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# Fall 2011 Precipitation in the Midwest: From Shortage in the West to Surplus in the East

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In the Midwest during the fall of 2011, precipitation was plentiful in the eastern Midwest but scarce in western parts of the region (meteorological fall is September through November), according to the Midwestern Regional Climate Center at the Illinois State Water Survey (ISWS).

Fall precipitation in portions of Minnesota and western Iowa was 4 to 6 inches below normal (Figure 1). September through November precipitation totals from around Minnesota were 1.15 inches in Redwood Falls, 1.36 inches in Minneapolis-Saint Paul, 2.39 inches in Saint Cloud, and 3.21 inches in Duluth. In Iowa, Sioux City recorded just 0.59 inches and Sioux Rapids recorded 1.37 inches.

In Minneapolis-Saint Paul, fall precipitation (1.36 inches) was a negative departure of 5.92 inches from the 1981-2010 normal. The autumn of 2011 in the Twin Cities was the driest in the 141-year record, according to the Minnesota Climatology Working Group.

In Minnesota and northwest Iowa, the minimal fall precipitation intensified the existing abnormally dry conditions. As a result, this region saw the development of moderate to severe agricultural drought conditions on the U.S. Drought Monitor over the past three months.

The dry conditions have created some negative impacts in Minnesota and northwest Iowa. Negative impacts include reduced crop yields, smaller soybeans, difficult tillage operations, and damage to farming equipment.

Fortunately, not all drought impacts in this region have been negative. A dry fall produced an ideal harvest for farmers, assisted in the drying of corn without utilizing grain dryers, and extended the outdoor construction and maintenance work seasons. In addition, the dry conditions this fall will reduce the probability for flooding next spring, which river communities are thankful for after three consecutive years of spring flooding.

In contrast, the eastern Midwest received ample precipitation this fall. Kentucky and parts of Ohio, Indiana, southern Illinois, and southeast Missouri received 15 to 20 inches of precipitation (Figure 2), which is 6 to 10 inches above normal fall precipitation. This abundant rainfall helped eliminate abnormally dry and drought conditions on the U.S. Drought Monitor altogether across this region.

However, the unseasonably high precipitation in the eastern Midwest did not come without some negative consequences. Flooding was an issue on a few occasions in Kentucky, Ohio, and Indiana.

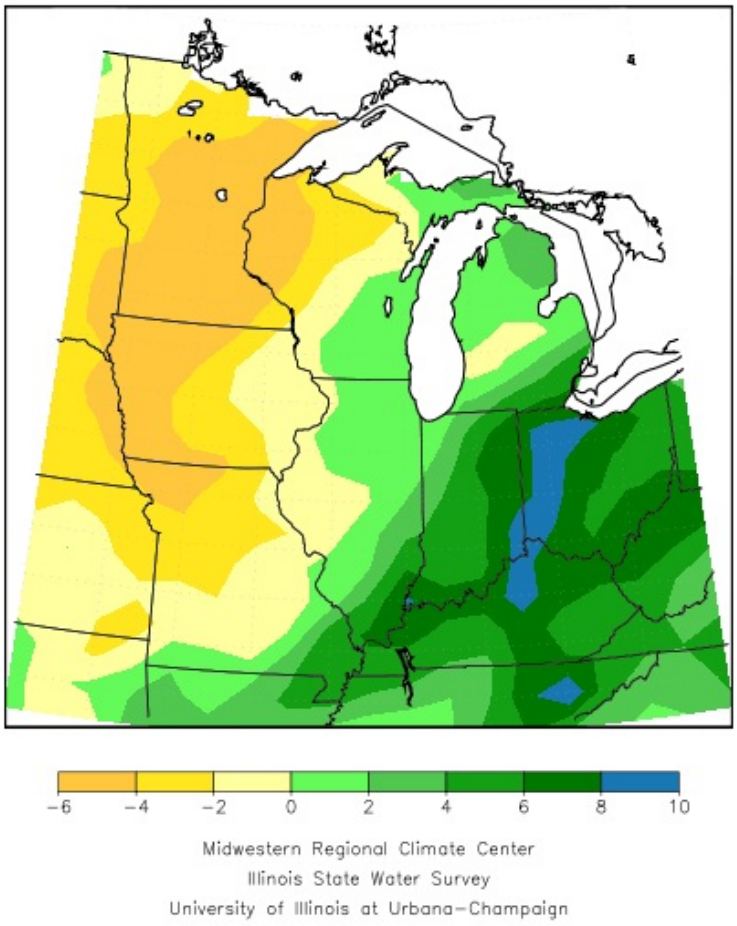


**Figure 1. Total Precipitation Deviation from Normal (inches), September 1 - November 30, 2011.**

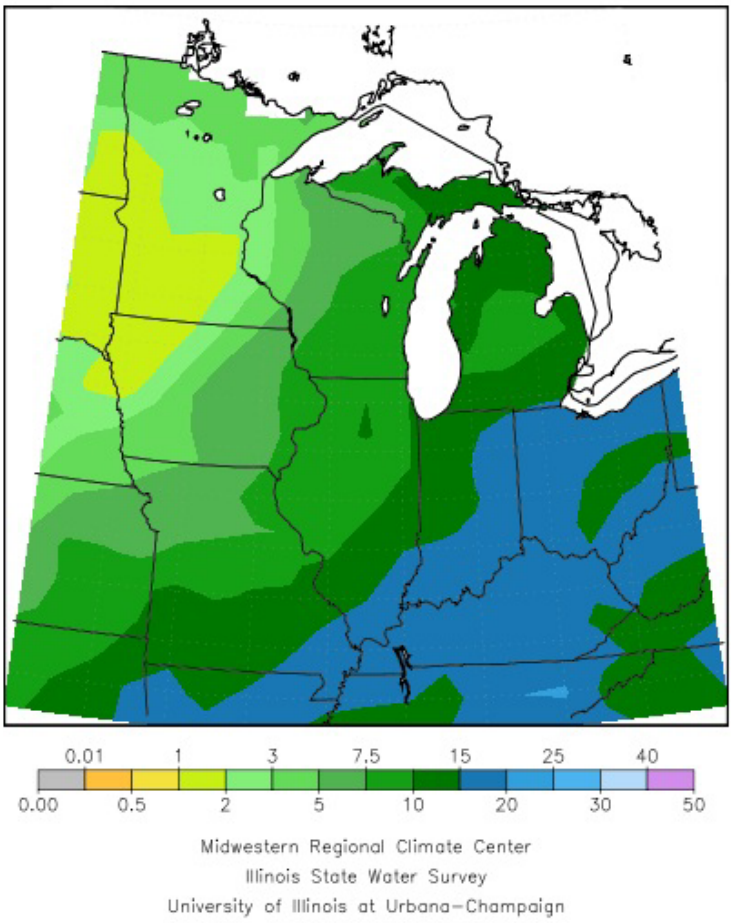


**Figure 2. Total Precipitation (inches), September 1 - November 30, 2011.**

*The Minnesota Climatology Working Group also contributed to this press release. The Drought Impact Reporter website provided some drought impacts.*

*The Midwestern Regional Climate Center is a cooperative program of the Illinois State Water Survey and the National Climatic Data Center (National Oceanic and Atmospheric Administration, U.S, Department of Commerce).*