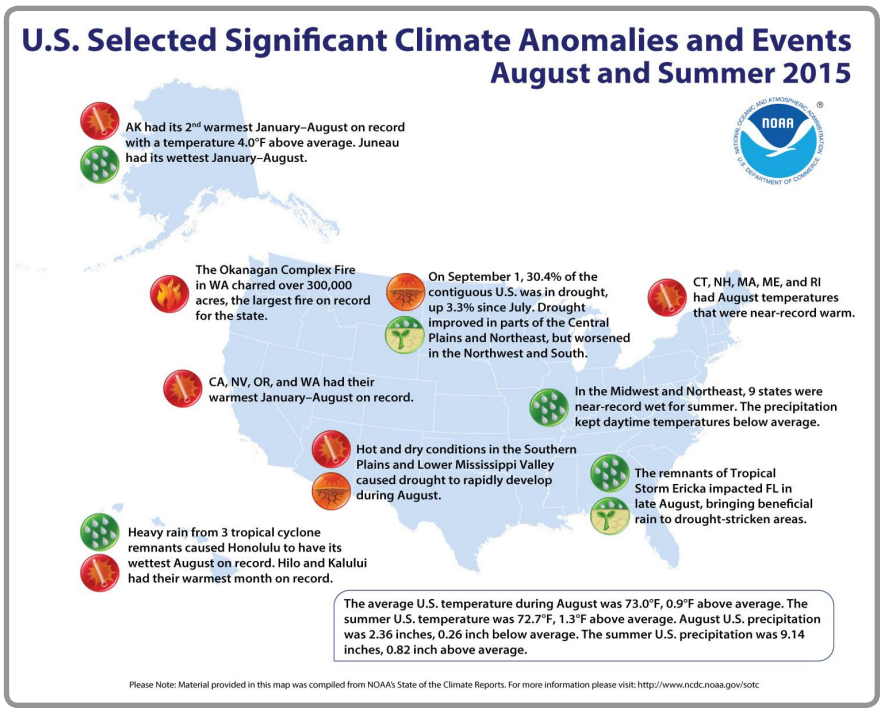
Quarterly Climate Impacts and Outlook

Midwest Region

September 2015

National - *Significant Events for June–August 2015*



Highlights for the Midwest

Illinois, Indiana, and Ohio experienced their wettest June on record with more than twice the normal rainfall. Missouri experienced its 10th wettest June on record. It was the wettest month on record in Fort Wayne, Indiana.

June flooding in northern Indiana extended into mid-July. Three flood control reservoirs had water flowing over the spillways for the first time since they were constructed.

Kentucky had its wettest July on record with 8.99 inches of rain, 4.65 inches above average. Missouri July precipitation was the fourth highest on record.

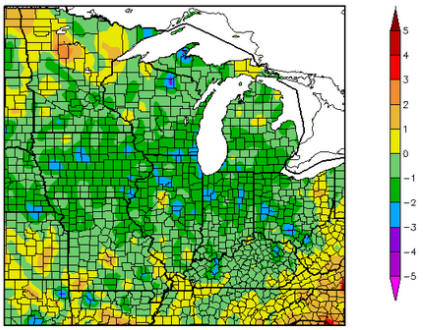
Smoke from Canadian wildfires in late June into early July spread into Midwest skies resulting in red and orange-colored sunsets early in July.

Summer rainfall for the Midwest as a whole, which topped 20 inches in parts of several states, ranked as the 4th wettest on record. Statewide summer precipitation ranked among the 10 wettest years in Kentucky (2nd), Indiana (3rd), Missouri (5th), Illinois (6th), Iowa (7th), and Ohio (8th).

Regional - *Climate Overview for June–August 2015*

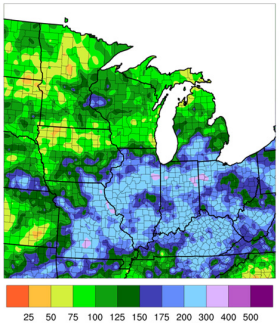
Temperature and Precipitation Anomalies

Departure from Normal Temperature (°F)
6/1/2015–8/31/2015



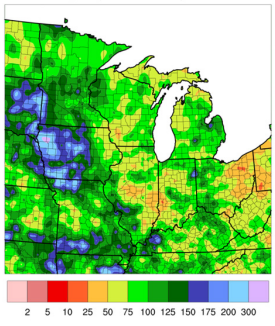
Summer temperatures were near to slightly below normal across most of the Midwest. The exception was northwestern Minnesota where temperatures were 1°F to 3°F above normal. The cool weather was fairly uniform though the season in the central Midwest. During June, temperatures were 1° to 3°F below normal across most of Michigan, and 1° to 2°F above normal in the Ohio Valley, and near normal elsewhere. Temperatures were near to slightly below normal in July across the region. August temperatures were near normal in the northeast half of the region, and 2° to 3°F below normal in the southwest half.

Percent of Normal Precipitation (%)
6/1/2015–7/15/2015



There was a marked difference in precipitation between the first half of the summer and the last half. Heavy rain occurred during June and into the first week of July across the southern half of the Midwest, with normal to slightly below normal rainfall in the northern half. During June, rainfall was as much as 400 percent of normal in eastern Missouri and from northeast Illinois into northern Indiana. Illinois, Indiana, and Ohio experienced their wettest June on record. Illinois recorded 9.30 inches of rain, topping the previous record of 8.27 inches set in 1902. Indiana observed 8.90

Percent of Normal Precipitation (%)
7/16/2015–8/31/2015



inches of rain, beating the previous record of 8.13 inches set in 1958. Ohio observed 8.15 inches of rain, beating the previous record of 7.27 inches set in 1902.

During the last half of the summer, rainfall was well below normal from the Mississippi River eastward. The heaviest rain amounts during this period extended from northeastern Missouri into southwestern Minnesota. Rainfall across northwestern Iowa ranged from 150 to more than 300 percent of normal, with most of this rain occurring during the third week of August.

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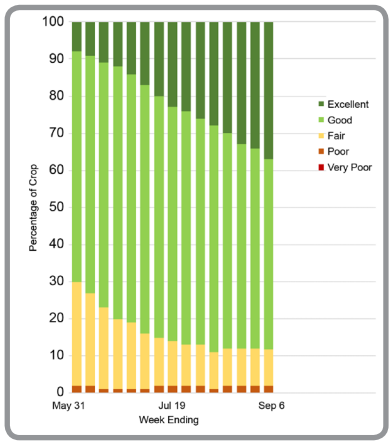
Regional Impacts *for June–August 2015*

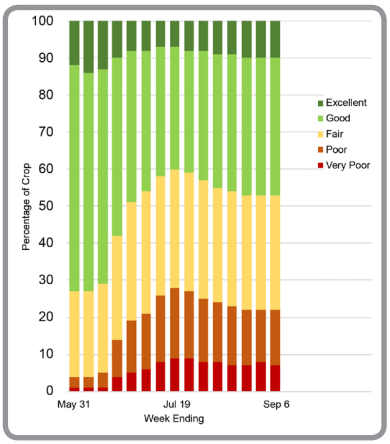
Agriculture

Excessive June rainfall caused flooding and ponding in fields from Missouri east through Ohio. Both corn and soybeans were affected, although the recently planted soybeans were affected the most. It's estimated that 20 percent of the soybean acres in Missouri could not be planted due to the wet conditions.

Summer weather in Minnesota was nearly ideal for corn and soybeans. At the end of August, corn condition was rated 88 percent good to excellent. Soybean condition was rated 80 percent good to excellent. Barring any unusual late-season weather, Minnesota will likely set a new corn yield record.



Ideal growing conditions in Minnesota are reflected in the condition of the corn crop in Minnesota, updated through September 6.



The decline in condition of the soybean crop Indiana due to flooding can be seen in this chart, updated through September 6.

Recreation

Flooding in northern Indiana closed three flood control reservoirs to recreation for almost two months. Flooding also resulted in campgrounds being closed during the busy 4th of July weekend.

The entire Illinois River was closed to recreational boating for four weeks, starting June 30, due to flooding, dangerous currents, and floating debris in the river.

Hydrology

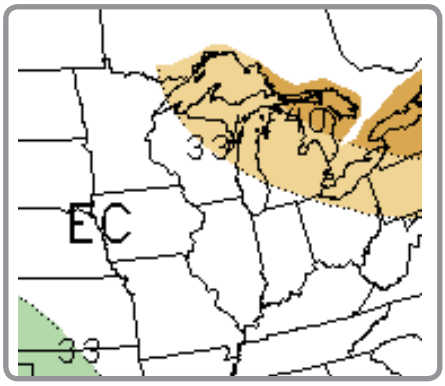
Flash flooding in July caused four deaths in Kentucky and one each in Indiana and Ohio.

The heavy rain and resultant flooding in June and July resulted in major disaster declarations for 98 Missouri counties, 87 Illinois counties, and 53 Indiana counties.

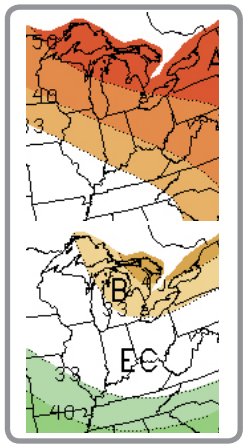
Flooded Illinois soybean field in late June.
Photo by Steve Hilberg

Regional Outlook - *for October–December 2015*

Outlook Appears Favorable for Fall Harvest



Precipitation outlook for October for the Midwest issued on September 17 by the Climate Prediction Center.



Temperature outlook (top) and precipitation outlook bottom) for October through December issued on September 17 by the Climate Prediction Center.

The latest 30-day outlook from the Climate Prediction Center for the month of October indicates a higher probability for drier weather in the northeastern Midwest, and equal chances for temperatures to be above, near, or below normal. For the period from October through December, the outlook indicates equal chances for above, normal, or below normal temperatures for the southwestern half of the Midwest, and greater chances for warmer than normal temperatures in the northeastern half. There are greater chances for drier than normal weather in the upper Midwest, and higher chances for above normal precipitation across Missouri and extreme southwestern Iowa.

An El Niño is in progress over the equatorial Pacific and there is a 97 percent chance it will continue though the coming winter. This typically means above-normal temperatures for much of the Midwest during the winter with the greatest impact in the northern portions of the region. The central Midwest tends to be drier than average in an El Niño winter.

Midwest Region Partners

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