USDA Midwest Climate Hub
U.S. DEPARTMENT OF AGRICULTURE

July 28, 2023

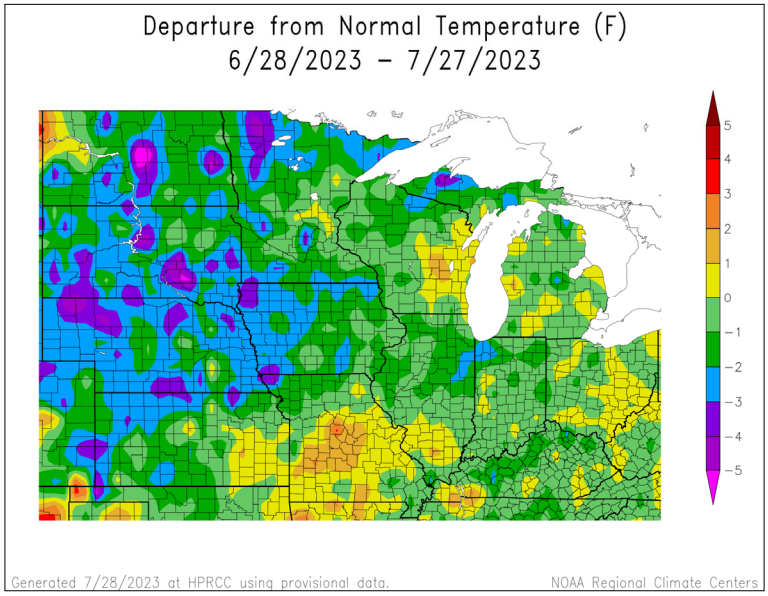
Midwest Ag-Focus Climate Outlook

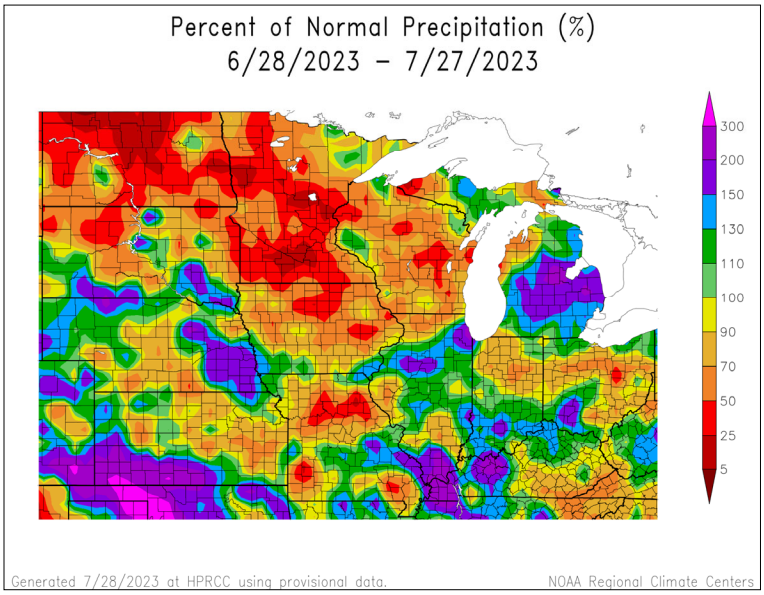
Main Points

- Drought conditions have varied across the region, but overall drought still persists.
- Recent rains have eased the worst potential yield loss for corn. However, dry soils and heat still threaten yields.
- Rainfalls have helped, but have been spotty.
- Overall, crop conditions are decent.

Photo by Tim McCabe, NRCS

Current Conditions





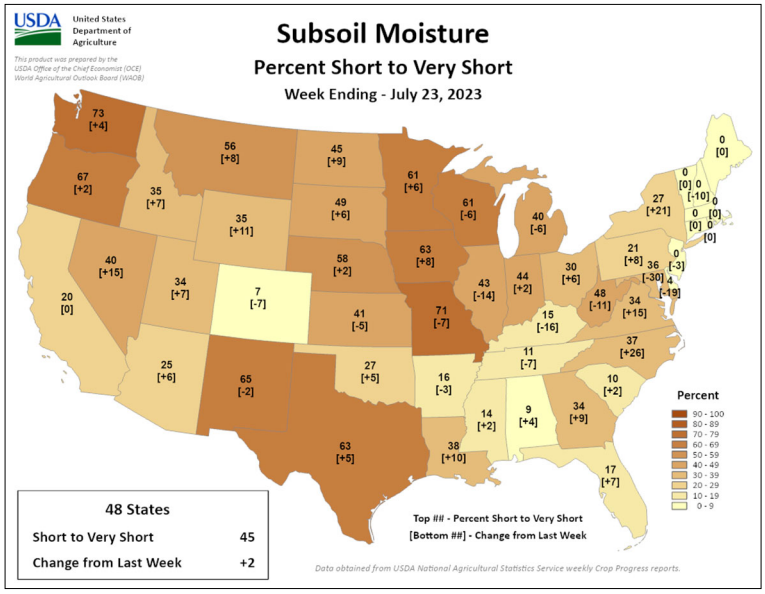
Recent rainfall has helped improve drought conditions slightly across the whole region. However, rains have not been sufficient or widespread enough for larger improvements, except in the Plains states. Fortunately, temperatures have been between near average and cooler than average, which has eased some of the potential drought stress on crops and other vegetation. Nearly the entire region has experienced below average temperatures in the last 30 days. Eastern areas have been around 2°F below average, while the Plains have been as much as 5°F below average. Rains have been spotty and more confined to the Plains and southern areas, particularly western Kentucky and southern Illinois. Kentucky potentially set an all-time record for a 24-hour precipitation total. Most of the rest of the region (including North Dakota through Wisconsin, Iowa, and parts of Missouri) have been much drier, with large areas having received less than 50% of average precipitation.

Images from High Plains Regional Climate Center (HPRCC), Online Data Services: ACIS Climate Maps. Generated: 7/28/2023.

Impacts

Drought

Drought conditions have continued, with some worsening and some improving conditions depending on location; however, rains have been mostly sufficient in holding off the worst impacts of dryness. Large scale change has happened in the western portions of the Plains states, where more significant precipitation has occurred. In other areas, rain has been spotty with only some isolated heavier amounts. Extreme to Exceptional Drought (D3-D4) areas exist from Kansas to Wisconsin. In fact, Wisconsin is seeing some of its worst drought conditions since the start of the USDM period in 2000. Crop conditions have held their own with the rainfalls, but concerns for corn, in particular, have occurred with the resurgence of heat. Grasses and pastureland are also showing signs of persistent dryness, leading to a lack of forage in some states. Michigan, Wisconsin through Illinois, and Missouri have the worst corn and soybean conditions, with the lowest percentage of crops in good-excellent condition. The return of moisture (more humidity in some areas) has increased some disease issues on crops.

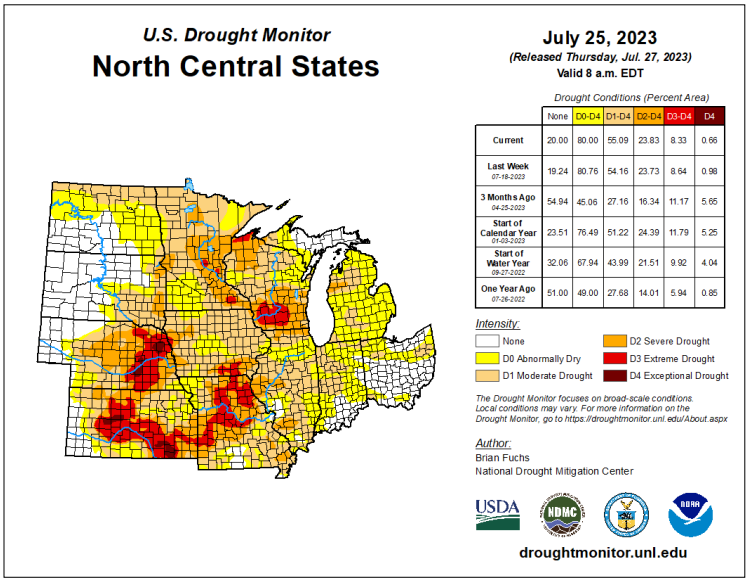


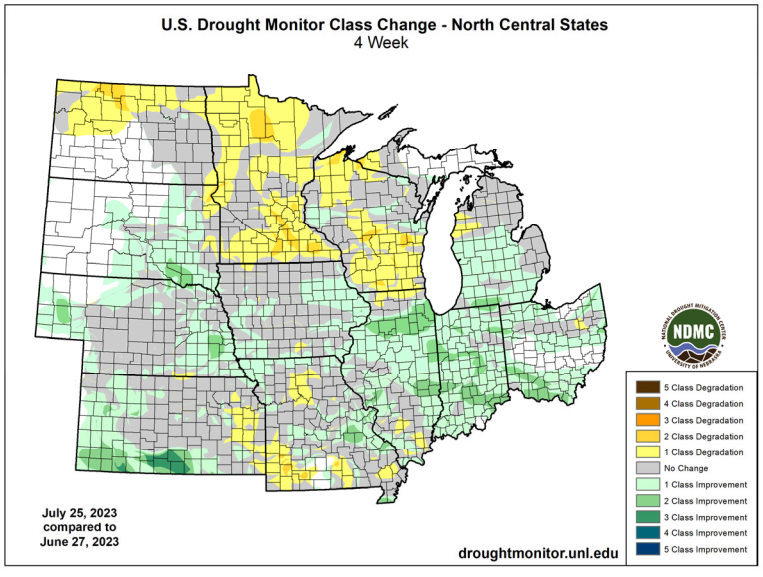
Crop Progress

Corn and soybeans are progressing similarly. The central and western areas are ahead of the 5-year average, while the eastern areas are well behind. Some states, such as Wisconsin, Michigan, and Ohio, are all double digits behind in amount of corn in the silking stage. Percent of soybeans that are blooming are slightly better, but have a similar pattern to corn across the states. Cooler temperatures and other issues have slowed crop progress in the east.

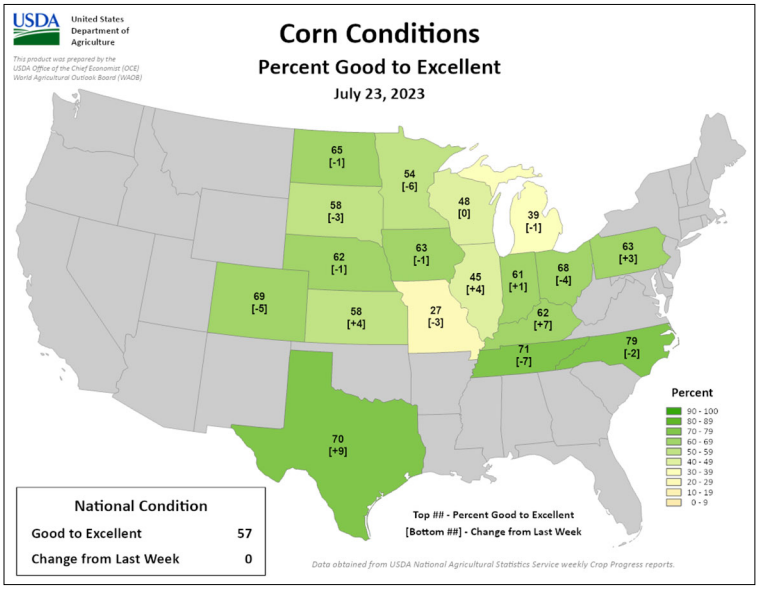
Mississippi River

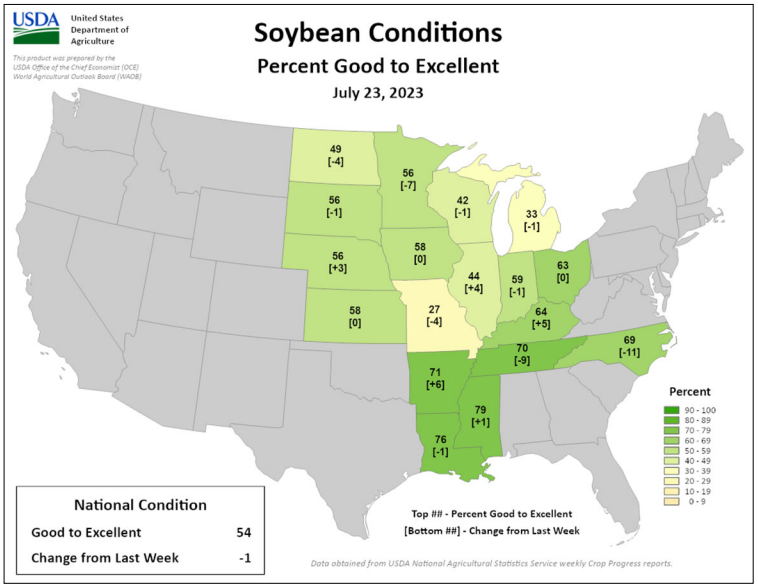
Flow problems have reappeared on the Mississippi River because of the widespread dryness that dates back a couple of years. The US Army Corps of Engineers has resumed dredging operations to maintain shipping channels. Recent rains have helped the Ohio river, and subsequently the Mississippi River, south of Cairo, IL. Areas on the Mississippi north of Cairo are of immediate concern.

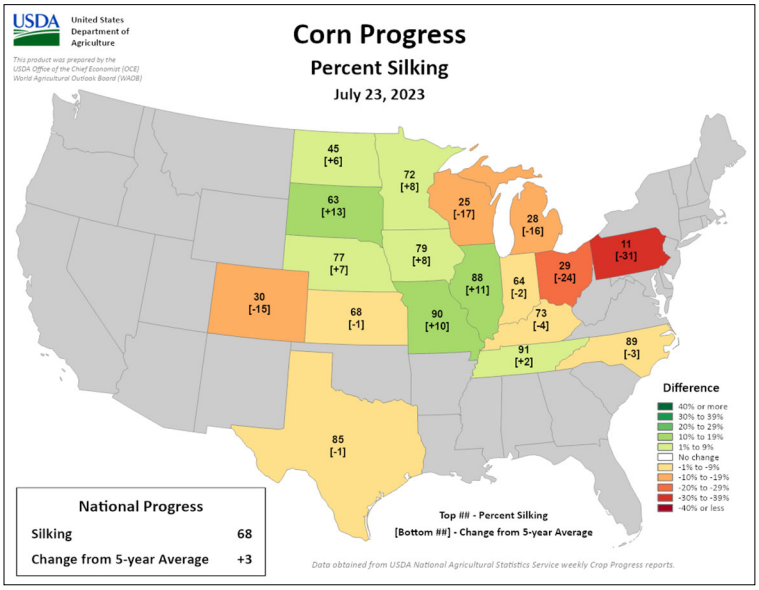


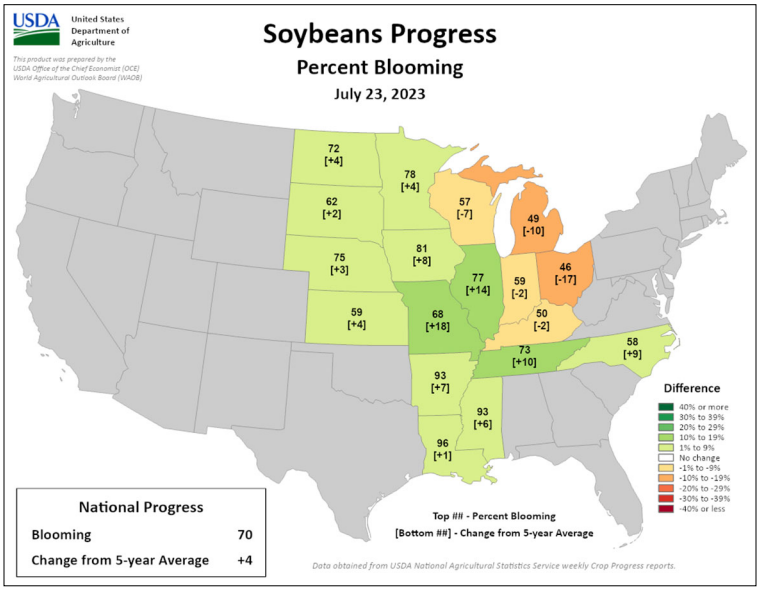


Maps Generated by the United States Department of Agriculture, National Drought Mitigation Center and the Short-term Prediction Research and Transition Center.









Maps generated by the United States Department of Agriculture and are now available on a National Drought Mitigation Center webpage.

Outlook

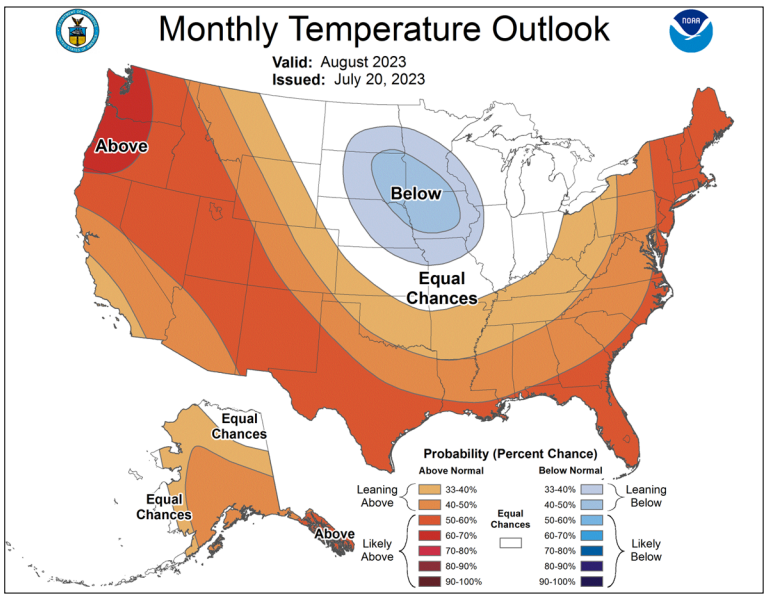
Heat, which had largely held off for much of the summer, currently covers most of the region. The heat is expected to worsen crop conditions and the USDM status due to the lack of deep soil moisture that is needed to survive the very warm conditions.

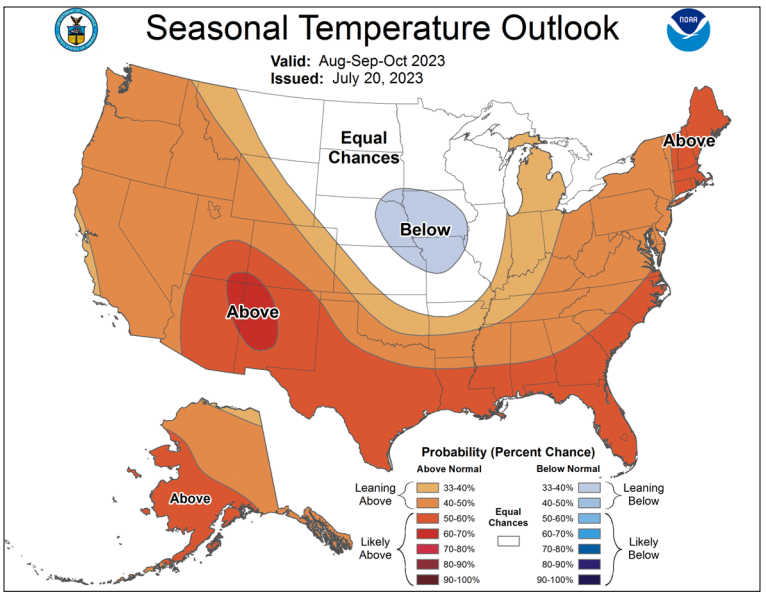
The projected shift back from heat appears in the 8–14-day outlook, where slightly better chances of cooler than average temperatures cover most of the North Central US. Mixed messages exist on precipitation, with slightly better chances to the west and slightly worse chances around the Great Lakes. The 30-day outlook for August has a version of this same temperature pattern, with heat less likely to persist and slightly better chances for precipitation from the Central Plains up the Ohio Valley. The 90-outlooks into the fall have a very similar look.

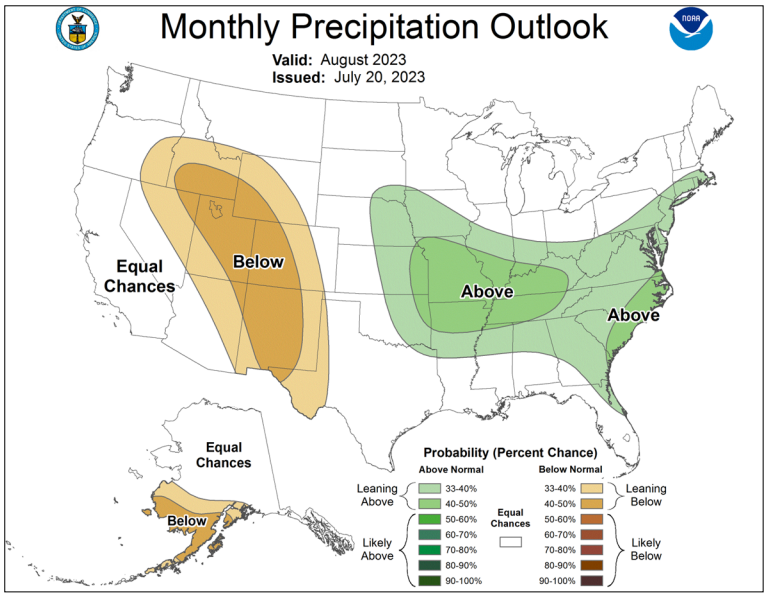
Neither of these is likely to greatly impact crops, other than easing the potential for major yield loss from ongoing heat/dryness. Drought conditions are likely to bounce around based on current outlooks. Widespread drought relief will likely have to wait until the fall, when plants reduce water use later in their growing season and temperatures cool.

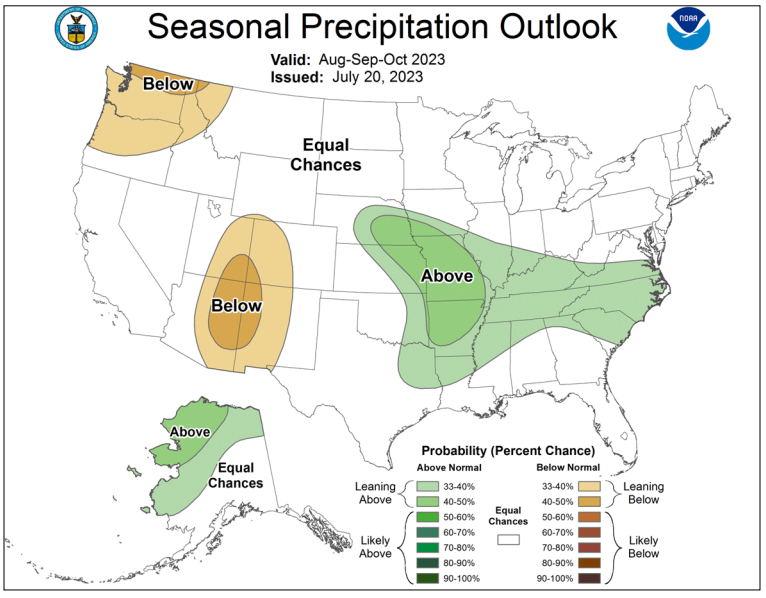
See the following page for 30- and 90-day outlook maps.

Midwest Ag-Focus Climate Outlook









Outlooks provided by the [Climate Prediction Center](#).

Partners and Contributors

[United States Department of Agriculture (USDA)](#)
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[Midwestern Regional Climate Center (MRCC)](#)
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