

## PRELIMINARY IOWA MONTHLY WEATHER SUMMARY – JULY 2009

General Summary. Temperatures averaged 68.0° or 5.8° below normal while precipitation totaled 4.56 inches or 0.31 inches above normal. This ranks as the coolest and 38<sup>th</sup> wettest July among 137 years of state records. The previous record coolest July was set in 1891 with a statewide average temperature of 68.3°.

Temperatures. A northwesterly flow aloft dominated Iowa's weather for nearly all of July, thus providing a steady supply of cool Canadian air to the state and making it difficult for hot and humid air to make much headway into Iowa from the south. A northwesterly flow is not uncommon for mid summer in Iowa but has been exceptionally persistent this year. All but one day (July 10) from June 28 through August 2 saw the statewide average temperature fall below normal. Only one day in July (the 24<sup>th</sup>) saw temperatures reach 90° in the state and even then the nineties were restricted to west central and southwest Iowa. Onawa and Ankeny were the state's hot spots with highs of 93° on the 24<sup>th</sup>. At Dubuque there were more days with highs in the sixties (6) than with highs in the eighties (4) and their highest temperature of the month was only 82°. July's lowest temperatures were 42° readings at Sheldon, Sibley and Spencer on the morning of the 19<sup>th</sup> and at Elkader on the morning of the 20<sup>th</sup>.

Cooling Degree Days. Home air conditioning requirements, as estimated by cooling degree day totals, averaged 56% less than last July and 58% less than normal. Thus far this year cooling degree day totals are running 22% less than one year ago and 38% less than normal.

Precipitation. Relatively wet weather prevailed over much of Iowa for the first one-half of July but the second half of the month was much drier in most areas. Monthly rain totals varied from 2.03 inches at Newton to 8.95 inches at Anamosa. Generally east central Iowa is the wettest portion of Iowa at the moment (as of August 3) while rainfall would be very welcome over much of central, southwest and south central Iowa. Nevertheless, the persistently cool weather has minimized crop stress from the recently drier weather.

Severe Weather. As has been the case all year, severe weather was less frequent and widespread than usual across Iowa during July. However, there were some hail storms which brought severe damage to localized areas. The worst series of storms came across northeast Iowa on the afternoon and evening of the 24<sup>th</sup>. USDA Farm Service Agency reports indicate that about 400,000 acres of crops were impacted across six counties on the 24<sup>th</sup> with damage estimated at \$200 million. Very large hail was also reported from the Sheldon area of northwest Iowa on July 9 and along the northern edge of the Des Moines metro area on the night of July 14.

Outlook. Among the 20 coolest July on record in Iowa, 16 were followed by below normal temperatures in August. While the first two days of August were unusually cool a much warmer weather pattern has become established and is expected to persist for at least another week or two. Thus it will be interesting to see if this year may be one of

the exceptions to the tendency for relatively cool July weather to persist through August. While there has been concern expressed owing to the lack of heat units slowing the development of the corn crop it is worth noting that most corn has had a full season to work with owing to timely planting last spring. Crop development lags only a few days behind normal thus it would require an unusually early freeze or a continued very persistent cool pattern to prevent full crop maturity. Some of the very best crop yields have come in years with cool Julys in Iowa (1992 and 2004). In 1993 crop yields were disastrously low with a cool growing season, however, that year saw exceptional delays in spring planting (resulting in a very late start to the growing season) and a record cold September (resulting in a very early end to the growing season).

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