Quarterly Climate Impacts and Outlook

Midwest Region

September 2020

Midwest – *Significant Events for June–August 2020*

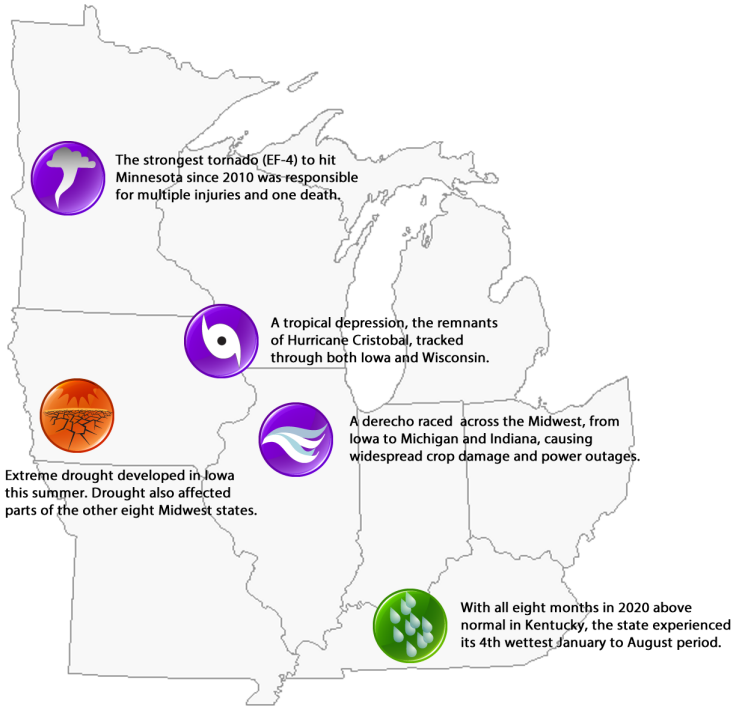
On August 10th, a derecho raced across the Midwest for 770 miles, leaving a swath of destruction from Iowa to Indiana and Michigan.

Drought returned to the Midwest this summer, with drought in Minnesota in June. In July, drought expanded to impact parts of all nine Midwest states. Iowa last experienced extreme drought in 2018.

From June 8th to 10th, the remnants of Hurricane Cristobal tracked across the region as a tropical depression. It was just the 2nd tropical depression to track as far west as Iowa and the 3rd as far north as Wisconsin.

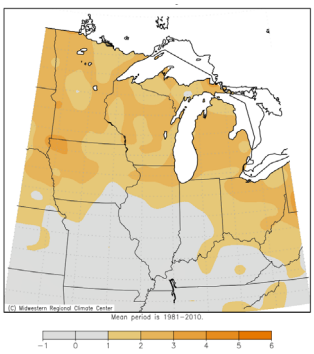
Kentucky continued to be very wet in 2020, with all eight months of the year above normal; the year-to-date rainfall ranked as the 4th wettest in history. Michigan also was quite wet in 2020, ranking 6th wettest in its history for the year-to-date period.

July 8th storms in Minnesota spawned a major tornado, which rated EF-4 and caused one death. It was the first EF-4 tornado in Minnesota since 2010.

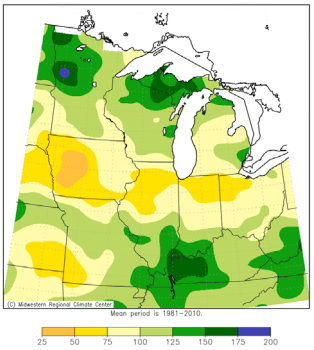


Regional – *Climate Overview for June–August 2020*

Summer Temperature
Departure from Normal



Summer Precipitation
% of Normal



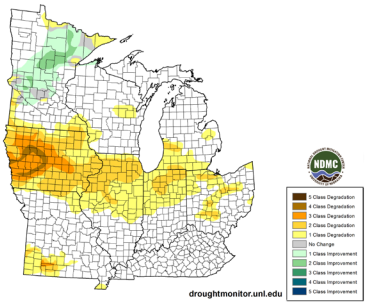
Temperatures were above normal, particularly in the northern half of the Midwest. For the region, the summer ranked as the 18th warmest in 126 years. Minnesota (7th), Michigan (8th), Ohio (11th), and Wisconsin (12th) all ranked among the warmest 10% of their respective histories. Year-to-date (January to August) temperatures ranked as the 11th warmest in history, with every state except Missouri ranking among its 20 warmest.

Summer precipitation across the region varied considerably. Iowa had its 14th driest summer, while Kentucky recorded its 17th wettest summer. July was on the wetter side, with Wisconsin experiencing its 13th wettest July and four other Midwest states experiencing among their 20 wettest. August was very dry in Iowa (3rd driest) and Illinois (13th driest) and wet in Kentucky (8th wettest). Year-to-date wetness ranked among the top 10% in Kentucky, Michigan, and Missouri, helping the region to rank 19th for year-to-date wetness despite Iowa and Minnesota being below normal.

After more than six months of the entire region being free of drought, Minnesota had drought emerge in June, and by the end of July drought had spread to at least a small area of every Midwest state. August brought extreme drought to parts of Iowa, where summer precipitation totals were less than 50% of normal and seasonal deficits more than 8" below normal.

Drought extended eastward across northern Illinois, northern Indiana, and parts of Ohio and Lower Michigan. Southwestern Missouri was also in drought.

Drought Development
12-Week Changes



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Regional Impacts – *June–August 2020*

Drought Impacts

Drought developed in west central Iowa in June and spread across the state later in the summer. All nine Midwest states had some areas affected by drought at some point in the summer after the region was free of drought in 2020 through May.

Precipitation deficits in the spring and summer led to drought emergence in June, starting in Minnesota. In July drought emerged in Iowa and quickly ramped up to extreme drought.

Derecho Impacts

Winds, with gusts ranging to more than 125 mph, tore through Iowa, then moved through Illinois, before easing as the storm system moved into Indiana and Michigan. The winds caused severe damage to crops, farm buildings, homes, and trees. Deaths were reported in Cedar Rapids and northern Indiana due to the winds.

An estimated 30+ million acres of crops were affected, with several million of those acres completely flattened.

At least 1.9 million customers lost power from the derecho; tens of thousands were without power for more than a week.

Synergy of Drought and Derecho

Crop conditions, especially in Iowa, deteriorated significantly in August due to a combination of drought and damage from the derecho. The damaging impacts of the two were mutually reinforcing and difficult to distinguish.

Derecho winds flattened corn crops and collapsed grain bins in Iowa.
Photo Credit: Justin Glisan

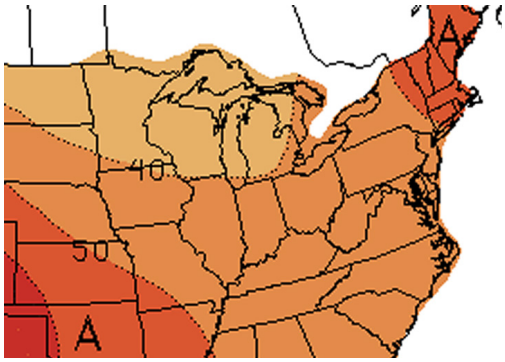
Regional Outlook – *October–December 2020*

The seasonal outlook for October–December shows increased chances for above-normal temperatures across the Midwest. Areas to the south, and especially to the southwest, have the highest chances of above-normal temperatures. Southwestern Missouri has the highest chances, with a greater than 50% chance of above-normal conditions.

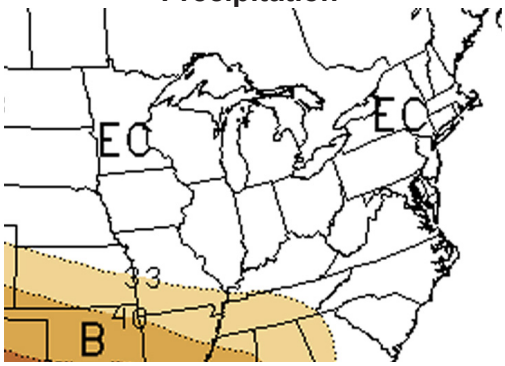
The seasonal outlook for the October–December period shows equal chances of above-, below-, or near-normal precipitation for most of the Midwest. The southwestern corner of the region, primarily southern Missouri, has slightly enhanced chances of drier than normal conditions.

A La Niña Advisory has been issued, indicating that La Niña conditions are observed and expected to continue. These Climate Prediction Center outlooks take into account many factors, including the increased chances of a La Niña persisting through the winter months.

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