Midwest Ag-Focus Climate Outlook

April 4, 2025

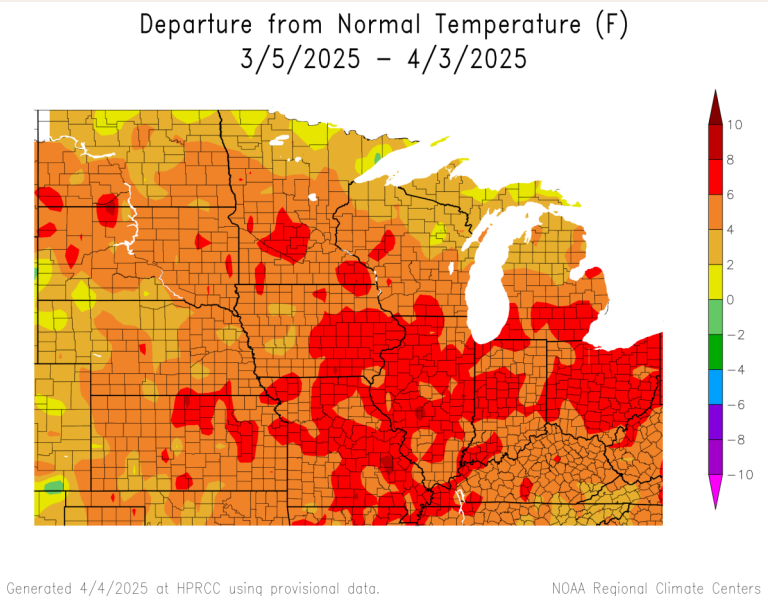
Main Points

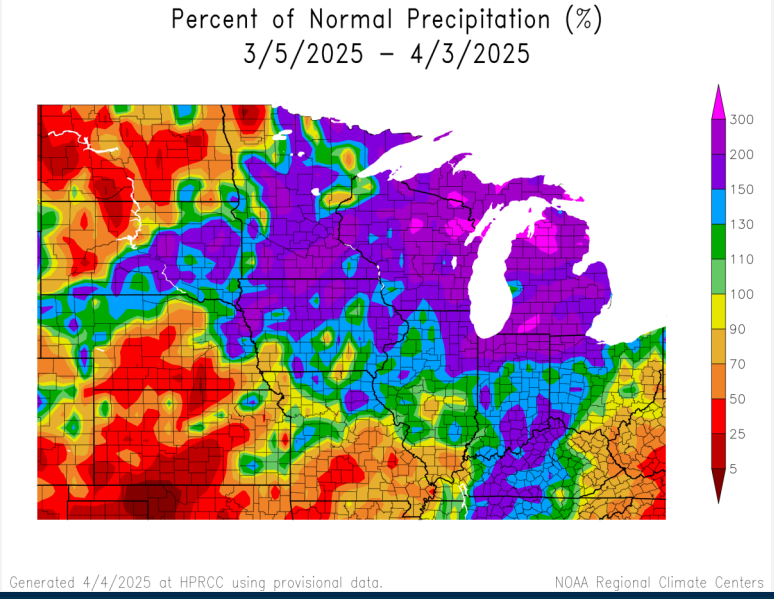
- Drought conditions persist across the region, especially in the Plains and around the Great Lakes.
- Temperatures over the past month were above normal, though temperatures are expected to dip over the next week.
- Heavy rains in early April are predicted in parts of the region, which may result in flooding; this may impact pasture, field conditions, and public safety.
- There is a somewhat increased risk for drought during the main part of growing season for most of region.

Current Conditions

March continues to be a case of the 'haves' and the 'have-nots'. Much of the central and northeastern portions of the region experienced more precipitation than normal, ranging from 150-300% above normal precipitation amounts. Specifically, locations in Wisconsin and Michigan received more than 3 inches above normal precipitation. In contrast, the northern Plains of the Dakotas and central Plains of Nebraska and Kansas across into Missouri and portions of eastern Ohio on average received less than 50% of normal rainfall. Pockets of less than 5% of normal rainfall exist in Kansas, Nebraska, North Dakota, and South Dakota, amounting to less than 0.1 inch of precipitation in some locations. The storm track in early April shifts to the southeast portion of our region. Heavy rainfall is expected, bringing with it the possibility for flooding and severe weather.

Over the past 30 days, temperatures have been at least 4°F above normal for the region, teasing spring conditions to many. Temperatures across the northern states averaged in the upper 20s (°F) while the southern states averaged temperatures in the low to mid 50s (°F). Large swaths in numerous regional states experienced temperatures 6°F above normal. More isolated pockets of 8°F above normal in the central and western states.



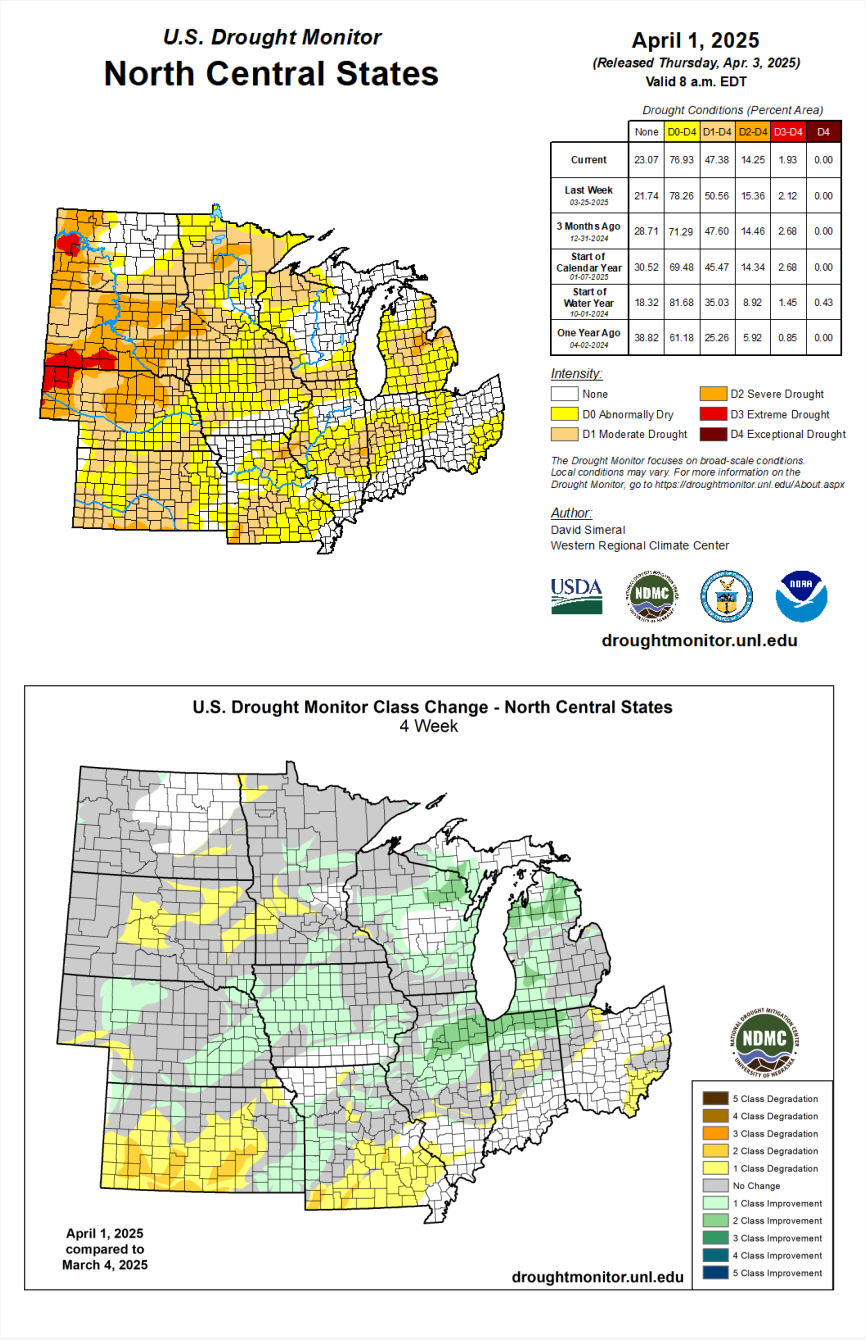


Images from High Plains Regional Climate Center (HPRCC), Online Data Services: ACIS Climate Maps. Generated: 04/04/2025.

Impacts

Drought

The latest US Drought Monitor (USDM) classifies just over half of the North-Central region as being in at least moderate (D1) drought, with over a quarter of the area experiencing abnormally dry (D0) conditions. Of the portions in at least moderate drought conditions, 14% of the area primarily in the Plains is classified as in severe drought (D2) conditions. Portions of western Nebraska and the Dakotas make up the 2% of the region classified in extreme drought (D3). The 4-week (1 month) change map has pockets of one-drought class improvement following the track of recent storms through Iowa, Minesota, Wisconsin, Michigan, and northern Illinois. While continual dryness in the Plains, Missouri, southern Illinois, and Indiana have resulted in a one-drought class degradation over the past 4 weeks. Drought in the Plains is severe issue to rangeland productivity and accentuates the need for April precipitation during critical growth periods. Dry crop land areas are not in severe risk (yet). Dry soils can actually be a benefit for spring field work and planting.



Maps generated by the National Drought Mitigation Center.

Snow

Much of the region is bringing in April snow free. Notable exceptions include the Upper Peninsula of Michigan, where upwards of 20 to 30 inches of snowpack remain. Recent winter storms have resulted in swaths of snow across portions of the Plains through northern Wisconsin.

Soils, Crops and Livestock

Soil moisture remains dry across much of the region, in particular, the Plains where precipitation is needed to improve rangeland conditions. Current moisture levels may be enough for a spring plant, and southern portions of Missouri and Illinois have reported field work and planting. However, the region spanning from Missouri to Ohio is at risk for heavy precipitation in early April leading to flooding, soil loss, damage to buildings, and concerns for public safety. There is also a concern for nitrogen leaching from second applications of fertilizer to wheat. Forecasted precipitation resulting in wet fields and cooler

temperatures may lead to slowdowns in producers trying to get a head start on their field work and planting across the region.

The recent storms that moved through northern Wisconsin and Michigan brought ice with an accumulation of over an inch of ice in some locations, potentially impacting tree crops and alfalfa. Additionally, heavy ice accumulation resulted in power outages across the impacted region.

Warmer temperatures through March have resulted in earlier leaf out dates through southern South Dakota into central Iowa across into Ohio, according to the USA National Phenology Network (NPN). To a lesser degree, the first blooms of honeysuckle and lilac are reported though southern Missouri. There are also reports of fruit tree and shrub buds swelling in Iowa making them vulnerable to returning cold temperatures that are expected the second week of April.

In terms of pasture and livestock, blizzard conditions across the Plains during March possibly impacted livestock conditions. Kansas has noted an increase in Livestock Forage Program requests. But the overall impact has not seemed large so far. Additionally, dry soil conditions in Ohio are impacting pasture conditions, and heavy rainfall is also a concern.

Fire

Dry and warm conditions though March resulted in favorable fire weather conditions. Reports of grassland fires have come from several of the states through the region. Continual lack of moisture and warm conditions in portions of the Dakotas, western Minnesota, northern Iowa, and western Kansas have elevated fire potential through the month of April.

Outlook

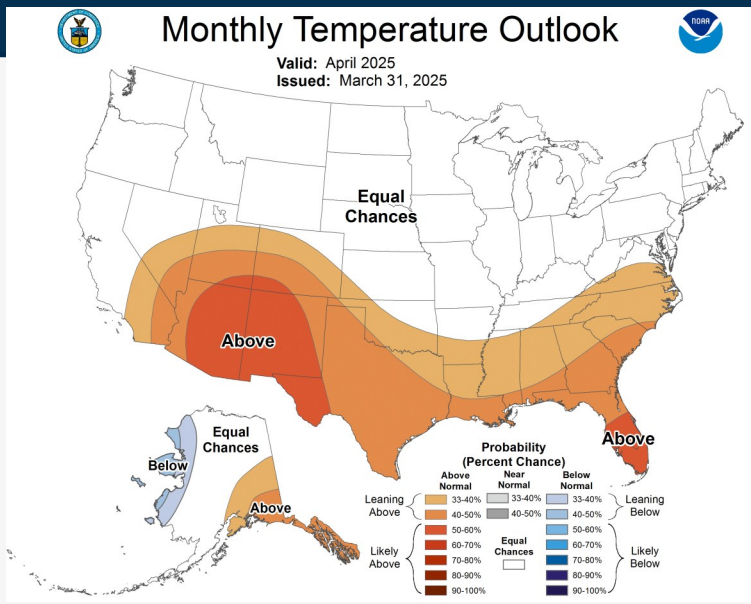
Looking forward over the next 30-days, there's an equal chance of above or below normal precipitation across much of the Midwest region. Notably, southern Missouri and Illinois, and much of Indiana, Ohio, and Kentucky are leaning toward and will likely experience above normal precipitation from the expected heavy early month rains. Through the middle of April most of the region is expected to be fairly dry. Temperatures across the region have equal chances of experiencing above, below, or normal temperatures over the month of April. The temperature outlook is a likely result of expected colder conditions during the 2nd week of April returning closer to average or above average later in the month.

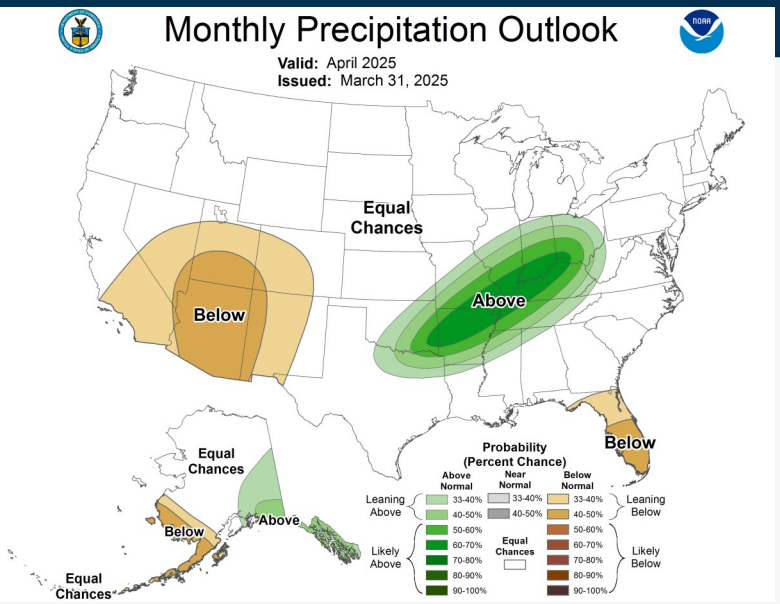
The seasonal outlook for April through June leans toward above average precipitation for the eastern Corn Belt. Kansas through western South Dakota lean toward below precipitation for the season. Elsewhere of the region has equal chances for above, below, or normal precipitation. Seasonal temperatures from April through June lean above normal for southern and eastern portions of the region. The Plains and northern Midwest may experience equal chances of above, below, or normal temperatures over the next 90-days.

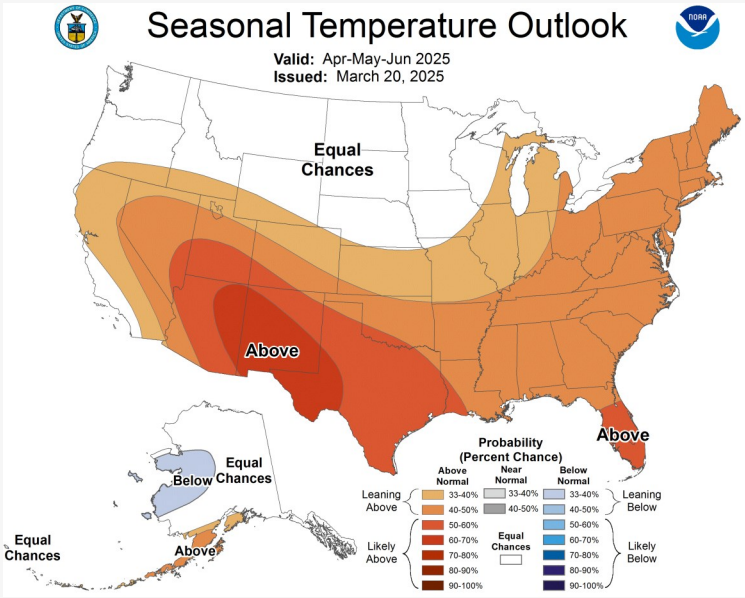
A La Niña Advisory remains for the month of March, but La Niña is expected to transition to neutral conditions. Currently the upper atmosphere conditions are still reflecting La Niña conditions, which will weaken with time.

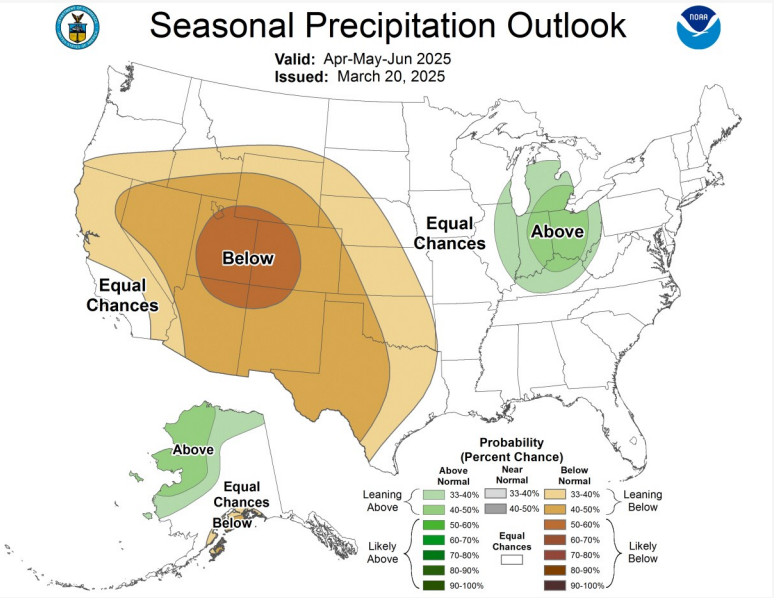
Increased wetness in the east is not currently a concern; however, if damp cool soils persist it may lead to potential planting delays. Incoming cool temperatures may result in damage to young and swelling buds of perennial crops.

Looking ahead to the main part of the growing season, outlooks have less skill at this point. But there are hints toward an increased risk of drought throughout much of the region – particularly west. This is due to a slightly increased chance of drier conditions along with a slightly increased chance of warmer conditions. This slightly increased drought risk should be considered in management and marketing plans.









Outlooks provided by the Climate Prediction Center.

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

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