

## IOWA PRELIMINARY MONTHLY WEATHER SUMMARY – AUGUST 2010

General Summary. August temperatures averaged 75.2° or 3.9° above normal while precipitation averaged 4.93 inches or 0.74 inches above normal. This ranks as the 16<sup>th</sup> warmest and 29<sup>th</sup> wettest August among 138 years of state records. A warmer August has not been recorded since 1995.

Temperatures. Iowa temperatures averaged above the long-term normal for the sixth consecutive month. As has been the case all summer the heat was more persistent than extreme. Temperatures averaged above normal on all but nine days of the month. Onawa recorded the highest temperature of the month with an afternoon high of 97° on the 11<sup>th</sup>. The combination of high humidity and high temperatures brought official heat indices above 110° on several dates with Burlington reaching 112° on the 3<sup>rd</sup> and 10<sup>th</sup> and Omaha-Council Bluffs 114° on the 8<sup>th</sup> and 112° on the 9<sup>th</sup>. On the other end of the spectrum morning lows fell to 44° at Cresco, Elkader, Mason City and Postville on the 26<sup>th</sup>.

Cooling Degree Day Totals. Home air conditioning requirements, as estimated by cooling degree day totals, averaged 123% greater than last August and 43% more than normal. Degree day totals for the season-to-date are running 102% greater than last year at this time and 24% more than normal.

Precipitation. The very wet weather pattern of June and July continued into the first two weeks of August. Central Iowa was hardest hit by rainfall with three consecutive nights of torrential rains on the 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup>. Ankeny recorded 9.86 inches of rain over these three nights while Ames had 9.61 inches. Record flooding impacted much of Story, Polk, Jasper and Mahaska counties. Iowa received a much needed break from the heavy rainfall for most of the second half of the month with a statewide average of only 0.91 inches between 14<sup>th</sup> and morning of the 31<sup>st</sup>. Moderate to heavy rain fell on the night of the 31<sup>st</sup> into early September 1<sup>st</sup> over the southeast two-thirds of Iowa with Ames Airport recording 4.13 inches. Most official reporting points record rainfall once daily at about 7 a.m. CDT, thus in many cases the rain of late August 31 will go into the record books for September 1. Monthly rain totals for August (through 7 a.m. August 31) varied from only 1.03 inches at Guttenberg to 16.07 inches at Urbandale. August rainfall was well below normal over much of north central, northeast and far southwest Iowa.

Summer Summary. Temperatures over the three summer months averaged 74.0° or 2.4° above normal while precipitation totaled 23.23 inches or 10.16 inches above normal. This ranks as the 19<sup>th</sup> warmest and 2<sup>nd</sup> wettest summer among 138 years of records. Despite the lack of extreme heat (highest official temperature of 98°) the persistence of high temperatures resulted in this being Iowa's hottest summer since 1988. The hot summer was in major contrast to last year when Iowa recorded the third coolest summer of record. The summer rainfall total was second only to 1993's 26.83 inch total (when Iowa had its 5<sup>th</sup> wettest June, wettest ever July and 2<sup>nd</sup> wettest August). The year-to-date precipitation in 2010 (35.28 inches) is also a distant second to 1993 (41.22 inches) for the January through August period.

Outlook. Years such as 2010 (beginning with an El Niño event and transitioning to a La Niña) have had a very strong tendency in Iowa for above normal temperatures through the fall months. The rainfall signal is not nearly as strong in these types of transition years but slightly favors increasing odds of below normal precipitation from September through November. Finally, however, La Niña traditionally favors colder and wetter than usual weather in Iowa for the mid-winter months of December through February.

Harry J. Hillaker, State Climatologist  
Iowa Dept. of Agriculture & Land Stewardship  
Wallace State Office Bldg.; Des Moines, IA 50319  
Telephone: (515) 281-8981; E-mail: [Harry.Hillaker@IowaAgriculture.gov](mailto:Harry.Hillaker@IowaAgriculture.gov)