

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.  
CHARLES F. MARVIN, Chief.

# CLIMATOLOGICAL DATA.

IOWA SECTION  
In co-operation with  
IOWA WEATHER AND CROP BUREAU  
CHARLES D. REED, Meteorologist

VOL. XXXVI DES MOINES, IOWA, JANUARY, 1925 No. 1

## GENERAL SUMMARY

Compared to the month preceding, January would be considered a very mild month, and while the mean temperature for the State was less than one degree above normal, the absence of disagreeable features made the month appear more mild than the mean temperature indicates. There were numerous fluctuations above and below normal but there were no decided departures. While the mean for the State averaged above normal there was a general deficiency over most of the Missouri and Big Sioux valleys, which amounted to more than two degrees in several counties in the northwest portion. The most pronounced periods of excess occurred from the 2nd till the 9th and another during most of the 3d week, being the most marked in the central and eastern portions, while in the western half of the State, where the coldest weather prevailed, there was a period with below normal temperatures that extended from the 9th till the 18th.

The month was characterized by the entire absence of severe storms and the precipitation, which was almost entirely in the form of sleet or snow, has been less in January only three times since 1890. There were no individual heavy falls of snow, except over a limited area in the western portion of the State on the 28th. There was practically no drifting and as a result of these favorable conditions railway traffic was able to move normally throughout the month, and highways continued passable though dirt roads in the southern and central sections were quite rough following periods of thawing weather. Sleet was reported from numerous places on several dates but there was apparently no damage from this source. The snow cover remained on the ground over nearly all the northern division throughout the entire month but large areas in the central and southern sections were bare at the end of the month, and were bare over much of the area during the last 10 days, but there had been no material damage reported to winter wheat or grasses.

Some building operations were halted during the most severe weather, but the usual winter out door occupations were pursued with very little interruption. Some corn that remained in the fields was gathered in the southern portion and there was still some corn standing in the northwest portion. The ice harvest was completed in all portions of the State, the quality being unusually good and the quantity ample.

F. L. D.

## TEMPERATURE

The mean temperature for the State, as shown by the records of 104 stations, was  $19.4^{\circ}$ , or  $0.9^{\circ}$  higher than the normal. By divisions, approximately three tiers of counties to the division, the means were as follows: Northern,  $15.8^{\circ}$ , or  $0.5^{\circ}$  higher than the normal; Central,  $20.0^{\circ}$ , or  $1.2^{\circ}$  higher than the normal; Southern,  $22.5^{\circ}$ , or  $1.1^{\circ}$  higher than the normal. The highest monthly mean was  $25.4^{\circ}$ , at Keokuk, and the lowest was  $11.8^{\circ}$  at Inwood. The highest

temperature reported was  $55^{\circ}$ , at Wescott, on the 24th, and the lowest was  $-24^{\circ}$ , at Milford, on the 27th. The temperature range for the State was  $79^{\circ}$ .

## PRECIPITATION

The average precipitation for the State, as shown by the records of 107 stations, was 0.40 inch, or 0.68 inch less than the normal. By divisions, the averages were as follows: Northern, 0.42 inch, or 0.52 inch less than the normal; Central, 0.35 inch, or 0.77 inch less than the normal; Southern, 0.43 inch, or 0.74 inch less than the normal. The greatest amount, 1.23 inches occurred at Burlington, and the least, 0.05 inch, occurred at Grundy Center. The greatest amount in any 24 consecutive hours, 0.60 inch, occurred at Williamsburg, on the 16th.

## SNOWFALL

The average snowfall for the State 4.2 inches, or 2.7 inches less than the normal. The greatest amount, 10.0 inches occurred at Burlington and Washington, and the least, 0.2 inch occurred at Pella. The ground was covered the entire month north of a line running from Monona to Allamakee Counties and over a few small areas in the southern and east-central portions. The snowfall was above normal over most of the Missouri Valley and a small area in the southeast section.

## MISCELLANEOUS PHENOMENA

*Fog:* 8th, 9th, 10th, 11th, 12th, 14th, 16th, 18th, 19th, 20th, 21st, 24th, 25th, 28th, 29th, 30th.

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## COMPARATIVE DATA FOR THE STATE—JANUARY

YEAR	Temperature				Precipitation				Number of Days				
	Mean	Departure*	Highest	Lowest	Total	Departure*	Greatest	Least	Snowfall	With pre. .01 in. or more	Clear	Partly cloudy	Cloudy
1890-----	19.7	+1.2	61	-27	2.03	+0.95	3.46	0.35	-----	4	13	7	11
1891-----	26.0	+7.5	58	-4	1.75	+0.67	3.99	0.61	-----	5	16	9	6
1892-----	15.3	-3.2	76	-38	1.09	+0.01	3.13	0.10	6.9	6	11	9	11
1893-----	9.3	-9.2	54	-34	0.74	-0.34	3.20	0.13	6.9	5	14	9	8
1894-----	19.3	+0.8	69	-37	1.09	+0.01	2.24	0.31	6.0	4	15	7	9
1895-----	13.6	-4.9	68	-31	0.85	-0.28	2.05	0.09	8.7	3	10	10	11
1896-----	23.4	+4.9	68	-20	0.48	-0.60	2.10	T.	2.8	7	12	7	12
1897-----	17.2	-1.3	66	-30	2.01	+0.93	6.16	0.15	8.2	5	15	6	10
1898-----	23.4	+4.9	52	-11	1.60	+0.52	5.32	T.	12.6	4	17	8	10
1899-----	19.8	+1.3	68	-34	0.28	-0.80	1.15	T.	1.5	3	15	10	6
1900-----	25.6	+7.1	66	-20	0.53	-0.55	2.47	T.	2.3	3	16	7	8
1901-----	23.7	+5.2	60	-21	0.74	-0.34	2.34	0.04	6.2	4	14	9	8
1902-----	22.4	+3.9	63	-31	0.88	-0.20	2.83	0.19	9.4	4	17	8	6
1903-----	23.0	+4.5	60	-12	0.28	-0.80	1.46	T.	2.0	4	13	7	11
1904-----	14.0	-4.5	57	-32	1.18	+0.10	3.68	0.02	6.1	6	12	8	11
1905-----	11.2	-7.3	56	-30	0.91	-0.17	1.82	0.12	11.1	7	14	7	10
1906-----	24.6	+6.1	69	-19	1.52	+0.44	4.71	0.28	11.3	5	14	6	11
1907-----	18.8	+0.3	68	-22	1.52	+0.44	5.30	0.10	6.0	7	8	7	16
1908-----	24.9	+6.4	60	-18	0.44	-0.64	1.50	0.06	4.8	2	17	8	6
1909-----	21.2	+2.7	72	-25	1.66	+0.58	3.74	0.41	7.8	6	9	6	16
1910-----	18.1	-0.4	56	-35	1.57	+0.49	3.15	0.55	12.6	6	13	7	11
1911-----	20.2	+1.7	66	-35	0.97	-0.11	3.73	0.11	7.3	5	9	8	14
1912-----	4.2	-14.3	49	-47	0.58	-0.55	1.90	T.	5.5	5	14	7	10
1913-----	20.9	+2.4	62	-25	0.77	-0.31	2.05	0.04	7.2	5	14	9	8
1914-----	27.8	+9.3	64	-10	0.88	-0.20	2.34	0.27	5.1	5	11	8	12
1915-----	17.5	-1.0	59	-32	1.63	+0.55	3.15	0.10	7.3	8	13	8	10
1916-----	17.8	-0.7	63	-34	2.62	+1.54	6.07	0.85	7.2	10	12	6	13
1917-----	17.0	-1.5	60	-28	0.88	-0.25	2.07	0.17	7.2	4	17	8	6
1918-----	8.6	-9.9	53	-35	1.02	-0.06	2.79	0.26	11.2	7	13	8	10
1919-----	26.8	+8.3	64	-32	0.24	-0.84	0.86	T.	2.8	2	20	5	6
1920-----	16.7	-1.8	58	-26	0.42	-0.66	1.05	T.	4.6	4	12	8	11
1921-----	28.4	+9.9	67	-9	0.51	-0.57	1.92	0.10	4.1	4	11	7	13
1922-----	19.8	+1.3	57	-29	0.89	-0.19	2.30	0.32	5.3	4	17	6	8
1923-----	26.7	+8.2	58	-10	0.85	-0.23	2.34	T.	6.5	6	10	7	14
1924-----	13.9	-4.6	59	-36	0.89	-0.19	2.47	0.06	5.5	5	17	7	7
1925-----	19.4	+0.9	55	-24	0.40	-0.68	1.23	0.05	4.2	3	17	7	7

T. indicates an amount too small to measure, or less than .005 inch precipitation and less than .05 inch snowfall.

\*New normals effective June 1, 1924.



## Climatological Data for January, 1925

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit						Precipitation, in inches			Number of Days			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)	Precipitation, .01 in. or more	Clear	Partly cloudy			
<i>Northern Division</i>																				
Algona	Kossuth	1,213	52	16.0	+ 0.6	39	6	-18	27	35	0.60	-0.22	0.24	7.5	4	18	3	nw.	W. E. Laird	
Allison (near)	Butler	1,044	13	18.5	+ 3.2	40	21†	-12	14†	36	0.10	-1.10	0.10	1.0	1	19	4	sw.	J. A. Bell	
Alta	Buena Vista	1,513	34	14.5	- 1.5	37	24†	-17	27	37	0.41	-0.35	0.18	3.8	6	17	6	w.	D. E. Hadden	
Alton	Sioux	1,305	20	13.4	- 2.1	33	31	-17	27	35	0.70	-0.06	0.30	7.0	4	11	9	sw.	W. S. Slagle	
Belmond	Wright	1,205	15	15.6	+ 0.9	39	24	-15	27	37	0.57	-0.69	0.27	5.7	8	4	21	6	w.	Geo. P. Hardwick
Britt	Hancock	1,236	38	17.2	+ 3.0	38	24	-18	27	38	0.39	-0.29	0.39	5.0	1	16	9	nw.	Jas. S. Ross	
Charles City	Floyd	1,015	34	16.8	+ 3.1	39	24	-16	14	35	0.10	-0.93	0.08	1.6	3	11	13	se.	U. S. Weather Bureau	
Cherokee	Cerrokeee	1,196	3	13.8	---	40	31	-19	27	41	0.57	---	0.25	5.7	4	10	14	s.	J. E. Wirth	
Decorah	Winneshiek	875	32	14.8	- 0.4	37	31	-20	14	36	0.20	-1.04	0.20	2.0	1	19	6	nw.	M. D. Whitney	
Dubuque	Dubuque	698	52	21.6	+ 2.5	46	31	-6	27	33	0.11	-1.45	0.07	1.2	3	8	13	10	nw.	U. S. Weather Bureau
Estherville	Emmet	1,298	30	14.4	+ 1.3	40	21	-21	27	33	0.45	-0.13	0.15	4.5	5	10	5	s.	A. O. Peterson	
Fayette	Fayette	1,003	35	18.2	+ 2.8	39	21†	-17	14	37	0.15	-1.10	0.13	1.5	2	16	5	10	sw.	R. Z. Latimer
Forest City	Winnebago	1,226	31	16.2	+ 1.9	38	24	-15	27	40	0.40	-0.48	0.20	4.0	3	7	6	18	se.	Dr. M. B. Neil
Hampton	Franklin	1,145	29	15.8	- 0.1	39	22†	-11	27	37	0.11	-1.10	0.06	1.2	3	15	11	5	sw.	L. H. Davis
Humboldt	Humboldt	1,095	37	15.8	- 0.7	39	6†	-19	14	36	0.48	-0.33	0.22	6.5	4	9	9	13	n.	H. C. Snitkey
Independence	Buchanan	921	61	20.4	+ 3.5	43	31	-10	27	34	0.18	-0.99	0.14	1.8	2	22	1	8	sw.	Dr. Geo. Boody
Inwood	Lyon	1,474	21	11.8	- 2.2	37	21†	-20	27	32	0.68	+0.03	0.28	6.8	7	18	4	9	nw.	A. C. Hanson
Le Mars	Plymouth	1,224	29	14.8	- 2.3	39	31	-16	27	35	0.35	-0.22	0.19	4.0	4	18	5	8	sw.	Mrs. M. C. Woolley
Mason City	Cerro Gordo	1,148	28	15.8	+ 1.6	39	24	-15	14	35	0.23	-0.74	0.16	3.0	3	19	4	8	nw.	Northern Sugar Corp.
Milford (near)	Dickinson	1,430	5	12.1	---	35	19†	-24	27	33	0.83	---	0.40	8.3	3	19	7	5	s.	S. N. McKinsey
New Hampton	Chickasaw	1,160	28	16.8	+ 2.3	37	21†	-13	27	30	0.15	-0.83	0.10	1.5	2	17	5	9	nw.	A. F. Kemman
Nora Springs	Floyd	1,064	13	18.0	+ 1.6	41	24	-16	14†	40	0.50	-0.60	0.15	2.9	6	16	9	6	s.	Arthur Betts
Northwood	Worth	1,222	29	14.6	+ 1.9	38	24	-15*	27	37	0.25	-0.89	0.10	2.5	4	16	2	13	sw.	Chas. Dwelle
Oelwein	Fayette	1,036	1	19.3	---	40	21	-10	14	33	0.27	---	0.15	1.5	10	6	sw.	John T. Ridler		
Osage	Mitchell	1,163	15	15.8	---	40	24	-15	14†	39	0.37	---	0.15	3.7	5	14	9	8	s.	W. G. Gee
Pocahontas	Pocahontas	1,248	21	15.1	- 0.9	38	19†	-19	27	38	0.45	-0.33	0.25	4.8	5	18	4	9	se.	F. E. Hronek
Postville	Clayton	1,180	26	16.8	+ 1.6	37	31	-15	27	38	0.15	-1.08	0.10	1.5	2	16	5	10	nw.	F. L. Williams
Rock Rapids	Lyon	1,358	26	12.7	- 0.8	37	31	-21	14†	35	0.84	+0.15	0.32	8.4	6	16	5	10	se.	J. K. Medberry
Sanborn	O'Brien	1,553	11	12.6	- 2.0	37	6†	-20	26	53	0.42	-0.28	0.20	3.8	5	19	5	7	sw.	J. W. Dow
Sioux Center	Sioux	1,426	26	13.2	- 1.9	39	21	-20	27	38	0.80	+0.06	0.30	8.0	6	19	2	10	s.	J. de Ruyter
Spencer	Clay	1,319	11	12.6	- 1.9	40	31	-22	27	40	1.06	+0.36	0.50	7.0	6	20	5	6	nw.	E. W. Little
Storm Lake	Buena Vista	1,440	36	16.0	- 0.8	39	30	-16	27	41	0.40	-0.30	0.18	4.5	3	22	0	9	s.	Geo. H. Fracker
Washta	Cherokee	1,157	27	15.8	- 0.8	40	4	-14	26†	38	0.58	-0.03	0.45	6.5	3	19	7	5	ne.	H. L. Felter
Waterloo	Black Hawk	854	42	21.0	+ 3.6	44	24	-11	27	34	0.08	-1.04	0.03	0.8	4	21	3	7	se.	R. B. Slippy
Waverly	Bremer	936	29	21.0	---	40	24	-11	27	34	0.08	-1.04	0.03	0.8	4	21	3	7	se.	D. H. Murphy
West Bend	Palo Alto	1,197	32	14.2	- 0.8	41	24	-22	27	37	0.54	-0.41	0.26	6.3	8	11	10	10	s.	Jos. Dorweiler
Means and extremes				15.8	+ 0.5	46	31	-24	27	53	0.42	-0.5	0.50	4.2	4	16	7	8	sw.	
<i>Central Division</i>																				
Ames	Story	926	48	20.5	+ 2.0	44	24	-10	27	39	0.16	-0.74	0.10	1.6	3	15	9	7	nw.	Iowa State College
Audubon	Audubon	1,297	30	18.2	+ 1.1	46	24	-16	27	41	0.68	-0.15	0.48	8.5	3	15	11	5	sw.	Geo. Kirby
Baxter	Jasper	908	25	20.6	+ 1.2	42	24	-10	27	37	0.08	-0.52	0.08	1.0	1	13	14	4	s.	Henry Geise
Belle Plaine	Benton	866	35	21.2	+ 2.4	45	24	-9	27	33	0.27	-1.29	0.15	3.6	3	11	11	9	se.	O. C. Burrows
Boone	Boone	1,134	20	20.2	+ 2.3	47	24	-14	27	38	0.17	-0.67	0.08	1.5	4	19	5	7	n.	C. F. Henning
Carroll	Carroll	1,265	35	19.0	+ 1.6	42	6†	-15	27	37	0.48	-0.30	0.21	4.0	3	23	2	6	sw.	Mrs. Jos. J. Wolfe
Cedar Rapids	Linn	737	43	21.2	+ 1.3	48	31	-9	27	40	0.08	-1.32	0.08	1.0	1	15	4	12	se.	J. T. Wurster
Clinton	Clinton	595	52	21.6	+ 1.0	49	31	-8	14	34	0.19	-1.63	0.11	2.0	3	16	5	10	w.	Dr. A. P. Bryant
Davenport	Scott	580	54	22.4	+ 0.6	45	31	-4	27	34	0.40	-1.15	0.17	3.4	3	8	10	13	w.	U. S. Weather Bureau
Davenport (No. 2)	Scott	690	22	22.5	---	46	31	-5	27	32	0.38	---	0.15	4.4	5	12	15	4	s.	Rex Shriver
Denison	Crawford	1,171	31	18.0	- 0.2	40	6†	-13	27	40	0.42	-0.24	0.35	6.0	3	10	15	6	s.	V. L. Byers
Des Moines	Polk	861	47	22.3	+ 2.2	45	24	-7	27	36	0.23	-0.90	0.12	2.5	2	11	12	8	n.	U. S. Weather Bureau
Fairport	Muscatine	567	4	22.4	---	45	31	-6	27	31	0.48	---	0.28	5.3	4	12	4	15	nw.	Bureau of Fisheries
Fort Dodge	Webster	1,114	25	16.8	+ 0.1	40	24	-19	14†	43	0.47	-0.37	0.18	6.5	4	21	3	7	sw.	Samuel Sampson
Grinnell	Poweshiek	1,031	31	21.7	+ 1.5	43	24	-10	27	36	0.17	-0.98	0.07	2.0	3	12	15	4	s.	Paul P. Meyers
Grundy Center	Grundy	976	34	22.2	+ 3.7	48	22	-12	27	37	0.05	-0.92	0.05	0.5	1	20	4	7	n.	W. D. Callaway.
Guthrie Center	Guthrie	1,077	30	20.8	+ 3.1	47	24	-15	27	41	0.62	-0.16	0.32	8.0	4	21	5	5	se.	E. L. Nesselroad
Harlan	Shelby	1,192	26	19.0	+ 0.9	43	24	-11	27	36	0.48	-0.32	0.48	6.0	1	26	0	5	s.	W. K. Colburn
Iowa City	Johnson	733	65	21.0	+ 1.0	45	31	-8	17	32	0.29	-1.35	0.26	3.5	2	11	11	9	s.	Prof. J. F. Reilly
Iowa Falls	Hardin	1,107	32	18.6	+ 2.9	40	21†	-												

## Climatological Data for January, 1925—Continued

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit					Precipitation, in inches			Number of Days			Observers	
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)	Precipitation, .01 in. or more	
															Number of Days	
<i>Southern Division</i>																
Afton	Union	1,212	31	22.7	+ 1.6	50	25	-11	27	40	0.30	-0.56	0.20	3.0	2	16 10 5 sw. S. R. Brown
Albia	Monroe	959	27	23.4	+ 2.5	50	25	-8	27	33	0.27	-0.92	0.13	2.9	3	19 6 6 ne. O. E. McBride
Atlantic	Cass	1,164	34	19.6	+ 0.3	43	6	-11	17†	40	0.51	-0.33	0.20	6.7	5	20 6 5 sw. Mrs. Minnie Cunningham
Bonaparte	Van Buren	563	34	22.5	+ 0.3	49	24	-6	13	33	0.31	-1.23	0.21	3.0	2	21 4 6 sw. B. R. Vale
Burlington	Des Moines	544	29	24.3	+ 0.1	47	31	-4	27	30	1.23	-0.53	0.50	10.0	3	23 2 6 sw. John W. Donnelly
Centerville	Appanoose	1,013	20	23.8	+ 1.2	51	25	-7	27	31	0.17	-1.08	0.11	1.8	3	18 6 7 sw. Thomas Wood
Chariton	Lucas	1,042	30	23.0	+ 2.0	49	25	-8	17†	36	0.11	-0.96	0.11	1.0	1	15 10 6 sw. C. C. Burr
Clarinda	Page	1,009	35	21.6	- 0.8	47	24	-8	27	39	0.50	-0.46	0.20	5.0	3	18 12 1 s. Dr. H. C. Hawley
Columbus Jet.	Louisa	595	24													J. Carson Duncan.
Corning	Adams	1,117	33	22.9	+ 1.9	50	25	-13	17	49	0.35	-0.57	0.20	3.5	2	23 5 3 ne. Jerome Smith
Corydon	Wayne	1,101	32	23.0	+ 1.1	48	25	-8	27	41	0.12	-1.15	0.12	1.0	1	13 13 5 e. Mrs. May Miller King
Creston	Union	1,312	20													J. W. Goodsell.
Cumberland (near)	Cass	1,225	26													Carl E. Pollock
Earlham	Madison	1,126	23	19.6	+ 0.4	43	25	-13	17	41	0.55	-0.63	0.20	5.5	4	25 2 4 nw. Geo. Phillips
Fairfield	Jefferson	780	41	21.7	+ 0.1	46	31	-6	27	37	0.47	-1.05	0.20	4.5	3	18 2 11 nw. Prof. R. M. McKenzie
Glenwood	Mills	1,100	27	21.8	- 0.1	48	24	-10	17	40	0.78	+ 0.07	0.35	7.8	4	10 15 6 nw. Dr. Geo. Mogridge
Indiano	Warren	972	34	22.2	+ 2.5	47	24	-9	27	35	0.36	-0.79	0.21	3.6	2	17 10 4 nw. Seth F. Shenton
Keokuk	Lee	614	54	25.4	+ 0.5	52	25	-2	27	29	0.35	-1.34	0.15	5.6	4	12 11 8 e. U. S. Weather Bureau
Kosanqua	Van Buren	644	33	22.2	+ 0.2	48	25	-9	13	42	0.35	-1.21	0.20	3.5	2	19 2 10 se. J. H. Landes
Knoxville	Marion	920	30	22.5	+ 1.1	47	24	-9	27	36	0.33	-0.90	0.20	3.3	3	20 8 3 sw. W. J. Casey.
Lacona	Warren		26													J. B. Alter
Lamoni	Decatur	1,123	18	23.7	+ 2.3	51	24†	-9	27	36	0.32	-0.74	0.17	3.7	3	20 3 8 sw. Roy L. Roberts
Lenox	Taylor	1,250	30	22.6	+ 1.0	50	24	-10	27	40	0.40	-0.27	0.20	4.0	4	23 3 5 sw. J. L. Hurley
Mt. Ayr	Ringgold	1,245	32	23.4	+ 1.2	49	24†	-9	27	40	0.29	-0.73	0.12	3.1	3	21 3 7 s. Alex Maxwell
Mt. Pleasant	Henry	729	44	23.6	+ 1.1	48	24	-5	27	30	0.52	-1.02	0.20	6.0	3	16 8 7 sw. J. H. Jericho
Oakland	Pottawattamie	1,105	6	20.4	+ 0.5	47	24	-13	17	43	0.80	-	0.40	8.0	4	24 1 6 s. M. E. Gray
Oskaloosa	Mahaska	835	49	22.0	+ 1.3	46	24	-9	17	35	0.27	-0.76	0.16	3.7	3	9 11 11 nw. Roy R. Robinson
Ottumwa	Wapello	649	30	23.4	-	50	25	-6	17	40	0.25	-1.27	0.15	2.4	2	18 3 10 nw. C. L. Mikesh
Pella	Marion	877	32	21.8	+ 1.2	43	21†	-13	17	36	0.10	-0.93	0.10	0.2	1	21 2 8 s. J. H. Ver Steeg
Red Oak (near)	Montgomery	1,030									0.33	-	0.25	6.0	2	11 11 9 s. B. R. Bridge
Sigourney	Keokuk	790	29	22.3	+ 1.8	45	24	-9	17	33	0.38	-0.88	0.32	3.6	2	20 5 6 nw. W. E. Utterback
Stockport	Van Buren	745	23	21.9	+ 0.5	48	24†	-11	13	39	0.73	-0.65	0.25	7.0	3	19 3 9 se. C. L. Beswick
Thurman	Fremont	975	28	20.0	- 1.8	45	24	-17	17	45	0.72	+ 0.04	0.32	8.5	3	14 11 6 sw. C. R. Paul
Tingley	Ringgold	1,275	22	25.5	-	46	24†	-9	27	38	0.18	-	0.08	2.3	3	22 6 3 ne. James A. Verploeg
Washington	Washington	769	43	22.4	+ 1.4	45	24	-7	27	32	0.80	-0.68	0.32	10.0	3	19 2 10 sw. D. D. Sherman
Wescott (near)	Lee		3	25.2	-	55	24	-14	27	35	0.37	-	0.35	3.7	2	19 8 4 e. Lester J. Larson
Winterset	Madison	1,129	34	22.2	+ 1.5	46	24	-11	27	35	0.24	-0.68	0.08	3.0	3	27 2 2 sw. H. S. Ely
Omaha, Nebr.		1,103	54	22.5	+ 0.6	47	24	-7	27	40	0.80	+ 0.15	0.68	9.0	6	12 13 6 n. U. S. Weather Bureau
Means and extremes				22.5	+ 1.1	55	24	-17	17	49	0.43	-0.74	0.68	4.6	3	18 7 6 sw.
State means and extremes				19.4	+ 0.9	55	24	-24	27	53	0.40	-0.68	0.68	4.2	3	17 7 7 nw.

The departure from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete records are used in determining means.

Reference letters a, b, c, etc., appearing in the table indicate the number of days missing; for example b represents two days, etc.

†Also other dates.

‡Received too late to be included in means and summaries.

T. Precipitation is less than 0.01 inch rain or melted snow.

## PRESSURE, RELATIVE HUMIDITY, WIND AND SUNSHINE

Stations	Barometric Pressure, Inches (Sea Level)			Relative Humidity, %			Wind			Sunshine							
	Mean	Highest	Date	Lowest	Date	7 a. m.	12 Noon†	7 p. m.	Lowest	Date	Total movement	Average hourly velocity	Maximum Miles	From	Date	Per cent of possible	Departure from normal
Charles City	30.19	30.80	26	29.60	31	91	71	83	48	23	4,948	6.7	25	n.	25	57 + 9	
Davenport	30.20	30.71	23	29.81	31	88	77	78	50	22	4,978	6.7	23	s.	6	41 - 7	
Des Moines	30.18	30.78	26	29.76	31	89	67	72	39	23	5,161	6.9	28	sw.	31	69 + 20	
Dubuque	30.17	30.73	26	29.73	31	82	63	72	44	22	4,610	6.2	29	nw.	31	53 + 4	
Keokuk	30.21	30.68	23	29.82	25	77	61	66	29	12	5,006	6.7	25	n.	26	68 + 17	
Sioux City	30.19	30.83	26	29.70	31	81	67	74	44	6	7,977	10.7	47	n.	20	57 + 5	
Omaha, Neb.	30.19	30.79	26	29.79	31	83	63	73	39	7	5,748	7.7	40	n.	20	64 + 9	
Means and extremes	30.19	30.83	26	29.69	31	84	67	74	44	7	-----	7.4	-----	-----	-----	58 + 8	
Normals and records	30.14	30.88	25 <sup>th</sup>	29.65	31	85	78	82	44	20	-----	8.7	-----	6th	50	-----	
											**25	192°	72	nw.	1903		

†Sioux City. §Dubuque. \*Omaha. †Local mean time. +And other dates.

## MISCELLANEOUS PHENOMENA—(Continued)

Halos (Lunar and solar): 3d, 4th, 6th, 7th, 8th, 12th, 13th, 15th, 19th, 22d, 23d, 26th, 27th, 28th, 31st.

Parhelia: 12th.

Sleet: 15th, 16th, 25th, 26th, 28th.

Winds (strong): 26th, 31st.

## RIVERS

A gradual, though slight, fall prevailed on the Mississippi River throughout the month with a mean stage slightly below the normal. Low and nearly stationary stages prevailed on all interior rivers. There was considerable fluctuation on the Missouri River with a falling tendency till the middle of the month and a slight rising tendency the remainder of the month. All rivers were frozen during the entire month, with the ice ranging from a foot to more than two feet in thickness.

**Daily Precipitation for January, 1925**

## Daily Precipitation for January, 1925—Continued

Stations	Drainage Basin	Day of Month																																			
		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	Totals				
<i>Southern Division</i>																																					
Afton	Grand																																	.20	0.30		
Albia	Des Moines	.13																																		0.27	
Atlantic	Nishnabotna	.09	T.																																	0.51	
Bonaparte	Des Moines	T.																																		0.31	
Burlington	Mississippi	.35																																		1.23	
Centerville	Chariton	.11																																		0.17	
Chariton	Chariton																																			0.11	
Clarinda	Nodaway	.10																																		0.50	
Columbus Jct.	Iowa																																			0.20	
Corning	Nodaway	T.																																		0.35	
Corydon	Chariton		T.																																	0.12	
Creston	Missouri																																				
Cumberland (near)	Nodaway	.03	T.																																		0.26
Earlham	Des Moines	.20																																			0.55
Fairfield	Skunk	.17																																			0.47
Glenwood	Missouri	.03																																			0.78
Indianola	Des Moines	.21																																			0.36
Keokuk***	Mississippi	.08																																			0.35
Keosauqua	Des Moines	.15																																			0.35
Knoxville	Des Moines	.10																																			0.33
Lacona	Des Moines	.20																																			0.60
Lamoni	Grand	.04																																			0.32
Lenox	Missouri	.05																																			0.40
Mt. Ayr	Grand	.05																																			0.29
Mt. Pleasant	Skunk	.20																																			0.52
Oakland	Nishnabotna	.10	T.																																		0.80
Oskaloosa	Des Moines	.07	T.																																		0.27
Ottumwa	Des Moines	.15	T.																																		0.25
Pella	Skunk	T.																																			0.10
Red Oak (near)	Missouri		.08																																		0.33
Sigourney	Skunk	.06																																			0.38
Stockport	Skunk	.23																																			0.73
Thurman	Missouri	.10																																			0.72
Tingley	Platt	.04																																			0.18
Washington	Skunk	.24																																			0.80
Wescott (near)	Mississippi	.02																																			0.37
Winterset	Des Moines	.08	T.																																		0.24
Omaha, Neb.***	Missouri	.04	T.																																		0.80

Except as otherwise indicated, observations are generally made late in the afternoon, near sunset, and precipitation recorded is for 24 hours ending at the time of observation.

\*\*\*Precipitation measured in the morning; amount then recorded is for the preceding 24 hours.

\*\*Regular Weather Bureau Station: precipitation is for 24-hour period, midnight to midnight.

\*\*Incomplete.

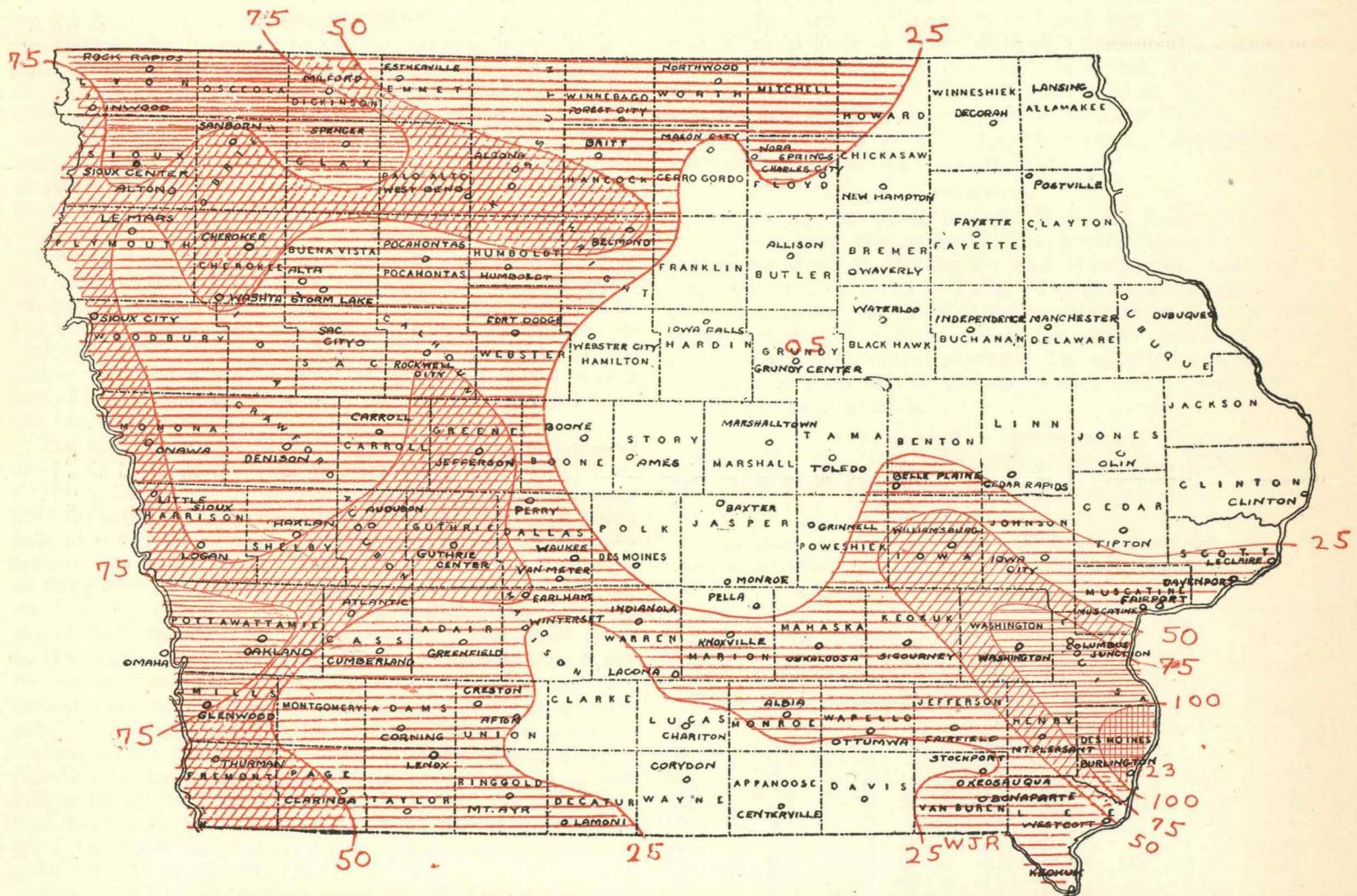
\*Precipitation included in the next following measurement.

T. Precipitation is less than .01 inch rain or melted snow.

## Daily Maximum and Minimum Temperature for the Month of January, 1925

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	Mean	
<i>Northern Division</i>																																	
Algona	{Maximum---	20	25	28	33	27	39	35	28	28	24	27	26	8	11	17	15	19	20	36	33	34	33	31	38	30	23	21	25	37	25.9		
	{Minimum---	4	17	13	12	21	18	18	2	5	5	7	2	9	14	3	2	6	1	12	10	12	18	12	24	22	12	18	9	8	0	3	6.2
Alta	{Maximum---	16	22	27	23	24	36	30	24	19	11	21	19	5	10	9	7	21	21	35	31	30	34	37	30	18	12	22	20	31	37	23.0	
Alton	{Maximum---	3	12	16	13	11	14	16	7	3	3	7	4	6	7	2	1	5	7	15	10	15	14	10	20	13	14	17	9	7	0	6.0	
Belmond	{Maximum---	16	19	30	30	27	36	27	22	17	15	22	18	4	10	8	7	20	21	35	32	37	30	17	11	20	28	38	23.3				
	{Minimum---	3	9	12	9	4	16	12	7	7	3	0	9	-13	16	0	-4	12	5	5	11	15	18	14	26	17	-12	-17	10	9	10	3	3.4
Charles City	{Maximum---	20	23	26	29	27	35	31	29	21	18	28	26	9	12	18	16	20	21	35	30	36	32	39	31	24	22	30	37	25.4			
	{Minimum---	8	16	15	11	10	19	19	3	6	5	15	-2	10	12	8	-3	8	1	12	11	13	16	14	15	24	-10	-15	9	4	0	5.8	
Decorah	{Maximum---	24	27	26	24	23	33	30	26	25	20	27	23	12	12	17	16	23	25	31	32	36	30	25	36	32	26	15	24	25	30	37	22.5
	{Minimum---	7	17	10	11	12	19	19	-1	14	8	13	12	10	-20	10	4	-10	13	11	10	7	10	10	21	24	-10	-19	10	7	4	7.0	
Dubuque	{Maximum---	25	26	33	31	34	37	35	26	29	30	24	18	19	26	25	25	32	35	37	38	33	26	45	36	28	17	22	32	41	46	30.1	
Forest City	{Maximum---	16	22	17	16	20	21	20	11	12	16	10	14	3	2	12	7	0	12	9	22	18	12	24	28	5	6	9	17	16	13	13.0	
Independence	{Maximum---	19	25	26	29	26	37	33	20	24	15	27	26	14	22	22	12	15	18	21	36	34	35	40	41	35	41	23	31	38	43	29.9	
Inwood	{Maximum---	11	19	19	15	16	17	24	8	16	9	15	14	-7	11	5	12	-5	10	9	17	8	22	10	21	22	1	-10	8	14	10	22	11.0
	{Minimum---	13	20	30	34	25	33	27	22	12	13	17	18	6	12	7	5	17	20	36	35	37	31	34	37	23	10	9	16	19	31	26	21.6
Mason City	{Maximum---	22	24	26	26	34	29	28	23	13	26	26	8	13	16	18	19	22	34	31	35	31	28	39	33	25	12	23	21	31	31	24.9	
	{Minimum---	10	18	15	12	10	20	20	3	5	-3	10	-2	-15	6	-2	13	4	13	12	15	15	11	26	23	-10	-14	10	5	9	0	6.5	
Milford (near)	{Maximum---	16	19	28	24	36	34	28	22	17	18	23	22	5	13	11	8	18	19	35	32	35	33	34	35	36	16	11	20	26	23	22.4	
New Hampton	{Maximum---	0	11	8	9	9	16	11	-16	-2	-10	3	3	-3	-13	-20	-3	-4	-2	2	13	8	15	10	25	15	-24	8	2	3	2	1.8	
	{Minimum---	21	24	26	27	34	32	27	25	18	23	10	11	17	16	22	28	34	31	37	32	37	32	20	15	25	30	33	36	25.9			
Northwood	{Maximum---	18	25	25	23	33	27	26	20	18	28	18	8	11	13	11	18	25	33	31	34	30	27	38	30	18	11	25	20	27	37	23.6	
Pocahontas	{Maximum---	8	11	10	13	11	19	14	2	4	-5	14	-1	-10	12	3	-6	9	13	13	15	10	15	27	18	-12	-15	7	---	3	0	5.6	
	{Minimum---	20	29	30	30	25	37	33	30	26	24	30	22	8	9	23	10	21	20	38	32	35	37	30	20	15	22	27	38	26.2			
Postville	{Maximum---	23	24	26	26	28	34	30	26	23	17	27	25	14	13	17	18	20	29	32	30	36	31	24	36	33	30	15	23	28	33	37	26.1
	{Minimum---	2	17	12	12	13	14	19	4	12	9	8	9	-9	12	2	4	-6	8	10	15	12	8	9	20	26	-8	-15	6	14	11	5	7.5
<i>Central Division</i>																																	
Belle Plaine	{Maximum---	26	32	32	33	32	40	38	31	35	20	24	32	18	18	29	30	23	21	34	34	43	38	29	45	37	34	15	25	34	43	31.2	
	{Minimum---	16	20	20	10	15	17	24	9	14	8	12	5	-7	7	11	10	-7	4	19	19	10	21	11	23	1	-9	10	15	12	13	11.2	
Boone	{Maximum---	24	25	35	37	31	42	39	35	31	24	29	28	19	17	29	28	27	29	40	36	42	36	47	37	34	13	24	26	40	42	31.7	
Carroll	{Maximum---	14	20	19	17	9	15	21	2	12	3	14	5	7	8	10	8	11	3	6	16	4	26	15	27	2	-14	11	7	4	9	8.8	
Davenport	{Maximum---	21	22	34	35	30	42	39	34	26	23	25	13	16	20	17	25	32	32	40	42	34	37	40	33	28	15	23	21	34	38	29.0	
	{Minimum---	10	13	16	18	14	22	22	9	9	0	10	-6	-9	6	4	-5	4	14	17	15	15	30	29	25	30	31	10	5	9.0			
Des Moines	{Maximum---	24	28	32	34	31	41	35	31	35	23	30	25	17	22	36	35	22	24	31	37	36	29	43	37	35	16	21	20	39	45	31.1	
	{Minimum---	16	20	16	26	20	18	26	16	18	10	3	0	0	12	3	5	5	17	14	19	16	34	21	21	4	-7	12	14	14	7	12.5	
Ft. Dodge	{Maximum---	22	25	29	30	30	38	37	32	30	18	28	29	10	12	21	22	24	22	38	36	38	34	34	40	35	32	12	25	22	34	39	28.3
	{Minimum---	8	17	14	7	9	16	19	0	3	-6	10	1	-14	-19	6	4	-10	4	11	11	13	19	12	29	28	-11	-19	8	2	-4	4	5.3
Grinnell	{Maximum---	25	29	34	36	31	40	36	33	32	28	32	28	18	20	30	30	25	23	28	33	41	38	31	43	42	36	14	25	34	42	42	31.9
Guthrie Center	{Maximum---	20	23	37	36	31	44	42	35	31	28	27	27	19	18	25	24	30	35	36	36	42	37	34	45	37	34	13	24	26	40	42	31.7
Iowa City	{Maximum---	13	20	16	13	15	15	20	15	15	4	15	10	-6	-5	8	13	5	5	7	18	12	27	21	27	25	30	15	10	9	11.5		
	{Minimum---	12	14	16	20	16	15	25	16	15	5	12	5	-7	9	8	6	-8	2	12	15	17	23	25	26	7	-15	10	5	10.8			
Iowa Falls	{Maximum---	23	25	30	32	28	38	34	28	26	20	29	27	13	14	25	22	24	35	33	40	34	29	40	35	31	11	23	26	37	38	28.1	
	{Minimum---	10	20	16	12	17	22	5	12	2	14	4	-10	-11	9	6	-6	1	9														

TOTAL PRECIPITATION, JANUARY, 1925



SCALE OF SHADES—IN INCHES



Less than .25

.25 to .50

.50 to .75

.75 to 1.00

More than 1.00

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.  
CHARLES F. MARVIN, Chief.

# CLIMATOLOGICAL DATA.

## IOWA SECTION

In co-operation with

## IOWA WEATHER AND CROP BUREAU

CHARLES D. REED, Meteorologist

VOL. XXXVI DES MOINES, IOWA, FEBRUARY, 1925 No. 2

### GENERAL SUMMARY

Uniformly mild winter weather prevailed during February throughout the State and the month was decidedly the warmest of the three winter months. The mean temperature for the state,  $28.4^{\circ}$ , is the highest, with the exception of 1915 and 1921, in the history of the State for February. There were no prolonged cold spells and the temperature was below normal only three brief periods, the first at the beginning of the month, the second on the 16th and 17th, and the last and longest period of three days, at the end of the month. Zero weather occurred on one or more days throughout the northern division and most of the central division, but zero was reached on a single day in about one-fourth of the southern division.

The precipitation was very unevenly distributed, and while the average for the State was slightly more than two-thirds of the normal, there was a decided deficiency in about 85 per cent of the State and small areas in the extreme southeastern and extreme southwestern portions had excesses that amounted to more than one inch. In about one-third of the State, mostly in the central division, the precipitation amounted to less than half an inch. At a number of stations in the north-central section the precipitation was nearly all snow, but over the rest of the State rain predominated and at several stations in the southwestern portion it was all rain. The heaviest snowfall was 12.0 inches and the fall exceeded 5.0 inches over only about one-tenth of the State. The heaviest individual fall of snow was 6.0 inches, but there were only a few stations that had individual falls of 4.0 inches or more. There was very little drifting and railroads were not hampered in any way by snow or adverse weather conditions. Highways remained open as to snow drifts but thawing made dirt roads almost impassable during most of the first half of the month, after which there was a decided improvement and at the end of the month roads were in unusually good condition except in small areas where the rainfall was heaviest.

Conditions were favorable for out door work but the frost had not left the ground sufficiently to permit plowing except small areas in the southern portion of the State, where it was too wet. There was too little moisture in a wide belt running east and west across the State and many fields in this area were beginning to show the need of rain.

F. L. D.

### TEMPERATURE

The mean temperature for the state, as shown by the records of 99 stations, was  $28.4^{\circ}$ , or  $5.8^{\circ}$  higher than the normal. By divisions, approximately three tiers of counties to the division, the means were as follows: Northern,  $24.4^{\circ}$ , or  $5.3^{\circ}$  higher than the normal; Central,  $28.7^{\circ}$ , or  $5.8^{\circ}$  higher than the normal; Southern,  $32.2^{\circ}$ , or  $6.4^{\circ}$  higher than the normal. The highest monthly mean was  $33.8^{\circ}$ , at Burlington and Centerville, and the lowest was  $21.6^{\circ}$ , at Estherville. The highest temperature reported was  $66^{\circ}$ , at Perry on the 6th, and the lowest was  $-16^{\circ}$  at Rock Rapids.

Sanborn and Spencer on the 2d. The temperature range for the State was  $82^{\circ}$ .

### PRECIPITATION

The average precipitation for the State, as shown by the records of 103 stations, was 0.82 inch, or 0.38 inch less than the normal. By divisions, the averages were as follows: Northern, 0.58 inch, or 0.48 inch less than the normal; Central, 0.65 inch, or 0.61 inch less than the normal; Southern, 1.24 inches, or 0.05 inch less than the normal. The greatest amount, 3.69 inches, occurred at Burlington, and the least, a trace occurred at Creston and Cumberland. The greatest amount in 24 consecutive hours, 1.95 inches, occurred at Glenwood on the 22d-23d.

### SNOWFALL

The average snowfall for the State was 2.6 inches, or 4.8 inches less than the normal. The average for February has been less but once in the history of the State. In about one-third of the State, in the central and southern divisions, the total snowfall was less than one inch and a large number of stations in the southwestern portion reported only a trace. A few stations in the northern division had a snow cover the entire month, but over more than half of the State the range was from a single day to a week, while in several counties in the southwestern portion there was no snow on the ground at any time.

(Continued on Page 3)

### COMPARATIVE DATA FOR THE STATE—FEBRUARY

YEAR	Temperature				Precipitation				Number of Days				
	Mean	Departure*	Highest	Lowest	Total	Departure*	Greatest	Least	Snowfall	With pre. or more in. or more	Clear	Partly cloudy	Cloudy
1890	26.0	+3.4	67	-24	0.83	-0.37	2.18	0.11	-	3	13	7	8
1891	19.4	-3.2	70	-31	1.16	-0.04	2.41	0.55	-	6	6	7	16
1892	28.1	+5.5	68	-20	1.20	0.00	2.18	0.12	5.0	6	10	8	10
1893	16.0	-6.6	60	-28	1.39	+0.19	2.91	0.06	8.1	4	13	9	6
1894	19.7	-2.9	60	-19	0.89	-0.31	2.41	T.	8.4	3	16	8	4
1895	16.4	-6.2	73	-33	0.49	-0.71	1.34	0.02	3.3	4	13	9	6
1896	27.4	+4.8	78	-13	0.71	-0.49	2.40	0.04	5.4	4	12	9	8
1897	24.7	+2.1	61	-24	0.89	-0.31	1.81	0.22	8.0	5	6	10	12
1898	24.2	+1.6	62	-18	1.20	0.00	3.65	0.10	7.8	5	10	9	9
1899	12.2	-10.4	75	-40	0.89	-0.31	4.32	0.12	7.1	5	11	10	7
1900	14.8	-7.8	60	-27	1.30	+0.16	4.57	0.18	9.9	6	10	8	10
1901	17.5	-5.1	49	-21	1.01	-0.19	3.00	0.12	9.7	4	15	7	6
1902	17.6	-5.0	62	-21	0.73	-0.47	2.39	0.02	2.6	4	13	8	7
1903	19.8	-2.8	56	-21	1.18	-0.02	3.25	0.30	7.9	4	13	7	8
1904	14.8	-7.8	70	-26	0.41	-0.79	1.99	T.	4.5	4	10	9	10
1905	12.8	-9.8	69	-41	1.57	+0.37	2.97	0.44	15.5	7	14	6	8
1906	23.6	+1.0	66	-32	1.29	+0.09	2.91	0.20	6.1	5	14	7	7
1907	25.0	+2.4	65	-31	0.71	-0.49	1.95	0.06	4.6	4	14	6	8
1908	24.3	+1.7	59	-16	1.69	+0.49	3.95	0.23	8.9	6	12	6	11
1909	26.2	+3.6	62	-26	1.54	+0.34	4.72	0.30	7.7	5	11	6	11
1910	17.8	-4.8	58	-21	0.46	-0.74	2.09	T.	4.0	3	14	8	6
1911	27.3	+4.7	71	-13	2.76	+1.56	5.46	0.50	7.0	6	12	6	10
1912	18.1	-4.5	57	-30	1.21	+0.01	3.25	0.04	11.2	5	10	9	10
1913	20.2	-2.4	70	-24	0.82	-0.38	2.39	0.07	7.3	4	14	7	7
1914	16.8	-5.8	59	-29	0.87	-0.33	1.99	0.32	9.2	6	10	9	9
1915	29.1	+6.5	62	-8	2.93	+1.73	5.39	0.43	9.4	9	5	14	14
1916	19.0	-3.6	62	-32	0.55	-0.65	1.38	0.05	6.0	4	14	8	7
1917	15.2	-7.4	68	-37	0.36	-0.84	1.19	T.	3.5	3	14	8	6
1918	23.0	+0.4	70	-36	0.95	-0.25	2.10	0.09	6.0	5	14	7	7
1919	24.9	+2.3	65	-16	2.42	+1.22	4.12	1.32	9.9	8	11	5	12
1920	24.0	+1.4	59	-22	0.56	-0.64	1.75	0.04	4.1	5	9	6	14
1921	31.0	+8.4	76	-5	0.77	-0.43	2.00	T.	6.5	5	13	7	8
1922	23.7	+1.1	70	-20	1.59	+0.39	4.56	0.40	1.3	4	14	7	7
1923	20.1	-2.5	61	-23	0.40	-0.80	1.71	0.00	3.2	3	13	8	7
1924	25.8	+3.2	70	-15	1.27	+0.07	4.00	0.30	11.2	7	15	5	9
1925	28.4	+5.8	66	-16	0.82	-0.38	3.69	T.	2.6	4	11	7	10

T. indicates an amount too small to measure, or less than .005 inch rainfall and less than .05 inch snowfall.

\* New normals effective June 1, 1924.



## Climatological Data for February, 1925

Stations.	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit						Precipitation, in inches			Number of Days			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 (unadjusted)	Precipitation, .01 in. or more	Clear	Partly cloudy			
<i>Northern Division</i>																				
Algona	Kossuth	1,213	52	24.0	+ 5.2	44	20†	-10	2	28	0.96	-0.13	0.32	12.0	5	10	6	nw.	W. E. Laird	
Allison (near)	Butler	1,044	13	25.2	+ 5.9	52	4†	-6	27	35	0.78	-0.66	0.29	4.5	6	8	8	nw.	J. A. Bell	
Alta	Buena Vista	1,513	34	24.4	+ 4.7	49	24	-8	2	29	0.50	-0.52	0.12	3.3	7	12	7	nw.	D. E. Hadden	
Alton	Sioux	1,305	20	24.5	+ 5.6	45	6	-14	2	27	0.50	-0.46	0.15	4.0	5	7	13	nw.	W. S. Slagle	
Belmond	Wright	1,205	15	23.6	+ 5.3	50	6	-10	2	32	0.52	-0.59	0.22	5.3	5	5	10	w.	Geo. P. Hardwick	
Britt	Hancock	1,236	38	23.3	+ 5.7	49	6	-13	2	31	0.58	-0.23	0.32	6.0	3	10	6	nw.	Jas. S. Ross	
Charles City	Floyd	1,015	34	24.2	+ 7.1	51	6	-5	27	32	0.57	-0.57	0.28	3.2	4	5	9	nw.	U. S. Weather Bureau	
Cherokee	Cherokee	1,196	3	24.0 <sup>b</sup>	-----	52 <sup>b</sup>	24	-15 <sup>b</sup>	2	32 <sup>b</sup>	0.16	-----	0.06	1.3	4	-----	-----	ne.	J. E. Wirth	
Decorah	Winneshiek	875	32	23.3	+ 5.5	46	8	-7	27	30	0.78	-0.27	0.50	3.5	3	12	6	nw.	M. D. Whitney	
Dubuque	Dubuque	698	52	27.7	+ 5.5	56	6	-2	27	33	1.08	-0.42	0.60	2.7	11	6	6	nw.	U. S. Weather Bureau	
Estherville	Emmet	1,298	30	21.6	+ 3.7	50	6	-15	2	35	0.95	+0.11	0.30	9.5	6	14	9	s.	A. O. Peterson	
Fayette	Fayette	1,003	35	24.5	+ 5.5	52	6	-11	17	39	0.45	-0.83	0.18	3.7	3	11	5	nw.	R. Z. Latimer	
Forest City	Winnebago	1,226	31	24.0	+ 5.4	48	4†	-11	2	33	0.62	-0.32	0.40	6.2	4	7	6	nw.	Dr. M. B. Neil	
Hampton	Franklin	1,145	24	24.2	+ 4.3	57	6	-5	27	42	0.38	-0.92	0.18	4.1	4	10	7	nw.	L. H. Davis	
Humboldt	Humboldt	1,095	37	24.8	+ 4.3	50	6	-10	2	35	0.36	-0.56	0.22	4.5	3	8	8	n.	H. C. Snitkey	
Independence	Buchanan	921	61	27.8	+ 6.6	56	6	-6	17	45	0.35	-0.70	0.25	3.5	2	12	2	nw.	Dr. Geo. Boody	
Inwood	Lyon	1,474	21	22.0 <sup>e</sup>	+ 4.2	47	4	-3 <sup>k</sup>	27	31 <sup>k</sup>	0.33	-0.54	0.12	2.4	5	11	6	nw.	A. C. Hanson	
Le Mars	Plymouth	1,224	29	25.6	+ 4.7	50	24	-13	2	30	0.08	-0.72	0.08	2.0	1	18	4	sw.	Mrs. M. C. Woolley	
Mason City	Cerro Gordo	1,148	28	24.0	+ 5.9	52	6	-11	2	37	0.53	-0.42	0.29	7.5	4	6	11	se.	Northern Sugar Corp.	
Milford (near)	Dickinson	1,430	5	23.0	-----	50	24	-15	2	31	1.48	-----	0.50	0.0	4	20	4	s.	S. N. McKinsey.	
New Hampton	Chickasaw	1,169	28	24.4	+ 5.7	53	6	-8	27	29	0.58	-0.47	0.20	4.0	4	7	8	nw.	A. F. Kemman	
Nora Springs	Floyd	1,064	13	25.4	+ 5.4	54	6	-7	2†	40	0.82	-0.43	0.46	4.3	6	7	10	s.	Arthur Betts	
Northwood	Worth	1,222	29	-----	-----	54	6	-7	17	37	0.40	-0.98	0.30	4.0	2	-----	-----	nw.	Chas. Dwelle	
Oelwein	Fayette	1,036	1	26.2	-----	54	6	-7	17	37	0.70	-----	0.36	7.0	6	-----	-----	nw.	John T. Ridler	
Osage	Mitchell	1,163	23	4.4	-----	48	8	-9	2	32	0.70	-----	0.36	7.0	6	-----	-----	nw.	W. G. Mee.	
Pocahontas	Pocahontas	1,248	21	23.8	+ 4.1	49	24	-11	2	32	0.67	-0.45	0.15	4.9	6	14	4	se.	F. E. Hronek	
Postville	Clayton	1,180	26	24.0	+ 5.7	51	6	-8	27	30	0.92	-0.22	0.40	4.0	6	6	9	nw.	F. L. Williams	
Rock Rapids	Lyon	1,358	26	22.8	+ 4.9	45	24	-16	2	28	0.53	-0.15	0.16	4.1	6	14	5	se.	J. K. Medberry	
Sanborn	O'Brien	1,553	11	23.4	+ 4.9	49	6	-16	2	30	0.45	-0.55	0.15	4.5	4	13	8	nw.	J. W. Dow	
Sioux Center	Sioux	1,426	26	-----	-----	59	8	0	27	37	0.42	-0.55	0.22	2.0	2	-----	-----	-----	J. de Ruyter	
Spencer	Clay	1,319	11	23.6	+ 5.1	52	24	-16	2	33	1.22	+0.31	0.50	6.5	5	7	13	s.	E. W. Little	
Storm Lake	Buena Vista	1,440	36	26.1	+ 5.7	51	24	0	1†	33	0.23	-0.76	0.18	2.5	2	16	4	se.	Geo. H. Fracker	
Washta	Cherokee	1,157	27	24.2	+ 3.4	47	24	-10	2	30	0.20	-0.74	0.10	2.0	2	11	9	nw.	H. L. Felter	
Waterloo	Black Hawk	854	42	27.2	+ 6.3	56	6	-8	17	41	0.45	-0.73	0.22	3.4	5	13	2	se.	R. B. Slippy	
Waverly	Bremer	936	29	24.9	+ 4.9	50	4†	-8	17	37	0.39	-0.82	0.18	3.6	4	6	11	nw.	D. H. Murphy	
West Bend	Palo Alto	1,197	32	23.5	+ 4.3	48	6†	-14	2	32	0.12	-0.86	0.08	1.5	2	6	12	nw.	Jos. Dorweiler	
Means and extremes				24.4	+ 5.3	57	6	-16	2	45	0.58	-0.48	0.60	4.5	4	10	7	nw.		
<i>Central Division</i>																				
Ames	Story	926	48	29.0	+ 6.5	60	4	-1	27	38	0.42	-0.52	0.30	0.7	4	11	5	12	n.	Iowa State College
Audubon	Audubon	1,297	30	27.3	+ 5.8	63	20	-11	2	40	0.04	-0.99	0.02	0.4	2	9	12	7	nw.	Geo. Kirby
Baxter	Jasper	998	25	28.8	+ 5.9	59	6	-4	27	35	0.25	-0.77	0.20	0.5	2	10	9	9	s.	Henry Geise
Belle Plaine	Benton	866	35	29.3	+ 6.4	59	6	-3	27	37	0.36	-1.24	0.21	2.0	4	8	10	s.	O. C. Burrows	
Boone	Boone	1,134	20	28.2	+ 4.9	60	4	-6	27	42	0.05	-0.95	0.05	T.	1	10	9	9	s.	C. F. Henning
Carroll	Carroll	1,265	35	27.7	+ 5.8	58	20	-9	2	36	0.04	-1.02	0.04	0.5	1	19	1	8	nw.	Mrs. Jos. J. Wolfe
Cedar Rapids	Linn	737	43	29.2	+ 5.4	61	6	-4	27	43	0.70	-0.70	0.53	1.5	4	11	5	12	nw.	J. T. Wurster
Clinton	Clinton	595	50	30.4	+ 5.8	57	8	-5	17	42	2.16	+0.20	1.20	3.5	7	13	5	10	w.	Dr. A. P. Bryant
Davenport	Scott	580	54	30.7	+ 5.8	58	8	2	27	33	1.94	+0.34	1.83	1.6	9	7	6	15	nw.	U. S. Weather Bureau
Davenport (No. 2)	Scott	690	31	30.0	+ 6.8	60	6	-3	27	37	1.75	-----	1.18	1.2	7	-----	-----	-----	Rex Shriver	
Denison	Crawford	1,171	31	26.6	+ 4.2	58	20	-11	2	34	0.21	-0.73	0.09	1.5	4	14	8	6	nw.	V. L. Byers
Des Moines	Polk	861	47	30.7	+ 7.0	60	4	-4	27	34	0.50	-0.65	0.46	0.4	3	8	7	13	n.	U. S. Weather Bureau
Fairport	Muscatine	567	4	31.8	-----	57	8	1	27	31	2.36	-----	1.11	0.7	6	7	6	15	n.	Bureau of Fisheries
Fort Dodge	Webster	1,114	25	26.0	+ 3.7	53	20	-10	2	40	0.35	-0.50	0.10	3.5	6	14	3	11	nw.	Samuel Sampson
Grinnell	Poweshiek	1,031	31	30.0	+ 6.8	60	6	-3	27	34	0.29	-0.93	0.09	1.5	6	10	9	9	nw.	Paul P. Meyers
Grundy Center	Grundy	976	34	27.3	+ 5.3	59	6	-7	27	39	0.82	-0.12	0.60	7.2	3	8	5	15	n.	W. D. Callaway.
Guthrie Center	Guthrie	1,077	30	29.8	+ 6.2	62	20	-6	2	38	0.27	-0.84	0.19	T.	3	17	4	7	sw.	E. L. Nesselroed
Harlan	Shelby	1,192	26	-----	-----	52	6†	-4	17	40	1.04	-0.47	0.49	2.2	7	10	7	11	s.	Nels Bisgard
Iowa City	Johnson	733	65	29.2	+ 5.0	52	6†	-4	17	40	1.04	-0.47	0.49	2.2	7	10	7	11	s.	Prof. J. F. Reilly
Iowa Falls	Hardin	1,107	32	26.1	+ 5.1	55	6	-5	27	35	0.65	-0.98	0.25	4.5	6	9	9	10	nw.	J. B. Parmelee
Jefferson	Greene	1,052	26	27.7	+ 5.2	56	6	-7	2	34	0.05	-0.98	0.05	0.5	1	12	7	9	nw.	W. I. Lyon
Little Sioux	Harrison	1,040	20	29.0	+ 5.1	57	20†	-10	2	32	0.36	-0.92	0.16	3.0	3	11	11	6	nw.	H. W. Kerr</

## Climatological Data for February, 1925—Continued

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit						Precipitation, in inches				Number of Days			Observers		
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)	Precipitation, .01 in. or more	Clear	Partly cloudy	Cloudy	
<i>Southern Division</i>																			
Afton	Union	1,212	31	31.9	+ 6.3	65	6	0	27	38	0.71	-0.46	0.41	1.0	4	12	7	9	sw. S. R. Brown
Albia	Monroe	959	27	32.1	+ 6.7	62	20	1	27	38	1.28	-0.13	0.85	0.1	5	14	5	9	ne. O. E. McBride
Atlantic	Cass	1,164	31	30.8	+ 6.9	65	20	- 5	2	42	0.06	-1.08	0.06	T.	1	11	11	6	nw. Mrs. Minnie Cunningham
Bonaparte	Van Buren	563	34	32.4	+ 5.6	57	7	4	27*	32	1.18	-0.08	0.73	1.2	6	15	3	10	s. B. R. Vale
Burlington	Des Moines	544	29	33.8	+ 5.1	58	7†	4	27	26	3.60	+1.88	1.60	3.5	8	11	7	10	ne. John W. Donnelly
Centerville	Appanoose	1,013	20	33.8	+ 6.7	62	7	2	27	35	1.12	-0.38	0.63	0.7	7	12	8	8	nw. Thomas Wood
Chariton	Lucas	1,042	30	32.4	+ 7.3	61	6†	2	27	37	1.35	+0.22	0.66	1.0	4	14	4	10	nw. C. C. Burr
Clarinda	Page	1,009	35	32.9	+ 5.1	61	6	2	2	39	1.95	+0.81	1.90	-----	3	15	8	5	s. Dr. H. C. Hawley
Columbus Jet.	Louisa	595	24	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Corning	Adams	1,117	33	33.0	+ 7.9	62	20	3	27	41	1.02	-0.16	1.02	T.	1	15	8	5	sw. Jerome Smith
Corydon	Wayne	1,101	32	33.0	+ 6.8	65	8	2	27	37	1.33	-0.07	0.67	0.4	7	10	9	9	nw. Mrs. May Miller King
Creston	Union	1,312	20	31.8	+ 7.1	62	20	- 1	27	34	T.	-1.34	T.	T.	0	19	0	9	s. J. W. Goodsell
Cumberland (near)	Cass	1,225	26	-----	-----	-----	-----	-----	-----	-----	T.	-1.09	T.	T.	0	12	9	7	nw. Carl E. Pollock
Earlham	Madison	1,126	23	30.9	+ 7.6	63	20	- 3	26	41	0.06	-1.35	0.06	T.	1	17	5	6	se. Geo. Phillips
Fairfield	Jefferson	780	41	31.1	+ 5.6	58	7†	2	17†	36	2.76	+1.17	1.48	1.9	8	13	3	12	n. Prof. R. M. McKenzie
Glenwood	Mills	1,100	27	31.5	+ 5.0	60	20	2	1	34	1.97	+1.10	1.95	0.2	3	9	12	7	nw. Dr. Geo. Mogridge
Indiana	Warren	972	34	30.7	+ 6.1	62	20	- 2	17	40	0.51	-0.70	0.40	5.0	2	13	8	7	s. Seth F. Shenton
Keokuk	Lee	614	54	33.6	+ 5.3	62	8	5	27	31	1.71	+0.17	0.60	6.7	8	8	7	13	s. U. S. Weather Bureau
Kenoshaqua	Van Buren	644	33	32.6	+ 5.3	60	7	4	27	33	1.10	-0.37	0.58	4.5	6	7	12	9	s. J. H. Landes
Knoxville	Marion	920	30	30.8	+ 5.1	60	4†	0	17†	45	0.51	-0.74	0.16	2.5	4	14	5	9	nw. W. J. Casey.
Lacona	Warren	26	-----	-----	-----	-----	-----	-----	-----	-----	0.63	-1.05	0.23	4.0	5	11	10	7	----- J. B. Alter
Lamoni	Decatur	1,123	18	32.7	+ 5.3	63	6	2	27	36	1.14	-0.10	0.38	0.5	7	14	3	11	nw. Roy L. Roberts
Lenox	Taylor	1,250	30	31.7	+ 6.2	60	6	2	27	37	1.13	+0.14	0.94	1.2	6	14	5	9	nw. J. L. Hurley
Mt. Ayr	Ringgold	1,245	32	32.4	+ 6.0	60	6†	2	27	36	0.96	-0.34	0.42	2.3	4	11	9	8	s. Alex Maxwell
Mt. Pleasant	Henry	729	44	32.8	+ 6.3	59	7	3	27	31	1.56	+0.12	1.15	1.5	5	11	6	11	nw. J. H. Jericho
Oakland	Pottawattamie	1,105	6	32.0 <sup>b</sup>	+ 7.4	58 <sup>b</sup>	6	- 6 <sup>b</sup>	2	40 <sup>b</sup>	0.72	-----	0.72	-----	1	-----	4	-----	n. M. E. Gray
Oskaloosa	Mahaska	835	49	30.5	+ 5.8	58	4	- 1	17	36	0.71	-0.44	0.45	1.2	5	13	4	11	nw. Roy R. Robinson
Ottumwa	Wapello	649	30	33.4	-----	58	4	4	27	37	1.98	+0.53	1.26	T.	6	11	3	14	nw. C. L. Mikesh
Pella	Marion	877	32	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
Red Oak (near)	Montgomery	1,030	-----	-----	-----	-----	-----	-----	-----	-----	1.17	-----	1.17	T.	1	11	10	7	s. B. R. Bridge
Sigourney	Keokuk	790	29	31.4	+ 6.7	55	8†	- 1	17	35	0.87	-0.53	0.53	0.8	5	15	2	11	nw. W. E. Utterback
Stockport	Van Buren	745	23	32.1	+ 6.4	57	6†	3	27	34	2.32	+0.93	1.39	3.0	6	13	4	11	s. C. L. Beswick
Thurman	Fremont	975	28	32.8	+ 7.0	57	20†	- 3	2	32	1.30	-0.08	1.30	T.	2	8	12	8	nw. C. R. Paul
Tingley	Ringgold	1,275	32	32.6	-----	61	6	4	27	33	1.05	-----	0.78	0.6	3	10	11	7	sw. James A. Verploeg
Washington	Washington	769	43	32.3	+ 6.8	58	8†	0	27	31	2.20	+0.91	0.88	1.0	5	15	1	12	ne. D. D. Sherman
Wescott (near)	Lee	3	32.6	-----	55	5†	5	27	35	2.60	-----	0.75	1.7	7	15	4	9	nw. Lester J. Larson	
Winterset	Madison	1,129	34	31.6	+ 6.8	64	20	0	27	39	0.35	-0.73	0.25	0.5	3	18	4	6	nw. H. S. Ely
Omaha, Nebr.	-----	1,103	54	31.6	+ 6.1	61	20	- 4	2	29	0.61	-0.15	0.52	1.0	4	8	14	6	nw. U. S. Weather Bureau
Means and extremes	-----	-----	-----	32.2	+ 6.4	65	6†	- 6	2	45	1.24	-0.05	1.95	1.5	4	12	7	9	nw.
State means and extremes	-----	-----	-----	28.4	+ 5.8	66	6	- 16	2	45	0.82	-0.38	1.95	2.6	4	11	7	10	nw.

The departure from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete records are used in determining means.

Reference letters a, b, c, etc., appearing in the table indicate the number of days missing; for example b represents two days, etc.

†Also other dates.

‡Received too late to be included in means and summaries.

T. Precipitation is less than 0.01 inch rain or melted snow.

## MISCELLANEOUS PHENOMENA

**Fogs:** 3d, 4th, 5th, 6th, 7th, 8th, 9th, 14th, 20th, 21st, 22d, 23d, 24th.

**Hail:** 22d.

**Halos (lunar and solar):** 3d, 4th, 6th, 7th, 12th, 16th, 18th, 19th, 26th, 27th.

**Haze:** 20th.

**Parhelia:** 26th, 27th.

**Sleet:** 1st, 3d, 8th, 9th, 10th, 14th.

**Thunderstorms:** 8th, 9th, 20th, 21st, 22d, 23d.

**Winds (high):** 8th, 9th, 10th, 18th, 20th, 25th, 26th, 28th.

## THE WINTER OF 1924-1925

The mean temperature for the three winter months was  $21.1^{\circ}$ , which is  $0.6^{\circ}$  lower than the normal, for the State, and  $3.3^{\circ}$  lower than the mean of 1923-1924. The winter was the coldest since the winter of 1919-1920, which had a mean temperature of  $18.6^{\circ}$ . The highest temperature reported was  $66^{\circ}$ , at Perry on February 6, and the lowest was  $-33^{\circ}$ , at Washta, on December 28.

The average monthly precipitation for the State was 1.00 inch, and the average total precipitation was 3.01 inches, or 0.41 inch less than the normal. The average total snowfall was 14.9 inches, or 5.6 inches less than the normal.

The average number of days with 0.01 inch or more of precipitation was 15, or 1 less than the winter of 1923-1924. The average number of clear days was 40, partly cloudy 20, and cloudy 30, as compared with 46 clear days, 18 partly cloudy days and 27 cloudy days during the winter of 1923-1924.

## RIVERS

The Mississippi rose gradually till about the middle of the month and thereafter there was a general falling tendency till the end of the month, though there was considerable fluctuation due to ice conditions. There were breaks in the ice in the upper reaches but it continued frozen generally though the thickness of the ice diminished greatly as the month progressed. The backwater from the Keokuk dam was free of ice during the greater portion of the month but it froze again during the cold spell at the end of the month. There was a gradual rise in the Missouri River till the latter part of the third week, with considerable fluctuation, and a fall during the rest of the month. The ice was reduced materially during the month and no menacing gorges were produced. Low stages prevailed on all interior rivers with very slight changes and most of the streams in the southern half of the State were free of ice during most of the month.

**Daily Recipitation for February, 1925**

**Daily Precipitation for February, 1925—Continued**

Except as otherwise indicated, observations are generally made late in the afternoon, near sunset, and precipitation recorded is for 24 hours ending at the time of observation.

III Precipitation measured in the morning; amount then recorded is for the preceding 24 hours.  
\*\*\* Regular Weather Bureau Station: precipitation is for 24-hour period from mid night to midnight.

\*\*Regular Weather Bureau Station: precipitation is for 24-hour period, midnight to midnight.  
\*\*Incomplete.

\*Incomplete.

T. Precipitation is less than .01 inch rain or melted snow.

## PRESSURE, RELATIVE HUMIDITY, WIND AND SUNSHINE

Stations	Barometric Pressure, Inches (Sea Level)					Relative Hu- midity, %			Wind				Sun- shine				
					Date			Mean									
	Mean	Highest	Date	Lowest	Date	7 a. m.	12 Noon†	7 p. m.	Lowest	Date	Total movement	Average hourly velocity	Miles	From	Date	Per cent of possible	
Charles City.....	30.04	30.48	27	29.57	24 86	69	81	39	27	4,733	7.0	26	nw.	25	44	-10	
Davenport.....	30.03	30.50	27	29.56	9,90	73	76	42	11	5,239	7.8	30	sw.	25	37	-17	
Des Moines.....	30.02	30.53	27	29.56	24 84	64	67	41	11	4,906	7.3	31	sw.	3	56	0	
Dubuque.....	30.01	30.48	27	29.56	9,84	66	74	39	27	4,731	7.0	31	sw.	26	45	-8	
Keokuk.....	30.04	30.52	27	29.51	23 81	59	67	30	28	5,237	7.8	29	w.	8	50	-5	
Sioux City.....	30.06	30.54	11	29.61	24 85	71	76	42	11	8,102	12.1	46	nw.	25	53	-5	
Omaha, Neb.....	30.04	30.52	11	29.51	7 82	63	68	31	11	6,300	9.4	33	nw.	+23	54	-3	
Means and extremes.....	30.03	-----	-----	-----	-----	85	66	73	-----	-----	8.3	-----	-----	-----	-----	48	-1
Normals and records.....	-----	30.54	11	29.51	17	-----	-----	31	11	-----	-----	46	nw.	25	-----	-----	
	30.10	-----	21 <sup>st</sup>	-----	28 <sup>th</sup>	84	76	22 <sup>d</sup>	-----	9.3	-----	-----	-----	4 <sup>th</sup>	55	-----	
	\$31.07	1918	-----	28.69	1902	-----	13	1880	-----	\$69	-----	nw.	1917	-----	-----	-----	

## ERRATA

In the June, 1924 report, page 51, the following figures should be substituted for those appearing for Charles City in the table headed "Northern Division."

	Jan.	Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Charles City---	13.7	17.1	30.7	46.4	57.8	66.5	72.3	69.1	61.0	48.6	33.0	20.4	44.7

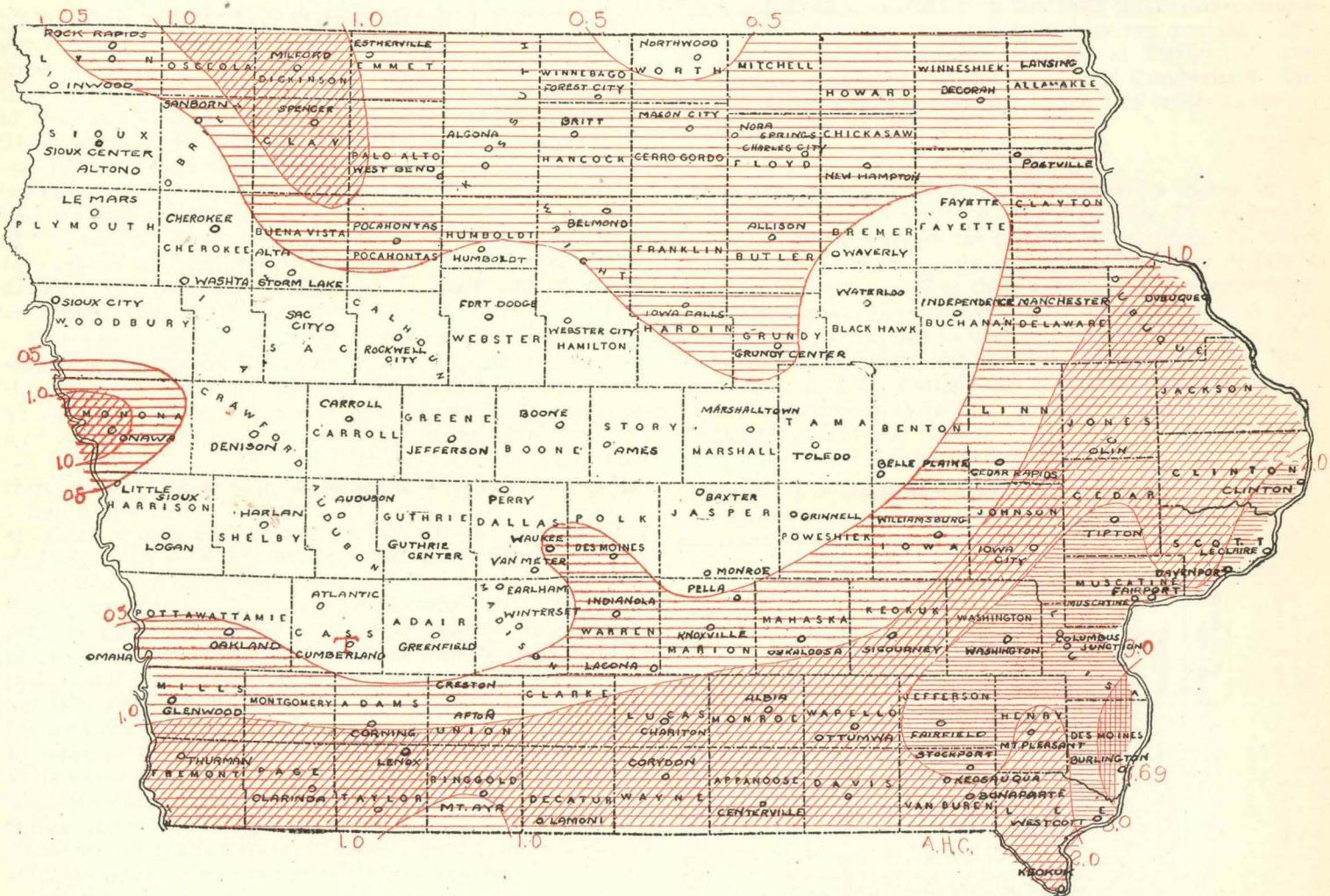
In this table the mean for January should be 15.4, instead of  $15.3^{\circ}$ .

February, 1925

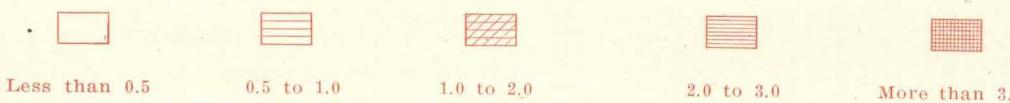
## Daily Maximum and Minimum Temperature for the Month of February, 1925

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	Mean		
<i>Northern Division</i>																															
Algoa-----	{Maximum-----	15	12	37	40	42	40	43	40	31	28	30	37	32	35	26	24	23	26	33	44	43	35	35	44	42	16	21	37	32.5	
	{Minimum-----	0	-10	10	22	25	25	33	29	24	16	11	20	14	16	15	8	4	12	26	16	16	25	25	24	15	-1	4	20	15.6	
Alta-----	{Maximum-----	9	14	37	44	43	46	43	36	31	29	32	35	27	32	25	17	27	34	41	46	33	33	33	49	33	12	25	35	32	
Alton-----	{Maximum-----	2	-8	12	29	30	34	31	29	25	17	12	22	14	16	15	5	7	14	18	17	26	27	19	27	9	0	-2	15	16.5	
Belmond-----	{Maximum-----	9	12	38	44	42	45	43	37	32	32	36	30	32	24	16	28	34	38	44	35	36	35	39	34	14	26	35	32.2		
Charles City-----	{Maximum-----	0	-14	12	21	22	23	32	30	26	20	15	24	15	18	15	4	10	18	17	30	26	26	20	28	14	-1	1	20	16.8	
	{Minimum-----	13	14	37	47	47	50	47	41	31	28	30	36	29	32	24	21	23	38	31	43	39	32	34	48	37	12	21	38	33.0	
Decorah-----	{Maximum-----	2	-10	13	20	27	28	31	30	24	20	13	17	15	15	8	0	5	6	13	15	26	25	25	25	11	-1	6	18	14.3	
Dubuque-----	{Maximum-----	1	10	17	10	27	23	22	32	25	19	12	24	15	11	9	5	-2	3	17	23	24	27	27	12	3	-7	12	14.5		
Forest City-----	{Maximum-----	24	27	33	50	51	56	46	55	36	35	30	39	31	33	31	24	31	41	34	45	47	35	35	43	38	12	18	36	36.2	
Independence-----	{Maximum-----	12	16	19	20	30	30	30	36	29	17	17	22	20	17	18	4	0	8	15	25	33	32	30	30	12	2	-2	15	19.2	
Inwood-----	{Maximum-----	15	22	38	48	43	48	43	42	31	27	31	35	32	35	28	22	27	35	32	41	38	34	35	45	41	15	20	35	33.5	
	{Minimum-----	21	23	38	49	49	56	55	50	41	32	31	42	40	36	35	29	23	48	42	47	45	38	34	44	44	34	24	38	38.9	
Mason City-----	{Maximum-----	7	10	40	47	44	42	40	35	31	30	34	35	24	31	24	16	26	34	37	41	31	35	34	45	29	13	28	34	31.3	
	{Minimum-----	13	15	38	48	44	52	43	40	32	28	30	35	30	32	24	24	36	31	43	38	35	35	48	39	12	21	35	33.0		
Milford (near)-----	{Maximum-----	6	-11	15	11	27	25	32	31	24	20	12	20	13	14	8	4	11	10	11	14	25	22	26	25	12	-2	7	12	20	14.9
New Hampton-----	{Maximum-----	27	12	38	42	42	49	46	38	28	25	36	27	31	22	18	27	31	36	41	35	34	35	50	33	12	24	32	32.5		
Northwood-----	{Maximum-----	4	-15	10	20	23	27	30	27	22	14	9	20	11	10	1	3	12	11	13	24	23	11	25	11	-2	12	17	13.5		
Pocahontas-----	{Maximum-----	17	21	37	46	48	53	50	45	33	28	30	31	32	30	20	26	36	31	43	38	33	32	40	37	15	17	38	33.5		
	{Minimum-----	9	-9	14	17	17	30	28	33	32	25	20	13	17	13	12	8	5	-1	7	8	20	28	26	27	21	15	-2	8	15	15.4
Postville-----	{Maximum-----	10	14	40	42	45	48	42	33	31	30	33	36	31	33	32	25	20	10	15	11	15	11	12	10	10	10	10	10	10.4	
	{Minimum-----	-1	-11	12	12	23	22	28	30	25	18	13	19	15	18	14	5	4	12	15	11	25	26	21	25	9	0	-3	20	14.5	
<i>Central Division</i>																															
Belle Plaine-----	{Maximum-----	23	23	47	54	56	59	46	50	39	35	35	35	47	35	39	33	32	51	36	54	45	36	37	49	42	19	24	39	39.9	
Boone-----	{Maximum-----	8	10	19	20	26	27	30	36	29	23	17	16	18	13	12	9	-1	14	19	28	32	30	29	17	4	-3	18	18.7		
Carroll-----	{Maximum-----	19	19	44	60	55	58	54	48	35	33	36	45	32	38	33	26	34	47	43	55	48	36	37	54	42	18	24	41	39.8	
Cedar Rapids-----	{Maximum-----	4	4	18	18	23	25	33	27	24	21	16	14	18	9	9	12	0	12	11	18	30	26	29	22	18	4	-6	21	16.5	
Davenport-----	{Maximum-----	15	17	42	50	52	57	50	42	36	31	33	42	30	36	32	24	32	43	46	58	46	37	36	56	45	17	23	41	38.2	
	{Minimum-----	0	-9	13	25	29	29	30	31	26	20	16	22	16	15	13	9	4	17	18	22	28	27	23	25	16	3	-3	17	17.2	
Des Moines-----	{Maximum-----	27	30	40	54	59	61	45	57	41	39	36	46	39	41	40	35	32	52	59	42	40	40	48	43	24	42	41.8			
	{Minimum-----	8	12	17	15	24	25	25	35	28	21	16	14	17	11	11	9	-2	9	11	18	33	30	30	27	15	3	-4	9	16.7	
Ft. Dodge-----	{Maximum-----	29	28	36	49	50	54	51	58	40	33	32	38	33	39	30	27	30	49	34	32	38	36	49	41	15	25	39	33.1		
Grinnell-----	{Maximum-----	15	19	47	57	56	60	53	49	36	33	33	45	40	37	36	32	49	41	56	49	37	35	53	53	27	24	38	41.1		
Guthrie Center-----	{Maximum-----	6	7	18	23	29	29	34	26	16	18	17	14	15	13	3	16	16	24	26	30	27	23	3	-3	18	19.0				
Iowa City-----	{Maximum-----	15	21	45	58	54	59	48	47	34	31	33	44	32	37	34	24	32	43	47	52	57	50	20	26	39	41.2				
	{Minimum-----	10	15	20	20	27	27	27	38	30	20	18	17	20	13	15	12	-4	9	16	25	36	32	30	24	6	0	16	19.6		
Iowa Falls-----	{Maximum-----	16	15	41	53	49	55	49	43	33	28	31	39	32	34	32	22	28	40	31	51	41	33	33	50	43	17	21	40	35.7	
	{Minimum-----	3	2	13	21	30	30	36	33	25	22	15	18	16	15	10	9	-4	8	14	16	28	27	27	26	16	1	-5	19	16.5	
Little Sioux-----	{Maximum-----	14	20	46	50	52	49	49	37	35	33	37	41	35	37	37	30	35	40	47	57	46	38	37	57	40	20	30	44	39.1	
Marshalltown-----	{Maximum-----	2	-10	16	25	23	25	27	31	30	22	10	24	19	20	17	10	5	20	22	25	28	30	28	30	19	7	3	23	18.8	
Olin-----	{Maximum-----	6	7	18	24	30	28	29	34	27	23	17	20	17	15	11	2	18	25	31	32	30	28	29	28	3	2	21	19.4		
Sioux City-----	{Maximum-----	26	28	35	47	50	55	44	55	44	35	31	40	37	40	34	32	27	45	44	47	47	44	36	44	25	20	37	38.9		
	{Minimum-----	10	11	17	23	27	30	40	39	29	18	16	18	12	15	12	4	2	14	34	31	32	29	25	5	-2	16	18.6			
	{Maximum-----	11	19	44	50	45	47	44	34	32	31	35	36	28	35	27	20	31	36	44	50	35	37	34	52	28	15	29	37	34.5	
	{Minimum-----	0	-9	18	31	27	27	32	29	26	22	17	26	18	22	15	8	12	23	24	27	28	26	28	13	3	5	20	19.5		
<i>Southern Division</i>																															

TOTAL PRECIPITATION, FEBRUARY, 1925



SCALE OF SHADES—IN INCHES



U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.  
CHARLES F. MARVIN, Chief.

# CLIMATOLOGICAL DATA.

## IOWA SECTION

In co-operation with

## IOWA WEATHER AND CROP BUREAU CHARLES D. REED, Meteorologist

VOL. XXXVI DES MOINES, IOWA, MARCH, 1925 No. 3

### GENERAL SUMMARY

Aside from a cold spell on the 1st and 2d, and another at the end of the second week and the beginning of the third week, unusually mild weather prevailed throughout the month, though the mean temperature has been exceeded five times in March. Zero temperatures were reached on the 1st, 2d, and 15th, being general over most of the State on the 2d and over a large area on the 15th, but zero was reached in none of the counties bordering the Missouri River except Lyon. This is the third consecutive month with an excess in temperature. The average daily excess since January 1 is 4.0 degrees. This caused all trees to make rapid advances and at the end of the month fruit buds were about two weeks ahead of last year.

The precipitation was decidedly below the normal, only two stations having an excess. This was also the third consecutive month with deficient precipitation, and the total for the three months, 2.15 inches, was the least in the history of the State for a similar period. The nearest approach to this amount was 2.17 inches in 1895. Precipitation was well distributed throughout the month but generally too light to penetrate the soil, except in the storm of the 13th, and most of the moisture was lost by evaporation.

Conditions were unusually favorable for all farm work. Frost left the ground much earlier than usual, and the preparation of the soil and seeding oats and spring wheat progressed with practically no interruption during the last half of the month, to a stage much ahead of the average. While conditions were favorable for farm work, the general lack of precipitation in connection with the large number of windy days and the abnormally low humidity was injuriously affecting certain kinds of vegetation. In localities the dry soil drifted and covered up some winter wheat, and in other fields the soil blew away from the roots.

A number of small streams were completely dry and an unusually large number of wells were failing that never before had failed in the spring. The soil was so dry in most of the State that most of the oats seeded had made no advance toward germination, and grasses appeared dormant. Truck gardeners reported that hardy plants that had been transferred to fields were becoming yellow where irrigation was not practiced. Building operations progressed with very little interruption and highways were in unusually good condition, except for a brief period following the storm of the 13th, when dirt and gravel roads became soft.

F. L. D.

### TEMPERATURE

The mean temperature for the State, as shown by the records of 101 stations, was  $40.1^{\circ}$ , or  $5.4^{\circ}$  higher than the normal. By divisions, approximately three tiers of counties to the division, the means were as follows: Northern,  $37.6^{\circ}$ , or  $5.5^{\circ}$  higher than the normal; Central,  $40.2^{\circ}$ , or  $5.1^{\circ}$  higher than the normal; Southern,  $42.4^{\circ}$ , or  $5.6^{\circ}$  higher than the normal. The highest monthly mean was  $44.4^{\circ}$  at Ottumwa,

and the lowest was  $34.3^{\circ}$ , at Estherville. The highest temperature reported was  $82^{\circ}$  at Thurman on the 22d, and at Glenwood and Little Sioux on the 23d, and the lowest was  $-6^{\circ}$  at Cedar Rapids, Williamsburg and Postville on the 2d and at Fayette on the 15th. The temperature range for the State was  $88^{\circ}$ .

### PRECIPITATION

The average precipitation for the State, as shown by the records of 105 stations, was 0.93 inch, or 0.82 inch less than the normal. By divisions, the averages were as follows: Northern, 0.68 inch, or 0.88 inch less than the normal; Central, 0.90 inch, or 0.92 inch less than the normal; Southern, 1.20 inches, or 0.68 inch less than the normal. The greatest amount, 2.34 inches, occurred at Thurman, and the least, 0.10 inch, occurred at Harlan. The greatest amount in 24 consecutive hours, 1.50 inches occurred at Creston on the 13th.

### SNOWFALL

The average snowfall for the State was 2.9 inches, or 2.4 inches less than the normal. The greatest amount, 7.5 inches occurred at Humboldt and Iowa Falls and the least was a trace at Bonaparte, Corning, Cumberland, Fairfield, Fairport, Keosauqua, Monroe, Ottumwa, Stockport, Washington and Winterset.

### MISCELLANEOUS PHENOMENA

*Birds (migration of):* Boone, red winged black birds, ducks, robins and kildeer 6th; wild geese, 13th; blue birds, (Continued on Page 21)

### COMPARATIVE DATA FOR THE STATE—MARCH

YEAR	Temperature			Precipitation			Number of Days						
	Mean	Departure*	Highest	Lowest	Total	Departure*	Greatest	Least	Snowfall	With pre. in. or more .01	Clear	Partly cloudy	Cloudy
1890	28.0	-6.7	75	-24	1.57	-0.18	3.67	0.32					
1891	26.8	-7.9	66	-19	2.60	+0.85	4.58	1.33		10	6	8	17
1892	31.9	-2.8	84	-6	2.22	+0.47	4.58	0.57	3.9	6	11	8	12
1893	31.8	-2.9	84	-8	2.14	+0.89	4.40	0.64	4.0	8	9	11	11
1894	41.0	+6.3	84	-5	2.03	+0.28	4.52	0.26	2.7	6	13	10	8
1895	34.4	-0.3	94	-11	0.83	-0.92	2.60	0.22	2.9	4	16	8	7
1896	30.9	-3.8	81	-12	1.10	-0.65	3.99	0.16	5.4	5	12	9	10
1897	32.0	-2.7	72	-22	2.39	+0.64	6.16	0.29	5.5	8	9	8	14
1898	37.5	+2.8	72	-2	1.94	+0.19	6.21	0.33	3.7	6	12	9	10
1899	23.0	-11.7	75	-16	1.62	-0.13	5.90	0.37	8.0	6	7	12	12
1900	30.7	-4.0	81	-13	2.06	+0.31	5.15	0.45	6.6	5	12	9	10
1901	34.2	-0.5	76	-8	2.64	+0.89	5.25	0.70	12.6	7	10	8	13
1902	39.1	+4.4	79	-12	1.45	-0.30	4.33	0.13	1.3	7	9	11	11
1903	38.8	+4.1	82	6	1.38	-0.37	3.90	0.15	3.9	7	11	7	13
1904	34.8	+0.1	78	3	2.18	+0.43	4.57	0.50	4.4	7	8	8	15
1905	41.5	+6.8	84	1	2.04	+0.29	3.70	0.89	4.1	7	8	8	15
1906	27.1	-7.6	65	-14	2.34	+0.59	4.55	0.58	8.9	10	8	7	16
1907	40.6	+5.9	92	-7	1.35	-0.40	5.05	0.23	4.1	6	14	7	10
1908	37.9	+3.2	85	-8	1.58	-0.17	3.74	0.45	1.1	6	13	7	11
1909	32.5	-2.2	71	-15	1.58	-0.22	5.00	0.28	9.8	6	12	10	9
1910	48.9	+14.2	92	-10	0.17	-1.58	1.37	0.00	T.	1	23	6	2
1911	39.4	+4.7	83	2	0.93	-0.82	4.84	T.	1.9	5	16	9	6
1912	24.9	-9.8	70	-19	2.01	+0.26	5.25	0.60	19.1	7	15	6	10
1913	31.9	-2.8	78	-23	2.48	+0.73	5.88	0.74	5.3	9	11	10	10
1914	34.7	0.0	78	-5	1.69	-0.06	3.84	0.28	1.8	7	12	8	11
1915	29.3	-5.4	61	-5	0.96	-0.79	2.12	0.17	8.8	5	8	9	14
1916	35.2	+0.5	80	-18	1.57	-0.18	5.80	0.23	2.9	6	11	9	11
1917	34.6	-0.1	85	-12	1.84	+0.09	4.35	0.57	6.2	6	14	8	9
1918	42.9	+8.2	85	0	0.63	-1.12	2.12	0.03	2.6	3	19	7	5
1919	37.5	+2.8	78	-11	2.38	+0.58	5.40	0.81	1.1	6	15	8	8
1920	38.0	+3.3	80	-21	3.02	+1.27	5.70	0.47	2.4	7	15	7	9
1921	42.8	+8.1	86	4	1.57	-0.18	6.62	0.17	0.2	7	14	8	9
1922	38.3	+3.6	74	-5	1.97	+0.22	3.73	0.76	3.4	7	12	6	13
1923	29.4	-5.3	78	-22	2.87	+1.12	5.08	0.71	18.5	7	13	9	9
1924	31.9	-2.8	72	3	2.65	+0.90	4.76	1.26	10.5	8	8	8	15
1925	40.1	+5.4	82	-6	0.93	-0.82	2.34	0.10	2.9	4	17	9	5

\* indicates an amount too small to measure, or less than .005 inch precipitation and less than .05 inch snowfall.  
New normals effective June 1, 1924.



## Climatological Data for March, 1925

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit						Precipitation, in inches			Number of Days			Observers		
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unadjusted)	Precipitation, .01 in. or more	Clear	Partly cloudy	Cloudy
<i>Northern Division</i>																		
Algona	Kossuth	1,213	52	38.0	+ 6.5	78	23	- 1	2	42	0.77	- 0.65	0.32	6.0	5	21	7	3 se.
Allison (near)	Butler	1,044	13	37.2	+ 5.1	76	23	- 4	2	41	0.86	- 0.94	0.40	4.0	4	17	11	3 sw.
Alta	Buena Vista	1,513	34	37.8	+ 4.8	78	23	1	2	36	0.51	- 1.04	0.48	5.0	2	13	12	6 s.
Alton	Sioux	1,305	20	38.4	+ 6.4	76	25	3	2	42	0.42	- 0.68	0.30	3.0	2	6	5	10 sw.
Belmond	Wright	1,205	15	37.8	+ 6.5	76	23	- 1	2	39	1.06	- 0.27	0.57	3.9	6	9	17	5 nw.
Britt	Hancock	1,236	38	37.8	+ 7.3	79	23	- 1	2	36	0.34	- 0.91	0.24	3.0	2	22	6	3 nw.
Charles City	Floyd	1,015	34	36.2	+ 5.5	76	23	- 1	2	38	0.96	- 0.88	0.65	5.0	5	15	12	4 nw.
Cherokee	Cherokee	1,196	3	37.8 <sup>a</sup>	-	78 <sup>a</sup>	23	0 <sup>a</sup>	2	36 <sup>b</sup>	0.20	-	0.20	3.0	1	15	9	7 s.
Decorah	Winneshiek	875	32	35.6	+ 4.3	61	23	- 4	2	38	0.85	- 0.95	0.36	4.0	4	23	3	5 nw.
Dubuque	Dubuque	698	52	38.4	+ 4.4	69	23	- 1	2	33	1.03	- 1.16	0.47	3.0	6	8	14	9 nw.
Estherville	Emmet	1,298	30	34.3	+ 2.7	75	25	- 3	2	41	0.75	- 0.52	0.35	5.0	6	19	10	2 s.
Fayette	Fayette	1,003	35	36.8	+ 5.5	73	23	- 6	15	45	0.98	- 1.13	0.33	6.0	4	18	7	6 sw.
Forest City	Winnebago	1,226	31	37.3	+ 5.5	77	23	- 3	2	40	0.45	- 0.98	0.25	2.5	3	17	7	nw.
Hampton	Franklin	1,145	37	37.2	+ 4.7	76	23	- 1	2	40	1.01	- 0.74	0.67	6.0	6	21	5	5 nw.
Humboldt	Humboldt	1,095	37	38.2	+ 5.0	81	23	0	15	40	1.03	- 0.41	0.48	7.5	5	14	12	5 s.
Independence	Buchanan	921	61	39.3	+ 5.2	74	23	- 3	2	45	0.37	- 1.35	0.18	2.0	3	20	1	10 nw.
Inwood	Lyon	1,474	21	38.0	+ 5.3	80	25	0	2	42	0.23	- 0.97	0.20	2.0	2	21	7	3 sw.
Le Mars	Plymouth	1,224	29	39.8	+ 6.5	81	25	2	2	43	0.12	- 1.13	0.11	1.0	2	19	8	4 se.
Mason City	Cerro Gordo	1,148	28	36.6	+ 5.7	75	23	- 1	1	39	0.75	- 0.62	0.60	6.0	3	10	19	2 nw.
Milford (near)	Dickinson	1,430	5	37.4 <sup>b</sup>	-	77 <sup>a</sup>	26	0 <sup>b</sup>	2	37 <sup>b</sup>	1.10	-	0.90	6.0	2	29	0	2 s.
New Hampton	Chickasaw	1,169	28	36.5	+ 5.2	75	23	- 5	2	40	0.98	- 0.94	0.58	3.0	4	17	4	10 nw.
Nora Springs	Floyd	1,064	13	37.6	+ 4.9	76	23	- 2	2	40	0.87	- 0.98	0.57	3.7	5	17	11	3 s.
Northwood	Worth	1,222	29	36.5 <sup>e</sup>	+ 7.3	74 <sup>d</sup>	23	- 3 <sup>c</sup>	2	34 <sup>h</sup>	0.80	- 1.05	0.40	6.0	4	15	11	5 nw.
Oelwein	Fayette	1,036	1	38.0	-	74	23	- 2	2	36	1.00	-	0.50	-	3	18	8	5 s.
Osage	Mitchell	1,163	-	35.8	-	74	23	- 4	2	36	0.63	-	0.50	6.0	4	10	14	7 nw.
Pocahontas	Pocahontas	1,248	21	37.8	+ 5.5	79	23	1	15	41	1.05	- 0.32	0.62	6.9	5	19	9	3 nw.
Postville	Clayton	1,180	26	36.0	+ 5.4	70	23	- 6	2	37	0.89	- 1.03	0.30	6.0	4	22	12	7 sw.
Rock Rapids	Lyon	1,358	26	38.0	+ 6.5	76	25	- 1	2	43	0.21	- 1.11	0.19	1.9	2	22	6	3 ne.
Sanborn	O'Brien	1,553	11	37.5	+ 5.9	77	25 <sup>c</sup>	- 1	2	40	0.13	- 1.27	0.05	1.3	3	19	9	3 se.
Sioux Center	Sioux	1,426	26	37.4	+ 5.9	77	25	3	14	40	0.42	- 0.84	0.30	3.0	2	18	7	6 s.
Spencer	Clay	1,319	11	38.2	+ 5.8	78	23	- 2	2	45	0.74	- 0.58	0.30	3.5	4	13	13	5 nw.
Storm Lake	Buena Vista	1,440	36	39.2	+ 6.6	76	23	1	2	37	0.17	- 1.13	0.08	1.3	3	20	4	7 s.
Washta	Cherokee	1,157	27	-	-	-	-	-	-	-	0.30	- 0.71	0.30	3.0	1	20	7	4 s.
Waterloo	Black Hawk	854	42	39.6	+ 5.2	78	23	- 5	2	40	0.73	- 0.94	0.30	5.0	5	21	6	4 se.
Waverly	Bremer	936	29	38.6 <sup>d</sup>	+ 5.7	76 <sup>g</sup>	23	- 2	2	38 <sup>g</sup>	1.55	- 0.23	0.67	4.5	5	22	4	5 nw.
West Bend	Palo Alto	1,197	32	37.6	+ 5.6	78	23	- 1	2	40	0.34	- 1.22	0.15	-	5	17	10	4 nw.
Means and extremes		-	-	37.6	+ 5.5	81	23 <sup>f</sup>	- 6	2 <sup>f</sup>	45	0.68	- 0.88	0.90	4.1	4	17	9	5 nw.
<i>Central Division</i>																		
Ames	Story	926	48	40.5	+ 5.5	79	23	- 1	2	42	0.87	- 0.55	0.45	2.5	5	20	7	4 sw.
Audubon	Audubon	1,297	30	39.0	+ 5.2	78	23	- 3	2	39	1.04	- 0.41	0.70	7.0	3	15	13	3 sw.
Baxter	Jasper	998	25	40.0	+ 5.0	76	23	- 4	2	42	0.97	- 0.87	0.63	3.0	5	13	16	2 s.
Belle Plaine	Benton	866	35	40.4	+ 5.5	78	23	- 4	2	40	0.54	- 1.74	0.38	3.7	6	15	13	3 nw.
Boone	Boone	1,134	20	39.4	+ 3.4	78	23	- 4	15	46	1.13	- 0.31	0.80	7.0	5	-	-	C. F. Henning
Carroll	Carroll	1,265	35	40.4	+ 4.4	80	23	0	2	45	0.54	- 1.15	0.45	4.0	2	21	6	4 nw.
Cedar Rapids	Linn	737	43	40.0	+ 4.3	78	23	- 6	2	54	0.75	- 1.55	0.35	1.5	4	15	9	7 nw.
Clinton	Clinton	595	52	40.9	+ 5.1	69	25 <sup>f</sup>	0	2	37	1.05	- 1.77	0.46	2.0	2	23	4	4 s.
Davenport	Scott	580	54	40.9	+ 4.8	71	25	0	2	36	1.13	- 1.18	0.72	0.6	6	13	13	5 nw.
Davenport (No. 2)	Scott	690	-	41.9	-	73	25	- 1	2	41	1.39	-	0.82	0.2	5	-	-	Rex Shriver
Denison	Crawford	1,171	31	40.2	+ 5.2	80	23	0	2	42	0.42	- 1.11	0.33	4.0	3	14	12	5 nw.
Des Moines	Polk	861	47	41.2	+ 5.3	78	23	4	2	35	0.88	- 0.82	0.76	2.6	6	12	9	10 sw.
Fairport	Muscatine	567	4	42.4	-	72	23	0	2	38	1.20	-	0.66	T.	5	19	4	8 nw.
Fort Dodge	Webster	1,114	25	38.6	+ 4.3	77 <sup>a</sup>	23	- 1	2	42	0.58	- 1.02	0.30	6.0	6	21	4	6 nw.
Grinnell	Powershiek	1,031	31	41.2	+ 5.9	77	23	- 4	2	37	0.54	- 1.29	0.17	0.8	6	17	10	4 nw.
Grundy Center	Grundy	976	34	38.6	+ 3.9	76	23	- 4	2	37	1.60	- 2.20	0.60	-	5	13	4	14 n.
Guthrie Center	Guthrie	1,077	30	40.4	+ 5.2	78	23	0	2	44	0.92	- 0.58	0.84	5.0	3	22	6	3 sw.
Harlan	Shelby	1,192	26	40.3	+ 5.0	80 <sup>a</sup>	23	0	2	41 <sup>a</sup>	0.10	- 1.23	0.10	-	1	21	8	2 s.
Iowa City	Johnson	733	65	40.4	+ 4.8	74	23	- 3	2	40	0.99	- 1.41	0.81	1.0	6	16	11	4 nw.
Iowa Falls	Hardin	1,107	32	38.4	+ 4.3	76	23	- 1	2 <sup>f</sup>	39	1.38	- 0.49	0.50	7.5	8	13	14	4 nw.
Jefferson	Greene	1,052	26	39.2	+ 3.4	80	23	- 2	15	44	0.78	- 0.68	0.50	5.0	5	16	7	8 sw.
Little Sioux	Harrison	1,040	20	42.4	+ 6.3	82	23	- 1	2	39	0.94	- 0.88	0.91	5.5	2	17	10	4 sw.
Logan <sup>f</sup>	Harrison	1,035	58	42.0	+ 4.8	81	23	4	2 <sup>f</sup>	42	0.38	- 1.28	0.25	5.0	3	16	12	3 sw.
Maquoketa	Jackson	692	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	John Strodtboff
Marshalltown	Marshall	947	33	40.5	+ 4.9	78	23	- 1	2	38	1.29	- 0.37	0.74	5.1	7	22	5	4 nw.
Monroe	Jasper	922	13	40.4	+ 4.4	76	23	- 3	2	39	1.64							

## Climatological Data for March, 1925—Continued

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit				Precipitation, in inches				Number of Days	Observers						
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unfilled)	Precipitation, .01 in. or more	Clear	Partly cloudy	Cloudy	Prevailing direction of wind
<i>Southern Division</i>																			
Afton	Union	1,212	31	42.8	+ 6.3	80	23	- 1	2	42	0.98	-0.91	0.98	-----	1	24	2	5	sw.
Albia	Monroe	959	27	42.8	+ 6.6	77	23	0	2	40	1.71	-0.25	0.70	1.3	6	17	4	10	se.
Atlanta	Cass	1,164	34	41.6	+ 5.6	80	23	2	2	44	0.98	-0.61	0.66	3.5	3	14	9	8	sw.
Bonaparte	Van Buren	563	34	42.6	+ 5.2	75	7	1	2	40	1.31	-0.94	0.92	T.	2	21	6	4	s.
Burlington	Des Moines	544	29	44.1	+ 5.2	77	23	2	2	37	0.70	-1.81	0.40	1.5	5	20	4	7	sw.
Centerville	Appanoose	1,013	20	43.6	+ 5.7	75	23	1	2	39	1.71	-0.22	1.20	0.2	5	16	9	6	sw.
Chariton (near)	Lucas	1,012	30	42.6	+ 6.6	76	23	0	2	40	0.74	-1.00	0.55	2.0	2	15	10	6	nw.
Clarinda	Page	1,009	35	43.5	+ 5.4	80	23	0	2	45	1.35	-0.37	1.27	0.5	5	18	10	3	s.
Columbus Jet.	Louisa	595	24	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Corning	Adams	1,117	33	42.2 <sup>b</sup>	+ 6.3	79 <sup>a</sup>	23	- 1 <sup>b</sup>	2	44 <sup>b</sup>	0.94	-0.96	0.94	T.	1	-----	-----	-----	sw.
Corydon	Wayne	1,101	32	42.7	+ 6.1	76	23	1	2	39	1.54	-0.47	1.07	1.0	5	11	16	4	nw.
Creston	Union	1,312	20	41.0	+ 5.4	76 <sup>a</sup>	23	4	2	39 <sup>a</sup>	1.55	+0.09	1.50	0.5	2	21	7	3	s.
Cumberland (near)	Cass	1,225	26	-----	-----	-----	-----	-----	-----	-----	0.38	-1.16	0.30	T.	2	17	9	5	sw.
Earlham	Madison	1,126	23	39.8	+ 4.8	78	23	0	2	41	0.66	-1.05	0.46	2.0	2	17	5	9	sw.
Fairfield	Jefferson	780	41	41.4	+ 4.7	76	23	1	2	37	1.19	-1.14	0.81	T.	5	20	4	7	n.
Glenwood	Mills	1,100	27	43.6	+ 5.7	82	23	4	2	40	0.91	-0.43	0.85	1.0	3	9	20	2	se.
Indianola	Warren	972	34	41.0	+ 4.7	78	23	- 1	2	40	0.63	-1.00	0.38	2.2	4	16	10	5	nw.
Keokuk	Lee	614	54	43.4	+ 4.5	76	23	3	2	37	0.95	-1.34	0.54	0.6	6	12	12	7	s.
Keosauqua	Van Buren	644	33	41.8	+ 3.9	74	7	3	2	39	1.33	-0.94	0.93	T.	2	16	8	7	se.
Knoxville	Marion	920	30	41.8	+ 5.2	78	23	- 5	2	41	1.12	-0.68	0.68	4.0	5	18	10	3	sw.
Laeona	Warren	26	-----	-----	-----	-----	-----	-----	-----	-----	1.38	-0.92	0.95	5.0	6	11	13	7	-----
Lamoni	Decatur	1,123	18	42.6	+ 5.7	77	23	- 1 <sup>a</sup>	2	41 <sup>a</sup>	1.73	-0.14	1.35	3.0	3	19	2	10	nw.
Lenox	Taylor	1,250	30	42.2	+ 5.6	79	23	- 1	2	40	1.38	-0.16	1.00	3.3	5	15	11	5	nw.
Mt. Ayr	Ringgold	1,245	32	42.6	+ 5.6	76	23	- 1	2	37	1.36	-0.54	1.16	2.0	2	9	11	11	s.
Mt. Pleasant	Henry	729	44	42.9	+ 5.3	74	7	1	2	39	1.28	-0.92	0.89	0.5	3	15	10	6	nw.
Oakland	Pottawattamie	1,105	6	42.5 <sup>a</sup>	+ 6.3	81 <sup>e</sup>	23	1 <sup>d</sup>	2	40 <sup>e</sup>	0.60	-----	0.40	2.0	2	-----	-----	-----	s.
Oskaloosa	Mahaska	835	49	41.3	+ 5.5	76	23	- 3	2	39	1.49	-0.42	1.06	4.1	5	12	10	9	nw.
Ottumwa	Wapello	649	30	44.4 <sup>a</sup>	-----	80 <sup>a</sup>	29	3 <sup>a</sup>	2	51 <sup>a</sup>	1.56	-0.41	0.94	T.	4	20	4	7	nw.
Pella	Marion	877	32	-----	-----	-----	-----	-----	-----	-----	1.20	-----	1.00	-----	2	12	14	5	s.
Red Oak (near)	Montgomery	1,030	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	B. R. Bridge
Sigourney	Keokuk	790	29	41.3	+ 5.2	75	23	- 1	2	37	1.36	-0.65	0.88	3.3	4	21	4	6	nw.
Stockport	Van Buren	745	23	42.0	+ 5.6	74	7 <sup>t</sup>	2	2	42	1.37	-0.80	0.88	T.	5	16	10	5	s.
Thurman	Fremont	975	28	43.9	+ 6.6	82	22	1	2	39	2.34	+0.86	1.42	1.5	4	9	13	9	nw.
Tingley	Ringgold	1,275	41	48	-----	72	23 <sup>t</sup>	- 2	2	37	1.26	-----	0.92	2.0	3	13	14	4	nw.
Washington	Washington	769	43	42.3	+ 5.8	76	23	- 2	2	42	1.28	-0.91	0.82	T.	3	25	3	3	sw.
Wescott (near)	Lee	-----	3	41.9	-----	73	23	2	2	40	1.66	-----	1.15	0.1	3	22	6	3	nw.
Winterset	Madison	1,129	34	41.4	+ 5.2	78	23	- 1	2	40	0.68	-1.07	0.65	T.	2	24	5	2	sw.
Omaha, Nebr.	-----	1,103	54	43.2	+ 6.2	82	23	6	2	35	0.75	-0.64	0.59	5.8	6	11	12	8	nw.
Means and extremes	-----	-----	-----	42.4	+ 5.6	82	22 <sup>t</sup>	- 5	2	51	1.20	-0.68	1.50	1.6	4	16	9	6	nw.
State means and extremes	-----	-----	-----	40.1	+ 5.4	82	22 <sup>t</sup>	- 6	2 <sup>t</sup>	54	0.93	-0.82	1.50	2.9	4	17	9	5	nw.

The departure from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete records are used in determining means.

Reference letters a, b, c, etc., appearing in the table indicate the number of days missing; for example b represents two days, etc.

<sup>t</sup>Also other dates.

<sup>tt</sup>Received too late to be included in means and summaries.

T. Precipitation is less than 0.01 inch rain or melted snow.

## PRESSURE, RELATIVE HUMIDITY, WIND AND SUNSHINE

Stations	Barometric Pressure, Inches (Sea Level)				Relative Humidity, %			Wind			Sunshine			Per cent of possible departure from normal		
	Mean	Highest	Date	Lowest	7 a. m.	12 Noon	7 p. m.	Date	Total movement	Average hourly velocity	Maximum Miles	From	Date			
Charles City	30.08	30.50	14	29.57	9 79	52	61	24	29	6,411	8.6	29	s.	20	71	+15
Davenport	30.09	30.53	15	29.64	9 85	67	68	40	20	6,626	8.9	32	s.	20	66	+ 9
Des Moines	30.07	30.52	27	29.54	24	74	50	52	20	6,477	8.7	38	sw.	20	76	+16
Dubuque	30.06	30.50	15	29.60	9 76	52	54	21	31	6,085	8.2	28	s.	20	67	+14
Keokuk	30.10	30.58	15	29.66	10	75	52	55	28	6,571	8.8	30	s.	20	67	+ 7
Sioux City	30.08	30.65	14	29.39	9 74	52	51	18	25	11,251	15.1	50	nw.	26	74	+16
Neb.	30.07	30.62	14	29.52	9 69	46	46	14	28	7,165	9.6	37	n.	†13	68	+11
Means and extremes	30.08	-----	-----	76	53	55	-----	-----	9.7	-----	-----	-----	70	-----	-----	-----
Normals and records	30.04	30.65	14	29.39	9	-----	14	28	-----	50	nw.	26	-----	-----	-----	-----
	\$30.82	1921	*28.79	1924	-----	-----	-----	67	18 <sup>t</sup>	9.6	-----	16 <sup>t</sup>	57	-----	-----	-----
	\$30.04	29 <sup>t</sup>	-----	29 <sup>t</sup>	80	-----	67	18 <sup>t</sup>	-----	865	w.	1920	-----	-----	-----	-----

\$Sioux City. \*Des Moines. †Local mean time. ‡And other dates.

## Daily Precipitation for March, 1925

Stations	Drainage Basin	Day of Month																													Totals			
		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		
<i>Northern Division</i>																																		
Algona	Des Moines	.06						T.	.11				.16	.32																				0.77
Allison (near)	Cedar							T.	.33				.40		.05				T.															0.86
Alta	Raccoon							T.	.03				.48																					0.51
Alton	Floyd	T.							.12				.30						T.															T. 0.42
Belmond	Iowa	T.						.05	.57				.25	.10					T.	T.													1.06	
Britt	Iowa								.10				.24	T.					T.	T.	T.	T.											0.34	
Charles City***	Cedar	T.	T.						.10	.18			.65						T.	.01	T.	T.	.02									0.96		
Cherokee	Little Sioux	T.		T.					T.	T.			.20						T.		T.												T. 0.20	
Decorah	Mississippi								.36				.20	.20																			0.85	
Dubuque***	Mississippi	T.							.17	.10			.47	.10					.16	T.													1.03	
Estherville	Des Moines								.08				.10																				0.75	
Fayette	Mississippi	T.							T.	.33			.28	.29					T.		T.												0.98	
Forest City	Cedar								.05				.25																				T. 0.45	
Hampton	Cedar								.06	.12			.38	.29					T.		T.											1.01		
Humboldt	Des Moines	T.	.05						T.	.22			.48	.21																			1.03	
Independence	Wapsipinicon								T.	T.			.15	.18					T.														0.37	
Inwood	Big Sioux								T.				.20																					.03
Le Mars	Floyd	T.							T.	.01			.11	T.					T.														0.12	
Mason City	Cedar	T.	T.						.10	.05			.60						T.	T.	T.	T.										0.75		
Milford (near)	Little Sioux								T.				.90						T.		T.	T.											1.10	
New Hampton	Wapsipinicon	T.							T.	.58			.10	.24						T.													0.98	
Nora Springs	Cedar	T.							.22				.57							.03			.03	.02								0.87		
Northwood	Cedar								.10				.40	.20																			0.80	
Oelwein	Wapsipinicon	T.	T.	T.					.10	.40			.50																			1.00		
Osage	Cedar	T.							T.	.09			*	.50																			0.63	
Pocahontas	Des Moines								.04	.08			.62																				1.05	
Postville	Mississippi	T.							.25				.30						T.														0.89	
Rock Rapids	Big Sioux								.02				.19							T.													T. 0.21	
Sanborn	Floyd												.03								T.													0.13
Sioux Center	Floyd	T.							T.	.12			.30						T.														T. 0.42	
Spencer	Little Sioux	T.							.27				.30																				0.74	
Storm Lake	Raccoon								T.	.05			.08	.04																		0.17		
Washta	Little Sioux	T.							T.				.30						T.		T.											T. 0.30		
Waterloo	Cedar								.14	.06			.30	.20					T.													0.73		
Waverly	Cedar								.67				T.	.35					.22		.26											1.55		
West Bend	Des Moines								.02	.11			.15																				0.34	
<i>Central Division</i>																																		
Ames	Skunk	T.							.15	.07			.45	.05																		T. 0.87		
Audubon	Nishnabotna	T.							.10	T.			.70																			T. 1.04		
Baxter	Skunk								.13	.07			.63																			T. 0.97		
Belle Plaine	Iowa	T.							.06	.04			.27	.11					.03	T.											T. 0.54			
Boone	Des Moines	T.							.14	.05			.62	.15																		T. 1.13		
Carroll	Raccoon								.09				.45																			0.54		
Cedar Rapids	Cedar	T.							.16	T.			.35	.15																		0.75		
Clinton	Mississippi	.01							.38				.46	.18																		1.05		
Davenport***	Mississippi	T.							.01	T.			.72	.04					.21	.14	T.										T. 1.13			
Davenport (No. 2)	Mississippi	T.							.01	T.			.82	.10					.43												1.39			
Denison	Missouri	T.							.04				.33	.05																		0.42		
Des Moines***	Des Moines	T.							.05	.02			.01	.75					T.												0.88			
Fairport	Mississippi	T.							.02				.66	.05					.45	.02											1.20			
Fort Dodge	Des Moines	T.							.05	.07			.18	.22					T.												0.58			
Grinnell	Iowa	.01							.08	.05			.13	.17					T.												0.54			
Grundy Center	Cedar								T.				.20	.20					.50	.60											1.60			
Guthrie Center	Raccoon												.67	.17																		0.92		
Harlan	Nishnabotna																																0.10	
Iowa City	Iowa	.02								.01	.02			.74	.07				.13												0.99			
Iowa Falls	Iowa	T.							.05	.02	.																							

## Daily Precipitation for March, 1925—Continued

Stations	Drainage Basin	Day of Month																																		
		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	To-tols			
<i>Southern Division</i>																																				
Afton	Grand								T.					.98																				0.98		
Albia	Des Moines	.01		.05						.05				.70	.47					.43	T.												1.71			
Atlantic	Nishnabotna	T.							T.					.66	.10																			0.98		
Bonaparte	Des Moines	T.							T.					.92	T.					.39														1.31		
Burlington	Mississippi	.05		.20					T.					.40	.02																			0.70		
Centerville	Chariton	T.		.01				T.	.01					1.20	.02					T.	.47													1.71		
Chariton (near)	Chariton	T.							T.					.55							.19													0.74		
Clarinda	Nodaway	.02		.03										1.27							.06													1.40		
Columbus Jct.	Iowa																																			
Corning	Nodaway	T.												.94						T.															0.94	
Corydon	Chariton	.18		T.						.01				1.07	.01					.27													1.54			
Creston	Missouri	.05								T.					1.50	T.																		1.55		
Cumberland (near)	Nodaway	T.								T.	T.				.30	T.																		0.38		
Earlham	Des Moines	T.								T.	T.				.46	.20																		0.66		
Fairfield	Skunk			.04										.81	.02					.30	.02												1.19			
Glenwood	Missouri	T.		T.						.02					.85	T.					T.													0.91		
Indianola	Des Moines	T.		.02					T.	.01				.38	.22					T.													0.63			
Keokuk***	Mississippi	.02		.02						T.					.02	.52	T.				.25	.12											0.95			
Keosauqua	Des Moines	T.								T.	T.				.93	T.					.40	T.												1.33		
Knoxville	Des Moines			.10					T.	.04				.68	.10					.20													1.12			
Lacona	Des Moines			.10					T.	.01	.10				.75	.20				.22													1.38			
Lamoni	Grand	T.									.01					1.35																		1.73		
Lenox	Missouri	.03								T.					1.00	.05					T.	.15											1.38			
Mt. Ayr	Grand	T.							T.						1.16						.20												1.36			
Mt. Pleasant	Skunk	T.		.07						T.						.89						.32												1.28		
Oakland	Nishnabotna								T.							.20																			0.60	
Oskaloosa	Des Moines	.02		.04					T.						1.06	.06					.31												1.49			
Ottumwa	Des Moines	T.		T.											.94	.08					.52													1.56		
Pella	Skunk															1.00	.20																			
Red Oak (near)	Missouri								T.																											1.20
Sigourney	Skunk	.05		.08					T.	T.						.88	T.				.35													1.36		
Stockport	Skunk	T.		.02													.88	.03			.41	T.												1.37		
Thurman	Missouri	.50		T.						T.	T.						1.42	.28																2.34		
Tingley	Platt																	.92																	1.26	
Washington	Skunk			T.						T.								.82	.08																1.28	
Wescott (near)	Mississippi	.01																1.15																	1.66	
Winterset	Des Moines									T.	T.							.65																	0.68	
Omaha, Neb.***	Missouri	.04		T.														.11	.45			T.													0.75	

Except as otherwise indicated, observations are generally made late in the afternoon, near sunset, and precipitation recorded is for 24 hours ending at the time of observation.

|||Precipitation measured in the morning; amount then recorded is for the preceding 24 hours.

\*\*Regular Weather Bureau Station: precipitation is for 24-hour period, midnight to midnight.

\*\*Incomplete.

\*Precipitation included in the next following measurement.

T. Precipitation is less than .01 inch rain or melted snow.

## RIVERS

Low stages prevailed on the Mississippi river with a slight fall during the first week and a gradual rise thereafter till near the end of the month. The ice began breaking at the end of the first week but there was still some ice in the upper course as late as the 20th. Low stages also prevailed on all interior rivers with considerable fluctuation during the first week due to ice after which there was a slow rise till the latter part of the month. Moderate stages prevailed on the Missouri River with the highest stages during the first week and a general falling tendency prevailed the rest of the month. The ice moved out of all streams with very little damage.

(Continued from page 1)

14th; phoebe, 19th; fox sparrow, song sparrow, 21st; blue heron, chewing, kingfisher, 31st. Corydon, robins, 4th. Earlham, robins, 6th. Jefferson, robins, 6th. Oskaloosa, ducks, 6th; meadow larks, 11th.

Dust storm: 26th.

Fog: 8th, 9th, 17th, 19th, 22d, 24th, 25th.

Hail: 23d.

Halos (lunar and solar): 1st, 2d, 3d, 5th, 9th, 11th, 12th, 15th, 16th, 17th, 18th, 20th, 21st, 22d.

Haze: 16th, 23d.

Parhelia: 1st.

Sleet: 3d, 4th, 13th, 14th, 18th.

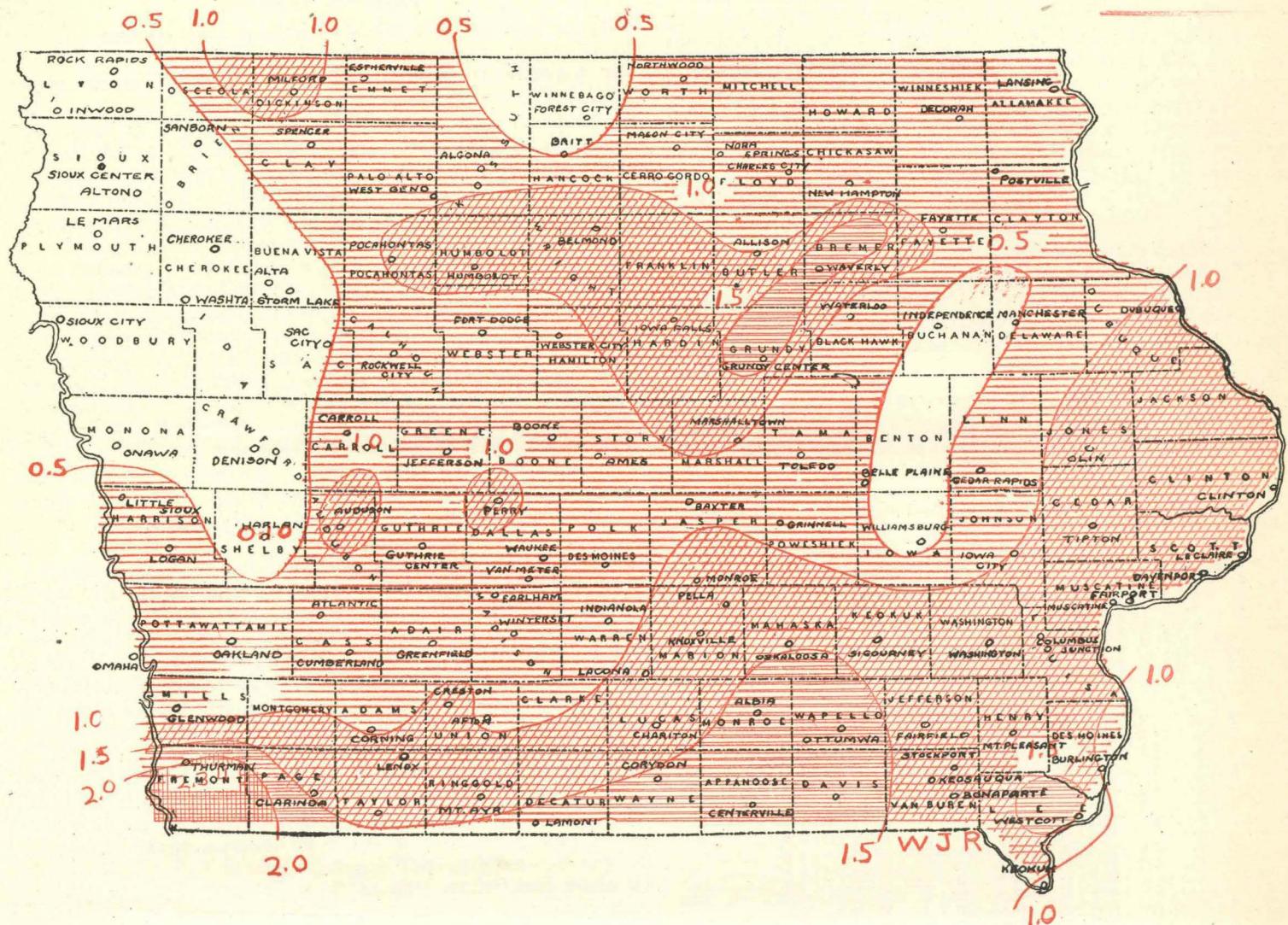
Thunderstorms: 9th, 13th, 22d, 23d, 24th, 31st.

Wind (high): 1st, 3d, 5th, 10th, 13th, 15th, 16th, 20th, 21st, 23d, 24th, 25th, 26th, 27th, 28th.

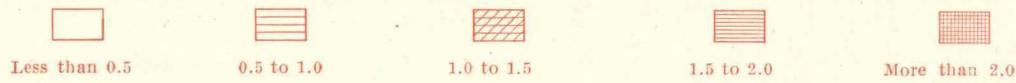
## Daily Maximum and Minimum Temperature for the Month of March, 1925.

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	Mean
<i>Northern Division</i>																																
Algona-----	23	25	43	42	56	56	43	38	58	53	35	46	36	22	39	47	54	46	47	55	53	56	78	66	72	65	51	61	59	57	62	49.8
Alta-----	2	1	20	27	32	30	33	30	32	28	26	26	20	8	4	30	30	24	28	31	24	24	36	35	40	40	30	26	36	30	35	26.3
Alton-----	15	28	44	47	57	50	41	35	64	38	37	48	33	23	41	52	52	44	49	56	40	62	78	61	74	58	52	65	65	63	64	49.5
Belmond-----	3	1	20	28	33	33	32	32	31	24	14	27	16	4	5	30	30	23	28	35	21	28	43	36	40	38	28	29	34	32	36	26.1
Charles City-----	20	30	42	46	58	48	40	39	63	53	36	46	36	19	41	52	58	43	50	60	60	73	59	76	63	52	64	65	60	63	50.5	
Decorah-----	0	1	19	26	30	33	33	30	33	26	14	20	17	6	8	28	31	23	28	34	22	26	43	36	38	40	28	22	33	26	38	26.2
Dubuque-----	1	4	16	19	28	28	32	31	23	17	25	21	11	-3	29	24	27	29	24	32	21	36	35	44	39	21	25	28	24	21	24.1	
Forest City-----	0	1	17	28	25	34	33	32	33	27	22	29	21	11	9	34	32	32	26	29	32	29	40	41	35	41	37	32	31	38	31	27.7
Independence-----	24	26	40	46	58	52	43	38	53	55	36	47	42	23	39	46	54	48	47	53	50	55	77	68	72	60	52	61	57	55	60	49.6
Inwood-----	1	3	18	14	30	35	33	30	31	28	13	25	20	9	3	23	28	25	27	29	24	32	37	34	39	42	30	25	33	26	34	25.0
Mason City-----	20	29	43	47	59	47	44	37	59	44	34	43	31	22	14	4	21	30	32	25	28	35	34	35	28	33	27	29	28	24.9		
Milford (near)-----	5	0	23	25	34	30	31	27	32	22	10	22	16	4	9	31	33	20	26	36	20	24	44	36	41	38	26	25	31	27	30	25.4
New Hampton-----	23	25	38	44	60	51	41	38	54	55	48	38	22	39	47	53	43	44	55	50	53	75	65	72	60	50	60	58	53	60	48.6	
Northwood-----	11	22	43	54	47	37	47	33	43	37	25	37	25	12	4	33	42	47	53	52	7'	68	66	56	55	50	51	60	46	31	43	
Pocahontas-----	0	3	23	29	31	29	29	23	31	22	14	21	10	2	28	29	27	23	20	27	25	27	34	35	34	31	25	26	31	23	20.3	
Postville-----	30	22	40	43	49	54	42	37	47	52	3	48	40	28	34	43	54	45	45	57	49	51	70	64	68	61	50	58	56	61	48.0	
<i>Central Division</i>																																
Belle Plaine-----	31	30	52	40	55	56	57	43	59	47	41	58	59	27	42	49	60	67	53	60	78	63	74	61	55	63	60	61	67	54.2		
Boone-----	31	29	52	48	63	61	52	42	56	56	40	56	47	28	42	48	57	48	50	62	61	78	61	75	67	55	63	62	53	57.3		
Carroll-----	6	1	19	19	24	24	35	32	33	29	19	22	26	12	-4	35	21	30	20	27	26	30	34	38	32	19	25	22	32	25.0		
Cedar Rapids-----	31	29	50	48	55	58	60	45	62	60	42	59	52	35	44	55	63	51	54	69	60	72	78	66	73	63	66	69	56.5			
Davenport-----	31	22	44	45	50	55	67	36	63	60	38	55	46	28	39	53	58	49	49	60	61	71	67	52	61	57	59	62	52.1			
Des Moines-----	22	29	51	44	61	57	55	36	64	51	42	56	44	24	45	47	57	49	51	64	68	63	74	59	54	62	61	57	62	52.5		
Ft. Dodge-----	26	30	45	50	62	56	47	43	64	62	39	49	40	25	40	44	52	47	49	57	54	60	77	74	68	53	64	61	59	60	51.9	
Grinnell-----	3	1	18	30	34	31	21	25	15	22	6	1	29	26	25	24	31	23	29	40	33	38	43	30	22	32	36	34	25	24.5		
Guthrie Center-----	31	28	47	45	57	56	57	47	60	60	40	57	53	31	44	46	59	56	48	65	60	67	77	72	73	66	53	63	61	60	54.7	
Iowa City-----	10	0	19	19	20	18	23	28	31	29	18	28	25	7	5	34	28	25	35	24	31	40	46	31	23	34	23	31	33	24	25.9	
Iowa Falls-----	29	28	47	44	59	57	47	38	55	55	36	49	43	24	38	47	54	48	46	57	51	56	76	69	72	63	52	60	57	62	50.8	
Little Sioux-----	5	1	18	24	28	32	33	30	32	31	18	28	24	11	-1	32	28	30	24	30	26	29	41	34	38	43	31	23	29	26	31.0	
Marshalltown-----	29	31	52	56	65	64	52	44	70	46	42	56	50	24	42	48	57	50	56	65	67	78	65	73	67	66	65	61	56.1			
Olin-----	6	1	18	27	28	31	35	31	33	32	21	28	26	15	8	33	30	33	25	34	27	32	40	39	37	45	34	28	35	32	34	28.3
Sioux City-----	21	22	44	42	48	55	55	45	53	54	37	53	48	31	46	54	59	54	49	61	58	74	63	72	60	53	62	58	59	62	53.3	
<i>Southern Division</i>																																
Albia-----	32	29	51	39	59	64	70	45	67	59	44	58	50	35	43	57	63	55	51	66	62	74	62	55	66	61	66	66	66	66	36.5	
Atlantic-----	10	0	17	26	26	36	38	29	33	32	34	28	31	18	12	32	29	31	24	33	28	32	41	34	44	33	27	35	30	34	29.0	
Burlington-----	24	32	52	53	66	61	53	43	71	57	44	56	51	28	47	45	53	50	52	63	58	66	76	57	66	68	64	66	66	56.1		
Columbus Jet-----	14	2	17	27	25	37	39	33	35	38	27	28	35	23	16	31	35	33	33	35	43	48	35	45	37	32	36	37	34	31.3		
Corning-----	33	28	54	57	63	61	59	70	55	53	55	57	51	38	48	50	54	53	50	56	66	64	79	69	75	69	56	66	67	67	57.4a	
Corydon-----	34	26	50	43	57	64	70	51	65	53	44	56	41	36	44	53	59	55	51	66	61	66	76	63	73	63	54	63	63	61	66	55.7
Fairfield-----	34	26	47	40	54	63	73	46	69	59	39	57	47	36	43	57	63	53	50	66	61	62	76	63	73	63	54	64	64	64	55.5	
Keokuk-----	8	1	17	19	21	35	38	31	33	32	23	21	52	20	13	31	29	33	26	33	28	34	42	43	44	34	46	26	31	35	29.7	
Lamoni-----	30	27	45	40	57	63	74	40	72	61	41	57	45	34	43	57	60	49	52	67	57	59	76	65	72	68	54	62	58	60	63	55.2
Sigourney-----	9	1	17	20	28	36	45	31	34	32	24	25	31	13	11	30	33	26	31	27	32	39	41	33	42	32						

### TOTAL PRECIPITATION, MARCH, 1925



### Scale of Shades—In Inches



# CLIMATOLOGICAL DATA.

## IOWA SECTION

In co-operation with

## IOWA WEATHER AND CROP BUREAU

CHARLES D. REED, Meteorologist

VOL. XXXVI DES MOINES, IOWA, APRIL, 1925 No. 4

### GENERAL SUMMARY

Unusually mild weather prevailed practically the entire month, and with the exception of April 1915 this was the warmest April of record. From the 1st to the 26th the temperature was continuously above normal except on an occasional day, in scattered portions of the State. An unusual feature was the fact that at a number of stations the temperature did not reach the freezing point, and there was no damage of consequence from frost. The month closed with a decided change to colder. Another unusual feature was the remarkably high minimum temperature on the night of the 21st-22d, which seemed more like a July night, and the minimum on the morning of the 22d did not go below 70° at several stations in the western portion of the State. The mild weather caused all vegetation to advance far beyond the average for the season. Fruit blossomed in some parts of the State nearly three weeks ahead of the average date, under ideal conditions. Strawberries were damaged somewhat by frost at the end of the month, but most tree fruit escaped injury. Truck gardeners generally disregarded caution and planted a large acreage of tomatoes, sweet corn and beans. Many fields of sweet corn intended for early market were more than six inches high at the end of the month. The weather was ideal for all farm work. The preparation of the soil for corn was pushed and there was considerable planting in the southern half of the State, but in a small area in the southeast the work was interrupted by too much rain. The temperature departures were remarkably uniform.

Though precipitation averaged only 0.79 inch below normal, the greater portion of the State had less than half the normal, the average being brought up by an excess in the southeast and south-central sections. The continued rain shortage in much of the State caused small streams and wells to continue to go dry and crops in large areas were badly in need of rain. Since the present dry period set in there has been but one month, December 1924, that has had more than the normal precipitation. The deficiency since last September now amounts to more than five inches. There was very little rain during the first week; thereafter rainfall occurred at frequent intervals but generally insufficient to penetrate the soil. Hail occurred on a large number of days, but it was not of a damaging nature except on the 18th, 20th, and 21st. The most severe storm occurred on the 18th in a strip running from Humboldt and Wright counties northeastward to Winneshiek, Howard, and Mitchell counties. The damage consisted mainly of broken windows, punctured roofs, and some damage to fruit buds. Stones were noted at many places as large as hen's eggs. A less severe storm also occurred over much of this area on the 20th and 21st; and on the 21st a local storm occurred in Appanoose county. These storms were accompanied by considerable wind which wrecked a number of barns and silos. Lightning was severe in localities. In Dubuque county a team of two mules and two horses were killed, but the driver escaped without being stunned; in Lee county lightning struck a barn, causing it to burn with all its contents, including four horses.

Roads were in generally good condition, except in the southeast portion, throughout the month, and all outside occupations were carried on with very little interruption.

F. L. D.

### TEMPERATURE

The mean temperature for the State, as shown by the records of 102 stations, was 56.5°, or 7.6° higher than the normal. By divisions, approximately three tiers of counties to the division, the means were as follows; Northern, 54.8°, or 7.7° higher than the normal; Central, 56.7°, or 7.5° higher than the normal; Southern, 58.1° or 7.6° higher than the normal. The highest monthly mean was 60.2°, at Thurman, and the lowest was 52.6°, at Osage. The highest temperature reported was 95°, at Waterloo, on the 23d, and the lowest was 21°, at Postville, on the 5th. The temperature range for the State was 74°.

### PRECIPITATION

The average precipitation for the State, as shown by the records of 105 stations, was 2.20 inches, or 0.79 inch less than the normal. By divisions the averages were as follows: Northern, 1.76 inches, or 1.01 inches less than the normal; Central, 2.12 inches, or 0.91 inch less than the normal; Southern, 2.71 inches, or 0.47 inch less than the normal. The greatest amount, 5.34 inches, occurred at Centerville, and the least, 0.71 inch, occurred at Allison. The greatest amount in any 24 consecutive hours, 2.31 inches, occurred at Fairfield, on the 24th.

(Continued on page 29)

### COMPARATIVE DATA FOR THE STATE—APRIL

YEAR	Temperature			Precipitation			Number of Days						
	Mean	Departure*	Highest	Lowest	Total	Departure*	Greatest	Least	Snowfall	With Pre. .01 in. or more	Clear	Partly cloudy	Cloudy
1890-----	51.8	+2.9	88	2	1.80	-1.19	4.46	0.38	-----	6	14	9	7
1891-----	50.6	+1.7	93	13	2.15	-0.84	5.06	0.59	-----	8	14	9	9
1892-----	45.4	-3.5	88	14	4.75	+1.76	8.38	2.43	5.7	9	8	9	13
1893-----	45.5	-3.4	96	15	4.21	+1.22	8.51	1.24	6.0	10	8	9	13
1894-----	51.7	+2.8	93	12	3.07	+0.08	6.91	0.55	0.2	5	11	11	8
1895-----	54.2	+5.3	98	8	2.62	-0.37	5.88	0.28	2.1	14	8	8	8
1896-----	54.5	+5.6	94	10	5.02	+2.03	9.67	2.35	4.5	11	11	10	9
1897-----	47.9	-1.0	89	19	5.35	+2.36	9.86	2.22	T.	11	9	9	12
1898-----	48.1	-0.8	91	14	2.56	-0.43	4.82	0.27	T.	8	13	9	8
1899-----	48.9	0.0	89	1	2.40	-0.59	5.76	0.56	2.0	7	12	11	7
1900-----	52.2	+3.3	89	19	2.67	-0.32	6.62	0.43	0.9	6	12	9	9
1901-----	49.9	+1.0	92	15	1.79	-1.20	3.47	0.66	2.0	5	14	8	8
1902-----	48.2	-0.7	96	9	1.71	-1.28	4.15	0.40	T.	5	14	11	5
1903-----	49.8	+0.9	86	17	2.98	-0.01	6.00	0.74	0.8	9	11	9	10
1904-----	44.1	-4.8	86	13	3.63	+0.64	8.97	1.52	1.4	7	15	6	9
1905-----	47.5	-1.4	90	10	3.03	+0.04	5.49	0.63	1.2	8	12	9	10
1906-----	52.5	+3.6	94	22	2.42	-0.57	5.55	0.53	0.6	8	14	9	7
1907-----	41.5	-7.4	80	10	1.32	-1.67	3.22	0.24	2.7	6	12	8	10
1908-----	50.5	+1.6	91	8	2.24	-0.75	4.59	0.67	0.3	8	14	8	8
1909-----	43.8	-5.1	86	14	4.58	+1.59	9.43	0.88	3.1	12	9	9	12
1910-----	52.5	+3.6	99	15	1.48	-1.51	4.86	0.10	3.0	7	14	7	9
1911-----	46.7	-2.2	86	3	3.09	+0.10	6.04	1.33	3.6	9	11	8	11
1912-----	49.9	+1.0	84	20	2.66	-0.33	5.66	0.78	1.1	8	13	8	9
1913-----	50.2	+1.3	88	16	3.28	+0.29	7.43	1.12	2.7	9	15	5	10
1914-----	48.6	-0.3	88	11	2.52	-0.47	5.03	0.37	0.3	8	10	8	12
1915-----	57.2	+8.3	95	18	1.41	-1.58	4.02	0.05	T.	7	15	10	5
1916-----	47.1	-1.8	90	11	2.62	-0.37	5.92	1.13	1.1	10	10	9	11
1917-----	45.5	-3.4	88	17	4.55	+1.56	7.84	2.05	3.8	11	9	7	14
1918-----	44.8	-4.1	79	12	2.32	-0.67	4.20	1.01	3.5	9	12	8	10
1919-----	48.4	-0.5	81	20	4.78	+1.79	9.00	1.94	0.7	14	8	8	14
1920-----	42.4	-6.5	78	22	4.59	+1.60	7.13	1.93	2.0	12	8	9	13
1921-----	52.4	+3.5	88	14	3.34	+0.35	6.69	0.99	3.6	10	13	7	10
1922-----	49.9	+1.0	87	21	3.06	+0.07	6.70	1.04	1.0	9	11	9	10
1923-----	48.4	-0.5	85	11	2.09	-0.90	4.26	0.47	0.8	8	15	7	8
1924-----	50.5	+1.6	90	-8	1.38	-1.61	4.53	0.38	1.4	7	16	8	6
1925-----	56.5	+7.6	95	21	2.20	-0.79	5.34	0.71	T.	8	14	9	7

T. indicates an amount too small to measure, or less than .005 inch rainfall and less than .05 inch snowfall.

\*New normals effective June 1, 1924.



## Climatological Data for April, 1925

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit						Precipitation, in inches			Number of Days			Observers		
				Mean	Departure from normal	Highest Date	Lowest Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)	Precipitation, .01 in. or more	Clear	Partly cloudy	Cloudy		
<i>Northern Division</i>																		
Algona	Kossuth	1,213	52	55.9	+ 8.3	90	22	30	6	40	2.03	-0.59	0.83	0	7	18	5	7 se. W. E. Laird
Allison (near)	Butler	1,044	13	54.8	+ 7.5	91	22	26	5	41	0.71	-2.33	0.35	0	5	13	10	7 sw. J. A. Bell
Alta	Buena Vista	1,513	34	55.8	+ 8.7	85	22	32	29†	42	2.73	-0.36	0.78	T.	9	13	11	6 e. D. E. Hadden
Alton	Sioux	1,305	20	55.2	+ 8.2	84	22	29	30	40	1.92	-0.57	0.48	0	9	7	12	11 se. W. S. Slagle
Belmond	Wright	1,205	15	55.0	+ 8.3	90	22	27	5	40	1.40	-1.86	0.50	0.5	7	17	6	nw. Geo. P. Hardwick
Britt	Hancock	1,236	38	54.2	+ 8.0	90	22	25	5	44	1.32	-1.25	0.60	0	7	15	9	6 sw. Jas. S. Ross
Charles City	Floyd	1,015	34	53.9	+ 7.5	90	22	29	5	37	1.15	-1.41	0.45	T.	11	14	9	7 se. U. S. Weather Bureau
Cherokee	Cherokee	1,196	3	55.0 <sup>a</sup>	-----	83 <sup>a</sup>	21†	30 <sup>a</sup>	30	41 <sup>a</sup>	2.34	-0.67	0.67	T.	10	-----	-----	se. J. E. Wirth
Decorah	Winneshiek	875	32	54.2	+ 6.3	90	22	27	5	41	1.23	-1.32	0.40	0	9	17	6	7 se. M. D. Whitney
Dubuque	Dubuque	698	52	54.8	+ 6.2	88	22	27	5	34	2.17	-0.51	0.96	0	9	9	7	14 se. U. S. Weather Bureau
Estherville	Emmet	1,298	30	52.8	+ 7.9	84	22	26	1	42	1.30	-1.33	0.40	0	9	18	10	2 s. A. O. Peterson
Fayette	Fayette	1,003	35	54.0	+ 7.1	91	22	23	5	43	1.33	-1.77	0.55	T.	4	18	6	6 ne. R. Z. Latimer
Forest City	Winnebago	1,226	31	54.4	+ 8.1	84	22	27	5	42	1.62	-0.86	0.55	0	9	12	8	10 se. Dr. M. B. Neil
Hampton	Franklin	1,145	-----	54.2	+ 6.3	90	22	27	2†	42	0.95	-2.24	0.30	0	8	18	6	6 se. L. H. Davis
Humboldt	Humboldt	1,095	37	55.9	+ 7.8	89	22	30	5†	42	2.10	-0.58	0.67	0	8	12	11	7 n. H. C. Snitkey
Independence	Buchanan	921	61	57.1	+ 8.4	90	22	24	5	44	1.96	-0.55	0.84	0	6	17	5	8 sw. Dr. Geo. Boody
Inwood	Lyon	1,474	21	55.6	+ 8.9	84	21	28	30	41	1.56	-0.97	0.45	0	10	17	10	3 se. A. C. Hanson
LeMars	Plymouth	1,224	29	55.8	+ 8.0	84	22	31	30	39	2.40	-0.42	0.86	0	8	19	8	3 se. Mrs. M. C. Woolley
Mason City	Cerro Gordo	1,148	28	53.1	+ 6.6	90	22	26	2†	43	1.43	-1.12	0.43	0	8	14	9	7 se. Amer. Beet Sugar Co.
Milford (near)	Dickinson	1,430	5	54.1	-----	85	22	28	29	39	1.89	-----	0.80	T.	6	19	5	6 s. S. N. McKinsey
New Hampton	Chickasaw	1,169	28	53.7	+ 6.7	90	22	25	5	48	1.64	-0.96	0.52	0	8	14	7	9 s. A. F. Kemman
Nora Springs	Floyd	1,061	13	54.3	+ 5.9	90	22	26	5	42	1.88	-1.12	0.45	0	12	15	10	5 s. Arthur Betts
Northwood	Worth	1,222	29	54.3 <sup>i</sup>	+ 9.2	87 <sup>k</sup>	22	26 <sup>m</sup>	5	37 <sup>n</sup>	1.15	-1.59	0.50	0	7	15	8	7 ne. Chas. Dwelle
Oelwein	Fayette	1,036	1	55.1	-----	90	22	25	5	38	0.80	-----	0.30	0	4	14	11	5 s. John T. Ridler
Osage	Mitchell	1,163	-----	52.6	-----	89	22	25	5	40	1.95	-----	0.56	0	10	11	12	7 nw. W. G. Gee
Pocahontas	Pocahontas	1,248	21	55.2	+ 8.1	86	22	27	6	45	2.06	-0.66	0.65	T.	9	16	7	7 se. F. E. Hronek
Postville	Clayton	1,180	26	52.8	+ 6.5	88	22	21	5	42	1.44	-1.57	0.40	T.	9	10	12	8 se. F. L. Williams
Rock Rapids	Lyon	1,358	26	55.6	+ 9.3	84	21	30	2†	41	1.75	-1.05	0.58	0	8	17	8	5 se. J. K. Medberry
Sanborn	O'Brien	1,553	11	54.0	+ 7.5	84	22	30	2†	44	2.86	-0.14	0.83	0	10	14	13	3 se. J. W. Dow
Sioux Center	Sioux	1,426	26	54.7	+ 8.2	81	21†	27	30	42	2.08	-0.74	0.56	0	7	12	7	11 s. J. de Ruyter
Spencer	Clay	1,319	11	55.2	+ 8.2	88	12†	26	3	46	1.70	-1.20	0.51	1.0	11	11	12	7 se. E. W. Little
Storm Lake	Buena Vista	1,440	36	56.0	+ 8.6	88	22	32	30	42	2.39	-0.54	0.75	T.	10	17	9	4 e. Geo. H. Fracker
Washta	Cherokee	1,157	27	55.8	+ 8.3	85	22	31	30	44	3.91	+1.29	1.23	0	7	16	8	6 s. H. L. Felter
Waterloo	Black Hawk	854	42	56.4	+ 7.6	95	22	25	5	46	0.95	-1.58	0.33	0	5	16	7	7 se. R. B. Slippy
Waverly	Bremer	936	29	53.1	+ 7.5	91	22	27	5	41	1.31	-1.69	0.45	0	9	24	3	3 se. D. H. Murphy
West Bend	Palo Alto	1,197	32	54.9	+ 7.5	87	22	26	6	45	2.02	-0.85	0.88	0	10	12	13	5 se. Jos. Dorweiler
Means and extremes				54.8	+ 7.7	95	22	21	5	48	1.76	-1.01	1.23	T.	8	14	9	7 se.
<i>Central Division</i>																		
Ames	Story	926	48	56.6	+ 7.8	89	22	30	5†	40	0.87	-2.11	0.51	T.	8	14	9	7 se. Iowa State College
Audubon	Audubon	1,297	30	56.2	+ 8.6	88	22	30	30	40	1.79	-1.33	0.72	0	7	12	12	6 se. Geo. Kirby
Baxter	Jasper	998	25	56.7	+ 7.7	90	22	24	5	40	0.89	-2.17	0.25	0	5	13	12	5 s. Henry Geise
Belle Plaine	Benton	866	35	57.5	+ 8.1	93	22	23	5	43	2.13	-1.28	0.84	0	10	10	13	7 se. O. C. Burrows
Boone	Boone	1,134	20	56.2	+ 7.2	90	22	26	5	47	1.70	-1.18	0.64	0	8	16	4	10 s. C. F. Henning
Carroll	Carroll	1,265	35	56.8	+ 8.3	87	22	30	5†	43	1.43	-1.52	0.78	T.	8	16	8	6 se. Mrs. Jos. J. Wolfe
Cedar Rapids	Linn	737	43	56.2	+ 5.8	94	22	24	1†	56	2.50	-0.45	0.97	0	8	9	8	13 se. J. T. Wurster
Clinton	Clinton	595	52	55.9	+ 6.1	88	22	28	1	44	2.81	-0.23	0.85	T.	8	21	2	7 n. Dr. A. P. Bryant
Davenport	Scott	580	54	56.6	+ 6.7	87	22	29	5	38	4.48	+1.09	1.48	0.7	11	12	9	9 e. U. S. Weather Bureau
Davenport (No. 2)	Scott	690	-----	57.1	-----	89	22	25	5	42	4.63	-----	1.37	0.8	10	-----	-----	Rex Shriver
Denison	Crawford	1,171	31	57.2	+ 8.0	87	22	31	30	41	2.44	-0.39	1.47	T.	8	12	10	8 nw. V. L. Byers
Des Moines	Polk	861	47	58.2	+ 8.1	88	22	33	5	36	1.64	-1.37	0.86	T.	6	7	9	14 se. U. S. Weather Bureau
Fairport	Muscatine	567	4	57.7	-----	85	22	27	5	40	3.81	-----	1.03	0	11	19	4	7 sw. Bureau of Fisheries
Fort Dodge	Webster	1,114	25	55.7	+ 8.1	90	22	28	30	43	2.22	-0.52	0.66	T.	8	16	6	8 se. Samuel Sampson
Grinnell	Poweshiek	1,031	31	58.0	+ 8.6	90	22	30	6	41	1.66	-2.05	0.67	0	8	11	14	5 se. Paul M. Meyers
Grundy Center	Grundy	976	34	55.8	+ 6.7	92	22	24	5	42	1.01	-2.22	0.46	0	5	11	4	15 n. W. D. Callaway
Guthrie Center†	Guthrie	1,077	30	57.4	+ 8.0	88	22	30	6	41	1.33	-1.80	0.60	0	5	11	13	6 sw. E. L. Nesseleroad
Harlan	Shelby	1,192	26	57.0	+ 8.0	88	22	32	30	37	3.07	-----	0.11	1.53	0	11	15	4 s. Nels Bissard
Iowa City	Johnson	733	65	56.0	+ 6.1	89	22	27	5	41	3.07	-0.11	1.53	0	9	10	14	6 se. Prof. J. F. Reilly
Iowa Falls	Hardin	1,107	32	55.0	+ 7.2	89	22	26	5	40	1.28	-1.84	0.48	0	6	12	11	7 s. J. B. Parmelee
Jefferson	Greene	1,052	26	56.2	+ 7.7	88	22	30	5†	41	1.21	-1.64	0.51	T.	5	13	4	13 se. W. L. Lyon
Little Sioux	Harrison	1,040	20	60.1	+ 9.6	90	22	30	30	44	2.28	-0.39	0.59	0	10	11	14	5 se. H. W. Kerr
Logan	Harrison	1,035	58	59.4	+ 8.6	89	22	31	2	38	1.88	-0.91	0.92	0	4	15	8	7 sw. Mary Jean Stern
Maquoketa	Jackson	602	-----	87	22	23	22	1	46	3.48	-----	1.60	0	8	12	7	11 e. John Strodthoff	
Marshalltown	Marshall	947	33	57.7														

## Climatological Data for April, 1925—Continued

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit				Precipitation, in inches				Number of Days				Observers		
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)	.01 in. or more	Clear	Partly cloudy	
<i>Southern Division</i>																		
Afton	Union	1,212	31	59.6	+ 9.4	90	22	29	5	43	2.08	-1.42	0.70	0	7	11	13	6 nw. S. R. Brown
Albia	Monroe	959	27	57.8	+ 7.1	87	22	27	5	42	2.51	-0.5	1.08	0	10	14	8	se. O. E. McBride
Atlantic	Cass	1,164	34	59.4	+ 9.6	89	22	33	30	40	1.81	-1.33	0.62	0	8	12	12	6 ne. J. N. Reynolds
Bonaparte	Van Buren	563	34	57.5	+ 6.7	85	22	26	5	37	3.25	+0.05	1.58	0	5	17	6	7 e. B. R. Vale
Burlington	Des Moines	544	29	59.4	+ 7.3	88	22	29	5	39	4.19	+1.09	1.12	0	10	16	8	6 nw. John W. Donnelly
Centerville	Appanoose	1,013	20	57.6	+ 5.6	84	22	26	5	37	5.34	+1.81	2.28	0	12	12	10	8 se. Thomas Wood
Chariton (near)	Lucas	1,042	30	57.2	+ 7.7	86	22	26	5	41	2.22	-1.08	1.22	0	5	13	11	6 se. C. C. Burr
Clarinda	Page	1,009	35	59.5	+ 8.4	87	19†	32	30	38	2.13	-0.78	0.70	0	12	19	9	2 se. Dr. H. C. Hawley
Columbus Jct.	Louisa	595	24															Miss Musa Todd
Corning	Adams	1,117	33	57.5a	+ 8.2	85a	22	32a	5	41a	2.12	-1.01	0.77	0	5			Jerome Smith
Corydon	Wayne	1,101	32	58.0	+ 7.5	86	22	30	5	40	2.75	-0.66	0.90	0	8	11	12	7 se. A. T. Gallagher
Creston	Union	1,312	20	56.9	+ 7.4	86	22	31	5	35	1.05	-2.38	0.75	0	5	17	5	s. s. J. W. Goodsell
Cumberland (near)	Cass	1,225	26								0.98	-1.76	0.53	0	5	12	5	13 se. Carl E. Pollock
Earlham	Madison	1,126	23	56.8	+ 8.1	85	21	28	6	44	2.12	-1.23	0.65	0	6	15	9	6 se. Geo. Phillips
Fairfield	Jefferson	780	41	57.2	+ 7.1	87	22	23	5	41	4.22	+0.56	2.31	0	11	13	9	8 s. Prof. R. M. McKenzie
Glenwood	Mills	1,100	27	59.4	+ 8.1	86	22	35	30	34	2.42	-0.47	0.85	0	7	8	17	5 se. Dr. Geo. Mogridge
Indianola	Warren	972	34	57.6	+ 7.1	88	22	30	5	40	1.62	-1.54	0.64	0	8	10	12	8 se. Seth F. Shenton
Keokuk	Lee	614	54	59.1	+ 6.8	88	22	29	5	34	3.67	+0.57	1.21	0	9	8	14	8 e. U. S. Weather Bureau
Keosauqua	Van Buren	644	33	57.2	+ 6.1	86	22	24	5	41	4.51	+1.12	1.80	T.	10	12	10	8 se. J. H. Landes
Knoxville	Marion	920	30	58.0	+ 7.4	89	22	27	5	41	2.23	-1.17	1.00	0	7	11	10	9 se. W. J. Casey.
Lacona	Warren			26							1.63	-1.44	0.48	0	11	7	15	8 se. J. B. Alter
Lamoni	Decatur	1,123	18	58.1	+ 7.6	85	22	30	5	38	4.04	+0.62	1.17	0	8	14	5	11 se. Roy L. Roberts
Lenox	Taylor	1,250	30	58.2	+ 8.0	87	22	31	5	37	1.17	-2.07	0.61	0	7	14	11	5 s. J. L. Hurley
Mt. Ayr	Ringgold	1,245	32	57.0	+ 6.8	84	22	29	5	35	3.17	-0.19	0.71	0	11	10	11	9 se. Alex Maxwell
Mt. Pleasant	Henry	729	44	58.0	+ 6.5	87	22	26	5	39	3.40	+0.43	1.55	0	10	12	9	9 ne. J. H. Jericho
Oakland	Pottawattamie	1,105	6	58.9	+ 8.8	85	21	32	30	40			0		22	2	6	s. M. E. Gray
Oskaloosa	Mahaska	885	49	57.6	+ 7.5	87	22	26	5	39	1.95	-0.90	0.96	0	7	8	11	11 se. Roy R. Robinson
Ottumwa	Wapello	649	30	58.8		87	22	29	5	41	3.52	+0.61	1.92	0	12	16	4	10 se. C. L. Mikesh
Red Oak (near)	Montgomery	1,030									2.00		0.90	0	7	11	14	5 s. B. R. Bridge
Sigourney	Keokuk	790	29	57.0	+ 7.0	87	22	27	5	37	2.17	-1.11	1.21	0	6	15	7	8 se. W. E. Utterback
Stockport	Van Buren	745	23	56.8	+ 7.0	86	22	25	5	41	4.03	+0.91	1.96	0	12	13	9	8 sw. C. L. Beswick
Thurman	Fremont	975	28	60.2	+ 9.2	87	22	32	29	38	2.27	-0.88	0.61	0	5	5	21	4 ne. C. R. Paul
Tingley	Ringgold	1,275		56.0		85	22	30	5	43	2.24		0.68	0	10	14	9	7 se. James A. Verploeg
Washington	Washington	769	43	58.3	+ 7.6	88	22	26	5	42	4.46	+1.71	2.24	0	9	23	2	5 ne. D. D. Sherman
Wescott (near)	Lee			58.0		85	22	25	1†	36	3.93		1.15	0	9	20	5	5 se. Lester J. Larson
Winterset	Madison	1,129	34	58.2	+ 7.9	87	22	30	5†	39	2.26	-1.32	0.58	T.	5	17	8	5 sw. H. S. Ely
Omaha, Nebr.		1,103	54	60.0	+ 8.8	89	22	36	30	33	1.50	-1.51	0.56	0	8	9	12	9 se. U. S. Weather Bureau
Means and extremes				58.1	+ 7.6	90	22	23	5	44	2.71	-0.47	2.31	T.	8	13	10	7 se.
State means and extremes				56.5	+ 7.6	95	22	21	5	56	2.20	-0.79	2.31	T.	8	14	9	7 se.

The departure from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete records are used in determining means.

Reference letters a, b, c, etc., appearing in the table indicate the number of days missing; for example b represents two days, etc.

†Also other dates.

‡Received too late to be included in means and summaries.

T. Precipitation is less than 0.01 inch rain or melted snow.

## PRESSURE, RELATIVE HUMIDITY, WIND AND SUNSHINE

Stations	Barometric Pressure, Inches (Sea Level)				Relative Humidity, %			Wind			Sunshine			Observers			
	Mean	Highest	Date	Lowest	7 a. m.	12 Noon†	7 p. m.	Total movement	Average hourly velocity	Maximum Miles	From	Date	Per cent of possible	Departure from normal			
Charles City	30.00	30.40	5	29.50	18	73	40	48	14	2	5,111	7.1	31	se.	3	6*	+ 8
Davenport	29.99	30.41	5	29.37	18	76	61	58	33	12	5,428	7.5	30	e.	20	54	- 4
Des Moines	29.96	30.38	5	29.44	18	69	42	48	20	12	6,089	8.5	40	sw.	26	63	+ 3
Dubuque	29.98	30.43	5	29.51	18	70	40	44	16	3	4,748	6.6	33	n.	14	61	+ 4
Keokuk	29.98	30.37	5	29.39	19	73	53	53	26	2	5,693	7.9	32	n.	29	61	+ 4
Sioux City	29.97	30.37	15	29.52	18	67	46	44	17	25	10,029	13.9	56	nw.	29	64	+ 10
Omaha, Neb.	29.95	30.37	15	29.54	18	64	42	44	18	19	6,228	8.6	48	n.	29	65	+ 7
Means and extremes	29.98				70	46	48					8.6				62	+ 4
Normals and records	29.98	30.43	5	29.37	18				14	2			56	nw.	29		

\*Dubuque. \*Davenport. †Sioux City. ‡Local mean time. †And other dates.

April, 1925

**Daily Precipitation for April, 1925**

## Daily Precipitation for April, 1925—Continued

Stations	Drainage Basin	Day of Month																														Totals		
		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			
<i>Southern Division</i>																																		
Afton	Grand																																2.08	
Albia	Des Moines	.17	.04						T.	.13	.52	.06				T.	T.	T.	T.		.07	.18		.13	.22			.20	.03			2.51		
Atlantic	Nishnabotna								T.	.50	.24					.03					.01			T.	.62								1.81	
Bonaparte	Des Moines								T.	.65						T.	T.					.06	.70					T.	.26	T.		3.25		
Burlington	Mississippi									.96	.06					.05						.16	.54		.14			.58	1.12				4.19	
Centerville	Chariton								T.	.22	.77	.02				T.	.02			.01	.17	1.08	T.	.28	.19	.41		.12	.05			5.34		
Chariton (near)	Chariton								T.	.22	.46					T.	T.																2.22	
Clarinda	Nodaway	.15	.05							.22	.70	.24									.01	.02		.05			.01	.17	.10			.41		
Columbus Jet.	Iowa																																2.13	
Corning	Nodaway	.18							T.	.77	.06																						2.12	
Corydon	Chariton																																2.75	
Creston	Missouri																																1.05	
Cumberland (near)	Nodaway	.08	T.						T.	.53	.03					T.	T.																0.98	
Earlham	Des Moines								T.	.65	.64					T.	T.																2.12	
Fairfield	Skunk									T.	.56	.10					.06	T.			.08	.56		.12			.23	.06	.15	T.	.17	.05	4.22	
Glenwood	Missouri	.26	.10							.85	.15																						2.42	
Indianola	Des Moines								T.	.47	.17	T.																					1.62	
Keokuk	Mississippi									.08	.65					.09	T.	T.	T.		.27	.78	.28									3.67		
Keosauqua	Des Moines									.04	.97	.16					.12				.10	.65	.93									4.51		
Knoxville	Des Moines									T.	.30	.40										T.										2.23		
Lacona	Des Moines									.01	.19	.21	.07								.01										1.63			
Lamoni	Grand	.27									.44	.20																				4.04		
Lenox	Missouri	.10							T.	.61																							1.17	
Mt. Ayr	Grand	.08	.03						T.	.71	.63										T.											3.17		
Mt. Pleasant	Skunk										.02	.88	.04									.14	.33	.09								3.40		
Oakland	Nishnabotna	.11																															**	
Oskaloosa	Des Moines								T.	.08	.66	T.				T.	T.	T.	T.			T.	T.	.96	.06	.07		.11	T.			1.95		
Ottumwa	Des Moines									.08	.57	.08					.03	T.	T.			.19										3.52		
Red Oak (near)	Missouri	.03								.90	.14	.18									.05	T.		.40	T.							2.00		
Sigourney	Skunk									T.	.50	T.				T.	T.					T.	T.										2.17	
Stockport	Skunk										.05	.83	.17				.06	.06	.08		.43	.11										4.03		
Thurman	Missouri	.42								T.	.61	.54				T.	T.					T.	T.										2.27	
Tingley	Platt	.12	.02							T.	.44	.68				T.	T.																2.24	
Washington	Skunk																				.72	.28	T.										4.46	
Wescott (near)	Mississippi																				1.00	.09	.01										3.93	
Winterset	Des Moines		T.							T.	.58	.95										T.												2.26
Omaha, Neb.***	Missouri		.33							.03	.53	.10					.02	T.				.02	T.	T.									1.50	

Except as otherwise indicated, observations are generally made late in the afternoon, near sunset, and precipitation recorded is for 24 hours ending at the time of observation.

Precipitation measured at 7:00 p. m. from the 1st to 15th inclusive. During the rest of the month the amounts are for the 24 hours ending at 7:00 a. m. on the date the amounts are entered.

|||Precipitation measured in the morning; amount then recorded is for the preceding 24 hours.

\*\*\*Regular Weather Bureau Station: precipitation is for 24-hour period, midnight to midnight.

\*\*Incomplete.

\*Precipitation included in the next following measurement.

T. Precipitation is less than .01 inch rain or melted snow.

(Continued from page 25)

#### SNOWFALL

The average snowfall for the State was a trace, this year being the fifth year in the history of the State's weather that the April average has been less than 0.1 inch. The normal for the State is 1.8 inches. Only three stations, Belmond, Spencer and Davenport, reported more than a trace and about three-fourths of the stations reported no snow whatever.

#### MISCELLANEOUS PHENOMENA

Fog: 9th, 18th.

Frost (light): 1st, 2d, 3d, 5th, 6th, 15th, 16th, 27th, 28th, 29th, 30th; (heavy): 5th, 15th, 27th, 29th, 30th; (killing): 2d, 3d, 5th, 6th, 15th, 16th, 29th, 30th.

Hail: 7th, 14th, 18th, 19th, 20th, 21st, 22d, 24th, 26th, 27th, 28th, 29th.

Halos (lunar and solar): 1st, 2d, 3d, 4th, 7th, 16th, 18th, 21st, 23d, 26th, 28th.

Haze: 4th, 18th, 22d.

Rainbows: 13th, 23d, 25th.

Sleet: 19th, 29th.

Thunderstorms: 7th, 8th, 9th, 13th, 14th, 16th, 18th, 19th,

20th, 21st, 22d, 23d, 24th, 25th, 26th, 28th.

Winds (high): 3d, 6th, 14th, 18th, 20th, 21st, 22d, 23d, 26th, 29th.

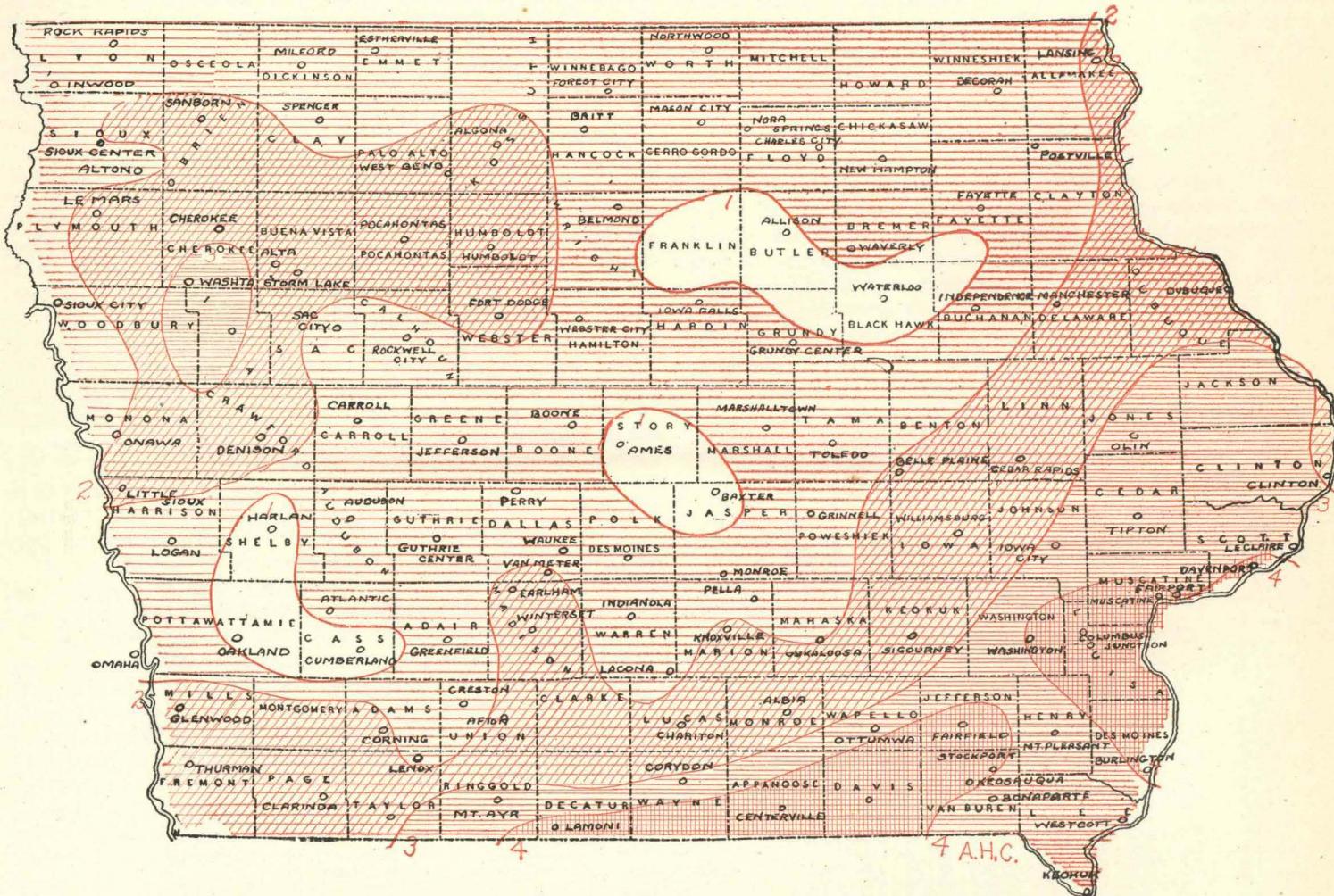
#### RIVERS

Low stages prevailed on the Mississippi and all interior rivers. The highest stages prevailed during the first week after which there was a gradual fall on the interior rivers but a moderate rise occurred on the Mississippi during the third and fourth weeks. Moderate stages prevailed on the Missouri River with a rather sharp rise during the first week, the total rise amounting to more than 6.0 feet and a rise in a single day of more than 2.5 feet. After the first week there was a gradual fall except a slight rise occurred during the latter part of the third week.

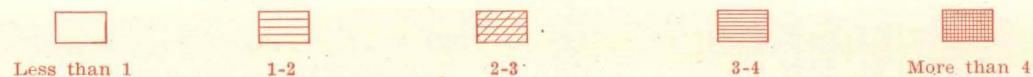
## Daily Maximum and Minimum Temperature for the Month of April, 1925

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	Total	
<i>Northern Division</i>																																	
Algona	Maximum	67	67	71	71	70	70	72	61	57	76	71	81	75	60	66	65	63	60	67	60	78	90	81	73	75	71	65	57	48	59	68.2	
	Minimum	39	47	51	34	35	30	47	50	45	41	50	50	45	35	48	37	39	40	43	43	42	65	60	60	47	41	39	40	33	33	43.6	
Alta	Maximum	68	67	72	67	74	73	59	58	77	79	83	73	64	60	68	66	69	55	84	85	74	74	79	65	70	51	47	55	68.2			
	Minimum	36	39	44	35	34	34	47	46	45	44	48	49	52	42	38	41	45	47	45	41	42	66	59	55	49	42	36	32	32	43.5		
Alton	Maximum	69	65	67	63	64	71	73	67	58	75	76	80	72	63	60	65	69	65	68	60	82	84	79	74	77	70	66	59	52	55	68.3	
	Minimum	38	35	39	35	34	35	48	48	45	35	42	41	41	36	37	36	47	49	44	45	43	68	59	50	40	38	33	34	29	42.2		
Belmond	Maximum	66	67	69	60	67	73	69	59	56	76	78	82	80	71	61	67	63	55	68	55	77	90	83	76	69	72	65	55	49	61	68.1	
	Minimum	37	34	37	38	27	30	44	45	44	40	48	44	54	38	30	34	44	46	44	41	42	63	63	61	43	36	40	33	33	41.9		
Charles City	Maximum	65	69	70	58	57	67	74	60	57	75	76	71	67	62	52	63	45	77	90	84	72	77	64	63	56	56	60	66.7				
	Minimum	34	32	35	37	29	31	43	48	45	39	49	48	48	34	32	32	45	43	42	40	42	60	63	56	46	43	35	34	34	41.1		
Dubuque	Maximum	65	66	67	55	55	64	74	69	58	72	76	81	75	74	59	66	61	71	53	49	67	88	85	72	77	67	61	58	48	57	66.4	
	Minimum	31	36	37	35	27	32	40	49	49	45	48	47	48	41	36	35	47	44	42	43	57	54	52	45	41	40	38	33	34	43.3		
Forest City	Maximum	65	68	73	63	57	68	70	62	59	76	76	82	76	67	60	68	62	60	65	62	75	89	81	75	77	68	63	60	48	57	67.8	
	Minimum	37	35	41	34	27	33	42	47	43	44	47	40	42	39	32	33	43	45	40	39	62	60	59	45	41	35	37	33	33	40.9		
Independence	Maximum	67	70	67	61	67	75	74	68	74	77	81	80	77	75	68	68	70	65	63	78	90	82	80	73	73	64	61	60	72.1			
	Minimum	31	37	35	25	34	30	40	57	44	51	58	40	57	49	31	31	44	46	41	37	42	48	62	60	48	38	32	34	42.1			
Inwood	Maximum	69	69	64	65	68	71	56	60	79	78	84	76	66	60	64	70	76	70	58	84	82	75	75	77	67	67	53	55	68.8			
	Minimum	38	48	39	35	35	33	47	49	45	42	42	52	44	37	37	38	46	50	39	44	43	68	59	49	42	35	34	32	28	42.5		
Mason City	Maximum	65	69	71	59	57	67	71	62	55	75	71	83	75	68	68	62	55	63	55	75	90	83	75	78	68	66	57	51	58	67.0		
	Minimum	35	26	29	35	26	27	41	43	44	39	34	45	52	33	29	28	42	44	40	38	41	62	62	61	44	42	31	36	34	33	39.2	
Milford (near)	Maximum	74	68	66	60	63	73	75	58	55	76	81	72	58	58	62	67	63	67	55	81	85	73	73	76	71	64	57	44	55	66.8		
	Minimum	63	31	36	43	35	42	43	41	40	45	43	54	34	29	38	41	45	45	42	52	59	52	44	40	29	35	31	31	41.4			
New Hampton	Maximum	68	69	62	59	65	76	68	58	55	75	75	82	72	58	68	63	58	60	56	74	90	84	72	77	68	68	58	52	60	67.9		
	Minimum	32	37	40	35	25	27	28	47	42	41	46	47	37	37	30	31	43	44	40	38	57	56	59	44	44	36	36	32	34	39.5		
Northwood	Maximum	65	68	68	68	72	72	72	73	73	79	72	61	55	55	55	55	55	55	55	55	55	55	55	55	55	55	58	58	68.2 <sup>k</sup>			
	Minimum	33	31	26	38	31	38	41	49	46	36	31	38	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	30.4 <sup>m</sup>		
Pocahontas	Maximum	67	67	71	61	62	72	74	65	59	78	76	82	76	65	60	65	65	58	68	57	82	76	79	75	67	65	59	45	58	61.1		
	Minimum	37	33	37	36	42	27	46	48	46	45	49	45	54	38	32	35	43	47	44	42	42	65	59	58	45	42	33	36	32	31	42.3	
Postville	Maximum	65	69	68	57	56	65	72	63	58	73	75	81	78	73	58	68	61	56	54	72	88	84	73	76	66	61	58	50	59	66.4		
	Minimum	27	33	36	34	21	28	35	47	41	41	38	52	48	43	39	28	26	43	41	39	37	38	52	66	59	48	45	35	36	33	32	39.3
<i>Central Division</i>																																	
Belle Plaine	Maximum	69	72	73	62	60	63	79	72	58	77	81	86	81	80	64	70	60	80	73	63	80	93	88	71	79	72	63	61	52	61	71.4	
	Minimum	35	40	37	37	23	33	47	52	47	38	43	48	43	41	35	33	46	50	45	42	46	49	42	38	37	35	35	34	36	43.6		
Boone	Maximum	69	68	70	63	62	71	75	66	56	78	80	82	81	74	63	67	64	71	73	59	85	90	82	71	79	72	68	54	49	61	70.1	
	Minimum	33	35	36	37	26	27	45	47	49	40	49	35	53	36	33	30	47	49	46	45	47	68	64	62	41	39	35	33	33	42.3		
Carroll	Maximum	68	65	61	66	63	73	75	76	57	77	81	79	76	73	62	60	69	62	85	89	80	76	82	74	71	60	47	57	70.1			
	Minimum	38	35	37	36	30	30	48	51	49	42	59	47	41	42	34	39	45	48	45	46	50	71	60	59	46	37	32	31	43.6			
Cedar Rapids	Maximum	72	72	74	64	60	72	84	76	69	79	81	87	81	79	68	71	68	82	71	71	94	90	78	79	71	65	61	53	63	73.3		
	Minimum	24	26	23	31	24	27	34	48	48	31	37	48	43	31	37	34	28	43	42	43	38	44	59	62	54	32	34	34	39.2			
Davenport	Maximum	66	68	67	58	57	69	76	73	56	74	79	81	86	79	69	66	62	62	52	45	47	50	55	55	55	55	55	55	55	68.2		
	Minimum	37	41	42	34	29	31	43	51	46	41	47	47	50	39	34	32	47	45	41	42	45	47	44	40	37	36	36	35	45.1			
Des Moines	Maximum	65	65	64	64	60	70	74	65	55	77	79	81	77	72	62	67	62	79	73	58	84	88	81	77	78	70	63	53	48	60	69.1	
	Minimum	40	42	49	42	33	34	50	54	51	44	54	51	56	45	41	43	49	49	48	47	51											

TOTAL PRECIPITATION, APRIL, 1925



Scale of Shades—In Inches.



U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.  
CHARLES F. MARVIN, Chief.

# CLIMATOLOGICAL DATA.

## IOWA SECTION

In co-operation with

IOWA WEATHER AND CROP BUREAU  
CHARLES D. REED, Meteorologist

VOL. XXXVI DES MOINES, Iowa, MAY, 1925 No. 5

### GENERAL SUMMARY

The month was characterized by great extremes and numerous sudden changes in temperature. While neither the maximum nor the minimum equaled the record for the State for May, a great many stations in the northern and central divisions reported the highest record for May and the low temperatures that occurred during the last week of May were the lowest ever recorded so late in the season. Following the abnormally high temperature on the 22d, occurred the most remarkable drop that ever occurred in the State, except in winter. The greatest drop of 78° occurred at Webster City, falling from a maximum of 102° on the afternoon of the 22d, to 26° on the morning of the 25th, a period of about 60 hours. Over a large area in the northeastern portion of the State the drop amounted to more than 65° in a period of 36 hours, thus within this short period the high and low record for this section of the State was broken. Frost of varying degrees occurred with unusual frequency till the 27th, causing severe damage to all vegetation susceptible to frost damage. Some truck crops were completely destroyed, the damage being particularly heavy to tomato plants and beans. After the first killing frost occurred many truck gardeners replanted after each killing frost, so that in some parts of the State the tomato crop was wiped out for the third time. One field of 1,500 acres had 700 acres killed at Muscatine. The loss was heavy in all sections of the State and there was fear that there would not be sufficient plants to replace those killed. The frost seriously injured all fruit. Grapes were generally killed early in the month but they had recovered and were putting out the second shoots when the hard freeze of the 25th again killed them in a large portion of the State. Strawberries went through almost the same adversities as grapes and in portions of the State they will be almost a total failure. Blackberries and raspberries also suffered from the frost.

Also, this was the 5th consecutive month that the precipitation has been below normal, being the driest May of record. The deficiency was the greatest of record for any month, and the five-month period is the driest of all similar periods of record. The total for the last five months has been 5.51 inches as compared to a normal of 11.63 inches. An unusual feature in connection with the lack of rain is that last May was the second driest May, with a total of 0.55 inch more than this month. The month was favorable for all out door work but detrimental to practically all crops.

Corn planting was completed and much of the early planted was cut to the ground by frost, but it generally made a good recovery. In some of the drier sections the soil was too dry for the corn to germinate, but notwithstanding the generally unfavorable conditions there was only a small per cent of replanting necessary, and the general condition was better than a year ago, and compared favorably with the normal condition at the end of May. Wheat, oats, and grasses were

affected by the dry weather. In some sections of the State winter wheat was injured beyond recovery; oat fields were heading that were not over six inches high; meadows were making no growth; pastures were burned brown; and cattle in sections of the State were being grazed along roadsides. The extremely dry conditions in connection with the strong winds on numerous days caused the soil to drift and cover up growing crops and other fields had the soil blown away from the roots. The protracted dry weather caused a further drying up of small streams and wells, necessitating the hauling of water. There were very few storms of a damaging nature, though a rather severe hail storm, ranging from 6 to 10 miles wide, and from 10 to 15 miles long, occurred in the vicinity of Sioux City. The hail accompanied a heavy downpour that flooded numerous basements and caused the collapse of a building under construction. Greenhouses also suffered from the hail. The storm caused a loss of about \$30,000.

The unusual features of the month are well set forth in the following brief notes by the Official in Charge of the Weather Bureau Office in Dubuque, where one of the longest records in the State is available:

"Both the high and low temperature records for the season of the year were broken within a two-day period; mean daily range for the month set a new record; precipitation was the lowest of record for three-quarters of a century; snowfall occurred the latest of record; sunshine the greatest

### COMPARATIVE DATA FOR THE STATE—MAY

YEAR	Temperature				Precipitation				Number of Days				
	Mean	Departure*	Highest	Lowest	Total	Departure*	Greatest	Least	Snowfall	With pre-.01 in. or more	Clear	Partly cloudy	Cloudy
1890	57.7	-2.5	90	26	3.56	-1.05	6.44	1.61	-----	9	10	13	8
1891	58.3	-1.9	94	21	3.18	-1.43	7.10	1.46	-----	8	14	9	8
1892	54.0	-6.2	88	29	8.77	+4.16	12.64	4.87	T.	16	5	9	17
1893	56.6	-3.6	96	26	3.45	-1.16	5.82	1.65	0	9	13	9	9
1894	61.1	+0.9	96	22	1.87	-2.74	4.77	0.33	0	6	17	10	4
1895	61.7	+1.5	104	24	3.19	-1.42	5.79	0.84	0	9	11	12	8
1896	65.5	+5.3	100	34	6.69	+2.08	11.79	3.40	0	12	11	12	8
1897	58.5	-1.7	96	20	1.92	-2.69	3.59	0.21	0	5	16	10	5
1898	59.6	-0.6	92	26	4.67	+0.06	7.82	2.22	0	12	9	10	12
1899	60.2	0.0	90	27	6.23	+1.62	11.47	3.09	0	13	9	12	10
1900	63.2	+3.0	98	22	3.31	-1.30	6.98	0.96	0	8	14	10	7
1901	60.7	+0.5	95	28	2.35	-2.26	4.57	0.72	0	7	16	9	6
1902	63.8	+3.6	97	25	5.39	+0.78	18.04	0.87	0	13	10	12	9
1903	61.6	+1.4	91	24	8.55	+3.94	15.45	2.88	0	16	9	12	10
1904	59.6	-0.6	93	27	3.78	-0.83	8.15	1.50	0	8	13	10	8
1905	58.3	-1.9	88	28	5.95	+1.34	10.88	2.57	0	14	12	11	8
1906	60.8	+0.6	95	24	3.54	-1.07	10.72	0.89	0	11	13	10	8
1907	53.5	-6.7	96	14	3.48	-1.13	7.68	0.71	1.0	10	11	10	10
1908	59.4	-0.8	93	18	8.84	+3.73	14.33	1.33	0	15	9	11	11
1909	57.9	-2.3	97	18	4.34	-0.27	7.85	1.86	0.1	9	12	12	7
1910	55.4	-4.8	89	18	3.41	-1.20	6.91	1.29	T.	10	15	7	9
1911	64.9	+4.7	98	23	3.76	-0.85	8.73	0.42	0.7	9	16	9	6
1912	62.7	+2.5	97	29	3.83	-1.27	6.41	0.72	0	10	14	11	6
1913	59.4	-0.8	102	30	6.24	+1.63	10.25	3.14	0	13	11	8	12
1914	62.2	+2.0	98	25	3.31	-1.30	6.90	0.30	T.	10	14	11	6
1915	56.1	-4.1	99	25	7.34	+2.73	13.21	3.82	T.	14	9	9	13
1916	59.9	-0.3	94	27	4.93	+0.32	10.44	2.14	T.	12	13	10	8
1917	55.1	-5.1	95	18	3.87	-0.74	7.33	1.69	0.6	10	15	8	8
1918	64.9	+4.7	98	25	6.87	+2.26	11.98	2.72	T.	13	13	11	7
1919	58.2	-2.0	93	30	3.11	-1.50	7.14	0.73	0	9	13	11	7
1920	59.4	-0.8	89	29	3.26	-1.35	5.73	0.62	0	8	14	9	7
1921	63.3	+3.1	99	25	4.23	-0.38	9.41	1.32	0	10	14	10	7
1922	63.4	+3.2	91	34	3.58	-1.08	8.36	0.47	0	12	13	10	8
1923	59.6	-0.6	90	20	2.84	-1.77	6.55	1.07	T.	10	14	10	7
1924	54.1	-6.1	94	26	1.71	-2.90	3.28	0.78	0.1	9	13	9	9
1925	57.8	-2.4	102	20	1.16	-3.45	2.62	0.30	T.	6	19	8	4

T. indicates an amount too small to measure, or less than .005 inch precipitation and less than .05 inch snowfall.

\*New normals effective June 1, 1924.



## Climatological Data for May, 1925

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit						Precipitation, in inches			Number of Days			Observers				
				Mean	Departure from normal	Highest Date	Lowest Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmittel)	Precipitation, .01 in. or more	Clear	Partly cloudy	Cloudy				
<i>Northern Division</i>																				
Algona	Kossuth	1,213	52	57.8	-1.4	98	22	28	6	36	0.99	-3.29	0.65	0	3	25	3	3	se.	W. E. Laird
Allison (near)	Butler	1,044	13	56.0	-2.7	100	22	28	6†	44	1.73	-3.36	0.88	T.	7	20	8	3	sw.	J. A. Bell
Alta	Buena Vista	1,513	34	57.6	-1.0	94	22	26	6	37	1.08	-3.83	0.75	T.	7	18	10	3	w.	D. E. Hadden
Alton	Sioux	1,305	20	56.8	-1.8	95	20	22	6†	45	0.31	-4.51	0.16	0	8	10	17	4	s.	W. S. Slagle
Belmond	Wright	1,205	15	57.0	-1.6	101	22	25	6	42	1.00	-4.21	0.44	0	8	5	23	3	nw.	Geo. P. Hardwick
Britt	Hancock	1,236	38	55.9	-2.1	99	22	27	6	43	1.08	-3.82	0.63	0	6	22	5	4	sw.	Jas. S. Ross
Charles City	Floyd	1,015	34	55.2	-2.6	99	22	29	7	42	1.38	-2.99	0.87	0	10	16	11	4	nw.	U. S. Weather Bureau
Cherokee	Cherokee	1,196	3	56.5a	-----	95a	20	25a	6	41a	0.94	-----	0.30	0	8	-----	-----	s.	J. E. Wirth	
Decorah	Winneshiek	875	32	54.2	-4.2	95	22	23	7	46	1.48	-3.18	0.78	0	8	20	7	4	nw.	M. D. Whitney
Dubuque	Dubuque	608	52	56.0	-4.3	94	22	34	25	41	0.96	-3.06	0.43	T.	8	12	14	5	nw.	U. S. Weather Bureau
Estherville	Eunice	1,298	30	55.2	-1.8	98	22	24	17	44	0.57	-3.90	0.15	0	6	22	6	3	s.	A. O. Peterson
Fayette	Fayette	1,003	35	55.4	-2.6	96	22	25	7	41	2.27	-2.59	1.22	0	9	23	7	1	nw.	R. Z. Latimer
Forest City	Winnebago	1,226	31	55.7	-2.4	97	22	26	6	40	1.64	-3.00	0.81	0	7	20	8	3	nw.	Dr. M. B. Neil
Hampton	Franklin	1,145	-----	56.0b	-3.5	98b	22	26b	6	40b	1.24	-3.76	0.55	0	7	18	10	3	sw.	L. H. Davis
Humboldt	Humboldt	1,095	37	57.0	-3.0	100	22	27	6†	42	1.10	-3.22	0.82	0	3	17	11	3	n.	H. C. Snitkey
Independence	Buchanan	921	61	56.6	-3.0	99	22	29	7	44	1.29	-2.98	0.52	0	6	19	6	6	nw.	Dr. Geo. Boody
Inwood	Lyon	1,474	21	57.9	+0.2	98	22	24	6	46	0.60	-3.60	0.14	0	8	21	7	3	nw.	A. O. Hanson
LeMars	Plymouth	1,224	29	57.8	-1.2	98	22	25	6	47	0.64	-3.89	0.27	T.	5	22	7	2	sw.	Mrs. M. C. Woolley
Mason City	Cerro Gordo	1,148	28	55.3	-2.7	100	22	25	11	42	1.57	-3.12	0.73	0	7	10	19	2	nw.	Amer. Beet Sugar Co.
Milford (near)	Dickinson	1,430	5	55.2	-----	96	22	20	17	43	0.30	-----	0.20	0	2	24	4	3	s.	S. N. McKinsey
New Hampton	Chickasaw	1,169	28	55.0	-3.3	97	22	28	6†	38	2.39	-2.44	1.44	0	6	16	11	4	nw.	A. F. Kemman
Nora Springs	Floyd	1,064	13	56.4	-2.8	101	22	25	11	45	1.49	-3.61	0.85	0	8	19	10	2	s.	Arthur Betts
Northwood	Worth	1,222	29	96c	-----	98c	22	28c	6	38a	1.73	-3.31	0.85	T.	7	17	10	4	nw.	Chas. Dwelle
Oelwein	Fayette	1,036	1	56.2	-----	94	22	28	7	50	1.20	-----	0.70	0	3	17	12	2	w.	John T. Ridler
Osage:††	Mitchell	1,163	-----	54.7	-----	98b	22	26c	11	42c	1.31	-----	0.72	0	7	11	16	4	nw.	W. G. Mee
Pocahontas	Pocahontas	1,248	21	56.8	-2.0	99	22	25	6	42	1.04	-3.39	0.82	0	6	17	12	2	sw.	F. E. Hronek
Postville	Clayton	1,180	26	55.1	-2.3	92	29	27	17	40	1.47	-3.59	0.77	0	5	18	12	1	sw.	F. L. Williams
Rock Rapids	Lyon	1,358	26	57.3	-0.7	96	22	24	11	43	0.76	-2.79	0.19	0	9	23	6	2	sw.	J. K. Medberry
Sanborn	O'Brien	1,553	11	56.0	-2.1	95	20†	23	6	41	0.43	-4.36	0.15	0	5	20	8	3	sw.	J. W. Dow
Sioux Center	Sioux	1,426	26	57.1	-1.1	95	20	25	6	41	0.30	-4.41	0.10	0	5	19	7	5	sw.	J. de Ruyter
Spencer	Clay	1,319	11	57.2	-1.3	98	20†	22	6†	45	0.33	-3.87	0.13	0	5	20	7	4	nw.	E. W. Little
Storm Lake	Buena Vista	1,440	36	57.2	-1.9	93	20†	28	6	35	1.20	-3.29	0.60	0	7	24	5	2	s.	Geo. H. Fracker
Washta	Cherokee	1,157	27	57.1	-1.2	95	22	26	6	43	1.27	-3.35	0.63	0	7	20	6	5	s.	H. L. Felter
Waterloo	Black Hawk	854	42	57.2	-3.0	101	22	25	7	44	1.12	-2.97	0.67	0	7	23	4	4	nw.	R. B. Slippy
Waverly	Bremer	936	29	56.2	-2.6	100	22	26	7	44	1.18	-3.26	0.62	T.	10	27	2	2	n.	D. H. Murphy
West Bend	Palo Alto	1,197	32	56.4	-2.9	96	22	22	6	41	1.20	-2.99	0.84	0	7	16	13	2	nw.	Jos. Dorweiler
Means and extremes		-----	-----	56.4	-2.2	101	22	20	17	50	1.12	-3.48	1.44	T.	7	19	9	3	nw.	
<i>Central Division</i>																				
Ames	Story	926	48	58.6	-1.2	100	22	27	7	40	0.75	-3.76	0.40	0	7	20	9	2	nw.	Iowa State College
Audubon	Audubon	1,297	30	57.3	-2.0	97	22	26	6	45	1.32	-3.06	0.48	0	9	19	9	3	se.	Geo. Kirby
Baxter	Jasper	998	25	58.0	-2.5	98	22	28	6	38	1.18	-4.18	0.40	0	5	17	12	2	s.	Henry Geise
Belle Plaine	Benton	866	35	57.6	-2.8	99	22	28	7	42	0.95	-3.86	0.49	0	6	17	11	3	nw.	O. C. Burrows
Boone (near):††	Boone	1,134	20	57.6	-2.3	101	22	24	2	46	0.87	-4.16	0.39	0	7	-----	-----	s.	C. F. Henning	
Carroll	Carroll	1,265	35	58.1	-1.8	99	22	25	6	39	0.75	-3.81	0.41	0	5	23	3	5	nw.	Mrs. Jos. J. Wolfe
Cedar Rapids	Linn	737	43	57.6	-4.0	102	22	24	7	49	1.15	-3.55	0.57	0	9	16	8	7	nw.	J. T. Wurster
Clinton	Clinton	595	52	57.3	-3.8	95	22	29	25	43	0.97	-3.63	0.56	0	4	20	9	2	s.	Dr. A. P. Bryant
Davenport	Scott	580	54	58.4	-2.9	94	22	36	24	38	0.98	-3.12	0.45	0	6	20	6	5	nw.	U. S. Weather Bureau
Davenport (No. 2)	Scott	600	-----	59.1	-----	95	22	30	25	41	1.06	-----	0.51	-----	5	-----	-----	-----		Rex Shriner
Denison	Crawford	1,171	31	58.0	-2.1	95	22	27	6	40	1.15	-3.13	0.61	T.	7	15	12	4	nw.	V. L. Byers
Des Moines	Polk	861	47	59.4	-1.9	98	22	34	2	33	0.77	-3.97	0.29	0	9	13	9	sw.	U. S. Weather Bureau	
Airport	Muscatine	567	4	59.0	-----	93	22	31	25	48	0.80	-----	0.48	0	5	19	7	5	nw.	Bureau of Fisheries
Fort Dodge	Webster	1,114	25	57.0	-2.2	100	22	25	6	42	0.64	-3.94	0.40	0	5	20	3	8	sw.	Samuel Sampson
Grinnell	Poweshiek	1,031	31	58.7	-2.1	98	22	29	6	41	1.16	-3.81	0.44	0	11	19	11	1	sw.	Paul P. Meyers
Grundy Center	Grundy	976	34	55.9	-4.7	98	22	25	11	44	1.43	-3.51	0.90	0	5	19	4	8	nw.	W. D. Callaway
Guthrie Center	Guthrie	1,077	30	58.2	-2.3	96	22	27	2†	42	1.41	-3.29	0.84	0	6	22	7	2	sw.	E. L. Nesselroad
Harlan (near)	Shelby	1,192	26	58.0	-2.1	99	22	25	6	49	0.75	-3.81	0.51	0	5	13	13	5	s.	Nels Bisgard
Iowa City	Johnson	733	65	57.1	-3.2	95	22	28	7	39	1.00	-3.53	0.76	0	6	20	8	3	nw.	Prof. J. F. Reilly
Iowa Falls	Hardin	1,107	32	55.8	-3.0	99	22	25	7†	41	1.22	-3.39	0.43	0	9	19	5	7	nw.	J. B. Parmelee
Jefferson	Greene	1,052	26	57.8	-2.0	99	22	26	2†	42	0.69	-3.86	0							

## Climatological Data for May, 1925—Continued

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit						Precipitation, in inches				Number of Days	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)				
<i>Southern Division</i>																		
Afton	Union	1,212	31	60.4	-1.0	96	20†	29	6	41	1.27	-3.50	0.58	0	6	16	11	4 sw. S. R. Brown
Albia	Monroe	959	27	58.6	-2.7	95	22	30	6	37	2.34	-2.65	1.53	0	7	21	3	7 sw. O. E. McBride
Atlantic	Cass	1,164	34	59.5	-1.2	98	22	28	2†	40	0.71	-3.52	0.53	0	3	13	12	6 nw. J. N. Reynolds
Bonaparte	Van Buren	563	34	57.8	-3.5	91	22	32	25	36	1.35	-3.28	1.15	0	5	19	7	5 e. B. R. Vale
Burlington	Des Moines	544	29	60.4	-2.5	94	22	35	25	41	1.15	-3.38	0.78	0	9	21	5	5 sw. John W. Donnelly
Centerville	Appanoose	1,013	20	58.5	-2.9	93	22	31	25	39	0.75	-3.84	0.42	T.	8	19	5	7 sw. Thomas Wood
Chariton (near)	Lucas	1,042	30	58.2	-1.9	94	22	29	6	41	1.08	-3.44	0.97	0	3	19	6	6 s. C. C. Burr
Clarinda	Page	1,009	35	60.2	-2.7	98	22	28	6	49	0.70	-4.25	0.33	0	8	22	7	2 s. Dr. H. C. Hawley
Columbus Jct.	Louisa	595	24	57.4	-4.8	92	22	30	7	40	1.06	-3.25	0.75	0	7	17	12	2 sw. Miss Musa Todd
Corning (near)	Adams	1,117	33	58.6*	-1.9	97 <sup>a</sup>	22	24 <sup>a</sup>	2†	44 <sup>a</sup>	0.82	-4.22	0.67	0	2	21	7	3 sw. Jerome Smith
Corydon	Wayne	1,101	32	58.6	-2.7	92	22	30	6	36	1.58	-3.09	0.77	0	5	16	12	3 sw. A. T. Gallagher
Creston	Union	1,312	20	58.3	-2.4	95	22	27	6	40	1.14	-3.40	0.83	0	5	21	7	3 s. J. W. Goodsell
Cumberland (near)	Cass	1,225	26								1.03	-3.15	0.75	0	3	15	12	4 sw. Carl E. Pollock
Earlham (near)	Madison	1,126	23	58.4	-1.8	97	22	24	2	44	0.60	-3.84	0.30	0	5	25	2	4 sw. Geo. Phillips
Fairfield	Jefferson	780	41	57.6	-3.5	94	22	29	25	41	0.82	-4.62	0.40	0	6	22	5	4 nw. Prof. R. M. McKenzie
Glenwood	Mills	1,100	27	60.4	-0.9	98	22	29	6	41	0.83	-3.78	0.23	0	6	11	17	3 se. Dr. Geo. Mogridge
Indianola	Warren	972	34	59.0	-2.5	97	22	29	6	36	1.16	-3.29	0.42	0	9	17	11	3 nw. Seth F. Shenton
Keokuk	Lee	614	54	60.3	-3.5	93	22	35	25	32	1.28	-2.91	1.09	0	7	15	10	6 s. U. S. Weather Bureau
Keosauqua	Van Buren	644	23	58.0	-3.3	92	22	29	2†	41	1.45	-3.43	1.02	0	5	11	12	8 se. J. H. Landes
Knoxville	Marion	920	30	59.0	-2.5	97	22	30	2†	41	1.21	-3.04	0.30	0	10	14	13	4 sw. W. J. Casey
Lacona	Warren	824	26								1.04	-3.79	0.34	0	10	9	13	9 -----
Lamoni	Decatur	1,123	18	58.8	-2.4	95	21	30	6	36	1.24	-3.71	0.90	0	5	15	7	9 se. Roy L. Roberts
Lenox	Taylor	1,250	30	59.4	-2.5	96	21†	28	6	39	0.93	-3.75	0.44	0	6	19	9	3 nw. J. L. Hurley
Mt. Ayr	Ringgold	1,245	32	58.9	-2.4	93	21	29	6	35	0.97	-4.50	0.53	0	6	16	8	7 sw. Alex Maxwell
Mt. Pleasant	Henry	729	44	59.0	-3.5	93	22	34	6†	43	2.62	-2.00	1.59	T.	5	12	14	5 nw. J. H. Jericho
Oakland	Pottawattamie	1,105	6	59.4	-1.8	99	22	25	6	44	0.62	-----	0.31	0	5	17	8	6 n. M. E. Gray
Oskaloosa	Mahaska	835	49	57.9	-3.3	96	22	30	6	37	1.99	-2.26	0.90	0	8	12	12	7 sw. Roy R. Robinson
Ottumwa	Wapello	649	30	59.4	-----	95	22	32 <sup>a</sup>	2†	48 <sup>a</sup>	0.79	-3.86	0.29	T.	8	23	0	8 nw. C. L. Mikesch
Red Oak (near)	Montgomery	1,080									1.10	-----	0.50	0	4	17	11	3 e. B. R. Bridge
Sigourney (near)	Keokuk	790	29	58.0	-2.8	95	22	30	25	42	1.55	-2.72	0.84	0	7	19	4	8 nw. W. E. Utterback
Stockport	Van Buren	747	23	57.2	-3.3	91	22	29	25	41	1.08	-3.58	0.73	0	7	20	7	4 sw. C. L. Beswick
Thurman	Fremont	975	28	61.2	-1.3	97	22	30	2†	48	2.12	-2.83	0.78	0	6	5	23	3 sw. C. R. Paul
Tingley	Ringgold	1,275	-----	58.3	-----	93	20†	29	6	37	1.22	-----	0.98	0	3	16	11	4 se. James A. Verploeg
Washington	Washington	769	43	58.6	-2.9	95	22	32	7	39	1.12	-3.04	0.62	0	7	24	2	5 ne. D. D. Sherman
Wescott (near)	Lee	523	3	59.6	-----	94	22	29	25	40	1.44	-----	1.26	0	2	21	5	5 sw. Lester J. Larson
Winterset	Madison	1,120	34	58.8	-2.8	96	22	28	6	40	0.93	-3.59	0.20	0	9	23	4	4 sw. H. S. Ely
Omaha, Nebr.		1,103	54	61.2	-1.2	98	22	36	6	33	0.55	-3.95	0.21	0	10	14	13	4 nw. U. S. Weather Bureau
Means and extremes				59.0	-2.5	99	22	24	2†	49	1.18	-3.44	1.59	T.	6	17	9	5 sw. -----
State means and extremes				57.8	-2.4	102	22	20	17	50	1.16	-3.45	1.59	T.	6	19	8	4 nw. -----

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete records are used in determining means.

Reference letters a, b, c, etc., appearing in the table indicate the number of days missing; for example b represents two days, etc.

†Also other dates.

‡Received too late to be included in means and summaries.

T. Precipitation is less than 0.01 inch rain or melted snow.

for any May of record; river stage equaled the previous low record for May; low record of thunderstorms also equaled."

F. L. D.

## TEMPERATURE

The mean temperature for the State, as shown by the record of 104 stations, was 57.8°, or 2.4° lower than the normal. By divisions, approximately three tiers of counties to the division, the means were as follows: Northern, 56.4°, or 2.2° lower than the normal; Central, 57.9°, or 2.5° lower than the normal; Southern, 59.0°, or 2.5° lower than the normal. The highest monthly mean was 61.2°, at Thurman, and the lowest was 54.2°, at Decorah. The highest temperature reported was 102°, at Cedar Rapids and Webster City, on the 22d, and the lowest was 20°, at Milford, on the 17th. The temperature range for the State was 82°. This range has never been exceeded in May, and only once, in 1907, has it been equaled.

## PRECIPITATION

The average precipitation for the State, as shown by the records of 108 stations, was 1.16 inches, or 3.45 inches less

\*Dubuque: \$Omaha. †Sioux City. ‡Local mean time. †And other dates.

May, 1925

**Daily Precipitation for May, 1925**

## Daily Precipitation for May, 1925—Continued

Stations	Drainage Basin	Day of Month																																							
		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	Totals								
<i>Southern Division</i>																																									
Afton	Grand																																	.08	1.27						
Albia	Des Moines	.05	T.	T.																																2.34					
Atlantic	Nishnabotna	T.	T.	T.																																.71					
Bonaparte	Des Moines																																			1.35					
Burlington	Mississippi	T.	T.	.01																																1.15					
Centerville	Chariton																																								
Chariton (near)	Chariton	T.																																					0.75		
Clarinda	Nodaway																																						0.70		
Columbus Jet.	Iowa																																						1.06		
Corning	Nodaway	T.	T.	T.	T.	T.																																0.82			
Corydon	Chariton																																						1.58		
Creston	Missouri																																						1.14		
Cumberland (near)	Nodaway	T.	T.	T.	T.	T.																																1.03			
Earlham	Des Moines	.08																																					0.60		
Fairfield	Skunk	.08	.07																																			0.82			
Glenwood	Missouri																																							.12	0.83
Indianola	Des Moines	.11		.02																																			1.16		
Keokuk***	Mississippi	.01	.02																																					1.28	
Keosauqua	Des Moines																																						1.45		
Knoxville	Des Moines	.04		.02																																			1.21		
Lacona	Des Moines	.10	.02	.01																																				.12	0.83
Lamoni	Grand																																						1.24		
Lenox	Missouri	.03	T.	.03																																			0.93		
Mt. Ayr	Grand	T.	T.	.05																																			0.97		
Mt. Pleasant	Skunk																																						2.62		
Oakland	Nishnabotna	.11	T.	T.																																			.62		
Oskaaloosa	Des Moines																																						1.99		
Ottumwa	Des Moines	.02	T.	T.																																			0.79		
Red Oak (near)	Missouri	T.	T.	T.	T.	T.																																1.10			
Sigourney	Skunk	T.	T.	T.	T.	T.																																1.55			
Stockport	Skunk																																						1.08		
Thurman	Missouri	T.	T.	T.	T.	T.																																.05	2.12		
Tingley	Platt																																							1.22	
Washington	Skunk	.02																																					1.12		
Wescott (near)	Mississippi																																						1.44		
Winterset	Des Moines	.18	.05	.08																																			0.93		
Omaha, Neb.***	Missouri	T.	T.	T.	T.	T.																																	.55		

Except as otherwise indicated, observations are generally made late in the afternoon, near sunset, and precipitation recorded is for 24 hours ending at the time of observation.

|||Precipitation measured in the morning; amount then recorded is for the preceding 24 hours.

\*\*\*Regular Weather Bureau Station: precipitation is for 24-hour period, midnight to midnight.

\*\*Incomplete.

\*Precipitation included in the next following measurement.

T. Precipitation is less than .01 inch rain or melted snow.

than the normal. By divisions the averages were as follows: Northern, 1.12 inches, or 3.48 inches less than the normal; Central, 1.18 inches, or 3.43 inches less than the normal; Southern, 1.18 inches, or 3.44 inches less than the normal. The greatest amount, 2.62 inches, occurred at Fayette, and the least, 0.30 inch, occurred at Milford and Sioux Center. The greatest amount in any 24 consecutive hours, 1.59 inches, occurred at Mt. Pleasant on the 30th.

#### SNOWFALL

Light snow flurries occurred in each of the three divisions but it did not exceed a trace at a single station, the snowfall that occurred on the 24th over the northeastern portion of the State is the latest that snow has occurred in the last 41 years.

#### MISCELLANEOUS PHENOMENA

Fog: 7th, 8th, 10th, 16th, 18th, 29th.

Frost (Northern Division, Killing): 2d, 5th, 6th, 7th, 8th, 9th, 11th, 16th, 17th, 18th, 25th, 26th; Heavy: 2d, 6th, 7th, 8th, 16th, 17th, 25th; Light: 1st, 2d, 4th, 5th, 7th, 8th, 10th, 11th, 12th, 18th; Central Division, Killing: 1st, 2d, 5th, 6th, 7th, 8th, 11th, 12th, 16th, 25th; Heavy: 2d, 5th, 6th, 7th, 17th, 25th; Light: 1st, 2d, 5th, 6th, 7th, 11th, 12th, 17th; Southern Division, Killing: 1st, 2d, 6th, 7th, 11th, 25th; Heavy: 1st, 2d, 5th, 6th, 7th, 11th, 17th; Light: 1st, 2d, 5th, 6th, 7th, 12th, 18th, 25th, 27th.

Hail: 3d, 5th, 19th, 20th.

Halos: 2d, 4th, 5th, 7th, 17th, 26th, 28th.

Haze: 21st.

Parhelia: 1st.

Sleet: 5th, 7th.

Thunderstorms: 3d, 4th, 5th, 6th, 9th, 15th, 16th, 19th, 20th, 22d, 24th, 27th, 30th, 31st.

Winds, high: 3d, 16th, 22d, 23d, 24th, 30th, 31st.

#### RIVERS

Unusually low stages prevailed on the Mississippi and all interior rivers. There was a gradual though slow fall the entire month, and almost without exception, the highest stages occurred on the first of the month and the lowest stages on the last. The lowest stages for the month of May were either equaled or exceeded along the entire border of the State on the Mississippi. Remarkably uniform moderate stages prevailed on the Missouri River. The range at Omaha was less than one foot from the 1st to the 25th, inclusive, and at Sioux City, from the 1st to the 27th, inclusive. A moderate rise occurred during the last half of the last week along the entire course bordering the State.

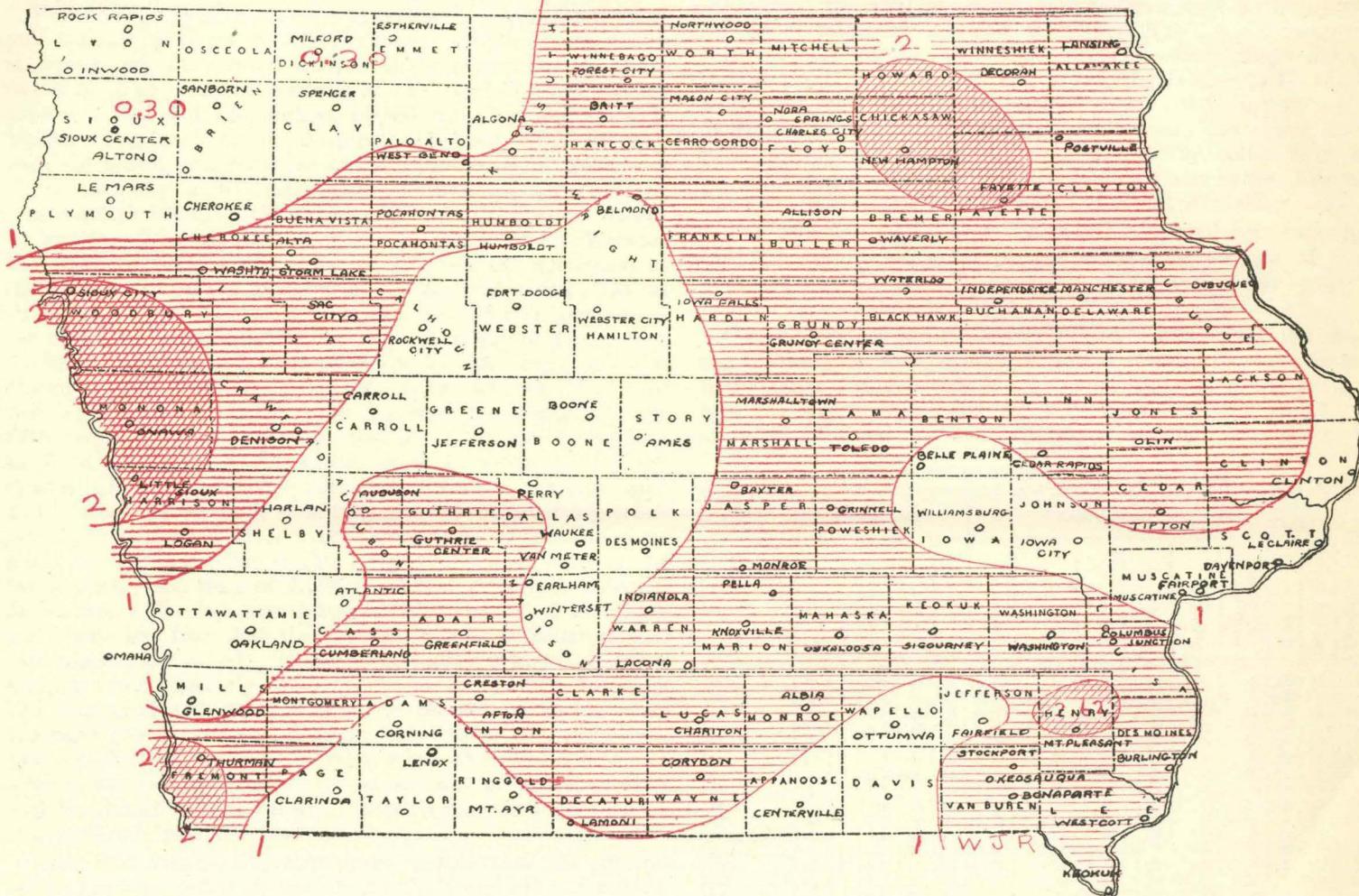
#### ERRATA

Report for April, 1925: Page 26; Charles City, mean temperature recorded 53.9°, should be 54.0°, departure recorded +7.5°, should be +7.6°. Page 30; minimum temperature on the 29th recorded 34°, should be 39°; mean of the minimum recorded 41.1°, should be 41.3°.

## Daily Maximum and Minimum Temperature for the Month of May, 1925

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	Mean		
<i>Northern Division</i>																																		
Algona-----	(Maximum-----	60	67	71	59	58	59	60	62	56	57	67	78	73	70	71	58	58	71	80	92	87	98	86	63	65	70	79	75	82	93	92	71.5	
	(Minimum-----	32	32	44	35	31	28	34	32	53	40	31	46	53	51	37	38	31	38	48	60	57	67	58	36	32	40	52	45	50	64	68	44.0	
Alta-----	(Maximum-----	58	69	67	60	55	57	56	53	58	57	70	78	75	76	70	56	61	73	80	93	90	94	76	57	68	71	77	80	86	90	88	70.9	
	(Minimum-----	34	35	44	35	32	26	35	36	42	42	35	48	53	39	49	36	32	43	49	60	60	65	47	36	35	43	52	50	52	65	66	44.4	
Alton-----	(Maximum-----	59	72	69	61	55	60	53	56	60	58	69	76	73	74	69	60	64	75	84	95	92	93	78	58	68	77	77	85	92	90	71.6		
	(Minimum-----	34	27	38	35	32	22	28	21	43	33	23	50	52	35	53	36	22	36	48	55	60	59	55	37	28	43	54	44	52	66	68	42.1	
Belmond-----	(Maximum-----	61	66	74	60	59	61	62	63	52	61	69	78	75	71	71	60	60	72	81	94	85	101	87	58	66	68	79	78	82	91	93	72.2	
	(Minimum-----	31	28	43	35	30	25	28	28	39	38	28	42	52	41	46	42	31	36	46	52	58	63	56	36	29	40	50	44	47	63	67	41.7	
Charles City-----	(Maximum-----	58	64	68	53	54	55	59	60	54	59	66	77	72	68	73	59	57	70	79	88	81	99	78	55	61	65	73	72	78	89	91	68.9	
	(Minimum-----	34	29	45	34	34	30	29	31	35	37	29	43	48	43	44	38	31	35	46	57	57	57	46	36	32	38	51	45	47	59	65	41.5	
Dubuque-----	(Maximum-----	58	62	68	53	50	54	60	60	63	67	62	72	76	65	74	62	56	68	74	82	79	94	84	52	57	62	65	73	77	84	91	67.9	
	(Minimum-----	40	36	49	42	41	38	34	33	39	43	35	41	49	41	41	41	36	37	46	58	58	55	43	35	34	36	46	55	50	57	69	44.0	
Forest City-----	(Maximum-----	58	66	71	53	55	57	57	60	53	55	68	78	73	69	71	58	58	71	79	91	84	97	85	86	60	63	66	77	71	79	91	91	69.8
	(Minimum-----	31	31	42	35	30	26	33	31	37	40	31	43	53	39	45	39	29	37	44	55	59	57	56	34	33	38	51	42	46	60	64	41.6	
Independence-----	(Maximum-----	58	63	68	53	53	68	60	60	62	63	73	78	73	72	70	65	67	76	86	85	99	86	86	60	63	70	72	79	84	89	71.1		
	(Minimum-----	34	34	49	40	37	32	29	31	37	38	32	40	50	41	40	37	32	35	47	55	60	54	53	35	32	34	46	48	45	55	62	42.0	
Inwood-----	(Maximum-----	62	75	73	63	57	60	59	59	65	61	71	80	76	74	66	62	63	77	89	97	91	98	75	65	67	70	79	79	87	95	92	73.8	
	(Minimum-----	32	34	37	33	29	24	31	29	42	36	25	51	51	37	52	35	26	32	51	53	59	69	49	35	29	43	51	42	52	65	68	42.0	
Mason City-----	(Maximum-----	58	67	69	55	54	56	57	61	57	56	67	78	70	68	73	59	59	70	81	90	82	100	86	62	62	65	78	73	79	91	91	70.1	
	(Minimum-----	31	26	41	36	29	26	26	27	32	36	25	45	51	40	43	29	41	33	45	57	57	59	58	35	29	34	51	44	42	59	68	40.5	
Milford (near)-----	(Maximum-----	57	69	69	57	53	57	56	60	58	56	68	77	71	71	68	56	61	73	83	94	86	96	77	55	66	70	75	75	83	91	90	70.3	
	(Minimum-----	31	29	42	34	27	25	30	28	42	35	25	44	53	32	47	35	20	30	47	54	55	61	54	34	26	41	52	37	46	63	65	40.1	
New Hampton-----	(Maximum-----	58	64	67	57	54	55	60	61	56	56	66	76	72	70	65	57	65	70	79	86	81	97	88	65	60	67	71	72	78	88	89	69.7	
	(Minimum-----	31	29	42	37	35	32	30	25	32	36	28	38	35	24	40	39	35	41	55	59	60	55	33	30	34	48	44	45	55	62	40.4		
Northwood-----	(Maximum-----	58	68	74	64	54	54	54	54	54	54	54	77	71	67	73	57	58	70	79	88	79	96	88	53	63	67	76	71	78	88	89	71.6	
	(Minimum-----	32	32	32	28	28	28	28	28	28	28	28	29	45	40	44	40	30	37	44	54	56	58	53	33	32	36	49	44	45	55	63	42.2	
Pocahontas-----	(Maximum-----	59	69	72	62	57	59	60	58	56	58	68	81	71	74	70	58	58	71	82	94	92	99	82	61	66	70	79	76	84	92	91	71.7	
	(Minimum-----	32	28	40	35	30	25	29	30	35	38	26	46	51	35	49	40	30	35	46	59	64	57	37	29	42	53	44	47	63	64	41.8		
Postville-----	(Maximum-----	57	63	69	57	51	55	61	61	57	65	66	75	76	70	69	58	58	72	77	82	86	90	82	55	64	63	74	72	83	88	90	69.0	
	(Minimum-----	33	30	41	36	32	29	31	33	35	37	28	38	49	37	37	52	27	35	42	53	57	50	58	30	33	45	45	58	65	72	41.2		
<i>Central Division</i>																																		
Belle Plaine-----	(Maximum-----	62	67	72	60	60	61	68	60	65	71	67	77	72	70	63	58	70	80	82	89	99	87	74	64	65	75	75	81	89	93	72.7		
	(Minimum-----	32	29	44	41	31	30	28	32	45	41	33	40	49	44	45	45	36	37	41	48	56	57	57	37	30	36	48	49	48	60	66	42.4	
Boone-----	(Maximum-----																																	
	(Minimum-----																																	
Carroll-----	(Maximum-----	62	69	74	62	61	60	62	52	63	64	68	78	79	75	67	57	61	72	80	95	94	99	87	69	68	71	82	78	86	91	91	73.5	
	(Minimum-----	32	31	40	35	33	25	33	34	42	30	41	42	40	48	40	30	34	40	43	49	55	57	53	39	32	39	51	50	47	54	58	42.7	
Cedar Rapids-----	(Maximum-----	66	68	78	62	61	62	68	66	72	74	68	77	81	75	77	66	64	75	80	89	88	102	90	78	64	63	74	81	87	83	94	75.3	
	(Minimum-----	34	26	43	42	39	31	24	32	36	30	32	44	42	41	44	36	33	36	55	57	53	60	34	28	29	45	50	43	52	62	40.0		
Davenport-----	(Maximum-----	60	62	71	56	54	56	64	62	66	73	63	74	77	68	68	73	75	83	94	85	98	104	84	82	74	70	77	82	89	70.2			
	(Minimum-----	42	38	50	42	39	36	38	43	45	43	47	44	43	44	46	44	36	40	45	56	63	60	56	36	36	40	48	57	57	69	46.5		
Des Moines-----	(Maximum-----	61	66	74	62	58	59																											

TOTAL PRECIPITATION, MAY, 1925



Scale of Shades—In Inches.



Less than 1



1 to 2



More than 2

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.  
CHARLES F. MARVIN, Chief.

# CLIMATOLOGICAL DATA.

## IOWA SECTION

In co-operation with

## IOWA WEATHER AND CROP BUREAU CHARLES D. REED, Meteorologist

VOL. XXXVI

DES MOINES, IOWA, JUNE, 1925

No. 6

### GENERAL SUMMARY

The principal feature of the weather during June was the breaking of the persistent drouth that has prevailed throughout the previous months of the year. The average precipitation for the State exceeded the total for the preceding five months by more than one inch, and several stations reported amounts that exceeded the total for eight months preceding. As is usual during periods of heavy rainfall, there were the accompanying destructive elements, including hail, severe electrical storms, damaging straight winds, tornadoes, and floods. Minor tornadoes were reported at several places on the 1st, but on the afternoon of the 2d a large area in the western part of the State reaching eastward to Greene county reported unusual tornadic activity. The damage was especially heavy in portions of Woodbury, Harrison, Pottawattamie, Shelby, Mills, Montgomery, Cass, and Adair counties on the 2d, consisting of many separate tornadoes advancing in the same general direction. Small villages were almost completely destroyed and the path of destruction at a point near the line of Harrison and Pottawattamie counties was nearly five miles wide. Much of the area was again visited by a series of tornadoes on the afternoon of the 3d. One locality in the west-central portion of the State was visited by three distinct tornadoes, two being within a short period on the afternoon of the 2d. On the afternoon of the 11th tornadoes developed over a large area from Franklin and Cerro Gordo counties eastward to Fayette county, which injured many people, destroyed farm buildings, and damaged crops. More details of these tornadoes will be published next month. There is not sufficient time to carefully consider and arrange the data for this report. Destructive hail occurred over limited areas in the southwestern counties, portions of Woodbury county, and from Calhoun and Pocahontas counties northeastward to Winneshiek county. The fall was especially heavy in localities. In the southern portion of Floyd county, a stream that is normally dry rose to a height of 20 feet and was over 100 yards wide. Residents in the district reported the fall of hail on the level to be from two to four inches deep. A picture was taken of the hail at a turn in a creek known as "Bloody Run" where the hail had collected, and it showed a bank from two to four feet deep that covered one and one-half acres. At the time the picture was taken, the day following the storm, there were still stones to be seen that were two inches in diameter. The damage from hail amounted to probably more than \$250,000 and from straight winds and tornadoes to an amount exceeding \$800,000.

The temperature averaged slightly above normal, being greatest in the southern division. There were no periods of oppressively warm weather, and the fluctuations were frequent beginning with the most protracted warm period during the first week and terminating with the coolest period of the month during the last week. All crops were greatly benefited. Corn made unusual growth and the straw of small grain lengthened considerably, so that much that seemed too

short to harvest will be gathered in the usual manner. Pastures that were bare in the beginning of the month were soon revived and minor crops responded quickly to the favorable growing conditions. The rains came so late that hay will not make more than half a crop.

As practically all the flood damage occurred in the northeastern portion of the State, a complete report furnished by the Official in Charge of the Dubuque station appears elsewhere in this report.

F. L. D.

### TEMPERATURE

The mean temperature for the State, as shown by the records of 101 stations, was  $70.4^{\circ}$ , or  $1.1^{\circ}$  higher than the normal. By divisions, approximately three tiers of counties to the division, the means were as follows: Northern,  $68.4^{\circ}$ , or  $0.4^{\circ}$  higher than the normal; Central,  $70.8^{\circ}$ , or  $1.2^{\circ}$  higher than the normal; Southern,  $71.9^{\circ}$ ,  $1.7^{\circ}$  higher than the normal. The highest monthly mean was  $74.2^{\circ}$ , at Keokuk, and the lowest was  $66.0^{\circ}$ , at Postville. The highest temperature recorded was  $98^{\circ}$  at Glenwood, Little Sioux and Perry on the 20th, and the lowest was  $38^{\circ}$ , at Milford on the 9th. The temperature range for the State was  $60^{\circ}$ .

### PRECIPITATION

The average precipitation for the State, as shown by the records of 107 stations, was 6.64 inches, or 2.11 inches greater than the normal. By divisions, the average were as follows: Northern, 7.20 inches, or 2.59 inches greater than the normal; Central, 5.77 inches, or 1.31 inches greater than the normal;

### COMPARATIVE DATA FOR THE STATE—JUNE

YEAR	Temperature			Precipitation			Number of Days						
	Mean	Departure	Highest	Lowest	Total	Departure	Greatest	Least	Snowfall	With pre. <sup>.01</sup> in. or more	Clear	Partly cloudy	Cloudy
1890	72.7	+3.4	106	44	7.76	+3.23	16.53	1.57	-	11	12	10	8
1891	69.1	-0.2	99	37	5.39	+0.86	19.88	1.68	-	11	8	10	12
1892	69.2	-0.1	102	42	5.19	+0.66	14.16	0.67	-	10	12	11	7
1893	71.2	+1.9	100	40	3.91	-0.62	7.56	1.36	-	8	15	11	4
1894	73.2	+3.9	104	34	2.67	-1.86	6.20	0.57	-	7	16	10	4
1895	69.7	+0.4	102	34	4.32	-0.21	9.26	0.98	-	10	11	11	8
1896	69.1	-0.2	100	40	3.11	-1.42	7.89	0.81	-	9	12	13	5
1897	69.1	-0.2	103	29	3.81	-0.72	9.38	1.03	-	10	10	12	8
1898	71.4	+2.1	99	42	4.72	+0.19	12.48	1.90	-	9	13	10	7
1899	70.7	+1.4	100	42	5.04	+0.51	11.99	1.10	-	10	12	13	5
1900	69.7	+0.4	102	38	3.98	-0.55	12.35	0.67	-	5	17	10	3
1901	72.3	+3.0	106	30	3.71	-0.82	7.84	1.05	-	9	15	11	4
1902	65.2	-4.1	97	32	7.16	+2.63	16.04	1.46	-	14	8	11	11
1903	64.6	-4.7	96	30	2.86	-1.67	6.04	0.75	-	10	13	10	7
1904	67.1	-2.2	94	35	3.45	-1.08	8.35	0.44	-	7	13	10	7
1905	69.9	+0.6	100	36	5.53	+1.00	14.89	1.80	-	10	12	11	7
1906	67.9	-1.4	99	37	3.92	-0.61	8.27	1.48	-	8	15	10	5
1907	66.5	-2.8	98	36	5.35	+0.82	9.33	2.07	-	11	14	9	7
1908	67.1	-2.2	94	35	5.66	+1.13	11.88	1.77	-	13	12	10	8
1909	69.1	-0.2	96	40	6.41	+1.88	13.30	2.30	-	13	12	10	8
1910	69.5	+0.2	105	38	1.99	-2.54	5.51	0.05	-	7	18	7	5
1911	75.7	+6.4	108	36	1.82	-2.71	6.28	0.06	-	5	20	8	2
1912	66.2	-3.1	101	34	2.74	-1.79	5.71	0.78	-	7	15	9	6
1913	71.5	+2.2	102	33	3.31	-1.22	8.95	0.74	-	7	19	8	3
1914	72.2	+2.9	101	40	5.57	+1.04	13.24	1.17	-	13	12	14	4
1915	65.1	-4.2	91	31	4.16	-0.37	9.99	1.72	-	11	12	12	6
1916	64.5	-4.8	96	33	3.71	-0.82	7.96	1.41	-	10	13	11	6
1917	66.0	-3.8	100	32	6.65	+2.12	13.82	3.04	-	12	13	10	7
1918	70.8	+1.5	104	38	5.29	+0.76	10.19	1.55	-	11	16	10	4
1919	71.9	+2.6	98	41	6.13	+1.60	12.25	1.82	-	13	12	12	6
1920	70.7	+1.4	99	40	3.56	-0.97	8.48	1.25	-	9	16	10	4
1921	74.7	+5.4	100	40	3.76	-0.77	8.85	0.56	-	9	16	10	4
1922	72.2	+2.9	104	38	1.82	-2.71	7.19	0.28	-	6	19	8	3
1923	70.9	+1.6	100	40	4.93	+0.40	7.69	2.43	-	12	14	10	6
1924	66.8	-2.5	96	35	8.10	+3.57	14.92	4.00	-	14	11	14	5
1925	70.4	+1.1	98	38	6.64	+2.11	13.30	2.99	-	12	15	9	6

T. indicates an amount too small to measure, or less than .005 inch rainfall and less than .05 inch snowfall.



## Climatological Data for June, 1925

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit					Precipitation, in inches			Number of Days			Observers	
				Mean	Departure from normal	Highest Date	Lowest Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (cumulated)	Precipitation, .01 in. or more	Clear	Partly cloudy	Cloudy
<i>Northern Division</i>																
Algona	Kossuth	1,213	52	70.0	+ 1.4	91 5† 43	10 41	5.46	+0.95	3.09	0	8	21	3	6 se.	W. E. Laird
Allison (near)	Butler	1,044	13	65.6	+ 0.5	90 1† 44	28† 35	5.46	+0.51	1.81	0	11	13	11	6 nw.	J. A. Bell
Alta	Buena Vista	1,513	34	69.0	+ 1.2	92 20 47	10 33	8.20	+3.04	2.03	0	10	17	13	0 s.	D. E. Hadden
Alton	Sioux	1,305	20	69.2	+ 0.8	92 6† 46	29 36	3.24	-0.72	0.83	0	10	18	8	15 7 se.	W. S. Slagle
Belmond	Wright	1,205	15	69.8	+ 1.3	93 5† 42	10 37	10.10	+5.34	3.60	0	14	5	21	4 s.	Geo. P. Hardwick
Britt	Hancock	1,236	38	67.8	+ 0.4	91 5† 43	10 33	9.40	+4.87	2.87	0	10	15	5	10 se.	Jas. S. Ross
Charles City	Floyd	1,015	34	68.1	+ 1.6	92 5 44	10 31	9.39	+4.71	5.32	0	16	14	11	5 se.	U. S. Weather Bureau
Cherokee	Cherokee	1,196	3	68.4 <sup>a</sup>	-----	91 <sup>a</sup> 20 43 <sup>a</sup>	10 33 <sup>a</sup>	5.35	-----	1.92	0	11	15	11	4 s.	J. E. Wirth
Decorah	Winneshiek	875	32	66.8	- 1.2	92 6 39	28 41	8.75	+4.23	2.54	0	15	15	13	2 nw.	M. D. Whitney
Dubuque	Dubuque	698	52	70.2	+ 0.8	90 5 46	11 37	10.80	+6.45	3.19	0	12	10	12	8 s.	U. S. Weather Bureau
Estherville	Emmet	1,298	30	68.0	+ 1.1	95 6 40	27 42	5.10	+0.76	1.45	0	12	18	11	1 s.	A. O. Peterson
Fayette	Fayette	1,003	35	69.0	-----	90 <sup>b</sup> 2 42 <sup>c</sup>	28 32 <sup>c</sup>	7.39	+2.55	1.66	0	17	-----	-----	sw.	R. Z. Latimer
Forest City	Winnebago	1,226	31	67.8	0.0	90 5† 42	10 32	7.15	+2.60	2.40	0	13	14	7	9 se.	Dr. M. B. Neil
Hampton	Franklin	1,145	1	68.1 <sup>a</sup>	+ 0.1	92 5† 42	10 <sup>d</sup> 34	6.01	+1.07	2.08	0	12	18	8	4 sw.	L. H. Davis
Humboldt	Humboldt	1,095	37	70.1	+ 0.8	95 5† 43	10 <sup>d</sup> 37	5.17	+0.79	1.34	0	11	14	8	8 se.	H. C. Snitkey
Independence	Buchanan	921	61	69.0	+ 0.7	90 1 44	10 35	9.47	+4.85	3.30	0	13	16	12	2 nw.	Dr. Geo. Boody
Inwood	Lyon	1,474	21	68.8	+ 1.1	92 5† 43	29 40	4.70	-0.61	1.37	0	12	17	9	4 s.	A. C. Hanson
Le Mars	Plymouth	1,324	29	69.5	+ 0.9	90 6† 45	29 33	5.89	+1.51	2.45	0	13	17	10	3 sw.	Mrs. M. C. Woolley
Mason City	Cerro Gordo	1,148	28	68.3	+ 0.6	92 5† 43	29 32	8.51	+3.37	3.42	0	11	15	4	se.	Amer. Beet Sugar Co.
Milford (near)	Dickinson	1,430	5	66.8	-----	93 21 38	9 37	3.39	-----	1.17	0	7	17	6	7 s.	S. N. McKinsey
New Hampton	Chickasaw	1,160	28	67.2	- 0.5	91 6 41	10 34	7.60	+3.12	1.45	0	17	16	8	6 nw.	A. F. Kemman
Nora Springs	Floyd	1,064	13	67.9	- 0.8	92 5† 42	10 <sup>d</sup> 33	11.34	+6.25	3.86	0	17	15	12	3 s.	Arthur Betts
Northwood	Worth	1,222	29	66.8 <sup>t</sup>	+ 0.1	89 <sup>e</sup> 5 41 <sup>e</sup>	10 29 <sup>h</sup>	8.40	+3.54	3.65	0	12	9	13	8 sw.	Chas. Dwelle
Oelwein	Fayette	1,036	1	68.2	-----	94 5 43	10 <sup>d</sup> 33	13.30	-----	6.50	0	10	-----	-----	s.	John T. Riddler
Osage	Mitchell	1,163	-----	67.2	-----	92 1 39	10 33	9.04	-----	4.43	0	15	11	8	nw.	W. G. Gee
Pocahontas	Pocahontas	1,248	21	69.2	+ 0.9	91 5† 43	10 <sup>d</sup> 34	5.10	+0.46	1.48	0	12	17	9	4 se.	F. E. Hronek
Postville	Clayton	1,180	26	66.0	+ 0.3	87 5† 39	28 32	10.49	+5.83	2.86	0	16	11	13	6 w.	F. L. Williams
Rock Rapids	Lyon	1,358	26	68.7	+ 0.8	92 6 41	28 40	4.75	+0.13	1.14	0	13	16	7	se.	J. K. Medberry
Sanborn	O'Brien	1,553	11	67.9	+ 0.2	92 20† 40	10 42	3.09	-1.64	0.81	0	10	16	8	6 n.	J. W. Dow
Sioux Center	Sioux	1,426	26	-----	-----	90 <sup>b</sup> 5† 45 <sup>b</sup>	10 37 <sup>b</sup>	4.65	+0.59	1.27	0	11	-----	-----	se.	J. de Ruyter
Spencer	Clay	1,319	11	69.7	+ 1.2	95 6 41	28 38	3.55	-0.65	0.67	0	11	10	16	4 se.	E. W. Little
Storm Lake	Buena Vista	1,440	36	69.4	+ 0.9	90 20 48	10 <sup>d</sup> 30	5.34	+0.34	1.50	0	9	18	7	5 s.	Geo. H. Fracker
Washta	Cherokee	1,157	27	69.3	+ 1.2	92 20 47	10 <sup>d</sup> 36	10.05	+5.47	4.00	0	11	16	7	7 s.	H. L. Felter
Waterloo	Black Hawk	854	42	70.0	+ 0.6	92 6† 42	10 <sup>d</sup> 37	6.99	+2.86	1.35	0	14	15	9	6 se.	R. B. Slippy
Waverly	Bremer	936	29	69.0 <sup>a</sup>	+ 0.8	91 <sup>a</sup> 1† 43 <sup>a</sup>	10 <sup>d</sup> 34 <sup>a</sup>	10.10	+0.53	2.85	0	16	21	6	3 nw.	D. H. Murphy
West Bend	Palo Alto	1,197	32	68.9	+ 0.5	91 20 41	10 38	6.37	+2.08	3.50	0	10	13	13	4 s.	Jos. Dorweiler
Means and extremes		-----	68.4	+ 0.4	95	5† 38	9 42	7.20	+2.59	6.50	0	12	15	10	5 s.	
<i>Central Division</i>																
Ames	Story	926	48	71.2	+ 1.3	94 20 46	28 37	4.08	-0.29	1.43	0	12	18	8	4 nw.	Iowa State College
Audubon	Audubon	1,297	30	69.9	+ 1.6	95 20 47	10 35	7.56	+3.54	3.67	0	14	15	12	3 s.	Geo. Kirby
Baxter	Jasper	995	25	70.2	+ 0.6	95 20 41	28 39	3.87	-0.72	1.16	0	8	14	13	3 s.	Henry Geise
Belle Plaine <sup>tt</sup>	Benton	866	35	71.2	+ 2.0	94 6 44	10 <sup>d</sup> 42	4.75	+0.40	1.56	0	12	13	13	4 s.	O. C. Burrows
Boone (near)	Boone	1,134	20	70.6	+ 1.6	96 20 45	29 43	4.83	+0.30	2.90	0	10	12	11	7 se.	C. F. Henning
Carroll	Carroll	1,265	35	70.2	+ 1.8	95 20 43	30 39	5.26	+0.48	1.33	0	10	16	8	6 se.	Mrs. Jos. J. Wolfe
Cedar Rapids	Linn	737	43	71.2	- 0.2	96 5† 40	28 43	7.02	+2.67	2.11	0	11	16	5	9 sw.	J. T. Wurster
Clinton	Clinton	595	52	71.2	+ 0.8	92 4† 45	10 37	6.78	+2.39	2.58	0	10	21	6	3 s.	Dr. A. P. Bryant
Davenport	Scott	580	54	72.6	+ 2.1	94 5 50	10 37	7.56	+3.56	1.81	0	11	12	10	8 s.	U. S. Weather Bureau
Davenport (No. 2)	Scott	690	---	72.5	-----	95 5† 47	10 41	7.97	-----	1.79	0	14	-----	-----	se.	Rex Shriner
Denison	Crawford	1,171	31	70.0	+ 0.9	93 20 49	10 <sup>d</sup> 33	6.97	+2.88	2.70	0	14	17	7	6 nw.	V. L. Byers
Des Moines	Polk	861	47	72.0	+ 1.4	97 20 51	10 35	6.44	+1.84	3.13	0	13	10	9	11 s.	U. S. Weather Bureau
Fairport	Muscatine	561	4	72.7	-----	91 20 49	10 38	5.40	-----	1.68	0	12	17	7	6 sw.	Bureau of Fisheries
Fort Dodge	Webster	1,114	25	69.2	+ 0.2	93 6 43	10 <sup>d</sup> 37	7.33	+2.91	1.79	0	13	17	3	10 s.	Samuel Sampson
Grinnell	Poweshiek	1,031	31	71.5	+ 1.9	96 20 48	10 38	4.25	-0.30	1.32	0	10	16	11	3 se.	Paul P. Meyers
Grundy Center	Grundy	976	34	69.8	+ 0.1	97 21 40	10 41	5.99	+0.91	1.41	0	9	14	3	13 s.	W. D. Callaway
Guthrie Center	Guthrie	1,077	30	70.4	+ 1.4	97 20 43	30 43	4.72	+0.26	2.08	0	9	18	8	4 sw.	E. L. Nesselroad
Harian (near)	Shelby	1,192	26	71.0	+ 1.9	96 20 54	8† 33	5.91	+1.28	2.00	0	14	13	15	2 s.	Nels Bisgard
Iowa City	Johnson	733	65	70.4	+ 1.3	92 20 42	28 38	5.61	+1.12	2.57	0	13	15	8	7 nw.	Prof. J. F. Reilly
Iowa Falls	Hardin	1,107	32	68.7	+ 0.8	91 5† 42	10 <sup>d</sup> 35	6.45	+0.99	2.48	0	12	15	9	6 s.	J. B. Parmelee
Jefferson	Greene	1,052	26	70.0	+ 0.8	92 20 47	29 37	7.16	+2.96	3.76	0	9	17	7	6 sw.	W. I. Lyon
Kalo <sup>tt</sup>	Webster	1,040	20	72.8	+ 2.7	98 20 51	9† 44	6.62	-----	3.10	0	7	14	11	5 sw.	S. C. Fuller
Little Sioux	Harrison	1,035	58	73.2	+ 3.4	96 20 51	10† 41	4.54	+0.28	0.80	0	17	14	11	5 sw.	H. W. Kerr
Logan	Harrison	692	68.8 <sup>a</sup>	-----	90 <sup>a</sup> 6 43 <sup>a</sup>	10 36 <sup>a</sup>	7.49	-----	2.38	0	13	-----	-----	-----	sw.	Mary Jean Stern
Maquoketa	Jackson	1,044	68.8 <sup>a</sup>	-----	92 <sup>a</sup> 6 43 <sup>a</sup>	10 36 <sup>a</sup>	7.49	-----	2.38	0	13	-----	-----	-----	sw.	John Strodthoff
Marshalltown	Marshall	947	33	71.8	+ 1.5	95 20 46	28 37	2.99	-1.58	0.57	0	12	17	9	4 s.	C. C. Pigman
Monroe	Jasper	922	13	72.7	+ 2.9											

## Climatological Data for June, 1925—Continued

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit						Precipitation, in inches			Number of Days	Observers	
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours		
<i>Southern Division</i>															
Afton	Union	1,212	31	72.9 <sup>a</sup>	+ 3.5	98 <sup>a</sup>	20	50 <sup>a</sup>	10	38 <sup>a</sup>	8.46	+3.53	2.55	0	12 sw. S. R. Brown
Albia	Monroe	959	27	71.4	+ 1.0	93	19†	48	10	36	6.22	+1.90	2.13	0	16 sw. O. E. McBride
Atlantic	Cass	1,164	34	72.2	+ 2.8	96	20	50	10	41	6.66	+1.60	1.57	0	14 s. Mrs. Martha E. Reynolds
Bonaparte	Van Buren	563	34	71.4	+ 1.3	89	5†	50	10	37	9.33	+4.97	3.77	0	11 sw. B. R. Vale
Burlington	Des Moines	544	29	73.8	+ 2.1	95	6	51	11	41	9.43	+5.14	2.29	0	12 sw. John W. Donnelly
Centerville	Appanoose	1,013	20	71.9	+ 1.4	91	20†	50	10	33	7.87	+3.47	3.22	0	13 se. Thomas Wood
Chariton (near)	Lucas	1,042	30	70.7	+ 1.9	92	20	49	10	33	9.33	+4.95	2.54	0	9 sw. C. O. Burr
Clarinda	Page	1,009	35	72.1	+ 0.7	93	19	52	9	35	5.25	+0.54	1.10	0	15 s. Dr. H. C. Hawley
Columbus Jet.	Louisa	595	24	70.0	- 0.7	88	4†	48	28	36	4.93	+0.63	1.81	0	11 sw. Miss Musa Todd
Corning (near)	Adams	1,117	33	71.1	+ 1.6	95	20	50	8	41	8.10	+3.97	3.49	0	11 sw. Jerome Smith
Corydon	Wayne	1,101	32	71.6	+ 1.4	92	19†	48	30	32	6.22	+1.58	1.73	0	10 nw. A. T. Gallagher
Creston	Union	1,312	20	71.2	+ 2.5	95	20	47	9	38	6.67	+1.72	2.15	0	13 s. J. W. Goodsell
Cumberland (near)	Cass	1,225	26								4.72	+0.40	1.30	0	12 nw. Carl E. Pollock
Earlham (near)	Madison	1,126	23	72.4	+ 3.9	95	20	43	30	35	4.39	-0.04	2.00	0	10 se. Geo. Phillips
Fairfield	Jefferson	780	41	71.1	+ 1.3	91	6†	49	28	39	9.86	+5.03	3.51	0	12 w. Prof. R. M. McKenzie
Glenwood	Mills	1,100	27	73.4	+ 3.0	98	20	52	10	34	5.63	+0.76	2.46	0	12 se. Dr. Geo. Mogridge
Indianola	Warren	972	34	71.4	+ 1.4	91	19	50	10	33	5.57	+1.13	1.28	0	13 sw. Seth F. Shenton
Keokuk	Lee	614	54	74.2	+ 1.7	94	6	52	10	37	4.79	+0.50	1.50	0	12 s. U. S. Weather Bureau
Keosauqua	Van Buren	644	33	71.3	+ 1.1	92	20	48	30	35	8.99	+4.52	2.84	0	13 se. J. H. Landes
Knoxville	Marion	920	39	71.4	+ 0.9	93	20	50	10†	36	7.59	+3.49	2.15	0	10 se. W. J. Casey.
Lacona	Warren										9.66	+5.09	2.76	0	12 se. J. B. Alter
Lamoni	Decatur	1,123	18	72.0	+ 2.4	93	20	50	10	33	5.69	+0.84	1.93	0	14 se. Roy L. Roberts
Lenox	Taylor	1,250	30	71.8	+ 1.0	96	20	50	10	28	7.68	+3.51	1.80	0	11 s. J. L. Hurley
Mt. Ayr	Ringgold	1,245	32	71.3	+ 1.3	93	20	50	10†	32	5.44	+0.70	1.60	0	14 se. Alex Maxwell
Mt. Pleasant	Henry	729	44	71.0	- 0.6	92	4	50	11†	39	7.18	+2.15	2.32	0	11 sw. J. H. Jericho
Oakland	Pottawattamie	1,105	6	71.8	+ 1.6	96	20	51	29	41	8.03	-	2.28	0	12 s. M. E. Gray
Oskaloosa	Mahaska	835	49	70.6	+ 1.0	92	20	50	28†	36	8.76	+4.78	4.48	0	10 sw. Roy R. Robinson
Ottumwa	Wapello	649	30	73.1		93	20†	50	10	35	6.82	+2.81	2.19	0	12 s. C. L. Mikesh
Red Oak (near)	Montgomery	1,030									6.52	-	2.65	0	9 se. B. R. Bridge
Sigourney (near)	Keokuk	790	29	70.8	+ 1.1	94	20	48	28	33	4.91	+0.65	2.66	0	8 ne. W. E. Utterback
Stockport	Van Buren	747	23								7.08	+1.88	2.69	0	14 se. C. L. Beswick
Thurman	Fremont	975	28	74.0	+ 2.2	96	20	53	9	33	7.51	-	2.40	0	11 se. C. R. Paul
Tingley	Ringgold	1,275	70.9								6.41	+2.50	3.45	0	7 se. James A. Verploegh
Washington	Washington	769	43	72.6	+ 2.4	92	20	49	10	31	6.06	-	2.40	0	11 se. D. D. Sherman
Wescott (near)	Lee	523	3	73.8		93	6	52	10	38	8	-	18	6	nw. Lester J. Larson
Winterset	Madison	1,129	34	71.3	+ 0.9	97	20	45	13	40	5.28	+0.41	1.65	0	8 sw. H. S. Ely
Omaha, Nebr.		1,103	54	73.6	+ 2.0	99	20	53	10	33	7.42	+2.37	2.74	0	12 sw. U. S. Weather Bureau
Means and extremes				71.9	+ 1.7	99	20	43	30	41	6.96	+2.45	4.48	0	12 sw.
State means and extremes				70.4	+ 1.1	98	20	38	9	44	6.64	+2.11	6.50	0	12 sw.

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete records are used in determining means.

Reference letters a, b, c, etc., appearing in the table indicate the number of days missing; for example b represents two days, etc.

†Also other dates.

‡Received too late to be included in means and summaries.

T. Precipitation is less than 0.01 inch rain or melted snow.

## PRESSURE, RELATIVE HUMIDITY, WIND AND SUNSHINE

Stations	Barometric Pressure, Inches (Sea Level)				Relative Humidity, %			Wind			Sunshine		Observers	
	Mean	Highest	Date	Lowest	Date	7 a. m.	12 Noon†	7 p. m.	Lowest	Date	Total movement	Average hourly velocity	Maximum	
Charles City	29.91	30.37	30	29.44	2	76	55	63	37	6	5,783	8.0	29 se.	11 74 + 6
Davenport	29.93	30.38	30	29.52	12	73	55	56	32	21	5,551	7.7	30 sw.	7 63 - 8
Des Moines	29.89	30.31	30	29.49	2	76	56	59	30	29	6,412	8.9	37 sw.	2 70 + 3
Dubuque	29.90	30.38	30	29.50	12	76	55	58	39	†29	4,997	6.9	24 sw.	8 71 + 7
Keokuk	29.94	30.36	30	29.56	12	75	56	59	26	5	5,725	8.0	37 sw.	15 69 - 15
Sioux City	29.86	30.28	29	29.30	2	73	52	52	22	19	9,974	13.9	76 sw.	1 71 + 8
Omaha, Neb.	29.87	30.25	29	29.33	2	74	52	56	30	†8	5,841	8.1	38 nw.	†14 72 + 4
Means and extremes	29.90	30.38	30	29.30	2	75	55	58	—	—	8.8	—	—	70 + 2
Normals and records	29.93	30.38	10 <sup>th</sup>	29.30	5 <sup>th</sup>	1880	79	60	†14	1894	7.6	sw.	1 68 —	—
											185	w.	1917	—

\*Dubuque: \$Omaha. †Sioux City. ‡Local mean time. †And other dates.

Southern, 6.69 inches, or 2.45 inches greater than the normal. The highest amount, 13.30 inches occurred at Oelwein, and the least, 2.99 inches, occurred at Marshalltown. The greatest amount in 24 consecutive hours, 6.50 inches, occurred at Oelwein, on the 15th.

## MISCELLANEOUS PHENOMENA

Fog: 15th, 22d.

Hail: 1st, 2d, 3d, 4th, 6th, 10th, 11th, 12th, 13th, 14th, 16th, 21st, 22d, 23d, 24th, 27th, 28th.

Halos (lunar and solar): 15th, 17th.

Light Frost: 28th, (1 station).

Thunderstorms: All dates except 5th, 6th, 9th, 20th, 30th.

Tornadoes: 1st, 2d, 3d, 4th, 7th, 11th, 12th, 16th, 23d, 28th.

Winds (damaging): 1st, 2d, 4th, 11th, 12th, 14th.

## RIVERS

Rather low stages prevailed on the Mississippi River till the latter part of the 2d week, the heavy rains that occurred during the first week having affected the stages very little owing to the previous dry weather. During the rest of the

## Daily Precipitation for June, 1925

Stations	Drainage Basin	Day of Month																													Totals		
		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		
<i>Northern Division</i>																																	
Algona	Des Moines	.16	.63	3.09																													5.46
Allison (near)	Cedar	.30	T.	.13	.05																												5.46
Alta	Raccoon	.05		1.43	1.98																											8.20	
Alton	Floyd	T.	.44	.14	.69																											3.24	
Belmond	Iowa	.03	T.	.18	.80																											10.10	
Britt	Iowa	T.	T.	1.04	2.65																											9.40	
Charles City***	Cedar	.20	.17	.06																												9.39	
Cherokee	Little Sioux																															5.35	
Decorah	Mississippi	.04	1.00	.82	.10																										8.75		
Dubuque***	Mississippi	.97	.12	.66																												10.80	
Estherville	Des Moines	.05	.03	.30	.50																											5.10	
Fayette	Mississippi	1.29	.10	1.12	.06																											7.39	
Forest City	Cedar	T.	.35	2.40																												7.15	
Hampton	Cedar	.04		.30	.29																											6.01	
Humboldt	Des Moines	T.	T.	T.	.47																											5.17	
Independence	Wapsipinicon	.08	3.30	1.40																												9.47	
Inwood	Big Sioux	.10	.17	.61	.88																											4.70	
Lansing	Mississippi	.30	.66	1.30	.04																										8.20		
Le Mars	Floyd	.08	.71	.03	2.45																											5.89	
Mason City	Cedar	.05	T.	1.24																												8.51	
Milford (near)	Little Sioux	.10	.67	.51	.24																											3.39	
New Hampton	Wapsipinicon	.39	.11	1.45	.08																											7.69	
Nora Springs	Cedar	.03	.06	.12	.75																											11.34	
Northwood	Cedar	T.	.90	1.00																												8.40	
Oelwein	Wapsipinicon	1.00	.20	1.10																												13.30	
Osage	Cedar	.01	T.	.19	.88																											9.04	
Pocahontas	Des Moines	.01	.80	1.48																												5.10	
Postville	Mississippi	.35	.40	1.65	.12																											10.49	
Rock Rapids	Big Sioux	.87	.81	.33																												4.75	
Sanborn	Floyd	.52	.14	.31																												3.09	
Sioux Center	Floyd	.34	.56	.20	.42																											4.65	
Spencer	Little Sioux	T.	.15	.03	.25																											3.55	
Storm Lake	Raccoon	T.	.64	1.50																												5.34	
Washta	Little Sioux	.05	.41	T.	2.02																											10.05	
Waterloo	Cedar	.01	.40	1.10	.05																											6.99	
Waverly	Cedar	.32	.03	2.63	.07																											10.10	
West Bend	Des Moines	.03	.64	.01	3.50																												6.37
<i>Central Division</i>																																	
Ames	Skunk	.11	T.	1.43	.02																											4.08	
Audubon	Nishnabotna	.03	T.	.16	1.70																											7.56	
Baxter	Skunk	.45	.10	.27	T.																											3.87	
Belle Plaine	Iowa	.34	.23	.41	T.																											4.75	
Boone	Des Moines	T.	T.	.40	.04																											4.83	
Carroll	Raccoon	T.	.45	.81																												5.26	
Cedar Rapids	Cedar	.21	1.90	.88	.02																											7.02	
Clinton	Mississippi	.27		1.60																												6.78	
Davenport***	Mississippi	.66		1.81																												7.56	
Davenport (No. 2)	Mississippi	.02	.75	1.79																												7.97	
Denison	Missouri	T.	.15	1.69	2.70																											6.97	
Des Moines***	Des Moines	.21	.16	.07	.25																											6.44	
Fairport	Mississippi	.11	.98	1.68																												5.40	
Fort Dodge	Des Moines	.02	.17	.77																												7.33	
Grinnell	Iowa	.40	.21	.48																												4.25	
Grundy Center	Cedar	.41	T.	1.41	T.																											5.99	
Guthrie Center	Raccoon	.65																														4.72	
Harlan	Nishnabotna	.09	16.00																													5.91	
Iowa City	Iowa	.17	.84	2.24	.33																										5.61		
Iowa Falls	Iowa	T.	.10	.																													

## Daily Precipitation for June, 1925—Continued

Stations	Drainage Basin	Day of Month																														Totals		
		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			
<i>Southern Division</i>																																		
Afton	Grand	.40	2.55																														8.46	
Albia	Des Moines	.02	.27	1.45	.10																												6.22	
Atlantic	Nishnabotna		.14	.40																													6.66	
Bonaparte	Des Moines	.56	T. 1.35																														9.33	
Burlington	Mississippi		.44	.41	.20																												9.43	
Centerville	Chariton	.62	.08	1.09																													7.87	
Chariton (near)	Chariton	.39	.14	2.54																													9.33	
Clarinda	Nodaway		.50	.77	.04																												5.25	
Columbus Jet.	Iowa	.12	1.41	1.81																													4.93	
Corning	Nodaway	.58		1.82																													8.10	
Corydon	Chariton	.47		1.41																													6.22	
Creston	Missouri		.47	1.42																													6.67	
Cumberland (near)	Nodaway	T.	T.	.75																													4.72	
Earlham	Des Moines	T.	.03																														4.39	
Fairfield	Skunk	.35	.09	1.88																													9.86	
Glenwood	Missouri	.14	.34	.26																													5.63	
Indianola	Des Moines	.79	.05	1.01																													5.57	
Keokuk***	Mississippi	.02	.04	.26																													4.79	
Kenosauqua	Des Moines	.63	.02	1.20																													8.99	
Knoxville	Des Moines	.18	.33	2.15																													7.59	
Laeona	Des Moines	.75		2.76																													9.66	
Lamoni	Grand	.20	.20	1.93	.29																												5.69	
Lenox	Missouri	.39		1.80																													7.68	
Mt. Ayr	Grand	.24	.01	1.60																													5.44	
Mt. Pleasant	Skunk	.65		1.21																													7.18	
Oakland	Nishnabotna	.09	.88	1.23																													8.03	
Oskaloosa	Des Moines	.79	.50	4.48																													8.76	
Ottumwa	Des Moines	.27	.18	.90																													6.82	
Red Oak (near)	Missouri	T.	.27	.40																													6.52	
Sigourney	Skunk	.28	.21	2.66																													4.91	
Stockport	Skunk																																	
Thurman	Missouri	.26	.67	.55																													7.08	
Tingley	Platt	.52		2.40																													7.51	
Washington	Skunk	1.91	1.54																														6.41	
Wescott (near)	Mississippi	.18		.40																													6.06	
Winterset	Des Moines	.08		.50																													5.28	
Omaha, Neb.***	Missouri	.08	.19	.18																													7.42	

Except as otherwise indicated, observations are generally made late in the afternoon, near sunset, and precipitation recorded is for 24 hours ending at the time of observation.

||| Precipitation measured in the morning; amount then recorded is for the preceding 24 hours.

\*\*\* Regular Weather Bureau Station: precipitation is for 24-hour period, midnight to midnight.

\*\*Incomplete.

\*Precipitation included in the next following measurement.

T. Precipitation is less than .01 inch rain or melted snow.

month there were several sharp rises but no flood conditions developed. There was considerable fluctuation on the interior rivers following each period of heavy rain with some sharp rises, but there was no flood damage except in the northeastern portion of the State, principally on the Maquoketa and tributary streams. (See below.) There was a gradual rise on the Missouri River till the 2d week with mostly falling stages thereafter. Crest stages were below the flood stage and the only damage was on low lands in the lower course.

#### Intense Rainstorm of June 14-15, 1925, With Attendant Freshets in Northeastern Iowa

By H. Merrill Wills, Weather Bureau, Dubuque, Iowa

A series of four heavy rainstorms visited northeastern Iowa from June 11th to 24th, resulting in floods which took a toll of ten lives and cost in damage to property, including livestock, prospective crops, highways and bridges, railway trackage and bridges, and town properties, a total of approximately \$1,888,000. This discussion has to do mainly with the most intense of the four storms and it will be taken up first.

One of the heaviest downpours in recent years at Dubuque occurred on the night of June 14-15, 1925, when 3.15 inches of rain fell between the hours of 10 p. m. and 4 a. m. and a total of 3.19 inches in the 24 hour period that has been recorded at Dubuque in the month of June since 1874, excepting that of June 16, 1892, when 3.48 inches fell; and is the heaviest single rainstorm of any month since October 4, 1919, when 3.38 inches were recorded.

The rain fell at an excessive rate from 10:25 p. m. to 10:35 p. m. and again from 1:00 a. m. to 1:37 a. m. The greatest falls within limited periods were as follows: 5 minutes, 0.32 inch; 10

minutes, 0.48; 15 minutes, 0.70; 30 minutes, 1.18; 1 hour, 1.45; 2 hours, 1.87.

The storm was accompanied by brilliant lightning and considerable thunder, the flashes of lightning being almost incessant throughout the storm. However, there was apparently very little damage caused by the lightning.

As compared with the last previous rainstorms of similar intensity, namely, those of July 9, 1919 (3.87 inches), and October 4, 1919 (3.38 inches), the total duration of fall was not greatly different, though the two previous storms occurred during the day, while the recent one occurred at night. Moreover, those of 1919 were much more intense for a short period of time and were decidedly more destructive to streets and other property in Dubuque. Also, the storm of July 9, 1919, destroyed considerable property at Union Park and cost the lives of five persons there and two in Dubuque. In the two former instances most of the lower flat sections of the city were under water, while only comparatively small areas were inundated in the recent storm. Again, while the storms of 1919 were local in character, that of June 14th-15th was quite general over the major portion of northeastern Iowa, resulting in severe freshets in the streams west and north of Dubuque. The rain caused a rise of nearly 3.0 feet in the Mississippi at Dubuque, but that only brought the water up to a stage of 8.8 feet, though a stage of 11.1 feet was reached a week later due to subsequent storms.

Many of the streams and rivers of northeastern Iowa rose rapidly from the torrential rains and left their banks in the upper reaches about 1 a. m. and raged through towns and rich bottom lands for several hours causing damage approaching the two million dollar mark and costing the lives of seven persons. The greatest losses in single localities were sustained by the three towns of Manchester, Dyersville and Cascade, though thousands of acres of corn and (Continued on Page 47)

## Daily Maximum and Minimum Temperature for the Month of June, 1925

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	Mean	
<i>Northern Division</i>																																
Algona-----	(Maximum-----	89	76	78	89	91	31	89	84	84	84	79	89	82	78	80	80	82	83	88	79	90	84	78	75	78	77	72	80	77	80	82.2
	(Minimum-----	64	55	60	63	60	68	66	55	54	43	52	62	54	59	65	60	64	56	64	60	61	64	57	56	54	60	52	45	46	52	57.7
Alta-----	(Maximum-----	84	73	79	87	88	90	87	71	67	73	87	70	83	78	84	83	78	85	84	92	86	83	75	68	68	77	73	76	82	82	79.8
	(Minimum-----	60	55	57	63	70	66	65	51	53	47	58	60	55	58	64	60	62	56	65	61	66	65	63	60	52	37	50	49	49	52	58.3
Alton-----	(Maximum-----	86	73	82	88	91	92	88	73	68	70	89	84	82	77	82	83	79	87	92	85	87	84	80	72	78	80	76	80	85	81.1	
	(Minimum-----	64	52	54	54	52	69	65	53	52	47	56	61	52	55	60	58	62	54	62	56	65	67	65	61	53	59	50	48	46	50	57.4
Belmond-----	(Maximum-----	89	83	77	90	93	92	91	82	78	68	82	78	81	75	81	80	75	83	87	93	87	84	80	72	78	80	71	81	75	81	81.6
	(Minimum-----	65	65	63	65	69	64	67	56	54	42	51	60	55	57	63	60	53	57	64	58	63	60	56	55	59	54	44	47	53	57.9	
Charles City-----	(Maximum-----	92	79	77	90	92	92	91	71	66	64	77	77	80	75	80	78	80	79	82	84	86	84	76	72	73	72	66	74	73	78	78.7
	(Minimum-----	61	56	65	71	70	66	67	57	53	44	48	57	54	59	62	61	61	56	61	58	63	59	56	54	58	49	45	46	51	57.5	
Dubuque-----	(Maximum-----	87	80	77	90	90	90	87	77	74	67	83	86	78	77	83	77	86	78	84	88	87	83	78	71	69	74	67	75	73	77	79.8
	(Minimum-----	63	64	64	74	73	70	69	64	56	49	46	62	57	62	65	63	63	62	62	63	66	58	57	57	60	53	50	51	53	60.6	
Forest City-----	(Maximum-----	89	75	77	89	90	90	88	83	69	62	72	71	81	75	77	77	80	81	86	88	84	78	73	72	68	76	72	77	78.5		
	(Minimum-----	67	54	60	62	68	66	65	54	52	42	49	57	54	58	65	57	61	61	56	58	62	60	56	52	57	51	44	46	50	57.0	
Independence-----	(Maximum-----	90	84	77	88	89	88	89	83	73	71	81	83	78	76	79	70	80	84	88	83	88	86	81	81	77	71	73	73	76	80.3	
	(Minimum-----	64	58	61	68	54	66	56	54	58	44	48	64	52	60	64	58	61	57	59	64	57	55	54	68	54	45	49	50	57.7		
Inwood-----	(Maximum-----	87	70	87	89	92	91	87	73	70	68	84	72	81	77	83	82	79	87	86	92	92	81	75	69	73	80	73	78	83	86	80.9
	(Minimum-----	61	51	52	64	70	65	51	49	46	56	60	52	56	57	58	58	52	61	61	66	64	60	50	55	48	49	43	52	56.8		
Mason City-----	(Maximum-----	90	77	79	90	92	92	89	83	67	63	72	74	81	76	79	76	81	81	86	86	84	76	70	74	72	70	74	73	77	78.7	
	(Minimum-----	67	54	63	64	68	67	82	55	58	45	47	60	55	57	66	59	63	56	61	54	57	52	57	50	45	43	48	57.6			
<i>Central Division</i>																																
Belle Plaine-----	(Maximum-----	92	81	78	91	92	94	93	82	80	71	89	83	82	79	86	83	89	93	89	89	78	80	73	74	82	80	78	77	81	83.3	
	(Minimum-----	64	60	63	70	69	66	68	58	54	44	47	63	58	59	65	66	60	59	68	54	58	57	54	58	44	48	51	59.2			
Boone-----	(Maximum-----	87	84	86	91	93	93	92	76	75	90	85	85	81	83	82	82	86	90	96	86	80	79	75	78	78	81	81	83.2			
	(Minimum-----	66	53	64	71	71	65	65	56	54	48	56	62	49	56	63	62	65	64	61	53	59	65	62	60	56	57	49	46	58.0		
Carroll-----	(Maximum-----	82	81	79	88	91	91	90	76	71	75	88	82	83	80	80	84	83	86	90	95	89	82	81	73	78	79	74	80	82.2		
	(Minimum-----	65	55	60	66	61	60	63	54	54	48	58	56	57	65	62	65	65	66	63	63	61	60	53	58	52	54	50	46	58.1		
Cedar Rapids-----	(Maximum-----	92	85	82	94	96	95	94	84	80	73	90	90	85	82	90	87	90	93	94	85	85	77	73	83	76	80	81	83	85.8		
	(Minimum-----	59	58	61	70	67	61	59	56	43	47	60	52	54	53	61	63	61	65	65	63	65	57	57	50	40	49	45	56.5			
Davenport-----	(Maximum-----	89	81	79	93	94	93	91	79	80	70	89	87	82	82	84	83	90	89	91	91	86	79	71	79	74	77	81	82.7			
	(Minimum-----	64	65	64	74	73	72	66	67	56	50	52	64	61	63	67	65	67	63	62	65	68	59	60	61	57	57	56	62.5			
Des Moines-----	(Maximum-----	85	81	78	90	91	90	97	77	78	71	89	82	81	79	85	82	86	91	97	90	77	77	76	77	80	75	73	80	82.4		
	(Minimum-----	63	59	64	74	71	68	64	58	59	51	56	56	54	61	64	68	67	61	67	62	68	67	62	57	63	59	56	55	61.7		
Ft. Dodge-----	(Maximum-----	88	82	80	90	92	93	92	73	69	72	86	80	82	79	81	82	86	82	88	84	80	73	76	77	70	79	78	82	81.7		
	(Minimum-----	63	52	60	67	68	65	63	54	52	43	53	60	53	56	62	58	52	64	61	55	59	63	62	56	53	57	43	47	56.6		
Grinnell-----	(Maximum-----	87	81	78	89	91	91	91	84	78	74	88	85	80	84	85	85	82	89	96	89	82	81	76	75	78	74	79	81	83.0		
	(Minimum-----	61	59	62	71	69	67	68	57	56	48	51	60	53	58	63	60	64	68	65	68	65	65	60	54	60.0						
Guthrie Center-----	(Maximum-----	85	84	78	87	90	92	84	77	72	88	82	82	80	83	83	86	81	90	97	88	87	88	77	78	74	73	81	82.1			
	(Minimum-----	64	55	62	71	71	65	66	54	55	48	58	59	55	64	62	67	64	67	64	62	65	66	55	54	51	43	57	58.7			
Iowa City-----	(Maximum-----	82	81	77	90	90	90	82	78	71	87	85	80	77	83	84	88	89	87	92	88	79	78	73	79	73	79	76	80	81.7		
	(Minimum-----	64	61	62	70	69	65	67	62	57	48	51	55	57	56	67	65	67	66	69	59	58	55	52	42	50	49	59.2				
Iowa Falls-----	(Maximum-----	87	79	77	90	91	91	90	84	71	69	85	83	83	77	78	79	79	84	88	84	79	78	73	72	73	69	75	79.8			
	(Minimum-----	65	55	64	69	71	76	66	55	56	42	51	65																			

other crops were destroyed in the lowlands along the streams, innumerable highway bridges were wrecked or seriously impaired, and railroads suffered heavily. The flood was generally considered the most disastrous in the history of the communities devastated, the water reaching one to several feet higher than in 1896. Railroad service west on the Illinois Central and Chicago-Great Western was completely abandoned for days, the trains being diverted over other routes.

The Maquoketa River freshet was the most damaging, perhaps due to its being the largest of the streams in flood and also to its passing directly through the three towns mentioned. Some of the details are given below:

**MANCHESTER** (Delaware County): One-third of the city under water, 10 feet deep in some of the streets; electricity cut off; two deaths and a number of injuries; one lumber yard completely wiped out; heavy damage to stocks in many business houses; two 10,000-gallon oil tanks carried into river; many buildings moved from their foundations and some carried away; estimated damage within city, \$200,000.

**DYERSVILLE** (Dubuque County): Entire west end of town including 100 residences inundated; water one and one-half feet higher than in 1896; Illinois Central and Great Western depots flooded for first time in history; a number of automobiles lifted and carried away; steel bridge 120 feet in length carried 900 feet; garages and other buildings carried away; three cars of lumber lost; 50 head of hogs nearby drowned; business stock ruined; estimated damage within city, \$100,000.

**CASCADE** (Dubuque County): Entire west portion of town comprising about 25 blocks under water reaching almost to the second floor in many instances; water 5 feet higher than that of 1896, the greatest previously known flood in that vicinity; seven residences and stores, a number of other buildings and one church completely demolished, besides a dozen more residences that were damaged; many business houses with stocks flooded; several streets and sewers completely washed out; electricity cut off; an excavation made by the raging torrents where a street had been, measuring from one hundred feet to one-half block wide, several blocks long and fifteen to twenty-five feet deep, the earth at this point being sand which the onrushing waters carried a quarter to half mile and precipitated in great heaps; two deaths from drowning; by far the greatest blow the town had ever received from any source; estimated damage, \$150,000.

**ILLINOIS CENTRAL RAILROAD**: About two miles of track or roadbed washed out between Dubuque and Manchester; several bridge approaches washed out for long stretches and some as deeply as 15 feet; engine fell partly through bridge east of Manchester; no train service over the line between Dyersville and Manchester till 10 a. m. of June 19th.

**CHICAGO GREAT WESTERN RAILROAD**: Approximately 60 miles of roadbed between Dubuque and Oelwein had to be rebuilt; 28 bridges out, of which 9 were large; several stations damaged; telegraph poles washed away over greater part of line; automatic block system almost entirely washed out; no trains over line for practically two weeks; service as far as Dyersville resumed June 27th, and through to Oelwein on the 29th.

**NORTHWESTERN BELL TELEPHONE CO.**: A loss of 65 poles in Dubuque County; 175 telephones in city and 125 outside, out of service till noon of June 15th; country lines restored by the 20th; estimated loss to company, \$2,000.

In the city of Dubuque, there was considerable injury to pavements in sections, the damage to streets and sewers amounting to about \$15,000. A great deal of debris was carried into the streets and many gardens were washed out. In Dubuque County, as in other counties, there was extensive damage to crops in the creek bottoms, especially just west and north of town, and also to road bridges, the county sustaining a loss or serious impairment of 26 bridges entailing a monetary loss estimated at \$150,000, and requiring at least six months for replacements. Large areas of the Swiss Valley, the Rockdale bottoms, and all the lowlands around Sageville and Durango were inundated, resulting in severe damage to growing crops and considerable loss of farm property including livestock. The water covered a long stretch of the Sageville road and reached 6.6 feet deep at the Great Western viaduct, or 0.4 foot higher than the previous record made in July, 1919.

The approximate number of highway bridges damaged or carried away in northeastern Iowa is reported as follows: Buchanan County, 27; Clayton County, 10; Delaware County, 75; Dubuque County, 26; Winneshiek County, 5; Chickasaw County, 30; total estimated loss from this source, besides extensive damage in some counties to new road fills, is given as \$400,000.

A close estimate of the acreage of crops destroyed in the entire flooded area has not been possible, but rough estimates gathered from the counties involved indicate an approximate total loss amounting to \$490,000.

Further down the Maquoketa River, the water was not of record-breaking height. The recording river gage of the United States Geological Survey near the town of Maquoketa shows a crest stage of 19.7 feet at noon, ~~June~~ 17. This is 0.1 foot lower than the high water of ~~Aug~~, 1924, and 3.8 feet lower than the highest known water.

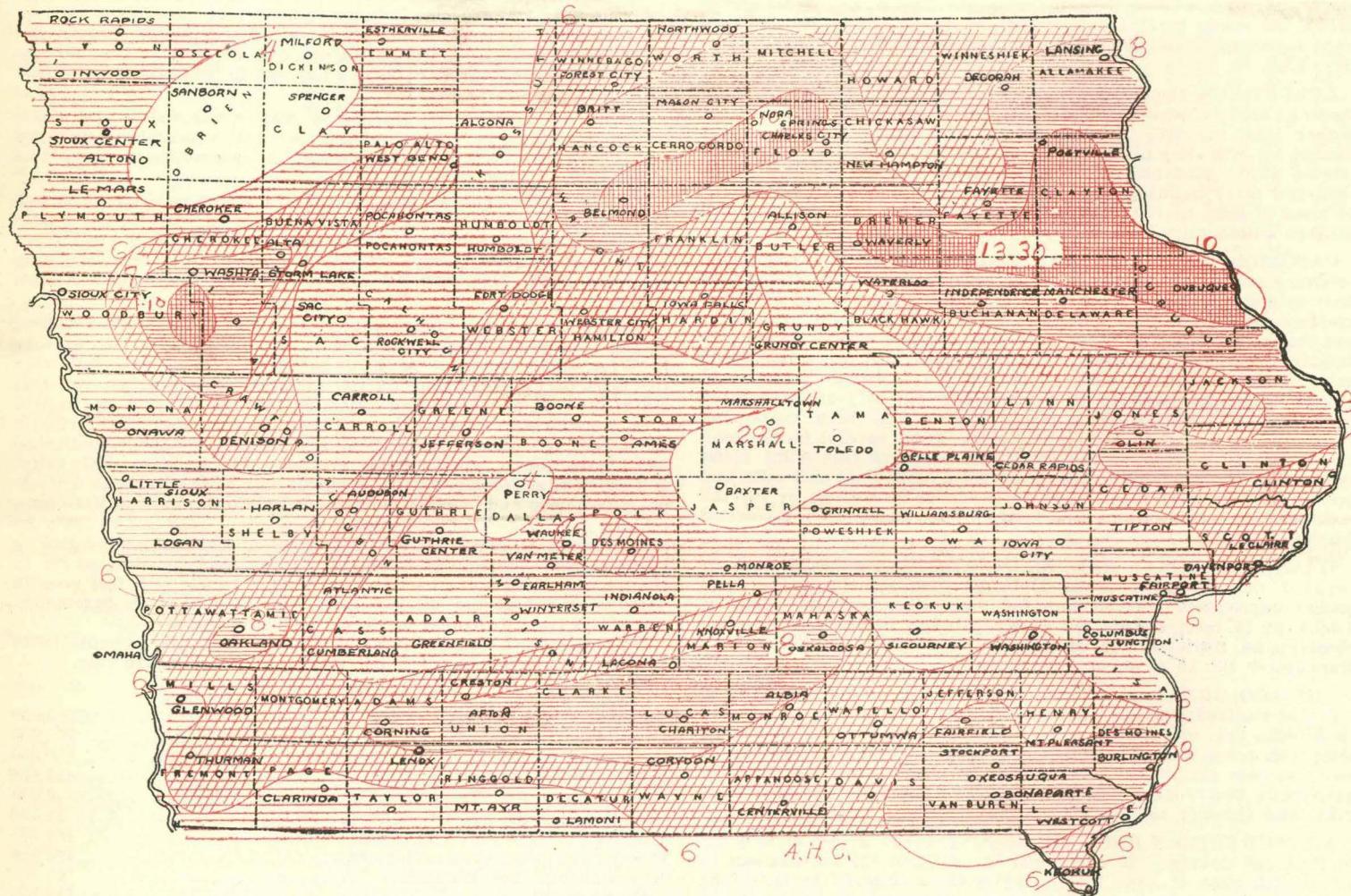
Rather heavy rains had preceded the storm just described, falling on the 11th and 12th and resulting in the drowning of two persons in Winneshiek County. A third heavy rain came just following the flood period, occurring on the night of the 16th-17th. In this storm the rain also fell at an excessive rate from 1:27 a. m. to 2:03 a. m. amounting to 1.48 inches. This caused another slight rise in the subsiding waters, some additional damage to roadbeds, and interfered with repair work already started. The Chicago, Milwaukee and St. Paul suffered a 100-foot washout east of Garber; also a washout 6 feet deep and 150 feet long, about four miles east of McGregor, resulting in a 12-hour suspension of service. The same company had a bridge at Green Island thrown out of line; estimated loss to road, \$2,000. Considerable damage was caused by this storm in the town of McGregor, the water standing 6 inches to 3 feet deep in parts of the business district and injuring stocks in basements. One death from drowning occurred near Monticello.

On the 24th, a fourth heavy rainstorm occurred, amounting to 1.84 inches at Dubuque, but not falling at an excessive rate.

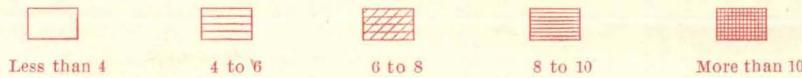
#### Summary of Losses

Town of Manchester, all losses.....	\$200,000
Dyersville .....	100,000
Cascade .....	150,000
Total damage to railways.....	425,000
Northwestern Bell Telephone Company.....	2,000
Streets and sewers in Dubuque.....	15,000
Highway bridges and fills in six counties.....	460,000
Prospective crops over entire area.....	490,000
Miscellaneous, not itemized.....	46,000
Grand total .....	\$1,888,000

TOTAL PRECIPITATION, JUNE, 1925



Scale of Shades—In Inches.



## U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

CHARLES F. MARVIN, Chief.

## CLIMATOLOGICAL DATA.

## IOWA SECTION

In co-operation with

## IOWA WEATHER AND CROP BUREAU

CHARLES D. REED, Meteorologist

VOL. XXXVI

DES MOINES, IOWA, JULY, 1925

No. 7

## GENERAL SUMMARY

High temperature almost continuously the first half of July, averaging 6 to 8 degrees above normal; and low temperature almost continuously the balance of the month resulted in a monthly mean slightly above normal. Following the cool close of June the temperature rose abruptly on July 1 to the highest readings since August, 1918. The daily range of temperature at some stations was the greatest July range in more than 20 years.

The precipitation was very unevenly distributed. A number of stations in the northeast, southeast, central and extreme northwest portions had an excess. At Dubuque and Lansing the excess was more than twice the normal. Most of the western half had less than half the normal. More than 75 per cent of the precipitation occurred during the first two weeks and over nearly half the State more than half the monthly total occurred on a single day. The last general rain of consequence was on the 14th, after which there were numerous light scattered showers, but only in a few places were the amounts sufficient to be of any agricultural benefit. Over most of the western half of the State and limited areas in the north-central, south-central, and southeast portions a severe drouth developed that caused much deterioration in the corn crop and many pastures to become completely bare. However, the cool weather that prevailed during the last two weeks lessened the damage to corn so that at the end of the month there was only a small per cent that was damaged beyond a partial recovery. The rains generally were almost all taken up by the soil and small streams and wells that failed during the previous dry weather were still dry, and stock water at many places was still scarce.

Severe wind squalls and hail storms occurred at frequent intervals from the 3d to the 30th. A severe local wind storm, accompanied by hail occurred at Dubuque on the 3d, causing damage to buildings of about \$50,000. On the 6th, hail accompanying wind squalls, occurred over a large area in the northwestern portion and locally in Jasper, Johnson, and Appanoose counties. The greatest damage occurred in Cherokee county where some crops were damaged as much as 80 per cent, or a total of about \$150,000. On the 8th hail and wind again occurred in Cherokee county, causing damage to crops and buildings of about \$75,000. Also, in Monona county on the 8th, severe hail caused much damage to crops over an area 10 miles long, some fields as much as 50 per cent. Wind and hail storms also occurred on the 8th in Kossuth, Webster, Hamilton, and Woodbury counties, which caused much damage to crops, and blew down many telephone poles and damaged wires from Fort Dodge to Webster City. At Lakota five beet-field workers were injured. Local hail storms occurred at Appanoose, Pocahontas, Jones, and Clayton counties on the 12th, Lyon on the 13th, Jasper on

the 14th, Wright and Hancock on the 15th, and Hardin on the 19th, the damage in Lyon county amounting to \$25,000 and to \$100,000 in Wright and Hancock counties. On the 24th hail occurred in Cedar, Des Moines, Appanoose, Johnson, Henry, and Scott counties. Crop losses in Scott county were placed at over \$125,000, and buildings at \$100,000. Local storms occurred in Johnson and Fremont counties on the 25th, and many places in the eastern portion of the State on the 26th, 28th, and 30th, but the damage was generally light except in Fayette county where some crops were damaged as much as 50 per cent.

Conditions were favorable for haying, harvesting, and threshing, more than half of the threshing having been completed at the end of the month.

F. L. D.

## TEMPERATURE

The mean temperature for the State, as shown by the records of 104 stations, was  $74.1^{\circ}$ , or  $0.3^{\circ}$  higher than the normal. By divisions, approximately three tiers of counties to the division, the means were as follows: Northern,  $72.3^{\circ}$ , or  $0.4^{\circ}$  lower than the normal; Central,  $74.4^{\circ}$ , or  $0.4^{\circ}$  higher than the normal; Southern,  $75.6^{\circ}$ , or  $1.0^{\circ}$  higher than the normal. The highest monthly mean was  $77.8^{\circ}$ , at Thurman, and the lowest was  $68.4^{\circ}$ , at Postville. The highest temperature recorded was  $105^{\circ}$ , at Ames, Marshalltown, Monroe and Perry on the 1st, and the lowest was  $40^{\circ}$ , at Milford on the 22d. The temperature range for the State was  $65^{\circ}$ .

## COMPARATIVE DATA FOR THE STATE—JULY

YEAR	Temperature			Precipitation			Number of Days						
	Mean	Departure	Highest	Lowest	Total	Departure	Greatest	Least	Snowfall	With pre. in. or more in.	Clear	Partly cloudy	Cloudy
1890	75.6	+1.8	110	45	1.98	-1.87	5.00	0.37	-----	3	18	8	5
1891	68.5	-5.3	99	41	4.22	+0.37	8.20	1.67	-----	8	13	13	5
1892	73.0	-0.8	104	38	5.29	+1.44	12.86	1.71	-----	9	16	10	5
1893	75.0	+1.2	102	47	3.33	-0.52	8.84	1.49	-----	7	19	10	2
1894	76.4	+2.6	109	39	0.63	-3.22	3.50	T.	-----	3	22	8	1
1895	72.1	-1.7	104	35	3.40	-0.45	10.10	0.45	-----	7	15	12	4
1896	73.6	-0.2	104	42	6.90	+3.05	12.67	1.61	-----	9	14	11	6
1897	75.6	+1.8	106	42	3.26	-0.59	7.60	1.01	-----	6	18	10	3
1898	73.4	-0.4	102	42	2.98	-0.87	12.88	0.55	-----	7	19	9	3
1899	73.1	-0.7	101	38	3.07	-0.78	8.66	0.42	-----	7	16	10	5
1900	73.4	-0.4	102	37	6.15	+2.30	18.45	1.80	-----	9	16	10	5
1901	82.4	+8.6	113	46	2.34	-1.51	5.97	0.27	-----	5	21	9	1
1902	73.1	-0.7	99	41	8.67	+4.82	13.57	4.82	-----	13	14	10	7
1903	72.9	-0.9	100	40	4.83	+0.98	12.72	0.94	-----	9	17	9	5
1904	70.6	-3.2	100	38	4.41	+0.56	11.97	1.28	-----	10	16	9	6
1905	70.6	-3.2	102	40	2.91	-0.94	7.08	0.69	-----	9	14	10	7
1906	70.9	-2.9	102	42	3.04	-0.81	7.05	0.26	-----	8	18	10	3
1907	73.7	-0.1	102	41	7.27	+3.42	13.66	3.97	-----	13	16	11	4
1908	73.0	-0.8	100	42	3.66	-0.19	9.21	0.70	-----	8	16	10	5
1909	72.3	-1.5	102	46	4.77	+0.92	12.20	1.20	-----	10	15	8	8
1910	74.5	+0.7	108	43	1.86	-1.99	5.69	0.12	-----	7	19	8	4
1911	75.5	+1.7	111	38	2.27	-1.58	6.62	0.08	-----	7	18	10	3
1912	74.6	+0.8	108	38	3.71	-0.14	7.56	1.17	-----	10	17	10	4
1913	76.1	+2.3	108	45	1.82	-2.03	6.23	T.	-----	5	21	8	2
1914	76.6	+2.8	109	43	2.27	-1.58	6.50	0.44	-----	5	20	8	3
1915	69.5	-4.3	92	40	8.32	+4.47	15.83	3.68	-----	14	10	12	9
1916	79.7	+5.9	105	48	1.78	-2.07	6.87	0.10	-----	5	23	7	1
1917	74.3	+0.5	106	38	2.27	-1.58	6.06	0.23	-----	7	21	8	2
1918	73.1	-0.7	105	40	3.17	-0.98	8.05	0.26	-----	8	19	8	4
1919	77.4	+3.6	104	41	2.86	-0.99	7.82	0.39	-----	6	22	8	1
1920	72.3	-1.5	102	45	4.22	+0.37	7.49	1.11	-----	9	19	9	3
1921	77.9	+4.1	104	41	2.53	-1.32	7.45	0.42	-----	7	19	9	3
1922	71.5	-2.3	98	40	6.31	+2.46	11.72	3.18	-----	11	14	12	5
1923	76.5	+2.7	102	47	1.75	-2.10	5.54	0.29	-----	5	19	9	3
1924	70.2	-3.6	99	41	3.67	-0.18	8.90	0.57	-----	9	16	11	4
1925	74.1	+0.3	105	40	2.66	-1.19	7.93	0.80	-----	8	19	10	2

T. indicates an amount too small to measure, or less than .005 inch rainfall and less than .05 inch snowfall.



## Climatological Data for July, 1925

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit						Precipitation, in inches			Number of Days			Observers			
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmeasured)	Precipitation, .01 in. or more	Clear	Partly cloudy	Cloudy	
<i>Northern Division</i>																			
Algona	Kossuth	1,213	52	73.6	+ 0.6	100	1	47	28	38	3.19	+0.13	0.96	0	6	27	4	0	se.
Allison (near)	Butler	1,044	13	72.1	- 0.7	98	11	43	28	36	2.11	-1.64	1.50	0	9	17	14	0	nw.
Alta	Buena Vista	1,513	34	74.0	+ 1.6	98	1	47	28	34	2.04	-2.21	0.90	0	9	16	15	0	s.
Alton	Sioux	1,305	20	74.0	+ 0.5	101	11†	43	22	38	2.48	-1.06	0.86	0	9	9	20	2	nw.
Belmond	Wright	1,205	15	73.6	0.0	102	12	46	28	36	2.08	-1.54	0.61	0	9	9	22	0	nw.
Britt	Hancock	1,236	38	72.4	+ 1.2	101	12	45	28	35	1.31	-2.67	0.62	0	6	21	10	0	nw.
Charles City	Floyd	1,015	34	71.1	- 1.2	95	1	47	28	32	2.99	-0.85	1.04	0	12	15	13	3	nw.
Cherokee	Cherokee	1,196	3	72.2	-----	98	1	42	22	37	2.47	-----	1.10	0	8	-----	-----	-----	s.
Decorah	Winnesheik	875	32	70.2	- 2.0	98	11	42	23	38	2.87	-1.18	0.50	0	12	18	9	4	nw.
Dubuque	Dubuque	698	52	72.4	- 1.7	96	3	52	28	36	7.93	+4.06	3.47	0	15	6	14	11	U. S. Weather Bureau
Estherville	Emmet	1,298	30	71.3	- 0.6	100	11	46 <sup>a</sup>	28	34 <sup>a</sup>	1.50	-2.66	0.40	0	8	21	10	0	nw.
Fayette	Fayette	1,003	35	71.1	- 0.7	95	11	45	29 <sup>b</sup>	36	3.95	+0.12	0.75	0	12	23	8	0	nw.
Forest City	Winnebago	1,226	31	71.4	- 0.8	96	11	46	28	33	2.00	-1.57	0.87	0	10	15	11	5	nw.
Hampton	Franklin	1,145	-----	71.4	- 2.9	97	1†	46	28 <sup>b</sup>	35	1.87	-1.78	1.25	0	9	23	6	2	nw.
Humboldt	Humboldt	1,095	37	73.8	- 0.3	102	1	44	28	39	3.16	-0.58	1.16	0	7	-----	-----	-----	s.
Independence	Buchanan	921	61	73.2	+ 0.2	97	2	48	23 <sup>b</sup>	37	2.33	-1.81	0.75	0	9	24	4	3	se.
Inwood	Lyon	1,474	21	73.1	+ 0.5	101	13	44	22 <sup>b</sup>	43	3.47	+0.10	1.55	0	9	24	5	2	nw.
Le Mars	Plymouth	1,224	29	73.8	+ 0.5	98	1†	44	28	37	2.96	-1.12	1.02	0	6	26	5	0	sw.
Mason City	Cerro Gordo	1,148	28	70.7	- 1.7	98	11	43	29	37	2.05	-1.47	0.51	0	7	11	16	4	ne.
Milford (near)	Dickinson	1,430	5	70.5	-----	98	12†	40	22	39	2.31	-----	1.35	0	4	17	12	2	n.
New Hampton	Chickasaw	1,169	28	70.7	- 1.5	96	11	45 <sup>a</sup>	29	36 <sup>a</sup>	3.77	0.00	1.62	0	9	15	15	1	nw.
Nora Springs	Floyd	1,064	13	70.4	- 3.2	95	11	43	23 <sup>b</sup>	40	3.20	-0.60	1.31	0	12	18	13	0	s.
Northwood	Worth	1,222	29	70.5	- 0.7	94 <sup>d</sup>	11	47 <sup>e</sup>	28 <sup>b</sup>	32 <sup>f</sup>	2.41	-1.42	1.40	0	7	14	15	2	nw.
Oelwein	Fayette	1,036	1	72.0	-----	97	1	46	29	35	4.30	-----	1.60	0	9	17	12	2	s.
Osage	Mitchell	1,163	-----	70.4	-----	97	11	45	29	34	2.25	-----	0.62	0	9	12	13	6	nw.
Pocahontas	Pocahontas	1,248	21	74.0	+ 1.3	101	1	45	28	40	1.65	-1.80	0.82	0	10	21	9	1	ne.
Postville	Clayton	1,180	26	68.4	- 1.6	91	11	45	28	32	5.57	+1.18	0.80	0	11	8	20	3	w.
Rock Rapids	Lyon	1,358	26	72.7	+ 0.1	102	12	43	28	42	1.92	-1.45	0.94	0	6	26	5	0	se.
Sanborn	O'Brien	1,553	11	73.3	+ 0.5	104	12	43	28	39	0.80	-2.70	0.27	0	5	22	3	6	ne.
Sheldon	O'Brien	73.0	-----	102	-----	102	12	43	28	38	0.90	-----	0.24	0	12	17	13	1	nw.
Sioux Center	Sioux	1,426	26	72.6	- 0.4	98	1†	47	22 <sup>b</sup>	35	4.24	+0.41	1.92	0	9	22	6	3	s.
Spencer	Clay	1,319	11	74.5	+ 1.1	103	15	41	22	43	1.75	-1.75	0.91	0	7	16	15	0	ne.
Storm Lake	Buena Vista	1,440	36	74.4	+ 0.9	98	1	48	28	32	1.12	-2.95	0.27	0	9	24	6	1	s.
Washta	Cherokee	1,157	27	73.0	+ 0.7	98	1	41	28	35	2.01	-2.22	0.75	0	7	26	4	1	n.
Waterloo	Black Hawk	854	42	73.8	+ 0.1	101	1	44	29	40	2.27	-1.71	0.70	0	8	24	5	2	nw.
Waverly	Bremer	936	29	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	
West Bend	Palo Alto	1,197	32	72.6	- 0.6	101	12	42	28	38	2.05	-1.42	0.69	0	11	17	14	0	s.
Means and extremes	-----	-----	72.3	- 0.4	104	12	40	22	43	2.64	-1.15	3.47	0	9	18	11	2	nw.	
<i>Central Division</i>																			
Ames	Story	926	48	75.1	+ 1.1	105	1	49	28	43	5.52	+1.66	3.01	0	6	20	10	1	nw.
Audubon	Audubon	1,297	30	73.9	+ 1.2	98	1†	47	28	36	1.08	-2.59	0.60	0	4	22	9	0	sw.
Baxter	Jasper	998	25	74.6	+ 0.4	104	1	48	31	42	3.58	-0.31	1.35	0	7	22	9	0	n.
Belle Plaine	Benton	866	35	74.4	+ 0.9	100	1†	44	28	38	1.80	-2.15	0.53	0	10	14	17	0	nw.
Boone (near)	Boone	1,134	20	73.8	+ 0.3	103	1	42	28	40	3.32	-0.40	2.10	0	5	-----	-----	-----	se.
Carroll	Carroll	1,265	35	74.5	+ 1.3	101	1	45	28	37	3.19	-0.39	1.25	0	6	25	5	1	se.
Cedar Rapids	Linn	737	43	74.8	- 1.1	104	3	44	23 <sup>b</sup>	46	3.08	-0.82	1.23	0	6	15	8	8	sw.
Clinton	Clinton	595	52	73.4	- 1.4	99	3	47	28	39	2.43	-1.46	1.55	0	6	19	11	1	s.
Davenport	Scott	580	54	75.2	- 0.1	99	11	52	28	32	3.34	-0.15	1.67	0	11	11	16	4	nw.
Davenport (No. 2)	Scott	690	1	74.8	-----	99	3	49	23 <sup>b</sup>	37	3.59	-----	1.68	0	12	-----	-----	-----	-----
Denison	Crawford	1,171	31	74.6	+ 1.2	100	1	44	28	34	2.45	-1.30	1.42	0	8	23	8	0	nw.
Des Moines	Polk	861	47	76.3	+ 0.9	104	1	52	31	39	2.21	-1.40	1.69	0	3	15	8	8	n.
Fairport	Muscatine	567	4	75.2	-----	97	3	52	29	33	3.20	-----	1.15	0	8	16	6	9	sw.
Fort Dodge	Webster	1,114	25	73.1	- 0.9	101	1	45	28	39	6.54	+2.63	4.25	0	9	28	2	1	s.
Grinnell	Poweshiek	1,031	31	75.9	+ 1.6	104	2	49	28	40	7.56	+3.19	2.87	0	11	6	20	5	se.
Grundy Center	Grundy	976	34	73.1 <sup>a</sup>	- 1.0	100	1	46 <sup>b</sup>	28	34 <sup>b</sup>	4.41	+0.68	2.42	0	6	17	7	7	n.
Guthrie Center	Guthrie	1,077	30	74.4	+ 0.8	100	1	46	28 <sup>b</sup>	36	1.10	-3.12	0.56	0	3	24	6	1	nw.
Harlan (near)	Shelby	1,192	26	74.6	+ 1.5	100	1	45	28	35	1.42	-2.46	0.70	0	6	12	19	0	s.
Iowa City	Johnson	733	65	73.8	0.0	98	11†	47	28	37	3.63	-0.49	1.37	0	9	16	14	1	sw.
Iowa Falls	Hardin	1,107	32	71.6	- 0.7	96	1	46	23 <sup>b</sup>	34	2.05	-1.89	0.51	0	11	20	9	2	s.
Jefferson	Greene	1,052	26	73.4	+ 0.1	100	1	46	28	39	0.85	-2.83	0.52	0	4	22	8	1	ne.
Kalo	Webster	-----	-----	-----	-----	-----	-----	-----	-----	-----	4.87	-----	3.47	0	3	-----	-----	-----	-----
Little Sioux	Harrison	1,040	20	75.4	+ 1.0	102	1	44	28	35	3.39	-0.81	2.70	0	7	22	9	0	nw.
Logan	Harrison	1,035	58	76.2	+ 2.0	99													

## Climatological Data for July, 1925—Continued

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit						Precipitation, in inches				Number of Days			Observers		
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmeasured)	Precipitation, .01 in. or more	Clear	Partly cloudy	Cloudy	
<i>Southern Division</i>																			
Afton	Union	1,212	31	76.7	+ 2.9	103	2	48	28	39	0.90	-3.07	0.60	0	5	23	6	2 nw.	
Albia	Monroe	959	27	75.8	+ 1.3	101	2	47	28	37	1.80	-2.34	0.87	0	7	20	9	2 nw.	
Atlantic	Cass	1,164	34	76.0	+ 1.8	101	1	45	28	35	2.32	-1.22	1.26	0	9	22	6	3 n.	
Bonaparte	Van Buren	563	34	74.0	- 0.4	98	2	49	28	35	4.32	+0.46	3.35	0	5	21	10	0 sw.	
Burlington	Des Moines	544	29	76.7	+ 0.7	97	1†	52	31	34	4.29	+0.88	1.84	0	10	26	4	1 sw.	
Centerville	Appanoose	1,013	20	75.1	+ 0.2	98	2	49	28†	31	4.88	+0.95	1.77	0	9	18	10	3 sw.	
Chariton (near)	Lucas	1,042	30	74.4	+ 1.1	100	2	46	28	34	3.16	-1.15	2.20	0	3	21	8	2 sw.	
Clarinda	Page	1,009	35	77.0	+ 1.5	104	1	49	31	40	1.92	-2.41	0.71	0	8	21	9	1 sw.	
Columbus Jet.	Louisa	505	24	73.5	- 1.5	95	3	48	23	33	1.53	-2.04	1.20	0	6	15	16	0 sw.	
Corning (near)	Adams	1,117	33	75.1	+ 1.0	101	1	43	28	38	1.35	-2.78	0.75	0	4	26	5	0 sw.	
Corydon	Wayne	1,101	32	75.6	+ 1.0	99	2	47	28	34	1.34	-2.47	0.92	0	5	12	18	1 nw.	
Creston	Union	1,312	20	76.0	+ 2.6	100	1	48	31	36	0.97	-3.08	0.55	0	6	24	6	1 sw.	
Cumberland (near)	Cass	1,225	26								1.97	-2.71	0.78	0	5	20	7	4 nw.	
Earlham (near)	Madison	1,126	23	74.6	+ 1.8	100	1	43	28	39	0.85	-2.81	0.20	0	6	29	1	1 nw.	
Fairfield	Jefferson	786	41	74.5	+ 0.1	99	2	46	28	35	3.37	-0.45	1.90	0	9	19	8	4 n.	
Glenwood	Mills	1,100	27	77.3	+ 2.0	104	1	48	28	36	1.85	-1.75	0.59	0	7	16	13	2 se.	
Indianola	Warren	972	34	75.6	+ 0.8	103	1	49	28	40	1.23	-2.56	0.95	0	7	21	10	0 sw.	
Keokuk	Lee	614	54	76.6	- 0.3	100	2	51	31	33	3.90	+0.05	2.72	0	10	12	13	6 nw.	
Keosauqua	Van Buren	644	33	74.3	- 0.4	99	2	47	28	33	3.19	-0.80	1.95	0	5	19	11	1 s.	
Knoxville	Marion	920	30	75.1	+ 0.6	100	2	48	23	36	4.30	+0.33	3.29	0	5	17	12	2 nw.	
Lacona	Warren	824	26								1.01	-2.77	0.52	0	7	12	14	5	
Lamoni	Decatur	1,123	18	75.9	+ 2.0	101	8	47	28†	35	1.41	-2.53	0.63	0	5	23	5	3 sw.	
Lenox	Taylor	1,250	30	76.2	+ 1.1	101	1	47	31	39	1.23	-2.98	0.73	0	6	22	8	1 s.	
Mt. Ayr	Ringgold	1,245	32	75.0	+ 0.7	100	12	47	31	35	1.74	-2.68	0.88	0	6	24	4	3 sw.	
Mt. Pleasant	Henry	729	44	75.6	- 0.1	99	2	50	28	34	4.00	+0.31	1.40	0	8	11	20	0 nw.	
Oakland	Pottawattamie	1,105	6	74.5 <sup>a</sup>	+ 0.2	101 <sup>a</sup>	1	44 <sup>a</sup>	28	37 <sup>a</sup>	1.57	-----	0.80	0	5	26	3	2 s.	
Oskaloosa	Mahaska	835	49	74.2	+ 0.5	99	2	48	28†	35	2.75	-0.97	1.57	0	10	14	16	1 sw.	
Ottumwa	Wapello	649	30	77.6	-----	101	2†	50	28†	39	2.12	-1.44	1.32	0	5	21	9	1 sw.	
Red Oak (near)	Montgomery	1,039	790	29	74.6	+ 0.5	102	2	48	28	37	1.40	-----	0.60	0	4	15	15	1 e.
Sigourney (near)	Keokuk										4.18	+0.33	2.33	0	10	19	7	5 sw.	
Stockport	Van Buren	747	23	74.0	+ 0.2	100	2	48	28†	34	4.50	-0.09	2.92	0	6	22	7	2 sw.	
Thurman	Fremont	975	28	77.8	+ 2.2	103	1	49	28	36	2.71	-1.46	0.82	0	8	11	19	1 nw.	
Tingley	Ringgold	1,275	75.1								1.23	-----	0.41	0	7	23	6	2 se.	
Washington	Washington	769	48	74.8	+ 0.3	98	3	49	28†	32	3.64	+0.30	1.92	0	6	23	1	7 ne.	
Wescott (near)	Lee	523	3	75.8	-----	99	2	49	23†	33	4.98	-----	2.00	0	6	25	5	1 sw.	
Winterset	Madison	1,129	34	76.3	+ 1.4	102	1	46	28	38	0.86	-3.54	0.44	0	6	25	5	1 sw.	
Omaha, Nebr.		1,103	54	78.0	+ 1.3	104	1	54	31	33	0.45	-3.88	0.12	0	8	14	14	3 n.	
Means and extremes				75.6	+ 1.0	104	1	43	28	40	2.41	-1.49	3.35	0	7	20	9	2 sw.	
State means and extremes				74.1	+ 0.3	105	1	40	22	46	2.66	-1.19	4.25	0	8	19	10	2 nw.	

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete records are used in determining means.

Reference letters a, b, c, etc., appearing in the table indicate the number of days missing; for example b represents two days, etc.

†Also other dates.

††Received too late to be included in means and summaries.

T. Precipitation is less than 0.01 inch rain or melted snow.

## PRESSURE, RELATIVE HUMIDITY, WIND AND SUNSHINE

Stations	Barometric Pressure, Inches (Sea Level)			Relative Humidity, %		Wind			Sunshine							
	Mean	Highest	Date	Lowest	Date	7 a. m.	12 Noon†	7 p. m.	Total movement	Average hourly velocity	Maximum Miles	From	Date	Per cent of possible	Departure from normal	
Charles City	29.9*	30.20	23	29.75	15	82	53	64	36	23	3,691	5.0	20	nw.	13	76 + 1
Davenport	29.94	30.18	23	29.74	15	76	53	57	33	†23	4,190	5.6	28	nw.	12	69 - 6
Des Moines	29.9*	33.19	22	29.70	6	78	52	53	32	1	4,521	6.1	26	ne.	3	82 + 9
Dubuque	29.92	30.19	23	29.68	3	79	59	62	36	23	3,848	5.2	32	sw.	3	66 - 4
Keokuk	29.96	30.22	23	29.81	20	76	55	60	35	18	4,334	5.8	35	n.	6	81 + 2
Sioux City	29.96	30.24	22	29.73	5	76	46	44	25	†16	7,117	9.6	52	nw.	13	80 + 9
Omaha, Neb.	29.95	30.21	22	29.72	6	71	46	46	21	1	5,136	6.9	44	n.	13	84 + 10
Means and extremes	29.95	30.24	22	29.68	3	79	52	55	-----	-----	6.3	-----	-----	-----	77 + 3	-----
Normals and records	29.95	-----	7th	4th	79	57	25th	-----	6.7	-----	13th	74	-----	-----	-----	-----
	30.47	1892	\$29.37	1905	113	1894	-----	64	ne.	1905	-----	-----	-----	-----	-----	-----

\*Davenport. §Charles City. ¶Des Moines. ||Omaha. †Local mean time. ‡And other dates.

## PRECIPITATION

The mean precipitation for the State, as shown by the records of 112 stations, was 2.66 inches, or 1.19 inches less than the normal. By divisions, the means were as follows: Northern, 2.64 inches, or 1.15 inches less than the normal; Central, 2.94 inches, or 0.91 inch less than the normal; Southern, 2.41 inches, or 1.49 inches less than the normal. The greatest amount, 7.93 inches occurred at Dubuque, and the least, 0.80 inch, occurred at Sanborn. The greatest amount in 24 consecutive hours, 4.25 inches, occurred at Fort Dodge on the 9th.

## MISCELLANEOUS PHENOMENA

Aurora: 14th.

Fog: 7th, 8th, 13th, 26th, 30th.

Hail: 3d, 6th, 8th, 12th, 13th, 14th, 15th, 19th, 24th, 25th, 26th, 28th, 30th.

Halos: 9th, 10th, 12th.

Rainbows: 5th, 15th, 16th, 19th, 30th, 31st.

Thunderstorms: All dates except 1st, 17th, 21st, 22d, 28th.

Winds (damaging): 2d, 3d, 5th, 8th, 13th, 14th.

## Daily Precipitation for July, 1925

Stations	Drainage Basin	Day of Month																													Totals					
		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				
<i>Northern Division</i>																																				
Algona	Des Moines							.96	.26		.70																							3.19		
Allison (near)	Cedar							.07	.17		1.50																							2.11		
Alta	Raccoon							.06	.24	.25	.32																							2.04		
Alton	Floyd							T.	T.	.20	.41	.03	.01																				2.48			
Belmond	Iowa									.33	.25	T.	.61																					2.08		
Britt	Iowa							T.		.10	.05	.62																						1.31		
Charles City**	Cedar							T.		1.03	.01	.11	.19																				2.99			
Cherokee	Little Sioux							T.																												2.47
Decorah	Mississippi									.31	.02	.30																						2.87		
Dubuque***	Mississippi									3.46	.01	.37																						7.93		
Estherville	Des Moines									.38	T.	.26	.03	.08	.20																		1.50			
Fayette	Mississippi																																			3.95
Forest City	Cedar										.13	.03	.87	.10	.30																		2.00			
Hampton	Cedar											.01	.18	.07	.125																		1.87			
Humboldt	Des Moines																																		3.16	
Independence	Wapsipinicon																																			2.33
Inwood	Big Sioux																																			3.47
Lansing	Mississippi																																			7.48
Le Mars	Floyd																																			2.96
Mason City	Cedar																																			2.05
Milford (near)	Little Sioux																																			2.31
New Hampton	Wapsipinicon																																			3.77
Nora Springs	Cedar																																			3.20
Northwood	Cedar																																			2.41
Oelwein	Wapsipinicon																																			4.30
Osage	Cedar																																			2.25
Pocahontas	Des Moines																																			1.65
Postville	Mississippi																																			5.57
Rock Rapids	Big Sioux																																			1.92
Sanborn	Floyd																																			0.80
Sheldon	Floyd																																			0.90
Sioux Center	Floyd																																			4.24
Spencer	Little Sioux																																			1.75
Storm Lake	Raccoon																																			1.12
Washta	Little Sioux																																			2.01
Waterloo	Cedar																																			2.27
Waverly	Cedar																																			2.27
West Bend	Des Moines																																			2.05
<i>Central Division</i>																																				
Ames	Skunk																																			5.52
Audubon	Nishnabotna																																			1.08
Baxter	Skunk																																			3.58
Belle Plaine	Iowa																																			3.32
Boone	Des Moines																																			3.32
Carroll	Raccoon																																			3.19
Cedar Rapids	Cedar																																			3.08
Clinton	Mississippi																																			2.43
Davenport***	Mississippi																																			3.31
Davenport (No. 2)	Mississippi																																			3.59
Denison	Missouri																																			2.45
Des Moines***	Des Moines																																			2.21
Fairport	Mississippi																																			3.20
Fort Dodge	Des Moines																																			6.54
Grinnell	Iowa																																			7.56
Grundy Center	Cedar																																			4.41
Guthrie Center	Raccoon				</td																															

## Daily Precipitation for July, 1925—Continued

Stations	Drainage Basin	Day of Month																													Totals					
		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				
<i>Southern Division</i>																																				
Afton	Grand																																	.08	0.90	
Albia	Des Moines																																	.01	T. 1.80	
Atlantic	Nishnabotna																																	.01	.05 2.32	
Bonaparte	Des Moines																																	.10	4.32	
Burlington	Mississippi																																	.04	4.29	
Centerville	Chariton																																	.06	.02 4.88	
Chariton (near)	Chariton																																			3.16
Clarinda	Nodaway																																			.43 1.92
Columbus Jet.	Iowa																																			.08 .09 1.53
Corning	Nodaway																																			T. 1.35
Corydon	Chariton																																			.08 T. 1.34
Creston	Missouri																																			T. .06 0.97
Cumberland (near)	Nodaway																																			T. T. 1.97
Earlham	Des Moines																																			.08 .03 0.85
Fairfield	Skunk																																			T. .13 3.37
Glenwood	Missouri																																			.17 .12 1.85
Indianola	Des Moines																																			.03 T. 1.23
Keokuk	Mississippi																																			3.90
Keosauqua	Des Moines																																			3.19
Knoxville	Des Moines																																			.06 4.30
Lacona	Des Moines																																			.03 1.01
Lamoni	Grand																																			1.41
Lenox	Missouri																																			1.23
Mt. Ayr	Grand																																			1.74
Mt. Pleasant	Skunk																																			4.00
Oakland	Nishnabotna																																			.04 1.57
Oskaloosa	Des Moines																																			.09 .03 2.75
Ottumwa	Des Moines																																			2.12
Red Oak (near)	Missouri																																			1.40
Sigourney	Skunk																																			4.18
Stockport	Skunk																																			4.50
Thurman	Missouri																																			2.71
Tingley	Platt																																			1.23
Washington	Skunk																																			3.64
Wescott (near)	Mississippi																																			4.98
Winterset	Des Moines																																			0.86
Omaha, Neb.	Missouri																																			0.45

Except as otherwise indicated, observations are generally made late in the afternoon, near sunset, and precipitation recorded is for 24 hours ending at the time of observation.

||| Precipitation measured in the morning; amount then recorded is for the preceding 24 hours.

\*\*\* Regular Weather Bureau Station: precipitation is for 24-hour period, midnight to midnight.

\*\* Incomplete.

\* Precipitation included in the next following measurement.

T. Precipitation is less than .01 inch rain or melted snow.

### RIVERS

There was considerable fluctuation on the Mississippi River during the first half of the month and a general falling tendency thereafter, the highest stages occurring, except in the upper reaches, on the first and the lowest stages on the last. On the Missouri there was considerable slight fluctuation till about the middle of the third week and a falling tendency during the rest of the month. On the interior rivers there was a moderate rise at the beginning of the 2d week and a gradual fall till the end of the month. The lowest stage for the month occurred at all interior river stations on the last day. None of the small streams were out of banks and at Washta, on the Little Sioux River, the lowest stage ever observed occurred.

### TORNADOES IN IOWA, JUNE, 1925

Arthur H. Christensen, Observer

(Weather Bureau Office, Des Moines, Iowa, July 28, 1925)

June, 1925, was marked by an unusually large number of tornadoes in Iowa, some of which caused great damage to property, amounting in the aggregate to nearly two million dollars. Four persons were killed and one died of injuries received, and over fifty persons were more or less seriously injured. While complete information is not available on some of the tornadoes, especially the smaller ones (some of which may have been missed entirely), the following descrip-

tions, arranged in chronological order have been prepared from the available data, and it is believed cover those which caused appreciable destruction. The tornadoes of greatest destruction occurred on the 2d, 3d and 11th.

### Tornado Near Milford

On June 1, at a late hour in the afternoon a small tornado occurred west of Milford, Iowa, in Dickinson county. The path was short and about 150 feet in width. It moved from the southwest to the northeast, and caused very little damage. No persons were killed and none injured.

### Tornado at Glenwood and Silver City

The tornado which struck Glenwood (Mills county) at 4 p. m., and Silver City at 5 p. m., on June 2, originated in Nebraska. The following is from the Omaha Bee:

"The tornado was first seen near Douglas, Otoe County, and swept northward between Avoca and Weeping Water, passed a little to the north of Murray, went directly over Plattsmouth, and struck with all its violence on the Iowa side of the river, directly opposite Plattsmouth. Plattsmouth citizens saw the twisting funnel pass directly over the main part of the town, its tail whipping about high in the air. The air was filled with flying boards and straw. As it approached the Missouri river, a half mile from the main part of Plattsmouth, the cloud dipped suddenly to earth and the tail struck the water. According to John Richardson, ferryman, the tail of the cloud struck in the middle of the channel, and a column of water leaped 40 feet in the air to meet it. The whirling column swept across the river and then hugged the land as it dashed eastward in the direction of Glenwood, Iowa."

**Daily Maximum and Minimum Temperature for the Month of July, 1925**

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	Mean	
<i>Northern Division</i>																																		
Algona	(Maximum)	100	90	89	82	89	93	89	88	87	90	99	98	93	95	96	90	82	77	85	88	72	80	85	91	89	73	75	77	70	76	86.1		
	(Minimum)	62	69	70	60	58	69	69	73	60	71	59	73	72	70	66	74	61	54	55	55	60	55	49	55	63	59	59	60	47	52	55	61.0	
Alta	(Maximum)	98	96	83	83	91	94	92	92	85	91	97	97	95	95	95	82	84	88	85	86	75	82	84	87	85	88	76	74	78	66	75	86.4	
	(Minimum)	64	69	67	59	60	72	69	69	59	59	73	74	73	66	68	59	57	60	64	62	54	50	55	62	60	62	57	54	52	51	61.6		
Alton	(Maximum)	100	94	84	84	91	96	89	83	84	94	101	101	99	99	98	82	87	84	87	83	87	82	90	93	83	74	79	72	78	87.7			
	(Minimum)	67	63	70	54	60	72	65	60	57	58	67	71	60	64	63	60	53	59	65	62	54	43	56	63	60	63	56	44	52	52	54	60.2	
Belmond	(Maximum)	100	93	92	86	87	88	89	89	83	86	97	102	92	97	93	85	82	79	87	90	81	82	82	94	81	82	76	71	78	76	85.6		
	(Minimum)	64	70	71	59	57	71	70	73	63	56	73	74	70	67	63	59	55	54	62	58	53	52	49	61	59	56	60	46	50	53	47	60.6	
Charles City	(Maximum)	95	88	88	80	86	89	85	85	79	84	95	93	92	90	91	79	78	80	80	83	75	75	81	88	75	81	69	71	74	69	80	82.2	
	(Minimum)	63	69	69	61	57	72	70	70	60	56	72	72	68	68	66	62	57	54	60	57	54	52	49	49	63	60	53	51	47	48	49	60.0	
Decorah	(Maximum)	93	88	88	82	87	87	83	82	82	95	98	94	90	90	85	88	79	80	82	81	77	80	87	77	82	73	72	76	71	68	83.3		
	(Minimum)	57	65	65	60	51	68	66	65	65	49	65	68	63	61	62	60	52	58	60	49	51	49	42	58	57	59	56	45	43	49	48	57.1	
Dubuque	(Maximum)	95	88	96	83	87	83	83	85	83	84	95	92	84	87	93	78	78	80	84	74	80	84	74	76	72	72	74	72	72	84.2			
	(Minimum)	59	72	64	67	60	72	70	69	66	58	67	73	68	63	68	60	64	59	62	56	54	62	56	52	53	55	55	55	55	55	55	62.5	
Forest City	(Maximum)	95	85	83	79	86	90	85	84	82	85	96	93	90	92	93	85	78	79	81	83	75	76	81	88	82	85	78	73	79	70	73	83.4	
	(Minimum)	62	66	66	57	57	67	68	72	61	57	69	72	69	61	67	58	55	53	61	56	54	49	51	63	57	56	61	46	52	47	50	53	59.3
Independence	(Maximum)	95	97	93	90	88	83	85	91	88	82	94	91	90	89	83	92	80	81	84	85	78	81	89	87	81	80	74	78	73	72	85.2		
	(Minimum)	58	70	68	64	58	67	67	67	59	56	70	64	68	64	58	54	61	56	57	56	48	63	60	57	57	59	48	52	51	56	51	59.1	
Inwood	(Maximum)	100	83	79	83	90	93	88	86	86	97	100	101	101	96	103	83	88	85	86	81	83	88	80	90	79	79	83	71	82	87.3			
	(Minimum)	68	64	68	55	61	69	62	70	54	54	65	71	71	61	67	55	52	60	51	44	55	62	57	61	53	44	50	50	53	58.9			
Mason City	(Maximum)	95	88	84	80	88	89	86	83	82	84	98	93	94	90	93	84	77	79	80	82	73	76	82	88	80	86	73	72	77	70	75	83.2	
	(Minimum)	62	66	66	60	52	69	69	71	63	52	70	66	66	64	64	59	54	49	62	53	53	48	45	61	50	60	45	43	51	51	48	58.2	
Milford (near)	(Maximum)	96	87	80	79	88	92	88	92	85	87	98	96	93	98	91	81	77	80	82	85	73	79	85	88	80	89	71	73	77	70	74	84.5	
New Hampton	(Maximum)	61	62	67	52	54	66	62	71	53	53	67	69	67	62	59	53	48	54	61	55	51	40	52	61	54	57	54	42	51	50	55	56.5	
Northwood	(Maximum)	90	85	79	85	87	85	84	78	83	94	92	91	91	92	83	78	78	81	74	74	77	83	77	73	76	70	74	70	72	84.2			
Pocahontas	(Maximum)	101	96	88	84	91	92	91	90	85	91	98	100	96	97	99	90	83	84	87	89	81	86	92	90	90	79	77	80	71	71	87.9		
	(Minimum)	61	68	62	56	56	71	69	74	61	65	71	73	65	63	60	54	56	54	61	64	57	53	47	47	47	51	54	56	61	53	60.2		
Postville	(Maximum)	86	84	87	78	83	83	77	80	79	79	91	88	85	84	81	73	77	79	80	73	71	76	81	80	76	70	67	67	68	78.5			
	(Minimum)	58	63	63	61	51	67	66	69	66	57	65	64	63	63	67	59	51	51	52	49	57	60	58	58	55	45	54	48	53	58.3			
<i>Central Division</i>																																		
Belle Plaine	(Maximum)	100	94	100	86	90	90	82	92	87	89	100	97	94	90	96	88	82	87	87	81	79	86	94	89	85	78	76	79	74	75	87.5		
	(Minimum)	62	69	68	62	69	70	68	70	71	53	70	71	69	68	63	56	50	62	58	53	47	55	63	62	54	53	54	53	53	61.2			
Boone	(Maximum)	103	101	95	83	89	89	89	92	86	96	99	95	95	92	95	81	80	86	86	90	78	80	85	94	89	88	76	75	75	75	87.5		
	(Minimum)	63	66	66	61	57	76	66	73	60	59	70	69	66	66	67	63	51	51	64	57	53	46	45	61	62	55	51	59	60.2				
Carroll	(Maximum)	101	99	92	82	87	90	90	93	85	90	95	97	93	95	96	83	84	87	92	81	83	95	84	89	79	73	73	73	87.6				
	(Minimum)	61	68	68	60	58	74	68	69	64	57	73	70	70	67	67	59	55	63	63	55	49	61	57	52	50	54	52	50	54	59.6			
Cedar Rapids	(Maximum)	103	95	104	88	92	92	89	94	90	102	99	99	95	97	95	89	82	89	91	91	96	80	84	89	81	88	79	70	70	70	90.3		
	(Minimum)	60	68	66	65	58	70	66	68	62	57	72	64	67	65	67	56	54	61	61	54	55	52	44	51	51	54	51	59.4					
Davenport	(Maximum)	93	94	98	88	90	94	85	82	84	91	95	98	98	96	96	86	82	88	82	86	80	85	87	82	80	80	76	77	74	85.8			
	(Minimum)	61	75	71	70	65	69	70	69	62	67	72	69	67	62	66	63	57	63	66	66	57	55	57	54	55	57	54	54	64.5				
Des Moines	(Maximum)	101	101	96	85	90	93	86	99	84	90	101	100	96	91	97	85	80	85	88	87	79	82	97	84	90	77	77	77	77	87.6			
	(Minimum)	65	71	69	68	67	71	71	74	71	72	74	72	69	67	65	62	59	55	66	66	55	55	65	67	61	60	53	53	54	65.0			
Ft. Dodge	(Maximum)	101	95	91	84	89	92	88	92	85	87	97	95	92	94	86	79	83	87	87	81	77	79	84	82	86	78	76	79	71	73	86.3		
	(Minimum)	62	68	69	57	57	74	65	72	61	53	70	71	68	63	65	68	55	55	62	59	57	52	46	45	49	55	50	50	52	52	47	59.9	
Grimmell	(Maximum)	103	104	99	85	90	92	94	96	98	96	99	100	97	94	93	95	95	94	85	85	86	85	87	84	94	95	95	95	95	89.6			
	(Minimum)	62	71	66	66	63	70	67	71	71	59	72	71	71	67	69	63	59	57	61	62	57	52	63	57	59	49	55	50	50	52	62.2		
Guthrie Center	(Maximum)	100	98	95	83	88	99	84	87	87	98	98	97	97	91	96	96	89	83	86	86	91	80	85	97	90	88	82	73	70	74	75	87.5	
	(Minimum)	61	67	67	62	60	65	65	68	73	73	75	74	71	71	75	72	65	61	61	64	53	53	66	58	59	44	53	51	55	51	61.0		
Iowa City	(Maximum)	97	91	97	85	91	95	96	97	87	91	97	94	98	97	94	88	85	88	85	87	80	85	82	87	83	89	77	75	75	72	85.7		
	(Minimum)	60	69	74	68	66	75	69	73	76	67	71	73	71	71</																			

a, b, c, etc., indicates respectively 1, 2, 3, etc., days missing

In Iowa the tornado traveled northeastward from its place of entrance, but it did not touch the ground until just before it reached Pacific Junction. After touching the ground for a short distance it lifted again as it passed over the town and struck again on the east side, about two miles from the town. As it lifted again a little farther on, it divided, one smaller cloud going north until it spent itself, and the other passing through the north outskirts of Glenwood and continuing on to Silver City, 7 miles northeast of Glenwood, leaving a path of destruction between the two towns. Its force was soon spent after leaving Silver City. The total distance covered in both Nebraska and Iowa was about 45 miles, and the path when it passed Glenwood was about 200 yards in width, and at Silver City was nearly one-half mile in width. It was accompanied throughout much of its distance by heavy hail and rain. Four persons were injured northeast of Glenwood; none were killed in Iowa but three were killed in Nebraska. The damage in Iowa was estimated at \$50,000.

#### *Tornado in Monona and Woodbury Counties*

On the same day and nearly at the same time of day a tornado started 4 miles west of Onawa in Monona county, and traveled northeastward to Whiting, then to Ticonic, and then followed the Little Sioux valley northward to Smithland in Woodbury county, and through Oto, thence traveling more to the northeast and striking Cushing, also in Woodbury county at about 5 p. m. An observer at Grant Center in Grant township, Monona county, describes it as follows:

"When we first saw it there were two funnel shaped clouds; they would rise and lower, but one of them never seemed to reach the ground. They traveled north and east and when about one mile west of the township line seemed to rise entirely into the clouds. The clouds then moved east and when just a little east of the township line a cylindrical cloud formed and moved east to the center of the township and then north. When it reached the north side of the township the pendant took on the form of a funnel. Trees blown down were lying either to the north or west."

The length of the path was about 40 miles, and from 200 feet to a half mile in width. The rate of movement was about 40 miles per hour. It is not known whether destruction occurred along the entire path but the following points report damage: Whiting, about \$75,000 damage and 2 persons injured. In the vicinity of Ticonic, \$65,000 damage and one person injured. At Smithland \$50,000 damage, none injured. About \$200,000 damage occurred at Oto. The damage at Cushing amounted to \$75,000 and one person was slightly injured. At Grant Center the damage was \$16,000.

#### *Tornado Near Red Oak*

The next tornado on June 2, occurred at about 6:10 p. m. A funnel-shaped cloud first appeared slightly to the west of Red Oak, in Montgomery county, and passed a little to the north of Red Oak, then going northeast toward Wallin, the length of the path being about 11 miles. No destruction occurred in Red Oak, but most of it was in the farming section between the two towns. Five persons were injured and the total damage was probably about \$100,000.

#### *Tornado at Adair and Casey*

At about 8:30 p. m. on June 2, 1925, a tornado which had traveled from Anita in Cass county struck Adair, in Adair county, and passed to the east-northeast to the town of Casey.

Before reaching Adair no appreciable damage occurred, but the damage was considerable at Adair and Casey, and also on the path intervening. The length of the path was about 20 miles and the width about 40 rods. John Harris, age 75 of Adair, and his two daughters were killed, three persons were severely injured, and the damage is estimated at \$100,000.

#### *Tornado in Iowa County*

On June 2, at 10:15 p. m. a small tornado developed in the northwest part of Iowa county, traveling in a north-easterly direction for a short distance. The width of the path was 20 rods and the damage was very light.

#### *Tornado at Neola and Persia*

About 5:30 p. m. on June 3, 1925, two tornadoes occurred between Neola in Pottawattamie county, and Persia in Harrison county. The first tornado was of short duration and its chief destruction was about four miles north and east of Neola where it caused severe damage to about thirty farms. The following is taken from the Neola Gazette-Reporter:

"The storms broke without much warning and followed a day whose morning was as near ideal for spring and early summer as could be desired. There had been a rather heavy blow the evening before, with a light fall of rain. Wednesday morning was fairly cool, but little wind and no dust. Toward noon the weather turned to sultry and the atmosphere seemed oppressive as the temperature rose. As early as three o'clock, clouds began to mass in the west and southwest, but there was not much indication of immediate storm or rain. At a quarter past five the wind rose and its direction changed; darkness fell and there was a steady shower, the wind lulling to zephyrs. Then without warning hailstones of huge proportions began to fall, crashing on roofs and windows with terrific force and sound. This lasted but a few minutes and the rain ceased. It was then that attention was drawn to the sky where seemingly to the west, a huge funnel-shaped cloud was seen to form and swirl, taking a northeasterly direction. So near to Neola the storm approached that its roar could be distinctly heard by those in the north part of town."

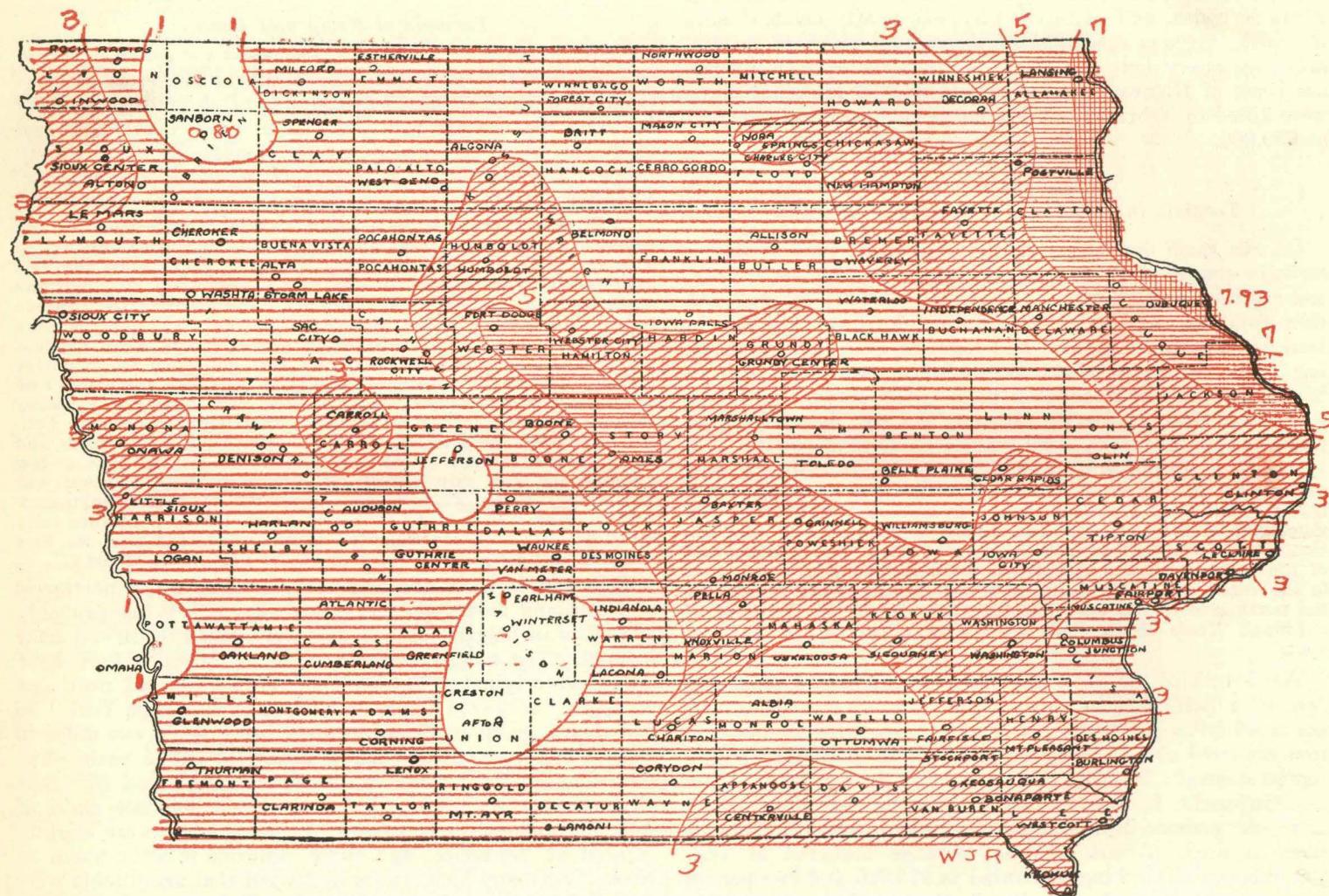
This first tornado had originated a little to the northwest of Neola and moved northeastward, its path being probably five miles in length. No persons were killed by it and none injured. The second tornado occurred about a half hour later and originated southeast of Yorkshire, and northeast of Neola. It moved almost due north and through Yorkshire and thence north to Persia its path being about ten miles in length, and caused destruction along its entire path. The total damage from these two tornadoes was about \$750,000. Eighteen persons were injured at Persia and one child of Archie Hammond was killed. A few persons were slightly injured at Yorkshire, and three children injured north of Neola. So many homes were destroyed that army tents were rushed from Camp Dodge, (near Des Moines) to the stricken area between Neola and Persia where about 200 persons were homeless.

#### *Tornado in Greene County*

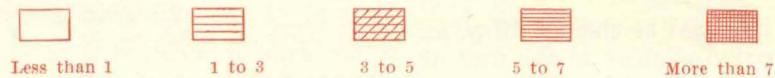
On June 3, 1925, at 9 p. m. a tornado struck in Greene county northwest of Jefferson, and traveled to the northeast passing two miles north of Jefferson. The tornado then divided, the south wing passing more to the east, its path being south of Dana, and disappeared a short distance southeast of Dana, while the other wing continued in a more northerly direction, passing about two miles west of Paton and on in the direction of Webster county, but evidently lost its force before reaching the county line. The length of the path was about 15 miles. One person was injured and the damage was not great, probably not exceeding \$10,000.

(Continued in August Report)

## TOTAL PRECIPITATION, JULY, 1925



Scale of Shades—In Inches



U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.  
CHARLES F. MARVIN, Chief.

# CLIMATOLOGICAL DATA.

IOWA SECTION  
In co-operation with  
IOWA WEATHER AND CROP BUREAU  
CHARLES D. REED, Meteorologist

VOL. XXXVI DES MOINES, IOWA, AUGUST, 1925 No. 8

## GENERAL SUMMARY

The mean temperature for August averaged very near the normal, all divisions being above normal, with the most decided excess in the northwest portion of the State. However, there were several areas in the eastern and southern portions that were considerably deficient. Fluctuations were rather numerous though they did not vary much from the normal. A rather protracted warm spell occurred during the last ten days in the western portion, while in the central and eastern portions it lasted from six to eight days. This was the 6th time during August that the maximum temperature did not reach 100° and at only one station did it fail to reach 90°. The lowest temperature occurred generally on the 21st and one station, Estherville, reported a light frost. Light frost was also unofficially reported from near Alta.

The average precipitation was also very near normal, but there was great variation even within short distances. The principal excess was confined to a strip running diagonally northeastward across the State, varying in width from over 100 miles in the southwest portion to less than 25 in the central and northeastern portions. There was a deficiency in a large area in the southeast section, but the principal deficient area was mostly north of a line running from the western portion of Pottawattamie county to Winneshiek county. There was very little rain during the last 10 days and this was aggravated by generally high temperatures over almost the entire State. In the northwestern portion the drouth was especially severe. A large area reported less than one inch of rain and the corn crop suffered to such an extent that it will be a complete failure in places. Corn in many portions of the State was injured somewhat by being hastened to maturity too rapidly by the dry hot conditions, and in many places the ground was too dry to plow. Pastures that had been revived by the rains during the early part of the month, were failing in all portions of the State at the close. Large areas in the northwestern portion were completely bare. Late truck crops also were injured. Local flood conditions developed in the southwestern portion following the heavy rains of the 6th-7th, with the worst condition in the smaller streams emptying into the Raccoon River in Cass, Audubon, and Guthrie counties. Some damage also occurred from overflows in the extreme southwestern counties. Hail was reported from a few localities in Dallas county on the 2d, causing no damage; on the 4th rather severe hail occurred in Humboldt county; on the 8th in Hardin and Story counties moderate hail occurred; and on the 16th destructive hail occurred over a large area in Pottawattamie county, causing damage to the extent of \$75,000. What is believed to have been the worst hail storm in the history of the State occurred on the 18th. The storm apparently developed in the southeast corner of Poweshiek county and moved southward over portions of Iowa, Keokuk, Washington, Je-

ferson, Henry, Des Moines and Lee counties, and crossed the Mississippi river into Illinois where the damage continued. The approximate damage was \$50,000 in Iowa county, \$400,000 in Keokuk, \$360,000 in Washington, \$250,000 in Jefferson, and \$1,000,000 in Henry county. The damage could not be approximated in Poweshiek, Des Moines and Lee counties, but the damage in the whole area was estimated as high as \$5,000,000, and it undoubtedly amounted to \$2,500,000. Another storm occurred on the 19th over a portion of the same area, but no additional damage was reported. Some of the stones were reported of unbelievable size, some disc shaped were four inches across and two inches thick. Many shingle roofs were pierced and stock of various kinds were killed. Passenger trains caught in the storm did not have a whole window glass left, and all windows on the exposed side of homes were broken. Fields of corn up to 75 acres did not have a single stalk standing. The damage to crops was so complete that many tenant farmers abandoned their leases and sought other employment.

The water supply in various parts of the State continued to fail and some railroads were compelled to haul water long distances for their own use. Water trains were run out of Des Moines to towns in the vicinity and some suburban residents of Des Moines were hauling city water by truck.

F. L. D.

## COMPARATIVE DATA FOR THE STATE—AUGUST

YEAR	Temperature				Precipitation				Number of Days				
	Mean	Departure	Highest	Lowest	Total	Departure	Greatest	Least	Snowfall	With pre. or more in. or more	Clear	Partly cloudy	Cloudy
1890	68.4	-3.3	102	36	3.41	-0.03	6.44	1.02	-----	8	15	10	6
1891	69.1	-2.6	106	34	4.24	+0.80	13.02	1.23	-----	8	13	12	6
1892	71.4	-0.3	102	40	2.24	-1.20	4.69	0.65	-----	5	18	9	4
1893	69.4	-2.3	101	30	2.32	-1.12	6.22	0.40	-----	5	19	9	3
1894	74.6	+2.9	108	38	1.58	-1.86	4.53	T.	-----	4	21	8	2
1895	71.9	+0.2	103	37	4.43	+0.99	10.63	0.67	-----	7	17	9	5
1896	71.7	0.0	104	34	3.52	+0.08	12.25	0.86	-----	8	15	11	5
1897	68.9	-2.8	104	35	1.86	-1.58	4.98	0.47	-----	6	15	11	5
1898	71.2	-0.5	103	40	3.44	-0.00	10.55	0.58	-----	6	17	9	5
1899	74.4	+2.7	100	41	3.68	+0.24	10.45	1.12	-----	7	17	10	4
1900	77.4	+5.7	103	44	4.65	+1.21	10.43	1.26	-----	6	18	10	3
1901	73.8	+2.1	105	40	1.29	-2.15	4.46	T.	-----	5	20	9	2
1902	69.1	-2.6	98	37	6.58	+3.14	15.47	1.57	-----	11	11	11	9
1903	69.1	-2.6	101	41	6.64	+3.20	17.74	2.55	-----	11	12	10	9
1904	69.1	-2.6	97	35	3.43	-0.01	6.75	0.66	-----	7	17	8	6
1905	74.3	+2.6	104	44	4.05	+0.61	8.47	1.04	-----	9	16	9	6
1906	74.1	+2.4	101	33	3.95	+0.51	10.51	0.92	-----	9	17	9	5
1907	71.1	-0.6	99	37	4.33	+0.89	9.67	1.05	-----	9	17	9	5
1908	70.0	-1.7	101	38	4.77	+1.33	10.55	1.35	-----	9	17	9	5
1909	76.1	+4.4	103	33	1.81	-1.63	8.21	T.	-----	5	21	8	2
1910	71.9	+0.2	104	36	3.88	+0.44	11.22	0.37	-----	8	15	10	6
1911	71.7	0.0	107	34	3.32	-0.12	9.47	0.44	-----	9	16	10	5
1912	71.0	-0.7	101	40	3.78	+0.34	7.90	0.89	-----	10	15	10	6
1913	76.6	+4.9	108	40	2.68	-0.76	7.13	0.08	-----	6	17	10	4
1914	73.7	+2.0	103	40	2.19	-1.25	4.90	0.42	-----	7	17	10	4
1915	65.9	-5.8	91	30	2.81	-0.63	9.14	0.27	-----	8	16	8	7
1916	74.0	+2.3	106	35	2.58	-0.86	6.23	0.49	-----	7	18	9	4
1917	69.4	-2.3	102	31	2.29	-1.15	6.31	0.70	-----	7	19	8	4
1918	76.0	+4.3	113	38	3.61	+0.17	8.38	0.54	-----	8	16	10	5
1919	71.5	-0.2	103	38	2.59	-0.88	5.72	0.97	-----	7	19	9	3
1920	69.3	-2.4	98	39	3.35	-0.09	8.52	0.44	-----	7	18	8	5
1921	72.1	+0.4	102	37	5.04	+1.60	9.04	2.20	-----	8	16	11	4
1922	73.8	+2.1	102	42	3.06	-0.38	9.80	0.33	-----	8	19	8	4
1923	70.6	-1.1	102	38	5.42	+1.98	13.14	1.46	-----	12	15	9	7
1924	71.7	0.0	100	40	5.35	+1.91	12.38	1.90	-----	10	16	10	5
1925	72.4	+0.7	99	39	3.47	+0.08	8.36	0.31	-----	8	18	9	4



T. indicates an amount too small to measure, or less than .005 inch rainfall and less than .05 inch snowfall.

## Climatological Data for August, 1925

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit						Precipitation, in inches			Number of Days			Observers		
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmeted)	.01 in. or more	Partly cloudy	Cloudy	
<i>Northern Division</i>																		
Algona	Kossuth	1,213	52	73.2	+ 2.9	93	18	45	21	38	2.16	-1.39	0.50	0	9	25	6	0 se.
Allison (near)	Butler	1,044	13	70.3	- 0.2	93	29	44	21	39	3.59	+0.19	2.92	0	6	21	7	3 nw.
Alta	Buena Vista	1,513	34	72.8	+ 2.5	92	17†	47	21	33	1.55	-2.03	0.63	0	10	18	9	4 s.
Alton	Sioux	1,305	20	72.9	+ 2.0	93	17	40	21	40	0.31	-2.79	0.18	0	5	11	15	5 s.
Belmond	Wright	1,205	15	71.4	+ 1.6	92	18	47	21	37	4.31	+1.23	1.50	0	9	5	24	2 s.
Britt	Hancock	1,236	38	70.9	+ 1.0	91	18	45	21	39	2.63	-1.12	1.32	0	9	20	9	2 se.
Charles City	Floyd	1,015	34	70.2	+ 1.1	92	29	46	21	35	2.70	-0.73	1.88	0	10	19	7	5 se.
Cherokee	Cherokee	1,196	3	72.2	-----	93	23	40	21	39	0.94	-----	0.45	0	8	13	17	1 s.
Decorah	Winneshiek	875	32	67.9	- 0.6	93	17	40	21	38	2.32	-0.98	1.58	0	9	21	9	1 se.
Dubuque	Dubuque	698	52	72.2	+ 0.5	92	29	53	21	29	1.91	-1.42	1.74	0	5	11	13	7 s.
Estherville	Emmet	1,298	30	71.7	+ 2.9	95	18	41	21	39	1.65	-1.54	0.60	0	8	19	10	2 s.
Fayette	Fayette	1,003	35	69.8	+ 0.4	93	29	45	21	39	3.16	-0.38	2.34	0	6	24	6	1 sw.
Forest City	Winnebago	1,226	31	70.7	+ 0.5	91	18	45	21	36	2.39	-0.98	1.00	0	8	7	19	5 se.
Hampton	Franklin	1,145	-----	70.7 <sup>a</sup>	- 1.2	91 <sup>a</sup>	29	44 <sup>a</sup>	21	43 <sup>a</sup>	3.28	-0.17	1.86	0	11	17	11	3 sw.
Humboldt	Humboldt	1,095	37	72.3	+ 0.5	94	18†	43	21	42	1.12	-2.18	0.43	0	8	19	9	3 s.
Independence	Buchanan	921	61	71.2	- 0.1	92	29	45	21	32	4.44	+1.23	2.00	0	6	20	6	5 se.
Inwood	Lyon	1,474	21	73.9 <sup>c</sup>	+ 3.4	96	24	44 <sup>c</sup>	21	40 <sup>c</sup>	1.18	-1.46	0.40	0	5	28	3	0 s.
Le Mars	Plymouth	1,224	29	73.0	+ 2.0	94	28	39	21	42	0.50	-2.18	0.33	0	4	25	4	2 se.
Mason City	Cerro Gordo	1,148	28	70.2	+ 0.6	90	17†	41	21	42	1.95	-1.79	0.96	0	5	12	16	3 se.
Milford (near)	Dickinson	1,430	5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
New Hampton	Chickasaw	1,169	28	70.3	+ 0.5	93	29	47	21	34	4.01	+0.51	2.47	0	7	14	10	7 s.
Nora Springs	Floyd	1,064	13	70.3	- 0.9	91	18†	42	21	40	2.36	-1.41	1.07	0	9	19	11	1 s.
Northwood	Worth	1,222	29	70.0 <sup>d</sup>	+ 1.5	90 <sup>d</sup>	18	45 <sup>d</sup>	21	31 <sup>d</sup>	1.88	-2.08	0.50	0	9	15	11	5 se.
Oelwein	Fayette	1,036	1	71.2	-----	94	29	47	21	35	2.80	-----	2.15	0	3	15	9	7 s.
Osage	Mitchell	1,163	-----	69.8	-----	91	18	41	21	42	2.03	-----	0.93	0	7	12	16	3 se.
Pocahontas	Pocahontas	1,248	21	72.4	+ 1.8	95	18	42	21	36	2.97	-0.40	0.78	0	11	18	10	3 s.
Postville	Clayton	1,180	26	67.5	- 0.3	89	18†	45	21	35	4.37	+0.92	3.20	0	5	2	27	2 w.
Rock Rapids	Lyon	1,358	26	73.5	+ 3.8	95	17†	40	21	44	1.88	-0.52	0.78	0	8	23	6	2 se.
Sanborn	O'Brien	1,553	11	73.8	+ 3.3	96	4†	40	21	44	0.61	-2.60	0.38	0	5	17	11	3 se.
Sheldon	O'Brien	1,418	0	73.5	-----	97	17	42	21	41	0.51	-----	0.16	0	5	25	4	2 s.
Sioux Center	Sioux	1,426	26	71.2	-----	97	17†	39	21	44	0.49	-2.33	0.46	0	2	-----	-----	-----
Spencer	Clay	1,319	11	73.6	+ 3.0	97	17†	40	21	44	2.41	-0.99	1.00	0	7	17	13	1 se.
Storm Lake	Buena Vista	1,440	30	72.9	+ 1.5	90	4†	46	21	32	1.59	-1.55	0.35	0	9	24	4	3 s.
Washta	Cherokee	1,157	27	72.1	+ 1.5	94	28	41	21	40	1.82	-1.12	1.00	0	7	19	8	4 s.
Waterloo	Black Hawk	854	42	72.0	+ 0.5	97	29	45	21	43	2.66	-0.65	1.86	0	6	20	7	4 se.
Waverly	Bremer	936	29	70.9	+ 0.3	94	29	46	21	40	3.60	+0.36	2.21	0	8	22	7	2 se.
West Bend	Palo Alto	1,197	32	71.4	+ 0.8	93	18	42	21	35	2.16	-1.53	0.54	0	9	17	13	1 s.
Means and extremes	-----	-----	-----	71.5	+ 1.2	97	17†	39	21	44	2.23	-1.06	3.20	0	7	18	10	3 s.
<i>Central Division</i>																		
Ames	Story	926	48	71.5	- 0.3	91	18†	48	21	34	6.46	+3.02	4.05	0	11	18	6	7 se.
Audubon	Audubon	1,297	30	71.6	+ 0.8	91	18	50	2	37	6.53	+2.90	1.98	0	7	19	7	5 sw.
Baxter	Jasper	998	25	72.2	0.0	92	9†	47	21	37	2.25	-0.98	1.54	0	6	16	11	4 s.
Belle Plaine	Benton	866	35	72.9	+ 1.4	98	29	46	21	36	2.80	-0.43	1.49	0	11	12	13	6 se.
Boone (near)	Boone	1,131	20	71.0	+ 0.1	91	18†	45	21	38	5.24	+1.68	4.19	0	6	-----	-----	se.
Carroll	Carroll	1,265	35	72.4	+ 1.3	92	18†	45	21	35	2.55	-1.30	1.30	0	11	23	4	4 sw.
Cedar Rapids	Linn	737	43	72.8	- 0.5	97	18†	46	21	43	3.69	+0.19	2.31	0	8	15	6	10 se.
Clinton	Clinton	595	52	73.0	+ 0.3	95	29	52	22	37	2.91	-0.72	1.67	0	5	21	5	5 s.
Davenport	Scott	580	54	74.4	+ 1.3	94	29	54	21	30	3.75	+0.34	1.74	0	8	17	10	4 s.
Davenport (No. 2)	Scott	690	-----	74.2	-----	96	29	50	21	37	3.46	-----	1.45	0	7	-----	-----	-----
Denison	Crawford	1,171	31	72.4	+ 0.9	91	10	45	21	39	2.76	-1.05	1.21	0	10	19	6	6 s.
Des Moines	Polk	861	47	73.8	+ 0.7	92	25	53	21	30	4.79	+1.25	1.57	0	12	9	14	8 s.
Fairport	Muscatine	567	4	74.0	-----	94	29	53	21	32	2.64	-----	1.16	0	8	20	5	6 s.
Fort Dodge	Webster	1,119	25	71.2	+ 0.4	92	18†	43	21	40	2.18	-1.42	0.73	0	10	23	4	4 se.
Grinnell	Poweshiek	1,031	31	73.6	+ 1.0	94	26†	50	21	32	2.36	-1.34	0.93	0	8	5	23	3 se.
Grundy Center	Grundy	976	34	71.2	- 0.7	93	29	45	21	38	4.08	+0.78	1.71	0	6	18	8	5 n.
Guthrie Center	Guthrie	1,077	30	72.2	+ 0.5	90	18†	47	21	36	8.36	+4.50	5.54	0	9	22	5	4 s.
Harlan (near)	Shelby	1,192	26	71.7	+ 0.7	90	18	47	21	36	5.42	+1.76	2.35	0	8	13	15	3 s.
Iowa City	Johnson	733	63	72.5	+ 0.5	95	29	50	21	35	3.14	-0.96	1.31	0	9	20	6	5 se.
Iowa Falls	Hardin	1,107	32	70.0	+ 0.4	90	29	45	21	33	3.49	+0.08	1.87	0	10	16	9	6 s.
Jefferson	Greene	1,052	26	71.0	+ 0.3	91	28	43	21	34	2.06	-1.12	0.86	0	8	-----	-----	sw.
Kalo	Webster	-----	-----	-----	-----	-----	-----	-----	-----	-----	3.42	-----	1.53	0	6	-----	-----	-----
Le Claire	Scott	576	25	-----	-----	-----	-----	-----	-----	-----	3.36	+0.33	1.47	0	8	-----	-----	-----
Little Sioux	Harrison	1,040	20	74.0	+ 1.4	95	28	45	21	38	2.78	-0.96	0.75	0	8	18	9	4 s.
Logan	Harrison	1,035	58	73.8	+ 1.1	92	18†	48	1†	38	3.08	-0.61	0.80	0	7	23	3	5 sw.
Maquoketa	Jackson	692	-----	70.8 <sup>a</sup>	-----	94 <sup>a</sup>	29	45 <sup>a</sup>	22	38 <sup>a</sup>								

## Climatological Data for August, 1925—Continued

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit					Precipitation, in inches			Number of Days			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 (unmeasured)	Precipitation .01 in. or more	Clear	Partly cloudy	Cloudy		
<i>Southern Division</i>																				
Afton	Union	1,212	31	74.3	+ 1.7	99	18	49	21	37	5.25	+1.87	1.50	0	9	16	11	4	sw.	S. R. Brown
Albia	Monroe	959	27	74.4	+ 1.8	96	25	49	21	35	3.22	-0.11	1.29	0	10	21	7	3	ne.	O. E. McBride
Atlantic	Cass	1,161	34	73.0 <sup>a</sup>	+ 0.3	92 <sup>a</sup>	18	47 <sup>a</sup>	21	36 <sup>a</sup>	5.54	+2.07	2.66	0	12				s.	Mrs. Martha E. Reynolds
Bonaparte	Van Buren	563	34	72.8	0.0	94	29	52	16†	33	2.92	-0.57	1.19	0	7	23	5	3	w.	B. R. Vale
Burlington	Des Moines	544	29	75.0	+ 0.6	95	29	56	2	31	3.77	+0.04	1.41	0	8	22	4	5	nw.	John W. Donnelly
Centerville	Appanoose	1,013	20	73.7	+ 0.5	95	18	49	21	32	3.49	+0.01	1.56	0	7	25	4	2	se.	Thomas Wood
Chariton (near)	Lucas <sup>a</sup>	1,042	30	73.3	+ 1.4	95	28†	48	21	35	3.68	-0.01	1.50	0	6	14	13	4	sw.	C. C. Burr
Clarinda	Page	1,009	35	73.5	-1.1	94	18	51	21	35	8.05	+4.52	2.38	0	9	17	10	4	se.	Dr. H. C. Hawley
Columbus Jct.	Louisa	595	24	71.7	-1.4	94	29	50	2	34	2.70	-1.64	1.18	0	8	13	16	2	nw.	Miss Musie Todd
Corning (near)	Adams	1,117	33	72.8	+ 0.6	94	18	45	21	38	6.18	+2.40	1.25	0	9	20	6	5	se.	Jerome Smith
Corydon	Wayne	1,101	32	73.6	+ 0.4	94	18	50	21	35	6.49	+3.25	3.17	0	9	16	12	3	sw.	A. T. Gallagher
Creston <sup>††</sup>	Union	1,312	20	72.8	+ 0.8	94	18	48	21	32	5.37	+2.11	2.16	0	11	17	8	6	sw.	J. W. Goodsell
Cumberland (near)	Cass	1,225	26								4.45	+1.00	2.02	0	9	17	7	7	s.	Carl E. Pollock
Earlham (near)	Madison	1,126	23	71.8	+ 0.4	92	18	46	21	38	3.23	-0.55	1.11	0	7	25	1	5	sw.	Geo. Phillips
Fairfield	Jefferson	780	41	73.4	+ 0.6	97	29	50	21	38	4.46	+0.99	1.18	0	9	18	6	7	s.	Prof. R. M. McKenzie
Glenwood	Mills	1,100	27	74.1	+ 0.1	92	18†	50	1†	36	5.23	+1.87	1.98	0	7	15	13	3	se.	Dr. Geo. Mogridge
Indianola	Warren	972	34	73.6	+ 0.5	92	9†	52	2	36	4.07	+0.23	1.65	0	7	16	12	3	se.	Seth F. Shenton
Keokuk	Lee	614	54	75.2	+ 0.2	94	29	56	1	28	4.68	+1.75	2.02	0	8	10	17	4	se.	U. S. Weather Bureau
Keosauqua	Van Buren	644	33	73.0	-0.2	92	30	49	21	35	3.09	-0.18	1.61	0	8	17	10	4	se.	J. H. Landes
Knoxville	Marion	920	30	73.8	+ 0.9	95	29	48	21	38	3.38	-0.53	0.87	0	8	19	7	5	se.	W. J. Casey
Lacona	Warren	824	26								3.65	+0.20	1.38	0	8	11	14	6		J. B. Alter
Lamoni	Decatur	1,123	18	73.1	+ 0.7	93	4†	51	21	39	5.23	+1.45	1.71	0	8	21	8	2	se.	F. S. Parks
Lenox	Taylor	1,250	30	73.5	-0.2	95	18	49	21	34	7.00	+3.64	1.98	0	10	16	12	3	nw.	J. L. Hurley
Mt. Ayr	Ringgold	1,245	32	72.4	-0.6	92	18	49	21	35	6.24	+2.84	2.00	0	9	22	4	5	s.	Alex Maxwell
Mt. Pleasant	Henry	729	44	73.8	+ 0.2	95	29	52	21	30	2.75	-0.52	0.75	0	10	15	12	4	ne.	J. H. Jericho
Oakland	Pottawattamie	1,105	6	72.1	-0.8	92	18	47	1†	40	5.31	-0.59	2.42	0	9	23	2	6	s.	M. E. Gray
Oskaloosa	Mahaska	835	49	72.2	+ 0.1	93	29	51	21	33	4.64	+1.55	1.94	0	7	19	6	6	se.	Roy R. Robinson
Ottumwa	Wapello	649	30	75.8		96	25†	51	21	40	2.86	-0.59	0.88	0	7	24	3	4	e.	C. L. Mikesh
Red Oak (near)	Montgomery	1,030									5.86	-0.59	1.86	0	7	12	14	5	e.	B. R. Bridge
Sigourney (near) <sup>††</sup>	Keokuk	790	29	73.2	+ 0.6	97	29	50	21	37	2.51	-0.59	0.85	0	10	20	5	6	se.	W. E. Utterback
Stockport <sup>††</sup>	Van Buren	747	23	73.8	+ 0.7	95	29	50	21	36	3.69	+0.59	1.60	0	8	23	4	4	s.	C. L. Beswick
Thurman	Fremont	975	28	74.4	+ 0.7	93	18†	50	2†	35	7.47	+3.40	2.61	0	7	4	25	2	se.	C. R. Paul
Tingley	Ringgold	1,275	24			94	18	49	21	34	5.94	-0.59	1.66	0	9	20	6	5	ne.	James A. VerPloegh
Washington	Washington	769	43	73.8	+ 1.4	96	29	51	22	34	3.46	-0.19	1.11	0	8	25	0	6	ne.	D. D. Sherman
Wescott (near) <sup>††</sup>	Lee	523	3	74.5		95	30	52	21	36	5.07	-0.59	1.95	0	7	24	4	3	sw.	Lester J. Larson
Winterset	Madison	1,129	34	73.4	+ 0.2	94	18	47	21	34	3.53	+0.04	1.02	0	8	21	7	3	sw.	H. S. Ely
Omaha, Nebr.		1,103	54	75.5	+ 1.1	94	18	56	21	25	2.70	-0.92	1.52	0	8	18	6	7	se.	U. S. Weather Bureau
Means and extremes				73.5	+ 0.5	99	18	45	21	40	4.58	+1.09	3.17	0	8	18	9	4	se.	
State means and extremes				72.4	+ 0.7	98	18	39	21	44	3.47	+0.03	4.36	0	8	18	9	4	se.	

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete records are used in determining means.

Reference letters a, b, c, etc., appearing in the table indicate the number of days missing; for example b represents two days, etc.

†Also other dates.

††Received too late to be included in means and summaries.

T. Precipitation is less than 0.01 inch rain or melted snow.

## PRESSURE, RELATIVE HUMIDITY, WIND AND SUNSHINE

Stations	Barometric Pressure, Inches (Sea Level)				Relative Humidity, %			Wind			Sunshine			Per cent of possible	Departure from normal	
	Mean	Highest	Date	Lowest	Date	7 a. m.	12 Noon <sup>a</sup>	7 p. m.	Total movement	Average hourly velocity	Maximum	Miles	From	Date		
Charles City	30.05	30.36	26	29.78	12	84	53	62	28	31	3,791	5.1	18	22	74	+ 3
Davenport	30.05	30.37	25	29.68	12	80	50	56	28	21	3,513	4.7	30	19	76	+ 5
Des Moines	30.08	30.34	25	29.69	12	83	54	61	27	31	3,838	5.2	28	17	69	- 3
Dubuque	30.04	30.33	25	29.69	12	83	51	60	28	31	3,290	4.4	17	18	71	+ 7
Keokuk	30.06	30.37	25	29.72	12	79	53	61	33	4	3,305	4.4	35	18	77	+ 4
Sioux City	30.02	30.39	25	29.75	16	78	50	50	26	25	7,938	10.7	43	16	73	+ 3
Omaha, Neb.	30.01	30.34	26	29.78	11	77	55	58	31	†1	4,632	6.2	30	19	84	+ 15
Means and extremes	30.04	30.39	25	29.68	12	81	52	58	26	25	5.8	—	—	16	75	+ 5
Normals and records	29.97	—	24 <sup>th</sup>	—	10 <sup>th</sup>	82	61	—	5 <sup>th</sup>	—	6.3	—	—	6 <sup>th</sup>	70	—
	—	—	1909	\$29.40	1874	—	—	—	1918	—	—	70	sw	1916	—	—

†Sioux City. §Omaha. ¶Des Moines. †Local mean time. ‡And other dates

## PRECIPITATION

The average precipitation for the State, as shown by the records of 110 stations, was 3.47 inches, or 0.03 inch more than the normal. By divisions, the averages were as follows: Northern, 2.23 inches, or 1.06 inches less than the normal; Central, 3.61 inches, or 0.08 inch more than the normal; Southern, 4.58 inches, or 1.09 inches more than the normal. The greatest amount, 8.36 inches, occurred at Guthrie Center, and the least, 0.31 inch, occurred at Alton. The greatest amount in 24 consecutive hours, 5.54 inches, occurred at Guthrie Center on the 6th-7th.

August, 1925

**Daily Precipitation for August, 1925**

## Daily Precipitation for August, 1925—Continued

Stations	Drainage Basin	Day of Month																													Totals			
		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			
<i>Southern Division</i>																																		
Afton	Grand	T.	.12																															5.25
Albia	Des Moines		.06																														3.22	
Atlantic	Nishnabotna		.02																														5.54	
Bonaparte	Des Moines			.05																													2.92	
Burlington	Mississippi				T.	.50																											3.77	
<i>Centerville</i>	Chariton																																	
Chariton (near)	Chariton		.19																														3.49	
Clarinda	Nodaway	T.		T.																													3.68	
Columbus Jet.	Iowa		.06																														8.05	
Corning	Nodaway		.07																														2.70	
Corydon	Chariton	T.	.04																														6.18	
Creston	Missouri		.28	.08	.13	.02	T.	.134																								6.49		
Cumberland (near)	Nodaway			T.	.05																												5.37	
Earlham	Des Moines																																4.45	
Fairfield	Skunk																																3.28	
Glenwood	Missouri																																4.46	
Indiana	Des Moines																																5.23	
Keokuk	Mississippi	T.																															4.07	
Keosauqua	Des Moines																																4.68	
Knoxville	Des Moines	T.																															3.00	
Lacona	Des Moines		.07																														3.38	
Lamoni	Grand																																3.65	
Lenox	Missouri		.01																														5.23	
Mt. Ayr	Grand	T.	.10																														.05	
Mt. Pleasant	Skunk	T.	.15																														6.24	
Oakland	Nishnabotna																																2.75	
Oskaloosa	Des Moines	T.																															5.31	
Ottumwa	Des Moines	T.																															4.64	
Red Oak (near)	Missouri																																2.86	
Sigourney	Skunk		.03	.10																													2.51	
Stockport	Skunk																																3.69	
Thurman	Missouri																																7.47	
Tingley	Platt		.12	.02																													5.94	
Washington	Skunk																																3.46	
Wescott (near)	Mississippi																																5.07	
Winterset	Des Moines																																3.53	
Omaha, Neb.***	Missouri																																2.70	

Except as otherwise indicated, observations are generally made late in the afternoon, near sunset, and precipitation recorded is for 24 hours ending at the time of observation.

|||Precipitation measured in the morning; amount then recorded is for the preceding 24 hours.

\*\*\*Regular Weather Bureau Station; precipitation is for 24-hour period, midnight to midnight.

\*\*Incomplete.

\*Precipitation included in the next following measurement.

T. Precipitation is less than .01 inch rain or melted snow.

## MISCELLANEOUS PHENOMENA

Aurora: 22d, 23d.

Fog: 2d, 3d, 11th, 13th, 14th, 18th.

Frost (light): 21st; 1 station.

Hail: 2d, 4th, 8th, 9th, 12th, 18th, 19th.

Halos (lunar and solar): 10th, 21st, 29th, 31st.

Rainbows: 4th, 22d, 29th, 30th.

Thunderstorms: 1st, 2d, 3d, 4th, 5th, 6th, 7th, 8th, 11th, 12th, 16th, 17th, 18th, 19th, 20th, 22d, 29th, 30th.

Winds (high): 18th, 23d.

## RIVERS

Low stages prevailed on the Mississippi River during the entire month. There was a slight rise following the heavy rains of the 6th-7th and a gradual fall till the end of the month. On the interior rivers low stages prevailed with a moderate rise following the rains of the 6th-7th, except on the Raccoon and its tributaries, where a sharp rise occurred, which diminished rapidly down the Des Moines River. On the Missouri River there was a steady fall throughout the month, from moderate stages at the beginning to rather low stages at the end of the month.

## ERRATA

Report for July, 1925. Dubuque, Page 50; mean temperature reported, 72.4°, should be 72.5°; departure reported —1.7°, should be, —1.6°; Page 54; maximum temperature on the 16th reported 78°, should be 79°, mean maximum reported 82.4°, should be 82.5°.

## TORNADOES IN IOWA, JUNE, 1925

Arthur H. Christensen, Observer

(Continued from July report)

## Tornadoes at Alexander and Vicinity

On June 11, 1925, a series of tornadoes occurred in the following four counties: Franklin, Floyd, Butler and Chickasaw. The greatest destruction was wrought in Franklin county, where the damage amounted to approximately \$350,000, the damage being greatest in the town of Alexander, where it was estimated at \$150,000. The tornado had the usual funnel-shaped cloud and rotary winds and entered Alexander from the southwest, tearing a path through the town about 150 to 200 feet wide and departing to the northeast, continuing its destruction across country to the locality west of Chapin in the same county. The length of the path was about 15 miles. About 15 persons were injured in Alexander, none of whom were very seriously hurt, and about three or four injured in or near Chapin. Mrs. Margaret Evans, a farmer's wife living west of Chapin died of injuries received. The towns of Hampton and Popejoy were also struck by twisters at about the same time, and it is evident from the location of these towns and the direction of movement of the storms that no single tornado could possibly have traveled in such a manner as to include the towns hit. The only explanation, therefore, is that a series of small

August, 1925

**Daily Maximum and Minimum Temperature for the Month of August, 1925**

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	Mean	
<i>Northern Division</i>																																	
Algona.....	82	87	88	91	80	80	83	89	86	88	80	73	76	83	88	88	90	93	86	76	80	79	88	91	91	91	85	92	83	85	85.1		
	(Maximum--)	54	55	57	60	62	64	63	60	65	55	60	62	69	66	63	63	63	67	67	60	45	57	66	63	62	53	60	61	69	66	61.2	
Alta.....	80	85	88	89	87	74	87	88	84	87	70	73	76	87	87	80	92	89	84	78	80	85	91	92	88	90	92	85	90	86	84.9		
	(Maximum--)	53	57	59	62	65	66	64	62	62	58	61	61	57	55	65	62	62	69	65	57	47	58	64	66	66	65	60	65	60.8			
Alton.....	84	87	89	90	90	81	88	89	86	87	79	75	77	86	88	83	93	91	89	81	80	85	82	86	84	86	86	85	86	86.1			
	(Maximum--)	49	50	60	62	62	55	58	63	57	52	63	60	56	47	67	65	62	67	66	63	40	60	67	61	69	67	61	69	47	59.7		
Belmond.....	85	86	88	88	88	78	81	80	86	86	90	76	71	79	83	85	81	89	92	84	81	75	75	85	88	91	85	83	86	88	86.3		
	(Maximum--)	52	51	58	60	58	63	64	57	58	56	58	61	57	52	65	66	68	62	47	56	56	61	65	53	58	62	70	69	49	58.9		
Charles City.....	79	82	85	87	81	83	78	85	82	83	78	68	75	79	84	82	86	89	80	76	73	76	85	88	86	80	87	92	82	84	81.8		
	(Maximum--)	53	53	57	62	60	64	61	59	56	55	61	57	54	60	62	69	65	64	46	56	62	60	62	55	55	57	66	57	49	58.5		
Decorah.....	78	80	83	84	84	85	78	84	80	80	78	71	76	85	82	81	93	89	84	72	74	77	84	88	87	81	77	84	91	81	83	81.7	
	(Maximum--)	50	48	49	51	55	60	60	56	54	52	49	60	58	50	54	58	61	57	62	57	40	53	50	56	57	52	52	60	61	45	54.1	
Dubuque.....	75	82	83	84	85	86	75	85	88	84	79	79	80	82	82	85	85	90	79	77	73	78	84	89	81	84	92	84	85	82.8			
	(Maximum--)	57	56	57	60	62	67	65	65	62	59	62	63	59	62	62	70	67	66	58	53	54	63	65	64	64	57	57	63	69	59	61.7	
Forest City.....	79	85	87	87	78	83	81	87	82	84	79	69	74	83	85	83	89	91	86	78	75	75	85	88	85	82	88	83	88	82.9			
	(Maximum--)	57	53	56	58	58	63	61	57	56	50	56	59	57	54	60	61	64	64	66	59	45	54	60	60	65	65	54	60	58.5			
Independence.....	77	88	84	84	82	81	79	84	85	84	81	80	79	79	82	84	89	87	84	76	78	84	89	89	88	81	86	92	89	84	83.5		
	(Maximum--)	54	54	56	59	60	61	62	58	61	57	59	60	58	54	57	59	67	68	61	44	53	59	61	61	58	55	64	61	70	54.8		
Inwood.....	86	89	91	95	92	87	91	92	90	86	76	77	80	87	91	88	94	92	84	83	88	87	89	96	84	86	93	95	93	88	84.4		
	(Maximum--)	49	52	60	62	64	64	66	59	50	59	53	47	66	67	67	69	69	56	44	64	-----	-----	-----	-----	-----	-----	-----	61	55	59.4		
Mason City.....	73	85	88	86	79	84	80	87	81	83	77	70	74	82	84	82	90	90	84	80	75	75	86	90	88	83	82	90	89	84	82.8		
	(Maximum--)	51	48	53	56	55	64	62	56	57	52	50	59	55	50	51	61	62	62	68	69	41	62	54	58	64	63	55	57	69	67	45	57.6
Milford (near).....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
New Hampton.....	78	82	86	86	81	82	77	86	83	84	81	70	77	82	84	84	88	90	83	76	76	76	86	90	87	84	81	88	93	88	86	82.9	
	(Maximum--)	53	50	55	57	57	59	60	58	57	54	56	59	56	52	56	59	67	62	66	59	47	53	59	59	60	56	54	63	69	57	57.7	
Northwood.....	83	86	87	87	77	84	81	87	88	83	78	70	80	81	81	81	87	90	87	81	85	88	85	83	81	87	83	80	83	88.1			
	(Maximum--)	53	55	58	57	60	61	59	57	55	56	60	58	53	57	53	57	63	60	58	53	57	57	63	60	57	57	60	58	59	58.8		
Pocahontas.....	81	88	90	90	88	77	83	90	86	89	75	75	78	84	88	88	90	95	84	84	78	80	87	90	86	85	87	84	85	84.5			
	(Maximum--)	53	56	54	56	64	64	59	59	55	60	62	59	49	49	63	60	66	65	60	62	56	61	61	63	63	58	64	67	50	59.5		
Postville.....	73	78	80	81	80	82	71	82	81	79	75	70	75	77	79	80	82	89	79	72	69	72	81	85	84	78	81	82	87.8				
	(Maximum--)	50	51	54	54	57	50	59	58	57	56	51	58	54	51	57	59	66	61	58	45	53	59	60	62	55	50	52	63	67	47	56.3	
<i>Central Division</i>																																	
Belle Plaine.....	80	85	87	91	91	83	77	89	92	91	76	80	84	82	89	90	90	94	84	82	77	81	89	95	96	96	88	92	98	82	87	86.7	
	(Maximum--)	56	52	54	56	59	61	62	56	61	59	61	58	53	59	62	67	60	67	55	61	62	60	57	58	64	68	58	59	59.1			
Boone.....	83	86	88	90	80	75	82	87	87	90	76	74	80	84	87	83	87	91	80	82	76	80	86	89	91	86	84	85	86	84.5			
	(Maximum--)	48	48	51	54	55	60	64	54	57	53	57	66	55	49	62	62	60	63	69	61	45	54	56	59	58	57	62	70	49	55	49.5	
Carroll.....	83	86	88	90	90	76	80	86	85	90	79	71	82	85	81	89	92	82	82	77	81	87	90	91	91	88	85	82	85.2				
	(Maximum--)	50	55	54	57	59	65	63	59	60	55	60	63	67	53	64	59	66	66	62	55	62	65	63	67	63	67	67	61	59	59.5		
Cedar Rapids.....	82	90	92	90	93	97	78	93	94	93	91	94	97	94	94	94	93	93	94	95	94	95	95	95	95	95	95	95	95	95	95.0		
	(Maximum--)	56	49	52	54	57	62	65	58	62	55	61	58	57	53	64	62	67	66	65	62	55	62	65	64	65	65	65	65	65	65	65.7	
Davenport.....	75	83	85	87	89	79	83	86	88	87	76	70	68	82	84	82	88	91	83	87	82	86	85	85	86	85	85	85	85	85	85.6		
	(Maximum--)	57	58	61	61	62	69	67	66	68	63	67	65	63	61	64	61	64	70	69	66	57	68	65	65	65	65	65	65	65	65	63.6	
Des Moines.....	81	84	87	88	82	73	80	89	92	90	73	75	82	85	87	84	88	92	79	82	76	81	86	90	92	87	87	85	84	84.7			
	(Minimum--)	57	56	58	58	63	66	60	65	65	65	61	58	61	58	64	66	60	65	65	62	55	62	65	65	62	62	62	62	62	63.0		
Ft. Dodge.....	89	86	87	90	79	77	81	88	85	90	75	72	79	85	87	85	91	92	83	81	78	78	88	91	87	87	92	90	89	88.4			
	(Maximum--)	51	50	54	54	59	62	62	55	57	53	58	62	55	50	59	60	65	65	68	58	43	55	61	59	61	57	57	61	69	66	49.5	
Grinnell.....	79	85	88	88	87	81	78	88	91	93	83	80	83	82	84	87	88	90	92	89	81	78	71	87	93	94	94	88	89	88.6			
	(Maximum--)	54	55	58	59	61	63	62	60	61	64	63	64	59	56	61	62	65	65	68	60	56	60	62	64	62	62	62	62	62	60.6		
Guthrie Center.....	89	88	89	89	81	86	80	77	85	89	78	73	81	85	86	89	79	87	90	84	81	75	81	85	82	89	86	87	85.0				
	(Maximum--)	50	52	55	68	66	64	63	55	61	58	62	63	59	54	65	60	65	65	61	47	56	56	63	62	59	59	63	65	63	59.3		
Iowa City.....	78	84	85	87	88	84	78	86	88	87	80	83	88	82	84	82	85	83	85	81	78	79	80	86	91	86	83	85	85	85.0			

a, b, c, etc., indicates respectively 1, 2, 3, etc., days missing.

local twisters appeared at various places in these four counties at nearly the same time of day, the appearance being earlier in the southwest and later in the northeast. In Butler county, Dumont and Greene reported tornadoes, the one in Dumont occurring at about 4:30 p. m. It was about one mile in length, the damage was small, and no injuries occurred. A little later a tornado struck west of Greene and it is possible that it was a continuation of the one which passed over Dumont. Its direction was from the southwest to the northeast, and its path of destruction 2 miles long and about a half mile wide, the damage amounting to between \$50,000 and \$75,000. Several persons were slightly injured. At about 6:30 p. m. on the same day, a small tornado occurred at Carrville, which is about 15 miles northeast of Greene, and it is also possible that this was a continuation of the same tornado which may have lifted in the intervening distance. The following account of the Carrville tornado is from the Charles City Weather Bureau Office.

"The funnel-shaped cloud was clearly seen and gave warning of the approach of the storm, so that people had time to seek safety in cellars. No one was injured. The cloud was described as whitish in color. There were also reliable reports of two clouds coming together from the northwest and the southeast. There was a heavy rain before the storm and some afterward. There was considerable hail. The direction of the storm was from the west-southwest to east-northeast. Trees were blown and debris carried in all directions, but mostly toward the west or east,

with most damage by the westerly wind. Trees with several trunks had the several members blown down in different directions. The path of greatest destruction was about 600 feet in width and one quarter mile in length. The total damage is estimated at \$25,000."

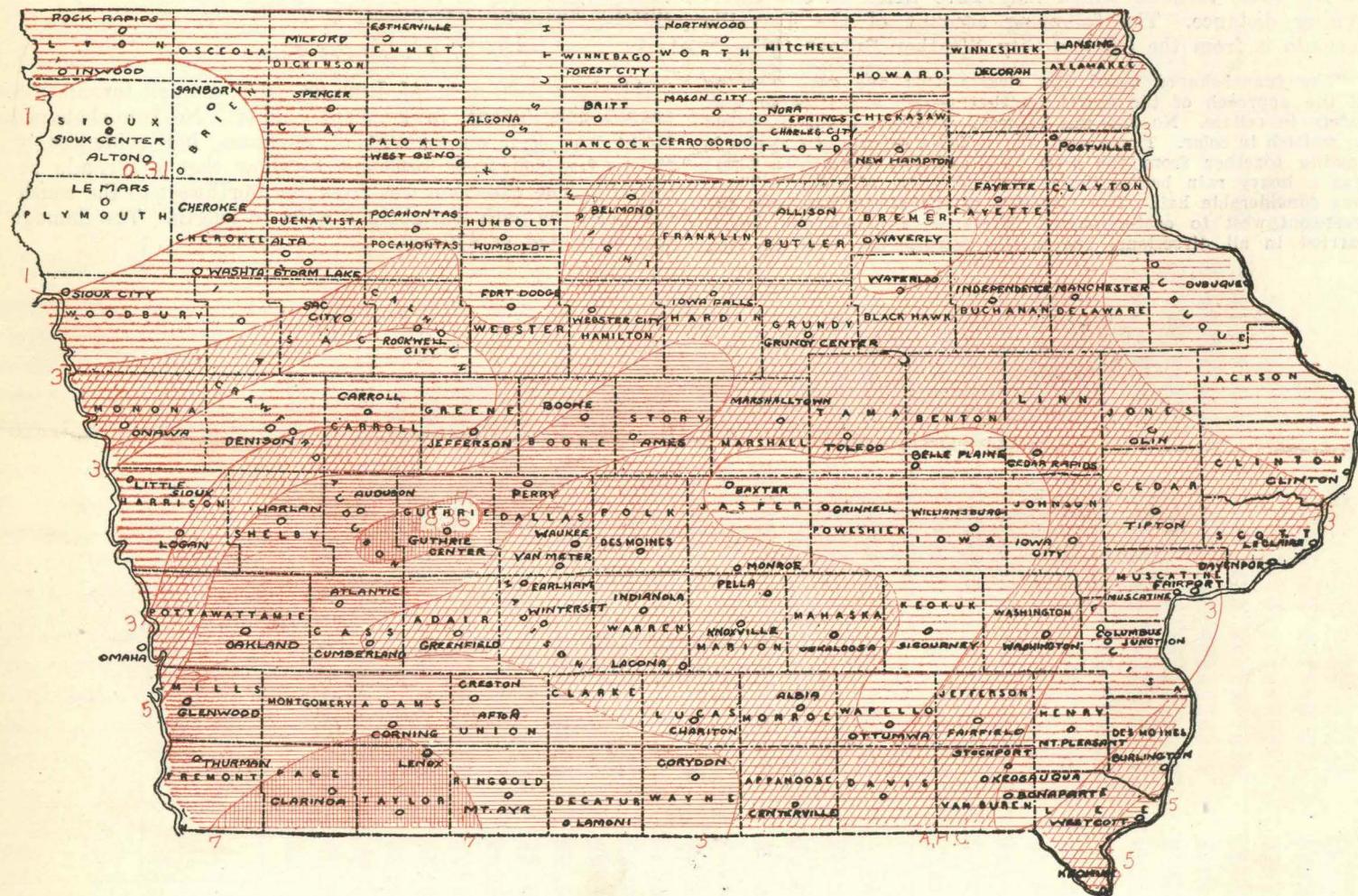
The total damage resulting from this series of tornadoes would probably be near \$500,000 and about thirty persons were injured, of whom at least two were seriously injured, one resulting in a fatality as previously mentioned.

As a part of this same series of tornadoes, a small tornado was reported at Nashua, in Chichasaw county on the evening of the 11th, the direction of movement being from the southwest to the northeast. It was seen by a party of tourists at about 6:30 p. m., the funnel-shaped cloud being well defined and alternately swirling aloft and dipping to earth. The damage in this case was negligible and no persons were injured. The path was evidently short.

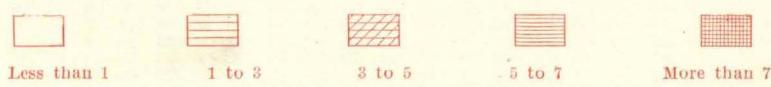
#### *Tornado at Tabor*

At about 2:00 a. m. of June 28, 1925, a small tornado occurred near Tabor, in Fremont county. No funnel-shaped cloud was seen on account of darkness, but evidences of twisting action were sufficient to show that a tornado occurred. The direction was from the northwest to the southeast, and the path was about 6 miles in length. The damage was estimated at \$10,000.

### TOTAL PRECIPITATION, AUGUST, 1925



#### Scale of Shades—In Inches



U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.  
CHARLES F. MARVIN, Chief.

# CLIMATOLOGICAL DATA.

## IOWA SECTION

In co-operation with

## IOWA WEATHER AND CROP BUREAU

CHARLES D. REED, Meteorologist

VOL. XXXVI DES MOINES, IOWA, SEPTEMBER, 1925 No. 9

### GENERAL SUMMARY

Abnormally high temperature prevailed during the first ten days of September. While no records for the state were broken, a large number of stations reported the highest maxima for the year, and several stations reported the highest of record for the month. After the first ten days there were numerous fluctuations in the temperature, with the two chief cool periods extending from the 11th to the 15th, and from the 20th to the 24th, but the last cool spell was less pronounced over the eastern portion of the state. The month closed with a rather warm period during the last four days. Light frost was reported from several stations on three days, but the damage, if any, was slight, though a temperature of 32 degrees was reached in the extreme northwest corner. The mean temperature for the state, 69.0° is 4.7° higher than the normal, and with the exception of 1897, when the mean was 70.9°, is the highest mean of record for September.

The precipitation was above normal in all divisions, and was rather uniform in all divisions, but the excess was due mostly to heavy to excessive downpours that occurred over portions of the northern and central divisions on the last day of the month. There were no damaging storms reported, but a severe local electrical storm occurred on the night of the 17th in Taylor county that damaged telephone and electric wires and poles, and a severe local wind storm damaged farm buildings considerably in Clay county. Hail damage was light, with several storms in the southeastern portion of the state on the 8th and 10th, and a rather severe storm occurred on the 16th in Cerro Gordo and Worth counties. Stones one and one-half inches in diameter were reported, but the heaviest hail fell where it could do little or no damage, so the total damage from storms was not over \$5,000.

The intense heat during the first week caused corn to dry too rapidly, causing slight damage to the crop in some sections, but in the state generally the effect was beneficial, and by the end of the month the crop was practically safe from frost, and the prospects were that there would be no soft corn. The heat also injured pastures, but rains in the latter part of the month greatly benefited them, and at the end of the month they were generally in good condition. Fall plowing made good progress, but was temporarily suspended in small areas in the southeast portion on account of being too wet, and in the northwest portion where it was too dry in areas. Winter wheat was up in many fields and making good growth. Silo filling was completed in all sections of the state, but the frequent rains delayed clover hulling in the eastern portion and caused dirt roads to be in bad condition most of the time after the first week.

F. L. D.

### TEMPERATURE

The mean temperature for State, as shown by the records of 105 stations, was 69.0°, or 4.7° higher than the normal. By divisions, approximately three tiers of counties to the division, the means were as follows: Northern, 67.5°, or 4.6° higher than the normal; Central, 69.1°, or 4.6° higher than the normal; Southern, 70.4°, or 4.8° higher than the normal. The highest monthly mean was 72.8°, at Keokuk, and the lowest was 64.4°,

at Postville. The highest temperature reported was 105° at Inwood on the 2d and Cedar Rapids on the 4th, and the lowest was 32°, at Sanborn, on the 21st. The temperature range for the State was 73°.

### PRECIPITATION

The average precipitation for the State, as shown by the records of 112 stations, was 5.04 inches, or 1.39 inches more than the normal. By divisions, the averages were as follows: Northern, 4.76 inches, or 1.33 inches more than the normal; Central, 5.32 inches, or 1.63 inches more than the normal; Southern, 5.05 inches, or 1.22 inches more than the normal. The greatest amount, 9.13 inches, occurred at Washington, and the least, 1.54 inches, occurred at Storm Lake. The greatest amount in twenty-four consecutive hours, 4.65 inches, occurred at Belmond on the 30th.

### RIVERS

Low stages prevailed on all rivers; the heavy rains that occurred during the month affected the stages very little. A slight rise occurred during the latter part of the first week and the first part of the second week on the Mississippi and all interior rivers, but the monthly range of stages did not exceed 1.5 feet at any station and on most interior rivers the range did not exceed 0.5 feet. Falling stages prevailed during the last half of the month.

### MISCELLANEOUS PHENOMENA

*Aurora:* 19th, 20th, 21st, 23d, 24th.

*Fog:* 7th, 8th, 9th, 14th, 15th, 16th, 23d, 27th, 28th.

*Frost (light):* 20th, 21st, 23d.

*Hail:* 8th, 10th, 16th, 19th.

*Halos (lunar and solar):* 10th, 17th, 24th, 25th.

### COMPARATIVE DATA FOR THE STATE—SEPTEMBER

YEAR	Temperature				Precipitation				Number of Days				
	Mean	Departure	Highest	Lowest	Total	Departure	Greatest	Least	With pre. or more in. or mm.	Partly cloudy	Cloudy		
1890-----	59.3	-5.0	96	23	2.97	-0.68	4.85	1.36	-----	7	13	10	7
1891-----	67.3	+3.0	104	28	1.33	-2.32	3.60	0.13	-----	4	20	7	3
1892-----	64.7	+0.4	99	29	1.53	-2.12	4.15	0.16	-----	4	16	8	6
1893-----	64.7	+0.4	102	18	2.34	-1.31	5.49	0.74	-----	4	20	6	4
1894-----	65.1	+0.8	100	26	3.57	-0.08	7.43	0.67	-----	8	15	10	5
1895-----	66.8	+2.5	103	22	3.03	-0.62	7.43	0.85	-----	5	18	8	4
1896-----	58.5	-5.8	95	22	4.09	+0.44	9.96	1.82	-----	10	11	9	10
1897-----	70.9	+6.6	106	26	2.04	-1.63	5.88	0.00	-----	4	23	5	2
1898-----	65.3	+1.0	99	29	2.69	-0.96	8.45	0.41	-----	7	16	9	5
1899-----	62.5	-1.8	104	15	0.93	-2.72	4.32	T.	-----	4	16	9	5
1900-----	64.4	+0.1	99	26	4.98	+1.33	8.82	2.48	-----	9	15	8	7
1901-----	63.3	-1.0	102	26	4.77	+1.12	13.62	1.71	-----	9	13	9	8
1902-----	59.1	-5.2	88	23	4.35	+0.70	10.41	1.65	-----	9	15	6	9
1903-----	60.8	-3.5	94	28	3.81	+0.16	8.79	1.42	-----	10	14	6	10
1904-----	64.0	-0.3	94	30	2.78	-0.87	8.33	0.09	-----	7	13	8	9
1905-----	65.8	+1.5	96	36	3.81	+0.16	13.18	0.50	-----	8	14	8	8
1906-----	67.2	+2.9	100	27	4.16	+0.51	11.10	0.64	-----	8	16	8	6
1907-----	62.8	-1.5	98	25	2.75	-0.90	6.06	1.38	-----	8	15	9	6
1908-----	67.9	+3.6	98	20	1.20	-2.45	8.46	0.25	-----	3	21	6	3
1909-----	62.4	-1.9	94	30	3.58	-0.07	7.34	1.39	-----	9	14	8	8
1910-----	63.2	-1.1	99	30	3.59	-0.06	7.43	1.18	-----	9	14	7	9
1911-----	65.8	+1.5	103	32	5.12	+1.47	13.73	1.19	-----	10	11	9	10
1912-----	62.1	-2.2	104	24	3.98	+0.33	10.12	0.28	-----	11	12	8	10
1913-----	64.5	+0.2	107	19	3.31	-0.34	7.44	0.45	-----	9	15	8	7
1914-----	64.5	+0.2	99	30	7.88	+4.23	16.24	2.48	-----	10	16	7	7
1915-----	63.7	-0.6	91	30	6.03	+2.33	12.45	2.88	-----	11	11	8	11
1916-----	62.5	-1.8	98	21	3.89	+0.24	9.71	1.45	-----	7	17	8	5
1917-----	62.6	-1.7	97	28	2.90	-0.75	8.68	0.39	-----	7	15	7	8
1918-----	58.6	-5.7	93	20	1.87	-1.78	4.62	0.48	-----	6	16	8	6
1919-----	67.5	+3.2	99	33	5.34	+1.69	11.82	1.49	-----	8	17	8	5
1920-----	66.5	+2.2	98	24	3.30	-0.35	7.21	0.69	-----	8	17	8	6
1921-----	67.3	+3.0	99	31	6.72	+3.07	11.95	1.72	-----	11	14	8	8
1922-----	67.1	+2.8	103	31	2.03	-1.62	4.34	0.31	-----	6	20	6	4
1923-----	64.2	-0.1	92	28	5.79	+2.14	12.14	1.88	-----	11	14	8	8
1924-----	59.1	-5.2	91	25	3.13	-0.52	5.68	1.01	-----	8	16	7	7
1925-----	69.0	+4.7	105	32	5.04	+1.39	9.13	1.54	-----	9	14	10	6

T. indicates an amount too small to measure, or less than .005 inch rainfall and less than .05 inch snowfall.



September, 1925

## Climatological Data for September, 1925

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit						Precipitation, in inches			Number of Days			Observers		
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)	Precipitation, .01 in. or more	Clear	Partly cloudy	
<i>Northern Division</i>																		
Algona	Kossuth	1,213	52	67.6	+ 4.6	99	4	39	21	36	7.36	+ 4.04	3.37	0	8	16	10	4 se.
Allison (near)	Butler	1,044	13	67.4	+ 4.3	98	4	38	21	41	5.54	+ 2.04	1.80	0	9	14	11	5 ne.
Alta	Buena Vista	1,513	34	69.0	+ 6.3	103	3	38	21	35	3.58	+ 0.30	0.96	0	8	14	11	5 s.
Alton	Sioux	1,305	20	67.6	+ 4.8	99	2	37	21	35	2.33	- 0.63	0.66	0	9	11	12	7 s.
Belmond	Wright	1,205	15	68.1	+ 4.5	98	3	38	21	36	8.07	+ 3.87	4.65	0	8	8	19	3 se.
Britt	Hancock	1,236	38	66.5	+ 4.1	98	4	37	21	35	7.39	+ 2.93	3.85	0	11	13	10	7 sw.
Charles City	Floyd	1,015	34	66.5	+ 5.5	97	4	40	21	36	3.59	+ 0.07	1.11	0	12	12	10	8 se.
Cherokee	Cherokee	1,196	3	67.3	+ 3.7	100	3	33	21	37	3.57	-	0.71	0	11	12	13	5 s.
Decorah	Winneshiek	875	32	65.1	+ 3.5	97	2†	36	23	39	3.72	- 0.39	1.12	0	9	20	4	6 se.
Dubuque	Dubuque	698	52	67.8	+ 3.8	97	4	46	25	34	4.16	+ 0.29	1.36	0	14	8	8	14 s.
Estherville	Emmet	1,298	30	67.0	+ 5.3	100	2†	35	21	39	7.50	+ 4.17	4.03	0	8	15	9	6 s.
Fayette	Fayette	1,003	35	66.7	+ 4.4	98	4	40	21	46	4.38	+ 0.71	1.47	0	9	16	8	6 ne.
Forest City	Winnebago	1,226	31	66.6	+ 3.9	98	2†	38	21	35	5.82	+ 2.49	2.10	0	12	11	8	se.
Hampton	Franklin	1,145	—	67.3	+ 3.0	99	4	38	21	43	5.50	+ 2.07	2.18	0	9	14	11	5 se.
Humboldt	Humboldt	1,095	37	69.3	+ 5.1	103	4	37	21	42	6.39	+ 3.12	4.22	0	5	16	8	6 se.
Independence	Buchanan	921	61	69.0	+ 5.1	98	3	41	21	37	6.22	+ 2.27	1.64	0	9	17	6	7 ne.
Inwood	Lyon	1,474	21	68.6	+ 5.5	105	2	37	21	43	2.49	- 0.30	1.26	0	9	19	5	6 e.
Le Mars	Plymouth	1,224	29	68.4	+ 4.7	102	2	34	21	38	2.43	- 0.80	0.93	0	11	19	8	3 sw.
Mason City	Cerro Gordo	1,148	28	66.6	+ 4.9	100	4	37	21	41	6.37	+ 3.56	2.19	0	8	13	11	6 ne.
Milford (near)††	Dickinson	1,430	5	—	—	—	—	—	—	—	4.60	—	1.80	0	10	8	12	10
New Hampton	Chickasaw	1,169	28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	A. F. Kemman
Nora Springs	Floyd	1,064	13	68.2	+ 3.8	99	4	37	21	41	6.34	+ 2.74	1.61	0	10	14	11	5 s.
Northwood	Worth	1,222	29	65.0	+ 4.0	95	2†	39	21	35	6.53	+ 3.00	1.95	0	10	13	9	8 se.
Oelwein	Fayette	1,036	1	67.8	—	97	2†	40	21	37	5.25	—	1.80	0	7	17	5	8 s.
Osage	Mitchell	1,163	—	66.2	—	98	2†	36	21	37	5.07	—	2.30	0	9	7	16	7 e.
Pocahontas	Pocahontas	1,248	21	68.2	+ 4.7	100	5	36	21	39	3.73	+ 0.14	1.03	0	8	17	7	6 se.
Postville	Clayton	1,180	26	64.4	+ 3.6	93	2†	39	21	35	3.99	+ 0.15	1.18	0	9	7	18	5 ne.
Rock Rapids	Lyon	1,358	26	67.0	+ 5.3	99	2	37	20	42	3.31	+ 0.72	1.37	0	9	22	3	5 se.
Sanborn	O'Brien	1,553	11	67.8	+ 5.0	103	3	32	21	43	1.96	- 1.24	0.85	0	8	17	10	3 se.
Sheldon	O'Brien	1,418	—	68.2	—	104	3	36	21	44	3.37	—	1.03	0	12	14	11	5 se.
Sioux Center	Sioux	1,426	26	67.5	+ 4.5	102	2	35	21	36	2.20	- 0.75	0.67	0	9	12	7	11 s.
Spencer	Clay	1,319	11	68.1	+ 4.6	102	2†	35	21	43	7.37	+ 4.05	3.32	0	12	8	14	8 se.
Storm Lake	Buena Vista	1,440	36	68.9	+ 4.9	99	3	38	21	35	1.54	- 1.71	0.52	0	8	17	8	5 s.
Washta	Cherokee	1,157	27	68.2	+ 4.7	99	4	36	21	40	2.52	- 0.87	0.75	0	9	16	8	6 s.
Waterloo	Black Hawk	854	42	69.0	+ 4.9	101	4	41	21	44	6.13	+ 2.09	1.55	0	11	16	8	6 se.
Waverly	Bremer	936	29	67.5	+ 4.1	99	4	41	21	42	5.99	+ 2.49	2.17	0	9	23	4	3 se.
West Bend	Palo Alto	1,197	32	67.5	+ 4.1	99	3	35	21	38	5.04	+ 1.90	1.84	0	12	13	13	4 se.
Means and extremes	—	—	—	67.5	+ 4.6	105	2	32	21	46	4.76	+ 1.33	4.65	0	9	14	10	6 se.
<i>Central Division</i>																		
Ames	Story	926	48	69.6	+ 5.2	99	4	42	23	40	5.63	+ 1.96	1.73	0	9	16	7	7 ne.
Audubon	Audubon	1,297	30	67.4	+ 3.7	96	3†	39	21	37	4.18	+ 0.42	1.61	0	9	15	9	6 sw.
Baxter	Jasper	998	25	68.4	+ 3.8	100	4	42	21	33	4.98	+ 0.01	2.15	0	12	13	7	7 s.
Belle Plaine	Benton	866	35	69.8	+ 5.4	104	4	47	24	43	5.59	+ 2.02	1.77	0	14	11	8	sw.
Boone (near)	Boone	1,134	20	69.0	+ 5.2	100	3	39	23	41	4.13	+ 0.08	0.95	0	9	12	10	8 sw.
Carroll	Carroll	1,265	35	69.4	+ 5.7	99	3†	39	21	35	4.74	+ 1.27	1.08	0	9	17	5	8 se.
Cedar Rapids	Linn	737	43	70.0	+ 3.8	105	4	45	21	50	4.56	+ 0.96	1.63	0	14	12	16	se.
Clinton	Clinton	595	52	69.4	+ 4.2	100	4	48	25	40	7.27	+ 2.78	2.78	0	9	16	5	9 s.
Davenport	Scott	580	54	70.2	+ 4.6	98	4	49	21	31	8.16	+ 4.71	2.89	0	14	7	10	13 e.
Davenport (No. 2)	Scott	690	71.0	—	—	101	4	46	21	41	8.73	—	2.90	0	15	—	—	Rex Shriner
Denison	Crawford	1,171	31	68.9	+ 4.9	98	3	41	21†	35	5.20	+ 2.08	2.20	0	8	14	8	8 se.
Des Moines	Polk	861	47	70.4	+ 4.8	99	5	47	23	30	3.75	+ 0.22	1.61	0	12	8	9	13 sw.
Fairport	Muscatine	567	4	71.2	—	99	4†	49	21	40	6.89	—	2.18	0	14	15	7	8 e.
Fort Dodge	Webster	1,114	25	68.6	+ 4.6	100	4†	37	21	39	5.02	+ 0.64	2.00	0	9	17	0	13 s.
Grinnell	Poweshiek	1,031	31	70.4	+ 5.5	101	4	43	21	36	7.09	+ 3.44	1.74	0	14	3	20	7 se.
Grundy Center	Grundy	976	34	67.8	+ 3.2	99	4	41	20†	52	7.03	+ 3.26	3.41	0	7	13	5	12 s.
Guthrie Center	Guthrie	1,077	30	69.0	+ 4.4	97	4	41	21	37	3.07	- 0.70	1.03	0	8	15	6	9 sw.
Harlan (near)	Shelby	1,192	26	68.6	+ 4.8	96	5	39	22	41	3.52	- 0.25	1.32	0	8	19	3	s.
Iowa City	Johnson	733	65	69.1	+ 4.3	99	4	46	21	39	5.59	+ 1.71	2.31	0	14	9	9	12 nw.
Iowa Falls	Hardin	1,107	32	67.4	+ 4.8	97	4	41	21	39	6.61	+ 2.81	2.74	0	9	13	7	10 e.
Jefferson	Greene	1,052	26	67.6	+ 4.0	99	5	40	23	37	2.97	- 1.02	1.48	0	9	16	3	11 sw.
Kalo	Webster	576	25	—	—	—	—	—	—	—	7.44	—	4.00	0	7	—	—	—
Le Claire	Scott	576	—	—	—	—	—	—	—	—	7.52	+ 4.11	1.87	0	15	—	—	Margaret T. Dismey
Little Sioux	Harrison	1,040	20	71.0	+ 5.7	101	3†	38	23	40	4.67	+ 1.50	2.29	0	7	12	12	6 sw.
Logan	Harrison	1,035	58	70.2	+ 4.5	99	2†	38	23	36	2.33	- 0.83	0.90</td					

## Climatological Data for September, 1925—Continued

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit						Precipitation, in inches			Number of Days			Observers			
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)	Precipitation .01 in. or more	Clear	Partly cloudy		
<i>Southern Division</i>																			
Afton	Union	1,212	31	70.6	+ 5.5	101	3†	43	21	35	3.30	-1.08	1.02	0	11	13	7	10	sw. S. R. Brown
Albia	Monroe	959	27	71.1	+ 5.7	104	4	44	21	35	5.32	+1.26	2.62	0	13	12	4	14	sw. O. E. McBride
Atlantic	Cass	1,164	34	69.8	+ 4.8	98	3†	40	23	34	3.10	-0.31	1.33	0	7	15	8	7	sw. Mrs. Martha E. Reynolds
Bonaparte	Van Buren	563	34	70.6	+ 4.7	98	3†	47	21	32	7.78	+3.65	3.40	0	9	14	5	11	e. B. R. Vale
Burlington	Des Moines	544	29	71.6	+ 4.4	100	4	51	21	33	8.24	+4.32	2.06	0	14	13	7	10	sw. John W. Donnelly
Centerville	Appaloosa	1,013	20	70.7	+ 5.1	98	4†	46	21	35	6.63	+2.53	2.69	0	14	8	7	15	sw. Thomas Wood
Chariton (near)	Lucas	1,042	30	70.5	+ 5.7	100	3†	43	21	41	4.61	+0.67	1.98	0	7	10	11	9	s. O. C. Burr
Clarinda	Page	1,009	35	70.6	+ 4.3	98	3	44	23†	53	6.43	+2.96	1.63	0	11	10	16	4	s. Dr. H. C. Hawley
Columbus Jct.	Louisa	595	24	69.4	+ 3.8	98	4†	47	21	38	6.57	+2.91	3.27	0	12	7	16	7	sw. Miss Musa Todd
Corning (near)	Adams	1,117	33	69.6†	+ 4.7	97°	3	40°	25	37°	3.35	-0.57	1.32	0	5				sw. Jerome Smith
Corydon	Wayne	1,101	32	70.6	+ 4.9	98	3†	45	21	34	7.46	+3.37	1.82	0	13	10	13	7	sw. A. T. Gallagher
Creston	Union	1,312	20	69.0	+ 4.9	98	4	42	21	33	2.55	-1.45	0.76	0	10	18	5	7	sw. J. W. Goodsell
Cumberland (near)	Cass	1,225	26								1.90	-1.48	0.62	0	6				s. Carl E. Pollock
Earlham (near)	Madison	1,126	23	69.9	+ 5.8	100	3†	40	23	39	2.00	-1.69	0.67	0	9	21	5	4	sw. Geo. Phillips
Fairfield	Jefferson	780	41	70.6	+ 5.0	103	4	46	21	37	5.63	+2.00	2.65	0	8	11	7	12	w. Prof. R. M. McKenzie
Glenwood	Mills	1,100	27	70.8	+ 4.1	98	3†	42	23	32	3.14	+0.46	1.30	0	9	15	8	7	se. Dr. Geo. Mogridge
Indianola	Warren	972	34	70.6	+ 5.0	100	4	44	21	41	3.54	-0.19	0.86	0	11	12	13	5	se. Seth F. Shenton
Keokuk	Lee	614	54	72.8	+ 5.3	100	4	52	21	28	6.99	+3.13	2.15	0	10	7	8	15	ne. U. S. Weather Bureau
Keosauqua	Van Buren	644	33	69.2	+ 3.4	100	5	52	1†	36	8.42	+4.22	4.00	0	13	10	8	12	se. J. H. Landes
Knoxville	Marion	920	30	70.5	+ 4.7	103	4	44	21	40	3.94	-0.20	1.39	0	10	13	6	11	ne. W. J. Casey
Lacona	Warren	824	26								3.70	-0.66	1.20	0	16	6	17	7	
Lamoni	Decatur	1,123	18	68.9	+ 4.2	96	4†	44	21	32	6.85	+2.84	2.00	0	14	13	9	8	sw. F. S. Parks
Lenox	Taylor	1,250	30	70.0	+ 4.3	100	3	42	21	34	4.01	-0.20	1.50	0	10	13	10	7	ne. J. L. Hurley
Mt. Ayr	Ringgold	1,245	32	69.2	+ 3.8	98	4	43	21	31	6.09	+2.14	1.91	0	13	12	8	10	s. Alex Maxwell
Mt. Pleasant	Henry	729	44	71.2	+ 5.1	101	4	47	21	42	7.37	+3.84	2.98	0	13	11	8	11	ne. J. H. Jericho
Oakland	Pottawattamie	1,105	6	68.4	+ 3.3	99	3	39	23	37	2.54	-----	0.96	0	9	19	2	9	s. M. E. Gray
Oskaloosa	Mahaska	835	49	69.5	+ 4.6	99	4	44	21	34	3.88	+0.48	0.98	0	13	14	5	11	se. Roy R. Robinson
Ottumwa	Wapello	649	30	72.2		103	4	47	21	41	5.72	+1.87	2.00	0	13	13	6	11	se. C. L. Mikesh
Red Oak (near)	Montgomery	1,030									2.86	-----	1.20	0	7	11	14	5	s. B. R. Bridge
Sigourney (near)	Keokuk	790	29	70.0	+ 4.9	102	4†	45	21	37	6.33	+2.64	1.85	0	11	11	9	10	ne. W. E. Utterback
Stockport	Van Buren	747	23	70.4	+ 5.4	101	4†	47	21	38	7.47	+3.38	3.46	0	14	13	5	12	ne. C. L. Beswick
Thurman	Fremont	975	28	70.5	+ 4.8	97	3	40	21	37	3.34	-0.92	1.62	0	6	7	17	6	sw. C. R. Paul
Tingley	Ringgold	1,275	---	69.8		98	4	41	22	32	5.11	-----	1.56	0	10	11	9	10	ne. James A. VerPloegh
Washington	Washington	769	43	70.5	+ 5.3	101	5	45	23	31	9.13	+5.75	3.75	0	11	15	0	15	e. D. D. Sherman
Wescott (near)	Lee	523	3	71.7		100	4†	50	22	36	6.73	-----	1.92	0	9	16	5	9	s. Lester J. Larson
Winterset	Madison	1,129	34	70.4	+ 4.8	100	3†	39	23	35	2.16	-1.59	0.54	0	10	18	6	6	sw. H. S. Ely
Omaha, Nebr.	Madison	1,103	54	70.9	+ 4.7	99	3	46	23	30	2.69	-0.34	1.02	0	13	13	7	10	sw. U. S. Weather Bureau
Means and extremes				70.4	+ 4.	104	4	39	23	42	5.05	+1.22	4.00	0	11	13	8	9	sw.
State means and extremes				69.0	+ 4.	105	2†	32	21	52	5.04	+1.39	4.65	0	10	13	9	8	se.

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete records are used in determining means.

Reference letters a, b, c, etc., appearing in the table indicate the number of days missing; for example b represents two days, etc.

†Also other dates.

‡Received too late to be included in means and summaries.

T. Precipitation is less than 0.01 inch rain or melted snow.

**Haze:** 1st, 2d.

**Rainbows:** 8th, 9th, 10th.

**Thunderstorms:** 4th, 5th, 6th, 7th, 8th, 9th, 10th, 11th, 14th, 16th, 17th, 18th, 19th, 20th, 21st, 22d, 26th, 29th, 30th.

## PRESSURE, RELATIVE HUMIDITY, WIND AND SUNSHINE

Stations	Barometric Pressure, Inches (Sea Level)			Relative Humidity, %			Wind			Sunshine			Observers						
	Mean	Highest	Date	Lowest	Date	7 a. m.	12 Noon†	7 p. m.	Lowest	Date	Total movement	Average hourly velocity	Maximum Miles	From	Date	Per cent of possible	Departure from normal		
Charles City	29.97	30.38	28	29.52	19	86	54	67	29	3	4,271	5.9	32	w	19	66	+ 4		
Davenport	29.97	30.36	28	29.66	19	84	62	69	32	1	4,489	6.2	28	nw	8	50	-15		
Des Moines	29.94	30.32	28	29.58	19	84	58	65	33	4	4,850	6.7	40	sw	19	57	- 5		
Dubuque	29.96	30.36	28	29.57	19	85	59	69	28	4	3,823	5.3	25	se	30	53	- 6		
Keokuk	29.96	30.33	28	29.70	9	82	61	67	32	4	4,370	6.1	44	w	10	57	- 9		
Sioux City	29.94	30.28	30	29.45	19	82	57	59	23	3	7,030	10.6	61	w	19	63	0		
Omaha, Neb.	29.94	30.24	28	29.55	19	80	61	65	32	5	4,606	6.4	34	nw	20	60	+ 4		
Means and extremes	29.95	30.38	28	29.45	19	83	59	66	23	3	-----	6.9	-----	-----	59	4	-----	-----	
Normals and records	30.02	30.38	26th	30th	83	64	28th	72	7	-----	7.2	-----	72	w	1872	63	-----	-----	

\*Dubuque. §Omaha. ||Davenport. †Local mean time. ‡And other dates.

September, 1925

**Daily Precipitation for September, 1925**

## Daily Precipitation for September, 1925—Continued

Stations	Drainage Basin	Day of Month																																
		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	Totals		
<i>Southern Division</i>																																		
Afton	Grand...							T.	.12	.08	.08	1.02	.08		T.	.03			T.	.72	.05	.36			.50	.23		.08		3.30				
Albia	Des Moines							T.	T.	T.	.09	.57	2.05	.45	T.	.46	.01		T.	.10	.68	.05	.04	.14		.61	.07			5.32				
Atlantic	Nishnabotna							T.		T.	.52	.15	.11		T.				T.		.33	.19				.31			.49 T.	3.10				
Bonaparte	Des Moines							T.		T.	.32	3.40	1.40	.08	T.				T.	.60		T.			T.	.41	.10			1.88				
Burlington	Mississippi										.17	.23	1.56	.53	2.06	.73	1.04				.01	.45	.25	T.	.01		.44	.53		.23	8.24			
Centerville	Chariton							T.	T.	.08	.03	.64	2.05	.30	.05	.32	.02		.12		.74	.37		T.	.63	.11			.17	6.63				
Chariton (near)	Chariton							T.		T.	.17	.94	.08	.25	.71				.15		.75	T.	.20	T.		.48					1.05	4.61		
Clarinda	Nodaway																			1.68		1.33	.55	.34			.40	.03			6.43			
Columbus Jet.	Iowa																																	
Corning	Nodaway																																	3.35
Corydon	Chariton																																	
Creston	Missouri																																	
Cumberland (near)	Nodaway																																	
Earlham	Des Moines																																	
Fairfield	Skunk																																	
Glenwood	Missouri																																	
Indianola	Des Moines																																	
Keokuk***	Mississippi																																	
Keosauqua	Des Moines																																	
Knoxville	Des Moines																																	
Lacona	Des Moines																																	
Lamoni	Grand...																																	
Lenox	Missouri																																	
Mt. Ayr	Grand...																																	
Mt. Pleasant	Skunk																																	
Oakland	Nishnabotna																																	
Oskaloosa	Des Moines																																	
Ottumwa	Des Moines																																	
Red Oak (near)	Missouri																																	
Sigourney	Skunk																																	
Stockport	Skunk																																	
Thurman	Missouri																																	
Tingley	Platt																																	
Washington	Skunk																																	
Wescott (near)	Mississippi																																	
Winterset	Des Moines																																	
Omaha, Neb.***	Missouri																																	

Except as otherwise indicated, observations are generally made late in the afternoon, near sunset, and precipitation recorded is for 24 hours ending at the time of observation.

|||Precipitation measured in the morning; amount then recorded is for the preceding 24 hours.

\*\*\*Regular Weather Bureau Station: precipitation is for 24-hour period, midnight to midnight.

\*\*Incomplete.

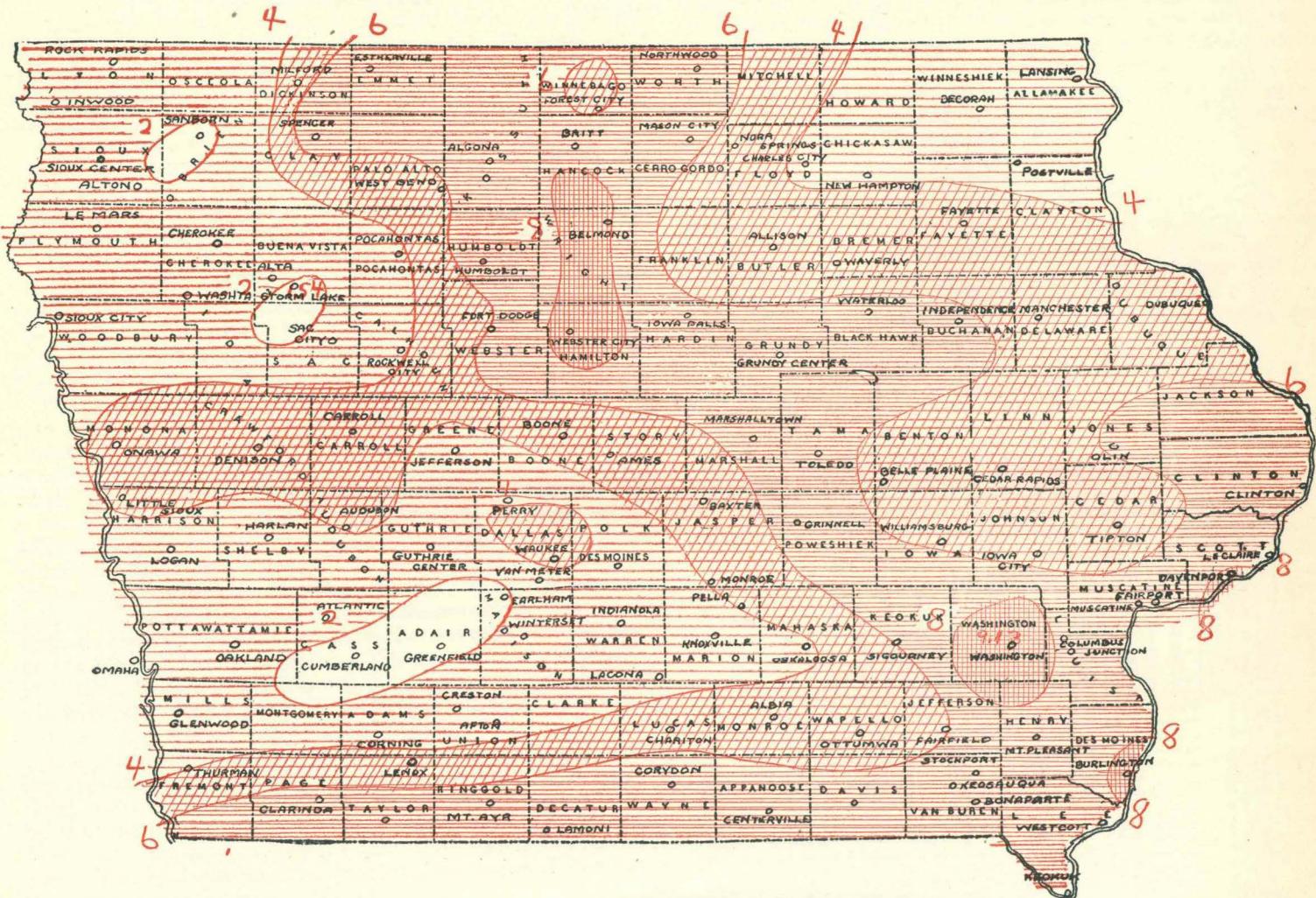
\*Precipitation included in the next following measurement.

T. Precipitation is less than .01 inch rain or melted snow.

## Daily Maximum and Minimum Temperature for the Month of September, 1925

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	Mean		
<i>Northern Division</i>																																	
Algona.....	{Maximum.....	88	97	95	99	89	85	87	77	77	80	79	72	75	75	75	85	93	90	92	85	61	60	70	73	69	61	66	75	76	76	79.4	
	{Minimum.....	53	67	63	68	63	66	60	64	66	60	56	43	47	55	54	58	57	56	65	53	39	45	43	44	50	51	55	50	61	58	55.7	
Alta.....	{Maximum.....	95	97	103	98	98	87	90	79	84	83	64	78	80	70	73	90	94	82	95	69	62	58	73	78	70	59	76	85	81	70	80.7	
	{Minimum.....	64	70	68	69	70	64	63	64	65	61	57	44	48	54	53	59	71	68	51	38	43	43	51	47	55	54	53	62	52	57.4		
Alton.....	{Maximum.....	92	99	97	97	94	86	86	76	79	81	69	70	75	73	72	87	89	80	94	73	59	52	73	72	63	68	81	81	74	79.0		
	{Minimum.....	63	71	62	67	70	63	58	65	64	58	55	42	45	50	54	63	70	59	61	51	37	45	40	47	45	50	55	53	63	53	56.2	
Belmond.....	{Maximum.....	87	97	98	97	94	91	89	76	80	81	70	73	77	75	74	84	94	81	93	85	62	61	72	78	68	62	66	78	78	72	79.8	
	{Minimum.....	57	63	62	64	70	68	58	65	65	65	45	46	53	57	57	69	60	69	51	38	45	42	47	50	52	56	50	60	60	56.4		
Charles City.....	{Maximum.....	85	96	94	97	89	86	86	72	78	80	64	70	74	75	74	81	94	85	92	69	60	70	75	66	61	64	75	78	77	73		
	{Minimum.....	52	62	65	61	70	68	61	64	63	60	53	46	45	54	57	56	66	62	69	45	40	46	43	48	52	52	47	59	58	55.7		
Decorah.....	{Maximum.....	83	97	97	94	89	83	83	73	77	79	71	69	78	72	72	78	91	81	90	84	58	61	68	72	65	60	64	73	83	67	77.1	
	{Minimum.....	46	59	64	57	66	63	61	63	61	55	54	47	39	47	49	51	64	58	61	54	39	44	36	45	44	51	56	46	54	58	53.1	
Dubuque.....	{Maximum.....	85	95	91	97	85	84	86	71	79	77	64	70	73	75	77	71	94	82	92	80	62	61	69	75	64	66	74	78	76	77.0		
	{Minimum.....	55	62	68	63	72	68	66	66	65	62	57	56	51	54	57	66	69	65	52	47	49	54	53	46	54	56	53	57	61	58.7		
Forest City.....	{Maximum.....	83	98	97	98	88	87	85	78	78	80	72	69	75	76	73	84	93	81	92	80	58	61	72	61	63	76	73	70	78	70.8		
	{Minimum.....	56	65	64	63	70	67	60	63	64	58	57	45	46	50	53	55	70	57	57	52	38	45	40	48	47	50	56	49	57	55.3		
Independence.....	{Maximum.....	84	96	95	96	94	91	84	85	82	73	71	71	72	73	74	80	93	94	94	87	67	67	68	73	73	65	68	76	80	82.0		
	{Minimum.....	52	64	59	57	60	57	55	56	53	52	49	54	57	52	63	66	67	62	41	45	48	50	45	51	59	58	61	61	57.8			
Inwood.....	{Maximum.....	97	105	101	101	95	91	82	75	83	87	71	78	77	74	88	90	79	97	78	60	69	78	79	75	62	69	83	82	74	81.4		
	{Minimum.....	64	72	58	68	69	65	64	64	60	56	52	40	48	50	52	62	69	57	65	49	37	46	42	55	45	52	54	51	62	49	55.9	
Mason City.....	{Maximum.....	85	99	96	100	89	87	85	85	72	82	75	72	75	75	76	82	94	81	93	85	61	63	70	72	66	60	64	76	76	71	78.9	
	{Minimum.....	48	61	60	59	68	70	68	63	62	57	54	44	41	50	50	51	67	56	67	50	37	44	40	45	47	50	57	45	58	59	54.4	
Milford (near).....	{Maximum.....																																
New Hampton.....	{Maximum.....																																
Northwood.....	{Maximum.....	84	95	92	95	86	83	83	73	77	80	65	68	72	74	74	79	90	81	89	82	62	61	69	62	61	59	66	73	73	67	75.8	
	{Minimum.....	54	60	65	63	65	64	60	62	62	58	55	43	46	51	53	56	61	50	39	45	43	45	46	47	54	54	46	56	54	54.3		
Pocahontas.....	{Maximum.....	90	99	97	99	100	87	88	79	80	80	69	74	77	75	70	88	94	80	95	86	72	60	72	74	70	61	70	81	83	72	80.7	
	{Minimum.....	55	60	63	64	70	64	66	64	66	60	55	41	44	53	55	58	71	59	67	53	36	44	40	49	45	45	54	50	60	59	55.7	
Postville.....	{Maximum.....	81	93	88	93	82	81	73	77	75	70	66	70	72	71	77	91	83	90	85	56	58	65	74	78	70	75	75	75	75.5			
	{Minimum.....	50	64	64	58	66	62	61	61	60	58	52	48	41	46	48	62	65	60	60	51	39	42	44	43	48	55	45	53	58	53.4		
<i>Central Division</i>																																	
Belle Plaine.....	{Maximum.....	89	101	99	104	101	93	92	78	77	73	68	67	77	69	79	86	97	83	95	84	64	63	72	79	70	64	76	83	85	75	81.4	
	{Minimum.....	51	62	66	61	69	70	67	64	64	60	55	54	55	55	56	60	57	67	69	57	45	48	50	54	53	52	58	57	58.1			
Boone.....	{Maximum.....	90	96	100	99	98	92	90	82	78	73	68	64	74	77	73	63	87	95	86	94	86	64	60	72	78	69	70	82	83	77	81.5	
	{Minimum.....	49	62	63	61	65	67	58	65	65	65	57	57	47	47	50	57	57	71	65	71	57	42	46	39	43	49	54	56	62	63	56.5	
Carroll.....	{Maximum.....	93	98	99	98	99	92	93	81	79	81	72	75	79	72	73	87	95	86	93	86	63	62	74	77	71	64	75	83	82	81.9		
	{Minimum.....	58	70	65	67	72	66	61	63	63	61	55	44	47	53	57	58	73	61	65	53	39	44	42	49	45	52	53	61	66	56.9		
Cedar Rapids.....	{Maximum.....	87	103	98	105	98	96	95	83	83	88	78	73	73	75	73	73	86	99	90	98	85	69	67	72	73	78	77	81	83	78.8		
	{Minimum.....	47	53	53	56	58	65	67	61	57	56	57	56	54	52	53	56	64	66	67	66	57	45	47	50	51	58	62	66	62	56.2		
Davenport.....	{Maximum.....	88	94	96	98	94	93	88	80	88	82	73	75	66	65	73	78	86	93	86	92	81	63	63	69	76	76	78	81	82	79.2		
	{Minimum.....	61	65	72	67	76	74	69	65	66	61	58	55	56	57	59	67	73	70	77	70	57	55	67	73	70	60	67	78	60	61.2		
Des Moines.....	{Maximum.....	91	96	98	99	91	89	82	77	77	65	71	76	66	65	85	95	82	93	70	62	57	71	76	68	74	78	85	83	76	79.8		
	{Minimum.....	61	69	73	71	75	70	66	65	63	56	52	58	58	57	57	73	70	52	47	47	42	47	45	54	58	56						

## TOTAL PRECIPITATION, SEPTEMBER, 1925



Less than 2

2 to 4

4 to 6

6 to 8

More than 8

Dec 11

day?

U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.  
CHARLES F. MARVIN, Chief.

# CLIMATOLOGICAL DATA.

IOWA SECTION  
In co-operation with  
IOWA WEATHER AND CROP BUREAU  
CHARLES D. REED, Meteorologist

VOL. XXXVI DES MOINES, IOWA, OCTOBER, 1925 No. 10

## GENERAL SUMMARY

There was a decided contrast in the weather during October, 1925, and that of a year ago. October, 1924, was, with one exception, the warmest in the history of the State, and this October is by far the coldest ever experienced, being  $2.7^{\circ}$  colder than in 1917, which was the coldest previous to this year in more than a half century of record. The average snowfall was the greatest ever recorded in the State, ranging from 1.2 inches in the extreme eastern portion to more than 8.0 inches in some northern stations, and over most of the State the amounts were remarkably uniform; the humidity was high, sunshine decidedly deficient, and both the number of cloudy days and days with 0.01 inch or more of precipitation equalled the record for the month; the opposite conditions prevailed a year ago. Aside from a day or two at the beginning of the month, the temperature was continuously below the normal, and "Indian Summer" was entirely absent. The first light frost occurred at a few northern stations on the 5th and the first killing frost occurred at a number of stations on the 7th, and by the 10th killing frost had visited the entire State. Owing to the advanced state of vegetation there was very little damage to staple crops, but there was considerable damage to truck crops. There was a tendency to warmer weather till the 15th, after which a gradual decline began and culminated during the last week in the coldest weather ever experienced in the State in October. The minimum temperatures were much lower at all stations than the previous record for October, and at a large number of stations the previous minimum was lowered on several days, and zero weather, which heretofore was practically unknown in October, occurred in more than half of the State, reaching a minimum of  $-15^{\circ}$  at Inwood, which is  $13^{\circ}$  lower than the previous minimum. Zero occurred as far south as the Missouri line.

The precipitation averaged 0.49 inch above the normal, being deficient over the northwest, extreme southwest, and a narrow strip along the northern border, and gradually increasing to the south and east where there was a marked excess. While precipitation was recorded on a large number of days, most of the monthly total occurred on the 3d and 27th. The prevailing moist condition of the atmosphere, excessive cloudiness and lack of sunshine prevented the proper drying of corn, and rendered husking more difficult. The quality of the corn was reduced somewhat by mold and the high per cent of moisture made cribbing difficult and turning was necessary. Many fields were too wet to permit wagons to enter and the heavy snowfall on the 25th and 27th made a large amount of "down" corn, causing it to be covered with mud, and further impaired the quality of the crop. Husking was started generally about the middle of the month, but owing to the unfavorable conditions that prevailed poor progress was made, so that at the end of the month less than 20 per cent had been harvested. The excellent condition of the corn at the beginning of October caused procrastination in seed corn sav-

ing. Subsequent moist weather and severe temperature rendered much corn unfit for planting and imperiled the 1926 crop. The weather conditions interfered seriously with the hulling of clover, and it was necessary to abandon many fields ready to hull in the eastern and southern portions of the State. There was considerable loss to tubers where the snow drifted and left bare soil, but many fields of turnips and beets that were covered with snow were exposed to zero weather without suffering injury.

There were no storms of consequence during the month. Light hail occurred on the 3d and 7th at a number of stations, and a local storm of limited extent, said to have been a "twister" occurred in the south-central portion of Mahaska County during the early morning of the 3d. It unroofed buildings and destroyed trees in its path.

F. L. D.

## TEMPERATURE

The mean temperature for the State, as shown by the records of 106 stations, was  $40.2^{\circ}$ , or  $11.7^{\circ}$  lower than the normal. By divisions, approximately three tiers of counties to the division, the means were as follows: Northern,  $38.1^{\circ}$ , or  $12.2^{\circ}$  lower than the normal; Central,  $40.3^{\circ}$ , or  $11.8^{\circ}$  lower than the normal; Southern,  $42.2^{\circ}$ , or  $11.2^{\circ}$  lower than the normal. The highest monthly mean was  $44.5^{\circ}$ , at Ottumwa, and the lowest was  $36.2^{\circ}$ , at Estherville. The highest temperature reported was  $78^{\circ}$ , at Stockport, on the 2nd, and the lowest was  $-15^{\circ}$ , at Inwood on the 29th. The temperature range for the State was  $93^{\circ}$ , which is the greatest range of record for the month of October.

## COMPARATIVE DATA FOR THE STATE—OCTOBER

YEAR	Temperature				Precipitation				Number of Days				
	Mean	Departure	Highest	Lowest	Total	Departure	Greatest	Least	Snowfall	With pre. .01 in. or more	Clear	Partly cloudy	Cloudy
1890	49.2	-2.7	86	18	3.48	+1.06	6.82	1.59	-----	7	11	11	9
1891	50.0	-1.9	92	19	2.77	+0.35	6.53	0.85	-----	6	18	7	6
1892	54.5	+2.6	96	34	1.55	-0.87	2.58	0.00	0.0	4	21	6	4
1893	52.4	+0.5	94	10	1.28	-1.14	4.56	0.02	0.0	4	16	9	6
1894	51.7	-0.2	90	20	2.67	+0.25	5.25	0.03	0.2	8	14	8	9
1895	46.0	-5.9	88	4	0.47	-1.95	1.38	0.00	T.	2	19	8	4
1896	47.8	-4.1	88	12	3.13	+0.71	5.05	1.51	T.	5	18	6	7
1897	56.8	+4.9	97	12	1.14	-1.28	3.30	0.03	0.0	4	17	8	6
1898	47.5	-4.4	88	17	3.56	+1.14	5.75	1.27	3.6	8	7	9	15
1899	56.7	+4.8	95	17	1.73	-0.69	4.64	0.15	0.0	5	17	8	6
1900	59.3	+7.4	90	21	3.91	+1.49	8.00	1.20	0.0	7	16	7	8
1901	54.2	+2.3	88	20	1.98	-0.44	4.23	0.45	T.	6	17	7	7
1902	53.5	+1.6	83	20	2.54	+0.12	6.66	0.28	T.	5	16	8	7
1903	52.2	+0.3	90	16	1.95	-0.47	4.50	0.32	0.0	5	19	6	6
1904	58.1	+1.2	96	16	1.67	-0.75	4.43	0.14	T.	6	15	8	8
1905	49.2	-2.7	95	16	3.40	+0.98	5.36	1.20	1.6	8	16	6	9
1906	50.5	-1.4	87	7	1.96	-0.46	4.25	0.50	0.1	6	14	7	10
1907	50.4	-1.5	85	10	1.50	-0.92	3.71	0.30	0.0	5	20	5	6
1908	51.1	-0.8	89	17	3.38	+0.96	8.83	0.58	2.6	8	16	6	9
1909	49.7	-2.2	97	10	2.22	-0.20	4.70	0.48	T.	6	16	6	9
1910	55.2	+3.3	93	10	0.77	-1.65	1.73	T.	0.1	4	21	4	6
1911	48.7	-3.2	87	14	3.34	+0.92	7.03	0.73	0.6	10	12	8	11
1912	52.2	+0.3	92	16	2.98	+0.56	5.77	1.03	T.	6	21	3	7
1913	49.2	-2.7	89	-2	3.03	+0.61	7.29	0.35	1.2	9	15	8	8
1914	55.9	+4.0	88	14	3.23	+0.81	6.64	0.74	T.	9	16	6	9
1915	54.4	+2.5	86	19	1.31	-1.11	3.25	T.	T.	5	19	6	6
1916	50.9	-1.0	92	6	2.00	-0.42	4.33	0.20	2.0	8	16	7	8
1917	42.9	-9.0	85	0	1.41	-1.01	4.00	0.15	2.2	6	10	11	10
1918	55.1	+3.2	93	21	3.64	+1.22	7.56	1.36	0.8	7	13	7	11
1919	50.7	-1.2	89	8	3.02	+0.60	8.65	0.45	T.	10	11	8	12
1920	57.7	+5.8	90	11	2.13	-0.29	4.64	0.48	T.	6	19	6	6
1921	54.6	+2.7	90	21	1.96	-0.46	3.61	0.21	T.	6	17	8	6
1922	56.1	+4.2	96	14	1.81	-0.61	3.93	0.06	T.	5	21	4	6
1923	48.5	-3.4	81	10	1.22	-1.20	3.67	0.29	1.7	6	18	6	7
1924	58.1	+6.2	89	21	0.87	-1.55	2.58	0.03	0.0	4	22	5	4
1925	40.2	-11.7	78	-15	2.91	+0.49	2.70	0.97	4.9	10	8	8	15

T. indicates an amount too small to measure, or less than .005 inch rainfall and less than .05 inch snowfall.

## CLIMATOLOGICAL DATA: IOWA SECTION

October, 1925

Stations	COUNTIES	Climatological Data for October, 1925														Observers			
		Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit						Precipitation, in inches			Number of Days						
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (cumulated)	Precipitation, .01 in. or more	Clear	Partly cloudy	Cloudy	Prevailing direction of wind
<i>Northern Division</i>																			
Algona	Kossuth	1,212	52	38.9	-11.6	62	5	0	29	30	2.16	-0.09	1.09	5.5	5	17	8	6	nw.
Allison (near)	Butler	1,044	13	38.3	-12.4	65	15	-1	28†	32†	2.81	+0.31	0.92	6.0	9	6	7	18	nw.
Alta	Buena Vista	1,513	34	37.7	-12.4	65	1†	2	28	34	1.42	-0.81	0.45	6.0	10	7	10	14	nw.
Alton	Sioux	1,305	20	37.0	-12.8	62	15	-10	30	40	0.97	-0.79	0.60	6.0	8	6	13	12	nw.
Belmond	Wright	1,205	15	38.4	-12.2	65	15	-4	30	32	2.07	-0.65	0.60	7.0	12	2	14	15	nw.
Britt	Hancock	1,236	38	38.2b	-11.5	66c	2	-3	30	35c	1.15	-1.25	0.58	5.0	5	6	8	17	nw.
Charles City	Floyd	1,015	34	37.8	-10.8	63	15	1	30	23	1.98	-0.45	0.58	4.2	16	4	19	19	nw.
Cherokee	Cherokee	1,196	3	36.9	-15	65	15	-5	30	36	1.57	-----	0.70	6.5	8	12	9	10	n.
Decorah	Winneshiek	875	32	37.8	-11.3	67	12	-7	30	39	1.66	-1.16	0.71	7.0	10	6	6	19	nw.
Dubuque	Dubuque	698	52	40.9	-11.0	67	2	10	30	21	2.67	+0.09	0.61	3.9	13	3	4	24	nw.
Estherville	Emmet	1,298	30	36.2	-12.9	65	2	-5	30	35	1.03	-0.88	0.35	4.0	7	7	12	12	nw.
Fayette	Fayette	1,003	37	38.8	-10.8	66	1	-5	30	37	2.63	+0.10	0.73	7.2	11	9	7	15	nw.
Forest City	Winnebago	1,226	31	38.2	-10.9	68	3	-3	30	32	1.51	-0.92	0.47	5.5	10	9	4	18	nw.
Hampton	Franklin	1,145	38	38.4	-13.5	67	1	-1	30	32	2.77	+0.22	1.31	4.0	8	6	11	14	nw.
Humboldt	Humboldt	1,095	37	38.6	-12.7	67	15	-3	30	35	1.77	-0.45	1.03	8.0	5	6	9	16	nw.
Independence	Buchanan	921	61	40.3	-11.8	68	1	2	30	32	3.05	+0.50	1.34	5.3	11	6	8	17	nw.
Inwood	Lyon	1,474	21	36.6	-13.2	64	1†	-15	29	38	1.62	-0.29	0.80	8.0	9	14	7	10	nw.
Lansing	Allamakee	632	18	-----	-----	-----	-----	-----	-----	-----	1.85	-1.05	0.70	3.4	15	-----	-----	-----	-----
Le Mars	Plymouth	1,224	29	37.7	-13.4	64	4†	-7	30	39	1.08	-0.98	0.48	6.0	8	14	6	11	nw.
Mason City	Cerro Gordo	1,148	28	37.2	-12.4	64	15	-4	29†	36	1.85	-0.35	0.50	6.0	10	6	14	11	nw.
Milford (near)	Dickinson	1,430	5	37.2	-----	64	1	-10	29	46	1.48	-----	0.40	6.0	6	4	12	15	nw.
New Hampton	Chickasaw	1,169	28	39.5	-10.7	75	2	0	29	29	1.78	-0.79	0.49	8.1	15	7	9	15	nw.
Nora Springs	Floyd	1,064	13	38.7	-13.2	66	15	-6	30	36	3.12	+0.62	0.60	5.2	14	4	9	18	s.
Northwood	Worth	1,222	29	37.4a	-10.8	62a	17	-2a	30	38b	2.01	-0.63	0.45	8.0	14	4	11	16	nw.
Oelwein	Fayette	1,036	1	39.5	-----	70	1	2	30	27	2.85	-----	0.80	4.0	7	6	7	18	nw.
Osage	Mitchell	1,163	-----	37.4	-----	64	15	-4	30	32	2.38	-----	0.80	8.9	11	6	8	17	nw.
Pocahontas	Pocahontas	1,248	21	38.0	-12.7	65	15	-2	29	36	1.51	-1.22	0.45	6.2	7	12	7	12	nw.
Postville	Clayton	1,180	26	36.8	-12.5	63	2	-7	30	35	4.51	+1.83	0.73	6.6	11	3	5	23	nw.
Rock Rapids	Lyon	1,358	26	37.4	-11.5	61	2†	-10	29	39	1.03	-0.76	0.45	4.8	8	14	8	9	nw.
Sanborn	O'Brien	1,553	11	36.4	-13.0	62	15	-5	29	36	1.15	-0.70	0.70	7.0	7	4	12	12	nw.
Sheldon	O'Brien	1,418	0	37.5	-----	63	15	-9	29	36	1.09	-----	0.39	6.4	8	11	10	10	nw.
Sioux Center	Sioux	1,426	26	36.9	-12.9	63	4†	-2	30	36	1.31	-0.53	0.60	6.0	5	11	4	16	nw.
Spencer	Clay	1,319	11	37.6	-12.6	64	15	-8	29†	39	1.75	-0.17	0.75	7.7	9	7	9	15	nw.
Storm Lake	Buena Vista	1,440	36	39.4	-11.8	65	15	2	29	30	1.05	-0.99	0.40	7.0	7	12	6	13	nw.
Washta	Cherokee	1,157	27	38.5	-12.0	65	15	-13	30	46	1.35	-0.76	0.50	6.0	8	9	8	14	n.
Waterloo	Black Hawk	854	42	40.5	-11.4	70	1	0	30	32	2.49	+0.05	0.90	3.0	9	10	8	13	nw.
Waverly	Bremer	936	29	38.9	-12.2	67	4	-3	30	32	3.14	+0.54	0.98	4.5	12	6	13	12	nw.
West Bend	Palo Alto	1,197	32	37.5	-13.1	64	13†	-5	29	34	1.84	-0.19	0.55	5.0	8	7	8	16	nw.
Means and extremes				38.1	-12.2	75	2	-15	29	46	1.93	-0.39	1.34	5.9	9	8	8	15	nw.
<i>Central Division</i>																			
Ames†	Story	926	48	40.5	-11.2	69	3	-7	30	33	2.81	+0.20	0.98	7.0	11	11	11	9	se.
Audubon	Audubon	1,297	30	39.0	-11.8	74	3	0	28	33	2.82	+0.51	1.07	6.0	7	5	15	11	nw.
Baxter	Jasper	998	25	40.4	-12.0	71	3	-2	30	33	3.15	+0.73	1.90	7.0	9	6	11	14	nw.
Belle Plaine	Benton	866	35	41.0	-10.9	77	1	-2	30	36	3.56	+1.07	1.27	5.5	14	5	10	16	n.
Boone (near)	Boone	1,134	20	39.7	-12.0	71	3	-6	30	39	3.16	+0.37	0.83	5.0	9	7	8	16	se.
Carroll	Carroll	1,265	35	39.8	-11.8	75	3	1	28†	30	3.57	+0.99	1.13	4.5	8	14	5	12	nw.
Cedar Rapids	Linn	737	43	40.2	-13.4	72	3	-2	30	34	4.47	+2.02	2.10	5.0	14	7	1	23	nw.
Clinton	Clinton	595	52	42.3	-10.7	72	2	7	28	31	3.53	+0.97	0.81	1.9	12	6	10	15	w.
Davenport	Scott	580	54	42.6	-11.1	72	2	11	28	33	3.01	+0.71	0.73	1.5	15	6	6	19	nw.
Davenport (No. 2)	Scott	690	43.0	-----	-----	75	2	9	28	29	3.42	-----	0.80	1.2	16	-----	-----	-----	-----
Denison	Crawford	1,171	31	39.6	-12.1	72	3	-1	30	36	2.87	+0.64	1.25	6.0	5	9	9	13	nw.
Des Moines	Polk	861	47	41.6	-11.8	71	3	7	28	32	3.22	+0.66	1.42	4.8	12	5	7	19	n.
Fairport	Muscatine	567	4	43.5	-----	73	3	10	28	25	3.76	-----	1.01	1.5	13	7	7	17	nw.
Fort Dodge	Webster	1,114	25	38.6	-12.7	67	15	-4	30	36	2.00	-1.04	0.83	6.0	12	2	17	nw.	
Grinnell	Poweshiek	1,031	31	41.7	-11.3	73	1	2	28	32	3.99	+0.48	2.33	3.3	11	2	16	13	nw.
Grundy Center	Grundy	976	34	39.4a	-11.7	68a	2	-5a	30	36a	3.24	+0.45	1.00	5.6	15	10	4	17	n.
Guthrie Center	Guthrie	1,077	30	40.3	-12.2	69	3	0	30	34	2.62	-0.04	0.86	7.0	8	10	9	12	n.
Harlan (near)	Shelby	1,192	26	38.0	-13.2	74	3	0	28†	36	3.37	+0.72	1.32	5.0	5	1	29	1	n.
Iowa City	Johnson	733	65	41.1	-11.3	72	3	4	30	32	3.90	+1.16	1.58	3.0	16	8	8	15	nw.
Iowa Falls	Hardin	1,107	32	38.8	-11.9	65	1†	-5	30	33	3.75	+1.29	1.48	5.5	9	3	11	17	nw.
Jefferson	Greene	1,052	26	38.4	-13.0	68	3	-6	30	33	3.18	+0.64	0.95	6.0	8	12	5	14	sw.
Kalo	Webster	-----	-----	-----	-----</td														

## Climatological Data for October, 1925—Continued

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit					Precipitation, in inches			Number of Days			Observers				
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (melted)	Precipitation, .01 in. or more	Clear	Party cloudy	Cloudy	
<i>Southern Division</i>																			
Afton	Union	1,212	31	41.8	-11.5	66	2†	4	28†	32	3.40	+0.82	1.05	4.5	11	12	3	16	nw.
Albia	Monroe	950	27	42.4	-11.1	71	3	5	30	30	4.55	+2.27	1.75	2.3	16	7	4	20	nw.
Atlantic	Cass	1,164	34	40.6	-11.6	66	3	1	30	33	3.00	+0.40	1.15	6.1	15	6	10	15	nw.
Bonaparte	Van Buren	563	34	42.6	-11.1	72	2	-1	30	36	4.94	+3.06	1.79	3.5	12	9	1	21	e.
Burlington	Des Moines	544	29	42.2	-10.7	72	3	10	30	25	5.68	+3.40	1.38	4.0	17	7	7	17	nw.
Centerville	Appanoose	1,013	20	42.7	-11.3	72	2	0	30	32	4.08	+1.87	1.66	3.0	12	6	6	19	nw.
Chariton (near)	Lucas	1,042	30	42.3	-10.5	71	1	0	30	31	4.17	+1.85	2.15	3.0	8	6	12	13	n.
Clarinda	Page	1,009	35	43.5	-10.5	73	3	-1	30	37	2.31	-0.33	0.55	7.0	11	11	16	4	nw.
Columbus Jct.	Louisa	595	24	42.1	-12.2	71	2	6	30	27	3.69	+1.14	1.15	2.1	15	5	17	9	nw.
Corning (near)	Adams	1,117	33	41.7a	-10.7	74a	4	-3a	30	43a	2.59	-0.17	0.70	5.0	9	—	—	—	nw.
Corydon	Wayne	1,101	32	42.7	-11.1	71	1†	-1	30	35	3.52	+0.93	1.19	4.0	13	7	13	11	nw.
Creston	Union	1,312	20	40.2	-12.3	67	3	2	28	30	2.63	-0.15	0.62	0.5	14	10	8	13	nw.
Cumberland (near)	Cass	1,225	26	—	—	—	—	—	—	—	2.51	-0.20	1.16	7.0	11	8	9	14	nw.
Earlham (near)	Madison	1,126	23	40.0	-12.0	68	2†	-5	30	35	3.43	+0.99	1.70	7.0	7	11	4	16	nw.
Fairfield	Jefferson	780	41	42.0	-11.0	72	3	1	30	32	4.27	+1.51	1.67	3.3	14	8	2	21	s.
Glenwood	Mills	1,100	27	42.6	-11.0	68	3†	0	30	34	2.54	-0.14	0.86	4.0	11	5	14	nw.	
Indianola	Warren	972	34	41.2	-12.0	70	3	4	30	29	3.63	+1.27	1.94	3.5	11	9	11	11	nw.
Keokuk	Lee	614	54	44.2	-11.2	75	2	13	30	27	2.56	+0.17	0.75	6.6	13	6	9	16	nw.
Keosauqua	Van Buren	644	33	41.4	-11.8	68	2	1	30	31	4.89	+2.90	1.70	5.5	14	4	10	17	se.
Knoxville	Marion	920	30	41.8	-11.9	71	3	2	30	32	4.68	+2.37	2.58	3.5	11	6	4	21	nw.
Lacona	Warren	824	26	—	—	—	—	—	—	—	3.07	+0.36	1.07	4.0	16	7	14	10	—
Lamoni	Decatur	1,123	18	41.2	-12.3	70	2	-1	30	32	3.34	+0.41	1.01	6.6	13	9	11	11	nw.
Lenox	Taylor	1,250	30	41.1	-12.1	71	2	1	30	35	2.79	+0.07	0.64	3.3	11	9	7	15	nw.
Mt. Ayr	Ringgold	1,245	32	41.6	-12.0	71	2	0	30	36	2.69	+0.17	0.45	4.0	12	13	3	15	nw.
Mt. Pleasant	Ellery	729	44	42.7	-11.3	73	2	9	28†	27	3.91	+1.51	1.49	1.5	11	7	5	19	nw.
Oakland	Pottawattamie	1,105	6	41.6a	-10.7	68a	1	-2a	30	37a	2.72	—	0.98	5.0	10	13	0	18	n.
Oskaloosa	Mahaska	835	49	41.6	-11.2	69	2†	3	30	30	4.86	+2.61	2.70	3.0	13	8	3	20	nw.
Ottumwa	Wapello	649	30	44.5	—	72	1†	5	30	33	4.45	+2.07	2.06	1.8	15	7	7	17	nw.
Red Oak (near)	Montgomery	1,030	29	41.4	-11.6	69	3	4	30	31	1.99	—	0.70	5.0	6	7	13	11	s.
Sigourney (near)	Keokuk	790	29	41.4	-11.6	69	3	4	30	31	3.06	+1.44	1.59	2.7	11	8	4	19	nw.
Stockport	Van Buren	747	23	42.3	-10.1	78	2	0	30	34	4.59	+2.53	1.81	3.0	13	7	3	21	n.
Thurman	Fremont	975	28	42.4	-10.4	72	3	-5	30	43	2.49	-0.45	0.82	6.0	7	9	9	13	nw.
Tingley	Ringgold	1,275	31	41.8	—	71	2†	0	30	32	2.78	—	0.62	4.3	10	11	6	14	nw.
Washington	Washington	769	43	42.6	-10.7	72	2†	6	30	33	4.72	+2.52	1.83	2.0	12	6	0	25	ne.
Wescott (near)	Lee	523	3	44.4	—	75	2	2	30	34	3.15	—	1.60	4.0	5	8	11	12	w.
Winterset	Madison	1,129	34	41.4	-12.2	68	3	3	28	30	3.34	+0.97	1.75	5.0	7	11	5	15	nw.
Omaha, Nebr.	—	1,103	54	42.6	-11.7	68	15	8	28	26	2.11	-0.24	0.79	5.5	14	12	3	16	nw.
Means and extremes	—	—	—	42.2	-11.2	78	2	-5	30	43	3.49	+1.03	2.70	4.1	12	8	7	16	nw.
State means and extremes	—	—	—	40.2	-11.7	78	2	-15	29	46	2.91	+0.49	2.70	4.9	10	8	8	15	nw.

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete records are used in determining means.

Reference letters a, b, c, etc., appearing in the table indicate the number of days missing; for example b represents two days, etc.

†Also other dates.

‡Received too late to be included in means and summaries.

T. Precipitation is less than 0.01 inch rain or melted snow.

## PRESSURE, RELATIVE HUMIDITY, WIND AND SUNSHINE

Stations	Barometric Pressure, Inches (Sea Level)					Relative Humidity, %			Wind			Sunshine			Observers				
	Mean	Highest	Date	Lowest	Date	7 a. m.	12 Noon†	7 p. m.	Date	Total movement	Average hourly velocity	Maximum	Miles	From	Date				
Charles City	30.08	30.52	9	29.70	26	88	66	77	33	+15	4,695	6.3	21	sw	10	30	-29		
Davenport	30.06	30.52	29	29.61	26	87	70	74	34	20	4,564	6.1	24	nw	19	34	-26		
Des Moines	30.07	30.55	9	29.65	26	85	61	66	34	20	5,066	6.5	22	sw	†10	35	-28		
Dubuque	30.04	30.52	29	29.64	25	85	66	70	33	17	4,284	5.8	21	nw	26	24	-31		
Keokuk	30.09	30.56	29	29.68	21	85	64	72	34	20	4,744	6.4	29	nw	29	39	-22		
Sioux City	30.11	30.62	28	29.58	25	80	58	64	31	20	8,610	11.6	40	s	10	44	-18		
Omaha, Neb.	30.09	30.56	28	29.62	25	80	64	66	35	20	6,414	8.6	32	nw	†18	48	-14		
Means and extremes	30.08	—	—	—	—	84	64	70	—	—	—	7.5	—	—	—	—	36	-24	
Normals and records	30.03	30.62	28	29.58	25	—	—	—	31	20	—	40	s	10	—	—	—	—	
						31 <sup>st</sup>	20 <sup>th</sup>	S1	62	25 <sup>th</sup>	—	8.1	—	sw	16 <sup>th</sup>	60	—	—	
						31 <sup>st</sup>	1876	—	117	1895	—	*60	—	sw	1880	—	—	—	

\*Davenport. §Omaha. ¶Sioux City. †Local mean time. ‡And other dates.

## PRECIPITATION

The average precipitation for the State, as shown by the records of 114 stations, was 2.91 inches, or 0.49 inch more than the normal. By divisions, the averages were as follows: Northern, 1.93 inches, or 0.39 inch less than the normal; Central, 3.31 inches, or 0.83 inch more than the normal; Southern, 3.49 inches, or 1.03 inches more than the normal. The greatest amount, 5.68 inches, occurred at Burlington, and the least, 0.97 inch, occurred at Alton. The greatest amount in any 24 consecutive hours, 2.70 inches, occurred at Oskaloosa, on the 3d.

## SNOWFALL

The average snowfall for the State was 4.9 inches, or 4.3 inches more than the normal. This is by far the greatest snow fall of record for the State. Most of the snow occurred during a general storm on the 27th but numerous light falls occurred over the northern half of the State beginning during the first part of the 2d week. The northern and portions of the central and southern divisions were mostly snow covered at the close of the month.

## Daily Precipitation for October, 1925

Stations	Drainage Basin	Day of Month																																
		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	Totals	
<i>Northern Division</i>																																		
Algona	Des Moines	.60																																2.16
Allison (near)	Cedar	.92	.67	.07	T.	.01	T.	T.																									2.81	
Alta	Raccoon	.32	.27																														1.42	
Alton	Floyd	.03	.14	T.																													0.07	
Belmond	Iowa	.41	.40	T.																													2.07	
Britt	Iowa	.05	.34	.03																													1.15	
Charles City***	Cedar	.03	.42	.25	.02	.05																											1.98	
Cherokee	Little Sioux	.20	.29	T.	T.	.02	.11	T.																									1.57	
Decorah	Mississippi	.35	.10																														1.66	
Dubuque***	Mississippi	T.	.45	.34	T.	.04	T.	T.	.34	.20																						2.67		
Estherville	Des Moines	.10	.20																															
Fayette	Mississippi	.05	.58	.41	.06																												1.03	
Forest City	Cedar	.10	.47	T.																													2.63	
Hampton	Cedar	1.31	.65	.01	T.																												1.51	
Humboldt	Des Moines	1.03	.18	T.																													2.77	
Independence	Wapsipinicon	.08	.27	1.34	.04																												3.05	
Inwood	Big Sioux	.06	.02																														1.62	
Lansing	Mississippi	.03	.15	.02	.18																												1.85	
Le Mars	Floyd	.24	T.	.02																													1.08	
Mason City	Cedar	.19	.29	.19	T.	T.	.10	T.																									1.85	
Milford (near)	Little Sioux	.08	.16																														1.48	
New Hampton	Wapsipinicon	.01	.18	.37	.04	.03																										1.78		
Nora Springs	Cedar	.38	.51	.12																													3.12	
Northwood	Cedar	.15	.28	.25	T.																												2.01	
Oelwein	Wapsipinicon	.80	.70	.10																													2.85	
Osage	Cedar	T.	.20	.33	.18	T.																											2.38	
Pocahontas	Des Moines	.28	.45	T.																													1.51	
Postville	Mississippi	.34	.45	.14	T.	.65																											4.51	
Rock Rapids	Big Sioux	.03																															1.03	
Sanborn	Floyd	.13																															1.15	
Sheldon	Floyd	T.	.05	.10	T.																												1.09	
Sioux Center	Floyd	T.	T.	.22																													1.31	
Spencer	Little Sioux	.15	.22	.02																													1.75	
Storm Lake	Raccoon	.40	.14	T.																													1.05	
Washta	Little Sioux	.17	.11	.02	.20	.11																											1.35	
Waterloo	Cedar	.02	.47	.90	T.	.03																											2.49	
Waverly	Cedar	.03	.98	.70	.06																													3.14
West Bend	Des Moines	.55	.22	.03																														1.84
<i>Central Division</i>																																		
Ames	Skunk	.01	.18	.80	.03	.82																											2.81	
Audubon	Nishnabotna	.02	.06	1.07																													2.82	
Baxter	Skunk	.08	.03	1.90																													3.15	
Belle Plaine	Iowa	.14	.03	1.27																													3.56	
Boone	Des Moines	.61	.20	.55	T.	.88	.05																									3.16		
Carroll	Raccoon	.02	.86	1.13																													3.57	
Cedar Rapids	Cedar	.33	.07	2.10	T.	.03	.45																									4.47		
Clinton	Mississippi	.06	.81																														3.53	
Davenport***	Mississippi	.16	.53	T.	.01	.39																										3.01		
Davenport (No. 2)	Mississippi	.01	.80	.01	.05	.45																										3.42		
Denison	Missouri	.16	1.09	T.	.08	T.																										2.87		
Des Moines***	Des Moines	.03	1.10	.36	T.	T.	.76	.05	T.	.09	T.	.17	T.	.05	T.	.01	T.		T.		T.		.09	T.	.03	.48	T.		3.22					
Fairport	Mississippi	.01	.91																													3.76		
Ft. Dodge	Des Moines	.07	.34	.83	.03	.01	T.																									2.00		
Grinnell	Iowa	.06		2.38	T.																											3.99		
Grundy Center	Cedar	.08	.55	1.00	.09	T.	.29	T.	.02	.02																					3.24			
Guthrie Center	Raccoon	.15	.66	T.	.86	T.	.06																									2.62		
Harlan	Nishnabotna																																	

## Daily Precipitation for October, 1925—Continued

Stations	Drainage Basin	Day of Month																														Totals
		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
<i>Southern Division</i>																																
Afton.....	Grand.....	T. .41	.05 1.75	1.05 .01	T. .46	.70 .....	T. .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.40
Albia   .....	Des Moines.....	.....	.22	1.15	.....	.03	.49	.....	.01	.....	.07	T. .....	.16	.11	T. .....	.....	.....	.....	.....	.....	.....	.....	T. .....	.14	.43	.01	.10	.09	T. .....	.05	4.55	
Atlantic.....	Nishnabotna.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	T. .....	.17	.11	T. .....	.....	.....	.....	.....	.....	.....	.....	T. .....	.07	.01	.01	.06	.50	.....	.10	3.00	
Bonaparte.....	Des Moines.....	.....	.....	1.79	T. .....	.43	.....	T. .....	.....	T. .....	.13	.75	.....	.54	.30	T. .....	.....	.....	.....	.....	.....	.....	T. .....	.21	.27	.07	.10	.15	T. .....	.20	4.94	
Burlington   .....	Mississippi.....	1.62	1.88	.....	.01	.53	.....	T. .....	.....	T. .....	.06	T. .....	.09	.51	.....	.20	.35	.02	.....	.....	.....	T. .....	.15	.22	.04	.10	.10	T. .....	.08	.22	5.68	
Centerville.....	Chariton.....	.....	.02	T. .....	1.66	T. .....	.32	.....	T. .....	.....	T. .....	.09	.15	.59	.....	.17	.02	T. .....	.....	.....	.....	T. .....	T. .....	.35	.10	.....	.10	.25	.....	.....	4.08	
Chariton (near).....	Chariton.....	.....	T. .....	.21	1.5	T. .....	.44	.....	.....	.....	.....	.32	T. .....	.42	.....	.10	T. .....	.....	.....	.....	.....	T. .....	T. .....	.44	.....	T. .....	.11	.....	.19	4.17		
Clarinda.....	Nodaway.....	.....	.....	.08	.41	.....	.46	.....	.....	.....	.....	.03	.10	.....	.06	.02	.....	.....	.....	.....	.....	.....	.....	.42	.13	.....	.10	.....	.50	2.31		
Columbus Jet.....	Iowa.....	.....	.....	1.15	.01	.51	.....	.....	.....	.....	.....	.07	.11	.....	.09	.34	.....	.25	.43	.....	.....	.....	.....	.03	.08	.14	.....	.20	.01	3.69		
Corning.....	Nodaway.....	.....	.....	.40	.....	.70	.....	.....	.....	.....	.....	.10	.....	.11	.20	.....	.....	.....	.....	.....	.....	.....	.....	.50	.08	.....	.30	.....	.20	2.59		
Corydon.....	Chariton.....	.....	.03	T. .....	1.19	.....	.46	.....	.....	.....	.....	.08	.02	.07	.53	.....	.18	.11	.....	.....	.....	.....	T. .....	.42	.38	.....	.02	.08	.....	.....	3.52	
Creston   .....	Missouri.....	.....	.10	.05	.55	.....	.62	.....	.05	.....	.....	.13	.15	.35	.....	.08	.10	T. .....	.....	.....	.....	T. .....	.....	.35	.05	.....	.03	.02	.....	.....	2.63	
Cumberland (near).....	Nodaway.....	.....	.02	.06	1.16	T. .....	.47	.....	.06	.....	.....	.02	T. .....	.18	.....	T. .....	.....	.....	.....	.....	.....	T. .....	.15	T. .....	.14	.20	.....	.05	.....	.....	2.51	
Earlham.....	Des Moines.....	.....	.03	T. .....	1.70	.01	T. .....	.60	.....	T. .....	.....	.....	T. .....	.39	.....	T. .....	.....	.....	.....	.....	T. .....	T. .....	T. .....	.60	.....	.10	.....	.....	3.43			
Fairfield.....	Skunk.....	.....	1.67	.....	.....	.57	.02	.....	T. .....	.....	.10	.01	.12	.45	.....	.20	.30	.....	.....	.....	T. .....	.....	.06	.36	.06	.....	.30	.....	4.27			
Glenwood.....	Missouri.....	.....	.08	.12	.02	.....	.86	.....	.....	.....	.....	.08	.10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.60	.18	.....	.10	.....	.....	.....	2.54		
Indianola.....	Des Moines.....	.....	.10	.02	1.94	.....	T. .....	.59	.....	.03	.....	.23	.....	.27	T. .....	.05	.....	.....	.....	.....	.....	T. .....	.05	T. .....	.....	.30	.....	.05	.....	.....	3.63	
Keokuk***.....	Mississippi.....	.....	T. .....	.21	.54	T. .....	.41	.....	T. .....	.....	.01	.14	.04	.19	.21	.01	T. .....	.....	T. .....	.....	T. .....	.....	.17	.....	.12	.39	T. .....	.21	.....	.....	2.56	
Keesauqua.....	Des Moines.....	.....	.....	1.70	.....	.41	.....	.....	.....	.....	.04	.08	.07	.72	.38	.37	T. .....	.....	.....	.....	T. .....	.....	.21	.25	.01	.10	.35	T. .....	.20	T. .....	4.89	
Knoxville.....	Des Moines.....	.....	T. .....	2.58	.....	T. .....	.58	.....	T. .....	.04	T. .....	.28	T. .....	.36	T. .....	.10	.15	.....	.10	.30	.....	.05	.....	4.68								
Lacona.....	Des Moines.....	.....	.01	.01	1.07	.....	.01	.55	.....	.02	.....	.12	.05	.26	.....	.04	.25	.....	.....	.....	.....	.06	.14	.....	.08	.30	.....	.10	.....	3.07		
Lamoni   .....	Grand.....	.....	.16	.12	.89	.....	.35	.....	.....	.....	.03	.15	.03	.67	.08	.....	.....	.....	.....	.....	.....	.....	.29	.18	.....	.15	.....	.24	.....	3.34		
Lenox.....	Missouri.....	.....	.....	.16	.45	.....	.64	.....	.....	.....	.10	.07	T. .....	.34	.....	.10	.....	.....	.....	.....	.....	.....	.45	.18	.....	.15	.....	.15	.....	2.79		
Mt. Ayr.....	Grand.....	.....	.02	.16	.44	.....	.38	.....	.....	.....	T. .....	.14	T. .....	.45	.....	.03	.05	T. .....	.....	.....	.....	T. .....	.....	.38	.19	.....	.15	.30	.....	.30	2.69	
Mt. Pleasant.....	Skunk.....	.....	.02	1.49	.02	T. .....	.62	.....	T. .....	.....	.08	.....	.68	.....	.44	T. .....	.....	.....	.....	.....	.....	T. .....	.....	.02	.35	.....	.13	.....	.06	.....	3.91	
Oakland.....	Nishnabotna.....	.....	.....	.16	.98	.08	.13	.63	T. .....	T. .....	.06	.....	.06	.....	T. .....	.....	.....	.....	.....	.....	.....	.12	.31	.06	.15	.20	T. .....	.08	.....	4.59		
Oskaloosa.....	Des Moines.....	.....	.....	2.70	T. .....	.65	.....	.03	.....	.....	.28	.....	.05	.25	.05	.03	T. .....	.....	T. .....	.....	T. .....	.....	.32	.02	.22	.24	T. .....	.02	.....	4.86		
Ottumwa.....	Des Moines.....	.....	.....	2.06	.....	T. .....	.50	.....	.03	.....	.21	.05	.07	.51	.15	.14	T. .....	.....	T. .....	.....	T. .....	.....	.03	.41	.01	.08	.12	T. .....	.08	.....	4.45	
Red Oak (near).....	Missouri.....	.....	T. .....	T. .....	T. .....	.49	.....	.....	.....	.....	T. .....	T. .....	.30	.....	.....	.....	.....	.....	.....	.....	.....	.70	.....	.20	.10	.....	T. .....	.19	.....	2.78		
Sligourney.....	Skunk.....	.....	.....	1.59	.....	T. .....	.65	.....	T. .....	.....	.20	T. .....	.05	.28	.13	.10	T. .....	.....	T. .....	.....	T. .....	.....	.28	T. .....	.16	.23	.....	.02	.....	3.69		
Stockport.....	Skunk.....	.....	.....	1.81	.....	T. .....	.56	.....	T. .....	.....	.09	T. .....	T. .....	.60	.....	.21	.38	.02	T. .....	T. .....	T. .....	.....	.12	.31	.06	.15	.20	T. .....	.08	.....	4.59	
Thurman.....	Missouri.....	.....	.38	.....	.82	.....	T. .....	.....	.....	.....	T. .....	.21	.....	T. .....	.....	.....	.....	.....	.....	.....	.....	.38	.24	.....	.12	.....	.34	.....	2.49			
Tingley.....	Platt.....	.....	.62	.....	.59	.....	.....	.....	.....	.....	.....	.02	T. .....	.48	.....	.02	.07	.....	.....	.....	.....	.....	.48	.20	.....	.14	.....	.16	.....	2.78		
Washington.....	Skunk.....	.....	1.83	T. .....	.95	.....	.10	.....	.....	.....	.02	T. .....	.06	.62	.20	.11	.....	.....	T. .....	.....	.....	.....	.35	.12	.06	.30	T. .....	.47	.....	4.72		
Wescott (near).....	Mississippi.....	.....	1.60	.....	.40	.....	.....	.....	.....	.....	.....	.....	.60	.....	.....	.....	.....	.....	.....	.....	.....	.....	.15	.....	.40	.....	.....	3.15				
Winterset.....	Des Moines.....	.....	1.13	1.75	T. .....	.52	.....	.....	.....	.....	.15	.....	.28	.....	.....	.....	.....	.....	.....	.....	.....	.06	.....	.45	.....	.....	.....	3.34				
Omaha, Neb.***.....	Missouri.....	.....	.01	.04	.76	T. .....	.01	.38	.....	.02	.....	.08	T. .....	.07	.05	T. .....	.....	.....	.....	.....	.....	.17	.01	.10	.....	.31	.....	.10	.....	2.11		

Except as otherwise indicated, observations are generally made late in the afternoon, near sunset, and precipitation recorded is for 24 hours ending at the time of observation.

|||Precipitation measured in the morning; amount then recorded is for the preceding 24 hours.

\*\*\*Regular Weather Bureau Station; precipitation is for 24-hour period, midnight to midnight.

\*\*Incomplete.

\*Precipitation included in the next following measurement.

T. Precipitation is less than .01 inch rain or melted snow.

¶Average of measurements at Marshalltown, Toledo, Iowa Falls, Waterloo and Allison.

||||Precipitation entered on the first day of the month is for a 36-hour period ending at 7:00 p. m. October 1.

## MISCELLANEOUS PHENOMENA

Aurora: 21st.

Fog: 2d, 3d, 4th, 13th, 14th, 22d, 30th.

Frost: (light) 5th; (heavy) 7th; (killing) 7th, 9th, 10th.

Hail: 3d, 7th.

Halos: (lunar and solar): 5th, 14th, 28th.

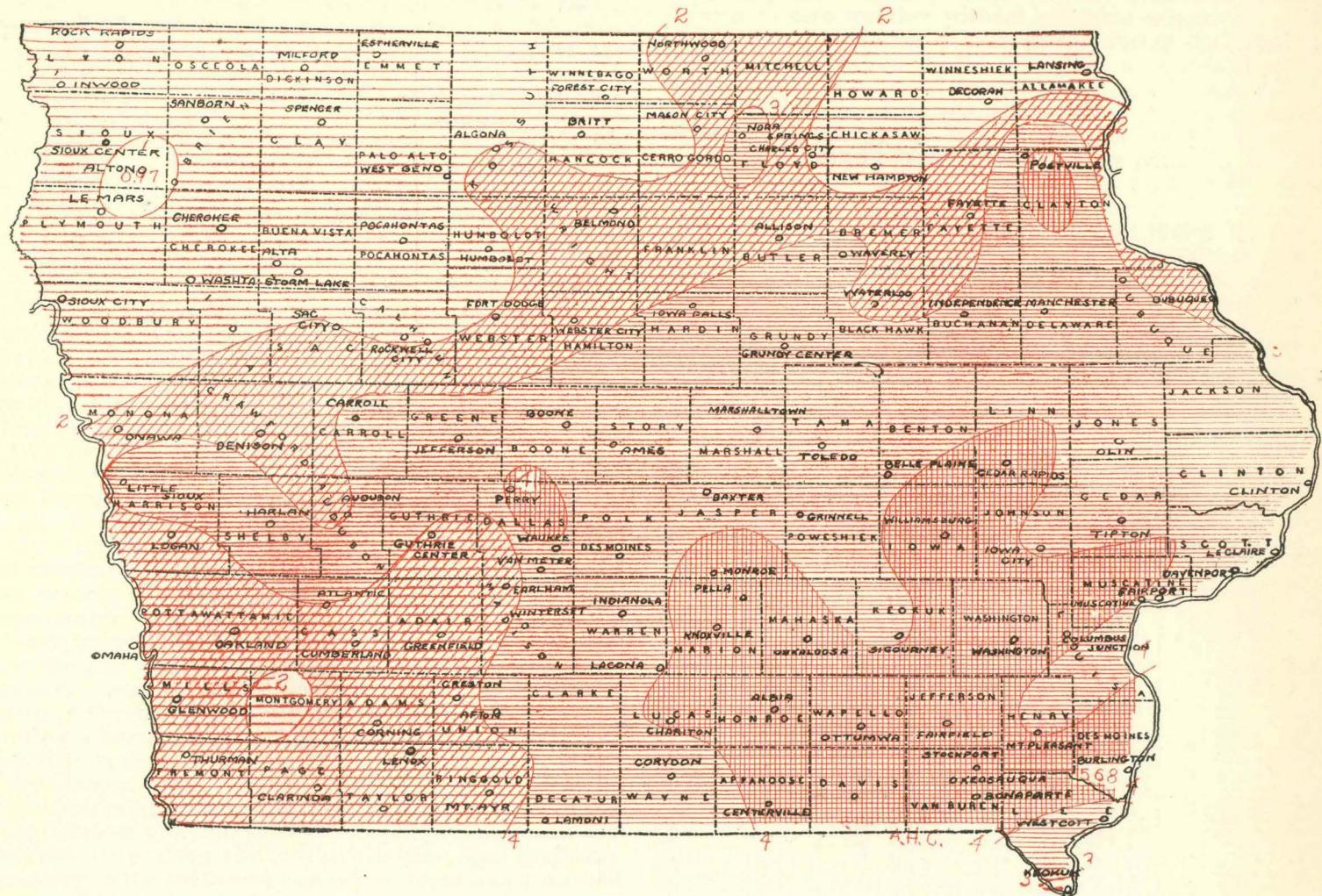
Sleet: 6th, 7th, 9th, 18th, 22d, 25th, 26th.

Thunderstorms: 1st, 2d, 3d, 4th, 14th, 15th, 16th.

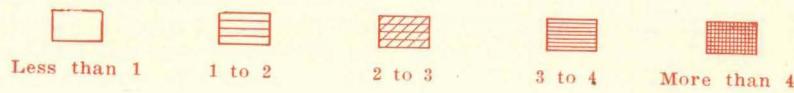
## Daily Maximum and Minimum Temperature for the Month of October, 1925

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	Mean
<i>Northern Division</i>																																	
Algona	(Maximum)	59	58	59	59	62	60	60	60	47	60	54	60	55	61	56	40	41	45	46	46	40	40	40	40	27	22	23	27	39	47.9		
	(Minimum)	43	50	45	46	39	34	34	30	24	41	41	35	42	33	36	31	27	23	25	26	33	33	27	25	16	9	0	3	9	29.9		
Alta	(Maximum)	65	60	57	61	57	51	44	42	41	50	60	51	57	48	65	47	50	40	42	46	50	62	42	41	38	24	19	24	31	42	46.5	
	(Minimum)	43	49	50	47	40	32	35	33	27	24	40	41	35	35	31	31	25	28	26	22	29	34	30	25	20	7	2	2	4	22	28.9	
Alton	(Maximum)	59	59	60	59	53	45	43	40	51	59	53	58	50	62	52	47	41	40	45	51	60	49	36	44	40	25	17	21	30	39	346.5	
	(Minimum)	40	50	50	46	35	34	37	34	27	22	40	42	29	37	27	34	20	29	26	15	23	25	33	18	23	10	3	-5	10	23	27.5	
Belmond	(Maximum)	63	59	61	60	53	42	45	42	49	62	54	61	58	65	46	50	40	43	48	45	39	39	40	41	38	30	26	23	0	-3	18	29.7
	(Minimum)	45	51	54	46	38	36	31	37	31	24	41	43	42	44	33	31	22	29	26	23	33	30	27	30	21	26	26	23	0	1	19	30.4
Charles City	(Maximum)	63	58	61	57	59	52	43	44	41	47	59	56	60	53	63	44	49	40	38	42	44	34	39	44	27	23	24	29	39	45.3		
	(Minimum)	49	51	55	40	38	33	32	37	28	23	42	44	45	35	30	24	31	28	26	24	23	34	32	25	25	13	9	2	1	19	30.4	
Decorah	(Maximum)	62	64	61	61	58	51	53	54	41	41	56	67	60	53	61	52	49	45	43	40	44	34	43	38	44	44	34	25	24	26	36	47.2
	(Minimum)	48	46	51	52	30	28	35	36	29	19	37	42	44	44	35	31	19	28	27	25	18	17	29	30	24	21	16	11	-4	7	16	28.3
Dubuque	(Maximum)	66	67	64	59	59	53	49	49	43	46	51	56	61	57	60	48	50	43	37	43	35	47	44	46	40	29	26	30	31	41	47.3	
	(Minimum)	55	53	58	47	42	39	35	40	32	28	41	48	48	43	44	38	31	31	29	27	24	33	36	34	26	28	39	34	35	24.5		
Forest City	(Maximum)	60	55	68	58	63	54	43	41	39	48	62	57	64	55	64	53	52	43	45	43	39	39	38	40	37	28	25	26	30	46.8		
	(Minimum)	43	46	52	48	38	33	32	36	30	21	38	40	41	43	32	34	22	27	27	22	25	32	32	26	25	18	5	-1	-3	19	29.6	
Independence	(Maximum)	68	67	65	65	60	58	47	47	43	48	54	59	57	64	62	58	48	38	44	41	46	44	29	27	24	29	40	49.0				
	(Minimum)	52	51	56	51	39	37	32	40	34	24	40	45	43	45	36	36	26	25	27	21	23	24	28	25	21	5	4	2	14	31.6		
Inwood	(Maximum)	64	63	59	56	54	44	44	45	53	64	52	51	64	47	49	48	39	47	56	61	45	37	44	40	24	17	23	31	41	47.6		
	(Minimum)	39	45	49	42	38	34	36	24	25	33	28	29	31	31	30	24	24	26	26	30	31	32	23	22	-7	-2	-15	-5	10	25.7		
Mason City	(Maximum)	61	57	59	57	62	54	42	43	38	59	60	54	64	50	50	39	38	40	43	36	53	37	39	35	27	20	21	29	41	46.0		
	(Minimum)	45	49	53	46	35	32	29	37	31	23	41	41	36	43	34	32	23	27	23	21	23	22	24	16	5	-4	-4	8	28.5			
Milford (near)	(Maximum)	64	59	60	58	58	55	45	46	44	45	48	50	52	58	61	53	45	39	41	40	46	55	50	36	42	42	28	19	23	27	39	46.6
	(Minimum)	48	44	45	50	46	40	38	36	30	20	45	32	46	24	15	30	20	30	29	15	32	30	34	25	11	0	-10	-7	18	27.8		
New Hampton	(Maximum)	66	75	62	66	58	52	43	53	44	48	58	57	63	59	50	45	37	43	44	45	42	39	39	34	30	24	25	29	37	48.2		
	(Minimum)	52	49	53	48	36	34	32	38	23	29	39	43	46	49	34	33	23	24	22	22	29	31	32	24	22	20	10	0	3	17	30.8	
Northwood	(Maximum)	60	57	61	51	52	44	42	43	38	48	59	58	60	52	61	62	58	39	40	45	37	37	42	35	30	20	22	27	37.5			
	(Minimum)	60	57	61	52	40	42	42	43	38	21	25	39	40	38	41	32	24	27	25	23	24	31	29	20	10	3	-2	18	29.6			
Pocahontas	(Maximum)	65	48	52	44	37	34	33	36	31	25	39	40	38	41	32	24	27	25	23	24	31	29	24	25	22	26	30	40	47.2			
	(Minimum)	45	48	52	44	37	34	33	36	31	25	39	40	38	41	32	24	27	25	23	24	31	29	24	25	22	26	30	40	47.2			
Postville	(Maximum)	62	63	59	57	57	53	40	46	42	47	54	56	61	51	57	50	51	44	45	43	39	40	37	44	38	28	24	25	28	39	45.4	
	(Minimum)	49	47	40	45	35	34	29	36	28	18	40	42	44	42	45	33	20	26	24	21	17	29	28	34	20	14	7	-2	-7	19	28.3	
<i>Central Division</i>																																	
Belle Plaine	(Maximum)	77	68	70	65	60	54	55	50	47	53	56	59	60	60	66	50	44	43	40	53	44	51	43	35	30	26	34	45	51.2			
	(Minimum)	58	53	55	49	38	37	32	40	34	23	41	41	42	40	37	24	31	27	21	24	25	35	35	30	27	17	1	0	1	5	30.8	
Boone	(Maximum)	67	65	71	65	60	54	59	50	44	47	51	60	60	62	58	66	54	53	47	45	49	51	48	46	40	45	46	26	31	42	50.1	
	(Minimum)	48	54	58	35	35	37	30	37	32	21	42	47	38	46	27	35	21	22	25	21	25	37	34	35	30	22	27	23	29	30	29.3	
Carroll	(Maximum)	66	63	75	64	57	52	46	45	49	52	52	68	63	57	62	53	44	46	49	54	55	50	53	38	44	42	27	23	29	41.9		
	(Minimum)	46	52	55	48	39	33	30	34	28	24	40	44	40	41	32	33	24	26	22	25	26	23	25	26	23	21	2	1	1	19	29.8	
Cedar Rapids	(Maximum)	71	68	72	69	66	58	61	60	50	49	60	64	63	59	63	50	57	40	48	45	44	48	45	44	44	32	30	40	45.1			
	(Minimum)	51	51	52	38	33	33	33	38	32	24	40	47	43	48	32	37	25	26	23	24	25	23	24	25	23	21	2	1	1	1	19	29.8
Davenport	(Maximum)	66	72	69	61	60	54	56	54	43	50	53	59	57	55	57	50	52	40	41	46	43	40	39	46	32	33	29	21	32	43.6		
	(Minimum)	59	56	61	44	37	31	32	38	33	24</																						

## TOTAL PRECIPITATION, OCTOBER, 1925



Scale of shades in inches



U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.  
CHARLES F. MARVIN, Chief.

# CLIMATOLOGICAL DATA.

IOWA SECTION

In co-operation with

IOWA WEATHER AND CROP BUREAU

CHARLES D. REED, Meteorologist

VOL. XXXVI DES MOINES, Iowa, NOVEMBER, 1925 No. 11

GENERAL SUMMARY

Following the coldest October of record, nearly normal temperature prevailed during November but there was a decided deficiency in precipitation over each division of the State. There were numerous fluctuations in temperature so that there were neither protracted periods of warm or cold weather. The coldest weather prevailed generally on the 7th and 8th, and another cool period occurred during the last week. The warmest period occurred during the third week and another rather warm spell occurred in the second week. Zero weather occurred in each division but a rather singular situation prevailed in that only one station in the northern division reported as low as zero, while six stations in the central division and seven in the southern reported zero or lower.

Conditions were favorable for all out door work, except for short periods following the heavy falls of snow over the eastern and most of the southern divisions on the 7th and the last week of the month. Corn husking which had made very poor progress was pushed rapidly after the first week, and with sunshine considerably above normal and very little precipitation during the rest of the month, only about 15 per cent was still in the fields at the end of the month. Building operations were carried on during most of the month with little interruption but road construction was interrupted by hard freezing weather and was carried on under difficulties and some construction had to be suspended. Plowing, which had been suspended because of frozen soil in October, was resumed when frost left the ground before the middle of November.

There was a decided deficiency in precipitation, and only two stations in the entire State showed an excess. Most of the precipitation was snow, which occurred in two principal storms. The first storm, in the last part of the first week, occurred mostly south of a line running from Mills to Clayton counties, and the other, during the last week, occurred north of a line running from Des Moines to Plymouth counties, leaving a large area in the west-central portion of the state with practically no snow. There is still a shortage of water in portions of the western half of the State, where the drouth had been only partially relieved, and additional wells failed during the month.

Rather strong winds occurred on the 21st and 22nd that blew down some corn and frail buildings and, also, caused some drifting of soil, but the month was generally free from damaging storms and what drifting snow occurred was not sufficient to interrupt railway traffic and caused only slight inconvenience to motor travel.

Because of the unfavorable fall, considerable acreage intended for winter wheat could not be seeded, and considerable late seeded wheat failed to germinate or made little showing above ground. In general, the crop did not enter the winter in resistant condition.

TEMPERATURE

The mean temperature for the State, as shown by the records of 106 stations, was 36.1°, or 0.5° lower than the normal. By divisions, approximately three tiers to the division, the means were as follows: Northern, 34.3°, or 0.1° lower than the normal; Central, 36.4°, or 0.3° lower than the normal; Southern, 37.7°, or 1.0° lower than the normal. The highest monthly mean was 39.6°, at Keokuk, and the lowest was 32.6°, at Northwood. The highest temperature reported was 68°, at Little Sioux on the 20th and Tipton on the 21st, and the lowest was —6 at Thurman and Williamsburg on the 8th. The temperature range for the State was 74°.

PRECIPITATION

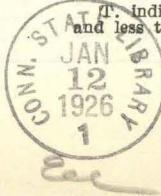
The average precipitation for the State, as shown by the records of 110 stations, was 0.71 inch, or 0.85 inch less than the normal. By divisions, the average were as follows: Northern, 0.86 inch, or 0.66 inch less than the normal; Central, 0.65 inch, or 0.93 inch less than the normal; Southern, 0.62 inch, or 0.95 inch less than the normal. The greatest amount, 2.30 inches, occurred at Maquoketa, and the least, 0.10 inch occurred at Logan. The greatest amount in any 24 consecutive hours, 1.26 inches, occurred at Decorah on the 4th.

COMPARATIVE DATA FOR THE STATE—NOVEMBER

YEAR	Temperature				Precipitation				Number of Days				
	Mean	Departure	Highest	Lowest	Total	Departure	Greatest	Least	Snowfall	With pre. in. or more than .01	Clear	Partly cloudy	Cloudy
1890	38.6	+2.0	78	-2	1.46	-0.10	3.55	0.71	-----	3	15	8	7
1891	30.5	-6.1	84	-24	1.70	+0.14	3.04	0.66	-----	7	10	8	12
1892	33.3	-3.3	70	-3	1.10	-0.46	3.16	0.05	1.8	4	11	8	11
1893	34.0	-2.6	86	-13	1.17	-0.39	2.56	0.05	4.6	4	16	8	6
1894	32.7	-3.9	72	-5	0.92	-0.64	2.42	T.	0.4	4	9	11	10
1895	34.3	-2.3	86	-12	1.51	-0.05	3.01	0.45	4.9	6	9	8	13
1896	29.6	-7.0	82	-15	1.83	+0.27	4.51	0.16	2.9	6	9	8	13
1897	34.3	-2.3	81	-19	0.66	-0.90	2.24	T.	1.2	5	12	8	10
1898	32.2	-4.4	78	-17	1.50	-0.06	3.61	0.33	8.7	6	14	8	8
1899	43.9	+7.3	86	8	1.20	-0.36	2.97	0.13	0.5	5	12	8	10
1900	33.5	-3.1	79	-6	1.06	-0.50	3.35	T.	3.7	6	12	7	11
1901	35.8	-0.8	77	2	0.86	-0.70	2.30	0.20	2.6	3	18	6	6
1902	41.2	-4.6	79	4	2.13	+0.57	4.19	0.16	1.8	7	9	7	14
1903	34.2	-2.4	76	-5	0.52	-1.04	1.74	T.	1.1	3	13	8	9
1904	41.0	+4.4	80	4	5.15	-1.41	0.50	0.00	0.5	1	20	6	4
1905	38.4	+1.8	70	-12	2.84	+1.28	5.30	0.90	0.6	5	16	7	7
1906	35.4	-1.2	76	-5	2.03	+0.47	3.86	0.35	4.4	8	9	7	14
1907	36.7	+0.1	68	-4	1.03	-0.53	2.27	0.05	0.9	4	17	6	7
1908	39.3	+2.7	80	5	1.56	0.00	3.31	0.21	1.4	5	14	7	9
1909	42.4	+5.8	84	-3	5.39	+3.83	1.48	2.07	6.8	10	12	7	13
1910	33.4	-3.2	76	5	0.34	-1.22	1.03	T.	0.7	3	13	9	8
1911	29.9	-6.7	79	-8	1.42	-0.14	4.99	0.11	1.6	6	11	8	11
1912	40.1	+3.5	77	6	0.98	-0.58	2.38	0.00	T.	2	18	8	4
1913	44.1	+7.5	78	10	1.18	-0.38	3.49	0.20	0.4	6	11	7	12
1914	41.0	+4.4	80	-4	0.22	-1.34	0.95	0.00	T.	2	19	6	5
1915	40.2	+3.6	83	-5	1.94	+0.38	4.86	0.30	1.2	6	11	10	9
1916	37.3	+0.7	80	-8	1.61	+0.05	3.65	0.05	3.6	5	16	6	8
1917	40.7	+4.1	77	3	0.28	-1.28	1.02	T.	1.4	3	14	6	10
1918	39.9	+3.3	76	0	2.11	+0.55	5.10	0.70	4.4	7	13	5	12
1919	33.6	-3.0	68	-12	3.40	+1.84	6.22	1.97	6.3	8	11	7	12
1920	35.4	-1.2	71	5	2.18	+0.02	4.45	0.73	1.2	8	10	5	15
1921	33.6	-3.0	70	-5	0.58	-0.98	1.61	T.	3.4	5	10	5	15
1922	42.2	+5.6	74	11	3.54	+1.98	5.28	1.96	0.8	9	11	6	13
1923	40.1	+3.5	72	9	0.58	-0.98	1.84	0.00	1.2	3	16	6	8
1924	33.9	+2.3	82	0	0.58	-0.98	1.55	T.	0.4	4	15	7	8
1925	36.1	-0.5	68	-6	0.71	-0.85	2.30	0.10	4.0	4	15	6	9

A dash indicates an amount too small to measure, or less than .005 inch rainfall and less than .05 inch snowfall.

F. L. D.



November, 1925

Stations		COUNTIES		Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit						Precipitation, in inches			Number of Days			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 (unmeasured)	.01 in. or more	Clear	Partly cloudy	Cloudy	
<i>Northern Division</i>																					
Algona	Kossuth	1,213	52	35.2	+ 0.6	62	20	5	28	33	33	0.21	-1.15	0.12	2.0	2	22	3	5	se.	W. E. Laird
Allison (near)	Butler	1,044	13	34.5	0.0	64	20	4	28	34	34	0.88	-0.68	0.50	4.0	4	13	9	8	nw.	J. A. Bell
Alta	Buena Vista	1,513	34	35.1	+ 1.2	62	20	8	8	32	32	0.93	-0.49	0.56	5.0	4	16	9	5	nw.	D. E. Hadden
Alton	Souix	1,305	20	34.2	+ 0.6	63	20	7	28	37	37	0.58	-0.79	0.30	3.0	4	8	15	7	se.	W. S. Slagle
Belmond	Wright	1,205	15	34.0	- 0.2	63	20	4	28	34	34	0.79	-0.86	0.42	3.7	5	9	15	6	s.	Geo. P. Hardwick
Britt	Hancock	1,236	38	34.2	+ 0.7	64	20	1	28	35	35	0.80	-0.65	0.48	4.0	3	17	6	7	nw.	Jas. S. Ross
Charles City	Floyd	1,015	34	33.6	+ 0.6	62	20	6	28	34	34	1.15	-0.45	0.61	6.5	5	14	9	7	se.	U. S. Weather Bureau
Cherokee	Cherokee	1,196	3	34.3	—	63	20	7	8†	36	36	0.38	—	0.20	2.5	3	14	11	5	s.	J. E. Wirth
Decorah	Winneshiek	875	32	33.0	- 1.7	63	13	1	28	36	36	2.20	+0.36	1.26	7.0	5	19	2	9	nw.	M. D. Whitney
Dubuque	Dubuque	698	52	35.7	- 1.3	60	20	10	28	30	30	1.28	-0.55	0.42	11.0	6	10	8	12	nw.	U. S. Weather Bureau
Estherville	Emmet	1,298	30	33.0	— 1.0	60	10	4	28	35	35	0.53	-0.78	0.25	2.0	4	15	9	6	nw.	A. O. Peterson
Fayette	Fayette	1,003	37	34.4	+ 0.3	63	20	0	28	38	38	1.14	-0.58	0.59	8.0	5	16	4	10	se.	R. Z. Latimer
Forest City	Winnebago	1,226	31	34.4	+ 0.9	65	20	2	28	38	38	0.46	-1.09	0.35	3.7	4	17	4	9	se.	Dr. M. B. Neil
Hampton	Franklin	1,145	34	34.1	- 1.3	64	20	5	28	36	36	0.73	-0.87	0.50	4.0	4	16	5	9	nw.	L. H. Davis
Humboldt	Humboldt	1,095	37	35.6	0.0	65	20	5	28	41	41	0.98	-0.69	0.62	3.0	4	13	8	9	w.	C. S. Snitkey
Independence	Buchanan	921	61	35.8	— 0.7	61	20	7	8	34	34	0.96	-0.48	0.45	6.8	5	14	6	10	sw.	Dr. Geo. Boody
Inwood	Lyon	1,474	21	33.6	+ 0.6	63	20	6	8†	38	38	0.72	-0.40	0.37	3.0	4	19	6	5	nw.	A. C. Hanson
Lansing	Allamakee	632	18	—	—	—	—	—	—	—	—	1.34	-0.61	0.68	5.3	5	—	—	—	—	Mrs. Mary Spinner
Le Mars	Plymouth	1,224	29	35.2	+ 0.2	64	20	7	28	35	35	0.60	-0.53	0.44	2.5	4	20	4	6	sw.	Mrs. M. C. Wooley
Mason City	Cerro Gordo	1,148	28	33.6	+ 0.1	63	20	2	28	37	37	0.78	-0.70	0.50	5.5	4	11	15	4	s.	Amer. Beet Sugar Co
Milford (near)	Dickinson	1,430	5	33.3	—	63	20	4	8†	40	40	0.18	—	0.10	1.0	2	12	11	7	nw.	W. J. Hunt
New Hampton	Chickasaw	1,169	28	33.7	- 0.4	60	20	4	28	32	32	1.32	-0.37	0.60	7.0	6	18	3	9	n.	E. J. Fueling
Nora Springs	Floyd	1,064	13	35.4	- 0.8	63	20	2	28	37	37	1.74	-0.26	0.80	6.2	9	15	9	6	s.	Arthur Betts
Northwood	Worth	1,222	29	32.6	+ 0.2	60	20	4	28	32	32	1.15	-0.82	0.53	6.2	5	13	10	7	nw.	Chas. Dwelle
Oelwein	Fayette	1,036	1	34.8	—	61	20	4	28	35	35	—	—	—	—	—	—	—	—	w.	John T. Ridler
Osage	Mitchell	1,163	—	32.8	—	61	20	2	28	32	32	1.41	—	0.82	5.7	5	10	9	11	s.	W. G. Mee
Pocahontas	Pocahontas	1,248	21	35.2	+ 0.5	65	20	5	8†	38	38	0.37	-1.31	0.18	2.3	3	16	6	8	sw.	F. E. Hronek
Postville	Clayton	1,180	26	32.8	- 1.2	60	20	7	8†	34	34	1.51	-0.18	0.81	6.5	4	14	8	8	s.	F. L. Williams
Rock Rapids	Lyon	1,358	26	33.4	+ 0.2	60	20	6	28	35	35	0.96	-0.23	0.52	4.1	4	23	2	5	se.	J. K. Medberry
Sanborn	O'Brien	1,553	11	33.6	+ 1.1	63	20	3	27	37	37	0.60	-0.70	0.30	3.0	2	20	5	5	nw.	J. W. Dow
Sheldon	O'Brien	1,418	0	34.6	—	64	20	7	28	36	36	0.70	—	0.44	2.0	3	17	7	6	nw.	Ross E. Forward
Sioux Center	Sioux	1,420	26	33.8	+ 0.5	64	20	7	27†	38	38	0.81	-0.37	0.47	3.0	4	18	1	11	n.	J. de Ruyter
Spencer	Clay	1,319	11	33.8	+ 0.2	62	20	5	8	38	38	0.74	-0.56	0.50	3.0	3	17	6	7	nw.	E. W. Little
Storm Lake	Buena Vista	1,440	36	37.0	+ 1.5	62	20	9	8	31	31	0.62	-0.68	0.21	3.0	4	18	4	8	nw.	Geo. H. Fracker
Washta	Cherokee	1,151	27	35.3	+ 0.3	64	20	4	28	47	47	0.29	-1.03	0.16	2.0	2	19	5	6	n.	H. L. Feiter
Waterloo	Black Hawk	854	42	35.6	- 0.5	64	20	5	28	39	39	0.60	-0.89	0.33	5.5	3	20	1	9	se.	R. B. Slippy
Waverly	Bremer	936	29	—	—	—	—	—	—	—	—	0.61	-0.88	0.25	2.0	4	14	9	7	nw.	D. H. Murphy
West Bend	Palo Alto	1,197	32	34.8	+ 0.7	63	20	5	28	38	38	0.61	-0.88	0.25	2.0	4	14	9	7	nw.	Jos. Dorweller
<i>Means and extremes.</i>		34.3		— 0.1	65	20	0	28	47	0.86	-0.66	1.26	4.3	4	15	7	8	nw.			
<i>Central Division</i>																					
Ames	Story	926	48	36.6	+ 0.7	64	20	9	28	37	37	0.48	-0.58	0.24	2.8	4	16	6	8	n.	Iowa State College
Audubon	Audubon	1,297	30	35.8	+ 1.0	63	11	7	8	38	38	0.16	-1.17	0.08	T.	3	19	4	7	sw.	Geo. Kibby
Baxter	Jasper	998	25	35.6	- 1.6	62	20	4	8	35	35	0.15	-1.28	0.06	0.3	4	14	8	8	s.	Henry Geise
Belle Plaine	Benton	866	35	36.0	- 1.0	65	20	—2	7	40	40	0.96	-0.73	0.59	9.3	6	9	11	10	s.	O. C. Burrows
Boone (near)	Boone	1,134	20	36.2	- 0.4	64	20	7	28	42	42	0.55	-0.82	0.20	1.0	5	12	9	9	s.	C. F. Henning
Carroll	Carroll	1,265	35	37.0	+ 0.9	63	11	9	8†	36	36	0.36	-0.96	0.21	T.	2	19	4	7	nw.	Mrs. Jos. J. Wolfe
Cedar Rapids	Linn	737	43	33.6	- 4.2	60	20	—2	8	39	39	0.67	-0.98	0.39	9.2	4	15	3	12	sw.	J. T. Wurster
Clinton	Clinton	505	52	36.2	- 1.7	60	20	0	8	33	33	1.79	-0.10	0.80	10.0	5	17	5	8	sw.	Dr. A. P. Bryant
Davenport	Scott	580	54	37.2	- 1.8	60	20	9	8	29	29	1.10	-0.70	0.65	10.8	4	13	7	10	nw.	U. S. Weather Bureau
Davenport (No. 2)	Scott	600	—	37.5	—	60	20†	5	8	31	31	1.23	—	0.45	10.3	6	—	—	—	nw.	Rex Shrifer
Denison	Crawford	1,171	31	37.1	+ 1.5	63	20	10	8	35	35	0.29	-1.04	0.15	T.	3	15	7	8	nw.	V. L. Byers
Des Moines	Polk	861	47	37.8	- 0.6	64	20	7	8	34	34	0.32	-1.15	0.21	2.2	2	12	7	11	sw.	U. S. Weather Bureau
Fairport	Muscatine	567	4	37.8	—	60	11†	3	8	32	32	1.03	—	0.43	5.0	5	11	6	13	nw.	Bureau of Fisheries
Fort Dodge	Webster	1,114	25	35.7	+ 0.4	65	20	5	28	39	39	0.39	-1.19	0.25	4.0	2	15	1	14	nw.	Samuel Sampson
Grinnell	Poweshiek	1,031	31	37.4	- 0.3	65	20	3	8	37	37	0.37	-1.32	0.14	4.0	3	6	16	8	nw.	Paul P. Meyers
Grundy Center	Grundy	976	34	35.2	- 11	64	20	3	8	34	34	0.98	-0.46	0.45	5.7	4	15	5	10	n.	W. D. Callaway
Guthrie Center	Guthrie	1,077	30	37.4	+ 0.4	66	11	9	8	36	36	0.85	-0.60	0.70	0	4	18	4	8	sw.	E. L. Nesselroad
Harlan (near)	Shelby	1,192	26	34.4	- 1.4	63	11	9	7	46	46	0.35	-1.11	0.20	2	2	8	18	4	n.	Nels Bisgard
Iowa City	Johnson	733	65	35.5	- 2.1	60	20	0	8	35	35	1.00	-1.17	0.48	8.0	5	16	8	6	se.	Prof. J. F. Reilly
Iowa Falls	Hardin	1,107	32	35.1	- 0.2	64	20	5	28	40	40	0.54	-1.06	0.25	2.7	5	14	7	9	s.	J. B. Parmelee
Jefferson	Greene	1,052	26	35.1	- 1.1	63	11	8	8†	40	40	0.30	-1.63	0.10	1.0	3	16	6	8	sw.	W. I. Lyon
Kalo	Webster	576	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	s.	S. C. Fuller
Le Claire	Scott	576	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Margaret T. Dismey
Little Sioux	Harrison	1,040	20	39.2	+ 2.7	68	20	9	8	38	38	0.33	-1.24	0.28	T.	3	19	5	6	nw.	H. W. Kerr
Logan	Harrison	1,035	58	38.6	+ 1.3	66	11	9	8	42	42	0.10	-1.30	0.10	0	1	19	3	8	sw.	Mary Jean Stern
Maquoketa	Jackson	692	—	34.2 <sup>a</sup>	—	59 <sup>a</sup>	20	3	8 <sup>a</sup>	38 <sup>a</sup>	38 <sup>a</sup>	2.30	—	0.80	8.6	6	—	—</td			

## Climatological Data for November, 1925—Continued

Stations	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit						Precipitation, in inches			Number of Days			Observers			
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)	Precipitation, 0.01 in. or more	Clear	Partly cloudy	Cloudy	
<i>Southern Division</i>																			
Afton	Union	1,212	31	37.9 <sup>a</sup>	— 0.6	66 <sup>a</sup>	12	3 <sup>a</sup>	8	36 <sup>a</sup>	0.39	-1.04	0.20	3.0	4	2	16	8	6 SW. S. R. Brown
Albia	Monroe	959	27	38.4	+ 0.2	65	20	1	8	35	0.51	-1.05	0.51	6.0	2	1	19	2	6 NW. O. E. McBride
Atlantic	Cass	1,164	34	37.0	— 0.5	63	11	8	8	39	0.25	-1.05	0.10	1.1	6	13	6	11 SW. T. H. Whitney	
Bonaparte (near)	Van Buren	563	34	37.4	— 2.2	63	20	3	8	37	0.96	-0.84	0.67	4.0	4	17	3	10 SW. B. R. Vale	
Burlington	Des Moines	544	29	38.5	— 2.6	61	21	8	8	28	1.38	-0.48	1.13	4.8	7	19	1	10 SW. John W. Donnelly	
Centerville	Appanoose	1,013	20	37.8	— 1.7	61	20	1	8	33	0.57	-0.87	0.41	4.2	6	14	6	10 NW. Thomas Wood	
Chariton (near)	Lucas	1,042	30	38.3	— 0.4	62	11	— 1	8	35	0.38	-1.08	0.38	2.0	1	19	2	9 SW. C. C. Burr	
Clarinda	Page	1,009	35	37.8	— 1.9	64 <sup>a</sup>	11 <sup>a</sup>	1	8	33	0.44	-1.08	0.33	4.0	4	18	3	8 S. Dr. H. C. Hawley	
Columbus Jet.	Louisa	595	24	36.8	— 2.8	61	20	3	8	34	1.21	-0.53	0.53	5.3	4	13	7	10 SW. Miss Musa Todd	
Corning (near)†‡	Adams	1,117	33	—	—	—	—	—	—	8	0.80	-0.67	0.50	3.0	2	23	0	7 SW. Jerome Smith	
Corydon	Wayne	1,101	32	39.0	+ 0.2	64	20	1	8	34	0.50	-1.00	0.50	5.0	1	18	6	6 SW. A. T. Gallagher	
Creston	Union	1,312	20	37.5	+ 0.7	61	20	2	8	40	0.21	-1.51	0.16	2.0	2	22	4	4 SW. J. W. Goodsell	
Cumberland (near)	Cass	1,225	26	—	—	—	—	—	—	—	0.13	-0.96	0.08	1.0	2	16	4	10 NW. Carl E. Pollock	
Earlham (near)	Madison	1,126	23	38.2	+ 1.0	63	11 <sup>a</sup>	0	8	37	0.71	-0.95	0.40	4.0	2	17	3	10 SW. Geo. Phillips	
Fairfield	Jefferson	780	41	36.4	— 2.1	61	4 <sup>a</sup>	2	8	40	0.89	-1.27	0.62	6.2	5	15	4	11 S. Prof. R. M. McKenzie	
Glenwood	Mills	1,100	27	38.2	— 0.4	66	20	8	8	34	0.30	-0.85	0.15	0.5	4	12	13	5 NW. Dr. Geo. Mogridge	
Indianola	Warren	972	34	37.6	— 0.7	64	20	1	8	36	0.31	-1.26	0.30	3.0	2	16	8	6 SW. Seth F. Shenton	
Keokuk	Lee	614	54	39.6	— 1.5	66	21	9	8	30	1.04	-0.88	0.84	4.7	5	9	14	7 S. U. S. Weather Bureau	
Keosauqua	Van Buren	644	33	36.4	— 2.6	60	4 <sup>a</sup>	3	8	34	0.89	-0.72	0.60	7.5	4	14	9	7 S. J. H. Landes	
Knoxville	Marion	920	30	37.6	— 1.2	65	20	0	8	41	0.46	-1.10	0.40	4.0	2	14	7	9 NW. W. J. Casey	
Lacona	Warren	824	26	—	—	—	—	—	—	—	0.79	-0.89	0.60	6.0	8	11	10	9 S. J. B. Alter	
Lamoni	Decatur	1,123	18	36.8	— 1.9	62	11 <sup>a</sup>	— 1	8	37	0.57	-0.87	0.54	5.0	4	18	4	8 SE. F. S. Parks	
Lenox	Taylor	1,250	30	38.0	— 0.2	64	11 <sup>a</sup>	1	8	35	0.52	-0.95	0.25	2.5	4	17	7	6 NW. J. L. Hurley	
Mt. Ayr	Ringgold	1,245	32	37.4	— 1.4	63	11 <sup>a</sup>	— 4	8	35	0.59	-0.95	0.55	5.6	3	19	2	9 NW. Alex Maxwell	
Mt. Pleasant	Henry	729	44	37.8	— 1.9	64	20	4	8	35	0.88	-0.93	0.50	4.5	3	14	7	9 SE. J. H. Jericho	
Oakland	Pottawattamie	1,105	6	36.4 <sup>a</sup>	— 1.1	65 <sup>a</sup>	11	8 <sup>a</sup>	8	47 <sup>a</sup>	0.44	— 1.00	0.22	—	2	3	15	6 9 N. M. E. Gray	
Oskaloosa	Mahaska	835	49	37.2	— 1.3	65	20	— 1	8	38	0.47	-1.13	0.38	5.1	3	19	3	8 NW. Roy R. Robinson	
Ottumwa	Wapello	649	30	38.3	—	64	11 <sup>a</sup>	0	8	40	0.87	-0.51	0.61	4.3	3	19	3	8 SE. C. L. Mikesh	
Red Oak (near)	Montgomery	1,030	—	—	—	—	—	—	—	—	0.70	— 1.00	0.30	—	3	10	16	4 S. B. R. Bridge	
Sigourney (near)	Keokuk	790	29	36.4	— 1.8	63	20	2	8	36	0.87	-0.78	0.60	6.6	4	13	7	10 NW. W. E. Utterback	
Stockport	Van Buren	747	23	36.0	— 2.4	67	20	1	8	46	0.84	-0.80	0.41	5.0	5	14	6	10 S. C. L. Beswick	
Thurman	Fremont	975	25	38.4	+ 1.0	65	4	— 6	8	48	0.22	-1.63	0.22	2.0	1	15	10	5 NW. C. R. Paul	
Tingley	Ringgold	1,275	37	6	—	63	10	1	8	34	0.32	— 1.00	0.23	4.5	2	19	6	5 NW. James A. VerPloegh	
Washington	Washington	769	43	36.8	— 1.9	60	13	2	8	41	1.30	-0.37	0.68	7.0	4	17	0	13 SW. D. D. Sherman	
Wescott (near)	Lee	523	3	38.0	—	63	10	9	8	32	1.05	— 1.05	0.40	4.0	1	18	5	7 SW. Lester J. Larson	
Winterset	Madison	1,129	34	39.0	+ 0.6	64	11 <sup>a</sup>	5	8	34	0.43	-1.04	0.40	4.0	2	21	1	8 SW. H. S. Ely	
Omaha, Nebr.	—	1,103	54	40.2	+ 17	66	20	17	8	30	0.12	-0.94	0.10	T.	3	19	3	8 NW. U. S. Weather Bureau	
Means and extremes	—	—	—	37.7	— 1.0	67	20	— 6	8	48	0.63	-0.94	1.13	4.0	3	16	6	8 NW. —	
State means and extremes	—	—	—	36.1	— 0.5	68	20 <sup>a</sup>	— 6	8	48	0.71	-0.85	1.26	4.0	4	15	6	9 NW. —	

The departures from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete records are used in determining means.

Reference letters a, b, c, etc., appearing in the table indicate the number of days missing; for example b represents two days, etc.

†Also other dates.

‡Received too late to be included in means and summaries.

T. Precipitation is less than 0.01 inch rain or melted snow.

## SNOWFALL

The average snowfall for the State was 4.0 inches, or 1.5 inches more than the normal. The amounts were quite uniform in each of the three divisions, but there was a decided contrast in the eastern and western portions. A rather large area over the western portions of the State reported only traces, while several stations over the east-central and northeastern portions reported more than 10.0 inches. Practically all the snow occurred during two storms, the first on the 6th and 7th and the other beginning on the 27th that lasted in the eastern portion till the 29th. The ground was bare except for short periods following these storms and another at the beginning of the month.

## MISCELLANEOUS PHENOMENA

Aurora: 7th, 8th, 9th.

Fog: 1st, 2d, 3d, 5th, 6th, 10th, 11th, 12th.

Hail: 12th.

Halos (lunar and solar): 17th, 18th, 24th, 25th, 26th, 27th, 28th, 29th.

Haze: 23d, 28th.

Rainbow: 3d.

Sleet: 7th, 15th, 16th, 26th, 28th, 29th, 30th.

Thunderstorms: 3d, 4th, 12th.

Winds (strong): 21st, 22d.

\*Sioux City. §Davenport. ¶Omaha. ||Keokuk. †Local mean time. ‡And other dates.

Means and extremes—30.10 30.60 28 29.49 12 18 20 78 58+6 58+6

Normals and records—30.07 30.07 2d 28th 81—70 6th 82 10th 52

—30.96 1806 \$20.03 1918 116 1916 63 sw. 1919

November, 1925

**Daily Precipitation for November, 1925**

Stations	Drainage Basin	Day of Month																															
		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	Totals	
<i>Northern Division</i>																																	
Algona	Des Moines																																
Allison (near)	Cedar	.27	.06																														0.21
Alta	Raccoon	.15	.12																													0.88	
Alton	Floyd	.02	.26																													0.93	
Belmond	Iowa																															0.58	
Britt	Iowa	T.	.48																													0.79	
Charles City***	Cedar	.06	.55																													1.15	
Cherokee	Little Sioux	.08	.10																													0.38	
Decorah	Mississippi	1.26	.23																													2.20	
Dubuque***	Mississippi	.24	T.	.42																												1.28	
Estherville	Des Moines		.05	.25																												0.53	
Fayette	Mississippi	.35	.06	.05																												1.19	
Forest City	Cedar	T.	.07	.02																												0.46	
Hampton	Cedar	T.	.20	.03																												0.73	
Humboldt	Des Moines	.12	.62																													0.98	
Independence	Wapsipinicon		.28																													0.96	
Inwood	Big Sioux	.04	.37	.01																												0.72	
Lansing	Mississippi	.68	.12	T.																												1.34	
Le Mars	Floyd	.02	.44	T.																												0.60	
Mason City	Cedar	.19	.04																													0.78	
Millford (near)	Little Sioux		.10																													0.18	
New Hampton	Wapsipinicon		.49	.12																												1.32	
Nora Springs	Cedar	.09	.69																													1.74	
Northwood	Cedar	T.	.55																													1.15	
Oelwein	Wapsipinicon																																
Osage	Cedar	T.	.82																													1.41	
Pocahontas	Des Moines	.05	.14																													0.37	
Postville	Mississippi	.81	.05	T.																												1.51	
Rock Rapids	Big Sioux	.03	.52																													0.96	
Sanborn	Floyd		.30																													0.60	
Sheldon	Floyd		.06	.44	T.																											0.70	
Sioux Center	Floyd	.02	.47																													0.81	
Spencer	Little Sioux	.40	.10																													0.74	
Storm Lake	Raccoon	.09	.15																													0.62	
Washta	Little Sioux	T.	.13																													0.29	
Waterloo	Cedar		.33	T.	.05																											0.60	
Waverly	Cedar		.20	.25																												0.61	
<i>Central Division</i>																																	
Ames	Skunk		.24	T.	T.																											0.48	
Audubon	Nishnabotna	.08																															0.16
Baxter	Skunk	.06																														0.15	
Belle Plaine	Iowa	T.	.05	T.	.50																										0.96		
Boone	Des Moines	T.	.08	.02																											0.55		
Carroll	Raccoon		T.	.15																												0.36	
Cedar Rapids	Cedar	.16	T.	.39																												0.67	
Clinton	Mississippi	.24		.43																												1.79	
Davenport***	Mississippi	.18		.65	T.																										1.10		
Davenport (No. 2)	Mississippi	.32	.04	.45	.08																										1.23		
Denison	Missouri		.02	.12																												0.29	
Des Moines***	Des Moines	T.	.05	.21																												0.32	
Fairport	Mississippi	.43		.20	.25																										1.03		
Ft. Dodge	Des Moines	.14																														0.39	
Grinnell	Iowa	T.	.12	T.	.14																											0.37	
Grundy Center	Cedar		.24																													0.98	
Guthrie Center	Cedar	.03	.06	T.	.12	T.																									0.85		
Harlan	Nishnabotna	.15																														0.35	
Iowa City	Iowa	.31	.03																													1.00	
Iowa Falls	Iowa	T.	.18	.05																												0.54	
Jefferson	Raccoon		T.	.10																												0.30	
Kalo	Des Moines	T.																														**	
Le Claire	Mississippi																															0.83	
Little Sioux	Little Sioux	.28	.04																													0.10	
Logan	Missouri	.10																															
Maquoketa	Maquoketa		.52	.12																												2.30	
Marshalltown	Iowa	.16		.12																												0.55	
Monroe	Des Moines	.22		.31																												0.60	
Muscatine	Mississippi																																
Olin	Wapsipinicon		.90																													1.70	
Onawa	Missouri	.10	.11																													0.21	
Perry	Raccoon		.16																													0.41	
Rockwell City	Raccoon	.01	T.																												0.21		
Sac City	Raccoon		.05																													0.53	
Sloux City***	Missouri	.14	.03		</																												

## Daily Precipitation for November, 1925—Continued

Stations	Drainage Basin	Day of Month																													Totals					
		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					
<i>Southern Division</i>																																				
Afton	Grand		.11	.05				.20	.01																							.03				
Albia	Des Moines	T.	T.	T.				.50	.01																								0.51			
Atlantic	Nishnabotna	.01	.07					.10																									0.25			
Bonaparte (near)	Des Moines	T.	.15					.67	.03																								0.96			
Burlington	Mississippi		.12					1.13	.02																								1.38			
Centerville	Chariton		.01	.06				.41																												
Charlton (near)	Chariton	T.	T.					.38																											0.57	
Clarinda	Nodaway	.03	.05					.33																											0.38	
Columbus Jet.	Iowa		.15					.53	.20																									0.44		
Corning	Nodaway	T.	.50					.30																											1.21	
Corydon	Chariton	T.	T.					.50																											0.80	
Creston	Missouri		.05					.16																											0.50	
Cumberland (near)	Nodaway	.05	T.					.08																											0.21	
Earlham	Des Moines	T.	.31					.40																											0.13	
Fairfield	Skunk		.22	.01				.62																											0.71	
Glenwood	Missouri		.15	.08				.05																											0.89	
Indianola	Des Moines	T.	T.					.30																											0.30	
Keokuk***	Mississippi	T.	.04	T.	.01			.83																											0.31	
Keosauqua	Des Moines	T.	T.					.60	T.																										1.04	
Knoxville	Des Moines	T.	.06	T.				.40																											0.89	
Lacona	Des Moines		.01	.11				.60																											0.46	
Lamoni	Grand		.01	.01				.54																											0.79	
Lenox	Missouri		.05	.20				.25																											0.57	
Mt. Ayr	Grand	T.	.03					.55																											0.52	
Mt. Pleasant	Skunk	T.		.19				.50																											0.59	
Oakland	Nishnabotna	T.	.22					.22																											0.88	
Oskaloosa	Des Moines	T.	.07					.38	T.																										0.44	
Ottumwa	Des Moines	T.	.24					.61	T.																										0.47	
Red Oak (near)	Missouri	.20	.20	T.				.30	T.	T.																									0.87	
Sigourney	Skunk	T.	.16	T.				.60	.05	T.																									0.70	
Stockport	Skunk	T.	.26					.41	T.																										0.84	
Thurman	Missouri	T.						.22																											0.22	
Tingley	Platt		T.	.09				.23																											0.32	
Washington	Skunk	T.	.41					.68																											1.30	
Wescott (near)	Mississippi							1.05																											1.05	
Winterset	Des Moines	T.	.08					.40																											0.43	
Omaha, Neb. ***	Missouri	.09	.02	T.																																0.12

Except as otherwise indicated, observations are generally made late in the afternoon, near sunset, and precipitation recorded is for 24 hours ending at the time of observation.

III Precipitation measured in the morning; amount then recorded is for the preceding 24 hours.

\*\*Regular Weather Bureau Station: precipitation is for 24-hour period, midnight to midnight.

\*\*Incomplete.

\*Precipitation included in the next following measurement.

T. Precipitation is less than .01 inch rain or melted snow.

## RIVERS

Low and nearly stationary stages prevailed on the Mississippi River during the entire month. Floating ice was present during the first part and again at the close of the month. Low stages also prevailed on all interior rivers, with only slight fluctuations and the extreme stages generally differed less than one foot. On the Missouri River moderate stages prevailed with generally little daily fluctuations except a rather marked rise occurred during the last half of the 3d week and a moderate rise at the beginning of the 2d week.

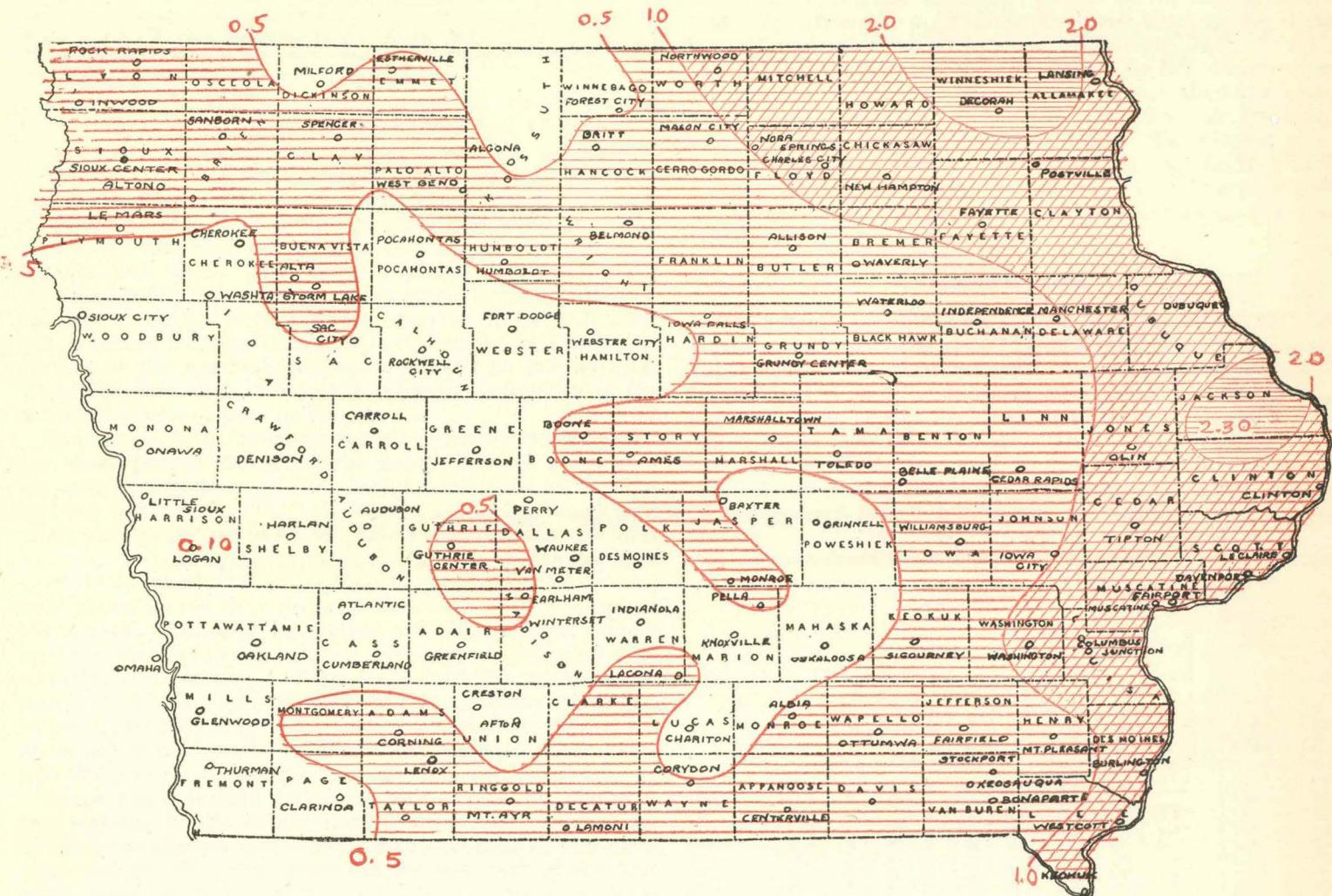
## ERRATA

Report for October, 1925. Page 73. In the table "Comparative data for the State," the greatest precipitation for 1925 recorded 2.70 inches, should be 5.68 inches.

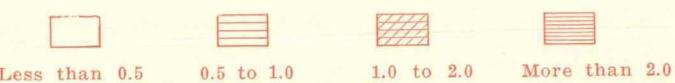
## Daily Maximum and Minimum Temperature for the Month of November, 1925

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	Mean
<i>Northern Division</i>																																
Algona	{Maximum-----	47	48	49	56	51	45	30	32	53	53	59	59	53	42	33	33	57	53	46	62	54	33	40	46	44	38	32	39	29	34	44.7
	{Minimum-----	19	38	34	41	30	25	17	9	29	30	30	31	30	26	24	34	26	32	29	21	23	24	29	11	5	18	24	25.7			
Alta	{Maximum-----	50	51	45	56	48	51	26	38	57	55	60	57	55	35	32	40	57	55	51	62	46	28	40	45	47	42	25	23	32	35	44.8
	{Minimum-----	28	30	34	31	26	26	12	8	25	31	35	40	32	29	28	26	30	33	26	32	28	14	16	27	25	24	10	10	21	24	25.4
Alton	{Maximum-----	46	50	45	53	46	46	30	38	53	51	57	56	53	40	34	40	53	54	52	63	49	34	41	50	47	43	28	26	30	35	44.8
	{Minimum-----	25	26	36	33	26	26	17	8	20	27	25	35	30	28	27	28	29	24	26	20	15	17	20	23	27	10	7	20	22	23.6	
Belmond	{Maximum-----	45	50	53	55	48	52	30	30	50	55	58	55	56	37	32	34	54	55	47	63	44	30	38	49	40	37	36	34	29	34	44.3
	{Minimum-----	23	27	37	31	25	18	6	22	28	28	32	30	30	28	24	24	32	28	29	28	17	14	20	22	24	11	4	19	19	23.6	
Charles City	{Maximum-----	47	52	51	55	47	46	30	31	51	53	58	50	53	34	33	34	54	54	43	62	51	29	37	47	44	34	23	23	28	33	42.9
	{Minimum-----	26	23	34	36	31	26	17	10	18	28	27	35	30	30	29	23	24	35	30	28	28	16	18	22	28	20	12	6	21	15	24.2
Decorah	{Maximum-----	42	47	50	54	55	38	35	29	46	52	57	45	63	45	30	43	50	57	50	58	53	35	35	46	40	44	34	22	27	43	44.2
	{Minimum-----	16	18	29	42	29	19	19	10	17	22	24	30	37	27	21	27	17	35	27	25	30	15	11	20	24	24	10	1	16	23	21.7
Dubuque	{Maximum-----	49	53	52	59	56	44	26	41	50	55	44	46	40	34	33	48	57	42	60	58	33	35	46	43	36	34	24	28	36	44.1	
	{Minimum-----	27	25	36	45	35	30	21	13	18	23	31	35	37	31	30	25	24	39	33	20	18	29	27	17	10	19	26	27.3			
Forest City	{Maximum-----	48	49	54	55	53	46	32	33	55	55	55	56	47	33	35	54	57	47	65	53	34	39	47	43	37	33	27	26	34	45.1	
	{Minimum-----	24	25	33	40	32	23	17	6	19	28	28	33	30	28	27	25	27	22	28	27	15	13	20	26	27	9	2	18	23	23.7	
Independence	{Maximum-----	48	51	52	54	53	51	50	27	46	52	56	55	56	54	34	32	51	55	54	61	60	54	44	47	46	44	34	27	28	36	47.1
	{Minimum-----	24	26	31	44	34	26	18	7	12	27	27	34	32	29	27	21	23	31	37	31	11	19	27	27	14	8	19	24	24.6		
Inwood	{Maximum-----	48	51	45	49	45	41	28	39	55	54	53	59	53	35	35	44	54	52	63	46	33	47	49	46	46	23	31	33	44.6		
	{Minimum-----	24	28	29	30	26	24	13	6	22	26	28	27	30	26	28	29	25	25	12	17	21	21	23	7	6	22	21	22.5			
Mason City	{Maximum-----	48	50	53	55	45	32	32	55	53	58	54	52	37	33	33	53	52	43	63	57	32	38	45	41	32	27	23	27	33	43.5	
	{Minimum-----	25	22	32	40	30	23	18	8	28	25	33	30	30	28	25	25	34	30	28	29	10	15	20	25	27	10	2	19	23	23.7	
Milford (near)	{Maximum-----	49	47	54	56	54	41	30	33	57	53	57	51	59	43	33	40	54	53	51	63	51	39	47	44	41	30	23	28	33	44.9	
	{Minimum-----	23	21	34	38	28	20	9	4	17	23	28	25	29	29	22	22	28	22	24	24	12	14	18	20	27	8	4	18	23	21.7	
New Hampton	{Maximum-----	47	51	50	54	55	44	43	30	46	54	59	44	54	43	32	32	51	51	44	60	52	35	36	48	45	35	28	23	36	43.6	
	{Minimum-----	17	28	31	44	31	26	20	8	16	28	30	29	28	25	26	20	35	31	29	13	15	22	27	25	10	4	18	23	25.8		
Northwood	{Maximum-----	43	47	52	53	45	43	32	30	50	51	53	51	56	40	37	32	51	53	45	60	47	31	36	45	43	36	21	26	37	41.7	
	{Minimum-----	23	25	32	36	28	23	17	9	19	25	25	30	31	28	23	21	34	30	29	15	16	20	28	21	9	4	19	23	23.4		
Pocahontas	{Maximum-----	48	50	49	58	54	34	57	59	56	61	55	56	42	35	40	60	55	50	65	52	40	46	48	40	38	28	31	35	46.7		
	{Minimum-----	23	27	34	39	27	23	18	5	21	26	28	34	30	22	28	24	33	26	30	28	15	15	19	23	27	11	5	20	24	23.8	
Postville	{Maximum-----	47	51	51	52	56	47	39	82	45	54	59	45	56	38	32	31	50	58	43	60	58	33	35	44	42	33	28	21	25	30	43.2
	{Minimum-----	18	19	29	42	33	22	15	7	22	30	29	29	28	26	25	20	24	38	27	26	29	12	10	20	24	22	9	7	14	20	22.5
Rock Rapids	{Maximum-----	46	48	45	51	43	40	29	35	51	53	54	57	53	44	40	41	51	50	60	51	35	41	51	44	39	29	25	32	33	44.2	
	{Minimum-----	25	23	36	32	27	25	15	9	20	22	24	29	29	26	30	28	28	22	25	22	13	17	19	22	29	10	6	20	22	22.7	
<i>Central Division</i>																																
Belle Plaine	{Maximum-----	54	54	55	57	57	36	30	47	55	58	60	56	59	40	37	33	55	60	46	65	61	38	38	49	48	35	39	27	32	37	47.3
	{Minimum-----	24	24	33	47	34	18	-2	12	29	31	28	36	31	27	29	22	20	37	28	25	33	20	19	21	25	27	14	6	21	24	24.6
Boone	{Maximum-----	49	53	53	58	58	56	49	31	54	56	63	53	59	57	35	41	59	57	51	64	58	43	41	47	50	36	36	24	34	38	48.8
	{Minimum-----	19	20	33	48	30	23	8	15	25	23	35	29	28	30	29	29	37	37	32	29	26	19	24	19	25	23	7	21	16	23.9	
Carroll	{Maximum-----	49	55	49	60	52	56	45	37	60	57	63	56	59	45	36	44	59	58	62	55	35	41	45	40	45	37	23	36	40	48.6	
	{Minimum-----	26	26	32	29	28	25	19	9	24	30	31	37	33	29	28	26	34	34	32	30	16	15	24	23	25	15	22	23	25.4		
Cedar Rapids	{Maximum-----	49	53	52	56	56	50	47	20	40	51	56	45	46	40	33	32	50	54	53	61	55	40	39	49	50	42	39	26	30	38	45.3
	{Minimum-----	18	20	30	45	33	22	18	-2	4	21	24	29	31	21	21	27	37	35	33												

## TOTAL PRECIPITATION, NOVEMBER, 1925



Scale of shades in inches



# CLIMATOLOGICAL DATA.

## IOWA SECTION

In co-operation with

IOWA WEATHER AND CROP BUREAU  
CHARLES D. REED, Meteorologist

VOL. XXXVI DES MOINES, IOWA, DECEMBER, 1925 No. 12

### GENERAL SUMMARY

While the mean temperature for December was slightly more than three degrees below the normal, mild winter weather prevailed most of the month. There was a decided excess in temperature during the first three days and most of the second week, with numerous fluctuations until the 20th, after which a protracted cold period set in that prevailed during the rest of the month. Up until this period there had been a little zero weather over a limited portion of the State but over a large area in the northeastern portion zero was reached on nearly every day of the last ten; and at a few stations on the 27th, the temperature did not rise above zero. The deficiency was quite uniform over each division, but there was a decided contrast in the eastern and western portions of the State. At a few stations in the eastern portion the deficiency ranged from seven to eight degrees, while in the extreme western portion the deficiency was less than one degree at several stations; and two stations in the southwest reported a slight excess.

Precipitation was slightly above normal and the averages were remarkably uniform for all divisions of the State, but there were areas in nearly all portions of the State that had deficiencies. There were three periods of precipitation that were general over most of the State, the first occurred from the 3rd to 5th, the second on the 15th and the third occurred on the 20th. On the 24th another period was general over the northern division. The precipitation was mostly in the form of snow, though there was considerable rain or sleet during the beginning of the first storm. As the cold weather set in during this storm the precipitation changed to snow and the strong wind that accompanied, caused the snow to drift badly and the storm developed into a "blizzard." Deep drifts formed over large areas in the eastern and southern portions of the State, causing many highways to be temporarily blocked and resulting in some delay to railway traffic, but as the snow packed solidly and a heavy crust soon formed the cuts did not fill up again after being opened.

The snow that occurred on the 15th drifted very little and resulted in very little inconvenience, but there was considerable drifting in the storm of the 20th with many roads blocked temporarily and some minor delay resulted to railway traffic. Sleet was reported on a large number of days but it was generally light and the only inconvenience resulting was the skidding of automobiles. No glaze was reported that injured trees or wires.

During the most severe weather the ground was well protected by snow except over a few small areas in the southeastern portion, so it is likely that winter grain and grasses have not been damaged. The heavy snowfall interfered with belated corn husking, and there was still some corn to be gathered in the southeastern portion of the State at the end of the month. The ice gradually increased in thickness and over most of the State it was ready to harvest but in places the heavy snow prevented it from freezing sufficiently and unless favorable conditions follow there will be an inferior quality harvested in localities.

F. L. D.

### COMPARATIVE DATA FOR THE STATE—DECEMBER

YEAR	Temperature			Precipitation			Number of Days						
	Mean	Departure	Highest	Lowest	Total	Departure	Greatest	Least	Snowfall	With pre. .01 in. or more	Clear	Partly cloudy	Cloudy
1890.....	29.1	+5.0	72	-13	0.45	-0.60	1.40	0.00	.....	3	17	7	7
1891.....	32.3	+8.2	72	-14	2.41	+1.27	4.50	1.21	.....	6	14	9	8
1892.....	18.9	-5.2	68	-29	1.65	+0.51	3.04	0.20	10.9	8	9	8	14
1893.....	22.0	-2.1	70	-21	1.31	+0.17	2.80	0.46	7.6	7	10	9	12
1894.....	30.1	+6.0	73	-17	0.95	-0.19	1.75	0.25	1.3	3	15	6	10
1895.....	25.4	+1.3	63	-16	1.63	+0.49	5.74	0.00	4.1	5	11	9	11
1896.....	30.8	+6.7	70	-10	0.65	-0.49	1.79	T.	1.6	4	10	8	13
1897.....	18.0	-6.1	60	-25	1.65	+0.51	3.22	0.61	15.9	6	11	7	13
1898.....	18.1	-6.0	60	-25	0.48	-0.66	1.70	T.	3.9	3	15	8	8
1899.....	22.6	-1.5	75	-19	1.61	+0.47	4.28	0.10	4.3	5	12	9	10
1900.....	26.9	+2.8	63	-10	0.45	-0.69	2.70	T.	2.4	4	13	6	12
1901.....	20.5	-3.6	64	-31	0.93	-0.21	2.75	0.05	5.4	6	10	9	12
1902.....	20.1	-4.0	59	-20	2.23	+1.09	5.51	0.67	12.9	8	9	6	16
1903.....	19.6	-4.5	58	-27	0.41	-0.73	1.96	T.	3.7	4	11	9	11
1904.....	23.4	-0.7	67	-19	1.44	+0.30	3.68	0.06	12.3	5	12	7	12
1905.....	27.0	+2.9	62	-11	0.52	-0.62	1.69	T.	4.2	3	19	6	6
1906.....	25.7	+1.6	65	-9	1.43	+0.29	2.81	0.37	1.4	6	11	7	13
1907.....	28.8	+4.7	62	-9	1.00	-0.14	2.28	0.05	4.7	5	10	7	14
1908.....	27.2	+3.1	67	-17	0.57	-0.57	2.07	0.05	3.8	3	15	8	8
1909.....	15.1	-9.0	60	-26	2.18	+1.04	6.10	0.89	13.7	11	10	5	16
1910.....	23.4	-0.7	57	-14	0.37	-0.77	1.39	0.01	3.0	3	15	7	9
1911.....	27.9	+3.8	60	-24	2.57	+1.43	4.43	0.62	12.6	7	13	6	12
1912.....	29.2	+5.1	64	-13	0.74	-0.40	1.75	0.10	1.1	3	18	7	6
1913.....	32.0	+7.9	65	-13	1.02	-0.12	4.73	0.00	1.3	4	15	5	11
1914.....	15.7	-8.4	63	-31	1.30	+0.16	2.24	0.57	11.1	9	10	6	15
1915.....	25.0	+0.9	56	-10	0.69	-0.45	1.70	T.	4.6	5	11	8	12
1916.....	18.7	-5.4	67	-25	1.04	-0.10	2.00	0.35	6.7	6	15	8	8
1917.....	14.5	-9.6	62	-40	0.56	-0.58	1.70	0.14	6.7	6	10	9	12
1918.....	32.7	+8.6	68	-7	1.30	+0.16	3.30	0.37	5.1	8	9	8	14
1919.....	15.0	-9.1	52	-36	0.54	-0.60	1.55	0.08	5.8	4	11	7	13
1920.....	26.4	+2.3	65	-26	1.16	+0.02	2.64	0.26	7.4	5	10	8	13
1921.....	28.2	+4.1	69	-22	1.02	-0.12	3.72	T.	2.9	4	14	9	8
1922.....	24.0	-0.1	65	-25	0.37	-0.77	0.97	T.	2.2	3	16	7	8
1923.....	33.5	+9.4	68	-21	0.76	-0.38	2.22	T.	4.4	4	14	6	11
1924.....	15.4	-8.7	62	-33	1.79	+0.65	2.93	0.90	8.1	8	12	6	13
1925.....	21.0	-3.1	64	-25	1.30	+0.16	3.52	0.30	10.6	5	12	8	11

T. indicates an amount too small to measure, or less than .005 inch rainfall and less than .05 inch snowfall.



## Climatological Data for December, 1925

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit					Precipitation, in inches					Number of Days				OBSERVERS		
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmelted)	Precipitation, .01 in. or more	Clear	Partly cloudy	Cloudy		
<i>Northern Division</i>																				
Algona.....	Kossuth.....	1,213	52	19.7	-1.8	43	2	-12	27	35	1.02	+ 0.07	0.43	13.0	5	20	5	nw.	W. E. Laird	
Allison (near).....	Butler.....	1,044	13	18.2	-3.2	41	8	-18	27	38	1.15	-0.05	0.40	8.0	4	11	9	nw.	J. A. Bell	
Alta.....	Buena Vista.....	1,513	34	19.3	-2.1	49	2	-15	27	34	1.58	+ 0.67	0.62	12.5	5	15	8	nw.	D. E. Hadden	
Alton.....	Sioux.....	1,305	20	19.6	-1.2	50	2	-16	29	37	0.66	-0.14	0.30	5.5	4	12	8	nw.	W. S. Slagle	
Belmond.....	Wright.....	1,205	15	17.6	-3.3	40	2	-18	27	39	1.69	+ 0.36	0.52	11.6	8	5	11	nw.	H. F. Luick	
Britt.....	Hancock.....	1,236	38	18.6	-1.9	42	7	-14	27†	37	0.91	+ 0.11	0.50	8.0	3	6	13	nw.	James S. Ross	
Charles City.....	Floyd.....	1,015	34	15.8	-4.6	40	8	-17	29	36	1.69	+ 0.44	0.62	10.2	8	9	7	nw.	U. S. Weather Bureau	
Cherokee.....	Cherokee.....	1,196	3	19.0	—	53	2	-16	29	36	1.07	—	0.35	9.5	5	10	15	n.	J. E. Wirth	
Decorah.....	Winneshiek.....	875	32	14.4	-7.8	39	8	-24	29	34	1.68	+ 0.40	0.48	14.0	6	15	6	nw.	M. D. Whitney	
Dubuque.....	Dubuque.....	698	52	20.0	-4.7	43	3	-15	29	30	1.66	+ 0.15	0.80	10.2	6	9	5	nw.	U. S. Weather Bureau	
Estherville.....	Emmet.....	1,298	30	18.6	-1.7	50	3	-12	27	30	0.58	-0.13	0.30	5.5	5	10	15	nw.	A. O. Peterson	
Fayette.....	Fayette.....	1,003	37	16.4	-5.0	42	8	-24	29	30	1.45	+ 1.74	0.78	20.5	7	12	8	nw.	R. Z. Latimer	
Forest City.....	Winnebago.....	1,226	31	18.6	-2.7	43	11†	-14	27	35	0.60	-0.28	0.40	6.0	2	8	9	nw.	Dr. M. B. Neil	
Hampton.....	Franklin.....	1,145	37	18.3	-4.6	42	19	-14	27	36	0.97	-0.28	0.29	11.0	4	10	8	nw.	L. H. Davis	
Humboldt.....	Humboldt.....	1,095	37	19.4	-3.2	45	1†	-13	29	40	0.91	+ 0.05	0.44	14.0	3	8	9	nw.	H. C. Snitkey	
Independence.....	Buchanan.....	921	61	17.7	-5.9	46	20	-19	27	38	2.44	+ 1.13	0.85	20.9	7	10	4	17	nw.	Dr. George Boody
Inwood.....	Lyon.....	1,474	21	18.0	-1.4	49	11	-19	27	31	0.39	-0.27	0.33	3.5	4	15	4	12	nw.	A. C. Hanson
Lansing.....	Allamakee.....	632	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Mrs. Mary Spinner	
Le Mars.....	Plymouth.....	1,224	29	20.5	-1.9	51	2	-16	29	37	0.63	-0.24	0.19	10.0	4	18	4	9	nw.	Mrs. M. C. Woolley
Mason City.....	Cerro Gordo.....	1,148	28	17.1	-3.8	41	19	-15	29	33	1.27	+ 0.39	0.40	8.2	7	6	14	11	nw.	American Beet Sugar Co.
Milford (near).....	Dickinson.....	1,430	5	19.8	—	47	11	-15	27	45	0.80	—	0.35	6.5	4	8	9	14	nw.	W. J. Hunt
New Hampton.....	Chickasaw.....	1,169	28	15.8	-5.0	39	9	-17	27	26	1.07	-0.02	0.50	10.6	4	7	7	n.	E. J. Feuling	
Nora Springs.....	Floyd.....	1,064	13	18.4	-4.7	42	11†	-18	29	39	1.43	+ 0.23	0.52	5.9	9	9	10	12	s.	Arthur Betts
Northwood.....	Worth.....	1,222	29	16.0	-3.7	40k	8	-14	27	30m	1.20	-0.03	0.70	5.0	5	10	12	nw.	Charles Dwelle	
Oelwein.....	Fayette.....	1,036	1	16.2	—	40	8	-18	29	37	1.60	—	0.64	20.0	5	9	10	nw.	John T. Ridler	
Osage.....	Mitchell.....	1,163	16.4	—	—	56	9	-15	26†	35	0.95	—	0.61	9.0	5	7	10	14	nw.	W. G. Mee
Pocahontas.....	Pocahontas.....	1,248	21	19.2	-2.5	46	2†	-13	27†	41	1.70	+ 0.78	0.60	11.5	7	13	9	n.	F. E. Hronek	
Postville.....	Clayton.....	1,180	26	13.8	-7.1	41	8	-20	26†	38	1.79	+ 0.39	0.70	17.5	6	10	10	11	nw.	F. L. Williams
Rock Rapids.....	Lyon.....	1,358	26	18.4	-1.3	48	11	-15	22†	29	0.66	+ 0.03	0.35	5.5	4	16	6	9	nw.	J. K. Medberry
Sanborn.....	O'Brien.....	1,553	11	18.6	-0.8	49	2	-19	27	37	1.29	+ 0.44	0.47	10.0	4	17	2	12	sw.	J. W. Dow
Sheldon.....	O'Brien.....	1,418	19.6	—	—	49	2†	-15	27	34	0.89	—	0.39	6.0	5	15	6	10	nw.	Ross E. Forward
Sioux Center.....	Sioux.....	1,426	26	18.6	-2.2	50	11	-18	27	34	1.07	+ 0.19	0.50	8.0	5	14	2	15	nw.	J. De Ruyter
Spencer.....	Clay.....	1,319	11	18.9	-1.8	47	2†	-15	27	38	1.45	+ 0.60	0.48	15.0	5	16	5	10	nw.	E. W. Little
Storm Lake.....	Buena Vista.....	1,440	36	20.7	-1.8	50	2	-15	27	34	0.92	+ 0.10	0.33	7.6	6	14	4	13	nw.	George H. Fracker
Washa.....	Cherokee.....	1,157	27	21.8	-0.3	54	2	-19	29	44	1.17	+ 0.34	0.46	9.5	5	16	5	10	n.	H. L. Felter
Waterloo.....	Black Hawk.....	854	42	18.0	-5.5	45	9	-23	29	39	2.03	+ 0.83	0.53	13.1	6	16	4	11	nw.	R. B. Slippy
Waverly.....	Bremer.....	936	29	19.4a	-7.8	40a	8	-25a	29	39a	2.06	+ 0.88	0.64	17.0	4	17	7	7	nw.	D. H. Murphy
West Bend.....	Palo Alto.....	1,197	32	19.2	-1.9	47	2.	-12	27	41	1.01	-0.15	0.32	9.0	6	14	10	7	nw.	Jos. Dorweiler
Means and extremes.....	—	—	18.2	-3.3	56	9	-25	29	45	1.27	+ 0.24	0.85	10.5	5	12	8	11	nw.	—	
<i>Central Division</i>																				
Ames.....	Story.....	926	48	—	—	46	8	-12	27	46	0.93	-0.13	0.63	8.0	4	18	5	8	nw.	Iowa State College
Audubon.....	Audubon.....	1,297	30	20.6	-2.2	55	9	-15	27	38	0.93	-0.06	0.40	8.5	4	10	13	8	nw.	George Kirby
Baxter.....	Jasper.....	998	25	20.7a	-3.7	49a	3	-15a	27	40a	0.63	-0.32	0.30	10.0	4	10	7	11	nw.	Henry Geise
Belle Plaine.....	Benton.....	866	35	19.0	-5.2	48	3	-13	27	40	2.17	+ 0.82	0.92	19.5	7	6	11	14	nw.	O. C. Burrows
Boone (near).....	Boone.....	1,134	20	20.3	-3.7	48	1†	-14	29	50	0.81	-0.08	0.50	10.0	5	11	8	12	n.	C. F. Henning
Carroll.....	Carroll.....	1,265	35	21.3	-2.5	51	2	-13	27	39	1.38	+ 0.40	0.40	10.5	5	19	3	9	nw.	Mrs. Jos. J. Wolfe
Cedar Rapids.....	Linn.....	737	43	17.6	-8.3	41	19	-15	27	39	0.95	-0.36	0.51	11.0	4	10	1	20	nw.	J. T. Wurster
Clinton.....	Clinton.....	595	52	21.0	-5.3	46	12	-12	27	35	1.68	-0.10	1.18	7.0	7	10	4	17	sw.	Dr. A. P. Bryant
Davenport.....	Scott.....	580	54	22.4	-4.7	46	3	-11	27	31	1.64	+ 0.13	0.99	9.3	7	7	6	18	W.	U. S. Weather Bureau
Davenport (No. 2).....	Scott.....	690	—	22.0	—	46	12	-12	27	32	1.77	—	1.09	9.1	7	—	—	—	—	Rex Shriner
Denison.....	Crawford.....	1,171	31	21.9	-1.9	53	2	-12	27	38	0.86	-0.01	0.41	10.0	5	12	6	13	nw.	V. L. Byers
Des Moines.....	Polk.....	861	47	23.0	-3.0	52	8	-9	27	36	1.67	+ 0.46	0.62	17.8	6	7	13	11	nw.	U. S. Weather Bureau
Fairport.....	Muscatine.....	567	4	22.4	—	47	12	-12	27	32	1.95	—	0.83	7.7	10	7	7	17	nw.	Bureau of Fisheries
Fort Dodge.....	Webster.....	1,114	25	19.8	-2.5	49	11	-16	27	40	1.00	+ 0.17	0.26	13.0	5	16	1	14	nw.	Samuel Sampson
Grinnell.....	Grinnell.....	1,031	31	22.6	-2.6	54	7	-13	27	38	1.36	+ 0.19	0.40	15.0	6	5	13	13	nw.	Paul P. Meyers
Grundy Center.....	Guthrie.....	976	34	22.8	-1.7	52	8†	-14	27	34	0.97	-0.14	0.48	10.0	4	18	2	11	nw.	W. D. Callaway
Harlan (near).....	Guthrie.....	1,077	30	22.8	—	52	2	-14	27	34	0.97	-0.14	0.48	10.0	4	18	2	11	nw.	E. L. Nesselroad
Iowa City.....	Shelby.....	1,192	26	20.0	-1.6	54	2	-13	27	43	0.63	-0.37	0.48	6.0	2	14	4	3	n.	Nels Bisgard
Iowa Falls.....	Johnson.....	733	65	20.2	-5.6	4														

## Climatological Data for December, 1925—Continued

STATIONS	COUNTIES	Elevation, feet	Length of record, years	Temperature, in Degrees Fahrenheit						Precipitation, in inches			Number of Days			OBSERVERS				
				Mean	Departure from normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from normal	Greatest in 24 hours	Total snowfall (unmeasured)	.01 in. or more	Cloudy	Partly cloudy			
<i>Southern Division</i>																				
Afton.....	Union.....	1,212	31	25.2b	— 1.0	60b	9	—12b	27	38b	0.65	— 0.54	0.40	8.5	2	nw.	S. R. Brown			
Albia.....	Monroe.....	959	27	23.8	— 2.4	50	9	—10	27	33	1.83	— 0.76	0.72	15.2	7	14	5	O. E. McBride		
Atlantic.....	Cass.....	1,164	34	22.8	— 2.9	55	9	—11	27	36	1.22	— 0.10	0.60	11.5	7	9	10	T. H. Whitney		
Bonaparte (near).....	Van Buren.....	563	34	23.2	— 4.6	46	3†	—10	27	34	0.93	— 0.33	0.52	3.8	5	12	7	B. R. Vale		
Burlington.....	Des Moines.....	544	29	24.8	— 4.6	48	3	— 9	27	29	1.78	— 0.18	0.89	8.0	4	10	6	John W. Donnelly		
Centerville.....	Appanoose.....	1,013	20	24.0	— 3.7	50	12	—10	27	36	1.24	— 0.14	0.72	13.1	6	10	9	nw.		
Chariton (near).....	Lucas.....	1,042	30	24.0	— 2.4	52	9	—10	27	35	1.06	— 0.10	0.40	7.0	4	8	12	C. C. Burr		
Clarinda.....	Page.....	1,009	35	26.6	— 0.3	64	9	— 9	27	39	0.92	— 0.18	0.32	9.0	5	18	6	nw.		
Columbus Jct.††.....	Louisa.....	595	24	21.6	— 6.2	45	3†	—11	27	38	2.33	— 1.01	1.50	10.0	6	9	7	Miss Musa Todd		
Corning (near).....	Adams.....	1,117	33	25.5	+ 0.3	61	9	—10	16†	41	0.30	— 0.94	0.30	3.0	1	23	2	Jerome Smith		
Corydon.....	Wayne.....	1,101	32	24.9	— 1.9	54	12	—10	27	32	1.49	— 0.20	0.57	12.5	4	18	7	nw.		
Creston.....	Union.....	1,312	20	23.4	— 1.6	53	12	—13	27	37	0.90	— 0.16	0.50	9.0	4	17	10	J. W. Goodsell		
Cumberland (near).....	Cass.....	1,225	26								0.76	— 0.17	0.48	9.5	4	13	6	Carl E. Pollock		
Earlham (near).....	Madison.....	1,126	23	23.3	— 1.2	59	9	—12	27	43	1.22	— 0.03	0.48	15.0	4	18	4	George Phillips		
Fairfield.....	Jefferson.....	780	41	21.1	— 5.3	46	3†	—11	27	38	3.52	— 1.90	1.60	17.2	5	16	3	Prof. R. M. McKenzie		
Glenwood.....	Mills.....	1,100	27	25.4	— 1.4	57	2	—10	27	42	0.60	— 0.07	0.35	4.5	4	9	12	nw.		
Indianola.....	Warren.....	972	34	22.8	— 2.8	52	2	—12	27	38	1.60	— 0.28	0.80	16.0	5	14	11	nw.		
Keokuk.....	Lee.....	614	54	24.3	— 4.2	52	4	— 8	27	36	1.65	— 0.06	0.84	10.8	5	7	11	U. S. Weather Bureau		
Keosauqua.....	Van Buren.....	644	33	22.0	— 5.7	49	3	— 9	27	35	1.30	— 0.08	0.75	11.5	5	13	7	J. H. Landes		
Knoxville.....	Marion.....	920	30	23.2	— 2.7	50	2†	—11	27	36	1.50	— 0.18	0.45	11.0	7	15	8	W. J. Casey		
Lacona.....	Warren.....	824	26								1.78	— 0.16	0.40	17.0	7	6	20	nw.		
Lamoni.....	Decatur.....	1,123	18	24.8	— 1.2	56	9	—10	27	36	0.92	— 0.26	0.37	6.6	7	9	10	J. B. Alter		
Lenox.....	Taylor.....	1,250	30	25.0	— 0.6	61	9	— 11	27	38	0.65	— 0.33	0.35	3.5	4	14	11	F. S. Parks		
Mount Ayr.....	Ringgold.....	1,245	32	25.3	— 1.2	60	8	— 11	27	38	1.11	— 0.12	0.45	7.8	6	12	10	J. L. Hurley		
Mt. Pleasant.....	Henry.....	729	44	23.0	— 5.1	47	4	— 10	27	31	1.77	— 0.40	0.96	11.5	5	12	4	Alex Maxwell		
Oakland.....	Pottawattamie.....	1,105	6	24.3	— 0.9	60	1	— 10	16†	42	0.53	— 0.10	0.50	5.0	2	16	1	J. H. Jericho		
Oskaloosa.....	Makasko.....	835	49	22.4	— 3.6	47	2†	— 13	27	38	2.02	— 0.85	0.60	17.5	6	10	6	M. E. Gray		
Ottumwa.....	Wapello.....	649	30	23.6		49	9	— 11	16	44	1.42	— 0.16	0.63	9.4	6	14	5	Roy R. Robinson		
Red Oak (near).....	Montgomery.....	1,030									0.30	— 0.20	0.20	3.0	3	7	15	C. L. Mikesh		
Sigourney (near).....	Keokuk.....	790	29	20.6	— 4.3	44	8†	— 13	27	39	2.90	— 1.67	1.59	24.2	6	12	2	B. R. Bridge		
Stockport.....	Van Buren.....	747	23	22.6	— 4.2	49	8	— 10	27	39	1.17	— 0.10	0.40	10.5	4	11	8	W. E. Utterback		
Thurman.....	Fremont.....	975	28	27.0	+ 1.7	58	2	— 8	27	43	0.52	— 0.79	0.24	2.5	3	5	18	C. L. Beswick		
Tingley.....	Ringgold.....	1,275		25.1		59	9	— 10	27	36	1.07		0.33	7.3	6	14	6	C. R. Paul		
Washington.....	Washington.....	769	43	19.4	— 7.2	43	3†	— 14	27	40	1.55	— 0.23	0.46	16.0	6	10	0	James A. Verplough		
Wescott (near).....	Lee.....	523	3	23.8		50	12	— 7	27	29	0.77		0.30	7.7	4	11	9	D. D. Sherman		
Winterset.....	Madison.....	1,129	34	24.5	— 1.3	60	9	— 12	27	35	1.20	— 0.01	0.40	11.5	4	19	2	Lester J. Larson		
Omaha, Neb.....		1,103	54	26.0	— 0.4	58	2	— 9	27	30	1.42	— 0.51	0.75	12.6	5	12	11	U. S. Weather Bureau		
Means and extremes.....						23.9	— 2.6	64	9	— 14	27	44	1.27	+ 0.05	1.60	10.3	5	12	8	nw.
State means and extremes.....						21.0	— 3.1	64	9	— 25	29	50	1.30	+ 0.16	1.60	10.6	5	12	8	nw.

The departure from normal temperature and precipitation are computed only for such stations as have ten or more years of record, but all complete records are used in determining means.

Reference letters, a, b, c, etc., appearing in the table indicate the number of days missing; for example b represents two days, etc.

†Also other dates.

‡Received too late to be included in means and summaries.

T. Precipitation is less than 0.01 inch rain or melted snow.

## PRESSURE, RELATIVE HUMIDITY, WIND AND SUNSHINE

Stations	Barometric Pressure, Inches (Sea Level)			Relative Humidity, %			Wind			Sunshine					
	Mean	Highest	Date	Lowest	Date	Mean	12 Noon†	7 p. m.	Total movement	Average hourly velocity	Maximum miles	From	Per cent of possible departure from normal		
Charles City.....	30.08	30.76	28	29.49	5	70.79	88	59	16	5,088	6.8	27 nw.	4	40	— 4
Davenport.....	30.08	30.78	28	29.13	4	88.76	82	39	10	5,340	7.2	24 nw.	26	28	— 15
Des Moines.....	30.09	30.84	27	29.46	4	82.70	75	50	16	5,564	7.5	30 sw.	23	52	0
Dubuque.....	30.05	30.71	28	29.22	5	88.79	80	48	12	4,986	6.7	31 n.	4	40	— 2
Keokuk.....	30.11	30.80	28	29.21	4	80.67	74	42	24	5,769	7.8	33 sw.	23	45	0
Sioux City.....	30.14	30.96	27	29.53	3	82.72	75	37	1†	9,894	13.3	48 nw.	4	49	0
Omaha, Neb.....	30.11	30.94	27	29.47	19	77	66	39	1	7,104	9.5	42 nw.	4	51	— 1
Means and extremes.....	30.09				84	73	77			8.4			44	— 3	
Normals and records.....	30.12		27	29.13	4			37	1†		48 nw.		4		
*Sioux City. \$Dubuque. #Keokuk. †Local mean time. ‡And other dates.															

## TEMPERATURE

The mean temperature for the State, as shown by the records of 104 stations, was 21.0°, or 3.1° lower than the normal. By divisions, approximately three tiers of counties to the division, the means were as follows: Northern, 18.2°, or 3.3° lower than the

normal; Central, 21.0°, or 3.3° lower than the normal; Southern 23.9°, or 2.6° lower than the normal. The highest monthly mean was 27.0°, at Thurman, and the lowest was 13.8°, at Postville. The highest temperature recorded was 64°, at Clarinda, on the 9th, and the lowest was —25°, at Waverly, on the 29th. The monthly range for the State was 89°.

## PRECIPITATION\*

The average precipitation for the State, as shown by the records of 109 stations, was 1.30 inches, or 0.16 inch more than the normal. By divisions, the averages were as follows: Northern, 1.27 inches, or 0.24 inch more than the normal; Central, 1.27 inches, or 0.20 inch more than the normal; Southern, 1.27 inches, or 0.05 inch more than the normal. The greatest amount, 3.52 inches, occurred at Fairfield, and the least 0.30 inch, occurred at Red Oak and Corning. The greatest amount in 24 consecutive hours, 1.60 inches, occurred at Fairfield on the 5th.

## SNOWFALL

The average snowfall for the State was 10.6 inches or 4.4 inches more than the normal. The greatest amount 24.2 inches occurred at Sigourney, and the least, 2.5 inches occurred at Thurman. The snowfall was uniform in all divisions, but there were great differences in the amounts in the eastern and western portions of the State.

An area in the northeastern portion was snow covered the entire month, and nearly the entire State was covered from the 15th till the end of the month. The seasonal snowfall till the end of December, amounting to 19.5 inches for the State, is the greatest in the history of the State except in 1909, when 20.5 inches fell.

(Continued on Page 93)

## Daily Precipitation for December, 1925

Stations	Drainage Basin	Day of Month																														Totals		
		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		
<i>Northern Division</i>																																		
Algona	Des Moines	.10	.12																															1.02
Allison (near)	Cedar	.35	T.	.10																														1.15
Alta	Raccoon	.44	.18					T.																									1.58	
Alton	Floyd	.11	.05						T.																								0.66	
Belmond	Iowa	.02	.50	.10	.10																												1.69	
Britt	Iowa			.25	T.	T.	T.	T.																										
Charles City ***	Cedar	.61	.26	.13	T.	T.	T.	T.																										0.91
Cherokee	Little Sioux	T.	.23	.15					T.																									1.69
Decorah	Mississippi	.45	.11	.48						T.																								1.07
Dubuque ***	Mississippi	T.	.08	.80	.08	T.				T.																							1.68	
Estherville	Des Moines	.30	.10																															0.58
Fayette	Mississippi	.63	.54	.78																														3.15
Forest City	Cedar	.20	T.																															0.60
Hampton	Cedar	T.	T.	T.	.28																												0.97	
Humboldt	Des Moines	T.	T.	T.																													0.91	
Independence	Wapsipinicon	.17	.18	.85					T.																									2.44
Inwood	Big Sioux	.05	.02						T.																								0.42	
Lansing	Mississippi																																	
Le Mars	Floyd	.13	T.																															0.63
Mason City	Cedar	.15	.30	.05	.20	T.	T.																										1.27	
Milford (near)	Little Sioux			.20																														0.80
New Hampton	Wapsipinicon	.05	.32																															1.07
Nora Springs	Cedar	.52	.07	.09																														1.43
Northwood	Cedar	T.	.70	.10	.10	T.																											1.20	
Oelwein	Wapsipinicon	.32	.16																															1.60
Osage	Cedar	.55	.06			T.	T.	.02	T.	T.																							0.95	
Pocahontas	Des Moines	.60	.14																															1.70
Postville	Mississippi	.40	.30																															1.75
Rock Rapids	Big Sioux	.11	.15																															0.66
Sanborn	Floyd	.47																																1.27
Sheldon	Floyd	.29	.14			T.																												0.89
Sioux Center	Floyd	.27	.20		T.																													1.07
Spencer	Little Sioux	.25	.24																															1.45
Storm Lake	Raccoon	.18	.12																															0.92
Washta	Little Sioux	.22	.24																															1.17
Waterloo	Cedar	.27	.45	.53																														2.03
Waverly	Cedar	.18	.64																															2.06
West Bend	Des Moines	T.	.29	.08			T.																											1.01
<i>Central Division</i>																																		
Ames	Skunk	.12	.07			T.																												0.93
Audubon	Nishnabotna	.08	.10																															0.93
Baxter	Skunk	.28																																1.10
Belle Plaine	Iowa	.12	.52	.92	T.																												2.17	
Boone	Des Moines	.03	.10	T.																													0.81	
Carroll	Raccoon	.30																																1.38
Cedar Rapids	Cedar	.06	.19	.32																													0.95	
Clinton	Mississippi	.10	.18	.04																													1.68	
Davenport ***	Mississippi	T.	.10	.96	.09	.01	T.																									1.64		
Davenport (No.2)	Mississippi	.01	.09	.06	.03	T.																											1.77	
Denison	Missouri	.24	.11																														0.86	
Des Moines ***	Des Moines	.19	.40	.23	T.																												1.67	
Airport	Mississippi	.02	.83	.67	.04	T.																											1.95	
Fort Dodge	Des Moines	.17	.18			T.																											1.00	
Grinnell	Iowa	.30	.18	.35			T.																										1.36	
Grundy Center	Cedar																																**	
Guthrie Center	Raccoon	.09	T.																														0.97	
Harlan	Nishnabotna	.15				</																												

## Daily Precipitation for December, 1925—Continued

Stations	Drainage Basin	Day of Month																														Totals			
		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			
<i>Southern Division</i>																																			
Afton	Grand																																	0.65	
Albia	Des Moines	.02	.45	.72	T.																													1.83	
Atlantic	Nishnabotna	.03	.10																															1.22	
Bonaparte (near)	Des Moines	.03	.52	.11																														0.93	
Burlington	Mississippi	T.	.89	.21				T.																										1.78	
Centerville	Chariton	.03	.54	.18	T.	T.																												1.24	
Chariton (near)	Chariton	.40	.22																															T.	1.06
Clarinda	Nodaway	.02	.08																																0.92
Columbus Jct.	Iowa	.02	1.50	.40																														2.33	
Corning	Nodaway	T.	T.																															0.30	
Corydon	Chariton																																	1.49	
Creston	Missouri	.08																																0.90	
Cumber'l'd (near)	Nodaway	T.	.04																															0.76	
Earlham (near)	Des Moines	T.	.08																															1.20	
Fairfield	Skunk		1.20	1.60																														3.52	
Glenwood	Missouri																																	1.49	
Indianola	Des Moines																																	0.60	
Keokuk***	Mississippi	T.	.84	.05	T.	T.																												1.60	
Kenosauqua	Des Moines	.65	.50																															1.65	
Knoxville	Des Moines	T.	.10	.30	.40																													1.30	
Lacona	Des Moines	.08	.40	.20	.10																													1.78	
Lamoni	Grand	.07	.08	.03				T.																										0.92	
Lenox	Missouri	T.	.10																															0.65	
Mount Ayr	Grand	.02	.21																															1.11	
Mt. Pleasant	Skunk	.11	.96	.41																														1.77	
Oakland	Nishnabotna																																	0.53	
Oskaloosa	Des Moines	T.	.23	.54	.60	T.	T.																										2.02		
Ottumwa	Des Moines	.01	.63	.30				T.																										1.42	
Red Oak (near)	Missouri	T.	T.	T.																														0.30	
Sigourney	Skunk	T.	.08	.38	1.59																													2.90	
Stockport	Skunk		T.	.38	.40																													1.17	
Thurman	Missouri		T.	.12																														T.	0.52
Tingley	Platt		.18	.33																														1.07	
Washington	Skunk	.01	.46	.34																														1.55	
Wescott (near)	Mississippi		.12	.20																														0.77	
Winterset	Des Moines	T.	.30																																1.20
Omaha, Neb.***	Missouri	.22	.08			T.																													1.42

Except as otherwise indicated, observations are generally made late in the afternoon, near sunset, and precipitation recorded is for 24 hours ending at the time of observation.

|||Precipitation measured in the morning; amount then recorded is for the preceding 24 hours.

\*\*\*Regular Weather Bureau Station; precipitation is for 24-hour period, midnight to midnight.

\*\*Incomplete.

\*Precipitation included in the next following measurement.

T. Precipitation is less than .01 inch rain or melted snow.

(Continued from Page 91)

#### MISCELLANEOUS PHENOMENA

Aurora: 27th.  
Fog: 1st, 3d, 4th, 7th, 9th, 10th, 15th, 16th, 18th, 19th.

Hail: 4th.

Halos (lunar and solar): 1st, 12th, 13th, 23d, 25th, 26th, 27th, 31st.

Sleet: 2d, 3d, 4th, 7th, 9th, 10th, 15th, 19th, 20th, 21st, 23d.

Winds (strong): 2d, 3d, 4th, 5th, 27th.

#### RIVERS

Low stages prevailed on all rivers and there was very little fluctuation. There was running ice on the Mississippi at Dubuque till the 13th, when the channel closed and it remained closed the rest of the month. The Missouri River remained open with considerable running ice till the 21st when it closed and continued closed the rest of the month. The smaller streams in the northern portion of the State were closed most of the month but in the southern portion they did not freeze till the beginning of the last week.

#### ERRATA

Report for November, 1925. Page 82. Boone: mean temperature published 36.2°, should be 36.4°; departure published —0.4°, should be —0.2°. Belle Plaine: mean temperature published 36.0°, should be 35.8° degrees, departure published, —1.0°, should be —1.2°; date of lowest temperature published 7th should be 8th. Page 86. Belle Plaine; cancel data entered on the 6th and the maximum on the 7th to 10th, inclusive: 7th, maximum blank, minimum 18; 8th, maximum 30, minimum —2; 9th, maximum 47, minimum 12; 10th, maximum 55, minimum 29; mean of the maximum published 47.3, should be 47.3°; mean of the minimum published 24.6, should be 24.4°.

#### COOPERATIVE OBSERVERS APPRECIATED

At the meeting of the American Meteorological Society at Kansas City, December 28th-29th, a motion was passed expressing the appreciation of the Society for the work of the Cooperative Observers of the U. S. Weather Bureau. The motion was made by Prof. Dinsmore Alter of the University of Kansas, Lawrence, Kansas, and while the motion was pending many favorable remarks were made by members aside from those who are paid employees of the United States Weather Bureau and who have always placed a high estimate on the work of the cooperative observers.

Many scientific investigations would be impossible without these cooperative reports. Many applications of these reports to the practical affairs of life are made without the knowledge of the observer, through the medium of our monthly publication, Climatological Data, and through correspondence. Many claims for damaged shipments are adjusted on the evidence of cooperative observers' records without expensive court proceedings, to the economic advantage of all concerned. And there are many other uses that cannot be mentioned here.

This meeting of the American Meteorological Society was one section of the American Association for the Advancement of Science which meets annually somewhere in America, during the Christmas holiday week. The next meeting will be in Philadelphia.

Among those in attendance at the Meteorological Section this year were Prof. Charles F. Marvin, Chief of the United States Weather Bureau, the section directors of several States and other officials of the Bureau to the number of twenty-one.

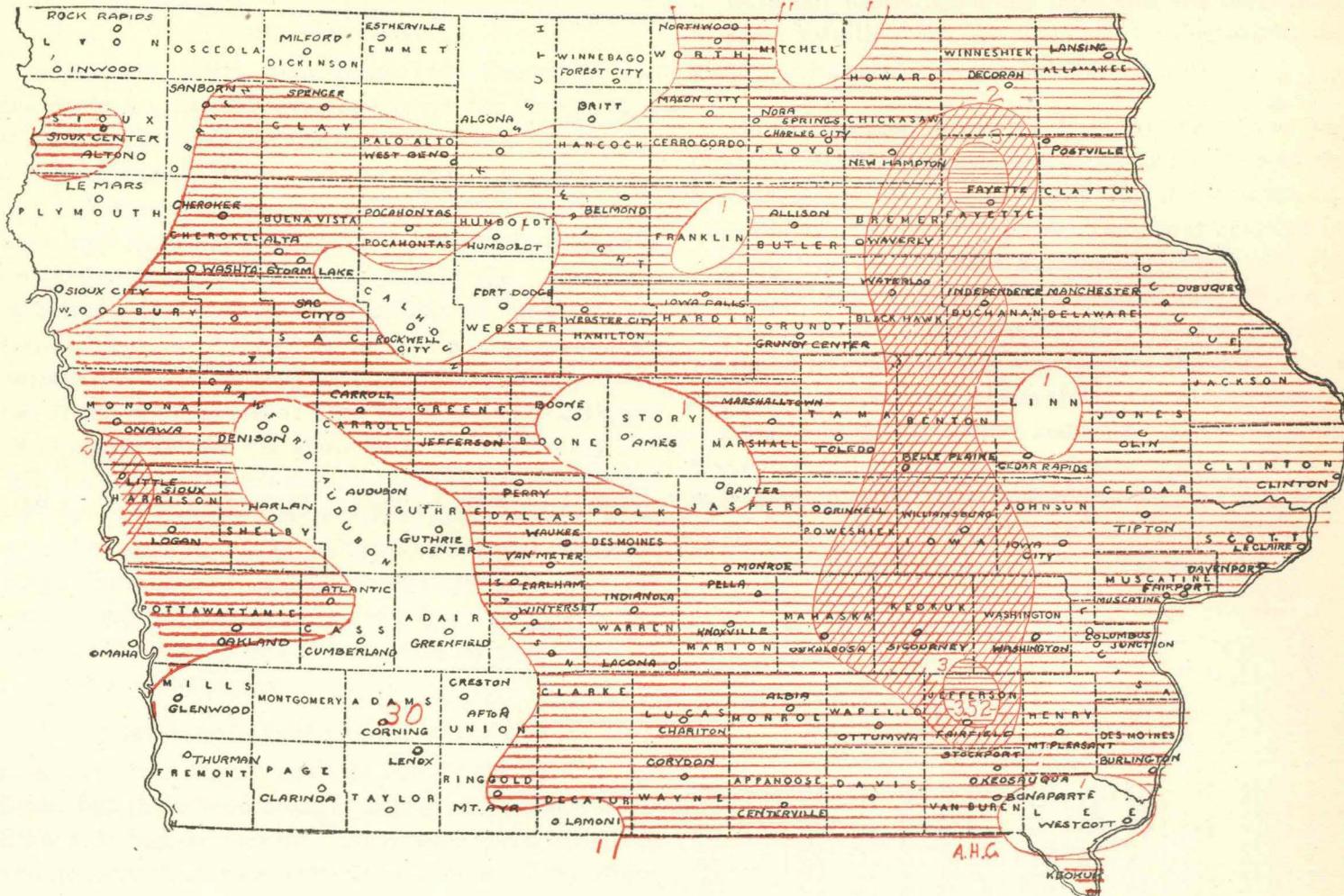
Many interesting papers were presented and there was much free and enthusiastic discussion.

Though young in years, it looks as though the American Meteorological Society would soon compare favorably with the Royal Meteorological Society of Great Britain in variety, technique and number of papers presented. The greatest need is more members and greater financial support. Cooperative observers are very welcome.

## Daily Maximum and Minimum Temperature for the Month of December, 1925

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	Mean	
<i>Northern Division</i>																																	
Algona.....	40	43	39	35	32	28	33	40	35	32	41	39	24	24	28	30	20	25	37	39	17	18	35	26	16	3	4	11	15	19	32	27.7	
(Minimum.....	16	24	24	19	0	10	20	28	23	26	30	24	18	17	18	12	10	15	15	9	6	0	12	6	8	-12	5	8	3	2	11.7		
Alta.....	43	49	37	32	24	29	35	43	40	32	46	38	22	20	29	32	17	29	40	22	13	14	35	20	13	3	0	9	13	11	35	26.6	
Alton.....	20	35	32	16	11	15	27	30	27	21	30	20	15	14	12	10	5	14	22	12	6	1	10	1	13	-15	8	7	2	5	12.0		
Belmond.....	42	50	41	34	27	32	36	45	42	32	48	43	23	22	30	31	20	29	32	23	17	10	36	23	15	5	.....	7	13	11	29	27.4	
Charles City.....	39	40	36	34	20	28	33	34	35	30	35	35	23	22	26	32	18	23	38	29	18	17	35	21	18	0	10	10	19	24	33	26.3	
(Minimum.....	9	30	33	19	8	8	18	29	25	25	29	20	13	15	7	5	4	2	17	14	9	5	4	10	10	-18	10	-15	8	2	8.9		
Decatur.....	33	39	36	34	15	24	33	40	31	29	36	33	23	24	23	23	29	14	20	37	28	17	16	34	19	9	4	3	6	15	21	30	24.1
(Minimum.....	12	28	32	15	11	12	13	28	23	23	27	15	11	13	-3	5	4	4	16	17	4	7	2	8	6	-11	-14	10	-17	5	1	7.5	
Dubuque.....	31	38	36	34	36	20	33	39	30	28	34	33	23	24	23	23	17	17	35	28	23	17	32	20	17	6	1	4	10	18	24	24.3	
(Minimum.....	14	23	28	20	9	9	11	15	7	21	15	7	8	4	-8	-1	-13	13	18	4	4	1	2	-2	-15	-16	-12	-24	-10	-4	4.4		
Forest City.....	31	36	43	41	31	23	32	40	35	35	36	40	27	30	27	28	16	29	41	29	25	17	34	21	18	3	3	7	11	24	32	27.3	
(Minimum.....	25	25	32	31	14	14	18	23	23	20	30	20	15	17	15	4	4	-1	27	23	10	9	5	13	3	8	-12	5	5	12.6			
Independence.....	39	39	35	36	25	32	41	37	31	43	36	23	22	26	33	23	22	43	32	24	20	33	25	15	0	1	12	19	24	33	27.6		
(Minimum.....	6	30	30	22	8	8	17	23	20	24	30	21	10	12	11	11	7	3	12	17	8	8	1	11	6	-13	-14	5	1	2	9.6		
Inwood.....	35	37	38	36	31	30	32	40	38	32	36	37	26	25	24	21	19	37	46	27	19	33	35	20	12	1	5	12	20	27	27.6		
(Minimum.....	11	24	21	30	11	11	12	27	26	14	25	21	11	14	20	-7	2	-11	11	19	11	3	5	7	1	-11	-19	-14	-8	1	7.8		
Mason City.....	36	36	34	35	22	24	32	40	33	34	38	37	21	23	24	29	18	21	41	31	18	34	19	17	17	7	1	5	17	22	33	25.3	
(Minimum.....	8	27	31	20	9	9	17	29	26	23	27	19	10	12	8	3	-1	1	12	16	8	9	8	-13	-14	9	-15	6	0	8.9			
Milford (near).....	43	46	43	35	20	29	40	38	38	33	47	45	29	19	31	31	21	27	31	44	15	18	35	36	25	12	4	12	13	29	29.8		
New Hampton.....	28	33	38	36	33	14	28	34	39	31	33	33	32	21	24	23	25	13	30	33	25	22	17	33	19	8	7	1	4	10	20	23.6	
(Minimum.....	9	12	30	31	10	9	12	20	26	15	26	27	12	10	12	3	10	-7	6	21	8	3	15	7	4	-15	-17	-13	-14	8	3	8.1	
Northwood.....	34	38	33	34	19	22	34	40	34	34	38	37	24	23	25	29	21	15	12	11	9	11	17	14	12	4	10	16	21	26	25.0k		
(Minimum.....	6	26	31	19	9	10	19	24	24	21	27	30	18	27	24	32	17	31	31	14	12	4	10	-12	-14	-5	8	4	3	7.11			
Pocahontas.....	45	46	44	34	20	30	35	42	41	32	46	38	25	21	27	30	18	27	42	35	22	12	37	30	21	0	5	11	14	14	35	28.4	
(Minimum.....	16	31	34	18	9	11	19	31	24	28	29	24	15	15	10	5	1	10	11	15	6	0	4	10	6	8	-13	9	-13	6	4	10.0	
Postville.....	32	38	35	35	28	20	30	41	31	31	33	34	22	23	22	29	14	16	40	26	23	16	30	19	18	4	1	4	14	22	28	24.5	
(Minimum.....	10	21	28	25	7	7	6	13	16	8	23	9	4	6	5	-2	-5	-11	11	17	2	4	8	-20	-20	-16	-19	-6	3	3.0			
Rock Rapids.....	41	47	40	34	34	32	36	43	38	33	48	37	37	20	30	28	23	18	17	25	23	15	4	0	0	5	5	5	20	25.9			
(Minimum.....	12	30	34	19	10	15	26	30	22	28	30	12	14	12	11	9	16	15	14	9	4	5	13	5	9	-15	9	-15	11	2	10.8		
<i>Central Division</i>																																	
Belle Plaine.....	40	40	48	38	32	26	34	44	40	35	37	41	24	27	26	26	13	25	39	32	24	17	36	31	22	5	2	11	17	29	34	28.9	
(Minimum.....	14	27	32	26	13	12	10	26	22	16	23	24	13	9	-6	1	8	20	24	8	3	4	9	0	8	-13	8	-11	3	1	9.2		
Boone.....	48	47	39	37	25	31	36	48	44	32	46	42	29	25	30	28	18	34	44	33	20	14	39	34	22	4	2	14	20	25	38	30.6	
(Minimum.....	15	32	35	24	11	15	31	33	27	24	29	18	21	12	-8	5	1	22	20	6	1	-11	10	1	6	-12	-9	-14	-6	6	10.0		
Carroll.....	49	51	42	36	25	33	36	50	36	48	43	39	20	23	26	25	17	32	41	31	16	13	41	32	20	10	1	15	17	18	39	30.1	
(Minimum.....	19	35	34	21	12	16	22	30	26	22	29	25	18	11	1	2	13	29	13	9	0	2	5	7	-13	6	5	0	4	12.5			
Cedar Rapids.....	38	36	40	49	29	23	35	40	36	34	35	40	25	29	28	22	17	21	41	30	28	17	35	31	21	8	2	8	14	26	30.7		
(Minimum.....	10	23	31	26	11	11	8	21	25	15	22	22	9	15	12	-10	3	13	18	22	8	2	4	4	4	2	12	5	2	7	7.6		
Davenport.....	29	40	46	44	37	24	34	42	35	42	36	38	36	25	28	31	25	16	33	42	33	27	16	30	27	17	1	2	10	15	27	29.5	
(Minimum.....	24	26	32	36	15	16	21	27	29	23	21	26	17	18	20	21	17	8	4	31	27	14	4	5	5	11	-11	1	3	11.6			
Des Moines.....	47	50	41	37	21	33	40	52	49	40	48	44	27	27	28	25	17	37	44	33	18	18	39	28	15	7	3	14	18	25	40		

## TOTAL PRECIPITATION, DECEMBER, 1925



SCALE OF SHADES—IN INCHES



Less than 1



1 to 2



2 to 3



More than 3

A.H.C.

## CLIMATOLOGICAL DATA.

### IOWA SECTION

In co-operation with

IOWA WEATHER AND CROP SERVICE  
CHARLES D. REED, Meteorologist

VOL. XXXVI DES MOINES, IOWA, ANNUAL, 1925 No. 13

### GENERAL SUMMARY

The mean temperature of the year 1925,  $48.8^{\circ}$ , is  $0.8^{\circ}$  above normal. All the months averaged warmer than usual except May, October, November and December. October was notably cold—the coldest of record with record breaking low temperatures on the 29th. The precipitation of 1925 averaged 28.24 inches or 3.98 inches below normal. The first five months were the driest of record. July and November were also deficient. Only June and September had notable excesses. Drouth was at times serious in the western portion of the State where wells and streams failed.

Hay, pastures and small grains were damaged by the early drouth but small grains largely recovered. Corn was injured some by drouth and heat in July and by rather continuous drouth in the northwest counties. Conditions were unusually favorable for corn in the eastern portion of the State where about twelve counties reported the largest yields per acre in the history of the State. Unusually cold, cloudy weather with frequent rain and a heavy snow in October made corn too moist to crib and injured seed corn.

### SYNOPSIS BY MONTHS

January averaged nearly normal in temperature but was deficient in precipitation and snowfall. In the western portion of the State from the 9th to the 18th, temperatures were mostly below normal and there was a cold period, 26th-27th, throughout the State. The usual outdoor activities were uninterrupted except on the coldest days. Building operations and ice harvest made good headway and some corn husking was done.

February mean temperature,  $28.4^{\circ}$ , made the month one of the warmest of record. There were no prolonged cold spells and the temperature was below normal for only three brief periods. In about 85 per cent of the State, precipitation was deficient, while in small areas in the extreme southwest and extreme southeast portions, there was an excess. A wide belt running east and west across the State began to show need of more moisture. Snowfall was generally deficient and caused no interference with traffic, but thawing made many dirt roads nearly impassable during the first half of the month.

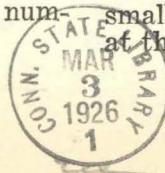
Mild weather continued in March, aside from cold spells, 1st-2nd, and 14th-15th. Trees and fruit buds were advanced about two weeks ahead of normal. Precipitation was well distributed through the month but mostly too light to penetrate the soil except on the 13th. Frost left the ground much earlier than usual and the preparation of the soil and seeding of oats and spring wheat progressed with practically no interruption during the last half of the month, to a stage much ahead of the average. Drouth, low humidity and windy days were unfavorable to certain kinds of vegetation. Dry soil drifted and covered up some winter wheat, leaving the roots exposed in spots. It was too dry for oats to germinate much and grasses were generally dormant. A number of small streams were completely dry and an unusually large number of wells failed.

Unusually mild weather prevailed practically the entire month of April, which was the warmest of record except April, 1915. At a number of stations the temperature did not reach the freezing point, although a decided change to colder occurred at the close of the month. The night of April 21st-22nd was more like a July night. Vegetation advanced far beyond the average. Under ideal conditions fruit trees blossomed in some parts of the State nearly three weeks ahead of the average date. Strawberries were damaged somewhat by frost at the end of the month but most tree fruit escaped injury. The weather was ideal for all farm work. The preparation of the soil for corn was pushed rapidly and considerable planting was done in the southern half of the State. Precipitation was generally deficient except in the southeast and south-central portions and wells and streams continued to go dry and crops in large areas were badly in need of rain. A number of severe local electric, wind and hail storms occurred from the 18th to 21st.

May was characterized by great extremes and numerous changes in temperatures. While neither the maximums nor minimums equalled the record for the State for May, a great many stations in the northwestern and central divisions reported the highest of record for May; and the low temperatures that occurred during the last week in May were the lowest ever recorded so late in the season. Following the abnormally high temperature on the 22nd, the temperature made the most remarkable drop ever recorded in the State except in winter. Over a large area in northeastern Iowa the drop amounted to more than  $65^{\circ}$  in a period of thirty-six hours. In this short period, both the high and low May temperature records for this section of the State were broken. Frosts of varying degrees occurred with unusual frequency until the 27th, causing severe damage to all vegetation susceptible to frost. All fruit and truck crops were seriously injured. Considerable corn was cut down by the hard freeze of the 25th but practically all recovered without replanting. Besides being the driest May of record, the current five-month period was the driest similar period of record. Although remarkably favorable for all outdoor work, the month was detrimental to practically all crops. Further failures of wells, streams and general water supply were reported.

The persistent drouth was broken in June. Some stations reported amounts exceeding the total for eight months preceding. There were many destructive hail, wind and electrical storms. Fifteen minor tornadoes were reported. Temperatures averaged slightly above normal, with a cool period during the last week. Crops made a wonderful recovery; oats, which had started to head "short," lengthened greatly and filled well during the cool period at the close of the month; and corn made unusual growth.

Hot weather prevailed the first half of July, followed by rather cool the last half. Precipitation was generally deficient and unevenly distributed. Drouth became severe over the western half of the State and limited areas in other sections. While corn made some progress, its relative condition at the close of July was not as good as at the beginning. However, the cool weather toward the close of the month lessened the drouth damage. Severe wind squalls and hail storms were frequent. Conditions were favorable for haying, harvesting and threshing and small grains turned out much better than seemed possible at the close of May.



August temperature averaged slightly above normal, with a rather protracted warm spell toward the close of the month. Precipitation was very nearly normal, but much localized in distribution. In the northwest portion of the State, drouth was especially severe and corn was seriously damaged. Water trains were run out of Des Moines to towns in the vicinity. What is believed to be the worst hail storm in the history of the State occurred on the 18th. This storm extended from the southeast corner of Poweshiek county southeastward over Iowa, Keokuk, Washington, Jefferson, Henry, Des Moines and Lee counties. The damage is conservatively estimated at \$2,500,000.

Abnormally high temperature prevailed during the first ten days of September. The average temperature was the highest of record except in 1897. While no State records were broken, a number of stations report the highest maximum temperatures of the year and several stations reported the highest of record for the month. Cool periods occurred from the 11th to the 15th and from the 20th to the 24th. Precipitation was above normal and rather uniform in all divisions. Downpours occurred in the northern and central divisions on the 1st. The intense heat during the first week caused the corn to mature too rapidly in some portions of the State but in the eastern portion, where the crop was rank and rather late, the warm weather was beneficial. By the end of the month, the crop was practically safe from frost. The heat, also, injured pastures but the rain, at the close of the month, was of great benefit.

October mean temperature,  $41.2^{\circ}$ , was  $11.7^{\circ}$  below normal and the coldest in fifty-three years, in striking contrast to 1924 which was the warmest in forty-seven years. The minimum temperatures were much lower at all stations than previously recorded for October and zero weather heretofore practically unknown in October occurred in more than one-half of the State, the lowest reported being  $-15^{\circ}$  at Inwood. Zero temperature reached to the Missouri line. The first killing frost occurred at a number of stations on the 7th and by the 10th killing frost had visited the entire State. Owing to the advanced state of vegetation, there was very little damage to staple crops, but considerable damage to late truck crops. Precipitation was above normal and unusually frequent, with very little sunshine so that corn which was of unusually high quality at the beginning of the month failed to dry out and was much damaged by mold. Heavy snowfall on the 25th-27th damaged down corn. Husking started about the middle of the month but much of the early husked corn heated in the cribs and less than 20% had been husked by the close of the month. The excellent condition of the corn at the beginning of the month caused procrastination in seed corn saving and subsequent moist weather and severe temperature rendered much corn unfit for planting and imperilled the 1926 crop.

Nearly normal temperature prevailed in November but there was a decided deficiency in precipitation. More zero weather was reported in the central and southern divisions than in the northern division of the State. Corn husking was pushed rapidly after the first week although there were continued reports of corn heating in the cribs. Plowing was resumed about the middle of the month when frost left the ground. Water shortage continued in the western half of the State where additional wells were reported failing. Because of the unfavorable fall, considerable acreage intended for winter wheat could not be seeded and considerable late seeded wheat failed to germinate or made little showing above the ground.

Although December temperature average  $3^{\circ}$  below normal, the month could not be regarded as severe. Precipitation was uniformly distributed and averaged slightly above normal. It was mostly in the form of snow, and

blizzard conditions occurred on the 24th. Deep snow drifts formed over large areas in the east and south portions of the State, blocking highways and delaying railway traffic. During the more severe weather, winter grains and grasses were well protected by an evenly distributed snow covering. The heavy snowfall interferred with belated corn husking and there was still considerable to be gathered in the southeast portion of the State at the end of the month.

SUPPLEMENTAL PRECIPITATION TABLE, YEAR 1925

STATIONS	January	February	March	April	May	June	July	August	September	October	November	December	Annual
<i>Northern Division</i>													
Lansing		1.73	2.19	1.16	8.20	7.48	3.54	5.27	1.85	1.34	0.18	0.80	
Milford (near)	0.83	1.48	1.10	1.89	0.30	3.39	2.31	3.88	1.48	1.78	1.32	1.07	
New Hampton	0.15	0.58	0.98	1.64	2.39	7.69	3.77	4.01			0.81	1.60	
Oelwein			1.00	0.80	1.20	13.30	4.30	2.80	5.25	2.85			
Sheldon							0.90	0.51	3.37	1.09	0.70	0.89	
Waverly		0.39	1.55	1.31	1.18	10.10		3.60	5.99	3.14	0.85	2.06	
<i>Central Division</i>													
Grundy Center	0.05	0.82	1.60	1.01	1.43	5.99	4.41	4.08	7.03	3.24	0.98		
Harlan	0.48		0.10	0.36	0.75	5.91	1.42	5.42	3.52	3.37	0.35	0.63	
Kalo				2.37	0.67	6.62	4.87	3.42	7.44	2.93	0.20		
Le Claire		1.51	3.54	0.92	6.69	1.98	3.36	7.52	3.98				
Maquoketa			3.48	1.04	7.49	3.99	2.34	6.36	3.43	2.30	1.46		
Muscatine	0.38	1.39	1.01	4.11	0.90	4.99	2.14	2.51	7.77	4.05	1.38	2.54	33.17
Rockwell City	0.50				0.96	4.25	2.35	2.37	2.75	1.62	0.21	0.90	
Van Meter	0.20	0.41	0.79	1.67	0.68	4.82	1.69	4.31	3.01	3.80	0.30	1.10	22.78
<i>Southern Division</i>													
Columbus Jct.					1.06	4.93	1.53	2.70	6.57	3.69	1.21	2.33	
Pella	0.10												

COMPARATIVE DATA FOR THE STATE—Annual

Year	Temperature			Precipitation in Inches		
	Mean annual	Highest	Date	Lowest	Date	Annual
1890	48.0	110	July 13	-27	January 22	31.30
1891	47.3	106	August 9	-31	February 4	32.90
1892	46.6	104	July 11	-38	January 19	36.58
1893	45.7	102	July* 13	-36	January 14	27.59
1894	49.7	109	July 26	-37	January 25	21.94
1895	47.2	104	May 28	-33	February 1	26.77
1896	48.6	104	July 3	-20	January 4	37.23
1897	47.8	106	July* 23	-30	January 25	26.98
1898	47.7	103	August 20	-25	December 31	31.34
1899	47.3	104	September 6	-40	February 11	28.68
1900	49.3	103	August 3	-27	February 15	35.05
1901	49.0	113	July 22	-31	December 15	24.41
1902	47.7	98	July 30	-31	January 27	43.82
1903	47.2	101	August 24	-27	December 13	35.39
1904	46.3	100	July 17	-32	January 27	28.51
1905	47.2	104	August 11	-41	February* 2	36.56
1906	48.4	102	July 21	-32	February 10	31.60
1907	47.4	102	July 5	-31	February 5	31.61
1908	49.4	101	August 3	-18	January 29	35.26
1909	47.4	103	August* 15	-26	February* 15	40.01
1910	48.6	108	July 16	-35	January 7	19.87
1911	49.5	111	July* 3	-35	January 3	31.37
1912	46.3	104	September 8	-47	January 12	28.89
1913	49.7	108	July* 16	-25	January 8	29.95
1914	49.1	109	July 12	-31	December 26	31.93
1915	47.8	99	May 14	-32	January 28	39.53
1916	47.2	106	August 4	-34	January 13	28.90
1917	44.8	106	July 30	-40	December 29	27.81
1918	49.2	113	August 4	-36	February 4	32.78
1919	48.6	104	July* 30	-36	December 10	36.76
1920	48.2	102	July 23	-26	January* 4	31.75
1921	52.2	104	July* 11	-22	December 25	32.03
1922	50.2	104	June 23	-29	January 6	29.98
1923	49.0	102	July* 22	-23	February* 3	29.50
1924	46.4	100	August* 21	-36	January 5	31.39
1925	48.8	105	July* 1	-25	December 29	28.24

\*And other dates.

## CLIMATOLOGICAL DATA FOR THE YEAR 1925

STATIONS	COUNTIES	Elevation, feet	Temperature, in Degrees Fahrenheit						Precipitation, in Inches						Number of Days			Prevailing direction of wind	
			Length of record, years	Mean	Highest	Date	Lowest	Date	Length of record, years	Total	Greatest monthly	Month	Least monthly	Month	Total snowfall (unmelted)	Precipitation 0.01 inch or more	Partly cloudy	Cloudy	
<i>Northern Division</i>																			
Algona.....	Kossuth.....	1,213	52	47.5	100	July 1	-18	Jan. 27	52	26.91	7.36	Sept.	0.21	Nov.	46.0	67	240	63	62 se.
Allison (near).....	Butler.....	1,044	13	46.8	100	May 22 <sup>†</sup>	-18	Dec. 27	13	25.72	5.54	Sept.	0.10	Jan.	21.5	75	172	109	84 nw.
Alta.....	Buena Vista.....	1,513	34	47.2	103	Sept. 3	-17	Jan. 27	34	24.53	8.20	June	0.41	Jan.	35.6	87	176	121	68 nw.
Alton.....	Sioux.....	1,305	20	46.9	101	July 11 <sup>†</sup>	-17	Dec. 27	20	14.42	3.24	June	0.31	May <sup>‡</sup>	28.5	77	106	166	93 nw.
Belmond.....	Wright.....	1,205	15	46.8	102	July 12	-18	Dec. 27	15	33.66	10.10	June	0.52	Feb.	37.7	99	73	214	78 nw.
Britt.....	Hancock.....	1,236	38	46.4	101	July 12	-18	Jan. 27	38	27.32	9.40	June	0.34	Mar.	31.0	66	183	96	86 nw.
Charles City.....	Floyd.....	1,015	34	45.8	99	May 22	-17	Dec. 29	29	27.65	9.39	June	0.10	Jan.	30.7	112	148	119	98 se.
Cherokee.....	Cherokee.....	1,196	3	46.5	100	Sept. 3	-19	Jan. 27	3	19.56	5.35	June	0.16	Feb.	28.5	83	—	—	s.
Decorah.....	Winneshiek.....	875	32	—	98	July 11	-24	Dec. 29	32	27.74	8.75	June	0.20	Jan.	37.5	91	205	77	83 nw.
Dubuque.....	Dubuque.....	698	52	48.2	97	Sept. 4	-15	Dec. 29	52	35.76	10.80	June	0.11	Jan.	32.0	108	100	118	147 s.
Estherville.....	Emmett.....	1,298	30	45.3	100	July 11 <sup>†</sup>	-21	Jan. 27	30	21.91	7.50	Sept.	0.45	Jan.	30.5	84	188	127	50 s.
Fayette.....	Fayette.....	1,003	37	46.3	98	Sept. 4	-24	Dec. 29	37	30.98	7.39	June	0.15	Jan.	46.9	89	—	—	nw.
Forest City.....	Winnebago.....	1,226	31	46.3	98	Sept. 2 <sup>†</sup>	-15	Jan. 27	31	24.66	7.15	June	0.40	Jan.	27.9	85	144	100	121 nw.
Hampton.....	Franklin.....	1,145	1	46.3	99	Sept. 4	-14	Dec. 27	1	24.82	6.01	June	0.11	Jan.	30.3	85	186	99	80 nw.
Humboldt.....	Humboldt.....	1,095	37	47.6	103	Sept. 4	-19	Jan. 14	37	24.57	6.39	Sept.	0.36	Feb.	43.5	66	—	—	n.
Independence.....	Buchanan.....	921	61	48.1	99	May 22	-19	Dec. 27	61	33.06	9.47	June	0.18	Jan.	40.3	79	197	61	107 nw.
Inwood.....	Lyon.....	1,474	21	46.5	105	Sept. 2	-20	Jan. 27	27	17.95	4.70	June	0.23	Mar.	25.7	84	224	73	68 nw.
Le Mars.....	Plymouth.....	1,224	29	47.7	102	Sept. 2	-16	Jan. 27 <sup>†</sup>	29	17.68	5.89	June	0.08	Feb.	25.5	70	235	73	57 sw.
Mason City.....	Cerro Gordo.....	1,148	28	45.7	100	May 22 <sup>†</sup>	-15	Jan. 14 <sup>†</sup>	28	27.29	8.51	June	0.23	Jan.	36.2	77	129	163	73 nw.
Milford (near).....	Dickinson.....	1,430	5	—	—	—	—	—	27	5	—	—	—	—	—	—	—	—	s.
New Hampton.....	Chickasaw.....	1,169	28	—	—	—	—	—	—	—	—	—	—	—	34.2	—	—	—	nw.
Nora Springs.....	Floyd.....	1,064	13	46.8	101	May 22	-18	Dec. 29	13	35.09	11.34	June	0.50	Jan.	28.2	117	168	125	72 s.
Northwood.....	Worth.....	1,222	29	—	96g	May 22	-15a	Jan. 27	29	27.96	8.40	June	0.25	Jan.	31.7	86	—	—	nw.
Oelwein.....	Fayette.....	1,036	2	47.0	97	July 1 <sup>†</sup>	-18	Dec. 29	2	—	13.30	June	0.37	Jan.	40.3	93	—	—	nw.
Osage.....	Mitchell.....	1,163	—	45.2	98	May 22 <sup>†</sup>	-15	Jan. 14 <sup>†</sup>	—	28.09	9.04	June	—	—	—	—	—	—	nw.
Pocahontas.....	Pocahontas.....	1,248	21	47.1	101	July 1	-19	Jan. 27	21	22.30	5.10	June	0.37	Nov.	36.6	89	198	93	74 se.
Postville.....	Clayton.....	1,180	26	44.5	93	Sept. 2 <sup>†</sup>	-20	Dec. 26 <sup>†</sup>	26	37.06	10.49	June	0.15	Jan.	42.1	88	117	149	99 nw.
Rock Rapids.....	Lyon.....	1,358	26	46.5	102	July 12	-21	Jan. 14 <sup>†</sup>	26	18.55	4.75	June	0.21	Mar.	28.8	83	232	67	66 se.
Sanborn.....	O'Brien.....	1,553	11	46.2	104	July 12	-20	Jan. 26	11	13.77	3.09	June	0.13	Mar.	29.6	65	206	89	70 se.
Sioux Center.....	Sioux.....	1,426	26	—	102	Sept. 2	-20	Jan. 27	28	18.79	4.65	June	0.42	Feb. <sup>§</sup>	30.0	67	—	—	s.
Spencer.....	Clay.....	1,319	11	46.9	103	July 15	-22	Jan. 27	11	24.07	7.37	Sept.	0.33	May	43.7	85	162	128	75 nw.
Storm Lake.....	Buena Vista.....	1,440	36	48.1	99	Sept. 3	-16	Jan. 27	36	16.57	5.34	June	0.20	Mar.	25.9	77	226	61	78 s.
Washta.....	Cherokee.....	1,157	27	—	99	Sept. 4	-19	Dec. 29	27	25.47	10.05	June	0.20	Feb.	29.0	69	207	82	76 s.
Waterloo.....	Black Hawk.....	854	42	48.4	101	May 22 <sup>†</sup>	-23	Dec. 29	42	26.50	6.99	June	0.08	Jan.	27.8	83	215	64	86 se.
Waverly.....	Bremer.....	936	29	—	—	—	—	—	29	—	10.10	June	0.12	Jan.	35.6	—	—	—	nw.
West Bend.....	Palo Alto.....	1,197	32	46.5	101	July 12	-22	Jan. 27	32	23.30	6.37	June	0.12	Feb.	—	92	157	138	70 nw.
<i>Central Division</i>																			
Ames.....	Story.....	926	48	49.2	105	July 1	-12	Dec. 27	48	28.98	6.46	Aug.	0.16	Jan.	22.6	84	197	92	76 nw.
Audubon.....	Audubon.....	1,297	30	48.0	98	July 1	-16	Jan. 27	30	28.13	7.56	June	0.04	Feb.	30.4	72	175	126	64 sw.
Baxter.....	Jasper.....	998	25	48.8	104	July 1	-15a	Dec. 27	25	22.45	4.98	Sept.	0.08	Jan.	21.8	68	—	—	s.
Belle Plaine.....	Benton.....	866	35	49.2	104	Sept. 4	-13	Dec. 27	35	25.88	5.59	Sept.	0.27	Jan.	43.6	103	131	144	90 nw.
Boone (near).....	Boone.....	1,134	20	48.5	103	July 1	-14	Jan. 27	20	25.96	5.24	Aug.	0.05	Feb.	24.5	74	—	—	s.
Carroll.....	Carroll.....	1,265	35	48.9	101	July 1	-15	Jan. 27	35	24.29	5.26	June	0.04	Feb.	23.5	70	235	54	76 nw.
Cedar Rapids.....	Linn.....	737	43	48.7	105	Sept. 4	-15	Dec. 27	43	29.92	7.02	June	0.08	Jan.	29.2	87	156	60	149 nw.
Clinton.....	Clinton.....	595	52	49.4	100	Sept. 4	-12	Dec. 27	52	33.57	7.27	Sept.	0.19	Jan.	24.6	81	207	67	91 s.
Davenport.....	Scott.....	580	54	50.3	99	July 11	-11	Dec. 27	54	37.49	8.16	Sept.	0.40	Jan.	27.9	105	133	109	123 nw.
Davenport (No. 2).....	Scott.....	690	1	50.6	101	Sept. 4	-12	Dec. 27	2	39.38	8.73	Sept.	0.38	Jan.	27.2	109	—	—	—
Denison.....	Crawford.....	1,171	31	48.7	100	July 1	-13	Jan. 27	31	26.04	6.97	June	0.21	Feb.	27.5	78	174	108	83 nw.
Des Moines.....	Polk.....	861	47	50.6	104	July 1	-9	Dec. 27	47	26.42	6.44	June	0.23	Jan.	30.3	89	113	117	135 n.
Fairport.....	Muscatine.....	567	4	50.8	99	Sept. 4 <sup>†</sup>	-12	Dec. 27	4	33.52	6.89	Sept.	0.48	Jan.	20.2	101	169	70	126 nw.
Fort Dodge.....	Webster.....	1,114	25	47.5	101	July 1	-19	Jan. 14 <sup>†</sup>	25	28.72	7.33	June	0.35	Feb.	39.0	89	220	32	113 nw.
Grinnell.....	Poweshiek.....	1,031	31	50.2	104	July 2	-13	Dec. 27	31	30.80	7.56	July	0.17	Jan.	26.6	97	112	178	75 se.
Grundy Center.....	Grundy.....	976	34	—	100	July 1	—	—	34	—	7.03	Sept.	0.05	Jan.	—	—	—	—	n.
Guthrie Center.....	Guthrie.....	1,077	30	49.5	100	July 1	-15	Jan. 27	30	26.24	8.36	Aug.	0.27	Feb.	30.0	66	218	75	72 sw.
Harlan (near).....	Shelby.....	1,192	26	—	100	July 1	-13	Dec. 27	26	—	5.91	June	0.10	Mar.	—	—	—	—	s.
Iowa City.....	Johnson.....	733	65	48.9	99	Sept. 4	-11	Dec. 27 <sup>†</sup>	65	30.92	5.61	June	0.29	Jan.	29.2	102	158	113	94 nw.
Iowa Falls.....	Hardin.....	1,107	32	46.9	99	May 22	-18	Dec. 29	32	29.25	6.61	Sept.	0.24	Jan.	36.1	97	157	109	99 nw.
Jefferson.....	Greene.....	1,052	26	47.9	100	July 1	-14	Jan. 27 <sup>†</sup>	26	21.									

## CLIMATOLOGICAL DATA FOR THE YEAR 1925—Continued

STATIONS	COUNTIES	Temperature, in Degrees Fahrenheit										Precipitation, in Inches										Number of Days			Prevailing direction of wind												
		Elevation, feet		Length of record, years		Mean		Highest		Date		Lowest		Date		Length of record, years		Total		Greatest Monthly		Month		Least Monthly		Month		Total snowfall (unmeted)		Precipitation .01 inch or more		Partly cloudy		Cloudy			
<i>Southern Division</i>																																					
Afton.....	Union.....	1,212	31	51.4	103	July	2	-12	Dec.	27	31	27.69	8.46	June	0.30	Jan.	27.8	74	190	66	109	nw.															
Albia.....	Monroe.....	959	27	51.0	104	Sept.	4	-10	Dec.	27	27	31.51	6.22	June	0.27	Jan.	28.9	102	190	66	109	nw.															
Atlantic.....	Cass.....	1,164	34	50.2	101	July	1	-11	Jan.	17†	34	26.16	6.66	June	0.06	Feb.	15.5	73	207	63	95	sw.															
Bonaparte.....	Van Buren.....	563	34	50.4	98	July	2†	-10	Dec.	27	34	38.58	9.33	June	0.31	Jan.	31.8	107	204	62	99	sw.															
Burlington.....	Des Moines.....	544	29	52.2	100	Sept.	4	-9	Dec.	27	29	45.53	9.43	June	0.70	Mar.	31.1	107	204	62	99	sw.															
Centerville.....	Appanoose.....	1,013	20	51.1	98	July	2†	-10	Dec.	27	20	37.85	7.87	June	0.17	Jan.	23.0	102	176	82	107	sw.															
Chariton (near).....	Lucas.....	1,042	30	50.6	100	July	2†	-10	Dec.	27	30	31.89	9.33	June	0.11	Jan.	16.0	53	169	109	87	sw.															
Clarinda.....	Page.....	1,009	35	51.6	104	July	1	-9	Dec.	27	35	31.95	8.05	Aug.	0.44	Nov.	94	201	128	36	s.																
Columbus Junction.....	Louisa.....	595	24	52.4	98	Sept.	4†	-11	Dec.	27	24	6.57	Sept.	June	0.30	Dec.	14.5	52																			
Corning (near).....	Adams.....	1,117	33	50.1	101	July	1	-13	Jan.	17	33	27.92	8.10	June	0.30	Dec.	33.1	95	187	59	119	nw.															
Corydon.....	Wayne.....	1,101	32	51.1	99	July	2	-10	Dec.	27	32	34.34	7.46	Sept.	0.12	Jan.	23.9	81	154	146	65	nw.															
Creston.....	Union.....	1,312	20	50.0	100	July	1				20	23.29	6.67	June	T	Feb.	14.5	74																			
Cumberland (near).....	Cass.....	1,225									25	19.09	4.72	June	T	Feb.	20.0	62																			
Earlham (near).....	Madison.....	1,126	23	49.6	100	July	1†	-13	Jan.	27	23	19.85	4.39	June	0.06	Feb.	32.5	63	241	46	78	sw.															
Fairfield.....	Jefferson.....	780	41	49.8	103	Sept.	4	-11	Dec.	27	41	41.46	9.86	June	0.47	Jan.	33.1	95	187	59	119	nw.															
Glenwood.....	Mills.....	1,100	27	51.5	104	July	1	-10	Jan.	27†	27	26.20	5.63	June	0.30	Nov.	18.0	77	137	158	70	se.															
Indianola.....	Warren.....	972	34	50.3	103	July	1	-12	Dec.	27	34	24.23	5.57	June	0.31	Nov.	33.3	81	174	125	66	nw.															
Keokuk.....	Lee.....	614	54	52.5	100	Sept.	4	-8	Dec.	27	23	33.57	6.99	Sept.	0.35	Jan.	35.0	97	117	136	112	s.															
Keosauqua.....	Van Buren.....	644	33	50.0	100	Sept.	5	-9	Jan.	13†	33	39.51	8.99	June	0.35	Jan.	32.5	87	155	106	104	se.															
Knoxville.....	Marion.....	920	30	50.4	103	Sept.	4	-11	Dec.	27	30	31.25	7.59	June	0.33	Jan.	28.3	82	177	96	92	nw.															
Lacona.....	Warren.....	824	26								26	28.94	9.66	June	0.60	Jan.	42.0	109	107	170	88	...															
Lamoni.....	Decatur.....	1,123	18	50.7	101	July	8	-10	Dec.	27	18	32.48	6.85	Sept.	0.32	Jan.	25.4	91	191	70	104	se.															
Lenox.....	Taylor.....	1,250	30	50.8	101	July	1	-11	Dec.	27	30	28.89	7.68	June	0.40	Jan.	17.8	84	195	101	69	nw.															
Mt. Ayr.....	Ringgold.....	1,245	32	50.5	100	July	12	-11	Dec.	27	32	30.65	6.24	Aug.	0.29	Jan.	24.8	89	184	79	102	s.															
Mt. Pleasant.....	Henry.....	729	44	51.0	101	Sept.	4	-10	Dec.	27	44	37.24	7.37	Sept.	0.52	Jan.	25.5	87	150	110	105	nw.															
Oakland.....	Pottawattamie.....	1,105	6	50.2	101	July	1	-13	Jan.	17	6	24.36	8.03	June	0.44	Nov.																					
Oskaloosa.....	Mahaska.....	835	49	49.8	99	July	2†	-13	Dec.	27	49	33.79	8.76	June	0.27	Jan.	34.6	90	146	98	121	s.															
Ottumwa.....	Wapello.....	649	30	52.0	103	Sept.	4	-11	Dec.	16	30	32.36	6.82	June	0.25	Jan.	17.9	93	203	53	109	nw.															
Red Oak (near).....	Montgomery.....	1,030									25	43.43	6.52	June	0.30	Dec.	55	135	164	66	164	s.															
Sigourney (near).....	Keokuk.....	790	29	49.8	102	July	2†	-13	Dec.	27	29	31.72	6.33	Sept.	0.38	Jan.	41.2	84	191	58	116	nw.															
Stockport.....	Van Buren.....	747	23	49.9	101	Sept.	4†	-11	Jan.	13	23	41.71	9.92	June	0.73	Jan.	28.5	96	188	73	104	s.															
Thurman.....	Fremont.....	975	28	51.9	103	July	1	-17	Jan.	17	28	32.58	7.47	Aug.	0.22	Nov.	20.5	66	199	70	70	nw.															
Tingley.....	Ringgold.....	1,275	30	50.3	99	July	1	-10	Dec.	27	20	29.91	7.51	June	0.18	Jan.	21.0	77	189	97	79	nw.															
Washington.....	Washington.....	769	43	50.4	101	Sept.	5	-14	Dec.	27	43	40.07	9.13	Sept.	0.80	Jan.	36.0	81	220	12	133	ne.															
Wescott (near).....	Lee.....	523	3		100	Sept.	4†	-14	Jan.	17	3	37.81	6.73	Sept.	0.37	Jan.	21.2	63	217	73	75	sw.															
Winterset.....	Madison.....	1,129	34	50.7	102	July	1	-12	Dec.	27	34	21.26	5.28	June	0.24	Jan.	24.0	67	241	56	68	sw.															
Omaha, Nebraska.....		1,103	54	52.1	104	July	1	-9	Dec.	27	54	21.12	7.42	June	0.12	Nov.	33.9	99	154	118	93	nw.															

Reference letters a, b, c, etc., appearing in the table indicate the number of days missing; for example, b represents two days, etc.

†Also on other dates.

## MONTHLY STATE DATA FOR 1925

MONTH	Barometric Pressure Inches (Sea Level)		
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MEAN MONTHLY AND ANNUAL TEMPERATURES, WITH DEPARTURES FROM THE NORMAL, FOR 1925

STATIONS	January		February		March		April		May		June		July		August		September		October		November		December		Annual			
	Temperature		Departure		Temperature		Departure		Temperature		Departure		Temperature		Departure		Temperature		Departure		Temperature		Departure		Temperature		Departure	
		Temperature		Departure																								
<i>Northern Division</i>																												
Algona.....	16.0	+ 0.6	24.0	+ 5.2	38.0	+ 6.5	55.9	+ 8.3	57.8	- 1.4	70.0	+ 1.4	73.6	+ 0.6	73.2	+ 2.9	67.6	+ 4.6	38.9	- 11.6	35.2	+ 0.6	19.7	- 1.8	47.5	- 1.3		
Allison.....	18.5	+ 3.2	25.2	+ 5.9	37.2	+ 5.1	54.8	+ 7.5	56.0	- 2.7	68.6	+ 0.5	72.1	- 0.7	70.3	- 0.2	67.4	+ 4.3	38.3	- 12.4	34.5	0.0	18.2	- 3.2	46.8	+ 0.6		
Alta.....	14.5	- 1.5	24.4	+ 4.7	37.8	+ 4.8	55.8	+ 8.7	57.6	- 1.0	69.0	+ 1.2	74.0	+ 1.6	72.8	+ 2.5	69.0	+ 6.3	37.7	- 12.4	35.1	+ 1.2	19.3	- 2.1	47.2	+ 1.1		
Alton.....	13.4	- 2.1	24.5	+ 5.6	38.4	+ 6.4	55.2	+ 8.2	56.8	- 1.8	69.2	+ 0.8	74.0	+ 0.5	72.9	+ 2.0	67.6	+ 4.8	37.0	- 12.8	34.2	+ 0.6	19.6	- 1.2	46.9	+ 0.9		
Belmond.....	15.6	+ 0.9	23.6	+ 5.3	37.8	+ 6.5	55.0	+ 8.3	57.0	- 1.6	69.8	+ 1.3	73.6	0.0	71.4	+ 1.6	68.1	+ 4.5	38.4	- 12.2	34.0	+ 0.2	17.6	- 3.3	46.8	+ 0.9		
Britt.....	17.2	- 3.0	23.3	+ 5.7	37.8	+ 7.3	54.2	+ 8.0	55.9	- 2.1	67.8	+ 0.4	72.4	+ 1.2	70.9	+ 1.0	66.5	+ 4.1	38.2b	- 11.5	34.2	+ 0.7	18.6	- 1.9	46.4	+ 1.3		
Charles City.....	16.8	+ 3.1	24.2	+ 7.1	36.2	+ 5.5	54.0	+ 7.6	55.2	- 2.6	68.1	+ 1.6	71.1	- 1.2	70.2	+ 1.1	66.5	+ 5.5	37.8	- 10.8	33.6	+ 0.6	15.8	- 4.6	45.8	+ 1.1		
Cherokee.....	13.8	- 2.4	24.0b	- 37.8a	55.0a	-	55.0a	-	56.5a	-	68.4a	-	72.2	-	72.2	-	67.5	-	36.9	-	34.3	-	19.0	-	46.5	-		
Dubuque.....	21.6	+ 2.5	27.7	+ 5.5	38.4	+ 4.4	54.8	+ 6.2	56.0	- 4.3	70.2	+ 0.8	72.5	- 1.6	72.2	+ 0.5	67.8	+ 3.8	40.9	- 11.0	35.7	- 1.3	20.0	- 4.7	48.2	+ 0.1		
Estherville.....	14.4	+ 1.3	21.6	+ 3.7	34.3	+ 2.6	52.8	+ 7.9	55.2	- 1.8	68.0	+ 1.1	71.3	- 0.6	71.7	+ 2.9	67.0	+ 5.3	36.2	- 12.9	33.0	- 1.0	18.6	- 1.7	45.3	+ 0.5		
Fayette.....	18.2	+ 2.8	24.5	+ 5.5	36.8	+ 5.5	54.0	+ 7.1	55.4	- 2.6	69.2b	+ 1.9	71.2	- 0.7	69.8	+ 0.4	66.7	+ 4.4	38.8	- 10.8	34.4	+ 0.3	16.4	- 5.0	46.3	+ 0.7		
Forest City.....	16.2	+ 1.9	24.0	+ 5.4	37.3	+ 5.5	54.4	+ 8.1	55.7	- 2.4	67.8	0.0	71.4	- 0.8	70.7	+ 0.5	66.8	+ 3.9	38.2	- 10.9	34.4	+ 0.9	18.6	- 2.7	46.3	+ 0.8		
Hampton.....	15.8	- 0.1	24.2	+ 4.3	37.2	+ 4.7	54.2	+ 6.3	56.0b	- 2.6	68.1a	+ 0.1	71.4	- 2.9	70.7a	+ 1.2	67.3	+ 3.0	38.4	- 13.5	34.1	+ 1.3	18.3	- 4.6	46.3	- 0.7		
Humboldt.....	15.8	- 0.7	24.8	+ 4.3	38.2	+ 5.0	55.9	+ 7.8	57.0	- 3.0	70.1	+ 0.8	73.8	- 0.3	72.3	+ 0.5	69.3	+ 5.1	36.6	- 12.7	35.6	+ 0.0	19.4	- 3.2	47.6	+ 0.3		
Independence.....	20.4	+ 3.5	27.8	+ 6.6	39.3	+ 5.2	57.1	+ 8.4	56.6	- 3.0	69.0	+ 0.7	73.2	+ 0.2	71.2	- 0.1	69.0	+ 5.1	40.3	- 11.8	35.8	- 0.7	17.7	- 5.9	48.1	+ 0.7		
Inwood.....	11.8	- 2.2	22.0f	+ 4.2	38.0	+ 5.3	55.6	+ 8.9	57.9	- 0.2	68.8	+ 1.1	73.1	+ 0.5	73.9c	+ 3.4	68.6	+ 5.5	36.6	- 13.2	33.6	+ 0.2	16.4	- 4.6	46.3	+ 0.7		
LeMars.....	14.8	- 2.3	25.6	+ 4.7	39.8	+ 6.5	55.8	+ 8.0	57.8	- 1.2	69.5	+ 0.9	73.8	- 0.5	73.0	+ 2.0	68.4	+ 4.7	37.7	- 13.4	35.2	+ 0.2	20.5	- 1.9	47.7	+ 0.8		
Mason City.....	15.8	+ 1.6	24.0	+ 4.9	36.6	+ 5.7	53.1	+ 6.6	55.3	- 2.7	68.2	+ 0.6	70.7	- 1.7	70.2	+ 0.6	66.6	+ 4.9	37.2	- 12.4	33.6	+ 0.1	17.1	- 3.8	45.7	+ 0.5		
Nora Springs.....	18.0	- 1.6	25.4	+ 5.4	37.6	+ 4.9	54.3	+ 5.9	56.4	- 2.8	67.9	- 0.8	70.4	- 3.2	70.3	- 0.9	68.2	+ 3.8	38.7	- 13.2	35.4	+ 0.8	18.4	- 4.7	46.8	+ 0.4		
Oelwein.....	19.3	- 0.8	26.2	-	38.0	-	55.1	-	56.2	-	68.2	-	72.0	-	71.2	-	67.8	-	39.5	-	34.8	-	16.2	-	47.0	-		
Osage.....	15.8	-	23.4	-	35.8	-	52.6	-	54.7b	-	67.2	-	70.4	-	69.8	-	66.2	-	37.4	-	32.8	-	16.4	-	45.2	-		
Pocahontas.....	15.1	- 0.9	23.8	+ 4.1	37.8	+ 5.5	55.2	+ 8.1	56.8	- 2.0	69.2	+ 0.9	74.0	+ 1.3	72.4	+ 1.8	68.2	+ 4.7	38.0	- 12.7	35.2	+ 0.5	19.2	- 2.5	47.1	+ 0.7		
Postville.....	16.8	+ 1.6	24.0	+ 5.7	36.0	+ 5.4	52.8	+ 6.5	55.1	- 2.3	66.0	+ 0.3	68.4	- 1.6	67.5	- 0.3	64.4	+ 3.6	36.8	- 12.5	32.8	- 1.2	13.8	- 7.1	44.5	+ 0.2		
Rock Rapids.....	12.7	- 0.8	22.8	+ 4.9	38.0	+ 6.5	55.6	+ 9.3	57.3	- 0.7	68.7	+ 0.8	72.7	- 0.1	73.5	+ 3.8	67.0	+ 5.3	41.4	- 12.0	36.4	- 0.2	20.3	- 3.7	45.5	+ 1.4		
Sanborn.....	12.6	- 2.0	23.4	+ 4.9	37.5	+ 5.9	54.0	+ 7.5	56.0	- 2.1	67.9	+ 0.2	73.3	+ 0.5	73.8	+ 3.3	67.8	+ 5.0	36.4	- 13.0	33.6	+ 1.1	18.6	- 0.8	46.2	+ 0.8		
Spencer.....	12.6	- 2.1	23.6	+ 5.1	38.2	+ 5.8	55.2	+ 8.2	57.2	- 1.3	69.7	+ 1.2	74.5	- 1.1	73.6	- 0.3	68.1	+ 4.6	37.6	- 12.6	33.8	+ 0.2	18.9	- 1.8	46.9	+ 0.9		
Storm Lake.....	16.0	- 0.8	26.1	+ 5.7	39.2	+ 6.6	56.0	+ 8.6	57.2	- 1.9	69.4	+ 0.9	74.4	- 1.1	72.9	+ 1.5	68.9	+ 4.9	39.4	- 11.8	37.0	+ 1.5	20.7	- 1.8	48.1	+ 1.2		
Waterloo.....	21.0	+ 3.6	27.2	+ 6.3	39.6	+ 5.2	56.4	+ 7.6	57.2	- 3.0	70.0	+ 0.6	73.8	+ 0.1	72.0	+ 0.5	69.0	+ 4.9	40.5	- 11.4	35.6	+ 0.5	18.0	- 5.5	48.4	+ 0.7		
West Bend.....	14.2	- 0.8	23.5	+ 4.3	37.6	+ 5.6	54.9	+ 7.5	56.4	- 2.9	68.9	+ 0.5	72.6	- 0.6	71.4	+ 0.8	67.5	+ 4.1	37.5	- 13.1	34.8	+ 0.7	19.2	- 1.9	46.5	+ 0.3		
<i>Central Division</i>																												
Ames.....	20.5	+ 2.0	29.0	+ 6.5	40.5	+ 5.5	56.6	+ 7.8	58.6	- 1.2	71.2	+ 1.3	75.1	+ 1.1	71.5	- 0.3	69.6	+ 5.2	40.5	- 11.2	36.6	+ 0.7	21.0	- 2.8	49.2	+ 1.2		
Audubon.....	18.2	+ 1.1	27.3	+ 5.8	39.0	+ 5.2	56.2	+ 8.6	57.3	- 2.0	69.9	+ 1.6	73.9	- 1.2	71.6	+ 0.8	67.4	+ 3.7	39.0	- 11.8	35.8	+ 1.0	20.2	- 2.2	48.0	+ 1.1		
Baxter.....	20.6	- 1.2	28.8	+ 5.9	40.0	+ 5.0	56.7	+ 7.7	58.0	- 2.5	70.2	+ 0.6	74.6	- 0.4	72.2	- 0.0	68.4	+ 3.8	40.4	- 12.0	35.6	- 1.6	20.7a	- 3.7	48.8	+ 0.4		
Belle Plaine.....	21.2	+ 2.4	29.3	+ 6.4	40.4	+ 5.5	57.5	+ 8.1	57.6	- 2.8	71.2	+ 2.0	74.4	- 0.9	72.9	+ 1.4	69.8	+ 5.4	41.0	- 10.9	35.8b	- 1.2	19.0	- 5.2	49.2	+ 1.0		
Boone.....	20.2	- 2.3	28.2	+ 4.9	39.4	+ 3.4	56.2	+ 7.2	57.6	- 2.3	70.6	+ 1.6	73.8	- 0.3	71.0	+ 0.1	69.0	+ 5.7	39.7	- 12.0	36.4	- 0.2	20.3	- 3.7	45.5	+ 0.5		
Carroll.....	19.0	- 1.6	27.7	+ 5.8	40.4	+ 4.4	56.8	+ 8.3	58.1	- 1.8	70.2	+ 1.8	74.5	- 1.3	72.4	+ 1.3	69.4	+ 5.7	39.8	- 11.8	37.0	+ 0.9	21.3	- 5.5	48.9	+ 1.3		
Cedar Rapids.....	21.2	+ 1.3	29.2	+ 5.4	40.0	+ 4.3	56.2	+ 8.5	57.6	- 2.2	69.2	+ 0.2	73.1	- 0.9	71.2	- 0.4	68.6	+ 4.6	38.6	- 12.7	35.7	- 1.4	19.8	- 2.5	47.5	+ 0.3		
Clinton.....	21.6	+ 1.0	30.4	+ 5.8	40.9	+ 5.1	55.9	+ 6.1	57.3	- 3.8	71.2	+ 0.8	73.4	- 1.4	72.8	- 0.3	69.4	+ 4.2	40.2	- 13.4	35.6	- 1.7	21.0	- 5.3	49.4	+ 0.0		
Davenport No. 2.....	22.5	-	31.0	-	41.9	-	57.1	-	59.1	-	70.1	-	74.0	-	72.7	-	67.4	-	37.5	-	32.8	-	20.0	-	50.6	-		
Denison.....	18.0	- 0.2	26.6	+ 4.2	40.2	+ 5.2	57.2	+ 8.0	58.0	- 2.1	70.0	+ 0.9	74.6	- 1.2	72.4	+ 0.9	68.9	+ 4.9	39.6	- 12.1	37.1	+ 1.5	21.9	- 4.8	47.7	+ 0.9		
Des Moines.....	22.3	+ 2.2	30.7	+ 7.0	41.2	+ 5.3	58.2	+ 8.1	59.4	- 1.9	72.0	+ 1.4	76.3	- 0.9	73.8	+ 0.7	70.4	+ 4.8	40.6	- 14.8	35.7	- 2.0	20.0	- 3.0	50.6	+ 1.1		
Fairport.....	22.4	-	31.8	-	42.4	-	57.7	-	59.0	-	70.1	-	74.2	-	72.7	-	67.4	-	37.5	-	32.8	-	22.4	-	50.8	-		
Fort Dodge.....	16.8	- 0.1	26.0	+ 3.7	38.6	+ 4.3	55.7	+ 8.1	57.0	- 2.2	69.2	+ 0.2	73.1	- 0.9	71.2	+ 0.4	68.6	+ 4.6	38.6	- 12.7	35.7	+ 0.4	19.8	- 2.5	47.5	+ 0.3		
Guthrie Cen.....	21.7	+ 1.5	30.0	+ 6.8	41.2	+ 5.9	58.0	+																				

Reference letters a, b, c, etc., appearing in the table indicate the number of days missing; for example, b represents two days, etc.

## MONTHLY AND ANNUAL PRECIPITATION WITH DEPARTURES FROM THE NORMAL, FOR 1925

STATIONS	January		February		March		April		May		June		July		August		September		October		November		December		Annual		
	Precipitation	Departure																									
Northern Division																											
Algona.....	0.60	-0.22	0.96	-0.13	0.77	+0.65	2.03	-0.50	0.99	-3.29	5.46	+0.95	3.19	+0.13	2.16	-1.39	7.36	+4.04	2.16	-0.11	0.21	-1.15	1.02	+0.07	26.91	-2.34	
Allison.....	0.10	-1.10	0.78	-0.66	0.86	-0.94	0.71	-2.33	1.73	-3.36	5.46	+0.51	2.11	-1.64	3.59	+0.19	5.54	+2.04	2.81	+0.31	0.88	-0.68	1.15	-0.05	25.72	-7.71	
Alta.....	0.41	-0.35	0.50	-0.52	0.51	-1.04	2.73	-0.36	1.08	-3.83	8.20	+0.34	2.04	-2.21	1.55	-2.03	3.58	+0.30	1.42	-0.81	0.93	-0.49	1.58	-0.67	24.53	-7.63	
Alton.....	0.70	-0.06	0.50	-0.46	0.42	-0.68	1.92	-0.57	0.31	-4.51	3.24	-0.72	2.48	-1.06	0.31	-2.79	2.33	+0.63	0.97	-0.79	0.58	-0.79	0.66	-0.14	14.42	-13.20	
Belmond.....	0.57	-0.69	0.62	-0.59	1.06	-0.27	1.49	-1.86	1.00	-4.21	10.10	-5.34	2.08	-1.54	4.31	+1.23	8.07	+3.87	2.07	-0.65	0.79	-0.86	1.69	-0.36	33.66	+0.13	
Britt.....	0.39	-0.29	0.58	-0.23	0.34	-0.91	1.32	-1.25	1.08	-3.82	9.40	+0.47	1.31	-2.67	2.65	-1.12	7.39	+3.93	1.15	-1.25	0.80	-0.65	0.91	-0.11	27.32	-3.28	
Charles City.....	0.10	-0.93	0.57	-0.57	0.96	-0.88	1.15	-1.41	1.38	-2.99	9.39	+0.47	4.71	-2.99	0.85	-2.70	0.73	3.59	+0.07	1.98	-0.45	1.15	-0.45	1.69	-0.44	27.65	-4.04
Cherokee.....	0.57	-0.16	0.20	-0.24	0.34	-0.94	0.94	-0.94	0.94	-5.35	2.47	-0.94	0.94	-3.57	-0.94	0.35	-0.94	1.57	-0.94	0.35	-0.94	1.07	-0.94	19.56			
Decorah.....	0.20	-1.04	0.78	-0.27	0.85	-0.95	1.23	-1.32	1.48	-3.18	8.75	+0.43	2.87	-1.18	2.32	-0.98	3.72	-0.39	1.66	-1.16	2.20	+0.36	1.68	+0.40	27.74	-5.48	
Dubuque.....	0.11	-1.45	1.08	-0.42	1.03	-1.16	2.17	-0.51	0.96	-3.06	10.80	-6.45	7.93	+0.46	1.91	-1.42	4.16	+0.29	2.67	+0.09	1.28	-0.55	1.66	-0.15	35.76	+2.47	
Estherville.....	0.45	-0.13	0.95	+0.11	0.75	-0.52	1.30	-1.33	0.57	-3.90	5.10	-0.76	2.66	-1.54	7.50	+0.17	1.03	-0.88	0.53	-0.78	0.58	-0.13	21.91	-6.83			
Fayette.....	0.15	-1.10	0.45	-0.83	0.98	-1.13	1.33	-1.77	2.27	-2.59	7.39	-2.55	3.95	-1.32	3.16	-0.38	4.58	+0.71	2.03	-0.10	1.14	-0.58	3.15	+0.17	30.98	-3.16	
Forest City.....	0.40	-0.48	0.62	-0.32	0.45	-0.98	1.62	-0.86	1.64	-3.00	7.15	-2.60	2.00	-1.57	2.39	-0.98	5.82	+0.29	4.91	-0.51	0.92	-0.46	1.09	-0.60	28.24	6.59	
Hampton.....	0.11	-1.10	0.38	-0.92	1.01	-0.74	0.95	-2.24	1.24	-3.76	6.01	-1.07	1.87	-1.78	3.28	-0.17	5.50	+0.07	2.77	-0.22	0.73	-0.87	0.97	-0.28	24.82	-8.50	
Humboldt.....	0.48	-0.33	0.36	-0.56	1.03	-0.41	2.10	-0.58	1.10	-3.22	5.17	-0.79	3.16	-0.58	1.28	-0.18	6.39	+0.12	1.77	-0.45	0.98	-0.69	0.91	-0.05	24.57	-5.04	
Independence.....	0.18	-0.99	0.35	-0.70	0.37	-1.35	1.96	-0.55	1.29	-2.98	9.47	-0.85	2.33	-1.81	4.44	-1.23	6.22	+0.27	3.05	+0.50	0.96	-0.48	2.44	+0.13	33.06	+1.12	
Inwood.....	0.68	-0.03	0.33	-0.54	0.23	-0.97	1.56	-0.97	0.60	-3.60	4.70	-0.61	3.47	-0.10	1.13	-1.46	2.49	-0.30	1.29	-0.29	0.72	-0.40	0.42	-0.24	17.95	-9.25	
LeMars.....	0.35	-0.22	0.08	-0.72	0.12	-1.13	2.40	-0.42	0.64	-3.89	5.89	+0.51	2.96	-1.52	0.50	-2.18	2.54	-0.80	1.08	-0.98	0.60	-0.53	0.63	-0.24	17.68	-10.72	
Mason City.....	0.23	-0.74	0.53	-0.42	0.75	-0.62	1.43	-1.12	1.57	-3.12	8.51	-0.37	2.05	-1.47	1.95	-1.79	6.37	+0.35	2.58	-0.35	0.78	-0.70	1.27	-0.39	27.29	-3.01	
Nora Springs.....	0.50	-0.60	0.82	-0.43	0.87	-0.98	1.88	-1.12	1.49	-3.61	11.34	-6.25	3.20	-0.60	2.36	-1.41	6.44	+0.24	3.12	+0.62	1.74	-0.26	1.43	-0.23	35.09	+0.83	
Northwood.....	0.25	-0.89	0.40	-0.98	0.80	-1.05	1.15	-1.59	1.78	-3.31	8.40	+0.34	2.41	-1.42	1.88	-2.08	6.53	+0.00	2.01	-0.63	1.15	-0.82	1.20	-0.03	27.96	-6.26	
Osage.....	0.37	-0.70	0.70	-0.63	0.95	-1.15	1.33	-1.77	1.31	-2.94	9.04	-0.66	2.25	-2.03	0.07	-2.38	0.70	-0.14	1.41	-0.95	0.95	-0.61	0.95	-0.28	20.99		
Pocahontas.....	0.45	-0.33	0.67	-0.45	1.05	-0.32	2.06	-0.66	1.04	-3.39	5.10	+0.46	1.65	-1.80	2.97	-0.40	3.73	+0.14	1.51	-1.22	0.37	-1.31	1.70	-0.78	22.30	-8.50	
Postville.....	0.15	-1.08	0.92	-0.22	0.89	-1.03	1.44	-1.57	1.47	-3.59	10.49	-5.83	5.57	-1.18	4.37	+0.92	3.99	+0.15	1.51	-1.83	1.51	-0.18	1.75	-0.39	37.06	+2.63	
Rock Rapids.....	0.84	-0.15	0.53	-0.15	0.21	-1.11	1.75	-1.05	0.76	-2.79	4.75	-0.13	1.92	-1.45	1.83	-0.52	3.31	+0.21	1.03	-0.76	0.96	-0.23	0.66	-0.03	18.55	-7.03	
Sanborn.....	0.42	-0.28	0.45	-0.55	0.13	-1.27	2.86	-0.14	0.43	-4.36	3.09	-1.64	0.80	-2.70	0.61	2.60	1.96	-0.12	1.24	-0.70	0.60	-0.70	1.27	-0.42	13.77	-15.76	
Sioux Center.....	0.80	-0.06	0.42	-0.55	0.42	-0.84	2.08	-0.74	0.30	-4.41	4.65	-0.59	0.44	-2.41	0.49	2.33	2.20	0.75	-1.31	0.53	-0.81	0.37	1.07	-0.19	18.79	-9.27	
Spencer.....	1.06	-0.36	1.22	-0.31	0.74	-0.58	1.70	-1.20	0.33	-3.87	3.55	-0.65	1.75	-2.41	0.99	7.37	+0.05	1.75	-0.17	0.74	-0.56	1.45	-0.60	24.07	-4.45		
Storm Lake.....	0.40	-0.30	0.23	-0.76	0.17	-1.13	2.39	-0.54	1.20	-3.29	5.34	-0.32	1.14	-2.05	1.59	-1.55	1.54	-1.71	0.95	-0.63	0.62	-0.10	16.57	-13.46			
Washto.....	0.58	-0.03	0.20	-0.74	0.30	-0.71	0.71	-1.29	1.27	-3.35	10.05	-5.47	2.01	-2.22	1.82	-1.12	2.52	-0.87	1.35	-0.76	0.29	-1.03	1.17	-0.34	25.47	-3.73	
Waterloo.....	0.08	-1.04	0.45	-0.73	0.73	-0.94	0.95	-1.55	1.12	-2.97	6.99	-2.86	2.27	-1.71	2.66	-0.65	6.13	+0.29	2.49	+0.05	0.60	-0.89	2.03	-0.83	26.50	-4.68	
West Bend.....	0.54	-0.41	0.12	-0.86	0.34	-1.22	2.02	-0.85	1.20	-2.99	6.37	-2.08	2.05	-1.42	2.16	-1.53	5.04	+0.90	1.84	-0.19	0.61	-0.88	1.01	-0.15	23.30	-6.52	
Central Division																											
Ames.....	0.16	-0.74	0.42	-0.52	0.87	-0.55	0.87	-2.11	0.75	-3.76	4.08	-0.29	5.52	-1.66	6.46	-3.02	5.63	-1.96	2.81	-0.20	0.48	-0.81	0.93	-0.13	28.98	-2.07	
Audubon.....	0.68	-0.15	0.04	-0.99	1.04	-0.41	1.79	-1.33	1.32	-3.06	7.56	-3.54	1.08	-2.59	6.53	-2.90	4.18	-0.42	2.82	+0.51	0.16	-1.17	0.93	-0.06	28.13	-2.39	
Baxter.....	0.08	-0.82	0.25	-0.77	0.97	-0.87	0.89	-2.17	1.18	-4.18	3.87	-0.72	3.58	-0.31	2.25	-0.98	4.98	+0.01	3.15	-0.73	0.15	-1.28	1.10	-0.15	22.45	-10.21	
Belle Plaine.....	0.27	-1.29	0.36	-1.24	0.54	-1.74	2.13	-1.28	0.95	-3.86	4.75	-0.40	4.40	-2.80	4.43	-0.43	5.59	-0.20	3.56	-1.07	0.96	-0.73	2.17	-0.82	25.88	-8.41	
Boone.....	0.17	-0.67	0.05	-0.95	1.13	-0.31																					

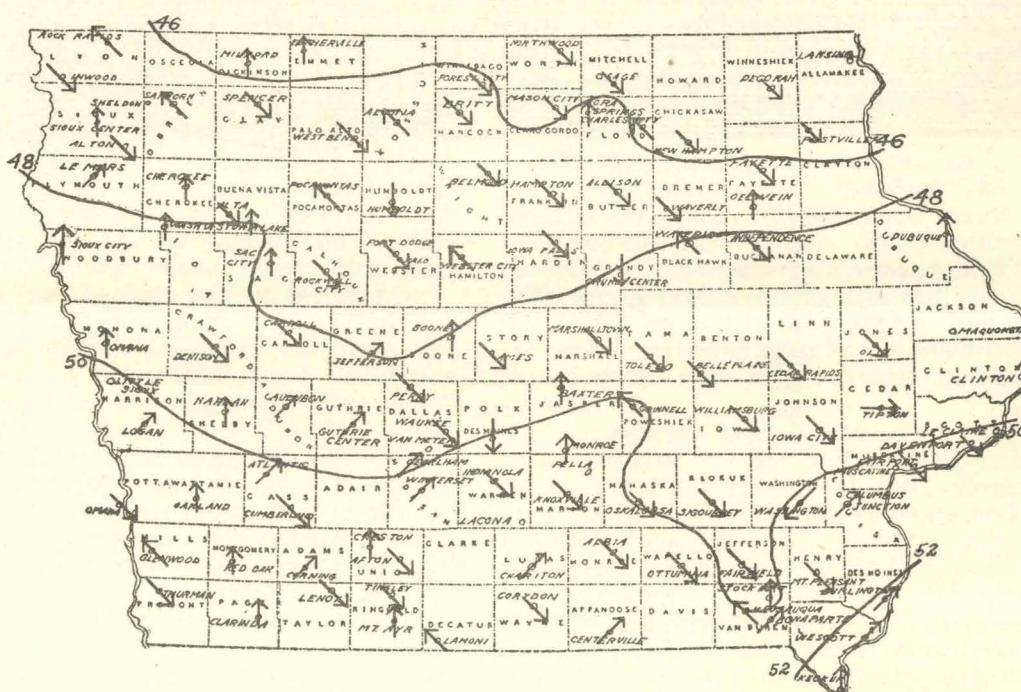
## DATES OF KILLING FROSTS, 1925

Charles City, Davenport, Des Moines, Dubuque, Keokuk, Sioux City, Omaha, and Marshalltown excluded from averages because of city influences

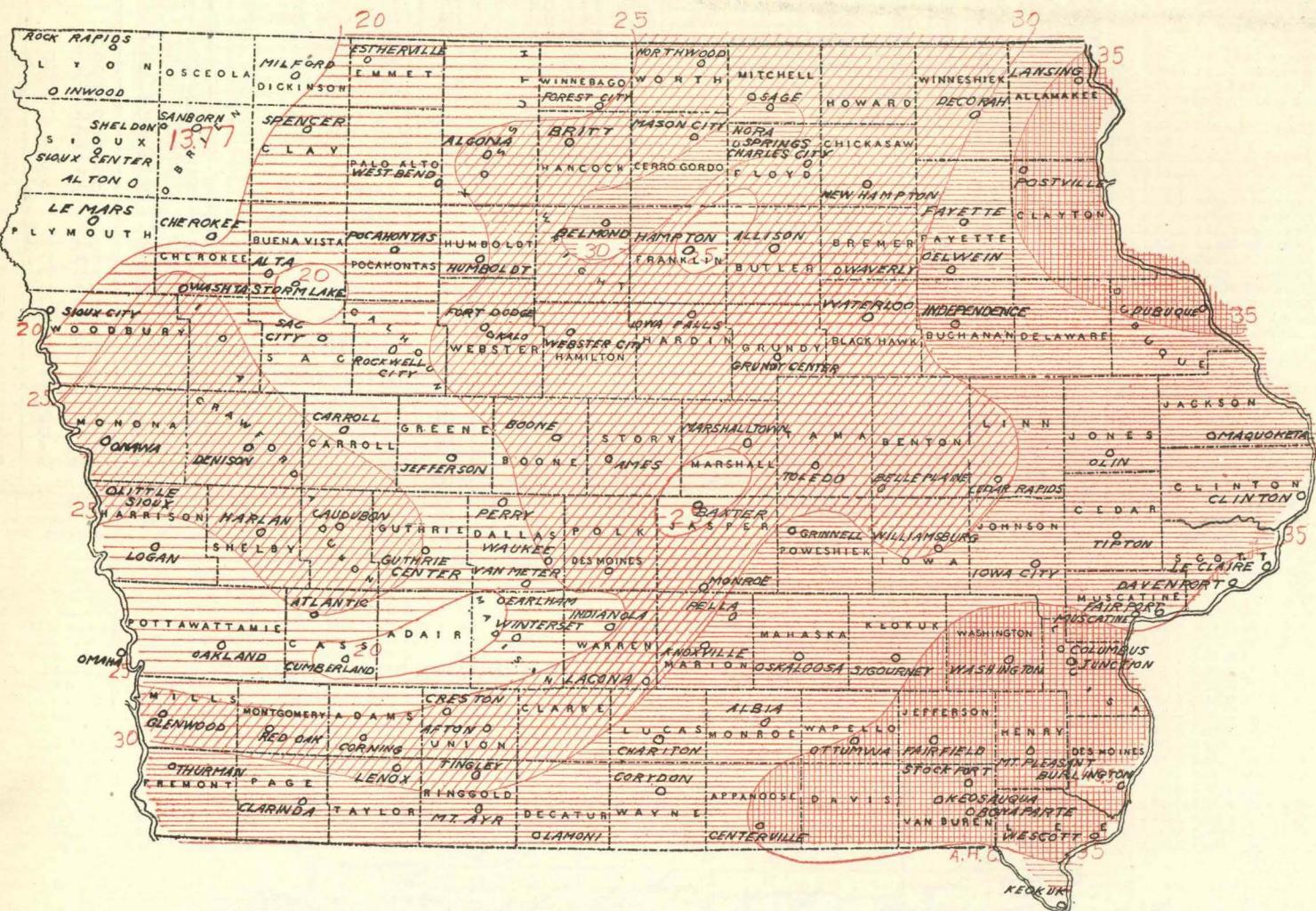
STATIONS	Last in Spring	First in Autumn	Days in Growing Season	STATIONS	Last in Spring	First in Autumn	Days in Growing Season	STATIONS	Last in Spring	First in Autumn	Days in Growing Season
<i>Northwest District</i>											
Alta.....	May 25	Oct. 9	137	Algona.....	May 25†	Oct. 9†	137	Decorah.....	May 26	Oct. 5†	132
Alton.....	May 25	Oct. 9	137	Allison.....	May 25	Oct. 7	135	Dubuque.....	April 5	Oct. 10	138
Cherokee.....	May 25†	Oct. 6†	134	Belmond.....	May 25	Oct. 10	138	Fayette.....	May 25	Oct. 10	138
Estherville.....	May 25	Oct. 9	137	Britt.....	May 25†	Oct. 7	135	Independence.....	May 25†	Oct. 7†	135
Inwood.....	May 25	Oct. 9	137	Charles City.....	May 17†	Oct. 10	146	New Hampton.....	May 25†	Oct. 7†	135
Le Mars.....	May 25†	Oct. 7†	135	Forest City.....	May 17	Oct. 7†	143	Oelwein.....	May 25†	Oct. 7	143
Milford (near).....	May 25	Oct. 9†	137	Hampton.....	May 25†	Oct. 7†	135	Postville.....	May 25†	Oct. 7†	135
Pocahontas.....	May 25†	Oct. 7†	135	Humboldt.....	May 25†	Oct. 7	135	Waterloo.....	May 25†	Oct. 7†	135
Rock Rapids.....	May 25	Oct. 9	137	Mason City.....	May 25	Oct. 10	138	Waverly.....	May 25	Oct. 7†	135
Sanborn.....	May 25†	Oct. 6†	134	Nora Springs.....	May 25	Oct. 7	135	Rural Average.....	May 24	Oct. 7	136
Sheldon.....	Oct. 9			Northwood.....	May 25†	Oct. 9	137				
Sioux Center.....	May 25†	Oct. 9	137	Osage.....	May 25†	Oct. 7†	135				
Spencer.....	May 25	Oct. 9†	137	Rural Average.....	May 24	Oct. 8	137				
Storm Lake.....	May 25†	Oct. 9†	137								
Washta.....	May 25	Oct. 9	137								
West Bend.....	May 25†	Oct. 7†	135								
Rural Average.....	May 25	Oct. 8	136								
<i>West Central District</i>											
Andubon.....	May 17†	Oct. 6†	142	Ames.....	May 11†	Oct. 7†	149	Belle Plaine.....	May 25	Oct. 7	135
Carroll.....	May 25†	Oct. 7†	135	Baxter.....	May 25	Oct. 7†	135	Cedar Rapids.....	May 26†	Oct. 10	137
Denison.....	May 25†	Oct. 7†	135	Boone.....	May 25	Oct. 10	138	Clinton.....	May 25†	Oct. 10	138
Guthrie Center.....	May 25†	Oct. 7†	135	Des Moines.....	May 7	Oct. 9	155	Davenport.....	April 6†	Oct. 10	137
Harlan (near).....	May 16	Oct. 6	143	Fort Dodge.....	May 25†	Oct. 6†	134	Fairport.....	May 25	Oct. 10	138
Jefferson.....	May 25	Oct. 7	135	Grinnell.....	May 6†	Oct. 9†	156	Iowa City.....	May 25†	Oct. 10	138
Little Sioux.....	May 25†	Oct. 9†	137	Grundy Center.....	May 25†	Oct. 7†	135	Maquoketa.....	May 26†	Oct. 7†	134
Logan.....	May 25†	Oct. 9†	137	Iowa Falls.....	May 11	Oct. 10	152	Olin.....	May 26†	Oct. 7†	134
Onawa.....	May 25	Oct. 9	137	Marshalltown.....	May 8†	Oct. 10	155	Tipton.....	May 26	Oct. 10†	137
Rockwell City.....	May 25†	Oct. 7†	135	Monroe.....	May 25	Oct. 10	138	Williamsburg.....	May 25	Oct. 7†	135
Sac City.....	May 25	Oct. 7†	135	Perry.....	May 25	Oct. 7	135	Rural Average.....	May 25	Oct. 9	137
Sioux City.....	May 11	Oct. 9	151	Toledo.....	May 25†	Oct. 7†	135				
Rural Average.....	May 23	Oct. 7	137	Webster City.....	May 25†	Oct. 7†	135				
<i>Southwest District</i>											
Atlantic.....	May 25†	Oct. 9	137	Afton.....	May 25†	Oct. 7†	135	Bonaparte.....	May 25†	Oct. 10†	138
Clarinda.....	May 25	Oct. 7†	135	Albia.....	May 25†	Oct. 10	138	Burlington.....	May 25	Oct. 10	138
Corning.....	May 25†	Oct. 7†	135	Centerville.....	May 6	Oct. 9	156	Columbus Junction.....	May 25†	Oct. 10	138
Cumberland (near).....	May 25	Oct. 9	137	Chariton (near).....	May 25†	Oct. 7	135	Fairfield.....	May 25	Oct. 10	138
Glenwood.....	May 25†	Oct. 9	137	Corydon.....	May 25	Oct. 9	137	Keokuk.....	April 5	Oct. 10	138
Lenox.....	May 25	Oct. 7†	135	Creston.....	May 25†	Oct. 7†	135	Keesauqua.....	May 25	Oct. 10	138
Oakland.....	May 25†	Oct. 9†	137	Earlham (near).....	May 11†	Oct. 7†	149	Mt. Pleasant.....	May 25	Oct. 10	138
Red Oak.....	May 25	Oct. 7	135	Indianola.....	May 25†	Oct. 9†	137	Oskaloosa.....	May 25	Oct. 10	138
Thurman.....	May 25†	Oct. 9†	137	Knoxville.....	May 25†	Oct. 7†	135	Ottumwa.....	May 25†	Oct. 10	138
Omaha, Neb.....	Mar. 21	Oct. 9	202	Mount Ayr.....	May 25†	Oct. 9†	137	Sigourney (near).....	May 25	Oct. 10	138
Rural Average.....	May 25	Oct. 8	136	Winterset.....	May 25	Oct. 7	135	Stockport.....	May 25	Oct. 10†	138
				Rural Average.....	May 22	Oct. 8	139	Washington.....	May 7†	Oct. 10†	156

†Date of last temperature of 32° or lower in the spring, or first temperature of 32° or lower in the autumn (as the case may be) when frost was not reported.

## MEAN ISOTHERMS AND PREVAILING WINDS, YEAR, 1925



### TOTAL PRECIPITATION, YEAR, 1925



### SCALE OF SHADES IN INCHES



### **Less than 20**



20-25



25-30



30-35



More than 35

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