

Midwest Ag-Focus Climate Outlook

Main Points

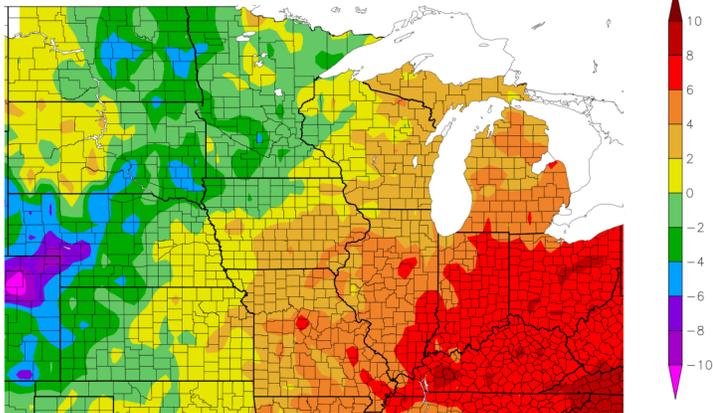


- ◆ Drought has been mostly eliminated in the eastern Corn Belt but persists in western areas.
- ◆ Soils are getting wetter in the eastern Midwest; frozen soils have kept surfaces wet but there is limited deeper soil moisture across the north.
- ◆ March will likely be cooler than average and may be wetter than average.
- ◆ Spring planting may be somewhat wet in the eastern Midwest, but there are no major concerns in western areas.
- ◆ Perennials are at some risk of freeze due to warm temperatures causing early dormancy break.



Current Conditions

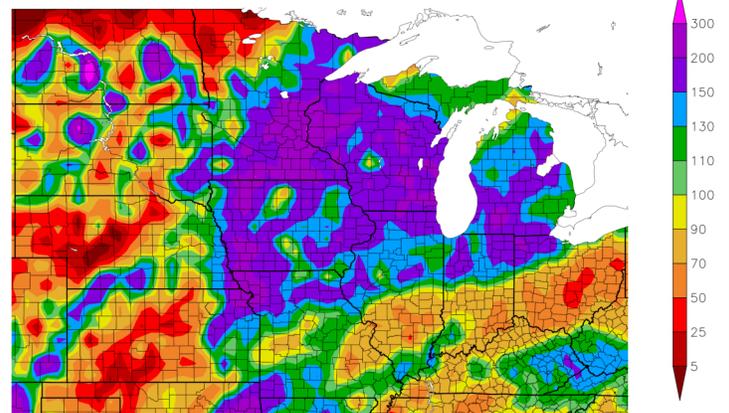
Departure from Normal Temperature (F)
1/31/2023 – 3/1/2023



Generated 3/2/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

Percent of Normal Precipitation (%)
1/31/2023 – 3/1/2023



Generated 3/2/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

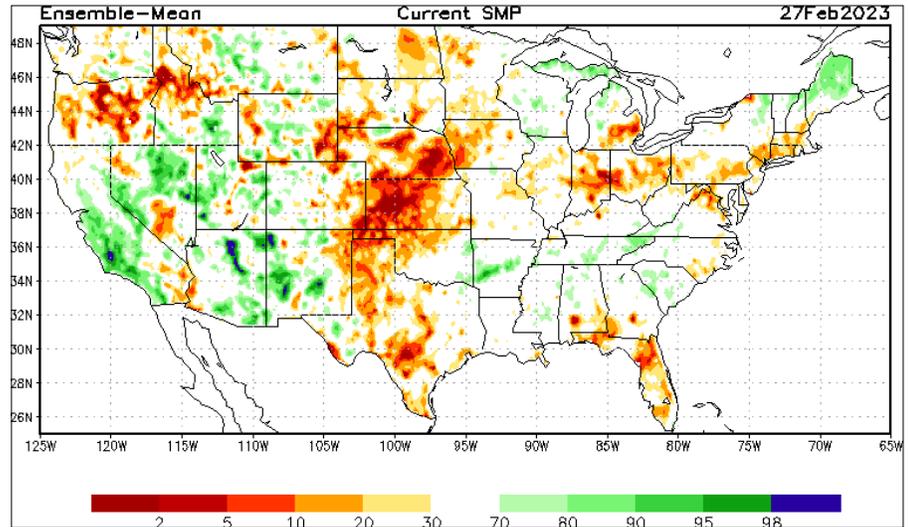
A very interesting climatological winter has come to a close (December 1-February 28). Many large winter events occurred with a wide variety of issues. Final data rankings are currently being calculated, but several states will be near wettest on record. The storm pattern has been very active and is part of a longer trend in wetter winters across the North Central US. Temperature records will be notable across the east, where warmth has generally been more persistent. Over the last 30 days, temperatures in the eastern Corn Belt have ranged from 6 to 8°F above average and slightly cooler than average across the west, where snow has persisted. Overall wetness has dominated from Missouri to the Great Lakes with 150 to 200% of average totals. Drier conditions have persisted in the Plains and somewhat in the eastern Corn Belt.

Images from High Plains Regional Climate Center (HPRCC), Online Data Services: [ACIS Climate Maps](https://www.climatehubs.usda.gov/hubs/midwest). Generated: 3/2/2023.



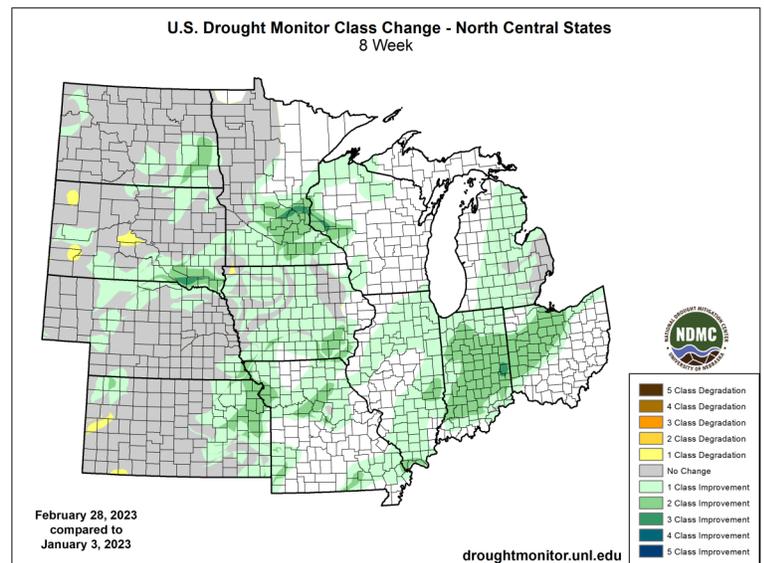
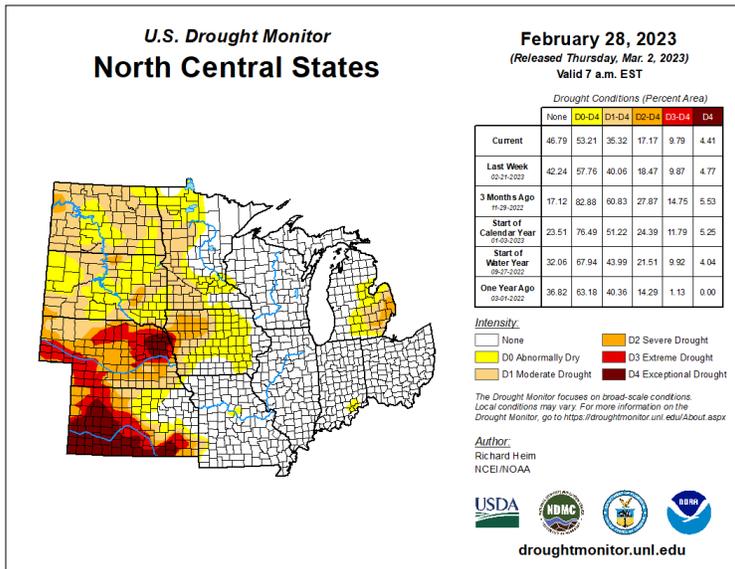
Impacts

The recent precipitation has created an interesting set of issues and messaging challenges across the Corn Belt. Wetness has removed most drought conditions and is starting to become more of a concern across the east where muddy conditions for livestock and potential wetness for planting may be a problem (see outlooks). The additional snow across the north has been somewhat helpful for water issues, but most of the melting snow will run off, limiting penetration into the soil profile. Therefore, drought conditions have persisted because of the frozen soils and severe, longer-term deficits. We do expect some additional drought improvement in the spring, but the areas with more severe drought are likely to maintain some drought status.

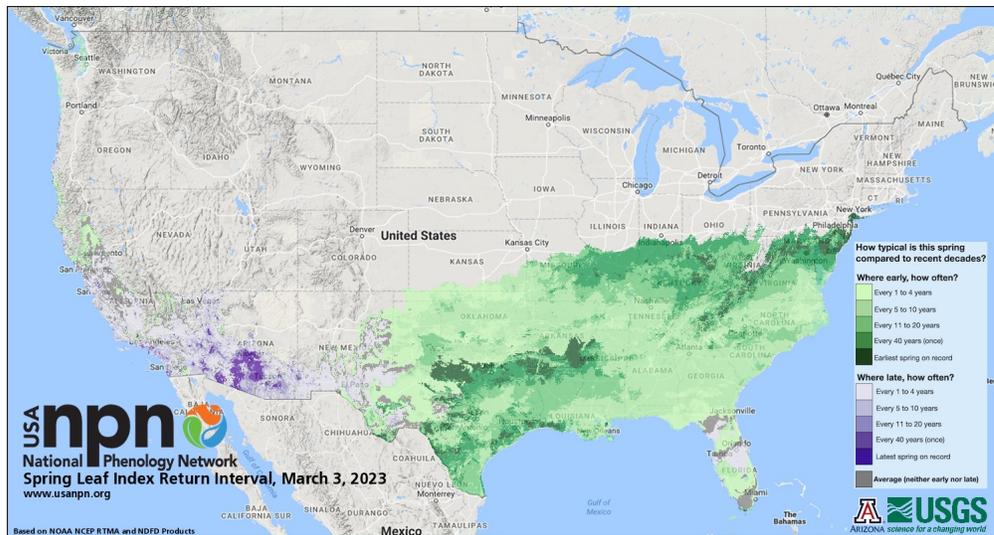
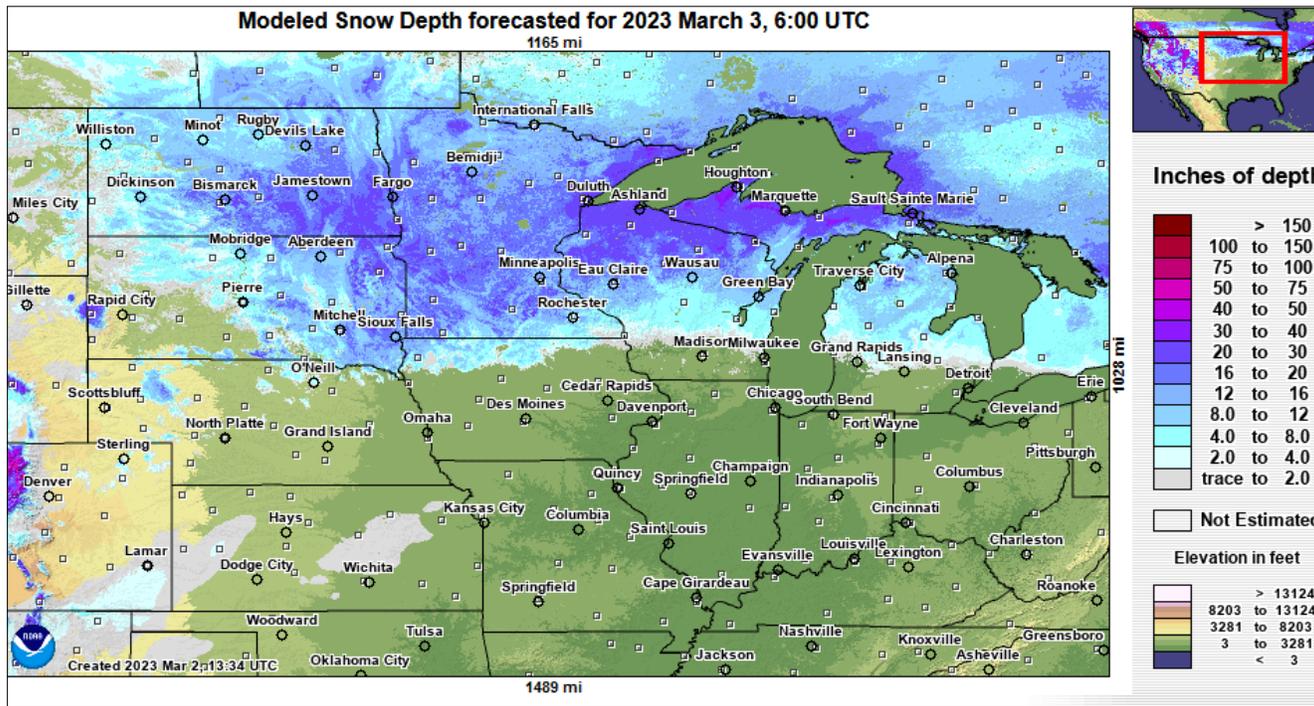


The warmth across the east has kept soils thawed and pushed chilling hour accumulation for tree fruits and other perennials closer to dormancy break. Dormancy break could occur well before the last freeze in some areas, making crops vulnerable to freeze damage. The pending cold in mid-March (see outlook) may help slow that phenological progression, but freeze risk for perennials still exists.

Winter precipitation—especially rains on frozen soils—have led to soil loss and muddy conditions for livestock and other farm work. This situation will likely persist across the thawed east and while the snows are melting across the north.



Maps Generated by the [National Drought Mitigation Center](https://www.ndmc.gov/) and the [Short-term Prediction Research and Transition Center](https://www.sprc.org/).



Maps Generated by the [National Operational Hydrologic Remote Sensing Center](#) and the [National Phenology Network](#)

Outlook



The main issue in the longer-term outlooks is the impact of La Niña fading this spring and the potential shift to El Niño possibly by late summer or in the fall. The longer-term outlooks will show low certainty without the La Niña/El Niño influence. The overall effect should be more positive for easing drought conditions, but could lead to some wetter conditions in the spring.

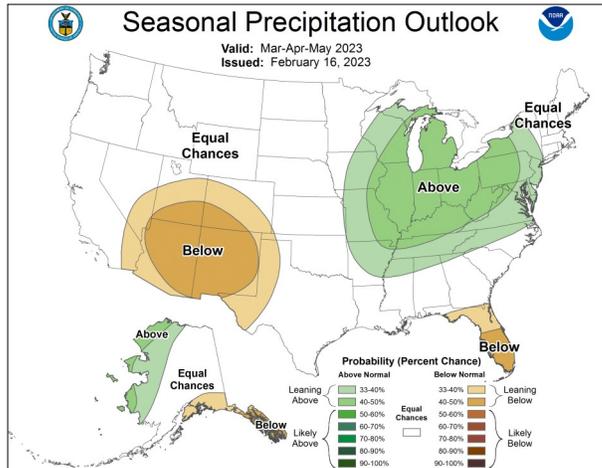
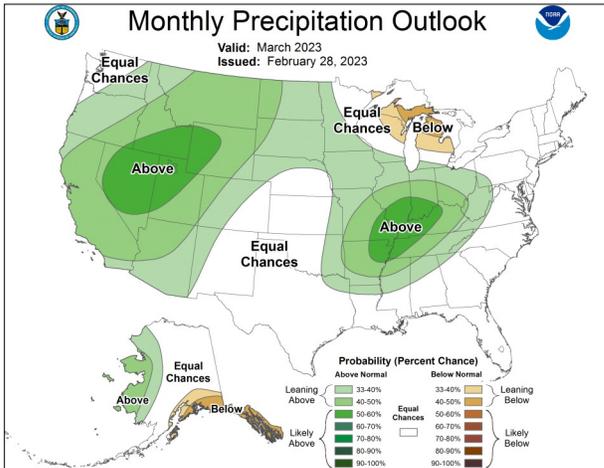
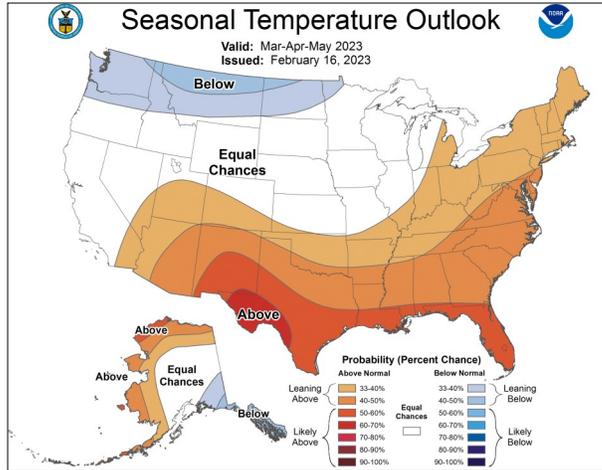
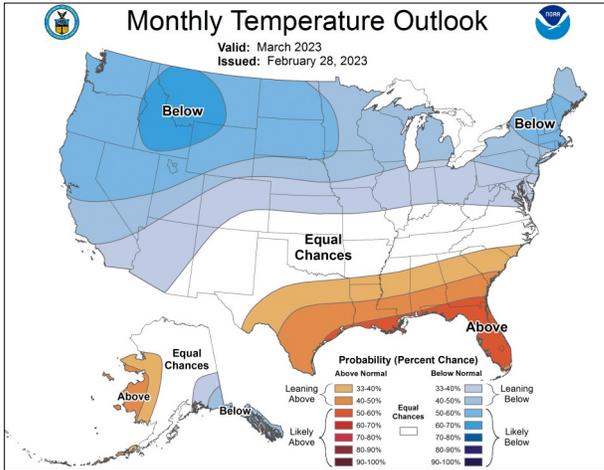
Outlooks for mid-March indicate colder conditions are more likely in the middle of the month, with a semi-active precipitation pattern ongoing. This situation carries over into the monthly outlooks. March leans toward the cold side overall across the north, and some areas of wetter conditions are more likely in the Ohio Valley and across the Plains.

The 90-day outlook for spring planting doesn't say too much on temperature; there is a slightly better chance of warmer temperatures in the east and a slightly better chance of cooler temperatures in the far northern Plains. The outlooks currently show a consistent message of more-likely wetter than average conditions in the east.

The overall impacts for the spring increase the chance for wetness and delayed planting in the eastern Corn Belt. We don't expect major problems at this point. Across the western Corn Belt, drought issues will continue but will be eased a little by spring precipitation.

Soils in the north will be somewhat slow to warm with the colder March. Major issues at this time are not expected. Thawing of soils needs to occur to allow for better soil moisture recovery. Some soil dryness is expected to continue in this area, though it may be eased. Frost depths are currently not very deep (mostly less than 1 ft) except for a few localized areas in the Plains.

As mentioned in the Impacts Section, there is significant concern about early dormancy break followed by a potential spring freeze. At this point we have no specific indications of last spring freeze. You can check out your local trend on freeze dates at mrcc.purdue.edu/freeze/freezedatetool.html.



Outlooks provided by the Climate Prediction Center.

Partners and Contributors



- [United States Department of Agriculture \(USDA\)](http://United States Department of Agriculture (USDA))
- [National Oceanic and Atmospheric Administration \(NOAA\)](http://National Oceanic and Atmospheric Administration (NOAA))
- [Climate Prediction Center \(CPC\)](http://Climate Prediction Center (CPC))
- [National Weather Service \(NWS\)](http://National Weather Service (NWS))
- [National Center for Environmental Information \(NCEI\)](http://National Center for Environmental Information (NCEI))

- [National Drought Mitigation Center \(NDMC\)](http://National Drought Mitigation Center (NDMC))
- [National Integrated Drought Information System \(NIDIS\)](http://National Integrated Drought Information System (NIDIS))
- [Midwestern Regional Climate Center \(MRCC\)](http://Midwestern Regional Climate Center (MRCC))
- Midwest State Climatologists
- [High Plains Regional Climate Center \(HPRCC\)](http://High Plains Regional Climate Center (HPRCC))



For More Information

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