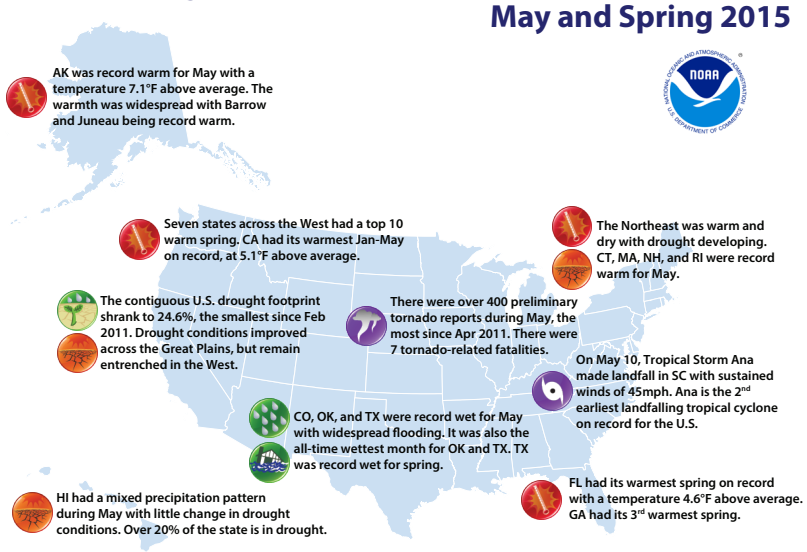
Quarterly Climate Impacts and Outlook

Midwest Region

June 2015

National - *Significant Events for March–May 2015*

U.S. Selected Significant Climate Anomalies and Events May and Spring 2015



The average U.S. temperature during May was 60.8°F, 0.6°F above average. The spring U.S. temperature was 53.2°F, 2.2°F above average. May U.S. precipitation was 4.36 inches, 1.45 inches above average and the wettest month of any month on record. The spring precipitation total was 9.33 inches, 1.39 inches above average.

Please Note: Material provided in this map was compiled from NOAA's State of the Climate Reports. For more information please visit: http://www.ncdc.noaa.gov/sotc

Highlights for the Midwest

The upper Midwest (Minnesota, Iowa, Wisconsin, and Michigan) had its fourth driest March on record. Iowa experienced its third driest March since 1895.

Dozens of warm temperature records were set in Minnesota in a four-day period from March 13 to March 16, including 60 new daily high maximum temperature records and 35 new daily high minimum temperature records. The record warmth, with highs in the 70s, drove frost out of the ground to a depth of 12 to 24 inches.

On March 6, the Cooperative Network weather station at Hillsboro, Kentucky, had a low temperature of −16°F. This broke the previous state monthly record of −14°F at Bonnieville that occurred on March 6, 1960.

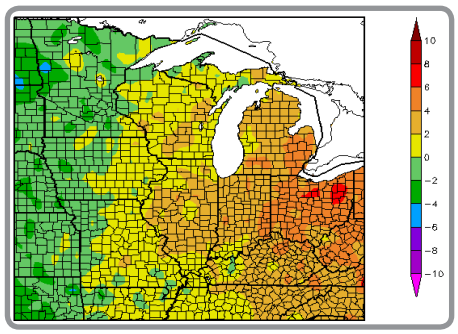
Heavy rains in the Ohio Valley on April 2–4 caused extensive flooding. Two-day rainfall totals ranged from 3 to 6 inches, with a few locations measuring more than 8 inches of rain. It was the second wettest April on record in Kentucky.

A wet May across the upper Midwest brought significant drought relief to Minnesota, Wisconsin, and Michigan.

Regional - *Climate Overview for March–May 2015*

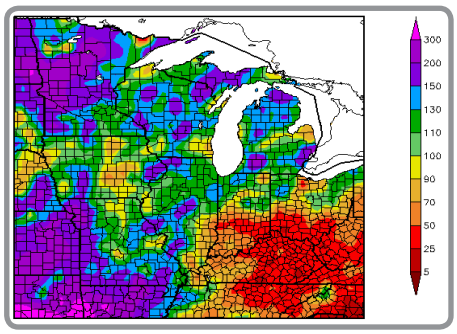
Temperature and Precipitation Anomalies

Departure from Normal Temperature (° F)
3/1/2015–5/31/2015



The spring was cooler than normal in the far west portion of the region and near to warmer than normal across the remainder of the region. The temperature pattern in March was just the opposite, with warm weather in the west and cool in the east. The April pattern was more uniform with temperatures ranging from near normal in the east to 2°F above normal in the far west. The west-to-east temperature gradient was evident in May as well. May was near to slightly cooler than normal west of the Mississippi River but from 1°F above normal in western Illinois rising to 5°F to 6°F above normal across much of Ohio.

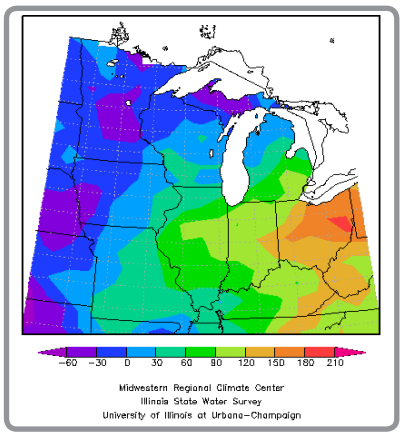
Percent of Normal Precipitation (%)
3/1/2015–5/31/2015



There was a general shift of heavy precipitation from the Ohio Valley to the upper Midwest from March to May. March had less than 50 percent of normal precipitation across most of the region. The exception was the Ohio Valley, where precipitation was 150 to 300 percent of normal. April was again wet in the Ohio Valley but more rain fell northwest into Iowa and Wisconsin. There was less than 50 percent of normal precipitation in Minnesota. May precipitation ranged from 125 to 200 percent of normal across the upper Midwest but was less than 50 percent of normal across much of the Ohio Valley.

Growing Degree Days

Departure from Normal
5/1/2015–6/15/2015



Modified growing degree days (MGDDs, also called Corn GDD) since May 1 are running slightly below normal west of the Mississippi River and across the northern Midwest. MGDDs are greater than normal eastward from the Mississippi River through Ohio where the weather has been consistently warmer since May 1. MGDDs are often coupled with the very wet conditions in May across most of the Midwest to depict potential areas where crops may or may not achieve maturity.

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

Regional Impacts *for March–May 2015*

Agriculture

The early and dry spring led to some of the earliest corn planting dates on record in Minnesota. Very wet conditions along with growing degree day deficits in the western and northern areas have led to some concerns about crops maturing in time for harvest. The wet conditions caused some planting delays, and continuing wet conditions have stalled replanting of soybeans across portions of the western and central areas.

Early-to-late May freezing temperatures in the northern and central Midwest appeared to cause little damage to early planted corn and soybeans. However, a freeze on May 20–21 caused severe damage to grapes, blueberries, sweet and tart cherries, peaches, and apples in northwestern Lower Michigan.

Recreation

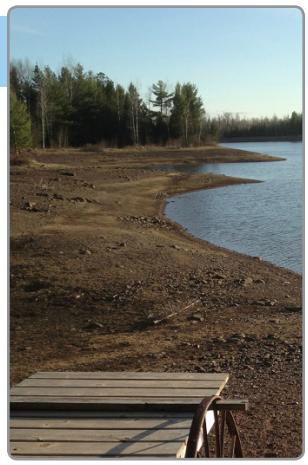
Minnesota's fishing opener on May 9 was somewhat impacted by early spring drought, which affected stream discharge and lake levels. Some boat launch ramps at public accesses in northern Minnesota were out of the water.

Wildfires

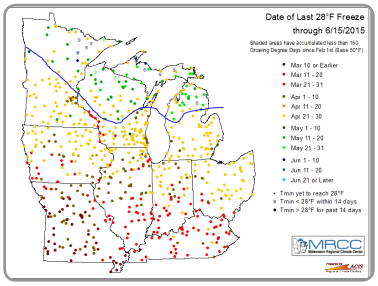
Dry winter and early spring conditions in the upper Midwest, where precipitation was 50 percent or less of normal, resulted in favorable conditions for wildfires. It was an active spring fire season, especially in Minnesota and Lower Michigan. The largest fire in Minnesota was the Palsburg Fire, which began on April 15 and burned approximately 6,000 acres primarily in Beltrami Island State Forest. Smaller fires in Minnesota resulted in evacuations of nearby homes, businesses, and schools.

Rivers and Streams

Though the major river systems did not reach serious flood levels, tributaries across portions of the Missouri River basin have as May came to a close. As noted above, major flooding was an issue in April with damage and a life lost in Kentucky.



Winter and early spring drought led to low lake levels such as this shown for Schaeffer Lake in northeastern Minnesota.



Date of last 28°F freeze in the Midwest. The blue line depicts the general southern extent of the late May freeze.

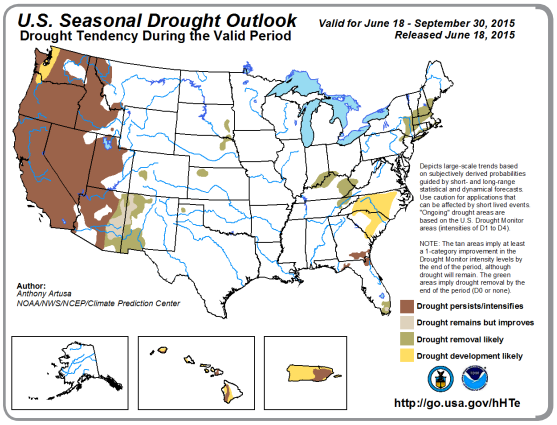
Regional Outlook - *for Summer 2015*

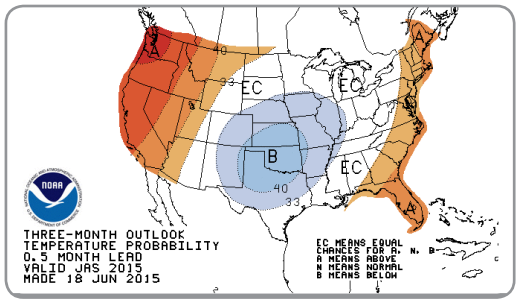
Outlook Favorable for Growing Season

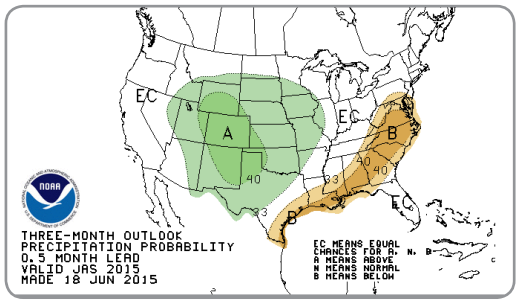
The latest outlooks from the NOAA's Climate Prediction Center for the summer growing season indicate a higher probability for above normal rainfall and below normal temperatures across the southwestern quarter of the Midwest. Elsewhere, there are equal chances for below, normal, or above normal temperatures and precipitation.

Most of the Midwest is expected to remain free of drought through September. With the higher probabilities of below normal temperatures and wetter than normal conditions especially in the western portions of the Midwest, there is concern that some crops may not mature by harvest time. In addition, certain plant diseases may be more prevalent. Later planting of soybeans will also continue to be a challenge as soils are saturated in many areas and will remain so for some time.

Flooding concerns are also quite prevalent with normal to above normal rainfall due to already saturated soils and full reservoir systems across the area.







Midwest Region Partners

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