



### Midwest Significant Events – March - May 2023

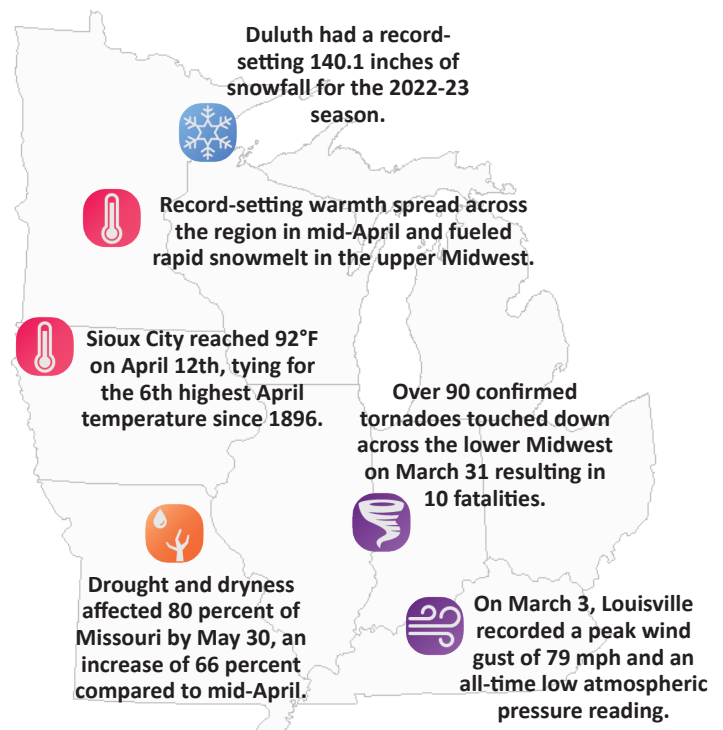
A strong low-pressure system prompted severe weather in the lower Midwest and winter weather to the north on March 3. High winds (40-70 mph) blanketed much of the Midwest, causing widespread power outages.

A strong cold front March 31-April 1 ignited a severe weather outbreak from Iowa and Missouri eastward through Ohio. At least 93 tornadoes affected the Midwest, including an EF-4 in southeast Iowa. Northern Wisconsin and Michigan's Upper Peninsula received upwards of 20 inches of snow.

Record warmth spread across the region in early- to mid-April, with a multi-day stretch of temperatures exceeding 80-90°F that rapidly melted a deeper-than-normal snowpack across the upper Midwest.

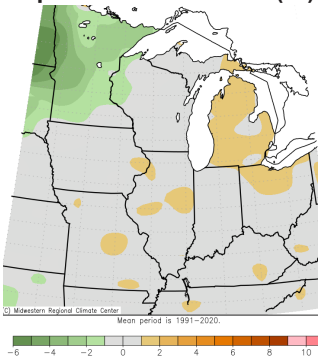
A stalled weather system lingered around the Great Lakes from late April into early May, bringing rain and heavy snow to the north and dry winds exceeding 50 mph to the south.

Dry conditions onset rapidly in Missouri in mid-April, with dryness spreading north and east across the entire region by the end of May.



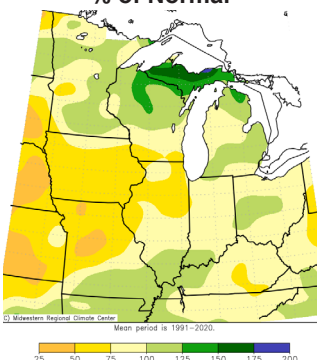
### Regional Climate Overview – March - May 2023

#### Spring Temperature Departure from Normal (°F)



Average spring temperatures were near to slightly above normal for most of the Midwest, except in Minnesota, where temperatures were up to 4°F below normal for spring. March and April followed a similar pattern of cooler-than-normal temperatures in the west fueled by deep snowpack and warmer-than-normal temperatures in the east. That pattern was reversed in May, with Minnesota reporting the 6th warmest May on record.

#### Spring Precipitation % of Normal

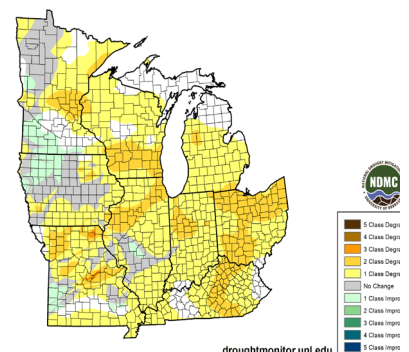


Spring precipitation was 80 percent of normal for the Midwest. Most of the region, except Iowa, had above-normal precipitation in March. In April, the upper Midwest stayed wet, while the lower Midwest was lacking precipitation. Missouri had its 4th driest April. The drying trend continued and intensified in May, and the Midwest recorded the 7th driest May on record with just 53 percent of normal precipitation. Wisconsin and Michigan had the 4th and 9th driest May, respectively.

Rapid drying occurred across much of the Midwest starting in late April to early May due to the combined effects of below-normal precipitation and an unusually dry atmosphere (low humidity). By late spring, abnormal dryness and drought spread across nearly 85 percent of the Midwest and affected all nine states in the region. In Missouri, some locations had 3 categories of drought degradation on the US Drought Monitor map in just 5 weeks.

Across lower Michigan and Ohio, widespread areas went 3 consecutive weeks without any measurable precipitation starting in mid-to-late May.

#### Midwest Drought Change from May 2 to June 6



## Regional Impacts – March - May 2023

### Flooding

Rapid snowmelt fueled by unusual warmth in mid-April led to [moderate and major flooding](#) for much of the Upper Mississippi River valley in late April and early May. Some locations had their worst flooding in over 20 years. Local flooding prompted voluntary evacuations, sandbagging, and flood wall fortification. [Boats and barge traffic](#) were briefly halted above St. Louis, Missouri due to flooding and lock closures.



Flooding at Copeland Park on April 23 (credit: NWS La Crosse)

### Air Quality and Wildfires

Historically large wildfires in western Canada prompted Minnesota's [worst start to the year on record](#) for air quality. National Weather Service offices across Minnesota and Wisconsin issued double-digit Air Quality Alerts and Red Flag Warnings (enhanced fire risk).

### Dust Storms

Strong winds (gusting up to 54 mph) moved across freshly plowed fields on May 1, resulting in an [isolated but significant dust storm](#) over a two-mile stretch of Interstate 55 near Springfield, Illinois. Near-zero visibility led to a 72-vehicle crash that resulted in 7 fatalities and 37 injuries.

A week later, two additional [dust storms](#) prompted warnings in central Illinois as visibility was reduced below one-quarter of a mile.



Missouri pond down 7-8 feet on May 23 due to drought (credit: CMOR)

### Agriculture

Corn and soybean planting were generally ahead of the 5-year average across the Midwest. Pasture and range conditions were good to excellent on a majority of land east of the Mississippi River in early May. By late May, pastures notably declined in Michigan, Illinois, and Missouri. Many dryland [strawberry growers in Illinois abandoned their crops](#) due to poor quality from drought (irrigated strawberries were in great condition).

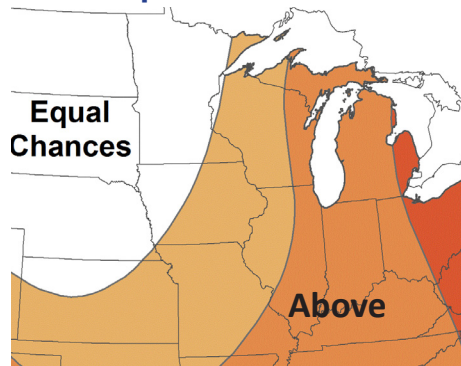
## Regional Outlook – July - September 2023

NOAA forecasters [are predicting](#) increased chances of above-normal temperatures in the central and eastern portions of the Midwest, with confidence levels highest in the east. Western Iowa and most of Minnesota have equal chances of above-, below-, and near-normal temperatures.

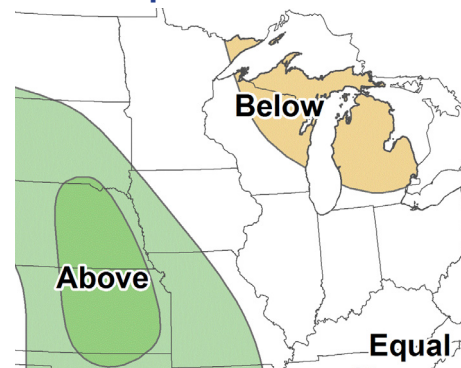
The precipitation outlook leans slightly towards above-normal precipitation in the far southwest portion of the region, including most of Missouri and western Iowa. The precipitation outlook leans slightly towards below-normal precipitation in the Great Lakes area, with equal chances of above-, below-, or near-normal precipitation for the majority of the Midwest.

An [El Niño Advisory](#) has been issued. El Niño conditions are present in the equatorial Pacific and expected to strengthen in the coming months.

### Temperature Outlook



### Precipitation Outlook



## Midwest Region Partners

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