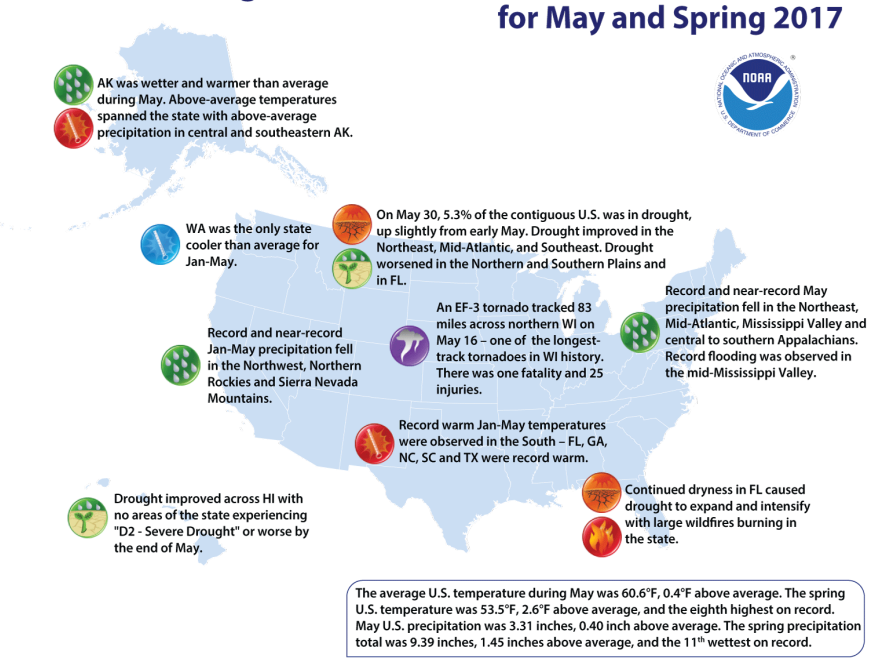
Quarterly Climate Impacts and Outlook

Midwest Region

June 2017

National - *Significant Events for March–May 2017*

U.S. Selected Significant Climate Anomalies and Events for May and Spring 2017



Highlights for the Midwest

The unusual February warmth continued into the first week of March. Most of southern Minnesota, Iowa and, northern Missouri were 7°–10°F above normal, while most of Illinois and Indiana were 6°–8°F above normal. Dozens of daily maximum and high minimum temperature records fell during the week.

There were a total of 3,500 severe weather reports (tornado, hail, wind) in the nine Midwestern states during the spring. Michigan recorded only 38 of those reports. There was no severe weather reported in Michigan in March, and only three severe wind reports in May.

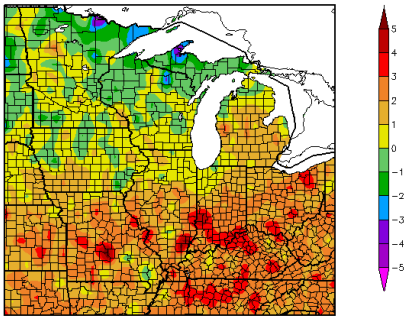
Two strong upper-level lows produced heavy rain across the southern Midwest the last week of April and first week of May. Rainfall amounts of 4 to 6 inches were widespread across Missouri, southern Illinois, and extreme southern Indiana. Nearly a dozen stations in Missouri reported more than 10 inches of rainfall. Most of this precipitation fell April 28–30. The highest weekly total in Missouri was in Houston (Texas County) with 12.98 inches.

High non-thunderstorm winds on May 15–17 coupled with dry soils led to blowing dust that lowered visibility from northeast Iowa into northern and central Illinois.

Regional - *Climate Overview for March - May 2017*

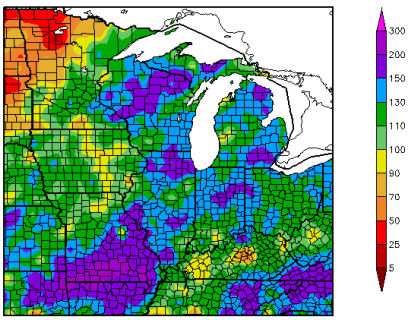
Temperature and Precipitation Anomalies

Departure from Normal Temperature (°F)
3/1/2017–5/31/2017



Overall, temperatures were near normal for the spring (+1.2°F). They were generally near to below normal along and north of I-80, while south of I-80 they were 1°F to 3°F above normal. The first and last 10 days of March were much above normal across most of the region, while the middle ten days of the month were much below normal. April temperatures were above normal across a majority of the Midwest. Kentucky and Ohio had the 2nd warmest April on record and Indiana the 4th warmest. May was near normal across the northeast two-thirds of the region and +1°F to +3°F in the southwest third.

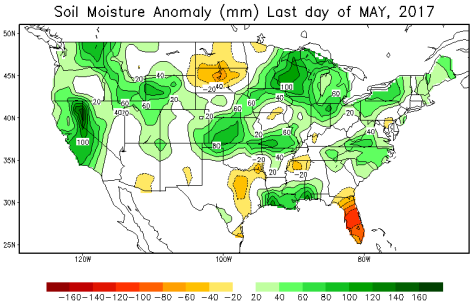
Percent of Normal Precipitation (%)
3/1/2017–5/31/2017



Spring precipitation was above to much above normal from the southern half of Missouri across Illinois, Indiana, Wisconsin, and Michigan. Precipitation was less than 50 percent of normal across northwestern Minnesota. There were also few smaller dry spots in Iowa and central Kentucky. April-May was the 4th wettest in the Midwest, and the wettest April-May on record for Missouri. It was the second wettest spring on record for Missouri and the 4th wettest spring on record for Wisconsin.

Soil Moisture

5/31/2017



Thanks to abundant but sometimes excessive spring precipitation soil moisture was normal to much above normal across much of the region. Soil moisture was below normal over northwest Minnesota, central Missouri (which missed out on the heavy rain in April and May), and a small portion of the Ohio Valley. Saturated soils in late April and early May along with cool weather delayed planting (and in some cases replanting) in Missouri, Illinois, Wisconsin, Indiana, and southern Minnesota.

Contact: Doug Kluck (doug.kluck@noaa.gov)

Regional Impacts - *March–May 2017*

Agriculture

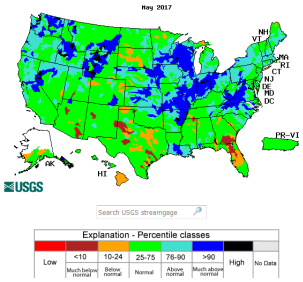
Exceptional rain at the end of April and the first week of May flooded fields in Missouri, Illinois, Indiana, and Ohio. In Illinois, replant claims submitted to one insurance company as of May 4 were five times higher than last year and many more claims were expected. As of late May agronomists are reporting overall replant rates ranging from 10% up to 30% and 40% of planted fields in the eastern Corn Belt, across all seed companies. Seed companies report that this year will rank among the top two years for replant demand.

Freezing temperatures on the mornings of May 8 and May 9 in Michigan caused damage to tree fruit, blueberries, strawberries, and other plants susceptible to freeze damage. Sprinklers and frost fans were in place for many producers preventing damage. Apple and cherry orchards and blueberry fields that were in bloom with no frost protection had extensive damage, while lighter damage was observed in crops that were past bloom.

A large fan used to prevent freezing temperatures over an orchard (left), and sprinklers in a blueberry field (right). Photo credit: Michigan State Climate Office.

Streamflow

Streamflow at the end of May was much above normal over large portions of the Midwest as a result of the 11th wettest April-May on record for the region.



Transportation

Major flooding along the Gasconade and Meramec Rivers in Missouri at the end of April resulted in the closure of sections of both I-44 and I-55, at one time cutting off access to bridges across the Mississippi River. Two deaths were reported after vehicles were swept off of roads. More than 100 water rescues were performed in Missouri.

A damaged section of I-44 near St. Louis on May 1. *Photo credit: MO DOT*

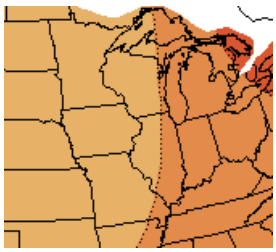
On May 2 the U.S. Coast Guard closed the Mississippi River to river traffic for 14.5 miles near St. Louis for six days due to flooding.

Blowing dust in central Illinois reduced visibility to a quarter-mile or less along the I-72 corridor in central Illinois on May 17, causing several traffic accidents, one of which resulted in a fatality.

Regional Outlook *Summer 2017*

Outlook for the Growing Season

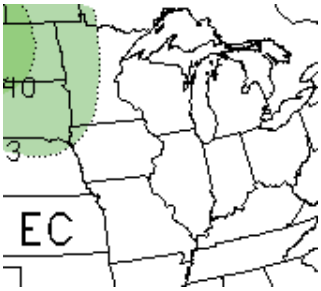
The outlook from NOAA's Climate Prediction Center for the 3-month period from July through September indicates a tendency for warmer than normal temperatures across the entire region. Slightly higher probabilities exist in the eastern half of the region.



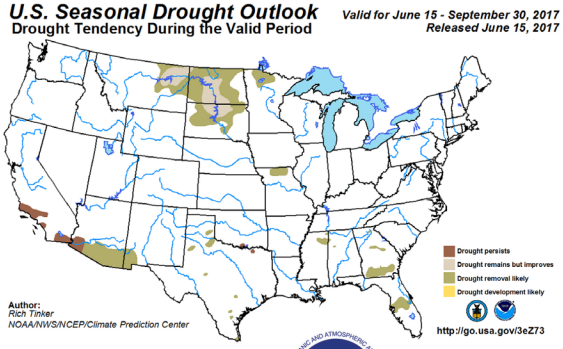
Temperature outlook for July through September 2017

There is a slightly higher probability for above normal precipitation across the western half of Minnesota and extreme northwestern Iowa. Equal chances for above-, normal, or below-normal precipitation are expected elsewhere. During the growing season both the timing and amount of precipitation are important, something that cannot be determined from this outlook. Precipitation can vary greatly in amount and extent.

Precipitation outlook for July through September 2017



Although D0 (Abnormally Dry) conditions were depicted in seven of nine midwestern states on the June 13 U.S. Drought Monitor, the Seasonal Drought Outlook through September is for improvement in all areas. This includes small parts of northern Minnesota and northern Missouri that were depicted in D1 (Moderate Drought) condition on the June 13 Drought Monitor.



Midwest Region Partners

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State Climatologists
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