

## IOWA PRELIMINARY MONTHLY WEATHER SUMMARY – FEBRUARY 2014

General Summary. Temperatures averaged 12.6° or 11.4° below normal while precipitation totaled 1.54 inches or 0.49 inches above normal. This ranks as the 7<sup>th</sup> coldest and 28<sup>th</sup> wettest February among 142 years of records. A colder February was last recorded in 1979 and a colder calendar month in December 2000.

Temperatures. The cold weather pattern that began in Iowa in mid-October continued through February. Temperatures averaged below normal on all but five days (13<sup>th</sup> and 17<sup>th</sup>-20<sup>th</sup>) of the month. There were no days averaging as much as ten degrees above normal but were 18 days more than ten degrees colder than usual. Elkader reported the lowest temperature of the month with a -29° reading on the 11<sup>th</sup>. However, bitter cold prevailed even at the end of the month with a -20° temperature on the 28<sup>th</sup> at Cresco, with temperatures to fall even further in early March. Nevertheless, portions of western and southern Iowa enjoyed some brief respite from the cold at mid-month with readings climbing above 50 degrees in some areas on the 13<sup>th</sup>, 15<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup>. The temperature at Sidney soared to 67 degrees on the afternoon of the 18<sup>th</sup>. However, the temperature has not exceeded 42° at Charles City, Northwood and Osage since November. Spencer Airport recorded the lowest wind chill of the month at -42° on the 10<sup>th</sup>.

Heating Degree Day Totals. Home heating requirements, as estimated by heating degree day totals, averaged 27% greater than last February and normal. Degree day totals thus far this heating season (since July 1, 2013) are running 18% greater than last season and 13% greater than normal.

Precipitation. Precipitation was much more frequent during February than for the prior two months. Monthly precipitation totals were above normal at most locations and well above normal over the parts of eastern Iowa. Totals varied from 0.29 inches at Castana to 3.90 inches at Donnellson. A higher February total has been recorded only once (4.25 in 2001) at Donnellson since measurements began there in 1940. The month's largest precipitation event came on the 20<sup>th</sup> with a wide variety of weather across Iowa. This event began with rain in most areas but transitioned to moderate to heavy snow over much of the northwest one-half of the state. Greatest snow totals were reported from Algona, Britt and Lake Mills with eight inches. Meanwhile unseasonably heavy rain fell across far southeast Iowa with Donnellson picking up 2.21 inches. Thunderstorms were common across the southeast one-half of the state with hail up to one inch in diameter reported in Linn, Union, Warren and Wayne counties. Blizzard conditions were reported across north central Iowa on the evening of the 20<sup>th</sup> with wind gusts to 55 mph at Mason City. Other than on the 20<sup>th</sup>, nearly all of the remainder of the month's precipitation fell as snow. Snow totals varied from 6.9 inches at Hawarden in the northwest to 29.2 inches at Keosauqua in the southeast. The Keosauqua snowfall is the highest total for any month at that location (previous record 26.5 inches in Feb. 2008 among 121 years of records). The statewide average snowfall was 14.6 inches or 7.8 inches more than normal. This was the sixth snowiest February among 127 years of records and the state's snowiest calendar month since December 2009.

Winter Summary. The three mid-winter months of December, January and February averaged 14.6° or 7.5° below normal while precipitation totaled 2.61 inches or 0.73 inches less than normal. This ranks as

the 9<sup>th</sup> coldest and 42<sup>nd</sup> driest winter among 141 years of records. A colder winter was last recorded in 1978-1979 and a drier winter in 2005-2006. Persistent cold, with subnormal temperatures prevailing since mid-October, has allowed the soil under sod to freeze two to three feet beneath the surface and under roadways to depths as great as five and one-half feet. Water main breaks have become common across the state. Frost depths have remained relatively steady over the past two weeks and probably have reached their winter maximums.

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