

## IOWA PRELIMINARY WEATHER SUMMARY – OCTOBER 2012

General Summary. Iowa temperatures averaged 48.7° or 2.1° below normal while precipitation totaled 3.12 inches or 0.51 inches more than normal. This ranks as the 26<sup>th</sup> coolest and 41<sup>st</sup> wettest October among 140 years of records. This was the greatest precipitation total since May and first month with above normal precipitation since April.

Temperatures. Cooler than normal weather prevailed for most of the month. Very cool weather prevailed from the 5<sup>th</sup> to the 7<sup>th</sup> when daily temperatures averaged more than 15 degrees below normal. Battle Creek reported a low of 12° on the morning of the 7<sup>th</sup>, the lowest temperature seen so early in the season in Iowa since Humboldt recorded 12° on October 6, 1935. At Sioux City their 15° reading on the same date was 8 degrees lower than the previous record for October 7 and seven degrees lower than any other date for so early in the season among 124 years of record. On the other end of the spectrum a brief period of unusually warm and humid conditions brought overnight lows in the 60s over much of the state on the 23<sup>rd</sup> and 24<sup>th</sup>. Battle Creek's 12° reading on the 7<sup>th</sup> was the state's lowest temperature of the month while Keosauqua recorded the highest temperature with an 83° reading on the 24<sup>th</sup>.

Heating Degree Day Totals. Home heating requirements, as estimated by heating degree day totals, averaged 35% greater than last October and 12% more than normal. Heating degree day totals thus far this season (since July 1) are running 18% greater than last season at this time and 12% more than normal.

Precipitation. Rainfall was more frequent than seen in months with three periods of widespread precipitation coming on the 12<sup>th</sup>-14<sup>th</sup>, 17<sup>th</sup>-19<sup>th</sup> and 22<sup>nd</sup>-25<sup>th</sup>. The first rain event was the largest of the series, bringing a statewide average of 1.55 inches of moisture, despite missing the northwest one-quarter of Iowa. Postville reported the most rain with 5.24 inches during this event. The second system brought a statewide average of 0.50 inch with the greatest totals of around an inch in west central and northwest Iowa. Finally, the last event brought an average of 0.93 inches of rain to the state. Monthly rain totals varied from 1.20 inches at Estherville to 6.30 inches at Postville. Postville's total is a record high for October among 71 years of records at that location (old record of 6.25 inches in 2009). The season's first snow flurries were reported at a few locations in extreme northern Iowa on the 11<sup>th</sup> with a brief accumulating snow on the 25<sup>th</sup> over portions of the far northwest.

Drought Update. Precipitation has been below normal over most of Iowa thus far this fall. Nevertheless, low evaporation rates have allowed significant soil moisture recharge to occur. It is estimated that much of the eastern one-third of Iowa has seen enough rain to replenish about one-half the soil moisture profile. The driest area is in northwest Iowa where rainfall has been less than three inches in some areas, thus providing about one-fourth of the moisture needed to recharge the soil in that corner of the state. Normal precipitation from now until April would be enough to fully recharge soil moisture over southern and eastern Iowa. However, winter precipitation over the northwest typically is about one-half of that seen in the southeast, thus shortages are much more likely to persist

there. Meanwhile river levels have largely stabilized since late summer but remain very low. According to U.S. Geological Survey statistics the typical river stage across the state was at the 19<sup>th</sup> percentile at month's end. Last year at this time river levels averaged at the 35<sup>th</sup> percentile. Also, a regional network of nine shallow wells shows the water table is lower than one year ago at all but one well (northeast Iowa in Fayette County).

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