Quarterly Climate Impacts and Outlook

Midwest Region

Six states had already exceeded their normal

Winter weather came to Minnesota and neighboring states on

October 20th. The system brought record October snow totals

followed by single digit temperatures later in the month.

annual precipitation totals by the end of November. Wisconsin has new had eight straight wet years.

> Severe drought in central Illinois dropped Lake Decatur to its

lowest water level since 2012.

Remnants of Hurricane Zeta

moved across the southern

Midwest in late October.

December 2020

Midwest – Significant Events for September–November 2020

An early season freeze from September 8th to the 11th affected the northern third of the region.

Extreme drought in western Iowa lessened slightly to severe in late September before returning to extreme levels in northwestern Iowa through October and November.

Drought in southwestern Missouri reached extreme levels in October before conditions improved.

Heavy rains fell in southern Missouri and the Ohio River Valley with the remnants of Hurricane Zeta passing through in late October.

A cold outbreak in the second half of October brought snow and cold to the region. Daily and monthly snowfall records were set, and many record-low daily maximum temperatures were also registered.

Early season snowfall in Minnesota and Wisconsin on October 20th set daily and monthly records at dozens of stations. Minneapolis had its 2nd largest October snowfall.

Through November, six Midwest states had already exceeded their normal annual precipitation. Wisconsin has now had eight straight years of above-normal annual precipitation.

Regional – Climate Overview for September–November 2020

Fall Precipitation % of Normal



10 25 50 75 100 125 150 175 2

Sep Temperature Departure from Normal



Precipitation totals in the Midwest ranged from less than 50% of normal in northwestern Minnesota to more than 150% of normal in eastern Iowa. Many areas were near normal. Wetter areas were located along the eastern border of Iowa and parts of northern Ohio and northern Michigan. Drier areas were found in much of Minnesota, northwestern Wisconsin, western Iowa, western Missouri, central Illinois, and northwestern Indiana. Fall temperatures were within 2°F of normal across the Midwest. Temperatures were cooler in September and especially October. The northwestern half of the Midwest was well below normal in the latter half of October. November was well above normal in the first third of the month and remained above normal for the month as a whole. October regional temperatures ranked as the 13th coolest (since 1895) while November ranked as the 7th warmest. Statewide rankings followed a similar pattern with both Wisconsin and Minnestota ranking as the 5th coolest October and

Freezing temperatures arrived early in the upper Midwest on

Extreme drought in western lowa

affected crops, pastures, drinking water supplies, and streamflows.

Extreme drought in south-

western Missouri eased in

late October.

September 8th.

Oct Temperature Departure from Normal



Nov Temperature Departure from Normal



Iowa ranked as 6th coolest. Then in November, all nine Midwest states ranked among the warmest 10% of their histories, with Michigan ranked as the 5th warmest on record.

After more than 1,000 recordlow daily temperatures in the last half of October, the first 11 days of November saw more than 1,500 record-high daily temperatures.



Regional Impacts – September–November 2020

Drought

The extreme drought in southwestern Missouri led to some unusually intense fires in the Ozarks. The remnants of Hurricane Zeta moved through the southern Midwest at the end of October bringing an end to the drought there.



Smoke from Colorado wildfires in the Iowa sky on September 14th. Credit: Dennis Todey.

Extreme drought in western Iowa impacted row crops, pastures, streamflows, and led to the hauling of water and feed for livestock.

Central Illinois also had an area of severe drought this fall. Decatur, Illinois, called for water conservation amid concerns for its drinking water supply. Lake Decatur levels had fallen to their lowest levels since 2012.

Agriculture

The drier conditions in the fall, especially in the western half of the region, led to harvest proceeding quickly and ending early. However, numerous combine and field fires were also noted. While many areas had record yields, those impacted by drought saw highly variable yields.

In the east, and particularly in Ohio, conditions were not as favorable and the harvest proceeded more slowly.



Combine harvesting soybeans. Credit: Macy Marek.

Unusual Weather

In Minnesota, temperatures varied widely. Granite Falls, Minnesota, went from single-digit temperatures on October 27th, to 84°F on November 4th, and then back to single digits on the 12th. The 84°F reading matched the November state record. Snow storms came before and after the record warmth, on October 20th and November 10th. The October 20th snowfall was the 2nd snowiest October storm in Minneapolis history.

Regional Outlook – January–March 2021

The outlook for January–March shows increased chances of above-normal temperatures for a large portion of the Midwest. The southern and eastern parts of the region, and especially the southern edge of the region, have increased chances of above-normal conditions. The northwestern portion of the region has equal chances of above-, below-, or near-normal conditions.

Much of the Midwest has increased chances for above-normal precipitation. The highest chances are centered on southern Indiana. Parts of the western Midwest including southwestern Minnesota, western Iowa, and western Missouri have equal chances of above-, below-, or near-normal precipitation. The area with severe and extreme drought in western Iowa miss the best chances for precipitation to alleviate the drought.

La Niña conditions in the tropical Pacific Ocean are expected to continue through the winter season. This is one of many factors taken into account to create these outlooks.



Precipitation



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

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