

IOWA MONTHLY WEATHER SUMMARY – JULY 2011

General Summary. Iowa temperatures averaged 78.2° or 4.6° above normal while precipitation totaled 3.38 inches or 1.12 inches less than normal. This ranks as the seventh warmest and 60th driest July among 139 years of records. A warmer month was last recorded in August 1983 and a warmer July not since 1955.

Temperatures. July got off to a hot start with highs in the 90s statewide on the 1st and this proved to be a sign of things to come. Only six days (3rd-5th and 12th-14th) averaged cooler than normal while another five days (1st, 17th-20th) averaged more than ten degrees above normal. Official temperatures reached 100° or better on seven dates (18th-23rd and the 27th) with most of the triple digit readings coming from south central and southeast Iowa. Keosauqua reported the highest official temperature with 102° on the 18th. Very high humidity added to the discomfort with official dew points readings as high as 83°. The heat index officially climbed to 110° or higher on six days (16th-19th, 23rd & 27th) with Spencer reaching 117° on the 18th. Unofficial heat index readings climbed as high as 130°. Cooler air masses made a few brief incursions into the state with minimum temperatures of 52° at Elkader on the 4th and at Mason City on the 13th and 25th. Only July 2010 (53°) had a higher statewide calendar month minimum temperature.

Cooling Degree Day Totals. Home air conditioning requirements, as estimated by cooling degree day totals, averaged 35% greater than last July and 52% more than normal. Cooling degree day totals so far this year are running 11% greater than last year and 31% greater than normal for this point in the season. The season-to-date total is the greatest since 1991.

Precipitation. Summer rainfall tends to be highly variable across Iowa and this past month was more so than usual. Monthly rain totals varied from only 0.20 inch at Fairfield to 15.55 inches at the Dubuque Airport. Fairfield's total was their lowest for July since 1975 and only 5% of normal. Dubuque's total was swollen by a record 24-hour rainfall of 10.62 inches on the night of July 27. Their July total was the highest for any month at that location among 159 years of records (old record 15.46 inches in September 1965). Unofficial rain totals of up to 14.5 inches were reported just south of Dubuque which seems quite plausible given official totals to 13.70 inches just across the Mississippi River near Galena, Illinois. Locally heavy rain also fell in Dickinson County earlier in the month with 8.19 inches reported west of Spirit Lake from July 10th to the 15th. Meanwhile parts of south central and southeast Iowa, which had been very wet in May and June, recorded less than an inch of rain during July. Relatively dry conditions have also gradually developed over the past several months over much of west central, central and southwest Iowa as well as smaller areas in the other sections of the state. The dryness, along with persistent July heat, probably is reducing crop yields in many areas from what had been a good early growing season.

Severe Weather. The most damaging severe weather event of the growing season struck at least 22 counties during the pre-dawn hours of July 11. This long-lived thunderstorm event, known as a derecho, brought winds estimated as high as 130 miles per hour in

Benton County. This event had a lifespan of about 24-hours, beginning in Nebraska during the evening of the 10th and finally ending in Maryland on the evening of the 11th.

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