

IOWA PRELIMINARY MONTHLY WEATHER SUMMARY – FEBRUARY 2011

General Summary. Temperatures averaged 22.8° or 1.4° below normal while precipitation averaged 1.45 inches or 0.47 inches above normal. This ranks as the 69th coolest and 29th wettest February among 139 years of records.

Temperatures. Unseasonably cold weather prevailed for the first ten days of the month with temperatures averaging 11.4° below normal. Storm Lake reported the lowest wind chill during this period with a reading of -42° on the morning of the 8th while Elkader had the lowest actual temperature with -29° on the morning of the 10th. However the second ten days of the month averaged 11.6° above normal with daily maximum temperatures reaching into the mid 50's or higher somewhere in the state on the 13th, 15th, 16th, 17th and 20th. The highest temperature was reported from Leon with a 71° reading on the 17th. This was the highest temperature recorded in Iowa for so early in the year since a 72° reading at Webster City on January 26, 2002. The relatively warm period at mid-month melted all of the snow pack from about the southwestern two-thirds of Iowa. Unfortunately the warm-up, accompanied by significant rain in many areas on the 20th, resulted in locally severe flooding from ice jams such as impacted the Fort Dodge area. The final eight days of the month averaged slightly colder than normal with no major extremes in temperature.

Heating Degree Day Totals. Home heating requirements, as estimated by heating degree day totals, averaged 3% more than normal but 12% less than last February. Degree day totals thus far this heating season are running 1% less than normal and 6% less than last season at this time.

Precipitation. By far the largest weather event of the month was the major blizzard which traversed the state on the first day of the month. Snow totals of a foot or more fell across much of southeast and east central Iowa and was accompanied by wind gusts of greater than 50 mph. This storm dumped official snow totals of as much as 18.5 inches at Lowden and 18.4 inches at the Quad Cities Airport (tying with January 11-13, 1979 for the greatest storm total in the Quad Cities among 127 years of records). Clinton Airport reported the highest wind gust reaching 66 mph on the evening of the 1st. The impact of this blizzard was particularly great thanks to the highest winds occurring simultaneously with the most intense snowfall. The storm produced a statewide average snowfall of 7.1 inches. The remainder of the month was fairly quiet with additional snowfall averaging only 3.9 inches across Iowa. However, freezing rain over the northern two tiers of Iowa counties on the 20th resulted in hazardous road conditions and numerous power failures with one-quarter inch ice accumulations common and localized glaze of up to six-tenths of an inch reported. Freezing rain also impacted about the southeast one-quarter of Iowa on the night of the 27th with accumulations of one-tenth to one-quarter of an inch.

Winter Summary. Temperatures over the three mid-winter months of December, January and February averaged 19.1° or 2.9° below normal while precipitation totaled 3.59 inches or 0.43 inches above normal. This ranks as the 34th coldest and 51st wettest

winter among 138 years of records. This was the fifth consecutive wetter than normal winter and fourth consecutive colder than normal winter season.

Outlook. Thanks to major thaws on December 30 and again between February 12 and 20, most of Iowa was snow-free at the beginning of March. This is in major contrast to last winter when the lack of any significant period of warmer weather between early December and early March left all of Iowa with a major snow pack at this time in 2010. However, significant snow cover does remain across the northernmost one tier of Iowa counties, as well as a little further south over Chickasaw and Fayette counties of northeast Iowa. Further north, particularly over northeastern South Dakota and southwestern Minnesota, a near-record snow pack exists. Outlooks from the National Weather Service indicate that with seasonal weather over the coming weeks that major flooding is almost a certainty along the Big Sioux River on the Iowa-South Dakota border with the odds of major flooding on the Mississippi River ranging from 80 to 98% along Iowa's eastern border. A potential major winter storm around March 8 could further increase the odds for major flooding. Spring flood probabilities are near normal for much of southwestern Iowa where conditions are not as saturated. Flood probabilities are well above normal in the upper portions of the Des Moines, Cedar and other rivers flowing out of northern Iowa, but are not nearly as high as for the Big Sioux and Mississippi. The longer the snow pack persists over northern Iowa the higher the odds become for rapid snow melt and for spring rains to accompany the melt.

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