

## Midwest Ag-Focus Climate Outlook

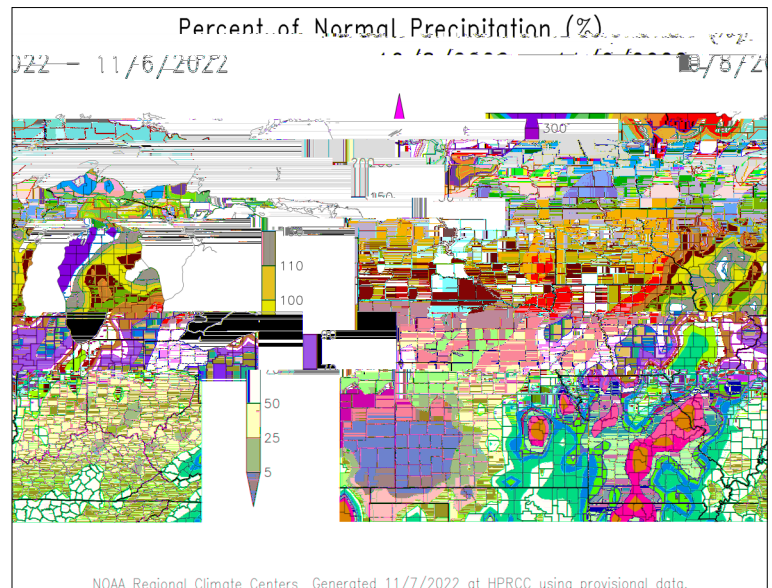
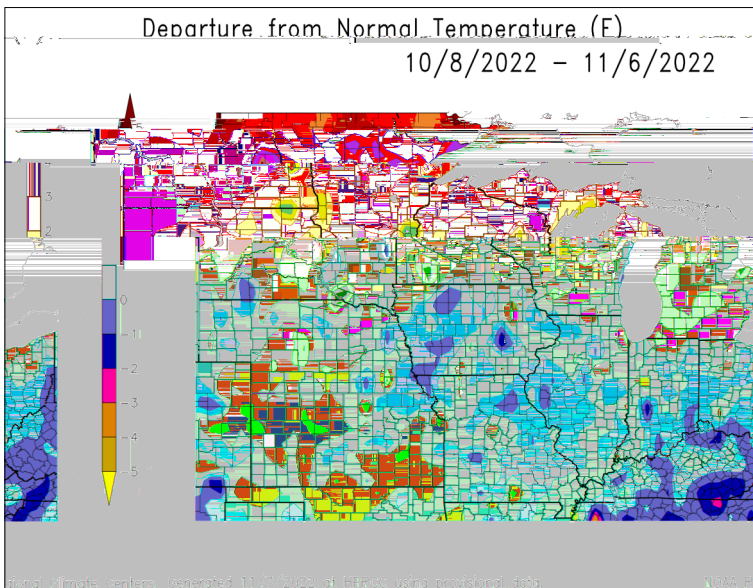
### Main Points



- ◆ Drought is still pervasive across the region and appears likely to continue into spring in some places.
- ◆ A few storms have helped increase soil moisture in parts of the Midwest.
- ◆ La Niña still influences the outlooks into late winter.



### Current Conditions



Temperatures generally have continued to be warmer than average through much of the fall season. Dry air has allowed some fairly large daily swings. At 3 to 5°F above average over the last 30 days, the warmest area has been northern states (Dakotas to Michigan and parts of the Plains). From Iowa eastward and in the southern parts of the region, temperatures have been closer to average. Two large storm systems brought precipitation, reducing precipitation deficits and improving drought conditions in parts of the Midwest over the last 30 days, mostly from Missouri to the Great. The wettest areas have received up to 150% of average. Unfortunately, some of the worst areas of drought (west) and some increasingly dry areas (east) received little to no precipitation. Western areas have received 25% to 50% of average precipitation or less over the last 30 days.

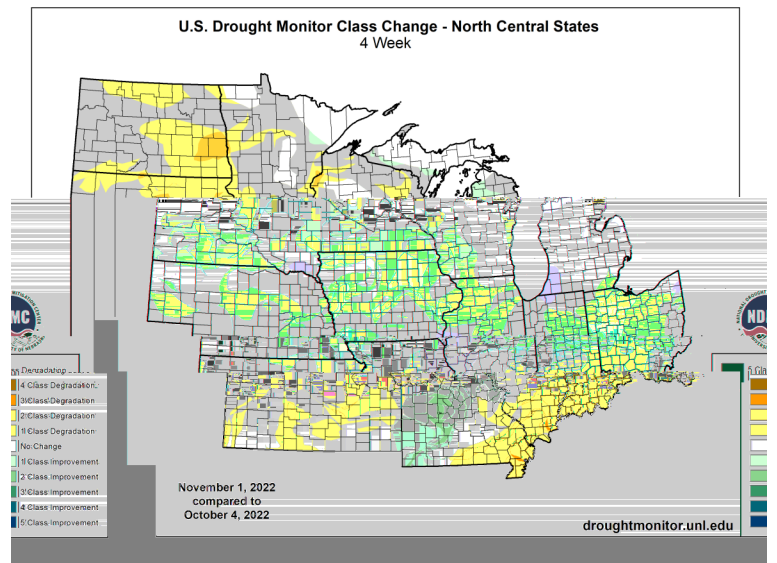
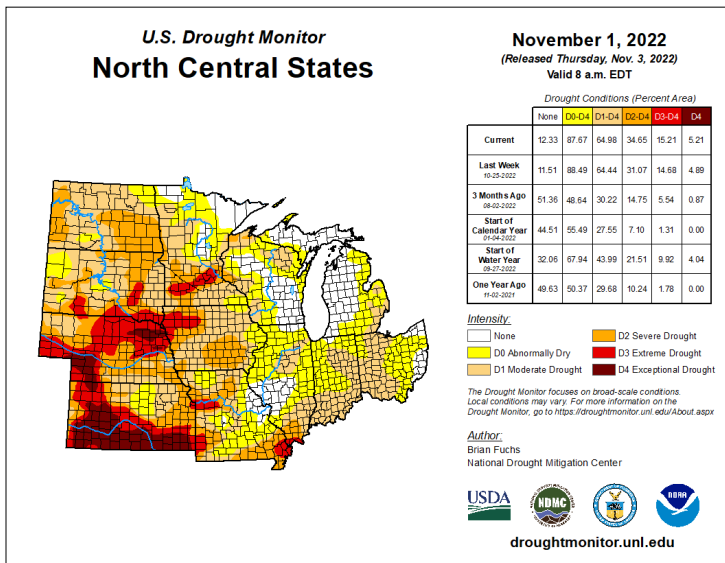
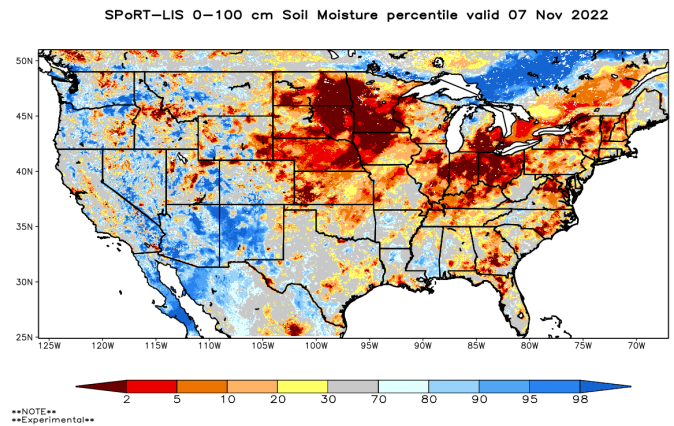
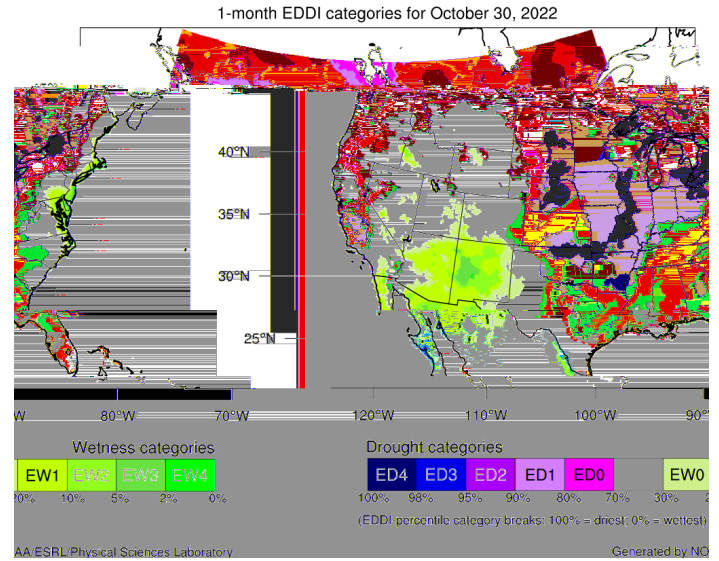
Images from High Plains Regional Climate Center (HPRCC), Online Data Services: [ACIS Climate Maps](https://www.hprcc.noaa.gov/acis/). Generated: 11/7/2022.



Impacts

Currently, drought is the dominant issue in the Midwest, and drought conditions are persisting. As it is the end of the growing season, the overall direct impacts to row crop agriculture are not very serious, though summer drought conditions impacted yields in some areas. Animal agriculture is still feeling these effects with a lack of—and expensive—feed, especially in areas where grazing is prevalent. Numerous indirect impacts are also noted. Very dry conditions have allowed for easier harvest progress, but also introduce fire risks with harvest equipment and in grass areas. The widespread and persisting dryness has limited runoff, leading to very low streamflows, which are now impacting shipping on the Mississippi River. Limited water availability from aquifers has started becoming a problem in some areas. Winter wheat seeding emergence (and likely cover crops) have been impacted. Winter wheat seeding has progressed, but emergence has been limited in the driest areas with winter wheat conditions being far worse than any years in recent history.

Check out how your area's freeze dates are changing:  
<https://www.climatehubs.usda.gov/hubs/midwest/tools/exploring-historical-freeze-dates-midwest-and-northeast-regions>



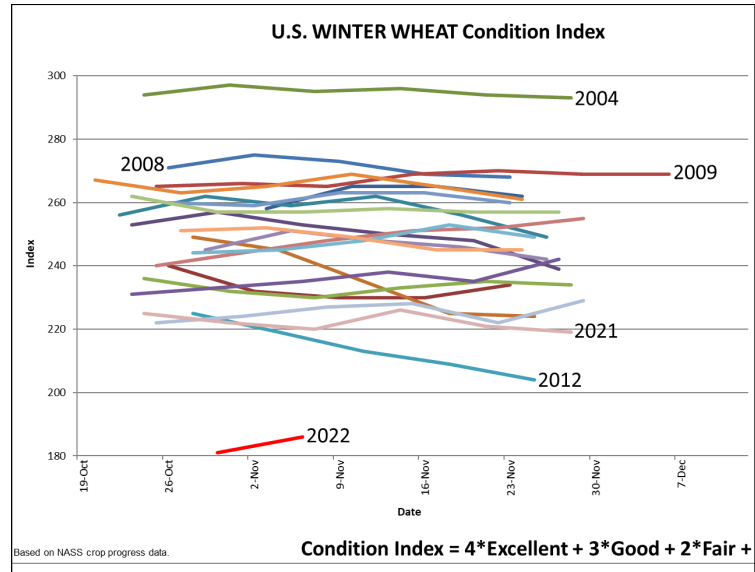
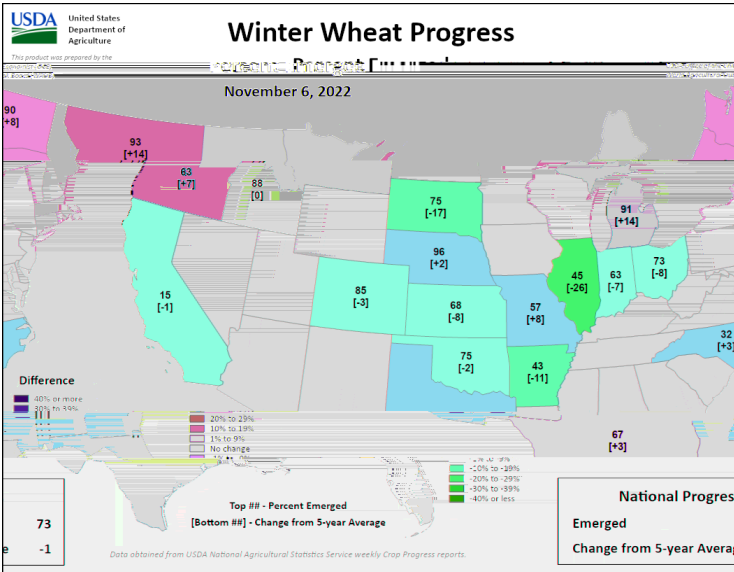
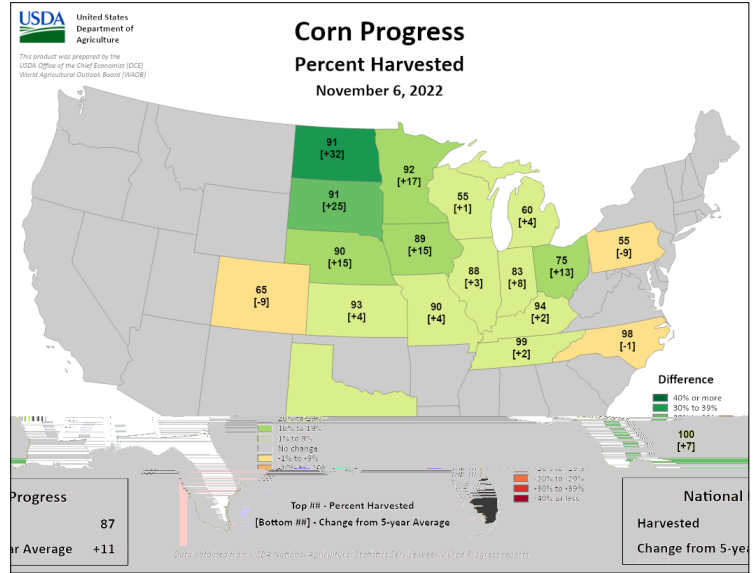
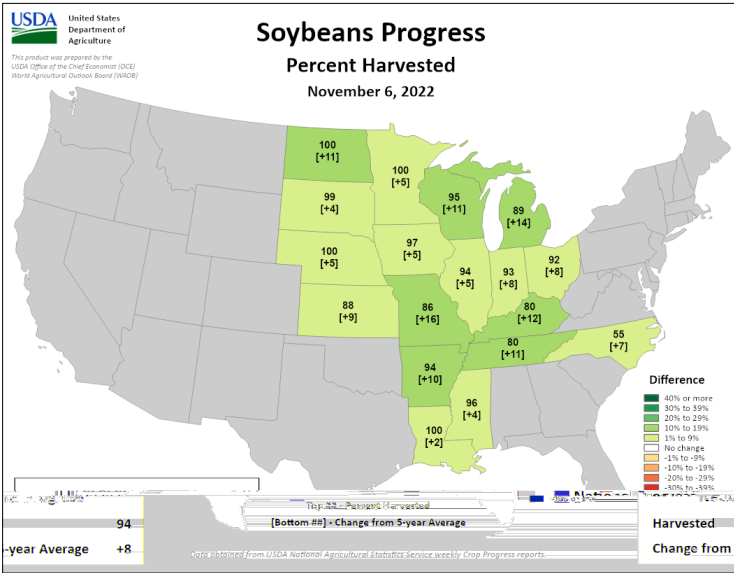
Maps Generated by the National Drought Mitigation Center, the Short-term Prediction Research and Transition Center, and the NOAA Physical Sciences Laboratory.



For more information, please visit:  
<https://www.climatehubs.usda.gov/hubs/midwest>

Soil moisture recharge for next year has also been limited so far. Soil temperatures have gradually cooled. There are several concerns with soil condition. Expected cold temperatures (see Outlook section) will likely lead to frozen soils developing in northern areas. That will stop soil moisture recharge unless some warmth returns. The dry soils could facilitate very deep frost depths in the case that winter brings strong and persistent cold weather. Water main breaks and frozen water lines are a possibility.

Crop harvest has generally been quicker than average in the northwest areas and variable in other areas. Delayed spring planting has led to some delayed development and higher moisture contents.



**Outlook**

Near-term outlooks (6- to 10-day and 8- to 14-day) indicate that sharply colder conditions are very likely throughout the central US into the middle of November. That will continue to cool soils, likely leading to frozen soil at least in northern areas.

Maps Generated by the [National Agricultural Statistic Service](https://www.nass.usda.gov/).

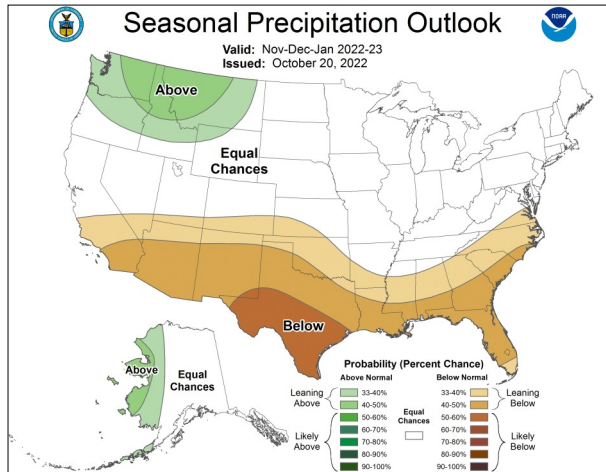
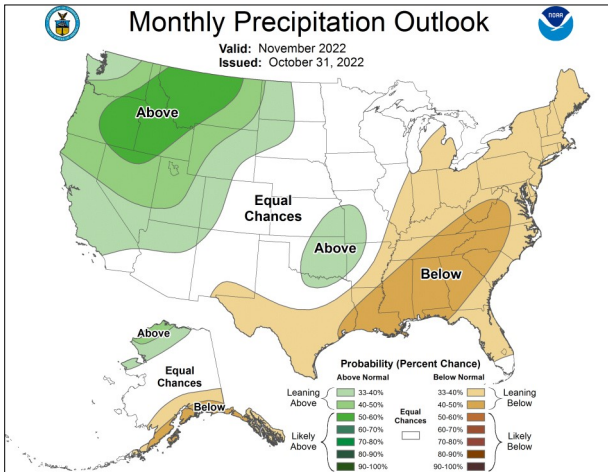
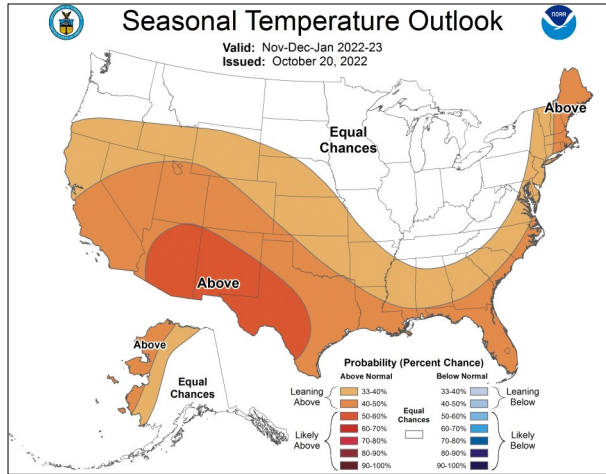
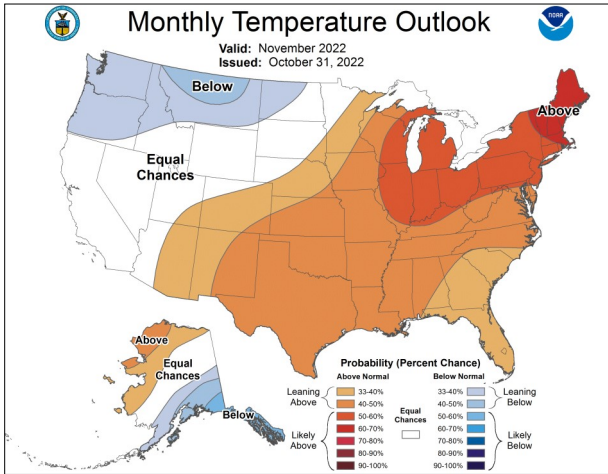
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The 30-day outlooks from NOAA’s Climate Prediction Center for November show increased chances for warmer-than-average temperatures over most of the Midwest, with a slightly increased chance for colder temperatures in the northern Plains. With the expected mid-month cold, the warmer-than-average outlook may be difficult to verify from the Plains to the central Corn Belt. Precipitation is split, with slightly-more-likely dryer in the far eastern areas and slightly-more-likely wetter in the northwest. The 90-day outlooks reflect the current La Niña patterns. Temperatures lean toward colder across the northern areas later in the winter. Precipitation leans wetter in the northern Plains and Great Lakes and leans drier in the central Plains.

Some recovery from dryness may be possible across the eastern Corn Belt, and more snow is possible in the northern Plains—and possibly across all northern areas. The Plains have a reduced chance for drought recovery if these outlooks hold true.

Check the most recent outlooks here: <https://www.cpc.ncep.noaa.gov/>



Outlooks provided by the [Climate Prediction Center](https://www.cpc.ncep.noaa.gov/).

**Partners and Contributors**



- [United States Department of Agriculture \(USDA\)](https://www.usda.gov/)
- [National Oceanic and Atmospheric Administration \(NOAA\)](https://www.noaa.gov/)
- [Climate Prediction Center \(CPC\)](https://www.cpc.ncep.noaa.gov/)
- [National Weather Service \(NWS\)](https://www.weather.gov/)
- [National Center for Environmental Information \(NCEI\)](https://www.ncei.noaa.gov/)

- [National Drought Mitigation Center \(NDMC\)](https://www.ndmc.gov/)
- [National Integrated Drought Information System \(NIDIS\)](https://www.nidis.gov/)
- [Midwestern Regional Climate Center \(MRCC\)](https://www.mrcc.gov/)
- [Midwest State Climatologists](https://www.msc climatologists.org/)
- [High Plains Regional Climate Center \(HPRCC\)](https://www.hprcc.gov/)



**For More Information**

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<https://www.climatehubs.usda.gov/hubs/midwest>