

IOWA MONTHLY WEATHER SUMMARY – DECEMBER 2007

General Summary. Temperatures across Iowa averaged 20.3° or 2.3° below normal while precipitation totaled 2.57 inches or 1.34 inches above normal. This ranks as the 38th coldest and 2nd wettest December among 135 years of state records. Only December 1982 was wetter with an average of 3.43 inches of precipitation.

Temperatures. There were relatively few temperature extremes during the month as only three days averaged more than ten degrees from normal (8th and 9th on the cold side of normal and the 21st on the warm side). Colder than normal weather was the rule for most of the first one-half of the month with only 4 of the first 17 days of December averaging warmer than normal. Conversely, only 4 days among the final two weeks were colder than usual. Temperature extremes ranged from highs of 59° on the 1st at Lamoni, Leon and Mount Ayr to a low of -11° at Cresco on the 6th. At Milford the temperature failed to exceed 32° during the month, yet also never fell lower than 1°, resulting in an amazingly low monthly temperature range of only 31°.

Heating Degree Day Totals. Home heating requirements, as estimated by heating degree day totals, averaged 32% greater than last December, but only 5% more than normal. Thus far this season (since July 1) heating requirements are running 4% more than last season at this time and 7% less than normal.

Precipitation. The big weather story of the month was the frequent winter storms. After the 3rd driest November on record, Mother Nature wasted to time in setting a different tone for December. A major storm system affected all of Iowa on the 1st. Much of the state saw from one-half to one inch of freezing rain. Temperatures warmed well above freezing over southern Iowa, and briefly above freezing in the north, to allow the freezing rain to change to rain by the night of the 1st. Extreme northern Iowa recorded 2 to 6 inches of snow in addition to the rain. An average of 1.08 inches of precipitation fell across the state with this first storm with a maximum amount of 1.84 inches reported at Waukon. Northeast Iowa caught the edge of a large storm system on the night of the 4th with 3 to 6 inches of snowfall. Snow fell statewide on the 6th with 3 to 5 inch amounts common in the southwest. Another snow event affected most of the state on the 8th with 2 to 5 inch amounts common in the northwest. The most destructive storm of the month began late on the 10th in southwest Iowa and spread over all but the far northwest on the 11th. Freezing rain was the rule for the southeast one-half of the state with this storm. Ice accumulations of more than an inch were common from south central to east central Iowa. Unlike the ice storm of the 1st, this event saw temperatures remain below freezing excepting a brief thaw in the extreme southeast. Damage to trees and power lines was severe, especially in south central Iowa where Mount Ayr reported 1.90 inches of freezing rain. Damage could have been much worse except that winds remained fairly light during and after the storm. This storm brought a statewide average of 0.64 inches of precipitation. Yet another storm brought 3 to 5 inches of snow across the southern one-third of Iowa late on the 14th and through the 15th. The most disruptive snow storm of the month came on the 22nd and into the 23rd across southeastern and eastern Iowa. Heaviest snowfall of 6 to 10 inches fell from south central into northeast Iowa and, unlike earlier events in the month, this snow was accompanied by strong winds of 25 to 40 mph. Christmas Day brought 4 to 6 inches of snow to extreme northwestern Iowa. Snow fell across the southeast two-thirds of the state on the 28th with 4 to 6 inches in the far east. Finally 2 to 6 inches of snow fell over far southern/southeastern Iowa on New Year's Eve. The statewide average snowfall was 13.4 inches or 6.1 inches greater than normal and ranks as the 8th highest December total among 121 years of state records. The greatest snowfall was reported in northeast Iowa where Lansing reported 27.6 inches for the month. December precipitation totals varied from 0.82 inches at Milford to 4.74 inches at Lamoni. Every reporting point in the state recorded greater than normal precipitation. Record December precipitation totals were recorded at several locations including:

City	Dec. 2007 Total	Old December Record	Length of Record
Lamoni	4.74	4.10 inches in 1982	102 years
Dubuque	4.46	4.14 inches in 1982	155 years

Mount Ayr	4.27	3.30 inches in 1911	109 years
Knoxville	4.24	3.51 inches in 1982	114 years
Oskaloosa	4.16	3.63 inches in 1948	129 years
Chariton	3.87	3.11 inches in 1931	113 years
Grinnell	3.77	3.57 inches in 1965	117 years

Annual Summary. Temperatures in 2007 averaged 48.9° or 1.1° above normal while precipitation totaled 43.35 inches or 9.27 inches above normal. This ranks as the 43rd warmest and 4th wettest year among 135 years of state records. Temperature extremes varied from a low of -27° at Cherokee on January 16 to a high of 103° at Keokuk on August 15. Triple digit heat was restricted to only Van Buren and Lee Counties. Snowfall for the year averaged 46.9 inches or 14.5 inches greater than normal to make this the 8th snowiest year among 120 years of records. Annual precipitation records were set at:

City	2007 Total	Old Annual Record	Length of Record
Guthrie Center	56.80	48.90 inches in 1973	99 years
Waukon	55.56	45.25 inches in 1881	78 years
Lansing	54.29	46.49 inches in 2004	88 years
New Hampton	51.88	51.86 inches in 1993	100 years
Decorah	48.74	48.44 inches in 1993	110 years
Guttenberg	45.92	44.83 inches in 1876	70 years

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