Quarterly Climate Impacts and Outlook

Midwest Region

September 2025

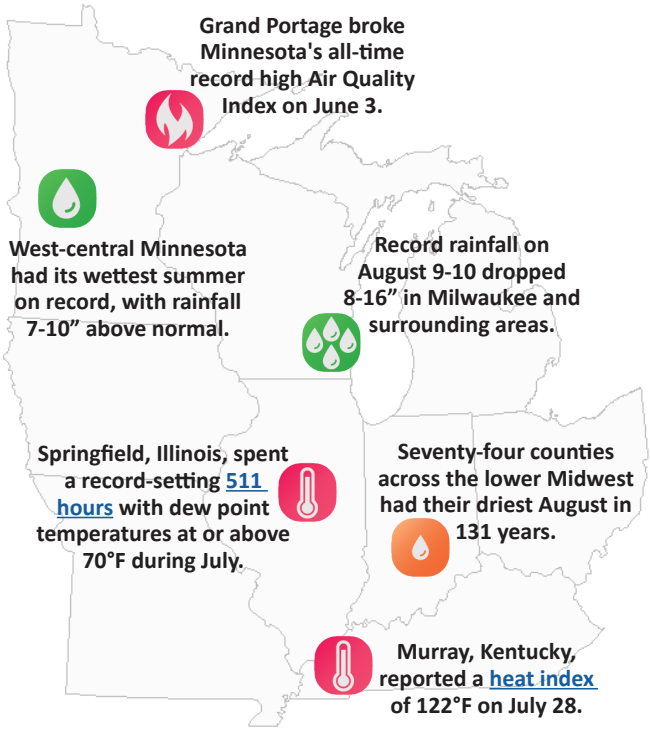
Midwest Significant Events – *June - August 2025*

A humid heat wave blanketed the Midwest in late June. Oppressive conditions peaked across the upper Midwest June 21-22 before moderating, while the lower Midwest had unusually high heat index values through June 28. Despite a cooler start to the month, numerous locations east of the Mississippi River had a top 10 warmest June.

Persistent southerly winds fueled a humid July across the lower Midwest. While high temperatures were typical, high humidity helped elevate overnight temperatures to record warm levels in Illinois, Indiana, Kentucky, and Ohio. The far upper Midwest was largely spared from the extreme humidity, but the trade off was a wind pattern that funneled in smoky air from Canadian wildfires. This clash of air masses tracked repeated storms across Iowa, bringing them near-record wetness in July.

An intense line of storms brought 60-80 mph winds across a northern Iowa, southern Minnesota, and western Wisconsin on July 28-29.

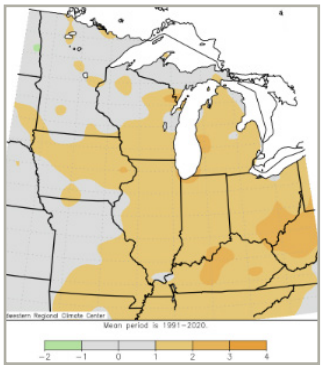
A pattern shift brought cooler and drier conditions to the lower Midwest in August, while a narrow swath along an axis from west-central Minnesota to southeast Wisconsin had excessive rainfall.



Regional Climate Overview – *June - August 2025*

Summer Temperature

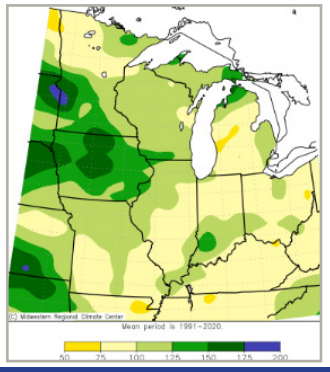
Departure from Normal (°F)



Average summer temperatures were 1.1°F above normal for the Midwest. More noteworthy were the record and near-record warm minimum temperatures, particularly in June and July. The Midwest tied with 2011 for the 2nd warmest June-July minimum temperatures since 1895. Numerous areas across Illinois, Indiana, Michigan, and Ohio had their warmest June-July minimum temperatures on record (lower right map). Louisville, Kentucky, had 41 consecutive days (June 21 to July 31) where the low temperature was at or above 70°F, which exceeded the previous record (for any month) set in 1935 by 6 days.

Summer Precipitation

% of Normal



Persistent high humidity spanned the central and lower Midwest in July. The Midwest's average July dew point temperature (a measure of humidity) was the highest on record. Daily dew points across the south-central Midwest were 71-75°F in July.

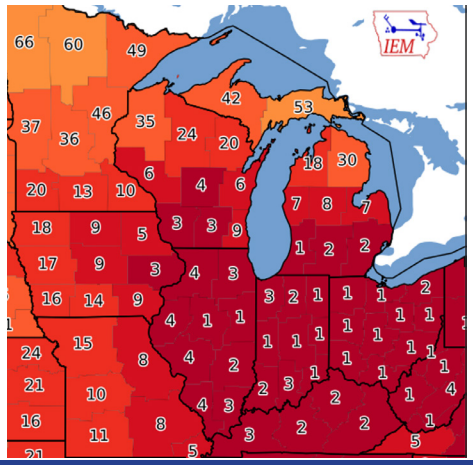
Summer precipitation for the Midwest was about 0.6" above normal. The Midwest had the 6th wettest June-July on record while August was 7th driest. Iowa had its 2nd wettest July. Kentucky and Ohio had their driest August on record.

Drought and dryness affected the northern half of the region to start summer. Above-normal rainfall improved conditions region wide by mid-summer, but dryness and drought rapidly expanded across the lower Midwest during the last half of summer.

Low Temperature Rank

June - July 2025

1 = Warmest rank out of 133 years



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Regional Impacts – *June - August 2025*

Agriculture

Warm overnight temperatures accelerated row and specialty crop development. High humidity increased disease pressure region wide, including southern corn rust which thrives in wet conditions and was widespread across Iowa, Illinois, and Indiana by late July. Rapid late summer drying from Missouri to Ohio caused stunted corn growth, rapid crop dry-down before reaching maturity, early dormancy in vegetation, and soybean pods not filling out with beans. Conditions on rain fed pastures rapidly declined across Missouri, Kentucky, and Ohio.

Southern corn rust in Iowa (Credit: Angela Rieck-Hinz)

Wisconsin Flooding

Heavy rainfall in southeast Wisconsin on August 9-10 resulted in flash flooding that stranded and flooded vehicles at the Wisconsin State Fair, along streets, and in parking garages throughout Milwaukee and Waukesha counties. Major interstate highways were closed due to flooding, home basements filled with water, and emergency responders conducted hundreds of rescues.

Air Quality

Poor air quality affected the upper Midwest and Iowa regularly during summer. Hazardous air quality was widespread across northern Minnesota in early June, and visibility in the Twin Cities was reduced to 1-2 miles. Hazardous conditions were also widespread July 11-13. A prolonged, smoke outbreak occurred from July 29 to August 6, during which Wisconsin had 9 consecutive days with air quality alerts.

Buildings obscured by smoke in St. Paul on June 3 (Credit: Minnesota State Climatology Office)

Heat-Related Impacts

Wisconsin emergency room visits rose in late June and early July related to the heat, and there were numerous reports of buckled pavement and event cancellations

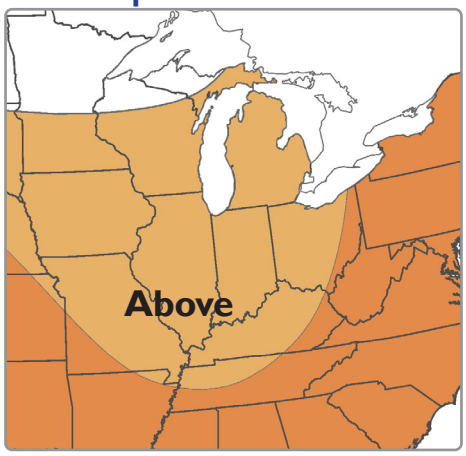
Regional Outlook – *October - December 2025*

NOAA forecasters are predicting slightly increased chances of above-normal temperatures across most of the region, with the far northern Midwest showing equal chances of any temperature outcome. The precipitation outlook has equal chances of above, below, or near normal conditions for nearly the entire Midwest. A narrow band across the far southern Midwest has slightly increased chances of below-normal precipitation. La Niña conditions may occur this fall, which support the tendency for warmer Midwest conditions.

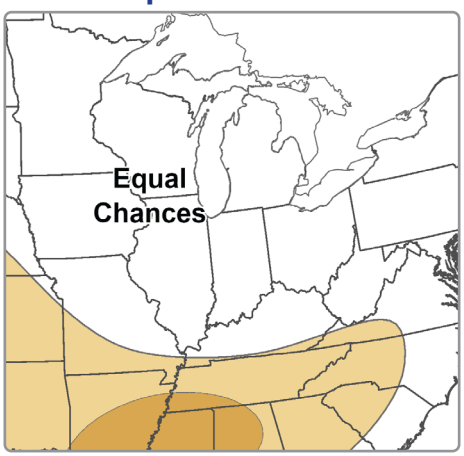
Drought is expected to develop and/or persist across the lower Midwest and southern Michigan. Forecasters are monitoring low river flows in the Ohio and Lower Mississippi Rivers. Low flows are expected to persist into fall, which can affect the river navigation industry since inadequate flows can result in reduced barge traffic and weight restrictions.

Dry conditions increase the risk of fire on cultivated land during harvest season. Local burn bans may occur.

Temperature Outlook



Precipitation Outlook



Midwest Partners

- Midwestern Regional Climate Center
- American Association of State Climatologists
- National Integrated Drought Information System
- USDA Midwest Climate Hub
- National Drought Mitigation Center
- NWS Climate Prediction Center
- NWS Central Region Headquarters
- North Central River Forecast Center
- Ohio River Forecast Center
- National Centers for Enviro. Info

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