

## IOWA MONTHLY WEATHER SUMMARY – DECEMBER 2008

General Summary. Temperatures averaged 17.5° or 5.1° below normal while precipitation totaled 2.00 inches or 0.77 inches above normal. This ranks as the 17<sup>th</sup> coolest and 18<sup>th</sup> wettest December among 136 years of records. The last colder December was in 2000 while December precipitation was greater in both 2006 and 2007.

Temperatures. There were some wide and rapid temperature fluctuations during the month, unlike much of the rest of 2008 when temperature extremes were at a minimum. The most noteworthy temperature event of the year came on the 14<sup>th</sup>. Temperatures reached into the upper 30's northwest to low 60's southeast before a very strong cold front pushed through Iowa. At 3 p.m. on the 14<sup>th</sup> temperatures ranged from -1° at Le Mars to 61° at Burlington. Donnellson recorded the highest temperature of the month with a temperature of 63° on the 14<sup>th</sup>. The temperature fell from 59° to 33° at Pella between 11 a.m. and noon while Ottumwa saw readings plummet from 61° at noon to a low of zero the next morning. Wind chill readings plunged to -38° at Estherville and Spencer on the morning of the 15<sup>th</sup> while actual temperatures bottomed out at -15° at Sheldon. Another blast of cold air brought a low temperature of -22° at Cresco on the morning of the 22<sup>nd</sup>. After a frigid Christmas morning featuring a low of -21° at Elkader temperatures soared in advance of a storm system on the 26<sup>th</sup> with Red Oak, Shenandoah and Sidney reaching 62°. However, cold air ruled most of the month as above normal temperatures were restricted to only 8 days (8<sup>th</sup>, 13<sup>th</sup>-14<sup>th</sup> and 26<sup>th</sup>-30<sup>th</sup>).

Heating Degree Days. Home heating requirements, as estimated by heating degree day totals, averaged 6% greater than last December and 12% more than normal. Degree day totals so far this winter season are running 8% more than last year and 1% more than normal.

Precipitation. Precipitation was frequent through the month. Storm systems bringing rain, freezing rain, sleet and/or snow came through the state nearly every other day through the 27<sup>th</sup>. The largest event of the month came on the 18<sup>th</sup>-19<sup>th</sup> with a statewide average of 4.7 inches of snow and 0.68 inches of precipitation. This mid-month storm brought heavy snow to northern Iowa with a band of 6 to 12 inches of snow stretching from near Sioux City east-northeastward into Wisconsin. The storm brought from one-quarter to two-thirds of an inch of freezing rain to south central and southeast Iowa. Other events brought several inches of snow on the 3<sup>rd</sup>, 8<sup>th</sup>-9<sup>th</sup>, 14<sup>th</sup>, 16<sup>th</sup>, 20<sup>th</sup>, 22<sup>nd</sup>-23<sup>rd</sup>, 24<sup>th</sup> and 27<sup>th</sup>. Freezing rain also caused travel problems, particularly in eastern Iowa, on the 8<sup>th</sup>-9<sup>th</sup>, 25<sup>th</sup>-26<sup>th</sup> and 27<sup>th</sup>. Snowfall was most frequent over northeastern Iowa where Waukon reported 35.5 inches of snow for the month. Parts of southwest Iowa recorded less snow than normal with only 3.5 inches falling at Glenwood. Monthly precipitation totals were about double normal over much of northern and eastern Iowa while parts of southwest and west central Iowa received slightly less precipitation than usual. Monthly precipitation totals varied from 0.73 inches at Castana to 4.98 inches at Le Claire. Overall this was the fourth snowiest December among 122 years of state snow records. A very deep and moisture-rich snow pack covered most of Iowa until very warm and humid air advanced across southern and eastern areas on the 26<sup>th</sup> and

27th. This air mass quickly melted most of the southern Iowa snow cover and broke up the ice in many rivers. The rapid snow melt, supplemented by rainfall of up to an inch, and a few ice jams, brought flooding to many rivers across southeastern Iowa. Nevertheless, anywhere from 2 to 12 inches of snow remained on the ground at year's end over the northern one-third of the state.

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