# Midwest Climate Hub

## U.S. DEPARTMENT OF AGRICULTURE

December 10, 2021

# **Midwest Ag-Focus Climate Outlook**

## **Main Points**

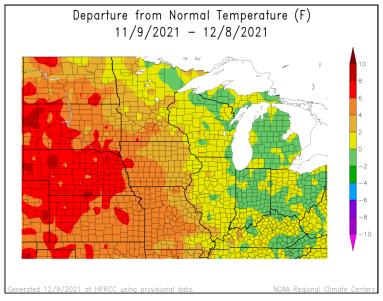


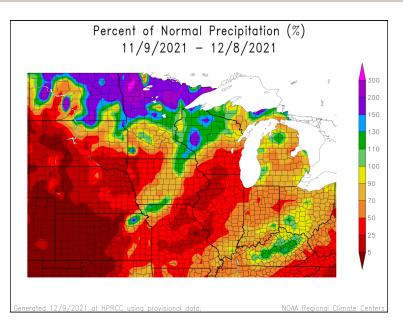
- Crop harvest is mostly complete
- Warm temperatures continue
- La Niña conditions are affecting winter outlooks
- Wet locations are at somewhat increased risk for spring





#### **Current Conditions**





Generally, warmer and drier conditions have covered the region in the last 30 days. Warmer than average temperatures have been most apparent into the Plains. In contrast, conditions in the Ohio Valley and near the Great Lakes have been slightly cooler. After a wetter October (see November Ag Outlook) most of the region has been drier to quite dry in the last 30 days. The only wetter areas have been far north. More than half of the region has received less than 50% of average precipitation, with some much worse areas (again see Plains states and Wisconsin to Missouri). A number of stations in the Plains set all time December high temperatures on December 2.

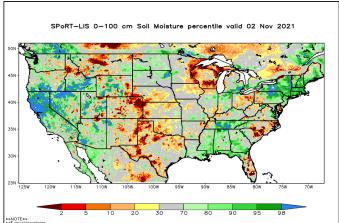
Images from High Plains Regional Climate Center (HPRCC), Online Data Services: ACIS Climate Maps. Generated: 12/9/2021

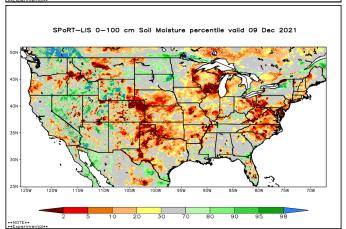






## **Impacts**





Soils surfaces have dried again with the lack of rainfall and enough warmth to cause some evaporation. The NASA soil moisture maps react more quickly to dry conditions and are probably overstating the extent of drying, but near-surface soils are likely drying with the lack of precipitation and warmth.

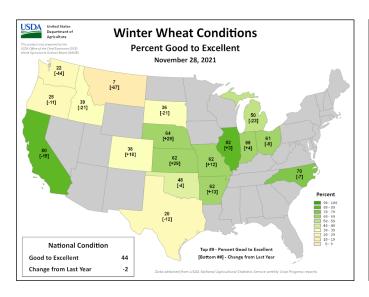
Soil temperatures (not pictured) range from 30s °F in the north—with some frozen soils far north—to 40s °F in the southern parts of the region. Widespread unfrozen soils have allowed more nitrogen application and tillage in recent weeks (though this practice is generally not recommended on warmer soils). Soils will likely stay mostly unfrozen for much of December given the expected warmth (see outlooks, final page).

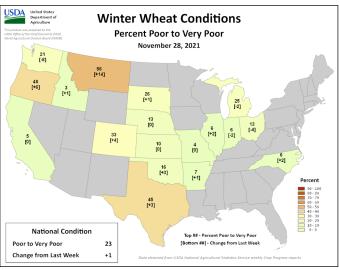
Harvest is mostly finished, though some final acres continue being harvested in the east. Winter wheat conditions are a mixed bag, from poor in the northern plains to better in the central plains and east.

The <u>Midwest Climate Hub</u> would like to hear reports of damage to any crop or horticultural in your region.

# **Crop Progress**







U.S. Agriculture Progress Maps Supplied by Brad Rippey, USDA
World Agricultural Outlook Board.



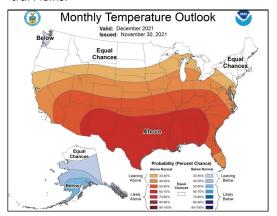


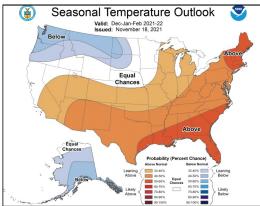


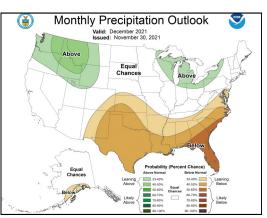


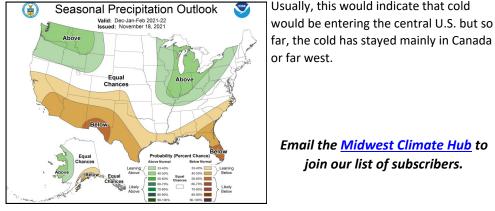
The monthly December outlook and the seasonal December to February outlook from the National Weather Service Climate Prediction Center continue to show La Niña patterns as La Niña conditions have returned to the equatorial Pacific Ocean. Both the monthly and the seasonal outlooks have a distinct flavor of typical La Niña conditions. The probabilities are not very strong (and all La Niña's look a little different) but have some tendencies across the region that can impact agriculture.

In the seasonal outlook, warmer conditions are more likely in the southern areas of the region, with a small chance of cooler conditions in the northern Plains. The precipitation outlooks are similar in the monthly and seasonal periods with slightly increased chances for precipitation in the northern Plains and over the Great Lakes/Ohio Valley (seasonal). There are some slightly increased chances of dryness in the central Plains.









Outlooks provided by the Climate Prediction Center

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Limited drought improvement and likely

some worsening of drought conditions may occur in the central Plains due to the chance of drier and warmer conditions.

Increased wetness with some additional lake effect snows are likely in the eastern Midwest. The warm temperatures are more likely to keep soils from freezing. At this point there are no major cold outbreaks in the pipeline; this can change fairly rapidly as colder-than-average conditions have been occurring in Alaska.

## **Partners and Contributors**



**United States Department of Agriculture** (USDA)

National Oceanic and Atmospheric Administration (NOAA)

Climate Prediction Center (CPC)

National Weather Service (NWS)

National Center for Environmental Information (NCEI)

National Drought Mitigation Center (NDMC) National Integrated Drought Information System (NIDIS)

Midwestern Regional Climate Center (MRCC)

Midwest State Climatologists

High Plains Regional Climate Center (HPRCC)



## **For More Information**

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