	.25	....	....	....	....	....	....	....	....	.20	.60	....	.45	....	....	.01	....	....	.24	....	.03	....	.04	.12	....	1.94

DAILY AND MONTHLY PRECIPITATION FOR SEPTEMBER, 1907—Continued.

STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Stuart	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.80	....	....	....	....	....	....	.88	....	....	....	....	1.68
Thurman	....	.35	....	....	....	.05	.95	T	....	....	....	....	....	....	....	....	....	....	....	1.10	....	....	....	....	....	T	1.30	....	.35	.65	....	4.75
Tipton	....	....	....	....	....	....	.39	....	T	....	....	....	....	....	....	.36	.65	....	....	.67	.05	....	....	....	....	.90	.72	....	....	T	....	3.74
Toledo	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.25	....	....	.70	....	.10	....	....	....	.15	1.25	.15	....	.10	....	2.70
Wapello	....	.09	....	.05	....	....	....	....	....	.12	....	....	....	....	....	.05	T	....	....	.35	....	....	....	....	....	....	1.30	.25	T	T	....	2.21
Washington	.02	....	....	....	....	....	T	....	....	....	....	....	....	....	....	.20	.08	....	....	.28	....	....	....	....	....	....	....	.78	....	.02	....	1.38
Washta	T	....	....	....	....	T	.15	....	....	.31	....	....	....	....	....	.03	.48	....	.50	....	....	....	....	....	....	....	....	....	....	.15	....	1.62
Waterloo	....	....	....	.12	....	.01	.03	.04	....	....	....	....	....	....	....	.34	.95	T	.38	....	....	.04	T	....	....	.11	1.13	....	.04	.07	....	3.26
Waukee	....	....	....	....	....	.01	.85	....	....	....	....	....	....	....	T	.22	....	....	....	.80	....	.08	....	....	....	T	1.06	.07	T	.46	....	3.55
Waverly	....	....	....	.04	....	....	.50	.05	T	....	....	....	....	....	....	.46	.48	....	....	.33	....	.02	....	....	....	....	.73	....	.03	.01	....	2.65
Webster City	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	.59	....	....	.38	....	T	....	....	....	T	1.01	....	....	.13	....	2.11
West Bend	T	....	....	....	....	.04	.08	....	....	....	....	....	....	....	T	.05	1.22	....	.22	....	....	....	T	....	....	....	.02	....	.12	.09	....	1.84
Whitten	....	....	....	T	....	....	T	T	....	....	....	....	....	....	....	T	.31	....	....	.91	....	.12	....	....	....	T	.90	....	.27	.12	....	2.63
Wilton Junction	....	....	....	....	....	.11	....	....	....	.32	....	....	....	....	....	.09	.77	.08	....	.31	....	.05	....	....	....	.65	1.00	....	....	....	....	3.38
Winterset	....	....	....	....	....	T	T	.19	T	.13	....	....	....	....	....	T	....	....	....	.61	....	T	....	....	....	.01	.90	.04	.07	.50	....	2.45
Zearing	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	T	.32	....	....	.60	....	.04	....	....	....	T	.80	.10	.06	.13	....	2.10



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR OCTOBER, 1907.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1907

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

OF THE

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METEOROLOGICAL STATIONS AND OBSERVERS.

From the following, weekly and monthly reports of Meteorological data are received by the Iowa Weather and Crop Service.

Afton	N. W. Rowell
Albia	J. I. Chenoweth
Algona	Dr. F. T. Seeley
Allerton	Rex Shriver
Alta	D. E. Hadden
Alta (near)	W. J. Minard
Alton	W. S. Slagle
Amana	Conrad Schadt
Ames	Iowa State College
Atlantic	J. W. Love
Audubon	Geo. E. Kellogg
Baxter	W. R. Vandike
Bedford	E. E. Healy
Belle Plaine	S. P. Vandike
Bloomfield	F. H. Roberts
Bonaparte	Hon. B. R. Vale
Boone	Carl Fritz Henning
Britt	G. P. Hardwick
Buckingham (Traer P. O.)	Dr. W. A. Daniel
Burlington	I. S. Shontz
Carroll	Frank Hughes
Cedar Rapids	Electric Light and Power Co.
Chariton	C. C. Burr
Charles City	*Edward W. McGann
Clarinda	A. S. Van Sandt
Clear Lake	Oscar Stevens
Clinton	Luke Roberts
Columbus Junction	J. B. Johnston
Corning	Jerome Smith
Corydon	Clara Miller
Creston	Rev. W. L. Gaston
Cumberland	Agent C., B. & Q. R'y
Davenport	*J. M. Sherier
Delaware	Wm. Ball
Decorah	F. H. Baker
Denison	W. C. Van Ness
Des Moines	*Geo. M. Chappel
De Soto	R. D. Minard
Dows	H. A. Flett
Dubuque	*James H. Spencer
Earlham, R. F. D.	Geo. Phillips
Elkader	Chas. Reinecke
Elliott	Henry Barnes
Elma	H. A. Moore
Estherville	A. O. Peterson
Fayette	R. Z. Latimer
Forest City	J. A. Peters
Fort Dodge	Tobin College
Fort Madison	Miss L. A. McCready
Galva	F. H. Schleiter
Gilman	Jas. L. Wylie
Grand Meadow (Postville P. O.)	F. L. Williams
Greene	J. L. Cole
Greenfield	Dr. Geo. Brooks
Grinnell (near)	A. O. Price
Grundy Center	W. H. Scott
Guthrie Center	D. G. Beardsley
Hampton	E. C. Grenelle
Hancock	W. Armstrong
Harlan	C. A. Reynolds
Hopeville (Murray R. 2)	M. T. Ashley
Humboldt	H. S. Wells
Independence	Austin Cornwall
Indianola	Prof. J. L. Tilton
Inwood	F. D. Hanson
Iowa City	Prof. Karl E. Guthe
Iowa Falls	J. B. Parmelee
Jefferson	Geo. W. Jackson
Keokuk	*Fred Z. Gosewisch
Keosauqua	J. A. Landes
Knoxville	Casey & Bellville
Lacona	Agent C., B. & Q. Ry.
Larrabee	H. B. Streever
Lenox	J. L. Hurley
LeMars	G. A. C. Clarke
Leon	J. Morris Gardner
Little Sioux	G. H. Gibson
Logan	Glenn H. Stern
Marshalltown	Mrs. Elizabeth Jones
Mason City	J. S. Mills
Massena	G. A. Hill
Mount Ayr	A. F. Beard
Mount Pleasant	Prof. J. W. Edwards
Nevada	R. S. Patrick
New Hampton	A. F. Kemman
Newton	Hon. J. P. Beatty
Northwood	Charles Dwelle
Odebolt	E. Starner
Olin	Hon. Nathan Potter
Omaha, Neb.	*L. A. Welsh
Onawa	C. G. Perkins
Osage	Dr. A. D. Bundy
Oskaloosa	Jos. Boyd
Ottumwa	Dr. Jas. A. Hull
Pacific Junction	H. H. McCartney
Pella	T. W. Cox
Perry	J. A. Harvey
Plover	J. S. Smith
Pocahontas	F. E. Hronek
Ridgeway	Arthur Betts
Rock Rapids	W. C. Wyckoff
Rockwell City	C. M. Randall
Sac City	Frank Stouffer
St. Charles	C. W. Minard
Sheldon	Dr. A. W. Beach
Sibley	H. G. Doolittle
Sigourney	J. T. Parker
Sioux Center	Jacob de Ruyter
Sioux City	*C. D. Reed
Stockport	C. L. Beswick
Storm Lake	Prof. Ralph H. Carr
Stuart	Geo. B. Irick
Thurman	C. R. Paul
Tipton	F. K. Gregg
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Washington	Wm. A. Cook
Washta	H. L. Felter
Waterloo	M. L. Newton
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Winterset	Dr. Robert S. Cooper
West Bend	Phil. Dorweiler
Woodburn	C. B. McDonough
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*U. S. Weather Bureau.

WEATHER-CROP OBSERVERS.

Reporting for the Weekly Bulletin.

Agency	J. H. Van Zandt
Albia	E. B. Morris
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Audubon	A. H. Edwards
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Burt	R. Jain
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Manson	J. D. Skinner
Marshalltown	Hon. S. B. Packard
Mount Pleasant	W. S. Wright
Milton	Hon. E. C. Holland
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Oakville	Z. W. Steele
Orange City	H. J. Vande Waa
Pella	J. H. Ver Steeg
Preston	J. G. Storm
Pittsburg	G. C. Duffield
Portland (Nora Springs, P. O.)	Arthur Pickford
Platte (Creston R. D.)	M. H. Dibel
Red Oak	Hon. C. L. Stratton
Seymour	L. B. Sager
Stuart	W. W. Bailey
Van Horne	Spencer Smith
Weldon	Ed Worden
Winterset	H. A. Kinsman
West Branch	Wrigley Smith
West Union	H. B. Blackman
Woodward	George Swisher

U. S. DEPARTMENT OF AGRICULTURE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

CENTRAL OFFICE: WASHINGTON, D. C.

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R. SAGE.....Section Director.
GEO. M. CHAPPEL, Assistant Director.

VOL. XVIII. DES MOINES, IOWA, OCTOBER, 1907. No. 10

GENERAL SUMMARY.

This month will stand on the records as one of the finest and most agreable autumnal months ever enjoyed in this section. The average temperature was about 2° below the normal, but the percentage of sunshine was considerably above the average, and the clear crisp air of the coldest mornings was one of the most enjoyable features of the month. There were about three weeks of typical Indian Summer weather, and there was very little discomfort in the few stormy days. During the past eighteen years there have been 6 colder and 11 warmer Octobers. The average precipitation was 1.50 inches, which is 0.89 of an inch below the state normal. There have been but three dryer Octobers since 1889. There were showers distributed over the larger part of the state during the first three and last three days of the month, and also some local rainfall on the 15th. The heaviest rainfall was recorded in the central district, in the valley of the Des Moines river. In over four-fifths of the counties the amount was less than 2 inches.

Generally conditions were highly favorable for drying out the corn crop, preparatory to husking and cribbing. Some progress was made during the last decade in the corn harvest, but as a rule the ears were not dry enough to be cribbed. Considerable progress was made in plowing, with the soil in good condition. The harvest of potatoes, apples and other minor crops progressed under favorable conditions, and the output was generally below the average of recent years. All in all the month of October contributed very largely to the material prosperity of the state.

The following table gives the mean temperature and average precipitation for the state, for each October from 1890 to 1907, inclusive.

Years	Temperature Degrees	Precipitation Inches
1890	49.2	3.48
1891	50.0	2.77
1892	54.5	1.55
1893	52.4	1.28
1894	51.7	2.67
1895	46.0	0.47
1896	47.9	3.13
1897	56.8	1.14
1898	47.5	3.56
1899	56.7	1.73
1900	59.3	3.91
1901	54.2	1.98
1902	53.5	2.54
1903	52.2	1.95
1904	53.1	1.67
1905	49.2	3.40
1906	50.5	1.96
1907	50.4	1.50
Normals	52.5	2.39

CLIMATOLOGY OF THE MONTH.

TEMPERATURE.—The monthly mean temperature for the state, as shown by records of 115 stations, was 50.4°, which is 2.1° below the normal. By sections the mean temperatures were as follows: Northern section, 48.4°, which is 2.5° below the normal; Central section, 50.4°, which is 1.6° below the normal; Southern section, 52.4°, which is 2.1° below the normal. The highest monthly mean was 54.1°, at Onawa, and the lowest monthly mean was 46.2°, at Plover. The highest temperature reported, 85° at Hampton on the 2d, and at Keosauqua and Massena on the 17th. The lowest temperature reported was 10° at Audubon and Massena on the 28th. The average monthly maximum was 79.4°, and the average monthly minimum was 18.7°. The greatest daily range was 50°, at Clarinda and Guthrie Center, and the average of greatest daily ranges was 39°.

PRECIPITATION.—The average precipitation for the state, as shown by records of 124 stations, was 1.50 inches, which is 0.89 of an inch below the normal. By sections the averages were as follows: Northern section, 1.24 inches, which is 1.01 inches below the normal; Central section, 1.73 inches, which is 0.70 of an inch below the normal; Southern section, 1.53 inches, which is 0.97 of an inch below the normal. The largest amount reported was 3.71 inches, at Boone; the least amount reported was 0.30 of an inch, at Tipton. The greatest daily rainfall was 2.24 inches, at Perry on the 3d. The average number of days on which .01 of an inch or more was reported, was 5.

WIND AND WEATHER.—The prevailing direction of the wind was northwest. The highest velocity reported was 40 miles per hour from the north at Sioux City on the 7th. The average number of clear days was 20; partly cloudy days, 5, and cloudy, 6.

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	30.12	30.51	18	29.65	6
Davenport	30.12	30.45	21	29.61	7
Des Moines	30.12	30.50	18	29.66	6
Dubuque	30.13	30.47	13,18	29.65	7
Omaha, Neb.	30.08	30.50	18	29.61	6
Keokuk	30.14	30.47	13	29.66	7
Sioux City	30.10.	30.56	18	29.73	6
Means	30.12	30.56	18	29.61	7

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	5279	24	NW	7,9,10
Davenport	5010	25	SE	1
Des Moines	5623	30	SW	6
Dubuque	4613	24	NW	27
Keokuk	4921	30	W	9
La Crosse, Wis.	5719	28	N	27
Omaha, Neb.	6256	34	N	17
Sioux City	9478	40	N	7

OBSERVERS' NOTES.

ALBIA.—*J. I. Chenoweth.* During a thunderstorm on the night of the 15th lightning struck and burned a large dry goods store and one barn in this town. The month ended rainy.

ALTA.—*David E. Hadden.* The first heavy frost of the season was on the 8th, and the first killing frost came on the 11th.

With exception of the first three and last two days the month was ideal. Indian summer days were numerous.

ALTON.—*W. S. Slagle* It was a very fine month for finishing plowing, threshing and other fall work. Corn was not dry enough to put into cribs.

AMANA.—*Conrad Schadt.* October was dry, with many fine days. There was sufficient moisture in the soil, and winter wheat and rye look bright and green. Killing frost occurred on the 13th and put a stop to growth of vegetation; corn did not become dry enough for husking.

BONAPARTE.—*B. R. Vale.* October was dry and pleasant. The first killing frost occurred on the 13th, and there was no more freezing till the 28th, when the leaves fell at once.

BOONE.—*Carl Fitz Henning.* Ice one-fourth of an inch thick formed on the 11th. On the 28th ice formed on edge of creeks. It was an ideal month.

BRITT.—*Geo. P. Hardwick.* It was an ideal month for drying the unripe corn, which will yield about 18 bushels per acre. Potatoes above average, yield and quality 100 per cent; hay plentiful.

CHARITON.—*C. C. Burr.* Farmers have made good progress with all farm work; corn is yielding better than was anticipated.

CLINTON.—*Luke Roberts.* The mean temperature was about the normal, and rainfall was below the normal. The clear days outnumbered all previous Octobers—the number being 7 above normal. Corn is a full average crop in Clinton county.

DE SOTO.—*R. D. Minard.* The first killing frost was on October 12th. Weather was fine until the last week. It was a good month for farm work.

FOREST CITY.—*J. A. Peters.* No corn was cribbed this month; too much soft corn. Ground quite dry for plowing.

GRINNELL.—*A. O. Price.* The first three and last three days were rainy; balance of the month fine for farm work.

INWOOD.—*F. B. Hanson.* A very favorable month for farm work and drying the corn. There were 20 days with 100 per cent of sunshine.

KEOSAUQUA.—*J. H. Landes.* A beautiful month. Corn matured nicely and is now ready to crib; pastures are good.

MOUNT. AYR.—*A. F. Beard.* The record for fine weather in October is broken, with 21 clear days in succession this month.

RIDGEWAY.—*Arthur Betts.* This was the driest October on record, and only in 1898 and 1905 was it colder. There were 230 hours of sunshine.

SHELDON.—*A. W. Beach.* Fall work is being finished with fine weather conditions. It was ideal for curing the corn; some husking begun on the 24th and the yield is good.

WAVERLY.—*H. S. Hoover.* The last half of the month was dry and dusty; a fine month for putting away the crops.

BELATED REPORTS.

CLINTON.—September. Mean temperature, 61.4°; highest, 92° on the 1st; lowest, 33° on the 25th; greatest daily range, 34°; total precipitation, 4.47 inches; greatest in 24 hours, 2.70 inches. Prevailing direction, southwest. Number of clear days, 16; partly cloudy, 10; cloudy, 4; rainy, 9.

LARRABEE.—September. Mean temperature, 60.2°; highest, 88° on the 18th; lowest, 32° on the 28th; greatest daily range, 36°; total precipitation, 1.98 inches; greatest in 24 hours, .60 inch. Number of rainy days, 7.

KNOXVILLE.—September. Mean temperature, 64.7°; highest, 90° on the 18th; lowest, 34° on the 25th; greatest daily range, 37°; total precipitation, 2.65 inches; greatest in 24 hours, 1.50 inches. Prevailing direction, southwest. Number of clear days, 15; partly cloudy, 4; cloudy, 11; rainy, 6.

ERRATA IN MAY REVIEW.

GUTHRIE CENTER.—Mean temperature recorded, 54.8° on page 54, should have been 54.9°. Mean maximum temperature recorded, 68.5° on page 56, should have been 68.7°.

CLIMATOLOGICAL DATA FOR OCTOBER, 1907.

CENTRAL SECTION

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
Amana	Iowa	721	28	49.8	†0.2	77	2	19	28	36	1.31	-1.43	.60	....	4	19	8	4	NW	1,2,3
Ames	Story	926	23	49.8	-1.1	81	2	15	2	45	3.04	† .52	1.53	....	4	19	7	5	S	
Audubon	Audubon	1,301	11	49.0	-2.2	78	2	10	28	42	.89	-1.34	.32	....	4	18	6	7	SW	1,2
Baxter	Jasper	998	7	50.6	-4.1	81	24	15	28	41	3.52	† .81	2.18	....	7	20	4	7	SW	1,3,15
Belle Plaine	Benton	828	15	49.8	-0.8	80	2	17	28	35	3.18	† .90	1.70	....	6	17	6	8	SE	
Boone	Boone	1,134	2	50.0	.....	81	2	25	28	39	3.71	.....	1.94	....	7	21	3	7	.....	2
Buckingham	Tama	.....	7	.....	.....	.....	.....	.....	.....	.....	2.26	† .42	1.30	....	4	13	14	4	.....	
Carroll	Carroll	1,265	17	48.1	-3.2	79	2	16	28	42	2.32	† .06	.69	....	6	23	1	7	.....	15
Cedar Rapids	Linn	733	25	48.8	-2.7	80	2	21	28	40	2.08	- .51	1.55	....	4	15	11	5	.....	2,3
Clinton	Clinton	593	37	49.4	-1.0	79	2	21	27	34	1.59	- .82	1.20	....	4	20	5	6	SW	1,3,27,28
Davenport	Scott	606	36	51.7	-0.9	84	2	24	28	31	.70	-1.69	.28	....	4	18	6	7	NW	1,3
Delaware	Delaware	1,083	14	47.4	-1.6	74	2	19	28	31	1.67	- .55	.82	....	5	15	7	9	NW	1,3,15
Denison	Crawford	1,180	11	*a* 50.6	-0.2	82	2	*b* 14	28	42	.82	-1.59	.31	....	6	26	1	4	S	
Des Moines	Polk	861	28	51.6	-0.9	78	17	22	28	36	1.70	- .98	.92	....	6	12	12	7	SW	1,2,3,15
De Soto	Dallas	866	7	51.5	-3.0	79	6,17	15	28	41	1.89	- .50	.85	....	5	19	5	7	NW	
Dubuque	Dubuque	698	34	49.5	-2.5	81	2	24	28	29	.77	-1.91	.30	....	7	16	4	11	NW	3,14,15
Fort Dodge	Webster	1,126	7	48.8	-3.5	82	2	19	28	43	2.16	- .93	1.14	....	5	....	....	....	S	
Gilman	Marshall	1,052	8	.....	.....	.....	.....	.....	.....	.....	2.89	† .60	1.77	....	4	....	....	....	SW	
Grinnell	Poweshiek	1,023	12	52.0	-0.3	81	2	18	28	37	2.73	† .28	1.23	....	4	15	6	10	NW	1,3,15
Grundy Center	Grundy	976	14	49.6	-1.8	81	2	19	28	37	1.46	-1.23	.65	....	3	22	2	7	S	
Guthrie Center	Guthrie	1,077	9	51.4	-1.1	80	2	15	28	50	1.39	- .83	.62	....	5	24	1	6	NW	1,2
Harlan	Shelby	1,192	8	50.2	-4.2	81	2	13	28	43	2.64	- .39	1.56	....	4	21	3	7	S	1,2,15
Iowa City	Johnson	683	46	50.0	-1.1	84	2	19	28	42	.86	-1.68	.37	....	6	19	4	8	SW	
Iowa Falls	Hardin	1,170	12	47.6	-2.7	78	2	16	28	35	.65	-1.65	.33	....	3	21	3	7	SW	1
Jefferson	Greene	1,052	2	51.8	.....	82	2	17	28	40	1.44	.....	.50	....	4	....	....	....	N	
Le Claire	Scott	576	8	.....	.....	.....	.....	.....	.....	.....	.69	.....	.29	....	5	23	5	3	SE	
Little Sioux	Harrison	.....	2	53.0	.....	83	2	20	13	44	.81	.....	.45	....	5	22	4	5	SE	15
Logan	Harrison	928	38	51.5	-0.8	80	2	15	28	47	1.18	-1.30	.48	....	5	17	11	3	NW	
Marshalltown	Marshall	947	12	48.4	-4.6	82	2	18	28,29	44	2.19	- .28	1.07	....	7	18	0	13	NW	
Muscatine	Muscatine	.....	48	.....	.....	.....	.....	.....	.....	.....	1.09	-1.95	.30	....	6	17	4	10	S	
Newton	Jasper	944	17	52.2	†0.4	76	2	24	28	32	2.65	- .12	1.52	....	4	24	1	6	S	
Odebolt	Sac	1,356	8	51.4	-4.0	83	2	19	28	40	1.91	- .30	.57	....	4	23	3	5	.....	
Olin	Jones	760	8	48.8	-3.1	82	17	18	28	34	1.02	-1.40	.67	....	2	16	7	8	NW	3
Onawa	Monona	1,051	7	54.1	-2.1	83	6	24	28	40	.99	-1.40	.43	....	6	25	2	4	N	15
Perry	Dallas	975	6	50.5	-3.7	77	2,17,24	18	28	38	3.31	† .76	2.24	....	6	11	14	6	.....	
Rockwell City	Calhoun	.....	10	51.8	-0.9	78	2	24	12	41	2.10	- .48	.90	....	4	24	2	5	.....	
Sac City (*g*)	Sac	1,356	25	49.6	-0.3	80	9	.....	.....	39	2.75	† .19	1.10	....	5	....	....	....	.....	
Sioux City	Woodbury	1,135	16	50.8	-0.3	82	2	21	13	43	.62	-1.17	.30	....	5	20	4	7	SE	2,3,14,31
Stuart	Guthrie	1,216	8	*e* 52.2	-4.2	*c* 77	24	.....	.....	.....	1.26	-1.72	.65	....	4	25	0	6	.....	
Tipton	Cedar	807	9	51.6	-1.4	80	2	25	28	32	.30	-1.63	.30	....	1	21	6	4	NW	
Toledo	Tama	856	12	49.8	-2.7	79	2	16	27	38	2.20	† .33	1.15	....	3	17	5	9	SE	
Waterloo	Black Hawk	862	18	50.6	-0.9	82	2	20	28	39	1.54	- .78	.71	....	5	22	5	4	S	1,3,15
Waukee	Dallas	1,039	4	51.4	.....	77	24	20	28	36	1.94	.....	1.08	....	5	22	5	4	NW	15
Webster City	Hamilton	.....	2	49.6	.....	78	2	14	28	37	1.26	.....	.48	....	4	....	....	....	SE,NW	
Whitten (*a*)	Hardin	1,036	7	49.8	-3.1	76	17	17	28	35	1.48	-1.14	.60	T	3	....	....	....	.....	
Wilton Junct'n	Muscatine	683	10	50.4	-2.4	78	2	20	28	49	.87	-1.20	.35	....	5	18	5	8	W	
Zearing	Story	718	3	49.4	.....	80	2	15	28	43	1.63	.....	.55	....	4	19	6	6	NW	3
Average		.....	....	50.4	-1.6	79.9	.....	18.6	.....	39.1	1.73	- .70	.....	T	5	19	5	7	NW	

NORTHERN SECTION.

Algona	Kossuth	1,213	31	48.3	-2.3	76	6	19	28	35	.92	-1.18	.37	....	3	20	4	7	SE	1
Alta	Buena Vista	1,513	14	48.4	-2.4	80	2	22	12	44	1.19	- .98	.52	....	6	21	6	4	S	1,2
Alta [near]	Buena Vista	.....	12	.....	.....	.....	.....	.....	.....	....	1.90	.....	.95	....	6	....	....	....	.....	
Alton	Sioux	1,305	....	50.0	.....	79	2,5,6	16	28	45	.93	.....	.22	....	6	25	3	3	NW	15
Britt	Hancock	1,236	8	47.6	-4.1	78	2	16	28	37	.90	-1.28	.40	....	5	11	10	10	NW	
Charles City	Floyd	1,015	20	46.9	-1.3	79	2	17	28	37	.64	-1.39	.39	....	4	15	7	9	S	1,3
Clear Lake	Cerro Gordo	1,241	8	49.2	-2.6	72	6	25	13,18,20,28	37	1.27	-1.61	.70	....	4	21	0	10	S	
Decorah	Winneshiek	875	11	47.6	-3.1	75	2	18	28	38	.96	-1.38	.46	....	6	....	....	....	.....	
Dows	Wright	1,142	7	48.6	-3.1	82	2	15	28	39	.93	-1.67	.37	....	5	18	6	7	NW	3,15
Elkader	Clayton	727	24	48.2	-1.3	84	2	15	28	41	.93	-1.82	.49	....	4	17	5	9	NW	3,14
Elma	Howard	.....	....	46.6	.....	75	2,6	14	28	35	.89	.....	.40	T	4	17	10	4	S	1
Estherville	Emmet	1,298	10	47.2	-1.9	77	6	18	28	43	2.40	† .78	1.40	....	5	20	0	11	NW	
Forest City	Winnebago	1,226	11	47.6	-2.9	82	2	22	28	44	1.00	-1.37	.65	....	3	18	3	10	SW	
Gr'd Meadow (*a*)	Clayton	1,180	14	47.8	-2.2	75	2	21	28	28	1.15	-1.42	.45	....	6	13	11	7	.....	
Greene	Butler	.....	8	49.4	-4.2	77	2,6	18	28	33	.76	-1.38	.39	....	5	12	8	11	E	
Hampton	Franklin	1,155	15	50.1	-0.5	85	2	21	28	38	.83	-1.80	.35	....	5	13	14	4	SW	
Humboldt	Humboldt	1,095	13	49.5	-0.2	78	2	16	28	43	1.12	- .61	.52	....	4	23	1	7	NW	
Inwood	Lyon	1,474	3	49.3	.....	81	6,16	15	28	48	.64	.....	.26	....	6	23	5	3	N,SE,NW	
Larrabee (*a*)	Cherokee	1,266	16	48.8	-1.7	80	6	16	28	39	1.27	- .57	.62	....	5	21	7	3	SW	14
Le Mars	Plymouth	1,224	9	50.0	-2.5	76	2,6,16	20	12	39	.59	-1.26	.33	....	4	23	5	3	NW	
Mason City	Cerro Gordo	1,132	10	48.4	-1.0	77	6	18	28	36	.85	-1.16	.42	....	4	15	10	6	SE	1,3
New Hampton	Chickasaw	1,169	7	47.0	-6.5	73	2	18	28	28	.67	-1.88	.37	....	4	17	7	7	S	
Northwood	Worth	1,222	9	47.6	-0.4	76	6	19	28	37	1.78	- .85	.82	....	4	18	7	6	NW	1
Osage	Mitchell	1,184	14	49.0	†2.1	80	2,16	16	28	49	1.00	-1.43	.56	....	3	20	2	9	NW	
Plover	Pocahontas	1,426	8	*a* 46.2	-6.1	76	2,6	*a* 12	28	42	3.30	† .99	1.30	....	4	25	0	6	S	
Pocahontas (*a*)	Pocahontas	.....	3	48.0	.....	76	2	20	28	42	2.96	.....	1.91	....	5	24	3	4	S	
Ridgeway	Winneshiek	1,215	9	49.6	-4.3	81	2,6	20	28	37	1.12	-2.76	.52	....	9	19	7	5	S	1,3
Sheldon	O'Brien	1,422	7	49.9	-3.5	83	6	19	13,27	44	1.87	- .13	.70	....	5	20	7	4	NW	15
Sibley (*a*)	Osceola	1,212	11	46.3	-4.6	80	2	20	28	45	.96	- .71	.68	....	3	22	2	7	SE	
Sioux Center	Sioux	.....	8	48.0	-5.2	77	2,6	20	18	36	.82	- .74	.43	....	4	24	2	5	SE	
Storm Lake	Buena Vista	1,440	10	50.6	-4.9	79	2	24	12,18	36	1.90	† .14	.74	....	6	23	4	4	NW	1
Washta	Cherokee	1,157	9	.....	.....	78	6	.....	.....	.....	1.37	- .60	.65	....	4	24	4	3	N	
Waverly	Bremer	948	9	48.7	-4.7	78	2	18	28	33	.67	-1.97	.32	....	4	15	9	7	.....	1,3
West Bend	Palo Alto	1,197	11	47.8	-1.2	76	2,6	18	28	36	1.55	- .21	.87	....	6	15	8	8	S	3
Averages		.....	....	48.4	-2.5	78.2	.....	18.3	.....	38.9	1.24	-1.01	.....	T	5	19	6	6	NW	

CLIMATOLOGICAL DATA FOR OCTOBER, 1907—CONTINUED.

SOUTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
Afton	Union	1,212	12	51.4	-2.5	76	2,6,24	20	28	38	1.99	- .97	.80	....	4	21	5	5	SW	
Albia	Monroe	959	9	50.1	-4.5	81	2	19	28	44	1.61	-1.18	.53	....	8	19	5	7	SW,W	15
Allerton	Wayne	.....	5	52.6	-1.6	81	2	18	28	40	1.26	- .76	.51	....	7	22	3	6	NW	1,15
Atlantic	Cass	1,164	14	49.2	-2.8	79	2,6	11	28	46	1.77	- .87	.91	....	4	17	7	7	S	1,2
Bedford	Taylor	.....	7	52.3	-4.8	78	2,6,17,24	14	28	42	2.72	- .11	1.56	....	4	22	1	8	S	
Bloomfield	Davis	881	....	53.1	.....	84	2	20	28	41	1.22	.....	.40	....	6	21	5	5	NW	
Bonaparte	Van Buren	.....	15	52.4	-3.3	82	2	18	28	42	.81	-1.01	.23	....	5	....	....	....	.....	
Burlington	Des Moines	544	9	52.6	-3.4	84	2	22	28	37	.64	-1.73	.15	....	7	22	2	7	NW	3
Chariton	Lucas	1,042	10	52.3	-2.5	81	2	18	28	39	1.27	-1.55	.48	....	3	17	6	8	SE	
Clarinda	Page	1,009	15	51.6	-3.0	83	24	16	28	50	2.48	- .31	.91	....	5	22	1	8	NE,S	2,30
Columbus Jct	Louisa	595	6	51.8	-3.3	81	2	22	28	39	1.16	-1.66	.55	....	5	21	6	4	S	1,15
Corning	Adams	1,117	13	50.9	-3.1	76	6,24	14	28	37	2.33	- .23	1.46	....	4	21	4	6	SW	1,3
Corydon	Wayne	1,101	12	53.6	-1.5	81	2	19	28	38	1.18	-1.69	.43	....	5	21	3	7	SW	15
Creston	Union	1,312	2	49.6	.....	76	24	17	28	36	2.47	.....	.88	....	5	20	2	9	N	
Cumberland	Cass	.....	8	.....	.....	.....	.....	.....	.....	.....	2.81	.00	1.15	....	4	26	0	5	SW	
Earlham	Madison	.....	5	50.4	-0.7	82	1	16	13	44	1.62	- .73	.74	....	3	21	5	5	SW,NW	3
Elliott	Montgomery	.....	2	50.6	.....	76	6	15	28	49	1.34	.....	.75	....	3	21	5	5	SW	
Fort Madison	Lee	516	54	.....	.....	.....	.....	.....	.....	.....	.32	-2.43	.14	....	3	18	7	6	SW	1,15
Greenfield (a)	Adair	.....	14	51.5	-2.1	77	16	21	8	41	2.13	- .17	.80	....	3	.....	.....	.....	.....	
Hancock	Pottawatta'e	1,113	1	52.0	.....	77	6,17,24	18	28	36	.77	.....	.50	....	4	23	1	7	NW	
Hopeville	Clarke	.....	14	52.5	-2.1	80	2	22	28	39	1.70	- .73	.76	....	5	19	6	6	S,SW	2,3
Indianola	Warren	969	16	52.0	-2.2	77	2,6,24	22	28	34	1.10	- .96	.56	....	5	18	3	10	NW	2
Keokuk	Lee	614	36	53.9	-0.6	84	2	25	28	37	.47	-2.02	.15	....	5	21	5	5	S	1,5,22
Keosauqua	Van Buren	644	15	50.4	-5.7	85	2	17	28,29	39	1.03	- .87	.28	....	6	13	8	10	.....	
Knoxville	Marion	920	11	52.6	-1.5	80	2	20	28	37	1.73	- .67	.55	....	4	18	4	9	NW	
Lacona	Warren	.....	7	.....	.....	.....	.....	.....	.....	.....	3.10	† .41	.90	....	5	9	17	5	.....	
Lenox	Taylor	1,250	10	52.6	-1.7	77	2,6,24	19	28	36	2.11	- .88	1.45	....	4	22	5	4	S	
Leon	Decatur	1,120	5	53.0	-0.6	79	2	21	28	35	1.79	- .29	.75	....	4	22	2	7	SW	1
Massena (c)	Cass	.....	2	53.2	.....	85	17	10	28	45	1.15	.....	.58	....	4	20	7	4	.....	3
Mt. Ayr	Ringgold	1,236	11	53.5	-1.8	82	2	25	28	39	2.83	† .44	1.41	....	4	22	1	8	SW	
Mt. Pleasant	Henry	729	23	51.8	†1.2	81	2	21	28	34	1.19	- .89	.45	....	6	15	11	5	SE,SW	
Omaha, Neb	Douglas	1,105	35	54.3	†0.1	80	6	31	12	35	2.09	- .26	1.11	....	5	21	3	7	S	1,2
Oskaloosa	Mahaska	843	21	51.8	-0.1	78	1,2	15	28	39	1.07	-1.26	.76	....	4	24	0	7	.....	
Ottumwa	Wapello	649	11	53.0	-2.7	84	2	21	28	39	1.14	-1.74	.35	....	5	19	3	9	NW	
Pacific Jct	Mills	960	8	51.2	-5.2	79	6,17,24	16	28	40	1.10	-1.36	.58	....	3	21	4	6	S	
Pella	Marion	877	4	52.9	.....	80	2	21	28	34	1.97	.....	.59	....	4	20	6	5	SE	
St. Charles	Madison	1,070	6	53.6	-1.9	81	5,6	23	28	39	1.29	-1.12	.55	....	4	18	9	4	S	
Sigourney	Keokuk	877	8	51.7	-3.7	81	2	19	28	36	1.08	-1.94	.49	....	4	6	21	4	SW	1,13
Stockport	Van Buren	.....	5	51.8	.....	80	2	17	28	37	1.22	- .86	.51	....	6	19	6	6	S	1
Thurman	Fremont	.....	9	52.8	-3.5	78	6,17,24	17	28	40	1.09	-2.95	.58	....	3	20	4	7	SW,NW	
Wapello (b)	Louisa	588	7	51.5	-4.7	78	2	23	28	35	1.26	- .96	.47	....	6	19	6	6	.....	
Washington	Washington	769	23	51.0	-3.0	80	2	20	28	38	.95	-1.18	.52	....	5	15	12	4	SW	
Winterset	Madison	1,129	14	52.0	-1.7	75	6	23	28	36	1.61	- .76	.75	....	4	19	4	8	SW	
Average	.....	.....	....	52.4	-2.1	80.0	.....	19.2	.....	39.0	1.53	- .97	.....	....	5	20	5	6	NW	
State aver	.....	.....	....	50.4	-2.1	79.4	.....	18.7	.....	39.0	1.50	- .89	.....	....	5	20	5	6		

‡ Received too late to be included in average. *a* one day missing, *b* two days; *c* three days, etc. † means plus.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF OCTOBER, 1907

STATIONS		DAY OF MONTH																														MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	max	68	76	70	69	72	76	67	62	61	70	61	47	55	66	69	72	75	66	69	59	58	71	65	76	66	57	53	50	47	48	53	63.7
	min	52	47	59	45	45	45	49	35	45	39	38	26	24	33	46	43	41	30	31	38	28	40	38	41	39	39	33	20	41	41	45	39.2
Albia	max.	67	81	70	69	73	77	61	63	61	70	55	50	56	68	68	75	76	54	67	57	59	75	67	78	56	42	43	54	46	47	55	62.6
	min.	50	52	55	44	43	50	57	35	38	39	36	26	22	31	40	40	40	33	34	33	32	35	34	34	38	39	35	19	20	40	41	37.6
Algona	max.	60	67	73	68	72	76	65	60	58	53	47	46	52	62	67	70	70	48	67	54	57	66	61	71	50	54	50	50	45	45	50	59.5
	min.	57	57	55	35	39	53	44	33	41	39	35	23	22	33	46	38	45	23	32	30	29	40	29	45	29	28	29	19	39	40	43	37.1
Allerton	max.	69	81	73	71	77	79	68	65	63	73	59	51	59	68	72	78	80	67	70	61	60	78	71	79	68	49	47	51	47	46	53	65.6
	min.	52	49	59	43	44	46	53	34	42	39	37	25	25	32	48	43	45	34	32	39	30	40	37	39	42	41	34	18	40	42	44	39.6
Alta	max.	64	80	63	70	75	79	56	64	61	66	50	46	57	66	66	74	72	51	71	55	60	71	67	75	49	55	45	50	46	46	52	61.4
	min.	42	48	48	36	44	46	45	32	35	38	31	22	25	37	43	42	44	25	27	32	30	32	37	37	31	28	30	23	27	40	41	35.4
Alton	max.	66	79	75	70	79	79	65	67	61	66	57	47	55	67	65	74	69	50	72	62	61	68	65	71	63	70	66	61	51	48	55	64.6
	min.	47	42	53	34	38	45	46	29	44	36	33	25	20	37	44	34	42	25	35	29	26	34	28	46	33	30	26	16	35	41	46	35.5
Amana	max.	61	77	70	65	68	74	60	59	57	66	56	49	52	65	65	70	74	65	62	54	55	69	61	72	62	51	47	51	57	48	57	61.3
	min.	46	48	60	44	44	48	49	35	44	36	37	30	24	29	49	42	47	32	28	37	27	37	32	36	35	35	31	19	42	42	45	38.4
Ames	max.	65	81	70	71	73	71	65	62	62	68	55	49	54	65	70	72	79	56	69	58	68	74	67	76	55	54	47	50	47	46	52	62.9
	min.	49	45	53	38	40	51	49	32	45	48	36	25	19	30	45	38	45	26	27	33	23	34	32	41	31	29	30	15	41	41	44	35.6
Atlantic	max.	68	79	75	75	75	79	68	64	62	70	58	47	56	65	73	74	77	55	71	61	62	76	73	78	56	65	50	49	49	48	54	64.9
	min.	51	37	53	32	34	48	43	26	40	28	32	20	15	33	39	29	46	28	25	30	19	41	25	39	36	31	23	11	42	40	44	33.5
Audubon	max.	69	78	70	72	71	77	62	65	62	69	61	45	54	67	69	71	77	59	68	58	59	73	65	76	59	58	49	50	48	47	53	63.3
	min.	51	40	57	34	38	49	48	28	33	32	34	23	15	31	41	31	44	28	26	27	19	42	29	37	36	35	31	10	41	41	45	34.7
Baxter	max.	62	79	70	70	74	78	65	62	59	68	56	49	56	67	71	74	80	62	68	59	59	72	69	81	64	65	47	53	47	45	52	61.0
	min.	48	45	56	39	42	48	48	34	43	36	34	26	24	32	46	40	47	29	29	34	29	38	35	40	34	30	32	15	40	40	43	37.2
Bedford	max.	75	78	72	70	76	78	73	65	64	75	60	52	60	70	71	77	78	67	71	64	63	75	75	78	63	60	52	49	49	48	54	66.5
	min.	54	42	59	39	39	44	51	29	40	30	37	24	20	35	48	35	45	32	32	36	29	45	37	40	44	42	33	14	40	41	45	38.1
B. Plaine	max.	75	80	72	71	70	69	67	70	58	67	66	52	44	65	69	72	69	62	65	52	59	61	55	60	55	53	40	52	44	45	53	61 0
	min.	49	50	60	47	50	49	42	35	40	35	36	30	22	30	47	43	45	31	32	34	32	33	35	42	33	32	33	17	40	44	44	38.5
Bloomfl'd	max.	70	84	76	72	71	79	68	67	64	73	60	51	58	69	69	76	78	69	69	60	59	79	70	78	62	50	48	55	48	46	55	65.6
	min.	51	54	61	53	45	50	52	32	44	40	39	28	25	32	48	47	48	36	32	41	30	42	38	37	41	39	29	20	39	41	45	40.6
Bonapa'e	max.	69	82	73	69	72	78	65	64	64	73	57	52	56	69	66	76	78	63	68	56	59	79	68	77	62	48	44	55	50	50	56	64.5
	min.	51	54	64	46	45	46	49	38	44	37	39	30	26	30	49	43	47	38	31	42	28	37	37	38	40	39	30	18	40	43	46	40.2
Boone	max.	65	81	66	73	75	78	58	63	62	69	53	49	55	64	74	76	78	52	69	55	60	75	67	76	51	54	44	48	44	45	52	62.3
	min.	45	51	54	41	43	43	49	36	39	42	37	26	28	34	39	43	49	28	30	33	32	34	36	47	33	31	31	25	28	40	41	37.7
Britt	max.	59	78	75	70	71	77	64	61	57	63	53	45	53	65	69	71	71	55	58	52	57	66	63	72	54	56	47	53	50	46	52	60.7
	min.	44	44	45	32	37	48	45	31	41	35	32	23	22	34	45	37	41	23	33	28	27	33	26	45	26	27	27	16	42	40	43	34.6
Burl'g'n	max.	70	84	71	69	74	78	75	65	65	74	58	54	56	67	61	76	78	58	66	57	61	79	69	73	61	47	44	55	50	52	56	64.6
	min.	49	51	59	49	48	49	55	45	46	40	41	34	28	30	37	47	47	41	32	37	33	37	38	39	40	39	39	22	23	40	43	40.6
Carroll	max.	68	79	64	71	72	77	57	62	61	68	53	47	50	67	68	74	76	53	70	55	61	75	68	76	50	60	47	50	45	48	53	62.1
	min.	43	48	50	36	40	44	46	30	33	35	33	25	19	26	44	36	39	26	28	33	25	34	31	35	33	29	31	16	29	40	41	34.1
Cedar R.	max.	61	80	70	67	72	78	60	62	55	66	51	50	55	66	67	73	77	53	64	56	57	69	64	75	52	50	40	52	48	48	57	60.8
	min.	47	48	49	45	45	46	51	39	39	39	38	30	26	27	32	43	43	33	30	34	29	29	34	34	36	33	33	21	22	41	41	36.7
Chariton	max.	69	81	78	72	76	80	74	65	62	71	63	49	58	68	72	77	79	65	71	60	61	75	71	80	74	48	47	52	48	46	45	65.7
	min.	51	49	58	41	44	48	52	32	44	36	37	26	24	32	47	42	46	33	32	38	29	40	35	41	37	39	34	18	39	40	41	38.9
Ch'rls Cty	max.	59	79	70	67	71	77	58	60	54	62	46	45	54	65	67	71	75	48	62	52	57	67	62	72	48	53	40	49	45	45	52	59.1
	min.	48	46	47	38	39	51	38	29	43	37	33	23	20	30	45	41	38	27	28	28	25	33	28	38	31	28	20	17	41	41	44	34.7
Clarinda	max.	75	77	66	75	80	82	65	65	66	77	61	54	61	73	74	80	82	61	75	64	66	78	75	83	56	62	50	50	46	50	56	67.3
	min.	51	45	52	42	42	45	50	30	39	34	36	26	20	24	38	36	38	32	32	37	26	28	35	39	43	43	33	16	19	42	43	36.0
Clear La'e	max.	57	67	65	67	68	72	67	65	58	60	60	48	52	62	68	68	71	60	63	60	55	68	60	70	65	65	50	50	47	46	50	60.8
	min.	45	45	55	42	42	55	42	32	45	43	35	26	25	32	45	40	50	25	33	25	32	42	35	43	32	28	30	25	42	38	40	37.7
Clinton	max.	70	79	74	65	73	73	66	64	66	67	53	52	53	65	63	70	73	65	60	55	56	68	70	68	55	53	50	49	48	52	59	62.4
	min.	40	49	59	45	44	43	35	34	34	35	35	37	24	28	44	43	45	32	28	28	27	34	30	35	36	35	21	23	40	43	40	36.3
Colum's J	max.	66	81	74	68	69	75	65	65	65	68	69	50	52	65	66	72	74	75	62	55	56	73	66	72	65	49	46	52	60	51	57	64.0
	min.	42	55	61	41	42	48	48	42	43	48	38	32	27	33	33	45	45	36	31	39	30	39	37	37	39	39	34	22	39	42	42	39.6
Corning	max.	72	75	70	71	72	76	68	62	62	70	56	48	54	68	70	72	75	65	70	60	58	71	66	76	63	57	49	48	48	47	53	63.6
	min.	53	46	59	40	39	50	51	29	41	35	35	21	19	37	46	35	48	31	33	39	31	45	31	47	41	30	32	14	41	42	44	38.2
Corydon	max.	69	81	76	73	77	80	77	67	65	74	64	55	60	69	74	78	79	71	71	64	62	78	73	79	71	50	47	52	47	47	54	67.2
	min.	52	51	60	43	45	48	53	35	43	38	36	26	23	34	49	44	46	34	33	39	30	42	38	42	40	40	34	19	40	41	44	40.1
Creston	max.	71	70	69	70	72	76	60	61	52	70	58	46	54	64	70	72	75	52	68	56	70	70	73	76	52	54	47	48	47	47	54	62.1
	min.	50	50	40	41	41	42	50	32	36	36	36	25	22	37	40	42	48	31	35	39	34	38	38	42	39	38	32	17	28	36	35	37.1
Dav'np'rt	max.	68	84	74	66	69	75	64	60	60	67	53	50	52	64	58	72	74	55	62	54	56	70	63	70	55	47	46	51	47	51	56	61.1
	min.	48	58	57	48	48	53	49	41	45	42	39	34	29	38	47	48	52	40	38	40	36	42	39	39	40	37	29	24	42	44	46	42.3
Decorah	max.	67	75	72	64	67	74	62	57	53	60	48	44	49	62	63	68	73	48	57	51	55	65	61	69	49	55	47	52	48	48	52	58.5
	min.	48	47	54	42	42	53	45	32	43	38	39	30	23	29	42	39	46	31	29	32	24	39	28	36	32	27	26	18	42	42	42	36.8
Delaware	max.	61	74	70	61	66	71	60	59	53	62	49	48	52	61	59	68	72	56	55	51	53	65	58	67	56	51	46	47	44	46	55	57.9
	min.	44	45	59	41	42	49	47	32	33	35	34	26	24	30	47	50	46	30	28	32	27	36	35	36	34	32	28	19	39	39	45	36.9
Dennison	max	69	82	73	74	74	78	71	64	60	69	59	48	60	69	68	75	77	57	70	66	61	74	68	76	62	60	55	51	49	47	53	65.1
	min	43	44	57	34	40	45	47	..	43	38	33	24	18	..	45	33	46	26	32	28	24	42	29	49	34	30	32	14	29	41	45	36.0
Des Moins	max.	67	78	68	73	74	78	63	63	62	69	54	50	55	68	72	73	78	52	70	58	58	72	66	78	53	52	46	50	48	46	54	62.8
	min.	52	50	53	44	48	53	47	37	45	42	39	29	26	35	50	45	46	34	34	39	32	44	37	43	38	37	28	22	41	42	45	40.5
De Soto	max.	67	78	73	72	74	79	74	65	62	71	62	49	58	68	74	75	79	59	71	56	61	74	69	78	60	57	46	50	47	47	53	64.8
	min.	50	49	58	40	46	52	41	34	46	41	37	26	21	31	45	40	49	30	30	32	24	42	33	41	36	36	32	15	41	41	45	38.2
Dows	max.	66	82	66	70	74	79	66	62	59	65	53	46	55	65	70	73	76	59	69	61	58	70	65	73	60	56	50	49	45	44	51	62.5
	min	46	43	55	33	37	47	47	28	42	35	34	24	18	28	46	35	44	26	29	29	24	36	31	40	27	26	30	15	40	39	42	34.7
Dubuque	max.	62	81	72	67	68	74	61	58	55	63	48	47	52	62	57	70	75	50	55	55	55	67	60	69	50	50	44	50	45	48	55	58.9
	min.	47	53	56	46	46	54	48	37	44	40	40	33	27	33	47	46	50	34	31	35	30	41	35	40	37	33	30	24	40	42	43	40.1
Earlham	max.	82	81	70	71	75	75	64	63	67	69	70	60	47	64	74	74	78	65	70	62	60	74	67	74	64	55	49	48	44	44	45	64.7
	min.	42	44	44	37	40	50	49	29	37	41	49	35	16	32	45	36	47	28	26	35	24	41	28	41	29	34	32	22	35	36	38	36.2
Elkader	max.	61	84	73	69	73	77	60	61	53	66	49	51	56	66	66	76	79	60	58	54	58	70	65	70	55	57	47	56	45	48	56	61.9
	min.	47	38	50	45	42	45	49	31	43	34	37	27	20	24	45	38	39	29	26	32	23	37	25	30	28	24	34	15	34	40	40	34.5
Elliott	max.	73	75	71	71	71	76	67	63	71	70	56	48	59	71	70	72	75	60	70	58	59	72	67	75	52	59	45	51	50	51	56	64.0
	min.	59	47	55	38	48	46	43	30	45	34	35	22	19	37	45	35	43	29	33	35	23	23	32	43	41	42	29	15	35	42	47	37.1
Elma	max.	60	75	70	65	68	75	65	67	53	59	46	42	50	62	64	68	70	55	60	49	54	65	57	70	54	51	49	47	46	45	52	58.5
	min.	47	47	57	34	37	50	47	26	42	34	35	27	17	29	42	41	45	25	25	29	24	35	28	39	31	27	25	14	37	40	43	34.8
Esth'rv'e	max.	73	76	61	69	76	77	62	63	59	61	48	45	56	63	67	75	67	50	68	54	60	67	64	70	48	60	42	52	47	46	51	60.5
	min.	39	43	53	35	41	52	48	29	42	42	33	23	24	29	35	39	46	24	25	28	26	38	25	35	28	22	27	18	22	40	40	33.9
Forest C'y	max.	57	82	63	68	75	79	59	62	58	61	50	47	54	65	73	74	70	52	68	55	58	64	65	72	49	54	50	51	55	45	50	60.8
	min.	38	38	46	35	39	53	45	29	49	35	35	24	23	32	39	42	38	36	24	30	29	33	32	41	29	29	30	22	24	30	42	34.5
Ft. Dodge	max.	64	82	61	71	75	79	54	59	61	64	54	46	56	65	69	74	74	72	70	55	71	70	67	74	48	54	44	50	45	46	52	62.1
	min.	45	48	50	38	43	43	47	34	35	41	30	25	20	25	38	38	49	33	37	33	28	35	32	33	32	30	31	19	28	41	42	35.6
Gr. Mead.	max.	60	75	72	62	66	72	64	56	62	47	44	49	..	61	62	67	74	51	54	50	53	65	57	67	54	52	45	48	44	46	54	57.8
	min.	45	52	52	40	44	54	46	32	39	36	29	25	..	33	43	41	49	29	35	32	29	41	35	43	34	29	28	21	40	40	41	37.9
Greene	max.	58	77	70	68	72	77	69	61	57	63	54	48	55	66	66	72	75	61	65	58	58	69	63	73	67	55	50	51	46	46	53	62.0
	min.	47	47	57	37	40	51	48	29	43	37	34	25	21	38	45	41	46	26	29	31	25	36	30	40	31	27	33	18	42	41	44	36.7
Greenfi'ld	max.	70	75	71	70	74	71	68	63	70	59	55	55	66	73	74	77	65	69	69	63	60	74	70	71	62	56	50	48	47	52	..	64.9
	min.	52	55	58	39	39	52	38	21	38	22	23	25	38	48	41	49	29	36	36	35	33	45	37	48	37	35	32	22	40	41	..	38.1
Grinnell	max.	62	81	70	68	72	77	68	62	59	67	59	49	55	69	70	73	77	78	67	60	58	71	67	78	67	56	48	54	48	45	54	64.2
	min.	50	49	58	40	42	47	51	35	46	37	44	27	22	32	47	42	47	47	47	34	32	38	34	42	36	35	34	18	40	41	43	39.9
Grundy C.	max.	59	81	75	70	73	78	62	61	57	65	58	48	56	68	68	73	78	64	65	63	58	71	65	75	65	60	42	50	53	47	53	63.3
	min.	48	51	38	40	44	52	48	31	44	40	35	26	21	30	38	38	50	28	28	27	26	40	32	42	30	29	29	19	32	41	40	36.0
Guthrie C.	max.	69	80	71	71	72	78	69	64	63	70	62	53	55	68	71	73	77	60	79	62	59	74	65	76	62	56	50	50	48	48	53	64 8
	min.	52	48	58	39	41	52	49	31	44	37	36	26	19	34	48	38	50	29	29	35	22	45	32	42	35	34	33	15	42	42	45	38.1
Hampton	max.	58	85	67	71	76	81	62	64	58	64	50	48	59	67	73	77	77	55	67	60	59	72	70	73	56	56	47	50	46	45	52	62.7
	min.	47	48	48	38	44	43	46	32	45	42	34	25	24	33	47	40	49	27	31	32	31	41	35	42	34	28	31	21	41	40	43	37.5

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF OCTOBER, 1907—CONTINUED.

STATIONS		DATE																														MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	25	24	25	26	27	28	29	30	31	
Hancock..	Max.	71	72	73	73	73	77	70	63	66	70	60	46	55	70	69	73	77	58	70	65	60	73	68	77	63	58	49	50	50	48	53	64.5
	Min	52	59	58	40	45	50	48	32	44	34	37	26	23	39	45	37	45	30	36	37	31	43	38	47	39	36	33	18	43	40	45	39.5
Harlan ...	Max.	71	81	71	73	76	79	69	64	61	70	60	47	58	69	70	76	79	55	71	58	62	75	71	80	60	61	48	52	47	48	52	65.0
	Min.	52	42	57	35	39	44	46	28	42	33	34	24	17	34	42	33	42	29	29	32	21	35	30	40	37	35	31	13	41	40	45	35.5
Hopeville.	Max.	72	80	71	71	76	71	62	65	63	72	57	48	59	60	73	76	79	66	71	63	61	74	70	78	63	56	51	50	56	46	56	65.0
	Min.	53	48	58	43	45	45	50	35	45	38	37	26	25	33	48	43	47	33	32	39	30	42	39	40	39	39	34	22	40	40	51	40.0
Humboldt	max.	61	78	67	68	71	76	72	62	60	55	45	64	63	65	68	72	73	56	70	62	60	68	63	74	64	55	50	50	46	46	51	62.4
	min.	48	44	57	36	40	52	50	34	44	36	24	40	20	33	45	36	44	25	34	29	26	36	28	44	28	26	32	16	43	42	44	36.6
Indianola	max.	61	77	72	70	73	77	66	63	60	70	59	48	55	66	71	73	76	62	69	58	58	72	65	77	65	51	45	50	48	46	53	63.1
	min.	51	53	59	44	46	52	49	36	47	40	37	27	24	36	50	46	48	31	35	38	32	45	38	46	38	37	34	22	41	42	45	40.9
Inwood...	max	67	79	67	74	79	81	61	71	67	70	54	50	58	70	69	81	69	53	70	57	66	72	66	74	53	62	50	51	50	48	51	64.2
	min	45	40	47	33	36	50	43	28	37	43	28	20	23	41	38	33	43	21	37	25	30	35	29	47	28	28	23	15	34	41	46	34.4
Iowa City.	max	62	84	71	69	75	78	60	65	57	67	52	51	58	68	68	74	75	58	64	61	59	71	71	75	59	50	40	54	47	49	57	62.9
	min.	46	48	50	45	45	55	54	39	39	37	38	30	25	29	30	43	44	34	29	34	29	29	33	34	37	36	37	19	21	41	43	37.2
Iowa Falls	max.	60	78	68	68	72	77	53	60	58	65	45	47	52	65	66	71	76	49	68	53	56	70	62	73	48	55	43	51	47	45	53	59 8
	min.	45	45	52	36	36	42	51	30	42	35	34	25	19	30	45	38	44	28	27	33	25	38	29	41	34	28	27	16	35	41	42	35.3
Jefferson.	max	69	82	70	75	77	79	72	64	64	72	60	50	58	65	74	76	80	58	74	71	66	77	69	79	67	59	50	50	47	46	52	66.2
	min.	50	46	56	39	40	43	47	33	44	40	34	24	21	32	44	39	50	27	31	31	26	43	32	45	31	31	33	17	41	41	45	37.3
Keokuk ..	max.	72	84	74	70	73	76	68	62	65	74	59	52	55	65	61	73	75	67	66	57	58	77	67	75	66	51	44	51	51	51	55	64.3
	min	52	61	64	50	48	52	51	42	48	42	42	33	29	36	48	46	52	44	34	48	33	44	42	38	44	39	35	25	41	43	46	43.6
Keosa'q'a	max.	70	85	72	70	72	77	64	63	63	72	57	51	56	67	67	72	76	60	67	57	65	78	67	77	60	48	43	53	50	49	57	64.0
	min.	52	51	54	47	45	46	55	37	37	40	38	30	23	28	31	44	45	37	27	28	25	27	25	34	36	40	38	17	17	40	43	36.7
Knoxville	max.	67	80	74	70	73	77	68	64	60	68	60	52	58	66	70	73	77	70	69	59	59	72	66	77	67	52	48	52	48	47	55	64.5
	min.	52	52	60	45	45	50	51	37	45	40	39	28	24	35	50	45	50	33	32	38	30	43	37	40	38	38	34	20	41	42	45	40.6
Larrabee.	max.	66	77	68	70	75	80	..	65	59	68	52	44	54	67	64	73	71	60	71	53	61	69	64	74	50	59	51	51	48	46	55	62.2
	min.	49	45	5	37	39	..	43	32	42	43	30	20	22	38	44	36	43	25	32	25	27	37	33	49	29	26	29	16	35	41	45	35.4
Le Mars ..	max.	64	76	72	70	73	76	67	66	65	65	59	50	55	67	68	76	69	50	73	65	61	69	65	72	59	59	53	51	51	49	54	63.5
	min.	47	42	53	36	40	52	46	30	42	40	30	20	22	40	50	47	46	23	34	28	28	36	27	48	24	25	30	21	37	42	47	36.5
Lenox	max.	72	77	75	70	72	77	72	63	63	72	63	49	56	68	70	73	75	68	70	63	60	72	69	77	66	58	55	49	47	47	54	65.2
	min.	53	50	59	40	44	50	50	33	42	38	34	24	26	35	48	40	48	32	35	38	32	44	41	43	41	40	32	19	40	41	45	39.9
Leon.....	max.	70	79	72	70	72	77	69	63	62	71	69	54	55	66	68	74	76	66	67	68	58	72	66	76	76	53	48	49	46	47	54	64.9
	min.	53	50	60	45	47	50	52	38	46	40	40	28	29	31	46	46	47	33	35	34	32	42	43	45	42	36	34	21	40	41	45	41.0
Lit. Sioux	max.	72	83	74	78	79	80	73	68	66	74	64	49	59	70	69	78	78	61	75	67	65	76	70	78	67	63	56	50	50	50	54	67.6
	min.	53	53	56	35	38	50	49	28	39	35	31	21	20	44	42	34	49	25	38	28	50	41	30	50	38	34	29	40	44	42	47	38.5
Logan	max.	71	80	70	73	75	79	64	63	69	71	56	48	55	68	68	75	78	59	74	69	60	73	79	77	64	65	49	52	49	49	54	65.7
	min.	53	43	56	35	40	57	49	29	39	42	35	23	19	30	44	34	45	29	32	34	23	42	32	46	37	34	34	15	42	41	41	37.3
Mars'llt'n	max.	62	82	68	70	73	77	58	61	60	66	51	51	55	66	68	73	77	54	67	57	58	74	67	76	52	57	44	51	47	45	53	61.9
	min.	46	51	51	39	40	43	55	33	33	39	34	26	21	33	37	39	39	30	28	34	25	29	32	32	33	30	33	18	18	41	41	34.9
Mason C'y	max.	58	76	68	67	71	77	65	58	55	60	67	48	52	65	65	70	70	56	64	55	55	65	59	70	55	53	50	50	47	46	52	60.3
	min.	46	46	58	34	37	53	46	29	43	38	46	24	19	30	44	38	45	24	28	30	24	40	27	40	34	26	32	18	45	42	43	36.4
Massena..	max.	72	78	75	73	83	80	70	68	69	78	68	53	59	69	81	80	85	66	..	..	..	..	..	82	63	68	61	49	47	46	53	68.3
	min.	53	43	59	34	40	50	50	30	41	35	34	23	19	38	46	35	45	30	..	..	..	..	..	45	40	35	30	10	43	41	45	38.2
Mt. Ayr ..	max.	75	82	70	74	78	79	67	66	65	76	60	52	60	68	72	77	78	66	73	59	64	77	73	79	66	59	49	48	47	48	53	66.5
	min.	52	53	58	45	45	46	49	35	43	36	36	26	28	35	48	44	45	33	34	40	32	41	42	45	42	40	33	25	40	41	45	40.5
Mt. Pleas't	max.	67	81	74	68	70	75	64	60	61	70	58	51	53	65	65	72	74	64	63	56	55	74	65	73	64	48	46	50	52	51	57	62.8
	min.	50	54	62	46	46	49	48	38	46	39	38	32	27	33	47	46	48	37	34	40	32	40	37	39	39	39	34	21	40	42	46	40.9
N.Hamp'n	max.	59	73	70	62	61	72	66	56	52	59	52	42	48	62	64	66	71	54	66	50	53	65	56	68	58	51	45	47	46	45	57	57.9
	min.	46	47	57	38	42	49	46	30	42	35	35	26	22	30	43	42	44	26	30	30	28	35	34	40	33	28	23	18	40	40	40	36.1
Newton...	max.	60	76	72	66	68	74	68	60	60	61	60	48	52	66	65	70	75	70	72	65	64	68	65	75	67	52	50	51	50	47	53	62.9
	min.	50	48	58	43	45	49	50	38	38	40	38	29	26	34	48	45	48	44	40	41	38	40	40	45	41	40	40	24	42	43	45	41.6
Northw'd	max.	62	75	68	67	72	76	63	67	55	45	45	48	52	63	73	72	70	50	65	53	56	61	59	68	58	54	49	50	48	45	53	59.4
	min.	48	45	47	37	42	43	46	30	43	35	35	25	23	30	40	42	44	26	31	30	27	36	33	41	30	26	31	19	43	40	43	35.8
Odebolt ..	max.	68	83	70	74	77	81	62	65	62	70	59	43	59	69	68	77	74	55	71	64	63	74	70	75	63	63	52	57	49	46	53	65.0
	min.	49	47	66	38	42	55	46	30	43	39	32	23	22	37	48	37	48	28	32	32	29	44	31	44	32	22	31	19	40	41	45	37.8
Olin.....	max.	63	74	72	66	65	71	64	56	57	64	57	48	48	60	64	68	82	68	56	52	52	65	59	66	57	50	42	48	47	50	56	59.6
	min.	40	47	60	46	43	46	50	35	42	34	38	30	24	26	50	42	54	34	27	44	25	32	30	35	35	33	35	18	42	41	41	38.0
Omaha, N	max.	73	74	71	76	76	80	65	66	63	73	56	48	56	72	69	75	79	54	72	57	63	71	69	79	53	60	50	51	50	50	54	64.7
	min.	56	54	57	45	49	56	47	39	48	46	41	31	32	45	47	43	44	34	42	39	37	47	44	49	43	42	35	31	44	44	49	43.9
Onawa....	max.	69	79	71	76	79	83	75	69	68	73	65	53	61	73	70	79	75	57	75	67	68	75	69	78	65	65	57	50	50	50	53	67.6
	min.	51	50	56	39	42	53	50	34	45	37	39	29	25	42	49	39	47	31	36	35	30	41	37	50	37	44	34	24	44	42	47	40.6
Osage.....	max.	58	80	69	71	73	78	66	60	57	62	50	73	60	68	79	80	74	55	78	58	56	79	66	72	55	51	49	48	50	46	51	63.6
	min.	47	45	56	36	39	50	47	28	40	37	33	24	20	24	39	39	42	22	24	29	25	30	30	39	29	22	31	16	41	39	42	34.4
Oskaloosa	max.	78	78	74	68	71	77	66	63	60	69	57	49	55	67	67	73	77	67	67	59	59	72	66	77	65	50	47	54	48	46	55	63.9
	min.	51	51	59	44	44	51	51	38	46	40	38	28	22	32	50	38	50	34	29	38	29	40	34	40	38	39	34	15	41	41	45	39.7
Ottumwa .	max.	68	84	72	74	77	80	62	66	63	72	55	53	59	68	71	78	79	57	70	60	60	76	70	79	59	54	44	54	49	49	56	65.1
	min.	52	53	60	47	48	52	55	40	40	42	39	31	27	30	45	48	51	36	32	39	32	37	39	40	41	40	36	21	26	42	44	40.8
Pacific Jc.	max.	74	72	70	74	75	79	63	66	66	73	60	56	58	74	70	74	79	58	73	59	63	70	74	79	60	61	48	53	48	52	55	65.7
	min.	54	42	55	35	39	45	47	30	39	34	37	22	19	35	40	34	43	30	33	35	25	35	42	39	41	35	30	16	42	42	47	36.8
Pella.....	max.	65	80	74	71	73	79	71	65	62	70	63	51	59	68	70	75	78	70	79	61	60	73	68	78	70	51	48	54	49	46	54	65.6
	min.	51	51	59	43	45	50	52	38	46	39	38	28	26	34	48	45	48	33	33	37	30	40	38	39	37	37	34	21	40	41	44	40.2
Perry.....	max.	67	77	70	70	72	76	65	63	61	68	58	46	55	66	70	72	77	58	70	57	60	72	63	77	72	55	49	50	47	47	52	63.3
	min.	50	45	57	40	43	50	47	33	43	37	37	26	23	33	45	40	46	28	31	33	27	40	33	39	33	32	32	18	42	42	45	37.7
Plover....	max.	63	76	66	71	72	76	55	61	60	64	56	43	53	63	67	72	73	53	70	52	59	68	62	70	50	58	49	46	51	44	51	60.5
	min.	48	50	48	30	39	..	27	45	42	40	31	21	22	33	38	30	38	17	28	26	20	32	26	39	23	20	25	12	32	36	40	31.9
Pocahon's	max.	63	76	65	66	72	76	65	62	60	64	56	43	53	63	65	71	70	45	69	64	68	59	73	..	50	56	47	48	45	45	51	60.3
	min.	46	42	50	49	47	52	44	29	38	43	31	21	22	33	46	39	45	22	33	28	26	30	40	..	28	32	27	20	25	39	43	35.7
Ridgeway	max.	62	81	74	70	76	81	61	62	54	66	52	53	57	65	71	73	79	56	60	55	59	75	67	74	51	55	46	57	46	49	54	62.6
	min.	45	50	55	40	45	53	45	30	42	37	35	27	24	30	41	40	47	26	33	30	28	38	33	39	30	27	27	20	36	40	43	36.6
Rock'll Cy	max.	60	78	68	70	73	76	69	64	62	68	60	54	55	67	68	73	74	56	69	63	69	71	73	75	63	58	53	53	48	53	53	64.4
	min.	48	48	48	38	43	54	48	36	43	41	40	24	30	37	49	42	48	26	34	33	28	48	33	47	33	28	32	33	42	40	40	39.2
Sac City ..	max.	65	68	78	70	76	..	..	..	80	66	59	45	53	65	66	72	72	53	69	63	59	72	73	72	48	59	52	..	..	..	..	64.8
	min.	48	49	47	37	..	..	..	31	43	40	33	24	23	32	45	37	33	25	31	31	24	37	34	33	32	25	31	..	..	..	..	34.4
St. Charl's	max.	68	78	71	75	81	81	67	67	65	73	57	53	60	66	75	80	80	59	73	60	64	78	70	80	65	56	48	51	48	47	53	66.1
	min.	51	52	58	44	46	53	48	37	46	41	38	28	28	35	50	46	51	31	34	38	32	45	39	45	38	38	34	23	41	41	45	41.2
Sheldon ..	max.	64	82	68	74	79	83	65	69	64	65	55	52	59	69	71	78	72	55	72	70	63	73	70	74	65	62	56	52	52	47	54	65.6
	min.	46	40	52	31	36	50	45	28	42	35	29	21	19	35	42	34	42	22	29	27	26	32	31	32	28	26	19	40	39	41	40	34.2
Sibley	max.	62	80	..	70	77	79	55	66	60	62	49	47	57	66	66	76	65	52	69	56	62	68	67	71	47	60	46	50	46	46	52	61.0
	min.	39	41	43	..	31	38	44	29	29	38	30	23	21	22	41	34	34	22	24	27	28	30	34	34	29	26	29	20	26	40	41	31.6
Sigourn'y	max.	66	81	73	68	71	77	67	68	60	69	60	51	56	68	65	73	76	68	66	58	59	72	67	76	69	58	48	54	50	48	57	64.5
	min.	50	50	53	43	45	48	37	42	40	38	38	29	24	32	48	44	47	34	30	38	31	39	35	38	37	39	35	19	40	42	42	38.9
Sioux Cen	max.	63	77	68	69	74	77	66	66	59	65	54	44	55	66	64	73	66	50	70	54	61	67	65	..	48	59	53	51	49	48	56	61.2
	min.	47	44	52	36	40	48	42	30	43	40	28	21	27	37	41	37	35	20	34	29	27	40	31	..	23	25	24	21	35	42	42	34.7
Sioux City	max.	68	82	68	73	77	80	63	70	63	69	52	46	56	69	65	77	71	52	74	55	65	71	66	72	49	60	46	49	50	49	54	63.2
	min.	55	47	46	40	43	56	39	34	45	44	35	25	21	43	41	34	38	28	38	30	35	43	34	49	32	35	22	23	44	43	49	38.4
Stockport	max.	67	80	72	66	69	76	66	61	61	70	59	49	53	67	64	73	75	65	63	55	58	75	64	75	59	47	46	53	50	49	55	62.6
	min.	52	54	62	47	47	50	48	37	47	47	39	31	25	31	48	44	49	37	31	43	28	39	37	38	40	40	36	17	41	41	45	41.0
Storm L,.	max.	62	79	62	72	65	78	74	63	61	66	58	46	55	64	67	73	72	53	68	64	59	71	65	74	57	59	51	48	48	45	52	62.3
	min.	46	41	53	34	46	55	45	33	43	42	32	24	31	40	48	42	49	24	38	28	33	42	45	50	33	31	31	26	38	40	44	38.9
Stuart	max.	68	74	69	69	70	..	74	65	60	67	..	60	59	65	63	70	77	66	71	64	60	73	66	77	63	57	50	..	49	51	52	64.6
	min.	46	52	58	41	43	..	49	35	44	39	..	21	24	36	46	42	51	30	32	38	31	46	39	44	38	37	34	..	..	..	..	39.8
Thurman	max.	74	75	73	74	74	78	72	66	64	73	58	48	57	73	70	74	78	68	72	61	63	71	68	78	62	70	59	52	51	52	55	66.5
	min.	55	43	58	38	40	55	53	32	42	33	37	25	21	44	43	35	46	33	32	36	25	34	34	44	44	42	35	17	45	44	48	39.1

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF OCTOBER, 1907—CONTINUED.

STATIONS		DATE																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Tipton....	Max.	62	80	70	68	72	75	63	61	67	67	55	58	54	63	64	71	75	65	60	60	55	68	64	70	60	48	45	51	45	47	54	61.5
	Min.	47	53	61	48	47	50	50	41	46	39	40	33	30	34	49	46	50	39	35	40	34	40	40	38	40	37	35	25	40	42	41	41.6
Toledo ...	max.	61	79	71	62	67	74	69	67	56	63	56	47	51	65	67	70	74	64	61	55	69	62	74	63	52	49	50	49	45	47	54	61.1
	min.	47	49	59	42	36	52	49	34	46	40	39	27	22	33	48	41	49	28	34	25	41	33	38	33	31	34	16	40	40	42	43	38.4
Wapello ..	max.	64	78	73	68	65	71	66	56	60	66	58	49	49	62	60	..	..	70	60	55	65	70	68	69	67	47	46	48	48	49	54	60.7
	min.	48	56	63	50	48	51	51	45	48	41	41	37	29	35	48	..	..	44	35	44	37	35	35	35	39	41	36	23	40	46	46	42.3
Wash'g'n	max.	64	80	72	67	70	76	61	62	62	69	56	57	54	67	64	74	76	60	64	57	58	70	66	76	58	47	46	55	49	49	56	62.6
	min.	48	54	59	45	44	48	46	38	45	36	37	30	26	30	49	44	47	34	32	38	30	39	36	38	36	38	27	20	39	42	44	39.3
Waterloo.	max.	60	82	71	70	73	79	65	62	55	70	51	49	56	67	68	74	79	64	62	58	59	72	64	74	53	56	51	54	54	51	55	63.2
	min.	47	46	60	41	43	50	50	33	42	40	36	28	23	28	46	42	49	30	30	33	26	36	32	40	32	31	34	20	42	42	45	38 0
Waukee ..	max.	65	75	70	65	70	76	65	62	63	68	59	46	54	65	69	70	75	65	69	58	64	72	64	77	66	54	47	50	47	47	52	62.9
	min.	50	59	59	41	45	52	49	35	43	39	37	26	24	33	50	43	49	31	33	30	37	45	37	43	37	36	26	20	40	42	45	39.9
Waverly .	max.	58	78	69	66	69	76	63	60	55	62	50	45	51	64	63	72	66	58	61	55	56	68	61	72	58	55	50	51	46	46	54	59.9
	min.	48	47	58	41	43	52	49	32	44	37	37	28	22	32	47	42	46	30	29	33	27	38	31	39	33	30	30	18	33	41	45	37.5
Websr. Cy	max.	63	78	75	72	73	77	72	55	59	67	55	50	54	68	69	71	76	65	69	68	50	70	65	74	61	56	52	50	49	46	52	63.3
	min.	49	43	58	35	38	53	48	50	42	30	32	21	17	28	47	38	45	26	28	31	24	33	26	42	29	27	32	14	43	41	44	36.0
W. Bend .	max.	63	76	65	69	72	76	65	61	59	62	52	43	52	62	65	70	69	50	68	60	57	66	60	71	56	55	50	51	45	46	52	60.3
	min.	46	44	55	35	38	52	44	30	40	37	32	21	21	31	45	38	43	23	32	30	27	37	28	45	31	24	31	18	36	40	44	35.4
Whitten ..	max.	67	75	69	67	70	75	68	60	58	65	58	49	53	65	66	70	76	63	65	61	57	70	62	73	63	56	52	51	..	46	54	62.8
	min.	49	47	55	38	41	48	49	33	43	37	33	25	22	32	47	41	45	28	31	32	29	38	29	41	33	30	32	17	..	40	43	36.9
Wilton Jn	max.	67	78	74	70	68	72	63	59	60	64	57	50	48	63	60	69	71	72	77	57	58	67	65	65	60	50	46	48	47	49	55	61.6
	min.	46	52	62	45	44	48	50	38	43	35	38	30	25	42	49	43	46	35	28	38	23	35	32	36	36	34	35	20	40	41	45	39.2
Winterset	max.	66	74	70	65	70	75	68	61	60	69	63	47	53	66	69	70	74	66	66	63	66	69	62	74	65	54	49	49	47	47	52	62.9
	min.	51	50	59	43	44	50	50	35	45	40	37	27	27	42	50	46	49	30	32	37	40	45	38	45	38	38	34	23	42	42	45	41.1
Zearing...	max.	62	80	69	70	73	78	69	62	59	65	55	48	54	64	69	73	78	62	69	56	58	71	67	76	61	55	45	50	47	45	52	62.6
	min.	47	48	56	36	40	48	49	31	42	35	32	27	17	32	47	38	47	29	26	33	23	38	33	37	33	25	32	15	42	40	43	36.2

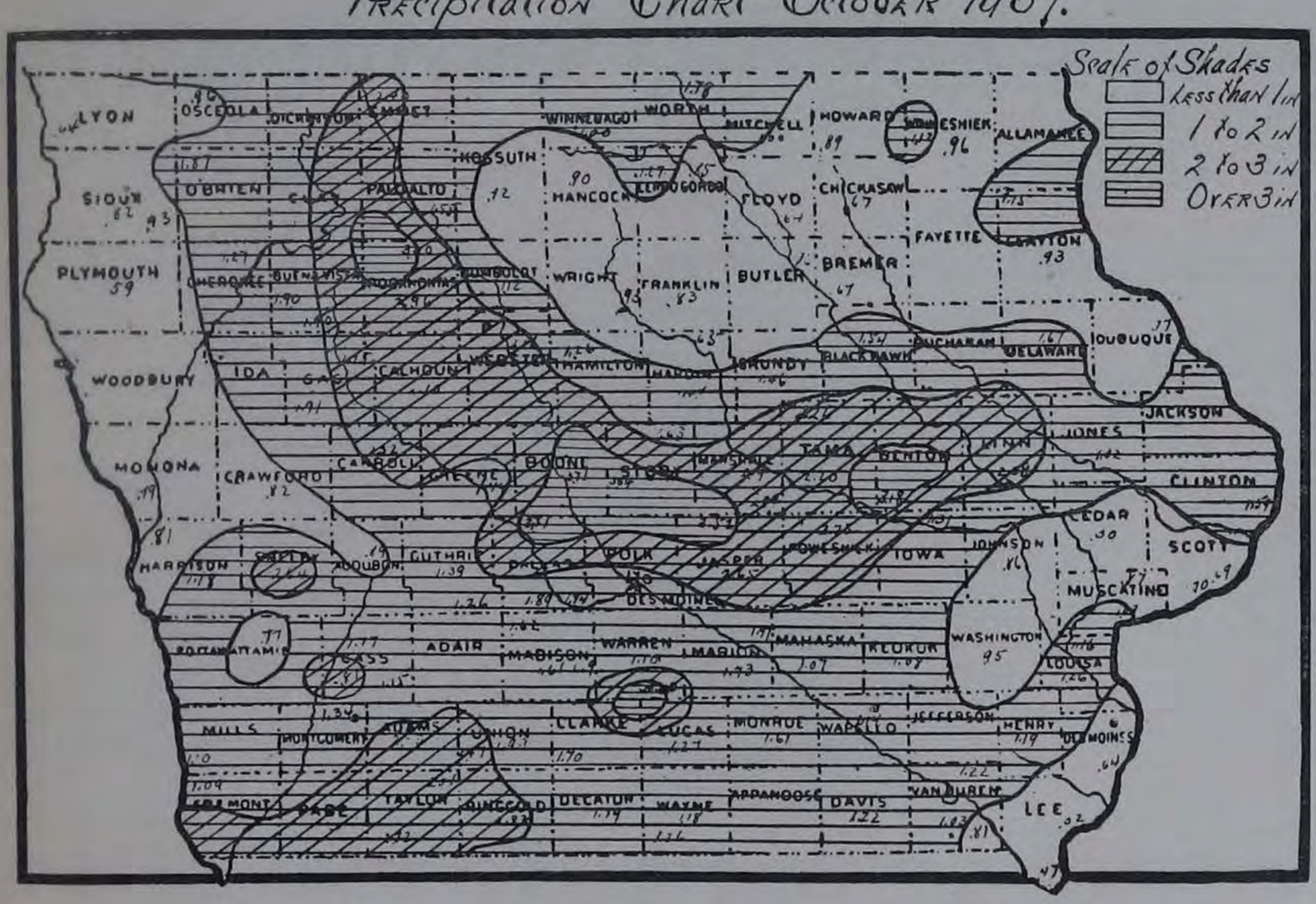
DAILY AND MONTHLY PRECIPITATION FOR OCTOBER, 1907.

STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	.40	....	.34	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.80	.45	....	1.99
Albia	.20	.26	....	.03	....	....	....	....	....	....	....	....	....	....	.27	....	....	....	....	....	....	....	....	....	T	.06	....	....	.24	.53	.02	1.61
Algona	.37	....	....	....	....	....	T	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	.03	....	....	.51	.29	....	1.26
Allerton	.31	.02	.01	....	....	....	....	....	....	....	....	....	....	....	.09	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.52	.01	1.19
Alta	.42	.14	.07	....	....	....	....	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	.12	.44	.95	1.90
Alta (near)	.31	....	.04	....	....	....	....	....	....	....	....	....	....	.14	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.21	.22	.14	0.93
Alton	.24	....	.07	....	....	....	....	....	....	....	....	....	....	....	.05	....	T	....	....	....	....	....	....	....	....	....	....	....	.05	.07	....	1.31
Amana	.59	....	.60	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.91	.38	T	3.04
Ames	.30	....	1.53	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.91	....	.47	1.77
Atlantic	.22	.17	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.23	.32	....	.89
Audubon	.15	....	.19	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.40	.48	.01	3.52
Baxter	.41	.01	2.18	....	....	....	....	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	1.56	.25	....	2.72
Bedford	.35	....	.56	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.30	.16	.02	3.18
Belle Plaine	.50	....	1.70	.50	....	....	....	....	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	....	....	....	.08	....	....	.40	.30	....	1.22
Bloomfield	.28	T	.01	....	....	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	....	T	....	....	.22	.23	....	.81
Bonaparte	.12	....	.04	....	....	....	....	....	....	....	T	....	....	....	.01	T	....	....	....	....	....	....	....	....	T	....	....	....	.03	1.08	.02	3.71
Boone	.39	.24	1.94	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.09	.27	.03	.90
Britt	.40	....	.12	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.04	.30	....	2.26
Buckingham	.62	....	1.30	....	....	....	....	....	....	....	....	....	....	T	T	....	....	....	....	....	....	....	....	....	....	.06	.01	....	.09	.15	.02	.64
Burlington	....	....	.07	.06	....	....	....	....	....	....	....	....	....	....	.13	.05	....	....	....	....	....	....	....	....	....	....	....	....	T	.69	.01	2.32
Carroll	.50	.35	.69	....	....	....	....	....	....	....	....	....	....	....	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.05	T	2.08
Cedar Rapids	.02	.46	1.55	T	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.48	.45	....	1.27
Chariton	.34	....	T	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.03	.19	....	.64
Charles City	.39	T	.03	....	....	....	T	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.81	.91	....	2.48
Clarinda	....	.27	.49	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.40	....	1.27
Clear Lake	.70	....	.12	....	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.07	....	....	1.59
Clinton	.22	....	1.20	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	.55	.08	....	1.16
Columbus Junc.	.35	....	.02	....	....	....	....	....	....	....	....	....	....	....	.16	....	....	....	....	....	....	....	....	....	....	T	....	....	....	1.46	....	2.33
Corning	.18	....	.69	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.43	.29	....	1.18
Corydon	.32	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	.04	....	....	.67	.52	T	2.47
Creston	.20	.88	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.42	1.15	.82	2.81
Cumberland	.42	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	T	.03	T	....	.70
Davenport	.18	....	.28	....	....	....	....	....	....	....	....	....	....	....	.21	....	....	....	....	....	....	....	....	....	.04	....	....	....	....	.17	.05	.96
Decorah	.46	....	.22	....	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.07	.10	....	1.67
Delaware	.47	....	.82	....	....	....	....	....	....	....	....	....	....	....	.21	....	....	....	....	....	....	....	....	....	....	....	....	....	.31	.12	.05	.82
Denison	.22	....	.04	....	....	....	....	....	....	....	....	....	....	....	.08	....	....	....	....	....	....	....	....	....	....	....	....	T	.80	.14	.02	1.70
Des Moines	.38	.10	.26	....	....	....	....	....	....	T	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.85	.20	....	1.89
De Soto	.33	....	.43	....	....	....	....	....	....	....	....	....	....	....	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.35	....	.93
Dows	.37	.04	.12	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	T	....	T	.01	....	.08	.07	....	.77
Dubuque	.30	....	.29	....	....	....	T	....	....	....	....	....	....	.01	.01	....	....	....	....	....	....	....	....	....	....	....	....	....	.74	.34	....	1.62
Earlham	T	....	.54	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	T	....	....	....	T	.15	....	.93
Elkader	.49	....	.25	....	....	....	....	....	....	....	....	....	....	....	.04	....	....	....	....	....	....	....	....	....	....	....	....	....	.75	.27	....	1.34
Elliott	....	....	.32	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	T	....	T	.21	.02	.89
Elma	.40	.12	.14	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.40	.05	2.40
Estherville	.05	.35	.55	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.35	....	....	1.00
Forest City	....	.40	.25	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.14	T	2.16
Fort Dodge	.21	.60	.06	T	....	....	....	....	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.14	....	.32
Fort Madison	T	....	.04	....	....	....	....	....	....	....	....	....	....	....	.14	....	....	....	....	....	....	....	....	....	....	....	....	....	.23	.46	....	2.89
Gilman	.43	....	1.77	....	....	....	....	....	....	T	....	....	....	T	....	....	....	....	....	....	....	....	....	....	.02	....	.03	....	....	T	.27	....	1.15
Grand Meadow	.45	....	.35	....	....	....	.03	....	....	....	....	....	....	....	.04	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	.26	....	.76
Greene	.39	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.80	....	....	2.13
Greenfield	.60	....	.73	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.53	.28	....	2.73
Grinnell	.69	....	1.23	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.38	....	1.46
Grundy Center	.43	....	.65	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.62	.41	....	1.39
Guthrie Center	.17	....	.16	....	....	....	....	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	.30	.10	....	.83
Hampton	.35	.05	....	....	....	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.50	.15	....	.77
Hancock	.04	....	.08	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.63	T	1.56	2.64
Harlan	.07	....	.38	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	....	.76	.44	....	1.70
Hopeville	.23	....	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.27	.52	....	1.12
Humboldt	.30	....	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.56	.11	....	1.10
Indianola	.35	.01	.07	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.17	.26	.01	.64
Inwood	.14	....	.02	....	....	....	....	....	....	....	....	....	....	....	.04	....	....	....	....	....	....	....	....	....	....	....	....	....	.12	.05	.02	.86
Iowa City	.02	.28	.37	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.33	T	.65
Iowa Falls	.09	.23	T	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	T	....	....	....	.50	.25	....	1.44
Jefferson	.49	....	.20	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	T	.15	....	.05	.09	....	.47
Keokuk	....	....	.07	....	....	....	....	....	....	....	....	....	....	....	.11	....	....	....	....	....	....	....	....	....	....	T	.06	....	.13	.20	.28	1.03
Keosauqua	....	.19	....	T	....	....	....	....	....	....	....	....	....	....	.17	T	....	....	....	....	....	....	....	....	....	....	....	....	.52	.55	....	1.73
Knoxville	.51	....	.15	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	T	....	....	.90	.80	....	3.10
Lacona	.48	.38	.54	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.35	.18	.62	1.27
Larrabee	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	T	....	....	....	....	....	....	....	....	....	....	....	T	....	.05	.02	.69
Le Claire	....	.13	.29	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.09	.11	.06	.59
Le Mars	.33	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.30	.15	....	2.11
Lenox	.35	....	.31	....	....	....	....	....	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	.75	.53	T	1.79
Leon	.49	....	T	T	....	....	....	....	....	....	....	....	....	....	.01	....	....	....	....	....	....	....	....	....	....	....	....	....	.07	.08	.20	.81
Little Sioux	.45	....	T	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.09	.11	.19	1.18
Logan	.48	....	.31	....	....	....	....	....	....	....	....	....	....	....	.13	....	....	....	....	....	....	....	....	....	....	....	....	....	.17	.35	.06	2.19
Marshalltown	.10	.31	1.07	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.08	.25	....	.85
Mason City	.42	....	.10	....	....	....	T	T	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.58	.20	....	1.15
Massena	.11	....	.26	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.41	.25	....	2.83
Mt. Ayr	.77	....	.40	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	....	.44	.08	....	1.19
Mt. Pleasant	.19	.01	T	....	....	....	....	....	....	....	T	....	....	....	.45	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	.20	.01	1.09
Muscatine	....	.23	....	....	....	....	....	....	....	....	....	....	....	....	.30	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	.21	T	.67
New Hampton	.37	.01	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.37	.46	....	2.65
Newton	.30	....	1.52	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	.78	....	1.78
Northwood	.82	....	.16	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.37	.57	1.91
Odebolt	.54	....	....	....	....	....	....	....	....	....	....	....	....	....	.43	....	....	....	....	....	....	....	....	....	....	....	....	....	T	T	....	1.02
Olin	.35	....	.67	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.34	.01	1.11	2.09
Omaha, Neb	.59	T	.04	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	.06	.12	.25	.99
Onawa	.43	....	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.30	....	1.00
Osage	.56	....	.14	....	....	....	....	....	....	....	....	....	....	....	.09	....	....	....	....	....	....	....	....	....	....	....	....	....	.45	.31	....	1.07
Oskaloosa	....	.22	....	....	....	....	....	....	....	....	....	....	....	....	.04	....	....	....	....	....	....	....	....	....	....	....	....	....	.25	.25	.35	1.14
Ottumwa	....	....	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.32	....	.58	1.10
Pacific Junction	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.40	.55	....	1.97
Pella	.43	....	.59	....	....	....	....	....	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.91	.02	3.31
Perry	.12	....	2.24	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.65	.90	....	3.30
Plover	.45	....	1.30	....	....	....	....	....	....	....	....	....	....	....	....	.14	....	....	....	....	....	....	....	....	....	....	....	....	....	1.91	....	2.96
Pocahontas	.55	.36	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	.02	....	....	.02	.27	.08	1.12
Ridgeway	.52	....	.10	....	....	....	.04	....	T	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.90	.75	....	2.10
Rockwell City	.35	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.60	1.10	.45	2.75
Sac City	.47	T	.08	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.55	.22	....	1.29
St. Charles	.45	....	.07	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.12	.40	.70	1.87
Sheldon	.61	....	....	....	....	....	....	....	....	....	....	....	....	....	.04	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	

DAILY AND MONTHLY PRECIPITATION FOR OCTOBER, 1907—CONTINUED.

STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sibley	.20	T	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	....	T	T	....	....	.68	.03	.96
Sigourney	.20	....	T	....	....	....	....	....	....	....	....	....	....	....	.22	....	....	....	....	....	....	....	....	....	....	....	....	....	.49	.17	....	1.08
Sioux Center	.14	....	....	....	....	....	....	....	....	....	....	....	....	T	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	.22	....	.43	.82
Sioux City	.03	....	....	....	....	....	....	....	....	....	....	....	....	.03	T	....	....	....	....	....	....	....	T	....	....	....	....	....	.24	.02	.30	.62
Stockport	.21	T	.02	....	....	....	....	....	....	....	....	....	....	....	.34	....	....	....	....	....	....	....	....	....	....	.04	....	....	.24	.37	....	1.22
Storm Lake	.26	.08	.01	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.74	.20	.61	1.90
Stuart	.04	....	.22	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.65	.35	....	1.26
Thurman	....	....	.58	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	T	.31	1.09
Tipton	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	T	....	.30
Toledo	.65	....	1.15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.40	....	....	2.20
Wapello	.25	.01	.09	....	....	....	....	....	....	....	....	....	....	....	.47	....	....	....	....	....	....	....	....	....	....	T	....	....	.41	.03	....	1.26
Washington	.18	....	.10	....	....	....	....	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	.52	.12	....	.95
Washta	.65	....	....	....	....	....	....	....	....	....	....	....	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	.22	.20	....	1.37
Waterloo	.44	....	.71	....	....	....	....	....	....	....	....	....	....	T	.15	....	....	....	....	....	....	....	....	T	....	T	....	....	.06	.18	....	1.54
Waukee	.30	....	.18	....	....	....	....	....	....	....	....	....	....	....	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	1.08	.30	T	1.94
Waverly	.32	....	.15	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	.15	....	.67
Webster City	.25	....	.13	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.40	.48	....	1.26
West Bend	.35	....	.24	....	....	....	.02	....	....	....	....	....	....	T	.07	....	....	....	....	....	....	....	....	....	....	....	....	....	.04	.83	T	1.55
Whitten	.42	....	.60	....	....	....	....	....	....	....	....	....	....	T	T	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.46	....	1.48
Wilton Junction	.35	.24	....	....	....	....	....	....	....	....	....	....	....	.12	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	.08	....	....	.87
Winterset	.25	T	.17	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.75	.44	....	1.61
Zearing	.33	....	.55	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.34	.41	....	1.63

Precipitation Chart October 1907.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR NOVEMBER, 1907.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

JOHN R. SAGE

SECTION DIRECTOR

GEO. M. CHAPPEL, Ass't Director

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1907

THE IOWA WEATHER AND CROP SERVICE

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U. S. DEPARTMENT OF AGRICULTURE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

CENTRAL OFFICE: WASHINGTON, D. C.

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

JOHN R. SAGE.....Section Director.
GEO. M. CHAPPEL, Assistant Director.

VOL. XVIII. DES MOINES, IOWA, NOVEMBER, 1907. No. 11

IOWA CROPS, 1907.

FINAL REPORT, SHOWING TOTAL YIELD OF SOIL PRODUCTS, AND VALUE AT FARM PRICES DECEMBER 1, 1907.

On account of abnormal weather during the spring and summer, the farm products of this season fall materially below the very heavy output of 1906, but as compared with the general averages of the past two decades the showing is fairly satisfactory. The principal shortage is in the yield and quality of corn and oats, the other cereals coming nearly up to the average, while the yield of grass in pastures and meadows was somewhat better than usual.

CORN.—The soil was dry and in fine tilth at planting time, and reports showed a total acreage of 8,858,000 acres. The heavy rains and flooded fields in June caused the abandonment of a considerable area, amounting to an estimated total of 530,390 acres. The acreage harvested was about 8,327,690 acres, and the average loss of acreage was about 6 per cent for the whole State, though variable in different sections.

The tabulated reports by counties show the yield of corn to have been quite variable, ranging from 20 to 35 bushels per acre. The average for the State appears to be 29.6 bushels per acre, and the total yield is 246,898,460 bushels, as against 41 per acre and a total of 388,348,000 bushels last year. The average farm price of corn is reported to be 44 cents per bushel, and the total value of the crop is $108,635,322. Last year's corn crop was estimated at $128,155,143, on December 1st, at an average of 33 cents per bushel.

WINTER WHEAT.—This cereal is now reported to be grown in 81 counties, with satisfactory results. The average yield was 19.8 bushels per acre and the total was 1,698,101 bushels. The value of the crop was $1,408,423, the average price being 83 cents per bushel.

SPRING WHEAT.—The area of spring wheat harvested was 335,340 acres and the total yield was 4,402,320 bushels, the average being 13 bushels per acre. At 81 cents per bushel the value was $3,565,879.

OATS.—The oats crop was very disappointing in yield and quality. The area sown was 4,536,170 acres. The returns show an average of 24.5 bushels per acre, and a total of 111,190,400 bushels. At 39 cents per bushel the crop is worth $43,364,256.

BARLEY.—Area seeded, 397,210 acres. Average yield, 24.6 bushels per acre. Value, $5,935,998, at 60 cents per bushel.

RYE.—Area seeded, 52,450 acres. Average yield, 17 bushels per acre. Total yield, 900,060 bushels. Value, $549,036, at 61 cents per bushel.

FLAX.—Area seeded, 42,790 acres. Product, 10.8 bushels per acre. Total, 461,960 bushels. Value, $408,640, at an average of 98 cents per bushel.

POTATOES.—Area planted, 117,350 acres. Yield, 84 bushels per acre. Total, 9,847,430 bushels. Value, $6,105,406, at an average of 62 cents per bushel.

HAY (TAME).—Area harvested, including timothy, clover and all cultivated forage crops, 3,372,470 acres. Total yield, 5,117,878 tons—an average of 1.5 tons per acre. Value, $43,401,963—an average of $8.50 per ton.

HAY (WILD).—Area, 896,260 acres. Yield, 1.3 tons per acre. Total crop, 1,172,590 tons. Value at $6.75 per ton, $7,914,982.

PASTURAGE AND GRAZING.—This includes pastures, and grazing in meadows and grain fields after harvest, and in corn fields during the fall and winter. The total value is estimated at $90,000,000, or an average value of a little over $400 per farm.

TABULATED CROP SUMMARY.

Crops	Total Yield	Farm Values Dec. 1, 1907.
Corn	246,898,460 bus.	$108,635,322
Winter Wheat	1,698,101 "	1,489,423
Spring Wheat	4,402,320 "	3,565,879
Oats	111,190,400 "	43,364,256
Barley	9,893,330 "	5,935,998
Rye	900,060 "	549,036
Flax	416,960 "	408,640
Potatoes	9,847,430 "	6,105,406
Hay (tame)	5,117,878 tons	43,401,963
Hay (wild)	1,172,590 "	7,914,982
Pasturage and Grazing	Estimated	90,000,000
Buckwheat	" "	90,000
Sweet Potatoes	" "	145,000
Sorghum and Broom corn	" "	180,000
Timothy and Clover seed	" "	1,500,000
Alfalfa and Millet	" "	510,000
Sweet Corn	" "	750,000
Fruit Crops	" "	2,250,000
Garden truck		6,000,000
Total		$322,715,905

The above figures take no account of the increment of value derived from the consumption of soil products in the live stock industry of this state.

PASTURES AND THEIR VALUE.

Prairie Farmer

"The pasture is the exponent of the farm," said Secretary Wilson of the United States Department of Agriculture in an address a few days ago. "It should have growing in it," continued the Secretary, "all of the grasses and legumes suitable to the soil and climate."

Once in a while there is a good pasture in this country, but they are few and far between. To the average farmer the pasture is but an incident. He grazes the land for all that it will stand, and often more, and when it is depleted in a year or two, turns the land to some other use.

Just as the great natural range in the west has been ruined, practically, by over-grazing, so the farmer ruins his pasture by over-pasturing.

It is generally admitted that cattle fattened on pasture supplemented by grain makes the cheapest gains and return the greatest profit to the owner. This conclusion is the result of the experience of many feeders and is backed by the work of several experiment stations.

One of the most useful demonstrations being carried on at the Iowa station is found in a low land pasture lot where the native grasses have been supplemented by bluegrass and other grasses. Not only is the grazing limited, but the pasture is dragged occasionally to loosen the sod and work in new seed.

The Iowa idea is to prove that a permanent pasture is practicable, and we believe that they have succeeded to a very gratifying degree.

FINAL CROP REPORT, 1907.

AVERAGE YIELD PER ACRE AND TOTAL PRODUCTS—BY COUNTIES.

Counties	Winter Wheat		Spring Wheat		Corn		Oats		Rye		Barley		Flax Seed		Potatoes		Hay (Tame)		Hay (Wild)	
	Bushels per acre	Total bushels	Bushels per acre	Total bushels	Bushels per acre	Total bushels	Bushels per acre	Total bushels	Bushels per acre	Total bushels	Bushels per acre	Total bushels	Bushels per acre	Total bushels	Bushels per acre	Total bushels	Tons per acre	Total tons	Tons per acre	Total tons
Adair	20	1,080	12	30,480	32	2,938,560	26	901,420	18	1,710	28	66,360	....	.....	80	77,600	1.5	72,220	1.2	5,300
Adams	22	17,006	16	20,260	35	2,560,250	24	513,560	16	2,880	30	51,600	....	.....	88	51,040	1.2	39,060	1.2	2,420
Allamakee	16	18,160	10	6,700	30	1,237,200	25	1,741,000	17	13,090	25	295,250	10	310	70	79,800	1.3	56,140	1.5	1,480
Appanoose	17	16,260	14	280	28	1,498,280	24	490,800	15	9,150	20	2,200	....	.....	80	52,000	1.3	100,120	1.3	2,130
Audubon	20	800	12	70,360	31	2,777,600	21	749,280	20	300	....	164,920	....	.....	100	78,000	1.3	42,360	1.5	6,030
Benton	20	660	14	6,440	30	3,686,100	26	1,842,880	18	5,580	27	313,740	....	.....	82	129,560	1.4	66,030	1.4	14,300
Black Hawk	20	640	12	1,680	28	2,376,640	26	1,382,420	17	27,880	30	123,000	....	.....	87	248,820	1.8	54,750	1.5	17,110
Boone	....	.....	10	16,300	29	2,760,800	24	1,275,360	18	5,240	25	18,500	....	.....	75	81,750	1.5	36,910	1.2	22,710
Bremer	20	540	....	.....	31	1,717,330	28	1,420,160	17	10,710	25	85,500	10	1,100	65	146,250	1.7	33,430	1.5	27,960
Buchanan	18	252	15	1,650	25	1,942,750	20	1,011,800	14	6,860	26	79,300	9	.....	68	68,680	1.4	53,170	1.0	14,510
Buena Vista	18	468	12	15,840	26	2,505,880	30	2,335,300	18	1,980	28	31,920	12	5,040	90	115,200	1.5	34,480	1.6	31,500
Butler	....	.....	14	2,940	23	2,138,080	22	1,545,500	16	20,960	30	63,300	....	.....	95	140,600	1.5	36,160	1.5	17,860
Calhoun	18	630	12	8,520	30	2,973,600	31	2,198,520	16	3,360	25	51,250	9	2,790	92	95,680	1.3	23,690	1.2	22,920
Carroll	20	1,420	12	88,920	32	3,218,140	25	1,439,500	16	1,120	26	102,440	....	.....	85	148,750	1.5	35,560	1.5	19,990
Cass	20	28,800	12	103,320	30	3,138,600	21	857,010	16	2,560	24	81,360	....	.....	70	90,300	1.8	75,920	1.4	4,040
Cedar	15	5,475	14	14,580	33	3,211,230	25	804,500	14	7,840	25	303,000	....	.....	90	100,800	1.6	74,000	1.0	310
Cerro Gordo	....	.....	10	4,300	25	2,107,000	23	1,734,430	9	7,110	18	36,180	8	4,880	88	122,120	2.0	63,140	1.5	18,910
Cherokee	20	1,660	14	50,540	28	2,946,160	28	1,946,160	....	.....	29	102,370	....	.....	120	153,600	1.6	47,470	1.2	16,570
Chickasaw	18	720	15	8,400	24	1,379,320	23	1,439,030	18	8,100	25	113,000	12	30,960	105	120,750	1.8	19,688	1.5	23,740
Clarke	18	9,944	....	.....	35	1,864,100	29	470,670	16	3,040	22	9,240	....	.....	68	28,560	1.2	48,110	1.2	250
Clay	15	1,515	12	13,440	28	1,868,160	30	1,975,200	15	1,800	25	39,750	8	1,280	100	78,000	1.5	43,110	1.2	22,230
Clayton	18	18,782	12	15,360	27	1,945,080	23	1,341,360	15	30,300	22	290,620	....	.....	95	166,250	1.5	77,110	1.5	4,830
Clinton	16	7,440	14	17,920	35	3,964,100	24	948,960	18	.....	25	205,250	....	.....	95	127,300	1.3	66,530	1.0	4,120
Crawford	22	2,882	15	289,650	31	4,187,170	26	1,531,660	20	4,800	28	101,360	....	.....	96	168,960	1.5	67,360	1.5	11,370
Dallas	16	9,344	12	15,480	32	3,523,520	22	985,040	20	9,600	25	34,250	....	.....	94	64,860	1.4	38,550	1.4	11,390
Davis	18	18,234	....	.....	33	1,554,960	25	473,000	15	18,600	....	.....	....	.....	75	39,000	1.5	64,690	1.5	90
Decatur	19	25,498	....	.....	34	1,913,280	27	437,670	18	11,520	....	.....	....	.....	82	38,540	1.4	66,790	1.3	920
Delaware	18	756	15	2,550	27	2,249,370	22	882,640	18	21,780	25	328,000	....	.....	65	88,320	1.3	67,740	1.2	8,770
Des Moines	22	73,194	....	.....	35	2,200,800	25	566,500	19	21,280	30	23,400	....	.....	78	88,920	1.3	34,220	1.3	720
Dickinson	....	.....	14	14,840	23	882,280	25	1,051,750	16	1,440	28	91,560	10	7,900	90	55,800	1.4	21,110	1.2	20,730
Dubuque	20	1,980	12	12,600	32	2,022,960	22	995,720	16	5,760	30	174,300	....	.....	70	172,200	1.8	86,610	1.0	3,170
Emmet	....	.....	16	11,360	23	987,850	26	1,223,460	15	1,650	31	18,290	12	8,280	92	45,080	1.6	29,930	1.2	14,880
Fayette	20	3,700	14	11,340	23	1,898,190	21	1,375,710	20	64,000	26	47,320	10	9,300	85	136,850	1.5	81,760	1.2	15,430
Floyd	....	.....	12	2,160	23	1,800,210	24	1,730,880	16	13,280	27	68,850	10	10,200	70	106,400	1.5	48,340	1.3	6,470
Franklin	....	.....	12	19,230	22	2,096,380	26	1,964,820	16	5,920	20	29,000	....	.....	90	127,800	1.3	36,630	1.0	16,130
Fremont	22	58,520	12	38,760	33	3,929,970	23	345,690	20	6,400	22	5,060	....	.....	60	35,400	1.8	38,170	1.5	6,310
Greene	20	680	13	4,550	30	2,976,300	26	1,288,560	20	5,200	28	45,640	10	600	76	77,520	1.2	30,160	1.2	19,470
Grundy	15	855	12	10,560	25	2,247,750	24	1,590,960	16	800	28	158,940	....	.....	90	268,200	1.8	42,130	1.5	13,400
Guthrie	20	4,480	12	33,840	31	2,628,800	26	868,660	16	2,240	25	38,750	....	.....	85	78,200	1.2	42,190	1.2	7,020
Hamilton	16	4,592	15	29,110	28	2,641,240	25	1,555,250	20	1,800	30	15,900	10	3,000	65	66,950	1.7	42,210	1.5	30,720
Hancock	....	.....	10	18,100	20	1,192,800	21	1,694,700	20	4,200	24	40,320	10	5,200	90	76,500	1.8	39,430	1.5	25,170
Hardin	16	1,600	13	32,110	24	2,250,480	23	1,408,750	16	2,400	25	34,250	9	450	81	96,390	1.6	39,950	1.6	25,280
Harrison	22	57,860	12	278,520	31	3,941,650	24	588,240	15	13,650	30	70,500	....	.....	65	87,750	2.0	42,240	1.2	15,660
Henry	24	28,392	....	.....	34	2,428,620	21	596,610	20	30,400	25	13,000	....	.....	85	48,300	1.8	45,450	1.0	100
Howard	16	736	14	11,360	27	1,194,480	22	1,125,520	20	6,800	25	194,500	12	99,240	65	50,050	1.5	44,720	1.2	13,400
Humboldt	....	.....	14	42,700	30	2,028,000	31	1,709,030	20	2,200	30	27,300	10	2,700	120	80,400	1.4	41,910	1.2	18,690
Ida	15	3,780	13	83,070	26	2,105,740	25	968,500	20	800	28	220,080	....	.....	96	90,240	1.4	36,790	1.1	3,890
Iowa	20	7,430	18	19,260	32	2,933,440	23	917,200	20	10,400	22	54,780	....	.....	70	94,500	1.5	72,550	1.2	360
Jackson	15	5,235	12	14,760	33	2,233,440	24	761,520	20	2,200	26	173,940	....	.....	95	116,850	1.8	113,590	1.5	2,710
Jasper	18	7,560	14	56,280	30	3,520,200	23	1,188,870	15	7,800	26	43,680	....	.....	80	107,200	1.5	69,430	1.5	3,400
Jefferson	19	37,069	15	1,560	35	2,005,850	25	560,250	17	29,240	....	16,640	....	.....	91	39,130	1.3	43,950	1.5	60
Johnson	22	5,434	15	12,450	33	3,415,170	26	1,231,100	15	21,900	30	142,500	....	.....	80	105,300	1.5	78,990	1.0	1,920
Jones	20	760	14	4,900	33	2,403,720	26	750,100	19	14,250	30	221,100	....	.....	100	118,000	1.7	87,890	1.0	880
Keokuk	20	17,350	15	9,600	35	3,106,250	26	917,020	18	16,200	25	54,750	....	.....	85	74,700	1.8	80,850	1.2	310
Kossuth	....	.....	12	50,620	25	2,617,500	23	2,654,660	16	6,560	26	65,520	10	14,200	70	109,900	1.2	41,420	1.3	76,660
Lee	23	213,501	....	.....	35	1,829,450	28	600,880	19	59,280	25	1,750	....	.....	82	113,160	1.8	70,930	1.2	3,710
Linn	20	1,320	13	9,490	30	3,851,500	24	1,166,160	20	15,600	30	38,700	....	.....	75	144,000	1.4	65,070	1.3	7,500
Louisa	18	59,256	14	1,120	33	2,017,950	25	569,000	16	30,720	22	11,220	....	.....	75	44,250	1.8	33,140	1.5	830
Lucas	17	13,566	15	750	33	1,522,620	23	303,140	16	8,640	20	2,200	....	.....	72	29,520	1.4	57,430	1.0	780
Lyon	16	4,064	14	119,000	24	2,064,240	21	1,776,050	18	1,980	22	80,080	....	.....	98	133,280	1.5	25,680	1.5	16,900
Madison	20	6,720	15	14,100	33	2,833,710	22	517,440	15	490	25	85,250	....	.....	70	47,300	1.4	57,710	1.3	28,870
Mahaska	21	13,755	14	12,460	32	2,691,680	20	648,600	15	6,150	26	83,720	....	.....	75	72,000	1.5	53,560	1.2	1,360
Marion	18	26,496	14	33,320	33	3,098,590	20	565,200	17	7,650	24	58,080	....	.....	90	64,800	1.3	45,670	1.0	890
Marshall	20	6,660	15	34,650	30	2,946,900	31	1,677,410	18	6,840	23	35,340	....	.....	98	148,960	1.5	55,450	1.5	1,340
Mills	24	34,704	13	63,050	30	2,635,800	24	374,880	16	4,320	25	27,250	....	.....	70	54,600	1.5	30,370	1.5	7,600
Mitchell	....	.....	12	7,440	22	1,197,020	25	1,772,750	16	3,360	24	173,760	11	86,460	72	91,440	1.5	42,310	1.5	4,260
Monona	16	162,672	11	111,760	28	3,391,080	30	858,600	16	5,440	31	84,010	....	.....	90	108,900	1.8	19,090	1.5	24,820
Monroe	18	26,632	15	600	30	1,086,600	19	177,460	15	4,800	20	5,900	....	.....	89	46,280	1.2	39,430	1.0	150
Montgomery	20	49,980	14	131,840	35	3,204,250	23	415,610	20	1,400	25	42,000	....	.....	90	60,300	1.8	52,410	2.0	2,220
Muscatine	22	21,186	15	12,300	32	2,069,120	22	455,180	18	41,140	24	214,560	....	.....	73	161,330	1.8	44,120	1.5	2,490
O'Brien	15	1,950	10	30,500	28	2,032,520	25	1,541,250	15	1,650	30	393,300	8	1,520	110	146,300	1.9	51,540	1.8	21,540
Osceola	....	.....	12	240,840	27	1,283,850	28	1,967,560	16	3,840	24	249,040	9	8,190	85	49,300	1.5	27,240	1.3	12,190
Page	24	151,680	12	54,720	34	3,561,840	22	431,860	18	11,700	30	41,700	....	.....	90	84,700	1.3	40,860	1.5	6,360
Palo Alto	....	.....	15	10,800	22	1,260,820	23	1,310,080	12	720	24	16,560	8	6,080	100	122,000	1.5	21,430	1.0	31,890
Plymouth	18	36,864	11	484,550	28	4,712,680	25	2,060,500	15	2,550	23	241,730	9	3,690	75	136,500	1.5	40,530	1.5	37,170
Pocahontas	....	.....	12	6,120	20	1,743,200	22	1,730,740	19	1,470	21	13,230	10	9,100	85	86,700	1.5	25,470	1.2	33,870
Polk	16	13,248	13	13,520	32	3,014,720	23	946,220	18	5,760	25	11,750	....	.....	75	153,750	1.5	40,860	1.2	8,340
Pottawattamie	17	17,340	11	211,310	32	5,918,080	20	904,800	15	4,050	30	62,400	....	.....	88	241,120	1.5	65,530	1.3	15,050
Poweshiek	18	414	15	17,100	32	3,135,040	25	1,006,250	15	2,850	27	108,270	....	.....	80	78,400	1.9	83,180	1.5	3,440
Ringgold	19	13,889	16	640	33	2,091,210	25	495,500	20	5,800	30	4,800	....	.....	78	32,760	1.4	69,520	1.2	420
Sac	20	2,300	12	36,720	30	3,385,300	26	1,640,340	17	850	31	163,590	9	1,530	85	90,960	1.5	30,120	1.5	20,750
Scott	21	27,237	13	28,730	32	2,464,320	21	509,880	14	17,080	22	648,560	....	.....	80	507,200	2.0	73,420	1.5	7,650
Shelby	18	3,280	12	182,880	31	3,676,600	25	1,088,250	15	1,650	23	161,460	....	.....	78	99,060	1.4	52,790	1.2	7,740
Sioux	22	20,614	14	449,680	32	4,589,720	30	2,294,400	15	1,500	25	711,500	9	1,080	95	133,950	2.0	46,920	1.5	30,120
Story	16	3,184	12	7,440	30	3,141,300	22	1,102,640	17	4,250	23	16,560	....	.....	75	61,500	1.5	42,070	1.2	15,460
Tama	20	440	12	30,240	31	3,399,150	26	1,421,680	20	8,000	25	303,000	....	.....	90	169,200	1.5	77,050	1.0	4,580
Taylor	22	50,798	11	2,090	33	2,549,910	23	280,830	16	11,360	20	37,400	....	.....	92	56,120	1.7	76,020	1.2	1,810
Union	16	4,960	12	1,080	35	1,802,200	26	423,540	16	1,760	24	10,560	....	.....	98	62,720	1.2	42,970	1.0	1,220
Van Buren	17	36,822	....	.....	32	1,555,520	22	414,260	12	22,200	....	.....	....	.....	60	29,400	1.5	61,900	1.0	210
Wapello	20	34,840	12	960	30	1,531,500	22	389,180	16	16,480	23	15,180	....	.....	80	65,600	1.5	45,750	1.5	30
Warren	21	19,488	14	13,860	30	2,364,600	18	455,040	16	6,560	22	26,840	....	.....	60	61,800	1.6	70,840	1.2	1,740
Washington	18	18,540	12	2,760	32	2,681,280	23	928,970	16	11,040	30	43,800	....	.....	80	54,400	1.6	62,300	1.5	160
Wayne	20	7,960	....	.....	33	2,349,600	25	563,500	15	4,650	....	.....	....	.....	100	51,000	1.5	99,190	1.5	4,530
Webster	....	.....	15	48,600	31	3,148,360	26	2,040,740	18	2,520	25	21,500	....	.....	90	104,400	2.0	44,760	1.5	32,490
Winnebago	....	.....	12	48,960	22	1,074,400	25	1,058,000	16	1,260	24	36,480	9	16,290	70	47,600	1.5	22,120	1.0	19,370
Winneshiek	16	7,312	13	41,210	22	1,454,640	20	1,423,400	12	4,560	21	333,060	11	79,310	60	70,200	1.5	70,860	1.2	14,300
Woodbury	21	74,256	12	185,760	22	3,406,700	24	1,350,240	16	7,260	25	37,050	10	1,500	82	145,780	1.6	37,050	1.5	23,370
Worth	....	.....	15	26,400	20	772,200	21	1,248,030	14	2,240	22	28,320	10	37,300	60	37,200	1.7	30,840	1.5	21,200
Wright	....	.....	13	43,420	28	2,502,360	25	1,979,500	....	.....	24	28,340	8	2,480	93	92,070	1.7	54,870	1.2	13,170
Total for State	....	1,698,101	....	4,402,320	....	246,898,460	....	111,190,400	....	900,060	....	9,893,330	.. .	461,960	....	9,847,430	....	5,117,878	....	1,172,590
Average per acre	19.8	.....	13	.....	29.6	.....	24.5	.....	17	.....	24.6	.....	10.8	.....	84	.....	1.5	.....	1.3	.....

GENERAL SUMMARY.

The weather was exceptionally favorable for outdoor business, the average temperature and sunshine being above the normal, and the precipitation generally lighter than usual, with almost entire absence of severe storms. The climatic records of the State show that there have been twelve colder and five warmer Novembers within the past eighteen years. In the same period there have been twelve Novembers that brought greater precipitation, and five which recorded less than this month. In respect to sunshine this has been especially notable, following the unusually bright October. It seemed like Nature's atonement for shortcomings during the preceding months of this erratic crop season. There has not been a more favorable autumn for harvesting the late maturing crops, and for preparing the ground for the coming spring. The corn crop was quite thoroughly dried out, and at the close of the month more than 90 per cent of that valuable cereal was safely stored in cribs. Though there were many frosty nights and considerable freezing weather, yet the ground was generally in good condition for plowing until the close of the month. The pastures afforded considerable sustenance to stock during the month and conditions were favorable to fall wheat and rye.

The following table shows the mean temperature and average precipitation for the State, for each November from 1890 to 1907, inclusive:

Years	Temperature—Degrees	Precipitation—Inches	Years	Temperature—Degrees	Precipitation—Inches
1890	38.6	1.46	1899	43.9	1.20
1891	30.5	1.70	1900	33.5	1.06
1892	33.3	1.10	1901	35.8	0.86
1893	34.0	1.17	1902	41.2	2.13
1894	32.7	0.92	1903	34.2	0.52
1895	34.3	1.51	1904	41.0	0.15
1896	29.6	1.83	1905	38.4	2.84
1897	34.3	0.66	1906	35.4	2.03
1898	32.2	2.50	1907	36.7	1.03
Normals				35.4	1.32

CLIMATOLOGY OF THE MONTH.

TEMPERATURE.—The monthly mean temperature for the State, as shown by the records of 115 stations, was 36.7°, which is 1.3° above the normal. By sections the mean temperatures were as follows: Northern section, 34.7°, which is 2.0° above the normal; Central section, 36.8°, which is 1.6° above the normal; Southern section, 38.7°, which is 0.5° above the normal. The highest monthly mean was 43.6° at Bedford. The lowest monthly mean was 32.3° at Elma. The highest temperature reported was 68° at Baxter on the 6th. The lowest temperature reported was 4° below zero at Elma on the 14th. The average monthly maximum was 59.3°, and the average monthly minimum was 11.3°. The greatest daily range was 43° at Baxter; and the average of greatest daily ranges was 32.2°.

PRECIPITATION.—The average precipitation for the State, as shown by records of 123 stations, was 1.03 inches, which is 0.29 of an inch below the normal. The averages by sections were as follows: Northern section, 0.91 of an inch, which is 0.37 of an inch below the normal; Central section, 1.04 inches, which is 0.31 of an inch below the normal; Southern section, 1.15 inches, which is 0.19 of an inch below the normal. The largest amount reported was 2.27 inches at Logan, and the least amount reported was .05 of an inch at Sioux City. The greatest daily rainfall was 1.70 inches at Logan on the 1st. The average number of days on which .01 or more precipitation was reported was 4.

WIND AND WEATHER.—The prevailing direction of the wind was northwest. The highest velocity reported was 44 miles per hour, from the northwest at Sioux City on the 30th. The average number of clear days was 17; partly cloudy, 6; cloudy, 7.

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	30.11	30.54	12	29.36	20
Davenport	30.10	30.50	12	29.18	20
Des Moines	30.12	30.56	12	29.38	20
Dubuque	30.11	30.54	12	29.19	20
Omaha, Neb.	30.14	30.59	12	29.54	20
Keokuk	30.14	30.55	12	29.20	20
Sioux City	30.13	30.59	12	29.80	20
Means	30.12	30.59	12	29.18	20

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	5458	28	NW	5, 27
Davenport	4886	24	NW	5
Des Moines	5220	31	NW	5
Dubuque	4657	24	NW	5
Keokuk	4657	32	NW	5
Omaha, Neb	6213	37	NW	30
Sioux City	8789	44	NW	30

OBSERVERS' NOTES.

AFTON—*Hon. N. W. Rowell.* A splendid month for corn gathering, which is probable four-fifths completed; stock still on pasture.

ALBIA—*J. A. Chenoweth.* An extraordinary month. Precipitation 1.08 inches, against 2.52 inches in November, 1906. Six cloudy days, against 15 last year.

ALGONA—*Dr. F. T. Seeley.* Another fine fall month is closed—one of the finest Novembers for years.

ALTA—*David E. Hadden.* November was an ideal month for corn harvesting, which was nearly completed at its close. First snow of the season on the 10th, when 1 inch fell.

ALTON—*W. S. Slagle.* Fine fall weather; corn all picked without interference; cattle getting full benefit of stalks, which are very leafy.

AMANA—*Conrad Schadt.* November was generally dry and favorable for corn harvesting, which is about completed; first snow flurries on the 10th.

ATLANTIC—*J. W. Love.* An ideal month for all kinds of fall work; roads in fine condition.

AUDUBON—*George E. Kellogg.* Corn picking was about all finished by the close of November. Crops below average. Plowing was done on the 30th, an unusual occurrence.

BONAPARTE—*B. R. Vale.* A mild, pleasant month; no storms and no snow. Corn is mostly in crib, and much plowing has been done.

BRITT—*Geo. P. Hardwick.* An exceptionally fine month for finishing corn harvest, most of which was cribbed by the end of November; and plowing is well along. Hay plenty, but more corn will be needed for stock.

CHARITON—*C. C. Burr.* With almost constant sunshine by day, and frosty nights, the month was all that could be desired for farm operations.

CLINTON—*Luke Roberts.* The mean temperature, 36.7°, is just normal. The rainfall, 1.31 inches, is .56 of an inch below the normal. Clear days were greater in number than any previous November.

CORYDON—*Clara Miller.* November was a fine fall month for farm work; corn is mostly in crib—a good yield and good quality.

CRESTON—*Rev. W. L. Gaston.* A month of delightful weather, with 21 days of sunshine; fine for corn husking, and stock has been on pasture.

FOREST CITY—*J. A. Peters.* Corn was all cribbed at close of month—an exceptionally fine November.

INWOOD—*F. B. Hanson.* Ideal weather for corn husking prevailed the greater part of the month, and the work is practically finished, with yields ranging from 25 to 40 bushels per acre.

RIDGEWAY—*Arthur Betts.* There were 186 hours of sunshine, or 65 per cent. Northern lights were observed seven evenings. Dandelions and mallows were in bloom up to the 30th, and plowing was in progress nearly all the month. Poorest corn crop in fifty years.

SHELDON—*A. W. Beach.* Eighty per cent of corn is in crib. It was a beautiful fall month, with 74 per cent of sunshine.

WAVERLY—*H. S. Hoover.* A most excellent month for farmers to harvest their corn and fodder. No snow to stop work.

CLIMATOLOGICAL DATA FOR NOVEMBER, 1907.

NORTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
Algona	Kossuth	1,213	31	34.0	†2.1	56	7	6	14	30	1.41	† .15	1.18	1.0	2	22	3	5	NW	
Alta	Buena Vista	1,513	14	35.0	†3.4	60	7	8	14,15	36	1.26	† .09	.80	1.3	6	17	8	5	NW	
Alta [near]	Buena Vista		12								.41		.31	1.0	3					
Alton	Sioux	1,305		35.7		58	6	9	14	33	.78		.66	T	2	20	5	5	NW	
Britt	Hancock	1,236	8	33.0	-0.1	56	7	5	14	37	.90	- .08	.57	1.7	5	9	13	8	NW	
Charles City	Floyd	1,015	20	34.0	†1.0	54	4	8	15	29	.82	† .43	.59	1.2	4	9	12	9	NW	
Clear Lake	Cerro Gordo	1,241	8	35.3	†1.6	56	7	9	14	27	.78	- .05	.36	1.0	5	20	4	6	N	
Decorah	Winneshiek	875	11	35.8	†3.5	53	1,4	12	14	27	1.40	- .19	.81	1.0	6					
Dows	Wright	1,142	7	34.6	-0.4	58	7	6	14	33	.85	- .45	.51	0 8	8	17	6	7	NW	
Elkader	Clayton	727	24	36.2	†3.6	56	1,4	9	14	35	1.39	- .29	.85	1.0	4	16	5	9	NW	
Elma	Howard			32.3		52	4	-4	14	33	.76		.31	1.6	6	17	9	4	N	
Estherville	Emmet	1,298	10	34.2	†5.1	59	6	4	14	28	.91	- .26	.60	.5	3	19	0	11	NW	
Fayette	Fayette	1,003	17	34.0	†1.5	53	4	6	14	30	1.67	† .02	1.37	2.4	4	19	5	6	NW	
Forest City	Winnebago	1,226	11	34.5	†3.3	59	6	7	14	31	1.05	- .31	.60	.5	4	20	2	8	W	
Gr'd Meadow	Clayton	1,180	14	34.7	†2.5	52	1,4	11	14	25	1.38	- .21	.88	3.5	4	10	12	8	NW	
Hampton	Franklin	1,155	15	36.1	†4.0	60	7	10	14	34	.92	- .69	.52	1.5	4	11	14	5	NW	
Humboldt	Humboldt	1,095	13	35.3	†1.8	60	7	9	14	30	.96	- .50	.56	1.0	2	21	4	5	NW	
Inwood	Lyon	1,474	3	35.5		60	3,6,17	5	14	40	.09		.03	.3	4	19	7	4	NW	
Larrabee (a)	Cherokee	1,266	16	34.6	†2.7	57	1,7	9	14	25	.42	- .56	.42	T	1	20	7	3		
Le Mars (a)	Plymouth	1,224	9	36.7	†3.3	58	6	9	14	30	.52	- .54	.48		3				NW	
Mason City	Cerro Gordo	1,132	10	34.2	†4.8	54	7	8	14	29	.68	- .32	.30	0.8	5	14	10	6	NW	
New Hampton	Chickasaw	1,169	7	33.9	-0.9	51	1,4	9	14	27	.75	-1.04	.47	1.0	4	14	7	9	W	
Northwood	Worth	1,222	9	b 34.4	†2.5	a 54	1,7	b 8	14	29	.93	- .63	.58	2.7	4	21	3	6	NW	
Osage	Mitchell	1,184	14	35 2	†6.0	57	6	8	14	34	.88	- .57	.38	2.0	4	21	1	8	NW	
Plover	Pocahontas	1,426	8	33.0	-0.8	58	7	2	14	34	1.30	- .29	.88	2.0	4	21	2	7	NW	
Pocahontas	Pocahontas		3	33.6		58	1	8	14	30	1.58		1.02	1.8	3	21	5	4	S	
Ridgeway	Winneshiek	1,215	9	36.6	-0.6	59	6	8	14	30	1.39	- .56	.78	2.2	7	18	5	7	NW	
Rock Rapids	Lyon	1,358	9	34.4	†6.4	60	3,4,6,7	8	12,14	34	.10	- .89	.10	1.0	1					
Sheldon	O'Brien	1,422	7	35.8	†0.2	60	6,7	7	12	34	.52	- .19	.22	5.0	3	19	7	4	NW	
Sibley	Osceola	1,212	11	32.9	†2.0	60	6	4	12,14,15	42	.85	- .02	.63	1.0	3	22	0	8	NW	
Sioux Center	Sioux		8	34.7	†0.8	59	6	9	14	32	.13	- .44	.05	1.0	3	16	7	7	S,NW	
Storm Lake	Buena Vista	1,440	10	36.1	-0.3	60	7	10	14	27	.78	- .18	.39	.8	4	19	6	5	SW	
Washta	Cherokee	1,157	9	35.6		62	6	6	12,14	41	.71	- .34	.44	.5	3	20	6	4	S	
Waverly	Bremer	948	9	35.4	†0.9	54	7	12	14	29	1.06	- .42	.60		4	10	9	11	NW	
West Bend	Palo Alto	1,197	11	33.8	†2.8	56	1,7	6	14	31	1.49	† .10	1.04	.3	3	17	5	8	NW	
Averages				34.7	†2.0	57.0		7.4		31.6	0.91	- .37		1.3	4	17	6	7	NW	

CENTRAL SECTION

Amana	Iowa	721	28	36.9	†3.7	57	1	13	15,16	30	1.04	- .71	.74	1.2	5	14	12	4	NW	
Ames	Story	926	23	36.0	†2.8	59	7	12	9,14,16	34	1.02	- .08	.60	1.0	2	17	6	7	N	
Audubon	Audubon	1,301	11	36.0	†1.5	59	7	11	14	34	.88	- .60	.78	.9	5	19	4	7	NW	
Baxter	Jasper	998	7	37.0	-0.4	68	6	12	14	43	1.04	† .23	.68	1.0	6	18	5	7	NW	
Belle Plaine	Benton	828	15	37.2	†2.8	66	2	11	14	34	1.06	- .77	.70	2.0	5	14	8	8	W	
Boone	Boone	1,134	2	36.6		60	6,7	13	14	27	.99		.56	1.0	5	18	2	10		
Buckingham	Tama		7								1.18	† .20	.68	2.0	3	12	16	2		
Carroll	Carroll	1,265	17	35.6	†2.4	63	7	10	14	36	1.40	† .25	.97	T	3	22	0	8		
Cedar Rapids	Linn	733	25	36.0	†0.2	56	1	14	15,16	34	.76	- .66	.47	1.0	4	11	14	5		
Clinton	Clinton	593	37	36.7	†1.2	57	5	13	14,16	32	1.31	- .59	.88	2.0	7	14	12	4	NW	
Davenport	Scott	606	36	38.8	†1.3	57	18	19	14	26	1.08	- .68	.85	.3	3	17	7	6	NW	
Delaware	Delaware	1,083	14	34.6	†2.6	53	1	12	14	25	1.02	- .59	.53	3.0	4	15	10	5	NW	
Denison	Crawford	1,180	11	b 37.6	†3.2	a 62	7	b 11	14	35	1.65	† .75	1.26	T	2				N	
Des Moines	Polk	861	29	38.6	†1.8	59	7	17	16	30	1.12	- .36	.87	3.0	4	9	14	7	NW	
De Soto	Dallas	866	7	38.5	-0.3	62	6,7	12	16	37	1.10	- .14	.80	T	2	18	4	8	NW	
Dubuque	Dubuque	698	34	37.1	†1.1	55	1	18	14	27	1.29	- .52	.84	2.1	6	13	9	8	NW	
Fort Dodge	Webster	1,126	7	35.2	†0.0	58	7	12	12,14	32	1.30	† .08	.50	1.5	5	21	1	8	W,NW	
Gilman	Marshall	1,052	8								.99	† .01	.84	1.5	3	14	9	7		
Grinnell	Poweshiek	1,023	12	37.0	†1.2	57	7	12	14	31	.90	- .62	.73	.5	4	19	3	8	N	
Grundy Center	Grundy	976	14	37.1	†4.3	57	7	11	14	30	.77	- .51	.55	1.0	3	16	8	6	NW	
Guthrie Center	Guthrie	1,077	9	37.2	†0.6	58	1	12	14	31	.99	- .06	.56	T	2	21	6	3	NW	
Harlan	Shelby	1,192	8	36.6	-0.8	65	6	11	14,16	36	.53	- .27	.51	T	2	13	11	6	NW	
Independence	Buchanan	921	41	36.8	†3.6	64	2,5	11	14	31	.56	- .96	.33	.5	4	18	5	7	NW	
Iowa City	Johnson	683	46	36.8	†1.3	58	7,18	12	16	32	1.07	-1.25	.81	0.5	6	17	3	10	W,NW	
Iowa Falls	Hardin	1,170	12	34.8	†2.6	56	7	10	14	31	.84	- .44	.61	1.0	3	19	2	9	NW	
Le Claire	Scott	576	8								1.35		.90	2.0	4				SW	
Little Sioux	Harrison		2	38.2		65	6	10	14	38	1.09		.80	T	3	17	6	7	NW	
Logan	Harrison	928	38	37.8	†2.2	63	24	13	14	34	2.27	-1.11	1.70	1.5	4	11	17	2	NW	
Marshalltown	Marshall	947	12	35.7	†0.0	58	6	12	14,15	32	1.06	- .27	.89	T	3	18	2	10	NW	
Muscatine	Muscatine		48								.89	-1.41	.63	0.2	6	14	8	8	S	
Newton	Jasper	944	17	37.3	†2.8	57	27	13	14	29	1.04	- .76	.70	1.0	4	19	2	9	NW	
Odebolt	Sac	1,356	8	37.1	†1.1	66	4	9	14	34	.97	- .15	.95	0.2	2	20	5	5		
Olin (a)	Jones	760	8	36.4	-0.5	58	11	12	14	36	1.26	† .06	.78	3.0	5				NW	
Onawa	Monona	1,051	7	39.2	†1.1	62	1,3,4	14	16	31	.59	- .54	.30	.5	3	20	4	6	NW	
Perry	Dallas	975	6	36.6	-1.2	60	7	12	15	33	1.23	- .22	.74	2.5	4	2	20	8		
Rockwell City	Calhoun		10	35.7	†1.7	60	7	9	12	26	1.35	† .50	1.05	1.0	3	20	2	8		
Sioux City	Woodbury	1,135	16	38.0	†3.7	62	6	12	24	32	.05	- .92	.03	0.3	2	13	10	7	NW	
Tipton	Cedar	807	9	38.6	†2.6	56	4	18	14	28	1.13	- .64	.80		3	17	8	5	NW	
Toledo	Tama	856	12	36.0	-0.1	55	7	11	15	29	.75	- .78	.70	.5	2	17	8	5	NW	
Waterloo	Black Hawk	862	18	37.3	†2.1	59	6	13	14	32	.92	- .48	.73	1.0	4	18	7	5	NW	
Waukee	Dallas	1,039	4	37.7		66	1	15	14	29	1.51		.86	3.5	4	19	6	5	NW	
Webster City	Hamilton		2	35.8		58	1	9	14	34	.74		.45	T	2	16	9	5	NW	
Whitten	Hardin	1,036	7	35.7	†0.9	56	7	9	14	28	.83	- .46	.53	1.0	3	13	10	7	NW	
Wilton Junct'n	Muscatine	683	10	35.6	-1.8	55	4	13	16	29	.95	- .85	.77	T	2	20	3	7	W	
Zearing	Story	718	3	35.6		59	6	10	14	35	.90		.53	0.6	4	19	4	7	NW	
Average				36.8	†1.6	59.5		12.3		31.9	1.04	- .31		1.0	4	16	7	7	NW	

CLIMATOLOGICAL DATA FOR NOVEMBER, 1907—CONTINUED.

SOUTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				SKY			Prevailing direction of wind	Dates of thunder-storms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)	No. rainy days	Number clear days	Number partly cloudy days	Number cloudy days	
Afton	Union	1,212	12	38.2	†2.3	60	7	15	14	27	1.35	† .24	1.03	T	3	18	5	7	SW
Albia	Monroe	959	9	38.2	-0.8	58	6,7,18,26	15	14	32	1.08	- .56	.86	.1	5	19	5	6	W
Allerton	Wayne	.....	5	39.2	-1.4	63	7	14	14	35	1.09	- .76	.85	.7	4	21	2	7	NW
Atlantic	Cass	1,164	14	35.8	-1.3	67	6	8	16	41	.88	† .02	.60	T	2	14	9	7	NW
Bedford	Taylor	.....	7	43.6	†3.7	66	6	10	14	39	1.52	† .58	1.02	.2	3	22	2	6	NW
Bloomfield	Davis	881	....	39.9	.....	60	6,7	15	15	35	1.07	.....	.86	.3	3	21	4	5	NW
Bonaparte	Van Buren	.....	15	39.1	†0.9	59	7,18	14	15	37	.98	-1.02	.75	....	4	....	....	....	.....
Burlington	Des Moines	544	9	39.7	‡0.0	63	4	17	15,16	35	1.53	- .12	1.00	T	5	22	4	4	NW
Chariton	Lucas	1,042	10	38.0	-0.6	60	3,6	14	14	34	.85	- .56	.85	1.0	1	20	7	3	NW
Clarinda	Page	1,009	15	39.0	†1.6	67	6	9	11	41	1.58	† .55	.82	T	2	22	0	8	NW
Columbus Jct.	Louisa	595	6	38.9	-0.4	58	18	17	15	28	.83	- .62	.50	T	5	20	5	5	NW
Corning	Adams	1,117	13	37.0	-0.2	59	5,7	11	14	31	1.45	† .49	.84	.2	3	18	8	4	NW
Corydon	Wayne	1,101	12	39.8	†1.7	62	6,7	13	14	32	.91	- .59	.80	....	3	19	2	9	.....
Creston	Union	1,212	2	37.4	.....	61	7	15	14	29	1.60	.....	.84	.5	6	21	2	7	NW
Cumberland	Cass	.....	8	.....	.....	.....	.....	.....	.....	.....	1.42	† .78	1.10	T	3	23	1	6	SW,NW
Earlham	Madison	.....	5	37.2	-0.6	61	7	10	16	38	1.17	- .17	.83	....	3	17	5	8	NW
Elliott	Montgomery	.....	2	36.4	.....	62	7	12	16	40	1.33	.....	.70	T	2	17	11	2	NW
Fort Madison	Lee	516	54	.....	.....	.....	.....	.....	.....	.....	.94	-1.22	.64	T	2	14	10	6	N,NW
Greenfield	Adair	.....	14	38.4	†2.5	62	6,7	14	14	30	.88	- .18	.57	T	2	....	....	....	N
Hancock	Pottawatta'e	1,113	1	38.4	.....	63	6	15	16	32	1.59	.....	.96	T	2	22	1	7	NW
Hopeville	Clarke	.....	14	38.8	†3.3	62	6,7	14	14	31	1.31	† .33	1.05	2.2	4	11	14	5	NW
Indianola	Warren	969	16	a 37.8	-3.8	a 59	7	a 16	14	29	1.34	† .04	1.14	.4	4	13	3	14	NW
Keokuk	Lee	614	36	41.2	†1.8	61	4	21	15	28	1.17	- .68	.96	T	3	20	7	3	NW
Keosauqua	Marion	644	15	37.6	-1.7	60	4,8	12	15	39	.97	- .66	.78	T	3	10	13	7	.....
Lacona	Warren	.....	7	.....	.....	.....	.....	.....	.....	.....	1.48	† .40	1.38	3.0	2	....	....	....	.....
Lenox	Taylor	1,250	10	38.0	†0.6	61	6	12	14	30	1.32	† .19	.78	.2	3	24	3	3	NW
Leon	Decatur	1,120	5	38.4	-2.2	60	7	16	13	32	1.37	- .55	1.00	4.2	4	21	0	9	NW
Massena	Cass	.....	2	38.0	.....	66	7	11	14	37	.94	.....	.70	T	2	14	14	2	NW
Mt. Ayr	Ringgold	1,236	11	39.6	†1.7	66	6	16	14	31	1.56	† .28	1.25	2.0	4	16	7	7	NW
Mt. Pleasant	Henry	729	23	38.6	†3.9	60	4	16	15	28	1.23	- .36	.93	T	4	15	11	4	NW
Omaha, Neb	Douglas	1,105	35	40.9	†3.2	64	6	21	14	27	.46	- .60	.40	0.2	4	13	10	7	NW
Oskaloosa	Mahaska	843	21	37.8	†1.1	58	4	13	16	34	.94	- .61	.68	0.2	4	21	0	9	.....
Ottumwa	Wapello	649	11	40.1	†0.9	67	3	17	16	38	1.30	- .38	1.15	....	2	16	4	10	NW
Pacific Jct	Mills	960	8	38.0	†1.7	64	6	14	14,16	36	1.53	† .94	.80	T	2	17	10	3	N
Pella	Marion	877	4	38.9	.....	58	7	16	14	30	.92	.....	.57	....	6	19	6	5	NW
St. Charles	Madison	1,070	6	40.2	-0.9	64	6	15	14	35	1.03	- .40	1.00	1.0	2	19	5	6	NW
Sigourney	Keokuk	877	8	38.0	-0.8	57	4,7	15	15,16	27	.93	- .57	.60	.5	6	6	21	3	NW
Stockport	Van Buren	.....	5	39.2	.....	58	4,7,18,19	13	15,16	37	1.05	- .53	.73	T	4	19	5	6	NW
Thurman	Fremont	.....	9	38.4	†0.2	63	6	13	14	35	1.74	† .65	.90	T	2	18	4	8	NW
Wapello (i)	Louisa	588	7	41.3	-0.7	59	5	.....	.....	.....	.83	- .63	.53	.2	4	....	....	....	.....
Washington	Washington	769	23	38.4	†2.8	58	4	15	14	32	.80	- .59	.67	T	2	15	10	5	NW
Winterset	Madison	1,129	14	38.0	-0.4	58	1,7	16	14	25	.83	- .38	.65	.5	2	15	6	9	NW
Woodburn	Clarke	961	8	39.0	.....	66	3	15	14	38	.45	- .59	.30	3.5	3	15	4	11	NW
Average	.....	.....	....	38.7	†0.5	61.5	.....	14.2	.....	33.2	1.15	- .19	.....	0.5	3	18	6	6	NW
State aver	.....	.....	....	36.7	†1.3	59.3	.....	11.3	.....	32.2	1.03	- .29	.....	0.9	4	17	6	7	NW

‡ Received too late to be included in average. *a* one day missing, *b* two days; *c* three days, etc. † means plus.

BELATED REPORTS.

ROCK RAPIDS.—September. Mean temperature, 69.4°; highest, 86° on the 1st, 18th and 20th; lowest, 19° on the 25th and 28th; greatest daily range, 40°; total precipitation, 4.02 inches; greatest in 24 hours, 1.30 inches on the 17th. Prevailing direction, north. Number of rainy days, 7.

FAYETTE.—October. Mean temperature, 50.5°; highest, 79° on the 2d; lowest, 13° on the 28th; greatest daily range, 38°; total precipitation, 1.68 inches; greatest in 24 hours, 1.06 inches; prevailing direction, southeast. Number of clear days, 21; partly cloudy, 4; cloudy, 6; rainy, 3.

INDEPENDENCE.—October. Mean temperature, 49.1°; highest, 79° on the 2d; lowest, 16° on the 28th; greatest daily range, 37°; total precipitation, 1.92 inches; greatest in 24 hours, 1.15 inches; prevailing direction, northwest. Number of clear days, 16; partly cloudy, 4; cloudy, 11; rainy, 7.

ROCK RAPIDS.—October. Mean temperature, 46.3°; highest, 80° on the 2d; lowest, 20° on the 13th, 18th and 24th; greatest daily range, 40°; total precipitation, 1 inch; greatest in 24 hours, .75 of an inch. Number of rainy days, 3.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF NOVEMBER, 1907

STATIONS		DAY OF MONTH																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Afton.....	max	59	53	54	57	54	57	60	53	49	37	31	37	41	34	41	45	48	50	53	46	41	47	47	54	54	53	52	46	45	40	..	47.9
	min	48	36	27	35	39	38	42	29	33	23	24	24	20	15	16	18	23	29	26	32	31	23	25	29	34	28	39	26	21	25	..	28.6
Albia.....	max.	56	53	55	57	56	58	58	50	53	33	35	37	42	36	42	49	50	58	56	40	49	52	52	57	56	58	56	49	45	34	..	49.4
	min.	46	37	25	30	35	29	32	32	32	23	20	19	20	15	18	19	25	28	29	31	32	26	28	29	36	26	27	23	19	22	..	27.1
Algona ...	max.	55	46	39	53	51	54	56	47	43	32	31	32	32	30	38	44	52	41	45	39	37	47	48	47	48	50	50	42	32	35	..	43.2
	min.	44	32	27	33	35	27	32	26	29	24	24	10	10	6	15	14	25	25	22	32	29	20	29	31	32	22	34	21	12	20	..	24.7
Allerton..	max.	58	55	61	59	57	61	63	53	52	38	31	37	42	39	47	50	49	58	56	48	47	53	52	56	58	57	56	50	45	41	..	51.0
	min.	48	35	26	32	37	30	34	32	31	22	17	23	20	14	17	18	21	27	28	33	32	24	25	27	33	26	38	21	21	29	..	27.4
Alta.....	max.	55	50	53	55	53	58	60	48	45	26	28	31	30	32	40	46	54	38	44	36	40	50	50	50	50	51	44	44	37	31	..	46.0
	min.	45	32	25	28	31	32	32	23	26	20	21	13	14	8	8	14	18	25	24	25	31	27	28	32	34	25	26	20	16	18	..	24.0
Alton.....	max.	57	51	55	55	54	58	56	50	45	37	28	32	30	32	37	46	55	39	46	41	42	50	53	51	50	50	48	43	38	40	..	45.6
	min.	47	33	27	32	35	31	31	25	31	21	26	12	16	9	18	13	26	28	24	33	31	22	32	30	29	20	39	18	15	19	..	25.8
Amana ...	max.	57	52	47	56	54	52	54	47	45	37	37	37	41	34	36	44	49	50	52	43	45	47	46	51	53	50	53	46	38	35	..	46.3
	min.	50	41	28	31	40	26	29	31	31	26	24	20	21	14	13	13	19	25	32	37	35	26	25	29	34	23	38	22	19	23	..	27.5
Ames.	max.	56	48	48	55	54	58	59	50	46	38	32	35	39	34	42	46	48	46	52	42	40	50	50	55	52	55	52	45	38	37	..	46.7
	min.	44	35	24	32	39	34	30	27	12	24	22	17	20	12	14	12	20	22	27	34	31	23	25	27	35	20	36	24	17	17	..	25.2
Atlantic ..	max.	59	57	62	59	57	67	64	50	42	35	27	29	38	35	41	45	48	43	54	43	41	52	52	55	56	56	55	48	45	39	..	48.5
	min.	43	29	22	27	36	23	29	21	26	18	23	23	19	14	11	8	17	18	21	33	23	18	29	32	28	18	33	12	13	26	..	23.1
Audubon.	max.	57	52	51	55	54	58	59	49	42	28	23	21	19	11	15	10	20	32	24	33	28	22	28	33	34	36	23	20	16	21	..	45.8
	min.	46	35	38	29	38	28	29	24	28	22	23	21	19	11	15	44	47	42	50	41	43	50	50	55	55	52	55	50	41	35	..	26.2
Baxter ...	max.	54	51	58	58	58	68	54	56	45	37	35	44	43	36	43	47	48	50	54	41	43	50	50	55	52	55	52	55	52	55	..	48.9
	min.	45	34	23	32	37	25	29	26	30	20	20	20	18	12	13	18	20	23	26	31	31	23	23	28	33	20	37	20	16	24	..	25.2
Bedford ..	max.	58	56	60	55	59	66	63	61	53	52	39	39	42	40	43	45	51	55	53	44	43	50	51	55	55	58	53	48	47	41	..	51.2
	min.	48	34	26	30	29	27	36	37	29	22	22	23	18	10	13	11	18	25	28	34	29	19	23	30	34	21	40	15	22	24	..	35.9
B. Plaine.	max.	50	66	45	48	60	55	52	52	48	39	38	37	41	36	39	47	46	52	52	48	40	58	50	55	54	52	54	42	39	30	..	47.5
	min.	45	37	27	30	37	25	37	28	32	23	20	16	20	11	12	13	22	25	35	36	33	23	27	30	33	35	36	22	12	28	..	27.0
Bloomfl'd	max.	58	55	58	59	58	60	60	52	56	40	36	42	49	45	49	51	51	59	59	44	52	52	52	58	59	58	57	50	45	41	..	52.2
	min.	41	36	26	31	41	29	36	34	33	23	19	22	21	16	15	16	21	30	29	34	34	26	25	27	30	26	37	23	22	24	..	27.6
Bonapa'e	max.	57	54	55	61	58	57	59	51	57	37	40	40	45	39	44	52	52	59	58	45	53	51	52	56	58	57	58	49	45	38	..	51.2
	min.	51	38	26	32	38	26	30	34	31	23	20	24	18	16	14	15	20	27	29	28	35	24	23	24	34	24	36	22	20	28	..	27.0
Boone. ...	max.	56	50	52	57	54	60	60	50	44	32	33	35	39	33	41	47	48	44	51	38	40	50	50	54	54	54	48	47	38	35	..	46.5
	min.	45	38	27	30	40	31	31	28	27	25	22	19	19	13	14	17	23	27	28	28	32	26	27	29	36	26	26	26	19	20	..	26.6
Britt.....	max.	55	47	42	55	50	54	56	50	44	34	33	33	32	31	39	36	51	42	48	40	35	48	48	49	44	52	42	44	47	35	..	43.9
	min	45	34	25	30	30	21	31	25	28	23	23	8	14	5	17	16	20	22	23	22	29	20	28	24	20	18	18	18	10	20	..	22.2
Burl'g'n.	max.	56	55	56	63	57	51	58	55	57	37	40	41	47	39	44	51	50	60	59	47	56	51	52	53	60	56	60	56	46	37	..	51.7
	min.	47	40	29	32	40	31	31	33	35	25	20	21	22	18	17	17	20	25	32	34	36	28	25	25	28	26	26	24	22	22	..	27.7
Carroll. ..	max.	59	54	57	58	50	59	63	51	46	30	28	34	37	32	42	49	51	42	48	41	44	52	53	53	55	55	53	48	41	35	..	47.5
	min	46	33	23	25	34	29	29	23	24	21	22	15	15	10	11	13	15	26	26	26	30	25	27	32	34	23	24	21	16	16	..	23.8
Cedar R. .	max.	56	46	49	55	53	54	55	48	44	35	37	34	40	34	38	46	49	38	44	36	40	50	50	50	50	51	44	44	37	31	..	46.0
	min.	44	41	29	29	37	30	27	28	32	25	24	20	19	16	14	14	15	20	24	34	32	24	25	27	33	26	38	21	21	29	..	27.4
Chariton .	max.	57	55	60	58	56	60	59	58	50	38	31	37	41	37	46	49	47	46	49	40	44	50	50	50	50	51	44	44	37	31	..	46.0
	min	43	36	24	23	36	29	31	30	30	21	18	22	19	14	15	17	20	24	26	31	31	22	24	29	36	23	23	22	19	27	..	24.0
Ch'rls Cty	max.	53	42	45	54	49	53	53	48	43	31	32	34	36	32	39	46	55	39	46	41	42	50	53	51	50	50	48	43	38	40	..	45.6
	min.	44	32	29	30	34	24	29	28	29	22	20	19	16	8	18	17	23	21	27	33	29	22	26	30	27	21	28	24	15	19	..	25.8
Clarinda .	max.	59	60	63	62	58	67	65	57	53	33	28	24	26	19	14	14	9	18	25	29	28	30	21	24	26	31	25	26	20	16	..	43.3
	min.	48	33	27	35	35	38	38	29	32	20	21	13	14	8	8	14	18	25	24	25	31	27	28	32	34	25	26	20	16	18	..	24.0
Clear La'e	max.	55	50	40	52	50	55	56	46	40	32	32	32	30	32	37	46	55	39	46	41	42	50	53	51	50	50	48	43	38	40	..	45.6
	min.	40	35	29	35	40	28	31	25	26	22	22	18	22	9	18	21	35	26	25	23	32	49	45	46	46	50	47	54	46	36	..	46.3
Clinton . .	max.	55	53	50	55	57	50	53	49	48	37	40	35	40	33	30	43	51	55	50	49	45	49	46	51	53	50	53	46	38	35	..	46.3
	min.	50	40	30	30	40	29	23	30	30	30	22	22	23	13	15	13	19	25	25	34	34	37	24	27	24	30	21	31	25	18	..	27.1
Colum's J	max.	57	55	50	57	57	53	56	51	50	50	39	33	41	41	40	47	52	58	55	45	49	49	49	51	54	51	56	47	40	38	..	49.0
	min.	51	40	29	32	32	31	29	34	34	25	22	20	19	18	17	19	24	30	31	37	35	27	27	27	35	25	39	24	22	28	..	28.8
Corning ..	max.	58	55	57	55	59	57	59	50	48	37	29	33	39	34	41	44	50	49	51	44	42	48	48	51	55	53	53	43	43	39	..	47.5
	min.	47	32	30	36	31	33	35	28	28	21	22	23	20	11	12	13	24	28	25	35	28	23	27	34	38	22	28	19	19	24	..	26.5
Corydon .	max.	57	57	56	61	58	62	62	60	53	40	32	38	45	40	50	50	49	59	57	49	46	54	54	57	58	58	58	52	46	41	..	52.0
	min.	48	36	27	32	39	31	33	34	31	22	18	22	20	13	18	18	21	28	28	32	32	23	27	30	35	26	40	22	20	26	..	27.7
Creston. .	max.	56	52	56	58	55	60	61	51	48	29	32	37	40	35	42	45	48	50	50	42	42	50	50	53	55	55	54	53	53	42	..	48.1
	min.	40	34	28	30	33	32	32	29	30	23	23	23	21	15	19	16	20	28	26	31	31	24	28	32	32	25	27	25	21	26	..	26.8
Dav'np'rt	max.	56	47	50	55	56	51	54	49	46	35	39	36	40	35	40	22	29	33	34	35	36	30	26	29	38	28	39	28	23	20	..	47.2
	min.	47	41	34	36	39	31	28	35	33	26	24	21	25	19	21	43	47	47	43	39	38	47	49	51	50	47	47	42	53	30	..	44.1
Decorah..	max.	53	47	46	53	49	50	52	47	45	32	33	34	38	32	40	43	47	47	43	39	38	47	49	51	50	47	47	42	17	22	..	27.4
	min.	46	40	33	34	38	29	24	31	31	23	23	20	22	12	22	16	22	23	27	32	32	26	27	32	33	23	35	27	17	22	..	27.4
Delaware.	max.	53	50	46	51	51	47	50	46	45	37	34	38	42	37	45	49	51	50	49	45	47	53	53	55	54	54	52	48	44	38	..	48.4
	min	48	37	36	30	37	29	25	27	25	20	19	20	19	12	14	17	21	27	27	32	32	22	23	26	31	21	31	21	28	18	..	25.8
Denison .	max.	57	54	60	58	55	61	62	50	46	38	28	35	38	34	41	48	53	42	50	46	42	53	53	53	55	54	55	48	40	39	..	48.4
	min.	48	26	25	35	..	29	35	25	32	22	23	16	20	11	18	13	28	23	26	34	31	23	30	33	35	25	41	..	16	25	..	26.7
Des Moins	max.	57	51	53	56	55	58	59	51	46	33	34	33	39	23	39	47	48	48	52	42	45	51	51	56	55	55	55	48	40	39	..	47.7
	min.	45	36	28	37	40	34	32	30	33	25	26	23	18	18	17	26	29	33	34	34	34	27	29	33	34	27	36	25	24	25	..	29.4
De Soto ..	max.	58	55	57	55	57	62	62	56	45	37	31	36	42	39	41	49	51	48	54	45	43	52	52	56	55	58	54	50	42	44	..	49.5
	min.	48	37	24	33	39	30	31	27	33	24	23	22	21	15	16	12	22	29	27	34	32	23	26	35	37	22	36	25	17	25	..	27.5
Dubuque.	max.	55	45	49	54	53	48	50	47	45	33	35	34	39	33	37	45	49	50	48	42	44	49	48	47	51	50	51	44	38	33	..	44.9
	min.	45	39	35	35	39	32	26	34	31	26	25	25	24	18	20	18	24	28	32	41	37	29	27	30	35	29	36	28	23	20	..	29.3
Dows	max.	55	50	45	55	52	57	58	48	44	37	31	33	35	24	39	45	47	43	48	41	37	49	48	53	50	53	50	43	36	34	..	44.9
	min.	46	34	24	30	33	22	27	23	32	20	23	11	19	6	12	12	20	20	25	33	32	21	27	31	30	27	34	19	12	22	..	24.2
Earlham .	max.	58	53	57	55	55	60	61	59	45	38	29	35	37	36	41	48	50	47	53	43	47	50	51	55	54	54	52	48	44	38	..	48.4
	min.	47	33	21	31	37	27	27	25	30	28	21	19	14	35	41	46	50	52	51	50	40	51	52	52	55	54	54	52	48	44	..	48.4
Elkader ..	max.	56	45	52	56	51	53	53	49	45	28	21	22	19	21	9	18	11	15	20	31	33	42	40	50	53	53	53	53	53	52	..	47.3
	min.	50	40	31	31	35	35	22	27	28	21	22	28	37	39	38	42	52	50	48	34	22	34	29	30	31	23	37	17	17	27	..	25.4
Elliott	max.	57	55	55	55	56	56	59	62	50	47	36	28	37	39	38	42	52	50	48	34	22	34	29	30	31	23	37	17	17	27	..	25.4
	min.	42	36	25	29	33	29	35	25	30	22	22	22	19	14	16	12	20	24	24	43	36	35	43	45	48	46	46	41	30	31	..	41.0
Elma.	max.	51	46	42	52	47	50	51	45	38	32	31	31	30	29	35	40	45	44	44	43	36	35	43	45	48	46	46	41	30	31	..	41.0
	min.	46	36	26	29	31	22	27	26	23	19	22	31	13	18	30	20	15	22	20	22	32	31	38	50	52	48	48	43	39	36	..	44.4
Esth'rv'e.	max.	55	45	49	55	52	59	58	50	42	26	29	31	31	30	40	46	55	40	45	37	38	50	52	50	48	24	29	23	12	15	..	23.9
	min.	45	34	25	28	31	32	31	26	25	21	22	10	16	4	12	15	20	28	21	25	32	23	25	31	34	24	29	23	32	31	..	43.4
Fayette . .	max.	52	45	44	53	51	51	52	46	43	43	35	35	38	31	38	44	48	47	45	37	39	46	47	40	51	49	48	42	32	15	..	24.7
	min	43	38	27	29	36	27	22	26	28	28	25	18	20	6	15	11	20	20	27	31	32	21	26	28	30	21	33	22	12	22	..	25.3
Forest C'y	max.	53	40	46	55	49	59	58	56	43	26	31	34	32	31	41	45	52	42	25	25	32	21	24	29	36	23	23	22	19	27	..	25.5
	min.	45	35	29	29	33	25	31	26	32	21	23	15	18	7	15	15	15	46	50	43	45	37	39	47	50	51	48	44	36	31	..	44.7
Ft. Dodge	max.	55	47	48	55	54	56	58	49	44	30	32	34	36	32	41	46	51	45	45	45	45	47	48	50	51	50	50	48	43	42	..	43.2
	min.	46	36	26	28	35	30	34	26	26	23	23	23	36	12	35	41	45	28	28	30	31	25	27	31	36	23	23	22	19	24	..	24.8
Gr. Mead.	max.	52	50	45	52	51	48	50	46	44	32	21	20	18	20	11	21	19	24	28	30	31	25	28	32	34	24	34	25	18	24	..	27.1
	min.	47	39	30	32	36	28	25	26	32	21	40	30	33	41	35	42	45	50	50	53	40	51	48	51	55	53	52	49	41	35	..	44.7
Greenfi'ld	max.	58	53	58	54	54	62	62	55	45	31	23	22	23	20	14	28	18	28	25	45	45	27	35	36	38	33	36	34	24	34	..	49.0
	min.	48	30	28	37	36	34	35	25	31	23	38	35	35	41	35	40	46	47	50	46	42	46	47	49	49	49	51	54	51	56	47	40	38	..	28.8
Grinnell..	max.	54	52	48	56	53	56	57	50	43	38	23	23	20	20	12	16	18	46	50	48	52	52	55	55	54	53	53	42	43	39	..	47.5
	min.	48	36	24	38	37	26	33	28	31	23	23	20	20	41	29	39	46	48	46	35	28	27	30	35	35	27	39	25	27	21	..	26.5
GrundyC.	max.	55	51	46	54	52	56	57	48	45	37	23	36	24	17	11	37	49	51	48	54	45	49	48	52	52	52	52	46	41	40	..	52.0
	min.	47	38	28	35	38	26	30	26	37	37	29	24	32	21	37	33	12	18	14	49	43	25	30	35	38	24	41	24	15	27	..	27.7
GuthrieC.	max.	58	53	54	54	54	57	33	30	26	31	22	24	22	22	12	14	45	28	27	32	32	22	50	52	55	55	54	53	53	42	..	48.1
	min.	48	32	24	33	40	33	59	60	59	44	31	32	35	36	35	42	48	50	50	51	39	42	50	52	55	55	54	53	53	42	..	48.1
Hampton.	max.	54	47	46	53	53	59	60	59	44	31	24	24	15	21	10	14	19	25	29	26	32	37	44	48	50	54	50	46	42	36	..	45.4
	min.	47	36	29	33	35	25	30	27	31	24	24	15	21	10	14	19	25	29	26	32	32	24	30	32	35	25	36	24	11	22	..	26.8

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF NOVEMBER, 1907—CONTINUED.

STATIONS		DATE																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Hancock..	max.	57	55	60	56	55	63	61	50	44	35	27	34	39	55	42	47	50	45	52	44	41	52	52	55	55	55	52	49	42	40	..	48.8
	min.	47	35	29	35	38	34	35	27	33	22	22	23	19	16	18	15	25	28	27	35	31	25	29	32	34	26	37	21	20	26	..	28.1
Harlan ...	max.	58	55	61	59	55	65	63	50	42	34	27	35	38	35	41	47	50	41	51	42	40	51	52	54	55	55	53	49	42	41	..	48.0
	min.	45	35	25	29	36	29	32	22	27	25	23	22	16	11	13	11	21	22	26	34	28	22	21	30	30	22	39	20	17	25	..	25.3
Hopeville.	max.	59	54	60	58	56	62	62	54	50	34	30	35	41	37	44	48	48	54	54	45	42	50	49	56	56	55	54	48	44	40	..	49.3
	min.	47	36	29	35	41	33	36	30	33	23	21	23	19	14	17	20	22	30	28	32	32	25	25	30	34	28	37	24	21	24	..	28.3
Humboldt	max.	56	46	42	54	53	55	60	48	46	40	32	32	35	26	40	45	51	42	46	41	38	49	49	49	50	50	50	44	36	36	..	44.7
	min.	42	31	26	32	38	25	32	24	38	24	24	12	20	9	17	15	21	22	24	32	32	20	30	34	32	20	40	24	14	24	..	25.9
Ind'p'nce	max.	55	64	47	55	64	58	54	46	51	41	37	33	40	37	39	44	46	55	50	39	40	48	48	51	52	51	53	48	39	37	..	47.4
	min.	48	38	29	31	40	27	26	28	32	22	22	20	21	11	14	15	20	24	32	33	33	24	24	26	29	22	35	25	18	21	..	26.3
Indianola	max.	57	51	53	55	..	55	59	53	45	32	32	33	38	34	40	46	47	47	53	45	43	49	49	55	53	53	53	47	40	40	..	46.8
	min.	48	37	29	45	41	24	33	29	..	24	21	21	21	16	19	17	26	30	28	32	32	27	29	32	37	27	40	26	22	25	..	28.9
Inwood...	max.	59	55	60	58	56	60	59	54	47	28	27	34	32	36	50	53	60	40	46	41	45	57	57	55	53	50	49	44	40	42	..	48.2
	min.	40	27	25	30	34	32	34	17	27	18	20	6	15	5	10	14	30	26	18	33	23	18	30	27	26	18	33	14	10	23	..	22.8
Iowa City.	max.	57	46	50	56	54	57	58	51	45	35	38	37	41	37	46	47	51	58	57	41	47	51	52	54	54	54	55	48	39	34	..	48.3
	min.	44	42	28	30	37	29	26	30	32	23	22	19	19	14	13	12	14	23	23	34	36	24	23	23	30	22	22	23	19	19	..	25.2
Iowa Falls	max.	55	43	43	55	52	55	56	47	45	31	33	34	36	32	38	44	48	42	50	38	38	47	47	52	51	51	50	44	35	31	..	44.1
	min.	46	36	27	30	34	23	30	26	33	23	25	15	20	10	18	13	22	22	28	34	33	23	26	28	30	20	30	20	15	25	..	25.5
Keosa'q'a	max.	58	56	53	60	57	56	57	60	57	40	39	39	43	37	44	50	52	57	58	43	52	49	51	56	58	55	58	49	44	41	..	51.0
	min	47	39	26	28	31	28	26	27	30	25	22	23	19	16	12	13	13	21	23	27	31	23	19	19	26	24	24	23	19	19	..	24.1
Keokuk ..	max.	56	55	56	61	58	55	57	52	56	41	36	37	46	39	42	49	49	56	58	47	53	48	51	53	58	54	57	49	44	40	..	50.4
	min.	51	51	30	36	44	33	33	39	37	27	22	26	24	22	21	21	24	38	34	39	36	30	26	27	40	29	38	28	26	31	..	32.1
Larrabee .	max.	57	51	52	55	53	56	57	48	45	32	32	31	31	32	37	35	53	39	46	39	40	48	..	49	51	49	47	43	38	38	..	44.3
	min.	40	32	25	34	35	31	32	22	32	22	22	11	14	9	16	12	25	29	22	34	31	22	..	28	31	21	34	20	15	24	..	25.0
Le Mars ..	max.	57	54	55	56	55	58	57	49	48	40	26	31	34	32	38	44	55	44	..	43	43	50	54	50	49	49	48	44	39	42	..	46.3
	min.	47	32	25	32	37	34	33	24	32	22	22	11	17	9	18	15	29	25	..	35	32	22	32	29	34	23	39	37	14	25	..	27.1
Lenox	max.	57	55	57	57	56	61	60	55	47	39	29	34	41	35	42	45	49	49	52	47	42	48	49	55	55	54	53	47	44	40	..	48.5
	min.	47	34	30	31	35	31	35	28	38	20	22	23	20	12	18	15	22	30	28	34	30	24	25	28	34	27	38	20	21	25	..	27.5
Leon.....	max.	59	54	54	57	56	57	60	54	50	37	31	35	40	42	40	45	53	50	53	46	43	46	47	53	55	52	54	47	44	41	..	48.5
	min.	48	37	31	35	40	34	37	33	33	23	18	23	16	17	19	20	28	31	29	28	32	25	28	30	29	20	38	24	22	22	..	28.3
Lit. Sioux	max.	60	58	62	62	59	65	61	54	48	37	27	36	39	36	42	50	56	46	51	46	45	56	55	55	56	55	54	52	43	43	..	50.3
	min.	49	28	28	28	32	30	40	20	27	19	22	18	19	10	16	12	29	24	25	37	28	28	32	34	29	22	35	18	15	27	..	26.0
Logan	max.	58	57	60	58	55	49	58	52	45	37	27	36	39	34	41	47	51	42	52	46	42	53	52	63	55	55	46	50	42	42	..	48.1
	min.	49	36	26	31	34	42	36	23	30	23	23	22	18	13	19	14	26	27	26	36	29	21	30	32	33	25	37	19	17	28	..	27.5
Mars'll't'n	max.	54	45	45	55	54	58	56	49	45	36	35	34	42	35	42	47	48	50	53	39	42	50	49	54	53	53	53	45	38	34	..	46.4
	min.	44	37	26	30	38	25	25	26	21	22	24	19	19	12	12	15	17	25	29	35	32	26	28	29	30	23	24	24	17	17	..	25.0
Mason C'y	max.	53	44	43	52	49	52	54	45	42	32	32	32	33	30	36	43	49	43	45	37	36	46	47	49	47	48	48	41	37	30	..	42.5
	min.	40	36	30	38	31	26	27	24	24	20	23	16	20	8	19	17	20	24	25	32	32	30	30	30	32	30	34	23	12	22	..	25.8
Massena..	max.	60	55	62	61	59	63	66	56	43	35	28	33	44	39	46	50	52	49	54	44	43	52	52	54	60	56	58	54	45	37	..	50.3
	min.	43	33	26	32	35	30	34	24	28	20	20	23	20	11	12	13	24	28	26	33	28	22	22	32	31	23	37	19	20	26	..	25.8
Mt. Ayr ..	max.	59	58	63	59	56	66	55	55	49	36	30	35	45	39	45	46	48	55	54	46	45	52	52	56	58	58	51	51	48	40	..	50.3
	min.	46	35	30	37	38	35	35	31	33	21	22	22	18	16	19	26	25	29	29	32	33	25	27	29	33	29	38	24	28	25	..	29.0
Mt. Pleas't	max.	56	53	51	60	56	53	56	50	54	38	40	37	41	35	41	46	51	54	56	42	46	48	50	55	56	56	55	50	41	37	..	48.8
	min.	51	38	27	35	40	29	31	34	32	24	20	24	20	17	16	18	24	30	31	38	26	25	27	35	31	30	28	23	21	29	..	28.5
N.Hamp'n	max.	51	48	43	51	48	50	50	46	45	38	32	32	35	29	35	41	44	46	35	35	36	44	45	47	45	47	46	46	36	30	..	41.9
	min.	46	38	27	33	35	27	26	28	28	20	22	19	18	9	19	16	22	24	32	30	31	23	27	30	28	22	38	24	14	21	..	25.9
Newton...	max.	54	53	48	54	54	53	56	51	44	43	35	38	39	32	40	48	47	48	52	50	42	47	46	52	51	54	57	47	41	37	..	47.1
	min.	48	38	26	38	39	28	31	28	32	23	22	22	19	13	14	18	22	26	29	35	31	25	25	27	34	25	35	23	20	29	..	27.5
Northw'd	max.	54	48	44	52	52	51	54	46	43	32	33	33	33	30	36	42	51	41	40	37	42	48	47	..	46	45	45	42	31	28	..	42.3
	min.	42	35	29	34	35	26	29	32	27	21	23	23	18	8	22	23	22	21	24	30	28	28	26	..	30	31	32	22	..	17	..	26.4
Odebolt ..	max.	56	53	59	66	54	62	62	50	48	34	27	33	33	35	42	49	55	43	46	40	40	52	52	52	50	54	50	48	38	39	..	47.4
	min.	49	33	26	32	37	31	30	24	30	21	22	14	20	9	20	15	27	26	25	34	32	25	30	32	35	25	38	20	16	25	..	26.8
Olin.....	max.	57	54	48	55	54	50	51	..	46	57	58	36	39	35	37	43	48	51	49	44	45	45	46	46	50	47	51	46	40	35	..	47.0
	min.	50	35	31	29	39	27	23	..	30	22	22	18	21	12	13	13	18	21	34	34	36	25	22	22	30	22	33	23	17	24	..	25.7
Omaha, N	max.	60	56	61	59	57	64	57	52	45	32	26	34	37	35	40	49	53	43	49	43	45	55	54	56	56	55	53	51	48	47	..	49.1
	min.	50	37	38	40	45	41	42	31	32	24	24	24	22	21	25	22	30	33	31	38	34	32	34	39	40	33	36	27	28	29	..	32.7
Onawa....	max.	62	60	62	62	60	61	60	55	48	37	27	37	38	39	43	52	57	45	47	44	50	55	55	56	57	52	53	55	43	40	..	50.4
	min.	49	33	31	34	36	35	34	25	31	24	23	21	18	15	18	14	26	27	28	38	31	24	30	32	33	24	41	19	19	28	..	28.0
Osage.....	max.	52	48	47	54	52	57	54	48	46	32	32	40	35	31	59	46	48	46	52	42	35	46	47	48	48	50	50	42	31	29	..	44.9
	min.	46	35	29	31	32	23	27	24	32	19	22	16	19	8	29	14	22	22	24	32	31	21	28	30	30	22	34	24	14	21	..	25.4
Oskaloosa	max.	57	50	53	58	56	56	57	50	48	35	36	36	43	36	42	47	50	52	54	44	47	50	50	56	56	54	55	48	40	36	..	48.3
	min.	48	37	25	33	41	26	32	31	33	24	22	22	21	16	14	13	19	25	27	34	33	24	24	29	37	22	39	22	18	24	..	27.2
Ottumwa .	max.	58	52	67	60	62	64	59	51	52	35	36	37	43	38	45	51	52	58	59	42	51	54	52	57	57	58	57	50	46	37	..	51.3
	min.	46	44	29	35	40	42	31	34	34	26	24	24	22	19	18	17	19	22	31	31	35	27	26	27	37	27	27	26	24	22	..	28.9
Pacific Jc.	max.	55	54	60	58	57	64	57	51	58	35	28	35	40	34	41	49	52	45	52	45	43	53	52	54	57	56	54	49	45	43	..	49.2
	min.	45	30	30	30	35	28	35	27	39	23	25	24	17	14	15	14	23	26	30	38	28	23	30	33	32	23	35	17	21	28	..	26.9
Pella.....	max.	55	54	55	57	55	57	58	50	46	39	48	36	40	36	42	48	49	50	54	49	45	52	50	53	56	54	54	55	44	36	..	49.2
	min.	42	37	28	34	41	31	31	30	33	24	22	24	21	16	17	18	23	28	29	38	34	26	28	28	37	27	39	24	21	28	..	28.6
Perry.....	max.	56	51	53	55	54	55	60	50	44	38	32	34	36	35	39	47	42	43	51	43	41	51	49	55	52	54	53	47	39	39	..	46.6
	min.	45	37	26	33	38	30	31	27	31	23	23	19	19	14	12	14	22	25	27	33	32	24	27	33	33	23	38	21	17	25	..	26.7
Plover....	max.	55	49	51	53	54	55	58	50	45	29	32	30	31	30	37	42	51	40	45	38	36	48	50	48	50	51	49	48	36	34	..	44.2
	min.	40	29	20	30	29	26	26	22	29	17	17	5	17	2	11	8	18	19	19	33	30	23	25	26	28	18	30	26	10	20	..	21.8
Pocahon's	max.	58	45	45	54	53	55	56	47	45	33	33	34	33	30	37	43	50	40	44	39	40	46	50	47	48	49	48	43	35	35	..	43.8
	min.	43	31	25	32	34	27	27	22	30	21	22	9	19	8	14	13	23	24	21	21	30	24	29	29	33	23	28	20	10	12	..	23.5
Ridgeway	max.	52	45	54	58	53	59	51	52	47	38	38	42	45	36	41	48	51	50	39	38	40	49	50	49	57	52	51	45	36	34	..	46.7
	min.	43	37	30	33	37	29	27	26	33	20	20	20	20	8	24	19	25	26	25	33	33	24	27	30	31	23	35	25	16	20	..	26.6
R. Rapids	max.	48	54	60	60	58	60	60	52	54	30	28	26	20	32	40	35	38	40	40	48	42	54	48	50	50	48	46	44	42	40	..	44.9
	min.	28	34	46	46	30	30	26	26	24	20	20	8	12	8	18	20	20	32	20	24	28	20	22	20	24	30	30	20	12	20	..	23.9
Rock'll Cy	max.	57	50	46	55	55	58	60	58	46	40	40	35	34	30	35	35	50	42	48	48	42	48	50	50	50	50	52	45	35	35	..	46.0
	min.	42	34	25	34	34	33	34	25	32	25	20	9	20	13	13	15	24	26	30	30	25	26	28	25	24	26	25	25	17	24	..	25.4
St. Charl's	max.	60	57	63	58	58	64	62	56	46	38	32	33	46	41	46	53	51	55	55	45	45	55	45	58	58	60	58	54	45	40	..	51.2
	min.	47	36	28	38	41	34	31	30	35	24	22	23	21	15	16	20	24	32	28	32	32	26	28	32	37	28	41	26	21	25	..	29.1
Sheldon ..	max.	59	55	58	59	55	60	60	50	45	32	28	28	31	42	40	52	55	41	48	40	46	55	55	55	53	53	45	38	39	39	..	47.2
	min.	45	31	30	25	36	30	32	22	32	20	21	7	13	12	15	22	24	28	22	33	30	30	30	32	19	20	16	12	22	20	..	24.4
Sibley	max.	56	50	55	56	52	60	57	50	43	24	27	30	27	32	39	49	56	37	47	39	43	..	54	53	52	51	47	42	37	34	..	44.8
	min.	44	32	26	26	33	30	29	23	24	19	18	4	5	4	4	14	14	28	21	21	30	22	..	25	29	20	21	16	12	14	..	21.0
Sigourn'y	max.	56	53	52	57	54	54	57	50	48	40	38	38	40	36	44	47	51	54	54	48	47	48	48	59	54	52	54	49	43	36	..	48.7
	min.	48	37	26	33	42	28	30	31	32	28	22	20	21	16	15	15	20	27	30	33	34	25	24	27	34	24	36	22	20	28	..	27.4
Sioux Cen	max.	56	50	55	55	53	59	55	50	44	30	26	30	23	32	36	45	55	38	46	40	42	51	54	51	51	49	43	43	36	42	..	44.7
	min.	45	30	25	32	32	36	36	25	30	20	20	10	16	9	17	13	25	26	22	32	28	21	26	30	30	20	29	19	14	24	..	24.7
Sioux City	max.	59	56	57	58	56	62	59	53	46	29	25	32	33	35	37	50	57	39	44	43	45	55	56	56	51	52	50	47	46	45	..	47.8
	min.	41	34	30	35	41	39	36	27	29	22	22	18	22	12	22	18	28	28	28	35	26	23	34	32	37	28	32	26	17	26	..	28.3
Stockport	max.	56	53	54	58	55	56	58	50	54	49	38	39	45	39	43	50	50	58	58	45	54	51	52	54	55	56	56	48	44	40	..	50.6
	min.	50	38	27	31	41	29	29	34	33	24	22	24	19	16	13	13	19	28	29	39	35	25	19	25	36	24	35	25	24	29	..	27.8
Storm L..	max.	55	51	52	55	52	57	60	49	45	37	28	30	29	31	40	46	52	38	43	40	45	49	49	49	50	50	48	44	39	37	..	45.0
	min.	48	34	25	36	38	34	34	24	32	20	22	13	21	10	21	17	28	27	23	34	32	27	32	33	35	27	38	22	17	11	..	27.2
Thurman	max.	60	58	60	58	58	63	59	51	48	40	29	35	41	34	42	49	51	45	51	47	44	51	51	56	56	55	54	48	44	44	..	49.4
	min.	45	36	29	31	35	28	38	28	33	24	20	23	20	13	15	14	20	25	30	38	30	21	30	35	33	21	38	17	24	28	..	27.4
Tipton....	max.	55	51	53	56	55	54	54	52	44	35	40	40	40	36	41	45	48	54	51	41	45	47	50	49	52	50	54	46	40	35	..	47.1
	min.	50	42	33	34	40	31	30	34	35	26	24	20	22	18	21	22	25	30	35	35	36	27	30	29	29	27	38	28	22	26	..	30.0
Toledo ...	max.	54	52	44	53	53	53	55	48	44	37	34	34	40	32	38	43	49	48	52	43	41	47	48	53	51	50	51	45	39	34	..	45.5
	min.	50	37	27	29	39	25	29	27	34	19	19	18	21	12	11	14	22	24	30	35	32	24	25	31	31	22	38	25	18	24	..	26.4

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF NOVEMBER, 1907—CONTINUED.

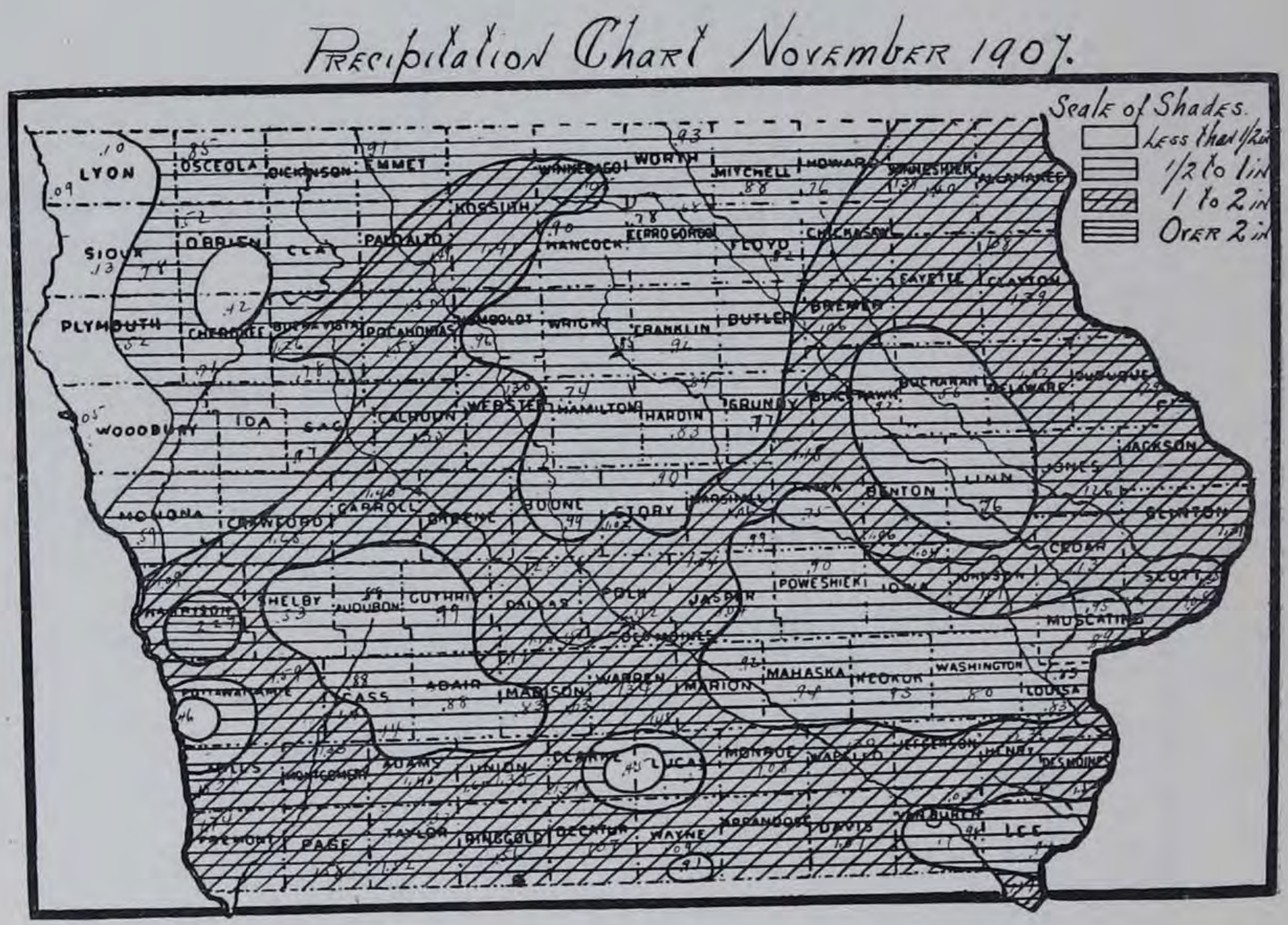
STATIONS		DATE																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Wapello ..	max.	56	56	52	56	59	58	55	52	54	40	43	..	..	..	..	48	48	56	55	..	50	48	47	49	62	..	..	..	..	36	..	51.4
	min.	55	42	32	33	33	32	28	35	34	28	24	..	..	..	..	18	25	31	32	..	37	28	26	28	24	..	..	..	..	30	..	31.2
Wash'g'n	max.	54	50	52	58	56	56	57	52	49	35	41	39	42	37	42	49	52	57	56	51	49	50	50	54	56	54	57	50	43	38	..	49.5
	min.	50	38	27	33	41	28	30	22	33	24	22	18	20	15	16	16	22	27	30	36	34	25	26	27	35	22	37	22	20	23	..	27.3
Washta ..	max.	50	52	60	60	57	62	60	61	46	35	33	32	36	34	40	44	54	44	46	40	45	52	54	54	50	52	51	48	49	45	..	48.2
	min.	46	30	20	25	38	25	28	20	25	16	24	6	16	6	14	9	22	23	22	32	32	16	32	28	28	18	36	18	12	25	..	23.1
Waterloo.	max.	54	50	49	56	53	59	56	50	47	37	37	36	42	35	43	47	49	49	51	43	39	51	50	53	54	53	50	47	35	33	..	46.9
	min.	48	39	31	35	37	27	30	28	36	24	25	18	23	13	15	15	22	24	31	33	34	25	27	31	33	23	34	26	20	25	..	27.7
Waukee ..	max.	66	53	54	54	53	56	54	50	45	40	32	39	37	33	39	47	47	45	50	45	42	47	43	54	53	54	53	47	40	40	..	47.1
	min.	47	36	28	35	39	31	32	26	33	23	22	20	21	15	17	18	23	30	28	33	32	25	24	35	42	26	40	23	21	25	..	28.3
Waverly .	max.	53	47	45	54	51	53	54	46	45	33	34	34	38	33	41	44	48	43	47	37	38	46	48	51	51	50	49	43	32	32	..	44.0
	min.	47	38	31	31	36	25	30	29	32	23	26	18	22	12	15	15	23	23	29	33	33	24	28	30	31	21	36	24	17	20	..	26.7
Websr. Cy	max.	58	54	44	57	54	52	52	50	47	40	35	31	38	32	40	45	49	46	52	47	42	48	48	57	52	52	52	51	36	36	..	46.6
	min.	48	35	24	32	35	26	30	22	33	24	22	14	19	9	14	12	20	20	26	36	32	20	24	30	30	18	35	21	12	27	..	25.0
W. Bend .	max.	56	49	42	54	51	53	56	48	43	35	30	34	31	29	37	43	51	40	45	37	36	47	49	46	48	51	48	42	34	36	..	43.3
	min.	48	31	25	31	32	27	29	23	33	21	24	10	16	6	16	13	23	21	22	32	31	21	29	30	31	20	35	17	11	25	..	24.4
Whitten ..	max.	55	52	43	54	53	54	56	51	45	38	35	35	40	33	39	44	48	45	51	45	40	45	45	51	51	51	51	45	39	34	..	45.6
	min.	47	35	24	33	35	26	32	24	33	22	23	16	20	9	15	16	22	25	28	32	21	25	27	30	33	22	37	22	15	24	..	25.8
Wilton Jn	max.	53	54	52	55	53	51	51	51	42	40	36	34	39	37	35	40	46	50	49	48	45	43	44	45	46	46	51	51	35	36	..	45.3
	min.	30	41	30	30	38	28	23	31	30	22	20	17	20	14	14	13	20	24	30	32	36	25	23	25	31	23	34	22	18	30	..	25.8
Winterset	max.	58	52	52	55	54	56	58	52	45	38	31	33	40	33	38	43	47	46	50	45	44	46	46	53	53	51	51	45	43	38	..	46.5
	min.	49	37	28	37	40	34	33	28	32	24	25	24	22	16	17	20	25	33	27	33	32	27	29	33	37	28	40	26	21	26	..	29.4
Woodb'rn	max.	56	61	66	57	55	59	59	53	48	40	39	34	36	42	36	46	45	54	53	52	43	47	49	50	50	60	58	52	50	47	..	49.9
	min.	48	35	28	36	40	31	32	40	30	24	20	24	20	15	18	25	22	28	28	33	32	26	26	30	30	28	34	26	14	22	..	28.2
Zearing...	max.	54	48	55	52	58	59	58	49	44	37	35	34	38	33	42	45	48	46	51	43	41	48	48	54	52	52	52	45	37	35	..	46.4
	min.	47	21	29	35	23	25	26	26	30	26	15	17	20	10	11	12	24	22	27	33	33	23	28	32	35	20	38	21	13	21	..	24.8

DAILY AND MONTHLY PRECIPITATION FOR NOVEMBER, 1907.

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Afton	.28								T	T	T									1.03	.04										1.35
Albia	.04	.09									.01									.08	.86										1.08
Algona	1.18									T	T	T								.23									T		1.41
Allerton	.10									.02	T	T								.85	.12										1.09
Alta	.80									.08	.02	.01								.25	.10								T		1.26
Alta (near)										.05	.05									.31							T				.41
Alton	.66								T	T	T									.12											.78
Amana	.11								.03	T										.74	.04								.12		1.04
Ames	.32									.10		T								.60									T		1.02
Atlantic	.28									T	T									.60											.88
Audubon	.78								.03		.01	T								.04	.02										.88
Baxter	.14								.01	.02	T									.68	.15								.04		1.04
Bedford	.45									T	T									1.02	.05										1.52
Belle Plaine	.12								.01	T										.70	.03								.20		1.06
Bloomfield	.18									.03										.86									T		1.07
Bonaparte	.18																			.75	.05								T		.98
Boone	.29	T								.06	.02	T								.06	.56								T		.99
Britt	.57		T					T		T	.05									.20								.04	.04		.90
Buckingham	.30																			.68									.20		1.18
Burlington	.10	.29									T									.06	1.00								.08		1.53
Carroll	.97										T	T								.18	.25										1.40
Cedar Rapids	.04	.10			T	T				T		T									.47								.15		.76
Chariton	T								T	T	T									.85											.85
Charles City	.13			.01					T	T										.59					T			.09			.82
Clarinda	.76									T	T	T								.26	.56										1.58
Clear Lake	.36			.02						T										.05	.25				T				.10		.78
Clinton	.15			.01	.05					.02										.88									.20		1.31
Columbus Junc.	.12	.09							.04											.50									.08		.83
Corning	.58								T	.03	T									.84											1.45
Corydon	.04									T	T									.80	.07								T		.91
Creston	.29	T								.02	.02	.05								.38	.84										1.60
Cumberland	.01									T									.31	1.10											1.42
Davenport	.20				T				T	T		T								.85	T							T	.03		1.08
Decorah	.34	.03		.08					T	T					T					.81	.04				T			.10			1.40
Delaware	.18			.08																.53									.23		1.02
Denison	1.26									T	T									.39											1.65
Des Moines	.15			T					T	.04	.06									.87	T								T	T	1.12
De Soto	.30									T	T									.80	T										1.10
Dows	.27			T						T	T									.51									.07		.85
Dubuque	.20	T		.08	T				.03	T	T	T								.84	T							.02	.12		1.29
Earlham	.23								T	T	T									.83	.11								.20		1.17
Elkader	.28			.06					T											.85					T				.20		1.39
Elliott	.63									T										.70											1.33
Elma	.15			.07	T				T	T	.01									.31	.08				T				.14		.76
Estherville	.60									T	T									.20	11								T		.91
Fayette	.20			T					T	T	T									1.25	12				T				.10		1.67
Forest City	.60			.10						T	T									T	.30								.05		1.05
Fort Dodge	.50	T								.10		.05								.15	50								T		1.30
Fort Madison	.30									T										.64											.94
Gilman				T					T	T	T									.84	.10								.05		.99
Grand Meadow	.25			.05					T	T						T					.88								.20		1.38
Greenfield	.31									T	T									.57											.88
Grinnell		.12							T											.47	.26								.05		.90
Grundy Center	.12								T	T										.55									.10		.77
Guthrie Center	.43								T	T	T									.56	T										.99
Hampton	.23								T	T									.03	.52								.14			.92
Hancock	.96									T	T									.63											1.59
Harlan	T								.02	T	T	T								.51											.53
Hopeville	.24								T	.01	.01									1.05	T										1.31
Humboldt	.56									.05	.05									.50											.96
Independence	.13			.02																.33	.03								.05		.56
Indianola	.11								T	.07	.02	T								1.14	T								T		1.34
Inwood	.03								T	.02	.01									.03								T	T		.09
Iowa City	.03	.08			.02	T				.02											.81								.11		1.07
Iowa Falls	.13	T		T					T		T	T								T	.61							.10			.84
Keokuk	.18										T	T								.96								.03			1.17
Keosauqua	.04	.15									T									T	.78								T		.97
Lacona										.10	T									1.38								T			1.48
Larrabee										T										.42								T			.42
Le Claire	.30				T	.05				T	T	T	T							T	.90								.10		1.35
Le Mars	.48								.01	T	T									.03											.52
Lenox	.52									.02	T									.78											1.32
Leon	.15	T								T	.02	T								1.00	.20										1.37
Little Sioux	.80									T										.26	.03										1.09
Logan	1.70									.10	.05									.42											2.27
Marshalltown	.11	.06								T	T									T	.89								T		1.06
Mason City	.30			.02						T										.25	.03							.08			.68
Massena	.24								T	T	T									.70											.94
Mt. Ayr	.26								T	.02	.03									1.25											1.56
Mt. Pleasant	.12	.11							T	T										.93	.02								.05		1.23
Muscatine	.01	.15				.01				.01	T									T	.63								.08		.89
New Hampton	.13			.05						T									.47										.10		.75
Newton	.10									.07										.70	.17										1.04
Northwood	.58									.03	T									.22									.10		.93
Odebolt	.95									.02	T																				.97
Olin	.20			.02					.01	T										.78								.25			1.26
Omaha, Neb	.05									.01	T								.03	.37											.46
Onawa	.30								T	.05	T									.24	T										.59
Osage	.38			.10					T												.30								.10		.88
Oskaloosa	.22								T	.02										.68								.02			.94
Ottumwa	.15									T										1.15											1.30
Pacific Junction	.80									T	T									.73											1.53
Pella	.14	.04								.03										.57	.13								.01		.92
Perry	.24								T	.25											.74										1.23
Plover	.88									.10	.10									.22											1.30
Pocahontas	1.02										.18										.38										1.58
Ridgeway	.33			.07					.03	T	T	T			T					.78					.01			.03	.14		1.39
Rock Rapids										.10	T																				.10
Rockwell City	1.05									.10										.20								T			1.35
St. Charles									T	.03	T									1.00											1.03
Sheldon									T	.20	.10									.22											.52
Sibley	.63									.10	T									.12	T										.85

DAILY AND MONTHLY PRECIPITATION FOR NOVEMBER, 1907—CONTINUED.

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Sigourney	.18	.03	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	....	....	.60	.04	....	....	....	....	....	....	....	....	.05	....	.93
Sioux Center	....	....	....	....	....	....	....	....	T	.05	.05	....	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	....	T	....	....	.13
Sioux City	....	....	....	....	....	....	....	....	T	.03	T	....	....	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	.05
Stockport	.11	.21	....	....	....	....	....	....	T	T	....	....	....	....	....	....	....	....	....	.69	.04	....	....	....	....	....	....	....	....	T	....	1.05
Storm Lake	.32	....	....	....	....	....	....	....	....	.05	.02	....	....	....	....	....	....	....	....	.39	....	....	....	....	....	....	....	....	....	T	....	.78
Thurman	.90	....	....	....	....	....	....	....	....	T	T	....	....	....	....	....	....	....	....	.84	....	....	....	....	....	....	....	....	....	....	....	1.74
Tipton	....	....	....	....	....	....	.18	....	....	....	....	....	....	....	....	....	....	....	....	.80	....	....	....	....	....	....	....	....	.15	....	....	1.13
Toledo	....	....	....	....	....	....	....	....	....	T	T	....	....	....	....	....	....	....	....	.70	....	....	....	....	....	....	....	....	.05	....	....	.75
Wapello	.15	.09	....	....	....	....	....	....	T	T	....	....	....	....	....	....	....	....	....	.53	.06	....	....	....	....	....	....	....	T	....	....	.83
Washington	.13	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	.67	....	....	....	....	....	....	....	....	T	....	....	.80
Washta	.44	....	....	....	....	....	....	....	T	.03	....	....	....	....	....	....	....	....	....	.24	....	....	....	....	....	....	....	....	....	....	....	.71
Waterloo	.07	....	....	.04	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	.73	....	....	....	....	T	....	....	....	.08	....	....	.92
Waukee	.30	....	....	....	....	....	....	....	T	.25	T	....	....	....	....	....	....	....	....	.86	.10	....	....	....	....	....	....	....	....	....	....	1.51
Waverly	.12	....	....	.02	....	....	....	....	T	T	T	....	....	....	....	....	....	....	....	.60	.22	....	....	....	....	....	....	....	....	.10	....	1.06
Webster City	.29	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	.45	....	....	....	....	....	....	....	....	....	T	....	.74
West Bend	1.04	....	....	....	....	....	....	....	T	.03	T	....	....	....	....	....	....	....	....	.42	....	....	....	....	....	....	....	....	....	T	....	1.49
Whitten	.20	....	....	....	....	....	....	....	....	T	T	T	....	....	....	....	....	....	....	.53	....	....	....	....	....	....	....	....	....	.10	....	.83
Wilton Junction	.18	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.77	....	....	....	....	....	....	....	....	T	....	....	.95
Winterset	.18	....	....	....	....	....	....	....	T	T	T	....	....	....	....	....	....	....	....	.65	T	....	....	....	....	....	....	....	....	T	....	.83
Woodburn	.10	....	....	....	....	....	....	....	T	.05	T	T	....	....	....	....	....	....	....	.30	....	....	....	....	....	....	....	....	....	T	....	.45
Zearing	.19	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	.53	.15	....	....	....	....	....	....	....	....	.03	....	.90



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR DECEMBER, 1907

AND

Annual Summary for 1907

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORTY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH STATE PRINTER
1907

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

OF THE

STATE BOARD OF AGRICULTURE,

CONSTITUTED AS FOLLOWS:

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Ninth District—M. MCDONALD, Bayard.
Tenth District—O. A. OLSON, Forest City.
Eleventh District—H. L. PIKE, Whiting.

METEOROLOGICAL STATIONS AND OBSERVERS.

From the following, weekly and monthly reports of Meteorological data are received by the Iowa Weather and Crop Service.

Afton	N. W. Rowell
Albia	J. I. Chenoweth
Algona	Dr. F. T. Seeley
Allerton	Rex Shriver
Alta	D. E. Hadden
Alta (near)	W. J. Minard
Alton	W. S. Slagle
Amana	Conrad Schadt
Ames	Iowa State College
Atlantic	J. W. Love
Audubon	Geo. E. Kellogg
Baxter	W. R. Vandike
Bedford	E. E. Healy
Belle Plaine	S. P. Vandike
Bloomfield	F. H. Roberts
Bonaparte	Hon. B. R. Vale
Boone	Carl Fritz Henning
Britt	G. P. Hardwick
Buckingham (Traer P. O.)	Dr. W. A. Daniel
Burlington	I. S. Shontz
Carroll	Frank Hughes
Cedar Rapids	Electric Light and Power Co.
Chariton	C. C. Burr
Charles City	*Edward W. McGann
Clarinda	A. S. Van Sandt
Clear Lake	Oscar Stevens
Clinton	Luke Roberts
Columbus Junction	J. B. Johnston
Corning	Jerome Smith
Corydon	Clara Miller
Creston	Rev. W. L. Gaston
Cumberland	Agent C., B. & Q. R'y
Davenport	*J. M. Sherier
Delaware	Wm. Ball
Decorah	F. H. Baker
Denison	W. C. Van Ness
Des Moines	*Geo. M. Chappel
De Soto	R. D. Minard
Dows	H. A. Flett
Dubuque	*James H. Spencer
Earlham, R. F. D.	Geo. Phillips
Elkader	Chas. Reinecke
Elliott	Henry Barnes
Elma	H. A. Moore
Estherville	A. O. Peterson
Fayette	R. Z. Latimer
Forest City	J. A. Peters
Fort Dodge	Tobin College
Fort Madison	Miss L. A. McCready
Galva	F. H. Schleiter
Gilman	Jas. L. Wylie
Grand Meadow (Postville P. O.)	F. L. Williams
Greene	J. L. Cole
Greenfield	Dr. Geo. Brooks
Grinnell (near)	A. O. Price
Grundy Center	W. H. Scott
Guthrie Center	D. G. Beardsley
Hampton	E. C. Grenelle
Hancock	W. Armstrong
Harlan	C. A. Reynolds
Hopeville (Murray R. 2)	M. T. Ashley
Humboldt	H. S. Wells
Independence	Austin Cornwall
Indianola	Prof. J. L. Tilton
Inwood	F. D. Hanson
Iowa City	Prof. Karl E. Guthe
Iowa Falls	J. B. Parmelee
Jefferson	Geo. W. Jackson
Keokuk	*Fred Z. Gosewisch
Keosauqua	J. A. Landes
Knoxville	Casey & Bellville
Lacona	Agent C., B. & Q. Ry.
Larrabee	H. B. Streever
Lenox	J. L. Hurley
LeMars	G. A. C. Clarke
Leon	J. Morris Gardner
Little Sioux	G. H. Gibson
Logan	Glenn H. Stern
Marshalltown	Mrs. Elizabeth Jones
Mason City	J. S. Mills
Massena	G. A. Hill
Mount Ayr	A. F. Beard
Mount Pleasant	Prof. J. W. Edwards
Nevada	R. S. Patrick
New Hampton	A. F. Kemman
Newton	Hon. J. P. Beatty
Northwood	Charles Dwelle
Odebolt	E. Starner
Olin	Hon. Nathan Potter
Omaha, Neb.	*L. A. Welsh
Onawa	C. G. Perkins
Osage	Dr. A. D. Bundy
Oskaloosa	Jos. Boyd
Ottumwa	Dr. Jas. A. Hull
Pacific Junction	H. H. McCartney
Pella	T. W. Cox
Perry	J. A. Harvey
Plover	J. S. Smith
Pocahontas	F. E. Hronek
Ridgeway	Arthur Betts
Rock Rapids	W. C. Wyckoff
Rockwell City	C. M. Randall
Sac City	Frank Stouffer
St. Charles	C. W. Minard
Sheldon	Dr. A. W. Beach
Sibley	H. G. Doolittle
Sigourney	J. T. Parker
Sioux Center	Jacob de Ruyter
Sioux City	*C. D. Reed
Stockport	C. L. Beswick
Storm Lake	Prof. Ralph H. Carr
Stuart	Geo. B. Irick
Thurman	C. R. Paul
Tipton	F. K. Gregg
Toledo	I. F. Giger
Wapello	Geo. W. Schofield
Washington	Wm. A. Cook
Washta	H. L. Felter
Waterloo	M. L. Newton
Waukee	E. J. Leonard
Waverly	H. S. Hoover
Webster City	C. D. Carpenter
Whitten	Dr. Frank P. Butler
Wilton Junction	Wm. Lang
Winterset	Dr. Robert S. Cooper
West Bend	Phil. Dorweiler
Woodburn	C. B. McDonough
Zearing	C. P. Bean

*U. S. Weather Bureau.

WEATHER-CROP OBSERVERS.

Reporting for the Weekly Bulletin.

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Albia	E. B. Morris
Alta	Jonas Cushman
Audubon	A. H. Edwards
Blairstown	T. H. Weil
Burt	R. Jain
Centerville	Jacob Harter
Charles City	W. B. Towner
Clarksville	F. M. Russell
Council Bluffs	L. Prouty
Correctionville	Hon. W. B. Chapman
Danville	Sherman Matthews
Dunlap	Hon. B. F. Roberts
Fruitland	R. T. Hummel
Geneva	Wm. H. Thompson
Hartwick	Fred McCulloch
Harlan	H. B. Kees
Humeston	Hon. H. S. Moore
Ida Grove	P. E. Lund
Independence	George H. Wilson
Indianola	H. D. Guthrie
Manson	J. D. Skinner
Marshalltown	Hon. S. B. Packard
Mount Pleasant	W. S. Wright
Milton	Hon. E. C. Holland
Monroe	J. A. Dibel
Oakville	Z. W. Steele
Orange City	H. J. Vande Waa
Pella	J. H. Ver Steeg
Preston	J. G. Storm
Pittsburg	G. C. Duffield
Portland (Nora Springs, P. O.)	Arthur Pickford
Platte (Creston R. D.)	M. H. Dibel
Red Oak	Hon. C. L. Stratton
Seymour	L. B. Sager
Stuart	W. W. Bailey
Van Horne	Spencer Smith
Weldon	Ed Worden
Winterset	H. A. Kinsman
West Branch	Wrigley Smith
West Union	H. B. Blackman
Woodward	George Swisher

U. S. DEPARTMENT OF AGRICULTURE.

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

CENTRAL OFFICE: WASHINGTON, D. C.

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

GEO. M. CHAPPEL, - - - Director.

VOL. XVIII. DES MOINES, IOWA, DECEMBER, 1907. No. 12

RESIGNATION OF SECTION DIRECTOR SAGE.

On December 13, 1907, Mr. John R. Sage voluntarily tendered to the Hon. Secretary of Agriculture his resignation of the office of Section Director of the U. S. Weather Bureau, and at the same time he sent to the Governor of Iowa his resignation of the office of Director of the Iowa Weather and Crop Service, to take effect at the close of December 31, 1907. This action was taken on account of impaired health.

The Iowa Weather and Crop Service was organized in June, 1890, under an act passed by the Twenty-third General Assembly. Mr. Sage was appointed as its first director on June 4, 1890, and since that date his every thought and effort has been to make the service of value to the public. That his efforts have been successful is attested by the many complimentary articles which have appeared in the press and farm journals during the past few weeks relative to his work and by the following extract from a letter from the Chief of the U. S. Weather Bureau, acknowledging the receipt of Mr. Sage's resignation:

"Permit me to say that I have with regret submitted your resignation to the Secretary of Agriculture. You have served long and faithfully in the Weather Bureau and your work has been characterized by a high degree of ability and by the strictest integrity. Your service has added greatly to the value of the climatological work done by the State and by the Federal Government in Iowa."

The following resolution was adopted at the annual meeting of the State Board of Agriculture:

"*Whereas*, The Iowa State Board of Agriculture, in annual meeting assembled, has been advised of the resignation of Hon. J. R. Sage who for many years has most efficiently and with much credit to himself and to this Board, who has annually recommended his appointment, performed the duties of the Director of the Iowa Weather and Crop Bureau; therefore be it

Resolved, That it is the sense of this Board in the resignation of Mr. Sage from this important office that the State of Iowa has lost a most valued servant.

R. T. ST. JOHN,
M. MCDONALD,
JOHN LEDGERWOOD,
Committee on Resolutions."

GENERAL SUMMARY.

The mean temperature of December, was 5.9° above the normal, making it the warmest December since 1896. The month was characterized by uniformly mild and pleasant weather; there being no severe storms nor any zero temperatures reported during the entire month, except in the northern portion of the state. The coldest period was on the 30th and 31st, and those were the only dates on which the cold was general over the whole state. The average precipitation was .24 of an inch below the normal, but the amounts were quite evenly distributed, and was mostly in the form of rain. The snowfall was below the normal and there was but a small portion of the state covered with snow, at any time during the month, until the 29th and 30th. There was more than the usual amount of cloudiness. The average number of clear days was 10; partly cloudy days, 7; and cloudy days, 14.

DECEMBER WEATHER AND CROPS.

The average temperature was 3.1° higher than the average for December, 1906, and 5.9° above the normal. It was an exceptionally pleasant month with no very cold weather and the cold periods were few and of short duration. The precipitation was below the normal, and the amount of snowfall was considerably less than usual. There was an excess of cloudiness, but there were no severe storms. The conditions were favorable for all farm work, and plowing was done in portions of the southern districts up to the close of the month. The temperature was not low enough to injure winter grains notwithstanding the fact that the snowfall was light and offered but little protection, and winter wheat and rye were in good condition at the close of the month.

CLIMATOLOGY OF THE MONTH.

TEMPERATURE.—The monthly mean temperature for the state, as shown by the records of 117 stations, was 28.8°, which is 5.9° above the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 26.2°, which is 6.2° above the normal; Central section, 29.2°, which is 6.1° above the normal; Southern section, 31.1°, which is 8.2° above the normal. The highest monthly mean was 34.9° at Keokuk, and the lowest monthly mean 23.2° at Osage. The highest temperature reported was 62° at Mount Pleasant on the 9th. The lowest temperature reported was −9° at Osage on the 28th. The average monthly maximum was 51.8° and the average monthly minimum was 5.4°. The greatest daily range was 43° at Elkader. The average of greatest daily ranges was 31.3°.

PRECIPITATION.—The average precipitation for the state, as shown by the records of 123 stations was 1.00 inch, which is .24 of an inch below the normal. By sections the averages were as follows: Northern section, 1.21 inches, which is .13 of an inch above the normal; Central section, .75 of an inch, which is .52 of an inch below the normal; Southern section, 1.05 inches, which is .31 of an inch below the normal. The largest amount reported was 2.28 inches at Plover. The least amount reported was .05 of an inch at Hancock. The greatest daily rainfall reported was 1.85 inches at Thurman, on the 9th. The average number of days on which .01 of an inch or more was reported was 5.

WIND AND WEATHER.—The prevailing direction of the wind was northwest. The highest velocity of wind reported was 58 miles per hour, from the northwest, at Sioux City on the 24th. The average number of clear days was 10; partly cloudy, 7; cloudy, 14.

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	30.02	30.57	4	29.47	27
Davenport	30.02	30.54	4	29.52	27
Des Moines	30.01	30.56	4	29.49	24
Dubuque	30.04	30.59	4	29.51	27
Omaha, Neb.	30.04	30.53	4	29.51	26
Keokuk	30.04	30.56	4	29.55	29
Sioux City	30.04	30.53	4	29.57	24
Means	30.03	30.59	4	29.47	27

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	5297	24	N	9
Davenport	5349	26	NW	30
Des Moines	5973	27	SW	5
Dubuque	4882	32	S	24
Keokuk	5838	28	NW	30
La Crosse, Wis	4062	23	N	9
Omaha, Neb	6182	40	NW	9
Sioux City	8542	58	NW	24

OBSERVERS' NOTES.

ALBIA.—*J. I. Chenoweth.* Another exceptionally fine month. Precipitation, 1.22 inches. No zero temperature recorded, but on the contrary, the mercury registered 44° on the morning of the 27th.

ALGONA.—*Dr. F. T. Seeley.* December, 1907, goes on record at this station, without a zero temperature, a remarkable December.

ALTA.—*David E. Hadden.* Pleasant winter weather prevailed during the greater part of December. Heavy rain fell during the night of the 8th, and heavy snow on the 29th. Total precipitation, 1.68 inches.

ALTON.—*W. S. Slagle.* Fine weather for December; no stormy, windy days.

AMANA.—*Conrad Schadt.* December was mild, with many cloudy days but little precipitation. The roads were good, but there was not enough snow for sleighing. Total snowfall, 2.8 inches.

ATLANTIC.—*J. W. Love.* A delightful winter month. Cattle on pasture up to the 28th. Lightning on the 8th.

BONAPARTE.—*B. R. Vale.* A mild, pleasant month with but .97 of an inch of precipitation. The lowest temperature recorded was 11° on the 4th, and much plowing has been done.

BRITT.—*Geo. P. Hardwick.* Fine weather with very little wind made favorable conditions for live stock in fields. Such conditions were advantageous with a short corn crop.

BURLINGTON.—*I. S. Shontz.* First ice in river on the 4th.

CHARITON.—*C. C. Burr.* The month has been fine for farm work. Stock in good condition and feed plentiful.

CLINTON.—*Luke Roberts.* The weather was mild and uniform; the mean temperature being 5° above normal and the rainfall, .88 of an inch, is .95 of an inch below normal. The minimum temperature, 11°, is 15° above the normal.

CRESTON.—*Rev. W. L. Gaston.* No zero weather during the month and stock has been in pastures every day.

ELLIOTT.—*Henry Barnes.* A splendid month for business and pleasure. Stock of all kinds doing well. Some grain moving at good prices.

FOREST CITY.—*J. A. Peters.* Certainly a beautiful month. The temperature was 6° above the normal and zero was recorded but once. This was the first December since the establishment of this station, in 1894, that the thermometer did not register below zero.

GRAND MEADOW.—*F. L. Williams.* The month was very favorable for stock in pastures. Roads good.

GRINNELL.—*A. O. Price.* Warmest December in twelve years. The precipitation, .45 of an inch, was .84 of an inch below the normal. Fine month for stock in fields.

HOPEVILLE.—*Milton T. Ashley.* Much cloudy, damp weather, but stock is doing well in stalk pasturage.

HUMBOLDT.—*Henry S. Wells.* Rain and melted snow, .75 of an inch. A fine month for gathering the corn crop. There has been good pasturage nearly all of the month. Roads are good.

INWOOD.—*F. B. Hanson.* The weather has been fine during the month, except the last few days.

KEOSAUQUA.—*J. H. Landes.* A beautiful month with very little suggestion of winter.

LARRABEE.—*H. B. Streever.* December has been extremely mild; the temperature falling to zero but once during entire month.

OLIN.—*Nathan Potter.* An unusually good month; no zero weather; no severe storms or wind. Plowing on the 13th. Stock in fine condition on January 1, 1908.

POCAHONTAS.—*F. E. Hronek.* The month was remarkably fine. The roads were in good condition for marketing grain.

RIDGEWAY.—*Arthur Betts.* Warmest of all the Decembers on record at this station. Good wheeling up to the 29th. Last wild flowers on the 9th, when the ground became frozen.

ROCK RAPIDS.—*W. C. Wycoff.* The snow on the 29th, 5 inches, was wet and heavy and made very good sleighing as the ground was frozen and the light snow on the 23d, .5 of an inch, with mild weather on the 26th made the roads very smooth.

STOCKPORT.—*C. L. Beswick.* Unusually fine month on stock which is generally in good condition. Plowing done up to the last day.

WAVERLY.—*H. S. Hoover.* Mild and cloudy weather with very little precipitation.

WEST BEND.—*Phil Dorweiler.* A pleasant month with no blizzards or high winds and but little snow.

ZEARING.—*Ward C. Bean.* Month has been exceptionally fine. Roads have been good and weather mild. Comparatively little snow.

ERRATA IN MARCH 1906 REVIEW.

CHARLES CITY.—The daily precipitation omitted on the 18th and 19th, page 32, should have been Trace and .02 of an inch, respectively. The monthly precipitation recorded as 3.47 inches, on pages 28 and 32, should have been 3.49 inches.

ERRATA IN APRIL 1906 REVIEW.

CHARLES CITY.—The daily amounts of precipitation recorded as .16 of an inch, .05 of an inch and .06 of an inch on the 14th, 29th and 30th, page 44, should have been .15 of an inch, .01 of an inch and .05 of an inch, respectively. The monthly precipitation recorded as 1.33 inches on pages 40 and 44, should have been 1.28 inches.

ERRATA IN MAY 1906 REVIEW.

CHARLES CITY.—The daily amounts of precipitation recorded as .48 of an inch, .36 of an inch and .19 of an inch, on the 7th, 25th and 27th, page 58, should have been .49 of an inch, .38 of an inch and .14 of an inch, respectively. The monthly precipitation recorded as 6.26 inches on pages 54 and 58, should have been 6.24 inches.

CLIMATOLOGICAL DATA FOR DECEMBER, 1907.

SOUTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
Afton	Union	1,212	12	30.3	†5.5	51	6, 8	7	19	28	1.24	- .01	.99	2.5	4	9	8	14	SW	
Albia	Monroe	959	9	30.1	†6.7	55	8	9	20	20	1.22	† .22	.63	2.2	6	14	5	12	.....	
Allerton	Wayne	.....	5	32.1	†5.6	54	8	9	19	31	1.07	- .10	.65	1.0	10	11	6	14	NW	
Atlantic	Cass	1,164	14	29.2	†6.7	55	7	6	19	32	.26	-1.12	.15	1.5	2	7	5	19	E, S, SW, NW	
Bedford	Taylor	.....	7	30.5	†7.3	53	27	5	19	32	1.45	† .53	.90	2.8	9	10	5	16	NW	
Bloomfield	Davis	.....	....	32.6	.....	58	8	10	28	32	.83	.....	.20	3.0	6	9	9	13	NW	9
Bonaparte	Van Buren	.....	15	32.8	†5.0	58	8, 27	11	4	29	.97	- .48	.40	1.5	6	....	....	....	.....	
Burlington	Des Moines	544	9	32.7	†6.1	60	27	14	4	30	1.38	- .18	.71	....	7	14	3	14	NW	
Charlton	Lucas	1,042	10	31.0	†5.4	54	8	9	4	29	1.55	† .03	1.20	3.0	3	8	8	15	S	
Clarinda	Page	1,009	15	30.0	†3.5	54	6	7	19, 20	32	1.60	† .36	1.31	2.9	5	12	3	16	.....	9
Columbus Jct	Louisa	595	6	32.7	†7.7	57	6	12	31	28	.69	- .80	.14	2.0	7	12	11	8	NW	
Corning	Adams	1,117	13	29.8	†2.6	50	6, 8	8	4, 19	27	1.71	† .47	1.29	4.2	4	10	8	13	SW	
Corydon	Wayne	1,101	12	32.3	†6.5	54	8	9	19	30	1.02	- .60	.65	2.3	8	11	6	14	SW, NW	
Creston	Union	1,312	2	28.2	.....	53	6	8	19	27	1.52	.....	1.10	2.2	4	15	2	14	S	
Cumberland	Cass	.....	8	.....	.....	.....	.....	.....	.....	.....	1.37	† .41	.40	4.0	4	18	3	10	NE	
Earlham	Madison	.....	5	*j*30.9	†7.9	*j*52	6	*j*11	30, 31	*j*26	1.24	- .06	.71	4.0	4	....	....	....	.....	
Elliott	Montgomery	.....	2	30.4	.....	53	6	8	19	32	.35	.....	.25	1.0	2	15	10	6	NW	
Fort Madison	Lee	516	57	.....	.....	.....	.....	.....	.....	.....	,77	-1.23	.28	2.5	4	6	8	17	S	
Greenfield	Adair	.....	14	30.4	†5.9	51	6	9	19	36	1.96	† .61	1.70	2.6	3	9	8	14	S	
Hancock	Pottawatta'e	1,113	....	30.2	.....	51	6	7	19, 30	29	.05	.....	.05	0.5	1	11	5	15	SW	
Hopeville	Clarke	.....	14	31.0	†5.5	53	6	7	19	29	1.31	† .20	1.12	1.1	6	6	10	15	S	
Indianola	Warren	969	16	30.7	†5.5	51	8	11	19, 30	26	1.07	- .34	.71	2.2	7	11	4	16	NW	
Keokuk	Lee	574	36	34.9	†5.5	60	27	17	4	28	1.38.	- .49	.98	3.6	8	9	8	14	NW	
Keosauqua	Van Buren	644	13	32.0	†5.0	59	8	12	5	30	.83	- .71	.55	2.0	5	5	13	13	.....	
Knoxville	Marion	920	11	31.6	†6.3	54	8	13	4, 30	25	.91	- .45	.60	3.0	4	11	5	15	SW	
Lacona	Warren	.....	8	.....	.....	.....	.....	.....	.....	.....	1.65	.00	.88	3.0	9	....	....	...	.....	
Lenox	Taylor	1,250	10	30.4	†6.2	50	6,8,9,27	6	19	27	1.68	† .40	1.34	3.4	6	14	13	4	S	
Leon	Decatur	1,120	5	*c*30.9	†4.3	55	7	*e*8	19	30	.68	- .59	.40	1.5	8	11	2	18	SE	
Massena	Cass	.....	2	*a*31.0	.....	*a*54	1, 6	*a*8	19	*a*30	.74	.....	.40	2.6	5	7	14	10	NW	
Mt. Ayr	Ringgold	1,236	11	31.4	†6.8	52	6	6	19	30	1.73	† .41	1.00	2.8	7	8	9	14	NW	
Mt. Pleasant	Henry	729	23	32.8	†7.0	62	9	4	31	38	1.05	- .16	.24	1.6	8	8	10	13	SE	
Omaha, Neb	Douglas	1,040	36	32.0	†4.9	52	6	8	30	28	.37	.54	.17	2.0	7	6	9	16	S	
Oskaloosa	Mahaska	843	21	31.0	†5.2	54	8	9	4	29	1.12	- .16	.72	3.0	7	13	0	18	NW	
Ottumwa	Wapello	649	11	32.0	†4.6	56	6, 8	15	4, 31	37	.72	- .65	.28	2.0	2	6	11	14	NW	
Pacific Jct	Mills	960	8	30.6	†5.8	52	8	5	18	31	.38	- .58	.15	2.5	4	10	11	10	S	
Pella(*e*)	Marion	877	6	31.4	.....	52	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
St. Charles	Madison	1,070	5	31.9	†5.6	58	6	10	19	34	.96	- .16	.55	3.4	5	11	7	13	NW	
Sigourney	Keokuk	877	8	31.6	†6.7	56	8	10	31	29	.74	- .67	.32	4.1	6	4	18	9	NW	
Stockport	Van Buren	.....	5	32.8	.....	57	8	12	4	28	.73	- .79	.28	3.0	7	12	5	14	S	
Thurman	Fremont	.....	9	31.2	†8.0	51	6, 8	8	19	26	2.09	† .31	1.85	1.5	4	10	9	12	NW	9
Wapello	Louisa	588	7	33.9	†6.9	55	6, 8	13	31	24	.58	- .76	.20	1.5	5	13	5	13	W	
Washington	Washington	769	23	31.5	†7.5	54	8	10	31	28	.44	-1.03	.18	....	3	3	12	16	SW	
Winterset	Madison	1,129	14	30.4	†5.2	49	6,8,9,26	10	19	26	.76	- .61	.56	3.0	3	12	1	18	S	
Average	.....	.....	....	31.1	†8.2	54.2	.....	9.3	.....	29.5	1.05	- .31	.....	2.5	5	10	7	14	NW	
State aver	.....	.....	....	28.8	†5.9	51.8	.....	5.4	.....	31.3	1.00	- .24	.....	4.7	5	10	7	14	NW	

*And other dates. *a* one day missing, *b* two days; *c* three days, etc. † means plus.

ERRATA IN JUNE 1906 REVIEW.

CHARLES CITY.—The daily amounts of precipitation recorded as .02 of an inch and 1.32 inches on the 22d and 27th, page 71, should have been zero and 1.23 inches, respectively. The monthly precipitation recorded as 4.01 inches, on pages 67 and 71, should have been 3.90 inches.

ERRATA IN SEPTEMBER 1906 REVIEW.

CHARLES CITY.—The daily amounts of precipitation recorded as .04 of an inch and omitted, on the 17th and 21st, page 107, should have been .03 of an inch and Trace, respectively. The monthly precipitation recorded as 3.25 inches, on pages 103 and 107, should have been 3.24 inches.

ERRATA IN OCTOBER 1906 REVIEW.

CHARLES CITY.—The daily amounts of precipitation recorded as .29 of an inch, .09 of an inch, .70 of an inch, .01 of an inch and .35 of an inch on the 18th, 22d, 23d, 24th and 26th, page 118, should have been .28 of an inch, .13 of an inch, .74 of an inch, Trace and .34 of an inch, respectively. The monthly precipitation recorded as 1.82 inches on pages 114 and 118, should have been 1.87.

CLIMATOLOGICAL DATA FOR DECEMBER, 1907—CONTINUED.

NORTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
Algona	Kossuth	1,213	31	26.0	†5.7	50	6	2	28	33	2.03	† .98	1.31	9.0	5	12	3	16	SE	
Alta	Buena Vista	1,513	14	26.2	†5.4	51	6	0	31	33	1.68	† .65	.84	7.9	9	13	8	10	S	
Alta [near]	Buena Vista	.....	12	.....	.....	.....	.....	.....	.....	.....	1.46	.....	.80	6.4	5	...	..	....	.....	
Alton	Sioux	1,305	2	27.2	.....	53	6	-1	30	35	1.08	.....	.70	8.2	6	13	7	11	SW	
Britt	Hancock	1,236	8	25.6	†8.5	50	6	-1	31	42	1.32	† .58	.40	5.8	8	7	14	10	NW	
Charles City	Floyd	1,015	19	25.5	†6.5	48	23	1	4	33	.79	- .49	.48	7.6	5	4	9	18	NW	
Clear Lake	Cerro Gordo	1,241	8	26.0	†7.4	47	6	0	31	37	.50	- .15	.40	5.0	3	11	4	16	S	
Decorah	Winneshiek	875	11	26.6	†6.2	46	9	2	31	36	.93	- .43	.55	7.5	4	...	....	....	.....	
Dows	Wright	1,142	7	26.3	†5.4	48	6	1	31	33	.67	- .16	.50	6.0	3	11	4	16	NW	
Elkader	Clayton	727	24	27.4	†5.8	49	8	2	4	43	.81	-1.12	.38	4.0	3	8	7	16	NW	
Elma	Howard	.....	....	24.4	.....	46	8	0	* 4	32	.87	.....	.40	9.1	5	11	10	10	S	
Estherville	Emmet	1,298	10	25.0	†8.6	54	6	3	*28	34	1.65	†1.06	.80	8.0	4	11	0	20	NW	
Fayette	Fayette	1,003	17	25.8	†4.4	46	27	0	4	29	.71	- .72	.60	6.0	3	7	13	11	NW	
Forest City	Winnebago	1,226	11	25.0	†5.6	53	5	0	31	38	1.52	† .61	.80	9.0	3	13	3	15	NW	
Gr'd Meadow	Clayton	1,180	14	26.7	†5.2	46	27	4	31	31	.68	- .88	.50	5.7	4	6	14	11	SW	
Hampton	Franklin	1,155	15	27.0	†6.1	52	6	5	*28	33	1.09	- .23	.70	9.0	4	7	11	13	SW	
Humboldt	Humboldt	1,095	13	28.1	†5.3	48	*6	4	30	33	.75	- .01	.40	8.0	3	13	2	16	NW	
Inwood	Lyon	1,474	3	25.7	.....	55	6	-8	30	41	1.33	.....	.70	10.3	7	16	4	11	S	
Larrabee	Cherokee	1,266	16	b26.1	†4.2	b51	6	b-3	30	b34	1.90	† .83	.98	9.2	4	10	13	8	SW	
Le Mars	Plymouth	1,224	9	a27.4	†5.9	a50	6	a-1	30	a31	.70	- .39	.45	9.2	3	16	7	8	SE	
Mason City	Cerro Gordo	1,132	12	25.8	†5.4	46	6	4	* 4	30	.66	.00	.35	6.6	4	9	7	15	S	
New Hampton	Chickasaw	1,169	7	25.3	†7.4	45	8	1	31	31	.96	† .29	.41	4.6	4	12	7	12	S	
Northwood	Worth	1,222	9	a25.6	†6.5	a51	7	a2	30	a30	2.05	†1.14	1.00	15.6	9	19	4	8	NW	
Osage	Mitchell	1,184	14	23.2	†4.1	47	6	-9	28	42	1.28	.00	.56	7.0	3	15	1	15	NW	
Plover	Pocahontas	1,426	8	27.1	†7.2	50	6	0	31	32	2.28	†1.53	1.27	8.5	4	14	0	17	N	
Pocahontas	Pocahontas	.....	3	26.2	.....	47	6	4	31	39	1.69	.....	1.02	6.0	5	14	9	8	S	
Ridgeway	Winneshiek	1,215	9	27.0	†5.8	56	6	7	*28	34	1.58	- .92	1.13	7.1	8	6	15	10	S	
Rock Rapids	Lyon	1,358	9	24.7	†5.0	50	6	-4	30	36	.65	† .04	.50	6.5	3	....	....	....	S	
Sheldon	O'Brien	1,422	7	26.2	†7.2	56	6	4	20, 21	40	1.70	† .80	.80	13.5	6	18	7	6	SW	
Sibley	Osceola	1,212	11	26.3	†7.2	56	6	-3	*30	38	1.10	† .24	.75	9.8	6	16	2	13	NW	
Sioux Center	Sioux	.....	8	26.2	†6.5	53	6	-5	30	37	1.40	† .52	.30	12.0	4	12	5	14	SE	
Storm Lake	Buena Vista	1,440	10	27.8	†7.6	50	6	-5	30	36	.77	- .16	.60	7.6	7	12	6	13	SW	
Washta	Cherokee	1,157	9	27.9	.....	55	8	0	30	38	1.40	† .23	.70	7.0	4	12	7	12	NE	
Waverly	Bremer	948	9	27.0	†6.3	48	8	4	*30	31	.81	- .27	.35	6.6	6	6	12	13	.....	
West Bend	Palo Alto	1,197	11	26.4	†6.5	50	6	1	31	33	1.71	† .72	1.00	6.6	4	10	5	16	S	
Averages	.....	.....	....	26.2	†6.2	50.1	.....	0.3	.....	34.9	1.21	† .13	.....	7.7	5	11	7	13	NW	

CENTRAL SECTION

Amana	Iowa	721	28	30.0	†8.0	51	8	10	* 4	26	.98	- .51	.59	2.8	5	7	10	14	SE	
Ames	Story	926	23	29.0	†7.2	55	6	6	30	37	.83	- .19	.45	3.8	3	12	6	13	N	
Audubon	Audubon	1,301	13	29.1	†6.0	50	27	6	31	30	.34	- .91	.20	2.8	6	13	4	14	SW, NW	
Baxter	Jasper	998	7	a28.7	†6.3	a52	6	a7	30	a31	.61	- .35	.19	2.5	7	9	5	17	SW	
Belle Plaine	Benton	828	15	28.6	†4.6	51	6	7	31	27	1.68	† .19	.81	8.5	6	13	8	10	S	
Boone	Boone	1,134	2	28.2	.....	51	6	7	30	29	.68	.....	.24	3.2	6	14	4	13	.....	
Buckingham	Tama	.....	7	.....	.....	.....	.....	.....	.....	.....	.31	- .69	.15	1.3	3	4	15	12	.....	
Carroll	Carroll	1,265	17	28.0	†5.0	50	6	5	31	33	.92	- .16	.40	7.5	4	17	0	14	.....	
Cedar Rapids	Linn	733	24	28.9	†3.6	51	8	10	* 4	33	.69	- .92	.34	1.5	4	8	10	13	.....	
Clinton	Clinton	593	37	30.4	†5.3	53	26	11	31	24	.88	- .93	.33	2.5	8	5	7	19	.....	
Davenport	Scott	580	35	31.8	†4.6	53	8	14	31	24	.49	-1.20	.17	2.0	8	9	5	17	SW	
Delaware	Delaware	1,083	14	25.2	†4.0	48	7	4	31	31	.69	- .83	.35	4.5	4	8	11	12	NW	
Denison(c)	Crawford	1,180	11	29.0	†7.1	50	1	6	30	30	.89	† .29	.41	3.0	4	....	....	....	S	
Des Moines	Polk	861	29	31.2	†5.5	52	6	11	30	27	1.01	- .30	.63	4.3	6	6	9	16	SW	
De Soto	Dallas	866	7	30.2	†4.3	52	6	8	*30	32	.76	- .58	.47	3.0	4	13	4	14	NW	
Dubuque	Dubuque	639	33	29.2	-4.7	49	27	9	30	27	.67	-1.05	.39	3.8	6	8	9	14	NW	
Fort Dodge	Webster	1,126	7	27.0	†4.5	48	8	5	*30	31	.55	† .09	.30	5.5	3	....	....	....	S	
Gilman	Marshall	1,052	8	.....	.....	.....	.....	.....	.....	.....	.67	- .23	.47	2.0	2	11	8	12	.....	
Grinnell	Poweshiek	1,023	12	29.4	†5.2	51	6	9	* 4	28	.45	- .84	.20	4.2	4	10	3	18	NW	
Grundy Center	Grundy	976	14	28.2	†6.0	49	8	4	4	27	.25	-1.00	.20	2.5	2	15	4	12	NW	
Guthrie Center	Guthrie	1,077	9	29.9	†8.6	57	26	9	*30	32	1.12	- .15	.66	4.0	6	12	4	15	SW	
Harlan	Shelby	1,192	8	29.1	†6.9	51	6	6	19	31	.36	- .71	.26	3.0	4	9	5	17	NW	
Independence	Buchanan	921	41	27.4	†5.7	49	8	0	31	33	.94	- .54	.36	4.5	3	15	3	13	W	
Iowa City	Johnson	683	46	30.4	†6.3	52	* 6	9	31	28	.53	-1.13	.17	2.0	5	7	5	19	S	
Iowa Falls	Hardin	1,170	12	26.8	†6.3	49	8	3	31	31	.81	- .35	.50	6.0	3	10	1	20	NW	
Jefferson(d)	Greene	.....	4	29.4	.....	53	6	6	30	31	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	.75	.....	.22	5.4	7	8	12	11	W	
Little Sioux	Harrison	.....	2	30.0	.....	51	6	2	30	33	.56	.....	.26	2.5	6	12	3	16	SE	
Logan	Harrison	928	38	30.2	†5.3	58	8	6	30	31	.60	- .75	.25	3.5	4	6	17	8	NW	
Marshalltown	Marshall	947	12	a28.1	†2.6	a50	6	7	31	30	.71	- .77	.20	3.7	3	12	1	18	NW	
Muscatine	Muscatine	.....	48	.....	.....	.....	.....	.....	.....	.....	.64	-1.64	.17	0.5	7	6	2	23	S	
Newton	Jasper	944	18	29.4	†7.4	51	9	9	*30	26	.57	- .76	.30	4.0	3	16	0	15	S	
Odebolt	Sac	1,356	8	29.4	†8.1	53	* 4	4	30	32	1.02	- .08	.55	5.5	5	14	4	13	.....	
Olin (a)	Jones	760	8	a29.6	†6.8	a50	8	a6	31	a27	1.07	- .39	.40	4.0	5	7	10	14	NW	
Onawa	Monona	1,051	7	30.6	†6.2	51	* 6	5	30	28	.99	- .09	.40	5.7	7	12	5	14	NW	
Perry	Dallas	975	6	29.8	†5.6	57	6	5	31	32	1.07	† .07	.35	4.5	2	4	12	15	.....	
Rockwell City	Calhoun	.....	10	27.0	†6.1	48	* 6	5	30	26	1.20	- .10	.80	10.0	3	14	4	13	.....	
Sioux City	Woodbury	1,135	17	28.4	†5.8	52	6	2	30	30	.90	† .16	.54	6.4	7	9	9	13	NW	
Stuart	Guthrie	1,216	8	f30.8	†10.0	f54	* 6	f4	18	f33	.32	- .41	.30	0.2	3	....	....	....	.....	
Tipton	Cedar	807	9	31.2	†7.4	52	27	11	31	25	.77	-1.13	.39	....	5	14	1	16	SW	
Toledo	Tama	856	11	29.0	†5.8	50	8	8	4	27	.80	- .34	.35	4.5	4	13	3	15	NW	
Waterloo	Black Hawk	862	18	28.8	†7.7	50	8	8	4	30	.76	- .38	.25	4.5	6	....	....	....	NW	
Waukee	Dallas	1,039	3	29.9	.....	49	* 6	10	*19	27	1.43	.....	.62	8.1	7	16	1	14	NW	
Webster City	Hamilton	.....	2	27.9	.....	50	7	1	31	36	.45	.....	.40	4.5	2	13	3	15	SE	
Whitten	Hardin	1,036	7	27.8	†8.5	49	8	4	31	31	.55	- .62	.20	5.0	5	11	4	16	SW	
Wilton Junct'n	Muscatine	683	10	30.6	†5.0	50	8, 20	10	1, 31	26	.50	- .95	.25	....	2	15	3	13	W	
Zearing	Story	718	3	27.8	.....	49	6	6	31	30	.88	.....	.52	3.0	4	11	6	14	SW, NW	
Average	.....	.....	....	29.2	†6.1	51.2	.....	6.7	.....	29.6	.75	- .52	.....	4.0	5	11	6	14	NW	

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF DECEMBER, 1907

STATIONS		DAY OF MONTH																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	max	45	30	29	33	44	51	46	51	50	30	40	41	39	37	35	37	32	27	35	32	32	34	41	41	45	47	43	37	34	34	38	38.4
	min	29	23	18	13	21	27	33	44	30	16	17	22	30	23	30	26	24	17	7	22	17	22	22	20	22	25	23	13	27	13	11	22.2
Albia	max.	45	29	30	35	45	54	47	55	45	28	42	45	35	33	35	37	30	24	36	36	35	32	39	43	37	50	50	40	36	30	43	38.7
	min.	18	20	12	10	15	20	30	41	45	18	18	19	22	27	29	30	25	19	13	9	24	23	23	20	20	25	29	12	14	20	15	21.5
Algona	max.	26	32	27	31	42	50	44	45	42	26	35	41	35	32	34	32	24	29	32	33	27	35	40	35	39	42	40	35	32	30	33	34.8
	min.	17	18	18	12	20	20	26	40	25	13	17	18	29	26	28	21	17	15	12	12	8	19	15	14	9	18	16	2	23	4	3	17.3
Allerton	max.	48	38	32	36	46	53	46	54	53	32	44	41	39	33	36	39	34	28	36	33	36	32	42	39	43	49	52	45	35	37	43	40.5
	min.	20	23	17	11	20	27	35	43	32	18	17	23	31	28	31	26	26	19	9	22	22	27	22	19	24	28	38	14	29	19	14	23.7
Alta	max.	37	31	25	31	43	51	45	44	37	29	39	40	34	31	32	30	23	29	31	32	36	36	37	40	32	43	39	37	31	23	33	34.9
	min.	22	16	15	20	21	22	23	36	28	14	15	17	20	25	26	27	21	15	10	11	11	15	21	15	13	13	28	7	11	2	0	17.4
Alton	max.	37	34	31	33	44	53	48	45	40	30	38	42	37	33	34	33	27	29	29	30	35	38	38	42	42	42	41	36	34	30	32	36.7
	min.	25	19	11	23	22	18	30	32	24	12	14	20	31	27	28	25	18	12	9	6	5	18	14	16	14	11	16	19	27	-1	2	17.6
Amana	max.	30	30	31	36	43	47	46	51	49	34	35	41	36	35	36	36	30	26	34	40	36	34	38	38	40	44	48	33	34	34	37	37.5
	min.	20	19	16	10	19	27	31	43	34	19	18	22	29	31	31	28	24	19	15	23	18	24	24	20	24	21	32	14	25	11	10	22.6
Ames	max.	39	34	31	32	41	55	46	46	48	31	40	44	36	33	35	36	32	28	38	36	31	34	43	38	39	47	48	36	32	42	45	38.6
	min.	17	12	19	9	19	19	29	39	24	15	12	21	31	28	28	31	21	12	11	21	16	21	19	19	21	19	24	7	26	6	8	19.5
Atlantic	max.	50	29	29	33	46	52	55	48	35	34	45	42	37	33	35	38	30	30	38	36	29	39	42	39	44	47	51	40	34	33	37	39.0
	min.	24	21	15	15	22	23	23	39	27	14	17	21	29	27	29	25	22	17	6	21	10	15	15	12	19	24	23	9	22	12	7	19.5
Audubon	max.	43	33	27	31	43	46	44	47	47	30	40	39	38	32	35	34	29	28	36	33	27	35	38	44	47	47	50	38	32	32	34	37.4
	min.	26	22	17	12	24	21	24	39	29	16	18	20	30	27	30	25	21	17	10	21	10	12	31	31	18	18	30	8	24	7	6	20.8
Baxter	max.	38	29	30	33	44	52	46	50	47	31	39	44	37	33	36	38	29	26	38	33	27	32	44	36	..	48	49	37	33	32	38	37.6
	min.	21	16	16	10	19	26	32	40	30	15	16	18	28	26	29	27	20	16	10	21	18	16	20	15	..	19	24	8	23	7	7	19.8
Bedford	max.	50	35	31	35	45	52	49	51	50	31	42	41	40	34	35	38	32	28	33	32	31	34	39	42	48	48	53	41	34	34	39	39.6
	min.	21	22	16	9	21	27	29	45	19	16	16	26	31	28	31	26	25	17	5	17	14	26	18	18	22	25	30	13	29	13	7	21.4
B. Plaine	max.	30	28	30	32	40	51	43	48	40	28	40	42	34	34	36	38	31	22	34	45	34	30	36	35	30	38	44	36	35	24	34	35.5
	min.	22	17	12	9	19	25	32	42	35	18	16	20	30	28	29	30	21	17	13	22	16	22	20	17	19	20	37	12	25	17	7	21.6
Bloomfi'd	max.	44	31	30	35	46	53	48	58	54	37	42	45	37	33	37	39	36	28	37	42	39	32	38	40	41	51	52	45	36	37	43	40.8
	min.	24	21	17	12	19	31	38	43	35	18	11	21	30	27	31	30	27	19	14	24	24	29	25	20	27	25	43	10	29	17	11	24.3
Bonapa'e	max.	44	33	33	37	46	55	50	58	54	37	40	45	35	34	37	40	34	30	38	45	41	34	38	40	38	52	58	40	36	35	44	41.3
	min.	20	22	15	11	17	26	34	46	37	20	15	22	30	28	31	32	27	20	15	24	27	29	27	21	26	24	40	17	26	14	12	24.4
Boone	max.	39	31	29	33	45	51	44	47	39	31	39	43	35	32	35	35	26	27	37	37	29	34	44	44	35	45	46	37	32	27	38	37.0
	min.	24	20	20	13	16	23	29	38	38	15	17	19	22	27	28	29	22	16	12	12	14	18	21	18	19	18	26	8	9	7	8	19.5
Britt	max.	25	31	28	30	42	50	44	47	43	30	37	41	36	33	34	36	29	31	34	33	25	34	44	36	36	46	44	34	33	30	41	36.0
	min.	15	10	15	8	19	17	26	40	20	12	18	17	30	17	28	19	17	15	10	10	7	15	10	11	18	20	9	0	20	0	-1	15.2
Burl'g'n	max.	44	31	32	37	34	54	50	56	51	30	39	44	34	35	36	37	36	25	37	45	38	33	41	40	40	59	60	39	40	32	43	40.4
	min.	25	22	21	14	15	22	32	42	47	24	16	19	24	28	30	33	29	22	19	19	27	26	26	25	25	25	30	20	20	32	15	25.0
Carroll	max.	44	32	30	38	45	50	46	47	37	33	42	40	41	33	35	34	28	30	37	39	32	37	40	43	35	48	46	41	32	26	37	38.0
	min.	25	20	15	16	16	24	25	38	32	15	16	19	20	20	27	26	22	16	9	10	9	12	18	16	17	16	26	8	9	7	5	17.9
Cedar R.	max.	28	28	29	31	43	48	46	51	44	26	34	40	35	34	36	35	29	25	36	39	36	33	37	40	32	46	47	35	34	31	36	36.3
	min.	18	15	15	10	10	21	27	36	38	20	19	21	21	29	30	30	23	20	17	17	20	24	27	22	21	20	27	15	15	29	11	21.5
Chariton	max.	46	46	29	35	46	53	46	54	52	33	43	43	38	34	36	38	33	27	37	35	33	32	42	40	45	50	49	41	36	23	41	39.9
	min.	18	17	16	9	20	29	32	43	32	17	15	21	30	27	27	25	24	18	10	22	22	24	20	18	23	23	37	12	29	15	12	22.2
Ch'rls Cty	max.	24	27	31	28	38	44	41	47	42	30	35	40	31	35	34	32	24	26	35	33	23	35	48	35	37	39	42	33	32	30	35	34.4
	min.	12	15	5	1	18	17	21	39	27	14	19	19	28	28	30	20	17	15	14	11	8	20	15	15	16	20	13	6	22	5	4	16.6
Clarinda	max.	47	29	29	35	48	54	47	51	38	35	45	43	40	33	35	36	31	31	37	33	34	35	41	49	42	47	51	40	34	25	42	39.5
	min.	22	21	17	14	13	22	26	39	38	17	17	21	29	28	29	27	25	17	7	7	15	18	19	20	21	22	25	14	14	15	12	20.4
Clear La'e	max.	28	28	27	30	38	47	45	45	45	30	35	40	34	34	35	35	34	30	30	31	32	35	42	35	35	40	40	34	31	20	37	34.9
	min.	15	14	24	10	18	24	25	35	28	12	18	16	18	26	28	20	14	14	15	15	11	18	17	15	12	16	20	4	24	4	0	17.1
Clinton	max.	28	29	30	30	40	46	43	51	50	36	33	39	35	35	35	39	32	28	35	40	40	35	38	39	39	43	53	39	36	37	37	37.7
	min.	12	12	22	12	17	24	24	40	35	25	22	19	27	30	29	28	26	23	17	28	30	29	29	24	22	21	33	15	20	13	11	23.2
Colum's J	max.	38	31	33	34	44	57	49	55	54	42	42	45	37	35	37	37	35	28	35	42	41	34	38	40	40	48	52	35	35	37	40	40.3
	min.	21	20	19	14	20	29	35	45	38	22	18	23	30	28	31	33	28	20	16	26	30	30	28	23	27	24	34	15	26	14	12	25.1
Corning	max.	44	34	29	31	45	50	45	50	49	30	39	42	38	33	35	36	31	27	33	30	30	34	39	42	45	46	49	36	34	34	37	38.0
	min.	24	21	16	8	21	29	29	41	29	16	20	26	30	28	30	24	24	17	8	21	15	22	18	20	22	24	30	14	28	9	10	21.7
Corydon	max.	48	41	31	36	46	53	46	54	53	34	44	42	46	34	36	40	35	29	37	33	36	33	42	40	44	50	51	43	37	36	43	41.1
	min.	19	22	17	11	20	29	36	43	33	17	17	23	31	28	31	25	26	18	9	22	23	26	22	19	24	26	38	14	29	16	13	23.5
Creston	max.	46	28	28	34	40	53	45	49	32	38	41	43	33	31	34	36	35	26	34	29	31	33	40	45	38	47	48	39	32	25	37	37.1
	min.	25	23	16	10	15	15	27	36	31	11	16	18	20	28	29	28	24	17	8	9	11	22	20	20	20	26	28	12	11	12	12	19.4
Dav'np'rt	max.	27	28	31	33	42	51	48	53	49	32	35	41	34	36	35	36	31	24	36	42	39	35	38	40	41	48	52	35	35	35	38	38.1
	min.	20	18	22	18	23	31	38	45	32	23	21	22	28	29	31	28	23	21	19	30	30	28	31	25	25	25	32	18	28	14	14	25.5
Decorah	max.	32	25	29	30	39	40	43	42	46	44	32	33	40	35	34	35	33	28	23	35	33	27	36	40	36	35	44	34	33	20	38	34.6
	min.	17	11	13	6	17	21	22	21	39	30	17	18	17	25	29	29	27	20	15	16	20	10	24	21	17	16	17	8	20	12	2	18.6
Delaware	max	25	29	27	28	36	40	48	44	36	26	30	36	33	33	33	29	28	23	30	33	31	32	36	34	33	40	45	32	32	32	35	33.2
	min.	11	9	18	8	16	20	33	23	18	18	17	18	12	26	28	18	17	15	12	15	16	21	20	19	20	18	28	12	20	6	4	17.3
Denison	max.	43	30	28	33	45	50	..	..	46	33	45	37	34	34	34	28	30	38	37	31	39	..	42	44	45	47	45	40	34	32	35	37.8
	min.	26	23	17	20	19	21	..	..	28	16	20	29	27	30	26	21	17	10	33	8	17	..	17	18	18	26	27	10	28	6	9	20.2
Des Moins	max.	42	31	32	33	45	52	47	50	48	30	41	43	36	35	36	37	30	27	38	35	29	36	44	45	45	48	49	37	34	33	40	39.0
	min.	25	21	22	14	23	32	38	41	28	18	21	24	29	29	31	27	21	18	12	22	21	21	24	21	22	29	22	14	29	11	13	23.3
De Soto	max	44	31	30	35	45	52	46	48	50	30	44	41	36	32	35	37	32	27	37	35	30	34	44	40	44	50	50	40	32	32	40	38.8
	min.	24	22	18	9	22	28	31	40	28	11	18	22	30	28	30	27	23	18	10	24	18	20	21	18	21	25	27	11	28	8	8	21.5
Dows	max.	25	28	29	30	42	48	43	46	46	29	38	42	35	32	32	33	28	27	34	35	29	34	45	36	41	46	43	36	37	31	34	35.9
	min.	19	15	17	3	19	18	23	39	27	12	14	16	27	25	27	26	19	15	9	13	5	20	14	12	13	15	19	2	20	4	1	16.4
Dubuque	max.	24	26	27	31	39	45	43	48	45	31	34	38	34	35	34	36	29	25	35	42	35	33	36	40	38	43	49	37	34	32	36	35.9
	min.	14	12	21	12	19	28	28	41	31	22	19	20	27	30	30	29	22	18	17	23	21	26	27	24	21	21	29	17	26	9	9	22.4
Earlham	max.	46	34	28	41	45	52	45	48	47	45	43	40	39	40	38	37	..	..	..	..	..	..	..	..	36	..	..	41	32	32	37	40.3
	min.	20	19	14	18	23	30	25	41	29	18	16	20	26	21	24	28	..	..	..	..	..	..	..	..	18	..	..	20	20	11	11	21.5
Elkader	max.	24	26	30	32	40	46	43	49	45	34	36	41	35	35	35	31	31	30	36	35	30	35	42	38	32	38	44	35	35	30	37	35.8
	min.	10	5	22	2	19	20	20	40	34	20	16	15	19	30	30	30	18	17	16	20	10	13	22	29	28	15	30	11	20	6	4	19.1
Elliott	max.	43	33	30	36	45	53	51	50	47	38	40	43	38	34	37	33	30	38	40	37	39	38	38	42	36	43	50	38	38	32	38	39.6
	min.	25	18	17	14	21	22	30	42	29	16	19	18	31	28	30	28	16	16	8	20	14	19	19	19	20	25	28	12	29	10	11	21.1
Elma	max.	27	25	27	29	35	42	42	46	43	30	30	37	31	33	34	31	26	26	32	30	24	34	40	35	36	38	40	30	30	30	32	33.1
	min.	6	5	18	0	16	19	22	39	28	13	17	18	25	27	27	25	17	14	12	15	0	21	12	12	13	15	19	4	22	3	0	15.6
Esth'rv'e	max.	28	35	26	32	45	54	47	45	28	28	35	40	36	32	33	28	21	30	34	34	40	41	35	38	32	33	42	37	22	21	33	34.4
	min.	10	15	18	21	20	23	24	33	25	12	14	13	15	25	26	26	18	14	13	11	7	16	17	15	7	11	10	3	12	3	3	15.5
Fayette	max.	24	26	29	29	37	43	44	48	43	30	32	39	34	35	35	33	27	23	33	30	30	34	39	36	36	42	46	32	32	31	35	34.4
	min.	7	10	18	0	13	23	22	38	30	16	16	15	22	28	25	24	15	15	14	15	10	21	22	15	14	14	26	8	21	5	8	17.1
Forest C'y	max.	23	29	28	30	53	43	44	36	24	30	38	41	33	33	32	29	21	29	35	35	30	32	43	38	29	40	36	35	30	17	38	33.4
	min.	18	15	19	9	20	20	37	36	12	14	16	18	22	27	28	28	20	14	12	11	9	14	19	12	10	10	30	2	10	2	0	16.6
Ft. Dodge	max.	32	31	28	31	43	47	44	48	37	27	38	43	37	32	31	33	25	29	36	34	28	34	43	42	31	45	33	37	31	30	36	35.4
	min.	23	18	19	15	17	24	24	37	36	15	14	21	21	27	29	27	23	16	14	13	10	19	17	17	15	17	30	6	6	5	5	18.7
Gr. Mead.	max.	24	25	28	28	35	43	40	45	42	31	32	36	32	32	34	33	26	23	33	31	26	39	38	35	40	42	46	32	33	30	35	33.8
	min.	12	10	20	10	19	25	32	40	31	17	15	17	25	26	28	26	17	15	15	21	13	20	20	19	15	32	26	8	25	5	4	19.6
Greenfi'ld	max.	47	28	29	32	45	51	44	48	47	33	42	41	40	32	34	35	35	27	45	33	30	35	41	41	43	47	50	39	38	32	37	38.7
	min.	24	22	16	12	23	30	36	42	30	15	20	19	29	27	30	25	22	16	9	24	14	22	20	20	20	26	32	10	28	10	11	22.1
Grinnell	max.	35	27	31	32	44	51	45	50	48	34	39	43	35	32	34	35	31	25	37	33	30	32	44	39	41	46	49	38	32	32	36	37.4
	min.	21	20	14	9	19	28	32	42	34	17	17	22	30	28	30	31	21	17	13	23	17	14	21	16	22	26	32	10	24	9	9	21.5
Grundy C.	max.	29	28	31	30	40	46	45	49	47	33	37	41	36	35	37	35	29	25	35	34	30	34	41	38	40	46	45	35	33	34	36	36.6
	min.	12	17	13	4	20	27	30	40	30	16	18	19	28	27	30	27	20	16	12	24	12	20	20	18	20	20	27	8	20	8	8	19.7
Guthrie C.	max.	41	30	29	32	43	48	45	48	48	30	40	39	39	35	35	35	31	27	38	34	37	36	41	40	43	57	42	37	33	33	31	38.0
	min.	25	23	18	11	23	31	27	44	27	12	19	22	31	28	31	28	22	17	10	26	15	19	19	20	20	25	27	10	28	9	9	21.8
Hampton	max.	26	28	29	31	43	52	43	47	45	29	39	43	33	33	33	30	25	28	30	37	23	36	49	37	37	44	43	38	31	30	38	35.8
	min.	11	14	18	9	21	25	27	29	29	14	17	17	28	27	29	25	18	15	12	19	9	20	21	16	16	17	20	5	25	5	5	18.2

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF DECEMBER, 1907—CONTINUED.

STATIONS		DATE																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	25	24	25	26	27	28	29	30	31	
Hancock..	max.	45	32	28	33	46	51	44	48	48	35	45	44	39	32	35	34	29	29	36	36	33	36	41	42	45	45	50	38	34	32	32	38.6
	min.	25	21	19	17	23	27	35	39	28	15	20	25	30	28	29	26	22	17	7	23	11	20	21	19	20	25	28	11	28	7	12	21.9
Harlan ...	max.	47	30	27	33	44	51	44	47	46	34	45	40	37	32	35	34	28	30	37	35	28	35	42	43	44	47	48	39	33	31	38	38.2
	min.	25	17	18	18	22	20	30	39	28	15	16	23	30	27	30	26	21	17	6	17	10	17	17	16	18	24	26	8	25	7	8	20.0
Hopeville.	max.	49	39	28	34	45	53	46	51	51	30	42	43	38	33	34	38	32	25	36	31	34	33	40	40	46	48	50	41	33	33	40	39.2
	min.	23	22	16	13	20	30	34	46	30	17	18	23	31	28	28	26	25	17	7	22	19	23	21	20	23	26	30	14	29	13	12	22.8
Humboldt	max.	30	32	30	31	44	48	45	48	46	30	45	44	38	34	35	34	31	36	44	34	26	37	42	38	41	46	42	38	32	32	35	37.7
	min.	15	16	18	11	14	18	25	40	27	14	17	18	24	28	29	28	22	16	11	12	6	23	14	30	20	18	20	5	24	4	5	18.5
Ind'p'nce	max.	25	21	30	29	40	45	42	49	47	42	34	41	35	37	38	35	29	29	33	35	22	32	39	41	45	46	43	40	32	38	33	36.4
	min.	15	10	13	7	15	23	29	39	32	15	19	18	24	29	29	26	19	16	13	20	13	15	15	16	20	17	29	10	21	6	0	18.5
Indianola	max.	40	30	39	33	45	51	47	51	49	31	41	42	36	33	35	36	31	26	37	32	29	33	42	39	44	47	48	37	33	32	39	38.3
	min.	24	18	20	14	22	31	37	44	28	17	20	22	30	28	30	28	24	18	11	24	21	21	22	20	22	26	28	13	29	11	12	23.1
Inwood...	max.	37	36	28	33	46	55	49	42	40	32	42	45	37	32	37	37	26	29	34	29	38	35	34	38	37	40	40	39	32	31	34	36.9
	min.	24	13	9	21	21	14	27	29	22	6	8	17	31	26	23	24	17	6	5	-1	1	18	12	8	7	19	16	6	27	-8	0	14.5
Iowa City.	max.	33	28	35	36	45	52	46	52	46	46	39	45	36	35	36	36	32	23	36	42	41	33	39	41	33	48	51	38	34	27	39	38.8
	min.	19	18	17	11	11	22	25	39	43	20	16	21	24	30	31	31	24	19	16	16	20	28	27	22	21	20	27	15	15	24	9	22.0
Iowa Falls	max.	27	28	29	29	41	46	44	49	40	28	37	41	35	33	34	35	25	28	34	34	30	35	45	41	28	46	42	34	25	19	34	34.7
	min.	20	18	17	5	19	22	24	37	40	15	15	18	19	27	28	28	21	16	12	12	8	25	18	14	16	20	30	6	25	5	3	18.8
Jefferson.	max.	44	50	30	33	45	53	45	42	..	..	..	..	49	38	35	34	28	30	39	39	29	37	44	41	41	48	42	48	32	37	39	39.7
	min.	24	20	18	15	23	26	27	28	..	..	..	..	16	20	28	24	20	17	12	24	12	18	18	19	18	25	20	9	21	6	10	19.2
Keokuk ..	max.	41	32	31	36	46	54	51	58	54	40	40	43	36	34	38	39	36	29	35	44	38	33	37	40	38	54	60	46	40	41	47	41.6
	min	24	22	20	17	24	33	44	47	40	23	20	25	31	28	32	34	29	23	20	32	24	29	29	28	30	26	46	22	30	21	21	28.2
Keosa'q'a	max.	42	32	32	35	46	54	51	59	49	30	40	46	36	35	38	41	32	25	37	38	43	34	39	41	36	52	55	40	38	31	45	40.4
	min.	24	24	17	13	12	20	28	43	49	21	15	19	23	29	29	29	29	20	17	16	24	27	27	22	22	27	29	16	16	27	15	23.5
Knoxville	max.	42	30	30	34	45	53	47	54	50	30	42	44	37	34	36	38	34	26	39	37	33	35	42	42	35	49	50	38	34	33	42	39.2
	min.	25	21	21	13	21	31	35	44	30	18	20	22	31	29	29	30	25	20	14	25	21	23	22	20	24	25	32	14	27	13	15	23.9
Larrabee .	max.	37	31	26	30	43	51	49	..	..	30	37	48	37	33	33	32	25	27	28	31	35	38	40	41	41	41	38	37	32	31	31	35.6
	min.	24	16	14	18	21	20	29	..	..	11	14	15	31	27	29	23	18	14	10	7	9	16	15	13	11	24	19	6	25	-3	5	16.6
Le Mars ..	max.	40	33	29	33	42	50	47	45	43	30	39	41	37	33	34	34	27	28	30	30	35	38	38	39	43	..	42	35	33	30	29	36.2
	min.	25	21	16	23	22	23	28	34	24	11	14	20	32	27	28	26	19	14	10	8	6	19	13	18	12	..	20	8	29	-1	7	18.5
Lenox	max.	46	42	30	32	45	50	46	50	50	32	40	42	38	34	35	37	34	28	33	32	30	34	39	41	46	47	50	47	35	34	39	39.3
	min.	24	21	15	12	19	28	35	44	30	11	18	25	30	27	30	24	24	11	6	20	15	24	19	19	21	25	31	14	28	11	10	21.6
Leon.....	max.	44	34	30	41	44	54	55	52	52	32	41	41	38	40	35	38	32	28	33	32	34	33	40	38	45	47	50	45	34	33	40	39.8
	min.	14	23	15	..	..	..	..	..	31	12	17	23	30	31	27	28	24	18	8	23	22	23	22	19	23	25	36	19	28	16	14	22.0
Lit. Sioux	max.	47	39	29	35	46	51	49	48	48	34	46	40	39	36	37	35	30	32	39	36	36	39	44	48	46	45	45	41	35	31	39	40.2
	min.	21	23	13	23	23	19	26	38	25	12	20	24	31	28	29	25	21	17	8	10	10	21	11	18	16	26	22	9	31	2	14	19.9
Logan	max.	45	35	37	34	45	50	46	58	47	37	44	42	39	35	36	34	29	38	36	35	31	38	43	45	40	44	47	38	34	31	38	39.7
	min.	25	23	18	23	23	24	34	34	27	15	18	24	33	25	28	27	21	18	8	12	8	18	12	18	19	26	28	11	28	6	12	20.8
Mars'llt'n	max.	33	28	31	32	43	50	46	49	41	29	38	42	45	33	35	36	29	25	37	33	31	33	44	41	34	46	..	37	32	25	37	36.5
	min.	22	19	17	8	9	22	28	39	40	17	16	19	22	28	29	31	20	17	13	13	18	26	20	17	17	21	23	9	9	14	7	19.7
Mason C'y	max.	24	27	27	27	39	46	42	44	42	30	34	39	32	34	34	32	26	28	33	32	27	36	42	36	38	40	40	34	32	30	33	34.2
	min.	14	14	15	4	19	18	22	38	30	15	18	18	28	27	28	26	18	14	14	14	7	20	14	15	15	18	18	4	24	5	4	17.4
Massena..	max.	54	35	28	..	42	54	44	48	48	41	47	44	37	32	34	40	30	30	37	37	34	36	42	48	42	47	48	40	34	32	40	40.2
	min.	24	22	14	..	22	27	33	44	27	15	23	25	30	28	30	23	23	12	8	23	11	22	19	18	20	25	28	11	27	10	10	21.8
Mt. Ayr ..	max.	49	35	30	35	47	52	46	51	49	34	44	42	38	33	35	38	33	28	36	31	30	33	39	42	36	38	40	40	34	32	30	33	34.2
	min.	23	22	18	15	21	27	38	45	29	16	18	25	31	27	30	33	24	16	6	22	20	25	21	20	23	26	31	15	27	12	12	23.2
Mt. Pleas't	max.	40	31	33	33	43	52	48	56	62	39	36	43	35	36	37	38	35	29	35	42	40	34	38	40	40	49	53	42	36	38	42	40.5
	min.	20	22	17	13	20	28	35	45	37	19	15	22	31	28	33	33	28	21	16	27	29	29	28	23	26	25	42	17	26	15	4	25.0
N.Hamp'n	max.	22	35	28	28	35	42	40	45	44	30	32	36	31	34	34	31	26	22	31	28	23	33	38	38	38	38	41	30	30	30	32	33.1
	min.	14	10	18	7	15	21	28	38	30	12	18	18	18	27	27	25	17	14	12	18	9	22	17	18	19	18	23	6	20	4	1	17.5
Newton...	max.	37	29	30	32	42	47	46	48	51	35	36	42	40	40	35	36	34	30	35	35	32	33	39	40	41	43	48	33	33	34	35	37.8
	min.	23	19	18	11	18	26	25	40	32	11	18	21	30	28	29	30	21	17	11	22	17	18	21	18	18	21	32	11	24	9	9	20.9
Northw'd	max.	24	28	30	28	37	47	51	49	41	31	34	38	34	35	35	32	24	28	32	32	27	34	..	42	36	36	38	32	32	26	34	34.2
	min.	14	13	17	7	15	28	37	34	28	12	17	17	28	29	28	20	18	15	11	11	7	13	..	12	13	16	14	4	24	2	4	16.9
Odebolt ..	max.	43	31	26	53	44	53	45	45	34	44	40	37	33	33	33	33	36	30	37	35	35	33	40	40	42	48	41	40	33	30	38	38.6
	min.	26	20	15	21	24	22	27	39	27	15	19	23	29	27	30	25	20	16	10	12	9	16	19	19	16	24	24	9	29	4	9	20.2
Olin.....	max.	28	28	30	29	39	44	45	50	48	40	32	..	39	36	36	37	33	29	33	40	36	33	37	38	37	42	49	41	34	33	33	37.0
	min.	14	12	22	9	16	23	27	40	40	24	20	..	20	29	31	28	28	19	15	21	18	25	27	20	2›	19	35	16	22	14	6	22.2
Omaha, N	max.	43	31	31	35	46	52	47	48	46	35	42	43	40	33	38	35	29	29	37	33	32	36	43	49	47	45	46	39	36	31	38	39.2
	min.	27	24	22	26	25	33	39	41	28	18	25	31	32	30	30	28	22	16	9	18	14	25	24	26	23	29	23	17	30	8	24	24.7
Onawa....	max.	47	39	29	37	46	51	51	46	46	35	44	38	38	36	35	35	30	35	39	41	35	40	41	43	43	44	42	41	35	33	39	39.8
	min.	26	25	17	25	23	23	28	33	26	15	20	25	32	29	29	29	22	18	11	12	12	18	16	17	19	26	26	13	30	5	11	21.3
Osage.....	max.	23	26	30	22	37	47	40	45	42	29	36	41	31	40	33	32	25	25	34	34	24	35	44	35	35	38	38	33	30	29	34	33.8
	min.	12	10	12	1	18	19	25	38	29	12	18	16	26	25	27	24	18	14	11	0	-4	26	3	12	4	2	5	-9	9	-8	-8	12.5
Oskaloosa	max.	42	29	30	34	44	52	46	54	50	32	40	43	36	33	36	36	32	26	38	39	36	33	38	40	42	49	50	35	35	34	41	38.9
	min.	24	21	16	9	18	29	34	43	32	18	16	20	31	28	32	32	25	19	13	24	25	24	23	19	25	25	32	14	22	12	12	23.1
Ottumwa .	max.	44	31	31	35	48	56	52	56	50	36	36	50	37	35	37	38	34	25	40	43	38	34	41	45	37	52	50	40	37	32	45	40.8
	min.	25	24	19	15	18	19	27	29	19	20	18	20	30	29	31	34	28	20	16	17	27	27	26	23	24	27	32	16	20	23	15	23.2
Pacific Jc.	max.	44	31	29	34	45	50	47	52	48	32	43	41	42	35	37	32	30	36	30	32	37	43	44	47	46	49	38	35	35	32	39	39.2
	min.	24	20	15	25	24	25	35	39	27	15	18	29	32	30	29	24	17	5	19	10	20	15	17	22	25	24	13	30	29	9	15	22.0
Pella.....	max.	43	31	30	34	44	51	47	52	51	34	40	43	39	37	36	39	34	29	39	35	32	33	40	40	43	..	..	..	..	..	13	23.6
	min.	24	20	19	13	20	30	35	42	33	18	19	21	30	28	31	31	24	19	13	20	22	22	23	19	24	..	..	..	..	..	40	39.1
Perry.....	max.	41	30	29	34	45	57	47	47	47	31	40	43	36	33	35	35	29	29	38	35	28	35	43	39	42	45	47	40	35	33	38	38.3
	min.	23	21	17	12	23	25	30	40	28	16	20	22	31	29	30	25	22	18	10	23	18	22	19	18	19	25	24	10	28	7	6	21.3
Plover....	max.	33	31	31	33	43	50	46	45	46	28	34	41	36	35	36	35	28	39	39	32	27	37	39	36	39	45	39	36	32	31	37	36.7
	min.	18	18	11	20	13	16	25	34	22	12	19	14	26	27	29	25	22	22	13	9	6	21	19	22	14	19	19	4	21	1	0	17.5
Pocahon's	max.	33	28	30	32	42	47	45	44	43	23	35	40	36	32	33	33	33	29	32	33	30	34	38	38	41	45	42	35	32	28	35	35.5
	min.	12	10	12	15	20	21	27	39	18	9	18	18	30	26	28	23	19	11	12	12	10	20	12	15	12	25	11	6	25	5	4	16.9
Ridgeway	max.	25	25	30	30	39	56	42	46	46	31	36	43	34	35	40	33	26	26	38	38	26	36	46	36	36	41	50	35	33	32	35	36.3
	min.	9	11	17	10	20	22	28	39	30	14	16	17	23	27	26	26	18	15	14	18	9	20	15	14	17	14	21	7	22	7	7	17.8
R. Rapids	max.	38	22	32	46	46	50	48	40	30	34	34	40	36	32	36	32	36	30	20	14	30	36	34	40	36	40	34	38	30	20	30	34.3
	min.	28	16	20	28	24	14	20	24	20	10	20	24	26	20	26	20	18	14	10	-2	0	10	16	16	8	16	10	8	10	-4	-2	15.1
Rock'll Cy	max.	35	37	35	35	36	48	48	47	46	30	40	42	35	36	38	35	28	30	30	30	30	32	40	40	40	48	43	35	30	31	35	36.9
	min.	17	17	15	15	15	20	28	28	26	15	25	27	18	18	18	25	20	15	10	11	12	10	18	20	17	15	20	8	18	5	7	17.3
St. Charl's	max.	48	33	29	39	48	58	47	51	50	36	50	43	37	34	36	42	33	27	44	33	36	33	45	41	44	51	53	44	33	33	43	41.1
	min.	24	20	20	13	21	33	36	43	29	16	17	21	30	28	30	27	24	18	10	24	20	20	20	20	22	25	28	12	28	13	12	22.7
Sheldon ..	max.	35	35	30	33	55	56	50	42	35	34	41	40	36	33	33	33	24	29	32	32	38	38	38	36	40	40	39	38	34	36	35	37.1
	min.	25	20	15	21	19	16	29	22	21	10	14	18	30	26	28	21	12	9	8	4	4	15	11	13	10	21	12	12	12	16	15	16.4
Sibley	max.	30	35	25	..	45	56	49	43	28	32	42	43	33	31	32	26	19	29	31	29	36	38	35	38	31	39	34	36	33	15	35	39.1
	min.	21	14	14	20	..	18	19	31	23	10	12	13	17	25	25	25	18	11	6	3	3	11	10	9	6	5	28	4	10	-3	-3	13.5
Sigourn'y	max.	39	30	34	34	44	51	46	56	53	37	38	44	39	34	36	37	35	29	37	40	38	34	38	40	40	48	49	43	34	34	39	39.7
	min.	22	22	15	11	19	25	32	43	37	19	17	21	31	29	32	32	24	19	15	24	25	20	25	19	25	23	40	14	24	14	10	23.5
Sioux Cen	max.	36	34	31	32	42	53	47	43	40	30	39	43	36	32	34	32	30	28	24	29	35	37	39	38	42	38	38	35	32	32	30	35.8
	min.	20	15	14	22	20	20	29	30	24	12	15	19	30	24	27	24	16	12	5	6	5	17	17	13	9	22	15	7	25	5	4	16.5
Sioux City	max.	43	34	28	34	46	52	48	45	36	31	41	41	36	33	34	31	26	29	36	30	38	39	40	46	32	44	39	40	35	25	31	36.9
	min.	25	22	15	26	24	22	32	33	18	12	16	25	31	28	28	26	18	18	12	10	8	23	15	22	14	27	16	12	25	2	13	19.9
Stockport	max.	43	32	31	36	45	54	49	57	54	39	40	44	35	34	36	38	35	30	37	43	41	33	38	39	41	51	54	39	35	38	42	40.7
	min.	23	22	16	12	18	28	38	44	39	20	16	20	32	28	31	32	28	19	15	22	27	29	27	23	23	30	36	17	25	20	14	25.0
Storm L..	max.	36	38	27	30	42	50	48	44	43	30	39	40	37	32	32	32	26	28	31	32	33	35	37	39	44	46	40	37	34	31	33	36.3
	min.	20	12	16	22	23	24	30	35	25	14	18	22	29	25	29	25	18	14	13	13	13	18	20	18	14	24	22	7	26	0	6	19.2
Stuart	max.	..	..	50	34	46	54	46	54	53	38	44	43	37	37	41	32	29	31	35	31	35	43	..	..	..	51	53	43	32	41	..	41.3
	min.	..	..	12	11	23	31	34	42	22	21	19	19	23	30	21	21	12	4	23	16	18	19	..	..	..	18	18	10	27	11	..	20.2

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF DECEMBER, 1907—CONTINUED.

STATIONS		DATE																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Thurman	max.	44	33	20	34	48	51	48	51	49	32	41	40	40	36	38	37	32	28	34	30	30	36	44	43	48	44	50	37	35	34	38	39.2
	min.	23	20	18	24	25	31	30	42	28	18	25	30	32	30	28	28	25	18	8	19	10	21	19	19	23	25	29	15	30	11	19	23.3
Tipton	max.	28	26	34	33	42	48	44	49	47	38	35	42	33	35	35	35	32	28	35	42	40	33	37	39	37	44	52	36	33	32	36	37.4
	min.	19	17	25	15	20	28	36	43	39	23	21	22	29	30	32	30	26	21	16	27	25	28	29	23	27	24	32	20	26	14	11	25.1
Toledo	max.	29	28	30	30	41	45	45	50	48	35	36	41	35	34	35	35	30	25	34	33	40	33	39	38	39	44	47	34	33	32	36	36.6
	min.	29	28	30	30	41	45	45	50	48	35	36	41	35	34	35	35	30	25	34	33	40	33	39	21	17	23	21	31	10	25	10	9	21.5
Wapello	max.	19	19	18	8	20	29	29	42	35	17	17	20	30	28	30	29	21	17	13	23	16	19	21	17	23	21	31	10	25	10	9	21.5
	min.	45	30	32	31	43	55	48	55	54	41	37	42	34	35	34	37	35	30	39	49	42	34	45	46	39	45	53	45	45	37	38	41.1
Wash'g'n	max.	28	21	21	15	21	31	36	45	40	21	19	23	30	30	31	32	29	22	19	29	31	29	30	26	26	26	38	21	28	17	13	26.7
	min.	40	29	33	35	45	53	47	54	52	34	38	44	34	35	36	36	33	27	37	44	40	33	38	41	41	48	52	37	35	35	38	39.5
Washta	max.	20	20	16	11	20	26	35	43	33	18	15	21	30	28	32	30	26	19	15	26	28	28	28	21	24	24	29	13	27	13	10	23.5
	min.	32	34	26	31	44	52	50	55	44	36	42	47	44	34	33	33	26	30	35	33	38	38	40	41	46	45	42	36	33	32	34	38.3
Waterloo	max.	24	21	11	23	24	14	23	33	25	13	14	18	34	28	29	25	20	16	8	6	2	16	10	16	13	24	20	6	24	0	4	17.5
	min.	28	29	33	31	43	48	45	50	45	35	38	43	35	35	37	35	30	24	36	35	28	34	41	37	40	45	47	37	34	30	36	36.9
Waukee	max.	16	15	14	8	18	21	28	41	34	17	21	20	27	29	31	28	22	18	15	25	16	22	20	19	23	19	26	9	24	12	6	20.8
	min.	43	30	29	32	44	49	47	49	48	30	40	40	43	32	35	35	35	28	35	33	32	33	41	39	42	47	43	36	35	33	37	37.9
Waverly	max.	23	22	18	11	22	29	33	41	29	16	18	22	30	28	30	28	25	18	10	22	20	19	20	18	19	22	27	12	28	10	10	21.9
	min.	26	28	31	29	39	43	42	48	45	30	35	40	33	34	35	33	28	24	34	32	27	34	41	36	38	41	44	34	32	31	35	34.9
Websr. Cy	max.	15	14	13	6	18	21	25	39	30	16	19	19	28	28	30	27	20	17	15	19	13	23	21	15	17	16	22	9	23	4	4	18.9
	min.	34	33	29	32	44	47	50	49	49	31	39	43	39	34	37	37	30	30	36	35	30	39	45	38	41	46	44	45	33	33	37	38.4
W. Bend	max.	19	19	13	7	19	16	27	41	28	13	17	19	30	25	22	22	22	17	12	15	6	23	14	13	16	17	16	4	20	6	1	17.4
	min.	27	31	28	31	42	50	46	46	43	29	33	40	37	33	33	32	26	28	32	30	27	35	40	40	40	43	42	35	33	29	34	35.3
Whitten	max	18	14	16	14	17	18	27	40	25	14	15	16	30	27	27	26	19	16	12	11	9	20	17	13	11	18	19	3	22	4	1	17.4
	min.	28	28	29	30	42	46	45	49	48	32	37	40	36	33	35	35	30	26	33	33	28	39	41	38	39	46	46	34	33	23	35	36.0
Wilton Jn	max.	18	17	15	7	18	24	30	40	30	13	18	28	29	27	29	28	18	15	10	22	15	19	18	14	19	20	27	7	22	9	4	19.7
	min.	30	35	30	29	40	45	45	50	48	38	34	37	35	34	32	36	35	28	32	50	39	32	34	36	34	45	48	48	32	32	36	37.4
Winterset	max.	10	20	22	11	18	19	30	42	40	23	17	18	27	26	29	29	24	19	15	25	29	28	28	32	33	30	30	15	22	15	10	23.7
	min.	41	37	29	32	43	49	45	49	49	29	39	40	42	33	35	36	31	27	35	32	31	33	40	39	43	49	47	37	32	32	38	37.9
Zearing	max.	25	25	19	13	22	32	34	43	29	17	19	23	30	22	30	25	24	18	10	24	19	22	22	20	22	23	30	14	28	13	12	22.9
	min.	33	29	30	32	43	49	45	48	47	31	38	36	40	35	34	36	28	27	35	34	24	33	47	38	41	46	41	36	33	33	36	36.7
	min.	20	16	17	7	21	24	25	36	29	15	16	27	18	18	30	25	20	17	11	24	14	17	22	15	19	17	18	8	24	7	6	18.8

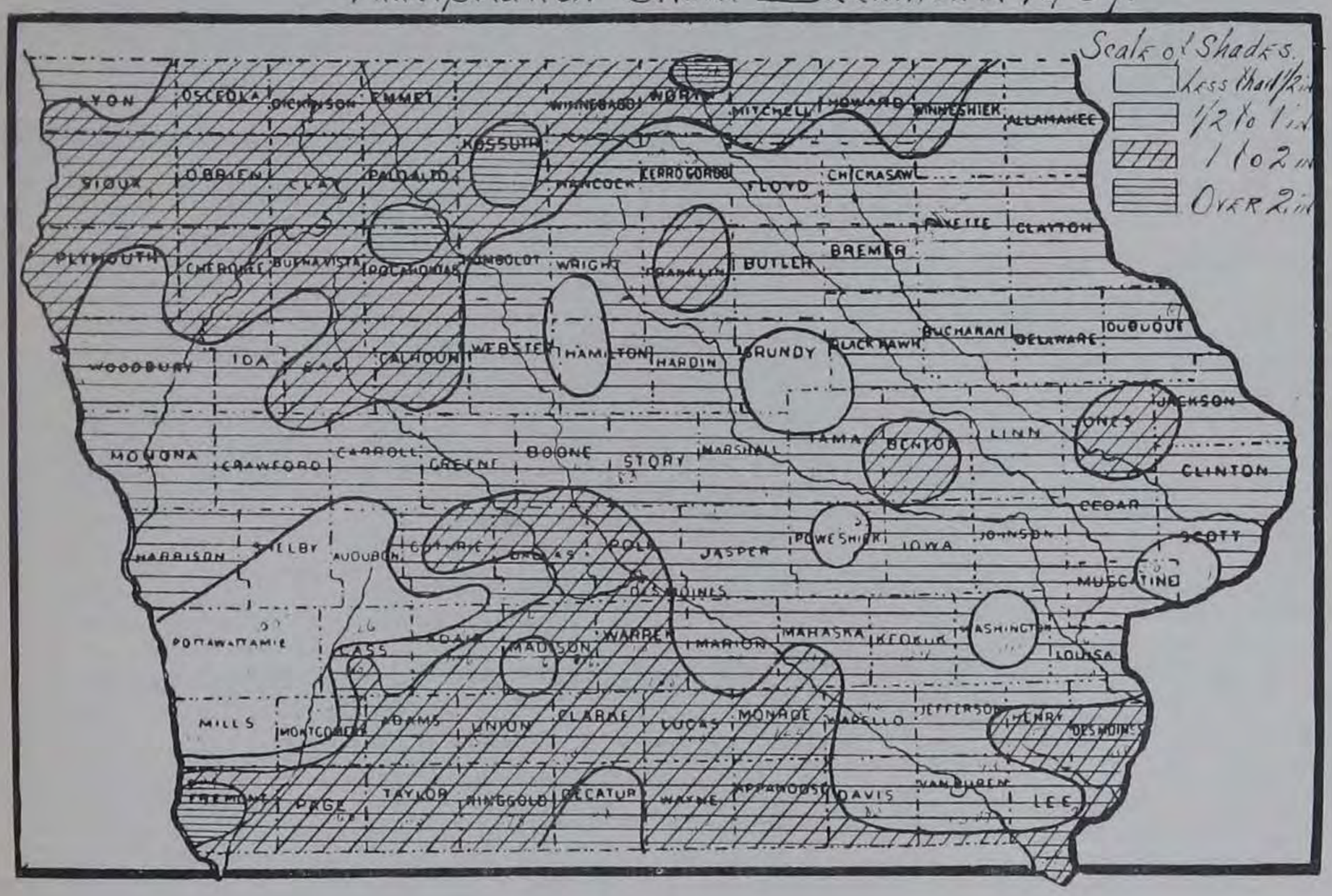
DAILY AND MONTHLY PRECIPITATION FOR DECEMBER, 1907.

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	....	....	....	T	....	.99	....	....	....	....	.10	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	1.24
Albia	....	....	....	....	....	....	T	.02	.63	.22	....	....	....	.15	T	....	T	T	....	....	T	T	.12	....	....	....	T	....	T	.08	....	1.22
Algona	....	....	....	....	....	....	....	T	1.31	....	....	....	.05	T	T	....	....	....	....	....	....	....	.02	....	....	....	....	....	.58	.07	....	2.03
Allerton	....	....	T	....	....	....	....	T	.65	T	....	....	.04	.05	T	....	.02	....	....	....	....	.03	.15	T	....	....	T	....	.07	.01	....	1.07
Alta	....	....	T	....	....	....	.04	.01	.65	T	....	....	.04	.05	T	....	.02	....	....	....	....	.03	.15	T	....	....	T	....	.07	.01	....	1.07
Alta (near)	....	....	....	T	....	....	....	....	.84	....	....	....	.03	.05	.01	.01	.01	T	....	....	....	....	....	.05	....	....	....	....	.30	.38	....	1.68
Alton	....	....	....	....	....	....	....	.02	.80	....	....	....	.05	.04	T	....	T	....	....	....	....	....	.05	....	....	....	....	....	.50	....	....	1.46
Amana	....	....	T	....	....	....	....	.04	.20	....	....	....	.07	.02	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	.70	....	....	1.08
Ames	....	....	T	....	....	....	T	....	.59	....	....	....	T	.07	....	....	....	....	....	....	....	.11	....	T	....	....	....	....	.12	.09	....	.98
Atlantic	....	....	T	....	....	....	T	....	.45	....	....	T	T	.30	....	....	T	....	....	....	....	....	T	....	....	....	....	....	.08	T	....	.83
Audubon	....	....	....	....	....	....	....	....	.11	....	....	....	.01	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	.26
Baxter	....	....	T	....	....	....	....	.06	....	....	....	....	.01	.01	....	....	.01	....	....	....	....	....	....	....	....	....	....	....	.20	.05	....	.34
Bedford	....	....	T	....	....	....	T	.04	.19	....	....	....	.03	.10	T	....	T	T	....	....	....	.04	....	....	....	....	....	....	.12	.09	....	.61
Belle Plaine	....	....	T	....	....	....	.03	.02	.90	....	....	....	.03	.09	T	....	.10	T	....	....	....	.07	T	....	....	....	....	....	.16	.05	....	1.45
Bloomfield	....	....	.10	....	....	....	.02	....	.81	....	....	....	....	.40	T	T	....	T	....	....	....	T	....	....	....	....	....	....	.20	.15	....	1.68
Bonaparte	....	....	....	....	....	....	....	....	.07	....	....	....	....	.17	....	....	.05	....	....	....	....	.20	.18	....	....	....	....	....	.16	....	....	.83
Boone	....	....	T	....	....	....	....	....	.15	....	....	....	.10	.06	....	....	....	....	....	....	....	.20	.40	....	....	....	....	....	.06	T	....	.97
Britt	....	....	....	T	....	....	....	....	.17	T	....	....	....	.15	.02	.02	....	T	....	....	....	....	....	T	....	....	....	....	.08	.24	....	.68
Buckingham	....	....	T	....	....	....	.03	.07	.63	....	....	....	.06	.07	....	T	T	....	....	....	....	....	.02	T	....	....	....	.40	.04	....	....	1.32
Burlington	....	....	....	....	....	....	....	....	.15	....	....	....	.03	....	T	....	T	T	....	....	....	....	....	T	....	....	....	....	.13	....	....	.31
Carroll	....	....	....	.02	....	....	....	....	.03	.07	....	....	....	.28	....	....	....	....	....	....	....	.04	.71	....	....	....	....	....	....	.23	....	1.38
Cedar Rapids	....	....	T	T	....	....	T	T	.17	....	....	....	....	.10	....	....	....	T	....	....	....	....	....	....	....	....	....	....	.25	.40	....	.92
Chariton	....	....	T	....	....	....	T	....	.08	.34	....	....	....	.05	T	T	....	T	T	....	....	T	T	....	T	....	....	....	....	.22	T	.69
Charles City	....	T	.04	....	....	....	....	....	1.20	....	....	....	....	.25	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	1.55
Clarinda	....	....	T	....	....	....	T	....	.16	....	....	....	.07	.04	T	....	T	T	....	....	....	....	....	....	....	....	....	....	.48	....	....	.79
Clear Lake	....	....	T	....	....	....	T	....	T	....	....	....	.05	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.18	.01	....	1.60
Clinton	....	....	....	....	....	....	....	....	.11	....	....	....	....	.11	....	....	....	....	....	....	....	.02	....	....	....	....	....	....	.40	....	....	.50
Columbus Junc.	....	....	T	....	....	....	T	T	.10	....	....	....	.12	.05	....	....	....	T	....	....	....	....	....	....	....	....	....	....	.20	....	....	1.71
Corning	....	....	T	....	....	....	....	....	1.29	....	....	....	T	.10	T	....	.12	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....
Corydon	....	....	....	....	....	....	T	.01	.65	....	....	....	T	.13	....	.03	....	....	....	....	....	.06	.04	....	....	....	....	....	.07	.03	....	1.02
Creston	....	....	....	....	....	....	T	....	1.10	....	....	....	....	.12	T	....	....	.20	....	....	....	....	....	....	....	....	....	....	.10	....	....	1.52
Cumberland	....	....	....	....	....	....	....	.10	.86	....	....	....	....	....	.01	T	....	....	....	....	....	....	....	T	....	....	....	.40	....	....	....	1.37
Davenport	T	T	T	....	....	....	T	T	.10	T	....	....	.01	.03	T	T	....	T	....	....	....	.16	....	T	....	....	.01	.01	.09	.08	....	.49
Decorah	.10	....	T	....	....	....	....	....	....	.24	....	....	....	....	.04	....	....	T	....	....	....	....	....	....	....	....	....	....	.55	....	....	.93
Delaware	....	....	....	....	....	....	....	.21	....	....	....	....	....	.07	....	....	....	....	....	....	....	.06	....	T	....	....	....	....	.35	....	....	.69
Denison	....	....	....	....	....	....	....	....	.41	....	....	T	....	....	....	T	....	....	....	....	....	....	T	....	.18	....	....	.20	.10	....	....	.89
Des Moines	....	T	T	....	....	....	T	T	.63	....	....	T	.05	.06	T	T	.01	T	....	....	....	T	T	T	....	T	....	....	.22	.04	....	1.01
De Soto	....	....	....	....	....	....	....	....	.47	....	....	....	T	.10	T	....	T	....	....	....	....	....	....	....	....	....	....	....	.10	.09	....	.76
Dows	....	....	T	....	....	....	....	....	.07	....	....	....	.10	....	....	....	T	....	....	....	....	T	T	....	....	....	....	....	.50	....	....	.67
Dubuque	T	T	....	....	....	....	T	....	.16	....	....	....	.01	.01	T	....	T	T	....	....	....	.10	....	T	....	....	....	....	.28	.11	....	.67
Earlham	....	....	T	....	....	....	....	....	.71	....	....	....	....	.15	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	.18	....	1.24
Elkader	....	....	....	....	....	....	T	....	.35	....	....	....	....	.08	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.38	....	....	.81
Elliott	T	....	.04	....	....	....	T	T	.05	....	....	....	.10	T	T	....	....	T	....	....	....	T	....	T	....	....	....	....	.10	T	....	.35
Elma	....	....	T	....	....	....	T	T	.80	....	....	....	T	.10	T	T	T	....	....	....	....	....	....	T	....	....	....	....	.28	.40	....	.87
Estherville	T	....	T	....	....	....	T	....	.11	T	....	....	....	T	....	....	T	....	....	....	....	....	....	T	....	....	....	....	.15	.60	....	1.65
Fayette	....	....	T	....	....	....	....	.62	....	....	....	....	....	.10	T	T	T	T	....	....	....	....	....	T	....	....	....	....	.48	.12	....	.71
Forest City	....	....	....	....	....	....	....	....	T	....	....	....	....	.05	T	....	....	....	....	....	....	....	T	....	....	....	....	....	.80	....	....	1.52
Fort Dodge	....	T	T	....	....	T	....	....	.24	....	....	....	T	.10	....	....	T	T	....	....	....	.15	....	T	....	....	....	....	.20	.30	....	.55
Fort Madison	....	T	....	....	....	....	.47	T	....	....	....	....	....	....	....	....	....	....	....	....	T	T	....	....	....	....	....	....	.28	....	....	.77
Gilman	....	....	....	....	....	....	....	....	.10	....	....	....	....	.05	....	....	.03	T	....	....	....	T	....	....	....	....	....	....	.50	.20	....	.67
Grand Meadow	....	....	....	....	....	....	T	T	.18	....	....	....	.08	T	....	....	T	....	....	....	....	....	....	....	....	....	....	....	1.70	....	....	.68
Greenfield	....	....	....	....	....	....	....	....	....	....	....	....	T	.15	....	....	T	T	....	....	....	.10	....	....	....	....	....	....	.05	.15	....	1.96
Grinnell	....	....	....	....	....	....	....	....	T	....	....	....	T	.05	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.20	....	....	.45
Grundy Center	....	....	T	....	....	....	T	T	.66	....	....	....	.04	.05	T	....	T	T	....	....	....	.04	T	....	....	....	....	....	.27	.06	....	.25
Guthrie Center	....	....	T	....	....	....	....	....	.20	....	....	....	.15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.70	....	....	1.12
Hampton	....	....	....	....	....	....	T	T	....	....	....	....	....	T	T	....	T	....	....	....	....	T	T	....	....	....	....	....	.05	T	....	1.09
Hancock	....	....	T	....	....	....	T	.04	T	....	....	....	T	.03	T	T	.03	T	....	....	....	T	T	....	....	....	....	....	.26	....	....	.05
Harlan	....	....	....	....	....	....	....	....	1.12	....	....	....	T	.05	T	....	.03	....	....	....	....	.02	T	....	....	....	....	....	.08	.01	....	.36
Hopeville	....	....	....	....	....	....	....	....	.20	....	....	....	T	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.40	.15	....	1.31
Humboldt	....	....	....	....	....	....	....	.08	.36	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	.25	.20	....	.75
Independence	....	....	....	....	....	....	....	.02	.88	....	....	....	....	....	....	....	....	....	....	....	....	.01	....	....	....	....	....	....	.15	.05	....	.94
Indianola	....	....	T	....	....	....	T	T	.71	....	....	....	.03	.10	T	....	.02	T	....	....	....	....	.33	T	....	.02	....	....	.70	.01	....	1.07
Inwood	....	....	T	....	....	....	....	T	....	....	....	....	.18	.05	.04	....	T	....	....	....	....	....	.17	....	....	....	....	....	....	.17	....	....	1.33
Iowa City	....	....	....	....	....	....	....	T	.02	.16	....	....	....	.01	T	....	....	....	....	....	....	....	....	T	T	....	....	....	.50	....	....	.53
Iowa Falls	....	T	....	T	....	....	T	T	.21	T	....	....	....	.10	T	T	....	T	T	....	....	....	....	....	....	....	....	....	....	....	....	.81
Keokuk	....	T	.01	....	....	....	....	....	.12	....	....	....	.05	.01	....	....	T	....	....	....	....	.65	.33	....	....	....	....	....	.16	.05	....	1.38
Keosauqua	....	....	....	T	....	....	....	....	.09	.04	....	....	....	.10	T	....	....	T	....	....	....	T	.55	....	....	....	T	....	....	.05	....	.83
Knoxville	....	....	T	....	....	....	T	....	.60	....	....	....	.10	.10	....	....	....	....	....	....	....	T	T	....	....	....	....	....	.11	T	....	.91
Lacona	....	....	....	....	....	....	....	.02	.88	....	....	....	.10	.15	T	....	.10	....	....	....	....	.10	.10	....	....	....	....	....	.10	.10	....	1.65
Larrabee	....	....	....	....	....	....	....	.98	....	....	....	....	.10	T	T	....	T	....	....	....	....	....	.05	....	....	....	....	....	.77	....	....	1.90
Le Claire	T	....	....	....	....	....	....	T	.05	.16	....	....	....	.05	.02	....	....	T	....	....	....	T	.22	....	....	....	T	.04	....	.21	T	.75
Le Mars	....	....	....	....	....	....	T	T	.15	....	....	....	.10	....	T	....	T	....	....	....	....	....	T	....	....	....	....	....	.45	....	....	.70
Lenox	....	....	....	....	....	....	....	....	1.34	....	....	....	.02	.10	....	....	.10	....	....	....	....	T	.02	....	....	....	....	....	.10	....	....	1.68
Leon	....	....	....	....	....	....	....	.04	.40	....	....	....	T	.02	....	....	.01	....	....	....	....	.03	.02	....	....	....	T	....	.13	.03	....	.68
Little Sioux	....	....	....	....	....	....	....	.02	.08	....	....	....	.13	.04	....	....	T	....	....	....	....	....	.03	....	....	....	....	....	.26	....	....	.56
Logan	....	....	T	....	....	....	....	T	.25	....	....	....	T	T	T	....	.10	....	....	....	....	....	....	....	....	....	....	....	.15	.10	....	.60
Marshalltown	....	....	....	T	....	....	....	.01	.20	.20	....	....	....	.10	....	....	....	....	....	....	....	....	....	T	....	....	....	....	T	.20	....	.71
Mason City	....	....	....	....	....	....	T	T	T	....	....	....	.08	.08	....	....	T	T	....	....	....	....	T	....	....	....	....	....	.35	.15	....	.66
Massena	....	....	T	....	....	....	....	....	.40	....	....	....	.02	.02	....	....	....	....	....	....	....	....	T	....	....	....	....	....	.28	.02	....	.74
Mt. Ayr	....	....	....	....	....	....	.05	.03	1.00	....	....	....	....	.20	T	....	.15	....	....	....	....	....	T	T	....	....	....	....	.20	.10	....	1.73
Mt. Pleasant	....	T	T	....	....	....	.01	T	.23	....	....	....	.14	.11	T	....	T	....	....	....	....	....	.18	.24	T	....	....	....	T	.08	.06	....	1.05
Muscatine	....	....	....	....	....	....	T	T	.13	.06	T	....	T	.05	.03	....	T	....	....	....	....	....	.17	....	....	....	....	....	.05	....	.15	....	.64
New Hampton	....	....	.05	....	....	....	T	....	.41	....	....	....	.10	....	....	....	T	T	....	....	....	....	....	....	....	....	....	....	.40	....	....	.96
Newton	....	....	....	....	....	....	....	....	.30	....	....	....	....	.15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.12	....	....	.57
Northwood	....	....	....	....	....	....	.02	.01	.46	....	....	....	.10	.10	.03	....	.03	T	....	....	....	....	....	....	....	....	....	....	1.00	.30	....	2.05
Odebolt	....	....	....	....	....	....	....	T	.55	....	....	....	T	.05	....	....	.03	....	....	....	....	.04	....	....	....	....	....	....	....	.35	....	1.02
Olin	....	....	....	....	....	....	T	....	.40	....	....	....	....	.12	....	....	....	T	....	....	....	.25	....	....	....	....	....	....	.10	.20	....	1.07
Omaha, Neb	....	....	T	....	....	....	T	.06	....	....	....	.03	.01	T	T	T	.08	....	....	....	....	.02	T	....	....	....	....	....	.16	.01	....	.37
Onawa	....	T	T	....	....	....	....	.02	.25	....	....	....	.15	.05	T	....	.02	....	....	....	....	....	T	....	....	....	....	....	.40	.10	....	.99
Osage	....	....	....	....	....	....	....	....	.56	....	....	....	.16	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.56	....	....	1.28
Oskaloosa	....	....	T	....	....	.02	....	....	.72	....	....	....	.03	.15	....	....	T	....	....	....	....	.14	....	....	....	....	....	....	.03	.03	....	1.12
Ottumwa	....	....	....	....	....	....	....	T	.20	....	....	....	....	.20	....	....	T	....	....	....	....	.28	T	....	....	....	T	....	.04	....	....	.72
Pacific Junction	....	....	T	....	....	....	T	T	.13	....	....	....	T	T	....	.09	....	....	....	....	T	T	....	....	....	....	....	.15	.01	....	....	.38
Perry	....	....	T	....	....	....	T	T	.62	....	....	....	T	.10	....	....	T	....	....	....	....	....	....	....	....	....	....	....	.35	....	....	1.07
Plover	....	....	....	....	....	....	....	....	1.27	....	....	....	.05	T	T	....	....	.16	....	....	....	....	....	T	T	....	....	....	.80	....	....	2.28
Pocahontas	....	....	....	....	....	....	....	....	1.02	....	....	....	....	.05	.02	.02	....	....	....	....	T	....	....	T	T	T	....	....	....	.58	....	1.69
Ridgeway	T	....	.01	....	....	....	.04	.08	.21	T	....	....	.03	.07	....	....	T	.01	....	....	....	....	....	....	....	....	....	....	1.13	....	....	1.58
Rock Rapids	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	T	T	....	....	....	....	....	....	.05	....	....	T	....	....	.50	....	....	.65
Rockwell City	....	....	....	....	....	....	....	....	.20	....	....	....	T	....	T	T	T	....	....	....	....	....	....	....	....	....	....	....	.80	.20	....	1.20
St. Charles	....	....	T	....	....	....	....	T	.55	....	....	....	.03	.13	....	....	.04	....	....	....	....	....	T	....	....	....	....	....	.21	....	....	.96
Sheldon	....	....	T	....	....	....	....	....	....	....	....	....	.30	.10	.10	T	T	....	....	....	....	....	.20	T	....	....	....	....	.80	.20	....	1.70
Sibley	....	....	....	....	....	....	....	....	....	....	....	....	.23	.07	....	T	T	....	....	....	....	....	....	.28	....	.05	....	....	.07	.40	....	1.10

DAILY AND MONTHLY PRECIPITATION FOR DECEMBER, 1907—CONTINUED.

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sigourney	....	....	T	....	....	....	T	....	.32	....	....	....	.08	.10	....	....	T	....	....	....	....	.12	....	....	....	....	....	....	.05	.07	....	.74
Sioux Center	....	....	T	....	....	....	....	T	.20	....	....	....	.30	T	T	T	T	....	....	....	....	....	.30	....	....	....	....	....	.60	....	....	1.40
Sioux City	....	....	T	....	....	....	T	.11	.02	....	....	.12	.07	T	T	....	.02	....	....	....	....	....	.02	....	....	....	....	....	.54	....	....	.90
Stockport	....	....	T	....	....	....	T	T	.10	....	....	....	.05	.05	....	....	T	T	....	....	....	.18	.28	....	....	....	....	....	.04	.03	....	.73
Storm Lake	....	....	T	....	....	....	....	.02	....	....	....	....	.05	.05	T	.02	.01	....	....	....	....	....	.02	....	....	....	....	....	.60	....	....	.77
Stuart	....	....	....	....	....	....	....	....	.30	....	....	....	.01	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.01	....	....	.32
Thurman	....	T	T	....	....	....	T	T	1.85	....	....	....	T	T	T	....	.04	T	....	....	....	T	T	....	....	....	T	....	.15	.05	....	2.09
Tipton	....	....	....	....	....	....	.06	....	.04	....	....	....	....	.03	....	....	....	....	....	....	....	.39	....	....	....	....	....	....	....	.25	....	.77
Toledo	....	....	....	....	....	....	....	....	.35	....	....	....	....	.15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	.10	....	.80
Wapello	....	....	....	....	....	....	T	....	.20	....	....	....	.14	T	....	....	....	....	....	....	....	.03	.12	....	....	....	....	....	T	.09	....	.58
Washington	....	....	....	....	....	....	....	....	....	....	....	....	.16	....	....	....	....	....	....	....	....	.18	....	....	....	....	T	....	....	.10	....	.44
Washta	....	....	....	....	....	....	....	.70	....	....	....	....	.05	.05	....	....	....	....	....	....	....	....	T	....	....	....	....	....	.60	....	....	1.40
Waterloo	....	....	.02	....	....	....	T	....	.25	....	....	....	T	.04	....	....	....	....	....	....	....	.07	....	....	....	....	....	....	.21	.17	....	.76
Waukee	....	....	.01	....	....	....	T	T	.62	....	....	....	.10	.20	T	....	.10	....	....	....	....	T	T	....	....	....	....	....	.30	.10	....	1.43
Waverly	....	....	.05	....	....	....	....	....	.15	....	....	....	.03	.03	T	T	T	T	....	....	....	....	T	....	....	....	T	....	.35	.20	....	.81
Webster City	....	....	....	....	....	....	....	....	T	....	....	....	.05	....	....	....	T	....	....	....	....	....	T	....	....	....	....	....	.40	....	....	.45
West Bend	....	....	....	....	....	....	....	....	1.00	....	....	....	.03	T	T	....	T	....	....	....	....	....	.03	....	....	....	....	....	.65	....	....	1.71
Whitten	....	T	T	....	....	....	T	T	.05	....	....	....	T	.10	T	....	T	T	....	....	....	....	....	....	....	....	....	....	.20	.10	.10	.55
Wilton Junction	....	....	....	....	....	....	....	....	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.25	....	....	.50
Winterset	....	....	T	....	....	....	T	T	.56	....	....	....	T	.10	T	....	T	T	....	....	T	....	T	....	....	....	....	....	.10	T	....	.76
Zearing	....	T	....	....	....	....	....	....	.52	....	....	....	T	.05	....	....	T	T	....	....	....	....	....	....	....	....	....	....	.25	.06	....	.88

Precipitation Chart December 1907.



APPENDIX.

ANNUAL SUMMARY, 1907.

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ERRATA IN ANNUAL SUMMARY 1906.

CHARLES CITY.—The monthly precipitation for March recorded as 3.47 inches, on page 152, should have been 3.49 inches. The monthly precipitation for April recorded as 1.33 inches, on page 152, should have been 1.28 inches. The monthly precipitation for May recorded as 6.26 inches, on page 152, should have been 6.24 inches. The monthly precipitation for June recorded as 4.01 inches, on page 152, should have been 3.90 inches. The monthly precipitation for September recorded 3.25 inches on page 152, should have been 3.24 inches. The monthly precipitation for October recorded as 1.82 inches, on page 152, should have been 1.87 inches. The annual precipitation recorded as 37.61 inches, on pages 145 and 152, should have been 37.49 inches.

CUMBERLAND.—The monthly precipitation for November recorded as 1.33 inches, on page 152, should have been 1.32 inches. The annual precipitation recorded as 27.11 inches, on pages 145 and 152, should have been 27.10 inches.

DOWS.—The least monthly precipitation and month, recorded as .68 of an inch in December on page 145, should have been 1.02 inches in February. The monthly precipitation for December recorded as .68 of an inch, on page 152, should have been 1.18 inches. The annual precipitation recorded as 28.72 inches, on pages 145 and 152, should have been 29.22 inches.

DENISON.—The monthly mean temperature for December, omitted on page 150, should have been 27.6°. The annual mean temperature omitted on pages 145 and 150, should have been 48.5°.

HUMBOLDT.—The monthly mean temperature for July, recorded as 66.2° on page 150, should have been 70.0°. The annual mean temperature recorded as 46.9° on pages 145 and 150, should have been 47.2°.

KNOXVILLE.—The monthly mean temperature for December, omitted on page 150, should have been 29.5°. The annual mean temperature omitted on pages 146 and 150, should have been 50.7°.

STUART.—The monthly mean temperature for November recorded as 36.5°, on page 151, should have been 36.2°.

WOODBURN.—The annual mean temperature recorded as 94.2°, on page 146, should have been 49.2°.

GENERAL SUMMARY.

The mean temperature and average precipitation for the state were about the normal for the year, tho the monthly averages were more than usually variable. The mean temperature of the three winter months was 24.2°, which is 3.6° above the normal. The mean of the spring was 45.2°, which is 0.9° above the normal. The mean of the summer was 70.1°, which is 1.7° below the normal. The mean of autumn was 49.9°, which is 0.5° below the normal. February, March, November and December were much warmer than usual, and all the other months were deficient in temperature. The average of February was 5.8°, and March 7.6° above the normal. The greatest deficiency in temperature occurred in April, May and June, the average of these three critical crop months being about 6° below the normal.

The average precipitation for the year, 31.62 inches, was 0.41 of an inch below the normal. The records of four months showed an excess, and the other months a deficiency in precipitation. The heaviest rainfall occurred in June and July, and the most harmful deficiency of moisture was in April and May, during the prevalence of abnormally cold weather. The following table shows the monthly average temperatures and precipitation, and departures from the normal for the year 1907:

Months	Mean Temp.	Departures	Precipitation	Departures
January	18.8	-1.1	1.52	†0.57
February	25.0	†5.8	0.71	-0.32
March	40.6	†7.6	1.35	-0.55
April	41.5	-7.7	1.32	-1.59
May	53.5	-7.2	3.48	-0.78
June	65.6	-2.9	5.35	†0.79
July	73.7	-0.4	7.27	†2.92
August	71.1	-0.8	4.33	†0.57
September	62.8	-0.7	2.76	-0.60
October	50.4	-2.1	1.50	-0.89
November	36.7	†1.3	1.03	-0.29
December	28.8	†5.9	1.00	-0.24
Annual	47.4	-0.2	31.62	-0.41

The above records show the abnormal features of the year, as affecting the growth of staple crops, and the harvest of hay and cereal products.

The coldest weather of the winter occurred in the latter half of January and the first week in February. This was followed by two weeks of very mild weather, with favorable conditions for outside work and care of stock.

March was phenomenally mild with less than the usual amount of precipitation. The first half was typical March weather, with alternate freezing and thawing, but the latter half was excessively warm and bright, the maximum temperatures during the last decade ranging above 70° in portions of the southern section. The fields dried rapidly during that warm period, and farming operations were begun ten days to two weeks earlier than usual. The rainfall was less than normal, and the greater part occurred in the first half of the month. With two exceptions it was the warmest March since 1890. There was a great quickening of all vegetation,

and in the larger part of the state seeding was begun between the 20th and 28th of the month, and a large acreage was plowed for corn.

April was a record-breaker as to temperature and precipitation, being the coldest and driest of which we have state-wide records. The daily mean temperature was 7.7° below the normal. At several stations the records show that the month was about a degree colder than the preceding March. The average monthly minimum for the state was 16.4°, which shows the remarkable persistence of freezing weather. The precipitation was less than half the usual amount for April. The conditions were unfavorable for germination of seed and growth of all forms of vegetation, but the soil was in fine tilth and favorable for plowing and planting. Fruit buds were well advanced by the warm weather in March, but blooming was greatly retarded by the abnormally low temperatures in April and May, and the heavy frosts were very destructive to all early varieties of fruits, especially in the southern half of the state. Seeding operations were generally completed earlier than usual, but in respect to germination and growth of farm crops the season was two to three weeks late.

Following the coldest April of record in this state, the month of May was also a record-breaker as to temperature, the mean being 7.2° below the normal. The lowest temperatures occurred on the 3d and 4th, and the average monthly minimum was 22.1°. Frosts were reported in all districts in every week of the month. Light snow flurries were general on the 3d and 15th. During the first and second decades there were many complaints of insufficient moisture for the germination of seed and growth of grass. But the last decade brought copious showers, and generally sufficient moisture to break the drought and replenish supplies of water for stock. The bulk of the corn acreage was planted under ideal conditions of soil, but germination was slow, much replanting was done, and the stand was very far below the average. The wet and cold weather during the latter part of the month was favorable for grass and early sown small grain.

June was cooler than usual, and exceedingly showery, with general deficiency of sunshine, especially during the first half of the month. The conditions were quite unfavorable in large portions of the state for cultivation of corn, causing abandonment of many thousands of acres which were planted on low lands in the dry period of May. The latter half of the month was more favorable, and crop conditions were more encouraging to farmers. Pastures and meadows were much improved, and nearly up to the average.

July was nearly normal in temperature, but the rainfall was about 3.00 inches above the average. Rain fell in some part of the state every day during the month. In the first decade the wet weather caused much difficulty and delay in cleaning out the corn fields. And later in the month the frequent showers interfered seriously with the harvest of grain and hay, impairing the quality of these products. Heat and humidity caused rust of oats and spring wheat.

The mean temperature of August was less than a degree below the normal, and there was about the usual amount of sunshine. The rainfall averaged 0.57 of an inch above the normal, but it was quite unequally distributed, about one-third of the state receiving less than three inches, the deficiency being mostly in the western districts. There were more than the usual number of wind squalls and hailstorms, causing considerable damage to crops in scattered localities. The conditions were generally favorable for pastures, and corn made fair progress toward maturity, tho the crop was two to three weeks later than the average at the close of August. Good progress was made in threshing small grain in the western districts.

September was slightly cooler than usual, with frequent alternations in temperature. The second decade was the warmest period, and the average of the last decade was about 20 degrees below the preceding ten days. Heavy frost occurred on the 22d, and heavy to killing frost visited every county on the morning of the 25th, causing material damage to immature portions of the corn crop. The percentage of sunshine was about the normal. Considerable damage was caused by wind and hail in the afternoon and evening of the 7th.

October will stand upon the records as one of the finest and most agreeable autumnal months ever enjoyed in this section. The average temperature was about 2° below the normal, but the percentage of sunshine was considerably above the average, and the clear crisp air of the coldest mornings was one of the most enjoyable features of the month. There were about three weeks of typical Indian Summer weather, and there was very little discomfort in the few stormy days. During the past eighteen years that have been 6 colder and 11 warmer Octobers. The average precipitation was 1.50 inchs, which is 0.89 of an inch below the state normal. There have been but three dryer Octobers since 1889. There were showers distributed over the larger part of the state during the first three and last three days of the month, and also some local rainfall on the 15th. The heaviest rainfall was recorded in the central district, in the valley of the Des Moines river. In over four-fifths of the counties the amount was less than 2 inches. Generally conditions were highly favorable for drying out the corn crop, preparatory to husking and cribbing. Some progress was made during the last decade in the corn harvest, but as a rule the ears were not dry enough to be cribbed. Considerable progress was made in plowing, with the soil in good condition. The harvest of potatoes, apples and other minor crops progressed under favorable conditions, and the output was generally below the average of recent years. All in all the month of October contributed very largely to the material prosperity of the state.

November was exceptionally favorable, the average temperature and sunshine being above the normal. There has not been a more favorable autumn for harvesting the late maturing crops, and for prparing the ground for the coming spring. The corn crop was quite thoroly dried out, and at the close of the month more than 90 per cent of that valuable cereal was safely stored in cribs. Tho there were many frosty nights and considerable freezing weather, yet the ground was generally in good condition for plowing until the close of the month. The pasture afforded considerable sustenance to stock during the month and conditions were favorable to fall wheat and rye.

The average temperature of the state was about 6 degrees above the normal in December, with less than the usual precipitation, and a large percentage of cloudiness. It was unusually fine and agreeable, with excellent conditions for outdoor business. The year closed with benign conditions thruout the central valley. J. R. S.

CLIMATOLOGY OF THE YEAR 1907.

BAROMETER.—The mean pressure of the atmosphere for the year 1907 was 30.04 inches. The highest observed pressure was 30.79 inches on January 22d at Charles City, Floyd county. The lowest pressure was 29.18 inches on November 20th at Dubuque, Dubuque county. The range for the state was 1.61 inches.

TEMPERATURE.—The mean temperature for the state was 47.6°, which is the normal, for the state. The highest temperature reported was 102° on July 5th, at Thurman, Fremont county. The lowest temperature reported was 31° below zero on February 5th, at Washta, Cherokee county. The range for the year was 133°.

PRECIPITATION.—The average amount of rain and melted snow for the year, as shown by complete records of 103 stations was 32.06 inches, which is .03 of an inch above the normal, and .83 of an inch above the average amount in 1906. The greatest amount recorded at any station for the year was 43.90 inches at Mount Ayr, Ringgold county. The least amount recorded was 19.93 inches at Sioux City, Woodbury county. The greatest monthly rainfall was 13.66 inches at Belle Plaine, Benton county, in July. The least monthly precipitation was .05 of an inch at Sioux City, Woodbury county, in November, and Hancock, Pottawattamie county, in December. The greatest amount in any twenty-four consecutive hours was 5.30 inches at Belle Plaine, in Benton county, on July 9th. The average number of days on which .01 of an inch or more of rain fell was eighty-eight.

WIND AND WEATHER.—The prevailing direction of the wind was northwest. The highest velocity reported was 66 miles per hour in Sioux City, Woodbury county, from the northwest on January 19th. The average daily movement of wind was 202 miles. There were 168 clear days; 94 partly cloudy, and 103 cloudy days; as against 163 clear days, 97 partly cloudy, and 105 cloudy days in 1906.

CLIMATOLOGICAL DATA FOR THE YEAR 1907

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE IN DEGREES, FAH.					PRECIPITATION, INCHES						Total snowfall, unmelt'd	SKY				Prevailing direction of wind
				Annual mean	Highest	Date	Lowest	Date	Length of record, years	Total for the year	Greatest monthly	Month	Least monthly	Month		No. rainy days	No. clear days	No. partly cloudy days	No. cloudy days	
Afton	Union	1,212	13	49.5	96	July 5*	-15	Feb. 5	14	31.93	5.96	July	.78	Feb.	34.0	80	154	93	118	SW
Albia	Monroe	959	10	48.4	93	Aug. 31	-13	Feb. 5*	10	36.88	9.36	July	.11	Feb.	23.8	94	169	79	117	.....
Algona	Kossuth	1,213	32	44.6	92	July 4	-25	Feb. 5	35	28.64	6.75	July	.69	Jan.	31.8	84	203	63	99	SE
Allerton	Wayne	.....	6	50.0	93	July 5 Aug. 10 Sept. 1	-13	Feb. 5	6	.....	9.12	July	.51	Feb.	28.6	.....	.....	.....	.....	NW
Alta	Buena Vista	1,513	15	44.9	93	July 4 Aug. 10*	-20	Feb. 5	17	26.67	9.55	July	.54	Mar.	20.4	104	170	117	78	S, NW
Alta [near]	Buena Vista	.....	.....	.....	.....	.....	.....	.....	13	27.86	7.83	July	.41	Nov.	20.1	93	.....	.....	.....	.....
Alton	Sioux	1,305	3	45.7	97	July 4	-22	Feb. 5	3	27.14	5.95	May	.35	Jan.	27.2	79	198	84	83	NW
Amana	Iowa	721	29	48.4	94	July 5	-16	Feb. 6	32	35.49	8.83	July	.32	Feb.	22.0	101	151	119	95	NW
Ames	Story	926	24	.....	96	July 5	-21	Feb. 5	30	27.58	6.15	Aug.	.27	Mar.	14.4	86	168	103	94	S
Atlantic	Cass	1,164	15	48.1	96	July 5* Aug. 10	-20	Feb. 5	17	24.51	5.93	July	.10	Jan.	12.5	61	105	110	150	S
Audubon	Audubon	1,301	14	47.5	96	June 16 July 5	-24	Feb. 6	14	20.33	4.99	July	.34	Dec.	15.8	90	173	71	121	NW
Baxter	Jasper	998	8	47.5	94	July 5	-18	Feb. 5	8	38.22	8.55	July	.40	Feb.	20.0	105	162	95	108	NW
Bedford	Taylor	.....	8	50.0	96	Sept. 1	-13	Feb. 5*	8	32.88	6.93	July	1.02	Feb.	29.8	96	182	64	119	SE
Belle Plaine	Benton	828	16	.....	91	Aug. 10	-18	Feb. 5	18	43.52	13.66	July	.82	Mar.	34.7	99	160	94	111	S, SE
Bloomfield	Davis	.....	1	50.8	94	July 4* Aug. 6*	-11	Feb. 5	1	43.11	12.96	July	.16	Feb.	29.8	90	199	85	81	NW
Bonaparte	Van Buren	.....	16	50.4	92	Aug. 27*	-11	Feb. 6	16	41.87	8.42	Aug.	.10	Feb.	19.8	89	.....	.....	.....	.....
Boone	Boone	1,134	3	46.8	96	July 5	-18	Feb. 5*	3	31.25	6.71	Aug.	.68	Dec.	11.5	103	.....	.....	.....	.....
Britt	Hancock	1,236	9	44.7	92	Aug. 6	-25	Feb. 5	11	29.04	8.31	July	.75	Jan.	21.1	102	66	211	88	NW
Buckingham	Tama	.....	.....	.....	.....	.....	.....	.....	8	31.38	6.92	July	.31	Dec.	.....	71	87	216	62	.....
Burlington	Des Moines	544	10	50.4	97	Aug. 31	- 8	Feb. 5	12	37.60	7.87	Aug.	.36	Feb.	.....	108	195	64	106	NW
Carroll	Carroll	1,265	18	45.9	94	July 4*	-20	Feb. 5	18	29.24	7.52	July	.39	Jan.	19.1	92	219	13	133	.....
Cedar Rapids	Linn	733	25	47.4	97	July 5	-15	Feb. 6	25	35.22	8.14	July	.41	Feb.	.....	98	107	187	71	.....
Chariton	Lucas	1,042	11	49.1	95	Aug. 31	-16	Feb. 6	13	29.62	5.08	July	.25	Feb.	23.0	58	.....	.....	.....	SE
Charles City	Floyd	1,015	20	43.8	91	July 4 Aug. 31	-24	Feb. 6	25	32.70	7.38	June	.64	Oct.	28.7	100	86	134	145	NW
Clarinda	Page	1,009	16	49.5	101	July 5	-12	Feb. 5	18	33.58	6.01	June	.66	Feb.	34.7	102	197	38	130	NE
Clear Lake	Cerro Gordo	1,241	9	45.4	91	Aug. 6	-20	Jan. 30 Feb. 5	9	29.11	8.86	June	.50	Dec.	17.7	69	239	18	108	S
Clinton	Clinton	593	40	48.6	95	July 5	-10	Feb. 6	36	.....	8.53	July	.81	Feb.	24.1	105	135	105	125	.....
Columbus Jct.	Louisa	595	7	50.1	92	July 5 Aug. 11*	- 8	Feb. 6	7	33.82	6.68	May	.23	Feb.	25.9	87	215	90	60	NW
Corning	Adams	1,117	14	48.6	97	July 5	-15	Feb. 6	15	33.97	7.32	Aug.	.79	Mar.	33.0	66	170	109	86	NW
Corydon	Wayne	1,101	13	50.5	95	Aug. 30*	-15	Feb. 5	15	28.78	5.29	June	.23	Feb.	24.0	92	184	75	106	NW
Creston	Union	1,312	3	47.5	93	July 5	-15	Feb. 5	3	31.48	6.64	July	.45	Feb.	24.6	87	179	59	127	NW
Cumberland	Cass	.....	.....	.....	.....	.....	.....	.....	9	33.81	10.76	July	.38	Mar.	27.0	65	265	27	72	S, SW
Davenport	Scott	606	36	49.6	95	July 5	- 6	Feb. 5	36	33.29	7.13	July	.22	Feb.	19.7	103	145	94	126	NW
Decorah	Winneshiek	875	12	45.2	93	July 5	-23	Feb. 6	14	33.02	7.76	Aug.	.49	Feb.	.....	.....	.....	.....	.....	.....
Delaware	Delaware	1,083	15	45.4	94	July 5	-13	Feb. 3*	17	40.06	9.67	Aug.	.34	Feb.	19.6	94	148	137	80	NW
Denison	Crawford	1,180	12	47.4	96	July 4	-25	Feb. 5	13	28.48	9.41	Aug.	.12	Jan.	25.9	75	.....	.....	.....	.....
Des Moines	Polk	861	30	48.9	94	July 5	-12	Feb. 5	30	34.02	10.20	July	.87	Jan.	31.5	107	80	171	114	SW
De Soto	Dallas	866	8	48.4	92	July 5	-23	Feb. 5	8	34.19	9.60	July	.52	Jan.	16.5	81	.....	.....	.....	NW
Dows	Wright	1,142	8	45.0	93	June 16	-22	Feb. 5	8	28.20	7.87	July	.67	Dec.	15.0	86	.....	.....	.....	NW
Dubuque	Dubuque	698	34	47.2	93	July 5	-14	Feb. 6	34	32.19	6.01	Sept.	.52	Feb.	20.7	117	128	107	130	NW
Earlham	Madison	.....	6	47.9	92	July 5	-19	Feb. 5	6	34.68	8.47	July	.73	Feb.	.....	.....	.....	.....	.....	NW
Elkader	Clayton	727	25	46.6	96	July 4* Aug. 31	-25	Feb. 6	28	27.80	5.04	July	.62	Feb.	23.5	72	173	93	99	NW
Elliott	Montgomery	.....	3	49.4	98	July 5	-18	Feb. 5	3	33.20	13.52	July	.29	Jan.	24.6	72	209	112	44	S, NW
Estherville	Emmet	1,298	11	.....	94	July 5	-25	Feb. 5	10	30.14	6.73	July	.60	Mar.	.....	.....	.....	.....	.....	NW
Fayette	Fayette	1,003	18	44.7	92	July 4*	-23	Feb. 6	18	.....	.....	.....	.71	Feb. Dec.	26.5	.....	.....	.....	.....	.....
Forest City	Winnebago	1,226	12	43.8	91	Aug. 7	-22	Jan. 30	14	29.85	8.53	June	.73	Apr.	24.6	76	198	49	118	N, SW
Fort Dodge	Webster	1,126	8	.....	95	Aug. 6	-21	Feb. 5*	8	.....	.....	.....	.55	Dec.	13.0	.....	.....	.....	.....	.....
Fort Madison	Lee	516	.....	.....	.....	.....	.....	.....	58	37.90	9.52	July	.20	Feb.	21.0	71	105	122	138	S
Gilman	Marshall	1,052	.....	.....	.....	.....	.....	.....	9	29.63	6.20	July	.30	Feb.	.....	67	.....	.....	.....	.....
Grand Meadow	Clayton	1,180	15	45.0	89	June 17 July 5*	-17	Feb. 6	17	31.75	6.09	July	.68	Dec.	27.0	99	113	138	114	NW
Greene	Butler	.....	10	.....	95	July 4	.....	.....	10	.....	7.62	June	.76	Oct.	.....	.....	.....	.....	.....	.....
Greenfield	Adair	.....	15	.....	94	July 4	.....	.....	17	.....	8.42	July	.88	Nov.	.....	.....	.....	.....	.....	.....
Grinnell	Poweshiek	1,023	13	48.5	93	Aug. 31	-19	Feb. 5	13	38.21	8.88	July	.45	Dec.	31.7	93	158	82	125	NW
Grundy Center	Grundy	976	15	47.1	95	July 5	-20	Feb. 6	17	32.63	6.67	July	.25	Dec.	10.0	68	222	33	110	NW
Guthrie Center	Guthrie	1,077	10	48.4	96	July 5	-22	Feb. 5	12	28.51	6.56	July	.48	Jan.	18.5	105	207	67	91	NW
Hampton	Franklin	1,155	16	46.1	93	June 16 July 4 Aug. 31	-20	Feb. 5	18	37.79	12.05	July	.83	Oct.	28.4	101	95	183	87	NW
Hancock	Pottawattamie	1,113	....	49.0	97	July 5	-15	Feb. 5*	....	23.56	6.40	July	.05	Dec.	13.5	68	224	49	92	NW
Harlan	Shelby	1,192	9	47.8	96	July 5	-19	Feb. 5	9	22.31	4.96	July	.36	Dec.	15.4	91	126	123	116	NW
Hopeville	Clarke	.....	15	49.6	96	Aug. 30	-15	Feb. 5	17	32.43	11.65	July	.52	Feb.	.....	88	95	169	101	.....
Humboldt	Humboldt	1,095	14	46.4	92	June 16 Aug. 6	-18	Jan. 30	19	27.30	9.36	July	.16	Jan.	.....	72	.....	.....	.....	NW
Independence	Buchanan	921	42	46.0	91	July 4	-20	Feb. 6	40	39.41	8.44	Aug.	.52	Jan.	18.0	89	.....	.....	.....	NW
Indianola	Warren	969	17	49.1	93	Aug. 31	-12	Feb. 5	17	31.82	6.59	July	.77	Feb.	25.7	98	.....	.....	.....	NW
Inwood	Lyon	1,474	4	44.9	96	July 4 Aug. 18	-25	Feb. 5	4	21.87	5.65	July	.09	Nov.	32.7	104	.....	.....	.....	NW
Iowa City	Johnson	683	47	48.4	96	Aug. 31	-16	Feb. 6	45	34.52	9.21	July	.22	Feb.	17.0	101	.....	.....	.....	.....
Iowa Falls	Hardin	1,170	13	45.3	93	July 4	-21	Feb. 6	15	32.02	7.06	July	.65	Oct.	23.7	87	.....	.....	.....	NW
Jefferson	Greene	.....	5	.....	96	July 4*	-21	Feb. 5	8	.....	.....	.....	.36	Feb.	.....	.....	.....	.....	.....	.....
Keokuk	Lee	614	37	52.2	95	Aug. 31	- 6	Feb. 5	37	38.70	6.30	June	.10	Feb.	18.8	105	188	104	73	NW
Keosauqua	Van Buren	644	14	49.6	95	July 8	-10	Feb. 5	16	40.68	9.24	July	.15	Feb.	23.0	89	76	138	151	.....
Knoxville	Marion	920	12	.....	93	July 4* Aug. 6*	-14	Feb. 5	10	.....	6.66	July	.45	Feb.	.....	.....	.....	.....	.....	.....
Lacona	Warren	.....	.....	.....	.....	.....	.....	.....	9	37.60	6.55	June	.84	Feb	.....	.....	.....	.....	.....	.....
Larrabee	Cherokee	1,266	17	45.8	96	July 4	-22	Feb. 5	18	.....	5.27	June	.30	Mar. Apr.	23.0	76	.....	.....	.....	.....
Le Claire	Scott	.....	.....	.....	.....	.....	.....	.....	....	35.88	7.14	July	.41	Feb.	30.6	105	186	57	122	SW
Le Mars	Plymouth	1,224	10	45.9	97	July 4	-24	Feb. 5	12	.....	6.50	July	.20	Jan.	.....	.....	.....	.....	.....	NW
Lenox	Taylor	1,250	11	49.4	94	July 5	-16	Feb. 5	13	34.63	7.51	July	.83	Feb.	25.7	87	223	66	76	S
Leon	Decatur	1,120	6	50.3	95	July 5	-13	Feb. 5	6	29.93	7.84	July	.68	Dec.	22.6	92	235	31	99	S

CLIMATOLOGICAL DATA FOR THE YEAR 1907—CONTINUED

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE IN DEGREES, FAH.					PRECIPITATION, IN INCHES						Total snowfall, unmelt'd	SKY				Prevailing direction of wind
				Annual mean	Highest	Date	Lowest	Date	Length of record, years	Total for the year	Greatest monthly	Month	Least monthly	Month		No. rainy days	No. clear days	No. partly cloudy days	No. cloudy days	
Little Sioux ...	Harrison	.....	3	49.0	97	July 5	-22	Feb. 5	3	22.57	8.29	July	.21	Jan.	12.9	81	.....	.....	.....	SE
Logan	Harrison	928	39	48.4	97	July 5	-17	Feb. 5	8	.....	5.04	July	.50	Jan.	29.8	59	.....	.....	.....	NW
Marshalltown .	Marshall	947	13	46.6	93	July 5 Aug. 31	-18	Feb. 5	14	33.08	7.56	July	.55	Feb.	16.3	99	.....	.....	.....	.....
Mason City	Cerro Gordo..	1,132	13	45.5	92	June 16 July 21	-18	Feb. 5	13	34.38	11.20	July	.66	Dec.	.....	89	124	153	88	NW
Massena	Cass	.....	3	.....	98	July 5	-17	Feb. 5	3	.....	8.70	July	.54	Mar.	24.8	.....	.....	.....	.....	.....
Mount Ayr	Ringgold	1,236	12	50.3	96	July 23 Sept. 1	-13	Feb. 5	14	43.90	8.70	July	1.22	Feb.	35.6	106	153	108	104	NW
Mt. Pleasant ..	Henry	729	24	50.6	93	Aug. 30*	- 9	Feb. 5*	14	39.45	7.41	July	.21	Feb.	23.9	106	136	137	92	NW
Mount Vernon	Linn	847	39	.....	95	July 4*	-14	Feb. 5	12	.....	7.51	July	.45	Feb.	.....	.....	.....	.....	.....	.....
Muscatine	Muscatine	.....	....	.....	....	.....	.....	.....	49	34.27	7.97	July	.26	Feb.	17.9	102	114	98	153	S
Nevada.....	Story	.....	....	.....	....	.....	.....	.....	2	.....	5.37	July	.44	Apr.	.....	.....	.....	.....	.....	.....
New Hampton.	Chickasaw	1,169	8	43.9	88	July 4*	-18	Feb. 5	11	31.37	7.22	July	.34	Feb.	20.1	90	187	87	91	S, W
Newton	Jasper	944	19	.....	93	Aug. 6	....	.....	19	.....	8.31	July	.57	Dec.	.....	.....	.....	.....	.....	.....
Northwood	Worth	1,222	10	44.2	91	July 4	-22	Feb. 5	12	32.33	9.33	June	.46	Feb.	41.8	86	203	86	76	NW
Odebolt	Sac	1,356	9	48.0	97	July 4*	-19	Feb. 5	10	30.38	8.49	July	.26	Mar.	.....	70	224	55	86	.....
Olin	Jones	760	9	47.6	91	July 5*	-19	Feb. 6	9	42.35	8.74	Aug.	.56	Feb.	34.0	77	.....	.....	.....	NW
Omaha, Neb...	Douglas	1,105	37	50.3	97	July 5	-12	Feb. 5	37	24.60	6.45	July	.29	Mar.	25.6	95	110	112	143	S
Onawa	Monona	1,051	8	49.7	96	July 4*	-16	Feb. 5	8	21.55	5.31	July	.38	Jan.	19.9	90	231	48	86	NW
Osage	Mitchell	1,184	15	44.6	95	July 5	-20	Jan. 30 Feb. 5	20	.....	6.82	June	.78	Feb.	.....	.....	.....	.....	.....	NW
Oskaloosa	Mahaska	843	22	.....	92	Aug. 6*	-14	Feb. 5	30	.....	6.68	June	.32	Feb.	20.9	.....	.....	.....	.....	.....
Ottumwa.....	Wapello.....	649	12	.....	99	Aug. 31	- 9	Feb. 5	14	.....	10.04	July	.65	Feb.	18.5	.....	.....	.....	.....	.....
Pacific Junct..	Mills	960	9	.....	99	July 5	.....	.....	9	.....	9.56	July	.38	Dec.	.....	.....	.....	.....	.....	.....
Pella	Marion	877	7	50.5	95	Aug. 6	-14	Feb. 5	6	.....	6.37	July	.24	Feb.	.....	.....	.....	.....	.....	.....
Perry.....	Dallas	975	7	48.1	95	July 5	-23	Feb. 5	7	39.06	8.69	June	.81	Feb.	.....	.....	.....	.....	.....	.....
Plover	Pocahontas ...	1,426	9	44.7	95	July 4 Aug. 6	-26	Feb. 5	10	30.35	6.01	June	.33	Feb.	20.0	70	.....	.....	.....	N
Pocahontas....	Pocahontas ...	.....	4	.....	95	July 4	-24	Feb. 5	4	30.07	8.80	July	.55	Jan.	27.3	81	204	80	81	S
Ridgeway.....	Winneshiek...	1,215	10	45.6	94	Aug. 31	-18	Jan. 30 Feb. 3*	10	39.12	7.97	Aug.	.85	Feb.	30.7	131	169	122	74	S
Rock Rapids..	Lyon	1,358	10	43.7	98	July 4	-23	Feb. 5	10	.....	6.57	June	.19	Nov.	29.0	53	.....	.....	.....	.....
Rockwell City.	Calhoun.....	.....	11	47.4	95	Aug. 6*	-21	Feb. 5	12	26.80	4.83	May	.30	Jan.	.....	55	.....	.....	.....	.....
Saint Charles..	Madison.....	1,070	6	50.0	94	Aug. 31	-16	Feb. 5	7	29.54	7.31	June	.55	Feb.	28.9	92	197	84	84	NW
Sheldon.....	O'Brien.....	1,422	8	45.6	98	July 4	-23	Feb. 5	8	27.66	6.53	June	.52	Nov.	43.0	87	203	86	76	.....
Sibley	Osceola.....	1,212	12	42.4	95	July 4	-23	Feb. 5	14	25.29	6.59	July	.57	Feb.	28.5	83	.....	.....	.....	NW
Sigourney	Keokuk	877	9	49.8	93	Aug. 31	-11	Feb. 5	12	30.78	7.27	July	.50	Feb.	34.6	95	.....	.....	.....	NW
Sioux Center..	Sioux.....	.....	9	44.8	94	July 4 Aug. 10	-21	Feb. 5	9	21.38	4.30	July	.13	Nov.	32.0	74	176	88	101	S, NW
Sioux City.....	Woodbury	1,135	18	46.8	98	July 4	-22	Feb. 5	18	19.93	5.78	July	.05	Nov.	28.9	89	117	113	135	NW
Stockport.....	Van Buren....	.....	....	50.0	91	Aug. 30*	-13	Feb. 6	6	34.49	8.08	July	.06	Feb.	28.0	98	187	61	117	NW
Storm Lake....	Buena Vista ..	1,440	11	.....	95	July 5* Sept. 13	-27	Feb. 5	11	.....	7.88	July	.65	Feb.	.....	.....	.....	.....	.....	NW
Stuart	Guthrie	1,216	9	.....	96	July 5	-18	Feb. 5	9	.....	8.40	June	.32	Dec.	.....	.....	.....	.....	.....	.....
Thurman	Fremont	.....	10	50.1	102	July 5	-17	Feb. 5	11	31.92	6.80	July	.70	Mar.	35.0	84	143	112	110	NW
Tipton	Cedar.....	807	10	49.9	96	July 5	- 5	Jan. 26	10	35.89	8.48	July	.17	Feb.	.....	66	198	89	78	NW
Toledo	Tama	856	12	47.5	92	July 5	-17	Feb. 6	13	32.97	9.83	July	.51	Feb.	19.6	71	.....	.....	.....	NW
Wapello.....	Louisa.....	588	8	50.1	88	July 5 Aug. 31 Sept. 1*	- 3	Feb. 5	10	33.27	6.23	July	.20	Feb.	23.4	94	.....	.....	.....	.....
Washington ...	Washington ..	769	24	48.9	91	July 5 Aug. 31	-10	Feb. 5*	17	31.77	6.75	July	.23	Feb.	.....	81	.....	.....	.....	.....
Washta.....	Cherokee.....	1,157	10	45.8	95	July 4 Aug. 10	-31	Feb. 5	10	26.89	9.53	July	.23	Mar.	.....	.....	.....	.....	.....	N
Waterloo	Black Hawk...	862	19	47.3	95	July 4 Aug. 31	-18	Feb. 5	27	30.89	6.41	June	.57	Feb.	17.5	94	165	106	94	NW
Waukee	Dallas	1,039	4	48.5	97	July 5	-22	Feb. 5	5	39.97	9.78	July	.97	Feb.	41.1	98	203	72	90	NW
Waverly	Bremer.....	948	10	45.9	90	July 4* Aug. 31	-18	Feb. 5*	12	31.74	9.43	July	.57	Feb.	24.5	1.3	97	140	128	.....
Webster City..	Hamilton.....	.....	3	47.3	97	July 5	-22	Feb. 5	3	29.13	7.70	July	.45	Dec.	.....	72	.....	.....	.....	NW
West Bend	Palo Alto.....	1,197	12	44.8	93	June 16* Aug. 6	-24	Feb. 5	14	27.91	7.70	July	.51	Apr.	18.7	84	139	114	112	.....
Whitten.....	Hardin	1,036	8	46.8	95	July 5	.20	Feb. 5	10	29.53	6.06	Aug.	.30	Feb.	14.0	74	.....	.....	.....	NW
Wilton Junct..	Muscatine	683	11	48.8	94	June 18 July 5* Aug. 11	-13	Feb. 6	13	37.10	9.51	July	.29	Feb.	.....	74	197	74	94	W
Winterset.....	Madison.....	1,129	15	49.6	97	July 5	-16	Feb. 5	17	33.17	7.06	June	.55	Feb.	27.5	83	164	88	113	S, NW
Woodburn.....	Clarke.....	961	3	.....	94	Aug. 10*	-18	Feb. 6	9	.....	6.32	July	.40	Feb.	.....	.....	.....	.....	.....	.....
Zearing	Story	718	4	.....	94	July 5	.....	.....	4	.....	5.27	July	.70	Jan.	.....	.....	.....	.....	.....	.....
Average.....	.....	.....	....	47.6	....	.....	.....	.....	....	32.06	.....	.....	.....	.....	.....	88	168	94	103	NW
Extremes and date	.....	.....	....	.....	102	July 5	-31	Feb. 5	....	.....	13.66	July	.05	Nov. Dec.	.....	.....	.....	.....	.....	.....

MONTHLY MAXIMUM AND MINIMUM TEMPERATURES FOR 1907 WITH DATES.

STATIONS		Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
		Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date
Afton	Max	45	* 5	54	17	88	25	78	24	89	22	93	16	96	* 5	94	10	92	* 1	76	* 2	60	7	51	* 6
	Min	- 6	30	-15	5	18	14	16	14	23	4	44	* 1	53	27	50	* 2	35	25	20	28	15	14	7	19
Albia	Max	50	5	58	*15	88	21	76	24	84	22	88	24	90	* 5	93	31	90	* 1	81	2	88	* 6	55	8
	Min	- 8	26	-13	* 5	17	14	16	14	21	4	43	2	57	1	49	* 2	32	25	19	28	15	14	9	20
Algona	Max	39	* 4	52	17	83	26	68	23	87	12	91	24	92	4	91	6	86	18	76	6	56	7	50	6
	Min	-19	30	-25	5	3	2	13	14	21	4	43	5	53	2	45	20	29	25	19	28	6	14	2	28
Allerton	Max	50	5	58	17	87	25	77	24	85	22	88	*16	93	5	93	10	93	1	81	2	63	7	54	8
	Min	- 4	26	-13	5	18	14	17	14	19	4	44	5	56	* 1	51	3	32	25	18	28	14	14	9	19
Alta	Max	40	* 2	58	17	85	26	71	22	88	12	91	16	93	4	93	*10	89	18	80	2	60	7	51	6
	Min	-16	30	-20	5	7	2	15	*13	24	4	42	5	54	26	45	2	34	*25	22	12	8	*14	0	31
Alton	Max	40	4	57	17	79	26	68	22	90	12	92	16	97	4	94	*10	88	13	79	* 2	58	6	53	6
	Min	-16	30	-22	5	- 3	2	15	17	24	* 1	43	5	41	2	42	3	32	25	16	28	9	14	- 1	30
Amana	Max	46	19	52	26	84	26	73	24	83	12	90	*16	94	5	92	31	88	* 1	77	2	57	1	51	8
	Min	- 6	26	-16	6	17	14	20	14	24	4	42	* 2	55	27	48	*22	31	25	19	28	13	*15	10	* 4
Ames	Max	47	5	55	17	88	25	72	22	85	12	90	16	96	5	92	10	90	18	81	2	59	7	55	6
	Min	-13	30	-21	5	3	14	13	15	18	4	40	* 2	44	27	.....	.....	28	25	15	28	12	* 9	6	30
Atlantic	Max	50	5	59	17	91	25	75	24	87	12	94	17	96	* 5	96	10	93	* 1	79	* 2	67	6	55	7
	Min	- 7	30	-20	5	3	14	11	*14	18	4	36	2	49	27	42	* 2	27	25	11	28	8	16	6	19
Audubon	Max	44	* 2	57	17	89	25	74	22	92	12	96	16	96	5	93	6	90	*17	78	2	59	7	50	27
	Min	-12	30	-24	6	8	14	11	14	20	4	38	2	49	27	42	3	27	25	10	28	11	14	6	31
Baxter	Max	48	5	57	26	87	26	72	*22	86	12	90	16	94	5	91	31	89	18	81	24	68	6	52	6
	Min	-12	26	-18	5	6	14	16	14	21	4	44	6	53	27	46	25	30	25	15	28	12	14	7	* 30
Bedford	Max	49	5	59	17	89	25	73	23	86	22	91	16	94	*23	94	*10	96	1	78	* 2	66	6	53	27
	Min	- 8	27	-13	* 5	15	14	16	17	19	4	40	2	54	*12	47	2	29	25	14	28	10	14	5	19
Belle Plaine	Max	44	19	55	26	85	22	74	22	.....	.....	.....	.....	89	23	91	10	87	*15	80	2	66	2	51	6
	Min	- 9	26	-18	5	13	14	17	14	.....	.....	42	6	55	27	47	25	31	25	17	28	11	14	7	31
Bloomfield	Max	51	5	58	15	87	*21	77	24	84	22	91	18	94	* 4	94	* 6	91	*16	84	2	60	* 6	58	8
	Min	- 1	26	-11	5	20	14	20	*14	22	4	41	5	56	27	51	2	34	25	20	28	15	15	10	28
Bonaparte	Max	57	7	59	18	88	21	78	24	83	22	87	*18	90	8	92	*27	90	18	82	2	59	* 7	58	* 8
	Min	- 4	26	-11	6	21	2	21	14	25	4	44	6	57	27	52	* 2	33	25	18	28	14	15	11	4
Boone	Max	47	5	56	17	88	25	71	22	85	12	93	16	96	5	94	6	90	18	81	2	60	* 6	51	6
	Min	-13	*30	-18	* 5	9	14	17	14	21	4	45	1	58	* 2	49	* 3	34	25	25	28	13	14	7	30
Britt	Max	40	* 4	50	17	82	26	69	22	87	12	90	*16	91	4	92	6	88	18	78	2	56	7	50	6
	Min	-20	30	-25	5	5	2	14	14	19	4	43	5	50	2	45	*20	28	25	16	28	5	14	- 1	31
Burlington	Max	56	7	64	18	88	21	78	24	84	22	89	18	92	5	97	31	93	1	84	2	63	4	60	27
	Min	- 3	*26	- 8	5	21	2	23	*14	26	4	43	5	58	* 3	52	* 2	36	25	22	28	17	*15	14	4
Carroll	Max	45	5	57	17	87	26	73	22	88	12	92	16	94	* 4	92	* 6	87	*17	79	2	63	7	50	6
	Min	-15	30	-20	5	9	14	12	17	18	4	41	5	50	* 7	44	3	30	25	16	28	10	14	5	31
Cedar Rapids	Max	49	18	54	*17	85	*21	72	*22	84	*12	94	17	97	5	94	31	90	*15	80	2	56	1	51	8
	Min	- 7	26	-15	6	13	3	21	14	27	4	45	* 6	52	27	51	* 4	34	*25	21	28	14	*15	10	* 4
Chariton	Max	50	5	58	17	88	21	76	24	87	22	88	*16	92	8	95	31	92	1	81	2	60	* 3	54	8
	Min	- 6	26	-16	5	15	14	16	14	19	4	43	5	54	27	48	2	31	25	18	28	14	14	9	4
Charles City	Max	40	5	50	17	84	26	66	22	84	12	88	16	91	4	91	31	83	15	79	2	54	4	48	23
	Min	-20	30	-24	6	7	14	18	14	20	4	41	6	53	2	45	3	29	25	17	28	8	15	1	4
Clarinda	Max	53	2	61	17	92	25	80	24	92	22	98	16	101	5	97	10	98	1	83	24	67	6	54	6
	Min	- 3	*26	-12	5	17	* 1	17	17	21	4	42	2	53	27	48	* 2	33	25	16	28	9	16	7	*19
Clear Lake	Max	40	5	49	17	81	26	67	22	82	12	90	16	90	5	91	6	87	14	72	6	56	7	47	6
	Min	-20	30	-20	5	6	2	17	17	22	4	44	* 5	50	1	48	* 3	35	25	25	*13	9	14	0	31
Clinton	Max	48	19	55	18	83	26	75	24	86	13	92	17	95	5	94	11	92	1	79	2	57	5	53	27
	Min	- 5	26	-10	6	19	3	21	*14	26	4	42	6	51	3	47	*22	33	25	21	27	13	*14	11	31
Columbus Junction	Max	47	* 5	58	18	84	21	76	*22	85	22	89	17	92	5	92	*11	90	1	81	2	58	18	57	6
	Min	- 5	26	- 8	6	19	2	21	17	27	4	45	* 5	57	27	51	* 2	33	25	22	28	17	15	12	31
Corning	Max	45	5	58	13	87	25	77	24	87	22	91	*16	97	5	93	10	91	1	76	* 6	59	* 5	50	* 6
	Min	- 5	30	-15	6	15	1	13	17	23	4	39	2	53	*12	43	21	30	*25	14	28	11	14	8	* 4
Corydon	Max	50	5	59	*16	87	25	76	24	85	22	87	*16	92	5	95	*30	94	1	81	2	62	* 6	54	8
	Min	- 5	26	-15	5	17	14	18	*14	21	4	44	5	58	* 1	50	2	34	25	19	28	13	14	9	19
Creston	Max	49	5	57	17	87	25	75	24	86	22	90	16	93	5	92	10	89	18	76	24	61	7	53	6
	Min	- 6	30	-15	5	19	* 1	16	17	23	4	41	6	55	27	42	2	31	25	17	28	15	14	8	19
Davenport	Max	49	19	58	18	82	21	74	24	82	13	90	17	95	5	93	31	91	1	84	2	57	18	53	8
	Min	- 5	26	- 6	5	20	2	24	14	29	4	47	5	57	3	53	2	36	25	24	28	19	14	14	31
Decorah	Max	41	5	46	17	83	26	68	22	86	12	92	17	93	5	89	10	86	1	75	2	53	* 1	46	9
	Min	-16	30	-23	6	10	14	18	14	22	4	41	2	53	* 2	45	4	31	25	18	28	12	14	2	31
Delaware	Max	44	19	47	26	80	26	70	22	81	*12	88	16	94	5	88	*10	87	1	74	2	53	1	48	7
	Min	-12	26	-13	* 3	11	14	17	14	22	4	43	3	53	2	48	* 2	32	25	19	28	12	14	4	31
Denison	Max	45	2	59	17	87	26	72	24	86	12	91	16	96	4	95	6	88	*16	82	2	62	7	50	6
	Min	-13	30	-25	5	10	14	11	17	17	* 2	41	2	52	17	41	3	30	25	14	28	11	14	6	30
Des Moines	Max	48	5	56	17	88	25	72	24	84	12	91	16	94	5	93	31	90	18	78	17	59	7	52	6
	Min	- 7	30	-12	5	14	14	19	17	26	4	47	2	58	1	51	2	35	25	22	28	17	16	11	30
De Soto	Max	50	5	57	16	88	25	75	24	85	12	90	16	92	5	90	* 6	90	18	79	* 6	62	* 6	52	6
	Min	-10	30	-23	5	8	14	12	14	21	4	43	2	55	27	48	25	32	25	15	28	12	16	8	*30
Dows	Max	43	5	52	17	83	25	71	22	88	12	93	16	91	5	91	6	88	18	82	2	58	7	48	6
	Min	-18	30	-22	5	5	14	14	14	17	4	40	2	53	* 2	43	25	26	25	15	28	6	14	1	31
Dubuque	Max	49	19	52	26	82	26	69	*22	80	13	90	17	93	5	92	31	88	1	81	2	55	1	49	27
	Min	- 8	26	-14	6	16	2	24	14	29	4	46	6	55	2	51	2	36	25	24	28	18	14	9	30
Earlham	Max	48	5	57	26	87	27	76	24	83	*12	89	16	92	5	91	6	89	*16	82	1	61	7	52	6
	Min	- 9	*26	-19	5	15	31	10	14	19	* 4	41	2	49	27	45	3	33	21	16	13	10	16	11	*30
Elkader	Max	46	5	54	26	85	26	73	22	85	12	95	17	96	* 4	96	31	89	13	84	2	56	* 1	49	8
	Min	-17	30	-25	6	8	14	18	14	21	4	40	* 2	51	*27	44	25	29	25	15	28	9	14	2	4
Elliott	Max	49	2	55	17	87	25	73	* 3	96	22	96	24	98	5	97	10	94	16	76	6	62	7	53	6
	Min	- 7	30	-18	5	11	1	15	17	23	4	41	2	55	* 1	48	2	32	25	15	28	12	16	8	19
Estherville	Max	40	4	57	17	83	6	67	22	89	12	91	16	94	5	93	*18	87	18	77	6	59	6	54	6
	Min	-19	30	-25	5	- 6	2	13	14	21	4	42	5	46	30	.....	.....	31	25	18	28	4	14	3	*28
Fayette	Max	43	19	48	17	83	26	70	22	84	12	89	*16	92	* 4	90	31	85	15	79	2	53	4	46	27
	Min	-13	30	-23	6	5	14	16	14	18	4	39	6	53	1	43	*20	27	25	13	28	6	14	0	4
Forrest City	Max	40	4	53	17	84	26	69	22	88	12	90	*16	90	* 3	91	7	88	18	82	2	59	6	53	5
	Min	-22	30	-21	5	3	2	17	*14	22	4	43	5	54	2	46	20	31	25	22	28	7	14	0	31
Fort Dodge	Max	43	5	57	17	86	26	72	22	88	12	94	16	.....	.....	95	6	91	18	82	2	58	7	48	8
	Min	-15	*30	-21	* 5	11	* 2	15	*14	21	4	44	2	.....	.....	45	4	30	25	19	28	12	*12	5	*30
Grand Meadow	Max	44	19	46	16	81	*25	69	22	82	12	89	17	89	* 5	88	31	83	*15	75	2	52	* 1	46	27
	Min	-15	30	-17	. 6	10	14	19	14	22	4	43	1	52	2	47	3	32	25	21	28	11	14	4	31
Greenfield	Max	.....	.....	.....	.....	88	25	75	24	84	12	89	16	94	4	92	10	89	1	77	16	62	* 6	51	6
	Min	.....	.....	.....	.....	.....	.....	15	*17	26	3	43	5	55	27	49	2	34	25	21	8	14	14	9	19
Grinnell	Max	47	5	56	26	87	*26	71	22	84	12	91	16	92	5	93	31	91	18	81	2	57	7	51	6
	Min	-11	26	-19	5	10	3	16	17	22	4	45	* 1	56	*27	47	2	28	25	18	28	12	14	9	4
Grundy Center	Max	44	5	52	17	85	26	71	22	84	12	90	*16	95	5	93	* 6	90	18	81	2	57	7	49	8
	Min	-13	30	-20	6	9	14	18	14	20	4	42	2	55	* 2	48	* 3	31	25	19	28	11	14	4	4
Guthrie Center	Max	45	5	55	17	87	26	73	24	87	12	94	16	96	5	92	10	90	18	80	2	60	7	57	26
	Min	-13	30	-22	5	10	14	11	14	19	4	41	* 1	51	*17	42	* 2	30	25	15	28	12	14	9	*30

MONTHLY MAXIMUM AND MINIMUM TEMPERATURES FOR 1907 WITH DATES—CONTINUED.

STATIONS		Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
		Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date
	Max	46	5	54	17	85	26	72	22	86	12	93	16	93	4	93	31	89	18	85	2	60	7	52	6
Hampton	Min	-16	30	-20	5	9	14	18	17	22	4	43	* 1	54	2	48	3	33	25	21	28	10	14	5	*28
	Max	.....	.....	56	17	88	25	75	24	88	12	92	24	97	5	91	*10	89	* 1	77	* 6	63	6	51	6
Hancock	Min	- 8	30	-15	* 5	10	13	18	14	25	4	45	2	56	27	49	2	33	25	18	28	15	16	7	*19
	Max	47	2	60	17	90	25	75	24	87	12	91	24	96	5	93	*10	92	16	81	2	65	6	51	6
Harlan	Min	-11	30	-19	5	7	14	12	17	19	4	40	2	52	27	45	* 2	29	25	13	28	11	*14	6	19
	Max	48	5	57	17	89	25	78	24	88	22	93	16	95	* 8	96	30	93	1	80	2	62	* 6	53	6
Hopeville	Min	- 5	*26	-15	5	18	14	18	*14	25	4	44	5	54	27	50	* 2	35	25	22	28	14	14	7	19
	Max	42	* 5	54	17	80	25	69	22	88	12	92	16	91	4	92	6	87	18	78	2	60	7	48	* 6
Humboldt	Min	-18	30	-14	3	7	2	14	14	20	4	43	2	44	15	46	* 3	31	25	16	28	9	14	4	30
	Max	.....	.....	48	*17	84	26	69	*22	84	12	86	17	91	4	90	31	88	17	79	2	64	* 2	49	8
Independence	Min	-10	26	-20	6	14	* 2	18	13	21	4	41	6	53	2	47	* 4	30	25	16	28	11	14	0	31
	Max	48	19	58	26	87	25	74	24	83	12	89	*16	92	5	93	31	90	18	77	* 2	59	7	51	8
Indianola	Min	- 6	30	-12	5	15	14	18	14	25	4	46	2	57	27	51	2	35	25	22	28	16	14	11	*19
	Max	41	4	59	17	76	*21	70	22	93	12	93	16	96	4	96	18	90	13	81	* 6	60	* 3	55	6
Inwood	Min	-22	30	-25	5	- 7	2	12	17	22	3	38	5	51	2	41	3	26	28	15	28	5	14	- 8	30
	Max	49	5	56	26	86	*21	72	24	83	*12	92	18	94	5	96	31	92	18	84	2	58	* 7	52	* 6
Iowa City	Min	- 8	26	-16	6	19	* 2	21	*14	25	4	44	* 2	56	27	49	25	33	25	19	28	12	16	9	31
	Max	40	5	51	17	84	26	72	22	86	12	91	16	93	4	91	6	87	18	78	2	56	7	49	8
Iowa Falls	Min	-13	30	-21	6	- 1	14	15	14	18	4	41	2	54	* 2	45	25	28	25	16	28	10	14	3	31
	Max	.....	.....	58	17	88	25	73	23	86	12	93	16	96	* 4	94	7	93	1	82	2	.....	.....	53	6
Jefferson	Min	.....	.....	-21	5	10	14	15	4	19	4	44	25	54	27	46	3	31	25	17	28	.....	.....	6	30
	Max	68	7	62	18	88	21	77	24	84	23	90	30	94	8	95	31	94	1	84	2	61	4	60	27
Keokuk	Min	- 2	26	- 6	5	25	2	25	17	28	4	47	5	58	27	53	22	37	25	25	28	21	15	17	4
	Max	54	7	59	18	88	21	78	24	85	22	91	18	95	8	94	31	94	10	85	2	60	* 4	59	8
Keosauqua	Min	- 2	*26	-10	5	21	2	22	*14	24	4	43	6	55	27	49	25	33	*25	17	*28	12	15	12	5
	Max	48	* 5	57	17	87	25	78	24	86	22	91	24	93	* 4	93	* 6	90	18	80	2	.....	.....	54	8
Knoxville	Min	- 4	30	-14	5	17	14	19	14	25	4	46	2	57	26	50	2	34	25	20	28	.....	.....	13	* 4
	Max	41	* 2	56	17	82	26	73	22	88	16	95	16	96	4	94	10	88	18	80	6	57	* 1	51	6
Larrabee	Min	-16	30	-22	5	2	2	13	17	21	4	40	5	54	2	46	* 2	32	28	16	28	9	14	- 3	30
	Max	40	4	56	17	78	26	70	22	92	12	93	16	97	4	92	10	86	18	76	* 2	58	6	50	6
Le Mars	Min	-17	30	-24	5	- 3	2	11	13	17	1	42	5	50	2	42	* 3	30	28	20	12	9	14	- 1	30
	Max	46	5	55	17	87	25	76	24	88	22	91	16	94	5	92	10	91	13	77	* 2	61	6	50	* 6
Lenox	Min	- 8	30	-16	5	17	1	17	*14	25	4	44	5	56	27	49	2	34	25	19	28	12	14	6	19
	Max	47	*15	64	18	86	25	76	24	85	22	92	16	95	5	94	10	91	1	79	2	60	7	55	7
Leon	Min	- 3	*26	-13	5	18	14	19	*14	26	4	42	2	50	27	49	2	38	24	21	28	16	13	8	19
	Max	45	* 2	61	17	88	*21	74	24	89	12	93	16	97	5	95	6	93	17	83	2	65	6	51	6
Little Sioux	Min	-12	30	-22	5	8	* 1	15	17	27	4	39	5	54	17	45	3	31	25	20	13	10	14	2	30
	Max	44	* 4	60	17	89	25	74	24	87	*12	92	*16	97	5	94	* 6	92	17	80	2	63	24	58	8
Logan	Min	-10	30	-17	5	11	1	15	17	21	4	42	4	52	26	44	25	31	25	15	28	13	14	6	30
	Max	44	5	55	*17	87	*25	72	22	86	12	90	*16	93	5	93	31	89	18	82	2	58	6	50	6
Marshalltown	Min	-11	*26	-18	5	5	14	16	14	20	4	46	1	53	27	45	25	30	25	18	*28	12	*14	7	31
	Max	40	* 4	50	17	82	26	66	22	90	12	92	16	92	21	91	6	84	*15	77	6	54	7	46	6
Mason City	Min	-17	30	-18	5	8	2	18	*14	24	4	44	1	55	* 2	46	* 3	30	25	18	28	8	14	4	* 4
	Max	52	5	59	16	92	25	79	24	86	*22	94	16	98	5	97	31	.....	.....	85	17	66	7	54	* 1
Massena	Min	-10	30	-17	5	10	14	11	17	20	4	40	5	54	27	47	* 2	.....	.....	10	28	11	14	8	19
	Max	52	5	59	*17	90	25	78	24	89	22	93	16	96	23	95	*30	96	1	82	2	66	6	52	6
Mount Ayr	Min	- 4	26	-13	5	17	14	19	14	24	4	43	5	51	31	50	2	36	25	25	28	16	14	6	19
	Max	52	7	59	18	86	21	78	24	85	22	90	*17	92	* 4	93	*30	91	* 1	81	2	60	4	62	9
Mt. Pleasant	Min	- 5	26	- 9	* 5	20	2	22	*14	25	4	47	* 1	57	* 1	52	* 3	34	25	21	28	16	15	4	31
	Max	35	* 4	45	17	80	26	64	22	83	12	87	17	88	* 4	86	* 6	82	* 1	73	2	51	* 1	45	8
New Hampton	Min	-16	30	-18	5	5	14	18	*14	23	4	42	6	52	2	47	* 3	28	25	18	28	9	14	1	31
	Max	.....	.....	.....	.....	86	25	71	24	85	12	90	16	92	5	93	6	.....	.....	76	2	57	27	51	9
Newton	Min	.....	.....	.....	.....	13	14	18	14	23	4	43	1	56	27	50	2	.....	.....	24	28	13	14	9	*30
	Max	39	4	47	17	80	26	64	22	85	12	90	16	91	4	89	31	83	18	76	6	54	* 1	51	7
Northwood	Min	-21	30	-22	5	5	2	17	*14	20	4	42	6	54	2	45	3	32	25	19	28	8	14	2	30
	Max	42	* 2	59	17	86	26	75	22	90	12	95	16	97	* 4	96	* 6	92	17	83	2	66	4	53	* 4
Odebolt	Min	-13	30	-19	5	12	* 1	14	17	22	4	42	5	53	27	43	3	32	25	19	28	9	14	4	30
	Max	45	19	57	19	81	26	71	24	80	*12	88	17	91	* 5	90	31	88	* 1	82	17	58	11	50	8
Olin	Min	- 7	26	-19	6	18	2	20	14	25	4	40	6	53	3	47	* 4	31	25	18	28	12	14	6	31
	Max	49	2	59	17	91	25	73	24	87	12	94	16	97	5	94	18	92	17	80	6	64	6	52	6
Omaha, Neb	Min	- 7	30	-12	5	13	1	23	13	26	3	47	5	61	11	55	2	41	28	31	12	21	14	8	30
	Max	50	21	61	17	88	26	76	22	91	12	94	16	96	* 4	95	6	93	18	83	6	62	* 1	51	* 6
Onawa	Min	-10	30	-16	5	9	1	18	*13	26	* 1	44	5	57	*17	49	3	38	25	24	28	14	16	5	30
	Max	36	* 4	48	24	82	26	67	22	83	13	90	*16	95	5	92	31	86	16	80	* 2	57	6	47	6
Osage	Min	-20	30	-20	- 5	8	2	19	*14	.....	.....	38	1	52	* 2	37	13	29	25	16	28	8	14	- 9	28
	Max	49	5	55	*17	87	*25	76	24	85	22	90	16	90	* 4	92	* 6	89	16	78	* 1	58	4	54	8
Oskaloosa	Min	- 6	26	-14	5	16	14	16	14	24	4	39	2	55	27	49	25	45	9	15	28	13	16	9	4
	Max	51	5	59	17	88	21	78	24	86	22	93	24	96	8	99	31	.....	.....	84	2	67	3	56	* 6
Ottumwa	Min	- 4	26	- 9	5	21	* 3	24	*13	25	4	48	* 1	58	27	53	2	.....	.....	21	28	17	16	15	* 4
	Max	52	2	.....	.....	91	25	78	24	91	22	92	29	99	5	94	10	91	*16	79	* 6	64	6	52	8
Pacific Junction	Min	- 5	27	.....	.....	8	14	16	17	25	4	41	2	54	1	50	* 2	33	25	16	28	14	*14	5	18
	Max	57	5	55	*17	88	25	76	24	85	12	92	*16	93	* 5	95	6	92	18	80	2	58	7	52	8
Pella	Min	- 6	26	-14	5	16	14	19	17	26	4	45	1	57	27	50	2	36	25	21	28	16	14	.....	.....
	Max	44	5	57	17	89	25	74	22	89	12	94	16	95	5	94	6	90	18	77	* 2	60	7	57	6
Perry	Min	-12	30	-23	5	8	14	13	14	20	4	44	* 1	55	27	47	* 3	32	25	18	28	12	15	6	31
	Max	41	4	55	17	84	*25	69	22	92	12	93	16	95	4	95	6	89	19	76	* 2	58	7	50	6
Plover	Min	-18	30	-26	5	5	2	14	17	20	4	40	5	50	* 2	43	25	26	24	12	28	2	14	0	31
	Max	41	5	55	17	87	26	72	22	90	12	92	*16	95	4	94	6	90	18	76	* 2	58	1	47	6
Pocahontas	Min	-16	30	-24	5	8	2	16	17	22	4	43	5	53	2	45	* 2	30	25	20	28	8	14	4	31
	Max	45	5	54	26	83	26	72	22	86	12	90	*17	93	5	94	31	90	* 1	81	* 2	59	6	56	6
Ridgeway	Min	-18	30	-18	* 3	10	* 2	20	*14	22	4	42	1	51	2	45	20	28	25	20	28	8	14	7	*28
	Max	40	4	60	17	76	24	70	22	92	12	94	16	98	4	94	*18	86	* 1	80	2	60	* 6	50	6
Rock Rapids	Min	-16	30	-23	5	- 2	2	16	*13	22	3	40	5	50	2	48	*24	30	*21	20	*13	8	*12	- 4	30
	Max	42	* 5	55	17	86	26	72	*22	90	12	93	16	94	* 4	95	* 6	90	*17	78	2	60	7	48	* 6
Rockwell City	Min	-15	30	-21	5	0	14	15	17	17	3	43	5	53	1	47	* 2	37	25	24	12	9	12	5	30
	Max	.....	.....	56	17	82	26	69	22	88	12	90	*16	92	* 4	92	6	87	18	80	9	.....	.....	.....	.....
Sac City	Min	-16	30	.....	.....	12	2	14	17	20	4	40	7	53	27	46	20	32	25	.....	.....	.....	.....	.....	.....
	Max	56	5	65	16	90	25	75	24	83	22	91	16	93	5	94	31	92	16	81	* 5	64	6	58	6
Saint Charles	Min	- 6	*26	-16	5	17	14	18	17	25	4	45	1	57	27	51	2	35	25	23	28	15	14	10	19
	Max	41	4	60	17	80	26	71	* 3	91	12	94	*16	98	4	95	*10	89	18	83	6	60	* 6	56	6
Sheldon	Min	-21	30	-23	5	- 4	2	12	17	22	4	40	5	51	26	42	* 4	29	*25	19	*13	7	12	- 2	30
	Max	39	4	58	17	78	26	69	22	89	12	90	16	95	4	93	10	86	*13	80	2	60	6	56	6
Sibley	Min	-16	30	-23	5	- 4	2	13	17	22	4	39	5	50	2	44	* 3	30	*25	20	28	4	*12	- 3	*30
	Max	48	5	54	26	86	*21	75	24	86	22	91	*15	92	* 4	93	31	91	18	81	2	57	* 4	56	8
Sigourney	Min	- 7	26	-11	5	18	14	19	17	24	4	40	5	57	27	50	2	32	25	19	28	15	*15	10	31
	Max	38	4	55	17	74	*24	68	22	89	12	90	16	94	4	94	10	86	*13	77	* 2	59	6	53	6
Sioux Center	Min	-18	29	-21	5	3	2	15	13	21	10	40	5	53	26	46	2	33	28	20	18	9	14	- 5	30

MONTHLY MAXIMUM AND MINMUM TEMPERATURES FOR 1907 WITH DATES—CONTINUED.

STATIONS.		Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.	
		Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date	Temp.	Date
	Max .. .	45	21	60	17	81	21	71	22	90	12	92	16	98	4	94	10	90	18	82	2	62	6	52	6
Sioux City.....	Min	-14	30	-22	5	0	2	19	13	28	3	44	5	53	2	45	3	33	25	21	13	12	24	2	30
	Max .. .	54	7	57	*15	87	21	75	24	82	12	86	18	90	5	91	*30	90	18	80	2	58	* 4	57	8
Stockport.....	Min	- 4	26	-13	6	20	2	20	14	25	4	45	6	58	27	53	* 4	35	25	17	28	13	*15	12	4
	Max .. .	40	* 2	54	17	82	26	70	*22	84	12	94	24	95	* 5	.....	.....	95	13	79	2	60	7	50	6
Storm Lake.....	Min	-21	30	-27	5	8	2	13	17	.....	.....	43	5	50	5	.....	.....	31	25	24	*12	10	14	- 5	30
	Max .. .	45	4	53	17	85	25	75	24	84	12	94	17	96	5	94	5	90	18	77	24	.....	.....	54	* 6
Stuart.....	Min	-11	30	-18	5	14	14	19	*13	27	* 3	45	2	55	27	50	22	36	*25	.....	.....	.....	.....	4	18
	Max .. .	57	5	61	16	90	25	77	24	93	22	93	24	102	5	93	10	98	1	78	* 6	63	6	51	* 6
Thurman....	Min	- 5	27	-17	5	8	8	17	17	24	4	40	2	54	1	49	2	34	25	17	28	13	14	8	19
	Max .. .	46	* 5	53	18	83	26	71	24	80	12	92	17	96	5	93	31	93	1	80	2	56	4	52	27
Tipton.....	Min	- 5	26	- 4	* 3	19	2	22	14	29	4	47	5	59	3	54	* 3	37	25	25	28	18	14	11	31
	Max .. .	44	19	52	*17	86	26	69	*22	83	12	91	17	92	5	91	31	88	18	79	2	55	7	50	8
Toledo.....	Min	- 9	26	- 7	6	10	14	18	14	22	4	42	6	57	* 2	46	25	31	25	16	27	11	15	8	4
	Max .. .	46	19	.....	....	85	25	72	24	81	22	87	*17	88	5	88	31	88	* 1	78	2	59	5	55	* 6
Wapello.....	Min	- 2	26	- 3	5	22	2	20	17	29	* 4	47	* 5	58	* 3	54	* 2	37	25	23	28	.....	.....	13	31
	Max .. .	50	5	59	18	86	25	74	24	84	22	88	*17	91	5	91	31	89	* 1	80	2	58	4	54	8
Washington.....	Min	- 7	26	-10	* 5	18	2	19	14	24	4	44	2	57	27	50	* 2	32	25	20	28	15	14	10	31
	Max .. .	44	* 2	60	17	86	26	74	22	89	12	92	16	95	4	95	10	88	*18	78	6	62	6	55	8
Washta....	Min	-20	30	-31	5	1	2	10	17	18	4	40	2	50	* 2	39	2	27	25	10	28	6	*12	0	30
	Max .. .	43	19	54	17	86	26	72	22	85	12	92	17	95	4	95	31	88	*15	82	2	59	6	50	8
Waterloo....	Min	-14	30	-18	5	3	14	20	14	22	4	43	6	56	* 2	48	3	32	25	20	28	13	14	8	4
	Max .. .	43	5	53	17	86	26	74	24	86	12	92	16	97	5	91	6	92	18	77	24	66	1	49	* 6
Waukee....	Min	- 9	30	-22	5	11	14	15	14	24	4	41	1	56	27	49	2	34	25	20	28	15	14	10	*19
	Max .. .	38	19	49	17	84	26	71	22	85	12	88	17	90	* 4	90	31	84	*15	78	2	54	7	48	8
Waverly.....	Min	-15	30	-18	* 5	5	14	20	*14	21	4	43	* 2	55	2	49	* 3	32	25	18	28	12	14	4	*30
	Max .. .	42	5	53	17	85	*25	74	22	86	*12	95	17	97	5	95	* 6	91	16	78	2	58	1	50	7
Webster City....	Min	-16	30	-22	5	3	14	13	14	17	4	41	2	53	27	43	* 3	27	25	14	28	9	14	1	31
	Max .. .	40	4	53	17	83	26	67	*22	87	12	93	*16	92	4	93	6	87	17	76	* 2	56	* 1	50	6
West Bend.....	Min	-17	30	-24	5	2	2	14	*14	20	4	42	5	53	* 2	44	20	30	25	18	28	6	14	1	31
	Max .. .	41	5	52	17	84	26	73	22	85	*12	92	16	95	5	90	* 6	89	* 1	76	17	56	7	49	8
Whitten.....	Min	-15	30	-20	5	4	14	15	14	14	4	42	1	55	2	44	19	30	25	17	28	9	14	4	31
	Max .. .	45	19	54	18	81	23	75	24	82	12	94	18	94	* 5	94	11	90	1	78	2	55	4	50	* 8
Wilton Junction	Min	- 7	26	-13	6	18	2	19	13	23	4	43	6	55	27	42	25	37	22	20	28	13	16	10	* 1
	Max .. .	44	5	54	16	87	25	75	24	86	12	94	16	97	5	94	6	89	*17	75	6	58	* 1	49	* 6
Winterset.....	Min	- 7	30	-16	5	15	14	18	*14	25	4	44	1	56	27	50	3	36	25	23	28	16	14	10	19
	Max .. .	50	19	58	*16	88	25	76	24	90	12	90	16	92	* 8	94	*10	.....	.....	.....	.....	66	3	.....	.....
Woodburn....	Min	- 7	26	-18	6	15	14	13	14	19	4	38	2	49	27	45	* 2	.....	.....	.....	.....	15	14	.....	.....
	Max .. .	48	* 5	.....	.....	87	25	70	24	89	17	91	16	74	5	92	31	90	18	80	2	59	6	49	6
Zearing.....	Min	-11	30	.....	.....	8	3	15	* 8	18	4	40	2	52	27	44	25	28	25	15	28	10	14	6	31

* And on other dates.

MONTHLY AND ANNUAL MEAN TEMPERATURE FOR 1907, WITH DEPARTURES FROM THE NORMAL.

STATIONS	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Annual	
	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.
Afton	20.8	- 2.6	27.6	† 5.8	43.5	† 8.3	43.0	- 8.3	56.4	- 6.7	68.9	- 2.7	76.2	† 0.1	72.2	- 1.7	65.0	- 0.1	51.4	- 2.5	38.2	† 2.3	30.3	5.5	49.5	- 0.2
Albia	21.4	- 3.8	27.3	† 7.6	42.9	† 5.4	41.8	- 8.6	53.9	- 8.3	66.2	- 3.9	73.8	- 1.3	71.8	- 1.3	63.6	- 0.6	50.1	- 4.5	38.2	- 0.8	30.1	6.7	48.4	- 1.1
Algona	13.5	- 3.0	22.0	† 5.0	36.0	† 6.0	38.8	- 9.5	50.4	- 9.1	65.3	- 4.4	71.0	- 2.1	69.3	- 1.8	60.6	- 1.9	48.3	- 2.3	34.0	† 2.1	26.0	5.7	44.6	- 1.3
Allerton	24.4	† 2.5	28.8	† 7.1	45.3	† 7.1	43.8	- 6.5	55.6	- 5.4	66.8	- 1.3	74.9	† 2.3	71.9	- 1.2	64.9	- 0.4	52.6	- 1.6	39.2	- 1.4	32.1	† 5.6	50.0	† 0.5
Alta	13.6	- 3.2	22.8	† 3.6	37.4	† 8.0	38.4	- 9.2	50.6	- 8.0	65.4	- 3.1	71.0	- 1.1	69.4	- 1.4	61.0	- 2.2	48.4	- 2.4	35.0	† 3.4	26.2	† 5.4	44.9	- 0.9
Alton	14.8	-----	24.2	-----	37.2	-----	38.9	-----	51.7	-----	65.6	-----	71.4	-----	70.8	-----	61.1	-----	50.0	-----	35.7	-----	27.2	-----	45.7	-----
Amana	21.7	† 5.9	26.2	† 6.2	42.4	†11.0	43.4	- 5.3	54.7	- 5.3	66.8	- 2.9	74.6	† 0.6	70.7	- 0.1	63.2	† 0.5	49.8	† 0.2	36.9	† 3.7	30.0	† 8.0	18.4	† 1.9
Ames	19.0	† 1.9	25.7	† 4.1	40.7	† 8.2	42.0	- 7.1	53.4	- 6.2	64.9	- 5.1	69.8	- 5.2	-----	-----	62.4	- 1.0	49.8	- 1.1	36.0	† 2.8	29.0	† 7.2	-----	-----
Atlantic	21.3	† 1.1	27.1	† 6.4	42.4	† 8.9	42.0	- 7.3	54.0	- 5.6	67.3	- 2.4	74.6	† 0.9	71.6	† 0.7	63.0	† 3.9	49.2	- 2.8	35.8	† 1.3	29.2	† 6.7	48.1	† 1.0
Audubon	19.8	† .04	25.4	† 6.2	41.1	† 8.5	42.0	- 7.9	54.0	- 6.3	67.0	- 1.8	73.2	† 0.3	71.2	- 0.7	61.8	- 1.6	49.0	- 2.2	36.0	† 1.5	29.1	† 6.0	47.5	† 0.2
Baxter	19.6	- 1.7	25.7	† 8.9	41.4	† 5.0	42.6	- 6.7	53.7	- 8.4	65.5	- 2.0	73.4	- 1.0	69.7	- 1.9	62.3	- 0.1	50.6	- 4.1	37.0	- 0.4	28.7	† 6.3	47.5	- 0.5
Bedford	22.6	- 2.6	27.4	† 8.4	45.2	† 9.9	42.6	- 7.4	54.9	- 7.9	67.6	0	75.2	† 1.3	73.8	† 0.3	64.5	† 1.2	52.3	- 4.8	43.6	† 3.7	30.5	† 7.3	50.0	† 0.8
Belle Plaine	20.3	† 1.9	23.7	† 3.1	41.2	† 8.7	42.6	- 3.1	-----	-----	-----	-----	70.5	- 3.1	69.6	- 1.0	62.6	- 1.1	49.8	- 0.8	37.2	† 2.8	28.6	† 4.6	-----	-----
Bloomfield	25.1	-----	29.2	-----	45.4	-----	44.9	-----	57.0	-----	68.6	-----	75.9	-----	73.4	-----	65.0	-----	53.1	-----	39.9	-----	32.6	-----	50.8	-----
Bonaparte	25.8	† 2.2	28.6	† 5.7	45.2	† 8.0	45.2	- 6.6	55.8	- 7.1	67.6	- 4.8	74.6	- 1.8	72.7	- 2.2	64.4	- 3.3	52.4	- 3.3	39.1	† 0.9	32.8	† 5.0	50.4	- 0.6
Boone	16.8	-----	24.4	-----	39.4	-----	40.4	-----	51.8	-----	65.8	-----	74.4	-----	71.4	-----	62.8	-----	50.0	-----	36.6	-----	28.2	-----	46.8	-----
Britt	13.9	- 3.8	21.6	† 4.6	36.0	† 7.2	38.8	- 8.0	50.2	- 8.9	65.2	- 2.6	72.8	- 0.1	71.4	† 1.4	59.9	- 1.7	47.6	- 4.1	33.0	- 0.1	25.6	† 8.5	44.7	- 0.6
Burlington	25.8	- 1.3	28.0	† 4.6	45.4	† 6.2	43.4	- 8.9	55.8	- 8.8	68.0	- 2.8	75.0	- 0.4	73.2	- 1.0	65.6	- 0.7	52.6	- 3.4	39.7	0	32.7	† 6.1	50.4	- 0.9
Carroll	16.0	- 3.6	23.8	† 4.8	39.0	† 7.5	39.6	- 9.4	52.2	- 7.3	66.4	- 3.1	71.8	- 2.1	69.1	- 2.1	61.2	- 1.9	48.1	- 3.2	35.6	† 2.4	28.6	† 5.0	45.9	- 1.1
Cedar Rapids	19.4	† 1.1	23.4	† 2.9	40.4	† 7.6	41.8	- 6.6	53.0	- 7.0	67.2	- 3.5	75.2	- 0.6	71.6	- 1.1	63.0	- 0.6	48.8	- 2.7	36.0	† 0.2	28.9	† 3.6	47.4	- 0.6
Chariton	23.0	- 2.4	27.4	† 5.2	43.4	† 7.7	42.8	- 8.9	54.9	- 7.8	66.2	- 4.2	74.2	- 0.9	71.7	- 2.0	64.4	- 1.2	52.3	- 2.5	38.0	- 0.6	31.0	† 5.4	49.1	- 1.0
Charles City	13.5	† 2.1	20.0	† 4.9	36.0	† 7.6	38.8	- 7.5	49.6	- 9.9	63.6	- 5.2	71.2	- 2.3	67.9	- 2.8	59.2	- 2.5	46.9	- 1.3	34.0	† 1.0	25.5	† 6.5	43.8	- 0.8
Clarinda	22.2	- 0.5	26.7	† 3.7	44.3	† 9.1	41.7	-10.3	55.4	- 6.3	68.5	- 3.3	76.0	- 0.3	73.8	- 0.6	64.4	- 1.6	51.6	- 3.0	39.0	† 1.6	30.0	† 3.5	49.5	- 0.6
Clear Lake	14.6	- 2.9	21.9	† 8.6	36.2	† 5.0	38.8	- 8.9	51.4	- 9.9	65.8	- 2.7	73.0	- 0.9	70.8	- 0.6	62.0	† 0.4	49.2	- 2.6	35.3	† 1.6	26.0	† 7.4	45.4	- 0.5
Clinton	24.4	† 5.2	26.2	† 4.2	43.2	†10.4	43.6	- 5.0	55.0	- 5.9	67.6	- 2.3	74.6	† 0.6	70.6	- 0.6	61.4	- 1.7	49.4	- 1.0	36.7	† 1.2	30.4	† 5.3	48.6	† 0.9
Columbus Junction	25.2	† 3.1	28.4	† 9.6	44.2	† 4.5	44.6	- 5.1	56.0	- 7.0	67.8	- 0.7	74.4	- 1.0	72.0	† 0.2	64.7	- 0.1	51.8	- 3.3	38.9	- 0.4	32.7	† 7.7	50.1	† 0.7
Corning	21.9	- 0.4	26.6	† 4.4	43.4	† 7.7	41.6	- 9.1	54.5	- 6.5	67.4	- 3.0	74.8	† 0.3	72.0	- 0.8	63.4	- 1.7	50.9	- 3.1	37.0	- 0.2	29.8	† 2.6	48.6	- 0.8
Corydon	24.5	† 3.0	29.0	† 7.2	45.2	† 9.1	44.3	- 7.5	55.8	- 6.0	67.4	- 3.4	75.2	- 0.6	73.0	- 1.3	65.7	- 0.8	53.6	- 1.5	39.8	† 1.7	32.3	† 6.5	50.5	† 0.5
Creston	20.4	-----	26.0	-----	42.3	-----	40.6	-----	52.8	-----	65.4	-----	73.6	-----	70.8	-----	62.4	-----	49.6	-----	37.4	-----	28.2	-----	47.5	-----
Davenport	24.1	† 3.3	27.6	† 3.8	43.7	† 8.3	43.0	- 7.2	54.8	- 6.7	67.9	- 3.0	75.3	- 0.1	72.0	- 1.0	64.0	- 0.7	51.7	- 0.9	38.8	† 1.3	31.8	† 4.6	49.6	† 0.2
Decorah	14.8	- 1.7	20.6	† 5.6	37.0	† 6.7	40.6	- 8.1	52.6	- 7.6	65.6	- 2.2	72.5	- 0.1	68.8	- 1.7	60.0	- 1.9	47.6	- 3.1	35.8	† 3.5	26.6	† 6.2	45.2	- 0.4
Delaware	18.0	† 2.2	21.0	† 4.8	38.9	† 8.6	39.8	- 6.2	52.0	- 6.7	65.2	- 3.4	73.0	† 0.4	68.5	- 1.3	61.2	- 0.2	47.4	- 1.6	34.6	† 2.6	25.2	† 4.0	45.4	† 0.3
Denison	18.8	- 2.3	25.7	† 7.1	41.0	† 9.1	40.4	- 8.9	52.0	- 8.6	65.4	- 3.5	73.4	- 0.4	71.8	- 0.3	62.8	- 0.6	50.6	- 0.2	37.6	† 3.2	29.0	† 7.1	47.4	† 0.2
Des Moines	20.4	0	27.6	† 3.5	42.9	† 7.2	42.2	- 8.4	54.2	- 7.4	67.2	- 3.2	75.2	- 0.3	72.0	- 1.0	63.8	- 1.2	51.6	- 0.9	38.6	† 1.8	31.2	† 5.5	48.9	- 0.4
De Soto	20.7	- 3.1	26.0	† 6.6	42.6	† 5.7	42.6	- 8.1	54.5	- 8.4	66.2	- 3.2	73.6	† 1.0	71.0	- 2.3	63.6	- 1.2	51.5	- 3.0	38.5	- 0.3	30.2	† 4.3	48.4	- 1.0
Dows	15.8	- 1.2	22.4	† 8.2	37.2	† 4.1	39.6	- 7.7	50.8	- 8.5	64.2	- 2.0	71.7	† 0.2	68.5	- 1.4	60.6	- 1.3	48.6	- 3.1	34.6	- 0.4	26.2	† 5.4	45.0	- 0.7
Dubuque	19.8	† 1.5	23.9	† 2.3	40.9	† 7.7	41.6	- 7.3	52.7	- 8.1	66.4	- 3.2	73.6	- 1.1	70.2	- 1.8	61.7	- 1.9	49.5	- 2.5	37.1	† 1.1	29.2	† 4.7	47.2	- 0.7
Earlham	20.2	† 0.8	24.6	† 6.6	41.1	† 6.9	41.7	- 6.1	53.0	- 7.0	65.1	- 0.1	73.5	† 3.5	72.2	† 2.2	64.8	† 2.7	50.4	- 0.7	37.2	- 0.6	30.9	† 7.9	47.9	† 1.3
Elkader	18.3	† 3.9	22.6	† 4.5	39.2	† 8.3	41.6	- 6.6	52.8	- 8.1	66.4	- 3.1	74.0	0	70.6	- 0.2	62.2	† 0.2	48.2	- 1.3	36.3	† 3.7	27.4	† 5.8	46.6	† 0.6
Elliott	21.6	-----	26.6	-----	43.0	-----	42.8	-----	57.0	-----	69.4	-----	76.4	-----	72.8	-----	65.2	-----	50.6	-----	36.4	-----	30.4	-----	49.4	-----
Estherville	10.8	- 5.5	19.8	† 3.8	34.0	† 6.9	37.2	-11.1	48.9	- 8.8	63.2	- 5.4	69.2	- 3.5	-----	-----	58.8	- 2.1	47.2	- 1.9	34.2	† 5.1	25.0	† 8.6	-----	-----
Fayette	16.4	- 0.5	21.0	† 3.6	37.6	† 7.4	39.9	- 7.3	51.0	- 6.7	64.3	- 3.9	71.6	- 0.7	67.8	- 1.7	59.7	- 2.8	47.2	- 2.7	34.0	† 1.5	25.8	† 4.4	44.7	- 0.8
Forest City	11.8	- 6.4	20.0	† 5.0	34.8	† 6.4	38.0	-10.0	49.2	-10.4	65.0	- 3.1	71.6	- 1.3	68.6	- 2.2	60.0	- 2.3	47.6	- 2.9	34.5	† 3.3	25.0	† 5.6	43.8	- 1.6
Fort Dodge	15.6	- 1.5	23.7	† 8.4	38.4	† 5.0	38.8	- 8.6	51.4	- 8.6	66.2	- 0.4	-----	-----	70.8	- 0.6	61.4	- 1.2	48.8	- 3.5	35.2	0	27.0	† 4.5	-----	-----
Grand Meadow	15.8	- 0.1	20.6	† 3.6	37.0	† 6.8	39.8	- 7.7	52.0	- 6.2	64.8	- 2.2	71.4	† 0.4	68.2	- 0.8	60.6	- 1.1	47.8	- 2.2	34.7	† 2.5	26.7	† 5.2	45.0	- 0.1
Greenfield	-----	-----	-----	-----	-----	-----	40.8	- 9.8	55.3	- 5.2	66.3	- 4.3	73.5	- 1.1	71.6	- 1.0	63.2	- 2.6	51.5	- 2.1	38.4	† 2.5	30.4	† 5.9	-----	-----
Grinnell	19.4	† 1.9	25.5	† 4.4	43.0	†10.3	43.6	- 6.8	54.8	- 5.4	67.9	- 2.4	74.5	† 0.5	71.5	- 0.3	63.8	† 0.4	52.0	- 0.3	37.0	† 1.2	29.4	† 5.2	48.5	† 0.7
Grundy Center	19.3	† 2.4	24.4	† 6.8	40.2	† 8.7	42.2	- 5.5	52.4	- 6.3	65.2	- 3.9	74.3	† 2.1	70.2	- 0.5	62.6	- 0.3	49.6	- 1.8	37.1	† 4.3	28.2	† 6.0	47.1	† 1.0
Guthrie Center	20.2	- 1.8	25.6	† 5.7	41.2	† 7.6	42.2	- 7.9	54.9	- 6.1	67.7	- 1.9	75.2	† 1.2	71.4	- 1.0	63.8	† 0.3	51.4	- 1.1	37.2	† 0.6	29.9	† 8.6	48.4	† 0.4
Hampton	15.0	- 0.5	23.1	† 5.6	37.8	† 9.2	40.6	- 7.0	52.0	- 6.4	65.6	- 2.6	72.8	† 0.1	70.3	† 0.1	62.4	† 0.1	50.1	- 0.5	36.1	† 4.0	27.0	† 6.1	46.1	† 0.7
Hancock	21.4	-----	26.8	-----	42.8	-----	43.0	-----	55.0	-----	68.3	-----	74.4	-----	72.0	-----	63.4	-----	52.0	-----	38.4	-----	30.2	-----	49.0	-----
Harlan	19.6	- 2.8	26.2	† 9.7	41.8	† 7.6	42.4	- 6.4	53.6	- 8.1	66.5	- 2.2	73.7	- 0.7	71.4	- 0.5	63.0	† 0.9	50.2	- 4.2	36.6	- 0.8	29.1	† 6.9	47.8	- 0.1
Hopeville	22.1	† 0.3	27.9	† 6.0	43.8	† 9.5	43.0	- 7.2	55.8	- 4.6	67.8	- 2.7	75.2	† 0.8	72.7	- 0.4	65.0	- 1.6	52.5	- 2.1	38.8	† 3.3	31.0	† 5.5	49.6	† 0.5
Humboldt	17.7	† 0.2	25.8	† 8.4	37.8	† 8.1	40.6	- 8.5	52.8	- 7.5	66.0	- 4.0	71.5	- 2.4	69.7	† 2.8	61.6	- 0.7	49.5	- 0.2	35.3	† 1.8	28.1	† 5.3	46.4	† 0.3
Independence	16.1	† 1.4	22.2	† 0.4	40.6	†10.7	41.0	- 6.2	52.2	- 7.5	64.6	- 4.5	72.4	- 1.0	68.4	- 1.8	61.5	† 0.2	49.1	† 0.9	36.8	† 3.6	27.4	† 5.7	46.0	† 0.1
Indianola	21.4	† 2.4	28.0	† 5.5	43.2	† 5.2	42.8	- 8.9	55.0	- 5.9	67.4	- 3.0	74.7	- 0.9	72.2	- 0.5	64.4	- 1.2	52.0	- 2.2	37.8	- 3.8	30.7	† 5.5	49.1	- 0.7
Inwood	11.6	-----	22.6	-----	36.4	-----	39.0	-----	50.9	-----	65.1	-----	71.2	-----	70.6	-----	60.6	-----	49.3	-----	35.5	-----	25.7	-----	44.9	-----
Iowa City	20.8	† 1.7	24.8	† 1.9	42.4	† 8.8	42.3	- 4.0	53.5	- 6.8	68.0	- 1.3	75.2	† 1.0	72.4	† 0.8	63.7	† 0.3	50.0	- 1.1	36.8	† 1.3	30.4	† 6.3	48.4	† 0.8
Iowa Falls	16.7	† 1.3	21.8	† 6.5	37.8	† 7.0	40.0	- 7.5	51.2	- 8.5	65.0	- 3.5	72.4	- 0.6	68.8	- 1.4	60.4	- 1.2	47.6	- 2.7	34.8	† 2.6	26.8	† 6.3	45.3	- 0.1
Jefferson	-----	-----	26.4	-----	42.0	-----	43.5	-----	54.2	-----	66.6	-----	75.0	-----	72.2	-----	63.8	-----	51.8	-----	-----	-----	29.4	-----	-----	-----
Keokuk	28.9	† 5.2	30.2	† 3.6	47.6	† 9.7	46.2	- 5.8	57.4	- 5.8	69.1	- 3.4	76.6	- 0.4	74.2	- 0.4	66.6	† 0.2	53.9	- 0.6	41.2	† 1.8	34.9	† 5.5	52.2	† 0.8
Keosauqua	24.8	† 1.0	25.2	† 1.1	44.7	† 6.7	43.4	- 9.4	55.8	- 7.4	68.4	- 4.6	76.0	- 0.8	72.9	- 2.0	64.0	- 3.4	50.4	- 5.7	37.6	- 1.7	32.0	† 5.0	49.6	- 1.8
Knoxville	23.3	- 1.1	28.3	† 6.7	43.8	† 6.8	44.2	- 8.3	56.1	- 7.0	68.0	- 4.1	76.0	- 0.2	73.0	- 0.7	64.7	- 1.2	52.6	- 1.5	-----	-----	31.6	† 6.3	-----	-----
Larrabee	14.4	- 3.5	23.6	† 5.4	37.2	† 8.0	39.7	- 8.4	52.6	- 5.9	67.5	- 1.4	73.4	† 0.4	71.5	† 0.3	60.2	- 2.9	48.8	- 1.7	34.6	† 2.7	26.1	† 4.2	45.8	- 0.2
Le Mars	14.3	- 6.7	24.0	† 6.7	37.2	† 5.4	39.5	-10.2	52.4	- 8.2	66.6	- 2.3	71.8	- 2.1	69.8	- 2.2	60.9	- 2.0	50.0	- 2.5	36.7	† 3.3	27.4	† 5.9	45.9	- 1.2
Lenox	22.3	- 2.6	27.0	† 5.0	44.0	† 9.1	42.6	- 8.6	55.8	- 6.3	68.2	- 2.0	75.0	† 0.3	72.5	- 0.7	65.0	- 0.3	52.6	- 1.7	38.0	† 0.6	30.4	† 6.2	49.4	- 0.1
Leon	24.2	† 2.0	28.5	† 6.6	44.4	† 6.4	43.2	- 8.1	56.1	- 6.8	68.1	- 0.7	76.5	† 3.3	73.4	† 0.3	66.6	† 1.8	53.0	- 0.6	38.4	- 2.2	30.9	† 4.3	50.3	† 0.5
Little Sioux	10.6	-----	26.4	-----	42.0	-----	42.4	-----	55.6	-----	68.2	-----	74.6	-----	72.6	-----	64.9	-----	53.0	-----	38.2	-----	30.0	-----	49.0	-----
Logan	19.4	† 0.2	26.6	† 3.0	41.9	† 7.8	42.0	- 8.0	54.8	- 6.4	67.6	- 2.5	73.7	- 1.3	72.2	- 0.3	63.2	- 0.8	51.5	- 0.8	37.8	† 2.2	30.2	† 5.3	48.4	- 0.1
Marshalltown	17.9	- 2.2	23.2	† 3.2	39.2	† 7.0	41.2	- 8.4	53.1	- 7.0	66.6	- 2.8	73.4	- 0.4	69.8	- 2.2	62.1	- 2.1	48.4	- 4.6	35.7	0	28.1	† 2.6	46.6	- 1.4
Mason City	16.5	† 1.3	22.4	† 7.5	37.2	† 9.2	40.0	- 9.4	51.4	- 7.6	65.9	- 1.7	73.6	† 2.2	69.6	0	61.3	- 1.7	48.4	- 1.0	34.2	† 4.8	25.8	† 5.4	45.5	† 0.7
Massena	20.5	-----	27.2	-----	43.0	-----	42.0	-----	53.8	-----	67.1	-----	75.1	-----	73.0	-----	-----	-----	53.2	-----	38.0	-----	31.0	-----	-----	-----
Mount Ayr	23.4	- 0.5	28.6	† 6.8	44.8	† 9.0	43.4	- 8.1	55.8	- 6.6	67.8	- 2.9	75.4	- 0.3	74.0	† 0.2	65.6	- 1.1	53.5	- 1.8	39.6	† 1.7	31.4	† 6.8	50.3	† 0.3
Mt. Pleasant	25.8	† 7.8	29.0	† 5.2	45.0	†10.5	45.4	- 5.7	56.6	- 4.8	68.3	- 2.8	75.6	† 0.3	73.2	† 0.8	65.5	† 1.9	51.8	† 1.2	38.6	† 3.9	32.8	† 7.0	50.6	† 2.1
Mount Vernon	20.1	† 3.4	25.6	† 4.0	41.8	†11.0	42.7	- 3.8	54.4	- 5.0	67.0	- 2.4	74.2	† 0.8	71.2	† 1.0	62.9	† 1.2	-----	-----	-----	-----	-----	-----	-----	-----
New Hampton	14.0	- 6.3	20.2	† 6.3	36.2	† 5.6	39.0	- 9.6	50.4	- 8.9	63.6	- 5.0	70.7	- 2.7	67.7	- 3.0	59.2	- 3.4	47.0	- 6.5	33.9	- 0.9	25.3	† 7.4	43.9	- 2.3
Newton	-----	-----	-----	-----	42.1	† 8.9	43.4	- 5.5	54.4	- 6.5	67.1	- 3.1	74.0	- 1.5	71.9	- 0.3	-----	-----	52.2	† 0.4	37.3	† 2.8	29.4	† 7.4	-----	-----
Northwood	13.0	- 4.1	20.4	† 5.0	35.2	† 5.8	38.8	- 8.9	50.2	- 8.7	63.4	- 3.4	72.2	† 0.2	68.6	- 1.1	60.6	† 0.3	47.6	- 0.4	34.4	† 2.5	25.6	† 6.5	44.2	- 0.5
Odebolt	17.4	- 5.2	26.2	† 8.6	40.1	† 7.1	40.8	- 8.9	54.4	- 7.5	68.6	- 2.2	74.8	- 1.3	72.6	- 2.0	62.8	- 0.3	51.4	- 4.0	37.1	† 1.1	29.4	† 8.1	48.0	- 0.5
Olin	21.7	- 0.9	23.6	† 9.3	42.1	† 9.1	43.0	- 3.7	53.4	- 7.6	66.2	- 3.4	73.6	- 1.2	69.9	- 0.9	63.1	† 1.6	48.8	- 3.1	36.4	- 0.5	29.6	† 6.8	47.6	† 0.4
Omaha, Nebr.	20.3	- 0.2	27.8	† 4.1	43.5	† 7.5	42.8	- 7.7	55.4	- 7.1	69.4	- 2.2	75.8	- 0.7	74.8	† 0.4	66.2	† 0.4	54.3	† 0.1	40.9	† 3.2	32.0	† 4.9	50.3	† 0.3
Onawa	19.3	- 4.7	27.6	† 8.1	41.8	† 4.6	43.0	- 7.6	57.1	- 6.6	69.5	- 0.2	75.2	- 0.8	73.9	† 0.4	65.6	† 1.5	54.1	- 2.1	39.2	† 1.1	30.6	† 6.2	49.7	- 0.1
Osage	14.2	† 0.2	21.4	† 7.0	36.1	† 8.7	39.2	- 6.3	53.3	- 3.8	64.0	- 2.4	72.1	† 1.1	67.8	† 0.3	60.2	† 0.8	49.0	† 2.1	35.2	† 6.0	23.2	† 4.1	44.6	† 1.4
Oskaloosa	22.4	† 3.4	28.0	† 6.7	43.8	† 9.0	43.4	- 6.9	55.8	- 4.6	66.2	- 3.7	74.2	- 1.2	72.0	† 0.2	-----	-----	51.8	- 0.1	37.8	† 1.1	31.0	† 5.2	-----	-----
Ottumwa	24.2	- 0.6	29.0	† 6.1	46.6	† 9.0	45.6	- 7.2	56.2	- 7.6	69.0	- 3.4	76.9	† 0.1	75.3	† 0.3	-----	-----	53.0	- 2.7	40.1	† 0.9	32.0	† 4.6	-----	-----
Pacific Junction	21.6	- 3.0	-----	-----	43.7	† 7.6	43.4	- 7.0	56.0	- 6.6	69.0	- 0.5	75.4	† 0.1	73.0	- 0.4	64.0	- 0.1	51.2	- 5.2	38.0	† 1.7	30.6	† 5.8	-----	-----
Pella	23.1	-----	28.6	-----	43.9	-----	45.4	-----	57.0	-----	69.0	-----	76.6	-----	73.2	-----	66.0	-----	52.9	-----	38.9	-----	31.4	-----	50.5	-----
Perry	19.8	- 0.9	25.8	† 7.2	41.4	† 4.5	42.4	- 4.9	54.5	- 7.4	67.1	- 3.2	75.2	† 0.6	71.6	- 0.9	62.8	- 1.6	50.5	- 3.7	36.6	- 1.2	29.8	† 5.6	48.1	- 0.5
Plover	14.0	- 7.0	23.3	† 6.6	36.0	† 5.6	39.0	- 9.2	51.0	- 9.4	66.5	- 2.1	71.4	- 3.1	69.9	- 1.1	59.2	- 4.2	46.2	- 6.1	33.0	- 0.8	27.1	† 7.2	44.7	- 2.0
Pocahontas	15.6	-----	23.8	-----	37.4	-----	39.6	-----	52.3	-----	66.1	-----	72.4	-----	70.5	-----	61.4	-----	48.0	-----	33.6	-----	26.2	-----	-----	-----
Ridgeway	14.5	- 7.8	22.3	† 5.2	37.4	† 6.0	40.2	- 8.4	51.2	- 9.4	65.1	- 4.1	72.9	- 3.7	69.4	- 3.4	61.2	- 1.0	49.6	- 4.3	36.6	- 0.6	27.0	† 5.8	45.6	- 2.2
Rock Rapids	8.0	- 6.8	20.4	† 3.4	37.2	† 7.4	36.8	-11.8	50.4	- 6.8	64.0	- 4.4	71.2	- 1.6	70.6	† 0.8	60.4	- 2.6	46.3	- 1.2	34.4	† 6.4	24.7	† 5.0	43.7	- 1.0
Rockwell City	17.8	- 3.4	25.2	† 8.4	40.8	† 9.4	41

MONTHLY AND ANNUAL MEAN TEMPERATURES FOR 1907, WITH DEPARTURES FROM THE NORMAL—CONTINUED.

MONTHLY	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Annual	
	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.
Sheldon	12.2	- 9.6	23.1	† 8.9	37.2	† 8.4	39.4	- 8.8	51.6	- 7.4	66.2	- 0.3	72.8	- 0.2	71.6	† 0.2	61.4	- 1.0	49.9	- 3.5	35 8	† 0.2	26.2	† 7.2	45.6	- 0.5
Sibley	9.4	- 7.2	19.5	† 4.1	31.8	† 2.2	35.9	-12.1	48.0	-10.6	63.4	- 3.7	69.5	- 1.8	67.6	- 1.5	58.0	- 3.2	46.3	- 4.6	32 9	† 2.0	26.3	† 7.2	42.4	- 2.4
Sigourney	24.0	- 0.1	27.6	† 6.2	44.0	† 8.1	45.2	- 7.0	56.1	- 8.1	67.8	- 4.5	75.0	- 2.6	72.2	- 2.0	64.8	- 0.3	51.7	- 3.7	38 0	- 0.8	31.6	† 6.7	49.8	- 0.7
Sioux Center	12.8	- 8.8	22.6	† 7.0	36.2	† 3.2	38.6	- 9.7	50.9	-10.1	64.9	- 4.1	71.0	- 3.5	70.6	- 1.6	60.6	- 0.1	48.0	- 5.2	34.7	- 0.8	26.2	† 6.5	44.8	- 2.1
Sioux City	15.0	- 0.6	24.3	† 4.5	38.4	† 5.8	40.2	- 8.3	52.6	- 8.2	67.4	- 2.0	73.0	- 1.2	71.4	- 1.2	62.0	- 2.1	50.8	- 0.3	38.0	† 3.7	28.4	† 5.8	46.8	- 0.3
Stockport	25.8	-----	28.4	-----	45.4	-----	43.8	-----	55.6	-----	66.6	-----	74.3	-----	72.0	-----	64.9	-----	51.8	-----	39.2	-----	32.8	-----	50.0	-----
Storm Lake	13.6	- 5.6	23.2	† 8.2	37.2	† 9.1	39.1	- 7.3	56.2	- 1.8	66.6	- 1.4	73.0	- 0.1	-----	-----	63.8	† 0.3	50.6	- 4.9	36.1	- 0.3	27.8	† 7.6	-----	-----
Stuart	20.2	- 1.8	24.6	- 5.1	40.7	† 9.0	42.4	- 6.8	55.4	- 6.7	67.3	- 3.5	75.3	- 1.0	73.0	- 0.9	63.8	- 3.6	52.2	- 4.2	-----	-----	30.8	†10.0	-----	-----
Thurman	22.6	- 3.6	26.5	† 6.3	43.4	† 6.5	43.6	- 8.2	57.1	- 6.2	70.0	- 2.2	76.6	† 0.1	73.8	- 0.4	65.2	- 0.6	52.8	- 3.5	38.4	† 0.2	31.2	† 8.0	50.1	- 0.3
Tipton	23.2	† 3.0	27.0	† 5.6	44.0	† 8.1	44.1	- 4.4	55.1	- 5.6	68.8	- 0.5	76.4	† 1.8	73.4	† 2.9	65.0	† 0.3	51.6	- 1.4	38.6	† 2.6	31.2	† 7.4	49.9	† 1.7
Toledo	19.8	† 0.1	25.1	† 5.5	41.4	† 9.2	42.2	- 8.4	53.8	- 8.0	65.6	- 5.1	74.4	- 0.5	70.3	- 2.1	62.4	- 1.7	49.8	- 2.7	36.0	- 0.1	29.0	† 5.8	47.5	- 0.7
Wapello	25.5	- 1.5	26.8	† 6.0	44.4	† 9.4	44.7	- 7.2	55.3	- 9.1	66.8	- 4.7	73.6	- 3.8	71.8	- 3.1	65.3	† 0.3	51.5	- 4.7	41.3	- 0.7	33.9	† 6.9	50.1	- 1.0
Washington	22.9	† 1.7	27.4	† 6.0	43.4	† 8.8	43.4	- 7.5	55.1	- 6.3	65.2	- 8.0	73.6	- 2.0	71.2	- 2.0	63.4	- 1.6	51.0	- 3.0	38.4	† 2.8	31.5	† 7.5	48.9	- 0.3
Washta	15.6	-----	24.0	-----	38.2	-----	39.2	-----	51.6	-----	66.4	-----	72.7	-----	70.4	-----	60.4	-----	48.0	-----	35.6	-----	27.9	-----	45.8	-----
Waterloo	17.8	0	24.1	† 5.9	40.4	†10.2	42.2	- 5.0	52.0	- 8.0	66.2	- 2.5	74.4	† 0.4	71.0	† 0.2	63.1	† 0.7	50.6	† 0.9	37.3	† 2.1	28.8	† 7.7	47.3	† 1.0
Waukee	20.2	-----	26.5	-----	41.4	-----	42.4	-----	55.0	-----	67.8	-----	74.6	-----	71.2	-----	63.8	-----	51.4	-----	37.7	-----	29.9	-----	48.5	-----
Waverly	17.1	- 2.6	23.8	† 4.8	39.0	† 7.8	41.2	- 6.3	53.0	- 8.4	64.6	- 4.2	72.0	- 1.9	69.0	- 2.4	61.4	- 1.1	48.7	- 4.7	35.4	† 0.9	26.9	† 6.2	45.9	- 1.0
Webster City	18.7	-----	24.8	-----	39.9	-----	41.7	-----	53.8	-----	67.2	-----	75.0	-----	70.8	-----	62.6	-----	49.6	-----	35.8	-----	27.9	-----	47.3	-----
West Bend	14.2	- 3.4	22.1	† 5.6	36.2	† 7.0	38.8	- 8.0	50.6	- 8.7	66.7	- 1.1	72.0	- 0.9	69.2	- 0.5	60.2	- 0.6	47.8	- 1.2	33.8	† 2.8	26.4	† 6.5	44.8	- 0.2
Whitten	17.7	- 2.6	23.2	† 8.1	39.6	† 8.6	41.9	- 6.2	53.7	- 6.1	65.8	- 2.5	73.8	- 0.9	70.4	- 0.5	62.0	- 0.6	49.8	- 3.1	35.7	† 0.9	27.8	† 8.5	46.8	† 0.3
Wilton Junction	24.1	† 1.3	26.1	† 6.3	44.0	† 9.7	43.5	- 7.4	54.5	- 7.9	67.5	- 3.6	75.0	- 0.4	71.2	- 1.7	63.6	- 0.7	50.4	- 2.4	35.6	- 1.8	30.6	† 5.0	48.8	- 0.3
Winterset	21.8	† 0.3	27.2	† 5.6	44.8	†10.7	43.4	- 7.8	55.9	- 5.4	69.0	- 1.3	76.2	† 1.9	72.5	† 0.1	64.5	- 0.7	52.0	- 1.7	38.0	- 0.4	30.4	† 5.2	49.6	† 0.5
Woodburn	23.4	-----	28.0	-----	43.6	-----	42.9	-----	55.4	-----	66.2	-----	74.2	-----	71.4	-----	-----	-----	-----	-----	39.0	-----	-----	-----	-----	-----
Zearing	19.8	-----	-----	-----	39.5	-----	40.5	-----	52.2	-----	65.4	-----	73.6	-----	70.2	-----	62.4	-----	49.4	-----	35.6	-----	27.8	-----	-----	-----

DATES OF KILLING FROST, 1907,

Stations	Killing Frost: Last in Spring	Killing Frost: First in Autumn	Stations	Killing Frost: Last in Spring	Killing Frost: First in Autumn
Afton	May 27	October 12	Jefferson	May 20	September 25
Albia	May 30	September 25	Keokuk	May 4	October 13
Algona	May 27	September 25	Keosauqua	May 4	October 12
Allerton	May 4	September 25	Knoxville	May 11	October 12
Alta	May 27	October 8	Larrabee	May 27	September 25
Alton	May 27	September 25	Le Mars	May 27	September 25
Amana	May 20	September 25	Lenox	May 27	September 25
Ames	May 20	September 25	Leon	May 16	October 12
Atlantic	May 27	September 25	Little Sioux	May 27	September 25
Audubon	May 20	September 25	Logan	May 11	September 25
Baxter	May 27	September 25	Marshalltown	May 20	September 25
Bedford	May 16	September 25	Mason City	May 27	September 25
Belle Plaine	May 27	September 25	Massena	May 27	October 8
Bloomfield	May 4	September 25	Mount Ayr	May 27	October 12
Bonaparte	May 11	October 12	Mount Pleasant	May 4	October 12
Boone	May 20	September 25	Mount Vernon	May 16	.....
Britt	May 27	September 25	New Hampton	May 27	September 22
Burlington	May 5	September 25	Northwood	May 27	September 25
Carroll	May 27	September 25	Odebolt	May 20	September 25
Cedar Rapids	May 11	September 25	Ogden	May 27	.....
Chariton	May 11	September 25	Olin	May 20	September 25
Charles City	May 20	September 25	Omaha	May 3	October 12
Clarinda	May 16	October 8	Onawa	May 16	October 12
Clear Lake	May 27	October 8	Osage	May 27	September 25
Clinton	May 16	September 25	Oskaloosa	May 11	October 12
Columbus Junction	May 11	September 25	Oitumwa	May 4	October 12
Corning	May 27	September 25	Pacific Junction	May 27	October 8
Corydon	May 4	September 25	Pella	May 11	October 12
Creston	May 27	September 25	Perry	May 20	September 25
Davenport	May 11	September 25	Plover	May 27	September 24
Decorah	May 21	September 25	Pocahontas	May 27	September 25
Delaware	May 27	September 25	Ridgeway	May 20	September 25
Denison	May 27	September 25	Rock Rapids	May 27	September 25
Des Moines	May 4	October 12	Rockwell City	May 27	October 12
De Soto	May 20	September 25	Saint Charles	May 11	October 12
Dows	May 27	September 25	Sheldon	May 27	September 25
Dubuque	May 4	October 13	Sibley	May 27	September 25
Earlham	May 20	October 8	Sigourney	May 16	September 25
Elkader	May 27	September 25	Sioux Center	May 27	October 8
Elliott	May 16	September 25	Sioux City	May 15	October 12
Estherville	May 27	September 25	Stockport	May 11	September 25
Fayette	May 27	September 22	Storm Lake	May 27	September 25
Forest City	May 27	September 25	Stuart	May 20	October 12
Fort Dodge	May 27	September 25	Thurman	May 27	October 8
Grand Meadow	May 27	September 25	Tipton	May 4	October 13
Greene	May 27	September 25	Toledo	May 20	September 25
Greenfield	May 27	September 25	Wapello	May 5	September 25
Grinnell	May 20	September 25	Washington	May 11	September 25
Grundy Center	May 20	September 25	Washta	May 27	September 25
Guthrie Center	May 20	September 25	Waterloo	May 20	September 25
Hampton	May 27	September 25	Waukee	May 20	September 25
Hancock	May 15	September 25	Waverly	May 20	September 25
Harlan	May 16	September 25	Webster City	May 27	September 25
Hopeville	May 16	October 12	West Bend	May 27	September 25
Humboldt	May 20	September 25	Whitten	May 27	September 25
Independence	May 20	September 25	Wilton Junction	May 11	October 12
Indianola	May 4	September 25	Winterset	May 4	September 25
Inwood	May 27	September 25	Woodburn	May 20	.....
Iowa City	May 11	September 25	Zearing	May 20	September 25
Iowa Falls	May 20	September 25			

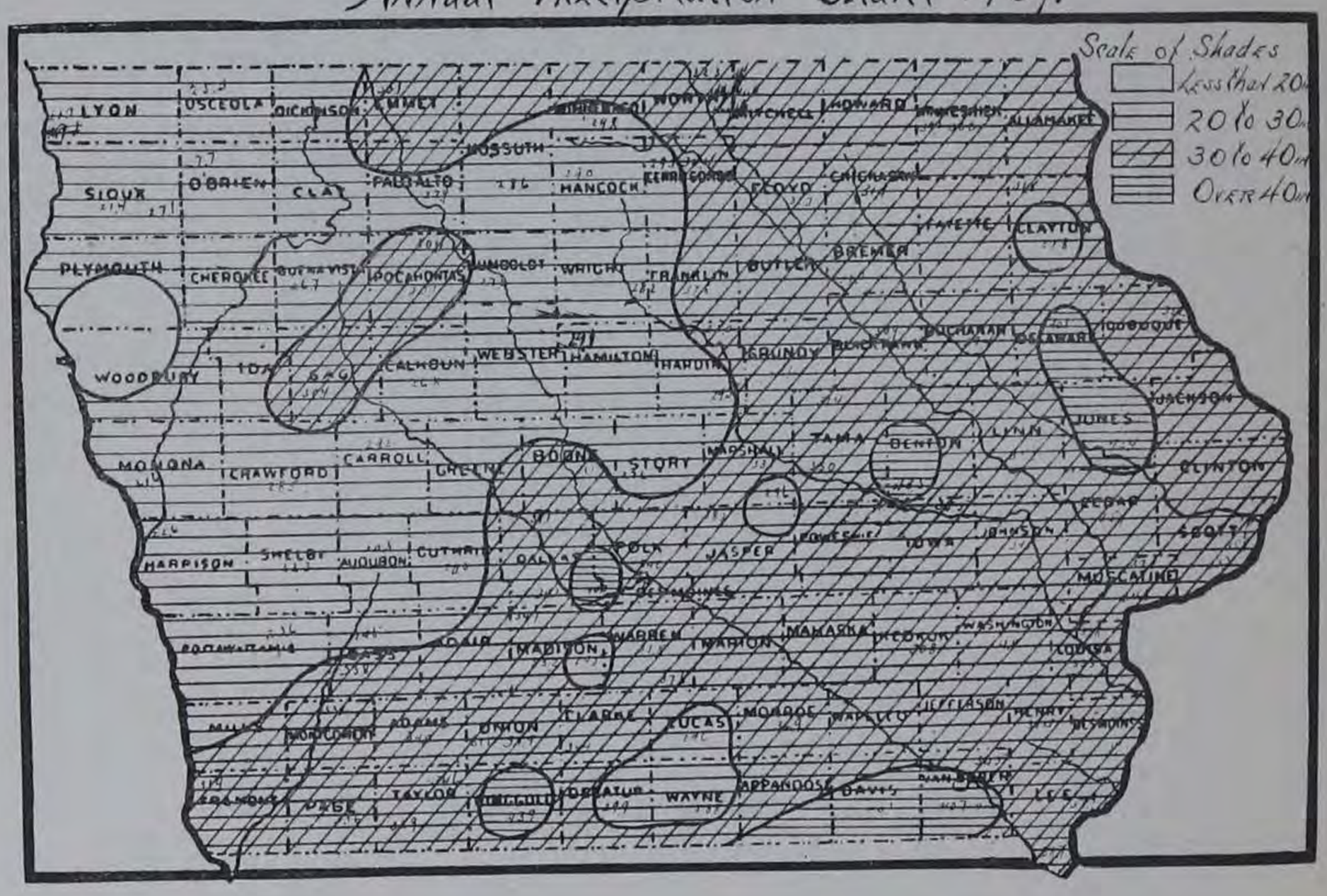
MONTHLY AND ANNUAL PRECIPITATION FOR 1907, WITH DEPARTURES FROM NORMAL.

STATIONS	Jan.		Feb.		March		April		May		Jnne		July		Aug.		Sept.		Oct.		Nov.		Dec.		Annual	
	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.
Afton	1.25	† .44	0.78	- .26	1.95	- .35	1.92	-1.75	2.26	-2.45	5.75	†1.45	5.96	†1.16	5.13	†1.62	2.35	-1.52	1.99	- .97	1.35	† .24	1.24	- .04	31.93	-2.43
Albia	2.19	† .92	0.11	-1.21	1.43	- .45	1.18	-1.77	6.58	†2.46	6.27	†2.70	9.36	†5.23	4.25	† .27	1.60	-2.32	1.61	-1.18	1.08	- .56	1.22	† .22	36.88	†4.32
Algona	0.69	- .11	0.99	- .31	1.04	- .52	0.76	-1.80	1.97	-1.48	5.12	† .73	6.75	†3.08	5.45	†1.74	1.51	-1.65	.92	-1.18	1.41	† .15	2.03	† .98	28.64	- .37
Allerton	2.79	†1.37	0.51	- .83	1.90	- .55	1.59	-1.61	3.28	-1.23	4.32	- .37	9.12	†4.55	-----	-----	1.93	-2.78	1.26	- .76	1.09	- .76	1.07	- .10	-----	-----
Alta	0.61	- .04	0.92	† .17	0.54	-1.28	0.60	-2.64	3.39	- .83	3.58	-2.08	9.55	†4.84	1.90	-1.94	1.45	-1.22	1.19	- .98	1.26	† .09	1.68	† .65	26.67	-5.26
Alta (near)	0.78	-----	0.45	-----	0.46	-----	0.69	-----	3.77	-----	5.23	-----	7.83	-----	2.52	-----	2.36	-----	1.90	-----	.41	-----	1.46	-----	27.86	-----
Alton	0.35	-----	0.55	-----	1.24	-----	0.59	-----	5.95	-----	4.56	-----	5.36	-----	2.83	-----	2.92	-----	.93	-----	.78	-----	1.08	-----	27.14	-----
Amana	2.68	†1.24	0.32	- .95	1.05	- .95	1.66	-1.22	3.70	- .76	7.54	†3.05	8.83	†4.63	2.20	-1.38	4.18	†0.82	1.31	-1.43	1.64	- .71	.98	- .51	35.49	†1.83
Ames	0.79	- .18	0.55	- .29	0.27	-1.21	0.67	-2.08	3.54	- .69	3.26	-1.49	5.32	† .74	6.15	†2.61	2.14	-1.39	3.04	† .52	1.02	- .08	.83	- .19	27.58	-3.73
Atlantic	0.10	- .66	0.98	† .02	0.77	-1.19	0.94	-2.10	2.19	-1.98	5.13	- .55	5.93	†1.58	2.56	- .50	3.00	† .33	1.77	- .87	.88	† .02	.26	-1.12	24.51	-7.02
Audubon	0.38	- .28	0.96	† .16	0.46	-1.32	0.61	-1.31	2.89	-1.03	3.65	- .12	4.99	†1.07	2.60	-1.35	1.68	-1.38	.89	-1.34	.88	- .60	.34	- .91	20.33	-8.41
Baxter	1.07	† .42	0.40	- .49	2.65	† .40	1.25	-1.98	5.37	- .11	5.47	†1.05	8.55	†3.66	5.85	†1.83	2.44	- .67	3.52	† .81	1.04	† .23	.61	- .35	38.22	†4.80
Bedford	1.46	† .64	1.02	† .21	1.95	- .58	1.83	-1.01	3.68	-2.44	4.85	† .62	6.93	†1.33	3.22	-2.89	2.25	-1.27	2.72	- .11	1.52	† .58	1.45	† .53	32.88	-4.39
Belle Plaine	2.67	†1.15	0.97	- .33	0.82	-1.78	1.84	-1.77	3.90	- .54	7.16	†2.93	13.66	10.02	2.73	-1.63	3.85	† .95	3.18	† .90	1.06	- .77	1.68	† .19	43.52	†9.32
Bloomfield	3.56	-----	0.16	-----	2.38	-----	2.22	-----	6.37	-----	5.08	-----	12.96	-----	4.30	-----	2.96	-----	1.22	-----	1.07	-----	.83	-----	43.11	-----
Bonaparte	4.88	†3.31	0.10	-1.14	2.00	- .68	2.45	- .88	6.20	†2.17	5.43	†1.19	7.64	†4.04	8.42	†4.59	1.99	-2.02	.81	-1.01	.98	-1.02	.97	- .48	41.87	†8.07
Boone	1.42	-----	0.69	-----	0.87	-----	0.83	-----	3.13	-----	4.93	-----	4.63	-----	6.71	-----	2.66	-----	3.71	-----	.99	-----	.68	-----	31.25	-----
Britt	0.75	† .16	1.48	† .51	1.65	† .31	0.87	-1.20	1.81	-1.88	4.75	† .27	8.31	†3.99	4.48	† .81	1.82	-2.23	.90	-1.28	.90	- .08	1.32	† .53	29.04	- .09
Buckingham	0.85	† .13	0.79	- .15	1.44	- .75	0.63	-1.85	2.45	-1.39	5.15	- .01	6.92	†2.52	6.08	†1.28	3.32	† .43	2.26	† .42	1.18	† .20	.31	- .69	36.38	† .14
Burlington	5.30	†3.62	0.26	-1.65	2.54	- .34	3.22	† .06	2.74	-1.21	3.27	-1.99	6.96	†3.72	7.87	†2.56	1.89	-1.35	.64	-1.73	1.53	- .12	1.38	- .18	37.60	†1.39
Carroll	0.39	- .47	1.10	† .02	0.50	-1.85	0.66	-2.86	2.85	-1.56	5.11	† .28	7.52	†3.62	4.25	† .48	2.22	- .90	2.32	† .06	1.40	† .25	.92	- .16	29.24	-3.09
Cedar Rapids	2.57	†1.13	0.41	-1.14	0.76	-1.42	1.31	-1.67	3.12	-1.40	6.05	†2.13	8.14	†4.27	4.11	† .86	5.22	†2.33	2.08	- .51	.76	- .66	.69	- .92	35.22	†3.00
Chariton	2.52	†1.41	0.25	- .79	1.90	† .40	1.03	-2.46	4.32	† .05	4.89	† .62	5.08	-1.16	3.89	† .99	2.07	-1.66	1.27	-1.55	.85	- .56	1.55	† .03	29.62	-4.68
Charles City	1.13	† .16	0.84	- .13	2.17	† .25	0.87	-1.96	2.11	-2.83	7.38	†2.28	5.58	†2.00	6.72	†3.30	3.65	† .85	.64	-1.39	.82	- .57	.79	- .49	32.70	†1.47
Clarinda	1.00	† .03	0.66	- .36	1.22	- .68	2.01	-1.30	3.25	-1.54	6.01	† .90	5.62	† .94	5.20	†1.49	2.95	† .39	2.48	- .31	1.58	† .55	1.60	† .36	33.58	† .47
Clear Lake	0.81	† .29	0.75	- .10	0.80	- .42	1.06	- .85	0.71	-4.89	8.86	†4.47	8.34	†3.59	3.53	- .53	1.70	-1.88	1.27	-1.61	.78	- .05	.50	- .15	29.11	-2.13
Clinton	3.76	†1.91	0.81	-1.30	2.10	- .92	2.56	- .37	4.45	- .15	3.60	-1.08	8.53	†4.44	7.73	†4.68	-----	-----	1.59	- .82	1.31	- .59	.88	- .93	-----	-----
Columbus Junction	3.45	†2.57	0.23	- .90	2.65	† .26	1.55	-1.71	6.68	†2.99	4.99	† .72	5.88	†1.70	4.09	-2.99	1.62	-2.02	1.16	-1.66	.83	- .62	.69	- .80	33.82	-2.52
Corning	1.57	† .82	1.08	† .28	0.79	- .96	2.28	- .81	2.74	-1.99	4.61	† .42	5.79	†1.32	7.32	†3.92	2.30	- .18	2.33	- .23	1.45	† .49	1.71	† .47	33.97	†3.55
Corydon	2.21	† .60	0.23	-1.19	1.56	- .51	1.47	-1.65	3.37	-1.60	5.29	† .96	5.14	† .74	4.48	† .47	1.92	-1.94	1.18	-1.69	.91	- .59	1.02	- .60	28.78	-7.00
Creston	1.71	-----	0.45	-----	2.22	-----	1.81	-----	2.62	-----	4.13	-----	6.64	-----	3.80	-----	2.51	-----	2.47	-----	1.60	-----	1.52	-----	31.48	-----
Cumberland	0.73	- .01	1.11	† .40	0.38	-2.08	1.24	- .70	2.46	-1.55	6.28	†2.22	10.76	†5.59	1.87	-2.88	3.38	† .40	2.81	.00	1.42	† .78	1.37	† .41	33.81	†2.58
Davenport	3.55	†1.98	0.22	-1.34	1.79	- .42	1.90	- .98	4.33	† .14	2.07	-2.04	7.13	†3.58	6.48	†2.84	3.55	† .41	.70	-1.69	1.08	- .68	.49	-1.20	33.29	† .60
Decorah	1.47	† .38	0.49	- .49	1.96	.00	0.72	-1.97	1.82	-2.55	5.41	†1.15	4.35	†1.14	7.76	†6.08	5.75	†2.31	.96	-1.38	1.40	- .19	.93	- .43	33.02	†4.05
Delaware	1.51	† .50	0.34	- .54	0.73	-1.10	1.03	-2.01	4.59	† .47	6.53	†2.25	7.48	†3.80	9.67	†6.81	4.80	†1.56	1.67	- .55	1.02	- .59	.69	- .83	40.06	†9.77
Denison	0.12	- .44	0.44	- .20	0.88	- .75	0.85	-3.11	3.50	- .10	3.35	- .23	4.14	- .18	9.41	†6.03	2.43	- .78	.82	-1.59	1.65	† .75	.89	† .29	28.48	- .31
Des Moines	0.87	- .34	0.93	- .15	1.18	- .47	1.48	-1.50	3.97	- .59	4.13	- .83	10.20	†6.34	5.03	†1.42	2.40	- .67	1.70	- .98	1.13	- .36	1.01	- .30	34.02	†1.57
De Soto	0.52	- .39	0.59	- .34	0.67	-1.05	1.23	-1.77	3.47	- .47	6.54	†2.48	9.60	†4.31	4.68	- .33	3.14	† .06	1.89	- .50	1.10	- .14	.76	- .58	34.19	†1.28
Dows	0.84	† .02	0.69	- .61	1.61	- .61	1.11	-1.31	3.20	-2.20	5.29	†1.00	7.87	†2.56	3.01	-1.45	2.13	-1.55	.93	-1.67	.85	- .45	.67	- .16	28.20	-6.43
Dubuque	1.72	† .23	0.52	- .86	0.99	-1.22	2.48	- .44	2.66	-1.66	4.08	- .47	5.15	† .85	5.85	†2.81	6.01	†2.42	.77	-1.91	1.29	- .52	.67	-1.05	32.19	-1.82
Earlham	1.49	† .41	0.73	- .39	0.83	- .93	1.53	-2.13	3.23	-1.54	6.99	†2.46	8.47	†3.63	4.35	- .78	3.03	- .76	1.62	- .73	1.17	- .17	1.24	- .06	34.68	- .99
Elkader	1.67	† .32	0.62	- .50	1.56	- .27	0.97	-1.88	2.04	-2.01	5.04	† .84	3.97	- .37	4.73	†1.93	4.07	† .25	.93	-1.82	1.39	- .29	.81	-1.12	27.80	-4.92
Elliott	0.29	-----	1.25	-----	0.30	-----	2.03	-----	3.20	-----	3.59	-----	13.52	-----	3.20	-----	2.80	-----	1.34	-----	1.33	-----	.35	-----	33.20	-----
Estherville	0.72	† .37	0.70	† .08	0.60	- .81	0.63	-1.83	3.82	† .69	6.12	†3.03	6.73	†2.85	3.91	† .61	1.95	-1.15	2.40	† .78	.91	- .26	1.65	†1.06	30.14	†5.42
Fayette	2.06	† .83	0.71	- .45	1.33	- .93	1.03	-2.17	2.34	-2.50	6.99	†1.14	-----	-----	4.18	†1.28	3.58	† .62	1.68	-1.13	1.67	† .02	.71	- .72	-----	-----
Forest City	0.95	† .31	1.30	† .53	1.39	- .09	0.73	-1.87	1.04	-2.76	8.53	†3.47	6.64	†3.21	3.97	†1.76	1.73	-2.09	1.00	-1.37	1.05	- .31	1.52	† .61	29.85	†1.40
Fort Dodge	0.70	† .06	0.57	- .14	1.16	-1.10	0.91	-2.26	3.92	- .63	4.11	† .30	-----	-----	3.15	-2.49	1.97	-2.60	2.16	- .93	1.30	† .08	.55	† .09	-----	-----
Fort Madison	4.02	†2.13	0.20	-1.76	2.34	- .64	2.41	- .88	3.00	-1.86	4.82	† .48	9.52	†5.41	8.00	†4.34	1.56	-2.23	.32	-2.43	.94	-1.22	.77	-1.23	37.90	† .11
Gilman	1.96	†1.46	0.30	- .71	1.38	- .57	1.45	-1.05	3.08	- .92	4.10	- .80	6.20	†1.35	3.63	- .03	2.98	† .35	2.89	† .60	.99	† .01	.67	- .23	29.63	- .54
Grand Meadow	1.74	† .56	0.84	- .28	1.63	- .47	1.12	-2.01	2.18	-2.97	5.03	- .23	6.09	†1.77	5.27	†2.77	4.64	†1.47	1.15	-1.42	1.38	- .21	.68	- .88	31.75	-1.90
Greenfield	-----	-----	-----	-----	-----	-----	1.45	-1.68	-----	-----	7.38	†2.27	8.42	†3.53	5.25	†2.43	3.12	- .16	2.13	- .17	.88	- .18	1.96	† .61	-----	-----
Grinnell	2.40	†1.24	0.73	- .14	1.30	- .49	2.19	-1.33	5.49	† .84	4.91	† .02	8.88	†5.16	6.14	†2.48	2.09	- .37	2.73	† .28	.90	- .62	.45	- .84	38.21	†6.23
Grundy Center	0.70	- .01	0.85	† .13	1.30	- .36	0.96	-2.42	3.95	-1.00	6.28	† .44	6.67	†2.49	6.63	†3.06	2.81	- .51	1.46	-1.23	.77	- .51	.25	-1.00	32.63	- .92
Guthrie Center	0.48	- .05	0.91	† .24	0.93	- .47	1.03	-1.44	3.25	-1.32	5.67	†1.61	6.56	†2.02	3.80	- .86	2.38	-1.08	1.39	- .83	.99	- .06	1.12	- .15	28.51	-2.39
Hampton	1.63	† .53	1.69	† .58	2.75	† .49	1.19	-2.25	3.99	- .18	5.30	† .07	12.05	†7.91	3.69	† .54	2.66	- .84	.83	-1.80	.92	- .69	1.09	- .23	37.79	†4.13
Hancock	0.18	-----	0.93	-----	0.28	-----	0.92	-----	3.35	-----	3.30	-----	6.40	-----	2.33	-----	3.46	-----	.77	-----	1.59	-----	.05	-----	23.56	-----
Harlan	0.60	- .08	1.10	† .34	0.40	-1.30	0.87	-1.61	2.87	-1.49	3.13	-2.15	4.96	- .75	2.71	-1.90	2.14	-1.86	2.64	- .39	.53	- .27	.36	- .71	22.31	12.17
Hopeville	1.26	† .36	0.52	- .25	1.29	- .39	1.35	-2.07	2.20	-2.56	4.67	† .32	11.65	†7.03	3.27	- .02	1.89	-1.64	1.70	- .73	1.31	† .33	1.31	† .20	32.42	† .58
Humboldt	0.16	- .49	0.80	† .10	1.09	- .36	0.81	-1.93	3.49	- .39	3.41	-1.26	9.36	†5.42	3.70	† .59	1.65	-1.79	1.12	- .61	.96	- .50	.75	- .01	27.30	-1.23
Independence	0.52	- .85	0.64	- .41	1.85	† .06	0.94	-1.27	4.33	† .16	7.12	†2.09	8.11	†3.39	8.44	†5.01	4.04	- .66	1.92	- .45	.56	- .96	.94	- .54	39.41	†5.57
Indianola	2.01	† .86	0.77	† .02	1.50	† .31	1.73	-1.55	4.98	† .28	5.61	†1.53	6.59	†2.95	3.09	-1.07	2.03	-1.02	1.10	- .96	1.34	† .04	1.07	- .34	31.82	†1.05
Inwood	0.79	-----	0.60	-----	0.51	-----	0.24	-----	2.21	-----	4.98	-----	5.65	-----	1.45	-----	3.38	-----	.64	-----	.09	-----	1.33	-----	21.87	-----
Iowa City	2.12	† .38	0.22	-1.29	1.59	- .89	1.58	-1.56	5.47	†1.13	6.04	†1.41	9.21	†4.71	2.98	-1.28	2.85	- .98	.86	-1.68	1.07	-1.25	.53	-1.13	34.52	-2.43
Iowa Falls	1.05	† .21	0.79	- .16	1.97	† .36	1.02	-2.13	4.37	† .82	5.89	†1.12	7.06	†3.22	5.56	†2.16	2.01	-1.31	.65	-1.65	.84	- .44	.81	- .35	32.02	†1.85
Keokuk	5.07	†3.38	0.10	-1.52	5.05	†2.68	2.02	-1.32	3.44	- .91	6.30	†1.95	6.26	†2.23	5.50	†2.20	1.94	-2.03	.47	-2.02	1.17	- .68	1.38	- .49	38.70	†3.53
Keosauqua	4.62	†3.70	0.15	-1.27	2.38	- .10	2.40	-1.44	5.43	†1.09	3.75	- .31	9.24	†5.27	7.10	†3.61	2.78	-1.70	1.03	- .87	.97	- .66	.83	- .71	40.68	†6.61
Knoxville	2.61	†1.68	0.45	- .53	1.20	- .30	1.76	-1.40	4.74	†1.38	5.18	†1.36	6.66	†2.20	4.40	- .12	-----	-----	1.73	- .67	-----	-----	.91	- .45	-----	-----
Lacona	2.66	†1.24	0.84	- .41	1.66	-1.03	2.06	- .78	4.68	-1.24	6.55	†2.21	4.41	- .46	3.55	-1.60	4.96	†1.35	3.10	† .41	1.48	† .40	1.65	‡ .00	37.60	† .09
Larrabee	0.51	- .06	0.78	† .03	0.30	-1.35	0.30	-2.69	2.89	-1.06	5.27	- .63	4.69	† .03	1.83	-1.51	-----	-----	1.27	- .57	.42	- .56	1.90	† .83	-----	-----
Le Claire	3.34	-----	0.41	-----	1.83	-----	2.01	-----	5.04	-----	3.82	-----	7.14	-----	4.66	-----	4.84	-----	.69	-----	1.35	-----	.75	-----	35.88	-----
Le Mars	0.20	- .49	0.92	† .31	0.50	- .87	-----	-----	4.42	† .83	4.04	† .02	6.50	†1.60	1.09	-1.62	1.59	-1.60	0.59	-1.26	.52	- .54	.70	- .39	-----	-----
Lenox	1.50	† .87	0.83	† .18	1.76	- .09	1.58	-1.44	2.35	-2.36	7.37	†3.24	7.51	†2.29	3.46	- .14	3.16	† .19	2.11	- .88	1.32	† .19	1.68	† .40	34.63	†2.45
Leon	1.84	† .96	0.99	- .15	0.94	-1.82	1.55	-1.87	2.86	-1.59	5.55	† .77	7.84	†3.42	2.30	-3.64	2.22	-2.58	1.79	- .29	1.37	- .55	.68	- .59	29.93	-7.93
Little Sioux	0.21	-----	1.19	-----	0.54	-----	0.82	-----	1.35	-----	3.61	-----	8.29	-----	2.14	-----	1.96	-----	.81	-----	1.09	-----	.56	-----	22.57	-----
Logan	0.50	- .72	1.63	† .43	0.54	-1.36	1.22	-1.65	1.77	-2.42	4.28	-1.42	5.04	† .13	3.40	- .46	-----	-----	1.18	-1.30	2.27	†1.11	.60	- .75	-----	-----
Marshalltown	0.90	- .04	0.55	- .23	3.22	†1.29	0.87	-2.24	3.02	-1.72	3.77	-1.17	7.56	†3.11	6.64	†3.07	2.59	- .08	2.19	- .28	1.06	- .27	.71	- .77	33.08	† .67
Mason City	1.29	† .10	0.85	† .29	1.57	† .23	1.14	-2.20	1.31	-2.64	7.03	- .01	11.20	†8.41	5.72	†3.00	2.08	† .23	.85	-1.16	.68	- .32	.66	‡ .00	34.38	†5.99
Massena	0.56	-----	0.73	-----	0.54	-----	1.68	-----	2.11	-----	4.76	-----	8.70	-----	4.78	-----	-----	-----	1.15	-----	.94	-----	.74	-----	-----	-----
Mount Ayr	1.96	† .93	1.22	† .06	2.92	† .99	2.08	-1.07	7.13	†1.74	7.80	†3.36	8.70	†3.59	3.12	- .20	2.85	- .32	2.83	† .44	1.56	† .28	1.73	† .41	43.90	10.21
Mt. Pleasant	4.65	†3.42	0.21	- .83	2.70	† .37	2.71	- .34	5.76	†1.42	5.61	†1.40	7.41	†3.67	4.89	† .98	2.04	-1.32	1.19	- .89	1.23	- .36	1.05	- .16	39.45	†7.36
Mt. Vernon	2.63	†1.32	0.45	- .62	2.04	† .01	2.05	- .98	4.32	† .23	4.34	† .59	7.51	†2.88	4.59	† .02	4.65	†1.84	-----	-----	-----	-----	-----	-----	-----	-----
Muscatine	3.77	†1.96	0.26	-1.82	1.65	-1.14	2.22	-1.19	4.04	- .34	4.21	- .65	7.97	†4.06	5.16	† .78	2.37	-1.35	1.09	-1.95	.89	-1.41	.64	-1.64	34.27	-4.69
New Hampton	1.49	† .66	0.34	- .73	1.90	† .25	0.85	-1.08	2.09	-2.38	6.15	†1.67	7.22	†3.53	5.20	†2.70	3.75	‡ .00	.67	-1.88	.75	-1.04	.96	† .29	31.37	†1.99
Newton	-----	-----	-----	-----	0.90	- .66	1.49	-1.89	6.53	†2.07	3.69	-1.28	8.31	†4.43	5.41	†1.54	-----	-----	2.65	- .12	1.04	- .76	.57	- .76	-----	-----
Northwood	1.35	† .70	0.46	- .70	2.70	†1.10	1.03	-1.28	1.31	-3.11	9.33	†4.52	5.05	†1.06	4.86	†1.24	1.48	-2.01	1.78	- .85	.93	- .63	2.05	†1.14	32.33	†1.18
Odebolt	0.34	† .02	0.95	† .20	0.26	-1.73	0.67	-2.04	4.87	†2.10	4.48	† .17	8.49	†3.37	2.42	-1.27	4.00	† .85	1.91	- .30	.97	- .15	1.02	- .08	30.38	†1.14
Olin	4.62	†3.54	0.56	- .77	1.98	- .47	2.37	† .19	2.89	-1.64	5.23	†1.71	6.90	†3.30	8.74	†5.16	5.71	†2.33	1.02	-1.40	1.26	† .06	1.07	- .39	42.35	11.62
Omaha, Nebr	0.53	- .12	1.45	† .69	0.29	-1.10	1.31	-1.70	1.58	-2.92	4.69	- .36	6.45	†2.12	3.03	- .59	2.35	- .68	2.09	- .26	.46	- .60	.37	- .54	24.60	-6.06
Onawa	0.38	- .76	0.90	- .05	0.45	-1.08	0.74	-2.25	1.46	-2.92	4.52	- .68	5.31	† .68	3.20	- .69	2.02	- .75	.99	-1.40	.59	- .54	.99	- .09	21.55	10.53
Osage	1.31	† .43	0.78	- .40	1.32	- .25	1.24	-1.33	-----	-----	6.82	†2.30	4.45	† .91	3.15	† .15	3.98	† .48	1.00	-1.43	.88	- .57	1.28	.00	-----	-----
Oskaloosa	1.93	†1.05	0.32	- .75	0.76	-1.13	1.47	-1.31	4.43	† .86	6.68	†2.55	4.49	† .44	3.72	† .58	-----	-----	1.07	-1.26	.94	- .61	1.12	- .16	-----	-----
Ottumwa	3.10	†1.51	0.65	- .59	1.68	- .23	1.71	-1.37	5.63	† .81	7.07	†3.28	10.04	†5.75	5.76	†2.08	-----	-----	1.14	-1.74	1.30	- .38	.72	- .65	-----	-----
Pacific Junction	0.52	† .09	-----	-----	0.66	- .77	2.71	† .10	1.88	-3.11	4.09	- .34	9.56	†4.99	2.45	-2.00	3.99	†1.67	1.10	-1.36	1.53	† .94	.38	- .58	-----	-----
Pella	2.46	-----	0.24	-----	0.96	-----	1.69	-----	5.49	-----	6.24	-----	6.37	-----	5.85	-----	2.70	-----	1.97	-----	.92	-----	-----	-----	-----	-----
Perry	1.18	† .36	0.81	- .17	1.13	-1.01	0.95	-1.98	5.25	† .25	8.69	†4.00	7.36	†2.75	5.71	† .29	2.37	- .33	3.31	† .76	1.23	- .22	1.07	† .07	39.06	†4.77
Plover	0.50	- .01	0.33	- .32	0.40	- .98	0.62	-1.16	3.65	† .37	6.01	†1.98	5.44	† .31	3.67	- .33	2.85	-1.19	3.30	† .99	1.30	- .29	2.28	†1.58	30.35	† .90
Pocahontas	0.55	-----	1.16	-----	0.63	-----	0.65	-----	2.19	-----	4.31	-----	8.80	-----	2.98	-----	1.97	-----	2.96	-----	1.58	-----	1.69	-----	30.07	-----

MONTHLY AND ANNUAL PRECIPITATION FOR 1907, WITH DEPARTURES FROM NORMAL—CONTINUED.

STATIONS	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Annual	
	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.
Ridgeway	2.78	†1.08	0.85	-1.82	2.90	† .41	1.01	-1.10	1.90	-3.25	5.60	†1.08	5.96	† .37	7.97	†5.27	6.06	†1.93	1.12	-2.76	1.39	- .56	1.58	- .92	39.12	† .23
Rock Rapids	0.40	- .23	0.75	† .61	0.80	- .79	1.05	-2.70	2.60	- .79	6.57	†2.83	6.04	†3.52	1.05	- .71	-----	-----	1.00	- .75	.10	- .89	.65	† .04	-----	-----
Rockwell City	0.30	- .33	1.95	†1.44	0.60	-1.70	0.96	-1.45	4.83	†1.49	4.11	- .39	4.59	† .59	2.30	-1.24	2.51	- .56	2.10	- .48	1.35	† .50	1.20	- .10	26.80	-2.23
Sac City	-----	-----	1.05	† .23	0.48	-1.17	0.54	-2.45	5.18	†1.55	5.45	† .56	7.56	†3.75	3.11	- .25	2.80	.49	2.75	† .19	-----	-----	-----	-----	-----	-----
St. Charles	1.87	† .72	0.55	- .45	2.18	† .24	1.91	-1.61	3.87	-1.05	7.31	†2.97	4.89	- .90	1.69	-2.64	1.99	-1.65	1.29	-1.12	1.08	- .40	.96	- .66	29.54	-6.55
Sheldon	0.83	† .44	1.15	† .47	0.62	- .34	0.91	- .57	3.22	- .40	6.53	†2.36	4.77	-2.08	2.51	- .91	3.03	-1.06	1.87	- .13	0.52	- .19	1.70	† .80	27.66	-1.61
Sibley	0.67	† .13	0.57	† .10	0.61	- .56	0.67	-2.02	1.75	-1.60	5.41	†1.28	6.59	†2.68	2.66	- .59	3.45	† .29	.96	- .71	.85	- .02	1.10	† .24	25.29	- .78
Sigourney	1.89	† .65	0.50	- .85	1.29	- .60	1.99	-1.61	2.88	-1.10	5.93	†2.24	7.27	†2.59	3.57	- .16	2.71	- .26	1.08	-1.94	.93	- .57	.74	- .67	30.78	-2.28
Sioux Center	0.55	† .28	0.85	† .07	0.33	- .92	1.39	-1.74	3.45	- .37	3.77	- .53	4.30	-1.08	1.88	-2.22	2.51	-1.87	.82	.74	.13	- .44	1.40	† .52	21.38	-9.04
Sioux City	0.41	- .14	0.85	† .30	0.26	-1.00	0.81	-1.96	2.48	-1.89	4.21	† .33	5.78	†2.17	1.53	-1.47	2.03	.44	.62	-1.17	.05	- .92	.90	† .16	19.93	-6.03
Stockport	3.80	†2.59	0.06	-1.31	1.39	-1.13	2.33	- .95	4.83	†1.28	3.94	-2.91	8.08	†4.19	5.00	- .07	2.06	-2.62	1.22	- .86	1.05	- .53	.73	- .79	34.49	-3.11
Storm Lake	0.89	† .19	0.65	.00	0.95	- .43	0.83	-1.47	-----	-----	4.15	- .73	7.88	†3.60	-----	-----	1.94	-1.08	1.90	† .14	.78	- .18	.77	- .16	-----	-----
Stuart	0.58	- .01	1.52	† .95	0.46	-2.19	1.33	-1.88	3.56	- .89	8.40	†4.43	7.48	†2.51	-----	-----	1.68	- .18	1.26	-1.72	-----	-----	.32	- .41	-----	-----
Thurman	0.78	- .07	1.95	† .63	0.70	-1.08	2.31	-1.13	1.43	-3.28	4.84	-2.70	6.80	†1.32	3.44	-1.99	4.75	†1.54	1.09	-2.95	1.74	† .65	2.09	† .31	31.22	-8.61
Tipton	2.43	†1.26	0.17	-1.06	2.14	- .96	2.07	-1.70	7.68	†2.37	4.00	† .27	8.48	†4.06	2.98	-2.27	3.74	† .55	.80	-1.68	1.13	- .64	.77	-1.13	35.	- .88
Toledo	1.17	† .36	0.51	- .18	1.35	- .40	1.40	-1.63	3.81	† .10	5.21	†1.61	9.83	†6.60	3.24	- .58	2.70	- .41	2.20	† .33	.75	- .78	.80	- .84	32.97	†4.68
Wapello	3.95	†3.24	0.20	-1.26	1.55	- .97	2.21	- .03	5.39	†1.80	4.27	†1.35	6.23	†3.14	4.59	- .66	2.21	- .71	1.26	- .96	.83	- .63	.58	- .76	33.27	†3.55
Washington	3.29	†1.84	0.23	- .93	2.62	† .45	1.69	- .93	4.47	†1.04	5.48	†2.25	6.75	†3.21	3.67	† .18	1.38	-1.24	.95	-1.18	.80	- .50	.44	-1.03	31.77	†3.07
Washta	0.53	† .12	0.75	† .13	0.23	-1.02	0.61	-1.12	4.44	†1.23	3.39	-1.02	9.53	†4.43	2.31	- .60	1.62	-2.29	1.37	- .60	.71	- .34	1.40	† .23	26.89	- .85
Waterloo	1.43	† .48	0.57	- .41	2.26	† .43	0.94	-2.05	3.06	-1.32	6.41	†1.91	4.80	† .56	4.94	†1.34	3.26	- .23	1.54	- .78	.92	- .48	.76	- .38	30.89	- .93
Waukee	1.77	-----	0.97	-----	1.27	-----	1.58	-----	3.06	-----	8.35	-----	9.78	-----	4.76	-----	3.55	-----	1.94	-----	1.51	-----	1.43	-----	39.97	-----
Waverly	1.43	† .50	0.57	- .55	1.72	- .24	0.95	†2.10	3.23	-1.39	5.89	†1.41	9.43	†5.59	3.33	† .80	2.65	- .55	.67	-1.97	1.06	- .42	.81	- .27	31.74	† .81
Webster City	0.76	-----	1.06	-----	1.94	-----	0.93	-----	4.58	-----	5.04	-----	7.70	-----	2.56	-----	2.11	-----	1.26	-----	.74	-----	.45	-----	29.13	-----
West Bend	0.62	.00	0.97	† .16	0.57	-1.07	0.51	-2.30	2.39	- .45	4.97	†1.16	7.70	†3.86	3.59	- .04	1.84	-1.34	1.55	- .21	1.49	† .10	1.71	† .72	27.91	† .59
Whitten	1.65	†1.08	0.30	- .26	0.79	- .15	0.92	-1.14	4.40	† .64	5.28	- .98	4.64	† .87	6.06	†2.17	2.63	- .89	1.48	-1.14	.83	- .46	.55	- .62	29.53	- .88
Wilton Junction	2.75	†1.37	0.29	-1.11	1.68	-1.03	1.76	-1.11	5.49	†1.17	3.68	† .40	9.52	†4.25	6.23	†2.02	3.38	† .20	.87	-1.20	.95	- .85	.50	- .95	37.10	†3.16
Winterset	1.68	† .74	0.55	- .34	1.96	- .08	1.90	-1.76	3.28	-1.29	7.06	†1.22	6.72	† .79	4.37	† .83	2.45	- .90	1.61	- .76	.83	- .38	.76	- .61	33.17	-2.54
Woodburn	1.18	- .17	0.40	- .81	3.52	-2.00	1.78	- .81	3.78	-1.61	5.12	†1.13	6.32	† .91	3.51	-2.90	-----	-----	-----	-----	.45	- .59	-----	-----	-----	-----
Zearing	0.70	-----	-----	-----	1.45	-----	0.90	-----	-----	-----	4.75	-----	5.27	-----	3.73	-----	2.10	-----	1.63	-----	.90	-----	.88	-----	-----	-----

Annual Precipitation Chart 1907.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR JANUARY, 1908

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH STATE PRINTER
1908

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U. S. DEPARTMENT OF AGRICULTURE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

CENTRAL OFFICE: WASHINGTON, D. C.

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

GEO. M. CHAPPEL, - - - Director.

VOL. XIX. DES MOINES, IOWA, JANUARY, 1908. No. 1

GENERAL SUMMARY.

The average temperature for the State for the month of January was considerably above the normal and about six degrees above the average for the same month last year. The records show that there have been but two warmer Januaries during the past eighteen years, viz: 1891, with an average of 26.0°, and 1900, with an average of 25.6°. The temperature was decidedly above the normal during the first and second decades of the month and was not down to zero, except in the northern districts, until the 23d. After that date the temperature was more seasonable and records of zero or below were reported on one or more dates from all sections of the State. The amounts of precipitation were uniformly small and below normal in all portions of the State. There were but two general storms during the month. The first was on the 22d and resulted in a light snowfall; the second was on the 31st, and was attended by rain, snow and sleet, the latter causing a great deal of damage to fruit trees, telegraph, telephone and electric car lines. The amount of snowfall was also below the normal. The average of the total amounts was less than 5 inches. As a compensation for the lack of precipitation, the sunshine was decidedly above the normal. The records show that there was an average of seventeen clear days, eight partly cloudy and only six cloudy days during the month. On the whole, it was one of the most agreeable Januaries of which we have a record.

The following table shows the mean temperature and average precipitation for the State for each January from 1890 to 1907, inclusive:

Years	Temperature—Degrees	Precipitation—Inches	Years	Temperature—Degrees	Precipitation—Inches
1890	19.7	2.03	1900	25.6	.53
1891	26.0	1.75	1901	23.7	.74
1892	15.3	1.09	1902	22.4	.88
1893	9.3	.74	1903	23.0	.28
1894	19.3	1.09	1904	14.0	1.18
1895	13.6	.85	1905	11.2	.91
1896	23.4	.48	1906	24.6	1.52
1897	17.2	2.01	1907	18.8	1.52
1898	23.4	1.60	1908	24.9	.44
1899	19.8	.28			

CLIMATOLOGY OF THE MONTH.

TEMPERATURE.—The monthly mean temperature for the State, as shown by the records of 117 stations was 24.9°, which is 5.7° above the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 21.5°, which is 5.3° above normal; Central section, 25.3°, which is 6.2° above normal; Southern section, 27.8°, which is 5.5° above normal. The highest monthly mean was 30.4° at Keokuk, and the lowest monthly mean, 18.5° at Osage. The highest temperature reported was 60° at Logan on the 6th; the lowest temperature reported was -18° at Estherville and Forest City on the 29th. The average monthly maximum was 51.5°, and the average monthly minimum was -9.9°. The greatest daily range was 46° at Iowa City. The average of the greatest daily ranges was 36.0°.

PRECIPITATION.—The average precipitation for the State, as shown by the records of 125 stations, was .44 inch, which is .56 inch below the normal. By sections the averages were as follows: Northern section, .35 inch, which is .45 inch below the normal; Central section, .48 inch, which is .47 inch below the normal; Southern section, .48 inch, which is .76 inch below the normal. The largest amount reported was 1.50 inches at Fort Madison. The least amount reported was .06 inch at Leon. The greatest daily precipitation reported was .80 inch at Waukee on the 31st. The average number of days on which .01 inch or more was reported, was 2.

WIND AND WEATHER.—The prevailing direction of wind was northwest. The highest velocity of wind reported was 50 miles per hour from the northwest at Sioux City on the 15th. The average number of clear days was 17; partly cloudy, 8; cloudy, 6.

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	30.06	30.69	23	29.45	26
Davenport	30.07	30.66	23	29.36	26
Des Moines	30.07	30.72	23	29.50	26
Dubuque	30.08	30.65	23	29.41	26
Omaha, Neb.	30.10	30.75	23	29.60	25
Keokuk	30.09	30.71	23	29.44	26
Sioux City	30.09	30.74	23	29.67	26
Means	30.08	30.74	23	29.36	26

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	6115	28	NW	21
Davenport	6457	32	NW	26
Des Moines	7272	32	SW	19
Dubuque	6141	30	NW	26
Keokuk	6457	31	NW	26
La Crosse, Wis	4965	25	NW	21
Omaha, Neb.	8150	40	N	28
Sioux City	10124	50	NW	15

ERRATA.

FAYETTE.—October, 1907—Mean temperature recorded 50.5°, on page 127, should have been 47.2°.

ELKADER.—November, 1907—Maximum temperature recorded as 45° on the 2d, page 128, should have been 51°. Mean maximum temperature recorded as 46.7°, on page 128, should have been 46.9°. Mean monthly temperature recorded as 36.2°, on page 126, should have been 36.3°.

ST. CHARLES.—November, 1907—Total snowfall recorded as 1.0 inch, on page 127, should have been 1.3 inches.

OBSERVERS' NOTES.

ALBIA.—*J. I. Chenoweth.* Only .20 of an inch of precipitation and 11 clear days. Temperature up to 55° on the 21st and bees were out flying. The first zero temperature of the winter was on the 23d. Very little frost in the ground up to the 25th.

ALGONA.—*Dr. F. T. Seeley.* January has been a remarkable month. Only five days with zero temperature. No storms until the 31st.

ALLERTON.—*Mrs. Geo. Shriver.* The weather has been extremely dry. Precipitation .31 of an inch.

ALTA.—*David E. Hadden.* An ideal January, warm and dry. No snow fell until the last week in the month. The mean temperature was 5° above the 18-year normal. Precipitation .15 of an inch was .55 of an inch below the normal.

ALTON.—*W. S. Slagle.* Ice harvest started on the 26th with 13 inches of ice of fair quality which increased to 18 inches on the 29th of fine quality.

AMANA.—*Conrad Schadt.* January was mild with a number of pleasant spring-like days. There were but 8 days on which the temperature was not up to the freezing point. The precipitation was light and as a result the roads are good.

AMES.—*J. H. Criswell.* Snow drifted badly on the night of the 31st.

BAXTER.—*W. R. Vandike.* It was the warmest January in over 25 years up to the 22d, but the month closed with a cold wave and snowstorm.

BONAPARTE.—*B. R. Vale.* Precipitation .67 of an inch. A mild, dry month. Stock on pasture, and roads good. The wind did not remain in the northwest over 36 hours at any one time.

BOONE.—*C. F. Henning.* Ice in the Des Moines river at Fraser, Iowa, was from 12 to 14 inches thick on January 30th.

BRITT.—*Geo. P. Hardwick.* The weather was very mild and dry. Honey bees were out on the 20th.

CHARITON.—*C. C. Burr.* No severe storms during the month, but many pleasant days with bright sunshine.

CLARINDA.—*A. S. Van Sandt.* A very pleasant month for outdoor work.

CLINTON.—*Luke Roberts.* The mean temperature, 25.7° was 6.0° above the normal. The total precipitation, .68 of an inch, was 1.24 inches below normal.

COLUMBUS JUNCTION.—*J. B. Johnston.* Ice on the lake was 11 inches thick on the 31st.

CRESTON.—*Rev. W. L. Gaston.* January was a very pleasant winter month. The first and second decades were exceptionally fine with no zero temperature until the 26th.

FOREST CITY.—*J. A. Peters.* A beautiful month with not enough snow for sleighing until the last day.

GRINNELL.—*A. O. Price.* A fine month for stock. No severe storms. Warmest January since 1896.

INWOOD.—*F. B. Hanson.* January has been a mild month. There has been but one warmer January since this station was established. It had the least precipitation and the greatest number of clear days of any January of which we have a record.

IOWA FALLS.—*J. B. Parmelee.* Fine roads during the entire month. There were no bad storms and but two cold waves.

KEOSAUQUA.—*J. H. Landes.* A remarkably warm and dry January.

LARRABEE.—*H. B. Streever.* Mild, sunny weather, light precipitation and absence of severe storms are characteristics seldom so well combined in our mid-winter month.

LEON.—*Morris Gardner.* This was the driest January since the establishment of this station.

LITTLE SIOUX.—*Geo. H. Gibson.* The temperature went below zero on January 16th, for the first time this winter.

OLIN.—*Nathan Potter.* January was a remarkably fine month with only two mornings on which the temperature was below zero.

OSAGE.—*A. D. Bundy.* A very pleasant and mild month with only one stormy day. Roads dry and dusty until the 31st.

PACIFIC JUNCTION.—*H. H. McCartney.* There has been but 2.62 inches of precipitation during the past four months.

POCAHONTAS.—*F. E. Hronek.* The month was dry and very mild for January. Only two days on which the temperature was below zero.

RIDGEWAY. *Arthur Betts.* Driest January during past ten years and only January 1898, 1900 and 1906 were warmer. There was about 70% of sunshine with a drouth for 32 days preceding the big storm of the 31st.

SHELDON.—*A. W. Beach.* The weather was abnormally mild and clear; 90% of sunshine and only four days with the temperature below zero. Ice crop is poor.

STOCKPORT.—*C. L. Beswick.* Warmest, driest and clearest January for five years.

STORM LAKE.—*Prof. R. H. Carr.* Remarkably warm and unusually clear.

WAVERLY.—*H. S. Hoover.* The first zero temperature for the winter was on the 29th. Practically no precipitation until the last day.

ZEARING.—*Ward C. Bean.* The month has been exceptionally fine with practically no snow until the last day.

CLIMATOLOGICAL DATA FOR JANUARY, 1908.

NORTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
Algona	Kossuth	1,213	34	21.8	+ 8.5	49	14	-16	29	34	.33	-.46	.33	4.0	1	22	6	3	NW	
Alta	Buena Vista	1,513	17	21.0	+ 4.6	51	20	-14	29	38	.15	-.49	.08	1.5	2	18	10	3	NW	
Alta [near]	Buena Vista	.....	.....	.....	.....	.....	.....	.....	.....	.....	.27	.....	.20	2.7	3	.....	.....	.....	.....	
Alton	Sioux	1,305	3	22.4	.....	46	20	-11	29	35	.20	.....	.15	2.0	2	24	3	4	NW	
Britt	Hancock	1,236	11	21.6	+ 5.6	46	21	-17	29	34	.42	-.26	.40	4.2	3	2	26	3	NW	
Charles City	Floyd	1,015	20	20.1	+ 8.7	46	21	-14	29	35	.40	-.57	.40	5.7	1	8	12	11	NW	
Clear Lake	Cerro Gordo	1,241	9	22.0	+ 5.4	47	22	-17	29	30	.45	-.12	.40	4.2	2	24	3	4	N	
Decorah	Winneshiek	875	15	20.8	+ 5.3	47	21	-14	29	34	.50	-.65	.50	6.0	1	....	....	....	.....	
Dows	Wright	1,142	8	a 22.6	+ 5.7	a 48	20	a - 3	23	35	.30	-.53	.30	3.0	1	....	....	....	.....	
Elkader	Clayton	727	27	22.8	+ 8.0	56	4	-10	29	39	.55	-.76	.50	5.5	2	12	8	11	NW	
Elma	Howard	.....	....	20.2	.....	45	21	-16	29	34	.14	.....	.14	1.4	1	18	12	1	S	
Estherville	Emmet	1,298	12	20.1	+ 5.1	48	20	-18	29	40	.24	-.32	.24	2.0	1	18	0	13	NW	
Fayette	Fayette	1,003	18	20.8	+ 4.7	47	*20	-12	29	36	.72	-.56	.66	9.2	3	19	4	8	NW	
Forest City	Winnebago	1,226	14	19.7	+ 3.5	49	20	-18	29	30	.20	-.44	.20	2.0	1	19	5	7	SW	
Gr'd Meadow	Clayton	1,180	17	21.4	+ 5.9	45	21	-14	29	25	.64	-.53	.60	6.2	4	11	13	7	SW	
Hampton	Franklin	1,155	18	23.3	+ 7.8	50	20	-14	29	29	.70	-.34	.40	9.5	2	12	17	2	NW	
Humboldt	Humboldt	1,095	17	22.4	+ 5.6	48	20	-14	29	35	.18	-.37	.18	4.0	1	22	1	8	NW	
Inwood	Lyon	1,474	4	21.2	.....	48	27	-13	29	46	.17	.....	.17	1.7	1	24	6	1	NW	
Larrabee	Cherokee	1,266	17	21.8	+ 4.4	46	20	-15	29	38	.24	-.32	.23	2.6	2	21	8	2	SW	
Le Mars	Plymouth	1,224	12	22.9	+ 3.7	45	20	-10	29	37	.19	-.35	.19	....	1	19	8	4	.....	
Mason City	Cerro Gordo	1,132	11	21.6	+ 6.5	44	*19	-14	29	34	.55	-.60	.55	5.5	1	11	15	5	NW	
New Hampton	Chickasaw	1,169	11	20.2	+ 3.4	44	21	-15	29	28	.30	-.53	.30	3.0	1	19	6	6	S	
Osage	Mitchell	1,184	17	18.5	+ 4.5	46	21	-16	29	43	.46	-.46	.46	6.0	1	21	0	10	NW	
Plover	Pocahontas	1,426	12	21.0	+ 3.0	46	20	-16	29	33	.20	-.38	.20	2.0	1	21	5	5	NW	
Pocahontas	Pocahontas	.....	4	22.0	.....	47	20	-14	29	33	.28	.....	.28	2.8	1	19	7	5	NW	
Ridgeway	Winneshiek	1,215	10	22.6	+ 3.4	55	21	-15	29	35	.55	-1.43	.54	3.6	2	15	14	2	S	
Rock Rapids	Lyon	1,358	9	20.2	+ 6.3	48	20	-12	29	44	.20	-.39	.20	2.0	1	26	4	1	S	
Sheldon	O'Brien	1,422	8	22.3	+ 4.7	50	20	-15	29	44	.61	+.02	.50	5.0	2	25	4	2	NW	
Sibley	Osceola	1,212	15	a 19.4	+ 4.5	50	20	a -17	*29	45	.10	-.44	.10	1.0	1	22	1	8	NW	
Sioux Center	Sioux	.....	9	21.2	+ 3.3	45	27	-13	29	41	.20	-.28	.20	2.0	1	22	2	7	S,NW	
Storm Lake	Buena Vista	1,440	12	23.5	+ 6.1	50	20	-14	28	36	.13	-.58	.10	1.4	3	18	9	4	SW,NW	
Washta	Cherokee	1,157	10	24.2	.....	53	20	-14	29	39	.30	-.18	.30	3.0	1	23	6	2	S	
Waverly	Bremer	948	12	a 22.4	+ 4.5	47	21	a -11	29	33	.52	-.47	.40	5.2	2	9	14	8	NW	
West Bend	Palo Alto	1,197	14	21.4	+ 4.6	45	*19	-15	29	36	.47	-.23	.40	4.5	2	15	7	9	.....	
Averages	.....	.....	....	21.5	+ 5.3	47.8	.....	-14.0	.....	36.0	.35	-.45	.....	3.8	2	18	8	5	NW	

CENTRAL SECTION

Amana	Iowa	721	31	26.0	+10.1	52	21	- 7	29	31	.44	-.95	.40	4.4	2	13	12	6	NW	
Ames	Story	926	27	24.8	+ 7.3	53	20	-12	29	37	.55	-.37	.50	5.5	2	16	9	6	N	
Audubon	Audubon	1,301	15	25.2	+ 6.3	49	21	-10	29	38	.55	-.10	.40	5.5	2	23	2	6	NW	
Baxter	Jasper	998	8	25.4	+ 5.1	55	21	-12	29	32	.38	-.50	.20	6.5	3	21	5	5	SW	
Belle Plaine	Benton	828	18	23.6	+ 5.4	54	6	-10	29	33	.78	-.99	.55	7.8	4	14	8	9	SW,NW	
Boone	Boone	1,134	3	24.0	.....	53	20	-12	29	37	.42	.....	.32	4.5	2	....	....	....	.....	
Buckingham	Tama	.....	8	.....	.....	.....	.....	.....	.....	.....	.09	-.96	.09	2.0	1	3	25	3	.....	
Carroll	Carroll	1,265	18	23.6	+ 4.6	57	20	-11	*29	36	.30	-.51	.30	3.0	1	25	0	6	.....	
Cedar Rapids	Linn	733	26	24.0	+ 5.8	51	21	- 7	30	40	.31	-1.11	.30	4.2	2	13	16	2	.....	
Clinton	Clinton	593	40	25.7	+ 6.0	49	21	- 3	29	29	.68	-1.24	.35	6.0	4	10	12	9	SW	
Davenport	Scott	580	36	26.6	+ 5.8	52	21	- 2	29	26	.69	-.88	.38	8.1	4	13	6	12	NW	
Delaware	Delaware	1,083	17	22.0	+ 6.2	46	21	-10	29	20	.41	-.58	.40	6.1	2	15	10	6	SW	
Denison	Crawford	1,180	13	c 25.2	+ 4.9	a 50	21	d -11	29	36	.40	-.84	.20	4.0	2	....	....	....	.....	
Des Moines	Polk	861	29	27.0	+ 6.6	53	21	- 7	29	37	.46	-.75	.32	6.0	3	10	13	8	SW	
De Soto	Dallas	866	8	27.4	+ 4.2	55	20	-10	29	37	.55	-.29	.50	5.5	2	17	7	7	NW	
Dubuque	Dubuque	639	35	24.8	+ 6.5	50	21	- 6	29	31	.70	-.79	.62	7.9	3	13	7	11	NW	
Fort Dodge	Webster	1,126	8	22.6	+ 5.5	51	19	-13	29	36	.30	-.34	.30	3.0	1	17	5	9	.....	
Gilman	Marshall	1,052	9	.....	.....	.....	.....	.....	.....	.....	.40	-.43	.20	4.0	3	....	....	....	SW	
Grinnell	Poweshiek	1,023	16	26.0	+ 5.8	54	19	-10	29	35	.48	-.79	.33	7.0	3	25	2	4	SW,NW	
Grundy Center	Grundy	976	17	24.7	+ 7.8	50	19	-11	29	35	.60	-.22	.60	6.0	1	24	2	5	NW	
Guthrie Center	Guthrie	1,077	13	26.8	+ 4.1	53	20	-10	29	32	.56	-.03	.47	4.5	2	23	4	4	NW	
Harlan	Shelby	1,192	9	25.8	+ 4.6	56	20	- 8	29	39	.34	-.32	.26	6.5	2	14	12	5	NW	
Independence	Buchanan	921	43	24.7	+ 9.5	50	21	-11	29	39	.20	-1.03	.20	2.0	1	24	4	3	N	
Iowa City	Johnson	683	49	24.2	+ 5.1	53	21	- 6	*29	46	.32	-1.42	.22	5.2	3	14	6	11	SW	
Iowa Falls	Hardin	1,170	15	22.1	+ 6.9	48	19	-13	29	34	.35	-.55	.30	3.5	2	21	2	8	NW	
Jefferson(a)	Greene	.....	....	26.8	.....	57	20	-10	29	33	.45	.....	.40	4.5	2	....	....	....	N	
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	.55	.....	.35	5.1	4	18	5	8	SW	
Little Sioux	Harrison	.....	4	27.3	.....	57	20	- 8	29	42	.35	.....	.20	3.5	2	21	6	4	NW	
Logan	Harrison	928	42	28.2	+ 8.9	60	6	- 6	23	33	.60	-.50	.40	6.0	2	17	13	1	NW	
Marshalltown	Marshall	947	16	a 23.9	+ 4.5	a 51	*19	-12	29	44	.70	-.30	.60	7.2	2	12	4	15	NW	
Muscatine	Muscatine	.....	49	.....	.....	.....	.....	.....	.....	.....	1.12	-.69	.60	11.2	4	13	8	10	S	
Newton	Jasper	944	19	26.0	+ 8.5	51	19	-10	29	38	.47	-.50	.32	7.5	2	24	1	6	S	
Odebolt	Sac	1,356	10	25.5	+ 5.1	56	20	-11	29	35	.26	-.15	.22	2.5	2	27	2	2	.....	
Olin	Jones	760	11	a 24.8	+ 4.2	50	21	a - 7	29	31	.55	-1.13	.40	6.0	5	13	10	8	NW	
Onawa	Monona	1,051	8	a 27.8	+ 5.2	55	20	- 3	29	37	.25	-.41	.15	1.5	2	24	2	5	NW	
Rockwell City	Calhoun	.....	12	24.7	+ 4.9	50	20	-12	29	35	.60	-.10	.60	6.0	1	22	5	4	.....	
Sioux City	Woodbury	1,135	17	25.4	+ 9.8	51	18	- 7	29	38	.22	-.33	.21	2.1	2	14	10	7	NW	
Sac City	Sac	.....	....	24.4	+ 7.9	53	20	-11	29	35	.50	-.45	.35	5.0	2	26	3	2	NW	
Stuart	Guthrie	1,216	10	27.7	+ 5.9	57	20	-11	29	36	.36	-.41	.36	3.5	1	27	1	3	S	
Tipton	Cedar	807	10	26.4	+ 5.8	57	18	- 2	29	42	.73	-.76	.50	6.5	3	21	4	6	SW	
Toledo	Tama	856	14	25.5	+ 6.4	51	19	-10	29	33	.50	-.45	.45	5.0	2	20	8	3	N,NW	
Waterloo	Black Hawk	862	25	25.6	+ 8.1	51	21	-10	29	30	.37	-.75	.32	4.8	3	16	8	7	NW	
Waukee	Dallas	1,039	5	a 27.4	.....	51	*20	a - 9	29	37	1.05	-.63	.80	10.5	2	23	3	5	NW	
Webster City	Hamilton	.....	3	24.0	.....	50	20	-14	29	37	.45	.....	.40	4.5	2	15	10	6	NW	
Whitten	Hardin	1,036	10	23.8	+ 5.4	50	19	-15	29	36	.80	-.06	.60	8.0	3	16	7	8	SW	
Wilton Junct'n	Muscatine	683	13	25.0	+ 2.9	48	21	- 6	28	27	.10	-1.46	.06	1.0	2	19	2	10	W	
Zearing	Story	718	4	24.6	.....	50	*19	-12	29	38	.54	.....	.47	5.9	2	18	6	7	SW	
Average	.....	.....	....	25.3	+ 6.2	52.3	.....	- 9.3	.....	36.1	.48	-.47	.....	5.2	2	18	7	6	NW	

CLIMATOLOGICAL DATA FOR JANUARY, 1908—Continued.

SOUTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
Afton	Union	1,212	14	27.6	+ 4.9	52	*20	- 8	29	35	.60	-.29	.30	6.0	3	16	10	5	SW	
Albia	Monroe	959	10	26.2	+ 2.5	55	20	- 8	29	41	.30	-1.12	.20	3.0	1	11	12	8	SW	
Allerton	Wayne		6	29.0	+ 7.1	56	21	- 7	29	36	.31	-1.11	.16	3.0	4	20	4	7	NW	
Atlantic	Cass	1,164	17	26.4	+ 5.6	56	20	-10	28	42	.22	-.54	.15	2.2	2	18	7	6	NW	
Bedford	Taylor		8	28.6	+ 4.8	54	*20	- 5	29	37	.18	-.92	.10	1.0	2	25	3	3	NW	
Bloomfield	Davis			28.7		56	21	- 6	29	33	.57		.23	6.0	4	18	8	5	SW	
Bonaparte	Van Buren		17	27.4	+ 4.2	55	21	- 8	24	38	.67	-1.31	.26	6.0	4					
Burlington	Des Moines	544	12	26.2	- 0.8	56	21	- 2	*29	37	.86	-1.12	.25		6	17	10	4	SW	
Chariton	Lucas	1,042	13	28.4	+ 4.7	55	20	- 9	29	31	.35	-.97	.20	3.0	2	18	7	6	NW	
Clarinda	Page	1,009	18	26.9	+ 4.4	55	*20	- 4	29	45	.20	-.78	.11	2.2	3	19	6	6	NW	
Columbus Jct.	Louisa	595	7	27.6	+ 4.3	52	21	- 4	29	31	.78	-.69	.28	9.2	4	18	9	4	S	
Corning	Adams	1,117	16	26.2	+ 4.3	53	21	-10	*23	40	.80	-.11	.45	8.0	2	18	10	3	SW	
Corydon	Wayne	1,101	15	29.6	+ 6.3	57	21	- 7	29	37	.29	-1.20	.15	1.5	2	21	3	7	SW	
Creston	Union	1,312	3	24.4		53	21	-12	*29	38	.59		.34	5.9	3	15	4	12	S	
Cumberland	Cass		9								.80	-.00	.50	8.0	2	25	2	4	SW	
Earlham	Madison		6	26.2	+ 6.8	53	20	- 9	29	36	.65	-.43	.60	6.5	2	22	4	5	NW	
Elliott	Montgomery		3	26.8		52	21	- 7	29	37	.55		.30	3.5	2	23	7	1	NW	
Fairfield	Jefferson		14	27.8	+10.2	54	21	-10	24	40	.47	-1.23	.18	5.0	4	15	8	8	W	
Fort Madison	Lee	516	59								1.50	-.46	.60	13.0	5	15	5	11	S	
Greenfield	Adair		17	27.4	+ 6.1	53	20	- 5	23	36	.80	-.15	.70		2	20	9	2	NW	
Hancock	Pottawatta'e	1,113	2	27.2		55	20	- 6	29	37	.25		.15	3.0	2	28	0	3	NW	
Hopeville	Clarke		17	28.0	+ 6.6	54	*20	- 8	29	35	.28	-.66	.20	2.5	2	8	15	8	NW	
Indianola	Warren	969	17	a 27.8	+ 7.6	a 52	*20	a - 4	29	32	.45	-.82	.30	4.6	3	18	5	8	NW	
Keokuk	Lee	574	37	30.4	+ 6.7	55	21	0	29	28	.51	-1.18	.15	5.0	5	16	8	7	NW	
Keosauqua	Van Buren	644	16	26.3	+ 3.2	55	21	- 4	24	37	.56	-.81	.17	5.5	4	6	12	13		
Knoxville	Marion	920	12	28.8	+ 5.7	54	21	- 7	29	34	.40	-.95	.20	4.0	3	16	9	6	NW	
Lacona	Warren		9								.65	-1.02	.25	5.5	4	17	9	5		
Lenox	Taylor	1,250	13	28.0	+ 4.7	52	*20	-10	29	42	.35	-.41	.25	3.5	2	24	2	5	S	
Leon	Decatur	1,120	6	27.4	+ 5.2	51	21	- 6	29	32	.30	-.58	.04	3.0	2	24	1	6	NW	
Massena	Cass		3	28.7		55	1	- 8	29	39	.32		.22	5.0	2	8	21	2	NW	
Mt. Ayr	Ringgold	1,236	15	29.0	+ 5.7	56	20	- 6	29	32	.23	-1.01	.15	2.2	3	14	6	11	NW	
Mt. Pleasant	Henry	729	26	27.9	+ 6.9	53	21	- 4	29	31	.72	-.74	.25	7.0	6	13	12	6	NW	
Omaha, Neb	Douglas	1,040	36	30.2	+ 9.7	55	20	1	29	31	.28	-.37	.22	3.7	2	13	10	8	NW	
Oskaloosa	Mahaska	843	24	27.5	+ 8.3	53	21	- 9	*24	37	.38	-.54	.20	4.5	2	23	1	7	SW	
Ottumwa	Wapello	649	14	26.8	+ 2.3	59	20	- 5	29	40	.35	-1.25	.20	3.5	3	11	7	13	NW	
Pacific Jct	Mills	960	9	28.4	+ 4.8	58	19	- 1	23	40	.41	-.13	.25	4.1	2	16	12	3	N	
Pella	Marion	877	6	28.6	+ 5.4	54	21	- 8	29	35	.37	-.75	.24	6.0	2	16	9	6	NW	
St. Charles	Madison	1,070	7	29.6	+ 6.8	57	*20	- 9	29	36	.47	-.68	.25	4.8	3	20	8	3	NW	
Sigourney	Keokuk	877	12	27.5	+ 4.7	53	21	- 7	29	34	.43	-1.16	.25	7.5	3	6	20	5	NW	
Stockport	Van Buren		6	27.8		54	21	- 6	24	36	.50	-1.14	.23	8.0	5	17	6	8	NW	
Thurman	Fremont		11	29.4	+ 5.2	54	*19	- 5	23	38	.51	-.13	.41	5.1	2	20	7	4	NW	
Wapello (f)	Louisa	588	10	27.1	+ 2.0			0	29		.40	-.93	.30	6.0	2					
Washington	Washington	769	27	26.5	+ 7.4	54	21	- 7	29	31	.46	-1.10	.34	5.0	4	11	15	5	SW	
Winterset	Madison	1,129	17	27.8	+ 6.4	51	20	- 8	29	32	.45	-.46	.40	4.5	2	13	13	5	NW	
Average				27.8	+ 5.5	54.3		- 6.3		36.0	.48	-.76		4.9	3	17	8	6	NW	
State aver				24.9	+ 5.7	51.5		- 9.9		36.0	.44	-.56		4.6	2	17	8	6	NW	

*And other dates. *a* one day missing, *b* two days; *c* three days, etc.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JANUARY, 1908

STATIONS		DAY OF MONTH																															MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	max	34	38	43	42	38	46	44	39	43	40	32	25	35	44	38	28	46	45	51	52	52	43	33	32	43	39	40	33	15	27	27	38.3
	min	17	23	26	27	16	23	22	20	16	25	21	18	19	16	11	3	19	13	25	28	35	21	-2	-3	16	25	9	13	-8	12	14	16.8
Albia	max.	28	37	45	38	47	52	47	30	43	41	34	28	35	45	34	34	34	46	54	55	54	35	15	31	44	31	35	30	13	25	27	37.0
	min.	21	22	26	28	18	18	25	24	13	19	23	23	23	19	20	5	5	9	13	25	33	23	-1	-1	12	17	8	10	-8	-7	12	15.4
Algona	max.	20	26	40	33	34	41	41	28	34	32	26	24	28	49	36	26	34	41	43	45	44	36	17	34	40	32	34	33	8	22	21	32.3
	min.	13	6	17	17	8	20	20	11	8	22	11	13	12	15	6	-2	19	11	27	25	29	14	-4	6	15	14	0	-2	-16	5	9	11.3
Allerton	max.	39	39	43	42	43	51	46	40	45	42	36	30	31	46	40	31	47	48	53	50	56	48	33	32	49	39	38	35	19	26	30	40.2
	min.	21	25	27	29	18	22	23	21	14	25	23	22	20	16	21	4	16	12	17	28	39	22	1	0	14	26	9	16	-7	11	20	17.9
Alta	max.	23	36	42	31	37	38	40	23	37	33	30	29	25	42	19	28	34	45	45	51	44	35	19	35	45	24	33	13	10	23	18	31.8
	min.	7	5	5	15	13	20	20	13	12	21	15	13	11	10	15	-2	-1	14	15	28	28	25	-4	-3	17	18	3	2	-14	-13	10	10.3
Alton	max.	22	25	39	29	35	39	40	34	34	34	28	30	28	42	38	30	33	44	42	46	44	36	20	39	41	37	44	37	12	24	22	33.8
	min.	-2	0	14	14	3	10	18	13	10	19	13	13	12	12	10	-2	23	10	29	19	31	18	-2	13	13	19	6	2	-11	6	8	11.0
Amana	max.	34	32	39	41	37	46	43	35	34	40	34	32	30	31	33	26	43	42	50	50	52	41	32	29	41	35	27	33	11	27	26	35.7
	min.	18	11	19	25	13	24	21	18	12	25	24	27	22	21	15	4	18	12	22	30	35	23	3	-2	15	20	5	11	-7	4	21	16.4
Ames	max.	33	37	44	40	40	45	40	32	40	45	30	25	32	45	38	30	40	48	50	53	50	35	19	30	45	32	35	35	12	22	21	36.2
	min.	8	13	24	23	14	22	20	14	11	23	20	12	19	17	10	4	21	11	28	21	29	17	-2	-4	10	17	6	6	-12	8	10	13.5
Atlantic	max.	35	38	47	40	40	48	49	36	43	41	30	30	36	47	37	29	48	48	50	56	53	38	29	29	49	38	36	29	27	25	23	38.8
	min.	12	18	18	22	13	15	23	15	12	20	16	16	15	8	12	1	21	6	26	24	30	12	-1	5	8	20	5	-10	12	10	9	13.3
Audubon	max.	38	34	45	40	38	44	46	38	39	36	30	35	30	45	38	27	43	46	48	42	49	40	30	33	42	35	38	37	14	24	21	36.9
	min.	10	12	18	24	13	20	22	18	12	21	17	12	15	11	13	1	22	8	27	23	30	15	-5	1	12	22	5	9	-10	11	11	13.5
Baxter	max.	32	38	43	42	40	47	47	35	39	37	32	26	31	44	35	28	42	48	52	51	55	40	27	29	43	34	32	33	13	22	23	38.8
	min.	12	13	23	22	14	22	23	16	9	19	20	19	20	20	11	1	19	10	23	25	33	20	-4	-3	11	19	3	7	-12	4	16	14.0
Bedford	max.	39	41	46	43	40	46	46	44	45	42	36	39	36	47	42	28	47	45	52	54	54	46	32	35	50	46	42	39	18	22	26	40.9
	min.	19	20	23	28	18	19	22	21	15	25	22	19	18	10	18	2	19	9	23	19	34	18	-3	-2	11	27	8	15	-5	14	19	16.3
B. Plaine	max.	32	32	37	35	38	54	41	27	33	38	33	26	32	34	25	24	40	43	48	47	51	33	19	16	43	28	26	21	10	24	20	32.6
	min.	13	12	20	23	11	23	22	20	12	22	21	23	10	16	21	2	16	10	21	28	34	21	0	-1	12	22	3	10	-10	2	18	14.7
Bloomfi'd	max.	49	32	44	42	42	51	47	40	42	41	35	32	33	40	36	30	45	45	51	54	56	47	33	31	46	37	34	34	17	28	27	39.4
	min.	24	11	25	28	9	25	24	20	13	24	24	24	22	11	22	10	12	13	23	35	39	23	1	3	19	27	10	16	-6	6	21	18.0
Bonapa'e	max.	38	43	43	42	42	51	48	39	40	41	35	32	30	32	39	28	41	44	46	53	55	42	32	30	42	35	31	32	15	25	27	37.8
	min.	24	17	22	28	13	20	24	19	11	25	28	26	19	13	20	5	13	11	19	31	38	21	1	-8	14	24	10	15	-4	6	21	17.0
Boone	max.	29	37	45	35	40	45	45	27	42	39	28	26	32	45	25	30	40	50	50	53	50	35	21	33	48	30	37	16	11	21	20	35.0
	min.	9	9	24	23	16	25	24	16	15	17	20	17	18	15	18	2	2	15	16	30	29	23	-2	-2	11	20	4	6	-12	-11	10	13.1
Britt	max.	28	43	34	41	34	40	41	30	34	30	27	25	26	40	33	25	33	42	45	45	46	36	18	34	41	31	31	32	17	25	21	33.2
	min.	-2	12	18	18	6	15	17	15	5	20	16	13	8	11	6	-2	18	7	20	23	21	15	-4	19	8	13	-2	-1	-17	8	6	10 0
Burl'g'n	max.	40	46	43	42	40	50	48	30	38	42	35	30	28	32	40	25	39	43	44	48	56	35	22	30	42	36	32	35	15	28	28	36.8
	min.	26	20	22	25	18	18	25	26	10	15	22	27	22	12	19	5	5	12	14	21	33	25	6	1	6	21	11	11	-2	-2	12	15.5
Carroll	max.	26	35	45	36	41	43	46	31	42	37	31	30	30	47	25	30	43	48	49	57	49	37	21	35	48	32	40	17	15	24	20	35.8
	min.	6	8	14	21	15	18	23	17	14	19	15	16	13	13	15	1	1	13	14	26	26	20	-1	-1	15	15	5	7	-11	-11	12	11.5
Cedar R.	max.	29	31	42	35	38	46	43	23	32	37	33	33	29	33	34	29	40	44	49	49	51	36	19	30	43	30	32	30	10	26	23	34.2
	min.	21	13	13	25	13	12	26	21	12	12	23	23	23	21	22	7	4	15	13	23	30	25	5	3	3	17	6	5	-6	-7	9	13.9
Charlton	max.	40	42	45	39	42	50	47	40	45	42	37	30	35	45	36	30	47	48	54	55	54	46	30	30	45	39	37	34	15	25	27	39.7
	min.	23	25	24	25	15	22	23	20	13	22	22	20	20	17	22	3	17	10	20	28	37	20	0	-1	14	25	9	15	-9	9	19	17.1
Ch'rls Cty	max.	25	23	37	30	34	40	39	19	29	33	29	28	26	35	31	24	37	42	44	44	46	35	18	32	40	29	28	32	7	20	20	30.8
	min.	0	-2	9	5	-1	17	20	7	8	15	18	18	19	15	5	-1	11	11	23	25	28	7	-1	6	13	8	2	3	-14	7	11	9.4
Clarinda	max.	38	45	47	42	43	48	48	37	44	42	33	40	38	49	27	32	48	50	53	55	55	33	13	27	51	34	45	26	20	26	25	39.2
	min.	18	18	18	28	18	20	20	21	19	21	20	18	18	13	15	4	3	13	15	26	30	27	-2	-2	13	13	10	11	-4	-4	15	14.6
Clear La'e	max.	28	23	43	38	32	40	39	31	33	30	27	28	27	36	33	22	35	40	41	44	43	47	23	32	40	37	30	25	7	20	20	32.1
	min.	14	5	17	17	8	20	19	11	9	11	20	15	15	14	9	-1	17	11	27	25	26	22	-3	9	16	14	0	2	-17	4	14	11.9
Clinton	max.	37	34	40	40	37	46	46	32	32	43	35	35	34	28	37	20	36	35	42	45	49	39	32	31	42	34	23	31	12	26	26	34.8
	min.	19	13	28	23	17	17	25	17	10	25	30	29	15	9	18	8	11	10	15	29	33	23	9	5	19	18	8	12	-3	3	20	16.6
Colum's J	max.	37	33	41	42	38	48	47	30	47	42	38	34	30	29	38	25	40	39	49	47	52	45	35	31	41	36	29	33	17	29	27	37.1
	min.	23	18	25	23	16	24	30	19	12	26	27	26	20	14	20	4	14	11	19	31	38	21	4	3	18	25	8	16	-4	7	22	18.1
Corning	max.	33	36	45	42	38	45	46	38	41	40	33	37	35	45	37	28	47	45	50	50	53	40	30	30	39	39	37	35	15	25	25	38.0
	min.	15	22	23	27	18	22	23	20	14	14	21	18	16	11	14	2	19	10	27	28	32	21	-10	-10	6	7	7	13	-7	13	15	14.5
Corydon	max.	38	42	44	42	43	51	46	41	46	41	36	31	36	46	41	32	49	48	54	56	57	46	33	32	48	44	38	37	18	26	29	41.0
	min.	21	25	27	28	16	24	24	21	13	23	23	21	20	16	20	4	18	11	20	29	39	21	1	3	16	27	10	16	-7	10	20	18.1
Creston	max.	28	38	45	38	39	46	45	40	42	41	31	36	37	45	26	28	47	47	50	52	53	32	16	32	41	30	38	21	14	23	23	36.3
	min.	15	18	26	25	19	23	22	18	16	24	19	16	16	14	15	0	0	9	15	23	27	17	-7	-6	9	12	4	16	-12	-12	7	12.5
Dav'np'rt	max.	36	35	42	41	39	48	46	29	33	43	37	33	31	28	36	20	37	36	42	45	52	35	21	31	42	37	28	33	12	26	27	34.9
	min.	25	20	25	25	21	27	27	14	12	31	29	28	17	16	15	7	16	16	23	35	34	20	8	6	22	13	8	7	-2	5	18	18.3
Decorah	max.	24	27	42	39	31	39	39	25	28	36	32	33	28	33	31	21	37	38	44	43	47	37	22	32	40	32	20	15	5	23	22	31.1
	min.	-4	-2	8	20	-2	17	15	14	2	11	24	25	19	12	13	0	15	6	22	23	26	22	-1	2	10	18	1	2	-14	2	15	10.4
Delaware	max.	29	30	36	36	32	40	38	30	28	33	30	29	30	28	22	25	36	40	44	43	46	37	30	30	39	30	20	29	10	22	21	31.4
	min.	8	6	10	20	10	20	20	10	6	20	20	20	18	17	10	4	11	11	20	27	30	20	1	2	12	20	1	7	-10	0	20	12.6
Denison	max.	30	34	..	47	41	43	46	38	42	37	33	34	28	48	42	30	40	42	48	49	50	36	31	35	44	38	41	36	14	27	22	37.5
	min.	3	9	..	..	22	14	22	18	14	25	15	11	10	..	12	2	20	12	..	25	30	21	-2	8	10	22	5	11	-11	7	11	12.8
Des Moins	max.	31	38	46	38	41	47	48	31	44	40	32	28	34	45	35	30	43	49	51	52	53	36	19	32	42	34	36	38	12	23	26	37.2
	min.	17	25	27	24	18	26	26	26	17	27	22	21	21	18	10	5	24	15	26	31	32	12	1	4	17	21	9	1	-7	11	8	16.9
De Soto	max.	31	42	47	42	41	46	48	33	44	40	32	29	33	46	38	30	45	49	51	55	53	35	24	34	52	35	38	31	18	23	23	38.3
	min.	13	24	24	25	15	23	24	16	14	25	22	18	20	14	12	3	22	12	28	28	35	22	0	2	15	23	6	9	-10	11	15	16.5
Dows	max.	31	21	41	39	36	39	39	36	35	32	29	25	27	..	42	28	35	45	47	48	45	33	19	32	44	42	29	29	29	20	20	33.9
	min.	1	3	11	18	5	16	19	12	6	16	18	14	9	..	12	-1	16	9	24	23	28	18	-3	1	9	20	0	7	15	3	9	11.3
Dubuque	max.	28	29	40	40	37	47	42	27	29	38	33	34	30	29	35	25	39	42	45	45	50	38	18	32	41	32	24	31	8	22	23	33.3
	min.	13	8	21	25	15	26	25	15	10	25	25	27	20	19	16	8	19	17	28	34	31	16	6	6	19	12	6	0	-6	4	15	16.3
Earlham	max.	31	40	43	41	40	46	45	39	43	40	32	31	35	45	38	29	43	49	50	53	52	48	32	34	45	41	37	37	27	22	17	38.9
	min.	14	23	21	27	11	25	21	18	11	21	20	17	17	14	16	2	19	9	19	20	21	16	0	1	19	14	6	10	-9	2	-2	13.6
Elkader	max.	32	26	36	56	36	43	40	30	31	38	33	32	31	30	25	25	39	40	46	49	50	38	26	33	43	31	20	20	10	15	22	33.1
	min.	1	0	12	21	2	20	21	12	5	20	18	23	22	18	16	3	19	8	24	28	21	24	2	0	13	20	2	6	-10	2	2	12.4
Elliott	max.	34	38	46	46	33	43	46	35	42	39	33	35	34	43	37	28	46	50	51	47	52	39	30	38	43	36	42	30	17	29	25	38.3
	min.	13	20	23	23	16	18	13	20	17	22	19	18	16	11	13	3	20	24	23	22	30	18	-2	1	10	23	9	13	-7	12	10	15.2
Elma	max.	22	21	37	39	32	39	36	28	26	31	29	28	29	31	29	20	33	38	41	41	45	35	26	32	36	31	29	27	6	20	19	30.2
	min.	4	3	7	16	-2	18	17	10	3	13	19	17	17	11	10	-3	17	7	25	24	31	23	-3	11	9	12	0	0	-16	2	14	10.2
Esth'rv'e	max.	21	33	41	31	35	41	40	23	35	33	26	25	26	40	18	29	32	43	43	48	44	36	20	37	42	27	40	8	9	20	16	31.0
	min.	0	3	8	16	7	17	20	11	9	18	15	14	14	14	16	-2	1	13	21	25	26	25	-5	-3	16	17	0	-2	-18	-17	7	9.2
Fairfield	max.	40	31	45	45	43	50	48	40	40	44	35	33	30	33	36	27	44	44	50	53	54	43	34	31	41	38	32	32	16	27	28	38.3
	min.	24	11	21	26	12	22	24	19	12	24	26	26	19	16	18	4	18	15	25	34	40	22	0	-10	18	24	9	15	-6	8	20	17.3
Fayette	max.	23	27	37	39	34	39	39	25	23	33	31	29	26	31	30	22	36	40	45	47	47	32	17	32	39	28	22	22	6	24	21	30.5
	min.	0	-2	4	15	-2	22	20	10	3	18	19	22	19	16	15	0	18	8	24	27	31	15	0	5	14	13	1	1	-12	5	15	11.1
Forest C'y	max.	28	33	41	27	34	41	39	19	35	28	28	25	25	39	18	28	32	43	43	49	45	25	18	35	45	23	32	9	10	18	18	30.1
	min.	-1	4	11	16	8	18	18	11	7	15	17	12	14	11	17	-3	-2	9	17	25	27	24	-3	-2	13	23	-1	2	-18	-13	10	9.3
Ft. Dodge	max.	23	37	43	30	37	40	41	35	39	33	25	26	28	44	23	36	40	48	51	49	46	35	19	31	44	26	37	13	10	23	19	33.3
	min.	3	5	15	20	9	16	24	15	12	27	17	16	16	19	20	1	2	14	14	27	30	24	-1	-1	10	25	3	5	-13	-12	10	12.0
Gr. Mead	max.	26	26	36	38	32	38	38	26	26	33	30	29	27	30	30	19	37	37	44	42	45	35	22	30	37	30	18	28	5	22	20	30.2
	min.	9	5	8	20	8	24	18	10	5	16	20	20	19	16	12	0	16	15	25	29	33	22	0	5	15	15	0	5	-14	2	14	12.6
Greenfi'ld	max.	31	38	45	42	40	46	46	38	41	40	32	36	35	45	38	28	45	47	49	53	50	44	31	32	44	38	38	36	15	23	22	38.3
	min.	15	22	28	25	18	23	23	18	16	24	20	18	11	15	14	1	21	12	27	29	32	20	-5	3	14	22	5	10	11	10	12	16.6
Grinnell	max.	32	35	42	42	40	47	45	32	38	39	33	27	32	42	34	28	42	45	54	52	53	45	32	29	43	36	31	32	12	23	25	36.8
	min.	13	12	22	24	16	24	24	18	10	21	22	22	21	20	15	1	19	10	23	28	35	21	-3	-1	11	18	3	12	-10	4	19	15.3
GrundyC.	max.	29	32	39	40	38	43	42	36	35	35	32	29	28	40	38	24	38	49	50	49	49	42	17	30	44	39	26	26	11	23	23	34.7
	min.	5	6	15	20	11	25	24	16	12	20	20	20	20	22	13	1	20	14	26	28	35	23	0	3	14	20	3	10	-11	4	17	14.7
GuthrieC.	max.	30	37	45	42	38	45	45	36	42	38	31	30	32	45	38	28	43	46	48	53	49	41	32	32	44	36	38	38	14	23	23	37.5
	min.	10	18	24	24	14	25	24	18	13	24	19	18	16	14	13	2	22	12	29	31	33	22	0	4	15	24	6	9	-10	11	13	16.0

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JANUARY, 1908—CONTINUED.

STATIONS		DATE																														MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	25	24	25	26	27	28	29	30	31	
Hampton.	max.	29	29	40	39	38	40	39	28	36	34	26	26	27	40	35	27	35	48	47	50	46	34	20	34	48	30	26	26	11	19	20	33.1
	min.	13	7	18	19	9	23	22	13	10	18	19	17	19	18	8	0	18	13	27	28	32	18	-1	5	16	22	1	2	-14	6	12	13.5
Hancock..	max.	37	40	49	39	40	46	48	36	42	39	35	37	33	47	38	28	41	49	51	55	52	36	27	37	47	37	42	35	15	28	23	39.0
	min.	15	16	26	25	18	20	21	20	16	26	18	17	16	12	12	0	22	12	24	25	30	20	-3	4	10	23	8	13	-6	11	9	15.5
Harlan ...	max.	34	37	48	37	40	45	49	34	41	38	34	36	32	47	37	29	45	49	49	56	51	36	27	36	47	35	41	36	14	26	21	38.3
	min.	11	15	21	23	15	17	19	19	14	23	17	17	16	10	13	0	19	10	23	22	26	17	-5	2	8	19	6	9	-8	10	8	13.4
Hopeville.	max.	34	42	45	42	41	47	44	35	44	42	30	31	36	45	35	30	48	48	51	54	54	37	33	32	46	37	40	36	18	25	25	38.9
	min.	20	25	28	27	17	23	24	20	16	26	20	19	19	18	12	3	19	13	25	26	37	21	-1	-1	13	22	9	13	-8	12	14	17.1
Humboldt	max.	25	28	42	37	36	40	40	30	38	34	32	32	28	42	42	28	35	44	45	48	44	36	24	32	42	32	35	34	11	24	31	34.5
	min.	-2	4	16	18	8	17	22	12	10	20	14	15	14	18	10	0	20	10	25	26	30	24	-2	7	14	18	3	4	-14	7	-4	10.3
Ind'p'nce	max.	30	31	36	40	36	43	43	39	35	37	33	39	31	35	38	25	40	42	48	47	50	47	40	31	43	44	34	42	11	24	23	36.7
	min.	9	7	9	20	4	20	22	15	14	14	19	26	19	20	13	2	15	12	20	25	29	22	1	0	13	18	2	10	-11	-10	15	12.7
Indianola	max.	33	37	45	43	40	47	47	35	43	..	39	27	33	44	37	29	44	46	51	52	52	42	32	31	38	37	36	35	12	22	25	37.8
	min.	18	22	22	26	18	25	25	19	16	..	22	20	21	19	12	4	16	15	26	31	37	24	0	3	17	24	23	12	-4	10	10	17.8
Inwood...	max.	20	31	41	28	35	38	39	29	31	32	29	30	28	41	37	31	32	47	43	47	41	36	21	42	42	30	48	40	9	25	22	33.7
	min.	-1	2	13	7	0	10	20	6	4	9	9	5	7	7	11	-5	22	5	30	16	30	21	-6	13	10	18	2	1	-13	5	8	8.6
Iowa City.	max.	39	30	42	38	40	49	45	26	36	45	35	32	29	33	34	28	42	44	48	52	53	35	20	31	44	31	31	27	15	28	25	35.7
	min.	19	11	13	26	11	12	21	21	10	14	25	25	22	20	19	4	4	10	10	20	29	23	3	-2	-2	16	6	6	-6	-6	11	12.7
Iowa Falls	max.	26	28	40	30	35	40	40	21	34	33	27	27	28	40	24	28	36	45	48	46	47	34	17	31	41	29	34	14	10	23	21	31.5
	min.	4	0	9	21	3	18	21	15	9	15	20	19	19	18	20	0	20	11	22	27	27	22	-1	3	11	21	1	7	-13	8	17	12.7
Jefferson.	max.	31	38	46	41	45	45	40	37	36	39	30	30	30	42	38	30	..	51	51	57	41	41	33	34	49	34	38	38	12	25	22	37.5
	min	6	16	22	23	29	26	27	15	14	25	22	18	20	15	11	2	..	13	32	26	30	22	0	5	16	21	5	10	-10	10	14	16.2
Keokuk ..	max.	42	51	47	42	40	50	47	40	39	42	37	34	29	36	39	24	38	41	45	51	55	46	33	34	45	38	36	35	18	26	29	39.0
	min.	29	24	23	31	20	28	26	25	16	32	29	28	22	14	23	8	17	19	25	36	44	25	5	8	23	27	12	18	0	10	25	21.7
Keosa'q'a	max.	38	48	44	40	40	49	47	31	41	40	42	30	30	35	38	38	42	43	40	54	55	42	32	32	42	33	33	24	14	28	28	38.2
	min.	23	16	16	25	12	17	22	25	11	18	20	25	23	15	18	5	5	12	14	21	35	24	1	-4	5	11	12	12	-3	-3	14	14.4
Knoxville	max.	35	38	45	42	42	49	49	38	43	40	33	28	33	44	35	30	46	46	53	53	54	44	34	33	41	35	35	30	14	25	27	38.5
	min.	21	26	28	27	17	27	25	20	16	25	23	23	23	21	16	5	21	15	25	32	39	25	0	3	17	25	9	13	-7	9	20	19.0
Larrabee .	max.	21	26	41	31	35	38	39	28	35	37	32	29	26	41	36	26	32	42	42	46	43	38	18	36	40	33	40	35	10	23	21	32.9
	min.	1	1	15	12	12	16	19	11	10	21	10	9	9	17	10	-3	18	13	29	21	29	16	-5	9	15	16	2	2	-15	6	7	10.7
Le Mars ..	max.	20	25	39	33	35	39	40	34	33	35	30	30	28	41	38	30	35	43	42	45	44	38	25	39	40	34	43	38	11	25	25	34.1
	min.	-4	0	19	15	3	17	20	14	12	20	14	6	12	11	13	-1	23	14	28	24	30	25	-1	3	15	19	6	4	-10	2	9	11.7
Lenox	max.	37	38	45	44	39	45	45	43	43	41	37	38	36	45	42	28	47	45	50	52	52	45	33	32	43	40	38	37	28	26	25	40.0
	min.	16	20	28	27	19	23	22	19	18	27	20	18	17	12	15	0	17	11	24	26	32	20	-9	-3	12	25	7	13	-10	12	18	16.0
Leon.....	max.	36	36	43	40	40	47	43	41	44	40	38	26	34	44	37	25	40	40	43	50	51	45	31	30	44	40	39	35	16	26	26	37.7
	min.	21	25	27	18	12	23	22	20	15	20	21	19	18	12	25	3	18	12	22	30	38	21	0	4	14	26	11	10	-6	12	20	17.2
Lit. Sioux	max.	34	38	50	41	43	47	50	38	42	37	34	35	35	50	44	34	45	54	51	57	52	39	33	41	50	38	46	42	14	29	25	40.9
	min.	9	7	25	20	13	23	21	17	19	22	15	10	10	10	15	-3	23	12	27	23	25	19	-4	12	12	21	6	8	-8	5	11	13.7
Logan	max.	35	40	50	41	41	60	50	37	42	38	34	36	33	49	42	30	46	50	51	55	51	39	32	40	40	37	43	38	15	29	24	40.3
	min.	12	16	23	27	14	27	22	20	18	24	18	15	17	19	13	0	18	13	31	24	28	20	-6	9	20	22	8	11	-5	15	10	16.2
Mars'llt'n	max.	32	35	41	36	39	45	44	27	37	38	33	27	32	41	32	29	41	47	51	48	51	34	17	30	46	29	34	26	12	11	..	35.2
	min.	11	10	22	24	13	23	24	20	11	17	21	20	21	21	22	-2	-3	11	13	30	29	22	-2	-2	8	12	3	4	-12	-11	10	12.6
Mason C'y	max.	25	24	40	37	34	40	39	30	32	32	28	28	26	36	32	24	33	42	44	43	44	35	20	34	39	35	24	33	5	18	18	31.6
	min.	1	0	11	18	0	22	20	12	8	16	20	17	17	14	10	0	20	12	28	27	28	18	-2	9	12	18	1	4	-14	4	14	11.8
Massena..	max.	55	45	46	45	44	49	52	42	46	45	33	39	40	49	38	33	50	54	49	54	54	42	32	34	49	37	42	33	16	24	21	41.7
	min.	30	18	24	25	18	21	21	19	15	23	18	19	15	10	12	1	20	24	13	26	29	19	-6	0	12	24	8	12	-8	11	14	15.7
Mt. Ayr ..	max.	35	44	44	42	43	48	44	37	46	42	34	36	40	47	36	30	48	48	52	56	55	42	32	35	50	40	42	34	20	26	25	40.4
	min.	19	27	28	28	17	23	21	21	19	27	20	19	18	14	14	3	18	12	21	29	35	22	0	5	15	25	10	13	-6	12	15	17.5
Mt. Pleas't	max.	37	37	41	41	45	47	46	39	37	42	37	33	30	32	39	26	41	39	46	50	53	42	33	31	39	33	30	32	16	29	27	37.1
	min.	24	19	24	28	29	23	24	21	12	26	28	27	20	14	16	5	15	13	21	32	40	23	4	0	17	25	9	15	-4	8	22	18.7
N.Hamp'n	max.	26	21	35	35	31	38	36	16	27	31	31	27	28	30	28	20	33	38	42	41	44	37	25	30	33	29	19	28	5	20	19	29.1
	min.	8	6	12	18	8	17	12	12	6	18	21	18	17	13	10	-3	15	9	22	25	30	24	-3	4	13	14	0	3	-15	2	13	11.3
Newton...	max.	36	32	40	41	37	44	44	42	38	37	35	31	31	39	38	26	42	44	51	48	50	40	35	28	35	38	30	32	20	23	25	36.5
	min.	15	15	27	23	14	23	22	17	13	22	21	20	21	21	19	2	22	13	13	28	28	23	-3	-2	13	23	6	12	-10	2	18	15.5
Odebolt ..	max.	28	32	45	38	40	40	42	35	42	35	31	32	24	46	40	30	37	49	47	56	42	36	30	36	49	36	40	39	13	26	21	36.7
	min.	1	9	19	19	14	24	25	16	14	26	14	15	14	15	12	1	24	15	30	25	31	23	-1	8	16	20	5	6	-11	5	9	14.3
Omaha, N	max.	37	44	51	35	42	48	51	34	40	40	34	36	34	50	38	34	46	51	54	55	52	37	22	42	47	43	46	39	19	28	22	40.4
	min.	17	16	35	25	24	27	28	24	23	28	22	19	19	23	11	6	28	23	30	31	34	17	5	16	22	22	15	9	1	18	4	20.1
Onawa....	max.	30	30	44	37	45	42	47	37	38	36	35	35	31	50	43	37	42	54	48	55	50	40	33	43	49	42	47	39	16	29	26	39.7
	min.	11	6	22	21	14	20	23	20	20	28	19	15	17	17	15	5	24	14	26	24	26	21	2	12	15	22	10	11	-3	7	10	15.9
Olin.....	max.	33	30	36	40	35	45	42	40	31	41	35	33	32	28	34	22	40	40	41	45	50	33	29	41	36	24	24	28	15	25	26	34.0
	min.	18	10	19	26	13	21	20	20	9	23	20	27	22	19	18	7	14	11	18	27	32	5	0	11	23	..	6	14	-7	4	19	15.6
Osage.....	max.	28	23	38	36	33	40	36	36	28	31	32	28	28	30	29	23	37	42	41	45	46	36	21	33	40	30	22	31	10	30	25	31.8
	min.	-10	-6	16	5	-10	16	4	0	-5	12	13	12	14	13	10	-2	3	-1	12	13	16	8	-2	5	12	12	-1	2	-16	3	13	5.2
Oskaloosa	max.	34	34	43	42	40	49	47	36	40	40	34	32	34	42	40	29	44	45	52	52	53	42	34	32	41	34	33	33	12	26	27	37.9
	min.	22	21	24	27	13	25	24	21	13	22	24	24	23	20	15	4	19	11	21	31	38	24	-3	-9	14	25	7	12	-9	7	20	17.1
Ottumwa .	max.	44	83	45	40	43	52	48	32	42	43	35	30	35	40	36	32	46	47	43	59	58	56	18	32	42	33	36	30	15	26	29	38.7
	min.	16	14	22	28	17	18	17	22	16	22	25	24	22	21	7	7	8	17	16	19	22	18	2	2	5	18	11	4	-5	11	14	14.8
Pacific Jc.	max.	38	41	50	40	40	49	50	36	41	40	36	37	36	48	36	32	48	51	58	54	53	34	28	40	48	40	44	34	18	29	26	40.5
	min.	16	16	25	24	20	19	15	21	18	23	20	16	17	14	15	2	20	11	32	23	25	18	-1	9	14	27	11	9	0	16	10	16.3
Pella.....	max.	36	36	44	43	46	48	47	41	41	40	35	31	35	44	41	29	44	45	52	53	54	48	34	30	39	36	35	34	16	24	28	39.0
	min.	21	23	26	26	23	25	24	20	15	24	23	23	22	21	20	4	19	14	23	31	39	24	-1	0	16	26	8	9	-8	8	19	18.3
Plover....	max.	13	28	42	30	34	36	38	29	38	32	28	25	27	40	20	25	32	35	43	46	43	38	23	35	41	32	38	32	16	23	23	31.8
	min.	-3	-3	12	13	4	18	17	13	13	22	13	12	11	14	12	0	13	11	24	22	26	14	-7	9	14	19	3	1	-16	4	8	10.1
Pocahon's	max.	20	28	40	32	35	38	39	30	38	32	26	23	26	40	36	28	35	43	45	47	44	35	19	34	43	30	36	30	10	24	20	32.5
	min.	6	4	14	15	9	20	19	12	10	22	11	12	12	18	9	0	19	12	20	29	29	15	-2	8	16	15	3	1	-14	6	8	11.6
Ridgeway	max.	27	22	37	38	35	43	42	28	29	33	34	30	33	33	30	28	43	46	48	51	55	36	28	35	43	32	24	33	10	24	21	33.9
	min.	4	8	16	15	7	20	19	8	5	14	20	16	18	14	13	-2	10	11	24	27	30	17	-2	7	16	13	1	-2	-15	6	14	11.4
R. Rapids	max.	30	26	32	28	22	40	40	20	38	36	30	32	26	34	32	26	20	40	38	48	40	28	20	36	40	26	48	44	12	22	20	31.4
	min.	-2	4	10	12	8	18	20	0	8	22	8	6	10	16	10	-2	10	30	28	28	28	8	-4	20	12	14	4	0	-12	10	4	9.0
Rock'll Cy	max.	26	31	43	40	38	40	42	40	42	35	28	20	15	10	15	10	0	10	20	32	35	30	22	-2	2	10	20	3	5	-12	9	9	13.3
	min.	3	10	13	18	15	15	18	15	13	28	20	15	10	15	10	0	10	20	32	35	30	22	-2	2	10	20	3	5	-12	9	9	13.3
Sac City..	max.	27	42	42	35	37	41	39	35	40	35	30	24	26	45	40	30	37	47	46	53	47	37	32	41	45	45	39	14	12	24	20	35.7
	min.	4	4	19	19	10	14	22	12	18	25	15	15	13	16	10	0	26	14	28	23	24	23	-1	12	12	20	4	3	-11	8	8	13.2
St. Charl's	max.	31	47	46	46	45	50	51	38	48	46	32	34	40	49	36	33	50	51	53	57	57	44	33	34	48	39	38	37	18	24	25	41.3
	min.	13	18	30	26	16	26	25	20	16	25	21	19	21	18	26	3	21	15	27	27	36	23	1	2	18	23	8	13	-9	11	14	17.8
Sheldon ..	max.	22	29	42	33	36	40	40	30	36	36	35	34	26	45	30	29	34	44	43	50	43	39	28	41	45	34	46	35	9	25	21	34.8
	min.	1	1	15	13	6	14	16	12	8	22	11	7	10	11	11	-4	23	9	29	22	30	17	-4	11	12	17	2	2	-15	-10	6	9.8
Sibley	max.	25	34	41	33	36	39	39	23	34	..	33	31	26	40	16	27	31	43	42	50	43	36	18	40	45	21	46	13	8	27	14	31.8
	min.	7	4	6	12	8	15	17	10	8	18	..	11	11	10	16	-5	-3	9	9	21	21	25	-6	-5	12	11	0	-1	-17	-17	7	7.1
Sigourn'y	max.	36	32	39	42	38	48	46	42	38	42	38	33	32	34	34	28	43	44	51	50	53	45	34	30	40	36	30	33	16	28	30	37.6
	min.	23	15	22	27	14	23	23	22	12	23	24	26	22	20	21	4	17	12	20	31	37	23	0	-4	15	25	7	15	-7	7	20	17.4
Sioux Cen	max.	21	25	37	29	34	38	40	29	33	34	27	27	26	39	35	29	32	42	40	44	43	30	2	17	19	33	45	37	10	25	20	32.4
	min.	4	3	13	12	7	15	20	10	10	23	11	10	11	10	9	-3	22	9	28	23	23	2	-5	2	17	19	4	0	-13	3	5	10.0
Sioux City	max.	25	29	42	32	40	41	45	29	38	36	30	30	35	49	36	35	38	51	46	50	48	39	23	42	45	33	48	39	10	26	20	36.3
	min.	3	6	28	12	14	23	26	18	22	26	17	15	15	19	6	3	23	20	33	24	28	10	1	15	15	14	10	4	-7	10	1	14.6
Stockport	max.	38	36	42	48	40	51	46	37	40	40	34	33	30	32	39	29	43	43	48	52	54	44	33	30	43	36	30	32	17	27	28	37.9
	min.	23	16	22	21	12	23	24	18	11	24	27	26	21	23	23	5	16	11	22	33	40	25	2	-6	16	25	10	15	-4	6	21	17.8
Storm L..	max.	28	26	41	36	36	38	40	32	35	32	28	26	24	41	39	27	34	44	44	50	44	35	32	25	-4	9	18	21	2	-14	2	6	8	13.0
	min.	2	6	18	17	11	23	21	14	12	22	10	14	12	16	9	-1	23	14	30	26	32	42	43	33	35	50	38	39	37	21	24	23	39.8
Stuart	max.	33	44	46	43	42	51	40	37	43	42	32	33	31	42	38	32	42	56	52	57	56	43	33	35	50	38	39	37	21	24	23	39.8
	min.	14	14	23	24	18	25	23	18	14	24	21	17	17	15	12	0	20	13	29	30	32	21	-1	-1	16	19	5	11	-11	9	13	15.6

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JANUARY, 1908—CONTINUED.

STATIONS		DATE																															MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Thurman	max.	38	41	50	42	40	50	50	38	42	41	37	38	37	48	43	32	48	48	54	52	54	42	33	41	48	38	45	39	17	28	25	41.3
	min.	20	16	24	28	18	19	24	23	19	25	20	19	18	13	16	4	22	10	29	28	30	23	-5	3	14	28	12	15	0	15	13	17.5
Tipton....	max.	34	28	39	41	37	47	43	34	32	41	35	33	30	24	32	22	39	57	40	44	52	40	31	29	42	34	23	29	14	26	24	34.7
	min.	21	18	25	28	19	25	25	20	11	27	28	25	21	19	16	6	13	15	19	30	38	25	6	3	12	22	8	14	-2	7	20	18.2
Toledo ...	max.	33	33	39	41	37	43	43	37	36	37	32	29	30	39	32	25	39	43	51	48	50	42	33	28	40	37	26	33	13	23	24	35.4
	min.	11	10	9	23	11	21	22	19	12	24	22	22	22	21	15	3	20	13	25	30	35	23	0	3	15	23	4	12	-10	4	19	15.6
Wapello ..	max.	39	43	41	44	..	43	52	39	35	40	37	34	35	28	35	42	41	..	..	..	..	..	30	34	45	45	27	34	20	27	29	36.8
	min.	19	20	26	30	..	18	26	20	13	28	30	20	10	4	14	11	22	..	..	..	..	..	8	13	20	26	11	16	0	9	22	17.4
Wash'g'n	max.	34	31	42	42	40	50	47	32	38	43	35	32	31	30	36	26	42	43	50	51	54	39	30	31	42	35	29	32	14	28	26	36.6
	min.	22	15	23	23	12	22	24	16	10	24	26	26	20	16	14	4	15	12	20	32	39	22	3	0	15	18	6	11	-7	7	18	16.4
Washta ..	max.	32	32	54	34	38	40	43	34	39	34	32	32	25	47	40	30	38	50	48	53	48	38	27	38	49	37	45	28	25	25	22	37.3
	min.	-8	-4	16	16	3	16	20	14	10	18	12	10	12	16	12	-1	18	15	30	17	28	23	-4	12	8	20	9	4	-14	1	15	11.1
Waterloo.	max.	27	34	39	40	40	43	42	32	34	35	33	29	30	37	33	29	40	47	50	49	51	45	27	34	44	43	26	34	20	23	23	35.9
	min.	7	7	13	21	6	23	24	16	17	22	21	21	20	23	22	1	20	14	25	29	32	25	2	4	12	22	4	10	-10	5	17	15.3
Waukee ..	max.	31	35	44	42	42	42	47	41	42	41	32	28	28	44	37	27	44	46	50	51	51	42	36	32	42	34	36	36	16	33	30	38.1
	min.	12	22	30	25	22	25	23	19	15	25	21	17	19	16	16	3	20	14	28	21	33	24	-1	3	15	24	6	10	-9	10	..	16.6
Waverly .	max.	23	27	37	37	35	40	40	39	31	35	32	28	28	38	31	25	37	42	46	45	47	42	21	31	39	29	22	22	7	22	21	32.2
	min.	6	3	10	20	2	17	20	2	9	19	20	20	19	19	11	1	18	10	25	27	32	21	1	6	12	14	3	..	-11	5	15	12.5
Websr. Cy	max.	35	31	44	43	38	42	43	36	38	35	33	24	29	44	42	29	38	48	49	50	48	40	29	33	43	40	34	36	13	25	24	36.6
	min.	2	6	13	20	9	16	20	15	10	23	20	16	18	19	12	0	21	11	22	21	27	20	-2	1	6	20	2	6	-14	6	17	11.3
W. Bend .	max.	26	25	43	35	33	40	38	32	37	31	27	23	26	40	36	25	32	41	45	45	42	35	19	34	40	32	35	32	10	25	20	32.4
	min.	0	4	15	16	6	17	18	12	8	20	11	13	10	15	9	-3	19	10	27	23	27	19	-5	6	13	16	-1	2	-15	4	10	10.4
Whitten ..	max.	31	32	42	39	37	43	43	30	36	34	30	26	30	40	33	20	31	44	50	47	49	40	32	29	42	38	27	35	10	24	23	34.4
	min.	6	9	19	20	11	22	22	15	11	20	19	18	19	21	15	-1	13	10	23	27	34	20	-4	-2	10	19	1	8	-15	4	16	13.2
Wilton Jn	max.	33	30	39	38	33	45	43	42	40	40	40	37	30	25	25	21	35	35	40	40	48	44	31	28	34	24	24	19	26	28	27	33.7
	min.	20	20	25	28	15	21	21	21	8	26	28	27	17	10	17	3	10	10	15	28	32	22	4	1	24	6	18	-6	2	12	20	16.3
Winterset	max.	32	37	44	42	38	44	45	39	40	39	32	29	33	43	38	28	40	45	48	51	50	44	34	32	41	38	36	37	14	24	24	37.5
	min.	17	23	27	26	18	25	25	20	16	26	22	18	19	17	19	3	21	16	26	30	34	24	2	4	18	25	9	13	-8	10	19	18.2
Zearing...	max.	30	34	42	41	38	43	44	35	38	36	29	28	30	42	36	28	40	47	50	48	50	37	23	30	44	36	29	32	12	22	23	35.4
	min.	9	8	16	22	10	23	23	15	9	23	21	19	17	21	12	1	19	9	24	26	32	20	-4	1	8	22	4	6	-12	7	13	13.7

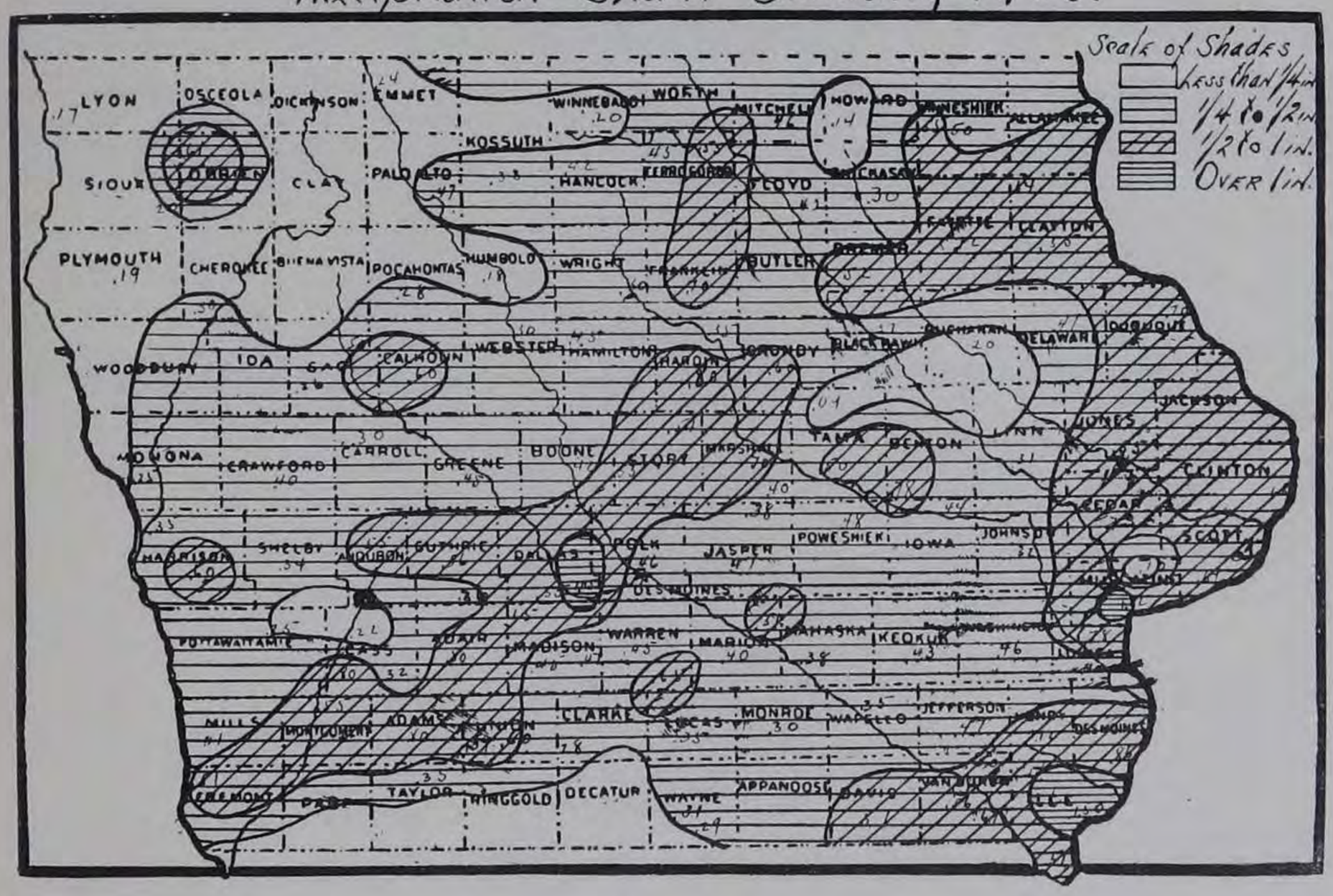
DAILY AND MONTHLY PRECIPITATION FOR JANUARY, 1908.

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.30	....	....	....	....	....	....	....	.10	.20	.60
Albia	T	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	....	....	T	.10	.30
Algona	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	T	.33	.33
Allerton	....	....	T	.01	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.16	T	....	....	....	....	....	....	.03	.11	.31
Alta	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.08	....	....	T	T	....	....	....	.07	.15
Alta (near)	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	.02	....	....	....	....	....	....	.20	....	.27
Alton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	.15	.20
Amana	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.04	....	....	....	T	....	....	....	T	.40	.44
Ames	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.05	....	....	....	T	....	....	....	....	.50	.55
Atlantic	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.07	.15	....	.22
Audubon	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	....	.40	.55
Baxter	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.17	....	....	....	T	....	....	....	.01	.20	.38
Bedford	....	....	T	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	T	.10	....	....	....	....	....	....	....	....	.08	.18
Belle Plaine	....	..	....	....	....	....	....	T	....	....	....	....	....	....	T	....	....	....	....	....	....	.10	....	....	....	.05	....	....	....	.08	.55	.78
Bloomfield	....	....	....	....	....	....	....	....	....	....	....	.12	....	....	....	....	....	....	....	....	....	.23	....	....	....	....	....	....	....	.01	.21	.57
Bonaparte	....	....	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	.26	....	....	.06	....	....	....	....	....	.15	.67
Boone	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.10	....	....	T	....	....	....	....	.32	.42
Britt	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	.01	....	....	....	.01	....	....	....	....	.40	.42
Buckingham	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	.09	.09
Burlington	....	....	....	....	....	....	....	....	....	....	.17	.25	.24	....	....	....	....	....	....	....	....	....	.08	....	....	.10	....	....	....	....	.02	.86
Carroll	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	.30	.30
Cedar Rapids	....	...	....	T	....	....	....	T	T	....	....	....	....	....	....	T	....	....	....	....	....	....	.01	....	....	T	T	....	....	....	.30	.31
Chariton	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	T	.20	.35
Charles City	....	....	....	....	....	....	....	T	....	....	....	....	....	....	T	....	....	....	....	....	....	T	....	....	....	T	....	T	....	T	.40	.40
Clarinda	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	.09	....	....	....	....	....	....	....	....	.11	.20
Clear Lake	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	.40	.45
Clinton	....	...	T	....	....	....	....	....	....	....	....	.35	....	....	....	....	....	....	....	....	....	T	....	....	....	.08	....	....	....	....	.25	.68
Columbus Junc.	....	....	....	....	....	....	....	....	....	....	....	.28	.20	....	....	....	....	....	....	....	....	.02	....	....	....	T	....	....	....	T	.28	.78
Corning	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.45	....	....	....	....	....	....	....	....	.35	.80
Corydon	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	....	T	....	....	....	....	.14	.29
Creston	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.34	....	....	....	....	....	....	....	.10	.15	.59
Cumberland	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.30	....	....	....	....	....	....	....	....	....	.50	.80
Davenport	....	....	T	....	....	....	....	T	....	....	T	.38	....	....	T	....	....	....	....	....	....	.01	....	....	....	T	....	....	....	.06	.24	.69
Decorah	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.50	.50
Delaware	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	.01	....	....	....	....	.40	.41
Denison	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	.20	.40
Des Moines	....	....	....	....	....	....	....	....	....	....	T	T	....	....	T	....	....	....	....	....	....	.13	....	....	....	T	....	....	T	.20	.13	.46
De Soto	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	T	....	....	T	.50	.55
Dows	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	T	....	....	....	....	.30	.30
Dubuque	....	....	T	....	....	....	....	T	....	....	....	.02	....	....	T	....	....	....	....	....	....	T	....	....	....	.03	....	....	....	....	.65	.70
Earlham	T	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	.60	T	.65
Elkader	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.05	....	....	....	T	....	....	....	....	.50	.55
Elliott	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.30	....	....	....	....	....	....	....	T	.25	.55
Elma	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	T	.14	.14
Estherville	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.24	.24
Fayette	....	....	....	....	....	....	....	T	....	....	....	....	....	....	T	....	....	....	....	....	....	.06	....	....	....	T	T	....	....	....	.66	.72
Fairfield	....	....	T	....	....	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	....	....	.12	....	....	....	T	....	....	....	.02	.18	.47
Forest City	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.20	.20
Fort Dodge	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	T	....	....	....	....	.30	.30
Fort Madison	....	....	.20	....	....	....	....	....	....	....	.30	.60	....	T	T	....	....	....	....	....	....	T	.20	....	....	T	....	....	....	....	.20	1.50
Gilman	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	.10	.29	.40
Grand Meadow	....	....	....	....	....	....	....	.01	....	....	....	....	....	....	.02	....	....	....	....	....	....	T	....	....	....	.01	....	....	....	....	.60	.64
Greenfield	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	T	.70	.80
Grinnell	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	.03	.30	.48
Grundy Center	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	T	....	....	....	T	....	....	....	T	.60	.60
Guthrie Center	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.09	....	....	....	....	T	....	....	T	.47	.56
Hampton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.70	....	.70
Hancock	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	.15	.25
Harlan	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.08	....	....	....	T	....	....	T	T	.26	.34
Hopeville	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	....	....	T	.08	.28
Humboldt	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.18	.18
Independence	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	T	....	....	....	....	.20	.20
Indianola	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	T	....	....	....	.05	.30	.45
Inwood	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	T	T	....	.17	.17
Iowa City	....	....	....	....	....	....	....	....	....	....	....	.06	T	....	....	....	....	....	....	....	....	....	.04	....	....	....	....	....	....	....	.22	.32
Iowa Falls	....	....	....	....	....	....	....	T	....	....	....	T	....	....	....	T	....	....	....	....	....	....	.05	....	....	T	T	....	....	....	.30	.35
Jefferson	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	.40	.45
Keokuk	....	....	.03	....	....	....	....	....	....	....	.14	.12	....	....	T	....	....	....	....	....	....	.15	....	....	....	....	T	....	....	T	.07	.51
Keosauqua	....	....	....	....	....	....	....	....	....	....	....	.17	.12	....	....	....	....	....	....	....	....	....	.17	....	....	T	T	....	....	T	.10	.56
Knoxville	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.20	....	....	....	....	....	....	....	.08	.12	.40
Lacona	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	.25	....	....	....	....	....	....	....	.10	.20	.65
Larrabee	....	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.01	....	....	....	T	....	....	....	....	.23	.24
Le Claire	....	....	....	....	....	....	....	....	T	....	....	.25	.10	....	....	T	....	....	....	....	....	....	T	....	....	.04	T	....	....	....	.16	.55
Le Mars	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	T	....	.19	.19
Lenox	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.25	....	....	....	....	....	....	....	....	.10	.35
Leon	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	.10	.30
Little Sioux	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	....	.20	.35
Logan	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.40	....	....	....	T	....	....	....	T	.20	.60
Marshalltown	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.60	.70
Mason City	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	T	.55	.55
Massena	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	T	.22	.32
Mt. Ayr	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	T	.03	.23
Mt. Pleasant	....	....	T	.05	....	....	....	....	....	....	....	.25	.05	....	....	....	....	....	....	....	....	.14	....	....	....	.03	....	....	....	....	.20	.72
Muscatine	....	....	....	....	....	....	....	....	....	....	....	.20	.60	....	....	....	....	....	....	....	....	....	.02	....	....	....	T	....	....	....	.30	1.12
New Hampton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	T	....	....	....	T	....	....	....	....	.30	.30
Newton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	....	.32	.47
Odebolt	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.04	....	....	....	....	....	....	....	....	.22	.26
Olin	....	....	.01	....	....	....	....	T	....	....	....	.06	....	....	....	....	....	....	....	....	.05	....	....	....	....	.03	....	....	....	....	.40	.55
Omaha, Neb	....	....	....	....	....	....	....	....	....	....	....	T	T	....	T	....	....	....	....	....	....	.06	....	....	T	T	....	....	T	T	.22	.28
Onawa	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.10	....	....	....	T	....	....	....	....	.15	.25
Osage	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.46	.46
Oskaloosa	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.18	....	....	....	....	....	....	T	T	.20	.38
Ottumwa	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	.20	....	.35
Pacific Junction	....	....	....	....	....	....	....	....	....	....	....	....	T	....	T	....	....	....	....	....	....	.16	....	....	T	....	....	....	T	....	.25	.41
Pella	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.13	....	....	....	....	....	....	....	T	.24	.37
Plover	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	.20
Pocahontas	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.28	.28
Ridgeway	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.01	....	....	....	....	....	....	T	....	....	....	T	T	....	....	....	.54	.55
Rock Rapids	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	.20
Rockwell City	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	.60	.60
Sac City	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	....	.35	.50
St. Charles	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	....	....	.02	.25	.47

DAILY AND MONTHLY PRECIPITATION FOR JANUARY, 1908—CONTINUED.

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sheldon	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.11	....	....	....	T	....	....	....	T	.50	.61
Sibley	....	...	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	.10
Sigourney	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	.13	....	....	....	T	....	....	....	T	.25	.43
Sioux Center	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	T	....	....	T	T	.20	.20
Sioux City	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	.01	T	....	T	....	.21	.22
Stockport	....	....	T	.01	....	....	....	....	....	....	....	.06	.04	....	T	....	....	....	....	....	....	.23	....	....	....	T	....	....	....	T	.16	.50
Storm Lake	....	....	...	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.02	....	....	....	....	.01	T	....	....	.10	.13
Stuart	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.36	.36
Thurman	....	....	T	....	....	....	....	....	....	....	....	....	T	....	T	....	....	....	....	....	....	.10	....	....	....	T	....	....	T	....	.41	.51
Tipton	....	....	....	....	....	....	....	....	....	....	....	.08	....	....	....	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	....	.50	.73
Toledo	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	.45	.50
Wapello	....	....	....	....	....	....	....	....	....	....	....	.30	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.40
Washington	....	....	....	....	....	....	....	....	...	....	....	.08	.02	....	....	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	.34	.46
Washta	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	T	....	....	T	....	.30	.30
Waterloo	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.02	....	....	....	.03	....	T	....	T	.32	.37
Waukee	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.25	....	....	....	T	....	....	....	T	.80	1.05
Waverly	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.12	....	....	....	T	....	....	....	T	.40	.52
Webster City	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	.40	.45
West Bend	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.07	....	....	....	....	....	....	....	....	.40	.47
Whitten	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	T	....	....	....	T	.60	.80
Wilton Junction	....	....	....	....	....	....	....	....	....	....	....	.04	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.06	....	.10
Winterset	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.05	....	....	....	....	....	....	....	T	.40	.45
Zearing	....	...	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.07	....	....	....	....	....	....	....	T	.47	.54

Precipitation Chart January 1908.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR FEBRUARY, 1908

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH STATE PRINTER
1908

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

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Algona	Dr. F. T. Seeley
Allerton	Mrs. Geo. Shriver
Alta	D. E. Hadden
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Alton	W. S. Slagle
Amana	Conrad Stadt
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Baxter	W. R. Vandike
Bedford	E. E. Healy
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Britt	G. P. Hardwick
Buckingham (Traer P. O.)	Dr. W. A. Daniel
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Carroll	Frank Hughes
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Chariton	C. C. Burr
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Clear Lake	Oscar Stevens
Clinton	Luke Roberts
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Corydon	Clara Miller
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Cumberland	Agent C., B. & Q. R'y
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Delaware	Wm. Ball
Decorah	F. H. Baker
Denison	W. C. Van Ness
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De Soto	R. D. Minard
Dows	H. A. Flett
Dubuque	*James H. Spencer
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Elkader	Chas. Reinecke
Elliott	Henry Barnes
Elma	H. A. Moore
Estherville	A. O. Peterson
Fairfield	Prof. R. Monroe McKenzie
Fayette	R. Z. Latimer
Forest City	J. A. Peters
Fort Dodge	Tobin College
Fort Madison	Miss L. A. McCready
Gilman	Jas. L. Wylie
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Greene	J. L. Cole
Greenfield	Dr. Geo. Brooks
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Grundy Center	W. H. Scott
Guthrie Center	D. G. Beardsley
Hampton	E. C. Grenelle
Hancock	W. Armstrong
Harlan	C. A. Reynolds
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Humboldt	H. S. Wells
Independence	Austin Cornwall
Indianola	Prof. J. L. Tilton
Inwood	F. D. Hanson
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Jefferson	Geo. W. Jackson
Keokuk	*Fred Z. Gosewisch
Keosauqua	J. A. Landes
Knoxville	Casey & Bellville
Lacona	Agent C., B. & Q. Ry.
Larrabee	H. B. Streever
Lenox	J. L. Hurley
LeMars	G. A. C. Clarke
Leon	J. Morris Gardner
Little Sioux	G. H. Gibson
Logan	Glenn H. Stern
Marshalltown	Geo. R. Estabrook
Mason City	J. S. Mills
Massena	G. A. Hill
Mount Ayr	A. F. Beard
Mount Pleasant	Prof. J. W. Edwards
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New Hampton	A. F. Kemman
Newton	Hon. J. P. Beatty
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Odebolt	E. Starner
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Oskaloosa	Jos. Boyd
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Pella	T. W. Cox
Perry	J. A. Harvey
Plover	J. S. Smith
Pocahontas	F. E. Hronek
Ridgeway	Arthur Betts
Rock Rapids	W. C. Wyckoff
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Sac City	Frank Stouffer
St. Charles	C. W. Minard
Sheldon	Dr. A. W. Beach
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Sigourney	J. T. Parker
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West Bend	Phil. Dorweiler
Woodburn	C. B. McDonough
Zearing	C. P. Bean

*U. S. Weather Bureau.

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Independence	George H. Wilson
Indianola	H. D. Guthrie
Manson	J. D. Skinner
Marshalltown	Hon. S. B. Packard
Mount Pleasant	W. S. Wright
Milton	Hon. E. C. Holland
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Oakville	Z. W. Steele
Orange City	H. J. Vande Waa
Pella	J. H. Ver Steeg
Preston	J. G. Storm
Pittsburg	G. C. Duffield
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Red Oak	Hon. C. L. Stratton
Seymour	L. B. Sager
Stuart	W. W. Bailey
Van Horne	Spencer Smith
Weldon	Ed Worden
Winterset	H. A. Kinsman
West Branch	Wrigley Smith
West Union	H. B. Blackman
Woodward	George Swisher

U. S. DEPARTMENT OF AGRICULTURE

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IN CO-OPERATION WITH THE

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IOWA SECTION

GEO. M. CHAPPEL, - - - Director.

VOL. XIX. DES MOINES, IOWA, FEBRUARY, 1908. No. 2

GENERAL SUMMARY.

The weather during February was mild and pleasant, with no continued cold periods. The mean temperature was above the normal, and has been exceeded only five times in the past nineteen years. The precipitation was above the normal, and heavier than usual, the average, 1.69 inches, being .98 inch, greater than February 1907, and .12 inch greater than the largest previous amount ever recorded for the State, which was 1.57 inches in February, 1905. The amount of sunshine was about normal.

The mean temperature exceeded the normal in all sections, the excess being greatest in the northern section, where it averaged 5.9°. The first decade was the coldest portion of the month, the coldest days of this period being the 1st and 2d, which were without exception the coldest days of the month. The warmest periods of the month were from the 9th to the 15th, and the 21st to the 25th. The monthly maximum temperatures ranged from 40° to 59°, and were reported mostly on the 12th and 24th. The monthly minimum temperatures ranged from zero to –16°, and were reported, with one or two exceptions, on the 1st and 2d.

The precipitation was well distributed thruout the State, altho it was heavier in the southern and eastern counties. Precipitation occurred generally on the 4th-5th, 12th-18th, 24th-26th, and 29th, the largest amounts occurred on the 4th-5th, and 18th. The snowfall was unusually heavy, and the excess in precipitation for the month, is mostly due to the severe snowstorm which swept the State on the 18th. It was the most severe of the winter, being accompanied by high wind, which drifted the snow badly, and delayed traffic in all sections of the State, the amounts of snow, ranging from 2 to 4 inches in the northern counties, to 10 to 16 inches in the southern and eastern counties. The snow disappeared very rapidly on the 22d and 23d, and at the close of the month, the ground was uncovered except for a trace in the northeastern counties. W. C. C.

TEMPERATURE.

The monthly mean temperature for the State, as shown by the records of 115 stations, was 24.3°, which is 5.1° above the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 22.1°, which is 5.9° above the normal; Central section, 24.4°, which is 4.8° above the normal; Southern section, 26.4°, which is 4.6° above the normal. The highest monthly mean was 29.1°, at Keokuk, Lee county, and the lowest monthly mean, 18.2°, at Rock Rapids, Lyon county. The highest temperature reported was 59°, at Keokuk, Lee county, on the 12th; the lowest temperature reported was –16°, at Decorah and Thurman, in Winneshiek and Fremont counties, on the 2d. The average monthly maximum was 49.8°, and the average monthly minimum was –7.2°. The greatest daily range was 51°, at Thurman. The average of the greatest daily ranges was 37.0°

PRECIPITATION.

The average precipitation for the State, as shown by the records of 121 stations, was 1.69 inches, which is .63 inch above the normal. By sections the averages were as follows: Northern section, 1.42 inches, which is .48 inch above the normal; Central section, 1.83 inches, which is .75 inch above the normal; Southern section, 1.81 inches, which is .66 inch above the normal. The greatest amount, 3.95 inches occurred at Olin, Jones county, and the least, .23 inch, at Clear Lake, Cerro Gordo county. The greatest amount in 24 hours, 2.00 inches, occurred at Olin, Jones county, on the 4th-5th. The average snowfall, unmelted, was 8.9 inches, the average for the three sections being as follows: Northern section, 8.7 inches; Central section, 9.6 inches; Southern section, 8.4 inches. The greatest monthly snowfall, 17.3 inches, occurred at Pacific Junction, Mills county, and the greatest 24-hour amount, 15.8 inches, at Pacific Junction, on the 18th.

Measurable precipitation occurred on an average of 6 days.

SUNSHINE AND CLOUDINESS.

The average number of clear days was 12; partly cloudy, 6; cloudy, 11. The duration of sunshine was about normal, the percentage of the possible amount being 51, at Des Moines; 63, at Davenport; 52, at Dubuque; 58, at Keokuk; and 68, at Sioux City.

WIND.

Northwest winds prevailed. High winds were reported on the 1st, 2d, 4th, 5th, 18th and 19th. The highest velocity reported was 50 miles per hour, from the northwest, at Sioux City, Woodbury county, on the 5th.

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	30.10	30.58	8	29.53	5
Davenport	30.10	30.63	8	29.47	5
Des Moines	30.09	30.48	9	29.44	5
Dubuque	30.11	30.70	8	29.53	5
Omaha, Neb.	30.11	30.51	1	29.55	12
Keokuk	30.11	30.56	8	29.44	5
Sioux City	30.11	30.40	19	29.54	12
Means	30.10	30.70	8	29.44	5

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	6805	28	NW,SW	5,24
Davenport	7795	33	NW	5
Des Moines	7591	30	N	18
Dubuque	6341	28	N	19
Keokuk	7630	38	W	5
La Crosse, Wis	4989	22	S	12
Omaha, Neb	7879	44	N	18
Sioux City	10216	50	NW	5

COMPARATIVE STATE DATA FOR FEBRUARY.

Year	Temperature Mean	Average Precipitation—Inches	Year	Temperature Mean	Average Precipitation—Inches
1890	26.0	.83	1900	14.8	1.30
1891	19.4	1.16	1901	17.5	1.01
1892	28.1	1.20	1902	17.6	.73
1893	16.4	1.39	1903	19.8	1.18
1894	19.7	.89	1904	14.8	.41
1895	16.4	.49	1905	12.8	1.57
1896	27.4	.71	1906	23.6	1.29
1897	24.6	.88	1907	25.0	.71
1898	24.2	1.20	1908	24.3	1.69
1899	12.2	.89			

THE WINTER OF 1907-08.

The mean temperature of the three winter months was 26.0°, which is 5.3° above the normal for the State. The highest temperature reported was 62°, at Mount Pleasant, Henry county, on December 9th. The lowest temperature reported was -18°, at Estherville, Emmet county, and Forest City, Winnebago county, on January 29th. The average precipitation for the State was 1.04 inches—a total of 3.13 inches for the three winter months. This is .06 inch below the normal. The snowfall, unmelted, averaged 6.1 inches, and was heaviest during the month of February. The average number of days on which .01 inch or more of precipitation was reported, was 13.

The coldest period of the winter occurred during the last week of January. The winter was 2.9° warmer than the winter of 1906-07, and was 1° warmer than the winter of 1905-06. The average number of clear days was 39; partly cloudy, 21; cloudy, 31. The prevailing direction of wind was northwest. On the whole it was a very mild and agreeable winter. W. C. C.

BELATED REPORT.

PERRY.—January. Mean temperature, 27.4°; highest; 53°, on the 20th; lowest -1°, on the 23d; greatest daily range, 30°.

ERRATA.

OMAHA, NEB.—January. The maximum temperature on the 29th, recorded as 19°, page 8, should have been 18°. The mean maximum, recorded as 40.4°, page 8, should have been 40.3.

OBSERVERS' NOTES.

ALBIA—*J. I. Chenoweth.* Another mild winter month, with only one day with the temperature below zero.

ALTON—*W. S. Slagle.* The ice broke up early this season, on the 13th. Two misty days this month. Roads have been very rough or muddy all this month.

ATLANTIC—*J. W. Love.* A very mild winter month.

BONAPARTE—*B. R. Vale.* Precipitation 2.49 inches. No bad storms, and but little frost in the ground.

CHARITON—*C. C. Burr.* Only one severe storm during February. An all day snowstorm with high wind on the 18th. Live stock in good condition and feed plenty.

ELKADER—*Chas. Reinecke.* The ice went out of the Turkey river on the 12th.

ELLIOTT—*Henry Barnes.* Pretty fair month for business until the 18th, when the drifted snow made the roads, for two or three days, almost impassable.

FAYETTE—*R. Z. Latimer.* The ice on the Volga river broke up and went out on the 12th.

FOREST CITY—*J. A. Peters.* The weather during the month was exceptionally good for live stock, no bad storms and the temperature moderate, being about 6° above the normal.

GRAND MEADOW—*F. L. Williams.* The month was favorable for stock feeding. No bad storms and only three days of zero temperature or below.

INWOOD—The temperature for the month has been variable, altho the mean temperature has been above the average for February. The snowfall exceeds that of any other month.

KEOSAUQUA—*J. H. Landes.* A mild winter month, not cold enough to make ice for packing. Most of the ice bins were filled in January with ice from 6 to 8 inches thick.

LEON—*M. Gardner.* The month was warm and dry. One bad storm, on the 18th. No trains for two days on account of the snow drifts.

OLIN—*Nathan Potter.* February as usual had the coldest day, and the worst storms of the winter. The ice had practically disappeared from the streams the last of the month.

OSAGE—*A. D. Bundy.* A number of days had high wind, but on the whole it was a mild and pleasant month.

RIDGEWAY—*Arthur Betts.* Warm February; mean temperature exceeded only in 1898. First thunderstorm of the season on the 29th. A lovely month.

SHELDON—*A. W. Beach.* The roads were bad most of the month.

STOCKPORT—*C. L. Beswick.* February much stormier than January, altho stock wintered well.

WAVERLY—*H. S. Hoover.* The weather was cloudy and changeable; no good sleighing to haul timber, and more than the usual amount of wind for northern Iowa.

CLIMATOLOGICAL DATA FOR FEBRUARY, 1908.

NORTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
Algona	Kossuth	1,213	34	22.4	+5.4	48	24	- 8	*1	36	1.00	- .27	.30	10.0	4	15	6	8	NW	
Alta	Buena Vista	1,513	17	20.4	+2.8	48	24	- 6	1	35	1.79	+ .94	.55	11.5	7	11	10	8	NW	
Alta [near]	Buena Vista	.....	....	.....	.....	.....	.....	.....	.....	.....	1.72	.....	.52	11.0	7	....	....	....	.....	
Alton	Sioux	1,305	3	23.2	.....	52	24	- 8	2	37	1.86	.....	.92	8.5	6	14	4	11	NW	
Britt	Hancock	1,236	11	22.5	+6.0	50	24	-15	2	37	.70	- .33	.30	4.3	5	7	14	8	NW	
Charles City	Floyd	1,015	20	21.4	+6.4	48	24	- 9	2	38	1.44	+ .47	.68	12.5	8	6	7	16	NW	
Clear Lake	Cerro Gordo	1,241	9	22.4	+7.8	46	22	- 9	2	34	.23	- .62	.10	....	3	15	6	8	N	
Decorah	Winneshiek	875	15	22.4	+7.1	52	24	-16	2	45	1.50	+ .59	.60	8.0	5	....	....	....	.....	
Dows	Wright	1,142	8	22.5	+7.1	49	24	-10	2	38	1.56	+ .34	.50	12.0	5	15	2	12	NW	
Elkader	Clayton	727	27	24.3	+6.3	48	12	-14	2	39	1.65	+ .56	.85	14.0	3	15	1	13	NW	
Elma	Howard	.....	....	22.4	.....	47	24	- 6	1	26	.96	.....	.29	3.2	6	14	9	6	SE	
Estherville	Emmet	1,298	12	20.2	+5.1	50	24	- 8	1	32	.83	+ .15	.35	4.0	5	16	0	13	NW	
Fayette	Fayette	1,003	18	22.2	+5.3	49	24	-11	2	43	1.71	+ .57	.67	9.5	6	13	6	10	NW	
Forest City	Winnebago	1,226	14	20.8	+6.2	48	24	-14	2	32	.75	- .18	.30	5.0	3	16	4	9	.....	
Gr'd Meadow	Clayton	1,180	17	22.0	+5.3	46	24	-12	2	35	1.63	+ .53	.58	8.5	5	9	9	11	NW	
Hampton	Franklin	1,155	18	23.0	+6.1	54	24	- 1	*1	38	1.68	+ .51	.55	11.5	5	10	14	5	NW	
Humboldt	Humboldt	1,095	17	23.4	+5.7	52	24	- 9	2	32	1.18	+ .52	.55	5.5	3	14	3	12	NW	
Inwood	Lyon	1,474	4	20.4	.....	48	24	-10	*1	33	1.74	.....	.91	13.4	7	11	10	8	NW	
Larrabee	Cherokee	1,266	17	21.0	+3.2	48	24	-14	18	35	1.64	+ .80	.72	7.1	8	9	10	10	SE	
Le Mars	Plymouth	1,224	12	22.8	+6.3	45	24	- 7	2	36	1.35	+ .63	.61	....	4	10	13	6	NW	
Mason City	Cerro Gordo	1,132	11	21.9	+5.7	49	24	-10	2	37	.87	+ .03	.30	6.0	4	10	11	8	NW	
New Hampton	Chickasaw	1,169	11	21.5	+6.9	47	13	-11	2	37	.92	+ .02	.32	6.0	5	11	9	9	NW	
Northwood	Worth	1,222	12	a 22.0	+6.5	a 47	*22	a -10	1	35	2.71	+1.62	1.80	4.7	8	19	4	6	NW	29
Osage	Mitchell	1,184	17	23.0	+8.1	48	22	-10	2	37	1.00	- .14	.40	7.0	3	12	5	12	NW	
Plover	Pocahontas	1,426	12	23.1	+6.8	49	24	- 6	*1	35	1.76	+1.06	.72	9.0	6	19	2	8	NW	
Pocahontas	Pocahontas	.....	4	22.2	.....	50	24	- 5	1	32	1.17	.....	.38	8.2	6	17	1	11	NW	
Ridgeway	Winneshiek	1,215	10	23.6	+6.1	51	22	-11	2	44	2.07	- .10	.54	7.7	11	12	8	9	NW	29
Rock Rapids	Lyon	1,358	9	18.2	+1.6	40	10	-12	1	30	1.25	+ .89	.60	12.5	4	11	3	15	.....	
Sheldon	O'Brien	1,422	8	21.9	+6.2	52	24	-12	2	40	2.67	+1.74	1.00	12.5	8	14	7	8	SE	
Sibley	Osceola	1,212	15	18.4	+3.4	46	24	- 9	1	35	1.65	+1.18	.75	10.5	7	16	4	9	NW	
Sioux Center	Sioux	.....	9	.....	.....	.....	.....	- 9	2	.....	.....	.....	.....	.....	....	9	9	11	.....	
Storm Lake	Buena Vista	1,440	12	21.6	+6.4	46	24	- 6	1	34	1.67	+ .98	.60	12.3	5	12	5	12	NW	
Washta	Cherokee	1,157	10	23.4	.....	58	11	-10	2	42	1.20	+ .44	.40	7.0	4	11	5	13	N&E	
Waverly	Bremer	948	12	23.7	+6.2	49	24	-10	2	38	1.30	+ .16	.40	9.1	4	7	7	15	NW	
West Bend	Palo Alto	1,197	14	a 22.9	+6.5	50	24	a - 8	2	34	1.12	+ .17	.50	7.5	3	12	6	11	N	
Averages	.....	.....	....	22.1	+5.9	48.8	.....	- 9.6	.....	36.1	1.42	+ .48	.....	8.7	5	12	7	10	NW	

CENTRAL SECTION

Amana	Iowa	721	31	25.6	+5.5	50	12	- 9	2	36	2.41	+1.15	.93	9.6	6	12	8	9	NW	
Ames	Story	926	27	24.8	+3.6	49	*12	- 7	2	39	1.55	+ .75	1.00	3.0	5	9	8	12	N	
Audubon	Audubon	1,301	15	24.0	+4.9	45	24	- 5	2	34	1.29	+ .50	.50	7.5	10	17	1	11	NW	
Baxter	Jasper	998	8	24.8	+6.7	49	*12	-10	2	42	.84	+ .03	.32	4.5	9	13	5	11	NW	5
Belle Plaine	Benton	828	18	23.6	+3.7	48	*12	-12	2	39	2.67	+1.21	1.20	16.0	7	12	4	13	NW	
Boone	Boone	1,134	3	22.9	.....	49	25	- 4	2	35	2.13	.....	.51	6.5	7	14	3	12	NW	
Buckingham	Tama	.....	8	.....	.....	.....	.....	.....	.....	.....	.89	- .11	.44	6.4	4	11	12	6	.....	
Carroll	Carroll	1,265	18	22.7	+3.8	49	24	- 5	*1	37	2.58	+1.43	1.40	9.8	7	16	0	13	.....	
Cedar Rapids	Linn	733	26	22.7	+2.6	52	12	- 6	2	39	1.72	+ .34	.71	9.5	7	11	8	10	.....	
Clinton	Clinton	593	40	24.2	+2.4	53	12	- 8	2	37	2.56	+ .47	.96	12.0	8	11	6	12	NW	
Davenport	Scott	580	36	26.1	+2.3	55	12	- 4	2	31	2.37	+ .81	.82	13.9	10	13	4	12	NW	29
Denison	Crawford	1,180	13	a 23.3	+4.2	a 48	13	a - 7	2	37	1.70	+ .84	.60	8.0	7	15	7	7	N	
Des Moines	Polk	861	29	26.1	+2.0	48	12	- 5	2	39	1.51	+ .43	.78	10.4	7	9	8	12	NW	5
De Soto	Dallas	866	8	a 25.8	+5.4	48	12	a - 6	2	39	1.32	+ .44	.72	....	2	12	1	16	NW	
Dubuque	Dubuque	639	35	24.0	+2.4	52	12	- 8	2	37	1.87	+ .49	.78	13.6	8	11	5	13	NW	29
Fort Dodge	Webster	1,126	8	21.8	+6.5	53	24	- 5	2	35	.45	- .26	.20	4.5	4	11	4	14	NW	
Gilman	Marshall	1,052	9	.....	.....	.....	.....	.....	.....	.....	2.72	+1.72	1.20	12.5	5	13	10	6	.....	
Grinnell	Poweshiek	1,023	16	25.4	+4.1	50	12	- 4	1	35	1.98	+1.06	.73	6.5	6	13	2	14	SE	
Grundy Center	Grundy	976	17	24.4	+6.7	50	24	- 6	2	36	1.37	+ .52	.60	7.0	4	17	1	11	NW	
Guthrie Center	Guthrie	1,077	13	24.9	+4.7	47	24	- 5	2	37	2.24	+1.44	.87	11.0	7	13	4	12	NW	
Harlan	Shelby	1,192	9	24.6	+6.5	48	22	-10	2	43	1.67	+ .82	.62	7.2	6	9	6	14	NW	
Independence	Buchanan	921	43	24.7	+5.1	49	*12	- 8	2	37	.85	- .16	.35	8.5	3	15	4	10	NW	
Iowa City	Johnson	683	49	23.6	+1.1	52	12	- 9	2	39	2.08	+ .61	.90	16.0	5	12	4	13	NW	
Iowa Falls	Hardin	1,170	15	22.2	+6.7	46	24	- 8	2	37	2.09	+1.05	.85	14.4	7	15	3	11	NW	
Jefferson	Greene	.....	....	24.6	.....	50	24	- 4	2	37	1.90	.....	.60	6.5	4	16	6	7	S	
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	2.81	.....	.74	16.8	8	15	3	11	E, W	
Little Sioux	Harrison	.....	3	25.6	.....	48	24	- 7	2	46	2.45	.....	.83	15.0	9	13	5	11	SE	
Logan	Harrison	928	42	25.9	+2.5	49	*11	- 5	2	34	2.71	+1.51	.70	17.0	7	10	10	9	NE	
Marshalltown	Marshall	947	16	22.4	+3.0	49	*12	- 8	2	38	1.48	+ .67	.50	7.0	6	15	2	12	NW	
Muscatine	Muscatine	.....	49	.....	.....	.....	.....	.....	.....	.....	2.07	- .01	.64	9.0	7	10	5	14	E, S	
Newton	Jasper	944	19	25.3	+5.5	48	22	- 3	2	36	2.25	+1.16	1.20	16.0	4	12	5	12	N, SE	
Odebolt	Sac	1,356	10	23.8	+5.4	51	24	- 5	2	37	.70	- .17	.40	7.0	4	10	6	13	.....	
Olin	Jones	760	11	24.7	+7.6	52	12	-13	2	37	3.95	+2.54	2.00	15.0	5	14	5	10	NW	29
Onawa	Monona	1,051	8	27.2	+6.2	51	23	- 5	2	46	2.36	+1.37	.90	13.6	8	15	2	12	NW	
Rockwell City	Calhoun	.....	12	24.8	+7.2	53	24	- 6	2	34	2.45	+1.60	.70	12.0	6	17	4	8	.....	
Sioux City	Woodbury	1,135	18	24.0	+4.2	53	24	- 5	1	34	1.18	+ .63	.52	7.1	9	9	8	12	NW	
Sac City	Sac	1,356	26	22.8	+4.2	50	24	- 5	2	30	1.75	+ .73	.45	9.0	6	19	1	9	NW	
Stuart	Guthrie	1,216	10	b 25.4	+4.3	b 52	24	b 0	*1	b 33	.....	.....	.....	....	....	19	2	8	NW	
Tipton	Cedar	807	10	25.6	+3.8	52	12	- 8	2	33	2.00	+ .73	.56	....	5	15	6	8	NW	
Toledo	Tama	856	14	24.7	+5.3	54	24	- 5	2	35	1.80	+1.03	.80	10.5	2	14	3	12	NW	
Waterloo	Black Hawk	862	25	24.6	+6.5	51	24	- 6	2	36	2.06	+ .95	1.00	10.0	5	12	9	8	NW	
Waukee	Dallas	1,039	5	e 25.6	.....	e 47	24	e - 6	2	e 42	1.35	+ .05	.40	6.5	5	....	....	....	.....	
Webster City	Hamilton	.....	3	24.4	.....	53	24	- 7	2	36	.85	.....	.30	6.5	5	13	5	11	NW	
Whitten	Hardin	1,036	10	23.6	+7.3	49	23	- 9	2	38	.92	+ .16	.50	6.0	2	14	5	10	NW	
Wilton Junct'n	Muscatine	683	13	25.4	+5.1	52	12	-10	2	32	.....	.....	.....	.....	....	15	2	12	.....	
Zearing	Story	.....	4	24.4	.....	50	24	- 9	2	40	.99	.....	.33	4.3	7	12	7	10	NW	
Average	.....	.....	....	24.4	+4.8	50.1	.....	- 6.6	.....	37.0	1.83	+ .75	.....	9.6	6	13	5	11	NW	

CLIMATOLOGICAL DATA FOR FEBRUARY, 1908—CONTINUED.

SOUTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
Afton	Union	1,212	14	26.8	+4.8	46	12	- 2	*1	32	1.48	+ .53	1.00	....	3	10	3	16	NW	
Albia	Monroe	959	10	24.8	+4.5	51	12	- 4	2	35	1.64	+ .32	.44	7.5	7	12	6	11	NW	4
Allerton	Wayne	.....	6	27.4	+5.7	50	12	- 4	2	38	1.77	+ .43	.75	9.0	6	14	2	13	NW	
Atlantic	Cass	1,164	17	23.9	+3.1	45	*9	- 9	2	42	1.60	+ .55	.60	6.0	4	10	5	14	NW	5
Bedford	Taylor	.....	8	27.4	+6.7	53	9	-10	*2	48	1.29	+ .25	.45	4.5	5	16	2	11	NW	
Bloomfield	Davis	881	....	27.4	.....	54	12	- 4	2	34	1.75	.....	.51	10.0	5	12	7	10	NW	
Bonaparte	Van Buren	.....	17	27.0	+4.0	56	12	- 5	2	29	2.49	+1.26	.70	7.5	6	....	....	....	NW	
Burlington	Des Moines	544	12	26.4	+2.7	57	12	- 3	2	33	3.71	+1.93	1.20	....	7	17	3	9	NW	
Chariton	Lucas	1,042	13	26.0	+3.8	50	12	- 7	2	40	.73	- .30	.45	5.0	3	11	8	10	NW	
Clarinda	Page	1,009	18	26.1	+3.5	51	9	- 5	*2	46	1.96	+ .96	.86	15.2	8	16	1	12	NW	
Columbus Jct.	Louisa	595	7	27.0	+5.6	56	*12	- 5	2	32	1.70	+ .52	.60	8.2	6	18	5	6	NW	5
Corning	Adams	1,117	16	26.1	+4.2	45	9	- 7	2	41	1.87	+ .92	.80	8.5	4	12	9	8	NW	5
Corydon	Wayne	1,101	15	*a* 27.1	+4.9	*a* 50	12	*a* - 6	2	*a* 41	.91	- .41	.28	5.5	7	15	7	7	NW	
Creston	Union	1,312	3	21.5	.....	46	9	- 9	2	44	1.21	.....	.52	4.9	5	10	6	13	N	
Cumberland	Cass	.....	9	.....	.....	.....	.....	.....	.....	.....	1.80	+ .90	.90	9.0	3	13	2	14	N	
Earlham	Madison	.....	6	25.8	+7.8	46	12	- 6	1	38	1.97	+ .85	1.00	10.0	5	11	5	13	NW	5
Elliott	Montgomery	.....	3	26.3	.....	48	22	-10	2	37	1.98	.....	.80	8.0	3	14	6	9	NW	
Fairfield	Jefferson	.....	13	26.5	+4.8	56	12	- 4	2	34	1.71	+ .12	.40	5.3	6	12	10	7	SW	5
Fort Madison	Lee	516	59	.....	.....	.....	.....	.....	.....	.....	3.28	+1.39	1.30	12.0	7	8	11	10	N	29
Greenfield	Adair	.....	17	25.2	+4.6	46	12	- 6	2	38	.....	.....	.....	....	....	13	6	10	NW	
Hancock	Pottawatta'e	1,113	2	25.6	.....	47	9	- 8	2	41	1.78	.....	.75	6.0	3	15	5	9	NW	
Hopeville	Clarke	.....	17	26.9	+4.9	49	9	- 3	2	40	.99	+ .20	.30	....	6	10	8	11	NW	
Indianola	Warren	969	17	25.8	+3.5	48	12	- 5	2	40	1.04	+ .10	.60	6.8	7	12	1	16	NW	5
Keokuk	Lee	574	36	29.1	+2.5	59	12	- 2	2	30	2.86	+1.24	.91	13.5	9	15	5	9	NW	29
Keosauqua	Van Buren	644	16	25.4	+2.3	57	12	- 3	2	32	2.19	+ .74	.50	9.2	8	7	8	14	.....	
Lacona	Warren	.....	9	.....	.....	.....	.....	.....	.....	.....	1.62	+ .14	.65	8.5	8	5	18	6	.....	
Lenox	Taylor	1,250	13	26.2	+4.5	46	9	- 8	2	43	1.10	+ .26	.40	3.0	4	17	3	9	NW	
Leon	Decatur	1,120	6	27.3	+5.4	47	9	- 3	2	37	1.30	+ .16	.35	7.5	8	17	5	7	NW	
Massena	Cass	.....	3	*a* 26.1	.....	*a* 51	23	*a* -10	2	*a* 45	1.19	.....	.60	7.0	5	6	16	7	NW	
Mt. Ayr (*a*)	Ringgold	1,236	15	27.0	+4.5	51	9	- 6	19	44	2.28	+1.11	1.35	13.5	6	....	....	....	.....	
Mt. Pleasant	Henry	729	26	27.2	+4.0	56	12	- 4	2	32	2.69	+1.63	.69	8.1	7	15	2	12	NW	
Omaha, Neb	Douglas	1,040	37	27.4	+3.7	49	22	- 1	1	33	2.14	+1.38	.80	15.3	11	6	8	15	NW	
Oskaloosa	Mahaska	843	24	26.5	+5.3	49	24	- 6	2	32	1.59	+ .58	.30	3.8	6	14	0	15	NW	
Ottumwa	Wapello	649	14	25.8	+2.8	54	12	0	2	43	2.34	+ .98	1.00	6.0	5	10	7	12	NW	
Pacific Jct	Mills	960	9	27.0	+7.4	49	9	- 8	20	42	2.53	+1.93	1.58	17.3	5	8	9	12	E	
Pella (*a*)	Marion	877	6	27.3	+7.0	49	12	- 5	2	40	1.63	+ .87	.58	8.3	7	....	....	....	NW	5
St. Charles	Madison	1,070	7	26.8	+5.9	47	*8	- 3	2	40	1.49	+ .49	.40	8.0	8	11	4	14	NW	
Sigourney	Keokuk	877	12	26.6	+4.9	53	12	- 7	2	34	1.94	+ .63	.60	8.0	7	6	15	8	NW	
Stockport	Van Buren	.....	6	27.8	.....	55	12	- 4	2	35	1.86	+ .71	.65	7.0	8	13	3	13	NW	29
Thurman	Fremont	.....	11	27.2	+5.7	48	*9	-16	*2	51	1.89	+ .56	1.10	13.5	6	10	6	13	NW	
Wapello	Louisa	588	10	*b* 27.4	+7.1	*b* 54	12	*b* - 3	2	*b* 29	1.43	+ .04	.63	5.0	5	....	....	....	NW	25
Washington	Washington	769	27	26.0	+3.7	55	12	- 8	2	37	1.69	+ .47	.50	....	5	11	7	11	NW	
Winterset	Madison	1,129	17	26.1	+4.4	46	12	- 5	2	38	1.48	+ .61	.80	8.0	3	12	6	11	NW	5
Average	.....	.....	....	26.4	+4.6	50.6	.....	- 5.4	.....	38.0	1.81	+ .66	.....	8.4	6	12	6	11	NW	
State aver	.....	.....	....	24.3	+5.1	49.8	.....	- 7.2	.....	37.0	1.69	+ .63	.....	8.9	6	12	6	11	NW	

*And other dates. *a* one day missing, *b* two days; *c* three days, etc.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF FEBRUARY, 1908

STATIONS		DAY OF MONTH																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29			
Afton.....	max	18	35	33	33	25	33	33	36	45	40	41	46	38	33	33	30	36	30	19	30	31	45	44	44	38	32	29	41	35	..	..	34.7
	min	-2	16	9	20	11	13	12	22	25	26	35	38	30	30	19	17	9	17	8	- 2	14	20	28	28	32	19	7	20	27	..	..	18.9
Albia.....	max.	8	31	26	35	32	25	31	32	41	43	44	51	36	35	33	29	29	23	23	29	29	46	46	47	44	28	27	36	34	..	..	33.6
	min.	1	- 4	3	5	20	12	10	12	21	23	31	35	30	29	23	16	7	12	11	1	7	14	23	31	35	15	10	9	26	..	..	16.1
Algona ...	max.	10	28	20	24	25	18	24	26	33	36	36	43	37	35	32	28	30	27	24	30	28	44	44	48	42	31	25	35	30	..	..	30.8
	min.	-8	- 8	4	10	17	2	1	13	19	20	33	30	27	24	18	11	4	16	7	1	11	12	28	30	30	12	2	18	22	..	..	14.0
Allerton..	max.	23	34	31	29	37	29	35	34	48	44	42	50	45	34	33	29	34	28	20	30	29	47	47	41	45	35	28	43	35	..	..	35.8
	min.	1	- 4	8	17	23	13	13	22	25	28	35	40	28	29	21	16	7	18	12	- 1	12	16	28	30	34	21	9	22	29	..	..	19.0
Alta.....	max.	2	30	23	24	23	19	24	28	35	37	37	39	35	35	32	19	26	16	19	29	29	43	44	48	37	21	25	38	30	..	..	29.2
	min.	-6	- 5	3	7	16	2	2	5	15	20	25	33	25	22	14	10	4	12	-3	- 3	8	10	22	31	30	11	2	3	21	..	..	11.6
Alton.....	max.	9	29	32	26	27	22	24	30	36	41	39	38	32	32	32	29	28	25	18	28	28	41	44	52	45	33	25	37	35	..	..	31.6
	min.	-6	- 8	6	14	14	3	4	15	26	29	35	30	28	20	15	9	12	16	-3	0	10	18	29	32	31	8	1	18	23	..	..	14.8
Amana ...	max.	21	27	25	25	34	22	29	25	35	38	39	50	44	37	33	31	31	27	23	30	27	43	44	48	43	34	24	35	33	..	..	33.0
	min.	0	- 9	13	11	21	10	6	19	17	24	34	37	32	32	25	17	9	20	12	2	16	8	31	29	33	20	8	21	29	..	..	18.2
Ames.....	max.	12	32	24	25	32	22	25	27	37	38	37	49	37	36	33	32	32	28	24	30	29	47	49	49	40	33	26	38	32	..	..	32.9
	min.	-3	- 7	10	17	14	6	17	3	20	23	34	34	33	30	21	17	17	16	8	2	11	11	30	20	29	17	7	22	26	..	..	16.7
Atlantic..	max.	10	33	29	29	33	27	29	32	45	39	40	44	34	34	29	30	31	29	21	28	33	45	45	45	44	33	27	39	33	..	..	33.4
	min.	-3	- 9	0	14	16	9	9	20	27	23	34	32	28	26	18	12	3	16	5	- 8	-4	12	21	27	21	16	5	20	27	..	..	14.4
Audubon..	max.	11	30	37	27	31	20	25	31	39	38	39	43	36	35	30	30	32	28	18	28	29	44	43	45	41	34	26	32	32	..	..	32.2
	min.	-4	- 5	4	15	17	7	7	18	25	23	34	34	28	22	17	11	8	17	4	- 2	11	17	27	29	33	12	4	20	26	..	..	15.8
Baxter ...	max.	16	32	30	24	32	29	30	26	40	38	39	49	39	35	34	30	31	29	24	33	31	48	48	49	42	33	28	39	32	..	..	34.1
	min.	-4	-10	8	11	16	6	3	16	17	23	33	35	29	29	20	15	5	16	9	- 2	9	10	29	27	33	17	5	20	26	..	..	15.6
Bedford..	max.	20	38	32	31	33	29	39	38	53	46	41	46	38	36	33	29	35	32	18	31	32	45	45	42	44	35	32	47	47	..	..	36.8
	min.	-2	-10	8	20	22	12	9	25	28	27	36	37	28	31	18	17	8	17	5	-10	12	14	25	29	34	21	12	22	28	..	..	18.0
B. Plaine.	max.	7	27	32	30	32	22	26	22	34	38	36	48	35	36	34	30	25	20	15	31	33	45	46	48	44	23	22	35	31	..	..	31.3
	min.	-1	-12	11	12	20	8	4	16	15	22	32	35	30	30	23	15	6	18	9	- 2	10	7	27	28	33	18	6	18	26	..	..	16.0
Bloomfi'd	max.	24	30	29	29	36	28	33	33	44	43	42	54	50	34	33	31	32	29	22	30	32	45	46	44	45	37	29	36	36	..	..	35.7
	min.	2	- 4	11	15	23	12	10	20	23	27	35	39	27	30	23	15	12	19	13	2	12	11	30	30	36	20	10	22	30	..	..	19.1
Bonapa'e	max.	23	29	27	28	38	27	31	32	40	40	42	56	48	34	34	29	33	29	21	30	29	47	45	45	45	34	28	34	34	..	..	34.9
	min.	2	- 5	11	16	22	14	9	24	24	28	35	40	27	31	24	16	9	21	12	1	13	10	30	27	34	20	11	22	30	..	..	19.2
Boone.....	max.	9	31	24	31	26	23	25	25	35	36	40	45	37	35	33	26	27	20	24	29	31	47	48	49	41	23	25	37	28	..	..	31.4
	min.	-2	- 4	9	10	17	6	5	6	18	22	26	34	29	29	20	16	7	10	8	3	5	14	20	30	34	11	6	6	23	..	..	14.4
Britt.....	max.	6	22	20	25	25	21	28	28	35	42	39	41	38	34	33	28	34	28	32	33	27	35	47	50	40	30	27	37	33	..	..	31.7
	min.	-8	-15	0	9	16	3	-2	15	18	18	34	31	28	25	18	11	2	16	0	10	10	11	27	28	30	12	0	19	20	..	..	13.3
Burl'g'n.	max.	11	29	32	37	40	29	33	32	40	45	46	57	41	35	32	30	33	25	28	30	33	47	47	46	46	30	30	34	37	..	..	35.7
	min.	4	- 3	-1	14	20	14	12	12	22	23	33	35	32	31	25	18	11	11	17	4	4	11	13	27	31	27	16	12	24	..	..	17.2
Carroll...	max.	6	32	28	31	28	24	26	30	39	38	42	44	39	35	33	24	28	21	22	32	33	46	47	49	42	25	26	38	32	..	..	32.4
	min.	-5	- 5	3	8	17	5	4	5	17	21	23	33	27	26	15	14	5	13	2	0	7	13	23	29	31	15	4	5	23	..	..	13.0
Cedar R..	max.	5	29	25	33	34	18	26	23	34	39	43	52	35	36	33	26	30	24	25	30	27	43	42	50	42	29	26	35	34	..	..	32.0
	min.	4	- 6	-5	8	15	10	4	2	16	16	25	33	32	31	25	17	9	9	14	- 5	-5	4	13	26	32	27	9	7	23	..	..	13.4
Chariton .	max.	19	33	30	27	33	27	33	35	46	43	42	50	43	33	34	30	32	28	19	30	29	47	46	44	41	38	27	38	37	..	..	35.0
	min.	0	- 7	7	15	22	11	11	20	24	25	24	38	29	27	20	17	7	17	10	- 4	12	11	27	29	34	19	8	19	25	..	..	17.1
Ch'rls Cty	max.	12	28	21	22	26	16	26	24	32	36	36	45	36	35	31	20	27	25	27	28	26	47	40	48	37	21	22	33	34	..	..	29.7
	min.	-6	- 9	2	2	12	-2	-3	12	15	12	33	33	29	28	20	10	6	11	6	3	12	9	29	29	28	11	3	19	23	..	..	13.0
Clarinda .	max.	11	41	34	34	29	31	40	38	51	41	44	46	33	36	33	29	36	23	18	34	36	49	50	44	44	30	31	46	33	..	..	36.0
	min.	-2	- 5	2	10	22	11	12	11	26	28	31	36	30	31	18	17	11	17	5	- 5	-3	13	22	31	32	27	9	9	23	..	..	16.2
Clear La'e	max.	20	25	21	20	25	20	24	25	32	37	35	45	38	35	32	30	30	25	25	30	29	46	41	45	42	38	22	35	31	..	..	31.1
	min.	-8	- 9	3	6	18	3	1	12	11	14	23	34	28	27	19	12	5	16	9	7	13	11	29	31	33	12	1	16	21	..	..	13.7
Clinton ..	max.	10	24	24	26	32	22	26	28	34	39	40	53	41	38	34	34	28	25	26	30	30	42	43	48	45	35	25	32	35	..	..	32.7
	min.	-2	- 8	8	10	22	8	10	9	15	21	24	24	22	21	22	17	9	17	13	3	13	5	30	24	35	20	11	18	28	..	..	15.6
Colum's J	max.	24	27	26	28	36	24	31	30	38	42	42	56	56	36	35	30	29	28	23	30	29	44	49	46	45	37	25	35	35	..	..	35.0
	min.	2	- 5	10	15	22	12	8	20	19	26	34	41	32	30	23	15	6	21	14	4	14	13	29	29	36	21	10	21	29	..	..	19.0
Corning..	max.	16	34	30	31	34	26	35	34	45	38	40	44	37	34	32	30	34	30	19	29	29	44	42	43	43	35	28	42	34	..	..	34.2
	min.	-3	- 7	4	18	19	11	13	13	27	29	35	35	30	30	18	18	10	17	6	- 1	18	18	26	31	34	18	7	21	28	..	..	18.0
Corydon .	max.	24	35	34	29	35	30	33	46	..	44	43	50	46	34	34	30	31	28	21	31	32	46	45	43	45	37	29	38	35	..	..	36.0
	min.	1	- 6	8	16	22	12	12	21	..	27	35	39	28	29	20	16	7	18	11	- 2	11	14	28	30	34	20	9	21	29	..	..	18.2
Creston..	max.	7	35	25	33	27	21	32	31	46	45	45	38	38	33	33	28	34	20	29	29	32	37	45	43	42	28	27	41	33	..	..	33.0
	min.	-6	- 9	-3	6	12	15	9	10	12	16	20	32	24	24	13	12	3	9	0	- 1	-3	12	1	20	24	16	-1	3	20	..	..	10.0
Dav'np'rt	max.	18	27	26	27	38	21	27	24	34	41	40	55	40	36	33	30	27	26	26	28	28	45	42	46	45	33	25	31	34	..	..	32.9
	min.	-1	- 4	15	14	19	12	9	18	15	27	34	40	32	31	25	15	9	20	14	10	17	14	32	30	33	19	11	22	28	..	..	19.3
Decorah..	max.	5	23	22	23	31	20	32	28	37	44	40	48	42	37	32	28	28	22	23	30	23	47	43	52	44	35	22	35	39	..	..	32.2
	min.	-3	-16	4	-5	20	6	-5	10	12	9	34	40	31	30	9	11	4	18	10	- 2	13	2	28	22	35	12	2	14	22	..	..	12.7
Denison .	max.	11	30	27	28	30	23	22	30	41	38	39	48	40	38	31	30	31	25	32	31	31	45	43	46	43	30	36	32	35	..	..	33.6
	min.	-3	- 7	2	14	16	7	5	8	26	28	35	32	28	24	16	6	3	6	1	1	13	19	28	32	..	12	2	19	26	..	..	14.2
Des Moins	max.	8	34	24	32	34	23	28	28	41	41	40	48	37	36	34	27	30	27	24	31	31	47	46	47	42	33	24	38	34	..	..	33.4
	min.	-1	- 5	10	17	16	11	9	20	23	27	36	36	31	28	22	17	11	19	11	2	17	15	33	31	33	14	9	23	29	..	..	18.8
De Soto ..	max.	15	33	29	27	32	23	28	30	43	40	40	48	44	44	40	31	31	28	20	30	31	45	45	47	41	34	26	39	34	..	..	34.4
	min.	-2	- 6	6	15	16	9	5	19	24	26	35	38	..	29	21	17	8	17	7	- 2	13	12	29	30	34	17	17	21	28	..	..	17.2
Dows	max.	15	28	25	22	28	19	22	23	32	35	35	44	37	35	32	30	28	27	23	28	25	42	43	49	40	35	23	34	32	..	..	30.7
	min.	0	-10	8	7	17	2	2	13	12	15	32	33	26	26	19	13	8	16	6	- 2	10	8	27	39	32	13	3	17	22	..	..	14.3
Dubuque.	max.	19	24	24	24	34	19	25	24	33	39	38	52	38	37	33	27	29	24	26	29	27	42	41	47	45	32	24	31	35	..	..	31.8
	min.	-4	- 8	5	3	19	9	7	13	16	21	34	36	32	32	25	14	9	19	14	0	15	5	29	27	32	16	8	19	23	..	..	16.2
Earlham .	max.	32	29	28	29	32	24	28	30	43	38	38	46	37	35	34	30	28	26	19	30	31	45	44	44	41	34	34	38	33	..	..	33.8
	min.	-6	2	9	13	18	8	5	19	25	25	34	37	29	29	19	16	16	16	8	- 2	12	21	28	27	32	18	6	25	27	..	..	17.8
Elkader ..	max.	22	25	26	26	33	21	30	27	40	40	38	48	40	38	31	30	31	25	32	31	31	45	43	46	43	30	36	32	35	..	..	33.6
	min.	-3	-14	5	-3	21	8	-5	13	15	19	34	36	32	30	22	15	5	18	12	15	11	0	29	24	30	19	5	18	23	..	..	15.0
Elliott....	max.	8	32	26	31	33	38	35	35	45	40	40	44	38	35	35	32	36	31	20	31	35	48	46	46	44	35	30	41	35	..	..	35.3
	min.	-2	-10	2	18	12	12	10	23	24	24	36	36	30	27	19	19	10	19	3	- 6	12	16	23	30	35	22	9	22	27	..	..	17.3
Elma.....	max.	16	24	30	23	24	21	22	22	32	37	36	44	35	33	30	29	27	26	24	28	27	42	39	47	40	34	20	31	34	..	..	30.2
	min.	-6	1	0	2	18	2	-2	11	14	16	33	34	28	28	20	11	13	16	9	2	14	18	28	27	32	15	0	15	22	..	..	14.5
Esth'rv'e.	max.	13	26	21	25	23	17	25	24	33	36	38	40	37	35	31	18	27	19	23	29	30	43	43	50	40	21	23	35	31	..	..	29.5
	min.	-8	- 6	2	3	16	1	-4	-3	16	16	18	34	25	23	15	9	2	9	0	3	10	12	28	30	31	9	0	2	20	..	..	10.8
Fairfield..	max.	21	30	26	28	35	30	31	30	42	41	42	56	45	35	33	39	32	49	27	30	28	46	47	46	44	36	27	33	36	..	..	35.7
	min.	2	- 4	-3	13	21	12	8	20	20	26	35	40	33	30	22	15	2	20	8	3	10	10	25	30	36	9	9	21	29	..	..	17.3
Fayette ..	max.	16	24	23	25	28	19	24	24	34	38	38	48	35	37	30	28	28	25	25	28	26	44	40	49	40	32	22	32	33	..	..	30.9
	min.	-6	-11	5	0	18	-5	-5	12	15	14	33	35	32	27	22	14	5	15	10	- 2	11	1	26	24	32	16	3	16	22	..	..	13.1
Forest C'y	max.	0	28	28	22	23	14	26	24	33	35	39	43	39	34	32	19	20	19	26	30	27	47	44	48	32	22	24	37	33	..	..	29.2
	min.	-10	-14	-6	4	18	2	0	9	15	18	21	34	28	26	28	11	3	9	9	4	11	12	25	30	32	12	0	4	21	..	..	12.3
Ft. Dodge	max.	4	30	22	29	25	19	20	26	36	37	40	44	39	34	31	22	27	19	23	29	27	44	45	53	39	22	28	29	31	..	..	30.1
	min.	-4	- 5	-3	2	18	5	1	4	19	21	23	35	29	28	20	14	6	13	6	3	5	12	21	30	34	14	5	8	25	..	..	13.4
Gr. Mead.	max.	15	23	20	25	31	19	25	25	33	39	35	45	40	35	30	26	26	22	25	28	26	44	42	46	42	32	22	31	35	..	..	30.6
	min.	-5	-12	2	2	18	4	0	13	10	15	23	34	30	30	20	10	5	16	10	5	11	10	26	25	32	16	0	16	22	..	..	13.4
Greenfi'ld	max.	18	32	31	27	32	23	29	31	44	41	38	46	36	34	32	30	33	34	18	28	30	44	44	44	40	35	25	39	34	..	..	33.5
	min.	-4	- 6	4	15	18	8	10	20	21	28	34	36	27	29	17	16	7	16	6	- 1	10	20	27	32	33	14	4	20	27	..	..	16.8
Grinnell..	max.	20	32	30	24	36	20	26	27	35	39	39	50	44	36	33	30	31	31	22	30	27	46	45	49	46	37	28	37	33	..	..	33.9
	min.	-4	3	8	14	19	8	6	17	16	25	34	36	31	30	22	16	5	18	10	0	10	11	29	30	30	18	6	21	22	..	..	16.9
GrundyC.	max.	20	30	27	23	32	21	26	24	36	38	37	48	42	37	32	31	30	28	24	31	28	45	44	50	42	35	22	36	33	..	..	32.8
	min.	-4	- 6	8	10	20	5	0	14	16	20	33	35	32	30	22	15	5	18	8	3	12	11	30	30	34	17	5	19	25	..	..	16.1
GuthrieC.	max.	15	32	30	29	32	22	26	30	39	39	39	44	37	35	32	31	30	30	18	29	30	44	43	47	41	34	25	37	35	..	..	32.9
	min.	-3	- 5	7	15	17	8	7	6	24	23	35	36	29	29	19	17	8	17	5	- 2	11	20	29	31	34	17	8	21	27	..	..	16.9
Hampton.	max.	12	31	25	21	26	18	27	27	34	37	35	44	39	35	31	30	30	24	27	31	27	44	45	53	39	22	28	29	31	..	..	30.1
	min.	-7	- 7	4	9	17	3	1	12	17	13	33	32	29	28	21	13	5	16	8	3	11	10	29	30	32	14	3	17	23	..	..	14.4

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF FEBRUARY, 1908—CONTINUED.

STATIONS		DATE																														MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29			
Hancock..	max.	10	33	27	29	33	24	37	37	47	38	39	42	35	33	31	29	36	30	17	29	32	45	43	42	42	33	29	39	32	..	..	33.6
	min.	-3	- 8	7	17	18	10	12	22	30	28	35	35	29	25	16	17	11	17	1	- 6	13	16	27	33	31	18	8	21	28	..	..	17.5
Harlan ...	max.	8	33	28	28	32	23	31	33	45	37	38	42	37	32	32	30	36	28	19	32	33	48	47	46	42	32	26	37	33	..	..	33.4
	min.	-4	-10	3	15	16	8	7	19	28	25	35	33	28	24	16	16	8	16	0	- 4	12	15	27	31	32	13	5	21	22	..	..	15.8
Hopeville.	max.	14	37	27	30	33	25	34	34	49	42	43	46	38	35	34	27	34	28	18	31	31	46	46	43	43	36	29	43	34	..	..	34.8
	min.	0	- 3	8	18	20	12	13	22	25	27	36	37	30	29	20	18	8	17	9	- 1	14	20	30	30	35	20	7	22	28	..	..	19.0
Humboldt	max.	10	28	25	25	24	21	24	24	33	38	38	44	38	38	32	30	29	28	28	30	27	43	44	52	40	34	25	36	34	..	..	31.8
	min.	-5	- 9	6	12	8	4	0	14	20	22	34	35	28	28	20	12	4	18	7	0	9	11	30	30	34	14	4	20	24	..	..	15.0
Ind'p'nce	max.	31	28	26	25	37	28	24	29	33	36	36	49	43	41	37	30	28	37	30	27	29	43	47	49	41	40	23	34	33	..	..	34.3
	min.	-3	- 8	7	9	20	5	0	14	14	18	32	32	29	31	23	15	6	17	10	- 2	12	6	29	28	33	18	4	17	22	..	..	15.1
Indianola	max.	16	35	29	28	33	22	28	30	43	41	41	48	39	35	33	31	30	28	21	31	29	45	44	47	41	35	23	36	34	..	..	33.7
	min	0	- 5	9	16	8	11	10	20	22	28	27	36	30	30	21	17	8	18	11	1	14	16	30	31	34	17	7	21	28	..	..	17.8
Inwood...	max.	8	27	25	25	25	21	23	27	34	42	39	36	30	25	41	27	24	23	15	29	27	39	44	48	42	32	21	37	31	..	..	29.9
	min.	-10	- 6	3	11	13	0	4	14	22	33	34	28	15	8	14	4	-7	13	-10	- 3	4	11	23	28	28	8	-7	17	22	..	..	10.8
Iowa City.	max.	6	28	29	33	33	21	32	26	39	39	43	52	35	36	34	27	31	23	25	31	28	46	44	50	43	27	26	40	33	..	..	33.1
	min.	0	- 9	-3	8	17	11	4	4	16	17	30	34	30	31	25	17	8	8	14	- 1	3	7	12	27	32	27	9	9	24	..	..	14.2
Iowa Falls	max.	3	29	20	30	26	18	25	26	34	40	40	45	36	35	32	23	31	20	23	29	30	38	45	46	34	20	24	36	31	..	..	30.0
	min.	-4	- 8	5	8	17	4	-2	14	16	16	32	34	32	29	20	15	5	15	9	1	5	12	17	29	34	18	5	18	23	..	..	14.4
Jefferson.	max.	14	33	30	27	30	24	28	28	36	35	38	45	38	34	35	26	29	28	22	31	31	40	49	50	40	34	23	40	31	..	..	32.7
	min.	-1	- 4	5	15	16	7	6	18	22	21	35	33	29	29	20	11	7	17	6	3	14	11	15	38	34	15	7	21	27	..	..	16.4
Keokuk ..	max.	25	29	30	29	45	30	33	33	42	42	43	59	51	34	34	30	34	29	23	29	31	46	45	45	46	37	27	34	38	..	..	36.3
	min	4	- 2	18	19	25	16	14	23	25	30	36	41	31	30	36	18	13	23	16	5	14	16	32	28	36	21	14	22	30	..	..	21.9
Keosa'q'a	max.	9	29	28	36	38	28	33	34	35	42	45	57	40	35	33	29	33	25	22	20	30	46	46	47	45	31	29	36	37	..	..	34.7
	min.	3	- 3	-3	11	21	14	8	10	23	24	33	36	25	31	24	17	10	10	15	3	3	13	18	26	30	29	12	12	25	..	..	16.2
Larrabee.	max.	8	28	21	25	25	20	21	28	38	41	38	38	35	33	32	26	26	23	20	29	28	41	44	48	40	31	23	37	30	..	..	30.2
	min.	-7	- 7	1	11	14	1	3	14	22	22	33	31	23	19	15	8	3	-14	-7	- 5	8	15	27	30	28	11	1	17	22	..	..	11.7
Le Mars ..	max.	10	29	23	24	26	20	23	29	37	42	39	38	32	30	32	31	30	26	15	29	29	43	43	45	44	34	21	37	35	..	..	30.9
	min.	-6	- 7	1	14	15	4	5	16	24	35	35	30	23	20	16	11	14	11	-4	0	11	20	29	33	31	10	-3	17	25	..	..	14.8
Lenox	max.	20	35	34	31	34	26	35	35	46	44	40	45	39	35	34	30	36	32	19	30	30	43	43	43	42	34	29	42	35	..	..	35.2
	min.	-5	- 8	9	17	20	10	13	23	27	27	35	37	28	29	17	17	9	16	4	- 5	7	18	24	30	33	16	6	20	27	..	..	17.3
Leon.....	max.	21	34	30	30	36	26	35	35	47	42	42	46	44	34	43	30	34	28	18	28	30	44	45	42	43	36	27	42	35	..	..	35.4
	min.	0	- 3	12	18	22	12	13	20	24	27	35	38	28	29	20	18	9	18	9	- 1	14	20	29	32	35	18	9	22	29	..	..	19.2
Lit. Sioux	max.	11	39	33	29	32	23	29	35	45	43	41	42	35	37	35	32	34	30	19	35	36	47	47	48	44	35	28	41	36	..	..	35.2
	min.	-5	- 7	2	19	17	3	7	21	30	32	36	33	27	18	15	10	4	15	-4	- 4	6	20	25	34	30	19	7	23	28	..	..	15.9
Logan	max.	11	27	29	30	32	22	31	35	45	39	49	49	38	32	32	23	36	27	17	33	34	48	46	47	44	34	24	38	35	..	..	34.0
	min.	-3	- 5	4	18	17	8	6	21	30	25	36	37	29	22	15	16	15	9	9	- 1	13	21	34	35	32	19	9	18	28	..	..	17.8
Mars'llt'n	max.	5	30	24	32	32	21	27	23	35	38	42	49	34	35	32	25	30	22	25	30	28	45	46	49	41	22	26	36	32	..	..	31.6
	min.	-2	- 8	2	9	21	8	0	2	11	17	22	34	30	30	22	16	5	6	10	1	3	10	17	30	34	21	6	6	23	..	..	13.3
Mason C'y	max.	14	27	20	22	23	19	19	23	31	36	35	44	36	33	29	28	27	25	25	29	27	46	42	49	40	32	20	33	30	..	..	29.8
	min.	-6	-10	2	2	18	4	-2	13	15	14	33	33	30	28	21	13	6	17	11	7	14	10	28	28	21	15	2	18	20	..	..	14.0
Massena..	max.	15	35	32	27	32	32	32	33	49	37	40	45	37	36	..	30	37	30	28	32	40	50	51	45	47	34	27	42	33	..	..	36.0
	min.	-5	-10	5	11	16	9	12	20	27	27	35	35	28	29	..	17	10	10	5	- 3	10	15	21	30	33	15	5	21	27	..	..	16.2
Mt. Ayr ..	max.	15	39	34	31	34	33	37	36	51	41	46	38	35	35	31	35	28	21	32	34	47	46	43	44	33	..	32	45	33	..	..	36.0
	min.	-1	- 5	11	19	20	12	13	23	26	35	36	29	28	18	18	9	17	7	-6	13	16	28	30	33	18	..	7	21	28	..	..	18.0
Mt. Pleas't	max.	24	28	25	29	37	26	32	32	40	42	43	56	46	35	33	30	33	29	23	30	31	43	45	45	45	36	27	36	37	..	..	35.1
	min.	2	- 4	8	16	23	13	10	20	21	28	35	39	30	31	23	16	10	22	15	4	14	12	30	28	35	21	10	21	30	..	..	19.4
N.Hamp'n	max.	15	24	20	22	24	19	23	22	30	35	35	44	47	34	30	28	26	25	25	27	24	45	38	46	40	32	20	32	33	..	..	29.8
	min.	-6	-11	3	5	18	2	1	10	13	16	32	34	28	28	21	12	4	15	8	2	12	8	28	28	30	16	0	16	21	..	..	13.2
Newton...	max.	22	33	32	25	32	22	26	27	36	38	40	45	45	35	34	31	30	30	31	30	28	48	44	46	40	39	25	37	35	..	..	34.0
	min.	-2	- 3	5	13	18	7	6	7	18	23	34	36	30	30	21	15	7	18	10	0	12	12	30	28	33	18	7	20	27	..	..	16.6
Northw'd	max.	12	25	23	24	22	16	22	34	..	36	38	40	36	38	36	31	31	25	25	29	26	47	41	47	40	30	20	34	34	..	..	30.8
	min.	-10	- 9	-3	10	10	-2	2	12	..	16	34	33	29	26	18	13	4	12	8	6	14	12	27	32	30	12	0	17	20	..	..	13.3
Odebolt ..	max.	9	32	28	25	29	22	32	30	41	40	38	41	37	34	32	30	30	20	20	32	31	44	46	51	41	33	26	34	34	..	..	32.5
	min.	-4	- 5	5	15	15	5	5	16	19	23	35	31	27	22	15	13	5	8	2	1	11	21	29	31	31	12	5	20	25	..	..	15.1
Olin.....	max.	23	24	23	24	35	26	26	24	31	40	38	52	47	37	35	31	31	29	24	29	29	41	42	47	45	37	24	32	34	..	..	33.1
	min.	1	-13	8	6	22	10	4	11	15	20	33	35	30	32	25	17	7	20	14	-3	11	4	29	25	36	22	9	18	26	..	..	16.3
Omaha, N	max.	8	35	28	32	32	24	36	36	48	40	41	43	36	31	34	25	37	26	16	34	38	49	49	47	42	34	28	39	32	..	..	34.5
	min.	-1	2	11	22	16	12	17	26	33	32	38	33	28	22	16	18	15	11	1	6	18	30	32	35	34	14	11	25	30	..	..	20.2
Onawa....	max.	14	41	35	30	29	29	30	34	40	41	41	39	35	32	37	33	36	30	23	35	43	50	51	45	43	36	29	44	38	..	..	36.0
	min.	-2	- 5	8	20	18	8	8	20	30	38	35	33	29	20	17	17	10	17	-1	4	11	19	29	33	31	21	9	24	29	..	..	18.3
Osage.....	max.	11	26	22	31	31	19	26	24	32	37	36	42	38	35	31	29	28	25	28	42	35	48	42	47	41	33	27	36	33	..	..	32.2
	min.	-8	-10	2	2	19	2	0	10	10	14	32	32	28	28	20	11	5	17	9	5	15	11	29	30	32	16	0	18	22	..	..	13.8
Oskaloosa	max.	20	32	26	27	34	24	29	29	39	43	42	50	42	41	34	31	33	32	22	30	30	46	45	49	44	35	28	36	34	..	..	34.7
	min.	0	- 6	8	15	20	11	9	19	19	26	35	38	33	30	23	16	8	19	11	0	13	12	30	29	35	19	9	22	29	..	..	18.3
Ottumwa .	max.	9	32	26	32	32	32	27	37	39	45	45	54	45	36	34	28	30	24	24	32	33	49	48	49	46	38	30	36	36	..	..	35.4
	min.	2	0	1	3	4	12	11	11	22	24	25	34	32	31	25	18	11	12	14	6	6	6	17	30	36	30	11	12	27	..	..	16.3
Pacific Jc.	max.	10	34	30	32	32	28	37	38	49	43	40	40	38	33	33	32	38	33	17	34	36	47	47	46	42	33	31	39	34	..	..	35.4
	min.	-2	- 7	8	25	20	10	10	26	33	30	38	36	31	25	15	20	13	17	0	- 8	10	18	19	32	33	23	10	23	30	..	..	18.6
Pella.....	max.	24	35	32	26	33	24	29	28	39	42	40	49	45	36	45	32	..	30	25	33	30	46	45	47	40	38	28	36	45	..	..	35.8
	min.	0	- 5	10	15	20	10	8	19	19	25	34	38	32	30	22	16	..	19	12	2	14	14	30	30	35	20	9	22	27	..	..	18.8
Plover....	max.	8	29	23	25	21	18	26	28	36	35	38	43	40	36	33	28	26	26	22	30	28	43	47	49	43	30	27	35	34	..	..	31.3
	min.	-6	- 6	-4	13	13	4	4	15	20	30	33	31	26	23	18	12	3	18	7	- 1	12	19	27	35	30	13	3	18	22	..	..	14.9
Pocahon's	max.	9	27	20	29	28	19	25	28	35	37	36	38	37	35	32	28	25	25	20	31	27	43	43	50	40	30	22	36	31	..	..	30.6
	min.	-5	7	5	14	14	2	1	13	20	19	33	26	22	24	12	12	4	15	3	- 1	8	14	27	30	30	11	3	18	18	..	..	13.8
Ridgeway	max.	16	29	33	25	30	23	25	24	35	39	37	46	40	38	33	28	33	22	28	30	31	51	45	50	45	35	28	32	35	..	..	33.3
	min.	-6	-11	2	6	19	4	1	10	14	16	33	34	29	27	20	10	4	16	8	5	13	7	27	27	33	15	1	16	21	..	..	13.8
R. Rapids	max.	6	24	16	28	20	24	28	30	34	40	38	36	36	32	30	30	22	10	20	30	30	36	28	18	22	8	30	22	32	..	..	26.2
	min.	-12	- 6	-4	16	6	2	6	16	20	30	28	30	28	10	10	6	-2	-6	6	10	8	16	8	14	10	0	10	10	26	..	..	10.2
Rock'll Cy	max.	6	28	27	28	28	26	25	30	38	45	40	45	40	38	38	30	30	28	21	30	30	45	45	53	45	35	25	40	40	..	..	33.8
	min.	-4	- 6	4	13	5	5	3	15	22	25	34	33	28	23	18	15	10	17	4	4	12	18	28	30	35	15	5	20	25	..	..	15.7
Sac City..	max.	10	29	24	28	25	23	25	26	36	36	37	43	38	34	35	32	30	20	21	30	29	44	43	50	39	28	27	37	35	..	..	31.5
	min.	-4	- 5	7	13	10	4	1	10	20	29	32	30	26	20	9	4	15	12	0	0	11	18	28	31	30	13	3	19	20	..	..	14.0
St. Charl's	max.	15	37	31	33	28	30	31	47	41	41	46	38	39	37	36	31	32	28	26	34	35	47	47	45	46	32	29	38	34	..	..	35.7
	min.	0	- 3	10	15	19	10	18	23	26	35	38	10	20	30	21	17	8	17	8	2	15	16	27	29	31	19	8	21	27	..	..	17.8
Sheldon ..	max.	6	28	28	24	24	23	23	28	34	38	38	36	32	28	32	25	24	21	21	30	28	48	47	52	42	32	22	40	30	..	..	30.5
	min.	-8	-12	6	14	13	0	3	13	20	25	33	29	20	21	25	7	3	13	-5	- 1	8	20	27	32	32	9	2	16	20	..	..	13.3
Sibley	max.	2	27	25	24	22	20	24	25	33	41	36	35	35	28	30	14	21	18	19	28	26	40	43	46	37	18	22	36	29	..	..	27.7
	min.	-9	- 8	-6	0	17	-1	0	2	13	23	24	32	20	18	12	5	0	10	-3	- 3	6	6	19	26	30	9	1	1	22	..	..	9.2
Sigourn'y	max.	23	30	28	28	34	24	30	29	38	42	41	53	47	37	34	32	33	28	23	31	30	46	45	48	44	38	27	38	34	..	..	35.0
	min.	1	- 7	7	14	22	11	8	19	18	25	35	38	32	31	24	16	8	20	13	3	12	12	29	27	35	20	9	21	29	..	..	18.3
Sioux Cen	max.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....
	min.	-7	- 9	5	14	12	2	4	13	22	30	34	30	20	14	21	10	12	12	-7	- 1	8	19	28	31	30	7	-2	15	22	..	..	13.4
Sioux City	max.	5	34	23	28	27	20	26	32	39	42	40	38	31	27	33	20	30	25	15	29	35	47	46	53	39	32	26	38	31	..	..	31.4
	min.	-5	0	7	19	11	7	9	19	28	32	33	31	25	17	15	12	12	6	-4	4	18	27	30	35	31	10	5	23	27	..	..	16.7
Stockport	max.	26	29	28	27	36	29	34	33	43	42	43	55	48	34	36	30	35	28	22	30	32	46	48	45	44	45	33	36	37	..	..	36.3
	min.	2	- 4	10	15	24	12	8	20	22	26	35	39	22	30	23	16	9	22	14	3	15	11	30	27	36	21	22	21	30	..	..	19.3
Storm L..	max.	9	29	24	21	26	18	23	26	34	35	36	38	34	32	31	28	25	25	17	24	29	39	44	46	42	33	22	36	36	..	..	29.7
	min.	-6	- 5	4	14	13	3	3	14	22	22	33	32	26	19	16	11	5	15	-2	2	10	10	10	32	31	11	2	18	23	..	..	13.4
Stuart	max.	14	34	29	27	32	27	30	32	44	37	39	48	37	35	35	30	33	32	24	32	32	..	..	52	47	34	30	45	34	..	..	34.3
	min.	0	2	0	14	12	17	8	19	24	26	35	36	28	29	19	16	7	21	6	0	12	..	..	19	32	18	6	20	22	..	..	16.6
Thurman.	max.	14	35	30	33	33	28	38	38	48	41	42	44	38	33	33	35	37	32	19	31	36	48	45	48	46	38	29	40	36	..	..	36.1
	min.	-2	-16	10	15	21	10	16	26	33	29	37	37	30	25	17	22	15	17	2	-16	8	18	20	33	33	25	11	24	30	..	..	18.3

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF FEBRUARY, 1908—CONTINUED.

STATIONS		DATE																														MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29			
Tipton....	max.	21	25	27	23	32	22	29	24	34	37	36	52	44	35	34	30	30	24	30	30	29	43	43	46	44	35	27	31	35	..	..	32.8
	min.	1	- 8	12	12	22	10	8	18	15	24	33	33	32	32	25	17	10	20	15	14	14	11	30	30	35	21	10	16	21	..	..	18.4
Toledo ...	max.	20	30	29	23	32	20	25	23	34	38	37	48	42	35	33	30	30	29	22	29	26	42	42	54	50	34	22	35	33	..	..	32.7
	min.	-2	- 5	10	13	20	8	4	17	16	21	33	36	31	31	24	16	7	10	10	2	11	6	30	29	34	18	7	20	26	..	..	16.7
Wapello ..	max.	23	26	30	27	36	29	29	26	35	38	40	54	53	45	32	30	29	29	..	29	31	..	41	43	41	36	26	33	34	..	..	34.3
	min.	4	- 3	12	16	23	13	9	20	19	28	34	39	40	32	18	17	20	22	..	8	14	..	13	30	35	23	13	22	29	..	..	20.4
Wash'g'n	max.	18	29	26	29	34	25	29	27	38	39	41	55	40	37	34	31	30	27	25	32	31	47	46	49	45	33	26	34	34	..	..	34.2
	min.	0	- 8	6	14	21	10	7	18	18	26	33	38	30	30	23	15	5	21	12	2	13	12	29	28	33	21	9	23	28	..	..	17.8
Washta ..	max.	22	32	28	24	26	26	22	30	38	46	58	39	36	34	32	30	29	25	26	33	32	46	47	48	41	34	24	39	32	..	..	33.8
	min.	-6	-10	-5	10	16	0	-2	17	24	22	34	30	25	22	16	12	5	15	-4	-8	9	12	27	32	30	10	1	16	26	..	..	13.0
Waterloo.	max.	17	30	28	22	21	22	27	26	36	36	36	49	45	36	33	31	31	26	28	31	30	45	42	51	42	35	25	35	33	..	..	32.7
	min.	-3	- 6	7	8	21	6	2	15	16	18	33	35	31	31	25	16	8	15	11	2	15	10	30	29	32	21	5	20	22	..	..	16.4
Waukee ..	max.	..	36	28	26	32	20	26	30	40	38	35	40	..	..	..	..	40	32	28	31	30	38	45	47	42	38	27	41	34	..	..	34.3
	min.	..	- 6	8	15	17	8	8	18	22	29	30	33	..	..	..	..	8	18	6	-1	12	12	29	28	32	18	6	20	28	..	..	16.8
Waverly .	max.	16	28	23	23	28	21	27	27	34	38	37	46	36	35	31	30	21	27	26	30	27	44	41	49	39	33	23	34	33	..	..	31.6
	min.	-3	-10	6	6	20	5	0	13	16	19	34	35	31	30	23	15	17	17	10	-1	12	8	29	28	32	19	4	19	23	..	..	15.8
Websr. Cy	max.	19	29	29	25	32	20	27	27	36	40	39	42	39	37	34	32	33	30	22	33	29	41	46	53	41	38	28	38	36	..	..	33.6
	min.	-4	- 7	7	11	20	4	0	15	19	19	34	36	30	31	21	14	3	17	7	0	9	9	27	22	34	14	4	19	25	..	..	15.2
W. Bend .	max.	10	26	19	26	25	17	26	30	38	41	38	39	38	38	32	32	30	30	21	29	26	42	44	50	39	20	27	37	29	..	..	31.0
	min.	-6	- 8	3	11	16	2	1	13	19	18	34	30	26	30	16	11	1	16	15	..	19	14	26	29	29	12	2	17	17	..	..	14.8
Whitten ..	max.	18	29	27	24	31	20	27	25	35	38	38	46	38	35	32	31	32	23	30	28	44	45	49	41	33	25	36	33	32	..	..	32.6
	min.	-5	- 9	5	11	20	4	1	14	12	21	33	34	29	30	20	14	4	8	-1	10	10	29	29	31	16	3	19	14	16	..	..	14.6
Wilton Jn	max.	20	23	23	23	35	28	26	26	39	37	39	52	50	35	34	33	27	28	28	27	28	42	42	45	44	43	25	32	32	..	..	33.3
	min.	-2	-10	7	10	23	10	4	17	22	30	33	36	28	30	23	15	7	10	14	2	10	10	30	26	37	24	13	18	28	..	..	17.4
Winterset	max.	19	33	30	27	32	23	29	33	43	39	40	46	38	34	32	31	32	29	20	30	29	43	43	43	41	37	26	38	34	..	..	33.6
	min.	-1	- 5	8	16	20	10	11	20	25	27	35	38	30	30	20	18	9	18	8	0	15	19	29	29	35	19	8	21	28	..	..	18.6
Zearing...	max.	13	31	30	34	32	20	27	24	37	37	37	45	35	35	32	30	32	28	24	30	28	46	46	50	40	35	27	40	32	..	..	33.0
	min.	-3	- 9	9	12	17	6	0	15	19	18	35	34	29	30	21	14	4	17	9	1	12	10	30	29	34	16	5	21	26	..	..	15.9

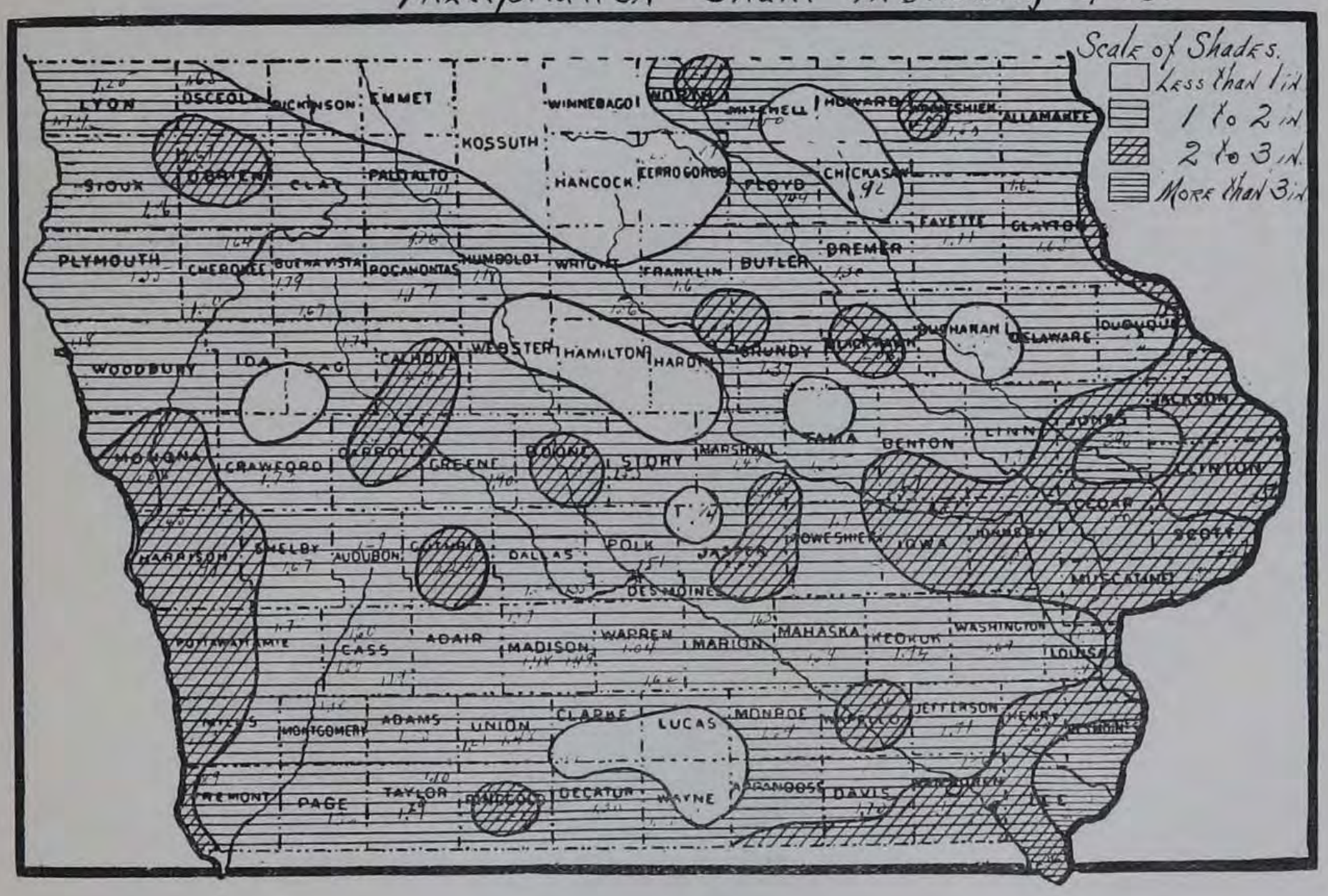
DAILY AND MONTHLY PRECIPITATION FOR FEBRUARY, 1908.

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29			
Afton	....	....	....	.15	....	....	....	....	....	....	....	.33	....	....	....	....	....	1.00	....	....	....	....	....	T	....	....	....	....	T	....	....	1.48
Albia	.15	....	....	T	.44	T	....	....	....	T	T	.19	....	.05	....	....	....	.12	.43	....	....	....	....	....	.26	T	T	....	....	....	....	1.64
Algona	T	....	....	.20	.22	....	....	....	....	....	....	.30	....	T	T	....	....	.28	....	....	....	....	....	....	....	T	....	....	T	....	....	1.00
Allerton	....	....	....	.04	.40	....	....	....	....	....	T	.20	....	.22	....	....	....	.75	....	....	....	....	....	T	.16	T	....	....	T	....	....	1.77
Alta	.10	....	....	T	.55	....	....	....	.03	.02	....	.54	....	.10	....	T	....	.40	.05	....	....	....	....	....	T	....	....	....	....	....	....	1.79
Alta (near)	....	....	....	.05	.50	....	....	....	.03	....	.02	.52	....	.15	....	....	....	.45	....	....	....	....	....	....	....	....	....	....	T	....	....	1.72
Alton	....	....	....	.05	.40	....	....	....	T	....	T	.92	....	....	T	....	....	.30	....	....	....	....	....	....	.09	.10	....	....	T	....	....	1.86
Amana	....	....	....	.18	.93	....	....	....	....	....	....	.24	....	....	....	....	....	.68	.10	....	....	....	....	T	.28	T	....	....	T	....	....	2.41
Ames	T	....	....	....	1.00	....	....	....	....	....	.06	.09	T	....	....	....	....	.30	....	....	....	....	....	.10	....	....	....	....	T	....	....	1.55
Atlantic	....	....	....	....	.49	....	....	....	....	....	.19	.32	T	....	T	....	T	.60	....	....	....	....	....	T	T	T	....	....	T	....	....	1.60
Audubon	....	....	....	.01	.05	....	....	....	....	....	.02	.39	....	.02	....	....	....	.50	....	....	....	....	....	.04	01	.20	....	....	.05	....	....	1.29
Baxter	....	....	....	.04	.32	....	....	....	....	.01	.01	.24	....	.01	T	....	....	.10	....	....	....	....	....	.03	.08	T	....	....	T	....	....	.84
Bedford	....	....	....	.08	.26	....	....	....	....	....	T	.40	....	T	T	T	....	.45	....	....	....	....	....	T	.10	....	....	....	T	....	....	1.29
Belle Plaine	T	....	....	.15	.55	....	....	....	....	....	....	.02	....	T	....	....	....	1.20	....	....	....	....	....	....	.40	.10	....	....	.25	....	....	2.67
Bloomfield	....	....	....	....	.38	....	....	....	....	....	....	.21	....	.38	....	....	....	.51	....	....	....	....	....	....	.26	T	....	....	T	....	....	1.75
Bonaparte	....	....	....	.06	.28	....	....	....	....	....	....	.25	....	.70	....	....	....	.70	....	....	....	....	....	....	....	.50	....	....	....	....	....	2.49
Boone	.10	....	....	....	.36	.20	....	....	....	....	....	.32	T	T	....	....	....	.50	.51	....	....	....	....	....	.14	T	T	....	....	....	....	2.13
Britt	....	....	....	.10	.10	....	....	....	....	....	....	.30	....	.05	....	....	....	.15	....	....	....	....	....	....	T	T	....	....	....	....	....	.70
Buckingham	....	....	....	....	.44	....	....	....	....	....	....	.14	....	T	T	....	....	....	.11	....	....	....	....	.20	....	....	....	....	....	....	....	.89
Burlington	.17	T	....	....	.40	....	....	....	....	....	T	.31	....	1.09	T	....	....	....	1.20	....	....	....	....	....	.52	.02	....	....	....	....	....	3.71
Carroll	....	....	....	....	.25	....	....	....	....	....	....	1.40	T	.20	....	....	....	.30	.20	....	....	....	....	....	.20	....	.03	....	....	....	....	2.58
Cedar Rapids	.11	....	....	....	.71	T	....	....	....	....	.16	.18	....	....	....	T	T	T	.20	....	....	....	....	.29	T	T	....	....	.07	....	....	1.72
Chariton	....	....	....	....	.18	....	....	....	....	....	....	....	....	.10	....	....	....	.45	....	....	....	....	....	....	....	....	....	....	T	....	....	.73
Charles City	....	....	....	.27	.41	....	....	....	....	....	.01	.23	T	.06	....	....	....	.31	....	....	....	....	....	.09	....	T	....	....	.06	....	....	1.44
Clarinda	.03	....	....	....	.42	T	....	....	....	....	....	.41	....	....	....	.05	....	.86	.17	....	....	....	....	....	.02	....	....	....	....	....	....	1.96
Clear Lake	....	....	....	.05	T	....	....	....	....	....	....	T	....	.08	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	.23
Clinton	....	....	....	....	.96	....	....	....	....	....	....	....	....	.30	....	....	....	....	.75	....	....	....	....	....	.46	....	....	....	.09	....	....	2.56
Columbus Junc.	T	....	....	.10	.60	....	....	....	....	....	....	.18	....	.40	....	....	....	.40	.02	....	....	....	....	....	T	T	....	....	T	....	....	1.70
Corning	....	....	....	.40	.05	....	....	....	....	....	....	.55	....	....	T	....	....	.80	....	....	....	....	....	T	....	T	....	....	T	....	....	1.80
Corydon	T	....	....	.01	.11	....	....	....	....	....	T	.15	....	.14	....	....	....	.28	.01	....	....	....	....	T	.21	T	....	....	T	....	....	.91
Creston	.14	....	....	....	.52	....	....	....	....	....	T	.06	....	....	....	....	....	.15	.34	....	....	....	....	....	....	....	....	....	T	....	....	1.21
Cumberland	....	....	....	.40	....	....	....	....	....	.90	....	....	....	....	....	....	....	....	.50	....	....	....	....	....	....	....	....	T	....	....	....	1.80
Davenport	.01	....	....	.30	.52	....	....	T	....	....	T	.10	....	.44	....	T	....	.59	.07	....	....	....	....	.08	.10	T	....	....	.16	....	....	2.37
Decorah	....	....	....	....	.60	....	....	....	....	....	....	.15	T	....	....	....	....	.45	....	....	....	....	....	.25	....	....	....	....	.05	....	....	1.50
Denison	....	....	....	....	.24	....	....	....	.12	....	....	.48	....	.06	....	....	....	.60	.10	....	....	....	....	T	....	.10	....	....	T	....	....	1.70
Des Moines	....	....	....	.12	.26	....	....	....	....	....	.22	.06	T	T	T	....	....	.78	T	....	....	....	....	.03	T	....	....	....	.04	....	....	1.51
De Soto	....	....	....	T	T	....	....	....	....	....	T	.72	....	T	....	....	....	.60	T	....	....	....	....	....	....	T	....	....	T	....	....	1.32
Dows	.30	....	....	....	.40	....	....	....	....	....	....	.26	....	....	....	....	....	.50	....	....	....	....	....	....	.10	....	....	....	....	....	....	1.56
Dubuque	.05	....	....	.17	.48	....	....	....	....	T	T	.12	....	....	....	....	....	.78	T	....	....	....	....	.12	.14	T	....	....	.01	....	....	1.87
Earlham	...	....	....	.11	.55	....	....	....	....	....	T	.28	T	.03	....	....	....	1.00	....	....	....	....	....	T	....	T	....	....	T	....	....	1.97
Elkader	....	....	....	....	.85	....	....	....	....	....	....	T	....	....	....	....	....	.57	....	....	....	....	....	....	.23	....	....	....	....	....	....	1.65
Elliott	....	....	....	.60	....	....	....	....	....	....	....	.58	....	....	T	T	....	.80	....	....	....	....	....	....	....	....	....	....	T	....	....	1.98
Elma	....	....	....	.18	.27	....	....	....	....	....	....	.29	....	.03	....	....	....	.09	....	....	....	....	....	T	.10	T	....	....	....	....	....	.96
Estherville	.06	....	....	....	.12	T	....	....	....	....	....	.35	....	....	....	....	....	.18	.12	....	....	....	....	....	....	T	....	....	....	....	....	.83
Fayette	T	....	....	.41	.26	....	....	....	....	....	....	.22	....	....	....	....	....	.50	....	....	....	....	....	.27	.05	....	....	....	T	....	....	1.71
Fairfield	....	....	....	.10	.37	....	....	....	....	....	T	.18	....	.39	T	....	....	.27	....	....	....	....	....	....	.40	....	....	....	T	....	....	1.71
Forest City	.20	....	....	....	.30	T	....	....	....	....	....	.25	....	....	....	....	....	....	T	....	....	....	....	....	T	....	....	....	....	....	....	.75
Fort Dodge	T	....	....	....	.20	T	....	....	....	....	T	T	....	.05	....	....	....	.10	.10	....	....	....	....	....	....	T	....	....	....	....	....	.45
Fort Madison	....	....	....	.20	.78	....	....	....	....	.29	....	....	....	1.30	....	....	....	.10	....	....	....	....	....	.50	....	T	....	....	.11	....	....	3.28
Gilman	....	....	....	....	.05	.28	....	....	....	....	.95	....	....	....	....	....	....	1.20	....	....	....	....	....	....	.24	....	....	....	T	....	....	2.72
Grand Meadow	....	....	....	....	.35	....	....	....	....	....	....	.58	....	....	....	....	....	.40	.10	....	....	....	....	....	.20	....	....	....	....	....	....	1.63
Grinnell	....	....	....	.10	.73	....	....	....	....	....	T	....	....	....	....	....	....	.60	....	....	....	....	....	.45	.05	T	....	....	.05	....	....	1.98
Grundy Center	....	....	....	.10	....	....	....	....	....	....	....	.35	....	T	....	....	....	.60	....	....	....	....	....	....	.32	....	....	....	....	....	....	1.37
Guthrie Center	....	....	....	.05	.76	....	....	....	....	....	T	.48	....	.01	T	T	....	.87	.04	....	....	....	....	T	.03	T	....	....	T	....	....	2.24
Hampton	....	....	....	.55	....	....	....	....	....	....	.35	....	....	....	....	....	.30	.40	....	....	....	....	....	.08	....	....	....	....	....	....	....	1.68
Hancock	....	....	....	T	.53	....	....	....	T	T	T	.75	T	....	T	T	....	.50	....	....	....	....	....	T	....	....	....	....	T	....	....	1.78
Harlan	....	....	....	T	.35	....	....	....	.02	....	T	.55	T	.08	T	T	T	.62	....	....	....	....	....	.05	T	T	....	....	T	....	....	1.67
Hopeville	....	....	....	.09	.25	....	....	....	....	....	....	.30	....	T	....	....	....	.25	....	....	....	....	....	.04	.06	T	....	....	....	....	....	.99
Humboldt	....	....	....	....	.55	....	....	....	....	....	....	.25	....	....	....	....	.38	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.18
Independence	T	....	....	.30	.20	....	....	....	....	....	....	....	....	....	....	....	....	.35	....	....	....	....	....	....	....	....	....	....	....	....	....	.85
Indianola	....	....	....	.05	T	....	....	....	....	....	....	.26	T	....	....	....	....	.60	T	....	....	....	....	.01	.05	.05	....	....	.02	....	....	1.04
Inwood	....	....	....	.11	.15	....	....	....	.06	....	T	.91	....	....	.01	....	....	.30	....	....	....	....	....	....	....	.20	....	....	T	....	....	1.74
Iowa City	.35	....	....	....	.90	.03	....	....	....	....	T	....	....	T	....	....	....	....	.40	....	....	....	....	....	.40	T	....	....	....	....	....	2.08
Iowa Falls	.20	....	....	....	.35	T	....	....	T	....	T	.29	.06	.04	....	....	....	....	.85	....	....	....	....	....	.30	T	T	....	....	....	....	2.09
Jefferson	....	....	....	T	.30	....	....	....	....	....	T	.50	....	....	T	....	....	.60	....	....	....	....	....	....	....	....	....	....	T	....	....	1.90
Keokuk	....	....	....	.06	.02	....	....	....	....	T	....	.26	....	.88	....	....	....	.91	.03	....	....	....	....	.25	.41	T	....	....	.04	....	....	2.86
Keosauqua	.15	....	....	....	.26	T	....	....	....	....	T	.25	....	.58	.10	....	....	.10	.35	....	....	....	....	....	.40	T	T	....	....	....	....	2.19
Lacona	....	....	....	.10	.10	....	....	....	....	.02	T	....	....	.05	....	....	....	.65	....	....	....	....	....	....	.55	.05	....	....	.10	....	....	1.62
Larrabee	....	....	....	.25	.20	....	....	....	.01	....	.30	.42	....	.02	T	....	....	.42	....	....	....	....	....	....	....	.02	....	....	T	....	....	1.64
Le Claire	.28	....	....	....	.74	.10	....	....	....	....	....	.20	....	.50	.09	....	T	T	.60	....	....	....	....	....	.30	T	T	....	....	....	....	2.81
Le Mars	....	....	....	....	.28	....	....	....	T	....	....	.61	....	....	T	....	....	....	.36	....	....	....	....	....	T	.10	....	....	....	....	....	1.35
Lenox	....	....	....	.25	.15	....	....	....	....	....	....	.40	....	....	....	....	....	.30	....	....	....	....	....	....	T	T	....	....	T	....	....	1.10
Leon	.05	....	....	.03	.40	....	....	....	....	....	T	.31	....	.06	....	....	....	.35	....	....	....	....	....	.02	.08	....	....	....	T	....	....	1.30
Little Sioux	....	....	....	.15	.30	....	....	....	.12	....	....	.83	....	.30	.02	.02	....	.70	....	....	....	....	....	.01	....	....	....	....	....	....	....	2.45
Logan	....	....	....	T	.40	....	....	....	.02	....	T	.64	....	.50	....	.10	....	.70	....	....	....	....	....	.35	....	....	....	....	T	....	....	2.71
Marshalltown	....	....	....	....	.37	T	....	....	....	....	.10	....	....	....	....	....	....	.10	.50	....	....	....	....	....	.40	.01	....	....	....	....	....	1.48
Mason City	....	....	....	.20	.30	....	....	....	....	....	....	.27	....	T	....	....	....	.10	....	....	....	....	....	T	....	....	....	....	....	....	....	.87
Massena	....	....	....	.05	.30	....	....	....	....	....	....	.20	....	T	....	....	....	.60	....	....	....	....	....	....	....	.04	....	....	T	....	....	1.19
Mt. Ayr	....	....	....	....	.30	....	....	....	....	....	.38	....	.05	....	....	....	....	1.35	....	....	....	....	.15	....	....	....	....	....	.05	....	....	2.28
Mt. Pleasant	....	....	....	.19	.31	....	....	....	....	T	T	.32	....	.69	....	....	....	.55	.05	....	....	....	....	T	.58	T	....	....	T	....	....	2.69
Muscatine	.06	....	....	....	.64	.03	....	....	....	....	....	.21	....	.35	T	....	....	....	.60	....	....	....	....	....	.18	T	T	....	....	....	....	2.07
New Hampton	....	....	....	.20	T	....	....	....	....	....	T	.10	....	.10	....	....	....	.20	....	....	....	....	....	T	.32	....	....	....	....	....	....	.92
Newton	....	....	....	.12	.53	....	....	....	....	....	....	.40	....	....	....	....	....	1.20	....	....	....	....	....	....	....	....	....	....	....	....	....	2.25
Northwood	....	....	....	.20	.20	....	....	....	....	.10	1.80	....	....	.01	....	....	....	.01	....	....	....	....	....	.04	....	....	....	....	.35	....	....	2.71
Odebolt	....	....	....	.05	.20	....	....	....	....	....	....	....	....	....	....	....	....	.40	....	....	....	....	....	....	....	.05	....	....	....	....	....	.70
Olin	....	....	....	....	2.00	....	....	....	....	....	....	.33	....	....	....	....	....	....	1.00	....	....	....	....	.60	....	T	....	....	.02	....	....	3.95
Omaha, Neb	....	....	....	.25	.22	....	....	.02	T	T	.44	.24	.10	.01	.01	T	.14	.68	....	....	....	....	....	.03	....	....	....	....	T	....	....	2.14
Onawa	....	....	....	.02	.50	....	....	....	.10	....	....	.90	....	.20	.02	.02	....	.60	....	....	....	....	....	....	....	....	....	....	T	....	....	2.36
Osage	....	....	....	.40	....	....	....	....	....	....	....	.40	....	....	....	....	....	.20	....	....	....	....	....	T	T	T	....	....	T	....	....	1.00
Oskaloosa	....	....	....	.50	.29	....	....	....	....	T	.20	....	T	....	....	....	....	.30	....	....	....	....	....	.06	.24	....	....	....	T	....	....	1.59
Ottumwa	....	....	....	....	1.00	....	....	....	....	....	.15	.20	.35	....	....	....	....	....	.60	....	....	....	....	.04	....	....	....	....	T	....	....	2.34
Pacific Junction	....	....	....	.06	.33	....	....	....	.02	....	T	.54	T	T	T	....	....	1.58	....	....	....	....	....	T	....	....	....	....	T	....	....	2.53
Pella	....	....	....	.07	.56	....	....	....	....	....	....	.19	....	.01	....	....	....	.58	.05	....	....	....	....	....	.17	T	....	....	T	....	....	1.63
Plover	....	....	....	.20	....	....	....	....	....	....	.14	.72	....	.10	....	....	.30	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	1.76
Pocahontas	.02	....	....	....	.38	....	....	....	....	....	....	.35	....	.11	....	....	....	....	.26	....	....	....	....	....	....	.05	....	....	....	....	....	1.17
Ridgeway	.27	....	....	.04	.23	....	....	....	....	....	.03	.52	....	.08	....	....	....	.54	....	....	....	....	....	.23	.01	.01	....	....	.11	....	....	2.07
Rock Rapids	....	....	....	.20	....	....	....	....	.05	....	....	.60	....	....	....	....	....	.40	....	....	....	....	....	T	....	....	....	....	T	....	....	1.25
Rockwell City	....	....	....	.10	.40	....	....	....	....	....	.50	.50	....	....	....	....	.70	....	....	....	....	....	....	....	....	....	....	.25	....	....	....	2.45
Sac City	....	....	....	.05	.20	....	....	....	....	....	.40	.45	....	.40	....	....	....	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	1.75
St. Charles	.05	....	....	.03	.35	....	....	....	T	T	.26	....	....	....	....	....	....	.40	.35	....	....	....	....	T	.04	T	....	....	.02	....	....	1.49
Sheldon	T	....	....	.20	.40	....	....	....	.20	....	.20	1.00	....	....	T	....	....	.60	....	....	....	....	....	....	....	.05	....	....	.02	....	....	2.67
Sibley	.20	....	....	....	.20	.05	....	....	.05	....	....	.75	....	....	....	T	....	.20	.20	....	....	....	....	....	T	....	....	....	....	....	....	1.65

DAILY AND MONTHLY PRECIPITATION FOR FEBRUARY, 1908—CONTINUED.

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sigourney	....	....	....	.10	.60	....	....	....	....	T	T	.20	....	.04	....	....	....	.60	....	....	....	....	....	T	.36	.04	....	....	T	....	....	1.94
Sioux City	....	....	....	.10	.12	....	....	.02	.02	....	.26	.26	.01	T	.03	....	T	.36	....	....	....	....	....	T	....	....	....	....	T	....	....	1.18
Stockport	....	....	....	.97	.31	....	....	....	....	T	T	.21	....	.65	....	T	....	.15	.05	....	....	....	....	T	.40	.02	....	....	....	....	....	1.86
Storm Lake	....	....	....	.02	.60	....	....	....	T	....	T	.45	....	.20	....	....	....	.40	....	....	....	....	....	T	....	....	....	....	T	....	....	1.67
Stuart	....	....	....	....	.75	....	....	....	....	....	....	....	....	....	....	....	....	....	.80	....	....	....	....	....	T	T	....	....	....	....	....	1.55
Thurman	....	....	....	.08	.14	....	....	....	.02	....	....	.50	T	T	T	T	....	1.10	....	....	....	....	....	....	.05	....	....	....	T	....	....	1.89
Tipton	.56	....	....	....	.54	....	....	....	....	....	....	.29	....	....	....	....	....	....	....	....	....	....	....	.48	....	....	....	....	.13	....	....	2.00
Toledo	....	....	....	....	.75	....	....	....	....	....	....	....	....	....	....	....	....	....	.80	....	....	....	....	....	T	T	....	....	....	....	....	1.55
Wapello	....	....	....	.04	.21	....	....	....	....	....	....	....	....	.63	....	....	....	.31	....	....	....	....	....	....	.24	....	....	....	....	....	....	1.43
Washington	....	....	....	....	.50	....	....	....	....	....	....	.16	....	.28	....	....	....	.35	....	....	....	....	....	....	.40	....	....	....	....	....	....	1.69
Washta	....	....	....	T	.20	....	....	T	....	....	.20	.40	....	....	T	....	....	.40	....	....	....	....	....	T	....	T	....	....	....	....	....	1.20
Waterloo	....	....	....	.24	.67	T	....	....	....	....	....	.16	....	....	....	T	....	.70	....	....	....	....	....	....	.29	T	....	....	T	....	....	2.06
Waukee	T	....	....	.10	.35	....	....	....	....	T	T	.40	....	....	....	....	....	.30	.20	....	....	....	....	T	T	....	....	T	T	....	....	1.35
Waverly	....	....	....	.20	.30	....	....	....	....	....	T	.15	....	T	....	T	....	.40	....	....	....	....	....	....	.25	T	....	....	....	....	....	1.30
Webster City	....	....	....	.20	.10	....	....	....	....	....	T	.20	....	.05	....	....	....	.30	....	....	....	....	....	T	....	....	....	....	T	....	....	.85
West Bend	....	....	....	.50	T	....	....	....	T	....	....	.35	....	....	....	....	....	.27	....	....	....	....	....	....	....	T	....	....	T	....	....	1.12
Whitten	....	....	....	T	....	....	....	....	....	T	....	.42	....	....	....	....	.50	....	....	....	....	....	T	T	T	....	....	....	T	....	....	.92
Winterset	....	....	....	T	.35	....	....	....	....	....	T	.33	....	T	....	....	....	.80	....	....	....	....	....	T	T	T	....	....	T	....	....	1.48
Zearing	....	....	....	.09	.14	....	....	....	....	....	....	.33	....	T	....	....	....	.26	.03	....	....	....	....	.04	.10	T	....	....	....	....	....	.99

Precipitation Chart February 1908.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR MARCH, 1908.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1908

THE IOWA WEATHER AND CROP SERVICE

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Greenfield	Dr. Geo. Brooks
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Guthrie Center	D. G. Beardsley
Hampton	E. C. Grenelle
Hancock	W. Armstrong
Harlan	C. A. Reynolds
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Mount Pleasant	W. S. Wright
Milton	Hon. E. C. Holland
Monroe	J. A. Dibel
Oakville	Z. W. Steele
Orange City	H. J. Vande Waa
Pella	J. H. Ver Steeg
Preston	J. G. Storm
Pittsburg	G. C. Duffield
Portland (Nora Springs, P. O.)	Arthur Pickford
Platte (Creston R. D.)	M. H. Dibel
Red Oak	Hon. C. L. Stratton
Seymour	L. B. Sager
Stuart	W. W. Bailey
Van Horne	Spencer Smith
Weldon	Ed Worden
Winterset	H. A. Kinsman
West Branch	Wrigley Smith
West Union	H. B. Blackman
Woodward	George Swisher

U. S. DEPARTMENT OF AGRICULTURE.

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

CENTRAL OFFICE: WASHINGTON, D. C.

IN CO-OPERATION WITH THE

IOWA WEATHER AND CROP SERVICE.

IOWA SECTION

GEO. M. CHAPPEL, - - - Director.

VOL. XIX. DES MOINES, IOWA, MARCH, 1908. No. 3

GENERAL SUMMARY.

The weather during the month was exceptionally mild and pleasant for the season, there being but five years since 1890 when a higher mean temperature for march was recorded, viz.: 1894, 1902, 1903, 1905 and 1907. The mean temperature was uniformly above the normal, no station having reported a deficiency; and, while the average maximum temperature was 7.9° lower than in March, 1907, the monthly mean was only 2.7° lower than that of last year. The lowest temperature occurred during the first decade, generally on the 8th when it was from 1° to 8° below zero in a few of the northwestern counties. The warmest days of the month were from the 10th to 14th and on the 25th and 26th. The precipitation was quite well distributed, and fell mostly in the form of rain, no snow being reported except small amounts in the central and northern counties. There was a deficiency of precipitation in the larger part of the State, the only exceptions being over the east central counties where there was a slight excess. There were three periods during the month in which the rainfall was general, viz.: 4th to 6th, 14th to 18th, and 27th to 30th, but the average number of days on which .01 inch or more fell was only six, so that the month afforded more than the usual number of pleasant days for farm and other out-door work. The growth of vegetation was not as far advanced at the end of the month as it was at the close of March, 1907, but fully as much seeding of small grain and plowing for corn has been done. The crop conditions in general are very promising.

CLIMATOLOGY OF THE MONTH.

TEMPERATURE.—The monthly mean temperature for the State, as shown by the records of 116 stations, was 37.9°, which is 3.9° above the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 34.7°, which is 3.5° above the normal; Central section, 38.1°, which is 3.9° above the normal; Southern section, 40.8°, which is 4.1° above the normal. The highest monthly mean was 44.8° at Keokuk, Lee county, and the lowest monthly mean 31.4° at Sibley, Osceola county. The highest temperature reported was 85° at Woodburn, Clarke county, on the 25th; the lowest temperature reported was -8° at Inwood, Lyon County, on the 8th. The average monthly maximum was 76.1°; and the average monthly minimum was 9.8°. The greatest daily range was 62° at Woodburn. The average of the greatest daily ranges was 47.9°.

PRECIPITATION.—The average precipitation for the State, as shown by the records of 121 stations, was 1.58 inches, which is .34 inch below the normal. By sections the averages were as follows: Northern section, 1.56 inches, which is .17 inch below the normal; Central section, 1.69 inches, which is .29 inch below the normal; Southern section, 1.50 inches, which is .55 inch below the normal. The greatest amount, 3.74 inches, occurred at Le Claire, Scott county, and the least, .45 inch, at Ames, Story county. The greatest amount in 24 hours, 2.15 inches, occurred at Tipton, Cedar county, on the 27th. Measurable precipitation occurred on an average of 6 days.

SUNSHINE AND CLOUDINESS.—The average number of clear days was 13; partly cloudy, 7; cloudy, 11. The duration of sunshine was about normal, the percentage of the possible amount being 51 at Des Moines, 54 at Davenport, 55 at Dubuque, 55 at Keokuk, and 59 at Sioux City.

WIND.—Northwest winds prevailed. High winds were reported on the 6th, 21st and 25th. The highest velocity reported was 48 miles per hour, from the north, at Sioux City, Woodbury county, on the 25th.

COMPARATIVE DATA FOR THE STATE—MARCH.

YEAR	TEMPERATURE				PRECIPITATION			
	Mean	Departure from the Normal	Highest	Lowest	Average	Departure from the Normal	Greatest	Least
1890	28.0	- 6.0	.....	.....	1.57	- .35	4.58	1.33
1891	26.8	- 7.2	66	-19	2.60	+ .68	4.58	1.33
1892	31.9	- 2.1	48	- 6	2.22	+ .30	4.58	.57
1893	31.8	- 2.2	84	- 8	2.14	+ .22	4.40	.64
1894	41.0	+ 7.0	84	- 5	2.03	+ .11	4.52	.26
1895	34.4	+ 0.4	94	-11	.83	-1.09	2.60	.22
1896	30.9	- 3.1	81	-12	1.10	- .82	3.99	.16
1897	32.0	- 2.0	72	-22	2.39	+ .47	6.16	.29
1898	37.5	+ 3.5	72	2	1.94	+ .02	6.21	.33
1899	23.0	-11.0	75	-16	1.62	- .30	5.90	.37
1900	30.7	- 3.3	81	-13	2.06	+ .14	5.15	.45
1901	34.2	+ 0.2	76	- 8	2.64	+ .72	5.25	.70
1902	39.1	+ 5.1	79	-12	1.45	- .47	4.33	.13
1903	38.8	+ 4.8	82	6	1.38	- .54	3.90	.15
1904	34.8	+ 0.8	78	3	2.18	+ .26	4.57	.50
1805	41.5	+ 7.5	84	1	2.04	+ .08	3.70	.39
1906	27.1	- 6.9	65	-14	2.34	+ .42	4.55	.58
1907	40.6	+ 6.6	92	- 7	1.35	- .57	5.05	.23
1908	37.9	+ 3.9	85	- 8	1.58	- .34	3.74	.45

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	30.04	30.61	9	29.24	6
Davenport	30.04	30.65	9	29.34	6
Des Moines	30.03	30.61	9	29.43	25
Dubuque	30.05	30.65	9	29.26	6
Omaha, Neb.	30.05	30.65	9	29.35	25
Keokuk	30.06	30.69	10	29.51	6
Sioux City	30.07	30.58	9	29.56	14
Means	30.05	30.69	10	29.24	6

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	6340	32	SW	25
Davenport	6603	32	W	6
Des Moines	6996	40	SW	25
Dubuque	5949	34	SW	6
Keokuk	6552	39	SW	6
La Crosse, Wis	4859	28	SW	21
Omaha, Neb.	7689	40	N	26
Sioux City	9579	48	N	25

BELATED REPORT.

KNOXVILLE.—February Mean temperature, 27.2°; highest, 51°, on the 12th; lowest, -3°, on the 2d; greatest daily range, 38°; total precipitation, 1.24 inches; greatest in 24 hours, .53 inch; total snowfall, 6.1 inches. Number of clear days, 13, partly cloudy, 3; cloudy, 13; rainy, 6.

ERRATA.

AMES.—August, 1907—The maximum temperature recorded 91°, on the 31st, on page 91, should have been 92° on the 10th

TOLEDO.—August, 1907—The total precipitation recorded as 4.24 inches, on pages 91 and 96, should have been 3.24 inches.

SIGOURNEY.—December, 1907—The total snowfall recorded as 4.1 inches, on page 137, should have been 4.0 inches.

WASHTA.—January—The maximum temperature recorded as 53° on the 20th, page 5, should have been 54° on the 3d.

SIOUX CITY.—February—The total snowfall recorded as 7.1 inches, page 17, should have been 6.7 inches.

OBSERVERS' NOTES.

ALBIA.—*J. I. Chenoweth.* There was no snowfall at this station during the month of March. Frost was out of the ground by the 10th, but vegetation is not as far advanced at the close of the month as it was at the close of March, 1907.

ALTA.—*David E. Hadden.* The mean temperature for the month was slightly above and the precipitation was a little below the 18-year normal. There was a thunderstorm on the night of the 5th and a bright aurora on the 26th.

ALTON.—*W. S. Slagle.* The soil has been in fine condition for spring work, and wheat is all sown, as is also some of the oats. A very beautiful aurora borealis was observed on the 27th.

AMANA.—*Conrad Schadt.* The weather was about normal, with seasonable rains. The soil is in good condition for plowing and seeding of grain. Farmers began sowing wheat on the 21st.

ATLANTIC.—*J. W. Love.* The weather was very pleasant during March. Ducks were flying northward on the 6th; bluebirds on the 10th; meadow larks on the 11th, and robins on the 12th. Grass was starting to grow very nicely at the close of the month.

BAXTER.—*W. R. Vandike.* Robins and bluebirds came on the 10th, and frogs began to croak on the 26th.

BONAPARTE.—*B. R. Vale.* The weather has been seasonable during the month and vegetation is starting nicely. Most of the oats have been sown, and stock is in good condition.

BOONE.—*Carl Fritz Henning.* Robins were observed and geese were flying northward on the 2d.

BRITT.—*Geo. P. Hardwick.* There was but little snowfall during the month, and sleighs have not been needed during the winter. Farmers have plenty of hay but corn is scarce. Live stock is in good condition.

CHARITON.—*C. C. Burr.* More than the usual amount of oats have been sown in March, and the soil is in good tilth.

CLEAR LAKE.—*Oscar Stevens.* The ice was all out of the lake on the 26th.

CLINTON.—*Luke Roberts.* The weather during March was quite mild and uniform. The temperature, rainfall and sunshine were above normal, and the Mississippi was clear of ice, and navigation opened on the 7th.

CRESTON.—*Rev. W. L. Gaston.* Cool nights have prevented the unseasonable development of vegetation and the prospect for a fruit crop is good.

ELLIOTT.—*Henry Barnes.* There have been no bad storms and the weather was fairly good for stock. Most of the spring wheat has been sown but the seeding of oats will not begin until the weather is warmer and dryer.

FAYETTE.—*R. Z. Latimer.* Honey bees were flying around on the 9th, and robins, bluebirds, ducks and geese were observed on the 11th.

FOREST CITY.—*J. A. Peters.* There was no grain sown during the month.

FORT MADISON.—*Miss L. A. McReady.* With seasonable weather the prospect for a fruit crop is good. On the evening of the 27th a severe storm past 10 miles west of this place and did considerable damage in and around New London.

GRINNELL.—*A. O. Price.* The rainfall was about normal but there was but little snow. The temperature was just right to retard the development of buds, and the prospect for a fruit crop is good.

HANCOCK.—*Wm. Armstrong.* The sowing of wheat was almost completed at the end of the month, and grass was growing nicely.

INWOOD.—*F. B. Hanson.* A few farmers began sowing wheat on the 25th, but that work was not general until the last two days of the month. The aurora of the 26th was the most brilliant observed for many years.

KEOSAUQUA.—*J. H. Landes.* Oats all sown and early garden truck planted. Grass is making slow growth.

LARRABEE.—*H. B. Strever.* The first seeding was done on the 31st.

LEON.—*J. Morris Gardner.* The finest March weather ever experienced here. Oats are all sown and stock is in good condition.

MT. AYR.—*A. F. Beard.* The first robin observed was on the 1st; doves on the 10th, and meadow larks on the 19th.

OLIN.—*Nathan Potter.* The weather was warmer than the average for March and there were no severe storms. The frost was all out of the ground by the 15th, and some farmers had finished sowing oats at the close of the month.

PLOVER.—*J. S. Smith.* The first wild duck observed flying northward was on the 2d, and blackbirds and robins were seen on the 4th. The first wheat was sown on the 23d. In 1907 the first wheat was sown on the 26th of of March.

RIDGEWAY.—*Arthur Betts.* The temperature was 2° cooler than in March, 1907, but the weather was pleasant, with 52 per cent of sunshine. The first rainbow was observed on the 23d. Some sod land has been plowed, but there has been no seeding done.

SHELDON.—*A. W. Beach.* The roads are good and the ground is ready for seeding, which will begin at once if the weather continues good.

ZEARING.—*W. C. Bean.* The month was comparatively dry until the rain of the 30th and 31st.

TORNADO IN LEE COUNTY.

At about 6:30 P. M., March 27th, a tornado of moderate violence struck the village of New Boston, in the southeastern part of Charleston township, Lee county, resulting in considerable loss of property and injuring five people. The storm moved from northwest to southeast and was attended by a typical funnel-shaped cloud which was observed for thirty minutes before the storm struck the town. The Methodist church and the colored Baptist church were wrecked and the homes of Ayres Hancock and Grant Schroeder were blown over and demolished as were also several barns and out-buildings. The storm track is said to have been from 200 feet to half a mile wide and was followed by rain and some hail, but the precipitation was not heavy. No damage is reported to have been done, after the storm past New Boston, but severe wind squalls were general over the southeastern part of Lee county, between 6:30 and 7:10 P. M. The official in charge of the U. S. Weather Bureau at Keokuk reports as follows: "At this station there was only a heavy shower of rain with some hail and a short wind squall from the west at 7:10 P. M. of the 27th."

CLIMATOLOGICAL DATA FOR MARCH, 1908.

NORTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunder-storms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
Algona	Kossuth	1,213	34	35.4	+ 5.8	73	25	1	8	47	1.82	+.26	1.31	....	6	15	4	12	SE, NW	
Alta	Buena Vista	1,513	17	33.1	+ 2.5	77	25	3	8	50	1.43	-.23	.88	2.2	10	13	8	10	NW	
Alta [near]	Buena Vista	.....	....	.....	.....	.....	.....	.....	.....	.....	1.58	.....	1.07	2.9	7	....	....	....	.....	
Alton	Sioux	1,305	3	35.4	.....	76	25	-1	8	46	1.74	.....	.99	5.8	8	13	8	10	NW	
Britt	Hancock	1,236	11	34.2	+ 3.1	72	25	2	8	46	1.82	+.32	1.16	2.5	6	6	16	9	NW	
Charles City	Floyd	1,015	20	34.6	+ 6.2	69	25	8	8	43	1.67	-.25	.70	1.6	7	5	10	16	NW	
Clear Lake	Cerro Gordo	1,241	9	34.4	+ 2.7	70	25	3	8	45	1.50	-.09	1.35	1.2	3	14	1	16	NW	
Decorah (*d*)	Winneshiek	875	15	33.8	+ 2.2	64	25	6	9	43	1.94	-.11	1.70	2.0	3	....	....	....	.....	
Dows	Wright	1,142	8	35.3	+ 1.7	75	25	6	8	52	1.22	-.92	.52	....	5	13	7	11	E	
Elkader	Clayton	727	27	36.5	+ 4.7	66	25	12	*9	46	1.57	-.34	.68	6.0	5	12	7	12	NW	
Elma	Howard	.....	....	34.0	.....	65	25	6	8	40	.83	.....	.24	1.0	6	11	12	8	N	
Estherville	Emmet	1,298	12	32.6	+ 3.6	74	25	-3	8	48	1.42	-.02	1.00	3.2	5	12	0	19	NW	
Fayette	Fayette	1,003	18	35.4	+ 4.2	66	*12	10	9	43	1.75	-.51	.72	.5	7	13	2	16	NW	
Forest City	Winnebago	1,226	14	32.5	+ 2.8	72	25	1	8	46	1.63	+.07	1.30	1.0	6	13	8	10	SW	
Gr'd Meadow	Clayton	1,180	17	35.0	+ 3.7	62	25	11	8	37	1.85	-.29	.60	1.5	7	9	9	13	NW	
Hampton	Franklin	1,155	18	36.1	+ 5.8	73	25	7	8	48	1.95	-.30	.85	.8	8	8	13	10	SW	
Humboldt	Humboldt	1,095	17	37.0	+ 5.2	78	25	6	8	50	.78	-.82	.24	....	7	18	2	11	NW	
Inwood	Lyon	1,474	4	33.8	.....	79	25	-8	8	54	1.45	.....	1.25	10.1	7	16	3	12	NE, SW	
Larrabee (*a*)	Cherokee	1,266	17	34.6	+ 3.9	77	25	1	9	48	1.64	+.15	.90	1.9	7	16	5	10	.....	
Le Mars	Plymouth	1,224	12	36.3	+ 3.3	74	25	1	8	45	.82	-.78	.60	T	4	14	9	8	NW	
Mason City	Cerro Gordo	1,132	11	34.4	+ 2.8	70	25	5	8	45	1.68	.....	1.00	1.6	7	9	11	11	NW	
New Hampton	Chickasaw	1,169	11	34.4	+ 2.7	64	25	8	8	39	1.34	-.67	.77	.5	4	14	6	11	W	
Northwood	Worth	1,222	12	*b* 34.0	+ 2.9	*b* 69	28	*b* 0	8	*b* 44	2.15	+.29	1.75	5.0	3	15	7	9	NW	
Osage	Mitchell	1,184	17	34.6	+ 5.5	70	25	5	8	46	2.09	+.33	1.44	5.0	4	12	3	16	NW	
Plover	Pocahontas	1,426	12	36.2	+ 4.1	75	25	4	8	47	1.44	+.23	.84	1.0	6	15	3	13	NW	
Pocahontas	Pocahontas	.....	4	35.4	.....	74	25	4	8	48	1.35	.....	1.12	1.1	6	15	9	7	SW, NW	
Ridgeway	Winneshiek	1,215	10	35.4	+ 2.3	65	25	7	9	41	2.36	-.85	.95	1.8	10	12	9	10	S	
Rock Rapids	Lyon	1,358	9	33.3	+ 1.7	76	25	-5	8	48	.....	.....	.....	.....	.....	.....	.....	.....	N, S	
Sheldon	O'Brien	1,422	8	35.2	+ 3.8	78	25	-3	8	46	1.90	+.47	1.20	7.0	7	13	9	9	SE	
Sibley	Osceola	1,212	15	31.4	+ 1.5	74	25	-6	8	48	1.62	+.16	.87	7.7	6	12	2	17	NW	
Sioux Center	Sioux	.....	9	34.6	+ 1.4	76	25	-3	8	47	1.35	-.17	.55	6.5	6	13	6	12	W	
Storm Lake	Buena Vista	1,440	12	35.8	+ 5.6	73	25	3	8	52	1.22	-.10	.96	.5	7	13	6	12	SW	
Washta	Cherokee	1,157	10	35.5	.....	78	25	4	8	48	.85	-.11	.75	.5	2	14	5	12	S	
Waverly	Bremer	948	12	36.4	+ 3.6	69	25	11	8	42	1.59	-.36	.56	....	8	10	8	13	.....	
Averages		.....	....	34.7	+ 3.5	71.9	.....	3.2	.....	46.0	1.56	-.17	.....	2.7	6	13	7	11	NW	

CENTRAL SECTION

Amana	Iowa	721	31	39.4	+ 6.9	72	12	16	9	44	2.37	+.37	.70	.2	10	11	5	15	NW	
Ames	Story	926	27	38.1	+ 4.6	78	25	11	8	46	.45	-.96	.20	T	6	15	8	8	N, W	
Audubon	Audubon	1,301	15	37.6	+ 3.4	80	25	11	8	54	.88	-.74	.39	....	7	13	3	15	SW, NW	
Baxter	Jasper	998	8	37.9	+ 1.3	76	25	12	9	53	1.53	-.68	.90	1.5	10	15	2	14	SW	
Belle Plaine	Benton	828	18	36.9	+ 3.5	69	12	18	*8	41	2.37	-.14	.82	1.0	8	11	6	14	SE, NW	
Boone	Boone	1,134	3	36.0	.....	76	25	10	8	49	1.37	.....	.56	1.0	6	14	3	14	.....	
Buckingham	Tama	.....	8	.....	.....	.....	.....	.....	.....	.....	.97	-1.25	.90	T	2	5	17	9	.....	
Carroll	Carroll	1,265	18	35.3	+ 2.6	81	25	8	*8	55	1.69	-.35	.93	1.5	4	18	1	12	.....	
Cedar Rapids	Linn	733	26	37.6	+ 4.0	70	25	17	*9	49	2.17	+.13	.92	T	6	10	7	14	.....	
Clinton	Clinton	593	40	39.2	+ 5.7	68	*12	17	9	39	3.08	+.06	1.06	T	7	11	4	16	SW	
Davenport	Scott	580	36	40.2	+ 4.8	71	12	19	9	39	2.24	+.03	.87	T	12	11	6	14	NW	
Delaware	Delaware	1,083	17	35.6	+ 4.0	64	12	10	9	38	1.71	-.12	.90	....	6	16	7	8	SW, NW	
Denison	Crawford	1,180	13	*f* 39.4	+ 5.7	*i* 81	25	*b* 9	8	.....	1.11	-.40	.55	1.0	6	15	5	11	SE	
Des Moines	Polk	861	29	39.8	+ 4.1	80	25	15	8	51	1.43	-.22	.87	T	8	8	10	13	SW	
De Soto (*a*)	Dallas	866	8	39.8	+ 2.2	81	25	14	8	54	1.21	-.38	.58	....	7	....	....	....	NW	
Dubuque	Dubuque	639	35	37.8	+ 4.6	68	12	15	9	36	1.72	-.46	.74	T	8	11	8	12	NW	
Fort Dodge	Webster	1,126	8	34.9	+ 1.5	77	25	7	8	49	1.47	-.79	.97	T	2	12	3	16	.....	
Gilman	Marshall	1,052	9	.....	.....	.....	.....	.....	.....	.....	1.73	-.32	.89	.5	6	13	6	12	.....	
Grinnell	Poweshiek	1,023	16	38.8	+ 5.7	75	25	14	9	48	1.93	+.19	.87	.5	9	13	4	14	NW	
Grundy Center	Grundy	976	17	38.6	+ 6.0	74	25	12	8	48	.95	-.87	.35	T	4	17	4	10	N	
Guthrie Center	Guthrie	1,077	13	38.4	+ 3.0	80	25	11	8	53	1.16	-.24	.50	T	8	15	4	12	NW	
Harlan	Shelby	1,192	9	37.9	+ 2.6	83	25	10	8	55	1.10	-.38	.43	T	8	9	9	13	NE, W	
Independence	Buchanan	921	43	37.6	+ 6.8	72	12	13	9	42	3.12	+1.49	1.60	....	9	18	1	12	NW	
Iowa City	Johnson	683	49	38.8	+ 4.8	76	12	15	9	47	2.94	+.50	1.22	....	8	10	7	14	NW	
Iowa Falls	Hardin	1,170	15	35.4	+ 3.5	72	25	9	8	47	1.35	-.38	.76	1.3	6	16	1	14	NW	
Jefferson (*d*)	Greene	.....	....	38.4	.....	80	26	10	8	50	1.75	.....	.50	T	5	....	....	....	N	
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	3.74	.....	1.53	.1	10	13	9	9	SW	
Little Sioux	Harrison	.....	3	39.4	.....	84	25	8	8	53	.94	.....	.50	....	8	12	8	11	.....	
Logan	Harrison	928	42	39.0	+ 4.4	84	25	7	19	54	.88	-.93	.38	T	6	13	9	9	NW	
Marshalltown	Marshall	947	16	36.6	+ 3.2	75	25	14	*8	52	1.59	-1.09	1.00	....	5	15	0	16	SE, NW	
Newton	Jasper	944	19	38.6	+ 3.5	76	25	14	9	50	1.78	+.18	1.05	2.0	6	19	2	10	S, NW	
Odebolt	Sac	1,356	10	37.4	+ 2.6	79	25	7	8	50	1.11	-.44	.90	1.0	5	15	5	11	.....	
Olin	Jones	760	11	39.0	+ 3.9	68	12	15	9	38	2.60	+.06	1.00	T	5	16	2	13	NW	
Onawa	Monona	1,051	8	40.6	+ 3.1	81	25	9	8	50	1.14	-.23	1.00	....	4	16	1	14	S	
Perry (*a*)	Dallas	975	7	38.8	+ 1.9	78	25	12	8	50	1.61	-.53	.57	1.0	6	....	....	....	.....	
Rockwell City	Calhoun	.....	12	36.7	+ 3.1	78	25	6	8	52	2.48	+.40	1.50	3.0	6	19	1	11	.....	
Sioux City	Woodbury	1,135	17	37.0	+ 4.4	79	25	4	8	47	.64	-.62	.50	1.2	5	9	6	16	NW	
Stuart	Guthrie	1,216	10	40.9	+ 6.0	81	25	12	8	55	1.21	-1.04	.79	....	4	20	0	11	S	
Tipton	Cedar	807	10	40.7	+ 4.1	70	12	19	9	38	3.47	+.60	2.15	...	4	18	4	9	SW	
Toledo	Tama	856	14	38.4	+ 3.7	73	25	14	9	49	.....	.....	.....	...	...	14	3	14	NW	
Waterloo	Black Hawk	862	25	37.7	+ 5.9	71	12	13	8	43	1.61	-.14	.75	T	7	10	13	8	NW	
Waukee	Dallas	1,039	5	37.9	.....	73	12	13	*8	44	1.23	-.72	.60	....	7	14	4	13	NW	
Webster City	Hamilton	.....	3	37.7	.....	76	25	9	8	53	.94	.....	.59	T	2	14	7	10	NW	
Whitten	Hardin	1,036	10	36.8	+ 3.5	73	25	10	8	47	1.70	+.32	.58	....	6	14	2	15	NW	
Wilton Junct'n	Muscatine	683	13	39.4	+ 3.3	68	*12	14	2	38	2.32	-.38	.83	....	5	14	3	14	W	
Zearing	Story	.....	4	37.5	.....	75	25	9	9	52	1.13	.....	.82	T	6	14	4	13	NW	
Average		.....	....	38.1	+ 3.9	75.5	.....	11.9	.....	47.7	1.69	-.29	.....	.5	6	14	5	12	NW	

CLIMATOLOGICAL DATA FOR MARCH, 1908—CONTINUED.

SOUTHERN SECTION.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES FAHRENHEIT							PRECIP., IN INCHES				No. rainy days	SKY			Prevailing direction of wind	Dates of thunderstorms
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
Afton	Union	1,212	14	39.7	+ 3.2	79	25	15	*8	51	1.64	-.46	.73	....	8	10	11	10	SW	
Albia	Monroe	959	10	39.8	+ 2.2	79	25	14	9	47	1.97	+.07	.75	....	8	12	3	16	W	
Allerton	Wayne	.....	6	41.6	+ 3.4	80	25	14	9	53	1.53	-.92	1.05	T	8	16	6	9	NW	
Atlantic	Cass	1,164	17	38.0	+ 3.3	82	25	11	9	57	.85	-.90	.30	....	5	8	6	17	N, NW	
Bedford	Taylor	.....	8	40.6	+ 3.9	82	25	13	9	52	.75	-1.57	.37	T	5	17	4	10	SW	
Bloomfield	Davis	.....	....	42.2	.....	78	25	9	9	50	2.57	.....	1.70	....	7	13	10	8	NW	
Bonaparte	Van Buren	.....	17	41.9	+ 3.9	75	*12	16	9	43	1.51	-1.04	.37	....	7	20	0	11	NW	
Burlington	Des Moines	544	12	42.2	+ 2.4	74	12	17	9	41	2.18	-.68	.77	....	9	15	8	8	NW	
Charlton	Lucas	1,042	13	40.9	+ 4.1	80	25	13	9	55	.99	-.09	.31	....	4	12	9	10	N	
Clarinda	Page	1,009	18	40.5	+ 4.4	84	25	15	9	52	.65	-1.21	.40	....	5	11	11	9	NE, NW	
Columbus Jct	Louisa	595	7	41.4	+ 2.4	72	12	16	9	38	2.01	-.50	.54	....	7	17	4	10	NW	
Corning	Adams	1,117	16	39.7	+ 3.3	81	25	15	8	52	1.69	-.05	.66	....	4	15	7	9	NW	
Corydon	Wayne	1,101	15	42.4	+ 5.1	81	25	14	9	54	1.12	-1.01	.66	....	7	16	7	8	SW, NW	
Creston	Union	1,312	3	.....	.....	80	25	.....	.....	.....	.91	.....	.56	....	3	13	5	13	N	
Cumberland	Cass	.....	9	.....	.....	.....	.....	.....	.....	.....	2.31	+.29	.97	....	4	17	2	12	.....	
Earlham	Madison	.....	6	38.1	+ 3.9	80	25	13	*8	54	1.58	-.18	.71	T	7	12	7	12	NW	
Elliott	Montgomery	.....	3	40.4	.....	84	25	17	8	53	1.80	.....	.90	....	6	12	8	11	NW	
Fairfield	Jefferson	.....	14	41.7	+ 7.9	78	11	13	9	47	2.28	-.29	1.08	....	6	15	7	9	SW	
Fort Madison	Lee	516	59	.....	.....	.....	.....	.....	.....	.....	1.60	-1.16	.50	....	6	6	10	15	N	
Greenfield	Adair	.....	17	39.0	+ 4.5	80	25	11	19	59	1.72	-.36	.72	....	5	13	9	9	S, NW	
Hancock	Pottawatta'e	1,113	2	39.8	.....	83	25	14	8	55	1.41	.....	.51	....	7	17	6	8	SW	
Hopeville	Clarke	.....	17	40.3	+ 4.6	81	25	15	9	54	.78	-1.00	.24	....	9	7	13	11	NW	
Indianola	Warren	969	17	a 40.0	+ 3.9	80	25	16	*8	53	1.46	+.14	.58	T	10	12	6	13	SW	
Keokuk	Lee	574	36	44.8	+ 6.9	75	25	18	9	44	1.76	-.61	.84	....	6	15	8	8	NW	
Keosauqua	Van Buren	644	16	41.0	+ 2.8	78	25	15	*9	51	1.35	-1.19	.33	....	7	5	9	17	.....	
Knoxville	Marion	920	12	40.9	+ 3.5	79	25	16	9	51	1.45	-.12	.55	T	6	13	3	15	SW	
Lacona	Warren	.....	9	.....	.....	.....	.....	.....	.....	.....	1.42	-1.08	.60	....	7	7	17	7	.....	
Lenox	Taylor	1,250	13	40.6	+ 4.3	80	25	14	9	52	.55	-1.20	.30	....	5	20	4	7	NW	
Leon	Decatur	1,120	6	41.3	+ 3.3	80	25	15	9	53	1.17	-1.59	.45	....	7	18	4	9	N	
Mt. Ayr	Ringgold	1,236	15	41.3	+ 4.3	83	25	13	9	56	.85	-1.21	.30	T	7	11	9	11	SW	
Mt. Pleasant	Henry	729	26	41.5	+ 4.8	73	12	15	9	42	2.13	-.30	.65	T	11	12	10	9	SW	
Omaha, Neb	Douglas	1,040	37	40.6	+ 4.6	84	25	12	8	49	.61	-.78	.27	T	5	5	11	15	N	
Oskaloosa	Mahaska	843	24	40.2	+ 5.0	76	25	15	9	49	1.47	.....	.46	....	9	16	0	15	.....	
Ottumwa	Wapello	649	14	a 41.0	+ 2.3	a 76	12	12	9	41	1.64	-.50	.90	....	6	12	7	12	SE	
Pacific Jct	Mills	960	9	40.9	+ 3.8	84	25	16	*8	50	1.27	-.08	.41	T	5	10	13	8	E	
Pella	Marion	877	6	c 41.2	+ 8.2	c 77	25	15	9	50	1.51	+.48	.53	....	10	15	6	10	SW	
St. Charles	Madison	1,070	7	40.8	+ 2.6	81	25	15	9	55	1.52	-.42	.51	T	10	16	5	10	S, NW	
Sigourney	Keokuk	877	12	40.6	+ 3.7	73	*12	15	9	45	2.34	+.28	.54	T	8	2	23	6	NW	
Stockport	Van Buren	.....	6	42.0	.....	75	25	16	9	47	1.61	-.72	.54	....	10	13	3	15	NW	
Thurman	Fremont	.....	11	41.2	+ 3.4	84	25	15	8	50	1.38	-.28	.68	T	6	10	10	11	NW	
Wapello	Louisa	588	10	41.4	+ 4.0	69	25	19	9	38	2.20	-.22	.80	....	7	15	3	13	W	
Washington	Washington	769	27	40.3	+ 6.1	76	12	14	9	44	2.02	-.24	.78	....	7	12	6	13	NW	
Winterset	Madison	1,129	17	39.6	+ 3.9	78	25	15	8	50	1.83	-.10	.71	T	8	14	7	10	SW	
Woodburn	Clarke	961	9	40.3	.....	85	25	12	9	62	.73	-1.44	.26	T	5	13	7	11	NW	
Average	.....	.....	....	40.8	+ 4.1	81.0	.....	14.4	.....	50.0	1.50	-.55	.....	T	7	13	7	11	NW	
State aver	.....	.....	....	37.9	+ 3.9	76.1	.....	9.8	.....	47.9	1.58	-.34	.....	1.1	6	13	7	11	NW	

*And other dates. *a* one day missing, *b* two days; *c* three days, etc.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF MARCH, 1908

STATIONS		DAY OF MONTH																														MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	max.	36	40	44	40	38	42	43	35	46	57	60	72	55	69	62	54	47	39	39	47	52	52	56	51	79	68	49	45	51	47	60	50.8
	min	20	20	25	33	34	30	22	15	15	32	31	33	31	36	34	28	34	31	19	23	32	32	31	35	28	30	28	25	22	34	44	28.6
Albia	max.	38	41	43	44	62	40	46	31	50	59	63	74	51	70	51	44	44	38	40	50	61	53	60	46	79	52	49	40	50	48	56	50.7
	min	29	25	24	29	34	35	22	21	14	19	34	36	30	31	35	29	31	33	25	21	25	31	33	35	27	32	36	28	24	30	38	28 9
Algona	max.	35	33	43	39	36	34	38	32	43	53	44	62	53	64	65	55	45	35	30	57	47	59	52	40	73	64	33	33	42	52	47	46.4
	min	29	20	20	30	31	24	14	1	8	27	32	34	22	30	37	18	12	24	22	28	22	29	29	28	26	22	24	23	20	32	38	24.4
Allerton	max.	38	45	42	40	44	62	47	39	49	58	62	75	63	70	59	53	50	41	43	52	61	55	60	50	80	71	57	41	50	47	58	53.6
	min	32	20	25	33	35	32	22	20	14	28	31	32	31	35	36	29	35	32	23	23	30	31	32	34	27	35	34	27	24	35	45	29.7
Alta	max.	32	38	44	35	35	30	41	21	46	55	59	59	44	66	39	42	32	30	37	40	59	50	52	38	77	38	32	31	50	50	45	43.5
	min	23	13	15	25	31	30	15	3	7	21	30	33	25	23	29	28	22	22	12	15	26	27	31	27	27	20	20	19	18	27	37	22.6
Alton	max.	31	37	43	39	35	34	39	33	42	54	57	52	43	62	49	45	42	32	36	48	55	49	52	44	76	66	35	35	52	50	56	45.9
	min	28	15	27	33	33	24	12	-1	12	26	30	29	24	35	30	30	24	24	14	25	33	29	30	27	30	20	24	20	20	31	38	25.0
Amana	max.	36	35	41	42	38	48	43	38	47	58	60	72	59	67	59	40	38	37	37	47	58	51	56	46	69	65	45	38	48	46	56	49.0
	min	32	27	24	32	34	33	25	19	16	29	32	31	31	31	34	30	31	33	27	21	29	34	29	38	25	40	34	29	28	32	40	29.8
Ames	max.	37	37	44	41	37	89	42	37	51	59	61	74	49	71	49	41	37	37	38	50	62	50	50	45	78	67	37	35	61	45	50	48.7
	min	30	22	24	32	32	29	21	11	15	29	33	28	26	40	29	26	26	27	17	20	28	30	35	29	27	27	29	28	30	32	39	27.5
Atlantic	max.	32	45	47	39	36	36	40	34	48	59	48	69	50	72	54	50	45	43	41	52	64	52	60	45	82	73	38	44	53	47	53	50.0
	min	28	17	26	33	32	28	18	14	11	22	30	23	30	38	30	26	31	27	16	21	32	22	28	28	25	26	26	25	15	35	40	25.9
Audubon	max.	34	38	44	40	35	36	40	36	46	56	58	64	50	69	52	53	43	36	37	47	62	56	55	49	80	72	37	36	50	43	51	48.5
	min	29	18	26	32	32	28	21	11	16	25	30	28	28	35	32	27	29	28	16	22	29	26	32	29	26	25	27	25	18	36	41	26.7
Baxter	max.	38	35	45	42	37	39	45	34	51	61	62	74	52	71	56	41	39	36	39	51	62	56	58	47	76	66	38	37	51	45	50	49.5
	min	29	21	22	31	32	29	19	13	12	27	30	29	27	31	30	26	27	29	17	18	29	29	29	29	23	32	30	25	21	32	37	26.3
Bedford	max.	37	45	40	39	43	42	43	40	49	58	63	54	55	71	64	59	51	45	43	52	58	63	51	52	82	76	64	48	54	48	57	53.1
	min	30	19	28	34	35	31	20	18	13	23	29	28	32	39	31	30	35	31	19	20	31	30	28	31	30	30	31	26	17	35	37	28.1
B. Plaine	max.	35	35	40	40	39	35	25	46	50	53	55	69	48	65	43	36	45	39	40	47	50	48	59	35	64	49	34	45	50	44	50	45.6
	min	30	24	23	30	32	33	22	18	27	23	31	29	45	30	32	26	28	32	23	18	29	32	24	30	23	30	31	27	23	31	37	28.2
Bloomfi'd	max.	38	44	42	43	43	62	48	45	50	59	64	76	63	71	66	45	48	43	43	52	60	55	63	53	78	70	52	46	51	44	59	54.1
	min	31	25	24	32	35	33	24	22	9	29	31	31	31	37	34	29	33	34	27	22	30	34	32	35	28	40	35	27	25	36	41	30.2
Bonapa'e	max.	37	42	42	42	44	43	50	41	50	61	64	75	58	71	57	44	46	42	43	51	60	56	63	45	75	66	62	50	50	44	56	52.6
	min	32	26	25	31	36	34	28	25	16	28	28	32	33	33	37	31	32	34	30	22	30	37	31	32	28	48	35	31	27	34	42	31.2
Boone	max.	35	39	43	40	37	35	42	24	50	59	60	71	48	72	40	40	30	35	39	50	61	50	55	36	76	44	36	35	50	44	48	45.9
	min	23	21	23	26	32	32	21	10	15	20	32	34	26	27	30	29	28	25	16	19	30	30	35	30	27	28	28	25	23	31	37	26.2
Britt	max.	37	32	45	40	36	34	38	31	41	54	58	61	43	63	42	42	37	31	36	49	57	50	42	37	72	62	42	33	47	50	48	44.8
	min	28	23	20	30	31	20	14	2	10	24	30	27	23	30	27	24	20	24	12	21	31	26	23	22	26	27	25	24	21	29	33	23.5
Burl'g'n	max.	39	44	42	44	62	51	49	35	50	62	65	74	54	67	48	42	49	42	46	53	58	58	64	46	72	68	69	36	51	45	55	52.9
	min	31	27	27	28	32	37	27	28	17	19	32	36	34	34	46	32	33	35	29	23	26	37	34	35	31	34	34	32	30	33	39	31.4
Carroll	max.	36	42	44	37	36	34	43	26	51	58	61	62	46	73	42	44	38	35	41	50	62	51	56	36	81	42	35	35	51	45	47	46.5
	min	25	15	16	26	32	30	20	8	8	22	31	31	25	25	30	27	29	26	14	16	28	26	30	29	26	24	24	23	19	24	37	24.1
Cedar R.	max.	35	36	41	43	50	46	43	29	48	59	61	75	46	67	42	38	38	36	38	47	59	50	55	36	70	52	37	31	48	46	55	47.0
	min	27	27	24	25	28	33	26	22	17	17	31	30	31	31	37	30	30	30	27	21	22	32	32	33	21	30	33	30	29	30	36	28.1
Charlton	max.	36	41	43	41	45	50	44	40	49	58	62	76	69	70	66	50	49	41	50	63	57	58	59	53	80	65	52	41	51	50	55	53.7
	min	30	21	24	32	34	31	21	18	13	27	27	32	30	33	35	28	33	21	20	31	30	28	28	31	25	33	30	26	22	33	44	28.1
Ch'rls Cty	max.	34	32	38	39	35	36	39	30	44	57	56	63	39	62	39	37	35	30	32	45	59	45	51	39	69	52	34	31	45	47	48	43.3
	min	27	22	22	26	32	25	17	8	12	27	35	29	25	33	28	26	23	27	16	22	30	32	32	26	26	29	29	26	25	31	38	26.0
Clarinda	max.	37	46	39	40	43	37	45	32	52	60	66	77	56	74	66	58	48	38	45	56	64	55	61	55	84	53	60	49	56	48	57	53.5
	min	30	20	21	29	35	32	21	18	15	17	28	30	31	34	33	30	34	30	20	21	26	36	29	30	32	29	29	26	22	32	34	27.5
Clear La'e	max.	35	32	39	40	37	35	36	34	40	50	54	61	51	58	54	40	36	30	32	45	51	45	50	41	70	65	50	33	44	50	45	44.6
	min	28	22	20	19	32	27	17	3	10	18	24	31	35	33	18	24	20	22	12	21	33	30	32	28	25	26	25	23	23	34	35	24.2
Clinton	max.	36	38	41	44	38	53	43	35	45	57	61	68	53	65	53	40	42	36	41	46	57	47	59	40	67	68	45	40	48	49	57	48.8
	min	32	26	24	28	34	34	28	29	17	26	31	32	33	34	33	29	30	32	28	20	25	32	24	28	28	42	28	33	28	28	40	29.5
Colum's J	max.	37	37	49	45	40	53	46	40	48	58	63	72	60	63	58	42	43	40	40	48	59	53	59	48	69	66	57	45	47	47	57	51.3
	min	32	28	26	30	34	34	26	24	16	29	32	34	32	35	37	30	33	34	28	22	32	34	31	32	31	48	33	31	29	34	42	31.4
Corning	max.	36	41	43	39	38	41	40	37	46	55	60	71	53	69	55	53	47	41	39	48	61	55	58	49	81	71	48	43	51	46	56	50.7
	min	30	19	27	33	34	30	21	15	16	27	31	34	33	38	35	29	34	30	19	23	32	30	31	30	29	28	29	25	24	34	41	28.7
Corydon	max.	38	47	41	40	42	62	46	43	52	59	64	77	66	71	63	52	52	42	44	53	62	56	63	53	81	74	52	43	53	47	58	54.7
	min	32	21	25	33	35	32	21	19	14	29	31	34	31	37	35	30	35	33	23	23	31	31	32	35	27	35	34	27	23	36	45	30.0
Creston	max.	35	41	43	38	42	33	40	30	48	56	62	70	51	69	55	52	40	35	39	45	61	57	50	45	80	45	44	42	50	48	51	48.3
	min	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	....
Dav'np'rt	max.	36	37	40	43	38	58	43	37	47	57	61	71	53	63	49	38	43	37	40	45	56	49	58	38	68	66	48	37	47	45	55	48.5
	min	32	29	28	30	34	32	28	22	19	31	35	38	34	38	33	31	34	31	29	24	34	37	35	34	29	40	32	32	31	36	40	32.0
Decorah	max.	35	39	41	45	35	39	36	29	41	53	56	..	..	..	..	37	36	33	32	42	58	48	54	40	64	54	38	35	43	53	53	43.2
	min	22	23	19	20	30	32	18	11	6	20	32	..	..	..	..	25	25	27	26	13	22	32	30	30	21	35	27	26	25	27	35	24.4
Delaware	max.	32	32	36	40	35	40	40	35	45	51	55	64	60	61	56	36	35	32	34	45	54	48	52	40	62	59	41	32	43	44	51	44.8
	min	26	21	28	24	30	30	20	16	10	25	25	31	28	31	30	25	27	27	23	17	27	30	29	31	24	41	30	26	25	29	36	26.5
Denison	max.	..	..	..	..	..	..	..	..	..	59	62	60	50	71	48	46	43	34	38	49	62	51	54	47	81	74	35	38	51	49	48	52.3
	min	28	29	27	32	32	32	26	21	9	16	21	33	26	22	40	32	27	28	26	15	24	..	28	31	30	..	24	26	23	19	35	39	26.5
Des Moins	max.	38	39	42	40	39	41	43	36	50	59	62	74	46	71	47	44	40	38	39	50	62	52	56	42	80	74	40	39	51	45	50	49.3
	min	32	25	26	33	34	29	23	15	17	32	36	36	30	43	32	32	31	29	20	25	35	35	35	31	29	32	30	28	24	38	43	30.3
De Soto	max.	36	43	44	38	37	40	44	34	51	..	64	76	55	75	55	45	48	37	43	58	65	58	65	44	81	72	40	42	58	45	51	51 5
	min	31	19	26	33	33	31	22	14	15	..	35	29	29	35	35	28	31	30	19	22	31	29	31	31	27	30	29	26	21	34	41	28.2
Dows	max.	34	33	42	40	35	39	40	33	45	57	58	68	60	60	47	41	36	32	34	46	60	47	57	44	75	68	35	31	47	45	49	46.4
	min	22	19	20	30	29	25	16	6	11	38	30	20	23	30	28	25	22	23	14	18	30	28	30	26	23	27	27	24	22	31	32	24.2
Dubuque	max.	33	35	37	41	36	49	42	35	47	56	60	68	51	64	49	35	37	33	36	44	55	47	54	41	65	63	38	34	44	45	52	46.0
	min	28	26	23	27	32	34	26	17	15	26	38	36	31	36	32	30	32	28	25	20	29	34	35	29	29	38	31	29	30	35	36	29.6
Earlham	max.	35	42	45	37	37	40	43	35	50	58	61	73	50	71	53	50	51	36	39	50	62	55	58	45	80	70	40	39	50	53	51	50.3
	min	27	17	25	32	33	29	20	13	13	29	33	31	29	33	33	25	25	29	17	21	33	25	30	27	26	28	26	25	19	24	27	25.9
Elkader	max.	33	40	41	41	36	36	41	32	48	58	58	65	50	62	60	36	32	33	36	48	57	52	56	41	66	62	40	35	47	40	53	46.3
	min	28	26	19	22	32	30	21	16	12	12	37	28	28	31	34	28	30	29	25	17	23	30	30	32	24	41	29	27	27	27	33	26.7
Elliott	max.	35	42	41	38	39	38	44	37	46	52	60	71	51	72	57	56	48	44	41	52	66	56	60	49	84	74	40	45	53	46	58	51.5
	min	29	20	29	35	35	31	23	17	20	19	28	31	34	41	34	30	36	30	20	26	35	30	31	31	31	28	29	28	22	38	41	29.4
Elma	max.	32	32	38	38	37	35	36	34	40	52	55	60	50	59	50	35	34	30	30	43	58	47	50	46	65	61	35	30	42	46	46	43.4
	min	27	23	21	22	30	30	16	6	7	25	33	29	24	31	29	23	20	26	15	16	27	31	30	27	25	29	26	23	24	30	36	24.5
Esth'rv'e	max.	34	33	45	35	34	30	36	23	40	54	56	63	44	59	36	40	26	28	36	48	57	50	50	37	74	36	30	31	49	52	50	42.5
	min	23	19	20	24	31	29	14	-3	0	22	33	30	20	22	26	24	19	18	11	28	30	31	32	26	26	20	22	20	17	30	37	22.6
Fairfield	max.	38	40	44	44	40	62	47	44	51	60	78	77	74	70	60	44	44	43	41	49	60	53	58	45	74	72	48	39	48	44	55	53.1
	min	32	24	24	31	36	33	25	23	13	30	31	28	30	32	35	29	32	33	28	21	28	32	32	34	28	44	35	30	27	36	42	30.3
Fayette	max.	33	35	39	40	35	42	39	28	46	56	57	66	45	62	45	36	34	33	34	46	58	47	52	40	66	58	38	34	44	47	52	44.7
	min	29	24	19	23	31	30	20	12	10	24	33	29	27	33	31	27	26	27	22	17	26	30	29	26	23	35	30	26	26	28	37	26.1
Forest C'y	max.	34	30	41	39	36	32	36	20	42	54	56	62	44	62	35	38	27	29	34	48	57	48	51	38	72	38	33	31	44	50	47	42.2
	min	23	20	19	23	31	30	15	1	5	20	30	31	22	22	26	24	19	19	12	20	28	29	30	27	26	24	25	23	22	30	30	22.8
Ft. Dodge	max.	34	37	45	41	35	36	42	21	47	58	60	66	46	67	32	43	32	33	37	48	61	49	52	38	77	41	34	32	49	46	47	44.7
	min	26	20	21	25	32	32	20	7	8	21	30	30	24	24	29	27	26	24	15	16	30	30	34	30	28	26	26	24	23	32	38	25.1
Gr. Mead	max.	32	34	37	40	35	40	38	32	47	53	54	61	49	59	48	39	34	34	32	44	54	49	53	39	62	60	39	32	42	45	50	44.1
	min	26	22	20	20	27	31	16	11	13	28	36	33	26	32	30	25	26	26	20	19	30	32	32	29	25	26	29	24	25	32	35	26.0
Greenfi'ld	max.	34	41	44	37	36	39	41	36	48	57	60	79	49	70	62	52	49	38	39	48	62	55	56	50	80	73	38	40	51	44	54	50.4
	min	30	18	18	32	33	28	21	12	15	30	32	38	29	40	32	27	30	29	11	24	33	29	31	32	21	26	27	25	20	36	42	27.5
Grinnell	max.	37	35	44	40	38	41	40	38	48	60	61	74	56	69	65	40	39	38	38	48	60	58	55	49	75	70	43	36	49	47	52	49.8
	min	30	23	25	31	33	22	24	16	14	28	31	31	29	32	31	28	28	30	20	20	32	29	30	30	27	34	32	27	23	32	38	27.7
Grundy C.	max.	37	36	42	43	40	40	48	39	50	55	60	72	57	71	57	39	38	35	36	49	61	58	55	48	74	68	42	34	52	45	51	49.4
	min	30	23	23	31	32	30	20	12	14	30	35	32	27	33	30	27	26	29	19	21	31	33	33	30	26	33	31	26	25	32	37	27.8
Guthrie C.	max.	35	39	44	40	38	38	41	37	47	51	59	63	51	70	54	44	44	37	38	48	62	58	55	51	80	75	40	35	50	48	51	49.1
	min	30	18	25	33	33	30	21	11	15	30	34	32	28	35	33	28	30	28	17	22	32	29	33	32	27	27	27	26	20	36	41	27.8

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF MARCH, 1908—CONTINUED.

STATIONS		DATE																													MEAN
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Hampton.	max.	36	34	44	43	36	33	42	35	47	59	60	69	48	66	43	39	33	31	35	46	60	48	52	40	73	66	35	31	47	46	51	46.1
	min.	28	22	20	30	31	25	18	7	12	29	33	31	25	33	31	27	23	26	15	20	29	32	32	30	25	30	28	24	23	32	37	26.1
Hancock..	max.	30	42	41	38	36	35	41	35	48	59	62	74	56	76	57	65	46	37	43	54	63	54	59	47	83	72	41	52	54	44	55	51.6
	min.	29	19	21	32	33	27	21	14	18	25	30	33	30	38	33	28	34	29	18	25	33	29	30	35	28	27	25	21	30	37	40	28.1
Harlan ...	max.	34	41	47	37	35	35	43	33	49	58	60	65	47	72	51	52	43	38	38	50	64	51	56	46	83	72	36	38	52	43	51	49.0
	min.	28	18	27	32	32	27	21	10	12	25	29	28	29	36	32	28	32	27	16	23	33	28	28	32	28	25	27	24	18	35	40	26.8
Hopeville.	max.	36	43	42	39	40	44	42	38	48	57	61	75	51	69	57	56	46	40	40	50	62	52	58	48	81	69	45	42	53	46	58	51.2
	min.	31	21	26	33	35	30	22	17	15	29	33	34	31	37	35	30	34	29	20	23	30	32	33	34	27	31	33	26	21	35	45	29.4
Humboldt	max.	35	34	44	42	39	38	40	35	45	50	58	65	48	66	50	44	36	34	35	48	60	50	51	47	78	69	36	34	48	49	48	47.0
	min.	20	20	24	34	31	32	32	6	12	25	34	30	24	36	30	26	26	28	14	22	32	30	33	30	28	26	28	25	23	34	40	26.9
Ind'p'nce	max.	38	35	39	42	37	43	41	39	48	56	57	72	59	66	58	38	35	39	34	42	58	53	58	46	67	65	44	32	46	43	54	47.9
	min.	28	25	20	26	32	32	22	15	13	25	33	30	28	30	31	28	27	29	22	19	26	31	30	31	35	35	29	26	26	30	36	27.4
Indianola	max.	36	40	42	38	38	42	42	..	50	57	62	75	53	70	55	46	41	37	40	49	62	54	56	46	80	71	41	40	52	44	52	50.4
	min.	31	23	26	33	34	31	23	16	16	31	34	37	30	38	34	29	31	29	20	24	33	32	34	33	27	32	30	27	23	37	41	29.6
Inwood...	max.	29	35	42	37	33	32	40	29	42	53	48	49	43	56	41	46	43	32	41	51	58	53	56	48	79	49	31	38	57	59	51	45.2
	min.	17	9	27	32	32	21	2	-8	-3	18	28	30	23	38	26	28	33	22	12	24	35	27	30	27	25	20	21	22	19	32	32	22.3
Iowa City.	max.	35	37	45	43	56	41	44	32	49	59	62	76	48	68	43	41	46	37	40	49	61	51	57	37	71	55	41	41	49	46	60	49.0
	min.	29	26	21	27	30	35	25	23	15	18	32	29	30	32	37	30	32	31	28	20	25	34	28	31	25	32	33	31	29	30	36	28.5
Iowa Falls	max.	36	34	43	42	40	37	40	20	47	57	58	70	43	67	37	42	32	32	34	47	60	48	53	36	72	41	34	32	48	45	51	44.5
	min.	25	22	22	24	32	32	20	9	13	26	30	29	26	33	31	28	28	24	17	28	29	31	32	29	25	30	30	26	24	28	34	26.4
Jefferson.	max.	35	40	43	39	37	37	49	39	50	59	63	69	51	73	52	40	40	40	51	64	56	38	..	..	..	80	..	39	50	50	47	49.3
	min	30	18	25	32	32	29	24	10	11	31	35	30	26	37	32	28	27	16	23	28	35	31	..	..	..	30	..	25	21	36	40	27.5
Keokuk ..	max.	38	43	41	45	59	65	48	45	49	57	60	72	64	68	63	46	48	45	42	50	59	56	63	53	75	70	73	71	50	45	57	55.5
	min.	32	27	28	32	38	36	28	30	18	32	35	37	36	42	41	33	33	35	30	26	33	42	39	36	31	49	36	31	30	38	44	34.1
Keosa'q'a	max.	39	42	43	44	63	47	50	36	49	60	63	75	52	71	52	43	48	43	43	51	61	56	62	46	78	66	68	36	46	47	49	52.5
	min.	30	24	25	25	32	37	27	27	15	15	30	31	31	32	39	31	32	32	30	23	25	34	32	31	27	34	36	31	25	31	39	29.5
Knoxville	max.	38	39	46	42	38	44	46	40	50	60	62	75	61	70	65	46	42	41	40	49	62	55	59	49	79	72	42	39	52	49	54	51.8
	min.	32	24	24	33	33	32	24	17	16	30	33	35	30	35	34	30	32	32	22	23	32	34	34	33	28	35	34	27	25	36	42	30.0
Larrabee .	max.	32	36	43	37	34	32	40	34	44	53	57	..	43	64	45	45	39	34	37	48	58	49	53	40	77	64	32	36	52	53	46	45.2
	min.	26	13	24	32	31	23	14	2	1	21	31	..	26	37	29	33	23	23	11	23	32	28	29	27	29	21	22	18	16	31	40	23.9
Le Mars ..	max.	31	36	42	40	36	35	40	40	44	54	58	55	47	65	50	46	45	32	37	49	58	54	54	50	74	70	34	37	53	51	49	47.3
	min.	28	14	27	33	32	24	13	1	12	27	30	32	25	37	28	29	26	24	12	23	35	28	31	28	29	21	22	23	18	33	38	25.3
Lenox	max.	36	42	42	40	39	45	42	41	47	56	60	71	62	68	65	55	52	45	39	49	62	59	58	55	80	77	53	44	52	51	56	53.0
	min.	30	19	26	33	34	30	20	15	14	28	30	34	31	39	32	29	34	31	18	22	30	30	30	35	28	28	29	25	18	34	41	28.3
Leon.....	max.	34	41	48	38	42	60	43	39	47	55	60	73	63	69	63	53	49	41	40	47	60	55	61	57	80	70	51	41	50	54	59	53.0
	min.	31	21	33	33	35	31	23	18	15	27	30	34	31	39	36	30	39	31	20	24	32	32	34	30	27	32	31	26	23	34	36	29.6
Lit. Sioux	max.	37	44	46	39	37	36	48	40	53	63	66	64	50	75	54	54	50	39	43	53	64	56	59	49	84	74	38	40	55	52	54	52.1
	min.	29	15	29	33	33	28	19	8	15	26	33	29	29	41	30	28	33	26	15	22	35	25	29	33	31	24	25	26	15	32	31	26.7
Logan	max.	35	42	45	37	38	38	44	39	44	60	62	65	58	72	54	53	45	39	41	53	64	51	48	48	84	75	36	38	69	49	54	51.0
	min.	27	19	29	34	33	25	19	11	15	19	32	21	30	40	33	39	34	27	7	24	34	29	33	33	30	21	27	26	19	36	34	27.1
Mars'llt'n	max.	37	36	41	42	40	33	43	27	50	60	61	74	46	69	40	40	38	36	38	49	61	51	55	36	75	47	35	35	49	44	52	46.5
	min.	26	23	23	25	32	33	22	14	14	17	29	30	28	28	32	28	30	27	19	20	28	30	32	30	23	32	32	27	24	33	36	26.7
Mason C'y	max.	35	33	38	39	35	34	37	32	40	54	54	60	48	60	46	38	34	30	30	45	57	48	50	40	70	60	32	32	44	48	45	43.5
	min.	27	22	20	27	31	27	16	5	10	25	33	29	24	35	28	25	21	25	14	19	30	31	30	29	25	28	26	24	24	34	38	25.2
Mt. Ayr ..	max.	37	49	42	39	41	54	43	40	48	59	63	76	53	71	65	58	49	42	45	55	64	54	61	52	83	72	55	47	54	49	58	54.1
	min.	30	21	26	33	35	30	21	18	13	26	23	23	31	40	35	29	35	30	20	22	33	32	28	37	27	30	31	25	21	35	42	28.5
Mt. Pleas't	max.	38	40	44	45	42	60	47	41	48	54	61	73	61	68	59	44	46	40	41	48	59	54	60	48	72	66	48	48	48	45	58	51.8
	min.	32	25	26	31	35	35	28	26	15	28	30	33	32	35	36	31	33	34	30	21	31	35	31	34	30	40	33	31	29	35	42	31 2
N.Hamp'n	max.	32	32	38	39	35	38	36	33	42	52	53	60	50	60	49	35	36	34	30	44	55	50	50	40	64	60	38	46	42	44	47	44.0
	min.	27	23	20	22	30	30	16	8	9	25	32	29	20	30	29	25	26	22	17	19	29	31	30	29	25	30	28	28	24	28	30	24.9
Newton...	max.	42	38	43	42	38	40	42	41	43	57	59	71	66	67	65	40	40	39	32	46	59	56	55	50	76	70	44	37	48	46	50	49.7
	min.	30	23	23	31	32	31	22	15	14	28	31	31	28	32	31	28	29	30	19	20	28	28	30	31	26	33	35	30	23	32	32	27.6
Northw'd	max.	34	30	..	..	37	35	32	34	40	51	54	59	48	51	41	38	36	34	33	47	58	46	38	35	69	61	37	46	47	49	48	43.7
	min.	27	20	..	..	30	27	17	0	7	25	33	30	22	32	26	22	18	19	21	19	28	30	26	28	25	24	28	22	25	33	37	24.2
Odebolt ..	max.	33	42	47	38	37	35	44	40	50	60	61	60	46	70	48	45	42	31	42	50	61	52	53	49	79	72	35	33	52	50	48	48.5
	min.	28	16	23	32	31	25	20	7	15	28	33	30	25	36	30	27	26	25	15	25	33	28	31	30	29	23	26	21	40	15	39	26.2
Olin.....	max.	35	37	40	42	39	52	42	40	45	56	59	68	63	64	61	39	37	35	38	46	55	54	56	50	65	64	50	38	45	46	54	48.9
	min.	30	26	23	27	33	35	25	22	15	24	31	30	31	32	33	29	30	31	27	29	26	32	26	30	25	46	31	29	29	29	37	29.1
Omaha, N	max.	36	42	39	38	36	35	45	33	53	60	64	68	53	73	52	54	48	38	42	51	64	53	57	48	84	42	37	39	53	49	56	49.7
	min.	28	24	31	33	33	26	24	12	21	36	36	41	33	47	38	33	35	27	19	30	38	34	37	35	35	27	30	27	25	39	39	31.4
Onawa....	max.	36	47	46	40	36	36	52	46	57	64	68	60	52	70	51	50	50	39	48	54	65	59	60	54	81	75	39	43	59	55	53	53.1
	min.	30	20	30	34	34	28	21	9	18	27	31	31	29	37	34	30	33	25	16	25	35	28	34	34	31	24	27	27	21	35	35	28.2
Osage.....	max.	82	31	43	40	36	34	37	32	43	51	56	61	50	61	48	35	35	29	34	47	58	51	52	44	70	65	34	32	47	47	48	44.6
	min.	28	23	21	24	25	31	17	5	9	27	34	29	22	31	16	24	21	25	15	20	31	32	32	28	24	28	27	23	24	32	37	24.7
Oskaloosa	max.	39	38	45	43	40	48	46	38	50	58	62	75	55	74	62	43	42	39	40	49	60	53	59	45	76	69	45	39	50	44	53	50.9
	min.	31	26	25	32	34	33	23	19	15	29	31	29	34	35	33	30	33	31	24	21	31	32	31	29	27	32	34	29	20	35	43	29.4
Ottumwa .	max.	39	43	45	46	64	42	48	32	53	62	67	76	52	72	52	45	48	48	42	45	52	62	56	60	..	62	52	38	49	49	57	51.9
	min.	31	28	26	28	34	36	26	26	12	22	33	37	32	33	32	32	33	32	22	25	29	36	35	34	30	33	35	30	27	29	36	30.1
Pacific Jc.	max.	38	44	41	38	37	37	46	35	52	59	64	70	55	73	58	58	48	42	41	52	66	53	59	54	84	74	40	44	56	47	57	52.3
	min.	31	19	29	36	35	30	20	16	16	27	28	30	34	41	31	31	38	34	20	25	32	30	32	38	34	29	30	28	20	35	35	29.5
Pella.....	max.	49	40	44	40	39	44	44	43	50	60	62	69	68	..	..	..	..	..	47	49	61	59	57	54	77	75	46	41	51	50	51	52.7
	min.	31	25	24	32	33	32	23	18	15	30	32	34	30	35	32	30	32	32	21	23	31	33	33	33	27	36	34	28	24	34	40	29.6
Perry.....	max.	36	38	43	38	37	37	..	43	49	59	60	71	49	70	50	42	49	36	38	49	63	52	55	45	78	70	39	35	52	45	49	49.2
	min.	30	29	25	23	33	30	..	12	16	28	33	29	27	37	32	30	29	28	17	24	34	29	32	32	28	28	31	26	21	36	40	28.3
Plover....	max.	35	35	44	38	37	36	40	24	46	54	52	58	63	69	50	43	36	36	48	36	58	50	50	43	75	58	48	34	65	52	49	47.2
	min.	29	18	22	32	33	32	18	4	12	27	23	32	29	35	32	20	25	13	23	25	25	25	26	27	28	23	26	23	26	31	39	25.3
Pocahon's	max.	35	33	43	38	35	35	39	32	45	54	54	62	63	69	50	41	36	31	34	49	58	52	50	39	74	64	32	32	48	50	50	46.0
	min.	24	18	23	31	30	25	17	4	14	27	32	30	29	35	32	27	21	21	12	24	31	26	30	32	26	22	22	21	20	33	34	24.9
Ridgeway	max.	35	37	39	41	36	35	39	29	44	60	60	62	48	62	44	34	34	31	39	48	59	51	53	41	65	59	34	37	47	50	49	45.2
	min.	26	21	20	22	31	31	17	8	7	27	34	32	24	32	28	24	25	26	18	20	29	31	31	26	24	33	26	24	25	31	38	25.5
R. Rapids	max.	36	32	46	44	42	37	38	24	38	52	50	43	46	44	56	48	38	32	36	50	47	50	46	45	76	52	35	36	55	50	46	44.2
	min.	16	18	25	34	32	20	10	-5	2	16	30	21	20	33	36	28	20	13	20	26	31	32	29	27	28	19	16	17	17	32	30	22.4
Rock'll Cy	max.	36	40	38	40	38	35	43	37	45	56	60	63	50	70	50	45	45	40	37	55	60	50	53	41	78	68	38	35	50	50	50	48.3
	min.	28	18	25	32	32	27	20	6	15	35	33	32	25	40	25	20	20	10	15	25	25	28	32	24	26	25	27	23	21	30	34	25.1
St. Charl's	max.	38	45	44	38	37	50	43	38	51	60	64	76	53	72	55	49	42	38	44	53	53	56	62	43	81	69	69	45	55	44	55	52.3
	min.	30	21	25	32	33	21	31	16	15	32	35	38	30	38	35	29	31	30	19	23	32	32	35	30	26	32	29	26	22	37	41	29.2
Sheldon ..	max.	30	39	45	41	42	33	40	40	44	51	56	56	44	62	45	45	41	34	41	48	59	54	59	50	78	65	33	34	45	55	49	47.0
	min.	21	16	20	32	32	23	10	-3	10	28	30	30	24	36	29	27	23	10	11	25	34	29	35	27	31	19	21	19	16	24	39	23.5
Sibley	max.	30	36	43	34	33	29	37	17	41	52	51	55	43	57	37	42	44	29	38	48	56	50	51	35	74	34	31	32	51	51	50	42.3
	min.	22	15	17	27	31	27	10	-6	-5	17	25	30	23	22	27	25	24	20	12	13	25	29	30	26	26	18	19	15	17	20	35	20.5
Sigourn'y	max.	39	38	45	43	40	57	45	42	49	58	62	73	64	68	62	44	45	40	40	49	60	55	58	50	73	69	47	41	49	45	53	51.7
	min.	32	26	24	31	34	33	22	21	15	27	30	31	31	33	32	29	31	33	25	21	30	32	30	32	28	40	34	29	26	32	41	29.5
Sioux Cen	max.	34	36	45	44	38	33	37	32	41	51	55	53	43	60	45	45	43	30	36	48	55	48	52	42	76	43	32	35	53	51	45	44.5
	min.	26	14	26	26	33	21	11	-3	9	29	31	31	23	37	28	29	23	22	11	25	33	29	28	32	29	19	25	19	29	30	39	24.6
Sioux City	max.	31	39	45	36	36	33	47	25	50	60	64	54	50	66	40	48	46	32	39	50	58	53	54	45	79	37	34	38	55	51	51	46.6
	min.	24	18	30	33	33	21	20	4	18	29	34	31	29	40	31	31	27	22	16	28	35	30	35	29	32	23	25	27	22	33	35	27.3
Stockport	max.	35	46	43	44	44	60	49	41	50	59	63	74	66	69	56	47	45	41	42	50	59	56	60	45	75	69	55	49	50	44	51	52.8
	min.	30	25	24	30	36	36	28	25	16	28	31	32	32	40	37	31	32	35	29	21	29	36	31	31	28	49	34	30	28	33	40	31.2
Storm L..	max.	32	37	42	39	36	33	41	39	46	54	56	57	47	64	51	41	41	30	36	47	57	49	52	50	73	70	34	30	50	50	44	46.1
	min.	27	15	25	32	31	24	17	3	15	30	33	36	24	36	28	28	22	24	12	26	33	28	32	23	39	18	23	18	20	34	39	25.6
Stuart	max.	36	50	50	43	37	39	46	36	55	64	66	73	55	75	57	49	47	37	53	62	65	60	62	49	81	74	40	45	59	44	51	53.5
	min.	29	16	25	31	31	29	21	12	15	30	33	37	29	38	34	28	30	28	16	24	32	28	32	32	26	37	26	32	19	35	41	28.3

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF MARCH, 1908—CONTINUED.

STATIONS		DATE																													MEAN.
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Thurman.	max.	38	40	38	37	37	37	44	40	50	58	63	71	53	72	60	55	53	45	41	51	65	60	59	53	84	76	45	44	53	50	58	52.6
	min.	30	20	28	34	34	30	22	15	16	28	30	28	32	45	34	30	38	32	20	25	35	85	33	34	34	28	32	28	19	38	37	29.8
Tipton....	max.	35	40	43	42	36	54	45	40	47	58	62	70	60	65	57	38	44	36	43	49	57	52	58	46	67	64	51	39	48	44	56	49.9
	min.	33	27	26	29	34	34	27	25	19	29	33	35	33	35	36	31	32	32	29	22	30	35	32	35	29	48	33	31	31	33	38	31.5
Toledo ...	max.	37	35	40	41	39	41	40	39	47	56	58	72	62	67	63	39	37	36	36	45	58	56	54	48	73	69	42	35	46	45	52	48.6
	min.	31	24	24	31	33	32	23	16	14	30	29	31	29	34	32	29	28	30	21	20	29	31	32	31	24	35	32	22	26	34	38	28.2
Wapello ..	max.	35	40	40	42	39	54	43	42	41	54	49	68	60	68	57	44	42	37	42	48	56	55	62	47	69	65	53	47	50	44	53	49.9
	min.	33	30	32	31	36	35	29	20	19	30	33	36	34	38	39	32	34	34	30	25	32	37	32	24	31	45	35	33	31	35	42	32.8
Wash'g'n	max.	37	39	44	43	39	58	47	38	50	61	64	76	53	69	50	41	43	38	42	50	60	53	60	42	73	65	48	38	49	45	54	50.6
	min.	32	28	24	30	34	32	25	22	14	27	29	32	30	34	35	30	32	32	28	20	30	33	29	30	29	43	33	30	28	34	41	30.0
Washta ..	max.	32	38	45	38	36	34	46	37	44	57	55	58	48	58	47	47	42	32	40	50	50	52	53	36	78	68	53	34	44	50	48	46.1
	min.	28	14	26	33	33	24	17	4	17	21	30	25	25	36	29	25	26	22	11	20	33	25	27	28	30	22	22	22	28	32	36	24.9
Waterloo.	max.	36	37	41	43	39	42	42	32	50	59	59	71	51	59	53	39	36	35	37	43	61	55	55	47	69	61	42	34	47	45	53	47.5
	min.	20	24	23	29	32	31	21	13	15	26	35	30	26	34	33	28	31	29	20	21	31	34	32	32	26	35	33	27	27	31	37	27.9
Waukee ..	max.	36	38	44	40	37	39	45	37	49	58	60	73	54	51	45	40	38	36	50	52	54	54	58	45	70	69	41	40	53	45	53	48.5
	min.	31	21	24	33	33	31	21	13	13	29	33	30	28	33	26	30	30	18	20	26	30	29	30	31	26	28	28	26	20	34	40	27.3
Waverly .	max.	35	34	40	41	37	39	40	33	47	46	57	67	53	65	48	39	34	32	34	47	60	52	52	40	69	62	38	32	46	46	49	45.6
	min.	28	23	23	28	31	30	19	11	15	26	35	29	27	33	32	29	25	28	19	20	30	33	31	32	27	32	30	25	27	30	38	27.3
Websr. Cy	max.	37	36	45	45	43	39	41	38	47	57	70	69	53	69	59	43	38	35	32	51	62	55	54	49	76	73	39	36	49	48	49	49.6
	min.	30	18	22	32	32	29	20	9	12	26	27	27	25	35	30	25	24	18	28	18	30	29	33	27	23	28	29	25	21	28	39	25.8
Whitten ..	max.	38	35	43	42	48	39	42	36	48	57	71	53	68	54	41	39	38	37	36	48	61	55	48	47	73	67	40	34	48	45	51	47.8
	min.	28	20	22	31	32	29	19	10	13	27	30	25	33	30	27	25	22	24	12	19	29	30	28	31	26	31	30	24	23	30	37	25.7
Wilton Jn	max.	36	37	40	40	40	52	43	43	44	56	58	68	68	65	65	41	40	40	40	45	55	55	56	55	65	65	55	45	45	48	55	50.3
	min.	15	14	32	28	33	35	25	25	15	25	30	20	31	31	34	28	30	32	29	20	28	36	30	30	28	30	30	31	28	30	40	28.5
Winterset	max.	36	38	43	38	36	41	41	38	46	55	58	70	58	68	63	50	49	39	38	47	61	56	56	51	78	72	40	39	50	47	54	50.2
	min.	31	20	25	33	33	31	23	15	16	31	34	34	30	32	35	30	31	32	19	23	33	31	33	34	28	30	29	27	23	35	41	29.1
Woodb'n.	max.	38	44	43	42	52	52	44	40	50	60	63	77	52	70	65	60	48	42	42	51	64	60	60	58	85	75	45	42	51	50	60	54.4
	min.	32	21	25	25	32	31	20	17	12	19	19	30	28	35	34	26	26	32	20	18	25	28	27	25	23	32	30	27	18	30	45	26.2
Zearing...	Max.	37	35	44	43	37	39	36	35	49	59	60	71	51	71	62	44	38	35	37	50	62	48	54	44	75	67	38	33	50	45	50	48.4
	Min.	30	21	23	32	32	28	21	10	9	28	32	28	26	33	32	27	25	29	17	18	31	30	31	26	23	31	30	27	23	33	38	26.6

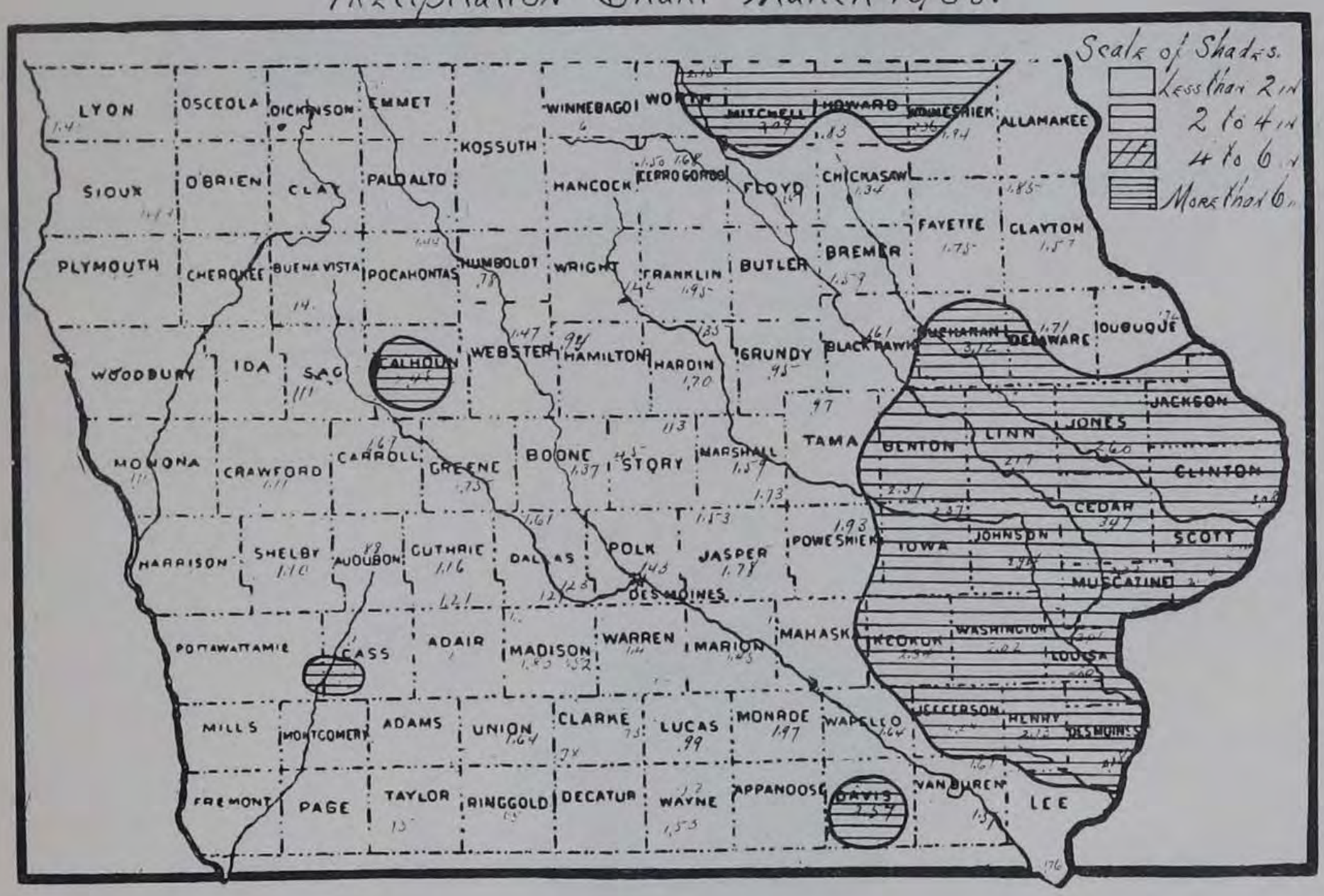
DAILY AND MONTHLY PRECIPITATION FOR MARCH, 1908.

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	.02	....	....	.15	.09	.06	....	....	....	....	....	....	....	....	.19	....	....	.73	....	....	....	....	....	....	....	....	T	....	....	.33	.07	1.64
Albia	.05	....	....	....	.06	.12	....	....	....	....	....	....	....	....	.15	....	....	.12	....	....	....	....	....	....	T	T	.46	.75	....	....	.26	1.97
Algona	.02	....	....	....	.08	1.31	....	....	....	....	....	....	T	.14	....	....	T	....	....	....	....	....	....	T	....	....	.25	....	....	.02	....	1.82
Allerton	T	....	T	.08	.12	.03	....	....	....	....	....	....	....	....	.09	....	T	.06	....	....	....	....	....	....	....	....	1.05	....	....	.08	.02	1.53
Alta	.02	....	....	....	.02	.88	.13	....	....	....	....	....	....	....	.11	.04	....	T	....	....	....	....	....	.08	....	....	.05	.08	....	....	.02	1.43
Alta (near)	....	....	....	T	05	.97	....	....	....	....	....	....	....	.13	.04	....	....	....	....	....	....	....	....	.05	....	....	.18	....	....	....	.06	1.58
Alton	T	....	....	.02	.03	.99	....	....	....	....	....	....	....	.31	.10	....	....	....	....	....	....	....	....	.07	....	....	.10	....	....	....	.12	1.74
Amana	.07	....	....	.02	.51	.14	....	....	....	....	....	....	....	....	.20	....	T	.28	....	....	....	....	....	.02	....	....	.39	....	....	.70	.04	2.37
Ames	....	....	T	T	.03	.20	....	....	....	....	....	....	....	.02	.05	....	....	T	....	....	....	....	....	T	....	....	T	....	....	.15	.02	0.45
Atlantic	....	....	....	.11	.30	....	....	....	....	....	....	....	....	.13	....	....	.04	....	....	....	....	....	....	....	....	....	T	....	....	.27	....	0.85
Audubon	....	....	....	.05	.07	.21	....	....	....	....	....	....	....	.04	.11	....	....	....	....	....	....	....	....	....	....	....	.01	....	....	.39	....	0.88
Baxter	.04	....	....	.05	.05	.11	T	....	....	....	....	....	....	....	.16	T	....	.06	....	....	....	....	....	.07	....	....	.04	....	....	.90	.05	1.53
Bedford	....	....	....	.10	.06	....	....	....	....	....	....	....	....	....	.17	....	T	....	....	....	....	....	....	....	....	....	T	....	....	.37	.05	0.75
Belle Plaine	....	....	....	.10	.40	.30	....	....	....	....	....	....	....	....	.30	T	T	.25	....	....	....	....	....	.10	....	....	.10	....	....	.82	....	2.37
Bloomfield	....	....	....	....	.13	.26	....	....	....	....	....	....	....	....	.15	....	....	.12	....	....	....	....	....	....	....	....	1.70	....	....	.20	.01	2.57
Bonaparte	....	....	....	....	.10	.35	....	....	....	....	....	....	....	....	.14	....	....	.37	....	....	....	....	....	....	....	....	.30	.08	....	.17	....	1.51
Boone	T	....	....	T	.02	.56	T	....	....	....	....	....	....	....	.08	T	....	T	....	....	....	....	....	.12	T	....	T	.03	....	....	.56	1.37
Britt	.08	....	....	....	1.16	....	....	....	....	....	....	....	....	.18	.04	....	....	....	....	....	....	....	....	....	....	....	.28	....	....	.08	....	1.82
Buckingham	....	....	....	....	....	.07	....	....	....	....	....	....	....	....	T	T	....	T	....	....	....	....	....	T	....	....	T	T	....	.90	....	0.97
Burlington	.07	T	....	....	.09	.18	....	....	....	....	....	....	....	....	.13	....	....	.77	T	....	....	....	....	....	.07	....	.22	.40	....	....	.25	2.18
Carroll	....	....	....	....	07	.93	....	....	....	..	....	....	....	....	.07	....	....	....	....	....	..	....	....	.15	....	....	T	....	....	....	.47	1.69
Cedar Rapids	T	....	....	.08	.45	T	....	....	....	....	....	....	....	.21	T	T	.09	....	....	....	....	....	....	T	....	....	.42	....	....	.92	T	2.17
Chariton	T	....	T	T	.18	....	....	....	....	....	....	....	....	....	.22	T	....	....	....	....	....	....	....	....	....	....	.31	....	....	.28	....	0.99
Charles City	T	....	....	....	.64	.23	....	....	....	....	....	....	....	.11	.01	T	....	.05	....	....	....	....	T	....	....	....	.28	....	....	.35	....	1.67
Clarinda	.05	....	....	....	.08	.07	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	.40	0.65
Clear Lake	T	....	....	....	.10	1.35	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	1.50
Clinton	....	....	....	....	.95	....	....	....	....	....	....	....	....	....	.15	T	....	.20	....	....	....	....	....	....	....	....	1.06	....	....	.72	....	3.08
Columbus Junc.	.07	....	....	10	.50	....	....	....	....	....	....	....	....	....	12	T	T	.34	....	....	....	....	....	T	....	....	.54	....	....	.34	....	2.01
Corning	....	....	....	.36	T	....	....	....	....	....	....	....	....	.06	....	....	.61	....	....	....	....	....	....	....	....	....	T	....	....	.66	....	1.69
Corydon	....	....	....	.07	.10	.03	....	....	....	....	....	....	....	....	.18	....	....	....	....	....	....	....	....	....	....	....	.66	T	....	.07	.01	1.12
Creston	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.04	....	.56	....	....	....	....	....	....	....	....	....	T	....	....	....	.31	0.91
Cumberland	....	....	....	.52	....	....	....	....	....	....	....	....	....	....	....	....	.41	....	....	....	....	....	....	....	....	....	....	....	....	.97	.41	2.31
Davenport	.03	....	....	.07	.45	.03	....	....	....	....	....	....	....	.06	.05	T	.24	.12	....	....	....	....	....	.01	....	....	.86	.01	....	.31	....	2.24
Decorah	....	....	....	....	....	1.70	....	....	....	....	....	....	....	....	T	....	T	....	....	....	....	....	....	....	....	....	.20	....	....	.04	....	1.94
Delaware	.05	....	....	....	.10	.26	....	....	....	....	....	....	....	....	.26	....	....	.02	....	....	....	....	....	....	....	....	.12	....	....	.90	....	1.71
Denison	....	....	....	....	.10	.55	....	....	....	....	....	....	....	T	.11	....	T	....	....	....	....	....	....	.11	....	....	.06	....	....	.18	....	1.11
Des Moines	.01	....	T	.02	.12	.03	....	....	....	....	....	....	....	.10	T	....	.15	....	....	....	....	....	....	.13	....	....	T	T	....	.87	T	1.43
De Soto	T	....	....	T	.17	.10	....	....	....	....	....	....	....	....	....	....	....	.24	....	....	....	....	....	.06	....	....	.02	....	....	.58	.04	1.21
Dows	....	....	....	.07	.52	....	....	....	....	....	....	....	....	....	.09	....	....	....	....	....	....	....	....	....	....	....	.21	....	....	.33	....	1.22
Dubuque	.01	....	....	T	.20	.06	....	....	....	....	....	....	....	.22	T	T	T	.02	....	....	....	....	T	....	....	....	.47	....	....	.72	.02	1.72
Earlham	....	....	T	.24	.10	.04	....	....	....	....	....	....	....	....	.14	....	T	.31	....	....	....	....	....	T	....	....	.04	T	....	.71	....	1.58
Elkader	T	....	....	....	.68	T	....	....	....	....	....	....	....	....	.12	....	....	.05	....	....	....	....	....	....	....	....	.09	....	....	.63	....	1.57
Elliott	....	....	....	.31	.09	.11	....	....	....	....	....	....	....	.11	....	....	....	.28	....	....	....	....	....	....	....	....	....	....	....	.90	....	1.80
Elma	07	....	....	....	.20	.07	T	....	....	....	....	....	....	T	.10	....	....	T	....	T	....	....	T	....	....	....	.15	....	....	.24	T	0.83
Estherville	T	....	....	....	.15	1.00	.03	....	....	....	....	....	....	....	T	T	....	T	....	..	....	....	....	....	....	....	.18	.06	....	....	T	1.42
Fairfield	T	....	T	....	.13	.14	....	....	....	....	....	....	....	....	1.08	....	....	....	....	....	....	....	....	.05	....	....	.69	....	....	.19	....	2.28
Fayette	.04	....	....	T	.30	.48	....	....	....	....	....	....	....	.07	T	T	....	.08	....	T	....	....	....	....	....	....	.12	....	....	.66	....	1.75
Forest City	.10	T	....	....	....	1.10	.20	....	....	....	....	....	....	....	.05	T	....	....	....	....	....	....	....	....	....	....	.08	....	....	....	.10	1.63
Fort Dodge	T	....	....	....	....	....	T	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	T	....	....	.97	....	....	....	.50	1.47
Fort Madison	....	....	....	T	.15	....	....	....	....	....	....	....	....	....	.15	....	.50	....	....	....	....	....	....	....	....	....	.10	.40	....	.30	T	1.60
Gilman	....	....	....	....	.26	....	....	....	....	....	....	....	....	.25	....	....	....	.18	....	....	....	....	.05	....	....	.10	....	....	.89	....	....	1.73
Grand Meadow	.15	....	....	....	.10	.50	.15	....	....	....	....	....	....	....	.20	....	....	....	....	....	....	....	T	....	....	....	.15	....	....	....	.60	1.85
Greenfield	T	....	....	.37	.10	.07	....	....	....	....	....	....	....	....	....	....	....	.46	....	....	....	....	....	....	....	....	T	....	....	.72	....	1.72
Grinnell	.03	....	....	....	.17	.28	....	....	....	....	....	....	....	....	.16	....	....	.24	....	....	....	....	....	.05	....	....	.13	....	....	.75	12	1.93
Grundy Center	....	....	....	.20	.30	T	....	....	....	....	....	....	....	....	T	....	....	T	....	....	....	....	....	T	....	....	.10	....	....	.35	....	0.95
Guthrie Center	T	....	....	.09	.08	.26	....	....	....	....	....	....	....	T	.12	T	T	T	....	....	....	....	....	.07	....	....	.03	....	....	.50	.01	1.16
Hampton	....	....	....	.08	.85	.08	....	....	....	....	....	....	....	.14	.04	.06	....	....	....	....	....	....	....	....	....	....	.30	....	....	.40	....	1.95
Hancock	.04	....	....	.25	.04	.41	....	....	....	....	....	....	....	....	.10	....	....	.06	....	....	....	....	....	T	....	T	....	....	....	.51	T	1.41
Harlan	T	....	....	.09	.05	.30	....	....	....	....	....	....	....	T	.15	....	T	....	....	....	....	....	....	.05	....	....	.02	T	....	.43	.01	1.10
Hopeville	.01	....	T	.10	.07	.01	....	....	....	....	....	....	....	....	.19	....	....	.10	....	....	....	....	....	....	....	....	.05	....	....	.24	.01	0.78
Humboldt	.10	....	.02	....	.11	T	....	....	....	....	....	....	....	.24	.04	....	....	....	....	....	....	....	....	....	....	....	.11	....	....	.16	....	0.78
Independence	.05	....	....	....	.15	.25	....	....	....	....	....	....	....	1.60	....	....	.05	....	....	....	....	....	....	....	....	....	.11	.02	....	.80	.09	3.12
Indianola	.02	....	....	.11	.17	.03	....	....	....	....	....	....	....	....	.02	T	T	.46	....	....	....	....	....	.02	....	....	.03	T	....	.58	.02	1.46
Inwood	....	....	....	T	.03	1.25	....	....	....	....	....	....	....	.06	.02	.01	T	T	....	....	....	....	....	.03	....	....	.05	....	....	....	T	1.45
Iowa City	.03	....	....	....	.05	.30	....	....	....	....	....	....	....	....	.19	....	....	.50	....	....	....	....	....	....	T	....	.06	1.22	....	....	.59	2.94
Iowa Falls	....	....	....	....	T	.76	.03	....	....	....	....	....	....	....	.03	T	....	T	....	....	....	....	....	....	.10	....	....	.17	....	....	.26	1.35
Jefferson	....	....	....	.25	.25	.50	....	....	....	....	....	....	....	T	T	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.50	.25	1.75
Keokuk	....	....	T	.04	.12	....	....	....	....	....	....	....	....	.07	....	....	.84	....	....	....	....	....	....	....	....	....	.88	....	....	.31	T	1.76
Keosauqua	T	T	....	....	.05	.30	....	....	....	....	....	....	....	....	.15	....	....	.33	....	....	....	....	....	....	....	....	.16	.19	....	....	.17	1.35
Knoxville	....	....	....	T	.20	T	....	....	....	....	....	....	....	....	.25	T	T	.55	....	....	....	....	....	.08	....	....	.12	....	....	.25	....	1.45
Lacona	....	.10	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	.60	....	....	....	....	....	....	....	....	....	.12	.05	....	.20	.25	1.42
Larrabee	....	....	....	.07	.90	.08	....	....	....	....	....	....	....	.28	.05	....	T	....	....	....	....	....	....	....	....	....	.15	....	....	....	.11	1.64
Le Claire	.19	....	....	....	.14	.73	....	....	....	....	....	....	....	....	.12	.01	T	.36	....	....	....	....	....	....	.01	....	.12	1.53	....	....	.53	3.74
Le Mars	T	....	....	T	.04	.60	....	....	....	....	....	....	....	T	T	....	T	....	....	....	....	....	....	.12	....	....	.06	....	....	....	T	0.82
Lenox	....	....	....	.05	.10	....	....	....	....	....	....	....	....	....	.05	....	....	.05	....	....	....	....	....	....	....	....	T	....	....	.30	....	0.55
Leon	T	....	....	.44	.05	....	....	....	....	....	....	....	....	....	.02	.01	.02	....	....	....	....	....	....	....	....	....	.45	....	....	.18	....	1.17
Little Sioux	....	....	....	.11	.02	.50	....	....	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	.10	....	....	.04	....	....	.13	.02	0.94
Logan	....	....	....	.09	.04	.38	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.09	....	....	T	T	....	.26	.02	0.88
Marshalltown	.02	....	....	....	.03	.20	....	....	....	....	....	....	....	....	.34	....	T	T	....	....	....	....	....	....	T	....	T	T	....	....	1.00	1.59
Mason City	....	....	....	.10	1.00	.13	....	....	....	....	....	....	....	.14	.03	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	.18	....	1.68
Mt. Ayr	.03	....	....	.15	.10	....	....	....	....	....	....	....	....	....	.10	T	....	....	....	....	....	....	....	T	....	....	.12	....	....	.30	.05	0.85
Mt. Pleasant	.02	....	....	.10	.15	.29	....	....	....	....	....	....	....	....	.14	T	....	.65	....	....	....	....	....	.09	....	....	.43	.07	....	.18	.01	2.13
New Hampton	T	....	....	....	T	.77	....	....	....	....	....	....	....	T	.18	....	....	.08	....	....	....	....	....	....	....	....	T	....	....	.31	T	1.34
Newton	T	....	....	T	.07	.33	....	....	....	....	....	....	....	....	.05	....	....	.13	....	....	....	....	....	.15	....	....	....	....	....	1.05	....	1.78
Northwood	....	....	....	....	....	1.75	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.35	....	....	.05	....	2.15
Odebolt	....	....	....	....	....	.90	....	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	....	.11	....	....	.03	....	....	.04	....	1.11
Olin	....	....	....	....	.73	....	....	....	....	....	....	....	....	....	.05	T	....	.02	....	....	....	....	....	T	....	....	1.00	....	....	.80	....	2.60
Omaha, Neb	T	....	T	.11	.20	....	....	....	....	....	....	....	....	.01	....	....	T	....	....	....	....	....	....	T	....	....	T	T	....	.27	.02	0.61
Onawa	....	....	....	.05	....	1.00	....	....	....	....	....	....	....	T	....	....	T	T	....	....	....	....	....	.05	....	....	.04	....	....	....	....	1.14
Osage	....	....	....	....	.20	1.44	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	.40	....	2.09
Ottumwa	....	....	....	....	.06	.08	....	....	....	....	....	....	....	....	.15	....	....	.15	....	....	....	....	....	....	....	....	.30	....	....	....	.90	1.64
Pacific Junction	T	....	....	.31	.05	.35	....	....	....	....	....	....	T	T	....	....	.15	....	....	....	....	....	....	....	....	....	T	....	....	.41	T	1.27
Pella	.01	....	....	.05	.11	.10	....	....	....	....	....	....	....	....	.17	....	....	.53	....	....	....	....	....	.12	....	....	.05	....	....	.35	.02	1.51
Perry	....	....	....	T	.15	.55	....	....	....	....	....	....	....	T	.16	....	T	....	....	....	....	....	....	.15	....	....	.03	....	....	.57	T	1.61
Plover	....	....	....	....	.20	.84	....	....	....	....	....	....	....	.17	.05	.05	....	....	....	....	....	....	T	....	....	....	....	....	....	.13	....	1.44
Pocahontas	....	....	....	....	.05	....	1.12	....	....	....	....	....	....	.04	.03	....	T	....	....	....	....	....	....	.03	....	....	.08	....	....	....	....	1.35
Ridgeway	....	....	....	....	.38	.95	....	....	....	....	....	....	....	.06	.03	T	....	.24	....	.01	....	....	.01	....	....	....	.37	....	....	.28	.03	2.36
Rockwell City	....	....	....	....	....	1 50	....	....	....	....	....	....	....	T	.10	....	....	....	....	....	....	....	....	.20	....	....	.30	....	....	.30	.08	2.48
St. Charles	.04	....	....	.18	.15	.05	....	....	....	....	....	....	....	....	.15	....	....	.41	....	....	....	....	....	T	....	....	.01	.01	....	.51	.01	1.52
Sheldon	....	....	.20	....	....	1.20	....	....	....	....	....	....	....	.12	.13	.05	T	....	....	....	....	....	....	....	....	....	.15	.05	....	....	....	1.90
Sibley	T	....	....	....	.08	.87	.26	....	....	....	....	....	....	....	.04	.20	....	T	....	....	....	....	....	....	....	....	T	.17	....	....	T	1.62
Sigourney	....	....	....	.09	.42	.09	....	....	....	....	....	....	....	....	.20	T	T	.40	....	....	....	....	....	.14	....	....	.46	....	....	.54	....	2.34

DAILY AND MONTHLY PRECIPITATION FOR MARCH, 1908—CONTINUED.

STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sioux Center	....	....	....	....	.55	.30	....	....	....	....	....	....	....	.15	.20	....	T	....	....	....	....	....	....	.05	....	....	.10	T	....	....	....	1.35
Sioux City	T	....	....	T	.47	.04	....	....	....	....	....	....	....	T	T	T	.02	T	....	....	....	....	....	.05	....	....	.06	T	....	....	....	0.64
Stockport	.05	....	....	.03	.05	.35	....	....	....	....	....	....	....	....	.15	....	....	.23	....	....	....	....	....	T	....	....	.52	.02	....	.20	.01	1.61
Storm Lake	....	....	....	T	.05	.96	....	....	....	....	....	....	....	.05	.11	....	....	....	....	....	....	....	....	.02	....	....	T	....	....	.01	.02	1.22
Stuart	....	....	....	T	.22	.18	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.79	.02	1.21
Thurman	....	....	....	.15	.10	.41	....	T	....	....	....	....	T	....	.02	....	T	....	....	....	....	....	....	....	....	....	T	....	....	.68	.02	1.38
Tipton	....	....	....	....	.31	....	....	....	....	....	....	....	....	....	....	....	....	.39	....	....	....	....	....	....	....	....	2.15	....	....	.62	....	3.47
Wapello	....	....	....	....	.34	.16	....	....	....	....	....	....	....	....	.07	T	....	.40	....	....	....	....	....	T	....	....	.80	.27	....	.16	....	2.20
Washington	....	....	....	.12	.78	....	....	....	....	....	....	....	....	....	.16	....	....	.25	....	....	....	....	....	.05	....	....	.33	....	....	....	.33	2.02
Washta	T	....	....	T	.75	T	....	....	....	....	....	....	....	T	T	....	T	....	....	....	....	....	....	.10	....	....	T	....	....	....	....	0.85
Waterloo	.08	....	....	T	.18	.34	....	....	....	....	....	....	....	....	.08	....	T	.07	....	....	....	....	....	T	....	....	.11	....	....	.75	....	1.61
Waukee	T	....	T	T	.15	.15	....	....	....	....	....	....	....	.10	T	T	.08	....	....	....	....	....	....	.10	....	....	.05	T	....	.60	T	1.23
Waverly	....	....	....	....	.12	.56	....	....	....	....	....	....	....	.11	.06	....	....	.09	....	T	....	....	....	....	....	....	.20	T	....	.42	.03	1.59
Webster City	T	....	....	....	T	.59	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	T	....	....	T	....	....	.35	....	0.94
Whitten	....	....	....	T	.58	.30	T	....	....	....	....	....	....	.12	....	....	....	....	....	....	....	....	T	....	....	....	.12	....	....	.58	.10	1.70
Wilton Junction	....	....	....	....	.83	....	....	....	....	....	....	....	....	....	.24	....	.26	....	....	....	....	....	....	....	....	....	.50	....	....	.49	....	2.32
Winterset	.04	....	T	.18	.06	.12	....	....	....	....	....	....	....	....	.20	....	T	.47	....	....	....	....	....	T	....	....	T	....	....	.71	.05	1.83
Woodburn	T	....	.02	....	....	.11	....	....	....	....	....	....	....	....	.21	....	T	.13	....	....	....	....	....	T	....	....	T	T	....	.26	T	0.73
Zearing	T	....	....	T	.08	.13	....	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	....	T	....	....	.05	....	....	.82	.02	1.13

Precipitation Chart March 1908.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR APRIL, 1908.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1908

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

OF THE

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CONSTITUTED AS FOLLOWS:

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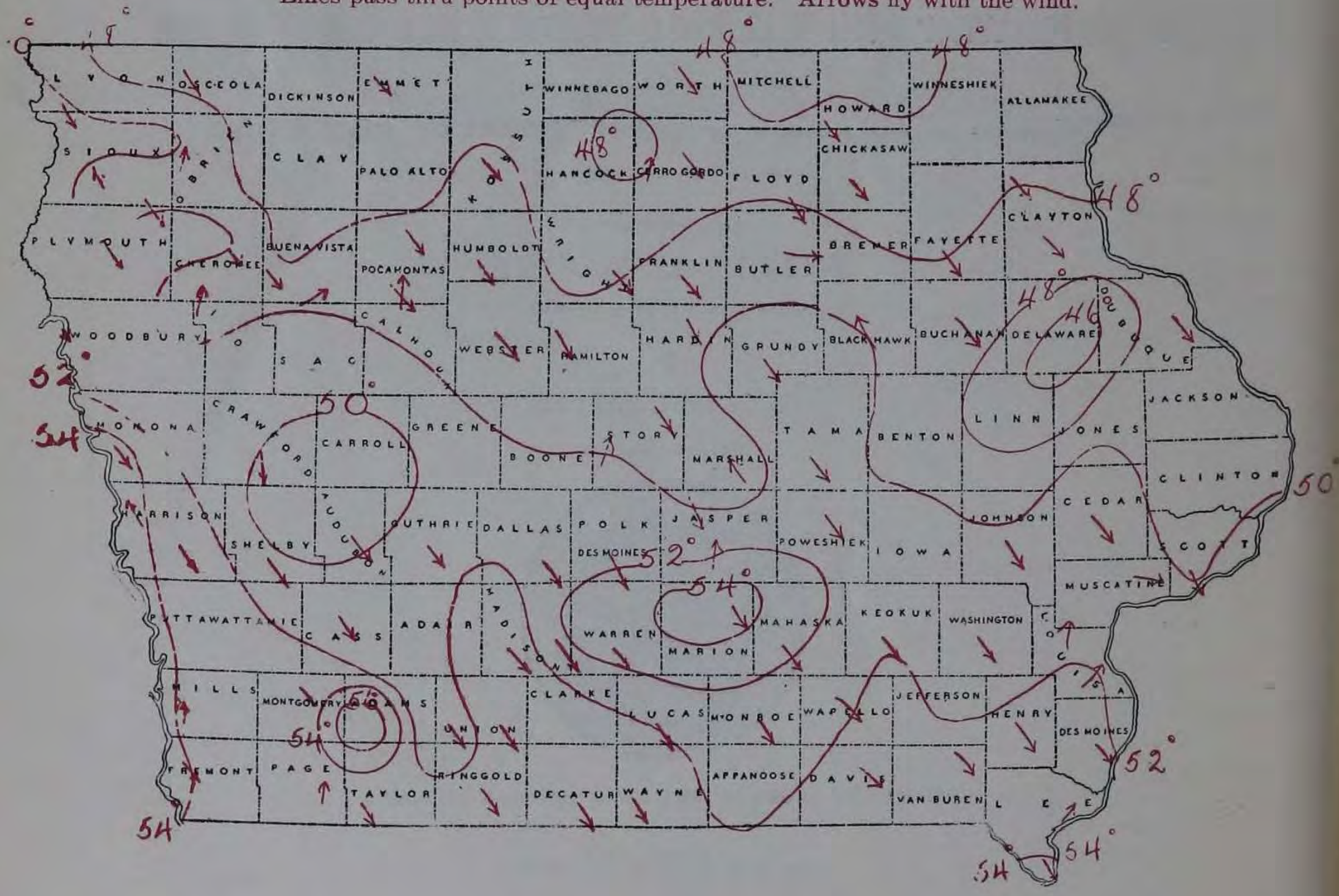
MEAN ISOTHERMS AND PREVAILING WINDS OF APRIL, 1908.

Lines pass thru points of equal temperature. Arrows fly with the wind.



U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IOWA SECTION,

GEO. M. CHAPPEL, Section Director.

VOL. XIX DES MOINES, IOWA, APRIL, 1908. NO. 4.

GENERAL SUMMARY.

With the exception of the first three and the last four days of the month, the temperature was exceptionally uniform and moderately high. The month opened with a cool wave which spread over the state during the first three days, resulting in minimum temperatures ranging from 11° to 18° over the northern district on the 2d; from 8° in west central to 24° in east central district on the 2d, and from 14° to 24° in the southern district on the 2d and 3d. From the 3d to the 27th the minimum temperatures ranged from 30° to above 50° and the maximums from 50° to above 90°, the warmest days being the 13th, 19th and 22d. From the 27th to the close of the month the temperature was unseasonably low and below freezing on one or more days in all parts of the State.

The precipitation was generally below the normal, but there was an excess in a few localities, due to heavy local showers. The heaviest rainfall was at Inwood, Lyon county, where a severe local storm occurred on the 23d, accompanied by destructive winds, heavy rain and some hail. The least rainfall was reported from the counties along the Missouri river from Monona southward where the monthly amounts were less than an inch. There were but three periods during the month in which the rainfall was general, viz: 5th to 8th, 17th and 18th and 23d to 28th, and, as the average amount of sunshine was above the normal, the conditions were exceptionally favorable for work in the fields. The seeding of small grain was practically completed at the beginning of the third decade, and at the close of the month more than the usual amount of ground had been prepared for corn. Up to the 27th the prospects for a fruit crop were never better, but the frosts and freezing temperatures during the last three days of the month did considerable damage, especially in southern counties.

TEMPERATURE.—The monthly mean temperature for the State, as shown by the records of 118 stations, was 50.5°, which is 2.0° above the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 48.4°, which is 1.6° above the normal; Central section 50.5°, which is 2.0° above the normal; Southern section 52.5°, which is 2.2° above the normal. The highest monthly mean was 55.8° at Corning, Adams county, and the lowest monthly mean 46.6° at Sibley, Osceola county. The highest temperature reported was 91° at Onawa, Monona county, on the 19th; the lowest temperature reported was 8° at Fort Dodge, Webster county, on the 2d. The average monthly maximum was 83.0°, and the average monthly minimum was 15.9°. The greatest daily range was 54° at Sibley, Osceola county. The average of the greatest daily ranges was 41.7°.

PRECIPITATION.—The average precipitation for the State, as shown by the records of 125 stations, was 2.24 inches, which is .59 inch below the normal. By sections the averages were as follows: Northern section, 2.78 inches, which is .31 inch above the normal; Central section, 2.30 inches, which is .57 inch below the normal; Southern section, 1.63 inches, which is 1.51 inches below the normal. The greatest amount, 4.59 inches, occurred at Inwood, Lyon county, and the least, .67 inch, at Little Sioux, Harrison county. The greatest amount in twenty-four hours, 2.42 inches, occurred at Pella, Marion county, on the 23d. Measurable precipitation occurred on an average of eight days.

SUNSHINE AND CLOUDINESS.—The average number of clear days was fourteen; partly cloudy, eight; cloudy, eight. The duration of sunshine was above the normal, the percentage of the possible amount being seventy-five at Charles City; sixty-two at Davenport; sixty-two at Des Moines; sixty-two at Dubuque; fifty-nine at Keokuk, and seventy at Sioux City.

WIND.—Northwest winds prevailed. The highest velocity reported was fifty miles per hour from the Northwest, at Sioux City, Woodbury county, on the 25th.

COMPARATIVE DATA FOR THE STATE—APRIL.

Year	Temperature				Precipitation			
	Mean	Departure from the normal	Highest	Lowest	Average	Departure from the normal	Greatest	Least
1890	51.8	+2.6	88	2	1.80	-1.13	4.46	.38
1891	50.6	+1.4	93	13	2.15	- .78	5.06	.59
1892	45.4	-3.8	88	14	4.75	+1.82	8.38	2.43
1893	45.5	-3.7	96	15	4.21	+1.28	8.51	1.24
1894	51.7	+2.5	93	12	3.07	+ .14	6.91	.55
1895	54.2	+5 0	98	8	2.62	- .31	5.88	.28
1896	54.5	+5.3	94	10	5.02	+2.09	9.67	2.35
1897	47.9	-1.3	89	19	5.35	+2.42	9.86	2.22
1898	48.1	-1.1	91	14	2.56	- .37	4.82	.27
1899	48.9	-0.3	89	1	2.40	- .53	5.76	.56
1900	52.2	+3.0	89	19	2.67	- .26	6.62	.43
1901	49.9	+0.7	92	15	1.79	-1.14	3.47	.66
1902	48.2	-1.0	96	9	1.71	-1.22	4.15	.40
1903	49.8	+0.6	86	17	2.98	+ .05	6.00	.74
1904	44.1	-5.1	86	13	3.63	+ .70	8.97	1.52
1905	47.5	-1.7	90	10	3.03	+ .10	5.49	.63
1906	52.5	+3.3	94	22	2.42	- .51	5.55	.53
1907	41.5	-7.7	80	10	1.32	-1.61	3.22	.24
1908	50.5	+ 1.3	91	8	2.24	- .69	4.59	.67

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	29.92	30.53	16	29.05	24
Davenport	29.94	30.53	16	29.10	24
Des Moines	29.92	30.45	16	29.05	24
Dubuque	29.95	30.60	16	29.10	24
Omaha, Neb.	29.94	30.45	2	29.04	24
Keokuk	29.96	30.49	16	29.14	24
Sioux City	29.94	30.42	11	29.05	24
Means	29.94	30.60	16	29.05	24

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	6848	32	SW	12
Davenport	6985	30	W	25
Des Moines	7388	33	SW	12
Dubuque	5846	30	NW	1
Keokuk	6629	35	SW	24
La Crosse, Wis	5468	24	SW	12
Omaha, Neb	8080	37	N	1
Sioux City	12451	50	NW	25

BELATED REPORT.

WEST BEND, March.—Mean temperature, 34.6°; highest, 73° on the 25th; lowest, 2° on the 8th; greatest daily range, 48°; total precipitation 1.62 inches; greatest in twenty-four hours, 1.25 inches on the 6th. Total snowfall, 1.8 inches. Prevailing direction of wind, north. Number of clear days, 7; partly cloudy, 12; cloudy, 12; rainy, 5.

ERRATA.

WHITTEN.—March. Total precipitation recorded, 1.70 inches, on pages twenty-nine and thirty-five, should have been 1.80 inches.

OBSERVERS' NOTES.

AFTON.—*N. W. Rowell.* Light snow fell on the 27th and ice formed on the 27th, 29th and 30th, with a minimum temperature of 26° on the 30th. Fruit must have been considerably damaged.

ALBIA.—*J. I. Chenoweth.* The prospects for a large fruit crop were very promising up to the 30th, when the temperature fell to 25° with a killing frost seriously damaging all early fruits.

ALGONA.—*Dr. F. T. Seeley.* Severe frost on the 29th and 30th with ice one quarter of an inch thick.

ALLERTON.—*Mrs. Geo. Shriver.* There had been considerable corn planted before the end of the month, but the ground was very dry. Vegetation and fruit blossoms were badly frozen on the morning of the 30th.

ALTA.—*David E. Hadden.* The month was warm and pleasant with the exception of the closing week which was wet and cool. The monthly rainfall was about .25 inch below the normal.

AMANA.—*C. Schadt.* The month was generally fair and warm, with good farming conditions. Fruit trees began to bloom about the 19th and were, including early apples, in full bloom about the 24th-26th. The frost on the 30th did some damage.

AMES.—*J. H. Criswell.* The killing frost on the 30th did considerable damage to fruit and tender garden plants.

BAXTER.—*W. R. Vandike.* The frost and ice on the 29th and 30th damaged plums, early cherries and peaches.

BONAPARTE.—*B. R. Vale.* A good month for farm work, but most too dry for germination. The last week was very cold, with the temperature down to 25° on the last day.

BRITT.—*Geo. P. Hardwick.* The ground was in excellent condition for seeding and much of that work was done quickly. The cold weather at the close of the month checked the rapid growth of vegetation and may necessitate some reseeding. Live stock holdings have been reduced on account of shortage of feed.

CHARITON.—*C. C. Burr.* Preparations nearly completed for corn planting and farmers are waiting for warm weather. Lamb, pig and foal crop is about average.

CLARINDA.—*A. S. Van Sandt.* A fine month up to the 26th, when a cold wave came and continued until the end of the month.

COLUMBUS JUNCTION.—*J. B. Johnston.* The ground was frozen on the night of the 29th.

CRESTON.—*Rev. W. L. Gaston.* It has been a dry month with high winds prevailing. A heavy frost occurred on the morning of the 30th, but the damage to fruit was slight.

ELLIOTT.—*Henry Barnes.* The early spring received a set back near the close of the month by dry, cold and frosty weather which seriously damaged all kinds of fruit.

ELMA.—*H. A. Moore.* With generally good weather for farm work, seeding began on the 3d, was well advanced by the 12th and small grain was sprouting by the 23d. Fruit trees began to blossom on the 17th.

FAYETTE.—*R. Z. Latimer.* Seeding began on the 4th. Snow fell on the 27th and ice a quarter of an inch thick formed on the morning of the 30th.

FOREST CITY.—*J. A. Peters.* Small grain was all in the ground by the 15th and a few plum trees were in bloom on the 28th. Light snow fell on the 27th.

GRAND MEADOW.—*F. L. Williams.* Seeding began on the 4th and snow fell all day on the 27th.

GRINNELL.—*A. O. Price.* The average temperature was 7.5 higher than it was in April, 1907, but ice formed on the 30th.

HUMBOLDT.—*Henry S. Wells.* There was 2.74 inches of rain during the month, but the ground has not been too wet and corn ground is in good condition.

INWOOD.—*F. D. Hanson.* The season is considered to be from ten days to two weeks in advance of last year, altho the cold weather during the latter part of the month retarded the growth of vegetation.

KEOSAUQUA.—*J. H. Landes.* A dry and cool month. A killing frost on the morning of the 30th damaged the fruit prospects very badly, altho the full extent is not known at this time.

MARSHALLTOWN.—*Geo. R. Estabrook.* The hard freeze on the 29th and 30th did not do as much damage to the fruit as was at first anticipated.

MOUNT AYR.—*A. F. Beard.* The first wrens appeared here on the 23d. Potato vines were killed by the frost on the 30th.

NORTHWOOD.—*Chas. H. Dwelle.* Excellent weather for spring work, except the last week. Cannot estimate amount of damage done by frosts, but it was not extensive.

OLIN.—*Nathan Potter.* A fine month for farm work and the soil is in the best of condition for cultivation. Pasturage is one week ahead of average seasons. Fruit is all right and promises a full crop.

PELLA.—*T. W. Cox.* Heavy thunder-storms with wind squalls and light hail occurred on the 23d, but no damage was done.

RIDGEWAY.—*Arthur Betts.* During the past ten years there have been four Aprils with an average temperature higher than the average for the past month. There were no frosts between the 12th and 27th.

ROCKWELL CITY.—*C. M. Randall.* There was enough snow fell on the 26th to cover the ground.

SHELDON.—*A. W. Beach.* A good seasonable month with plenty of precipitation. Fruit buds were not sufficiently advanced to be damaged by the freeze on the 29th and 30th.

STOCKPORT.—*C. L. Beswick.* Seventy-five per cent of the corn had been planted by May 2d.

STORM LAKE.—*Prof. R. H. Carr.* The temperature was down to freezing or below on nine mornings during the month.

THURMAN.—*C. R. Paul.* Peaches and plums were in bloom on the 17th.

WAPELLO.—*G. W. Schofield.* Fall wheat is in good condition and oats are doing well. Fruit prospects are good.

WAVERLY.—*H. S. Hoover.* Apple buds showed the red of the blossoms on the 24th. First plum blossoms opened and oak leaves were the size of squirrel's feet on the 25th.

CLIMATOLOGICAL DATA FOR IOWA, APRIL, 1908

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in Inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
NORTHERN SECTION																				
Algona	Kossuth	1,213	34	48.6	+ 2.4	81	*13	14	2	42	3.21	+ .73	1.14	T	7	17	4	9	nw	Dr. F. T. Seeley
Alta	Buena Vista	1,513	17	48.2	+ 1.5	87	13	11	2	50	2.69	— .34	1.08	T	8	15	9	6	nw	D. E. Hadden
Alta [near]	Buena Vista	.....	....	.....	.....	.....	.....	.....	.....	.....	2.43	.....	.78	....	7	....	....	....	.....	W. J. Minard
Alton	Sioux	1,305	3	49.5	.....	85	13	12	2	48	2.90	.....	1.49	T	8	15	7	8	nw	W. S. Slagle
Britt	Hancock	1,236	11	47.2	+ 1.5	80	*19	15	2	45	3.78	+1.57	1.11	.4	10	8	13	9	nw	G. P. Hardwick
Charles City	Floyd	1,015	20	47.6	+ 1.3	79	19	16	2	38	2.00	— .83	.91	T	7	10	11	9	nw	Weather Bureau
Clear Lake	Cerro Gordo	1,241	9	48.1	+ 1.1	79	22	15	2	38	2.12	+ .48	.70	....	9	17	2	11	s	Oscar Stevens
Decorah	Winneshiek	875	15	47.0	— 0.7	83	22	12	2	45	2.41	— .09	1.10	T	5	....	....	....	.....	F. H. Baker
Dows	Wright	1,142	8	47.8	+ 1.5	83	13	15	2	46	3.12	+ .87	1.17	....	9	14	7	9	nw	H. A. Flett
Elkader	Clayton	727	27	48.6	+ 0.6	82	22	18	2	41	1.75	— .94	.50	T	7	14	6	10	nw	Chas. Reinecke
Elma	Howard	.....	....	47.0	.....	79	22	15	2	40	3.24	.....	.70	.2	9	13	12	5	nw	H. A. Moore
Estherville	Emmet	1,298	12	47.1	+ 0.8	84	19	13	2	46	3.60	+1.39	1.20	....	7	16	0	14	nw	A. O. Peterson
Fayette ‡	Fayette	1,003	18	48.0	+ 1.5	80	22	17	2	40	1.93	—1.09	.52	T	9	....	....	....	nw	A. Z. Latimer
Forest City	Winnebago	1,226	14	47.6	+ 1.1	82	19	15	2	43	2.42	+ .05	.90	T	6	16	5	9	sw	J. A. Peters
Grand Meadow	Clayton	1,180	17	47.5	+ 0.7	80	22	16	2	40	1.93	—1.04	.62	....	9	9	11	10	nw	F. L. Williams
Greene	Butler	.....	9	48.8	+ 0.7	81	*19	16	2	40	2.73	+ .50	.43	T	11	11	9	10	w	J. L. Cole
Hampton	Franklin	1,155	18	49.0	+ 1.7	81	*13	15	2	39	2.44	— .84	.63	....	8	8	17	5	nw	E. C. Grenelle
Humboldt	Humboldt	1,095	17	50.0	+ 1.7	81	13	15	2	42	2.74	+ .13	1.18	....	7	16	3	11	nw	H. S. Wells
Inwood	Lyon	1,474	4	‡49.6	.....	88	19	11	2	50	4.59	.....	2.00	T	7	18	3	9	nw	F. D. Hanson
Larrabee	Cherokee	1,266	17	49.8	+ 2.3	85	13	11	2	42	2.20	— .52	.75	.5	7	16	8	6	nw	H. B. Streever
Le Mars	Plymouth	1,224	12	50.2	+ 2.2	85	13	13	2	42	3.82	— .63	1.69	....	7	18	5	7	nw	G. A. C. Clarke
Mason City	Cerro Gordo	1,132	11	47.0	— 0.7	78	19	15	2	38	2.50	— .15	.86	....	7	12	11	7	nw	J. S. Mills
New Hampton	Chickasaw	1,169	11	47.2	+ 0.3	78	22	15	2	39	1.94	— .01	.45	....	11	15	8	7	nw	A. F. Kemman
Northwood	Worth	1,222	12	46.8	+ 0.3	79	19	13	2	40	3.75	+1.59	1.20	3.0	7	15	8	7	nw	Charles Dwelle
Osage	Mitchell	1,184	17	48.7	+ 3.3	81	19	16	2	40	2.65	+ .20	.75	T	7	13	7	10	nw	Dr. A. D. Bundy
Plover	Pocahontas	1,426	12	49.1	+ 2.5	83	19	13	2	40	3.24	+1.14	1.32	....	7	19	2	9	nw	J. S. Smith
Pocahontas	Pocahontas	.....	4	49.0	.....	85	21	13	2	45	2.71	.....	1.14	....	5	20	6	4	s,nw	F. E. Hronek
Ridgeway	Winneshiek	1,215	10	48.4	+ 0.8	82	22	16	2	40	2.49	+ .15	.99	1.0	10	15	8	7	s	Arthur Betts
Rock Rapids	Lyon	1,358	9	47.7	+ 1.5	86	13	11	2	36	3.75	+1.08	1.18	.5	6	15	6	9	.....	W. C. Wyckoff
Sheldon	O'Brien	1,422	8	50.2	+ 3.1	89	13	12	2	53	3.89	+2.16	1.80	T	11	17	3	10	s	Dr. A. W. Beach
Sibley	Osceola	1,212	15	46.6	+ 0.5	86	13	12	*2	54	3.26	+ .93	.86	T	12	17	6	7	nw	H. G. Doolittle
Sioux Center	Sioux	.....	9	48.8	+ 2.8	85	13	11	2	45	4.00	+1 80	1.45	1.0	8	15	2	13	se	Jacob de Ruyter
Storm Lake	Buena Vista	1,440	12	49.8	+ 4.4	84	13	12	2	40	2.56	+ .22	.78	.4	9	13	11	6	sw	Ralph H. Carr
Washta	Cherokee	1,157	10	48.9	.....	88	13	12	2	40	1.01	—1.09	.53	T	4	20	3	7	s	H. L. Felter
Waverly	Bremer	948	42	49.0	+ 2.0	79	19	17	2	38	2.33	— .36	.43	T	12	10	10	10	.....	H. S. Hoover
West Bend	Palo Alto	1,197	14	47.9	+ 1.6	81	13	14	2	41	2.51	— .21	1.23	T	7	10	10	10	.....	Phil Dorweiler
Averages	.....	.....	....	48.4	+ 1.6	82.5	.....	13.9	.....	42.5	2.78	+ .31	.....	1.0	8	14	7	9	nw	
CENTRAL SECTION																				
Amana	Iowa	721	31	50.4	+ 1.8	79	19	19	2	39	3.14	+ .23	1.17	....	10	11	13	6	.....	Conrad Schadt
Ames	Story	926	27	50.4	+ 1.3	83	*13	16	2	42	1.94	— .73	.80	....	5	14	12	4	s	Iowa State College
Audubon	Audubon	1,301	15	49.6	+ 0.9	85	13	14	2	46	2.70	— .54	.91	.4	6	16	4	10	nw	Geo. E. Kellogg
Baxter	Jasper	998	8	50.4	+ 1.6	82	*13	15	2	42	2.85	— .02	.78	T	10	16	8	6	nw	W. R. Vandike
Belle Plaine	Benton	828	18	49.7	+ 0.8	82	19	17	2	41	4.14	+ .83	1.15	....	8	13	6	11	se	S. P. Vandike
Boone	Boone	1,134	3	49.7	.....	84	19	15	2	46	2.44	.....	1.47	T	11	19	4	7	.....	Carl Fritz Henning
Buckingham	Tama	.....	8	.....	.....	.....	.....	.....	.....	.....	1.94	— .13	.44	T	7	6	20	4	.....	Dr. W. A. Daniel
Carroll	Carroll	1,265	18	49.4	+ 1.3	86	*13	12	2	50	1.51	—1.79	.60	....	8	18	3	9	.....	Frank Hughes
Cedar Rapids	Linn	733	26	49.3	— 0.4	81	19	19	2	42	3.36	+ .62	.99	T	9	12	9	9	.....	Electric Light & P. Co.
Clinton	Clinton	593	40	50.0	+ 1.4	83	22	18	2	43	2.70	— .31	.65	....	11	9	14	7	nw	Luke Roberts
Davenport	Scott	580	36	50.4	+ 0.2	78	19	20	2	32	2.22	— .66	.73	....	9	11	10	9	nw	Weather Bureau
Delaware	Delaware	1,083	17	46.4	+ 0.6	78	22	18	2	40	2.67	— .11	.52	....	11	14	8	8	se, nw	Wm. Ball
Denison	Crawford	1,180	13	50.4	+ 2.3	84	13	14	2	43	2.41	—1.04	1.44	T	6	22	3	5	n	W. C. Van Ness
Des Moines	Polk	861	29	51.8	+ 1.2	84	19	18	2	37	2.69	— .29	1.20	T	8	9	14	7	nw	Weather Bureau
De Soto	Dallas	866	8	52.2	+ 2.5	88	13	15	2	47	1.41	—1.37	.54	T	7	20	0	10	nw	R. D. Minard
Dubuque	Dubuque	639	35	48.8	— 0.1	79	14	19	2	35	2.50	— .42	.99	.1	12	12	9	9	nw	Weather Bureau
Fort Dodge	Webster	1,126	8	†49.2	+ 1.8	†85	13	† 8	2	†45	3.37	+ .20	1.40	....	10	16	2	12	nw	Tobin College
Gilman	Marshall	1,052	9	.....	.....	.....	.....	.....	.....	.....	2.66	+ .30	.70	....	7	8	13	9	.....	Jas. L. Wylie
Grinnell	Poweshiek	1,023	16	51.1	+ 0.8	80	19	17	2	40	1.87	—1.51	.66	T	8	14	7	9	nw	A. O. Price
Grundy Center	Grundy	976	17	51.1	+ 3.7	81	*13	17	2	38	2.23	— .82	.40	....	9	17	5	8	nw	W. H. Scott
Guthrie Center	Guthrie	1,077	13	51.4	+ 2.1	85	13	15	2	42	1.69	—1.05	.68	T	7	19	3	8	nw	D. G. Beardsley
Harlan	Shelby	1,192	9	51.0	+ 2.7	85	19	13	2	44	.99	—1.47	.58	T	6	13	11	6	nw	C. A. Reynolds
Independence	Buchanan	921	43	48.8	+ 0.6	79	22	18	2	35	2.17	— .21	.49	.7	13	16	5	9	nw	Austin Cornwall
Iowa City	Johnson	683	49	50.6	+ 2.1	83	13	20	*2	42	2.76	— .38	.95	....	9	18	3	9	nw	Prof. Karl E. Geithe
Iowa Falls	Hardin	1,170	15	48.0	+ 1.3	81	*13	16	2	44	1.72	—1.16	.53	T	9	17	2	11	nw	J. B. Parmelee
Jefferson (i)	Greene	.....	....	52.5	.....	85	18	15	2	40	.....	.....	.....	T	....	....	....	....	.....	Geo. W. Jackson
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	2.80	.....	.65	....	11	15	5	10	.....	Margaret T. Disney
Little Sioux	Harrison	.....	4	53.6	.....	87	*13	11	2	46	.67	.....	.34	T	7	19	4	7	se	Geo. H. Gibson
Logan	Harrison	928	42	53.2	+ 3.3	86	19	14	2	43	.97	—1.84	.36	1.0	7	11	15	4	nw	Glen H. Stern
Marshalltown	Marshall	947	16	49.4	+ 0.6	81	*13	17	2	41	2.40	— .50	.69	....	9	14	4	12	se	Geo. R. Estabrook
Muscatine	Muscatine	.....	49	.....	.....	.....	.....	.....	.....	.....	2.35	—1.06	.54	T	11	8	11	11	s	Wm. P. Molis
Newton	Jasper	944	19	51.5	+ 3.1	83	20	16	2	40	2.26	—1.07	1.20	....	7	18	4	8	s	Hon. J. P. Beatty
Odebolt	Sac	1,356	10	51.7	+ 3.6	89	13	13	2	44	1.82	—1.10	.58	....	5	22	1	7	.....	E. Starner
Olin	Jones	760	11	‖49.6	+ 2.7	‖80	22	‖19	2	‖37	3.00	+ .72	.91	T	5	18	6	6	.....	Hon. Nathan Potter
Onawa	Monona	1,051	8	54.8	+ 4.9	91	19	14	2	46	.97	—1.51	.43	.4	5	23	0	7	nw	C. G. Perkins
Perry	Dallas	975	7	51.4	+ 4.1	86	13	15	2	40	4.16	+1.23	2.00	....	7	8	13	9	.....	J. A. Harvey
Rockwell City	Calhoun	.....	12	51.1	+ 4.1	86	13	13	2	43	2.50	— .26	1.20	T	5	22	1	7	.....	C. M. Randall
Sioux City	Woodbury	1,135	17	51.0	+ 2.5	86	19	14	2	40	1.64	—1.13	.61	.5	5	15	5	10	nw	Weather Bureau
Stuart	Guthrie	1,216	10	51.6	+ 4.2	85	*13	14	2	48	2.43	— .73	.86	....	5	21	1	8	s	Geo. B. Irick
Tipton	Cedar	807	10	50.9	+ 2.0	79	19	24	3	34	2.24	—1.00	.49	....	8	19	4	7	nw	F. K. Gregg
Toledo	Tama	856	14	50.2	+ 0.6	80	13	17	2	37	2.10	— .71	.75	....	7	16	5	9	nw	I. F. Giger
Waterloo	Black Hawk	862	25	49.5	+ 2.5	81	*19	18	2	40	2.40	+ .07	.52	T	10	15	10	5	se	M. L. Newton
Waukee	Dallas	1,039	5	49.8	.....	86	19	16	2	42	2.11	—1.09	1.00	T	6	17	3	10	nw	A. H. Blackmore
Webster City	Hamilton	.....	3	49.2	.....	81	13	15	*2	45	2.19	.....	1.17	....	6	20	2	8	nw	C. D. Carpenter
Whitten	Hardin	1,036	10	50.5	+ 3.1	80	19	15	2	39	1.98	— .16	.47	T	7	16	8	6	se	Dr. Frank P. Butler
Wilton Junction	Muscatine	683	13	51.2	+ 0.9	77	22	20	2	47	3.02	+ .04	1.15	....	8	20	7	3	w	Wm. Lang
Zearing	Story	.....	4	49.4	.....	83	13	16	2	40	1.64	.....	.38	....	10	13	7	10	nw	C. P. Bean
Average	.....	.....	....	50.5	+ 2.0	83.0	.....	16.0	.....	41.6	2.30	— .57	.....	T	8	15	7	8	nw	

CLIMATOLOGICAL DATA FOR IOWA, APRIL, 1908—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
SOUTHERN SECTION																				
Afton	Union	1,212	14	52.8	+ 2.4	83	13	16	2	39	1.23	—3.14	.40	T	6	9	16	5	nw	N. W. Rowell
Albia	Monroe	959	10	51.4	+ 1.8	82	*13	18	2	43	1.72	—1.11	.47	T	9	13	7	10	w	J. I. Chenoweth
Allerton	Wayne	.....	6	52.4	+ 2.1	83	19	18	2	37	1.72	—1.48	.73	T	6	17	8	5	nw	Mrs. Geo. Shriver
Atlantic	Cass	1,164	17	50.6	+ 1.9	87	19	14	2	45	.93	—2.13	.52	T	3	11	5	14	nw	J. W. Love
Bedford	Taylor	.....	8	52.8	+ 3.5	86	19	16	2	42	1.24	—1.57	.41	T	7	13	9	8	nw	E. E. Healy
Bloomfield	Davis	.....	....	52.9	.....	83	19	20	2	40	2.02	.....	1.20	T	6	15	11	4	nw	F. H. Roberts
Bonaparte	Van Buren	.....	17	52.6	+ 2.4	83	13	20	3	41	1.90	—1.45	1.16	....	6	23	4	3	.....	Hon. B. R. Vale
Burlington	Des Moines	544	12	52.0	+ 0.5	80	*13	23	2	42	2.16	—1.00	.70	....	7	17	6	7	nw	W. E. Poppe
Chariton	Lucas	1,042	13	51.8	+ 5.3	83	19	17	2	44	1.81	—1.32	.65	T	5	17	7	6	nw	C. C. Burr
Clarinda	Page	1,009	18	52.8	+ 1.9	88	19	16	2	50	1.15	—2.04	.56	T	10	15	3	12	s	A. S. Van Sandt
Columbus Junction	Louisa	595	7	51.4	+ 1.7	80	22	20	2	37	1.69	—1.09	.45	T	8	19	7	4	s	J. B. Johnston
Corning	Adams	1,117	16	55.8	+ 6.0	82	19	16	2	39	1.19	—1.94	.30	T	5	12	12	6	nw	Jerome Smith
Corydon	Wayne	1,101	15	53.4	+ 2.4	85	19	18	2	45	1.70	—1.46	.51	T	7	12	7	11	.....	Clara Miller
Creston	Union	1,312	3	‖51.4	.....	82	19	.....	.....	.....	1.12	.....	.82	....	6	12	10	8	nw	Rev. W. L. Gaston
Cumberland	Cass	.....	9	.....	.....	.....	.....	.....	.....	.....	.77	—1.32	.41	....	3	20	2	8	nw	Agent C., B. & Q. Ry.
Earlham	Madison	.....	6	51.0	+ 3.2	84	19	15	2	44	1.00	—2.66	.52	T	4	12	10	8	nw	Geo. Phillips
Elliott	Montgomery	.....	3	53.0	.....	85	19	17	2	40	1.31	.....	.65	T	6	18	10	2	nw	Henry Barnes
Fairfield †	Jefferson	.....	14	51.6	+ 1.8	80	19	22	2	40	1.33	—2.15	.83	....	5	....	....	....	.....	R. Monroe McKenzie
Fort Madison	Lee	516	59	.....	.....	.....	.....	.....	.....	.....	2.65	— .53	1.02	T	7	8	7	15	sw	Miss L. A. McCready
Greenfield	Adair	.....	17	51.9	+ 2.1	82	*13	14	2	47	1.41	—1.77	.65	T	6	18	5	7	nw	Dr. Geo. Brooks
Hancock	Pottawattamie	1,113	2	52.0	.....	85	19	15	2	40	.80	.....	.61	T	3	21	3	6	nw	W. Armstrong
Hopeville	Clarke	.....	17	52.8	+ 3.1	85	19	17	2	41	.83	—2.40	35	....	9	8	16	6	.....	M. T. Ashley
Indianola	Warren	969	17	52.0	+ 1.3	83	*13	16	2	38	3.10	— .30	1.55	....	9	10	7	13	nw	Prof. J. L. Tilton
Keokuk	Lee	574	37	53.8	+ 1.8	80	19	24	2	34	1.82	—1.52	.56	T	9	12	12	6	nw	Weather Bureau
Keosauqua	Van Buren	644	16	51.6	+ 0.0	84	13	20	3	44	1.32	—2.37	.58	T	6	4	13	13	.....	J. A. Landes
Lacona	Warren	.....	9	.....	.....	.....	.....	.....	.....	.....	2.73	— .26	1.10	.1	10	5	17	8	.....	Agent C., B. & Q. Ry.
Lenox	Taylor	1,250	13	52.5	+ 2.5	83	*19	15	2	42	1.06	—1.97	.47	T	4	21	3	6	s	J. L. Hurley
Leon	Decatur	1,120	6	53.0	+ 1.7	83	19	18	2	37	1.19	—2.23	.38	T	7	17	9	4	nw	J. Morris Gardner
Mt. Ayr	Ringgold	1,236	15	53.1	+ 2.3	85	21	16	2	45	1.56	—1.72	.60	T	7	9	12	9	nw	A. F. Beard
Mt. Pleasant	Henry	729	26	†52.6	+ 1.5	80	13	†21	*2	38	1.28	—1.93	.93	T	8	11	11	8	nw	Prof. J. W. Edwards
Omaha, Neb	Douglas	1,040	36	53.4	+ 2.9	86	19	16	2	39	1.09	—1.92	.78	T	5	9	10	11	nw	Weather Bureau
Oskaloosa	Mahaska	843	24	52.3	+ 2.3	84	13	19	2	42	3.40	+ .67	1.90	...	10	19	0	11	nw	Jos. Boyd
Ottumwa	Wapello	649	14	52.5	+ 0.5	86	13	20	*2	41	1.65	—1.50	1.00	T	4	13	6	11	nw	Dr. Jas. A. Hull
Pacific Junction	Mills	960	9	53.2	+ 3.2	84	*19	10	2	40	.89	—1.66	.29	T	4	11	12	7	s	H. H. McCartney
Pella	Marion	877	6	53.8	+ 4.0	86	13	17	2	42	3.65	+1.13	2.42	....	11	16	11	3	nw	T. W. Cox
St. Charles	Madison	1,070	7	52.6	+ 2.0	86	13	16	2	40	1.81	—1.71	.73	....	7	15	8	7	nw	C. W. Minard
Sigourney	Keokuk	877	12	52.1	+ 0.9	83	13	19	2	39	3.00	— .17	.82	T	7	3	23	4	nw	J. T. Parker
Stockport	Van Buren	.....	6	52.0	.....	83	13	19	3	38	1.03	—2.09	.61	T	7	17	2	11	nw	C. L. Beswick
Thurman	Fremont	.....	11	54.0	+ 3.5	84	20	17	2	38	.82	—2.59	.48	T	5	9	13	8	nw	C. R. Paul
Wapello	Louisa	588	10	52.2	+ 0.8	81	*19	24	2	36	1.51	—1.08	.49	....	7	17	8	5	sw	Geo. W. Schofield
Washington	Washington	769	27	51.2	+ 0.7	81	*13	20	*2	40	2.75	+ .09	1.40	....	8	9	14	7	nw	Wm. A. Cook
Winterset	Madison	1,129	17	52.6	+ 2.2	84	13	16	2	37	1.46	—2.26	.54	T	7	16	8	6	nw	Dr. Robert S. Cooper
Woodburn	Clarke	961	9	51.6	.....	85	19	17	2	49	1.10	—1.76	.25	T	6	15	11	4	sw	C. B. McDonough
Average		.....	....	52.5	+ 2.2	83.5	.....	17.7	.....	40.9	1.63	—1.51	.....	T	7	13	9	8	nw	
State average		.....	....	50.5	+ 2.0	83.0	.....	15.9	.....	41.7	2.24	— .59	.....	.3	8	14	8	8	nw	

*And other dates. †one day missing, ‡two days; ⁋three days; ‖four days.

THUNDERSTORMS—STATIONS AND DATES

NORTHERN SECTION.

Stations	Dates
Algona	23
Alta	17,23,24
Alton	17,22,23
Britt	22,24
Charles City	23,24
Elkader	22,24
Elma	6,23,24
Fayette	6,25
Inwood	22,23
Larrabee	22,23,24
Le Mars	7,21,23,24
Mason City	23
Northwood	23,24,27
Plover	7,22,23,24,25
Pocahontas	17,22,23,24
Ridgeway	7,22,23,24
Sheldon	17,24
Sioux Center	22,23,24
Washta	21,23,24
Waverly	6,23,24
West Bend	22,23

CENTRAL SECTION.

Stations	Dates
Amana	6,23,24
Audubon	17,23,24
Baxter	23
Belle Plaine	27
Boone	6,22,23
Carroll	17,23,24
Clinton	7,23,24
Davenport	7,23,24,25
Des Moines	22,23,24
De Soto	24
Dubuque	6,23,24
Grinnell	22,23,24
Guthrie Center	23,24
Harlan	17
Independence	6
Iowa City	7,23
Iowa Falls	22,23,24
Little Sioux	23
Olin	23,24
Onawa	21,23
Perry	23
Sioux City	17,21,23
Waterloo	23
Waukee	23
Whitten	23
Zearing	23,24

SOUTHERN SECTION.

Stations	Dates
Afton	8
Albia	23
Allerton	23,24
Atlantic	23
Bloomfield	23
Columbus Junction	23,24,25
Corning	23,24
Earlham	23
Elliott	5,17
Fort Madison	22,23,24
Indianola	7,22,23
Keokuk	7,22,23,24
Keosauqua	23
Leon	8
Mt. Pleasant	22,25
Omaha, Nebraska	21,22,23,24
Oskaloosa	23
Pacific Junction	5,7
Sigourney	8,25
Stockport	23,24,25
Thurman	7
Wapello	23,24,25

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF APRIL, 1908

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | Monthly Mean | |
|---|---|---

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF APRIL, 1908—CONTINUED

STATIONS	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30		Monthly Mean	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Osage	45	26	33	16	57	25	68	35	60	37	58	39	46	32	48	30	54	28	58	38	54	32	73	37	80	40	78	50	72	36	57	33	52	37	72	47	81	45	77	44	78	39	80	48	74	50	65	58	60	49	51	39	42	32	43	31	41	32	54	26	60.4	37.0
Oskaloosa	51	33	40	19	61	20	68	37	61	45	73	39	55	45	50	33	61	27	69	45	55	33	71	34	84	48	80	52	69	46	59	30	60	40	71	52	82	47	79	49	79	46	76	55	73	56	75	55	69	52	55	43	46	34	48	39	45	33	57	27	64.1	40.5
Ottumwa	42	40	45	20	46	20	62	28	64	32	75	40	59	45	51	35	56	31	69	43	55	37	67	37	86	43	79	54	65	49	68	40	62	38	63	43	74	50	82	55	83	53	79	55	76	54	75	60	74	53	56	45	50	35	47	36	46	35	60	27	63.9	41.1
Pacific Junction	54	24	39	10	65	22	66	35	66	41	73	41	60	44	53	34	61	29	70	38	60	31	75	38	83	44	76	59	63	44	62	39	61	43	77	53	84	44	84	59	84	54	77	55	80	63	73	54	68	50	56	37	48	31	50	36	53	29	61	27	66.1	40.3
Pella	50	33	37	17	61	22	78	36	62	45	72	40	65	43	52	33	60	31	74	46	67	34	73	35	86	47	82	51	74	45	61	29	69	41	72	51	82	50	82	54	81	55	78	54	75	56	74	60	69	51	64	41	51	32	49	37	47	32	59	28	66.9	41.0
Perry	49	26	35	15	62	23	69	36	61	39	65	43	52	40	51	31	61	29	67	40	58	31	74	38	86	46	81	50	70	41	59	33	54	45	75	51	84	46	78	48	81	46	79	50	76	58	71	46	66	49	55	38	43	32	49	36	48	32	60	26	64.0	38.8
Plover	45	21	32	13	60	21	70	34	60	32	60	36	43	32	68	28	62	28	60	25	55	28	76	37	83	38	77	40	68	35	60	32	53	42	76	48	83	48	78	42	78	45	78	49	70	55	70	55	63	47	54	35	43	35	50	34	40	30	60	25	62.5	35.7
Pocahontas	41	22	35	13	62	22	68	34	63	33	65	40	50	32	47	28	62	30	60	38	57	28	75	37	84	39	77	49	61	34	56	33	52	41	72	46	82	42	77	44	85	44	80	49	69	53	74	52	60	45	49	35	41	33	51	33	44	30	59	26	61.9	36.2
Ridgeway	42	25	36	16	55	22	68	31	62	38	56	36	41	30	50	29	60	29	65	38	54	31	73	33	73	42	78	47	63	39	56	32	60	33	71	46	80	45	75	45	74	35	82	48	79	50	65	53	57	50	55	37	38	33	45	30	49	34	55	27	60.6	36.1
Rock Rapids	32	16	34	11	37	17	70	34	62	28	60	36	36	30	48	27	50	32	48	34	72	40	82	42	86	40	80	38	54	29	59	40	52	42	80	48	82	40	80	46	80	50	78	52	71	46	70	50	59	47	50	32	42	31	44	33	46	30	44	32	59.6	35.8
Rockwell City	47	28	36	13	68	25	70	35	70	38	70	35	53	36	50	28	68	35	63	37	56	28	76	38	86	43	80	56	70	38	60	34	55	44	75	48	83	50	76	54	75	45	80	48	72	58	75	55	60	45	48	32	40	33	50	35	46	31	52	29	63.7	38.5
St. Charles	50	29	40	16	63	23	69	36	65	44	73	41	52	43	52	32	52	43	72	32	67	33	72	38	86	50	78	51	63	44	58	32	58	45	72	52	85	52	79	55	82	49	74	54	76	58	74	54	69	51	53	40	43	32	50	36	46	34	58	28	64.4	40.9
Sheldon	43	15	36	12	65	21	70	33	65	29	62	33	47	32	52	28	65	33	55	33	60	27	84	40	89	37	84	49	79	53	65	37	55	40	80	48	87	40	78	45	86	47	81	51	70	55	65	50	57	47	50	33	42	32	46	32	49	29	59	27	64.2	36.3
Sibley	30	17	32	12	62	12	68	25	63	30	59	33	37	32	49	28	60	28	52	32	57	27	82	28	86	39	81	44	52	29	57	29	49	35	78	42	85	39	77	45	82	47	77	46	67	50	73	55	55	46	39	33	40	32	44	32	44	30	55	28	59.7	33.5
Sigourney	52	35	35	19	60	21	69	34	60	45	73	37	55	44	50	33	60	28	69	45	58	35	70	33	83	46	79	50	68	47	60	29	60	38	71	51	81	47	79	50	79	43	78	53	75	56	73	57	69	51	56	41	49	35	49	37	47	34	58	27	64.2	40.0
Sioux Center	45	16	34	11	62	21	68	30	62	30	59	34	48	32	49	29	61	31	52	34	56	27	82	43	85	40	80	53	70	27	60	38	54	40	78	47	82	50	75	45	81	46	77	51	69	53	70	51	58	47	48	34	40	30	43	34	46	30	55	30	61.6	36.1
Sioux City	45	17	36	14	64	29	67	39	63	35	62	43	45	33	51	31	64	34	57	39	60	33	82	47	85	51	78	50	55	32	59	39	55	49	82	51	86	46	80	48	80	56	78	59	74	57	71	48	61	46	46	31	40	28	44	34	50	33	56	35	62 5	39.6
Stockport	54	33	36	21	60	19	68	37	60	47	72	35	60	45	59	35	57	26	66	48	55	35	69	32	83	45	75	50	61	49	59	28	58	36	70	52	80	50	80	53	77	46	76	52	72	57	72	59	71	52	56	40	50	36	46	39	48	34	51	25	63.4	40.5
Storm Lake	43	19	34	12	61	25	63	35	61	34	64	42	59	33	49	28	60	34	60	38	57	32	74	41	84	46	73	53	72	32	55	34	53	43	75	49	82	44	79	48	78	49	74	53	72	54	69	52	59	47	49	35	47	31	44	33	45	30	55	32	61.7	37.9
Stuart	48	27	38	14	70	22	60	35	63	44	68	43	48	41	51	31	60	28	70	41	59	30	72	38	85	47	77	52	70	41	60	32	56	36	77	52	85	46	79	50	82	47	78	52	76	58	73	51	69	50	60	37	39	31	50	35	48	30	60	26	64.4	38.9
Thurman	57	24	39	17	64	24	64	40	64	42	74	44	64	45	58	34	58	28	69	40	61	37	75	41	82	49	76	56	69	46	60	38	58	54	77	48	83	44	84	54	83	54	77	58	81	62	75	58	70	50	60	39	49	30	44	36	55	29	63	25	66.4	41.5
Tipton	49	33	35	25	56	24	67	36	63	45	66	39	51	41	50	35	60	30	59	46	57	36	68	34	76	45	76	50	64	46	58	31	60	36	67	51	79	41	78	54	75	41	78	53	69	57	66	57	62	50	57	42	51	36	44	35	45	34	55	30	61.4	40.4
Toledo	52	32	32	17	56	17	66	33	63	43	65	37	48	40	48	32	59	27	64	43	52	34	71	34	80	47	70	49	70	43	57	28	62	49	68	50	77	46	75	50	75	41	77	52	73	55	68	56	61	49	60	40	45	35	47	36	44	32	53	27	61.3	39.1
Wapello	49	35	38	24	60	25	68	38	63	46	70	38	55	46	49	37	57	30	66	49	59	38	71	35	80	48	75	50	66	47	57	31	60	37	67	50	81	43	81	54	74	43	76	55	71	59	67	58	62	54	57	45	49	38	45	30	49	36	58	30	62.7	41.6
Washington	49	32	36	20	60	20	69	34	62	44	73	38	56	44	50	34	59	28	68	46	55	35	70	34	81	47	78	51	62	41	58	28	60	36	69	51	81	46	79	50	77	40	77	53	72	57	69	55	70	50	56	40	45	35	46	36	48	34	56	27	63.0	39.5
Washta	40	18	37	12	58	18	70	32	65	30	64	44	50	33	32	30	64	25	60	35	56	44	78	30	88	37	79	42	68	32	60	34	58	40	70	38	87	37	79	38	84	40	77	50	70	54	74	52	63	48	54	35	42	30	44	34	50	29	50	22	63.0	34.8
Waterloo	39	36	35	18	57	20	69	29	61	35	55	39	49	37	48	32	60	28	67	35	54	34	73	36	78	43	80	48	60	43	55	30	62	35	70	40	81	47	81	48	81	41	79	41	76	50	65	58	60	51	56	39	55	36	45	33	44	33	53	27	61.6	37.4
Waukee	38	28	36	16	61	19	61	36	51	35	50	40	49	41	56	32	64	27	68	40	57	31	75	35	65	46	82	50	62	42	56	33	56	46	61	51	86	46	68	47	85	46	72	51	77	58	75	53	55	53	55	38	44	32	50	36	46	32	62	24	60.8	38.8
Waverly	46	27	33	17	55	24	67	45	60	41	54	36	45	35	47	30	60	28	62	39	51	32	72	34	76	41	78	47	68	42	55	30	60	37	71	49	79	46	73	47	76	41	78	50	78	53	65	55	59	49	54	40	44	33	44	32	42	32	48	26	60.0	37.9
Webster City	49	29	34	15	58	15	67	30	62	38	65	37	56	37	48	30	61	25	64	38	55	27	74	35	81	36	79	45	74	40	59	31	53	43	71	49	80	42	75	42	78	43	80	48	73	55	70	49	56	36	46	35	49	35	49	35	48	31	60	23	62.5	35.8
West Bend	43	21	31	14	57	19	69	32	58	33	61	41	45	33	45	28	59	29	56	35	53	28	75	37	81	40	77	49	64	34	59	31	49	41	73	46	80	45	72	47	79	42	78	48	69	52	64	52	57	47	50	35	43	35	48	35	43	29	54	25	59.7	36.1
Whitten	61	30	50	15	58	31	60	30	66	33	62	38	47	35	48	30	60	28	62	30	65	29	72	33	79	42	79	49	75	39	58	28	62	40	71	48	80	44	79	48	76	42	78	60	72	55	67	55	61	48	60	37	48	33	47	32	46	39	56	24	63.5	37.5
Wilton Junction	53	35	35	20	57	25	65	34	65	45	66	36	65	44	58	30	59	35	66	47	66	32	66	33	73	55	74	50	73	50	55	28	60	34	65	50	75	28	75	50	72	38	77	52	74	56	67	58	63	51	63	42	51	31	51	30	51	34	52	29	63.1	39.4
Winterset	43	29	36	16	60	23	66	38	60	42	68	42	61	43	51	32	59	30	66	44	56	33	72	38	84	48	78	53	71	44	61	33	56	41	74	53	82	50	80	51	81	49	77	55	76	59	74	56	68	51	63	39	43	32	52	36	48	32	59	28	64.4	40.7
Woodburn	55	32	38	17	64	15	69	29	64	44	72	31	60	32	62	33	59	22	72	35	62	33	72	28	82	47	79	46	79	45	59	31	58	44	75	50	85	40	81	45	83	39	79	46	80	45	82	52	74	50	56	40	51	31	52	36	49	30	60	17	67.1	36.2
Zearing	48	29	35	16	60	20	67	31	60	39	63	36	48	37	50	31	60	27	65	36	55	30	72	34	83	44	78	47	68	39	50	29	60	35	72	49	82	42	79	46	76	41	77	48	73	53	71	56	63	49	59	37	42	34	48	36	44	31	56	22	62.1	36.8

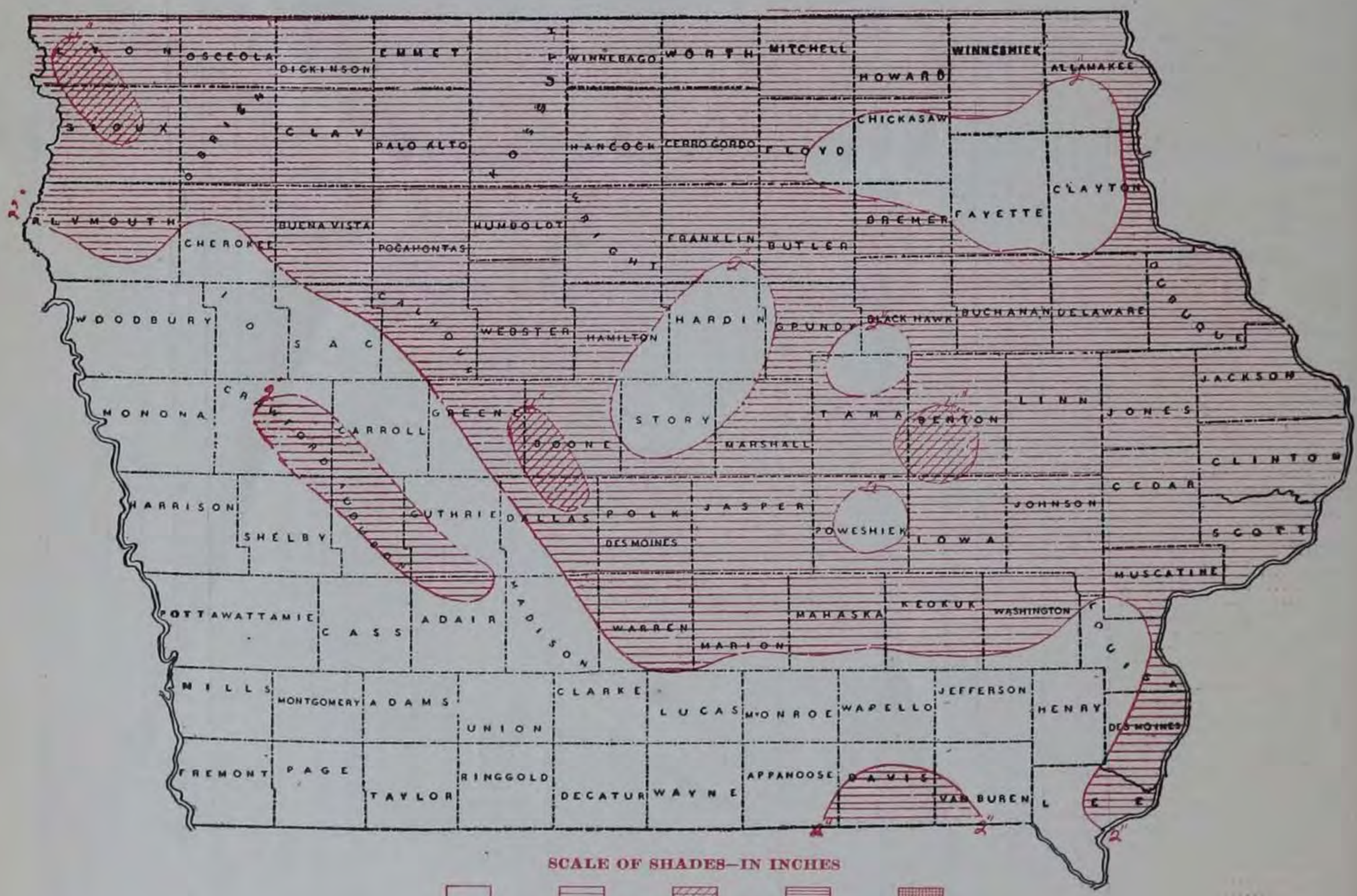
DAILY PRECIPITATION FOR IOWA, APRIL, 1908

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Afton	....	....	....	....	.11	....	.27	.30	....	....	....	....	....	....	....	....	.40	.03	....	....	....	....	.12	....	....	....	T	....	....	....	....	1.23
Albia	.01	....	....	....	.47	....	....	.17	....	....	....	....	....	....	....	....	....	.08	....	....	....	....	.37	.28	.05	.28	T	.01	....	....	....	1.72
Algona	....	....	....	....	....	....	.80	....	....	....	....	....	....	....	....	....	1.14	.13	....	....	....	....	.52	.20	.21	T	.21	....	....	....	....	3.21
Allerton	T	....	....	....	.37	....	.38	T	....	T	....	....	....	T	....	....	.09	T	....	....	....	T	.09	.73	.06	T	T	....	T	T	....	1.72
Alta	.08	....	....	....	....	....	....	.37	....	....	....	....	....	....	....	....	.06	.80	....	....	....	....	.18	.30	.78	T	.08	.04	T	T	....	2.69
Alta (near)	....	....	....	....	....	....	.26	....	....	....	....	....	....	....	....	....	.78	....	....	....	....	....	.62	.55	.10	.09	.03	T	....	....	....	2.43
Alton	T	....	....	....	....	....	.65	....	....	T	....	....	....	....	....	....	1.49	.05	....	....	....	....	.12	.46	.03	.08	.02	T	T	....	....	2.90
Amana	....	....	....	....	.26	....	.08	.15	....	....	....	....	....	....	....	....	.02	.19	....	....	....	T	.56	1.17	.37	....	.21	.13	....	....	....	3.14
Ames	T	....	....	....	T	T	T	....	....	....	....	....	....	....	....	....	.80	T	....	....	....	T	.50	.58	.03	....	.03	T	....	....	....	1.94
Atlantic	....	....	....	T	T	....	.08	....	....	....	....	....	....	....	....	....	.52	....	....	....	....	....	.33	....	....	....	T	....	....	....	....	0.93
Audubon	....	....	....	....	.05	....	.10	....	....	....	....	....	....	....	....	....	.86	....	....	....	....	....	.91	.74	....	....	.04	....	....	....	....	2.70
Baxter	....	....	....	....	.37	....	.05	.02	....	....	....	....	....	....	....	....	.15	.40	....	....	....	T	.45	.78	.11	....	.18	.04	....	T	....	2.85
Bedford	....	....	....	....	.09	....	.41	....	....	....	....	....	....	....	....	....	.30	....	....	....	....	.16	T	.19	.03	T	T	....	....	.06	....	1.24
Belle Plaine	....	....	....	....	.20	....	1.15	T	....	....	....	....	....	....	....	....	.31	....	....	....	....	....	.70	.85	.30	.10	.50	....	.03	....	....	4.14
Bloomfield	....	....	....	....	.45	....	.15	T	....	....	....	....	....	....	....	....	.05	....	....	....	....	T	1.20	.12	.05	....	T	....	....	....	....	2.02
Bonaparte	....	....	....	....	.28	....	.07	....	....	....	....	....	....	....	....	....	....	.22	....	....	....	.12	1.16	.05	T	....	T	....	....	....	....	1.90
Boone	.01	....	....	....	.01	....	.02	.16	....	....	....	....	....	....	....	....	....	1.47	....	....	....	....	.35	.20	.10	.03	.02	.07	....	....	....	2.44
Britt	T	....	....	....	....	....	.58	.05	....	....	....	....	....	....	....	....	1.11	.12	....	....	....	.18	.33	.64	.40	.26	.10	....	....	.01	....	3.78
Buckingham	....	....	....	....	.41	....	.17	....	....	T	....	....	....	....	....	....	25	....	....	....	....	....	.29	.44	.07	....	.31	T	T	....	....	1.94
Burlington	....	....	....	....	.40	....	....	.23	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	.70	.14	.47	....	....	.02	....	....	....	2.16
Carroll	.06	....	....	....	....	....	.05	.20	....	....	....	....	....	....	....	....	.30	.60	....	....	....	....	....	.17	.10	....	.03	....	....	T	....	1.51
Cedar Rapids	T	....	....	.25	T	T	.11	....	....	....	....	....	....	....	....	....	.40	....	....	....	....	....	.18	.99	.98	.09	.04	.32	T	T	....	3.36
Chariton	....	....	....	....	.42	....	.18	....	....	....	....	....	....	....	....	....	T	.28	....	....	....	.65	.28	....	....	....	T	....	....	....	....	1.81
Charles City	T	....	....	....	T	T	.91	T	....	T	....	....	....	....	....	....	28	.06	....	....	....	T	.10	.30	.07	T	.28	T	T	....	....	2.00
Clarinda	....	....	....	....	.13	....	.11	.14	....	....	....	....	....	....	....	....	T	.56	....	....	.02	.02	....	.08	.08	.01	T	T	....	....	....	1.15
Clear Lake	....	....	....	....	.03	....	.27	....	....	....	....	....	....	....	....	....	.70	.15	....	....	....	....	.26	.20	.11	....	.35	.05	....	....	....	2.12
Clinton	.04	....	....	....	.46	.01	....	.29	....	....	....	....	....	....	....	....	.13	....	....	....	....	....	.35	.65	....	.34	.43	....	....	....	....	2.70
Columbus Junc.	T	....	....	....	.28	....	.03	.12	....	....	....	....	....	....	....	....	....	.05	....	....	....	T	.45	.28	.37	....	.11	....	....	....	....	1.69
Corning	....	....	....	....	.17	....	.22	....	....	....	....	....	....	....	....	....	.30	....	....	....	T	....	.20	.30	T	....	T	....	....	....	....	1.19
Corydon	T	....	....	....	.34	....	.17	.51	....	....	....	....	....	....	....	....	.09	.03	....	....	....	T	.41	....	.15	....	T	....	....	....	....	1.70
Creston	.04	....	....	....	T	....	....	.09	....	....	....	....	....	....	....	....	....	.82	....	....	....	....	.06	.08	....	....	T	.03	....	....	....	1.12
Cumberland	....	....	....	....	.15	....	.21	....	....	....	....	....	....	....	....	.41	....	....	....	....	....	....	....	T	....	....	T	....	....	....	....	0.77
Davenport	T	....	....	.01	.40	T	.09	T	....	T	....	....	....	....	....	....	T	.06	....	....	....	T	.56	.68	.08	.20	.14	T	T	....	....	2.22
Decorah	....	....	....	....	....	....	1.10	....	....	....	....	....	....	....	....	....	....	.30	....	....	....	....	....	.70	.10	....	.21	....	....	....	....	2.41
Delaware	.01	....	....	....	.31	.33	.10	.05	....	....	....	....	....	....	....	....	....	.31	....	....	....	.04	.30	.52	.50	....	.20	....	....	....	....	2.67
Denison	....	....	....	....	....	....	.22	....	....	....	....	....	....	....	....	....	.40	....	....	....	....	....	.32	1.44	.02	T	.01	....	....	T	....	2.41
Des Moines	.02	....	....	.16	.30	....	.03	....	....	....	....	....	....	....	....	....	.62	....	....	....	....	.05	1.15	.36	T	T	T	T	T	....	....	2.69
De Soto	....	....	....	....	.26	....	.03	T	....	....	....	....	....	....	....	....	.35	.01	....	....	....	....	.54	.20	....	....	.02	....	....	....	....	1.41
Dows	....	....	....	.60	....	....	.43	.13	....	....	....	....	....	....	....	....	1.17	.05	....	....	....	....	.21	.18	.13	....	.22	....	....	....	....	3.12
Dubuque	.04	....	....	....	.31	.13	.30	T	....	.04	....	....	....	....	....	....	.12	.13	....	....	....	....	.19	.92	.13	.08	.11	....	T	....	....	2.50
Earlham	.03	....	....	....	....	....	.21	T	....	....	....	....	....	....	....	....	.52	....	....	....	....	....	.24	T	....	....	T	....	....	....	....	1.00
Elkader	T	....	....	....	....	.05	.45	....	....	....	....	....	....	....	....	....	.17	....	....	....	....	....	.10	.50	.20	....	.28	....	....	....	....	1.75
Elliott	....	....	....	....	.35	....	.14	....	....	....	....	....	....	....	....	....	.65	....	....	....	....	.04	.07	....	....	T	.06	....	....	....	....	1.31
Elma	T	....	....	....	....	.30	.42	.28	....	....	....	....	....	....	....	....	.14	.23	....	....	....	T	.70	.57	.50	....	.10	T	T	T	....	3.24
Estherville	T	....	....	....	....	....	....	1.20	....	....	....	....	....	....	....	....	.80	.90	....	....	....	....	....	.30	.20	T	.15	.05	....	....	....	3.60
Fairfield	.03	....	....	....	.35	....	.07	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.83	.05	T	....	T	....	....	....	....	1.33
Fayette	....	....	....	....	.25	.05	.48	.04	....	.02	....	....	....	....	....	....	....	.08	....	....	....	T	.04	.40	.26	....	.31	....	....	....	....	1.93
Forest City	....	....	....	....	....	....	....	.52	....	....	....	....	....	....	....	....	....	.90	....	....	....	T	.25	....	.35	.08	T	.32	....	....	....	2.42
Fort Dodge	....	....	....	....	.04	....	....	.80	....	....	....	....	....	....	....	....	....	1.40	....	....	....	....	.10	.10	.62	.10	.06	.12	.03	....	....	3.37
Fort Madison	....	....	....	.55	.20	....	....	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	1.02	.20	.35	....	.15	T	....	....	....	....	2.65
Gilman	....	....	....	.12	....	....	.70	....	....	....	....	....	....	....	....	....	.59	....	....	....	....	T	.48	.38	.15	....	.24	....	T	T	....	2.66
Grand Meadow	T	....	....	....	.02	.17	....	.62	....	....	....	....	....	....	....	....	....	T	....	....	....	.02	.05	.56	.18	....	.28	....	....	....	....	1.93
Greene	....	....	....	....	.13	....	.42	.28	....	.03	....	....	....	....	....	....	.27	.21	....	....	....	....	.28	.35	.25	....	.43	.08	....	....	....	2.73
Greenfield	....	....	....	....	.25	....	.08	....	....	....	....	....	....	....	....	....	.65	T	....	....	....	....	.28	.14	.01	T	T	....	....	....	....	1.41
Grinnell	.02	....	....	....	.10	.10	.11	....	....	....	....	....	....	....	....	....	....	.66	....	....	....	....	....	.25	.23	....	.40	....	....	....	....	1.87
Grundy Center	....	....	....	....	.30	T	.25	.08	....	....	....	....	....	....	....	....	.30	.12	....	....	....	T	.33	.40	.10	....	.35	....	....	....	....	2.23
Guthrie Center	....	....	....	....	.04	....	.14	.03	....	....	....	....	....	....	....	....	.68	.01	....	....	....	....	.60	.19	....	....	T	....	T	....	....	1.69
Hampton	....	....	....	.08	....	....	.63	....	....	.07	....	....	....	....	....	....	.45	....	....	....	....	....	.20	.43	.20	.08	.30	....	....	....	....	2.44
Hancock	....	....	....	....	....	....	.08	....	....	....	....	....	....	....	....	....	.61	....	....	....	....	....	.11	....	T	....	T	....	....	T	....	0.80
Harlan	....	....	....	....	....	....	.12	T	....	....	....	....	....	....	....	....	.58	....	....	....	T	....	.23	.02	T	.03	.01	T	....	....	....	0.99
Hopeville	.01	....	....	....	.07	....	.35	.01	....	....	....	....	....	....	....	....	.18	....	....	....	....	.01	.14	.03	.03	....	T	....	....	T	....	0.83
Humboldt	....	....	....	....	.02	....	.52	....	....	....	....	....	....	....	....	....	1.18	....	....	....	....	....	.18	.52	....	.12	.20	....	....	....	....	2.74
Independence	.04	....	....	.49	....	.11	.12	.03	....	.05	....	....	....	....	....	....	.02	.20	....	....	....	....	.10	.39	.22	....	.33	.07	....	....	....	2.17
Indianola	....	....	....	....	.18	....	T	.50	....	....	....	....	....	....	....	....	.41	.06	....	....	....	T	1.55	.14	.04	.18	.04	....	....	....	....	3.10
Inwood	T	....	....	....	T	....	.83	.02	....	T	....	....	....	....	....	....	1.22	....	....	....	....	.02	2.00	.20	....	....	.30	....	....	....	....	4.59
Iowa City	....	....	....	....	.35	....	....	.21	....	....	....	....	....	....	....	....	....	.27	....	....	....	....	.39	.25	.95	.08	T	.25	.01	....	....	2.76
Iowa Falls	T	T	....	....	.03	T	.03	.36	....	....	T	....	....	....	....	....	....	.53	....	....	....	....	.03	.07	.22	.11	T	.34	....	T	....	1.72
Keokuk	T	....	....	.31	.20	....	.09	....	....	T	....	....	....	....	.04	....	.16	....	....	....	....	.16	.40	.36	T	.10	T	....	....	....	....	1.82
Keosauqua	T	T	....	....	.30	T	....	.10	....	....	....	....	....	....	....	....	....	.17	....	....	....	....	.58	.08	.09	....	....	T	....	....	....	1.32
Knoxville	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Lacona	.05	....	....	....	.12	....	.20	.33	....	....	....	....	....	....	....	....	.65	....	....	....	....	....	1.10	.01	.15	.02	T	.10	....	....	....	2.73
Larrabee	....	....	....	....	....	....	.74	....	....	....	....	....	....	....	....	....	.75	....	....	....	....	T	.50	.07	.05	.02	.07	T	....	....	....	2.20
Le Claire	.01	T	....	....	.41	.15	T	.13	....	....	....	....	....	....	....	....	....	.09	....	....	....	....	.45	.13	.65	.18	.39	.21	T	....	....	2.80
Le Mars	....	....	....	....	....	....	.46	.05	....	....	....	....	....	....	....	....	1.69	T	....	....	T	....	.15	1.36	.08	.03	T	T	....	....	....	3.82
Lenox	....	....	....	....	.20	....	.34	....	....	....	....	....	....	....	....	....	.47	....	....	....	....	....	.05	....	T	....	T	....	....	....	....	1.06
Leon	....	....	....	....	.15	....	.38	.23	....	....	....	....	....	....	....	....	.08	....	....	....	....	....	.17	.14	.04	....	T	....	....	....	....	1.19
Little Sioux	....	....	....	....	....	....	.15	T	....	....	....	....	....	....	....	....	.34	.01	....	....	.01	....	.06	.09	....	T	.01	....	....	T	....	0.67
Logan	....	....	....	....	....	....	.07	....	....	....	....	....	....	....	....	....	.29	....	....	....	....	....	....	.11	.36	.04	.05	....	....	.05	....	0.97
Marshalltown	T	....	....	....	.32	....	....	.16	....	....	....	....	....	....	....	....	....	.40	....	....	....	....	....	.26	.16	.69	.06	.03	.32	....	....	....	2.40
Mason City	....	....	....	....	....	....	.60	....	....	....	....	....	....	....	....	....	.86	....	....	....	....	....	.28	.24	.05	....	.46	.01	....	....	....	2.50
Massena	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mt. Ayr	....	....	....	....	.05	....	.60	.13	....	....	....	....	....	....	....	....	.53	.02	....	....	....	T	T	.20	.03	....	T	....	....	....	....	1.56
Mt. Pleasant	....	....	....	....	.28	....	.07	....	....	....	....	....	....	....	....	....	T	05	....	....	....	.05	.43	.35	.04	.01	T	....	....	....	....	1.28
Muscatine	T	T	....	....	.24	.04	....	.15	....	....	....	....	....	....	....	....	....	.08	....	....	....	....	.42	.34	.54	.18	.05	.23	.08	....	....	2.35
New Hampton	....	....	....	....	.18	T	.45	.28	....	....	....	....	....	....	....	....	.08	.21	....	....	....	.02	.11	.25	.09	....	.19	.08	....	T	....	1.94
Newton	....	....	....	....	.15	....	.10	....	....	....	....	....	....	....	....	....	.49	....	....	....	....	....	1.20	.11	.08	....	.13	....	....	....	....	2.26
Northwood	....	....	....	....	....	....	....	.90	....	....	....	....	....	....	....	....	1.20	....	....	....	....	....	.33	.67	.12	T	.42	.11	....	....	....	3.75
Odebolt	....	....	....	....	....	....	.35	....	....	....	....	....	....	....	....	....	.58	....	....	....	....	....	.31	.27	....	.31	....	....	....	....	....	1.82
Olin	....	....	....	....	.47	T	.30	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.82	.91	....	....	.50	T	T	....	....	3.00
Omaha, Neb	....	....	....	....	....	....	.07	....	....	....	....	....	....	....	....	....	.17	....	....	....	....	T	.12	.66	T	.07	T	T	....	T	....	1.09
Onawa	....	....	....	....	....	....	.22	....	....	....	....	....	....	....	....	....	.25	....	....	....	....	T	....	.43	.03	....	T	.04	....	....	T	....	0.97
Osage	....	....	....	....	....	....	.56	.40	....	....	....	....	....	....	....	....	.75	....	....	....	....	T	.36	.35	.05	....	.18	....	....	....	....	2.65
Oskaloosa	T	....	....	T	.41	....	.08	.24	....	....	....	....	....	....	....	....	.01	.13	....	....	....	T	1.90	.42	.19	.10	.04	....	....	....	....	3.52
Ottumwa	....	....	....	....	.55	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.00	.05	.05	....	T	....	....	....	....	1.65
Pacific Junction	....	....	....	....	.07	....	.10	....	....	....	....	....	....	....	....	....	.43	....	....	....	T	T	.29	....	T	T	T	....	....	T	....	0.89
Pella	.01	....	....	.. .	.22	....	.05	.15	....	....	....	....	....	....	....	....	.04	.18	....	....	....	....	2.42	.03	.38	....	.11	.06	....	....	....	3.65
Perry	....	....	....	....	.18	....	.15	....	....	....	....	....	....	....	....	....	.73	T	....	....	....	....	.95	2.00	....	....	.07	.08	....	....	....	4.16
Plover	....	....	....	....	....	....	.45	....	....	....	....	....	....	....	....	....	1.32	....	....	....	....	.22	.42	.55	.13	T	.15	....	....	....	....	3.24
Pocahontas	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Ridgeway	.02	....	....	T	.10	.03	.99	....	....	T	....	....	....	....	....	....	.31	....	....	....	....	.06	.09	.50	.16	....	.23	....	T	T	....	2.49
Rock Rapids	....	....	....	....	....	....	.75	....	T	T	....	....	....	....	....	....	1.18	....	....	....	....	.35	.85	T	....	.50	.12	T	....	....	....	3.75

DAILY PRECIPITATION FOR IOWA, APRIL, 1908—Continued

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Rockwell City	....	....	....	....	....	....	.25	....	....	....	....	....	....	....	....	....	1.20	.10	....	....	....	....	.85	.10	....	T	T	....	....	....	....	2.50
Sac City	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
St. Charles	....	....	....	...	.17	....	.13	....	....	....	....	....	....	....	....	....	.51	.01	....	....	....	....	.73	.05	.21	....	....	....	....	....	....	1.81
Sheldon	....	....	....	....	....	....	1.10	.05	....	.02	....	....	....	....	....	....	1.80	....	....	....	....	.05	.15	.35	.15	.12	.08	.02	....	....	....	3.89
Sibley	.04	....	....	....	....	....	....	.84	....	....	.02	....	....	....	....	....	.86	.43	....	....	....	....	.01	.09	.78	.01	.14	.03	.01	....	....	3.26
Sigourney	....	....	....	....	.48	....	T	.40	....	....	....	....	....	....	....	....	T	.67	....	....	....	....	.82	.10	.30	....	.23	T	....	....	....	3.00
Sioux Center	.02	....	....	....	....	....	1.35	....	....	T	....	....	....	....	....	....	1.45	....	....	....	....	.03	.34	.64	....	.07	.10	T	....	....	....	4.00
Sioux City	....	....	....	....	....	....	.61	....	....	T	....	....	....	....	....	T	.60	T	....	....	T	....	.28	.04	....	.11	T	T	....	T	....	1.64
Stockport	T	....	....	....	.28	....	T	.03	....	....	....	....	....	....	....	....	T	.07	....	....	....	.11	.50	.03	T	T	.01	....	....	....	....	1.03
Storm Lake	....	....	....	....	....	....	.33	....	....	....	....	....	....	....	....	....	.78	.05	....	....	....	.01	.73	.43	.10	.04	.07	.02	....	....	....	2.56
Stuart	....	....	....	....	.47	....	.10	....	....	....	....	....	....	....	....	....	.86	T	....	....	....	....	.27	.73	....	....	....	....	....	....	....	2.43
Thurman	....	....	....	....	.02	....	.15	....	....	....	....	....	....	....	....	....	.48	T	....	....	....	T	.15	....	T	T	T	....	T	.02	....	0.82
Tipton	....	....	....	....	.50	....	....	.26	....	....	....	....	....	....	....	....	.22	....	....	....	....	.28	.28	.49	.13	....	.08	....	....	....	....	2.24
Toledo	....	....	....	....	.20	....	T	....	....	....	....	....	....	....	....	....	....	.75	....	....	....	.07	.41	.20	.12	....	.35	....	....	....	....	2.10
Wapello	....	....	....	....	.28	....	....	.12	....	....	....	....	....	....	....	....	T	.02	....	....	....	....	.47	.49	.07	....	.06	....	....	....	....	1.51
Washington	....	....	....	....	.38	....	12	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	1.40	.11	.19	.42	.08	....	....	....	....	2.75
Washta	....	....	....	....	....	....	.23	....	....	....	....	....	....	....	....	....	.53	....	....	....	T	....	T	.20	....	.05	T	T	....	....	....	1.01
Waterloo	.04	....	....	....	.34	.35	.24	....	....	.05	....	....	....	....	....	....	....	.22	....	....	....	....	.24	.23	.17	....	.52	T	....	....	....	2.40
Waukee	.01	....	....	....	.40	....	.05	....	....	....	....	....	....	....	....	....	.40	T	....	....	....	T	1.00	.25	T	....	T	....	T	....	....	2.11
Waverly	....	....	....	....	.02	.06	.26	.13	....	.04	....	....	....	....	....	....	.20	.10	....	....	....	T	.43	.29	.33	....	.38	.09	....	....	....	2.33
Webster City	....	....	....	....	.05	....	.25	....	....	....	....	....	....	....	....	....	1.13	....	....	....	....	....	.38	.14	....	....	.24	....	....	....	....	2.19
West Bend	....	....	....	....	....	....	.58	....	....	.02	....	....	....	....	....	....	1.23	....	....	....	....	T	.17	.26	.15	T	.10	....	....	T	....	2.51
Whitten	....	....	....	....	....	T	.44	T	....	....	....	....	....	....	....	....	.15	.26	....	....	....	T	.36	.47	.09	....	.21	....	T	T	....	1.98
Wilton Junction	....	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	....	....	.37	1.15	.86	.10	.04	.28	....	....	....	....	3.02
Winterset	....	....	....	....	.24	....	.07	T	....	....	....	....	....	....	....	....	.54	T	....	....	....	....	.48	.08	.01	....	.04	....	....	T	....	1.46
Woodburn	T	....	....	....	.09	....	.30	....	....	....	....	....	....	....	....	....	.14	.14	....	....	....	....	.25	.18	T	....	T	....	T	....	....	1.10
Zearing	T	....	....	....	.15	T	.21	.02	....	....	....	....	....	....	....	....	.38	.04	....	....	....	....	.29	.20	.09	....	.22	.04	....	T	....	1.64

TOTAL PRECIPITATION, APRIL, 1908.



SCALE OF SHADES—IN INCHES

Less than 2	2 to 4	4 to 6	6 to 8	More than 8

U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR MAY, 1908.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR



PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1908

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

OF THE

STATE BOARD OF AGRICULTURE,

CONSTITUTED AS FOLLOWS:

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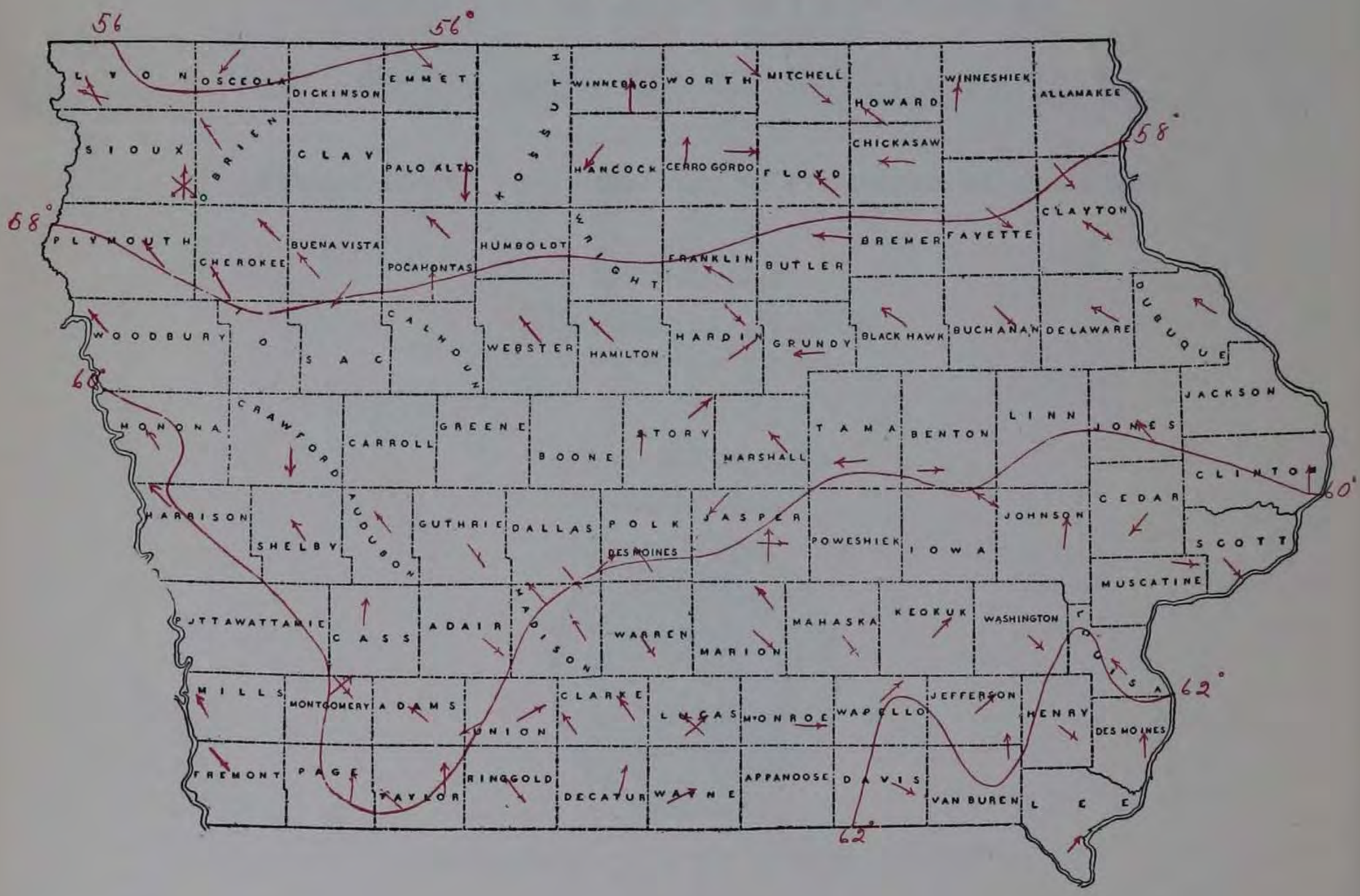
MEAN ISOTHERMS AND PREVAILING WINDS OF MAY, 1908.

Lines pass thru points of equal temperature. Arrows fly with the wind.



U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IOWA SECTION,

GEO. M. CHAPPEL, Section Director.

VOL. XIX DES MOINES, IOWA, MAY, 1908. NO. 5.

IOWA CROP REPORT, JUNE 1, 1908.

Acreage of Farm Crops. Estimated Condition of Staple Crops, Fruit and Live Stock.

Reports received June 1st from county and township correspondents of the Iowa Weather and Crop Service show the following results as to the number of acres and average condition of staple farm crops; also the condition of fruit and live stock.

CORN.—The estimated number of acres of corn planted appears to be 8,970,900, or an increase of 112,820 acres as compared with the area harvested in 1907. It is probable that some of the acreage intended to be planted will have to be abandoned necessitating a revision of the above estimate, and the revised report will be given in July, together with the acreage by counties. The average condition of the corn already planted on June 1st was placed at 92 per cent for the state, as against 88 per cent on June 1, 1907.

WHEAT.—The area of spring wheat is estimated to be 323,467 acres, and winter wheat, 85,147 acres, making a total wheat acreage of 408,614 acres. This is 12,511 acres less than was harvested in 1907. The estimated condition of winter wheat was 101, and spring wheat 100 as compared with 91 and 88 per cent respectively on the same date last year.

OATS.—The acreage of oats is placed at 97 per cent, and the average condition 102 per cent. Last year the condition on June 1st was 89 per cent.

BARLEY.—Acreage sown, 397,408 acres, or 198 acres more than last year. The average condition is 101 as compared with 81 per cent on June 1, 1907.

RYE.—Acreage 97; estimated condition, 101 per cent, as compared with 91 per cent last year.

FLAX.—Area seeded, 95 per cent; condition, 96 per cent.

POTATOES.—Acreage planted, 101; condition, 98 per cent. Last year the condition was 86 per cent.

MEADOWS.—Acreage, 96 per cent; condition 104 per cent, as compared with 74 per cent last year. The average condition of meadows on June 1st during the past five years is 93 per cent.

PASTURES.—The acreage is about 99 per cent, and the condition is 106. Last year the condition was 80 per cent.

CONDITION OF FRUIT.—Apples, 67 per cent; plums, 57; peaches, 51; cherries, 71; grapes, 81; strawberries, 87; raspberries, 81; blackberries, 86.

CONDITION OF LIVE STOCK.—Cattle, 99 per cent; hogs, 94; horses, 98; sheep, 99; foals, 94; spring pigs, 90.

GENERAL SUMMARY.

The cool wave which spread over the State during the last three days of April continued until the 3rd of May, causing heavy to killing frost in all parts of the state on the 2nd which resulted in further injury to fruit and garden truck. From the 3rd to the close of the month there were no decided changes in temperature, it being quite moderate and uniform. The average for the month was only 0.7 below the normal for May. The most striking features of the weather of the month were the abnormally heavy rainfall and the frequency of the showers. Rain fell in some parts of the State on every day of the month, and the average number of days on which .01 inch or more fell at each station, was 15. The average amount of precipitation was 8.34 inches, which is 3.84 inches above the normal. This record has been exceeded in May but twice during the past 19 years, viz: 1892 and 1903 with an average amount of 8.77 and 8.55 inches respectively. The average amount of rainfall for May, 1903, was only .21 inch more than the average amount for this month, but the damage by floods was far in excess of that of this year. The maximum stage of the river at Des Moines in May 1903 was 10.4 feet higher than the maximum stage this month, and the difference is due to the fact that in the spring of 1903 the ground was thoroly saturated with moisture and all lakes, creeks and sloughs were filled with water which fell during the summer and autumn of 1902, so that when the heavy rains came in May the surplus water soon found its way into the rivers causing the most disastrous floods on record in this state. At the beginning of this month the ground in the larger part of the State was extremely dry but friable and in the best of condition to absorb and store up large quantities of water, thereby preventing its rapid escape to the rivers. There has, however, been considerable damage done to crops, by flooding the low bottom lands, but the greatest damage done was in preventing the completion of corn planting and the cultivation of the early planted fields. There was about 20 per cent of the corn area yet to plant at the close of the month, and it is probable that a portion of this will have to be abandoned or seeded to millet or other late forage crops. There was also a great deal of replanting to be done due to floods and was hing, but the general condition was considerably better than it was at the close of May, 1907. All small grains, grass and potatoes have made very rapid growth and the prospects for these crops are much better than they have been at the close of May for several years.

TEMPERATURE.—The monthly mean temperature for the State, as shown by the records of 117 stations, was 59.4°, which is 0.7° below the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 57.8°, which is 0.6° below the normal; Central section, 59.7°, which is 0.5° below the normal; Southern section, 60.8°, which is 0.8° below the normal. The highest monthly mean was 63.2°, at Keokuk, Lee county, and the lowest monthly mean 55.2°, at Rock Rapids, Lyon county. The highest temperature reported was 93°, at Fort Dodge, Webster county, on the 16th and 20th; the lowest temperature reported was 13°, at Washta, Cherokee county, on the 2nd. The average monthly maximum was 86.6°, and the average monthly minimum was 24.7°. The greatest daily range was 48°, at Allerton, Wayne county. The average of the greatest daily ranges was 38.3°.

PRECIPITATION.—The average precipitation for the State, as shown by the records of 125 stations, was 8.34 inches, which is 3.84 inches above the normal. By sections the averages were as follows: Northern section, 8.04 inches, which is 3.49 inches above the normal; Central section, 7.46 inches, which is 2.99 inches above the normal; Southern section, 9.53 inches, which is 5.06 inches above the normal. The greatest amount, 14.33 inches, occurred at Fort Madison, Lee county, and the least, 4.33 inches, at Belle Plaine, Benton county. The greatest amount in 24 hours, 4.80 inches, occurred at Fort Madison, Lee county, on the 28th. Measurable precipitation occurred on an average of 15 days.

SUNSHINE AND CLOUDINESS.—The average number of clear days was 9; partly cloudy, 11; cloudy, 11. The duration of sunshine was below the normal, the percentage of the possible amount being 49 at Davenport; 50 at Des Moines; 49 at Dubuque; 58 at Keokuk, and 58 at Sioux City.

WIND.—Southeast winds prevailed. The highest velocity reported was 60 miles per hour from the Northeast, at Sioux City, Woodbury county, on the 16th.

COMPARATIVE DATA FOR THE STATE—MAY.

Year	Temperature				Precipitation			
	Mean	Departure from the normal	Highest	Lowest	Average	Departure from the normal	Greatest	Least
1890	57.7	—1.9	90	26	3.56	—1.08	6.44	1.61
1891	58.3	—1.3	94	21	3.18	—1.46	7.10	1.46
1892	54.0	—5.6	88	29	8.77	+4.13	12.64	4.87
1893	56.6	—3.0	96	26	3.45	—1.19	5.82	1.65
1894	61.1	+1.5	96	22	1.87	—2.77	4.77	0.33
1895	61.7	+2.1	104	24	3.19	—1.45	5.79	0.84
1896	65.5	+5.9	100	34	6.69	+2.05	11.79	3.40
1897	58.5	—1.1	96	20	1.92	—2.72	3.59	0.21
1898	59.6	0.0	92	26	4.67	+0.03	7.82	2.22
1899	60.2	+0.6	90	27	6.23	+1.59	11.47	3.09
1900	63.2	+3.6	98	22	3.31	—1.33	6.98	.96
1901	60.7	+1.1	95	28	2.35	—2.29	4.57	.72
1902	63.8	+4.2	97	25	5.39	+0.75	18.04	.87
1903	61.6	+2.0	91	24	8.55	+3.91	15.45	2.88
1904	59.6	0.0	93	27	3.78	—0.86	8.15	1.50
1905	58.3	—1.3	88	28	5.95	+1.31	10.83	2.57
1906	60.8	+1.2	95	24	3.54	—1.10	10.72	.89
1907	53.5	—6.1	96	14	3.48	—1.16	7.68	.71
1908	59.4	—0.2	93	13	8.34	+3.70	14.33	4.33

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	29.87	30.27	23	29.43	11
Davenport	29.86	30.26	23	29.48	11
Des Moines	29.84	30.20	23	29.47	11
Dubuque	29.89	30.29	23	29.42	11
Omaha, Neb.	29.83	30.12	23	29.41	20
Keokuk	29.87	30.24	23	29.54	11
Sioux City	29.84	30.18	6	29.40	20
Means	29.86	30.29	23	29.40	20

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	6178	34	SW	25
Davenport	6988	39	S	28
Des Moines	7403	36	SE	10
Dubuque	5030	31	N	7
Keokuk	6210	38	SW	28
La Crosse, Wis	4241	26	SW	25
Omaha, Neb	7324	36	NW	21
Sioux City	10699	60	NE	16

OBSERVERS' REMARKS.

ALBIA.—*J. I. Chenoweth.* The weather was cold with excessive rains. The heavy frosts during the latter part of April and the first of May killed most of the early fruits. At 8:30 a. m. on the 31st a high wind, having some of the characteristics of a tornado, did considerable damage to buildings and killed one man. Considerable damage was also done at Tyrone, seven miles west of here.

ALGONA.—*Dr. F. T. Seeley.* The rainfall was excessive and as a result all farm work was delayed.

ALLERTON.—*Mrs. Geo. Shriver.* All of the corn was not planted at the close of the month on account of the frequent and heavy rains.

ALTA.—*David E. Hadden.* The weather was cool and wet. Showers and thunderstorms were frequent. A destructive local wind squall of a tornadic character occurred on the afternoon of the 14th.

ALTON.—*W. S. Slagle.* The weather has been favorable for all crops except that frequent rains prevented the cultivation of corn and as a result the corn fields are weedy. The plum crop will be small.

AMANA.—*Conrad Schadt.* May was a cool, rainy and cloudy month with but little pleasant weather. There is some corn yet to be planted but the stand of the early planted is good.

ATLANTIC.—*J. W. Love.* All farming operations were retarded on account of frequent rains.

BEDFORD.—*E. E. Healy.* Ice one-quarter of an inch thick formed on the morning of the 2nd with the temperature down to 19 degrees which killed about all of the fruit buds.

BONAPARTE.—*B. R. Vale.* The total amount of rainfall was 11.07 inches, and is the greatest monthly rainfall, except June, 1905, in 18 years. There was practically no farm work done and the outcome of the corn crop is problematical.

BOONE.—*Carl Fritz Henning.* There was a thin coating of ice on small ponds on the morning of the 2nd and the freezing temperature seriously damaged cherries, plums and strawberries.

BRITT.—*Geo. P. Hardwick.* At the beginning of the month the ground was in fine condition for putting in crops but the heavy and frequent rains which soon followed delayed all the farm work and but three-fourths of the corn was planted at the close of the month. The prospects for a fruit crop are poor but grass and small grain are in fairly good condition.

CHARITON.—*C. C. Burr.* Grass and oats are doing well but the continuous rains have injured the corn crop. Level fields are covered with water and rolling ground has been badly washed. The fruit crop is almost a failure.

CLINTON.—*Luke Roberts.* The temperature was about normal but the precipitation, 6.66 inches, was .14 of an inch above the normal for May. There have been but three Mays during the past 30 years in which more rain fell than was recorded this month.

ELLIOTT.—*Henry Barnes.* From 20 to 25 per cent of the corn was not planted at the close of the month but the early planted corn shows a good stand and small grain and grass are in excellent condition.

FOREST CITY.—*J. A. Peters.* The ground is thoroughly soaked with water; more so than at any time during the past 15 years for the reason that the rains came in such amounts and so frequently that none ran off the surface. Twenty per cent of the corn is not yet planted.

INWOOD.—*F. B. Hanson.* The weather during the first decade of the month was very favorable for farm work and the soil was in excellent tilth. Corn planting was begun about the 11th but the wet weather which soon followed delayed the work and the continued rains have prevented the cultivation of the early planted fields.

KEOSAUQUA.—*J. H. Landes.* The excessive and continuous rains have discouraged the farmers, as there is much corn yet to plant and that which has been planted is not doing very well. Oats, wheat and grass are in fine condition.

OLIN.—*Nathan Potter.* The weather during May was cold and rainy. Corn planting is 15 days late and there was much yet to plant on June 1st. There is promise of an abundant crop of fruit.

ROCK RAPIDS.—*W. C. Wyckoff.* There was a severe hailstorm on the 12th between 7:30 p. m. and 8:00 p. m. and banks of hail one foot deep were to be seen on the morning following. On the 24th a tornado did considerable damage to sheds and buildings on the Fair Grounds and another storm of similar character occurred on the 26th at Lester, Iowa, and Ellsworth, Minnesota.

SHELDON.—*Dr. A. W. Beach.* May was a very disagreeable, wet and cloudy month but crops are well advanced and pastures are in splendid shape. Frosts during the first week damaged fruit and garden truck and the excessive rains have made the fields very weedy. There is some corn yet to plant.

STORM LAKE.—*Mrs. R. H. Carr.* Light hailstorms were frequent.

WAVERLY.—*H. S. Hoover.* Lightning burned a barn and six houses on section 36, township 92, range 13, on the evening of the 24th and hail did some damage in several localities. The frequent rains have retarded the planting and cultivation of corn.

CLIMATOLOGICAL DATA FOR IOWA, MAY, 1908

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
NORTHERN SECTION																				
Algona	Kossuth	1,213	34	57.6	— 1.9	84	17	24	2	38	10.57	+6.89	3.00	....	13	14	11	6	se	Dr. F. T. Seeley
Alta	Buena Vista	1,513	17	57.4	— 0.6	86	*19	23	2	35	8.44	+3.66	2.05	....	17	10	15	6	se	D. E. Hadden
Alta [near]	Buena Vista	.....	....	.....	.....	.....	.....	.....	.....	.....	8.71	.....	1.40	....	18	....	....	....	.....	W. J. Minard
Alton	Sioux	1,305	3	58.5	.....	87	*19	22	2	42	7.29	.....	1.52	....	16	10	11	10	ne, s, nw	W. S. Slagle
Britt	Hancock	1,236	11	57.9	— 0.1	85	17	24	2	41	7.85	+3.59	1.10	....	15	6	16	9	ne	G. P. Hardwick
Charles City	Floyd	1,015	20	57.4	— 2.1	84	17	27	3	41	6.49	+1.55	1.18	T	14	5	8	18	se	Weather Bureau
Clear Lake	Cerro Gordo	1,241	9	58.1	— 1.6	85	*17	25	2	36	9.20	+3.77	3.25	....	12	10	9	12	s	Oscar Stevens
Decorah	Winneshiek	975	15	58.4	— 0.8	87	17	20	3	47	6.64	+1.97	1.25	T	11	....	....	....	.....	F. H. Baker
Dows	Wright	1,142	8	57.2	— 1.0	86	20	24	2	40	8.36	+3.23	1.54	....	13	9	12	10	.....	H. A. Flett
Elkader	Clayton	727	27	59.3	+ 0.8	90	17	24	3	45	6.55	+2.41	1.20	....	12	16	6	9	se, nw	Chas. Reinecke
Elma	Howard	.....	....	57.0	.....	86	17	20	3	46	7.04	.....	1.65	....	12	7	19	5	se	H. A. Moore
Estherville	Emmet	1,298	12	56.6	— 0.6	86	20	23	3	41	9.13	+4.95	1.85	....	16	16	0	15	nw	A. O. Peterson
Fayette	Fayette	1,003	18	57.6	+ 0.2	85	17	22	3	45	8.59	+3.80	1.80	....	14	12	8	11	nw	R. Z. Latimer
Forest City	Winnebago	1,226	14	57.0	— 1.3	85	*12	25	2	36	8.10	+3.71	1.08	....	16	12	9	10	s	J. A. Peters
Grand Meadow	Clayton	1,180	17	58.2	+ 0.1	85	17	26	2	35	7.02	+2.16	.95	....	15	6	11	14	nw	F. L. Williams
Greene	Butler	.....	9	59.1	— 0.3	87	*12	25	3	43	8.36	+3.72	2.15	....	14	4	15	12	e	J. L. Cole
Hampton	Franklin	1,155	18	59.2	+ 0.9	87	19	27	*2	36	7.48	+2.90	1.75	....	17	6	17	8	se	E. C. Grenelle
Humboldt *b*	Humboldt	1,095	17	58.4	— 1.0	87	20	25	2	40	9.66	+5.30	2.52	....	14	....	....	....	.....	H. S. Wells
Inwood	Lyon	1,474	4	*a* 57.5	.....	85	19	.....	.....	47	6.30	.....	2.19	....	15	12	10	9	e, se	F. B. Hanson
Larrabee	Cherokee	1,266	17	*a* 57.9	— 0.4	*a* 89	16	*a* 20	2	*a* 40	9.77	+5.25	1.64	....	17	7	15	9	se	H. B. Streever
Le Mars	Plymouth	1,224	12	58.4	— 0.9	85	20	23	2	40	8.20	+3.41	1.75	....	14	7	18	6	se	G. A. C. Clarke
Mason City	Cerro Gordo	1,132	11	57.0	— 1.4	83	*12	24	3	39	7.22	+2.56	3.10	....	13	5	20	6	w	J. S. Mills
New Hampton	Chickasaw	1,169	11	57.4	— 0.5	82	17	26	2	37	7.80	+3.16	1.28	....	12	14	9	8	e	A. F. Kemman
Northwood	Worth	1,222	12	58.0	+ 0.1	83	17	26	*2	35	8.64	+3.66	2.34	....	13	11	10	10	nw	Charles Dwelle
Osage	Mitchell	1,184	17	59.2	+ 2.1	87	19	26	3	38	10.19	+5.43	4.40	....	12	6	10	15	nw	Dr. A. D. Bundy
Plover	Pocahontas	1,426	12	*b* 59.4	+ 0.3	*c* 88	20	*a* 22	2	40	7.57	+3.30	1.17	....	16	....	....	....	se	J. S. Smith
Pocahontas	Pocahontas	.....	4	57 8	.....	89	*19	23	2	42	6.68	.....	1.40	....	12	11	13	7	s	F. E. Hronek
Ridgeway	Winneshiek	1,215	10	58.4	— 1.2	88	17	27	2	39	9.08	+3.71	1.47	....	17	7	16	8	s	Arthur Betts
Rock Rapids	Lyon	1,358	9	55.2	— 1.4	83	20	23	2	41	5.73	+2.34	1.80	....	10	8	13	10	.....	W. C. Wyckoff
Sheldon	O'Brien	1,422	8	58.8	+ 0.9	87	*11	29	3	53	9.60	+4.50	1.32	....	16	13	9	9	se	Dr. A. W. Beach
Sibley	Osceola	1,212	15	55.4	— 1.9	86	19	22	2	42	10.45	+6.49	2.81	....	18	....	....	....	ne	H. G. Doolittle
Storm Lake	Buena Vista	1,440	12	58.0	+ 0.4	82	*19	28	2	35	7.37	+3.49	1.40	....	19	9	13	9	ne	Ralph H. Carr
Washta	Cherokee	1,157	10	56.6	.....	86	*16	13	2	47	8.56	+3.71	2.05	....	16	10	9	12	se	H. L. Felter
Waverly	Bremer	948	12	58.8	— 1.2	84	17	27	*2	40	6.22	+1.52	1.37	....	15	6	18	12	.....	H. S. Hoover
West Bend	Palo Alto	1,197	14	57.8	— 0.8	87	20	21	2	37	6.63	+3.00	1.26	....	13	9	13	9	n, s	Phil Dorweiler
Averages	.....	.....	....	57.8	— 0.6	85.8	.....	23.8	.....	40.6	8.04	+3.49	.....	T	14	9	12	10	se	
CENTRAL SECTION																				
Amana	Iowa	721	31	60.4	+ 0.4	85	*17	29	2	38	7.45	+3.05	1.49	....	16	9	12	10	se, nw	Conrad Schadt
Ames	Story	926	27	59.3	— 0.2	85	*19	26	2	39	7.95	+3.63	1.11	....	17	12	13	6	s	Iowa State College
Audubon	Audubon	1,301	15	58.8	— 1.1	88	20	22	2	43	10.16	+5.92	3.64	....	18	9	7	15	se	Geo. E. Kellogg
Baxter	Jasper	998	8	59.4	— 1.0	86	19	25	2	38	8.41	+3.21	1.65	....	20	8	17	6	ne	W. R. Vandike
Belle Plaine	Benton	828	18	60.0	+ 0.5	88	20	25	2	43	4.33	— .33	1.10	....	16	4	10	17	w	S. P. Vandike
Boone	Boone	1,134	3	58.8	.....	86	19	27	2	34	7.12	.....	1.17	....	19	13	4	14	.....	Carl Fritz Henning
Buckingham	Tama	.....	8	.....	.....	.....	.....	.....	.....	.....	7.04	+3.24	1.50	....	10	3	24	4	.....	Dr. W. A. Daniel
Carroll	Carroll	1,265	18	58.6	— 0.3	85	*16	20	2	42	8.48	+3.92	2.61	....	16	18	0	13	.....	Frank Hughes
Cedar Rapids	Linn	733	26	59.8	— 0.2	87	*17	29	2	37	6.11	+1.53	.93	....	15	6	12	13	.....	Electric Light & P. Co.
Clinton	Clinton	593	40	60.4	+ 0.2	90	24	28	3	43	6.66	+2.50	1.88	T	15	7	12	12	s	Luke Roberts
Davenport	Scott	580	36	61.2	— 0.3	87	17	30	2	31	5.13	+ .94	1.38	T	17	7	10	14	nw	Weather Bureau
Delaware	Delaware	1,083	17	58.4	+ 0.1	84	17	26	2	35	6.83	+2.64	1.18	....	14	8	14	9	se	Wm. Ball
Denison	Crawford	1,180	13	58.5	— 0.8	88	27	22	2	41	8.90	+4.79	2.52	....	17	19	6	6	n	W. C. Van Ness
Des Moines	Polk	861	29	60.4	— 1.2	86	20	30	2	34	9.89	+5.33	2.12	....	18	7	11	13	se	Weather Bureau
De Soto	Dallas	866	8	61.0	— 0.9	88	*19	26	2	38	8.33	+4.45	1.40	....	16	14	7	10	nw	R. D. Minard
Dubuque	Dubuque	639	35	59.7	— 1.1	85	17	30	2	37	5.82	+1.50	1.29	....	14	8	10	13	se	Weather Bureau
Fort Dodge	Webster	1,126	8	*a* 58.8	— 1.2	*a* 93	*16	22	2	46	9.24	+4.69	3.16	....	20	16	0	15	se	Tobin College
Gilman	Marshall	1,052	9	.....	.....	.....	.....	.....	.....	.....	6.43	+2.61	1.98	....	16	....	....	....	.....	Jas. L. Wylie
Grinnell	Poweshiek	1,023	16	60.2	+ 0.5	84	*17	25	2	35	8.70	+4.11	1.33	....	19	7	10	14	.....	A. O. Price
Grundy Center	Grundy	976	17	60.0	+ 1.5	84	*17	27	*2	40	.....	.....	.....	.....	....	13	5	13	e	W. H. Scott
Guthrie Center	Guthrie	1,077	13	60.6	‡ 0.0	88	20	24	2	39	8.26	+3.30	1.35	....	19	14	8	9	nw	D. G. Beardsley
Harlan	Shelby	1,192	9	58.9	— 1.4	86	20	18	2	42	8.48	+4.23	2.06	....	19	9	10	12	se	C. A. Reynolds
Independence	Buchanan	921	43	58.8	+ 1.0	83	17	27	2	37	7.66	+3.50	1.20	....	16	12	7	12	nw	George Donohue
Iowa City	Johnson	683	49	61.2	+ 0.9	88	*17	29	2	35	7.78	+3.41	1.21	....	21	12	8	16	s, nw	Prof. Karl E. Guthe
Iowa Falls	Hardin	1,170	15	57.4	— 1.3	86	19	26	*2	42	7.83	+3.63	2.11	....	17	11	17	3	nw	J. B. Parmelee
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	6.55	.....	1.18	....	20	11	7	13	sw	Margaret T. Disney
Little Sioux	Harrison	.....	4	60.2	.....	88	*16	19	2	44	7.76	.....	1.09	....	17	11	6	14	se	Geo. H. Gibson
Logan	Harrison	928	42	59.9	— 1.1	88	20	23	2	40	5.94	+1.81	.99	....	15	8	15	8	se	Glen H. Stern
Marshalltown	Marshall	947	16	58.9	— 0.8	86	19	25	2	40	6.21	+1.48	1.20	....	20	11	1	19	se	Geo. R. Estabrook
Montezuma	Poweshiek	.....	....	.....	.....	.....	.....	.....	.....	.....	7.50	.....	2.05	....	11	....	....	....	.....	C. J. Griffin
Muscatine	Muscatine	.....	49	.....	.....	.....	.....	.....	.....	.....	5.97	+1.59	1.34	....	20	10	4	17	s	Wm. P. Molis
Newton	Jasper	944	19	60.2	— 0.4	84	20	28	2	31	7.01	+1.87	1.22	....	14	13	6	12	s, w	Hon. J. P. Beatty
Odebolt	Sac	1,356	10	59.2	— 1.2	90	19	22	2	45	8.90	+4.92	1.87	....	15	14	7	10	.....	E. Starner
Olin	Jones	760	11	60.0	‡ 0.0	85	24	29	*2	36	7.04	+2.55	1.98	....	13	11	9	11	se	Hon. Nathan Potter
Onawa	Monona	1,051	8	61.8	— 0.8	90	20	25	2	41	7.46	+1.88	1.20	....	17	15	7	9	se	C. G. Perkins
Perry	Dallas	975	7	60.6	— 1.3	89	20	26	2	40	9.55	+4.55	2.84	....	12	3	14	14	.....	J. A. Harvey
Rockwell City	Calhoun	.....	12	60.0	+ 0.5	90	20	23	2	36	6.70	+1.96	1.85	....	12	12	9	10	.....	C. M. Randall
Sioux City	Woodbury	1,135	19	58.6	— 2.2	86	19	25	2	36	6.19	+1.82	1.22	T	14	6	15	10	se	Weather Bureau
Stuart	Guthrie	1,216	10	*d* 59.0	— 2.2	*d* 87	20	*d* 24	2	*d* 34	9.40	+4.78	2.26	....	14	....	....	....	.....	Geo. B. Irick
Tipton	Cedar	807	10	61.9	+ 1.4	87	17	30	2	32	5.72	+ .54	1.54	....	13	12	7	12	ne	F. K. Gregg
Toledo	Tama	856	14	59.6	— 1.1	85	17	27	2	37	9.53	+5.34	2.00	....	18	10	12	9	e	I. F. Giger
Waterloo	Black Hawk	862	25	59.6	+ 0.1	86	17	27	*2	43	6.49	+2.53	1.11	....	16	7	8	16	se	M. L. Newton
Waukee	Dallas	1,039	4	*a* 58.4	.....	*a* 90	*17	24	2	42	10.38	+5.43	2.00	....	14	6	11	14	sw	A. H. Blackmore
Webster City	Hamilton	.....	3	59.6	.....	88	*17	23	2	46	6.51	.....	1.46	....	12	17	7	7	se	C. D. Carpenter
Whitten	Hardin	1,036	10	*a* 58.6	— 0.7	*a* 87	19	*a* 23	2	*a* 40	5.79	+1.43	1.18	....	11	11	16	4	sw	Dr. Frank P. Butler
Wilton Junction	Muscatine	683	13	60.5	— 1.1	85	17	22	3	30	6.66	+2.24	1.00	....	15	11	13	7	w	Wm. Lang
Zearing	Story	.....	4	58.8	.....	85	19	24	2	41	6.87	.....	1.49	....	17	9	11	11	sw	C. P. Bean
Average	.....	.....	....	59.7	— 0.5	86.8	.....	25.3	.....	38.6	7.46	+2.99	.....	T	16	10	10	11	se	

CLIMATOLOGICAL DATA FOR IOWA, MAY, 1908—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in Inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
SOUTHERN SECTION																				
Afton	Union	1,212	14	61.2	— 1.1	88	*16	24	2	38	8.69	+3.80	1.36	....	15	6	14	11	sw	N. W. Rowell
Albia	Monroe	959	10	60.4	— 0.6	86	16	25	2	33	10.49	+6.16	2.25	....	16	12	6	13	w	J. I. Chenoweth
Atlantic	Cass	1,164	17	58.9	— 2.1	92	17	17	2	48	8.80	+4.29	1.15	....	15	8	1	22	s	J. W. Love
Allerton	Wayne	.....	6	60.8	+ 1.4	86	*16	21	2	36	10.49	+6.11	1.72	....	15	13	10	8	sw	Mrs. Geo. Shriver
Bedford	Taylor	.....	8	59.2	— 1.8	87	20	19	2	39	6.68	+1.43	1.38	....	15	12	9	10	se	E. E. Healy
Bloomfield	Davis	881	....	c 61.8	.....	e 89	16	26	2	36	13.89	.....	3.90	....	16	9	16	6	nw	F. H. Roberts
Bonaparte	Van Buren	.....	17	62.1	— 0.3	85	16	27	2	35	11.07	+7.04	3.62	....	15	....	....	....	.....	Hon. B. R. Vale
Burlington	Des Moines	544	12	62.6	— 1.2	86	*19	29	2	34	11.34	+7.49	1.95	....	19	15	5	11	s	W. E. Poppe
Chariton	Lucas	1,042	13	60.0	— 1.3	86	*16	23	2	36	9.83	+5.46	1.95	....	13	13	7	11	se,sw	C. C. Burr
Clarinda	Page	1,009	18	59.4	— 1.8	90	20	23	2	42	8.55	+3.71	1.25	....	19	11	5	15	s	A. S. Van Sandt
Columbus Junction	Louisa	595	7	61.8	— 0.4	88	17	26	2	32	7.19	+3.31	1.78	....	15	11	14	6	se	J. B. Johnston
Corning	Adams	1,117	16	59.4	— 1.0	87	20	21	2	34	12.18	+7.35	2.52	....	12	11	13	7	se	Jerome Smith
Corydon	Wayne	1,101	15	61.4	+ 0.1	86	*19	23	2	34	9.38	+4.71	1.64	....	14	6	13	12	.....	Clara Miller
Creston	Union	1,312	3	58.0	.....	83	*19	25	2	36	9.62	.....	1.60	....	18	13	3	15	ne	Rev. W. L. Gaston
Cumberland	Cass	.....	9	.....	.....	.....	.....	.....	.....	.....	12.00	+8.31	2.00	....	15	10	9	12	sw	Agent C., B. & Q. Ry.
Earlham	Madison	.....	6	58.7	— 1.3	88	20	24	2	40	9.31	+4.54	1.62	....	15	9	7	15	se	Geo. Phillips
Elliott	Montgomery	.....	3	60.0	.....	86	20	24	2	37	11.16	.....	1.50	....	16	11	12	8	sw, nw	Henry Barnes
Fairfield	Jefferson	.....	14	60.4	+ 0.2	85	16	30	8	36	10.41	+5.13	3.45	....	9	7	16	8	sw	R. Monroe McKenzie
Fort Madison	Lee	516	59	.....	.....	.....	.....	.....	.....	.....	14.33	+9.93	4.80	....	13	6	10	15	s	Miss L. A. McCready
Greenfield	Adair	.....	17	59.2	— 1.2	84	19	23	2	38	6.67	+1.65	1.33	....	15	....	....	....	nw	Dr. Geo. Brooks
Hancock	Pottawattamie	1,113	2	59.2	.....	86	20	23	2	35	7.36	.....	1.29	....	16	14	8	9	se	W. Armstrong
Hopeville	Clarke	.....	17	60.6	+ 0.4	88	20	22	2	35	9.64	+4.95	1.51	....	16	3	18	10	se	M. T. Ashley
Indianola	Warren	969	17	60.8	+ 0.1	85	*19	28	2	32	7.93	+3.29	1.34	....	15	5	9	17	nw	Prof. J. L. Tilton
Keokuk	Lee	574	37	63.2	0.0	87	24	30	2	30	10.09	+5.74	2.78	....	16	10	13	8	sw	Weather Bureau
Keosauqua	Van Buren	644	16	62.0	— 0.6	88	19	26	2	39	12.54	+8.17	3.64	....	15	6	10	15	.....	J. A. Landes
Knoxville	Marion	920	12	61.8	— 0.4	87	*17	28	2	34	10.09	+6.52	2.06	....	14	8	9	14	nw	Casey & Bellville
Lacona	Warren	.....	9	.....	.....	.....	.....	.....	.....	.....	8.86	+3.64	1.95	....	16	4	20	7	.....	Agent C., B. & Q. Ry.
Lenox	Taylor	1,250	13	60.0	— 1.2	87	20	21	2	35	8.02	+3.30	1.22	....	12	13	8	10	s	J. L. Hurley
Leon	Decatur	1,120	6	61.4	— 1.5	89	20	23	2	34	10.08	+5.63	2.80	....	16	6	15	10	s	J. Morris Gardner
Mt. Ayr	Ringgold	1,236	15	61.0	— 0.7	89	*19	23	2	36	8.89	+3.13	1.88	....	17	8	11	12	se,nw	A. F. Beard
Mt. Pleasant	Henry	729	26	62.8	+ 0.6	87	*16	28	2	32	8.98	+4.80	2.35	....	19	8	14	9	nw	Prof. J. W. Edwards
Omaha, Neb	Douglas	1,040	38	60.8	— 1.7	87	20	33	2	28	6.65	+2.15	1.21	....	16	8	6	17	se	Weather Bureau
Oskaloosa	Mahaska	843	24	61.4	+ 1.0	86	16	28	2	33	7.65	+3.97	1.70	....	15	12	0	19	nw	Jos. Boyd
Ottumwa	Wapello	649	14	62.3	— 0.7	91	19	30	2	35	11.85	+7.21	3.95	....	14	8	7	16	sw	Dr. Jas. A. Hull
Pacific Junction	Mills	960	9	60.2	— 1.4	89	*19	24	2	44	8.53	+4.52	3.04	....	15	7	20	4	se	H. H. McCartney
Pella	Marion	877	6	62.3	+ 1.0	88	19	26	2	32	8.62	+4.30	1.81	....	18	11	12	8	se	T. W. Cox
St. Charles	Madison	1,070	7	60.6	— 1.3	88	20	27	2	35	8.86	+3.94	1.45	....	16	13	10	8	se	R. D. Minard
Sigourney	Keokuk	877	12	61.6	— 1.4	87	16	27	2	34	8.27	+4.14	2.09	....	15	2	26	3	sw	J. T. Parker
Stockport	Van Buren	.....	6	61.4	.....	85	17	28	2	31	11.26	+7.50	3.44	....	19	14	6	11	s	C. L. Beswick
Thurman	Fremont	.....	11	60.9	— 1.4	88	20	22	2	42	8.04	+2.84	1.52	....	12	9	11	11	nw	C. R. Paul
Wapello	Louisa	588	10	61.0	— 1.6	83	24	30	2	30	6.40	+2.51	1.65	....	13	8	20	3	se	Geo. W. Schofield
Washington	Washington	769	27	60.9	— 0.1	86	*16	28	2	33	10.18	+6.67	3.72	....	15	5	16	10	nw	Wm. A. Cook
Winterset	Madison	1,129	17	61.4	+ 0.2	90	20	25	2	38	9.16	+4.70	1.73	....	16	7	14	10	se	Dr. Robert S. Cooper
Woodburn	Clarke	961	9	60.0	.....	89	*16	20	2	43	9.26	+4.37	2.09	....	15	7	13	11	se	C. B. McDonough
Average		.....	....	60.8	— 0.8	87.1	.....	25.1	.....	35.7	9.53	+5.06	.....	....	15	9	11	11	se	
State average		.....	....	59.4	— 0.7	86.6	.....	24.7	.....	38.3	8.34	+3.84	.....	....	15	9	11	11	se	

*And other dates. *a* one day missing, *b* two days; *c* three days; *d* four days.

THUNDERSTORMS—STATIONS AND DATES

NORTHERN SECTION

Stations	Dates
Algona	5,11,16,17,21,24,27,28,29
Alta	10,13,14,16,17,20,24,25,27,28
Alton	13,14,17,18,25,27,28,29
Charles City	12,14,16,17,18,21,24,25,27,28,29
Dows	12,21,27,28,29
Elkader	11,18,21,25,28,29
Elma	13,14,21,24,25
Fayette	11,13,18,21,24,28
Grand Meadow	11,13,18,21,23,24,25,26,28,29
Inwood	13,14,17,24,25,27,28
Larrabee	10,11,14,20,21,24,25,27
Le Mars	17,27,28,29
Mason City	5,11,13,18,21,24,25,27,28,29
Northwood	18,21,24,25,27,28,29
Pocahontas	14,15,16,17,20,23,25,26,27,29
Ridgeway	11,12,14,17,18,21,24,25,28,29
Sheldon	12,13,14,15,17,18,19,20,25,27,28
Waverly	12,14,16,20,21,24,25,27,28
West Bend	11,12,16,17,20,27,28,29

CENTRAL SECTION

Stations	Dates
Amana	11,12,15,16,17,21,23,25,28
Audubon	10,12,15,16,17,20,21,24,25,26,27,28
Baxter	4,16,18,21
Boone	4,21,25,27,28,29
Carroll	4,11,17,18,21,27,28,29
Clinton	1,11,16,24,29
Davenport	4,11,13,16,21,25,26,28,29
Delaware	11,16,21,25,26,28,29
Des Moines	10,11,12,15,16,17,18,21,23,24,25,27,28
De Soto	21,27
Dubuque	1,11,16,21,25,28,29
Fort Dodge	21
Grinnell	10,11,13,16,17,18,20,24,25,26,27,28,29
Guthrie Center	10,12,15,16,17,18,20,24,25,27,28
Harlan	10,11,12,13,16,17,18,20,21,24,27,28,29
Independence	11
Iowa City	10,11,15,16,17,21,27,28
Iowa Falls	12,14,16,17,21,24,25,27,28
Olin	11,16,21,28,29
Onawa	10,13,14,17,21,24,27,28,29
Perry	13,16,25,27,29
Sioux City	5,10,11,14,16,17,20,25,26,27,28
Waterloo	12,13,16,18,24,26,27,28,29
Waukee	4,5,11,13,16,18,21
Whitten	11,13,16,21,24,25,26,27
Zearing	11,13,16,18,21,24,26,27,28

SOUTHERN SECTION

Stations	Dates
Albia	4,11,13,21
Atlantic	12,20,21,27,28
Allerton	3,4,11,21,23,24,25,26,27
Bloomfield	3,4,11,12,13,26,27,28
Burlington	28
Chariton	4,23,27
Columbus Junction	3,11,13,16,21,25,26,27,28
Corning	3,10,11,16,20,24,25,27,28
Earlham	4,11,13,16,17,18,21,25,27,28
Elliott	11,13,16,21,23,24,26,27,28,29
Fort Madison	4,12,23,25,27,28,29
Hopeville	3,4,10,11,17,21,24,25,26,28,29
Indianola	3,5,10,11,13,16,17,21,23,25,26,27,28
Keokuk	4,5,10,11,12,18,21,23,25,26,27,28,29
Keosauqua	4,13,22,26,28
Leon	4,5,11,17,21,23,24,25,27,28
Mt. Pleasant	10,13,23,24,25,26,27,28
Omaha, Neb	3,4,10,12,13,14,16,17,20,21,24,27,28,31
Oskaloosa	13,21
Pella	3,11,13,16,21,24,25,26,27,28,29
Sigourney	4,11,13,16,21,27
Stockport	3,4,10,11,12,13,16,17,18,21,23,26,27,28,29
Thurman	4,5,10,11,12,13,17,20,21,24,25,27
Woodburn	1,21,24,26,27,28

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF MAY, 1908

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | Monthly Mean | |
|---|---|---

STATIONS	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30		31		Monthly Mean	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Osage	51	36	52	27	63	26	58	36	54	39	59	41	58	40	65	36	77	39	73	45	69	56	87	50	75	53	65	45	63	45	83	45	86	57	87	58	82	59	74	54	74	43	69	50	71	55	78	59	80	64	79	60	72	60	64	44	62	38	70.5	47.8
Oskaloosa	61	38	57	42	48	43	48	44	54	41	58	40	58	39	72	34	73	39	73	51	75	53	77	54	78	59	84	56	84	57	84	60	84	60	84	60	84	59	77	54	72	53	67	53	81	59	86	59	83	61	80	61	77	61	67	55	65	48	71.1	51.7
Ottumwa	60	40	58	30	56	32	48	43	51	45	55	42	60	40	58	41	74	39	70	45	77	48	85	58	80	59	80	56	80	58	86	58	84	60	87	58	86	59	83	56	80	56	64	56	68	50	73.1	51.5
Pacific Junction	64	38	57	24	53	42	48	41	51	42	55	39	58	34	67	32	72	34	73	46	76	56	83	53	78	58	77	54	77	55	77	60	86	58	87	58	86	60	82	60	77	57	65	49	71.5	48.9
Pella	59	38	57	26	47	40	54	42	48	43	58	40	60	40	61	39	74	42	74	44	76	56	83	53	77	58	78	58	78	57	80	58	84	57	89	60	87	58	75	52	74	53	67	54	73.9	50.7
Perry	59	39	54	26	60	40	52	43	55	40	58	37	57	40	58	37	65	36	76	37	74	44	74	56	74	56	84	49	78	58	74	54	76	51	85	52	85	56	78	55	74	54	67	51	71.8	49.3
Plover	61	35	52	22	...	...	52	38	56	35	57	35	65	32	74	34	75	35	76	45	70	54	83	46	77	53	69	49	69	48	86	51	85	58	74	55	89	47	69	43	75	39	65	39	76	38	77	43	75	45	72	42	70	36	78	51	76	41	75	43	73	36	70	52	68	43	73	52	70	55	78	53	73	54	75	39	74	44	74	56	83	53	72	52	78	56	85	57	86	60	84	60	82	60	76	57	74	54	72	53	68	40	70.2	45.5
Pocahontas	60	34	54	27	54	29	53	40	48	36	55	37	56	35	65	34	75	35	76	46	67	55	85	49	70	48	83	54	65	50	82	44	88	54	71	58	85	58	74	55	74	55	74	55

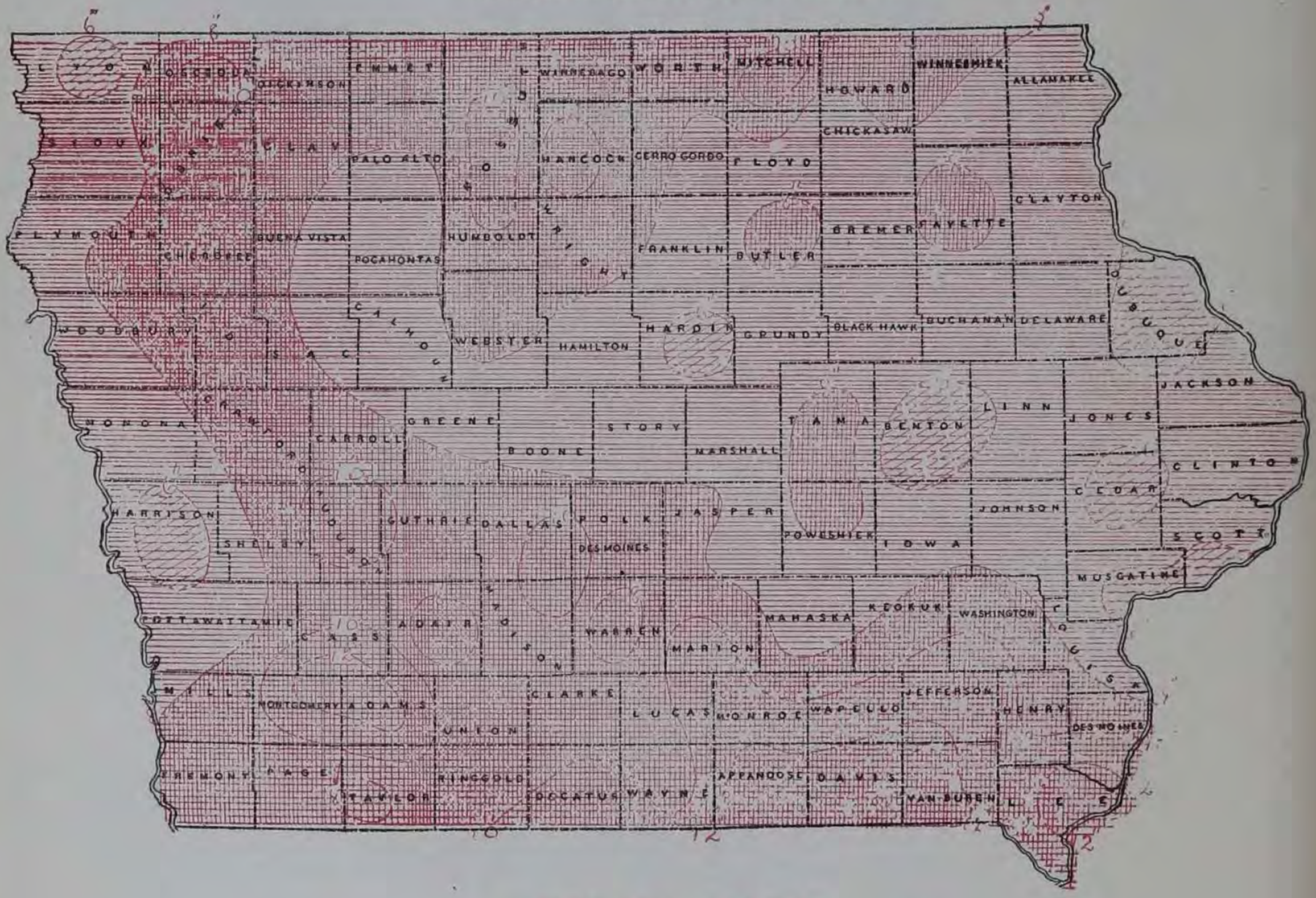
DAILY PRECIPITATION FOR IOWA, MAY, 1908

STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	T	1.04	.16	....	....	....	....	.26	1.26	....	.75	.06	....	.05	.09	.16	....	....	.65	....	.72	.33	1.36	....	.71	1.09	....	....	....	8.69
Albia	.01	T	....	1.30	.27	.05	T	....	....	....	1 25	.28	1.74	....	....	....	T	.22	T	....	....	.25	.50	1.12	.18	.40	.52	2.25	.15	....	....	10.49
Algona	....	....	....	....	1.04	....	....	....	....	....	.44	T	.34	.74	....	.16	3.00	....	....	....	1.56	....	T	1.43	.34	....	.53	.36	.60	.03	....	10.57
Allerton	T	....	.06	1.72	.25	T	T	....	....	.05	1.39	T	.72	....	....	T	.03	.28	....	....	.79	....	.85	.79	1.01	.97	.58	1.00	....	....	....	10.49
Alta	....	T	....	....	1.00	.07	....	....	....	T	.08	.11	.01	.12	.40	....	.64	.30	....	....	2.05	.03	....	.62	.65	.30	.87	.76	.38	.05	T	8.44
Alta (near)	.11	....	....	.02	1.18	....	....	....	....	.11	.30	....	.04	.85	....	....	.63	.27	....	.45	1.40	....	.08	.68	.17	....	.95	.72	.73	.02	....	8.71
Alton	.04	....	....	T	.65	....	....	....	....	.08	.04	....	.32	.35	.44	....	1.52	.08	....	.04	.50	....	T	1.04	.36	....	.56	.35	.92	T	....	7.29
Amana	.07	....	T	.72	.36	T	T	....	....	T	1.49	....	.63	.05	....	.31	.03	1.16	....	....	1.01	....	.14	.01	.22	.40	.06	.79	T	T	....	7.45
Ames	T	....	....	.22	1.00	T	....	....	....	.06	.85	..	.19	.10	....	.80	....	1.11	....	....	.85	....	.02	.45	1.11	.02	.81	.05	.07	.24	....	7.95
Atlantic	....	....	.09	.96	.68	....	....	....	....	T	.90	.22	....	.17	....	T	1.10	.17	....	.24	1.15	....	.46	.47	.79	....	.90	.50	....	....	....	8.80
Audubon	.03	....	....	.28	1.04	.03	....	....	....	.06	.60	.01	....	....	....	.58	.24	.14	....	....	3.64	....	.26	.60	.64	....	1.25	.55	.20	.01	....	10.16
Baxter	T	....	.03	.23	.44	.01	....	....	....	.12	1.34	....	.62	.02	....	.36	.06	.50	....	....	.25	....	.18	.53	1.65	.57	.51	.92	.03	.04	....	8.41
Bedford	T	....	....	.75	.17	.07	....	....	....	.25	1.31	T	.09	.08	....	....	T	....	....	T	.66	....	.36	.29	.64	....	.55	1.38	....	.04	.04	6.68
Belle Plaine	....	.02	....	.22	.30	....	....	T	....	.01	.67	T	.30	.02	....	.25	....	.27	....	....	.41	....	.19	T	.38	1.10	.12	....	.01	.06	....	4.33
Bloomfield	T	....	.23	2.52	.03	.02	....	....	....	T	1.81	.44	3.90	.01	....	....	....	.33	....	....	.23	....	.64	T	.26	.72	.30	2.40	.05	....	....	13.89
Bonaparte	.06	....	.20	1.30	....	....	....	....	....	....	66	.26	2.20	.10	....	....	....	.80	....	....	.29	....	.66	....	.20	.30	.35	3.62	.07	....	....	11.07
Boone	....	.02	....	.10	.94	.08	....	....	....	....	.30	.20	.09	.07	....	.02	.13	.60	....	....	.89	.15	....	.38	1.17	.66	.88	.31	.13	....	T	7.12
Britt	....	....	....	....	.88	....	....	....	....	....	.50	....	.91	.61	....	.01	.12	.33	....	....	1.10	....	.28	.77	.60	....	.57	.35	.38	.44	....	7.85
Buckingham	T	....	T	T	.50	....	....	....	....	....	....	....	1 50	....	....	.40	....	.49	....	....	.81	....	T	.95	1.01	.22	.29	.87	....	T	....	7.04
Burlington	....	....	....	.30	1.05	.10	....	.05	....	....	.40	.05	.76	.66	....	....	.65	.70	.05	....	....	.35	.12	.50	.03	1.80	....	1.95	1.72	.10	....	11.34
Carroll	....	....	....	.10	.90	....	....	....	....	....	.36	.03	....	.06	.07	....	....	1.63	....	....	2.61	.04	.02	.43	.27	.13	1.09	.36	.38	T	....	8.48
Cedar Rapids	T	....	....	.06	.59	....	T	....	....	.53	.52	.37	.05	.14	....	.58	....	.81	....	....	.93	....	.14	T	.52	T	.28	.54	.05	T	....	6.11
Chariton	....	....	T	1.45	.40	....	....	....	....	.12	1.95	....	.95	....	....	.22	....	....	....	....	.75	....	.75	.60	.40	.22	.77	1.25	....	....	....	9.83
Charles City	T	....	....	....	.86	....	....	....	....	T	.10	.41	.27	.76	T	.05	T	.44	....	....	.70	....	T	.82	1.09	....	.09	.52	.36	.02	....	6.49
Clarinda	.04	....	....	.96	.50	.03	....	....	....	....	.79	.34	.11	.05	....	T	.03	.30	....	....	1.17	....	.61	.75	.68	.24	.67	1.25	....	.03	....	8.55
Clear Lake	....	....	....	....	.63	....	....	....	....	....	....	....	.18	.60	....	.15	....	.40	....	....	3.25	....	.04	.73	1.02	....	1.53	.50	.17	....	....	9.20
Clinton	.05	....	.03	.45	.73	.28	....	....	....	....	1.05	....	.41	.35	....	.13	.95	....	....	....	.01	....	....	....	.31	....	....	....	1.88	.03	....	6.66
Columbus Junc	.08	....	T	1.00	.20	.02	T	....	....	....	.57	....	1.75	.20	....	....	....	.62	....	....	.06	.05	.30	.06	.09	.20	T	1.78	.21	T	T	7.19
Corning	T	....	T	1.33	.59	....	....	....	....	....	1.46	.36	.06	....	....	.28	1.20	....	....	....	2.52	....	....	1.37	.55	....	.64	1.82	....	....	T	12.18
Corydon	....	....	.04	1.08	.29	....	....	....	....	T	1.64	T	.88	....	....	.25	.03	T	....	....	.68	....	.72	.74	.34	.92	.52	1.25	....	....	....	9.38
Creston	....	....	....	.95	.33	.04	....	....	....	....	.76	.37	1.07	.16	....	.02	.02	.85	....	....	.68	.20	.48	.45	.78	.31	.55	1.60	T	....	....	9.62
Cumberland	T	....	....	1.01	1.00	....	....	....	....	.04	1.20	....	.45	....	.15	....	1.52	....	....	2.00	.13	.45	.22	.72	1.11	....	1.40	.60	....	....	....	12.00
Davenport	.04	....	.01	.48	.69	....	.23	....	....	T	.54	.02	.69	.31	....	T	....	.23	....	....	.02	T	.05	....	.23	.09	T	1.38	.11	T	.01	5.13
Decorah	.01	....	....	1.25	....	....	....	....	....	....	1.00	....	....	.25	....	....	....	1.05	....	....	.60	....	....	.83	.51	....	....	.86	.26	.02	....	6.64
Delaware	.02	....	....	.08	.23	....	....	....	....	....	.77	....	.52	.23	....	.20	....	1.02	....	....	1.18	....	T	....	.53	.59	....	.98	.44	.04	....	6.83
Denison	T	....	....	.14	.86	.01	....	....	....	.07	.43	....	.02	.25	....	....	.56	.30	....	....	2.52	....	.06	.88	.44	.19	1.27	.67	.23	....	....	8.90
Des Moines	.01	....	T	.40	.64	.01	T	....	....	.18	.77	1.52	T	.01	.10	.41	.34	.68	....	....	.35	....	.49	1.2	1.00	....	1.06	.69	T	T	....	9.89
De Soto	.02	....	....	.52	.27	....	....	....	....	.08	.62	....	.75	.04	....	.39	....	.36	....	....	1.18	....	.38	.61	.58	.03	1.10	1.40	....	....	....	8.33
Dows	....	....	....	....	.78	....	....	....	....	....	....	....	.41	.15	....	.14	....	.81	....	....	1.53	1.53	....	.52	1.27	....	.75	.28	.16	.03	....	8.36
Dubuque	.02	....	....	.10	.44	....	T	T	....	....	.56	T	.26	.49	....	.20	....	1.29	....	....	.26	....	T	....	.68	.14	....	.77	.56	.05	....	5.82
Earlham	T	....	T	.64	.24	.02	T	....	....	T	.72	....	1.62	.10	....	.09	T	.32	....	....	1.25	....	.42	.32	1.17	.02	.88	1.50	....	....	....	9.31
Elkader	....	....	....	....	.30	....	....	....	....	....	.85	....	.52	.55	.05	....	....	1.20	....	....	1.00	....	....	.40	.16	.55	....	.50	.22	.25	....	6.55
Elliott	....	....	....	.84	1.32	T	....	....	....	.13	.93	....	1.50	....	....	.15	1.30	.61	....	....	.90	....	.54	.74	....	1.10	.48	.51	.05	....	.06	11.16
Elma	T	....	....	T	.47	T	....	....	....	T	.10	....	.65	.70	.20	....	....	.41	....	....	1.30	....	T	.37	1.65	....	....	.27	.81	.11	....	7.04
Estherville	....	....	....	....	.70	.15	....	....	....	....	T	.85	1.25	.45	.70	....	.23	.03	....	....	1.85	.15	....	.20	.60	.25	.70	.37	.65	T	....	9.13
Fairfield	T	....	T	1.40	T	T	....	....	....	....	.95	2.00	....	....	....	....	....	1.65	....	....	....	....	.44	....	T	....	.24	3.45	.28	....	....	10.41
Fayette	T	....	....	....	.66	....	....	....	....	....	1.35	....	1.03	.31	....	T	....	1.13	....	....	1.80	....	T	.70	.22	.13	.01	1.00	.11	.11	....	8.59
Forest City	....	....	....	....	.70	.24	....	....	....	....	T	.40	1.00	.08	.75	....	.55	....	....	....	.98	.30	....	.70	.65	.20	.55	.25	.70	T	.05	8.10
Fort Dodge	....	....	....	....	1.12	.05	....	....	....	....	.20	.07	.65	.25	.05	.05	.06	.36	....	....	3.16	.05	....	.93	.48	.41	.55	.32	.44	.02	.02	9.24
Fort Madison	T	....	.50	1.87	.19	T	T	....	....	T	.59	....	1.77	.73	....	....	....	.84	....	....	.23	....	.70	....	.45	1.44	....	4.80	.22	....	....	14.33
Gilman	T	....	....	.20	.34	.02	....	....	....	.03	1.98	.25	.02	....	....	.16	T	.13	....	....	.50	....	.43	.57	.98	.33	....	.41	....	.08	....	6.43
Grand Meadow	.02	....	....	....	.29	....	....	T	....	....	.80	....	.86	.46	.03	.05	....	.63	....	....	.95	....	T	.79	.70	.18	....	.87	.26	.13	....	7.02
Greene	T	....	....	....	.92	....	....	....	....	....	.14	....	.80	2.15	....	....	....	.41	....	....	.94	....	.04	.65	1.56	.04	.22	.28	.18	.03	....	8.36
Greenfield	....	....	....	.75	....	.47	....	....	....	.01	.79	....	1.33	.20	....	.12	.04	.40	....	....	....	.80	.29	.55	.04	.88	....	....	....	....	....	6.67
Grinnell	.02	....	....	.23	.24	.08	....	....	....	.09	1.25	....	.40	.02	....	.30	....	.22	....	1.40	....	....	.20	.85	.75	.55	.30	1.33	.42	.05	T	8.70
Guthrie Center	.04	....	....	.29	.65	.07	....	....	....	.03	.48	....	.12	.18	....	.44	.18	.45	....	....	1.28	....	.21	1.35	.61	....	1.19	.65	.03	.01	....	8.26
Hampton	....	....	....	.75	.05	....	....	....	....	.08	.16	.55	....	.16	.20	....	.62	....	....	1.75	.50	....	.83	.72	.16	.53	.28	.10	....	.04	....	7.48
Hancock	....	....	....	.29	.71	.02	....	....	....	.12	.77	T	1.29	.16	....	T	.47	.30	....	....	.80	....	.38	.53	.45	....	.70	.32	.05	....	....	7.36
Harlan	.05	....	....	.14	.83	.01	....	....	....	.20	.65	.08	.10	.17	....	.04	.45	.30	....	T	2.06	....	.27	.50	.43	....	.98	1.00	.22	....	....	8.48
Hopeville	T	....	.09	1.02	.10	....	T	....	....	.11	1.51	....	.45	.05	....	....	1.30	.45	....	....	.60	....	.66	.56	1.11	.03	.67	.93	....	....	....	9.64
Humboldt	....	....	....	....	1.20	....	....	....	....	....	.18	.64	.24	.33	....	....	....	.41	....	....	2.52	....	.10	1.69	.30	....	.56	.56	.92	.01	....	9.66
Independence	....	....	....	.07	.38	....	....	....	....	....	1.20	....	.90	.17	....	.84	....	.67	....	....	.84	....	.03	.69	.28	.49	.11	.76	.19	.04	....	7.66
Indianola	.19	....	.05	.65	.50	....	T	....	....	.15	1.34	....	.77	....	T	.22	.35	....	....	....	.24	....	.38	.59	1.03	.12	.75	.60	....	T	T	7.93
Inwood	....	....	....	T	.50	.01	....	....	....	.04	....	T	.57	.89	.07	....	.25	.07	....	....	.18	....	.01	2.19	.07	....	.70	.33	.42	T	....	6.30
Iowa City	T	.05	....	.36	.20	.03	....	....	....	....	.65	.31	.61	.14	.01	.15	.11	1.19	1.21	....	....	.42	....	.20	.10	41	.02	.63	.06	....	.02	7.78
Iowa Falls	T	T	....	....	.69	.05	....	....	....	....	.10	.07	2.11	.05	.21	.10	T	.66	....	....	1.33	.26	....	.28	1.05	.09	.40	.25	.13	T	T	7.83
Keokuk	.02	....	.82	1.24	T	....	T	T	....	.10	.09	.94	.52	.25	....	....	....	1.01	....	....	.54	....	.47	....	.61	.03	.94	2.27	.24	....	....	10.09
Keosauqua	....	....	....	1.90	.43	T	....	T	....	....	.81	.08	1.93	.63	....	....	....	.80	.27	....	....	.62	.43	.13	.07	.43	T	3.37	.64	....	T	12.54
Knoxville	T	...	T	1.10	.10	T	T	T	....	.40	1.85	....	.81	T	....	.08	....	1.30	....	....	.35	....	.55	.35	.46	.22	.46	2.06	....	T	....	10.09
Lacona	.02	....	....	1.10	.60	.02	T	....	.08	.20	1.95	....	.60	....	....	.10	T	.60	....	....	.44	....	.60	.05	.50	....	.80	1.20	....	....	....	8.86
Larrabee	.01	....	....	T	1.05	....	....	....	....	.02	.48	.31	....	.50	....	.87	T	.17	....	.40	1.05	....	.07	.75	1 69	....	.92	.50	.87	.11	....	9.77
Le Claire	.01	.02	....	.18	.29	.63	....	.36	T	....	.49	.79	.50	.33	.15	....	....	.04	.56	....	....	.03	....	.04	....	.33	....	.52	1.13	.11	.04	6.55
Le Mars	....	....	....	.02	.80	.01	....	....	....	.22	.02	....	....	.73	.06	....	1.75	....	....	....	.44	....	T	.80	.57	T	.79	1.46	.53	T	....	8.20
Lenox	....	....	....	1.22	.23	T	....	....	....	.20	1.05	....	.50	....	....	....	T	.60	....	....	.53	....	.63	.59	.95	....	.47	1.05	....	....	T	8.02
Leon	....	....	.02	1.37	.20	....	....	....	....	T	2.80	.20	.35	.02	....	....	.09	.07	....	....	.45	....	1.00	.57	1.06	.30	.66	.92	....	....	....	10.08
Little Sioux	.02	....	....	.14	.68	....	....	....	....	.18	.30	....	.03	.28	....	....	....	.51	.51	....	....	.75	....	.35	.76	.42	.67	.97	1.09	.10	....	....	7.76
Logan	....	....	.19	.42	....	....	....	....	....	.15	.57	T	T	.24	....	T	....	.31	....	.05	.99	....	.39	.74	.11	.01	.86	.81	.10	....	....	5.94
Marshalltown	.02	....	....	....	.63	.03	....	....	....	....	.43	.46	.59	.02	....	.03	.19	.43	.02	....	.04	.11	....	.39	1.20	.47	.23	.72	.17	....	.03	6.21
Mason City	....	....	....	....	.52	....	....	....	....	....	.18	....	.32	.36	.08	....	....	.65	....	....	3.10	....	....	.37	.76	.05	.38	.33	.12	T	....	7.22
Montezuma	....	....	....	....	1.70	T	....	....	....	....	.40	.40	.50	....	....	....	....	.60	....	....	....	.50	....	.50	.20	.40	.25	2.05	....	....	....	7.50
Mt. Ayr	....	....	T	1.67	.20	.04	....	....	....	.23	1.88	....	.08	.03	....	....	.02	.81	....	....	.56	....	1.05	.25	.49	.02	.46	1.05	....	....	.05	8.89
Mt. Pleasant	T	....	.08	1.45	.03	T	T	T	....	T	.44	.01	2.35	.14	....	....	.10	.45	....	....	.15	.01	.56	.14	.25	.47	.10	1.83	.31	.11	....	8.98
Muscatine	T	.06	....	.64	.20	.10	T	.06	....	....	.36	.09	1.34	.18	.08	....	.03	.07	.18	....	....	.07	....	.22	....	.45	....	.46	1.10	.26	.02	5.97
New Hampton	....	....	....	....	.70	....	....	....	....	....	.18	....	.65	.12	.78	....	....	1.17	....	....	1.02	....	T	.85	1.28	....	T	.80	.16	.09	....	7.80
Newton	....	....	....	.50	.27	....	....	....	....	.13	1.22	....	.25	T	....	.25	....	1.08	....	....	....	....	.53	.28	.68	.22	.40	1.15	.05	T	....	7.01
Northwood	....	....	....	....	.99	....	....	....	....	....	.23	....	.50	.88	.04	....	....	.55	....	....	2.34	....	T	.92	1.38	....	.30	.23	.18	.10	....	8.64
Odebolt	....	....	....	.15	.04	....	....	....	.22	.55	....	....	.27	.37	....	....	.25	.05	....	....	1.87	....	.05	.71	1.27	....	1.18	.60	.32	....	....	8.90
Olin	T	....	....	.51	.15	T	T	....	....	....	1.27	....	.40	.32	....	.38	....	1.41	....	....	.16	....	.01	....	.06	.29	....	1.98	.10	T	....	7.04
Omaha, Neb	T	....	T	.55	.19	T	....	....	....	.41	.66	1.21	.10	.16	....	....	.46	T	....	.03	.49	....	.75	.48	.13	....	.32	.49	....	....	.21	6.65
Onawa	T	....	....	.25	1.10	.02	....	....	....	.25	.20	....	.05	.50	....	....	.36	.17	....	....	.64	....	.36	1.20	.13	....	1.00	.72	.48	.03	....	7.46
Osage	....	....	....	....	1.12	....	....	....	....	....	.11	T	.25	.45	.58	....	....	.39	....	....	4.40	....	....	1.05	1.17	....	.20	.34	.13	T	....	10.19
Oskaloosa	T	....	T	.83	.15	.01	....	....	....	.11	1.12	....	1.00	....	....	.18	....	.36	....	....	.43	.50	.64	.28	.34	.40	1.30	....	....	T	....	7.65
Ottumwa	T	....	....	1.10	.40	.10	T	....	....	....	.85	.35	1.65	....	....	.85	....	.50	....	....	.60	....	.65	T	.20	.20	.45	3.95	....	....	....	11.85
Pacific Junction	T	....	T	.50	.59	....	....	....	....	.21	.57	T	T	.20	....	....	.52	.12	....	1.40	1.64	....	.63	.43	.35	....	.63	.68	T	....	.06	8.53
Pella	.01	....	T	.89	.08	.02	....	....	....	.13	1.02	....	.72	....	....	.28	.09	.45	....	....	.51	....	.38	.28	.98	.34	.50	1.81	.13	T	....	8.62
Perry	....	....	....	....	.57	....	....	....	....	....	.57	....	.66	....	....	.54	....	.84	....	....	2.84	....	.18	.60	1.20	....	.95	.38	.22	....	....	9.55
Plover	.06	....	....	....	.98	....	....	....	....	....	.42	.13	.26	.52	....	....	.16	.11	....	....	1.17	....	.12	.42	.27	.58	.93	.92	.52	T	....	7.57
Pocahontas	.01	....	....	T	1.04	....	....	....	....	....	....	....	.02	.82	....	T	.60	T	....	1.40	....	....	.28	.20	.36	.83	....	.66	.46	T	....	6.68
Ridgeway	.04	....	....	....	.81	....	....	....	....	....	.31	.93	.03	.62	.01	....	.02	1.01	....	....	1.44	....	T	1.16	1.47	.03	.06	.60	.27	.27	....	9.08
Rock Rapids	....	....	....	....	.15	....	....	....	....	T	T	1.80	T	.40	....	....	.16	T	....	T	.40	....	T	1.05	.42	....	.65	.18	.52	....	....	5.73
Rockwell City	....	....	....	.30	1.05	....	....	....	....	T	.35	....	.10	.55	....	T	.60	....	....	....	1.85	....	.10	.45	.30	....	....	.45	.60	T	....	6.70
St. Charles	.02	....	T	.69	.15	.01	....	....	....	.10	1.45	....	1.35	....	....	.47	T	.30	....	....	.52	....	.53	.31	.97	.06	.85	1.08	....	....	....	8.86

DAILY PRECIPITATION FOR IOWA, MAY, 1908—Continued

STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sheldon	....	....	....	T	.88	....	....	....	....	T	T	.12	.90	1.30	....	....	.70	.25	.15	.45	.55	....	.10	.85	.60	....	.75	.64	1.32	.04	....	9.60
Sibley	....	....	....	....	.46	.08	....	....	....	....	.08	.39	2.81	.33	.75	....	.39	.07	....	....	.55	.04	....	.40	.20	.55	.41	1.23	1.53	.18	....	10.45
Sigourney	T	....	.10	.61	.13	T	....	T	....	.07	1.00	....	1.40	.05	....	.52	....	.48	....	....	.67	....	.57	....	.31	.15	2.09	....	T	....	.12	8.27
Sioux City	T	....	....	.74	.31	.01	....	....	....	.41	.15	....	....	.71	....	T	.10	....	....	T	.32	....	.64	.54	.47	.02	.87	.90	T	T	T	6.19
Stockport	.06	....	.13	1.35	.01	T	T	T	....	.02	.76	.38	3.05	.09	....	T	.10	.65	....	....	.28	....	.55	.02	.13	.44	.32	2.84	.08	....	....	11.26
Storm Lake	.03	....	....	.01	.94	.02	....	....	....	.05	.14	....	.09	.44	....	....	.46	.13	....	.75	1.40	....	.02	.68	.21	....	.82	.78	.38	.02	....	7.37
Stuart	....	....	....	.45	.42	.05	....	....	....	....	1.58	....	....	.15	....	....	.99	.24	....	....	2.26	....	.37	.33	.64	.08	1.06	.78	....	....	....	9.40
Thurman	T	...	T	.97	.53	T	....	....	....	.12	1.07	....	.05	.30	....	....	....	.42	....	....	1.52	....	....	....	1.15	....	.84	.97	....	T	.10	8.04
Tipton	....	....	....	.40	....	....	.07	....	....	....	.80	....	.57	....	.23	.21	....	1.36	....	....	.31	.06	....	....	.05	.08	....	1.54	....	.04	....	5.72
Toledo	.04	....	....	.20	.45	....	....	....	....	.03	1.80	....	.50	....	....	.03	.10	.35	....	....	.50	....	.06	.95	.90	.70	.35	2.00	.52	.05	....	9.53
Wapello	T	....	.05	1.05	.07	....	T	.05	....	....	.31	....	1.65	.60	....	....	....	.27	....	....	T	....	.37	....	.16	.63	T	.99	.20	....	....	6.40
Washington	....	....	.05	.75	....	.05	....	....	....	....	1.06	....	1.18	.05	....	.09	....	3.72	....	....	.36	....	28	....	.10	.18	.07	2.18	.06	....	....	10.18
Washta	T	....	...	.10	1.00	....	....	....	....	.20	.13	.07	T	.45	....	.83	.15	....	....	.15	.85	....	.55	.65	.13	.85	.40	2.05	T	T	....	8.56
Waterloo	.02	....	....	T	.41	....	....	....	....	....	.51	....	.65	.11	....	.33	....	.37	....	....	1.11	....	.03	1.11	.97	.14	.12	.35	.21	.05	....	6.49
Waukee	T	....	....	.45	.27	T	T	T	....	T	.70	T	1.00	T	T	.25	T	.60	....	....	1.30	....	.40	.40	2.00	.30	1.10	1.60	.01	T	....	10.38
Waverly	.01	....	....	....	.44	....	....	....	....	....	.41	....	1.08	.32	....	.08	....	.45	....	....	.53	....	.02	.69	1.37	.12	.25	.44	....	.01	....	6 22
Webster City	....	....	....	T	.90	....	....	....	....	....	.24	T	.19	.22	....	.07	....	.70	....	....	1.46	....	T	.76	.83	....	.71	.33	.10	T	....	6.51
West Bend	....	....	....	....	.72	....	....	....	....	T	.60	....	.09	.86	....	T	.30	.18	....	T	1.26	....	.05	1.00	.16	....	.60	.45	.36	T	....	6.63
Whitten	....	....	....	T	T	T	....	....	....	....	.80	T	.41	....	....	.67	.40	....	....	....	.35	....	.06	.52	1.18	.40	.35	.65	....	T	....	5.79
Wilton Junction	....	....	.52	.18	.01	....	....	....	....	.78	1.00	.10	1.00	.22	....	....	....	.58	....	....	....	....	.22	....	.34	....	.72	.86	.10	.03	....	6.66
Winterset	T	....	.03	.67	.16	T	....	....	....	.07	.97	....	1.01	.02	....	.18	T	.14	....	....	1.44	....	.49	.51	1.73	.05	.89	.80	....	....	....	9.16
Woodburn	T	....	T	1.23	.41	....	....	....	....	.09	2.09	....	.25	T	....	.10	.02	.15	....	....	.43	....	.60	.76	.87	.15	.72	1.39	....	....	....	9.26
Zearing	T	....	....	.14	.63	T	....	....	....	.04	.48	....	.36	.10	....	.50	....	.77	....	....	.24	....	.04	.51	1.49	.48	.46	.58	.02	.03	....	6.87

TOTAL PRECIPITATION, MAY, 1908.



SCALE OF SHADES—IN INCHES

Less than 2 | 2 to 4 | 4 to 6 | 6 to 8 | More than 8

U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR JUNE, 1908.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR



PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1908

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

OF THE

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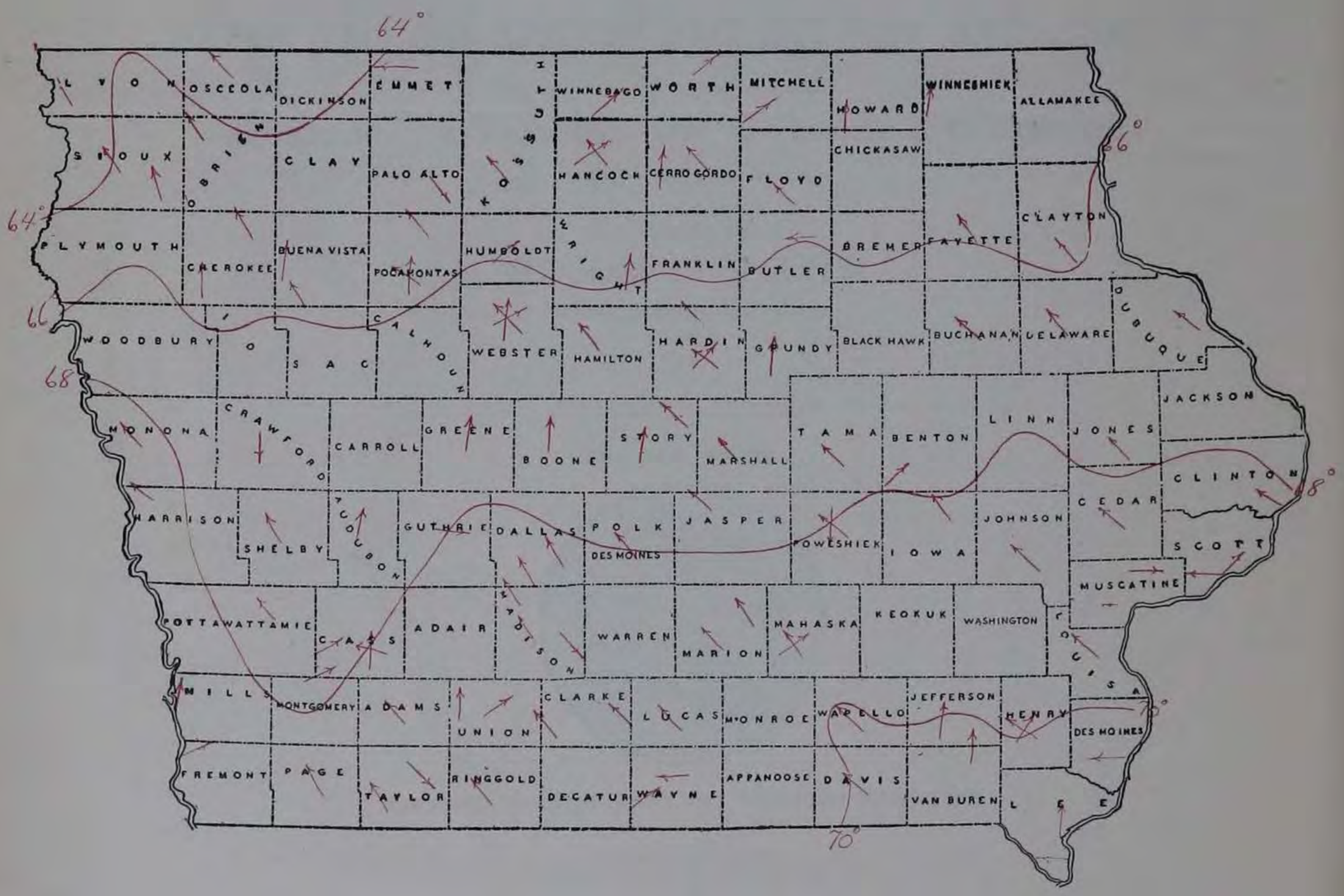
Ninth District—M. McDONALD, Bayard.
Tenth District—O. A. OLSON, Forest City.
Eleventh District—H. L. PIKE, Whiting.

MEAN ISOTHERMS AND PREVAILING WINDS OF JUNE, 1908.

Lines pass thru points of equal temperature. Arrows fly with the wind.



U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IOWA SECTION,

GEO. M. CHAPPEL, Section Director.

VOL. XIX DES MOINES, IOWA, JUNE, 1908. NO. 6.

IOWA CROP REPORT, JULY 1, 1908.

Following is a summary of reports received from crop correspondents of the Iowa Weather and Crop Service, showing the estimated condition of the staple crops, July 1, 1908, as compared with the average condition on that date in past years: Corn, 85 per cent; winter wheat, 99; spring wheat, 94; oats, 90; rye, 95; barley, 93; flax, 89; hay crop, 103; pastures, 104; potatoes, 99; apples, 50; plums, 40; grapes, 80. Condition last year: Corn, 76; spring wheat, 90; oats, 89; barley, 90; rye, 94; flax, 91; hay crop, 78; pastures, 92; potatoes, 98; apples, 42; grapes, 80.

A revised estimate of the area of corn planted this year shows about 95 per cent, or an average decrease of a little over 5 per cent, compared with the area planted in 1907.

GENERAL SUMMARY.

The average temperature of June for the state was 1.7° below the normal. The month opened with a cool wave which was followed from the 5th to the 7th by a slight excess in temperature, but from the 8th to the 17th the weather was unseasonably cool. The minimum temperature was below 40° at many stations in the northern part of the state on the 15th and light frost occurred in several localities. The warmest period was from the 18th to the 23rd, when the maximum temperature ranged from 85 to 94 degrees. The average rainfall was 5.66 inches, which was 1.14 inch above the normal for June. Rain fell at one or more stations in the state every day from April 21st to June 30th or 71 consecutive days. The largest amounts of rainfall were reported from the northern districts and especially in the west portion of the upper valley of the Des Moines river. Plover, in Pocahontas County, reported a total amount of 11.88 inches, 4.08 inches of which fell on the 18th in 24 consecutive hours. There were numerous severe thunderstorms accompanied by wind squalls and some hail, but the most severe and destructive storm occurred near Charles City in Floyd County on the afternoon of the 7th. A hail, wind and rain storm swept over the northeastern counties on the evening of the 20th. A detailed account of these storms will be found on another page of this report. The frequent and heavy rains prevented work in the fields, kept the rivers up to flood stages, flooded all low and flat lands and caused considerable washing of the soil on hill sides, and, as a result, farmers in some sections of the state were planting or replanting corn up to the close of the month. Many fields were abandoned and the acreage of corn has been reduced a little over five per cent as compared with the area planted last year. All the early planted corn on high and well tilled land shows a good stand, has a good color, and is exceptionally clean considering the adverse conditions, and some fields were laid by before the end of the month. All small grains are generally in good condition and give promise of fairly good yields. Winter wheat and rye were ready for harvest in the southern counties at the close of the month, and all kinds of small grains were beginning to head in northern counties. The excessive moisture and moderately cool weather have been very beneficial for grass, and the hay crop will be abnormally heavy. Clover hay making was begun during the third week in June and most of it was put up in good condition despite the frequent showers. Potatoes and garden truck have also made very thrifty growth. There was a fair crop of cherries in the northern counties but the yield was light in southern districts. Strawberries were generally good and raspberries and blackberries give promise of an average crop, but the apple crop will be light in all parts of the state.

TEMPERATURE. The monthly mean temperature for the State, as shown by the records of 114 stations, was 67.1°, which is 1.7° below the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 65.5°, which is 1.8° below the normal; Central section, 67.6°, which is 1.4° below the normal; Southern section, 68.2°, which is 1.8° below the normal. The highest monthly mean was 71.9, at Burlington, Des Moines county, and the lowest monthly mean, 62.9°, at Sibley, Osceola county. The highest temperature reported was 94°, at Clinton and Decorah in Clinton and Winneshiek counties, on the 22d and 23d; the lowest temperature reported was 35°, at Elma, Howard county, on the 15th. The average monthly maximum was 88.5, and the average monthly minimum was 42.9. The greatest daily range was 45°, at Elkader, Clayton county. The average of the greatest daily ranges was 31.8.

PRECIPITATION. The average precipitation for the State, as shown by the records of 121 stations, was 5.66 inches, which is 1.14 inches above the normal. By sections the averages were as follows: Northern section, 6.79 inches, which is 2.22 inches above the normal; Central section, 5.06 inches, which is .69 inch above the normal; Southern section, 5.14 inches, which is .52 inch above the normal. The greatest amount, 11.88 inches, occurred at Plover, Pocahontas county, and the least, 1.77 inches, at Sigourney, Keokuk county. The greatest amount in twenty-four hours, 4.08 inches, occurred at Plover, Pocahontas county, on the 18th. Measurable precipitation occurred on an average of 13 days.

SUNSHINE AND CLOUDINESS. The average number of clear days was 12; partly cloudy, 10; cloudy, 8. The duration of sunshine was below the normal, the percentage of the possible amount being 64 at Davenport; 53 at Des Moines; 63 at Dubuque; 62 at Keokuk, 52 at Sioux City, and 54 at Omaha, Neb.

WIND. Southeast winds prevailed. The highest velocity reported was 60 miles per hour from the southwest, at Sioux City, Woodbury county, on the 22d.

COMPARATIVE DATA FOR THE STATE—JUNE.

Year	Temperature				Precipitation			
	Mean	Departure from the normal	Highest	Lowest	Average	Departure from the normal	Greatest	Least
1890	72.7	+3.5	106	44	7.76	+3.15	16.53	1.57
1891	69.1	—0.1	99	37	5.39	+0.78	19.88	1.68
1892	69.2	0.0	102	42	5.19	+0.58	14.16	.67
1893	71.2	+2.0	100	40	3.91	—0.70	7.56	1.36
1894	73.2	+4.0	104	34	2.67	—1.94	6.20	.57
1895	69.7	+0.5	102	34	4.32	—0.29	9.26	.98
1896	69.1	—0.1	100	40	3.11	—1.50	7.89	.81
1897	69.1	—0.1	103	29	3.81	—0.80	9.38	1.03
1898	71.4	+2.2	99	42	4.72	+0.11	12.48	1.90
1899	70.7	+1.5	100	42	5.04	+0.43	11.99	1.10
1900	69.7	+0.5	102	38	3.98	—0.63	12.35	.67
1901	72.3	+3.1	106	30	3.71	—0.90	7.84	1.05
1902	65.2	—4.0	97	32	7.16	+2.55	16.04	1.46
1903	64.6	—4.6	96	30	2.86	—1.75	6.04	.75
1904	67.1	—2.1	94	35	3.45	—1.16	8.35	.44
1905	69.9	+0.7	100	36	5.53	+0.92	14.89	1.80
1906	67.9	—1.3	99	37	3.92	—0.69	8.27	1.48
1907	66.5	—2.7	98	36	5.35	+0.74	9.33	2.07
1908	67.1	—2.1	94	35	5.66	+1.05	11.88	1.77

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	29.97	30.25	25	29.59	18
Davenport	29.99	30.29	25	29.67	18
Des Moines	29.94	30.33	25	29.58	18
Dubuque	30.00	30.32	25	29.67	18
Omaha, Neb.	29.92	30.35	25	29.52	18
Keokuk	30.00	30.31	25	29.70	18
Sioux City	29.92	30.39	25	29.53	18
Means	29.96	30.39	25	29.53	18

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	6097	35	NE	20
Davenport	6003	30	N	20
Des Moines	6927	35	S	18
Dubuque	4726	42	N	20
Keokuk	5369	36	SW	7
La Crosse, Wis	4275	25	W	18
Omaha, Neb	6780	42	NW	27
Sioux City	10395	60	SW	22

OBSERVERS' REMARKS.

ALBIA—*J. I. Chenoweth.* The weather during the month was favorable for field work, but the acreage of corn is small on account of the excessive rains in May. The hay crop will be very large and the pastures are extra good. There were no severe storms or heavy rains during the month.

ALLERTON—*Mrs. Geo. Shriver.* A destructive hailstorm occurred in this vicinity between 7 p. m. and 8 p. m. of the 28th which caused considerable damage to crops, garden truck and fruit.

ALTA—*David E. Hadden.* The mean temperature for the month was 3.3° below the 18-year normal and the rainfall was 2.68 inches above the normal. No severe storms occurred, but lightning did some minor damage.

ALTON—*W. S. Slagle.* The weather was favorable for all crops. Showers were frequent, but the amounts of rainfall were small. Corn has been cultivated twice and looks well.

AMANA—*Conrad Schadt.* The cherry crop was abundant. Small grain is in good condition and rye is ripe enough to cut at the close of the month.

ATLANTIC—*J. W. Love.* Crops of all kinds are doing nicely, but corn fields on low ground are weedy on account of frequent rains.

BAXTER—*W. R. Vandike.* A very severe rain and electric storm past over this vicinity between 9 p. m. and midnight of the 27th. The amount of rainfall up to 8 a. m. of the 28th was 3.08 inches.

BONAPARTE.—*B. R. Vale.* There was but little field work done until after the 20th. There were no severe storms, wind or hail. Corn planting continued up to the close of the month.

BOONE—*Carl Fritz Henning.* The worst electrical storm of the season occurred on the evening of the 27th. Several houses were struck by lightning.

BRITT—*Geo. P. Hardwick.* Excessive cloudiness and frequent showers retarded field work. More than the usual acreage of millet and buckwheat has been sown.

CHARITON—*C. C. Burr.* Corn shows a marked improvement but is uneven as to size and the stand is below the average. A heavy crop of clover is now being harvested.

CLINTON—*Luke Roberts.* A severe wind and thunder-storm occurred on the evening of the 20th. The wind velocity was 40 miles per hour. There was but little damage done.

CRESTON—*Rev. W. L. Gaston.* The first two decades of the month were very wet, but between the 20th and 28th favorable weather prevailed so that farmers could cultivate the fields. The heaviest rain of the season fell on the 28th.

DECORAH—*F. H. Baker.* A tornado with heavy hail occurred on the 20th which destroyed all crops over a strip six miles wide extending across the county from west to east. In some places the foliage was entirely stript from the trees.

ELLIOTT—*Henry Barnes.* The rains and warm weather has caused some rust in small grain. Corn is in good shape except in low grounds where many fields have been abandoned.

ELMA—*H. A. Moore.* Strawberries were ripe on the 18th. The storm on the 20th did a great deal of damage to crops.

FAYETTE—*R. Z. Latimer.* Light frost occurred on the 15th. Many barns were blown down during the storm of the 20th.

FOREST CITY—*J. A. Peters.* Early planted corn is "knee high" at the close of the month, but cultivation was prevented by excessive moisture. No haying has been done.

INWOOD—*F. B. Hanson.* Crop prospects were never better despite the frequent rains. Most of the rain came at night and the days were relatively clear. Corn is "knee high" and small grain has headed out and is free from rust.

KEOSAUQUA—*J. H. Landes.* There were only three clear days. Corn planting continued until the last of the month, hence the crop is backward and the acreage is not as large as was planned.

LARRABEE—*H. B. Strever.* The condition of crops about the same as the average of past years at the end of June. Corn is a little backward in growth, but is clean. Meadows and pastures are excellent, but oats are uneven.

LOGAN—*Glen H. Stern.* The highest temperature of the month occurred about midnight of the 22d, during a windstorm which did considerable damage.

MASON CITY—*J. S. Mills.* A partial eclipse of the sun was observed between 8:25 and 10:35 a. m. on the 28th.

NORTHWOOD—*Chas. H. Dwelle.* Considerable damage was done by hail in Deer Creek township on the 24th. Severe electrical storms on the 20th, 22d and 27th.

OLIN—*Nathan Potter.* June has been a good month for farm work, and vegetation has been in the best of condition. Owing to the wide range in time of planting, corn is variable in size.

PACIFIC JUNCTION—*H. H. McCartney.* From 8 p. m. to 10 p. m. on the 27th 1.78 inches of rain fell during a severe thunder-storm, accompanied by a high wind.

PLOVER—*J. E. Smith.* Total rainfall, 11.88 inches, is the greatest monthly amount for June on record at the station.

POCAHONTAS—*F. E. Hronek.* The month was unfavorable for field work and the excess of rain damaged crops on low untiled lands about 40%. On the 19th, 2.56 inches of rain fell between 7:05 p. m. and 8:20 p. m.

RIDGEWAY—*Arthur Betts.* A severe storm, accompanied by wind, hail and heavy rain occurred on the evening of the 20th which caused an immense amount of damage. This was the wettest June on record at this station.

SHELDON—*Dr. A. W. Beach.* There was a slight excess of moisture for flat lands, but the condition of crops is above the average at the close of the month.

STOCKPORT—*C. L. Beswick.* From 30% to 40% of the corn was planted in June and there is some yet to plant. Haying is in progress at the close of the month; rye has been cut and oats are ripening rapidly.

STORM LAKE—*Prof. R. H. Carr.* Hail in small amounts fell frequently, but on the 28th it was very heavy. The month was very wet, with an exceedingly heavy rain on the 18th, when 3.15 inches fell.

WINTERSET—*Dr. Rob't S. Cooper.* A fierce wind about 8:30 p. m. on the 19th blew down small buildings, uprooted trees and damaged fruit.

ZEARING—*W. C. Bean.* The heavy hailstorm on the 21st injured barley and also oats which were headed out.

CLIMATOLOGICAL DATA FOR IOWA, JUNE, 1908

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
NORTHERN SECTION																				
Algona	Kossuth	1,213	34	66.0	−2.5	85	*22	41	*11	32	7.61	+3.21	1.25	....	15	17	9	4	SE	Dr. F. T. Seeley
Alta	Buena Vista	1,513	17	64.7	−2.9	87	22	43	*10	30	8.03	+2.81	2.07	....	15	9	16	5	S	D. E. Hadden
Alta [near]	Buena Vista	.....	....	.....	.....	.....	.....	.....	.....	.....	8.50	.....	1.90	....	17	....	....	....	.....	W. J. Minard
Alton	Sioux	1,305	3	66.2	.....	89	*21	40	15	33	4.35	.....	.92	....	14	17	7	6	SE	W. S. Slagle
Britt	Hancock	1,236	11	65.6	−1.5	87	22	40	*11	34	5.72	+1.64	1.59	....	14	2	23	5	SE	G. P. Hardwick
Charles City	Floyd	1,015	20	65.0	−3.8	87	22	40	15	29	8.40	+3.30	3.39	....	15	5	12	13	SE	Weather Bureau
Clear Lake	Cerro Gordo	1,241	9	66.2	−2.0	85	*20	43	*10	34	7.67	+2.83	2.00	....	13	....	....	....	S	Oscar Stevens
Decorah	Winneshiek	975	15	66.8	−0.6	94	23	39	1	36	7.71	+3.71	3.90	....	12	....	....	....	.....	F. H. Baker
Dows	Wright	1,142	8	65.7	−0.3	87	20	41	11	33	.....	.....	.....	....	....	11	14	5	S	G. D. Flett
Elkader	Clayton	727	27	65.3	−1.2	90	*22	39	*15	45	4.49	+ .46	1.40	....	13	12	13	5	SE	Chas. Reinecke
Elma	Howard	.....	....	65.6	.....	87	* 6	35	15	36	8.26	.....	1.15	....	14	13	13	4	S	H. A. Moore
Estherville	Emmet	1,298	12	64.6	−2.2	86	23	39	15	35	7.35	+4.00	2.60	....	14	11	0	19	E	A. O. Peterson
Fayette	Fayette	1,003	18	65.6	−1.7	89	22	38	15	32	5.91	+ .58	1.34	....	11	17	6	7	SE	R. Z. Latimer
Forest City	Winnebago	1,226	14	65.2	−2.0	87	22	42	11	33	6.02	+1.39	1.84	....	12	12	9	9	SW	J. A. Peters
Grand Meadow	Clayton	1,180	17	65.0	−1.4	85	*22	42	* 1	32	6.24	+1.44	2.44	....	15	8	13	9	.....	F. L. Williams
Greene	Butler	.....	9	67.0	−1.1	90	*20	44	* 1	37	4.66	+ .54	1.80	....	12	5	17	8	E	J. L. Cole
Hampton	Franklin	1,155	18	66.3	−1.5	89	22	42	10	29	6.03	+1.12	1.60	....	12	4	23	3	NW	E. C. Grenelle
Humboldt	Humboldt	1,095	17	66.3	−2.5	86	*20	41	15	30	6.35	+1.64	1.20	....	13	13	0	17	SW	H. S. Wells
Inwood	Lyon	1,474	4	64.4	.....	91	21	36	10	34	6.69	.....	1.66	....	15	21	4	5	SE	F. B. Hanson
Larrabee	Cherokee	1,266	17	a65.8	−2.7	a91	21	a40	*14	a36	4.49	− .99	1.37	....	13	6	20	4	SE	H. B. Streever
Le Mars	Plymouth	1,224	12	65.6	−2.7	87	*21	40	15	30	4.14	− .02	.66	....	16	16	9	5	NW	G. A. C. Clarke
Mason City	Cerro Gordo	1,132	11	64.8	−2.4	86	22	40	*10	34	8.20	+2.31	1.30	....	14	8	19	3	SE	J. S. Mills
Merrill	Plymouth	.....	....	.....	.....	.....	.....	.....	.....	.....	4.26	.....	1.00	....	9	....	....	....	.....	Eric Oleson
New Hampton	Chickasaw	1,169	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	...	...	...	...	.....	A. F. Kemman
Northwood	Worth	1,222	12	a64.9	−1.1	a85	22	a40	11	a33	7.09	+2.21	1.95	....	16	13	14	3	SW	Charles Dwelle
Osage	Mitchell	1,184	17	66.2	+0.1	87	22	42	* 1	31	7.45	+2.93	1.75	....	11	11	7	12	SW	Dr. A. D. Bundy
Plover	Pocahontas	1,426	12	65.8	−1.8	87	21	39	15	36	11.88	+7.53	4.08	....	11	13	6	11	SE	J. S. Smith
Pocahontas	Pocahontas	.....	4	64.3	.....	85	*20	40	15	31	9.24	.....	2.56	...	13	15	10	5	SE,S	F. E. Hronek
Ridgeway	Winneshiek	1,215	10	65.6	−2.7	88	22	42	1	30	6.95	+2.80	1.85	....	17	13	17	0	S	Arthur Betts
Rock Rapids	Lyon	1,358	9	66.2	−1.2	91	21	38	10	32	5.72	+1.01	1.70	....	12	....	....	....	.....	W. C. Wyckoff
Sheldon	O'Brien	1,422	8	65.0	−1.4	91	20	38	15	38	5.35	+ .84	1.33	....	10	16	9	5	SE	Dr. A. W. Beach
Sibley	Osceola	1,212	15	62.9	−3.1	86	*21	37	10	32	7.82	+3.30	2.16	....	14	14	2	14	SE	H. G. Doolittle
Sioux Center	Sioux	.....	9	64.4	−2.4	88	21	41	*12	38	4.81	+ .08	1.18	....	11	17	7	6	SE	J. de Ruyter
Storm Lake	Buena Vista	1,440	12	65.4	−1.6	84	*22	41	15	29	9.63	+4.84	3.15	....	18	7	15	8	SE	Ralph H. Carr
Washta	Cherokee	1,157	10	65.2	.....	87	*21	36	15	34	6.51	+2.16	2.00	....	12	9	14	7	S	H. L. Felter
Waverly	Bremer	948	12	66.0	−1.5	87	22	44	15	28	4.97	+ .72	1.61	....	13	5	20	5	.....	H. S. Hoover
West Bend	Palo Alto	1,197	14	65.8	−1.6	88	22	41	15	32	9.28	+5.06	3.41	....	12	8	17	5	NW	Phil Dorweiler
Averages	.....	.....	....	65.5	−1.8	87.6	.....	40.1	.....	33.2	6.79	+2.22	.....	....	13	11	12	7	SE	
CENTRAL SECTION																				
Amana	Iowa	721	31	68.2	−1.2	91	22	44	10	34	3.30	−1.11	.75	....	12	12	15	3	SE	Conrad Schadt
Ames	Story	926	27	67.0	−2.4	88	*20	41	*11	36	3.93	− .60	1.34	....	13	6	7	17	S	Iowa State College
Audubon	Audubon	1,301	15	66.7	−1.4	90	27	38	30	39	5.69	+1.84	1.06	....	17	12	8	10	S	Geo. E. Kellogg
Baxter	Jasper	998	8	66.4	−1.2	88	22	42	11	30	6.25	+1.75	3.08	....	15	16	9	5	SE	W. R. Vandike
Belle Plaine	Benton	828	18	68.2	−0.9	88	22	43	11	31	2.81	−1.36	1.12	....	12	10	14	6	SE	S. P. Vandike
Boone	Boone	1,134	3	66.5	.....	88	27	43	11	30	5.87	.....	1.58	....	13	15	6	9	S	Carl Fritz Henning
Buckingham	Tama	.....	8	.....	.....	.....	.....	.....	.....	.....	2.79	−2.15	1.12	....	9	5	14	11	.....	Dr. W. A. Daniel
Carroll	Carroll	1,265	18	66.2	−2.4	88	27	42	*11	35	7.94	+3.27	1.25	....	19	12	4	14	.....	Frank Hughes
Cedar Rapids	Linn	733	26	68.8	−1.5	93	22	46	*10	27	3.23	− .64	.77	....	11	10	12	8	.....	Electric Light & P. Co.
Clinton	Clinton	593	40	69.4	−0.3	94	22	45	10	33	4.03	− .40	2.58	....	10	10	11	9	SE	Luke Roberts
Davenport	Scott	580	36	68.8	−2.1	90	22	46	10	27	4.57	+ .46	2.66	....	12	11	11	8	E	Weather Bureau
Delaware	Delaware	1,083	17	66.0	−1.8	89	22	43	16	29	3.35	− .83	1.22	....	6	14	14	2	SE	Wm. Ball
Denison	Crawford	1,180	13	a67.2	−0.6	86	*22	b45	*11	28	9.54	+6.12	1.30	....	18	23	2	5	N	W. C. Van Ness
Des Moines	Polk	861	29	68.0	−2.4	88	20	48	10	27	5.93	+ .97	1.82	....	15	4	16	10	SE	Weather Bureau
De Soto	Dallas	866	8	68.1	−0.9	88	*20	43	11	33	4.61	+ .24	.92	....	14	14	6	10	SE	R. D. Minard
Dubuque	Dubuque	639	35	67.4	−2.2	88	22	49	15	26	2.21	−2.34	.65	....	15	9	12	9	SE	Weather Bureau
Fort Dodge	Webster	1,126	8	65.8	−0.8	87	*20	41	11	34	7.28	+3.47	2.40	....	15	15	0	15	SE,S,SW	J. F. Monk
Gilman	Marshall	1,052	9	.....	.....	.....	.....	.....	.....	.....	3.33	−1.41	1.05	....	12	....	....	....	.....	Jas. L. Wylie
Grinnell	Poweshiek	1,023	16	67.3	−1.0	90	22	41	10	30	3.09	−1.49	1.18	....	11	15	7	8	N,SE	A. O. Price
Grundy Center	Grundy	976	17	67.6	−0.6	88	22	42	*10	29	3.63	−1.67	.66	....	10	16	11	3	S	W. H. Scott
Guthrie Center	Guthrie	1,077	13	a68.2	−0.8	a88	20	a41	11	a32	6.47	+2.06	1.23	....	17	17	7	6	SW	D. G. Beardsley
Harlan	Shelby	1,192	9	66.6	−1.9	86	*22	43	10	31	6.34	+1.72	1.18	....	17	7	14	9	SE	C. A. Reynolds
Independence	Buchanan	921	43	66.0	−2.4	88	22	41	15	27	4.72	− .06	1.89	....	14	14	12	4	SE	George Donohue
Iowa City	Johnson	683	49	69.0	−0.3	92	20	45	*10	36	2.87	−1.71	1.37	....	11	13	5	12	SE	Prof. Karl E. Guthe
Iowa Falls	Hardin	1,170	15	65.6	−1.9	89	22	39	15	35	5.71	+1.19	1.41	....	14	14	7	9	SE	J. B. Parmelee
Jefferson (c)	Greene	.....	....	66.8	.....	87	20	43	*10	32	.....	.....	.....	....	....	....	....	....	.....	Geo. W. Jackson
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	3.57	.....	1.60	....	9	16	5	9	SW	Margaret T. Disney
Little Sioux	Harrison	.....	4	68.2	.....	90	*21	44	*10	31	9.77	.....	2.08	....	18	12	7	11	SE	Geo. H. Gibson
Logan	Harrison	928	42	68.5	−1.4	89	23	45	10	29	8.02	+2.59	1.97	....	14	10	15	5	NW	Glen H. Stern
Marshalltown	Marshall	947	16	66.7	−2.0	89	22	42	*10	31	3.60	− .76	1.00	....	12	12	2	16	SE	Geo. R. Estabrook
Montezuma	Poweshiek	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	...	...	...	...	.....	C. J. Griffin
Muscatine	Muscatine	.....	49	.....	.....	.....	.....	.....	.....	.....	4.05	− .81	1.90	....	10	12	10	8	E	Wm. P. Molis
Newton (h)	Jasper	944	19	68.0	−1.7	90	22	.....	.....	.....	.....	.....	.....	....	...	...	...	...	.....	Hon. J. P. Beatty
Odebolt	Sac	1,356	10	67.8	−1.7	90	*22	40	15	39	8.79	+4.77	1.41	....	15	17	4	9	.....	E. Starner
Olin	Jones	760	11	67.0	−1.2	91	22	40	1	32	3.40	− .34	1.17	....	9	16	10	4	SE	Hon. Nathan Potter
Onawa	Monona	1,051	8	69.6	−0.4	89	21	47	10	26	7.72	+2.72	1.77	....	20	14	8	8	SE	C. G. Perkins
Perry	Dallas	975	7	68.3	−2.0	89	*20	43	14	34	5.04	+ .35	1.14	....	13	4	18	8	.....	J. A. Harvey
Rockwell City	Calhoun	.....	12	67.7	−0.8	90	20	44	11	32	10.65	+6.39	2.00	....	14	....	....	....	.....	C. M. Randall
Sioux City	Woodbury	1,135	19	66.5	−2.9	90	21	44	10	28	4.67	+ .79	1.52	....	15	6	12	12	SE	Weather Bureau
Stuart	Guthrie	1,216	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	...	...	...	...	.....	Geo. B. Irick
Tipton	Cedar	807	10	69.8	−0.1	92	22	48	10	29	2.26	−1.68	.66	....	10	20	6	4	SE	F. K. Gregg
Toledo	Tama	856	14	67.4	−1.8	90	22	43	10	32	3.88	+ .35	1.20	....	10	17	4	9	SE	I. F. Giger
Waterloo	Black Hawk	862	25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	...	...	...	...	.....	M. L. Newton
Waukee	Dallas	1,039	4	68.8	.....	93	22	41	14	38	5.79	+1.93	1.40	....	14	13	12	5	SE	A. H. Blackmore
Webster City	Hamilton	.....	3	67.8	.....	89	*22	38	*11	39	5.09	.....	1.63	....	9	15	10	5	SE	C. D. Carpenter
Whitten	Hardin	1,036	10	67.2	−0.7	90	22	41	10	34	3.42	− .91	1.22	....	8	16	11	3	SE,SW	Dr. Frank P. Butler
Wilton Junction	Muscatine	683	13	67.6	−2.5	88	*20	40	2	29	3.47	+ .17	1.18	....	8	17	12	1	W	Wm. Lang
Zearing	Story	.....	4	67.0	.....	87	22	41	11	29	4.74	.....	1.37	....	11	11	10	9	SE	C. P. Bean
Average	.....	.....	....	67.6	−1.4	89.2	.....	42.9	.....	31.6	5.06	+ .69	.....	....	13	13	9	8	SE	

CLIMATOLOGICAL DATA FOR IOWA, JUNE, 1908—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in Inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
SOUTHERN SECTION																				
Afton	Union	1,212	14	69.2	−1.6	91	20	45	11	36	5.90	+1.74	1.76	....	11	5	16	9	SW	N. W. Rowell
Albia	Monroe	959	10	66.7	−2.9	87	*20	45	*11	29	2.29	−2.57	.67	....	12	8	10	12	S	J. I. Chenoweth
Allerton	Wayne	.....	6	67.8	−0.3	88	20	46	11	30	3.13	−1.56	.90	....	12	13	10	7	SW	Mrs. Geo. Shriver
Atlantic	Cass	1,164	17	66.5	−2.6	88	27	42	*10	35	7.22	+1.81	1.61	....	12	....	....	....	.....	J. W. Love
Bedford	Taylor	.....	8	67.8	−0.5	87	20	45	11	33	7.72	+3.25	2.16	....	18	11	11	8	SE	E. E. Healy
Bloomfield	Davis	881	....	a69.6	.....	b91	*20	47	*11	32	4.19	.....	1.30	....	12	12	13	5	SE	F. H. Roberts
Bonaparte	Van Buren	.....	17	68.0	−3.2	88	*20	47	*15	31	3.52	−1.16	.93	....	11	....	....	....	.....	Hon. B. R. Vale
Burlington	Des Moines	544	12	71.9	+1.4	92	21	51	14	32	5.17	+ .09	1.73	....	11	19	1	10	E	W. E. Poppe
Chariton	Lucas	1,042	13	66.6	−2.6	87	20	43	11	30	3.34	−1.38	1.00	....	6	16	6	8	SE	C. C. Burr
Clarinda	Page	1,009	18	68.2	−2.8	90	27	46	11	36	7.03	+2.13	1.46	....	16	12	6	12	SE	A. S. Van Sandt
Columbus Junction	Louisa	595	7	68.9	+0.2	90	*20	46	10	30	3.78	.....	1.45	....	9	19	8	3	SE	J. B. Johnston
Corning	Adams	1,117	16	67.4	−2.1	87	*20	45	11	30	6.51	+2.46	1.85	....	11	11	16	3	SE	Jerome Smith
Corydon	Wayne	1,101	15	68.1	−1.8	86	20	46	11	31	1.92	−2.73	.67	....	8	13	9	8	E	Clara Miller
Creston	Union	1,312	3	66.6	.....	85	*20	45	11	29	6.83	.....	1.59	....	13	16	2	12	S	Rev. W. L. Gaston
Cumberland	Cass	.....	9	.....	.....	.....	.....	.....	.....	.....	8.28	+3.60	2.04	....	16	11	9	10	SW	J. H. Reppert
Earlham	Madison	.....	6	65.5	+0.3	85	20	39	1	34	6.28	+1.75	1.11	....	14	10	8	12	SE	Geo. Phillips
Elliott	Montgomery	.....	3	67.2	.....	89	27	48	*10	28	9.09	.....	3.00	....	14	9	16	5	SE	Henry Barnes
Fairfield	Jefferson	.....	14	.....	.....	90	23	.....	.....	.....	5.73	+ .60	2.20	....	9	....	....	....	S	R. Monroe McKenzie
Fort Madison	Lee	516	59	.....	.....	.....	.....	.....	.....	.....	4.20	− .18	1.22	....	15	6	12	12	S	Miss L. A. McCready
Greenfield	Adair	.....	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	Geo. Brooks
Hancock	Pottawattamie	1,113	2	67.1	.....	87	27	45	10	23	6.98	.....	1.62	....	15	19	3	8	SE	W. Armstrong
Hopeville	Clarke	.....	17	67.6	−2.1	88	20	46	11	30	3.83	− .22	.90	....	13	3	22	5	SE	M. T. Ashley
Indianola	Warren	969	17	67.9	−1.8	87	20	46	10	26	4.31	+ .13	1.40	....	15	9	11	10	SE	Prof. J. L. Tilton
Keokuk	Lee	574	37	70.2	−2.3	90	22	48	16	23	4.32	− .03	1.38	....	13	14	12	4	E	Weather Bureau
Keosauqua	Van Buren	644	16	68.4	−3.3	90	*20	45	11	29	5.18	+ .63	2.00	....	9	3	13	14	.....	J. H. Landes
Knoxville	Marion	920	12	69.0	−2.6	89	22	45	11	32	2.51	−1.81	.70	....	11	11	7	12	SE	Casey & Bellville
Lacona	Warren	.....	9	.....	.....	.....	.....	.....	.....	.....	3.10	−1.91	.90	....	12	7	18	5	.....	Agent C., B. & Q. Ry.
Lenox	Taylor	1,250	13	68.0	−1.3	87	20	47	*10	31	6.52	+2.25	1.95	....	11	15	10	5	NW	J. T. Hurley
Leon	Decatur	1,120	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	Morris Gardner
Massena	Cass	.....	3	67.6	.....	86	20	44	14	35	6.86	.....	1.10	....	15	3	26	1	SE,S	G. A. Hill
Mt. Ayr	Ringgold	1,236	15	68.3	−1.7	89	6	47	11	33	5.31	+ .59	1.17	....	16	7	16	7	SE	A. F. Beard
Mt. Pleasant	Henry	729	26	69.8	−1.6	92	22	47	16	29	4.64	+ .16	1.96	....	11	11	17	2	SE,SW	Prof. J. W. Edwards
Omaha, Neb	Douglas	1,040	38	68.8	−2.8	90	27	50	10	30	8.72	+3.67	1.87	....	19	6	11	13	SE	Weather Bureau
Oskaloosa	Mahaska	843	24	68.2	−1.3	91	22	45	11	34	2.12	−1.99	.50	....	9	18	0	12	SE,SW	Jos. Boyd
Ottumwa	Wapello	649	14	70.0	−1.2	91	22	48	11	29	3.90	− .18	1.35	....	7	13	5	12	SE	Dr. Jas. A. Hull
Pacific Junction	Mills	960	9	68.5	−1.2	89	17	49	10	28	7.79	+3.33	1.92	....	16	9	14	7	S	H. H. McCartney
Pella(a)	Marion	877	6	69.4	−1.9	91	22	45	10	32	2.43	−1.35	1.29	....	15	....	....	....	SE	T. W. Cox
St. Charles	Madison	1,070	7	67.1	−1.5	87	*20	44	10	28	6.94	+2.60	1.33	....	15	12	13	5	NW	R. D. Minard
Sigourney(b)	Keokuk	877	12	69.3	−1.5	91	*20	45	10	34	1.77	−2.21	.55	....	11	....	....	....	.....	J. T. Parker
Stockport	Van Buren	.....	6	67.8	.....	86	22	48	*11	22	3.92	−2.44	1.32	....	11	15	5	10	S	C. L. Beswick
Thurman	Fremont	.....	11	69.7	−1.3	90	*22	48	14	33	10.49	+3.99	3.10	....	15	8	13	9	SW	C. R. Paul
Wapello (d)	Louisa	588	10	67.6	−2.0	86	*20	47	17	28	4.22	+ .66	1.66	....	9	17	11	2	.....	Geo. W. Schofield
Washington	Washington	769	27	67.4	−4.3	89	22	45	10	30	3.19	− .32	.98	....	7	6	17	7	SE	Wm. A. Cook
Winterset	Madison	1,129	17	69.9	−0.2	91	20	45	10	35	6.40	+ .57	1.10	....	14	8	16	6	SE	Dr. Robert S. Cooper
Woodburn	Clarke	961	9	67.4	.....	87	*20	39	11	38	3.85	− .53	1.31	....	15	13	11	6	SE	C. B. McDonough
Average		.....	....	68.2	−1.8	88.6	.....	45.7	.....	30.7	5.14	+ .52	.....	....	12	11	11	8	SE	
State average		.....	....	67.1	−1.7	88.5	.....	42.9	.....	31.8	5.66	+1.14	.....	....	13	12	10	8	SE	

*And other dates. *a* one day missing, *b* two days; *c* three days; *d* four days.

THUNDERSTORMS—STATIONS AND DATES

NORTHERN SECTION.

Stations	Dates
Algona	6,8,17,18,19,21,27,28
Alta	5,6,7,12,17,18,21,22,23,27,28,30
Alton	6,7,8,12,18,28
Britt	6,27
Charles City	6,7,12,17,18,20,21,22,23,24,26,27
Decorah	20
Elkader	7,20,21
Elma	12,13,17,19,21,24,28
Fayette	7,12,17,18,20,23,27
Grand Meadow	7,18,19,20
Inwood	5,7,12,17,18,22,23,28
Larrabee	5,6,7,17,18,22,23,27,28
Le Mars	5,6,7,18,20,23,28
Mason City	6,7,8,13,17,19,20,21,23,27
Northwood	6,8,19,20,21,22,23,27
Plover	2,5,6,7,12,16,17,21,22,28,30
Pocahontas	5,6,7,12,13,14,15,17,18,19,27,28,30
Ridgeway	7,12,17,18,20,21,22,23,27,30
Sheldon	6,7,8,18,23,28
Sioux Center	7,17,18,22,23,28
Waverly	6,7,8,17,18,20,23,27,28,30
West Bend	18,21,23,27,28

CENTRAL SECTION

Stations	Dates
Amana	5,6,7,13,18,20,27
Ames	28
Audubon	5,6,7,9,16,17,23
Baxter	19,28
Boone	1,12,21,27
Carroll	5,6,30
Cedar Rapids	21
Clinton	6,12,20,28,30
Davenport	6,7,13,19,20,23,28,30
Delaware	7,21,28,30
Des Moines	3,6,7,17,18,23,27,28,30
De Soto	6,18,19
Dubuque	6,7,8,13,20,21,23,27,28,30
Grinnell	5,7,18,19,23,28,30
Guthrie Center	1,5,6,7,9,17,18,25,27,30
Harlan	5,6,7,8,12,13,17,18,23,27,28,30
Independence	5,6,8,12,19,21,25,28
Iowa City	5,6,30
Iowa Falls	3,6,7,12,17,18,20,21,27,30
Little Sioux	6,13
Olin	5,6,7,13,17,18,20
Onawa	5,6,7,12,13,18,23,27,28,30
Sioux City	5,6,7,11,17,18,22,23,28,30
Whitten	6,7,12,13,17,18,19,20,23,28,30
Zearing	13,21,23,28,30

SOUTHERN SECTION

Stations	Dates
Albia	14,18,28
Allerton	5,7,12,18,19,29
Atlantic	6,7,13,17,18 23,27
Bloomfield	5,6,17,18,29
Columbus Junction	5,6,7,13,18,21,23,29
Corning	7,9,12,18,27,28,30
Earlham	6,7,12,19,28,30
Elliott	2,7,15,16,17,18,23,28
Fort Madison	6,19,23,28
Indianola	3,6,7,11,12,17,18,22,27,28,30
Keokuk	3,5,6,7,13,18,19,23,28,29
Lenox	7,12,28,30
Mt. Pleasant	6,7,18,28,29
Oskaloosa	27
Omaha, Neb	2,5,6,7,9,11,12,13,17,18,23,27,28,30
Sigourney	6,7,18
Stockport	3,5,6,7,13,18,19,23,29
Thurman	1,2,3,4,7,12,13,23,30
Winterset	19
Woodburn	12,13,18,19,28

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JUNE, 1908

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | | Monthly Mean | |
|---|---|---

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JUNE, 1908—CONTINUED

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | Monthly Mean | |
|---|---|---

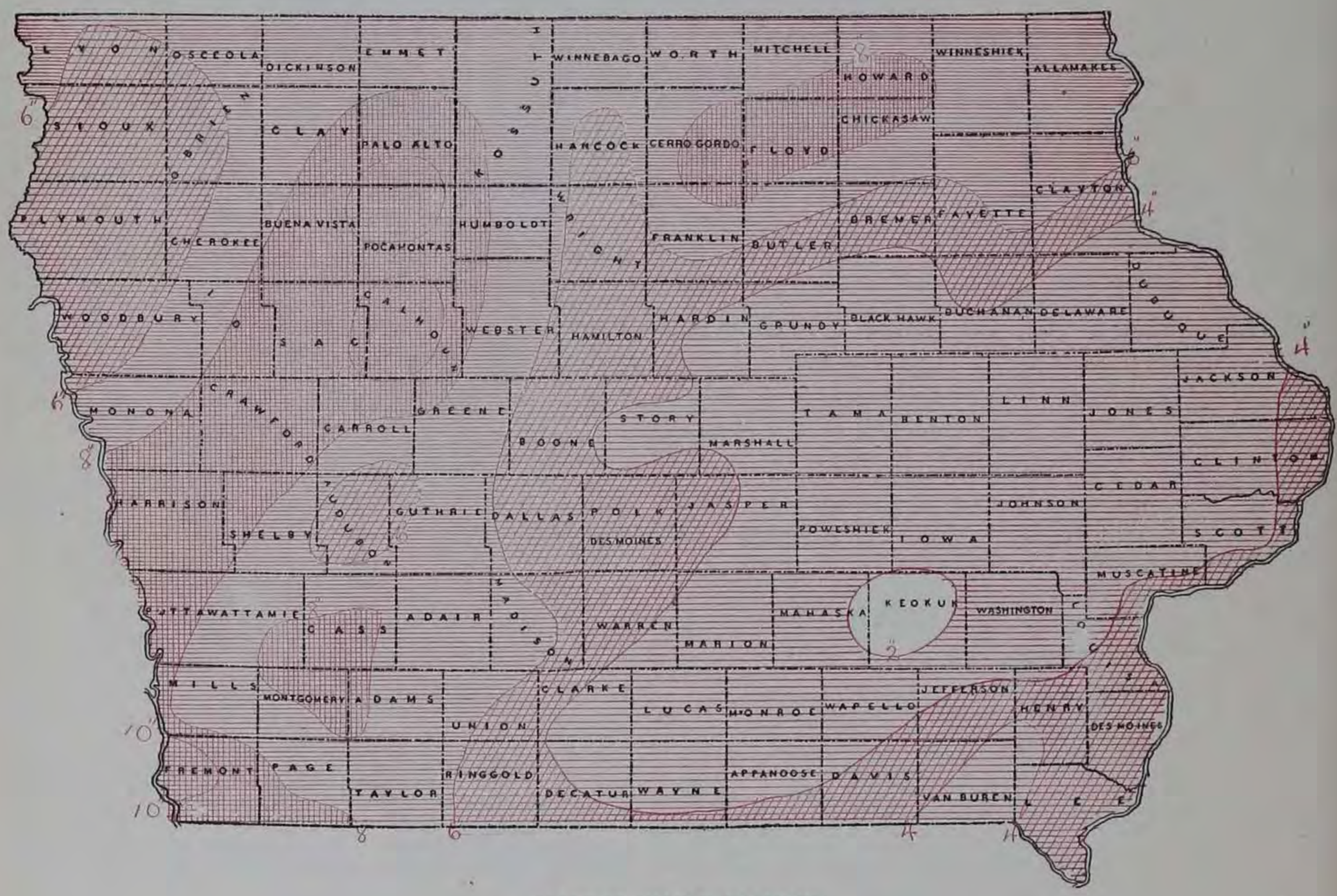
DAILY PRECIPITATION FOR IOWA, JUNE, 1908

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Afton	T	....	....	....	....	.35	1.76	....	.35	....	....	.87	.20	....	....	.05	....	.55	.04	....	....	....	....	....	....	....	1.65	.03	.05	....	5.90
Albia	....	....	T	.03	T	.15	.05	.40	....	....	....	....	.10	.67	....	....	.02	.14	.02	....	....	....	.05	T	....	....	....	.33	.33	....	....	2.29
Algona	....	.42	....	....	.05	.70	.87	.02	....	....	....	.08	.04	....	....	T	.83	1.00	1.25	....	.97	....	.10	....	....	....	.08	.95	....	.25	....	7.61
Allerton	....	T	T	....	.21	.02	.23	.06	T	....	....	.43	.45	....	....	T	....	.23	.12	....	....	....	.02	....	....	....	....	.36	.90	.10	....	3.13
Alta	....	.08	.25	....	.38	.88	.16	1.28	T	....	....	.12	.01	....	....	....	2.07	.57	1.06	....	.10	....	.18	....	....	....	....	.76	T	.13	....	8.03
Alta (near)	.07	.12	T	....	.20	.88	1.72	.06	.02	....	....	.15	.02	....	....	.10	1.88	1.90	....	....	.10	....	.22	....	....	....	.44	.50	....	.12	....	8.50
Alta (near)	.07	21	.03	....	.05	.27	.63	.92	....	....	....	.05	....	....	....	T	.74	.56	....	T	T	.03	.24	....	....	....	....	.50	....	.05	....	4.35
Alton	....	.03	....	....	.27	.12	.75	.01	....	....	....	.37	.31	....	....	....	....	.05	.43	....	.25	....	T	....	....	....	....	.59	....	.12	....	3.30
Amana	.03	.09	....	....	....	.41	.37	....	....	....	....	.21	.02	....	....	.04	.52	.36	....	....	.26	....	.10	....	....	....	....	1.34	....	.18	....	3.93
Ames	....	.10	....	....	.15	1.36	1.35	....	.25	....	....	....	.80	....	....	.18	.85	1.61	....	....	....	....	.15	....	....	....	.35	....	....	.07	....	7.22
Atlantic	.55	.21	.01	....	.05	1.06	.89	....	.06	....	....	.48	.22	.04	....	.14	.55	.98	....	....	.05	....	.55	....	....	....	....	.28	....	.07	....	5.69
Audubon	.21	.02	.10	....	.17	.36	.27	....	....	....	....	.10	.03	....	....	T	.14	.33	.83	....	.02	....	.39	....	....	....	....	3.08	....	.20	....	6.25
Baxter	.01	.19	....	....	.08	T	2.16	.05	.01	.13	....	1.47	.60	.02	....	.12	.11	.88	.13	....	....	....	.10	....	....	....	....	1.53	.06	.07	....	7.72
Bedford	....	.01	....	....	.21	.08	....	....	....	....	....	.18	.09	....	....	....	.03	.02	.72	....	.20	....	....	....	....	....	....	1.12	.02	.13	....	2.81
Belle Plaine	T	....	....	....	.97	1.30	.06	....	....	....	....	.02	.35	....	....	.04	T	.50	.23	....	....	....	.18	....	....	....	....	.14	.36	.04	....	4.19
Bloomfield	....	....	.05	....	.33	.85	.15	....	....	....	....	....	.93	....	....	....	....	.24	.30	....	....	....	.20	....	....	....	....	.30	.15	.02	....	3.52
Bonaparte	....	.27	.18	T	....	.55	.08	.31	....	....	....	.35	.03	....	....	....	.50	1.43	....	....	.39	.14	.06	T	....	....	....	1.58	T	....	....	5.87
Boone	....	.32	.02	....	....	.41	.71	.39	....	....	....	....	.05	....	....	....	.79	.20	1.59	.25	.13	....	.11	....	....	....	.57	.18	....	....	....	5.72
Britt	....	T	....	....	.17	....	.30	....	....	....	....	.37	T	....	....	....	.08	.12	.21	....	.11	....	....	....	....	....	....	1.12	....	.31	....	2.79
Buckingham	....	.05	....	....	....	.22	.36	.69	....	....	....	....	.09	1.73	....	T	....	.10	.20	.50	....	.03	.45	....	....	....	....	....	.80	....	....	5.17
Burlington	....	.72	.33	....	.19	1.25	.21	1.01	.10	.03	....	.53	.17	.16	T	....	1.04	.88	.03	....	.40	....	.50	....	....	....	....	.30	.01	.08	....	7.94
Carroll	....	T	....	....	.23	.40	....	.18	....	....	....	.28	.21	....	....	T	T	.51	....	.77	T	....	.04	....	....	....	.50	.05	....	.06	....	3.23
Cedar Rapids	T	T	1.00	....	.18	T	T	T	....	....	....	.35	.22	....	....	T	T	.64	....	....	....	....	T	....	....	....	....	.95	T	T	....	3.34
Chariton	....	.05	....	....	....	.75	.27	....	....	....	....	.48	.01	....	....	....	.84	.05	....	2.43	.96	T	.26	.05	.01	....	1.78	.01	....	.45	....	8.40
Charles City	.09	.53	T	....	.40	....	.99	.18	....	.27	....	1.46	.30	.10	.10	T	.24	.95	.20	....	....	....	.08	....	....	....	....	1.03	.11	....	....	7.03
Clarinda	....	.35	....	....	.35	.32	....	....	....	....	....	T	.22	....	....	2.00	.25	....	.88	.95	.55	....	.12	....	....	....	.94	.18	....	.56	....	7.67
Clear Lake	....	.08	....	....	....	2.58	....	.02	....	....	....	.18	.35	....	....	....	....	....	....	.50	....	....	.05	.05	....	....	....	.16	....	.06	....	4.03
Clinton	....	....	....	....	.14	1.45	....	.02	....	....	....	....	.66	....	....	T	....	.11	.06	....	.54	....	.08	....	....	....	....	....	.72	....	....	3.78
Columbus Junc	T	.15	....	....	T	T	1.02	.10	.52	....	....	1.03	.19	T	....	....	.30	1.22	....	....	....	....	.06	....	....	....	1.85	.07	....	T	....	6.51
Corning	....	T	....	....	.20	T	....	....	....	....	....	.45	.39	....	....	T	....	....	.02	....	....	....	.04	....	....	....	....	.67	.09	.06	....	1.92
Corydon	....	.06	T	T	....	.20	1.15	.86	....	.44	....	.75	.19	.05	T	....	14	.56	.80	....	....	....	....	....	....	....	....	1.59	.04	....	....	6.83
Creston	T	1.00	....	....	.10	.31	.72	.11	.22	....	1.00	.71	.15	....	.13	T	.38	2.04	....	....	....	.01	.03	....	....	....	....	1.25	....	.05	....	8.21
Cumberland	....	T	....	....	T	2.66	T	.02	....	....	....	.11	.47	....	....	....	.01	T	.01	.81	.01	....	.25	.03	....	....	....	.05	T	.14	....	4.57
Davenport	....	.13	....	....	....	T	.07	....	....	T	....	1.53	....	....	....	....	.15	....	.06	3.90	.10	.03	.04	....	T	....	.43	.67	....	.60	....	7.71
Decorah	....	T	....	....	....	T	.43	....	....	....	....	.48	....	....	....	....	....	.43	....	....	.44	....	T	....	....	....	....	1.22	....	.35	....	3.35
Delaware	.18	.31	....	....	1.26	.85	1.30	.22	.07	....	....	.44	.41	.02	....	.05	.83	1.26	....	....	.10	....	1.19	....	....	....	.78	.12	....	.15	....	9.54
Denison	.42	.03	.02	T	.01	1.13	.62	....	.03	....	....	.27	T	....	....	.20	.05	.86	....	....	T	....	.29	....	....	....	1.36	.48	....	.18	....	5.93
Des Moines	.43	.03	....	....	T	.92	.60	....	T	....	....	.40	.02	....	....	.11	....	.34	.56	....	.02	....	.16	....	....	....	....	.86	.03	.13	....	4.61
De Soto	....	.03	....	....	....	.23	.12	.02	....	....	....	.17	.16	....	....	....	....	.01	.01	.65	T	.01	.14	.01	....	....	.29	.28	....	.08	....	2.21
Dubuque	.81	T	T	....	....	1.11	.96	.07	.34	....	....	.47	.15	....	T	.09	.09	.49	.96	....	....	....	.07	....	....	....	....	.62	T	.05	....	6.28
Earlham	....	.05	.10	....	....	....	.40	....	....	....	....	.65	....	....	....	.02	T	.15	....	.90	.50	.09	....	.10	....	....	.21	1.10	....	.22	....	4.49
Elkader	....	.30	....	....	.09	1.25	1.12	....	.36	....	....	.94	.09	....	.03	.20	.35	3.00	....	....	....	....	.03	....	....	....	....	1.21	....	.12	....	9.09
Elliott	....	.08	.23	....	....	.90	.78	....	....	....	....	.43	T	....	....	....	.58	....	.80	.58	.95	.80	.33	.15	....	....	T	1.15	....	.50	....	8.26
Elma	....	....	.30	....	.27	.35	.02	.37	T	....	....	T	....	....	....	....	.12	1.23	.06	....	1.27	.06	.10	.14	....	....	....	2.60	....	.46	....	7.35
Estherville	....	.02	....	....	.46	2.20	....	....	....	....	....	....	1.00	....	....	....	....	.35	.13	....	....	....	.15	....	....	....	....	1.01	.41	....	....	5.73
Fairfield	....	.23	....	....	....	T	1.34	....	....	....	....	.82	....	....	....	....	.09	.04	....	.96	.14	T	.55	T	....	....	1.32	.16	....	.26	....	5.91
Fayette	....	.16	.38	....	....	.35	....	.92	....	....	....	....	.30	....	....	....	.08	.54	1.30	....	.60	....	.07	....	....	....	....	.80	....	.52	....	6.02
Forest City	....	.01	.70	....	.02	.42	.03	.48	.03	.02	....	.28	T	....	....	....	.47	2.40	....	....	1.58	....	....	.22	....	....	....	.27	....	.35	....	7.28
Fort Dodge	....	T	T	....	.48	.50	....	....	....	....	....	T	.60	....	....	T	....	.41	.28	T	.71	....	T	....	....	....	....	T	1.22	T	....	4.20
Fort Madison	....	T	.08	....	.20	.36	.35	T	....	....	....	.20	.03	....	....	....	.04	.25	.53	....	T	....	.07	....	....	....	....	1.05	....	.17	....	3.33
Gilman	....	....	.18	....	....	.18	1.31	.01	....	....	....	.70	....	....	....	....	.02	.03	.05	....	2.44	.02	.13	....	.02	....	.01	.75	....	.45	....	6.24
Grand Meadow	....	.12	....	....	....	.37	.11	....	....	....	....	.40	....	....	....	....	.70	.10	....	.10	1.80	....	.19	....	....	....	.27	.28	....	.22	....	4.66
Greene	T	.02	T	....	.32	.05	.03	....	....	....	....	.12	.03	....	....	....	....	.30	.83	....	....	....	.07	....	....	....	....	1.18	....	.14	....	3.09
Grinnell	....	.05	....	....	T	.10	.20	....	....	....	....	.66	.43	....	....	....	.30	.15	....	....	.62	....	T	....	....	....	....	.64	....	.48	....	3.63
Grundy Center	.60	.08	.01	....	.05	.85	.80	....	.06	....	....	.72	.06	T	....	.08	.58	.60	.10	....	.01	T	.55	....	....	....	....	1.23	.01	.08	....	6.47
Guthrie Center	....	.30	....	....	....	.70	.40	....	....	....	....	.36	....	....	....	....	1.60	.17	....	1.55	....	....	.10	....	....	....	.50	.13	.17	.03	....	6.03
Hampton	.02	.26	....	....	.04	1.22	.77	.02	.57	....	....	1.00	.16	T	....	.18	.28	1.62	....	....	....	....	.11	....	....	....	....	.66	.02	.05	....	6.98
Hancock	.02	.29	....	....	.38	.84	1.18	.07	.04	....	....	.90	.58	.02	....	.13	24	.75	....	....	.03	....	.44	....	....	....	T	.39	....	.04	....	6.34
Harlan	....	.02	.01	....	T	T	.78	.04	.08	.10	....	.62	.35	....	....	.04	....	.66	.23	....	....	....	.08	....	....	....	....	.90	....	.02	....	3.83
Hopeville	....	.64	....	....	....	.62	.65	.36	....	....	....	.04	.08	....	....	....	.82	.90	.05	....	1.20	....	....	....	....	....	.22	.22	....	.55	....	6.35
Humboldt	....	.06	....	....	.01	.05	.01	.03	....	....	....	.51	....	....	....	....	.01	.03	.47	....	1.89	....	.04	....	.14	....	....	1.07	....	.40	....	4.72
Independence	.09	.01	.06	....	....	.46	.57	....	.25	....	....	.22	.03	....	....	.08	.03	....	.88	....	....	....	.05	....	....	....	....	1.40	.04	.14	....	4.31
Indianola	.17	.33	T	....	.06	.09	1.42	.12	....	....	....	.59	....	....	....	.07	1.66	1.05	T	....	....	.06	.23	....	....	.08	T	.42	....	.34	....	6.69
Inwood	....	....	.05	....	....	.21	1.37	.01	....	....	....	....	.15	.40	....	....	....	.36	.05	....	.11	....	....	....	....	....	....	.12	.04	....	....	2.87
Iowa City	....	.09	.14	T	....	.84	.24	.25	....	....	....	....	.58	T	....	....	T	1.41	T	....	1.00	.04	.15	.20	....	....	....	.50	.07	.20	....	5.71
Iowa Falls	....	.02	.08	....	.35	.12	.26	.04	....	....	....	T	1.38	....	....	.02	....	.01	.37	....	....	....	.98	....	....	....	....	.07	.62	T	....	4.32
Keokuk	....	.05	T	T	T	.44	2.00	.03	....	....	....	....	T	.89	....	....	.03	T	.68	.03	....	....	....	....	....	....	....	....	1.03	....	....	5.18
Keosauqua	T	T	.21	....	.05	.03	.10	....	.09	....	....	.08	.35	T	....	.03	....	.70	.19	....	....	....	T	....	....	....	....	.68	....	T	....	2.51
Knoxville	.03	.08	....	....	.05	....	.09	.05	.10	....	....	.30	.55	....	....	....	.20	....	.90	....	....	....	....	....	....	....	....	.35	....	.40	....	3.10
Lacona	.05	.02	....	....	.30	.53	1.37	T	....	....	....	.10	T	....	....	.15	.50	.59	....	....	....	.33	.22	....	....	....	T	.27	....	.06	....	4.49
Larrabee	....	....	T	....	....	....	1.60	.04	....	....	....	....	.05	.52	....	....	....	T	T	....	.92	....	....	....	.34	.01	....	.05	.04	....	....	3.57
Le Claire	.04	.41	....	T	.07	.39	.65	.54	.02	....	....	.17	....	....	....	.04	.49	.66	.01	.02	....	T	.31	....	....	....	....	.29	....	.03	....	4.14
Le Mars	....	.13	....	....	....	....	1.81	.10	.32	....	....	1.09	.19	....	....	.12	....	.66	....	....	....	....	....	....	....	....	....	1.95	.10	.05	....	6.52
Lenox	.05	.78	....	.28	.25	1.52	2.08	.08	....	....	....	.66	.96	.04	....	.12	.60	1.14	.01	....	....	....	.91	....	....	....	....	.07	.01	.21	....	9.77
Little Sioux	T	.70	....	....	.25	1.36	1.97	....	.09	....	....	.35	.57	.06	T	.24	.44	.77	....	....	....	....	.91	....	....	....	....	.20	....	.11	....	8.02
Logan	....	....	....	.07	....	.10	.04	.07	....	....	....	....	.30	.03	....	....	1.00	.34	.24	....	....	.50	....	.05	....	....	....	.86	....	....	....	3.60
Marshalltown	....	.26	....	....	....	.30	.20	.05	....	....	....	.29	1.15	....	....	....	1.28	.10	.96	1.30	.35	....	.15	....	....	....	1.18	....	....	.63	....	8.20
Mason City	....	.05	....	....	.33	.63	1.10	.03	.42	....	....	.50	.63	T	....	.13	....	1.04	1.04	....	....	....	.03	....	....	....	....	.82	.08	.03	....	6.86
Massena	....	.61	....	....	....	.40	.10	1.00	....	....	....	.30	....	....	....	....	.60	.70	....	....	....	....	.43	....	....	....	....	.12	....	....	....	4.26
Merrill	T	.13	....	....	....	.05	.75	.07	.18	.07	....	1.17	.47	T	....	.07	.05	.70	.22	....	....	....	.15	....	....	....	....	1.08	.08	.07	....	5.31
Mt. Ayr	....	.03	....	....	.21	1.96	T	.06	....	....	....	T	.87	....	....	....	T	.07	.16	....	.05	....	.02	....	....	....	....	.03	1.18	T	....	4.64
Mt. Pleasant	T	....	....	....	....	.46	1.90	.07	....	....	....	....	.30	.55	....	....	....	....	.05	....	.32	....	....	.22	....	....	....	.05	.13	....	....	4.05
Muscatine	.15	.05	....	....	....	.35	.60	.10	....	....	....	.23	....	....	....	....	.23	....	.95	1.95	.45	.10	.30	.08	....	....	.65	.30	....	.60	....	7.09
Northwood	.32	.38	....	....	.55	.95	1.41	....	....	....	....	.15	....	....	....	.10	1.01	1.07	.88	.04	.08	....	.35	....	....	....	....	1.40	.10	....	....	8.79
Odebolt	....	T	....	....	....	.65	T	....	....	....	....	.31	.29	....	....	....	.06	.30	....	....	1.17	....	T	.01	....	....	....	.44	....	.17	....	3.40
Olin	.14	.73	....	T	.87	.83	1.80	....	.22	....	1.03	.08	.02	.05	.01	.18	.51	.40	....	....	....	.01	.14	....	....	....	1.31	.01	....	.35	....	8.72
Omaha, Neb	.01	.55	.01	....	.23	.88	1.77	.07	.01	....	....	.40	.15	.10	....	.20	.72	1.32	....	.02	....	....	.73	....	....	....	.01	.23	.01	.30	....	7.72
Onawa	....	.22	....	....	....	.38	.50	....	....	....	....	.71	....	....	....	....	.63	....	....	1.75	1.20	.17	.06	....	....	....	T	1.22	....	.61	....	7.45
Osage	T	T	T	....	.36	T	.19	....	T	....	....	.04	.50	....	....	.02	....	.21	....	....	....	....	.07	....	....	....	60	....	....	.13	....	2.12
Oskaloosa	....	....	....	....	.85	.25	....	....	....	....	....	T	.80	....	....	T	....	....	.35	....	....	....	.15	....	....	....	....	....	.15	1.35	....	3.90
Ottumwa	T	.56	....	T	.63	.05	1.05	.13	.31	....	....	1.18	.41	.13	.07	.18	.05	.89	....	....	T	....	.07	....	....	....	....	1.92	....	.06	....	7.79
Pacific Junction	.01	.01	.02	....	.04	.05	.09	....	.04	....	....	.04	.14	....	....	.04	....	.42	.16	....	....	....	....	....	....	....	....	1.29	.02	.06	....	2.43
Pella	.16	.12	....	....	.33	.67	.46	....	....	....	....	.44	....	....	....	....	1.14	.54	.06	....	.04	....	.30	....	....	....	....	.64	....	.14	....	5.04
Perry	....	.74	....	....	.30	.43	.88	....	T	....	....	.12	....	....	....	....	1.11	4.08	T	....	2.08	.20	....	....	....	....	....	1.28	....	.66	....	11.88
Plover	....	.80	....	....	.86	.59	.84	....	....	....	....	.12	....	....	....	T	.85	.92	2.56	....	1.12	T	.20	....	....	....	.02	.56	....	.30	....	9.24
Pocahontas	....	.04	.16	....	....	.06	.61	.01	....	....	....	1.16	.03	....	....	....	.28	.01	....	1.85	.47	.06	.12	.23	....	....	1.00	.16	....	.70	....	6.95
Ridgeway	T	T	T	T	T	.24	1.25	T	....	....	....	....	.60	T	....	....	1.70	.30	T	T	.54	.22	T	.16	T	.20	.16	.15	.20	T	....	5.72
Rock Rapids	T	.95	.05	....	.15	.80	.85	....	....	....	....	.10	....	....	....	....	1.05	1.00	2.00	1.50	....	.35	....	....	....	1.50	.20	.15	....	....	....	10.65
Rockwell City	1.26	.01	T	....	T	.64	1.33	.01	.16	....	....	.48	.09	....	....	....	.15	.76	.54	....	....	....	.07	....	....	....	....	1.28	.07	.09	....	6.94
St. Charles	.02	.03	....	....	T	.35	.66	.99	....	....	T	....	....	....	....	T	1.33	.42	....	....	....	....	.31	....	....	....	T	.42	....	.82	....	5.35
Sheldon	....	....	.01	....	.02	.24	.72	.86	....	....	....	.03	....	....	....	....	2.10	1.00	....	....	.18	.19	.11	.03	....	....	....	2.16	....	.17	....	7.82
Sibley	....	.03	T	....	.21	.28	T	....	....	....	....	.02	.55	....	....	....	....	.17	.03	....	....	....	.13	....	....	....	....	.25	.05	.05	....	1.77
Sigourney																																

DAILY PRECIPITATION FOR IOWA, JUNE, 1908—Continued

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Sioux Center	T	....	....	.36	....	.43	1.12	.26	....	....	....	....	....	....	....	.13	.74	18	....	....	....	.15	.18	....	....	T	....	1.18	....	.08	....	4.81
Sioux City	.02	.07	T	T	.29	.26	1.48	.01	.09	....	.15	....	.01	T	....	.11	1.44	.06	....	T	T	....	.34	....	....	T	T	.25	....	.09	....	4.67
Stockport	T	T	.02	....	.91	1.32	.02	....	....	....	....	T	.87	....	....	T	.02	.15	.19	....	....	....	.27	....	....	....	....	T	.13	.02	....	3.92
Storm Lake	....	.56	.01	.01	.43	.50	1.21	.04	....	....	....	.14	.01	....	....	.05	1.94	3.15	.05	....	.30	....	.13	....	....	....	.32	.67	....	.11	....	9.63
Thurman	T	1.30	....	T	.54	....	1.75	.05	.10	....	....	1.85	.24	.05	.10	.15	.15	.91	....	....	....	....	.10	....	....	....	....	3.10	.10	T	....	10.49
Tipton	....	....	....	....	.16	.66	....	.10	....	....	....	.19	.34	....	....	....	....	.09	....	.20	....	....	....	....	....	....	....	.13	.07	.32	....	2.26
Toledo	....	....	.40	....	1.20	....	.02	.03	....	....	....	.30	....	....	....	....	....	.15	.35	....	.40	....	....	....	....	....	....	.80	....	.23	....	3.88
Wapello	....	....	....	....	T	1.22	1.66	.02	....	....	....	.05	.72	....	....	....	....	T	.13	....	....	....	.15	....	....	....	....	....	.07	.18	....	4.22
Washington	....	....	....	....	.27	.98	.52	....	....	....	....	.11	.48	....	....	....	....	.23	....	....	....	....	....	....	....	....	....	.60	....	....	....	3.19
Washta	.43	.27	....	....	.75	....	1.33	....	.06	....	....	.15	T	T	....	.05	2.00	.60	....	T	....	....	....	....	....	....	.22	.50	....	.15	....	6.51
Waukee	.10	.05	T	....	....	1.35	.80	.08	T	....	....	.45	.05	....	....	.10	.10	.35	.75	....	....	....	.01	....	....	....	....	1.40	....	.20	....	5.79
Waverly	....	.03	....	....	.05	.09	.42	....	....	....	....	.72	....	....	....	....	.42	.04	....	....	1.64	....	.47	.07	....	....	....	.78	....	.24	....	4.97
Webster City	T	T	....	....	....	.73	.20	....	....	....	....	.14	T	....	....	T	1.63	.48	....	....	1.22	....	.10	....	....	....	....	.42	....	.17	....	5.09
West Bend	....	.86	....	....	.06	....	.71	....	....	....	....	.03	.23	....	....	T	.85	3.41	....	....	1.56	....	.10	....	....	....	.19	1.08	....	.20	....	9.28
Whitten	....	T	....	....	....	.41	T	T	....	....	....	.47	.19	....	....	....	.34	.22	T	T	.17	....	T	....	....	....	....	1.22	....	.40	....	3.42
Wilton Junction	....	....	....	....	1.18	.48	.11	....	....	....	....	....	.45	....	....	....	....	....	....	.30	.20	....	....	....	....	....	.45	....	....	.30	....	3.47
Winterset	1.10	T	....	....	....	.73	1.09	....	.22	....	....	.53	.23	....	T	.09	.09	.54	1.00	....	....	....	.01	....	....	....	....	.69	.04	.04	....	6.40
Woodburn	.15	T	.26	....	....	.03	.08	....	T	....	....	.40	.39	....	....	.03	T	.80	.32	....	....	....	T	....	....	....	....	1.31	.02	.06	....	3.85
Zearing	T	T	....	....	....	.33	.50	....	....	....	....	.07	.20	....	....	....	.42	.30	.17	....	1.07	....	.09	....	....	....	....	1.37	....	.22	....	4.74

TOTAL PRECIPITATION, JUNE, 1908.



SCALE OF SHADES—IN INCHES

Less than 2 | 2 to 4 | 4 to 6 | 6 to 8 | More than 8

IOWA CROPS, 1908—NUMBER OF ACRES BY COUNTIES

COUNTIES	Winter Wheat—Acres	Spring Wheat—Acres	Corn—Acres	Oats—Acres	Rye—Acres	Barley—Acres	Flax—Acres	Potatoes—Acres	Hay (Tame)—Acres	Hay (Wild)—Acres	Pastures—Acres
Adair	55	2,560	86,190	32,940	95	2,560	.....	970	46,740	4,420	110,400
Adams	770	1,320	69,200	21,390	180	1,720	.....	580	32,550	2,380	87,040
Allamakee	1,025	570	38,070	21,030	660	11,810	270	1,120	43,190	940	103,900
Appanoose	1,004	20	52,300	20,040	610	110	.....	625	76,250	2,070	141,180
Audubon	40	7,450	85,940	36,220	11	6,120	.....	780	31,940	3,900	81,910
Benton	40	460	132,320	70,880	310	12,070	.....	1,610	48,580	10,020	107,680
Black Hawk	30	145	93,040	53,170	1,510	4,020	.....	2,970	29,510	11,070	86,600
Boone	45	1,500	94,400	25,610	270	700	.....	1,070	23,870	17,800	80,010
Bremer	25	150	61,400	50,720	600	3,490	100	2,230	20,260	20,650	68,800
Buchanan	13	106	80,740	50,090	470	2,930	60	980	39,500	13,500	100,830
Buena Vista	27	1,260	95,360	73,770	100	1,030	400	1,200	22,690	19,100	79,280
Butler	.....	190	106,380	72,350	1,310	2,050	.....	1,510	23,630	11,550	85,420
Calhoun	35	775	95,850	70,210	200	1,950	313	1,060	18,230	18,720	71,270
Carroll	71	7,410	106,000	60,460	70	3,940	75	1,750	23,060	13,360	73,330
Cass	1,400	8,350	101,320	39,590	168	3,390	.....	1,290	40,490	2,830	103,270
Cedar	368	970	103,470	31,540	540	12,990	.....	1,010	46,250	300	95,450
Cerro Gordo	.....	410	88,070	74,660	790	1,930	610	1,460	30,310	11,980	73,120
Cherokee	80	3,540	108,750	70,160	20	3,500	60	1,350	29,080	13,260	81,250
Chickasaw	40	560	42,020	61,990	450	4,650	2,400	1,150	24,850	15,830	63,630
Clarke	540	40	51,080	16,070	120	430	.....	500	46,700	240	91,500
Clay	100	1,120	70,650	65,840	120	1,590	150	780	28,740	18,530	71,540
Clayton	940	1,130	73,560	58,320	1,960	14,000	20	1,715	51,410	3,120	134,700
Clinton	465	1,350	112,090	39,150	1,170	8,130	.....	1,330	51,690	4,080	126,530
Crawford	138	19,310	135,070	58,320	120	3,690	.....	1,730	44,010	7,580	113,670
Dallas	580	1,230	111,240	43,030	480	1,370	.....	690	28,360	7,740	96,600
Davis	995	.....	43,640	19,660	1,180	60	.....	510	42,700	60	204,650
Decatur	1,368	.....	55,100	15,890	628	40	.....	456	41,580	710	98,210
Delaware	40	167	92,600	39,320	1,210	13,120	35	1,330	51,590	7,160	106,870
Des Moines	3,128	20	59,030	24,130	1,010	690	.....	1,170	25,540	550	18,510
Dickinson	.....	1,020	38,360	40,810	90	3,010	800	580	15,530	16,770	43,110
Dubuque	96	1,010	63,530	45,260	340	6,220	.....	2,410	48,600	2,170	115,030
Emmet	35	710	45,340	43,210	110	580	680	510	19,650	12,400	45,090
Fayette	173	780	86,110	65,510	300	1,820	855	1,610	54,950	13,370	133,300
Floyd	16	171	75,790	73,560	800	2,430	920	1,430	13,200	4,830	63,190
Franklin	.....	1,450	99,300	75,570	370	1,450	340	1,520	28,780	15,650	82,110
Fremont	2,660	3,170	104,000	14,430	320	130	.....	625	21,210	4,170	71,040
Greene	30	350	103,620	48,570	260	1,550	60	1,030	25,140	15,580	82,110
Grundy	50	863	99,800	65,630	45	5,630	20	3,330	23,180	8,870	68,040
Guthrie	218	2,630	83,930	33,080	138	1,600	.....	930	33,410	5,500	85,530
Hamilton	267	1,920	95,380	64,070	92	540	300	1,020	24,090	19,660	80,410
Hancock	30	1,810	71,570	80,700	120	1,520	495	850	21,470	16,780	66,390
Hardin	100	2,370	100,100	62,470	150	1,320	40	1,190	24,470	14,840	88,470
Harrison	2,890	23,210	125,810	22,060	910	2,120	.....	1,220	21,120	13,050	91,110
Henry	1,240	.....	70,060	28,410	1,460	510	.....	580	23,480	45	78,470
Howard	50	740	44,220	52,180	335	7,930	7,860	770	36,120	10,950	63,160
Humboldt	.....	3,200	66,100	55,130	110	910	260	660	21,360	15,270	56,620
Ida	250	6,390	83,550	38,750	35	7,860	.....	940	25,750	3,540	60,050
Iowa	375	1,120	96,390	40,430	495	2,490	.....	1,330	49,820	940	106,120
Jackson	330	1,220	71,500	30,150	108	6,490	.....	1,205	63,110	1,780	152,290
Jasper	390	3,620	121,250	51,690	520	1,520	.....	1,220	45,370	2,180	143,810
Jefferson	1,970	110	50,440	21,740	1,720	620	.....	440	33,140	37	90,920
Johnson	257	870	102,490	47,350	1,420	4,610	.....	1,320	51,080	1,860	103,220
Jones	40	350	75,140	28,560	730	7,440	.....	1,180	49,630	850	115,300
Keokuk	830	628	89,660	35,270	955	3,220	.....	820	45,820	250	103,660
Kossuth	40	4,080	117,800	111,960	410	2,450	1,400	1,570	34,860	55,430	121,200
Lee	8,720	.....	55,180	21,460	3,000	65	.....	1,325	39,410	3,090	108,610
Linn	70	730	100,330	48,590	780	1,290	.....	1,920	16,480	5,770	115,120
Louisa	3,423	76	62,430	22,760	1,880	510	.....	570	17,860	480	59,450
Lucas	880	50	46,130	13,050	475	410	.....	410	41,430	780	87,120
Lyon	250	8,330	88,670	75,050	100	3,530	40	1,360	17,630	11,270	53,790
Madison	340	950	81,490	22,580	330	3,580	.....	683	39,160	22,210	126,690
Mahaska	575	840	90,470	31,460	405	3,000	.....	920	33,210	1,130	91,710
Marion	1,250	2,380	94,250	27,980	445	2,060	.....	720	31,620	875	111,820
Marshall	323	2,170	102,360	52,490	380	1,580	30	1,670	35,860	2,160	84,930
Mills	1,450	4,660	87,860	15,770	265	1,120	.....	760	20,050	4,770	60,540
Mitchell	90	620	54,970	70,910	210	7,020	5,850	1,240	28,210	2,730	57,050
Monona	10,472	9,450	121,000	29,480	315	2,850	150	1,250	10,820	16,050	86,430
Monroe	1,416	42	36,200	9,060	270	285	.....	505	31,220	147	83,020
Montgomery	2,449	8,850	82,400	18,070	68	1,730	.....	657	29,120	1,100	69,570
Muscatine	963	820	64,660	20,690	2,620	9,300	.....	2,230	24,020	1,630	67,730
O'Brien	130	3,110	70,980	61,650	110	13,890	180	1,305	27,400	10,850	58,370
Oceola	.....	2,030	47,020	70,270	240	8,620	820	585	17,800	9,200	34,830
Page	6,320	4,430	102,550	19,030	650	1,400	.....	890	29,860	4,200	98,110
Palo Alto	12	710	52,870	56,340	60	655	700	1,240	14,430	30,940	57,660
Plymouth	1,905	41,850	175,710	83,240	165	10,090	395	1,870	27,290	24,290	112,480
Pocahontas	.....	465	78,320	78,670	128	580	830	970	16,810	24,850	68,640
Polk	795	2,950	91,170	40,730	310	470	.....	2,130	26,970	6,880	82,630
Pottawattamie	1,060	17,870	181,120	46,590	265	2,280	.....	2,710	44,560	11,580	125,150
Poweshiek	12	1,120	100,900	37,030	190	3,810	.....	940	41,590	2,180	110,800
Ringgold	752	38	60,720	19,230	290	157	.....	425	48,670	340	109,460
Sac	113	2,010	109,650	61,830	49	5,390	176	1,080	25,680	13,270	81,060
Scott	1,322	2,210	79,380	24,520	1,210	28,600	.....	6,090	37,810	5,000	67,720
Shelby	189	14,020	116,240	43,530	108	8,070	90	1,295	36,580	6,450	87,030
Sioux	860	31,160	154,290	74,950	100	27,890	113	1,420	24,160	19,610	79,390
Story	195	590	101,400	47,620	250	720	40	860	27,210	12,250	74,680
Tama	20	2,400	117,510	52,490	370	11,270	.....	2,100	21,370	4,310	121,260
Taylor	2,350	190	79,580	19,210	680	1,960	.....	610	44,720	1,450	114,930
Union	500	92	47,360	15,480	106	440	.....	640	34,380	1,120	81,100
Van Buren	2,100	.....	43,490	19,210	1,850	75	.....	470	38,690	210	181,920
Wapello	1,742	75	48,370	17,690	980	673	.....	820	30,500	10	84,290
Warren	938	960	74,670	25,030	400	1,160	.....	990	43,400	1,380	111,200
Washington	990	237	89,120	42,410	650	1,475	.....	686	38,160	110	91,480
Wayne	420	.....	69,000	21,400	300	20	390	515	64,145	3,020	121,680
Webster	6	3,180	101,560	76,920	140	843	.....	1,140	23,500	30,080	96,950
Winnebago	.....	4,160	44,980	40,200	70	1,590	1,846	630	14,010	18,980	46,450
Winneshiek	457	3,107	65,380	69,750	377	16,810	6,710	1,150	47,240	11,920	119,140
Woodbury	3,819	13,930	173,700	54,150	440	6,630	140	1,900	23,160	15,590	94,020
Worth	20	1,690	36,580	60,010	148	2,220	3,510	520	17,230	14,150	51,340
Wright	.....	3,010	91,460	79,970	9	1,240	300	1,000	31,310	10,430	71,930
Total for State	85,147	323,467	8,399,610	4,431,650	50,893	397,408	40,833	118,517	3,252,370	869,062	8,966,180

U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR JULY, 1908.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR



PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1908

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

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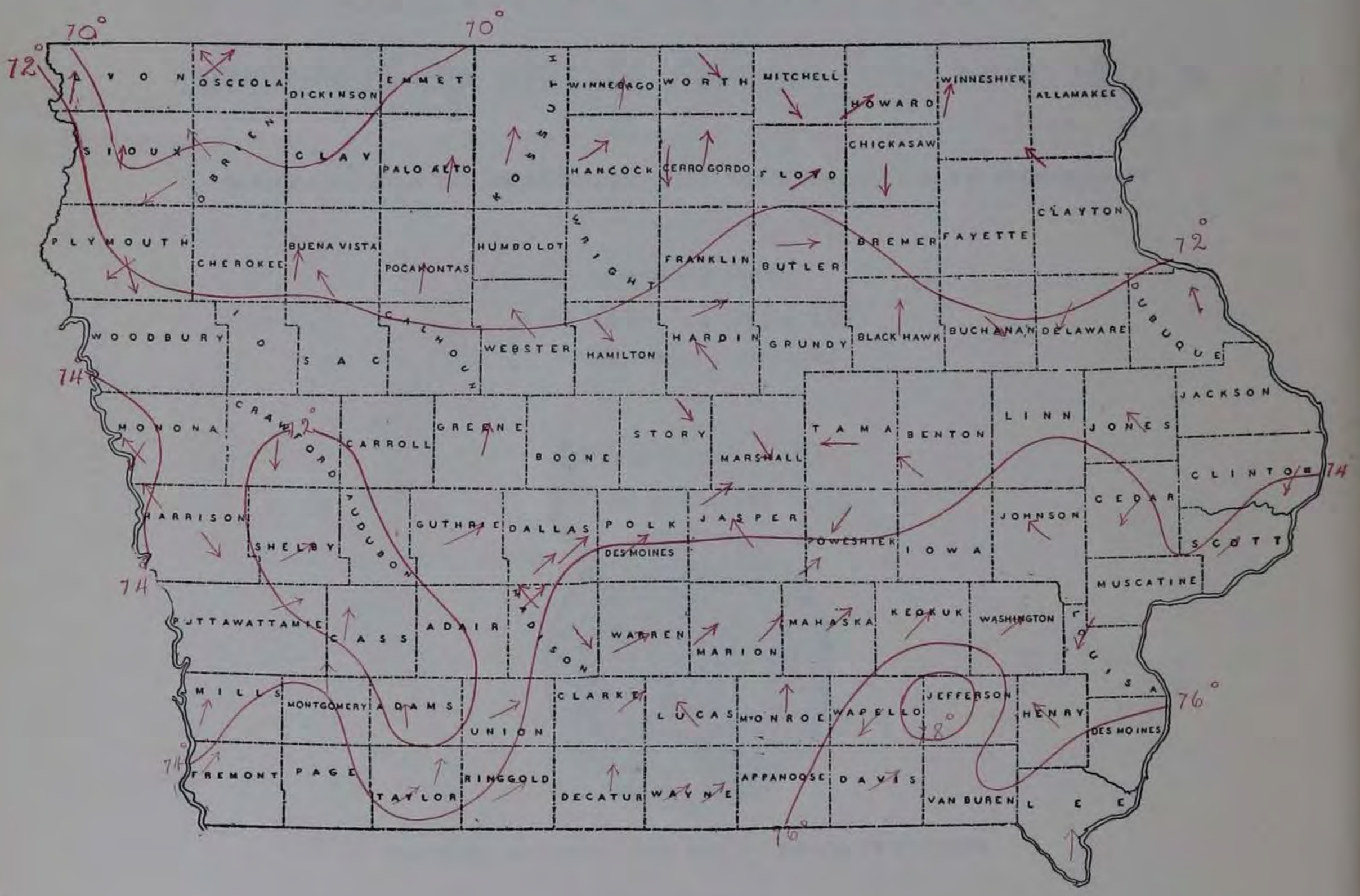
MEAN ISOTHERMS AND PREVAILING WINDS OF JULY, 1908.

Lines pass thru points of equal temperature. Arrows fly with the wind.



U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IOWA SECTION,

GEO. M. CHAPPEL, Section Director.

VOL. XIX DES MOINES, IOWA, JULY, 1908. NO. 7.

IOWA CROP REPORT, JULY 25, 1908.

Following is a summary of reports received from crop correspondents of the Iowa Weather and Crop Service, showing the estimated condition of the staple crops July 25, 1908, as compared with the average condition on that date in past years: Corn, 88 per cent; spring wheat, 93; oats, 85; flax, 92; barley, 94; hay crop, 104; pastures, 102; potatoes, 93; apples, 48; grapes 78.

Conditions August 1, 1907: Corn, 79 per cent; spring wheat, 85; oats, 76; barley, 85; flax, 88; hay, 80; potatoes, 90; pastures, 100; apples, 40; grapes, 84.

GENERAL SUMMARY.

July, 1908, will be remembered as one of the most favorable harvest months on record, the average temperature and precipitation being slightly below the normal with an excess of sunshine. The average daily deficiency in temperature was 0.4°, and the average total deficiency in rainfall was .78 inch. The first eight days of the month were unseasonably cool with minimum temperatures down to 42° at several stations in the northwestern counties on the 7th and 8th. The warmest periods of the month were from the 10th to the 13th and 28th to 30th, when the maximum temperatures were generally above 90°. The temperature during the remainder of the month was about normal. Rain fell at some station in the State every day during the month, but after the 7th the showers were so widely scattered and the intervals between showers were so great that there was an average for the month of but eight days with rain. The heavy and frequent rains which began on April 21st continued until July 7th, but since then the only period of general rains was on the 16th and 17th, and the amounts of precipitation in that period were generally small except over the Missouri divide and the northern counties, where the amounts at many stations ranged from 1.00 to 5.00 inches. There were a few severe wind and hailstorms, but not as many as is usual during July. The worst storm of which we have a record occurred in Ida county on the afternoon of the 26th, causing considerable damage in the vicinity of Arthur, at which place the storm track was about five rods wide. It struck the town about 1 p. m. and lasted but a few seconds, but blew down many sheds and other light buildings, windmills and trees. The character of the storm approached that of a tornado, but there was no funnel-shaped cloud observed. Heavy hail fell in many localities during the passage of the storm across the county and did serious damage to crops.

A severe hailstorm occurred in the vicinity of Woodburn, Clarke county, on the 17th, resulting in some damage. After the first week of the month the weather was ideal for haying, harvesting and the growth of corn. The moderately high temperatures, excess of sunshine, and the long intervals between showers enabled farmers to secure the large crop of hay in the best of condition.

Small grain harvest began during the second week of the month and was nearly completed, and thrashing operations were in full progress before the close of the month. The yield and quality of wheat, especially winter wheat, was good. The yield of oats ranged from poor in southern counties to fair to good in central and northern counties, but for the State the yield will be considerably below the average. The quality, however, was good, notwithstanding the fact that red rust was becoming quite general at the time harvest began. Corn made an abnormally rapid growth and in many fields was up to the average condition, but for the State at large the crop is very uneven. On low and flat fields, which were previously flooded, corn is decidedly below the average in growth, but has good color, is growing rapidly and, with continued warm weather and occasional showers, will make a fair crop, if frosts do not come before the average date.

Pastures and potatoes have remained in good condition, but are beginning to show the effects of dry weather and would be benefited by a good rain. The apple crop will be very small.

TEMPERATURE.—The monthly mean temperature for the State, as shown by the records of 114 stations, was 73.0°, which is 0.4° below the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 71.8°, which is 0.3° below the normal; Central section, 73.3°, which is 0.4° below the normal; Southern section, 74.0°, which is 0.5° below the normal. The highest monthly mean was 78.3°, at Fairfield, Jefferson county, and the lowest monthly mean, 69.2°, at Sibley, Osceola county. The highest temperature reported was 100°, at Rockwell City and Odebolt, in Calhoun and Sac counties, on the 11th and 29th; the lowest temperature reported was 42°, at Inwood, Larrabee, Washta and Dows, in Lyon, Cherokee and Wright counties, on the 7th and 8th. The average monthly maximum was 94.6°, and the average monthly minimum was 48.2°. The greatest daily range was 41°, at Fairfield, Jefferson county. The average of the greatest daily ranges was 31.7°.

PRECIPITATION.—The average precipitation for the State, as shown by the records of 123 stations, was 3.66 inches, which is .78 inch below the normal. By sections the averages were as follows: Northern section, 4.24 inches, which is .04 inch below the normal; Central section, 3.60 inches, which is .91 inch below the normal; Southern section, 3.13 nches, which is 1.41 inches below the normal. The greatest amount, 9.21 inches, occurred at Alta (near), Buena Vista county, and the least, .70 inch, at Oskaloosa, Mahaska county. The greatest amount in twenty-four hours, 5.93 inches, occurred at Grand Meadow, Clayton county, on the 17th. Measurable precipitation occurred on an average of 8 days.

SUNSHINE AND CLOUDINESS.—The average number of clear days was 16; partly cloudy, 10; cloudy, 5. The duration of sunshine was near the normal, the percentage of the possible amount being 69 at Davenport; 67 at Des Moines; 63 at Dubuque; 73 at Keokuk; 66 at Sioux City, and 69 at Omaha, Neb.

WIND.—Southwest winds prevailed. The highest velocity reported was 36 miles per hour from the southwest, at Keokuk, Lee county, on the 16th.

APPARATUS FOR PROTECTION FROM FROST AND HAIL.

The Scientific American Supplement of May 9, 1908, contains an illustrated account of an apparatus recently brought out in France for protecting vines and fruit trees from injury by frost and hail. Screens of canvas and straw matting, attached to a system of framework, are so adjusted that the action of a single lever at a central station will spread them simultaneously over the entire region to be protected. Protection against frost is automatic; a thermometer is arranged to release a counterweight when the temperature falls to the danger point, and wires leading from the counterweight mechanism draw the screens.

The inventor, M. Becker-Bertrand, of Rheims, has successfully applied his invention in the champagne-producing districts of France. —*Monthly Weather Review.*

COMPARATIVE DATA FOR THE STATE—JULY.

Year	Temperature				Precipitation			
	Mean	Departure from the normal	Highest	Lowest	Average	Departure from the normal	Greatest	Least
1890	75.6	+2.1	110	45	1.98	−2.14	5.00	.37
1891	68.5	−5.0	99	41	4.22	+ .10	8.20	1.67
1892	73.0	−0.5	104	38	5.29	+1.17	12.86	1.71
1893	75.0	+1.5	102	47	3.33	− .79	8.84	1.49
1894	76.4	+2.9	109	39	.63	−3.49	3.50	T
1895	72.1	−1.4	104	55	3.40	− .72	10.10	.45
1896	73.6	+0.1	104	42	6.90	+2.78	12.67	1.61
1897	75.6	+2.1	106	42	3.26	− .86	7.60	1.01
1898	73.4	−0.1	102	42	2.98	−1.14	12.88	.55
1899	73.1	−0.4	101	38	3.07	−1.05	8.66	.42
1900	73.4	−0.1	102	37	6.15	+2.03	18.45	1.80
1901	82.4	+8.9	113	46	2.34	−1.78	5.97	.22
1902	73.1	−0.4	99	41	8.67	+4.55	13.57	4.87
1903	72.9	−0.6	100	40	4.83	+ .71	12.72	.94
1904	70.6	−2.9	100	38	4.41	+ .29	11.97	1.28
1905	70.6	−2.9	102	40	2.91	−1.21	7.08	.69
1906	70.9	−2.6	102	42	3.04	−1.08	7.05	.26
1907	73.7	+0.2	102	41	7.27	+3.15	13.66	3.97
1908	73.0	−0.5	100	42	3.66	− .46	9.21	.70

ATMOSPHERIC PRESSURE.

STATIONS	Mean barometer reduced	EXTREMES			
		Highest reduced barometer	Date	Lowest reduced barometer	Date
Charles City	30.04	30.29	31	29.70	19
Davenport	30.04	30.25	8	29.65	17
Des Moines	30.02	30.25	7	29.69	17
Dubuque	30.05	30.27	8	29.65	17
Omaha, Neb.	30.03	30.33	7	29.70	17
Keokuk	30.05	30.26	8	29.71	17
Sioux City	30.02	30.33	7	29.68	5
Means	30.04	30.33	7	29.65	17

WIND MOVEMENT.

STATIONS	Number of miles	Maximum velocity	Direction	Date
Charles City	3777	24	SW	16
Davenport	4287	31	SW	16
Des Moines	4972	33	SW	5
Dubuque	3245	24	N	12
Keokuk	3977	36	SW	16
La Crosse, Wis	2886	19	NW	6
Omaha, Neb	5185	35	NW	5
Sioux City	7196	35	NW	17

OBSERVERS' REMARKS.

AFTON.—*N. W. Rowell.* The weather has been excessively hot, the mean maximum temperature being two degrees above that of July, 1907, but it has been a splendid month for belated corn which will make an average crop.

ALBIA.—*J. I. Chenoweth.* The weather was favorable for harvesting and hay making, but more rain is needed.

ALLERTON.—*Mrs. Geo. Shriver.* Haying and harvesting almost finished and some thrashing has been done. Corn needs rain.

ALTA.—*D. E. Hadden.* The rainfall during July, 1908, was 3.50 inches above the eighteen-year normal and the mean daily temperature was about one degree below the normal. On the afternoon of the 26th 3.04 inches of rain fell in two hours and forty-five minutes, and during the early morning of the 30th 1.80 inch fell in less than one hour. On the 16th wind damaged many trees.

ALTON.—*W. S. Slagle.* The weather has been fine for all growing crops as well as for haying and early oats and barley harvest. Grass has been plentiful and corn is showing a good stand.

ATLANTIC.—*J. W. Love.* The month furnished splendid weather for all kinds of crops and corn is making rapid growth.

BONAPARTE.—*B. R. Vale.* The fore part of the month was wet, but the latter half was dry and warm. All farm work has been retarded by the excessive rains earlier in the season.

BRITT.—*Geo. P. Hardwick.* The higher temperatures have been beneficial for the belated corn. The quality and yield of grain was reduced by rust. The fruit crop is nearly a failure, but potatoes are good. Three inches of rain fell during a storm on the night of the 16th in the northwest part of the county.

CHARITON.—*C. C. Burr.* Corn makes a fairly good showing but needs rain badly. Harvesting is finished and thrashing returns show variable results. Oats are light in weight. A fine crop of clover was put up in good condition.

CRESTON.—*Rev. W. L. Gaston.* There has been plenty of rain and enough dry weather for corn cultivation.

ELLIOTT.—*Henry Barnes.* The warm, dry weather advanced corn so that at the end of the month it was nearly up to the average condition. Hay and small grain harvest nearly completed. The yield of hay was above and wheat and oats were below the average.

ELMA.—*H. A. Moore.* Haying began on the 7th and barley and oats harvest on the 18th. Corn began tasseling on the 20th. Lightning did some damage on the evening of the 17th.

FOREST CITY.—*J. A. Peters.* Haying was finished on the 15th and small grain harvest was about completed at the close of the month and early corn in tassel. The weather conditions very good for corn.

POSTVILLE.—*F. L. Williams.* The month was favorable for all crops except that the heavy rain on the 17th (5.93 inches) flooded low ground. Haying is finished and harvesting is well advanced.

GRINNELL.—*A. O. Price.* The highest temperature during the month was 94°; lowest, 48°, and the daily mean was 1° below the normal.

HANCOCK.—*W. Armstrong.* Tame hay all cut and small grain nearly all harvested at the close of the month.

INWOOD.—*L. B. Hanson.* Uniform temperature and excellent weather have prevailed during most of the month. Corn was laid by early and is now in tassel. Harvest will soon be completed and thrashing has begun.

IOWA FALLS.—*J. B. Parmelee.* Finest weather for securing the hay crop and for harvest we have had in years.

KEOSAUQUA.—*J. H. Landes.* A good month for corn growing and harvesting and as a result corn is coming nicely and harvest is finished in good shape and thrashing has begun. The yield and quality of hay and wheat are good, but oats are poor.

LARRABEE.—*H. B. Strever.* The weather has been seasonable and corn has made good gains during the month. Oats were too rank in growth and lodged considerably when cut. Potatoes are promising and pastures are excellent.

LITTLE SIOUX.—*Geo. H. Gibson.* On the morning of the 30th a destructive wind-storm did considerable damage to buildings and fruit and shade trees.

OLIN.—*Nathan Potter.* July has been a very favorable month for harvesting, there being but a few traces of rain after the 17th of the month.

POCAHONTAS.—*F. E. Hronek.* The crops are in better condition than they were a year ago. Early planted corn is in silk and gives promise of a fair crop. Most of the oats have been harvested and the quality of the crop is better than in 1907. Late oats were beginning to go down from the effects of rust. Potatoes are not very promising.

RIDGEWAY.—*Arthur Betts.* The month was very pleasant; the temperature was a little below the normal. On the 16th 3.31 inches of rain fell.

SHELDON.—*A. W. Beach.* A good month for maturing all crops. There was about 85% of sunshine. Corn is fully up to the standard and a large crop of hay was secured in good condition. All grain except wheat has been cut and thrashing from shock has begun. Barley shows good yield and quality, and oats are of good quality but light yield.

STOCKPORT.—*C. L. Beswick.* A large hay crop was harvested in July and thrashing was well advanced at the close of the month. The weather was somewhat dry and hot during the latter part of the month.

WAPELLO.—*G. W. Schofield.* The weather during July was favorable for haying and harvesting. Thrashing is mostly finished with the following yields: Wheat, thirty bushels; rye, twelve, and oats from ten to twenty-five bushels per acre. Corn is doing well, but rain is needed.

WOODBURN.—*C. B. McDonough.* A severe hailstorm past over this vicinity on the 17th doing a great amount of damage to crops.

ZEARING.—*W. C. Bean.* The month has been very favorable for hay making and harvesting. Oats were all in shock and thrashing just begun at the end of the month.

CLIMATOLOGICAL DATA FOR IOWA, JULY, 1908

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
NORTHERN SECTION																				
Algona	Kossuth	1,213	34	72.2	— 1.2	96	11	47	7	30	2.14	— .96	.65	....	8	23	4	4	s	Dr. F. T. Seeley
Alta	Buena Vista	1,513	17	71.0	— 0.9	94	11	45	7	30	8.14	+3.46	3.07	....	12	16	12	3	s	D. E. Hadden
Alta [near]	Buena Vista	.....	....	.....	.....	.....	.....	.....	.....	.....	9.21	.....	2.70	....	11	....	....	....	.....	W. J. Minard
Alton	Sioux	1,305	3	72.6	.....	98	10	47	7	34	4.19	.....	1.44	....	7	22	4	5	ne	W. S. Slagle
Britt	Hancock	1,236	11	72.1	+ 0.3	94	11	47	7	33	4.33	— .10	1.89	....	9	2	23	6	sw	G. P. Hardwick
Charles City	Floyd	1,015	20	71.6	— 1.9	94	10	50	8	29	4.34	+ .76	2.52	....	11	4	17	10	sw	Weather Bureau
Clear Lake	Cerro Gordo	1,241	9	72.2	— 1.0	94	11	50	7	34	2.16	−2.58	.98	....	7	21	2	8	n	Oscar Stevens
Decorah	Winneshiek	875	15	d 72.6	+ 0.6	98	10	h 49	8	38	4.72	+1.00	1.89	....	10	....	....	....	.....	F. H. Baker
Dows (a)	Wright	1,142	8	70.8	— 0.9	93	11	42	8	38	3.34	−2.29	1.68	....	7	....	....	....	.....	G. D. Flett
Elkader	Clayton	727	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	.....	Chas. Reinecke
Elma	Howard	.....	....	71.3	.....	94	*10	45	8	36	3.78	.....	1.42	....	8	13	16	2	sw	H. A. Moore
Estherville	Emmet	1,298	12	70.0	— 1.1	94	10	46	7	30	4.19	— .38	2.10	....	10	15	0	16	e	A. O. Peterson
Fayette	Fayette	1,003	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	.....	R. Z. Latimer
Forest City	Winnebago	1,226	14	72.0	‡ 0.0	95	11	48	7	30	5.08	+1.40	2.10	....	7	18	9	4	s	J. A. Peters
Grand Meadow	Clayton	1,180	17	71.3	+ 0.8	92	11	51	*1	26	6.98	+2.24	5.93	....	7	8	18	5	se	F. L. Williams
Greene	Butler	.....	9	73.6	+ 0.3	98	11	48	8	36	2.84	−1.86	1.60	....	9	11	15	5	w	J. L. Cole
Hampton	Franklin	1,155	18	73.4	+ 1.0	96	11	49	7	33	4.53	— .30	1.48	....	11	6	18	7	sw	E. C. Grenelle
Humboldt ‡	Humboldt	1,095	17	72.6	— 0.3	94	*10	48	7	30	3.78	— .16	1.35	....	6	22	4	5	sw	H. S. Wells
Inwood	Lyon	1,474	4	71.6	.....	99	10	42	7	38	3.20	.....	1.21	....	6	25	3	3	s	F. B. Hanson
Larrabee (a)	Cherokee	1,266	17	a 72.1	— 0.7	a 94	*10	a 42	7	a 36	5.24	+ .87	1.56	....	10	20	9	2	.....	H. B. Streever
Le Mars	Plymouth	1,224	12	71.8	— 0.7	97	11	45	7	30	3.63	— .84	.92	....	8	22	7	2	ne, nw	G. A. C. Clarke
Mason City	Cerro Gordo	1,132	11	71.2	— 0.3	94	10	48	7	30	3.38	— .68	1.22	....	6	9	19	3	s	J. S. Mills
Merrill	Plymouth	.....	....	.....	.....	.....	.....	.....	.....	.....	2.54	.....	.83	....	7	....	....	....	.....	Eric Oleson
New Hampton	Chickasaw	1,169	11	71.2	— 0.2	91	*10	50	*7	29	3.81	— .38	2.81	....	6	22	4	5	n	A. F. Kemman
Northwood	Worth	1,222	12	d 71.0	— 0.2	d 91	10	e 49	7	d 29	5.43	+1.51	2.07	....	5	17	13	1	nw	Charles H. Dwelle
Osage	Mitchell	1,184	17	73.2	+ 2.7	97	11	49	*7	34	2.34	−1.38	1.24	....	4	13	13	5	nw	Dr. A. D. Bundy
Plover	Pocahontas	1,426	12	72.6	‡ 0.0	95	*11	44	7	35	2.90	−1.47	1.93	....	10	25	4	2	.....	J. S. Smith
Pocahontas	Pocahontas	.....	4	70.8	.....	95	*11	45	7	38	2.73	.....	1.27	....	7	21	7	3	s	F. E. Hronek
Ridgeway	Winneshiek	1,215	10	72.6	— 0.8	97	*10	50	*1	33	5.68	+1.02	3.31	....	10	19	10	2	s	Arthur Betts
Rock Rapids ‡	Lyon	1,358	9	74.0	+ 2.2	99	10	48	1	29	3.36	+ .49	1.66	....	6	....	....	....	.....	W. C. Wyckoff
Sheldon	O'Brien	1,422	8	72.2	+ 0.1	98	11	44	7	40	5.34	+ .18	1.65	....	9	26	3	2	se	Dr. A. W. Beach
Sibley	Osceola	1,212	15	69.2	— 1.0	95	10	43	7	34	3.87	— .10	1.70	....	10	21	3	7	se, sw	H. G. Doolittle
Sioux Center	Sioux	.....	9	70.5	— 0.7	93	10	44	7	32	3.95	— .76	2.00	....	7	25	2	4	s	J. de Ruyter
Storm Lake	Buena Vista	1,440	12	71.6	— 0.3	93	11	46	7	31	5.26	+ .96	2.04	....	9	14	11	6	se	Ralph H. Carr
Washta	Cherokee	1,157	10	71.4	.....	95	29	42	7	39	3.78	— .67	1.93	....	6	19	6	6	s	H. L. Felter
Waverly	Bremer	948	12	71.6	— 0.8	93	11	53	*1	27	3.75	— .79	1.06	....	9	8	17	6	.....	H. S. Hoover
West Bend	Palo Alto	1,197	14	73.0	+ 0.9	95	11	46	7	32	3.00	— .78	2.07	....	8	15	10	6	s	Phil Dorweiler
Averages	.....	.....	....	71.8	— 0.3	94.8	.....	46.6	.....	32.7	4.24	— .04	.....	....	8	17	10	4	s	
CENTRAL SECTION																				
Amana	Iowa	721	31	73.6	— 0.1	95	11	50	8	32	2.44	−1.81	1.28	....	11	15	12	4	sw	Conrad Schadt
Ames	Story	926	27	72.8	— 1.5	94	*10	48	8	37	3.63	— .81	1.32	....	9	14	3	14	s	Iowa State College
Audubon	Audubon	1,301	15	72.3	+ 0.2	96	11	44	8	37	3.23	— .69	1.69	....	10	18	8	5	sw	Geo. E. Kellogg
Baxter	Jasper	998	8	72.2	— 1.0	93	*11	47	8	30	2.54	−2.50	.92	....	9	23	5	3	sw	W. R. Vandike
Belle Plaine	Benton	828	18	72.6	— 0.2	93	11	48	8	28	2.59	−1.82	1.30	....	7	16	8	7	se	S. P. Vandike
Boone	Boone	1,134	3	73.6	.....	95	11	49	7	27	6.27	.....	3.36	....	10	18	7	6	.....	Carl Fritz Henning
Buckingham	Tama	.....	8	.....	.....	.....	.....	.....	.....	.....	2.46	−2.21	.92	....	5	....	....	....	.....	Dr. W. A. Daniel
Carroll	Carroll	1,265	18	72.7	— 0.3	97	11	45	7	32	4.30	+ .29	2.01	....	10	22	4	5	.....	Frank Hughes
Cedar Rapids	Linn	733	26	74.8	+ 0.1	98	11	52	8	35	3.06	— .98	.97	....	9	8	15	8	.....	Electric Light & P. Co.
Clinton	Clinton	593	40	74.0	+ 0.2	96	11	50	*1	34	3.64	— .56	1.23	....	11	12	13	6	ne, sw	Luke Roberts
Davenport	Scott	580	36	75.1	— 0.3	94	30	57	8	26	3.30	— .25	1.23	....	9	13	13	5	sw	Weather Bureau
Delaware	Delaware	1,083	17	72.4	+ 0.5	94	11	50	8	34	3.27	— .91	2.04	....	9	16	14	1	ne	Wm. Ball
Denison	Crawford	1,180	13	a 72.4	— 0.3	93	29	b 47	7	31	1.47	−2.59	.83	....	7	25	4	2	n, s	W. C. Van Ness
Des Moines	Polk	861	29	74.4	— 1.1	94	10	52	7	28	1.56	−2.30	.70	....	8	5	21	5	sw	Weather Bureau
De Soto	Dallas	866	8	73.7	+ 1.0	95	11	48	8	34	5.13	— .70	2.43	....	7	21	6	4	sw	R. D. Minard
Dubuque	Dubuque	639	35	73.4	— 1.3	96	11	53	8	26	2.06	−2.24	1.22	....	9	11	15	5	se	Weather Bureau
Fort Dodge	Webster	1,126	8	72.1	— 0.4	96	11	48	7	32	4.88	+ .85	3.05	....	9	18	5	8	se	J. F. Monk
Gilman	Marshall	1,052	9	.....	.....	.....	.....	.....	.....	.....	4.23	— .36	.98	....	8	....	....	....	.....	Jas. L. Wylie
Grinnell	Poweshiek	1,023	16	73.2	‡ 0.0	94	29	48	*7	31	2.54	−2.41	.97	....	10	18	8	5	ne	A. O. Price
Grundy Center	Grundy	976	17	73.2	+ 1.0	98	11	46	8	35	2.92	−1.63	1.80	....	6	18	10	3	s	W. H. Scott
Guthrie Center	Guthrie	1,077	13	73.4	‡ 0.0	94	11	48	*7	34	3.37	−1.45	1.66	....	13	17	9	5	sw	D. G. Beardsley
Harlan	Shelby	1,192	9	71.8	— 1.4	94	29	46	7	32	1.68	−3.63	.72	....	9	9	17	5	sw	C. A. Reynolds
Independence	Buchanan	921	43	71.6	— 1.3	93	11	47	8	30	2.03	−2.56	.70	....	12	17	11	3	nw	George Donohue
Iowa City	Johnson	683	49	74.8	+ 0.6	97	11	51	8	33	5.40	+ .92	1.69	....	11	14	6	11	se	Prof. Karl E. Guthe
Iowa Falls	Hardin	1,170	15	71.5	— 0.5	95	11	46	8	36	2.66	−1.44	1.43	....	9	18	3	10	sw	J. B. Parmelee
Jefferson (c)	Greene	.....	....	72.6	.....	95	11	47	7	38	3.92	.....	1.20	....	7	....	....	....	s	Geo. W. Jackson
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	4.31	.....	1.42	....	8	17	4	10	sw	Margaret T. Disney
Little Sioux	Harrison	.....	4	73.5	.....	95	29	44	7	32	5.09	.....	2.18	....	9	23	4	4	se	Geo. H. Gibson
Logan	Harrison	928	42	72.8	— 1.9	94	29	49	*3	34	2.06	−3.13	1.60	....	5	13	16	2	nw	Glen H. Stern
Marshalltown	Marshall	947	16	72.5	— 0.7	95	11	45	8	34	3.56	−1.15	1.24	....	11	8	16	7	nw	Geo. R. Estabrook
Montezuma ‡	Poweshiek	.....	....	.....	.....	.....	.....	.....	.....	.....	3.09	.....	1.00	....	9	....	....	....	.....	C. J. Griffin
Muscatine	Muscatine	.....	49	.....	.....	.....	.....	.....	.....	.....	4.25	+ .34	1.34	....	13	14	6	11	s	Wm. P. Molis
Newton	Jasper	944	19	73.8	— 0.6	93	11	52	*7	32	3.48	— .90	1.82	....	5	15	13	3	se	Hon. J. P. Beatty
Odebolt	Sac	1,356	10	74.3	— 0.2	100	29	44	7	35	4.75	+ .11	1.50	....	9	22	5	4	.....	E. Starner
Olin	Jones	760	11	73.2	‡ 0.0	93	11	49	8	34	2.83	−1.14	1.00	....	6	16	13	2	se	Hon. Nathan Potter
Onawa	Monona	1,051	8	75.1	+ 0.1	94	29	50	7	32	2.76	−2.91	.75	....	8	25	2	4	ne, se	C. G. Perkins
Perry	Dallas	975	7	74.0	— 0.6	97	11	49	*7	35	3.43	−1.18	1.77	....	8	6	18	7	.....	J. A. Harvey
Rockwell City	Calhoun	.....	12	73.6	+ 0.2	100	11	47	8	36	8.10	+4.58	3.00	....	7	21	4	6	.....	C. M. Randall
Sioux City	Woodbury	1,135	17	72.8	— 1.4	95	10	49	7	29	2.73	— .88	1.52	....	8	14	7	10	s	Weather Bureau
Stuart (a)	Guthrie	1,216	10	72.6	— 3.0	92	*11	48	7	28	6.98	+1.07	4.23	....	6	....	....	....	.....	Geo. B. Irick
Tipton	Cedar	807	10	76.5	+ 1.7	97	*11	56	8	28	4.35	+ .13	1.30	....	9	15	14	2	ne	F. K. Gregg
Toledo	Tama	856	14	73.4	— 0.2	94	29	47	8	33	3.29	— .77	1.28	....	7	19	9	3	e	I. F. Giger
Waterloo	Black Hawk	862	25	74.0	+ 0.5	99	11	49	8	36	4.87	+ .47	2.42	....	11	17	11	3	s	M. L. Newton
Waukee	Dallas	1,039	5	73.4	.....	94	11	48	8	32	5.67	— .70	4.80	....	7	21	6	4	sw	A. H. Blackmore
Webster City	Hamilton	.....	3	74.3	.....	99	*11	45	8	43	2.79	.....	1.09	....	5	24	7	0	nw	C. D. Carpenter
Whitten	Hardin	1,036	10	72.6	— 0.7	96	11	48	7	34	2.08	−2.26	1.13	....	4	16	12	3	se	Dr. Frank P. Butler
Wilton Junction	Muscatine	683	13	73.6	— 1.1	93	11	53	8	26	6.22	+1.00	2.22	....	8	16	8	7	w	Wm. Lang
Zearing	Story	.....	4	72.9	.....	95	11	47	8	34	1.43	.....	.55	....	8	12	15	4	nw	W. C. Bean
Average	.....	.....	....	73.3	— 0.4	95.2	.....	48.5	.....	32.3	3.60	— .91	.....	....	8	16	10	5	sw	

CLIMATOLOGICAL DATA FOR IOWA, JULY, 1908—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in Inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
SOUTHERN SECTION																				
Afton	Union	1,212	14	74.2	— 1.0	96	11	48	7	32	3.52	— .83	1.09	....	9	14	10	7	sw	N. W. Rowell
Albia	Monroe	959	10	73.2	— 1.0	93	*29	49	8	27	3.09	—1.84	.75	....	10	14	14	3	s	J. I. Chenoweth
Allerton	Wayne	.....	6	73.8	+ 1.2	93	*11	49	*7	29	2.89	—1.68	.64	....	12	20	8	5	sw	Mrs. Geo. Shriver
Atlantic	Cass	1,164	17	72.5	— 0.7	96	11	42	8	39	2.23	—2.10	.63	....	4	6	10	15	s	J. W. Love
Bedford	Taylor	.....	8	73.1	— 0.3	94	29	45	8	35	2.57	—2.77	.84	....	8	19	7	5	sw	E. E. Healy
Bloomfield	Davis	.....	....	75.7	.....	97	*11	51	8	34	3.44	.....	1.15	....	7	20	9	2	sw	F. H. Roberts
Bonaparte	Van Buren	.....	17	73.6	— 1.9	92	30	53	8	31	3.70	— .03	1.50	....	8	....	....	....	.....	Hon. B. R. Vale
Burlington	Des Moines	544	12	77.2	+ 1.8	96	30	58	8	25	2.83	— .79	1.15	....	8	23	3	5	.....	W. E. Poppe
Chariton	Lucas	1,042	13	72.8	— 1.0	93	29	48	8	31	1.77	—3.69	.99	....	5	19	6	6	se	C. C. Burr
Clarinda	Page	1,009	18	73.8	— 1.7	96	*10	45	8	36	3.64	—1.06	1.40	....	12	19	5	7	s	A. S. Van Sandt
Columbus Junction	Louisa	595	7	74.2	— 1.4	94	*12	53	8	27	3.63	— .38	1.07	....	7	23	6	2	ne,sw	J. B. Johnston
Corning	Adams	1,117	16	72.6	— 1.0	93	*17	46	7	33	2.10	—2.25	.97	....	4	14	13	4	se	Jerome Smith
Corydon	Wayne	1,101	15	73.8	— 1.0	94	29	50	7	29	3.25	— .93	.78	....	12	18	8	5	sw	Clara Miller
Creston	Union	1,312	3	71.7	.....	91	*11	48	7	36	4.57	.....	.90	....	13	....	....	....	.....	Rev. W. L. Gaston
Cumberland	Cass	.....	9	.....	.....	.....	.....	.....	.....	.....	4.42	—1.02	1.53	....	7	21	8	2	sw	J. H. Reppert
Earlham	Madison	.....	6	71.9	+ 1.9	93	17	43	8	35	4.45	— .39	1.78	....	7	18	7	6	se, sw	Geo. Phillips
Elliott	Montgomery	.....	3	73.8	.....	91	*10	50	7	27	1.96	.....	1.03	....	5	19	9	3	s	Henry Barnes
Fairfield	Jefferson	.....	14	78.3	+ 3.6	95	12	48	*1	41	2.97	—1.02	1.02	....	8	16	4	11	s	R. Monroe McKenzie
Fort Madison	Lee	516	59	.....	.....	.....	.....	.....	.....	.....	1.76	—2.20	.97	....	7	5	16	10	s	Miss L. A. McCready
Greenfield	Adair	.....	17	*c* 71.4	— 2.5	*c* 92	29	*c* 45	7	*c* 29	4.72	+ .02	1.80	....	7	....	....	....	.....	Geo. Brooks
Hancock	Pottawattamie	1,113	2	72.2	.....	90	*10	49	7	26	3.69	.....	1.48	....	7	25	3	3	sw	W. Armstrong
Hopeville ‡	Clarke	.....	17	73.9	— 0.2	95	12	49	7	30	3.42	—1.43	.72	....	13	9	17	5	s	M. T. Ashley
Indianola	Warren	969	17	74.0	— 0.7	93	11	50	7	29	1.43	—2.83	.48	....	9	7	12	12	sw	Prof. J. L. Tilton
Keokuk	Lee	574	37	76.1	— 0.9	94	30	57	8	24	3.70	— .33	.87	....	8	16	13	2	s	Weather Bureau
Keosauqua	Van Buren	644	16	74.6	— 1.3	95	30	51	8	31	3.53	— 60	1.43	....	7	3	18	10	.....	J. H. Landes
Knoxville	Marion	920	12	74.6	— 0.9	94	*11	49	8	31	3.01	—1.45	.80	....	9	10	13	8	sw	Casey & Bellville
Lacona	Warren	.....	9	.....	.....	.....	.....	.....	.....	.....	4.02	— .46	2.80	....	9	10	17	4	.....	Agent C., B. & Q. Ry.
Lenox	Taylor	1,250	13	72.8	— 1.0	92	11	47	7	29	3.12	—1.82	1.00	....	8	23	3	5	s	J. T. Hurley
Leon	Decatur	1,120	6	73.8	+ 0.6	93	*11	50	8	29	1.91	—2.51	.44	....	12	13	12	6	s	Morris Gardner
Massena	Cass	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	G. A. Hill
Mt. Ayr	Ringgold	1,236	15	74.1	— 0.9	95	17	48	7	33	3.55	—1.76	1.75	....	10	16	11	4	sw	A. F. Beard
Mt. Pleasant	Henry	729	26	75.2	— 0.4	94	30	54	8	28	4.44	+ .61	1.70	....	6	12	17	2	se	Prof. J. W. Edwards
Omaha, Neb	Douglas	1,040	38	74.5	— 2.0	94	28	52	7	26	2.47	—1.86	1.88	....	6	9	9	13	s	Weather Bureau
Oskaloosa	Mahaska	843	24	74.8	+ 0.4	96	*11	49	8	33	.70	—3.27	.29	....	7	24	0	7	sw	Jos. Boyd
Ottumwa	Wapello	649	14	76.8	+ 0.8	98	11	52	11	31	1.90	—2.23	.90	....	6	19	4	8	ne, se	Dr. Jas. A. Hull
Pacific Junction	Mills	960	9	73.2	— 1.0	93	*28	49	7	34	2.10	—3.03	1.05	....	5	14	17	0	s	H. H. McCartney
Pella (*a*)	Marion	877	6	75.8	— 0.2	96	11	52	8	31	1.88	—2.48	.90	....	9	....	....	....	sw	T. W. Cox
St. Charles	Madison	1,070	7	.....	.....	93	*10	.....	.....	.....	3.86	—1.93	1.77	....	7	16	12	3	nw	R. D. Minard
Sigourney	Keokuk	877	12	75.2	— 0.6	96	29	50	8	31	1.69	—2.61	.57	....	7	2	28	1	sw	J. T. Parker
Stockport	Van Buren	.....	6	73.6	.....	90	29	55	8	23	5.91	+1.32	2.95	....	8	17	10	4	sw	C. L Beswick
Thurman	Fremont	.....	11	74.5	— 0.9	96	16	48	7	35	4.17	—1.74	2.10	....	4	15	10	6	sw	C. R. Paul
Wapello	Louisa	588	10	72.7	— 2.5	89	11	53	8	25	3.31	+ .09	1.13	....	8	17	13	1	.....	Geo. W. Schofield
Washington	Washington	769	27	73.2	— 2.3	92	11	56	*7	26	4.54	+ .92	2.12	....	9	7	17	7	sw	Wm. A. Cook
Winterset	Madison	1,129	17	75.0	+ 1.0	97	10	49	7	33	3.72	—1.96	2.04	....	7	12	12	7	n	Dr. Robert S. Cooper
Woodburn	Clarke	961	9	73.2	.....	93	*10	43	8	36	2.55	—2.61	1.04	....	8	16	11	4	sw	C. B. McDonough
Average		.....	....	74.0	— 0.5	93.8	.....	49.6	.....	30.2	3.13	—1.41	.....	....	8	15	10	6	sw	
State average		.....	....	73.0	— 0.4	94.6	.....	48.2	.....	31.7	3.66	— .78	.....	....	8	16	10	5	sw	

*And other dates. *a* one day missing, *b* two days; *c* three days; *d* four days. ‡ Received too late to be included in average.

THUNDERSTORMS—STATIONS AND DATES

NORTHERN SECTION.

Stations	Dates
Algona	12,13,17,21
Alta	5,6,12,16,17,20,23,26,30
Alton	5,6,12,17,21,26
Charles City	5,12,13,16
Dows	30
Elma	4,6,17,18
Grand Meadow	6,12,17
Inwood	12,17,20
Larrabee	5,6,11,16,17,21,24,26
Le Mars	6,21,23,26
Mason City	6,13,17,30
New Hampton	6,17
Northwood	6,16,17,27
Plover	7,16,23,26,27
Pocahontas	6,17,21,26,27,29
Ridgeway	5,6,12,16,25
Sheldon	4,5,6,16,17,20,25
Sioux Center	5,11,12,16,17,25
Storm Lake	26,30
Waverly	3,6,11,12,13,16,17
West Bend	6,17,27

CENTRAL SECTION

Stations	Dates
Amana	12,16,17
Audubon	6,13,15,27
Baxter	17,24
Boone	2,17,26
Clinton	4,6,13,16,26
Davenport	1,3,4,6,16,17,25,26,27
Delaware	12,13,17
Des Moines	5,13,16,17,24,26,27,29
De Soto	27
Dubuque	6,11,12,13,16,17,26,30
Grinnell	4,6,10,11,12,13,16,17,23,24,25
Guthrie Center	5,13,16,17,21,27,28
Harlan	5,6,13,14,30
Independence	4,7,12,14,16,19,25
Iowa City	6,16,24
Iowa Falls	5,16,17,27
Little Sioux	12,30
Onawa	6,9,12,26,30
Sioux City	5,6,12,20,25
Waukee	2,27,28
Whitten	6,17,27,28
Zearing	6,16,17,27

SOUTHERN SECTION

Stations	Dates
Albia	6,10,15,24,25,26,30
Allerton	6,13,17,24,25,30
Atlantic	6,26,27
Bloomfield	6,30
Columbus Junction	1,2,13,16,17,25,30
Corning	27
Corydon	15,24
Earlham	13,16,17,27,28
Fairfield	6,23,25,26,30
Fort Madison	16,17,28
Greenfield	17,27,28
Indianola	16,24,25,27
Keokuk	6,7,12,14,15,16,17,24,26,28
Leon	1,2,3,6,13,17,23,24,26,27,28,29,30
Mt. Pleasant	2,6,15,17,24
Omaha, Neb	5,6,12,13,17,26,29,30
Pella	10,17,24,25
Sigourney	6,17,30
Stockport	1,6
Thurman	6,21,25,26,27,28

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JULY, 1908

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | Monthly Mean | |
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DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JULY, 1908—CONTINUED

STATIONS	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30		31		Monthly Mean	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Pacific Junction	77	58	64	54	71	54	81	53	90	67	81	57	72	49	78	53	85	60	92	65	96	67	88	68	85	67	82	62	98	61	92	70	91	68	80	56	82	63	83	64	85	67	80	57	87	63	91	68	92	69	94	70	93	70	94	70	84	50	84.4	62.0
Pella	81	56			68	58	82	59	91	66	89	67	79	56	82	52	87	56	96	66	97	68	91	70	91	70	89	66	90	59	92	67	94	69	93	68	84	64	86	64	87	63	86	65	87	63	91	70	94	69	94	70	94	70	94	70	90	59	87.9	63.6
Perry	78	55	67	57	74	59	83	57	90	67	83	56	74	49	83	50	87	56	96	66	95	73	94	72	92	69	91	70	91	68	94	69	94	69	91	64	91	64	90	64	91	64	90	64	91	64	91	64	91	64	91	64	91	64	91	64	91	64	85.9	62.1
Plover	73	51	72	53	78	54	79	53	93	61	77	54	76	44	79	54	85	59	93	64	93	61	93	58	92	65	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	95.0	60.2
Pocahontas	75	50	75	52	75	52	79	53	76	53	75	54	75	45	80	50	82	58	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	83.5	58.1
Ridgeway	80	50	78	53	70	58	78	59	84	62	78	56	76	50	80	51	85	56	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	97	64	84.1	61.0
Rockwell City	78	54	75	54	75	55	75	55	92	65	83	56	80	50	83	47	90	60	94	60	100	75	98	71	95	70	94	70	94	70	94	70	94	70	94	70	94	70	94	70	94	70	94	70	94	70	94	70	94	70	94	70	94	70	94	70	94	70	86.2	60.9
St. Charles	79		67		67		78		87		80		73		78		83		92		93		92		92		92		92		92		92		92		92		92		92		92		92		92		92		92		92		92		92		93.6	
Sheldon	64	48	70	49	80	47	82	50	88	50	85	45	83	44	83	52	90	57	97	75	97	75	97	75	97	75	97	75	97	75	97	75	97	75	97	75	97	75	97	75	97	75	97	75	97	75	97	75	97	75	97	75	97	75	97	75	97	75	85.7	58.6
Sibley	62	49	69	47	76	52	79	51	90	67	87	62	77	52	81	50	86	57	95	63	95	61	95	63	95	63	95	63	95	63	95	63	95	63	95	63	95	63	95	63	95	63	95	63	95	63	95	63	95	63	95	63	95	63	95	63	95	63	90.5	57.9
Sigourney	82	55	71	53	67	59	82	60	90	67	87	62	77	52	81	50	85	54	93	64	93	61	93	58	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	87.6	62.9
Sioux Center	67	52	70	50	74	54	80	52	86	66	75	53	74	44	78	52	87	60	93	67	93	61	93	60	93	67	93	67	93	67	93	67	93	67	93	67	93	67	93	67	93	67	93	67	93	67	93	67	93	67	93	67	93	67	93	67	93	67	82.2	58.8
Sioux City	65	53	67	55	74	55	81	56	88	69	72	54	73	49	81	50	90	65	95	73	95	70	95	70	95	70	95	70	95	70	95	70	95	70	95	70	95	70	95	70	95	70	95	70	95	70	95	70	95	70	95	70	95	70	95	70	95	70	82.7	62.9
Stockport	77	59	68	60	66	60	76	60	86	65	85	69	70	56	74	55	82	65	93	62	92	65	92	65	92	65	92	65	92	65	92	65	92	65	92	65	92	65	92	65	92	65	92	65	92	65	92	65	92	65	92	65	92	65	92	65	92	65	81.9	65.4
Storm Lake	70	51	66	53	75	57	80	55	85	66	79	54	77	46	77	55	82	60	90	67	90	63	90	61	90	63	90	63	90	63	90	63	90	63	90	63	90	63	90	63	90	63	90	63	90	63	90	63	90	63	90	63	90	63	90	63	90	63	81.6	61.5
Stuart	77	55	66	56	72	57	78	52	83	69	82	57	72	48	78	51	83	58	91	65	91	65	91	65	91	65	91	65	91	65	91	65	91	65	91	65	91	65	91	65	91	65	91	65	91	65	91	65	91	65	91	65	91	65	91	65	91	65	83.3	61.8
Thurman	79	57	65	55	74	55	83	51	94	68	90	59	74	48	79	59	84	60	95	67	95	67	95	67	95	67	95	67	95	67	95	67	95	67	95	67	95	67	95	67	95	67	95	67	95	67	95	67	95	67	95	67	95	67	95	67	95	67	86.4	62.6
Tipton	83	57	73	59	65	60	78	62	87	65	83	61	74	51	83	56	90	62	91	64	91	64	91	64	91	64	91	64	91	64	91	64	91	64	91	64	91	64	91	64	91	64	91	64	91	64	91	64	91	64	91	64	91	64	91	64	91	64	87.3	65.7
Toledo	79	51	71	55	65	57	76	60	88	66	83	61	69	60	74	51	84	53	91	61	91	61	91	61	91	61	91	61	91	61	91	61	91	61	91	61	91	61	91	61	91	61	91	61	91	61	91	61	91	61	91	61	91	61	91	61	91	61	87.4	61.4
Wapello	78	58	75	59	66	62	66	59	74	63	63	63	69	60	78	56	86	63	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	86.4	64.8
Washington	78	57	68	58	65	58	77	60	85	63	85	63	73	56	78	58	86	63	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	87.2	63.2
Washta	70	50	70	55	70	55	80	48	88	58	76	55	74	42	76	52	86	60	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	86.6	63.6
Waterloo	78	53	75	57	69	59	78	57	89	61	82	72	76	52	79	49	85	55	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	87.1	64.2
Waukee	76	55	70	57	72	57	80	53	85	68	84	52	73	49	80	48	83	55	93	65	93	65	93	65	93	65	93	65	93	65	93	65	93	65	93	65	93	65	93	65	93	65	93	65	93	65	93	65	93	65	93	65	93	65	93	65	93	65	86.5	64.4
Waverly	72	53	70	57	67	59	75	58	85	65	81	59	70	52	78	50	92	72	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	96	67	86.5	64.3
Webster City	83	56	71	56	77	58	84	54	91	66	86	57	75	46	80	45	87	53	96	65	96	65	96	65	96	65	96	65	96	65	96	65	96	65	96	65	96	65	96	65	96	65	96	65	96	65	96	65	96	65	96	65	96	65	96	65	96	65	86.5	64.3
West Bend	77	57	74	53	76	54	84	54	89	64	73	54	76	48	83	49	87	55	95	64	95	64	95	64	95	64	95	64	95	64	95	64	95	64	95	64	95	64	95	64	95	64	95	64	95	64	95	64	95	64	95	64	95	64	95	64	95	64	86.5	64.3
Whitten	77	51	75	55	67	55	71	52	87	58	82	60	70	59	74	53	77	58	85	61	85	61	85	61	85	61	85	61	85	61	85	61	85	61	85	61	85	61	85	61	85	61	85	61	85	61	85	61	85	61	85	61	85	61	85	61	85	61	86.5	64.3
Wilton Junction	76	55	75	60	65	58	73	62	85	65	84	70	74	53	77	55	82	62	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	94	64	86.5	64.3
Winterset	78	57	70	58	71	57	82	55	92	71	82	59	75	49	79	49	85	52	89	57	89	57	89	57	89	57	89	57	89	57	89	57	89	57	89	57	89	57	89	57	89	57	89	57	89	57	89	57	89	57	89	57	89	57	89	57	89	57	86.5	64.3
Woodburn	80	50	67	56	68	56	80	55	89	63	86	61	75	48	79	43	84	48	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	93	64	86.5	64.3
Zearing	77	51	70	56	72	57	83	60	88	66	79	59	75	50	80	47	88	52	95	65	95	65	95	65	95	65	95	65	95	65	95	65	95	65	95	65	95	65	95	65	95	65	95	65	95	65	95	65	95	65	95	65	95	65	95	65	95	65	86.5	64.3

ERRATA IN JUNE REVIEW.

ATLANTIC.—Greatest daily range recorded as 35°, on page 66, should have been 36°.

AUDUBON.—Minimum temperature recorded as 38° on the 30th, page 65, should have been 40° on the 11th. Greatest daily range recorded as 39°, on page 65, should have been 37°.

BOONE.—Greatest amount of rainfall in twenty-four hours recorded as 1.58 inches, on page 65, should have been 1.93 inches.

CEDAR RAPIDS.—Greatest daily range recorded as 27°, on page 65, should have been 31°.

DECORAH.—Minimum temperature recorded as 39° on the 1st, page 65, should have been 36° on the 15th. Greatest daily range recorded as 36°, page 65, should have been 37°.

GREENE.—Minimum temperature recorded as 44° on the 1st and other dates, page 65, should have been 40° on the 15th.

GUTHRIE CENTER.—Greatest daily range recorded as 32°, page 65, should have been 36°.

HAMPTON.—Greatest daily range recorded as 29°, page 65, should have been 31°.

HANCOCK.—Greatest daily range recorded as 23°, page 66, should have been 27°.

HOPEVILLE.—Greatest daily range recorded as 30°, page 66, should have been 32°.

INDIANOLA.—Greatest daily range recorded as 26°, page 66, should have been 27°.

KEOSAUQUA.—Greatest daily range recorded as 29°, page 66, should have been 34°.

NORTHWOOD.—The greatest twenty-four hour rainfall recorded as 1.95 inches, on page 65, should have been 2.40 inches.

OSKALOOSA.—The greatest twenty-four hour rainfall recorded as .50 inch, on page 66, should have been .60 inch.

SIOUX CENTER.—Minimum temperature recorded as 41° on the 12th and other dates, page 65, should have been 35° on the 10th.

THURMAN.—The greatest twenty-four hour rainfall recorded as 3.10 inches, on page 66, should have been 3.20 inches.

WAPELLO.—The total precipitation recorded as 4.22 inches, on pages 66 and 70, should have been 4.20 inches.

BELATED REPORTS.

ELKADER, July.—Mean temperature, 74.5°; highest, 99°, on the 27th; lowest, 47°, on the 8th; greatest daily range, 40°; total precipitation, 4.70 inches; greatest in twenty-four hours, 4.00 inches on the 16th, Prevailing direction, west. Number of clear days, 18; partly cloudy, 13; cloudy, 0; rainy, 4.

FAYETTE, July.—Mean temperature, 72.4°; highest, 94°, on the 11th; lowest, 47°, on the 8th; greatest daily range, 35°; total precipitation, 7.07 inches; greatest in twenty-four hours, 5.85 inches, on the 16th and 17th. Number of rainy days, 6.

LEON.—June. Mean temperature, 68.6°; highest, 88° on the 21st and 27th; lowest, 46° on the 11th; greatest daily range, 32°. Total precipitation, 4.62 inches; greatest in 24 hours, 1.82 inches. Prevailing direction, southeast. Number of clear days, 9; partly cloudy, 12; cloudy, 9; rainy, 10.

NEW HAMPTON.—June. Mean temperature, 64.8; highest, 85° on the 22d; lowest, 42° on the 15th; greatest daily range, 27°. Total precipitation, 6.07 inches; greatest in 24 hours, 1.20 inches. Prevailing direction, south. Number of clear days, 16; partly cloudy, 4; cloudy, 10; rainy, 11.

WATERLOO. June. Mean temperature, 66.4°; highest, 90° on the 22d; lowest, 43° on the 15th; greatest daily range, 30°. Total precipitation, 4.29 inches; greatest in 24 hours, 1.70 inches on the 20th. Prevailing direction, south. Number of clear days, 8; partly cloudy, 17; cloudy, 5; rainy, 13.

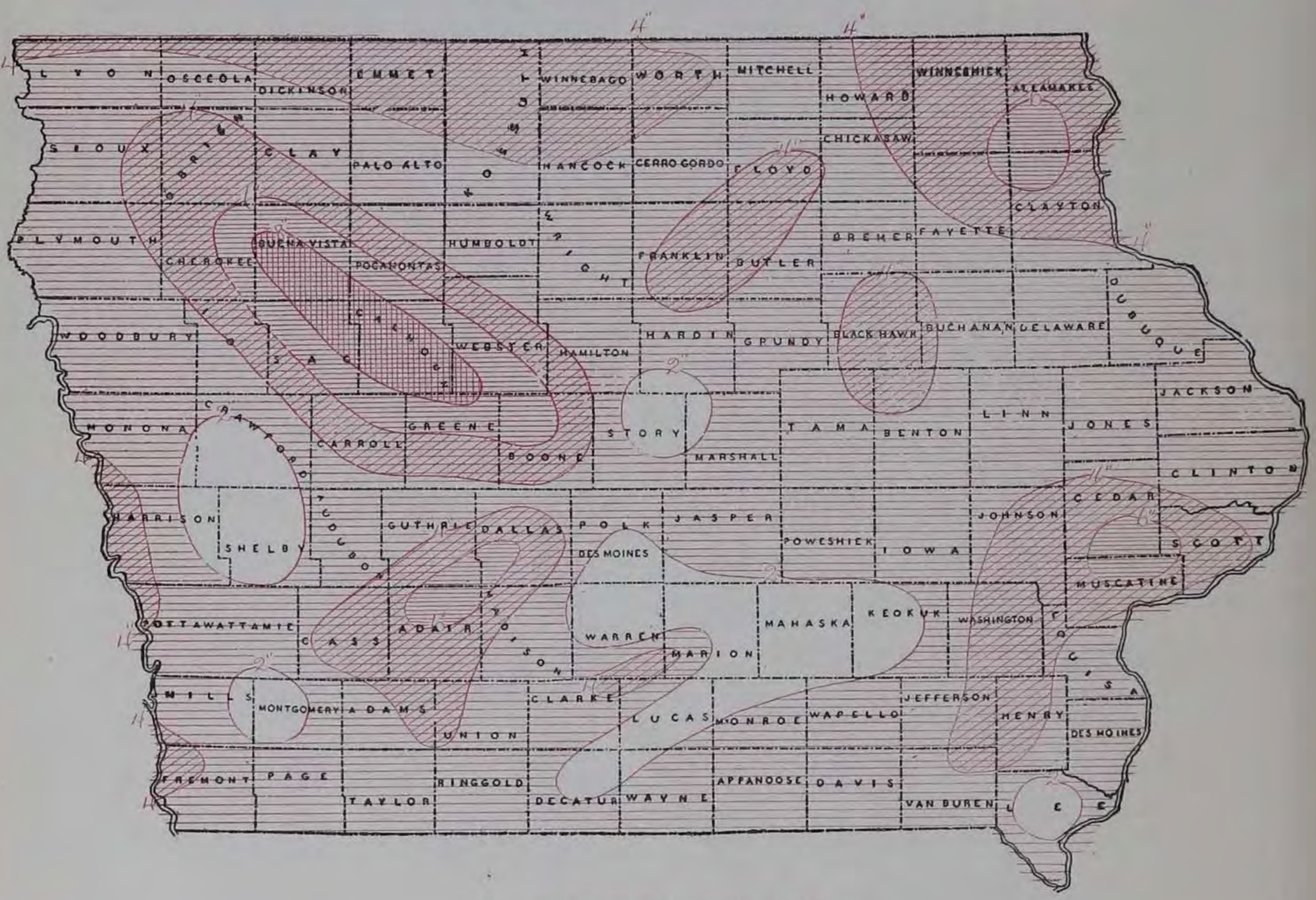
DAILY PRECIPITATION FOR IOWA, JULY, 1908

STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	.30	....	....	....	.26	....	....	....	....	....	....	....	.04	....	.60	....	.85	....	....	T	....	.11	....	....	T	1.09	.23	.04	....	....	3.52
Albia	....	.47	.04	.02	....	....	.34	....	....	.40	....	....	....	....	....	.52	.25	....	....	....	....	....	....	....	.01	.29	....	....	....	....	.75	3.09
Algona	.06	....	....	....	....	.27	....	....	....	....	....	.10	.30	....	....	.34	....	....	....	....	.25	....	T	....	....	.17	.65	....	....	T	....	2.14
Allerton	.02	.53	.09	....	....	.31	....	....	....	....	....	....	.23	.09	.04	.34	.64	....	....	T	....	....	T	.16	.10	....	....	....	....	.34	....	2.89
Alta	....	.16	T	....	....	.80	.05	....	....	....	....	....	.08	....	....	.15	.87	.11	....	....	.75	....	.16	.14	....	....	3.07	....	....	1.80	....	8.14
Alta (near)	.21	.02	....	....	T	1.25	....	....	....	....	....	.11	....	....	.18	....	.63	....	....	....	.73	....	.29	....	....	2.70	1.38	....	....	1.71	....	9.21
Alton	.56	T	....	....	T	1.44	....	....	....	....	....	.41	.04	....	....	....	.81	....	....	....	T	....	.11	....	....	.82	....	....	....	....	....	4.19
Amana	....	.12	.39	.02	....	.13	....	....	....	T	....	.17	.23	.06	....	.85	.43	....	....	....	....	....	....	.03	T	....	.01	....	....	....	....	2.44
Ames	T	.15	.11	.10	....	.50	....	....	....	....	....	....	.10	....	....	.24	1.04	....	....	....	....	....	.07	....	....	....	1.32	....	....	....	....	3.63
Atlantic	.50	.52	.12	....	....	.63	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	.46	T	....	....	....	....	2.23
Audubon	.13	.15	.03	....	....	.68	....	....	....	....	....	....	....	....	.05	.18	.06	....	....	....	.25	....	.01	....	....	....	1.69	....	....	....	....	3.23
Baxter	T	.18	.20	.04	....	.04	....	....	....	....	....	....	....	.18	....	.42	.92	....	....	....	....	....	....	.50	....	....	.06	....	....	....	....	2.54
Bedford	.08	.63	.06	....	....	.84	....	....	....	....	....	....	....	....	T	T	T	....	....	....	.02	....	.11	....	....	....	.63	....	.20	....	....	2.57
Belle Plaine	.01	T	1.30	....	....	.15	....	....	....	....	....	....	....	.30	....	.36	.30	....	....	....	....	....	....	.17	....	....	....	....	....	....	....	....	2.59
Bloomfield	T	.87	.04	....	....	.64	....	....	....	....	....	....	.13	.37	....	1.15	.24	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	3.44
Bonaparte	.15	.65	.02	.07	....	1.50	.10	....	....	....	....	....	....	....	....	.91	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3.70
Boone	.17	.09	.22	.03	....	1.22	.01	....	....	....	....	....	....	....	....	.06	1.03	T	....	....	....	....	....	.08	....	....	3.36	....	T	T	....	6.27
Britt	.38	....	....	.01	T	1.41	....	....	....	....	....	.10	.03	....	....	.03	1.89	....	....	....	....	....	....	....	....	T	.38	....	....	.10	....	4.33
Buckingham	.22	.52	....	....	T	....	....	....	....	....	....	T	....	T	....	.60	.92	....	....	....	....	....	....	.20	....	....	....	....	T	....	....	2.46
Burlington	....	.45	.05	.15	....	.06	.86	....	....	....	....	....	....	....	....	T	1.15	.04	....	....	....	....	....	....	.07	....	T	....	....	....	....	2.83
Carroll	....	.05	.10	....	....	.51	.04	....	....	....	....	....	....	....	....	.85	.08	....	....	....	.21	....	....	....	....	....	2.01	.40	....	.05	....	4.30
Cedar Rapids	....	.21	.50	T	....	.13	....	....	....	....	....	.16	....	....	.55	.97	.37	....	....	T	....	....	.03	T	....	....	.14	....	....	....	....	3.06
Chariton	....	.44	T	....	....	.19	....	....	....	....	....	....	.15	....	....	.53	.46	....	....	T	....	....	T	T	T	....	T	....	T	T	....	1.77
Charles City	T	....	.14	.01	.64	.12	....	....	....	....	....	.05	.50	....	....	2.27	.25	.02	....	....	....	....	.11	.06	....	....	....	....	.17	T	....	4.34
Clarinda	.18	....	.63	.02	....	.36	.10	....	....	....	....	....	....	T	....	.02	....	....	....	.09	....	....	.08	.21	....	....	T	1.40	.55	....	....	3.64
Clear Lake	....	....	T	.07	....	.63	....	....	....	....	....	....	....	....	....	.05	.98	....	....	....	....	....	....	....	....	....	.30	.05	....	.08	....	2.16
Clinton	....	.60	.09	1.23	....	.35	....	....	....	....	....	....	....	.44	....	.37	.49	....	....	....	....	....	....	....	....	T	.07	....	....	....	....	3.64
Columbus Junc	T	1.06	.03	....	....	.65	....	....	....	....	....	....	.19	.07	....	.56	1.07	....	....	....	....	....	....	....	T	....	....	....	....	T	....	3.63
Corning	....	....	.84	....	....	.07	....	....	....	....	....	....	....	.22	....	T	....	....	....	T	....	....	T	....	....	....	.97	....	....	....	....	2.10
Corydon	.39	.05	.04	....	....	.29	....	....	....	....	....	....	.38	.08	.22	.56	.18	T	....	T	....	....	T	.55	.50	....	T	....	....	....	.01	3.25
Creston	.05	T	.83	.03	....	....	.29	....	....	....	....	....	....	T	.05	T	.05	.52	....	.01	.65	....	T	.04	T	....	.90	.83	.32	....	....	4.57
Cumberland	....	1.53	.32	....	....	.37	....	....	....	....	....	....	....	....	....	....	.23	....	....	....	....	....	....	....	....	....	.98	.62	.37	....	....	4.42
Davenport	.38	.40	.30	1.17	....	.53	....	....	....	....	....	....	....	....	....	.25	.21	....	....	....	....	....	....	....	....	....	.06	....	....	T	....	3.30
Decorah	.06	....	.08	....	.06	....	.78	.18	....	....	.34	....	....	....	....	....	1.84	1.28	....	....	....	....	....	.06	.04	T	....	....	....	....	....	4.72
Delaware	....	....	.17	.03	....	.10	.03	....	....	....	T	.20	.57	....	....	.10	2.01	....	....	....	....	....	....	....	....	....	....	....	....	.03	....	3.27
Denison	.01	.32	....	....	....	....	....	....	....	....	....	T	....	.83	....	....	.06	....	....	....	.04	....	....	....	....	.01	....	....	....	.20	....	1.47
Des Moines	.02	.35	T	....	....	.04	....	....	....	....	....	....	.03	.29	T	.02	.11	....	....	....	T	....	....	T	....	....	.70	T	T	....	....	1.56
De Soto	....	.29	.33	....	....	T	....	....	....	....	....	....	.30	....	....	.35	.05	....	....	....	....	....	T	....	....	....	2.43	1.38	....	....	....	5.13
Dows	.04	....	.26	....	.11	.11	....	....	....	....	....	....	....	....	....	....	1.69	....	....	....	....	....	....	....	....	....	.80	....	....	.33	....	3.34
Dubuque	T	.07	.14	....	....	.11	.02	....	....	....	.03	.45	....	....	....	.45	.77	.02	....	....	....	....	....	T	....	T	....	....	....	....	....	2.06
Earlham	T	.32	.69	....	....	T	....	....	....	....	....	....	....	....	....	.28	.18	....	....	....	....	....	....	T	....	....	1.18	1.78	.02	....	....	4.45
Elliott	T	.28	.25	....	....	1.03	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	20	....	....	....	.20	....	....	....	....	1.96
Elma	T	.03	T	.49	....	.83	.03	....	....	....	....	T	T	....	....	.74	1.42	T	....	....	....	....	T	.20	....	....	....	....	....	.04	....	3.78
Estherville	....	.46	T	....	.05	.46	.02	T	....	....	....	.13	.05	....	....	....	.60	T	....	....	.06	....	....	....	....	....	2.10	T	....	.26	....	4.19
Fairfield	....	1.02	.02	....	....	.40	.04	....	....	....	....	....	....	.09	....	.94	.37	....	.09	....	....	....	T	....	....	T	....	....	....	T	....	2.97
Forest City	....	.10	....	T	....	1.70	.40	....	....	....	....	....	....	T	....	....	1.46	....	....	....	T	....	....	T	....	....	.27	T	.15	1.00	....	5.08
Fort Dodge	.05	T	.20	....	....	.26	T	....	....	....	....	....	....	....	....	.11	1.00	.14	....	....	.02	....	....	....	....	....	3.05	....	....	.05	....	4.88
Fort Madison	....	.97	T	....	....	.24	....	....	....	....	....	.02	....	....	.10	.25	.13	....	....	....	....	....	....	....	....	T	....	.05	....	....	....	1.76
Gilman	T	.50	.84	....	....	.14	....	....	....	....	....	....	....	.20	....	.98	.48	T	....	....	....	....	....	.74	....	....	.35	....	....	....	....	4.23
Grand Meadow	....	T	....	.08	....	.40	.12	....	....	....	....	.37	.03	....	....	....	5.93	T	....	....	....	....	T	.05	....	....	....	....	....	....	....	6.98
Greene	.02	....	.20	....	.30	....	.04	....	....	....	....	.30	.14	....	....	....	1.60	.20	....	....	....	....	....	....	....	....	....	....	....	.04	....	2.84
Greenfield	....	.43	.79	....	....	.25	....	....	....	....	....	....	....	....	....	....	.07	....	....	....	.48	....	....	....	....	....	.90	1.80	....	....	....	4.72
Grinnell	....	.14	.15	.39	....	.16	....	....	....	.04	....	....	....	.18	....	.27	.70	....	....	....	....	....	....	.46	....	....	.05	....	....	....	....	2.54
Grundy Center	....	T	.67	.17	....	.07	T	....	....	....	....	....	....	....	....	.09	1.80	T	....	....	....	....	T	.12	....	....	....	....	T	....	....	2.92
Guthrie Center	.02	.21	.25	T	....	.20	....	....	....	....	....	....	.02	.15	....	.09	.07	....	....	....	.05	....	....	....	....	....	1.66	.62	.02	.01	....	3.37
Hampton	.04	.03	.71	....	.10	.07	....	....	....	....	....	....	T	....	....	1.48	....	....	....	.03	....	....	....	....	....	.05	.95	.23	.84	....	....	4.53
Hancock	.07	.48	.05	....	....	.85	....	....	....	....	....	....	....	....	....	.72	....	....	....	....	....	....	....	....	....	....	1.48	....	....	.04	....	3.69
Harlan	.02	.23	.04	....	T	.72	....	....	....	....	....	....	T	.34	.20	....	.01	....	....	....	T	....	.07	....	....	....	T	....	....	.05	....	1.68
Hopeville	.30	.68	.45	....	....	.08	....	....	....	....	....	....	.07	.13	....	.21	.72	....	....	.01	....	....	.10	.01	....	....	.52	....	.14	....	....	3.42
Humboldt	....	....	....	....	....	1.05	....	....	....	....	....	....	....	....	....	.22	1.00	....	....	....	.04	....	....	....	....	....	1.35	....	.12	....	....	3.78
Independence	....	.03	.34	.47	....	.02	.05	....	....	....	....	.05	....	.04	....	.05	.70	....	.03	....	....	....	....	....	.22	....	.03	....	....	....	....	2.03
Indianola	T	.31	.48	....	....	.18	T	....	....	....	....	....	....	T	....	.11	.06	....	....	....	T	....	T	.11	T	....	.12	.05	.01	....	....	1.43
Inwood	.22	....	....	....	.09	.33	....	....	....	....	....	1.21	....	....	....	....	.24	....	....	....	....	T	T	....	....	1.11	....	....	....	....	....	....	3.20
Iowa City	.09	.57	.02	.10	.25	....	.58	....	....	....	....	....	....	.74	....	1.07	1.69	.01	....	....	....	....	....	....	.28	....	....	....	....	....	....	....	5.40
Iowa Falls	.17	T	.20	.54	....	.09	.06	....	....	....	....	....	T	T	....	.03	1.43	T	T	....	....	....	....	T	....	....	.05	.09	....	....	....	....	2.66
Jefferson	T	.32	.50	....	....	.10	....	....	....	....	....	....	....	....	....	.70	.30	....	....	....	....	....	....	....	....	....	1.20	.80	....	....	....	....	3.92
Keokuk	.84	.05	....	....	....	.55	.01	....	....	....	....	....	....	.76	.23	.59	.67	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	3.70
Keosauqua	....	.80	.14	T	....	....	1.43	....	....	....	....	....	....	....	.24	.20	.61	.11	....	....	....	....	....	....	....	....	....	....	....	....	....	T	3.53
Knoxville	T	.74	.28	....	....	.08	....	....	....	.04	....	....	....	T	....	.55	T	....	....	T	.07	....	T	.80	.40	....	.05	....	T	T	....	3.01
Lacona	.10	.05	.42	....	....	.10	....	....	....	....	....	....	....	T	T	.10	.01	....	....	....	....	....	.20	2.80	.24	T	....	....	....	....	....	4.02
Larrabee	.10	....	....	....	T	1.04	....	....	....	....	....	.20	T	....	....	1.09	.05	....	....	....	.73	....	....	.17	.02	1.56	....	....	.28	....	....	5.24
Le Claire	.13	.58	.15	1.34	T	....	1.42	T	....	....	....	....	T	....	T	.01	.39	T	....	....	....	T	....	....	....	....	.29	....	....	....	T	4.31
Le Mars	.44	T	....	....	....	.92	....	....	....	....	....	.80	.90	....	....	....	.10	....	....	....	.19	....	.11	T	....	.17	....	....	....	....	....	3.63
Lenox	T	.90	.20	....	....	.50	....	....	....	....	....	....	....	.30	....	.10	.02	....	....	T	T	....	.10	....	....	....	1.00	....	....	....	....	3.12
Leon	.31	.14	.12	....	....	.10	....	....	....	....	....	....	.22	....	T	T	.44	....	....	....	....	....	.10	.24	....	.12	.05	T	.02	.05	....	1.91
Little Sioux	.09	.14	....	....	....	.78	....	....	.03	....	....	2.18	.21	.08	....	....	....	....	....	....	....	....	....	....	....	.02	....	....	....	1.56	....	5.09
Logan	T	.30	T	....	....	1.60	....	....	....	....	....	T	.08	.03	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	.05	....	2.06
Marshalltown	.23	.08	.31	.41	.01	....	....	....	....	....	....	....	....	.43	....	.59	1.24	....	.05	....	....	....	....	.10	.11	....	....	....	....	....	....	3.56
Mason City	....	....	....	.10	....	1.22	....	....	....	....	....	....	.58	....	....	....	.88	....	....	....	....	....	....	....	....	....	.50	T	T	.10	....	3.38
Merrill	.40	....	....	....	....	.63	.20	....	....	....	....	....	.83	.30	....	....	.03	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	2.54
Montezuma	....	.06	.08	....	....	....	.10	....	....	....	....	....	....	1.00	.25	.50	.40	....	....	....	....	....	....	.05	.65	....	....	....	....	....	....	3.09
Mt. Ayr	.30	.21	.19	....	....	.30	....	....	....	....	....	....	T	.03	....	....	....	....	....	....	1.75	....	.22	.05	....	....	.10	.40	T	....	....	3.55
Mt. Pleasant	T	.75	T	T	....	1.70	.05	....	....	....	....	....	....	T	....	.45	1.44	T	....	....	....	....	....	T	.05	T	....	T	....	....	....	4.44
Muscatine	....	.33	.56	.10	.01	....	.45	....	....	....	....	....	.14	.08	.15	T	1.34	....	....	....	....	....	....	....	.27	.05	....	.72	....	....	.05	4.25
New Hampton	....	T	....	.22	....	.47	.14	....	....	....	....	.14	T	....	....	2.81	T	T	....	....	....	....	....	.03	....	....	....	....	....	....	....	3.81
Newton	....	....	....	....	....	.17	....	....	....	....	....	....	....	.20	....	.29	1.00	....	....	....	....	....	....	1.82	....	....	....	....	....	....	....	3.48
Northwood	....	....	....	T	....	1.05	....	....	....	....	....	T	T	....	....	2.07	1.15	....	....	....	....	....	....	....	....	....	.70	....	.46	....	....	5.43
Odebolt	T	.15	....	....	....	.50	....	....	....	....	....	....	.03	....	....	.20	.20	....	....	....	1.50	....	1.05	....	....	.72	....	....	....	.40	....	4.75
Olin	....	.38	1.00	....	....	.11	....	....	....	....	....	.23	....	T	....	.39	.72	....	....	....	....	....	....	T	....	....	T	....	T	T	....	2.83
Omaha, Neb	T	.55	T	....	1.33	.55	....	....	....	....	....	T	.04	.01	.02	....	....	....	....	....	....	....	....	....	....	T	T	....	....	T	....	2.47
Onawa	.15	.03	....	....	....	.75	....	....	.18	....	....	.50	.15	....	....	T	....	....	....	....	....	....	....	....	....	.48	....	....	....	.52	....	2.76
Osage	....	....	....	....	.74	....	.18	....	....	....	....	....	....	....	....	.18	1.24	T	....	....	....	....	....	....	....	....	....	....	....	T	....	2.34
Oskaloosa	.13	.06	.01	....	....	.18	....	....	....	....	....	....	....	T	....	.11	.18	....	....	....	....	....	....	T	....	....	.03	....	....	....	....	0.70
Ottumwa	....	.90	....	....	....	.15	....	....	....	....	....	....	....	....	....	.10	.50	....	....	....	....	....	....	....	....	....	.10	....	....	.15	....	1.90
Pacific Junction	.15	.62	T	....	....	1.05	....	....	....	....	....	....	.22	T	.06	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	2.10
Pella	....	....	.09	....	....	.04	.05	....	....	.30	....	....	....	....	....	.41	.49	....	....	....	....	....	....	.33	....	.03	.14	....	....	....	....	1.88
Perry	T	.25	.27	....	....	.14	....	....	....	....	....	....	....	....	....	.25	.13	....	....	....	.02	....	....	....	....	....	1.77	.60	....	T	....	3.43
Plover	.08	....	.04	....	T	.23	....	....	....	....	....	....	....	....	....	....	.44	....	....	.07	....	....	.04	....	....	.30	1.63	....	....	.07	....	2.90
Pocahontas	.12	....	....	....	....	.16	....	....	....	....	....	....	....	....	....	....	1.27	....	....	....	.20	....	.02	....	....	.38	.58	....	T	....	....	2.73
Ridgeway	.03	....	.33	.08	.40	.43	....	....	....	....	....	.20	....	....	....	3.31	....	.07	....	....	....	....	....	.03	.80	....	....	....	....	....	....	5.68
Rockwell City	T	.20	....	....	....	.80	....	....	....	....	....	....	.90	....	T	....	1.00	....	....	....	.20	....	T	....	....	2.00	3.00	....	....	....	....	8.10
St. Charles	T	.39	.53	....	....	T	....	....	....	....	....	....	.02	....	....	.53	.19	....	....	T	....	....	T	.43	....	....	1.77	....	....	....	....	3.86

DAILY PRECIPITATION FOR IOWA, JULY, 1908—Continued

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Sheldon	.57	....	....	.10	.03	1.30	....	....	....	....	....	.33	....	....	....	.25	1.40	....	....	.85	....	....	T	....	.51	....	....	....	....	....	....	5.34
Sibley	....	.21	....	....	.24	.55	.06	....	....	....	....	1.70	.60	....	....	....	.26	....	....	....	.06	....	....	....	....	.09	.10	....	....	....	....	3.87
Sigourney	....	.36	.09	.02	....	.48	....	....	....	....	....	....	....	T	....	.14	.57	.03	....	....	....	....	....	T	....	....	....	....	....	T	....	1.69
Sioux Center	.45	....	....	....	.10	.52	....	....	....	....	.23	.20	....	....	....	....	.45	....	....	....	....	....	T	....	....	2.00	....	....	....	....	....	3.95
Sioux City	.29	....	....	....	.03	1.49	....	....	....	....	....	.80	.04	....	....	....	....	....	....	.01	....	T	.05	....	T	.02	....	....	....	....	....	2.73
Stockport	.20	.80	T	.02	....	2.90	.05	....	....	....	....	....	....	....	....	.42	.56	....	....	....	....	....	....	....	....	....	.96	....	....	T	....	5.91
Storm Lake	.25	....	....	....	....	.70	....	....	....	....	....	.05	.03	....	....	....	.66	....	....	....	....	....	.10	....	....	2.04	.05	....	....	1.38	....	5.26
Stuart	....	.38	.75	.02	....	....	....	....	....	....	....	....	.58	....	....	....	....	....	....	....	....	....	....	....	....	....	4.23	1.02	....	....	....	6.98
Thurman	.18	.81	....	....	....	2.10	....	....	....	....	....	....	....	T	....	....	....	....	T	T	....	....	T	....	....	....	1.08	T	....	....	....	4.17
Tipton	....	1.30	....	....	....	.50	....	....	....	.06	....	.67	....	....	....	1.05	.12	....	....	....	....	....	....	.05	....	....	....	....	.05	.55	....	4.35
Toledo	....	....	.97	....	....	....	.10	....	....	....	....	....	....	....	....	1.28	.32	....	....	....	....	....	.17	.35	....	....	....	....	.10	....	....	3.29
Wapello	....	.20	.65	.06	....	.34	....	....	....	....	....	....	.57	....	....	.32	1.13	....	....	....	....	....	....	....	.04	....	....	....	....	....	....	3.31
Washington	....	2.12	.03	.02	....	.48	....	....	....	....	....	....	.24	....	....	.70	.78	....	....	....	....	....	....	.02	....	....	....	....	....	.15	....	4.54
Washta	.15	T	T	....	....	1.93	....	....	....	....	....	.15	.05	....	....	.30	....	....	....	....	....	T	1.20	....	....	....	....	....	....	T	....	3.78
Waterloo	.08	.06	1.06	....	....	.06	....	....	....	....	2.42	T	....	....	....	.26	.66	.12	....	....	....	....	....	.13	.02	....	....	....	T	....	....	4.87
Waukee	T	.20	.05	....	....	.05	....	....	....	....	....	....	T	T	....	.25	.17	....	....	....	T	....	....	....	....	....	4.80	.15	....	....	....	5.67
Waverly	....	....	.68	.26	....	.23	.03	....	....	....	.41	.65	.10	....	....	.15	1.06	.01	....	....	....	....	....	.17	....	....	....	....	T	....	....	3.75
Webster City	....	T	.10	.10	....	T	....	....	....	....	....	....	....	....	....	....	.84	....	....	....	....	....	....	....	....	T	1.09	T	....	.66	....	2.79
West Bend	....	....	....	....	.01	.12	....	....	....	....	....	....	T	....	....	....	.65	....	....	....	....	.08	.02	....	....	.30	1.77	....	....	.05	....	3.00
Whitten	....	T	.42	....	....	.10	....	....	....	....	....	....	....	....	....	....	1.13	....	....	....	....	....	T	....	....	T	.43	T	....	....	....	2.08
Wilton Junction	1.10	.35	....	.10	....	2.22	....	....	....	....	....	....	....	....	.36	.50	....	....	....	....	....	....	....	.55	1.04	....	....	....	....	....	....	6.22
Winterset	....	.20	.48	....	....	.16	....	....	....	....	....	....	T	T	....	.08	.26	....	....	....	T	....	T	T	....	....	2.04	.50	....	....	....	3.72
Woodburn	.18	.25	.08	....	....	.04	....	....	....	....	....	....	T	T	....	.31	1.04	....	....	T	....	....	T	.20	T	....	.45	....	....	T	....	2.55
Zearing	....	.03	.04	.03	....	.02	....	....	....	....	....	....	....	....	....	.20	.55	....	....	....	....	....	T	.04	....	....	.52	....	....	....	....	1.43

TOTAL PRECIPITATION, JULY, 1908.



SCALE OF SHADES—IN INCHES

Less than 2 | 2 to 4 | 4 to 6 | 6 to 8 | More than 8

U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR AUGUST, 1908.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1908

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

OF THE

STATE BOARD OF AGRICULTURE,

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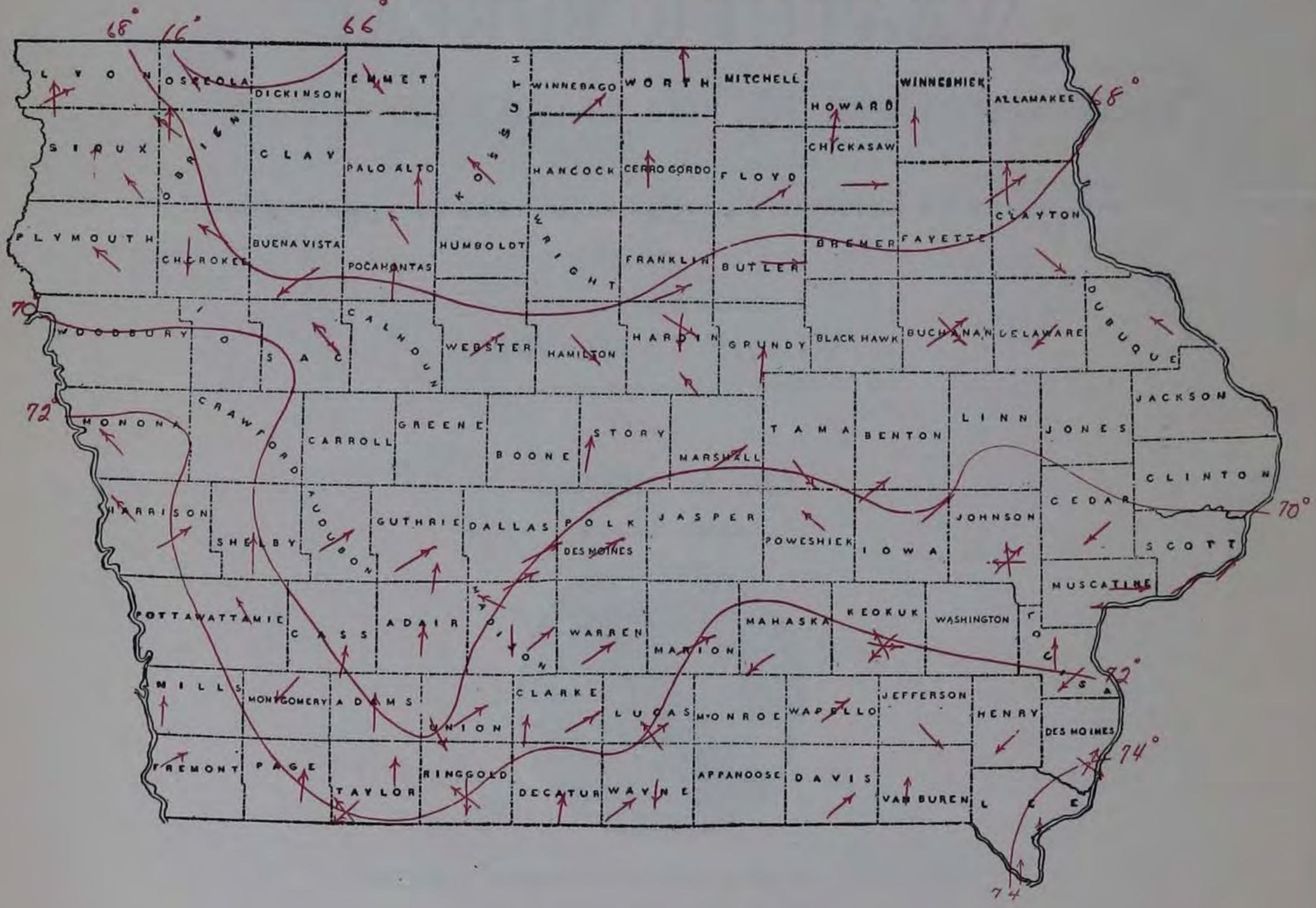
MEAN ISOTHERMS AND PREVAILING WINDS OF AUGUST, 1908.

Lines pass thru points of equal temperature. Arrows fly with the wind.



U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IOWA SECTION,

GEO. M. CHAPPEL, Section Director.

VOL. XIX DES MOINES, IOWA, AUGUST, 1908. NO. 8.

GENERAL SUMMARY.

The mean temperature for the month was slightly below the normal; the average daily deficiency ranged from 2.1° in the northern districts to 1.5° in the southern districts. The warmest period of the month was between the 2d and the 5th. inclusive, when the maximum temperatures ranged from 88° to 101°; the highest occurring in Mahaska and Wapello counties on the 3d. The coolest period was from the 20th to the 24th, inclusive, the lowest temperature occurring on the 24th. During the past 18 years, there have been eleven warmer Augusts and seven that were slightly cooler. The rainfall was above the normal in all districts. Most of the precipitation came from local showers and thunderstorms, which were quite well distributed as to numbers, but the heaviest rain fell over the Missouri divide, thence eastward over the northern portion of the southern districts. There was but one county in the State, Lyon, which reported less than two inches. While the average amount of rainfall for the month was in excess of that for August, 1907, the average number of clear, partly cloudy, cloudy and rainy days were the same as in August of last year, which indicates, as it did then, that there was an excess of sunshine.

The weather was favorable for the growth of vegetation and for farm work. Harvest was finished and threshing well advanced at the close of the month. Local showers in a few localities interfered with threshing operations and some grain, in shock, was damaged by excessive moisture, but the percentage of loss was small. Corn made rapid advancement toward maturity but is still very green. Pastures were exceptionally good for the time of year, and all stock is in good condition. The aftermath in meadows made good growth and the second crop of hay will be heavier than normal. The indications are very favorable for a good crop of clover seed.

TEMPERATURE.—The monthly mean temperature for the State, as shown by the records of 114 stations, was 70.0°, which is 1.8° below the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 68.2°, which is 2.1° below the normal; Central section, 70.1°, which is 1.8° below the normal; Southern section 71.8°, which is 1.5° below the normal. The highest monthly mean was 74.5°, at Keokuk, Lee county, and the lowest monthly mean 66.2°, at Sibley, Osceola county. The highest temperature reported was 101°, at Oskaloosa and Ottumwa, in Mahaska and Wapello counties, on the 3d; the lowest temperture reported was 38°, at Atlantic, Cass county, on the 24th. The average monthly maximum was 94.1°, and the average monthly minimum was 45.1°. The greatest daily range was 45°, at Atlantic, Cass county. The average of the greatest daily ranges was 34.8°.

PRECIPITATION.—The average precipitation for the State, as shown by the records of 123 stations, was 4.77 inches, which is .78 inch above the normal. By sections the averages were as follows: Northern section, 4.03 inches, which is .51 inch above the normal; Central section, 5.07 inches, which is 1.02 inches above the normal; Southern section, 5.21 inches, which is .81 inch above the normal. The greatest amount, 10.58 inches, occurred at Pella, Marion county, and the least, 1.35 inches, at Rock Rapids, Lyon county. The greatest amount in twenty-four hours, 6.02 inches, occurred at Stuart, Guthrie county, on the 15th. Measurable precipitation occurred on an average of 9 days.

SUNSHINE AND CLOUDINESS.—The average number of clear days was 17; partly cloudy 9; cloudy 5. The duration of sunshine was slightly above the normal, the percentage of the possible amount being 70 at Davenport; 65 at Des Moines; 68 at Dubuque; 77 at Keokuk; 66 at Sioux City, and 64 at Omaha, Neb.

WIND.—South and southwest winds prevailed. The highest velocity reported was 40 miles per hour from the northwest, at Sioux City, Woodbury county, on the 15th.

COMPARATIVE DATA FOR THE STATE—AUGUST

Year	Temperature				Precipitation			
	Mean	Departure from the normal	Highest	Lowest	Average	Departure from the normal	Greatest	Least
1890	68.4	—3.1	102	36	3.41	+ .40	6.44	1.02
1891	69.1	—2.4	106	34	4.24	+ .53	13.02	1.23
1892	71.4	—0.1	102	40	2.24	—1.47	4.69	.65
1893	69.4	—2.1	101	30	2.32	—1.39	6.22	.40
1894	74.6	+3.1	108	38	1.58	—2.13	4.53	T
1895	71.9	+0.4	103	37	4.43	+ .72	10.63	.67
1896	71.7	+0.2	104	34	3.52	— .19	12.25	.86
1897	68.9	—2.6	104	35	1.86	—1.85	4.98	.47
1898	71.2	—0.3	103	40	3.44	— .27	10.55	.58
1899	74.4	+2.9	100	41	3.68	— .03	10.45	1.12
1900	77.4	+5.9	103	44	4.65	+ .94	10.43	1.26
1901	73.8	+2.3	105	40	1.29	—2.42	4.46	T
1902	69.1	—2.4	98	37	6.58	+2.87	15.47	1.57
1903	69.1	—2.4	101	41	6.64	+2.93	17.74	2.55
1904	69.1	—2.4	97	35	3.43	— .28	6.75	.66
1905	74.3	+2.8	104	44	4.05	+ .34	8.47	1.04
1906	74.1	+2.6	101	33	3.95	+ .24	10.51	.92
1907	71.1	—0.4	99	37	4.33	+ .62	9.67	1.05
1908	70.0	—1.5	101	38	4.77	+1.06	10.58	1.35

ATMOSPHERIC PRESSURE AND WIND.

Mean Barometer for the month reduced to sea level 30.00 inches.
Prevailing direction of Wind, S. and S.-W.

STATIONS	Barometer, in Inches					Wind			
	Mean	Maximum	Date	Minimum	Date	Movement	Maximum Velocity—miles	Direction	Date
Charles City	30.02	30.29	24	29.80	11	3673	19	W	16
Davenport	30.01	30.24	24	29.73	11	3896	26	NW	11
Des Moines	29.99	30.23	24	29.70	11	4652	26	SW	26
Dubuque	30.02	30.28	25	29.76	11	2791	20	NW	28
Keokuk	30.01	30.21	24	29.72	11	3633	30	SW	11
Omaha, Neb.	29.98	30.21	23	29.71	11	5082	38	N	21
Sioux City	29.99	30.26	23	29.78	11	7355	40	NW	15

ERRATA.

INDIANOLA.—June. Mean temperature recorded as 57.9°, on page 66, should have been 68.0°; departure from the normal recorded as —1.8°, page 66, should have been —1.7°. Mean maximum temperature recorded as 76.3°, on page 67, should have been 76.4°.

OBSERVER'S REMARKS.

ALLERTON.—*Mrs. Geo. Shriver.* Fall pasturage is excellent, threshing is almost finished and the early corn is maturing nicely.

ALTA.—*D. E. Hadden.* The mean temperature was 2° below the 18-year normal, and the rainfall was about 2 inches above the average.

ALTON.—*W. S. Slagle.* The weather was very favorable for farm work, and harvesting was completed in fine shape. The soil is in good condition for fall plowing. The last five days were especially favorable for corn.

AMANA.—*C. Schadt.* The temperature ranged from 97° on the 3d to 44° on the morning of the 24th when a little artificial heat was almost necessary for comfort. There were periods of heavy rainfall, alternating with short dry spells during which no planting was possible, but on the whole the weather was favorable for farm work and threshing is well advanced. Corn is in good condition but needs several weeks of warm weather to mature properly.

BONAPARTE.—*R. B. Vale.* There was 4.41 inches of rainfall as compared with 8.42 inches in August, 1907. The weather was too cool for corn but pleasant and profitable.

BRITT.—*Geo. P. Hardwick.* Frequent showers retarded threshing and severely damaged grain in shock.

CHARITON.—*C. C. Burr.* Threshing is nearly done but the yield of small grain is below the average. Corn is uneven in growth and much of it was blown down. Stock looks well but pastures are short and there is no surface water. Rain is needed.

CLINTON.—*Luke Roberts.* The mean temperature was slightly below the normal and the precipitation was over two inches in excess of the normal. The weather was excellent for all growing crops and for harvesting those matured and for threshing and plowing.

COLUMBUS JUNCTION.—*J. B. Johnston.* Several barns were struck by lightning and burned on the nights of the 11th and 27th.

ELKADER.—*Chas. Reinecke.* Crops in this vicinity are in good condition and many farmers have finished threshing.

ELLIOTT.—*Henry Barnes.* Cool nights during most of the month retarded the growth of corn, most of which is yet quite green.

FOREST CITY.—*J. A. Peters.* It will require twenty days of favorable weather to mature 60% of the corn and all of September to mature 90% of a full crop. Pastures are in good condition. Threshing is about finished and plowing is well advanced.

GRINNELL.—*A. O. Price.* The weather has been pleasant for threshing and fall work.

GUTHRIE CENTER.—*D. G. Beardsley.* 2.67 inches of rain fell on the 28th between 1:00 and 1:50 p. m.

INWOOD.—*F. B. Hanson.* The temperature for the month has been quite uniform. Plenty of sunshine has pushed corn rapidly and it is now out of the roasting-ear stage. Oat yields range from 20 to 40 bushels. Considerable plowing has been done, but rain is needed badly.

KEOSAUQUA.—*J. H. Landes.* A very good month for growing corn, and for all kinds of farm work. No frost at all.

NORTHWOOD.—*Chas. H. Dwelle.* Shock threshing is about over. Oat yields range from 12 to 30 bushels, but of poor quality. Wheat ranges from 10 to 35 bushels and of good quality. The corn crop will need three weeks, without frost, to mature properly.

OLIN.—*Nathan Potter.* The month of August, though quite changeable, was a good month for all farm work. Harvesting and threshing is about finished with a fair quality and yield.

POCAHONTAS.—*F. E. Hronek.* The weather was too cold for maturing the corn, and if frost stays off until the 20th the bulk of the crop will be assured. The pastures are in excellent condition.

RIDGEWAY.—*Arthur Betts.* The month of August was a very bright and pleasant month, with 78% of sunshine. Both temperature and precipitation were below the normal. The summer was cool with no protracted periods of warm weather.

ROCK RAPIDS.—*W. C. Wycoff.* Light frost was seen on the low bottoms on the morning of the 20th, but it did no damage.

SHELDON.—*A. W. Beach.* The weather during the month was fine, except the wet week from the 9th to the 16th, for all farm work. The corn made splendid progress, and with favorable weather for the next two weeks 90% of the corn will be safe.

STOCKPORT.—*C. L. Beswick.* Thirty per cent of the corn is safe from frost now, 50% will be safe by September 15th. The corn is uneven in the same field, and there is more or less of soft corn in all of it; 25% will be soft if frost comes during September.

WAVERLY.—*H. S. Hoover.* The morning of the 28th at 7 o'clock it was so dark that lamps had to be lighted to see. At 8 o'clock a hailstorm occurred with heavy rain and considerable wind.

WEST BRANCH.—*Phil Dorweiler.* The first half of the month was warm and the last half was too cool for the corn to ripen.

WHITTEN.—*F. P. Butler.* The rain on the 11th was timely and beneficial and did an immense amount of good.

CLIMATOLOGICAL DATA FOR IOWA, AUGUST, 1908

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
NORTHERN SECTION																				
Algona	Kossuth	1,213	34	68.1	— 2.8	90	2	45	*20	30	6.85	+2.93	3.50	....	9	26	1	4	se,nw	Dr. F. T. Seeley
Alta	Buena Vista	1,513	17	68.0	— 2.5	89	2	47	*22	29	6.03	+3.06	1.26	....	12	17	10	4	s	D. E. Hadden
Alta [near]	Buena Vista	.....	....	.....	.....	.....	.....	.....	.....	.....	5.46	+1.87	1.08	....	14	....	....	....	.....	W. J. Minard
Alton	Sioux	1,305	3	69.1	.....	96	2	41	20	40	3.95	.....	1.56	....	10	19	6	6	se	W. S. Slagle
Britt	Hancock	1,236	11	67.2	— 2.8	89	*2	44	*22	32	4.83	+ .78	1.71	....	11	8	18	5	nw	G. P. Hardwick
Charles City	Floyd	1,015	20	67.4	— 3.3	90	2	43	24	33	3.49	+ .07	1.38	....	8	7	17	7	sw	Weather Bureau
Clear Lake[i]	Cerro Gordo	1,241	9	68.8	— 2.9	92	2	45	20	32	2.97	−1.34	.96	....	6	25	1	5	s	Oscar Stevens
Decorah	Winneshiek	875	15	d 68.4	— 1.8	92	*2	h 42	24	.....	4.17	+1.13	1.75	....	6	....	....	....	.....	F. H. Baker
Dows	Wright	1,142	8	66.2	— 3.5	91	3	40	*20	35	4.22	— .06	1.46	....	9	....	....	....	.....	G. D. Flett
Elkader	Clayton	727	27	70.6	— 0.4	97	3	40	24	43	2.94	+ .04	1.24	....	5	22	6	3	nw	Chas. Reinecke
Elma	Howard	.....	....	66.3	.....	92	2	39	*20	39	3.35	.....	.65	....	8	20	9	2	n,s	H. A. Moore
Estherville	Emmet	1,298	12	67.0	— 3.2	91	2	42	24	35	3.07	— .53	1.20	....	7	16	2	13	nw	A. O. Peterson
Fayette	Fayette	1,003	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Z. Latimer
Forest City	Winnebago	1,226	14	68.2	— 2.1	90	2	44	24	32	4.28	+ .78	1.40	....	6	19	6	6	sw	J. A. Peters
Grand Meadow	Clayton	1,180	17	67.4	— 1.5	90	3	46	*20	30	3.06	— .27	1.62	....	7	13	14	4	s,sw	F. L. Williams
Greene	Butler	.....	9	69.4	— 2.1	95	*2	42	24	38	3.81	— .06	1.38	....	7	7	19	5	w	J. L. Cole
Hampton	Franklin	1,155	18	69.7	— 0.9	96	3	46	20	35	3.47	+ .10	1.48	....	9	10	18	3	sw	E. C. Grenelle
Humboldt	Humboldt	1,095	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. S. Wells
Inwood	Lyon	1,474	4	69.0	.....	95	29	40	20	37	1.94	.....	.73	....	8	23	3	5	s,sw	F. B. Hanson
Larrabee	Cherokee	1,266	17	68.0	— 3.2	92	2	44	20	35	4.26	+ .78	1.68	....	12	19	10	2	se	H. B. Streever
Le Mars	Plymouth	1,224	12	68.4	— 3.1	90	2	43	20	31	2.35	— .53	.59	....	9	19	9	3	se	G. A. C. Clarke
Mason City	Cerro Gordo	1,132	11	66.8	— 3.2	89	2	41	24	31	3.12	— .48	1.24	....	7	13	16	2	s	J. S. Mills
Merrill	Plymouth	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Eric Oleson
New Hampton	Chickasaw	1,169	11	66.8	— 2.5	88	3	45	*20	33	3.15	+ .12	.67	....	9	23	7	1	w	A. F. Kemman
Northwood	Worth	1,222	12	a 67.1	— 2.4	a 87	2	45	24	26	2.53	−1.51	.70	....	6	14	9	8	s	Charles H. Dwelle
Osage(h)	Mitchell	1,184	17	70.4	+ 2.4	94	3	.....	.....	.....	3.03	‡ .00	1.00	....	5	....	....	....	.....	Dr. A. D. Bundy
Plover	Pocahontas	1,426	12	68.9	— 2.0	90	*2	44	20	33	5.99	+1.46	1.76	....	10	21	5	5	se	J. S. Smith
Pocahontas	Pocahontas	.....	4	67.8	.....	91	1	44	13	38	5.52	.....	1.01	....	11	21	6	4	s	F. E. Hronek
Ridgeway	Winneshiek	1,215	10	70.0	— 2.0	91	3	46	22	34	2.55	−1.17	.77	....	9	24	5	2	s	Arthur Betts
Rock Rapids	Lyon	1,358	9	69.6	— 0.7	90	*6	41	20	35	1.35	−1.08	.50	....	3	....	....	....	.....	W. C. Wyckoff
Sheldon	O'Brien	1,422	8	69.2	— 2.1	97	2	40	20	41	5.35	+1.67	1.35	....	10	23	6	2	s,se	Dr. A. W. Beach
Sibley	Osceola	1,212	15	66.2	— 2.7	92	2	41	20	41	4.58	+ .92	1.54	....	12	21	0	10	nw	H. G. Doolittle
Sioux Center	Sioux	.....	9	67.6	— 3.5	90	2	40	24	37	3.11	— .52	.88	....	9	17	8	6	s	J. de Ruyter
Storm Lake	Buena Vista	1,440	12	a 68.1	— 2.6	88	*2	b 47	*20	27	5.69	+2.37	1.26	....	13	16	9	6	ne	Ralph H. Carr
Washta	Cherokee	1,157	10	69.4	.....	92	*2	40	20	43	4.73	+1.95	1.75	....	10	23	4	4	n	H. L. Felter
Waverly	Bremer	948	12	68.6	— 2.2	92	13	44	24	32	4.60	+1.64	2.01	....	9	15	12	4	.....	H. S. Hoover
West Bend	Palo Alto	1,197	14	68.4	— 1.2	90	*2	45	*22	29	6.04	+2.10	2.75	....	8	11	15	5	s	Phil Dorweiler
Averages	.....	.....	....	68.2	— 2.1	91.5	.....	42.9	.....	34.5	4.03	+ .51	.....	....	9	17	9	5	s	
CENTRAL SECTION																				
Amana	Iowa	721	31	70.0	— 0.9	97	3	44	24	38	4.87	+1.26	1.94	....	8	13	16	2	sw	Conrad Schadt
Ames	Story	926	27	b 69.0	— 3.2	a 95	3	b 42	24	36	5.90	+2.23	1.60	....	11	15	10	6	s	Iowa State College
Audubon	Audubon	1,301	15	68.4	— 3.4	94	3	41	24	37	4.57	+ .85	2.93	....	12	15	10	6	sw	Geo. E. Kellogg
Baxter (m)	Jasper	998	8	71.1	— 0.8	95	3	.....	.....	32	3.02	−1.53	1.04	....	9	....	....	....	.....	W. R. Vandike
Belle Plaine	Benton	828	18	68.6	— 2.2	95	3	43	24	33	3.49	— .66	1.73	....	7	11	13	7	sw	S. P. Vandike
Boone	Boone	1,134	3	70.2	.....	96	3	47	24	30	4.18	.....	1.48	....	9	16	6	9	.....	Carl Fritz Henning
Buckingham	Tama	.....	8	.....	.....	.....	.....	.....	.....	.....	3.05	−1.98	1.26	....	8	2	28	1	.....	Dr. W. A. Daniel
Carroll	Carroll	1,265	18	69.6	— 1.5	93	*2	43	20	36	7.76	+4.05	2.35	....	10	16	5	10	.....	Frank Hughes
Cedar Rapids	Linn	733	26	70.6	— 2.1	98	3	44	*24	38	4.12	+ .62	1.83	....	6	10	4	17	.....	Electric Light & P. Co.
Clinton	Clinton	593	40	70.0	— 1.3	96	3	43	24	42	5.57	+1.92	1.92	....	9	12	13	6	.....	Luke Roberts
Davenport	Scott	580	36	72.2	— 0.8	95	3	51	24	28	6.23	+2.59	3.53	....	9	16	9	6	sw	Weather Bureau
Delaware	Delaware	1,083	17	67.8	— 1.8	93	3	46	20	33	3.56	+ .02	1.28	....	8	14	15	2	ne	Wm. Ball
Denison	Crawford	1,180	13	69.6	— 2.3	95	3	43	*20	39	5.87	+2.11	1.29	....	13	27	2	2	n	W. C. Van Ness
Des Moines	Polk	861	29	71.4	— 1.6	95	3	52	24	29	6.54	+2.93	4.33	....	12	8	17	6	sw	Weather Bureau
De Soto	Dallas	866	8	71.1	— 1.9	95	3	44	24	36	6.59	+1.62	4.50	....	9	17	9	5	sw	R. D. Minard
Dubuque	Dubuque	639	35	69.6	— 2.4	96	3	46	24	32	2.92	— .12	1.22	....	7	13	12	6	se	Weather Bureau
Fort Dodge	Webster	1,126	8	68.8	— 2.6	91	*2	45	24	30	5.83	+ .19	1.90	....	11	18	3	10	sw	J. F. Monk
Gilman	Marshall	1,052	9	.....	.....	.....	.....	.....	.....	.....	2.90	— .80	1.19	....	6	....	....	....	.....	Jas. L. Wylie
Grinnell	Poweshiek	1,023	16	70.6	— 1.0	96	3	46	20	35	5.80	+1.18	4.18	....	9	15	8	8	se	A. O. Price
Grundy Center	Grundy	976	17	69.8	— 1.2	95	3	40	20	39	3.93	+ .36	1.25	....	7	18	8	5	s	W. H. Scott
Guthrie Center	Guthrie	1,077	13	70.6	— 1.6	95	3	44	24	37	9.25	+4.93	4.33	....	12	24	1	6	sw	D. G. Beardsley
Harlan	Shelby	1,192	9	70.2	— 2.0	97	3	45	*20	40	3.63	— .59	1.57	....	8	9	18	4	s	C. A. Reynolds
Independence	Buchanan	921	43	68.8	— 1.3	94	3	42	24	35	2.78	— .41	1.30	....	8	17	11	3	sw, nw	George Donohue
Iowa City	Johnson	683	49	71.4	— 0.3	98	3	46	24	39	7.47	+3.23	2.60	....	7	17	4	10	e,s, sw	Prof. Karl E. Guthe
Iowa Falls	Hardin	1,170	15	67.1	— 2.8	92	3	41	20	39	5.48	+2.10	1.93	....	9	20	4	7	n,nw	J. B. Parmelee
Jefferson	Greene	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	Geo. W. Jackson
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	5.59	+2.00	3.57	....	9	16	6	9	sw	Margaret T. Disney
Little Sioux	Harrison	.....	4	71.8	.....	95	3	45	20	34	4.04	.....	1.30	....	9	17	9	5	se	Geo. H. Gibson
Logan	Harrison	928	42	71.5	— 1.2	97	3	45	20	44	2.32	−1.42	1.25	....	8	13	16	2	sw	Glen H. Stern
Marshalltown	Marshall	947	16	68.7	— 3.1	92	*3	41	24	37	3.27	— .37	1.17	....	8	10	11	10	sw	Agnes Musil
Montezuma	Poweshiek	.....	....	.....	.....	.....	.....	.....	.....	.....	4.40	.....	1.90	....	4	....	....	....	.....	C. J. Griffin
Muscatine	Muscatine	.....	49	.....	.....	.....	.....	.....	.....	.....	8.35	+3.97	3.15	...	6	13	10	8	e	Wm. P. Molis
Newton	Jasper	944	19	j 71.4	— 0.8	j 94	3	.....	.....	j 29	5.42	+1.24	4.23	....	6	....	....	....	.....	Hon. J. P. Beatty
Odebolt	Sac	1,356	10	71.2	— 2.5	97	3	44	20	38	6.83	+3.23	1.35	....	12	24	3	4	.....	E. Starner
Olin	Jones	760	11	a 68.6	— 2.1	a 93	3	a 41	24	34	3.17	−1.54	1.30	....	6	20	8	3	.....	Hon. Nathan Potter
Onawa	Monona	1,051	8	73.0	— 1.2	95	3	50	20	30	3.53	−1.61	1.17	....	11	22	4	5	se	C. G. Perkins
Perry	Dallas	975	7	70.4	— 2.1	96	4	45	24	33	5.86	+ .44	1.73	....	11	22	4	5	.....	J. A. Harvey
Rockwell City	Calhoun	.....	12	69.5	— 2.8	92	*2	46	22	32	7.45	+3.37	1.85	....	9	26	2	3	.....	C. M. Randall
Sac City	Sac	1,278	26	68.8	— 1.7	92	1	47	24	32	6.37	+2.80	1.60	....	10	22	7	2	se,nw	F. E. Stouffer
Sioux City	Woodbury	1,135	17	69.8	— 2.8	96	3	45	20	35	4.28	+1.28	1.72	....	9	13	10	8	se	Weather Bureau
Stuart (a)	Guthrie	1,216	10	69.4	— 3.8	92	3	42	20	30	8.22	+4.51	6.02	....	8	....	....	....	s	Geo. B. Irick
Tipton	Cedar	807	10	73.2	+ 0.6	97	3	52	24	32	4.95	+ .29	1.62	....	7	22	9	0	ne	F. K. Gregg
Toledo	Tama	856	14	70.2	— 1.8	98	3	42	24	38	3.00	— .70	1.20	....	7	22	4	5	nw	I. F. Giger
Waterloo	Black Hawk	862	25	70.0	— 0.9	97	3	43	24	34	3.61	‡ .00	1.56	....	8	20	7	4	.....	M. L. Newton
Waukee	Dallas	1,039	5	70.2	.....	93	3	45	24	32	6.65	+1.34	4.70	....	9	19	6	6	sw	A. H. Blackmore
Webster City	Hamilton	.....	3	69.8	.....	94	3	41	*21	40	5.00	.....	1.50	....	11	16	13	2	nw	C. D. Carpenter
Whitten	Hardin	1,036	10	70.4	— 0.5	95	3	43	*20	35	4.00	+ .25	1.23	....	5	15	13	3	se	Dr. Frank P. Butler
Wilton Junction	Muscatine	683	13	70.2	— 2.3	93	*3	40	24	39	6.76	+2.47	3.23	....	5	22	4	5	w	Wm. Lang
Zearing	Story	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	W. C. Bean
Average	.....	.....	....	70.1	— 1.8	94.9	.....	44.4	.....	35.0	5.07	+1.02	.....	....	9	17	9	5	sw	

CLIMATOLOGICAL DATA FOR IOWA, AUGUST, 1908—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in Inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
SOUTHERN SECTION																				
Afton	Union	1,212	14	71.9	— 1.7	94	3	47	21	34	5.21	+ .78	2.06	....	11	14	12	5	sw	N. W. Rowell
Albia	Monroe	959	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	...	...	...	...	.....	J. I. Chenoweth
Allerton	Wayne	.....	6	72.2	— 0.9	96	3	49	19	34	5.02	—1.80	1.77	....	11	21	5	5	sw	Mrs. Geo. Shriver
Atlantic	Cass	1,164	17	69.9	— 1.4	97	3	38	24	45	3.57	+ .09	1.40	....	8	5	16	10	s	J. W. Love
Bedford	Taylor	.....	8	71.8	— 2.1	96	5	47	20	40	3.86	—1.20	.81	....	12	20	6	5	ne, se	E. E. Healy
Bloomfield	Davis	.....	....	73.4	.....	100	3	48	20	40	4.64	.....	1.72	....	8	18	11	2	sw	F. H. Roberts
Bonaparte	Van Buren	.....	17	71.0	— 3.3	95	3	47	24	37	4.41	— .24	2.50	....	8	....	....	....	.....	Hon. B. R. Vale
Burlington	Des Moines	544	12	73.8	— 0.3	98	16	51	*21	35	2.64	—2.80	1.10	....	10	21	4	6	sw, nw	W. E. Poppe
Chariton	Lucas	1,042	13	71.5	— 1.6	98	3	47	24	37	3.42	—1.58	2.52	.. .	5	20	5	6	se, sw	C. C. Burr
Clarinda	Page	1,009	18	72.3	— 1.9	98	3	48	20	36	5.78	+1.75	1.54	....	14	14	4	13	s	A. S. Van Sandt
Columbus Junction	Louisa	595	7	71.6	— 0.8	94	3	48	24	33	7.92	+1.70	2.95	....	10	23	7	1	ne	J. B. Johnston
Corning	Adams	1,117	16	71.0	— 1.5	95	3	47	20	34	3.76	— .45	1.65	....	10	....	....	....	s	Jerome Smith
Corydon	Wayne	1,101	15	72.8	— 0.8	96	*3	49	20	36	3.88	— .44	1.89	....	10	18	8	5	n,se	Clara Miller
Creston	Union	1,312	3	69.0	.....	93	3	48	21	31	5.98	.....	2.30	...	15	16	5	10	nw	Rev. W. L. Gaston
Cumberland	Cass	.....	9	.....	.....	.....	.....	.....	.....	.....	6.19	+2.21	1.74	.. .	9	21	5	5	s	J. H. Reppert
Earlham	Madison	.....	6	68.8	— 1.2	91	3	43	25	35	6.38	+1.25	3.43	....	11	20	4	7	se	Geo. Phillips
Elliott	Montgomery	.....	3	71.1	.....	93	3	46	*24	35	2.84	.....	1.40	....	6	19	9	3	ne	Henry Barnes
Fairfield	Jefferson	.....	14	71.1	— 0.2	96	3	48	24	40	4.25	+ .17	1.39	....	10	18	5	8	nw	R. Monroe McKenzie
Fort Madison	Lee	516	59	.....	.....	.....	.....	.....	.....	.....	4.03	+ .24	.74	....	11	7	15	9	s	Miss L. A. McCready
Greenfield (b)	Adair	.....	17	70.5	— 1.9	92	3	46	20	30	6.43	+2.89	3.30	....	11	....	....	....	s	Geo. Brooks
Hancock	Pottawattamie	1,113	2	70.4	.....	92	3	47	*20	32	2.63	.....	.67	....	10	21	5	5	se	W. Armstrong
Hopeville	Clarke	.....	17	72.0	— 1.2	98	5	50	20	33	5.94	+2.13	1.78	....	12	10	18	3	s	M. T. Ashley
Indianola	Warren	969	17	a 71.2	— 1.6	95	3	a 49	*20	30	9.45	+4.77	4.60	....	11	....	....	....	sw	Prof. J. L. Tilton
Keokuk	Lee	574	37	74.5	— 0.1	95	16	54	25	31	2.50	— .74	1.52	....	5	20	8	3	s	Weather Bureau
Keosauqua	Van Buren	644	16	71.8	— 2.7	97	*3	45	24	43	4.63	+ .81	1.89	....	8	6	14	11	.....	J. H. Landes
Knoxville	Marion	920	12	72.1	— 1.6	97	3	48	23	30	8.59	+3.92	3.83	....	9	16	4	11	sw	Casey & Bellville
Lacona	Warren	.....	9	.....	.....	.....	.....	.....	.....	.....	5.36	+ .54	2.00	....	10	9	15	7	.....	Agent C., B. & Q. Ry.
Lenox	Taylor	1,250	13	71.2	— 1.7	93	3	49	20	30	4.02	— .10	.82	....	12	23	3	5	s	J. T. Hurley
Leon	Decatur	1,120	6	e 73.2	+ 0.1	e 96	3	.....	.....	e 32	3.75	—2.19	.80	....	10	....	....	....	s	Morris Gardner
Massena	Cass	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	...	...	...	...	.....	G. A. Hill
Mt. Ayr	Ringgold	1,236	15	72.4	— 1.6	96	3	49	* 1	44	5.25	+1.50	1.25	....	12	15	12	4	sw	A. F. Beard
Mt. Pleasant	Henry	729	26	a 72.8	— 0.5	97	3	a 50	*24	33	3.14	— .93	1.26	....	8	18	12	1	ne	Prof. J. W. Edwards
Omaha, Neb	Douglas	1,040	38	73.2	— 1.2	96	3	54	20	27	2.20	—1.42	.71	....	12	8	13	10	s	Weather Bureau
Oskaloosa	Mahaska	843	24	71.8	— 0.1	101	3	47	24	41	9.91	+6.69	3.30	....	10	22	0	9	ne	Jos. Boyd
Ottumwa	Wapello	649	14	74.0	— 1.0	101	3	50	24	37	6.03	+1.94	1.75	....	7	22	6	3	sw	Dr. Jas. A. Hull
Pacific Junction	Mills	960	9	71.6	— 1.9	94	3	47	20	33	2.76	—1.07	.85	....	10	14	14	3	s	H. H. McCartney
Pella	Marion	877	6	72.9	— 1.5	99	3	48	24	33	10.58	+6.40	4.30	....	10	19	7	5	sw	T. W. Cox
St. Charles	Madison	1,070	7	73.0	— 0.2	94	3	50	20	28	6.61	+2.28	5.20	....	6	21	6	4	sw	R. D. Minard
Sigourney	Keokuk	877	12	72.2	— 1.6	100	3	48	24	38	6.45	+2.60	1.78	....	9	2	29	0	ne,se,w	J. T. Parker
Stockport	Van Buren	.....	6	72.1	.....	93	3	50	24	33	5.60	+ .54	2.95	....	10	21	5	5	s	C. L. Beswick
Thurman	Fremont	.....	11	73.1	— 0.7	95	*2	48	20	37	5.50	+1.11	1.98	....	9	13	13	5	sw	C. R. Paul
Wapello (a)	Louisa	588	10	71.6	— 1.9	94	3	51	*24	31	5.87	+ .87	1.82	....	9	....	....	....	.....	Geo. W. Schofield
Washington	Washington	769	27	h 70.6	— 2.5	h 95	3	.....	.....	h 32	7.76	+4.05	3.62	....	8	....	....	....	.....	Wm. A. Cook
Winterset	Madison	1,129	17	71.8	— 0.8	95	3	49	*20	32	6.05	+2.32	4.08	....	13	11	15	5	n	Dr. Robert S. Cooper
Woodburn	Clarke	961	9	69.8	.....	95	3	42	20	41	3.05	—2.53	.70	....	12	13	16	2	sw	C. B. McDonough
Average		.....	....	71.8	— 1.5	95.8	.....	47.9	.....	34.8	5.21	+ .81	.....	....	10	16	9	6	s,sw	
State average		.....	....	70.0	— 1.8	94.1	.....	45.1	.....	34.8	4.77	+ .78	.....	....	9	17	9	5	s,sw	

*And other dates. *a* one day missing, *b* two days; *c* three days; *d* four days. ‡Received too late to be included in average.

THUNDERSTORMS—STATIONS AND DATES

NORTHERN SECTION.

Stations	Dates
Algona	4,9,16,26,28
Alta	4,5,9,15,21,26,28,29,31
Alton	4,6,9,15
Britt	16
Charles City	3,15,28
Elkader	9,28,31
Elma	4
Grand Meadow	12,15
Inwood	4,19,31
Larrabee	4,5,8,21,28,29
Le Mars	5,9,14,16
Mason City	16,28
New Hampton	4,5,15,16
Northwood	3,14,15,21,28
Plover	4,8,9,11,14,15,16,25,26,28
Pocahontas	5,6,8,14,15,16,23,24,26
Ridgeway	3,4,9,16,28
Sheldon	4,9,15
Sibley	8,25
Sioux Center	4,6,7,15,16,29
Storm Lake	4,11,15
Washta	9,14,15,27,29
Waverly	3,16,28
West Bend	9,15,16,28

CENTRAL SECTION

Stations	Dates
Amana	11,14,17,28,29,31
Audubon	4,5,6,25,28
Baxter	15
Boone	28
Carroll	4,5,9,15,28
Clinton	11,15,17,28,31
Davenport	11,12,15,17,28,29,31
Delaware	3,28,31
Denison	4,6,9,14,15,16,23,25,26,28,31
Des Moines	4,5,6,14,16,17,28
De Soto	15
Dubuque	3,15,28,31
Grinnell	4,6,11,12,15,17,28,29,31
Guthrie Center	4,5,9,17,26,28
Harlan	4,6,15,21,26,28
Independence	15,23,28
Iowa City	11,14,17,27,31
Iowa Falls	3,4,14,15,28
Little Sioux	22
Olin	13,14,28,31
Onawa	4,6,11,14,15,16,22,29
Perry	4,6,9,15,28
Waterloo	3,28
Waukee	6,9,11,15,26
Whitten	3,5,27

SOUTHERN SECTION

Stations	Dates
Atlantic	6,15,26
Allerton	6,18,25,27,31
Bloomfield	6,12,17,28,31
Chariton	12
Columbus Junction	6,11,12,13,15,17,28,29,31
Corydon	28
Corning	6
Earlham	4,6,9,14,29
Fairfield	6,11,15,17,28,31
Fort Madison	6,9,31
Indianola	4,5,9,11,15,17,28
Keokuk	6,9,12,28,31
Keosauqua	6,29
Leon	6,9,11,12,14,17,19,26,28,31
Mt. Pleasant	11,15,28,31
Oskaloosa	11,14
Omaha, Neb	4,5,6,11,15,19,21,25,26,29
Sigourney	6,11,12,15,17,28
Stockport	6,12,17,28,31
Thurman	4,5,11,16,17,19,28,29,31
Winterset	6
Woodburn	14,19

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF AUGUST, 1908

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | Monthly Mean | |
|---|---|---

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | Monthly Mean | |
|---|---|---

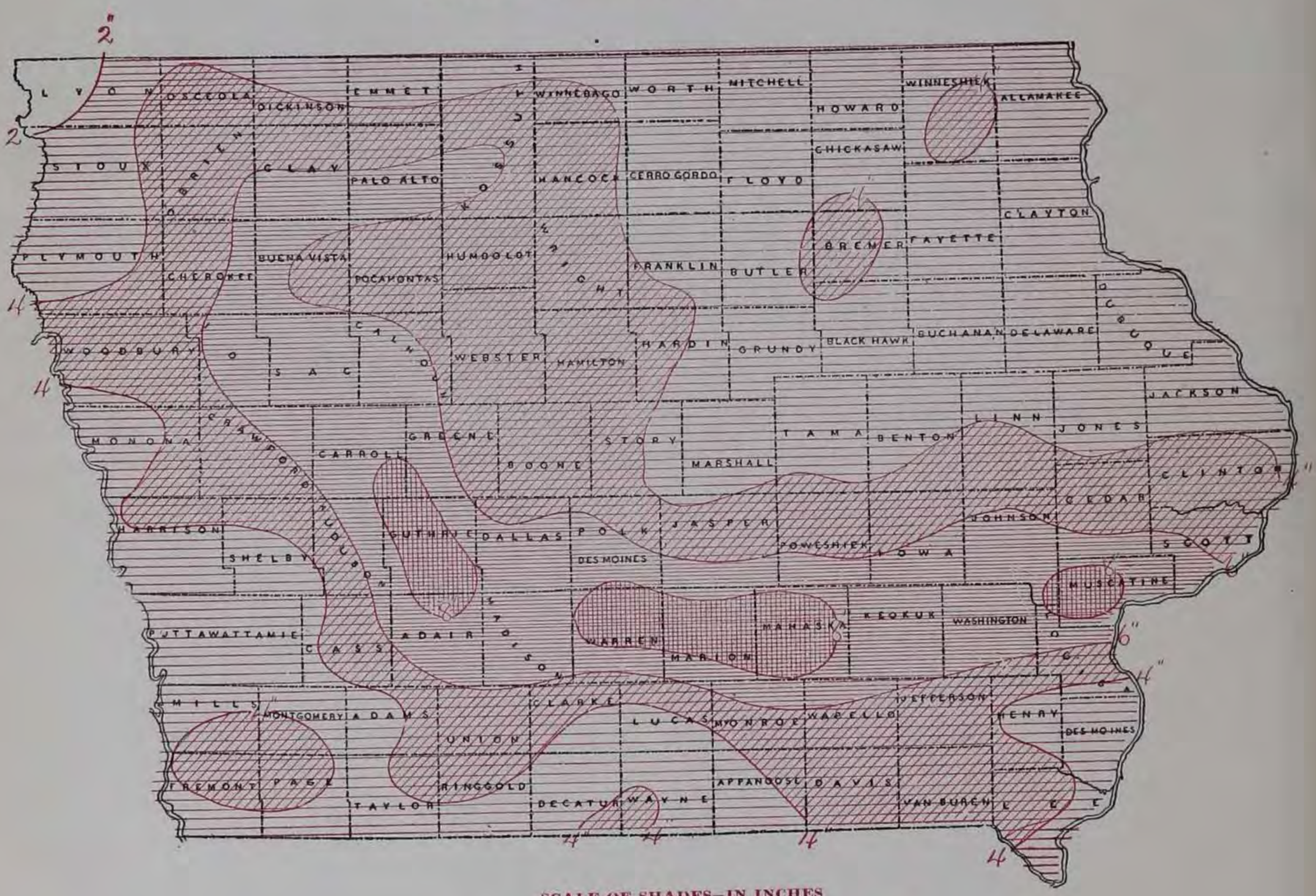
DAILY PRECIPITATION FOR IOWA, AUGUST, 1908

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	.09	....	2.06	....	....	.24	....	.14	....	....	.20	....	....	.66	....	....	.32	....	.11	....	....	....	1.10	....	.10	....	....	....	5.21
Albia	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Algona	....	....	T	.23	....	....	....	....	.75	....	.46	T	....	.85	.09	3.50	....	....	....	....	T	T	....	....	.20	.11	....	.66	....	....	T	6.85
Allerton	....	....	....	....	....	.61	....	....	.02	....	.01	1.77	....	.11	....	....	.04	.73	....	....	....	T	....	T	.35	....	.93	.05	....	....	.40	5.02
Alta	....	....	....	1.05	....	.01	....	....	.80	....	.01	.60	....	....	1.06	1.26	....	....	....	....	....	....	.02	....	.06	.78	....	....	.07	.15	.16	6.03
Alta (near)	....	....	....	1.08	....	.10	....	....	.60	....	.70	....	....	.82	.60	.92	....	....	....	....	.02	....	.07	....	.03	.24	....	.08	.04	....	.16	5.46
Alton	....	....	....	1.56	....	.06	....	....	.18	....	.50	.02	....	.43	.71	.19	....	....	....	....	T	....	....	....	..	.13	....	....	....	....	.17	3.95
Amana	....	....	....	....	....	T	....	....	.04	....	.12	.77	....	T	1.83	....	.08	....	....	....	....	....	T	....	....	....	....	1.61	.33	....	.09	4.87
Ames	....	....	....	.70	....	.10	....	....	.40	....	1.20	.10	....	.70	.50	....	....	....	....	....	....	....	....	....	....	.20	....	1.60	.20	..	.20	5 90
Atlantic	....	....	....	....	....	1.40	....	....	....	....	.10	....	....	.33	.90	T	T	....	....	....	....	....	.10	....	....	33	....	.07	....	....	.34	3.57
Audubon	....	....	....	11	....	.47	....	....	....	....	.45	.01	....	.08	2.85	.08	....	....	....	....	....	.10	.04	....	....	.24	....	.04	....	....	.10	4 57
Baxter	....	....	....	.10	....	.27	....	....	.38	....	.38	....	....	.02	1.04	....	.05	....	....	....	....	....	....	....	....	....	....	.08	....	....	.70	3.02
Bedford	....	....	....	....	.27	.19	.03	....	....	....	.24	.20	....	.41	.06	....	.20	....	.17	....	....	....	T	....	....	.81	....	.58	..	....	.70	3.86
Belle Plaine	....	....	....	T	....	.07	....	....	.10	....	....	....	....	T	1.40	....	.03	....	....	....	....	....	.02	....	..	..	....	1.73	T	....	.14	3.49
Bloomfield	....	....	....	....	....	1.72	....	....	.09	....	....	.46	....	.14	....	....	.55	....	.08	....	....	....	T	....	....	T	....	1.08	....	....	.52	4.64
Bonaparte	....	....	....	....	....	2.50	....	....	.05	....	....	.23	....	.07	.04	.30	....	T	....	....	....	....	....	....	..	....	....	1.10	....	....	.12	4.41
Boone	....	....	....	.05	T	.06	....	....	.38	....	....	1.02	....	....	.72	....	T	....	T	....	....	....	....	T	....	.20	.17	.75	.73	....	....	4.18
Britt	....	....	....	.12	....	....	....	....	.50	....	.48	.01	....	.78	.02	1.71	....	....	....	....	.13	....	....	....	.01	T	....	96	..	....	.08	4 83
Buckingham	....	....	.24	.01	T	....	....	....	.12	....	.59	.29	....	.30	..	T	....	....	....	....	....	....	....	....	....	....	....	1 26	....	....	.24	3 05
Burlington	....	....	....	....	....	1.10	....	....	....	.03	....	.05	.06	....	.18	....	.06	.03	.08	....	....	....	....	....	.02	....	....	....	....	1.03	....	2.64
Carroll	....	....	....	1.27	....	.20	....	....	1.50	....	T	1.20	....	....	2.35	....	....	....	....	....	....	....	T	....	.05	.60	.03	.05	.51	..	T	7.76
Cedar Rapids	....	....	....	....	....	....	....	....	.22	....	.35	....	....	1.83	.04	T	....	....	....	....	....	....	.02	....	..	..	....	1.66	....	....	....	4.12
Chariton	....	....	....	....	....	.32	....	....	T	....	.82	1.70	....	T	T	....	T	....	T	....	....	....	....	....	T	T	....	.22	....	....	.36	3.42
Charles City	....	....	.26	....	....	....	....	....	.12	....	.78	....	....	.59	.66	.79	....	....	....	....	....	....	T	....	....	T	....	.22	....	....	.07	3.49
Clarinda	....	....	....	....	.25	.05	.05	....	....	....	.10	.21	....	.20	.25	....	.73	....	.23	.01	....	....	....	....	..	1.54	.80	....	.40	....	.96	5.78
Clear Lake	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	..	....	....	....	....	....	.....
Clinton	....	....	....	....	....	....	....	....	.16	....	....	1.92	....	....	1.74	....	.55	....	....	....	....	....	.01	....	....	....	....	.45	....	....	.74	5.57
Columbus Junc	....	....	....	....	....	.30	....	....	.03	....	.20	2.95	....	.05	.80	....	.57	....	....	....	....	....	....	....	....	....	....	1.14	1.45	....	.43	7.92
Corning	....	....	....	....	....	.58	....	....	....	....	....	.24	....	.16	.05	....	1.65	....	....	....	....	.09	....	....	....	.49	....	.31	.02	....	.17	3.76
Corydon	....	....	....	....	....	.37	....	....	.07	....	.06	1.89	....	.09	....	....	.07	....	.11	....	....	....	T	....	....	.12	..	.73	T	....	.37	3.88
Creston	....	....	....	....	....	2.30	.03	....	T	.15	.04	.18	....	....	.50	....	1.76	.03	.30	....	....	.05	....	.03	....	.20	.26	....	.09	.06	....	5.98
Cumberland	....	....	....	....	....	.48	.04	....	....	....	.46	....	....	1.74	....	1.33	....	....	....	....	.46	....	....	....	....	1.01	....	.46	....	....	.21	6.19
Davenport	....	....	....	T	....	....	....	....	.24	....	3.01	.52	....	.08	1.14	....	.13	....	....	....	....	....	T	....	....	....	....	.80	.15	....	.16	6.23
Decorah	....	....	....	.03	....	....	....	....	1.75	....	.75	....	....	.40	....	.79	....	....	....	....	....	....	....	....	....	....	....	.45	....	....	T	4.17
Delaware	....	....	.89	....	....	....	....	....	.17	....	.26	.33	....	.04	.50	....	....	....	....	....	....	....	....	....	....	....	....	1.28	....	....	.09	3.56
Denison	....	....	....	1.22	....	1.29	....	....	.01	....	.93	.03	....	.30	.95	.02	....	....	....	....	....	....	.02	....	.04	.60	....	.18	....	....	.28	5.87
Des Moines	....	....	....	.46	.23	.19	....	....	.40	....	.23	....	....	3.51	.82	....	.18	....	....	....	....	....	.01	....	T	.09	T	.18	T	....	.24	6.54
De Soto	....	....	....	.82	....	.12	....	....	.30	....	.22	....	....	....	4.50	....	.05	....	....	....	....	....	....	....	T	.20	....	.13	T	....	.25	6.59
Dows	....	....	.33	.27	....	....	....	....	.33	....	1.46	.10	....	....	1.30	.34	....	....	....	....	....	....	.05	....	.04	....	....	....	....	....	....	4.22
Dubuque	....	....	T	....	....	....	....	....	.09	.01	.91	....	....	.13	1.09	....	....	....	....	....	....	....	T	....	....	....	..	.55	....	....	.14	2.92
Earlham	....	....	....	.18	....	.22	....	..	.20	....	.12	....	....	.05	3.43	....	.11	....	....	....	....	....	....	T	T	1.30	....	....	.29	....	.48	6.38
Elkader	....	....	....	....	....	....	....	....	.15	.02	.88	....	....	.24	....	....	....	....	....	....	....	....	....	....	....	....	....	.65	....	....	....	2.94
Elliott	....	....	....	....	....	T	....	....	....	T	....	....	....	.30	.37	....	.29	....	....	....	....	T	.18	....	....	....	1.40	....	....	....	.30	2.84
Elma	..	..	T	.22	....	....	....	....	.30	T	.65	....	....	.41	.39	.65	....	....	....	....	....	....	....	....	....	....	....	.61	....	....	.12	3.35
Estherville	....	....	....	.55	....	....	....	....	.82	....	....	....	....	....	1.20	.20	....	....	....	....	....	T	....	....	.05	....	.20	T	....	....	.05	3.07
Fairfield	....	....	....	....	....	.77	....	....	.08	.01	T	....	....	.12	1.11	....	.56	....	....	....	....	....	.03	....	....	....	....	.39	.01	....	.17	4.25
Forest City	....	....	....	.20	....	....	....	....	....	....	.48	....	....	....	1.40	1.05	....	....	....	....	....	T	....	....	....	....	.10	1.05	....	....	....	4.28
Fort Dodge	....	....	....	.28	....	.14	....	....	.52	....	....	1.90	....	....	1.00	.15	....	....	....	....	....	....	T	.13	.07	.23	.16	....	1.25	....	....	5.83
Fort Madison	....	....	....	....	....	.62	....	....	.70	....	....	.50	....	.90	....	....	T	....	.21	....	....	....	T	....	....	T	....	.25	.11	....	.74	4.03
Gilman	....	....	....	....	....	.27	....	....	.26	....	.28	....	....	....	.82	....	....	....	....	....	....	....	.08	....	....	....	....	1.19	....	....	....	2.90
Grand Meadow	....	....	....	.01	....	....	....	....	.12	.15	....	1.62	....	....	.51	.08	....	....	....	....	....	....	....	....	....	....	....	.57	....	....	T	3.06
Greene	....	....	....	....	....	....	....	....	.12	....	1.38	....	....	.52	.08	.60	....	....	....	....	....	....	....	....	....	....	....	1.00	....	....	.11	3.81
Greenfield	....	....	....	.50	....	.75	....	.07	....	.12	....	....	....	T	3.30	....	.17	....	....	....	....	.40	.05	....	....	....	....	....	.25	.04	....	.78	6.43
Grinnell	....	....	....	.05	....	.28	....	....	....	....	.22	.21	....	T	4.18	....	.15	....	....	....	....	....	T	T	....	....	....	.36	.30	....	.05	5.80
Grundy Center	....	....	....	.78	....	T	....	....	.13	....	1.25	T	....	.22	.25	....	....	....	....	....	....	....	T	....	....	....	....	1.20	....	....	.10	3.93
Guthrie Center	....	....	....	.56	....	.18	....	....	.28	....	.29	.07	....	.25	4.33	T	.02	....	....	....	....	....	T	....	.2	.31	....	2.67	....	....	.08	9.25
Hampton	....	....	.13	....	....	....	....	.12	....	....	1.48	....	....	.80	.40	....	....	....	....	....	....	T	....	.02	....	.02	..	....	.35	....	....	.15	3.47
Hancock	....	....	....	....	....	.10	....	....	....	....	.11	....	....	.14	.67	.32	....	....	....	....	....	T	.09	....	....	.52	....	.32	.06	....	.30	2.63
Harlan	....	....	....	T	....	.98	....	....	....	....	.23	....	....	.15	1.57	.08	....	....	....	....	T	....	.04	T	....	.33	....	T	....	....	.25	3.63
Hopeville	....	....	....	T	....	1.34	T	....	.11	....	.11	1.78	....	.08	.07	....	.28	....	1.13	....	....	.15	....	....	....	.34	....	....	T	.10	.45	5.94
Humboldt	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Independence	....	....	....	....	....	....	....	....	.05	....	.21	.76	....	.04	.35	....	....	....	....	....	....	....	.02	....	....	....	....	1.30	....	....	.05	2.78
Indianola	....	....	....	.55	....	.34	....	....	.12	....	.23	.01	....	T	4.60	....	2.97	....	....	....	....	....	T	....	T	.17	....	.22	.12	....	.12	9.45
Inwood	....	....	....	.73	....	....	....	....	....	....	.43	.01	....	.50	.01	....	....	....	.02	....	T	....	.06	....	....	T	....	....	....	....	.18	1.94
Iowa City	....	....	....	....	....	....	....	....	.03	....	2.60	....	....	....	1.13	.04	1.32	....	....	....	....	....	.02	....	....	....	....	2.33	....	....	....	7.47
Iowa Falls	....	....	....	.98	.15	T	....	....	.14	T	....	1.93	....	....	.68	.45	....	....	....	....	....	....	....	T	....	....	T	....	1.15	....	....	5.48
Jefferson	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Keokuk	....	....	....	....	....	1.52	....	....	.05	....	T	T	....	T	....	....	....	....	.28	....	....	....	....	....	....	T	....	.48	....	....	.17	2.50
Keosauqua	....	....	....	....	....	1.86	....	....	.11	....	....	.14	....	....	.09	....	.22	T	.07	....	....	....	....	....	....	....	T	1.89	....	....	.25	4.63
Knoxville	....	....	....	T	....	1.32	....	....	.23	....	.20	2.20	....	.03	3.83	....	.23	....	T	....	....	....	T	....	....	.05	....	.50	T	....	T	8.59
Lacona	....	....	....	.01	....	....	....	....	.10	....	.10	1.80	.10	....	2.00	....	1.00	....	....	....	....	....	....	....	....	.05	....	.10	....	....	.10	5.36
Larrabee	....	....	....	1.68	.10	....	....	.72	....	....	.45	....	....	.69	.27	....	....	....	....	....	.01	.01	....	....	....	.15	....	.03	.12	....	.03	4.26
Le Claire	....	....	....	T	T	T	....	....	....	.15	....	3.57	.04	....	1.03	.09	.21	....	....	....	....	....	....	.01	....	....	....	....	.43	.06	....	5.59
Le Mars	....	....	....	.02	....	.56	....	....	.18	....	.53	....	T	.59	.22	.20	....	....	....	....	....	....	.01	....	....	....	....	....	....	....	T	2.35
Lenox	....	....	....	....	.15	.47	....	....	....	....	.15	.10	....	.22	.20	....	.71	....	.30	....	....	....	....	....	....	.82	....	.30	.15	....	.45	4.02
Leon	....	....	....	....	....	.77	....	....	.04	T	.10	.80	T	.10	....	....	.05	....	.47	....	....	....	....	....	....	.66	....	.26	....	....	.50	3.75
Little Sioux	....	....	....	....	....	.80	....	....	....	....	.79	.01	....	.25	1.30	.03	....	....	....	....	....	.52	.04	....	....	....	....	T	....	....	.30	4.04
Logan	....	....	....	T	....	.17	....	....	....	....	.32	....	....	.13	1.25	.03	....	....	....	....	....	....	.16	....	....	.04	....	T	....	.25	....	2.35
Marshalltown	....	....	....	....	.09	.56	....	....	.13	.01	....	.73	....	....	.55	.03	....	....	....	....	....	....	....	....	....	....	....	....	1.17	....	....	3.27
Mason City	....	....	T	.04	....	....	....	....	....	....	.52	....	....	.50	.32	.40	....	....	....	....	....	....	....	....	....	....	....	1.24	....	....	.10	3.12
Merrill	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Montezuma	....	....	....	....	....	.40	....	....	....	....	....	1.90	....	....	1.50	....	....	....	....	....	....	....	....	....	....	....	....	....	.60	....	....	4.40
Mt. Ayr	....	....	....	....	.05	.85	....	....	....	....	.11	.65	....	.35	.02	....	.21	....	.30	....	....	....	T	....	T	.96	....	.48	.02	....	1.25	5.25
Mt. Pleasant	....	....	....	....	....	.48	....	....	.06	....	T	.30	....	T	.77	....	.06	....	....	....	....	....	T	....	....	....	....	1.26	.04	....	.17	3.14
Muscatine	....	....	....	....	....	T	....	....	....	.08	....	3.15	.10	....	1.65	....	.90	....	....	....	....	....	....	....	....	....	....	2.47	.43	.06	....	8.35
New Hampton	....	....	....	.02	....	....	....	....	.09	.05	.60	.51	....	.46	T	.70	....	....	....	....	....	....	....	....	....	....	....	.67	....	....	.05	3.15
Newton	....	....	....	.11	....	....	....	....	....	....	.17	....	....	4.23	....	....	....	....	....	....	....	....	....	....	....	....	....	.65	.18	.08	....	5.42
Northwood	....	....	.70	....	....	....	....	....	....	....	.32	....	....	.38	.60	....	....	....	....	....	.08	....	....	....	....	....	....	.45	....	....	T	2.53
Odebolt	....	....	.05	.58	.15	....	....	.50	....	....	1.10	....	....	.80	1.35	.57	....	....	....	....	....	....	.20	....	....	.81	....	.62	....	....	.10	6.83
Olin	....	....	....	....	....	....	....	....	.01	.78	....	....	....	1.30	....	....	....	....	....	....	....	....	T	....	....	....	....	.93	....	....	.15	3.17
Omaha, Neb	....	....	....	....	....	.03	....	....	....	....	.08	....	....	.07	.52	.05	....	T	.05	....	.71	....	.05	T	.03	.26	....	T	.08	....	.27	2.20
Onawa	....	....	....	.05	....	.45	....	....	....	....	.78	....	....	.72	1.17	.05	....	....	.05	....	....	.03	.02	....	....	.03	....	.18	T	....	....	3.53
Osage	....	....	....	.42	....	....	....	....	....	....	.66	....	....	.25	T	1.00	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.70	3.03
Oskaloosa	....	....	....	T	....	1.34	....	....	.24	....	.60	1.85	....	.02	3.28	.72	....	....	....	....	....	....	T	....	....	T	....	.75	.53	....	.58	9.91
Ottumwa	....	....	....	....	....	1.75	....	....	.53	....	....	1.05	....	....	1.30	....	.15	....	....	....	....	....	....	....	....	....	....	1.00	....	....	.25	6.03
Pacific Junction	....	....	....	....	....	T	....	....	....	....	.17	.02	....	.17	.62	.05	T	T	.28	....	....	.09	.24	T	....	.85	....	....	....	....	.27	2.76
Pella	....	....	....	.04	....	1.23	....	....	.20	....	.20	4.10	....	.08	3.48	....	.44	....	....	....	....	....	T	....	....	T	....	.77	....	....	.04	10.58
Perry	....	....	....	1.13	....	.65	....	....	1.73	....	.33	.10	....	.08	.85	....	T	....	....	....	....	....	T	....	.06	.23	....	.54	.16	....	T	5.86
Plover	....	....	....	.52	....	....	....	....	.76	....	.79	....	....	1.76	.51	.87	....	....	....	....	....	....	.03	....	.08	.37	....	.30	....	....	....	5.99
Pocahontas	....	....	....	.57	.14	....	....	.59	....	....	.81	....	....	.98	.41	....	1.01	....	....	....	....	....	T	.05	.06	.80	....	....	.10	....	....	5.52
Ridgeway	....	....	T	.10	....	....	....	....	.32	....	.77	....	....	.30	.10	.43	....	....	....	....	....	....	.01	....	....	....	....	.48	....	....	.04	2.55
Rock Rapids	....	....	....	....	....	....	....	....	.50	....	.50	....	.35	T	....	....	....	....	....	....	....	....	....	....	T	T	....	....	....	....	....	1.35

DAILY PRECIPITATION FOR IOWA, AUGUST, 1908—Continued

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Rockwell City	....	....	....	1.00	.55	....	....	....	....	....	1.85	....	....	.60	.50	.35	....	....	....	....	....	.30	....	....	T	.80	....	1.50	....	....	....	7.45
Sac City	....	....	....	....	....	.43	....	....	.63	....	1.09	....	....	.70	1.43	.38	....	....	....	....	....	....	....	.30	....	1.60	....	....	.02	....	.15	6.73
St. Charles	....	....	....	.34	.16	....	....	....	....	....	....	....	....	....	5.20	....	....	....	....	....	....	....	T	....	....	.20	....	.58	....	....	.13	6.61
Sheldon	....	....	....	1.12	....	....	....	....	1.35	....	.55	....	....	.95	.98	....	....	....	....	....	.15	....	.08	....	.02	.02	....	....	....	....	.13	5.35
Sibley	....	....	....	.58	....	....	....	....	1.54	....	....	.29	....	....	.31	.13	....	....	....	....	....	.04	.04	....	.02	1.10	.10	.38	....	....	.05	4.58
Sigourney	....	....	....	....	....	.90	....	....	.04	....	.13	1.78	....	T	1.60	....	.19	....	....	....	....	....	....	....	....	....	....	1.44	.22	....	.15	6.45
Sioux Center	....	....	....	.88	....	.05	....	....	.21	....	.56	....	....	.76	.42	....	....	....	....	....	.04	....	.10	T	....	.09	T	....	T	....	T	3.11
Sioux City	....	....	....	.13	T	.63	....	....	....	....	.64	....	....	.84	1.72	....	....	....	.02	....	....	....	.19	....	T	T	....	.07	....	....	.04	4.28
Stockport	....	....	....	....	....	2.95	....	....	.06	....	....	.25	....	.05	.19	....	.13	....	.01	....	....	....	T	....	....	T	....	1.75	.03	....	.18	5.60
Storm Lake	....	....	....	1.26	....	.01	....	....	.47	....	.55	....	....	.80	.59	.73	....	....	....	....	....	....	.05	....	.06	.78	....	.07	.22	....	.10	5.69
Stuart	....	....	....	.39	....	....	....	....	.56	....	.41	....	....	.04	6.02	....	....	....	....	....	....	....	....	....	....	.33	....	.13	....	....	.34	8.22
Thurman	....	....	....	....	.48	T	.02	....	....	....	.15	....	....	.35	.39	....	1.25	....	.57	....	....	....	T	....	....	1.98	....	T	T	....	.31	5.50
Tipton	....	....	....	....	....	....	....	....	.18	....	.58	1.62	....	....	1.42	....	....	....	....	....	....	....	....	....	....	....	....	.83	.27	.05	....	4.95
Toledo	....	....	....	.05	....	.20	....	....	.10	....	....	.30	....	....	.90	....	....	....	....	....	....	....	....	....	....	T	....	1.20	....	....	.25	3.00
Wapello	....	....	....	....	....	....	....	.22	....	....	....	.16	1.82	....	.03	.77	....	.63	....	....	....	....	....	T	....	....	....	....	.90	.96	.38	5.87
Washington	....	....	....	....	.48	....	....	....	....	....	....	3.62	.02	.85	....	....	.59	....	....	....	....	....	....	....	....	....	....	....	1.63	....	.57	7.76
Washta	....	....	....	.26	.08	....	....	....	.25	....	.45	....	....	1.30	1.75	....	....	....	T	....	.05	....	.15	....	....	T	....	.32	T	....	.12	4.73
Waterloo	....	....	.07	....	....	....	....	....	.08	....	1.56	....	....	.09	.16	....	....	....	....	....	....	....	.05	....	....	....	....	1.51	....	....	.09	3.61
Waukee	....	....	....	.45	....	.45	....	....	.40	....	.25	....	....	.10	4.60	....	.15	....	....	....	....	....	T	....	....	.20	....	T	T	....	.05	6.65
Waverly	....	....	.01	....	....	....	....	....	.06	....	1.05	.47	....	.44	.12	.20	....	....	....	....	....	....	....	....	....	....	....	2.01	....	....	.21	4.60
Webster City	....	....	....	T	....	.66	....	....	.46	....	1.50	.35	....	....	.45	.43	.21	....	....	....	....	....	....	.15	....	T	.20	....	.47	....	.17	5.00
West Bend	....	....	....	....	....	....	....	....	.72	....	.62	....	....	1.05	.20	2.75	....	....	....	....	T	....	....	....	....	.13	....	.45	T	T	.12	6.04
Whitten	....	....	T	....	T	....	T	....	....	....	.95	.65	....	.75	.42	....	....	....	....	....	....	....	T	....	....	....	1.23	....	....	....	T	4.00
Wilton Junction	....	....	....	....	....	....	....	....	.30	....	3.23	....	....	....	1.21	....	.86	....	....	....	....	....	....	....	....	....	....	....	1.16	....	....	6.76
Winterset	....	....	....	.27	....	.20	....	....	.16	....	.10	....	....	.05	4.08	....	.20	....	.01	....	....	....	T	....	.03	.19	....	.22	.04	....	.50	6.05
Woodburn	....	....	....	T	....	.27	T	....	.11	....	.31	.35	....	.70	.06	....	.16	....	.19	....	....	.04	T	....	....	.18	.25	....	....	....	.43	3.05

TOTAL PRECIPITATION, AUGUST, 1908.



SCALE OF SHADES—IN INCHES

Less than 2	2 to 4	4 to 6	6 to 8	More than 8

U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR SEPTEMBER, 1908.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1908

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

OF THE

STATE BOARD OF AGRICULTURE,

CONSTITUTED AS FOLLOWS:

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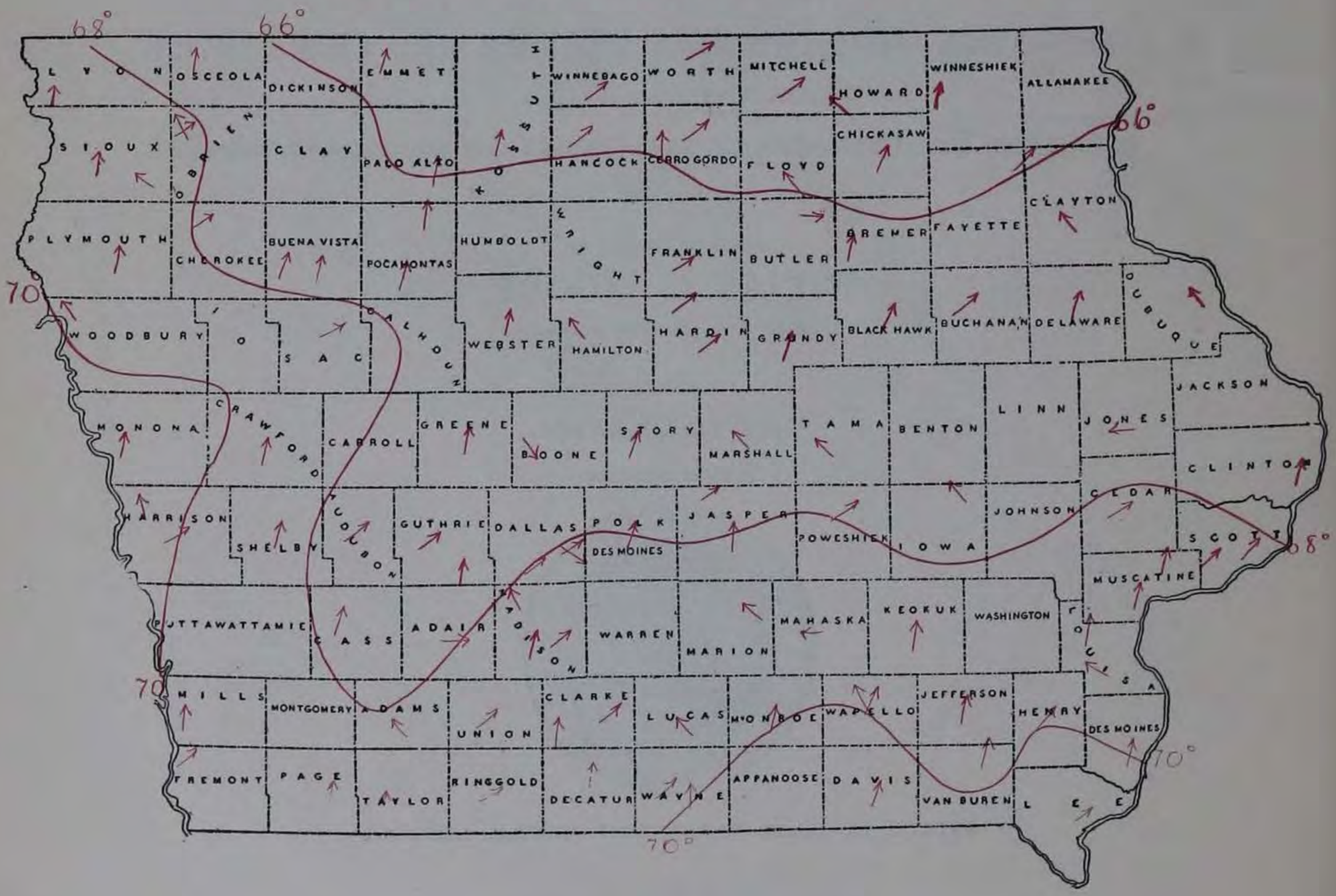
MEAN ISOTHERMS AND PREVAILING WINDS OF SEPTEMBER, 1908.

Lines pass thru points of equal temperature. Arrows fly with the wind.



U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IOWA SECTION,

GEO. M. CHAPPEL, Section Director.

VOL. XIX DES MOINES, IOWA, SEPT., 1908. NO. 9.

GENERAL SUMMARY.

The month of September, 1908, will go on record as having had the longest drouthy period of any September since the establishment of the Iowa Weather and Crop Service; and also for its long period of high temperatures and cloudless weather. The mean temperature was 4.2° above the normal, which has been exceeded but once, in 1897, during the past eighteen years. The temperature was above normal every day up to the 25th, except from the 1st to the 3d, and on the 7th, when it was slightly below normal, due to moderately low temperature during the nights. From the 4th to the 25th, inclusive, the maximum temperatures ranged from 80° to above 90°, and the minimum temperatures were correspondingly high. A cool wave passed over the state between the night of the 26th and the close of the month, which resulted in heavy to killing frosts on the mornings of the 28th and 29th, with freezing temperatures over the larger part of the state on the latter date.

The average precipitation was 1.20 inch, or 2.21 inches below the September normal. With the exception of a very few light showers in the eastern counties on the 4th and 5th, the northeastern counties on the 13th and in the northwestern counties on the 23d, there was no rain in the state from the night of August 31st to the night of September 25th, making the longest period in any September without rain on record.

Copious showers occurred in all parts of the state between the 26th and 28th; the heaviest rainfall being in the eastern half of the state. The high temperature, nearly cloudless skies, and the absence of rainfall made ideal weather conditions for ripening the corn and maturing the clover seed crop, but the drouthy conditions were severe on pastures, late potatoes and apples. Before the middle of the month, fall plowing was generally discontinued, pastures were dry and brown and stock water was getting scarce in many localities, and by the 25th the soil was dry and dusty. The water in all streams was lower than it had been in many years, and in some sections of the state, the stage of rivers was said to be lower than ever before known. While hot and dry weather was injurious to pastures and a few late crops, it was the salvation of the corn crop, and the bulk of it was safe from the effects of frost by the 25th. Some of the crop in late planted fields was, however, pushed toward maturity too rapidly to make the best corn, but better thus than to have had it frozen while in the milk or dough stage, as it surely would have been had the weather conditions been normal up to the time of the average date of the first killing frost. As it was, probably 90% of the crop escaped any material injury by the frost and freezing temperature, and the remainder, while light and chaffy, will have considerable value for feed. The dry weather was also ideal for finishing threshing and haying and harvesting the clover seed crop.

A large second crop of hay was put up in excellent condition, and the clover seed crop is probably larger than ever before harvested in this state. Considerable seeding of winter grain was done during the forepart of the month, and, if the dry weather had not prevented plowing, there would have been a large increase in the acreage of winter wheat.

The rains during the last few days of the month will revive pastures and permit the resumption of plowing, but the amounts of precipitation were not large enough to have any more than a slight temporary effect on the water supply.

TEMPERATURE.—The monthly mean temperature for the State, as shown by the records of 112 stations, was 67.9°, which is 4.2° above the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 67.1°, which is 5.0° above the normal; Central section, 67.8°. which is 4.2° above the normal; Southern section, 68.7°, which is 3.2° above the normal. The highest monthly mean was 71.6°, at Onawa, Monona county, and the lowest monthly mean 64.6°, at Mason City, Cerro Gordo county. The highest temperature reported was 98° at Ridgeway, Winneshiek county, on the 11th; the lowest temperature reported was 20°, at Washta, Cherokee county, on the 29th. The average monthly maximum was 91.8°, and the average monthly minimum was 26.9°. The greatest daily range was 46°, at Cedar Rapids, Linn couuty. The average of the greatest daily ranges was 36.2°.

PRECIPITATION.—The average precipitation for the State, as shown by the records of 121 stations, was 1.20 inches, which is 2.21 inches below the normal. By sections the averages were as follows: Northern section, 1.19 inches, which is 2.22 inches below the normal; Central section, 1.20 inches, which is 2.04 inches below the normal; Southern section, 1.21 inches, which is 2.36 inches below normal. The greatest amount, 3.46 inches, occurred at Grand Meadow, Clayton county, and the least, .25 inch at Jefferson, Greene county. The greatest amount in twenty-four hours, 2.93 inches, occurred at Independence, Buchanan county, on the 26th and 27th. Measureable precipitation occurred on an average of 3 days. The average snowfall unmelted, was trace.

SUNSHINE AND CLOUDINESS.—The average number of clear days was 21; partly cloudy 6; cloudy 3. The duration of sunshine was above the normal, the percentage of the possible amount being 76 at Davenport; 79 at Des Moines; 68 at Dubuque; 79 at Keokuk; 78 at Sioux City, and 78 at Omaha, Neb.

WIND.—South winds prevailed. The highest velocity reported was 37 miles per hour from the south, at Sioux City, Woodbury county, on the 25th.

COMPARATIVE DATA FOR THE STATE—SEPTEMBER

Year	Temperature			Precipitation		
	Mean	Highest	Lowest	Average	Greatest	Least
1890	59.3	96	23	2.97	4.85	1.36
1891	67.3	104	28	1.33	3.60	.13
1892	64.7	99	29	1.53	4.15	.16
1893	64.7	102	18	2.34	5.49	.74
1894	65.1	100	26	3.57	7.43	.67
1895	66.8	103	22	3.03	7.43	.85
1896	58.5	95	22	4.09	9.96	1.82
1897	70.9	106	26	2.04	5.88	0.00
1898	65.3	99	29	2.69	8.45	.41
1899	62.5	104	15	.93	4.32	Trace
1900	64.4	99	26	4.98	8.82	2.48
1901	63.3	102	26	4.77	13.62	1.71
1902	59.1	88	23	4.35	10.41	1.65
1903	60.8	94	28	3.81	8.79	1.42
1904	64.0	94	30	2.78	8.33	.09
1905	65.8	96	36	3.81	13.18	.50
1906	67.2	100	27	4.16	11.10	.64
1907	62.8	98	25	2.75	6.06	1.38
1908	67.9	98	20	1.20	3.46	.25

ATMOSPHERIC PRESSURE AND WIND.

Mean Barometer for the month reduced to sea level, 30.00 inches.
Prevailing direction of Wind. S.

STATIONS	Barometer, in Inches					Wind			
	Mean	Maximum	Date	Minimum	Date	Movement	Maximum Velocity—miles	Direction	Date
Charles City	30.04	30.35	2	29.75	5	4705	26	S	25
Davenport	30.06	30.29	2	29.78	26	4139	26	NW	30
Des Moines	30.03	30.32	2	29.77	5	4852	31	S	25
Dubuque	30.06	30.32	2	29.77	26	3472	24	NW	30
Keokuk	30.07	30.29	29	29.79	26	4028	25	SE	26
Omaha, Neb.	30.03	30.32	1	29.73	25	5080	27	NW	27
Sioux City	30.01	30.32	1	29.77	25	9204	37	S	25

OBSERVER'S REMARKS.

ALBIA.—*J. I. Chenoweth.* The month was very dry, but it caused the late corn to mature and 90% was safe from the killing frosts of the 28th and 29th.

ALGONA.—*Dr. F. T. Seeley.* A remarkable month, 25 clear days, and only one day during the entire month, the 26th, when any measureable amount of precipitation occurred.

ALLERTON.—*Mrs. George Shriver.* The ground has been too dry for fall plowing, and fall pastures are short. The dry weather and the killing frosts of the 28th and 29th, damaged the late planted corn.

ALTA.—*David E. Hadden.* The month was ideal, except the few closing days which were cold. A very fine auroral display in the 28th and 29th.

ALTON.—*W. S. Slagle.* A fine month for corn which died a natural death. The first 26 days were without rain.

AMANA.—*Conrad Schadt.* The month was very warm and dry, and the dust lay inches deep in the road until the rain of the 26th. The corn had plenty of time in which to ripen.

ATLANTIC.—*J. W. Love.* A very fine month, and most of the corn crop is probably safe.

BONAPARTE.—*B. R. Vale.* The weather during the month was abnormally warm until the last four days which were cool. Killing frosts occurred on the 28th and 29th.

BRITT.—*Geo. P. Hardwick.* The temperature was higher than during the month of August and the precipitation was below the normal. The favorable weather for ripening the corn, without frost until the 28th, made it possible for 65% of a corn crop. Pastures have exceeded the average season, and more than the normal amount of clover will be harvested for seed.

CLARINDA.—*A. S. Van Sandt.* The month was a record breaker in this vicinity for drouth and the rapid maturing of the corn crop.

CLINTON.—*Luke Roberts.* The mean temperature was 3° above the normal, and altho it was warm and dry, the conditions were favorable for the ripening of the corn crop. The subsoil still retains a supply of moisture, but pastures, however, were short of grass, and some springs went dry.

ELLIOTT.—*Henry Barnes.* A remarkable month for heat, but just the thing for the corn which was nearly all matured by the time of the first frost, which occurred on the 27th.

FAIRFIELD.—*R. Monroe McKenzie.* The first rain of the month fell on the 28th, after 28 days of warm dry weather. A brilliant display of northern lights was observed on the 28th and 29th. Heavy dews were quite frequent during the month and helped supply moisture.

FOREST CITY.—*J. A. Peters.* The weather was ideal during the month and 90% of the corn crop was safe when the killing frost occurred on the 29th, altho the ground was very dry before the rain of the 27th.

GRAND MEADOW.—*F. L. Williams.* The warm weather of the month ripened the corn in fine shape. Pastures were short and a large crop of clover was cut for seed. The cold weather on the 29th, did very little damage.

INWOOD.—*Fred B. Hanson.* The month in this vicinity will be remembered by its abnormally high temperatures, excessive sunshine and absence of rain. The rain of the 26th, ended the longest period of drouth known here in many years. The corn was safe from the frosts of the 28th and 29th.

KEOSAUQUA.—*J. H. Landes.* The month was noted for nearly four weeks of continuous warm weather and drouth, and just the thing for the late planted corn.

LARRABEE.—*H. B. Streever.* The month has been remarkable for 25 days of summer weather as well as light rainfall. The crop season closed with the killing frost of the 28th, and the corn mostly ripe.

NORTHWOOD.—*Chas. H. Dwelle.* The most beautiful and perfect display of northern lights seen here in years occurred on the night of the 28th, the streamers extending across the zenith half way to the southern horizon.

OLIN.—*Nathan Potter.* The weather during the month was remarkably warm, dry and clear, and made a splendid crop of corn, fully matured. The last five days have been cool. Considerable rye has been sown.

POCAHONTAS.—*F. E. Hronek.* The month was warm, dry and clear, and ideal for maturing the corn of which 98% was out of the way of the frost, when it came on the 28th. The aurora of the 28th, was the brightest seen in years, and at 10:35 p. m., it was so bright that buildings could be seen half a mile away, also time on watch and print easily read.

SHELDON.—*A. W. Beach.* A very fine month for fall work, 95% of the corn ripened before frost. Threshing is 80% done, and plowing 60% finished. The corn crop is heavy, wheat and barley fair, and oats poor.

STOCKPORT.—*L. C. Beswick.* The heavy frost on the 28th with ice did not hurt the corn, but on the 29th it killed corn and all that, planted after May 20 is more or less damaged.

STORM LAKE.—*S. B. Fracker.* The dry and warm weather lasted just long enough for 95% of the corn crop to mature nicely.

WEST END.—*Phil Dorweiler.* The month was warmer than any September on record, and most of the corn crop was safe when the killing frosts occurred on the 28th and 29th.

ERRATA IN JULY REVIEW.

AFTON.—Greatest daily range recorded as 32° on page 78, should have been 33°.

BONAPARTE.—Greatest 24 hour precipitation recorded as 1.50 inches on page 78, should have been 1.60 inches.

CHARITON.—Greatest 24 hour precipitation recorded as .99 inch on page 78, should have been .53 inch.

COLUMBUS JUNCTION.—Greatest 24 hour precipitation recorded as 1.07 inches on page 78, should have been 1.63 inches.

CORNING. Greatest daily range recorded as 33° on page 78, should have been 34°.

CUMBERLAND.—Greatest 24 hour precipitation recorded as 1.53 inches on page 78, should have been 1.85 inches.

GRUNDY CENTER.—Greatest 24 hour precipitation recorded as 1.80 inches on page 77, should have been 1.89 inches.

LITTLE SIOUX.—Greatest 24 hour precipitation recorded as 2.18 inches on page 77, should have been 2.39 inches.

BELATED REPORTS.

HUMBOLDT:—August.—Mean temperature 67.6°; highest 90° on the 2d; lowest 45° on the 20th; greatest daily range 32°. Total precipitation 5.88 inches; greatest in 24 hours 1.38 inches; prevailing direction, northwest. Number of clear days 20, partly cloudy 5, cloudy 6, rainy 10.

CLIMATOLOGICAL DATA FOR IOWA, SEPTEMBER, 1908

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in Inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
NORTHERN SECTION																				
Algona	Kossuth	1,213	34	66.3	†4.4	90	12	25	29	32	.55	-2.59	.55	T	1	25	0	5	s	Dr. F. T. Seeley
Alta	Buena Vista	1,513	17	66.6	†3.7	89	* 5	25	29	35	.60	-2.58	.60	....	1	21	7	2	s	D. E. Hadden
Alta [near]	Buena Vista	.....	....	.....	.....	.....	.....	.....	.....	.....	.61	-3.12	.61	....	1	....	....	....	.....	W. J. Minard
Alton	Sioux	1,305	3	68.6	.....	93	12	25	29	39	.86	.....	.86	....	1	24	3	3	se	W. S. Slagle
Britt	Hancock	1,236	11	66.1	†4.4	90	12	23	29	34	1.08	-2.66	1.08	T	2	9	17	4	sw	G. P. Hardwick
Charles City	Floyd	1,015	20	65.9	†4.2	91	20	26	29	35	.81	-1.99	.76	....	3	13	13	4	se	Weather Bureau
Clear Lake	Cerro Gordo	1,241	9	66.4	†4.2	90	12	30	29	34	1.26	-1.70	.56	T	3	25	0	5	s	Oscar Stevens
Decorah	Winneshiek	875	15	67.3	†5.2	91	12	29	29	37	1.98	-1.75	1.35	....	4	....	....	....	.....	F. H. Baker
Dows (a) ‡	Wright	1,142	8	65.3	†3.6	92	11	21	*28	41	.80	-2.69	.70	....	2	....	....	....	s	G. D. Flett
Elkader	Clayton	727	27	68.1	†5.6	96	11	28	29	42	2.73	-1.11	2.15	....	4	19	6	5	se	Chas. Reinecke
Elma	Howard	.....	....	65.2	.....	90	*12	22	29	36	1.27	.....	.70	T	3	....	....	....	se	H. A. Moore
Estherville	Emmet	1,298	12	66.8	†6.1	95	12	26	*28	44	1.05	-2.18	.85	....	3	21	2	7	s	A. O. Peterson
Fayette	Fayette	1,003	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	R. Z. Latimer
Forest City	Winnebago	1,226	14	66.4	†4.4	91	*11	23	29	38	1.00	-2.62	1.00	T	1	25	3	2	sw	J. A. Peters
Grand Meadow	Clayton	1,180	17	66.0	†4.1	87	*12	28	29	34	3.46	- .17	2.53	T	4	14	12	4	sw	F. L. Williams
Greene	Butler	.....	9	67.0	†3.5	92	12	25	29	36	.96	-2.18	.57	....	3	4	20	6	w	J. L. Cole
Hampton	Franklin	1,155	18	68.4	†5.5	96	11	26	29	37	.70	-2.86	.70	....	1	19	10	1	sw	E. C. Grenelle
Humboldt ‡	Humboldt	1,095	17	66.6	†4.1	88	12	28	29	35	1.80	-1.37	1.80	....	1	24	1	5	sw	H. S. Wells
Inwood	Lyon	1,474	4	68.3	.....	95	12	22	29	44	1.24	.....	1.21	T	3	24	3	3	s	F. B. Hanson
Larrabee	Cherokee	1,266	17	66.8	†4.0	89	12	27	29	32	.59	-2.83	.59	....	1	22	6	2	sw	H. B. Streever
Le Mars	Plymouth	1,224	12	67.8	†5.3	90	12	26	29	35	.82	-2.96	.76	....	2	22	7	1	s	G. A. C. Clarke
Mason City	Cerro Gordo	1,132	11	64.6	†1.6	88	12	25	29	34	.75	-1.61	.45	....	2	22	5	3	sw	J. S. Mills
Merrill	Plymouth	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	Eric Oleson
New Hampton	Chickasaw	1,169	11	65.2	†3.5	86	*12	25	29	32	1.37	-2.14	.82	....	4	21	5	4	s	A. F. Kemman
Northwood	Worth	1,222	12	66.2	†5.4	90	12	26	29	34	1.10	-2.25	.63	T	3	24	4	2	sw	Charles H. Dwelle
Osage	Mitchell	1,184	17	67.4	†7.4	95	11	24	29	37	.70	-2.86	.40	T	2	23	3	4	sw	Dr. A. D. Bundy
Plover	Pocahontas	1,426	12	66.8	†4.0	89	*11	24	28	37	1.42	-2.97	1.10	T	3	26	2	2	s	J. S. Smith
Pocahontas	Pocahontas	.....	4	66.7	.....	90	12	27	29	34	.90	.....	.86	T	2	27	1	2	s	F. E. Hronek
Ridgeway	Winneshiek	1,215	10	70.0	†6.8	98	11	27	29	36	1.73	-2.58	1.02	....	7	23	6	1	s	Arthur Betts
Rock Rapids	Lyon	1,358	9	69.0	†6.0	92	12	27	29	41	1.76	- .75	1.76	T	2	....	....	....	.....	W. C. Wyckoff
Sheldon	O'Brien	1,422	8	70.2	†8.7	97	12	27	28	38	1.12	-2.51	1.06	....	2	23	3	4	se,sw	Dr. A. W. Beach
Sibley	Osceola	1,212	15	66.0	†5.3	93	*11	26	29	37	2.07	-1.30	.86	....	4	22	1	7	s	H. G. Doolittle
Sioux Center	Sioux	.....	9	68.2	†6.9	91	11	28	29	33	1.15	-2.53	1.15	T	1	22	2	6	s	J. de Ruyter
Storm Lake	Buena Vista	1,440	12	67.4	†4.7	89	5	29	29	27	1.15	-1.94	.93	....	3	25	3	2	s	S. B. Fracker
Washta	Cherokee	1,157	10	68.0	.....	94	12	20	29	44	.75	-3.03	.65	T	2	27	2	1	s	H. L. Felter
Waverly	Bremer	948	12	a67.0	†4.5	90	20	a28	29	32	1.09	-1.85	.96	....	3	....	....	....	s	H. S. Hoover
West Bend	Palo Alto	1,197	14	65.9	†4.8	88	12	24	29	34	.57	-2.86	.50	T	2	19	8	3	s	Phil Dorweiler
Averages	.....	.....	....	67.1	†5.0	91.4		25.7		36.1	1.19	-2.22		T	3	21	6	3	s	
CENTRAL SECTION																				
Amana	Iowa	721	31	66.4	†3.9	89	11	28	29	32	1.32	-1.93	.69	....	2	23	6	1	se	Conrad Schadt
Ames	Story	926	27	66.1	†2.6	93	20	28	29	38	.50	-2.89	.50	....	2	24	3	3	s	Iowa State College
Audubon	Audubon	1,301	15	65.6	†2.4	89	* 9	22	29	40	.67	-2.46	.46	....	3	21	5	4	sw	Geo. E. Kellogg
Baxter	Jasper	998	8	67.5	†4.5	94	20	23	29	43	1.09	-2.33	1.08	....	3	23	5	2	sw	W. R. Vandike
Belle Plaine	Benton	828	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	S. P. Vandike
Boone	Boone	1,134	3	68.4	.....	93	11	27	29	33	.63	.....	.62	T	2	23	4	3	.....	Carl Fritz Henning
Buckingham	Tama	.....	8	.....	.....	.....	.....	.....	.....	.....	2.01	-0.98	1.77	T	2	8	22	0	.....	Dr. W. A. Daniel
Carroll	Carroll	1,265	18	67.7	†4.7	93	10	27	28	37	.59	-2.30	.51	....	2	23	1	6	.....	Frank Hughes
Cedar Rapids	Linn	733	26	67.1	†3.1	93	11	30	‡29	46	1.39	-1.43	1.10	....	3	15	14	1	.....	Electric Light & P. Co.
Clinton	Clinton	593	40	66.2	†2.9	89	*11	29	29	36	1.63	-1.68	1.63	....	2	18	9	3	s	Luke Roberts
Davenport	Scott	580	36	69.4	†4.7	90	12	32	29	32	1.12	-2.02	1.08	....	2	22	6	2	sw	Weather Bureau
Delaware	Delaware	1,083	17	66.0	†4.2	90	12	27	29	32	2.68	-0.59	1.37	....	4	20	9	1	s	Wm. Ball
Denison	Crawford	1,180	13	67.8	†4.1	91	12	24	29	38	.67	-2.33	.60	T	2	25	1	4	s	W. C. Van Ness
Des Moines	Polk	861	29	68.4	†3.4	92	20	30	29	31	.94	-2.13	.89	....	3	17	9	4	s	Weather Bureau
De Soto	Dallas	866	8	69.1	†4.5	96	*12	26	29	42	.55	-2.54	.55	....	2	23	2	5	sw	R. D. Minard
Dubuque	Dubuque	639	35	68.1	†4.5	91	12	30	29	30	1.14	-2.45	1.05	....	3	17	9	4	se	Weather Bureau
Fort Dodge	Webster	1,126	8	67.1	†4.5	91	12	28	29	41	1.12	-3.45	1.10	T	2	....	....	....	s	J. F. Monk
Gilman	Marshall	1,052	9	.....	.....	.....	.....	.....	.....	.....	1.19	-1.71	1.05	....	3	....	....	....	.....	Jas. L. Wylie
Grinnell	Poweshiek	1,023	16	68.3	†4.5	93	*11	26	29	33	1.95	-0.40	1.93	....	3	24	3	3	sw	A. O. Price
Grundy Center	Grundy	976	17	67.8	†4.7	94	20	27	29	37	.90	-2.35	.90	....	1	17	8	6	s	W. H. Scott
Guthrie Center	Guthrie	1,077	13	67.5	†3.6	89	* 9	26	29	39	.76	-2.33	.62	T	3	24	2	4	sw	D. G. Beardsley
Harlan	Shelby	1,192	9	67.8	†4.8	95	11	25	29	41	1.05	-2.66	.85	....	2	19	8	3	s	C. A. Reynolds
Independence	Buchanan	921	43	66.6	†4.9	93	20	27	29	40	2.93	-1.02	2.93	....	2	25	1	4	sw	George Donohue
Iowa City	Johnson	683	49	67.6	†4.0	94	*11	29	29	36	1.82	-1.93	1.25	....	5	20	5	5	.....	Prof. Karl E. Guthe
Iowa Falls	Hardin	1,170	15	65.2	†3.6	89	12	25	29	35	1.52	-1.45	1.38	T	2	24	3	2	sw	J. B. Parmelee
Jefferson	Greene	.....	....	67.5	.....	92	*11	27	29	37	.25	.....	.25	....	1	21	6	3	s	Geo. W. Jackson
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	1.34	-2.44	.76	....	3	16	11	3	sw	Margaret T. Disney
Little Sioux	Harrison	.....	4	70.2	.....	95	* 5	26	29	43	.81	.....	.65	....	2	24	3	3	se	Geo. H. Gibson
Logan	Harrison	928	42	69.5	†5.4	97	11	27	29	44	.79	-2.46	.53	....	2	18	10	2	sw	Glen H. Stern
Marshalltown	Marshall	947	16	66.0	†1.9	90	*10	26	29	40	1.28	-1.67	1.05	....	3	11	16	3	se	Agnes Musil
Montezuma	Poweshiek	.....	....	.....	.....	.....	.....	.....	.....	.....	1.35	.....	1.35	....	1	....	....	....	.....	C. J. Griffin
Muscatine	Muscatine	.....	49	.....	.....	.....	.....	.....	.....	.....	2.73	-0.99	1.60	....	3	16	9	5	s	Wm. P. Molis
Newton	Jasper	944	19	68.2	†5.3	88	*11	28	29	28	.82	-2.38	.75	....	2	24	3	3	s	Hon. J. P. Beatty
Odebolt	Sac	1,356	10	68.8	†5.3	94	* 9	26	29	40	1.05	-2.70	.95	T	2	25	3	2	.....	E. Starner
Olin	Jones	760	11	b66.4	†3.3	91	*12	c27	29	38	1.16	-2.07	1.16	....	1	24	5	1	e	Hon. Nathan Potter
Onawa	Monona	1,051	8	71.6	†6.4	93	*5	31	29	35	.68	-3.12	.54	....	3	24	2	4	s	C. G. Perkins
Perry	Dallas	975	7	67.9	†3.5	90	*10	27	29	34	.55	-1.15	.49	....	2	7	19	4	.....	J. A. Harvey
Rockwell City	Calhoun	.....	12	68.1	†4.3	90	12	30	*28	30	1.10	-2.08	1.10	....	1	26	3	1	.....	C. M. Randall
Sac City (h)	Sac	1,278	26	70.7	†9.2	h90	*10	.....	.....	.....	1.13	-2.15	.....	.....	.....	27	0	3	sw	F. E. Stouffer
Sioux City	Woodbury	1,135	17	69.2	†5.1	92	5	28	29	37	1.02	-1.45	.99	....	3	19	7	4	se	Weather Bureau
Stuart	Guthrie	1,216	10	68.2	†2.5	95	21	28	29	34	.74	-1.68	.49	....	2	27	0	3	s	Geo. B. Irick
Tipton	Cedar	807	10	69.6	†3.8	92	*11	30	29	40	1.55	-1.44	1.55	....	2	23	6	1	sw	F. K. Gregg
Toledo	Tama	856	14	66.8	†2.7	90	20	25	29	34	2.25	-0.72	1.95	....	2	19	8	3	se	I. F. Giger
Waterloo	Black Hawk	862	25	67.6	†4.8	94	20	28	29	40	1.38	-2.50	1.29	....	2	24	4	2	.....	M. L. Newton
Waukee	Dallas	1,039	5	67.3	.....	92	20	25	29	36	1.00	-1.63	.90	....	2	23	4	3	sw, nw	A. H. Blackmore
Webster City	Hamilton	.....	3	67.5	.....	93	12	25	29	39	.36	.....	.20	....	2	27	0	3	se	C. D. Carpenter
Whitten	Hardin	1,036	10	67.6	†4.8	91	12	25	29	39	.93	-2.36	.93	T	1	24	5	1	sw	Dr. Frank P. Butler
Wilton Junction	Muscatine	683	13	68.0	†3.2	88	11	30	29	35	2.24	-1.08	1.80	....	2	22	5	3	s	Wm. Lang
Zearing	Story	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	W. C. Bean
Average	.....	.....	....	67.8	†4.2	91.8		27.1		36.7	1.20	-2.04		T	2	21	6	3	s	

CLIMATOLOGICAL DATA FOR IOWA, SEPTEMBER, 1908—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
SOUTHERN SECTION																				
Afton	Union	1,212	14	68.1	†3.0	90	*11	28	29	33	.76	-2.89	.35	....	3	27	0	3	sw	N. W. Rowell
Albia	Monroe	959	10	67.5	†2.7	91	11	28	29	33	1.38	-2.18	.93	....	4	18	7	5	s	J. I. Chenoweth
Allerton	Wayne	.....	6	69.1	†3.8	93	11	27	*29	34	1.00	-3.71	.42	....	4	27	1	2	sw	Mrs. Geo. Shriver
Atlantic (a)	Cass	1,164	17	66.8	†2.4	96	11	22	*28	45	.73	-2.76	.73	....	1	....	....	....	s	J. W. Love
Bedford	Taylor	.....	8	68.3	†3.7	97	11	23	29	41	.72	-2.72	.37	....	3	25	2	3	s	E. E. Healy
Bloomfield	Davis	.....	....	70.0	.....	95	*11	27	29	40	.86	.....	.69	....	2	24	4	2	s	F. H. Roberts
Bonaparte	Van Buren	.....	17	68.6	†1.2	91	*11	29	29	35	1.83	-2.21	1.41	....	3	....	....	....	.....	Hon. B. R. Vale
Burlington	Des Moines	544	12	69.8	†3.6	95	*11	31	29	35	3.35	† .23	1.40	....	4	24	3	3	s	W. E. Poppe
Chariton	Lucas	1,042	13	69.2	†3.7	95	11	26	29	37	.94	-2.50	.56	....	2	24	3	3	se	C. C. Burr
Clarinda	Page	1,009	18	68.6	†2.4	95	*11	27	29	40	.36	-2.33	.36	....	1	22	2	6	s	A. S. Van Sandt
Columbus Junction	Louisa	595	7	68.3	†2.8	88	*11	29	29	37	1.77	-1.38	1.63	....	3	23	6	1	s	J. B. Johnston
Corning	Adams	1,117	16	67.6	†2.8	89	*11	24	29	37	1.01	-1.95	.81	....	2	24	4	2	se	Jerome Smith
Corydon	Wayne	1,101	15	69.6	†3.1	93	*11	28	29	36	1.08	-2.51	.97	....	3	24	2	4	s	Clara Miller
Creston ‡	Union	1,312	3	66.4	.....	88	*12	27	29	33	1.08	.....	.65	....	3	21	2	7	sw	Rev. W. L. Gaston
Cumberland	Cass	.....	9	.....	.....	.....	.....	.....	.....	.....	1.52	-2.12	1.20	....	2	27	1	2	s	J. H. Reppert
Earlham	Madison	.....	6	66.6	†4.5	92	11	24	29	38	.55	-3.24	.51	....	3	25	1	4	se	Geo. Phillips
Elliott	Montgomery	.....	3	69.3	.....	90	* 9	29	29	37	.62	.....	.52	....	2	28	1	1	s	Henry Barnes
Fairfield	Jefferson	.....	14	a69.2	†5.2	93	*11	a 28	29	35	.75	-2.72	.72	....	2	22	5	3	s	R. Monroe McKenzie
Fort Madison	Lee	516	59	.....	.....	.....	.....	.....	.....	.....	3.28	- .53	1.30	....	3	15	11	4	sw	Miss L. A. McCready
Greenfield (b)	Adair	.....	17	68.2	†3.3	91	*10	29	28	31	.82	-2.59	.42	....	2	25	2	3	s	Geo. Brooks
Hancock	Pottawattamie	1,132	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	W. Armstrong
Hopeville	Clarke	.....	17	68.8	†2.4	94	11	27	29	35	1.75	-1.74	1.00	....	3	18	9	3	s	M. T. Ashley
Indianola	Warren	969	17	a70.0	†4.5	b 97	22	28	29	34	.36	-2.74	.31	....	3	18	8	4	.....	Prof. J. L. Tilton
Keokuk	Lee	574	37	70.8	†4.4	93	19	33	29	39	2.22	-1.75	1.98	....	3	20	9	1	s	Weather Bureau
Keosauqua	Van Buren	644	16	67.4	†0.5	93	12	29	29	38	1.05	-3.35	.45	....	4	10	13	7	.....	J. H. Landes
Knoxville	Marion	920	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	Casey & Bellville
Lacona	Warren	.....	9	.....	.....	.....	.....	.....	.....	.....	1.08	-2.75	1.00	....	3	17	9	4	.....	Agent C., B. & Q. Ry.
Lenox	Taylor	1,250	13	67.8	†2.5	90	11	27	29	34	.78	-2.55	.68	....	3	27	0	3	s	J. T. Hurley
Leon	Decatur	1,120	6	68.3	†3.5	90	20	26	29	32	.76	-4.04	.31	....	3	25	1	4	.....	Morris Gardner
Massena	Cass	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	G. A. Hill
Mt. Ayr	Ringgold	1,236	15	69.6	†2.9	94	20	28	29	36	1.11	-2.42	1.01	T	3	21	7	2	sw	A. F. Beard
Mt. Pleasant	Henry	729	26	70.0	†5.0	92	19	31	29	40	2.29	-1.39	2.02	....	3	21	8	1	sw	Prof. J. W. Edwards
Omaha, Neb	Douglas	1,040	38	71.6	†5.8	93	11	35	29	29	.26	-2.77	.20	....	2	22	4	4	s	Weather Bureau
Oskaloosa	Mahaska	843	24	68.2	†3.7	89	*11	29	29	33	1.28	-1.75	1.24	....	3	24	1	5	e	Jos. Boyd
Ottumwa	Wapello	649	14	70.1	†2.9	96	11	30	29	34	.47	-3.56	.42	....	2	20	5	5	se	Dr. Jas. A. Hull
Pacific Junction	Mills	960	9	68.6	†4.1	92	*10	26	29	39	.56	-2.90	.50	....	2	21	8	1	s	H. H. McCartney
Pella (b)	Marion	877	6	69.3	†2.9	92	11	28	29	41	1.55	- .95	1.49	....	3	24	4	2	se	T. W. Cox
St. Charles	Madison	1,070	7	69.4	†4.0	94	9	29	29	35	.88	-2.76	.81	....	3	20	6	4	sw	R. D. Minard
Sigourney	Keokuk	877	12	68.8	†3.2	90	*11	28	29	34	.95	-2.07	.78	....	4	5	24	1	s	J. T. Parker
Stockport	Van Buren	.....	6	68.0	.....	88	12	30	29	28	2.06	-2.18	1.42	....	4	....	....	....	s	C. L Beswick
Thurman	Fremont	.....	11	68.0	†2.2	90	* 5	26	29	39	.75	-4.04	.41	....	3	19	9	2	sw	C. R. Paul
Wapello	Louisa	588	10	67.9	†2.2	89	*11	33	28	34	3.31	- .13	1.97	....	3	....	....	....	se	Geo. W. Schofield
Washington (c)	Washington	769	27	68.4	†3.8	89	*11	28	29	33	1.02	-1.66	1.02	....	2	....	....	....	.....	Wm. A. Cook
Winterset	Madison	1,129	17	68.0	†2.4	88	* 9	29	29	31	.70	-2.66	.54	....	3	19	7	4	s	Dr. Robert S. Cooper
Woodburn	Clarke	961	9	66.6	.....	94	*11	24	29	44	1.15	-2.85	.85	....	4	19	8	3	sw	C. B. McDonough
Average		.....	....	68.7	†3.2	92.1		28.0		35.9	1.21	-2.36		T	3	22	5	3	s	
State average		.....	....	67.9	†4.2	91.8		26.9		36.2	1.20	-2.21		T	3	21	6	3	s	

* And other dates. a one day missing, b two days; c three days; d four days. ‡ Received too late to be included in average.

THUNDERSTORMS—STATIONS AND DATES

NORTHERN SECTION.

Stations	Dates
Algona	26
Alta	22,26
Britt	26
Charles City	26
Elkader	26
Elma	17,23,26
Grand Meadow	26,27
New Hampton	23
Pocahontas	23
Ridgeway	5,13,23,26
Sheldon	22
Sibley	22
Sioux Center	22,29
Storm Lake	23,26
Waverly	26,30
West Bend	23

CENTRAL SECTION

Stations	Dates
Amana	26
Davenport	27
Des Moines	26,27
Delaware	13,26
Dubuque	13,27
Grinnell	5,13,26
Guthrie Center	23,26
Iowa Falls	23
Sioux City	25,26
Waterloo	26
Whitten	27

SOUTHERN SECTION

Stations	Dates
Albia	27
Columbus Junction	1,5,27
Corydon	17
Fort Madison	11,23,26
Indianola	26
Keokuk	23,26,27
Sigourney	5
Stockport	27
Thurman	14,26

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF SEPTEMBER, 1908

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | Monthly Mean | |
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DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF SEPTEMBER, 1908—CONTINUED

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | Monthly Mean | |
|---|---|---

DAILY PRECIPITATION FOR IOWA, SEPTEMBER, 1908

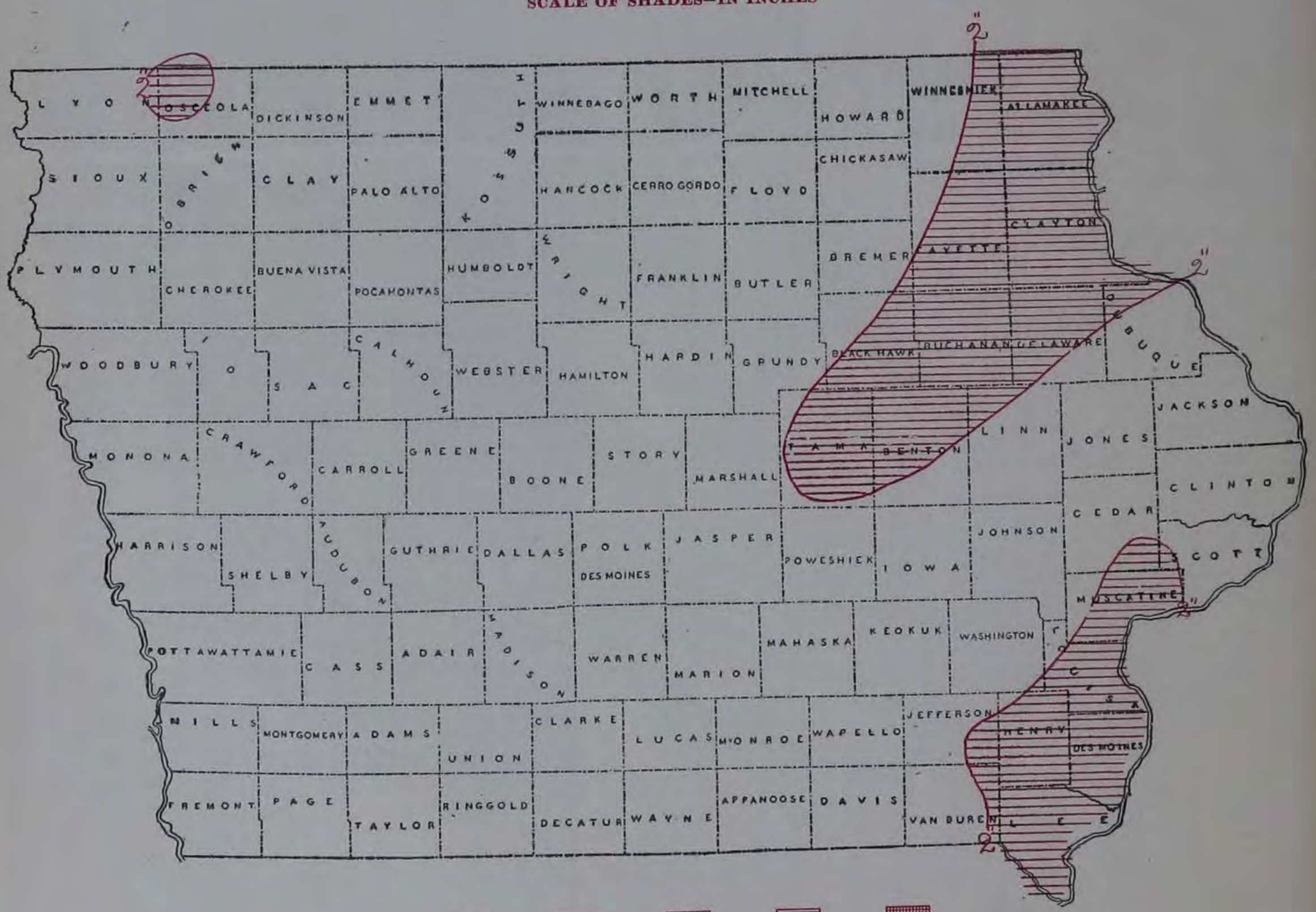
STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Afton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.22	.35	.19	....	....	.76
Albia	.18	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.93	.15	.12	....	1.38
Algona	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.55	T	T	....	....	.55
Allerton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.42	.40	.17	.01	....	1.00
Alta	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	.50	....	....	....	.60
Alta (near)	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	.61	....	....	....	....	.61
Alton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.86	....	....	....	....	.86
Amana	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.69	.63	T	....	....	1.32
Ames	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	.30	T	....	....	.50
Atlantic	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.73	....	....	....	....	.73
Audubon	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.46	.10	.11	....	....	.67
Baxter	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.01	....	.08	1.00	....	....	....	1.09
Bedford	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	.31	.37	.04	....	....	.72
Belle Plaine	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.07	1.73	....	.02	....	1.82
Bloomfield	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.69	.17	....	....	0.86
Bonaparte	.37	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.41	.05	....	....	1.83
Boone	.01	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.62	....	T	T	.63
Britt	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.98	.10	T	....	....	1.08
Buckingham	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.24	1.77	T	....	....	2.01
Burlington	.90	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.35	....	....	1.40	.70	....	....	3.35
Carroll	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.51	....	....	....	0.59
Cedar Rapids	.07	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.10	.22	....	T	....	1.39
Chariton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.56	.38	....	....	.94
Charles City	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.48	.28	....	.05	....	.81
Clarinda	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.36	....	T	....	.36
Clear Lake	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.26	.56	T	....	.44	1.26
Clinton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.63	....	....	1.63
Columbus Junc	.14	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	1.48	.15	....	....	1.77
Corning	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.81	....	.20	....	....	1.01
Corydon	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	.36	.61	.11	....	....	1.08
Creston	.12	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.65	....	.31	....	1.08
Cumberland	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.20	....	.32	....	....	1.52
Davenport	.04	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	1.08	....	....	T	1.12
Decorah	....	....	....	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	T	....	....	....	....	....	....	....	.25	1.35	.18	....	....	1.98
Delaware	....	....	....	....	....	....	....	....	....	....	....	....	.41	....	....	....	....	....	....	....	....	....	....	....	....	.75	1.37	.15	....	....	2.68
Denison	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.60	....	.07	....	....	.67
Des Moines	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.76	.13	.05	....	T	.94
De Soto	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	.45	T	....	....	.55
Dows	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.70	.10	....	....	....	.80
Dubuque	....	....	....	....	....	....	....	....	....	....	....	....	.09	....	....	....	....	....	....	....	....	T	....	....	....	.01	1.04	T	....	....	1.14
Earlham	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.08	.43	.04	....	....	.55
Elkader	....	....	....	.13	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.30	2.15	.15	....	....	2.73
Elliott	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.52	....	.10	....	....	.62
Elma	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.70	.52	T	....	.05	1.27
Estherville	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	T	.85	....	....	.15	1.05
Fairfield	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.72	.03	....	....	.75
Forest City	T	....	....	....	....	....	....	....	....	....	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.00	....	T	T	1.00
Fort Dodge	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	....	....	1.10	....	....	T	1.12
Fort Madison	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	1.30	1.30	.68	....	....	3.28
Gilman	....	....	....	.04	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.05	.10	T	....	....	1.19
Grand Meadow	....	....	....	....	....	T	....	....	....	....	....	....	.15	....	....	....	....	T	....	....	....	....	....	....	....	.73	2.53	.05	....	....	3.46
Greene	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.31	.57	....	....	.08	.96
Greenfield	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.42	....	.40	....	....	.82
Grinnell	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.31	1.62	.02	....	....	1.95
Grundy Center	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.90	....	....	....	.90
Guthrie Center	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.01	....	....	.62	....	.13	....	....	.76
Hampton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.70	....	....	....	....	.70
Hancock	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.50	....	.25	....	....	.75
Harlan	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	T	....	.85	....	.20	....	....	1.05
Hopeville	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	.60	1.00	.15	....	....	1.75
Humboldt	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.80	....	....	....	....	1.80
Independence	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.03	1.90	....	....	....	2.93
Indianola	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	.18	.13	.05	....	....	.36
Inwood	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	T	....	....	.02	1.21	....	T	....	.01	1.24
Iowa City	.20	....	....	....	....	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.25	.28	.01	....	1.82
Iowa Falls	.11	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.03	....	....	1.38	....	T	....	1.52
Jefferson	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.25	....	T	....	....	.25
Keokuk	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	T	....	.63	1.44	.15	....	....	2.22
Keosauqua	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.45	.23	.12	....	1.05
Knoxville	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Lacona	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.90	.10	.08	....	....	1.08
Larrabee	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.59	....	....	....	....	.59
Le Claire	.22	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.36	.76	....	....	1.34
Le Mars	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.76	....	.06	....	T	.82
Lenox	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	.63	.10	....	....	.78
Leon	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.31	.25	.20	....	....	.76
Little Sioux	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.65	....	.16	....	....	.81
Logan	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.53	....	.26	....	....	.79
Marshalltown	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.05	.03	....	....	1.28
Mason City	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.45	.30	....	....	....	.75
Merrill	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....
Montezuma	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.35	....	....	....	1.35
Mt. Ayr	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.55	.46	.10	....	....	1.11
Mt. Pleasant	.23	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2.02	.04	....	....	2.29
Muscatine	.70	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	T	....	1.60	.43	....	....	2.73
New Hampton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.18	....	....	.32	.82	T	....	.05	1.37
Newton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.75	.07	....	....	....	.82
Northwood	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.63	.31	T	....	.16	1.10
Odebolt	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.95	....	.10	....	....	1.05
Olin	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	1.16	....	....	....	1.16
Omaha, Neb	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	....	.06	....	....	.26
Onawa	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.54	.02	.12	....	....	.68
Osage	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.40	.30	T	....	....	.70
Oskaloosa	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	.75	.49	.04	....	T	1.28
Ottumwa	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.42	.05	....	....	....	.47
Pacific Junction	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.50	....	.06	....	....	0.56
Pella	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.49	.05	.01	....	1.55
Perry	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	.49	.06	....	....	.55
Plover	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	1.10	....	T	.22	....	1.42
Pocahontas	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.04	....	....	.86	T	....	....	....	.90
Ridgeway	....	....	....	....	.04	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	.04	....	....	1.02	.48	.03	....	.07	1.73
Rock Rapids	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.76	....	T	....	....	1.76

DAILY PRECIPITATION FOR IOWA, SEPTEMBER, 1908—Continued

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Rockwell City	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	T	....	1.10	....	....	....	....	1.10
Sac City	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.39	....	....	....	....	....	.74	....	....	1.13
St. Charles	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.14	.67	.07	....	....	.88
Sheldon	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.06	....	....	....	1.06	....	....	....	....	1.12
Sibley	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	....	.86	....	....	.71	.48	....	....	....	2.07
Sigourney	....	....	....	....	.01	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.08	.78	.08	....	....	.95
Sioux Center	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	1.15	....	T	T	....	1.15
Sioux City	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.04	.95	....	.03	....	....	1.02
Stockport	.53	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	T	1.42	.10	.01	....	2.06
Storm Lake	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.19	....	....	.93	.03	....	....	....	1.15
Stuart	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.49	...	.25	....	....	.74
Thurman	....	....	....	....	....	....	....	....	....	....	....	....	....	.26	....	....	....	....	....	....	....	....	....	....	....	.41	....	.08	....	....	.75
Tipton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.55	....	....	....	1.55
Toledo	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.30	1.95	....	....	T	2.25
Wapello	1.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	1.97	.14	....	....	3.31
Washington	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.79	.23	....	....	....	1.02
Washta	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.65	.10	....	....	....	.75
Waterloo	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.03	1.35	....	....	....	1.38
Waukee	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.90	.10	....	....	1.00
Waverly	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.11	.96	....	....	.02	1.09
Webster City	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	.16	....	....	....	.36
West Bend	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.07	....	....	.50	....	T	T	....	.57
Whitten	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.93	....	T	....	.93
Wilton Junction	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.80	....	....	....	2.24
Winterset	.44	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.08	.54	.08	....	....	.70
Woodburn	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.54	.31	.25	.05	....	1.15
Zearing	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.....

TOTAL PRECIPITATION, SEPTEMBER, 1908.

SCALE OF SHADES—IN INCHES



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR OCTOBER, 1908.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR



PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1908

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

OF THE

STATE BOARD OF AGRICULTURE,

CONSTITUTED AS FOLLOWS:

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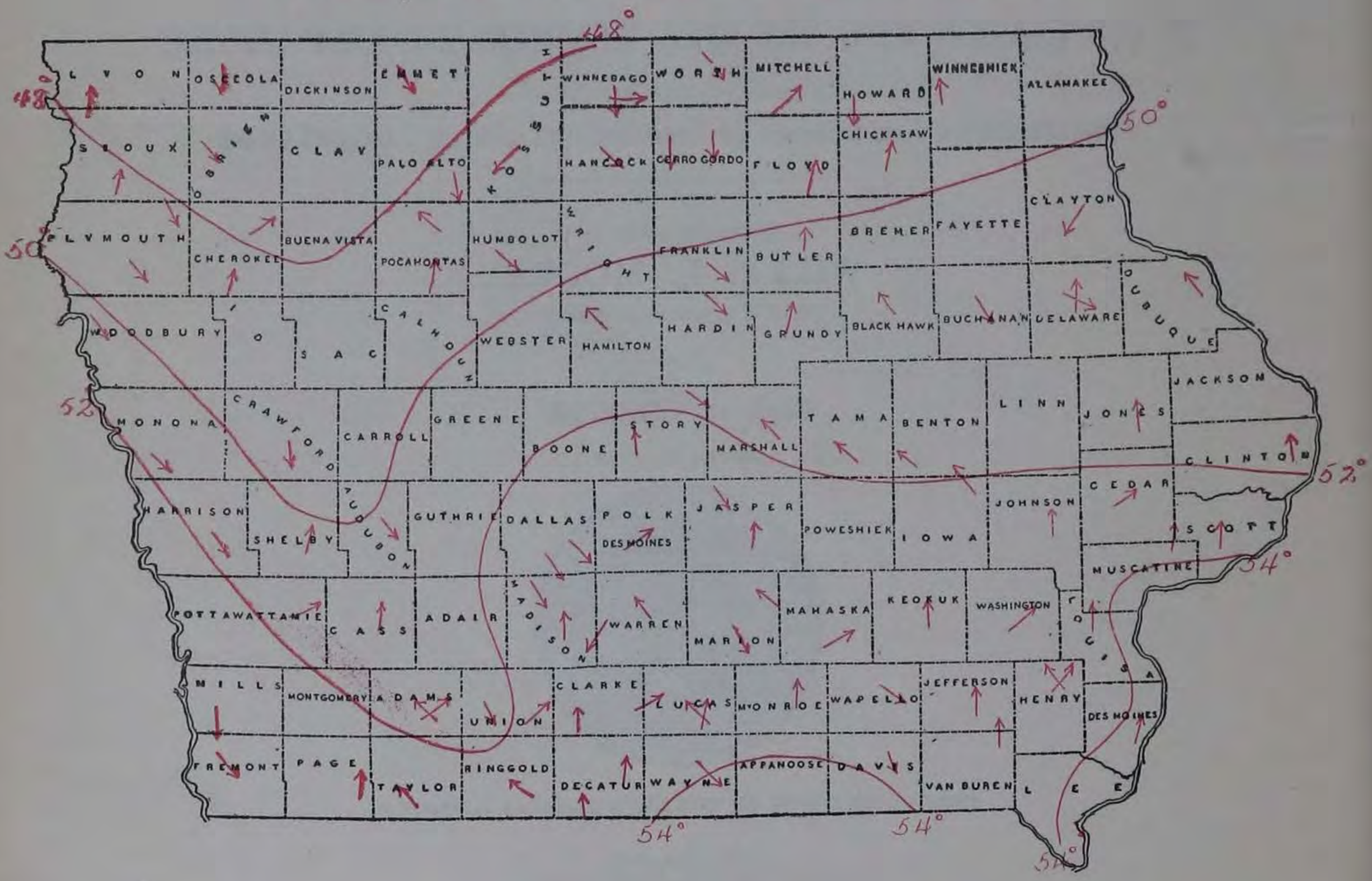
Eleventh District—H. L. PIKE, Whiting.

MEAN ISOTHERMS AND PREVAILING WINDS OF OCTOBER, 1908.

Lines pass thru points of equal temperature. Arrows fly with the wind.



U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IOWA SECTION,

GEO. M. CHAPPEL, Section Director.

VOL. XIX DES MOINES, IOWA, OCTOBER, 1908. NO. 10

GENERAL SUMMARY.

After the rains on September 26th to 29th, inclusive, drouthy conditions again prevailed until the night of October 19th, there being no rain between those dates except light showers on the 5th and 6th. During the first and second decades of the month the temperature was above normal, the maximum temperatures ranging from 52° to 89°, and the minimum from 31° to 65°; but, during the last decade, the temperature was considerably lower, the average for the month being slightly below the normal. From the 19th to the 28th, inclusive, the weather was cloudy with almost continuous rain. The average rainfall for the month was considerably above the normal for October and has been exceeded but four times during the past 19 years. Snow flurries were quite general over the western half of the state on the 22d and 23d, but the amounts of snowfall were small except over the southwestern counties where they ranged from one to eleven inches, which is unusual for that section of the state so early in the season.

There was a deficiency in the amount of sunshine, notwithstanding the fact that there was a large excess during the first half of the month. The dry weather and brisk winds during the first half of the month were favorable for drying out the corn crop and husking began between the 15th and 18th, and more than the usual amount would have been cribbed during October but for the rains between the 19th and 28th which prevented all field work. Husking was resumed on the 29th, and it is estimated that fully 15% of the crop had been harvested by the close of the month, at which time the work was being vigorously pushed.

The rains near the close of September revived pastures and put the soil in good condition to plow, and considerable plowing and fall seeding was done during the first ten days of October when it again became too dry, and that work was suspended until after the 27th, since which time plowing has been resumed. The long continued and, in many places, heavy rains between October 19th and 28th replenished the water supply, revived pastures and meadows and put the soil in excellent condition for winter.

TEMPERATURE.—The monthly mean temperature for the State, as shown by the records of 110 stations, was 51.1°, which is 0.8° below the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 49.6°, which is 0.5° below the normal; Central section, 51.2°, which is 0.6° below the normal; Southern section 52.6°, which is 1.1° below the normal. The highest monthly mean was 54.4°, at Burlington and Keokuk, Des Moines and Lee counties, and the lowest monthly mean 46.6°, at Sibley, Osceola county. The highest temperature reported was 89°, at Clarinda, Ottumwa, Ames and Woodburn, Page, Wapello, Story and Clarke counties, on the 14th and 16th; the lowest temperature reported was 17°, at Atlantic, Cass county, on the 12th. The average monthly maximum was 82.9°, and the average monthly minimum was 24.7°. The greatest daily range was 58°, at Clarinda, Page county. The average of the greatest daily ranges was 38.5°.

PRECIPITATION.—The average precipitation for the State, as shown by the records of 118 stations, was 3.38 inches, which is 1.03 inches above the normal. By sections the averages were as follows: Northern section, 3.37 inches, which is 1.10 inches above the normal; Central section, 3.13 inches, which is .69 inch above the normal; Southern section, 3.64 inches, which is 1.29 inches above the normal. The greatest amount, 8.83 inches, occurred at Lamoni, Decatur county, and the least, .58 inch, at Clinton, Clinton county. The greatest amount in twenty-four hours, 2.96 inches, occurred at Plover, Pocahontas county, on the 24th. Measurable precipitation occurred on an average of 8 days.

SUNSHINE AND CLOUDINESS.—The average number of clear days was 16; partly cloudy, 6; cloudy, 9. The duration of sunshine was below the normal, the percentage of the possible amount being 67 at Davenport; 60 at Des Moines; 57 at Dubuque; 62 at Keokuk; 50 at Sioux City, and 57 at Omaha, Nebraska.

WIND.—South winds prevailed. The highest velocity reported was 48 miles per hour from the south, at Sioux City, Woodbury county, on the 19th.

ERRATA IN AUGUST REVIEW.

NEW HAMPTON.—Greatest 24 hour rainfall recorded as .67 inch, on page 89, should have been .70 inch.

SIGOURNEY.—Greatest 24 hour rainfall recorded as 1.78 inches. on page 90, should have been 1.91 inches.

WEBSTER CITY.—Total precipitation recorded as 5.00 inches, on pages 89 and 94, should have been 5.05 inches.

BELATED REPORT.

BELLE PLAINE.—August. Mean temperature 66.1°; highest 87° on the 11th, 18th, 19th, 21st; lowest 27° on the 29th; greatest daily range 31°. Total precipitation 1.82 inches; greatest in 24 hours 1.73 inches; prevailing direction, south. Number of clear days 12, partly cloudy 13, cloudy 5, rainy 3.

KNOXVILLE.—September. Mean temperature 68.3°; highest 90° on the 11th and 12th; lowest 29° on the 29th; greatest daily range 33°. Total precipitation .88 inch; greatest in 24 hours .42 inch; prevailing direction, southeast. Number of clear days 17, partly cloudy 9, cloudy 4, rainy 3.

COMPARATIVE DATA FOR THE STATE—OCTOBER

Year	Temperature			Precipitation		
	Mean	Highest	Lowest	Average	Greatest	Least
1890	49.2	86	16	3.48	6.82	1.59
1891	50.0	92	19	2.77	6.53	.85
1892	54.5	96	14	1.55	2.58	.00
1893	52.4	94	10	1.28	4.56	.02
1894	51.7	90	20	2.67	5.25	.63
1895	46.0	88	4	.47	1.38	.00
1896	47.9	88	12	3.13	5.05	1.51
1897	56.8	97	12	1.14	3.30	.03
1898	47.5	88	17	3.56	5.75	1.27
1899	56.7	95	17	1.73	4.64	.15
1900	59.3	90	21	3.91	8.00	1.20
1901	54.2	88	20	1.98	4.23	.45
1902	53.5	83	20	2.54	6.66	.28
1903	52.2	90	16	1.95	4.50	.32
1904	53.1	96	16	1.67	4.42	.14
1905	49.2	95	16	3.40	5.36	1.20
1906	50.5	87	7	1.96	4.25	.50
1907	50.4	85	10	1.50	3.71	.30
1908	51.1	89	17	3.38	8.83	.58

ATMOSPHERIC PRESSURE AND WIND.

Mean Barometer for the month reduced to sea level, 30.07 inches.
Prevailing direction of Wind. S.

STATIONS	Barometer, in Inches					Wind				
	Mean	Maximum	Date	Minimum	Date	Movement	Maximum Velocity—miles	Direction	Date	Average Hourly Velocity
Charles City	30.08	30.46	12	29.58	24	6018	28	SW	16	8.1
Davenport ..	30.09	30.52	12	29.59	24	5588	29	S	15	7.5
Des Moines .	30.05	30.45	12	29.53	25	7129	38	SW	16	9.6
Dubuque....	30.10	30.54	12	29.62	25	4288	24	SE	16	5.8
Keokuk	30.10	30.54	12	29.67	24,25	5514	28	SW	24	7.4
Omaha, Neb.	30.04	30.45	8	29.46	16	7720	38	NW	24	10.4
Sioux City ..	30.04	30.46	8	29.39	16	10841	48	S	19	14.5

OBSERVERS' REMARKS.

AFTON.—*N. W. Rowell.* There was about two inches of snow fell during the night of the 22d.

ALBIA.—*J. I. Chenoweth.* The weather during the first half of the month was clear and pleasant, but from the 19th to the 28th the weather was cloudy with rain every day.

ALGONA.—*Dr. F. T. Seele'.* The weather was very pleasant up to the 19th, but from the 20th to the 28th it was cloudy with drizzling rain. One inch of snow fell on the 23d.

ALLERTON.—*Mrs. Geo. Shriver.* The rain during the latter half of the month put the ground in good condition for fall plowing. There was very little corn harvested but there are indications of a fair yield.

ALTA.—*David E. Hadden.* October was a very pleasant month. Most of the rain fell during the last decade. The first snow of the season fell on the 23d but it melted as soon as it reached the ground.

ALTON.—*W. S. Slagle.* The weather during the fore part of the month was fine for picking corn, which was then in good condition, but the latter part of the month was too wet for any field work.

AMANA.—*Conrad Schadt.* During the first and second decades the weather was very dry and the roads dusty, but copious rains fell from the 20th to the 28th.

AMES.—*J. H. Criswell.* The first half of the month was very dry and dusty with brisk to high winds, but from the 20th to the 27th gentle and almost continuous rains fell.

BAXTER.—*W. R. Vandike.* On the 23d snow and rain fell. The snow melted as it fell except on the north side of buildings where it was about half an inch deep and remained on the ground most of the day.

BEDFORD.—*E. E. Healy.* The first snow of the season came during the night of the 22d and continued during most of the 23d the amount being 6.5 inches.

BONAPARTE.—*B. R. Vale.* October was a dry and warm month but there was very little corn cribbed. The roads were good but pasturage was very light.

BRITT.—*Geo. P. Hardwick.* The temperature was high during the first half and low during the latter half of the month,but was about normal for the month. There was an excess of 3.00 inches in precipitation, most of which fell during the last decade, retarding the corn harvest. About 20% of the corn has been gathered and fall plowing is well advanced. There has been an increase in acreage seeded to rye.

CHARITON.—*C. C. Burr.* The weather was clear and warm up to the 20th with frequent showers from the 20th to the 27th. The yield of corn is very uneven and the quality is not the best.

CLEAR LAKE.—*Oscar Stevens.* Two-tenths of an inch of snow fell on the 30th, being the first of the season.

FAIRFIELD.—*Prof. R. Monroe McKinzie.* The first snow of the season was observed in the air on the 21st but it melted before reaching the ground. The month was very dry, there being less rain than in September.

FOREST CITY.—*J. A. Peters.* There has not been much corn cribbed and there is a decrease in the amount of fall plowing done.

GRAND MEADOW.—*F. L. Williams.* The weather was favorable for fall work. Plowing is well advanced and corn husking has begun. Pasturage improved during the latter half of the month.

GREENE.—*J. L. Cole.* Robbins were still in the country on the 27th.

GRINNELL.—*A. O. Price.* About 75% of the rainfall for October fell during the last decade of the month. Although the precipitation has been below normal, the streams and wells are in fairly good shape for winter.

HANCOCK.—*Wm. Armstrong.* The corn harvest began October 18th. Corn is of good quality and is yielding well.

HUMBOLDT.—*H. S. Wells.* There has been a decrease in the acreage of fall seeding, but 25% of the corn has been harvested, and 75% of the fall plowing has been done.

INWOOD.—*F. B. Hanson.* Dense smoke was observed on the 19th with a very perceptible odor of burning timber, presumably from the Michigan forest fires.

LARRABEE.—*H. B. Strever.* The weather was very dry until the 19th. About 75% of the fall plowing has been done and from 40% to 50% of the corn is in the crib.

OLIN.—*Hon. Nathan Potter.* October was an ideal fall month for drying the corn but too dry for fall plowing or seeding until the last week.

POCAHONTAS.—*F. E. Hronek.* The weather was favorable for farm work and harvesting corn up to the 20th, when rain began and continued until the 27th, stopping all field work. The last four days were clear and corn gathering was resumed, and about 40% of the corn is now in crib.

SHELDON.—*Dr. A. W. Beach.* Splendid fall weather prevailed during the first half of the month, curing the corn perfectly, but the rain during the latter half of the month prevented corn-husking and as a result but very little was cribbed.

STOCKPORT.—*C. L. Beswick.* There has been very little fall plowing done on account of dry weather and stock water is scarce in places. There has probably been about 20% of the corn cribbed or from 20% to 30% less than usual at the end of October. There has been about three times as much fall seeding done and it is mostly wheat.

WAVERLY.—*H. S. Hoover.* More than the usual amount of cloudiness prevailed during the last decade of October and the drouth was broken. Fall plowing is generally finished and the sugar beet harvest is being rushed with good to poor yield.

DROUTHS IN IOWA.

September, 1908, will go on record as having had the longest period without rain of any September since the establishment of weather stations in this state. With the exception of a few light showers in small sections of the state on the 5th, 13th and 23d, there was practically no rainfall from the night of August 31st to the night of September 25th, making, at most of the stations in this section, twenty-five rainless days. Copious rains fell in all parts of the state between the night of the 25th and the 28th. During the dry period the temperature was considerably above the normal and the weather was almost cloudless. The atmosphere was, however, more or less hazy, and over the eastern counties light to dense smoke was observed from the 14th to the 23d, presumably due to forest fires in the upper lake regions. From the 4th to the 25th, inclusive, the maximum temperatures ranged from 80 to above 90°, and the night temperatures were correspondingly high.

Previously to September 1st, the conditions had been favorable for abundance of soil moisture; there being an excess of precipitation for the state of 3.84 inches in May, 1.14 inches in June and .78 inch in August, and a deficiency of .78 inch in July, making a total excess of 4.98 inches for the four months, May to August, inclusive. All ponds, streams and sloughs were well filled with water and in May and June the rivers approached the flood stage, so that there was more than the normal amount of moisture in the soil on September 1st and all wells furnished a good supply of water during the entire month.

The effect of the dry, hot weather during September was eryv injurious to pastures, late potatoes, garden truck, buckwheat, late fruits and the surface water supply. By the 15th pastures were brown and the soil was too dry and hard to plow, and by the 25th the fields were dusty and most of the ponds, sloughs and small streams were dry. The stage of water in all rivers was low and in some, the stage was said to be the lowest ever before known.

While the effects of the drouth were serious and damaging to pastures, late potatoes and apples, the beneficial effects to corn more than overbalanced the injury done, and it may well be said that the dry weather was of great benefit to this state. Corn, the principal crop in this section, was unusually late due to the heavy and continuous rains during the latter part of May and June and the fore part of July, which retarded planting and prevented the cultivation of early planted fields, and as a result all corn was green and but little of it had begun to show any signs of maturity by September 1st. After September 1st, corn was rapidly pushed toward maturity and by the 15th of the month a large percentage of the early planted fields were safe from the effect of frost, and the late planted fields were making rapid progress. By the 25th fully 90 per cent of the crop was far enough advanced to escape any material injury from the frost which occurred on the 28th and 29th, and the remainder of the crop was in most cases well dented so that it will have considerable value for feed.

Agricultural interests in this state are more frequently and more extensively injured by excessive moisture than by drouthy conditions. The last serious drouth prior to 1908 was in the summer of 1901, and then the damage to crops was largely due to continuous and excessively high temperatures and hot winds coming as they did during the period of pollination and earing of corn. From April 1st to August 31st of that year, the monthly deficiency of rainfall for the state was as follows; viz: April, 1.04 inches; May, 2.15; June, .81; July, 2.10, and August, 2.70 inches, making a total deficiency for the five months of 8.80 inches. The monthly mean and daily maximum temperatures of July were higher than ever before known, the monthly mean for the state being 82.4° or 8.7° above the normal, and the daily maximum temperatures from the 1st to the 26th, inclusive, were very near or above 100°, the absolute maximum being 113° at Sigourney. The dry, hot weather was very damagiug to pastures and garden truck and materially reduced the yield of corn for that year. The following is quoted from the Monthly Report of the Iowa Section for September, 1897, and shows the effects of the drouth and hot winds during that month: "This month brought a marked change and the summary ending of a peculiar and fitful crop season. The first half broke all former records of September weather for the corresponding period, by abnormally high temperatures, intense insolation, hot southerly winds and severe drouthy conditions. At the central station the sum of the excess in temperature was 228° for the first 15 days, making a daily average of over 15° above the normal. During 12 days the maximum temperatures ranged from 90 to 98°. This extreme heat and general aridity produced a notable effect upon immature crops, and all forms of vegetable life. Most of the early planted corn, which with normal temperature and moisture would have required two to four weeks to ripen in the best condition, was swiftly hurried to maturity, with more or less detriment to its quality. The transformation from milk and dough to the dented stage was too sudden to secure normal development of the grain. All corn planted betimes on deep, rich soil, well cultivated and possessing a good storage of moisture, came through with a fair average yield, and is but little impaird in quality. Dut the crop on exposed uplands, and on thin soils, generally suffered extensive damage by "firing" and premature drying up.

"Frosts were noted in the northern districts on September 17th and 18th, and on the morning of the 20th a killing frost was reported in all districts. The bulk of the corn crop, however, was beyond the danger line, and probably less than 10 per cent was in condition to receive any appreciable injury from the frost. But potato vines and tender garden truck were cut down in all exposed localities. As a result of the dry weather, hot winds and early frosts, the potato yield has been greatly reduced everywhere, and in some sections the crop of late potatoes is well nigh a total failure.

"The pastures and meadows have suffered the most damaging effects of the drouth and heat. Fall pasturage was almost wholly used up, and farm stock have been quite generally fed from the corn fields, or from the forage reserves provided for the winter season.

"Fall plowing and sowing winter grain were retarded by the dry and hard condition of the soil, and the prospective acreage of winter wheat has been decreased thereby.

"With all its drawbacks and abnormal conditions, however, the season of 1897 has brought forth liberal returns for the labors of faithful tillers of the soil. The final roundup will show that the state has produced a bountiful surplus for export to less favored regions."

The most disastrous drouth of which we have authentic record as having occurred in this state was in 1894, following as it did the dry year of 1893. There was a total deficiency in rainfall in 1893 of 5.06 inches, and in 1894 there was a deficiency of 10.71 inches. From May 1st, 1893 to August 31, 1894, there was a deficiency of 17.61 inches. During that period the rainfall was below the normal for every month except December, 1893, January, March and April, 1894, when there was an excess of .12 inch, .04, .11 and .24 inch, respectively. The greatest deficiency was between May 1, 1894 and August 31, 1894, and by months was as follows, viz: May, 2.63; June, 1.85; July, 3.81; and August, 2.41, or a total deficiency of 10.70 inches for the four months. The climax of the drouth came in July when the average monthly rainfall for the state was only .63 inch, which is the smallest amount ever recorded in this state during any crop growing month. Over three fourths of the state received less than half an inch of rain during the month and a number of localities reported only a trace. On the 25th, 26th and 27th of that month, the wind velocity was very high and the temperature was generally up to 100 degrees or above. Pastures were absolutely bare of anything on which stock could secure nourishment; all small streams, shallow wells and ponds, and many deep wells and large streams were dry and corn was badly "fired". Many farmers were forced to drive their stock to or haul water from streams several miles distant in order to keep the cattle alive, and feeding hay and grain was general. The yield of corn was only 12 bushels per acre which is the smallest yield of that crop ever known in this state.

In 1886 a drouth began in Iowa in May and continued during June, July and August, which was very severe during the last two months. The records of this office show that the rainfall during those months was as follows, viz: May, 4.01 inches, all but .74 inch falling during the first decade of the month; June, 1.21; July, .27; August, 1.10 inches, making a total of 3.32 inches from the middle of May to the end of August. There was only .04 inch of rain fell during the 39 days from June 21st to July 29th, inclusive.

The precipitation charts in the National Weather Review show that the worst of the drouth was confined principally to Iowa, although parts of the adjacent states had a deficiency of rainfall during most of the summer.

The following is an extract from a description of the drouth in Iowa, furnished by Gustavus Hinrichs, M. D., then director of the "Iowa Weather Service":

"Since the middle of May Iowa has been subjected to a drouth, the most severe on record. Fortunately, the greater part of the state has been favored with rains sufficient to break the drouth temporarily toward the close of June. * * * * * * * * *.

"THE DROUTH AT IOWA CITY.

"In the early summer of 1886, the last good rain fell on May 13th. Since that time we have had no rain reaching half an inch until August 4th. Thus we had no serviceable shower for 83 days. The total rains which fell in this interval were 0.02 inch during the last decade of May; 0.41 during the first, 0.17 during the second, and 0.25 inch during the third decade of June. During the entire month of July we had only one-tenth of an inch of rain here. The total rainfall during the 83 days of our drouth was 0.95 inch only. The normal rainfall for this

(Continued on page 117)

CLIMATOLOGICAL DATA FOR IOWA, OCTOBER, 1908

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in Inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
NORTHERN SECTION																				
Algona	Kossuth	1,213	34	49.2	+ 0.5	82	14	27	*11	37	3.88	+1.79	1.20	1.0	9	20	1	10	ne	Dr. F. T. Seeley
Alta	Buena Vista	1,513	17	48.2	− 2.1	83	14	26	11	43	3.20	+1.06	1.12	T	6	15	7	9	s	D. E. Hadden
Alta [near]	Buena Vista	.....	....	.....	.....	.....	.....	.....	.....	.....	3.29	+1.10	1.22	.5	9	...	....	....	.....	W. J. Minard
Alton	Sioux	1,305	3	49.4	.....	82	*14	26	8	44	2.78	.....	.81	....	6	16	1	14	nw	W. S. Slagle
Britt	Hancock	1,236	11	49.2	− 1.1	82	14	24	*30	36	5.20	+3.04	1.60	2.1	11	3	17	11	nw	G. P. Hardwick
Charles City	Floyd	1,015	20	49.8	+ 1.6	79	15	23	31	34	2.64	+ .61	.89	T	9	8	11	12	s	Weather Bureau
Clear Lake	Cerro Gordo	1,241	9	51.0	− 0.8	80	16	25	31	32	3.50	+ .87	.97	.2	9	17	4	10	n	Oscar Stevens
Decorah	Winneshiek	875	15	50.8	+ 0.6	78	15	24	31	35	2.00	− .42	.77	....	10	....	....	....	.....	F. H. Baker
Dows	Wright	1,142	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	G. D. Flett
Elkader	Clayton	727	27	51.6	+ 2.2	82	15	20	31	52	1.96	− .68	.40	....	5	18	1	12	ne	Chas. Reinecke
Elma	Howard	.....	....	49.2	.....	77	15	22	31	36	2.23	.....	.57	T	9	15	11	5	n,se	H. A. Moore
Estherville	Emmet	1,298	12	47.1	− 1.7	84	14	21	11	43	3.22	+1.05	.92	T	8	16	1	14	nw	A. O. Peterson
Fayette	Fayette	1,003	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	R. Z. Latimer
Forest City	Winnebago	1,226	14	49.2	− 0.5	84	14	25	31	44	5.00	+2.70	2.25	T	9	18	2	11	n,w	J. A. Peters
Grand Meadow	Clayton	1,180	17	49.6	+ 0.4	76	15	26	31	30	2.27	− .20	.91	1.0	7	12	11	8	sw	F. L. Williams
Greene	Butler	.....	9	50.5	− 1.6	82	14	25	31	37	3.43	+1.27	1.38	....	9	7	13	11	e	J. L. Cole
Hampton	Franklin	1,155	18	51.8	+ 1.0	85	14	27	31	41	4.47	+2.04	1.28	T	8	13	9	9	nw	E. C. Grenelle
Humboldt	Humboldt	1,095	17	52.0	+ 2.0	80	*14	28	*8	33	5.73	+3.84	1.94	....	9	17	4	10	nw	H. S. Wells
Inwood	Lyon	1,474	4	48.5	.....	84	14	24	*8	44	2.67	.....	.79	T	6	16	3	12	s	F. B. Hanson
Larrabee	Cherokee	1,266	17	48.1	− 2.2	81	15	22	11	34	2.78	+ .66	.97	T	7	16	11	4	sw,nw	H. B. Streever
Le Mars	Plymouth	1,224	12	49.0	− 2.3	81	16	26	*8	38	3.48	+1.59	1.40	....	5	10	13	8	nw	G. A. C. Clarke
Mason City	Cerro Gordo	1,132	11	48.8	− 0.8	80	14	25	*8	38	3.73	+1.61	1.50	T	7	15	11	5	n	J. S. Mills
Merrill	Plymouth	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	Eric Oleson
New Hampton	Chickasaw	1,169	11	48.7	− 2.1	76	*14	23	31	32	2.54	+ .28	.74	....	9	16	8	5	s	A. F. Kemman
Northwood	Worth	1,222	12	49.4	− 0.3	77	15	25	*30	33	3.99	+1.39	1.24	....	7	19	3	9	nw	Charles H. Dwelle
Osage	Mitchell	1,184	17	51.7	+ 4.3	80	15	22	31	35	3.26	+ .84	1.15	T	8	16	3	12	sw	Dr. A. D. Bundy
Plover	Pocahontas	1,426	12	49.0	− 1.6	80	13	24	11	36	5.79	+3.27	2.96	4.0	8	21	1	9	se	J. S. Smith
Pocahontas	Pocahontas	.....	4	49.1	.....	80	*14	25	11	34	4.16	.....	1.12	6.3	8	17	5	9	s	F. E. Hronek
Ridgeway	Winneshiek	1,215	10	51.4	− 1.0	80	*15	23	31	37	2.13	−1.04	.64	....	10	17	8	6	s	Arthur Betts
Rock Rapids	Lyon	1,358	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	W. C. Wyckoff
Sheldon	O'Brien	1,422	8	49.2	− 2.2	86	14	24	11	40	4.73	+2.14	2.05	....	8	16	2	13	nw	Dr. A. W. Beach
Sibley	Osceola	1,212	15	a 46.7	− 3.1	a 85	14	a 24	30	a 49	2.34	+ .25	.82	T	7	21	2	8	n	H. G. Doolittle
Sioux Center	Sioux	.....	9	48.2	− 2.8	80	*15	25	11	36	2.76	+ .58	.69	T	7	17	2	12	s	J. de Ruyter
Storm Lake	Buena Vista	1,440	12	49.1	− 3.2	86	15	27	11	30	3.47	+1.78	1.15	.5	9	17	7	7	n	Ralph H. Carr
Washta	Cherokee	1,157	10	50.2	.....	87	14	21	8	47	2.57	+ .48	.90	....	6	15	6	10	s	H. L. Felter
Waverly	Bremer	948	12	51.0	− 1.0	80	15	26	31	34	2.83	+ .52	1.20	T	9	14	10	7	.....	H. S. Hoover
West Bend	Palo Alto	1,197	14	49.3	+ 0.4	81	14	24	11	36	3.27	+1.43	.70	T	9	15	4	12	n	Phil Dorweiler
Averages	.....	.....	....	49.6	− 0.5	81.2	.....	24.3	.....	37.8	3.37	+1.10	.....	1.2	8	16	6	9	nw	
CENTRAL SECTION																				
Amana	Iowa	721	31	51.6	+ 1.7	80	*15	26	12	36	1.87	− .78	1.07	....	9	17	7	7	se	Conrad Schadt
Ames	Story	926	27	52.4	+ 1.4	89	16	23	12	42	6.23	+1.13	1.96	....	9	16	8	7	s	Iowa State College
Audubon (a)	Audubon	1,301	15	49.9	− 1.0	81	16	18	12	46	4.04	+1.88	1.15	4.0	10	....	....	....	nw	Geo. E. Kellogg
Baxter	Jasper	998	8	53.3	+ 0.1	88	14	27	12	43	3.48	+0.67	1.25	T	9	16	6	9	nw	W. R. Vandyke
Belle Plaine	Benton	828	18	51.6	+ 1.2	82	17	27	12	37	2.92	+0.67	.76	....	9	14	8	9	se	S. P. Vandike
Boone (‡)	Boone	1,134	3	51.5	.....	84	14	28	31	40	5.19	.....	1.47	T	8	19	1	10	.....	Carl Fritz Henning
Buckingham	Tama	.....	8	.....	.....	.....	.....	.....	.....	.....	3.03	+ .93	1.41	....	6	8	17	6	.....	Dr. W. A. Daniel
Carroll	Carroll	1,265	18	50.0	− 1.0	87	14	25	11	44	5.70	+3.46	1.29	.5	10	20	0	11	.....	Frank Hughes
Cedar Rapids	Linn	733	26	51.8	+ 0.4	83	15	28	*12	47	1.34	−1.12	.56	....	6	17	10	4	.....	Electric Light & P. Co.
Clinton	Clinton	593	40	50.8	+ 0.3	81	17	24	30	39	.58	−1.82	.28	T	4	14	7	10	s	Luke Roberts
Davenport	Scott	580	36	53.6	+ 1.0	81	15	30	31	32	.87	−1.52	.70	T	7	17	6	8	s	Weather Bureau
Delaware	Delaware	1,083	17	48.8	− 0.2	78	15	22	31	35	1.95	− .25	.82	....	5	17	8	6	s,nw	Wm. Ball
Denison	Crawford	1,180	13	50.6	− 0.2	84	14	25	8	36	3.78	+1.75	1.00	1.0	10	21	3	7	n	W. C. Van Ness
Des Moines	Polk	861	29	52.9	+ 0.4	84	14	31	12	32	3.68	+1.00	1.37	T	9	12	10	9	sw	Weather Bureau
De Soto	Dallas	866	8	53.5	− 0.6	85	*14	24	12	45	6.31	+3.98	2.10	T	8	16	4	11	nw	R. D. Minard
Dubuque	Dubuque	639	35	51.7	− 0.3	79	15	26	31	33	1.20	−1.48	.54	....	7	16	4	11	se	Weather Bureau
Fort Dodge	Webster	1,126	8	49.7	− 2.6	84	14	28	31	40	4.45	+1.36	1.30	2.0	9	....	....	....	.....	J. F. Monk
Gilman	Marshall	1,052	9	.....	.....	.....	.....	.....	.....	.....	2.57	+0.05	.68	....	9	....	....	....	.....	Jas. L. Wylie
Grinnell	Poweshiek	1,023	16	52.6	+ 1.9	83	14	27	31	36	2.23	− .24	1.23	....	8	16	6	9	.....	A. O. Price
Grundy Center	Grundy	976	17	51.2	− 0.6	87	15	27	31	41	4.66	+2.19	2.13	....	8	17	6	8	s	W. H. Scott
Guthrie Center	Guthrie	1,077	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	D. G. Beardsley
Harlan	Shelby	1,192	9	50.5	− 2.3	83	14	24	12	41	3.52	+ .76	.97	T	9	14	6	11	s	C. A. Reynolds
Independence	Buchanan	921	43	50.8	+ 1.6	79	15	25	31	36	2.80	+ .44	1.04	....	7	21	2	8	nw	George Donohue
Iowa City	Johnson	683	49	52.4	+ 1.3	84	*15	27	31	42	1.99	− .79	.93	....	8	19	1	11	s	Prof. Karl E. Guthe
Iowa Falls	Hardin	1,170	15	49.4	− 0.3	80	15	22	12	39	4.69	+2.54	1.45	....	9	20	2	9	nw	J. B. Parmelee
Jefferson	Greene	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	Geo. W. Jackson
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	.91	− .98	.47	....	7	15	5	11	s	Margaret T. Disney
Little Sioux	Harrison	.....	4	51.6	.....	85	*14	25	*11	37	3.09	.....	1.18	....	8	16	1	14	nw	Geo. H. Gibson
Logan	Harrison	928	42	51.4	− 0.8	84	16	26	*12	39	2.73	+ .34	.86	....	9	9	12	10	nw	Glen H. Stern
Marshalltown	Marshall	947	16	50.6	− 1.7	82	*14	24	12	49	2.62	+ .24	.94	....	8	10	12	9	se	Agnes Musil
Montezuma	Poweshiek	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	C. J. Griffin
Muscatine	Muscatine	.....	49	.....	.....	.....	.....	.....	.....	.....	1.98	−1.06	.75	....	6	17	3	11	s	Wm. P. Molis
Newton	Jasper	944	19	52.8	+ 1.0	80	*14	31	12	40	3.02	+ .29	1.00	....	9	15	6	10	s	Hon. J. P. Beatty
Odebolt	Sac	1,356	10	50.6	− 2.3	86	14	26	*11	39	3.75	+1.70	1.30	....	6	19	3	9	.....	E. Starner
Olin	Jones	760	11	50.1	− 1.1	80	*15	22	*12	40	1.59	− .82	.80	....	4	19	7	5	s	Hon. Nathan Potter
Onawa	Monona	1,051	8	53.6	− 1.2	85	*14	30	*28	34	3.20	+ .81	1.10	....	10	19	1	11	nw	C. G. Perkins
Perry	Dallas	975	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	J. A. Harvey
Rockwell City	Calhoun	.....	12	51.5	− 0.5	86	16	28	*11	32	5.20	+2.79	1.30	....	8	15	15	1	.....	C. M. Randall
Sac City	Sac	1,278	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	F. E. Stouffer
Sioux City	Woodbury	1,135	17	49.6	− 1.5	82	16	28	11	35	2.80	+1.01	.96	T	6	10	7	14	nw	Weather Bureau
Stuart	Guthrie	1,216	10	53.2	− 0.8	82	16	27	*30	38	4.80	+2.87	1.10	4.0	9	....	....	....	s	Geo. B. Irick
Tipton	Cedar	807	10	53.6	+ 0.7	80	*14	31	31	32	1.55	− .47	.61	....	6	20	4	7	sw	F. K. Gregg
Toledo	Tama	856	14	51.3	− 0.8	88	16	26	12	34	3.00	+ .96	.95	....	5	17	5	9	se,nw	I. F. Giger
Waterloo	Black Hawk	862	25	52.0	+ 1.8	82	15	27	*12	38	2.76	+ .50	1.09	....	9	13	10	8	se	M. L. Newton
Waukee (‡)(a)	Dallas	1,039	5	52.8	.....	85	*14	28	*8	43	6.30	+4.43	2.00	T	8	....	....	....	nw	A. H. Blackmore
Webster City	Hamilton	.....	3	51.4	.....	82	*14	23	12	40	4.79	.....	.98	....	9	15	8	8	se	C. D. Carpenter
Whitten	Hardin	1,036	10	50.4	− 1.2	80	*15	26	31	35	3.57	+1.25	1.31	....	8	18	3	10	se	Dr. Frank P. Butler
Wilton Junction	Muscatine	683	13	52.4	− 0.1	79	*16	29	9	32	1.61	− .47	1.09	....	2	20	6	5	s	Wm. Lang
Zearing	Story	.....	4	51.8	.....	85	2	26	*12	50	4.48	.....	1.30	....	8	5	14	12	nw	W. C. Bean
Average	.....	.....	....	51.2	− 0.6	82.7	.....	23.4	.....	38.6	3.13	+ .69	.....	2.3	8	16	6	9	s	

CLIMATOLOGICAL DATA FOR IOWA, OCTOBER, 1908—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
SOUTHERN SECTION																				
Afton	Union	1,212	14	51.6	— 1.7	82	*14	27	30	35	6.55	+3.93	1.68	2.0	9	15	7	9	sw	N. W. Rowell
Albia	Monroe	959	10	51.3	— 1.9	85	15	27	31	43	2.33	— .24	1.05	....	10	16	5	10	s	J. I. Chenoweth
Allerton	Wayne	.....	6	53.0	— 1.2	86	*14	28	30	37	4.74	+2.72	2.32	....	9	20	4	7	sw	Mrs. Geo. Shriver
Atlantic	Cass	1,164	17	49.6	— 2.0	84	14	17	12	49	3.96	+1.44	1.00	4.0	9	10	8	13	s	J. W. Love
Bedford	Taylor	.....	8	53.1	+ 4.2	87	14	24	*8	46	6.82	+4.54	1.83	6.5	10	20	3	8	se	E. E. Healy
Bloomfield	Davis	.....	...	53.6	.....	88	14	25	31	43	1.24	.....	.38	....	8	17	7	7	n	F. H. Roberts
Bonaparte	Van Buren	.....	17	53.4	— 1.6	86	14	26	31	40	.89	— .87	.37	....	7	....	....	....	.....	Hon. B. R. Vale
Burlington	Des Moines	544	12	54.4	— 1.3	83	14	29	31	41	.77	—1.45	.37	....	6	20	3	8	s	W. E. Poppe
Charlton	Lucas	1,042	13	52.5	— 1.7	85	*14	27	30	40	3.15	+ .79	1.10	....	5	17	6	8	se,s	C. C. Burr
Clarinda	Page	1,009	18	52.0	— 2.0	89	14	22	*12	58	5.12	+2.62	1.80	11.0	10	19	2	10	s	A. S. Van Sandt
Columbus Junction	Louisa	595	7	53.6	— 0.8	81	*14	28	31	35	1.88	—0.57	.84	....	5	23	5	3	s	J. B. Johnston
Corning	Adams	1,117	16	51.6	— 1.7	88	14	24	28	34	5.67	+3.34	1.95	5.0	9	16	6	9	se,sw	Jerome Smith
Corydon	Wayne	1,101	15	53.6	— 1.2	86	*14	28	30	36	4.71	+2.22	2.00	T	9	16	5	10	nw	Clara Miller
Creston	Union	1,312	3	51.2	.....	83	*14	28	*28	41	6.75	.....	2.47	....	8	16	2	13	nw	Rev. W. L. Gaston
Cumberland	Cass	.....	9	.....	.....	.....	.....	.....	.....	.....	4.14	+1.53	1.77	5.0	9	18	3	10	s	J. H. Reppert
Earlham	Madison	.....	6	52.0	— 0.9	84	16	26	*28	37	6.38	+4.03	1.65	T	10	18	4	9	nw	Geo. Phillips
Elliott	Montgomery	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Henry Barnes
Fairfield	Jefferson	.....	14	a 53.3	+ 0.9	86	14	a 23	12	a 42	.61	—2.31	.14	T	7	16	9	6	s	R. Monroe McKenzie
Fort Madison	Lee	516	59	.....	.....	.....	.....	.....	.....	.....	1.41	—1.21	.52	....	5	15	5	11	sw	Miss L. A. McCready
Greenfield (a)	Adair	.....	17	51.2	— 1.9	83	15	25	29	38	5.25	+2.98	1.70	2.0	9	.....	.....	.....	.....	Geo. Brooks
Hancock	Pottawattamie	1,113	2	52.2	.....	83	*4	26	*30	39	3.46	.....	1.00	1.0	6	20	0	11	sw	W. Armstrong
Hopeville	Clarke	.....	17	52.3	— 1.9	84	14	28	30	36	5.19	+2.95	1.25	....	10	11	12	8	s	M. T. Ashley
Indianola	Warren	969	17	a 53.3	— 0.4	83	14	b 24	8	b 36	4.24	+2.14	1.20	....	9	13	7	11	se	Prof. J. L. Tilton
Keokuk	Lee	574	37	54.4	— 0.1	85	14	31	31	32	.87	—1.62	.36	....	7	20	4	7	nw	Weather Bureau
Keosauqua	Van Buren	644	16	52.2	— 2.6	87	14	23	*12	53	.73	—1.11	.24	....	7	12	7	12	.....	J. H. Landes
Knoxville	Marion	920	12	53.2	— 0.5	83	14	29	31	35	2.57	+ .15	.81	....	9	16	3	12	nw	Casey & Bellville
Lacona	Warren	.....	9	.....	.....	.....	.....	.....	.....	.....	4.23	+1.52	1.10	....	8	15	10	6	.....	Agent C., B. & Q. Ry.
Lamoni	Decatur	.....	....	53.0	.....	84	14	29	30	37	8.83	.....	2.89	T	9	17	3	11	s	T. J. Fitzpatrick
Lenox	Taylor	1,250	13	51.8	— 1.8	83	14	26	28	34	7.57	+5.04	2.25	4.0	9	20	2	9	s	J. T. Hurley
Leon	Decatur	1,120	6	51.8	— 1.8	84	14	29	30	44	5.45	+3.37	1.75	T	8	20	0	11	s	Morris Gardner
Massena	Cass	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. A. Hill
Mt. Ayr	Ringgold	1,236	15	52.4	— 2.5	86	14	27	28	39	7.23	+4.97	2.20	2.0	10	16	5	10	se	A. F. Beard
Mt. Pleasant	Henry	729	26	53.0	+ 0.5	82	*14	28	31	34	1.01	— .87	.39	....	6	17	6	8	se,sw	Prof. J. W. Edwards
Omaha, Neb	Douglas	1,040	38	53.1	— 1.1	85	14	32	30	29	1.92	— .43	1.00	T	6	14	7	10	s	Weather Bureau
Oskaloosa	Mahaska	843	24	53.2	+ 1.1	84	14	26	12	37	1.86	— .34	.96	....	6	22	0	9	sw	Jos. Boyd
Ottumwa	Wapello	649	14	53.7	— 1.3	89	14	29	*9	44	1.23	—1.72	.31	....	9	15	5	11	nw	Dr. Jas. A. Hull
Pacific Junction	Mills	960	9	51.7	— 2.7	85	*14	26	12	41	3.44	+1.14	1.20	T	6	14	9	8	n	H. H. McCartney
Pella	Marion	877	6	53.4	— 0.2	84	14	28	31	34	2.82	+ .23	1.04	....	9	....	....	....	se	T. W. Cox
St. Charles	Madison	1,070	7	53.3	— 2.2	85	*14	29	*30	40	4.27	+4.86	1.21	T	11	17	7	7	ne	R. D. Minard
Sigourney	Keokuk	877	12	53.2	— 1.1	85	14	27	31	35	1.56	—1.00	.44	....	7	5	21	5	s	J. T. Parker
Stockport	Van Buren	.....	6	53.0	.....	85	14	25	31	34	.78	—1.18	.22	....	7	21	2	8	s	C. L Beswick
Thurman	Fremont	.....	11	52.2	— 2.6	87	14	24	12	41	4.10	+ .93	1.38	4.5	7	16	4	11	nw	C. R. Paul
Wapello	Louisa	588	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Geo. W. Schofield
Washington	Washington	769	27	53.0	+ 0.8	84	*14	28	31	35	1.02	—1.02	.50	....	6	13	12	6	sw	Wm. A. Cook
Winterset	Madison	1,129	17	51.8	— 1.5	81	*14	28	30	31	5.64	+3.40	1.63	....	9	15	8	8	s	Dr. Robert S. Cooper
Woodburn	Clarke	961	9	52.4	.....	89	16	21	*9	47	4.15	+2.13	1.50	T	9	17	6	8	sw	C. B. McDonough
Average		.....	....	52.6	— 1.1	84.8	.....	26.4	.....	39.1	3.64	+1.29	.....	4.3	8	16	6	9	s	
State average		.....	....	51.1	— 0.8	82.9	.....	24.7	.....	38.5	3.38	+1.03	.....	2.6	8	16	6	9	s	

*And other dates. a one day missing, b two days; c three days; d four days, etc. ‡ Received too late to be included in average.

THUNDERSTORMS—STATIONS AND DATES

NORTHERN SECTION.

Stations	Dates
Alta	20
Charles City	20
Grand Meadow	22
Mason City	21
Northwood	21
Pocahontas	20,21
Ridgeway	20
Waverly	20
West Bend	21

CENTRAL SECTION

Stations	Dates
Audubon	5,21
Baxter	21
Carroll	5
Delaware	6,21
Des Moines	18,20
Dubuque	21
Grinnell	6,20,21
Iowa Falls	19
Olin	6,21
Onawa	18

SOUTHERN SECTION

Stations	Dates
Allerton	21,22
Atlantic	20
Columbus Junction	21
Earlham	19,20,21
Fort Madison	24
Indianola	21
Keokuk	6,21
Omaha, Neb.	5
Thurman	18,19,20

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF OCTOBER, 1908

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | Monthly Mean | |
|---|---|---

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF OCTOBER, 1908—CONTINUED

STATIONS	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30		31		Monthly Mean	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Pella	59	33	69	33	74	43	76	42	77	49	70	52	64	41	58	32	66	34	64	38	58	31	65	31	78	44	84	53	83	59	82	62	83	64	78	49	70	48	76	59	71	57	66	41	77	49	48	38	46	35	47	39	48	38	43	35	46	31	62	42.1
Plover	59	27	71	40	76	40	76	40	74	49	65	50	63	30	58	25	63	30	61	30	53	24	63	26	80	45	78	46	80	46	77	56	80	60	72	48	70	41	76	40	70	40	69	35	74	49	41	34	45	30	44	38	45	30	44	29	45	27	55	30	61	36.8
Pocahontas	57	28	72	45	74	47	73	43	63	49	63	49	53	33	55	28	64	35	57	39	50	25	62	29	73	44	80	46	77	56	80	60	72	48	66	45	69	46	72	52	66	49	57	32	75	46	43	32	45	30	45	29	45	30	45	30	45	28	59	39.0
Ridgeway	58	30	65	32	75	44	75	40	78	45	70	53	63	38	55	28	64	35	64	37	60	29	61	29	74	42	80	55	82	56	86	58	80	60	65	46	66	45	73	50	69	48	75	56	75	52	43	33	45	30	45	30	46	30	46	30	46	30	59	39.1
Rockwell City	60	30	65	38	70	40	75	43	65	43	65	40	58	40	65	40	65	35	60	35	58	28	63	30	80	55	82	56	84	58	80	57	79	57	80	41	78	45	79	44	75	43	74	41	78	46	42	32	43	30	43	30	43	30	43	30	43	30	62	40.0
St. Charles	62	32	74	34	75	48	79	44	69	57	72	53	61	41	59	33	69	36	63	41	57	32	66	34	66	27	72	34	75	45	80	48	85	54	85	59	84	62	82	62	84	62	82	62	84	62	42	32	42	32	42	32	42	32	42	32	42	32	62	42.1
Sheldon	63	26	69	44	80	51	82	60	73	45	64	42	56	31	54	25	65	35	65	38	59	24	65	24	79	50	87	48	85	61	83	64	78	59	80	53	79	50	78	41	85	50	84	54	82	56	84	54	80	57	88	60	82	60	82	60	82	60	82	60	82	60
Sibley	61	26	75	26	78	43	76	42	69	43	60	43	53	31	54	26	66	26	54	36	54	25	65	27	72	34	75	45	79	44	85	43	79	44	84	54	80	44	81	57	81	57	81	57	81	57	81	57	81	57	81	57	81	57	81	57	81	57	81	57
Sigourney	57	31	68	37	72	42	76	42	77	47	70	53	62	41	58	30	63	35	54	42	50	25	62	30	72	46	78	54	80	44	84	54	80	57	82	57	81	58	82	57	82	57	82	57	82	57	82	57	82	57	82	57	82	57	82	57	82	57	82	57
Sioux Center	61	30	75	45	76	52	76	46	67	54	60	44	53	33	58	30	63	35	54	42	50	25	65	36	76	49	82	47	81	58	82	57	83	58	83	58	83	58	83	58	83	58	83	58	83	58	83	58	83	58	83	58	83	58	83	58	83	58	83	58
Sioux City	63	31	78	50	75	53	76	52	60	55	59	43	54	36	61	29	65	41	56	39	51	28	65	32	76	41	84	51	83	58	85	50	84	60	81	58	80	57	80	57	80	57	80	57	80	57	80	57	80	57	80	57	80	57	80	57	80	57	80	57
Stockport	55	34	64	38	68	42	73	43	73	47	70	55	63	44	55	34	61	29	66	32	55	34	61	28	76	45	85	52	82	58	86	57	82	61	82	61	82	61	82	61	82	61	82	61	82	61	82	61	82	61	82	61	82	61	82	61	82	61	82	61
Storm Lake	59	30	71	43	74	50	72	48	58	44	60	48	53	34	53	29	63	41	55	41	50	27	62	33	71	33	80	53	86	57	77	63	78	57	78	57	78	57	78	57	78	57	78	57	78	57	78	57	78	57	78	57	78	57	78	57	78	57	78	57
Stuart	65	31	79	41	78	42	80	42	67	52	75	53	67	37	69	31	72	34	67	41	58	29	64	32	76	48	81	54	82	49	85	61	78	59	80	58	80	53	81	57	82	61	83	64	85	61	85	61	85	61	85	61	85	61	85	61	85	61	85	61
Thurman	65	32	78	45	75	53	76	44	70	56	61	52	62	33	59	29	65	27	60	42	54	32	65	24	79	50	87	48	85	61	83	64	76	59	80	58	80	53	81	57	82	56	84	54	82	56	84	54	82	56	84	54	82	56	84	54	82	56	84	54
Tipton	58	34	64	37	75	44	75	44	74	48	69	53	62	46	62	36	63	36	68	39	60	37	60	35	72	40	75	43	76	41	79	50	80	53	78	59	80	58	80	58	80	58	80	58	80	58	80	58	80	58	80	58	80	58	80	58	80	58	80	58
Toledo	53	30	66	37	71	45	73	40	76	46	67	51	59	40	59	31	62	28	61	40	54	31	59	26	75	43	79	53	80	58	81	58	84	60	86	60	86	60	86	60	86	60	86	60	86	60	86	60	86	60	86	60	86	60	86	60	86	60	86	60
Washington	56	31	65	37	70	41	75	41	75	46	69	52	63	42	57	32	63	29	69	37	66	32	65	32	76	41	84	51	83	58	85	50	84	60	84	58	84	58	84	58	84	58	84	58	84	58	84	58	84	58	84	58	84	58	84	58	84	58	84	58
Washta	63	23	76	45	80	56	78	47	76	55	65	43	60	27	66	21	66	30	64	40	55	23	65	22	74	50	87	40	85	55	85	50	84	60	85	60	85	60	85	60	85	60	85	60	85	60	85	60	85	60	85	60	85	60	85	60	85	60	85	60
Waterloo	56	31	66	36	68	45	76	40	77	48	70	55	59	41	58	30	68	30	64	35	59	31	63	27	77	42	81	45	82	49	85	60	82	63	82	63	82	63	82	63	82	63	82	63	82	63	82	63	82	63	82	63	82	63	82	63	82	63	82	63
Waukee	60	29	72	40	75	43	77	41	70	50	70	52	62	37	58	28	69	30	63	41	55	29	65	28	79	36	85	55	85	60	82	63	77	58	76	58	76	58	76	58	76	58	76	58	76	58	76	58	76	58	76	58	76	58	76	58	76	58	76	58
Waverly	52	31	64	36	72	46	73	44	74	50	66	54	54	39	54	31	65	31	59	40	53	32	60	28	74	42	79	49	80	58	82	59	79	59	79	59	79	59	79	59	79	59	79	59	79	59	79	59	79	59	79	59	79	59	79	59	79	59	79	59
Webster City	57	27	70	39	75	43	75	41	72	48	68	49	63	34	55	25	65	27	63	37	57	29	63	23	79	41	82	44	82	57	82	59	79	56	79	56	79	56	79	56	79	56	79	56	79	56	79	56	79	56	79	56	79	56	79	56	79	56	79	56
West Bend	55	28	70	39	73	46	74	40	65	48	63	51	54	32	55	27	63	35	57	37	50	24	61	29	73	44	81	45	80	48	85	56	76	55	77	47	77	47	77	47	77	47	77	47	77	47	77	47	77	47	77	47	77	47	77	47	77	47	77	47
Whitten	54	28	67	38	76	46	75	43	74	41	66	49	60	49	58	28	64	30	60	32	62	34	61	29	76	41	78	43	78	58	79	58	79	58	79	58	79	58	79	58	79	58	79	58	79	58	79	58	79	58	79	58	79	58	79	58	79	58	79	58
Wilton Junction	53	42	65	35	65	42	70	41	75	46	72	50	67	44	65	33	60	29	65	33	61	36	58	32	71	40	76	53	76	56	79	58	76	56	76	56	76	56	76	56	76	56	76	56	76	56	76	56	76	56	76	56	76	56	76	56	76	56	76	56
Winterset	57	34	71	42	72	48	74	43	68	53	67	54	60	39	54	31	60	35	60	42	51	31	61	30	76	45	81	55	81	57	85	57	81	60	82	57	82	57	82	57	82	57	82	57	82	57	82	57	82	57	82	57	82	57	82	57	82	57	82	57
Woodburn	64	25	76	41	77	45	80	35	75	50	75	48	70	30	60	26	68	21	67	30	67	31	66	21	80	37	86	53	85	57	89	60	82	57	82	57	82	57	82	57	82	57	82	57	82	57	82	57	82	57	82	57	82	57	82	57	82	57	82	57
Zearing	65	31	85	35	84	44	76	36	73	45	69	48	69	34	57	31	66	30	61	49	55	29	62	26	77	43	82	50	84	59	82	61	79	56	79	56	79	56	79	56	79	56	79	56	79	56	79	56	79	56	79	56	79	56	79	56	79	56	79	56

part of our season is 10.32 inches. Our pastures have been brown for a long time, and burn readily from sparks of passing trains, unless cropped bare by stock. Meadows yielded a good crop of most excellent hay due to early rains, but the stubble remains brown and looks dead. A great deal of corn is stunted and cannot yield much of a crop, and where no ears have formed, will yield but little fodder. Small grain, especially oats, are good in grain and yield fair to good, where sown early to be developed by the spring rains; in that case the straw is good too, and thus will be quite an item in this winter's feed. It will be seen that even here, where the drouth is extreme, there is not a failure of crops, because our farming operations are sufficiently diversified to make a total failure almost an impossibility.

"THE BELT OF CONTINUOUS DROUTH.

"A belt running diagonally from northwest to southeast through Iowa marked the region of greatest drouth in the state, because no rain fell in this belt amounting to one inch during any ten days of this drouth. From Marshall county a branch of this belt goes east over Iowa and Johnson to Scott county. Throughout this forking belt the drouth has been the most severe, because continuous. In area this comprises probably one-tenth of the entire state. The description given above of the drouth at Iowa City will apply more or less to all parts of this belt."

In years gone by there have been many local drouths, covering a comparatively small area of the state and several that were general over this and adjacent states, but there are no authentic data at hand to verify the statements of the older inhabitants as to their severity.

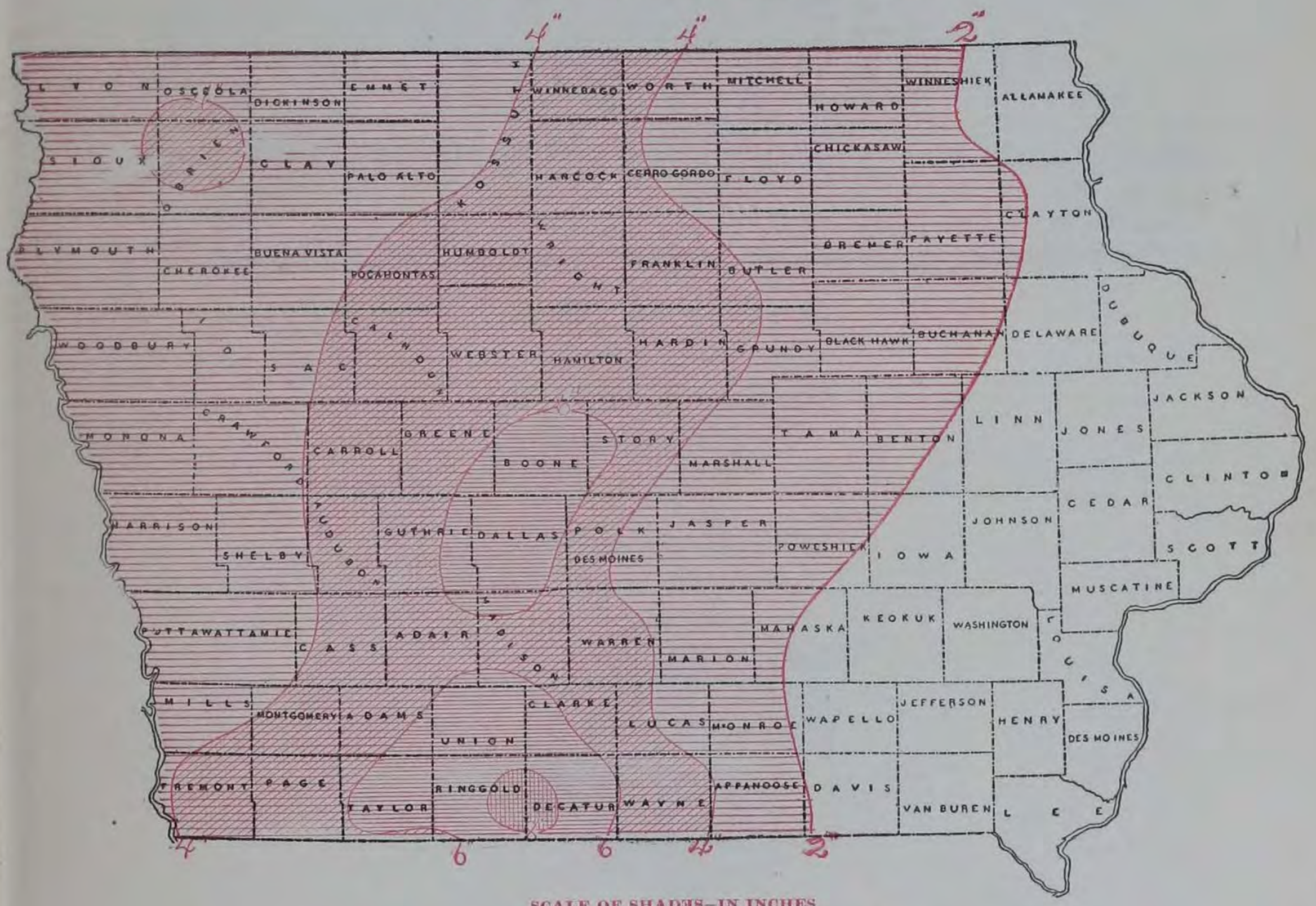
DAILY PRECIPITATION FOR IOWA, OCTOBER, 1908

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	.32	....	.67	.54	1.65	1.45	1.68	.08	.06	....	....	....	....	..	6.55
Albia	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	.07	.24	1.05	.11	.27	.19	.06	.25	.07	....	....	....	2.33
Algona	....	....	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.54	.70	.36	.35	1.20	.15	.15	.13	....	....	....	....	3.88
Allerton	....	....	....	....	.07	T	....	....	....	....	....	....	....	....	....	....	....	T	....	.09	.95	2.32	.22	.67	.21	.07	.14	....	....	....	....	4.74
Alta	....	....	....	....	....	.35	....	....	....	....	....	....	....	....	....	....	....	....	....	1.12	....	....	....	.36	1.06	.06	.25	....	....	....	....	3.20
Alta (near)	....	....	....	....	.40	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	1.22	.05	....	.05	.88	.37	.13	.17	....	....	....	....	3.29
Alton	....	....	....	....	.55	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.66	....	....	....	.55	.81	.18	.03	....	....	....	....	2.78
Amana	....	....	....	....	T	.01	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	.33	.20	....	1.07	.13	.02	.08	.01	....	....	....	1.87
Ames	....	....	....	....	.07	T	....	....	....	....	....	....	....	....	....	....	....	T	....	.52	1.57	1.30	.44	1.96	.21	.15	.01	....	....	....	....	6.23
Atlantic	....	....	....	....	.31	....	....	....	....	....	....	....	....	....	....	....	....	T	1.00	.06	.75	....	.75	.64	.12	.30	.03	....	....	....	....	3.96
Audubon	....	....	....	....	.30	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	1.15	.50	.45	.40	.67	.30	.05	.17	....	....	....	....	4.04
Baxter	....	....	..	....	.15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.12	.64	1.25	.36	.71	.12	.10	.03	....	....	....	....	3.48
Bedford	....	....	....	....	.08	....	T	....	....	....	....	....	....	....	....	....	....	.51	....	.74	1.14	1.24	1.13	1.83	.06	.05	.04	....	....	....	....	6.82
Belle Plaine	....	....	....	....	.50	.24	....	....	....	....	....	....	....	....	....	....	....	....	....	.09	.43	.70	....	.76	.16	.01	.03	....	....	....	....	2.92
Bloomfield	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.13	.20	....	.21	.38	.07	.08	.15	.02	....	....	....	1.24
Bonaparte	....	....	..	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	.27	....	....	.22	.06	.07	.12	....	....	....	....	0.89
Boone	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	.53	.19	1.47	.58	.68	1.47	....	.07	T	....	....	....	5.19
Britt	....	....	....	....	.36	.04	....	....	....	....	....	....	....	....	....	....	....	....	....	.34	1.60	1.04	.51	1.13	.06	.09	.02	....	....	.01	....	5.20
Buckingham	....	....	..	....	.35	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.52	.54	....	....	1.41	.07	.14	....	....	....	....	....	3.03
Burlington	....	....	....	....	....	.07	.01	....	....	....	....	....	....	....	....	....	....	....	....	....	.17	T	....	.37	.07	.08	....	....	....	....	....	0.77
Carroll	....	....	....	....	....	.55	....	....	....	....	....	....	....	....	....	....	....	....	T	1.29	.08	.95	.05	1.21	1.04	.03	.41	.09	....	....	....	5.70
Cedar Rapids	....	....	....	....	T	T	....	....	....	....	....	....	....	....	....	....	....	....	T	.23	.20	.02	.56	.26	.07	....	....	....	....	....	T	1.34
Chariton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.90	1.10	T	.70	.27	T	.18	....	....	....	....	3.15
Charles City	....	....	....	....	.36	.04	....	....	....	....	....	....	....	....	....	....	....	....	....	.35	.46	.17	.14	.89	.12	.11	....	....	....	T	....	2.64
Clarinda	....	....	....	....	....	.10	....	T	....	....	....	....	....	....	....	....	....	.06	....	.77	....	1.80	.55	1.25	.48	.02	.01	....	....	....	....	5.12
Clear Lake	....	....	....	....	.25	.15	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	.70	.41	.60	.97	.07	.15	T	....	....	T	....	3.50
Clinton	....	....	....	....	....	.15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	T	.28	....	.05	....	....	....	....	....	0.58
Columbus Junction	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.14	.56	....	....	.84	.10	T	.24	....	....	....	....	1.88
Corning	....	....	....	....	.04	....	....	....	....	....	....	....	....	....	....	....	....	.23	....	.90	.75	1.11	.50	1.95	.09	....	.10	....	....	....	....	5.67
Corydon	....	....	....	....	.09	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.06	1.02	2.00	.18	.80	.31	.09	.16	....	....	....	....	4.71
Creston	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.24	.84	1.10	1.87	....	2.47	.10	.04	.09	....	....	....	....	6.75
Cumberland	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	.32	....	.18	.65	1.12	.84	.67	.15	.19	....	....	....	....	....	4.14
Davenport	....	....	....	....	....	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.02	....	.12	.58	.01	.04	.07	....	....	T	T	0.87
Decorah	....	....	....	....	.14	.24	....	....	....	....	....	....	....	....	....	....	....	....	....	.09	.22	.21	.08	.77	.03	.12	.10	....	....	....	....	2.00
Delaware	....	....	....	....	....	.45	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.25	....	....	.82	.28	.15	....	....	....	....	....	1.95
Denison	....	....	....	....	.65	....	....	....	....	....	....	....	....	....	....	....	....	T	.27	1.00	.10	.07	.22	.90	.48	.03	.06	....	....	....	....	3.78
Des Moines	....	....	....	....	.13	T	....	....	....	....	....	....	....	....	....	....	....	T	.18	.35	1.28	.09	.37	.96	.21	.11	....	....	....	....	....	3.68
De Soto	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	T	....	.43	2.10	1.51	1.10	.78	.07	.12	....	....	....	....	....	6.31
Dubuque	....	....	....	....	T	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	.03	.18	....	.01	.53	.21	....	.04	....	....	....	....	1.20
Earlham	....	....	....	....	.12	T	....	....	....	....	....	....	....	....	....	....	....	....	.29	.58	1.17	1.65	1.46	.78	.21	.06	.06	....	....	....	....	6.38
Elkader	....	....	....	....	....	.35	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.25	.36	....	.60	.40	....	....	....	....	....	....	1.96
Elma	....	....	....	....	.22	.09	....	....	....	....	....	....	....	....	....	....	....	....	....	.14	.30	.57	.14	.50	.14	.13	....	....	....	....	....	2.23
Estherville	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	T	.92	.01	.06	T	.70	.80	.05	.58	T	....	T	....	3.22
Fairfield	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	.14	.11	....	.12	.09	.05	.08	....	....	....	....	0.61
Forest City	....	....	....	....	....	.45	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	.45	2.25	.80	.20	.55	T	.20	.05	....	....	....	5.00
Fort Dodge	....	....	....	....	....	.23	....	....	....	....	....	....	....	....	....	....	....	....	....	.61	.24	.82	.10	1.30	1.00	T	.13	.02	....	....	....	4.45
Fort Madison	....	....	....	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.52	....	....	.31	T	.11	.17	....	....	....	....	1.41
Gilman	....	....	....	....	.40	.22	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	.45	.60	.06	.68	.05	.06	....	....	....	....	....	2.57
Grand Meadow	....	....	....	....	....	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	.07	.13	.66	....	.91	.15	.10	....	....	....	....	....	2.27
Greene	....	....	....	....	.30	.17	....	....	....	....	....	....	....	....	....	....	....	....	....	.17	.38	.75	.16	1.38	.06	.06	....	....	....	....	....	3.43
Greenfield	....	....	....	....	.15	....	....	....	....	....	....	....	....	....	....	....	....	.40	....	.70	1.35	....	1.70	.70	.10	.05	.10	....	....	....	....	5.25
Grinnell	....	....	....	....	....	.61	....	....	....	....	....	....	....	....	....	....	....	....	....	.07	.58	.65	.08	.10	....	.01	.13	....	....	....	....	2.23
Grundy Center	....	....	....	....	.25	.60	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.58	.90	.17	1.96	.12	.08	....	....	....	....	....	4.66
Hampton	....	....	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	.16	1.28	.73	.10	1.16	.66	....	.08	....	....	....	....	....	4.47
Hancock	....	....	....	....	.52	....	....	....	....	....	....	....	....	....	....	....	....	T	....	.95	.63	....	.10	1.00	.26	....	....	....	....	....	....	3.46
Harlan	....	....	....	....	.46	....	....	....	....	....	....	....	....	....	....	....	....	T	.97	....	.77	.04	.17	.78	.25	.02	.06	....	....	....	....	3.52
Hopeville	....	....	....	....	.09	....	....	....	....	....	....	....	....	....	....	....	....	.14	....	.33	.80	1.25	1.17	1.20	.11	.08	.02	....	....	....	....	5.19
Humboldt	....	....	....	....	.20	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	.72	1.94	.88	.46	1.19	.08	.16	....	....	....	....	....	5.73
Independence	....	....	....	....	....	.80	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	.40	.34	....	1.04	.15	.02	....	....	....	....	....	2.80
Indianola	....	....	....	....	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.15	1.17	1.20	.35	.61	.46	.18	.04	T	....	....	....	4.24
Inwood	....	....	....	....	.56	....	....	....	....	....	....	....	....	....	....	....	....	....	.03	.52	....	....	....	.79	.71	.06	....	....	....	....	....	2.67
Iowa City	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.03	.45	.10	....	.93	.28	.08	.11	.01	....	....	....	1.99
Iowa Falls	....	....	....	....	....	.42	T	....	....	....	....	....	....	....	....	....	....	.03	....	.11	1.45	.74	.15	.92	.80	T	.07	....	....	....	....	4.69
Keokuk	....	....	....	....	....	.16	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	.12	....	....	.31	.05	.16	.05	....	....	....	....	0.87
Keosauqua	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.04	.20	.03	....	.24	.08	....	.10	.04	....	....	....	0.73
Knoxville	....	....	....	....	.12	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.81	.78	.10	.30	.18	.10	.10	....	....	....	....	2.57
Lacona	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	1.08	.18	1.10	.90	.27	.50	....	....	....	....	....	4.23
Lamoni	....	....	....	....	.18	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.30	1.61	2.35	1.28	2.89	.15	.05	.02	....	....	....	....	8.83
Larrabee	....	....	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	.97	....	....	....	.10	.90	.25	.19	.07	....	....	....	....	2.78
Le Claire	....	....	....	....	....	....	.12	....	....	....	....	....	....	....	....	....	....	....	....	T	T	.03	....	.47	.08	.07	.12	.02	....	....	....	0.91
Le Mars	....	....	....	....	.65	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.40	....	....	T	.70	.63	.10	....	....	....	....	....	3.48
Lenox	....	....	....	....	.15	....	....	....	....	....	....	....	....	....	....	....	....	.25	....	.75	2.25	1.32	1.50	1.21	.07	T	.07	....	....	....	....	7.57
Leon	....	....	....	....	.15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.50	1.75	.55	1.15	.20	.10	.05	....	....	....	..	5.45
Little Sioux	....	....	....	....	1.18	.04	....	....	....	....	....	....	....	....	....	....	....	.09	.01	.65	....	....	....	.63	.47	.02	T	....	....	....	....	3.09
Logan	....	....	....	....	.62	.07	....	....	....	....	....	....	....	....	....	....	....	....	.05	.70	.01	....	.02	.86	.38	.02	....	....	....	....	....	2.73
Marshalltown	....	....	....	....	....	.33	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	.41	.94	.11	.16	.44	....	.13	....	....	....	....	2.62
Mason City	....	....	....	....	.27	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.12	1.50	.38	.38	.98	....	.10	....	....	T	....	....	3.73
Mt. Ayr	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	.54	1.21	1.10	1.85	2.20	.06	.06	.06	....	....	....	....	7.23
Mt. Pleasant	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	.39	....	....	.21	.05	.06	.25	....	....	....	....	1.01
Muscatine	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.50	.10	....	.75	.35	.05	.23	....	....	....	....	1.98
New Hampton	....	....	....	....	.22	.39	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	.22	.51	.08	.74	.16	.12	T	....	....	....	....	2.54
Newton	....	....	....	....	....	.07	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	.64	1.00	.28	.63	.18	.07	.05	....	....	....	....	3.02
Northwood	....	....	....	....	.31	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.24	.60	.64	.56	.28	.36	....	....	....	....	....	3.99
Odebolt	....	....	....	....	.60	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.22	....	....	....	1.30	.33	.10	.20	....	....	....	....	3.75
Olin	....	....	....	....	....	.12	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.41	....	....	.80	....	.26	....	....	....	....	....	1.59
Omaha, Neb	....	....	....	....	.37	.01	T	....	....	....	....	....	....	....	....	....	....	T	1.00	....	T	....	.04	.45	.05	T	....	....	....	....	....	1.92
Onawa	....	....	....	....	1.10	....	....	....	....	....	....	....	....	....	....	....	....	.15	.07	.67	.03	....	.03	.65	.40	.07	.03	....	....	....	....	3.20
Osage	....	....	....	....	....	.56	....	....	....	....	....	....	....	....	....	....	....	....	....	.18	.65	.40	.11	1.15	.06	.15	....	....	....	....	....	3.26
Oskaloosa	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.11	.37	.96	T	.25	.13	.04	....	....	....	....	....	1.86
Ottumwa	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.08	.20	.21	.11	.31	.05	.05	.12	....	....	....	....	1.23
Pacific Junction	....	....	....	....	.45	....	....	....	....	....	....	....	....	....	....	....	....	T	.53	.29	.72	....	T	1.20	.25	T	....	....	....	....	....	3.44
Pella	....	....	....	....	.05	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	.73	1.04	.06	.41	.27	.06	.12	....	....	....	....	2.82
Plover	....	....	....	....	.35	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.93	.35	.32	.40	2.96	T	.10	.38	....	....	....	....	5.79
Pocahontas	....	....	....	....	.35	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.90	.62	.63	1.12	.08	.20	.26	....	....	....	....	4.16
Ridgeway	....	....	....	....	.33	.06	....	....	....	....	....	....	....	....	....	....	....	....	....	.24	.08	.19	.13	.64	.15	.28	.03	....	....	....	....	2.13
Rockwell City	....	....	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.00	1.00	1.00	1.30	.15	.15	.30	....	....	....	....	....	5.20
St. Charles	....	....	....	....	.07	....	....	....	....	....	....	....	....	....	....	....	....	.10	.11	.32	.71	1.21	.80	.67	.08	.10	.10	....	....	....	....	4.27
Sheldon	....	....	....	....	.53	....	....	....	....	....	....	....	....	....	....	....	....	....	.66	....	....	.20	2.05	.26	.65	.35	.03	....	....	....	....	4.73
Sibley	....	....	....	....	.33	.07	....	....	....	....	....	....	....	....	....	....	....	....	T	.66	T	....	....	.27	.82	.15	T	....	.04	....	....	2.34
Sigourney	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.08	.29	.31	....	.44	.10	.16	.18	....	....	....	....	1.56
Sioux Center	....	....	....	....	.55	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	.58	....	....	.03	.69	.67	.22	....	....	....	....	....	2.76
Sioux City	....	....	....	.14	.73	....	....	....	....	....	....	....	....	....	....	....	....	T	.84	....	....	....	T	.65	.43	.01	....	....	....	....	....	2.80

DAILY PRECIPITATION FOR IOWA, OCTOBER, 1908—Continued

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Stockport	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	.21	.05	....	.22	.04	.04	.12	....	....	....	....	0.78
Storm Lake	....	....	....	....	.34	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.02	.01	.01	.06	1.15	.60	.11	.17	....	....	....	....	3.47
Stuart	....	....	....	....	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	.14	.73	.40	1.10	1.04	.99	.09	.06	....	....	....	....	....	4.80
Thurman	....	....	....	....	.28	T	.03	....	....	....	....	....	....	....	....	....	....	.18	....	1.08	.70	....	.45	....	1.38	T	T	....	....	....	....	4.10
Tipton	....	....	....	....	....	.12	....	....	....	....	....	....	....	....	....	....	....	....	....	.06	.47	....	....	.61	.11	.18	....	....	....	....	....	1.55
Toledo	....	....	....	....	....	.85	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.55	.55	....	.95	.10	T	....	....	....	....	....	3.00
Washington	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	.25	.04	....	50	.10	.08	....	....	....	....	....	1.02
Washta	....	....	....	....	.50	....	....	....	....	....	....	....	....	....	....	....	....	T	.90	....	....	....	.15	.75	.20	.07	....	....	....	....	....	2.57
Waterloo	....	....	....	....	.32	.26	....	....	....	....	....	....	....	....	....	....	....	....	....	.07	.33	.48	.04	1.09	.12	.05	T	....	....	....	....	2.76
Waukee	....	....	....	....	.10	T	....	....	....	....	....	....	....	....	....	....	....	....	T	.50	2.00	1.40	1.00	.90	.20	.20	....	....	....	....	....	6.30
Waverly	....	....	....	....	.44	.12	....	....	....	....	....	....	....	....	....	....	....	....	....	.08	.31	.50	.10	1.20	.06	.02	....	....	....	....	T	....	2.83
Webster City	....	....	....	....	.19	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	.53	.98	.79	.62	.93	.37	.13	T	....	....	....	....	4.79
West Bend	....	....	....	....	.41	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.70	.21	.44	.41	.66	.19	.10	.15	....	....	....	....	3.27
Whitten	....	....	....	.30	....	.30	....	....	....	....	....	....	....	....	....	....	....	T	....	T	.50	.88	.17	1.31	.05	.06	....	....	....	....	....	3.57
Wilton Junction	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.52	....	1.09	....	....	....	....	....	....	....	....	1.61
Winterset	....	....	....	....	.11	....	....	....	....	....	....	....	....	....	....	....	....	.20	T	.62	1.08	1.63	1.05	.66	.25	.04	T	....	....	....	....	5.64
Woodburn	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.13	.80	1.50	.42	.73	.29	.07	.11	....	....	....	....	4.15
Zearing	....	....	....	....	.25	.23	....	....	....	....	....	....	....	....	....	....	....	....	....	1.30	.93	....	.36	1.20	.09	.12	....	....	....	....	....	4.48

TOTAL PRECIPITATION, OCTOBER, 1908.



SCALE OF SHADES—IN INCHES

Less than 2	2 to 4	4 to 6	6 to 8	More than 8

U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR NOVEMBER, 1908.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1908

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

OF THE

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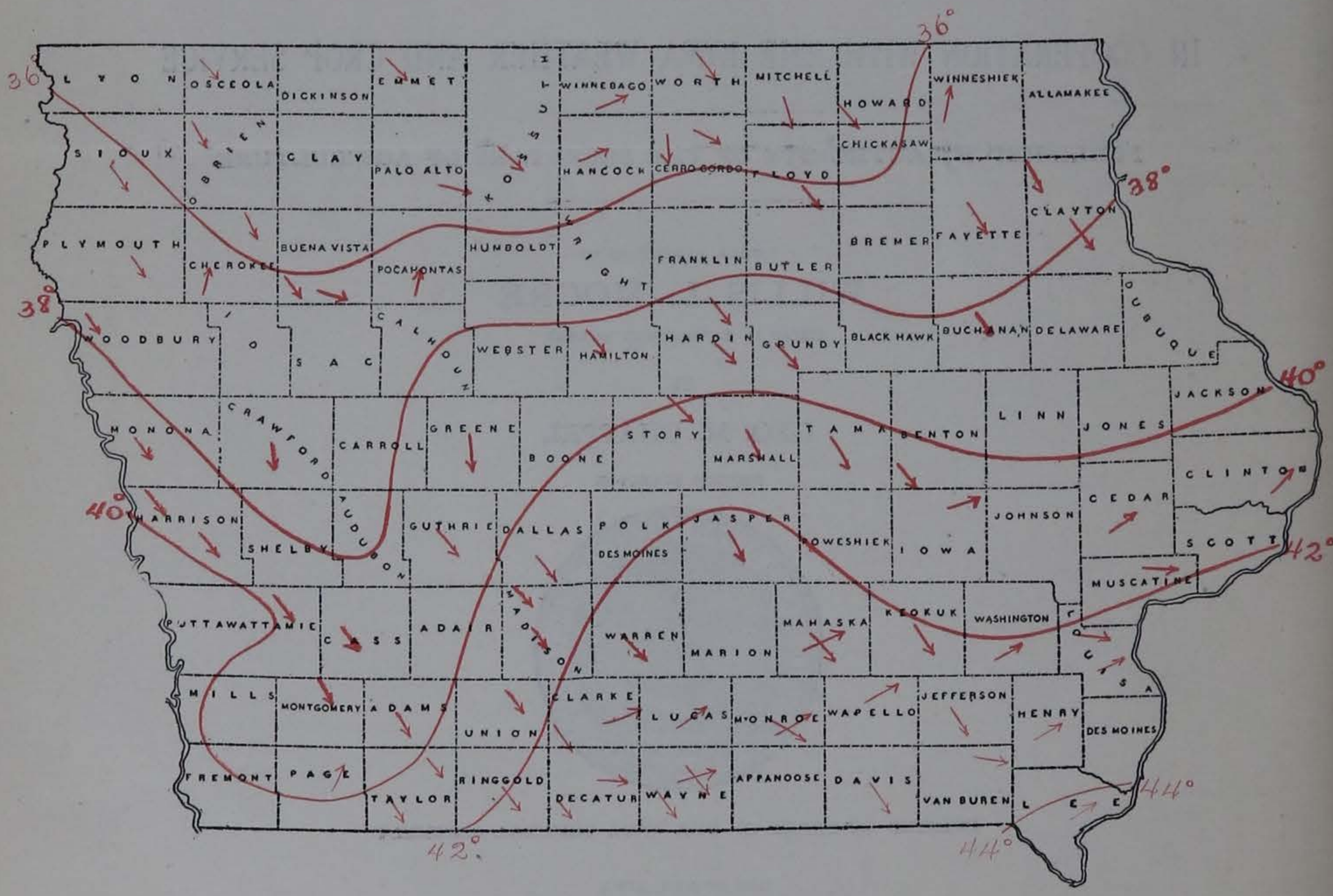
MEAN ISOTHERMS AND PREVAILING WINDS OF NOVEMBER, 1908.

Lines pass thru points of equal temperature. Arrows fly with the wind.



U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IOWA SECTION,

GEO. M. CHAPPEL, Section Director.

VOL. XIX DES MOINES, IOWA, NOVEMBER, 1908. NO. 11

GENERAL SUMMARY.

The weather during the larger part of November was very mild and pleasant, altho the precipitation was above normal in all sections of the state. The rains, however, came in periods lasting but one or two days, and during the intervals there were long spells of fair weather.

The temperature was high to moderate during most of the month; the only periods of cold weather were between the 11th and 17th and on the 30th, and even then the cold was not excessive, there being no station in the state which reported a minimum temperature as low as zero. During the past eighteen years there have been only three Novembers with a higher mean temperature than was recorded during the past month, and but four during which temperatures below zero were not recorded. From the 2d to the 8th and from the 17th to the 25th the maximum temperatures ranged from 50° to above 70°; the highest occurring at most stations on the 18th.

Light and scattered rains fell on the 1st and general rains from the 22d to the 25th and on the 29th and 30th, with snow flurries on the 13th and 14th. The amounts of precipitation were small except from the 22d to the 25th, when they ranged from about half an inch to over two inches; the largest amounts being reported from the eastern counties. The conditions were unusually favorable for field and other out-door work, except during and immediately after the rainy periods when the fields were too soft to haul heavy loads of corn.

Corn husking was rapidly pushed and nearly 90 per cent of that crop had been harvested by the close of the month, with only about 9 per cent reported as being soft. The rains have replenished the water supply, and all wells and streams now have a sufficient quantity to meet all demands during the winter. Considerable fall plowing was done during the month, and meadows, pastures and fall grains are reported as being in excellent condition.

TEMPERATURE.—The monthly mean temperature for the State, as shown by the records of 115 stations, was 39.3°, which is 3.4° above the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 36.9°, which is 3.2° above the normal; Central section, 39.4°, which is 3.7° above the normal; Southern section, 41.5°, which is 3.3° above the normal. The highest monthly mean was 45.2°, at Keokuk, Lee county, and the lowest monthly mean, 35.4°, at Britt and Sibley, Hancock and Osceola counties. The highest temperature reported was 80°, at Saint Charles, Madison county, on the 18th; the lowest temperature reported was 5°, at Sioux Center, Sioux county, on the 30th. The average monthly maximum was 69.1°, and the average monthly minimum was 12.9°. The greatest daily range was 55°, at Sibley, Osceola county. The average of the greatest daily ranges was 39.6°.

PRECIPITATION.—The average precipitation for the State, as shown by the records of 122 stations, was 1.56 inches, which is .17 inch above the normal. By sections the averages were as follows: Northern section, 1.53 inches, which is .22 inch above the normal; Central section, 1.45 inches, which is .02 inch above the normal; Southern section, 1.70 inches, which is .26 inch above the normal. The greatest amount, 3.31 inches, occurred at Clinton, Clinton county, and the least, .21 inch, at Pacific Junction, Mills county. The greatest amount in twenty-four hours, 1.90 inches, occurred at Leon, Decatur county, on the 24th.

The average snowfall, unmelted, was 1.4 inches, the average for the three sections being as follows: Northern section, 2.2 inches; Central section, 1.2 inches; Southern section, 0.9 inch. The greatest monthly snowfall, 7.0 inches, occurred at Sioux Center, Sioux county, and the greatest 24-hour amount, 5.0 inches, at Alton and Sioux Center, Sioux county, on the 25th.

Measurable precipitation occurred on an average of 5 days.

SUNSHINE AND CLOUDINESS.—The average number of clear days was 14; partly cloudy, 7; cloudy, 9. The duration of sunshine was slightly above the normal, the percentage of the possible amount being 59 at Charles City; 57 at Davenport; 54 at Des Moines; 47 at Dubuque; 51 at Keokuk; 55 at Sioux City, and 62 at Omaha, Neb.

WIND.—Northwest winds prevailed. The highest velocity reported was 54 miles per hour from the northwest at Sioux City, Woodbury county, on the 30th.

COMPARATIVE DATA FOR THE STATE—NOVEMBER

Year	Temperature			Precipitation		
	Mean	Highest	Lowest	Average	Greatest	Least
1890	38.6	78	- 2	1.46	3.55	.71
1891	30.5	84	-24	1.70	3.64	.06
1892	33.3	70	- 3	1.10	3.16	.05
1893	34.0	86	-13	1.17	2.56	.05
1894	32.7	72	- 5	.92	2.42	T
1895	34.3	86	-12	1.51	3.01	.45
1896	29.6	82	-15	1.83	4.51	.16
1897	34.3	81	-19	.66	2.24	T
1898	32.2	78	-17	1.50	3.61	.33
1899	43.9	86	8	1.20	2.97	.13
1900	33.5	79	- 6	1.06	3.35	T
1901	35.8	77	2	.86	2.30	.20
1902	41.2	79	4	2.13	4.19	.16
1903	34.2	76	- 5	.52	1.74	T
1904	41.0	80	4	.15	.50	.00
1905	38.4	70	-12	2.84	5.30	.90
1906	35.4	76	- 5	2.03	3.86	.35
1907	36.7	68	- 4	1.03	2.27	.05
1908	39.3	80	5	1.56	3.31	.21

T indicates a Trace.
- indicates temperature below zero.

ATMOSPHERIC PRESSURE AND WIND.

Mean Barometer for the month reduced to sea level, 30.04 inches.
Prevailing direction of Wind, Northwest.

STATIONS	Barometer, in Inches					Wind				
	Mean	Maximum	Date	Minimum	Date	Movement	Maximum Velocity—miles	Direction	Date	Average Hourly Velocity
Charles City	30.03	30.52	12,13	29.33	25	53.53	30	NW	30	7.2
Davenport..	30.08	30.53	13	29.41	24	54.01	30	SW	25	7.5
Des Moines.	30.03	30.54	12	29.34	24	56.49	32	SW	25	7.8
Dubuque....	30.04	30.53	13	29.39	25	38.37	27	SW	25	5.3
Keokuk	30.07	30.56	27	29.44	24	56.99	32	SW	24,25	7.9
Omaha, Neb.	30.06	30.65	12	29.38	25	60.63	38	NW	30	8.4
Sioux City ..	30.04	30.62	13	29.43	30	82.88	54	NW	30	11.5

OBSERVERS' REMARKS.

AFTON.—*N. W. Rowell.* Long periods of wet followed by long periods of dry weather have made unusual climatic conditions thruout the year. About 90 per cent of the corn has been harvested and owing to the excessively wet and dry periods there is a large acreage of plowing to be done.

ALBIA.—*J. I. Chenoweth.* The weather was mostly clear with no measurable precipitation up to the 23d. The first snow fell on the 13th and 14th, but melted as fast as it fell.

ALLERTON.—*Mrs. Geo. Shriver.* The corn is nearly all in crib. The yield and quality is fair.

ALTA.—*David E. Hadden.* The month was 3.5° warmer than the 18-year normal, and the precipitation was .32 inch above the normal for the same period. The month as a whole was pleasant; nearly all precipitation occurring in the last week.

ALTON.—*W. S. Slagle.* A fine month for picking corn up to the 23d. The corn is in fine marketing condition and nearly all of it was in splendid condition when picked.

AMANA.—*Conrad Schadt.* The first and second decades were dry and generally pleasant. The weather was very favorable for corn harvesting and field work. There was a thunderstorm on the evening of the 23d, with heavy rainfall.

BONAPARTE.—*B. R. Vale.* The monthly precipitation was 2.34 inches. The month was dry until the 22d, and fine for corn husking. There were no severe storms during the month, and stock is still on pasture.

BLOOMFIELD.—*F. H. Roberts.* Thunderstorms and warm weather on the 23d and 25th were like spring showers.

BRITT.—*Geo. P. Hardwick.* The temperature and precipitation were above the normal and pasturage was good up to the 15th. The yield of corn exceeded expectations and the crop was cribbed in good condition. There has been more than the usual amount of clover seed secured.

BURLINGTON.—*M. E. Poppe, Jr.* The first snow of the season fell on the 14th.

CHARITON.—*C. C. Burr.* The month was all that could be desired for field work and stock is going into winter quarters in good condition.

CLINTON.—*Luke Roberts.* The weather was fine for all out-door work and corn husking was rushed. Like October, most of the rainfall came during the last decade. The stage of water in the Mississippi river has remained low; the average being 2.6 inches above low water mark.

CRESTON.—*Rev. W. L. Gaston.* The weather has been fairly good during the month. Pasturage has been excellent and stock is doing well.

ELLIOTT.—*Henry Barnes.* A very good month for corn gathering and about 85% of the crop is now in crib, but about 20% of the crop is reported as being soft. The month closed with a cold wave.

FAIRFIELD.—*Prof. R. Monroe McKenzie.* The weather was very dry until the 23d but nearly as much rain fell during the last week as fell during the two preceding months and the first 23 days in November. The dry weather has made favorable conditions for getting in the corn crop.

FOREST CITY.—*J. A. Peters.* About all the corn is in the cribs and the ground was still soft at the close of the month.

POSTVILLE.—*F. L. Williams.* A beautiful rainbow was observed during the shower on the 25th. The weather was favorable for farm work and there have been more stalk fields plowed than usual at this season of the year.

GRINNELL.—*D. W. Brainard.* The past month has been one of the most beautiful and pleasant Novembers in my experience of 40 years in Iowa. It was ideal for picking corn and caring for live stock and there was no frost in the ground at the close of the month.

HANCOCK.—*W. Armstrong.* Corn husking was about completed at the close of the month.

INWOOD.—*F. B. Hanson.* Corn husking was delayed by wet weather during the last week of the month, but about 85% of the crop has been cribbed with an average yield of about 55 bushels per acre.

KEOSAUQUA.—*J. H. Landes.* November was a beautiful fall month. The fine dry weather of the first three weeks was just what was needed to dry the late or soft corn and for gathering the early or matured corn.

LARRABEE.—*H. B. Strever.* November was almost an ideal month for cribbing corn and husking was nearly completed at the end of the month. There has been less than the usual amount of fall plowing done owing to lack of rainfall.

MOUNT AYR.—*A. F. Beard.* A thunderstorm occurred on the afternoon of the 23d.

PERRY.—*J. A. Harvey.* The weather turned cold on the 30th with a brisk north wind. The temperature fell 25° during the afternoon.

POCAHONTAS.—*F. E. Hronek.* Corn was all gathered without having to husk in the snow.

SHELDON.—*A. W. Beach.* Good weather for husking corn. We had an extra large acreage and the yield will average more than 50 bushels of the best corn we have had in years. About 90% of the crop is in crib and the roads are good for marketing grain.

STOCKPORT.—*C. L. Beswick.* About all of the corn has been gathered but the yield is lighter than anticipated.

WASHTA.—*H. L. Felter.* There was some plowing done about Thanksgiving time.

WAVERLY.—*H. S. Hoover.* The weather has been excellent for out-door work and nearly all of the corn has been harvested.

IOWA CROPS—FINAL REPORT, 1908.

Following is a summary of crop reports from correspondents of the Iowa Weather & Crop Service, showing the average yield per acre and total yields of staple soil products, and the average prices at the farms or nearest stations, December 1, 1908. The value gained by feeding farm crops for the production of live stock, poultry, and dairy products is not taken into consideration in this report.

CORN.—A revised report of the estimated corn acreage, made July 1, after the heavy rains had ceased, indicated that the area planted this year was 8,399,610 acres, or 458,390 acres less than the area planted in 1907. The average yield per acre for the state this year was 35.9 bushels, making a total yield of 301,873,150 bushels. This exceeds the average yield of the ten preceding years by over ten million bushels. The average farm price on December 1st was 51c per bushel, making the aggregate value $153,955,306, and the most valuable corn crop ever raised in the State. Owing to the high temperature and dry weather in September, the late planted fields were rushed toward maturity too rapidly, and as a result about 9% of the crop is reported as being soft; otherwise the condition of the crop is excellent.

WHEAT.—Winter wheat area harvested, 85,147 acres; yield per acre, 19.7 bushels; total yield, 1,678,540 bushels; average price, 86 cents per bushel; total value, $1,443,544. Spring wheat area harvested, 323,467 acres; average yield, 15.4 bushels per acre; total product, 4,968,250 bushels; price per bushel, 86 cents; total value, $4,272,695; aggregate value of wheat, $5,716.239.

(Continued on page 128) 129

Counties	Winter Wheat		Spring Wheat		Corn		Oats		Rye		Barley		Flax Seed		Potatoes		Hay (Tame)		Hay (Wild)	
	Bushels per acre	Total Bushels	Bushels per acre	Total Bushels	Bushels per acre	Total Bushels	Bushels per acre	Total Bushels	Bushels per acre	Total B'sh'ls	Bushels per acre	Total Bushels	Bushels per acre	Total B'sh'ls	Bushels per acre	Total Bushels	Tons per acre	Total Tons	Tons per acre	Total Tons
Adair	22	1,210	14	35,840	39	3,361,400	28	922,320	20	1,900	29	74,240	....	.....	76	73,720	1.6	74,780	1.5	6,630
Adams	23	17,710	16	21,120	30	2,076,000	20	427,800	19	3,420	25	43,000	....	.....	75	43,500	1.8	58,590	1.6	38,080
Allamakee	15	15,370	13	7,410	32	1,218,200	27	567,800	16	10,560	28	330,600	10	2,700	75	84,000	1.8	77,700	1.8	1,690
Appanoose	18	18,070	17	340	30	1,569,000	19	380,760	15	9,150	23	2,530	....	.....	46	28,750	1.5	114,370	1.0	2,070
Audubon	22	880	15	111,750	35	3,007,900	21	760,620	20	220	28	171,360	....	.....	108	84,240	1.6	51,100	1.1	4,290
Benton	26	1,040	18	8,280	42	5,557,000	30	2,126,400	20	6,200	31	374,170	....	.....	84	135,240	2.0	97,160	1.7	17,000
Black Hawk	20	600	14	2,000	40	3,721,600	31	1,648,200	18	27,180	32	128,640	....	.....	98	291,000	1.8	53,100	1.3	14,390
Boone	21	940	15	22,500	39	3,681,600	30	768,300	18	4,860	32	22,400	....	.....	125	133,750	1.8	42,960	2.0	35,600
Bremer	24	600	23	3,450	37	2,271,800	30	1,521,600	19	11,400	31	108,190	9	900	118	263,140	2.3	46,590	1.6	33,040
Buchanan	19	250	18	1,900	34	2,745,000	28	1,402,500	18	8,460	25	73,250	8	480	92	90,160	1.9	75,000	1.4	18,900
Buena Vista	20	540	15	18,900	34	3,242,200	22	1,622,900	12	1,200	23	23,690	10	4,000	142	170,400	1.7	38,500	1.6	30,560
Butler	15	450	16	3,040	36	3,829,680	30	2,170,500	19	24,890	28	57,400	....	.....	114	172,140	1.9	44,890	1.5	17,325
Calhoun	16	560	15	11,620	36	3,450,600	29	2,036,000	20	4,000	30	58,500	8	2,000	81	85,860	1.7	30,990	2.0	37,400
Carroll	18	1,270	14	103,700	38	4,028,000	25	1,511,500	17	1,190	25	98,500	8	600	85	148,750	1.5	34,690	1.5	20,000
Cass	22	30,800	16	300,600	36	3,647,500	19	752,200	21	3,528	29	98,300	....	.....	94	121,260	1.7	68,800	1.5	4,200
Cedar	25	9,200	18	17,460	40	4,138,800	28	881,100	19	10,260	30	389,700	....	.....	119	120,190	2.2	101,750	2.0	6,000
Cerro Gordo	....	.....	13	5,300	32	2,818,000	24	1,791,800	16	12,600	20	38,600	10	6,100	90	131,400	2.1	63,650	1.7	20,300
Cherokee	24	1,920	15	53,100	41	4,458,700	26	1,824,160	16	320	27	94,500	9	540	155	209,200	2.0	58,160	1.3	17,238
Chickasaw	20	800	18	10,000	35	1,470,700	27	1,673,730	19	8,550	32	148,800	12	28,800	75	86,250	1.6	39,760	1.2	18,990
Clarke	18	9,720	14	560	34	1,736,700	23	370,600	15	1,800	25	10,750	....	.....	90	45,000	1.2	56,040	1.1	260
Clay	20	2,000	15	16,800	32	2,260,800	25	1,646,000	15	1,800	23	36,570	10	1,500	142	110,760	1.8	51,730	1.5	27,790
Clayton	18	16,920	16	18,000	40	2,942,400	28	1,632,960	20	39,200	26	364,000	10	200	78	133,770	2.2	113,100	1.8	5,600
Clinton	20	9,300	15	20,250	39	4,371,510	27	1,057,000	16	18,700	27	219,500	....	.....	94	125,000	1.5	77,500	1.8	7,300
Crawford	18	2,480	14	270,300	39	5,267,700	25	1,458,000	20	2,400	32	118,000	....	.....	83	143,500	2.3	101,200	2.0	15,100
Dallas	22	12,760	15	18,450	42	4,672,080	30	1,290,900	19	9,120	30	41,100	....	.....	72	49,680	1.9	53,880	1.8	13,932
Davis	16	15,920	....	.....	27	1,178,280	20	393,200	16	18,880	25	1,500	....	.....	95	48,450	2.2	93,940	1.8	100
Decatur	19	25,990	....	.....	32	1,765,200	21	333,690	15	9,420	23	920	....	.....	70	31,920	1.4	58,200	1.2	850
Delaware	23	920	20	3,340	34	3,148,400	30	1,179,600	17	20,570	30	393,600	10	350	110	146,300	1.7	87,690	1.2	85,900
Des Moines	19	59,390	14	280	35	2,076,000	19	458,470	17	17,170	17	17,730	....	.....	60	70,200	1.5	38,310	1.4	770
Dickinson	....	.....	12	12,200	25	959,000	21	857,000	15	1,300	21	63,200	12	9,600	92	53,360	1.6	24,840	1.2	20,120
Dubuque	20	1,920	19	19,190	40	2,541,200	28	1,267,280	16	5,440	28	174,160	....	.....	89	214,490	1.7	82,620	1.6	3,470
Emmet	18	630	16	11,360	27	1,224,180	23	993,830	15	1,650	26	15,080	10	6,800	95	48,450	1.6	31,440	1.2	14,880
Fayette	18	3,110	13	10,140	33	2,841,630	30	1,965,300	16	4,800	22	40,040	10	8,550	90	144,900	1.8	98,910	1.0	13,370
Floyd	17	270	14	2,390	33	2,501,070	28	2,059,680	18	14,400	24	58,320	11	10,120	65	92,950	1.9	25,080	1.6	7,720
Franklin	....	.....	14	20,300	37	3,674,100	31	2,342,670	16	5,920	27	39,150	10	3,400	100	152,000	1.4	40,490	1.2	18,780
Fremont	20	53,200	16	50,720	28	2,912,000	18	259,740	15	4,800	18	2,340	....	.....	105	65,625	1.5	31,800	1.5	6,250
Greene	19	570	12	4,200	41	4,248,400	27	1,311,390	15	3,900	25	38,750	10	600	96	98,800	1.7	42,730	1.1	17,100
Grundy	18	900	17	14,670	42	4,191,600	35	2,297,000	15	670	30	168,900	12	240	125	416,200	2.1	48,670	1.5	13,300
Guthrie	24	5,230	16	42,080	43	3,608,900	27	893,160	13	1,794	24	38,400	....	.....	75	69,750	2.0	66,820	1.8	9,900
Hamilton	22	5,870	17	32,640	38	3,624,400	30	1,922,100	25	2,300	26	14,000	13	3,900	101	103,000	2.0	48,180	1.5	29,490
Hancock	20	600	17	30,700	32	2,290,200	25	2,017,500	20	2,400	26	39,520	9	4,450	110	93,500	1.8	38,600	1.3	21,800
Hardin	17	1,700	17	40,200	39	3,903,900	33	2,061,500	20	3,000	33	43,560	10	400	95	113,050	1.8	44,000	1.4	20,700
Harrison	25	72,200	15	348,100	30	3,774,300	25	551,500	18	16,300	26	55,100	....	.....	50	61,000	1.5	31,680	2.0	26,100
Henry	19	23,560	....	.....	38	2,662,200	23	653,400	17	24,820	22	11,200	....	.....	65	37,700	1.8	42,260	1.5	60
Howard	18	900	16	11,840	27	1,193,900	23	1,200,140	17	5,690	27	214,100	11	86,400	47	36,190	2.0	72,240	1.2	13,140
Humboldt	....	.....	15	48,000	32	2,115,200	27	1,488,500	15	1,650	31	28,200	10	2,600	100	66,000	2.0	42,720	1.6	24,400
Ida	18	4,500	15	95,800	38	3,174,900	26	1,007,500	18	630	26	204,360	....	.....	98	92,120	1.6	41,200	1.4	4,950
Iowa	20	7,500	14	15,680	39	3,759,210	28	1,132,000	17	8,410	26	64,740	....	.....	80	106,400	1.8	89,670	1.5	1,410
Jackson	20	6,600	16	19,500	36	2,574,000	26	783,900	19	2,050	25	153,200	....	.....	75	90,370	1.6	100,900	1.5	2,670
Jasper	22	8,580	17	61,540	41	4,971,200	25	1,292,250	15	7,800	29	44,080	....	.....	75	91,500	1.8	81,600	1.6	3,480
Jefferson	20	39,400	17	1,870	38	1,916,720	23	500,000	15	25,800	28	17,360	....	.....	60	26,400	1.6	53,000	1.6	60
Johnson	27	6,900	20	17,400	40	4,099,600	29	1,373,100	19	26,900	31	142,910	....	.....	90	118,800	2.1	107,200	1.9	3,500
Jones	23	920	20	7,000	36	2,705,000	30	856,800	14	10,200	31	230,600	....	.....	90	106,200	2.0	99,200	1.8	1,500
Keokuk	21	17,400	16	10,000	39	3,496,700	24	846,400	18	17,190	23	74,000	....	.....	91	74,600	2.2	100,800	1.8	450
Kossuth	20	800	19	77,500	31	3,651,800	27	3,022,920	15	6,150	24	58,800	8	11,200	60	94,200	1.8	62,700	1.5	83,100
Lee	20	174,400	....	.....	32	1,765,760	14	300,400	14	42,000	20	1,300	....	.....	53	70,200	1.6	63,000	1.5	46,300
Linn	23	1,600	19	13,800	39	3,912,800	24	1,166,100	16	12,400	28	36,100	....	.....	70	134,400	1.5	24,720	1.5	8,650
Louisa	24	82,100	20	1,520	36	2,247,480	27	614,520	18	33,800	30	15,300	....	.....	77	43,890	1.9	33,900	2.0	960
Lucas	16	4,900	17	850	32	1,476,160	29	378,400	15	7,100	24	9,800	....	.....	71	29,100	1.4	58,000	1.5	11,700
Lyon	19	4,750	14	116,600	38	3,369,400	23	1,726,100	15	1,500	26	91,780	11	440	76	103,360	1.5	26,400	1.5	16,900
Madison	25	8,500	14	13,300	41	3,341,090	25	564,500	20	6,600	25	89,500	....	.....	95	64,880	1.6	62,650	1.0	22,200
Mahaska	21	12,000	15	12,600	34	3,075,900	24	755,000	20	8,100	29	87,000	....	.....	75	69,000	1.8	59,700	1.5	1,690
Marion	23	28,750	16	38,000	38	3,581,500	25	699,500	20	8,900	30	61,800	....	.....	80	57,600	2.0	63,240	1.7	1,480
Marshall	34	10,900	18	39,000	45	4,606,200	37	1,942,100	24	9,120	30	47,400	12	360	120	200,400	1.8	64,500	1.7	3,670
Mills	22	31,900	11	51,260	34	2,987,200	15	236,550	18	4,770	22	24,640	....	.....	50	38,000	1.3	2,660	1.3	6,200
Mitchell	16	1,440	14	8,600	32	1,759,000	26	1,843,600	17	3,570	26	182,520	10	58,500	95	117,800	1.6	45,130	1.2	3,270
Monona	15	157,000	14	132,300	30	3,630,000	12	353,760	14	4,410	27	76,950	11	1,650	90	112,500	2.0	21,640	2.0	32,100
Monroe	19	26,900	15	630	31	1,122,200	20	181,200	12	3,240	22	6,270	....	.....	53	26,765	1.3	40,580	1.0	1,400
Montgomery	18	44,000	13	115,000	30	2,472,000	18	325,260	14	950	22	38,000	....	.....	70	45,900	1.8	52,400	1.5	1,650
Muscatine	25	24,000	16	13,100	41	2,651,000	30	620,700	17	44,500	20	186,000	....	.....	90	200,700	2.0	48,000	1.9	3,090
O'Brien	19	2,470	13	40,400	39	2,768,200	31	1,911,150	18	1,980	30	416,700	10	1,800	105	137,000	2.1	57,500	1.7	18,400
Osceola	....	.....	11	22,300	29	1,363,580	26	1,827,020	16	3,800	25	215,500	8	6,500	91	53,200	1.5	26,700	1.4	12,800
Page	18	113,700	13	67,500	27	2,768,800	17	323,500	15	9,750	26	36,400	....	.....	65	57,850	1.8	53,740	1.5	6,300
Palo Alto	19	220	12	8,500	28	1,480,300	22	1,239,400	16	960	28	18,340	11	7,700	95	117,800	1.7	24,500	1.4	43,300
Plymouth	24	45,720	15	627,700	41	7,204,100	26	2,164,200	19	3,100	31	312,790	10	3,900	96	179,500	2.4	65,490	1.9	46,100
Pocahontas	....	.....	16	7,400	30	2,349,600	23	1,809,410	20	2,560	25	14,500	12	9,960	74	71,700	2.0	33,600	1.5	37,200
Polk	26	20,600	18	53,100	41	3,737,970	24	977,500	16	4,960	28	13,160	....	.....	80	170,400	1.7	45,840	1.2	8,250
Pottawattamie	20	21,200	14	250,000	31	5,614,720	18	838,600	16	4,240	28	63,840	....	.....	75	203,250	1.9	84,660	1.0	11,580
Poweshiek	22	260	19	21,280	39	3,935,100	27	999,810	16	3,040	30	114,300	....	.....	65	61,100	1.7	70,700	1.0	2,180
Ringgold	19	14,300	15	570	33	2,003,700	19	365,370	20	5,800	26	4,080	....	.....	76	32,300	1.7	82,700	1.1	370
Sac	20	2,260	16	32,160	39	4,276,350	22	1,360,260	20	980	25	134,700	8	1,400	112	120,960	2.1	53,920	1.5	19,900
Scott	26	34,370	20	44,200	38	3,016,400	25	613,000	19	22,900	20	572,000	....	.....	110	669,900	2.1	89,400	1.5	7,500
Shelby	21	3,900	13	182,200	34	3,953,160	16	696,400	25	2,700	28	225,960	10	900	90	116,550	1.8	65,800	1.5	9,670
Sioux	21	18,000	15	467,400	42	6,480,180	27	2,023,600	18	1,800	28	780,920	10	1,100	85	120,700	1.8	43,400	1.2	23,500
Story	18	3,500	17	10,000	45	4,563,000	31	1,476,200	18	4,500	32	23,000	11	440	130	111,800	1.9	51,600	1.2	14,700
Tama	20	400	18	43,200	43	5,052,900	32	1,679,600	19	7,030	29	326,800	....	.....	100	210,000	2.0	42,740	1.1	4,740
Taylor	16	37,600	15	2,850	28	2,228,240	20	384,200	20	13,600	23	45,000	....	.....	80	48,800	1.8	80,400	1.3	1,880
Union	18	5,400	15	1,380	28	1,326,000	20	309,600	17	1,800	18	7,900	....	.....	62	39,680	1.7	58,400	1.4	1,560
Van Buren	14	29,400	....	.....	26	1,130,700	19	364,900	14	25,900	20	1,500	....	.....	50	23,500	1.7	65,700	1.5	310
Wapello	24	41,800	20	1,500	28	1,214,300	18	318,400	16	15,680	19	12,780	....	.....	61	50,000	1.9	57,950	1.5	15
Warren	25	23,450	15	14,400	34	2,538,780	22	550,600	18	7,200	23	26,680	....	.....	130	128,700	1.6	69,400	1.0	1,380
Washington	26	25,740	20	4,740	40	3,564,800	25	1,060,000	20	13,000	25	36,800	....	.....	60	41,160	2.2	83,900	1.9	200
Wayne	19	7,980	....	.....	31	2,139,000	22	470,800	15	4,500	22	440	....	.....	64	32,960	1.8	115,400	1.0	3,020
Webster	18	100	17	54,000	30	3,046,800	28	2,153,760	16	2,200	22	18,500	....	.....	75	85,500	2.1	49,300	1.6	48,100
Winnebago	....	.....	15	62,400	31	1,394,380	21	844,200	19	1,120	27	42,900	9	16,600	100	63,000	1.7	23,800	1.2	22,700
Winneshiek	17	7,760	14	43,400	33	2,157,540	22	1,534,500	20	7,540	21	353,000	10	67,100	62	71,300	1.8	85,000	1.0	11,920
Woodbury	22	84,000	13	181,000	34	5,905,800	23	1,245,450	18	7,900	28	185,600	10	1,400	85	161,500	1.8	41,600	1.8	28,000
Worth	20	400	17	28,700	31	1,133,900	25	15,000	17	2,500	27	59,900	12	42,100	55	28,600	2.1	36,100	1.6	22,640
Wright	....	.....	16	48,100	35	3,201,100	25	1,999,200	18	160	30	37,200	11	3,300	90	90,000	1.9	59,400	1.3	13,500
Total for State	....	1,678,540	....	4,968,250	....	301,873,150	....	112,830,490	....	869,072	....	10,629,660	....	461,580	....	10,658,290	....	5,838,640	....	1,445,980
Average per acre	19.7	.....	15.4	.....	35.9	.....	25.5	.....	17.1	.....	26.7	.....	11.3	.....	89.9	.....	1.8	.....	1.6	.....

CLIMATOLOGICAL DATA FOR IOWA, NOVEMBER, 1908

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in Inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
NORTHERN SECTION																				
Algona	Kossuth	1,213	34	36.5	+ 3.7	64	18	9	*16	34	1.45	+ .17	.83	3.0	5	19	3	8	nw	Dr. F. T. Seeley
Alta	Buena Vista	1,513	17	36.0	+ 3.5	70	18	11	*16	50	1.65	+ .32	.55	4.3	6	13	10	7	nw	D. E. Hadden
Alta [near]	Buena Vista	.....	....	.....	.....	.....	.....	.....	.....	.....	1.72	+ .23	.85	4.0	6	....	....	....	.....	W. J. Minard
Alton	Sioux	1,305	3	35.9	.....	69	18	7	30	41	1.69	.....	.50	6.0	6	18	7	5	nw	W. S. Slagle
Britt	Hancock	1,236	11	35.4	+ 1.8	61	8	6	15	43	1.69	+ .58	1.00	2.3	7	5	15	10	sw	G. P. Hardwick
Charles City	Floyd	1,015	20	36.2	+ 3.2	60	*18	6	30	39	1.32	− .07	.92	1.2	7	2	17	11	nw	Weather Bureau
Clear Lake	Cerro Gordo	1,241	9	37.5	+ 3.4	57	*21	12	17	30	1.48	+ .41	1.10	1.3	5	12	3	15	n	Oscar Stevens
Decorah	Winneshiek	875	15	37.5	+ 4.0	62	22	10	30	40	.80	− .75	.48	T	2	....	....	....	.....	F. H. Baker
Dows (a)	Wright	1,142	8	35.9	+ 1.0	67	18	9	15	37	2.12	+ .88	1.17	...	4	....	....	....	.....	G. D. Flett
Elkader	Clayton	727	27	38.1	+ 4.9	64	* 6	14	17	46	1.19	− .46	.30	1.5	7	19	4	7	nw	Chas. Reinecke
Elma	Howard	.....	....	35.7	.....	60	22	12	*10	41	1.42	.....	.87	1.8	7	7	16	7	nw	H. A Moore
Estherville	Emmet	1,298	12	36.8	+ 5.5	66	18	11	16	46	1.62	+ .38	.90	1.5	4	15	2	13	nw	A. O. Peterson
Fayette (b)	Fayette	1,003	18	36.6	+ 3.7	63	22	12	30	35	1.22	− .40	.57	.5	5	....	....	....	nw	R. Z. Latimer
Forest City	Winnebago	1,226	14	36.4	+ 4.0	62	*18	8	16	44	1.83	+ .60	1.10	2.0	5	15	5	10	sw	J. A. Peters
Grand Meadow	Clayton	1,180	17	37.1	+ 4.1	61	22	15	*15	38	1.41	− .15	.46	1.0	5	7	13	10	nw	F. L. Williams
Greene	Butler	.....	9	38.0	+ 2.1	63	18	13	16	40	1.36	+ .21	.92	.8	6	3	14	13	w	J. L. Cole
Hampton	Franklin	1,155	18	38.0	+ 4.6	65	18	13	*16	35	2.15	+ .59	1.55	.8	4	6	18	6	sw	E. C. Grenelle
Humboldt (c)	Humboldt	1,095	17	40.4	+ 6.4	.....	.....	8	*13	40	1.40	+ .03	.81	2.0	6	....	....	....	.....	H. S. Wells
Inwood	Lyon	1,474	4	36.2	.....	72	18	6	30	43	1.96	.....	1.15	2.3	7	17	5	8	nw	F. B. Hanson
Larrabee	Cherokee	1,266	17	36.1	+ 3.2	68	18	7	30	36	1.42	+ .40	.70	2.6	4	17	7	6	nw	H. B. Streever
Le Mars	Plymouth	1,224	12	36.8	+ 2.3	69	18	11	30	35	1.06	− .17	.40	4.8	5	15	9	6	nw	G. A. C. Clarke
Mason City	Cerro Gordo	1,132	11	35.7	+ 2.9	58	* 8	11	16	34	1.38	− .26	.77	1.0	7	8	13	9	w	J. S. Mills
Merrill	Plymouth	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	Eric Oleson
New Hampton	Chickasaw	1,169	11	36.4	+ 1.7	58	22	11	15	37	1.52	+ .12	1.05	.5	4	19	5	6	w	A. F. Kemman
Northwood (d)	Worth	1,222	12	37.4	+ 4.2	60	*18	8	31	36	1.86	+ .38	.98	3.0	8	14	8	8	nw	Charles H. Dwelle
Osage	Mitchell	1,184	17	37.6	+ 6.7	60	18	11	*15	35	1.71	+ .28	1.35	T	2	18	2	10	nw	Dr. A. D. Bundy
Plover	Pocahontas	1,426	12	36.2	+ 1.9	68	18	7	16	37	1.53	− .09	.95	1.0	4	18	3	9	nw	J. S. Smith
Pocahontas	Pocahontas	.....	4	36.3	.....	68	18	10	*16	33	1.66	.....	1.25	1.0	4	18	2	10	s	F. E. Hronek
Ridgeway	Winneshiek	1,215	10	38.8	+ 1.6	65	18	13	*16	42	1.34	− .48	.64	.5	9	16	8	6	s	Arthur Betts
Rock Rapids	Lyon	1,358	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	W. C. Wyckoff
Sheldon	O'Brien	1,422	8	37.6	+ 1.5	72	18	9	26	44	1.76	+ .68	.75	5.0	5	14	7	9	nw	Dr. A. W. Beach
Sibley	Osceola	1,212	15	35.4	+ 3.4	70	19	8	16	55	2.02	+1.03	.78	5.5	6	17	3	10	nw	H. G. Doolittle
Sioux Center (a)	Sioux	.....	9	36.5	+ 1.2	68	18	5	30	36	1.59	+ .88	.58	7.0	5	15	4	11	nw	J. de Ruyter
Storm Lake	Buena Vista	1,440	12	37.9	+ 1.3	69	21	10	30	35	1.60	+ .58	.77	4.0	4	17	4	9	w	S. B. Fracker
Washta	Cherokee	1,157	10	37.4	.....	68	*16	8	30	47	.70	− .27	.35	2.5	4	19	2	9	s	H. L. Felter
Waverly	Bremer	948	12	a 37.9	+ 2.8	a 63	18	a 14	15	a 41	1.45	+ .05	.99	T	4	9	11	10	.....	H. S. Hoover
West Bend	Palo Alto	1,197	14	36.4	+ 3.9	66	18	9	16	34	1.41	+ .07	.85	2.0	5	14	6	10	w	Phil Dorweiler
Averages	.....	.....	....	36.9	+ 3.2	64.7	.....	9.8	.....	39.4	1.53	+ .22	.....	2.2	5	14	7	9	nw	
CENTRAL SECTION																				
Amana	Iowa	721	31	39.8	+ 9.2	65	22	16	15	39	2.14	+ .41	.90	.3	6	10	13	7	sw	Conrad Schadt
Ames	Story	926	27	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	Iowa State College
Audubon	Audubon	1,301	15	37.4	+ 2.2	69	*22	6	15	38	.90	− .44	.45	3.0	5	16	4	10	nw	Geo. E. Kellogg
Baxter	Jasper	998	8	42.4	+ 5.1	78	18	12	15	48	1.09	− .24	.63	.8	7	16	4	10	sw	W. R. Vandyke
Belle Plaine	Benton	828	18	40.6	+ 5.7	68	18	15	15	40	1.50	− .22	.56	1.1	7	12	10	8	nw	S. P. Vandike
Boone	Boone	1,134	3	39.0	.....	74	18	11	*15	48	1.14	.....	.71	.5	4	19	1	10	.....	Carl Fritz Henning
Buckingham	Tama	.....	8	.....	.....	.....	.....	.....	.....	.....	.75	− .70	.50	T	2	3	21	6	.....	Dr. W. A. Daniel
Carroll	Carroll	1,265	18	37.8	+ 3.6	73	18	11	13	45	1.37	+ .24	.90	1.3	5	20	1	9	.....	Frank Hughes
Cedar Rapids	Linn	733	26	38.9	+ 3.0	66	22	18	15	45	1.44	+ .04	.78	.9	6	8	19	3	.....	Electric Light & P. Co.
Clinton	Clinton	593	40	38.8	+ 3.1	67	19	13	13	42	3.31	+1.47	1.60	1.2	7	11	10	9	sw	Luke Roberts
Davenport	Scott	580	36	41.6	+ 4.1	68	19	18	30	36	2.46	+ .70	.74	T	6	12	9	9	w	Weather Bureau
Delaware	Delaware	1,083	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	Wm. Ball
Denison	Crawford	1,180	13	38.4	+ 2.8	74	18	17	30	37	1.28	+ .27	.65	.8	5	19	4	7	n	W. C. Van Ness
Des Moines	Polk	861	29	41.5	+ 4.7	73	18	14	30	36	.95	− .53	.68	.8	6	8	11	11	w	Weather Bureau
De Soto	Dallas	866	8	40.8	+ 2.1	79	18	16	15	44	1.47	+ .25	1.29	T	4	14	3	13	nw	R. D. Minard
Dubuque	Dubuque	639	35	38.8	+ 2.8	64	22	11	30	37	1.34	− .47	.47	.1	7	12	9	9	sw	Weather Bureau
Fort Dodge	Webster	1,126	8	38.2	+ 3.0	67	18	14	16	43	1.49	+ .27	.92	1.0	4	....	....	....	.....	J. F. Monk
Gilman	Marshall	1,052	9	.....	.....	.....	.....	.....	.....	.....	1.06	− .34	.70	....	4	....	....	....	.....	Jas. L. Wylie
Grinnell	Poweshiek	1,023	16	42.0	+ 6.0	71	*18	15	15	38	1.36	− .27	.82	.5	6	10	10	10	.....	D. W. Brainard
Grundy Center	Grundy	976	17	38.8	+ 4.8	65	18	15	14	35	1.25	+ .03	.90	T	4	19	2	9	nw	W. H. Scott
Guthrie Center	Guthrie	1,077	13	39.4	+ 2.1	73	18	15	15	40	1.03	− .12	.64	2.0	6	14	8	8	nw	D. G. Beardsley
Harlan	Shelby	1,192	9	38.2	+ 1.0	75	18	11	15	41	.79	− .25	.55	.7	6	11	10	9	nw	C. A. Reynolds
Independence	Buchanan	921	43	38.0	+ 5.4	67	18	14	15	42	.94	− .38	.50	.5	6	19	4	7	nw	George Donohue
Iowa City	Johnson	683	49	39.6	+ 3.9	67	*18	18	*13	46	1.84	− .42	.50	.8	8	14	3	13	.....	Prof. Karl E. Guthe
Iowa Falls	Hardin	1,170	15	36.8	+ 3.7	65	18	14	*15	41	1.35	+ .10	.95	.8	4	18	0	12	nw	J. B. Parmalee
Jefferson	Greene	.....	....	39.4	.....	65	21	13	15	36	1.95	+ .64	1.25	2.5	6	10	8	12	n	Geo. W. Jackson
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	3.14	+1.67	1.30	.4	9	13	6	11	sw	Margaret T. Disney
Little Sioux	Harrison	.....	4	39.0	.....	73	18	11	12	44	.86	.....	.60	5.0	4	17	5	8	nw	Geo. H. Gibson
Logan	Harrison	928	42	39.0	+ 3.1	72	18	14	30	51	.80	− .45	.60	1.0	4	6	17	7	nw	Glen H. Stern
Marshalltown	Marshall	947	16	38.0	+ 2.0	71	*18	15	*15	48	1.16	− .13	.75	T	3	3	21	6	nw	Agnes Musil
Montezuma	Poweshiek	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	C. J. Griffin
Muscatine	Muscatine	.....	49	.....	.....	.....	.....	.....	.....	.....	2.78	+ .48	.80	.2	8	17	2	11	sw	Wm. P. Molis
Newton	Jasper	944	19	41.2	+ 6.4	67	18	16	15	37	1.15	− .50	.73	2.0	4	14	8	8	nw	Hon. J. P. Beatty
Odebolt	Sac	1,356	10	38.5	+ 2.0	64	21	12	30	37	1.34	+ .20	.56	3.5	5	18	5	7	.....	E. Starner
Olin	Jones	760	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	Hon. Nathan Potter
Onawa	Monona	1,051	8	40.2	+ 1.9	73	18	15	30	45	.88	− .60	.65	5.0	4	21	0	9	nw	C. G. Perkins
Perry	Dallas	975	7	38.7	+ 0.9	73	18	13	15	35	1.46	+ .01	1.12	1.0	3	....	....	....	.....	J. A. Harvey
Rockwell City	Calhoun	.....	12	40.1	+ 5.1	72	22	16	*12	35	1.85	+ .75	1.10	1.0	4	20	0	10	.....	C. M. Randall
Sac City	Sac	1,278	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	F. E. Stouffer
Sioux City	Woodbury	1,135	17	37.9	+ 3.6	72	18	6	30	36	.73	− .24	.42	5.4	6	9	10	11	nw	Weather Bureau
Stuart (b)	Guthrie	1,216	10	41.4	+ 5.4	75	18	13	30	37	1.23	+ .31	.88	T	3	....	....	....	n	Geo. B. Irick
Tipton	Cedar	807	10	41.1	+ 4.3	65	*19	18	15	33	1.96	+ .14	.57	....	4	21	3	6	sw	F. K. Gregg
Toledo	Tama	856	14	39.4	+ 3.0	66	18	15	15	40	1.30	− .21	.95	.5	3	11	6	13	nw	I. F. Giger
Waterloo	Black Hawk	862	25	39.0	+ 3.3	67	18	17	*15	44	1.72	+ .27	1.32	.8	7	18	5	7	.....	M. L. Newton
Waukee (g)	Dallas	1,039	5	39.0	.....	76	18	16	*15	39	1.18	− .31	1.10	T	2	....	....	....	.....	A. H. Blackmore
Webster City	Hamilton	.....	3	38.6	.....	68	18	13	*15	37	1.12	.....	.76	1.0	4	15	7	8	nw	C. D. Carpenter
Whitten	Hardin	1,036	10	38.6	+ 3.3	67	18	12	15	37	1.29	+ .16	.94	T	7	15	3	12	nw	Dr. Frank P. Butler
Wilton Junction	Muscatine	683	13	40.8	+ 3.5	65	*19	18	*12	38	2.39	+ .62	1.00	....	4	19	6	5	w	Wm. Lang
Zearing	Story	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	W. C. Bean
Average	.....	.....	....	39.4	+ 3.7	69.7	.....	14.0	.....	40.3	1.45	+ .02	.....	1.2	5	14	7	9	nw	

CLIMATOLOGICAL DATA FOR IOWA, NOVEMBER, 1908—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
SOUTHERN SECTION																				
Afton	Union	1,212	14	40.6	+ 3.8	73	18	14	15	32	2.02	+ .79	1.32	2.0	6	15	7	8	sw	N. W. Rowell
Albia	Monroe	959	10	41.1	+ 2.4	74	18	17	*12	48	1.57	− .20	.76	T	5	17	3	10	sw,w	J. I. Chenoweth
Allerton	Wayne	.....	6	42.8	+ 2.2	78	18	15	15	37	1.42	− .43	.51	.5	8	17	1	12	nw	Mrs. Geo. Shriver
Atlantic	Cass	1,164	17	39.0	+ 3.6	70	18	14	30	32	.29	− .69	.16	1.5	3	12	7	11	nw	J. W. Love
Bedford	Taylor	.....	8	40.4	+ 5.0	72	18	8	15	38	1.10	− .19	.65	.8	6	17	2	11	nw	E. E. Healy
Bloomfield	Davis	.....	....	43.0	.....	74	18	15	15	41	2.67	.....	1.36	.5	7	16	9	5	nw	F. H. Roberts
Bonaparte	Van Buren	.....	17	43.0	+ 4.5	73	18	16	*12	44	2.34	+ .54	.76	....	6	....	....	....	.....	Hon. B. R. Vale
Burlington	Des Moines	544	12	42.6	+ 2.9	71	17	19	*14	49	2.45	+ .67	.75	.2	6	21	0	9	sw	W. E. Poppe
Chariton	Lucas	1,042	13	42.0	+ 3.3	77	18	14	15	40	1.35	+ .05	.75	1.0	4	13	8	9	sw	C. C. Burr
Clarinda	Page	1,009	18	40.1	+ 2.3	75	18	10	15	46	1.48	+ .32	.97	1.0	4	14	4	12	s	A. S. Van Sandt
Columbus Junction	Louisa	595	7	42.5	+ 3.5	67	22	18	15	36	2.04	+ .53	.55	.2	7	18	8	4	w	J. B. Johnson
Corning	Adams	1,117	16	39.4	+ 2.2	71	18	13	15	41	1.11	− .09	.72	T	2	18	5	7	nw	Jerome Smith
Corydon	Wayne	1,101	15	43.0	+ 4.3	78	18	14	15	37	1.42	− .03	.60	....	7	15	5	10	sw,nw	Clara Miller
Creston	Union	1,312	3	40.4	.....	75	18	14	15	41	1.48	.....	.79	.3	5	17	1	12	nw	Rev. W. L. Gaston
Cumberland	Cass	.....	9	.....	.....	.....	.....	.....	.....	.....	.76	− .22	.59	1.0	4	17	3	10	sw	J. H. Reppert
Earlham	Madison	.....	6	40.4	+ 2.6	78	18	16	15	40	1.89	+ .55	1.69	T	3	18	2	10	nw	Geo. Phillips
Elliott	Montgomery	.....	3	40.5	.....	73	18	12	15	37	.98	.....	.85	T	3	18	7	5	nw	Henry Barnes
Fairfield	Jefferson	.....	14	43.0	+ 6.1	73	8	18	15	42	2.37	+ .09	1.38	.7	7	18	6	6	nw	R. Monroe McKenzie
Fort Madison	Lee	516	59	.....	.....	.....	.....	.....	.....	.....	3.03	+ .89	1.10	2.0	8	10	8	12	sw	Miss L. A. McCready
Greenfield	Adair	.....	17	40.6	+ 4.0	75	18	14	15	43	.94	− .23	.60	1.0	4	16	6	8	nw	Geo. Brooks
Hancock	Pottawattamie	1,132	2	39.8	.....	72	18	12	15	34	.58	.....	.38	1.0	4	17	3	10	nw	W. Armstrong
Hopeville	Clarke	.....	17	41.2	+ 4.5	76	18	13	15	35	2.58	+1.49	1.56	1.0	8	7	15	8	w,nw	M. T. Ashley
Indianola	Warren	969	17	41.0	+ 2.7	73	18	17	15	34	1.21	− .21	.72	1.0	5	9	9	12	nw	Prof. J. L. Tilton
Keokuk	Lee	574	37	45.2	+ 5.8	70	18	19	15	32	3.05	+1.20	1.14	T	6	14	7	9	sw	Weather Bureau
Keosauqua	Van Buren	644	16	41.0	+ 2.1	71	8	16	15	49	2.48	+ .98	.83	.5	6	8	10	12	.....	J. H. Landes
Knoxville	Marion	920	12	42.2	+ 4.7	72	18	18	15	36	1.11	− .18	.38	1.8	7	13	6	11	sw	Casey & Bellville
Lacona	Warren	.....	9	.....	.....	.....	.....	.....	.....	.....	1.78	+ .31	.90	.4	7	5	19	6	.....	Agent C., B. & Q. Ry.
Lamoni	Decatur	.....	....	42.2	.....	76	18	14	15	35	2.30	.....	.85	.7	7	17	2	11	nw	T. J. Fitzpatrick
Lenox	Taylor	1,250	13	39.8	+ 1.9	70	18	12	15	32	.90	− .32	.53	.5	5	19	3	8	nw	J. T. Hurley
Leon	Decatur	1,120	6	41.2	+ 0.6	71	18	13	15	36	2.69	+ .77	1.90	2.0	6	15	3	12	w	Morris Gardner
Massena	Cass	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	G. A. Hill
Mt. Ayr	Ringgold	1,236	15	41.4	+ 2.5	69	20	12	15	37	2.02	+ .66	1.00	1.4	7	10	9	11	nw	A. F. Beard
Mt. Pleasant	Henry	729	26	42.5	+ 5.1	68	18	17	15	37	2.33	+ .77	.71	1.2	8	15	8	7	sw	Prof. J. W. Edwards
Omaha, Neb	Douglas	1,040	38	41.8	+ 4.1	74	18	12	30	31	.50	− .56	.23	1.1	3	10	4	16	nw	Weather Bureau
Oskaloosa	Mahaska	843	24	41.2	+ 4.2	69	18	17	15	41	2.27	+ .78	.82	.5	7	15	0	15	sw,nw	Jos. Boyd
Ottumwa	Wapello	649	14	43.2	+ 3.7	75	18	18	15	48	1.87	+ .27	1.10	T	4	13	5	12	sw	Dr. Jas. A. Hull
Pacific Junction	Mills	960	9	39.1	0.0	71	18	13	15	42	.21	− .73	.17	.4	3	16	9	5	n	H. H. McCartney
Pella (h)	Marion	877	6	42.2	+ 4.9	77	19	18	14	39	.....	.....	.....	.....	.....	.....	.....	.....	.....	T. W. Cox
St. Charles	Madison	1,070	7	43.0	+ 1.9	80	18	17	15	38	1.97	+ .54	1.47	.4	7	19	6	5	nw	R. D. Minard
Sigourney	Keokuk	877	12	41.7	+ 2.8	69	18	16	*12	41	2.07	+ .52	1.04	.2	6	3	23	4	nw	J. T. Parker
Stockport	Van Buren	.....	6	42.6	.....	71	18	16	*12	39	2.33	+ .82	.71	1.0	9	16	5	9	w	C. L Beswick
Thurman	Fremont	.....	11	39.6	+ 1.0	74	18	7	15	41	.57	− .73	.35	5.0	4	14	4	12	nw	C. R. Paul
Wapello (a)	Louisa	588	10	41.5	+ 0.3	68	*18	20	13	43	2.56	+1.16	.95	T	7	....	....	....	sw	Geo. W. Schofield
Washington	Washington	769	27	41.6	+ 5.4	70	22	16	15	44	2.01	+ .60	.58	....	7	12	11	7	sw	Wm. A. Cook
Winterset	Madison	1,129	17	40.6	+ 3.8	71	18	17	15	31	2.34	+1.05	1.70	1.0	6	13	8	9	.....	Dr. Robert S. Cooper
Woodburn	Clarke	961	9	41.4	.....	77	18	14	*14	46	1.41	+ .17	1.05	1.5	6	11	10	9	sw	C. B. McDonough
Average		.....	....	41.5	+ 3.3	72.9	.....	14.9	.....	39.1	1.70	+ .26	.....	.9	6	14	7	9	nw	
State average		.....	....	39.3	+ 3.4	69.1	.....	12.9	.....	39.6	1.56	+ .17	.....	1.4	5	14	7	9	nw	

* And other dates. a one day missing, b two days; c three days; d four days, etc. ‡ Received too late to be included in average.

THUNDERSTORMS—STATIONS AND DATES

NORTHERN SECTION.

Stations.	Dates.
Alta	25
Alton	23
Elma	23
Fayette	23
Grand Meadow	23
Hampton	23
Inwood	23
Mason City	25
New Hampton	23
Northwood	25
Pocahontas	24
Ridgeway	25
Sioux Center	23
Storm Lake	25
Waverly	22,23

CENTRAL SECTION.

Stations.	Dates.
Amana	23
Baxter	23
Clinton	22
Davenport	22,23,25
Dubuque	22,24
Grinnell	23
Independence	23,25
Iowa Falls	23
Little Sioux	25
Odebolt	25
Waterloo	23

SOUTHERN SECTION.

Stations.	Dates.
Albia	24
Atlantic	25
Bloomfield	22,25
Columbus Junction	22,25
Earlham	23
Fairfield	23,25
Fort Madison	22,25
Keokuk	22,23,25
Keosauqua	23
Lamoni	24,25
Mount Pleasant	22,23
Omaha, Neb.	25
Oskaloosa	22,23
Stockport	1,23,25

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF NOVEMBER, 1908

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | Monthly Mean | |
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DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF NOVEMBER, 1908—CONTINUED

STATIONS	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30		31		Monthly Mean	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Ottumwa	51	30	60	38	64	34	50	40	50	25	65	33	66	34	52	31	50	32	48	33	40	24	38	22	42	21	30	23	45	18	47	22	70	22	75	41	69	47	60	30	65	25	68	27	60	48	58	51	56	43	46	33	47	29	63	31	51	28	...	...	54.5	31.8
Pacific Junction	53	32	56	25	63	32	59	30	59	25	63	32	67	27	64	29	48	25	42	30	34	22	32	15	32	25	33	23	44	16	67	25	71	32	75	41	69	47	60	30	65	25	59	26	55	46	50	39	42	31	40	26	47	18	47	33	51	39	...	...	51.5	26.7
Pella	48	37	54	35	59	34	56	37	54	24	63	38	66	32	65	35	57	28	44	27	38	21	37	19	42	25	42	25	45	18	44	26	70	43	73	38	68	44	61	29	66	28	61	27	61	41	58	52	57	41	49	32	49	28	58	40	53	30	...	...	53.8	30.5
Perry	48	37	54	27	60	32	46	33	57	25	60	36	63	30	60	30	41	23	36	15	34	15	31	12	30	11	25	20	35	10	40	7	59	22	68	44	55	42	54	38	55	39	54	38	51	32	53	40	49	33	49	30	46	14	47	21	46	27	...	...	49.8	27.6
Plover	50	27	56	25	57	35	42	30	56	24	55	30	64	30	60	30	41	23	36	15	34	15	31	12	30	11	25	20	33	13	40	10	59	28	68	44	55	42	54	38	55	42	54	38	53	37	54	43	53	38	53	36	47	21	47	40	47	32	...	...	47.3	25.1
Pocahontas	50	27	59	27	56	37	43	28	56	25	57	35	60	30	59	35	46	23	36	19	29	17	39	14	28	15	24	14	33	13	42	17	65	29	76	37	63	38	59	35	62	38	59	38	57	40	58	48	54	42	55	30	53	26	48	23	53	28	...	...	46.6	26.0
Ridgeway	52	33	61	30	62	37	44	27	50	21	64	22	68	26	65	28	51	28	47	29	45	20	45	16	40	16	42	20	45	17	52	22	72	38	70	35	66	32	62	33	64	42	61	32	61	36	63	40	60	30	60	30	55	25	53	23	55	26	...	...	51.2	26.3
Rockwell City	50	28	59	35	64	32	50	30	59	25	66	30	68	33	69	31	54	39	48	9	51	25	44	23	37	18	39	18	46	8	51	27	69	41	72	44	65	30	64	35	65	31	64	44	62	52	64	44	62	38	62	33	58	29	58	31	58	32	...	...	54.0	26.2
St. Charles	59	35	62	31	61	37	48	36	59	25	66	41	68	33	65	39	62	39	51	32	49	30	46	20	45	18	45	18	46	14	54	31	72	38	75	41	68	42	65	35	66	35	65	39	63	49	65	45	63	43	63	41	61	37	61	37	61	37	...	...	54.4	31.7
Sheldon	57	28	65	26	56	35	48	28	62	25	62	30	62	29	57	33	58	26	44	20	35	14	34	18	28	13	25	16	33	19	41	16	55	27	64	38	59	35	58	35	59	35	58	36	56	40	56	43	54	38	54	39	51	28	51	28	50	28	...	...	50.0	25.3
Sibley	55	29	55	29	64	28	44	27	61	25	57	27	60	28	57	33	58	26	44	20	35	14	34	16	27	12	33	22	41	16	49	23	64	38	66	43	62	52	56	43	64	39	62	49	61	52	64	49	62	49	62	49	61	49	61	49	61	49	...	...	53.1	30.3
Sigourney	49	38	58	34	62	32	54	37	53	21	64	38	65	30	67	32	58	26	44	28	39	19	32	20	27	13	25	20	35	17	37	23	54	36	58	41	55	40	50	38	55	40	52	42	52	40	52	42	52	40	52	40	52	40	52	40	52	40	...	...	46.1	26.9
Sioux Center	50	30	60	30	55	35	44	27	59	26	55	36	59	31	54	35	59	23	34	18	32	20	27	16	26	20	35	17	37	23	54	36	63	46	63	46	59	53	57	40	59	53	57	45	60	53	60	53	60	53	60	53	60	53	60	53	60	53	...	...	47.6	28.2
Sioux City	52	30	61	28	60	37	46	30	64	30	57	40	62	35	55	34	39	28	34	22	34	20	27	16	26	20	35	16	39	18	47	29	67	42	68	43	63	46	59	43	60	44	59	42	59	40	59	42	59	42	59	42	59	42	59	42	59	42	...	...	54.0	28.6
Stockport	48	39	57	33	62	30	53	33	52	21	65	39	66	31	69	32	56	28	46	29	38	25	35	16	33	20	31	21	45	16	44	19	67	28	71	43	66	49	60	27	59	53	57	45	57	43	59	53	57	44	57	44	57	44	57	44	57	44	...	...	47.0	28.8
Storm Lake	50	28	57	31	56	40	50	32	57	28	58	39	61	34	58	38	48	25	35	20	39	27	33	20	31	21	45	16	44	19	42	15	47	17	64	32	75	40	69	38	68	33	67	24	66	41	68	40	66	40	66	40	66	40	66	40	66	40	...	...	53.3	29.4
Stuart	...	...	55	27	62	37	51	34	57	25	62	37	64	32	62	37	58	25	44	27	38	21	37	19	35	24	37	23	42	22	45	7	53	19	68	27	74	33	63	38	67	24	63	38	62	40	63	40	62	40	62	40	62	40	62	40	62	40	...	...	52.2	27.1
Thurman	58	35	55	26	64	29	56	30	60	25	63	32	67	26	65	29	54	25	43	30	35	24	31	18	27	22	38	18	34	30	16	36	66	38	76	37	64	40	61	27	62	40	62	36	63	42	62	42	62	42	62	42	62	42	62	42	62	42	...	...	50.2	32.0
Tipton	44	38	57	37	60	35	50	35	47	25	61	34	60	33	62	36	60	33	42	31	37	23	35	21	33	22	39	15	36	16	47	20	69	42	76	39	68	42	64	40	65	38	64	38	64	40	64	40	64	40	64	40	64	40	64	40	64	40	...	...	50.6	28.3
Toledo	50	37	54	29	58	28	57	31	51	22	61	38	63	30	62	35	57	27	40	21	35	18	31	16	32	22	39	20	40	22	42	16	68	40	76	42	69	42	65	40	66	42	65	42	65	43	65	43	65	43	65	43	65	43	65	43	65	43	...	...	52.0	31.0
Wapello	43	39	53	36	58	32	50	34	48	23	51	27	65	24	65	35	57	30	44	29	39	21	36	17	35	18	28	21	42	16	40	13	68	39	75	40	68	40	66	39	67	39	66	39	66	39	66	39	66	39	66	39	66	39	66	39	66	39	...	...	53.3	29.9
Washington	45	37	59	34	63	32	50	29	42	22	66	34	65	31	69	32	46	26	44	29	37	13	35	13	32	13	28	23	38	20	38	13	68	33	68	33	68	33	67	24	68	33	67	24	67	33	67	33	67	33	67	33	67	33	67	33	67	33	...	...	50.4	27.7
Washta	55	25	64	22	60	38	62	33	60	20	61	32	62	28	58	30	44	20	37	13	35	13	33	18	32	21	29	22	42	17	49	5	65	29	76	37	64	40	61	29	63	27	62	40	62	40	62	40	62	40	62	40	62	40	62	40	62	40	...	...	49.5	28.6
Waterloo	50	31	56	28	60	31	46	32	52	23	62	28	64	31	63	33	45	27	42	25	36	22	33	19	32	23	27	19	41	16	47	16	67	37	76	39	68	42	65	40	66	42	65	42	65	42	65	42	65	42	65	42	65	42	65	42	65	42	...	...	48.6	27.2
Waukee	...	...	...	...	57	32	45	30	...	...	58	32	59	...	60	33	45	26	39	20	36	18	33	15	33	23	30	21	39	13	39	14	68	39	75	40	68	40	66	39	67	39	66	39	66	39	66	39	66	39	66	39	66	39	66	39	66	39	...	...	50.8	26.5
Waverly	50	36	54	28	...	...	46	34	55	23	58	35	61	28	60	36	51	23	41	19	37	17	33	23	30	21	39	13	42	12	37	9	58	24	66	35	58	35	54	25	59	29	58	36	44	21	46	16	40	16	40	16	40	16	40	16	40	16	...	...	46.5	26.4
Webster City	50	36	59	24	49	20	46	34	56	23	57	34	60	29	58	36	44	21	36	16	33	17	29	15	38	20	34	12	36	14	61	24	67	36	75	35	64	40	62	29	63	27	62	41	62	42	62	42	62	42	62	42	62	42	62	42	62	42	...	...	50.5	26.6
West Bend	50	29	56	27	56	36	40	32	56	23	57	34	60	29	58	36	44	21	36	16	33	15	28	17	38	21	30	18	36	18	61	24	67	36	76	35	65	38	63	25	64	34	63	34	63	34	63	34	63	34	63	34	63	34	63	34	63	34	...	...	51.8	29.8
Whitten	48	36	55	27	59	32	46	31	52	22	56	28	62	25	60	30	51	25	38	20	35	15	33	14	30	18	28	19	40	17	44	20	71	42	77	32	70	35	65	28	65	25	64	30	64	30	64	30	64	30	64	30	64	30	64	30	64	30	...	...	50.0	31.2
Wilton Junction	43	40	52	40	60	32	56	40	45	21	60	35	60	30	61	32	52	28	42	20	31	16	29	14	28	20	40	17	44	20	62	32	68	25	77	32	68	33	61	32	64	18	62	42	62	42	62	42	62	42	62	42	62	42	62	42	62	42	...	...	54.8	27.9
Winterset	48	35	51	29	58	36	51	36	54	27	60	40	63	32	61	38	52	28	42	29	34	23	30	20	33	23	27	14	46	14	50	30	68	25	76	32	68	33	59	30	59	40	59	40	59	40	59	40	59	40	59	40	59	40	59	40	59	40	...	...	52.3	28.4
Woodburn	51	36	61	30	60	27	55	35	56	24	68	37	67	25	68	37	58	21	45	22	38	19	37	15	33	23	28	22	40	12	39	14	62	23	70	35	65	34	60	20	62	27	62	38	56	41	58	40	60	34	41	27	53	29	49	25	45	32	52	23	54.8	27.9
Zearing	49	34	51	33	45	33	60	20	55	31	58	30	62	27	62	34	46	23	41	20	36	16	31	15	32	23	28	22	40	12	39	14	62	27	68	33	65	34	56	22	62	27	62	38	56	41	58	40	58	34	41	27	51	30	49	24	42	16	...	...	49.6	26.7

IOWA CROPS—FINAL REPORT, 1908—Continued.

OATS.—The oats crop this season has been below the average in yield per acre and weight per bushel, as a result of rust and other adverse conditions. The area harvested was 4,431,650 acres; average yield, 25.5 bushels per acre; total product 112,830,490 bushels; aggregate value at 43 cents per bushel, $48,517,110. Last season the product was 111,190,400 bushels, valued at $43,364,256. The average total yield for the ten preceding years is 124,433,092 bushels.

BARLEY.—Area harvested, 397,408 acres; yield per acre, 26.7 bushels; total product, 10,629,660 bushels; average price, 50 cents per bushel; total value, $5,314,830. The average total yield for the preceding ten years is 13,629,872 bushels.

RYE.—Area harvested, 50,893 acres; average yield, 17.1 bushels; total product, 869,072 bushels; average price, 63 cents per bushel; total value, $547,515.

FLAX.—Area harvested, 40,833 acres; yield per acre, 11.3 bushels; total yield, 461,580 bushels; average price, $1.01 per bushel; total value, $466,195.

POTATOES.—Area harvested, 118.517 acres; average yield, 89.9 bushels; total product, 10,658,290 bushels; average price, 59 cents; total value, $6,288,391. The total yield is about the same as the average total yield for the preceding ten years.

HAY (TAME).—Average yield per acre, 1.8 tons; total product, 5,838,640 tons; average farm price, $6.16 per ton; value of crop, $35,966,022.

HAY (WILD).—Yield per acre, 1.6 tons; total product, 1,445,980 tons; average price, $5.09 per ton; total value, $7,360,038.

The hay crop as a whole (tame and wild) is over 2,000,000 tons in excess of the ten-year average.

TABULATED CROP SUMMARY.

Corn	301,873,150 bu.	$153,955,306
Winter Wheat	1,678,510 bu.	1,443,544
Spring Wheat	4,968,250 bu.	4,272,695
Oats	112,830,490 bu.	48,517,110
Rye	839,072 bu.	547,515
Barley	10,629,630 bu.	5,314,830
Flax	461,580 bu.	466,195
Potatoes	10,658,290 bu.	6,288,391
Hay (Tame)	5,838,640 tons	35,966,022
Hay (Wild)	1,445,980 tons	7,360,038
Pastures and Grazing	Estimated	100,000,000
Buckwheat	Estimated	110,000
Sweet Potatoes	Estimated	135,000
Sorghum and Broom Corn	Estimated	175,000
Timothy and Clover Seed	Estimated	1,700,000
Alfalfa and Millet	Estimated	525,000
Sweet Corn	Estimated	800,000
Fruit Crops	Estimated	2,500,000
Garden Truck	Estimated	6,000,000
		$376,076,646

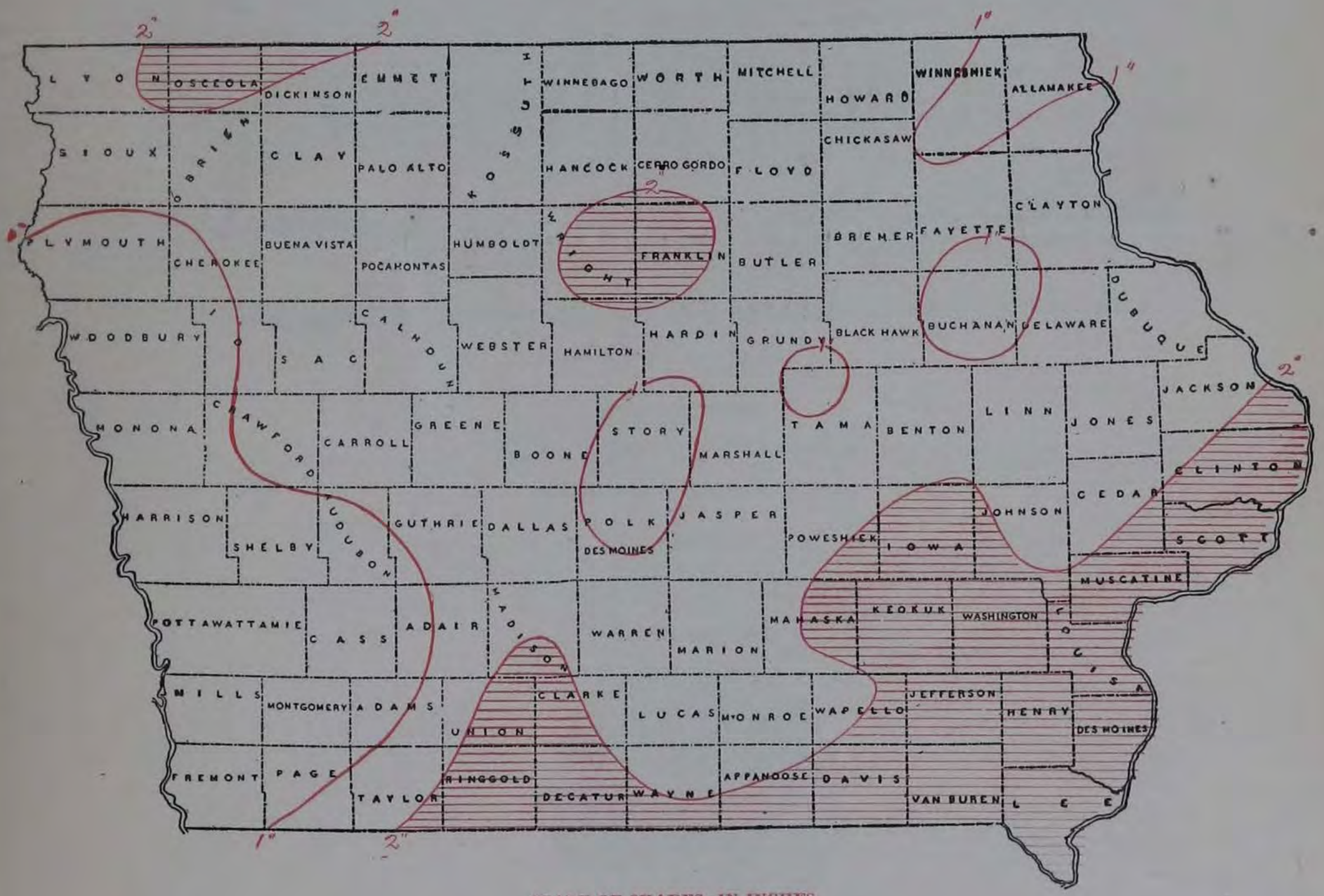
DAILY PRECIPITATION FOR IOWA, NOVEMBER, 1908

STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	....	....	....	....	....	....	....	....	....	.10	T	....	....	....	....	....	....	....	T	.10	1.32	.05	....	....	....	.35	....	....	2.02
Albia	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	.06	.76	.25	.04	....	....	T	.46	....	1.57
Algona	....	....	....	....	....	....	....	....	....	....	....	T	.25	....	T	....	....	....	....	....	....	....	T	.83	.25	....	....	....	.05	.07	....	1.45
Allerton	T	....	....	....	....	....	....	....	....	....	....	....	.02	.03	....	....	....	....	....	....	....	.05	.01	51	.38	....	....	....	.39	.03	....	1.42
Alta	....	....	....	....	....	....	....	....	....	....	....	....	.03	.18	....	T	....	....	....	....	....	....	....	.45	.31	.55	....	....	....	.13	....	1.65
Alta (near)	....	....	....	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	.03	.85	.50	....	....	....	.08	.06	....	1.72
Alton	....	....	....	....	....	....	....	....	....	....	....	T	.10	....	....	....	....	....	....	....	....	....	.28	.32	.50	....	....	....	.45	.04	....	1.69
Amana	T	....	....	....	....	....	....	....	....	....	....	....	T	.03	....	....	....	....	....	....	....	....	.90	.66	.07	....	....	....	.40	.08	....	2.14
Atlantic	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	T	T	.16	.03	....	....	....	.08	T	....	.29
Audubon	....	....	....	....	....	....	....	....	....	....	....	....	.15	.15	....	....	....	....	....	....	....	T	....	.45	.04	....	....	....	.11	....	....	.90
Baxter	....	....	....	....	....	....	....	....	....	....	....	....	.02	.04	....	....	....	....	....	....	....	....	.10	.63	.01	....	....	....	.23	.06	....	1.09
Bedford	....	....	....	....	....	....	....	....	....	....	....	....	.05	.06	....	....	....	....	....	....	....	....	.02	.65	.04	....	....	....	.28	....	....	1.10
Belle Plaine	....	....	....	....	....	....	....	....	....	....	....	....	.03	.08	....	....	....	....	....	....	....	....	.15	.56	.11	....	....	....	.16	.41	....	1.50
Bloomfield	.08	....	....	....	....	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	....	T	1.36	.28	.42	....	....	....	.44	.06	....	2.67
Bonaparte	.03	....	....	....	....	....	....	....	....	....	....	....	T	T	....	....	....	....	....	....	....	.08	.76	.27	.75	....	....	....	.45	....	....	2.34
Boone	....	....	....	....	....	....	....	....	....	....	....	....	T	.02	T	T	....	....	....	....	....	....	....	.71	.27	T	....	....	T	.14	....	1.14
Britt	....	....	....	....	....	....	....	....	....	....	....	.02	.11	.10	.02	....	....	....	....	....	....	....	T	1.00	.26	....	....	....	T	.18	....	1.69
Buckingham	....	....	....	....	....	....	....	....	....	....	....	T	T	T	....	....	....	T	....	....	....	....	....	.50	....	....	....	....	.25	....	....	.75
Burlington	....	....	....	....	....	....	....	....	....	....	....	....	....	.25	....	....	....	....	....	....	....	....	.75	.48	.70	.04	....	....	....	.23	....	2.45
Carroll	....	....	....	....	....	....	....	....	....	....	....	....	T	.13	....	....	....	....	....	....	....	....	T	.90	.10	.15	....	....	T	.09	....	1.37
Cedar Rapids	....	....	....	....	....	....	....	....	....	....	....	....	.05	T	T	....	....	....	....	....	....	.25	.48	.05	.26	....	....	....	.35	T	....	1.44
Chariton	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	T	T	.75	.19	....	....	....	.31	T	....	1.35
Charles City	....	....	....	....	....	....	....	....	....	....	....	T	.04	.03	.01	....	....	....	....	....	....	....	.72	.21	....	....	....	....	.15	.16	....	1.32
Clarinda	....	....	....	....	....	....	....	....	....	....	....	....	....	.09	T	....	....	....	....	....	....	....	....	.97	.04	T	....	....	....	.38	....	1.48
Clear Lake	....	....	....	....	....	....	....	....	....	....	....	T	.05	.08	....	....	....	....	....	....	....	....	T	1.10	.20	....	....	....	T	.05	....	1.48
Clinton	....	....	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	....	1.60	.24	.80	....	....	....	.50	.02	....	3.31
Columbus Junction	.12	....	....	....	....	....	....	....	....	....	....	....	T	.02	T	....	....	....	....	....	....	T	.43	.40	.55	....	....	....	.48	.04	....	2.04
Corning	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.72	....	T	....	....	....	.39	....	....	1.11
Corydon	....	....	....	....	....	....	....	....	....	....	....	....	.02	.04	....	....	....	....	....	....	....	T	.06	.60	.27	....	....	....	.41	.02	....	1.42
Creston	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.30	....	....	....	....	....	....	....	....	.79	.05	....	....	....	.04	.30	....	1.48
Cumberland	....	....	....	....	....	....	....	....	....	....	....	....	.01	....	....	....	....	....	....	....	....	....	.18	.41	....	....	....	....	.16	....	....	.76
Davenport	.25	....	....	....	....	....	....	....	....	....	....	....	T	T	....	....	....	....	....	....	....	.63	.12	.25	.74	....	....	....	.47	T	....	2.46
Decorah	....	....	....	....	....	....	T	T	....	....	....	T	T	T	T	....	....	....	....	....	....	T	.48	T	T	....	....	....	T	.32	....	.80
Denison	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	T	T	.65	.48	....	....	....	.08	.02	....	1.28
Des Moines	....	....	....	....	....	....	....	....	....	....	....	T	.01	.02	....	....	....	....	....	....	....	T	.32	.36	.01	....	....	....	.23	T	....	.95
De Soto	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	.05	1.24	.02	....	....	....	.16	T	....	1.47
Dows	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.11	.68	....	....	....	....	1.17	.16	....	2.12
Dubuque	.07	....	....	....	....	....	....	....	....	....	....	T	T	T	T	T	....	....	....	....	....	.11	.20	.34	.15	....	....	....	.38	.09	....	1.34
Earlham	....	....	....	....	....	....	....	....	....	....	....	T	T	T	....	....	....	....	....	....	....	....	T	1.64	.05	....	....	....	.20	T	....	1.89
Elkader	....	....	....	....	....	....	....	....	....	....	....	T	T	.02	.03	....	....	....	....	....	....	....	.25	.30	.20	....	....	....	.30	.09	....	1.19
Elliott	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	.85	.05	....	....	....	.08	....	....	.98
Elma	....	....	....	....	....	....	....	T	....	....	T	T	.05	.05	T	....	....	....	....	....	....	....	.13	.87	.03	....	....	....	.14	.15	....	1.42
Estherville	....	....	....	....	....	....	....	....	....	....	....	....	T	.10	....	....	....	....	....	....	....	....	....	.90	....	.45	....	....	....	.17	....	1.62
Fairfield	.06	....	....	....	....	....	....	....	....	....	....	....	.04	.02	....	....	....	....	....	....	....	....	1.15	.23	.40	....	....	....	.47	....	....	2.37
Fayette	....	....	....	....	....	....	....	T	....	....	....	T	T	.04	....	....	....	....	....	....	....	....	.15	.57	T	T	....	....	.27	.19	....	1.22
Forest City	....	....	....	....	....	....	....	....	....	T	....	T	T	.20	T	....	....	....	....	....	....	....	....	1.10	.08	.30	....	....	....	.15	....	1.83
Fort Dodge	....	....	....	....	....	....	....	....	....	....	....	....	T	.10	....	T	....	....	....	....	....	....	....	.92	.22	T	....	....	....	.25	....	1.49
Fort Madison	.11	....	....	....	....	.20	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	.11	1.10	.51	.75	....	....	....	.25	....	....	3.03
Gilman	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.70	.08	....	....	....	.10	.18	....	1.06
Grand Meadow	....	....	....	....	....	....	....	T	....	....	....	T	....	.10	T	....	....	....	....	....	....	....	.33	.46	.19	....	....	....	....	.33	....	1.41
Greene	....	....	....	....	....	....	....	....	....	....	....	....	.04	.03	....	....	....	....	....	....	....	....	....	.92	.03	....	....	....	.08	.26	....	1.36
Greenfield	....	....	....	....	....	....	....	....	....	....	....	....	T	.10	....	....	....	....	....	....	....	....	T	.60	.02	....	....	....	.22	T	....	.94
Grinnell	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	.06	.82	.05	T	....	....	.12	.26	....	1.36
Grundy Center	....	....	....	....	....	....	....	....	....	....	....	T	T	T	....	....	....	....	....	....	....	....	.30	.60	....	....	....	....	.25	.10	....	1.25
Guthrie Center	....	....	....	....	....	....	....	....	....	....	....	....	.01	.05	....	....	....	....	....	....	....	.06	T	.64	.07	....	....	....	.20	....	....	1.03
Hampton	....	....	....	....	....	....	....	....	....	....	....	T	.08	....	....	....	....	....	....	....	....	....	1.55	.22	....	....	....	....	.30	....	....	2.15
Hancock	....	....	....	....	....	....	....	....	....	....	....	....	T	.08	....	....	....	....	....	....	....	T	T	.38	.03	....	....	....	.09	T	....	.58
Harlan	....	....	....	....	....	....	....	....	....	....	....	T	.05	.01	....	....	....	....	....	....	....	T	T	.55	.07	....	....	....	.09	.02	....	.79
Hopeville	....	....	....	....	....	....	....	....	....	....	....	....	.08	.02	....	....	....	....	....	....	....	.02	.44	1.56	.05	....	....	....	.39	.02	....	2.58
Humboldt	....	....	....	....	....	....	....	....	....	....	....	T	.20	....	....	....	....	....	....	....	....	....	.18	.81	.24	....	....	....	.01	.16	....	1.60
Independence	....	....	....	....	....	....	....	....	....	....	....	....	.02	.02	....	....	....	....	....	....	....	....	.10	.50	.05	....	....	....	.25	....	....	.94
Indianola	....	....	....	....	....	....	....	....	....	....	....	T	T	.10	....	....	....	....	....	....	....	....	T	.72	.04	....	....	....	.33	.02	....	1.21
Inwood	....	....	....	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	1.15	.39	.01	.02	....	....	.15	.04	....	1.96
Iowa City	T	.05	....	....	....	....	....	....	....	....	....	....	....	.06	.01	....	....	....	....	....	....	....	.49	.47	.13	.13	....	....	....	.50	....	1.84
Iowa Falls	....	....	....	....	....	....	....	....	....	....	....	....	T	.08	T	T	....	....	....	....	....	....	....	.95	.07	T	T	....	....	.25	....	1.35
Jefferson	....	....	....	....	....	....	....	....	....	....	....	.05	.20	....	....	....	....	....	....	....	....	....	.25	1.25	.10	....	....	....	.10	....	....	1.95
Keokuk	.04	....	....	....	....	....	....	....	....	....	....	....	T	T	....	....	....	....	....	....	....	.90	.46	.15	1.14	....	....	....	.36	....	....	3.05
Keosauqua	....	....	....	....	....	....	....	....	....	....	....	....	....	.04	....	....	....	....	....	....	....	....	.41	.83	.65	.07	....	....	....	.48	....	2.48
Knoxville	....	....	....	....	....	....	....	....	....	....	....	T	.10	.08	....	....	....	....	....	....	....	....	.05	.20	.25	....	....	....	.38	.05	....	1.11
Lacona	....	....	....	....	....	....	....	....	....	....	....	....	.02	.02	....	....	....	....	....	....	....	....	.10	.48	.18	....	....	....	.90	.08	....	1.78
Lamoni	....	....	....	....	....	....	....	....	....	....	....	....	.01	.04	....	....	....	....	....	....	....	....	.73	.85	.22	....	....	....	.40	.05	....	2.30
Larrabee	....	....	....	....	....	....	....	....	....	....	....	T	.01	....	T	....	....	....	....	....	....	....	T	.70	.53	....	....	....	.18	T	....	1.42
Le Claire	.02	.02	....	....	....	....	....	....	....	....	....	....	....	.01	.03	....	....	....	....	....	....	....	1.30	.20	.89	.23	....	....	....	.44	....	3.14
Le Mars	....	....	....	....	....	....	....	....	....	....	....	T	.08	....	....	....	....	....	....	....	....	T	.21	.28	.40	....	....	....	.09	T	....	1.06
Lenox	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	.15	.38	....	....	....	....	.29	.03	....	.90
Leon	....	....	....	....	....	....	....	....	....	....	....	....	.03	.01	....	....	....	....	....	....	....	T	....	1.90	.28	....	....	....	.42	.05	....	2.69
Little Sioux	....	....	....	....	....	....	....	....	....	....	....	....	....	.07	....	....	....	....	....	....	....	....	.03	T	.60	....	....	....	.16	....	....	.86
Logan	....	....	....	....	....	....	....	....	....	....	....	T	.05	.05	....	....	....	....	....	....	....	T	T	T	.60	....	....	....	.10	....	....	.80
Marshalltown	....	....	....	....	....	....	....	....	....	....	....	....	T	T	....	....	....	....	....	....	....	....	....	.75	.10	....	....	....	....	.31	....	1.16
Mason City	....	....	....	....	....	....	....	....	....	....	....	T	.05	.05	....	....	....	....	....	....	....	....	.20	.77	.14	....	....	....	.03	.14	....	1.38
Mt. Ayr	....	....	....	....	....	....	....	....	....	....	....	....	.07	.07	....	....	....	....	....	....	....	T	.33	1.00	.05	....	....	....	.45	.05	....	2.02
Mt. Pleasant	.10	....	....	....	....	....	....	....	....	....	....	....	.08	.04	....	....	....	....	....	....	....	.05	.71	.15	.66	....	....	....	.54	T	....	2.33
Muscatine	.03	.20	....	....	....	....	....	....	....	....	....	....	....	T	.03	....	....	....	....	....	....	....	.80	.43	.62	.07	....	....	....	.60	....	2.78
New Hampton	....	....	....	....	....	....	....	....	....	....	....	T	T	.05	T	....	....	....	....	....	....	....	.15	1.05	.03	....	....	....	T	.24	....	1.52
Newton	....	....	....	....	....	....	....	....	....	....	....	....	.05	.10	....	....	....	....	....	....	....	....	....	.73	....	....	....	....	.22	.05	....	1.15
Northwood	....	....	....	....	....	....	....	.01	....	....	....	T	.25	.02	.02	....	....	....	....	....	....	....	....	.98	.24	....	....	....	.22	.12	....	1.86
Odebolt	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	.12	.56	.46	....	....	....	.10	....	....	1.34
Omaha, Neb	....	....	....	....	....	....	....	....	....	....	....	T	.11	....	....	....	....	....	....	....	....	T	T	T	.23	....	....	....	.16	T	....	.50
Onawa	....	....	....	....	....	....	....	....	....	....	....	T	.05	.05	....	....	....	....	....	....	....	....	....	....	.65	....	....	....	.13	T	....	.88
Oskaloosa	....	....	....	....	....	....	....	....	....	....	....	....	.04	T	....	....	....	....	....	....	....	.32	.82	.51	.15	....	....	....	.40	.03	....	2.27
Ottumwa	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	.12	1.10	.35	....	....	....	....	.30	....	1.87
Pacific Junction	....	....	....	....	....	....	....	....	....	....	....	....	.02	.02	....	....	....	....	....	....	....	T	T	....	T	....	....	....	.17	....	....	.21
Perry	....	....	....	....	....	....	....	....	....	T	T	.10	....	....	....	....	....	....	....	....	....	....	....	1.12	T	....	....	....	.24	....	....	1.46
Plover	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	T	.95	.33	....	....	....	.15	....	....	1.53
Pocahontas	....	....	....	....	....	....	....	....	....	....	....	....	T	.05	.06	....	....	....	....	....	....	....	T	1.25	.30	....	....	....	....	....	....	1.66
Ridgeway	....	....	....	....	....	....	....	.04	....	....	....	.01	.03	.02	T	....	....	....	....	....	....	....	.08	.64	.04	T	....	....	.17	.31	....	1.84
Rockwell City	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	1.10	....	.45	....	....	....	.20	....	....	1.85
St. Charles	....	....	....	....	....	....	....	....	....	....	....	T	.02	.02	....	....	....	....	....	....	....	T	.09	1.47	.03	....	....	....	.32	.02	....	1.97
Sheldon	....	....	....	....	....	....	....	....	....	....	....	T	.01	....	T	....	....	....	....	....	....	....	.10	.60	.75	....	....	....	T	.30	....	1.76
Sibley	....	....	....	....	....	....	....	....	....	....	....	....	.10	.05	....	....	....	....	....	....	....	....	....	.78	.43	.51	....	....	....	.15	....	2.02
Sigourney	T	....	....	....	....	....	....	....	....	....	....	....	T	.30	....	....	....	....	....	....	....	....	.51	.53	.12	....	....	....	.51	.10	....	2.07
Sioux Center	....	....	....	....	....	....	....	....	....	....	....	....	.20	....	T	....	....	....	....	....	....	....	.58	.26	.50	....	....	....	.05	T	....	1.59

DAILY PRECIPITATION FOR IOWA, NOVEMBER, 1908—Continued

STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sioux City	....	....	....	....	....	....	....	....	....	....	....	T	.11	....	T	....	....	....	....	....	....	T	.02	.02	.42	T	....	....	.14	.02	....	.73
Stockport	.03	....	....	....	....	....	....	....	....	....	....	....	.03	.03	....	....	....	....	....	....	....	.01	.71	.44	.62	....	....	T	.43	.03	....	2.33
Storm Lake	....	....	....	....	....	....	....	....	....	....	....	....	.44	....	....	....	....	....	....	....	....	....	....	.77	.29	....	....	....	.10	....	....	1.60
Stuart	....	....	....	....	....	....	....	....	....	....	....	....	T	T	....	....	....	....	....	....	....	....	....	.88	....	....	....	....	.25	.10	....	1.23
Thurman	....	....	....	....	....	....	....	....	....	....	....	....	T	.04	....	....	....	....	....	....	....	T	....	.08	.10	....	....	....	.35	T	....	.57
Tipton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.42	.45	....	.57	....	....	....	....	.52	....	1.96
Toledo	....	....	....	....	....	....	....	....	....	....	....	....	T	.05	....	....	....	....	....	....	....	....	....	.95	....	....	....	....	....	.30	....	1.30
Wapello	.08	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.06	.76	.25	.95	....	....	....	....	.45	.01	....	2.56
Washington	.02	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	.58	.56	.41	....	....	....	....	.32	.10	....	2.01
Washta	....	....	....	....	....	....	....	....	....	....	....	T	.05	....	....	....	....	....	....	....	T	.05	.35	.25	....	....	....	....	....	....	....	.70
Waterloo	....	....	....	....	....	....	....	....	....	....	....	....	.04	.03	....	....	....	....	....	....	....	....	1.29	.03	.02	....	....	....	.21	.10	....	1.72
Waukee	....	....	....	....	....	....	....	....	....	....	....	....	T	T	....	....	....	....	....	....	....	....	T	1.10	T	....	....	....	.08	....	....	1.18
Waverly	....	....	....	....	....	....	....	....	....	....	....	....	T	T	T	....	....	....	....	....	....	....	.17	.99	....	....	....	....	.18	.11	....	1.45
Webster City	....	....	....	....	....	....	....	T	....	....	....	T	T	.10	....	....	....	....	....	....	....	....	T	.76	.08	....	....	....	.18	....	....	1.12
West Bend	....	....	....	....	....	....	....	....	....	....	....	T	.20	....	T	....	....	....	....	....	....	....	T	.77	.30	....	....	....	.07	.07	....	1.41
Whitten	....	....	....	....	....	....	....	....	....	....	....	T	T	T	T	....	....	....	....	....	....	....	T	.94	....	....	....	....	.22	.13	....	1.29
Wilton Junction	.22	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.00	.70	....	....	....	....	.47	....	....	2.39
Winterset	....	....	....	T	....	....	....	....	....	....	....	T	T	.05	....	....	....	....	....	....	....	....	.30	1.70	.02	....	....	....	.24	.03	....	2.34
Woodburn	....	....	....	....	....	....	....	....	....	....	....	T	.10	.05	T	....	....	....	....	....	....	....	T	1.05	.10	....	....	....	.10	.01	....	1.41
Zearing	....	....	....	....	....	....	....	....	....	....	....	....	.08	....	....	....	....	....	....	....	....	....	.12	.50	....	....	....	....	....	.25	....	.95

TOTAL PRECIPITATION, NOVEMBER, 1908.



SCALE OF SHADES—IN INCHES

Less than 2 | 2 to 4 | 4 to 6 | 6 to 8 | More than 8

U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR DECEMBER, 1908.

AND

Annual Summary for 1908.

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1909

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

OF THE

STATE BOARD OF AGRICULTURE,

CONSTITUTED AS FOLLOWS:

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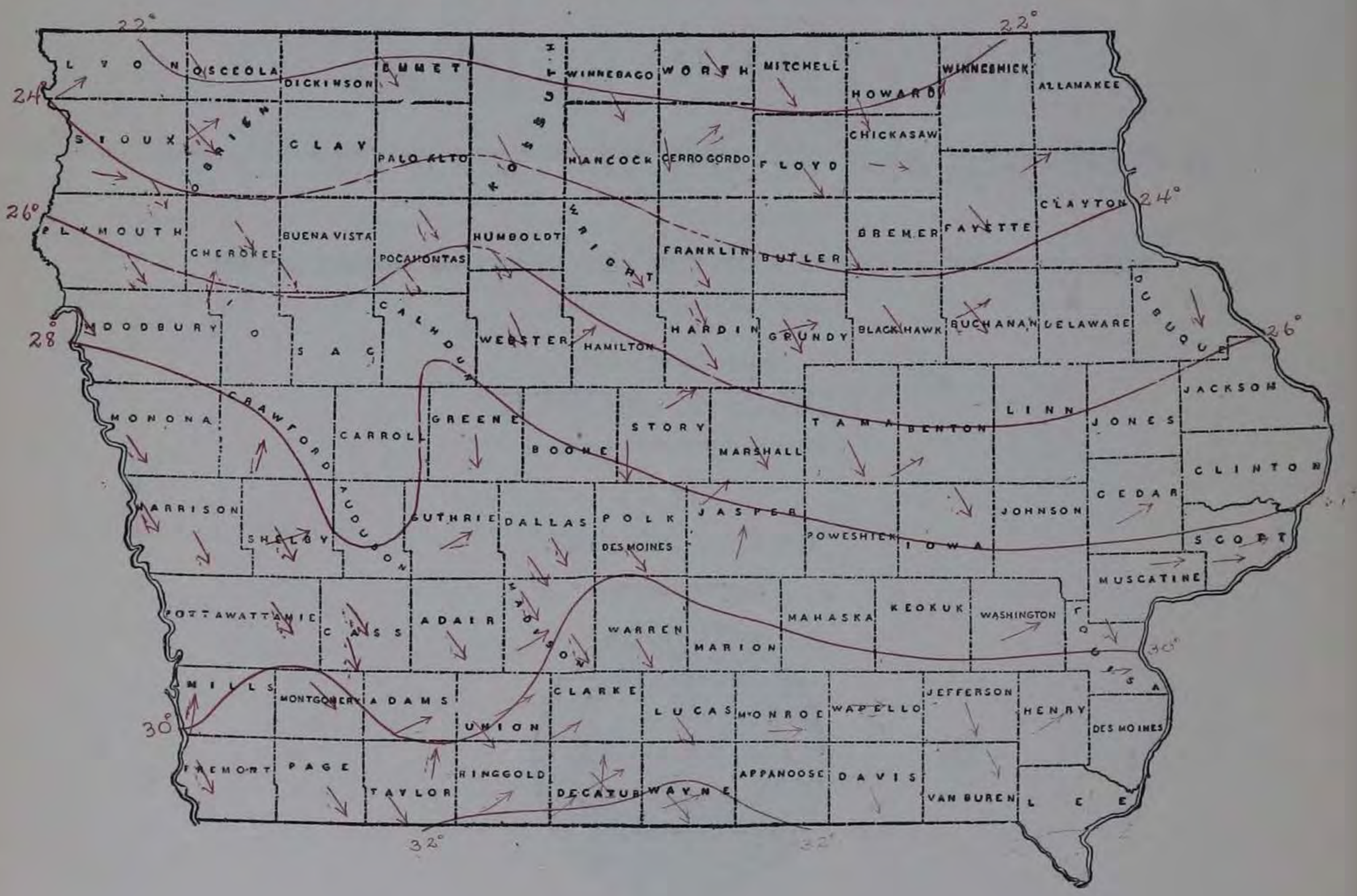
Tenth District—O. A. OLSON, Forest City.
Eleventh District—H. L. PIKE, Whiting.

MEAN ISOTHERMS AND PREVAILING WINDS OF DECEMBER, 1908.

Lines pass thru points of equal temperature. Arrows fly with the wind.



U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IOWA SECTION,

GEO. M. CHAPPEL, Section Director.

VOL. XIX DES MOINES, IOWA, DECEMBER, 1908. NO. 12

GENERAL SUMMARY.

The month of December was unusually mild and pleasant, there being no severe storms and but two or three days of very cold weather. The mean temperature was, however, 1.6° lower than in December, 1907, due to low minimum temperatures on a few days. During the past 18 years, there have been five Decembers with a higher mean temperature and five with a smaller average amount of precipitation. The month opened clear and cold with the minimum temperature nearly zero in the northern portions of the state on the 1st and 2d which was followed by warmer weather until the 5th, when snow began falling and continued during the night. The storm was general in all parts of the state and from one to seven inches of snow fell, making it the heaviest snow storm during the month, but, fortunately, there was but little wind and the drifting was slight and travel was not materially affected. A severe cold wave swept over the state on the afternoon and night of the 6th, resulting in temperatures below zero in all but the extreme eastern counties.

From the 8th to the 29th the weather was generally pleasant with moderate temperature. The month closed with high northwest winds and a cold wave. The corn harvest was finished early in the month under the most favorable conditions and there was some plowing done in the southeastern counties between the 20th and 30th. Stock was in the stalk fields during the entire month and are reported as being in excellent condition. As the ground was covered with snow during the coldest period, winter grain has not yet been injured.

TEMPERATURE.—The monthly mean temperature for the state, as shown by the records of 115 stations, was 27.2°, which is 3.6° above the normal for Iowa. By sections the mean temperatures were as follows: Northern Section, 24.0°, which is 3.1° above the normal; Central Section, 27.4°, which is 3.6° above the normal; Southern Section, 30.2°, which is 4.0° above the normal. The highest monthly mean was 33.4° at Keokuk, Lee County, and the lowest monthly mean was 19.5° at Northwood, Worth County. The highest temperature reported was 67° at Washington, Washington County, on the 14th; the lowest temperature reported was 17° below zero at Alton, Sioux County, and Dows, Wright County, on the 7th. The average monthly maximum was 52.2°, and the average monthly minimum was 8.9° below zero. The greatest daily range was 50° at Carroll, Carroll County. The average of the greatest daily ranges was 34.2°.

PRECIPITATION,—The average precipitation for the state, as shown by the records of 120 stations, was .57 inch, which is .62 inch below the normal. By sections the averages were as follows: Northern Section, .93 inch, which is .10 inch below the normal; Central Section, .46 of an inch, which is .74 inch below the normal; Southern Section, .33 inch, which is 1.00 inch below the normal. The greatest amount, 2.07 inches, occurred at Ridgeway, Winneshiek County, and the least, .05 inch, at Greenfield, Adair County, and Whitten, Hardin County. The greatest amount in twenty-four hours, 1.18 inch, occurred at Osage, Mitchell County, on the 16th.

The average snowfall, unmelted, was 3.8 inches. By sections, the averages were as follows: Northern Section, 4.3 inches; Central Section, 4.0 inches; Southern Section, 3.1 inches. The greatest monthly snowfall, 8.4 inches, occurred at Inwood, Lyons County, and the greatest amount in twenty-four hours, 7.0 inches, at Belle Plaine, Benton County, on the 6th. Measurable precipitation occurred on an average of 3 days.

SUNSHINE AND CLOUDINESS.—The average number of clear days was 15; partly cloudy, 8; cloudy, 8. The duration of sunshine was generally above the normal, the percentage of the possible amount being 62 at Charles City, 49 at Davenport, 60 at Des Moines, 44 at Dubuque, 53 at Keokuk, 54 at Sioux City, and 61 at Omaha, Nebr.

WIND.—Northwest winds prevailed. The highest velocity reported was 50 miles per hour from the northwest at Sioux City, Woodbury County, on the 30th.

COMPARATIVE DATA FOR THE STATE—DECEMBER.

Year	Temperature			Precipitation		
	Mean	Highest	Lowest	Average	Greatest	Least
1890	29.1	72	-18	.45	1.40	.00
1891	32.3	72	-14	2.41	4.50	1.21
1892	18.9	68	-29	1.65	3.04	.20
1893	22.0	70	-21	1.31	2.80	.46
1894	30.1	73	-17	.95	1.75	.25
1895	25.4	63	-16	1.63	5.74	.00
1896	30.8	70	-10	.65	1.79	T
1897	18.0	60	-25	1.65	3.22	.61
1898	18.1	60	-25	.48	1.70	T
1899	22.6	75	-19	1.61	4.28	.10
1900	26.9	63	-10	.45	2.70	T
1901	20.5	64	-31	.93	2.75	.05
1902	20.1	59	-20	2.23	5.51	.67
1903	19.6	58	-27	.41	1.96	T
1904	23.4	67	-19	1.44	3.68	.06
1905	27.0	62	-11	.52	1.69	T
1906	25.7	65	- 9	1.43	2.81	.37
1907	28.8	62	- 9	1.00	2.28	.05
1908	27.2	67	-17	.57	2.07	.05

T indicates a Trace.
- indicates temperature below zero.

ATMOSPHERIC PRESSURE AND WIND.

Mean Barometer for the month reduced to sea level, 30.09 inches.
Prevailing direction of Wind, Northwest.

STATIONS	Barometer, in Inches					Wind				
	Mean	Maximum	Date	Minimum	Date	Movement	Maximum Velocity—miles	Direction	Date	Average Hourly Velocity
Charles City	30.08	30.65	2	29.60	12	6086	31	NW	31	8.2
Davenport	30.09	30.72	2	29.59	12	5986	28	NW	30	8.0
Des Moines	30.07	30.72	2	29.62	13	6034	28	NW	25	8.1
Dubuque	30.09	30.69	2	29.57	12	4970	25	NW	30	6.7
Keokuk	30.12	30.75	2	29.68	12	5628	30	W	30	7.6
Omaha, Neb.	30.11	30.75	1	29.63	13	6672	34	N	4	9.0
Sioux City	30.09	30.65	2	29.71	13	9324	50	NW	30	12.5

OBSERVER'S REMARKS.

ALBIA.—*J. I. Chenoweth.* The weather during December was dry and mild with only .20 inch of precipitation from two inches of snow, part of which remained on the ground five days. The temperature was below zero on but one day.

ALTA.—*David E. Hadden.* Compared with the normals made from the records of 18 preceding Decembers, the present month was nearly 3° warmer and the precipitation was more than one-fourth of an inch below the average. With the exception of the unusually cold weather on the 7th, the month was an ideal December.

ALTON.—*W. S. Slagle.* A very fine month with very little extremely cold or stormy weather. Cattle have had full benefit of the corn stalks.

AMANA.—*C. Schadt.* With the exception of a few cold days, the weather was fine during December and more like autumn or "Indian Summer." The temperature was above and the precipitation below the normal.

ATLANTIC.—*Thos. H. Whitney.* Sap was observed oozing from cuts in maple and box-elder trees during the fore and middle parts of the month.

BONAPARTE.—*B. R. Vale.* A mild and dry month. Stock still on pasturage and in good condition. The roads are good.

BRITT.—*Geo.. P. Hardwick.* Moderate temperature and excessive cloudiness with precipitation slightly above the normal. Conditions have been favorable for field feeding of farm stock.

CHARITON.—*C. C. Burr.* December was an ideal month for the farmer. Stock is in good condition and feed is plentiful.

ELLIOTT.—*Henry Barnes.* December was a very pleasant winter month and the corn harvest was completed under favorable conditions.

FAIRFIELD.—*Prof. R. Monroe McKenzie.* The month was very dry and mild, there being but three cold periods of short duration.

GRAND MEADOW (Postnele P. O.)—*F. L. Williams.* The weather was favorable for all stock. There was no snow on the ground at the close of the month except in the woods. The roads are generally good.

INWOOD.—*F. B. Hanson.* Good weather prevailed most of the time but roads have been in poor condition.

KEOSAUQUA.—*J. H. Landes.* A beautifull fall like month with but .16 inch of precipitation.

LARRABEE.—*H. B. Strever.* December was a very mild month.

RIDGEWAY.—*Arthur Betts.* The month was mild and pleasant with thunderstorm on the 12th and a heavy rain and sleet storm on the 16th and 17th.

SHELDON.—*A. W. Beach.* A good month for late farm work. Corn is all harvested and the cattle have had good weather for feeding in the stalk fields. The roads have been rough most of the month.

STOCKPORT.—*C. L. Beswick.* The past month was the dryest December for the past seven years. There was some plowing done between the 20th and 30th. The lowest temperature was zero on the 7th, which was followed by high temperature until the last day. There were but few days during 1908 on which the temperature was down to zero.

ERRATA IN OCTOBER REVIEW.

CORNING.—Minimum temperature on the 9th, recorded as 42°, on page 116, should have been 37°. Mean minimum temperature recorded as 41.3°, on page 116, should have been 41.1°.

ELKADER.—The maximum temperature on the 25th, recorded as 41°, page 116, should have been 43°. Mean maximum temperature recorded as 63.6°, on page 116, should have been 63.7°.

GRUNDY CENTER.—The maximum temperature recorded on page 114, as 87° on the 15th, should have been 81°.

GRINNELL.—The maximum on the 28th, recorded as 48° on page 116, should have been 50°. The mean maximum temperature recorded as 64.3°, on page 116, should have been 64.4°.

ONAWA.—Mean maximum temperature recorded as 65.2° on page 116, should have been 62.7°. Mean monthly temperature recorded as 53.6°, on page 114, should have been 52.4°.

BELATED REPORTS.

ELLIOTT.—October, mean temperature, 52.0°; highest, 85° on the 14th and 15th; lowest, 24° on the 12th; greatest daily range, 42°. Total precipitation, 3.31 inches; greatest in twenty-four hours, .91 inch on the 24th; total snowfall, 3.0 inches. Prevailing direction, northwest. Number of clear days 17, partly cloudy 9, cloudy 5, rainy 8.

GUTHRIE CENTER.—October, mean temperature 51.4°; highest 82° on the 14th, 15th and 16th; lowest 19° on the 29th; greatest daily range 37; total precipitation 5.12 inches; greatest in 24 hours 1.58 inches on the 23d; total snowfall 9.9 inches. Prevailing direction, northwest. Number of clear days 19, partly cloudy 3, cloudy 9, rainy 11.

PERRY.—October, mean temperature 51.7°; highest 83° on the 15th; lowest 26° on the 12th; greatest daily range 38°; total precipitation 4.55 inches; greatest in 24 hours 1.37 on the 21st and 22d; total snowfall, trace. Number of clear days 8, partly cloudy 10, cloudy 13, rainy 8.

CLIMATOLOGICAL DATA FOR IOWA, DECEMBER, 1908

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in Inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
NORTHERN SECTION																				
Algona	Kossuth	1,213	34	24.2	+ 4.1	48	*14	−11	7	28	.90	−.13	.70	2.5	4	19	9	3	nw	Dr. F. T. Seeley
Alta	Buena Vista	1,513	17	23.8	+ 2.4	50	14	−15	*7	49	.64	−.29	.28	3.3	4	18	8	5	nw	D. E. Hadden
Alta [near]‡	Buena Vista										.52		.30	3.5	5					W. J. Minard
Alton	Sioux	1,305	3	24.4		45	14	−17	7	36	.71		.46	4.5	4	22	5	4	nw	W. S. Slagle
Britt	Hancock	1,236	11	24.0	+ 4.9	48	29	−13	7	27	.96	+.20	.50	4.1	4	3	18	10	nw	G. P. Hardwick
Charles City	Floyd	1,015	20	23.2	+ 4.2	48	14	−11	7	29	1.13	−.12	.76	4.4	4	10	9	12	nw	Weather Bureau
Clear Lake	Cerro Gordo	1,241	9	24.4	+ 4.0	49	14	−11	7	30	1.10	+.47	.50	2.0	3				n	Oscar Stevens
Decorah	Winneshiek	875	15	23.0	+ 2.0	45	14	− 4	7	30	1.70	+.34	.74	6.2	6					F. H. Baker
Dows	Wright	1,142	8	24.8	+ 3.3	50	29	−17	7	32	.39	−.42	.26		3	16	6	9	nw	G. D. Flett
Elkader	Clayton	727	27	24.1	+ 2.5	48	*28	− 4	7	36	.85	−.98	.40	5.5	5	25	2	4	sw	Chas. Reinecke
Elma	Howard			21.8		46	14	−10	9	40	.75		.40	2.8	3	10	14	7	nw	H. A. Moore
Estherville	Emmet	1,298	12	22.6	+ 4.4	53	14	−10	7	44	.75	+.13	.50	6.0	3	14	0	17	nw	A. O. Peterson
Fayette	Fayette	1,003	18	d23.6	+ 2.0	d46	29	e− 9	*7	38	1.21	−.28	.65	6.0	3				nw	R. Z. Latimer
Forest City	Winnebago	1,226	14	23.3	− 3.5	54	14	−12	7	36	.70	−.15	.50	2.0	2	18	5	8	nw	J. A. Peters
Grand Meadow	Clayton	1,180	17	23.2	+ 1.7	44	29	− 5	7	31	1.34	−.12	.90	4.5	4	9	13	9	sw	F. L. Williams
Greene	Butler		9	24.9	+ 5.9	48	28	−11	7	30	.51	−.52	.26	3.0	2	6	12	13	w	J. L. Cole
Hampton	Franklin	1,155	18	25.0	+ 3.5	49	29	−12	7	30	.83	−.42	.40	4.4	4	9	16	6		E. C. Grenelle
Humboldt	Humboldt	1,095	17	27.0	+ 3.7	52	29	− 8	7	38	.33	−.36	.16		3	24	0	7	nw	H. S. Wells
Inwood	Lyon	1,474	4	23.6		48	13	−15	7	34	.81		.55	8.4	7	19	6	6	sw	F. B. Hanson
Larrabee(h)	Cherokee	1,266	17	24.6	+ 2.3	47	*14	−16	7	37	.75	−.21	.43	3.2	4	15	13	3	nw	H. B. Streever
Le Mars	Plymouth	1,221	12	25.6	+ 1.9	46	14	−13	7	34	.85	+.03	.39		4	12	14	5	nw	G. A. C. Clarke
Mason City	Cerro Gordo	1,132	11	23.5	+ 1.8	45	29	−10	7	27	.90	+.09	.50		3	15	9	7	sw	J. S. Mills
Merrill	Plymouth																			Eric Oleson
New Hampton	Chickasaw	1,169	11	23.2	+ 3.7	43	*14	−11	7	30	1.20	+.27	.68	1.8	4	19	5	7	w	A. F. Kemman
Northwood (j)	Worth	1,222	12	19.5	− 0.5	49	15	−12	7	32	1.56	+.46	.82	7.0	4				nw	Charles H. Dwelle
Osage	Mitchell	1,184	17	24.6	+ 4.0	50	10	−13	7	36	1.48	+.13	1.18	7.0	2	20	1	10	nw	Dr. A. D. Bundy
Plover	Pocahontas	1,426	12	25.4	+ 4.1	50	*14	−16	7	31	.75	−.01	.30	2.0	3	19	7	5	nw	J. S. Smith
Pocahontas	Pocahontas		4	25.6		50	14	−13	7	27	.83		.33	3.9	5	19	7	5	nw	F. E. Hronek
Ridgeway	Winneshiek	1,215	10	23.4	+ 1.1	51	14	− 8	7	38	2.07	−.17	1.02	5.4	8	13	11	7	s	Arthur Betts
Rock Rapids	Lyon	1,358	9																	W. C. Wyckoff
Sheldon	O'Brien	1,422	8	23.2	+ 1.0	52	14	−16	7	35	1.40	−.59	.75	7.5	4	17	8	6	sw, nw	Dr. A. W. Beach
Sibley (a)	Osceola	1,212	15	20.8	+ 1.2	48	14	−15	8	50	.96	+.18	.79	4.0	2	15	4	12	nw	H. G. Doolittle
Sioux Center	Sioux		9	23.8	+ 2.1	46	14	−16	7	37	.82	−.19	.27	5.5	5	17	5	9	w	J. de Ruyter
Storm Lake	Buena Vista	1,440	12	a27.0	+ 5.6	a50	*14	−14	7	29	.45	−.38	.23	3.2	4	15	9	7	w	Ralph H. Carr
Washta	Cherokee	1,157	10	26.6		52	29	−16	7	36	.50	−.35	.20	2.5	3	18	7	6	s, nw	H. L. Felter
Waverly	Bremer	918	12	25.0	+ 3.4	49	27	− 9	7	29	.68	−.50	.40	4.0	4	10	10	11	nw	H. S. Hoover
West Bend	Palo Alto	1,197	14	25.5	+ 4.9	50	14	−15	7	31	.75	−.14	.55	2.5	3	14	8	9		Phil Dorweiler
Averages				24.0	+ 3.1	47.1		−11.7		34.0	.93	−.10		4.3	4	15	8	8	nw	
CENTRAL SECTION																				
Amana	Iowa	721	31	27.2	+ 4.6	49	29	− 6	7	33	.44	−1.01	.40	4.0	3	13	9	9	nw	Conrad Schadt
Ames	Story	926	27	27.6	+ 5.0	53	*28	−12	7	32	.57	− .45	.45	4.5	2	18	10	3	n	Iowa State College
Audubon	Audubon	1,301	15	26.8	+ 2.9	51	29	−11	7	32	.30	− .66	.25	2.8	3	22	4	5	sw	Geo. E. Kellogg
Baxter	Jasper	998	8	27.0	+ 2.8	52	28	−13	7	33	.58	− .31	.50	6.2	3	17	8	6	sw	W. R. Vandyke
Belle Plaine	Benton	828	18	27.0	+ 3.3	50	28	− 9	7	32	.80	− .73	.70	8.0	2	14	9	8	sw	S. P. Vandike
Boone	Boone	1,134	3	27.2		55	28	− 9	7	42	.47		.40	4.0	2	18	3	10		Carl Fritz Henning
Buckingham	Tama		8								.44	− .53	.38	6.5	2	5	20	6		Dr. W. A. Daniel
Carroll	Carroll	1,265	18	26.8	+ 3.4	58	28	−12	7	50	.30	− .69	.30	3.0	1	22	0	9		Frank Hughes
Cedar Rapids	Linn	733	26	a26.2	+ 1.2	a48	28	− 4	7	34	.58	− .92	.52	6.5	3	11	4	16		Electric Light & P. Co.
Clinton(f)	Clinton	593	40	25.8	+ 0.5	43	14	1	*7	30	.49	−1.36	.27	2.8	4	11	8	12		Luke Roberts
Davenport	Scott	580	36	28.7	+ 1.5	55	14	1	7	29	.40	−1.29	.24	3.0	5	11	6	14	w	Weather Bureau
Delaware	Delaware	1,083	17																	Wm. Ball
Denison	Crawford	1,180	13	28.4	+ 4.9	55	14	−11	7	42	.11	− .48	.09	1.5	2	26	5	0	s	W. C. Van Ness
Des Moines	Polk	861	29	29.6	+ 3.9	54	28	− 7	7	31	.31	−1.00	.29	4.1	4	8	17	6	nw	Weather Bureau
De Soto	Dallas	866	8	29.2	+ 2.7	56	14	−14	7	38	.61	− .65	.60	6.0	3	18	6	7	nw	R. D. Minard
Dubuque	Dubuque	639	35	25.8	+ 1.3	51	29	1	7	28	.63	−1.09	.39	4.9	6	11	6	14	nw	Weather Bureau
Fort Dodge	Webster	1,126	8	24.6	+ 2.1	49	29	−11	7	43	.75	+ .29	.45	3.0	2	15	2	14	nw	J. F. Monk
Gilman	Marshall	1,052	9								.70	− .06	.60	7.0	2					Jas. L. Wylie
Grinnell	Poweshiek	1,023	16	29.0	+ 4.6	53	28	−10	7	36	.64	− .53	.58	5.8	2	19	9	3	nw	A. O. Price
Grundy Center	Grundy	976	17	26.2	+ 3.6	50	28	−11	7	30	.85	− .33	.45	4.0	2	16	10	5	w, nw	W. H. Scott
Guthrie Center	Guthrie	1,077	13	29.0	+ 5.2	52	29	−10	7	29	.65	− .45	.58	3.5	2	21	5	5	sw	D. G. Beardsley
Harlan	Shelby	1,192	9	27.6	+ 3.6	55	14	−14	7	34	.27	− .63	.26	3.0	2	12	15	4	sw, nw	C. A. Reynolds
Independence	Buchanan	921	43	25.1	+ 3.5	47	29	−10	7	30	.90	− .46	.60	6.0	4	19	2	10	sw, nw	George Donohue
Iowa City	Johnson	683	49	a26.9	+ 2.7	a53	*14	− 5	7	36	.43	−1.22	.38	4.5	3	12	5	14		Prof. Karl E. Guthe
Iowa Falls	Hardin	1,170	15	24.7	+ 3.6	48	28	−13	7	37	.55	− .56	.50	5.0	2	16	3	12	nw	J. B. Parmalee
Jefferson	Greene			29.1		55	*15	−11	7	39	.22		.20	2.0	2	17	8	6	n	Geo. W. Jackson
Le Claire	Scott	576									.47	− .65	.28	3.0	5				w	Margaret T. Disney
Little Sioux	Harrison		4	29.1		56	14	−13	7	37	.18		.10	1.7	3	21	3	7	nw	Geo. H. Gibson
Logan	Harrison	928	42	28.8	+ 3.6	54	14	−10	7	33	.22	−1.05	.12	2.2	2	6	20	5	nw	Glen H. Stern
Marshalltown	Marshall	947	16	26.2	+ 2.7	50	28	−13	7	45	.56	− .60	.50	5.0	2	5	18	8	nw	Agnes Musil
Montezuma	Poweshiek																			C. J. Griffin
Muscatine	Muscatine		49								.50	−1.78	.40	4.0	3	11	6	14	s	Wm. P. Molis
Newton	Jasper	944	19	29.0	+ 6.6	48	28	− 9	7	31	.36	−1.00	.27	4.5	3	20	5	6	s	Hon. J. P. Beatty
Odebolt	Sac	1,356	10	27.8	+ 4.3	57	28	−12	7	32	.15	− .69	.10	2.0	2	21	6	4		E. Starner
Olin	Jones	760	11																	Hon. Nathan Potter
Onawa	Monona	1,051	8	30.1	+ 3.9	55	14	− 5	7	32	.38	− .53	.20	2.8	4	22	1	8	nw	C. G. Perkins
Perry	Dallas	975	7	27.8	+ 3.6	53	29	−11	7	25	.48	− .52	.40	4.0	2					J. A. Harvey
Rockwell City	Calhoun		12	28.2	+ 5.6	55	24	−11	7	30	.90	− .12	.50	4.0	2	19	8	4		C. M. Randall
Sac City	Sac	1,278	26																	F. E. Stouffer
Sioux City	Woodbury	1,135	17	27.2	+ 4.6	51	14	−10	7	36	.34	− .40	.19	2.6	4	13	12	6	nw	Weather Bureau
Stuart	Guthrie	1,216	10																	Geo. B. Irick
Tipton	Cedar	807	10	28.0	+ 2.6	51	29	0	7	28						19	6	6	sw	F. K. Gregg
Toledo	Tama	856	14	26.4	+ 2.7	47	28	−10	7	29	60	− .42	.60	6.0	1	16	5	10	nw	I. F. Giger
Waterloo	Black Hawk	862	25	25.1	+ 3.1	52	29	− 7	7	39	.57	− .74	.38	4.0	3	12	0	19	nw	M. L. Newton
Waukee	Dallas	1,039	5	28.8		53	*28	−13	7	32	.06	−1.24	.06	.6	1	17	8	6	nw	A. H. Blackmore
Webster City	Hamilton		3	26.9		51	29	−14	7	34	.40		.30	4.0	2	15	8	8	sw	C. D. Carpenter
Whitten	Hardin	1,036	10	27.5	+ 5.9	56	18	−14	7	33	.05	−1.07	.05	.5	1	16	6	9	nw	Dr. Frank P. Butler
Wilton Junction	Muscatine	683	13	27.9	+ 2.1	47	*14	− 2	6	40	.18	−1.22	.18		1	17	1	13	w	Wm. Lang
Zearing	Story		4	26.6		50	*28	−15	7	34	.42		.42	4.2	1	5	20	6	sw	W. C. Bean
Average				27.4	+ 3.6	52.0		− 9.2		34.2	.46	− .74		4.0	3	15	8	8	nw	

CLIMATOLOGICAL DATA FOR IOWA, DECEMBER, 1908—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
SOUTHERN SECTION																				
Afton	Union	1,212	14	29.9	+ 4.2	57	29	— 8	7	32	.35	— .89	.35	3.5	1	10	14	7	sw	N. W. Rowell
Albia	Monroe	959	10	28.9	+ 3.9	61	14	— 6	7	42	.20	— .94	.20	2.0	1	13	9	9	w	J. I. Chenoweth
Allerton	Wayne	.....	6	31.5	+ 5.0	60	14	— 5	7	38	.19	— .98	.19	1.9	1	20	2	9	sw, nw	Mrs. Geo. Shriver
Atlantic	Cass	1,164	17	28.6	+ 3.7	51	*26	— 9	7	23	.46	— .69	.42	5.0	2	12	8	11	nw	J. W. Love
Bedford	Taylor	.....	8	29.8	+ 4.1	56	26	—10	7	38	.19	— .75	.19	2.0	1	19	3	9	nw	E. E. Healy
Bloomfield	Davis	.....	....	30.4	.....	60	14	— 4	7	36	.44	.....	.40	3.0	3	16	10	5	nw	F. H. Roberts
Bonaparte	Van Buren	.....	17	30.0	+ 2.1	60	14	— 1	7	34	.17	—1.86	.14	1.0	2	....	....	....	.....	Hon. B. R. Vale
Burlington	Des Moines	544	12	30.8	+ 3.7	62	14	1	7	32	.65	— .90	.25	3.0	7	19	0	12	.....	W. E. Poppe
Chariton	Lucas	1,042	13	30.9	+ 4.6	59	14	— 9	7	33	.20	—1 14	.20	3.0	1	20	6	5	nw	C. C. Burr
Clarinda	Page	1,009	18	29.1	+ 2.5	57	*14	— 8	7	49	.27	— .85	.27	2.8	1	18	3	10	nw	A. S. Van Sandt
Columbus Junction	Louisa	595	7	30.0	+ 3.4	55	14	— 2	7	32	.37	—1.09	.30	3.0	2	18	3	10	nw	J. B. Johnson
Corning	Adams	1,117	16	29.4	+ 2.3	54	*26	—11	7	35	.35	— .79	.35	3.5	1	19	8	4	sw	Jerome Smith
Corydon	Wayne	1,101	15	a31.5	+ 4.8	60	14	a— 8	7	34	.23	—1.19	.21	2.5	2	22	2	7	nw	Clara Miller
Creston	Union	1,312	3	28.0	.....	53	29	—10	7	44	.30	.....	.30	....	1	17	5	9	nw	Rev. W. L. Gaston
Cumberland	Cass	.....	9	.....	.....	.....	.....	.....	.....	.....	.08	— .94	.08	.8	1	15	6	10	n	J. H. Reppert
Earlham	Madison	.....	6	29.8	+ 6.8	58	28	—10	7	35	.40	— .90	.40	4.0	2	14	8	9	nw	Geo. Phillips
Elliott	Montgomery	.....	3	31.3	.....	57	26	6	31	36	.60	.....	.30	6.0	2	19	12	0	nw	Henry Barnes
Fairfield	Jefferson	.....	14	29.7	+ 4.6	60	14	— 5	7	34	.29	—1.49	.23	2.8	3	21	2	8	nw	R. Monroe McKenzie
Fort Madison	Lee	516	59	.....	.....	.....	.....	.....	.....	.....	.95	— .98	.75	2.0	3	13	9	9	n	Miss L. A. McCready
Greenfield	Adair	.....	17	c30.0	+ 5.0	c58	29	b—12	7	38	.05	—1.20	.05	.2	1	....	....	....	nw	Geo. Brooks
Hancock	Pottawattamie	1,113	2	29.1	.....	54	26	—12	7	34	.37	.....	.32	3.5	2	18	5	18	nw	W. Armstrong
Hopeville	Clarke	.....	17	a29.9	+ 3.7	57	14	a— 9	7	27	.23	— .83	.21	2.0	2	8	16	7	sw	M. T. Ashley
Indianola	Warren	969	17	a29.5	+ 3.7	52	14	a— 8	7	28	.45	— .88	.30	4.5	3	....	....	....	nw	Prof. J. L. Tilton
Keokuk	Lee	574	37	33.4	+ 4.0	60	14	3	7	33	.58	—1.29	.28	4.0	4	16	6	9	sw	Weather Bureau
Keosauqua	Van Buren	644	16	29.4	+ 2.0	59	14	0	7	36	.16	—1.34	.14	1.7	2	5	16	10	.....	J. H. Landes
Knoxville	Marion	920	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	....	....	....	.....	Casey & Bellville
Lacona	Warren	.....	9	.....	.....	.....	.....	.....	.....	.....	.32	—1.35	.30	5.0	3	9	12	10	.....	Agent C., B. & Q. Ry.
Lamoni	Decatur	.....	....	31.0	.....	59	14	— 5	7	34	.23	.....	.23	3.0	1	20	1	10	sw	T. J. Fitzpatrick
Lenox	Taylor	1,250	13	29.8	+ 4.5	54	26	—13	7	35	.33	— .74	.30	3.3	2	22	4	5	s	J. T. Hurley
Leon	Decatur	1,120	6	30.6	+ 4.0	54	*14	— 7	7	34	.30	— .97	.30	3.0	1	16	4	11	s, sw, w	Morris Gardner
Massena(k)	Cass	.....	3	33.6	.....	55	*26	.....	.....	30	.....	.....	.....	.....	...	....	....	....	.....	G. A. Hill
Mt. Ayr	Ringgold	1,236	15	31.0	+ 5.1	57	14	— 8	7	34	.10	—1.19	.10	2.0	1	14	8	9	sw	A. F. Beard
Mt. Pleasant	Henry	729	26	29.8	+ 3.0	56	14	— 2	7	32	.41	— .96	.38	2.8	3	14	8	9	sw	Prof. J. W. Edwards
Omaha, Neb	Douglas	1,040	38	31.8	+ 4.7	60	26	— 3	7	32	.26	— .65	.25	2.7	3	13	8	10	.....	Weather Bureau
Oskaloosa	Mahaska	843	24	29.0	+ 3.1	56	14	— 7	7	34	.25	—1.01	.22	3.2	4	20	0	11	.....	Jos. Boyd
Ottumwa	Wapello	649	14	31.4	+ 3.6	62	14	3	*2	34	.30	—1.01	.20	3.0	1	10	13	8	w	Dr. Jas. A. Hull
Pacific Junction	Mills	960	9	29.3	+ 3.0	60	26	— 5	7	40	.35	— .47	.35	3.5	2	18	8	5	s	H. H. McCartney
Pella	Marion	877	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	....	....	....	.....	T. W. Cox
St. Charles	Madison	1,070	7	31.0	+ 4.7	61	14	— 8	7	33	.50	—1.12	.40	5.0	2	17	8	6	nw	R. D. Minard
Sigourney	Keokuk	877	12	29.4	+ 3.1	54	14	— 8	7	33	.32	—1.09	.30	5.0	2	7	18	6	nw	J. T. Parker
Stockport	Van Buren	.....	6	30.2	.....	59	14	0	7	35	.18	—1.21	.18	2.0	1	17	5	9	nw	C. L Beswick
Thurman	Fremont	.....	11	30.0	+ 4.5	59	26	—14	7	41	.30	—1.09	.30	3.0	1	16	9	6	nw	C. R. Paul
Wapello	Louisa	588	10	30.4	+ 2.5	57	14	3	7	24	.28	—1.03	.28	3.0	1	13	8	10	w	Geo. W. Schofield
Washington	Washington	769	27	29.6	+ 5.0	67	14	— 5	7	32	.30	—1.03	.26	2.5	4	9	16	6	sw	Wm. A. Cook
Winterset	Madison	1,129	17	29.4	+ 3.4	51	29	— 9	7	28	.50	— .89	.35	5.0	2	15	8	8	sw	Dr. Robert S. Cooper
Woodburn	Clarke	961	9	28.8	.....	60	14	—11	7	41	.40	— .85	.40	4.0	1	17	7	7	.....	C. B. McDonough
Average		.....	....	30.2	+ 4.0	57.6	.....	—5.9	.....	34.5	.33	—1.00	.....	3.1	2	16	7	8	nw	
State average		.....	....	27.2	+ 3.6	52.2	.....	—8.9	.....	34.2	.57	— .62	.....	3.8	3	15	8	8	nw	

*And other dates. a one day missing, b two days; c three days; d four days, etc. ‡ Received too late to be included in average

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF DECEMBER, 1908

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | Monthly Mean | |
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DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF DECEMBER, 1908—CONTINUED

STATIONS	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30		31		Monthly Mean	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Oskaloosa	22	9	28	5	37	19	37	20	34	14	29	15	18	- 7	36	7	34	13	39	19	34	22	44	23	46	23	56	34	42	28	42	35	38	35	36	24	37	21	45	17	36	21	41	17	44	25	44	28	34	25	52	18	42	24	51	26	49	30	38	19	19	4	38.2	19.8
Ottumwa	22	11	28	3	38	22	38	22	34	22	32	18	32	3	36	12	38	10	42	14	38	24	46	24	50	27	62	28	50	29	45	30	41	37	39	22	38	22	48	19	45	24	46	19	47	21	46	27	38	31	54	21	50	26	56	28	50	28	48	20	20	7	41.8	21.0
Pacific Junction	20	9	32	3	44	17	37	16	38	16	32	15	23	- 5	37	5	36	10	43	28	34	23	48	22	48	23	52	28	41	26	41	31	39	32	33	20	37	19	37	19	39	16	45	17	48	26	48	21	47	25	60	20	45	19	49	21	55	30	35	18	18	6	40.6	18.6
Perry	17	8	29	4	41	19	34	17	37	16	32	12	13	-11	34	9	32	9	42	19	33	21	43	20	45	22	51	32	40	27	39	24	44	32	33	20	34	19	42	17	35	18	42	19	45	23	47	23	35	27	48	18	40	20	51	26	53	27	40	15	17	3	37.7	17.9
Plover	20	4	30	0	40	20	28	10	32	13	28	15	15	-16	34	13	30	9	38	20	30	15	42	20	43	18	50	25	40	28	35	34	34	28	30	20	25	20	35	12	34	13	40	20	42	20	45	20	30	20	45	15	35	19	48	19	50	28	32	10	22	-3	34.9	15.8
Pocahontas	12	4	28	3	38	18	30	10	32	15	27	5	13	-13	34	13	34	17	38	20	28	16	39	19	43	20	50	32	36	28	35	33	34	29	29	18	27	18	37	14	34	15	39	20	42	20	44	21	33	22	44	17	35	20	48	32	49	29	33	12	12	-1	34.1	17.0
Ridgeway	16	3	30	3	35	18	31	15	26	7	27	11	16	- 8	28	5	28	8	33	12	31	14	42	14	45	19	51	28	45	30	38	33	35	30	30	15	30	6	38	0	30	12	38	10	39	15	38	17	28	18	41	10	37	19	44	19	45	24	36	9	11	-4	33.6	13.3
Rockwell City	21	5	30	5	45	19	35	15	35	15	35	10	15	-11	36	9	38	10	38	9	40	15	45	20	45	22	47	28	46	28	45	32	40	28	35	19	45	17	45	24	35	17	45	17	45	20	55	25	48	20	48	22	50	20	50	20	45	20	40	12	15	2	39.9	16.6
St. Charles	23	9	28	5	42	18	35	20	35	15	31	16	20	- 8	45	11	34	20	50	23	36	22	47	24	54	26	61	35	42	20	43	30	37	33	40	20	40	20	47	19	42	21	49	20	45	27	46	30	39	28	55	22	47	22	59	26	52	32	43	18	23	4	41.6	20.4
Sheldon	18	1	30	1	36	8	36	9	30	15	26	4	19	-16	25	19	30	12	32	10	27	16	35	20	40	25	52	30	37	25	35	31	33	21	33	15	28	14	34	7	34	7	30	11	45	13	38	20	28	16	40	15	36	14	43	20	43	30	36	10	12	-2	32.9	13.6
Sibley	28	-1	22	-1	35	11	23	7	29	6	16	10	25	-14	35	-15	29	10	32	14	32	15	41	19	44	17	48	19	36	25	34	26	29	28	24	14	23	14	34	5	28	3	30	7	42	11	..	13	37	..	43	12	31	14	41	13	42	20	13	11	15	-4	31.4	10.3
Sigourney	31	10	28	5	36	18	35	26	33	15	32	19	19	- 8	35	4	35	9	40	17	37	23	43	20	45	22	54	34	44	28	43	35	40	34	36	28	36	20	45	15	39	22	41	16	42	24	43	28	41	28	50	17	49	23	50	24	51	27	44	21	21	4	39.3	19.6
Sioux Center	10	0	29	6	36	19	32	8	30	14	25	2	21	-16	32	19	29	13	32	20	29	13	32	22	42	21	46	36	36	30	34	32	34	32	32	16	23	15	33	10	30	12	29	16	38	15	35	21	32	22	41	17	36	17	39	22	40	31	33	10	10	-2	31.6	15.9
Sioux City	13	4	31	6	40	23	27	9	30	20	25	-6	26	-10	36	10	32	17	36	26	32	22	44	30	47	28	51	35	39	32	36	33	33	24	28	18	29	20	38	21	37	19	35	23	43	23	43	24	36	24	51	23	37	21	49	24	48	34	36	7	8	2	35.4	18.9
Stockport	29	11	29	5	34	19	34	28	31	15	35	22	22	0	38	8	37	14	40	20	38	23	42	22	42	23	59	35	47	27	45	37	43	37	37	28	37	20	47	16	38	22	45	15	43	23	46	29	35	27	52	17	40	21	54	24	47	27	43	21	21	6	39.7	20.7
Storm Lake	20	2	27	4	38	20	38	15	31	11	30	11	15	-14	33	15	31	20	35	20	..	19	39	20	43	22	50	35	46	35	36	32	34	28	29	16	27	22	37	21	35	16	39	21	43	22	45	25	36	23	46	17	42	20	48	24	50	30	38	14	17	-2	35.9	18.2
Thurman	20	9	30	11	43	20	36	18	38	15	32	18	23	-14	37	0	38	13	42	26	38	22	48	22	49	23	53	28	43	27	42	32	40	32	35	21	37	20	47	18	38	18	43	21	48	23	48	24	43	30	59	18	46	21	48	25	55	28	45	20	23	7	40.9	19.2
Tipton	28	12	26	7	31	18	36	25	30	18	32	18	18	0	28	2	27	19	34	13	34	20	40	16	41	24	46	34	40	31	38	35	36	34	35	26	34	21	42	14	35	24	40	21	38	25	38	30	32	25	44	17	40	25	48	24	51	30	41	19	19	6	35.5	20.4
Toledo	26	8	25	3	35	19	32	22	33	13	30	16	16	-10	30	3	27	5	38	14	33	19	40	16	38	21	44	33	39	27	37	34	35	33	34	24	31	20	40	13	37	20	37	15	40	22	41	21	37	25	44	15	45	22	47	22	43	26	43	18	18	1	35.3	17.4
Wapello	34	14	33	10	38	19	41	29	32	17	33	23	24	3	31	7	36	16	36	16	36	23	42	20	45	25	57	36	42	29	43	36	39	36	39	28	34	23	40	16	42	25	41	19	40	26	42	28	32	28	47	18	43	22	52	20	52	28	45	22	23	8	39.2	21.6
Washington	23	10	45	13	34	21	36	19	32	14	33	16	16	- 5	34	9	34	13	38	15	36	21	44	19	47	23	67	35	44	28	43	36	37	34	35	22	36	20	46	14	36	23	42	18	42	24	44	29	33	24	51	26	42	24	52	24	52	29	34	20	20	4	39.0	20.1
Washta	15	4	30	0	40	22	36	10	33	13	29	10	20	-16	36	14	33	6	40	22	33	20	42	20	44	20	48	30	38	22	36	34	34	30	30	17	30	22	40	15	38	12	40	20	46	20	47	20	46	22	48	18	40	18	42	25	52	26	36	14	16	0	36.7	16.5
Waterloo	18	8	29	5	35	9	32	24	31	15	27	19	24	- 7	32	- 1	24	10	34	13	31	17	41	14	44	21	45	25	42	27	36	29	35	33	29	26	33	22	40	12	44	10	42	11	42	7	39	12	45	15	39	16	43	6	40	13	52	13	31	13	20	18	35.5	14.7
Waukee	18	10	27	5	40	20	35	18	35	15	30	15	16	-13	34	6	30	14	45	20	34	22	43	22	48	22	52	32	40	28	40	35	35	33	35	21	33	20	44	18	36	20	45	18	46	25	48	25	35	29	50	18	44	22	53	28	53	29	40	20	20	4	38.2	19.4
Waverly	17	10	26	5	35	21	31	17	30	13	25	12	12	- 9	31	3	28	6	32	14	31	15	40	14	40	20	43	26	40	25	35	33	34	31	32	22	29	15	39	10	33	20	38	16	38	20	41	22	35	22	41	16	49	22	47	24	46	24	40	13	13	1	33.9	16.2
Webster City	24	6	24	2	39	20	36	16	35	11	36	17	18	-14	38	6	32	-2	39	19	36	17	43	18	42	19	49	29	45	24	39	34	35	32	33	23	32	20	40	11	35	15	39	17	41	13	45	21	40	24	45	15	43	20	49	22	51	27	45	17	20	0	37.7	16.1
West Bend	13	3	28	1	39	18	32	11	34	13	30	13	16	-15	33	13	34	11	37	19	31	16	41	19	42	19	50	33	40	26	36	33	34	29	29	17	25	19	35	11	32	16	38	19	41	19	44	20	34	23	44	16	42	16	47	23	48	29	37	14	14	-2	34.8	16.2
Whitten	22	5	27	0	34	17	33	19	32	12	31	13	17	-14	33	0	26	4	40	15	34	15	32	15	31	17	45	25	46	26	51	21	52	38	56	36	40	20	40	11	36	12	38	17	40	22	43	21	36	24	43	15	41	20	48	24	49	39	49	15	42	-1	38.8	16.2
Wilton Junction	36	11	36	7	30	18	34	20	30	28	30	-2	29	3	29	6	30	10	35	10	35	21	37	4	37	10	47	21	41	22	40	35	37	35	37	27	32	20	40	13	35	13	37	20	40	30	40	28	40	30	44	15	44	20	45	35	47	28	45	25	45	5	37.5	18.3
Winterset	20	9	28	6	40	19	35	22	35	18	30	16	16	- 9	34	10	31	17	43	23	35	23	42	22	46	25	52	33	42	29	40	34	38	33	38	22	34	21	42	19	35	20	40	21	45	27	47	27	37	29	50	22	44	23	49	27	51	32	42	21	21	5	38.1	20.8
Woodburn	25	9	28	1	31	6	31	12	32	26	32	20	28	-11	40	- 1	35	10	46	22	35	22	45	23	50	19	60	29	47	23	46	32	40	31	36	25	40	19	46	15	40	18	44	12	46	19	52	22	39	25	53	14	44	21	54	21	45	28	42	15	20	4	40.4	17.1
Zearing	16	7	32	2	38	18	34	17	34	9	29	13	9	-15	33	- 1	28	4	45	22	34	18	43	17	43	16	49	30	39	24	38	34	35	32	34	21	35	20	43	12	44	13	40	15	43	20	46	22	44	16	38	26	44	26	50	25	50	20	44	16	19	0	37.2	16.1

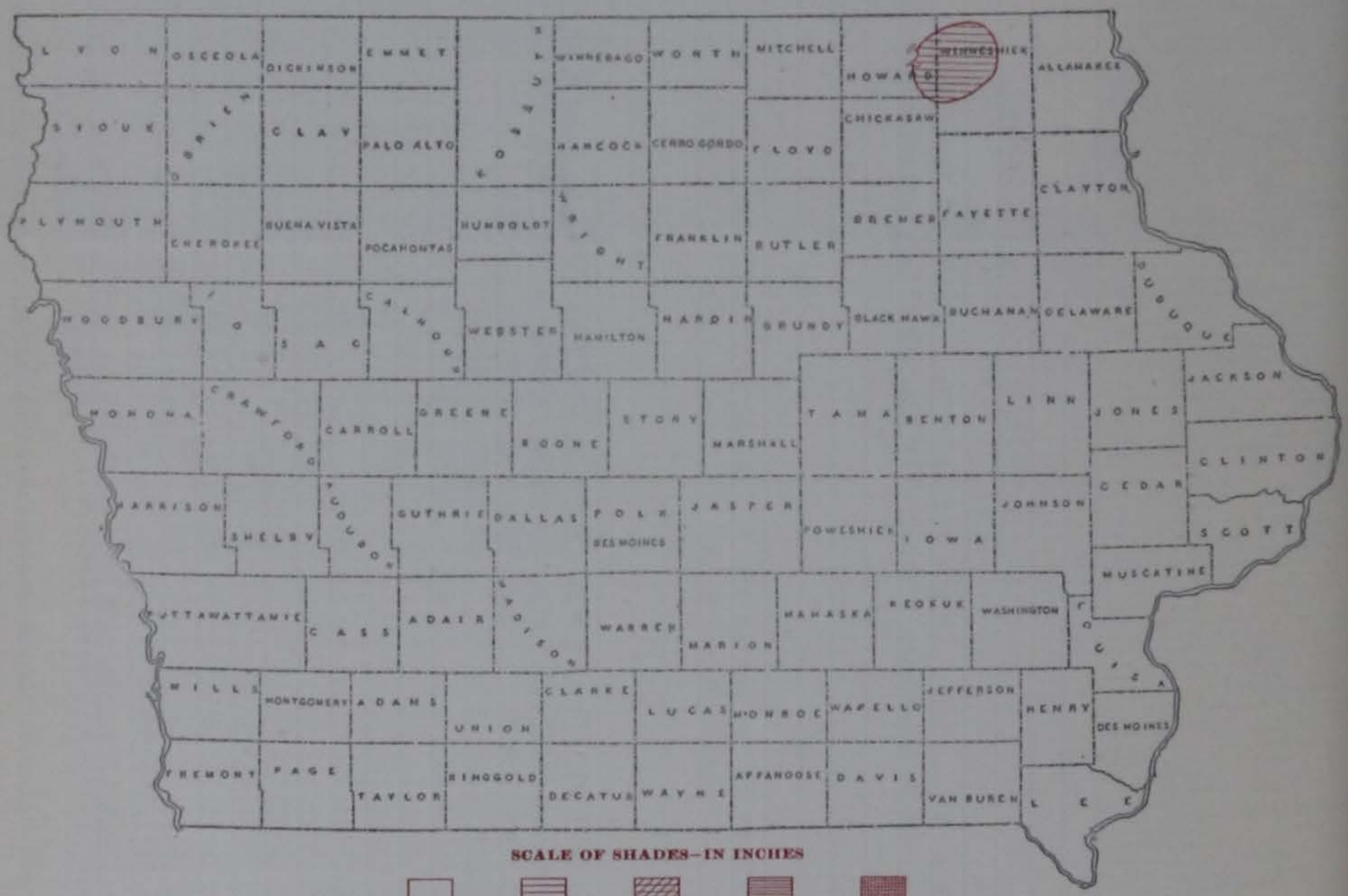
DAILY PRECIPITATION FOR IOWA, DECEMBER, 1908

STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	....	T	.35	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.35
Albia	....	....	....	....	....	.20	....	....	....	....	....	T	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.20
Algona	....	....	....	....	.05	.15	....	....	....	....	....	....	....	....	....	.40	.30	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.90
Allerton	....	....	....	....	....	.19	....	....	....	....	T	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.19
Alta	....	....	....	....	....	.28	T	....	....	....	....	.03	....	....	....	.03	.25	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	.64
Alton	....	....	....	....	.15	.05	....	....	....	....	.05	....	....	....	....	T	.46	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.71
Amana	....	....	....	....	.05	.35	....	....	....	....	T	....	....	....	....	....	.04	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.44
Ames	....	....	....	....	.45	....	....	....	....	....	....	....	....	T	....	....	.12	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.57
Atlantic	....	....	....	....	.21	.21	....	....	....	....	T	....	....	....	....	....	.04	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.46
Audubon	....	....	....	....	....	.25	....	....	....	....	.03	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.30
Baxter	....	....	....	....	....	.50	....	....	....	....	.03	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.58
Bedford	....	....	....	....	....	.19	....	....	....	....	T	....	....	....	T	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.19
Belle Plaine	....	....	....	....	.10	.70	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.80
Bloomfield	....	....	....	....	....	.40	....	....	....	.01	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.44
Bonaparte	....	....	....	T	....	.14	....	....	....	....	T	....	....	....	....	T	.03	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.17
Boone	T	....	....	....	....	.40	....	....	....	....	....	T	....	....	....	....	.07	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.47
Britt	....	....	....	....	T	.18	T	....	....	....	....	....	....	....	....	.50	.25	.03	....	....	....	....	....	....	T	....	....	....	....	....	T	.96
Buckingham	....	....	....	....	.38	....	....	....	....	....	....	....	....	....	....	T	.06	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.44
Burlington	....	....	....	.01	....	.25	....	....	....	....	.01	.03	....	....	....	.06	.07	....	....	....	....	....	....	....	....	....	....	....	....	.22	....	.65
Carroll	....	...	....	....	....	.30	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.30
Cedar Rapids	....	....	....	....	.48	.04	...	....	....	....	T	....	....	....	....	....	.06	....	....	....	....	....	....	....	....	T	....	....	....	....	T	.58
Chariton	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	T	T	.20
Charles City	....	....	....	....	.10	.22	....	....	....	....	....	....	....	....	....	.64	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.16
Clarinda	....	....	....	....	....	.27	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.27
Clear Lake	T	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	.40	.50	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.10
Clinton	....	....	....	....	....	.27	....	....	....	....	....	....	....	....	....	....	.22	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.49
Columbus Junction	....	....	....	....	....	.30	....	....	....	T	T	....	....	....	....	....	.07	....	....	....	....	....	....	....	....	....	....	....	T	....	....	.37
Corning	....	....	....	....	....	.35	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.35
Corydon	....	....	....	....	....	.21	....	....	....	....	T	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.23
Creston	....	....	....	....	....	.30	....	....	....	....	....	....	....	....	T	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.30
Cumberland	....	....	....	....	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.08
Davenport	....	....	....	....	.10	.14	....	T	....	T	T	....	....	....	....	.02	.12	....	....	....	....	....	....	....	T	....	....	....	T	....	.02	0.40
Decorah	....	....	....	....	....	.30	....	.10	....	....	....	.08	....	....	....	.74	.45	.03	....	....	....	....	....	....	T	....	....	....	....	T	....	1.70
Denison	....	....	....	....	....	.09	....	....	....	....	.02	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.11
Des Moines	....	....	....	....	.16	.13	....	....	....	....	T	....	....	....	....	.01	.01	T	....	....	....	....	....	....	T	....	....	....	....	....	....	0.31
De Soto	....	....	....	....	.10	.50	....	....	....	....	T	....	....	....	....	....	.01	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.61
Dows	....	....	....	....	....	.26	....	....	....	....	....	....	....	....	....	.04	.09	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.39
Dubuque	....	....	T	....	.16	.23	....	.01	....	T	....	.01	....	....	....	.05	.17	....	....	....	....	....	....	....	T	....	....	....	T	T	....	0.63
Earlham	....	....	....	....	.10	.30	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.40
Elkader	....	....	....	....	....	.40	....	.08	....	....	....	.02	....	....	....	.20	.15	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.85
Elliott	....	....	....	....	.30	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.60
Elma	....	....	....	....	T	.05	....	T	....	....	....	T	....	....	....	.40	.30	....	....	....	....	....	....	....	T	....	....	....	T	T	....	.75
Estherville	T	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	T	.50	.05	....	....	....	....	....	....	T	....	....	....	....	....	....	.75
Fairfield	....	....	....	....	T	.23	....	....	....	....	.03	....	....	....	....	....	.03	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.29
Fayette	....	....	....	....	....	.56	....	T	....	....	....	....	....	....	....	.52	.13	T	....	....	....	....	....	....	T	....	....	....	T	....	....	1.21
Forest City	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	....	.50	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.70
Fort Dodge	T	....	....	....	....	.30	....	....	....	....	....	....	....	....	....	....	.45	T	....	....	....	....	....	....	....	T	....	.75	....	....	....	.75
Fort Madison	....	....	.10	....	T	.10	....	....	....	....	T	....	....	....	....	....	T	....	....	....	....	....	....	....	....	T	....	.75	....	....	....	.95
Gilman	....	....	....	....	....	.60	....	....	....	....	.10	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.70
Grand Meadow	....	....	....	....	....	.40	....	....	.02	....	....	.02	....	....	....	....	.90	....	....	....	....	....	....	....	T	....	....	....	....	T	....	1.34
Greene	....	....	....	....	....	.26	....	....	....	....	....	....	....	....	....	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.51
Greenfield	....	....	....	....	.05	....	....	....	....	....	T	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05
Grinnell	....	....	....	....	....	.58	....	....	....	....	T	....	....	....	....	....	.06	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.64
Grundy Center	....	....	....	....	....	.40	....	....	....	....	T	....	....	....	....	T	.45	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.85
Guthrie Center	....	....	....	....	....	.58	....	....	....	....	T	....	....	....	....	....	.07	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.65
Hampton	....	....	....	....	.40	....	....	....	....	....	....	....	....	....	....	.35	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	.03	.83
Hancock	....	....	....	....	.05	.32	....	....	....	....	T	....	....	....	....	....	T	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.37
Harlan	....	....	....	....	T	.26	....	....	....	....	.01	....	....	....	....	....	T	T	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.27
Hopeville	....	....	....	....	T	.21	....	....	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.23
Humboldt	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	.16	.12	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.33
Independence	....	....	....	....	....	.60	....	....	....	....	....	....	....	....	....	.10	.10	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	.90
Indianola	....	....	....	....	.10	.30	....	....	....	....	.05	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.45
Inwood	....	....	....	....	.03	.08	....	....	....	....	.04	....	....	....	....	.05	.55	.03	.03	....	....	....	....	....	....	....	....	....	....	T	....	.81
Iowa City	.03	....	....	....	....	.38	....	....	....	....	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.43
Iowa Falls	T	....	....	....	.50	....	....	....	....	....	....	T	....	....	....	T	T	.05	....	....	....	....	....	....	....	....	T	....	....	....	....	.55
Jefferson	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	T	....	....	....	....	....	.22
Keokuk	....	....	....	.07	.05	.18	....	....	....	....	T	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	28	....	....	0.58
Keosauqua	....	....	....	T	....	.14	....	....	....	....	....	.02	....	....	....	....	T	T	....	....	....	....	....	....	....	....	....	T	T	....	....	.16
Lacona	....	....	....	....	.06	.24	....	....	....	....	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.32
Lamoni	....	....	....	....	....	.28	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.23
Larrabee	....	....	....	....	.22	T	....	....	....	....	.05	....	....	....	....	.43	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.75
Le Claire	.02	....	....	....	....	.28	.02	....	T	....	T	T	....	....	....	....	.11	.04	....	....	....	....	....	....	....	T	....	....	....	T	....	0.47
Le Mars	....	....	....	....	.29	....	....	....	....	....	.04	....	....	....	....	.13	.39	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.85
Lenox	....	....	....	....	....	.30	....	....	....	....	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.33
Leon	....	....	....	....	....	.30	....	....	....	....	T	....	....	....	....	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.30
Little Sioux	....	....	....	....	....	.10	....	...	....	....	.05	....	....	....	....	....	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.18
Logan	....	....	....	....	....	.12	....	....	....	....	.10	....	....	....	T	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.22
Marshalltown	....	....	....	....	....	.50	....	....	....	....	....	T	....	....	....	....	.06	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.56
Mason City	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	.50	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.90
Mt. Ayr	....	....	....	....	....	.10	....	....	....	....	T	....	....	....	....	T	T	T	....	....	....	....	....	....	....	....	....	....	T	....	....	.10
Mt. Pleasant	....	....	....	T	T	.30	....	....	....	....	.02	....	....	....	....	....	.09	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.41
Muscatine	....	....	....	....	....	.40	....	....	....	....	T	....	....	....	....	....	.05	.05	....	....	....	....	....	....	....	T	....	....	....	T	....	.50
New Hampton	....	....	....	....	....	.15	....	....	....	....	....	.02	....	....	....	.68	.35	T	....	....	....	....	....	....	T	....	....	....	....	T	....	1.20
Newton	....	....	....	....	....	.27	....	....	....	....	.04	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.36
Northwood	....	....	....	....	....	.25	....	....	....	....	....	....	....	....	....	.82	.44	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	1.56
Odebolt	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.15
Omaha, Neb	....	....	....	T	.23	.02	....	....	....	....	T	....	....	....	T	T	.01	T	....	....	....	....	....	....	....	....	....	....	....	....	....	0.26
Onawa	....	....	....	....	....	.20	....	....	....	....	.05	....	....	....	....	....	.10	.03	T	....	....	....	....	....	....	....	....	....	....	....	....	.38
Osage	....	....	....	....	....	.30	....	....	....	....	....	....	....	....	....	1.18	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	1.48
Oskaloosa	....	....	....	....	.06	.16	....	....	....	....	.01	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.25
Ottumwa	....	....	....	....	....	....	.30	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.30
Pacific Junction	....	....	....	T	.05	.30	....	....	....	....	T	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.35
Perry	....	....	....	....	....	.40	....	....	....	....	....	....	....	....	....	....	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.48
Plover	....	....	....	....	T	.20	....	....	....	....	....	....	....	....	....	.30	2	....	....	....	....	....	....	....	....	....	....	....	....	T	T	.75
Pocahontas	....	....	....	....	.05	.22	....	....	....	....	.03	....	....	....	....	.20	.3	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.83
Ridgeway	....	....	....	....	.03	.37	....	.02	....	....	....	.03	....	....	....	1.02	.5	....	....	....	....	....	....	....	.01	....	....	....	....	.01	....	2.07
Rockwell City	....	....	....	....	....	.40	....	....	....	....	....	....	....	T	T	T	.5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.90
St. Charles	....	....	....	....	.10	.40	....	....	....	....	T	....	....	....	....	....	T3	T	....	....	....	....	....	T	....	....	....	....	....	....	....	.50
Sheldon	....	....	....	....	.10	.05	....	....	....	....	T	....	....	....	T	.50	.7	....	....	....	....	....	....	....	....	....	....	....	....	....	T	1.40
Sibley	....	....	....	....	....	.10	T	....	....	....	....	....	....	....	....	....	.7	.07	....	....	....	....	....	....	....	....	....	....	....	....	....	.96
Sigourney	T	....	....	T	....	.30	....	....	....	T	T	....	....	....	....	....	.0	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.32
Sioux Center	....	....	....	....	.10	.15	....	....	....	....	.05	....	....	....	....	.27	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.82

DAILY PRECIPITATION FOR IOWA, DECEMBER, 1908—Continued

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sioux City	....	....	....	....	.12	T	....	....	....	....	.02	....	....	....	T	.16	.04	T	T	....	....	....	....	....	T	....	....	....	....	T	T	0.34
Stockport	....	....	....	T	T	.18	....	....	....	T	T	....	....	....	....	T	T	....	....	....	....	....	....	T	....	....	....	....	....	....	....	.18
Storm Lake	T	....	....	....	....	.23	....	....	....	....	.01	....	....	....	....	.09	.12	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.45
Thurman	....	....	....	....	....	.30	T	....	....	....	T	....	....	....	T	T	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.30
Toledo	....	....	....	....	....	.60	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.60
Wapello	....	....	....	....	....	.28	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.28
Washington	....	....	....	....	....	.20	....	....	....	.01	.01	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20
Washta	....	....	....	....	.20	T	....	....	....	....	T	....	....	....	....	.10	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.50
Waterloo	....	....	....	....	.38	....	....	....	....	....	....	....	....	....	....	.11	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.57
Waukee	....	....	....	....	T	.06	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.06
Waverly	....	....	....	....	.05	.35	....	....	....	....	....	T	....	....	....	.18	.10	....	....	....	....	....	....	....	T	....	....	....	....	....	T	.68
Webster City	....	....	....	....	T	.30	....	....	....	....	....	....	....	....	....	T	T	.10	....	....	....	....	....	....	T	....	....	....	....	....	....	.40
West Bend	....	....	....	....	T	.20	....	....	....	....	....	....	....	....	....	....	.50	.05	....	....	....	....	....	....	T	....	....	....	....	....	T	.75
Whitten	T	....	....	....	T	.05	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	.05
Wilton Junction	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.18	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.18
Winterset	....	....	....	....	.15	.35	....	....	....	....	T	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.50
Woodburn	....	....	....	....	.40	....	....	....	....	....	T	....	....	....	....	T	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.40
Zearing	....	....	....	.42	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.42

TOTAL PRECIPITATION, DECEMBER, 1908.



SCALE OF SHADES—IN INCHES

Less than 2 | 2 to 4 | 4 to 6 | 6 to 8 | More than 8

APPENDIX.

ANNUAL SUMMARY, 1908.

ERRATA FOR ANNUAL SUMMARY FOR 1907.

Alta: Mean temperature, pages 146 and 151, recorded 44.9 should be 45.0. Amana: Mean temperature, page 151, recorded 18.4 should be 48.4. Buckingham: Total precipitation, page 153, recorded 36.38, should be 31.38. Clear Lake: Mean temperature for December, page 151, recorded 26.0, should be 26.2. Clinton: Precipitation for September, page 153, omitted, should be 4.47, and total precipitation, pages 146 and 153, should be 41.79. Charles City: Precipitation for June and December, page 153, recorded as 7.38 and .79, should be 7.37 and .77 respectively, and total precipitation, pages 146 and 153, recorded 32.70, should be 32.67. Denison: Precipitation for February, page 153, recorded .44, should be 1.48, and total precipitation, pages 146 and 153, recorded 28.48, should be 29.52. Keokuk: Precipation for June, page 153, recorded 6.30, should be 6.40, and total precipitation, pages 146 and 153, recorded 38.70, should be 38.80. Knoxville: Precipitation for September, page 153, omitted, should be 2.65. Larrabee: Precipitation for September, page 153, omitted, should be 1.98, and total precipitation, pages 146 and 153, omitted, should be 22.14. Logan: Precipitation for September, page 153, omitted, should be .73, and total precipitation, pages 147 and 153, omitted, should be 23.16. Pocahontas: Mean temperature, pages 147 and 151, omitted, should be 45.6. Precipitation for May, page 153, recorded 2.19, should be 2.79. Rock Rapids: Precipitation for September, page 154, omitted, should be 4.02, and total precipitation, pages 147 and 154, omitted, should be 25.03. Sioux City: Last frost of spring, page 152, recorded May 15th, should be May 7th. Waterloo: Minimum temperature for December, page 150, recorded 8 on the 4th, should be 6 on the 31st. Whitten: Lowest temperature, page 147, recorded 20, should be —20.

GENERAL SUMMARY

The mean temperature and average precipitation were above the normal for the year, there being an excess in temperature of 2°, and in precipitation of 2.16 inches. The temperature was above normal every month of the year except May, June, July, August, and October; the greatest deficiency being in August, when it was 1.8° below the normal. The precipitation was above the normal in February, May, June, August, October, and November, the greatest excess being in May, when it was 3.84 inches above the normal. The winter months were comparatively warm and dry, and the summer months wet and cool. The excessive and almost continuous rains in May and June were very injurious, coming as they did during the planting season; but the injury was more than compensated for by the dry and warm weather during the latter part of August and most of September. The year as a whole has been the most profitable one on record for the farmer.

Barometer.—The mean pressure of the atmosphere for the year 1908 was 30.03 inches. The highest observed pressure was 30.75 inches on December 2d, at Keokuk, Lee county. The lowest pressure was 29.05 inches on April 24th, at Charles City, Des Moines and Sioux City, in Floyd, Polk and Woodbury counties. The range for the state was 1.70 inches.

Temperature.—The mean temperature for the state was 49.5; which is 2.0° above the normal for the state. The highest temperature reported was 101° on August 3d, at Oskaloosa and Ottumwa, in Mahaska and Wapello counties. The lowest temperature reported was 18° below zero on January 29th, at Estherville and Forest City, in Emmet and Winnebago counties. The range for the state was 119°.

Precipitation.—The average amount of rain and melted snow for the year, as shown by complete records of 102 stations, was 35.26 inches, which is 2.61 inches above the normal, and 3.20 inches above the average amount in 1907. The greatest amount recorded at any station for the year was 49.98 inches at Rockwell City, Calhoun county. The least amount recorded was 24.11 inches at Dubuque, Dubuque county. The greatest monthly rainfall was 14.33 inches at Fort Madison, Lee county, in May. The least monthly precipitation was trace at Tipton, Cedar county, in December. The greatest amount in any 24 consecutive hours was 6.02 inches at Stuart, in Guthrie county, on August 15th. The average amount of snowfall was 20.7 inches. The greatest amount of snowfall, unmelted, at any station during the year was 37.0 inches at Sheldon, O'Brien county. The greatest monthly snowfall was 17.3 inches, in February, at Pacific Junction, Mills county, and the greatest 24 hour snowfall recorded was 15.8 inches on February 18th, at Pacific Junction, Mills county. Measurable precipitation occurred on an average of 86 days.

Wind.—The prevailing direction of the wind was northwest. The highest velocity reported was 60 miles per hour in Sioux City, Woodbury county, from the northeast and southwest, on May 16th and June 22d. The average daily movement of wind was 208 miles.

Sunshine and Cloudiness.—The average number of clear days was 176; partly cloudy 96; cloudy 94; as against 168 clear days; 94 partly cloudy, and 103 cloudy days in 1907. The duration of sunshine was slightly above the normal.

THE WEATHER BY MONTHS

During the first and second decades of January the temperature was decidedly above the normal and was not down to zero, except in the northern districts, until the 23d. After that date, the temperature was more seanosable and records of zero or below were reported on one or more dates from all sections of the state; the lowest for the month and winter occurring on the 29th. The average precipitation was below the normal, and the amounts were uniformly small; the only storm of consequence was on the 31st, and was attended by rain, snow and sleet, the latter causing a great deal of damage to fruit-trees, telegraph, telephone, and electric car lines, but, on the whole, the month was exceptionally pleasant with an abundance of sunshine.

February opened cold with the temperature below zero on the 1st and 2d, and these were the coldest days of the month. After the 2d, the weather was quite moderate, except on the 19th, 20th and 27th, when the temperature was nearly to or below zero; but the average temperature for the month was considerably above the normal, the greatest excess being in the northern counties where it averaged 5.9° above the normal. The precipitation was heavier than ever before recorded in February since the organization of the State Weather Service in 1890. The snowfall was unusually heavy, and the excess in precipitation for the month was due mostly to the severe snowstorm which swept over the state on the 18th. It was the most severe storm of the winter; the amounts of snow ranged from 2 to 4 inches, in the northern counties, to 10 to 16 inches, in southern and eastern counties. The storm was attended by high winds which drifted the snow badly and delayed traffic in all sections of the state, and, on some of the railroads in the southern section, no trains were run for two days. The snow melted rapidly on the 22d and 23d, and at the close of the month the ground was uncovered except a trace in the northeastern counties.

The weather during March was exceptionally mild and pleasant with the temperature uniformly above the normal, and the precipitation below the normal, except over the east central counties. The coldest day of the month was on the 8th, when the minimum temperatures in a few of the northwestern counties were from one to eight degrees below zero. The precipitation was quite well distributed and fell mostly in the form of rain, no snow being reported except small amounts in the central and northern counties. The month afforded more than the usual number of pleasant days for farm and other out-door work. The growth of vegetation was not as far advanced at the end of the month as it was at the close of March, 1907, but fully as much seeding of small grain and plowing for corn had been done.

April opened and closed with cool waves during which the temperatures were below freezing. During the first three days the minimum temperatures ranged from 11° to 18° over the northern district, and from 14° to 24° in the southern district. From the 3d to the 27th the weather was moderate and generally very pleasant with maximum temperatures, at some stations, above 90° on the 13th and 19th. There was an excess of sunshine, and, except in a few localities, where heavy local showers occurred, there was less than the usual amount of rainfall, the greatest deficiency occurring over the southwestern and southern counties. The conditions were exceptionally favorable for work in the fields, and the seeding of small grain was practically completed at the beginning of the third decade, and at the close of the month more than the usual amount of ground had been prepared for corn. Up to the 27th, the prospects for a fruit crop were never better, but the frosts and freezing temperatures during the last three days of the month did considerable damage to the buds, especially in southern counties.

The cool wave, which swept over the state during the last three days of April, continued until the 3d of May, causing heavy to killing frost in all parts of the state on the 2d, which resulted in further injury to fruit and garden truck. From the 3d to the close of the month there were no decided changes in temperature, it being quite moderate and uniform, so that the monthly average was but a fraction of a degree below the normal. The month was, however, characterized by abnormally heavy rainfall and the frequency of showers. Rain fell in some part of the state on every day of the month. The average amount of precipitation was 8.34 inches, or 3.84 inches above the normal. This record has been exceeded in May but twice during the past 19 years, viz.: 1892 and 1903, with an average amount of 8.77 and 8.55 inches respectively. The excessive rainfall caused flood stages in all streams and rivers, washt hillsides, overflowed low and bottom lands, prevented the completion of corn planting and the cultivation of the early planted fields. There was about 20% of the corn area to be planted at the close of the month and a great deal of replanting to be done.

During June the average temperature was below the normal and the rainfall exceeded the normal by 1.14 inch. In the western portion of the upper Des Moines river valley, the excess ranged from 4 to over 7 inches; the greatest monthly rainfall reported was 11.88 inches at Plover in Pocahontas county. Severe thunderstorms, accompanied by wind squalls and hail, were frequent; the most damaging wind storm occurred at Charles City, in Floyd county, on the afternoon of the 7th, and one of the worst hailstorms on record in this state swept over Howard, Winneshiek, Allamakee and Clayton counties on the evening of the 20th, causing damage to the extent of over $400,000. The frequent and heavy rains prevented work in the fields, kept the rivers up to flood stages, flooded all low and flat lands and caused considerable washing of the soil on hillsides, and, as a result, farmers in some sections of the state were planting or replanting corn up to the close of the month. But in spite of the adverse conditions the early planted corn on high and well tiled land showed a good stand and was exceptionally clean, and some fields were laid by before the end of the month. The excessive moisture and moderately cool weather were very beneficial to grass, and the hay crop of 1908 will go on record as having been one of the largest yields per acre ever harvested in this state. The cherry crop was light in southern and fair in the northern counties, where the buds were not so far advanced at the time of the frosts in May.

July was an exceptionally good harvest month, the temperature being very nearly normal and but little rainfall after the 7th. The number of wind squalls and hailstorms were less than is usual in July; the worst windstorm occurred on the afternoon of the 26th in Ida county and caused considerable damage to crops and buildings; and the worst hailstorm of the month occurred on the 17th near Woodburn, Clarke county. Small grain harvest began during the second week and was nearly completed and threshing operations were in full progress before the close of the month. Corn made rapid growth but was very uneven in size, owing to the long interval of time between the early and late planted fields.

The mean temperature of August was 1.8° below and the average precipation was .78 inch above the normal. The highest temperature of the summer was recorded during the month, the maximum being 101°. The rainfall was fairly well distributed both as to amount and number of showers. The weather was favorable for the growth of vegetation and for farm work. Harvest was finished and threshing was well advanced at the close of the month. Corn made rapid advancement but showed no indication of ripening.

September will go on record as having had the longest drouthy period of any September during the past 19 years, and for its long period of high temperature which averaged 4.2° above the normal. With the exception of a few scattered showers on the 4th and 5th, 13th and 23d, there was no rain in the state from the night of August 31st to the night of September 25th. The warm, dry weather prevented fall plowing and was injurious to pastures and the surface water supply, but was very beneficial to corn, preparing it for the killing frost and freezing temperatures which came on the 28th and 29th. Fall plowing, which had been delayed by the dry weather, was resumed after the copious showers on the 26th, 27th and 28th.

Drouthy conditions prevailed from the 1st to the 19th of October, with an excess of temperature during the same period, but during the last decade of the month the conditions were reversed, the average temperature for the month being below and the precipitation above the normal. The clear, dry and warm weather with brisk winds during the first half of the month caused the corn crop to dry out rapidly and husking began between the 15th and 18th, but was delayed by the rains between the 19th and 28th so that only about 15% of the crop was cribbed at the close of the month.

November was an exceptionally mild and pleasant month with an average temperature 3.4° above the normal, and a slight excess of precipation. There were no severe rain or sleet storms and but one light snowstorm. The clear and warm weather was favorable for out-door work and nearly 90% of the corn crop had been harvested by the close of the month. Considerable fall plowing was done and meadows pastures and fall grains were reported as being in good condition. The clear and mild weather continued during December, there being an excess of 3.6° in temperature and a deficiency of .62 inch in precipitation with an abundance of sunshine. There was but one period during the month when the temperatures were generally below zero. On the 6th and 7th, the temperature ranged from zero to 17° below zero.

COMPARATIVE DATA FOR THE STATE—ANNUAL.

	TEMPERATURE					PRECIPITATION			
	Mean Annual	Highest	Date	Lowest	Date	Annual	Greatest Annual	Least Annual	Average Snow Fall
1890	48.0	110	July 13	-27	January 22	31.28	45.74	16.00	.....
1891	47.3	106	August 9	-31	February 4	32.90	49.05	23.48	.....
1892	46.6	104	July 11	-38	January 19	36.58	48.77	24.78	31.7
1893	45.7	102	July *13	-36	January 14	27.59	33.27	19.19	36.2
1894	49.7	109	July 26	-37	January 25	21.94	29.81	15.65	18.4
1895	47.2	104	May 28	-33	February 1	26.77	35.25	18.57	25.5
1896	48.6	104	July 3	-20	January 4	37.23	51.60	28.68	19.8
1897	47.9	106	July *23	-30	January 25	26.97	36.18	20.21	38.5
1898	47.7	103	August 20	-25	December 31	31.34	55.47	19.51	38.6
1899	47.5	104	September 6	-40	February 11	28.68	42.06	21.79	23.2
1900	49.3	103	August 3	-27	February 15	34.15	47.33	25.05	26.3
1901	48.9	113	July 22	-31	December 15	24.41	37.69	16.35	37.2
1902	47.7	98	July 30	-31	January 27	43.82	58.80	20.14	27.7
1903	47.2	101	August 24	-27	December 13	35.39	50.53	26.41	19.1
1904	46.3	100	July 17	-32	January 27	28.51	38.93	19.34	30.3
1905	47.2	104	August 11	-41	February 2	36.56	52.26	24.66	37.9
1906	48.4	102	July 21	-32	February 10	31.60	44.34	20.63	32.5
1907	48.0	102	July 5	-31	February 5	31.61	43.90	19.93	24.3
1908	49.5	101	August 3	-18	January 29	35.26	49.98	24.11	20.■

* And other dates.

CLIMATOLOGICAL DATA FOR THE YEAR 1908

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES, FAH.					PRECIPITATION, IN INCHES						Total snowfall, unmelt'd	SKY				Prevailing direction of wind
				Mean	Highest	Date	Lowest	Date	Length of record, years	Total for the year	Greatest monthly	Month	Least monthly	Month		No. rainy days	No. clear days	No. partly cloudy days	No. cloudy days	
Afton	Union	1,212	14	51.1	96	July 11	- 8	Jan. 29 Dec. 7	15	37.95	8.69	May	.35	Dec.	13.5	85	151	120	95	sw
Albia	Monroe	959	11	50.2	96	Aug. 3	- 8	Jan. 29	11	32.38	10.49	May	.20	Dec.	12.5	92	.....	.....	.....	.....
Algona	Kossuth	1,213	34	47.3	96	July 11	-16	Jan. 29	36	40.31	10.57	May	.33	Jan.	20.5	82	232	58	76	nw
Allerton	Wayne	.....	6	51.8	96	Aug. 3	- 7	Jan. 29	7	34.21	10.49	May	.19	Dec.	14.4	96	218	61	87	nw
Alta	Buena Vista	1,513	17	46.5	94	July 11	-15	Dec. 7	18	42.79	8.44	May	.15	Jan.	22.8	100	176	122	68	nw
Alton	Sioux	1,305	4	47.9	98	July 10	-11	Jan. 29	4	32.52	7.29	May	.20	Jan.	26.8	88	214	66	86	nw
Amana	Iowa	721	31	49.9	97	Aug. 3	- 7	Jan. 29	33	32.19	7.45	May	.44	Jan. Dec.	18.5	95	159	128	79	nw
Ames	Story	926	28	.....	95	Aug. 3	-12	Jan. 29 Dec. 7	31	.....	7.95	May	.45	Mar.	.....	.....	.....	.....	.....	.....
Atlantic	Cass	1,164	17	49.2	97	Aug. 3	-10	Jan. 28	17	30.86	8.80	May	.22	Jan.	18.7	68	.....	.....	.....	.....
Audubon	Audubon	1,301	15	48.5	96	July 11	-11	Dec. 7	15	34.98	10.16	May	.30	Dec.	23.2	103	.....	.....	.....	nw
Baxter	Jasper	998	9	49.8	95	Aug. 3	-13	Dec. 7	9	32.06	8.41	May	.38	Jan.	19.5	107	.....	.....	.....	sw
Bedford	Taylor	.....	9	51.1	97	Sept. 11	-10	Feb. 2* Dec. 7	9	33.12	7.72	June	.18	Jan.	14.8	92	214	61	91	nw
Belle Plaine	Benton	828	19	49.0	95	Aug. 3	-12	Feb. 2	19	30.22	4.33	May	.78	Jan.	33.9	90	143	109	114	se
Bloomfield	Davis	.....	2	52.4	100	Aug. 3	- 6	Jan. 29	2	38.28	13.89	May	.44	Dec.	19.5	85	190	115	61	nw
Bonaparte	Van Buren	.....	18	51.6	95	Aug. 3	- 8	Jan. 24	18	34.50	11.07	May	.17	Dec.	14.5	83	.....	.....	.....	.....
Boone	Boone	1,134	4	49.0	96	Aug. 3	-12	Jan. 29	4	37.23	7.12	May	.42	Jan.	16.5	93	.....	.....	.....	.....
Britt	Hancock	1,236	12	46.9	94	July 11	-17	Jan. 29	12	38.38	7.85	May	.42	Jan.	19.9	97	61	216	89	nw
Burlington	Des Moines	544	13	52.5	98	Aug. 16	- 3	Feb. 2	13	38.11	11.34	May	.65	Dec.	.....	100	228	46	92	.....
Carroll	Carroll	1,265	19	48.4	97	Aug. 12	-12	Dec. 7	19	42.52	8.48	May	.30	Jan. Dec.	19.1	93	230	19	117	.....
Cedar Rapids	Linn	733	27	49.3	98	July 11 Aug. 3	- 7	Jan. 30	27	28.83	6.11	May	.31	Jan.	21.1	83	131	130	105	.....
Chariton	Lucas	1,042	14	51.0	98	Aug. 3	- 9	Jan. 29 Dec. 7	14	27.88	9.83	May	.20	Dec.	12.0	55	200	78	88	se
Charles City	Floyd	1,015	21	46.7	94	July 10	-14	Jan. 29	27	34.16	8.40	June	.40	Jan.	25.4	94	83	144	139	nw
Clarinda	Page	1,009	19	50.8	98	Aug. 3	- 8	Dec. 7	19	36.19	8.55	May	.20	Jan.	32.2	103	190	52	124	s
Clear Lake	Cerro Gordo	1,241	10	47.6	94	July 11	-17	Jan. 29	10	33.64	9.20	May	.23	Feb.	.....	75	.....	.....	.....	n
Clinton	Clinton	593	41	49.5	96	July 11 Aug. 3	- 8	Feb. 2	37	34.93	6.66	May	.49	Dec.	22.0	92	136	119	111	.....
Columbus Jct.	Louisa	595	8	51.5	94	July 12* Aug. 3	- 5	Feb. 2	8	34.76	7.92	Aug.	.37	Dec.	20.6	83	230	82	54	s
Corning	Adams	1,117	17	50.5	95	Aug. 3	-11	Dec. 7	17	38.17	12.18	May	.35	Dec.	25.0	66	.....	.....	.....	se
Corydon	Wayne	1,101	16	52.2	96	Aug. 3*	- 8	Dec. 7	16	29.89	9.38	May	.23	Dec.	9.5	88	196	76	94	.....
Davenport	Scott	606	37	51.2	95	Aug. 3	- 4	Feb. 2	37	31.60	6.23	Aug.	.40	Dec.	25.0	101	157	96	113	nw
Decorah	Winneshiek	875	16	47.4	98	July 10	-16	Feb. 2	16	36.07	7.71	June	.50	Jan.	22.2	75	.....	.....	.....	.....
Denison	Crawford	1,180	14	49.3	95	Aug. 3	-11	Jan. 29 Dec. 7	14	37.24	9.54	June	.11	Dec.	16.3	95	.....	.....	.....	n
Des Moines	Polk	861	31	50.9	95	Aug. 3	- 7	Jan. 29	31	35.89	9.89	May	.31	Dec.	21.3	101	105	157	104	sw
De Soto	Dallas	866	9	51.0	95	July 11 Aug. 3	-14	Dec. 7	9	38.09	8.33	May	.55	Jan.	.....	81	.....	.....	.....	nw
Dows	Wright	1,142	9	47.0	93	July 11	-17	Dec. 7	9	.....	8.36	May	.30	Jan.	.....	.....	.....	.....	.....	.....
Dubuque	Dubuque	698	35	49.2	96	July 11 Aug. 3	- 6	Jan. 29	35	24.11	5.82	May	.63	Dec.	26.6	99	144	106	116	se
Earlham	Madison	.....	7	49.6	93	July 17	-10	Dec. 7	7	40.84	9.31	May	.40	Dec.	20.5	83	189	67	110	nw
Elkader	Clayton	727	28	48.6	99	July 27	-14	Feb. 2	30	30.93	6.55	May	.55	Jan.	32.8	72	202	73	91	nw
Elliott	Montgomery	.....	4	51.0	93	Aug. 3	-10	Feb. 2	4	36.20	11.16	May	.55	Jan.	20.5	73	207	106	53	nw
Elma	Howard	.....	....	46.3	94	July 10*	-16	Jan. 29	....	33.27	8.26	June	.14	Jan.	10.4	86	.....	.....	.....	nw
Estherville	Emmet	1,298	13	46.0	95	Sept. 12	-18	Jan. 29	13	36.47	9.13	May	.24	Jan.	16.7	83	.....	.....	.....	nw
Fairfield	Jefferson	780	14	.....	96	Aug. 3	-10	Jan. 24	23	33.17	10.41	May	.29	Dec.	.....	76	.....	.....	.....	.....
Forest City	Winnebago	1,226	15	46.5	95	July 11	-18	Jan. 29	15	37.01	8.10	May	.20	Jan.	12.0	74	201	70	95	.....
Fort Dodge	Webster	1,126	9	47.8	96	July 11	-13	Jan. 29	9	40.63	9.24	May	.30	Jan.	13.5	89	.....	.....	.....	.....
Grand Meadow	Clayton	1,180	18	47.0	92	July 11	-14	Jan. 29	18	37.83	7.02	May	.64	Jan.	22.7	89	115	147	104	nw
Greenfield	Adair	.....	18	.....	92	Jpily 29 Aug. 3	-12	Dec. 7	18	.....	6.67	May	.05	Dec.	.....	.....	.....	.....	.....	.....
Grinnell	Poweshiek	1,023	17	50.4	96	Aug. 3	-10	Jan. 29 Dec. 7	17	32.57	8.70	May	.48	Jan.	20.3	94	189	76	101	.....
Grundy Center	Grundy	976	18	49.4	98	July 11	-11	Jan. 29 Dec. 7	18	.....	.....	.....	.60	Jan.	17.0	.....	209	72	85	nw
Guthrie Center	Guthrie	1,077	14	50.1	95	Aug. 3	-10	Jan. 29 Dec. 7	14	40.56	8.26	May	.56	Jan.	30.9	107	220	58	88	nw
Hampton	Franklin	1,155	19	48.6	96	July 11 Aug. 3 Sept. 11	-14	Jan. 29	19	36.43	7.48	May	.70	Jan. Sept.	27.0	89	111	190	65	.....
Hancock	Pottawattamie	1,113	....	50.3	95	Sept. 10	-12	Dec. 7	....	30.06	7.36	May	.25	Jan.	14.5	77	237	44	85	.....
Harlan	Shelby	1,192	10	49.2	97	Aug. 3	-14	Dec. 7	10	29.86	8.48	May	.27	Dec.	17.4	94	135	136	95	nw
Hopeville	Clarke	.....	18	51.2	98	Aug. 5	- 9	Dec. 7	18	35.46	9.64	May	.23	Dec.	.....	103	102	179	85	.....
Humboldt	Humboldt	1,095	18	48.6	94	July 10*	-14	Jan. 29	20	39.81	9.66	May	.18	Jan.	11.5	80	.....	.....	.....	nw
Independence	Buchanan	921	44	48.5	94	Aug. 3	-11	Jan. 29	41	31.10	7.66	May	.20	Jan.	17.0	95	217	64	85	nw
Indianola	Warren	969	18	51.1	97	Sept. 22	- 8	Dec. 7	18	35.83	9.45	Aug.	.45	Jan. Dec.	16.9	99	.....	.....	.....	nw
Inwood	Lyon	1,474	5	47.0	99	July 10	-15	Dec. 7	5	32.76	6.69	June	.17	Jan.	35.9	89	226	59	81	nw
Iowa City	Johnson	683	50	50.0	98	Aug. 3	- 9	Feb. 2	46	37.70	7.78	May	.32	Jan.	26.5	99	175	52	139	.....
Iowa Falls	Hardin	1,170	16	47.1	95	July 11	-13	Jan. 29 Dec. 7	16	35.30	7.83	May	.35	Jan.	25.0	90	210	47	109	nw
Keokuk	Lee	614	38	53.8	95	Aug. 16	- 2	Feb. 2	38	34.28	10.09	May	.51	Jan.	22.5	91	188	105	73	nw
Keosauqua	Van Buren	644	17	50.9	97	Aug. 3	- 4	Jan. 24	17	35.72	12.54	May	.16	Dec.	16.9	83	75	143	148	.....
Knoxville	Marion	920	13	51.8	97	Aug. 3	- 7	Jan. 29	13	36.45	10.09	May	.30	Dec.	14.9	88	164	73	129	.....
Larrabee	Cherokee	1,266	18	47.2	94	July 10	-16	Dec. 7	19	35.02	9.77	May	.24	Jan.	17.9	92	184	122	60	nw
Le Mars	Plymouth	1,224	13	48.0	97	July 11	-13	Dec. 7	13	30.37	8.20	May	.19	Jan.	.....	79	184	121	61	nw
Lenox	Taylor	1,250	14	50.7	93	Aug. 3	-13	Dec. 7	14	34.32	8.02	May	.33	Dec.	14.3	77	244	45	77	s
Leon	Decatur	1,120	7	51.5	96	Aug. 3	- 7	Dec. 7	7	33.52	10.08	May	.30	Jan. Dec.	15.5	90	.....	.....	.....	s
Little Sioux	Harrison	.....	4	50.8	95	July 29 Aug. 3 Sept. 3*	-13	Dec. 7	4	36.01	9.77	June	.18	Dec.	25.2	96	206	61	99	se
Marshalltown	Marshall	947	17	48.3	95	July 11	-13	Dec. 7	17	28.43	6.21	May	.56	Dec.	19.2	89	126	107	133	se

CLIMATOLOGICAL DATA FOR THE YEAR 1908—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES, FAH.					PRECIPITATION, IN INCHES						Total snowfall, unmelt'd	SKY				Prevailing direction of wind
				Mean	Highest	Month	Lowest	Month	Length of record, years	Total for the year	Greatest monthly	Month	Least monthly	Month		No. rainy days	No. clear days	No. partly cloudy days	No. cloudy days	
Mason City	Cerro Gordo	1,132	12	46.4	94	July 10	-14	Jan. 29	12	34.28	8.20	June	.55	Jan.	.....	78	137	160	69	nw
Mt. Ayr	Ringgold	1,236	15	51.7	96	Aug. 3	- 8	Dec. 7	15	38.38	8.89	May	.10	Dec.	21.1	99	.....	.....	.....	.....
Mt. Pleasant	Henry	729	27	52.1	97	Aug. 3	- 4	Jan. 29 Feb. 4	14	34.06	8.98	May	.41	Dec.	19.1	96	167	125	74	sw
New Hampton	Chickasaw	1,169	12	46.4	91	July 10	-15	Jan. 29	12	31.96	7.80	May	.30	Jan.	11.8	80	209	76	81	w
Northwood	Worth	1,222	13	.....	91	July 10	-12	Dec. 7	13	.....	8.64	May	.....	.....	.....	.....	.....	.....	.....	nw
Odebolt	Sac	1,356	11	49.7	100	July 29	-12	Dec. 7	12	39.45	8.90	May	.15	Dec.	16.0	82	234	50	82	.....
Omaha, Nebr.	Douglas	1,010	38	52.3	96	Aug. 3	- 3	Dec. 7	38	27.10	8.72	June	.26	Dec.	22.8	90	123	101	142	nw
Onawa	Monona	1,051	9	52.0	95	Aug. 3	- 5	Feb. 2 Dec. 7	9	31.33	7.72	June	.25	Jan.	23.3	96	210	30	96	nw
Osage	Mitchell	1,184	18	47.8	97	July 11	-16	Jan. 29	21	36.36	10.19	May	.46	Jan.	25.0	61	.....	.....	.....	nw
Oskaloosa	Mahaska	843	24	51.2	101	Aug. 3	- 9	Jan. 24*	31	33.00	9.91	Aug.	.25	Dec.	.....	88	229	2	135	.....
Ottumwa	Wapello	649	14	52.3	101	Aug. 3	- 5	Jan. 29	14	33.53	11.85	May	.30	Dec.	12.5	68	166	77	123	nw
Pacific Jct	Mills	960	9	51.0	94	Aug. 3	- 8	Feb. 20	9	30.84	8.53	May	.35	Dec.	25.3	75	158	145	63	s
Plover	Pocahontas	1,426	13	47.8	94	July 11	-16	Jan. 29 Dec. 7	13	44.47	11.88	June	.20	Jan.	19.0	85	.....	.....	.....	nw
Ridgeway	Winneshiek	1,215	11	48.4	98	Sept. 11	-15	Jan. 29	11	39.00	9.08	May	.55	Jan.	20.0	120	186	120	60	s
Rockwell City	Calhoun	.....	13	49.7	100	July 11	-12	Jan. 29	13	49.98	10.65	June	.60	Jan.	26.0	.....	.....	.....	.....	.....
St. Charles	Madison	1,070	8	.....	94	Aug. 3 Sept. 9	- 9	Jan. 29	8	39.18	8.86	May	.47	Jan.	18.2	95	197	93	76	nw
Sheldon	O'Brien	1,422	9	47.9	98	July 11	-16	Dec. 7	9	43.72	9.60	May	.61	Jan.	37.0	92	217	70	79	se
Sibley	Osceola	1,212	16	44.9	95	July 10	-17	Jan. 29	16	40.74	10.45	May	.10	Jan.	28.7	99	.....	.....	.....	nw
Sigourney	Keokuk	877	13	51.5	100	Aug. 3	- 8	Dec. 7	13	30.79	8.27	May	.32	Dec.	20.7	86	.....	.....	.....	nw
Sioux City	Woodbury	1,135	20	49.1	96	Aug. 3	-10	Dec. 7	20	26.44	6.19	May	.22	Jan.	18.5	86	137	109	120	nw
Stockport	Van Buren	.....	7	51.5	93	Aug. 3	- 6	Jan. 24	7	37.04	11.26	May	.18	Dec.	18.0	99	.....	.....	.....	nw
Storm Lake	Buena Vista	1,440	13	47.9	93	July 11	-14	Jan. 28 Dec. 7	20	40.20	9.63	June	.13	Jan.	22.3	103	176	102	88	sw
Thurman	Fremont	.....	12	51.6	96	July 16	-14	Dec. 7	12	38.52	10.49	June	.30	Dec.	31.1	74	159	109	98	nw
Tipton	Cedar	807	11	51.5	97	July 11* Aug. 3	- 8	Feb. 2	11	30.78	5.72	May	T	.....	.....	71	225	73	68	sw
Toledo	Tama	856	15	49.4	98	Aug. 3	-10	Jan. 29 Dec. 7	15	.....	9.43	May	.50	Jan.	22.0	.....	.....	.....	.....	nw
Washington	Washington	769	28	50.7	95	Aug. 3	- 8	Feb. 2	19	36.94	10.18	May	.30	Dec.	.....	82	.....	.....	.....	.....
Washta	Cherokee	1,157	11	48.1	95	July 29	-16	Dec. 7	11	31.46	8.56	May	.30	Jan.	15.5	70	208	69	89	s
Waterloo	Black Hawk	862	26	49.3	99	July 11	-10	Jan. 29	26	32.13	6.49	May	.37	Jan.	19.6	94	172	102	92	.....
Waukee	Dallas	1,039	5	50.0	94	July 11	-13	Dec 7	6	42.77	10.38	May	.06	Dec.	17.6	77	.....	.....	.....	nw
Waverley	Bremer	948	13	48.1	93	July 11	-11	Jan. 29	13	31.33	6.22	May	.52	Jan.	18.3	92	.....	.....	.....	.....
Webster City	Hamilton	.....	4	49.3	99	July 11	-14	Jan. 29 Dec. 7	4	30.54	6.51	May	.40	Dec.	16.0	69	206	84	76	nw
West Bend	Palo Alto	1,197	15	47.4	95	July 11	-15	Jan. 29 Dec. 7	15	36.67	9.28	June	.47	Jan.	18.3	77	149	116	101	.....
Whitten	Hardin	1,036	11	49.0	96	July 11	-15	Jan. 29	11	26.63	5.79	May	.05	Dec.	14.5	60	191	91	84	se
Wilton Jct	Muscatine	683	14	50.2	93	July 11 Aug. 3*	-10	Feb. 2	14	.....	6.76	Aug	.10	Jan.	.....	.....	212	69	85	w
Winterset	Warren	1,129	18	51.2	97	July 10	- 9	Dec. 7	18	39.73	9.16	May	.45	Jan.	18.5	90	155	122	89	.....
Average	.....	.....	....	49.5	....	.....	.....	.....	....	35.26	.....	.....	.....	.....	20.7	86	176	96	94	nw
Extremes and date	.....	.....	....	.....	101	Aug. 3	-18	Jan. 29	....	.....	14.33	May	T	Dec.	.....	.....	.....	.....	.....	.....

*And other dates.

DATES OF KILLING FROST, 1908

Stations	Killing Frost		Stations	Killing Frost		Stations	Killing Frost		Stations	Killing Frost	
	Last in Spring	First in Autumn		Last in Spring	First in Autumn		Last in Spring	First in Autumn		Last in Spring	First in Autumn
Afton	May 2	Sept. 28	Davenport	May 2	Sept. 29	Inwood	May 9	Sept. 28	Plover	May 8	Sept. 28
Albia	May 2	Sept. 28	Decorah	May 9	Sept. 29	Iowa City	May 3	Sept. 29	Pocahontas	May 3	Sept. 28
Algona	May 3	Sept. 28	Delaware	May 3	Sept. 29	Iowa Falls	May 9	Sept. 28	Ridgeway	May 3	Sept. 29
Allerton	May 2	Sept. 28	Denison	May 9	Sept. 28	Keokuk	May 2	Sept. 29	Rock Rapids	May 9	.....
Alta	May 3	Sept. 28	Des Moines	May 2	Sept. 28	Keosauqua	May 2	Sept. 29	Saint Charles	May 2	Sept. 28
Alton	May 3	Sept. 28	De Soto	May 2	Sept. 28	Knoxville	May 2	Sept. 28	Sheldon	May 8	Sept. 28
Amana	May 3	Sept. 29	Elkader	May 9	Sept. 29	Larrabee	May 8	Sept. 28	Sibley	May 8	Sept. 28
Ames	May 4	Sept. 28	Dubuque	May 3	Sept. 29	Le Mars	May 9	Sept. 28	Sigourney	May 2	Sept. 28
Atlantic	May 9	Sept. 28	Earlham	May 9	Sept. 28	Lenox	May 2	Sept. 28	Sioux Center	May 7	Sept. 28
Audubon	May 9	Sept. 28	Elliott	May 2	Sept. 27	Leon	May 2	Sept. 28	Sioux City	May 2	Sept. 29
Baxter	May 2	Sept. 28	Elma	May 9	Sept. 28	Little Sioux	May 9	Sept. 28	Stockport	May 2	Sept. 29
Bedford	May 2	Sept. 28	Estherville	May 3	Sept. 28	Logan	May 8	Sept. 28	Storm Lake	May 3	Sept. 28
Belle Plaine	May 2	Sept. 28	Fayette	May 9	.....	Marshalltown	May 3	Sept. 28	Thurman	May 2	Sept. 28
Bloomfield	May 2	Sept. 28	Fairfield	May 8	Sept. 28	Mason City	May 3	Sept. 28	Tipton	May 3	Sept. 29
Bonaparte	May 2	Sept. 28	Forest City	May 3	Sept. 28	Mount Ayr	May 2	Sept. 28	Toledo	May 3	Sept. 29
Boone	May 2	Sept. 28	Fort Dodge	May 7	Sept. 28	Mount Pleasant	May 2	Sept. 29	Wapello	May 2	.....
Britt	May 3	Sept. 28	Grand Meadow	May 3	Sept. 29	New Hampton	May 3	Sept. 28	Washington	May 2	Sept. 28
Burlington	May 2	Sept. 28	Greene	May 3	Sept. 28	Newton	May 2	Sept. 28	Washta	May 9	Sept. 28
Carroll	May 9	Sept. 28	Grinnell	May 2	Sept. 28	Northwood	May 3	Sept. 28	Waterloo	May 2	Sept. 29
Cedar Rapids	May 3	Sept. 28	Grundy Center	May 3	Sept. 28	Odebolt	May 7	Sept. 28	Waukee	May 2	Sept. 28
Chariton	May 2	Sept. 28	Guthrie Center	May 2	Sept. 28	Olin	May 3	Sept. 29	Waverly	May 3	Sept. 29
Charles City	May 3	Sept. 28	Hampton	May 3	Sept. 28	Onawa	May 2	Sept. 29	Webster City	May 9	Sept. 28
Clarinda	May 3	Sept. 28	Hancock	May 2	Sept. 28	Osage	May 3	Sept. 28	West Bend	May 3	Sept. 28
Clear Lake	May 3	Sept. 28	Harlan	May 9	Sept. 28	Oskaloosa	May 2	Sept. 28	Whitten	May 3	Sept. 28
Clinton	May 3	Sept. 29	Hopeville	May 2	Sept. 28	Ottumwa	May 3	Sept. 28	Wilton Junction	May 4	Sept. 29
Columbus Junction	May 2	Sept. 28	Humboldt	May 3	Sept. 28	Pacific Junction	May 8	Sept. 28	Winterset	May 2	Sept. 28
Corning	May 2	Sept. 28	Independence	May 3	Sept. 28	Pella	May 2	Sept. 28	Woodburn	May 9	Sept. 28
Corydon	May 2	Sept. 28	Indianola	May 2	Sept. 28	Perry	May 2	Sept. 28	Zearing	May 3	.....
Creston	May 3	Sept. 28									

MONTHLY MAXIMUM TEMPERATURES FOR 1908, WITH DATES

STATIONS	January		February		March		April		May		June		July		August		September		October		November		December	
	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date
Afton	52	*20	46	12	79	25	83	13	88	20	91	20	96	11	94	3	90	*11	82	*14	73	18	57	29
Albia	55	20	51	12	79	25	82	*13	86	16	87	*20	93	*29	96	3	91	11	85	15	74	18	61	14
Algona	49	14	48	24	73	25	81	*13	84	17	85	*22	96	11	90	2	90	12	82	14	64	18	48	*14
Allerton	56	21	50	12	80	25	83	19	86	*16	88	20	93	*11	96	3	93	11	86	*14	78	18	60	14
Alta	51	20	48	24	77	25	87	13	86	*19	87	22	94	11	89	2	89	* 5	83	14	70	18	50	14
Alton	46	20	52	24	76	25	85	13	87	*19	89	*21	98	10	96	2	93	12	82	*14	69	18	45	14
Amana	52	21	50	12	72	12	79	19	85	*17	91	22	95	11	97	3	89	11	80	*15	65	22	49	29
Ames	53	20	49	*12	78	25	83	*13	85	*19	88	*20	94	*10	95	3	93	20	89	16	..	..	53	*28
Atlantic	56	20	45	* 9	82	25	87	19	92	17	88	27	96	11	97	3	96	11	84	14	70	18	51	*26
Audubon	49	21	45	24	80	25	85	13	88	20	90	27	96	11	94	3	89	* 9	81	16	69	*22	51	29
Baxter	55	21	49	12	76	25	82	*13	86	19	88	22	93	*11	95	3	94	20	88	14	78	18	52	28
Bedford	54	*20	53	9	82	25	86	19	87	20	87	20	94	29	96	5	97	11	87	14	72	18	56	26
Belle Plaine	54	6	48	*12	69	12	82	19	88	20	88	22	93	11	95	3	87	*11	82	17	68	18	50	28
Bloomfield	56	21	54	12	78	25	83	19	89	16	91	*20	97	11	100	3	95	*11	88	14	74	18	60	14
Bonaparte	55	21	56	12	75	*12	83	13	85	16	88	*20	92	30	95	3	91	*11	86	14	73	18	60	14
Boone	53	20	49	24	76	25	84	19	86	19	88	27	95	12	96	3	93	11	84	14	74	18	55	28
Britt	46	21	50	24	72	25	80	*19	85	17	87	22	94	11	89	*2	90	12	82	14	61	8	48	*14
Burlington	56	21	57	12	74	12	80	*13	86	*19	92	21	96	30	98	16	95	*11	83	14	71	17	62	14
Carroll	57	20	49	24	81	25	86	*13	85	*16	88	27	97	12	93	*2	93	10	87	14	73	18	58	28
Cedar Rapids	51	21	52	12	70	25	81	19	87	*17	93	22	98	11	98	3	93	11	83	15	66	22	48	28
Chariton	55	20	50	12	80	25	83	19	86	*16	87	20	93	29	98	3	95	11	85	*14	77	18	59	14
Charles City	46	21	48	24	69	25	79	19	84	17	87	22	94	10	90	2	91	20	79	15	60	*18	48	14
Clarinda	55	*20	51	9	84	25	88	19	90	20	90	27	96	*10	98	3	95	*11	89	14	75	18	57	*14
Clear Lake	47	22	46	22	70	25	79	22	85	*17	85	*20	94	11	92	2	90	12	80	16	57	*21	49	14
Clinton	49	21	53	12	68	*12	83	22	90	24	94	22	96	11	96	3	89	*11	81	17	67	19	43	14
Columbus Junction	52	21	56	12	72	12	80	22	88	17	90	*20	94	*12	94	3	88	*11	81	*14	67	22	55	14
Corning	53	21	45	9	81	25	82	19	87	20	87	*20	93	*17	95	3	89	*11	88	14	71	18	54	*26
Corydon	57	21	50	12	81	25	85	19	86	*19	86	20	94	29	96	*3	93	*11	86	*14	78	18	60	14
Davenport	52	21	55	12	71	12	78	19	87	17	90	22	94	30	95	3	90	12	81	15	68	19	55	14
Decorah	47	21	52	24	64	25	83	22	87	17	94	23	98	10	92	*2	91	12	78	15	62	22	45	14
Delaware	46	21	47	24	64	12	78	22	84	17	89	22	94	11	93	3	90	12	78	15	..	..	..	..
Denison	50	21	48	13	81	25	84	13	88	27	86	*22	93	29	95	3	91	12	84	14	74	18	55	14
Des Moines	53	21	48	12	80	25	84	19	86	20	88	20	94	10	95	3	92	20	84	14	73	18	54	28
De Soto	55	20	48	12	81	25	88	13	88	*19	88	*20	95	11	95	3	96	*12	85	*14	79	18	56	14
Dows	48	20	49	24	75	25	83	13	86	20	87	20	93	11	91	3	92	*11	85	19	67	18	50	29
Dubuque	50	21	52	12	68	12	79	14	85	17	88	22	96	11	96	3	91	12	79	15	64	22	51	29
Earlham	53	20	46	12	80	25	84	19	88	20	85	*20	93	17	91	3	92	11	84	16	78	18	58	28
Elkader	56	4	48	12	66	25	82	22	90	17	90	*22	99	27	97	3	96	11	82	15	64	* 6	48	*28
Elliott	52	21	48	22	84	25	85	19	86	20	89	27	91	*10	93	3	90	* 9	85	*14	73	18	57	26
Elma	45	21	47	24	65	25	79	22	86	17	87	* 6	94	*10	92	2	90	*12	77	15	60	22	46	14
Estherville	48	20	50	24	74	25	84	19	86	20	86	23	94	10	91	2	95	12	84	14	66	18	53	14
Fairfield	54	21	56	12	78	11	80	19	85	16	90	23	95	12	96	3	93	*11	86	14	73	8	60	14
Forest City	49	20	48	24	72	25	82	19	85	*12	87	22	95	11	90	2	91	*12	84	14	62	*18	54	14
Fort Dodge	51	19	53	24	77	25	85	*13	93	*16	87	*20	96	11	91	*2	91	12	84	14	67	18	49	29
Grand Meadow	45	21	46	24	62	25	80	22	85	17	85	*22	92	11	90	3	87	*12	76	15	61	22	44	29
Greenfield	53	20	46	12	80	25	82	*13	84	19	..	..	92	29	92	3	91	*10	83	15	75	18	58	29
Grinnell	54	19	50	12	75	25	80	19	84	*17	90	22	94	29	96	3	93	*11	83	14	71	18	* 53	28
Grundy Center	50	19	50	24	74	25	81	*13	84	*17	88	22	98	11	95	3	94	20	81	15	65	18	50	28
Guthrie Center	53	20	47	24	80	25	85	13	88	20	88	*20	94	11	95	3	89	* 9	82	*14	73	18	52	29
Hampton	50	20	54	24	73	25	81	*13	87	19	89	22	96	11	96	3	96	11	85	14	65	18	49	29
Hancock	55	20	47	9	83	25	85	19	86	20	87	27	90	*10	92	3	95	10	83	* 4	72	18	54	26
Harlan	56	20	48	22	83	25	85	19	86	20	86	*22	94	29	97	3	95	11	83	14	75	18	55	14
Hopeville	54	*20	49	9	81	25	85	19	88	20	88	20	95	12	98	5	94	11	81	14	76	18	57	14
Humboldt	48	20	52	24	78	25	81	13	87	20	86	*20	94	*10	90	2	88	12	80	*14	..	..	52	29
Independence	50	21	49	*12	72	12	79	22	83	17	88	22	93	11	94	3	93	20	79	15	67	18	47	29
Indianola	52	*20	48	12	80	25	83	*13	85	*19	87	20	93	11	95	3	97	22	83	*14	73	18	52	14
Inwood	48	27	48	24	79	25	88	19	85	19	91	21	99	10	95	29	95	12	84	14	72	18	48	*13
Iowa City	53	21	52	12	76	12	83	13	88	17	92	20	97	11	98	3	94	*11	84	*15	67	*18	53	*14
Iowa Falls	48	19	46	24	72	25	81	*13	86	19	89	22	95	11	92	3	89	12	80	15	65	18	48	28
Keokuk	55	21	59	12	75	25	80	19	87	24	90	22	94	30	95	16	93	19	85	14	70	18	60	14
Knoxville	54	21	51	12	79	25	83	*13	87	*17	89	22	94	*11	97	3	90	*11	83	14	72	18	57	14
Larrabee	46	20	48	24	77	25	85	13	89	16	91	21	94	*10	92	2	89	12	81	15	68	18	47	*14
Le Mars	45	20	45	24	74	25	85	13	85	20	87	*21	97	11	90	2	90	12	81	16	69	18	46	14
Lenox	52	*20	46	9	80	25	83	*19	87	20	87	20	92	11	93	3	90	11	83	14	70	18	54	26
Leon	51	21	47	9	80	25	83	19	89	20	88	*21	93	*11	96	3	90	20	84	14	71	18	54	*26
Little Sioux	57	20	48	24	84	25	87	*13	88	*16	90	*21	95	29	95	3	95	* 5	85	*14	73	18	56	14
Marshalltown	51	*19	49	*12	75	25	81	*13	86	19	89	23	95	11	92	*2	90	*11	82	*14	71	18	50	28
Mason City	44	*19	49	24	70	25	78	19	83	*12	86	22	94	10	89	2	88	12	80	14	58	* 8	45	29
Mount Ayr	56	20	51	9	83	25	85	21	89	*19	89	6	95	17	96	3	94	20	86	14	69	20	57	14
Mt. Pleasant	53	21	56	12	73	12	80	13	87	*16	92	22	94	30	97	3	92	19	82	*14	68	18	56	14
New Hampton	44	21	47	13	64	25	78	22	82	17	85	22	91	*10	88	3	86	*12	76	*14	58	22	43	*14
Newton	51	19	48	22	76	25	83	20	84	20	90	22	93	11	94	3	88	*11	80	*14	67	18	48	28
Northwood	..	..	47	*22	69	25	79	19	83	17	85	22	91	10	87	2	90	12	77	15	60	*18	49	15
Odebolt	56	20	51	24	79	25	89	13	90	19	90	*22	100	29	97	3	94	* 9	86	14	74	18	57	28
Omaha, Nebr	55	20	49	22	84	25	86	19	87	20	90	27	94	28	96	3	93	11	85	14	74	18	60	26
Onawa	55	20	51	23	81	25	91	19	90	20	89	21	94	29	95	3	93	* 5	85	*14	73	18	55	14
Osage	46	21	48	22	70	25	81	19	87	19	87	22	97	11	94	3	95	11	80	15	60	18	50	10
Oskaloosa	53	21	49	24	76	25	84	13	86	16	91	22	96	*11	101	3	89	*11	84	14	69	18	56	14
Ottumwa	59	20	54	12	76	12	86	13	91	19	91	22	98	11	101	3	96	11	89	14	75	18	62	14
Pacific Junction	58	19	49	9	84	25	84	*19	89	*19	89	27	93	*28	94	3	92	*10	85	*14	71	18	60	26
Pella	54	21	49	12	77	25	86	13	88	19	91	22	96	11	99	3	92	11	84	14	77	19	..	..
Perry	53	20	..	..	78	25	86	13	89	20	89	*20	97	11	96	4	90	*10	83	15	73	18	53	29
Pocahontas	47	20	50	24	74	25	85	21	89	*19	85	*20	95	*11	91	1	90	12	80	14	68	18	50	14
Ridgeway	55	21	51	22	65	25	82	22	88	17	88	22	97	*10	94	3	98	11	80	*15	65	18	51	14
Rockwell City	50	20	53	24	78	25	86	13	90	20	90	20	100	11	92	2	90	12	86	16	72	22	55	24
St. Charles	57	*20	47	* 8	81	25	86	13	88	20	87	*20	93	*10	94	3	94	9	85	*14	80	18	61	14
Sheldon	50	20	52	24	78	25	89	13	87	*11	91	20	98	11	97	2	97	12	86	14	72	18	52	14
Sibley	50	20	46	24	74	25	86	13	86	19	86	*21	95	10	92	2	93	*11	85	14	70	19	48	14
Sigourney	53	21	53	12	73	*12	83	13	87	16	91	*20	96	29	100	3	90	*11	85	14	68	18	54	14
Sioux City	51	18	53	24	79	25	86	19	86	19	90	21	95	10	96	3	92	5	82	16	72	18	51	14
Stockport	54	21	55	12	75	25	83	13	85	17	86	22	90	29	93	3	88	12	85	14	71	18	59	14
Storm Lake	50	20	46	24	73	25	84	13	82	*19	84	*22	93	11	88	*2	89	5	86	15	69	21	50	*14
Thurman	54	*19	48	* 9	84	25	84	20	88	20	90	*22	96	16	95	*2	90	* 5	87	14	74	18	59	26
Tipton	57	18	52	12	70	12	79	19	87	17	92	22	97	*11	97	3	92	*11	80	*14	65	*19	51	29
Toledo	51	19	54	24	73	25	80	13	85	17	90	22	94	29	98	3	90	20	88	16	66	18	47	28
Washington	54	21	55	12	76	12	81	*13	86	*16	89	22	92	11	95	3	89	*11	84	*14	70	22	67	14
Washta	54	3	58	11	78	25	88	13	86	*16	87	*21	95	29	92	*2	94	12	87	14	68	*16	52	29
Waterloo	51	21	51	24	71	12	81	*19	86	17	90	22	99	11	97	3	94	20	82	15	67	18	52	29
Waukee	51	*20	47	24	73	12	86	19	90	*17	93	22	94	11	93	3	92	20	85	*14	76	18	53	*28
Waverly	47	21	49	24	69	25	79	19	84	17	87	22	93	11	92	13	90	20	80	15	63	18	49	27
Webster City	50	20	53	24	76	25	81	13	88	*17	89	*22	99	*11	94	3	93	12	82	*14	68	18	51	29
West Bend	45	*19	50	24	73	25	81	13	87	20	88	22	95	11	90	*2	88	12	81	14	66	18	50	14
Whitten	50	19	49	23	73	25	80	19	87	19	90	22	96	11	95	3	91	12	80	*15	67	18	56	18
Wilton Junction	48	21	52	12	68	*12	77	22	85	17	88	*20	93	11	93	*3	88	11	79	*16	65	*19	47	*14
Winterset	51	20	46	12	78	25	84	13	90	20	91	20	97	10	95	3	88	* 9	81	*14	71	18	51	29

*And other dates.

MONTHLY MINIMUM TEMPERATURES FOR 1908, WITH DATES

STATIONS	January		February		March		April		May		June		July		August		September		October		November		December	
	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date
Afton	- 8	29	- 2	*1	15	*8	16	2	24	2	45	11	48	7	47	21	28	29	27	30	14	15	- 8	7
Albia	- 8	29	- 4	2	14	9	18	2	25	2	45	*11	49	8	47	24	28	29	27	31	17	*12	- 6	7
Algona	-16	29	- 8	*1	1	8	14	2	24	2	41	*11	47	7	45	*20	25	29	27	*11	9	*16	-11	7
Allerton	- 7	29	- 4	2	14	9	18	2	21	2	46	11	50	*7	49	19	27	29	28	30	15	15	- 5	7
Alta	-14	29	- 6	1	3	8	11	2	23	2	43	*10	45	7	47	*22	25	29	16	11	11	*16	-15	7
Alton	-11	29	- 8	2	-1	8	12	2	22	2	40	15	47	7	41	20	25	29	26	8	7	30	-17	7
Amana	- 7	29	- 9	2	16	9	19	2	29	2	44	10	50	8	44	24	28	29	26	12	16	15	- 6	7
Ames	-12	29	- 7	2	11	8	16	2	26	2	41	*11	48	8	42	24	28	29	23	12	..	..	-12	7
Atlantic	-10	28	- 9	2	11	9	14	2	17	2	42	*10	42	8	38	24	22	*28	17	12	14	30	- 9	7
Audubon	-10	29	- 5	2	11	8	14	2	22	2	40	11	44	8	41	24	22	29	18	12	6	15	-11	7
Baxter	-12	29	-10	2	12	9	15	2	25	2	42	11	47	8	..	..	23	29	27	12	12	15	-13	7
Bedford	- 5	29	-10	*2	13	9	16	2	19	2	45	11	45	8	47	*20	23	29	24	* 9	8	15	-10	7
Belle Plaine	-10	29	-12	2	18	*8	17	2	25	2	43	11	48	8	43	24	27	29	27	12	15	15	- 9	7
Bloomfield	- 6	29	- 4	2	9	9	20	2	26	2	47	*11	51	8	48	20	27	29	25	31	15	15	- 4	7
Bonaparte	- 8	24	- 5	2	16	9	20	3	27	2	47	*15	53	8	47	24	29	29	26	31	16	*12	- 1	7
Boone	-12	29	- 4	2	10	8	15	2	27	2	43	11	49	7	47	24	27	29	28	31	11	*15	- 9	7
Britt	-17	29	-15	2	2	8	15	2	24	2	40	*11	47	7	44	*22	23	29	24	*30	6	15	-13	7
Burlington	- 2	*29	- 3	2	17	9	23	2	29	2	51	14	58	8	51	*21	31	29	29	31	19	*14	1	7
Carroll	-11	*29	- 5	*1	8	*8	12	2	20	2	42	*11	45	7	43	20	27	28	25	11	11	13	-12	7
Cedar Rapids	- 7	30	- 6	2	17	*9	19	2	29	2	46	*10	52	8	44	*24	30	*29	28	*12	18	15	- 4	7
Chariton	- 9	29	- 7	2	13	9	17	2	23	2	43	11	48	8	47	24	26	29	27	30	14	15	- 9	7
Charles City	-14	29	- 9	2	8	8	16	2	27	3	40	15	50	8	43	24	26	29	23	31	6	30	-11	7
Clarinda	- 4	29	- 5	*2	15	9	16	2	23	2	46	11	45	8	48	20	27	29	22	*12	10	15	- 8	7
Clear Lake	-17	29	- 9	2	3	8	15	2	25	2	43	*10	50	7	45	20	30	29	25	31	12	17	-11	7
Clinton	- 3	29	- 8	2	17	9	18	2	28	3	45	10	50	*1	43	24	29	29	24	30	13	13	1	*7
Columbus Junction	- 4	29	- 5	2	16	9	20	2	26	2	46	10	53	8	48	24	29	29	28	31	18	15	- 2	7
Corning	-10	*23	- 7	2	15	8	16	2	21	2	45	11	46	7	47	20	24	29	24	28	13	15	-11	7
Corydon	- 7	29	- 6	2	14	9	18	2	23	2	46	11	50	7	49	20	28	29	28	30	14	15	- 8	7
Davenport	- 2	29	- 4	2	19	9	20	2	30	2	46	10	57	8	51	24	32	29	30	31	18	30	1	7
Decorah	-14	29	-16	2	6	9	12	2	20	3	36	15	49	8	42	24	29	29	24	31	10	30	- 4	7
Delaware	-10	29	-11	2	10	9	18	2	26	2	43	16	50	8	46	20	27	29	22	31	..	..	..	..
Denison	-11	29	- 7	2	9	8	14	2	22	2	45	*11	47	7	43	*20	24	29	25	8	17	31	-11	7
Des Moines	- 7	29	- 5	2	15	8	18	2	30	2	48	10	52	7	52	24	30	29	31	12	14	30	- 7	7
De Soto	-10	29	- 6	2	14	8	15	2	26	2	43	11	48	8	44	24	26	29	24	12	16	15	-14	7
Dows	- 3	23	-10	2	6	8	15	2	24	2	41	11	42	8	40	*20	21	*28	22	1	9	15	-17	7
Dubuque	- 6	29	- 8	2	15	9	19	2	30	2	49	15	53	8	46	24	30	29	26	31	11	30	1	7
Earlham	- 9	29	- 6	1	13	*8	15	2	24	2	39	11	43	8	43	25	24	29	26	*28	16	15	-10	7
Elkader	-10	29	-14	2	12	*9	18	2	24	3	39	*15	47	8	40	24	28	29	20	31	14	17	- 4	7
Elliott	- 7	29	-10	2	17	8	17	2	24	2	48	*10	50	7	46	*24	29	29	24	12	12	15	6	31
Elma	-16	29	- 6	1	6	8	15	2	20	3	35	15	45	8	39	*20	22	29	22	31	12	*10	-10	9
Estherville	-18	29	- 8	1	-3	8	13	2	23	3	39	15	46	7	42	24	26	*28	21	11	11	16	-10	7
Fairfield	-10	24	- 4	2	13	9	22	2	30	8	..	..	48	*1	48	24	28	29	23	12	18	15	- 5	7
Forest City	-18	29	-14	2	1	8	15	2	25	2	42	11	48	7	44	24	23	29	25	31	8	16	-12	7
Fort Dodge	-13	29	- 5	2	7	8	8	2	22	2	41	11	48	7	45	24	28	29	28	31	14	16	-11	7
Grand Meadow	-14	29	-12	29	11	8	16	2	26	2	42	*1	51	*1	46	*20	28	29	26	31	15	*15	- 5	7
Greenfield	- 5	23	- 6	2	11	19	14	2	23	2	..	..	45	7	46	20	29	28	25	29	14	15	-12	7
Grinnell	-10	29	- 4	1	14	9	17	2	25	2	41	10	48	*7	46	20	26	29	27	31	15	15	-10	7
Grundy Center	-11	29	- 6	2	12	8	17	2	27	*2	42	*10	46	8	40	20	27	29	27	31	15	14	-11	7
Guthrie Center	-10	29	- 5	2	11	8	15	2	24	2	41	11	48	*7	44	24	26	29	19	29	15	15	-10	7
Hampton	-14	29	- 1	*1	7	8	15	2	27	*2	42	10	49	7	46	20	26	29	27	31	13	*16	-12	7
Hancock	- 6	29	- 8	2	14	8	15	2	23	2	45	10	49	7	47	*20	28	29	26	*30	12	15	-12	7
Harlan	- 8	29	-10	2	10	8	13	2	18	2	43	10	46	7	45	*20	25	29	24	12	11	15	-14	7
Hopeville	- 8	29	- 3	2	15	9	17	2	22	2	46	11	49	7	50	20	27	29	28	30	13	15	- 9	7
Humboldt	-14	29	- 9	2	6	8	15	2	25	2	41	15	48	7	45	20	28	29	28	* 8	8	*14	- 8	7
Independence	-11	29	- 8	2	13	9	18	2	27	2	41	15	47	8	42	24	27	29	25	31	14	15	-10	7
Indianola	- 4	29	- 5	2	16	*8	16	2	28	2	46	10	50	7	49	*20	28	29	24	8	17	15	- 8	7
Inwood	-13	29	-10	*1	-8	8	11	2	..	..	36	10	42	7	40	20	22	29	24	* 8	6	30	-15	7
Iowa City	- 6	*29	- 9	2	15	9	20	*2	29	2	45	*10	51	8	46	24	29	29	27	31	18	*13	- 5	7
Iowa Falls	-13	29	- 8	2	9	8	16	2	26	*2	39	15	46	8	41	20	25	29	22	12	14	15	-13	7
Keokuk	0	29	- 2	2	18	9	24	2	30	2	48	16	57	8	54	25	83	29	31	31	19	15	3	7
Knoxville	- 7	29	- 3	2	16	9	18	2	28	2	45	11	49	8	48	23	29	29	29	31	18	15	- 5	7
Larrabee	-15	29	-14	18	1	9	11	2	20	2	40	*14	42	7	44	20	27	29	22	11	7	30	-16	7
Le Mars	-10	29	- 7	2	1	8	13	2	23	2	40	15	45	7	43	20	26	29	26	* 8	11	30	-13	7
Lenox	-10	29	- 8	2	14	9	15	2	21	2	47	*10	47	7	49	20	27	29	26	28	12	15	-13	7
Leon	- 6	29	- 3	2	15	9	18	2	23	2	46	11	50	8	..	..	26	29	29	30	13	15	- 7	7
Little Sioux	- 8	29	- 7	2	8	8	11	2	19	2	44	10	44	7	45	20	26	29	25	*11	11	12	-13	7
Marshalltown	-12	29	- 8	2	14	*8	17	2	25	2	42	*10	45	8	41	24	26	29	24	12	15	*15	-13	7
Mason City	-14	29	-10	2	5	8	15	2	24	3	40	*10	48	7	41	24	25	29	25	* 8	11	16	-10	7
Mt. Ayr	- 6	29	- 6	19	13	9	16	2	23	2	47	11	48	7	49	*1	28	29	27	28	12	15	- 8	7
Mt. Pleasant	- 4	29	- 4	2	15	9	21	*2	28	2	47	16	54	8	50	*24	31	29	28	31	17	15	- 2	7
New Hampton	-15	29	-11	2	8	8	15	2	26	2	42	15	50	*7	45	*20	25	29	23	31	11	15	-11	7
Newton	-10	29	- 3	2	14	9	16	2	28	2	..	..	52	*7	..	..	28	29	31	12	16	15	- 9	7
Northwood	....	..	-10	1	0	8	13	2	26	*2	40	11	49	7	45	24	26	29	25	*30	8	31	-12	7
Odebolt	-11	29	- 5	2	7	8	13	2	22	2	40	15	44	7	44	20	26	29	26	*11	12	30	-12	7
Omaha, Nebr	1	29	- 1	1	12	8	16	2	33	2	50	10	52	7	54	20	35	29	32	30	12	30	- 3	7
Onawa	- 3	29	- 5	2	9	8	14	2	25	2	47	10	50	7	50	20	31	29	30	*28	15	30	- 5	7
Osage	-16	29	-10	2	5	8	16	2	26	3	42	* 1	49	*7	..	..	24	29	22	31	11	*15	-13	7
Oskaloosa	- 9	*24	- 6	2	15	9	19	2	28	2	45	11	49	8	47	24	39	29	26	12	17	15	- 7	7
Ottumwa	- 5	29	0	2	12	9	20	*2	30	2	48	11	52	8	50	24	30	*29	29	* 9	18	15	3	*2
Pacific Junction	- 1	23	- 8	20	16	*8	10	2	24	2	50	*11	49	7	47	20	26	29	26	12	13	15	- 5	7
Pella	- 8	29	- 5	2	15	9	17	2	26	2	45	10	52	8	48	24	28	29	28	31	18	14	...	..
Perry	- 1	23	..	..	12	8	15	2	26	2	43	14	49	*7	45	24	27	29	26	12	13	15	-11	7
Pocahantas	-14	29	- 5	1	4	8	13	2	23	2	40	15	45	7	44	13	27	29	25	11	10	*16	-13	7
Ridgeway	-15	29	-11	2	7	9	16	2	27	2	42	1	50	*1	46	22	27	29	23	31	13	*16	- 8	7
Rockwell City	-12	29	- 6	2	6	8	13	2	23	2	44	11	47	8	46	22	30	*28	28	*11	16	*12	-11	7
St. Charles	- 9	29	- 3	2	15	9	16	2	27	2	44	10	49	7	50	20	29	29	29	*30	17	15	- 8	7
Sheldon	-15	29	-12	2	-3	8	12	2	29	3	38	15	44	7	40	20	27	28	24	11	9	26	-16	7
Sibley	-17	*29	- 9	1	-6	8	12	*2	22	2	37	10	43	7	41	20	26	29	24	30	8	16	-15	8
Sigourney	- 7	29	- 7	2	15	9	19	2	27	2	45	10	50	8	48	24	28	29	27	31	16	*12	- 8	7
Sioux City	- 7	29	- 5	1	4	8	14	2	25	2	44	10	49	7	45	20	28	29	28	11	6	30	-10	7
Stockport	- 6	24	- 4	2	16	9	19	3	28	2	48	*11	55	8	50	24	30	29	25	31	16	*12	0	7
Storm Lake	-14	28	- 6	1	3	8	12	2	28	2	41	15	46	7	47	*20	29	29	27	11	10	30	-14	7
Thurman	- 5	23	-16	*2	15	8	17	2	22	2	48	14	48	7	48	20	26	29	24	12	7	15	-14	7
Tipton	- 2	29	- 8	2	19	9	24	3	30	2	48	10	56	8	52	24	30	29	31	31	18	15	0	7
Toledo	-10	29	- 5	2	14	9	17	*2	27	2	43	10	47	8	42	24	25	29	26	12	15	15	-10	7
Washington	- 7	29	- 8	2	14	9	20	*2	28	2	45	10	56	*7	..	..	28	29	28	31	16	15	- 5	7
Washta	-14	29	-10	2	4	8	12	2	13	2	36	15	42	7	40	20	20	29	21	8	8	30	-16	7
Waterloo	-10	29	- 6	2	13	8	18	2	27	*2	43	15	49	8	43	24	28	29	27	*12	17	*15	- 7	7
Waukee	- 9	29	- 6	2	13	*8	16	2	24	2	41	14	48	8	45	24	25	29	28	* 8	16	*15	-13	7
Waverly	-11	29	-10	2	11	8	17	2	27	*2	44	15	53	*1	44	24	28	29	26	31	14	15	- 9	7
Webster City	-14	29	- 7	2	9	8	15	*2	23	2	38	*11	45	8	41	*21	25	29	23	12	13	*15	-14	7
West Bend	-15	29	- 8	2	2	8	14	2	21	2	41	15	46	7	54	*22	24	29	24	11	9	16	-15	7
Whitten	-15	29	- 9	2	10	8	15	2	23	2	41	10	48	7	43	*20	25	29	26	31	12	15	-14	7
Wilton Junction	- 6	28	-10	2	14	2	20	2	22	3	40	2	53	8	40	24	30	29	29	9	18	*12	- 2	6
Winterset	- 8	29	- 5	2	15	8	16	2	25	2	45	10	49	7	49	*20	29	29	28	30	17	15	- 9	7

* And other dates.

MONTHLY AND ANNUAL MEAN TEMPERATURES FOR 1908, WITH DEPARTURES FROM THE NORMAL

STATIONS	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Annual	
	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.
Afton	27.6	+4.9	26.8	+4.8	39.7	+3.2	52.8	+2.4	61.2	−1.1	69.2	−1.6	74.2	−1.0	71.9	−1.7	68.1	+3.0	51.6	−1.7	40.6	+3.8	29.9	+4.2	51.1	+1.6
Albia	26.2	+2.5	24.8	+4.5	39.3	+2.2	51.4	+1.8	60.4	−0.6	66.7	−2.9	73.2	−1.0	71.0	−2.4	67.5	+2.7	51.3	−1.9	41.1	+2.4	28.9	+3.1	50.2	+0.9
Algona	21.8	+8.5	22.4	+5.4	35.4	+5.8	48.6	+2.4	57.6	−1.9	65.8	−2.7	72.2	−1.2	68.1	−2.8	66.3	+4.4	49.2	+0.5	36.5	+3.7	24.2	+4.1	47.3	+2.1
Allerton	29.0	+7.1	27.4	+5.7	41.6	+3.4	52.4	+2.1	60.8	−0.2	67.8	−0.3	73.8	+1.2	72.2	−0.9	69.1	+3.8	53.0	−1.2	42.8	+2.2	31.5	+5.0	51.8	+2.3
Alta	21.0	+4.6	20.4	+2.8	33.1	+2.5	48.2	+1.5	57.4	−0.6	64.7	−2.9	71.0	−0.9	68.0	−2.5	66.6	+3.7	48.2	−2.1	36.0	+3.5	23.9	+2.5	46.5	+1.0
Alton	22.4	-----	23.2	-----	35.4	-----	49.5	-----	58.5	-----	66.2	-----	72.6	-----	69.1	-----	68.6	-----	49.4	-----	35.9	-----	24.4	-----	47.9	-----
Amana	26.0	+9.7	25.6	+5.5	39.4	+6.9	50.4	+1.8	60.4	+0.4	68.2	−1.2	73.6	−0.1	70.0	−0.9	66.4	+3.9	51.6	+1.7	39.8	+9.2	27.2	+4.6	49.9	+3.5
Ames	24.8	+7.3	24.8	+3.6	38.1	+4.6	50.4	+1.3	59.3	−0.2	67.0	−2.4	72.8	−1.5	69.0	−3.2	66.1	+2.6	52.4	+1.4	-----	-----	27.6	+5.0	-----	-----
Atlantic	26.0	+5.6	23.9	+3.1	38.0	+3.3	50.6	+1.9	58.9	−0.5	66.5	−2.6	72.5	−0.7	69.9	−1.4	66.8	+2.4	49.6	−2.0	39.0	+3.6	28.6	+3.7	49.2	+1.4
Audubon	25.2	+6.3	24.0	+4.9	37.6	+3.4	49.6	+0.9	58.8	−1.1	66.7	−1.4	72.3	+0.2	68.4	−3.4	65.6	+2.4	49.9	−1.0	37.4	+2.2	26.8	+2.9	48.5	+1.3
Baxter	25.4	+5.1	24.8	+6.7	37.9	+1.3	50.4	+1.6	59.4	−1.0	66.4	−1.2	72.2	−1.0	71.1	−0.8	67.5	+4.5	53.3	+0.1	42.4	+5.1	27.0	+2.8	49.8	+1.9
Bedford	28.6	+4.8	27.4	+6.7	40.6	+3.9	52.8	+3.5	59.2	−1.8	67.8	−0.5	73.1	−0.3	71.8	−2.1	68.3	+3.7	53.1	−1.2	40.4	+5.0	29.8	+4.1	51.1	+2.2
Belle Plaine	23.6	+5.4	23.6	+3.7	36.9	+3.5	49.7	+0.8	60.0	+0.5	68.2	−0.9	72.6	−0.2	68.6	−2.2	66.1	+2.5	51.6	+1.2	40.6	+5.7	27.0	+3.3	49.0	+1.9
Bloomfield	28.7	-----	27.4	-----	42.2	-----	52.9	-----	61.8	-----	69.6	-----	75.7	-----	73.4	-----	70.0	-----	53.6	-----	43.0	-----	30.4	-----	52.4	-----
Bonaparte	27.4	+4.2	27.0	+4.2	41.9	+3.9	52.6	+2.4	62.1	−0.2	68.0	−3.2	73.6	−1.9	71.0	−3.3	68.6	+1.2	53.4	−1.6	43.0	+4.5	30.0	+2.1	51.6	+1.1
Boone	24.0	-----	22.9	-----	36.0	-----	49.7	-----	58.8	-----	66.5	-----	73.6	-----	70.2	-----	68.4	-----	51.5	-----	39.0	-----	27.2	-----	49.0	-----
Britt	21.6	+5.6	22.5	+6.0	34.2	+3.1	47.2	+1.5	57.9	−0.1	65.6	−1.5	72.1	+0.3	67.2	−2.8	66.1	+4.4	49.2	−1.1	35.4	+1.8	24.0	+4.9	46.9	+1.8
Burlington	26.2	−0.8	26.4	+2.7	42.2	+2.4	52.0	+0.5	62.6	−1.2	71.9	+1.4	77.2	+1.8	73.8	−0.3	69.8	+3.6	54.4	−1.3	42.6	+2.9	30.7	+3.6	52.5	+1.3
Carroll	23.6	+4.6	22.7	+3.8	35.3	+2.6	49.4	+1.3	58.6	−0.3	66.2	−2.4	72.7	−0.3	69.6	−1.5	67.7	+4.7	50.0	−1.0	37.8	+3.6	26.8	+3.4	48.4	+1.6
Cedar Rapids	24.0	+5.8	22.7	+2.6	37.6	+4.0	49.3	−0.4	59.8	−0.2	68.8	−1.5	74.8	+0.1	70.6	−2.1	67.1	+3.1	51.8	+0.4	38.9	+3.0	26.2	+1.2	49.3	+1.3
Chariton	28.4	+4.7	26.0	+3.8	40.9	+4.1	51.8	+5.3	60.0	−1.3	66.6	−2.6	72.8	−1.0	71.5	−1.6	69.2	+3.7	52.5	−1.7	42.0	+3.3	30.9	+4.6	51.0	+1.7
Charles City	20.1	+8.7	21.4	+6.3	34.6	+6.2	47.7	+1.4	57.4	−2.1	65.0	−3.8	71.6	−1.9	67.4	−3.3	65.9	+4.2	49.8	+1.6	36.2	+3.2	23.2	+4.2	46.7	+2.1
Clarinda	26.9	+4.4	26.1	+3.5	40.5	+4.4	52.8	+1.9	59.4	−1.8	68.2	−2.8	73.8	−1.7	72.3	−1.9	68.6	+2.6	52.0	−2.0	40.1	+2.3	29.1	+2.5	50.8	+0.9
Clear Lake	22.0	+5.4	22.4	+7.8	34.4	+2.7	48.1	+1.1	58.1	−1.6	66.2	−2.0	72.2	−1.0	68.8	−2.9	66.4	+4.2	51.0	−0.8	37.5	+3.4	24.4	+4.0	47.6	+1.7
Clinton	25.7	+6.0	24.2	+2.4	39.2	+5.7	50.0	+1.4	60.4	+0.2	69.4	−0.3	74.0	+0.2	70.0	−1.3	66.2	+2.9	50.8	+0.3	38.8	+3.1	25.8	+0.5	49.5	+1.7
Columbus Junction	27.6	+4.3	27.0	+5.6	41.4	+2.4	51.4	+1.7	61.8	−0.4	68.9	+0.2	74.2	−1.4	71.6	−0.8	68.3	+2.8	53.6	−0.8	42.5	+3.5	30.0	+3.4	51.5	+1.7
Corning	26.2	+4.3	26.1	+4.2	39.7	+3.3	55.4	+5.6	59.4	−1.0	67.4	−2.1	72.6	−1.0	71.0	−1.5	67.6	+2.8	51.6	−1.7	39.4	+2.2	29.4	+2.3	50.5	+1.5
Corydon	29.6	+6.3	27.1	+4.9	42.4	+5.1	53.4	+2.4	61.4	+0.1	68.1	−1.8	73.8	−1.0	72.8	−0.8	69.6	+3.1	53.6	−1.2	43.0	+4.3	31.5	+4.8	52.2	+2.2
Davenport	26.6	+5.8	26.1	+2.3	40.2	+4.8	50.4	+0.2	61.2	−0.3	68.8	−2.1	75.1	−0.3	72.2	−0.8	69.4	+4.7	53.6	+1.0	41.6	+4.1	28.7	+1.5	51.2	+1.8
Decorah	20.8	+5.3	22.4	+7.1	33.8	+2.2	47.0	−0.7	58.4	−0.8	66.8	−0.6	72.6	+0.6	68.4	−1.8	67.3	+5.2	50.8	+0.6	37.5	+4.0	23.0	+2.0	47.4	+1.9
Denison	25.2	+4.9	23.3	+4.2	39.4	+5.7	50.4	+2.3	58.5	−0.8	67.2	−0.6	72.4	−0.3	69.6	−2.3	67.8	+4.1	50.6	−0.2	38.4	+2.8	28.4	+4.9	49.3	+2.1
Des Moines	27.0	+6.6	26.1	+2.0	39.8	+4.1	51.8	+1.2	60.4	−1.2	68.0	−2.4	74.4	−1.1	71.4	−1.6	68.4	+3.4	52.9	+0.4	41.5	+4.7	29.6	+3.9	50.9	+1.6
De Soto	27.4	+4.2	25.8	+5.4	39.8	+2.2	52.2	+2.5	61.0	−0.9	68.1	−0.9	73.7	+1.0	71.1	−1.9	69.1	+4.5	53.5	−0.6	40.8	+2.1	29.2	+2.7	51.0	+1.7
Dows	22.6	+5.7	22.5	+7.1	35.3	+1.7	47.8	+1.5	57.2	−1.0	65.4	−0.6	70.8	−0.7	66.2	−3.5	65.3	+3.6	49.8	−1.6	35.9	+0.9	24.8	+3.3	47.0	+1.4
Dubuque	24.8	+6.5	24.0	+2.4	37.8	+4.6	48.8	−0.1	59.7	−1.1	67.4	−2.2	73.4	−1.3	69.6	−2.4	68.1	+4.5	51.7	−0.3	38.8	+2.8	25.8	+1.3	49.2	+1.8
Earlham	26.2	+6.8	25.8	+7.8	38.1	+3.9	51.0	+3.2	58.7	−1.3	65.5	+0.3	71.9	+1.9	68.8	−1.2	66.6	+4.5	52.0	+0.9	40.4	+2.6	29.8	+6.8	49.6	+3.0
Elkader	22.8	+8.0	24.3	+6.3	36.5	+4.7	48.6	+0.6	59.3	+0.8	65.3	−1.2	74.5	+0.9	70.6	−0.4	68.1	+5.6	51.6	+2.2	38.1	+4.9	24.1	+2.5	48.6	+2.9
Elliott	26.8	-----	26.3	-----	40.1	-----	53.0	-----	60.0	-----	67.2	-----	73.8	-----	71.1	-----	69.3	-----	52.0	-----	40.5	-----	31.3	-----	51.0	-----
Elma	20.2	-----	22.4	-----	34.0	-----	47.0	-----	57.0	-----	65.6	-----	71.3	-----	66.3	-----	65.2	-----	49.2	-----	35.7	-----	21.8	-----	46.3	-----
Estherville	20.1	+5.1	20.2	+5.1	32.6	+3.6	47.1	+0.8	56.6	+0.6	64.6	−2.2	70.0	−1.1	67.0	−3.2	66.8	+6.1	47.1	−1.7	36.8	+5.5	22.6	+4.4	46.0	+1.9
Fairfield	27.8	+10.2	26.5	+4.8	41.7	+7.9	51.6	+1.8	60.4	+0.2	-----	-----	78.3	+3.6	71.1	−0.2	69.2	+5.2	53.3	+0.9	43.0	+6.1	29.7	+4.6	-----	-----
Forest City	19.7	+3.5	20.8	+6.2	32.5	+2.8	47.6	+1.1	57.0	−1.3	65.2	−2.0	72.0	0.0	68.2	−2.1	66.4	+4.4	49.2	−0.5	36.4	+4.0	23.3	+3.5	46.5	+1.6
Fort Dodge	22.6	+5.5	21.8	+6.5	34.9	+1.5	49.2	+1.8	58.8	−1.2	65.8	−0.8	72.1	−0.4	68.8	−2.6	67.1	+4.5	49.7	−2.6	38.2	+3.0	24.6	+2.1	47.8	+1.4
Grand Meadow	21.4	+5.9	22.0	+5.3	35.0	+3.7	47.5	+0.7	58.2	+0.1	65.0	−1.4	71.3	+0.8	67.4	−1.5	66.0	+4.1	49.6	+0.4	37.1	+4.1	23.2	+1.7	47.0	+2.0
Greenfield	27.4	+6.1	25.2	+4.6	39.0	+4.5	51.9	+2.1	59.2	−1.2	-----	-----	71.4	−2.5	70.5	−1.9	68.2	+3.5	51.2	−1.9	40.6	+4.0	30.0	+5.0	-----	-----
Grinnell	26.0	+5.8	25.4	+4.1	38.8	+5.7	51.1	+0.8	60.2	+0.5	67.3	−1.0	73.2	0.0	70.6	−1.0	68.3	+4.5	52.6	+1.9	42.0	+6.0	29.0	+4.6	50.4	+2.7
Grundy Center	24.7	+7.8	24.4	+6.7	38.6	+6.0	51.1	+3.7	60.0	+1.5	67.6	−0.6	73.2	+1.0	69.8	−1.2	67.8	+4.7	51.2	−0.6	38.8	+4.8	26.2	+3.6	49.4	+3.1
Guthrie Center	26.8	+4.1	24.9	+4.7	38.4	+3.0	51.4	+2.1	60.6	0.0	68.2	−0.8	73.4	0.0	70.6	−1.6	67.5	+3.6	51.4	−1.0	39.4	+2.1	29.0	+5.2	50.1	+1.7
Hampton	23.3	+7.8	23.0	+6.1	36.1	+5.8	49.0	+1.7	59.2	+0.9	6.63	−1.5	73.4	+1.0	69.7	−0.9	68.4	+5.5	51.8	+1.0	38.0	+4.6	25.0	+3.5	48.6	+3.0
Hancock	27.2	-----	25.6	-----	39.8	-----	52.0	-----	59.2	-----	67.1	-----	72.2	-----	70.4	-----	68.8	-----	52.2	-----	39.8	-----	29.2	-----	50.3	-----
Harlan	25.8	+4.6	24.6	+6.5	37.9	+2.6	51.0	+2.7	58.9	−1.4	66.6	−1.9	71.8	−1.4	70.2	−2.0	67.8	+4.8	50.5	−2.3	38.2	+1.0	27.6	+3.6	49.2	+1.4
Hopeville	28.0	+6.6	26.9	+4.9	40.3	+4.6	52.8	+3.1	60.6	+0.4	67.6	−2.1	73.9	−0.2	72.0	−1.2	68.8	+2.4	52.3	−1.9	41.2	+4.5	29.9	+3.7	51.2	+2.1
Humboldt	22.4	+5.6	23.4	+5.7	37.0	+5.2	50.0	+1.7	58.4	−1.0	66.3	−2.5	72.6	−0.3	67.6	−0.3	66.6	+4.1	52.0	+2.0	40.4	+6.4	27.0	+3.7	48.6	+2.5
Independence	24.7	+9.5	24.7	+5.1	37.6	+6.8	48.8	−0.6	58.8	−0.4	66.0	−2.4	71.6	−1.3	68.8	−1.3	66.6	+4.9	50.8	+1.6	38.0	+5.4	25.1	+3.5	48.5	+2.6
Indianola	27.8	+7.6	25.8	+3.5	40.0	+3.9	52.0	+1.3	60.8	+0.1	68.0	−1.7	74.0	−0.7	71.2	−1.6	70.0	+4.5	53.3	−0.4	41.0	+2.7	29.5	+3.7	51.1	+2.3
Inwood	21.2	-----	20.4	-----	33.8	-----	49.6	-----	57.5	-----	64.4	-----	71.6	-----	69.0	-----	68.3	-----	48.5	-----	36.2	-----	23.6	-----	47.0	-----
Iowa City	24.2	+5.1	23.6	+1.1	38.8	+4.8	50.6	+2.1	61.2	+0.9	6.88	−0.5	74.8	+0.6	71.4	−0.3	67.6	+4.0	52.4	+1.3	39.6	+3.9	26.9	+2.7	50.0	+2.2
Iowa Falls	22.1	+6.9	22.2	+6.7	35.4	+3.5	48.0	+1.3	57.4	−1.3	65.6	−1.9	71.5	−0.5	67.1	−2.8	65.2	+3.6	49.4	−0.3	36.8	+3.7	24.7	+3.6	47.1	+1.9
Keokuk	30.4	+6.7	29.1	+2.5	44.8	+6.9	53.8	+1.8	63.2	0.0	70.2	−2.3	76.1	−0.9	74.5	−0.1	70.8	+4.4	54.4	−0.1	45.2	+5.8	33.4	+4.0	53.8	+2.4
Keosauqua	26.3	+3.2	25.4	+2.3	41.0	+2.8	51.6	0.0	62.0	−0.6	68.4	−3.3	74.6	−1.3	71.8	−2.7	67.4	+0.5	52.2	−2.6	41.0	+2.1	29.4	+2.0	50.9	+0.2
Knoxville	28.8	+5.7	27.2	+5.3	40.9	+2.5	52.8	+1.6	61.8	−0.4	69.0	−2.6	74.6	−0.9	72.1	−1.6	68.3	+2.1	53.2	−0.5	42.2	+4.7	30.2	+3.7	51.8	+1.8
Larrabee	21.8	+4.4	21.0	+3.2	34.6	+3.9	49.8	+2.3	57.9	−0.4	65.8	−2.7	72.1	−0.7	68.0	−3.2	66.8	+4.0	48.1	−2.2	36.1	+3.2	24.6	+2.3	47.2	+1.2
Le Mars	22.9	+3.7	22.8	+6.3	36.3	+3.3	50.2	+2.2	58.4	−0.9	66.2	−2.1	72.2	−0.2	68.4	−3.1	67.8	+5.3	49.0	−2.3	36.8	+2.3	25.6	+1.9	48.0	+1.3
Lenox	28.0	+4.7	26.2	+4.5	40.6	+4.3	52.5	+2.5	60.0	−1.2	68.0	−1.3	72.8	−1.0	71.2	−1.7	67.3	+2.5	51.8	−1.8	39.8	+1.9	29.8	+4.5	50.7	+1.5
Leon	27.4	+5.2	27.3	+5.4	41.3	+3.3	53.0	+1.7	61.4	−1.5	68.6	−0.2	73.8	+0.6	73.2	+0.1	68.3	+3.5	51.8	−1.8	41.2	+0.6	30.6	+4.0	51.5	+1.7
Little Sioux	27.3	-----	25.6	-----	39.4	-----	53.6	-----	60.2	-----	68.2	-----	73.5	-----	71.8	-----	70.2	-----	51.6	-----	39.0	-----	29.1	-----	50.8	-----
Marshalltown	23.9	+4.5	22.4	+3.0	36.6	+3.2	49.4	+0.6	58.9	−0.8	66.7	−2.0	72.5	−0.7	68.7	−3.1	66.0	+1.9	50.6	−1.7	38.0	+2.0	26.2	+2.7	48.3	+0.8
Mason City	21.6	+6.5	21.9	+5.7	34.4	+2.8	47.0	−0.7	57.0	−1.4	64.8	−2.4	71.2	−0.3	65.8	−3.2	64.6	+1.6	48.8	−0.8	35.7	+2.9	23.5	+1.8	46.4	+1.0
Mount Ayr	29.0	+5.7	27.0	+4.5	41.3	+4.3	53.1	+2.3	61.0	−0.7	68.3	−1.7	74.2	−0.8	72.4	−1.6	69.6	+2.9	52.4	−2.5	41.4	+2.5	31.0	+5.1	51.7	+1.6
Mount Pleasant	27.9	+6.9	27.2	+4.0	41.5	+4.8	52.6	+1.5	62.8	+0.6	69.8	−1.6	75.2	−0.4	72.8	−0.5	70.0	+5.0	53.0	+0.5	42.5	+5.1	29.8	+3.0	52.1	+2.4
New Hampton	20.2	+3.4	21.5	+6.9	34.4	+2.7	47.2	+0.3	57.4	−0.5	64.8	−1.5	71.2	−0.2	66.8	−2.7	65.2	+3.5	48.7	−2.1	36.4	+1.7	23.2	+3.7	46.4	+1.2
Northwood	-----	-----	22.0	+6.5	34.0	+2.9	46.8	+0.3	58.0	+0.1	64.9	−1.1	71.2	0.0	67.1	−2.4	66.2	+5.4	49.4	−0.3	37.4	+4.2	19.5	−0.5	-----	-----
Odebolt	25.5	+5.1	23.8	+5.4	37.4	+2.6	51.7	+3.6	59.2	−1.2	67.8	−1.7	74.3	−0.2	71.2	−2.5	68.8	+5.3	50.6	−2.3	38.5	+2.0	27.8	+4.3	49.7	+1.7
Omaha, Nebr.	30.2	+9.7	27.4	+3.7	40.6	+4.6	53.4	+2.9	60.8	−1.7	68.8	−2.8	74.5	−2.0	73.2	−1.2	71.6	+5.8	53.1	−1.1	41.8	+4.1	31.8	+4.7	52.3	+2.3
Onawa	27.8	+5.2	27.2	+6.2	40.6	+3.1	54.8	+4.9	61.8	−0.8	69.6	−0.4	75.1	+0.1	73.0	−1.2	71.6	+6.4	52.4	−2.4	40.2	+1.9	30.1	+3.9	52.0	+2.2
Osage	18.5	+4.5	23.0	+8.1	34.6	+5.5	48.7	+3.3	59.2	+2.1	66.2	+0.1	73.2	+2.7	70.4	+2.4	67.4	+7.4	51.7	+4.3	37.6	+6.7	23.6	+4.0	47.8	+4.2
Oskaloosa	27.5	+8.3	26.5	+5.3	40.2	+5.0	52.3	+2.3	61.4	+1.0	68.2	−1.3	74.8	+0.4	71.8	−0.1	68.2	+3.7	53.2	+1.1	41.2	+4.2	29.0	+3.1	51.2	+2.1
Ottumwa	26.8	+2.3	25.8	+2.8	41.0	+2.3	52.5	+0.5	62.3	−0.7	70.0	−1.2	76.8	+0.8	74.0	−1.0	70.1	+2.9	53.7	−1.3	43.2	+3.7	31.4	+3.6	52.3	+1.2
Pacific Junction	28.4	+5.1	27.0	+7.4	40.9	+3.8	53.2	+3.2	60.2	−1.4	68.5	−1.2	73.2	−1.0	71.6	−1.9	68.6	+4.1	51.7	−2.7	39.1	0.0	29.3	+3.0	51.0	+1.6
Plover	21.9	+3.0	23.1	+6.8	36.2	+4.1	49.1	+2.5	59.4	+0.3	65.8	−1.8	72.6	0.0	68.9	−2.0	66.8	+4.0	49.1	−1.5	36.2	+1.9	25.4	+4.1	47.8	+1.8
Ridgeway	22.6	+3.4	23.6	+6.1	35.4	+2.3	48.4	+0.8	58.4	−1.2	65.6	−2.7	72.6	−0.8	70.0	−2.0	70.0	+6.8	51.4	−1.0	38.8	+1.6	23.4	+1.1	48.4	+1.2
Rockwell City	24.7	+4.9	24.8	+7.2	36.7	+0.1	51.1	+4.1	60.0	+0.5	67.7	−0.8	73.6	+0.2	69.5	−2.8	68.1	+4.3	51.5	−0.5	40.1	+5.1	28.2	+5.6	49.7	+2.6
Saint Charles	29.6	+6.8	26.8	+5.9	40.8	+2.6	52.6	+2.0	60.6	−1.3	67.1	−1.5	-----	-----	73.0	−0.2	69.4	+4.0	53.3	−2.2	43.0	+1.9	31.0	+4.7	-----	-----
Sheldon	22.3	+4.7	21.9	+6.2	35.2	+3.8	50.2	+3.1	58.8	+0.9	65.0	−1.4	72.2	+0.1	69.2	−2.1	70.2	+8.7	49.2	−2.2	37.6	+1.5	23.2	+1.0	47.9	+2.0
Sibley	19.4	+4.5	18.4	+3.4	31.4	+1.5	46.6	+0.5	55.4	−1.9	62.9	−3.1	69.2	−1.0	66.2	−2.7	66.0	+5.3	46.6	−3.0	35.4	+3.4	20.8	+1.2	44.9	+0.7
Sigourney	27.5	+4.7	26.6	+4.9	40.6	+3.7	52.1	+0.9	61.6	−1.4	69.3	−1.5	75.2	−0.6	72.2	−1.6	68.8	+3.2	53.2	−1.1	41.7	+2.8	29.4	+3.1	51.5	+1.4
Sioux City	25.4	+9.8	24.0	+4.2	37.0	+4.4	51.0	+2.5	58.6	−2.2	66.5	−2.9	72.8	−1.4	69.8	−2.8	69.2	+5.1	49.6	−1.5	37.9	+3.6	27.2	+4.6	49.1	+2.0
Stockport	27.8	-----	27.8	-----	42.0	-----	52.0	-----	61.4	-----	67.8	-----	73.6	-----	72.1	-----	68.0	-----	53.0	-----	42.6	-----	30.2	-----	51.5	-----
Storm Lake	23.5	+6.1	21.6	+6.4	35.8	+5.6	49.8	+4.4	58.0	+0.4	65.4	−1.6	71.6	−0.3	68.1	−2.6	67.4	+4.7	49.1	−3.2	37.9	+1.8	27.0	+5.6	47.9	+2.2
Thurman	29.4	+5.2	27.2	+5.7	41.2	+3.4	54.0	+3.5	60.9	−1.4	69.7	−1.3	74.5	−0.9	73.1	−0.7	68.0	+2.2	52.2	−2.6	39.6	+1.0	30.0	+4.5	51.6	+1.5
Tipton	26.4	+5.8	25.6	+3.8	40.7	+4.1	50.9	+2.0	61.9	+1.4	70.0	+0.1	76.5	+1.7	73.2	+0.6	69.6	+3.8	53.6	+0.7	41.1	+4.3	28.0	+2.6	51.5	+2.6
Toledo	25.5	+6.4	24.7	+5.3	38.4	+3.7	50.2	+0.6	59.6	−1.1	67.4	−1.8	73.4	−0.2	70.2	−1.8	66.8	+2.7	51.3	−0.8	39.4	+3.0	26.4	+2.7	49.4	+1.5
Washington	26.5	+7.4	26.0	+3.7	40.3	+6.1	51.2	+0.7	60.9	−0.1	67.4	−4.3	73.2	−2.3	70.6	−2.5	68.4	+3.8	53.0	+0.8	41.6	+5.4	29.6	+5.0	50.7	+1.9
Washta	24.2	-----	23.4	-----	35.5	-----	48.9	-----	56.6	-----	65.2	-----	71.4	-----	69.4	-----	68.0	-----	50.2	-----	37.4	-----	26.6	-----	48.1	-----
Waterloo	25.6	+8.1	24.6	+6.5	37.7	+5.9	49.5	+2.5	59.6	+0.1	66.4	−1.8	74.0	+0.5	70.0	−0.9	67.6	+4.8	52.0	+1.8	39.0	+3.3	25.1	+3.1	49.3	+2.9
Waukee	27.4	-----	25.6	-----	37.9	-----	49.8	-----	58.4	-----	68.8	-----	73.4	-----	70.2	-----	67.3	-----	52.8	-----	39.0	-----	28.8	-----	50.0	-----
Waverly	22.4	+4.5	23.7	+6.2	36.4	+3.6	49.0	+2.0	58.8	−1.2	66.0	−1.5	71.6	−0.8	68.6	−2.2	67.0	+4.5	51.0	−1.0	37.9	+2.8	25.0	+3.4	48.1	+1.7
Webster City	24.0	-----	24.4	-----	37.7	-----	49.2	-----	59.6	-----	67.8	-----	74.3	-----	69.8	-----	67.5

MONTHLY AND ANNUAL PRECIPITATION FOR 1908, WITH DEPARTURES FROM NORMAL

STATIONS	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Annual	
	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.	Amt.	Dept.
Afton	.60	— .29	1.48	+ .53	1.64	— .46	1.23	—3.14	8.69	+3.80	5.90	+1.74	3.52	— .83	5.21	+ .78	.76	—2.89	6.55	+3.93	2.02	+ .79	.35	— .89	37.95	+ 3.07
Albia	.30	—1.12	1.64	+ .32	1.97	+ .07	1.72	—1.11	10.49	+6.16	2.29	—2.57	3.09	—1.84	5.40	+1.25	1.38	—2.18	2.33	— .24	1.57	—.20	.20	— .94	32.38	— 2.40
Algona	.33	— .46	1.00	— .27	1.82	+ .26	3.21	+ .73	10.57	+6.89	7.61	+3.21	2.14	— .96	6.85	+2.93	.55	—2.59	3.88	+1.79	1.45	+ .17	.90	— .13	40.31	+11.57
Allerton	.31	—1.11	1.77	+ .43	1.53	— .92	1.72	—1.48	10.49	+5.98	3.13	—1.56	2.89	—1.68	5.02	—1.80	1.00	—3.71	4.74	+2.72	1.42	— .43	.19	— .98	34.21	— 4.91
Alta	.15	— .49	1.79	+ .94	1.43	— .23	2.69	— .34	8.44	+3.66	8.03	+2.81	8.14	+3.46	6.03	+2.06	.60	—2.58	3.20	+1.06	1.65	+ .42	.64	— .29	42.79	+10.48
Alton	.20	------	1.86	------	1.74	------	2.90	------	7.29	------	4.35	------	4.19	------	3.95	------	.86	------	2.78	------	1.69	------	.71	------	32.52	------
Amana	.44	—1.03	2.41	+1.15	2.37	+ .37	3.14	+ .23	7.45	+3.05	3.30	—1.11	2.44	—1.81	4.87	+1.26	1.32	—1.93	1.87	— .78	2.14	+ .41	.44	—1.01	32.19	— 1.20
Ames	.55	— .37	1.55	+ .75	.45	— .96	1.94	— .73	7.95	+3.63	3.93	— .60	3.63	— .81	5.90	+2.23	.50	—2.89	6.23	+1.13	-----	------	.57	— .45	-------	-------
Atlantic	.22	— .54	1.60	+ .55	.85	— .90	.93	—2.13	8.80	+4.42	7.22	+1.81	2.23	—2.10	3.57	+ .09	.73	—2.76	3.96	+1.44	0.29	— .69	.46	— .69	30.86	— 1.50
Audubon	.55	— .10	1.29	+ .50	.88	— .74	2.70	— .54	10.16	+5.92	5.69	+1.84	3.23	— .69	4.57	+ .85	.67	—2.46	4.04	+1.88	0.90	— .44	.30	— .66	34.98	+ 5.36
Baxter	.38	— .50	.84	+ .03	1.53	— .68	2.85	— .02	8.41	+3.21	6.25	+1.75	2.54	—2.50	3.02	—1.53	1.09	—2.33	3.48	+ .67	1.09	— .24	.58	— .31	32.06	— 2.45
Bedford	.18	— .92	1.29	+ .25	.75	—1.57	1.24	—1.57	6.68	+1.43	7.72	+3.25	2.57	—2.77	3.86	—1.20	.72	—2.72	6.82	+4.54	1.10	— .19	.19	— .75	33.12	— 2.22
Belle Plaine	.78	— .99	2.67	+1.21	2.37	— .14	4.14	+0.83	4.33	— .33	2.81	—1.34	2.59	—1.82	3.49	— .66	1.82	—1.14	2.92	+ .57	1.50	— .22	.80	— .73	30.22	— 4.78
Bloomfield	.57	------	1.75	------	2.57	------	2.02	------	13.89	------	4.19	------	3.44	------	4.64	------	.86	------	1.24	------	2.67	------	.44	------	38.28	------
Bonaparte	.67	—1.31	2.49	+1.26	1.51	—1.04	1.90	—1.45	11.07	+7.04	3.52	—1.16	3.70	— .03	4.41	— .24	1.83	—2.21	0.89	— .87	2.34	+ .54	.17	—1.86	34.50	— 1.33
Boone	.42	------	2.13	------	1.37	------	2.44	------	7.12	------	5.87	------	6.27	------	4.18	------	.63	------	5.19	------	1.14	------	.47	------	37.23	------
Britt	.42	— .26	.70	— .33	1.82	+ .32	3.78	+1.57	7.85	+3.59	5.72	+1.64	4.33	— .10	4.83	+ .78	1.08	—2.66	5.20	+3.04	1.69	+ .58	.96	+ .20	38.38	+ 8.37
Burlington	.86	—1.12	3.71	+1.93	2.18	— .68	2.16	—1.00	11.34	+7.49	5.17	+ .09	2.83	— .79	2.64	—2.80	3.35	+ .23	0.77	—1.45	2.45	+ .67	.65	— .90	38.11	+ 1.67
Carroll	.30	— .51	2.58	+1.43	1.69	— .35	1.51	—1.69	8.48	+3.92	7.94	+3.27	4.30	+ .29	7.76	+4.05	.59	—2.30	5.70	+3.46	1.37	+ .24	.30	— .69	42.52	+11.12
Cedar Rapids	.31	—1.11	1.72	+ .34	2.17	+ .13	3.36	+ .62	6.11	+1.53	3.23	— .64	3.06	— .98	4.12	+ .62	1.39	—1.43	1.34	—1.12	1.44	+ .04	.58	— .92	28.83	— 2.92
Chariton	.35	— .97	.73	— .30	.99	— .09	1.81	—1.32	9.83	+5.46	3.34	—1.38	1.77	—3.69	3.42	—1.58	.94	—2.50	3.15	+ .79	1.35	+ .05	.20	—1.14	27.88	— 6.67
Charles City	.40	— .57	1.44	+ .47	1.67	— .25	2.00	— .83	6.49	+1.55	8.40	+3.30	4.34	+ .76	3.49	+ .07	.81	—1.99	2.64	+ .61	1.32	— .07	1.16	— .12	34.16	+ 2.93
Clarinda	.20	— .78	1.96	+ .96	.65	—1.21	1.15	—2.04	8.55	+3.71	7.03	+2.13	3.64	—1.06	5.78	+1.75	.36	—2.33	5.12	+2.62	1.48	+ .32	.27	— .85	36.19	+ 3.22
Clear Lake	.45	— .12	.23	— .62	1.50	— .09	2.12	+ .48	9.20	+3.77	7.67	+2.83	2.16	—2.58	2.97	—1.34	1.26	—1.70	3.50	+ .87	1.48	+ .41	1.10	+ .47	33.64	+ 2.38
Clinton	.68	—1.24	2.58	+ .47	3.08	+ .06	2.70	— .31	6.66	+2.60	4.03	— .40	3.64	— .56	5.57	+1.92	1.63	—1.68	0.58	—1.82	3.31	+1.47	.49	—1.36	34.93	— .85
Columbus Jct.	.78	— .69	1.70	+ .52	2.01	— .50	1.69	—1.09	7.19	+3.31	3.78	—1.10	3.63	— .38	7.92	+1.70	1.77	—1.38	1.88	— .57	2.04	+ .53	.37	—1.09	34.76	— .74
Corning	.80	— .11	1.80	+ .92	1.69	— .05	1.19	—1.94	12.18	+7.35	6.51	+2.46	2.10	—2.25	3.76	— .45	1.01	—1.95	5.67	+3.34	1.11	— .09	.35	— .79	38.17	+ 6.44
Corydon	.20	—1.20	.91	— .41	1.12	—1.01	1.70	—1.46	9.38	+4.71	1.92	—2.73	3.25	— .93	3.88	— .44	1.08	—2.51	4.71	+2.22	1.42	— .03	.23	—1.19	29.89	— 4.98
Cumberland	.80	— .05	1.80	+ .90	2.31	+ .29	.77	—1.32	12.00	+8.31	8.28	+3.60	4.42	—1.02	6.19	+2.21	1.52	—2.12	4.14	+1.53	0.76	— .22	.08	— .94	43.07	+11.17
Davenport	.69	— .88	2.37	+ .81	2.24	+ .03	2.22	— .66	5.13	+ .94	4.57	+ .46	3.30	— .25	6.23	+2.59	1.12	—2.02	.87	—1.52	2.46	+ .70	.40	—1.29	31.60	— 1.00
Decorah	.50	— .65	1.50	+ .59	1.91	— .11	2.41	— .09	6.64	+1.97	7.71	+3.71	4.72	+1.00	4.17	+1.13	1.98	—1.75	2.00	— .42	0.80	— .75	1.70	+ .31	36.07	+ 4.97
Denison	.40	— .84	1.70	+ .81	1.11	— .40	2.41	—1.04	8.90	+4.79	9.54	+6.12	1.47	—2.59	5.87	+2.11	.67	—2.33	3.78	+1.75	1.28	+ .27	.11	— .48	37.24	+ 8.20
Des Moines	.46	— .75	1.51	+ .43	1.43	— .22	2.69	— .29	9.89	+5.33	5.93	+ .97	1.56	—2.30	6.54	+2.93	.91	—2.13	3.68	+1.00	0.95	— .53	.31	—1.00	35.89	+ 3.44
De Soto	.55	— .29	1.32	+ .44	1.21	— .38	1.41	—1.37	8.33	+4.45	4.61	+ .24	5.13	— .70	6.59	+1.62	.55	—2.54	6.31	+3.98	1.47	+ .25	.61	— .65	38.09	+ 5.05
Dows	.30	— .53	1.56	+ .34	1.22	— .92	3.12	+ .87	8.36	+3.23	-----	------	3.34	—2.29	4.22	— .06	.80	—2.69	2.48	+ .08	2.12	+ .88	.39	— .42	-------	-------
Dubuque	.70	— .79	1.87	+ .49	1.72	— .49	2.50	— .42	5.82	+1.50	2.21	—2.34	2.06	—2.24	2.92	— .12	1.14	—2.45	1.20	—1.48	1.34	— .47	.63	—1.09	24.11	— 9.90
Earlham	.65	— .43	1.97	+ .85	1.58	— .18	1.00	—2.66	9.31	+4.54	6.28	+1.75	4.45	— .39	6.38	+1.25	.55	—3.24	6.38	+4.03	1.89	+ .55	.40	— .90	40.84	+ 5.17
Elkader	.55	— .76	1.65	+ .56	1.57	— .34	1.75	— .94	6.55	+2.41	4.49	+ .46	4.70	+ .02	2.94	+ .04	2.73	—1.11	1.96	— .68	1.19	— .46	.85	— .98	30.93	— 1.78
Elliott	.55	------	1.98	------	1.80	------	1.31	------	11.16	------	9.09	------	1.96	------	2.84	------	.62	------	3.31	------	0.98	------	.60	------	36.20	------
Elma	.14	------	.96	------	.83	------	3.24	------	7.04	------	8.26	------	3.78	------	3.35	------	1.27	------	2.23	------	1.42	------	.75	------	33.27	------
Estherville	.24	— .32	.83	+ .15	1.41	— .02	3.60	+1.39	9.13	+4.95	7.35	+4.00	4.19	— .39	3.07	— .53	1.05	—2.18	3.22	+1.05	1.62	+ .38	.75	+ .13	36.47	+ 8.61
Fairfield	.47	—1.23	1.71	+ .12	2.23	— .29	1.33	—2.13	10.41	+5.13	5.73	+ .60	2.97	—1.02	4.25	+ .17	.78	—2.72	0.61	—2.31	2.37	+ .09	.29	—1.49	33.17	— 5.10
Forest City	.20	— .44	.75	— .18	1.63	+ .07	2.42	+ .01	8.10	+3.71	6.02	+1.39	5.08	+1.40	4.28	+ .78	1.01	—2.62	5.00	+2.70	1.83	+ .69	.70	— .15	37.01	+ 7.31
Fort Dodge	.30	— .34	.45	— .26	1.17	— .79	3.37	+ .21	9.24	+4.69	7.28	+3.47	4.88	+ .85	5.83	+ .19	1.12	—3.45	4.45	+1.36	1.49	+ .27	.75	+ .29	40.63	+ 6.48
Grand Meadow	.64	— .53	1.63	+ .53	1.85	— .29	1.93	—1.04	7.02	+2.16	6.24	+1.44	6.98	+2.24	3.06	— .27	3.46	— .17	2.27	— .20	1.41	— .15	1.34	— .12	37.83	+ 3.60
Greenfield	.80	— .15	-----	------	1.72	— .36	1.41	—1.77	6.67	+1.65	-----	------	4.72	+ .02	6.43	+2.89	.82	—2.59	5.25	+3.97	0.94	— .23	.05	—1.20	-------	-------
Grinnell	.48	— .79	1.98	+1.06	1.93	+ .19	1.87	—1.51	8.70	+4.11	3.09	—1.49	2.54	—2.41	5.80	+1.18	1.95	— .40	2.23	— .24	1.36	— .27	.64	— .53	32.57	— 1.10
Grundy Center	.60	— .22	1.37	+ .52	.95	— .87	2.23	— .82	-----	------	3.63	—1.67	2.92	—1.63	3.93	+ .36	.90	—2.35	4.66	—2.19	1.25	+ .03	.85	— .33	-------	-------
Guthrie Center	.56	— .03	2.24	+1.44	1.16	— .24	1.69	—1.05	8.26	+3.30	6.47	+2.06	3.37	—1.45	9.25	+4.93	.76	—2.33	5.12	+2.85	1.03	— .12	.65	— .45	40.56	+ 8.91
Hampton	.70	— .34	1.68	+ .51	1.95	— .30	2.44	— .84	7.48	+2.90	6.03	+1.12	4.53	— .30	3.47	+ .10	.70	—2.86	4.47	+2.04	2.15	+ .59	.83	— .42	36.43	+ 2.20
Hancock	.25	------	1.78	------	1.41	------	.80	------	7.36	------	6.98	------	3.69	------	2.63	------	0.75	------	3.46	------	0.58	— .46	.37	------	30.06	------
Harlan	.31	— .32	1.67	+ .82	1.10	— .38	.99	—1.47	8.48	+4.23	6.34	+1.72	1.68	—3.63	3.63	— .59	1.05	—2.66	3.52	+ .76	0.79	— .25	.27	— .63	29.86	— 2.40
Hopeville	.28	— .66	.99	+ .20	.78	—1.00	.83	—2.40	9.64	+4.95	3.83	— .22	3.42	—1.43	5.94	+2.13	1.75	—1.74	5.19	+2.95	2.58	+1.49	.23	— .83	35.46	+ 3.44
Humboldt	.18	— .37	1.18	+ .52	.78	— .82	2.74	+ .13	9.66	+5.30	6.35	+1.64	3.78	— .16	5.88	+2.44	1.80	—1.37	5.73	+3.81	1.40	+ .03	.33	— .36	39.81	+10.82
Independence	.20	—1.03	.85	— .16	3.12	+1.49	2.17	— .21	7.66	+3.50	4.72	— .06	2.03	—2.56	2.78	— .41	2.93	—1.02	2.80	+ .44	0.94	— .38	.90	— .46	31.10	— .86
Indianola	.45	— .82	1.04	+ .10	1.46	+ .14	3.10	— .30	7.93	+3.29	4.31	+ .13	1.43	—2.83	9.45	+4.77	.36	—2.74	4.24	+2.14	1.21	— .21	.45	— .88	35.43	+ 2.79
Inwood	.17	------	1.74	------	1.45	------	4.59	------	6.30	------	6.69	------	3.20	------	1.94	------	1.24	------	2.67	------	1.96	------	.81	------	32.76	------
Iowa City	.32	—1.42	2.08	+ .61	2.94	+ .50	2.76	— .38	7.78	+3.41	2.87	—1.71	5.49	+ .92	7.47	+3.23	1.82	—1.93	1.99	— .79	1.84	— .42	.43	—1.22	37.70	+ .80
Iowa Falls	.35	— .55	2.09	+1.05	1.35	— .38	1.72	—1.16	7.83	+3.63	5.71	+1.19	2.66	—1.44	5.48	+2.10	1.52	—1.45	4.69	+2.54	1.35	+ .10	.55	— .56	35.30	+ 5.07
Keokuk	.51	—1.18	2.86	+1.24	1.76	— .61	1.82	—1.52	10.09	+5.74	4.32	— .03	3.70	— .33	2.50	— .74	2.22	—1.75	.87	—1.62	3.05	+1.20	.58	—1.29	34.28	— .89
Keosauqua	.56	— .81	2.19	+ .74	1.35	—1.19	1.32	—2.37	12.54	+8.17	5.18	+ .63	3.53	— .60	4.63	+ .81	1.05	—3.35	0.73	—1.11	2.48	+ .98	.16	—1.34	35.72	+ .56
Knoxville	.40	— .95	1.24	+ .36	1.45	— .12	4.30	+1.05	10.00	+6.52	2.51	—1.81	3.01	—1.45	8.59	+3.92	.88	—2.64	2.57	+ .15	1.11	— .18	.30	—1.08	36.45	+ 3.77
Larrabee	.24	— .32	1.64	+ .80	1.64	+ .15	2.20	— .52	9.77	+5.25	4.49	— .99	5.24	+ .87	4.26	+ .78	.59	—2.83	2.78	+ .66	1.42	+ .40	.75	— .21	35.02	+ 4.04
Le Mars	.19	— .35	1.35	+ .63	.82	— .78	3.82	+ .63	8.20	+3.41	4.14	— .02	3.63	— .84	2.35	— .53	.82	—2.96	3.48	+1.59	0.72	— .51	.85	+ .03	30.37	+ .30
Lenox	.35	— .41	1.10	+ .26	.55	—1.20	1.06	—1.97	8.02	+3.30	6.52	+2.25	3.12	—1.82	4.02	— .10	.78	—2.55	7.57	+5.04	0.90	— .32	.33	— .74	34.32	— 1.74
Leon	.30	— .58	1.30	+ .16	1.17	—1.59	1.19	—2.23	10.08	+5.63	4.62	— .16	1.91	—2.51	3.75	—2.19	.76	—4.04	5.45	+3.37	2.69	+ .77	.30	— .97	33.52	— 4.34
Little Sioux	.35	------	2.45	------	.94	------	.67	------	7.76	------	9.77	------	5.09	------	4.04	------	.81	------	3.09	------	0.86	------	.18	------	36.01	------
Marshalltown	.70	— .30	1.48	+ .67	1.59	—1.09	2.40	— .50	6.21	+1.48	3.60	— .76	3.56	—1.15	3.27	— .37	1.28	—1.67	2.62	+ .24	1.16	— .13	.56	— .60	28.43	— 4.18
Mason City	.55	— .60	.87	+ .03	1.68	.00	2.50	— .15	7.22	+2.56	8.20	+2.31	3.38	— .68	3.12	— .48	.75	—1.61	3.73	+1.61	1.38	— .26	.90	+ .09	34.28	+ 2.82
Mt. Ayr	.23	—1.01	2.28	+1.11	.85	—1.21	1.56	—1.72	8.89	+3.13	5.31	+ .59	3.55	—1.76	5.25	+1.50	1.11	—2.42	7.23	+4.97	2.02	+ .66	.10	—1.19	38.38	+ 2.65
Mt. Pleasant	.72	— .74	2.69	+1.63	2.13	— .30	1.28	—1.93	8.98	+4.80	4.64	+ .16	4.44	+ .61	3.14	— .93	2.29	—1.39	1.01	— .87	2.33	+ .77	.41	— .90	34.06	+ .85
New Hampton	.30	— .53	.92	+ .02	1.34	— .67	1.94	— .01	7.80	+3.16	6.07	+1.82	3.81	— .38	3.15	+ .12	1.37	—2.14	2.54	+ .28	1.52	+ .12	1.20	+ .27	31.96	+ 2.06
Northwood	-----	------	2.71	+1.62	2.15	+ .29	3.75	+1.59	8.64	+3.66	7.09	+2.21	5.43	+1.51	2.53	—1.51	1.10	—2.25	3.99	+1.39	1.86	+ .38	1.56	+ .46	-------	-------
Odebolt	.26	— .15	.70	— .17	1.11	— .44	1.82	— .90	8.90	+4.92	8.79	+4.77	4.75	+ .11	6.83	+3.23	1.05	—2.70	3.75	+1.70	1.34	+ .20	.15	— .69	39.45	+ 9.88
Omaha, Neb	.28	— .37	2.14	+1.38	.61	— .78	1.09	—1.92	6.65	+2.15	8.72	+3.67	2.47	—1.86	2.20	—1.42	.26	—2.77	1.92	— .43	0.50	— .56	.26	— .65	27.10	— 3.56
Onawa	.25	— .41	2.36	+1.37	1.14	— .23	.97	—1.51	7.46	+1.88	7.72	+2.72	2.76	—2.91	3.53	—1.61	.68	—4.12	3.20	+ .81	0.88	— .60	.38	— .53	31.33	— 5.14
Osage	.46	— .46	1.00	— .14	2.09	+ .33	2.65	+ .20	10.19	+5.43	7.45	+2.92	2.34	—1.38	3.03	.00	.70	—2.86	3.26	+ .84	1.71	+ .28	1.48	+ .13	36.36	+ 5.29
Oskaloosa	.38	— .54	1.59	+ .58	1.47	— .39	3.52	+ .79	7.65	+3.97	2.12	—1.99	.70	—3.27	9.91	+6.69	1.28	—1.75	1.86	— .34	2.27	+ .78	.25	—1.01	33.00	+ 3.52
Ottumwa	.35	—1.25	2.34	+ .98	1.64	— .50	1.65	—1.50	11.85	+7.21	3.90	— .18	1.90	—2.23	6.03	+1.94	.47	—3.56	1.23	—1.72	1.87	+ .27	.30	—1.01	33.53	— 1.55
Pacific Jct	.41	— .13	2.53	+1.93	1.27	— .08	.89	—1.66	8.53	+4.52	7.79	+3.33	2.10	—3.03	2.76	—1.07	.56	—2.90	3.44	+1.14	0.21	— .73	.35	— .47	30.84	+ .85
Plover	.20	— .38	1.76	+1.10	1.44	+ .23	3.24	+1.14	7.57	+3.30	11.88	+7.53	2.90	—1.47	5.99	+1.46	1.42	—2.97	5.79	+3.27	1.53	— .09	.75	— .01	44.47	+13.11
Ridgeway	.55	—1.43	2.07	— .10	2.36	— .85	2.49	+ .15	9.08	+3.71	6.95	+2.80	5.68	+1.02	2.55	—1.17	1.73	—2.58	2.13	—1.04	1.34	— .48	2.07	— .17	39.00	— .14
Rockwell City	.60	— .10	2.45	+1.60	2.48	+ .40	2.50	— .26	6.70	+1.96	10.65	+6.39	8.10	+4.58	7.45	+3.37	1.10	—2.08	5.20	+2.79	1.85	+ .75	.90	— .12	49.98	+19.28
St. Charles	.47	— .68	1.49	+ .49	1.52	— .42	1.81	—1.71	8.86	+3.94	6.94	+2.60	3.86	—1.93	6.61	+2.28	.88	—2.76	4.27	+1.86	1.97	+ .54	.50	—1.12	39.18	+ 3.09
Sheldon	.61	+ .02	2.67	+1.74	1.90	+ .47	3.89	+2.16	9.60	+4.50	5.35	+ .83	5.34	+ .20	5.35	+1.67	1.12	—2.57	4.73	+2.14	1.76	+ .68	1.40	+ .59	43.72	+12.43
Sibley	.10	— .44	1.65	+1.18	1.62	+ .16	3.26	+ .93	10.45	+6.49	7.82	+3.30	3.87	— .10	4.58	+ .92	2.07	—1.30	2.34	+ .25	2.02	+1.03	.96	+ .18	40.74	+12.60
Sigourney	.43	—1.16	1.94	+ .63	2.34	+ .28	3.00	— .17	8.27	+4.14	1.77	—2.21	1.69	—2.61	6.45	+2.60	.95	—2.07	1.56	—1.00	2.07	+ .52	.32	—1.09	30.79	— 2.14
Sioux City	.22	— .33	1.18	+ .63	.64	— .62	1.64	—1.13	6.19	+1.82	4.67	+ .79	2.73	— .88	4.28	+1.28	1.02	—1.45	2.80	+1.01	0.73	— .24	.34	— .40	26.44	+ .48
Stockport	.50	—1.14	1.86	+ .71	1.61	— .72	1.09	—2.09	11.26	+7.50	3.92	—2.44	5.91	+1.32	5.60	+ .54	2.06	—2.18	0.78	—1.18	2.33	+ .82	.18	—1.21	37.04	— .07
Storm Lake	.13	— .58	1.67	+ .98	1.22	— .10	2.56	+ .22	7.37	+3.49	9.63	+4.84	5.26	+ .96	5.69	+2.37	1.15	—1.94	3.47	+1.78	1.60	+ .58	.45	— .38	40.20	+12.23
Thurman	.51	— .13	1.89	+ .56	1.38	— .28	.82	—2.59	8.04	+2.84	10.49	+4.24	4.17	—1.74	5.50	+1.11	.75	—4.04	4.10	+ .93	0.57	— .73	.30	—1.09	38.52	— .92
Tipton	.73	— .76	2.00	+ .73	3.47	+ .60	2.24	—1.00	5.72	+ .54	2.26	—1.68	4.35	+ .13	4.95	+ .29	1.55	—1.44	1.55	— .47	1.96	+ .14	-----	------	-------	-------
Toledo	.50	— .45	1.55	+ .78	-----	------	2.10	— .71	9.43	+5.24	3.88	+ .35	3.29	— .77	3.00	— .70	2.25	— .72	3.00	+ .96	1.30	— .21	.60	— .42	-------	-------
Washington	.46	—1.10	1.69	+ .47	2.02	— .24	2.75	+ .09	10.18	+6.67	3.19	— .32	4.51	+ .92	7.76	+4.05	1.02	—1.66	1.02	—1.02	2.01	+ .60	.30	—1.03	36.94	+ 7.43
Washta	.30	— .18	1.20	+ .44	.85	— .11	1.01	—1.09	8.56	+3.71	6.51	+2.19	3.78	— .67	4.73	+1.95	.75	—3.03	2.57	+ .48	0.70	— .27	.50	— .35	31.46	+ 3.07
Waterloo	.37	— .75	2.06	+ .95	1.61	— .14	2.40	+ .07	6.49	+2.53	4.29	+ .43	4.87	+ .47	3.61	.00	1.38	—2.50	2.76	+ .50	1.72	+ .27	.57	— .74	32.13	+ 1.09
Waukee	1.05	— .63	1.35	+ .05	1.23	— .72	2.11	—1.09	10.38	+5.43	5.79	+1.04	5.67	— .70	6.65	+1.34	1.00	—1.63	6.30	+4.43	1.18	— .31	.06	—1.24	42.77	+ 5.97
Waverly	.52	— .47	1.30	+ .16	1.59	— .36	2.33	— .36	6.22	+1.52	4.97	+ .72	3.75	— .79	4.60	+1.64	1.09	—1.85	2.83	+ .52	1.45	+ .05	.68	— .50	31.33	+ .28
Webster City	.45	------	.85	------	.94	------	2.19	------	6.51	------	5.09	------	2.79	------	5.05	------	.36	------	4.79	------	1.12	------	.40	------	30.54	------
West Bend	.47	— .23	1.12	+ .17	1.62	+ .02	2.51	— .21	6.63	+3.00	9.28	+5.06	3.00	— .78	6.04	+2.10	.57	—2.86	3.27	+1.43	1.41	+ .07	.75	— .14	36 67	+ 7.63
Whitten	.80	— .06	.92	+ .16	1.80	+ .42	1.98	— .16	5.79	+1.43	3.42	— .91	2.08	—2.26	4.00	+ .25	.93	—2.36	3.57	+1.25	1.29	+ .16	.05	—1.07	26.63	— 3.15
Wilton Junction	.10	—1.46	-----	------	2.32	— .38	3.02	+ .04	6.66	+2.24	3.47	+ .17	6.22	+1.00	6.76	+2.47	2.24	—1.08	1.61	— .47	2.39	+ .62	.18	—1.22	-------	-------
Winterset	.45	— .46	1.48	+ .61	1.83	— .10	1.46	—2.26	9.16	+4.70	6.40	+ .57	3.72	—1.96	6.05	+2.32	.70	—2.66	5.64	+3.40	2.34	+1.05	.50	— .89	39.73	+ 4.32

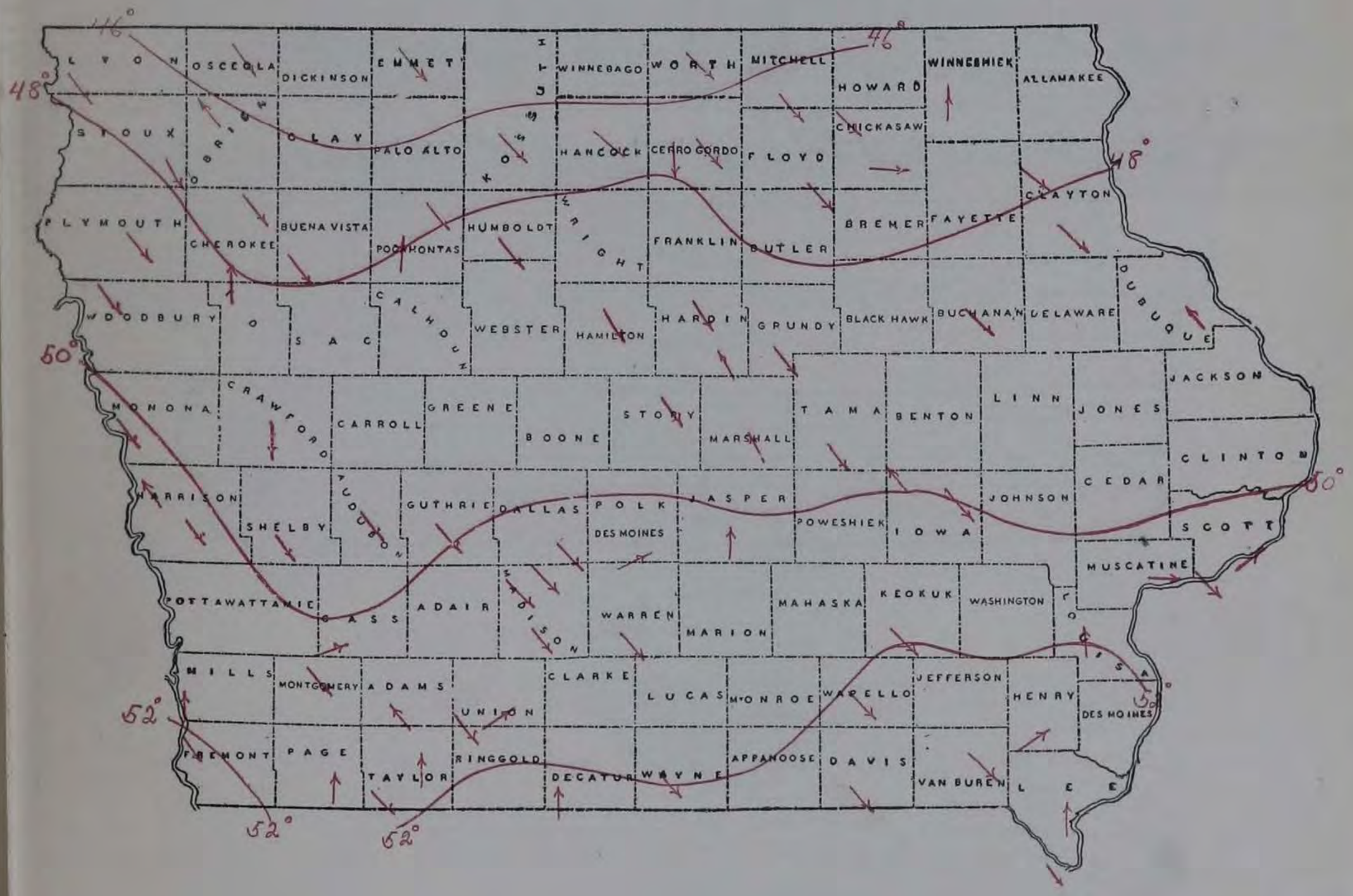
CONDENSED SUMMARY FOR 1908.

Month	TEMPERATURE IN DEGREES FAHR.												PRECIPITATION IN INCHES						AV. NO. DAYS				
	State Average	Departure	Highest Mean	STATION	Lowest Mean	STATION	Highest	STATION	Date	Lowest	STATION	Date	State Average	Departure	Greatest Total	STATION	Least Total	STATION	With .01 or more Precip.	Clear	Pt. Cloudy	Cloudy	Prevailing Wind
Jan.	24.9	†5.7	30.4	Keokuk	18.5	Osage	60	Logan	6	-18	Estherville Forest City	29 29	.44	- .56	1.50	Ft. Madison	.09	Buckingham	2	17	8	6	NW
Feb.	24.3	†5.1	29.1	Keokuk	18.2	Rock Rapids	59	Keokuk	12	-16	Decorah	2	1.69	† .63	3.95	Olin	.23	Clear Lake	6	12	6	11	NW
Mar.	37.9	†3.9	44.8	Keokuk	31.4	Sibley	85	Woodburn	25	-8	Inwood	8	1.58	- .36	3.74	LeClair	.45	Ames	6	13	7	11	NW
April	50.5	†2.0	55.8	Corning	46.6	Sibley	91	Onawa	19	8	Ft. Dodge	2	2.24	- .59	4.59	Inwood	.67	Little Sioux	8	14	8	8	NW
May	59.4	-0.7	63.2	Keokuk	55.2	Rock Rapids	93	Ft. Dodge Clinton	*16 22	13 ...	Washta	2	8.34	†3.84	14.33	Ft. Madison	4.33	Belle Plaine	15	9	11	11	SE
June.	67.1	-1.7	71.9	Burlington	62.9	Sibley	94	Decorah Rockw'llC'ty	23 11	35 ...	Elma	15	5.66	†1.14	11.88	Plover	1.77	Sigourney	13	12	10	8	SE
July	73.0	-0.4	78.3	Fairfield	69.2	Sibley	100	Odeboldt Oskaloosa	29 3	42 ...	Inwood	7	3.66	- .78	9.21	Alta (near)	.70	Oskaloosa	8	16	10	5	SW
Aug.	70.0	-1.8	74.5	Keokuk	66.2	Sibley	101	Ottumwa	3	38	Atlantic	24	4.77	† .78	10.58	Pella	1.35	Rock Rapids	9	17	9	5	SW
Sept.	67.9	†4.2	71.6	Onawa Burlington	64.6	Mason City	98	Ridgeway	11	20	Washta	29	1.20	-2.21	3.46	Grand Meadow	.25	Jefferson	3	21	6	3	S
Oct.	51.1	-0.8	54.4	Keokuk	46.6	Sibley	89	Clarinda	14	17	Atlantic	12	3.38	†1.03	8.83	Lamoni	.58	Clinton	8	16	6	9	S
Nov.	39.3	†3.4	45.2	Keokuk	35.4	Britt	80	St. Charles	18	5	Sioux Center	30	1.56	† .17	3.31	Clinton	.21	Pacific Jct.	5	14	7	9	NW
Dec.	27.2	†3.6	33.4	Keokuk	19.5	Northwood	67	Washington	14	-17	Alton	7	.57	- .62	2.07	Ridgeway	.05	Greenfield Whitten	8	15	8	8	NW

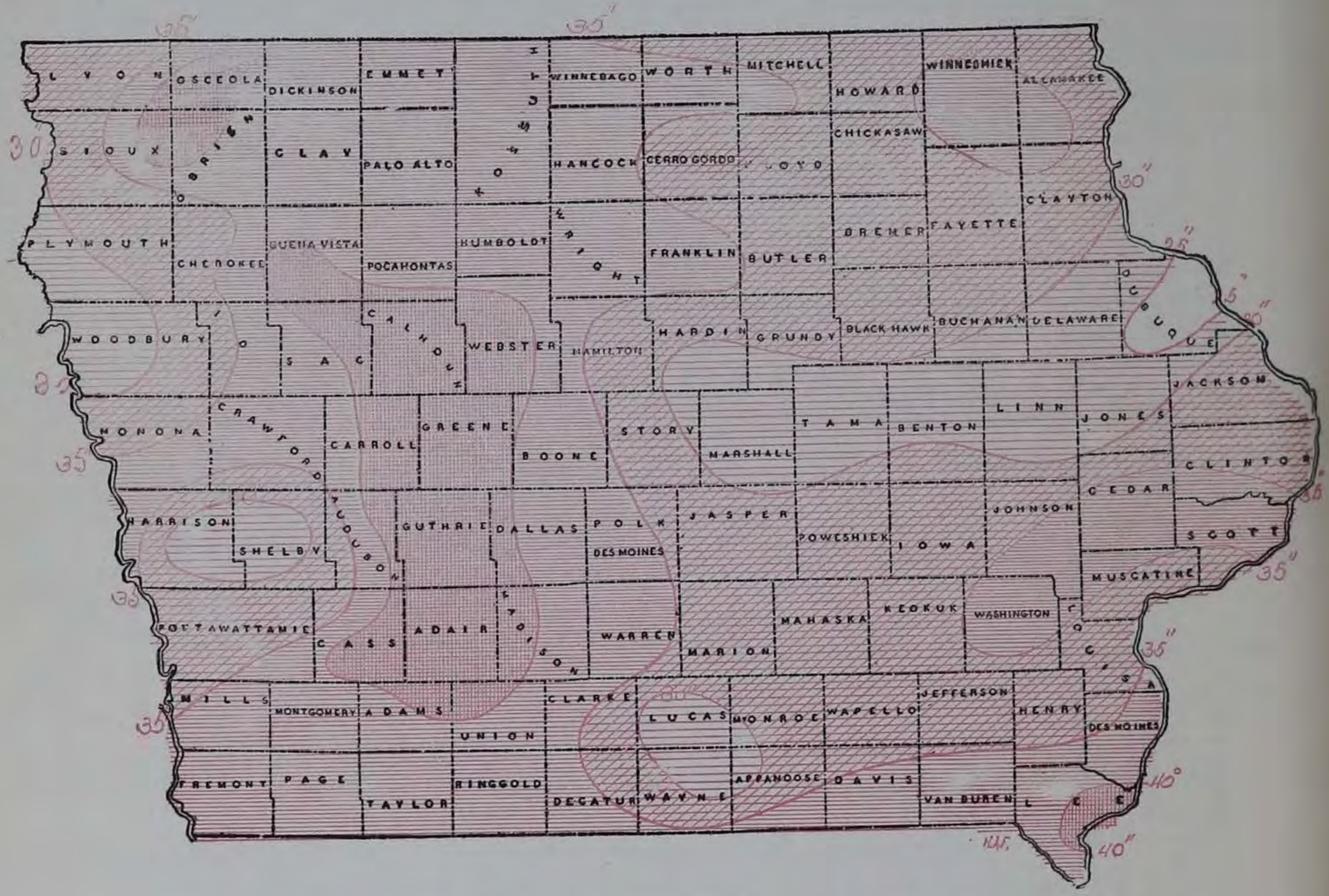
*And other dates.

MEAN ISOTHERMS AND PREVAILING WINDS OF 1908.

Lines pass thru points of equal temperature. Arrows fly with the wind.



TOTAL PRECIPITATION, 1908.



SCALE OF SHADES—IN INCHES

Less than 25	25 to 30	30 to 35	35 to 40	Over 40

U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR JANUARY, 1909

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR



PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1909

THE IOWA WEATHER AND CROP SERVICE

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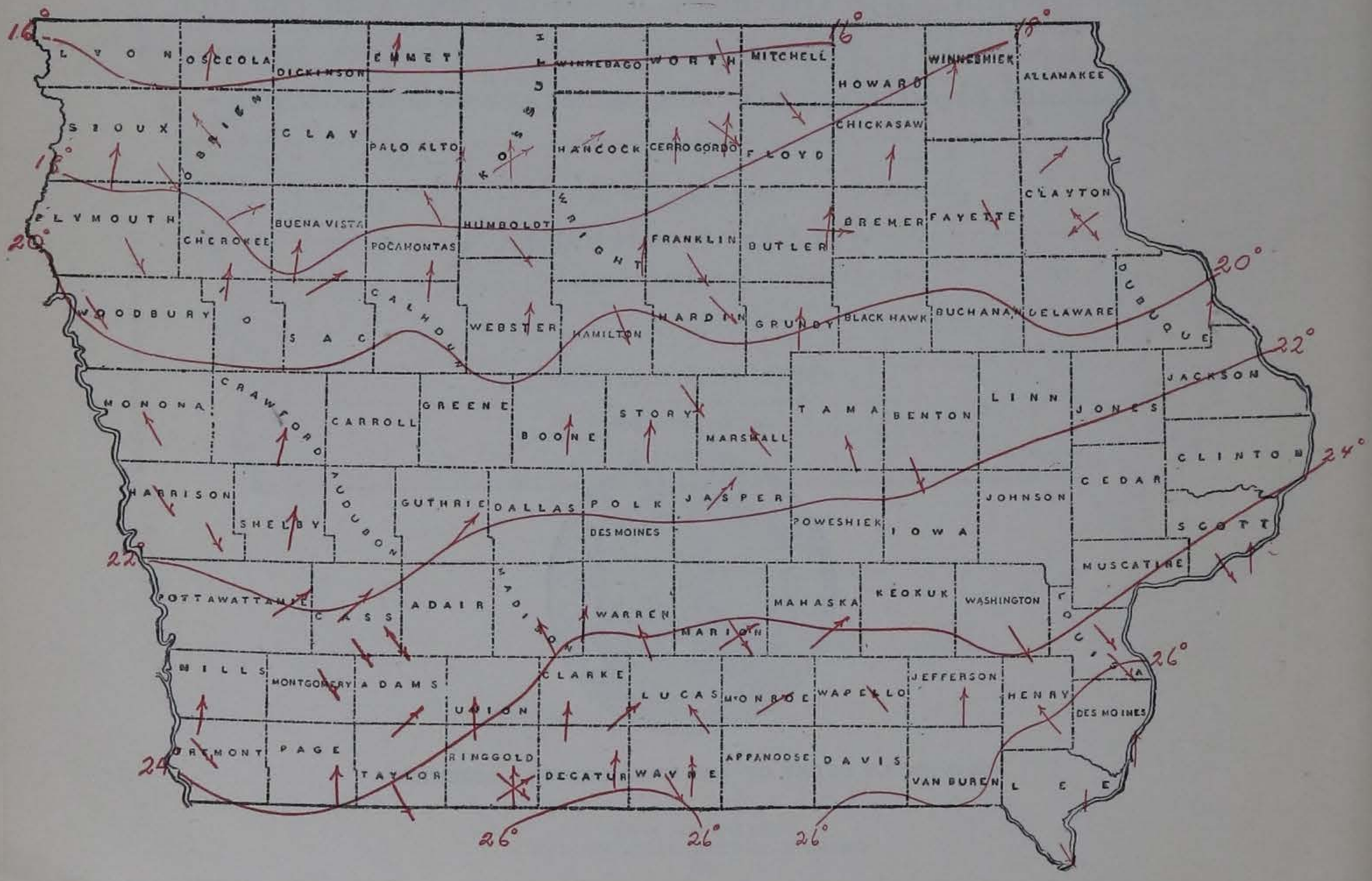
MEAN ISOTHERMS AND PREVAILING WINDS OF JANUARY, 1909.

Lines pass thru points of equal temperature. Arrows fly with the wind.



U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IOWA SECTION,

GEO. M. CHAPPEL, Section Director.

VOL. XX DES MOINES, IOWA, JANUARY, 1909 NO. 1

GENERAL SUMMARY.

The average temperature for the month was considerably above the normal, altho seasonable temperature for January prevailed during the first half and the last three days of the month. The coldest periods of the month were between the 5th and 12th, and the 29th and 31st, when the minimum temperatures were near or below zero. The coldest day was on the 6th when the minimum temperature ranged from 10 degrees below zero in the southern counties to 25 degrees below zero in several of the northern counties. From the 13th to the 28th the weather was unseasonably warm, especially on the 23d, when the highest temperature ever recorded in January occurred at several stations in the southeastern part of the state. The last three days of the month were cold with minimum temperatures generally below zero. There was considerably more precipitation than usual, notwithstanding the fact that but little moisture fell prior to the 28th. Small amounts of snow fell between the 4th and 7th, and on the 15th and 16th. Light rain fell between the 18th and 23d with an excessive amount of foggy weather. Light rain began on the 28th increasing to heavy rain in the evening and turning to snow during the night. This storm was attended by extremely high northwest winds which continued from the night of the 28th to the morning of the 30th, making it one of the worst blizzards experienced in this section for many years. The high winds caused the snow to drift badly, and blew down hundreds of windmills and thousands of telegraph and telephone poles. All street car and railroad train service was practically abandoned, and many head of live stock perished from the cold and exposure. The storm was so fierce that live stock would not face the wind and flying snow to seek shelter. The wind, during the storm, attained a maximum velocity of 72 miles per hour at Sioux City; 66 miles at Omaha, Nebr.; 44 miles at Des Moines; 37 miles at Keokuk; 36 miles at Davenport; and 31 miles at Dubuque.

There was some plowing done between the 24th and 27th in the southeastern counties, but the alternating thawing and freezing weather was not favorable to fall grain.

TEMPERATURE.—The monthly mean temperature for the State, as shown by the records of 113 stations, was 21.2°, which is 1.9° above the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 17.8°, which is 1.6° above the normal; Central section, 21.3°, which is 2.1° above the normal; Southern section, 24.4°, which is 2.0° above the normal. The highest monthly mean was 28.4° at Ottumwa, Wapello county, and the lowest monthly mean 13.2° at Rock Rapids, Lyon county. The highest temperature reported was 72° at Keokuk, Lee county, on the 23d; the lowest temperature reported was 25° below zero at Grand Meadow in Clayton, Northwood in Worth, and Ridgeway in Winneshiek counties, on the 6th. The average monthly maximum was 55.1°, and the average monthly minimum was 17.9° below zero. The greatest daily range was 50° at Ames, Story county. The average of the greatest daily ranges was 38.8°.

PRECIPITATION.—The average precipitation for the State, as shown by the records of 119 stations, was 1.66 inches, which is 0.61 inch above the normal. By sections the averages were as follows: Northern section, 1.61 inches, which is 0.79 inch above the normal; Central section, 1.77 inches, which is 0.67 inch above the normal; Southern section, 1.60 inches, which is 0.36 inch above the normal. The greatest amount, 3.74 inches, occurred at Ridgeway, Winneshiek county, and the least, 0.41 inch, at Le Mars, Plymouth county. The greatest amount in twenty-four hours, 2.10 inches, occurred at Lacona, Warren county, on the 28th. Measurable precipitation occurred on an average of 6 days.

The average snowfall, unmelted, was 7.8 inches. By sections, the averages were as follows: Northern section, 9.3 inches; Central section, 8.2 inches; Southern section, 5.8 inches. The greatest monthly snowfall, 20.0 inches, occurred at Elkader, Clayton county, and the greatest amount in twenty-four hours, 8.0 inches, at Northwood, Worth county, on the 15th, and at Iowa Falls, Hardin county, on the 29th.

SUNSHINE AND CLOUDINESS.—The average number of clear days was 9; partly cloudy, 6; cloudy, 16. The duration of sunshine was below the normal, the percentage of the possible amount being 29 at Davenport; 28 at Des Moines; 30 at Dubuque; 34 at Keokuk, and 35 at Sioux City.

WIND.—South winds prevailed. The highest velocity reported was 72 miles per hour from the Northwest, at Sioux City, Woodbury county, on the 29th.

COMPARATIVE DATA FOR THE STATE—JANUARY.

Year	Temperature			Precipitation		
	Mean	Highest	Lowest	Average	Greatest	Least
1890	19.7	61	-27	2.03	3.46	.35
1891	26.0	58	- 4	1.75	3.99	.61
1892	15.3	76	-38	1.09	3.13	.10
1893	9.3	54	-34	.74	3.20	.13
1894	19.3	69	-37	1.09	2.24	.31
1895	13.6	68	-31	.85	2.65	.09
1896	23.4	68	-20	.48	2.10	T
1897	17.2	66	-30	2.01	6.16	.15
1898	23.4	52	-11	1.60	5.32	T
1899	19.8	68	-34	.28	1.15	T
1900	25.6	66	-20	.53	2.47	T
1901	23.7	60	-21	.74	2.34	.04
1902	22.4	63	-31	.88	2.83	.19
1903	23.0	60	-12	.28	1.46	T
1904	14.0	57	-32	1.18	3.68	.02
1905	11.2	56	-30	.91	1.82	.12
1906	24.6	69	-19	1.52	4.71	.28
1907	18.8	68	-22	1.52	5.30	.10
1908	24.9	60	-18	.44	1.50	.06
1909	21.2	72	-25	1.66	3.74	.41

T indicates a Trace.
- indicates temperature below zero.

ATMOSPHERIC PRESSURE AND WIND.

Mean Barometer for the month reduced to sea level, 30.17 inches.
Prevailing direction of Wind, South.

STATIONS	Barometer, in Inches					Wind				
	Mean	Maximum	Date	Minimum	Date	Movem	Maximum Velocity—miles	Direction	Date	Average Hourly Velocity
Davenport	30.17	30.66	7	29.06	29	5846	36	NW	29	7.9
Des Moines	30.15	30.65	31	29.07	28	6884	44	NW	29	9.3
Dubuque	30.19	30.71	7	29.21	29	5279	31	NW	29	7.1
Keokuk	30.16	30.67	31	29.12	29	6030	37	NW	29	8.1
Omaha, Neb.	30.17	30.67	30	29.22	28	7892	66	NW	28	10.6
Sioux City	30.17	30.71	30	29.29	28	11096	72	NW	29	14.9

OBSERVER'S REMARKS.

ALBIA.—*J. I. Chenoweth.* The weather was dry and cloudy up to the 28th when rain began, turning to snow and a severe blizzard on the 29th with the temperature below zero on the 30th and 31st.

ALTA.—*David E. Hadden.* The worst blizzard experienced here in 21 years occurred between the evening of the 28th and the morning of the 30th.

ALTON.—*W. S. Slagle.* The ice harvest was discontinued on the 21st on account of the warm weather. There was considerable cloudy and misty weather during the latter part of the month with changeable wind. On the 29th the high wind together with three inches of snow on the ground made a bad blizzard.

AMANA.—*C. Schadt.* With the exception of some very cold days between the 5th and 13th and the 30th and 31st the month was generally mild and the soil absorbed the rain which fell on the 28th. The blizzard on the 29th was very severe.

ATLANTIC.—*Thos. H. Whitney.* The storm of the 28th and 29th was the most severe we have had in many years and caused considerable damage to buildings and great loss to live stock from exposure.

AUDUBON.—*Geo. E. Kellogg.* The worst storm in the history of Audubon county occurred on the 28th and 29th. The temperature dropt from 40° to 8 degrees below zero in 24 hours with high wind, sleet and snow. Many cattle and sheep perished during the night of the 28th.

BAXTER.—*W. R. Vandike.* A terrific blizzard occurred on the 29th. It was the most disastrous to live stock of any storm I have experienced during 53 years residence in Iowa. Stock would not face the storm to seek shelter and many perished. One man lost 27 head of cattle.

BEDFORD.—*E. E. Healy.* The storm on the 29th was the most severe ever known here.

BONAPARTE.—*Hon. B. R. Vale.* The maximum temperature on the 23d was 70 degrees, which is the highest recorded in January or February during the past 18 years. On six days the temperature was down to zero or below, but on the whole the month was very pleasant and dry.

BOONE.—*Carl Fritz Henning.* On the 28th rain began about 5 a. m. and continued to drizzle at intervals until 9 p. m. when heavy rain began, turning to snow during the night with rapidly falling temperature and high winds. The maximum velocity of wind occurred between 6 a. m. and 8 a. m. of the 29th when windmills, telegraph and telephone poles were blown down, buildings and trees were damaged, street car service suspended, railroad trains seriously delayed and many head of live stock, chickens and birds perished.

BRITT.—*Geo. P. Hardwick.* There was an excessive amount of cloudiness during the month. The rain of the 28th turned to snow with a gale of wind at 4 a. m. of the 29th, during which much live stock perished and many windmills were blown down. It was the worst blizzard in many years.

CHARITON.—*C. C. Burr.* The month was unusually pleasant with almost no precipitation until the 28th when we had as bad a storm as has visited this country in recent years.

CLARINDA.—*A. S. Van Sandt.* The wind velocity on the 29th was estimated to be 65 miles per hour. Many windmills and chimneys were blown down and evergreen trees uprooted. A great deal of damage was also done to window glass.

CLEAR LAKE.—*Oscar Stevens.* The worst blizzard we have had in many years occurred on the 29th.

CORYDON.—*Mrs. Clara Miller.* A large number of cattle are reported to have perished during the storm of the 28th.

DENISON.—*W. C. Van Ness.* After the rain and a little thunder and lightning on the 28th a fearful blizzard came in the evening. The high wind did much minor damage.

DOWS.—*G. R. Flett.* The blizzard on the 29th continued for 24 hours.

ELKADER.—*Chas. Reinecke.* The ice went out of the Turkey river during the 23d.

ELLIOTT.—*Henry Barnes.* January was a fairly good month for farm and feeding purposes, except the last few days when the worst blizzard experienced for 30 years prevailed on the night of the 28th and the 29th.

GRAND MEADOW (Postville P. O.)—*F. L. Williams.* The month was generally very favorable for all kinds of stock, but there were ten days on which the temperature was zero or below, and the storm of the 28th and the 29th was the worst of the winter.

GREENE.—*J. L. Cole.* The storm on the 29th was the worst we have had in years. Telegraph poles were blown down and broken and the electric light and telephone wires were down and out of service. There were 75 windmills blown down in this vicinity.

HOPEVILLE.—*M. T. Ashley.* Many windmills were blown down during the storm of the 29th and some live stock perished.

INWOOD.—*F. B. Hanson.* The weather has been quite variable but the mean temperature was 2 degrees above normal and the precipitation was .32 inches above normal. The storm on the 28 to 30th was the worst blizzard we have had in 21 years and if there had been more snow it would have equalled the storm of Jan. 12, 1888.

KEOSAUQUA.—*J. H. Landes.* The weather was generally cloudy, but a maximum temperature of 70° was recorded on the 23rd, which is the highest temperature on record for January. There was some plowing done. The blizzard on the 29th, which lasted all day and all night, was the most severe this vicinity has had for a long time.

KNOXVILLE.—*Casey & Bellville.* The worst blizzard we have had in years occurred on the 29th. High winds prevailed all day. All train service was abandoned, small buildings were blown over and plate glass windows were broken. Considerable stock perished.

LAMONI.—*T. J. Fitzpatrick.* Rain began at 1:30 p. m. on the 28th and continued with slight intermissions until about 11 p. m. when the wind shifted to the northwest and a blizzard came with snow, continuing all day and night of the 29th.

LARRABEE.—*H. B. Strever.* A blizzard struck here about 7 p. m. of the 28th and continued nearly 24 hours. The storm was very severe during the night and the high wind wrecked many windmills and did slight damage to buildings.

MT. PLEASANT.—*J. W. Edwards.* The high wind on the 29th drifted the snow badly.

NEW HAMPTON.—*A. F. Kemman.* The worst blizzard on record occurred on the 29th.

PERRY.—*Hon. J. A. Harvey.* Rain fell all day on the 28th, turning to snow about 10 p. m. with high northerly wind which increased to the worst blizzard I have seen in Iowa since Dec. 1, 1856.

POCAHONTAS.—*F. E. Hronek.* The worst blizzard we have had since the "Dakota Blizzard" of Jan. 12, 1888, occurred on the 29th. The wind velocity was estimated to be 50 miles per hour.

ROCK RAPIDS.—*W. C. Wyckoff.* All telephone and telegraph lines were put out of commission during the blizzard of the 28th and 29th.

SHELDON.—*A. W. Beach.* The first half of the month gave seasonable winter weather, but most of the latter half was mild and the roads were sloppy. The blizzard on the night of the 28th and the 29th was the worst winter storm we have had in many years and the high wind did much damage to buildings.

STOCKPORT.—*C. L. Beswick.* Normal January temperature prevailed until the 14th, after which it was extremely warm until the 29th. Considerable plowing was done between the 24th and 27th. Snow and extremely high wind prevailed on the 29th.

THURMAN.—*C. R. Paul.* The worst storm experienced here for many years struck the town on the evening of the 28th, following rain and a temperature of 55°.

WASHINGTON.—*Wm. A. Cook.* A very high wind with snow prevailed on the 29th.

WASHTA.—*H. L. Felter.* The blizzard on the night of the 28th and 29th did much damage to telephone lines and large glass windows.

WAUKEE.—*A. H. Blackmore.* The storm on the 29th was the worst ever known here.

WAVERLY.—*H. S. Hoover.* The worst blizzard we have had for years prevailed from 3 a. m. of the 29th to 7 a. m. of the 30th.

WEST BEND.—*Phil. Dorweiler.* The weather during January was seasonable, but the snowstorm on the 29th was the worst we have had in 15 years.

WINTERSET.—*Robt. S. Cooper.* Lightning was observed during the snowstorm on the 29th which was the most severe storm ever known here.

WOODBURN.—*C. B. McDonough.* The worst storm we have had in years occurred on the 29th. Snow fell from midnight of the 28th to 2 p. m. of the 29th with extremely high northwest wind.

ERRATA IN NOVEMBER REVIEW.

CLEAR LAKE.—Minimum temperature on the 18th, recorded as 33° on page 128, should have been 30°. Mean minimum temperature, recorded as 28.5°, should be 28.4°, on page 128. Mean monthly temperature recorded as 37.5° on page 126, should be 37.4°.

DENISON.—Monthly minimum temperature recorded on page 126 as 17°, should be 11°.

HUMBOLDT.—Total precipitation recorded on page 126 as 1.40 inches, should be 1.69 inches.

MT. AYR.—Maximum temperature recorded on page 127 as 69° on the 20th, should have been 76° on the 18th.

OTTUMWA.—Minimum temperature on the 24th, recorded on page 129 as 51°, should have been 48°. Mean minimum temperature recorded as 31.8°, should have been 31.6°. Monthly mean temperature recorded on page 127 as 43.2°, should have been 43.0°.

STORM LAKE.—Minimum temperature ou the 29th, recorded on page 129 as 37°, should have been 22°. Meau minimum temperature recorded as 28.8°, should have been 28.3°. Monthly mean temperature recorded on page 126 as 37.9°, should have been 37.6°.

CLIMATOLOGICAL DATA FOR IOWA, JANUARY, 1909

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in Inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
NORTHERN SECTION																				
Algona	Kossuth	1,213	34	17.6	+ 4.3	49	* 3	−22	6	41	2.21	+1.42	1.35	9.5	6	14	3	14	s,sw	Dr. F. T. Seeley
Alta	Buena Vista	1,513	17	17.0	+ 0.6	53	3	−22	6	42	1.17	+ .53	.53	7.5	8	10	8	13	s	D. E. Hadden
Alta [near]	Buena Vista										1.05	+ .46	.30	7.3	7					W. J. Minard
Alton	Sioux	1,305	3	17.6		48	3	−20	6	35	.95		.40	8.5	5	18	2	11	nw	W. S. Slagle
Britt	Hancock	1,236	11	17.4	+ 1.4	53	23	−22	6	41	1.26	+ .58	.40	6.8	6	2	14	15	sw	G. P. Hardwick
Charles City	Floyd	1,015	20																	Weather Bureau
Clear Lake	Cerro Gordo	1,241	9	18.4	+ 1.8	50	23	−24	6	41	1.35	+ .78	.55	7.5	5	11	2	18	s	Oscar Stevens
Decorah	Winneshiek	975	15	18.8	+ 3.3	45	26	−23	6	36	1.98	+ .83	.81	10.5	6					F. H. Baker
Dows (a)	Wright	1,142	8	17.7	+ 0.8	52	23	−21	6	43	1.30	+ .47	.52	8.0	4				s	G. D. Flett
Elkader	Clayton	727	27	19.4	+ 4.6	50	* 3	−21	6	37	1.79	+ .48	.50	20.0	7	14	1	16	ne,se, nw	Chas. Reinecke
Elma	Howard			17.6		51	23	−24	6	40	1.31		.55	8.6	8	8	14	9	se	H. A. Moore
Estherville	Emmet	1,298	12	16.0	+ 1.0	50	27	−22	6	49	1.05	+ .49	.50	9.5	5	11	0	20	s	A. O. Peterson
Fayette	Fayette	1,003	18	18.4	+ 2.3	51	23	−22	6	41	2.05	+ .77	1.22	8.9	8	9	7	15	nw	R. Z. Latimer
Forest City	Winnebago	1,226	14	16.8	+ 0.6	51	23	−24	6	33	2.25	+1.61	1.00	11.0	8	10	5	16	nw	J. A. Peters
Grand Meadow	Clayton	1,180	17	18.6	+ 3.1	45	*23	−25	6	46	1.59	+ .42	1.00	8.5	4	6	8	17	sw	F. L. Williams
Greene	Butler		9	19.7	+ 1.2	51	23	−20	6	39	1.86	+ .22	1.03	7.5	8	5	6	20	s,w	J. L. Cole
Hampton	Franklin	1,155	18	18.8	+ 3.3	55	23	−22	6	41	2.61	+1.57	1.60	11.0	4	8	15	8	nw	E. C. Grenelle
Humboldt	Humboldt	1,095	17	20.2	+ 3.4	53	23	−20	6	38	2.19	+1.64	.60	16.0	6	13	4	14	nw	H. S. Wells
Inwood	Lyon	1,474	4	16.8		48	27	−24	6	41	.85		.25	6.8	7	14	4	13	s,nw	F. B. Hanson
Larrabee	Cherokee	1,266	17	17.8	+ 0.4	51	21	−22	6	34	1.13	+ .57	.60	8.6	5	10	11	10	sw	H. B. Streever
Le Mars	Plymouth	1,224	12	18.8	− 0.4	47	3	−19	6	32	.41	− .13	.22	4.0	3	12	5	14	nw	G. A. C. Clarke
Mason City	Cerro Gordo	1,132	11	17.4	+ 2.3	46	27	−22	6	39	1.76	+ .61	.80	3.7	4	10	8	13	s,nw	J. S. Mills
Merrill	Plymouth																			Eric Oleson
New Hampton	Chickasaw	1,169	11	18.0	+ 1.2	50	23	−24	6	37	1.91	+1.08	.87	9.0	9	15	3	13	s	A. F. Kemman
Northwood	Worth	1,222	12	16.4	+ 0.1	43	23	−25	6	42	2.43	+1.58	.82	13.5	8	11	2	18	nw	Charles H. Dwelle
Osage	Mitchell	1,184	17	17.6	+ 3.6	54	23	−24	6	36	1.75	+ .83	1.00	10.0	3	16	4	11	nw	Dr. A. D. Bundy
Plover	Pocahontas	1,426	12	17.6	− 0.4	52	3	−21	6	41	1.67	+1.09	.67	10.0	4	10	7	14	se	J. S. Smith
Pocahontas	Pocahontas		4	17.8		53	3	−20	6	41	1.94		.74	12.0	6	12	8	11	s	F. E. Hronek
Ridgeway	Winneshiek	1,215	10	19.3	+ 0.1	51	27	−25	6	40	3.74	+1.76	1.35	10.0	12	8	12	11	s	Arthur Betts
Rock Rapids	Lyon	1,358	9	13.2	+ 0.1	44	25	−20	6	26										W. C. Wyckoff
Sheldon	O'Brien	1,422	8	18.0	+ 0.4	51	3	−22	6	35	1.97	+1.38	.52	13.0	7	11	8	12	se,nw	Dr. A. W. Beach
Sibley	Osceola	1,212	15	14.7	− 0.2	49	3	−24	6	40	.70	+ .16	.20	7.0	6	15	1	15	s	H. G. Doolittle
Sioux Center	Sioux		9	16.8	− 1.1	44	*26	−21	6	33	.78	+ .30	.30	7.5	6	10	5	16	s	J. de Ruyter
Storm Lake	Buena Vista	1,440	12	18.6	+ 1.2	51	3	−21	6	36	.93	+ .22	.57	9.1	4	11	8	12	sw	Ralph H. Carr
Washta	Cherokee	1,157	10	18.8		50	* 3	−20	12	39	1.10	+ .62	.55	8.5	5	13	5	13	s	H. L. Felter
Waverly	Bremer	948	12	19.4	+ 1.5	50	23	−21	6	38	1.98	+ .99	1.47	8.8	8	8	8	15	s	H. S. Hoover
West Bend	Palo Alto	1,197	14	18.5	+ 1.7	50	3	−21	6	40	1.61	+ .91	1.12	8.8	6	6	9	16	s	Phil Dorweiler
Averages				17.8	+ 1.6	46.7		−22.1		38.6	1.61	+ .79		9.3	6	11	6	14	s	
CENTRAL SECTION																				
Amana	Iowa	721	31	22.6	+ 6.3	59	23	−17	6	37	1.73	+ .26	.74	3.3	8	6	13	12	nw	Conrad Schadt
Ames	Story	926	27	d23.6	+ 5.5	b58	23	e−15	12	e50	1.36	+ .44	.48		6				s	Iowa State College
Audubon	Audubon	1,301	15	20.4	+ 1.5	53	23	−19	12	38	3.17	+2.52	2.00	12.5	6	12	3	16		Geo. E. Kellogg
Baxter	Jasper	998	8	21.0	+ 0.7	58	23	−18	6	40	1.32	+ .44	.61	7.8	11	8	7	16	sw	W. R. Vandike
Belle Plaine	Benton	828	18	20.5	+ 2.3	58	23	−19	6	28	2.89	+1.12	1.45	11.3	9	5	8	18	nw	S. P. Vandike
Boone	Boone	1,134	3	20.0		58	23	−18	6	35	2.11		1.08		8	12	3	16	s	Carl Fritz Henning
Buckingham	Tama		8								1.77	+ .71				5	15	11		Dr. W. A. Daniel
Carroll	Carroll	1,265	18	20.2	+ 1.2	57	23	−19	6	40	1.37	+ .56	.75	8.5	4	14	0	17		Frank Hughes
Cedar Rapids	Linn	733	26																	Electric Light & P. Co.
Clinton	Clinton	593	40																	Luke Roberts
Davenport	Scott	580	36	24.9	+ 4.1	66	23	−15	6	37	1.72	+ .15	1.04	6.6	10	4	7	20	nw	Weather Bureau
Delaware(b)	Delaware	1,083	17	19.3	+ 3.5	54	23	−22	6	35	1.22	+ .23	.63	6.2	5				se	Wm. Ball
Denison	Crawford	1,180	13	a20.8	+ 0.5	a56	23	−18	6	a34	.86	− .38	.39	5.5	4	12	6	13	s	W. C. Van Ness
Des Moines	Polk	861	29	22.8	+ 2.4	59	23	−15	6	37	1.61	+ .40	.90	11.5	7	4	6	21	sw	Weather Bureau
De Soto	Dallas	866	8	b23.4	+ 0.2	b57	23	b−18	6	36	1.29	+ .45	.43		4	9	3	19	nw	R. D. Minard
Dubuque	Dubuque	639	35	21.4	+ 3.2	55	23	−19	6	35	1.98	+ .49	1.40	10.0	11	5	5	21	s	Weather Bureau
Fort Dodge	Webster	1,126	8	18.1	+ 1.0	52	23	−19	16	38	1.09	+ .45	.60	4.0	5	13	1	17	s	J. F. Monk
Gilman	Marshall	1,052	9								2.29	+1.46	1.03	5.0	4					Jas. L. Wylie
Grinnell	Poweshiek	1,023	16	23.4	+ 3.2	60	23	−17	6	44	1.65	+ .38	.62		7					D. W. Brainard
Grundy Center	Grundy	976	17	20.4	+ 3.5	54	23	−21	6	47	1.35	+ .53	.50	11.5	7	13	3	15	s,nw	W. H. Scott
Guthrie Center	Guthrie	1,077	13	22.0	− 0.7	55	23	−17	6	43	1.85	+1.26	.91	8.4	8	11	4	16	sw	D. G. Beardsley
Harlan	Shelby	1,192	9	20.8	− 0.4	54	23	−17	* 6	37	1.81	+1.15	1.35		3	6	8	17	s	C. A. Reynolds
Independence	Buchanan	921	43	21.0	+ 5.8	54	23	−23	6	38	1.74	+ .51	.90	8.0	6	7	9	15	se	George Donohue
Iowa City	Johnson	683	49	21.6	+ 2.5	64	23	−19	6	39	1.97	+ .23	1.32	5.8	9	6	1	24	s	Prof. Karl E. Guthe
Iowa Falls	Hardin	1,170	15	19.0	+ 3.8	52	23	−21	6	29	2.47	+1.57	1.78	14.9	6	9	4	18	nw	J. B. Parmalee
Jefferson	Greene																			Geo. W. Jackson
Le Claire	Scott	576									1.98	+ .55	1.10	2.3	9	8	4	19	s	Margaret T. Disney
Little Sioux	Harrison		4	21.4		56	27	−16	6	38	.63		.26	3.5	4	10	3	18	nw	Geo. H. Gibson
Logan	Harrison	928	42	21.2	+ 1.9	52	3	−17	12	39	1.09	− .01	.36	7.2	5	9	12	10	nw	Glen H. Stern
Marshalltown	Marshall	947	16	19.8	+ 0.4	57	23	−21	6	42	3.06	+2.06	1.17	12.5	10	4	9	18	se	Agnes Musil
Montezuma	Poweshiek																			C. J. Griffin
Muscatine	Muscatine		49								2.19	+ .28	1.10	8.8	7	7	0	24	s	Wm. P. Molis
Newton	Jasper	944	19	22.8	+ 5.3	56	23	−16	6	40	1.86	+ .89	.83	11.0	5	7	7	17	e	Hon. J. P. Beatty
Odebolt	Sac	1,356	10	20.8	+ 0.4	55	3	−17	6	43	.86	+ .45	.35	6.8	5	14	1	16		E. Starner
Olin	Jones	760	11																	Hon. Nathan Potter
Onawa	Monona	1,051	8	22.2	− 0.4	56	27	−15	6	33	1.22	+ .56	.40	10.2	6	11	3	17	se	C. G. Perkins
Perry	Dallas	975	7	21.1	+ 0.4	56	23	−16	6	40	2.23	+1.41	.60	16.0	8	10	3	18		J. A. Harvey
Rockwell City	Calhoun		12	20.8	+ 1.0	55	23	−19	6	39	1.85	+1.15	.75	11.0	4	12	4	17		C. M. Randall
Sac City	Sac	1,356	26																	F. E. Stouffer
Sioux City	Woodbury	1,135	17	19.2	+ 3.6	54	[illegible]	−17	5	36	.60	+ .05	.32	7.0	5	8	8	15	nw	Weather Bureau
Stuart	Guthrie	1,216	10																	Geo. B. Irick
Tipton	Cedar	807	10	23.4	+ 2.8	61	23	−14	6	34	1.89	+ .40	1.53	6.7	5	13	8	10	ne,se,sw	F. K. Gregg
Toledo	Tama	856	14	20.6	+ 1.5	57	23	−20	6	40	2.30	+1.35	1.25	8.0	4	9	4	18	se	I. F. Giger
Waterloo	Black Hawk	862	25	a21.8	+ 4.3	a53	23	−20	6	39	2.61	+1.49	1.92	5.0	5					M. L. Newton
Waukee	Dallas	1,039	5	22.6		60	23	−15	6	43	1.94	+ .26	1.50	8.0	4	10	5	16	nw	A. H. Blackmore
Webster City	Hamilton		3	21.5		53	23	−19	6	45	1.43		.88	5.5	3	11	6	14	nw	C. D. Carpenter
Whitten	Hardin	1,036	10	20.3	+ 1.9	54	23	−22	6	44	2.34	+1.48	.79	14.0	6	12	2	17	nw	Dr. Frank P. Butler
Wilton Junction	Muscatine	683	13	24.2	+ 2.1	59	*23	−16	6	43	1.96	+ .40	1.07		4	7	1	23	sw	Wm. Lang
Zearing	Story		4	19.2		54	22	−19	6	39	1.58		.46	12.2	6	4	12	15	nw	W. C. Bean
Average				21.3	+ 2.1	56.3		−18.0		38.8	1.77	+ .67		8.2	6	9	5	17	nw	

CLIMATOLOGICAL DATA FOR IOWA, JANUARY, 1909—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
SOUTHERN SECTION																				
Afton	Union	1,212	14	24.1	+ 1.4	57	*22	—14	6	40	1.51	+ .62	.65	5.5	7	4	6	21	sw	N. W. Rowell
Albia	Monroe	959	10	22.9	— 0.8	65	23	—14	6	34	2.35	+ .93	1.66	3.5	6	7	3	21	sw	J. I. Chenoweth
Allerton	Wayne	.....	6	25.5	+ 3.6	63	*22	—13	6	40	1.82	+ .40	1.06	4.9	5	10	0	21	nw	Mrs. Geo. Shriver
Atlantic	Cass	1,247	17	21.8	+ 1.4	55	23	—16	6	36	1.90	+1.16	1.05	8.0	7	4	10	17	sw	Thos. H. Whitney
Bedford	Taylor	.....	8	24.8	+ 1.0	61	23	—13	6	41	1.00	— .10	.67	2.8	7	9	5	17	nw	E. E. Healy
Bloomfield	Davis	881	....	25.5	.....	69	23	—13	6	43	1.54	.....	.91	3.8	5	7	8	16	nw	F. H. Roberts
Bonaparte	Van Buren	.....	17	25.7	+ 2.5	70	23	—11	6	41	1.11	— .87	.72	2.5	5	....	....	....	.....	Hon. B. R. Vale
Burlington	Des Moines	544	12	26.1	— 0.9	67	23	—12	6	34	1.62	— .36	.70	4.0	6	12	0	19	s	M. E. Poppe Jr.
Chariton	Lucas	1,042	13	24.7	+ 1.0	65	23	—15	6	38	1.50	+ .18	1.15	4.0	3	7	6	18	se	C. C. Burr
Clarinda	Page	1,009	18	22.4	— 0.1	60	*23	—13	6	35	1.27	+ .29	.85	4.0	6	9	2	20	s	A. S. Van Sandt
Columbus Junction	Louisa	595	7	25.0	+ 1.7	66	23	—14	6	49	.....	.....	.....	....	....	11	5	15	se,nw	J. B. Johnson
Corning	Adams	1,117	16	23.5	+ 1.6	57	23	—15	6	42	1.00	+ .09	.40	5.5	4	10	6	15	sw	Jerome Smith
Corydon	Wayne	1,101	15	25.4	+ 2.1	64	23	—14	6	40	1.86	+ .37	.99	5.8	4	10	1	20	s	Clara Miller
Creston	Union	1,312	3	21.4	.....	58	23	—14	6	36	1.68	.....	1.12	....	9	8	1	22	s	Rev. W. L. Gaston
Cumberland	Cass	.....	9	.....	.....	.....	.....	.....	.....	.....	2.12	+1.27	.82	13.0	4	14	4	13	nw	J. H. Reppert
Earlham	Madison	.....	6	24.0	+ 4.6	58	23	—16	12	35	1.83	+ .75	.53	13.9	6	8	3	20	nw	Geo. Phillips
Elliott	Montgomery	.....	3	23.2	.....	55	23	—15	6	33	1.28	.....	.58	7.0	4	12	8	11	nw	Henry Barnes
Fairfield	Jefferson	.....	14	25.0	+ 7.4	70	23	—13	6	41	1.52	— .18	.75	3.5	5	14	3	14	s	R. Monroe McKenzie
Fort Madison	Lee	516	59	.....	.....	.....	.....	.....	.....	.....	1.94	— .02	.64	8.0	4	6	6	19	n	Miss L. A. McCready
Greenfield	Adair	.....	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	.....	Geo. Brooks
Hancock	Pottawattamie	1,113	2	22.2	.....	53	*22	—15	6	34	1.81	.....	1.07	8.0	4	12	1	18	sw	W. Armstrong
Hopeville	Clarke	.....	17	24.2	+ 2.8	60	23	—14	6	42	1.25	+ .31	.94	2.0	6	4	8	19	s	M. T. Ashley
Indianola	Warren	969	17	a24.0	+ 3.8	60	23	a—15	6	a30	1.04	— .23	.59	7.0	7	6	4	21	se	Prof. J. L. Tilton
Keokuk	Lee	574	37	28.3	+ 4.6	72	23	—10	6	41	1.26	— .43	.70	4.5	6	8	7	16	nw	Weather Bureau
Keosauqua	Van Buren	644	16	24.8	+ 1.7	70	23	—11	6	39	1.40	+ .03	.65	4.7	8	3	4	24	.....	J. H. Landes
Knoxville	Marion	920	12	25.0	+ 1.9	62	23	—14	6	37	1.71	.....	.86	5.0	4	8	3	20	sw,nw	Casey & Bellville
Lacona	Warren	.....	9	.....	.....	.....	.....	.....	.....	.....	3.25	+1.58	2.10	7.2	11	7	14	10	.....	Agent C., B. & Q. Ry.
Lamoni	Decatur	.....	....	25.5	.....	65	23	—12	6	41	1.96	.....	.90	6.3	7	10	0	21	s	T. J. Fitzpatrick
Lenox	Taylor	1,250	13	23.8	+ 0.5	58	23	—17	6	43	1.13	+ .37	.60	4.9	8	11	5	15	s	J. T. Hurley
Leon	Decatur	1,120	6	24.6	+ 2.4	61	22	—14	6	36	2.17	+1.29	1.60	2.8	5	7	8	16	s	Morris Gardner
Massena	Cass	.....	3	24.0	.....	57	23	—15	6	40	.89	.....	.25	8.5	4	11	3	17	se,nw	G. A. Hill
Mt. Ayr	Ringgold	1,236	15	24.9	+ 1.6	63	22	—13	6	42	1.60	+ .36	1.00	4.0	6	9	4	18	ne,s,sw	A. F. Beard
Mt. Pleasant	Henry	729	26	25.8	+ 4.8	68	23	—12	6	43	1.26	— .20	.60	5.9	8	9	6	16	se	Prof. J. W. Edwards
Omaha, Neb	Douglas	1,040	38	22.8	+ 2.3	57	23	—13	6	36	1.00	+ .35	.63	5.0	5	5	8	18	s	Weather Bureau
Oskaloosa	Mahaska	843	24	24.5	+ 5.3	63	23	—12	12	40	1.83	+ .91	1.68	2.5	6	9	0	22	sw	Jos. Boyd
Ottumwa	Wapello	649	14	28.4	+ 3.9	68	23	—12	6	42	1.25	— .35	.75	5.0	4	3	14	14	se	Dr. Jas. A. Hull
Pacific Junction	Mills	960	9	23.0	— 0.3	59	23	—13	6	34	1.92	+1.38	1.56	5.6	4	10	9	12	s	H. H. McCartney
Pella	Marion	877	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	.....	T. W. Cox
St. Charles	Madison	1,070	7	24.2	+ 1.4	60	*22	—15	6	41	2.72	+1.57	.95	13.0	9	9	7	15	s	R. D. Minard
Sigourney	Keokuk	877	12	24.6	+ 1.8	63	23	—14	6	43	2.17	+ .58	1.00	7.5	7	2	17	12	.....	J. T. Parker
Stockport	Van Buren	.....	6	b26.3	.....	b68	23	b—12	6	b40	1.24	— .40	.78	....	6	....	....	....	s	C. L. Beswick
Thurman	Fremont	.....	11	23.2	+ 9.0	58	23	—13	6	34	.47	— .17	.32	3.5	3	8	8	15	nw	C. R. Paul
Wapello	Louisa	588	10	26.6	+ 1.5	63	22	—11	6	44	.99	— .34	.45	....	5	6	8	17	nw	Geo. W. Schofield
Washington	Washington	769	27	23.5	+ 4.4	66	23	—15	6	39	1.71	+ .15	.68	....	7	3	18	10	nw	Wm. A. Cook
Winterset	Madison	1,129	17	23.4	+ 2.0	55	*22	—14	6	38	1.70	+ .79	.75	9.5	5	7	4	20	se	Dr. Robert S. Cooper
Woodburn	Clarke	961	9	24.3	.....	63	23	—15	* 6	40	2.17	+1.03	1.05	5.5	5	8	7	16	sw	C. B. McDonough
Average		.....	....	24.4	+ 2.0	62.2	.....	—13.6	.....	38.9	1.60	+ .36	.....	5.8	6	8	6	17	s	
State average		.....	....	21.2	+ 1.9	55.1	.....	—17.9	.....	38.8	1.66	+ .61	.....	7.8	6	9	6	16	s	

*And other dates. a one day missing, b two days; c three days; d four days, etc. ‡ Received too late to be included in average

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JANUARY, 1909

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | Monthly Mean | |
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DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JANUARY, 1909—CONTINUED

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | Monthly Mean | |
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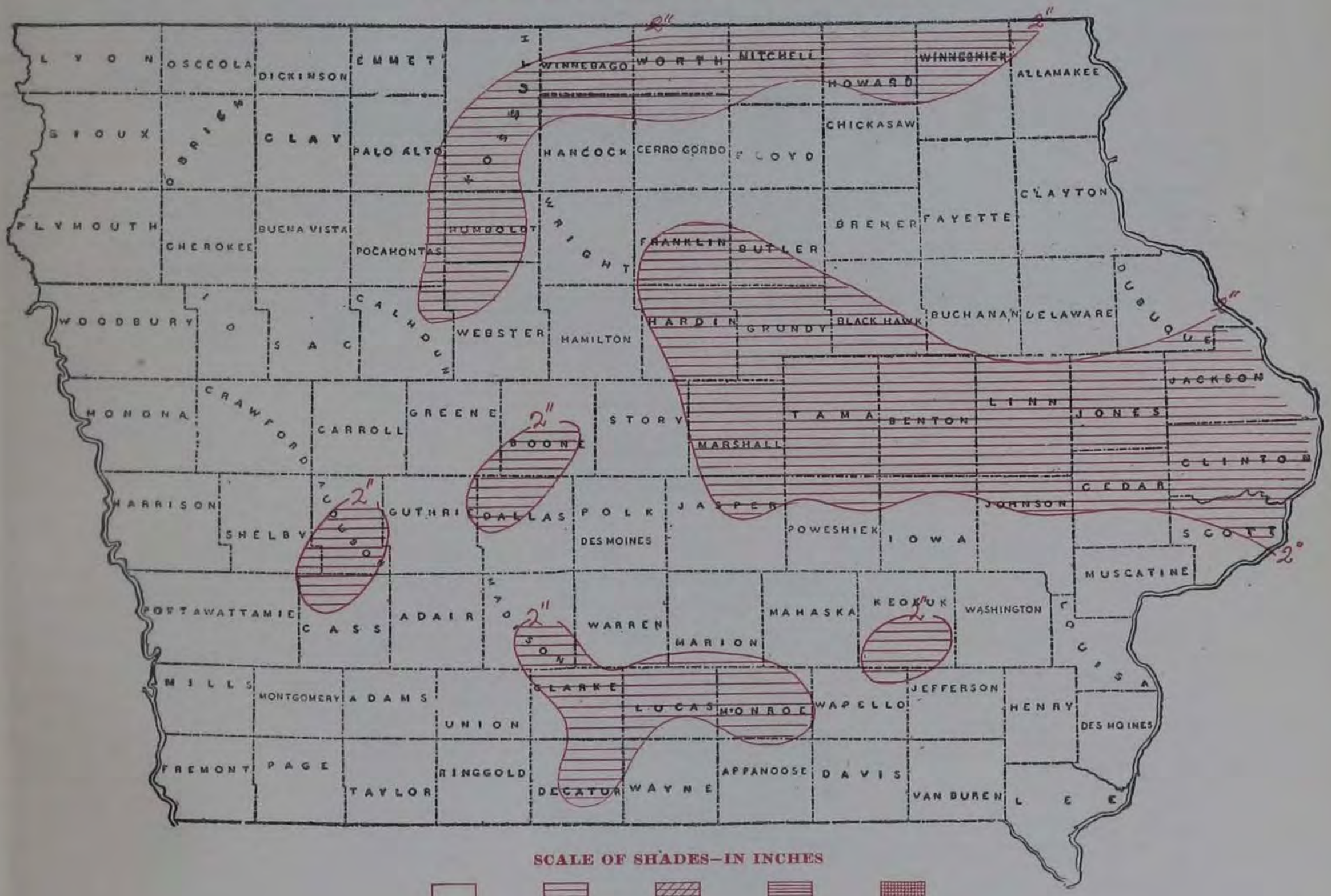
DAILY PRECIPITATION FOR IOWA, JANUARY, 1909

STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	....	....	....	.15	....	....	.05	....	....	.05	....	.10	T	....	....	....	....	T	T	....	....	....	....	....	.65	.51	....	....	1.51
Albia	....	....	....	T	....	T	.05	T	....	T	....	....	....	T	....	.06	....	....	....	T	T	.01	T	....	....	....	....	.30	1.66	.27	....	2.35
Algona	....	....	....	....	.13	....	.03	....	....	....	....	....	....	....	.28	.02	....	....	....	....	....	....	....	....	....	....	....	.40	1.35	....	....	2.21
Allerton	....	....	....	....	....	T	.04	....	T	T	....	....	T	T	T	.05	....	....	....	.02	T	....	....	....	....	....	....	1.06	.65	....	....	1.82
Alta	....	....	....	....	....	.10	.08	....	....	....	T	....	....	....	....	.38	....	....	.01	....	.02	.02	.03	....	....	....	....	....	.53	....	....	1.17
Alta (near)	....	....	....	....	.10	.08	....	....	....	....	....	....	....	....	.30	....	....	....	....	.01	....	.01	T	....	....	....	....	.30	.25	....	....	1.05
Alton	....	....	....	....	.20	.10	....	....	....	....	....	....	....	....	.20	....	....	.05	....	....	....	T	T	....	....	....	....	T	.40	....	....	.95
Amana	T	....	....	....	.05	....	.07	....	....	T	....	....	T	T	T	.16	....	....	....	T	.01	.03	....	....	....	....	....	.74	.58	.09	....	1.73
Ames	....	....	....	....	.05	.18	....	....	....	....	....	....	.08	....	.48	....	....	....	....	T	....	....	....	....	....	....	....	.38	.19	....	....	1.36
Atlantic	....	....	....	....	T	T	.13	....	....	T	....	....	T	.01	.43	....	....	T	....	.03	T	.05	....	....	....	....	....	1.05	.20	....	....	1.90
Audubon	....	....	....	....	.02	....	.15	....	....	....	....	....	T	....	.50	....	....	....	....	....	.10	....	....	....	....	....	....	2.00	.40	....	....	3.17
Baxter	....	....	....	....	.02	....	.07	....	....	T	....	....	.02	....	.15	.05	....	....	....	.02	.04	.02	.02	....	....	....	....	.61	.30	....	....	1.32
Bedford	....	....	....	T	T	.02	.06	....	....	T	....	....	.07	....	T	....	....	T	....	.03	.07	....	....	....	....	....	....	.67	.08	....	....	1.00
Belle Plaine	....	....	....	.02	....	.10	.20	....	....	T	....	....	T	.03	.30	....	....	T	....	.20	....	.04	....	....	....	....	....	.55	1.45	....	....	2.89
Bloomfield	....	....	....	....	....	T	.02	....	....	....	....	....	T	....	T	.02	....	....	....	T	T	.22	....	....	....	....	....	.91	.37	....	....	1.54
Bonaparte	...	....	....	T	....	T	.05	....	....	....	....	....	T	....	....	12	....	....	....	....	....	.17	....	....	....	....	....	.72	.05	....	....	1.11
Boone	....	....	....	....	....	.06	.10	....	....	....	....	....	....	T	....	.47	....	....	....	....	.06	.04	....	....	....	....	....	.15	1.08	.15	....	2.11
Britt	....	....	....	....	.20	....	....	....	....	....	....	....	T	....	.15	.03	....	....	....	.09	....	....	....	....	....	....	....	.40	.39	....	....	1.26
Buckingham	....	....	....	....	.03	....	T	....	....	....	....	....	....	.02	.10	....	....	T	....	T	....	.07	....	....	....	....	....	....	1.55	....	....	1.77
Burlington	....	....	....	....	....	T	.08	....	....	....	....	....	....	....	....	.30	....	....	....	T	T	.02	.47	....	....	....	....	....	.70	.05	....	1.62
Carroll	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	.35	....	....	T	....	....	....	.75	....	....	....	....	.17	.40	....	....	1.37
Chariton	....	....	....	....	....	T	.15	....	....	....	....	....	T	....	....	T	....	....	....	....	....	....	....	....	....	....	....	1.15	.20	....	....	1.50
Clarinda	....	....	....	....	....	T	.09	....	....	T	....	....	....	.04	....	.03	....	....	....	....	.05	....	....	....	....	....	....	.21	.35	.50	....	1.27
Clear Lake	....	....	....	....	.15	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	....	T	.05	....	....	....	....	.55	.40	....	....	1.35
Corning	....	....	....	....	T	.15	....	....	....	T	....	....	T	....	.15	....	....	....	....	....	....	....	....	....	....	....	....	.40	.30	....	....	1.00
Corydon	....	....	....	T	....	....	.06	....	....	T	....	....	T	T	....	.08	....	T	....	....	T	....	....	....	....	....	....	.99	.73	....	....	1.86
Creston	....	....	....	T	....	....	.05	....	....	T	....	....	....	.05	T	.05	T	.01	T	.02	.05	.03	....	....	....	....	....	1.12	.30	....	....	1.68
Cumberland	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	.60	....	....	....	....	....	....	....	....	....	....	....	....	.82	.50	....	....	2.12
Davenport	T	....	....	.05	.02	.01	.05	....	T	T	....	....	....	T	.10	.06	....	T	T	T	T	.26	....	....	....	....	....	.96	.20	.01	....	1.72
Decorah	....	....	....	....	.08	....	....	....	....	....	....	....	....	.05	.38	....	....	.02	....	T	....	T	....	....	....	....	....	.81	.64	....	....	1.98
Delaware	....	....	....	....	....	....	.02	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	.07	....	....	....	....	.63	.40	....	....	1.22
Denison	....	....	T	....	T	....	.04	....	....	T	....	....	....	T	.26	....	....	....	....	T	....	....	....	....	....	....	....	.39	.17	....	....	0.86
Des Moines	....	T	....	....	.01	.04	T	....	T	T	....	....	.02	T	.29	T	....	T	T	T	T	T	.01	....	....	....	....	.75	.49	....	....	1.61
De Soto	....	....	....	....	T	....	T	....	....	....	....	....	T	....	.40	....	....	....	....	....	....	....	....	....	....	....	....	.43	.36	....	....	1.29
Dows	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	.18	....	....	T	....	....	....	T	....	....	....	....	....	.52	.40	....	....	1.30
Dubuque	.01	T	....	....	.06	....	.02	....	....	T	....	....	.01	T	.14	.04	....	....	T	.01	.01	.06	....	....	....	....	....	.78	.84	T	....	1.98
Earlham	....	....	....	....	.10	....	.30	....	....	T	....	....	T	....	.40	.20	....	....	....	....	....	....	....	....	....	....	....	.53	.30	....	....	1.83
Elkader	....	....	....	....	.06	.10	....	....	....	....	....	....	....	.03	T	.30	....	....	....	.40	....	.10	....	....	....	....	....	.50	.30	....	....	1.79
Elliott	....	....	....	....	T	....	.10	....	....	....	....	....	T	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	.58	.40	....	....	1.28
Elma	....	....	....	....	.03	....	T	....	....	....	T	....	....	T	.16	....	....	T	.02	.02	.05	T	....	.05	....	....	....	.43	.55	....	....	1.31
Estherville	T	....	....	....	T	.10	.05	....	....	....	....	....	....	....	....	.30	....	....	....	....	....	T	....	....	....	....	....	T	.50	.10	....	1.05
Fairfield	....	....	....	....	T	T	.03	....	T	T	....	....	T	....	.03	.40	....	....	....	T	....	....	....	....	....	....	....	.75	.31	....	....	1.52
Fayette	....	....	....	....	.02	....	.02	....	....	....	....	....	T	.02	.28	.04	....	....	....	....	....	T	....	....	....	....	....	.85	.37	.45	....	2.05
Forest City	....	....	....	....	....	.05	.10	.05	....	....	....	....	....	....	.10	.20	....	....	....	....	....	....	.25	....	....	....	....	.50	1.00	....	....	2.25
Fort Dodge	T	....	....	....	....	T	.10	....	....	....	....	....	....	T	....	.30	....	....	....	....	....	T	.04	....	....	....	....	.05	.60	T	....	1.09
Fort Madison	....	....	....	T	....	.20	....	T	T	....	....	....	....	T	.30	....	....	....	....	....	T	.64	....	....	....	....	....	.50	.30	....	....	1.94
Gilman	....	....	T	....	....	....	....	....	....	....	....	....	....	....	.30	....	....	T	....	....	T	....	....	....	....	....	....	.76	1.23	....	....	2.29
Grand Meadow	....	....	....	T	.04	....	....	....	....	....	....	....	T	....	....	.40	....	T	....	T	....	....	.15	....	....	....	....	....	1.00	....	....	1.59
Greene	T	....	....	....	.05	....	.05	....	....	....	....	....	.02	....	.10	.15	....	T	T	T	....	.07	....	....	....	....	....	.39	1.03	....	....	1.86
Grinnell	....	....	....	.03	T	.15	....	....	....	....	....	....	T	....	.05	....	....	....	....	T	.35	.05	....	....	....	....	....	.62	.40	....	....	1.65
Grundy Center	.05	....	....	....	.10	....	.10	....	....	....	....	....	T	....	.30	.10	....	T	....	....	T	....	....	....	....	....	....	.20	.30	....	....	1.35
Guthrie Center	....	....	....	....	T	....	.10	....	....	T	....	....	T	T	.36	.16	....	.01	....	T	.03	.03	T	....	....	....	....	.25	.91	....	....	1.85
Hampton	....	....	....	....	.06	.67	....	....	....	....	....	....	....	....	.83	....	....	....	....	....	....	....	....	....	....	....	....	1.60	.05	....	....	2.61
Hancock	....	....	....	....	T	T	.06	....	....	....	....	....	....	....	.38	....	....	....	....	T	T	T	....	....	....	....	....	1.07	.30	....	....	1.81
Harlan	....	....	....	....	T	.16	T	....	T	T	T	....	T	....	.30	T	....	T	....	T	T	....	....	....	....	....	....	1.35	T	T	....	1.81
Hopeville	....	....	....	....	T	.01	.04	....	....	....	....	....	.02	....	.03	....	....	....	....	....	....	....	....	....	....	....	....	.94	.21	....	....	1.25
Humboldt	....	....	....	....	....	.02	....	....	.60	....	....	....	....	....	.60	....	....	....	....	....	....	.02	....	....	....	....	....	.35	.60	....	....	2.19
Independence	.02	....	....	.03	T	....	.02	....	....	....	....	....	....	T	....	.15	....	T	....	T	....	.02	....	....	....	....	....	.90	.60	....	....	1.74
Indianola	....	....	....	....	.05	....	.10	....	....	T	....	....	T	T	.12	.02	....	....	....	....	.04	....	....	T	....	....	....	.12	.59	....	....	1.04
Inwood	....	....	....	....	.14	....	.04	....	T	T	....	....	....	T	.25	....	....	.05	....	....	....	T	.02	....	....	....	....	.20	.15	....	....	0.85
Iowa City	.03	....	....	.01	....	.03	.04	....	....	....	....	....	....	T	....	.09	....	....	....	....	....	.09	.16	....	....	....	....	....	1.32	.20	....	1.97
Iowa Falls	.03	....	....	....	....	.03	.10	....	....	....	T	T	....	.03	....	.50	....	....	T	T	T	T	T	....	T	....	....	T	1.78	....	....	2.47
Keokuk	T	....	....	.12	....	T	....	....	.01	T	T	....	T	....	.28	....	....	T	....	T	....	.03	....	....	....	....	....	.70	.12	....	....	1.26
Keosauqua	....	....	T	....	....	T	.05	T	T	T	T	....	T	T	....	.17	....	....	....	....	.02	.02	.04	....	....	....	....	.27	.65	.18	....	1.40
Knoxville	....	....	....	....	.05	....	.05	....	....	T	....	....	T	....	T	T	....	....	....	T	T	T	....	....	....	....	....	.86	.75	....	....	1.71
Lacona	....	....	....	....	.08	.08	....	....	.02	.02	....	....	.06	.02	.10	....	....	....	....	....	.08	....	....	....	....	....	.29	2.10	.40	....	....	3.25
Lamoni	....	....	....	.02	....	T	.04	....	....	....	....	....	.02	....	.07	....	T	....	....	.02	.03	....	....	....	....	....	....	.90	.86	....	....	1.96
Larrabee	....	....	....	....	.20	....	.13	....	....	T	....	....	....	....	.20	T	....	T	....	....	....	....	T	....	....	....	....	.30	.30	....	....	1.13
Le Claire	.02	....	....	....	.07	.02	.04	T	....	T	....	....	....	T	T	.04	....	....	T	....	.01	T	.57	....	....	....	....	....	1.10	.11	....	1.98
Le Mars	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	.22	....	....	....	....	....	....	T	T	....	....	....	....	.09	....	....	....	0.41
Lenox	....	....	....	....	T	.03	.10	....	....	.02	....	....	.02	....	.04	....	....	....	....	.02	....	....	....	....	....	....	....	.60	.30	....	....	1.13
Leon	....	....	....	....	T	T	.01	....	....	T	....	....	T	....	....	T	....	....	....	.10	.03	....	....	....	....	....	....	1.60	.37	....	....	2.11
Little Sioux	....	....	....	....	T	....	.20	....	....	....	....	....	....	....	.15	....	....	....	....	.02	....	....	....	....	....	....	....	.26	....	....	....	0.63
Logan	....	....	....	....	....	.08	.25	....	....	T	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	.20	.36	....	....	1.09
Marshalltown	....	....	....	.03	....	.54	.27	....	....	....	....	....	....	T	....	.42	....	....	....	T	.40	.05	.05	....	....	....	....	.03	1.17	.10	....	3.06
Mason City	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	.24	....	....	....	....	....	....	....	....	....	....	....	....	.80	.62	....	....	1.76
Massena	....	....	T	T	.25	....	....	T	....	....	....	....	T	T	.22	....	....	T	T	T	T	T	....	....	....	....	....	.22	.20	....	....	0.89
Mt. Ayr	....	....	....	....	T	....	.05	....	....	....	....	T	.05	....	....	....	....	....	....	.10	.10	....	....	....	....	....	....	1.00	.30	....	....	1.60
Mt. Pleasant	....	....	....	T	....	.03	.08	....	....	T	....	....	T	....	T	.23	....	....	T	T	.04	.02	.01	....	....	....	....	.60	.25	....	....	1.26
Muscatine	.04	....	....	....	....	.03	.10	....	....	T	....	....	....	T	....	.26	....	T	....	....	T	T	.46	....	....	....	....	....	1.10	.20	....	2.19
New Hampton	....	....	....	....	.05	....	.05	....	....	T	....	....	T	....	.20	.10	....	.22	....	....	.03	.03	....	....	....	....	....	.36	.87	....	....	1.91
Newton	....	....	....	....	....	....	.11	....	....	....	....	....	....	....	....	.12	....	....	....	....	.19	....	....	....	....	....	....	.61	.83	....	....	1.86
Northwood	....	....	....	....	.10	....	.05	....	....	....	....	....	....	....	.80	....	....	....	....	.01	.02	.01	T	....	....	....	....	.82	.62	....	....	2.43
Odebolt	....	....	....	....	.05	....	....	.02	....	....	....	....	....	....	.35	....	....	....	....	....	....	....	....	....	....	....	....	.24	.20	....	....	0.86
Omaha, Neb	....	....	....	....	.02	.08	....	....	T	T	....	....	T	T	.27	....	....	....	....	T	....	T	....	....	....	....	....	.59	.04	....	....	1.00
Onawa	....	....	....	....	.10	T	.20	....	....	T	....	....	.02	T	.30	....	....	....	....	....	....	....	....	....	....	....	....	.20	.40	....	....	1.22
Osage	....	....	....	....	T	....	....	....	....	....	....	....	T	....	....	.50	....	T	....	....	....	....	....	....	....	....	....	1.00	.25	....	....	1.75
Oskaloosa	....	....	....	....	....	.04	.03	....	T	....	....	....	....	....	.03	....	....	....	....	....	....	T	....	....	....	....	....	1.15	.53	.05	....	1.83
Ottumwa	....	....	....	....	T	.10	....	....	....	....	....	....	T	....	T	.10	....	....	....	....	....	....	....	....	....	....	....	.75	.30	....	....	1.25
Pacific Junction	....	....	....	T	T	.13	....	T	T	T	....	....	T	T	.23	....	....	....	....	T	T	T	T	....	....	....	....	1.36	.20	....	....	1.92
Perry	....	....	....	....	.05	....	.20	....	....	T	....	....	T	.05	.60	.10	....	....	....	T	.03	T	....	....	....	....	....	.60	.60	....	....	2.23
Plover	....	....	....	....	.10	....	....	....	....	T	....	....	....	....	.50	....	....	....	....	....	....	....	....	....	....	....	....	.67	.40	....	....	1.67
Pocahontas	....	....	....	....	.20	.20	....	....	T	T	....	....	....	....	.34	.06	....	....	....	....	....	....	....	....	....	....	....	.74	.40	....	....	1.94
Ridgeway	....	....	....	....	.12	....	.01	....	....	....	....	....	.03	.01	.38	....	....	....	....	.12	.15	.18	.22	....	....	....	....	1.35	1.14	.03	....	3.74
Rockwell City	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	.40	....	....	....	....	....	....	....	....	....	....	....	....	.75	.60	....	....	1.85
St. Charles	....	....	....	....	.10	T	.15	....	T	.10	....	....	.05	....	.13	.03	....	T	....	....	....	....	....	....	....	....	....	.95	.51	.70	....	2.72
Sheldon	....	....	....	....	.20	....	....	....	....	T	....	T	....	....	.52	....	....	.15	....	....	....	.20	.20	....	....	....	....	.20	.50	....	....	1.97
Sibley	....	....	....	....	.10	.05	.05	....	....	....	....	....	....	....	....	.20	....	T	T	....	....	....	....	....	....	....	....	....	.20	.10	....	0.70
Sigourney	....	....	....	....	....	.03	.05	....	....	....	....	....	T	....	....	.11	....	....	....	....	.03	.05	....	....	....	....	....	.90	1.00	....	....	2.17
Sioux Center	....	....	....	....	.10	.05	.10	....	T	T	....	....	....	T	.20	....	....	....	....	....	....	....	....	....	....	....	....	.03	.30	....	....	0.78
Sioux City	....	....	....	....	.03	.07	T	....	T	T	....	....	T	T	.18	....	....	T	....	....	....	T	T	....	....	....	....	.28	.04	....	....	0.60
Stockport	....	....	....	T	....	T	.05	....	T	T	....	....	....	....	T	.10	....	....	....	T	.04	.07	....	....	....	....	....	.78	.20	T	....	1.24

DAILY PRECIPITATION FOR IOWA, JANUARY, 1909—Continued

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Storm Lake	....	....	....	....	.01	.04	....	....	....	T	....	....	....	....	....	.31	....	T	....	....	....	....	....	....	....	....	....	....	.57	....	....	0.93
Thurman	....	....	....	....	T	....	.10	....	....	T	....	....	T	T	.05	T	....	T	....	....	....	....	....	....	....	....	....	....	.32	....	....	0.47
Tipton	....	....	....	....	....	....	.06	....	....	....	....	....	....	....	.27	....	....	....	....	T	....	.03	....	....	....	....	....	....	1.53	....	....	1.89
Toledo	....	....	....	....	....	....	.20	....	....	....	....	....	....	T	....	.30	....	....	....	....	....	....	....	....	....	....	....	.55	1.25	....	....	2.30
Wapello	....	....	T	....	....	T	.02	....	....	....	....	....	....	....	T	.24	....	....	T	T	.24	....	....	....	....	....	....	.45	.04	....	....	0.99
Washington	....	....	....	....	T	....	.08	....	....	....	....	....	....	....	.25	....	....	....	....	....	.15	.07	....	....	....	....	....	.68	.48	....	....	1.71
Washta	....	....	....	....	.10	.15	....	....	....	T	....	....	....	....	.20	....	....	.10	....	....	....	....	....	....	....	....	....	.25	.30	....	....	1.10
Waterloo	....	....	....	....	.05	....	.02	....	....	....	....	....	....	T	T	.50	....	....	....	....	....	....	....	....	....	....	....	....	2.04	....	....	2.61
Waukee	....	....	....	....	T	....	....	....	....	....	....	....	T	....	.03	.01	....	....	....	T	....	....	....	....	....	....	....	1.50	.40	....	....	1.94
Waverly	.01	....	....	....	.10	....	.10	....	....	....	....	....	T	....	.15	.12	....	....	....	T	....	.03	....	....	....	....	....	.40	1.07	....	....	1.98
Webster City	T	....	....	....	....	....	.15	....	....	....	....	....	T	....	.40	....	....	T	....	T	....	T	....	....	....	....	....	.88	T	....	....	1.43
West Bend	....	....	....	....	.10	....	.03	....	....	....	....	....	....	....	.35	....	....	T	....	T	....	.01	....	....	....	....	....	.72	.40	....	....	1.61
Whitten	T	....	....	....	.20	....	.10	....	....	....	....	....	T	....	.20	.30	....	....	....	....	....	....	....	....	....	....	....	.79	.75	....	....	2.34
Wilton Junction	....	....	....	....	....	.11	....	....	....	....	....	....	....	....	.11	....	....	....	....	....	.67	....	....	....	....	....	....	1.07	....	....	....	1.96
Winterset	....	....	....	T	T	....	.15	....	T	T	....	....	T	T	.20	.20	....	T	....	T	.10	T	T	....	....	....	....	.75	.40	....	....	1.70
Woodburn	....	....	....	....	T	T	.02	....	....	T	....	....	T	T	T	.05	....	....	....	T	T	.05	....	....	....	....	....	1.00	1.05	....	....	2.17
Zearing	....	....	.08	....	....	....	.14	....	....	....	....	....	....	....	.30	.20	....	....	....	....	....	....	....	....	....	....	.46	.40	....	....	....	1.58

TOTAL PRECIPITATION, JANUARY, 1909.



SCALE OF SHADES—IN INCHES

Less than 2	2 to 4	4 to 6	6 to 8	More than 8

U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR FEBRUARY, 1909

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1909

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

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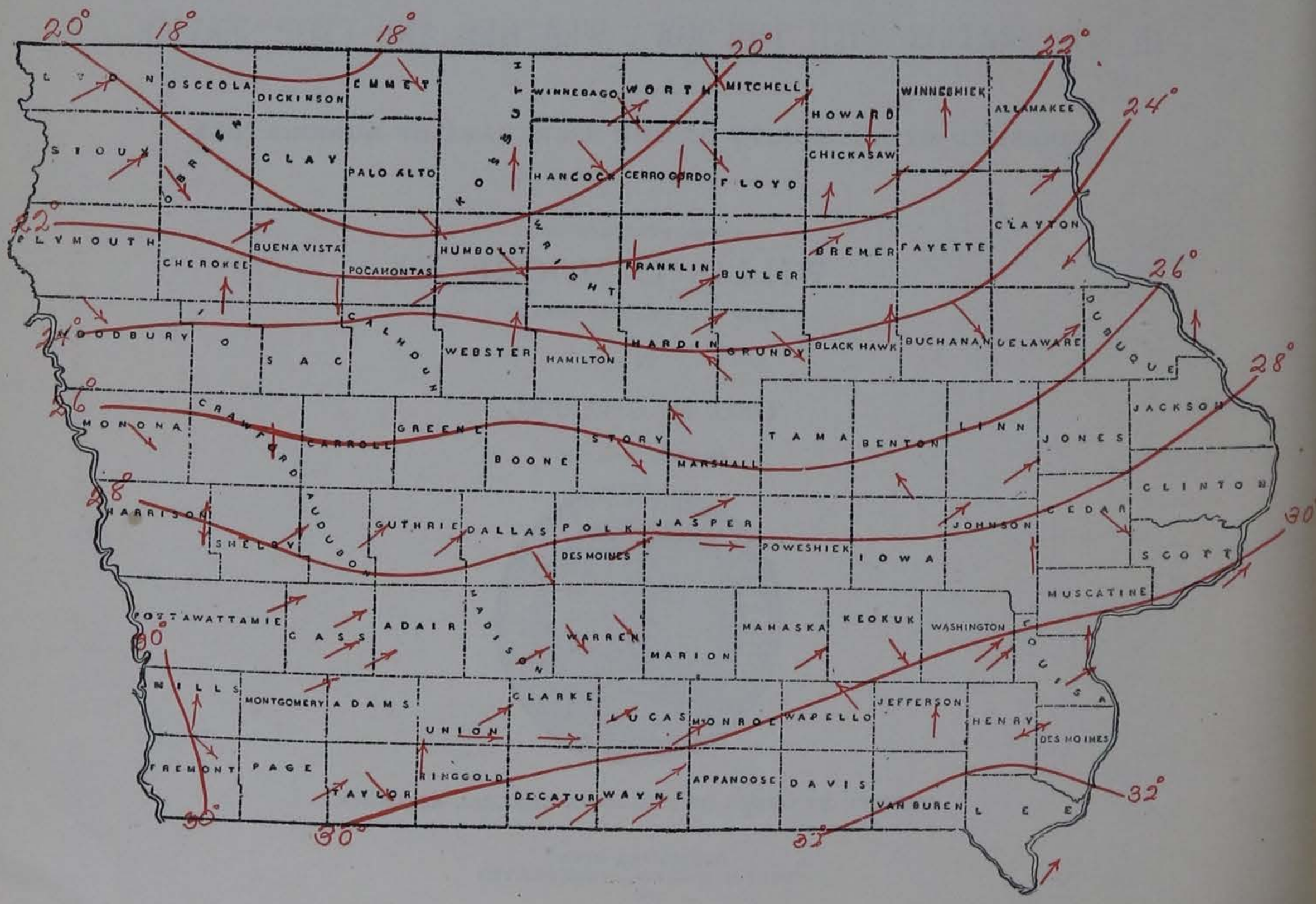
MEAN ISOTHERMS AND PREVAILING WINDS OF FEBRUARY, 1909.

Lines pass thru points of equal temperature. Arrows fly with the wind.



U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IOWA SECTION,

GEO. M. CHAPPEL, Section Director.

VOL. XX DES MOINES, IOWA, FEBRUARY, 1909 NO. 2

GENERAL SUMMARY.

The average temperature for the state for the month of February was much above the normal, and has been exceeded but twice in the past 20 years. In February, 1892, the average was 1.9° higher, and in February, 1896, it was 1.2° higher than the average for the past month. The lowest average temperature for February during the past 20 years was 12.2° in 1899, or 14° per day lower than for February, 1909. Over the larger part of the state the month was comparatively mild and at numerous stations in the southern and southeastern and at a few stations in the central counties the minimum temperature for the month was above zero. It is the first time in 27 years that sub-zero temperatures have not been recorded during February at Des Moines and Dubuque. On the other hand, reports indicate that the month was very severe in the northwestern counties where the temperature was below zero on several days, and the monthly minimum ranged from 18° to 26° below zero. The weather was remarkably warm from the 1st to the 9th, and moderately warm from the 16th to the 23d, and from the 26th to the close of the month. The highest temperature was recorded at most stations on the 4th. The coldest period was between the 9th and 16th, the lowest temperature being recorded on the 15th. Another cold period occurred on the 24th and 25th.

The average precipitation was generally above the normal, there being only 29 out of 106 stations that reported a deficiency. For the state, as a whole, the daily amounts of precipitation were not very large, but rain or snow was frequent. There were but two days between the 5th and 27th on which rain or snow did not fall at some station in the state. The worst storm of the month was on the 9th, when the second severe blizzard of the winter occurred. This storm was especially severe in the northwestern counties where the snowfall was heavy and the wind velocity was over 50 miles per hour. The snow drifted badly and caused a complete suspension of all railroad and street car traffic. Many deep snow drifts, caused by this storm, were still visible in the northern counties at the close of the month.

Another storm with blizzard characteristics occurred on the 14th but was not heavy enough to cause much damage except to again fill up the narrow cuts which had been shoveled thru the drifts caused by the previous storm. Some damage has been done to fall grains, clover and alfalfa by the alternating thawing and freezing weather.

TEMPERATURE.—The monthly mean temperature for the state, as shown by the records of 114 stations, was 26.2°, which is 7.0° above the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 21.8°, which is 5.6° above the normal; Central section, 26.8°, which is 7.2° above the normal; Southern section, 30.0°, which is 8.2° above the normal. The highest monthly mean was 34.2°, at Keokuk, Lee county, and the lowest monthly mean 17.4°, at Sibley, Osceola county. The highest temperature reported was 62°, at Burlington, Fairfield, Keokuk, and Ottumwa, in Des Moines, Jefferson, Lee and Wapello counties, on the 4th; the lowest temperature reported was 26 below zero, at Inwood, Lyon county, on the 15th. The average monthly maximum was 54.4°, and the average monthly minimum was 4.1° below zero. The greatest daily range was 61°, at Creston, Union county. The average of the greatest daily ranges was 38.2°.

PRECIPITATION.—The average precipitation for the state, as shown by the records of 120 stations, was 1.54 inches, which is 0.48 inch above the normal. By sections the averages were as follows: Northern section, 1.42 inches, which is 0.48 inch above the normal; Central section, 1.60 inches, which is 0.52 inch above the normal; Southern section, 1.59 inches, which is 0.44 inch above the normal. The greatest amount, 4.72 inches, occurred at Perry, Dallas county, and the least, 0.30 inch, at Lenox, Taylor county. The greatest amount in twenty-four hours, 1.50 inches, occurred at Fairfield, Jefferson county, on the 7th.

The average snowfall, unmelted, was 7.7 inches, the average for the three sections being as follows: Northern section 11.9 inches; Central section, 7.1 inches; Southern section, 4.1 inches. The greatest monthly snowfall, 25.0 inches, occurred at Rockwell City, Calhoun county, and the greatest 24 hour amount, 12.0 inches, occurred at Rockwell City on the 10th.

Measurable precipitation occurred on an average of 5 days.

SUNSHINE AND CLOUDINESS.—The average number of clear days was 11; partly cloudy, 6; cloudy, 11. The duration of sunshine was below the normal, the percentage of the possible amount being 55 at Charles City; 47 at Davenport; 48 at Des Moines; 37 at Dubuque; 52 at Keokuk, and 44 at Sioux City.

WIND.—Southwest winds prevailed. The highest velocity reported was 53 miles per hour from the northwest, at Sioux City, Woodbury county.

COMPARATIVE DATA FOR THE STATE—FEBRUARY.

Year	Temperature			Precipitation		
	Mean	Highest	Lowest	Average	Greatest	Least
1890	26.0	67	-24	.83	2.18	.11
1891	19.4	70	-31	1.16	2.41	.55
1892	28.1	68	-20	1.20	2.18	.12
1893	16.4	60	-28	1.39	2.91	.06
1894	19.7	60	-19	.89	2.41	T
1895	16.4	73	-33	.49	1.34	.02
1896	27.4	78	-13	.71	2.40	.04
1897	24.7	61	-24	.89	1.81	.22
1898	24.2	62	-18	1.20	3.65	.10
1899	12.2	75	-40	.89	4.32	.12
1900	14.8	60	-27	1.30	4.57	.18
1901	17.5	49	-21	1.01	3.00	.12
1902	17.6	62	-21	.73	2.39	.02
1903	19.8	56	-21	1.18	3.25	.30
1904	14.8	70	-26	.41	1.99	T
1905	12.8	69	-41	1.57	2.97	.44
1906	23.6	66	-32	1.29	2.91	.20
1907	25.0	65	-31	.71	1.95	.06
1908	24.3	59	-16	1.69	3.95	.23
1909	26.2	62	-26	1.54	4.72	.30

T indicates a Trace.
- indicates temperature below zero.

ATMOSPHERIC PRESSURE AND WIND.

Mean Barometer for the month reduced to sea level, 29.95 inches.
Prevailing direction of Wind, Southwest.

STATIONS	Barometer, in Inches					Wind				
	Mean	Maximum	Date	Minimum	Date	Movement	Maximum Velocity—miles	Direction	Date	Average Hourly Velocity
Charles City.	29.95	30.59	15	29.16	9	5481	30	E	9	8.2
Davenport..	29.93	30.50	1	29.24	9	6257	32	NE	14	9.3
Des Moines.	29.93	30.52	15	29.08	9	6755	43	SW	9	10.1
Dubuque....	29.96	30.50	15	29.25	9	4904	28	NW	24	7.3
Keokuk	29.95	30.54	1	29.21	9	6698	40	SW	9	10.0
Omaha, Neb.	29.95	30.59	14	29.20	9	6964	39	NW	23	10.4
Sioux City..	29.97	30.68	14	29.25	4	9142	53	NW	9	13.6

OBSERVER'S REMARKS.

ALTA.—*David E. Hadden.* A fierce blizzard raged all day of the 9th, and the snow drifted badly. A heavy snow and sleet storm prevailed on the 22d, doing great damage to telephone and telegraph wires.

ALTON.—*W. S. Slagle.* There was snow on the ground on the 1st and 2d and from the 8th to the end of the month. The first robin was seen on the 27th. The second crop of ice was harvested during the month.

AMANA.—*C. Schadt.* Frequent precipitation and frost made muddy and rough roads.

BONAPARTE.—*B. R. Vale.* The weather was variable with frequent storms but not cold. An electrical storm occurred on the night of the 22d.

BOONE.—*Carl Fritz Henning.* The weather was very pleasant on the morning of the 6th but had become cloudy by noon and a light mist of rain began at 5 P.M., which gradually turned to snow and heavy snow was falling by 6:30 P.M. During the storm hundreds of Lapland Longspur (Calcarius Lapponicus) past over the city and many of them becoming exhausted fell or fluttered to the ground and many of them were found dead on the morning following.

CHARITON.—*C. C. Burr.* The temperature was above zero during the entire month with a maximum of 58° on the 4th.

ELLIOTT.—*Henry Barnes.* February was a bad month for business on account of muddy roads and feed lots. There was a great loss of live stock during the blizzards of January 29th and February 9th.

DAVENPORT.—*J. M. Sherier.* No very abnormally cold weather occurred during the month, the minimum temperature being 6° on the 10th, on which date the mean was but 8° below the average. Notably warm periods extended from the 1st to the 9th, and from the 18th to the 23d. The maximum temperature of the month, 59°, occurred on the 4th, and the excess for that date amounted to 26°. While no heavy precipitation was noted, rain or snow was of frequent occurrence, there being 13 days with 0.01 inch or more.

DUBUQUE.—*James H. Spencer.* The month has been warm and cloudy. The minimum temperature for the month, 3°, is the highest for February in 27 years at this station. It is the first time in 27 years that sub-zero temperatures have not been recorded during February. The storms of the month have not been severe at this station.

GRAND MEADOW (Postville P. O.).—*F. L. Williams.* The month was marked by frequent storms but none of them gave much snow, but the snow drifted badly during each storm. The condition of live stock is generally unfavorable.

HARLAN.—*C. A. Reynolds.* Thunder was heard at 3 P.M. on the 22d, during a snow storm.

INWOOD.—*F. B. Hanson.* According to the estimates of old pioneers February, 1909, was the most severe winter month since 1888. There were three separate storm periods and all of them were accompanied by heavy snow and high wind which drifted the snow so that highways and railroads have been blockaded for days at a time.

KEOKUK.—*Fred Z. Gosewisch.* The month has been mild as a rule, with only one cold wave. But one storm with heavy snow occurred during the month, and the ground was covered only from the 14th to the 19th. There was a heavy fall of sleet on the 14th, and high winds prevailed on the 9th, 10th and 24th. At the close of the month there is very little frost in the ground, and the roads are very heavy.

KEOSAUQUA.—*J. H. Landes.* The month of February was mild and moist with the minimum temperature 8° above zero.

POCAHONTAS.—*F. E. Hronek.* The weather has been decidedly variable, changing within 24 to 48 hours from balmy spring to severe winter storms. There is a great deal of grain to be shipped but on account of the poor conditions of the roads it has been impossible to deliver it to the elevators.

RIDGEWAY.—*Arthur Betts.* The past month has been warm for February, but there has been plenty of snow. The second severe blizzard of the winter occurred on the 9th. During the winter the temperature was below zero on 16 days and the total snowfall amounted to 30.9 inches.

SIOUX CITY.—*C. D. Reed.* The total precipitation for February was 2.24 inches or 16.9 inches above the normal, which is the heaviest in 20 Februarys. It occurred mainly in two heavy snow storms on the 8th-9th and the 22d-23d. The storm on the 8th-9th was the worst from the standpoint of suspension of business and railway traffic, since the station was established, and probably since the historic storm of January 12, 1888. On the 9th all business houses closed, no trains entered or left the city, there was no street car service and many business men who went down town in the morning were obliged to sleep in their offices. The suspension of business continued on the 10th and the schools did not resume sessions fully until the 12th. The maximum wind velocity during the storm was 53 miles per hour from the northwest on the 9th.

STOCKPORT.—*C. L. Beswick.* The precipitation was .69 inch above the average for the past eight Februarys and the ground was wet most of the month and the frost was about all out by the end of the month. Stock is generally in good condition.

THE WINTER OF 1908-1909.

The mean temperature for the three winter months was 24.9°, which is 4.2° above the normal for the state. The highest temperature reported was 72° at Keokuk, Lee county, on January 23d. The lowest temperature reported was 26° below zero at Inwood, Lyon county, on February 15th. The average monthly precipitation for the state was 1.26 inches and the average total precipitation was 3.77 inches, or 0.47 inch above the winter normal. The average total snowfall, unmelted, was 19.3 inches, or one inch more than for the winter of 1907-1908. The average number of days on which .01 inch or more of precipitation was reported was 14, or one more than the average for the winter of 1907-1908. The coldest periods of the winter were from January 5th to 13th; January 29th to 31st, and from February 5th to 16th, but the severe cold of the last period was confined to the northwestern counties. The winter was 1.1° colder than the winter of 1907-1908, and 1.8° warmer than the winter of 1906-1907. The average number of clear days was 35; partly cloudy, 20; cloudy, 35, as compared with 39 clear, 21 partly cloudy, and 31 cloudy days during the winter of 1907-1908.

BELATED REPORTS.

CEDAR RAPIDS.—*January.* Mean temperature, 21.4°; highest, 60° on the 23d; lowest, 18° below zero on the 7th; greatest daily range, 35; total precipitation, 2.27 inches; greatest in 24 hours, 2.13 inches on the 28th and 29th; total snowfall, 3.5 inches; number of rainy days, 4; clear days, 6; partly cloudy days, 9; cloudy days, 16.

GREENFIELD.—*January.* Mean temperature, 24.7°; highest, 58° on the 23d; lowest, 17° below zero on the 6th; greatest daily range, 46°; number of clear days, 11; partly cloudy days, 4; cloudy days, 16.

ERRATA.

OTTUMWA.—*November.* Maximum temperature recorded as 38° on page 129, should have been 42°; mean maximum temperature, 53.5°, should have been 54.6°.

CLIMATOLOGICAL DATA FOR IOWA, FEBRUARY, 1909

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in Inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
NORTHERN SECTION																				
Algona	Kossuth	1,213	34	21.7	+ 4.7	47	*3	−11	15	39	1.90	+ .63	.60	18.0	7	14	2	12	s	Dr. F. T. Seeley
Alta	Buena Vista	1,513	17	19.8	+ 2.5	49	*3	−14	15	48	1.77	+ .92	1.13	12.1	7	11	6	11	sw	D. E. Hadden
Alta [near]	Buena Vista	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.50	+ .64	.80	12.5	7	.....	.....	.....	.....	W. J. Minard
Alton	Sioux	1,305	3	21.0	.....	48	4	−18	15	44	1.65	.....	.80	16.5	6	16	3	9	nw	W. S. Slagle
Britt	Hancock	1,236	11	21.4	+ 4.9	48	4	− 8	15	41	1.24	+ .21	.45	12.1	7	3	16	9	nw	G. P. Hardwick
Charles City	Floyd	1,015	20	21.5	+ 6.4	45	4	− 6	16	34	1.53	+ .56	.76	15.6	8	4	9	15	s	Weather Bureau
Clear Lake	Cerro Gordo	1,241	9	22.2	+ 7.6	46	4	− 6	15	37	.72	− .13	.25	5.5	4	11	4	13	n	Oscar Stevens
Decorah	Winneshiek	975	15	c21.9	+ 6.7	c47	4	c− 5	16	c34	2.02	+1.11	.78	5.2	6	....	....	....	.....	F. H. Baker
Dows	Wright	1,142	8	a23.4	+ 8.0	a52	4	a− 5	*11	a38	1.51	+ .29	.54	10.0	5	....	....	....	n	G. D. Flett
Elkader	Clayton	727	27	24.8	+ 6.8	56	4	− 5	11	36	1.02	− .07	.70	...	6	18	3	7	ne	Chas. Reinecke
Elma	Howard	.....	....	20.7	.....	48	4	− 8	11	38	1.14	.....	.40	11.2	4	10	6	12	n	H. A. Moore
Estherville	Emmet	1,298	12	19.0	+ 3.9	52	3	−18	15	44	1.99	+1.31	.76	18.0	4	12	0	16	nw	A. O. Peterson
Fayette †	Fayette	1,003	18	23.3	.....	50	4	− 5	11	36	2.76	.....	2.00	6.8	7	9	7	12	nw	R. Z. Latimer
Forest City	Winnebago	1,226	14	18.7	+ 4.1	58	3	−12	1	52	1.05	+ .12	.40	10.5	5	10	7	11	sw, nw	J. A. Peters
Grand Meadow	Clayton	1,180	17	23.2	+ 6.5	47	4	− 5	*11	35	1.05	− .05	.25	10.0	6	7	10	11	sw	F. L. Williams
Greene	Butler	.....	9	23.2	+ 7.2	47	4	− 4	16	34	.87	− .07	.28	9.5	5	9	7	12	w	J. L. Cole
Hampton	Franklin	1,155	18	23.6	+ 6.7	53	4	− 5	15	40	1.87	+ .70	1.00	14.0	6	8	12	8	sw	E. C. Grenelle
Humboldt	Humboldt	1,095	17	24.8	+ 7.1	51	4	− 8	*15	32	1.89	+1.23	.80	14.0	5	14	4	10	nw	H. S. Wells
Inwood	Lyon	1,474	4	20.8	.....	51	*3	−26	15	49	1.99	.....	1.05	19.6	9	13	7	8	sw	F. B. Hanson
Larrabee	Cherokee	1,266	17	21.2	+ 3.4	45	*3	−20	15	40	.48	− .36	.20	4.8	5	9	17	2	sw	H. B. Streever
Le Mars	Plymouth	1,224	12	22.2	+ 5.7	47	4	−17	15	37	1.51	+ .79	.80	13.0	3	10	7	11	s	G. A. C. Clarke
Mason City	Cerro Gordo	1,132	11	20.9	+ 4.7	46	4	− 9	16	34	1.12	+ .28	.60	11.2	5	9	9	10	nw	J. S. Mills
Merrill	Plymouth	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Eric Oleson
New Hampton	Chickasaw	1,169	11	21.2	+ 6.6	43	4	− 5	11	32	.65	− .25	.25	6.5	4	11	4	13	sw	A. F. Kemman
Northwood	Worth	1,222	12	20.1	+ 4.6	47	4	− 8	15	31	2.57	+1.48	.80	23.5	9	15	6	7	nw	Charles H. Dwelle
Osage	Mitchell	1,184	17	22.0	+ 7.1	47	4	− 9	11	40	1.45	+ .31	.60	14.5	3	12	2	14	s, w	Dr. A. D. Bundy
Plover	Pocahontas	1,426	12	21.8	+ 5.5	48	3	−11	15	39	.90	+ .24	.30	9.0	5	15	5	8	nw	J. S. Smith
Pocahontas	Pocahontas	.....	4	22.2	.....	49	*3	−11	15	32	1.25	.....	.50	11.5	8	11	5	12	sw	F. E. Hronek
Ridgeway	Winneshiek	1,215	10	23.0	+ 5.5	50	4	− 8	25	40	2.73	+ .56	.66	15.4	12	7	13	8	s	Arthur Betts
Rock Rapids	Lyon	1,358	9	19.9	+ 3.3	48	3	−17	15	38	.....	.....	.....	.....	.....	.....	.....	.....	.....	W. C. Wyckoff
Sheldon	O'Brien	1,422	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. A. W. Beach
Sibley	Osceola	1,212	15	17.4	+ 2.4	49	3	−18	15	50	1.30	+ .83	.60	13.0	4	12	2	14	sw	H. G. Doolittle
Sioux Center	Sioux	.....	9	20.8	+ 4.4	47	4	−18	15	37	1.13	+ .43	.60	11.0	4	12	3	13	sw	J. de Ruyter
Storm Lake	Buena Vista	1,440	12	a23.1	+ 8.1	a48	*3	a−15	15	a36	1.99	+1.30	.52	9.0	6	....	....	....	n	Ralph H. Carr
Washta	Cherokee	1,157	10	23.6	.....	52	4	−16	15	50	1.40	+ .64	.70	12.0	4	10	7	11	s	H. L. Felter
Waverly	Bremer	948	12	24.0	+ 6.5	48	4	− 1	11	32	1.04	− .10	.35	7.2	7	7	7	14	.....	H. S. Hoover
West Bend	Palo Alto	1,197	14	22.7	+ 6.3	47	*3	−10	15	38	.78	− .17	.65	5.3	4	8	8	12	.....	Phil Dorweiler
Averages	.....	.....	....	21.8	+ 5.6	48.7	.....	−10.8	.....	38.8	1.42	+0.48	.....	11.9	6	11	6	11	sw	
CENTRAL SECTION																				
Amana	Iowa	721	31	28.2	+ 8.1	55	4	5	*10	31	1.90	+ .64	.61	6.4	8	10	5	13	sw	Conrad Schadt
Ames	Story	926	27	27.2	+ 6.0	59	4	− 2	15	40	1.45	+ .65	.45	9.5	7	12	10	6	nw	Iowa State College
Audubon	Audubon	1,301	15	25.6	+ 6.5	51	4	− 5	*15	33	2.08	+1.29	1.33	7.3	6	14	4	10	sw	Geo. E. Kellogg
Baxter	Jasper	998	8	27.8	+ 9.7	56	4	1	*13	41	1.31	+ .50	.59	7.2	8	10	5	13	sw	W. R. Vandike
Belle Plaine	Benton	828	18	27.2	+ 7.3	60	4	3	*10	33	1.40	− .06	.40	9.0	7	9	10	9	se	S. P. Vandike
Boone	Boone	1,134	3	24.7	.....	58	4	− 4	15	39	1.88	.....	.87	....	6	13	2	13	.....	Carl Fritz Henning
Buckingham	Tama	.....	8	.....	.....	.....	.....	.....	.....	.....	.98	− .02	.47	....	5	3	15	10	.....	Dr. W. A. Daniel
Carroll	Carroll	1,265	18	25.2	+ 6.3	58	6	−13	14	45	.52	− .63	.17	5.2	4	15	3	10	.....	Frank Hughes
Cedar Rapids	Linn	733	26	26.5	+ 6.4	56	4	− 6	1	41	1.67	+ .29	.33	4.3	8	9	13	6	sw	Electric Light & P. Co.
Clinton	Clinton	593	40	28.2	+ 6.4	60	4	4	1	36	2.50	+ .41	.45	3.0	7	....	....	....	.....	Luke Roberts
Davenport	Scott	580	36	31.0	+ 7.2	59	4	6	10	39	2.34	+ .78	.84	4.6	13	6	9	13	sw	Weather Bureau
Delaware	Delaware	1,083	17	24.6	+ 8.3	48	4	0	*11	30	.68	− .13	.20	3.8	6	10	8	10	sw	Wm. Ball
Denison	Crawford	1,180	13	26.0	+ 6.9	54	4	− 9	15	38	1.92	+1.06	1.06	....	4	17	2	9	n, s	W. C. Van Ness
Des Moines	Polk	861	29	29.7	+ 5.6	60	4	1	15	34	.90	− .18	.42	2.9	7	10	6	12	sw	Weather Bureau
De Soto	Dallas	866	8	28.8	+ 8.4	60	4	− 1	15	37	1.12	+ .24	.63	1.0	5	14	3	11	nw	R. D. Minard
Dubuque	Dubuque	639	35	26.9	+ 5.3	54	4	3	25	29	1.32	− .06	.50	6.9	11	5	10	13	s	Weather Bureau
Fort Dodge	Webster	1,126	8	22.0	+ 6.7	52	4	− 6	* 1	46	.70	− .01	.30	7.0	4	16	1	11	s	J. F. Monk
Gilman	Marshall	1,052	9	.....	.....	.....	.....	.....	.....	.....	1.70	+ .70	.79	6.0	5	....	....	....	.....	Jas. L. Wylie
Grinnell	Poweshiek	1,023	16	29.0	+ 7.7	59	4	4	15	35	.74	− .18	.50	1.8	4	8	9	11	sw	D. W. Brainard
Grundy Center	Grundy	976	17	25.6	+ 7.9	53	4	− 2	11	37	.60	− .25	.20	6.0	4	13	7	8	nw	W. H. Scott
Guthrie Center	Guthrie	1,077	13	27.7	+ 7.5	55	4	− 5	15	35	1.50	− .70	.73	4.9	5	12	4	12	sw	D. G. Beardsley
Harlan	Shelby	1,192	9	26.6	+ 8.5	52	21	− 5	15	38	1.55	+ .70	.79	2.0	5	9	5	14	sw	C. A. Reynolds
Independence	Buchanan	921	43	25.0	+ 5.4	51	4	0	11	30	2.05	+1.04	.75	14.0	6	14	3	11	nw	George Donohue
Iowa City	Johnson	683	49	27.8	+ 5.3	60	4	− 4	1	41	1.89	+ .42	.82	2.2	8	12	1	15	s	Prof. Karl E. Guthe
Iowa Falls	Hardin	1,170	15	22.4	+ 6.9	49	4	− 4	*13	35	1.30	+ .26	.55	12.5	5	13	0	15	sw	J. B. Parmalee
Jefferson	Greene	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Geo. W. Jackson
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	2.58	+1.33	.79	5.5	11	9	6	13	ne	Margaret T. Disney
Little Sioux	Harrison	.....	4	27.8	.....	59	3	−13	15	39	1.89	.....	1.00	4.0	5	12	6	10	se	Geo. H. Gibson
Logan	Harrison	928	42	27.8	+ 4.4	53	2	− 5	16	35	1.86	+ .66	.70	....	6	9	12	7	n, s, sw	Glen H. Stern
Marshalltown	Marshall	947	16	24.4	+ 5.0	56	4	− 8	1	46	1.14	+ .33	.55	6.0	6	6	10	12	nw	Agnes Musil
Montezuma	Poweshiek	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. J. Griffin
Muscatine	Muscatine	.....	49	.....	.....	.....	.....	.....	.....	.....	2.30	+ .17	.60	4.7	10	6	9	13	s	Wm. P. Molis
Newton	Jasper	944	19	29.0	+ 9.2	54	4	3	15	33	1.83	+ .74	1.15	4.5	6	14	4	10	s	Hon. J. P. Beatty
Odebolt	Sac	1,356	10	25.0	+ 6.6	54	* 3	−11	15	43	1.72	+ .85	.75	10.5	3	14	6	8	.....	E. Starner
Olin	Jones	760	11	30.0	+12.9	55	4	6	*10	38	.....	.....	.....	.....	.....	.....	.....	.....	.....	Court M. Miles
Onawa	Monona	1,051	8	27.4	+ 6.4	57	3	−12	15	38	2.43	+1.44	.90	18.8	6	13	3	12	nw	C. G. Perkins
Perry	Dallas	975	7	27.3	+ 8.7	57	4	− 3	15	36	4.72	+3.74	1.00	....	7	11	5	12	.....	J. A. Harvey
Rockwell City	Calhoun	.....	12	25.6	+ 8.0	53	4	− 9	15	38	2.50	+1.65	1.20	25.0	4	12	6	10	.....	C. M. Randall
Sac City	Sac	1,356	26	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	F. E. Stouffer
Sioux City	Woodbury	1,135	17	23.6	+ 3.8	54	3	−17	15	34	2.24	+1.69	1.15	20.5	6	6	7	15	nw	Weather Bureau
Stuart	Guthrie	1,216	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Geo. B. Irick
Tipton	Cedar	807	10	29.5	+ 7.7	57	4	7	* 1	33	1.44	+ .17	.54	....	6	14	1	13	nw	F. K. Gregg
Toledo	Tama	856	14	26.2	+ 6.8	54	4	2	10	32	1.25	+ .48	.50	3.5	5	12	5	11	nw	I. F. Giger
Waterloo	Black Hawk	862	25	24.3	+ 6.2	55	4	− 7	1	42	1.32	+ .21	.51	7.0	7	8	11	9	s	M. L. Newton
Waukee	Dallas	1,039	5	28.2	.....	60	4	− 1	15	38	1.20	− .10	.60	....	3	12	4	12	sw	A. H. Blackmore
Webster City	Hamilton	.....	3	27.2	.....	53	4	− 4	16	30	.92	.....	.27	....	5	14	5	9	nw	C. D. Carpenter
Whitten	Hardin	1,036	10	25.6	+ 9.3	53	27	− 4	15	41	.45	− .31	.20	4.5	4	15	9	4	se	Dr. Frank P. Butler
Wilton Junction	Muscatine	683	13	29.0	+ 8.7	52	5	5	25	34	1.58	+ .23	.77	....	5	13	0	15	w	Wm. Lang
Zearing	Story	.....	4	25.9	.....	56	4	− 2	14	35	.82	.....	.22	.82	5	5	12	11	sw	W. C. Bean
Average	.....	.....	....	26.8	+ 7.2	55.4	.....	−2.7	.....	36.8	1.60	+0.52	.....	7.1	4	11	6	11	sw	

CLIMATOLOGICAL DATA FOR IOWA, FEBRUARY, 1909—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
SOUTHERN SECTION																				
Afton	Union	1,212	14	29.1	+ 7.1	57	4	0	15	38	.80	— .15	.25	1.0	5	10	6	12	sw	N. W. Rowell
Albia	Monroe	959	10	28.2	+ 7.9	59	4	— 7	1	47	1.43	+ .11	.40	4.7	7	13	8	7	sw	J. I. Chenoweth
Allerton	Wayne	.....	6	30.4	+ 8.7	58	4	4	15	37	1.90	+ .56	.40	4.2	8	15	1	12	sw	Mrs. Geo. Shriver
Atlantic	Cass	1,247	17	27.6	+ 6.8	55	4	— 3	15	32	1.40	+ .35	.62	3.0	5	8	10	10	sw	Thos. H. Whitney
Bedford	Taylor	.....	8	31.4	+10.6	59	11	— 2	16	51	.93	— .11	.35	4.5	8	15	2	11	nw	E. E. Healy
Bloomfield	Davis	881	...	31.3	.....	61	4	5	10	38	1.90	.....	.47	5.5	11	10	7	11	nw	F. H. Roberts
Bonaparte	Van Buren	.....	17	31.1	+ 8.3	61	4	6	17	36	2.36	+1.13	.49	5.5	11	....	....	....	.....	Hon. B. R. Vale
Burlington	Des Moines	544	12	30.5	+ 6.8	62	4	— 1	1	40	2.33	+ .55	1.00	6.6	8	13	2	13	s	M. E. Poppe, Jr.
Chariton	Lucas	1,012	13	a29.3	+ 7.1	a58	4	3	15	a37	.85	— .18	.35	4.0	4	12	6	10	sw	C. C. Burr
Clarinda	Page	1,009	18	28.0	+ 5.6	61	3	— 2	*16	48	.68	— .32	.34	1.5	5	13	4	11	sw	A. S. Van Sandt
Columbus Junction	Louisa	595	7	31.6	+10.4	60	4	8	*10	36	2.20	+1.02	.65	4.4	10	16	1	11	s	J. B. Johnston
Corning	Adams	1,117	16	28.5	+ 6.6	57	3	— 2	15	41	.81	— .07	.29	3.3	5	14	5	9	sw	Jerome Smith
Corydon	Wayne	1,101	15	30.8	+ 8.6	59	4	4	*10	38	1.86	+ .54	.61	3.6	8	14	2	12	sw	Clara Miller
Creston	Union	1,312	3	27.7	.....	56	*1	— 5	1	61	1.25	.....	.90	....	2	15	2	11	w	Rev. W. L. Gaston
Cumberland	Cass	.....	9	.....	.....	.....	.....	.....	.....	.....	.85	— .15	.35	3.0	6	15	6	7	sw	J. H. Reppert
Earlham	Madison	.....	6	29.9	+11.9	60	4	0	*15	37	1.69	+ .48	.53	4.0	6	14	4	10	sw	Geo. Phillips
Elliott	Montgomery	.....	3	29.4	.....	57	27	— 3	15	35	.88	.....	.60	1.8	5	13	7	8	sw	Henry Barnes
Fairfield	Jefferson	.....	14	a31.1	+ 9.4	62	4	a 7	10	a36	3.44	+1.85	1.50	2.9	10	15	10	3	s	R. Monroe McKenzie
Fort Madison	Lee	22	59	.....	.....	.....	.....	.....	.....	.....	3.10	+1.21	.80	6.0	8	9	6	13	ne	Miss L. A. McCready
Greenfield	Adair	.....	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	.....	Geo. Brooks
Hancock	Pottawattamie	1,113	2	28.8	.....	60	28	— 3	15	39	.93	.....	.51	2.0	4	16	3	9	sw	W. Armstrong
Hopeville	Clarke	.....	17	29.6	+ 7.6	57	4	1	15	40	2.06	+1.27	.70	10.8	10	6	10	12	w	M. T. Ashley
Indianola	Warren	969	17	29.3	+ 7.0	58	4	4	16	35	2.50	+1.56	1.40	4.8	8	9	5	14	nw	Prof. J. L. Tilton
Keokuk	Lee	574	37	34.2	+ 7.6	62	4	8	10	39	2.44	+ .82	.57	6.0	13	16	1	11	sw	Weather Bureau
Keosauqua	Van Buren	644	16	29.9	+ 6.8	61	4	— 5	1	44	2.26	+ .81	.60	5.0	9	6	7	15	.....	J. H. Landes
Knoxville	Marion	920	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	.....	Casey & Bellville
Lacona	Warren	.....	9	.....	.....	.....	.....	.....	.....	.....	.84	— .64	.22	1.0	7	8	11	9	.....	Agent C., B. & Q. Ry.
Lamoni	Decatur	.....	....	a30.6	.....	a59	4	3	15	a40	1.01	.....	.37	1.2	9	14	0	14	sw	T. J. Fitzpatrick
Lenox	Taylor	1,250	13	28.6	+ 6.9	56	4	— 3	*15	42	.30	— .54	.08	2.0	7	15	2	11	s	J. L. Hurley
Leon	Decatur	1,120	6	29.0	+ 7.1	55	4	1	15	39	1.82	+ .68	.40	4.2	10	11	4	13	sw	Morris Gardner
Massena	Cass	.....	3	27.6	.....	56	4	— 3	*15	37	.95	.....	.34	1.8	6	13	4	11	sw	C. E. Smeltzer
Mt. Ayr	Ringgold	1,236	15	30.6	+ 8.1	57	*3	0	15	43	1.90	+ .73	.50	4.0	9	10	7	11	sw	A. F. Beard
Mt. Pleasant	Henry	729	26	31.0	+ 7.8	60	4	7	10	35	2.53	+1.47	.57	5.2	11	10	6	12	se,nw	Prof. J. W. Edwards
Omaha, Neb	Douglas	1,040	38	30.4	+ 6.7	61	3	— 6	15	41	1.21	+ .45	.57	4.7	5	8	8	12	nw	Weather Bureau
Oskaloosa	Mahaska	843	24	29.9	+ 8.7	58	4	5	*10	36	1.58	+ .47	.40	3.8	8	13	1	14	sw	Jos. Boyd
Ottumwa	Wapello	649	14	32.8	+ 9.8	62	4	7	10	35	2.13	+ .77	.75	3.0	7	11	3	14	se	Dr. Jas. A. Hull
Pacific Junction	Mills	960	9	29.6	+10.0	61	4	— 5	15	37	.99	+ .39	.53	5.1	5	11	9	8	s	H. H. McCartney
Pella	Marion	877	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	.....	T. W. Cox
St. Charles	Madison	1,070	7	30.1	+ 9.2	60	4	0	15	40	1.34	+ .34	.33	2.6	9	12	5	11	nw	R. D. Minard
Sigourney	Keokuk	877	12	29.8	+ 8.1	58	4	5	11	36	1.93	+ .62	.67	7.8	9	2	16	10	nw	J. T. Parker
Stockport	Van Buren	.....	6	31.6	.....	60	4	7	* 1	35	2.18	+1.03	.55	7.0	11	13	3	12	s,sw	C. L Beswick
Thurman	Fremont	.....	11	29.8	+ 8.3	58	*3	— 8	16	38	1.09	— .24	.81	....	4	12	5	11	nw	C. R. Paul
Wapello	Louisa	588	10	a30.6	+10.3	a59	4	a 9	* 1	a33	1.56	+ .17	.45	5.5	10	14	2	12	sw	Geo. W. Schofield
Washington	Washington	769	27	30.4	+ 8.1	61	4	6	*10	35	1.88	+ .66	.62	....	9	9	9	11	sw	Wm. A. Cook
Winterset	Madison	1,129	17	28.8	+ 7.1	56	4	0	15	35	1.04	+ .17	.52	2.3	6	13	3	12	sw	Dr. Robert S. Cooper
Woodburn	Clarke	961	9	29.6	.....	59	4	3	10	41	1.36	+ .12	.48	4.0	6	12	4	12	sw	C. B. McDonough
Average		.....	....	30.0	+ 8.2	59.0	.....	1.1	.....	39.1	1.59	+0.44	.....	4.1	5	12	5	11	sw	
State average		.....	....	26.2	+ 7.0	54.4	.....	—4.1	.....	38.2	1.54	+0.48	.....	7.7	5	11	6	11	sw	

*And other dates. a one day missing, b two days; c three days; d four days, etc. ‡ Received too late to be included in average

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF FEBRUARY, 1909

STATIONS	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		Monthly Mean	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Afton	39	12	50	24	53	28	57	35	46	27	41	19	38	26	37	21	43	5	20	3	44	10	38	15	17	3	19	7	18	0	29	2	44	11	44	32	34	22	49	25	50	27	44	31	35	31	31	11	46	13	47	28	50	25	51	23	39.8	18.4
Albia	40	- 7	50	20	53	28	59	31	35	35	45	21	33	21	45	25	20	20	24	5	46	6	40	11	24	6	16	7	16	6	29	7	38	9	38	16	31	23	49	23	54	27	39	29	37	33	24	14	45	11	54	13	52	26	48	26	38.7	17.6
Algona	38	10	43	26	47	24	47	31	43	20	34	16	32	20	25	15	25	9	11	-1	32	-7	28	1	10	-5	5	-2	11	-11	22	-9	33	14	37	26	29	21	39	19	42	22	37	25	33	25	26	1	32	-6	35	22	38	22	39	13	31.2	12.2
Allerton	42	11	50	24	53	30	58	35	51	29	41	21	34	20	38	19	44	7	25	5	45	11	41	18	23	6	24	12	15	4	30	8	38	12	38	33	33	24	50	23	56	29	43	34	38	33	33	15	46	14	53	28	53	26	52	24	41.0	19.8
Alta	40	- 8	45	16	49	27	49	33	30	25	36	20	27	21	20	16	16	15	19	- 8	37	- 7	9	3	6	- 6	3	- 5	12	-14	25	-12	35	- 2	36	13	28	19	40	20	46	21	36	28	30	29	14	1	27	2	37	9	38	19	40	21	29.6	10.6
Alton	40	13	44	23	46	24	48	26	40	23	35	20	35	21	21	12	16	1	7	- 9	33	-11	29	3	6	- 5	4	- 3	8	-18	25	- 9	36	12	36	25	30	20	39	17	44	21	34	24	33	24	25	1	35	0	35	17	38	22	35	22	30.6	11.3
Amana	35	9	48	18	50	27	55	31	48	27	41	21	35	29	36	26	42	11	19	5	35	6	33	19	23	10	21	13	17	9	28	11	35	15	37	32	36	27	42	20	47	26	39	27	38	33	33	11	34	5	45	24	45	25	42	25	37.1	19.4
Ames	41	11	52	23	54	26	59	32	50	25	39	21	37	21	34	26	36	- 1	14	4	42	2	30	8	16	1	17	0	17	- 2	27	1	38	12	38	32	33	23	43	24	51	30	39	24	35	28	34	9	43	10	41	26	48	25	45	26	37.6	16.7
Atlantic	38	15	49	25	48	27	55	35	46	26	38	23	35	27	35	27	34	2	18	1	41	9	33	9	14	2	14	4	15	- 3	26	- 2	45	16	37	29	33	21	45	28	48	26	41	30	34	28	28	11	44	14	42	30	47	25	49	26	36.9	18.2
Audubon	35	13	42	22	45	23	51	29	46	25	37	21	33	25	35	26	33	4	15	0	38	5	33	9	13	0	13	3	12	- 5	26	- 5	43	15	37	29	32	19	42	25	47	25	37	26	34	28	30	7	40	9	40	28	44	23	45	24	34.9	16.2
Baxter	39	7	49	23	49	26	56	33	48	24	41	18	39	18	33	24	49	8	23	4	42	3	35	10	18	1	18	6	15	1	35	4	38	14	37	32	34	21	48	20	55	27	42	29	34	31	31	8	38	5	46	27	50	25	44	25	38.8	16.9
Bedford	40	15	52	19	32	2	58	7	50	27	40	18	43	29	44	29	45	2	57	26	59	36	49	18	18	4	19	8	16	0	30	- 2	58	15	58	32	36	22	52	23	56	24	51	33	38	32	32	14	49	16	50	25	53	23	55	25	44.3	18.6
Belle Plaine	40	7	45	20	55	25	60	31	33	30	45	21	37	22	36	26	35	19	20	3	36	4	30	23	19	6	13	12	18	5	29	6	33	16	37	20	38	25	46	21	52	26	37	29	35	33	19	9	34	3	46	24	45	24	41	23	36.2	18.3
Bloomfield	40	7	52	24	56	31	61	35	56	27	45	20	37	27	87	21	44	8	44	5	47	9	35	24	26	8	27	9	16	8	28	10	42	10	39	32	38	24	50	19	54	28	44	31	39	33	34	16	45	11	56	28	51	26	52	26	42.7	19.9
Bonaparte	41	7	53	20	55	29	61	32	53	27	43	20	35	28	40	25	45	9	26	7	43	8	50	26	29	12	29	16	17	13	28	12	39	6	38	31	35	26	49	20	54	28	40	31	40	35	36	18	41	10	55	26	51	25	48	22	41.9	20.3
Boone	41	3	50	20	55	29	58	31	28	22	38	21	27	23	34	24	24	24	16	2	41	2	16	11	14	- 1	8	0	14	- 4	27	- 2	37	2	38	17	28	22	42	21	51	28	37	31	33	32	19	7	42	8	44	8	47	24	45	24	34.1	15.3
Britt	35	8	42	20	47	25	48	28	39	19	37	16	33	13	26	15	28	10	13	- 1	34	- 7	22	1	12	- 5	10	- 5	10	- 8	23	- 6	37	12	40	27	27	21	39	14	42	21	33	24	33	27	27	0	33	- 6	36	16	39	12	39	19	31.6	11.1
Burlington	39	- 1	50	14	51	25	62	31	41	40	40	21	38	22	42	27	35	30	27	9	42	10	50	15	32	17	22	19	18	14	30	14	38	10	40	15	30	29	48	24	54	25	43	23	44	32	29	20	39	10	55	20	48	25	46	25	40.5	20.5
Carroll	45	7	47	17	54	18	54	32	56	27	58	20	27	22	32	22	24	19	24	11	20	16	9	6	15	- 2	7	-13	15	- 7	29	- 8	43	- 2	35	33	33	20	43	21	51	27	44	27	30	30	35	5	41	7	41	12	44	20	47	23	35.8	41.0
Cedar Rapids	35	- 6	49	15	49	16	56	24	48	35	40	24	34	23	36	25	41	28	18	6	35	5	33	7	22	12	19	14	17	10	27	9	37	11	37	18	31	28	41	25	47	25	39	26	36	28	20	16	33	5	45	6	37	25	41	21	35.8	17.2
Chariton	40	9	49	22	53	28	58	36	49	27	42	20	38	17	36	17	40	8	23	4	45	8	43	17	19	5	22	10	14	3	28	6	38	14	39	33	37	22	50	22	54	28	..	31	37	32	32	13	45	13	50	27	52	25	49	22	40.1	18.5
Charles City	35	8	42	14	41	18	45	26	38	22	35	18	31	17	23	16	28	9	10	- 1	30	- 4	16	1	15	- 1	9	0	13	- 3	24	6	31	14	38	27	31	23	38	25	41	27	37	24	33	24	32	3	27	0	35	20	30	17	34	12	30.1	12.9
Clarinda	45	8	57	19	61	20	59	24	34	32	39	20	40	22	45	28	5	5	26	2	51	3	35	19	19	4	8	4	19	0	31	- 2	46	- 2	41	15	38	22	54	22	56	21	39	26	34	33	29	14	50	14	51	20	55	24	59	25	40.2	15 8
Clear Lake	33	4	38	22	44	24	46	31	40	20	35	18	35	21	30	16	25	10	20	- 1	32	- 5	30	4	12	5	10	- 4	10	- 6	20	- 5	32	14	37	28	30	21	37	25	40	21	43	25	33	30	30	2	29	- 2	36	22	34	15	36	10	31.3	13.0
Clinton	33	4	46	14	47	24	60	24	50	23	43	24	42	23	45	12	23	7	32	8	48	15	29	14	23	13	24	13	26	13	27	11	33	16	41	21	38	25	49	32	50	30	40	24	38	22	32	5	34	5	49	19	50	18	41	26	39.0	17.3
Columbus Jct	38	9	50	24	52	30	60	35	53	27	44	23	37	29	42	28	47	11	24	8	41	9	49	26	30	14	27	17	20	13	27	14	39	9	40	32	37	28	45	24	50	31	45	32	40	35	37	15	39	8	53	28	48	25	47	27	41.5	22.2
Corning	39	13	49	25	57	39	48	27	37	22	37	26	37	24	43	2	22	1	44	6	34	12	18	3	17	6	17	- 1	27	- 2	43	16	41	30	35	22	46	23	43	22	51	25	44	30	36	31	32	12	46	15	47	28	51	24	51	24	39.0	19.0
Corydon	41	9	50	25	54	31	59	38	51	28	43	29	36	19	35	19	45	7	25	4	45	9	41	18	23	6	24	11	16	4	31	8	40	13	39	34	36	23	50	23	55	30	50	34	39	33	33	13	47	14	53	27	53	26	52	23	41.6	19.9
Creston	56	- 5	55	27	56	28	50	30	37	30	38	22	34	22	42	23	9	9	21	2	45	6	24	21	21	2	9	6	17	- 1	34	0	45	2	42	34	34	22	49	23	52	27	39	33	35	32	25	12	46	12	47	16	51	26	52	25	38.0	17.4
Davenport	37	9	48	25	50	32	59	37	52	29	42	25	37	29	43	29	48	9	23	6	39	10	51	25	26	21	25	16	22	13	24	15	34	13	40	33	35	27	44	27	51	31	41	31	39	32	32	10	35	7	51	32	41	26	42	25	39.7	22.3
Decorah	34	4	41	12	42	18	47	23	45	27	24	18	..	..	..	..	..	25	10	14	4	34	7	21	4	21	5	16	8	16	0	26	- 5	39	11	34	28	..	..	38	25	40	23	39	19	35	30	15	7	30	- 4	38	19	33	13	39	5	31.4	12.4
Delaware	31	1	45	25	46	20	48	28	46	23	37	20	35	25	29	25	35	10	15	2	30	...	30	15	20	7	16	10	14	5	26	5	31	12	35	25	40	22	38	30	43	25	38	24	35	30	32	5	28	0	40	20	34	16	37	11	33.4	15.8
Denison	43	16	50	29	53	24	54	35	46	25	38	23	33	25	31	25	33	- 1	14	- 3	39	1	34	6	8	- 2	8	1	10	- 9	28	- 6	41	16	39	28	34	20	43	26	50	28	40	30	33	27	27	7	40	10	39	28	44	23	44	25	35.6	16.3
Des Moines	42	16	53	28	57	31	60	38	50	28	40	25	34	25	37	29	41	7	22	6	44	10	31	6	20	4	16	4	18	1	28	6	40	18	41	28	33	24	48	26	53	31	39	34	37	28	28	12	45	12	46	29	53	26	46	28	29.4	20.0
DeSoto	42	11	52	25	55	25	60	30	48	27	40	21	34	25	35	27	38	3	21	4	44	7	34	10	17	2	17	5	21	- 1	30	2	44	17	40	31	35	23	50	24	56	26	40	29	35	30	30	10	45	13	45	27	52	24	48	26	39.6	18.0
Dubuque	33	4	46	18	49	22	54	31	49	27	42	25	36	30	32	25	38	11	19	6	30	4	33	16	20	15	16	14	15	9	27	12	32	19	36	31	33	28	40	27	46	30	30	23	36	31	31	6	29	3	46	25	32	21	38	17	34.9	18.9
Dows	36	5	44	13	48	32	52	29	46	20	36	18	34	15	27	20	32	9	13	- 1	33	- 5	30	5	33	- 3	13	2	14	- 1	23	- 5	32	12	36	29	..	..	38	14	44	32	40	25	33	30	31	3	31	1	35	21	37	17	39	20	33.7	13.2
Earlham	43	23	54	27	55	35	60	34	53	31	50	23	48	21	43	23	33	6	25	5	43	6	30	12	17	3	13	6	16	0	27	0	43	16	40	32	34	23	48	24	54	26	41	25	35	32	32	11	49	12	49	29	52	25	47	31	40.5	19.3
Elkader	38	2	46	10	46	18	56	21	47	26	40	20	35	25	30	20	22	12	20	2	30	- 5	30	5	18	9	15	10	13	3	32	6	37	11	37	30	34	28	43	25	48	20	39	19	37	31	32	4	29	- 1	45	18	46	19	40	12	35.2	14.3
Elliott	43	17	54	20	54	25	54	32	45	28	38	22	38	26	37	26	37	3	26	2	47	22	37	11	18	3	17	5	18	- 3	29	3	47	12	39	30	47	17	44	28	54	25	37	22	40	32	35	12	37	20	47	28	57	25	52	25	40.3	18.5
Elma	30	3	37	13	39	19	48	29	43	24	35	15	33	11	20	15	27	9	14	- 1	30	- 8	23	4	13	- 3	12	- 3	11	- 5	22	- 2	32	14	40	28	40	24	34	24	36	25	36	22	35	29	30	2	25	- 7	34	16	29	17	33	6	30.0	11.4
Estherville	41	4	45	18	52	28	49	29	45	25	36	19	26	18	15	10	15	10	11	- 2	33	- 7	8	0	6	- 8	-5	- 7	10	-18	24	-15	38	- 2	36	24	28	20	39	19	42	20	32	21	30	23	15	0	33	-11	32	6	35	18	33	17	28.7	9.2
Fairfield	40	...	53	21	53	31	62	34	55	26	44	21	37	27	39	24	40	9	25	7	44	8	47	21	27	11	27	16	18	12	27	8	39	8	39	33	37	26	48	22	54	27	38	31	40	33	33	16	40	10	56	25	50	25	49	26	41.5	20.7
Forest City	40	-12	45	23	58	23	49	22	21	21	28	12	28	12	20	15	25	15	12	- 2	34	- 6	15	- 4	10	- 5	4	- 5	14	- 9	25	- 9	34	- 2	35	20	27	21	41	17	41	20	34	21	32	24	8	1	38	- 8	32	5	32	14	34	9	29.1	8.3
Fort Dodge	40	- 6	45	19	49	26	52	26	25	25	36	21	26	23	31	22	31	21	10	2	36	0	14	4	10	- 2	4	- 2	12	- 6	24	- 5	35	- 6	35	25	26	21	35	22	45	25	36	24	32	32	12	6	39	6	34	9	38	24	43	23	30.5	13.5
Grand Meadow	30	3	41	13	43	20	47	32	45	25	37	19	35	26	26	15	31	10	13	3	30	- 5	24	11	15	5	15	6	12	0	24	3	34	14	36	26	35	26	38	24	42	26	37	23	35	31	31	4	25	- 5	40	20	32	11	37	10	31.8	14.1
Greene	35	5	40	14	42	18	47	28	42	23	35	18	32	18	25	19	30	12	12	1	32	- 2	29	9	15	- 1	14	5	14	- 2	26	- 4	35	14	38	28	32	24	40	25	44	27	41	25	34	32	32	6	30	1	36	22	30	20	38	14	32.1	14.2
Grinnell	40	8	52	22	53	28	59	34	51	21	40	19	36	23	34	20	43	10	21	5	40	5	38	16	20	7	21	10	15	4	30	7	37	16	39	32	36	23	49	23	53	28	46	31	36	33	36	9	37	6	48	28	51	25	45	25	39.5	18.5
Grundy Center	36	0	45	24	48	25	53	34	49	23	40	20	35	20	32	25	35	10	15	0	35	- 2	30	10	27	0	16	5	14	- 1	26	- 1	34	16	36	30	33	23	43	23	48	30	40	30	34	30	33	5	32	1	40	27	39	22	40	18	35.3	16.0
Guthrie Center	40	14	49	28	51	27	55	33	50	27	38	22	35	25	34	22	36	5	17	2	40	5	38	10	15	0	16	4	16	- 5	27	- 4	43	18	39	31	34	22	42	26	48	28	45	26	35	30	31	9	43	12	41	31	47	24	47	25	37.6	17.8
Hampton	37	5	46	26	49	28	53	31	45	21	38	19	32	18	26	18	30	10	13	- 1	36	- 4	24	5	15	- 3	12	2	18	- 5	27	- 4	35	14	39	20	29	22	40	22	45	28	37	28	32	29	29	4	31	0	26	25	33	19	40	16	33.1	14.0
Hancock	39	16	50	23	51	30	56	31	45	26	38	23	38	27	35	27	40	1	20	1	44	9	34	9	15	2	12	4	17	- 3	27	- 2	45	15	37	30	36	21	46	26	51	29	42	31	34	28	29	11	45	15	50	30	50	80	60	35	38.8	18.8
Harlan	41	15	51	22	50	26	51	30	42	25	37	21	35	26	33	26	36	1	18	0	44	6	31	7	12	1	10	3	15	- 5	28	- 4	44	14	37	29	35	20	45	26	52	25	38	29	34	27	27	9	43	13	42	27	47	24	47	25	36.6	16.7
Hopeville	41	12	52	25	54	29	57	36	50	28	40	22	34	25	36	18	44	4	21	4	47	9	37	14	20	4	21	6	15	1	28	3	41	16	41	31	31	23	51	22	55	29	44	34	37	31	31	13	47	14	49	27	53	25	48	24	40.2	18.9
Humboldt	40	12	45	25	50	25	51	29	46	23	38	20	36	22	25	20	28	12	14	1	34	5	32	5	12	- 3	12	- 2	14	- 8	24	- 8	34	14	36	30	31	22	42	26	48	26	38	24	34	30	34	10	38	10	37	20	40	23	42	22	34.1	15.5
Independence	32	2	42	15	45	19	51	29	47	25	37	19	36	25	31	23	36	10	21	2	30	0	29	12	18	6	22	9	12	5	24	6	31	16	35	28	35	26	40	25	46	27	39	27	36	32	34	7	27	1	41	21	35	24	37	14	33.9	16.2
Indianola	40	13	51	27	54	31	58	38	49	28	40	24	34	24	35	22	42	7	21	6	44	11	38	13	20	5	20	8	17	6	28	4	39	19	40	32	32	24	47	26	53	31	42	33	36	23	32	13	20	14	46	31	51	26	46	27	38.4	20.2
Inwood	42	6	45	23	51	30	51	28	44	22	37	20	35	20	22	8	14	- 3	13	-14	35	-14	20	0	4	- 8	3	- 4	10	-26	30	- 5	36	20	36	24	30	18	40	15	45	23	36	14	31	22	23	- 3	31	5	36	16	36	19	37	22	31.5	10.0
Iowa City	37	- 4	52	16	53	19	60	26	40	31	41	20	35	21	43	20	44	30	21	5	40	5	39	9	23	12	19	16	19	12	31	11	36	14	37	16	29	29	45	25	51	26	39	26	38	33	19	13	35	6	50	9	44	24	47	23	38.1	17.6
Iowa Falls	15	7	40	34	45	20	49	25	27	26	38	19	28	18	32	19	34	21	12	0	33	- 2	14	11	14	- 4	7	5	12	- 4	23	- 1	35	16	39	31	27	22	38	22	34	24	36	28	33	29	12	5	32	2	36	18	38	20	39	20	29.4	15.4
Keokuk	41	12	50	26	54	35	62	42	58	29	42	23	39	29	42	29	50	11	28	8	44	15	55	31	32	15	32	20	20	15	26	15	43	14	43	34	38	27	48	26	55	31	47	36	43	38	40	20	42	13	57	34	49	26	50	28	43.9	24.4
Keosauqua	39	- 5	52	19	55	20	61	29	46	40	44	20	32	20	46	25	40	26	27	8	44	8	50	12	30	12	22	12	22	13	27	13	39	10	39	12	30	27	47	19	52	24	42	27	42	35	27	19	44	12	57	13	50	27	50	22	41.3	18.5
Lamoni	41	12	50	29	57	27	59	27	52	29	43	20	43	22	43	26	45	5	24	4	45	10	38	14	26	5	25	10	19	3	..	5	41	14	43	32	34	24	51	24	57	28	42	35	36	32

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF FEBRUARY, 1909—CONTINUED

STATIONS	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		Monthly Mean	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Oskaloosa	38	10	49	24	52	29	58	36	49	27	43	21	36	25	37	26	42	9	24	5	44	8	36	17	23	6	22	11	17	5	28	8	39	15	38	33	33	24	48	21	51	27	45	32	43	33	33	13	40	10	50	27	52	26	47	29	39.9	19.9
Ottumwa	42	20	55	24	58	26	62	33	50	28	48	24	45	24	46	26	40	10	24	7	46	15	39	22	30	10	34	16	26	9	30	12	48	14	40	28	38	24	50	29	43	30	43	35	43	33	33	18	47	12	56	28	53	28	50	30	43.5	22.0
Pacific Junction	43	16	54	23	58	26	61	30	44	27	43	20	44	26	40	30	38	1	25	3	45	14	32	12	16	5	14	5	18	- 5	31	- 3	49	15	38	32	43	24	50	20	53	24	40	32	36	29	30	13	49	19	47	26	50	24	55	25	40.9	18.3
Perry	43	12	49	24	54	26	57	31	45	26	37	22	33	25	34	26	36	6	18	3	42	6	33	8	16	1	16	4	17	- 3	29	- 1	41	17	37	30	32	22	44	25	49	28	37	29	35	30	31	9	41	12	38	28	48	23	44	25	37.0	17.6
Plover	38	12	43	25	48	24	47	28	39	23	37	19	32	21	22	15	22	11	15	- 2	32	- 7	24	0	8	- 4	3	0	10	-11	22	- 8	37	10	35	29	32	20	40	19	43	22	36	26	32	25	25	4	36	- 1	35	18	37	17	39	21	31.0	12.7
Pocahontas	39	12	44	28	49	28	49	33	41	22	35	21	32	21	24	18	24	3	8	- 4	33	2	25	0	7	- 5	5	- 2	10	-11	25	- 6	33	12	37	25	27	20	39	20	45	28	36	25	33	25	25	3	36	4	33	23	30	12	40	23	30.9	13.6
Ridgeway	35	4	42	17	42	20	50	31	45	24	37	16	37	17	20	15	28	10	14	4	33	- 7	21	6	15	0	12	6	15	- 2	29	- 4	37	15	40	28	33	26	45	24	48	26	36	23	35	32	32	4	26	- 8	42	20	35	15	39	5	33.0	13.1
Rockwell City	42	12	45	15	50	20	53	26	40	31	38	31	40	32	40	25	25	5	15	- 3	38	0	31	4	13	- 3	8	1	15	- 9	26	- 3	38	12	38	15	39	22	40	25	45	28	45	25	35	22	35	5	40	5	40	26	43	24	43	21	35.7	15.4
Rock Rapids	22	10	36	18	48	24	36	26	30	22	32	28	30	12	21	6	6	- 9	8	- 6	19	10	22	16	16	- 2	4	- 6	-4	-17	16	- 5	22	4	29	10	38	24	35	28	40	26	38	26	35	24	31	20	39	1	39	22	31	20	37	26	27	0	12.8
St. Charles	44	11	46	29	58	31	60	38	50	26	43	22	34	25	35	24	41	5	25	5	49	9	36	13	20	3	20	5	18	0	34	3	46	17	41	17	40	23	52	25	58	31	41	32	35	30	31	11	45	12	52	31	55	25	51	24	41.4	18.8
Sibley	43	- 7	47	14	49	25	48	28	32	24	35	19	22	13	13	8	15	8	9	- 9	34	- 8	3	1	2	- 9	0	- 9	10	-18	24	-17	35	- 6	33	20	27	18	41	15	43	15	31	20	28	21	12	0	35	- 2	32	5	36	19	32	20	27.5	7.4
Sigourney	38	8	49	22	51	29	58	31	51	27	42	19	38	27	38	26	43	10	23	6	41	5	40	23	24	8	23	14	19	8	28	10	39	12	37	31	36	25	47	21	49	28	48	31	38	34	36	12	39	8	49	26	49	25	45	27	39.9	19.8
Sioux Center	40	13	44	25	45	29	47	29	40	22	36	21	33	20	23	11	15	0	8	-11	33	- 4	21	- 2	4	- 6	2	- 4	10	-18	25	- 8	35	14	35	23	29	19	37	20	40	24	36	27	32	20	21	1	34	3	35	23	35	23	34	22	29.6	12.0
Sioux City	45	19	50	30	54	29	54	31	34	24	35	25	33	24	25	18	18	- 2	13	- 6	37	3	28	- 1	7	- 3	4	- 6	11	-17	28	- 1	40	15	36	22	30	20	42	25	46	27	38	27	34	17	17	5	38	11	34	26	39	24	38	26	32.4	14.7
Stockport	40	7	51	19	54	29	60	35	53	27	42	20	35	29	40	23	45	10	29	7	42	10	50	26	29	11	29	16	18	11	32	11	39	10	38	31	37	25	50	20	58	23	38	30	42	35	39	17	40	10	56	28	56	26	58	24	42.9	20.4
Storm Lake	41	15	46	31	48	32	48	33	43	23	35	21	32	21	25	17	20	2	9	-12	35	- 1	36	3	6	- 5	4	- 2	10	-15	25	- 5	31	16	35	26	28	20	39	21	46	27	48	28	32	24	..	...	37	2	34	24	36	11	38	21	32.2	14.0
Thurman	42	14	54	22	58	35	58	35	49	29	42	22	38	26	40	28	38	1	28	2	46	11	35	14	18	4	14	6	18	- 4	30	- 8	47	9	38	32	42	24	48	24	52	24	38	30	38	30	30	15	48	20	48	27	48	30	50	30	40.5	19.0
Tipton	35	7	46	21	47	28	57	35	50	29	40	24	35	29	36	27	43	10	21	7	36	7	42	22	27	17	24	17	20	13	30	14	36	12	37	28	35	28	45	25	50	30	41	32	37	33	34	13	32	7	48	26	37	25	41	24	37.9	21.1
Wapello	34	9	44	22	47	30	59	36	52	28	39	24	37	25	40	29	46	13	24	9	37	11	45	25	30	19	28	19	20	15	30	13	33	14	37	30	37	29	40	25	..	...	42	24	51	30	37	18	36	11	46	30	43	27	42	28	39.1	22.0
Washington	39	7	51	21	53	28	61	33	52	29	42	20	42	31	39	26	45	10	24	6	41	7	45	20	26	11	26	16	20	11	30	11	38	10	38	31	33	27	47	21	52	29	39	31	39	33	33	13	39	6	52	26	51	24	46	25	40.8	20.1
Washta	47	20	47	23	50	20	52	26	42	24	36	26	33	22	30	16	21	2	14	- 8	40	-10	30	5	10	-10	5	-12	14	-16	26	9	39	13	36	25	30	20	42	20	48	20	36	22	34	25	25	4	48	20	38	20	40	18	40	23	34.0	13.1
Waterloo	35	- 7	44	16	46	19	55	24	30	29	38	21	34	22	34	24	24	22	18	1	32	1	27	4	19	3	12	8	19	2	27	3	35	9	36	19	30	26	42	25	49	25	39	26	35	32	32	8	39	3	43	10	37	22	38	23	33.6	15.0
Waukee	43	11	52	26	56	27	60	22	50	26	40	23	33	27	34	27	28	7	20	4	45	7	36	12	15	2	18	6	18	- 1	28	3	45	15	40	32	32	23	47	25	52	27	39	30	35	31	31	11	45	13	43	13	50	25	47	26	38.6	17.9
Waverly	34	16	42	13	44	20	48	28	45	24	36	19	33	21	29	20	32	12	15	2	31	- 1	25	8	16	1	16	6	14	0	25	3	34	15	37	29	32	25	39	26	44	26	37	24	35	31	31	7	29	2	39	20	31	21	37	15	32.5	15.5
Webster City	38	27	44	27	48	40	53	43	49	24	40	20	38	25	32	24	34	15	34	10	33	10	34	8	15	0	15	3	13	- 2	25	- 4	38	13	42	31	33	22	40	22	45	25	40	27	35	32	32	6	35	5	37	20	42	24	42	23	35.9	18.5
West Bend	37	12	42	27	47	27	47	29	40	22	37	18	32	22	25	17	28	12	12	0	31	5	26	2	8	- 5	6	0	8	-10	22	- 7	36	13	37	28	30	21	39	19	41	24	37	26	32	28	28	3	36	- 2	36	21	38	21	42	19	31.4	14.0
Whitten	32	6	43	20	44	26	45	28	49	22	35	19	35	17	35	16	36	10	13	0	33	- 1	31	9	16	- 1	16	4	18	- 4	19	6	22	15	39	20	37	21	40	26	43	31	46	31	40	32	46	5	42	10	47	18	53	32	47	16	35.8	15.5
Wilton Junction	32	6	40	20	45	23	48	32	52	30	38	20	38	26	40	28	42	13	19	6	35	8	45	23	52	23	48	20	45	11	21	10	30	10	36	12	33	30	30	23	50	22	30	21	36	26	35	15	34	5	46	27	46	23	40	23	38.8	19.1
Winterset	39	12	49	26	52	28	56	36	47	28	44	20	35	25	37	25	40	6	20	5	43	8	35	15	17	3	19	3	16	0	27	2	41	18	41	32	33	24	46	26	49	29	41	31	35	32	32	13	44	13	44	29	43	25	46	25	38.4	19.3
Woodburn	43	10	50	17	54	25	59	35	52	28	42	18	43	23	34	10	46	5	23	3	45	6	36	15	21	4	22	8	15	9	30	4	42	15	40	32	53	20	50	20	54	23	47	27	38	32	34	12	47	12	52	23	53	24	50	20	42.0	17.1
Zearing	38	8	46	24	49	25	56	34	48	24	37	20	35	17	30	25	35	9	15	4	36	1	26	1	16	1	16	- 2	22	2	20	4	35	15	36	31	33	23	42	22	48	28	41	28	35	30	32	8	34	6	42	25	46	19	44	24	35.5	16.3

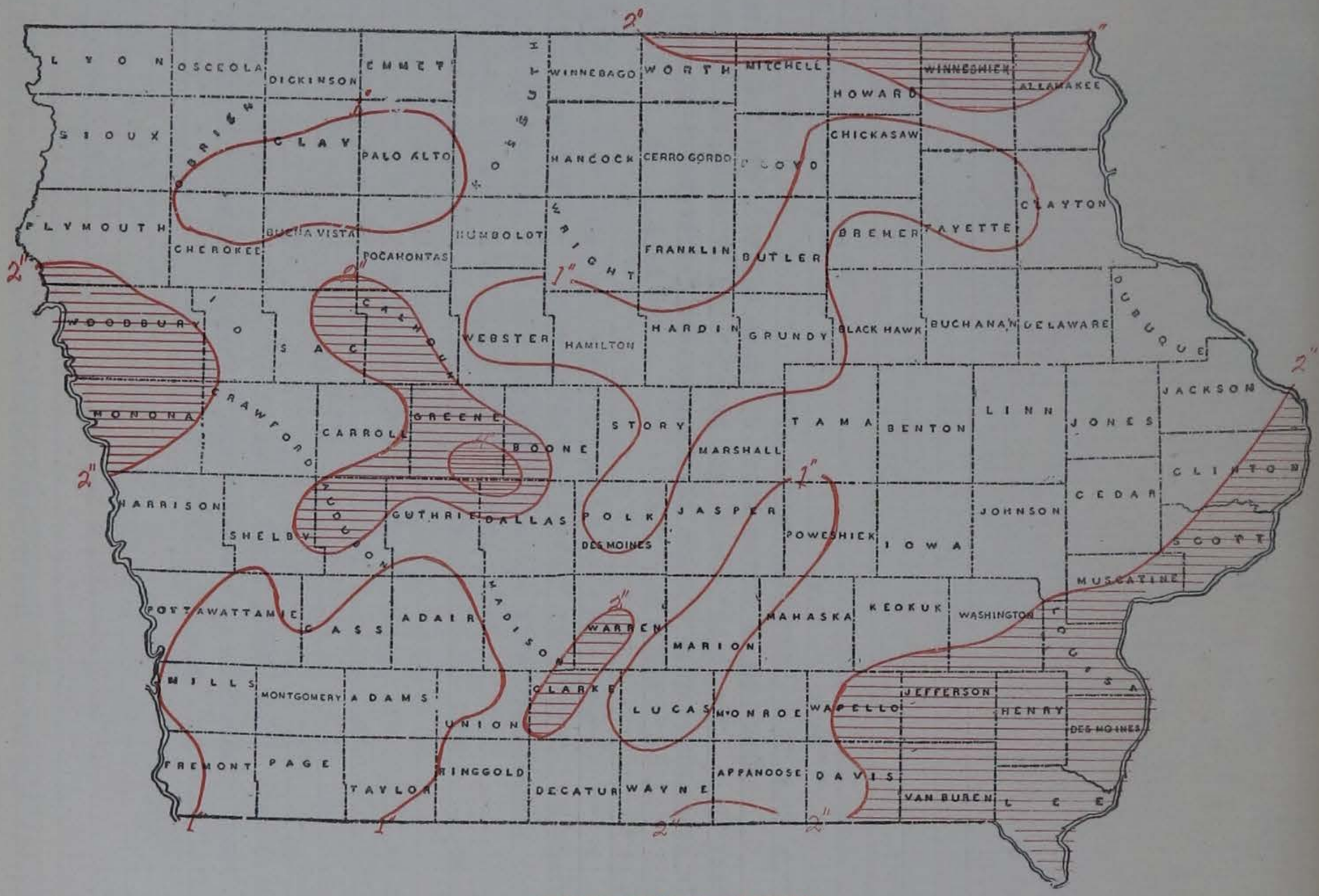
DAILY PRECIPITATION FOR IOWA, FEBRUARY, 1909

STATIONS	DAY OF MONTH																											TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Afton	....	....	....	....	....	....	.10	....	.10	.25	....	....	....	....	....	....	....	....	....	....	....	.20	.15	....	....	....	....	....	0.80
Albia	....	....	T	....	....	....	.25	....	.35	T	....	....	T	.35	....	....	....	....	.02	....	....	....	.40	.06	....	....	....	....	1.43
Algona	....	....	....	....	....	.07	T	.25	.60	.20	....	....	....	.13	....	....	....	....	T	....	....	.45	.20	T	....	....	....	....	1.90
Allerton	....	....	....	....	....	....	.35	.22	.39	....	....	.40	T	.09	.02	....	....	T	T	....	....	.11	.32	....	....	....	....	....	1.90
Alta	....	....	....	....	....	....	.03	....	.35	.20	....	....	....	.04	.01	....	....	....	.01	....	....	....	1.13	T	....	....	....	....	1.77
Alta (near)	....	....	....	....	....	.05	....	.10	.30	.10	....	....	....	.10	....	....	....	.05	....	....	....	.80	....	....	....	....	....	....	1.50
Alton	....	....	....	....	....	T	....	.20	.80	.20	....	....	....	.05	....	....	....	....	T	....	....	.20	.20	....	....	....	....	....	1.65
Amana	....	....	....	....	....	....	.18	.06	.59	.03	....	T	....	.26	....	....	....	.03	.14	....	....	T	.61	T	....	....	....	....	1.90
Ames	....	....	....	....	....	T	.09	.25	....	.45	T	.20	....	....	....	....	....	.05	T	....	.06	.35	T	....	....	....	....	....	1.45
Atlantic	....	....	....	....	....	.04	T	.10	.62	....	....	T	T	.10	....	....	....	T	....	....	....	.54	T	....	....	....	....	....	1.40
Audubon	....	....	....	....	....	.03	....	.03	1.30	....	....	....	.02	.20	....	....	....	....	....	....	....	.50	....	....	....	....	....	....	2.08
Baxter	....	....	....	....	....	....	.16	.01	.59	....	....	....	....	.07	....	....	....	.11	.01	....	....	.11	.25	....	....	....	....	....	1.31
Bedford	....	....	....	....	....	T	....	.07	.02	....	....	.04	T	.20	....	....	....	.25	....	....	....	.31	.04	....	....	....	....	....	0.93
Belle Plaine	....	....	....	....	....	....	.10	....	.20	....	....	....	.20	.10	....	....	....	....	.10	....	....	....	.30	.40	....	....	....	....	....	1.40
Bloomfield	....	....	....	....	....	....	.34	T	.34	....	....	.14	T	.18	.09	.08	....	.09	.04	....	....	.11	.47	.02	....	....	....	....	1.90
Bonaparte	....	....	....	....	.28	....	.21	.06	.34	....	....	.05	....	.27	.05	.31	....	.20	....	....	....	.10	.49	T	....	....	....	....	2.36
Boone	....	....	....	....	....	....	.10	....	.87	.30	....	....	....	.12	....	....	....	....	T	....	....	....	.46	.03	....	....	....	....	1.88
Britt	....	....	....	....	T	.13	.08	....	.30	....	T	....	....	.09	....	....	....	....	....	....	....	.11	.45	.08	....	....	....	....	1.24
Buckingham	....	....	....	....	T	....	.15	....	.47	....	....	....	....	T	T	....	....	.10	T	....	....	.18	.08	....	....	....	....	....	0.98
Burlington	....	....	....	....	.06	.09	.01	....	1.00	T	....	....	....	.29	.70	....	....	....	....	....	....	....	.12	.06	....	....	....	....	2.33
Carroll	....	....	....	....	....	....	T	....	.17	.10	....	....	....	T	.10	....	....	....	....	....	....	....	.15	T	....	....	....	....	0.52
Cedar Rapids	....	....	....	....	T	.19	....	.33	.07	....	....	T	.21	.05	T	....	....	.24	....	....	....	.28	.30	....	....	....	....	....	1.67
Chariton	....	....	....	....	....	....	.35	....	.20	....	....	T	T	T	T	....	....	....	....	....	....	.10	.20	....	....	....	....	....	0.85
Charles City	....	....	....	....	T	.07	.02	.25	.56	....	T	....	.10	.10	....	....	....	T	....	....	....	.20	.23	....	....	....	T	....	1.53
Clarinda	....	....	....	....	....	....	....	....	.20	.07	....	....	....	T	.05	....	....	T	....	....	....	....	.34	.02	....	....	....	....	0.68
Clear Lake	....	....	....	....	....	....	.05	....	.25	....	.22	....	....	....	....	....	....	T	....	....	....	T	.20	....	....	....	....	....	0.72
Clinton	....	....	....	....	.31	....	.07	....	.73	....	....	....	....	.45	.26	....	....	....	.25	....	....	....	....	.43	....	....	....	....	2.50
Columbus Jct	....	....	....	....	T	....	.25	T	.56	T	....	T	T	.02	.28	.11	....	.10	.08	....	....	T	.65	.10	....	....	.05	....	2.20
Corning	....	....	....	....	.07	....	.20	.20	....	....	....	....	.05	....	....	....	T	....	....	....	....	.29	....	....	....	....	....	....	0.81
Corydon	....	....	....	....	....	....	.30	.09	.61	T	....	.26	T	.16	.01	....	....	T	....	....	....	.09	.34	T	....	....	....	....	1.86
Creston	....	....	....	....	....	....	....	....	.90	....	....	....	T	T	T	....	....	....	T	....	....	....	.35	T	....	....	....	....	1.25
Cumberland	....	....	....	....	.10	....	....	....	.35	.02	....	....	....	.10	....	....	....	....	....	....	....	.18	.10	....	....	....	....	....	0.85
Davenport	....	....	....	....	.15	.04	.04	.36	.49	.01	....	T	.14	.26	.12	.15	....	.21	T	....	....	.10	.27	T	....	....	T	....	2.34
Decorah	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	.42	.78	....	....	....	....	....	....	.40	.30	....	....	.02	....	2.02
Delaware	....	....	....	....	....	....	.10	....	.14	....	....	....	....	.06	....	....	....	.20	....	....	....	....	.16	....	....	....	.02	....	0.68
Denison	....	....	....	....	....	T	....	....	.60	....	....	T	T	.10	....	T	....	T	....	....	....	1.06	.16	....	....	....	....	....	1.92
Des Moines	....	....	....	....	T	.06	T	.37	.11	....	....	T	.02	.10	....	....	....	T	T	....	....	.17	.07	....	....	T	....	....	0.90
De Soto	....	....	....	....	....	.10	....	.03	.60	....	....	....	T	T	....	....	....	T	....	....	....	.27	.12	T	....	....	....	....	1.12
Dows	....	....	....	....	....	....	.08	....	.54	.40	....	....	....	.20	....	....	....	....	....	....	....	.29	....	....	....	....	....	....	1.51
Dubuque	....	....	....	....	T	....	.02	.20	.30	.03	T	T	.06	.09	....	T	....	.18	.04	....	....	.06	.32	T	....	....	.02	....	1.32
Earlham	....	....	....	....	....	T	.20	.10	.53	....	....	T	T	.30	....	....	....	T	....	....	....	.32	.15	T	....	....	....	....	1.60
Elkader	....	....	....	....	T	....	T	.20	.50	....	....	....	.20	....	....	....	....	.02	.05	....	....	....	.05	....	....	....	T	....	1.02
Elliott	....	....	....	....	....	....	....	.03	.07	....	....	....	....	.10	....	....	....	....	....	....	....	....	.60	....	.08	....	....	....	0.88
Elma	....	....	....	....	.02	T	T	.30	.40	....	....	....	....	.14	....	....	....	T	....	....	....	T	.28	....	....	T	....	....	1.14
Estherville	....	....	....	....	....	....	.18	T	.50	.55	....	....	....	T	....	....	....	....	T	....	....	....	.76	T	....	....	....	....	1.99
Fairfield	....	....	....	....	T	....	1.50	.01	T	....	....	.02	T	1.00	.04	.13	....	.08	.05	....	....	.11	.50	....	....	....	....	....	3.44
Forest City	....	....	....	....	....	.10	....	....	.30	.20	....	....	....	....	....	....	....	....	....	....	....	....	.40	.05	....	....	....	....	1.05
Fort Dodge	....	....	....	....	....	....	T	....	.20	.30	....	....	....	T	.10	....	....	....	....	....	....	....	.10	....	....	....	....	....	0.70
Fort Madison	....	....	....	.21	....	....	.10	.73	T	....	....	T	T	.43	T	.50	....	.80	....	....	....	.23	.10	....	....	....	....	....	3.10
Gilman	....	....	....	....	....	....	.50	.79	....	.05	....	....	.05	....	....	....	....	....	T	....	....	T	.31	T	....	....	....	....	1.70
Grand Meadow	....	....	....	....	T	T	....	....	.20	.20	....	....	....	.20	....	....	....	....	.10	....	....	....	.25	.10	....	....	T	....	1.05
Greene	....	....	....	....	....	T	.07	....	.17	.20	T	....	T	.15	....	....	....	....	....	....	....	T	.28	....	....	....	....	....	0.87
Grinnell	....	....	....	....	....	....	.10	T	.06	....	....	T	T	.02	....	....	....	.06	....	....	....	T	.50	....	....	....	....	....	0.74
Grundy Center	....	....	....	....	....	....	.10	.10	.20	....	....	....	T	....	....	....	....	....	....	....	....	T	.20	....	....	....	....	....	0.60
Guthrie Center	....	....	....	....	T	T	.10	T	.73	....	....	T	T	.13	....	....	....	T	....	....	....	.43	.11	T	....	....	....	....	1.50
Hampton	....	....	....	....	....	.06	....	1.00	.15	....	T	....	.15	.13	....	....	....	T	....	....	....	.38	....	....	....	....	....	....	1.87
Hancock	....	....	....	....	....	T	....	.18	.33	....	....	T	T	.07	....	....	....	....	....	....	....	.35	T	....	....	....	....	....	0.93
Harlan	....	....	....	....	T	T	T	.79	.06	T	....	....	.03	.05	T	....	....	....	....	....	....	.62	T	....	....	T	....	....	1.55
Hopeville	....	....	....	....	....	.50	.70	.20	.16	....	....	.08	.01	.03	....	....	....	.15	....	....	....	.15	.08	....	....	....	....	....	2.06
Humboldt	....	....	....	....	....	.10	....	....	.80	....	....	....	....	.60	....	....	....	....	....	....	....	.24	.15	....	....	....	....	....	1.89
Independence	....	....	....	....	....	....	....	....	.05	....	....	....	.60	.10	....	....	....	.75	....	....	....	.35	.20	....	....	....	....	T	2.05
Indianola	....	....	....	....	....	.03	.13	.15	.41	....	....	.07	T	.10	T	....	....	T	....	....	....	.21	1.40	T	....	T	....	....	2.50
Inwood	....	....	....	....	....	.04	.01	.25	1.05	....	....	....	....	.10	....	....	....	.01	.01	....	....	.17	.35	....	....	T	....	....	1.99
Iowa City	....	....	....	....	....	T	.07	....	.52	.01	.10	....	....	....	.02	....	....	....	.14	....	....	....	.82	.21	....	....	....	....	....	1.89
Iowa Falls	....	....	....	....	....	T	.10	....	.55	.10	....	T	....	T	.25	....	....	....	T	T	....	....	.30	T	....	....	T	....	1.30
Keokuk	....	....	....	....	.36	.15	....	.47	T	....	....	.01	.15	.14	.23	.05	....	.47	.10	....	....	.20	.05	.01	....	....	....	....	2.44
Keosauqua	....	....	....	....	.22	T	.23	....	.42	T	....	....	T	.23	.02	.25	....	....	.15	....	....	....	.60	.14	....	....	T	....	2.26
Lacona	....	....	....	....	....	....	.10	.10	.20	....	....	.10	T	....	....	....	....	....	....	....	....	.22	.10	....	....	.02	....	....	0.84
Lamoni	....	....	....	....	....	.03	T	.25	.09	....	....	.37	.02	.07	....	....	....	T	.02	T	....	.14	.02	....	....	....	....	....	1.01
Larrabee	....	....	....	....	....	.05	....	.10	.13	....	....	....	....	.07	....	....	....	T	T	....	....	....	.13	....	....	....	....	....	0.48
Le Claire	....	....	....	....	.09	.13	.04	....	.79	.09	....	....	T	.30	.05	.22	....	....	.40	....	....	....	.34	.13	....	....	....	T	2.58
Le Mars	....	....	....	....	....	T	....	T	....	.80	....	....	....	T	....	....	....	....	....	T	....	.30	.41	T	....	....	....	....	1.51
Lenox	....	....	....	....	....	.03	....	.05	.05	....	....	T	T	.03	....	....	....	.03	....	....	....	.08	.03	....	....	....	....	....	0.30
Leon	.03	....	....	....	....	T	.40	.40	T	T	....	.30	.05	.15	.02	....	....	.10	....	....	....	.19	.10	....	....	....	....	....	1.82
Little Sioux	....	....	....	....	....	.01	....	....	1.00	....	....	....	....	.20	....	....	....	....	....	....	....	.60	....	.08	....	....	....	....	1.89
Logan	....	....	....	....	T	T	....	.15	.69	.05	....	....	....	.07	....	....	....	....	....	....	....	.70	.20	....	....	....	....	....	1.86
Marshalltown	....	....	....	....	....	....	.05	....	.55	.20	....	....	....	T	.05	....	....	....	.19	....	....	....	T	.10	....	....	....	....	1.14
Mason City	....	....	....	....	....	....	.05	....	.60	.05	....	....	....	.10	....	....	....	....	....	....	....	....	.32	....	....	....	....	....	1.12
Massena	....	....	....	....	.02	....	....	.21	.08	....	....	T	T	.05	....	....	....	.25	....	....	....	.34	T	....	....	....	....	....	0.95
Mt. Ayr	....	....	....	....	....	.03	....	.25	.40	....	....	.50	T	.10	.02	....	....	.20	....	....	....	.30	.10	....	....	....	....	....	1.90
Mt. Pleasant	....	....	....	....	.30	....	.14	T	.48	T	....	T	T	.30	.10	.26	....	.17	.06	....	....	.12	.57	.03	....	....	T	....	2.53
Muscatine	....	....	....	....	.06	.04	.20	....	.45	.16	....	....	T	.15	T	.24	....	....	.24	....	....	....	.60	.16	....	....	....	T	2.30
New Hampton	....	....	....	....	T	T	.05	....	.25	....	....	....	....	.15	....	....	....	....	....	....	....	T	.20	....	....	....	....	....	0.65
Newton	....	....	....	....	....	....	.09	....	1.15	....	....	....	....	.14	....	....	....	.05	....	....	....	....	.31	.09	....	....	....	....	1.83
Northwood	....	....	....	....	T	.10	....	.20	.70	.15	....	....	....	.20	....	....	....	.12	....	....	....	.20	.80	.10	....	....	....	....	2.57
Odebolt	....	....	....	....	....	....	....	....	.75	....	....	....	....	.22	....	....	....	....	....	....	....	.75	....	....	....	....	....	....	1.72
Omaha, Neb	....	....	....	....	....	T	....	.24	.40	....	....	T	.05	.06	....	....	....	T	....	T	....	.46	T	....	....	....	....	....	1.21
Onawa	....	....	....	....	T	.03	....	.15	.90	T	....	....	....	.30	....	....	....	....	T	T	T	.75	.30	....	....	....	....	....	2.43
Osage	....	....	....	....	T	....	....	T	.60	....	T	....	....	.40	....	....	T	....	....	....	....	....	.45	T	....	....	....	....	1.45
Oskaloosa	....	....	....	....	....	.25	....	.06	.34	....	....	.30	.03	....	....	....	....	.16	....	....	....	.28	.16	....	....	....	....	....	1.58
Ottumwa	....	....	....	....	....	T	....	.13	....	....	....	....	.35	.15	....	.20	....	.10	....	....	....	.75	.45	....	....	....	....	....	2.13
Pacific Junction	....	....	....	....	....	T	....	.05	.28	....	....	....	.03	.10	....	....	....	....	T	....	T	....	.53	T	....	....	....	....	0.99
Perry	....	....	....	....	....	T	....	1.00	T	1.00	1.00	....	T	1.00	....	....	....	.10	....	....	....	.50	.12	....	....	....	....	....	4.72
Plover	....	....	....	....	T	.10	....	.10	.30	....	....	T	T	.10	....	....	....	T	....	....	....	.30	....	....	....	....	....	....	0.90
Pocahontas	....	....	....	....	....	.05	.02	.10	.50	.13	....	....	T	.04	....	....	....	T	....	....	....	.37	.04	....	....	....	....	....	1.25
Ridgeway	....	....	....	....	.01	T	.20	.23	.50	.04	....	....	.08	.58	....	....	....	.04	.01	....	....	.66	.35	....	....	....	.03	....	2.73
Rockwell City	....	....	....	....	....	T	....	....	.10	1.20	....	....	....	.80	....	....	....	....	....	....	....	.40	....	....	....	....	....	....	2.50
St. Charles	....	....	....	....	....	T	.15	.22	.33	.03	....	....	T	.16	....	....	....	.02	....	....	....	.30	.12	.01	....	T	....	....	1.34
Sibley	....	....	....	....	....	....	T	T	.60	.40	....	....	....	T	T	....	....	T	....	T	....	....	.20	.10	....	....	....	....	1.30
Sigourney	....	....	....	....	....	....	.18	T	.46	.08	....	.22	....	.18	.06	T	....	T	.03	....	....	T	.67	.05	....	....	....	....	1.93
Sioux Center	....	....	....	....	....	T	....	.20	.60	....	....	....	....	....	....	....	....	T	T	....	....	.10	.23	....	....	T	....	T	1.13
Sioux City	....	....	....	....	....	T	....	.55	.81	T	....	T	.02	.01	....	....	....	T	T	....	....	.66	.19	....	....	T	....	....	2.24

DAILY PRECIPITATION FOR IOWA, FEBRUARY, 1909—Continued

STATIONS	DAY OF MONTH																											TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Stockport	....	....	....	....	.34	....	.21	T	.40	....	....	.02	T	.14	.02	.21	....	.11	....	....	....	.13	.55	.05	....	....	....	....	2.18
Storm Lake	....	....	....	....	....	....	.11	.02	.48	....	....	....	....	.52	....	.18	....	....	....	....	....	....	.68	....	....	....	....	T	1.99
Thurman	....	....	....	....	T	T	....	.03	.15	....	....	T	....	.10	....	....	....	T	....	T	....	....	.81	....	....	....	....	....	1.09
Tipton	....	....	....	....	T	....	.11	....	.25	.36	....	....	....	....	.18	....	....	....	....	....	....	T	.47	.07	....	....	T	....	1.44
Toledo	....	....	....	....	....	....	.15	....	.40	....	....	....	....	.10	....	....	....	.10	T	....	....	....	.50	....	....	....	....	....	1.25
Wapello	....	....	....	....	.08	....	.20	T	.45	.05	....	....	....	.11	.30	....	....	.16	....	....	....	.12	.21	T	....	....	.08	....	1.56
Washington	....	....	....	....	.02	T	.19	.62	T	....	....	....	....	.26	.12	....	....	.02	.13	....	....	....	.30	.22	....	....	....	....	1.88
Washta	....	....	....	....	....	T	....	.10	.50	....	....	....	T	.10	....	....	....	T	....	....	....	.70	T	....	....	T	....	....	1.40
Waterloo	....	....	....	....	....	.13	....	....	.51	.13	T	....	T	.09	....	....	....	.14	....	....	....	.03	.29	T	....	....	T	....	1.32
Waukee	....	....	....	....	....	T	....	T	.50	....	....	....	T	T	....	....	....	T	....	....	....	.60	.10	....	....	....	....	....	1.20
Waverly	....	....	....	....	T	....	.10	.10	.35	.05	....	....	....	.20	....	....	....	.02	....	....	....	....	.22	....	....	....	....	....	1.04
Webster City	....	....	....	....	....	....	.10	.15	.20	....	T	....	....	.20	....	....	....	T	....	....	....	.27	T	....	....	....	....	....	0.92
West Bend	....	....	....	....	....	.03	....	....	....	....	T	....	....	.10	....	....	....	T	....	....	....	.50	.15	....	....	....	....	....	0.78
Whitten	....	....	....	....	....	....	T	.10	.10	....	....	....	T	.05	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	0.45
Wilton Junction	.02	....	....	....	.01	....	....	.74	....	....	....	....	....	....	.04	....	....	....	....	....	....	.77	....	....	....	....	....	....	1.58
Winterset	....	....	....	....	....	....	.10	T	.52	.03	....	T	T	.10	....	....	....	.02	....	....	....	.27	T	....	....	T	....	....	1.04
Woodburn	....	....	....	....	....	....	.40	T	.48	T	....	.16	T	T	....	....	....	.08	....	....	....	.09	.15	....	....	....	....	....	1.36
Zearing	....	....	....	....	....	....	.14	.22	.22	....	....	....	....	....	....	....	....	....	....	....	....	.12	.12	....	....	....	....	....	0.82

TOTAL PRECIPITATION, FEBRUARY, 1909.



SCALE OF SHADES—IN INCHES

Less than 2	2 to 4	4 to 6	6 to 8	More than 8

U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR MARCH, 1909

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR



PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1909

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

OF THE

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MEAN ISOTHERMS AND PREVAILING WINDS OF MARCH, 1909.

Lines pass thru points of equal temperature. Arrows fly with the wind.

U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IOWA SECTION,

GEO. M. CHAPPEL, Section Director.

VOL. XX DES MOINES, IOWA, MARCH, 1909 NO. 3

GENERAL SUMMARY.

March, 1909, will go on record as furnishing an unusual variety of weather conditions. The first six days of the month were mild and pleasant but most of the remainder of the month was cold with frequent snow and rain storms, accompanied by thunder and lightning and brisk to high winds. The snowfall in the central and northern counties was exceptionally heavy, and exceeded all previous records for March at several stations. The low temperatures also broke all former records for the second decade of the month in the north central counties and the severity of the thunder during the snow storm on the 9th was phenomenal. The average temperature for the month was slightly below the normal, yet at the central station there was an average daily deficiency of six degrees during the last 23 days. The only days between the 8th and 31st on which there was an excess were the 22d, 23d and 24th. The 23d was the warmest day of the month when the maximum temperatures ranged from 45° in the northern to 71° in the southern counties. The lowest temperature for the month at all stations was recorded on the 17th and was generally below zero in the northern districts, the lowest being 15 below zero.

The average precipitation for the state was slightly below the normal for March, but the average snowfall was considerably above the normal and was excessive in many localities. Reports indicate that there was good sleighing from five to ten days in northern districts, which is unusual for the time of the year. Notwithstanding the fact that there was a deficiency in precipitation, there was less than the usual amount of sunshine. Reports vary as to the condition of clover and winter grains; some indicate that the alternating freezing and thawing weather has had an injurious effect and others that the plants are still in good condition, but the majority show that there has not been sufficient spring growth to permit an accurate estimate. All reports, however, agree that the continued cold nights have been favorable for fruit.

TEMPERATURE.—The monthly mean temperature for the state, as shown by the records of 116 stations, was 32.5°, which is 1.5° below the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 29.6°, which is 1.6° below the normal; Central section, 32.4°, which is 1.8° below the normal; Southern section, 35.6°, which is 1.1° below the normal. The highest monthly mean was 40.0° at Ottumwa, Wapello county, and the lowest monthly mean was 28.2° at Charles City and Fort Dodge, in Floyd and Webster counties. The highest temperature reported was 71°, at St. Charles, Madison county, on the 23d; the lowest temperature reported was —15°, at Iowa Falls, Webster City and Zearing, in Hardin, Hamilton and Story counties, on the 17th. The average monthly maximum was 59.6° and the average monthly minimum was 0.5°. The greatest daily range was 48° at Carroll, Carroll county. The average of the greatest daily ranges was 33.4°.

PRECIPITATION.—The average precipitation for the state, as shown by the records of 120 stations, was 1.53 inches, which is 0.39 inch below the normal. By sections the averages were as follows: Northern section, 1.48 inches, which is 0.25 inch below the normal; Central section, 1.48 inches, which is 0.50 inch below the normal; Southern section, 1.64 inches, which is 0.41 inch below the normal. The greatest amount, 5.00 inches, occurred at Perry, Dallas county, and the least, 0.28 inch, at Denison, Crawford county. The greatest amount in any twenty-four hours, 2.00 inches, occurred at Humboldt, Humboldt county, on the 7th. The average snowfall, unmelted, was 9.8 inches, the average for the three sections being as follows: Northern section, 13.5 inches; Central section, 9.5 inches; Southern section, 6.3 inches. The greatest monthly snowfall, 32.0 inches, occurred at Perry, Dallas county, and the greatest twenty-four hour amount, 20.0 inches, occurred at Humboldt on the 7th.

Measurable precipitation occurred on an average of 6 days.

SUNSHINE AND CLOUDINESS.—The average number of clear days was 12; partly cloudy, 12; cloudy, 9. The duration of sunshine was below the normal, the percentage of the possible amount being 56 at Davenport; 49 at Des Moines; 45 at Dubuque; 59 at Keokuk; and 55 at Sioux City.

WIND.—Northwest winds prevailed. The highest velocity reported was 48 miles per hour from the northwest at Sioux City, Woodbury county, on the 13th.

COMPARATIVE DATA FOR THE STATE—MARCH.

Year	Temperature			Precipitation		
	Mean	Highest	Lowest	Average	Greatest	Least
1890	28.0	75	-24	1.57	3.67	.32
1891	26.8	66	-19	2.60	4.58	1.33
1892	31.9	48	- 6	2.22	4.58	.57
1893	31.8	84	- 8	2.14	4.40	.64
1894	41.0	84	- 5	2.03	4.52	.26
1895	34.4	94	-11	.83	2.60	.22
1896	30.9	81	-12	1.10	3.99	.16
1897	32.0	72	-22	2.39	6.16	.29
1898	37.5	72	2	1.94	6.21	.33
1899	23.0	75	-16	1.62	5.90	.37
1900	30.7	81	-13	2.06	5.15	.45
1901	34.2	76	- 8	2.64	5.25	.70
1902	39.1	79	-12	1.45	4.33	.13
1903	38.8	82	6	1.38	3.90	.15
1904	34.8	78	3	2.18	4.57	.50
1905	41.5	84	1	2.04	3.70	.39
1906	27.1	65	-14	2.34	4.55	.58
1907	40.6	92	- 7	1.35	5.05	.23
1908	37.9	85	- 8	1.58	3.74	.45
1909	32.5	71	-15	1.53	5.00	.28

T indicates a Trace.
- indicates temperature below zero.

ATMOSPHERIC PRESSURE AND WIND.

Mean Barometer for the month reduced to sea level, 30.00 inches.
Prevailing direction of Wind. Northwest.

STATIONS	Barometer, in Inches					Wind				
	Mean	Maximum	Date	Minimum	Date	Movement	Maximum Velocity—miles	Direction	Date	Average Hourly Velocity
Charles City.	30 00	30.57	11	29.54	9	5566	26	NW	3	7.5
Davenport .	29.97	30.53	11	29.36	9	6692	29	NE	9	9.0
Des Moines .	29.99	30.52	11	29.44	9	6516	31	NW	3	8.8
Dubuque....	29.99	30.58	11	29.39	9	5307	27	NW	3	7.1
Keokuk	29.97	30.53	11	29.39	9	6393	32	NW	13	7.7
Omaha, Neb.	30.02	30.54	11	29.56	26	7790	37	N	24	10.5
Sioux City ..	30.04	30.59	11	29.64	27	9700	48	NW	13	13.0

CONDITION OF FRUIT TREES.

The following report issued by the Secretary Iowa State Horticultural Society shows the average condition of fruit trees and plants on April 1, 1909:

"Apples, 92%; pears, 91%; American plums, 94%; domestica plums, 84%; Japanese plum, 74%; cherries, 91%; peaches, 15%; grapes, 84%; red raspberries, 81%; black raspberries, 78%; blackberries, 86%; strawberries, 79%.

"Nearly all fruit trees have gone thru the winter without injury, except peaches which only show about 15 per cent of live fruit buds.

"Raspberries were somewhat weakened by anthracnose, and strawberries did not make as many plants as usual during the dry weather last fall so are a little below normal this year; otherwise conditions are about normal."

OBSERVER'S REMARKS.

ALLERTON—*Mrs. Geo. Shriver.* Not much progress made in farm work but some oats have been sown.

ALTA—*David E. Hadden.* The average temperature was 2.3° below the 19 years' normal and the precipitation was .46 inch below the average for the same period. Eight inches of snow fell on the 7th and 8th but it had all melted by the end of the following week. Frost was nearly all out of the ground at the end of the month.

ALTON—*W. S. Slagle.* The season, at the end of March, is about 10 days later than it was last year. The ground has been very wet. There has been no field work nor seeding done.

AMANA—*Conrad Schadt.* The weather conditions were too cold and wet to permit much farm work being done. There was, however, some plowing done on the 27th and some wheat sown on the 30th.

AUDUBON—*Geo. E. Kellogg.* There was some plowing done during the first week of the month but the roads have been almost impassable during the whole of the month.

BAXTER—*W. R. Vandike.* There was a heavy snow storm on the 8th and 9th, accompanied by thunder, lightning and sleet. Sleighing was good for about 10 days after the storm.

BONAPARTE—*Hon. B. R. Vale.* Some sod plowing and a very little seeding was done during the last 10 days of the month altho there was 0.5 inch of snow fell on the 29th.

BOONE—*Carl Fritz Henning.* Twelve inches of snow fell on the 8th and 9th.

CHARITON—*C. C. Burr.* The temperature has been about normal with more than the usual amount of wind. Some oats have been sown.

CHARLES CITY—*E. W. McGann.* The minimum temperature on the 17th, 12° below zero, was the lowest recorded during the second decade of March for the past 18 years and the total snowfall, 23.9 inches, is the greatest on record for the past 19 years.

CORNING—*Jerome Smith.* The roads have been in better condition than usual for March and the continued low night temperatures have kept the fruit buds back. Some plowing has been done but that work has not yet become general and no seeding has been done altho the ground is in good condition to work and to receive seed as soon as it gets a little warmer. There is about two inches of wet snow on the ground this morning, April 1st.

EARLHAM—*Geo. Phillips.* The month closed with no farm work done and the grass has not yet started to grow.

ELLIOTT—*Henry Barnes.* It has been impossible to do any farm work except during the last week of the month on account of snow, rain and bad roads.

ELMA—*H. A. Moore.* The snow is all gone except in a very few places. Most of the frost is out of the ground and all roads are passable.

FOREST CITY—*J. A. Peters.* Fourteen inches of snow fell between the 8th and 10th, accompanied by a severe blizzard on the 9th, and there were a few snowdrifts left at the close of the month. Robins came on the 22d. No field work done.

GRAND MEADOW (Postville P. O.)—*F. L. Williams.* The month was stormy and disagreeable. Hay is very scarce and price is high. The spring pig crop is starting.

GRINNELL—*D. W. Brainard.* Country roads were in bad condition except during the last week of the month. No seeding has been done but considerable sod ground has been plowed during the past few days. Stubble ground is still too wet to work and there is some frost yet in the ground.

HARLAN—*C. A. Reynolds.* The alternating freezing and thawing weather and the rain and snow have made it impossible to do much work in the fields. There has practically been no seeding done and but little plowing but the conditions are becoming better and the outlook for fruit is fine.

INDIANOLA—*Prof. John L. Tilton.* Thunder was heard on the 9th while snow was falling.

INWOOD—*F. B. Hanson.* The temperature and precipitation were below and the snowfall above normal. The ground was almost in condition for spring work at the close of the month but snow began falling thus further delaying seeding.

IOWA FALLS—*J. B. Parmelee.* No seeding or field work done yet. Only one day with zero temperature but that broke the record for low temperature, —15° for March.

KEOKUK—*Fred Z. Gosewich.* The month has been mild with only one day of severe cold. The heaviest rainfall was on the 7th and 8th and snow has occurred only in light flurries. The soil has been too moist for tillage and oats have been sown only in a few favored localities.

KEOSAUQUA—*J. H. Landes.* The weather has been good for March. Oats sowing began this week. Clover is said to be killed but other prospects are good.

LEMARS—*G. A. C. Clarke.* Snow began to fall at 8 P.M. March 31st.

LEON—*Morris Gardner.* No seeding of any kind done as the ground has been too wet. Fruit buds have not started yet but grass shows a little green in favored spots. Hay is very scarce at $13.00 per ton. The last two months have been hard on stock and feeders and many spring foals are being lost.

LITTLE SIOUX—*Geo. H. Gibson.* Cloudy weather prevailed during the greater part of the month. Five inches of snow fell during the 8th, 9th and 12th. The cool weather is considered to be beneficial to fruit trees as the buds have made no material progress. Wheat seeding began on the 29th and some plowing has been done.

MASSENA—*C. E. Smeltzer.* Field work is fully two weeks later than in average seasons.

NORTHWOOD.—*Chas. H. Dwelle.* Snow and ice are in evidence under trees and on the north side of buildings at the close of the month.

OLIN—*C. M. Miles.* The ground is in fair condition for seeding and oats seeding began on the last day of the month.

ONAWA—*C. G. Perkins.* The precipitation has been below the normal. Farmers are all ready to sow wheat and some was sown this week but the heavy snow on the night of the 31st will delay seeding. Winter wheat is looking well.

PELLA—*John H. VerSteeg.* The weather has been mild for March with but little moisture but the roads have been in an impassable condition. Some wheat was sown on the 31st but the ground is wet and cold.

PLOVER—*J. S. Smith.* Ducks, geese, robins and blackbirds were going north on the 1st and 2d, but were driven back by the storm on the 7th. The temperature was 10° below zero on St. Patrick's day. There has been no grain sown yet.

Continued on page 30.

CLIMATOLOGICAL DATA FOR IOWA, MARCH, 1909

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in Inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
NORTHERN SECTION																				
Algona	Kossuth	1,213	34	29.4	— 0.2	50	23	— 8	17	28	1.14	— .42	.42	15.8	5	14	8	9	nw	Dr. F. T. Seeley
Alta	Buena Vista	1,513	17	28.8	— 1.8	62	23	0	17	31	1.23	— .43	.81	12.0	6	9	11	11	nw	D. E. Hadden
Alta [near]	Buena Vista										1.20	— .31	.50	12.0	5					W. J. Minard
Alton	Sioux	1,305	3	30.8		60	23	— 2	17	28	0.92		.40	9.2	5	17	5	9	nw	W. S. Slagle
Britt	Hancock	1,236	11	29.3	— 1.8	49	31	— 9	17	31	1.40	— .10	.60	14.0	5	0	21	10	nw	G. P. Hardwick
Charles City	Floyd	1,015	20	28.2	— 0.2	49	23	—12	17	33	2.18	+ .26	1.49	23.9	6	3	14	14	nw	Weather Bureau
Clear Lake	Cerro Gordo	1,241	9	29.4	— 2.3	47	27	2	17	29	1.25	— .34	.60	12.5	3	9	4	18	n	Oscar Stevens
Decorah	Winneshiek	875	15	28.9	— 2.7	50	23	— 8	17	34	1.51	— .54	.74	11.8	6					F. H. Baker
Dows	Wright	1,142	8																	G. D. Flett
Elkader	Clayton	727	27	30.9	— 0.9	56	23	— 4	17	35	1.27	— .64	.50		6	15	13	3	ne	Chas. Reinecke
Elma	Howard			28.4		47	23	— 2	11	27	1.30		.75	14.6	3	6	18	7	nw	H. A. Moore
Estherville	Emmet	1,298	12	28.6	— 0.4	58	23	— 8	17	35	.65	— .79	.45	8.0	3	11	0	20	nw	A. O. Peterson
Fayette	Fayette	1,003	18	30.0	— 1.2	54	23	—10	17	38	1.84	— .42	1.05	10.5	8	16	8	7	nw	R. Z. Latimer
Forest City	Winnebago	1,226	14	28.7	— 1.0	49	23	— 7	17	43	1.55	— .01	1.00	15.5	5	6	10	15	sw, nw	J. A. Peters
Grand Meadow	Clayton	1,180	17	29.3	— 2.0	48	23	— 5	17	27	1.85	— .29	.65	13.5	9	8	13	10	nw	F. L. Williams
Greene	Butler		9	30.1	— 2.5	50	23	—10	17	36	1.72	+ .03	.84	27.0	6	4	12	15	w	J. L. Cole
Hampton	Franklin	1,155	18	30.0	— 0.3	53	5	— 5	17	30	2.35	+ .10	1.40	20.7	5	4	21	6	nw	E. C. Grenelle
Humboldt	Humboldt	1,095	17	30.6	— 1.2	53	*23	—12	17	29	2.43	+ .83	2.00	23.0	4	19	2	10	nw	H. S. Wells
Inwood	Lyon	1,474	4	a30.2		a60	23	a— 6	17	a34	.57		.23	6.0	5	15	11	5	nw	F. B. Hanson
Larrabee	Cherokee	1,266	17	a29.7	— 1.0	a59	23	a— 5	17	a28	1.31	— .18	.95	13.1	6	11	12	8	nw	H. B. Streever
Le Mars	Plymouth	1,224	12	30.6	— 2.4	60	23	2	17	36	.81	— .79	.34	12.5	5	9	13	9	nw	G. A. C. Clarke
Mason City	Cerro Gordo	1,132	11	28.3	— 3.3	45	23	— 8	17	26	1.07	— .61	.67	10.7	2	5	15	11	nw	J. S. Mills
Merrill	Plymouth																			Eric Oleson
New Hampton	Chickasaw	1,169	11	28.7	— 3.0	48	23	—10	17	28	3.10	+1.09	.60	12.0	3	11	7	13	w	A. F. Kemman
Northwood	Worth	1,222	12	d30.0	— 1.1	f48	6	c— 5	17	f26	2.05	+ .19	1.20	20.4	7	12	13	6	nw	Charles H. Dwelle
Osage	Mitchell	1,184	17																	Dr. A. D. Bundy
Plover	Pocahontas	1,426	12	29.6	— 2.5	53	23	—10	17	33	1.50	+ .29	.70	15.0	4	16	7	8	nw	J. S. Smith
Pocahontas	Pocahontas		4	29.0		54	23	— 6	17	29	1.26		.54	12.8	5	12	7	12	nw	F. E. Hronek
Ridgeway	Winneshiek	1,215	10	29 8	— 3.3	50	*23	— 8	17	31	2.82	— .39	1.15	17.2	10	10	16	5	s	Arthur Betts
Rock Rapids	Lyon	1,358	9	29.2	— 2.4	50	22	— 2	17	39	0.60	— .75	.40	6.0	2					W. C. Wyckoff
Sheldon	O'Brien	1,422	8	d29.8	— 1.6	d62	23	d— 6	17	d40										Dr. A. W. Beach
Sibley	Osceola	1,212	15	b28.3	— 1.6	b60	23	b— 7	17	b41	.85	— .61	.50	8.5	4				nw	H. G. Doolittle
Sioux Center	Sioux		9	29 6	— 3.6	59	23	0	17	27	.70	— .82	.20	7.0	5	15	1	15	nw	J. de Ruyter
Storm Lake	Buena Vista	1,440	12	30.6	+ 0.4	62	23	5	12	28	1.67	— .35	1.00	9.0	3	17	4	10	w	S. B. Fracker
Washta	Cherokee	1,157	10	30.4		64	23	— 9	17	37	.65	— .31	.50	7.5	3	17	5	9	n	H. L. Felter
Waverly	Bremer	948	12	30.6	— 2.2	53	23	— 6	17	29	1.70	— .25	.95	15.7	6	5	13	13	nw	H. S. Hoover
West Bend	Palo Alto	1,197	14	a29.8	— 1.2	a52	23	a— 7	17	a31	1.35	— .25	1.00	13.5	4				nw	Phil Dorweiler
Averages				29.6	— 1.6	53.8		—5.7		32.1	1.48	— .25		13.5	5	11	10	10	nw	
CENTRAL SECTION																				
Amana	Iowa	721	31	34.2	+ 1.7	58	23	5	17	28	2.09	+ .09	1.04	4.6	9	10	13	8	nw	Conrad Schadt
Ames	Story	926	27	31.8	— 1.7	62	23	—12	17	45	1.71	+ .30	1.12	14.7	5	18	7	6	nw	Iowa State College
Audubon	Audubon	1,301	15	30.5	— 3.7	60	23	— 9	17	39	1.65	+ .03	1.20	16.0	6	12	7	12	nw	Geo. E. Kellogg
Baxter	Jasper	998	8	32.0	— 4.6	61	23	— 5	17	33	1.78	— .43	.81	10.4	8	16	8	7	nw	W. R. Vandike
Belle Plaine	Benton	828	18	33.2	— 0.2	59	23	1	17	33	2.49	— .02	.70	16.0	10	13	13	5	nw	S. P. Vandike
Boone	Boone	1,134	3	30.8		60	23	— 2	17	36	3.05		1.98	14.5	5	12	4	15		Carl Fritz Henning
Buckingham	Tama		8								.98	—1.24	.39	7.2	4	3	21	7		Dr. W. A. Daniel
Carroll	Carroll	1,265	18	30.4	— 2.3	60	23	— 9	17	48	1.50	— .54	.50	15.0	5	15	4	12		Frank Hughes
Cedar Rapids	Linn	733	26	32.8	— 0.8	58	23	6	*17	31	1.47	— .57	.46	3.3	6	7	16	8		Electric Light & P. Co.
Clinton	Clinton	593	40	34.4	+ 0.9	57	23	14	*16	33	1.72	—1.30	1.04	1.0	7					Luke Roberts
Davenport	Scott	580	36	35.8	+ 0.4	57	23	9	17	27	1.60	— .61	1.00	1.7	11	6	17	8	nw	Weather Bureau
Delaware	Delaware	1,083	17	30.4	— 1.2	52	23	— 2	17	29	1.10	— .73	.47	4.0	4	11	13	7	nw	Wm. Ball
Denison	Crawford	1,180	13	31.7	— 2.0	54	* 5	— 6	17	37	.28	—1.23	.09	2.0	5	14	6	11	n	W. C. Van Ness
Des Moines	Polk	861	29	33.6	— 2.1	65	23	0	17	32	1.56	— .09	1.05	11.3	8	3	3	25	nw	Weather Bureau
De Soto	Dallas	866	8	33.9	— 3.7	69	23	—11	17	46	1.73	+ .14	1.35	9.5	3	13	4	14	nw	R. D. Minard
Dubuque	Dubuque	639	35	32.8	— 0.4	54	23	6	17	23	1.25	— .96	.48	4.7	7	7	14	10	nw	Weather Bureau
Fort Dodge	Webster	1,126	8	28.0	— 5.4	55	23	— 6	17	46	1.50	— .76	.50	15.0	5	13	2	16	nw	J. F. Monk
Gilman	Marshall	1,052	9								.50	—1.55	.45	8.0	2					Jas. L. Wylie
Grinnell	Poweshiek	1,023	16	34.1	— 1.0	61	23	1	17	31	.93	— .81	.40	6.2	5	8	16	7	nw	D. W. Brainard
Grundy Center	Grundy	976	17	30.9	— 1.7	57	23	— 9	17	32	1.20	— .62	.50	12.0	4	17	8	6	nw	W. H. Scott
Guthrie Center	Guthrie	1,077	13	32.2	— 3.2	61	23	—10	17	41	1.94	— .54	1.28	17.5	8	14	8	9	nw	D. G. Beardsley
Harlan	Shelby	1,192	9	32.2	— 3.1	63	23	— 2	17	35	1.00	— .48	.70	9.7	5	8	13	10	nw	C. A. Reynolds
Independence	Buchanan	921	43	31.0	+ 0.2	56	23	— 5	17	28	1.40	— .23	.55	8.5	4	14	6	11	nw	George Donohue
Iowa City	Johnson	683	49	34.2	+ 0.2	61	23	6	17	32	2.00	— .44	.75	4.0	8	13	3	15	nw	Prof. Karl E. Guthe
Iowa Falls	Hardin	1,170	15	29.0	— 2.9	53	23	—15	17	42	1.80	+ .07	1.00	18.0	4	12	8	11	nw	J. B. Parmelee
Jefferson	Greene			e33.1		e59	27	e 0	17	e31	e1.05	— .63	.70	10.5	3				n	Geo. W. Jackson
Le Claire	Scott	576									1.63	—1.01	.70	2.5	9				ne	Margaret T. Disney
Little Sioux	Harrison		4	33.4		68	23	9	*11	34	.54		.25	5.0	4	12	9	10	nw	Geo. H. Gibson
Logan	Harrison	928	42	34.7	+ 0.1	67	23	12	11	38	.39	—1.42	.18		5	5	19	7	nw	Glenn H. Stern
Marshalltown	Marshall	947	16	30.6	— 2.8	59	23	— 6	*17	38	1.25	—1.43	.45	9.5	5	10	11	10	nw	Agnes Musil
Montezuma	Poweshiek																			C. J. Griffin
Muscatine	Muscatine		49								1.58	—1.21	.64	2.1	8				e,w,nw	Wm. P. Molis
Newton	Jasper	944	19	33.6	— 1.5	60	23	3	17	28	1.07	— .53	.58	7.5	3	12	11	8	nw	Hon. J. P. Beatty
Odebolt	Sac	1,356	10	30.8	— 4.0	65	23	— 5	17	34	.68	— .87	.42	6.5	3	21	5	5		E. Starner
Olin	Jones	760	11	34.8	— 0.3	58	23	9	17	31	1.52	—1.02	.65	1.0	3	13	9	9	nw	C. M. Miles
Onawa	Monona	1,051	8	35.0	— 2.5	69	23	12	17	34	.83	— .54	.25	7.8	6	16	8	7	nw	C. G. Perkins
Perry	Dallas	975	7	30.2	— 6.7	59	23	—10	17	34	5.00	+2.86	1.50	32.0	5					J. A. Harvey
Rockwell City	Calhoun		12	31.9	— 1.7	55	23	— 2	17	37	.80	—1.28	.50	8.0	3	16	6	9		C. M. Randall
Sac City	Sac	1,278	26	e30.6	— 0.7	e56	23	e— 3	17	e28				13.3					nw	E. N. Baily
Sioux City	Woodbury	1,135	17	31.8	— 0.8	65	23	11	17	27	.74	— .52	.39	8.0	6	5	17	9	nw	Weather Bureau
Stuart	Guthrie	1,216	10																	Geo. B. Irick
Tipton	Cedar	807	10	a35.4	— 1.2	a57	23	a 9	17	a25	2.39	— .48	1.67	3.5	6				nw	F. K. Gregg
Toledo	Tama	856	14	32.4	— 2.3	59	23	— 3	17	30	.95	— .96	.30	8.0	4	9	15	7	nw	I. F. Giger
Waterloo	Black Hawk	862	25	31.3	— 0.5	57	23	— 3	17	35	1.81	+ .06	.67	12.0	8	7	15	9	nw	M. L. Newton
Waukee	Dallas	1,039	5	33.1		65	23	— 6	17	36	.91	—1.04	.80	9.0	3	13	6	12	nw	A. H. Blackmore
Webster City	Hamilton		3	31.6		56	23	—15	17	35	1.85		1.10	18.5	4	15	11	5	nw	C. D. Carpenter
Whitten	Hardin	1,036	10																	Dr. Frank P. Butler
Wilton Junction	Muscatine	683	13	34.2	— 1.9	57	*22	8	17	27	1.52	—1.18	1.23		2	16	3	12		Wm. Lang
Zearing	Story		4	30.6		57	23	—15	17	38	1.83		1.20	18.3	8	1	18	12	ne	O. G. Reese
Average				32.4	— 1.8	59.5		—1.2		34.0	1.48	— .50		9.5	5	11	10	10	nw	

CLIMATOLOGICAL DATA FOR IOWA, MARCH, 1909—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
SOUTHERN SECTION																				
Afton	Union	1,212	14	35.0	— 1.5	67	23	4	17	34	1.34	— .76	.80	8.5	4	11	13	7	nw	N. W. Rowell
Albia	Monroe	959	10	34.0	— 3.6	65	23	4	17	38	1.82	— .08	.78	3.5	10	15	7	9	w	J. I. Chenoweth
Allerton	Wayne	.....	6	36.4	— 1.8	67	23	9	17	31	2.15	— .30	.93	5.7	6	20	3	8	nw	Mrs. Geo. Shriver
Atlantic	Cass	1,164	17	33.1	— 1.6	64	23	2	17	33	.97	— .78	.71	8.5	6	7	13	11	nw	Thos. H. Whitney
Bedford	Taylor	.....	8	36.4	— 0.3	69	23	5	*11	34	1.45	— .87	.65	4.4	5	16	7	8	nw	E. E. Healy
Bloomfield	Davis	.....	...	37.6	.....	63	23	7	17	33	2.33	.....	.69	....	8	13	12	6	nw	F. H. Roberts
Bonaparte	Van Buren	.....	17	36.8	— 1.2	61	2	5	17	35	1.96	— .59	.80	2.5	6	....	....	....	.....	Hon. B. R. Vale
Burlington	Des Moines	544	12	37.4	— 2.4	63	2	9	17	34	2.52	— .34	.85	2.0	9	16	6	9	s,nw	M. E. Poppe, Jr.
Chariton	Lucas	1,042	13	35.2	— 1.6	67	23	4	17	34	1.60	+ .52	.60	3.0	5	17	6	8	nw	C. C. Burr
Clarinda	Page	1,009	18	34.4	— 1.7	69	23	3	11	47	1.75	— .11	.96	11.5	7	8	14	9	nw	A. S. Van Sandt
Columbus Junction	Louisa	595	7	36.4	— 2.6	61	23	6	17	32	1.65	— .86	.50	2.5	8	21	5	5	nw	J. B. Johnston
Corning	Adams	1,117	16	32.8	— 3.6	65	23	3	15	30	2.27	+ .53	1.40	15.7	5	16	10	5	nw	Jerome Smith
Corydon	Wayne	1,101	15	37.2	— 0.1	69	23	8	17	32	1.88	— .25	1.01	2.0	6	15	7	9	nw	Clara Miller
Creston	Union	1,312	3	33.3	.....	67	23	5	17	40	.94	.....	.31	....	9	16	3	12	ne	E. S. Stovall
Cumberland	Cass	.....	9	.....	.....	.....	.....	.....	.....	.....	1.10	— .92	1.00	11.0	2	22	5	4	ne	J. H. Reppert
Earlham	Madison	.....	6	32.8	— 1.4	67	23	— 9	17	41	1.28	— .48	.50	12.5	5	13	10	8	nw	Geo. Phillips
Elliott	Montgomery	.....	3	34.4	.....	69	23	— 1	11	38	.95	.....	.60	8.0	4	17	8	6	nw	Henry Barnes
Fairfield	Jefferson	.....	14	35.8	+ 2.0	62	23	4	17	33	1.84	— .73	1.22	2.5	8	20	2	9	nw	R. Monroe McKenzie
Fort Madison	Lee	516	59	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	Miss L. A. McCready
Greenfield	Adair	.....	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	Geo. Brooks
Hancock	Pottawattamie	1,113	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	W. Armstrong
Hopeville	Clarke	.....	17	35.2	— 0.5	66	23	5	17	33	1.55	— .23	.64	6.1	7	4	18	9	nw	M. T. Ashley
Indianola	Warren	969	17	34.4	— 1.7	66	23	3	17	31	1.53	+ .21	.85	9.1	8	3	7	21	nw	Prof. J. L. Tilton
Keokuk	Lee	574	37	38.9	+ 1.0	62	2	11	17	30	1.84	— .53	.80	0.3	8	9	17	5	nw	Weather Bureau
Keosauqua	Van Buren	644	16	36.2	— 2.0	60	*1	7	17	46	1.94	— .60	.77	3.1	9	6	6	19	.....	J. H. Landes
Knoxville	Marion	920	12	35.6	— 1.8	67	23	3	17	36	2.63	+1.06	1.10	10.3	8	12	6	13	nw	Casey & Bellville
Lacona	Warren	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	..	...	.....	Agent C., B. & Q. Ry.
Lamoni	Decatur	.....	....	36.9	.....	67	23	11	17	31	1.59	.....	.63	7.0	7	20	1	10	nw	T. J. Fitzpatrick
Lenox	Taylor	1,250	13	34.6	— 1.7	67	23	6	*15	34	1.06	— .69	.40	6.6	7	21	3	7	nw	J. L. Hurley
Leon	Decatur	1,120	6	36.2	— 1.8	66	23	9	17	33	1.75	—1.01	.65	3.7	7	15	4	12	nw	Morris Gardner
Massena	Cass	.....	3	32.7	.....	66	23	— 3	11	36	1.09	.....	.96	9.5	3	15	7	9	nw	C. E. Smeltzer
Mt. Ayr	Ringgold	1,236	15	36.4	— 0.6	70	23	10	17	34	1.84	— .22	.90	5.7	7	13	10	8	nw	A. F. Beard
Mt. Pleasant	Henry	729	26	36.4	— 0.3	60	23	8	17	31	2.08	— .35	.59	3.7	9	9	16	6	nw	Prof. J. W. Edwards
Omaha, Neb	Douglas	1,040	38	35.7	— 0.3	65	23	16	17	23	.63	— .76	.22	4.9	6	7	13	11	nw	Weather Bureau
Oskaloosa	Mahaska	843	24	35.0	— 0.2	62	23	4	17	33	2.23	+ .37	.49	....	9	16	0	15	nw	Jos. Boyd
Ottumwa	Wapello	649	14	40.0	+ 1.3	68	23	18	*11	29	2.09	— .05	1.00	....	5	11	10	10	w	Dr. Jas. A. Hull
Pacific Junction	Mills	960	9	35.2	— 1.9	70	22	7	11	33	.96	— .39	.50	6.5	5	8	16	7	n	H. H. McCartney
Pella	Marion	877	6	a37.7	+ 4.7	a68	2	1	17	a44	1.87	+ .84	.95	6.8	8	16	1	14	nw	John H. Ver Steeg
St. Charles	Madison	1,070	7	34.7	— 3.5	71	23	0	17	35	2.13	+ .19	1.23	9.3	8	14	10	7	nw	R. D. Minard
Sigourney	Keokuk	877	12	35.8	— 1.1	62	23	4	17	32	1.91	— .15	.85	7.5	8	1	25	5	nw	J. T. Parker
Stockport	Van Buren	.....	6	36.8	.....	60	23	7	17	36	1.73	— .60	.53	3.0	10	18	6	7	nw	C. L. Beswick
Thurman	Fremont	.....	11	35.2	— 2.6	67	23	3	11	30	.93	— .73	.70	8.0	4	7	16	8	nw	C. R. Paul
Wapello	Louisa	588	10	37.1	— 0.3	61	26	11	17	32	1.08	—1.34	.39	1.5	5	17	8	6	w	Geo. W. Schofield
Washington	Washington	769	27	35.6	+ 1.4	61	23	6	17	32	1.81	— .45	1.13	....	9	7	17	7	nw	Wm. A. Cook
Winterset	Madison	1,129	17	34.0	— 1.7	65	23	1	17	34	1.04	— .89	.80	10.4	5	9	12	10	nw	Dr. Robert S. Cooper
Woodburn	Clarke	961	9	34.6	.....	68	23	4	17	37	1.80	— .37	.72	5.0	7	9	16	6	nw	C. B. McDonough
Average		.....	....	36.6	— 1.1	65.4	.....	5.4	.....	34.2	1.64	— .41	.....	6.3	7	13	9	9	nw	
State average		.....	....	32.5	— 1.5	59.6	.....	0.5	.....	33.4	1.53	— .39	.....	9.8	6	12	10	9	nw	

*And other dates. a one day missing, b two days; c three days; d four days, etc. ‡ Received too late to be included in average

XIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF MARCH, 1909

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | Monthly Mean | |
|---|---|---

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF MARCH, 1909—CONTINUED

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | Monthly Mean | |
|---|---|---

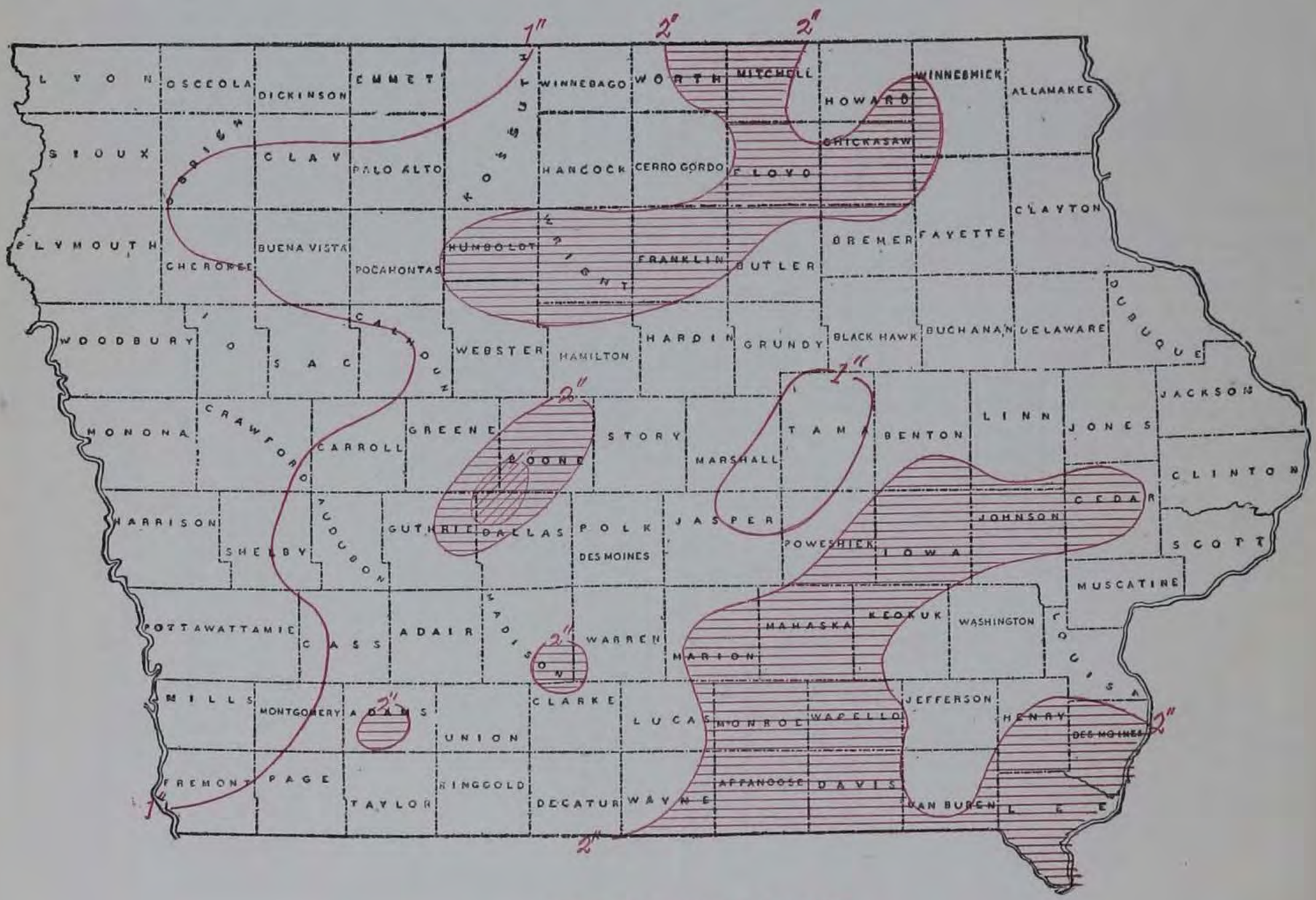
DAILY PRECIPITATION FOR IOWA, MARCH, 1909

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	....	....	....	....	.14	.80	....	....	T	T	....	....	....	....	T	....	....	....	....	....	.35	....	....	....	....	05	....	....	1.34
Albia	....	....	....	....	....	....	....	.02	.76	.32	....	.03	T	....	....	.10	....	.09	.01	....	....	....	....	.30	.13	....	T	....	.06	....	....	1.82
Algona	....	....	....	....	....	....	.18	.42	.41	....	....	.05	T	....	.08	....	....	....	....	....	....	....	....	....	....	....	T	T	T	....	T	1.14
Allerton	....	....	....	....	....	....	....	.36	.93	T	T	.07	....	....	.10	T	....	.03	T	....	....	....	....	.66	....	....	....	....	T	....	....	2.15
Alta	....	....	....	....	....	....	....	.81	.05	.08	....	.10	T	.01	....	.18	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.23
Alta (near)	....	....	....	....	....	....	.50	.20	.20	....	....	.10	T	T	.20	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.20
Alton	....	....	....	....	....	....	.40	.20	T	....	....	.10	.02	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	T	T	....	....	0.92
Amana	....	....	....	....	....	....	....	.30	1.04	.07	....	.02	....	....	.06	T	....	.37	....	....	....	....	....	.17	....	.03	T	....	.03	....	....	2.09
Ames	....	....	....	....	....	....	....	.02	1.12	....	....	.30	T	....	.05	T	....	.18	....	....	....	....	....	....	....	....	T	....	.04	....	....	1.71
Atlantic	....	....	....	....	....	....	T	.05	.71	....	....	.10	....	....	.02	....	....	....	....	....	....	....	....	.05	....	....	....	T	.04	....	....	0.97
Audubon	....	....	....	....	....	....	.02	.03	1.20	....	....	.25	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	1.65
Baxter	....	....	....	....	....	....	....	.37	.81	....	....	.05	T	....	.04	....	....	.28	....	....	....	....	....	.13	....	.02	T	....	.08	T	....	1.78
Bedford	....	....	....	....	....	....	T	T	.65	....	T	.04	....	.05	....	....	....	....	....	....	....	....	....	.61	....	....	....	T	.10	....	....	1.45
Belle Plaine	....	....	....	....	....	....	....	.40	.70	....	.05	.15	....	....	.10	.10	....	.45	....	....	....	....	....	.03	....	.01	....	....	.50	....	....	2 49
Bloomfield	....	....	....	....	....	....	....	.69	.65	.01	....	.03	....	....	....	.19	....	.20	....	....	....	....	....	.46	....	....	....	....	.10	....	....	2.33
Bonaparte	....	....	....	....	....	....	....	.80	.20	....	....	....	....	....	.23	....	....	.20	....	....	....	....	....	.45	....	....	....	....	.08	....	....	1.96
Boone	....	....	....	....	....	....	....	.44	.39	1.98	....	.17	....	T	....	.07	....	....	T	....	....	....	....	....	....	....	....	T	T	....	....	3.05
Britt	....	....	....	....	....	....	.15	.60	.50	.10	....	T	....	....	.05	T	....	....	....	....	....	....	....	T	....	....	....	....	T	....	....	1.40
Buckingham	....	T	....	....	....	....	T	.35	.39	....	....	T	T	....	....	.02	....	.22	....	....	....	....	....	....	....	....	T	T	....	....	....	0.98
Burlington	....	....	....	....	....	....	....	.15	.85	.15	....	T	....	....	....	.21	....	.01	.50	....	....	....	....	.15	.45	....	....	....	.05	....	....	2.52
Carroll	....	....	....	....	....	....	....	.10	.50	.50	....	.30	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.50
Cedar Rapids	....	....	....	....	....	T	....	.16	.41	.36	....	T	....	....	....	.05	....	....	....	.46	....	....	....	T	T	....	.03	T	T	....	....	....	1.47
Chariton	....	....	....	....	....	....	....	.15	.55	.15	T	T	....	....	T	....	....	.15	....	....	....	....	....	.60	....	....	....	....	T	....	....	1.60
Charles City	....	....	T	....	....	T	.35	.21	1.49	....	....	.07	.04	....	.02	T	....	T	....	....	....	....	....	....	....	T	T	....	....	....	....	2.18
Clarinda	....	....	....	....	....	....	....	.01	T	.96	....	.12	....	....	....	.01	....	....	....	....	....	....	....	.50	....	....	....	....	.15	....	....	1.75
Clear Lake	....	....	....	....	....	....	.05	.60	.40	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.25
Clinton	....	....	....	....	....	....	....	.14	....	1.04	....	....	....	....	.07	....	....	.19	....	....	....	....	....	.15	T	.13	....	T	....	....	....	1.72
Columbus Jct	....	....	....	....	....	....	....	.54	.45	.06	....	T	....	....	.10	.05	....	.34	....	....	....	....	....	.10	....	T	....	....	.01	....	....	1.65
Corning	....	....	....	....	....	....	T	....	1.40	....	.12	....	....	.05	....	....	....	.10	....	....	....	....	....	.60	....	....	....	T	....	....	....	2.27
Corydon	....	....	....	....	....	....	T	.20	1.01	....	....	.06	....	....	T	.01	....	T	....	....	....	....	....	.52	....	T	....	....	.08	....	....	1.88
Creston	....	....	....	....	....	....	....	.05	.10	.31	....	.10	.05	T	....	.05	T	....	.06	....	....	....	....	.13	.09	....	....	....	T	....	....	0.94
Cumberland	....	....	....	....	....	....	....	....	1.00	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.10
Davenport	....	T	T	....	....	T	.02	.67	.43	.01	....	.01	T	....	.08	T	....	.23	T	....	....	....	....	.07	....	.04	....	.01	.03	....	....	1.60
Decorah	....	....	....	....	....	T	....	.45	.74	....	....	.16	.05	T	.05	....	....	T	....	....	....	....	....	....	....	....	....	T	T	.06	....	1.51
Delaware	....	....	....	....	....	....	....	.30	.25	....	....	....	....	....	.08	....	....	.47	....	....	....	....	....	....	....	T	T	....	T	....	....	1.10
Denison	....	....	....	....	....	....	.05	.05	.04	....	....	.09	T	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	0.28
Des Moines	....	....	....	....	....	....	.15	.20	1.01	....	T	.05	T	T	.06	T	....	.03	T	....	....	....	.01	....	T	T	T	.05	T	....	....	1.56
De Soto	....	....	....	....	....	....	....	T	1.35	T	....	.15	....	....	T	....	....	.23	....	....	....	....	....	T	....	....	....	....	T	....	....	1.73
Dubuque	....	....	....	....	....	T	.20	.18	.42	....	....	T	T	....	.02	T	....	.40	....	....	....	....	....	....	....	.02	.01	T	T	....	....	1.25
Earlham	....	....	....	....	....	....	T	.16	.46	....	....	.50	....	T	.05	....	....	....	....	....	....	....	....	T	....	....	....	T	.11	....	....	1.28
Elkader	....	....	....	....	....	T	.40	.50	.30	....	....	....	....	....	.02	....	....	....	....	....	....	....	....	....	....	....	.03	.02	T	....	....	1.27
Elma	....	....	....	....	....	....	T	.05	.75	....	....	T	.05	....	....	T	T	....	T	....	....	....	....	....	....	....	T	T	T	....	....	1.30
Estherville	....	....	....	....	....	....	....	.45	.10	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0.65
Fairfield	....	....	....	....	....	....	....	.63	.59	....	....	.03	....	....	.15	....	....	.21	....	....	....	....	....	.20	....	.01	....	....	.02	....	....	1.84
Fayette	....	....	....	....	....	T	.16	.32	1.05	....	....	.10	.06	....	.02	....	....	.05	....	....	....	....	....	....	....	.08	T	T	T	....	....	1.84
Forest City	....	....	....	....	....	....	....	.60	.40	.40	....	.05	....	.10	T	....	T	....	....	....	....	....	....	....	....	....	T	....	....	....	....	1.55
Fort Dodge	....	....	....	....	....	....	....	.50	.20	.50	....	.10	....	T	....	.20	....	T	....	....	....	....	....	.05	....	....	....	....	....	T	....	1.50
Gilman	....	....	....	....	....	....	....	....	.45	....	T	....	....	....	T	....	T	....	....	T	....	....	....	....	....	....	....	....	....	....	....	0.50
Grand Meadow	....	....	....	....	....	T	T	.65	.40	.10	....	.20	....	....	.05	.02	....	.38	....	....	....	....	....	....	....	....	.02	T	T	.03	....	1.85
Greene	....	....	....	....	....	....	....	.65	.84	.04	....	.12	.03	....	.04	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	1.72
Grinnell	....	....	....	....	....	....	T	.20	.40	....	....	T	T	....	T	T	....	.20	....	....	....	....	....	.11	....	T	....	....	.02	....	....	0.93
Grundy Center	....	....	....	....	....	....	.10	.40	.50	....	....	.20	....	....	T	....	....	T	....	....	....	....	....	....	....	....	....	....	T	....	....	1.20
Guthrie Center	....	....	....	....	....	....	.01	.21	1.28	.03	....	.16	T	....	.08	T	....	T	....	....	....	....	....	....	....	T	T	T	.09	....	....	1.94
Hampton	....	....	....	....	....	....	.68	.12	1.40	....	.12	....	....	....	.03	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	2.35
Harlan	....	....	....	....	....	....	T	.05	.70	.02	....	.13	T	....	T	T	....	T	....	....	....	....	T	.10	....	....	T	T	T	....	....	1.00
Hopeville	....	....	....	....	....	....	.03	.03	.61	....	T	.04	....	....	.02	....	....	T	....	....	....	....	....	.74	....	T	....	....	.08	....	....	1.55
Humboldt	....	....	....	....	....	....	2.00	....	....	....	....	.30	....	.07	.06	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2.43
Independence	....	....	....	....	....	....	T	.45	.35	....	....	T	....	....	.05	....	....	.55	....	....	....	....	....	....	....	....	T	T	....	....	....	1.40
Indianola	....	....	....	....	....	....	T	.24	.85	.01	....	.05	T	....	.05	T	....	.03	....	....	....	....	T	.18	....	T	....	T	.12	....	....	1.53
Inwood	....	....	....	....	....	....	.23	.10	....	....	....	.05	T	....	.18	....	....	....	....	....	....	....	....	....	....	....	....	....	.01	T	T	0.57
Iowa City	....	....	....	....	....	....	....	.10	.75	.48	....	....	.03	....	....	.09	....	....	.31	....	....	....	....	.20	....	....	T	....	.04	....	....	2.00
Iowa Falls	....	T	....	....	....	....	....	.50	T	1.00	....	.20	....	T	....	.10	T	T	T	....	....	....	....	....	....	....	T	T	T	T	....	1.80
Jefferson	....	....	....	....	....	....	.15	.20	.70	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	
Keokuk	....	....	....	....	....	..	.30	.70	.24	....	....	T	....	....	.02	T	....	.11	.01	....	....	....	T	.45	....	T	....	....	.01	....	....	1.84
Keosauqua	....	....	....	....	....	....	....	.08	.77	.19	....	T	.05	....	....	.20	T	T	.17	T	....	....	....	....	.10	.32	T	....	....	.06	....	1.94
Knoxville	....	....	....	....	....	....	T	.24	1.10	.10	....	T	T	....	.70	T	....	.12	....	....	....	....	....	.19	....	.06	T	T	.12	....	....	2.63
Lamoni	....	....	....	....	....	....	.03	.58	.22	....	.01	.08	....	....	.04	....	T	....	....	....	....	....	....	.63	T	....	....	....	....	....	....	1.59
Larrabee	....	....	....	....	....	....	.60	.35	.12	....	....	.09	.05	....	.10	T	....	....	....	....	....	....	....	....	....	....	T	....	T	....	....	1.31
Le Claire	....	....	.01	....	....	....	T	.04	.70	.35	....	....	T	T	....	.09	T	....	.28	....	....	....	....	....	.05	....	.09	T	.07	T	....	1.63
Le Mars	....	....	....	....	....	....	.34	.32	.04	....	....	.07	T	....	.04	T	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	0.81
Lenox	....	....	....	....	....	....	.02	.06	.40	....	....	.15	....	....	.05	....	....	T	....	....	....	....	....	.35	....	....	....	....	.03	....	....	1.06
Leon	....	....	....	....	....	....	T	.20	.25	.20	....	.15	....	....	....	.05	....	....	....	....	....	....	....	.65	....	....	....	....	.25	....	....	1.75
Little Sioux	....	....	....	....	....	....	....	.10	.15	....	....	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.04	0.54
Logan	....	....	....	....	....	....	.01	....	.18	....	T	.09	....	....	.02	....	....	....	....	....	....	....	....	.09	....	....	....	....	....	....	T	0.39
Marshalltown	....	....	....	....	....	....	....	.30	.15	.45	....	.05	....	....	....	T	....	....	.30	....	....	....	....	....	....	....	....	....	....	....	....	1.25
Mason City	....	....	....	....	....	....	....	.40	.67	....	....	T	T	....	T	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	1.07
Massena	....	....	....	....	....	....	T	.03	....	.96	....	.08	....	....	T	T	....	.02	....	....	....	....	....	....	....	T	T	T	T	....	....	1.09
Mt. Ayr	....	....	....	....	....	....	.20	.10	.38	....	.02	.09	....	....	T	T	....	....	....	....	....	....	T	.90	....	....	....	....	.15	....	....	1.84
Mt. Pleasant	....	....	....	....	....	....	....	.57	.59	.03	....	.03	....	....	.13	.07	....	.27	.01	....	....	....	....	.29	....	T	....	....	.09	....	....	2.08
Muscatine	....	....	....	....	....	....	....	.16	.64	.22	....	T	T	....	....	.12	....	....	.24	....	....	....	....	T	.10	....	.04	....	.06	....	....	1.58
New Hampton	....	....	....	....	....	....	....	.60	2.40	....	....	....	.10	....	T	T	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	3.10
Newton	....	....	....	....	....	....	....	.22	.58	....	....	....	....	....	....	....	....	.27	....	....	....	....	....	....	....	....	....	....	....	....	....	1.07
Northwood	....	....	....	....	....	....	....	.60	1.20	....	....	.10	.05	....	.07	....	....	T	.01	....	....	....	....	....	...	T	.02	....	....	....	....	2.05
Odebolt	....	....	....	....	....	....	.42	....	.15	....	....	....	T	....	.11	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	0.68
Olin	....	....	....	....	....	....	....	T	.62	.10	....	....	....	....	....	T	....	.65	....	....	....	....	....	.15	....	....	....	....	....	....	....	1.52
Omaha, Neb	....	....	....	....	....	....	.05	T	.22	....	.06	.10	....	....	.01	....	....	....	....	....	....	....	T	T	....	T	....	T	....	....	.19	0.63
Onawa	....	....	....	....	....	....	.10	.20	.20	....	....	.25	....	....	.03	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	.05	0.83
Oskaloosa	....	....	....	....	....	....	.25	.49	.15	....	....	.40	....	....	.13	....	....	.25	....	....	....	....	....	.34	....	.30	....	.02	....	....	....	2.23
Ottumwa	....	....	....	....	....	....	.21	1.00	.18	....	....	....	....	....	T	....	....	.33	....	....	....	....	....	.37	....	....	....	....	....	....	....	2.09
Pacific Junction	....	....	....	....	....	....	T	.18	.50	....	T	.15	....	....	T	....	....	....	....	....	....	....	....	.11	....	....	....	T	.02	....	....	0.96
Pella	....	....	....	....	....	....	T	.21	.95	.21	T	.04	T	....	.04	....	....	.11	....	....	....	....	....	.23	....	T	T	....	.08	T	....	1.87
Perry	....	....	....	....	....	....	T	1.50	1.20	1.00	....	.30	....	....	1.00	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	5.00
Plover	....	....	....	....	....	....	.50	.70	....	....	.10	....	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	T	T	....	....	....	1.50
Pocahontas	....	....	....	....	....	....	.28	.54	.37	....	....	.03	....	....	.04	....	....	....	....	....	....	....	....	....	....	....	....	T	T	....	....	1.26
Ridgeway	....	....	....	....	....	....	....	1.08	1.15	.08	....	.06	.09	T	.05	.11	....	.18	....	....	....	....	....	....	....	....	.01	T	.01	....	....	2.82
Rock Rapids	....	....	....	....	....	....	....	.40	....	....	....	....	....	....	T	....	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	T	0.60
Rockwell City	....	....	....	....	....	....	.50	....	.10	....	....	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0.80
Sac City	....	....	....	....	....	....	....	....	1.10	....	.10	....	T	....	.22	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
St. Charles	....	....	....	....	....	....	T	.35	1.23	....	....	.02	....	....	.10	....	....	....	.03	....	....	....	....	.24	....	.01	....	....	.15	....	....	2.13
Sibley	....	....	....	....	....	....	....	.50	....	.10	....	.05	....	....	T	.20	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	0.85
Sigourney	....	....	....	....	....	....	....	.40	.85	....	....	.05	....	....	.13	....	....	.17	....	....	....	....	....	.20	....	.04	....	....	.07	....	....	1.91
Sioux Center	....	....	....	....	....	....	.20	.20	....	....	....	.05	.05	....	.20	....	....	....	..	....	....	....	....	....	....	T	T	....	T	T	....	0.70

DAILY PRECIPITATION FOR IOWA, MARCH, 1909—Continued

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sioux City	....	....	....	....	....	....	.35	.04	.02	....	T	.09	T	T	.04	T	....	....	....	....	T	....	....	T	....	T	T	....	T	T	.20	0.74
Stockport	....	....	....	....	....	....	....	.45	.53	.02	....	.01	....	....	.08	.03	....	.23	....	....	....	....	....	.30	....	.01	....	....	.07	....	....	1.73
Storm Lake	....	....	....	....	....	....	T	1.00	....	.48	....	....	T	....	.19	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.67
Thurman	....	....	....	....	....	....	T	T	.70	....	T	.10	....	....	T	....	....	....	....	....	....	....	....	.10	....	....	....	....	.03	....	....	0.93
Tipton	....	....	....	....	....	....	.20	....	1.67	....	....	T	....	....	.12	....	....	.32	....	....	....	....	....	.05	....	T	T	.03	....	....	....	2.39
Toledo	....	....	....	....	....	....	....	.30	.30	....	....	.20	....	....	T	T	....	.15	....	....	....	....	....	....	....	....	....	....	T	....	....	0.95
Wapello	....	....	....	....	....	....	....	.32	.39	....	....	T	....	....	T	.10	....	.13	....	....	....	....	....	.14	....	T	....	....	....	....	....	1.08
Washington	....	....	....	....	....	....	.09	....	1.13	.10	....	.01	....	....	....	.13	....	.25	....	....	....	....	....	.02	....	.04	....	....	.04	....	....	1.81
Washta	....	....	....	....	....	....	.50	....	.10	....	....	....	T	....	.05	....	....	....	....	....	....	....	....	....	T	....	T	....	T	....	....	0.65
Waterloo	....	.03	....	....	....	....	.41	.35	.61	.06	....	.10	T	....	T	T	....	.24	....	....	....	....	....	....	....	T	....	.01	T	....	....	1.81
Waukee	....	....	....	....	....	....	T	.10	.80	....	....	T	....	....	T	T	....	.01	....	....	....	....	....	T	....	T	....	T	T	....	....	0.91
Waverly	....	....	....	....	....	....	.07	.43	.95	.05	....	.11	....	....	....	.01	....	.08	....	....	....	....	....	....	....	....	T	T	T	....	....	1.70
Webster City	....	....	....	....	....	....	T	.50	1.10	....	....	.15	T	....	.10	T	....	T	....	....	....	....	....	....	....	....	T	....	T	....	....	1.85
West Bend	....	....	....	....	....	....	.70	.30	....	....	....	.10	....	....	.25	....	....	....	....	....	....	....	....	....	....	....	T	T	T	....	....	1.35
Wilton Junction	....	....	....	....	....	....	....	....	1.23	....	....	....	....	....	....	....	....	.29	....	....	....	....	....	....	....	....	....	....	....	....	....	1.52
Winterset	....	....	....	....	....	....	T	.05	.80	T	....	.10	T	....	T	T	....	T	T	....	....	....	....	.03	....	T	....	....	.06	....	....	1.04
Woodburn	....	....	....	....	....	....	T	.05	.72	.05	....	.05	T	....	.05	....	....	.10	....	....	....	....	.68	....	....	....	....	....	.10	....	....	1.80
Zearing	....	....	....	....	....	.02	.10	.10	1.20	....	....	.15	.18	....	.04	....	....	.04	....	....	....	....	....	....	....	....	....	....	....	....	....	1.83

TOTAL PRECIPITATION, MARCH, 1909.



SCALE OF SHADES—IN INCHES

Less than 2	2 to 4	4 to 6	6 to 8	More than 8

U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR APRIL, 1909

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1909

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

OF THE

STATE BOARD OF AGRICULTURE,

CONSTITUTED AS FOLLOWS:

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MEAN ISOTHERMS AND PREVAILING WINDS OF APRIL, 1909.

Lines pass thru points of equal temperature. Arrows fly with the wind.

U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IOWA SECTION,

GEO. M. CHAPPEL, Section Director.

VOL. XX DES MOINES, IOWA, APRIL, 1909 NO. 4

GENERAL SUMMARY.

The month was abnormally cold and cloudy with an excessive amount of precipitation in all but the extreme western counties where there was a slight deficiency. Freezing temperatures occurred in all districts every week during April, and the month closed with the temperature at freezing or below in all parts of the state. The average temperature was 2.3° higher than the average for April, 1907, which was the coldest April on record since state-wide observations have been taken and the only one colder than the past month.

The precipitation, like the cold, was almost continuous, there being very few warm or clear days. At least a trace of rain or snow fell in some part of the state on every day during the month and the average amount of snowfall was greater than the average of any preceding April since 1896. Thunder storms accompanied by hail and wind squalls were frequent, and, in many cases, were quite destructive to property. Under such adverse conditions, field work has been retarded and was, at the close of the month, about two weeks behind the average of former years. In the east central and northeast districts, where rain or snow fell almost daily from the 12th to the 30th, farm work is especially backward, and the seeding of oats in those districts was only about three-fourths finished at the close of the month. A large acreage intended for oats has been abandoned in all parts of the state, thereby reducing the acreage of that crop from 10% to 15% below the acreage of last year. The acreage of wheat has, however, been increased and there will be a decided increase in the acreage of corn if favorable weather prevails during May. Wheat and early sown oats are up and in most cases show a good stand, but there is a probability that oats, just beginning to sprout, were injured by the hard freeze which occurred on the night of the last day of the month. The continued cold weather has kept the fruit buds dormant and no blossoms have appeared except in the extreme southern counties, and the indications are thereby very favorable for a good crop.

Clover and all grasses, while making slow growth, are in good condition and reports indicate that there was very little damage done by the alternating freezing and thawing weather during the winter, and the excessive precipitation during April assures another good hay crop.

TEMPERATURE.—The monthly mean temperature for the state, as shown by the records of 117 stations, was 43.8°, which is 4.7° below the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 40.7°, which is 6.1° below the normal; Central section, 44.1°, which is 4.4° below the normal; Southern section, 46.7°, which is 3.6° below the normal. The highest monthly mean was 50.6°, at Keokuk, Lee county, and the lowest monthly mean 37.0°, at Rock Rapids, Lyon county. The highest temperature reported was 86°, at Burlington, Des Moines county, on the 29th; the lowest temperature reported was 14°, at Elma, Howard county, and Fayette, Fayette county, on the 10th. The average monthly maximum was 76°, and the average monthly minimum was 20°. The greatest daily range was 52°, at Hancock, Pottawattamie county, and Storm Lake, Buena Vista county. The average of the greatest daily ranges was 39°.

PRECIPITATION.—The average precipitation for the state, as shown by the records of 119 stations, was 4.58 inches, which is 1.75 inches above the normal. By sections the averages were as follows: Northern section, 4.18 inches, which is 1.71 inches above the normal; Central section, 4.95 inches, which is 2.08 inches above the normal; Southern section, 4.60 inches, which is 1.46 inches above the normal. The greatest amount, 9.43 inches, occurred at New Hampton, Chickasaw county, and the least, 0.83 inch, at Hancock, Pottawattamie county. The greatest amount in any twenty-four hours, 4.60 inches, occurred at New Hampton, Chickasaw county, on the 18th. Measurable precipitation occurred on an average of 12 days.

The average amount of unmelted snowfall for the state was 3.1 inches; the greatest amount, 20.8 inches, occurred at Northwood, Worth county.

SUNSHINE AND CLOUDINESS.—The average number of clear days was 9; partly cloudy, 9; cloudy, 12. The duration of sunshine was below the normal, the percentage of the possible amount being 58 at Charles City; 49 at Davenport; 47 at Des Moines; 41 at Dubuque; 59 at Keokuk, and 47 at Sioux City.

WIND.—Northwest winds prevailed. The highest velocity reported was 56 miles per hour from the northwest, at Sioux City, Woodbury county, on the 28th.

COMPARATIVE DATA FOR THE STATE—APRIL.

Year	Temperature			Precipitation		
	Mean	Highest	Lowest	Average	Greatest	Least
1890	51.8	88	2	1.80	4.46	.38
1891	50.6	93	13	2.15	5.06	.59
1892	45.4	88	14	4.75	8.38	2.43
1893	45.5	96	15	4.21	8.51	1.24
1894	51.7	93	12	3.07	6.91	.55
1895	54.2	98	8	2.62	5.88	.28
1896	54.5	94	10	5.02	9.67	2.35
1897	47.9	89	19	5.35	9.86	2.22
1898	48.1	91	14	2.56	4.82	.27
1899	48.9	89	1	2.40	5.76	.56
1900	52.2	89	19	2.67	6.62	.43
1901	49.9	92	15	1.79	3.47	.66
1902	48.2	96	9	1.71	4.15	.40
1903	49.8	86	17	2.98	6.00	.74
1904	44.1	86	13	3.63	8.97	1.52
1905	47.5	90	10	3.03	5.49	.63
1906	52.5	94	22	2.42	5.55	.53
1907	41.5	80	10	1.32	3.22	.24
1908	50.5	91	8	2.24	4.59	.67
1909	43.8	86	14	4.58	9.43	.83

ATMOSPHERIC PRESSURE AND WIND.

Mean Barometer for the month reduced to sea level, 29.95 inches.
Prevailing direction of Wind. Northwest.

STATIONS	Barometer, in Inches					Wind				
	Mean	Maximum	Date	Minimum	Date	Movement	Maximum Velocity—miles	Direction	Date	Average Hourly Velocity
Charles City.	29.95	30.40	10	29.41	29	7211	34	W	29	10.0
Davenport..	29.93	30.43	10	29.17	29	7765	46	NW	29	10.8
Des Moines.	29.92	30.44	8	29.33	29	8115	53	SW	11	11.3
Dubuque....	29.97	30.47	10	29.35	29	6793	39	NW	7	9.3
Keokuk	29.96	30.43	8	29.15	29	7745	40	SW	29	10.8
Omaha, Neb.	29.94	30.53	8	29.34	29	8799	48	NW	26	12.2
Sioux City ..	29.96	30.53	8	29.46	11	11353	56	NW	28	15.8

OBSERVERS' REMARKS.

AFTON—*Hon. N. W. Rowell.* There is not a green leaf visible at the close of the month.

ALBIA—*J. J. Chenowith.* April was a cold, backward month with 17 rainy days. There was only about one-half of the intended acreage of small grain seeded. No fruit trees in bloom at the close of the month.

ALGONA—*Dr. F. T. Seeley.* April closed with snow falling and on the whole the month was cold, damp and disagreeable.

ALLERTON—*Mrs. Geo. Shriver.* The month was cold and wet and farm work is two weeks behind the average.

ALTA—*David E. Hadden.* The month of April was very cold; the mean temperature being about 7° below the nineteen-year normal. A tornado-like wind squall occurred shortly after midnight of the 28th which did a good deal of minor damage. Several barns in town were completely destroyed and one horse was killed. The storm was very unusual for the time of day and year and the prevailing cold weather at the time of its occurrence.

ALTON—*W. S. Slagle.* Frost occurred nearly every night and all vegetation is about three weeks later than usual. The acreage of small grain is less than usual.

AMANA—*Conrad Schadt.* The weather was cold, cloudy, wet and unseasonable thruout the month and the small grain was sown under adverse conditions.

AMES—*J. H. Criswell.* The month was cold and wet and the spring work is much behind the average. About 75% of the oats are seeded. Fruit buds not opened and are still safe.

ATLANTIC—*Thos. H. Whitney.* Unfavorable weather retarded plowing and planting and reduced the product of spring farrowing. The soil has been wet and heavy notwithstanding that the precipitation was but a little above the normal.

BONAPARTE—*B. R. Vale.* Small grain all sown prior to the 12th when the rainy weather began. Grass is starting very slowly. No corn has been planted but the plowing is all done.

BRITT—*Geo. P. Hardwick.* Excessive cloudiness and low temperatures have prevailed and frost is not yet all out of the ground. Only about one-half of the oats and barley has been seeded. Trees do not show a green leaf or any bloom.

CHARITON—*C. C. Burr.* The season is 14 days late. Quite a large portion of the acreage intended for oats will not be sown as the soil is too wet for field work, but the early sown oats are coming up. The prospects for a fruit crop are fairly good.

CLINTON—*Luke Roberts.* The mean temperature was about 2.5° below the normal and the rainfall, 7.72 inches, was 3.2 inches more than the previous highest April record for the past 31 years. In April, 1882, the total rainfall was 7.40 inches.

CORYDON—*Clara Miller.* There have been two or three spring-like days during the month and the ground is very cold and wet. Farm work is fully three weeks late and some oats are still being sown. The early sown oats show a good stand.

CRESTON—*Edgar Stovall.* Continued cold and wet weather has retarded all farm work. The acreage of oats will be about 50% less than last year.

DAVENPORT—*J. M. Sherier.* The total precipitation for the month was 2.67 inches above the normal. A trace, or more, of rain fell on 20 days. A severe hailstorm occurred on the evening of the 5th, many of the hailstones measuring an inch in diameter and hundreds of square feet of glass in greenhouses were broken in this vicinity. A number of windows were blown in and some signs were broken by a wind that attained a velocity of 41 miles per hour, from the south, on the afternoon of the 6th.

DECORAH—*F. H. Baker.* One-half of the month has been stormy and some farmers have not yet sown any small grain.

DELAWARE—*Wm. Ball.* A hailstorm on the 29th did some damage to fruit buds.

DUBUQUE—*James H. Spencer.* No April, at this station, during the past 36 years has been so cold and wet. Tnere was slightly more rain during April, 1896, but it was a warm month, while April, 1907, was colder but the rainfall was comparatively light. High winds occurred on the 6th, 7th, 11th, 28th and 29th; plate glass windows were broken and other minor damage done. There were six days with thunder storms, and on the night of the 28th-29th a residence was struck by lightning and burned to the ground. Vegetation has grown very slowly and the ground has been too wet to work thruout the month. Very little seeding has been done, and there is much complaint of the backward spring.

ELLIOTT—*Henry Barnes.* Too cold for the growth of vegetation. Small grain is all in and up with a good stand.

FAIRFIELD—*Prof. R. M. McKenzie.* The month has been cold and wet and crops and foliage on trees are backward. Heavy windstorms occurred on the 11th-12th and 28th-30th and light snow flurries occurred on the 8th, 12th and 30th.

FAYETTE—*R. Z. Latimer.* More rain and snow fell during the month than during any April for the past 20 years.

GRAND MEADOW—*F. L. Williams.* The month has been cold and wet. Seeding began on the 16th but not over one-third of it is finished.

GREENE—*J. L. Cole.* Mourning doves appeared on the 10th and wrens on the 22d. A high wind on the 29th blew down windmills and did some slight damage to buildings.

GRINNELL—*D. W. Brainard.* No fruit blossoms of any kind appeared during the month.

HANCOCK—*G. C. Rogers.* Oats are just coming thru the ground.

HOPEVILLE—*M. T. Ashley.* The storm on the 28th was destructive, washing out fills and approaches to bridges. One man near here in Decatur county lost four horses and two mules by lightning and there was some stock drowned. Rural mail carriers have not made their rounds since the storm.

INWOOD—*F. B. Hanson.* This has been the coldest and most backward April for many years and spring work is two to three weeks late. Seeding is barely finished and plowing for corn just started. The month closed cold with a snowstorm.

KEOSAUQUA—*J. H. Landes.* The month has been cold and damp. Oats are looking fairly well but on account of bad weather and high price of seed probably only 80% of the average acreage was seeded. Corn planting will begin May 1st.

LENOX—*J. L. Hurley.* Considerable damage was done to window glass by the hailstorm on the 29th.

MASSENA—*C. E. Smeltzer.* The wet weather has caused a reduction in the acreage of small grain.

NORTHWOOD—*Chas. H. Dwelle.* Seeding is about half done and grass and foliage have not yet started.

OLIN—*C. M. Miles.* The month has been very cold and wet but the oats are all sown and there is sufficient grass in pastures for stock.

OSKALOOSA—*Jos. Boyd.* About 25% of the acerage intended for small grain was not seeded on account of wet weather.

PACIFIC JUNCTION—*H. H. McCartney.* This has been the coldest and cloudiest April I can recall since 1869. The month closed with a storm and cold wave as did April, 1903. On the night of April 30th-May 1st the minimum temperature was 25°—just 2° lower than in 1903.

PELLA—*John H. VerSteeg.* The month was cold and wet with but little sunshine. Seeding was not finished at tne close of the month. This has been the most backward spring since 1881. Grass is short and trees and shrubs do not show an yleaves yet. There was a severe hailstorm on the 28th and a snowstorm on the 30th.

PLOVER—*J. S. Smith.* There was a regular blizzard on the morning of the 30th with two inches of snow. The temperature was down to 24° on May 1st. Hay is scarce and grass will be later than in 1881. Season is 20 days late.

RIDGEWAY—*Arthur Betts.* April, 1909, breaks the April record for the past 11 years for the number of days with snow, the number of days with hail, high winds, the amount of rainfall, and the amount of snowfall and has had the least amount of sunshine but it was not as cold as April, 1907.

ROCK RAPIDS—*W. C. Wyckoff.* On the 30th we had a regular blizzard and at times the snow was very dense, then in a few minutes it would almost cease.

SAC CITY—*E. N. Baily.* The month has been cold with frequent storms and snow flurrries but the small grain is all sown. Blue grass is well started and timothy and clover sown last year is promising.

STOCKPORT—*C. L. Beswick.* Oats show a good stand and clover and timothy promise a good crop of hay.

WEST BEND—*Phil Dorweiler.* The weather has been unseasonable and farm work is backward. On the night of the 28th-29th there was a thunderstorm with hail and high wind that did considerable damage to property.

ERRATA.

Carroll, January: Total precipitation, recorded on pages 6 and 10 as 1.37 inches, should have been 1.77 inches.

Chariton, January: Maximum temperature recorded on the 30th, on page 8, as 4°, should have been 6°; mean maximum temperature, page 8, recorded as 34.2°, should have been 34.3°; mean monthly temperature recorded on page 7 as 24.7°, should have been 24.8°.

De Soto, January: Lowest temperature recorded on page 6 as —18°, should have been —16°.

Elliott, January: Maximum temperature recorded on the 6th, on page 8, as —3°, should have been 8°; maximum temperature on the 12th, recorded as 7°, should have been 10°; mean maximum temperature recorded as 32.1°, should have been 32.5°; mean monthly temperature recorded on page 7 as 23.2°, should have been 23.4°.

Fort Dodge, January: Maximum temperature recorded on the 6th, on page 8 as —9°, should have been —8°.

Independence, January: Maximum temperature recorded on the 5th on page 8, as 12°, should have been 32°; mean maximum, 30.0°, should have been 30.6°; mean monthly temperature, recorded on page 6 as 21.0°, should have been 21.3°.

Hampton, January: Total precipitation, recorded on pages 6 and 10 as 2.61 inches, should have been 3.21 inches.

Iowa Falls, January: Maximum temperature, recorded on the 7th, on page 8, as 5°, should have been 9°; minimum temperature on the 8th, recorded as —3°, should have been —10°; maximum temperature on the 11th, recorded as 0°, should have been 6°; minimum temperature recorded on the 14th as 24°, should have been 14°; mean maximum temperature recorded, 26.3°, should have been 26.6°; mean minimum temperature recorded 11.8°, should have been 11.2°; mean monthly temperature recorded on page 6 as 19.0°, should have been 18.9°.

Rock Rapids, January: Maximum temperature recorded on the 10th, on page 9, as —2°, should have been 0°; maximum on the 29th, recorded —5°, should have been 10°; mean maximum temperature recorded 19.6°, should have been 20.8°; mean monthly temperature recorded on page 6 as 13.2°, should have been 13.8°.

March Review: Under Sunshine and Cloudiness, page 25, number of partly cloudy days, recorded as 19, should have been 10.

Omaha, March: Maximum temperature recorded on the 8th on page 29, as 26°, should have been 29°; mean maximum recorded 43.4°, should have been 43.5°; mean monthly temperature recorded on page 28 as 35.7°, should have been 35.8°.

CLIMATOLOGICAL DATA FOR IOWA, APRIL, 1909

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in Inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
NORTHERN SECTION																				
Algona	Kossuth	1,213	34	40.4	−5.8	72	26	20	* 9	38	3.48	+1.00	1.15	7.0	11	15	6	9	se, nw	Dr. F. T. Seeley
Alta	Buena Vista	1,513	17	39.9	−6.8	75	26	20	9	43	2.77	−0.26	.64	5.0	15	10	11	9	se	D. E. Hadden
Alta [near]	Buena Vista	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.38	.....	.55	7.5	14	.....	.....	.....	.....	W. J. Minard
Alton	Sioux	1,305	3	41.8	.....	77	26	21	9	43	2.80	.....	.76	12.5	10	15	5	10	nw	W. S. Slagle
Britt	Hancock	1,236	11	39.5	−6.2	74	26	19	10	37	2.90	+ .69	1.10	4.5	12	0	21	9	nw	G. P. Hardwick
Charles City	Floyd	1,015	20	40.2	−6.1	68	17	20	10	32	5.40	+2.57	2.18	2.3	16	3	12	15	nw	Weather Bureau
Clear Lake	Cerro Gordo	1,241	9	40.4	−6.6	69	26	19	*10	35	.....	.....	.....	.....	...	9	4	17	nw	Oscar Stevens
Decorah	Winneshiek	975	15	41.5	−6.2	68	17	17	10	33	5.90	+3.40	1.12	4.0	15	....	....	....	.....	F. H. Baker
Dows	Wright	1,142	8	40.0	−6.3	67	17	18	10	37	4.03	+1.78	.83	....	10	10	10	10	n	G. D. Flett
Elkader	Clayton	727	27	43.0	−5.0	70	17	15	10	33	7.80	+5.11	3.60	1.8	14	14	4	12	se	Chas. Reinecke
Elma	Howard	.....	....	40.0	.....	66	*17	14	10	34	4.57	.....	1.10	13.0	14	3	18	9	se	H. A. Moore
Estherville	Emmet	1,298	12	38.8	−7.5	73	26	20	*10	40	2.73	+ .52	.60	7.0	8	17	0	13	nw	A. O. Peterson
Fayette	Fayette	1,003	18	a40.8	−5.7	a70	17	a14	10	a35	8.02	+5.00	3.57	5.2	12	12	8	10	se, nw	R. Z. Latimer
Forest City	Winnebago	1,226	14	39.0	−7.5	72	27	17	9	41	3.57	+1.20	.85	7.5	13	10	11	9	w	J. A. Peters
Grand Meadow	Clayton	1,180	17	40.2	−6.6	67	17	19	10	32	7.67	+4.70	2.74	6.8	14	7	11	12	nw	F. L. Williams
Greene	Butler	.....	9	41.8	−6.3	68	17	19	10	34	4.10	+1.87	.78	3.5	13	2	14	14	w	J. L. Cole
Hampton	Franklin	1,155	18	41.4	−5.9	67	*17	19	10	35	.....	.....	.91	6.0	15	6	15	9	nw	E. C. Grenelle
Humboldt	Humboldt	1,095	17	42.4	−5.9	68	24	22	* 9	37	3.45	+ .84	.68	1.0	11	19	1	10	nw	H. S. Wells
Inwood	Lyon	1,474	4	a40.4	.....	a72	*17	18	* 1	45	2.77	.....	.90	15.6	12	13	6	11	ne, nw	F. B. Hanson
Larrabee	Cherokee	1,266	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. B. Streever
Le Mars	Plymouth	1,224	12	41.8	−6.2	76	26	22	8	40	2.71	− .48	1.04	....	12	4	16	10	nw	G. A. Clarke
Mason City	Cerro Gordo	1,132	11	39.4	−8.3	67	17	18	10	34	4.09	+1.44	.70	3.2	13	7	13	10	nw	J. S. Mills
Merrill	Plymouth	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Eric Oleson
New Hampton	Chickasaw	1,169	11	40.2	−6.7	65	17	17	10	31	9.43	+7.48	4.60	3.0	13	10	8	12	n, e, s	A. F. Kemman
Northwood	Worth	1,222	12	b39.3	−7.2	d66	17	18	9	33	4.30	+2.14	.66	20.8	15	10	10	10	nw	Charles H. Dwelle
Osage	Mitchell	1,184	17	41.0	−4.4	66	*17	16	10	35	3.86	+1.41	.67	13.5	10	11	3	16	nw	Dr. A. D. Bundy
Plover	Pocahontas	1,426	12	41.4	−5.2	75	26	20	13	41	2.47	+ .37	.70	5.0	9	17	5	8	nw	J. S. Smith
Pocahontas	Pocahontas	.....	4	40.6	.....	74	26	21	9	41	2.85	.....	.66	3.0	11	14	2	14	n	F. E. Hronek
Ridgeway	Winneshiek	1,215	10	41.0	−6.6	71	17	19	* 9	35	6.94	+4.50	1.12	11.5	17	10	9	11	s	Arthur Betts
Rock Rapids	Lyon	1,358	9	37.0	−9.2	70	27	18	13	49	.....	.....	.....	.....	4	.....	.....	.....	.....	W. C. Wyckoff
Sheldon	O'Brien	1,422	8	41.8	−5.3	78	26	18	9	40	3.05	+1.32	1.00	15.0	8	6	9	15	nw	Dr. A. W. Beach
Sibley	Osceola	1,212	15	40.9	−5.2	76	26	17	* 9	46	2.60	+ .27	.53	9.1	14	9	5	16	nw	H. G. Doolittle
Sioux Center	Sioux	.....	9	40.6	−5.4	75	26	19	9	48	2.50	+ .30	.60	13.0	9	8	6	16	nw	J. de Ruyter
Storm Lake	Buena Vista	1,440	12	42.2	−3.2	74	27	20	* 9	52	2.08	+ .26	.57	1.5	11	12	6	12	w	S. B. Fracker
Washta	Cherokee	1,157	10	43.2	.....	77	26	19	15	44	2.33	+ .23	.60	6.5	10	8	10	12	nw	H. L. Felter
Waverly	Bremer	948	12	42.0	−5.0	69	17	24	9	32	7.83	+5.14	2.03	....	15	2	16	12	nw	H. S. Hoover
West Bend	Palo Alto	1,197	14	41.1	−5.2	72	26	21	* 9	39	2.51	+ .21	1.22	2.5	10	10	7	13	.....	Phil Dorweiler
Average	.....	.....	....	40.7	−6.1	71	.....	19	.....	38	4.18	+1.71	.....	7.3	12	9	9	12	nw	
CENTRAL SECTION																				
Amana	Iowa	721	31	45.5	−3.1	78	6	18	10	33	6.81	+3.90	1.13	2.6	15	6	13	11	se	Conrad Schadt
Ames	Story	926	27	d47.7	−1.4	81	26	b25	23	49	6.12	+3.45	1.99	....	14	13	10	7	nw	Iowa State College
Audubon	Audubon	1,301	15	43.2	−5.5	78	26	21	27	43	2.72	− .52	.66	2.1	11	7	8	15	.....	Geo. E. Kellogg
Baxter	Jasper	998	8	44.2	−4.6	76	26	19	10	37	6.49	+3.62	1.33	1.0	19	12	6	12	nw	W. R. Vandike
Belle Plaine	Benton	828	18	44.4	−4.5	72	6	17	10	35	6.48	+3.17	1.56	4.0	15	7	10	13	se	S. P. Vandike
Boone	Boone	1,134	3	42.2	.....	80	26	23	10	42	4.31	.....	1.30	T	13	....	....	....	.....	Carl Fritz Henning
Buckingham	Tama	.....	8	.....	.....	.....	.....	.....	.....	.....	5.22	+2.15	1.00	T	10	....	....	....	.....	Dr. W. A. Daniel
Carroll	Carroll	1,265	18	41.1	−7.0	80	26	21	9	48	2.53	− .67	.74	1.2	13	9	10	11	.....	Mrs. Joseph J. Wolfe
Cedar Rapids	Linn	733	26	44.4	−5.3	73	7	20	*10	46	6.36	+3.62	1.35	T	10	6	13	11	s	Electric Light & P. Co.
Clinton	Clinton	593	40	46.8	−1.8	76	17	16	10	33	7.72	+4.71	2.74	T	9	9	12	9	w	Luke Roberts
Davenport	Scott	580	36	46.8	−3.4	81	29	22	10	41	6.02	+3.14	1.97	T	17	10	6	14	nw	Weather Bureau
Delaware	Delaware	1,083	17	41.1	−4.7	67	17	15	10	31	5.66	+2.88	2.05	1.3	11	9	16	5	se	Wm. Ball
Denison	Crawford	1,180	13	43.2	−4.9	78	26	21	13	44	2.20	−1.25	.85	0.8	15	14	5	11	n	W. C. Van Ness
Des Moines	Polk	861	29	45.1	−5.5	76	26	24	10	34	5.14	+2.16	1.34	T	15	3	10	17	nw	Weather Bureau
De Soto	Dallas	866	8	45.6	−4.1	78	26	24	10	35	5.03	+3.25	1.76	T	10	15	2	13	nw	R. D. Minard
Dubuque	Dubuque	639	35	43.4	−5.5	66	17	21	10	29	7.40	+4.48	2.45	1.7	18	7	10	13	nw	Weather Bureau
Fort Dodge	Webster	1,126	8	e40.6	−6.8	e75	26	e28	* 9	e40	.....	.....	.....	.....	...	...	...	...	.....	J. F. Monk
Gilman	Marshall	1,052	9	.....	.....	.....	.....	.....	.....	.....	6.18	+3.82	1.59	....	12	...	...	...	.....	Jas. L. Wylie
Grinnell	Poweshiek	1,023	16	45.4	−4.9	75	26	19	10	36	5.72	+2.34	1.12	....	12	4	16	10	nw	D. W. Brainard
Grundy Center	Grundy	976	17	43.6	−3.8	70	17	24	9	36	7.37	+4.32	1.90	1 0	10	8	11	11	s	J. B. Calderwood
Guthrie Center	Guthrie	1,077	13	44.9	−4.4	79	26	24	* 9	45	4.35	+1.61	1.08	1.5	15	12	6	12	nw	D. G. Beardsley
Harlan	Shelby	1,192	9	44.0	−4.3	80	26	23	* 8	42	2.76	+ .30	.70	T	15	4	14	12	ne	C. A. Reynolds
Independence	Buchanan	921	43	42.4	−7.0	69	17	21	10	36	15.84	+3.46	1.75	....	‡ 9	13	7	10	nw	George Donohue
Iowa City	Johnson	683	49	45.2	−2.3	73	6	17	10	44	7.21	+4.07	1.92	0	17	9	7	14	se	Prof. Karl E. Guthe
Iowa Falls	Hardin	1,170	15	40.8	−5.9	69	17	19	10	37	5.31	+2.43	1.41	3.0	13	13	2	15	nw	J. B. Parmelee
Jefferson	Greene	.....	....	48.8	.....	81	27	31	9	47	1.48	−1.12	.50	T	5	6	11	13	n	Geo. W. Jackson
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	6.29	+3.92	1.83	T	15	....	....	....	.....	Margaret T. Disney
Little Sioux	Harrison	.....	4	45.2	.....	82	26	20	* 8	42	1.83	.....	.59	0.5	10	11	3	16	nw	Geo. H. Gibson
Logan	Harrison	928	42	45.6	−4.3	83	26	23	8	45	2.09	− .72	.42	T	13	10	11	9	nw	Glenn H. Stern
Marshalltown	Marshall	947	16	42.0	−6.8	69	* 4	20	10	42	4.93	+2.03	1.45	T	17	1	18	11	se	Agnes Musil
Montezuma	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C. J. Griffin
Muscatine	Muscatine	.....	49	.....	.....	.....	.....	.....	.....	.....	5.46	+2.05	1.50	T	14	.....	.....	.....	.....	Wm. P. Molis
Newton	Jasper	944	19	45.6	−2.8	74	26	21	10	36	5.15	+1.82	1.22	....	11	11	8	11	nw	Hon. J. P. Beatty
Odebolt	Sac	1,356	10	43.4	−4.7	77	26	22	* 9	46	1.46	−1.26	.35	3.0	8	18	5	7	.....	E. Starner
Olin	Jones	760	11	45.0	−1.9	70	6	16	10	38	6.96	+4.68	2.00	T	9	9	11	10	w	C. M. Miles
Onawa	Monona	1,051	8	46.4	−3.5	81	26	23	8	48	2.34	− .14	.80	6.3	12	15	5	10	nw	C. G. Perkins
Perry	Dallas	975	7	43.4	−3.9	80	26	23	10	38	4.47	+1.54	1.10	....	....	....	....	....	.....	J. A. Harvey
Rockwell City	Calhoun	.....	12	41.6	−5.4	80	26	19	9	45	2.73	− .03	1.10	....	6	16	5	9	.....	C. M. Randall
Sac City	Sac	1,356	26	44.1	−3.6	75	26	23	9	43	1.92	−1.14	.57	2.8	12	12	3	15	nw	E. N. Baily
Sioux City	Woodbury	1,135	17	41.8	−6.7	77	26	24	9	38	2.09	− .68	.59	3.8	12	5	10	15	nw	Weather Bureau
Stuart	Guthrie	1,216	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	.....	Geo. B. Irick
Tipton	Cedar	807	10	46.8	−2.1	70	6	23	10	29	6.11	+2.87	1.58	T	10	17	8	5	nw	F. K. Gregg
Toledo	Tama	856	14	43.7	−5.9	68	* 4	15	10	35	5.70	+2.89	1.15	T	11	14	5	11	nw	I. F. Giger
Waterloo	Black Hawk	862	25	42.2	−4.8	69	17	19	10	36	6.49	+4.16	2.07	T	14	6	13	11	nw	M. L. Newton
Waukee	Dallas	1,039	5	45.2	.....	78	26	22	10	36	7.05	+3.85	2.00	T	12	9	8	13	nw	A. H. Blackmore
Webster City	Hamilton	.....	3	43.9	.....	73	*26	21	10	47	3.97	.....	1.14	5.0	9	2	16	12	nw	C. D. Carpenter
Whitten	Hardin	1,036	10	42.6	−4.8	66	4	20	10	34	6.99	+4.85	1.70	T	10	12	12	6	se	Dr. Frank P. Butler
Wilton Junction	Muscatine	683	13	44.0	−6.3	70	* 5	18	10	40	5.15	+2.17	1.30	0	6	15	1	14	w	Wm. Lang
Zearing	Story	.....	4	44.4	.....	73	26	20	10	37	6.87	.....	2.33	0	13	0	19	11	nw	O. G. Reese
Average	.....	.....	....	44.1	−4.4	75	.....	21	.....	39	4.95	+2.08	.....	1.2	12	9	9	12	nw	

CLIMATOLOGICAL DATA FOR IOWA, APRIL, 1909—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
SOUTHERN SECTION																				
Afton	Union	1,212	14	46.4	—4.0	78	26	22	9	40	5.24	+ .87	1.35	0.5	10	5	12	13	ne	N. W. Rowell
Albia	Monroe	959	10	45.0	—4.6	80	29	21	* 3	43	5.36	+2.53	1.21	0.5	17	10	5	15	nw	J. I. Chenoweth
Allerton	Wayne	.....	6	47.2	—3.1	79	29	23	10	36	4.40	+1.20	1.76	3.0	12	16	2	12	nw	Mrs. Geo. Shriver
Atlantic	Cass	1,247	17	45.0	—3.7	81	26	24	8	39	3.83	+ .77	0.71	1.5	15	4	7	19	ne, se, nw	Thos. H. Whitney
Bedford	Taylor	.....	8	47.0	—2.3	82	26	22	* 9	39	3.41	+ .60	1.02	2.0	12	10	4	16	nw	E. E. Healy
Bloomfield	Davis	881	...	48.4	.....	84	29	20	10	43	3.92	.....	1.44	1.0	15	10	7	13	nw	F. H. Roberts
Bonaparte	Van Buren	.....	17	48.4	—1.8	84	29	19	10	40	3.51	+ .16	.88	1.0	12	....	.....	.....	.....	Hon. B. R. Vale
Burlington	Des Moines	544	12	48.4	—3.1	86	29	22	10	42	3.79	+0.63	.67	....	15	15	5	10	sw	M. E. Poppe, Jr.
Chariton	Lucas	1,042	13	47.0	+0.5	78	29	22	10	37	5.01	+1.88	1.45	1.0	7	11	8	11	se	C. C. Burr
Clarinda	Page	1,009	18	45.6	—5.3	82	26	25	* 1	46	2.91	— .28	1.09	1.0	14	12	3	15	s, nw	A. S. Van Sandt
Columbus Junction	Louisa	595	7	48.0	—1.7	82	29	19	10	42	5.16	+2.38	1.30	0.5	13	12	12	6	nw	J. B. Johnston
Corning	Adams	1,117	16	45.8	—4.0	80	26	20	9	38	4.82	+1.69	1.18	2.0	11	10	7	13	nw	Jerome Smith
Corydon	Wayne	1,101	15	47.6	—3.4	78	*26	23	10	34	4.74	+1.58	1.78	T	14	10	10	10	nw	Clara Miller
Creston	Union	1,312	3	43.6	.....	80	26	23	* 9	46	4.85	.....	1.34	0	13	13	6	11	se, nw	E. S. Stovall
Cumberland	Cass	.....	9	.....	.....	.....	.....	.....	.....	.....	5.36	+3.27	1.16	4.0	12	11	5	14	sw	J. H. Reppert
Earlham	Madison	.....	6	45.1	—2.7	77	26	24	* 9	37	7.20	+3.54	1.53	T	13	9	5	16	nw	Geo. Phillips
Elliott	Montgomery	.....	3	46.2	.....	82	26	25	8	43	4.05	.....	1.08	2.0	10	15	6	9	ne	Henry Barnes
Fairfield	Jefferson	.....	14	c47.0	—2.8	c82	29	c16	10	41	4.84	+1.36	1.10	T	12	12	9	9	nw	R. Monroe McKenzie
Fort Madison	Lee	516	59	.....	.....	.....	.....	.....	.....	.....	3.98	+ .80	.72	T	10	6	9	15	s	Miss L. A. McCready
Greenfield	Adair	.....	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Geo. Brooks
Hancock	Pottawattamie	1,113	2	45.0	.....	80	*26	20	8	52	0.83	.....	.20	0	10	13	6	11	nw	G. C. Rogers
Hopeville	Clarke	.....	17	46.4	—3.3	77	26	23	* 9	37	6.31	+3.08	1.80	T	13	1	12	17	nw	M. T. Ashley
Indianola	Warren	969	17	b46.3	—4.4	b75	26	c22	23	c39	3.94	+ .54	.95	T	13	7	3	20	nw	Prof. J. L. Tilton
Keokuk	Lee	571	37	50.6	—1.4	85	29	25	10	39	4.99	+1.65	1.24	T	11	12	9	9	se	Weather Bureau
Keosauqua	Van Buren	644	16	47.6	—4.0	85	29	19	10	45	4.20	+ .51	1.07	T	13	5	8	17	.....	J. H. Landes
Knoxville	Marion	920	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Casey & Bellville
Lacona	Warren	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Agent C., B. & Q. Ry.
Lamoni	Decatur	.....	....	47.8	.....	82	29	23	9	39	4.36	.....	1.52	T	17	17	2	11	nw	T. J. Fitzpatrick
Lenox	Taylor	1,250	13	46.2	—3.8	79	26	22	* 8	44	6.19	+3.16	3.00	1.2	11	16	6	8	n	J. L. Hurley
Leon	Decatur	1,120	6	47.0	—4.3	79	26	23	10	38	5.67	+2.25	1.65	T	13	6	7	17	nw	Morris Gardner
Massena	Cass	.....	3	45.0	.....	80	26	22	9	45	4.89	.....	1.09	....	9	10	5	15	ne	C. E. Smeltzer
Mt. Ayr	Ringgold	1,236	15	47.0	—3.8	79	18	22	9	49	†5.55	+2.27	*2.00	T	13	8	8	14	nw	A. F. Beard
Mt. Pleasant	Henry	729	26	48.5	—2.6	84	29	20	10	41	3.92	+ .71	.93	T	17	7	15	8	nw	Prof. J. W. Edwards
Omaha, Neb	Douglas	1,010	38	45.6	—4.9	83	26	26	8	37	1.34	—1.67	.25	1.3	10	6	7	17	n	Weather Bureau
Oskaloosa	Mahaska	843	24	46.4	—3.6	79	29	19	10	42	6.29	+3.56	1.50	2.5	15	11	0	19	sw, w	Jos. Boyd
Ottumwa	Wapello	649	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Dr. Jas. A. Hull
Pacific Junction	Mills	960	9	46.9	—3.1	85	26	23	8	46	2.59	+ .04	.83	T	12	3	22	5	n	H. H. McCartney
Pella	Marion	877	6	46.5	—3.3	75	6	19	10	35	2.36	+3.84	1.62	T	17	14	6	10	nw	John H. Ver Steeg
St. Charles	Madison	1,070	7	46.1	—4.5	77	* 4	22	10	36	7.16	+3.64	1.38	T	15	11	11	8	nw	R. D. Minard
Sigourney	Keokuk	877	12	47.0	—4.2	80	29	18	10	38	5.78	+2.61	1.25	T	15	0	23	7	.....	J. T. Parker
Stockport	Van Buren	.....	6	47.6	.....	83	29	17	10	39	3.69	+ .57	.82	1.5	15	10	7	13	s	C. L. Beswick
Thurman	Fremont	.....	11	47.0	—3.6	84	27	24	* 8	46	2.21	—4.20	.54	....	8	7	13	10	nw	C. R. Paul
Wapello	Louisa	588	10	48.4	—3.0	80	29	20	9	37	4.20	+1.61	1.23	T	11	14	10	6	s	Geo. W. Schofield
Washington	Washington	769	27	46.8	—3.7	83	29	19	10	42	5.01	+2.35	1.36	....	17	2	19	9	nw	Wm. A. Cook
Winterset	Madison	1,129	17	45.6	—4.8	76	26	24	* 8	36	5.82	+2.10	1.17	T	14	4	12	14	n	Dr. Robert S. Cooper
Woodburn	Clarke	961	9	46.0	.....	78	26	17	9	40	5.72	+2.86	1.67	T	13	7	9	14	nw	C. B. McDonough
Average		.....	....	46.7	—3.6	81	.....	21	.....	41	4.60	+1.46	.....	0.7	13	9	9	12	nw	
State average		.....	....	43.8	—4.7	76	.....	20	.....	39	4.58	+1.75	.....	3.1	12	9	9	12	nw	

* And other dates. a one day missing, b two days; c three days; d four days, etc. ‡ Received too late to be included in average. † Partly estimated.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF APRIL, 1909

STATIONS	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30		Monthly Mean	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Afton	45	34	54	26	58	31	75	40	65	41	66	40	47	33	43	25	41	22	55	23	70	45	66	41	57	25	59	37	44	28	53	36	74	37	72	41	52	32	58	35	48	40	50	30	64	28	68	40	60	38	78	38	56	30	59	38	71	43	44	53	38.4	34.3
Albia	41	31	56	27	57	21	74	34	66	34	76	44	50	35	43	25	42	24	51	21	71	24	39	37	52	26	54	30	44	31	55	32	74	39	73	46	54	39	54	35	49	37	51	31	59	30	66	36	57	41	78	41	52	33	55	34	80	37	41	33	57.1	32.9
Algona	48	30	52	31	52	29	60	37	52	27	43	32	42	30	36	25	34	20	45	20	68	37	46	32	46	20	38	29	46	24	62	37	63	38	59	40	53	30	55	28	47	35	42	29	55	21	67	29	56	32	72	44	60	23	42	34	39	35	39	30	50.6	30.3
Allerton	42	32	54	29	56	33	75	42	65	45	74	41	51	34	45	25	42	24	51	23	69	44	66	32	53	25	55	40	45	32	51	40	75	43	72	44	51	38	50	41	47	43	53	30	59	30	65	37	58	41	77	41	63	33	61	38	79	46	46	34	58.3	36.0
Alta	41	31	52	31	55	27	62	30	53	35	35	32	38	30	38	23	37	20	53	21	66	25	45	31	46	23	37	29	45	26	65	30	67	37	45	42	55	28	52	32	41	35	43	29	64	30	69	31	63	30	75	32	52	22	46	24	40	35	35	28	50.5	29.3
Alton	45	32	52	31	53	28	62	39	50	36	42	31	38	30	40	23	37	21	54	25	62	45	49	31	44	22	43	29	46	25	64	35	68	37	64	39	55	27	52	25	45	32	43	29	64	23	71	30	64	32	77	44	65	22	51	36	46	35	39	30	52.8	30.8
Amana	50	27	55	29	54	37	67	39	64	45	73	47	52	36	41	29	38	26	46	18	67	39	62	33	50	26	47	35	46	34	55	43	68	35	67	45	53	40	58	36	53	41	52	31	50	26	66	40	58	41	63	40	59	34	47	38	62	41	42	34	55.5	35.5
Ames	47	33	56	34	63	34	71	45	68	..	57	..	..	40	..	38	..	50	..	75	..	67	..	53	36	50	34	43	28	60	38	70	36	69	41	54	33	60	37	59	38	47	32	60	25	68	38	63	36	81	44	77	28	72	40	67	39	64	32	59.9	35.5
Atlantic	42	33	54	30	56	32	67	41	60	39	50	35	45	33	44	24	41	26	57	25	69	47	55	32	54	26	48	34	43	27	53	34	73	36	68	40	52	32	55	39	45	38	50	30	65	28	69	41	61	37	81	44	68	29	55	41	55	40	40	33	55.8	34.2
Audubon	43	32	54	28	53	29	65	38	58	37	50	34	41	32	39	23	38	22	55	23	68	45	53	32	50	23	47	31	42	24	55	36	70	31	67	39	51	30	56	35	46	37	47	28	65	24	68	39	65	38	78	50	64	21	51	38	51	38	40	30	54.3	32.2
Baxter	42	29	55	29	55	31	70	39	62	37	65	39	49	32	40	25	39	24	51	19	67	39	64	32	55	23	51	34	43	27	53	37	70	34	70	41	54	34	57	33	47	38	50	29	57	24	68	35	59	36	76	40	66	29	48	38	55	38	42	32	55.9	32.6
Bedford	50	33	55	26	57	30	67	43	65	46	69	38	47	32	46	24	45	22	60	24	72	49	69	34	57	22	58	39	44	29	52	38	79	40	70	41	50	23	56	39	46	39	52	29	63	31	66	40	62	39	82	44	70	32	68	39	71	44	44	33	59.4	34.7
Belle Plaine	49	29	58	31	58	35	68	40	65	42	72	44	52	34	38	27	39	23	49	17	67	37	38	36	52	24	46	34	40	30	55	37	70	35	65	55	55	37	59	35	49	36	51	29	55	25	66	38	60	38	65	39	52	32	47	33	60	39	41	33	54.7	34.1
Bloomfield	44	30	55	27	59	34	78	38	70	51	77	47	54	35	44	28	43	23	51	20	72	40	59	32	55	26	54	37	49	34	52	40	79	43	73	52	53	40	56	41	51	43	54	32	60	27	70	40	62	44	80	37	61	36	59	38	84	45	54	35	60.4	36.5
Bonaparte	49	30	57	30	58	34	75	42	72	48	74	47	57	40	42	27	44	23	48	19	69	40	63	33	52	27	49	37	46	37	57	42	76	43	67	54	55	42	58	40	49	44	54	32	57	27	67	38	61	45	78	39	59	38	57	38	84	44	50	36	59.5	37.2
Boone	39	32	54	33	56	32	68	32	58	38	50	36	44	31	38	26	39	24	54	23	65	25	46	32	52	25	45	29	43	28	58	31	68	37	52	42	53	32	55	36	45	40	46	31	59	28	67	32	59	34	80	38	51	27	50	29	47	38	41	31	52.7	31.7
Britt	51	27	49	29	50	29	53	38	51	40	44	32	43	30	34	25	31	20	41	19	60	35	42	31	45	20	36	28	47	23	61	37	64	35	58	38	52	28	52	29	48	35	35	27	49	21	63	30	53	32	74	45	60	23	50	32	38	34	34	30	48.9	30.1
Burlington	52	31	55	32	58	33	68	38	77	45	73	50	58	34	44	29	44	24	55	22	67	33	55	50	52	29	50	34	51	35	58	31	75	43	70	45	54	42	60	41	53	40	58	33	55	30	65	39	65	45	75	40	56	42	55	41	86	44	44	37	59.6	37.1
Carroll	39	29	55	29	55	27	68	34	58	36	38	32	44	31	41	23	42	21	54	22	68	26	48	27	53	22	41	29	45	23	60	30	69	34	52	42	53	29	55	32	42	38	48	28	62	25	69	31	62	32	80	32	54	24	49	25	43	37	40	29	52.9	29.3
Cedar Rapids	51	27	53	27	53	33	67	37	63	39	73	47	52	35	53	29	37	27	45	20	66	20	40	39	51	27	46	29	47	35	56	35	70	35	66	40	54	41	57	37	51	37	51	33	55	29	69	31	62	42	62	42	54	35	46	35	54	39	41	35	54.8	33.9
Chariton	47	32	55	28	56	33	75	40	70	42	74	40	49	34	43	26	41	23	61	22	70	43	60	31	54	25	53	39	43	31	55	37	72	37	70	43	52	36	54	38	49	41	51	30	59	29	66	39	60	38	76	39	62	32	58	38	78	45	56	43	59.0	35.1
Charles City	48	26	49	32	52	35	58	35	56	35	39	32	46	30	34	26	32	22	43	20	60	37	42	30	49	25	36	30	46	27	61	38	68	36	60	45	55	34	56	34	46	33	40	29	50	24	65	33	56	33	59	43	48	28	40	32	38	34	35	30	48.9	31.6
Clarinda	47	25	58	26	57	32	74	36	63	40	54	37	48	31	47	25	45	27	61	25	72	26	51	34	59	26	59	27	44	29	57	31	81	38	64	44	52	32	53	32	48	38	53	30	67	30	67	35	63	40	82	40	56	32	73	32	64	42	42	34	58.7	32.5
Clear Lake	48	27	47	33	51	31	57	37	54	35	45	34	43	25	44	24	38	25	44	19	60	25	58	32	45	25	40	29	40	19	58	37	67	37	60	40	53	32	59	30	54	34	44	32	55	22	57	32	58	32	69	43	58	23	40	32	40	24	37	30	50.8	30.0
Clinton	55	27	56	27	54	37	62	32	75	42	75	46	56	36	41	28	40	26	46	16	66	35	58	35	51	30	51	37	57	34	62	43	76	44	67	45	55	41	59	37	51	40	54	32	52	27	68	38	67	45	61	45	56	41	47	37	63	39	46	35	57.6	35.8
Columbus Jct	55	28	55	30	50	37	68	41	73	53	74	47	64	35	46	27	40	23	48	19	68	38	61	33	52	34	50	39	49	35	59	35	73	38	73	37	54	42	58	38	51	44	56	32	55	28	66	38	61	45	70	40	61	47	50	40	82	40	60	35	59.4	36.6
Corning	45	32	55	27	53	29	70	40	66	40	56	36	45	32	44	24	40	20	56	24	71	46	66	34	55	25	55	37	42	27	54	35	75	39	74	40	49	33	52	37	47	38	48	30	63	29	65	41	60	37	80	44	70	32	62	33	68	43	45	33	57.7	33.9
Corydon	49	33	57	29	59	32	74	42	65	44	75	42	53	34	45	26	44	24	52	23	70	41	67	33	55	26	54	41	46	32	53	39	75	39	73	43	55	37	51	41	49	43	53	31	59	29	66	39	61	41	78	40	60	33	59	38	78	45	46	33	50.4	35.8
Creston	43	26	55	29	55	30	72	31	59	41	61	40	47	32	44	25	41	23	55	23	70	24	47	32	56	24	56	26	41	28	52	31	74	39	58	43	49	33	54	34	46	36	50	30	64	28	67	32	57	37	80	38	50	30	56	30	67	40	42	33	55.6	31.6
Davenport	52	29	54	34	54	37	67	39	73	48	73	40	55	34	37	28	39	24	43	22	64	38	59	34	51	30	48	38	51	38	62	44	71	42	67	44	54	42	57	39	47	41	52	34	52	30	65	42	60	46	64	38	58	39	49	40	81	40	42	34	56.7	36.9
Decorah	48	23	50	30	51	35	56	31	58	37	46	36	50	32	35	25	33	22	48	17	61	36	58	32	50	25	39	29	50	31	63	39	68	37	57	40	57	37	63	34	52	36	41	30	50	23	67	34	60	35	60	40	48	28	42	32	38	34	39	31	51.3	31.7
Delaware	52	26	50	30	50	30	58	30	61	35	55	40	51	30	39	24	34	22	44	15	62	34	59	30	51	20	43	33	48	33	58	38	67	42	62	35	54	34	55	31	48	33	45	24	50	23	62	35	55	36	57	35	55	30	40	30	42	34	39	30	51.5	30.7
Denison	41	31	54	29	53	30	66	40	62	37	46	33	40	33	40	24	39	23	55	24	67	46	50	32	50	21	42	31	42	21	63	36	68	37	64	39	53	30	53	32	46	36	46	27	65	26	71	36	63	34	78	46	69	25	52	40	47	37	40	31	54.2	32.2
Des Moines	39	34	52	32	55	34	73	43	61	42	64	37	45	34	38	28	37	26	51	24	69	36	47	33	54	28	53	35	41	31	52	41	72	38	69	42	53	37	54	39	48	37	48	33	60	32	64	45	58	38	76	45	57	31	51	42	54	37	42	33	54.6	35.6
DeSoto	44	33	57	30	59	32	75	42	64	40	58	36	43	35	42	26	41	25	51	24	69	43	66	32	56	25	56	38	43	28	52	37	72	37	70	41	53	33	55	34	48	35	50	31	64	26	69	43	61	37	78	43	64	29	52	41	50	40	42	33	56.9	34.3
Dows	43	27	50	28	53	20	63	33	56	35	46	32	44	27	34	25	34	21	45	18	65	35	46	30	49	21	41	29	44	22	61	36	67	30	62	39	53	31	56	34	47	38	42	28	56	25	66	36	57	32	66	42	56	25	42	27	40	27	39	27	50.8	29.3
Dubuque	50	27	52	32	50	35	56	35	65	41	62	37	52	34	35	29	34	26	42	21	64	36	59	32	49	29	45	40	51	38	56	43	66	37	62	42	55	41	56	37	45	34	45	33	48	29	65	43	56	43	58	40	54	36	41	33	41	38	41	33	51.8	35.1
Earlham	43	33	54	29	57	33	73	40	63	42	58	38	49	29	43	26	40	24	52	24	65	33	65	34	57	24	53	37	40	33	49	36	71	37	69	41	51	32	53	33	47	37	49	31	62	27	66	42	59	47	77	42	67	30	52	42	52	41	41	33	55.9	34.3
Elkader	55	22	50	25	55	28	59	30	63	39	53	40	63	33	38	28	38	21	45	15	64	37	58	33	50	24	43	32	40	32	49	36	71	37	69	41	51	32	53	33	47	37	49	31	62	27	66	42	59	47	77	42	67	30	52	42	52	41	41	33	55.9	34.3
Elliott	44	32	57	29	55	30	71	44	62	35	62	35	50	32	46	25	44	26	59	26	71	50	56	30	54	30	48	28	40	39	54	34	78	35	73	42	54	40	52	32	48	39	54	29	58	32	70	40	63	38	82	45	68	30	59	40	60	42	43	34	57.8	34.7
Elma	49	23	49	34	48	32	59	33	55	34	48	34	45	32	35	24	32	19	42	14	60	34	57	32	49	21	40	30	43	27	61	37	66	34	61	39	54	33	57	33	50	33	40	28	47	19	66	32	59	32	57	40	53	27	42	32	38	34	36	30	49.9	30.2
Estherville	47	26	50	29	52	28	60	31	50	35	36	33	39	30	36	23	34	29	38	20	65	25	43	32	45	21	42	28	48	25	61	28	62	35	44	40	60	27	54	25	41	30	41	30	57	20	66	31	60	31	73	41	50	21	39	24	38	33	37	28	48.9	28.6
Fairfield	49	25	57	21	58	33	75	40	70	50	75	44	54	37	42	25	41	23	49	16	..	..	..	..	53	27	51	38	46	38	57	42	75	42	68	46	53	42	58	40	50	44	53	33	57	25	..	..	59	41	77	36	64	37	55	38	82	42	52	35	58.5	35.6
Fayette	50	21	51	27	51	32	60	30	59	37	46	39	51	32	35	26	35	22	45	14	62	34	56	32	49	23	42	30	48	31	59	39	70	35	60	40	60	36	57	34	47	36	42	30	51	21	48	38	62	38	..	..	50	29	38	33	37	36	38	31	50.3	31.2
Forest City	49	29	46	30	55	30	59	32	52	35	44	36	41	30	34	24	33	17	49	20	66	25	42	31	44	22	37	28	45	26	61	28	68	35	50	40	53	30	57	31	43	35	39	29	52	22	66	27	56	32	72	35	49	23	36	24	38	33	35	29	49.0	28.9
Fort Dodge	..	34	..	..	..	..	..	..	..	..	35	..	43	31	37	26	36	23	46	24	66	26	45	32	49	25	36	29	44	30	62	29	73	37	49	41	53	32	58	34	43	39	43	32	60	23	69	32	61	34	73	35	53	25	45	26	42	38	40	30	50.5	30.7
Grand Meadow	47	26	51	29	48	32	53	32	57	37	47	36	50	32	34	24	33	23	41	19	59	34	56	32	47	24	43	32	47	32	58	38	67	35	58	37	53	35	54	33	47	33	41	29	53	23	62	33	56	35	52	40	47	29	39	32	35	34	35	31	49.0	31.4
Greene	50	27	50	30	53	34	60	35	57	35	50	35	48	32	35	25	32	22	46	19	61	35	57	32	51	24	45	29	46	26	64	38	68	35	50	34	55	32	60	33	51	36	44	31	56	24	68	34	61	33	65	43	60	27	49	33	39	35	37	31	52.3	31.3
Grinnell	45	31	57	28	56	31	71	41	65	35	73	43	53	33	42	25	39	21	48	19	68	39	67	32	53	23	50	36	44	30	53	39	69	36	69	42	54	37	57	34	52	40	50	30	57	25	66	37	64	38	75	40	67	31	48	38	66	39	41	32	57.3	33.5
Grundy Center	50	28	53	29	54	32	66	45	63	35	55	37	48	32	38	27	36	24	45	30	64	37	62	31	52	25	47	32	46	36	60	39	70	34	64	41	53	35	56	36	50	37	44	30	55	25	69	39	61	34	60	42	60	27	47	35	45	36	40	32	53.8	33.4
Guthrie Center	46	33	54	31	53	31	68	42	64	40	53	35	41	34	39	25	38	24	54	24	68	45	66	33	52	24	50	34	42	27	54	37	71	36	69	41	51	32	55	35	48	39	47	30	69	25	69	43	60	36	79	42	73	28	51	40	49	41	41	32	55.8	34.0
Hampton	51	29	50	30	54	31	63	35	57	35	45	35	44	30	35	26	34	22	46	19	66	36	50	32	52	23	39	30	45	24	64	37	67	37	57	40	57	32	59	37	48	36	42	31	55	23	67	32	61	33	64	42	53	25	43	34	38	35	40	30	51.5	31.4
Hancock	52	32	54	28	59	28	67	40	60	38	46	35	46	30	45	20	43	24	59	24	70	47	53	32	45	22	46	34	42	27	54	35	75	36	65	38	52	36	55	37	44	35	50	28	65	29	70	38	64	35	80	44	80	28	70	38	58	38	40	32	57.0	32.9
Harlan	41	31	55	27	56	29	67	41	57	38	47	33	45	32	43	23	41	23	57	24	68	48	49	32	53	23	45	32	43	24	57	35	71	33	66	39	53	30	53	36	44	38	50	28	65	26	69	36	61	35	80	45	69	27	56	41	57	38	40	32	55.3	32.6
Hopeville	42	33	56	27	56	31	74	41	62	42	68	37	50	33	43	24	42	23	54	23	70	45	65	33	55	25	56	39	42	29	56	38	74	37	76	41	51	34	52	37	47	39	50	31	62	30	66	40	59	39	75	43	44	33	58	38	46	33	44	32	58.2	34.6
Humboldt	49	28	52	32	55	30	64	38	62	38	45	34	42	32	38	26	35	22	48	22	67	40	58	32	50	22	48	30	42	22	62	37	64	50	60	40	54	30	56	34	51	36	44	30	59	22	68	31	62	33	60	40	54	24	50	36	42	36	42	30	52.8	31.9
Independence	50	29	53	29	48	30	49	32	56	31	61	30	53	32	41	26	36	25	44	21	64	34	63	32	50	24	48	33	46	30	59	38	69	33	64	43	55	36	57	33	53	36	45	29	51	26	65	38	62	37	57	38	58	39	48	34	43	36	40	32	52.9	31.9
Indianola	42	34	55	31	55	34	74	43	65	42	67	39	43	36	39	28	..	..	57	..	64	..	..	34	54	26	53	40	40	30	52	39	72	41	71	42	52	36	52	37	50	40	42	32	61	22	67	44	60	37	75	43	66	31	51	41	62	40	40	33	56.5	36.1
Inwood	45	18	54	30	52	25	64	38	53	35	43	32	37	29	42	18	40	18	53	25	59	42	43	29	44	20	42	28	45	21	64	35	72	42	61	37	57	21	52	25	45	30	46	28	63	21	72	31	61	29	..	44	55	20	50	35	42	35	44	29	51.8	29.0
Iowa City	48	25	55	29	56	32	70	38	67	43	73	47	53	36	37	29	39	25	50	17	68	24	41	41	52	27

STATIONS	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30		Monthly Mean	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Osage	53	26	48	31	55	32	60	34	57	31	48	31	43	31	43	23	37	20	45	16	60	30	56	32	50	22	44	29	44	26	61	36	66	35	58	39	58	32	61	31	51	35	41	30	51	21	66	31	59	32	61	41	59	26	49	33	37	33	35	30	51.9	30.0
Oskaloosa	46	29	57	30	56	28	73	42	64	44	76	44	51	36	40	26	40	20	49	19	71	40	64	32	54	25	52	38	48	32	53	40	73	35	70	44	53	39	57	35	52	43	52	31	60	26	68	43	60	34	76	34	61	34	52	40	79	41	43	34	58.3	34.6
Pacific Junction	44	32	58	28	58	29	70	42	57	40	50	35	47	31	47	23	45	33	68	28	73	53	53	33	57	23	49	36	41	28	53	38	82	36	72	40	52	31	56	36	46	38	53	26	69	30	72	39	66	46	85	44	73	31	70	40	61	40	42	34	59.0	34.8
Pella	48	26	57	28	57	33	73	42	67	44	75	43	50	36	41	26	41	24	48	19	70	41	68	34	53	23	52	39	44	31	54	39	68	36	70	44	54	38	54	33	53	43	53	32	59	24	65	44	60	40	73	40	64	33	50	39	74	41	44	34	58.0	35.0
Perry	39	33	51	32	46	32	67	40	58	39	49	35	39	33	37	26	33	25	46	23	67	42	55	32	53	25	45	35	40	26	56	38	70	35	69	40	51	32	52	36	48	38	48	30	61	28	69	41	59	36	80	42	64	28	49	40	48	39	40	32	53.0	33.8
Plover	46	32	55	32	55	29	63	37	52	38	43	32	40	30	37	25	33	22	48	22	70	40	45	30	45	20	40	30	46	22	65	38	67	37	58	38	54	28	58	28	46	33	46	30	61	22	70	29	61	33	75	35	59	23	45	35	42	35	42	30	52.2	30.5
Pocahontas	48	26	43	33	55	29	63	36	52	36	42	33	40	29	37	24	35	21	47	23	67	40	45	32	47	23	38	24	45	25	64	36	65	36	57	39	54	29	54	30	44	35	38	30	60	25	68	30	60	33	74	33	59	23	44	36	41	35	40	28	50.9	30.4
Ridgeway	52	27	50	30	54	34	57	33	62	34	45	34	51	33	39	24	38	19	42	19	60	35	56	33	49	22	38	30	45	30	65	36	71	36	56	41	61	33	60	35	47	33	44	28	44	22	64	30	55	33	57	40	55	28	38	34	38	34	37	32	51.0	31.1
Rockwell City	45	28	50	30	50	35	50	35	55	35	48	35	38	30	35	20	35	19	50	21	70	25	45	21	50	21	50	24	50	30	65	38	70	40	65	38	60	35	60	35	50	30	48	30	50	30	73	35	65	33	80	38	63	24	55	24	40	24	40	30	53.5	29.8
Rock Rapids	45	31	43	32	41	28	36	26	32	26	43	30	38	30	33	22	38	23	48	31	60	30	46	22	38	18	37	23	42	27	52	32	65	34	54	32	60	29	47	25	38	26	41	28	43	29	50	32	43	29	58	43	70	21	53	28	42	30	40	28	45.9	28.2
Sac City	47	33	53	33	56	30	64	40	62	37	49	33	40	32	39	26	40	23	52	24	68	43	56	33	49	26	50	30	44	28	63	37	65	33	62	36	53	32	54	37	59	38	46	31	63	28	69	35	63	34	75	45	69	26	53	39	47	38	41	30	55.0	33.2
St. Charles	43	33	56	28	59	33	77	41	63	41	68	37	46	35	44	26	43	25	53	22	71	42	64	32	56	26	56	39	40	29	52	37	74	38	72	41	52	34	54	36	48	38	51	31	63	28	67	43	59	38	77	41	60	31	53	40	65	39	41	33	57.6	34.6
Sheldon	47	30	49	29	60	35	66	36	63	35	40	31	38	30	41	22	38	18	50	21	63	42	62	28	46	21	43	27	48	25	67	35	68	37	61	29	61	25	53	26	44	32	45	29	50	23	72	35	65	30	78	44	60	20	50	40	40	35	39	27	53.6	29.9
Sibley	47	28	51	29	56	25	63	26	49	35	33	31	36	28	37	21	33	17	48	17	61	24	42	30	42	22	41	27	47	24	60	26	66	35	42	41	56	24	52	27	41	29	40	30	61	22	67	27	60	30	76	30	51	21	41	22	37	32	37	28	54.9	26.9
Sigourney	52	30	55	29	57	32	72	40	68	50	76	46	53	35	43	25	40	23	50	18	70	39	65	32	53	25	50	36	48	35	57	40	73	35	72	38	57	40	60	35	52	42	52	30	59	26	67	38	60	41	75	38	62	33	51	39	80	42	47	33	59.2	34.8
Sioux Center	44	29	53	29	51	28	62	38	50	36	41	31	36	29	38	21	33	19	52	24	59	41	41	29	42	22	38	28	45	28	62	32	69	39	62	39	53	27	52	30	41	31	42	30	61	24	68	30	61	31	75	42	70	22	50	36	41	35	37	29	51.0	30.3
Sioux City	41	32	54	32	51	33	63	41	50	38	39	32	38	29	41	24	39	24	59	27	59	33	41	30	45	28	39	31	43	26	65	37	65	42	53	38	53	31	51	27	44	31	46	34	65	31	71	36	65	33	77	39	52	25	55	40	42	34	39	27	51.5	32.2
Stockport	48	28	53	30	57	33	73	40	71	55	72	45	56	37	43	27	42	21	48	17	68	38	58	32	51	26	51	36	48	37	56	40	74	41	70	55	55	40	59	40	50	45	54	31	56	27	66	39	59	40	77	38	63	38	55	39	83	39	52	35	58.9	36.3
Storm Lake	47	41	52	33	53	29	62	38	66	31	52	32	38	31	38	25	39	20	49	24	65	42	52	32	47	20	45	20	43	24	32	36	62	40	60	38	51	30	49	33	48	35	43	31	63	29	66	31	62	31	73	46	74	22	50	24	45	35	38	28	53.1	31.3
Thurman	48	31	57	27	52	29	68	43	65	42	55	37	46	30	46	24	45	29	67	28	74	48	57	35	56	24	53	32	43	29	56	38	83	37	77	42	48	33	52	37	45	39	53	28	65	29	69	41	66	42	67	41	84	33	73	39	67	42	42	34	59.3	34.8
Tipton	53	31	53	32	56	36	66	38	68	46	70	47	57	37	43	29	43	26	45	23	65	37	59	34	51	28	46	37	46	35	57	42	69	40	65	56	56	43	59	37	56	42	52	33	53	30	65	41	66	46	67	39	57	36	47	40	62	39	44	35	56.5	37.2
Toledo	49	27	53	28	53	33	68	40	63	39	68	43	60	33	40	27	36	24	47	15	66	39	66	32	51	24	48	33	44	30	57	40	68	35	66	42	44	35	40	33	40	30	60	30	55	24	66	38	61	37	65	40	60	31	48	38	49	36	42	33	54.4	33.0
Wapello	51	28	54	31	61	38	68	40	74	37	71	48	68	38	43	30	48	20	46	22	67	37	62	35	50	30	47	35	46	35	55	43	70	41	66	54	55	42	57	47	50	45	55	34	51	31	66	42	66	49	69	40	69	40	50	41	80	43	52	38	58.9	37.8
Washington	51	28	53	31	58	35	71	40	71	51	74	42	55	34	41	26	42	22	47	19	69	38	62	35	52	26	48	35	48	35	57	42	72	37	68	46	55	41	59	36	52	40	52	31	56	26	67	39	60	43	70	39	59	36	49	40	83	41	42	33	58.1	35.6
Washta	44	32	54	33	58	28	66	42	56	36	46	32	40	32	41	24	40	20	55	25	68	47	48	32	47	20	47	32	42	19	67	36	69	42	60	38	57	27	54	25	45	35	44	30	66	22	66	30	64	32	77	46	62	25	60	40	48	44	46	30	54.6	31.9
Waterloo	51	27	54	29	55	32	62	36	61	38	48	39	51	33	37	27	37	25	45	19	66	30	42	33	51	25	45	32	45	30	60	34	69	37	58	43	55	37	57	38	48	38	45	32	52	25	67	35	57	37	59	39	50	30	45	32	43	36	40	33	51.8	32.7
Waukee	43	32	54	31	66	32	71	40	59	40	59	38	42	35	40	28	39	25	53	22	68	43	67	32	55	25	58	37	42	28	52	38	71	35	70	41	52	32	55	37	47	39	48	31	62	28	67	44	58	36	78	42	65	30	51	40	50	40	40	32	56.1	34.4
Waverly	51	26	51	29	51	35	60	33	58	36	48	37	40	32	35	26	33	24	45	28	69	36	58	32	51	25	45	32	48	29	61	38	69	37	61	41	54	36	57	37	51	36	42	31	54	25	65	37	59	34	59	41	59	29	44	28	41	28	38	32	51.6	32.3
Webster City	48	31	54	30	53	31	59	49	49	37	51	36	51	32	40	27	36	25	47	21	67	34	63	32	51	21	48	31	47	25	62	39	69	34	68	41	54	32	60	35	50	38	49	31	58	21	68	41	62	34	73	42	73	26	48	38	49	37	43	32	55.0	32.8
West Bend	49	30	51	32	54	30	61	36	55	37	42	32	40	31	36	26	33	21	47	21	69	38	45	32	44	22	39	30	49	24	62	38	66	38	57	38	52	28	58	29	46	35	40	28	59	24	69	30	58	33	72	44	59	23	43	35	40	34	40	30	51.2	31.0
Whitten	55	25	52	29	54	30	66	37	62	35	52	35	47	25	47	25	36	25	46	20	65	36	63	30	52	28	50	26	51	28	52	29	68	34	62	40	52	32	56	36	58	36	48	28	55	25	65	37	58	34	64	40	55	27	45	36	51	35	40	30	54.4	31.1
Wilton Junction	50	25	50	30	48	28	47	26	70	30	70	46	68	36	51	28	37	25	43	18	43	25	43	37	48	28	48	36	45	35	55	42	55	38	52	42	55	36	55	43	50	32	50	35	50	28	59	40	59	30	61	55	61	50	60	36	60	40	60	35	53.4	34.5
Winterset	45	29	54	30	55	31	72	41	68	40	62	39	44	34	41	24	40	25	54	24	71	44	65	33	54	25	54	40	40	28	51	38	72	38	67	40	51	33	55	35	48	41	48	31	63	29	68	43	60	38	76	44	66	30	53	42	55	43	43	33	56.5	34.8
Woodburn	45	28	55	28	58	22	75	36	64	41	72	40	49	33	45	22	45	17	52	21	70	41	69	32	53	21	57	39	44	29	55	35	75	35	76	36	52	34	53	32	49	40	52	30	61	24	70	40	60	40	78	38	65	31	59	38	76	42	47	32	59.4	32.6
Zearing	42	28	55	31	58	32	67	35	62	37	56	36	48	32	39	29	41	25	48	20	66	39	63	32	52	25	48	32	44	28	59	39	69	32	65	40	54	34	56	35	49	37	48	30	57	24	66	33	70	56	73	42	59	29	59	37	50	36	42	32	55.5	33.2

DAILY PRECIPITATION FOR IOWA, APRIL, 1909

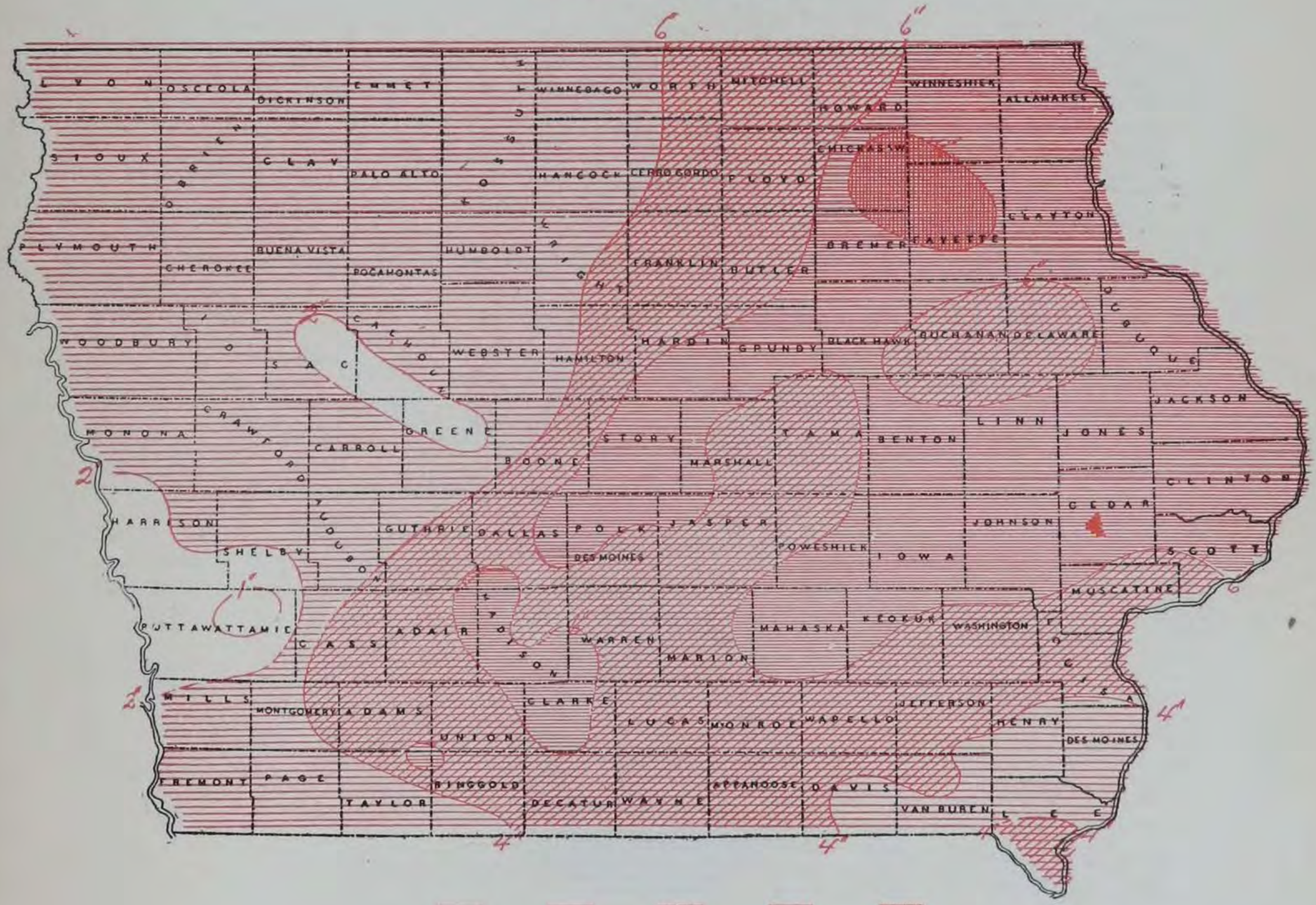
STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Afton	.05	T	....	....	....	....	....	....	T	....	....	1.35	....	.03	.17	.22	....	.39	....	....	1.13	....	....	....	....	.48	....	.04	1.38	....	5.24
Albia	....	.10	T	....	....	.03	....	....	T	T	....	1.21	.45	.03	.04	.45	.15	.15	.47	....	.75	.04	....	.08	.30	....	.02	....	1.05	.04	5.36
Algona	....	....	....	....	....	.26	.16	....	....	....	....	.19	....	.25	....	T	.12	.33	....	T	.77	....	....	T	.13	....	....	.20	.95	.12	3.48
Allerton	.37	T	....	....	....	T	....	....	T	....	....	1.76	....	.05	.20	.42	....	.35	....	....	.85	....	T	....	T	.15	.09	.05	.06	.05	4.40
Alta	.34	....	....	....	....	.01	.38	....	....	....	....	.19	....	.04	.03	.02	....	.35	T	....	.55	.09	....	....	.01	....	.08	.03	.35	.30	2.77
Alta (near)	.28	....	....	....	....	.10	.10	....	....	....	....	.18	....	.09	T	.03	.40	....	....	.04	.55	....	....	....	....	....	.10	.05	.31	.15	2.38
Alton	.50	....	....	....	....	.35	.25	....	....	....	....	T	....	.25	T	....	.11	....	....	T	.34	....	....	T	.04	....	....	.05	.76	.15	2.80
Amana	....	.06	....	....	....	.33	....	T	....	....	....	1.00	....	.06	.27	.33	....	1.13	....	....	.90	....	.20	.03	.47	.39	....	.01	1.09	.04	6.81
Ames	.03	....	....	....	....	.25	T	.02	....	....	....	1.42	....	.13	....	.31	....	1.22	....	....	.51	....	.06	....	.06	.06	.04	T	1.99	.02	6.12
Atlantic	.44	.02	....	....	....	.22	T	....	....	....	....	.71	....	.07	.60	....	.28	.09	....	.04	.33	....	T	T	.65	....	.04	.26	.01	.07	3.83
Audubon	.15	....	....	....	....	.18	....	....	....	....	....	.50	....	....	.66	.04	....	.10	....	.20	.15	....	T	.48	....	....	....	....	.15	.11	2.72
Baxter	.10	.05	....	....	T	.64	.03	.01	....	....	....	1.33	....	.16	.50	.50	.02	1.06	....	....	.75	....	.29	....	.33	.03	.13	.02	.52	.02	6.49
Bedford	.50	.07	....	....	....	.07	T	....	....	....	....	1.02	....	.04	.11	.10	....	.24	....	.04	.81	....	....	....	....	T	....	....	.26	.15	3.41
Belle Plaine	....	.10	....	....	.28	.13	T	T	....	....	....	.80	....	.37	....	.80	.02	1.02	....	....	.70	....	....	.13	.08	.36	....	.06	1.56	.07	6.48
Bloomfield	.21	.07	....	....	....	.14	....	T	....	....	....	1.44	....	.03	.22	.64	.01	.26	.01	....	.60	....	....	....	.01	.09	....	.05	.14	T	3.92
Bonaparte	....	.06	....	....	....	....	....	....	....	....	....	.88	....	.10	.34	.60	.03	.54	....	....	.55	....	....	.08	....	.06	....	.02	.25	T	3.51
Boone	....	T	....	....	....	.27	.08	....	T	....	....	1.30	T	.14	....	.18	T	.42	.36	....	.52	.02	....	T	.11	....	.08	....	.67	.16	4.31
Britt	T	....	....	....	....	.14	.12	....	T	....	....	....	....	.25	....	.05	.08	.18	....	....	.55	....	....	....	.06	.01	....	.21	1.10	.15	2.90
Buckingham	....	....	....	....	....	.10	T	....	....	....	....	.87	....	.17	.38	....	.47	.38	....	....	.60	....	T	....	....	.70	....	.55	1.00	T	5.22
Burlington	....	....	.07	....	....	.50	.06	....	T	T	....	.04	.58	....	.12	.16	.67	....	.52	.03	.57	.02	....	....	.01	....	....	....	.02	.42	3.79
Carroll	.10	.05	....	....	....	.19	.08	....	T	....	....	.38	....	T	.12	.10	....	.05	....	....	.45	.05	....	....	....	....	.10	....	.74	.12	2.53
Cedar Rapids	....	T	....	....	.09	.28	....	T	....	....	....	.54	....	.10	.72	....	....	1.27	....	....	.85	....	T	T	....	.75	....	1.35	.41	T	6.36
Chariton	.38	T	....	....	....	....	....	....	T	....	....	1.45	....	....	T	.55	....	.45	....	....	.80	T	T	.38	T	....	....	T	1.00	T	5.01
Charles City	....	.06	....	....	....	.34	.03	....	T	....	.15	.63	....	.48	....	....	1.16	1.02	....	.17	.31	....	....	.08	....	.04	.01	.29	.55	.08	5.40
Clarinda	.20	.07	....	....	....	.42	....	....	....	....	....	1.09	....	T	T	.13	.07	.05	.17	....	.38	....	....	....	....	....	....	.07	.09	.17	2.91
Clinton	....	.07	....	....	....	.64	....	....	....	....	....	.64	....	.09	....	.72	....	1.98	....	....	.68	....	....	....	....	.16	....	....	2.74	....	7.72
Columbus Jct	T	.02	....	....	....	.15	....	T	....	....	....	.78	....	.20	.10	.84	....	1.30	.05	....	.55	....	....	.07	T	.30	.05	T	.75	....	5.16
Corning	.20	.12	....	....	....	.62	....	....	....	....	....	1.18	....	....	.24	.02	....	.42	....	....	.48	....	....	....	.24	....	....	....	1.18	.12	4.82
Corydon	.31	.02	....	....	....	.11	....	....	T	....	....	1.78	T	.13	.24	.34	....	.45	....	....	.82	....	T	....	.03	.17	.01	T	.31	.02	4.74
Creston	.17	.18	.05	....	....	.13	T	....	....	....	....	1.30	.02	T	T	.42	.03	.22	.20	....	.30	T	....	....	.49	....	T	....	1.34	T	4.85
Cumberland	.40	....	....	....	....	.36	....	....	....	....	....	1.16	.02	....	.85	....	....	.87	....	.32	....	....	....	.92	....	....	.05	.03	.21	.17	5.36
Davenport	....	.04	....	....	.46	.11	T	T	T	....	....	.49	....	.06	.72	.18	.01	1.27	T	.03	.57	....	.01	....	.09	.06	.02	.51	.69	T	6.02
Decorah	....	.02	....	....	....	.55	.07	....	....	....	....	1.12	....	.85	....	T	.25	.55	....	....	.67	....	....	.03	.20	.33	.08	.40	.52	.26	5.90
Delaware	....	.03	....	....	....	.07	....	....	....	....	....	.31	....	.18	....	30	....	1.45	....	....	.70	....	....	....	....	.36	.03	.18	2.05	T	5.66
Denison	.23	.04	....	....	....	.15	.01	T	....	....	....	.10	....	.06	.12	....	.05	.03	....	....	.41	....	T	.01	.01	....	.05	T	.85	.08	2.20
Des Moines	.23	.02	....	....	....	.31	T	T	T	....	.41	.93	....	.10	.92	....	T	.71	....	.15	.61	....	T	.43	....	T	.10	.16	.03	.03	5.14
De Soto	.18	T	....	....	....	.56	....	....	T	....	....	1.76	....	.13	.51	.37	T	.34	....	....	.50	....	....	....	.33	....	....	T	.35	T	5.03
Dows	....	....	....	....	....	.21	.11	....	....	....	....	....	....	.83	....	....	.67	.66	....	....	.67	....	....	....	....	.07	....	.12	.56	.13	4.03
Dubuque	....	.03	....	....	.21	.01	.01	T	T	....	....	.61	....	.06	.23	.01	.64	1.81	....	.03	.79	....	T	.04	....	.37	.06	.99	1.48	.02	7.40
Earlham	.40	.04	....	....	....	.73	....	....	T	....	....	1.53	....	.14	.78	.37	....	1.08	....	T	.53	....	T	....	.75	.21	....	....	.59	.05	7.20
Elkader	....	....	....	....	....	.10	.08	....	.02	....	....	.75	....	.35	.10	....	....	3.60	....	....	.72	....	....	.03	....	.20	.10	.45	1.20	10	7.80
Elliott	.65	.08	....	....	.22	....	....	....	....	....	....	1.08	....	.24	.05	....	T	.13	....	....	.42	....	....	....	.95	....	....	.23	....	T	4.05
Elma	....	T	....	....	....	.25	.05	....	.03	....	.05	.75	....	.10	....	T	.07	1.10	....	....	.40	....	T	T	.30	.27	....	.50	.50	.20	4.57
Estherville	....	....	....	....	....	T	.50	....	T	....	....	T	....	.30	....	.08	T	T	....	....	.60	T	....	T	.40	....	....	.25	.50	.10	2.73
Fairfield	....	T	....	....	....	.04	....	T	....	....	....	1.05	....	.11	.16	.65	....	1.10	....	....	.72	....	.21	....	.07	.23	....	.09	.41	T	4.84
Fayette	....	.02	....	....	....	.48	T	T	..	....	....	.25	....	.40	....	.08	.44	3.13	....	....	.80	....	....	T	....	.36	....	.48	.55	.03	8.02
Forest City	....	T	....	....	....	....	.50	....	....	....	....	.15	....	.10	.20	....	.10	.20	.10	....	.55	....	....	....	.32	T	.05	.25	.85	.20	3.57
Fort Dodge	T	....	....	....	....	....	.40	T	T	....	....	.25	....	.20	.10	T	....	.32	.20	....	.65	.06	....	....	T	....	....	....	.42	.25	.....
Ft. Madison	....	....	....	.70	....	....	....	....	T	....	....	.23	....	T	....	.20	.72	.60	....	.14	.60	....	....	....	....	.10	....	....	.69	T	3.98
Gilman	T	T	....	....	....	T	....	T	....	....	....	1.18	.12	T	.81	.03	....	1.59	....	....	.77	....	....	.20	.20	....	.17	.10	.93	.08	6.18
Grand Meadow	....	....	....	....	....	.38	.12	....	T	....	....	.82	....	.53	.03	T	.03	2.74	....	....	.65	....	....	T	.20	.10	.05	.40	1.40	.22	7.67
Greene	....	.03	....	....	....	.29	.06	....	....	....	....	.69	....	.30	....	....	.08	.78	....	....	.66	....	....	.05	....	.11	....	.35	.59	.11	4.10
Grinnell	.02	....	....	....	....	.17	....	T	....	....	....	1.12	....	.10	.30	.64	T	.87	....	....	.75	....	.33	....	.58	.10	....	T	.79	T	5.72
Grundy Center	....	T	....	....	....	1.07	T	....	....	....	....	1.90	....	.25	T	....	....	1.10	....	....	.78	....	....	....	.10	.10	T	.15	1.80	.12	7.37
Guthrie Center	.08	.06	....	....	....	.37	....	T	T	....	....	1.08	....	.15	.68	.36	.01	.21	....	T	.52	....	T	T	.54	....	.11	.06	.10	.07	4.35
Hampton	.03	....	....	....	....	.40	....	....	....	....	.65	....	....	.35	.03	....	.54	.91	....	.55	.08	....	.03	T	....	.12	.05	.66	.29	.05	4.84
Hancock	....	....	....	....	....	.05	....	....	....	....	....	.10	....	T	.20	....	.12	.02	....	T	.09	....	....	.05	.06	....	T	.12	T	.02	0.83
Harlan	.14	.01	....	....	....	.21	T	....	....	....	T	.70	....	.01	.56	....	.02	.02	....	T	.35	....	....	.39	.05	....	.16	.01	.02	.11	2.76
Hopeville	.14	'05	....	....	....	.07	....	....	T	....	....	1.46	....	.01	.22	.14	....	.92	....	....	.92	....	T	....	.37	.13	....	....	1.80	.08	6.31
Humboldt	....	....	....	....	....	.65	.08	....	....	....	.15	....	....	.40	....	.02	.41	.36	....	....	.52	....	....	....	....	....	.04	....	.68	.14	3.45
Independence	....	....	....	....	....	.35	....	....	....	....	.30	.60	....	....	....	....	1.26	.62	....	....	.54	....	....	....	....	.27	.15	1.75	....	T	5.84
Indianola	.27	.02	....	....	....	.04	T	T	....	....	....	T	....	.06	.55	.48	....	.53	....	....	.95	T	.03	T	.06	.07	.06	.82	....	T	3.94
Inwood	.29	....	....	....	....	.90	.05	....	T	....	....	.01	....	.14	....	.13	T	.05	....	.05	.35	....	....	.21	....	T	....	.13	.41	.05	2.77
Iowa City	....	....	.08	....	....	.02	T	....	....	....	....	.41	.39	.03	.06	1.08	.02	.02	1.00	....	.70	.13	....	.21	.28	....	.59	....	1.92	.27	7.21
Iowa Falls	....	T	....	....	....	.17	.08	T	T	....	....	1.28	T	.10	.03	.03	....	1.41	.31	....	.48	.06	....	T	.05	....	T	....	1.02	.29	5.31
Jefferson	.10	....	....	....	....	.25	T	T	....	....	....	.10	....	T	T	T	.50	T	.53	....	....	....	T	T	....	....	T	T	T	T	1.48
Keokuk	T	.07	....	....	.54	.48	....	....	T	....	....	.59	....	T	.08	1.24	....	.83	....	.32	.23	....	....	T	....	.41	....	T	.20	....	4.99
Keosauqua	....	T	.05	....	....	.16	T	....	....	T	....	.42	.49	....	.12	.19	.67	....	1.07	....	.60	T	....	.03	....	....	.08	....	.04	.28	4.20
Lamoni	.33	.08	....	....	.20	.02	....	....	....	....	....	1.52	....	.02	.17	.27	.02	.28	.01	....	.92	....	....	....	....	.40	.03	.04	.02	.03	4.36
Le Claire	....	....	.05	....	....	.30	.04	T	T	T	....	.02	.60	....	.09	.82	.02	....	1.83	....	.54	.10	....	.02	....	....	.18	....	1.03	.65	6.29
Le Mars	.41	....	....	....	....	.51	.05	....	T	....	....	.05	....	.06	T	.03	.07	....	....	T	.33	....	....	T	.01	T	T	.07	1.04	.08	2.71
Lenox	.15	.02	....	....	....	.10	....	....	....	....	....	1.06	....	.10	.15	.05	....	.53	....	....	.88	....	....	....	....	.15	....	....	3.00	T	6.19
Leon	.50	....	....	....	.21	....	....	....	....	....	....	1.65	....	.20	.35	.25	....	.65	....	....	.99	....	.05	T	....	.35	.20	T	.22	.05	5.67
Little Sioux	.59	.03	....	....	....	.21	....	....	....	....	....	....	....	.08	.21	....	.02	....	....	....	.38	....	....	.11	....	....	.05	....	....	.15	1.83
Logan	.29	.04	....	....	....	.19	....	....	....	....	....	....	....	.19	.28	....	.08	T	....	T	.42	....	....	.15	.16	....	.15	.03	.01	.10	2.09
Marshalltown	....	.08	....	....	....	.21	.62	T	....	....	....	1.45	....	.25	.01	.28	.03	.20	.21	....	.37	.11	....	.02	.04	....	.15	....	.78	.12	4.93
Mason City	....	....	....	....	....	.20	.22	....	....	....	....	.20	....	.32	....	.05	.22	.83	....	....	.55	....	....	....	.10	.22	....	.38	.70	.10	4.09
Massena	.48	....	....	....	....	.63	T	....	T	....	.66	.97	....	T	T	T	T	.15	T	T	.56	....	T	T	1.09	T	....	T	.20	.15	4.89
Mt. Ayr	.16	.04	....	....	....	.04	T	....	....	....	....	1.55	....	....	.20	.12	....	2.00	....	T	.95	....	T	T	....	.25	....	.08	.08	.08	5.55
Mt. Pleasant	T	.09	....	....	....	.23	....	T	....	....	....	.74	T	.10	.08	.93	.02	.56	.19	....	.61	....	....	.08	.01	.02	.04	.01	.20	.01	3.92
Muscatine	....	....	.03	....	....	.18	....	....	T	....	....	.12	.45	....	.20	.98	.10	....	1.50	....	.60	.05	....	....	.11	....	.30	....	.72	.12	5.46
New Hampton	....	T	....	....	....	.40	.09	....	....	....	....	1.15	....	.47	.03	....	.04	4.60	....	....	.70	....	....	....	....	.21	.04	.46	1.04	.20	9.43
Newton	.15	....	....	....	....	.10	....	....	....	....	....	1.22	....	.08	.09	.80	T	.52	....	....	.78	....	.33	.02	....	....	....	....	1.06	....	5.15
Northwood	....	.03	....	....	....	.35	.40	....	.10	....	....	.30	....	.50	....	.02	.08	.03	....	....	.28	....	....	.66	....	.36	....	.60	.25	.34	4.30
Odebolt	.25	....	....	....	....	.25	....	....	....	....	....	....	..	.35	....	....	.45	.08	....	....	....	....	....	....	....	.10	....	....	.09	.19	1.46
Olin	....	....	....	....	....	.02	....	....	....	....	....	.90	....	.15	.85	....	....	1.80	....	.01	.70	....	....	....	....	.53	....	....	2.00	....	6.96
Omaha, Neb	....	.11	....	....	....	.09	....	....	....	....	.11	.11	....	T	.13	....	T	T	....	.13	.12	....	T	.24	....	T	....	.07	.23	T	1.34
Onawa	.80	T	....	....	....	.23	T	T	T	....	....	.12	....	.25	.18	.02	.06	T	....	T	.33	....	....	T	....	....	.05	.04	.08	.18	2.34
Osage	....	....	....	....	....	.25	.10	....	....	....	....	.30	....	.46	....	....	T	.45	....	....	....	....	T	.67	....	.25	.65	....	.56	.17	3.86
Oskaloosa	.16	.04	....	....	.11	....	....	T	T	....	....	1.50	....	.10	.54	.52	....	.46	....	....	.65	....	.28	.56	....	.31	.04	.02	1.00	....	6.29
Pacific Junction	.35	.13	....	....	....	.31	....	....	....	....	....	.83	....	.04	.15	....	T	.09	....	T	.31	....	....	T	T	....	.05	.10	.07	.16	2.59
Pella	.08	.01	....	....	....	.11	.01	T	....	....	....	1.29	....	.06	.58	.78	....	.35	....	....	.54	....	.12	T	.66	05	.06	.02	.62	.02	6.36
Perry	....	.20	....	....	....	.30	....	T	....	....	T	1.10	....	.15	....	.75	....	.45	....	....	.55	....	.10	....	.30	....	....	.07	.50	T	4.47
Plover	....	....	....	....	....	.37	....	....	....	....	....	....	....	.20	.07	....	.10	.15	....	....	.65	....	....	....	....	....	....	.03	.70	.20	2.47
Pocahontas	....	T	....	....	.12	.27	.10	....	....	....	....	.25	....	.17	....	T	.36	.12	....	.10	.65	....	....	....	....	....	T	....	.66	.05	2.85
Ridgeway	....	.25	....	....	....	.40	.04	....	.03	....	.75	.25	....	.88	....	.05	.30	.32	....	.18	.49	....	....	.26	....	.31	....	1.12	.63	.65	6.94
Rockwell City	.05	....	....	....	....	T	....	....	....	....	.01	....	....	1.10	....	....	....	T	....	....	.90	....	....	....	....	....	....	....	.65	.02	2.73
Sac City	.02	.01	....	....	....	.15	T	....	....	....	....	.14	....	.14	.05	....	....	.55	....	....	.57	....	....	....	....	....	.10	.03	.10	.06	1.92
St. Charles	.18	.02	....	....	....	....	....	....	T	....	....	1.38	....	.10	.48	.45	....	.86	....	.93	1.01	....	.05	T	.81	.28	....	.09	.46	.06	7.16
Sheldon	.12	....	....	....	....	.80	T	....	T	....	....	T	....	.25	T	....	.05	....	....	T	.53	....	T	.15	....	....	....	T	1.00	.15	3.05
Sibley	T	....	....	....	....	.15	.25	.23	....	....	....	.07	....	.15	....	.05	.09	....	....	....	.39	.06	....	.02	.28	....	....	.20	.53	.13	2.60
Sigourney	T	.07	....	....	....	....	.02	T	....	....	....	1.25	....	.05	.35	.92	....	.52	....	....	.95	....	.22	....	.32	.06	.04	.03	.93	.05	5.78

DAILY PRECIPITATION FOR IOWA, APRIL, 1909—Continued

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Sioux Center	.20	....	....	....	....	.60	T	....	....	....	....	.10	....	.20	T	....	T	....	....	.02	.42	....	....	.24	....	T	....	....	.52	.20	2.50
Sioux City	.37	T	....	....	....	.30	T	....	.01	....	.03	....	....	.01	'02	....	.38	T	....	.14	.12	....	....	T	....	.09	....	39	.23	T	2.09
Stockport	....	.07	....	....	....	.18	....	....	T	....	....	.82	....	.06	.07	.71	.01	.74	.03	....	.63	....	....	.10	....	T	.02	.01	.23	.01	3.69
Storm Lake	.23	....	....	....	....	.10	.11	....	....	....	....	....	....	.23	.02	....	.43	T	.02	.01	.57	....	....	T	....	....	....	....	.21	.15	2.08
Thurman	.30	.10	....	....	....	.42	....	....	....	....	....	.54	....	T	.10	T	....	.27	....	....	.38	....	T	T	....	....	....	T	....	.10	2.21
Tipton	....	.10	....	....	....	.03	T	T	T	....	....	.78	....	.17	....	1.02	....	1.50	....	....	.67	....	T	....	.11	.15	....	....	1.58	....	6.11
Toledo	....	T	....	....	....	....	....	....	....	....	....	.90	....	.15	1.00	.50	....	.75	....	....	.70	....	....	....	.15	.20	.10	.10	1.15	T	5.70
Wapello	....	.08	....	....	....	.38	....	....	....	....	....	.38	....	T	.22	.74	.01	1.23	....	....	.51	....	....	T	....	.20	.03	T	.42	....	4.20
Washington	....	.05	....	....	.05	....	.01	....	....	....	....	.88	....	.11	.68	.09	.03	.49	....	1.36	....	....	.12	.03	....	.19	.03	.73	.12	.05	5.01
Washta	.60	....	....	....	....	.12	....	....	....	....	.10	....	....	.05	.04	....	.40	T	....	T	.45	....	T	T	....	....	.12	T	.25	.20	2.33
Waterloo	....	.04	....	....	....	.37	....	....	....	....	....	1.16	....	.33	.07	....	.28	1.79	....	....	.56	....	....	.02	.03	.36	....	.33	.99	.16	6.49
Waukee	.50	T	....	....	....	1.00	....	....	T	....	....	2.00	....	.02	.75	.50	T	1.00	....	....	.75	....	T	....	.50	T	.01	T	.01	.01	7.05
Waverly	....	.03	....	....	....	.42	.07	....	....	....	....	1.50	....	.30	....	.05	.41	1.80	.01	....	.61	....	....	....	....	.20	.06	.14	2.03	.20	7.83
Webster City	T	....	....	....	....	.26	T	T	....	....	....	.05	....	.40	....	....	.50	1.14	....	....	.55	....	T	....	T	T	.52	T	.50	.05	3.97
West Bend	T	....	....	....	....	.21	....	....	T	....	....	.10	....	.22	T	....	.11	.01	....	.10	.48	....	....	T	....	....	....	.14	1.08	.06	2.51
Whiiten	T	T	....	....	....	1.33	T	T	T	....	....	1.70	T	....	.30	....	....	1.01	....	T	.61	....	T	....	....	.40	.08	.10	1.40	.06	6.99
Wilton Junction	....	....	....	....	.20	....	....	....	....	....	....	.90	....	....	....	1.30	1.02	....	....	....	....	....	....	....	....	.40	....	1.33	....	....	5.15
Winterset	.12	....	....	....	....	.17	....	T	T	....	....	1.17	....	.06	.47	.28	.01	.78	T	....	.84	....	T	T	.70	.25	T	.05	.87	.05	5.82
Woodburn	.19	.04	....	....	....	T	....	....	T	....	....	1.67	....	T	.26	.15	.02	.37	....	....	.92	....	T	....	.50	.12	....	.01	1.42	.05	5.72
Zearing	....	....	....	....	....	.45	....	....	....	....	....	1.81	....	.14	....	.19	.22	.72	....	....	.50	....	.04	....	....	.31	'07	.06	2.33	.03	6.87

TOTAL PRECIPITATION, APRIL, 1909.

SCALE OF SHADES—IN INCHES



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR MAY, 1909

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

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SECTION DIRECTOR

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1909

MICHIGAN SECTION
CLIMATOLOGICAL SERVICE
NOV 8 1910
WEATHER BUREAU,
GRAND RAPIDS, MICH.

THE IOWA WEATHER AND CROP SERVICE

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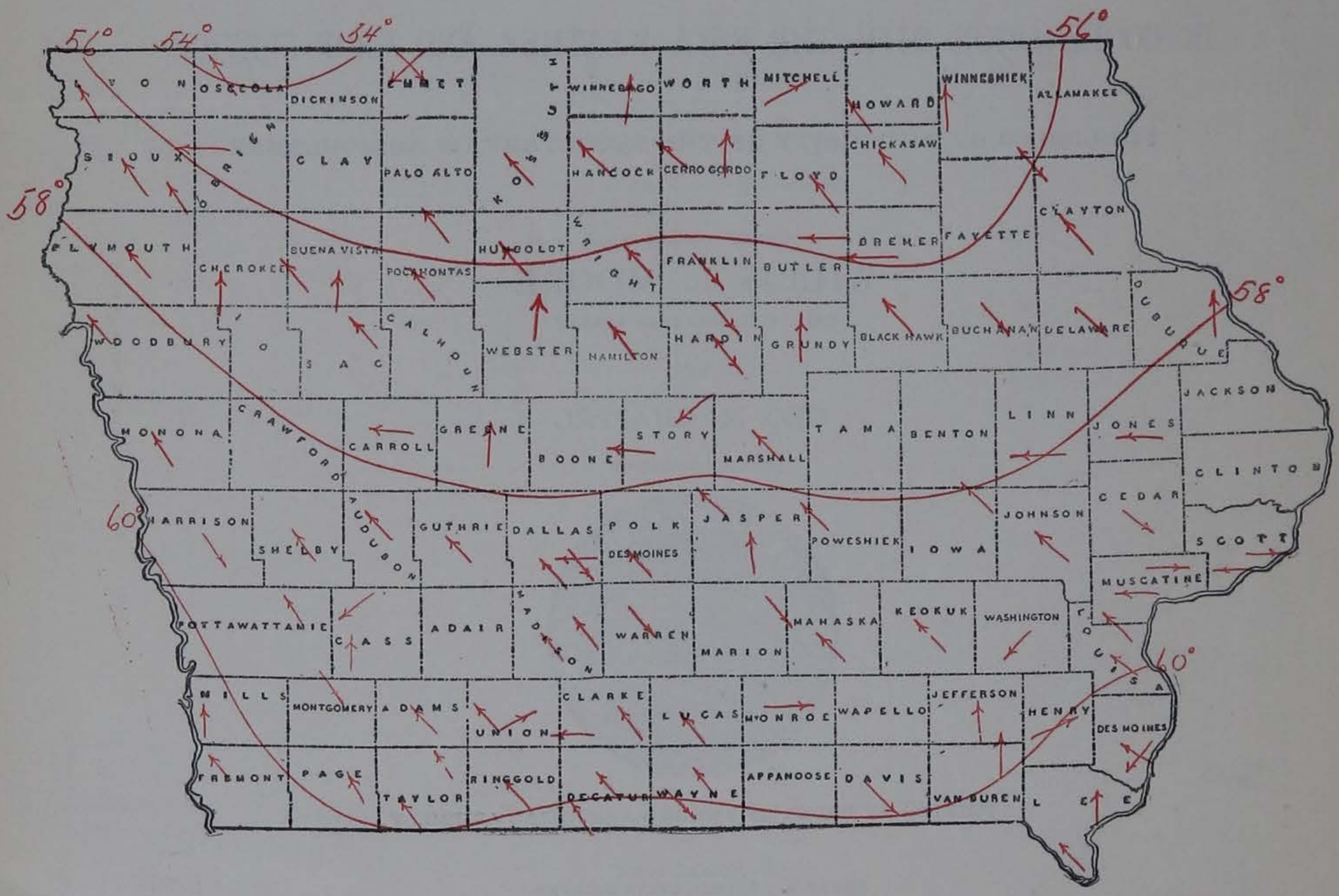
MEAN ISOTHERMS AND PREVAILING WINDS OF MAY, 1909.

Lines pass thru points of equal temperature. Arrows fly with the wind.



U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IOWA SECTION,

GEO. M. CHAPPEL, Section Director.

VOL. XX DES MOINES, IOWA, MAY, 1909 NO. 5

IOWA CROP REPORT, JUNE 1, 1909.

ACREAGE OF FARM CROPS. ESTIMATED CONDITION OF STAPLE CROPS, FRUIT AND LIVE STOCK.

Reports received June 1st from county and township correspondents of the Iowa Weather and Corp Service show the following results as to the number of acres and average condition of staple farm crops; also the condition of fruit and live stock.

CORN.—The unfavorable conditions that prevailed during March and April prevented the seeding of the usual acreage of small grain and the acreage of corn has thereby increased a little over 5 per cent as compared with the acreage planted in 1908. So the acreage is about 105, and the average condition on June 1st was rated at 94. Last year at corresponding date it was 92 per cent.

WHEAT.—The drouth of last August, September and October prevented the seeding of as large an acreage of winter wheat as was anticipated and the cold wet weather during the early spring months of this year caused a reduction in the acreage of spring wheat of about 2 per cent. The estimated acreage is now, winter wheat 100 and spring wheat 98 and the average condition is 92 and 94 per cent respectively. Last year the estimates were 101 and 100.

OATS.—The acreage of oats is placed at 94 per cent and the average condition 90 per cent. Last year the condition on June 1st was 102 per cent.

RYE.—Acreage seeded, compared with last year, 95 per cent, and the average condition 94 per cent. Last year the condition was 101 per cent.

BARLEY.—Acreage 98; estimated condition 94 per cent as compared with 101 per cent last year.

FLAX.—Area seeded, 97 per cent; condition, 95 per cent.

POTATOES.—Acreage planted, 102 per cent; condition, 96 per cent. Last year condition 98.

MEADOWS.—There has been a reduction of about 2 per cent in area of meadows, the acreage being 98 per cent. The condition 97 per cent as compared was 104 per cent last year. Grass was slow in starting this spring but owing to favorable weather in May the condition is improving rapidly.

Pastures are about 99 per cent in acreage and 97 per cent in condition.

CONDITION OF FRUIT.—As Compared With an Average Crop.—Apples, 90 per cent; plums, 92; peaches, 22; grapes, 94; strawberries, 85; raspberries, 90; blackberries, 85; cherries, 82.

CONDITION OF LIVE STOCK.—Cattle, 94 per cent; hogs, 95; horses, 96; sheep, 96; foals, 90; spring pigs, 85.

The acreage of crops cannot be tabulated until the returns of the township assessors are received from all the counties. The complete report of acreage will probably be published in July.

GENERAL SUMMARY.

The average temperature for the month was considerably below the normal and was the lowest for May, with one exception, 1907, since 1893. The cool wave that spread over the state at the close of April, continued during the first three days of May and caused freezing temperatures on one or more of those days in all parts of the state and was attended, on the first by snow flurries over the central and northern counties. The night temperatures continued below normal most of the time until the 29th but there were several days when the temperatures were unusually high, especially the fifth when the maximum was 90° or above in all but the extreme southeastern counties.

The precipitation for the state at large was slightly below the normal but there was a slight excess over the district comprising the three northern tiers of counties. The average for the state was four inches less than the average for May 1908. From the third to the 11th and from the 16th to the 23d the weather was generally dry but showers were frequent during the remainder of the month with an occasional heavy downpour, accompanied in several localities by hail and wind squalls which did some damage. On the whole the month was favorable for farm operations and good progress was made in field work. Corn was practically all planted by the close of the month except on low and wet ground and cultivation was general. The stand, color and vitality of corn is exceptionally good. Grass and small grain made rapid growth during the latter half of the month and was reported to be nearly up to the average for the last of May. The continued cold weather during April and the fore part of May kept the fruit buds dormant until near the middle of the month thereby escaping any material damage by the late frosts. The average date for all kinds of fruit trees to be in full bloom at Des Moines is about May 5th, but they were not in full blossom this year until May 16th.

TEMPERATURE.—The monthly mean temperature for the state, as shown by the records of 111 stations, was 57.9°, which is 2.2° below the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 56.3°, which is 2.2° below the normal; Central section, 58.0°, which is 2.2° below the normal; Southern section, 59.3°, which is 2.3° below the normal. The highest monthly mean was 61.0°, at Keokuk, Lee county, and the lowest monthly mean 54.2°, at Dows, Wright county, and Sibley, Osceola county. The highest temperature recorded was 97°, at Onawa, Monona county, on the 5th; the lowest temperature reported was 18°, at Inwood, Lyon county, on the 2d, and at Washta, Cherokee county, on the 3d. The average monthly maximum was 92.0°, and the average monthly minimum was 24.1°. The greatest daily range was 63°, at Fort Dodge, Webster county. The average of the greatest daily ranges was 45.7°.

PRECIPITATION.—The average precipitation for the state, as shown by the records of 121 stations, was 4.34 inches, which is 0.16 below the normal. By sections the averages were as follows: Northern section, 4.59 inches, which is 0.04 inch above the normal; Central section, 4.09 inches, which is 0.38 inch below the normal; Southern section, 4.34 inches, which is 0.13 inch below the normal. The greatest amount, 7.85 inches, occurred at Rockwell City, Calhoun county, and the least, 1.86 inches, at Waterloo, Black Hawk county. The greatest amount in 24 hours, 3.95 inches, occurred at Rockwell City, Calhoun county, on the 14th and 15th. Measurable precipitation occurred on an average of 9 days. The average amount of unmelted snowfall for the state was 0.1 inch; the greatest amount, 2.5 inches, occurred at Grand Meadow, Clayton county.

SUNSHINE AND CLOUDINESS.—The average number of clear days was 12; partly cloudy, 12; cloudy, 7. The duration of sunshine was slightly above the normal, the percentage of the possible amount being 70 at Charles City; 65 at Davenport; 66 at Des Moines; 59 at Dubuque; 75 at Keokuk, and 53 at Sioux City.

WIND.—Southeast winds prevailed. The highest velocity reported was 63 miles per hour from the northwest, at Sioux City, Woodbury county, on the 6th.

COMPARATIVE DATA FOR THE STATE—MAY.

Year	Temperature			Precipitation		
	Mean	Highest	Lowest	Average	Greatest	Least
1890	57.7	90	26	3.56	6.44	1.61
1891	58.3	94	21	3.18	7.10	1.46
1892	54.0	88	29	8.77	12.64	4.87
1893	56.6	96	26	3.45	5.82	1.65
1894	61.1	96	22	1.87	4.77	0.33
1895	61.7	104	24	3.19	5.79	0.84
1896	65.5	100	34	6.69	11.79	3.40
1897	58.5	96	20	1.92	3.59	0.21
1898	59.6	92	26	4.67	7.82	2.22
1899	60.2	90	27	6.23	11.47	3.09
1900	63.2	98	22	3.31	6.98	0.96
1901	60.7	95	28	2.35	4.57	0.72
1902	63.8	97	25	5.39	18.04	0.87
1903	61.6	91	24	8.55	15.45	2.88
1904	59.6	93	27	3.78	8.15	1.50
1905	58.3	88	28	5.95	10.83	2.57
1906	60.8	95	24	3.54	10.72	0.89
1907	53.5	96	14	3.48	7.68	0.71
1908	59.4	93	13	8.34	14.33	4.33
1909	57.9	97	18	4.34	7.85	1.86

ATMOSPHERIC PRESSURE AND WIND.

Mean Barometer for the month reduced to sea level, 29.87 inches.
Prevailing direction of Wind, Southeast.

STATIONS	Barometer, in Inches					Wind				
	Mean	Maximum	Date	Minimum	Date	Movement	Maximum Velocity—miles	Direction	Date	Average Hourly Velocity
Charles City.	29.88	30.18	10	29.39	15	6109	30	NW	6	8.2
Davenport ..	29.88	30.23	11	29.47	5	6648	38	NE	25	8.9
Des Moines .	29.85	30.17	10	29.35	5	6875	35	SW	12	9.2
Dubuque....	29.90	30.23	11	29.47	5	5691	30	NW	6	7.6
Keokuk	29.88	30.22	11	29.50	5	6162	36	W	1	8.3
Omaha, Neb.	29.84	30.17	10	29.31	5	6825	38	NW	6	9.2
Sioux City ..	29.85	30.20	10	29.42	30	10585	63	NW	6	14.2

AVERAGE DATES OF LAST KILLING FROST IN SPRING AND FIRST IN AUTUMN, IN IOWA.

Station	Length of Record, Years	FROST			
		Average Date of		Date of	
		First Killing in Autumn	Last in Spring	Earliest Killing in Autumn	Latest in Spring
Charles City.....	17	Sept. 26	May 16	Sept. 12	May 29
Davenport	35	Oct. 13	April 22	Sept. 18	May 22
Des Moines	31	Oct. 10	April 22	Sept. 13	May 22
Dubuque.....	35	Oct. 13	April 21	Sept. 27	May 21
Keokuk	37	Oct. 15	April 11	Sept. 18	May 4
Omaha, Nebraska.....	38	Oct. 12	April 16	Sept 18	May 19
Sioux City	19	Sept. 27	May 4	Sept. 13	May 21

OBSERVERS' REMARKS.

ALBIA.—*J. I. Chenoweth.* There was 5.38 inches of rain as compared with 10.49 inches in May 1908. Farm work is further advanced than it was at the close of May, last year. The last damaging frost occurred on the 10th, which reduced the small fruit prospects 50%.

ALGONA.—*Dr. F. T. Seeley.* There is considerable corn yet to plant on low ground owing to frequent and heavy rains during the latter part of the month.

ALLERTON.—*Mrs. Geo. Shriver.* Rains during the last decade of the month delayed farm work and there is some corn to be planted. Oats and grass are growing rapidly.

ALTA.—*David E. Hadden.* May 1909 was generally cloudy and wet.

ALTON.—*W. S. Slagle.* The fore part of the month was very cold but the latter half was favorable for all crops. All fruits, except cherries, give promise of abundant yields. Corn, grass and small grains are in fine shape and are doing well.

AMANA.—*Conrad Schadt.* The last severe frost occurred on the 3d but as the season was late, no damage was done. Fruit trees bloomed profusely and the stand of all crops is very good.

BEDFORD.—*E. E. Healy.* Ice, three-fourths of an inch thick, formed on May 1st.

BONAPARTE.—*B. R. Vale.* The total rainfall was 4.13 inches as compared with 11.07 for May, 1908. Good weather for farming up to the 25th but since that date there has been too much rain. The season is two weeks later than the avearge. Locust trees are in full bloom.

BURLINGTON.—*M. E. Poppe, Jr.* A slight earthquake shock of short duration was felt at 8:45 a. m. of the 26th.

BRITT.—*Geo. P. Hardwick.* There was an excessive amount of cloudiness and high winds. A local hail storm on the last day of the month did considerable damage to young fruit. More than the usual area yet to seed to "catch' crops. Prospects for oats not encouraging.

CHARITON.—*C. C. Burr.* There is some corn to plant yet but the early planted is up and shows a good stand on high ground. Soil is wet and the season is 14 days late. Oats small and uneven; grass good and fruit prospects are average.

CLINTON.—*Luke Roberts.* The mean temperature was about normal. The coldest day was the 1st, which gave a mean of 35.7 degrees or 9.3 degrees below normal and was the coldest "May day" during the last 31 years. It was not only cold but squally and extremely disagreeable.

CORYDON.—*Clara Miller.* The wind storm on the 29th did some damage to trees, flues and a few buildings.

CRESTON.—*E. Stovall.* Corn planting, which had been retarded by wet weather, was almost completed at the close of the month.

ELKADER.—*Chas. Heinecke.* A slight earthquake was felt about 9 a. m. of the 26th.

ELLIOTT.—*Henry Barnes.* A very good growing month and at its close all vegetation was in a healthy condition. Corn shows a good stand and grass and fruit are doing well.

FOREST CITY.—*J. A. Peters.* Plum trees were in bloom on the 19th. Corn planting was finished at the close of the month and the first planting was up but no cultivating had been done.

GRAND MEADOW (Postville P. O.)—*F. L. Williams.* On May 1st there were, in many places, snow drifts two feet deep but they were all gone on the 5th. Pastures and small grain were very backward until the end of the month.

GREENE.—*J. L. Cole.* A maximum temperature of 95° was recorded on the 5th. It was the highest on record for May during the past 13 years.

INWOOD.—*F. B. Hanson.* The first half of the month was dry, the latter half wet and interfered with field work. Corn planting is, however, about finished. Fruit trees are through blooming and promise large yields.

KEOSAUQUA.—*J. H. Landes.* May was a fairly good month for putting in corn and it was nearly all planted by the 20th. The acreage is large, the stand is good and cultivation is now in progress. The late rains came in time to help out the oats and hay crops.

OLIN.—*C. M. Miles.* On the whole May has been a fine month. All vegetation is in good condition and much ahead of last year at this time in growth.

PELLA.—*John H. Ver Steeg.* The month closed with warm growing weather. Corn is all planted except on low lands and is germinating vigorously. Small grain is doing well and the prospects are encouraging. A severe wind storm on the 30th damaged windmills and outbuildings.

PLOVER.—*J. S. Smith.* The first three weeks of the month were ideal for all kinds of farm work and the soil was in good condition for planting corn.

POCAHONTAS.—*F. E. Hronek.* The weather during the first half of May was fine for farm work but there was an excess of rain and cloudy weather during the latter half, which made the low ground too wet to plow. Corn is two weeks ahead of last year and shows a good stand.

RIDGEWAY.—*Arthur Betts.* The past month was colder than any May during the past eleven years except May, 1907, which was 5.5 colder than this month. On the 5th the maximum temperature was 95°, which is the highest on record for May. The last frost occurred on the 4th.

SHELDON.—*A. W. Beach.* Corn is all in and most of the rows were visible by the 31st. Everything is nearly up to the average.

STOCKPORT.—*C. L. Beswick.* Corn is all planted and prospects are generally good for all kinds of crops. The soil is well supplied with moisture at the close of the month.

THURMAN.—*C. R. Paul.* A heavy hail storm at 7:30 p. m. on the 12th with .65 inch of rain in about 15 minutes did much damage to fruit trees and garden truck.

WAVERLY.—*H. S. Hoover.* There was very little growth in plant life during the first 10 days of the month, although a maximum temperature of 90° was recorded on the 5th. The mornings were remarkably cool until the 29th.

WHITTEN.—*Dr. F. P. Butler.* Cherries started to bloom on the 14th.

THUNDERSTORMS—STATIONS AND DATES.

NORTHERN SECTION.

Stations	Dates	Stations	Dates
Algona	14, 30	Le Mars	11, 17, 18, 23
Alta	13, 14, 16, 18, 19, 20, 23, 29, 30	Mason City	13, 14, 15, 30, 31
Alton	14, 17, 18, 29	Osage	12, 14, 30
Charles City	12, 13, 14, 23, 29, 30, 31	Pocahontas	11, 12, 15, 17, 18, 23, 29, 31
Elkader	12, 14, 15, 23	Ridgway	13, 14, 23, 30, 31
Elma	13, 24	Sheldon	14, 24, 28
Estherville	29	Sioux Center	14, 17, 23, 29
Grand Meadow	13, 14, 15	Storm Lake	15, 24, 30
Greene	30	Washta	13, 18, 22, 29
Humboldt	15, 24, 30	Waverly	13, 14, 15, 24, 30
Inwood	20	West Bend	14, 15, 30, 31
Larrabee	13, 16, 19, 29		

CENTRAL SECTION.

Stations	Dates	Stations	Dates
Amana	14, 29, 31	Grinnell	12, 13, 14, 15, 28, 30, 31
Audubon	12, 14, 17, 23, 29	Guthrie Center	12, 13, 14, 29
Baxter	13, 14, 15	Harlan	14, 15, 17, 23, 29, 30
Boone	14, 29	Iowa City	12, 13
Carroll	13, 14, 15, 30, 31	Iowa Falls	13, 14, 23, 29
Clinton	6, 12, 13, 14	Onawa	12, 14, 20, 23
Davenport	6, 12, 13, 14, 15, 29, 30	Sioux City	13, 14, 18, 19, 29
Delaware	14, 15	Waterloo	14, 29
Des Moines	12, 13, 14, 15, 28, 29, 31	Waukee	13, 30
Dubuque	6, 13, 14, 15, 28, 31	Whitten	12, 14, 23
Fort Dodge	30	Zearing	14

SOUTHERN SECTION.

Stations	Dates	Stations	Dates
Allerton	12, 14, 26, 30, 31	Indianola	12, 15, 29, 31
Atlantic	12, 13, 14, 17, 29	Keokuk	6, 8, 12, 13, 14, 15, 26, 29, 30
Bloomfield	14, 15, 26, 29, 30	Keosauqua	15, 25, 30
Columbus Junction	6, 12, 14, 15, 30	Leon	12, 13, 14, 15, 18, 25, 30, 31
Corydon	12, 31	Mt. Pleasant	6, 12, 13, 15, 28, 29
Earlham	12, 13, 14, 15, 18, 30	Oskaloosa	29, 31
Elliott	13, 14, 15, 25, 30	Pacific Junction	12, 14, 30
Fairfield	6	Sigourney	12, 13, 14, 15, 30
Fort Madison	6, 8, 13, 14, 30	Stockport	6, 8, 27, 30
Hancock	13, 15, 24, 30	Wapello	14, 15, 25, 30
Hopeville	13, 14, 18, 30	Woodburn	12, 13, 14, 30

BELATED REPORT.

LARRABEE.—*April.* Mean temperature, 39.8°; maximum temperature and date, 78° on the 26th; Minimum temperature and date, 18° on the 9th; greatest daily range, 47°; total precipitation, 2.12 inches; greatest in 24 hours, 1.14 inches; total snowfall, 8.8 inches; number of rainy days, 6.

ERRATA.

FEBRUARY, 1909.—*Belle Plaine.* Maximum temperature recorded on page 19 on the 13th and 24th, as 19, should have been 23 and 33 respectively; mean maximum temperature recorded 36.2°, should have been 36.9°; mean temperature recorded on page 17 as 27.2°, should have been 27.6°.

DECORAH.—Maximum temperature recorded on page 19, on the 6th, as 24°, should have been 27°; maximum temperature recorded on the 24th as 15°, should have been 30°; mean maximum, 31.4°, should have been 32.2°; mean monthly temperature recorded on page 17, as 21.9°, should have been 22.3°.

CARROLL.—Minimum temperature recorded on page 19 on the 18th, as 33°, should have been 29°; mean minimum recorded 41.0°, should have been 14.5°.

FORT DODGE.—Minimum temperature recorded on page 19 as 25°, should have been 24°.

IOWA FALLS.—Minimum temperature recorded on page 19 on the 3d, as 20, should have been 15°; minimum temperature recorded on the 17th as 16°, should have been 12°; minimum temperature recorded on the 18th as 31°, should have been 23°; minimum temperature recorded on the 26th as 18°, should have been 12°; mean minimum recorded 15.4°, should have been 14.6°; mean monthly temperature recorded on page 17 as 22.4°, should have been 22.0°.

WAPPELLO.—Total precipitation recorded on pages 18 and 22, as 1.56, should have been 1.76 inches.

BELLE PLAINE.—*March*, 1909. Page 29; maximum temperature, 10th, published 28°, should have been 31°; mean maximum temperature published 40.9°, should have been 41.0°.

ELLIOTT.—Page 28; mean temperature published 34.4°, should be 34.8°.

ELMA.—Pages 27 and 31, total precipitation published 1.30, should have been 0.85 inch.

HUMBOLDT.—Page 27; highest temperature, published 53°, should be 57°; date of highest temperature published 23*, should have been 23.

PELLA.—Page 28; mean temperature, published a37.7°, departure from normal temperature +4.7°, highest temperature a68°, date 2, greatest daily range a44°, should be omitted; page 30, all maximum temperatures and mean monthly maximum should have been omitted.

AFTON.—*April*, 1909. Page 40; monthly mean maximum temperature published 38.4°, should have been 58.4°.

BLOOMING SUNDAYS.

The following is a copy of a record kept by Hon. Isaac Brandt, Des Moines, Iowa, showing the Sunday in each year since 1858, on which all kinds of fruit trees were in full or partial bloom. From a phenological standpoint it is the most interesting and complete record of which we have any knowledge. It will be noticed that "Blooming Sunday" occurred this year on May 16th or three days later than on any other year since 1858, and 11 days later than the average date for all of the years.

1858	May 9	1871	May 7	1884	May 4	1897	May 2
1859	May 1	1872	May 5	1885	May 3	1898	May 5
1860	May 6	1873	May 4	1886	May 9	1899	May 7
1861	May 12	1874	May 3	1887	May 8	1900	May 6
1862	May 4	1875	May 2	1888	May 6	1901	April 28
1863	May 3	1876	April 30	1889	May 5	1902	May 4
1864	May 1	1877	May 6	1890	May 4	1903	May 10
1865	April 30	1878	April 28	1891	May 10	1904	May 8
1866	May 6	1879	May 4	1892	May 8	1905	May 7
1867	May 5	1880	May 2	1893	May 7	1906	May 6
1868	May 10	1881	May 1	1894	May 6	1907	May 5
1869	May 2	1882	May 8	1895	May 5	1908	May 10
1870	May 1	1883	May 13	1896	May 3	1909	May 16

CLIMATOLOGICAL DATA FOR IOWA, MAY, 1909

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in Inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
NORTHERN SECTION																				
Algona	Kossuth	1,213	34	57.0	— 2.5	90	5	24	*1	41	5.80	+2.12	1.93	T	9	16	8	7	se	Dr. F. T. Seeley
Alta	Buena Vista	1,513	17	56.0	— 2.0	94	5	21	1	50	6.54	+1.76	1.77	T	12	5	22	4	se	D. E. Hadden
Alta [near]	Buena Vista										6.20	+1.37	1.77	0	13					W. J. Minard
Alton	Sioux	1,305	3	57.6		95	5	21	3	55	4.91		1.36	0	13	11	12	8	se	W. S. Slagle
Britt	Hancock	1,236	11	54.6	— 3.4	90	5	22	3	51	5.29	+1.03	1.89	1.3	10	2	18	11	se	G. P. Hardwick
Charles City	Floyd	1,015	20	56.0	— 3.5	91	5	26	1	49	3.42	−1.52	1.29	0.6	13	3	13	15	se	Weather Bureau
Clear Lake	Cerro Gordo	1,241	9	57.6	— 2.1	89	4	25	1	54	3.73	−1.70	1.37	0	6	16	3	12	se	Oscar Stevens
Decorah	Winneshiek	875	15	58.5	— 0.7	95	5	26	1	48	2.45	−2.22	1.35	0	12					F. H. Baker
Dows	Wright	1,142	8	54.2	— 4.0	92	5	21	*1	48	3.07	−2.06	0.96	0	8	16	9	6	se	G. D. Flett
Elkader	Clayton	727	27	58.4	— 2.1	94	5	28	3	47	3.14	−1.00	2.20	0	8	17	12	2	se	Chas. Reinecke
Elma	Howard			55.2		90	5	25	4	46	2.70		0.73	T	10	5	18	8	se	H. A. Moore
Estherville	Emmet	1,298	12	54.9	— 2.3	93	5	23	1	51	6.47	+2.29	1.38	0	14	6	9	16	ne, nw	A. O. Peterson
Fayette	Fayette	1,003	18																	R. Z. Latimer
Forest City	Winneshiek	1,226	14	55.6	— 2.7	93	5	24	1	50	4.69	+ .30	1.34	1.0	11	9	16	6	s	J. A. Peters
Grand Meadow	Clayton	1,180	17	55.6	— 2.5	88	5	26	*1	38	3.89	− .97	1.57	2.5	13	7	17	7	se, nw	F. L. Williams
Greene	Butler		9	57.6	— 1.8	95	5	25	3	51	2.85	−1.79	1.12	—	11	5	18	8	e	J. L. Cole
Hampton	Franklin	1,155	18	57.4	— 0.9	95	5	25	1	44	3.31	−1.27	1.35	T	11	6	20	5	nw	E. C. Grenelle
Humboldt	Humboldt	1,095	17	e56.0	— 3.4	95	5	21i	3	i47	7.14	+2.78	3.40	0	11	20	4	7	se	H. S. Wells
Inwood	Lyon	1,474	4	56.2		95	5	18	3	53	4.92		2.07	0	14	13	11	7	se	F. B. Hanson
Larrabee†	Cherokee	1,266	17	56.6		94	5	22	1	52	5.30		1.29	0	12	5	22	4	se	H. B. Streever
Le Mars	Plymouth	1,224	12	57.9	— 1.4	92	5	22	1	50	5.08	+ .29	2.32	T	11	5	22	4	se	G. A. C. Clarke
Mason City	Cerro Gordo	1,132	11	55.3	— 3.1	89	5	24	3	41	4.19	− .47	1.42	0	10	6	19	6	s	J. S. Mills
Merrill	Plymouth										4.49		1.20		9					Eric Oleson
New Hampton	Chickasaw	1,169	11	55.2	— 2.7	88	5	26	*1	46	4.21	− .43	1.45	T	10	13	13	5	se	A. F. Kemman
Northwood	Worth	1,222	12																	Charles H. Dwelle
Osage	Mitchell	1,184	17	57.4	+ 0.3	94	5	27	*1	51	3.47	−1.29	1.15	1.5	7	9	14	8	sw	Dr. A. D. Bundy
Plover	Pocahontas	1,426	12	56.6	— 2.5	93	5	23	3	48	5.00	+ .73	1.78	0	10	19	9	3	se	J. S. Smith
Pocahontas	Pocahontas		4	55.4		93	5	22	1	48	5.19		2.02	T	12	7	16	8	se	F. E. Hronek
Ridgeway	Winneshiek	1,215	10	56.7	— 2.9	95	5	27	*1	50	3.36	−2.01	1.31	2.3	11	18	8	5	s	Arthur Betts
Rock Rapids	Lyon	1,358	9	56.1	— 0.5	95	5	22	1	55	4.05	+ .66	1.12	0	7					W. C. Wyckoff
Sheldon	O'Brien	1,422	8	56.2	— 1.7	95	5	20	*1	60	6.03	+ .93	2.00	T	12	9	13	9	e	Dr. A. W. Beach
Sibley	Osceola	1,212	15	54.2	— 3.1	94	5	21	3	59	4.61	+ .65	1.14	T	14	11	9	11	se	H. G. Doolittle
Sioux Center	Sioux		9	56.6	— 1.7	92	5	21	2	49	6.61	+1.76	3.50	T	15	12	13	6	se	J. de Ruyter
Storm Lake†	Buena Vista	1,440	12	57.0	— 0.6	89	5	22	1	47	6.30	+2.42	1.71	T	12	8	14	9	s	S. B. Fracker
Washta	Cherokee	1,157	10	56.7		95	5	18	3	53	7.66	+2.81	2.00	T	11	14	8	9	s	H. L. Felter
Waverly	Bremer	948	12	56.7	— 3.3	90	5	27	*1	47	2.14	−2.56	0.98	0.4	10	4	17	10	e	H. S. Hoover
West Bend	Palo Alto	1,197	14	56.8	— 1.8	92	5	24	3	46	5.00	+1.37	1.56	0.1	13	7	16	8		Phil Dorweiler
Average				56.3	— 2.2	92.6		23.4		49.2	4.59	+0.04		0.3	10	10	13	8	se	
CENTRAL SECTION																				
Amana	Iowa	721	31	58.4	— 1.6	89	5	28	3	34	2.40	−2.00	0.73	0.1	10	13	12	6	se	Conrad Schadt
Ames	Story	926	27	59.4	— 0.1	93	5	25	3	43	4.17	− .15	1.01	T	8	13	14	4	e	Iowa State College
Audubon	Audubon	1,301	15	56.1	— 3.8	93	5	21	10	53	4.03	− .21	1.55	0	10	10	6	15	se	Geo. E. Kellogg
Baxter	Jasper	998	8	57.8	— 2.6	93	5	26	*1	42	6.36	+1.16	3.67	T	9	16	11	4	se	W. R. Vandike
Belle Plaine	Benton	828	18	58.2	— 1.3	93	5	25	3	44	2.81	−1.85	1.24	T	8	11	14	6	s	S. P. Vandike
Boone	Boone	1,134	3	57.2		94	5	25	1	51	4.81		2.08	T	10	15	7	9		Carl Fritz Henning
Buckingham	Tama		8								3.72	− .08	2.34	0	6	10	19	2		Dr. W. A. Daniel
Carroll	Carroll	1,265	18	56.0	— 2.9	93	5	21	1	47	6.28	+1.72	2.40	0	9	15	6	10	e	Mrs. Jos. J. Wolfe
Cedar Rapids	Linn	733	26	58.2	— 1.8	92	5	29	2	54	3.05	−1.53	1.06	0	8	16	5	10	e	Electric Light & P. Co.
Clinton	Clinton	593	40	58.6	— 1.6	86	29	29	3	41	4.19	+ .13	1.58	0	11	15	7	9		Luke Roberts
Davenport	Scott	580	36	59.2	— 2.3	88	5	30	1	33	3.23	− .96	1.17	T	11	10	11	10	e	Weather Bureau
Delaware	Delaware	1,083	17	56.0	— 2.3	84	*5	25	*1	43	3.51	− .68	2.62	0.5	9	10	19	2	nw	Wm. Ball
Denison	Crawford	1,180	13	d58.4	— 0.9	d93	5	d23	1	d49	5.65	+1.55	1.41	0	13					W. C. Van Ness
Des Moines	Polk	861	31	59.2	— 2.4	92	5	27	1	36	4.24	− .32	1.67	T	12	7	8	16	se	Weather Bureau
De Soto	Dallas	866	8	58.8	— 3.1	94	5	24	1	43	4.29	+ .41	1.90	T	7	14	6	11	se	R. D. Minard
Dubuque	Dubuque	639	35	58.2	— 2.6	90	5	30	1	39	2.32	−2.00	1.48	0.3	10	12	12	7	s	Weather Bureau
Fort Dodge	Webster	1,126	8	a57.1	— 2.9	a94	5	a24	3	a63	5.78	+1.23	2.52	T	12				s	J. F. Monk
Gilman	Marshall	1,052	9								4.92	+1.10	3.46	0	8					Jas. L. Wylie
Grinnell	Poweshiek	1,023	16	58.2	— 1.5	95	5	26	3	45	2.89	−1.70	0.90	0	8	8	13	10	se	D. W. Brainard
Grundy Center	Grundy	976	17	57.4	— 1.1	93	5	26	1	41	3.63	−1.53	1.15	0.5	10	14	9	8	s	J. B. Calderwood
Guthrie Center	Guthrie	1,077	13	59.0	— 1.6	93	5	24	1	47	5.52	+ .56	2.56	T	8	13	12	6	se	D. G. Beardsley
Harlan	Shelby	1,192	9	57.6	— 2.7	94	5	23	1	52	4.25	.00	1.00	0	10	4	17	10	se	C. A. Reynolds
Independence	Buchanan	921	43	56.3	— 2.9	89	5	27	1	48	2.19	−1.97	1.56	0.2	6	19	8	4	nw	George Donohue
Iowa City	Johnson	683	49	59.2	— 1.1	91	5	27	3	44	4.40	+ .03	1.30	0	8	17	2	12	se	Prof. Karl E. Guthe
Iowa Falls	Hardin	1,170	15	55.6	— 3.1	90	5	24	3,	58	3.53	− .67	1.18	0	10	14	5	12	nw	J. B. Parmelee
Jefferson	Greene					94	5				5.48	+ .47	2.60	0	6	13	12	6	s	Geo. W. Jackson
Le Claire	Scott	576									3.05	+1.26	1.17	0.1	9				w	Margaret T. Disney
Little Sioux	Harrison		4	59.4		96	5	22	*1	51	4.05		1.23	0	10	10	9	12	se	Geo. H. Gibson
Logan	Harrison	928	42	59.6	— 1.4	95	5	23	1	53	3.82	− .31	1.61	0	10	7	18	6	nw	Glenn H. Stern
Marshalltown	Marshall	947	16	56.1	— 3.6	84	29	26	*1	49	3.49	−1.24	2.05	T	6	0	28	3	se	Agnes Musil
Montezuma																				C. J. Griffin
Muscatine	Muscatine		49								3.35	−1.03	0.96	T	10				e	Wm. P. Molis
Newton	Jasper	944	19	58.8	— 1.8	92	5	27	1	40	3.18	−1.96	0.88	0	8	14	11	6	s	Hon. J. P. Beatty
Odebolt	Sac	1,356	10	58.5	— 1.9	96	5	22	*1	53	6.50	+2.52	1.77		10	12	16	3		E. Starner
Olin	Jones	760	11	58.0	— 2.0	87	5	27	3	46	2.75	−1.74	1.10	T	6	18	13	0	e	C. M. Miles
Onawa	Monona	1,051	8	60.6	— 2.0	97	5	24	1	50	4.03	−1.55	0.85	0	12	16	9	6	se	C. G. Perkins
Perry	Dallas	975	7	58.6	— 3.3	94	5	25	1	46	5.99	+ .99	2.64	0	8					J. A. Harvey
Rockwell City	Calhoun		12	58.6	— 0.9	95	5	24	*1	55	7.85	+3.11	3.95	0	8	18	8	5		C. M. Randall
Sac City	Sac	1,278	26	a57.6	— 1.0	93	5	a23	1	a46	4.43	+ .20	1.70	0	13	14	8	9	se	E. N. Bally
Sioux City	Woodbury	1,135	20	58.0	— 2.8	94	5	23	1	45	3.98	− .39	1.26	0	10	5	14	12	se	Weather Bureau
Stuart	Guthrie	1,216	10																	Geo. B. Irick
Tipton	Cedar	807	10	59.9	— 0.6	90	5	29	1	40	4.46	− .72	1.09	0	7	19	10	2	ne	F. K. Gregg
Toledo	Tama	856	14	57.6	— 3.1	90	5	27	1	40	4.14	− .05	2.60	0	6	13	11	7	se	I. F. Giger
Waterloo	Black Hawk	862	25	57.0	— 2.5	92	5	28	*1	49	1.86	−2.10	1.05	0.8	10	15	7	9	se	M. L. Newton
Waukee	Dallas	1,039	5	57.8		92	5	25	1	58	3.64	−1.31	1.07	T	11	9	18	4	e, nw	Sam'l T. Foft
Webster City	Hamilton		3	57.4		93	5	22	3	53	4.09		1.28	0	11	8	18	5	se	C. D. Carpenter
Whitten	Hardin	1,036	10	57.2	— 2.1	90	5	24	1	42	3.64	− .72	1.03	T	7	12	12	7	se	Dr. Frank P. Butler
Wilton Junction	Muscatine	683	13					30	*1		3.51	− .91	1.00	0	7	17	6	8	w	Wm. Lang
Zearing	Story		4	56.8		92	5	25	*1	45	2.77		0.88	0	7	1	5	25	ne	O. G. Reese
Average				58.0	— 2.2	92.0		23.3		46.3	4.09	−0.38		0.1	9	12	11	8	se	

CLIMATOLOGICAL DATA FOR IOWA, MAY, 1909—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
SOUTHERN SECTION																				
Afton	Union	1,212	14	60.0	— 2.3	91	5	24	1	41	4.65	— .24	1.10	0	6	10	15	6	sw	N. W. Rowell
Albia	Monroe	959	10	57.6	— 3.4	90	5	25	2	46	5.38	+1.05	1.63	0.4	11	13	15	3	e	J. I. Chenoweth
Allerton	Wayne		6	59.4	— 1.6	91	5	27	1	41	4.21	—0.30	1.62	T	10	23	2	6	nw	Mrs. Geo. Shriver
Atlantic	Cass	1,164	17	59.4	0.0	96	5	24	1	46	3.43	— .95	1.16	0	10	4	14	13	ne	Thos. H. Whitney
Bedford	Taylor		8	58.8	— 2.2	93	5	24	2	47	3.76	—1.49	0.92	0	13	15	8	8	se	E. E. Healy
Bloomfield	Davis			59.8		95	5	27	1	43	5.69		2.45	0	10	15	12	4	nw	F. H. Roberts
Bonaparte	Van Buren		17	59.3	— 3.0	91	5	30	*1	39	4.13	+ .10	1.95	0	7					Hon. B. R. Vale
Burlington	Des Moines	544	12	60.4	— 3.4	90	5	30	2	39	3.83	— .02	1.19	0	9	17	5	9	ne, se	M. E. Poppe, Jr.
Chariton	Lucas	1,042	13	58.4	— 2.9	89	5	25	1	36	3.89	— .48	1.22	T	7	14	8	9	se	C. C. Burr
Clarinda	Page	1,009	18	59.0	— 2.2	96	5	24	1	53	4.78	— .06	2.23	0	10	15	8	8	se	A. S. Van Sandt
Columbus Junction	Louisa	595	7	60.2	— 2.0	88	5	29	*1	36	3.48	— .40	1.30	T	7	17	10	4	se	J. B. Johnston
Corning	Adams	1,117	16	58.6	— 1.8	92	5	24	1	44	4.99	+ .16	1.06	0	9	9	12	10	se	Jerome Smith
Corydon	Wayne	1,101	15	a59.3	— 2.0	90	5	b26	1	b36	3.97	— .70	1.54	0	10	14	11	6	se	Clara Miller
Creston	Union	1,312	3	57.7		92	5	24	1	40	5.27		1.18	T	9	19	8	4	se	E. S. Stovall
Cumberland	Cass		9								3.59	— .10	0.91	0	11	21	2	8	s	J. H. Reppert
Earlham	Madison		6	57.8	— 2.2	82	29	25	1	42	3.82	— .95	1.10	0	6	11	9	11	se	Geo. Phillips
Elliott	Montgomery		3	59.0		94	5	24	1	47	3.79		0.98	0	9	16	13	2	nw	Henry Barnes
Fairfield	Jefferson		14	59.3	— 0.9	90	5	27	3	37	5.08	— .20	2.35	0	6	15	11	5	s	R. Monroe McKenzie
Fort Madison	Lee	516	59								4.36	— .04	2.08	0	7	8	15	8	s	Miss L. A. McCready
Greenfield	Adair		17																	Geo. Brooks
Hancock	Pottawattamie	1,113	2	59.7		95	5	23	1	45	2.27		0.48	0	7	16	10	5	se	G. C. Rogers
Hopeville	Clarke		17	58.8	— 1.4	90	5	25	1	37	3.82	— .87	1.68	0	8	3	20	8	e	M. T. Ashley
Indianola	Warren	969	17	a59.0	— 1.7	91	5	a21	1	a35	2.47	—2.17	1.07	T	6	10	5	16	nw	Prof. J. L. Tilton
Keokuk	Lee	574	37	61.0	— 2.2	89	5	31	1	33	3.03	—1.32	1.01	T	11	17	11	3	se	Weather Bureau
Keosauqua	Van Buren	644	16	59.4	— 3.2	91	5	29	2	43	4.75	+ .38	2.58	T	10	4	17	10		J. H. Landes
Knoxville	Marion	920	12																	Casey & Bellville
Lacona	Warren		9																	Agent C., B. & Q. Ry.
Lamoni	Decatur			59.9		91	5	25	1	40	4.63		1.52	T	12	20	3	8	se	T. J. Fitzpatrick
Lenox	Taylor	1,250	13	58.8	— 2.4	91	5	22	1	48	5.75	+1.03	2.12	0	11	14	12	5	se	J. T. Hurley
Leon	Decatur	1,120	6	59.4	— 3.5	90	5	24	1	48	4.92	+ .47	1.35	T	11	11	10	10	se	Morris Gardner
Massena	Cass		3																	C. E. Smeltzer
Mt. Ayr	Ringgold	1,236	15	60.2	— 1.5	93	5	24	1	43	4.85	— .91	1.50	0	9	11	14	6	se	A. F Beard
Mt. Pleasant	Henry	729	26	59.9	— 2.3	91	5	29	1	38	4.54	+ .36	1.89	T	10	15	12	4	sw	Prof. J. W. Edwards
Omaha, Neb	Douglas	1,040	38	60.8	— 1.7	95	5	25	1	44	3.80	—0.70	1.44	0	10	3	17	11	se	Weather Bureau
Oskaloosa	Mahaska	843	24	59.1	— 1.3	91	5	28	*1	39	7.05	+3.37	2.08	0	10	20	2	9	se	Jos. Boyd
Ottumwa	Wapello	649	14																	Dr. Jas. A. Hull
Pacific Junction	Mills	960	9	59.6	— 2.0	96	5	22	2	50	4.70	+ .69	2.35	0	10	6	23	2	s	H. H. McCartney
Pella	Marion	877	6	58.5	— 2.8	91	5	25	3	38	4.21	— .11	1.39	T	9	22	1	8	nw	John H. Ver Steeg
St. Charles	Madison	1,070	7	59.0	— 2.9	93	5	25	1	42	3.70	—1.22	1.58	0	8	9	18	4	se	R. D. Minard
Sigourney	Keokuk	877	12	59.8	— 3.2	92	5	26	3	41	4.65	+ .52	1.88	T	8	1	28	2	se	J. T. Parker
Stockport	Van Buren		6	58.5		90	5	29	*1	38	4.22	+ .46	2.09	T	10	22	4	5	s	C. L Beswick
Thurman	Fremont		11	60.1	— 2.2	95	5	20	2	50	4.95	— .25	1.60	0	11	10	11	10	se	C. R. Paul
Wapello	Louisa	588	10	59.6	— 3.0	90	5	32	*1	36	3.36	— .53	1.50	0	6	18	10	3	se	Geo. W. Schofield
Washington	Washington	769	27	58.8	— 2.2	92	5	27	3	40	4.08	+ .57	1.63	0	10	12	13	6	ne	Wm. A. Cook
Winterset	Madison	1,129	17	60.2	— 1.0	92	5	25	1	42	4.55	+ .09	1.93	T	9	9	12	10	se	Dr. Robert S. Cooper
Woodburn	Clarke	961	9	57.9		80	5	25	1	40	5.45	+ .56	1.57	T	8	8	16	7	se	C. B. McDonough
Average				59.3	— 2.3	91.3		25.7		41.6	4.34	—0.13		T	9	13	11	7	se	
State average				57.9	— 2.2	92.0		24.1		45.7	4.34	—0.16		0.1	9	12	12	7	se	

*And other dates. a one day missing, b two days; c three days; d four days, etc. ‡ Received too late to be included in average.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF MAY, 1909

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | Monthly Mean | |
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DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF MAY, 1909—CONTINUED

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | Monthly Mean | |
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DAILY PRECIPITATION FOR IOWA, MAY, 1909

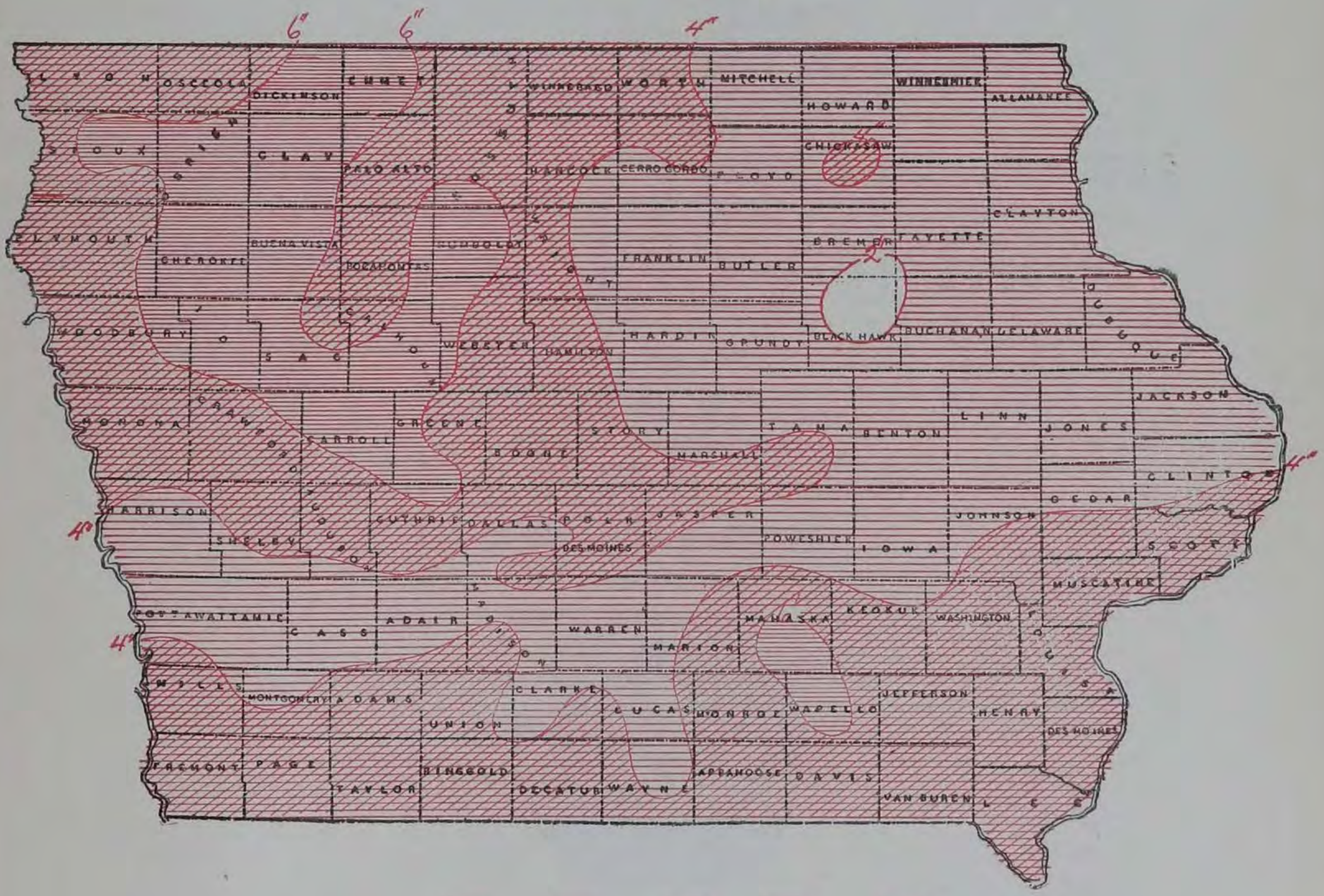
STATIONS	DAY OF MONTH																															TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	....	....	....	....	....	....	T	T	.85	.91	.45	....	....	1.05	....	....	....	....	....	.25	1.10	....	....	....	....	....	T	....	4.65
Albia	.04	.01	....	....	....	....	....	....	....	....	....	T	.72	.62	.87	.13	....	....	....	....	....	....	....	.04	.80	1.63	.22	....	....	.30	T	5.38
Algona	T	T	....	....	....	....	....	T	....	....	T	.07	....	.75	1.93	....	....	....	....	.15	....	....	....	.41	.23	.63	.10	....	....	1.53	T	5.80
Allerton	T	T	....	....	....	....	....	T	T	....	....	.54	.05	.25	.53	....	....	....	....	....	....	....	....	.24	1.62	.08	.08	....	....	.32	.50	4.21
Alta	T	T	T	....	....	....	....	....	....	....	.03	.05	....	.08	1.77	....	T	....	.23	.33	.09	....	....	.60	1.00	.98	.18	....	T	1.20	....	6.54
Alta (near)	....	....	....	....	....	....	....	....	....	....	.02	.08	....	.18	1.77	....	....	.12	.06	.48	....	....	.01	1.10	.62	.78	....	....	.02	.96	T	6.20
Alton	....	....	....	....	....	....	....	....	....	....	....	.10	....	.17	.02	....	.11	.11	.04	....	.44	....	.09	1.23	.50	.57	....	....	.17	1.36	....	4.91
Amana	.01	.01	....	....	....	....	....	T	....	....	....	.12	.04	.38	.59	....	....	....	....	....	....	....	....	T	.73	.02	.13	....	....	.37	....	2.40
Ames	T	T	....	....	....	....	....	T	....	....	....	.12	....	.93	1.01	....	....	....	....	....	....	....	....	.39	.61	.02	....	....	....	1.01	.08	4.17
Atlantic	....	....	....	....	....	....	....	....	....	....	.03	.10	.02	1.16	.29	....	.25	T	....	....	....	....	....	.49	.59	.01	....	....	T	.49	T	3.43
Audubon	....	....	....	....	....	....	....	....	....	....	....	.17	.04	1.55	.44	....	....	....	....	.05	....	....	....	.52	.59	.01	....	....	....	.65	.01	4.03
Baxter	T	.03	....	....	....	....	....	.03	....	....	T	.20	T	2.84	.83	....	....	..	....	....	....	....	....	.13	.91	.02	....	T	....	1.37	T	6.36
Bedford	....	....	....	....	....	....	....	.04	....	....	....	.07	.05	.92	.32	....	T	.40	.04	....	....	....	.17	.34	.69	.02	....	....	....	.08	.02	3.16
Belle Plaine	T	T	....	....	....	....	....	.03	.. .	....	....	.11	.42	1.24	....	....	....	T	....	....	....	....	....	.12	.51	.04	....	....	....	.34	....	2.81
Bloomfield	....	....	....	....	....	....	....	.04	....	....	....	.21	.07	.44	1.11	.02	....	....	....	....	....	....	....	....	2.45	.62	....	....	.13	.60	....	5.69
Bonaparte	....	....	....	....	....	T	....	.06	.03	....	....	T	....	.08	1.07	....	....	....	....	....	....	....	....	....	1.95	....	.21	....	....	.73	....	4.13
Boone	T	T	....	....	....	....	....	....	T	....	T	....	.09	.40	1.20	.04	....	....	....	....	....	....	....	.13	.36	.46	.02	....	....	2.08	.03	4.81
Britt	.13	T	....	....	....	....	....	....	....	....	....	.60	T	.06	1.89	....	....	....	....	T	....	....	.26	.23	.10	.50	....	....	....	.96	.56	5.29
Buckingham	T	....	....	....	....	....	....	T	....	....	....	.05	....	2.34	....	....	....	.06	....	....	....	....	T	T	.19	....	....	....	.25	....	.83	3.72
Burlington	....	T	T	T	....	.05	....	....	.18	....	....	....	.01	.17	.50	T	....	....	....	....	....	....	....	....	.65	1.19	.24	....	....	.84	....	3.83
Carroll	....	....	....	....	....	....	....	....	....	....	....	....	.35	.54	2.40	....	....	....	.13	....	....	....	....	.55	.30	.92	....	....	....	.52	.57	6.28
Cedar Rapids	T	T	....	....	....	T	....	.03	....	....	....	.16	.26	1.06	....	....	....	T	....	....	....	....	....	T	.42	.15	T	T	....	.38	.59	3.05
Chariton	T	....	....	....	....	....	....	....	....	....	....	.72	.28	.32	.53	....	....	....	....	....	....	....	....	.37	1.22	....	....	....	....	.45	....	3.89
Charles City	.05	.02	....	....	....	....	....	T	....	....	T	.12	.10	1.29	.17	....	....	....	....	T	T	....	.23	.03	.04	.12	....	....	.18	.53	.54	3.42
Clarinda	T	....	....	....	....	....	....	....	.05	....	....	T	.19	1.98	.25	....	....	.20	.85	....	....	....	....	.25	.17	.21	....	....	....	....	.63	4.78
Clear Lake	.18	....	....	....	....	....	....	....	....	....	T	....	.02	.50	1.37	....	....	....	....	....	....	....	....	....	T	.68	....	....	....	.98	....	3.73
Clinton	....	.02	....	....	....	....	....	....	.03	....	....	.28	....	1.10	.38	....	....	....	....	....	....	....	....	....	1.58	....	.15	....	....	.17	.48	4.19
Columbus Jct	T	....	T	....	....	.25	....	....	.04	....	....	T	....	.47	.68	....	....	....	....	....	....	....	....	T	1.30	....	.15	....	....	.59	....	3.48
Corning	....	....	....	....	....	....	....	T	....	....	....	T	1.06	1.00	.35	....	T	.51	.15	....	....	....	....	.37	.82	....	....	....	T	.69	.04	4.99
Corydon	T	....	....	....	....	....	....	T	....	....	....	.63	.03	.16	.56	....	....	....	....	....	....	....	....	.50	1.54	.07	.08	....	....	.18	.22	3.97
Creston	T	T	....	....	....	....	....	....	....	....	....	....	.28	1.18	.78	....	T	.53	....	....	....	....	....	.31	.45	.86	T	....	....	.75	.13	5.27
Cumberland	....	.08	....	....	....	....	....	....	....	....	....	.11	.06	.72	.06	....	.04	....	....	....	....	....	.14	.91	.72	....	....	....	.69	.06	....	3.59
Davenport	T	.03	....	....	....	T	....	.08	.08	....	....	.03	.46	.57	.27	....	....	....	....	....	....	....	....	T	1.17	.09	T	T	T	.31	.14	3.23
Decorah	.07	....	....	....	....	....	.03	....	....	....	....	....	.05	.19	1.35	....	....	.10	....	....	.06	.07	.04	T	.21	....	....	....	.03	T	.25	2.45
Delaware	.02	.03	....	....	....	.05	....	....	....	....	....	....	....	.43	2.62	....	....	....	....	....	....	....	....	....	....	.10	.06	....	....	.05	.15	3.51
Denison	....	.05	T	....	....	....	....	....	....	....	T	.06	.06	1.41	.28	....	....	....	.39	....	....	....	.07	1.21	.74	.10	.03	....	....	1.24	.01	5.65
Des Moines	T	T	T	....	....	....	....	T	....	....	T	.03	.08	1.67	.01	....	....	.02	....	....	....	....	....	.47	1.11	.03	....	.06	.68	.01	.07	4.24
De Soto	T	....	....	....	....	....	....	....	....	....	....	T	T	.75	.60	....	....	....	....	....	....	....	....	.27	.61	.01	....	....	....	1.90	.15	4.29
Dows	....	....	....	....	....	....	....	....	....	....	....	....	.18	.96	.52	....	....	....	....	....	....	....	....	.07	.10	.15	....	....	....	.84	.25	3.07
Dubuque	.02	.01	....	....	....	.11	....	T	....	....	....	T	T	1.29	.24	....	....	T	....	....	....	....	T	....	.16	.05	.02	T	....	.03	.39	2.32
Earlham	....	T	....	....	....	....	....	T	....	....	....	T	.43	.88	.48	....	....	T	....	....	....	....	....	T	1.10	T	....	....	....	.86	.07	3.82
Elkader	....	....	....	....	....	....	....	....	....	....	....	.01	.15	.35	2.20	....	....	....	....	....	....	....	....	....	.10	.09	....	....	.03	....	.21	3.14
Elliott	....	....	....	....	....	....	....	....	....	....	T	T	.51	.98	.47	....	....	.15	....	....	....	....	.13	.47	.43	.07	....	....	....	.58	....	3.79
Elma	T	T	T	....	....	....	....	....	....	....	T	.01	.12	.62	.73	....	....	.03	....	T	....	....	....	.60	.03	.23	....	....	....	.30	.03	2.70
Estherville	.05	....	....	....	....	....	....	T	....	....	....	T	....	.20	.72	.05	....	....	.42	.05	.10	1.38	....	.05	.70	.35	.40	....	....	1.20	.30	6.47
Fairfield	....	....	T	T	....	....	....	.02	....	....	....	.04	....	.75	1.14	T	....	....	....	....	....	....	....	T	2.35	....	T	....	.03	.75	....	5.08
Forest City	.10	T	....	....	....	....	....	T	....	....	....	....	T	.90	1.07	.15	....	....	....	.20	.20	....	....	.20	T	.20	.33	....	....	.96	.38	4.69
Fort Dodge	T	....	....	....	....	....	....	....	....	....	.11	....	.14	.58	2.52	.15	....	....	....	....	.25	....	....	.06	.38	.36	.05	....	....	1.12	.06	5.78
Ft. Madison	....	....	....	....	....	.22	....	.34	....	....	....	T	.07	.60	....	....	....	....	....	....	....	....	T	T	2.08	.30	....	....	T	.75	....	4.36
Gilman	.03	T	....	....	....	....	....	T	....	....	....	.15	.05	3.46	.43	....	....	T	....	....	....	....	....	....	.42	....	....	T	....	.30	.08	4.92
Grand Meadow	.25	.05	....	....	....	....	....	.07	....	....	....	T	1.02	.30	1.57	....	....	....	....	....	....	....	....	.13	.09	.08	.08	....	.02	.05	.18	3.89
Greene	.04	T	....	....	....	....	....	....	....	....	T	.13	.07	.34	1.12	....	....	....	....	....	T	....	....	.14	.11	.10	.05	....	....	.65	.10	2.85
Grinnell	....	T	....	....	....	....	....	....	....	....	....	.20	T	.70	.56	....	....	T	....	....	....	....	T	.05	.90	.06	....	T	....	.35	.07	2.89
Grundy Center	.08	....	....	....	....	....	....	T	....	....	....	.11	.04	.54	1.15	....	....	....	....	....	....	....	.58	T	.20	....	.06	....	....	.82	.05	3.63
Guthrie Center	T	T	T	....	....	....	....	T	....	....	.01	.13	.01	2.56	.60	....	T	....	....	T	....	....	....	.54	.81	.05	....	T	....	.81	T	5.52
Hampton	.05	.03	....	....	....	....	....	....	....	....	....	.03	.37	1.35	.10	....	....	....	....	....	....	....	.17	.07	.26	....	....	....	.70	....	.18	3.31
Hancock	....	....	....	....	....	....	....	....	....	....	.02	....	.20	....	.12	....	....	.46	....	....	....	....	....	.48	.29	....	....	....	....	.70	....	2.27
Harlan	T	T	T	....	....	....	....	T	....	....	T	.16	T	1.00	.58	....	.05	T	.12	T	....	....	.10	.65	.73	.14	....	....	T	.72	....	4.25
Hopeville	T	T	....	....	....	....	....	....	....	....	....	....	.28	1.68	.22	....	....	.30	....	....	....	....	....	.05	.87	T	....	....	....	.40	.02	3.82
Humboldt	....	....	....	....	....	....	....	....	....	....	....	.10	.40	.45	3.40	....	....	....	....	.25	....	....	....	.48	.26	.44	.06	....	....	1.10	.20	7.14
Independence	.02	T	....	....	....	....	....	T	....	....	....	....	....	.38	1.56	....	....	T	....	....	....	....	....	....	.07	....	.04	....	....	.12	....	2.19
Indianola	T	T	....	....	....	T	....	T	....	....	....	....	.05	....	1.09	.13	T	....	....	....	....	....	....	.35	....	....	....	....	....	.85	T	2.47
Inwood	....	T	....	....	....	....	....	.03	....	....	....	.18	.01	....	T	....	.25	T	.44	.16	T	.20	.01	2.07	.62	.48	....	....	.12	.03	.32	4.92
Iowa City	T	....	....	....	....	.08	....	....	....	....	....	....	.40	.64	1.30	....	....	....	....	....	....	....	....	....	.06	.98	.22	....	....	.72	....	4.40
Iowa Falls	.03	T	T	T	....	....	....	....	T	....	T	.07	.41	1.18	.09	....	....	....	....	....	....	....	....	.62	.05	.17	.06	T	....	.85	....	3.53
Jefferson	....	T	....	....	....	....	....	....	....	....	....	....	T	.65	2.60	....	....	....	....	....	....	....	....	.70	.63	....	....	....	....	.75	.15	5.48
Keokuk	T	....	....	....	....	.35	....	.64	.05	....	....	T	.06	.09	.17	....	....	....	....	....	....	....	....	.04	.98	.11	....	....	.16	.38	....	3.03
Keosauqua	T	T	T	T	....	T	....	....	.10	T	....	....	.05	.08	.93	.04	....	....	....	....	....	....	....	.03	.96	1.62	.21	....	....	.73	....	4.75
Lamoni	.02	....	....	....	....	....	....	.02	....	....	....	.08	.22	1.18	.10	T	....	.06	....	....	....	....	T	.08	1.52	.07	....	....	....	1.18	.19	4.63
Larrabee	....	....	....	....	....	....	....	....	....	....	....	.04	.82	....	.98	.05	T	.33	.30	T	....	....	T	1.29	.71	....	....	....	.75	.03	T	5.30
Le Claire	T	.01	.04	T	....	....	T	....	.25	....	....	....	.10	.43	.73	....	....	....	....	....	....	....	....	....	T	1.17	.10	T	....	.22	....	3.05
Le Mars	T	T	T	....	....	....	....	....	....	....	T	....	T	.26	.13	....	.01	.23	T	T	T	....	.33	2.32	.52	.66	.01	....	T	.60	.01	5.08
Lenox	....	....	....	....	....	....	....	....	....	....	....	.20	.25	1.92	.20	....	....	.82	.08	....	....	....	.10	.43	.95	.10	....	....	....	.60	.10	5.75
Leon	.15	T	....	....	....	....	....	T	....	....	....	.25	.25	.25	1.00	....	....	.10	....	....	....	....	....	.10	.92	.05	....	....	....	1.35	.50	4.92
Little Sioux	....	....	....	....	....	....	....	....	....	....	....	.05	....	.66	1 23	....	....	....	.61	.16	....	....	.07	.26	.37	.18	....	....	....	.46	....	4.05
Logan	....	....	....	....	....	....	....	....	....	....	T	.08	....	.51	1.61	....	.04	T	....	....	....	....	.02	.33	.45	.21	.01	....	....	.56	T	3.82
Marshalltown	T	....	....	....	....	....	....	....	....	....	....	....	.21	.37	2.05	....	....	....	....	....	....	....	....	....	.02	.31	....	....	....	.53	....	3.49
Mason City	....	....	....	....	....	....	....	....	....	....	....	....	.07	.60	1.42	....	....	....	....	.57	.01	....	....	.12	T	.37	.03	....	....	.70	.30	4.19
Merrill	....	....	....	....	....	....	....	....	....	....	....	T	....	.31	.10	....	....	....	....	.21	.05	....	....	1.20	.80	1.20	.10	....	....	.52	....	4.49
Mt. Ayr	....	T	....	T	....	T	....	T	....	....	....	.05	.10	1.50	.20	....	....	.50	....	....	....	....	T	.60	1.10	.10	....	....	....	.70	T	4.85
Mt. Pleasant	T	....	....	T	....	.47	....	.11	.07	....	....	.02	T	.30	.72	....	....	....	....	....	....	....	....	T	1.89	....	.17	....	.02	.77	....	4.54
Muscatine	....	T	.02	....	....	.02	....	....	.07	....	....	....	.04	.96	.80	T	....	....	....	....	....	....	....	....	.06	.70	.14	....	....	.54	....	3.35
New Hampton	.02	.10	....	....	....	....	....	.02	....	....	....	....	.22	.75	1.45	....	....	....	....	....	....	....	....	.37	.08	.10	....	....	....	1.10	....	4.21
Newton	....	....	....	....	....	....	....	....	....	....	....	.44	....	.50	.88	....	....	....	....	....	....	....	....	.09	.74	.04	....	....	....	.44	.05	3.18
Odebolt	....	....	....	....	....	....	....	....	....	....	....	.12	.13	.30	1.77	....	....	....	.11	....	....	....	....	1.67	.90	.18	.10	....	....	1.22	....	6.50
Olin	T	....	....	....	....	.59	....	....	....	....	....	....	.27	1.10	....	....	....	....	....	....	....	....	....	....	.77	.01	....	....	....	....	.01	2.75
Omaha, Neb	....	....	....	....	....	....	....	T	....	T	.01	.31	.01	1.25	.61	....	.64	T	....	....	....	....	T	.05	.21	.10	....	....	.61	T	T	3.80
Onawa	....	....	....	....	....	....	....	....	....	....	....	.02	T	.64	.75	....	T	...	.02	.35	....	....	.08	.85	.55	.39	.03	....	.25	.10	....	4.03
Osage	.20	T	....	....	....	....	....	....	....	....	....	.10	....	.80	1.15	....	....	....	....	....	....	....	....	.23	.30	....	....	....	....	.69	....	3.47
Oskaloosa	....	....	....	....	....	....	....	T	....	....	....	.42	.23	1.50	.45	....	....	....	....	....	....	....	....	.10	1.74	.23	....	....	.30	....	2.08	7.05
Pacific Junction	T	....	....	....	....	....	....	T	....	....	T	.29	.02	1.95	1.10	....	.15	.43	T	....	....	....	T	.06	.17	.03	....	....	.25	.25	T	4.70
Pella	T	.02	T	....	....	....	....	T	....	....	T	.18	.26	1.18	.55	....	....	....	....	....	....	....	....	T	1.39	.12	....	T	T	.24	.27	4.21
Perry	....	....	....	....	....	....	....	....	....	....	....	.14	....	.26	2.64	....	....	....	....	....	....	....	....	.64	.76	.05	....	T	....	1.22	.28	5.99
Plover	....	....	....	....	....	....	....	....	....	....	....	.15	T	.30	1.78	.15	....	....	....	....	....	....	....	.77	.20	.75	.10	....	.75	.05	T	5.00
Pocahontas	....	T	....	....	....	....	....	....	....	....	T	.12	....	.16	2.02	....	.09	....	....	.08	....	....	T	.73	.33	.65	.03	....	.02	.92	.04	5.19
Ridgeway	.36	.01	....	....	....	....	....	T	....	....	....	T	.15	.63	1.31	....	....	.04	....	T	....	....	.09	.35	....	.08	....	....	....	.23	.11	3.36
Rock Rapids	....	....	....	....	....	....	....	T	....	....	....	....	....	....	T	....	T	....	.75	.10	.38	T	.88	1.12	.45	....	....	....	....	.37	T	4.05
Rockwell City	....	....	....	....	....	....	....	....	....	....	T	....	.40	.75	3.95	....	....	....	....	.50	....	....	....	.75	.50	.20	....	....	....	.80	....	7.85
Sac City	....	....	....	....	....	....	....	....	....	....	....	.11	.27	.35	1.70	....	....	....	.01	.17	....	....	....	.38	.38	.33	.01	....	.22	.48	.02	4.43
St. Charles	....	....	....	T	....	T	....	T	....	....	....	.10	.05	1.58	.58	....	....	.04	....	....	....	....	....	.36	.95	.04	....	....	....	....	....	3.70
Sheldon	T	T	....	....	....	....	....	....	....	....	....	.06	....	.15	....	....	.10	.45	....	T	.25	.05	....	2.00	.55	1.05	.05	....	1.20	....	.12	6.03
Sibley	05	....	....	....	....	....	....	.03	....	....	....	.05	....	.05	T	....	.11	T	....	.11	.10	.13	....	1.14	.67	.77	.21	....	....	1.04	.15	4.61

DAILY PRECIPITATION FOR IOWA, MAY, 1909—Continued

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sigourney	T	T	....	....	....	T	....	.04	....	....	....	.12	.26	.67	.80	....	....	....	....	....	....	....	....	T	1.88	T	.45	....	....	.43	....	4.65
Sioux Center	....	T	....	....	....	....	....	....	....	....	T	.04	T	.06	....	....	.34	....	.04	.09	.40	.12	.24	3.50	.52	.50	.02	....	.35	.21	.18	6.61
Sioux City	....	T	....	....	....	....	....	T	...	T	T	.01	T	.04	.11	....	....	.21	.97	T	T	....	.39	.88	.86	.30	....	....	.21	....	T	3.98
Stockport	T	T	....	....	....	.02	....	.08	....	....	....	.04	.01	.05	.83	....	....	....	....	....	....	....	....	T	2.09	....	.27	....	.02	.81	....	4.22
Storm Lake	....	T	....	....	....	....	....	....	....	....	.03	.02	.04	....	1.68	....	....	....	.34	.22	....	....	.17	1.71	.50	.53	....	....	....	.96	.10	6.30
Thurman	....	T	....	....	....	....	....	.08	....	....	T	.27	.75	1.60	.46	....	T	.55	....	....	....	....	....	.10	.30	.10	....	....	.62	.12	T	4.95
Tipton	....	....	....	....	....	.28	....	....	....	....	....	.69	....	.55	.91	....	....	....	....	....	....	....	....	....	1.09	....	....	.51	.43	....	....	4.46
Toledo	....	....	....	....	....	....	....	T	....	....	....	.13	....	.48	2.60	....	....	....	....	....	....	....	.15	T	.50	....	....	....	....	.28	....	4.14
Wapello	....	....	....	....	....	....	....	T	.17	....	T	....	....	.36	.46	....	....	....	....	....	....	....	....	T	1.50	....	.13	....	T	.74	T	3.36
Washington	....	.03	.02	....	....	.18	....	.01	....	....	....	....	.15	.35	.83	....	....	....	....	....	....	....	....	....	1.63	.30	....	....	....	.58	....	4.08
Washta	T	T	....	....	....	....	....	....	....	....	....	.02	.13	1.20	....	....	T	2.00	.50	....	....	....	.50	1.30	.65	.55	....	....	.77	....	.04	7.66
Waterloo	.07	....	....	....	....	....	....	T	....	....	....	.03	.02	.36	1.05	....	....	.01	....	....	....	....	T	....	.14	.03	.01	....	....	.14	....	1.86
Waukee	T	....	T	....	....	....	....	T	....	....	.01	.04	.03	.41	.54	T	....	....	....	....	....	....	....	.70	1.07	.05	....	.01	....	.73	.05	3.64
Waverly	T	.04	....	....	....	....	....	.10	....	....	....	.02	.01	.30	.98	....	....	....	....	....	....	....	....	....	.09	.08	.03	....	....	.49	....	2.14
Webster City	....	....	....	....	....	....	....	....	....	....	T	.52	.03	.65	.85	.01	....	....	....	....	....	....	....	.26	.22	.11	.02	....	....	1.28	.14	4.09
West Bend	....	.01	....	....	....	....	....	T	....	....	.03	.10	T	.36	1.56	....	.02	....	....	.01	....	....	....	.55	.52	.50	.12	....	....	1.12	.10	5.00
Whitten	T	T	T	....	....	....	....	....	....	....	....	.17	T	.50	1.03	....	....	T	....	....	....	....	.10	T	.27	.05	T	....	....	1.52	....	3.64
Wilton Junction	.10	....	....	....	....	....	....	....	....	....	....	....	1.00	.60	....	....	....	....	....	....	....	....	....	.90	.11	....	....	.30	.50	....	....	3.51
Winterset	T	T	....	....	....	....	....	T	....	....	T	.02	.05	.81	.54	....	....	.06	....	....	....	....	....	.23	.87	T	....	T	....	1.93	.04	4.55
Woodburn	T	....	....	....	....	....	....	....	....	....	T	.23	.53	1.28	.35	....	....	T	T	....	....	....	....	.12	1.02	T	....	....	....	1.57	.35	5.45
Zearing	....	....	....	....	....	....	....	....	....	....	....	....	....	.88	.76	....	....	....	....	....	....	....	....	.02	29	.04	....	....	....	.73	.05	2.77

TOTAL PRECIPITATION, MAY, 1909.

SCALE OF SHADES—IN INCHES



Less than 2 | 2 to 4 | 4 to 6 | 6 to 8 | More than 8

U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR JUNE, 1909

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1909

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

OF THE

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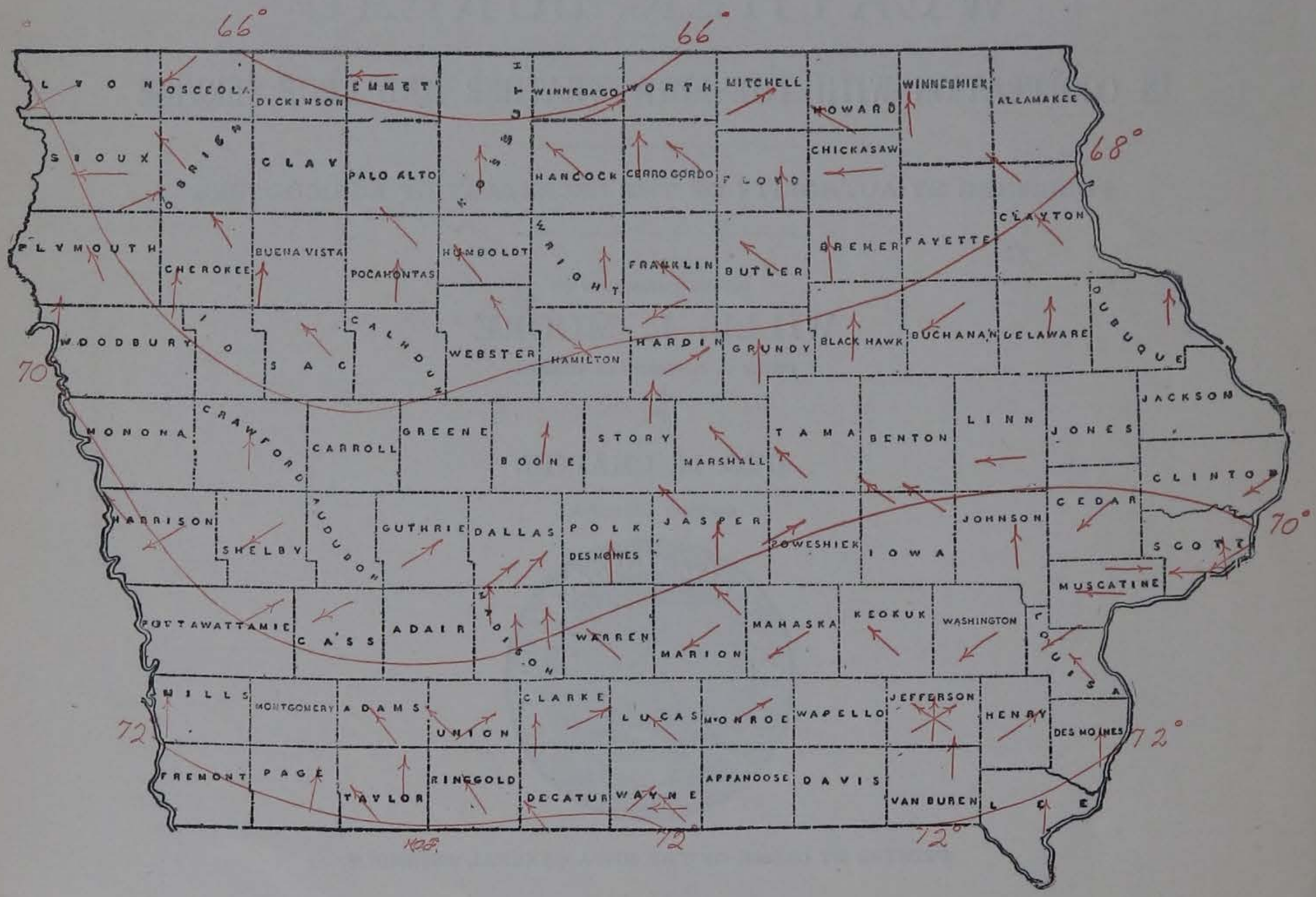
MEAN ISOTHERMS AND PREVAILING WINDS OF JUNE, 1909.

Lines pass thru points of equal temperature. Arrows fly with the wind.



U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IOWA SECTION,

GEO. M. CHAPPEL, Section Director.

VOL. XX DES MOINES, IOWA, JUNE, 1909 NO. 6

IOWA CROP REPORT, JULY 1, 1909.

Following is a summary of reports received from crop correspondents of the Iowa Weather and Crop Service, showing the estimated condition of staple crops July 1, 1909, as compared with the average condition on that date in past years: Corn, 92 per cent; winterwheat, 96; spring wheat, 95; oats, 91; rye, 96; barley, 94; flax, 94; hay crop, 100; pastures, 103; potatoes, 100; apples, 76; plums, 68; grapes, 85.

Condition July 1, 1908: Corn, 85 per cent; winter wheat, 99; spring wheat, 94; oats, 90; rye, 95; barley, 93; flax, 89; hay crop, 103; pastures, 104; potatoes, 99; apples, 50; plums, 40; grapes, 80.

July 1st average of the past ten years: Corn, 89 per cent; winter wheat, 92; spring wheat, 92; oats, 90; rye, 93; barley, 94; flax, 92; hay crop, 88; pastures, 96; potatoes, 98.

A revised estimate of the area of corn planted this year shows about 102 per cent, or an average increase of 2 per cent, compared with the area planted in 1908, and a decrease of a little over 2 per cent as shown by reports on June 1, 1909, before the heavy rains began.

GENERAL SUMMARY.

The average temperature for the month was only a fraction of a degree above the normal but the rainfall was considerably above the average for June. The first week was moderately warm, there being a daily excess of about three degrees, but on the 8th the temperature was much lower and it remained below normal until the 19th. The lowest temperature occurred generally on the 15th but no frost was reported from the northern stations as there was on June 15, 1908. From the 20th to the close of the month the temperature was considerably above the normal, the maximum occurring at many stations on the 30th.

There was an excess of rainfall in all districts of the State but there were a few comparatively small areas where a slight deficiency was reported, the most notable one being along the Mississippi river from Scott county southward to Des Moines county. The heaviest rainfall was over Union and the adjacent counties where the monthly amounts ranged from 8.00 inches to over 13.00 inches. It was also heavy over the Missouri divide and the extreme northwestern county. Showers occurred at some station in the state on every day of the month except the 19th. And yet there were on an average, 12 clear days. Thunder and lightning accompanied most of the showers but wind squalls and severe hail storms were not as frequent as usual. The frequent and excessive rains caused high water in all rivers and creeks, especially in the western districts. The flat and bottom lands were flooded two or three times and a large acreage of corn was finally abandoned after being replanted once or twice. The surplus moisture also interfered with the cultivation of corn on ground not thoroughly drained and many fields are quite foul. With all the adverse conditions corn on uplands and well drained fields, and these comprise nearly 90 per cent of the total corn acreage, has made very satisfactory progress considering its late start and much of it is up to the standard for this season of the year and the fields were generally clean. Where the fields have not received proper cultivation the corn is short and uneven and it depends on future weather as to whether or not it matures. The condition of small grain, grass, potatoes and garden truck has improved during the month, but there has been a decline in the condition of fruit.

TEMPERATURE.—The monthly mean temperature for the State, as shown by the records of 111 stations, was 69.1°, which is 0.3° above the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 67.6°, which is 0.2° above the normal; Central section 69.3°, which is 0.3° above the normal; Southern section 70.3°, which is 0.3° above the normal. The highest monthly mean was 72.8° at Keokuk, Lee county, and Keosauqua, Van Buren county, and the lowest monthly mean 64.8°, at Dows, Wright county. The highest temperature reported was 96°, at Keosauqua, Van Buren county, on the 26th; the lowest temperature reported was 40°, at Elma, Howard county, on the 15th. The average monthly maximum was 90°, and the average monthly minimum was 48°. The greatest daily range was 43°, at Dows, Wright county. The average of the greatest daily ranges was 32°.

PRECIPITATION.—The average precipitation for the State, as shown by the records of 120 stations, was 6.41 inches, which is 1.89 inches above the normal. By sections the averages were as follows: Northern section, 6.00 inches, which is 1.43 inches above the normal; Central section, 6.15 inches, which is 1.78 inches above the normal; Southern section, 6.41 inches, which is 1.89 inches above the normal. The greatest amount, 13.30 inches, occurred at Afton, Union county, and the least, 2.80 inches, occurred at Davenport, Scott county. The greatest amount in twenty-four hours, 6.00 inches, occurred at Perry, Dallas county, on the 25th. Measureable precipitation occurred on an average of 13 days.

SUNSHINE AND CLOUDINESS.—The average number of clear days was 12; partly cloudy, 10; cloudy, 8. The duration of sunshine was about normal, the percentage of the possible amount being 74 at Charles City; 57 at Davenport; 62 at Des Moines; 75 at Keokuk, and 51 at Sioux City.

WIND.—South winds prevailed. The highest velocity reported was 48 miles per hour from the Southwest, at Sioux City, Woodbury county, on the 20th.

COMPARATIVE DATA FOR THE STATE—JUNE.

Year	Temperature			Precipitation		
	Mean	Highest	Lowest	Average	Greatest	Least
1890	72.7	106	44	7.76	16.53	1.57
1891	69.1	99	37	5.39	19.88	1.68
1892	69.2	102	42	5.19	14.16	.67
1893	71.2	100	40	3.91	7.56	1.36
1894	73.2	104	34	2.67	6.20	.57
1895	69.7	102	34	4.32	9.26	.98
1896	69.1	100	40	3.11	7.89	.81
1897	69.1	103	29	3.81	9.38	1.03
1898	71.4	99	42	4.72	12.48	1.90
1899	70.7	100	42	5.04	11.99	1.10
1900	69.7	102	38	3.98	12.35	.67
1901	72.3	106	30	3.71	7.84	1.05
1902	65.2	97	32	7.16	16.04	1.46
1903	64.6	96	30	2.86	6.04	.75
1904	67.1	94	35	3.45	8.35	.44
1905	69.9	100	36	5.53	14.89	1.80
1906	67.9	99	37	3.92	8.27	1.48
1907	66.5	98	36	5.35	9.33	2.07
1908	67.1	94	35	5.66	11.88	1.77
1909	69.1	96	40	6.41	13.30	2.80

ATMOSPHERIC PRESSURE AND WIND.

Mean Barometer for the month reduced to sea level, 29.97 inches.
Prevailing direction of Wind, Northwest.

STATIONS	Barometer, in Inches					Wind				
	Mean	Maximum	Date	Minimum	Date	Movement	Maximum Velocity—miles	Direction	Date	Average Hourly Velocity
Charles City.	29.98	30.30	18	29.73	13	3909	29	NW	22	5.4
Davenport..	29.97	30.32	18	29.75	3	4244	26	W	23	5.9
Des Moines.	29.95	30.27	15	29.74	24	4671	32	NE	29	6.5
Dubuque....	30.00	30.38	18	29.75	13	3703	25	NW	26	5.1
Keokuk	29.97	30.31	15	29.77	3	3995	22	NW	7	5.5
Omaha, Neb.	29.94	30.24	15	29.72	24	5073	27	NW	22	7.0
Sioux City ..	29.95	30.24	15	29.78	1	7526	48	SW	20	10.5

OBSERVER'S REMARKS.

AFTON.—*N. W. Rowell.* The rainfall was heavier during the last month than in any June in the last fifteen years. The normal rainfall for the month is 4.54 inches, and the total for the past month was 13.30 inches. There were ten storms with lightning.

ALBIA.—*J. I. Chenoweth.* Rain fell on 15 days during the month and the total amount was 7.06 inches, or 4.77 inches more than for June, 1908. The sunshine was, however, fully up to the normal, but the excessive rain interfered with cultivation and the corn fields are weedy.

ALGONA.—*F. T. Seeley.* Although we have had rain or a trace of rain on 15 days of the month, farm work is as far advanced at the close of the month as it was at the close of June, 1908.

ALLERTON.—*Mrs. Geo. Shriver.* Excessive rainfall has hindered corn cultivation and some fields are very weedy. Grass and oats have also been damaged.

ALTA.—*D. E. Hadden.* The temperature was 0.8° below the nineteen year normal, and 2.3° warmer than June, 1908. The total rainfall was 2.36 inches less than in June of last year.

ALTON.—*W. S. Slagle.* There has been very little thunder during June and on the whole the month has been fine for all crops. Notwithstanding its late start, corn is nearly up to the normal and the third plowing is in progress. Barley headed nicely.

AMANA.—*C. Schadt.* Rain fell on 13 days and the latter part of the month was hot and very sultry. Seven head of cattle were killed by lightning on the 24th.

AMES.—*J. H. Criswell.* A splendid month for growth of corn which is in very fine condition except on some of the low ground, which was inundated by heavy rain on the 26th. Alfalfa hay was cut and put up in good condition. Winter wheat and oats lodged badly by the wind and rain of the 26th and 29th, and there is some rust on wheat.

AUDUBON.—*Geo. E. Kellogg.* Crops over a small area around Audubon were destroyed by hail on the night of the 12th. The excessive rains during the latter part of the month flooded low lands and destroyed much of the corn.

BAXTER.—*W. R. Vandike.* A good deal of rain fell, mostly at night during the latter part of the month, but the days were fairly clear, and corn made rapid growth.

BELLE PLAINE.—*S. C. VanDike.* A severe electric storm occurred on the night of the 24th.

BONAPARTE.—*Hon. B. R. Vale.* The first half of the month was wet but the latter half was seasonable. Fall grain is ripening early and 50 per cent of the corn will be laid by prior to the Fourth.

BRITT.—*Geo. P. Hardwick.* Vegetation started later last spring than ever before known, but made the most rapid growth in June ever observed.

CHARITON.—*C. C. Burr.* The month has been unfavorable for the corn crop which is now very uneven, and the soil is too wet for cultivation.

CLINTON.—*Luke Roberts.* The temperature during the first and second decades of the month was below the normal, but there was an average daily excess of 4.5° during the third decade. Crops, and especially corn, made rapid advancement.

CRESTON.—*Edgar Stovall.* An excessive rain and electric storm on the 9th caused considerable damage.

DUBUQUE.—*J. H. Spencer.* The heaviest rainfall was on the 24th, when 1.46 inches fell in an hour. Streets were flooded and damaged in some localities; also crops on low lands. The damage was slight, however, compared with the beneficial effects of the rainfall. There were several severe electrical storms, but there was no serious damage by lightning in this vicinity.

ELLIOTT.—*Henry Barnes.* A splendid growing month, which closed with crops of all kinds in fine condition.

FOREST CITY.—*J. A. Peters.* Corn is about as far advanced as usual at the close of June.

GRAND MEADOW. (Postville P. O.)—*F. L. Williams.* The month was favorable for all farm crops and corn is clean and up to the normal in size.

GRINNELL.—*D. W. Brainard.* All crops are in splendid condition at the close of the month.

GUTHRIE CENTER.—*D. G. Beardsley.* A good month for all crops.

INWOOD.—*F. B. Hanson.* The month has been notable for frequent rains, measureable precipitation having fallen on 16 days. Farm work has been much retarded thereby. Some corn was replanted early in the month. The season is now nearly up to the normal.

KEOKUK.—*Fred Z. Gosewisch.* Heavy rains of the 7th and 9th flooded a large tract of river bottoms planted with corn. The weather was cool and dry from the 9th to 20th; the floods receded and the bottom lands were replanted to a great extent. Corn has made good growth and is clean on well drained lands.

KEOSAUQUA.—*J. H. Landes.* In the main June was a good crop month; the result being that crops of all kinds look well, except where corn had to be replanted on account of ravages of worms. Wheat harvest began last month.

LAMONI.—*Prof. T. J. Fitzpatrick.* There was much lightning during the month and considerable loss of stock is reported. Grass is quite good but corn is in poor condition.

LE MARS.—*G. A. C. Clark.* On the night of the 26th over 2 inches of rain fell in one and a half hours, with almost continuous lightning and thunder.

NORTHWOOD.—*Chas. H. Dwelle.* Corn is in better condition than it has been at the close of June for several years.

PELLA.—*John H. VerSteeg.* The month closed with high temperatures and more drying weather, but as a whole it has been unfavorable for cleaning the corn fields and about 30 per cent of the corn is still very weedy.

PERRY.—*Hon. J. A. Harvey.* At 7 P. M. of the 24th excessive rain began, accompanied by much thunder and lightning, which continued for an hour and a half. At midnight another heavy rainstorm began and continued from one and a half to two hours. Six inches of rain fell during the two storms.

PLOVER.—*J. S. Smith.* Rain fell and thunder occurred on 18 days during the month, and while there was 6.21 inches more rain in June, 1908, there is more moisture now in the soil than there was at this time last year. Corn is much better than last year.

RIDGEWAY.—*Arthur Betts.* The records of the past eleven years show that June was a normal month as to temperature and precipitation. The last decade was especially warm and crops are looking well.

SHELDON.—*Dr. A. W. Beach.* There has been too much rain; streams have been out of their banks and low lands have been under water a good share of the month. All crops have suffered more or less damage.

STOCKPORT.—*C. L. Beswick.* There has been a deficiency of precipitation and an excess of temperature. Corn is growing rapidly at close of month but is little below the average for the end of June.

WAUKEE.—*S. F. Foft.* The weather was close and sultry during the latter part of month. Corn is two to three feet in height and fully up to the average. Small grain, pastures and meadows look good.

WAVERLY.—*H. S. Hoover.* Extremely heavy rain, thunder, lightning and wind occurred on the 6th between 7:30 P. M. and 8:00 P. M. Corn and all crops as well as weeds are growing very rapidly.

WEST BEND.—*Jos. Dorweiler.* Corn made rapid growth the last week, but the soil is too wet for cutivating.

BELATED REPORTS.

FAYETTE.—*April.* (4 days missing). Mean temperature, 54.1°; maximum temperature and date, 91° on the 5th; minimum temperature and date, 26° on the 4th; greatest daily range of temperature, 45°; precipitation record incomplete.

MASSENA.—*April.* Mean temperature, 58.7°; maximum temperature and date, 93° on the 5th; minimum temperature and date, 22° on the 1st; greatest daily range of temperature, 48°; precipitation, total, 4.91; greatest in 24 hours, 1.29 on the 30th; days with, 9; number of days clear, 14; partly cloudy, 11; cloudy, 6.

NORTHWOOD.—*April.* (6 days missing from temperature record.) Mean temperature, 56.4°; maximum and date, 88° on the 5th; minimum and date, 25° on the 1st, 2d and 3d; greatest daily range of temperature, 40°; precipitation, total, 3.65 inches; greatest in 24 hours and date, 1.44 on the 15th; days with, 7; number of days clear, 9; partly cloudy, 14; cloudy, 8.

ERRATA.

BELLE PLAINE.—*March.* Page 29, 10th, maximum temperature published 28°, should be 31°; mean maximum, 40.9°, should be 41.0°.

ELLIOTT.—*March.* Page 28, mean temperature published 34.4° should be 34.8°.

ELMA.—*March.* Pages 27 and 31, total precipitation published 1.30 should be 0.85.

HUMBOLDT.—*March.* Page 27, highest temperature published 53° should be 57°.

PELLA.—*March.* Page 28, mean temperature, highest temperature and date and greatest daily range of temperature should be omitted; page 30, daily maximum temperature and mean maximum temperature should be omitted.

WASHINGTON.—*April.* Page 39, total precipitation published 5.01 inches should be 5.02; departure from normal published plus 2.35 should be plus 2.34; page 43, total precipitation published 5.01 should be 5.02.

WHITTEN.—*April.* Page 38, maximum temperature published 66° on the 4th should be 68° on the 17th.

THUNDER STORMS—STATIONS AND DATES.

NORTHERN SECTION.

Algona	1, 6, 13, 16, 21, 23, 24, 25, 26, 27
Alta	1, 5, 7, 16, 20, 23, 24, 26, 27
Alton	6, 23, 24, 26, 27
Britt	16
Charles City	1, 2, 6, 7, 12, 16, 21, 22, 23, 24, 26
Clear Lake	3
Elkader	1, 5, 16, 21, 22, 23, 25, 26
Elma	1, 2, 3, 4, 5, 6, 7, 16, 22, 23, 24, 25, 26, 27
Grand Meadow	22, 23, 24, 25, 26
Greene	1, 6, 7
Humboldt	14, 23, 25, 26, 27
Inwood	12, 15, 20, 21, 23, 24, 26, 27
Larrabee	2, 6, 11, 13, 16, 20, 23, 24, 26, 27
Le Mars	1, 6, 12, 17, 21, 24, 26
Mason City	1, 3, 4, 6, 7, 8, 9, 13, 16, 21, 22, 23, 24, 25, 26
Northwood	1, 2, 4, 13, 16, 23, 25, 26
Plover	1, 2, 3, 4, 5, 6, 7, 8, 9, 12, 16, 20, 22, 23, 24, 26, 27, 29
Pocahontas	1, 2, 3, 6, 7, 8, 12, 16, 18, 21, 23, 24, 25, 26, 27
Ridgeway	1, 3, 6, 7, 9, 12, 16, 22, 23, 24, 26
Sheldon	6, 12, 13, 21, 23, 24, 26, 27
Sioux Center	2, 7, 22, 23, 26, 27
Storm Lake	2, 7, 9, 17, 23, 26
Washta	1, 2, 5, 7, 11, 12, 16, 20, 23, 24, 26
Waverly	1, 2, 3, 6, 12, 22, 23, 24, 26, 27
West Bend	1, 5, 13, 16, 26

CENTRAL SECTION.

Amana	7, 13, 23, 24, 25
Ames	26
Audubon	7, 9, 12, 21, 22, 23, 24, 25, 26, 27, 29
Baxter	9, 27
Belle Plaine	24
Boone	1, 6, 7, 21, 25, 27
Carroll	1, 2, 7, 9, 24, 25, 26
Clinton	1, 3, 7, 23, 24, 26
Davenport	1, 2, 7, 9, 16, 22, 23, 24, 25, 26
Delaware	1, 7, 17, 24, 25, 27
Des Moines	1, 7, 8, 9, 12, 13, 22, 23, 24, 25, 26, 27, 29
Dubuque	1, 6, 16, 21, 22, 23, 24, 26
Grinnell	1, 2, 3, 8, 9, 13, 16, 23, 24, 25, 26, 27, 29
Guthrie Center	1, 6, 7, 12, 16, 21, 22, 24, 25, 27, 29
Harlan	1, 7, 8, 9, 13, 16, 20, 21, 22, 23, 24, 25, 27, 29, 30
Iowa City	21, 23, 24
Iowa Falls	1, 3, 6, 12, 13, 16, 20, 22, 23, 24, 26, 29
Onawa	1, 3, 6, 7, 9, 12, 13, 21, 22, 23, 24, 27, 28
Perry	8, 9, 20, 29
Sioux City	1, 2, 5, 6, 12, 16, 20, 21, 22, 23, 24, 26, 27, 28
Waterloo	1, 16, 22, 23, 24, 26
Waukee	9, 25, 27
Whitten	1, 9, 22, 23, 24, 25, 26, 27

SOUTHERN SECTION.

Afton	1, 7, 8, 9, 12, 13, 21, 22, 27, 30
Albia	1, 6, 8, 12, 16, 22
Allerton	2, 7, 8, 9, 22, 25, 27, 29, 30
Atlantic	1, 6, 7, 9, 12, 21, 22, 23, 25, 27, 29, 30
Chariton	13, 28, 30
Columbus Junction	1, 7, 8, 9, 16, 17, 21, 24, 25
Corning	6, 7, 8, 9, 13, 21, 30
Corydon	7, 8, 22, 30
Creston	8, 22
Earlham	1, 7, 8, 9, 13, 22, 24, 25, 27, 29, 30
Elliott	1, 7, 8, 16, 21, 22, 23, 24, 25
Fairfield	8, 9, 17, 21, 24, 25, 28, 29
Fort Madison	1, 7, 9, 16, 21, 25, 27
Hancock	7, 8, 9, 20, 21
Hopeville	1, 2, 7, 8, 9, 22, 25, 30
Indianola	1, 7, 12, 21, 22, 23, 24, 26
Keokuk	4, 7, 9, 16, 21, 22, 23, 25, 27, 28
Keosauqua	8, 9, 22, 25
Lamoni	7, 8, 22, 25, 30
Lenox	1, 7, 8, 9, 13, 16, 27, 30
Mount Pleasant	7, 8, 13, 24, 26
Omaha, Neb.	1, 2, 6, 7, 8, 9, 12, 20, 21, 22, 23, 24, 27, 28, 29, 30
Pella	1, 2, 13, 16, 21, 24, 27, 28, 29
Sigourney	8, 9, 24, 27
Stockport	7, 9, 29
Thurman	7, 13, 16, 20, 21, 22, 23, 25, 27, 28, 29, 30
Woodburn	1, 2, 7, 8, 11, 12, 27, 28, 29, 30

CLIMATOLOGICAL DATA FOR IOWA, JUNE, 1909

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in Inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
NORTHERN SECTION																				
Algona	Kossuth	1,213	34	67.6	−0.9	89	29	47	15	30	6.03	+1.63	1.88	0	13	20	3	7	s	Dr. F. T. Seeley
Alta	Buena Vista	1,513	17	68.3	+0.6	88	*5	46	15	30	5.67	−0.45	1.05	0	16	9	16	5	s	D. E. Hadden
Alta [near]	Buena Vista	.....	....	.....	.....	.....	.....	.....	.....	.....	6.23	+1.34	1.38	0	14	....	....	....	.....	W. J. Minard
Alton	Sioux	1,305	3	68.6	.....	92	5	45	15	36	5.96	.....	2.02	0	13	15	5	10	sw	W. S. Slagle
Britt	Hancock	1,236	11	67.6	+0.5	92	28	46	15	30	6.21	+2.13	1.55	0	17	2	21	7	se	G. P. Hardwick
Charles City	Floyd	1,015	20	67.0	.....	90	30	45	15	30	5.40	+0.30	1.06	0	16	6	10	14	s	Weather Bureau
Clear Lake	Cerro Gordo	1,241	9	69.4	+1.2	90	*20	50	*7	34	5.12	+0.28	1.04	0	15	16	3	11	s	Oscar Stevens
Decorah	Winneshiek	875	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	...	.....	F. H. Baker
Dows	Wright	1,142	8	65.8	−0.2	87	30	41	6	43	7.12	+2.70	1.92	0	12	15	8	7	s	G. D. Flett
Elkader	Clayton	727	27	71.6	+2.5	95	*28	41	13	38	4.80	+0.77	1.12	0	9	15	10	5	se	Chas. Reinecke
Elma	Howard	.....	....	67.8	.....	88	30	40	15	36	4.46	.....	.90	0	16	11	15	4	se	H. A. Moore
Estherville	Emmet	1,298	12	66.2	−0.6	88	*5	45	15	32	6.71	+3.36	1.95	0	14	12	5	13	e	A. O. Peterson
Fayette	Fayette	1,003	18	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	...	.....	R. Z. Latimer
Forest City	Winneshiek	1,226	14	67.1	−0.1	90	30	45	14	31	5.78	+1.15	1.80	0	12	19	5	6	sw	J. A. Peters
Grand Meadow	Clayton	1,180	17	66.4	+0.2	86	30	45	1	34	4.90	+0.10	1.70	0	14	7	16	7	se	F. L. Williams
Greene	Butler	.....	9	69.0	+0.9	93	30	43	15	36	5.41	+1.29	1.52	0	13	10	11	9	se	J. L. Cole
Hampton	Franklin	1,155	18	68.4	+0.6	91	30	46	15	32	5.21	+0.31	1.75	0	15	7	14	9	se	E. C. Grenelle
Humboldt	Humboldt	1,095	17	.....	.....	89	30	.....	.....	.....	7.10	+2.39	3.24	0	12	16	4	10	se	H. S. Wells
Inwood	Lyon	1,474	4	67.4	.....	89	*20	45	15	41	8.53	.....	1.90	0	16	13	13	4	ne	F. B. Hanson
Larrabee†	Cherokee	1,266	17	68.0	−0.5	92	26	47	15	33	7.32	+1.84	1.40	0	12	10	14	6	se	H. B. Streever
Le Mars	Plymouth	1,224	12	67.6	−0.7	88	20	44	15	31	7.22	+3.06	4.36	0	12	8	17	5	se	G. A. C. Clarke
Mason City	Cerro Gordo	1,132	11	66.2	−1.0	87	*20	42	15	33	5.96	+0.07	1.18	0	16	10	14	6	se	J. S. Mills
Merrill	Plymouth	.....	....	.....	.....	.....	.....	.....	.....	.....	4.16	.....	0.75	0	13	....	....	....	.....	Eric Oleson
New Hampton	Chickasaw	1,169	11	67.0	+0.7	86	*27	45	15	29	6.18	+1.93	.90	0	14	15	10	5	e	A. F. Kemman
Northwood	Worth	1,222	12	66.5	+0.5	90	29	45	15	30	5.20	+0.32	1.15	0	11	14	11	5	.....	Charles H. Dwelle
Osage	Mitchell	1,184	17	68.0	+1.9	94	30	43	15	33	6.61	+2.08	1.70	0	14	14	7	9	sw	Dr. A. D. Bundy
Plover	Pocahontas	1,426	12	68.5	+0.9	92	28	43	15	35	5.67	+1.32	1.45	0	18	20	7	3	se	J. S. Smith
Pocahontas	Pocahontas	.....	4	66.8	.....	89	30	45	15	31	7.29	.....	2.80	0	15	9	13	8	s	F. E. Hronek
Ridgeway	Winneshiek	1,215	10	68.2	−0.1	94	28	46	*10	33	5.43	+1.28	1.24	0	15	16	8	6	s	Arthur Betts
Rock Rapids	Lyon	1,358	9	68.4	+1.0	91	29	48	8	29	7.57	+2.86	2.00	0	11	....	....	....	.....	W. C. Wyckoff
Sheldon	O'Brien	1,422	8	67.8	+1.4	91	*5	44	16	37	6.77	+2.25	1.67	0	14	14	7	9	se	Dr. A. W. Beach
Sibley	Osceola	1,212	15	65.4	−0.6	89	5	44	15	34	6.85	+2.33	2.90	0	16	15	6	9	ne	H. G. Doolittle
Sioux Center	Sioux	.....	9	67.7	+0.9	89	4	47	15	33	4.48	−0.25	1.65	0	14	15	8	7	e	J. de Ruyter
Storm Lake†	Buena Vista	1,440	12	e67.3	+0.3	d87	26	f50	*8	f27	3.48	−1.31	.80	0	11	....	....	....	.....	S. B. Fracker
Washta	Cherokee	1,157	10	67.7	.....	91	28	41	15	40	6.32	+2.00	1.75	0	10	11	9	10	s	H. L. Felter
Waverly	Bremer	948	12	67.1	−0.4	85	*29	44	15	29	6.35	+2.10	2.35	0	12	9	13	8	s	H. S. Hoover
West Bend	Palo Alto	1,197	14	68.8	+1.4	93	28	47	15	35	6.37	+2.15	2.00	0	15	12	8	10	.....	Phil Dorweiler
Average	.....	.....	....	67.6	+0.2	90	.....	45	.....	33	6.00	+1.43	.....	0	14	13	10	7	se	
CENTRAL SECTION																				
Amana	Iowa	721	31	69.4	0	89	*26	49	15	33	5.51	+1.10	1.65	0	13	9	12	9	se	Conrad Schadt
Ames	Story	926	27	70.3	+0.9	90	30	48	15	34	5.00	+0.47	2.05	0	14	18	6	6	.....	Iowa State College
Audubon	Audubon	1,301	15	68.4	+0.3	90	26	44	15	37	6.58	+2.73	1.08	0	15	11	4	15	.....	Geo. E. Kellogg
Baxter	Jasper	908	8	69.0	+1.4	93	25	50	15	31	5.48	+0.98	1.72	0	16	21	5	4	se	W. R. Vandike
Belle Plaine	Benton	828	18	68.8	−0.3	87	*5	47	1	34	5.99	+1.82	2.00	0	13	9	15	6	se	S. P. Vandike
Boone	Boone	1,134	3	69.4	.....	90	30	51	15	30	7.02	.....	1.37	0	19	13	5	12	s	Carl Fritz Henning
Buckingham	Tama	.....	8	.....	.....	.....	.....	.....	.....	.....	3.60	−1.34	.95	0	9	12	14	4	.....	Dr. W. A. Daniel
Carroll	Carroll	1,265	18	67.6	−1.0	90	*29	48	15	32	9.79	+5.12	4.00	0	14	12	9	9	.....	Mrs. Jos. J. Wolfe
Cedar Rapids	Linn	733	26	69.8	−0.5	89	*20	50	15	33	4.44	+0.57	1.71	0	8	13	4	13	e	Electric Light & P. Co.
Clinton	Clinton	593	40	69.5	−0.2	91	*22	44	15	38	6.01	+1.58	3.42	0	10	12	11	7	ne	Luke Roberts
Davenport	Scott	580	36	70.4	−0.5	90	30	49	15	27	2.80	−1.31	1.10	0	12	8	11	11	e	Weather Bureau
Delaware	Delaware	1,083	17	67.6	−0.2	87	*26	47	15	32	7.91	+3.73	3.92	0	14	11	13	6	s	Wm. Ball
Denison	Crawford	1,180	13	a68.0	+0.2	a88	*26	a45	24	a34	7.75	+4.33	2.37	0	15	....	....	....	s	W. C. Van Ness
Des Moines	Polk	861	31	70.0	−0.4	88	26	54	11	29	7.01	+3.05	1.67	0	18	6	6	18	s	Weather Bureau
De Soto	Dallas	866	8	69.2	+0.2	88	*26	43	13	35	6.37	+2.00	1.78	0	14	16	6	8	sw	R. D. Minard
Dubuque	Dubuque	639	35	68.7	−0.9	90	30	46	15	27	6.61	+2.06	2.41	0	13	9	9	12	s	Weather Bureau
Fort Dodge	Webster	1,126	8	69.2	+2.6	91	20	45	15	34	7.21	+3.40	1.64	0	12	13	4	13	sw	J. F. Monk
Gilman	Marshall	1,052	9	.....	.....	.....	.....	.....	.....	.....	4.88	+0.14	1.52	0	11	....	....	....	.....	Jas. L. Wylie
Grinnell	Poweshiek	1,023	16	69.6	+1.3	90	30	50	18	32	6.00	+1.42	1.30	0	12	4	17	9	sw	D. W. Brainard
Grundy Center	Grundy	976	17	68.6	+0.4	90	28	44	15	33	8.76	+3.46	1.72	0	11	14	7	9	s	J. B. Calderwood
Guthrie Center	Guthrie	1,077	13	69.8	+0.8	90	*6	48	15	33	6.06	+1.65	1.01	0	16	15	6	9	sw	D. G. Beardsley
Harlan	Shelby	1,192	9	68.4	−0.1	89	30	48	15	33	6.84	+2.22	1.25	0	16	6	14	10	ne	C. A. Reynolds
Independence	Buchanan	921	43	67.4	−1.0	88	30	42	15	31	5.78	+1.00	1.94	0	11	19	6	5	ne	George Donohue
Iowa City	Johnson	683	49	70.8	+1.5	92	30	48	19	37	4.58	0	1.28	0	13	9	15	6	s	Prof. Karl E. Guthe
Iowa Falls	Hardin	1,170	15	67.5	0	88	*26	44	15	37	5.63	+1.11	2.01	0	15	13	5	12	ne	J. B. Parmelee
Jefferson	Greene	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	....	....	....	.....	Geo. W. Jackson
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	4.63	+0.54	1.19	0	10	....	....	....	ne, s	Margaret T. Disney
Little Sioux	Harrison	.....	4	69.9	.....	91	*5	48	13	36	5.72	.....	2.08	0	15	13	6	11	se	Geo. H. Gibson
Logan	Harrison	928	42	69.0	−0.9	90	6	51	*3	30	6.02	+0.59	1.72	0	14	7	17	6	ne	Glenn H. Stern
Marshalltown	Marshall	947	16	68.4	−0.3	89	30	48	15	34	6.12	+1.76	1.87	0	15	1	25	4	se	Agnes Musil
Montezuma	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	....	....	....	.....	C. J. Griffin
Muscatine	Muscatine	.....	49	.....	.....	.....	.....	.....	.....	.....	4.43	−0.43	1.70	0	11	....	....	....	e	Wm. P. Molis
Newton	Jasper	944	19	70.5	+0.8	88	*26	54	15	26	3.93	−0.66	1.15	0	8	8	17	5	s	Hon. J. P. Beatty
Odebolt	Sac	1,356	10	70.3	+0.8	93	30	46	15	36	7.77	+3.75	3.00	0	12	19	6	5	.....	E. Starner
Olin	Jones	760	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	...	.....	C. M. Miles
Onawa	Monona	1,051	8	71.2	+1.2	92	5	52	*13	32	5.80	+0.80	0.93	0	16	16	4	10	ne	C. G. Perkins
Perry	Dallas	975	7	70.2	−0.1	90	26	51	15	30	9.92	+5.23	6.00	0	11	9	14	7	.....	J. A. Harvey
Rockwell City	Calhoun	.....	12	71.3	+2.8	90	*6	48	1	25	7.35	+3.09	1.50	0	12	20	3	7	.....	C. M. Randall
Sac City	Sac	1,278	26	68.8	+0.6	88	26	49	15	34	4.24	−0.62	.78	0	16	18	2	10	se	E. N. Baily
Sioux City	Woodbury	1,135	20	68.5	−0.9	91	26	51	14	30	5.20	+1.32	1.80	0	15	8	9	13	s	Weather Bureau
Stuart	Guthrie	1,216	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	...	.....	Geo. B. Irick
Tipton	Cedar	807	10	71.1	+1.2	95	30	51	15	30	9.25	+5.31	5.56	0	9	19	7	4	ne	F. K. Gregg
Toledo	Tama	856	14	68.9	−0.3	89	30	48	*15	38	7.73	+4.20	4.00	0	12	12	12	6	se	I. F. Giger
Waterloo	Black Hawk	862	25	69.1	+0.9	91	30	45	15	31	6.21	+2.35	2.38	0	11	8	15	7	se	M. L. Newton
Waukee	Dallas	1,039	5	69.2	.....	88	*26	52	11	29	5.37	+0.62	1.35	0	15	9	17	4	sw	Samuel F. Foft
Webster City	Hamilton	.....	3	70.0	.....	94	*28	41	15	35	6.57	.....	1.35	0	11	14	5	11	nw	C. D. Carpenter
Whitten	Hardin	1,036	10	69.0	+1.1	90	21	47	15	35	7.87	+3.54	2.20	0	12	12	14	4	sw	Dr. Frank P. Butler
Wilton Junction	Muscatine	683	13	6.80	−2.1	88	30	45	15	30	3.73	+0.43	1.70	0	5	17	2	11	w	Wm. Lang
Zearing	Story	.....	4	69.4	.....	90	*23	45	15	32	5.23	.....	1.24	0	13	5	22	3	s	O. G. Reese
Average	.....	.....	....	69.3	+0.3	90	.....	48	.....	32	6.15	+1.78	.....	0	13	12	10	8	s	

CLIMATOLOGICAL DATA FOR IOWA, JUNE, 1909—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
SOUTHERN SECTION																				
Afton	Union	1,212	14	71.0	+0.2	92	26	52	15	34	13.30	+9.14	3.19	0	13	6	14	10	sw	N. W. Rowell
Albia	Monroe	959	10	68.8	−0.8	87	30	51	*1	30	7.06	+2.20	1.79	0	15	9	13	8	sw	J. I. Chenoweth
Allerton	Wayne	.....	6	70.3	+2.2	89	30	52	15	29	10.24	+5.55	4.50	0	15	14	10	6	sw	Mrs. Geo. Shriver
Atlantic	Cass	1,164	17	70.0	+0.9	90	*26	50	15	31	9.08	+3.67	2.42	0	13	7	9	14	ne	Thos. H. Whitney
Bedford	Taylor	.....	8	70.1	+1.8	89	*26	53	*4	32	5.76	+1.29	0.95	0	14	13	8	9	se	E. E. Healy
Bloomfield	Davis	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	C. R. Davis
Bonaparte	Van Buren	.....	17	70.2	−1.0	88	24	47	15	31	5.93	+1.25	3.03	0	7	....	....	....	.....	Hon. B. R. Vale
Burlington	Des Moines	544	12	72.5	+2.0	92	27	51	19	30	4.37	−0.71	1.03	0	13	15	11	4	s	M. E. Poppe, Jr.
Chariton	Lucas	1,042	13	69.1	−0.1	89	30	50	15	32	6.33	+1.61	1.20	0	11	10	11	9	se	C. C. Burr
Clarinda	Page	1,009	18	71.0	0	93	6	50	1	33	10.39	+5.49	2.62	0	15	15	11	4	s	A. S. Van Sandt
Columbus Junction	Louisa	595	7	70.9	+2.2	92	30	48	15	33	2.95	−1.93	0.98	0	8	13	14	3	ne	J. B. Johnston
Corning	Adams	1,117	16	69.8	+0.3	90	*26	52	*4	31	10.11	+6.06	2.30	0	13	6	17	7	se	Jerome Smith
Corydon	Wayne	1,101	15	70.3	+0.4	87	*21	52	*15	30	6.92	+2.27	2.42	0	14	9	9	12	e, se	Clara Miller
Creston	Union	1,312	3	69.2	.....	89	26	52	*4	30	12.17	.....	2.17	0	14	15	8	7	se	E. S. Stovall
Cumberland	Cass	.....	9	.....	.....	.....	.....	.....	.....	.....	6.92	+2.24	1.45	0	15	19	4	7	ne	J. H. Reppert
Earlham	Madison	.....	6	68.8	+3.6	88	30	47	15	31	6.82	+2.29	1.46	0	14	9	9	12	s	Geo. Phillips
Elliott	Montgomery	.....	3	69.8	.....	88	26	53	*4	28	6.55	.....	1.38	0	13	11	15	4	s	Henry Barnes
Fairfield	Jefferson	.....	14	71.0	+1.1	91	30	47	15	35	5.92	+0.79	2.34	0	13	13	10	7	s,se,sw	R. Monroe McKenzie
Fort Madison	Lee	516	59	.....	.....	.....	.....	.....	.....	.....	7.79	+3.41	2.53	0	10	3	9	18	s	Miss L. A. McCready
Greenfield	Adair	.....	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	Geo. Brooks
Hancock	Pottawattamie	1,113	2	70.6	.....	93	26	50	*1	36	8.38	.....	1.60	0	14	13	10	7	sw	G. C. Rogers
Hopeville	Clarke	.....	17	70,0	+0.3	89	27	52	15	30	8.83	+4.78	2.67	0	16	2	14	14	s	M. T. Ashley
Indianola	Warren	969	17	a69.6	−0.1	88	*26	b51	16	b31	5.76	+1.58	1.56	0	13	3	17	10	se	Prof. J. L. Tilton
Keokuk	Lee	574	37	72.8	+0.3	90	24	50	15	29	5.11	+0.76	2.50	0	8	11	17	2	s	Weather Bureau
Keosauqua	Van Buren	644	16	72.8	+1.1	96	26	47	*15	38	4.35	−0.20	1.54	0	9	4	15	11	.....	J. H. Landes
Knoxville	Marion	920	12	71.0	−0.6	90	*23	53	*11	31	5.88	+1.56	1.68	0	12	8	10	12	ne	Casey & Bellville
Lacona	Warren	.....	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	Agent C., B. & Q. Ry.
Lamoni	Decatur	.....	....	71.8	.....	94	29	54	11	28	8.10	.....	1.65	0	19	16	3	11	se	T. J. Fitzpatrick
Lenox	Taylor	1,250	13	69.5	+0.2	88	*24	53	*13	31	7.69	+3.42	2.32	0	12	15	10	5	s	J. T. Hurley
Leon	Decatur	1,120	6	.....	.....	.....	.....	.....	.....	.....	10.35	+5.57	.....	0	....	....	....	....	.....	Morris Gardner
Massena	Cass	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	C. E. Smeltzer
Mt. Ayr	Ringgold	1,236	15	70.5	+0.5	91	30	53	14	31	8.11	+3.39	2.10	0	14	8	11	11	se	A. F. Beard
Mt. Pleasant	Henry	729	26	71.4	0	90	30	48	15	32	4.50	+0.02	1.32	0	10	18	9	3	sw	Prof. J. W. Edwards
Omaha, Neb	Douglas	1,040	38	70.4	−1 2	91	26	56	13	26	7.54	+2.49	2.07	0	13	3	14	13	s	Weather Bureau
Oskaloosa	Mahaska	843	24	70.2	+0.7	89	26	52	19	26	5.21	+1.10	1.08	0	11	19	2	9	ne	Jos. Boyd
Ottumwa	Wapello	649	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	Dr. Jas. A. Hull
Pacific Junction	Mills	960	9	69.8	+0.1	90	26	49	4	33	8.90	+4.44	3.40	0	11	4	26	0	s	H. H. McCartney
Pella	Marion	877	6	69.1	−2.2	87	30	50	19	31	4.61	+0.83	1.13	0	15	17	3	10	se	John H. Ver Steeg
St. Charles	Madison	1,070	7	69.2	+0.6	89	26	43	13	35	6.59	+2.25	1.78	0	15	10	12	8	s	R. D. Minard
Sigourney	Keokuk	877	12	70.6	−0.2	91	30	51	19	33	7.02	+3.04	2.80	0	14	3	25	2	se	J. T. Parker
Stockport	Van Buren	.....	6	70.4	.....	86	*24	50	15	24	3.57	−2.79	1.94	0	9	15	8	7	s	C. L. Beswick
Thurman	Fremont	.....	11	71.6	+0.6	92	26	50	15	37	6.04	−0.21	1.72	0	12	9	12	9	ne	C. R. Paul
Wapello	Louisa	588	10	b68.9	−0.7	b85	25	b48	14	b23	3.87	+0.31	1.51	0	11	....	....	....	se	Geo. W. Schofield
Washington	Washington	769	27	69.5	−2.2	87	*23	50	15	30	.....	.....	.....	....	12	5	19	6	ne	Wm. A. Cook
Winterset	Madison	1,129	17	71.0	+0.9	92	26	54	*11	32	4.84	−0.99	.93	0	14	6	13	11	s	Dr. Robert S. Cooper
Woodburn	Clarke	961	9	69.0	.....	92	30	48	*15	36	8.94	+4.56	2.80	0	13	6	18	6	sw	C. B. McDonough
Average		.....	....	70.3	+0.3	90	.....	51	.....	31	7.07	+2.45	.....	0	12	10	12	8	s	
State average		.....	....	69.1	+0.3	90	.....	48	.....	32	6.41	+1.89	.....	0	13	12	10	8	s	

*And other dates. a one day missing, b two days; c three days; d four days, etc. ‡Received too late to be included in average.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JUNE, 1909

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | Monthly Mean | |
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DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF JUNE, 1909—CONTINUED

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | Monthly Mean | |
|---|---|---

DAILY PRECIPITATION FOR IOWA, JUNE, 1909

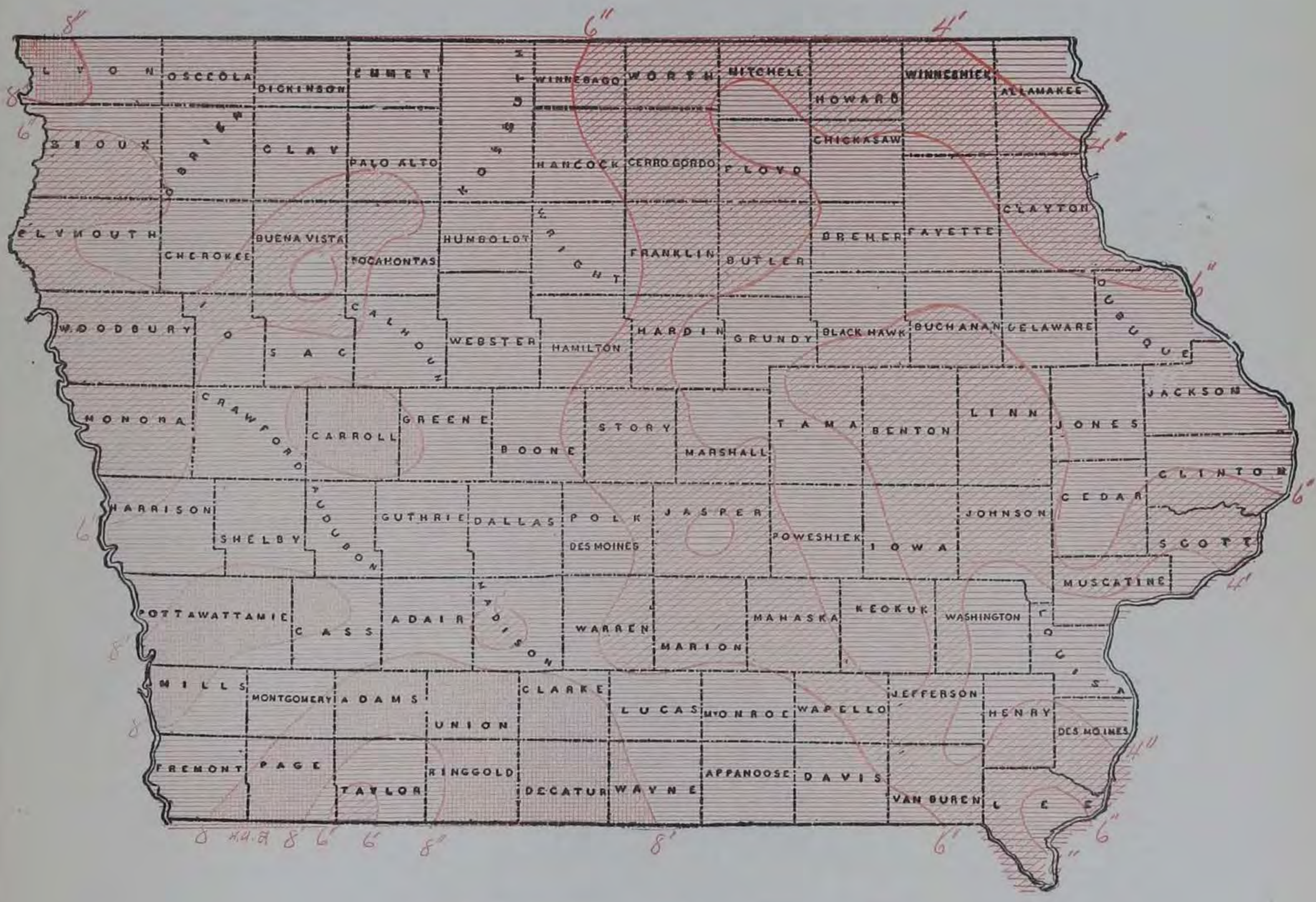
STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Afton	.44	.53	T	....	....	....	3.19	1.20	1.38	....	06	1.00	.33	....	....	.08	....	....	....	....	.69	.60	....	T	....	....	1.95	....	....	1.85	13.30
Albia	.10	....	.90	.03	....	....	.37	1.10	1.44	.08	....	.15	.36	....	....	....	T	....	....	....	....	....	....	.06	.24	.03	1.79	.01	.40	....	7.06
Algona	.11	T	T	....	....	1.88	.19	.18	.10	....	....	....	.51	....	....	.16	....	....	....	....	.48	....	.60	.15	.61	1.01	.05	....	....	....	6.03
Allerton	.05	.03	.03	....	....	....	.23	4.50	1.66	....	T	.47	.15	....	....	T	.02	....	....	....	....	.38	....	....	.06	....	1.08	.17	.40	1.01	10.24
Alta	.18	.55	T	....	T	.18	.30	.18	.22	.02	....	.23	.13	....	....	....	.95	....	....	....	1.05	....	....	.88	.08	.02	.50	.20	....	....	5.67
Alta (near)	.06	.15	....	....	....	.14	.53	.04	.24	....	....	.25	....	....	....	....	1.22	....	....	....	1.32	....	1.38	.03	.19	.04	.64	....	....	....	6.23
Alton	.17	.13	.22	....	....	.59	.56	.03	.07	....	....	T	.18	....	....	T	....	....	....	....	.37	T	.13	.04	....	1.45	2.02	....	....	....	5.96
Amana	.81	....	.32	.04	....	....	.01	1.65	.52	....	....	T	.14	....	....	....	....	....	....	....	.21	.02	.47	.47	.49	....	.36	....	T	....	5.51
Ames	.07	....	.08	....	....	....	.14	.27	.48	....	....	.12	.08	....	....	....	....	....	....	....	.20	.14	.42	....	.60	1.20	.85	....	.35	....	5.00
Atlantic	1.11	T	.10	....	....	T	2.42	.30	2.11	....	T	.01	.02	....	....	....	T	....	....	....	1.06	.81	T	....	.15	....	.25	....	.28	.46	9.08
Audubon	.76	.10	.14	....	....	....	1.06	.22	1.08	....	....	.15	.65	....	....	....	....	....	....	....	.45	.47	.12	.02	.51	....	.80	T	.05	....	6.58
Baxter	.46	.01	.06	.05	....	....	.22	.35	1.65	.01	....	.05	.07	....	....	....	....	....	....	....	.16	.09	.25	....	....	....	1.72	.01	.32	....	5.48
Bedford	.58	.36	.04	....	....	....	.56	.95	.76	T	.08	....	.43	....	....	.66	.07	....	....	....	....	.58	....	....	T	....	.39	.12	.18	T	5.76
Belle Plaine	.58	.05	.70	....	T	....	.17	.57	.53	....	....	....	.24	....	....	....	....	....	....	....	.04	.02	.26	T	2.00	.80	....	....	.03	....	5.99
Bonaparte	....	....	....	....	....	....	.58	1.40	3.03	....	....	....	....	....	....	....	....	....	....	....	.35	....	.02	....	....	....	.33	.22	....	....	5.93
Boone	.25	.14	.02	.02	....	T	.85	.78	.87	.04	....	.08	.28	.03	....	....	.04	.. .	....	....	.36	.10	.03	.60	1.37	....	1.01	....	....	.15	7.02
Britt	.15	.16	.49	.01	....	.49	.27	.17	.05	....	....	T	.47	....	....	.91	.12	....	....	....	.16	.01	.72	.36	....	1.55	.12	....	....	....	6.21
Buckingham	.10	T	.10	....	....	T	.56	.11	.40	....	....	.12	....	....	....	....	....	....	....	....	....	....	.95	.72	T	.54	....	....	....	....	3.60
Burlington	.02	....	....	....	....	....	T	.79	1.03	.58	....	.05	....	.03	....	....	.06	....	....	....	....	....	....	.70	.01	.13	.07	.70	.20	T	4.37
Carroll	.04	1.07	.09	....	....	....	.90	.30	1.53	....	....	.10	.18	....	....	....	.35	....	....	....	.27	.40	....	.44	.12	4.00	....	....	....	....	9.79
Cedar Rapids	T	T	T	....	....	....	1.71	.08	.12	....	....	T	.12	....	....	....	....	....	....	....	T	.13	.70	1.02	....	.56	....	....	....	....	4.44
Chariton	.64	.35	T	....	....	....	.54	1.02	1.20	T	....	.52	.34	....	....	T	....	....	....	....	....	.15	....	T	....	....	.90	.22	T	.45	6.33
Charles City	.28	....	.01	....	.01	.66	.72	.07	.32	....	....	.19	T	....	....	.45	....	....	....	....	.22	.37	.66	.33	.04	1.06	.01	....	....	....	5.40
Clarinda	....	1.64	.28	....	....	....	2.30	.38	.86	....	....	.07	.45	....	....	....	.51	....	....	....	.41	.45	.07	.10	....	....	.09	.16	....	2.62	10 39
Clear Lake	.60	.08	.45	.15	....	.15	.55	.15	20	....	....	....	.30	....	....	....	....	....	....	....	.15	.15	.15	.35	.65	1.04	....	....	....	....	5.12
Clinton	.15	.26	.03	....	....	....	....	3.42	.38	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.80	.78	.19	....	....	....	....	6.01
Columbus Jct	.21	....	....	....	....	....	.25	.98	.80	....	....	....	....	....	....	T	....	....	....	....	.14	....	....	.22	T	T	....	.30	.05	....	2.95
Corning	T	.58	T	....	....	....	2.30	.75	1.36	T	.13	T	.42	....	....	.25	....	....	....	....	1.72	.71	.07	....	T	....	1.13	....	.37	.32	10.11
Corydon	.22	.02	.01	....	....	....	.33	1.20	2.42	T	T	.40	.27	....	....	T	....	....	....	....	....	.22	....	....	.05	....	1.32	.15	.04	.27	6.92
Creston	.08	.63	T	.02	....	....	1.90	.57	2.17	....	....	1.67	.44	....	....	....	.15	....	....	....	1.65	1.35	.02	T	T	....	.38	1.14	....	T	12.17
Cumberland	.14	.42	.11	....	....	....	1.45	.65	.76	....	.21	....	....	....	....	.01	....	....	....	.76	....	.66	....	....	....	.62	.76	.17	.11	.09	6.92
Davenport	.13	.03	.03	T	....	....	.17	.40	.51	.02	....	T	T	....	....	.12	T	....	....	....	T	....	.18	1.01	.07	.13	T	....	....	....	2.80
Delaware	.71	....	....	....	....	....	3.92	.54	.64	.02	....	.02	.10	....	....	....	.39	....	....	....	.10	.14	....	.16	.67	.10	.40	....	....	....	7.91
Denison	.36	.21	.04	....	T	.11	1.45	....	1.00	....	....	.10	.25	....	....	....	.72	....	....	....	.27	.26	.55	.02	T	....	2.37	....	.04	....	7.75
Des Moines	.38	T	.03	....	....	T	.51	.49	1.66	.01	.11	.04	.13	....	....	....	....	....	....	....	.02	.22	.69	.39	.33	.98	.28	.02	.72	....	7.01
De Soto	.13	.37	.09	....	....	....	.21	.33	1.78	....	....	.23	.20	....	....	....	....	....	....	....	.64	.20	.05	.21	.78	....	1.15	....	....	....	6.37
Dows	....	.14	....	....	....	1.46	.59	....	....	....	....	....	.26	....	....	.05	....	....	....	....	.48	.11	1.02	....	.38	1.92	.53	....	.18	....	7.12
Dubuque	.12	T	T	....	....	.05	1.14	.62	.46	....	....	T	.02	....	....	.07	T	....	....	....	.01	.92	.16	1.78	.83	.43	....	....	....	....	6.61
Earlham	.60	.32	.05	....	....	....	.17	.60	1.46	....	T	.46	.16	....	....	T	....	....	....	....	.90	.30	T	.17	.37	....	1.19	....	.07	....	6.82
Elkader	....	....	....	....	....	.05	1.12	.56	.19	....	....	....	....	....	....	....	.36	....	....	....	....	.49	.91	....	.56	.56	....	....	....	....	4.80
Elliott	.38	.18	....	....	....	....	1.38	.64	.54	....	.03	....	....	....	....	.04	....	....	....	....	1.07	.73	.11	....	.03	....	1.10	....	....	.32	6.55
Elma	.37	.27	....	.03	.03	.04	.54	.02	.28	....	....	.14	....	....	....	.45	....	....	....	....	....	.14	.17	.27	.90	.78	.03	....	....	....	4 46
Estherville	.10	.08	.30	....	....	.40	....	1.15	T	.05	T	.43	.10	....	....	1.20	....	....	....	.30	....	.65	.25	T	.05	1.95	....	....	....	....	6.71
Fairfield	.01	....	T	....	....	....	.01	1.94	2.34	.01	....	.01	....	....	....	....	.04	....	....	....	.32	....	....	.13	.02	....	.50	.20	.39	....	5.92
Forest City	....	.26	.11	1.80	....	.25	T	.30	.05	T	....	....	.38	....	....	....	.60	....	....	....	T	....	50	.16	.40	....	.97	....	....	....	5.78
Fort Dodge	T	T	....	.64	....	.04	1.17	.50	.30	.11	....	....	.16	T	....	....	.10	....	....	....	.15	....	T	.90	1.50	....	1.64	....	....	....	7.21
Ft. Madison	....	T	....	.06	....	....	2.50	....	2.53	....	....	.08	....	....	....	.43	....	....	....	....	.07	....	.52	....	.25	....	.15	1.20	....	....	7.79
Gilman	.16	T	.32	T	....	T	.37	.42	.61	....	....	T	.42	....	....	....	.09	....	....	....	....	T	1.52	.24	....	.51	.22	T	....	....	4.88
Grand Meadow	....	....	.08	....	....	.02	1.70	.18	.12	....	....	....	.15	....	.58	.09	....	....	....	....	....	.67	.23	.14	.48	.41	.05	....	....	....	4.90
Greene	.53	.12	....	....	....	.95	1.52	.08	.13	....	....	....	.08	....	....	.19	.17	....	....	....	.07	.36	.42	....	....	.79	....	....	....	....	5.41
Grinnell	.60	.13	.23	....	....	T	.21	1.26	1.30	....	....	T	.40	....	....	....	....	....	....	....	....	T	.97	.23	.31	....	.33	.03	T	....	6.00
Grundy Center	1.23	1.27	.09	....	....	....	.60	.71	.45	....	....	....	T	....	....	....	.06	....	....	....	....	.48	1.72	T	1.17	.98	T	....	....	....	8.76
Guthrie Center	.06	.53	.11	....	....	T	1.01	.34	.97	....	....	.11	.30	....	....	....	.09	....	....	....	.38	.42	.01	.09	.94	T	.39	....	.31	....	6.06
Hampton	.10	.16	....	....	....	.70	.23	.05	.03	....	....	.13	.02	....	....	.33	....	....	....	.20	....	.15	.30	T	.83	1.75	.23	....	....	....	5.21
Hancock	.90	....	.02	....	....	....	1.40	.60	1.60	....	T	.03	....	....	....	....	....	....	....	....	1.20	1.10	.60	.09	.02	....	.50	.08	.24	....	8.38
Harlan	.58	....	.25	....	T	....	1.25	.46	1.01	....	....	.01	.55	....	....	.01	....	....	....	T	.71	.80	.16	.08	.26	....	.65	....	.02	.04	6.84
Hopeville	.35	.43	.01	....	....	....	2.67	1.86	.93	....	.08	.42	.29	....	....	.07	....	....	....	....	.15	.58	....	....	.14	....	.32	.06	T	.47	8.83
Humboldt	....	....	.40	....	.10	.15	.15	.10	.22	....	....	....	....	.45	....	....	....	....	....	....	.22	....	.81	....	.71	3.24	.55	....	....	....	7.10
Independence	.43	....	.07	....	....	.01	1.94	.32	.60	....	....	....	....	....	....	....	....	....	....	....	....	.72	.53	....	.61	.23	.32	....	....	....	5.78
Indianola	.30	.15	T	T	....	....	.65	1.48	.75	T	T	.46	.02	....	....	....	....	....	....	....	.05	.19	T	.11	.02	....	1.56	.02	....	....	5.76
Inwood	.07	.26	....	....	....	.31	.04	.01	.01	....	....	.45	.01	....	....	.65	...	....	....	1.90	1.55	.03	.16	.04	....	1.39	1.65	....	....	....	8.53
Iowa City	.70	....	.06	.04	....	....	.06	1.28	.22	.36	....	....	.01	....	....	....	....	....	....	....	.54	....	.14	.66	.35	....	.16	....	....	....	4.58
Iowa Falls	.03	.23	.11	.02	....	T	.95	.35	.03	T	....	T	.11	.03	....	....	.42	....	....	....	.03	....	.10	.89	.32	....	2.01	....	....	T	5.63
Keokuk	....	T	....	.04	....	....	2.50	....	1.28	....	.01	....	....	....	....	....	.02	....	....	....	.01	T	T	....	T	....	.25	1.00	....	....	5.11
Keosauqua	....	....	....	T	....	....	.04	1.54	1.53	.09	....	T	T	....	....	....	....	....	....	....	....	.40	.05	....	....	....	.45	....	.15	.10	4.35
Knoxville	.36	T	T	....	....	....	.32	1.68	.68	.04	....	.42	.33	....	....	T	T	....	....	....	.19	.04	....	.43	....	....	1.33	T	.06	....	5.88
Lamoni	.63	.61	.21	.01	....	....	1.43	1.65	.54	.01	.03	.50	.25	....	....	.17	.10	....	....	....	....	.62	....	....	.07	....	.56	.06	.16	.50	8.10
Larrabee	.25	.46	....	....	....	.45	.15	T	T	....	.60	....	.10	....	....	1.28	....	....	....	.67	....	....	.44	.52	....	1.40	1.00	....	....	....	7.32
Le Claire	.52	....	.17	T	T	....	.39	.37	.46	.15	T	T	....	T	....	....	.12	....	....	....	....	T	T	.61	.65	T	1.19	....	....	....	4.63
Le Mars	.04	.09	.02	....	....	.39	.15	T	....	....	....	.02	.13	....	....	....	T	....	....	....	.41	T	.59	.06	....	.96	4.36	....	....	....	7.22
Lenox	.75	.15	....	....	....	....	2.32	1.80	.82	....	.10	....	.40	....	....	.30	....	....	....	....	.10	.40	....	....	....	....	.50	....	.05	....	7.69
Little Sioux	.20	....	.12	....	....	....	2.08	.01	.38	....	....	.08	.23	....	....	....	.04	....	....	....	.45	.41	.51	.05	.24	....	.37	.55	....	....	5.72
Logan	.13	....	....	....	....	....	1.72	.06	.75	....	T	T	.07	....	....	....	.12	....	....	....	1.21	.96	.60	.01	.28	....	.63	.04	....	.24	6.82
Marshalltown	.13	.17	.25	.40	....	....	.27	.30	.51	.08	....	.03	.39	....	....	....	.02	....	....	....	....	....	.34	.37	.99	....	1.87	....	....	....	6.12
Mason City	.19	....	.28	.16	....	.10	.72	.12	.27	....	....	....	.62	....	....	.15	.11	....	....	....	.05	.24	.22	.45	1.10	1.18	....	....	....	....	5.96
Merrill	....	.25	....	....	....	.40	.10	.20	T	....	....	....	.21	.05	....	....	....	....	....	....	.55	.10	....	.75	.05	.75	.50	.25	....	....	4.16
Mt. Ayr	.05	.90	.08	....	....	....	2.10	1.00	.50	....	.10	.10	.35	....	....	.60	....	....	....	....	....	.70	....	T	.52	....	.71	.40	T	T	8.11
Mt. Pleasant	....	....	....	....	....	....	.36	1.32	1.32	....	....	....	T	....	....	.10	.01	....	....	....	....	....	....	.87	.02	.26	.09	.15	....	....	4.50
Muscatine	.16	....	.06	....	....	....	T	.70	.66	.28	....	....	....	....	....	....	.07	....	....	....	....	.14	.04	.58	.04	....	1.70	....	....	....	4.43
New Hampton	.21	.57	....	....	....	....	.66	.08	.28	....	....	....	.11	....	....	.85	.42	....	....	....	....	.66	.30	.41	.53	.90	.20	....	....	....	6.18
Newton	.23	....	....	....	....	....	.21	.91	.59	....	....	....	.31	....	....	....	....	....	....	....	....	T	.20	.33	....	1.15	....	....	....	....	3.93
Northwood	.94	.54	....	.03	T	....	.66	.03	.12	....	....	....	.22	....	....	.67	....	....	....	....	....	....	.72	....	.12	1.15	....	....	....	....	5.20
Odebolt	.10	.45	....	....	....	....	1.00	....	.45	....	....	.33	.10	....	....	....	.35	....	....	....	.22	....	1.47	3.00	.27	....	.03	....	....	....	7.77
Omaha, Neb	.33	T	T	....	....	T	1.42	.06	1.06	T	T	.44	....	....	....	T	....	....	....	.11	.92	1.44	.13	T	....	....	.35	.82	.20	.26	7.54
Onawa	.60	....	.22	....	....	.04	.93	.03	.55	....	....	.18	.16	....	....	....	.47	....	....	....	.80	.87	.08	.07	.05	....	.60	.15	....	....	5.80
Osage	.35	.30	....	.20	T	1.70	.97	.04	.36	....	....	....	.26	....	....	....	....	....	....	....	.26	.09	.55	.04	.45	1.04	....	....	....	....	6.61
Oskaloosa	....	.62	.15	....	....	T	.45	1.08	.76	....	T	.60	.34	....	.07	....	....	....	....	....	....	....	....	.27	....	.87	....	....	....	....	5.21
Pacific Junction	.05	T	....	....	....	T	2.35	T	.29	....	T	....	....	....	....	....	....	....	....	....	.85	.42	.20	....	.07	....	.20	3.40	.16	.91	8.90
Pella	.05	.03	.24	.04	....	....	.42	.91	.46	....	....	.12	.15	....	....	.23	....	....	....	....	.07	....	.09	.61	....	....	1.13	....	.06	....	4.61
Perry	.20	.23	.05	....	....	....	.40	.35	1.55	....	....	T	.15	....	....	....	....	....	....	....	.26	.24	....	T	6.00	....	.49	....	....	....	9.92
Plover	.38	.09	.05	....	....	.36	.32	.09	.12	....	....	.50	.04	.09	....	.60	....	....	....	....	.50	.50	.23	.03	.07	1.45	.25	....	....	....	5.67
Pocahontas	.10	.24	.13	....	....	.33	.43	.03	.22	....	.02	....	.20	....	....	T	....	.24	....	....	.77	....	1.42	....	.36	2.25	.55	....	....	....	7.29
Ridgeway	.16	....	.01	....	.04	.10	1.24	.08	.48	....	....	.19	.11	....	....	.24	....	....	....	.02	....	1.00	.09	.75	....	.92	....	....	....	....	5.43
Rock Rapids	.42	....	....	....	T	.23	....	T	T	T	.23	2.00	T	T	....	.45	T	....	....	.65	.86	.42	....	.23	....	1.25	.83	....	....	....	7.57
Rockwell City	.80	.55	....	....	....	....	1.50	....	.65	....	....	.40	T	....	....	.10	....	....	....	.10	....	T	1.25	.05	.90	.40	.65	....	....	....	7.35
Sac City	.60	.30	T	....	....	.06	.78	.02	.13	....	.14	.12	.02	....	....	....	.21	....	....	....	.50	.02	.63	.02	.44	....	.25	....	....	....	4.24
St. Charles	.13	.37	.09	....	....	....	.21	.33	1.78	....	....	.23	.20	....	....	....	....	....	....	....	.64	.60	.02	.55	....	....	.93	.35	.16	....	6.59
Sheldon	.58	....	....	....	....	.42	.40	.10	.10	....	....	1.00	.42	....	....	.20	....	....	....	....	.42	.03	.08	.22	....	1.13	1.67	....	....	....	6.77
Sibley	.02	.53	T	....	....	.24	....	.03	.02	....	....	.25	.92	.03	....	T	.26	....	....	....	.50	....	.36	.29	.03	.37	2.90	.10	....	....	6.85
Sigourney	.18	T	.35	.10	....	....	.15	1.22	.72	....	....	.04	.09	....	....	....	.15	....	....	....	.05	....	....	2.80	....	....	.84	.27	.06	....	7.02
Sioux Center	.36	.05	.17	....	....	.47	.31	....	.04	....	....	.05	.07	....	....	.03	....	....	....	....	.39	T	.12	.05	....	.72	1.65	....	....	....	4.48
Sioux City	.09	.41	....	....	.23	.09	.37	.03	T	....	T	.18	T	....	....	.12	....	....	....	.74	.06	.08	.44	.26	....	1.10	1.00	....	....	....	5.20

DAILY PRECIPITATION FOR IOWA, JUNE, 1909—Continued

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Stockport	T	....	....	....	....	....	.12	.73	1.94	....	....	.05	....	....	....	....	....	....	....	....	.08	....	.05	T	T	....	.35	.23	.02	....	3.57
Storm Lake	.01	.35	....	....	....	T	.41	.02	.29	....	....	....	.19	....	....	....	.38	....	....	....	.54	....	.87	.04	....	....	....	.38	....	....	3.48
Thurman	.10	T	....	....	....	....	1.42	T	.54	T	T	....	.54	....	....	.35	....	....	....	T	.88	.04	.02	....	.10	....	.12	1.72	T	.21	6.04
Tipton	.18	.73	....	....	....	....	1.83	3.73	.54	....	....	....	....	....	....	....	....	....	....	....	.08	....	....	.98	1.00	.18	....	....	....	....	9.25
Toledo	.55	.05	.25	....	....	....	.30	.45	.53	....	....	....	.25	....	....	....	....	....	....	....	T	.10	.40	....	4.00	.65	.20	....	....	....	7.73
Wapello	.11	....	....	....	....	....	.74	1.51	.63	.05	....	....	T	....	....	.13	....	....	....	....	T	.09	....	.23	....	.23	.12	.03	....	....	3.87
Washta	T	T	....	....	.40	....	1.05	....	....	....	.15	.15	T	....	....	.48	....	....	....	.95	....	T	1.04	.20	....	1.00	.90	....	....	....	6.32
Waterloo	.75	....	T	....	T	T	.63	.42	.08	08	....	.05	....	....	....	.04	....	....	....	....	....	.93	.44	2.38	....	.41	....	....	....	....	6.21
Waukee	.10	.12	.04	....	....	....	.23	.38	1.33	.01	....	.23	.20	....	....	....	....	....	....	....	.26	.23	.07	.11	.71	....	1.35	....	T	....	5.37
Waverly	.65	.27	....	.02	....	.02	2.35	.30	.28	....	....	.05	.02	....	....	....	.78	....	....	....	....	.28	.22	....	.41	.68	.02	....	....	....	6.35
Webster City	T	T	T	....	....	.58	.62	.45	.58	....	....	....	.11	....	....	....	.32	....	....	....	.38	T	1.35	T	.30	.90	.98	....	....	....	6.57
West Bend	.07	.26	.09	....	1.12	....	.12	.05	.18	....	....	T	.55	T	....	.39	....	....	....	....	.55	....	.70	.06	.14	2.00	.09	T	....	....	6.37
Whitten	.45	.21	.04	....	....	T	.70	.38	.52	....	....	T	T	....	....	....	....	....	....	....	....	.22	.80	.16	2.12	2.20	.07	....	....	....	7.87
Wilton Junction	....	.40	....	....	....	....	.65	....	....	....	....	....	....	....	....	.78	....	....	....	....	....	....	1.70	.20	....	....	....	....	....	....	3.73
Winterset	.10	.36	.13	T	....	....	.30	.40	.93	T	....	.65	.52	....	....	T	T	....	....	T	.13	.33	....	.14	.09	....	.70	.06	T	T	4.84
Woodburn	.73	.15	T	....	....	....	.83	1.09	1.15	....	....	.71	.45	....	....	T	....	....	....	....	T	.25	....	.06	.25	....	2.80	.15	T	.32	8.94
Zearing	.20	.10	.06	....	....	....	.47	.16	.69	....	....	.08	.09	....	....	....	....	....	....	....	....	.20	.87	....	.99	1.24	.08	....	....	....	5.23

TOTAL PRECIPITATION, JUNE, 1909.

SCALE OF SHADES—IN INCHES



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR DECEMBER, 1909

Annual Summary for 1909

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR

PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1909

THE IOWA WEATHER AND CROP SERVICE

WAS ESTABLISHED BY ACT OF THE TWENTY-THIRD GENERAL ASSEMBLY, AND IS UNDER SUPERVISION

OF THE

STATE BOARD OF AGRICULTURE,

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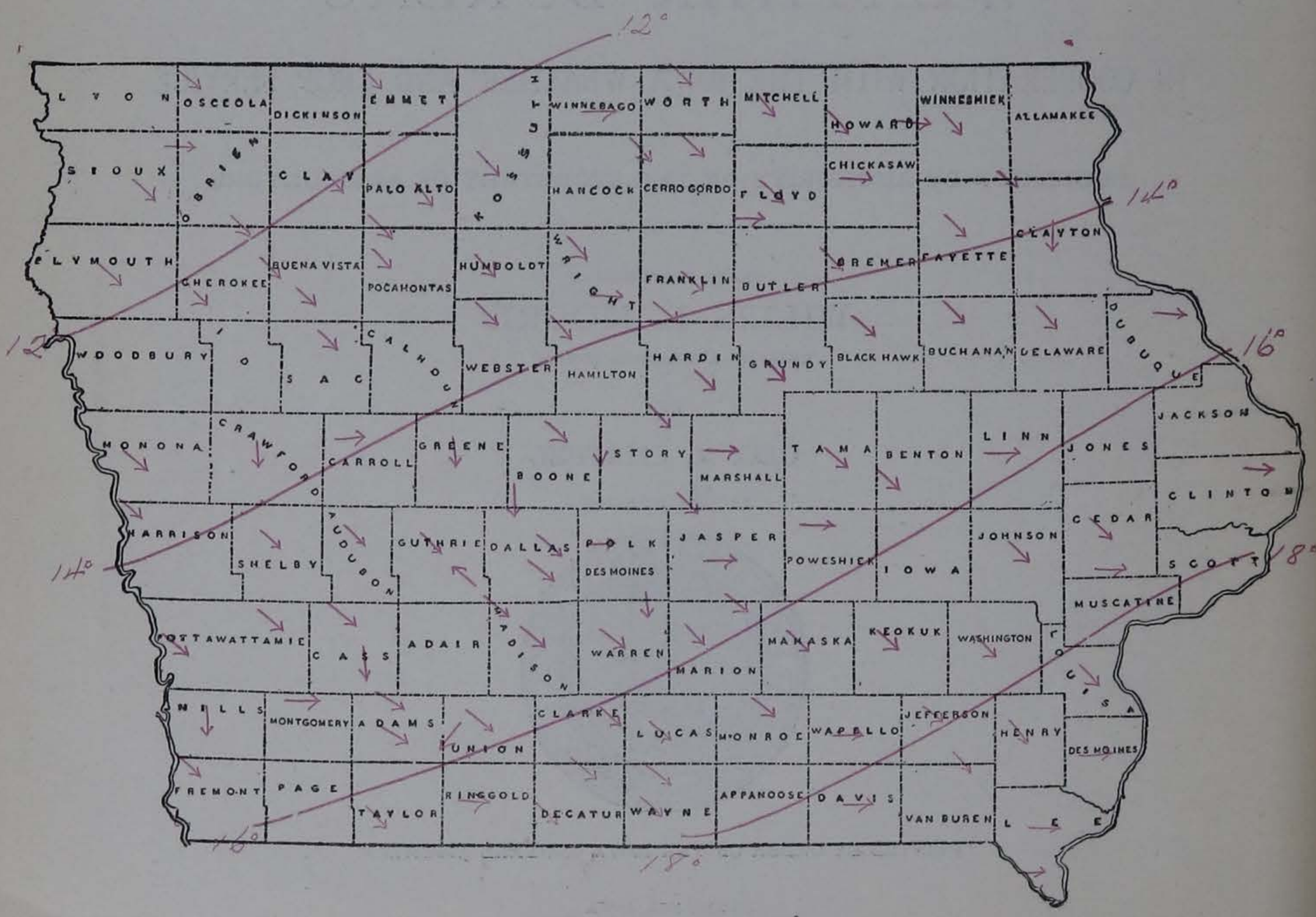
MEAN ISOTHERMS AND PREVAILING WINDS OF DECEMBER, 1909.

Lines pass thru points of equal temperature. Arrows fly with the wind.



U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IOWA SECTION,

GEO. M. CHAPPEL, Section Director.

VOL. XX DES MOINES, IOWA, DEC., 1909 NO. 12

GENERAL SUMMARY

December, 1909, will be noted for its low average temperature, excessive cloudiness and the frequency of snow storms. It was the coldest December since state-wide observations began in 1890, and probably the coldest since 1876. The average temperature was 12.1° lower than the average for December, 1908, and 2.9° lower than any other December since 1890. The monthly minimum temperatures were not, however, as low as in 1892, 1901 and 1903, but the weather was continuously cold from the 5th to the 30th inclusive. The first four days were moderate, with maximum temperatures above 40° and ranged from 45° to 60° on the 2d. A cold wave passed over the state on the 5th, and from that date to the 30th the maximum temperatures were below the freezing point, except on one or two days, and the minimum temperatures were near or below zero. At many stations, the minimum temperature was below zero on a greater number of days than was ever before recorded during the month of December. The lowest temperature was recorded on the 29th, except in the extreme southeastern counties where the minimum occurred on the 30th.

The average precipitation was .99 inch above the normal and has been exceeded in December only twice during the past 20 years. In 1891 the average precipitation was .26 inch greater, and in 1902 it was .05 inch greater than the average for the past month. Rains were general from the 1st to the 3d, changing to snow in the northern district on the latter date, to sleet over the southern and eastern districts on the 4th and to snow over the larger part of the state on the 5th. After the 5th, snow fell at frequent intervals, but the daily amounts were generally light except on the 24th and 25th, when the amounts ranged from 2 to 12 inches of dry snow; the larger amounts being reported from the central and east central districts. At least a trace of precipitation fell at some station in the state on every day of the month, except the 31st, and the number of days with .01 inch or more of precipitation exceeded all former records for December at several stations. The average total snowfall for the state was 13.7 inches, and the ground was covered with snow from the 3d in the northern and from the 5th in the southern and eastern districts until the close of the month, and there has been more good sleighing than for many years so early in the winter. The snow has afforded good protection to winer grains, meadows, and alfalfa, and they are reported to be in excellent condition. The deep snow and severe cold weather have, however, put a stop to all drainage work and prevented the completion of corn husking. Fully 25 to 30 per cent of the corn is still in the fields, and much of it is covered with snow. The heavy snowfall on the 24th and 25th delayed all freight and the Christmas passenger traffic, but, as there was but little wind, no trains were stalled.

TEMPERATURE.—The monthly mean temperature for the State, as shown by the records of 116 stations, was 15.1°, which is 8.5° below the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 13.3°, which is 7.6° below the normal; central section 15.2°, which is 8.6° below the normal; southern section 16.9°, which is 9.3° below the normal. The highest monthly mean was 20.6°, at Keokuk, Lee county, and the lowest monthly mean 10.1°, at Sibley, Osceola county. The highest temperature reported was 60°, at Keosauqua, Van Buren county, on the 1st; the lowest temperature reported was —26°, at Inwood, Lyon county, on the 29th. The average monthly maximum was 49°, and the average monthly minimum was —15°. The greatest daily range was 55°, at Sibley, Osceola county. The average of the greatest daily ranges was 37°.

PRECIPITATION.—The average precipitation for the State, as shown by the records of 114 stations, was 2.18 inches, which is .99 inch above the normal. By sections the averages were as follows: Northern section, 1.75 inches which is .72 inch above the normal; central section, 2.30 inches, which is 1.10 inch above the normal; southern section, 2.49 inches, which is 1.16 above the normal. The greatest amount, 6.10 inches, occurred at Clinton, Clinton county, and the least, .89 inch, at Storm Lake, Buena Vista county and at West Bend, Palo Alto county. The greatest amount in twenty-four hours, 2.32 inches, occurred at Clinton, Clinton county, on the 12th and 13th.

The average depth of snowfall for the State was 13.7 inches; the greatest depth was 29.0 inches at Sheldon, O'Brien county, and the least was 5.9 inches at West Bend, Palo Alto county.

Measurable precipitation occurred on an average of 11 days.

SUNSHINE AND CLOUDINESS.—The average number of clear days was 10; partly cloudy, 5; cloudy, 16. The duration of sunshine was below the normal, the percentage of the possible amount being 35 per cent at Charles City; 35 per cent at Davenport; 38 per cent at Des Moines; 36 per cent at Dubuque; 31 per cent at Keokuk, and 35 per cent at Sioux City.

WIND.—Northwest winds prevailed. The highest velocity reported was 50 miles per hour from the northwest, at Sioux City,. Woodbury county, on the 16th.

COMPARATIVE DATA FOR THE STATE—DECEMBER.

Year	Temperature			Precipitation		
	Mean	Highest	Lowest	Average	Greatest	Least
1890	29.1	72	-18	.45	1.40	.00
1891	32.3	72	-14	2.41	4.50	1.21
1892	18.9	68	-29	1.65	3.04	.20
1893	22.0	70	-21	1.31	2.80	.46
1894	30.1	73	-17	.95	1.75	.25
1895	25.4	63	-16	1.63	5.74	.00
1896	30.8	70	-10	.65	1.79	T
1897	18.0	60	-25	1.65	3.22	.61
1898	18.1	60	-25	.48	1.70	T
1899	22.6	75	-19	1.61	4.28	.10
1900	26.9	63	-10	.45	2.70	T
1901	20.5	64	-31	.93	2.75	.05
1902	20.1	59	-20	2.23	5.51	.67
1903	19.6	58	-27	.41	1.96	T
1904	23.4	67	-19	1.44	3.68	.06
1905	27.0	62	-11	.52	1.69	T
1906	25.7	65	- 9	1.43	2.81	.37
1907	28.8	62	- 9	1.00	2.28	.05
1908	27.2	67	-17	.57	2.07	.05
1909	15.1	60	-26	2.18	6.10	.89

T indicates a Trace.
- indicates temperature below zero.

ATMOSPHERIC PRESSURE AND WIND.

Mean Barometer for the month reduced to sea level, 30.08 inches.
Prevailing direction of Wind, Northwest.

STATIONS	Barometer, in Inches					Wind				
	Mean	Maximum	Date	Minimum	Date	Movement, miles	Maximum, Velocity—miles	Direction	Date	Average Hourly Velocity
Charles City.	30.05	30.47	23	29.62	2	5696	26	NW	16	7.7
Davenport..	30.05	30.52	23	29.57	13	6617	28	W	5	8.9
Des Moines.	30.07	30.47	22	29.58	2	6416	29	W	5	8.6
Dubuque....	30.06	30.52	23	29.59	5	4749	22	SW	5	6.4
Keokuk	30.10	30.55	23	29.66	13	6440	35	SW	5	8.7
Omaha, Neb.	30.12	30.46	29	29.51	1	7072	32	NW	16	9.5
Sioux City..	30.12	30.50	29	29.55	1	9814	50	NW	16	13.2

OBSERVER'S REMARKS

AFTON.—*N. W. Rowell.* The past month was the coldest December for 15 years.

ALBIA.—*J. I. Chenoweth.* December was a genuine winter month; there being two to nine inches of snow on the ground after the 7th and there were nine days with the temperature below zero. A fine quality of ice from twelve to fourteen inches thick is being harvested.

ALGONA.—*Dr. F. T. Seeley.* There has been a great deal of snow and winter weather during December. The temperature was below zero on twelve days.

ALTA.—*David E. Hadden.* December, 1909 was the coldest December in twenty years; the mean temperature being 10.5° below the normal. The ground was well covered with snow nearly all the month.

ALTON.—*W. S. Slagle.* There has been snow on the ground continuously since the 5th and there has been fine sleighing. Much of the corn was marketed during the month as the severe cold weather kept it in shipping condition.

AMANA.—*C. Schadt.* This has been the coldest December for many years and there was 8.5 inches of snow on the ground at the end of the month.

ATLANTIC.—*Thos. H. Whitney.* December was a cold and snowy month, and, as the pastures and stock fields have not been available in general, the price of hay and feed has been unusually high. Much of the corn still remains in the fields.

BAXTER.—*W. R. Vandike.* The snow was ten inches deep at the close of the month and the sleighing was good.

BELMOND.—*Geo. P. Hardwick.* Excessive snow and blustering weather prevented the completion of the corn harvest and one-fifth of the crop is still in the fields at the end of the year.

BLOOMFIELD.—*C. R. Davis.* About 10 per cent of the corn crop is yet in the fields.

BONAPARTE.—*B. R. Vøle.* The precipitation was above and the temperature below the normal but as there were no severe storms it was a pleasant month for feeding stock.

BRITT.—*L. M. Goodman.* There was only one day during the last half of the month on which the temperature was above the freezing point.

BURLINGTON.—*Max E. Poppe Jr.* The 11th of December was the most disagreeable day for years. The ground was covered with an ice sheet and the sharp wind, driving sleet in all directions, made all roads and walks dangerous.

CHARITON.—*C. C. Burr.* The month has given the greatest snowfall and the lowest temperature of recent years. Feed is scarce and high in price but stock is doing fairly well.

CHARLES CITY.—*Edward W. McGann.* The mean temperature was only 0.2° higher than the mean of the coldest December on record. The 29th was the coldest day of the month, when the mean temperature was 11° below zero. The total precipitation was above the normal and came principally in the form of light snow; the total depth for the month being 16.3 inches and falling upon 18 days. At the close of the month the ground was covered to the depth of 7.6 inches and good sleighing prevailed. The month was especially noted for its high humidity, frequent light snows and a great deficiency of sunshine, cloudy weather generally prevailing.

CLARINDA.—*A. S. Van Sandt.* This has been the coldest December since records began here in 1888.

CLINTON.—*Luke Roberts.* The precipitation was 4.22 inches above the normal and the greatest amount in any December for 31 years.

CRESTON.—*E. S. Stovall.* There has been about five inches of snow on the ground since the 5th of the month.

DAVENPORT.—*J. M. Shriver.* With the exception of the periods from the 1st to the 5th and the 12th to the 15th inclusive, the temperature was continuously below the normal, the greatest deficiency for any day being 29° on the 29th when the mean temperature was 6° below zero. A trace or more of snow occurred on 18 days, the total for the month being 16.3 inches, which is the greatest amount on record for any December, with the single exception of that for December 1887. On the evening of the 29th the depth of snow on the ground was 11.3 inches, 7.1 inches of which fell in one storm, on the 24th and 25th.

DUBUQUE.—*J. H. Spencer.* This has been the coldest December since 1886, when the average was 16°. In 35 years the average has been lower only twice. The maximum temperature was below the freezing point on more dates than ever before recorded in December. The total amount of unmelted snow, 17.7 inches, is the largest amount on record in December since 1887. There were 17 days when .01 of an inch or more fell, a greater number than during any December at this station, with one exception. The heavy snow storm of the 24th and 25th was the most serious of the month. The snow drifted badly and railroad traffic was much interfered with. The severe cold also delayed trains during the greater portion of the month and made the shipment of perishable produce very difficult. Most of the rivers in this district froze over during the first ten days of the month. The Mississippi froze over at Dubuque on the 17th and at the close of the month the ice was about ten inches thick. Sleighing was fine from about the 10th until the close of the month.

ELLIOTT.—*Henry Barnes.* Bad roads and cold and stormy weather prevailed during the month. Stock cannot be turned into the corn fields as much of the corn is ungathered, and as a result and the heavy feeding of hay, the price of hay is $10 to $15 per ton.

FOREST CITY.—*J. A. Peters.* There has been no opportunity to pick the corn remaining in the fields.

GRAND MEADOW (P. O. Postville).—*F. L. Williams.* The month was extremely stormy and cold, there being 14 days on which the temperature was down to or below zero. There is no bare ground at the end of the month and most of the roads are drifted full of snow.

GRINNELL.—*D. W. Brainard.* This has been the coldest December known here and we have had the best run of sleighing in several years. The ice harvest is also the best on record for December but the month was very unfavorable for the corn harvest. There are several hundred acres of corn unpicked and the grain is under a foot of snow.

HARLAN.—*C. A. Reynolds.* December was about as stiff a winter month as we have ever had.

INWOOD.—*F. B. Hanson.* Most of the corn that was in the field the first of the month is still unpicked. Much of the corn is down and it has been impossible to pick it on account of snow and cold.

KEOKUK.—*Fred Z. Gosewisch.* The month has been continuously cold with the minimum below 32° each day since the 5th and the ground has been covered with snow since the afternoon of the 5th. This has been the coldest December since 1876, and at the close of the month the ice in the canal is 14 inches thick.

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CLIMATOLOGICAL DATA FOR IOWA, DECEMBER, 1909

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in Inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
NORTHERN SECTION																				
Algona	Kossuth	1,213	34	13.8	— 6.3	45	2	—15	29	36	1.29	+ .26	.30	17.0	12	14	4	13	nw	Dr. F. T. Seeley
Alta	Buena Vista	1,513	17	11.2	—10.2	44	1	—19	29	44	1.33	+ .40	.33	11.0	11	9	6	16	nw	D. E. Hadden
Alta [near]	Buena Vista	.....	.....	.....	.....	.....	.....	.....	.....	.....	1.39	+ .55	.30	12.0	10	.....	.....	.....	.....	W. J. Minard
Alton	Sioux	1,305	3	12.2	.....	46	1	—18	29	37	1.90	.....	.74	11.0	12	15	3	13	nw	W. S. Slagle
Belmond	Wright	.....	.....	15.2	.....	46	2	—14	29	35	2.64	.....	.40	15.9	20	0	15	16	nw	G. P. Hardwick
Charles City	Floyd	1,015	20	13.2	— 5.8	48	2	—16	29	29	1.79	+ .51	.44	16.3	16	3	6	22	nw	Weather Bureau
Clear Lake	Cerro Gordo	1,241	9	14.6	— 5.8	45	*1	—15	29	36	1.80	+1.17	1.00	....	7	10	0	21	nw	Oscar Stevens
Decorah	Winneshiek	875	15	14.8	— 6.2	50	2	—15	29	32	2.24	+ .88	.42	17.0	15	.....	.....	.....	.....	F. H. Baker
Dows	Wright	1,142	8	16.4	— 5.1	45	2	—18	30	41	.....	.....	.....	.....	.....	10	2	19	w	G. R. Flett
Elkader	Clayton	727	27	13.4	— 8.2	55	3	—19	18	32	2.46	+ .63	.62	16.5	8	5	20	6	n	Chas. Reinecke
Elma	Howard	.....	.....	.....	.....	49	2	—17	29	.....	1.13	.....	.20	?	10	6	16	9	nw	H. A. Moore
Estherville	Emmet	1,298	12	12.8	— 5.4	45	1	—17	29	41	1.55	+ .93	.50	6.5	6	14	0	17	nw	A. O. Peterson
Fayette †	Fayette	1,003	18	13.7	—12.9	49	2	—21	30	36	2.84	+1.35	.53	24.5	15	9	11	11	nw	R. Z. Latimer
Forest City	Winneshiek	1,226	14	12.2	— 7.6	45	*1	—15	29	43	1.40	+ .55	.50	12.0	6	7	3	21	w	J. A. Peters
Grand Meadow	Clayton	1,180	17	13.4	— 8.1	50	2	—17	*20	39	2.45	+ .99	.50	15.2	11	5	9	17	nw	F. L. Williams
Greene	Butler	.....	9	14.6	— 4.4	47	2	—14	29	35	1.95	+ .92	.36	....	14	4	6	21	w	J. L. Cole
Hampton	Franklin	1,155	18	13.7	— 7.8	46	2	—16	29	37	2.23	+ .98	.65	17.2	12	7	8	16	nw	E. C. Grenelle
Humboldt	Humboldt	1,095	17	14.8a	— 8.5	46	2	—17	29	38a	1.36	+ .67	.42	12.0	8	16	1	14	nw	H. S. Wells
Inwood	Lyon	1,474	4	10.6	.....	45	1	—26	29	38	1.65	.....	.53	11.0	16	13	8	10	w	F. B. Hanson
Larrabee	Cherokee	1,266	17	12.6	— 9.7	44	*1	—21	29	35	1.84	+ .88	.60	15.7	16	12	6	13	nw	H. B. Strever
Le Mars	Plymouth	1,224	12	13.1	—10.6	46	1	—16	29	39	1.04	+ .22	.31	....	12	10	8	13	nw	G. A. C. Clarke
Mason City	Cerro Gordo	1,132	11	13.8	— 7.9	46	*1	—14	29	34	1.59	+ .78	.40	10.0	10	9	6	16	nw	J. S. Mills
New Hampton	Chickasaw	1,169	11	12.6	— 6.9	47	2	—17	*29	31	1.23	+ .30	.40	10.5	7	6	6	19	w	A. F. Kemman
Northwood	Worth	1,222	12	13.3	— 6.7	47	2	—16	29	29	1.70	+ .60	.30	13.0	14	13	4	14	nw	Charles H. Dwelle
Osage	Mitchell	1,184	17	13.6	— 6.0	46	2	—20	30	34	2.89	+1.54	.60	....	6	9	5	17	nw	Dr. A. D. Bundy
Plover	Pocahontas	1,426	12	13.2	— 8.1	45	*1	—20	29	36	1.13	+ .37	.30	10.0	10	10	4	17	nw	J. S. Smith
Pocahontas	Pocahontas	.....	4	12.5	.....	45	*1	—17	29	35	.97	.....	.20	8.3	10	12	6	13	nw	F. E. Hronek
Ridgeway	Winneshiek	1,215	10	15.2	— 7.1	51	2	—19	30	39	4.12	+1.88	.75	20.0	25	6	4	21	w	Arthur Betts
Rock Rapids	Lyon	1,358	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sheldon	O'Brien	1,422	8	11.9	—10.3	45	*1	—20	29	37	3.40	+2.59	.50	29.0	19	7	5	19	w	Dr. A. W. Beach
Sibley	Osceola	1,212	15	10.1	— 9.5	43	*1	—20	29	55	1.39	+ .61	.50	9.5	9	....	....	....	nw	H. G. Doolittle
Sioux Center	Sioux	.....	9	12.0	— 9.7	45	1	—19	29	40	.90	— .11	.20	8.5	7	8	0	23	w	J. de Ruyter
Storm Lake	Buena Vista	1,440	12	14.3b	— 7.1	45	1	—18	29	39b	.89	+ .06	.24	8.5	9	12	10	9	nw	S. B. Fracker
Washta	Cherokee	1,157	10	13.2	.....	50	1	—21	19	32	1.05	+ .20	.30	8.5	8	6	11	14	nw	H. L. Felter
Waverly	Bremer	948	12	14.9	— 6.7	48	2	—14	30	32	2.29	—1.11	.41	16.6	12	3	11	17	nw	H. S. Hoover
West Bend	Palo Alto	1,197	14	13.8	— 6.8	45	2	—16	29	32	.89	0	.25	5.9	9	12	3	16	nw	Phil Dorweiler
Average		.....	....	13.3	— 7.6	47	.....	—17	.....	36	1.75	+ .72	.....	13.0	11	9	6	16	nw	
CENTRAL SECTION																				
Amana	Iowa	721	31	17.0	— 5.6	51	5	—13	30	37	2.37	+ .92	.52	12.0	12	8	8	15	nw	Conrad Schadt
Ames †	Story	926	27	15.0	— 7.6	47	*1	—14	29	40	5.29	+4.27	2.00	7.0	10	11	3	17	n	Iowa State College
Audubon	Audubon	1,301	15	15.2	— 8.7	46	*1	—14	29	34	2.01	+1.05	.50	11.2	11	14	2	15	nw	Geo. E. Kellogg
Baxter	Jasper	998	8	15.3b	— 8.9	47c	2	—15a	29	38d	2.04	+1.15	.44	14.0	15	13	4	14	nw	W. R. Vandike
Belle Plaine	Benton	828	18	15.9	— 7.8	53	1	—15	30	37	2.72	+1.19	.60	16.5	14	9	2	20	nw	S. P. VanDike
Boone	Boone	1,134	3	14.1	.....	46	1	—15	30	45	2.45	.....	.64	13.0	9	9	3	19	nw	Carl Fritz Henning
Buckingham	Tama	.....	8	.....	.....	.....	.....	.....	.....	.....	1.50	+ .53	.63	....	7	9	9	13	.....	Dr. W. A. Daniels
Carroll	Carroll	1,265	18	13.2	—10.2	45	1	—19	28	43	1.45	+ .46	.40	11.0	9	13	3	15	w	Mrs. Jos. J. Wolfe
Cedar Rapids	Linn	733	26	16.5	— 8.5	53	2	—13	30	32	1.50	0	.50	12.2	10	12	2	17	w	W. J. Greene
Clinton	Clinton	593	40	17.4	— 7.9	54	2	—13	30	35	6.10	+4.25	2.32	25.5	9	2	16	13	w	Luke Roberts
Davenport	Scott	580	36	17.8	— 9.4	55	2	—10	29	40	3.12	+1.43	1.36	16.3	13	6	9	16	w	Weather Bureau
Delaware	Delaware	1,083	17	13.2	— 8.2	51	2	—17	30	32	1.64	+ .26	.47	12.3	10	8	14	9	nw	Wm. Ball
Denison	Crawford	1,180	13	14.4	— 9.1	46	*1	—15	29	34	1.90	+1.31	.50	17.2	13	12	4	15	n	W. C. Van Ness
Des Moines	Polk	861	29	16.9	— 8.8	48	1	—12	29	34	2.32	+1.01	.73	16.0	14	10	2	19	w	Weather Bureau
De Soto	Dallas	866	8	16.0a	—10.5	48	1	—15	29	42a	2.05	+ .79	.59	10.5	5	20	1	10	nw	R. D. Minard
Dubuque	Dubuque	639	35	16.6	— 7.9	54	5	—11	29	43	2.08	+ .36	.66	17.7	17	8	7	16	w	Weather Bureau
Fort Dodge	Webster	1,126	8	13.0	— 9.5	47	1	—14	*29	44	1.39	+ .93	.40	10.0	8	13	1	17	nw	J. F. Monk
Gilman	Marshall	1,052	9	.....	.....	.....	.....	.....	.....	.....	2.87	+2.11	1.20	17.0	8	....	....	....	.....	Jas. L. Wylie
Grinnell	Poweshiek	1,023	16	17.2	— 7.2	49	2	—13	29	35	1.99	+ .82	.45	13.5	10	12	3	16	w	D. W. Brainard
Grundy Center	Grundy	976	17	15.0	— 7.6	47	2	—14	29	32	.....	.....	.....	....	....	12	5	14	nw	J. B. Calderwood
Guthrie Center	Guthrie	1,077	13	15.4	— 8.4	47	*1	—16	29	37	2.65	+1.55	.49	13.0	12	12	6	13	nw	D. G. Beardsley
Harlan	Shelby	1,192	9	13.5	—10.5	46	1	—18	29	33	1.81	+ .91	.46	16.5	15	8	7	16	nw	C. A. Reynolds
Independence	Buchanan	921	43	15.3	— 6.3	48	*1	—16	30	34	2.62	+1.26	1.20	25.5	10	12	0	19	nw	George Donohoe
Iowa City	Johnson	683	49	15.8	— 8.4	53	4	—17	30	38	2.52	+ .87	.80	14.0	9	8	1	22	nw	Arthur G. Smith
Iowa Falls	Hardin	1,170	15	12.6	— 8.5	46	*1	—15	29	35	2.64	+1.53	.74	17.5	13	12	0	19	nw	J. B. Parmelee
Jefferson	Greene	.....	....	16.2	.....	47	2	—16	29	39	1.71	+ .96	.50	12.2	9	14	4	13	n	Geo. W. Jackson
Le Claire	Scott	576	....	.....	.....	.....	.....	.....	.....	.....	3.74	+2.62	1.58	17.4	12	....	....	....	.....	Margaret T. Disney
Little Sioux	Harrison	.....	4	13.4	.....	47	1	—22	29	47	1.62	.....	.40	13.0	8	9	5	17	nw	Geo. H. Gibson
Logan	Harrison	928	42	13.8	—11.4	47	1	—16	*19	39	1.93	+ .66	.41	?	11	12	4	15	ne	Glenn H. Stern
Marshalltown	Marshall	947	16	14.6	— 8.9	48	2	—13	*29	38	2.98	+1.82	1.10	16.2	12	10	3	18	w	Ralph B. Reasoner
Montezuma	Poweshiek	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	
Muscatine	Muscatine	.....	49	.....	.....	.....	.....	.....	.....	.....	2.90	+ .62	1.20	17.7	11	....	....	....	.....	Wm. P. Molis
Newton	Jasper	944	19	16.8	— 5.6	47	2	—12	29	34	1.85	+ .49	.50	15.0	9	14	3	14	w	Hon. J. P. Beatty
Odebolt	Sac	1,356	10	14.2	— 9.3	46	1	—16	29	38	1.21	+ .37	.37	9.0	7	14	3	14	.....	E. Starner
Olin	Jones	760	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	
Onawa	Monona	1,051	8	16.1	—10.1	47	1	—13	29	41	1.77	+ .86	.30	13.5	13	12	2	17	nw	C. G. Perkins
Perry	Dallas	975	7	15.0	— 9.2	47	1	—15	29	35	2.42	+1.42	.57	16.0	14	11	6	14	n	J. A. Harvey
Rockwell City	Calhoun	.....	12	14.8	— 7.8	46	*1	—17	29	30	1.95	+ .93	.70	17.0	6	13	8	10	.....	C. M. Randall
Sac City	Sac	1,278	26	14.1	— 8.6	45	*1	—17	29	35	1.65	+ .49	.40	14.5	8	9	2	20	nw	E. N. Baily
Sioux City	Woodbury	1,135	17	12.8	— 9.8	45	1	—15	29	37	1.04	+ .30	.35	8.3	15	8	7	16	nw	Weather Bureau
Stuart	Guthrie	1,216	10	13.8	— 9.8	48	1	—15	30	41	.....	.....	.....	....	....	....	....	....	.....	J. P. Fox
Tipton	Cedar	807	10	17.4	— 8.0	58	5	—10	*29	44	3.23	+1.57	1.41	19.1	9	9	8	14	nw	F. K. Gregg
Toledo	Tama	856	14	15.5	— 8.2	46	1	—13	*29	35	2.96	+1.94	.40	17.5	11	11	4	16	nw	I. F. Giger
Waterloo	Black Hawk	862	25	15.3	— 6.7	48	*1	—13	29	33	2.55	+1.24	.66	14.5	8	8	8	15	nw	M. L. Newton
Waukee	Dallas	1,039	5	14.4a	.....	46a	2	—15	29	37a	2.30	+1.00	.55	13.5	11	8	12	11	nw	Sam'l F. Foft
Webster City	Hamilton	.....	3	15.5	.....	47	2	—16	29	37	2.73	.....	.60	22.5	9	13	3	15	nw	C. D. Carpenter
Whitten	Hardin	1,036	10	14.6a	— 7.0	47	2	—17	29	38a	1.79	+ .67	.50	10.0	7	8	6	17	nw	Dr. Frank P. Butler
Wilton Junction	Muscatine	683	13	17.8	— 8.0	54	*2	—13	30	36	.....	.....	.....	....	....	10	4	17	w	Wm. Lang
Zearing	Story	.....	4	14.6	.....	47	2	—15	*29	42	3.00	.....	.70	20.2	13	4	12	15	nw	O. Reese
Average		.....	....	15.2	— 8.6	49	.....	—15	.....	37	2.30	+1.10	.....	14.9	11	10	5	16	nw	

CLIMATOLOGICAL DATA FOR IOWA, DECEMBER, 1909—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
SOUTHERN SECTION																				
Afton	Union	1,212	14	16.6	— 9.1	49	1	—14	29	36	2.59	+1.35	.74	13.0	9	9	5	17	nw	N. W. Rowell
Albia	Monroe	959	10	16.4	— 8.6	49	1	—13	29	31	1.80	+ .66	.80	9.2	6	8	7	16	nw	J. I. Chenoweth
Allerton	Wayne	.....	6	17.8	— 8.7	50	1	—13	29	40	2.28	+1.11	.50	7.7	13	12	4	15	nw	Mrs. Geo. Shriver
Atlantic	Cass	1,164	17	14.4	—10.5	48	2	—16	29	38	1.94	+ .79	.65	15.0	9	10	5	16	nw	Thos. H. Whitney
Bedford	Taylor	.....	8	16.2	— 9.5	50	1	—17	29	41	2.30	+1.36	.55	11.2	10	11	4	16	nw	E. E. Healy
Bloomfield	Davis	.....	...	15.8a	.....	50	*2	—13	30	42a	3.47	.....	1.16	17.8	11	8	5	18	w	C. R. Davis
Bonaparte	Van Buren	.....	17	17.7	—10.2	51	2	—15	30	41	2.41	+ .38	.62	7.0	9	....	....	....	.....	Hon. B. R. Vale
Burlington	Des Moines	544	12	18.6	— 8.5	55	*3	—13	30	36	4.39	+2.84	1.50	24.0	11	10	1	20	w	M. E. Poppe, Jr.
Chariton	Lucas	1,042	13	16.2	—10.1	49	1	—14	29	39	2.45	+1.11	1.00	13.0	9	11	8	12	nw	C. C. Burr
Clarinda	Page	1,009	18	15.0	—11.6	51	1	—14	30	51	1.88	+ .76	.36	12.5	13	12	6	13	nw	A. S. Van Sandt
Columbus Junction	Louisa	595	7	19.2	— 7.4	55	2	—11	30	37	2.72	+1.26	.80	15.0	11	12	5	14	w	J. B. Johnston
Corning	Adams	1,117	16	14.4a	—12.7	49	1	—17	29	42b	2.38	+1.24	.96	10.0	5	14	5	12	nw	Jerome Smith
Corydon	Wayne	1,101	15	17.4	— 9.3	49	*1	—13	29	41	2.14	+ .72	.61	....	13	14	3	14	nw	Clara Miller
Creston	Union	1,312	3	16.4	.....	49	1	—16	29	41	1.96	.....	.53	....	6	13	2	16	ne	E. S. Stovall
Cumberland	Cass	.....	9	.....	.....	.....	.....	.....	.....	.....	1.80	+ .78	.80	13.0	5	13	3	15	n	J. H. Reppert
Earlham	Madison	.....	6	16.2	— 6.8	47	1	—13	29	39	3.49	+2.19	.64	16.5	14	15	0	16	nw	Geo. Phillips
Elliott	Montgomery	.....	3	15.3	.....	48	1	—16	29	36	1.80	.....	.50	13.0	8	12	7	12	w	Henry Barnes
Fairfield	Jefferson	.....	14	17.8	— 7.3	49	*1	—13	30	39	2.39	+ .61	1.24	10.4	11	16	12	3	nw	R. Monroe McKenzie
Fort Madison	Lee	516	59	.....	.....	.....	.....	.....	.....	.....	2.20	+ .27	1.60	6.0	3	6	5	20	w	Miss L. A. McCready
Greenfield	Adair	.....	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	....	....	.....	
Hancock	Pottawattamie	1,113	27	14.0	.....	46	1	—17	29	36	1.66	.....	.50	12.6	7	13	2	16	nw	G. C. Rogers
Hopeville	Clarke	.....	17	16.4	— 9.8	50	1	—14	29	37	2.07	+1.01	.63	....	13	7	7	17	nw	M. T. Ashley
Indianola	Warren	969	17	16.6c	— 9.2	48	*1	—12	29	35a	2.32	+ .99	.60	14.8	13	14	2	15	nw	Prof. J. L. Tilton
Keokuk	Lee	574	37	20.6	— 8.8	55	2	— 9	30	38	2.56	+ .69	1.38	8.3	9	8	9	14	w	Weather Bureau
Keosauqua	Van Buren	644	16	18.6	— 8.8	60	1	—14	30	41	2.78	+1.28	1.49	11.2	10	8	5	18	.....	J. H. Landes
Knoxville	Marion	920	12	18.5	— 8.0	49	1	—11	29	38	2.66	+1.28	.65	11.5	12	12	4	15	nw	Casey & Bellville
Lacona	Warren	.....	9	.....	.....	.....	.....	.....	.....	.....	4.00	+2.33	.90	25.0	14	5	20	6	.....	J. B. Alter
Lamoni	Decatur	.....	....	17.6	.....	53	2	—13	29	38	2.60	.....	.88	14.0	11	12	2	17	nw	T. J. Fitzpatrick
Lenox	Taylor	1,250	13	15.6	— 9.7	50	1	—17	29	35	1.72	+ .65	.50	8.1	11	17	2	12	nw	J. L. Hurley
Leon	Decatur	1,120	6	16.6	—10.0	51	1	—14	29	37	3.27	+2.00	.80	12.2	13	4	11	16	nw	Morris Gardner
Massena	Cass	.....	3	13.7	.....	49	2	—17	19	38	2.71	.....	1.04	14.0	5	18	2	11	nw	C. E. Smeltzer
Mt. Ayr	Ringgold	1,236	15	16.8	— 9.1	51	1	—14	29	36	2.63	+1.34	.85	9.5	12	13	4	14	nw	A. F. Beard
Mt. Pleasant	Henry	729	26	18.2	— 8.6	54	2	—13	30	36	3.38	+2.01	1.11	12.2	10	14	4	13	nw	J. W. Edwards
Omaha, Neb. †	Douglas	1,040	38	15.6	—10.5	47	1	— 9	29	38	2.33	+1.17	.57	19.1	16	10	5	16	nw	Weather Bureau
Oskaloosa	Mahaska	843	24	17.4	— 8.5	49	2	—13	*29	40	2.25	+ .99	.71	13.5	12	11	0	20	nw	Jos. Boyd
Ottumwa	Wapello	649	14	19.0	— 8.8	50	*1	—11	29	40	2.58	+1.27	1.00	8.3	11	7	7	17	w	W. J. Mesmer
Pacific Junction	Mills	960	9	14.4	—11.9	48	1	—18	29	44	2.37	+1.55	.60	18.3	11	10	9	12	n	H. H. McCartney
Pella	Marion	877	6	17.6	— 8.3	47	*1	—16	30	41	1.83	+1.00	.50	14.5	9	17	0	14	nw	John H. Ver Steeg
St. Charles	Madison	1,070	7	17.8	— 8.5	48	1	—12	29	34	2 61	+ .99	1.00	14.5	11	17	1	13	nw	R. D. Minard
Sigourney	Keokuk	877	12	17.7	— 8.6	49	2	—13	29	37	2.59	+1.18	.66	17.5	12	3	18	10	nw	J. T. Parker
Stockport	Van Buren	.....	6	16.6	.....	53	5	—22	30	48	2.57	+1.18	1.34	14.0	13	10	6	15	nw	C. L. Beswick
Thurman	Fremont	.....	11	14.6	—10.9	48	1	—18	19	40	2.07	+ .68	.64	13.9	12	9	8	14	nw	C. R. Paul
Wapello	Louisa	588	10	19.4	— 8.5	55	2	—11	30	36	2.48	+1.17	.90	12.5	11	8	9	14	nw	Geo. W. Schofield
Washington	Washington	769	27	17.8	— 6.8	53	4	—13	*29	37	2.57	+1.24	.80	?	10	7	9	15	nw	Wm. A. Cook
Winterset	Madison	1,129	17	16.5	— 9.5	48	1	—12	29	33	2.05	+ .66	.65	12.3	10	11	2	18	nw	Dr. Robert S. Cooper
Woodburn	Clarke	961	9	16.6	.....	52	1	—15	29	41	2.09	+ .84	.56	16.0	12	10	4	17	nw	C. B. McDonough
Average		.....	....	16.9	— 9.3	50	.....	—14	.....	39	2.49	+1.16	.....	13.1	10	11	5	15	nw	
State average		.....	....	15.1	— 8.5	49	.....	—15	.....	37	2.18	+0.99	.....	13.7	11	10	5	16	nw	

* And other dates. a one day missing, b two days; c three days, etc. † Received too late to be included in average.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF DECEMBER, 1909

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | Monthly Mean | |
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DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF DECEMBER, 1909—CONTINUED

| STATIONS | 1 | | 2 | | 3 | | 4 | | 5 | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | Monthly Mean | |
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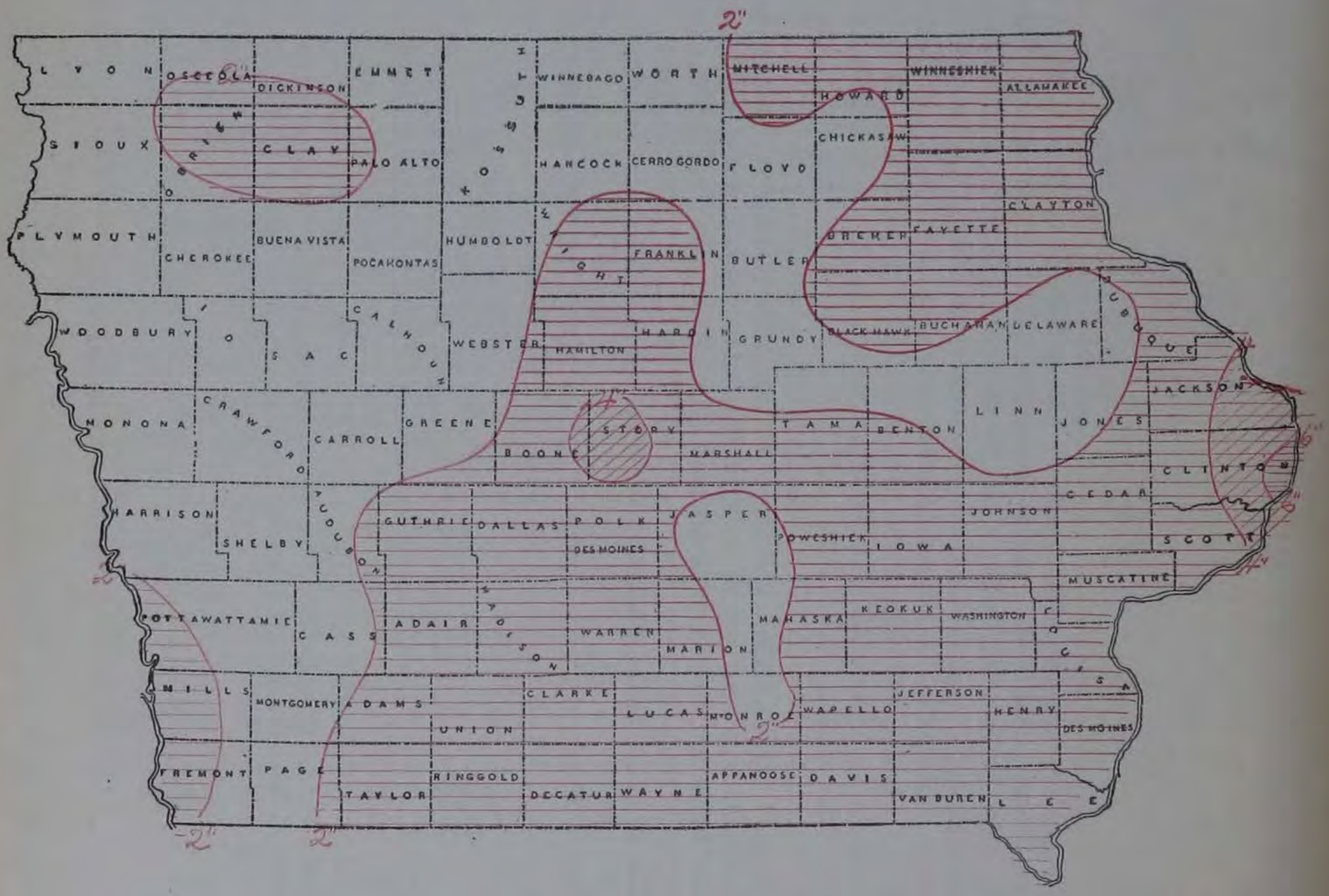
DAILY PRECIPITATION FOR IOWA, DECEMBER, 1909

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	.74	.17	.38	.10	....	....	.10	....	....	.10	....	....	....	.20	....	....	....	....	....	....	T	....	....	.60	.20	....	....	T	....	....	....	2.59
Albia	T	.30	....	.30	.10	T	.20	....	....	....	T	.10	T	T	....	....	....	....	....	....	....	T	T	T	.80	....	....	....	....	....	....	1.80
Algona	.10	.11	.03	.10	.24	....	....	....	....	.20	.07	.05	.04	T	T	T	....	....	....	....	.05	....	....	.12	.18	T	....	....	....	....	....	1.29
Allerton	.44	.09	.10	.50	.32	.02	.11	....	....	.01	.01	.05	....	.03	....	....	....	....	....	....	T	T	....	.48	.12	....	T	....	....	....	....	2.28
Alta	.03	.17	....	.05	.30	....	....	....	....	.03	.22	....	.08	.05	....	.04	....	....	....	....	....	.03	....	T	.33	T	....	....	....	....	....	1.33
Alta (near)	.19	T	.10	T	.30	.05	....	....	....	.15	....	.10	....	.10	....	.05	....	....	....	....	.05	....	....	.30	....	....	....	....	....	....	....	1.39
Alton	.74	.06	.05	.05	.40	....	....	....	....	.20	.10	.10	.05	.05	.05	T	....	....	....	....	T	T	....	.05	T	T	....	....	....	....	....	1.90
Amana	.21	.03	.12	.52	.33	...	.12	....	....	.08	.08	.25	.05	....	....	T	....	....	....	....	T	T	....	.35	.23	....	....	....	....	....	....	2.37
Ames	.04	.02	.03	2.00	.50	.50	1.50	....	....	.05	T	....	....	....	....	T	....	....	....	....	....	....	....	.55	.10	....	....	....	....	....	....	5.29
Atlantic	.27	.13	.25	.32	T	T	T	....	....	.10	T	.09	.05	.05	....	T	....	....	....	....	T	T	....	.65	....	....	T	T	....	....	....	1.94
Audubon	.16	.08	.20	.15	....	....	....	....	....	.50	.30	.05	....	....	.02	....	....	.20	....	....	....	....	....	.30	....	....	.05	....	....	....	....	2.01
Baxter	.06	.22	.44	.33	.20	.01	.06	....	....	.05	.08	.12	.01	.02	T	T	....	....	....	....	T	.01	....	.40	.03	....	T	....	....	....	....	2.04
Bedford	.45	.10	.22	.55	T	T	.10	....	....	.18	T	.09	....	.10	....	....	....	....	....	....	T	T	....	.45	....	....	T	.06	....	....	....	2.30
Belle Plaine	.11	.06	.11	.51	.28	.10	.15	....	....	.10	.05	.30	T	T	T	.05	T	....	....	....	....	.10	....	.20	.60	....	....	....	....	....	....	2.72
Belmond	.10	.20	.10	38	.08	....	....	....	....	.38	.40	.20	.11	.02	.01	.08	.03	....	....	.02	.04	.02	T	.25	.10	.07	.03	.02	....	....	....	2.64
Bloomfield	.16	.38	1.16	T	.10	.30	....	....	....	.10	.20	.10	.05	.02	...	....	....	....	....	....	....	....	....	.90	....	....	T	....	....	....	....	3.47
Bonaparte	.10	.06	T	.58	.62	....	.20	....	....	T	.10	.25	....	....	....	....	....	....	....	....	....	....	.20	.30	....	....	....	....	....	....	....	2.41
Boone	T	.29	....	.42	.60	....	.10	....	....	....	.20	.10	T	.02	....	T	....	....	....	....	....	T	T	.08	.64	T	....	T	....	....	....	2.45
Buckingham	.13	....	.15	.35	.05	.01	....	....	....	....	....	.18	....	....	....	....	....	....	....	....	....	....	....	.63	....	....	....	....	....	....	....	1.50
Burlington	....	....	....	.11	1.50	.05	.50	....	....	....	.08	.50	.10	.20	.10	T	....	....	....	....	T	T	T	.05	1.20	T	T	T	....	....	....	4.39
Carroll	.15	.15	.05	....	.20	.10	....	....	....	.20	.10	....	.10	....	....	....	....	....	....	....	....	....	....	.40	....	....	....	....	....	....	....	1.45
Cedar Rapids	.06	T	.14	.12	.02	.18	....	....	....	.13	.22	.11	T	T	T	T	....	....	....	....	.02	T	....	.56	T	....	T	....	....	....	....	1.50
Chariton	.35	.10	.15	.45	T	T	....	....	....	.10	.10	....	....	....	....	....	....	....	....	....	.10	....	.10	1.00	....	....	....	....	....	....	....	2.45
Charles City	.17	.07	.17	.22	.23	T	.01	T	....	.07	.11	.12	....	....	....	.07	....	T	....	.02	.05	T	T	.36	.05	.06	.01	T	....	....	....	1.79
Clarinda	.15	.30	.02	.26	.36	....	.06	....	....	....	.09	.03	.05	.08	T	T	....	....	....	....	....	T	....	.17	.27	....	....	.04	....	....	....	1.88
Clear Lake	1.00	.35	T	....	.10	....	....	....	....	....	.05	.05	....	....	....	T	....	....	....	....	....	....	....	.20	....	.05	....	....	....	....	....	1.80
Clinton	T	T	.05	....	1.40	....	.51	....	....	.55	....	2.12	.20	....	T	T	....	....	....	....	.02	....	....	....	1.15	.10	....	....	....	....	....	6.10
Columbus Jct	.12	....	T	.34	.80	...	.15	....	....	.10	.15	.40	.08	.04	....	....	....	....	....	....	....	....	....	.30	.24	....	....	....	....	....	....	2.72
Corning	.45	.17	....	.96	.20	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	T	....	....	.60	....	....	....	....	....	....	....	2.38
Corydon	.27	.19	.10	.61	.08	.01	.13	....	....	.02	.07	T	....	.05	....	....	....	....	....	....	T	.01	....	.52	.08	....	T	....	....	....	....	2.14
Creston	.35	.40	....	.53	.13	....	T	....	....	....	T	T	T	T	....	....	....	....	....	....	....	....	....	.15	....	.40	....	....	....	....	....	1.96
Cumberland	.42	....	.08	.30	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	.80	....	....	....	....	....	....	....	1.80
Davenport	.01	....	.01	.75	.65	.03	.15	....	....	.09	.40	.39	.07	.01	T	T	T	....	....	....	T	T	T	.39	.17	....	T	T	T	....	....	3.12
Decorah	T	.08	.15	.05	.32	T	T	....	....	.04	.28	.18	T	....	T	.15	....	T	....	.15	.05	....	T	.42	.13	.15	.05	.04	....	....	....	2.24
Delaware	....	.10	....	.35	.47	....	.03	....	....	.05	.05	.10	T	....	T	....	....	....	....	....	.08	....	T	.21	....	.20	....	....	....	....	....	1.64
Denison	.22	.03	.18	.07	.07	.10	....	....	....	....	.03	.06	....	.21	....	....	....	....	....	....	.15	.08	....	.50	.20	....	T	....	....	....	....	1.90
Des Moines	.16	.03	.56	.36	.06	.07	.01	....	....	.15	.03	.05	.01	.02	....	T	....	....	....	....	T	T	....	.73	.08	....	T	....	....	....	....	2.32
De Soto	.22	T	.54	.59	T	T	.20	....	....	T	T	....	....	T	....	....	....	....	....	....	....	....	....	.50	....	....	....	....	....	....	....	2.05
Dubuque	.02	T	.17	.35	.39	.04	.01	....	....	.14	.19	.21	.03	T	T	.06	....	T	....	.01	.03	....	T	.30	.04	.08	.01	T	....	....	....	2.08
Earlham	.64	.05	.55	.20	.59	T	.20	....	....	.10	.11	T	T	.10	....	T	....	....	....	....	.05	.05	T	.50	.30	....	.05	T	....	....	....	3.49
Elkader	....	....	....	.45	.53	....	T	....	....	....	.26	.20	.09	....	....	T	....	....	....	T	.20	....	....	....	.62	.11	....	....	....	....	....	2.46
Elliott	.30	.05	.15	.40	....	....	....	....	....	.10	T	....	....	.10	....	T	....	....	....	....	T	....	....	.50	.20	....	....	T	....	....	....	1.80
Elma	.10	T	T	.14	T	....	....	....	....	.10	.10	.05	.05	....	.30	.08	....	....	....	T	T	T	.01	.20	....	T	T	....	....	....	....	1.13
Estherville	.30	.45	.04	.50	....	....	....	....	....	....	.20	....	.06	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1.55
Fairfield	.20	.05	T	.82	.42	.02	.14	....	....	.10	.08	.12	T	.04	....	....	....	....	....	T	T	T	....	.40	....	....	T	....	....	....	....	2.39
Fayette	.10	....	.35	.13	.45	....	T	T	....	.09	.18	.28	.11	....	T	.14	....	....	....	.02	.19	T	....	.40	.30	.10	T	....	....	....	....	2.84
Forest City	.05	.15	T	T	.20	T	....	....	....	....	.30	T	T	....	....	T	T	....	....	....	T	T	T	.50	....	.20	T	....	....	....	....	1.40
Fort Dodge	T	.24	T	.15	.20	T	T	....	....	.10	....	T	.20	T	....	T	....	....	....	....	....	.05	T	.05	.40	....	....	....	....	....	....	1.39
Ft. Madison	....	....	....	1.60	T	.50	....	....	....	.10	....	....	T	T	T	T	....	....	....	....	T	....	....	....	....	....	T	T	....	....	....	2.20
Gilman	.25	T	.30	.25	.37	.10	....	T	T	.20	T	T	T	....	....	T	....	....	....	T	....	.20	....	....	1.20	....	....	....	....	....	....	2.87
Grand Meadow	....	.07	....	.28	.50	....	T	....	....	.10	.10	.40	....	....	....	.20	....	....	....	T	.10	T	.30	.30	....	.10	T	....	....	....	....	2.45
Greene	.12	.36	.03	.24	.22	....	....	....	....	.12	.07	.10	....	....	....	.08	....	....	....	....	.07	T	....	.25	.15	.07	.07	....	....	....	....	1.95
Grinnell	.09	.20	.20	.20	.05	T	....	....	....	.15	.05	.20	....	T	....	T	....	....	....	....	T	T	....	.45	.40	....	....	....	....	....	....	1.99
Grundy Center	.20	.18	.15	....	....	T	....	....	....	T	.20	.10	....	....	....	....	....	....	....	....	....	....	T	.30	....	....	....	....	....	....	....	.....
Guthrie Center	.47	....	.33	.49	.09	.01	.05	....	....	.07	.10	.04	....	.13	....	....	....	....	....	....	T	T	....	.44	.43	....	T	....	....	....	....	2.65
Hampton	.35	.08	.30	.18	.02	....	....	....	....	.45	.05	.10	....	....	....	....	....	....	....	.05	....	....	....	.65	....	.04	....	....	....	....	....	2.23
Hancock	.30	.10	.15	.26	....	T	....	....	....	T	T	T	....	.25	....	T	....	....	....	T	.10	....	....	.50	....	....	....	T	....	....	....	1.66
Harlan	.27	.05	.30	.20	.05	.05	.01	....	....	.10	.10	.05	.02	.13	....	.01	....	....	....	....	T	T	....	.46	T	....	T	.01	....	....	....	1.81
Hopeville	.63	....	.26	.34	.04	.04	.04	....	....	.04	.04	.01	.01	.08	....	T	....	....	....	....	T	T	....	.44	.10	....	....	T	T	....	....	2.07
Humboldt	.08	.13	.04	....	.30	....	....	....	....	.20	.12	....	....	....	....	....	....	....	.07	T	T	....	....	.42	....	....	....	....	....	....	....	1.36
Independence	....	.07	....	....	.05	....	.05	....	....	.40	.20	.25	T	....	....	.20	....	....	....	.05	.15	....	....	1.20	....	....	....	....	....	....	....	2.62
Indianola	.20	....	.29	.33	.10	.05	.05	....	....	.10	.05	....	....	.05	....	....	....	....	....	....	.05	T	....	.60	.40	....	.05	....	....	....	....	2.32
Inwood	.53	.05	.13	.12	.15	....	T	....	....	.15	.13	.06	....	.10	.03	.06	....	....	....	....	.02	.03	.03	.03	..	T	.03	T	....	....	....	1.65
Iowa City	....	.20	....	.30	.80	.03	.12	....	....	T	.05	.28	T	.06	....	T	T	....	....	....	T	T	....	....	.68	....	....	....	....	....	....	2.52
Iowa Falls	T	.27	.08	.35	.39	.10	.10	T	....	.10	.45	....	.03	T	.02	.05	T	....	....	....	.10	T	T	T	.60	....	T	T	T	....	....	2.64
Jefferson	.50	T	.02	.30	.10	.02	....	....	....	.02	....	T	....	.05	....	T	....	....	....	....	T	....	....	.50	.20	....	....	....	....	....	....	1.71
Keokuk	.05	....	T	1.18	.22	.24	.14	....	....	T	.24	.13	T	T	T	T	....	....	....	T	T	T	....	.24	.12	....	T	T	....	....	....	2.56
Keosauqua	....	.17	....	.03	1.49	.02	.15	....	....	....	.08	.17	T	T	T	T	T	....	....	....	....	.02	T	.10	.55	....	T	....	....	....	....	2.78
Knoxville	.17	.17	.14	.50	.53	.05	.20	....	....	.10	.05	.05	....	.05	T	....	....	....	....	....	T	T	....	.65	....	T	T	....	....	....	....	2.66
Lacona	.90	.02	.15	.48	.32	....	.28	....	.17	....	.20	.28	....	....	....	....	....	....	....	....	.20	.30	....	.40	.20	....	.10	....	....	....	....	4.00
Lamoni	.43	.88	....	.15	.05	.04	.17	....	....	.02	.04	T	T	.05	....	....	....	....	....	....	T	T	....	.70	.07	T	....	....	....	....	....	2.60
Larrabee	.25	....	.07	.20	.40	T	....	....	....	.16	.05	.17	....	.08	.05	.06	.03	....	....	....	.13	.10	....	.11	.07	....	.01	....	....	....	....	1.84
Le Claire	....	.03	..	.02	1.58	.05	.22	T	....	....	.24	.67	.23	.02	T	T	T	....	....	....	T	T	T	T	.63	.04	....	.01	....	T	....	3.74
Le Mars	.31	.03	.12	.06	.15	T	....	....	T	.08	T	.10	T	.06	....	T	....	....	....	....	T	.01	.01	.02	.04	T	....	....	....	....	....	1.04
Lenox	.47	.15	.25	.10	.05	.03	....	....	....	.05	.04	....	....	.03	....	....	....	....	....	....	....	....	....	.50	....	....	.05	....	....	....	....	1.72
Leon	.80	T	.20	.75	.25	.10	.05	....	....	.19	.10	T	T	.02	....	....	....	....	....	....	T	.04	....	.60	.15	....	.02	....	....	....	....	3.27
Little Sioux	.32	....	.15	.10	.30	.10	....	....	....	....	....	.05	....	.20	....	....	....	....	....	....	....	....	....	.40	....	....	....	....	....	....	....	1.62
Logan	.32	....	.28	.14	.26	.06	....	....	....	.04	.05	....	.12	.15	....	....	....	....	....	....	T	T	....	.41	.10	....	....	....	....	....	....	1.93
Marshalltown	T	.22	....	.55	.50	.05	.11	....	....	....	.16	.07	.13	....	T	.02	....	....	....	....	T	.06	T	.01	1.10	....	....	....	....	....	....	2.98
Mason City	.15	.40	T	.04	.28	....	....	....	....	.12	.15	.05	....	....	....	....	....	....	....	....	.10	....	....	.25	....	T	.05	....	....	....	....	1.59
Massena	.62	....	.75	.14	....	T	....	....	....	T	T	T	T	.16	....	T	....	....	....	....	T	T	T	1.04	....	T	T	....	....	....	....	2.71
Mt. Ayr	.85	.02	.30	.40	T	.10	.10	....	....	.05	.03	.05	....	.05	....	....	....	....	....	....	....	T	....	.50	.18	....	....	....	....	....	....	2.63
Mt. Pleasant	.48	....	T	.55	1.11	T	.25	....	....	.15	.02	.17	.05	T	....	....	....	....	....	T	T	T	....	.45	.15	....	T	....	....	....	....	3.38
Muscatine	....	.04	....	.05	1.20	.03	.26	....	....	....	.10	.40	.08	.08	T	T	T	....	....	....	T	T	T	T	.60	.06	....	T	....	....	....	2.90
New Hampton	.10	....	T	T	T	....	....	....	....	.08	.20	.20	....	....	....	T	....	....	....	T	T	....	....	.40	.10	.15	....	....	....	....	....	1.23
Newton	.10	.12	.26	....	.50	....	....	....	....	.11	.10	.07	....	....	....	....	....	....	....	....	....	....	....	.34	.25	....	....	....	....	....	....	1.85
Northwood	.12	.21	.05	.02	.30	....	T	....	....	.10	.10	.10	....	T	T	.20	T	....	....	.05	.15	....	....	.05	.15	.10	T	....	....	....	....	1.70
Odebolt	.25	....	.15	T	.31	.05	....	....	....	.05	....	.03	....	....	....	....	....	....	....	....	T	....	....	.37	....	....	....	....	....	....	....	1.21
Omaha, Neb.	.26	T	.37	.39	.10	.19	....	....	....	.10	.06	.07	.08	.03	....	.02	....	....	....	....	T	T	.01	.57	.04	....	.02	.02	....	....	....	2.33
Onawa	.30	.12	.15	.10	.30	.10	....	....	....	T	....	.03	.05	.15	....	T	....	....	....	....	.02	T	....	.15	.25	....	....	.05	....	....	....	1.77
Osage	....	.34	....	....	....	.50	....	....	....	....	.60	.50	....	....	....	.40	....	....	....	....	....	....	....	....	....	....	.55	....	....	....	....	.....
Oskaloosa	.08	.11	.20	.51	.07	.22	....	....	....	.08	.05	.02	.08	....	....	....	....	....	....	....	T	....	.48	.35	....	....	....	....	....	....	....	2.25
Ottumwa	.14	.07	.04	1.00	.26	....	.23	....	....	.05	T	.05	....	.01	....	....	....	....	....	....	T	T	....	.64	.09	....	T	....	....	....	....	2.58
Pacific Junction	.38	.07	.34	.42	....	.10	....	....	....	.06	.09	.10	T	.09	....	T	....	....	....	....	T	T	T	.60	....	....	T	.12	....	....	....	2.37
Pella	.02	.12	.02	.50	.05	....	.24	....	....	....	.20	T	T	....	....	....	....	....	....	....	T	....	....	.46	.22	....	....	T	....	....	....	1.83
Perry	.15	.10	*	.57	.10	*	.10	....	....	*	.20	.20	T	.05	....	....	....	....	....	....	.05	T	....	.40	.50	....	T	....	....	....	....	2.42
Plover	.05	.07	.01	.05	.30	T	....	....	....	.20	.05	.10	T	T	....	T	....	....	....	....	T	....	T	.10	.20	T	T	....	....	....	....	1.13
Pocahontas	T	.08	.10	.05	.04	.17	....	....	....	.12	.02	.07	....	T	....	T	....	....	....	....	T	....	....	.12	.20	....	....	....	....	....	....	0.97
Ridgeway	.11	.15	.18	.22	.36	.01	.01	.01	....	.08	.08	.31	....	.01	.01	.34	.24	.01	....	.07	.23	.03	.03	.75	.25	.30	.24	.09	....	....	....	4.12
Rockwell City	.25	....	....	....	.30	....	....	....	.10	.30	....	....	....	....	....	....	....	....	....	....	....	....	.30	.70	....	....	....	....	....	....	....	1.95
Sac City	.17	.03	....	....	.20	.25	....	....	....	.20	T	.10	....	T	....	T	....	....	....	....	....	....	....	.30	.40	....	....	T	....	....	....	1.65
St. Charles	.26	.. .	.50	.40	.07	.08	....	....	....	.20	.05	.03	.02	....	....	....	....	....	....	....	T	....	....	.05	.95	....	T	....	....	....	....	2.61

DAILY PRECIPITATION FOR IOWA, DECEMBER, 1909—Continued

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Sheldon	.25	.10	.20	.25	.25	....	....	....	....	.50	.40	.10	.10	.10	.10	.20	....	....	....	....	.10	.10	.10	.20	T	.25	.05	.05	....	....	....	3.40
Sibley	.07	.33	.04	.10	.50	T	....	....	....	T	.20	T	T	.05	T	.05	.05	....	....	....	T	....	....	T	T	....	....	....	....	....	....	1.39
Sigourney	.12	.10	.06	.40	.66	....	.11	....	....	.05	.20	.18	....	.06	T	....	....	....	....	....	T	T	....	.30	.35	....	....	....	....	....	....	2.59
Sioux Center	.05	....	.20	.20	.10	....	....	....	....	.20	.05	T	....	T	....	.10	....	....	....	....	T	T	T	T	....	T	....	....	....	....	....	0.90
Sioux City	.31	.02	.10	.24	.04	.01	T	....	....	.05	.04	.02	.07	.03	....	.01	....	....	....	....	T	T	.01	.08	....	T	T	.01	....	T	....	1.04
Stockport	.15	.05	.01	.64	.70	T	.14	....	....	.08	.02	.21	.01	.02	T	T	....	....	....	T	....	T	....	.30	.24	....	T	T	....	....	....	2.57
Storm Lake	.21	....	....	.04	.24	....	....	....	....	....	.13	.03	....	....	....	....	....	....	....	....	....	.02	....	.09	.11	....	....	.02	....	....	....	0.89
Thurman	T	.64	.28	.23	.05	.03	T	....	....	.15	....	.12	T	.05	....	T	....	....	....	....	T	T	T	.40	.02	....	T	.10	....	....	....	2.07
Tipton	.08	....	....	....	1.18	*	.12	....	....	*	*	.47	T	T	T	....	....	....	....	....	T	....	....	*	1.38	....	....	T	....	....	....	3.23
Toledo	....	.40	.12	.34	.85	.20	....	....	....	.30	.20	.20	....	....	....	.05	....	....	....	....	....	....	....	.40	.40	....	....	....	....	....	....	2.96
Wapello	.03	.04	....	.21	.90	....	.19	....	....	T	.32	.22	.06	.01	....	T	....	....	....	....	T	T	....	.24	.26	....	....	....	....	....	....	2.48
Washington	.35	....	.06	....	.78	.08	....	....	....	.06	....	.35	.03	.06	....	....	....	....	....	....	T	....	....	*	.80	....	....	....	....	....	....	2.57
Washta	.30	.05	.10	.20	.05	T	....	....	....	.10	T	.05	....	T	....	T	....	....	....	....	T	T	....	.20	T	....	T	....	....	....	....	1.05
Waterloo	.18	T	.43	....	.53	....	.03	....	....	.36	T	.19	....	....	T	T	....	....	....	....	.17	....	....	.66	....	T	T	....	....	....	....	2.55
Waukee	.18	T	.55	.41	.05	.10	T	....	....	.07	.07	.25	T	T	T	T	T	....	....	....	.04	T	....	.49	.06	....	T	T	....	....	....	2.30
Waverly	.17	.05	.05	.10	.41	T	T	....	....	.25	T	.20	....	....	....	.10	....	....	....	T	.12	T	....	.50	.30	.04	T	....	....	....	....	2.29
Webster City	T	.21	T	.13	.20	.14	....	....	....	.60	.60	T	....	T	....	T	....	....	....	....	.05	T	....	.40	.40	....	T	T	....	....	....	2.73
West Bend	.08	.22	.01	*	.25	....	....	....	....	.03	T	.15	....	....	....	.10	....	....	....	....	.05	T	....	T	T	....	....	....	....	....	....	0.89
Whitten	.21	T	.13	.45	.10	....	T	....	....	.30	....	....	....	T	....	T	....	....	....	....	.10	....	....	.50	....	....	....	....	....	....	....	1.79
Winterset	.37	.05	.40	.10	T	T	.10	....	....	.08	T	.10	T	.10	....	T	....	....	....	....	T	T	....	.65	.10	....	T	....	....	....	....	2.05
Woodburn	.23	....	.16	.40	T	.10	.20	....	....	.10	.25	.05	....	.05	T	T	....	....	....	....	.05	T	....	.35	.15	....	T	....	....	....	....	2.09
Zearing	.09	.09	.25	.30	.40	....	.20	....	....	.20	.20	.02	....	....	....	.05	....	....	....	....	.20	....	....	.70	.30	....	....	....	....	....	....	3.00

TOTAL PRECIPITATION, DECEMBER, 1909.



SCALE OF SHADES—IN INCHES

Less than 2	2 to 4	4 to 6	6 to 8	More than 8

APPENDIX.

ANNUAL SUMMARY, 1909

GENERAL SUMMARY

The mean temperature was very nearly normal, there being an excess of only 0.1°; but the average snowfall was considerably above the normal of the past twenty years. The average snow fall was greater than ever before recorded since state-wide observations began in 1890, and the average precipitation has been exceeded only once, in 1901, during that time. January, February, June and November gave an excess of temperature and precipitation. There was a deficiency of both temperature and precipitation during March, May and October, while April, July, September and December gave a deficiency of temperature and an excess of precipitation. August gave an excess of temperature and a deficiency of precipitation, and both the temperature and precipitation were below normal in October. The spring and early summer months were cool and wet; but August was hot and dry. The most notable characteristics of the weather during 1909 were the continuously cold weather during the fore part of the planting season; the excessive rains in June and the first half of July; the droughty conditions in August; the high temperature and excessive precipitation in November; and the severe cold and abnormally heavy snowfall in December.

Barometer.—The mean pressure of the atmosphere for the year 1909 was 30.02 inches. The highest observed pressure was 30.71 inches, at Dubuque, Dubuque county, on January 7th, and at Sioux City, Woodbury county, on January 30th. The lowest pressure observed was 29.06 inches, at Davenport, Scott county, on January 29th. The range for the State was 1.65 inches.

Temperature.—The mean temperature for the State was 47.6°, which is 0.1° above the normal for the State. The highest temperature reported was 103°, at Bloomfield, Davis county on August 15th and at Baxter, Jasper county on August 16th. The lowest temperature reported was —26°, at Inwood, Lyon county, on February 15th and December 29th. The range for the State was 129°.

Precipitation.—The average amount of rain and melted snow for the year as shown by complete records of 97 stations, was 40.01 inches, which is 7.36 inches above the normal, and 4.75 inches above the average amount in 1908. The greatest amount recorded at any station for the year was 53.48 inches, at Perry, Dallas county. The least amount recorded was 27.20 inches, at Buckingham, Tama county. The greatest monthly rainfall was 13.30 inches, at Afton, Union county, in June. The least monthly precipitation was a trace, at Fairfield, Jefferson county, in August. The greatest amount in any 24 consecutive hours was 6.50 inches, at Allerton, Wayne county, on July 6th. The average amount of snowfall was 46.8 inches. The greatest amount of snowfall, unmelted, at any station during the year was 90.8 inches, at Algona, Kossuth county. The greatest monthly snowfall was 32.0 inches, at Perry, Dallas county, and the greatest 24-hour snowfall was 20.0 inches, at Humboldt, Humboldt County, on March 7th. Measurable precipitation occurred on an average of 104 days.

Wind.—The prevailing direction of the wind was south. The highest velocity reported was at Sioux City, Woodbury county, 72 miles per hour, from the northwest, on January 29th.

Sunshine and Cloudiness.—The average number of clear days was 152; partly cloudy, 92 and cloudy, 121, as against 176 clear days; 96 partly cloudy; and 94 cloudy days in 1908. The duration of sunshine was below normal in all but the summer months when it was slightly above the seasonal average.

THE WEATHER BY MONTHS

From a climatic standpoint, 1909 was, in many respects, a year of extremes and gave many adverse conditions to the agriculturist, especially during the planting, growing and harvesting season.

During January, the temperature and precipitation were above the normal, although seasonable temperature prevailed during the first half and the last three days of the month. The coldest periods of the month were between the 5th and 12th and 29th and 31st, when the minimum temperatures were near or below zero. The coldest day was the 6th, when the minimum temperature ranged from 10° below zero in the southern counties to 25° below zero in several of the northern counties. From the 13th to the 28th the weather was unseasonably warm, especially on the 23d, when the highest temperature ever recorded in January occurred at several stations in the southeastern part of the State. The last three days of the month were cold, with minimum temperatures generally below zero. There was considerable more precipitation than normal, notwithstanding the fact that but little moisture fell prior to the 28th. Small amounts of snow fell between the 4th and 7th, and on the 15th and 16th. Light rain fell between the 18th and 23d, with an excessive amount of foggy weather. Light rain began on the 28th, increasing to heavy rain in the evening, and turning to snow during the night. The storm was attended by extremely high northwest winds, which continued from the night of the 28th to the morning of the 30th, making it one of the worst blizzards experienced in this section for many years. The high winds caused the snow to drift badly, and blew down hundreds of windmills and thousands of telegraph and telephone poles. All street car and railroad train service was practically abandoned, and many head of live stock perished from cold and exposure. The storm was so fierce that live stock would not face the wind and flying snow to seek shelter. The maximum velocity of the wind during the storm, ranged from 31 miles an hour at Dubuque to 72 miles an hour at Sioux City, and was probably higher on the prairies.

February was much warmer than usual, except over the northwestern counties, where the temperature was below zero on several days, and the monthly minimum ranged from 18° to 26° below zero; but over the larger part of the State the month was very mild, many stations reporting a monthly minimum temperature above zero. It was the first time in 27 years that sub-zero temperatures were not recorded during February at Des Moines and Dubuque. The weather was remarkably warm from the 1st to the 9th, and moderately warm from the 16th to the 23d, and from the 26th to the close of the month. The highest temperature was recorded at most stations on the 4th; the coldest temperature being recorded on the 15th. Another cold period occurred on the 24th and 25th. The average precipitation was generally above the normal, and rain or snow fell frequently, although the daily amounts were not large. The worst storm of the month was on the 9th, when the second severe blizzard of the winter occurred. This storm was especially severe in the northwestern counties, where the snowfall was heavy and the wind velocity was over 50 miles an hour. The snow drifted badly and caused a complete suspension of all railroad and street car traffic. Many deep snow drifts, caused by the storm, were still visible in the northern counties at the close of the month. Another storm with blizzard characteristics occurred on the 14th, but was not heavy enough to cause much damage except to again fill up the cuts that had been shoveled through the drifts caused by the previous storm. The alternating thawing and freezing weather was not favorable to fall grains, clover and alfalfa.

The first six days of March were mild and pleasant, but most of the remainder of the month was cold with frequent snow and rain storms, accompanied by thunder and lightning and brisk to high winds. The snowfall in the central and northern counties was exceptionally heavy, and exceeded all previous records for March at several stations. The low temperatures also broke all former records for the second decade of the month in the north central counties, and the severity of the thunder during the snow storm on the 9th was phenomenal.

The average temperature for the month was slightly below the normal, yet at Des Moines there was an average daily deficiency of six degrees during the last 23 days. The only days between the 18th and the 31st on which there was an excess were the 22d, 23d and 24th. The 23d was the warmest day of the month, when the

maximum temperatures ranged from 45° in the northern to 71° in the southern counties. The lowest temperature for the month at all stations was recorded on the 17th and was generally below zero in the northern districts; the lowest being 15° below zero. The average precipitation for the State was slightly below normal for March, but the average snowfall was considerably above the normal and was excessive in many localities. There was good sleighing from five to ten days in the northern districts, which was unusual for that time of the year. There had not been sufficient growth at the close of the month to determine whether or not the alternately freezing and thawing weather during the winter had been injurious to clover, winter grains and alfalfa.

April was abnormally cold and cloudy with an excessive amount of precipitation in all but the extreme western counties where there was a slight deficiency. Freezing temperatures occurred in all districts every week during April, and the month closed with the temperature at freezing or below in all parts of the State; but the average temperature for the month was 2.3° higher than the average for April, 1907, which was the coldest April on record and the only one colder than the past month. The precipitation, like the cold, was almost continuous, there being at least a trace of rain or snow in some part of the State on every day during the month, and the average snowfall was greater than the average of any preceding April since 1896. Thunder storms accompanied by hail and wind squalls were frequent, and in many cases were quite destructive to property. Under the adverse conditions, field work was retarded and was, at the close of the month, about two weeks behind the average of former years. Field work was especially backward in the east central and southeastern districts, where rain or snow fell almost daily from the 12th to the 30th, and the seeding of oats in those districts was only about three-fourths finished at the close of the month. A large acreage intended for oats was abandoned in all parts of the state, thereby reducing the acreage of that crop 6 per cent below the acreage of 1908. The acreage of wheat was, however, increased. Wheat and early sown oats were up at the close of the month, but growing very slowly on account of the frequent freezing weather. No blossoms appeared on fruit trees except in the extreme southern counties, which was considered to be a favorable indication for a good fruit crop.

The cool wave that spread over the State at the close of April continued during the first three days of May, and caused freezing temperatures on one or more of those days in all parts of the State, and was attended, on the first day, by snow flurries over the central and northern counties. The average temperature for the month was considerably below the normal and was the coldest for May, with one exception, 1907, since 1893. The night temperatures continued below the normal most of the time until the 29th; but there were several days when the day temperatures were unusually high, especially the 5th when the maximum was 90° or above in all but the extreme southeastern counties. The precipitation for the State at large was slightly below the normal, but there was a slight excess over the district comprising the three northern tiers of counties. From the 3d to the 11th, and from the 16th to the 23d the weather was generally dry, but showers were frequent during the remainder of the month with an occasional heavy downpour, accompanied in several localities by hail and wind squalls, which did some damage. On the whole, the month was favorable for farm operations and good progress was made in field work. Corn was practically all planted by the close of the month, except on low and wet ground, and cultivation was general. Grass and small grain made rapid growth during the latter half of the month, and was nearly up to the average for the last of May. The continued cold weather during April and the fore part of May kept the fruit buds dormant until the middle of the month, thereby escaping any material damage by the late frosts. The average date for all kinds of fruit trees to be in full bloom at Des Moines is about May 5th, but they were not in full bloom this year until the 16th.

The average temperature for June was only a fraction of a degree above the normal, but the rainfall was considerably above the average for June. The first week was moderately warm, there being a daily excess of about 3 degrees; but from the 8th to the 19th the temperature was below the normal, the lowest being on the 15th. The last decade of the month was warmer than usual. There was an excess of rainfall in all districts of the State, the greatest excess being over Union and the adjacent counties, where the monthly amounts ranged from 8 inches to over 13 inches. It was also heavy over the Missouri Divide and the extreme northwestern counties. Showers occurred at some station of the state on every day of the month except the 19th but yet there were on an average, 12 clear days. Thunder and lightning accompanied most of the showers, but wind squalls and severe hail storms were not as frequent as usual. The frequent and excessive rains caused high water in all rivers and creeks, especially in the western districts. The flat and bottom lands were flooded two or three times, and a large acreage of corn was finally abandoned after being replanted once or twice. The surplus moisture also interfered with the cultivation of corn on ground not thoroughly drained and many fields were quite foul; but on high and well drained ground corn made very satisfactory progress and was generally clear. The condition of small grain, grass, potatoes and garden truck improved during the month, but there was a decline in the condition of fruit.

During July, showers were heavy and frequent from the 3d to the 12th, and the temperature was unusually low from the 3d to the 7th; but, as a whole, July was one of the best harvest months on record. The latter half of the month was characterized by moderately warm weather, light and widely scattered showers, a high percentage of sunshine and the rarity of thunder storms and wind squalls. The rainfall was especially heavy over the southern, central and western districts during the first decade, and caused high water in all creeks and rivers within the area of heavy rainfall. Bottom lands were flooded for the third time this year and many thousand acres had to be abandoned. The heavy rains also prevented haying and in the southern districts, where the small grain was ready for the harvester, the ground was too wet and soft to run machinery. After the 12th the weather changed suddenly from wet and cool to comparatively dry and warm. During the second decade much of the belated corn was given some cultivation; but owing to its rapid growth, due to the higher temperature, the stalks soon became too high to permit further cultivation and many fields were laid by in a weedy condition. The third decade was the warmest part of the month, the 29th being the warmest day, when the maximum temperatures ranged generally from 90° to over 100°. During this period the showers continued light and scattered, and at the close of the month the surface of the ground was dry over the larger part of the State, and the crops in the eastern districts were beginning to feel the effects of the drought. Exceptionally rapid progress was made during the latter half of the month in haying and harvesting, and most of the hay and grain crops were secured in excellent condition. Clover made rapid advancement, and nearly all of the early planted fields were in full tassel and earing nicely at the close of the month, and the late planted fields were improving. Some threshing was done before the close of the month. Pastures and potatoes were still in good condition at the end of the month, but they, as well as corn, were needing more rain.

August, 1909, will be noted for its uniformly high temperatures, the small number of cloudy days, and, over the larger part of the State, the small amount of rainfall. Both the day and the night temperatures were high until the 28th, when a cool wave passed over the State, resulting light frosts on low ground on the morning of the 29th over the northern and, in a few localities, in southern districts, but no damage was done to vegetation. The maximum temperatures were up to or above 90° on ten days in northern and 21 days in southern counties, and the average of the monthly maximum temperatures was 96°. The rainfall was deficient in all but the northeast and extreme north central counties; yet at least a trace of rain fell in some part of the State on every day of the month except the 19th and 20th. During the second decade, showers were frequent and the rainfall heavy over the northeast and north central districts; but over the remainder of the State, the showers were extremely local, and the rainfall generally very light. The monthly rainfall ranged from a trace in Jefferson county to 8.21 inches in Chickasaw county. Droughty conditions prevailed during the entire month over the southern half of the State, and the condition of the corn crop deteriorated from 10 to 28 per cent; but the early planted corn, on rich soil and well cultivated fields withstood the drought remarkably well and much of it was well up to the average of past years at the close of the month. The dry, cloudless weather was, however, favorable for stacking and threshing grain, and that work progressed rapidly. Shock threshing was practically completed at the close of the month.

The hot and droughty conditions prevailing at the close of August were broken by lower temperatures on the first and copious and general showers on the 2d of September. From the 2d to the 14th showers occurred in some part of the State every day, and were general and the rainfall heavy between the 12th and 14th. Another period of showery weather prevailed between the 19th and 24th, but the last six days were generally clear and pleasant, although the night temperatures were quite low. The average temperature was below the normal, but the maximum temperatures ranged from 80° to 87° over the northern, and from 85° to 94° over the southern districts, between the 9th and 13th and from the 17th to the 21st. The lowest temperature occurred on the 27th, when the minimum was below the freezing point at several stations in the northern

counties. Light frost occurred on low ground in the extreme northern part of the State on the 1st and 5th and in all parts of the State on the 23d, 24th and 27th. On the 27th the frost was heavy on low ground over the northern and northeastern counties, but little or no damage was done, except to tender vines. The rains during the first half of the month revived the pastures and softened the ground sufficiently to permit fall plowing to be resumed, and excellent progress was made in plowing and seeding fall grains during the remainder of the month. The rains were beneficial to the late planted corn and the dry weather during the last six days caused the early corn to mature rapidly, and nearly 90 per cent of the crop was beyond danger of frost by the end of the month. High winds on the 12th did much damage in blowing down and breaking corn stalks. The yield of potatoes and the second crop of hay were light on account of the August drought.

The mean temperature for October was slightly below the normal, the average daily deficiency being 2.2°; but between the 1st and 9th and the 29th and 31st the maximum temperatures ranged from 70° to 89° in the northern and from 75° to 95° in the southern districts, the highest occurring generally on the 2d. During the past 19 years there have been five colder Octobers, but there are no records of as low temperature during the first 15 days of October as was registered during that period in October, 1909 when the minimum temperatures ranged from 10° to 20° over the northern and from 15° to 23° over the southern counties. The ground was frozen to such an extent that potatoes remaining in the ground were considerably damaged. Cabbage and turnips were also injured, and over the southern portion of the State many bushels of apples were frozen on the trees. The precipitation, while below the normal for the month, was general from the 8th to the 12th, and the rainfall was mixed with light snow flurries on the 11th and 12th, which is much earlier than usual for the first snow of the season. Rains were also general between the 20th and 23d and on the afternoon and evening of the 31st. Fall plowing was continued and the growth of winter grains was satisfactory. Corn husking was begun about the middle of the month, but owing to the excessive amount of moisture in the cob, it could not be cribbed in large quantities.

November, 1909, will go on record as having been the wettest and one of the warmest Novembers since state-wide observations began in 1890. Both the temperature and precipitation were above the normal at every station in the State, which is unprecedented for that season of the year. The average temperature for the State was 42.4° which is 6.5° above the normal and the highest average for November during the past 19 years, except in 1899, when the average was 43.9°. Maximum temperatures ranged from 66° to 77° over the northern and from 74° to 84° over the southern counties between the 4th and 6th, which were the warmest days in the month. The only cold periods of the month were on the 17th and 18th and the 22d and 23d; the lowest temperature occurring generally on the 18th, when the minimum ranged from —4° to 12° over the northern district and from 6° to 18° over the southern district. The 4th, 18th and 19th were the only days in the month on which rain or snow did not fall in some part of the State. The heaviest precipitation occurred between the 11th and 16th, but the amounts were heavy on the 1st, 7th, 22d, 23d and 28th, and the monthly amounts exceeded all former records for November. The amounts of snowfall over the northern counties also exceeded all November records. Heavy snow fell on the 15th, 16th, 22d and 23d, and the monthly amounts ranged from 8 inches to 29.5 inches in the northern district. The frequent and heavy rains and the frostless weather caused high water in all rivers and creeks, many of which, especially in the central and western districts, were at flood stage and overflowed the bottom lands, which is also an unprecedented condition for November. The rains interfered with the corn harvest and made the roads so muddy that they were almost impassable. Much of the corn was lying on the ground and the grain was seriously damaged by the excessive moisture. From 35 to 40 per cent of the corn crop was still in the fields at the close of the month. Corn in cribs was surcharged with mosture, and the warm, moist weather caused it to mold badly. The excessive rains have, however, been beneficial to grass, alfalfa and fall grains, all of which were in good condition at the close of the month. The rains also assured an abundant water supply for the winter. Fall plowing was still progressing at the close of the month.

December, 1909, will be noted for its low average temperature, excessive cloudiness and the frequency of snow storms. It was the coldest December since state-wide observations began in 1890 and probably the coldest since 1876. The average was 12.1° lower than the average for December, 1908, and 2.9° lower than that for any other December since 1890. The low average was not due, however, to extremely low minimum temperatures, but to continuously cold weather. The first four days were moderate, but from the 5th to the 30th the maximum temperatures were below the freezing point, except on one or two days, and the minimum temperatures were near or below zero. At many stations, the minimum temperature was below zero on a greater number of days than ever before recorded during the month of December. The lowest temperature was recorded generally on the 29th. The average precipitation was .99 inch above the normal and has been exceeded in December only twice during the past 20 years. Rains were general from the 1st to the 3d or 4th, but after the latter date snow storms were of frequent occurrence. The amounts were generally small, except on the 24-25th, when they ranged from 2 to 12 inches of dry snow, the greatest amounts being reported from the central and east central districts. At least a trace of precipitation fell at some station in the State on every day of the month except the 31st and the number of days with .01 inch or more of precipitation exceeded all former records for December at several stations. The average total snowfall for the State was 13.7 inches, and the ground was covered with snow from the 3d in the northern and from the 5th in the southern and eastern districts until the close of the month. There was more good sleighing than for many years so early in the winter. The snow has afforded good protection to winter grains, meadows and alfalfa, and they were in excellent condition at the end of the year. The deep snow and the severe cold weather, however, put a stop to all drainage work and prevented the completion of corn husking. About 25 to 30 per cent of the corn was still in the fields on December 31st, and much of it was covered with ice and snow. The heavy snowfall on the 24-25th delayed all freight and the Christmas passenger traffic.

The year, as a whole, though erratic as regards climatic conditions, was a profitable one to the farmer and stock raiser, notwithstanding the fact that the yields of farm products were not as large as usual.

COMPARATIVE DATA FOR THE STATE—ANNUAL.

	TEMPERATURE					PRECIPITATION			
	Mean Annual	Highest	Date	Lowest	Date	Annual	Greatest Annual	Least Annual	Average Snow Fall
1890	48.0	110	July 13	-27	January 22	31.28	45.74	16.00	....
1891	47.3	106	August 9	-31	February 4	32.90	49.05	23.48	....
1892	46.6	104	July 11	-38	January 19	36.58	48.77	24.78	31.7
1893	45.7	102	July *13	-36	January 14	27.59	33.27	19.19	36.2
1894	49.7	109	July 26	-37	January 25	21.94	29.81	15.65	18.4
1895	47.2	104	May 28	-33	February 1	26.77	35.25	18.57	25.5
1896	48.6	104	July 3	-20	January 4	37.23	51.60	28.68	19.8
1897	47.9	106	July *23	-30	January 25	26.97	36.18	20.21	38.5
1898	47.7	103	August 20	-25	December 31	31.34	55.47	19.51	38.6
1899	47.5	104	September 6	-40	February 11	28.68	42.06	21.79	23.2
1900	49.3	103	August 3	-27	February 15	34.15	47.33	25.05	26.3
1901	48.9	113	July 22	-31	December 15	24.41	37.69	16.35	37.2
1902	47.7	98	July 30	-31	January 27	43.82	58.80	20.14	27.7
1903	47.2	101	August 24	-27	December 13	35.39	50.53	26.41	19.1
1904	46.3	100	July 17	-32	January 27	28.51	38.93	19.34	30.3
1905	47.2	104	August 11	-41	February 2	36.56	52.26	24.66	37.9
1906	48.4	102	July 21	-32	February 10	31.60	44.34	20.63	32.5
1907	48.0	102	July 5	-31	February 5	31.61	43.90	19.93	24.3
1908	49.5	101	August 3	-18	January 29	35.26	49.98	24.11	20.7
1909	47.6	103	August *15	-26	February *15	40.01	53.48	27.20	46.8

* And other dates.

CLIMATOLOGICAL DATA FOR THE YEAR 1909

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES, FAH.					PRECIPITATION, IN INCHES						Total snowfall, unmelt'd	SKY				Prevailing direction of Wind
				Mean	Highest	Date	Lowest	Date	Length of record, years	Total for the year	Greatest monthly	Month	Least Monthly	Month		No. rainy days	No. clear days	No. partly cloudy days	No. cloudy days	
Afton	Union	1,212	16	49.5	99	Aug. 12	-14	Jan. 6; Dec. 29	16	47.48	13.30	June	0.80	Feb.	32.0	92	127	113	125	sw
Albia	Monroe	959	12	48.2	97	Aug. 27	-14	Jan. 6	12	43.78	7.06	June	1.04	Aug.	22.8	114	145	96	124	sw
Algona	Kossuth	1,213	36	45.0	93	July 2; Aug. 15	-22	Jan. 6	37	42.07	8.04	Nov.	1.14	Mar.	90.8	100	197	53	115	s
Allerton	Wayne	.....	8	50.2	99	Aug. 15	-13	Jan. 6; Dec. 29	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alta	Beuna Vista	1,513	13	44.5	94	May 5	-22	Jan. 6	19	38.14	6.54	May	1.15	Oct.	58.6	130	132	132	101	s
Alta [near]	Beuna Vista	.....	1	.....	.....	.....	.....	.....	15	41.01	8.37	July	1.05	Jan.	64.5	125	.....	.....	.....	.....
Alton	Sioux	1,305	5	45.5	98	July 2	-20	Jan. 6	5	36.48	6.61	July	0.92	Mar.	74.2	103	200	61	104	nw
Amana	Iowa	721	32	48.2	96	Aug. 14	-17	Jan. 6	34	40.34	6.81	April	1.00	Aug.	32.3	114	140	115	110	se
Ames	Story	926	30	48.1	97	Aug. 14	-15	Jan. 12	34	37.19	6.12	April	0.52	Aug.	.....	101	.....	.....	.....	.....
Atlantic	Cass	1,164	19	48.4	98	Aug. 15*	-16	Jan. 6; Dec. 29	18	46.58	9.08	June	0.44	Aug.	41.0	109	96	111	158	sw
Audubon	Audubon	1,301	16	46.4	97	Aug. 10	-19	Jan. 12	16	46.25	8.57	Nov.	0.41	Aug.	58.6	108	167	56	142	.....
Baxter	Jasper	998	10	47.4	96	Aug. 14	-18	Jan. 6	10	39.64	6.49	April	0.71	Aug.	43.6	135	184	76	105	nw
Bedford	Taylor	.....	10	49.9	103	Aug. 16	-17	Dec. 29	10	39.45	7.49	July	0.93	Feb.	26.1	117	182	54	129	se
Belle Plaine	Benton	828	20	47.3	97	Aug. 14	-19	Jan. 6	20	37.63	6.48	April	1.05	Aug.	61.3	114	133	121	111	s
Bloomfield	Davis	.....	3	.....	103	Aug. 15	-13	Jan. 6; Dec. 30	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	nw
Bonaparte	Van Buren	.....	19	50.3	98	Aug. 13*	-15	Dec. 30	19	39.24	7.35	July	0.17	Aug.	18.6	93	.....	.....	.....	.....
Boone	Boone	1,134	5	46.6	96	Aug. 14	-18	Jan. 6	5	45.08	7.67	Nov.	0.86	Aug.	.....	116	.....	.....	.....	.....
Britt	Hancock	1,236	13	.....	94	Aug. 11	-22	Jan. 6	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Buckingham	Tama	.....	.....	.....	.....	.....	.....	.....	10	27.20	5.22	April	0.98	Feb. Mar.	.....	.....	.....	.....	.....	.....
Burlington	Des Moines	544	12	50.7	100	Aug. 14*	-13	Dec. 30	14	40.83	5.46	July	0.87	Aug.	36.6	111	201	44	120	s
Carroll	Carroll	1,265	20	45.4	95	Aug. 14	-19	Jan. 6; Dec. 28	20	44.92	9.79	June	0.30	Aug.	47.9	88	172	60	133	.....
Cedar Rapids	Linn	733	28	47.8	98	Aug. 14	-18	Jan. 7	28	34.14	6.36	April	1.16	Aug.	24.3	83	151	89	125	w
Chariton	Lucas	1,042	15	49.1	97	July 29; Aug. 15	-15	Jan. 6	15	39.41	6.33	June	0.82	Aug.	26.0	77	169	81	115	se
Charles City	Floyd	1,015	19	.....	93	July 2; Aug. 4	.....	.....	19	.....	6.88	Aug.	.....	.....	.....	.....	.....	.....	.....	.....
Clarinda	Page	1,009	20	49.0	102	Aug. 15	-14	Dec. 30	20	46.27	10.39	June	0.68	Feb.	35.5	117	174	59	132	s
Clear Lake	Cerro Gordo	1,241	12	46.0	97	July 29	-24	Jan. 6	12	.....	.....	.....	.....	.....	.....	.....	173	25	167	s
Clinton	Clinton	593	42	.....	95	July 29; Aug. 14	.....	.....	43	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Columbus Jct.	Louisa	595	9	50.2	96	Aug. 14*	-14	Jan. 6	9	.....	.....	.....	.....	.....	.....	.....	211	71	83	se
Corning	Adams	1,117	18	48.4	97	Aug. 15*	-17	Dec. 29	18	48.66	10.11	June	0.81	Feb.	40.5	90	.....	.....	.....	se
Corydon	Wayne	1,101	17	50.5	98	Aug. 15	-14	Jan. 6	17	42.04	7.34	July	0.49	Aug.	.....	112	173	67	125	se
Creston	Union	1,312	5	48.0	100	Aug. 12*	-16	Dec. 29	5	47.38	12.17	June	0.94	Mar.	.....	104	191	44	130	se
Cumberland	Cass	.....	.....	.....	.....	.....	.....	.....	.....	39.17	6.92	June	0.50	Aug.	47.0	89	223	43	99	sw
Davenport	Scott	606	38	49.7	96	July 29; Aug. 14	-15	Jan. 6	39	35.64	6.02	April	1.60	Mar.	29.9	132	127	108	130	e
Decorah	Winneshiek	875	17	.....	100	Aug. 2	-23	Jan. 6	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Delaware	Delaware	.....	19	45.4	94	July 29	-22	Jan. 6	19	35.31	7.91	June	0.68	Feb.	31.1	95	.....	.....	.....	se
Denison	Crawford	1,180	16	46.9	94	Aug. 14*	-18	Jan. 6	16	41.62	8.13	Nov.	0.28	Mar.	.....	114	.....	.....	.....	.....
Des Moines	Polk	861	31	49.0	96	July 29; Aug. 14	-15	Jan. 6	31	36.03	7.03	June	0.14	Aug.	53.5	125	93	85	187	sw
De Soto	Dallas	866	10	49.0	97	Aug. 14*	-16	Jan. 6	10	35.30	6.37	June	0.74	Aug.	.....	87	196	37	132	sw
Dows	Wright	1,142	10	.....	95	Aug. 14	-21	Jan. 6	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Dubuque	Dubuque	639	37	47.5	96	July 29	-19	Jan. 6	37	35.01	7.40	April	1.25	Mar.	44.9	132	120	97	138	s
Earlham	Madison	.....	8	48.6	98	Aug. 15	-16	Jan. 12	8	.....	.....	.....	.....	.....	51.0	.....	.....	.....	.....	se
Elkader	Clayton	727	29	45.7	102	July 29; Aug. 2	-21	Jan. 6	31	34.17	7.80	April	1.02	Feb.	.....	89	172	101	92	se
Elliott	Montgomery	.....	5	48.9	95	Aug. 12*	-16	Dec. 29	5	44.16	8.44	July	0.54	Aug.	37.8	81	176	104	85	nw
Elma	Howard	.....	1	.....	93	Aug. 2	-24	Jan. 6	1	34.57	6.03	Nov.	0.85	Mar.	.....	106	90	187	88	se
Estherville	Emmett	1,298	15	43.4	94	July 2; Aug. 11*	-22	Jan. 6	15	37.67	7.01	June	0.65	Mar.	61.5	92	172	17	177	nw
Fairfield	Jefferson	780	18	50.3	96	Aug. 14	-13	Jan. 6; Dec. 30	26	42.85	7.61	July	T	Aug.	19.8	103	.....	.....	.....	s
Fayette	Fayette	.....	20	44.9	97	July 2; Aug. 2	-22	Jan. 6	20	.....	.....	.....	.....	.....	61.7	.....	.....	.....	.....	.....
Forest City	Winnebago	1,226	16	44.1	94	July 2; Aug. 11*	-24	Jan. 6	16	37.79	7.21	Nov.	0.75	Oct.	73.0	87	163	72	130	sw
Fort Dodge	Webster	1,126	10	45.5	97	Aug. 27	-19	Jan. 16	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Fort Madison	Lee	.....	51	.....	.....	.....	.....	.....	61	43.82	7.79	June	0.18	Aug.	.....	70	102	112	151	s
Gilman	Marshall	.....	.....	.....	.....	.....	.....	.....	17	38.87	6.18	April	0.50	Mar.	.....	88	.....	.....	.....	.....
Grand Meadow	Clayton	1,180	19	44.6	98	July 29	-25	Jan. 6	19	37.86	7.67	April	1.05	Feb.	63.5	113	95	142	128	sw
Greene	Butler	.....	12	46.2	96	Aug. 2	-20	Jan. 6	12	38.44	7.54	Nov.	0.87	Feb.	.....	110	76	138	151	w
Grinnell	Poweshiek	1,023	18	49.0	101	Aug. 14	-17	Jan. 6	18	36.32	6.00	June	0.74	Feb.	.....	100	.....	.....	.....	sw
Grundy Center	Grundy	976	19	46.9	96	July 29	-21	Jan. 6	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	s
Guthrie Center	Guthrie	1,077	15	48.1	98	Aug. 14	-17	Jan. 6	15	44.34	7.78	Nov.	1.26	Aug.	52.3	124	177	78	120	sw
Hampton	Franklin	1,155	20	46.2	95	May 5; Aug. 15	-22	Jan. 6	20	42.54	6.74	Nov.	1.87	Feb.	76.9	112	100	164	101	nw
Hancock	Pottawattamie	1,113	5	48.7	98	Aug. 15*	-17	Dec. 29	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harlan	Shelby	1,192	11	47.1	97	Aug. 16	-18	Dec. 29	11	40.78	7.19	Sept.	0.88	Aug.	41.4	109	95	138	132	s
Hopeville	Clarke	.....	18	49.4	97	Aug. 15	-14	Jan. 6; Dec. 29	19	44.43	8.83	June	1.49	Aug.	.....	116	87	143	135	s
Humboldt	Humboldt	1,095	19	.....	98	Aug. 2	-20	Jan. 6	22	48.27	11.48	Nov.	0.75	Aug.	80.0	94	223	33	109	nw
Independence	Buchanan	921	46	46.4	96	July 29	-23	Jan. 6	43	30.05	5.84	April	0.48	Oct.	.....	73	185	71	109	nw
Indianola	Warren	969	19	49.4	96	Aug. 14	-15	Jan. 6	19	32.48	5.76	June	0.97	Aug.	39.8	111	118	71	176	se
Inwood	Lyon	1,474	6	44.6	97	July 2	-26	Feb. 15; Dec 29	6	37.08	8.53	June	0.57	Mar.	71.4	131	187	82	96	s
Iowa City	Johnson	683	50	48.2	100	Aug. 13*	-19	Jan. 6	47	41.10	7.21	April	1.59	Oct.	.....	113	160	49	156	s
Iowa Falls	Hardin	1,170	17	44.7	93	July 2; Aug. 11*	-21	Jan. 6	17	36.09	5.70	Nov.	1.19	Aug.	66.2	105	179	33	153	nw
Jefferson	Greene	.....	7	.....	96	Aug. 11*	.....	.....	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Keokuk	Lee	614	39	52.3	98	Aug. 15	-10	Jan. 6	38	39.28	5.46	July	0.68	Aug.	19.6	106	156	112	97	se
Keosauqua	Van Buren	644	18	50.0	98	Aug. 15*	-14	Dec. 30	18	37.58	6.94	July	0.23	Aug.	24.5	108	76	132	157	.....
Knoxville	Marion	920	15	.....	96	July 29	-14	Jan. 6	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lacona	Warren	.....	.....	.....	.....	.....	.....	.....	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

CLIMATOLOGICAL DATA FOR THE YEAR 1909—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES, FAH.					PRECIPITATION, IN INCHES						Total snowfall, unmelt'd	SKY				Prevailing direction of wind
				Mean	Highest	Date	Lowest	Date	Length of record, years	Total for the year	Greatest monthly	Month	Least monthly	Month		No. rainy days	No. clear days	No. partly cloudy days	No. cloudy days	
Lamoni	Decatur		3	50 5	100	Aug. 12	-13	Dec. 29	3	49.54	11.78	July	0.37	Aug.	29.5	133	201	17	147	se
Larrabee	Cherokee	1,266	19	44.8	97	July 2	-22	Jan. 6	20	39.47	7.32	June	0.48	Feb.	75.0	104				
Le Claire	Scott								10	39.36	6.29	April	1.63	Mar.	29.3	121				
Le Mars	Plymouth	1,224	14	45.4	92	May 5	-19	Jan. 6	14	39.01	7.22	June	0.41	Jan.		103	127	136	102	nw
Lenox	Taylor	1,250	15	48.9	96	Aug. 16	-17	Jan. 6 Dec. 29	15	46.26	9.86	July	0.30	Feb.	25.3	109	208	57	100	s
Leon	Decatur	1,120	8		98	Aug. 15*	-14	Jan. 6 Dec. 29	8	52.74	10.90	July	0.54	Aug.	24.4					
Little Sioux	Harrison		5	48.4	99	Aug. 16	-22	Dec. 29	5	34.22	5.93	Nov.	0.54	Mar.	33.5	97	161	65	139	se
Logan	Harrison		43	48.4	98	Aug. 16	-17	Jan. 12	43	43.26	8.29	Nov.	0.39	Mar.		100	125	152	88	nw
Marshalltown	Marshall	947	18		98	Aug. 14*	-21	Jan. 6	18											se
Mason City	Cerro Gordo	1,132	13	44.0	93	July 2	-22	Jan. 6	13	39.18	6.73	Nov.	1.07	Mar.	52.0	100	117	139	109	nw
Massena	Cass		4	47.9	102	Aug. 12	-17	Dec. 19	4											
Mt. Ayr	Ringgold	1,236	17	50.1	99	Aug. 15*	-14	Dec. 29	17	52.97	12.20	July	1.38	Aug.		125	147	98	120	sw
Mt. Pleasant	Henry	729	29	50.7	94	Aug. 14	-13	Dec. 30	16	38.79	6.39	July	0.21	Aug.	27.8	108	166	103	96	sw
Muscatine	Muscatine									37.62	5.53	Nov.	1.58	Mar.	33.7	115				
New Hampton	Chickasaw	1,169	13	44.2	92	July 22	-24	Jan. 6	13	47.44	9.43	April	0.65	Feb.		100	159	89	117	w
Newton	Jasper		21	49.0	96	Aug. 14	-16	Jan. 6	22	29.55	9.15	April	0.81	Aug.		75	162	91	112	s
Northwood	Worth	1,222	14				-25	Jan. 6	14								165	95	105	nw
Odebolt	Sac	1,356	12	47.3	97	Aug. 14*	-17	Jan. 6	13	38.57	7.77	June	0.44	Aug.		87	201	67	97	
Olin	Jones		12		92	Aug. 15			12											
Omaha, Neb	Douglas	1,040	39	50.0	98	Aug. 12	-13	Jan. 6	39	36.07	7.54	June	0.63	Mar.	38.8	110	102	122	141	s
Onawa	Monona	1,051	10	49.3	97	May 5	-15	Jan. 6	10	37.73	5.80	June	0.83	Mar.	69.1	119	200	43	122	se
Osage	Mitchell	1,184	19	45.5	96	Aug. 1	-24	Jan. 6	23							78	148	75	142	sw
Oskaloosa	Mahaska	843	27	49.4	96	Aug. 14	-13	Dec. 29*	34	41.02	7.05	May	0.12	Aug.		108	193	7	165	sw
Ottumwa	Wapello	649	15						15											
Pacific Jct	Mills	960	11	48.8	98	Aug. 12	-18	Dec. 29	11	43.66	9.74	Nov.	0.65	Aug.	39.6	91	129	167	69	s
Pella	Marion		8		95	Aug. 14			8											
Perry	Dallas		9	47.5	96	Aug. 14	-16	Jan. 6	9	45.48	9.92	June	0.31	Aug.						
Plover	Pocahontas	1,426	13	45.3	97	Aug. 15 May 5	-21	Jan. 6	14	36.22	7.28	Nov.	0.90	Feb. Aug.	78.5	99	202	71	92	se
Pocahontas	Pocahontas		6	44.6	93	July 2 Aug. 27	-20	Jan. 6	6	39.68	7.29	June	0.97	Dec.	65.8	107	147	103	115	s
Ridgeway	Winneshiek	1,215	12	46.1	102	July 29	-25	Jan. 6	12	51.32	9.50	Nov.	1.24	July	90.5	150	154	112	99	s
Rock Rapids	Lyon		11		97	Aug. 29			11											
Rockwell City	Calhoun		13	47.3	97	Aug. 27	-19	Jan. 6	14	47.95	8.90	Nov.	0.05	Aug.		72	205	52	108	
Sac City	Sac		28		94	Aug. 27			34											
St. Charles	Madison	1,070	9	49.7	98	Aug. 16	-15	Jan. 6	9	40.82	7.16	April	0.80	Aug.	42.4	112	176	89	100	nw
Sheldon	O'Brien	1,422	10		101	Aug. 15	-22	Jan. 6	10											
Sibley	Osceola	1,212	17	42.8	94	May 5 July 2	-24	Jan. 6	17	32.11	6.85	June	0.70	Jan.	56.3	112				nw
Sigourney	Keokuk	877	14	49.8	98	Aug. 14	-14	Jan. 6	14	43.33	7.02	June	1.91	Mar.		109	37	259	69	
Sioux Center	Sioux		11	44.6	94	Aug. 15	-21	Jan. 6	11	34.30	7.74	July	0.70	Mar.	56.5	97	163	63	139	s
Sioux City	Woodbury	1,135	21	46.5	96	July 2 Aug. 27	-17*	Jan. 5 Feb. 15	21	29.64	5.20	June	0.60	Jan.	59.7	119	109	110	146	nw
Stockport	Van Buren		6	49.7	95	Aug. 14*	-22	Dec. 30	8	37.61	8.57	July	0.71	Aug.	27.5	115				s
Storm Lake	Beuna Vista	1,440	14	46.0	93	Aug. 15	-21	Jan. 6	21	33.54	6.30	May	0.89	Dec.	47.6	95				
Thurman	Fremont		13	49.6	98	Aug. 15	-18	Dec. 19	13	40.72	10.33	Nov.	0.50	Aug.	29.4	96	125	121	119	nw
Tipton	Cedar	807	11	49.8	100	Aug. 14	-14	Jan. 6	11	44.93	9.25	June	1.44	Feb.						
Toledo	Tama	856	16	47.3	95	July 29 Aug. 13*	-20	Jan. 6	16	40.83	7.73	June	0.95	Mar.	40.0	84				
Wapello	Louisa		12	50.1	92	Aug. 24	-11	Jan. 6 Dec. 30	12	31.25	4.20	April	0.99	Jan.		95				
Washington	Washington	769	28	49.3	97	Aug. 14	-15	Jan. 6	19							111	99	170	96	nw
Washta	Cherokee	1,157	5	45.8	97	Aug. 27	-21	Dec. 19	12	40.33	7.66	May	0.65	Mar.	53.5	90	155	95	115	s
Waterloo	Black Hawk	862	23	47.0	98	July 29 Aug. 15	-20	Jan. 6	27	32.56	6.49	April	1.20	July	43.3	102				
Waukee	Dallas	1,039	6	48.1	95	July 29 Aug. 14	-15	Jan. 6 Dec. 29	7	38.14	7.05	April	0.91	Mar.	33.3	107	133	125	107	nw
Waverly	Bremer	948	14	46.0	92	Aug. 24	-21	Jan. 6	14	36.76	7.83	April	1.04	Feb.		115	85	141	139	
Webster City	Hamilton		5	47.9	98	Aug. 11*	-19	Jan. 6	5	41.76	6.86	Nov.	0.92	Feb.		84	148	111	106	nw
West Bend	Palo Alto	1,197	17	45.5	96	July 2	-21	Jan. 6	17	35.95	6.37	June	0.78	Feb.	48.9	103				
Whitten	Hardin	1,036	13		96	July 29 Aug. 14	-22	Jan. 6	13											se
Wilton Jct.	Muscatine	683	15		96	Aug. 14*	-14	Jan. 6	15									187	54	124	w
Winterset	Warren	1,129	19	49.4	96	July 2* Aug. 11*	-14	Jan. 6	19	33.18	5.82	April	0.43	Aug.		102	122	101	142	s
Woodburn	Clarke		5	48.8	98	Aug. 15	-15	Jan. 6* Dec. 29	11	48.49	8.94	June	1.36	Feb.	33.5	107	141	106	118	sw
Zearing	Story		6	46.9	98	July 29 Aug. 14*	-19	Jan. 6							62.4	96				se
Average				47.6					6	40.01					46.8	104	152	92	121	s
Extremes and date					103	August 15 & 16	-26	Feb. 15 Dec. 29			13.30	June	T	Aug.						

* And other dates.

MONTHLY MAXIMUM TEMPERATURES FOR 1909, WITH DATES

STATIONS	January		February		March		April		May		June		July		August		September		October		November		December	
	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date
Afton	57	*22	57	4	67	23	78	26	91	5	93	26	97	29	99	*12	90	12	86	*2	76	5	49	1
Albia	65	23	49	4	65	23	80	29	90	5	87	30	94	29	95	27	88	12	88	*2	81	5	49	1
Algona	49	*3	47	*3	50	23	72	26	70	5	89	29	93	2	93	15	85	10	81	7	71	*4	45	2
Allerton	63	*22	58	4	67	23	79	29	91	5	89	30	96	29	99	15	90	12	90	*2	80	5	50	1
Alta	53	3	49	*3	62	23	75	26	94	5	88	*5	93	2	96	27	85	10	85	2	74	4	44	1
Alton	48	3	48	4	60	23	77	26	95	5	92	5	98	2	97	15	85	*11	84	2	72	*4	46	1
Amana	59	23	55	4	58	23	73	6	89	5	89	*26	95	29	96	14	87	13	83	2	73	11	51	5
Ames	58	23	59	4	62	23	81	26	93	5	90	30	95	29	97	14	89	13	86	7	74	6	47	*1
Atlantic	55	23	55	4	64	23	81	26	96	5	90	*26	94	29	98	*15	91	12	87	2	78	5	48	2
Audubon	53	23	51	4	60	23	78	26	93	5	90	26	92	2	97	10	85	*11	83	2	75	5	46	*1
Baxter	58	23	56	4	61	23	76	26	93	5	93	25	94	29	96	14	86	10	87	2	76	6	47	2
Bedford	61	23	59	11	69	23	82	26	93	5	89	*26	99	29	103	16	92	12	89	4	77	5	50	1
Belle Plaine	58	23	60	4	59	23	72	6	93	5	87	*5	96	*1	97	14	86	13	85	2	74	6	53	1
Bonaparte	70	23	61	4	61	2	84	29	91	5	88	24	97	29	98	*13	94	13	89	3	79	5	51	2
Boone	58	23	58	4	60	23	80	26	94	5	90	30	95	2	96	14	84	12	90	2	75	*4	46	1
Burlington	67	23	62	4	63	2	86	29	90	5	92	27	96	29	100	*14	91	*12	84	3	76	*5	55	*3
Carroll	57	23	58	6	60	23	80	26	93	5	90	*29	92	*1	95	14	87	9	86	1	77	4	45	1
Cedar Rapids	60	23	56	4	58	23	73	6	92	5	89	*20	97	29	98	14	88	*12	84	2	74	11	53	2
Chariton	65	23	58	4	67	23	78	29	89	5	89	30	97	29	97	15	90	12	91	3	81	5	49	1
Charles City	------	------	45	4	49	23	68	17	91	5	90	30	93	2	93	2	84	20	82	2	69	4	48	2
Clarinda	60	*23	61	3	69	23	82	26	96	5	93	6	97	29	102	15	94	12	91	*2	79	5	51	1
Clear Lake	50	23	46	4	47	27	69	26	89	4	90	*20	97	29	94	2	88	10	85	7	70	6	45	*1
Columbus Junction	60	23	60	4	61	23	82	29	88	5	92	30	95	29	96	*14	90	13	83	2	75	6	55	2
Corning	57	23	57	3	65	23	80	26	92	5	90	*26	95	29	97	*15	90	12	87	3	74	5	49	1
Corydon	64	23	59	4	69	23	78	*26	90	5	87	*21	96	29	98	15	90	12	92	3	82	5	49	*1
Creston	58	23	56	*1	67	23	80	26	92	5	89	26	95	29	100	*12	92	12	88	*3	79	5	49	1
Davenport	66	23	59	4	57	23	81	29	88	5	90	30	93	29	96	14	91	13	82	2	72	13	55	2
Delaware	54	23	48	4	52	23	67	17	84	*5	87	*26	94	29	93	14	82	20	79	2	68	11	51	2
Denison	56	23	54	4	54	*5	78	26	93	5	88	*26	91	2	94	*14	88	3	86	2	77	5	46	*1
Des Moines	59	23	60	4	65	23	76	26	92	5	88	26	96	29	96	14	89	12	89	2	76	6	48	1
De Soto	57	23	60	4	69	23	78	26	94	5	88	*26	95	29	97	*14	92	12	95	2	81	5	48	1
Dubuque	55	23	54	4	54	23	66	17	90	5	90	30	96	29	93	14	87	13	79	2	71	13	54	5
Earlham	58	23	60	4	67	23	77	26	82	29	88	30	95	29	98	15	90	12	87	3	79	*5	47	1
Elkader	50	*3	56	4	56	23	70	17	94	5	95	*28	102	29	102	2	89	11	86	2	72	4	55	3
Elliott	55	23	57	27	69	23	82	26	94	5	88	26	92	29	95	*12	90	12	86	2	78	5	48	1
Estherville	50	27	52	3	58	23	73	26	93	5	88	*5	94	2	94	*11	82	*18	84	7	75	4	45	1
Fairfield	70	23	62	4	62	23	82	29	90	5	91	30	93	29	96	14	94	13	91	2	80	5	49	*1
Fayette	51	23	50	4	54	23	70	17	91	5	89	30	97	2	97	2	88	10	81	*2	68	*6	49	2
Forest City	51	23	58	3	49	23	72	26	93	5	90	30	94	2	94	*11	88	10	85	4	73	4	45	*1
Fort Dodge	52	23	52	4	55	23	75	26	94	5	91	20	94	2	97	27	91	10	88	2	75	*4	47	1
Grand Meadow	45	*23	47	4	48	23	67	17	88	5	86	30	91	29	89	*1	80	*10	78	7	67	10	50	2
Greene	51	23	47	4	50	23	68	17	95	5	93	30	97	29	98	2	87	10	84	2	70	4	47	2
Grinnell	60	23	59	4	61	23	75	26	95	5	90	30	98	29	101	14	89	13	90	2	75	*4	49	2
Grundy Center	54	23	53	4	57	23	70	17	93	5	90	28	96	29	95	*14	88	10	83	7	71	*4	47	2
Guthrie Center	55	23	55	4	61	23	79	26	93	5	90	*6	94	2	95	14	86	*11	85	2	78	4	47	*1
Hampton	55	23	53	4	53	5	67	*17	95	5	91	30	94	29	95	15	91	10	89	2	75	4	46	2
Hancock	53	*22	60	28	65	23	80	*26	95	5	93	26	96	2	98	*15	91	12	86	2	78	6	46	1
Harlan	54	23	52	21	63	23	80	26	94	5	89	30	93	18	97	16	87	11	86	2	78	5	46	1
Hopeville	60	23	57	4	66	23	77	26	90	5	89	27	96	29	97	15	89	13	90	*2	79	5	50	1
Humboldt	53	23	51	4	57	*23	68	24	95	5	89	30	94	2	98	2	86	10	83	*2	74	6	46	2
Independence	54	23	51	4	56	23	69	17	89	5	88	30	96	29	95	15	85	10	84	2	60	*4	48	*1
Indianola	60	23	58	4	66	23	75	26	91	5	88	*26	95	29	96	14	90	12	89	*2	78	5	48	*1
Inwood	48	27	51	*3	60	23	72	*17	95	5	89	*20	97	2	96	16	85	11	83	*5	77	5	45	1
Iowa City	64	23	60	4	61	23	73	6	91	5	92	30	99	29	100	*13	88	13	84	2	73	*6	53	4
Iowa Falls	52	23	49	4	53	23	69	17	90	5	88	*26	93	2	93	*11	85	*10	83	2	70	*4	46	*1
Keokuk	72	23	62	4	62	2	85	29	89	5	90	24	93	29	98	15	93	13	88	3	79	5	55	2
Keosauqua	70	23	61	4	60	*1	85	29	91	5	96	26	97	*1	98	*15	93	13	89	3	78	5	60	1
Lamoni	65	23	59	4	67	23	82	29	91	5	94	29	99	29	100	12	90	12	85	3	75	5	53	2
Larrabee	51	21	45	*3	59	23	78	26	94	5	92	26	97	2	94	12	83	9	81	*2	71	6	44	*1
Le Mars	47	3	47	4	60	23	76	26	92	5	88	20	90	*2	91	27	83	11	78	*5	70	6	46	1
Lenox	58	23	56	4	67	23	79	26	91	5	88	*24	95	29	96	16	90	12	85	3	75	5	50	1
Little Sioux	56	27	59	3	68	23	82	26	96	5	91	*5	95	2	99	16	92	12	90	2	79	5	47	1
Logan	52	3	53	*2	67	23	83	26	95	5	90	6	95	2	98	16	89	11	87	2	78	*3	47	1
Marshalltown	57	23	56	4	59	23	69	*4	84	29	89	30	95	29	98	*14	------	------	89	3	74	6	48	2
Mason City	46	27	46	4	45	23	67	17	89	5	87	*20	93	2	90	*1	82	10	80	7	68	4	46	*1
Massena	57	23	56	4	66	23	80	26	93	5	91	*26	98	29	102	12	94	12	87	4	75	6	49	2
Mt. Ayr	63	22	57	*3	70	23	79	18	93	5	91	30	97	29	99	*15	93	12	88	*2	79	5	51	1
Mt. Pleasant	68	23	60	4	60	23	84	29	91	5	90	30	92	29	94	14	89	13	82	3	74	6	54	2
New Hampton	50	23	43	4	48	23	65	17	88	5	86	*27	92	22	89	*1	79	20	76	7	66	6	47	2
Newton	56	23	54	4	60	23	74	26	92	5	88	*26	95	29	96	14	84	*12	82	2	72	6	47	2
Odebolt	55	3	54	*3	65	23	77	26	96	5	93	30	96	*1	97	*14	90	10	87	2	76	5	46	1
Omaha, Neb	57	23	61	3	65	23	83	26	95	5	91	26	94	2	98	12	93	12	89	2	77	5	47	1
Onawa	56	27	57	3	69	23	81	26	97	5	92	5	95	2	96	*11	89	12	88	2	76	*3	47	1
Osage	54	23	47	4	49	*5	66	*17	94	5	94	30	95	*2	96	1	88	10	85	2	70	*4	46	2
Oskaloosa	63	23	58	4	62	23	79	29	91	5	89	*26	93	29	96	14	85	12	85	2	75	6	49	2
Pacific Junction	59	23	61	4	70	22	85	26	96	5	90	26	94	29	98	12	92	12	86	2	76	4	48	1
Perry	56	23	57	4	59	23	80	26	94	5	90	26	93	2	96	14	87	12	84	2	73	*4	47	1
Plover	54	3	48	3	53	23	75	26	93	5	92	28	96	2	97	15	87	9	86	7	73	6	45	*1
Pocahontas	53	3	49	*3	54	23	74	26	93	5	89	30	93	2	93	27	86	10	84	7	74	*4	45	*1
Ridgeway	51	27	50	4	50	*23	71	17	95	5	94	28	102	29	96	*1	88	10	87	2	76	3	51	2
Rockwell City	55	23	53	4	55	23	80	26	95	5	90	*6	95	2	97	27	85	*9	80	*3	74	6	46	*1
Sac City	------	------	------	------	56	23	75	26	93	5	88	26	92	2	94	27	84	10	84	2	72	*4	45	*1
St. Charles	60	*22	60	4	71	23	77	*4	93	5	89	26	95	29	98	16	93	12	91	*2	84	5	48	1
Sheldon	51	3	------	------	62	23	78	26	95	5	91	*5	97	2	101	15	85	*11	85	2	76	6	45	*1
Sibley	49	3	49	3	60	23	76	26	94	5	89	5	94	2	93	*15	85	10	84	6	75	*4	43	*1
Sigourney	63	23	58	4	62	23	80	29	92	5	91	30	96	29	98	14	89	13	85	2	75	6	49	2
Sioux Center	44	*26	47	4	59	23	75	26	92	5	89	4	93	2	94	15	84	11	81	2	70	6	45	1
Sioux City	54	3	54	3	65	23	77	26	94	5	91	26	96	2	96	27	87	12	87	2	75	4	45	1
Stockport	68	23	60	4	60	23	83	29	90	5	86	*24	91	29	95	*14	90	13	90	*2	79	5	53	5
Storm Lake	51	3	48	*3	62	23	74	27	89	5	87	26	92	2	93	15	84	*9	85	2	71	4	45	1
Thurman	58	23	58	*3	67	23	84	27	95	5	92	26	95	2	98	15	92	12	87	*2	77	6	48	1
Tipton	61	23	57	4	57	23	70	6	90	5	95	30	98	29	100	14	91	13	83	2	70	*11	58	5
Toledo	57	23	54	4	59	23	68	*4	90	5	89	30	95	29	95	*13	84	12	84	2	71	*6	46	1
Wapello	63	22	59	4	61	26	80	29	90	5	85	25	90	29	92	24	90	13	81	*2	74	6	55	2
Washington	66	23	61	4	61	23	83	29	92	5	87	*23	94	29	97	14	89	13	84	2	76	*5	53	4
Washta	50	*3	52	4	64	23	77	26	95	5	91	28	95	2	97	27	88	10	87	*6	77	4	50	*1
Waterloo	53	23	55	4	57	23	69	17	92	5	91	30	98	29	98	15	87	*10	84	2	72	4	48	*1
Waukee	60	23	60	4	65	23	78	26	92	5	88	*26	95	29	95	14	87	12	88	*2	76	5	46	2
Waverly	50	23	48	4	53	23	69	17	90	5	85	*29	91	*2	92	*24	83	*10	81	7	69	4	48	2
Webster City	53	23	53	4	56	23	73	*26	93	5	94	*28	95	2	98	*11	90	10	88	2	73	6	47	2
West Bend	50	3	47	*3	52	23	72	26	92	5	93	28	96	2	93	15	84	10	82	7	71	*4	45	2
Winterset	55	*22	56	4	65	23	76	26	92	5	92	26	96	*2	96	*11	90	12	85	7	75	5	48	1
Woodburn	63	23	59	4	68	23	78	26	84	29	92	30	96	29	98	15	91	12	92	3	80	5	52	1
Zearing	54	22	56	4	57	23	73	26	92	5	90	*23	98	29	98	*14	90	10	88	2	75	4	47	2

* And other dates.

MONTHLY MINIMUM TEMPERATURES FOR 1909, WITH DATES

STATIONS	January		February		March		April		May		June		July		August		September		October		November		December	
	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date
Afton	—14	6	0	15	4	17	22	9	24	1	52	15	58	*23	46	29	38	27	19	13	13	*17	—14	29
Albia	—14	6	— 7	1	4	17	21	*3	25	2	51	*1	55	5	43	29	38	*27	19	13	11	17	—13	29
Algona	—22	6	—11	15	— 8	17	20	*9	24	*1	47	15	52	5	44	29	38	27	15	13	4	18	—15	29
Allerton	—13	6	4	15	9	17	23	10	27	1	52	15	57	*4	45	29	39	27	19	13	14	18	—13	29
Alta	—22	6	—14	15	0	17	20	9	21	1	46	*5	52	5	43	29	37	23	14	13	4	17	—19	29
Alton	—20	6	—18	15	— 2	17	21	9	21	3	45	15	50	22	36	29	35	*5	15	13	1	18	—18	29
Amana	—17	6	5	*10	5	17	18	10	28	3	49	15	52	4	45	30	34	27	19	13	12	23	—13	30
Ames	—15	12	— 2	15	—12	17	25	23	25	3	48	15	51	5	44	30	33	27	18	28	9	18	—14	29
Atlantic	—16	6	— 3	15	2	17	24	8	24	1	50	15	53	24	43	29	37	27	18	13	10	18	—16	29
Audubon	—19	12	— 5	*15	— 9	17	21	27	21	10	44	*13	48	24	37	29	32	27	14	13	10	*17	—14	29
Baxter	—18	6	1	*13	— 5	17	19	10	26	*1	50	15	52	5	46	29	36	*23	15	13	12	*17	—15	29
Bedford	—13	6	— 2	16	5	*11	22	*9	24	2	53	*4	51	24	42	29	35	*23	15	13	10	18	—17	29
Belle Plaine	—19	6	3	*10	1	17	17	10	25	3	47	1	51	8	44	*29	36	*24	17	13	10	23	—15	30
Bonaparte	—11	6	6	17	5	17	19	10	30	*1	47	15	53	4	46	29	37	27	19	13	13	18	—15	30
Boone	—18	6	— 4	15	— 2	17	23	10	25	1	51	15	54	*4	44	29	41	*24	20	*13	9	18	—15	30
Burlington	—12	6	— 1	1	9	17	22	10	30	2	51	19	53	4	51	29	39	27	20	13	15	18	—13	30
Carroll	—19	6	—13	14	— 9	17	21	9	21	1	48	15	52	*4	39	28	38	*22	12	12	3	17	—19	28
Cedar Rapids	—18	7	— 6	1	6	*17	20	*10	29	2	50	15	53	5	50	*29	38	*27	21	13	15	*18	—13	30
Chariton	—15	6	3	15	4	17	22	10	25	1	50	15	56	*4	44	29	37	*23	18	13	12	18	—14	29
Charles City			— 6	16	—12	17	20	10	26	1	45	15	53	5	44	29	36	27	17	28	4	23	—16	29
Clarinda	—13	6	— 2	*16	3	11	25	*1	24	1	50	1	52	24	43	30	35	27	20	12	13	18	—14	30
Clear Lake	—24	6	— 6	15	2	17	19	*10	25	1	50	*7	50	*4	46	29	38	*26	18	28	10	18	—15	29
Columbus Junction	—14	6	8	*10	6	17	19	10	29	*1	48	15	53	5	48	29	37	27	19	13	15	18	—11	30
Corning	—15	6	— 2	15	3	15	20	9	24	1	52	*4	51	24	47	29	37	27	18	13	12	17	—17	29
Corydon	—14	6	4	*10	8	17	23	10	26	1	52	*15	57	*4	45	29	39	27	19	13	13	18	—13	29
Creston	—14	6	— 5	1	5	17	23	*9	24	1	25	*4	50	24	45	29	36	*24	16	13	12	18	—16	29
Davenport	—15	6	6	10	9	17	22	10	30	1	49	15	52	5	51	29	40	27	23	13	17	18	—10	29
Delaware	—22	6	0	*11	— 2	17	15	10	25	*1	47	15	50	*4	45	29	36	27	17	28	10	23	—17	30
Denison	—18	6	— 9	15	— 6	17	21	*13	23	1	45	24	49	24	50	30	34	24	14	13	5	18	—15	29
Des Moines	—15	6	1	15	0	17	24	10	27	1	54	11	54	4	50	29	41	27	20	13	14	*17	—12	29
De Soto	—16	6	— 1	15	—11	17	24	10	24	1	43	13	53	24	44	30	34	27	17	13	12	*17	—15	29
Dubuque	—19	6	3	25	6	17	21	10	30	1	46	15	53	5	51	30	36	27	23	28	13	23	—11	29
Earlham	—16	12	0	*15	— 9	17	24	*9	25	1	47	15	50	24	41	30	32	27	18	12	13	*17	—13	29
Elkader	—21	6	— 5	11	— 4	17	15	10	28	3	41	13	48	*6	42	30	30	27	12	28	12	18	—19	18
Elliott	—15	6	— 3	15	— 1	11	25	8	24	1	53	*4	59	24	44	29	35	27	20	17	12	18	—16	29
Estherville	—22	6	—18	15	— 8	17	20	*10	23	1	45	15	51	5	42	29	36	5	16	28	0	18	—17	29
Fairfield	—13	6	7	10	4	17	16	10	27	3	47	15	54	5	50	29	34	27	19	13	15	18	—13	30
Fayette	—22	6	— 5	11	—10	17	14	10	26	4	41	15	48	2	41	30	30	27	10	28	2	23	—21	30
Forest City	—24	6	—12	1	— 7	17	17	9	24	1	45	14	52	5	43	29	38	24	18	28	3	18	—15	29
Fort Dodge	—19	16	— 6	*1	— 6	17	23	*9	24	3	45	15	52	18	43	29	37	27	18	*13	7	18	—14	*29
Grand Meadow	—25	6	— 5	*11	— 5	17	19	10	26	*1	45	1	52	*4	45	*29	35	*26	19	28	5	23	—17	*20
Greene	—20	6	— 4	16	—10	17	19	10	25	2	43	15	52	4	43	29	35	27	16	28	4	23	—14	29
Grinnell	—17	6	4	15	1	17	19	10	26	3	50	18	52	5	46	30	36	27	16	13	12	18	—13	29
Grundy Center	—21	6	— 2	11	— 9	17	24	9	26	1	44	15	52	4	42	*29	31	30	17	28	10	23	—14	29
Guthrie Center	—17	6	— 5	15	—10	17	24	*9	21	1	48	15	52	24	42	29	36	27	16	13	9	18	—16	29
Hampton	—22	6	— 5	15	— 5	17	19	10	25	1	46	15	52	5	45	29	36	27	18	*13	5	18	—16	29
Hancock	—15	6	— 3	15	8	11	20	8	23	1	50	*1	54	*23	43	29	38	24	18	13	10	18	—17	29
Harlan	—17	*6	— 5	15	— 2	17	23	*8	23	1	48	15	50	24	40	29	36	23	15	13	6	18	—18	29
Hopeville	—14	6	1	15	5	17	23	*9	25	1	52	15	56	*23	46	29	37	27	18	13	13	18	—14	29
Humboldt	—20	6	— 8	*15	—12	17	22	*9	21	3	-----	------	52	24	40	29	30	27	17	13	2	18	—17	29
Independence	—23	6	0	11	— 5	17	21	10	27	1	42	15	49	4	45	*29	35	27	16	28	6	23	—16	30
Indianola	—15	6	4	16	3	17	22	23	21	1	52	16	56	5	48	29	41	27	20	13	14	18	—12	29
Inwood	—24	6	—26	15	— 6	17	18	*1	18	3	45	15	50	23	38	29	34	5	12	13	— 3	23	—26	29
Iowa City	—19	6	— 4	1	6	17	17	10	27	3	48	19	52	*4	48	29	33	27	18	*13	11	24	—17	30
Iowa Falls	—21	6	— 4	*13	—15	17	19	10	24	3	44	15	52	5	40	29	33	27	16	28	8	18	—15	29
Keokuk	—10	6	8	10	11	17	25	10	31	1	50	15	54	4	52	30	42	27	23	13	17	18	— 9	30
Keosauqua	—11	6	— 5	1	7	17	19	10	29	2	47	*15	56	*4	43	30	34	27	20	*13	14	*18	—14	30
Lamoni	—12	6	3	15	11	17	23	9	25	1	54	11	53	4	47	29	38	27	20	13	13	18	—13	29
Larrabee	—22	6	—20	15	— 5	17	18	9	22	1	47	15	50	*4	40	29	36	23	14	13	1	18	—21	29
Le Mars	—19	6	—17	15	2	17	22	8	22	1	44	15	52	*4	39	29	38	5	15	13	5	18	—16	29
Lenox	—17	6	— 3	*15	6	*15	22	*8	22	1	53	*13	54	24	48	29	39	*23	17	13	12	18	—17	29
Little Sioux	—16	6	—13	15	9	*11	20	*8	22	*1	48	13	53	24	43	29	35	24	17	13	3	17	—22	29
Logan	—17	12	— 5	16	12	11	23	8	23	1	51	*3	52	24	41	29	37	24	17	13	9	17	—16	*19
Marshalltown	—21	6	— 8	1	— 6	*17	20	10	26	*1	48	15	52	*5	42	29	-----	------	17	13	11	18	—13	*29
Mason City	—22	6	— 9	16	— 8	17	18	10	24	3	42	15	50	15	43	29	33	27	15	28	4	23	—14	29
Massena	—15	6	— 3	*15	— 3	11	22	9	22	1	50	*4	43	24	34	29	33	*25	13	13	6	*17	—17	19
Mt. Ayr	—13	6	0	15	10	17	22	9	24	1	53	14	52	4	48	29	39	27	21	13	14	*17	—14	29
Mt. Pleasant	—12	6	7	10	8	17	20	10	29	1	48	15	53	*4	49	29	38	27	20	13	15	18	—13	30
New Hampton	—24	6	— 5	11	—10	17	17	10	26	*1	45	15	48	4	39	29	37	*23	17	28	2	23	—17	*29
Newton	—16	6	3	15	3	17	21	10	27	1	54	15	53	5	49	29	40	27	20	13	13	18	—12	29
Odebolt	—17	6	—11	15	— 5	17	22	*9	22	*1	46	15	51	24	40	29	37	24	15	13	5	18	—16	29
Omaha, Neb	—13	6	— 6	15	16	17	26	8	25	1	56	13	58	23	55	29	46	24	26	13	14	17	—11	29
Onawa	—15	6	—12	15	12	17	23	8	24	1	52	*13	57	23	47	29	41	23	20	13	10	18	—13	29
Osage	—24	6	— 9	11	— 7	17	16	10	27	*1	43	15	52	*4	44	29	35	27	16	28	4	18	—20	30
Oskaloosa	—12	12	5	*10	4	17	19	10	28	*1	52	19	55	5	45	30	37	27	20	13	15	18	—13	*29
Pacific Junction	—13	6	— 5	15	7	11	23	*8	22	2	49	4	53	24	41	29	35	24	18	13	11	18	—18	29
Perry	—16	6	— 3	15	—10	17	23	10	25	1	51	15	55	*5	43	29	38	27	17	13	10	18	—15	29
Plover	—21	6	—11	15	—10	17	20	13	23	3	43	15	50	24	37	29	35	*5	15	13	0	18	—20	29
Pocahontas	—20	6	—11	15	— 6	17	21	9	22	1	45	15	52	*4	43	29	38	*5	15	13	2	18	—17	29
Ridgeway	—25	6	— 8	25	— 8	17	19	*9	27	*1	46	*10	52	5	47	29	36	1	18	28	5	*18	—19	30
Rockwell City	—19	6	— 9	15	— 2	17	19	9	24	*1	48	1	50	5	45	29	36	*23	17	13	7	*17	—17	29
Sac City	-----	------	------	------	— 3	17	23	9	23	1	49	15	52	*4	45	29	40	28	17	13	5	18	—17	29
St. Charles	—15	6	0	15	0	17	22	10	25	1	43	13	57	5	49	29	41	27	20	13	11	17	—12	29
Sheldon	—22	6	------	------	— 6	17	18	9	20	*1	44	16	50	*4	36	29	34	23	12	13	0	18	—20	29
Sibley	—24	6	—18	15	— 7	17	17	*9	21	3	44	15	51	*5	40	*29	35	23	14	13	2	*17	—20	29
Sigourney	—14	6	5	11	4	17	18	10	26	3	51	19	53	5	46	29	38	27	18	13	13	18	—13	29
Sioux Center	—21	6	—18	15	0	17	19	9	21	2	47	15	51	4	42	29	39	23	13	13	4	*17	—19	29
Sioux City	—17	5	—17	15	11	17	24	9	23	1	51	14	54	24	43	29	39	24	17	13	10	18	—15	29
Stockport	—12	6	7	*1	7	17	17	10	29	*1	50	15	55	4	50	*29	31	27	16	14	12	18	—22	30
Storm Lake	—21	6	—15	15	5	12	20	*9	22	1	50	*8	51	4	43	29	39	5	23	12	4	17	—18	29
Thurman	—13	6	— 8	16	3	11	24	*8	20	2	50	15	52	24	45	30	37	27	20	13	10	18	—18	19
Tipton	—14	6	7	*1	9	17	23	10	29	1	51	15	52	5	53	29	42	27	21	13	16	18	—10	*29
Toledo	—20	6	2	10	— 3	17	15	10	27	1	48	*15	52	*5	42	30	32	27	17	28	9	23	—13	*29
Wapello	—11	6	9	*1	11	17	20	9	32	*1	48	14	53	5	52	30	40	27	23	13	18	18	—11	30
Washington	—15	6	6	*10	6	17	19	10	27	3	50	*15	53	*4	46	29	37	27	19	13	14	18	—13	*29
Washta	—20	12	—16	15	— 9	17	19	15	18	3	41	15	46	24	33	29	30	24	10	13	— 4	18	—21	19
Waterloo	—20	6	— 7	1	— 3	17	19	10	28	*1	45	15	54	*5	45	29	36	28	18	28	11	23	—13	29
Waukee	—15	6	— 1	15	— 6	17	22	10	25	1	52	11	54	24	45	29	40	*26	18	13	12	18	—15	29
Waverly	—21	6	— 1	11	— 6	17	24	9	27	*1	44	15	52	5	46	29	37	*24	17	28	9	23	—14	30
Webster City	—19	6	— 4	16	—15	17	21	*10	22	3	41	15	51	24	40	29	35	27	16	13	7	18	—16	29
West Bend	—21	6	—10	15	— 7	17	21	*9	24	3	47	15	52	*4	42	29	37	23	16	13	3	18	—16	29
Winterset	—14	6	0	15	1	17	24	*8	25	1	54	*11	56	*23	46	29	40	27	20	13	13	*17	—12	29
Woodburn	—15	*6	3	10	4	17	17	9	25	1	48	*15	50	24	42	30	33	30	15	13	11	18	—15	29
Zearing	—19	6	— 2	14	—15	17	20	10	25	*1	45	15	53	*4	39	30	31	27	15	12	9	22	—15	*29

* And other dates.

MEAN ANNUAL AND MONTHLY TEMPERATURES WITH DEPARTURES FROM THE NORMAL FOR 1909

STATIONS	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Annual	
	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.
Afton	24.1	+1.4	29.1	+7.1	35.0	—1.5	46.4	—1.0	60.0	—2.3	71.0	+0.2	75.2	0.0	77.4	+3.8	63.8	—1.3	50.9	—2.4	45.0	+8.2	16.6	—9.1	49.5	0.0
Albia	22.9	—0.8	28.2	+7.9	34.0	—3.6	45.0	—4.6	57.6	—3.4	68.8	—0.8	71.5	—2.7	76.4	+3.0	62.7	—2.1	49.8	—3.4	44.6	+5.9	10.4	—8.6	48.2	—1.1
Algona	17.6	+4.3	21.7	+4.7	29.4	—0.2	40.4	—5.8	57.0	—2.5	67.6	—0.9	71.3	—2.1	74.8	+3.9	60.6	—1.3	48.0	—0.7	37.6	+4.8	13.8	—6.3	45.0	—0.2
Allerton	25.5	+3.6	30.4	+8.7	36.4	—1.8	47.2	—3.1	59.4	—1.6	70.3	+2.2	73.6	+1.0	78.2	+5.1	65.0	—0.3	51.2	—3.0	46.8	+6.2	17.8	—8.7	50.2	+0.7
Alta	17.0	+0.6	19.8	+2.5	28.8	—1.8	38.9	—6.8	56.0	—2.0	68.3	+0.6	70.4	—1.5	75.2	+4.7	60.8	—2.1	48.5	—1.8	37.8	+5.3	11.2	—10.2	44.5	—1.0
Alton	17.6	------	21.0	------	30.8	------	41.8	------	57.6	------	68.6	------	71.5	-----	76.6	------	61.0	------	49.6	------	37.6	------	12.2	------	45.5	------
Amana	22.6	+6.3	28.2	+8.1	34.2	+1.7	45.5	—3.1	58.4	—1.6	69.4	0.0	72.0	—1.7	75.2	+4.3	62.1	—0.4	48.9	—1.0	44.7	+14.1	17.0	—5.6	48.2	+1.8
Ames	23.6	+6.1	27.2	+6.0	31.8	—1.7	47.7	—1.4	59.4	—0.1	70.3	+0.9	72.3	—2.0	76.2	+4.0	61.8	—1.7	49.1	—1.9	42.8	+8.7	15.0	—7.6	48.1	+0.8
Atlantic	21.8	+1.4	27.6	+6.8	33.1	—1.6	45.0	—3.7	59.4	0.0	70.0	+0.9	74.2	+1.0	77.3	+6.0	64.2	—0.2	51.3	—0.3	42.9	+7.5	14.4	—10.5	48.4	+0.6
Audubon	20.4	+1.5	25.6	+6.5	30.5	—3.7	43.2	—5.5	56.1	—3.8	68.4	+0.3	71.5	—0.6	74.2	+2.4	60.4	—2.8	48.7	—2.2	42.1	+6.9	15.2	—8.7	46.4	—0.8
Baxter	21.0	*+0.7	27.8	+9.7	32.0	—4.6	44.2	—4.6	57.8	—2.6	69.0	+1.4	71.2	—2.0	75.2	+3.3	62.3	—0.7	49.9	—3.3	43.4	+6.1	15.3	—8.9	47.4	—0.5
Bedford	24.8	+1.0	31.4	+10.6	36.4	—0.3	47.0	—2.3	58.8	—2.2	70.1	+1.8	74.6	+1.2	77.3	+3.4	65.0	+0.4	52.0	—2.3	45.0	+9.6	16.2	—9.5	49.9	+1.0
Belle Plaine	20.5	+2.3	27.6	+7.7	33.2	—0.2	44.4	—4.5	58.2	—1.3	68.8	—0.3	70.2	—2.6	74.6	+3.8	62.4	—1.2	49.0	—1.4	43.4	+8.5	15.9	—7.8	47.3	+0.2
Bonaparte	25.7	+2.5	31.1	+8.3	36.8	—1.2	48.4	—1.8	59.3	—3.0	70.2	—1.0	72.5	—3.0	78.4	+4.1	64.4	—3.0	51.0	—4.0	48.0	+9.5	17.7	—10.2	50.3	—0.2
Boone	20.0	------	24.7	------	30.8	------	42.2	------	57.2	------	69.4	------	71.9	------	76.2	------	61.8	------	49.6	------	41.4	------	14.1	------	46.6	------
Burlington	26.1	—0.9	30.5	+6.8	37.4	—2.4	48.4	—3.1	60.4	—3.4	72.5	+2.0	73.0	—2.4	79.1	+5.0	64.4	—1.8	51.0	—4.7	47.5	+7.8	18.6	—8.5	50.7	—0.5
Carroll	20.2	+1.2	25.2	+6.3	30.4	—2.3	41.1	—7.0	56.0	—2.9	67.6	—1.0	70.6	—2.4	74.8	+3.7	60.6	—2.4	47.5	—3.5	38.0	+3.8	13.2	—10.2	45.4	—1.4
Cedar Rapids	21.4	+3.2	26.5	+6.4	32.8	—0.8	44.4	—5.3	58.2	—1.8	69.8	—0.5	72.4	—2.3	76.6	+3.9	62.6	—1.4	48.6	—2.8	44.1	+8.2	16.5	—8.5	47.8	—0.2
Chariton	24.8	+1.0	29.3	+7.1	35.2	—1.6	47.0	+0.5	58.4	—2.9	69.1	—0.1	71.9	—1.9	76.6	+3.5	63.6	—1.9	51.2	—3.0	46.0	+7.3	16.2	—10.1	49.1	—0.2
Charles City	-----	------	21.5	+6.4	28.2	—0.2	40.2	—6.1	56.0	—3.5	67.0	—1.2	70.8	—2.7	73.6	+2.9	59.6	—2.1	47.0	—1.2	38.9	+5.9	13.2	—5.8	-----	------
Clarinda	22.4	—0.1	28.0	+5.4	34.4	—1.7	45.6	—5.3	59.0	—2.2	71.0	0.0	74.8	—0.7	77.8	+3.6	64.4	—1.8	51.6	—2.4	44.3	+6.5	15.0	—11.6	49.0	—0.9
Clear Lake	18.4	+1.8	22.2	+7.6	29.4	—2.3	40.4	—6.6	57.6	—2.1	69.4	+1.2	71.8	—1.4	75.4	+3.7	63.0	+0.8	49.0	—2.8	40.5	+6.4	14.6	—5.8	46.0	+0.1
Columbus Junction	25.0	+1.7	31.6	+10.4	36.4	—2.6	48.0	—1.7	60.2	—2.0	70.9	+2.2	72.8	—2.8	77.0	+4.6	63.8	—1.7	50.4	—4.0	47.4	+8.4	19.2	—7.4	50.2	+0.4
Corning	23.5	+1.6	28.5	+6.6	32.8	—3.6	45.8	—4.0	58.6	—1.8	69.8	+0.3	74.0	+0.4	75.9	+3.4	63.4	—1.4	50.1	—3.2	44.1	+6.9	14.4	—12.7	48.4	—0.6
Corydon	25.4	+2.1	30.8	+8.6	37.2	—0.1	47.6	—3.4	59.3	—2.0	70.3	+0.4	73.6	—1.2	78.6	+5.0	65.2	—1.3	52.9	—1.9	47.9	+9.2	17.4	—9.3	50.5	+0.5
Creston	21.4	------	27.7	------	33.3	------	43.6	------	57.7	------	69.2	------	72.3	-----	77.0	------	63.2	------	51.6	------	43.2	------	16.4	------	48.0	------
Davenport	24.9	+4.1	31.0	+7.2	35.8	+0.4	46.8	—3.4	59.2	—2.3	70.4	—0.5	72.6	—2.8	77.3	+4.3	63.6	—1.1	50.6	—2.0	46.8	+9.3	17.8	—9.4	49.7	+0.3
Delaware	19.3	+3.5	24.6	+8.3	30.4	—1.2	41.1	—4.7	56.0	—2.3	67.6	—0.2	70.7	—1.2	73.0	+3.4	60.4	—1.4	46.5	—2.5	41.7	+8.9	13.2	—8.2	45.4	+0.2
Denison	20.8	+0.5	26.0	+6.9	31.7	—2.0	43.2	—4.9	58.4	—0.9	68.0	+0.2	71.4	—1.3	75.8	+3.9	62.4	—1.3	50.6	—0.2	40.1	+4.5	14.4	—9.1	46.9	—0.3
Des Moines	22.8	+2.4	29.6	+5.5	33.6	—2.1	45.1	—5.5	59.2	—2.4	70.0	—0.4	72.9	—2.6	78.1	+5.1	63.8	—1.2	51.4	—1.1	44.8	+8.0	16.9	—8.8	49.0	—0.3
De Soto	23.4	+0.2	28.8	+8.4	33.9	—3.7	45.6	—4.1	58.8	—3.1	69.2	+0.2	73.0	+0.3	77.2	+4.2	64.8	+0.2	52.1	—2.0	44.8	+6.1	16.0	—10.5	49.0	—0.3
Dubuque	21.4	+3.1	26.9	+5.3	32.8	—0.4	43.4	—5.5	58.2	—2.6	68.7	—0.9	71.8	—2.9	75.0	+3.0	62.2	—1.4	48.4	—3.6	44.2	+8.2	16.6	—7.9	47.5	—0.4
Earlham	24.0	+4.6	29.9	+11.9	32.8	—1.4	45.1	—2.7	57.8	—2.2	68.8	+3.6	72.2	+2.2	76.4	+6.4	63.0	+0.9	52.8	+1.7	44.8	+7.0	16.2	—6.8	48.6	+2.0
Elkader	19.4	+4.6	24.8	+6.8	30.9	—0.9	43.0	—5.0	58.4	—2.1	71.6	+2.5	73.6	0.0	72.0	+1.0	59.8	—2.7	42.6	—6.8	39.4	+6.2	13.4	—8.2	45.7	—0.4
Elliott	23.4	------	29.4	------	34.8	------	46.2	------	59.0	------	69.8	------	74.0	------	77.0	------	64.0	------	50.8	------	43.2	------	15.3	------	48.9	------
Estherville	16.0	+1.0	19.0	+3.9	28.6	—0.4	38.8	—7.5	54.9	—2.3	66.2	—0.6	69.6	—1.5	73.6	+3.4	58.4	—2.3	46.2	—2.6	36.2	+4.9	12.8	—5.4	43.4	—0.7
Fairfield	25.0	+7.4	31.1	+9.4	35.8	+2.0	47.0	—2.8	59.3	—0.9	71.0	+1.1	73.3	—1.4	79.8	+8.5	64.4	+0.4	50.8	—1.6	48.0	+11.1	17.8	—7.3	50.3	+2.2
Fayette	18.4	+2.3	23.3	+6.4	30.0	—1.2	40.8	—5.7	54.1	—3.3	67.2	—0.1	70.6	—2.[illegible]	73.8	+4.7	59.4	—2.9	46.7	0	41.1	+8.2	13.7	—7.9	44.9	—0.2
Forest City	16.8	+0.6	18.7	+4.1	28.7	—1.0	39.0	—7.5	55.6	—2.7	67.1	—0.1	70.4	—1.6	74.8	+4.5	60.8	—1.2	47.2	—2.5	37.6	+5.2	12.2	—7.6	44.1	—0.8
Fort Dodge	18.1	+1.0	22.0	+6.7	28.0	—5.4	40.6	—6.8	57.1	—2.0	69.2	+2.6	71.1	—1.[illegible]	77.2	+5.8	61.7	—0.9	49.1	—3.2	39.2	+4.0	13.0	—9.5	45.5	—0.9
Grand Meadow	18.6	+3.1	23.2	+6.5	29.3	—2.0	40.2	—6.6	55.6	—2.5	68.4	------	69.6	—0.9	72.2	+3.3	59.2	—2.7	46.6	—2.6	41.2	+8.2	13.4	—8.1	44.6	—0.4
Greene	19.7	+1.2	23.2	+7.2	30.1	—2.5	41.8	—6.3	57.6	—1.8	69.0	+0.9	72.7	—0.6	75.8	+4.3	61.4	—2.1	47.9	—4.2	40.6	+4.7	14.6	—4.4	46.2	—0.
Grinnell	23.4	+3.2	29.0	+7.7	34.1	+1.0	45.4	—4.9	58.2	—1.5	69.6	+1.3	72.2	—1.0	77.4	+5.8	64.2	+0.4	51.2	+0.5	45.5	+9.5	17.2	—7.2	49.0	+1.3
Grundy Center	20.4	+3.5	25.6	+7.9	30.9	—1.7	43.6	—3.8	57.4	—1.1	68.6	+0.4	71.8	—0.4	75.6	+4.6	62.8	—0.3	48.2	—3.6	43.0	+9.0	15.0	—7.6	46.9	+0.6
Guthrie Center	22.0	—0.7	27.7	+7.5	32.2	—3.2	44.9	—4.4	59.0	—1.6	69.8	+0.8	72.9	—0.5	76.4	+4.2	63.0	—0.9	49.9	—2.5	43.5	+6.2	15.4	—8.4	48.1	—0.3
Hampton	18.8	+3.3	23.6	+6.7	30.0	—0.3	41.4	—5.9	57.4	—0.9	68.4	+0.6	72.2	—0.2	76.6	+6.0	62.6	—0.3	49.2	—1.6	40.1	+6.7	13.7	—7.8	46.2	+0.6
Hancock	22.2	------	28.8	------	33.0	------	45.0	------	59.7	------	70.6	------	74.8	-----	78.2	------	64.4	------	51.0	------	43.0	------	14.0	------	48.7	------
Harlan	20.8	—0.4	26.6	+8.5	32.2	—3.1	44.0	—4.3	57.6	—2.7	68.4	—0.1	72.3	—0.9	75.8	+3.6	62.2	—0.8	50.0	—2.8	41.4	+4.2	13.5	—10.5	47.1	—0.7
Hopeville	24.2	+2.8	29.6	+7.6	35.2	—0.5	46.4	—3.3	58.8	—1.4	70.0	+0.3	73.4	—0.7	76.5	+3.3	64.1	—2.3	51.8	—2.4	45.8	+9.1	16.4	—9.8	49.4	+0.3
Humboldt	20.2	+2.4	24.8	+7.1	30.6	—1.2	42.4	—5.9	56.0	—3.4	-----	------	72.2	—0.7	75.4	+7.5	61.5	—1.0	49.8	—0.2	40.4	+6.4	14.8	—8.5	-----	------
Independence	21.3	+6.1	25.0	+5.4	31.0	+0.2	42.4	—7.0	56.3	—2.9	67.4	—1.0	71.0	—1.9	74.3	+4.2	61.3	—0.4	47.6	—1.6	43.8	+11.2	15.3	—6.3	46.4	+0.5
Indianola	21.0	+3.8	29.3	+7.0	34.4	—1.7	46.3	—4.4	59.0	—1.7	69.6	—0.1	72.7	—2.0	78.0	+5.2	64.2	—1.3	52.3	—1.4	46.0	+7.7	16.6	—9.2	49.4	+0.2
Inwood	16.8	------	20.8	------	30.2	------	40.4	------	56.2	------	67.4	------	71.6	------	75.2	------	61.7	------	49.0	------	35.6	------	10.6	------	44.6	------
Iowa City	21.6	+2.5	27.8	+5.3	34.2	+0.2	45.2	—2.3	59.2	—1.1	70.8	+1.5	72.6	—1.6	77.5	+5.8	62.2	—1.4	48.0	—3.1	43.4	+7.7	15.8	—8.4	48.2	+0.4
Iowa Falls	18.9	+3.7	22.0	+6.5	29.0	—2.9	40.8	—5.9	55.6	—3.1	67.5	0.0	70.4	—1.6	73.7	+3.8	59.8	—1.8	46.5	—3.2	39.6	+6.5	12.6	—8.5	44.7	—0.5
Keokuk	28.3	+4.6	34.2	+7.6	38.9	+1.0	50.6	—1.4	61.0	—2.2	72.8	+0.3	73.6	—3.4	79.5	+4.9	65.7	—0.7	52.4	—2.1	50.2	+10.8	20.6	—8.8	52.3	+0.9
Keosauqua	24.8	+1.7	29.9	+6.8	36.2	—2.0	47.6	—1.0	59.4	—3.2	72.8	+1.1	73.0	—2.9	77.8	+3.3	63.4	—3.5	49.3	—5.5	46.6	+7.7	18.6	—8.8	50.0	—0.7
Lamoni	25.5	------	31.4	------	36.9	------	47.8	------	59.9	------	71.8	------	75.2	------	77.6	------	64.2	------	51.2	------	47.0	------	17.6	------	50.5	------
Larrabee	17.8	+0.4	21.2	+3.4	29.7	—1.0	39.8	—7.7	56.6	—1.7	68.0	—0.5	71.3	—1.5	74.9	+3.7	60.1	—2.7	48.2	—2.1	37.0	+4.1	12.6	—9.7	44.8	—1.2
Le Mars	18.8	—0.4	22.2	+5.7	30.6	—2.4	41.8	—6.2	57.9	—1.4	67.6	—0.7	70.4	—2.0	74.8	+3.3	60.6	—1.9	49.2	—2.1	38.4	+3.9	13.1	—10.6	45.4	—1.3
Lenox	23.8	+0.5	28.6	+6.9	34.6	—1.7	46.2	—3.8	58.8	—2.4	69.5	+0.2	73.8	0.0	76.4	+3.5	63.5	—1.8	51.4	—2.2	45.0	+7.1	15.6	—9.7	48.9	—0.3
Little Sioux	21.4	------	27.8	------	33.4	------	45.2	------	59.4	------	69.9	------	73.9	-----	78.0	------	65.0	------	52.4	------	41.4	------	13.4	------	48.4	------
Logan	21.2	+1.9	27.8	+4.4	34.7	+0.1	45.6	—4.3	59.6	—1.4	69.0	—0.9	73.2	—1.5	77.8	+5.1	63.9	—0.2	51.6	—0.6	42.2	+6.3	13.8	—11.4	48.4	—0.2
Marshalltown	19.8	+0.4	24.4	+5.0	30.6	—2.8	42.0	—6.8	56.1	—3.6	68.4	—0.3	70.6	—2.6	75.6	+3.8	-----	------	48.2	—4.1	41.6	+5.6	14.6	—8.9	-----	------
Mason City	17.4	+2.3	20.9	+4.7	28.3	—3.3	39.4	—8.3	55.3	—3.1	66.2	—1.0	69.9	—1.6	72.8	+2.8	59.0	—4.0	46.5	—3.1	38.0	+5.2	13.8	—7.9	44.0	—1.4
Massena	24.0	------	27.6	------	32.7	------	45.0	------	58.7	------	69.6	------	73.4	-----	75.2	------	62.5	------	50.8	------	41.6	------	13.7	------	47.9	------
Mt. Ayr	24.9	+1.6	30.6	+8.1	36.4	—0.6	47.0	—3.8	60.2	—1.5	70.5	+0.5	74.6	—0.4	78.1	+4.1	65.8	—0.9	52.6	—2.3	46.8	+7.9	16.8	—9.1	50.4	+0.3
Mt. Pleasant	25.8	+4.8	31.0	+7.8	36.4	—0.3	48.5	—2.6	59.9	—2.3	71.4	0.0	72.3	—3.3	77.2	+3.9	63.7	—1.3	50.9	+4.1	47.7	+10.3	18.2	—8.6	50.7	+1.0
New Hampton	18.0	+1.2	21.2	+6.6	28.7	—3.0	40.2	—6.7	55.2	—2.7	67.0	+0.7	70.0	—1.4	72.1	+2.6	59.4	—2.3	46.3	—4.5	39.2	+4.5	12.6	—6.9	44.2	—1.0
Newton	22.8	+5.3	29.0	+9.2	33.6	—1.5	45.6	—2.8	58.8	—1.8	70.5	+0.8	72.5	—1.9	77.4	+5.2	63.6	+0.7	51.2	—0.6	45.6	+10.8	16.8	—5.6	49.0	+1.5
Odebolt	20.8	+0.4	25.0	+6.6	30.8	—4.0	43.4	—4.7	58.5	—1.9	70.3	+0.8	73.2	—1.3	78.0	+4.3	63.0	—0.5	50.0	—2.9	40.3	+3.8	14.2	—9.3	47.3	—0.7
Omaha, Neb	22.8	+2.3	30.4	+6.7	35.8	—0.2	45.6	—4.9	60.8	—1.7	70.4	—1.9	75.6	—0.9	79.5	+5.1	65.6	—0.2	53.6	—0.6	43.9	+6.2	15.6	—10.5	50.0	0.0
Onawa	22.2	—0.4	27.4	+6.4	35.0	—2.5	46.4	—3.5	60.6	—2.0	71.2	+1.2	74.8	—0.2	79.0	+4.8	65.3	+0.1	52.5	—2.3	41.6	+3.3	16.1	—10.1	49.3	—0.5
Osage	17.6	+3.6	22.0	+7.1	29.6	+0.5	41.0	—4.4	57.4	+0.3	68.0	+1.9	71.9	+1.4	75.0	+7.0	61.8	+1.8	48.5	+1.1	40.0	+9.1	13.6	—6.0	45.5	—1.9
Oskaloosa	24.5	+5.3	29.9	+8.7	35.0	—0.2	46.4	—3.6	59.1	—1.3	70.2	+0.7	72.6	—1.8	76.9	+5.0	63.2	—1.3	50.8	—1.3	46.5	+9.5	17.4	—8.5	49.4	+1.0
Pacific Junction	23.0	—0.3	29.6	+10.0	35.2	—1.9	46.9	—3.1	59.6	—2.0	69.8	+0.1	74.6	+0.4	76.0	+2.5	63.6	—0.9	51.0	—3.4	42.4	+3.3	14.4	—11.9	48.8	—0.6
Perry	21.1	+0.4	27.3	+8.7	30.2	—6.7	43.4	—3.9	58.6	—3.3	70.2	—0.1	72.6	—2.0	76.6	+4.1	62.8	—1.6	49.8	—4.4	42.8	+5.0	15.0	—9.2	47.5	—1.1
Plover	17.6	—0.4	21.8	+5.5	29.6	—2.5	41.4	—5.2	56.6	—2.5	68.5	+0.9	72.1	—0.5	75.4	+4.5	61.2	—1.6	48.3	—2.3	37.8	+3.5	13.2	—8.1	45.3	—0.7
Pocahontas	17.8	------	22.2	------	29.0	------	40.6	------	55.4	------	66.8	------	70.8	------	74.8	------	60.0	------	47.8	------	37.7	------	12.5	------	44.6	------
Ridgeway	19.3	+0.1	23.0	+5.5	29.8	—3.3	41.0	—6.6	56.7	—2.9	68.2	—0.1	71.9	—1.5	75.4	+3.4	62.0	—1.2	49.2	—3.2	41.3	+4.1	15.2	—7.1	46.1	—1.1
Rockwell City	20.8	+1.0	25.6	+8.0	31.9	—1.7	41.6	—5.4	58.6	—0.9	71.3	+2.8	73.5	+0.1	77.7	+5.4	61.6	—2.2	49.0	—3.0	41.4	+6.4	14.8	—7.8	47.3	+0.2
Sac City	-----	------	-----	------	30.6	—0.7	44.1	—3.6	57.6	—1.0	68.8	+0.6	70.9	—1.8	76.2	+5.7	61.6	+0.1	49.6	—0.4	39.3	+5.8	14.1	—8.6	-----	------
St. Charles	24.2	+1.4	30.1	+9.2	34.7	—3.5	46.1	—4.5	59.0	—2.9	69.2	+0.6	72.8	—1.3	78.1	+4.9	64.8	—0.6	53.0	—2.5	46.4	+5.3	17.8	—8.5	49.7	—0.2
Sheldon	18.0	+0.4	-----	------	29.8	—1.6	41.8	—5.3	56.2	—1.7	67.8	+1.4	71.8	—0.3	77.0	+5.7	61.0	—2.2	49.2	—2.2	37.8	+1.7	11.9	—10.3	-----	------
Sibley	14.7	—0.2	17.4	+2.4	28.3	—1.6	40.9	—5.2	54.2	—3.1	65.4	—0.6	69.3	—0.9	73.8	+4.9	59.0	—1.7	45.8	—3.8	34.8	+2.8	10.1	—9.5	42.8	—1.4
Sigourney	24.6	+1.8	29.8	+8.1	35.8	—1.1	47.0	—4.2	59.8	—3.2	70.6	—0.2	73.2	—2.6	78.0	+4.2	64.0	—1.6	50.9	—3.4	46.4	+7.5	17.7	—8.6	49.8	—0.3
Sioux Center	16.8	—1.1	20.8	+4.4	29.6	—3.6	40.6	—5.4	56.6	—1.7	67.7	+0.9	71.0	—0.2	74.9	+3.8	60.4	—0.9	48.6	—2.4	36.2	+0.9	12.0	—9.7	44.6	—1.2
Sioux City	19.2	+3.6	23.6	+3.8	31.8	—0.8	41.8	—6.7	58.0	—2.8	68.5	—0.9	72.2	—2.0	76.8	+4.2	63.0	—1.1	50.6	—0.5	39.3	+5.0	12.8	—9.8	46.5	—0.6
Stockport	26.3	------	31.6	------	36.8	------	47.6	------	58.5	------	70.4	------	72.0	-----	76.9	------	63.7	------	49.5	------	46.2	------	16.6	------	49.7	------
Storm Lake	18.6	+1.2	23.1	+7.9	30.6	+0.4	42.2	—3.2	57.0	—0.6	67.8	+0.3	71.0	—0.9	76.0	+5.3	62.0	—0.7	50.3	—2.0	40.0	+3.9	14.3	—7.1	46.0	+0.3
Thurman	23.2	—1.0	29.8	+8.3	35.2	—2.6	47.0	—3.5	60.1	—2.2	71.6	+0.6	75.8	+0.4	77.4	+3.6	64.6	—1.2	52.4	—2.4	44.0	+5.4	14.6	—10.9	49.6	—0.5
Tipton	23.4	+2.8	29.5	+7.7	35.4	—1.2	46.8	—2.1	59.9	—0.6	71.1	+1.2	74.2	—0.6	78.8	+6.2	64.8	—1.0	50.6	—2.3	45.6	+8.8	17.4	—8.0	49.8	+0.9
Toledo	20.6	+1.5	26.2	+6.8	32.4	—2.3	43.7	—5.9	57.6	—3.1	68.9	—0.3	71.4	—2.2	75.6	+3.6	61.0	—3.1	50.2	—1.9	44.2	+7.8	15.5	—8.2	47.3	—0.6
Wapello	26.6	+1.5	30.6	+10.3	37.1	—0.3	48.4	—3.0	59.6	—3.0	68.9	—0.7	71.3	—3.9	76.2	+2.7	64.6	—1.1	50.7	—3.7	48.2	+7.0	19.4	—8.5	50.1	—0.3
Washington	23.5	+4.4	30.4	+8.1	35.6	+1.4	46.8	—3.7	58.8	—2.2	69.5	—2.2	71.8	—3.7	77.0	+3.9	63.4	—1.2	51.0	—1.2	46.4	+10.2	17.8	—6.8	49.3	+0.5
Washta	18.8	------	23.6	------	30.4	------	43.2	------	56.7	------	6.77	------	70.8	------	76.2	------	61.2	------	49.6	------	37.7	------	13.2	------	45.8	------
Waterloo	21.8	+4.3	24.3	+6.2	31.3	—0.5	42.2	—4.8	57.0	—2.5	69.1	+0.9	72.4	—1.1	76.4	+5.5	62.2	—0.6	48.9	—1.3	42.8	+7.1	15.3	—6.7	47.0	+0.6
Waukee	22.6	------	28.2	------	33.1	------	45.2	------	57.8	------	69.2	------	71.8	-----	77.0	------	63.2	------	51.3	------	43.8	------	14.4	------	48

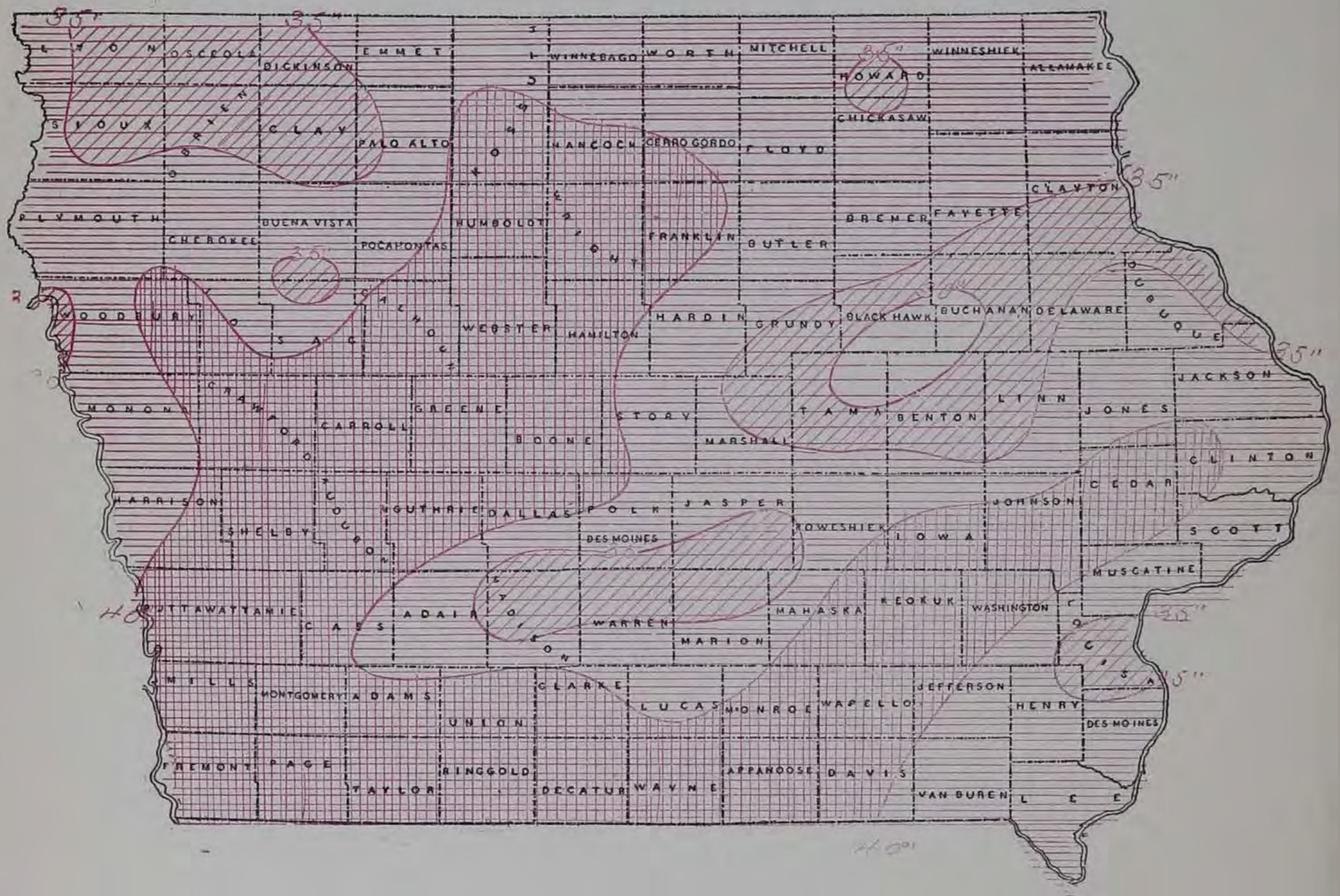
MONTHLY AND ANNUAL PRECIPITATION WITH DEPARTURES FROM THE NORMAL FOR 1909

STATIONS	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Annual	
	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prcc.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.
Afton	1.51	+0.62	0.80	—0.15	1.34	—0.76	5.24	+0.87	4.65	—0.24	13.30	+9.14	5.21	+0.86	1.36	—3.07	2.78	—0.87	3.50	+0.88	5.20	+3.97	2.59	+1.35	47.48	+12.60
Albia	2.35	+0.93	1.43	+0.11	1.82	—0.08	5.36	+2.53	5.38	+1.05	7.06	+2.20	6.42	+1.49	1.04	—3.11	3.63	+0.07	2.98	+0.41	4.51	+2.74	1.80	+0.66	43.78	+ 9.00
Algona	2.21	+1.42	1.90	+0.63	1.14	—0.42	3.48	+1.00	5.80	+2.12	6.03	+1.63	2.90	—0.20	2.36	—1.56	4.71	+1.57	2.21	+0.12	8.04	+6.76	1.29	+0.26	42.07	+13.33
Allerton	1.82	+0.40	1.90	+0.56	2.15	—0.30	4.40	+1.20	4.21	—0.30	10.24	+5.55	11.86	+7.29	0.34	—6.48	4.56	—0.15	-----	-----	-----	-----	2.28	+1.11	-----	-----
Alta	1.17	+0.58	1.77	+0.92	1.23	—0.43	2.77	—0.26	6.54	+1.76	5.67	+0.45	5.83	+1.18	2.37	—1.60	2.15	—1.03	1.15	—0.99	6.13	+4.90	1.33	+0.40	38.14	+ 5.83
Alta (near)	1.05	+0.46	1.50	+0.64	1.20	—0.31	2.38	—0.41	6.20	+1.37	6.23	+1.34	8.37	+3.49	2.96	—0.63	2.16	—1.57	2.01	—0.18	5.56	+4.07	1.39	+0.55	41.01	+ 8.82
Alton	.95	------	1.65	------	0.92	------	2.80	------	4.91	------	5.96	------	6.61	------	0.99	------	4.42	------	1.43	------	3.94	------	1.90	------	36.48	------
Amana	1.73	+0.26	1.90	+0.64	2.09	+0.09	6.81	+3.90	2.40	—2.00	5.51	+1.10	6.62	+2.37	1.00	—2.61	3.96	+0.71	1.81	—0.84	4.14	+2.41	2.37	+0.92	40.34	+ 6.95
Ames	1.36	+0.44	1.45	+0.65	1.71	+0.30	6.12	+3.45	4.17	—0.15	5.00	+0.47	3.00	—1.44	0.52	—3.15	2.82	—0.57	1.59	—3.51	4.16	+2.97	5.29	+4.27	37.19	+ 3.73
Atlantic	1.90	+1.14	1.40	+0.35	0.97	—0.78	3.83	+0.77	3.43	—0.95	9.08	+3.67	6.00	+1.67	0.44	—3.04	6.03	+2.54	2.90	+0.38	8.66	+7.68	1.94	+0.79	46.58	+14.22
Audubon	3.17	+2.52	2.08	+1.29	1.65	+0.03	2.72	—0.52	4.03	—0.21	6.58	+2.73	7.33	+3.41	0.41	—3.31	5.32	+2.19	2.38	+0.22	8.57	+7.23	2.01	+1.05	46.25	+16.63
Baxter	1.32	+0.44	1.31	+0.50	1.78	—0.43	6.49	+3.62	6.36	+1.16	5.48	+0.98	5.30	+0.26	0.71	—3.84	2.20	—1.22	2.42	—0.39	4.23	+2.90	2.04	+1.15	39.64	+ 5.13
Bedford	1.00	—0.10	0.93	—0.11	1.45	—0.87	3.41	+0.60	3.16	—2.09	5.76	+1.29	7.29	+1.95	1.37	—3.69	5.53	+2.09	3.04	+0.76	4.21	+2.92	2.30	+1.36	39.45	+ 4.11
Belle Plaine	2.89	+1.12	1.40	—0.06	2.49	—0.02	6.48	+3.17	2.81	—1.85	5.99	+1.82	4.94	+0.53	1.05	—3.10	1.84	—1.12	1.34	—1.01	3.68	+1.96	2.72	+1.19	37.63	+ 2.63
Bonaparte	1.11	—0.87	2.36	+1.13	1.96	—0.59	3.51	+0.16	4.13	+0.10	5.93	+1.25	7.35	+3.62	0.17	—4.48	3.26	—0.78	3.21	+1.45	3.84	+2.04	2.41	+0.38	39.24	+ 3.41
Boone	2.11	------	1.88	------	3.05	------	4.31	------	4.81	------	7.02	------	4.12	------	0.86	------	4.24	------	2.54	------	7.67	------	2.45	------	45.06	------
Buckingham	1.77	+0.71	0.98	—0.02	0.98	—1.24	5.22	+3.15	3.72	—0.08	3.60	—1.34	1.66	—3.01	1.10	—3.93	2.06	—0.93	1.78	—0.32	2.83	+1.38	1.50	+0.53	27.20	— 5.10
Burlington	1.62	—0.36	2.33	+0.55	2.52	—0.34	3.79	+0.63	3.83	—0.02	4.37	—0.71	5.46	+1.84	0.87	—4.57	4.47	+1.35	2.65	+0.43	4.53	+2.75	4.39	+2.84	40.83	+ 4.39
Carroll	1.77	+0.96	0.52	—0.63	1.50	—0.54	2.53	—0.67	6.28	+1.72	9.79	+5.12	4.51	+0.50	0.30	—3.41	5.23	+2.34	3.78	+1.54	7.26	+6.13	1.45	+0.46	44.92	+13.52
Cedar Rapids	2.27	+0.85	1.67	+0.29	1.47	—0.57	6.36	+3.62	3.05	—1.53	4.44	+0.57	4.21	+0.17	1.16	—2.34	3.91	+1.09	1.28	—1.18	2.82	+1.42	1.50	0.00	34.14	+ 2.39
Chariton	1.50	+0.18	0.85	—0.18	1.60	+0.52	5.01	+1.88	3.89	—0.48	6.33	+1.61	6.11	+0.65	0.82	—4.18	3.97	+0.53	2.14	—0.22	4.74	+3.44	2.45	+1.11	39.41	+ 4.86
Charles City	-----	-----	1.53	+0.56	2.18	+0.26	5.40	+2.57	3.42	—1.52	5.40	+0.30	1.77	—1.81	6.88	+3.46	3.12	+0.32	2.48	+0.45	6.06	+4.67	1.79	+0.51	-----	-----
Clarinda	1.27	+0.29	0.68	—0.32	1.75	—0.11	2.91	—0.28	4.78	—0.06	10.39	+5.49	7.55	+2.85	0.95	—3.08	5.59	+2.90	2.78	+0.28	5.74	+4.58	1.88	+0.76	46.27	+13.30
Clear Lake	1.35	+0.78	0.72	—0.13	1.25	—0.34	-----	-----	3.73	—1.70	5.12	+0.28	2.83	—1.91	3.39	—0.92	4.54	+1.58	2.75	+0.12	5.87	+4.80	1.80	+1.17	-----	-----
Columbus Junction	-----	-----	2.20	+1.02	1.65	—0.86	5.16	+2.38	3.48	—0.40	2.95	—1.93	5.10	+1.09	0.50	—5.72	2.39	—0.76	2.16	—0.29	4.76	+3.25	2.72	+1.26	-----	-----
Corning	1.00	+0.09	0.81	—0.07	2.27	+0.53	4.82	+1.69	4.99	+0.16	10.11	+6.06	6.87	+2.52	1.51	—2.70	5.12	+2.16	3.16	+0.83	5.62	+4.42	2.38	+1.24	48.66	+16.93
Corydon	1.86	+0.37	1.86	+0.54	1.88	—0.25	4.74	+1.58	3.97	—0.70	6.92	+2.27	7.34	+3.16	0.49	—3.83	4.99	+1.40	2.39	—0.10	3.46	+2.01	2.14	+0.72	42.04	+ 7.17
Creston	1.68	------	1.25	------	0.94	------	4.85	------	5.27	------	12.17	------	5.16	------	1.94	------	4.25	------	2.99	------	4.92	------	1.96	------	47.38	------
Cumberland	2.12	+1.27	0.85	—0.05	1.10	—0.92	5.36	+3.27	3.59	—0.10	6.92	+2.24	4.73	—0.71	0.50	—3.48	4.14	+0.50	4.70	+2.09	3.36	+2.38	1.80	+0.78	39.17	+ 7.27
Davenport	1.72	+0.15	2.34	+0.78	1.60	—0.61	6.02	+3.14	3.23	—0.96	2.80	—1.31	4.68	+1.13	2.34	—1.30	1.50	—1.64	2.37	—0.02	3.92	+2.16	3.12	+1.43	35.64	+ 2.95
Delaware	1.22	+0.23	0.68	—0.13	1.10	—0.73	5.66	+2.88	3.51	—0.68	7.91	+3.73	2.22	—1.93	4.04	+0.50	2.86	—0.41	0.92	—1.27	3.54	+1.97	1.64	+0.26	35.31	+ 4.42
Denison	0.86	—0.38	1.92	+1.06	0.28	—1.23	2.20	—1.25	5.65	+1.54	7.75	+4.33	6.08	+2.02	0.71	—3.05	4.43	+1.43	1.71	—0.32	8.13	+7.12	1.90	+1.31	41.62	+12.58
Des Moines	1.61	+0.40	0.90	—0.18	1.56	—0.09	5.14	+2.16	4.24	—0.32	7.03	+2.07	4.41	+0.55	0.14	—3.47	2.06	—1.01	2.89	+0.21	3.71	+2.25	2.32	+1.01	36.03	+ 3.58
De Soto	1.20	+0.45	1.12	+0.24	1.73	+0.14	5.03	+2.25	4.29	+0.41	6.37	+2.00	2.88	—2.95	0.74	—4.23	3.39	+0.30	2.14	—0.19	4.27	+3.05	2.05	+0.79	35.30	+ 2.26
Dubuque	1.98	+0.49	1.32	—0.06	1.25	—0.96	7.40	+4.48	2.32	—2.00	6.61	+2.06	1.30	—3.00	1.50	—1.54	4.28	+0.69	2.03	—0.65	2.94	+1.13	2.08	+0.36	35.01	+ 1.00
Earlham	1.83	+0.75	1.60	+0.48	1.28	—0.48	7.20	+3.54	3.82	—0.95	6.82	+2.29	3.78	—1.06	0.88	—4.25	4.33	+0.54	-----	-----	5.87	+4.53	3.49	+2.19	-----	-----
Elkader	1.79	+0.48	1.02	—0.07	1.27	—0.64	7.80	+5.11	3.14	—1.00	4.80	+0.77	1.60	—3.08	2.17	—0.73	2.15	—1.69	1.46	—1.18	4.51	+2.86	2.46	+0.63	34.17	+ 1.46
Elliott	1.28	------	0.88	------	0.95	------	4.05	------	3.79	------	6.55	------	8.44	------	0.54	------	5.03	------	3.07	------	7.78	------	1.80	------	44.16	------
Estherville	1.05	+0.49	1.99	+1.31	0.65	—0.79	2.73	+0.52	6.47	+2.29	7.01	+3.66	4.75	+0.17	1.85	—1.75	4.69	+1.46	1.47	—0.70	3.46	+2.22	1.55	+0.98	37.67	+ 9.81
Fairfield	1.52	—0.18	3.44	+1.85	1.84	—0.73	4.84	+1.36	5.08	—0.20	5.92	+0.79	7.61	+3.62	T	—4.08	2.17	—1.30	3.32	+0.40	4.72	+2.44	2.39	+0.61	42.85	+ 4.58
Fayette	2.05	+0.77	2.76	+1.62	1.84	—0.42	8.02	+5.00	-----	-----	6.77	+1.42	1.65	—2.44	2.55	—0.72	2.77	—0.46	1.05	—1.60	4.36	+2.94	2.84	+1.35	-----	-----
Forest City	2.25	+1.61	1.05	+0.12	1.55	—0.01	3.57	+1.20	4.69	+0.30	5.78	+1.15	3.13	—0.55	2.81	—0.69	3.60	—0.02	0.75	—1.55	7.21	+5.98	1.40	+0.55	37.79	+ 8.09
Fort Dodge	1.09	+0.45	0.70	—0.01	1.50	—0.76	-----	-----	5.78	+1.23	7.21	+3.40	5.29	+1.26	0.65	—4.99	3.73	—0.84	1.34	—1.75	7.14	+5.92	1.39	+0.93	-----	-----
Fort Madison	1.94	—0.02	3.10	+1.21	2.25	—0.51	3.98	+0.80	4.36	—0.04	7.79	+3.41	5.99	+2.03	0.18	—3.61	4.24	+0.43	3.51	+0.89	4.28	+2.14	2.20	+0.27	43.82	+ 7.00
Gilman	2.29	+1.46	1.70	+0.70	0.50	—1.55	6.18	+3.82	4.92	+1.10	4.88	+0.14	5.33	+0.74	1.35	—2.43	1.39	—1.51	3.49	+0.97	3.97	+2.57	2.87	+2.11	38.87	+ 8.12
Grand Meadow	1.59	+0.42	1.05	—0.05	1.85	—0.29	7.67	+4.70	3.80	—0.97	4.90	+0.10	1.30	—3.44	4.23	+0.90	2.68	—0.95	1.81	—0.66	4.44	+2.88	2.45	+0.99	37.86	+ 3.63
Greene	1.86	+0.22	0.87	—0.07	1.72	+0.03	4.10	+1.87	2.85	—1.79	5.41	+1.29	2.91	—1.79	3.84	—0.03	3.69	+0.55	1.70	—0.46	7.54	+5.39	1.95	+0.92	38.44	+ 6.13
Grinnell	1.65	+0.38	0.74	—0.18	0.93	—0.81	5.72	+2.34	2.89	—1.70	6.00	+1.42	4.85	—0.10	2.04	—2.58	1.86	—0.49	3.37	+0.90	4.28	+2.65	1.99	+0.82	36.32	+ 2.65
Grundy Center	1.35	+0.53	0.60	—0.25	1.20	—0.62	7.37	+4.32	3.63	—1.53	8.76	+3.46	2.04	+2.51	1.55	—2.02	3.87	—0.62	1.93	—0.54	5.78	+4.56	-----	-----	-----	-----
Guthrie Center	1.85	+1.26	1.50	+0.70	1.94	+0.54	4.35	+1.61	5.52	+0.56	6.06	+1.65	4.58	—0.24	1.26	—3.06	4.33	+1.24	2.52	+0.25	7.78	+6.63	2.65	+1.55	44.34	+12.69
Hampton	3.21	+2.17	1.87	+0.70	2.35	+0.10	4.84	+1.56	3.31	—1.27	5.21	+0.30	2.73	—2.10	3.15	—0.22	4.26	+0.70	2.64	+0.21	6.74	+5.18	2.23	+0.98	42.54	+ 8.31
Hancock	1.81	------	0.93	------	-----	-----	0.83	------	2.27	------	8.38	------	2.85	------	0.53	------	4.90	------	2.15	------	8.38	------	1.66	------	-----	-----
Harlan	1.81	+1.15	1.55	+0.70	1.00	—0.48	2.76	+0.30	4.25	0.0	6.84	+2.22	5.03	—0.28	0.88	—3.34	7.19	+3.48	1.81	—0.95	5.85	+4.81	1.81	+0.91	40.78	+ 8.52
Hopeville	1.25	+0.31	2.06	+1.27	1.55	—0.23	6.31	+3.08	3.82	—0.87	8.83	+4.78	7.36	+2.51	1.49	—2.32	1.83	—1.66	3.26	+1.02	4.60	+3.51	2.07	+1.01	44.43	+12.41
Humboldt	2.19	+1.64	1.89	+1.23	2.43	+0.83	3.45	+0.81	7.14	+2.78	7.10	+2.30	4.89	+0.95	0.75	—2.69	4.22	+1.05	1.37	—0.52	11.48	+10.11	1.36	+0.67	48.27	+19.28
Independence	1.74	+0.51	2.05	+1.04	1.40	—0.23	5.84	+3.46	2.19	—1.97	5.78	+1.00	1.53	—3.06	1.91	—1.28	2.44	—1.51	0.48	—1.88	2.07	+0.75	2.62	+1.26	30.05	— 1.91
Indianola	1.04	—0.23	2.50	+1.56	1.53	+0.21	3.94	+0.54	2.47	—2.17	5.76	+1.58	1.67	—2.59	0.97	—3.71	2.74	—0.36	2.45	+0.35	5.09	+3.67	2.32	+0.99	32.48	— 0.16
Inwood	0.85	------	1.99	------	0.57	------	2.77	------	4.92	------	8.53	------	4.37	------	2.70	------	4.38	------	1.27	------	3.08	------	1.65	------	37.08	------
Iowa City	1.97	+0.23	1.89	+0.42	2.00	+0.44	7.21	+4.07	4.40	+0.03	4.58	0.0	5.75	+1.27	1.88	—2.36	2.43	—1.32	1.59	—1.19	4.88	+2.62	2.52	+0.87	41.10	+ 4.20
Iowa Falls	2.47	+1.57	1.30	+0.26	1.80	+0.07	5.31	+2.43	3.53	—0.67	5.63	+1.11	2.07	—2.03	1.19	—2.19	2.63	—0.34	1.82	—0.33	5.70	+4.45	2.64	+1.53	36.09	+ 5.86
Keokuk	1.26	—0.43	2.44	+0.82	1.84	—0.53	4.99	+1.65	3.03	—1.32	5.11	+0.76	5.46	+1.43	0.68	—2.56	3.46	—0.51	4.48	+1.99	3.97	+2.12	2.56	+0.69	39.28	+ 4.11
Keosauqua	1.40	+0.03	2.26	+0.81	1.94	—0.60	4.20	+0.51	4.75	+0.38	4.35	—0.20	6.94	+2.81	0.23	—3.59	3.14	—1.26	2.31	+0.47	3.28	+1.78	2.78	+1.28	37.58	+ 2.42
Lacona	3.25	+1.58	0.84	—0.64	-----	-----	-----	-----	-----	-----	-----	-----	4.83	+0.35	1.46	—3.36	3.21	—0.62	3.01	+0.30	4.59	+3.12	4.00	+2.33	-----	-----
Lamoni	1.96	------	1.01	------	1.59	------	4.36	------	4.72	------	8.11	------	11.78	------	0.37	------	5.75	------	3.63	------	3.66	------	2.60	------	49.54	------
Larrabee	1.13	+0.57	0.48	—0.36	1.31	—0.18	2.12	—0.60	5.30	+0.78	7.32	+1.84	5.79	+1.42	0.81	—2.67	4.87	+1.45	2.58	+0.46	5.92	+4.90	1.84	+0.88	39.47	+ 8.49
Le Claire	1.98	+0.55	2.58	+1.33	1.63	—1.01	6.29	+3.92	3.05	—0.74	4.63	+0.54	3.41	—1.21	2.66	—0.93	2.03	—1.75	2.26	+0.37	5.10	+3.63	3.74	+2.62	39.36	+ 7.32
Le Mars	0.41	—0.13	1.51	+0.79	0.81	—0.79	2.71	—0.48	5.08	+0.29	7.22	+3.06	6.82	+2.35	1.42	—1.45	5.72	+1.94	1.91	+0.02	4.35	+3.12	1.04	+0.22	39.01	+ 8.94
Lenox	1.13	+0.37	0.30	—0.54	1.06	—0.69	6.19	+3.16	5.75	+1.03	7.69	+3.42	9.86	+4.92	1.50	—2.02	3.71	+0.38	2.93	+0.40	4.42	+3.20	1.72	+0.65	46.26	+13.68
Little Sioux	0.63	------	1.89	------	0.54	------	1.83	------	4.05	------	5.72	------	4.13	------	1.57	------	4.62	------	1.69	------	5.93	------	1.62	------	34.22	------
Logan	1.09	—0.01	1.86	+0.66	0.39	—1.42	2.09	—0.72	3.82	—0.31	6.82	+1.39	6.83	+1.64	2.96	—0.78	6.16	+2.91	1.02	—1.37	8.29	+7.04	1.93	+0.66	43.26	+ 9.69
Marshalltown	3.06	+2.06	1.14	+0.33	1.25	—1.43	4.93	+2.03	3.49	—1.24	6.12	+1.76	3.90	—0.81	0.76	—2.88	-----	-----	1.97	—0.39	4.31	+3.02	2.98	+1.82	-----	-----
Mason City	1.76	+0.61	1.12	+0.28	1.07	—0.61	4.00	+1.44	4.19	—0.47	5.96	+0.07	2.24	—1.82	5.13	+1.53	3.75	+1.39	1.55	—0.57	6.73	+5.09	1.59	+0.78	39.18	+ 7.72
Massena	0.89	------	0.95	------	1.09	------	4.89	------	4.91	------	-----	-----	3.79	------	0.92	------	5.23	------	-----	-----	7.25	------	2.71	------	-----	-----
Mt. Ayr	1.60	+0.36	1.90	+0.73	1.84	—0.22	5.55	+2.27	4.85	—0.91	8.11	+3.39	12.20	+6.89	1.38	—2.37	4.30	+0.77	4.32	+2.06	4.29	+2.93	2.63	+1.34	52.97	+17.24
Mt. Pleasant	1.26	—0.20	2.53	+1.47	2.08	—0.35	3.92	+0.71	4.54	+0.36	4.50	+0.02	6.39	+2.56	0.21	—3.86	2.27	—1.41	2.76	+0.88	4.95	+3.39	3.38	+2.01	38.79	+ 5.58
Muscatine	2.19	+0.28	2.30	+0.17	1.58	—1.21	5.46	+2.05	3.35	—1.03	4.43	—0.43	3.63	—0.28	2.61	—1.77	1.96	—1.76	1.68	—1.36	95.53	+3.23	2.90	+0.62	37.62	— 1.49
New Hampton	1.91	+1.08	0.65	—0.25	3.10	+1.00	9.43	+7.48	4.21	—0.43	6.18	+1.93	1.94	—2.25	8.21	+5.18	2.38	—1.13	1.04	—1.22	7.16	+5.76	1.23	+0.30	47.44	+17.54
Newton	1.86	+0.89	1.83	+0.74	1.07	—0.53	5.15	+1.82	3.18	—1.96	3.93	—0.66	3.23	—1.15	0.81	—3.37	1.93	—1.27	1.41	—1.32	3.30	+1.65	1.85	+0.49	29.55	— 4.67
Odebolt	0.86	+0.45	1.72	+0.85	0.68	—0.87	1.46	—1.26	6.50	+2.52	7.77	+3.75	5.85	+1.21	0.44	—3.16	3.19	—0.56	1.71	—0.34	7.18	+6.04	1.21	+0.37	38.57	+ 9.00
Omaha, Neb	1.00	+0.35	1.21	+0.45	0.63	—0.76	1.34	—1.67	3.80	—0.70	7.54	+2.49	4.40	+0.07	0.88	—2.74	5.25	+2.22	1.70	—0.65	6.24	+5.18	2.33	+1.17	36.07	+ 5.41
Onawa	1.22	+0.56	2.43	+1.44	0.83	—0.54	2.34	—0.14	4.03	—1.55	5.80	+0.80	4.38	—1.29	1.68	—3.46	4.18	—0.62	3.73	+1.34	5.34	+3.86	1.77	+0.86	37.73	+ 1.26
Osage	1.75	+0.83	1.45	+0.31	1.30	—0.46	3.86	+1.41	3.47	—1.29	6.61	+2.08	1.61	—2.11	6.87	—3.84	3.20	—0.36	2.09	—0.33	7.51	+6.08	-----	-----	-----	-----
Oskaloosa	1.83	+0.91	1.58	+0.57	2.23	+0.37	6.29	+3.56	7.05	+3.37	5.21	+1.10	3.94	—0.03	0.12	—3.10	3.73	+0.70	2.78	+0.58	4.01	+2.52	2.25	+0.99	41.02	+11.54
Pacific Junction	1.92	+1.38	0.99	+0.39	0.96	—0.39	2.59	+0.04	4.70	+0.69	8.90	+4.44	3.13	—2.00	0.65	—3.18	5.88	+2.42	1.83	—0.47	9.74	+8.80	2.37	+1.55	43.66	+13.67
Perry	2.23	+1.41	4.72	+3.74	5.00	+2.86	4.47	+1.54	5.99	+0.99	9.92	+5.23	5.38	+0.77	0.31	—5.11	5.03	+2.33	2.66	+ .11	5.35	+3.90	2.42	+1.42	53.48	+19.19
Plover	1.67	+1.09	0.90	+0.24	1.50	+0.29	2.47	+0.37	5.00	+0.73	5.67	+1.32	4.50	+0.13	0.90	—3.63	3.07	—1.32	2.13	—0.39	4.73	+5.66	1.13	+0.37	36.22	+ 4.86
Pocahontas	1.94	------	1.25	------	1.26	------	2.85	------	5.19	------	7.29	------	5.83	------	2.07	------	3.07	------	1.04	------	6.92	------	0.97	------	39.68	------
Ridgeway	3.74	+1.76	2.73	+0.56	2.82	—0.39	6.94	+4.60	3.36	—2.01	5.43	+1.28	1.24	—3.42	6.20	+2.48	3.74	—0.57	1.50	—1.67	9.50	+7.68	4.12	+1.88	51.32	+12.18
Rockwell City	1.85	+1.15	2.50	+1.65	0.80	—1.28	2.73	—0.03	7.85	+3.11	7.35	+3.09	6.42	+2.90	0.05	—4.03	5.70	+2.52	1.85	—0.56	8.90	+7.80	1.95	+0.98	47.95	+17.25
Sac City	-----	-----	-----	-----	-----	-----	1.92	—1.14	4.43	+0.20	4.24	—0.62	4.50	+0.56	0.23	—3.28	2.73	—0.55	1.41	—0.88	7.24	+6.13	1.65	+0.49	-----	-----
St. Charles	2.72	+1.57	1.34	+0.34	2.13	+0.19	7.16	+3.64	3.70	—1.22	6.59	+2.25	2.21	—3.58	0.80	—3.58	2.29	—1.35	4.09	+1.68	5.18	+3.75	2.61	+0.90	40.82	+ 4.73
Sheldon	1.97	+1.38	2.40	+1.47	-----	-----	3.05	+1.32	6.03	+0.98	6.77	+2.25	5.85	+0.71	1.63	—2.05	4.12	+0.43	1.90	—0.69	5.05	+3.97	3.40	+2.59	-----	-----
Sibley	0.70	+0.16	1.30	+0.83	0.85	—0.61	2.60	+0.27	4.61	+0.65	6.85	+2.33	3.21	—0.76	1.45	—2.21	3.72	+0.35	1.41	—0.68	4.02	+3.02	1.39	+0.61	32.11	+ 3.97
Sigourney	2.17	+0.58	1.93	+0.62	1.91	—0.15	5.78	+2.61	4.65	+0.52	7.02	+3.04	2.70	—1.60	2.67	—1.18	4.03	+1.01	2.58	+0.02	5.30	+3.75	2.59	+1.18	43.33	+10.40
Sioux Center	0.78	+0.30	1.13	+0.43	0.70	—0.82	2.50	+0.30	6.61	+1.76	4.48	—0.25	7.74	+3.03	1.07	—2.56	4.33	+0.65	1.59	—0.50	2.47	+1.76	0.90	—0.11	34.30	+ 3.90
Sioux City	0.60	+0.05	2.24	+1.69	0.74	—0.52	2.09	—0.68	3.98	—0.39	5.20	+1.32	4.09	+0.48	3.02	+0.02	1.99	—0.48	1.63	—0.16	3.02	+2.05	1.04	+0.30	29.64	+ 3.68
Stockport	1.24	—0.40	2.18	+1.03	1.73	—0.60	3.69	+0.57	4.22	+0.46	3.57	—2.79	8.57	+3.98	0.73	—4.35	3.13	—1.11	2.49	+0.53	3.51	+2.00	2.57	+1.18	37.61	+ 0.50
Storm Lake	0.93	+0.22	1.99	+1.30	1.67	+0.35	2.08	—0.26	6.30	+2.42	3.48	—1.31	5.87	+1.57	2.66	—0.66	2.16	—0.93

DATES OF KILLING FROST, 1909.

Stations	Killing Frost		Stations	Killing Frost		Stations	Killing Frost		Stations	Killing Frost	
	Last in Spring	First in Autumn		Last in Spring	First in Autumn		Last in Spring	First in Autumn		Last in Spring	First in Autumn
Afton	May 10	Oct. 12	Decorah	May 10	Sep. 27	Iowa Falls	May 10	Oct. 12	Pocahontas	May 10	Oct. 11
Albia	May 10	Oct. 12	Delaware	May 10	Oct. 12	Jefferson	....	Oct. 11	Ridgeway	May 4	Oct. 12
Algona	May 10	Oct. 11	Denison	May 4	Oct. 11	Keokuk	May 2	Oct. 19	Rock Rapids	May 10	Oct. 12
Allerton	May 10	Oct. 12	Des Moines	May 3	Oct. 12	Keosauqua	May 2	Oct. 12	Rockwell City	May 3	Oct. 11
Alta	May 10	Oct. 12	De Soto	May 10	Oct. 12	Knoxville	... .	Oct. 12	Sac City	May 10	Oct. 12
Afton	May 10	Oct. 11	Dows	May 11	....	Lamoni	May 10	Oct. 12	St. Charles	May 24	Oct. 11
Amana	May 3	Oct. 12	Dubuque	May 3	Oct. 12	Larrabee	May 10	Oct. 12	Sheldon	May 10	Oct. 12
Ames	May 10	Oct. 13	Earlham	May 10	Sep. 27	Le Mars	May 10	Oct. 11	Sibley	May 11	Oct. 12
Atlantic	May 10	Oct. 11	Elkader	May 11	Sep. 26	Lenox	May 10	Oct. 12	Sigourney	May 3	Oct. 12
Audubon	May 10	Sep. 27	Elliott	May 10	Oct. 11	Leon	May 10	Oct. 12	Sioux Center	May 10	Oct. 11
Baxter	May 4	Oct. 12	Elma	May 10	....	Little Sioux	May 10	Oct. 12	Sioux City	May 10	Oct. 12
Bedford	May 10	Oct. 11	Estherville	May 10	Oct. 12	Logan	May 10	Oct. 11	Stockport	May 3	Oct. 12
Belle Plaine	May 10	Oct. 12	Fairfield	May 3	Oct. 12	Marshalltown	May 10	Oct. 12	Storm Lake	May 3	Oct. 11
Bloomfield	May 3	Oct. 12	Fayette	May 11	Oct. 1	Mason City	May 10	Oct. 12	Thurman	May 10	Oct. 12
Bonepart	May 3	Oct. 12	Forest City	May 10	Oct. 12	Massena	May 10	Oct. 12	Tipton	May 3	Oct. 12
Boone	May 3	Oct. 12	Fort Dodge	May 10	Oct. 12	Mt. Ayr	May 10	Oct. 12	Toledo	May 10	Sep. 27
Britt	May 10	Oct. 11	Grand Meadow	May 10	Oct. 12	Mt. Pleasant	May 3	Oct. 12	Wapello	May 3	Oct. 12
Burlington	May 3	Oct. 12	Greene	May 10	Oct. 12	New Hampton	May 4	Oct. 12	Washington	May 3	Oct. 12
Carroll	May 10	Oct. 11	Grinnell	May 4	Oct. 12	Newton	May 3	Oct. 12	Washta	May 16	Sep. 23
Cedar Rapids	May 4	Oct. 12	Grundy Center	May 10	Sep. 30	Northwood	May 10	Oct. 12	Waterloo	May 10	Oct. 12
Chariton	May 10	Oct. 12	Guthrie Center	May 10	Oct. 12	Odebolt	May 10	Oct. 12	Waukee	May 10	Oct. 12
Charles City	May 3	Oct. 12	Hampton	May 4	Oct. 11	Olin	May 4	Sep. 26	Waverly	May 10	Oct. 11
Clarinda	May 10	Oct. 12	Hancock	May 3	Oct. 11	Omaha, Neb	May 2	Oct. 12	Webster City	May 10	Oct. 12
Clear Lake	May 3	Oct. 11	Harlan	May 10	Oct. 11	Onawa	May 10	Oct. 12	West Bend	May 10	Oct. 11
Clinton	May 2	Sep. 30	Hopeville	May 2	Oct. 11	Osage	May 10	Oct. 12	Whitten	May 10	Oct. 12
Columbus Junction	May 3	Oct. 13	Humboldt	May 10	Sep. 27	Oskaloosa	May 10	Oct. 12	Wilton Junction	May 11	Oct. 12
Corning	May 10	Oct. 12	Independence	May 10	Oct. 13	Pacific Junction	May 10	Oct. 12	Winterset	May 10	Oct. 12
Corydon	May 1	Oct. 13	Indianola	May 3	Oct. 12	Pella	May 10	Sep. 27	Woodburn	May 10	Oct. 12
Creston	May 11	Oct. 12	Inwood	May 16	Oct. 12	Perry	May 10	Oct. 11	Zearing	May 10	Sep. 27
Davenport	May 3	Oct. 13	Iowa City	May 3	Oct. 12	Plover	May 10	Oct. 11			

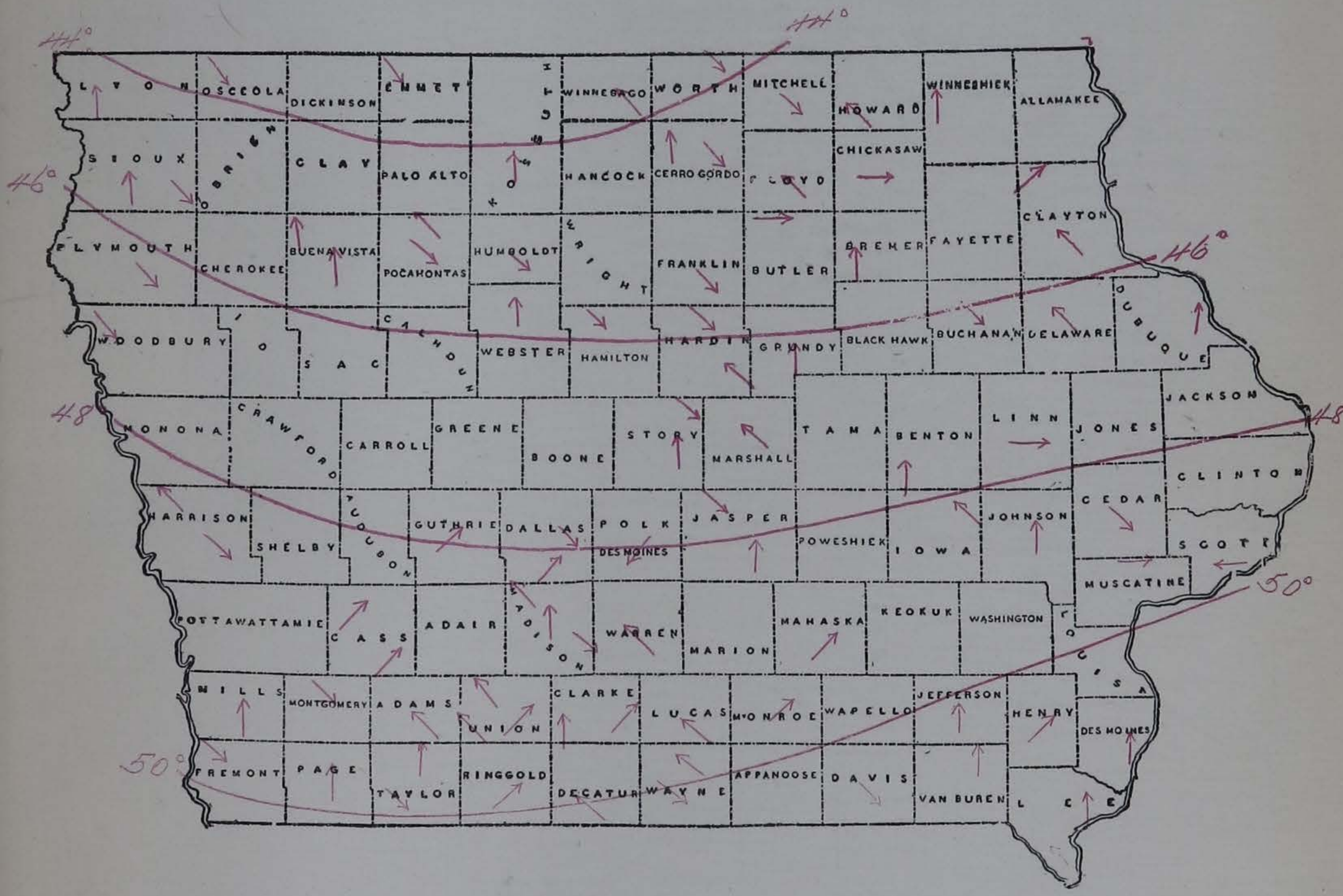
TOTAL PRECIPITATION, 1909.



SCALE OF SHADES—IN INCHES

MEAN ISOTHERMS AND PRVAILING WINDS OF 1909.

Lines pass thru points of equal temperature. Arrows fly with the wind.



U. S. DEPARTMENT OF AGRICULTURE

REPORT FOR DECEMBER, 1910

Annual Summary for 1910

IOWA SECTION

OF THE

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU

IN COOPERATION WITH THE IOWA WEATHER AND CROP SERVICE

PUBLISHED BY AUTHORITY OF THE SECRETARY OF AGRICULTURE

UNDER DIRECTION OF

WILLIS L. MOORE

CHIEF U. S. WEATHER BUREAU

BY

GEO. M. CHAPPEL

SECTION DIRECTOR



PRINTED BY ORDER OF THE IOWA GENERAL ASSEMBLY

DES MOINES, IOWA
EMORY H. ENGLISH, STATE PRINTER
1910

THE IOWA WEATHER AND CROP SERVICE

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MEAN ISOTHERMS AND PREVAILING WINDS OF DECEMBER, 1910.

Lines pass through points of equal temperature. Arrows fly with the wind.

U. S. DEPARTMENT OF AGRICULTURE,

CLIMATOLOGICAL SERVICE

OF THE

WEATHER BUREAU.

CENTRAL OFFICE: WASHINGTON, D. C.

IOWA SECTION,

GEO. M. CHAPPEL, Section Director.

VOL. XXI DES MOINES, IOWA, DECEMBER, 1910 NO. 12

GENERAL SUMMARY.

December, 1910, will go on record as the driest month of that name on record since state-wide observations began in 1890. The average precipitation was only 0.37 inch, which is 0.82 inch below the normal and 1.81 inches less than the average amount in December, 1909. Except over the southeastern counties where rain fell on the 28th or 29th, nearly all of the precipitation was in the form of snow and most of it fell on the 5th, 6th, 9th, 10th, 18th, and 22d, but the amounts were too small to afford any relief from the effects of the long continued drouth and at the close of the month the ground was bare except over the northern counties where the snow was about 2 inches in depth.

The mean temperature was very nearly normal, there being a deficiency of only 0.2 of a degree. The month was characterized by the uniformly moderately low temperatures and the absence of severe storms, and to the fact that there was only one or two cold waves. The 8th and 24th were the coldest days but the temperature on those dates was only 2 or 3 degrees below zero in the southern and from 5 to 14 degrees below in the northern counties.

The weather was ideal for finishing the corn harvest and all of the crop was secured in excellent condition. Cattle lived in the pastures and stalk fields nearly all of the month, thereby, allowing a great saving of hay and grain. The dry weather has not, however, been favorable for fall wheat or young August sown alfalfa, and the drouth has caused many shallow wells and small streams to go dry. The scarcity of water has been serious in many localities, and in some instances farmers have been obliged to sell their stock on account of lack of facilites for watering it.

TEMPERATURE.—The monthly mean temperature for the State, as shown by the records of 117 stations, was 23.4°, which is 0.2° below the normal for Iowa. By sections the mean temperatures were as follows: Northern section, 20.9°, which is normal; Central section, 23.5°, which is 0.3° below normal; Southern section, 25.7°, which is 0.5° below the normal. The highest monthly mean was 28.8°, at Keokuk, Lee County, and the lowest monthly mean, 18.2°, at Elma, Howard County, and Forest City, Winnebago County. The highest temperature reported was 57°, at Baxter, Jasper County, on the 26th; the lowest temperature reported was -14°, at Britt, Hancock County, on the 24th. The average monthly maximum was 50°, and the average monthly minimum was -5°. The greatest daily range was 54°, at Iowa City, Johnson County, and at Keosauqua, Van Buren County. The average of the greatest daily ranges was 36°.

PRECIPITATION.—The average precipitation for the State, as shown by the records of 123 stations, was 0.37 inch, which is 0.82 inch below the normal. By sections the averages were as follows: Northern section, 0.32 inch, which is 0.71 inch below the normal; Central section, 0.38 inch, which is 0.32 inch below the normal; Southern section, 0.41 inch, which is 0.92 inch below the normal. The greatest amount, 1.39 inches, occurred at Burlington, Des Moines County, and the least, 0.01 inch, at Le Mars, Plymouth County. The greatest amount in twenty-four hours, 1.12 inches, occurred at Burlington, Des Moines County, on the 28th. Measurable precipitation occurred on an average of 3 days.

SNOW.—The average depth of unmelted snowfall was 3.0 inches. By sections the averages were as follows: Northern section, 3.5 inches; Central section, 3.2 inches; Southern section, 2.2 inches. The greatest depth was 8.0 inches at Elkader, Clayton County; and the least, 0.1 inch, at Le Mars, Plymouth County.

SUNSHINE AND CLOUDINESS.—The average number of clear days was 15; partly cloudy, 7; cloudy, 9. The duration of sunshine was about the normal, the percentage of the possible amount being 55 at Charles City; 58 at Davenport; 54 at Des Moines; 50 at Dubuque; 64 at Keokuk; and 47 at Sioux City.

WIND.—Northwest winds prevailed. The highest velocity reported was 44 miles per hour from the south, at Sioux City, Woodbury County, on the 30th.

ERRATA.

STOCKPORT.—October, 1910; page 102, date of lowest temperature, published 28th, should be 29th.

COMPARATIVE DATA FOR THE STATE—DECEMBER.

Year	Temperature			Precipitation		
	Mean	Highest	Lowest	Average	Greatest	Least
1890	29.1	72	-18	.45	1.40	.00
1891	32.3	72	-14	2.41	4.50	1.21
1892	18.9	68	-29	1.65	3.04	.20
1893	22.0	70	-21	1.31	2.80	.46
1894	30.1	73	-17	.95	1.75	.25
1895	25.4	63	-16	1.63	5.74	.00
1896	30.8	70	-10	.65	1.79	T
1897	18.0	60	-25	1.65	3.22	.61
1898	18.1	60	-25	.48	I.70	T
1899	22.6	75	-19	1.61	4.28	.10
1900	26.9	63	-10	.45	2.70	T
1901	20.5	64	-31	.93	2.75	.05
1902	20.1	59	-20	2.23	5.51	.67
1903	19.6	58	-27	.41	1.96	T
1904	23.4	67	-19	1.44	3.68	.06
1905	27.0	62	-11	.52	1.69	T
1906	25.7	65	- 9	1.43	2.81	.37
1907	28.8	62	- 9	1.00	2.28	.05
1908	27.2	67	-17	.57	2.07	.05
1909	15.1	60	-26	2.18	6.10	.89
1910	23.4	57	-14	.37	1.39	.01

T. indicates a Trace.
- indicates temperature below zero.

ATMOSPHERIC PRESSURE AND WIND.

Mean Barometer for the month reduced to sea level, 30.15 inches.
Prevailing direction of Wind, Northwest.

STATIONS	Barometer, in Inches					Wind				
	Mean	Maximum	Date	Minimum	Date	Movement, miles	Maximum Velocity	Direction	Date	Average Hourly Velocity
Charles City.	30.13	30.76	12	29.72	19	5432	20	NW	18-19	7.3
Davenport ..	30.15	30.81	13	29.69	19	6033	22	NW	1	8.1
Des Moines .	30.13	30.76	13	29.78	19	6155	31	W	31	8.3
Dubuque....	30.15	30.80	13	29.67	19	4682	18	NW	19	6.3
Keokuk	30.18	30.83	13	29.76	19	5906	28	NW	18-19	7.9
Omaha, Neb.	30.16	30.73	13	29.78	31	6525	30	N	3	8.8
Sioux City ..	30.16	30.72	12	29.78	22	9328	44	S	30	12.5

DECEMBER NORMALS FOR IOWA—1890-1910.

Normal temperature for December, 24.0 degrees.
Warmest December, 1891, with mean temperature of 32.3 degrees.
Coldest December, 1909, with mean temperature of 15.1 degrees.
Normal precipitation for December, 1.16 inches.
Wettest December, 1891, with total precipitation of 2.41 inches.
Driest December, 1910, with total precipitation of 0.37 inches.
Average number of days with 0.01 inch or more of precipitation, 5.
Prevailing wind direction, northwest.
Average number of clear days, 12; partly cloudy, 8; cloudy, 11.

OBSERVERS' REMARKS.

ALBIA—*J. I. Chenoweth.* Another dry month. Very little surface water and wells are going dry.

ALGONA—*Dr. F. T. Seeley.* This month ends the dryest year on record at this tation.

ALTA—*David E. Hadden.* The month was warm and very dry. Snow that fell soon melted and the roads were excellent. The year 1910 was the driest ever recorded at this station. The precipitation of 17.49 inches being about 1.00 inch below the dry year of 1894.

ALTON—*W. S. Slagle.* The ice harvest began December 19, with ice 13 inches thick.

AMANA—*C. Schadt.* December was dry, with the precipitation 1.21 inches below and the temperature 1.9° above the normal. The Iowa river is lower than ever before known at this season of the year. The roads are in very good condition and afford excellent transportation facilities.

ATLANTIC—*Thos. H. Whitney.* A fine month. Stock well maintained by dry fall pasturage, allowing great economy of hay and grain. Moisture is needed for spring as ground water is getting low.

BAXTER—*W. R. Vandike.* The drought continued through the month, there being only .27 inch of precipitation. The weather, however, was very pleasant.

BELMOND—*Geo. C. Hardwick.* At the end of the month the ice was 15 inches thick in rivers and ponds. There were no serious storms and stock lived in stalk fields about all of the month. Water is getting low and many of the shallow wells are dry.

BONAPARTE—*Hon. B. R. Vale.* Total precipitation for the year, 21.13 inches, which is the next lowest to 1901, with 16.34 inches, which is the lowest in southeastern Iowa during the last 40 years. During the four crop months—April to July inclusive—there was 11.82 inches as compared with 5.84 inches for the same period in 1901.

BRITT—*L. M. Goodman.* The ground is very dry and many shallow wells are dry or nearly so.

BURLINGTON—*Max E. Poppe, Jr.* The stage of the river is very low. A new low water mark set. Ice cutting progressing.

CHARITON—*C. C. Burr.* There were no severe storms during the month. Wells are failing and in some cases stock is suffering for water. Feed is plentiful, but the price is high.

CLINTON—*Luke Roberts.* The Chicago & Northwestern Ry. is harvesting ice 14 inches thick.

COUNCIL BLUFFS—*B. W. Crossley.* December was favorable for outdoor work and we have been busy digging post holes, making fence, cleaning the feed lots and building concrete foundations under buildings. Stock cattle have run on the cured grass and have been fed hay only on 4 days. Winter wheat does not look very promising and does not stand the dry cold as well as does the rye. The dry weather has also been hard on the young August sown alfalfa. The wells and streams in our Missouri Loess type of soil have shown no tendency to lessen in flow and are still drawing on the copious rainfall of a year ago.

CRESTON—*O. J. Colby.* The month of December was ideal for finishing the corn harvest and also for all outdoor mechanical work, and many buildings were rushed to completion.

DAVENPORT—*J. M. Shriver.* Although the month was colder than the normal, there was a notable absence of marked falls in temperature, until the 23rd-24th, when the first cold wave of the season occurred, during which the temperature fell 25° and to the minimum of the month,—1°. Another cold wave occurred on the 29th-30th, the temperature falling 22° and to a minimum of 10° on the morning of the 30th.

Owing to the formation of ice gorges on the Le Claire Rapids, a further fall in the Missisippi River began on the 2d, a stage of—1.2 feet, the lowest on record at the Davenport station, being observed on the morning of the 5th. The stream became closed on the night of the 11-12th and at the end of the month the average thickness of the ice was about 11 inches.

DUBUQUE—*J. H. Spencer.* There were no severe storms during the month and only one cold wave occurred (that of the 24th), and it was not severe. The month in general was very pleasant for December and the precipitation was the lightest at this station during December in 10 years, and all that fell was snow. The Mississippi froze over at Dubuque on the night of the 7th-8th, or several days earlier than the average date. The water fell from 0.9 of a foot on the 1st to —0.6 of a foot on the 6th, or the lowest stage ever reached at this station. This low stage was not caused by natural conditions, however, but was due to ice gorges above Prairie du Chien, Wis. The low water at Dubuque partially cut off the water supply of the Union Electric Company for several days, and it was only with difficulty that their plant could be kept running. The water cut through the gorges on the 6th and by the morning of the 7th the water at Dubuque had risen to 0.7 of a foot. At the close of the month the ice in the Mississippi River was 10 inches thick and dealers were beginning to put up their annual supply.

EARLHAM—*Geo. Phillips.* The month closed with the ground bare and dry. Stock water is scarce.

ELLIOTT—*Henry Barnes.* December, 1910, was a very pleasant month for business or pleasure; there being no violent storms and but few windy days.

ELMA—*H. A. Moore.* This has been a splendid month. There were no bad storms and the roads were good. The ice harvest began with ice 18 inches thick and clear.

FOREST CITY—*J. A. Peters.* An exceptionally pleasant December. Very little snow. Fine weather for cattle to run in stalks and there has been a big saving of hay on this account. Water is getting low in some wells.

FORT MADISON—*Miss L. A. McCready.* The past month was very dry; water was getting scarce and the ground was extremely dry and dusty prior to the 27th.

GRAND MEADOW (Postville P. O.)—*F. L. Williams.* The month was dry with moderate temperature and the roads were perfect during the entire month. The weather was fine for all kinds of stock.

GREENFIELD—*R. B. Oldham.* A very pleasant winter month with roads dry and dusty most of the time.

GRINNELL—*D. W. Brainard.* December was a delightful winter month and very favorable for the care of live stock and the closing of the season's farm work.

HAMPTON—*E. C. Grenelle.* The total precipitaion for 1910 was less than for any year during the past 22 years. The ground is very dry, and many streams, wells and cisterns are low or dry. The weather, during the fall and winter thus far has, however, been ideal. All rough feed in fields has been available for stock, which will help a great deal in the hay shortage.

Continued on Page 126.

CLIMATOLOGICAL DATA FOR IOWA, DECEMBER, 1910

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in Inches				No. rainy day	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		No. clear days	No. partly cloudy days	No. cloudy days		
NORTHERN SECTION																				
Algona	Kossuth	1,213	37	21.4	+1.3	51	14	−10	24	34	0.27	−0.76	0.25	5.2	2	14	8	9	n w	Dr. F. T. Seeley
Alta	Buena Vista	1,513	19	21.0	−0.4	44	14†	− 5	24	41	0.18	−0.75	0.13	1.9	5	13	8	10	n w	D. E. Hadden
Alta [near]	Buena Vista	.....	.....	.....	.....	.....	.....	.....	.....	.....	0.22	−0.62	0.20	2.2	2	....	....	....	.....	W. J. Minard
Alton	Sioux	1,305	5	22.0	.....	48	14	− 8	24	35	0.05	.....	0.05	0.5	1	12	10	9	n w	W. S. Slagle
Belmond	Wright	.....	....	21.3	.....	51	14	−11	24	37	0.38	.....	0.22	4.1	6	10	13	8	n w	G. P. Hardwick
Britt	Hancock	1,236	13	20.8	+1.7	52	14	−14	24	36	0.25	−0.51	0.20	2.5	2	19	7	5	n w	L. M. Goodman
Charles City	Floyd	1,015	19	19.4	+0.4	50	14	−12	24	33	0.53	−0.75	0.20	7.3	6	12	5	14	n w	Weather Bureau
Clear Lake	Cerro Gordo	1,241	12	21.4	+1.0	44	14†	−10	24	32	0.35	−0.28	0.20	3.5	3	14	0	17	n w	Oscar Stevens
Decorah	Winneshiek	875	17	20.1	−0.9	44	14	− 8	30	31	0.63	−0.73	0.35	7.0	4	....	....	....	.....	F. H. Baker
Elkader	Clayton	727	31	21.6	0.0	49	14	− 9	24	36	0.49	−1.34	0.17	8.0	5	17	5	9	n w	Chas. Reinecke
Elma	Howard	.....	....	18.2	.....	48	14	−13	24	31	0.53	.....	0.27	7.3	4	17	8	6	n w	H. A. Moore
Estherville	Emmet	1,298	15	19.6	+1.4	50	14	−10	24	47	0.10	−0.52	0.10	1.0	1	20	0	11	n	A. O. Peterson
Fayette	Fayette	1,003	20	19.4	−2.2	45	14	−11	24	35	0.71	−0.75	0.28	7.6	5	20	5	6	n w	R. Z. Latimer
Forest City	Winnebago	1,226	16	18.2	−1.6	49	14	−11	24	44	0.45	−0.40	0.40	5.0	2	17	6	8	w	J. A. Peters
Grand Meadow	Clayton	1,180	19	19.2	−2.3	43	14	− 9	24	27	0.70	−0.76	0.20	7.0	7	12	11	8	n w	F. L. Williams
Greene	Butler	.....	12	20.6	+1.6	49	14	− 9	24	34	0.38	−0.65	0.12	4.5	6	7	11	13	w	J. L. Cole
Hampton	Franklin	1,155	20	22.0	+0.5	50	14	− 9	24	35	0.41	−0.84	0.15	4.2	5	12	13	6	n w	E. C. Grenelle
Humboldt	Humboldt	1,095	22	23.8	+0.5	51	14	−11	24	39	0.26	−0.43	0.16	2.0	2	15	7	9	n w	H. S. Wells
Inwood	Lyon	1,474	6	21.2	+0.4	51	14	−10	24	39	0.12	−0.86	0.09	1.3	2	15	7	9	n w	F. B. Hanson
Larrabee	Cherokee	1,266	20	22.0	−0.3	47	14	− 9	24	33	0.12	−0.84	0.11	1.4	2	14	8	9	n w	H. B. Strever
Le Mars	Plymouth	1,224	14	23.1	−0.6	46	14	− 5	24	32	0.01	−0.81	0.01	0.1	1	11	14	6	n w	G. A. C. Clarke
Mason City	Cerro Gordo	1,133	13	19.9	−1.8	48	14	−11	24	32	0.22	−0.59	0.10	2.2	4	18	7	6	n w	J. S. Mills
New Hampton	Chickasaw	1,169	13	18.5	−1.0	46	14	−11	24	29	0.40	−0.53	0.20	3.5	3	21	2	8	w	A. F. Kemman
Northwood	Worth	1,222	14	20.0	0.0	50	14	−10	24	36	0.75	−0.35	0.40	7.5	4	19	5	7	n w	Charles H. Dwelle
Osage	Mitchell	1,184	23	20.1	+0.5	49	14	−11	24	32	0.50	−0.85	0.25	4.7	2	18	2	11	n w	Dr. A. D. Bundy
Plover	Pocahontas	1,426	14	20.8	−0.5	49	14	−12	24	43	0.15	−0.61	0.15	1.5	1	19	5	7	n w	J. S. Smith
Pocahontas	Pocahontas	1,248	6	21.7	−1.2	50	14	− 9	24	40	0.22	−0.66	0.18	2.4	2	12	8	11	n w	F. E. Hronek
Ridgeway	Winneshiek	1,215	12	21.2	−1.1	49	14	− 9	24	31	0.71	−1.53	0.40	4.7	7	16	8	7	s	Arthur Betts
Rock Rapids	Lyon	1,358	11	22.4	+1.3	50	14	− 7	24	36	0.10	−0.49	0.05	1.0	2	....	....	....	.....	W. C. Wyckoff
Sheldon	O'Brien	1,422	10	22.6	+0.4	50	44	− 5	12	36	0.12	−0.69	0.10	0.7	2	11	8	12	n w	Dr. A. W. Beach
Sibley	Osceola	1,212	17	19.5	−0.1	51	14	−12	24†	44	0.10	−0.68	0.06	1.0	2	12	6	13	n w	H. G. Doolittle
Sioux Center	Sioux	.....	11	21.5	−0.2	47	14	− 6	24	31	0.07	−0.94	0.05	0.8	2	12	4	15	n w	J. de Ruyter
Storm Lake	Buena Vista*	1,440	21	21.7[c]	−0.3	42[g]	26	− 5[b]	24	32[g]	0.20	−0.63	0.20	3.5	1	....	....	....	.....	W. Dugold
Washta	Cherokee	1,157	12	23.5	−0.4	55	14	−12	24	41	0.10	−0.75	0.10	1.0	1	16	7	8	n w	H. L. Felter
Waverly	Bremer	948	14	20.7	−0.9	52	14	−10	24	40	0.34	−0.84	0.14	5.5	3	19	2	10	n w	Earl C. Moore
West Bend	Palo Alto	1,197	17	21.4	+0.8	49	14	−12	24	32	0.36	−0.53	0.30	3.6	4	13	7	11	n w	Phil Dorweiler
Average	.....	.....	....	20.9	0	49	.....	−10	.....	36	0.32	−0.71	.....	3.5	3	15	7	9	n w	
CENTRAL SECTION																				
Amana	Iowa	721	34	23.6	+1.0	50	14	− 4	24	33	0.21	−1.24	0.09	2.1	7	15	9	7	n w	Conrad Schadt
Ames	Story	926	34	24.4	+1.8	54	14	− 8	24	38	0.27	−0.75	0.25	2.7	2	....	..	....	.....	Iowa State College
Audubon	Audubon	1,301	16	24.7	+0.8	46	14	2	12	30	0.22	−0.74	0.15	2.1	4	11	10	10	n w	Geo. E. Kellogg
Baxter	Jasper	998	10	24.2	0.0	57	26	− 9	24	47	0.27	−0.62	0.15	4.8	5	16	5	10	n w	W. R. Vandike
Belle Plaine	Benton	828	20	22.5	−1.2	54	14	− 7	23	35	0.07	−1.46	0.03	0.7	4	17	6	8	n w	S. P. VanDike
Boone	Boone	1,134	5	23.3	.....	52	14	− 4	24†	43	0.21	.....	0.16	3.0	2	16	3	12	n	Carl Fritz Henning
Buckingham	Tama	.....	10	.....	.....	.....	.....	.....	.....	.....	0.22	−0.75	0.11	....	3	....	...	..	.....	J. S. Guynn
Carroll	Carroll	1,265	20	23.6	+0.2	50	13	− 6	23	38	0.10	−0.89	0.10	1.0	1	10	9	12	n w	Mrs. Jos. J. Wolfe
Cedar Rapids	Linn	733	28	21.9	−3.1	50	14	− 5	25	48	0.33	−1.17	0.22	2.5	2	21	2	8	w	W. J. Greene
Clinton	Clinton	593	43	23.5	−1.8	45	14	− 3	12†	31	1.24	−0.61	0.45	7.2	6	9	11	11	w	Luke Roberts
Davenport	Scott	580	39	25.1	−2.1	48	14	− 1	24	28	0.85	−0.84	0.46	3.0	5	13	7	11	n w	Weather Bureau
Delaware	Delaware	1,083	19	20.8	−0.6	42	14	−10	24	28	0.45	−0.93	0.17	6.2	7	18	7	6	n w	Wm. Ball
Denison	Crawford	1,180	16	24.3	+0.8	48	14	− 7	24	35	0.15	−0.44	0.10	1.5	2	....	....	....	n	W. C. Van Ness
Des Moines	Polk	861	31	26.0	+0.3	53	14	0	24	32	0.20	−1.11	0.16	2.6	5	11	5	15	n w	Weather Bureau
De Soto	Dallas	866	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	...	.....	R. D. Minard
Dubuque	Dubuque	639	37	23.2	−1.3	46	14	− 2	24	28	0.57	−1.15	0.24	5.1	6	12	6	13	n w	Weather Bureau
Fort Dodge	Webster	1,126	10	22.2	−0.3	52	14	− 8	25	48	0.25	−0.21	0.10	2.5	3	18	1	12	n w	J. F. Monk
Gilman	Marshall	1,052	11	.....	.....	.....	..	.....	.....	.....	.....	.....	.....	...	...	...	...	...	.....	Jas. L. Wylie
Grinnell	Poweshiek	1,023	16	25.2	+0.8	53	14	− 6	24	35	0.24	−0.93	0.20	2.4	3	16	9	6	w	D. W. Brainard
Grundy Center	Grundy	976	19	22.0	−0.6	53	14	− 9	24	39	0.56	−0.62	0.20	5.6	5	18	0	13	n w	J. B. Calderwood
Guthrie Center	Guthrie	1,077	15	25.5	+1.7	49	14†	− 4	24	34	0.13	−0.97	0.13	2.0	1	19	2	10	n w	D. G. Beardsley
Harlan	Shelby	1,182	11	23.8	−0.2	46	14	− 5	24	31	0.33	−0.57	0.20	3.5	2	8	14	9	n w	C. A. Reynolds
Independence	Buchanan	921	46	21.2	−0.4	48	14	− 9	24	34	0.30	−1.06	0.20	3.0	3	20	4	7	n w	R. E. Dudley
Iowa City	Johnson	683	50	21.7	−2.5	53	14	− 7	24	54	0.46	−1.19	0.20	3.0	4	19	0	12	n w	Arthur G. Smith
Iowa Falls	Hardin	1,170	17	19.7	−1.4	51	14	−11	24	46	0.66	−0.45	0.35	6.6	8	20	0	11	n w	J. B. Parmelee
Jefferson	Greene	.....	11	24.8	.....	54	14	− 1	12	37	0.22	−0.53	0.22	2.7	1	....	....	....	n w	M. E. Hall
Le Claire	Scott	576	10	.....	.....	.....	.....	.....	.....	.....	0.93	−0.19	0.46	4.9	6	...	...	...	.....	Margaret T. Disney
Little Sioux	Harrison	.....	5	24.6	−1.6	48	14†	− 6	24	36	0.42	−0.24	0.25	4.2	3	13	7	11	n w	Geo. H. Gibson
Logan	Harrison	928	43	24.8	−0.4	47	16	− 6	24	31	0.25	−1.02	0.20	2.5	2	7	17	7	n w	Glenn H. Stern
Marshalltown	Marshall	947	18	22.6	−0.9	55	14	− 6	24†	44	0.43	−0.73	0.14	2.0	5	11	8	12	n w	Ralph B. Reasoner
Muscatine	Muscatine	.....	50	.....	.....	.....	.....	.....	.....	.....	0.96	−1.32	0.44	1.2	5	....	....	....	.....	Wm. P. Molis
Newton	Jasper	944	22	25.2	+2.8	52	14	− 4	24	29	0.22	−1.14	0.22	3.0	1	16	7	8	s	Hon. J. P. Beatty
Odebolt	Sac	.....	13	24.0	+0.5	50	14	− 7	24	33	0.21	−0.63	0.18	2.2	2	19	4	8	.....	E. Starner
Olin	Jones	760	12	23.6	−0.2	54	14	− 9	13	43	0.38	−1.06	0.28	3.8	2	15	10	6	.....	M. H. Cressman
Onawa	Monona	1,051	10	25.9	−0.3	46	14†	2	24	31	0.50	−0.41	0.25	5.0	3	14	7	10	n w	C. G. Perkins
Perry	Dallas	975	9	25.4	+1.2	54	14	− 8	24	46	0.20	−0.80	0.20	2.0	1	13	9	9	n w	Ed. S. Gray
Rockwell City	Calhoun	.....	14	22.9	+0.3	50	16	− 8	24	43	0.30	−0.72	0.30	3.0	1	16	3	12	.....	C. M. Randall
Sac City	Sac	1,278	34	22.8	+0.1	48	14	− 5	25	41	0.20	−0.96	0.20	2.0	1	14	3	14	n w	E. N. Baily
Sioux City	Woodbury	1,135	21	23.6	+1.0	44	14	− 1	24	30	0.32	−0.42	0.22	3.0	4	8	12	11	n w	Weather Bureau
Stuart	Guthrie	1,216	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	...	...	...	...	.....	J. P. Fox
Tipton	Cedar	807	11	24.6	−0.8	48	14	− 1	24	27	0.78	−0.88	0.22	5.7	4	16	9	6	n w	F. K. Gregg
Toledo	Tama	856	16	23.0	−0.7	52	14	− 8	24	36	0.50	−0.52	0.30	5.0	4	18	5	8	n w	I. F. Giger
Waterloo	Black Hawk	862	27	22.4	+0.4	54	14	− 8	24	38	0.47	−0.84	0.17	4.9	4	16	9	6	n w	M. L. Newton
Waukee	Dallas	1,039	7	24.6	0.0	52	14	− 4	24	34	0.27	−1.03	0.25	2.3	2	15	7	9	n w	Sam'l F. Foft
Webster City	Hamilton	.....	5	23.2	−1.4	53	14	− 9	24	35	0.20	−0.77	0.20	2.0	1	16	6	9	n w	C. D. Carpenter
Whitten	Hardin	1,036	13	21.4	−0.2	52	14	− 9	24	40	0.10	−1.02	0.10	1.0	1	16	9	6	n w	Dr. Frank P. Butler
Average	.....	.....	....	23.5	−0.3	50	.....	− 6	.....	37	0.38	−0.82	.....	3.2	3	15	6	10	n w	

CLIMATOLOGICAL DATA FOR IOWA, DECEMBER, 1910—Continued

STATIONS	COUNTIES	Elevation feet	Length of record, years	Temperature, in Degrees Fahrenheit							Precip., in inches				No. rainy days	Sky			Prevailing direction of wind	OBSERVERS
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)		Number clear days	Number partly cloudy days	Number cloudy days		
SOUTHERN SECTION																				
Afton	Union	1,212	16	27.0	+1.3	47	14	2	24	31	0.22	−1.02	0.15	2.3	2	15	9	7	s w	N. W. Rowell
Albia	Monroe	959	12	24.2	−0.8	53	14	0	24†	48	0.30	−0.84	0.15	2.0	2	12	6	13	n w	J. I. Chenoweth
Allerton	Wayne	.....	8	26.8	+0.3	52	14	−1	24	36	0.28	−0.89	0.22	0.2	3	18	5	8	n w	Mrs. Geo. Shriver
Atlantic	Cass	1,164	19	25.2	+0.3	46	26	−1	24	30	0.16	−0.99	0.10	1.5	2	8	7	16	n w	Thos. H. Whitney
Bedford	Taylor	.....	10	25.8	+0.1	47	26	−3	8	38	0.32	−0.62	0.30	2.7	2	16	5	10	n w	E. E. Healy
Bloomfield *h*	Davis	.....	3	26.1	.....	50	14	1	24	38	.....	.....	.....	...	....	....	....	....	.....	C. R. Davis
Bonaparte	Van Buren	.....	19	26.2	−1.7	51	14	0	13†	36	0.78	−1.25	0.60	1.0	4	....	....	....	.....	Hon. B. R. Vale
Burlington	Des Moines	544	14	25.5	−1.6	51	3†	1	24	43	1.39	−0.16	1.12	1.5	5	21	0	10	w	M. E. Poppe, Jr.
Centerville	Appanoose	.....	....	.....	.....	.....	.....	.....	.....	.....	0.07	.....	0.05	0.5	2	20	6	5	w	Gordon Peacock, Jr.
Chariton	Lucas	1,042	15	25.8	−0.5	52	14	−1	24	39	0.40	−0.94	0.10	4.0	4	21	0	10	n w	C. C. Burr
Clarinda	Page	1,009	20	23.4	−3.2	48	26†	2	8	34	0.37	−0.75	0.30	3.2	3	11	6	14	n w	A. S. Van Sandt
Columbus Junction	Louisa	595	9	24.2	−1.8	45	17	0	24	32	0.56	−0.90	0.45	1.2	3	20	3	8	n w	J. B. Johnston
Corning	Adams	1,117	18	24.3	−2.8	46	27	−4	8	34	0.30	−0.84	0.30	3.0	1	....	....	....	n w	Jerome Smith
Corydon	Wayne	1,101	17	25.8	−0.9	50	14	−3	12	30	0.19	−1.23	0.17	T	2	16	5	10	n w	Clara Miller
Council Bluffs	Pottawattamie	.....	....	25.0	.....	48	26	1	24	36	0.67	.....	0.25	6.8	3	8	9	14	n w	B. W. Crosley
Creston	Union	1,312	5	24.2‡	.....	48	14†	1	24†	43	0.20	.....	0.10	1.0	4	13	3	15	n w	O. J. Colby
Cumberland	Cass	.....	11	.....	.....	.....	.....	.....	.....	.....	0.20	−0.82	0.10	2.0	2	16	7	8	n	J. H. Reppert
Earlham	Madison	.....	8	26.8	+3.8	51	14	−2	24	39	0.20	−1.10	0.20	2.0	1	14	7	10	n w	Geo. Phillips
Elliott	Montgomery	.....	5	25.4	−1.3	49	26	−1	8	36	0.40	−0.25	0.30	4.0	3	18	9	4	n w	Henry Barnes
Fairfield	Jefferson	.....	26	25.2	+0.1	50	14	−1	13	32	0.55	−1.23	0.37	0.9	5	18	2	11	n w	R. Monroe McKenzie
Fort Madison	Lee	516	61	.....	.....	.....	.....	.....	.....	.....	1.04	−0.89	0.94	T	2	15	2	14	s	Miss L. A. McCready
Greenfield	Adair	.....	18	23.8	−1.2	46	14†	−2	24	31	0.10	−1.15	0.10	1.0	1	12	13	6	n w	R. B. Oldham
Hopeville	Clarke	.....	19	25.8	−0.4	49	14†	0	24	36	0.15	−0.91	0.05	....	5	9	12	10	n w	M. T. Ashley
Indianola	Warren	969	19	26.4	+0.6	51	14	−1	24	30	0.36	−0.97	0.15	2.0	4	....	....	....	.....	Prof. J. L. Tilton
Keokuk	Lee	574	39	28.8	−0.6	49	14†	4	24	29	0.79	−1.08	0.66	0.1	5	19	6	6	n w	Weather Bureau
Keosauqua	Van Buren	644	18	24.4	−3.0	52	14	−2	13†	54	0.70	−0.80	0.67	0.3	2	8	16	7	.....	J. H. Landes
Knoxville	Marion	920	15	27.0	+0.5	52	14	0	24	31	0.40	−0.98	0.15	4.0	5	16	5	10	.....	Casey & Belville
Lacona	Warren	.....	11	.....	.....	.....	.....	.....	.....	.....	0.49	−1.18	0.20	6.6	7	4	21	6	.....	J. B. Alter
Lamoni	Decatur	.....	3	26.5	.....	47	14†	2	24	33	0.18	.....	0.09	1.6	3	20	0	11	n w	T. J. Fitzpatrick
Lenox	Taylor	1,250	15	25.5	+0.2	46	26	1	8	33	0.15	−0.92	0.12	1.5	3	16	9	6	n w	J. L. Hurley
Leon	Decatur	1,120	8	26.2	−0.4	49	14	0	24	35	0.16	−1.11	0.10	0.5	2	14	4	13	n w	Morris Gardner
Massena	Cass	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	...	....	....	....	....	.....	C. E. Smeltzer
Mt. Ayr	Ringgold	1,236	17	26.8	+0.9	48	14†	3	24	34	0.44	−0.85	0.21	1.9	3	9	13	9	n w	A. F. Beard
Mt. Pleasant	Henry	729	29	26.3	−0.5	49	14	1	24	29	1.06	−0.31	0.80	1.0	4	17	9	5	n w	J. W. Edwards
Omaha, Neb.	Douglas	1,040	40	27.1	0.0	48	26	6	24	25	0.37	−0.54	0.27	5.8	4	10	7	14	n	Weather Bureau
Oskaloosa	Mahaska	843	34	25.6	−0.3	52	14	−1	24	34	0.20	−1.06	0.07	2.0	4	18	0	13	n w	Jos. Boyd
Ottumwa	Wapello	649	15	26.2	−1.6	50	14	0	24	34	0.47	−0.84	0.31	1.0	5	12	10	9	n w	Chester Potter
Pacific Junction	Mills	960	11	25.8	−0.5	49	26	−3	8	35	0.48	−0.34	0.27	4.8	3	9	15	7	n	H. H. McCartney
Pella	Marion	877	7	26.0	+0.1	54	14	−1	13†	37	0.16	−0.67	0.08	4.5	4	22	0	9	n w	John H. Ver Steeg
St. Charles	Madison	1,070	9	27.1	+0.8	53	14	−1	24	37	0.27	−1.35	0.12	2.8	5	14	10	7	n w	R. D. Minard
Sigourney	Keokuk	877	14	25.5	−0.8	52	14	−2	24	33	0.27	−1.14	0.10	2.5	4	6	20	5	n w	J. T. Parker
Stockport	Van Buren	.....	8	25.4	.....	52	14	−3	13	37	0.82	−0.57	0.64	1.0	5	18	6	7	s	C. L. Beswick
Thurman	Fremont	.....	13	24.4	−1.1	49	26	−5	8	37	0.40	−0.99	0.30	4.5	3	7	10	14	n w	C. R. Paul
Wapello	Louisa	588	12	27.4	−0.5	49	13	3	12†	32	0.52	−0.79	0.52	T	1	19	8	4	s e	Geo. W. Schofield
Washington *e*	Washington	769	28	24.8	+0.2	52	14	−2	24	32	.....	.....	.....	...	...	....	....	...	.....	Wm. A. Cook
Winterset	Madison	1,129	19	25.6	−0.4	49	14	−2	24	32	0.20	−1.19	0.20	2.0	1	10	9	12	n w	Dr. Robert S. Cooper
Woodburn	Clarke	961	11	24.6	.....	48	14†	−4	13	40	0.20	−1.05	0.20	2.0	1	11	11	9	s w	C. B. McDonough
Average		.....	....	25.7	−0.5	50	.....	0	.....	35	0.41	−0.92	.....	2.2	3	14	8	9	n w	
State average		.....	....	23.4	−0.2	50	.....	−5	.....	36	0.37	−0.82	.....	3.0	3	15	7	9	n w	

†And other dates; *a*, one day missing; *b*, two days missing; *c*, three days, etc.
‡Received too late to be included in averages.

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF DECEMBER, 1910

STATIONS	1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30		31		Monthly Mean	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
Afton	29	10	33	12	34	22	29	17	29	24	28	20	28	12	26	19	30	21	38	20	32	19	26	5	33	11	47	25	39	24	45	24	37	20	35	25	38	28	38	12	39	30	34	12	36	15	33	2	42	22	42	17	46	23	40	22	33	17	40	10	41	30	35.5	18.4
Albia	29	8	34	7	41	8	30	13	31	18	29	9	28	10	27	5	32	8	41	14	31	15	25	1	35	2	53	5	40	14	48	13	33	14	37	23	40	27	28	19	40	29	42	12	25	19	27	0	42	0	49	16	51	16	35	27	27	25	40	9	40	13	35.8	12.6
Algona	24	4	30	11	28	15	25	15	27	24	25	12	27	4	24	4	26	13	37	15	26	3	20	-5	42	8	51	23	40	22	32	25	29	21	33	22	33	24	26	11	38	7	33	25	28	2	11	-10	34	8	40	8	36	11	27	13	27	4	36	8	39	25	30.8	12.0
Allerton	30	9	33	7	40	27	29	13	32	23	29	14	30	14	26	6	31	20	42	16	34	19	26	3	35	5	52	19	43	26	46	15	37	17	39	25	39	26	33	20	40	9	44	32	36	14	25	- 1	45	18	49	13	48	22	41	30	32	17	33	11	39	26	36.9	16.6
Alta	23	2	30	3	27	10	26	11	28	21	25	22	22	5	24	5	26	18	37	15	27	6	25	-3	39	-2	44	19	33	24	39	25	29	24	34	22	33	24	24	15	41	10	32	15	11	11	26	- 5	35	- 3	44	10	39	12	31	11	24	5	40	5	40	21	32.0	12.0
Alton	23	3	30	5	29	13	25	10	28	19	24	13	21	4	25	5	29	20	37	12	27	6	25	-4	39	16	48	20	40	23	36	25	31	23	33	21	35	27	30	15	42	8	36	23	25	0	15	- 8	32	15	42	7	40	10	40	9	25	5	40	5	40	21	32.0	12.0
Amana	27	10	28	10	34	24	29	24	32	25	28	9	26	16	27	5	29	11	34	19	30	11	17	1	31	-2	50	21	42	25	41	16	39	21	33	25	33	26	27	11	32	4	35	25	34	8	9	- 4	36	6	39	16	38	19	37	28	34	17	33	4	41	28	32.4	14.8
Ames	28	9	30	8	35	15	30	14	30	12	34	20	2	10	25	14	27	16	40	16	31	10	22	9	38	10	54	23	41	24	43	18	37	15	37	23	39	28	35	14	39	5	35	23	31	8	25	- 8	40	8	45	12	39	14	33	23	31	10	41	3	40	28	34.8	14.0
Atlantic	25	8	32	11	29	20	29	15	30	23	26	17	20	10	23	7	29	20	36	17	28	16	27	4	33	14	45	23	39	26	42	26	30	21	34	24	37	29	30	19	41	12	35	29	29	8	24	- 1	41	22	46	16	43	17	40	17	33	14	40	15	41	29	33.5	17.0
Audubon	27	7	30	8	30	18	28	14	29	22	27	18	25	11	28	15	30	18	32	8	30	14	26	2	34	11	46	24	39	25	41	20	34	19	32	22	36	27	32	20	40	12	33	29	29	9	22	4	38	21	44	16	41	16	38	17	32	12	40	10	38	29	33.3	16.1
Baxter	29	6	46	8	39	16	31	13	39	22	26	11	25	10	25	4	28	15	48	12	31	10	31	0	38	3	55	22	39	22	44	13	32	16	34	22	36	25	32	14	40	5	36	25	25	5	12	- 9	36	8	57	10	40	18	35	26	31	13	40	3	40	28	35.5	12.8
Bedford	27	9	38	7	33	24	29	15	30	22	28	16	24	9	21	-3	29	19	36	15	31	19	28	5	32	10	46	20	42	26	45	25	38	16	33	23	37	30	33	21	41	7	38	30	34	14	27	1	43	21	47	9	46	18	45	17	33	19	41	8	42	29	35.4	16.2
Belle Plaine	28	7	30	7	37	20	29	12	35	23	26	7	24	16	31	3	28	8	36	14	23	8	21	-1	33	-2	54	22	45	25	42	18	40	20	33	23	32	26	35	10	35	24	22	14	15	-7	10	- 3	36	10	41	13	40	18	36	25	25	18	36	3	42	12	32.3	12.7
Belmond	24	4	32	13	31	16	26	14	28	23	25	15	20	4	29	1	28	14	35	12	28	-3	21	-7	38	2	51	23	36	22	40	17	32	14	33	22	32	24	26	9	38	5	30	25	29	0	26	-11	36	8	41	8	37	11	34	15	30	4	33	3	39	25	31.9	10.7
Bloomfield	..	..	..	..	..	..	..	..	..	..	..	..	..	..	21	5	22	12	41	14	..	..	24	2	34	3	50	12	44	20	48	15	46	10	40	24	40	24	30	17	40	5	30	26	30	18	26	1	40	12	48	13	48	26	40	29	34	19	40	9	44	25	37.4	14.8
Bonaparte	30	9	32	8	41	25	30	20	34	21	29	9	29	17	33	4	34	12	38	15	30	15	24	3	36	0	51	19	41	25	45	15	48	24	36	27	40	28	30	15	37	4	40	27	38	11	21	0	44	14	46	18	44	20	36	32	34	20	38	9	43	26	36.5	15.9
Boone	29	8	30	8	33	11	28	15	29	24	24	22	25	11	24	8	27	14	42	18	28	10	23	0	38	0	52	16	39	24	42	23	32	19	34	22	37	27	26	18	39	10	34	10	22	20	25	- 4	39	- 4	45	14	40	22	33	19	26	11	40	9	39	9	33.0	13.6
Britt	25	4	32	11	29	13	25	15	27	23	25	12	28	4	29	0	25	11	36	13	24	8	27	14	42	18	52	23	36	20	39	19	32	18	32	22	32	23	24	7	38	7	31	25	27	1	13	-14	35	8	41	6	40	10	28	11	27	3	32	5	39	22	31.2	10.3
Burlington	30	12	32	10	51	21	28	20	44	23	36	14	31	15	32	10	34	10	37	15	31	15	23	5	33	5	51	8	41	21	44	17	47	18	34	25	38	30	26	12	34	7	38	10	30	20	23	1	40	2	40	21	43	22	37	26	35	31	32	11	40	11	35.9	15.1
Carroll	30	7	26	12	29	11	29	12	29	22	19	22	19	9	25	7	33	20	40	15	30	10	32	-2	41	10	50	20	36	23	43	22	32	26	35	21	37	25	33	16	41	9	34	26	15	9	28	-6	44	9	43	10	44	14	35	13	30	9	38	6	40	20	40	2	33.9	13.0
Cedar Rapids	28	12	27	11	32	12	29	24	32	24	26	11	22	11	26	10	30	9	32	15	17	12	17	1	31	2	50	2	35	25	40	21	38	22	33	25	31	25	23	13	34	7	36	7	24	19	17	- 4	36	- 5	39	12	38	18	36	18	31	15	38	8	41	27	36.6	14.9
Chariton	28	8	33	6	38	23	28	12	32	22	30	13	28	13	27	6	30	19	42	15	41	15	27	0	33	3	52	19	45	23	46	13	37	16	38	23	39	25	36	19	37	6	42	28	35	12	22	- 1	41	16	49	10	47	20	41	28	31	15	38	8	41	27	36.6	14.9
Charles City	25	7	27	8	34	18	28	18	28	13	22	7	19	5	25	1	26	6	32	10	21	5	22	-3	33	0	50	23	34	21	40	19	38	16	33	22	30	17	22	8	34	4	31	23	25	-4	7	-12	32	7	33	8	35	8	30	20	28	8	28	-3	36	17	29.3	9.6
Clarinda	18	9	35	9	19	17	26	16	31	18	26	19	12	12	19	2	31	7	39	16	32	19	19	6	22	6	47	19	34	20	45	26	35	21	38	21	28	28	31	25	33	12	39	13	20	20	20	5	44	15	48	14	43	18	48	21	18	18	32	11	42	11	31.4	15.3
Clear Lake	27	4	27	12	35	16	30	18	35	15	28	14	27	4	28	14	25	14	35	14	32	3	26	5	36	4	44	15	44	20	44	18	30	15	32	21	32	21	26	7	35	5	32	22	30	8	10	-10	32	4	36	9	37	15	30	4	24	3	36	22	35	10	31.6	11.2
Clinton	25	18	30	12	34	23	29	19	32	25	30	15	35	25	27	6	30	11	34	18	19	9	19	-3	28	-3	45	16	39	21	39	20	42	22	34	22	34	22	24	10	28	3	36	23	36	10	11	- 3	36	6	35	22	40	19	38	31	35	15	27	5	40	25	32.0	15.0
Columbus Jct	28	11	30	10	34	25	27	22	25	23	28	11	26	18	23	8	33	15	33	24	30	14	18	3	27	4	43	22	42	29	43	19	45	26	34	26	35	28	28	12	34	8	38	26	38	6	20	0	40	10	42	21	38	24	38	30	35	10	30	10	36	23	32.9	16.7
Corning	28	8	32	1	31	20	29	14	30	22	28	15	21	10	24	-4	29	19	35	12	29	25	26	3	31	10	44	21	39	25	44	25	29	17	37	24	36	28	32	16	40	17	..	..	35	12	25	2	34	10	40	14	46	12	41	16	32	17	39	11	40	30	33.5	15.1
Corydon	29	9	33	7	39	24	29	13	32	24	30	14	28	13	26	5	31	..	42	14	33	17	24	-3	33	4	50	21	40	25	44	16	36	19	38	25	39	24	34	19	38	8	41	30	31	12	22	- 1	44	16	45	15	47	24	41	29	33	17	37	10	38	26	35.7	15.9
Council Bluffs	28	13	36	12	38	20	27	12	29	24	26	16	22	2	25	2	29	15	37	6	27	15	24	8	35	16	45	25	39	27	42	24	39	22	39	22	39	30	33	21	40	13	35	27	29	9	25	1	41	23	48	12	41	16	39	18	32	8	42	10	42	12	34.6	15.5
Creston	29	9	34	10	35	10	29	15	29	22	25	22	24	11	21	10	29	15	38	17	28	17	25	4	34	4	48	17	40	25	47	24	29	19	36	18	36	18	28	23	38	11	29	15	19	13	28	1	44	1	48	16	47	18	40	20	29	18	40	13	41	13	33.8	14.5
Davenport	27	16	29	13	35	25	29	21	32	21	29	17	26	17	28	12	32	14	33	26	26	9	17	2	31	6	48	23	38	26	41	22	46	28	33	26	33	22	22	11	33	9	38	27	33	8	11	- 1	37	9	39	23	42	28	37	32	35	14	31	10	40	29	32.6	17.6
Decorah	23	8	26	9	33	21	28	21	34	22	37	12	35	8	23	-1	28	-1	32	22	23	6	18	-1	23	-4	44	23	39	18	39	17	43	18	37	22	32	12	18	5	29	-2	32	12	27	5	10	- 7	29	8	32	10	35	8	32	25	31	14	19	-8	37	9	29.9	10.3
Delaware	25	11	25	9	28	19	27	19	27	21	27	8	25	14	23	3	26	16	30	22	25	5	18	-2	26	0	42	17	39	25	37	25	36	19	32	25	31	23	26	5	28	3	32	17	32	11	11	-10	29	1	29	16	35	16	36	29	31	15	20	-2	35	16	28.8	12 8
Denison	25	6	30	8	30	18	28	13	28	24	26	10	25	10	24	10	28	18	40	16	27	9	27	0	37	15	48	24	38	26	43	21	30	19	35	25	37	28	28	17	38	10	39	27	27	6	18	0	43	18	48	16	42	24	36	30	30	14	39	10	41	31	34.5	17.6
Des Moines	29	9	30	11	35	23	30	17	33	26	28	22	27	14	26	9	30	20	42	17	29	15	22	6	36	7	53	28	39	27	45	20	33	19	35	25	..	..	..	..	44	9	35	29	29	6	22	- 7	40	22	45	13	45	13	39	26	29	11	42	7	41	24	33.9	14.7
Dubuque	26	16	26	15	31	22	29	19	28	20	30	14	25	14	24	10	25	8	33	25	25	11	20	4	28	0	46	25	39	24	38	23	39	25	33	24	32	18	22	10	29	5	35	25	30	7	15	- 2	34	8	36	16	50	12	49	18	41	16	40	6	41	18	45	30	38.0	15.5
Earlham	30	8	34	4	37	15	30	13	30	18	31	19	27	12	26	5	29	19	43	23	37	10	29	0	41	13	51	20	46	24	48	26	43	23	37	24	40	26	39	20	43	4	39	29	37	10	20	- 2	45	16	47	14	41	8	35	12	34	10	25	-5	37	21	33.3	9.8
Elkader	30	0	30	6	32	10	30	18	34	16	29	20	30	12	29	14	27	1	34	22	28	5	28	-3	30	-6	49	22	40	19	42	12	41	15	32	21	34	20	36	5	33	-1	34	24	36	0	20	- 9	36	2	36	14	41	8	35	12	34	10	25	-5	37	21	33.3	9.8
Elliott	28	9	34	9	33	19	29	15	32	22	28	16	29	14	28	-1	30	18	25	15	30	15	25	4	32	14	43	22	44	25	43	27	31	20	37	20	35	29	32	28	28	12	35	26	30	15	25	2	44	22	49	13	41	17	42	18	30	18	42	18	40	10	41	30	34.0	16.9
Elma	24	6	26	5	30	19	25	20	27	15	20	4	20	8	22	-5	25	6	36	18	23	4	20	-5	30	-1	48	21	40	20	38	16	36	6	30	19	30	18	21	5	30	-1	30	21	30	3	5	-13	28	5	28	8	30	5	30	18	30	8	22	-8	33	20	27.8	8.5
Estherville	24	3	31	5	22	13	25	17	27	22	20	5	22	2	24	5	26	10	36	13	23	0	24	-6	42	-5	50	22	41	27	42	14	41	26	35	27	37	30	30	15	35	5	37	29	36	12	16	1	41	14	44	21	44	22	37	32	35	20	36	9	..	..	34.0	16.4
Fairfield	27	9	29	10	37	24	29	20	31	23	28	11	27	15	28	6	32	13	35	17	31	16	19	4	31	-1	50	22	41	27	42	14	41	26	35	27	37	30	30	15	35	5	37	29	36	12	16	1	41	14	44	21	44	22	37	32	35	20	36	9	..	..	34.0	16.4
Fayette	25	9	26	6	30	20	27	16	29	14	25	4	23	11	20	-2	26	2	30	20	22	6	19	-3	27	-5	45	18	38	20	39	18	37	19	32	20	30	20	20	6	32	-1	32	20	26	8	12	-11	30	12	32	12	37	7	32	22	30	15	27	-8	36	13	28.9	9.9
Forest City	22	3	30	5	28	12	26	16	24	22	19	19	20	2	24	2	24	10	24	16	18	2	20	-7	39	-5	49	19	32	21	40	18	29	17	32	21	28	24	24	7	34	6	32	14	10	7	19	-11	32	- 9	36	5	34	8	28	14	17	2	29	2	37	5	27.7	8.6
Fort Dodge	27	6	31	6	28	9	27	14	28	23	23	17	24	8	24	6	27	17	40	17	26	7	23	-2	40	-2	52	19	35	23	37	23	31	20	35	23	34	27	24	18	40	7	32	11	22	15	27	- 6	40	- 8	45	13	42	15	32	15	25	8	40	8	42	11	32.4	11.9
Grand Meadow	23	8	25	7	29	20	28	18	27	17	24	7	22	10	23	1	24	4	31	20	22	4	17	-4	27	3	43	22	40	22	38	22	40	16	30	16	30	20	23	4	28	2	31	20	30	4	12	- 9	27	0	30	11	34	14	30	20	29	10	18	-5	34	15	28.0	10.3
Greene	26	7	30	8	33	17	28	14	28	23	25	9	22	7	27	2	26	5	32	7	26	3	20	-5	33	-1	49	25	44	22	40	18	35	15	35	18	22	23	26	8	35	4	32	24	31	8	10	- 9	33	5	36	10	34	9	32	19	30	9	23	2	37	21	30.6	10.5
Greenfield	26	8	30	8	30	17	26	12	27	22	26	16	22	10	21	5	28	19	27	17	27	14	23	2	32	9	46	21	35	23	43	23	30	17	32	22	35	25	30	17	38	11	36	28	28	7	22	- 2	40	20	45	14	46	23	38	18	31	13	38	12	40	15	32.5	15.0
Grinnell	30	8	31	8	40	20	30	16	35	24	29	11	26	12	31	5	28	9	41	9	35	10	25	2	35	5	53	22	45	25	45	16	39	19	34	23	35	25	32	14	38	7	37	25	35	10	14	- 6	40	5	46	13	42	21	46	28	45	17	39	6	42	29	36.2	14.1
Grundy Center	27	0	30	9	25	18	30	15	28	24	26	9	25	9	28	5	27	8	35	12	30	6	27	-5	34	-5	53	23	47	24	42	18	37	15	34	22	33	26	27	11	35	5	34	24	32	8	26	- 9	34	5	36	11	35	12	31	18	31	12	33	0	38	27	32.6	11.5
Guthrie Center	28	8	31	7	30	16	29	14	30	24	28	20	26	12	25	9	28	20	40	16	35	14	27	0	35	7	49	21	42	24	43	22	36	19	33	23	37	26	34	19	39	17	37	29	34	10	18	- 4	39	15	45	15	42	19	39	16	39	12	40	6	42	30	35.2	15.8
Hampton	25	5	35	13	35	17	27	16	27	23	26	16	21	6	30	4	25	9	35	14	23	4	25	-4	37	2	50	23	40	22	45	18	33	16	34	22	31	22	23	9	38	5	33	25	29	4	15	- 9	37	7	39	11	41	16	39	16	30	7	31	2	38	21	32.2	11.7
Harlan	25	7	30	9	29	17	29	14	29	23	25	17	21	6	23	2	28	19	37	13	27	12	25	3	33	14	46	18	36	26	41	26	29	21	34	22	36	27	31	16	40	10	34	28	28	4	22	- 5	40	21	44	13	40	15	38	17	31	14	39	9	40	25	32.6	14.9
Hopeville	30	9	32	9	37	21	28	14	31	22	28	19	26	11	24	7	30	18	40	18	30	18	23	3	34	7	49	22	39	25	47	19	32	18	37	24	39	26	32	16	39	9	40	28	33	10	25	0	44	20	49	13	47	21	41	20	30	16	40	9	41	28	35.4	16.1
Humboldt	26	6	30	10	30	11	28	12	28	26	27	17	23	6	28	4	31	25	38	13	38	6	21	-4	41	7	51	25	46	22	36	26	40	18	33	18	35	28	30	10	38	7	36	32	34	10	28	-11	38	10	42	10	41	11	34	14	32	7	40	6	40	28	34.3	13.2
Independence	27	8	28	8	31	19	29	19	30	24	25	9	23	11	26	5	27	11	30	20	27	3	18	-5	29	-5	48	20	44	25	39	17	39	20	34	21	43	27	27	6	32	2	32	19	32	9	10	- 9	29	2	33	12	33	11	31	20	32	16	24	-2	37	23	30.6	11.8
Indianola	28	9	31	11	34	25	..	..	32	15	29	23	25	12	25

DAILY MAXIMUM AND MINIMUM TEMPERATURES FOR THE MONTH OF DECEMBER, 1910—CONTINUED

| | 1 | | 2 | | 3 | | 4 | | | | 6 | | 7 | | 8 | | 9 | | 10 | | 11 | | 12 | | 13 | | 14 | | 15 | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 24 | | 25 | | 26 | | 27 | | 28 | | 29 | | 30 | | 31 | | Monthly Mean | |
|---|---|---

DAILY PRECIPITATION FOR IOWA, DECEMBER, 1910

STATIONS	DAY OF MONTH																														TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Afton	....	....	....	T	.07	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	....	....	....	T	....	....	....	....	0.22
Albia ‖	....	....	....	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	....	T	....	....	T	....	....	....	....	....	.15	....	....	....	0.30
Algona	....	....	....	....	T	T	....	....	T	....	....	....	....	....	....	....	....	.02	....	T	....	.25	T	....	....	....	....	....	....	....	....	0.27
Allerton	....	....	....	....	T	T	....	....	....	T	....	....	....	....	....	....	....	T	....	....	....	.04	T	....	....	....	....	.22	.02	....	....	0.28
Alta ‖	....	....	....	....	.01	T	....	....	.02	....	....	....	....	....	....	....	....	.02	....	T	....	.10	.03	....	....	....	....	....	....	....	....	0.18
Alta (near)	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	....	....	.20	....	....	....	....	....	....	....	....	....	0.22
Alton	....	....	....	....	T	T	....	T	....	....	....	....	....	....	....	....	....	T	....	T	....	.05	....	....	....	....	....	....	....	....	....	0.05
Amana	....	....	....	....	T	T	....	....	.07	.01	....	....	....	....	....	....	....	.01	....	....	....	.09	T	....	.01	....	....	.01	.01	....	....	0.21
Ames	....	....	....	....	T	T	....	T	.02	....	....	....	....	....	....	....	....	T	....	....	.25	....	....	....	T	....	....	....	....	....	....	0.27
Atlantic	....	....	....	T	.10	T	....	T	T	....	....	....	....	....	....	....	....	T	....	T	....	.06	....	....	T	....	....	....	....	....	....	0.16
Audubon	....	....	....	.04	....	T	....	....	.01	....	....	....	....	....	....	....	....	.02	....	....	....	.15	....	....	....	....	....	....	....	....	....	0.22
Baxter	....	....	....	....	T	T	....	....	.05	....	....	....	....	....	....	....	....	.02	....	T	....	.15	T	....	.03	....	....	....	.02	....	....	0.27
Bedford	....	....	....	T	.30	T	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	T	....	....	....	....	T	....	....	....	0.32
Belle Plaine	....	....	....	....	....	.03	....	....	.01	....	....	....	....	....	....	....	....	.01	....	....	....	.02	....	....	T	....	....	....	....	....	....	0.07
Belmond	....	....	....	T	.03	.01	....	....	.08	....	....	....	....	....	....	....	....	.02	....	....	....	.22	....	....	.02	...	....	....	....	....	....	0.38
Bloomfield	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Bonaparte	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	....	....	.05	....	....	....	.08	....	....	....	....	....	.60	....	....	....	0.78
Boone ‖	....	....	....	....	....	T	T	....	....	T	....	....	....	....	....	....	....	T	T	....	T	.16	.05	....	....	T	....	....	....	....	....	0.21
Britt	....	....	....	....	T	....	....	....	T	....	....	....	....	....	....	....	....	.05	....	....	....	.20	....	....	T	....	....	....	....	....	....	0.25
Buckingham	....	....	....	....	T	....	....	....	.11	....	....	....	....	....	....	....	....	.05	....	....	....	.06	....	....	T	....	....	....	....	....	....	0.22
Burlington ‖	....	....	....	....	....	T	....	....	....	.05	....	....	....	....	....	....	....	....	.06	....	....	....	.10	T	....	....	....	1.12	T	.06	....	1.39
Carroll ‖	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	T	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	0.10
Centerville	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	....	....	....	.02	....	....	....	0.07
Cedar Rapids ‖	....	....	T	....	....	T	T	....	....	.22	....	....	....	....	T	....	....	....	T	T	T	....	.11	T	T	T	....	T	T	T	....	0.33
Chariton	....	....	....	....	.10	T	....	....	T	.10	....	....	....	....	....	....	....	T	....	T	....	.10	T	....	....	....	....	.10	....	....	....	0.40
Charles City	....	....	.01	....	.04	....	....	....	.08	....	....	....	....	....	....	....	....	.01	....	....	....	.20	....	....	.19	....	....	....	....	....	....	0.53
Clarinda ‖	....	....	....	....	.28	.02	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.07	....	....	....	....	....	....	....	....	....	0.37
Clear Lake	....	....	....	....	.10	....	....	....	.05	....	....	....	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	0.35
Clinton	....	....	.25	....	....	....	....	....	.27	....	....	....	....	....	....	....	....	.12	....	....	....	.12	....	...	.03	....	....	.45	....	....	....	1.24
Columbus Jct	....	....	T	....	T	....	....	....	T	.06	....	....	....	....	....	....	....	T	....	....	....	.05	T	....	....	....	....	.45	T	....	....	0.56
Corning	....	....	....	T	.30	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	0.30
Corydon	....	....	....	....	T	T	....	....	T	T	....	....	....	....	....	....	....	T	....	T	....	.02	T	....	....	....	....	.17	T	....	....	0.19
Council Bluffs	....	....	....	.25	.22	T	....	T	T	....	....	....	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	....	....	....	....	0.67
Creston ‖	....	....	....	....	.05	.02	T	T	....	.03	....	....	....	....	....	....	....	T	T	....	....	.10	T	....	....	T	....	....	T	....	....	0.20
Cumberland	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	0.20
Davenport	T	....	T	....	T	....	T	....	.20	....	....	....	....	....	....	....	....	.04	....	....	....	.15	T	....	....	....	.20	.26	T	....	....	0.85
Decorah	....	....	....	....	....	....	....	....	.07	....	....	....	....	....	....	....	....	.05	....	....	....	.16	....	....	.35	....	....	....	....	....	....	0.63
Delaware	....	....	.01	....	.01	....	....	....	....	.17	....	....	....	....	....	....	....	.04	....	....	....	.06	....	....	.13	....	....	.03	....	....	....	0.45
Denison	....	....	....	....	T	T	....	....	T	....	....	....	....	....	....	....	....	.05	....	T	.10	....	....	....	....	....	....	....	....	....	....	0.15
Des Moines	....	....	....	....	T	T	....	T	.01	....	....	....	....	....	....	....	T	T	....	T	.01	.15	T	....	.01	....	....	....	.02	....	....	0.20
DeSoto	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Dubuque	T	T	.07	T	T	T	T	....	.24	....	....	....	....	....	....	....	....	.04	....	....	....	.08	T	T	.13	....	....	T	.01	....	....	0.57
Earlham	....	....	....	....	T	T	....	T	T	....	....	....	....	....	....	....	....	T	....	....	....	.20	T	....	T	....	....	....	....	....	....	0.20
Elkader	....	....	.10	....	....	T	....	....	....	.08	....	....	....	....	....	....	....	.03	....	....	....	.11	....	....	.17	....	....	....	....	....	....	0.49
Elliott	....	....	....	.05	.25	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	0.40
Elma	....	T	....	....	T	T	....	....	T	T	....	....	....	....	....	....	....	.06	....	....	....	.07	.13	....	.27	....	....	....	T	....	....	0.53
Estherville ‖	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.10	....	....	....	....	....	....	....	....	0.10
Fairfield	....	....	....	....	T	T	....	....	T	.06	....	....	....	....	....	....	....	.02	....	....	....	.09	T	....	....	....	....	.37	.01	....	....	0.55
Fayette	....	....	.07	....	T	T	T	....	.14	....	....	....	....	....	....	....	....	....	....	....	....	.15	.07	....	28	....	....	....	....	....	....	0.71
Forest City ‖	....	....	....	....	T	....	....	....	T	....	....	....	....	....	....	....	....	T	....	....	....	.40	....	....	.05	....	....	....	....	....	....	0.45
Fort Dodge ‖	....	....	....	....	....	T	....	....	....	T	....	....	....	....	....	....	....	.05	....	T	....	.10	.10	....	....	....	....	....	....	....	....	0.25
Ft. Madison	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	T	....	....	....	.10	T	....	....	....	.94	....	....	....	....	1.04
Gilman	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Grand Meadow	....	....	T	....	T	.02	....	....	....	.10	....	....	....	....	....	....	....	.05	....	....	....	.20	.10	....	.20	....	....	....	.03	....	....	0.70
Greene	....	....	....	....	.03	.02	....	....	....	.08	....	....	....	....	....	....	....	.04	....	....	....	.12	....	....	.09	....	....	....	....	....	....	0.38
Greenfield	....	....	....	....	T	T	....	T	T	....	....	....	....	....	....	....	....	T	....	....	....	.10	....	....	....	....	....	....	....	....	....	0.10
Grinnell	....	....	....	....	....	T	....	....	.02	....	....	....	....	....	....	....	....	.02	....	....	....	.20	T	T	T	....	....	T	T	....	....	0.24
Grundy Center	....	....	....	....	T	T	....	....	....	.01	....	....	....	....	....	....	....	.05	....	....	....	.20	.10	....	.20	....	....	....	....	....	....	0.56
Guthrie Center	....	....	....	....	T	T	....	T	T	....	....	....	....	....	....	....	....	T	....	....	....	.13	T	....	T	....	....	....	....	....	....	0.13
Hampton	....	....	....	....	.01	T	....	....	.10	....	....	....	....	....	....	....	T	....	....	....	.05	.15	....	....	.10	....	....	....	....	....	....	0.41
Harlan	....	....	....	T	.20	T	....	T	T	....	....	....	....	....	....	T	....	T	....	T	T	.13	....	....	T	....	....	....	....	....	....	0.33
Hopeville	....	....	....	T	.01	T	....	....	.05	....	....	....	....	....	....	....	....	T	....	....	....	.04	....	....	T	....	....	.04	.01	....	....	0.15
Humboldt	....	....	....	....	T	....	....	....	T	....	....	....	....	....	....	....	....	T	....	....	....	.16	....	....	.10	....	....	....	....	....	....	0.26
Independence	....	....	....	....	....	T	....	....	.05	....	....	....	....	....	....	....	....	T	....	....	....	.20	....	....	.05	....	....	....	....	....	....	0.30
Indianola	....	....	....	....	T	T	....	....	T	.03	....	....	....	....	....	....	....	.15	....	T	....	.13	T	....	....	T	....	....	.05	....	....	0.36
Inwood	....	....	....	....	T	....	....	T	T	....	....	....	....	....	....	....	T	.03	....	....	....	.09	....	....	....	....	....	....	....	....	....	0.12
Iowa City ‖	....	....	....	....	....	T	....	....	....	.09	....	....	....	....	....	....	....	....	.05	....	....	....	.12	....	T	....	....	.20	T	....	....	0.46
Iowa Falls ‖	....	....	T	....	T	.05	.03	....	....	.15	....	....	....	....	....	....	....	....	.03	.02	....	.05	.30	....	T	.03	....	....	....	....	....	0.66
Jefferson	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.22	....	....	....	....	....	....	....	....	....	0.22
Keokuk	....	....	....	....	....	....	....	....	T	....	....	....	....	....	....	....	....	.01	....	....	....	.11	T	....	....	....	.56	.10	.01	....	....	0.79
Keosauqua ‖	....	....	....	....	....	....	....	....	....	.03	....	....	....	....	....	....	....	....	....	....	....	T	T	....	....	....	.67	T	T	T	....	0.70
Knoxville	....	....	....	....	T	T	....	....	.05	.10	....	....	....	....	....	....	....	.05	....	....	....	.15	T	....	....	....	....	.05	....	....	....	0.40
Lacona	....	....	....	....	.01	.01	....	....	.10	....	....	....	....	....	....	....	....	.15	T	....	....	.20	....	....	....	....	....	.01	....	.01	....	0.49
Lamoni	....	....	....	....	.08	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	....	.09	.01	....	....	0.18
Larrabee	....	....	....	....	T	....	....	....	T	....	....	....	....	....	....	....	....	T	....	T	....	.11	.01	....	....	....	....	....	....	....	....	0.12
Le Claire ‖	....	T	.10	....	....	T	T	T	....	.20	....	....	....	....	....	....	....	....	.05	....	....	....	.10	T	T	....	....	.46	T	.02	....	0.93
LeMars	....	....	....	....	T	....	....	T	....	....	....	....	....	....	....	....	....	T	....	....	....	.01	....	....	....	....	....	....	....	....	....	0.01
Lenox	....	....	....	.04	.08	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	.03	....	....	....	....	....	....	....	....	....	0.15
Leon	....	....	....	....	.06	T	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	T	....	....	....	....	....	.10	T	....	....	0.16
Little Sioux	....	....	....	.02	.25	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.15	....	....	....	....	....	....	....	....	....	0.42
Logan	....	....	....	.05	.20	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	0.25
Marshalltown ‖	....	....	....	....	....	T	....	....	....	.10	....	....	....	....	....	....	....	T	.04	T	....	.14	.09	.06	....	T	....	....	T	....	....	0.43
Mason City	....	....	....	....	T	T	....	....	.05	....	....	....	....	....	....	....	....	.05	....	....	....	.10	....	....	.02	....	....	....	....	....	....	0.22
Massena	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Mt. Ayr	....	....	....	T	.05	T	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	.21	....	....	....	....	....	.18	T	....	....	0.44
Mt. Pleasant	....	....	....	....	....	T	....	....	T	.05	....	....	....	....	....	....	....	.05	....	....	....	.16	T	....	....	....	....	.80	T	....	....	1.06
Muscatine ‖	....	....	T	....	....	....	....	....	....	.07	....	....	....	....	....	....	....	....	.37	....	....	....	.06	T	....	....	....	.44	.02	T	....	0.96
New Hampton	....	....	....	....	T	T	....	....	T	....	....	....	....	....	....	....	....	.05	....	....	....	.20	....	....	.15	....	....	....	....	....	....	0.40
Newton	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.22	....	....	....	....	....	....	....	....	....	0.22
Northwood	....	....	....	....	.05	....	....	....	T	....	....	....	....	....	....	....	....	.10	....	....	....	.40	....	....	.20	....	....	....	....	....	....	0.75
Odebolt	T	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.03	....	....	....	.18	....	....	....	....	....	....	....	....	....	0.21
Olin	....	....	....	....	....	....	....	....	....	.28	....	....	....	....	....	....	....	T	....	....	....	.10	....	....	....	....	....	....	T	....	....	0.38
Omaha, Neb	....	....	....	.14	.13	T	....	T	T	....	T	....	....	....	....	T	....	T	....	....	.04	.06	T	....	....	....	....	....	T	....	....	0.37
Onawa	....	....	....	.05	.25	T	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	.20	....	....	....	....	....	....	....	....	....	0.50
Osage	....	....	....	....	T	....	....	....	T	....	....	....	....	....	....	....	....	T	....	....	T	.25	....	T	.25	....	....	....	....	....	....	0.50
Oskaloosa	....	....	....	....	....	....	....	....	.07	....	....	....	....	....	....	....	....	.04	....	....	.04	T	....	....	....	....	....	.05	....	....	....	0.20
Ottumwa	....	....	....	....	T	T	....	....	.07	....	....	....	....	....	....	....	....	.02	....	T	....	.07	T	....	....	....	....	.18	.13	....	....	0.47
Pacific Junction	....	....	....	.13	.27	....	....	....	T	....	....	....	....	....	....	....	....	T	....	....	T	.08	....	....	....	....	....	....	T	....	....	0.48
Pella	....	....	....	....	T	T	....	....	T	.01	....	....	....	....	....	....	....	.03	....	T	....	.08	....	....	T	....	....	.04	T	....	....	0.16
Perry	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	.20	....	....	T	....	....	....	....	....	....	0.20
Plover	....	....	....	....	T	....	....	....	T	....	....	....	....	....	....	....	....	T	....	T	....	.15	....	....	....	....	....	....	....	....	....	0.15
Pocahontas	....	....	....	....	T	T	....	....	....	....	....	....	....	....	....	....	....	.04	....	T	....	.18	T	....	....	....	....	....	....	....	....	0.22

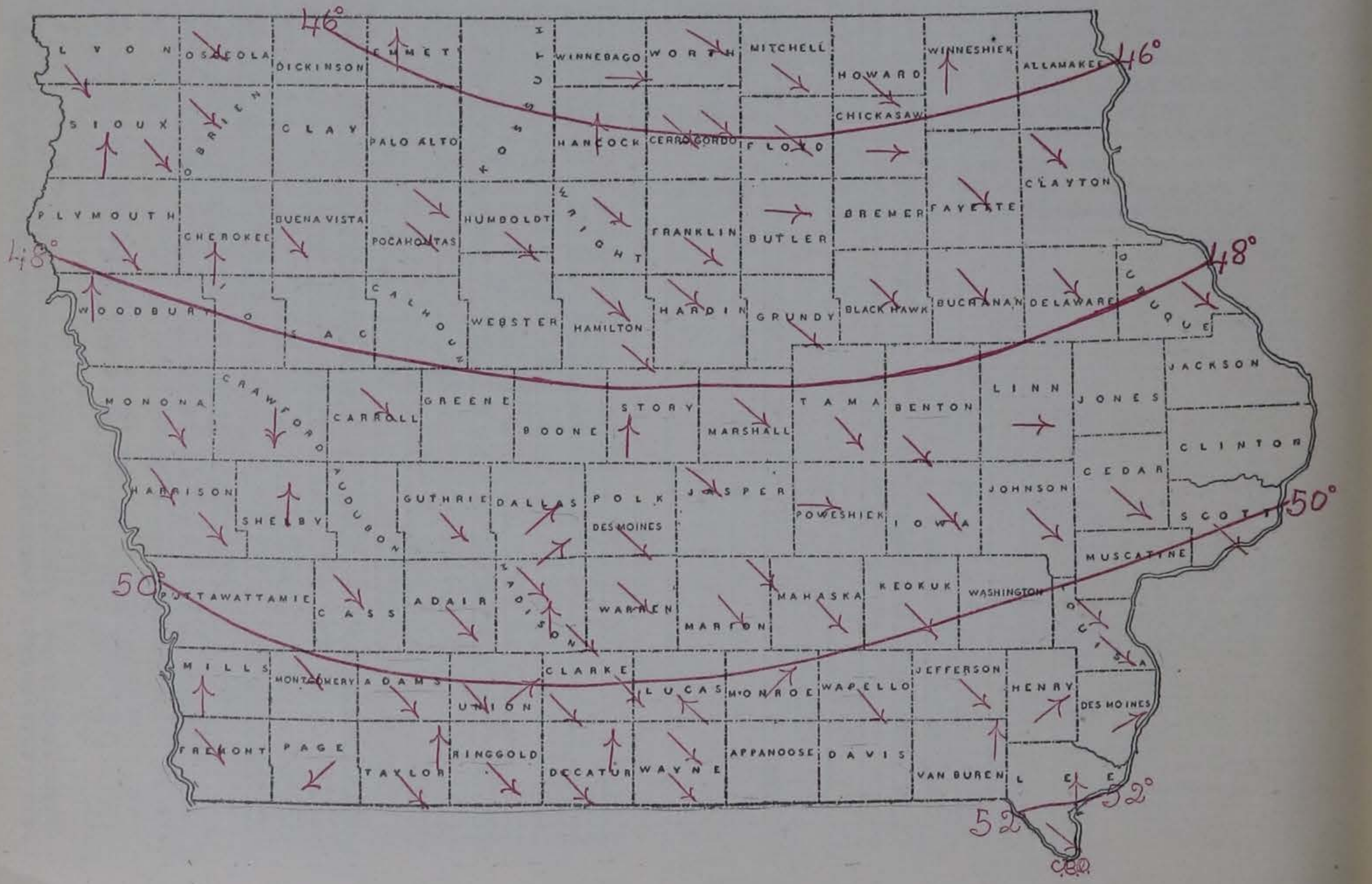
DAILY PRECIPITATION FOR IOWA, DECEMBER, 1910—Continued

STATIONS	DAY OF MONTH																													TOTAL
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
Ridgeway	....	....	T	....	.07	.03	T	....	.03	....	....	....	....	....	....	....	....	.04	....	....	....	.10	.04	....	.40	....	....	....	....	....	....	0.71
Rock Rapids	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.05	....	....	.05	....	T	....	....	....	....	....	....	....	0.10
Rockwell City	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	....	....	....	.30	....	....	....	....	....	....	....	....	....	0.30
Sac City	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.20	....	....	....	....	....	....	T	....	....	....	....	....	....	0.20
St. Charles	....	....	....	....	T	T	....	....	.05	.02	....	....	....	....	....	....	....	.03	....	....	....	.12	T	....	....	....	....	....	.05	....	....	0.27
Sheldon	....	....	....	....	T	....	T	T	T	....	....	....	....	....	....	....	....	.02	....	T	....	.10	T	....	....	....	....	T	....	....	....	0.12
Sibley‖	....	....	....	....	....	T	....	....	T	....	....	....	....	....	....	....	....	T	....	T	....	.04	.06	....	T	....	....	....	....	....	....	0.10
Sigourney	....	....	....	....	T	....	....	....	....	.04	....	....	....	....	....	....	....	.06	....	....	....	.07	T	....	....	....	....	.10	T	....	....	0.27
Sioux Center	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	....	....	.02	....	T	....	.05	....	....	....	....	....	....	....	....	....	0.27
Sioux City	....	....	....	.02	.08	T	....	T	....	....	....	....	....	....	....	....	T	T	....	T	.10	.12	....	....	....	....	....	....	....	....	....	0.32
Stockport	....	....	....	....	T	T	....	....	....	.03	....	....	....	....	....	....	....	.05	....	....	....	.08	T	....	....	....	....	.64	.02	....	....	0.82
Storm Lake	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	T	.20	....	....	....	....	....	....	....	....	....	0.20
Stuart	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Thurman	....	....	....	.10	.20	....	....	T	....	....	....	....	....	....	....	....	....	....	....	....	T	.10	T	....	....	....	....	....	T	....	....	0.40
Tipton	....	....	....	....	....	....	....	....	T	.22	....	....	....	....	....	....	....	.19	....	....	....	.16	....	....	T	....	....	.21	....	....	....	0.78
Toledo	....	....	....	....	T	T	....	*...	*	.10	....	....	....	....	....	....	....	.05	....	....	....	.30	....	....	....	....	....	....	.05	....	....	0.50
Wapello	....	....	T	....	....	....	....	....	T	....	....	....	....	....	....	....	....	T	....	....	T	T	....	....	....	...	.52	T	....	....	....	0.52
Washington	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Washta	....	....	....	....	....	T	....	....	....	....	....	....	....	....	....	....	T	....	....	....	....	.10	....	....	....	....	....	....	....	....	....	0.10
Waterloo‖	....	....	T	T	T	T	....	....	.17	....	....	....	....	....	....	....	....	.03	....	....	T	.15	....	....	.12	....	....	....	T	....	....	0.47
Waukee	....	....	....	....	T	T	....	T	T	....	....	....	....	....	....	T	T	.02	....	T	....	.25	T	....	T	....	....	....	T	....	....	0.27
Waverly	....	....	....	....	T	T	....	.13	....	....	....	....	....	....	....	....	....	.07	....	....	T	T	....	.14	T	....	....	....	....	....	....	0.34
Webster City	....	....	T	....	T	T	....	....	T	....	....	....	....	....	....	....	....	T	....	....	....	.20	....	....	T	....	....	....	....	....	....	0.20
West Bend	....	....	....	....	.01	T	....	T	....	....	....	....	....	....	....	....	....	.03	...	.02	....	.30	...	....	....	....	....	....	....	....	....	0.36
Whitten	....	....	....	....	T	T	....	....	T	....	....	....	....	....	....	....	....	T	....	T	....	.10	....	....	T	....	....	....	....	....	....	0.10
Winterset	....	....	....	....	T	T	....	T	T	....	....	....	....	....	....	....	....	T	....	T	....	.20	T	....	....	....	....	....	T	....	....	0.20
Woodburn	....	....	....	....	T	T	....	T	T	....	....	....	....	....	....	....	....	T	....	T	....	.20	T	....	....	....	....	T	T	....	....	0.20

* Precipitation included in that of the next measurement.
‖ Estimated by observer.
‖† Precipitation for the 24 hours ending on the morning when it is measured.
T Precipitation is less than 0.01 inch rain or melted snow.

MEAN ISOTHERMS AND PREVAILING WINDS OF 1910.

Lines pass thru points of equal temperature. Arrows fly with the wind.



APPENDIX.

ANNUAL SUMMARY, 1910.

INDEX TO SPECIAL ARTICLES.

Published in Monthly and Annual Reports of the Iowa Section during 1908, 1909 and 1910.

Subjects	Reports	
Apparatus for protection from frost and hail	July,	1908
Climate and crops for decade	December	1910
Comet, observations on Halley's	May,	1910
Crop statistics	November and annual	1908, 1909 and 1910
Drouths in Iowa	October,	1908
Fruit trees in full bloom, date of	May,	1909
Snowfall, monhtly and annual, 1892 to 1910	December,	1910
Tornadoes	May and June 1908 and	July, 1909

GENERAL SUMMARY.

The year, 1910, was in some respects extremely abnormal. It was the driest year on record since state-wide observations began in 1890, and the early spring and fall months were warm and pleasant; the average temperature for the latter half of March being higher than the mean for the latter half of April. The precipitation was below the normal every month of the year except January and September, and the excess in those months was small. There were not as many severe wind storms as usual and the average amount of snowfall was less than 50 per cent of the amount for 1909.

BAROMETER (Reduced to sea level).—The mean pressure of the atmosphere for the year 1910, was 30.04 inches. The highest observed pressure was 30.83 inches, at Keokuk, Lee County, on December 13th. The lowest pressure observed was 29.14 inches, at Charles City, Floyd County, on January 26th. The range for the State was 1.69 inches.

TEMPERATURE.—The mean temperature for the State was 48.7° which is 1.2° above the normal for the State. The highest annual mean was 52.9° at Keokuk, Lee County; and at Ottumwa, Wapello County. The lowest annual mean was 44.5° at Sibley, Osceola County. The highest temperature reported was 108° at Ridgeway, Winneshiek County, on July 16th. The lowest temperature reported was -35 at Elkader, Clayton County, on January 7th. The range for the State was 143°.

PRECIPITATION.—The average amount of rain and melted snow for the year as shown by the complete records of 111 stations was 20.03 inches, which is 12.62 inches below the normal, and 19.98 inches below the average amount in 1909. The greatest amount recorded at any station during the year was 27.99 inches at Burlington, Des Moines County. The least amount recorded was 12.11 inches at Clear Lake, Cerro Gordo County. The greatest monthly rainfall was 11.22 inches at Atlantic, Cass County, in August. The least monthly precipitation was 0.00 at Audubon, Audubon County; Little Sioux, Harrison County; Odebolt, Sac County; Rock Rapids, Lyon County, and at Zearing, Story County, in March. The greatest amount in any 24 consecutive hours was 7.98 inches, at Pacific Junction, Mills County, on the 28th and 29th of August.

The average amount of snowfall was 22.8 inches. The greatest amount of snowfall unmelted, at any station during the year was 52.5 inches at Elkader, Clayton County. The least amount was 4.4 inches at Keokuk, Lee County. The greatest monthly snowfall was 26.5 inches at Elkader, Clayton County, and at Humboldt, Humboldt County, in January; and the greatest twenty-four hour snowfall was 14.7 inches at Humboldt, Humboldt County, on January 20th. Measurable precipitation occurred on an average of 67 days.

WIND.—The prevailing direction of the wind was northwest. The highest velocity reported was 65 miles an hour from the north at Sioux City, Woodbury County, on April 23d, and on August 2d.

SUNSHINE AND CLOUDINESS.—The average number of clear days was 188; partly cloudy, 92; and cloudy, 85; as against 152 clear days; 92 partly cloudy; and 121 cloudy days in 1909. The duration of sunshine was as a whole, slightly above the normal.

THE WEATHER BY MONTHS.

Extremely low temperatures prevailed during the first decade of January, with two notably heavy snowstorms during the first half of the month. The first being on the 4th-5th and the second on the 12th-13th. The snowfall was unusually heavy and caused a great deal of delay in railroad traffic, and the accumulation of snow cused considerable damage to buildings, especially in the northern part of the State. The roofs of numerous structures collapsed as a result of the weight of snow; the damage to property in Dubuque being estimated at about $10,000. Snow flurries occurred at frequent intervals during the latter half of the month but the amounts of snow were small and only tended to prolong the good sleighing which began on December 5th or 6th, 1909. The ground was thoroughly covered with snow during the entire month in the northern, and most of the time in the southern districts, and as a result fall grains suffered no injury from the effects of the cold weather. The 6th and 7th were the coldest days, the lowest temperature occurring generally on the 6th, when the minimum ranged from -8° to -33° over the southern, and -18° to -35° over the northern counties.

The weather during February was exceptionally pleasant; there being no severe storms and a very small amount of precipitation. The average precipitation being only 0.46 inch which is 0.60 inch below the normal. At many stations it was the driest February in over 30 years. The temperature was, however, below the normal although the weather was moderate during most of the month. The ground was practically bare of snow over the southern counties, except from the 20th to 24th, but over the northern counties the ground was covered with snow during the whole month. Some progress was made in gathering last year's corn, but there was over 15 per cent of the crop left in the fields at the close of the month.

March, 1910, will long be remembered as having furnished more pleasant weather than any other March in the history of the State. It was the warmest and driest March on record. It gave the largest amount of sunshine; the least number of cloudy days; the least number of days with appreciable precipitation; the least number of days with freezing temperature; and less snowfall than any other March since state-wide observations began. The temperature was uniformly high and above the normal every day of the month. The highest temperature occurred generally on the 23d, and ranged from 81° to 87° over the northern, 81° to 90° over the central, and from 82° to 92° over the southern counties. There was no snowfall in excess of a trace and the rainfall was abnormally light. On the 1st of the month there was 6 to 8 inches of snow on the ground in the northern part of the State, but it had all melted by the 9th, and as there was practically no frost in the ground, the soil dried rapidly, and farmers were in the field early in the month gathering the remainder of last year's corn crop, plowing and seeding small grain. The greater portion of the corn was gathered by the 15th, and by the end of the month nearly all of the wheat and 50 per cent of the oats had been seeded and considerable ground had

been prepared for corn. The season at the close of the month was about 4 weeks in advance of the normal and from 5 to 6 weeks ahead of last year. Spring flowers were in bloom; elms, soft maples and box elders were green or becoming so, even in the extreme northern part of the State. Plum, cherry and apple trees were in bloom in the southern counties. Pastures and meadows were green, and some of the early sown grain was up before the end of the month. Fall grain, clover and alfalfa were generally in good condition, but there had been considerable damage by winter killing in western and southern districts.

The first half of April, like the whole of March, was dry and generally warm, but the latter half was very changeable and erratic; the temperatures fluctuating from one extreme to another, and the precipitation from rain to snow. A cold spell set in on the evening of the 14th, attended by moderate showers which changed to snow on the 15th and continued until the 18th, over the larger part of the State; the minimum temperatures on the 16th, 17th and 18th being from 3° to 12° below the freezing point in all districts, and the amounts of snowfall ranged from a trace in the southern to over 5 inches at some stations in the northeastern counties. The freezing temperatures severely damaged fruit, as apple, cherry and plum trees were in full bloom in the northern part of the State by the 10th of the month. The damage done, however, was small as compared with the damage resulting from the freeze of the 23d and 24th, when the minimum temperatures were 10° to 12° below the freezing point in the southern counties. The ground froze hard on the morning of the 23d and 24th, and ice one inch thick formed in tubs of water. Few trees or shrubs escaped injury, and the foliage and new growth on some varieties, such as soft maples, box elders, wistaria, Virginia creeper, etc., were frozen and at the close of the month the dead leaves were falling off. After the 24th the temperature rose rapidly and the highest temperature ever recorded in the State during April was noted on the 28th, when the maximum temperatures ranged from 90° to 99° in the western counties. Practically all small grain was seeded and some corn planted before the middle of the month.

May was abnormally cold, and except over the extreme southern counties was unusually dry. Freezing temperatures occurred on one or more days in nearly all parts of the State, but as practically all the fruit was killed during April, there was little damage done. The rainfall was light and below the normal. Owing to poor seed (account of severe freezing weather on October 12th and 13th, 1909) and continuous cold weather, much of the corn failed to germinate and, notwithstanding the fact that many fields were replanted the second and some the third time, the stand of corn was poor. The cold weather retarded the growth of vegetation and the drouthy conditions reduced the prospects of a hay crop. At the end of the month the foliage on shade and fruit trees was about as far advanced as on April 15th.

The most notable climatic features of June were the unusually cool weather during the first half, and the high temperatures during the latter half of the month; the excessive amount of sunshine; the low percentage of humidity; the great deficiency of rainfall; the high wind velocities, and the small number of thunderstorms. It was the driest June on record. Corn made slow growth during the first half of the month, and owing to poor seed, cold weather and the activity of moles, cut and wire worms, much more replanting was done than usual. During the latter half of the month corn made rapid growth as the fields were clean and the soil was in the best of condition to withstand the effects of dry weather. On the whole June was a favorable month, although the condition of all crops at its close was somewhat below the average of the past 10 years; hay, pastures and early potatoes showed the greatest damage from the drouthy conditions.

The drouthy conditions that prevailed during the latter half of June continued over the larger part of the State during the entire month of July, but the month as a whole, was in many respects ideal for agricultural pursuits. There were very few wind storms, and while it was excessively dry over the larger part of the State, the clear weather was very beneficial for haying, harvesting and threshing. Hay and all small grain was secured in excellent condition, and although the hay crop was lighter than usual, it was of the very best quality. The yield of small grain was above the average and the quality was also excellent. Corn made rapid growth and at the end of the month was strong and vigorous and earing nicely, except in the northeastern and some localities in the central and southwestern counties where the drouth had been the most severe. Pastures and potatoes were, however, severly damaged by lack of moisture. Pastures were practically bare and early potatoes were nearly a failure. Small streams and shallow wells were dry and the stage of the rivers was lower than for many years.

The drouthy conditions which had prevailed since May, continued until the middle of August, when copious and fairly well distributed showers occurred. During the latter half of the month the rainfall was generally above the normal. The temperature was normal although temperatures of 90° or above were recorded on several days between the 1st and 22d. A trace of frost was observed in some localities on the 26th, but no damage was done. The dry weather during the first half of the month was favorable for threshing, but was injurious to pastures, meadows and late potatoes, and in some sections, to corn.

Although the mean temperature was below and the average rainfall was above normal, the month of September was favorable for farm operations and other outdoor pursuits and for maturing the late crops. Light frost occurred on low ground at several stations on the 9th and 10th and heavy frost on the 27th. Freezing temperatures occurred at several stations in the extreme western counties on the latter date, but no material damage was done except to tender vines and garden truck as the low temperature was of short duration and the corn was generally far enough advanced toward maturity to escape injury. The precipitation was slightly above the normal and fairly well distributed. The rains stimulated the growth of grass, replenished the water supply, put the soil in fine condition for plowing and started the growth of fall sown grain. Threshing was praitically finished and more seed corn was gathered than ever before during the month of September.

October was unusually warm, dry and pleasant. Corn husking began during the third week and became general during the fourth week of the month. The temperature was sufficiently high to ripen strawberries in many localities. The first general killing frost with freezing temperatures did not occur until the 28th-29th.

November and December were pleasant and dry with the temperature slightly below the normal. The corn harvest was finished early in December and all of the crop was secured in excellent condition.

Notwithstanding the fact that 1910 was the driest year on record and the spring months were abnormal, the year as a whole was a profitable one to the farmers in the State. The yields of corn and small grain were considerably above the average but the yield of hay and potatoes were materially reduced by the drouthy conditions and practically all fruit was killed by the severe freezing temperatures in April.

COMPARATIVE DATA FOR THE STATE ANNUAL.

	Temperature					Precipitation in inches			
	Mean annual	Highest	Date	Lowest	Date	Annual	Greatest annual	Least annual	Ave. snowfall
1890	48.0	110	July 13	−27	January 22	31.30	45.74	16.00	----
1891	47.3	106	August 9	−31	February 4	32.90	49.05	23.48	----
1892	46.6	104	July 11	−38	January 19	36.58	48.77	24.78	34.2
1893	45.7	102	July* 13	−36	January 14	27.59	33.27	19.19	37.2
1894	49.7	109	July 26	−37	January 25	21.94	29.81	15.65	19.2
1895	47.2	104	May 28	−33	February 1	26.77	35.25	18.57	26.0
1896	48.6	104	July 3	−20	January 4	37.23	51.60	28.68	22.6
1897	47.8	106	July* 23	−30	January 25	26.98	36.18	20.21	38.8
1898	47.7	103	August 20	−25	December 31	31.34	55.47	19.51	40.3
1899	47.3	104	September 6	−40	February 11	28.68	42.06	21.79	23.4
1900	49.3	103	August 3	−27	February 15	35.05	47.33	25.05	25.8
1901	49.0	113	July 22	−31	December 15	24.41	37.69	16.35	38.5
1902	47.7	98	July 30	−31	January 27	43.82	58.80	20.14	28.0
1903	47.2	101	August 24	−27	December 18	35.39	50.53	26.41	19.4
1904	46.3	100	July 17	−32	January 27	28.51	38.93	19.34	29.2
1905	47.2	104	August 11	−41	February 2	36.56	52.26	24.66	38.3
1906	48.4	102	July 21	−32	February 10	31.60	44.34	20.63	32.8
1907	47.4	102	July 5	−31	February 5	31.61	43.90	19.93	24.0
1908	49.5	101	August 3	−18	January 29	35.26	49.98	24.11	22.7
1909	47.4	103	August* 15	−26	February* 15	40.01	53.48	27.20	49.0
1910	48.6	108	July 16	−35	January 7	19.87	27.99	12.11	23.4

* And other dates.

ANNUAL NORMALS FOR IOWA.
1891-1910.

Normal annual temperature, 47.8 degrees.
Warmest year, 1894, with mean temperature of 49.7 degrees.
Coldest year, 1893, with mean temperature of 45.7 degrees.
Normal annual precipitation, 31.58 inches.

Wettest year, 1902, with total precipitation of 43.82 inches.
Driest year, 1910, with total precipitation of 19.87 inches.
Average annual snowfall (unmelted), 30.1 inches.
Greatest annual snowfall, 49.0 inches in 1909.
Least annual snowfall, 19.2 inches in 1894.
Average number of days with 0.01 inch or more of precipitation, 82.
Prevailing wind direction, northwest.
Average number of clear days, 164; partly cloudy, 104; cloudy, 97.

AVERAGE MONTHLY AND ANNUAL SNOWFALL FOR IOWA. IN INCHES.

Year	Jan.	Feb.	Mar.	Apr.	May	Sept.	Oct.	Nov.	Dec.	Annual
1892	6.9	5.0	3.9	5.7	T	-----	-----	1.8	10.9	34.2
1893	6.9	8.1	4.0	6.0	-----	-----	-----	4.6	7.6	37.2
1894	6.0	8.4	2.7	0.2	-----	-----	0.2	0.4	1.3	19.2
1895	8.7	3.3	2.9	2.1	-----	-----	T	4.9	4.1	26.0
1896	2.8	5.4	5.4	4.5	-----	-----	T	2.9	1.6	22.6
1897	8.2	8.0	5.5	T	-----	-----	-----	1.2	15.9	38.8
1898	12.6	7.8	3.7	T	-----	-----	3.6	8.7	3.9	40.3
1899	1.5	7.1	8.0	2.0	-----	-----	-----	0.5	4.3	23.4
1900	2.3	9.9	6.6	0.9	-----	-----	-----	3.7	2.4	25.8
1901	6.2	9.7	12.6	2.0	-----	-----	T	2.6	5.4	38.5
1902	9.4	2.6	1.3	T	-----	-----	T	1.8	12.9	28.0
1903	2.0	7.9	3.9	0.8	-----	-----	-----	1.1	3.7	19.4
1904	6.1	4.5	4.4	1.4	-----	-----	T	0.5	12.3	29.2
1905	11.1	15.5	4.1	1.2	-----	-----	1.6	0.6	4.2	38.3
1906	11.3	6.1	8.9	0.6	-----	-----	0.1	4.4	1.4	32.8
1907	6.0	4.6	4.1	2.7	1.0	-----	-----	0.9	4.7	24.0
1908	4.6	8.9	1.1	0.3	-----	T	2.6	1.4	3.8	22.7
1909	7.8	7.7	0.8	3.1	0.1	-----	T	6.8	13.7	49.0
1910	12.6	4.0	T	3.0	T	-----	0.1	0.7	3.0	23.4
Means	7.0	7.1	4.9	1.9	T	-----	0.4	2.6	6.2	30.1

ERRATA FOR ANNUAL SUMMARY, 1909.

ALTA—Page 142—Mean temperature for April published 38.9°, should be 39.9°.

AUDUBON—Page 142—Mean temperature for November, published 42.1°, should be 42.2°; departure published +6.9°, should be +7.0°. Page 143—Total precipitation for December published 2.01, should be 1.56 inches. Departure published +1.05, should be +0.55 inch. Page 138—Total annual precipitation published 46.25, should be 45.80 inches; departure published +16.63, should be +16.18 inches.

CHARITON—Page 142—Mean temperature for december published 16.2, should be 16.4°; departure published —10.1°, should be —9.9°.

CORNING—Page 142—Mean temperature for December published 14.4°, should be 14.8°; departure published —12.7°, should be —12.3°.

DES MOINES—Pages 138 and 143—Total annual precipitation published 36.03, should be 36.01 inches; departure published +3.58, should be +3.56 inches.

FAIRFIELD—Page 142—Mean temperature for August published 79.8°, should be 79.6°; departure published +8.5°, should be +8.3°.

HARLAN—Page 143—Total precipitation for November published 5.85, should be 9.85 inches; departure published +4.81, should be +8.81 inches. Total annual precipitation published 40.78, should be 44.78 inches; departure published +8.52, should be +12.52 inches.

INDEPENDENCE—Page 143—Precipitation for December published 2.62, should be 2.87 inches; departure published +1.26, should be +1.51 inches. Total annual precipitation published 30.05, should be 30.30 inches; departure published —1.91, should be —1.66 inches.

IOWA CITY—Page 142—Mean temperature for December published 15.8°, should be 15.7°; departure published —8.4°, should be —8.5°.

LE MARS—Page 139—Total annual precipitation published 39.01, should be 38.96 inches. Page 143—Precipitation for December published 1.04 should be 0.99 inch; departure published +0.22, should be +0.17 inch. Total annual precipitation published 39.01, should be 38.96 inches; departure published +8.94, should be +8.89 inches.

MUSCATINE—Page 143—November precipitation published 95.53, should be 5.53 inches.

PLOVER—Page 139—Dates of highest temperature published August 15th and May 5th, should be August 15th. Page 143—November precipitation published 4.73, should be 7.28 inches.

POCAHONTAS—Page 139—Dates of highest temperature published July 2d and August 27th, should be May 5th, July 2d and August 27th.

SHELDON—Page 143—Precipitation for February published 2.40 inches, should be omitted. Departure published +1.47 inches, should be omitted.

SIOUX CENTER—Page 142—Mean temperature for September published 60.4° should be 60.2°. Departure published —0.9°, should be —1.1°.

WASHINGTON—Page 142—Mean temperature for October published 51.0°, should be 50.6°; departure published —1.2°, should be —1.6°.

WEBSTER CITY—Page 142—Mean temperature for November published 43.9°, should be 43.4°.

WOODBURN—Pages 139 and 142—Mean annual temperature published 48.8°, should be 48.9°. Page 142—Mean temperature for September published 62.0°, should be 63.5°.

ZEARING—Page 142—Mean temperature for November published 42.0°, should be 42.4°.

SUPPLEMENTAL PRECIPITATION TABLE

STATIONS	Jan.	Fed.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Allerton	1.71	0.46	0.16	2.26	6.00	1.91	2.49	0.82	3.51	0.12	-----	0.28	-----
Alton	1.45	0.15	0.02	1.25	1.88	1.26	3.84	4.43	2.16	0.78	0.15	0.05	17.42
Audubon	1.80	1.08	0.00	-----	2.75	1.64	1.47	7.85	4.02	0.93	0.41	0.22	-----
Belmond	1.51	0.22	0.23	1.04	3.52	3.05	3.13	3.58	2.14	1.25	0.33	0.38	20.38
Bloomfield	1.20	0.94	0.45	2.69	4.09	-----	-----	3.72	3.01	-----	-----	-----	-----
Boone	1.78	0.39	0.32	0.84	1.82	3.21	1.86	2.97	4.95	0.88	0.38	0.21	19.62
Centerville	-----	**0.58**	**0.15**	**3.96**	**5.87**	**0.21**	**2.74**	**1.69**	**2.45**	**0.15**	**0.25**	**0.07**	-----
Council Bluffs	-----	-----	-----	-----	-----	-----	-----	-----	3.78	0.97	0.11	0.6.	-----
Creston	1.40	0.60	0.04	0.79	4.82	1.36	1.55	5.15	6.23	1.42	0.61	0.20	24.17
Cumberland	-----	0.60	T	0.20	2.73	0.39	2.50	7.10	5.00	1.56	1.03	0.20	-----
De Soto	2.17	0.40	T	1.62	2.96	1.20	0.63	3.40	3.96	0.89	0.56	-----	-----
Elma	0.73	0.55	0.02	1.61	3.33	0.33	0.33	4.40	1.18	0.42	0.22	0.53	13.65
Fort Dodge	1.80	0.20	-----	0.35	2.48	4.38	2.82	5.21	3.82	1.73	0.16	0.25	-----
Gilman	-----	0.10	-----	-----	4.13	4.01	0.95	1.94	5.41	0.96	-----	-----	-----
Hancock	1.40	0.21	0.00	0.10	3.72	0.40	-----	-----	-----	-----	-----	-----	-----
Jefferson	-----	0.40	T	0.37	-----	-----	-----	-----	-----	1.53	0.05	0.22	-----
Lamoni	1.20	0.29	0.03	2.15	6.91	2.63	3.49	1.43	4.77	0.27	0.31	0.18	23.66
Larrabee	1.21	-----	0.02	1.12	2.45	2.53	3.47	3.00	2.75	0.79	0.19	0.12	-----
Massena	1.93	0.70	T	1.19	6.79	-----	-----	-----	-----	-----	-----	-----	-----
Newton	1.17	0.30	0.27	1.12	-----	3.17	1.83	-----	-----	0.44	0.36	0.22	-----
Olin	-----	-----	-----	-----	3.36	1.46	0.63	4.67	4.61	0.98	-----	0.38	-----
Rock Rapids	-----	0.10	0.00	0.86	-----	1.90	1.55	1.48	2.79	0.20	0.05	0.10	-----
Storm Lake	0.86	0.11	0.05	0.55	2.77	2.00	2.61	2.66	1.56	0.44	-----	0.20	-----
Stuart	0.93	0.26	T	1.41	-----	1.85	-----	4.41	5.85	1.07	T	-----	-----
Washington	1.73	0.46	0.62	3.11	3.57	1.40	2.24	8.49	3.66	0.54	0.41	-----	-----
Zearing	2.90	0.90	0.00	0.47	-----	-----	-----	-----	-----	-----	-----	-----	-----

IOWA'S CLIMATE AND CROPS FOR THE DECADE—1890-1900

Reprint from this report for June, 1900.

Temperature Data.	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
Annual mean temperature—degrees	47.7	47.4	47.5	45.7	49.7	45.5	48.5	46.7	47.6	47.6	47.4
Highest temperature and date—degrees	July 13:110	Aug.7-9:106	July 11.104	July 13:104	July 26:109	July 16:104	July 3: 104	July 23:106	Aug.20:103	Sept. 6:104	105.2
Lowest temperature and date—degrees	Jan. 27;-27	Feb. 4:-31	Jan. 19;-38	Feb. 4:-28	Jan. 25:-37	Feb. 1;-33	Jan. 4:-20	Jan. 25:-30	Dec. 25:-25	Feb. 4:-40	-30.9
Mean temperature—April—degrees	51.8	50.6	45.4	45.5	51.7	54.2	54.5	47.9	48.1	48.9	49.8
Mean temperature—May—degrees	57.7	58.3	54.0	56.6	61.1	61.7	65.5	59.6	59.6	60.2	59.4
Mean temperature—June—degrees	72.7	69.1	69.2	71.2	73.2	69.7	69.1	69.1	71.4	70.7	70.5
Mean temperature—July—degrees	75.6	68.6	73.0	75.0	76.4	72.1	73.6	75.6	73.4	73.1	73.6
Mean temperature—August—degrees	68.4	69.1	71.4	69.4	74.6	71.9	71.7	68.9	71.2	74.4	71.1
Mean temperature—September—degrees	59.3	67.3	64.7	64.7	65.1	66.8	58.5	70.9	65.3	62.5	64.5
Average temperature for six crop months—degrees	62.2	63.8	62.9	63.7	67.0	66.0	65.4	65.3	64.8	64.9	64.6
Av. temperature for three summer months—degrees	72.2	68.9	71.2	71.8	74.7	71.2	71.4	71.2	72.0	72.7	71.7
RAINFALL DATA.											
Average percipation per year—inches	31.12	33.13	35.74	27.31	21.95	26.63	37.45	26.99	31.69	29.10	30.11
Rainfall in April—inches	1.78	2.15	4.75	4.21	3.07	2.62	5.02	5.35	2.56	2.40	3.39
Rainfall in May—inches	3.56	3.18	8.77	3.45	1.87	3.19	6.69	1.92	4.67	6.23	4.35
Rainfall in June—inches	7.76	5.39	5.19	3.91	2.67	4.32	3.11	3.81	4.72	5.04	4.59
Rainfall in July—inches	1.98	4.22	5.29	3.33	0.63	3.40	6.90	3.26	2.98	3.07	3.50
Rainfall in August—inches	3.41	4.24	2.24	2.32	1.58	4.43	3.52	1.86	3.44	3.68	3.07
Rainfall in September—inches	2.95	1.33	1.53	2.34	3.57	3.03	4.09	2.04	2.69	0.93	2.45
Rainfall for six crop months—inches	21.40	20.51	27.77	19.56	13.39	20.99	29.33	18.24	21.06	21.35	21.36
Rainfall for three summer months—inches	13.15	13.85	12.72	9.56	4.88	12.15	13.53	8.93	11.14	11,79	11.16
STAPLE FARM CROPS FOR DECADE.											
Spring wheat yield per acre—bushels	12	16	14	12.4	12.8	19	13	13.4	14.8	12.7	14
Wheat, total yield—bushels	19,011,000	27,583,000	7,534,952	11,385,899	9,470,306	14,346,000	10,398,785	14,613,054	22,321,268	19,900,830	15,660,000
Corn, yield per acre—bushels	28	38	29	35.7	14.8	38	39	29	34.5	36.3	32.2
Corn, total product—bushels	239,675,156	335,031,598	173,867,354	214,804,758	129,104,930	285,000,000	313,692,210	239,452,150	289,214,850	306,852,710	252,664,170
Oas, yield per acre—bushels	29	40	25	28	24	48	26	30	32.5	34.5	31.7
Oats, total product—bushels	80,002,735	115,810,800	83,485,150	100,742,852	107,691,460	201,600,000	73,450,000	132,571,155	139,915,346	140,647,309	117,591,714
Barley,total product—bushels	3,664,368	4,528,669	14,019,072	11,437,666	8,635,604	18,678,000	15,881,618	14,076,850	14,138,346	14,719,311	11,781,680
Rye, total product—bushels	1,608,960	2,051,400	1,536,270	1,785,202	1,624,073	2,014,000	1,891,716	3,490,344	3,852,561	2,061,169	2,148,868
Flax, total product—bushels	2,979,081	3,154,016	5,188,104	2,263,861	1,371,165	2,310,000	1,946,720	2,498,600	2,376,604	1,597,797	2,563,112
Potatoes, total product—bushels	8,332,352	25,620,350	8,729,160	6,172,257	7,869,321	21,200,000	14,814,795	10,051,919	12,238,411	15,252,934	13,058,149
Hay (tame) total product—tons	4,991,335	5,582,890	6,288,200	4,569,341	1,901,038	2,610,000	3,376,440	3,362,287	3,852,560	3,852,940	4,038,033
Corn and small grain—bushels	343,992,190	485,008,467	280,472,798	340,472,798	256,526,373	521,638,000	415,314,231	404,203,553	469,172,371	483,717,957	400,051,870
Total value of farm products	$204,375,000	$207,841,000	$175,727,940	$161,207,464	$137,804,000	$168,235,420	$133,664,628	$151,084,069	$187,455,376	$194,605,706	$172,350,250

—Below zero.

IOWA'S CLIMATE AND CROPS FOR THE DECADE 1900-1910

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	Average for Decade	Average for Preceding Decade
Annual mean temperature—degrees	49.3	49.1	47.7	47.2	46.3	47.2	48.4	47.4	49.5	47.4	48.0	47.4
Highest temperature and date—degrees	Aug. 3, 103	July 22, 113	July 30, 98	Aug. 24, 101	July 17, 100	Aug. 11, 104	July 21, 102	July 5, 102	Aug. 3, 101	Aug. 15, 103	102.7	105.2
Lowest temperature and date—degrees	Feb. 15, -27	Dec. 15, -31	Jan. 27, -31	Dec. 13, -27	Jan. 27, -32	Feb 2, -41	Feb. 10, -32	Feb. 5, -31	Jan. 29, -18	Feb. 15 & 27, -26	-29.6	-30.9
Mean temperature—April	52.2	49.9	48.2	49.8	44.1	47.5	52.5	41.5	50.5	43.8	48.0	49.8
Mean temperature—May	63.2	60.7	63.8	61.6	59.6	58.3	60.8	53.5	59.4	57.9	60.0	59.4
Mean temperature—June	69.7	72.3	65.2	64.6	67.1	69.9	67.9	66.5	67.1	69.1	67.9	70.5
Mean temperature—July	73.4	82.4	73.1	72.9	70.6	70.6	70.9	73.7	73.0	72.3	73.3	73.6
Mean temperature—Aug.	77.4	73.8	69.1	69.1	69.1	74.3	74.1	71.1	70.0	76.1	72.4	71.1
Mean temperature—Sept.	64.4	63.3	59.1	60.8	64.0	65.8	67.2	62.8	67.9	62.4	63.8	64.5
Average temperature for six crop months	68.7	67.1	63.1	63.1	62.4	64.4	65.6	61.5	64.6	63.6	64.2	64.6
Average temperature for three summer months	73.5	76.2	69.2	68.9	68.9	71.6	71.0	70.4	70.0	72.5	71.2	71.7
Precipitation Data—												
Average annual precipitation—inches	35.05	24.41	43.82	35.39	28.51	36.56	31.60	31.61	35.26	39.99	34.22	30.11
Rainfall in April	2.67	1.79	1.71	2.98	3.63	3.03	2.42	1.32	2.24	4.58	2.64	3.39
Rainfall in May	3.31	2.35	5.39	8.55	3.78	5.95	3.54	3.48	8.34	4.34	4.90	4.35
Rainfall in June	3.98	3.71	7.16	2.86	3.45	5.53	3.92	5.35	5.66	6.41	5.09	4.59
Rainfall in July	6.15	2.34	8.67	4.83	4.41	2.91	3.04	7.27	3.66	4.75	4.80	3.50
Rainfall in August	4.65	1.29	6.58	6.64	3.43	4.05	3.95	4.33	4.77	1.81	4.15	3.07
Rainfall in September	4.98	4.77	4.35	3.81	2.78	3.81	4.16	2.75	1.20	3.58	3.62	2.45
Rainfall for six crop months	25.74	16.25	33.86	29.67	21.48	25.28	21.03	24.50	25.87	25.47	24.92	21.36
Rainfall for three summer months	14.78	7.34	22.41	14.33	11.29	12.49	10.91	16.95	14.09	12.97	13.76	11.16
Staple farm crops for decade—												
Spring wheat, yield per acre—bushels	14.3	15.3	13.0	12.6	9.1	14.4	14.0	13.0	15.4	12.5	13.4	*14.0
Spring wheat, total yield—bushels	20,280,280	17,429,230	12,680,800	9,481,350	7,080,430	5,155,760	5,603,880	4,402,320	4,968,250	3,809,460	9,089,176	*15,660,000
Winter wheat, yield per acre—bushels	13.3	17.6	18.0	16.9	14.3	20.2	23.0	19.8	19.7	18.2	18.1	.....
Winter wheat, total yield—bushels	1,018,070	865,770	852,045	1,435,380	1,017,000	1,253,020	1,566,050	1,698,101	1,678,540	3,621,953	1,500,593	.....
Corn, yield per acre—bushels	40.3	26.2	34.0	31.0	36.0	37.2	41.0	29.6	35.9	34.0	34.5	32.2
Corn, total product—bushels	345,055,040	227,908,850	296,950,230	230,511,310	323,853,330	345,871,840	388,348,920	246,898,460	301,873,150	308,036,868	304,530,800	252,664,170
Oats, yield per acre—bushels	34.7	32.1	31.0	25.9	29.4	37.2	34.0	24.5	25.5	27.0	30.1	31.7
Oats, total product—bushels	138,832,330	114,883,530	92,937,960	99,012,660	118,435,570	146,439,240	142,036,580	111,190,400	112,830,490	117,083,850	119,368,261	117,591,714
Barley, total product—bushels	12,695,200	*4.654,410	15,380,900	12,179,790	12,317,710	15,566,770	14,858,830	9,893,330	10,629,660	10,352,040	12,852,864	11,781,680
Rye, total product—bushels	1,621,630	859,630	832,830	1,923,060	1,517,090	1,283,500	1,093,160	900,060	869,072	556,846	1,145,688	2,148,868
Flax, total product—bushels	1,222,980	916,890	755,350	355,160	591,140	173,770	205,280	461,960	461,580	173,650	531,776	2,563,112
Potatoes, total product—bushels	10,850,900	5,098,460	12,051,670	6,082,694	14,255,680	9,352,190	11,697,500	9,847,430	10,658,290	12,427,595	10,232,241	13,058,149
Hay (tame and wild), total product—tons	4,762,060	4,980,380	5,642,800	6,407,749	5,190,680	7,790,610	6,003,640	6,290,468	7,284,620	6,311,874	6,066,488	4,038,033
Corn and small grain—bushels	519,502,550	376,601,420	419,634.765	354,543,550	464,221,130	515,570,130	553,507,420	374,982,671	432,849,162	443,461,017	445,487,382	400,051,870
Total value of farm products	$229,805,058	$274,080,934	$215,722,339	$256,413,704	$291,207,258	$302,286,212	$330,495,421	$322,715,905	$376,076,646	$357,419,615	$295,622,309	$172,350,250

*Both spring and winter wheat.

CLIMATOLOGICAL DATA FOR THE YEAR 1910.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES, FAHR.					PRECIPITATION, IN INCHES						Total snowfall (unmelted)	SKY				Prevailing direction of wind
				Mean	Highest	Date	Lowest	Date	Length of record, years	Totals for the year	Greatest monthly	Month	Least monthly	Month		Number rainy days	Number clear days	Number partly cloudy days	Number cloudy days	
Afton	Union	1,212	17	50.5	99	June 18*	—13	Jan. 6	17	24.98	7.43	Sept.	T	Mar.	21.3	56				sw
Albia	Monroe	959	13	49.5	99	July 25	—19	Jan. 6*	13	16.30	3.99	May	0.30	Oct. and Dec.	12.5	72	196	77	92	sw
Algona	Kossuth	1,213	37	47.0	96	July 16	—22	Jan. 6	37	23.23	3.53	June	0.11	Mar.		54				
Allerton	Wayne		9	51.0	98	Aug. 23	—19	Jan. 6	9		6.00	May			12.3					nw
Alta	Buena Vista	1,513	20	46.6	96	Aug. 1	—18	Jan. 6	20	17.53	3.08	Aug.	0.05	Mar.	24.2	80	166	139	60	nw
Alta (near)	Buena Vista								16	18.65	3.67	Aug.	T	Mar.	21.4	74				
Alton	Sioux	1,305	6	47.2	98	Aug. 1	—29	Jan. 6	6	17.42	4.43	Aug.	0.02	Mar.	20.5	58	204	91	70	nw
Amana	Iowa	721	33	48.7	99	July 16	—26	Jan. 7	35	24.75	7.50	Aug.	0.21	Dec.	16.6	83	183	103	79	nw
Ames	Story	926	31	48.6	98	Aug. 24	—23	Jan. 6*	35	18.65	4.63	Sept.	0.12	Nov.	15.2	53				s
Atlantic	Cass	1,164	20	50.1	98	June 18*; July 27	—24	Jan. 6	19	24.52	11.22	Aug.	T	Mar.	12.0	67	117	89	159	nw
Audubon	Audubon	1,301	17		97	June 19	—17	Jan. 6	17		7.85	Aug.	0.00	Mar.						
Baxter	Jasper	998	11	49.3	99	July 1	—21	Jan. 6	11	20.49	3.89	Sept.	0.19	Feb.	21.7	94	197	95	73	nw
Bedford	Taylor		11	50.9	106	July 27	—26	Jan. 6	11	18.48	4.17	May	0.05	Mar.	23.8	72	204	72	89	nw
Belle Plaine	Benton	828	21	48.5	99	July 16	—21	Jan. 6*	21	18.77	3.47	Sept.	0.07	Dec.	39.2	71	184	88	93	nw
Belmond	Wright			46.4	95	June 26*; July 16; Aug. 24	—25	Jan. 6		20.38	3.58	Aug.	0.22	Feb.	24.9	84	88	212	65	nw
Bloomfield	Davis		4				—18	Jan. 6*	4											
Bonaparte	Van Buren		20	50.8	100	July 24	—17	Jan. 6	20	21.14	4.52	May	0.53	Nov.	14.1	64				
Boone	Boone	1,134	6	48.5	98	June 18*; Aug. 1	—16	Jan. 6*	6	19.62	4.95	Sept.	0.21	Dec.	9.0	66				
Brit	Hancock	1,236	14	45.8	94	June 20; July 16	—26	Jan. 6	14	15.12	4.02	June	0.10	Feb.	17.4	64	207	95	63	s
Buckingham	Tama								11	18.00	4.33	Aug.	T	Mar.		55				
Burlington	Des Moines	544	13	51.1	101	June 24	—11	Jan. 6	15	27.99	4.86	April	0.43	Aug.	25.0	89	223	44	98	sw
Carroll	Carroll	1,265	21	47.4	97	June 17	—19	Jan. 5	21	22.21	7.92	Aug.	T	Nov.	9.0	47	172	86	107	nw
Cedar Rapids	Linn	733	29	48.4	100	June 30*; July 1	—27	Jan. 7	29	18.74	6.10	Aug.	T	Mar.	17.7	55	216	37	112	w
Centerville	Appanoose								1		5.87	May	0.07	Dec.						
Chariton	Lucas	1,042	16	50.2	99	July 24	—22	Jan. 6	16	13.77	5.07	May	T	Mar. Oct. and Nov.	17.0	38				se
Charles City	Floyd	1,015	20	45.4	98	July 16	—32	Jan. 6	20	15.89	5.84	Aug.	0.18	Mar.	44.6	80	112	107	146	nw
Clarinda	Page	1,009	21	48.6	101	July 27	—22	Jan. 7	21	22.71	6.20	May	0.00	Mar.	17.5	72	195	54	116	ne
Clear Lake	Cerro Gordo	1,241	13	47.2	99	June 20	—26	Jan. 6	13	12.11	3.23	Aug.	0.10	Feb. and Mar	16.0	31				nw
Clinton	Clinton	593	43		102	June 30	—20	Jan. 7	44	22.92	5.46	Sept.	0.35	Mar.	26.2	83				
Columbus Jct.	Louisa	595	10	50.7	96	July 24	—16	Jan. 6	10	26.55	5.26	May	0.30	Mar.	15.4	77	236	68	61	nw
Corning	Adams	1,117	19	49.3	96	June 18; July 17*; Aug. 22	—26	Jan. 6	19	21.52	4.90	May	T	Mar.	16.0	51				nw
Corydon	Wayne	1,101	18	50.8	99	July 25	—19	Jan. 6	18	16.78	4.73	May	0.14	Oct.	9.9	64				nw
Creston	Union	1,312	6	49.0	99	Sept. 15	—25	Jan. 6	6	21.17	6.23	Sept.	0.04	Mar.		69	190	44	131	nw
Cumberland	Cass										7.10	Aug.	T	Mar.						
Davenport	Scott	606	39	50.4	99	June 30	—13	Jan. 6	40	21.94	4.31	Aug.	0.22	Nov.	14.6	93	186	79	100	nw
Decorah	Winneshiek	875	18	47.1	105	June 29; July 15	—28	Jan. 7	18	18.51	4.08	Aug.	0.05	Mar. and June	38.0	50				
Delaware	Delaware		20	47.3	98	July 16	—23	Jan. 6*	20	19.98	5.30	May	0.21	Mar.	31.5	81	197	106	62	nw
Denison	Crawford	1,180	17	48.6	97	Aug. 1	—26	Jan. 6	17	23.10	9.75	Aug.	T	Mar. and Nov.	13.9	61				n&s
Des Moines	Polk	861	32	50.3	97	Aug. 22	—14	Jan. 7	32	18.24	3.82	Sept.	0.20	Feb. and Dec.	17.8	80	126	101	138	nw
De Soto	Dallas	866	11		100	July 16	—21	Jan. 6*	11		3.96	Sept.	T	Mar.						sw
Dubuque	Dubuque	639	38	48.7	98	June 30; July 1	—25	Jan. 7	38	21.86	3.96	Aug.	0.14	Mar.	41.2	94	164	89	112	nw
Earlham	Madison		9				—24	Jan. 6	9	21.69	5.02	Sept.	T	Mar.	25.0	57				nw
Elkader	Clayton	727	30	48.1	103	July 16	—35	Jan. 7	32	22.28	5.14	Sept.	0.02	Mar.	52.5	63	231	76	58	
Elliott	Montgomery		6	50.4	97	July 27	—31	Jan. 6	6	22.44	8.70	Aug.	T	Mar.	14.5	55	201	128	36	nw
Elma	Howard		2	45.2	99	July 16	—34	Jan. 7	2	13.65	4.40	Aug.	0.02	Mar.		76	183	111	71	se&nw
Estherville	Emmet	1,298	16	44.9	95	Aug. 21	—21	Jan. 9	16	18.16	5.51	June	0.07	Mar.	23.5	66				s
Fairfield	Jefferson	780	19	50.3	100	July 24	—23	Jan. 7	27	20.83	3.75	May	0.48	Nov.	11.9	91				nw
Fayette	Fayette		21	46.0	101	July 16	—32	Jan. 7	21	22.42	4.81	Sept.	0.10	Mar.	52.0	67				nw
Forest City	Winnebago	1,226	17	45.7	96	July 16	—23	Jan. 9	17	16.27	2.75	Aug.	T	Nov.	11.1	55	209	65	91	w
Fort Dodge	Webster	1,126	11		98	June 20	—22	Jan. 9	11		5.21	Aug.								
Fort Madison	Lee		52						62	26.14	6.32	May	0.70	Nov.	33.0	48	130	92	143	s
Gilman	Marshall								18		5.41	Sept.								
Grand Meadow	Clayton	1,180	20	45.8	92	July 16	—25	Jan. 7	20	22.87	4.81	Sept.	0.01	Mar.	44.6	68	149	126	90	nw
Greene	Butler		13	47.5	106	July 16	—26	Jan. 6*	13	16.35	5.78	Aug.	0.17	Nov.	30.0	71	92	156	117	w
Greenfield	Adair			49.0	96	July 16; Aug. 1	—19	Jan. 6		25.79	5.90	Aug.	T	Mar.		56	194	123	48	nw
Grinnell	Poweshiek	1,023	19	51.1	100	July 24; Aug. 22	—20	Jan. 6	19	20.65	4.50	Sept.	0.15	Feb.	21.3	72	187	108	70	w
Grundy Center	Grundy	976	20	48.2	98	July 16	—24	Jan. 7*	20	20.77	4.92	Aug.	0.02	Mar.	31.1	50				nw
Guthrie Center	Guthrie	1,077	16	49.5	98	June 18	—21	Jan. 6	16	23.68	6.11	Aug.	0.01	Mar.	19.8	80	218	67	80	nw
Hampton	Franklin	1,155	21	48.0	100	June 20	—20	Jan. 6	21	17.71	5.40	Aug.	0.31	Nov.	35.1	66	137	137	91	nw
Hancock	Pottawatamie	1,113	6				—21	Jan. 6	6											
Harlan	Shelby	1,192	12	48.7	97	June 18*; Aug. 1	—27	Jan. 6	12	20.96	9.58	Aug.	T	Mar.	18.4	65	134	137	94	s
Hopeville	Clarke		19	50.3	98	July 24	—20	Jan. 6	20	19.98	5.67	Sept.	T	Mar.		71	126	149	90	nw
Humboldt	Humboldt	1,095	20		96	April 28; Aug. 1	—28	Jan. 6	23	21.66	4.08	Sept.	0.08	Mar.	33.5	64	256	50	59	nw
Independence	Buchanan	921	47	47.3	98	June 24; July 16	—30	Jan. 7	44	15.02	3.19	Sept.	0.00	Mar.	30.2	51	238	45	82	nw
Indianola	Warren	969	20	50.8	98	July 25; Aug. 22	—13	Jan. 6	20	17.66	4.42	Sept.	0.32	Mar.	21.2	75				nw
Inwood	Lyon	1,474	7	46.7	99	April 28	—30	Jan. 6	7	18.52	4.46	Aug.	0.02	Feb.	17.1	71	228	69	68	nw
Iowa City	Johnson	683	51	47.6	98	July 1*	—29	Jan. 6	48	22.36	4.98	Aug.	0.28	Mar.	16.0	79	216	29	123	nw

CLIMATOLOGICAL DATA FOR THE YEAR 1910—Continued.

STATIONS	COUNTIES	Elevation, feet	Length of record, years	TEMPERATURE, IN DEGREES, FAHR.						PRECIPITATION, IN INCHES						Total snowfall (unmelted)	SKY				Prevailing direction of wind
				Mean	Highest	Date		Lowest	Date	Length of record, years	Totals for the year	Greatest monthly	Month	Least monthly	Month		Number rainy days	Number clear days	Number partly cloudy days	Number clear days	
Iowa Falls	Hardin	1,170	18	45.2	97	June	20	—30	Jan. 6	18	22.20	6.01	Aug.	T	Mar.	35.9	64	239	19	107	nw
Jefferson	Greene		8							12				T	Mar.						
Keokuk	Lee	614	40	52.9	99	July	24	— 8	Jan. 6	39	21.82	6.87	May	0.23	Nov.	4.4	84	186	104	75	nw
Keosauqua	Van Buren	644	19	49.8	101	July	24	—23	Jan. 6*	19	26.20	5.69	July	0.57	Feb.	20.1	78	102	154	109	
Knoxville	Marion	920	16	51.4	98	Aug.	22	—14	Jan. 6	16	21.70	5.37	Sept.	0.28	Oct.	23.8	62	182	83	100	nw
Lacona	Warren									12	22.65	4.97	Sept.	0.49	Dec.	34.6	87				
Lamoni	Decatur		4	50.9	97	July	26*	—16	Jan. 6	4	23.66	6.91	May	0.03	Mar.	11.9	75	232	30	103	nw
Larrabee	Cherokee	1,266	20	46.6	96	April	28	—23	Jan. 6	21		3.47	July	0.02	Mar.						
Le Claire	Scott									11	21.71	4.11	May	0.37	Mar.	23.1	100				
Le Mars	Plymouth	1,224	15	47.5	94	April	28	—19	Jan. 6	15	18.19	5.18	July	0.01	Dec.	19.4	61	140	175	50	nw
Lenox	Taylor	1,250	16	50.5	97	July	27	—16	Jan. 6	16	17.47	4.47	May	0.05	Mar.	10.2	61	227	72	66	s
Leon	Decatur	1,120	9	50.8	97	July	22	—19	Jan. 6	9	22.79	6.68	May	T	Mar.	21.3	59				s
Little Sioux	Harrison		6	50.5	100	Aug.	1	—28	Jan. 6	6	18.49	6.99	Aug.	0.00	Mar.	20.2	65				nw
Logan	Harrison		44	50.2	99	June July Aug.	19 27 1	—24	Jan. 6	44	19.03	6.00	Aug.	T	Mar.		56	144	165	56	nw
Marshalltown	Marshall	947	19	48.0	100	Aug.	24	—22	Jan. 7*	19	19.80	3.51	Sept.	0.33	Feb.	17.5	75	205	62	98	nw
Mason City	Cerro Gordo	1,132	14	45.4	95	July	16	—26	Jan. 7	14	15.27	4.84	Aug.	0.22	Dec.	19.4	57	187	112	66	nw
Mt. Ayr	Ringold	1,236	18	51.7	99	July	24		Jan. 6	18	27.77	6.75	May	0.05	Mar.	15.0	85	175	89	101	nw
Mt. Pleasant	Henry	729	30	50.8	101	Aug. June July	22 18 1	—15 —16	Jan. 6	17	24.27	4.25	May	0.59	Nov.	19.7	89	192	86	87	sw
Muscatine	Muscatine										23.29	4.39	May	0.36	Mar.	16.3	87				
New Hampton	Chickasaw	1,169	14	46.1	99	July	16	—26	Jan. 6	14	16.69	4.81	Aug.	0.15	Mar.	38.0	55	216	63	86	w
Newton	Jasper		22					—17	Jan. 6	23											
Northwood	Worth	1,222	15	45.5	95	July	16	—24	Jan. 6	15	19.94	5.19	Sept.	0.08	Mar.	45.6	70	223	69	73	nw
Odeboldt	Sac	1,356	13	49.4	101	June	18	—19	Jan. 6	14	19.38	4.67	Aug.	0.00	Mar.	17.7	53	237	70	58	
Olin	Jones		13		101	July	25			13											
Omaha, Neb.	Douglas	1,040	40	52.3	104	July	27	—10	Jan. 5	40	15.49	4.76	Aug.	T	Mar.	17.9	67	154	110	101	s
Onawa	Monona	1,051	11	51.1	97	April	28	—18	Jan. 6	11	21.78	6.79	Aug.	T	Mar.	20.6	74	236	56	73	nw
Osage	Mitchell	1,184	20	47.5	102	July	16	—24	Jan. 6	24	17.14	5.05	Aug.	T	Mar.	41.2	36	190	77	98	nw
Oskaloosa	Mahaska	843	28	50.3	99	July	25	—22	Jan. 6	35	21.02	4.47	Sept.	0.20	Dec.	22.3	82				nw
Ottumwa	Wapello	649	16	52.9	103	July	24	—16	Jan. 6	16	18.52	3.65	Aug.	0.18	Nov.	13.1	69	95	87	183	se&nw
Pacific Junction	Mills	960	12	50.0	103	July	27	—29	Jan. 6	12	23.95	5.08	May	T	Mar.	17.9	52	156	174	35	s
Pella	Marion		9	50.0	101	July	24	—28	Jan. 6	9	18.64	5.92	Sept.	0.16	Dec.	23.5	79	275	19	71	nw
Perry	Dallas		10	49.4	99	Aug.	1	—24	Jan. 6	10	20.40	4.61	Sept.	T	Mar.	30.5	63	173	120	72	
Plover	Pocahontas	1,426	14	46.5	99	June	24	—22	Jan. 6	15	16.53	5.24	June	0.04	Mar.	15.5	46	259	67	39	nw
Pocahontas	Pocahontas		7	46.4	95	June	20	—20	Jan. 6	7	16.17	3.67	June	0.03	Mar.	16.7	61	214	79	72	nw
Ridgeway	Winneshiek	1,215	13	47.8	108	July	16	—23	Jan. 6	13	22.20	5.63	Aug.	0.18	Mar.	36.3	94	213	95	57	s
Rock Rapids	Lyon		12		96	June Aug.	18* 1*	—21	Jan. 6	12				0.00	Mar.						
Rockwell City	Calhoun		14	48.4	96	April June July Aug.	28 18* 16 1	—17	Jan. 6	15	27.80	5.67	Sept.	T	Mar.	41.0	48	254	51	60	
Sac City	Sac		29		96	Aug.	1	—17	Jan. 6	35	14.75	3.54	Aug.	T	Nov. and Mar.	21.0	45				
St. Charles	Madison	1,070	10	51.6	99	July Aug.	25 1*	—15	Jan. 6	10	18.50	5.73	Sept.	0.03	Mar.	25.0	72	214	86	65	nw
Sheldon	O'Brien	1,422	11	47.0	100	June	18*	—23	Jan. 6	11	24.49	4.87	Aug.	0.04	Mar.	38.2	70	219	83	63	nw
Sibley	Osceola	1,212	18	44.5	94	April June	28 20*	—21	Jan. 6	18	16.03	3.38	Sept.	T	Feb.	18.1	62				nw
Sigourney	Keokuk	877	15	50.4	98	July	25	—19	Jan. 6	15	19.46	4.60	Sept.	0.27	Dec.	19.0	80				nw
Sioux Center	Sioux		12	46.6	94	April Aug.	28 1	—20	Jan. 6	12	15.55	4.06	July	0.02	Mar.	22.8	50				s
Sioux City	Woodbury	1,135	22	48.7	98	April	28	—17	Jan. 6	22	16.85	3.93	Sept.	0.03	Mar.	16.0	69	142	116	107	s
Stockport	Van Buren		7	49.9	101	July	24	—25	Jan. 6	9	21.53	4.03	May	0.51	Nov.	17.5	86	211	55	99	s
Storm Lake	Buena Vista	1,440	15		96	Aug.	1	—19	Jan. 6	22		2.77	May	0.05	Mar.						
Stuart	Guthrie							—15	Jan. 6*			5.85	Sept.	T	Mar. and Nov.						
Thurman	Fremont		14	50.8	104	July	27	—30	Jan. 6	14	20.19	7.37	Aug.	T	Mar		58	144	141	89	nw
Tipton	Cedar	807	12	51.0	102	June	30	—18	Jan. 6	12	23.69	5.44	Aug.	0.17	Mar.		64				nw
Toledo	Tama	856	17	48.5	96	July Aug.	16 22	—26	Jan. 9	17	22.50	6.90	Sept.	0.20	Mar.		62	228	65	72	nw
Wapello	Louisa		13	50.1	93	July	24	—14	Jan. 6	13	21.66	3.47	July	0.38	Nov.	23.0	63				nw
Washington	Washington	769	29	50.1	98	July	24	—19	Jan. 6	20		8.49	Aug.								
Washta	Cherokee	1,157	6	47.4	98	Aug.	1	—34	Jan. 6	13	18.29	4.36	Aug.	T	Mar.	11.5	50	218	84	63	s
Waterloo	Black Hawk	862	24	47.7	99	July	16	—25	Jan. 7	28	17.35	4.11	Aug.	0.09	Mar.		78				nw
Waukee	Dallas	1,039	7	49.3	97	Aug.	1*	—19	Jan. 6	8	17.65	4.37	Sept.	0.27	Dec.	15.4	92	177	128	60	sw-nw
Waverly	Bremer	948	15	46.9	97	July	16	—29	Jan. 7	15	17.64	4.51	Aug.	0.13	Nov.	32.3	69				
Webster City	Hamilton		6	48.4	101	June	19	—31	Jan. 6	6	19.06	4.95	June	T	Mar.	23.0	56	199	97	69	nw
West Bend	Palo Alto	1,197	18	46.7	97	June	24	—22	Jan. 6	18	13.72	3.25	June	0.10	Feb.	20.2	64				
Whitten	Hardin	1,036	14	47.6	98	Aug.	21	—23	Jan. 6	14	16.82	3.20	Sept.	T	Mar. and Nov.	22.0	42	181	111	73	nw
Winterset	Warren	1,129	20	50.6	100	July	25	—19	Jan. 6	20	19.71	5.33	Sept.	T	Mar.	20.5	62	143	99	123	s
Woodburn	Clarke		6	49.0	99	July	16*	—33	Jan. 6	12	19.13	5.29	May	T	Mar.	24.6	71	182	101	82	sw-nw
Zearing	Story		7					—30	Jan. 7	7				0.00	Mar.						
Average				48.7							20.03					22.8	67	188	92	85	nw
Extremes and dates					108	July	16	—35	Jan. 7			11.22	Aug.	0.00	Mar.						

MONTHLY MAXIMUM TEMPERATURE FOR 1910, WITH DATES

Stations	January		February		March		April		May		June		July		August		September		October		November		December	
	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date	Max.	Date
Afton	44	25	57	14	84	23*	91	29	84	20	99	18*	94	16*	93	22	85	11*	81	2	63	7	47	14
Albia	47	19	52	1*	86	23	89	29	79	20	94	30	99	25	97	16	96	18	91	2	63	7	53	14
Algona	38	19	40	1	83	23	95	28	79	18	94	19*	96	16	94	1	89	17	87	11	53	7	51	14
Allerton	48	25	53	14	85	23	90	29	80	28	93	18*	97	24	98	23	92	18	88	16	67	8	52	14
Alta	40	19	43	1	85	23	95	28	79	18	95	20	92	16	93	1	87	7*	88	16	60	7	44	14*
Alton	38	19	42	1	86	23	95	28	84	18	97	19	97	17	98	1	87	17	86	2*	57	8	48	14
Amana	42	19	44	15	84	23	88	29	80	20	97	30	99	16	96	1	89	11	84	16	58	9	50	14
Ames	42	19	43	2	85	23	95	29	80	10	95	18	96	1*	98	24	90	11	87	2	60	7	54	14
Atlantic	44	19	53	14	87	23	94	28	83	20	98	18*	98	27	97	1*	88	17*	85	2	64	7*	46	26
Baxter	49	19	48	1	87	23	92	29	82	10	98	19	99	1	97	22	90	18	90	16	61	7	57	26
Bedford	48	19*	56	14	90	22	92	29	78	10*	97	20	103	27	104	22	98	18	87	2*	68	7	47	26
Belle Plaine	45	19	45	14	86	23	90	29	80	20	93	20	99	16	93	1	87	18	90	16	60	7	54	14
Belmond	57	19*	47	1	84	23	93	28	79	10	95	20*	95	16	95	24	86	17	86	2*	54	7	51	14
Bonaparte	46	19	56	15	87	23	89	29	81	21	95	26*	100	21	97	16	93	18	90	16	68	7	51	14
Boone	45	19	48	1	85	23	93	29	81	10	98	18*	97	1	98	1	89	30	89	16	62	7	52	14
Britt	36	19*	38	1	83	23	92	28	78	18	94	20	94	16	93	1	89	17	89	11	52	7	52	14
Burlington	45	11*	56	15	88	23	90	29	84	21	101	24	98	30	97	16	94	18	91	16	70	7	51	3*
Carroll	41	31	52	28	85	22	91	27	81	9	97	17	93	7*	94	21	86	20	85	1*	62	6	50	13
Cedar Rapids	45	19	48	15	87	23	90	29	81	28	100	30	100	1*	99	16	87	11	87	16	59	9	50	14
Chariton	43	25	55	14	83	23	89	29	80	20	94	20	99	24	98	22	93	18	88	2*	66	7	52	14
Charles City	41	19	37	1	83	23	92	29	76	18	96	28	98	16	94	24	86	17	85	11	52	7	50	14
Clarinda	49	25	57	14	92	22	94	28	80	28	97	21	101	27	96	24	95	18	88	2	63	7	48	26*
Clear Lake	38	20	40	1*	80	23*	84	27*	78	9*	99	20	96	16	95	1	97	7	88	16	55	7	41	14*
Columbus Junction	43	19	53	15	85	23	88	29	80	20	95	18*	96	24	93	2	86	18	86	16	62	9	45	17
Corning	44	26	45	1	84	23	93	28	81	28	96	18	96	17*	95	22	87	11*	88	2	65	7	46	27
Corydon	48	25	53	14	84	23	89	29	81	20	97	18	99	25	97	23	90	18	86	2	67	7	50	14
Creston	50	29	48	1	85	23	91	28*	80	21	95	18*	98	27	95	1*	99	15	86	2	65	7	48	14*
Davenport	45	19	52	15	84	23	87	29	79	20	99	30	97	21	94	22	81	18	88	16	63	9	48	14
Decorah	41	20	42	1	83	23	93	29	83	18*	105	29	105	15	100	2	86	7*	83	18	51	7	44	14
Delaware	36	20	41	15	81	23*	83	29	80	20	97	30	98	16	95	2	85	11	80	16*	57	9*	42	14
Denison	43	19	45	28	86	23	95	28	79	10*	95	20*	94	1	97	1	83	17*	85	2*	62	7	48	14
Des Moines	48	19	49	14	83	23	92	29	78	10	95	18	97	16	97	22	88	30	86	2	62	7	53	14
Dubuque	44	20	45	15	84	23	87	29	76	20	98	30	98	1	93	24	84	5	82	16	59	9	46	14
Elkader	46	19	42	1*	86	23	92	29	81	20	100	30	103	16	98	24	87	7	85	11*	64	25	49	14
Elliott	43	19*	52	14	87	26	93	28	79	20*	93	18*	97	27	94	1	87	7	87	2	67	7*	49	26
Elma	39	19	37	1	81	23	91	29	77	18	97	30	99	16	93	2	85	17	83	11	59	1*	48	14
Estherville	42	19	40	1	85	23	93	28	80	18	94	21	93	16*	95	21	88	17	88	11	53	8	50	14
Fairfield	50	19	55	11*	86	23	86	29	81	21	95	19*	100	24	95	16	86	18	84	15	63	9	50	14
Fayette	42	19	38	1*	81	23	93	29	77	20*	98	30	101	16	95	1*	85	7*	82	11*	54	7	45	14
Forest City	39	19	40	1	84	23	94	28	80	18	95	19*	96	16	94	1	89	17	89	11	50	7*	49	14
Grand Meadow	40	19	40	1	83	23	89	29	75	18	90	24*	92	16	91	24	81	7*	81	18	55	7	43	14
Greene	40	19	38	1*	81	23	95	29	83	27	103	19*	106	16	100	1	83	17	85	11	56*	1	49	14
Greenfield	42	19	46	14	85	23	92	28	79	20	94	18*	96	16	96	1	86	17*	83	2	62	7	46	14*
Grinnell	45	19	47	14	90	23	92	29	82	10	98	18*	100	24	100	22	92	18	92	16	61	7	53	14
Grundy Center	42	18	40	1*	84	21	95	29	81	10	97	20*	98	16	97	24	85	17	87	16	57	7	53	14
Guthrie Center	41	19	44	1	85	23	93	28	80	20	98	18	96	25	96	1	84	11	84	2	63	7	49	14*
Hampton	40	19	42	1	85	23	93	28	81	18	100	20	98	15	99	1	89	17	91	16	55	7	50	14
Harlan	41	19	45	14	86	23	94	28	81	20	97	18*	95	16	97	1	89	30	85	2	64	7	46	14
Hopeville	41	19*	54	14	85	23*	90	29	80	20	94	18*	98	24	96	22	90	11*	86	2	67	7	49	14*
Humboldt	40	19	41	1	85	23	96	28	81	18	95	18	95	16	96	1	87	17	88	11*	56	1	51	14
Independence	41	19	39	15	84	23	88	29	76	20*	98	24	98	16	96	2*	91	2	84	11*	57	1	48	14
Indianola	44	19	49	14	86	23	91	29	80	20	94	15*	98	25	98	22	88	11	85	2*	67	9	51	14
Inwood	42	19	43	1	87	23	99	28	85	18	93	18	96	1	94	2	93	17	93	10	58	7	51	14
Iowa City	47	19	47	15	87	23	88	29	78	20*	97	30	98	1*	93	1*	86	18	87	16	58	7	53	14
Iowa Falls	39	18	40	1	84	23	93	29	80	27	97	20	95	1*	93	24	85	7	83	2*	56	7	51	14
Keokuk	52	19	58	15	86	23	90	29	82	21	97	30	99	24	95	16	91	18	86	2	68	7	49	14*
Keosauqua	48	19	56	15	86	23	89	29	85	21	98	30	101	21	96	16	91	18	90	16	69	7	52	14
Knoxville	45	19*	58	14	85	23	90	29	83	20	96	22	97	24*	98	22	89	11*	85	2*	63	7	52	14
Lamoni	47	26	53	14	84	23	90	29	82	19*	95	18*	97	26*	95	22*	90	11	83	2	63	8	47	14*
Larrabee	39	19	42	1	84	23	96	28	82	18	94	18	92	16	94	1	85*h*	17	84	2*	57	1*	47	14
Le Mars	37	19*	41	28	81	23	94	28	78	18	92	19*	89	21	90	1	83	7	83	2*	67	1	46	14
Lenox	43	25	49	14	84	23*	90	28*	80	20	94	18*	97	27	95	22	87	17*	83	2	65	7	46	26
Leon	45	25	52	14	81	23	90	29	81	20	95	23*	97	22	96	22	90	20	84	2	68	2	49	14
Little Sioux	47	19	50	1	90	19	93	28	82	10*	99	18*	97	16*	100	1	90	17*	87	2*	67	7	48	14*
Logan	46	19	48	28	87	25	95	28	85	20	99	19	99	27	99	1	89	17	84	16	74	27	47	16
Marshalltown	46	19	47	7	88	23	94	29	81	10	93	20*	98	16*	100	24	90	11*	91	16	63	7	55	14
Mason City	37	19*	39	1	82	23	91	28	77	18	94	21*	95	16	92	1	89	17	85	11	50	1*	48	14
Mt. Ayr	45	19*	56	14	88	22	92	29	82	29	97	18*	99	24	99	22	94	18	85	2*	69	7	48	14*
Mt. Pleasant	44	19	51	15	87	26	88	29	80	21	101	18	101	1	95	2*	88	5	84	16	64	9	49	14
New Hampton	33	20	35	14	81	23	90	29	79	8	97	20*	99	16	97	2	87	17	82	15*	50	1*	46	14
Northwood	36	17*	33	1	80	23	90	28	77	19	94	24	95	16	91	1*	87	17	83	11	51	9	50	14
Odebolt	45	19	44	28	86	23	97	28	85	10	101	18	98	26	98	1	89	17	83	16	61	7	50	14
Omaha, Neb.	48	19	51	14	88	22	94	28	79	10	95	20	104	27	96	22	91	17	88	2	69	8	48	26
Onawa	42	22	45	1*	87	23	97	28	81	18	96	20	93	21*	95	1*	89	17	87	2	63	7	46	14*
Osage	38	19	38	1*	84	23	91	28*	77	8*	99	20*	102	16	97	1	89	17	87	11*	52	7*	49	14
Oskaloosa	45	19	52	14	87	23	89	29	82	20	94	18*	99	25	97	22	88	11*	87	16	62	7	52	14
Ottumwa	51	19	56	14	90	23	92	29	83	20	99	30	103	21	100	16	96	18	93	16	68	7	50	14
Pacific Junction	44	25	51	11*	87	22	94	28	82	20	97	25	103	27	98	1*	87	11*	86	11	67	7	49	26
Pella	42	19*	52	14	87	23	93	29	81	9*	97	18*	101	24	99	22	91	11	89	15	63	7	54	14
Perry	56	10	44	1	85	23*	93	28*	81	10	99	18	97	1	99	1	86	17	87	16	61	7	54	14
Plover	39	19	40	1	82	23*	96	28	82	18	99	21	93	16	95	1	88	17	87	16	67	1	49	14
Pocahontas	40	19	42	1	83	23	94	28	80	18	95	20	93	16	94	1	87	17	87	11*	55	7	50	14
Ridgeway	42	19	41	1	84	23	92	29	70	31	100	28*	108	16	100	1	90	30	89	16	57	7*	49	14
Rockwell City	40	18*	45	1*	84	23*	96	28	80	18	96	18*	96	16	96	1	84	30	86	16	60	1*	50	16
Sac City	43	27	49	28	84	23	95	28	80	10	93	19*	93	16	96	1	81	17	86	16	60	7	48	14
St. Charles	49	19	55	14	87	26	92	29	81	20	94	18*	99	25	99	1	90	11	89	16	69	7	53	14
Sheldon	40	19	42	1	86	23	98	28	87	18	100	18*	98	15	98	2	92	17	90	16	55	2*	50	14
Sibley	39	19	42	1	85	23	94	28	80	18	94	20*	91	16	92	1	87	7*	88	11*	54	6*	51	14
Sigourney	43	19	49	14*	81	23	88	29	79	10*	97	30	98	25	96	16	88	18	83	2*	60	1*	52	14
Sioux Center	38	22	30	28	84	23	94	28	79	18	93	19*	93	16	94	1	87	17	83	15*	54	7	47	14
Sioux City	42	22	46	28	88	23	98	28	81	18	94	20	91	16	93	1	92	17	88	16	60	7	44	14
Stockport	49	19	55	15	88	23	90	29	82	21	100	30	101	24	97	16	93	18	89	16	66	7	52	14
Thurman	48	25	54	14	88	22	95	28	80	10	97	18	104	27	95	1	88	17	86	2	70	8	49	26
Tipton	40	19	45	15	85	23	87	29	79	20	102	30	101	1	94	1	84	7*	85	16	59	9	48	14
Toledo	42	19	42	1*	84	23	89	29*	80	1	95	21	98	16	96	22	86	11	85	16	58	7	52	14
Wapello	43	28	51	15	85	23	89	29	79	20*	90	19	93	24	90	22	84	11	83	2	62	9	49	13
Washington	47	19	52	14	83	23	89	29	79	20*	95	30	98	24	93	22	87	18	88	16	62	9	52	14
Washta	45	19	48	1	83	23	96	28	80	18	97	18*	95	16	98	1	88	17	89	16	62	7	55	14
Waterloo	43	19	40	1	86	23	92	29	78	9	97	30	99	16	98	24	88	11*	86	16	59	7	54	13
Waukee	44	19	46	14	85	23	92	28*	78	10*	95	22	96	1*	97	1*	87	11	85	2*	62	7	52	14
Waverly	40	19	40	1	84	23	92	29	79	20	95	24	97	16	94	24	85	7*	87	13	59	1	52	14
Webster City	44	19	40	1	85	23	97	29	85	10	101	19	99	16	97	24	86	7*	85	2*	58	7	53	14
West Bend	38	19	43	1	82	23	93	28	80	18	97	24	96	16	96	1	87	17	87	11	54	7*	49	14
Whitten	40	19	40	1	84	22	93	29	81	10	97	24	97	1	98	21	85	7*	85	16	57	7	52	14
Winterset	42	25	47	28	82	26	93	28	81	10	96	20	100	25	98	1*	87	11	85	2*	64	7	49	14
Woodburn	48	26	55	14	85	23	95	29	80	20	95	19	99	16*	98	16*	92	11*	87	2*	69	7	48	14*

MONTHLY MINIMUM TEMPERATURE FOR 1910, WITH DATES

STATIONS	January		February		March		April		May		June		July		August		September		October		November		December	
	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date	Min.	Date
Afton	—13	6	—12	23	21	10*	24	17	34	3*	46	1*	51	13	48	27	39	27	22	29	15	30	2	24
Albia	—19	6*	—10	23	20	10*	21	24	34	13	44	5	51	13	42	26	39	10*	18	29	13	30	0	24*
Algona	—22	6	—15	23	20	10	21	17	24	3	41	2	50	13	42	26	35	27	15	29	10	30	—10	24
Allerton	—19	6	—10	23	21	15	23	24	36	4*	45	5	54	13*	44	26	36	27	16	29	14	17	— 1	24
Alta	—18	6	—15	23	23	8*	19	17	29	3	39	5	52	13	45	26	33	27	20	29	9	30	— 5	24
Alton	—29	6	—15	17	22	6*	20	17	23	3	38	5*	50	13	39	26	31	27	18	29	9	30	— 8	24
Amana	—26	7	— 9	23	21	10	23	24	30	4	39	7	48	19	45	26	39	10	18	29	13	30	— 4	24
Ames	—23	6*	—10	23*	21	10	20	17	30	7	40	7	49	13	40	26	33	10	15	29	12	17*	— 8	24
Atlantic	—24	6	—12	23	21	15	23	17	31	3*	44	5	48	13	44	26	34	27	19	29	15	16*	— 1	24
Baxter	—21	6	—11	23	19	10	19	17	30	4	40	7	49	13	42	23	35	27	15	29	11	29	— 9	24
Bedford	—26	6	—11	23	17	10	22	23	29	13	43	5	48	7*	37	26	31	27	14	29	11	9	— 3	8
Belle Plaine	—21	6*	—10	23	19	15	22	24	31	4	40	7	48	13	42	26	36	10	15	29	12	3*	— 7	23
Belmond	—25	6	—18	17	21	10*	21	17	25	3	41	7	50	13	40	26	36	27	15	29	9	30	—11	24
Bonaparte	—17	6	—12	23	20	15	23	24	35	4*	43	3	52	19	42	26	38	10	15	29	11	3	0	13*
Boone	—16	6*	—11	23	20	1	20	17	32	3	42	4	54	13	46	26	37	27	20	29	12	30	— 4	24*
Britt	—26	6	—17	10*	19	10	20	17	25	3	39	7	49	13	40	26	31	27	16	29	9	29*	—14	24
Burlington	—11	6	—10	23	21	15	22	24	35	5	55	13*	44	3*	46	26	42	27*	22	30	12	30	1	24
Carroll	—19	5	—13	22	21	9	20	16*	27	3	39	5	48	12	42	25	34	25	20	28	6	30	— 6	23
Cedar Rapids	—27	7	— 9	23	14	1	24	21	35	4*	43	7	53	19	48	26*	42	10*	20	30	16	30	— 5	25
Chariton	—22	6	—12	23	19	15	23	17	32	13	44	2*	50	12	40	26	37	27	13	29	12	17	— 1	24
Charles City	—32	6	—17	10	18	8	22	17	28	14	38	7	48	13	43	25	39	28	16	29	10	30	—12	24
Clarinda	—22	7	—10	23	19	15	24	17	33	13	44	5	49	13	41	26	34	27	21	29	11	19	2	8
Clear Lake	—26	6	—19	10	20	8*	22	17	28	3	39	7	52	18	50	26*	38	8*	22	29	8	30	—10	24
Columbus Junction	—16	6	— 8	23	22	15	23	23*	34	5	40	7	53	19	47	26	41	27	21	29	11	3	0	24
Corning	—26	6	—12	23	20	11	23	17*	31	13	39	5	47	13	39	26	33	27	18	29	10	16	— 4	8
Corydon	—19	6	—11	23	22	10	24	24	34	13	45	1*	54	13*	41	23	37	27	18	29	14	30	— 3	12
Creston	—25	6	—12	23	19	15	24	17*	31	13	44	5	50	13	41	26	31	27	20	29	13	30	1	21*
Davenport	—13	6	— 8	23	24	15	23	23	38	5	43	2	53	18	50	26	45	27	24	29	14	30	— 1	24
Decorah	—28	7	—14	18*	15	8*	20	17*	28	4	38	7	48	11*	45	6	35	10	18	29	9	3	— 8	30
Delaware	—23	6*	—14	10*	17	8	21	24	31	3	40	3	52	18*	45	26	40	10*	18	29	12	30	—10	24
Denison	—26	6	—14	23	20	10	21	18	27	13	39	6	45	13	42	26	33	27	19	29	11	29	— 7	24
Des Moines	—14	7	— 9	23	24	15	22	17	36	13	46	2	54	13	45	26	38	27	20	29	15	30	0	24
Dubuque	—25	7	—11	23	20	10	22	23	36	4	43	7	54	19	48	23	41	10	24	29	16	30	— 2	24
Elkader	—35	7	—15	18	15	8*	21	23	28	4*	37	6	45	19	41	23	35	10	31	29	20	30	— 9	24
Elliott	—31	6	—11	23	21	11	26	23	31	13	42	5	50	13	46	23	36	27	21	29	13	16	— 1	8
Elma	—34	7	—20	17*	14	8*	20	17	24	4	34	7	51	13	42	5	34	10*	21	29	9	29*	—13	24
Estherville	—21	9	—15	23	12	1	20	17	24	3	38	7	50	13	42	26*	35	10	15	29	9	30	—10	24
Fairfield	—23	7	—16	24	20	15	19	23	33	4	44	3*	49	19	45	27	37	10	16	29	14	3*	— 1	13
Fayette	—32	7	—17	10	13	10	20	17*	27	4	36	7	46	13	40	26	34	10	11	29	11	3*	—11	24
Forest City	—23	9	—17	10	20	1	19	17	26	3	41	2	51	13*	41	25	36	9*	16	29	12	12*	—11	24
Grand Meadow	—25	7	—17	23	15	8	20	17*	27	4	40	3*	50	10	45	26	39	10	19	29	10	30	— 9	24
Greene	—26	6*	—16	10	19	8	22	17	27	3	38	7	49	13	43	26	37	10	15	29	10	30	— 9	24
Greenfield	—19	6	—13	23	21	10	22	17	31	4	43	5	52	10	44	23	34	27	20	29	13	16*	— 2	24
Grinnell	—20	6	— 4	23	26	10*	28	17	38	3	45	7	52	13*	42	26	37	27	16	29	13	30	— 6	24
Grundy Center	—24	7*	—12	23	22	10*	20	17	28	4	39	7	47	13*	43	26	35	10	19	29	12	30	— 9	24
Guthrie Center	—21	6	—13	23	20	10*	22	17	28	4	42	5	46	13	44	26	34	27	20	29	11	3*	— 4	24
Hampton	—20	6	—13	17*	21	10	20	17	28	3	40	7	54	11*	41	26	38	27	21	29	10	30	— 9	24
Harlan	—27	6	—14	23	20	15	22	17	29	3*	38	5	47	13	43	26	32	27	18	29	12	16	— 5	24
Hopeville	—20	6	—12	23	22	10	24	17	35	4*	45	5	54	13*	44	26	36	27	18	29	13	16	0	24
Humboldt	—28	6	—14	17*	22	8	22	17	23	3	38	7	48	13	40	26	34	25	17	29	10	29	—11	24
Independence	—30	7	—13	23	19	8	20	17	29	4	39	7	49	19	42	26	39	10*	15	29	11	22	— 9	24
Indianola	—13	6	—10	23	24	10*	23	17	34	3	46	5	54	13*	46	23	38	27	19	29	15	30	— 1	24
Inwood	—33	6	—21	17	19	14	20	6*	20	3	36	6	48	12	42	31	31	27	17	29	6	28*	—10	24
Iowa City	—26	6	— 9	23	16	1	22	18	33	4*	37	7	48	19	44	26	36	10	16	29*	9	30	— 7	24
Iowa Falls	—30	6	—15	10*	14	1	19	17	28	4	38	7	46	13	40	26	34	10	15	29	10	29	—11	24
Keokuk	— 8	6	— 6	23	24	15	23	21	37	5	45	3	57	19	48	26	43	27	22	29	18	30	4	24
Keosauqua	—22	6*	—10	23*	13	15*	24	24	34	4	40	3	48	19	44	26	37	10	16	29*	12	3*	— 2	13*
Knoxville	—14	6	— 9	23	23	10*	24	17	35	4	45	3	52	19	44	26	39	27	20	29	15	30	0	24
Lamoni	—16	6	—10	23	21	2*	24	17*	35	4	45	5	53	19	44	26*	36	27	16	29	15	30	2	24
Larrabee	—23	6	—15	17*	20	14*	20	17	26	3	36	6	50	13	41	26	33	27	20	28	8	11*	— 9	24
Le Mars	—19	6	—13	23	24	10*	20	17	32	3	38	5	52	12	42	26	35	27	23	28*	10	20*	— 5	24
Lenox	—16	6	—12	23	21	10	23	17	35	3*	43	5	54	7*	43	26	34	27	19	29	14	16*	1	8
Leon	—19	6	—12	23	22	10*	25	17*	35	4	44	3	56	14	45	26	36	27	18	29	14	18	0	24
Little Sioux	—28	6	—17	23	19	14	21	17	26	3	38	1*	50	7	44	26	33	27	19	29	9	30	— 6	24
Logan	—24	6	—12	23	21	5*	22	17	29	3*	41	5	48	13	42	26	32	27	22	29	15	16*	— 6	24
Marshalltown	—22	7*	—10	23	19	1	20	17	30	4*	40	7*	48	13	43	23	35	10	16	29	14	3*	— 6	24*
Mason City	—23	7	—15	10*	19	10	20	17	24	3*	36	7	46	13	40	26	35	10	16	29	10	16*	—11	24
Mt. Ayr	—15	6	—10	23	23	10	24	17	36	3*	46	5	56	10*	47	23*	37	27	23	29	15	30	3	24
Mt. Pleasant	—16	6	— 9	23	22	15	23	24	34	4*	39	3	48	19	42	26	37	10*	18	29	15	30	1	24
New Hampton	—26	6	—17	10	16	8	19	17	32	4	40	7*	49	13	43	26	38	9*	25	29	9	30	—11	24
Northwod	—24	6	—16	23	19	10	21	17	27	3	33	5	52	19	42	26	36	9	16	28	8	30	—10	24
Odebolt	—19	6	—12	23	23	10	20	23	29	4	39	5*	51	13	42	23	36	27	20	29	11	30	— 7	24
Omaha, Neb.	—10	5	— 8	22	29	10	22	17	37	3	49	4	59	10	53	26	42	27	27	28	18	30	6	24
Onawa	—18	6	—10	23	23	10	23	17	30	3	41	5	53	13	48	26	35	27	23	28*	15	30	2	24
Osage	—24	6	—17	23	19	8	20	17	25	3	39	7	48	13	44	26	38	27	15	29	10	30	—11	24
Oskaloosa	—22	6	— 9	23	20	15	23	24	34	13	45	7	48	13	41	26	36	10	15	29	11	3	— 1	24
Ottumwa	—16	6	— 7	23	20	15	24	24	39	4*	47	5	53	13*	47	26	40	10	20	29	12	28	0	24
Pacific Junction	—29	6	— 9	21*	20	10	22	23	29	13	40	5	45	13	39	26	33	27	20	29	14	16	— 3	8
Pella	—28	6	—10	24	17	15	24	24	29	4	41	7	46	13*	38	26	33	10	14	29	11	3	— 1	13*
Perry	—24	6	—10	23	22	10*	21	17	31	4	43	5*	50	13	45	26	36	27	18	29	12	30	— 8	24
Plover	—22	6	—16	17	20	15	20	17	22	3	38	5	47	13	36	26	35	10*	15	29	8	29	—12	24
Pocahontas	—20	6	—15	23	21	15	22	17	24	3	39	5	50	18	41	23	37	27	19	29	10	30	— 9	24
Ridgeway	—23	6	—17	23	17	8	20	17*	28	3	40	3*	50	18	47	26	40	9*	18	29	10	30	— 9	24
Rockwell City	—17	6	—12	23	20	11	21	17*	29	3	41	6	53	14	46	26	36	27	22	29	12	12*	— 3	24
Sac City	—17	6	—13	23	24	10*	21	17	30	3*	-----	-----	55	10*	45	26	37	27	26	28	12	30	— 5	25
St. Charles	—15	6	—11	23	23	10	22	17	34	3	45	2	55	13	46	26	38	27	18	29	14	30	— 1	21
Sheldon	—23	6	—17	17	21	10	19	17	25	3	35	5	49	12*	40	26	30	27	19	29	8	30	— 5	12
Sibley	—21	6	—18	18	22	8*	20	17	28	3	33	5	49	12	39	26	31	27	18	29	8	30	—12	24*
Sigourney	—19	6	— 8	23	20	15	22	24	34	4	44	7*	52	13	43	26	39	10	16	29	12	11	— 2	24
Sioux Center	—20	6	—15	23*	23	14	20	17	30	3	40	2	50	12	40	26	32	27	22	28*	8	30	— 6	24
Sioux City	—17	6	—11	22	26	10	21	17	28	3	42	5	53	12	44	26	39	27	25	28	12	39	— 1	24
Stockport	—25	6	—14	24	15	15	22	21	30	4	40	7	47	13	41	26*	35	10	13	29	8	3	— 3	13
Thurman	—30	6	— 8	21*	20	10	25	17	32	13	40	5	46	13	40	26	32	27	19	29	14	19	— 5	8
Tipton	—18	6	— 7	23	24	15	25	23*	38	5*	45	7	57	13*	51	26	44	27	23	29	14	30	— 1	24
Toledo	—26	9	—11	23	19	10*	21	17	33	14	42	2*	46	13	42	26	35	10	15	29	12	3*	— 8	24
Wapello	—14	6	— 7	23	23	14	25	24	36	5	41	3	56	19	49	26	43	10	28	29	17	30	3	12*
Washington	—19	6	— 9	23	19	15	22	24	35	4*	43	1	53	13*	45	26	42	10	18	29	14	30	— 2	24
Washta	—34	6	—16	21	17	15	21	6*	18	3	35	6	44	13	36	26	31	27	15	29	7	29	—12	21
Waterloo	—25	7	—12	23	12	1	24	17	31	4	40	7	53	13*	44	26	38	10	18	29	12	30	— 8	24
Waukee	—19	6	—10	23	21	10	20	17	30	3	44	3*	50	13	45	26	33	27	20	29	12	29	— 4	24
Waverly	—29	7	—12	10*	19	8	23	17*	30	3*	40	17	50	13	43	26	37	10	16	29	10	30	—10	24
Webster City	—31	6	—12	17*	19	10*	19	17	26	4	39	6	47	13	39	26	35	10*	15	29	10	29	— 9	24
West Bend	—22	6	—15	17	20	8	24	16*	28	13	38	2	50	13*	40	26	33	27	17	29	9	29	—12	24
Whitten	—23	6*	—14	23	20	10*	19	17	30	3*	40	3	50	13	42	26	36	27	16	29	9	3*	— 9	24
Winterset	—19	6	—10	23	19	10*	23	17	34	3*	45	4*	51	13	45	26	37	27	22	29	14	30	— 2	24
Woodburn	—33	6	—14	23	15	15	22	20	28	4*	39	3	43	19	36	26	30	10	10	29	9	3*	— 4	13

MEAN MONTHLY AND ANNUAL TEMPERATURES WITH DEPARTURES FROM THE NORMAL FOR 1910

STATIONS	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Annual	
	Temp	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp.	Dept.	Temp	Dept.	Temp.	Dept.	Temp.	Dept.	Temp	Dept.	Temp.	Dept.	Temp.	Dept.
Afton	22.0	−0.7	21.2	−0.8	51.8	+15.3	53.5	+3.1	53.4	−5.9	70.1	−0.7	74.9	−0.3	72.5	−1.1	61.0	−1.1	55.5	+2.2	36.8	0.0	27.0	+1.3	50.5	+1.0
Albia	20.4	−3.3	20.4	+0.1	50.5	+12.9	50.8	+1.2	55.4	−5.6	68.7	−0.9	75.0	+0.8	72.6	−0.8	65.6	+0.8	57.7	+4.5	33.2	−5.5	21.2	−0.8	49.5	+0.2
Algona	14.4	+1.1	14.6	−2.4	47.0	+17.4	52.2	+6.0	51.5	−5.0	69.2	+0.7	74.0	+0.6	70.6	−0.3	61.8	−0.1	53.2	+4.5	30.6	−2.2	21.4	+1.3	47.0	+1.8
Allerton	23.2	+1.3	23.2	+1.5	51.9	+13.7	53.2	+2.9	50.2	−4.8	69.4	+1.3	74.9	+2.3	73.0	+0.1	65.8	+0.5	57.4	+3.2	37.0	−3.6	26.8	+0.3	51.0	+1.5
Alta	14.8	−1.6	12.8	−4.8	48.6	+18.0	51.2	+4.5	53.8	−4.2	68.8	+1.2	72.2	+0.3	69.8	−0.7	61.0	−1.9	54.0	+3.7	31.6	−0.9	21.0	−0.4	46.6	+1.1
Amana	18.3	+2.0	19.4	−0.7	48.4	+15.9	52.3	+3.7	50.4	−3.6	69.1	−0.3	76.0	+2.3	72.0	+1.1	63.4	+0.9	53.9	+4.0	32.1	−1.7	23.6	+1.0	48.7	+2.0
Ames	17.2	−0.3	16.1	−5.1	48.9	+15.4	53.6	+4.5	55.6	−3.9	68.8	−0.6	73.6	−0.7	72.4	+0.2	63.5	0.0	55.0	+4.0	33.6	−0.5	24.4	+1.8	48.6	+1.3
Atlantic	19.9	−0.5	20.5	−0.3	51.3	+16.6	53.9	+5.2	56.3	−3.1	70.4	+1.3	75.4	+2.2	73.2	+1.9	64.4	0.0	55.8	+4.2	35.4	0.0	25.2	+0.3	50.1	+2.3
Audubon	20.0	+1.1	19.5	+0.4	50.2	+16.0	-----	-----	55.5	−4.4	69.2	+1.1	72.8	+0.7	70.8	−1.0	62.4	−0.8	54.8	+3.0	34.9	−0.3	24.7	+0.8	-----	-----
Baxter	18.6	−1.7	19.4	+1.3	49.8	+13.2	52.8	+4.0	56.0	−4.4	69.5	+1.9	74.1	+0.9	72.3	+0.4	61.2	+1.2	57.2	+4.0	33.5	−3.8	24.2	0.0	49.3	+1.4
Bedford	21.5	−2.3	23.4	+2.7	52.2	+15.5	53.6	+4.3	51.6	−6.4	69.3	+1.0	76.2	+2.8	74.2	+0.3	66.3	+1.7	56.8	+2.5	37.0	+1.6	25.8	+0.1	50.9	+2.9
Belle Plaine	18.2	0.0	19.9	−0.3	48.8	+15.4	52.2	+3.3	55.4	−4.1	69.0	−0.1	75.1	+2.3	71.5	+0.7	62.8	−0.8	54.8	+4.4	31.9	−3.0	22.5	−1.2	48.5	+1.4
Bonaparte	23.0	−0.2	23.1	+0.3	51.2	+13.2	52.5	+2.3	56.7	−5.6	69.4	−1.8	75.4	−0.1	73.0	−1.3	65.5	−1.9	57.9	+2.9	35.6	−2.9	26.2	−1.7	50.8	+0.3
Britt	12.8	−3.2	12.0	−4.5	45.1	+14.0	51.3	+5.6	53.2	−4.8	67.8	+0.7	71.4	−0.4	69.6	−0.4	62.0	+0.3	53.4	+3.1	29.8	−3.8	20.8	+1.7	45.8	+0.7
Burlington	22.4	−4.6	22.6	−1.1	51.2	+11.4	52.4	+0.9	57.8	−6.0	76.4	+0.7	71.2	+1.0	74.2	+0.1	65.6	−0.6	58.7	+3.0	35.0	−4.7	25.5	−1.6	51.1	−0.1
Carroll	17.9	−1.1	18.3	−0.6	49.0	+16.3	50.2	+2.1	53.2	−5.7	68.6	0.0	72.5	−0.5	69.5	−1.6	60.8	−2.2	54.3	+3.3	31.0	−1.2	23.6	+0.2	47.4	+0.6
Cedar Rapids	16.2	−2.0	17.3	−2.8	47.0	+13.4	51.4	+1.7	57.0	−3.0	71.3	+1.0	76.8	+2.1	73.0	+0.3	63.2	−0.8	51.6	+3.2	31.4	−4.5	21.9	−3.1	48.4	+0.4
Chariton	21.4	−2.3	22.0	−0.2	50.9	+14.1	52.8	+6.3	55.6	−5.7	68.4	−0.8	74.2	+0.4	73.2	+0.1	65.6	+0.1	56.7	+2.5	36.0	−2.7	25.8	−0.5	50.2	+0.9
Charles City	11.8	+0.4	11.0	−4.1	44.4	+16.0	50.2	+3.9	53.9	−5.6	68.9	+0.1	73.2	−0.3	69.8	−0.9	61.0	−0.7	52.4	+4.2	29.2	−3.8	19.4	+0.4	45.4	+0.8
Clarinda	20.4	−2.1	21.5	−1.1	50.8	+14.7	52.2	+1.3	55.3	−4.9	68.4	−2.6	73.4	−2.1	69.6	−4.6	60.3	−5.9	51.0	0.0	33.8	−4.0	23.4	−3.2	48.6	−1.3
Clear Lake	14.0	−2.9	14.0	−0.6	45.1	+13.4	52.3	+5.3	55.2	−4.5	69.8	+1.6	74.6	+1.4	72.0	+0.8	62.0	−0.2	55.9	+3.2	31.4	−2.7	21.4	+1.0	47.2	+1.3
Clinton	20.5	+0.8	20.3	−1.5	-----	-----	52.6	+4.0	56.8	−3.4	69.8	+0.1	76.9	+3.1	72.5	+1.2	63.4	+0.1	54.2	+3.7	33.2	−2.5	23.5	−1.8	-----	-----
Columbus Junction	22.8	−0.5	22.8	+1.4	50.6	+11.6	53.8	+4.1	57.6	−4.6	70.2	+1.5	75.8	+0.2	73.1	+0.7	65.2	−0.3	57.0	+2.6	34.6	−4.4	24.8	−1.8	50.7	+0.9
Corning	19.9	−2.0	20.0	−1.9	49.4	+13.0	52.6	+2.8	55.4	−5.0	69.0	−0.5	74.2	+0.6	71.8	−0.7	63.2	−1.6	55.4	+2.1	36.1	−1.1	24.3	−2.8	49.3	+0.3
Corydon	22.7	−0.6	21.5	−0.7	51.0	+13.7	53.1	+2.1	56.8	−4.5	70.8	+0.9	75.8	+1.0	74.8	+0.4	65.6	−0.7	56.8	+2.0	35.4	−3.3	25.8	−0.9	50.8	+0.8
Davenport	21.2	+0.4	21.0	−2.8	49.9	+14.5	52.0	+1.8	57.2	−4.3	71.5	+0.6	77.0	+1.6	74.0	+1.0	65.4	+0.7	57.1	+4.5	33.8	−3.7	25.1	−2.1	50.4	+1.0
Decorah	14.3	−1.2	14.0	−1.3	44.4	+12.8	51.3	+3.6	56.3	−2.9	71.4	+4.0	76.6	+4.6	72.9	+2.7	62.1	0.0	52.0	+1.8	29.4	−4.1	20.1	−0.9	47.1	+1.6
Delaware	15.7	−0.1	15.5	−0.8	45.6	+14.0	52.0	+6.2	54.4	−3.9	69.2	+1.4	76.0	+4.1	72.6	+3.0	62.2	+0.4	52.8	+3.8	30.4	−2.4	20.8	−0.6	47.3	+2.1
Denison	18.4	−1.9	18.2	−0.9	50.0	+16.3	52.6	+4.5	54.3	−5.0	68.6	+0.8	72.8	+0.1	71.6	−0.3	62.6	−1.1	55.1	+4.3	34.3	−1.3	24.3	−0.8	48.0	+1.4
Des Moines	20.5	+0.1	20.2	−3.9	51.4	+15.7	53.2	+2.6	56.7	−4.9	70.6	+0.2	75.6	+0.1	73.4	+0.4	64.4	−0.6	56.4	+3.9	35.4	−1.4	26.0	+0.3	50.3	+1.0
De Soto	19.5	−3.7	20.6	+0.2	52.0	+14.4	53.6	+3.9	56.7	−5.2	69.4	+0.4	75.0	+2.3	73.4	+0.4	65.2	+0.6	56.8	+2.7	35.6	−3.1	-----	-----	-----	-----
Dubuque	18.4	+0.1	18.0	−3.6	47.8	+11.6	51.4	+2.5	56.2	−4.6	70.0	+0.4	76.0	+1.3	72.8	+0.8	62.8	−0.8	55.0	+3.0	32.4	−3.6	23.2	−1.3	48.7	+0.8
Earlham	19.4	0.0	20.2	+2.2	54.2	+20.0	53.0	+5.2	55.0	−5.0	68.0	+2.8	73.2	+4.2	-----	-----	65.0	+2.9	56.0	+4.9	35.1	−2.7	26.8	+3.8	-----	-----
Elkader	13.6	−1.2	13.3	−4.7	45.0	+13.2	51.5	+3.5	56.6	−3.9	69.0	−0.1	75.0	+1.4	73.3	+2.3	63.0	+0.5	57.7	+8.3	37.2	+4.0	21.6	0.0	48.1	+2.0
Elliott	20.6	−4.0	22.2	−4.3	51.2	+10.5	53.6	+3.4	56.2	−3.1	69.4	−0.6	74.8	+1.0	72.8	−2.0	64.4	−2.2	57.1	+6.2	36.8	−2.7	25.4	−1.3	50.4	+0.1
Estherville	13.8	−1.2	12.1	−3.0	41.7	+15.7	51.0	+4.7	53.0	−4.2	67.0	+0.2	71.4	+0.3	67.4	−2.8	58.6	−2.1	52.4	+3.6	28.0	−3.3	19.6	+1.4	44.9	+0.8
Fairfield	22.2	+4.6	22.9	+1.2	50.8	+17.0	52.2	+2.4	56.9	−3.3	70.2	+0.3	76.1	+1.4	73.1	+1.8	64.0	0.0	55.6	+3.2	34.9	−2.0	25.2	+0.1	50.3	+2.2
Fayette	13.0	−3.1	12.9	−4.0	45.0	+13.8	50.7	+4.2	54.0	−3.4	68.4	+1.1	74.4	+1.3	71.1	+2.0	61.0	−1.3	52.1	+5.4	29.4	−3.5	19.4	−2.2	46.0	+0.9
Forest City	15.8	−0.4	11.2	−3.4	46.0	+16.3	51.5	+5.0	53.4	−4.9	68.8	+1.6	72.4	+0.4	69.4	−0.9	60.9	−1.1	52.0	+2.3	28.4	−4.0	18.2	−1.6	45.7	+0.8
Fort Dodge	14.4	−2.7	13.9	−1.4	-----	-----	52.0	+4.6	54.6	−5.4	69.6	+3.0	73.9	+1.4	71.2	−0.2	62.2	−0.4	54.2	+1.9	31.6	−3.6	22.2	−0.3	-----	-----
Grand Meadow	15.8	+0.3	13.2	−3.5	44.6	+13.3	51.3	+4.5	53.8	−4.3	67.4	+1.0	72.2	+1.7	70.0	+1.1	60.2	−1.7	53.0	+3.8	29.3	−3.7	19.2	−2.3	45.8	+0.8
Greene	14.6	−3.9	13.9	−2.1	46.0	+13.4	53.1	+5.0	55.4	−4.0	71.2	+3.1	76.6	+3.3	72.3	+0.8	62.6	−0.9	53.4	+1.3	30.6	−5.3	20.6	+1.6	47.5	+1.0
Greenfield	19.2	−2.1	18.9	−1.7	51.0	+16.5	53.2	+3.4	54.8	−5.6	69.0	−0.9	74.6	+0.7	72.0	−0.4	62.8	−2.1	54.6	+1.5	34.1	−2.5	23.8	−1.2	49.0	+0.5
Grinnell	20.0	−0.2	21.8	+0.5	53.0	+19.9	56.0	+5.7	50.0	−0.7	71.4	+3.1	75.7	+2.5	73.8	+2.2	65.0	+1.2	57.2	+6.5	34.6	−1.4	25.2	+0.8	51.1	+3.4
Grundy Center	17.8	+0.9	15.6	+2.1	47.6	+15.0	53.0	+5.6	56.0	−2.5	68.8	+0.6	73.8	+1.6	72.6	+1.6	63.3	+0.2	55.5	+3.7	32.4	−1.6	22.0	−0.6	48.2	+1.9
Guthrie Center	19.4	−3.3	19.7	−0.5	50.4	+15.0	53.7	+4.4	55.3	−5.3	69.8	+0.8	74.6	+1.2	72.5	+0.3	63.4	−0.5	55.0	+2.6	34.9	−2.4	25.5	+1.7	49.5	+1.1
Hampton	16.6	+1.1	14.8	−2.1	47.4	+17.1	52.6	+5.3	54.8	−3.5	70.4	+2.6	75.0	+2.6	72.4	+1.8	63.0	+0.1	55.6	+4.8	31.6	−1.8	22.0	+0.5	48.0	+2.4
Harlan	18.8	−2.4	18.4	+0.3	50.0	+14.7	52.7	+4.4	54.5	−5.8	68.7	+0.2	73.3	+0.1	71.6	−0.6	63.2	+0.2	54.2	+1.4	34.7	−2.5	23.8	−0.2	48.7	+0.9
Hopeville	20.6	−0.8	21.4	−0.6	51.5	+15.8	53.8	+4.1	55.8	−4.4	69.2	−0.5	75.4	+1.3	73.0	−0.2	65.0	−1.4	56.5	+2.3	36.0	−0.7	25.8	−0.4	50.3	+1.3
Humboldt	16.6	−0.6	15.2	−2.5	48.6	+16.8	53.4	+5.1	54.8	−4.6	68.5	−0.3	72.5	−0.4	71.0	+3.1	61.6	−0.9	-----	-----	32.6	−1.4	23.8	+0.5	-----	-----
Independence	15.1	−0.1	14.6	−5.0	46.6	+15.8	51.9	+2.5	54.8	−4.4	68.4	0.0	74.4	+1.5	72.4	+2.3	63.5	+1.8	54.0	+4.8	31.2	−1.4	21.2	−0.4	47.3	+1.4
Indianola	21.0	+0.8	21.6	−0.7	52.0	+15.9	54.1	+3.4	56.5	−4.2	70.3	+0.6	76.2	+1.5	73.5	+0.7	65.0	−0.5	57.2	+3.5	36.4	−1.9	26.4	+0.6	50.8	+1.6
Inwood	14.4	−0.8	10.6	−6.2	48.0	+13.1	51.9	+6.4	54.0	−1.9	68.8	+3.0	73.3	+3.1	69.0	−2.4	62.1	−1.2	55.6	+6.8	31.3	−4.3	21.2	+0.4	46.7	+1.3
Iowa City	16.4	−2.7	17.4	−5.1	47.0	+13.0	50.0	+1.5	55.6	−1.7	68.4	−0.9	74.8	+0.6	71.5	−0.2	62.2	−1.4	54.4	+3.3	31.5	−4.2	21.7	−2.5	47.6	−0.2
Iowa Falls	12.2	−3.0	11.4	−4.1	44.8	+12.9	50.0	+3.3	53.9	−4.8	68.1	+0.6	71.6	−0.4	68.9	−1.0	60.0	−1.6	52.0	+2.3	29.8	−3.3	19.7	−1.4	45.2	0.0
Keokuk	27.0	+3.3	26.1	−0.5	53.6	+15.7	54.4	+2.4	59.0	−4.2	71.8	−0.7	76.4	−0.6	74.4	−0.2	66.7	+0.3	59.2	+4.7	37.6	−1.8	28.8	−0.6	52.9	+1.5
Keosauqua	21.4	−1.7	22.4	−0.7	48.6	+10.4	51.4	−0.2	57.2	−5.4	69.7	−2.0	75.6	−0.3	72.2	−2.3	64.0	−2.9	56.0	+1.2	35.2	−3.7	24.4	−3.0	49.8	−0.9
Knoxville	22.0	−1.1	22.8	+0.9	51.8	+14.4	54.7	+3.5	57.6	−4.6	71.0	−0.6	76.3	+0.8	74.2	+0.5	65.8	−0.4	57.2	+3.5	36.0	−1.5	27.0	+0.5	51.4	+1.4
Larrabee	15.3	−2.0	13.7	−4.1	48.2	+17.5	51.6	+4.1	53.6	−4.7	68.3	−0.2	71.0	−1.8	69.0	−2.2	61.3	−1.5	52.8	+2.5	31.8	−1.1	22.0	−0.3	46.6	+0.6
Le Mars	17.1	−2.1	15.9	−0.6	48.8	+15.8	52.2	+4.2	54.5	−1.8	68.3	0.0	71.4	−1.0	68.8	−2.7	61.6	−0.9	54.4	+3.1	33.4	−1.1	23.1	−0.6	47.5	+0.8
Lenox	21.2	−2.1	21.8	+0.1	51.6	+15.3	53.9	+3.9	56.1	−5.1	69.5	+0.2	76.0	+2.2	73.0	+0.1	65.0	−0.3	56.2	+2.6	36.4	−1.5	25.5	+0.2	50.5	+1.3
Leon	22.0	−0.2	22.4	+0.5	51.8	+13.8	53.0	+1.7	55.6	−7.3	70.3	+1.5	77.8	+4.6	73.4	+0.3	64.0	−0.8	56.8	+3.2	36.5	−4.1	26.2	−0.4	50.8	+1.0
Little Sioux	20.0	−1.2	21.4	−0.5	52.3	+12.2	54.8	+4.8	56.0	−3.0	71.0	+1.6	75.2	+2.2	72.7	−1.7	64.6	−2.4	57.2	+4.7	36.4	−2.8	24.6	−1.6	50.5	+1.0
Logan	20.4	+1.1	20.8	−2.6	51.4	+16.8	54.2	+4.3	56.4	−4.6	70.7	+0.8	74.2	−0.5	72.4	−0.3	64.2	+0.1	55.8	+3.6	36.8	+0.9	24.8	−0.4	50.2	+1.6
Marshalltown	16.5	−2.9	16.8	−2.6	48.0	+14.6	50.8	+2.0	54.8	−4.9	68.8	+0.1	73.9	+0.7	72.4	+0.6	63.6	−0.5	55.1	+2.8	32.4	−3.6	22.6	−0.9	48.0	+0.5
Mason City	13.1	−2.0	11.9	−4.3	44.6	+13.0	51.0	+3.5	52.6	−5.8	67.4	+0.2	72.0	−0.5	69.7	−0.3	60.7	−1.3	52.5	+2.9	29.3	−3.5	19.9	−1.8	45.4	0.0
Mt. Ayr	22.4	−0.9	22.9	+0.4	53.6	+16.6	54.2	+3.4	57.2	−4.5	71.1	+1.1	76.8	+1.8	74.0	0.0	66.0	−0.7	57.5	+2.6	37.8	−1.1	26.8	+0.9	51.7	+1.6
Mt. Pleasant	23.0	+2.0	23.2	0.0	51.0	+14.3	53.0	+1.9	57.6	−4.6	71.0	−0.4	76.0	+0.4	73.6	+0.3	64.6	−0.4	55.1	+2.6	35.0	−2.4	26.3	−0.5	50.8	+1.1
New Hampton	13.1	−3.7	11.9	−2.7	44.2	+12.5	51.4	+4.5	54.5	−3.4	69.1	+2.8	75.4	+4.0	71.6	+2.1	61.2	−0.5	53.2	+1.4	29.6	−5.1	18.5	−1.0	46.1	+0.9
Newton	19.8	+2.3	19.8	0.0	50.2	+15.1	54.6	+6.2	-----	-----	70.6	+0.9	76.0	+1.6	-----	-----	-----	-----	56.0	+4.2	35.5	+0.7	25.2	+2.8	-----	-----
Northwood	11.7	−4.6	11.2	−4.3	43.8	+12.7	50.9	+4.4	53.5	−4.4	70.6	+4.6	73.0	+1.8	69.6	+0.1	60.4	−0.4	51.7	+2.0	20.2	−4.0	20.0	0.0	45.5	+0.7
Odebolt	18.6	−1.8	17.9	−0.5	50.4	+15.6	53.6	+5.5	55.6	−4.8	71.1	+1.6	75.2	+0.7	72.4	−1.3	63.7	+0.2	55.8	+2.9	34.4	−2.1	24.0	+0.5	49.4	+1.4
Omaha, Neb.	22.4	+1.9	22.7	−1.0	54.5	+18.5	55.0	+4.5	57.4	−5.1	73.0	+1.4	77.8	+1.3	74.0	−0.4	66.2	+0.4	58.9	+4.7	38.2	+0.5	27.1	0.0	52.3	+2.3
Onawa	21.2	−1.4	21.6	+0.6	52.2	+14.7	55.8	+5.9	57.4	−5.2	71.2	+1.2	75.3	+0.3	72.8	−1.4	65.2	0.0	57.8	+3.0	37.2	−1.1	25.9	−0.3	51.1	+1.3
Osage	15.0	+1.0	13.0	−1.9	46.4	+17.3	54.4	+9.0	55.2	−1.9	69.8	+3.7	75.8	+5.3	72.2	+4.2	63.8	+3.8	54.0	+6.6	30.1	−0.8	20.1	+0.5	47.5	+3.9
Oskaloosa	21.2	+2.0	22.2	+1.0	50.8	+15.6	53.2	+3.2	57.1	−3.3	70.0	+0.5	75.0	+0.6	73.0	+1.1	65.0	+0.5	56.2	+4.1	34.8	−2.2	25.6	−0.3	50.3	+1.9
Ottumwa	24.3	−0.2	24.8	+1.8	53.8	+15.1	55.0	+3.0	59.0	−4.0	72.2	+1.0	78.5	+2.5	75.2	+0.2	67.4	+0.2	60.1	+5.1	38.0	−1.5	26.2	−1.6	52.9	+1.8
Pacific Junction	20.2	−3.1	21.8	+2.2	50.4	+13.3	53.6	+3.6	53.1	−5.5	70.1	+0.4	74.6	+0.4	71.8	−1.7	64.0	−0.5	55.1	+0.7	36.4	−2.7	25.8	−0.8	50.0	+0.6
Pella	20.3	−2.9	21.3	+1.0	50.0	+17.0	53.2	+3.4	56.2	−5.1	68.8	−2.5	74.6	−1.4	73.0	−1.4	65.4	−1.0	56.2	+2.6	34.8	−2.5	26.0	+0.1	50.0	+0.6
Perry	18.7	−2.0	18.2	−0.4	49.6	+12.7	53.8	+6.5	56.1	−5.8	70.0	−0.3	74.8	+0.2	72.0	−0.5	63.9	−0.5	55.4	+1.2	34.4	−3.4	25.4	+1.2	49.4	+0.8
Plover	14.7	−3.3	13.4	−2.9	46.6	+14.5	51.6	+5.0	53.9	−5.2	68.6	+1.0	72.1	−0.5	69.6	−1.3	62.0	−0.8	53.2	+2.6	31.8	−2.5	20.8	−0.5	46.5	+0.5
Pocahontas	15.2	−2.3	13.9	−5.4	46.8	+10.2	51.6	+5.3	53.5	−3.0	67.1	+0.7	71.0	0.0	69.4	−2.2	61.5	−2.1	53.8	+4.8	31.8	−4.1	21.7	−1.2	46.4	+0.1
Ridgeway	16.1	−3.1	14.8	−2.7	46.5	+13.4	52.2	+4.6	55.4	−4.2	70.8	+2.5	76.4	+3.0	72.8	+0.8	62.2	−1.0	54.8	+2.4	31.0	−6.2	21.2	−1.1	47.8	+0.6
Rock Rapids	14.8	−0.9	12.6	−4.0	45.6	+14.0	52.1	+5.9	-----	-----	-----	-----	75.2	+3.4	71.4	+1.1	60.1	−2.9	51.8	+4.8	31.0	−0.9	22.4	+1.3	-----	-----
Rockwell City	18.9	−0.9	17.6	0.0	48.2	+14.6	50.0	+3.0	55.7	−3.8	69.6	+1.1	74.0	+0.6	71.8	−0.5	62.2	−1.6	55.2	+3.2	35.0	0.0	22.9	+0.3	48.4	+1.3
Sac City	17.1	−0.3	15.8	−2.0	49.0	+17.7	52.2	+4.5	54.9	−3.7	-----	-----	73.0	+0.3	71.2	+0.7	62.4	+0.9	55.3	+5.3	33.4	−0.1	22.8	+0.1	-----	-----
St. Charles	22.6	−0.2	22.8	+1.9	53.1	+14.9	55.0	+4.4	56.6	−5.3	70.3	+1.7	76.4	+2.3	74.7	+1.5	65.3	−0.1	58.2	+2.7	37.1	−4.0	27.1	+0.8	51.6	+1.7
Sheldon	14.7	−2.9	12.8	−2.9	48.4	+17.0	52.4	+5.3	53.9	−4.0	69.1	+2.7	73.0	+0.9	68.5	−2.8	62.2	+0.7	55.2	+3.8	31.3	−4.8	22.6	+0.4	47.0	+1.1
Sibley	12.9	−2.0	10.0	−5.0	45.7	+15.8	49.0	+2.9	52.0	−5.3	66.6	+0.6	69.8	−0.4	66.8	−2.1	58.8	−1.9	52.8	+3.2	29.6	−2.4	19.5	−0.1	44.5	+0.3
Sigourney	21.2	−1.6	22.2	+0.5	49.8	+12.9	53.4	+2.2	56.6	−6.4	69.6	−1.2	76.8	+1.0	73.6	−0.2	65.3	−0.3	56.4	+2.1	34.8	−4.1	25.5	−0.8	50.4	+0.3
Sioux Center	14.8	−3.1	12.8	−3.6	48.6	+15.4	51.6	+5.6	54.0	−4.3	68.6	+1.8	71.8	+0.6	69.0	−2.1	61.4	+0.1	53.8	+2.8	31.5	−3.8	2.15	−0.2	46.6	+0.8
Sioux City	18.2	+2.6	17.4	−2.4	50.6	+18.0	52.9	+4.4	54.8	−6.0	70.1	+0.7	74.0	−0.2	70.2	−2.4	62.6	−1.5	56.0	+4.9	33.8	−0.5	23.6	+1.0	48.7	+1.6
Storm Lake	16.6	−0.8	15.7	+0.5	48.9	+18.7	50.6	+5.2	53.9	−3.7	68.6	+1.6	73.4	+1.5	71.4	+0.7	-----	-----	56.5	+4.2	-----	-----	21.7	−0.3	-----	-----
Thurman	20.7	−3.5	22.7	+1.2	51.4	+13.6	55:0	+4.5	56.6	−5.7	70.4	−0.6	75.8	+0.4	72.9	−0.9	65.1	−0.7	56.6	+1.8	38.0	−0.6	24.4	−1.1	50.8	+0.7
Tipton	19.8	−0.8	20.8	−1.0	49.8	+13.2	54.0	+5.1	58.8	−1.7	73.8	+3.9	79.2	+4.4	74.6	+2.0	65.6	−0.2	56.8	+3.9	34.0	−2.8	24.6	−0.8	51.0	+2.1
Toledo	17.8	−1.3	10.2	−1.2	48.2	+13.5	53.0	+3.4	56.7	−4.0	69.4	+0.2	73.9	+0.3	72.4	+0.4	63.2	−0.9	54.2	+2.1	32.4	−4.0	23.0	−0.7	48.5	+0.6
Wapello	23.0	−2.1	22.9	+2

MONTHLY AND ANNUAL PRECIPITATION WITH DEPARTURES FROM THE NORMAL FOR 1910

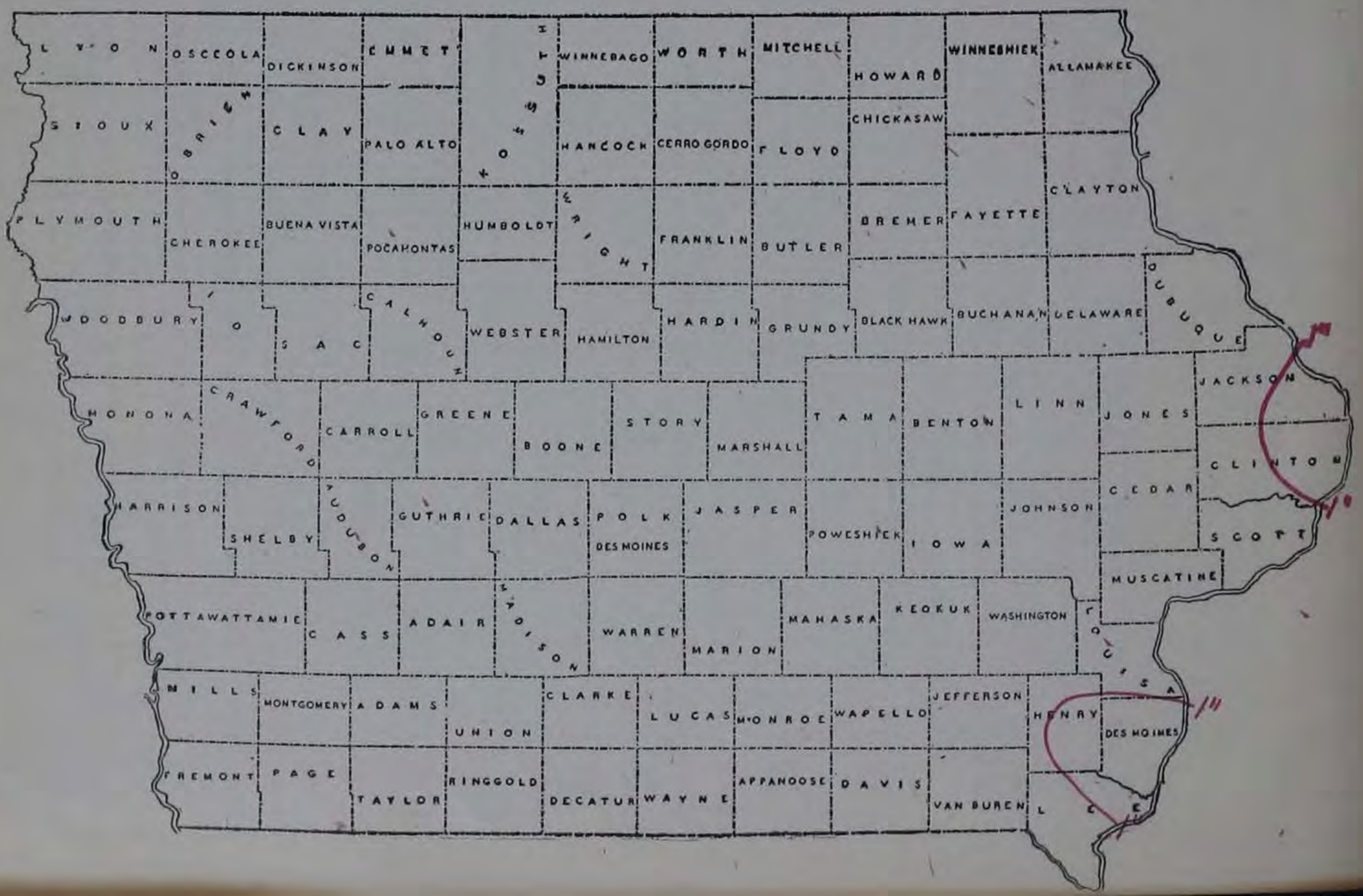
Station	Jan.		Feb.		March		April		May		June		July		Aug.		Sept.		Oct.		Nov.		Dec.		Annual	
	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.	Prec.	Dept.
Afton	1.40	+0.51	0.70	—0.25	T	—2.10	1.16	—3.21	4.61	—0.28	4.29	+0.13	0.96	—3.39	2.45	—1.98	7.43	+3.78	1.13	—1.49	0.63	—0.60	0.22	—1.02	24.98	— 9.90
Albia	1.48	+0.03	0.48	—0.81	0.35	—1.55	2.02	—0.81	3.90	—0.34	1.72	—3.14	1.57	—3.30	0.55	—3.60	3.02	—0.54	0.30	—2.27	0.52	—1.25	0.30	—0.84	16.30	—18.48
Algona	1.33	+0.54	0.17	—1.10	0.14	—1.42	0.29	—2.19	2.00	—1.68	3.56	—0.84	0.77	—2.33	2.60	—1.32	2.83	—0.31	1.18	—0.91	0.29	—0.99	0.27	—0.76	15.43	—13.31
Alta	1.36	+0.72	0.19	—0.66	0.05	—1.61	1.05	—1.98	2.97	—1.81	2.27	—2.95	2.58	—2.10	3.08	—0.89	2.69	—0.49	0.88	—1.26	0.23	—1.00	0.18	—0.75	17.53	—14.78
Alta (near)	1.13	+0.51	0.22	—0.64	T	—1.51	0.85	—1.94	3.01	—1.82	2.95	—1.94	2.88	—2.00	3.67	+0.08	2.64	—1.09	0.90	—1.29	0.18	—1.31	0.22	—0.62	18.65	—13.54
Amana	1.99	+0.52	0.25	—1.01	0.25	—1.75	2.62	—0.29	3.17	—1.23	1.72	—2.69	1.08	—3.17	7.50	+3.89	4.62	+1.37	0.75	—1.90	0.59	—1.14	0.21	—1.24	24.75	— 8.64
Ames	1.30	+0.38	0.35	—0.45	1.32	—0.09	0.50	—2.17	1.79	—2.53	2.88	—1.65	1.69	—2.75	2.75	—0.92	4.63	+1.24	1.05	—1.42	0.12	—1.07	0.27	—0.75	18.65	—12.18
Atlantic	1.17	+0.41	0.28	—0.77	T	—1.75	0.30	—2.76	3.37	—1.01	2.71	—2.70	0.82	—3.51	11.22	+7.74	2.95	—0.54	1.15	—1.37	0.39	—0.59	0.16	—0.99	24.52	— 7.84
Baxter	1.41	+0.53	0.19	—0.62	0.24	—1.97	2.25	—0.62	3.38	—1.82	2.52	—1.98	2.07	—2.97	3.13	—1.42	3.89	+0.47	0.46	—2.35	0.68	—0.65	0.27	—0.62	20.49	—14.02
Bedford	2.46	+1.36	0.36	—0.68	0.05	—2.27	1.01	—1.80	4.17	—1.08	1.19	—3.28	1.35	—3.99	1.76	—3.30	4.09	+0.65	1.37	—0.91	0.35	—0.94	0.32	—0.62	18.48	—16.86
Belle Plaine	2.45	+0.68	0.80	—0.66	0.46	—2.05	1.69	—1.92	3.02	—1.64	1.68	—2.49	0.86	—3.55	3.26	—0.89	3.47	+0.65	0.65	—1.11	0.53	—1.27	0.78	—1.25	21.14	—14.69
Bonaparte	18.4	—0.14	0.74	—0.49	0.67	—1.88	3.09	—2.26	4.52	+0.49	1.33	—3.35	2.89	—0.84	1.76	—2.89	2.34	—1.70	0.65	—1.11	0.53	—1.27	0.78	—1.25	21.14	—14.69
Britt	0.77	+0.02	0.10	—0.93	0.13	—1.37	0.91	—1.30	2.13	—2.13	4.02	—0.06	1.60	—2.83	2.40	—1.65	1.37	—2.37	1.29	—0.87	0.15	—0.96	0.25	—0.51	15.12	—14.89
Buckingham	0.86	—0.20	0.27	—0.73	T	—2.22	1.75	—0.32	2.97	—0.83	2.25	—2.69	0.76	—3.91	4.33	—0.70	3.80	+0.81	0.49	—1.70	0.39	—1.06	0.22	—0.75	18.00	—14.30
Burlington	1.61	—0.37	2.09	+0.31	0.91	—1.95	4.86	+1.70	4.73	+0.88	4.15	—2.01	3.07	+0.53	0.43	—5.01	2.77	—0.35	1.01	—1.21	0.97	—0.81	1.39	—0.16	27.99	— 8.45
Carroll	0.75	—0.06	0.20	—0.95	0.01	—2.00	0.20	—3.00	2.82	—1.70	3.61	—1.06	1.14	—2.87	7.92	+4.21	4.74	+1.85	0.65	—1.59	T	—1.13	0.10	—0.89	22.21	— 9.19
Cedar Rapids	1.35	—0.07	0.38	—1.00	T	—2.01	2.51	—0.23	2.51	—2.07	0.63	—3.24	0.44	—3.60	6.10	+2.60	3.21	+0.39	0.79	—1.67	0.49	—0.91	0.33	—1.17	18.74	—13.01
Chariton	0.70	—0.62	0.67	—0.36	T	—1.08	0.42	—2.71	5.07	+0.70	1.53	—3.19	1.50	—3.87	0.37	—4.63	3.02	—0.42	T	—2.36	T	—1.30	0.40	—0.94	13.77	—20.78
Charles City	1.75	+0.78	0.61	—0.36	0.18	—1.74	0.88	—1.95	2.67	—2.27	0.61	—4.49	0.43	—3.15	5.84	+2.42	1.74	—1.06	0.36	—1.67	0.29	—1.10	0.53	—0.75	15.89	—15.34
Clarinda	1.73	+0.75	0.27	—0.73	0.00	—1.86	1.94	—1.25	6.20	+1.36	1.98	—2.92	2.17	—2.53	2.03	—2.00	4.11	+1.42	1.55	—0.95	0.36	—0.80	0.37	—0.75	22.71	—10.26
Clear Lake	0.65	+0.08	0.10	—0.75	0.10	—1.49	0.20	—1.44	3.22	—2.21	1.01	—3.83	1.22	—3.52	3.23	—1.08	1.63	—1.33	0.29	—2.43	0.20	—0.87	0.35	—0.28	12.11	—19.15
Clinton	2.51	+0.59	0.67	—1.42	0.35	—2.67	3.55	+0.54	3.19	—0.87	0.55	—3.88	1.68	—2.53	2.41	—1.24	5.46	+2.15	0.73	—1.67	0.58	—1.26	1.24	—0.61	22.92	—12.86
Columbus Junction	1.70	+0.23	0.67	—0.51	0.30	—2.21	3.01	+0.26	5.26	+1.38	2.87	—2.01	3.05	—0.96	4.82	—1.40	3.09	—0.00	0.76	—1.69	0.43	—1.08	0.56	—0.90	26.55	— 8.95
Corning	1.30	+0.39	0.50	—0.38	T	—1.74	0.21	—2.92	4.90	+0.07	1.65	—2.40	1.98	—2.37	4.87	+0.66	3.71	+0.75	1.71	—0.62	0.39	—0.81	0.30	—0.84	21.52	—10.21
Corydon	1.69	+0.20	0.41	—0.91	0.34	—1.79	2.53	—0.63	4.73	+0.06	1.34	—3.31	1.89	—2.29	0.45	—3.87	2.76	—0.83	0.14	—2.35	0.31	—1.14	0.19	—1.23	16.78	—18.09
Davenport	1.69	+0.12	0.59	—0.97	0.39	—1.82	3.69	+0.81	3.42	—0.77	0.91	—3.20	2.86	—0.69	4.31	+0.67	2.40	—0.74	0.61	—1.78	0.22	—1.54	0.85	—0.84	21.94	—10.75
Decorah	1.85	+0.70	0.91	0.00	0.05	—2.00	2.56	+0.06	3.82	—0.85	0.05	—3.95	0.73	—2.99	4.08	+1.04	2.72	—1.01	0.85	—1.57	0.26	—1.29	0.63	—0.73	18.51	—12.59
Delaware	1.06	+0.07	0.41	—0.40	0.21	—1.62	2.96	+0.18	5.30	+1.11	1.25	—2.93	0.65	—3.50	2.10	—1.44	3.79	+0.52	1.15	—1.05	0.65	—0.92	0.45	—0.93	19.98	—10.91
Denison	0.87	—0.37	0.32	—0.54	T	—1.51	0.21	—3.24	2.42	—1.69	2.75	—0.67	1.92	—2.14	9.75	+5.99	3.37	+0.37	1.34	—0.69	T	—1.01	0.15	—0.44	23.10	— 5.94
Des Moines	1.72	+0.51	0.20	—0.88	0.33	—1.32	1.13	—1.85	3.26	—1.30	3.11	—1.85	0.86	—3.00	2.40	—1.21	3.82	+0.75	0.68	—2.00	0.53	—0.95	0.20	—1.11	18.24	—14.21
Dubuque	2.45	+0.96	0.50	—0.88	0.14	—2.07	3.40	+0.48	3.42	—0.90	2.43	—2.12	0.47	—3.83	3.96	+0.92	3.10	—0.49	0.89	—1.79	0.53	—1.28	0.57	—1.15	21.86	—12.15
Earlham	2.09	+1.01	0.40	—0.72	T	—1.76	2.23	—1.43	3.93	—0.84	1.11	—3.42	1.11	—3.73	4.08	—1.05	5.02	+1.23	1.00	—1.35	0.52	—0.82	0.20	—1.10	21.69	—13.98
Elkader	1.60	+0.29	0.52	—0.57	0.02	—1.89	3.16	+0.47	3.93	—0.21	2.01	—2.02	0.41	—4.27	3.47	+0.57	5.14	+1.30	0.87	—1.77	0.66	—0.99	0.49	—1.34	22.28	—10.43
Elliott	0.63	—0.06	0.55	—0.53	T	—0.94	0.32	—1.79	5.60	+0.90	0.76	—4.43	1.42	—4.53	8.70	+6.58	2.81	—1.01	0.83	—1.49	0.42	—1.94	0.40	—0.25	22.44	— 9.49
Estherville	1.17	+0.61	0.21	—0.44	0.07	—1.37	0.95	—1.26	1.52	—2.66	5.51	+2.16	2.00	—2.58	1.60	—2.00	4.23	+1.00	0.67	—1.50	0.10	—1.14	0.10	—0.52	18.16	— 9.70
Fairfield	2.02	+0.32	0.66	—0.92	0.53	—2.01	3.18	—0.30	3.75	—1.53	0.75	—4.38	3.08	—0.91	3.47	—0.61	1.73	—1.74	0.63	—2.29	0.48	—1.80	0.55	—1.23	20.83	—17.44
Fayette	2.13	+0.85	0.99	—0.15	0.10	—2.16	3.03	+0.01	2.81	—1.98	1.27	—4.08	1.04	—3.05	4.38	+1.11	4.81	+1.58	0.87	—1.78	0.28	—1.34	0.71	—0.78	22.42	—11.77
Forest City	2.40	+1.76	0.30	—0.63	0.24	—1.32	0.15	—2.22	2.14	—2.25	2.48	—2.15	1.80	—1.88	2.75	—0.75	2.28	—1.34	1.28	—1.02	T	—1.23	0.45	—0.40	16.27	—13.43
Fort Madison	2.06	+0.10	1.14	—0.75	0.75	—2.01	3.19	+0.01	6.32	+1.92	2.31	—2.07	2.72	—1.24	2.65	—1.14	2.39	—1.42	0.87	—1.75	0.70	—1.44	1.04	—0.89	26.14	—10.68
Grand Meadow	1.85	+0.68	0.99	—0.11	0.01	—2.13	2.91	—0.06	3.91	—0.92	2.56	—2.24	0.76	—3.98	3.03	—0.30	4.81	+1.18	0.96	—1.51	0.35	—1.21	0.70	—0.76	22.87	—11.36
Greene	1.02	+0.38	0.47	—0.47	0.22	—1.47	0.84	—1.39	3.09	—1.55	1.08	—3.01	0.68	—4.02	5.78	+1.91	2.06	—1.08	0.56	—1.60	0.17	—0.98	0.38	—0.65	16.35	—13.96
Greenfield	1.44	+0.49	0.44	—0.57	T	—2.08	1.93	—1.25	4.12	—0.90	3.37	—1.85	1.30	—3.40	5.90	+2.36	5.08	+1.67	1.41	—0.86	0.70	—0.47	0.10	—1.15	25.79	— 8.01
Grinnell	1.66	+0.39	0.15	—0.77	0.80	—0.94	2.75	—0.63	3.89	—0.70	1.29	—3.29	1.92	—3.03	2.05	—2.57	4.50	+2.15	0.42	—2.05	0.98	—0.65	0.24	—0.93	20.65	—13.02
Grundy Center	2.10	+1.28	0.30	—0.55	0.02	—1.80	1.85	—1.20	2.83	—2.33	3.02	—2.28	0.92	—3.63	4.92	+1.35	3.77	+0.52	0.41	—2.06	0.07	—1.15	0.56	—0.62	20.77	—12.47
Guthrie Center	2.08	—1.49	0.42	—0.38	0.01	—1.39	0.81	—1.93	3.37	—1.59	2.55	—1.86	0.85	—3.97	6.11	+1.79	5.65	+2.56	1.35	—0.92	0.35	—0.80	0.13	—0.97	23.68	— 7.97
Hampton	1.85	+0.81	0.56	—0.61	0.36	—1.80	0.93	—2.35	1.97	—2.61	1.83	—3.08	0.95	—3.88	5.40	+2.03	2.36	—1.20	0.78	—1.65	0.31	—1.25	0.41	—0.84	17.71	—16.52
Harlan	1.00	+0.34	0.29	—0.56	T	—1.48	0.17	—2.29	3.14	—1.11	0.81	—3.81	1.25	—4.06	9.58	+5.36	3.23	—0.48	0.99	—1.77	0.17	—0.87	0.33	—0.57	20.96	—11.30
Hopeville	1.66	+0.72	0.39	—0.40	T	—1.78	1.14	—2.09	4.99	+0.30	1.76	—2.29	1.70	—3.15	1.57	—2.24	5.67	+2.18	0.37	—1.87	0.58	—0.51	0.15	—0.91	19.98	—12.04
Humboldt	2.65	+2.10	0.30	—0.36	0.08	—1.52	0.38	—2.23	2.64	—1.72	3.92	—0.79	1.82	—2.12	3.86	+0.42	4.08	+0.91	1.38	—0.51	0.29	—1.08	0.26	—0.43	21.66	— 7.33
Independence	2.25	+1.02	0.12	—0.89	0.00	—1.63	1.47	—0.91	2.63	—1.53	1.49	—3.29	0.51	—4.08	2.36	—0.83	3.19	—0.76	0.65	—1.71	0.05	—1.27	0.30	—1.06	15.02	—16.94
Indianola	2.35	+1.08	0.65	—0.29	0.32	—1.00	0.56	—2.84	3.57	—1.07	1.56	—2.62	0.70	—3.56	2.28	—2.40	4.42	+1.32	0.42	—1.68	0.47	—0.95	0.36	—0.97	17.66	—14.98
Inwood	1.06	+0.41	0.02	—0.77	0.06	—1.10	1.40	—0.55	1.43	—2.71	1.33	—5.69	3.53	+0.27	4.46	+1.45	3.56	+0.18	1.46	—0.81	0.09	—1.03	0.12	—0.86	18.52	—11.21
Iowa City	1.79	+0.05	0.39	—1.08	0.28	—2.16	2.56	—0.58	3.57	—0.80	0.98	—3.60	2.22	—2.26	4.98	+0.74	3.87	+0.12	0.57	—2.21	0.69	—1.57	0.46	—1.19	22.36	—14.54
Iowa Falls	1.77	+0.87	0.70	—0.34	T	—1.73	1.72	—1.16	1.81	—2.39	2.84	—1.68	2.19	—1.91	6.01	+2.63	3.58	+0.61	0.61	—1.54	0.31	—0.94	0.66	—0.45	22.20	— 8.03
Keokuk	1.61	—0.08	0.99	—0.63	0.53	—1.84	2.91	—0.43	6.87	+2.52	1.34	—3.01	2.74	—1.29	0.92	—2.32	2.08	—1.89	0.81	—1.68	0.23	—1.62	0.79	—1.08	21.82	—13.35
Keosauqua	1.93	+0.56	0.57	—0.88	1.23	—1.31	3.25	—0.44	4.81	+0.44	0.90	—3.65	5.69	+1.56	3.50	—0.32	2.43	—1.97	0.59	—1.25	0.60	—0.90	0.70	—0.80	26.20	— 8.96
Knoxville	1.90	+0.55	0.65	—0.23	0.50	—1.07	0.85	—2.40	3.06	—0.51	3.71	—0.61	1.62	—2.84	2.73	—1.94	5.37	+1.85	0.28	—2.14	0.63	—0.66	0.40	—0.98	21.70	—10.98
Lacona	3.36	+1.60	0.70	—0.78	0.60	—1.90	1.95	—1.01	3.68	—1.54	2.06	—2.95	0.96	—3.52	2.10	—2.72	4.97	+1.14	0.97	—1.74	0.81	—0.66	0.49	—1.18	22.65	—15.17
Le Claire	1.89	+0.46	0.78	—0.47	0.37	—2.27	2.51	+0.14	4.11	+0.32	0.65	—3.44	1.86	—2.76	3.62	+0.03	3.63	—0.15	0.88	—1.01	0.48	—0.99	0.93	—0.19	21.71	—10.33
Le Mars	0.73	+0.19	0.13	—0.59	0.06	—1.54	0.98	—2.21	2.70	—2.09	1.76	—2.40	5.18	+0.71	3.63	+0.75	2.07	—1.71	0.78	—1.11	0.16	—1.07	0.01	—0.81	18.19	—11.88
Lenox	0.88	+0.12	0.30	—0.54	0.05	—1.70	0.66	—2.37	4.47	—0.25	0.82	—3.45	1.70	—3.24	2.92	—1.20	4.04	+0.71	1.35	—1.18	0.13	—1.09	0.15	—0.92	17.47	—15.11
Leon	2.92	+2.04	0.80	—0.34	T	—2.76	1.33	—2.09	6.68	+2.23	1.75	—3.03	3.27	—1.15	1.38	—4.56	4.25	—0.55	0.15	—1.93	0.10	—1.82	0.16	—1.11	22.79	—15.07
Little Sioux	1.20	+0.46	0.30	—1.09	0.00	—0.86	0.59	—1.09	2.12	—1.81	0.54	—4.86	1.62	—3.38	6.99	+4.52	3.38	+0.48	1.01	—0.81	0.32	—1.93	0.42	—0.24	18.49	—10.61
Logan	0.67	—0.43	0.21	—0.99	T	—1.81	0.25	—2.56	2.93	—1.20	0.80	—4.63	2.78	—2.41	6.00	+2.26	4.06	+0.81	1.02	—1.37	0.06	—1.19	0.25	—1.02	19.03	—14.54
Marshalltown	1.92	+0.92	0.33	—0.48	0.34	—2.34	1.89	—1.01	3.31	—1.42	2.57	—1.79	1.05	—3.66	3.38	—0.26	3.51	+0.56	0.37	—2.01	0.70	—0.59	0.43	—0.73	19.80	—12.81
Mason City	1.35	+0.20	0.23	—0.61	0.26	—1.42	0.31	—2.34	2.32	—2.34	1.20	—4.69	0.71	—3.35	4.84	+1.24	2.61	+0.25	0.97	—1.15	0.25	—1.39	0.22	—0.59	15.27	—16.19
Mt. Ayr	1.39	+0.15	0.62	—0.55	0.05	—2.01	1.42	—1.86	0.75	+0.99	3.32	—1.40	3.46	—1.85	2.52	—1.23	6.74	+3.21	0.59	—1.67	0.47	—0.89	0.44	—0.85	27.77	— 7.96
Mt. Pleasant	1.53	+0.07	1.17	+0.11	0.73	—1.70	3.03	—0.18	4.25	+0.07	1.16	—3.32	3.49	—0.34	2.67	—1.40	3.78	+0.10	0.81	—1.07	0.59	—0.97	1.06	—0.31	24.27	— 8.94
Muscatine	1.73	—0.18	0.74	—1.39	0.36	—2.43	2.40	—1.01	4.39	+0.01	2.62	—2.24	3.04	—0.87	3.17	—1.21	2.80	—0.92	0.66	—2.38	0.42	—1.88	0.96	—1.32	23.29	—15.82
New Hampton	2.10	+1.27	0.75	—0.15	0.15	—1.86	1.64	—0.31	2.91	—1.73	0.87	—3.38	0.12	—4.07	4.81	+1.78	2.18	—1.33	0.54	—1.72	0.22	—1.18	0.40	—0.53	16.69	—13.21
Northwood	2.20	+1.35	0.49	—0.60	0.08	—1.78	0.98	—1.18	2.66	—2.32	0.87	—4.01	1.78	—2.14	3.75	—0.29	5.19	+1.84	0.86	—1.74	0.33	—1.15	0.75	—0.35	19.94	—12.37
Odebolt	0.96	+0.55	0.32	—0.55	0.00	—1.55	0.34	—2.38	2.68	—1.30	3.22	—0.80	1.72	—2.92	4.67	+1.07	4.57	+0.82	0.61	—1.44	0.08	—1.06	0.21	—0.63	19.38	—10.19
Omaha, Neb.	0.94	+0.29	0.28	—0.48	T	—1.39	0.26	—2.75	2.23	—2.27	0.43	—4.62	1.90	—2.43	4.76	+1.14	3.43	+0.40	0.72	—1.63	0.17	—0.89	0.37	—0.54	15.49	—15.17
Onawa	0.92	+0.26	0.40	—0.59	T	—1.37	1.15	—1.33	2.68	—2.90	1.70	—3.30	2.98	—2.69	6.79	+1.65	3.37	—1.43	1.08	—1.31	0.21	—1.27	0.50	—0.41	21.78	—14.69
Osage	1.95	+1.03	0.35	—0.79	T	—1.76	0.35	—2.10	3.49	—1.27	0.68	—3.85	0.56	—3.16	5.05	+2.02	3.27	—0.29	0.65	—1.77	0.29	—1.14	0.50	—0.85	17.14	—13.93
Oskaloosa	2.32	+1.40	0.56	—0.45	0.28	—1.58	2.49	—0.24	3.55	—0.13	1.99	—2.12	3.00	—0.97	1.42	—1.80	4.47	+1.44	0.31	—1.89	0.43	—1.06	0.20	—1.06	21.02	— 8.46
Ottumwa	1.92	+0.32	0.26	—1.10	0.87	—1.27	2.52	—0.63	2.57	—2.07	1.01	—3.07	3.21	—0.92	3.65	—0.44	1.67	—2.36	0.19	—2.76	0.18	—1.42	0.47	—0.81	18.52	—16.56
Pacific Junction	1.40	+0.86	0.43	—0.17	T	—1.35	0.11	—2.44	5.08	+1.07	0.88	—3.58	0.96	—4.17	10.18	+6.35	3.07	—0.39	1.04	—1.26	0.32	—0.62	0.48	—0.34	23.95	— 6.04
Pella	1.59	+0.47	0.49	—0.27	0.20	—0.83	1.27	—1.25	2.94	—1.38	2.77	—1.01	1.09	—3.27	1.43	—2.75	5.92	+3.42	0.29	—2.30	0.49	—0.94	0.16	—0.67	18.64	—10.78
Perry	2.10	+1.28	0.90	—0.08	T	—2.14	0.61	—2.32	3.02	—1.08	2.25	—2.44	1.07	—3.54	4.60	—0.82	4.61	+1.91	0.72	—1.83	0.32	—1.13	0.20	—0.80	20.40	—13.89
Plover	1.10	+0.52	0.10	—0.56	0.04	—1.31	0.22	—1.88	1.29	—2.98	5.24	+0.89	2.30	—2.07	3.12	—1.41	1.85	—2.54	0.92	—1.60	0.20	—1.42	0.15	—0.61	16.58	—14.83
Pocahontas	1.04	+0.11	0.17	—0.97	0.03	—1.31	0.23	—2.00	1.97	—2.65	3.67	—2.15	1.87	—1.85	3.10	—0.87	2.91	+0.22	0.85	—2.16	0.11	—3.02	0.22	—0.66	16.17	—17.31
Ridgeway	1.99	+0.01	0.61	—1.56	0.18	—3.03	3.52	+1.18	4.12	—1.25	0.19	—3.96	0.57	—4.09	5.63	+1.91	3.41	—0.90	0.64	—2.53	0.63	—1.19	0.71	—1.53	22.20	—16.94
Rockwell City	1.80	+1.10	1.10	+0.25	T	—2.08	1.02	—1.74	3.90	—0.84	4.78	+0.52	3.30	—0.22	4.52	+0.44	5.67	+2.49	1.21	—1.20	0.20	—0.90	0.30	—0.72	27.80	— 2.90
Sac City	1.40	+0.42	0.30	—0.72	T	—1.52	0.52	—2.54	2.39	—1.84	1.39	—3.47	1.07	—2.96	3.54	—0.03	3.25	—0.03	0.69	—1.60	T	—1.11	0.20	—0.96	14.75	—16.36
St. Charles	2.16	+1.01	0.33	—0.67	0.03	—1.91	0.60	—2.92	3.45	—1.47	1.26	—3.08	0.86	—4.93	2.44	—1.89	5.73	+2.09	0.77	—1.64	0.60	—0.83	0.27	—1.35	18.50	—17.59
Sheldon	3.15	+2.56	0.30	—0.63	0.04	—1.39	2.45	+0.72	2.65	—2.45	2.81	—1.71	3.37	—1.77	4.87	+1.19	3.95	+0.26	0.58	—2.01	0.20	—0.88	0.12	—0.69	24.49	— 6.80
Sibley	1.05	+0.51	T	—0.47	0.04	—1.42	1.26	—1.07	1.83	—2.13	2.20	—2.32	3.10	—0.87	2.07	—1.59	3.38	+0.01	0.87	—1.22	0.13	—0.86	0.10	—0.68	16.03	—12.11
Sigourney	1.44	—0.15	0.50	—0.81	0.50	—1.56	3.30	+0.13	2.98	—1.15	1.55	—2.43	2.11	—2.19	1.40	—2.45	4.60	+1.58	0.29	—2.27	0.52	—1.03	0.27	—1.14	19.46	—13.47
Sioux Center	1.55	+1.07	0.20	—0.50	0.02	—1.50	0.85	—1.35	1.53	—3.32	1.74	—2.99	4.06	—0.65	2.83	—0.80	1.71	—1.97	0.92	—1.26	0.07	—0.64	0.07	—0.94	15.55	—14.85
Sioux City	0.69	+0.14	0.22	—0.33	0.03	—1.23	0.82	—1.95	1.99	—2.38	1.41	—2.47	3.69	+0.08	2.76	—0.24	3.93	+1.46	0.84	—0.95	0.15	—0.82	0.32	—0.42	16.85	— 9.11
Stockport	1.56	—0.08	0.60	—0.55	1.06	—1.27	3.05	—0.07	4.03	+0.27	1.04	—5.32	3.20	—1.39	2.43	—2.63	2.58	—1.66	0.65	—1.31	0.54	—0.97	0.82	—0.57	21.56	—15.55
Thurman	0.91	+0.27	0.12	—1.21	T	—1.66	0.13	—3.28	4.65	—0.55	1.32	—4.93	1.08	—4.83	7.37	+2.98	2.91	—1.88	0.92	—2.25	0.38	—0.92	0.40	—0.99	20.19	—19.25
Tipton	2.07	+0.58	0.39	—0.88	0.17	—2.70	2.51	—0.73	4.35	—0.83	0.46	—3.48	0.95	—3.27	5.44	+0.78	5.00	+2.01	0.80	—1.22	0.77	—1.05	0.78	—0.88	23.69	—11.67
Toledo	1.40	+0.45	0.45	—0.32	0.20	—1.71	2.12	—0.69	3.59	—0.60	2.43	—1.10	1.20	—2.86	2.82	—0.88	6.90	+3.93	0.39	—1.65	0.50	—1.01	0.50	—0.52	22.50	— 6.96
Wapello	1.39	+0.06	0.59	—0.80	0.44	—1.98	2.07	—0.52	3.41	—0.48	2.91	—0.65	3.47	—0.25	3.33	—1.67	2.37	—1.07	0.78	—1.09	0.38	—1.02	0.52	—0.79	21.66	— 9.76
Washta	0.55	+0.07	0.25	—0.51	T

DATES OF KILLING FROSTS, 1910.

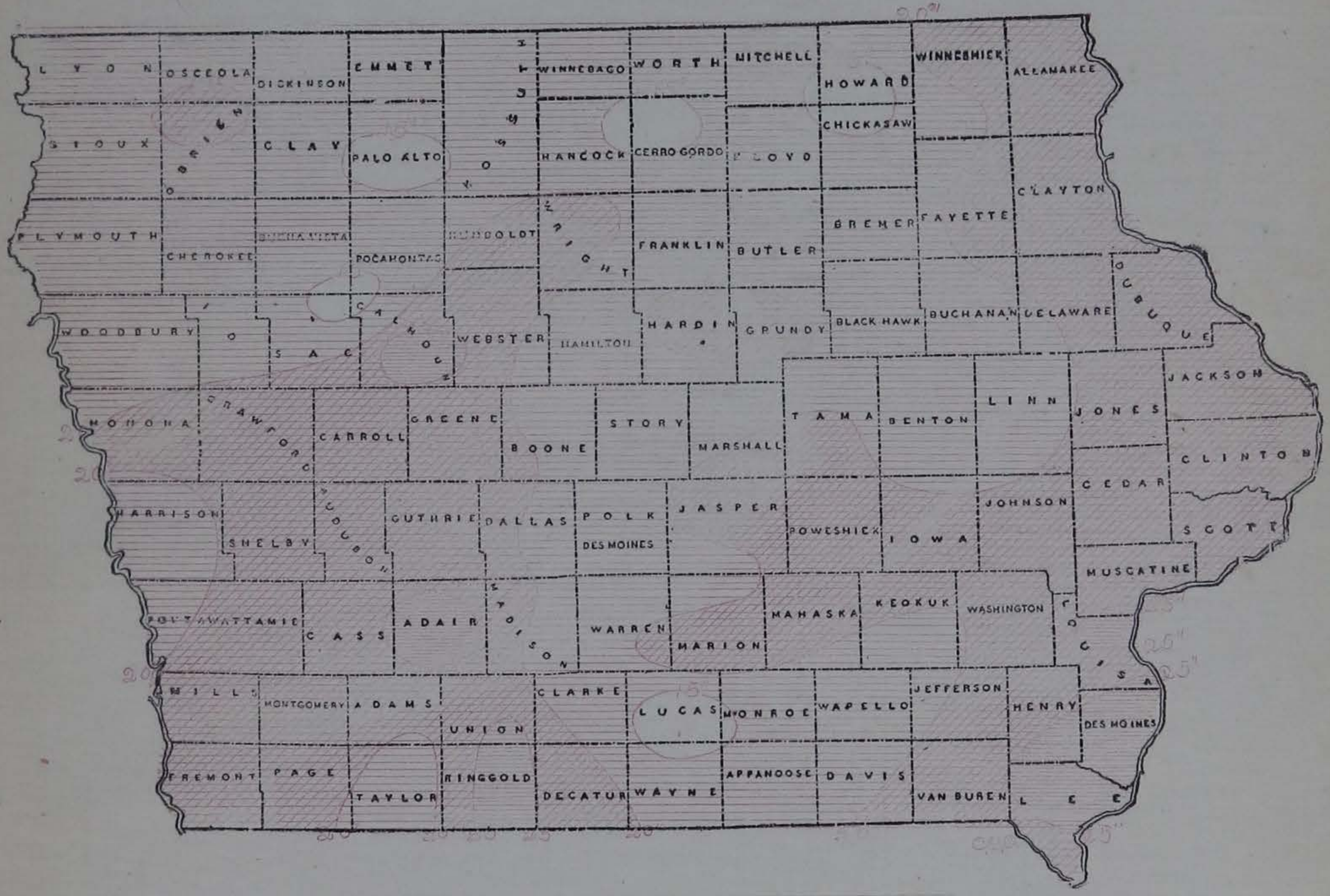
STATIONS	Killing Frosts		STATIONS	Killing Frosts		STATIONS	Killing Frosts	
	Last in Spring	First in Autumn		Last in Spring	First in Autumn		Last in Spring	First in Autumn
Afton	April 25	Oct. 22	Elma	May 14	Oct. 6	Northwood	May 5	Oct. 22
Albia	April 26	Oct. 22	Estherville	May 26	Oct. 6	Odeboldt	May 13	Oct. 22
Algona	May 13	Oct. 6	Fairfield	April 25	Oct. 21	Olin	May 14	Oct. 22
Allerton	April 25	Oct. 22	Fayette	May 26	Oct. 6	Omaha, Neb.	April 24	Oct. 28
Alta	May 4	Oct. 21	Forest City	May 4	Oct. 6	Onawa	May 4	Oct. 22
Alton	May 13	Sept. 27	Fort Dodge	May 4	Oct. 6	Osage	May 5	Oct. 22
Amana	May 5	Oct. 22	Grand Meadow	May 5	Oct. 22	Oskaloosa	May 14	Oct. 22
Ames	May 14	Oct. 22	Greene	May 14	Oct. 22	Ottumwa	April 25	Oct. 22
Atlantic	May 4	Sept. 27	Greenfield	May 13	Oct. 22	Pacific Junction	May 13	Oct. 22
Audubon	May 4	Oct. 22	Grinnell	April 24	Oct. 22	Pella	May 13	Oct. 22
Baxter	May 13	Oct. 22	Grundy Center	May 4	Oct. 22	Perry	May 13	Oct. 22
Bedford	May 13	Oct. 22	Guthrie Center	May 4	Oct. 22	Plover	May 13	Oct. 6
Belle Plaine	May 4	Oct. 22	Hampton	May 4	Oct. 22	Pocahontas	May 13	Oct. 22
Belmond	May 13	Oct. 22	Hancock	May 13	----------	Ridgeway	May 5	Oct. 22
Bonaparte	April 25	Oct. 22	Harlan	May 13	Oct. 22	Rock Rapids	----------	Sept. 27
Boone	May 3	Oct. 22	Hopeville	April 25	Oct. 22	Rockwell City	May 13	Oct. 22
Britt	May 13	Oct. 6	Humboldt	May 26	Oct. 21	Sac City	May 4	Oct. 21
Burlington	April 26	Oct. 28	Independence	May 14	Oct. 22	Saint Charles	April 25	Oct. 23
Carroll	May 12	Oct. 21	Indianola	May 12	Oct. 22	Sheldon	May 16	Oct. 21
Cedar Rapids	April 25	Oct. 22	Inwood	May 25	Sept. 27	Sibley	May 13	Sept. 27
Chariton	May 13	Oct. 22	Iowa City	April 25	Oct. 22	Sigourney	May 13	Oct. 22
Charles City	May 4	Oct. 22	Iowa Falls	May 14	Oct. 6	Sioux Center	May 13	Sept. 27
Clarinda	April 26	Oct. 22	Jefferson	----------	Oct. 6	Sioux City	May 3	Oct. 22
Clear Lake	May 5	Oct. 26	Keokuk	April 25	Oct. 22	Stockport	May 5	Oct. 22
Clinton	May 5	Oct. 22	Keosauqua	May 5	Oct. 22	Storm Lake	May 4	Oct. 22
Columbus Junction	April 25	Oct. 22	Knoxville	April 25	Oct. 22	Stuart	----------	Oct. 22
Corning	May 13	Oct. 22	Lamoni	April 25	Oct. 22	Thurman	May 13	Sept. 27
Corydon	April 25	Oct. 22	Larrabee	May 13	Oct. 21	Tipton	April 25	Oct. 28
Council Bluffs	----------	Oct. 6	Le Mars	May 13	Oct. 22	Toledo	April 25	Oct. 22
Creston	May 13	Oct. 22	Lenox	May 13	Oct. 22	Wapello	April 25	Oct. 28
Davenport	April 25	Oct. 29	Leon	April 25	Oct. 22	Washington	May 13	Oct. 22
Decorah	May 14	Oct. 6	Little Sioux	May 13	Oct. 22	Washta	May 25	Oct. 22
Delaware	May 5	Oct. 22	Logan	May 29	Sept. 27	Waterloo	May 4	Oct. 28
Denison	May 13	Oct. 6	Marshalltown	May 5	Oct. 22	Waukee	May 3	Oct. 22
Des Moines	April 24	Oct. 22	Mason City	May 14	Oct. 6	Waverly	May 5	Oct. 22
De Soto	May 26	Oct. 22	Massena	May 13	----------	Webster City	May 14	Oct. 6
Dubuque	May 1	Oct. 29	Mount Ayr	April 25	Oct. 22	West Bend	May 13	Oct. 6
Earlham	May 14	Oct. 22	Mount Pleasant	April 25	Oct. 22	Whitten	May 13	Oct. 22
Elkader	May 13	Oct. 29	New Hampton	May 4	Oct. 22	Winterset	April 24	Oct. 22
Elliott	May 13	Oct. 22	Newton	----------	Oct. 22	Woodburn	May 14	Oct. 22

TOTAL PRECIPITATION, DECEMBER, 1910.

SCALE OF SHADES—IN INCHES



TOTAL PRECIPITATION, 1910.



SCALE OF SHADES—IN INCHES

Less than 15	15 to 20	20 to 25	25 to 30

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