

PRELIMINARY IOWA MONTHLY WEATHER SUMMARY – JUNE 2010

General Summary. June 2010 temperatures averaged 71.4° or 1.6° above normal while precipitation totaled 10.45 inches or 5.81 inches above normal. This ranks as the wettest and 33rd warmest June among 138 years of state records. The only calendar month to bring more rain to Iowa was July 1993 with a statewide average of 10.50 inches while the previous June record was 10.33 inches in 1947. The current preliminary total could vary by about plus or minus 0.15 inches when all data become available over the next several weeks, thus these rankings could change.

Temperatures. Warmer than normal weather was the rule for most of June, as has been the case across Iowa for much of the past four months. Cooler than normal weather was restricted to only the 7th, 10th, 13th, 15th, 24th and 28th-30th. Monthly temperature extremes varied from morning lows of 46° at Sheldon on the 3rd and at Cresco and Elkader on the 29th to an afternoon high of 95° at Onawa on the 26th. Heat indices reached as high as 107° at Des Moines on the 22nd and at Burlington on the 23rd.

Cooling Degree Day Totals. Home air conditioning requirements, as estimated by cooling degree day totals, averaged 9% more than normal and 19% greater than last June. Cooling degree day totals are running 15% above normal and 45% above last year's totals for the year-to-date.

Precipitation. Parts of northern and western Iowa came into to June needing some rainfall to help newly planted crops develop. They, and all of the rest of Iowa, got much more than they needed. Rainfall was very frequent throughout the month. Des Moines, Johnston and Indianola all reported 22 days with measurable rain during the month. The following locations set records for most rain in a single calendar month:

City	June 2010 (inches)	Old Record	Period of Record
Indianola	16.86	15.26 in Jun. 1947	123 years
Guthrie Center	14.92	14.16 in May 1903	113 years
Pella	14.71	13.95 in Aug. 2007	86 years
Hampton	14.28	14.15 in Sep. 1965	117 years
Ankeny	14.27	12.87 in Aug. 1993	60 years
Montezuma	13.56	11.83 in Aug. 1993	66 years
Cherokee	13.11	12.90 in Sep. 1926	91 years
Little Sioux	12.83	11.69 in Aug. 2007	53 years

The least rain reported in the state was 5.44 inches at Sidney, but even this amount was 1.22 inches above normal. Unofficial totals were as high as 20.81 inches near Rowan in Wright County where an amazing total of 3.99 inches fell in one hour on the night of June 22.

Severe Weather. The year's first tornado touched down in O'Brien County on the afternoon of June 1st. This represented Iowa's latest start to the tornado season since 1978. However, it didn't take long to make up for the slow start as an EF-2 tornado

resulted in several million dollars in damage in Ringgold County later on the 1st. Final numbers are not available but it appears that a total of about 33 tornadoes touched down in Iowa during June. The strongest of these storms passed near Sibley on the night of the 22nd resulting in at least ten injuries. This storm, rated at EF-4, was the strongest to affect Iowa since the Parkersburg tornado of May 2008. Fortunately it did not strike any towns.

Why wasn't there record flooding with record June rainfall? Certainly there has been plenty of flooding across Iowa during June and some of it in record territory for a few locations in the state. However, so far, flooding has not been as extensive or severe as in 2008 or 1993. The reasons for this are several. First, the past four months have been much warmer (about 6°) than the same months in 1993 and 2008. The result is that there has been about 20% more evaporation to help dry things between rain events. Second, spring rainfall averaged near normal in 2010 in contrast to much more precipitation in 1993 and 2008. Third, with a few local exceptions, the rainfall in June 2010 has been distributed fairly evenly across the state and through the month. This helps to spread the water out more evenly in space and time so as to reduce the magnitude of the flood crests.

Outlook. The welcome period of dry weather that finally moved into Iowa on June 27 is expected to continue into the first three days of July. However, a shift in the weather pattern will favor another rainy period beginning on July 4 which could be aided by the remnants of Hurricane Alex. Very wet conditions such as we have now typically favors below normal temperatures in the summer. However, in years with an El Niño to La Niña transition, such as we have in 2010, there is a strong tendency for temperatures to mainly be higher than normal through the summer and fall in Iowa.

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