



PRELIMINARY IOWA WEATHER SUMMARY – AUGUST 2018

General Summary: Iowa temperatures averaged 71.8 degrees or 0.3 degrees above normal while precipitation totaled 6.24 inches or 2.04 inches more than normal. This ranks as the 49th warmest August, tying 1895, 1931, and 1969. This was the 12th wettest August among the historical records. A warmer August was last recorded in 2016 and a wetter one in 2007.

Temperatures: While the first three days of the month were unseasonably cool, warmer than normal conditions were observed across a majority of the state over three periods: August 4th – 7th, 9th – 20th, and 25th-28th; a total of 21 days. The highest temperature for the month was 100 degrees in Lamoni on the 6th. Daytime high temperatures only reached 64 degrees at Sanborn, Sheldon and Sibley on the 29th; Washta reported the lowest minimum temperature of 41 degrees on the same day. Cooler than average conditions were present across the state over three short periods totaling 10 days: August 1st – 3rd, 21st – 24th, and 29th – 31st.

Cooling Degree Day Totals: August home air conditioning requirements, as estimated by cooling degree day totals, were 1% above average and 51% more than last August. Thus far this air conditioning season cooling degree day totals are running 17% more than last season at this time and 9% more than normal.

Precipitation: August saw a noticeable pattern shift in that rainfall was produced both by typical summertime thunderstorms and larger-scale low pressure and frontal passages. The highest precipitation totals were found in a belt extending from Harrison County northeast towards Black Hawk County. The largest accumulations of rainfall were found in Webster County, where Fort Dodge observed a monthly accumulation around 15 inches. Only a handful of counties in south-central Iowa reported below average precipitation. Notable rain events occurred between the 6th and 7th when a large low pressure system brought widespread rain from Webster to Buchanan counties. Fort Dodge had the week's highest accumulation of 5.95 inches. Another large low pressure system moved through the state August 19th - 20th, bringing locally heavy rain to southwestern Iowa. Harrison County reported 6 to 8 inches over the period. The final week of August had multiple waves of showers and thunderstorms moving through Iowa, with a brief lull midweek. A strong cold front moved through on the 28th, dumping more than an inch of rain on over thirty stations. Keokuk (Lee County) reported 4.90 inches.

Summer Summary: Precipitation averaged above normal, with July being drier than normal. For all three summer months the statewide average was 17.15 inches or 3.44 inches more than normal. The summer statewide average temperature was 72.7 degrees or 1.1 degrees warmer than average. This ranks as the 31st warmest and 7th wettest summer among the observational records. A warmer summer occurred in 2012 and a wetter one in 2015. South-central Iowa reported 3 to 6 inch rainfall deficits for the season, further exacerbating drought conditions. The remaining portions of the state typically saw above average rainfall, especially in the northwest quadrant. Multiple rain gauges in Webster County recorded accumulations between 25.64 and 30.67 inches.

Severe Weather: August was active in terms of severe weather with 12 days having at least one report of severe hail, winds or tornadoes. On the 16th, a weak tornado was observed in Jones County, causing structural damage. On the 20th, another weak tornado with maximum winds of 65 mph was observed in Clinton County; damage was limited to soybeans and trees. There were three days in which there were more than 10 severe hail and high wind reports. August 4th was an active day, with nine counties (from Sioux to Black Hawk) reporting either hail between 1.25 – 1.75 inches or high winds and tree damage.



IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

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The most active and widespread severe weather outbreak was on the 28th, with 26 counties reporting either severe hail or straight-line winds. Hail reports were mostly confined to northern Iowa; Garner (Hancock County) reported 3 inch diameter hail. Severe winds were mainly observed in southeastern Iowa as a strong cold front moved through into the evening hours. Wind gusts of up to 70 miles per hour caused tree and powerline damage from Decatur to Clinton counties.

Drought: Drought conditions continued to worsen in southeast Iowa, where extreme drought (D3) increased by 1.40% to 2.24%. As of early September, the D3 category covered all of Davis County, most of Appanoose County and portions of adjoining counties. Abnormally dry (D0) conditions covered around 12% of Iowa; combined D0 – D3 conditions covered around 31% of Iowa. At this time last year, D0 – D3 drought covered 48% of the state. From this time last month, the area of severe to extreme drought has increased by 5.45%, with abnormally dry conditions increasing in central Iowa by around 1%.

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August 2018

WEATHER BY DISTRICTS

| DISTRICT | TEMPERATURE (F) | | COOLING DEGREE DAYS | | | | PRECIPITATION (inches) | | | |
|---------------|-----------------|------------|---------------------|------------|---------------------|------------|------------------------|------------|--------------------|------------|
| | August 2018 | | August 2018 | | Since Jan., 1, 2018 | | August 2018 | | Since Jan. 1, 2018 | |
| | Average | Departure* | Average | Departure* | Average | Departure* | Average | Departure* | Average | Departure* |
| Northwest | 70.1 | -0.2 | 186 | -20 | 804 | +140 | 5.14 | +1.38 | 30.10 | +7.61 |
| North Central | 70.0 | +0.4 | 182 | -12 | 761 | +142 | 6.51 | +2.42 | 32.54 | +6.90 |
| Northeast | 70.4 | +0.2 | 192 | +19 | 734 | +150 | 7.23 | +2.63 | 33.15 | +6.58 |
| West Central | 71.1 | -0.5 | 213 | -35 | 887 | +135 | 7.27 | +3.44 | 28.14 | +3.45 |
| Central | 71.8 | +0.4 | 229 | -5 | 922 | +187 | 5.97 | +1.56 | 28.82 | +1.87 |
| East Central | 72.3 | +0.5 | 241 | +22 | 906 | +171 | 6.81 | +2.24 | 27.78 | +1.48 |
| Southwest | 72.8 | -0.3 | 259 | -8 | 1029 | +168 | 6.57 | +2.76 | 25.04 | -1.40 |
| South Central | 74.5 | +1.5 | 290 | +23 | 1098 | +254 | 4.55 | +0.25 | 22.25 | -5.15 |
| Southeast | 74.1 | +0.4 | 293 | +34 | 1053 | +181 | 5.94 | +1.73 | 23.46 | -3.95 |
| STATE | 71.8 | +0.3 | 231 | +10 | 832 | +102 | 6.24 | +2.04 | 28.22 | +2.32 |

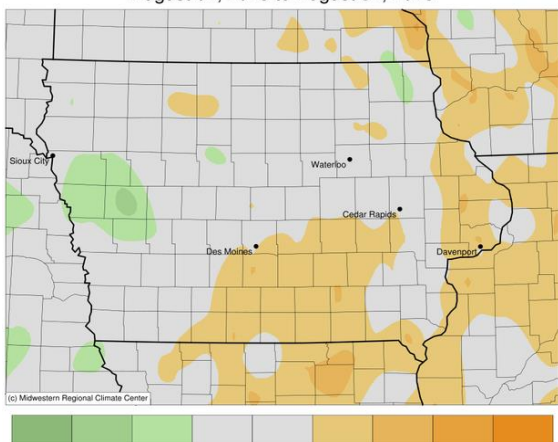
* Departures are computed from 1981-2010 normals.

Monthly estimates are preliminary and are likely to change.

The weather data in this report are based upon information collected by the U. S. Dept. of Commerce, NOAA National Weather Service.

Average Temperature (°F): Departure from 1981-2010 Normals

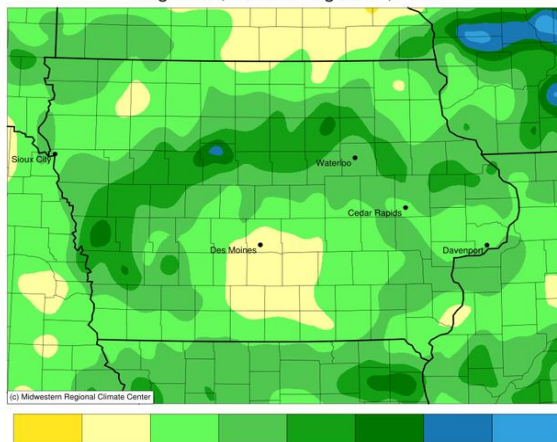
August 01, 2018 to August 31, 2018



Stations from the following networks used: WBAN, COOP, FAA, GHCN, ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI, Midwestern Regional Climate Center
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Accumulated Precipitation (in): Departure from 1981-2010 Normals

August 01, 2018 to August 31, 2018



Stations from the following networks used: WBAN, COOP, FAA, GHCN, ThreadEx, CoCoRaHS, WMO, ICAO, NWSLI, Midwestern Regional Climate Center
 cli-MATE: MPRCC Application Tools Environment
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