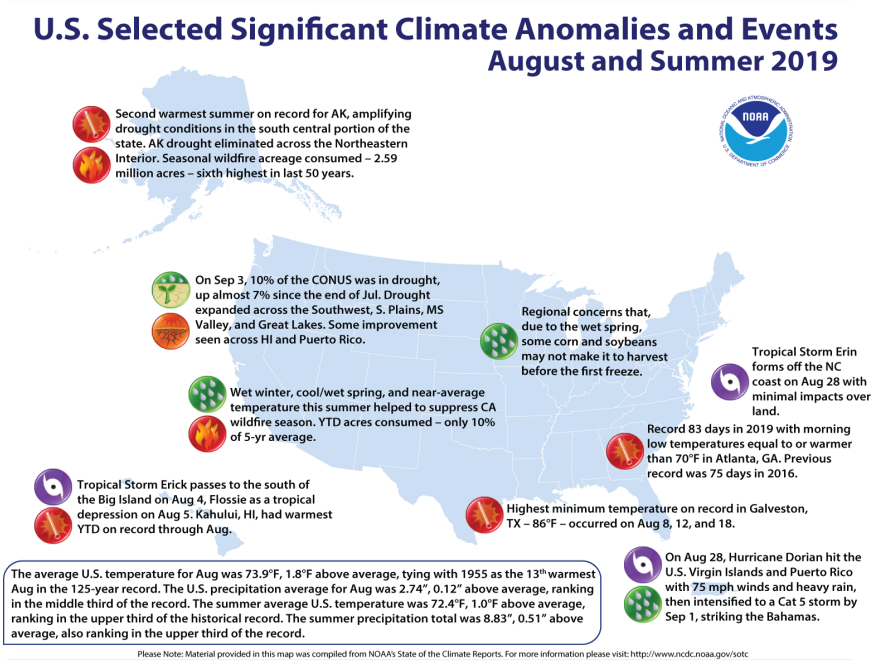
Quarterly Climate Impacts and Outlook

Midwest Region

September 2019

National – *Significant Events for June–August 2019*



Significant events from June through August 2019 across the United States.

Highlights for the Midwest

Flooding on the Mississippi River continued well into the summer and there was renewed flooding on the Missouri River in early June. Flash flooding struck the St. Louis area on July 22, August 12, and 26.

The 12-month precipitation for August 2018 to July 2019 set a new all-time record for the Midwest.

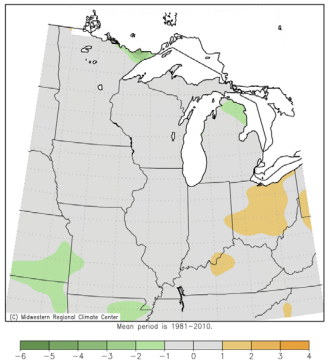
In mid-August, drought developed in the Midwest for the first time in 2019. It developed from Iowa to Indiana with areas also in Kentucky and Michigan.

Severe weather affected the region, including a damaging hail event in the Minneapolis area on August 5.

A heat wave in mid-July brought heat indices well above 100°F to a large swath including most of the Midwest.

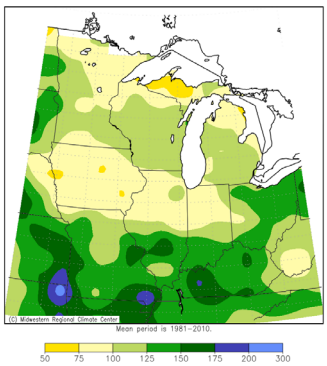
Regional – *Climate Overview for June–August 2019*

Summer Temperature
Departure from Normal



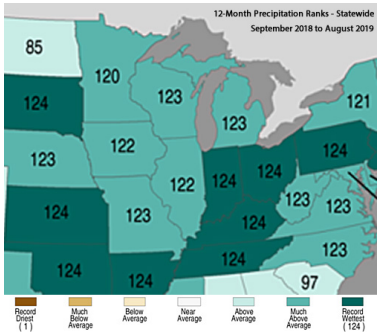
The Midwest had close-to-normal temperatures for the summer across the entire region. A few small areas were as much as 1°F below normal and most of Ohio was just 1°F above normal. There was a warm stretch from late June through the middle of July but it was averaged out by cooler weather in the remaining weeks of the summer.

Summer Precipitation
% of Normal



Summer precipitation was near normal in the upper two-thirds of the region and above normal in the southern third. Nearly all of Minnesota, Wisconsin, Michigan, Iowa, and the northern halves of Illinois and Indiana were between 75% of normal to 125% of normal. Missouri, Kentucky, Ohio, and southern parts of Illinois and Indiana had totals that fell in the 125% of normal to 175% of normal range. Kentucky had its sixth wettest summer on record.

12-month precipitation rankings



The Midwest set many records for 12-month precipitation this summer. The 12-month period ending in July set the all-time record, regardless of the time of year, with a total of 47.95 inches for the region. In the figure above, 12-month totals for each state are ranked from 1 to 124 (124 being record wet) for the period ending in August. Indiana, Ohio, and Kentucky all set new records. Missouri, Wisconsin, and Michigan ranked second wettest, Iowa and Illinois ranked third and Minnesota was fifth.

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Regional Impacts – *June–August 2019*

Major Flooding

Major flooding on the Mississippi River continued well into the summer months. The Quad Cities on the Iowa–Illinois border set records for both flood stage and duration of flooding. The river crest continued south with areas along the Missouri–Illinois border affected into August. South of St. Louis, some bridges across the river were not reopened until late July. Barge traffic on the river was also affected by the high water. There were numerous failures of levees including one that allowed barges to wash out into farm fields. Renewed flooding of the Missouri River in early June closed major roads in western Iowa including Interstate 29 and Iowa Highway 2. Stretches of Highway 2 were washed away in the flood waters. Flash flooding in Joplin, Missouri, killed a boy on August 24.

Flooding on Illinois Highway 3 in late June in southern Illinois. (Illinois DOT)

Heat Wave

Mid-July temperatures and heat indices soared, bringing dangerous conditions across the Midwest. Temperatures reached well into the 90s with high humidity driving heat indices well over 100°F. The southern two-thirds of the region was in an excessive heat watch. The heat index in Minneapolis reached 115°F on July 19.

Iowa Highway 2 washed away in early June Missouri River flooding. (Iowa DOT)

Agriculture

Midwest crops were well behind normal development, and in some cases they were record late. Despite near-normal conditions in the summer months, the extreme delays in planting due to wet spring conditions means that crops could be suceptible to early freezes or possibly even normal freezes. The crops will likely also have issues drying in the field.

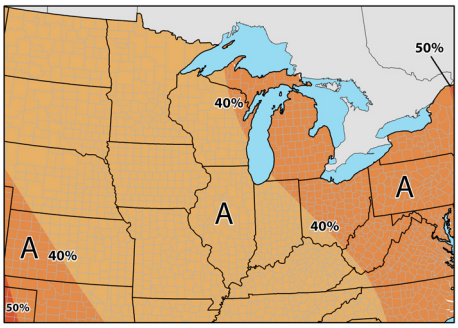
Regional Outlook – *October–December 2019*

Temperature outlooks for the late fall into early winter, October through December, call for an increased chance of temperatures being above normal. This increased chance includes the entire Midwest region with the highest chances of above-normal temperatures in the northeastern third stretching from Upper Michigan to Ohio.

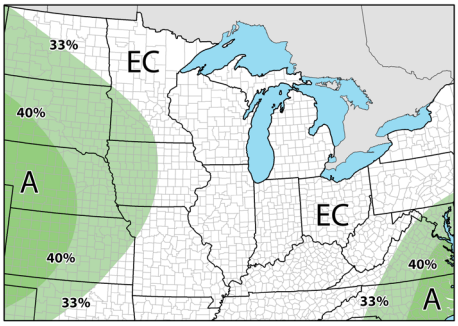
Precipitation outlooks call for most of the Midwest to have equal chances of precipitation being above, below, or near normal for the October through December period. There is an area with an increased chance of above-normal precipitation that includes southwestern Minnesota, western Iowa, and northwestern Missouri.

Fall harvest will be impacted by how the weather develops locally. Drier conditions could enhance drought in areas that have been dry in late summer but could also help allow field work. Warmer-than-normal conditions might extend the growing season with the warmth helping corn reach maturity and lowering grain moisture levels.

Temperature



Precipitation



A = Above normal N = Normal
B = Below normal EC = Equal chances

Midwest Region Partners

- Midwestern Regional Climate Center
- American Association of State Climatologists
- National Oceanic and Atmospheric Administration
- NWS Climate Prediction Center
- National Centers for Environmental Information
- National Weather Service Central Region
- North Central River Forecast Center
- Ohio River Forecast Center
- National Drought Mitigation Center
- National Integrated Drought Information System
- USDA Midwest Climate Hub