



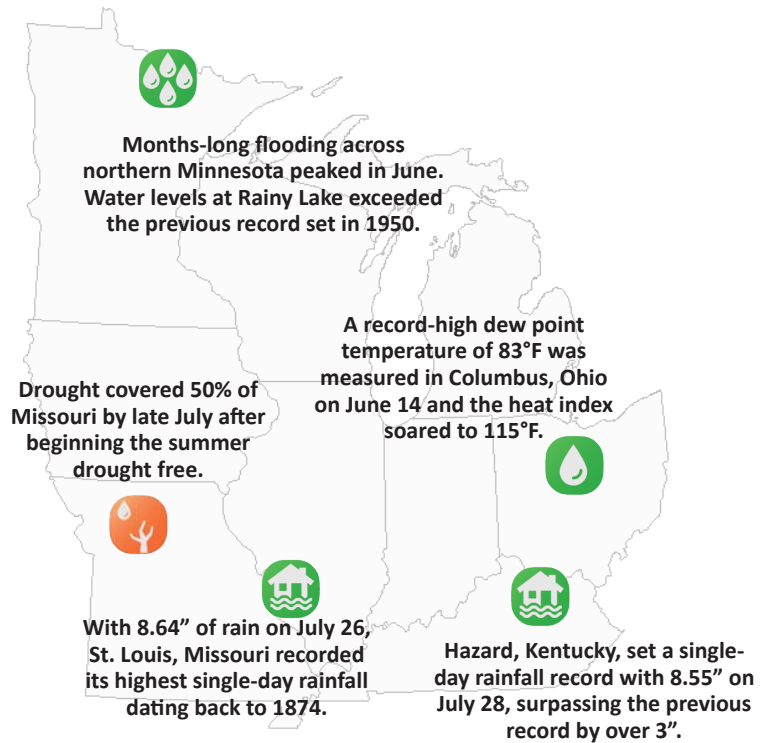
Midwest Significant Events – June - August 2022

A heat wave June 13-17 and June 20-23 resulted in over 1,500 daytime and nighttime high temperature records. High humidity pushed heat index values to 100-115°F across the region, prompting excessive heat warnings and heat advisories. Louisville, Kentucky stayed above 80°F for a record 120 consecutive hours in mid-June.

Drought continued to plague western Iowa throughout the summer, with Sioux City recording the driest January-July since 1890. Across the lower Midwest, in Missouri and Kentucky, drought developed rapidly in June before peaking in late July. Drought also affected areas around Minneapolis, Minnesota.

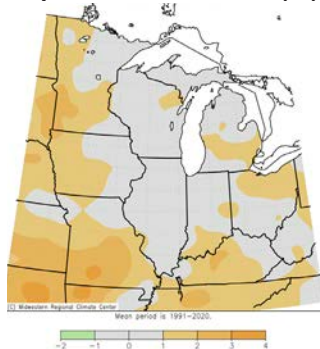
A stationary front stalled across the lower Midwest in late July resulting in historic flash flooding in the St. Louis, Missouri area and across eastern Kentucky.

Isolated heavy rainfall in early August caused flashing flooding in both northern and southern Illinois.



Regional Climate Overview – June - August 2022

Summer Temperature Departure from Normal (°F)



Temperatures were 1-4°F above normal in the west and south during the summer, with the central portion of the region near normal. Of the three summer months, June had the most persistent warmth while August had widespread near-normal temperatures.

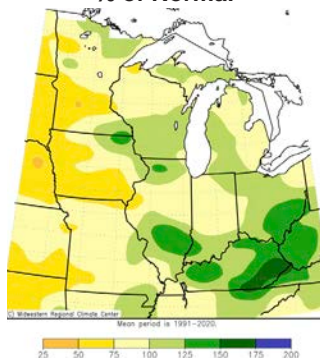
Summer precipitation was near-normal to as much as 175% of normal east of the Mississippi River and as low as 50% of normal to the west.

June started with less than 10% of the Midwest abnormally dry or in drought. Conditions deteriorated rapidly with dryness and drought affecting half of the region over a four week period. June ranked the 12th driest since 1895 for the Midwest.

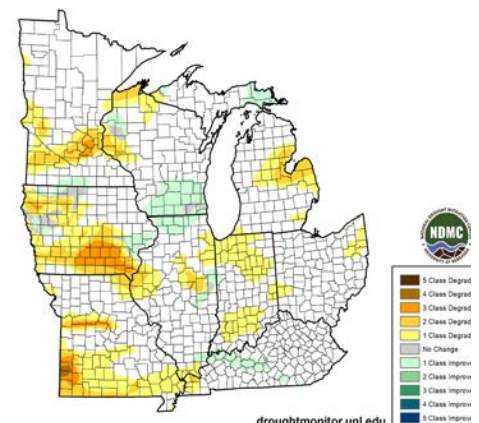
However, July was a transition month with the region split by extreme wetness and extreme drought. Kentucky had the 4th wettest July since 1895. Buckhorn Lake, Kentucky, measured 17.51 inches for the month, with 11.76" falling between July 26-29. Conversely, the University of Minnesota-St. Paul recorded the driest July in 62 years, and Marshfield, Missouri, had a 22-day stretch with no measurable rainfall.

The region generally moistened as summer progressed, with rapid drought recovery across Missouri and the lower Midwest. All states except Iowa had above-normal precipitation for August. By late August, dry or drought conditions affected 28% of the Midwest.

Summer Precipitation % of Normal



Midwest Drought Change from June 7 to August 30



Regional Impacts – June - August 2022

Agriculture

While a hot and dry June helped late-planted crops advance development, it increased crop stress. [Reports](#) of corn leaf rolling and limited vegetative growth in soybeans were widespread by early July as a thirsty atmosphere quickly depleted soil moisture. Total corn losses were reported in southern Missouri along with feed shortages for livestock as drought intensified in July. In southwest Iowa, farmers chopped



*Drought-stricken corn in Missouri
(Credit: CMOR user via go.unl.edu/
cmor_drought*

[corn for silage](#), and significant corn yield reductions were reported in east-central Minnesota. Corn tip-back (absent kernels at the top of the cob) was common across the region with minor yield reductions. Despite the drought, Midwestern crops overall were in relatively good condition.

Limited moisture greatly reduced disease pressure across the region.

[Minnesota apples](#) were a couple weeks behind and small, but with enhanced flavor. Illinois pumpkins were in excellent condition.

Historic Flooding

Continuous [heavy rainfall July 25-26](#) soaked St. Louis and surrounding areas with 8-12 inches of rain. The resulting flash flood led to numerous swift water rescues, flooded homes, closed interstate highways, and at least two fatalities.

On [July 27-28](#), several thunderstorm clusters passed over already-soaked



*Flash flooding in Whitesburg, Kentucky
(credit: Missy Bush/Facebook)*

ground in eastern Kentucky dropping 5-10" of rain. Over [1,300 people were rescued](#) from the flash flooding by helicopter and boat. Massive damage to critical infrastructure (roadways, water systems, etc.) isolated communities from essential services and aid. There were at least 37 confirmed fatalities.

During four consecutive weeks in July and August, four Illinois locations had over 7" single-day rainfall totals. Dairy farms in northern Illinois reported cattle losses from the flooding.

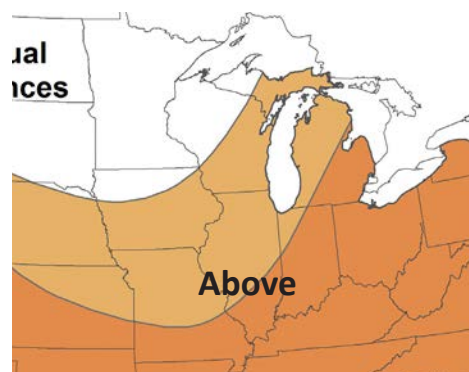
Regional Outlook – October - December 2022

NOAA forecasters [are predicting](#) an increased chance of above-normal temperatures across nearly the entire Midwest, with equal chances of above-, below-, or near-normal temperatures in the northwestern area.

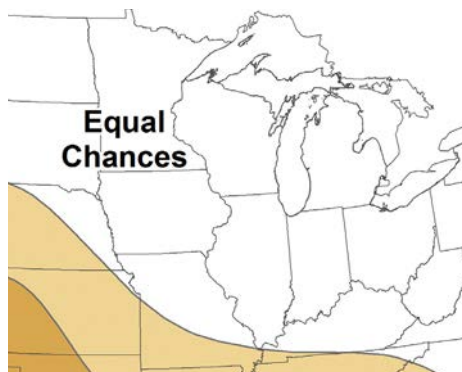
The precipitation outlook favors equal chances of above-, below-, and near-normal precipitation for the majority of the Midwest. Only the extreme southern portion of the region shows a slight chance of below-normal precipitation.

[La Niña](#) conditions remain present in the equatorial Pacific and are expected to persist through fall and early winter.

Temperature



Precipitation



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