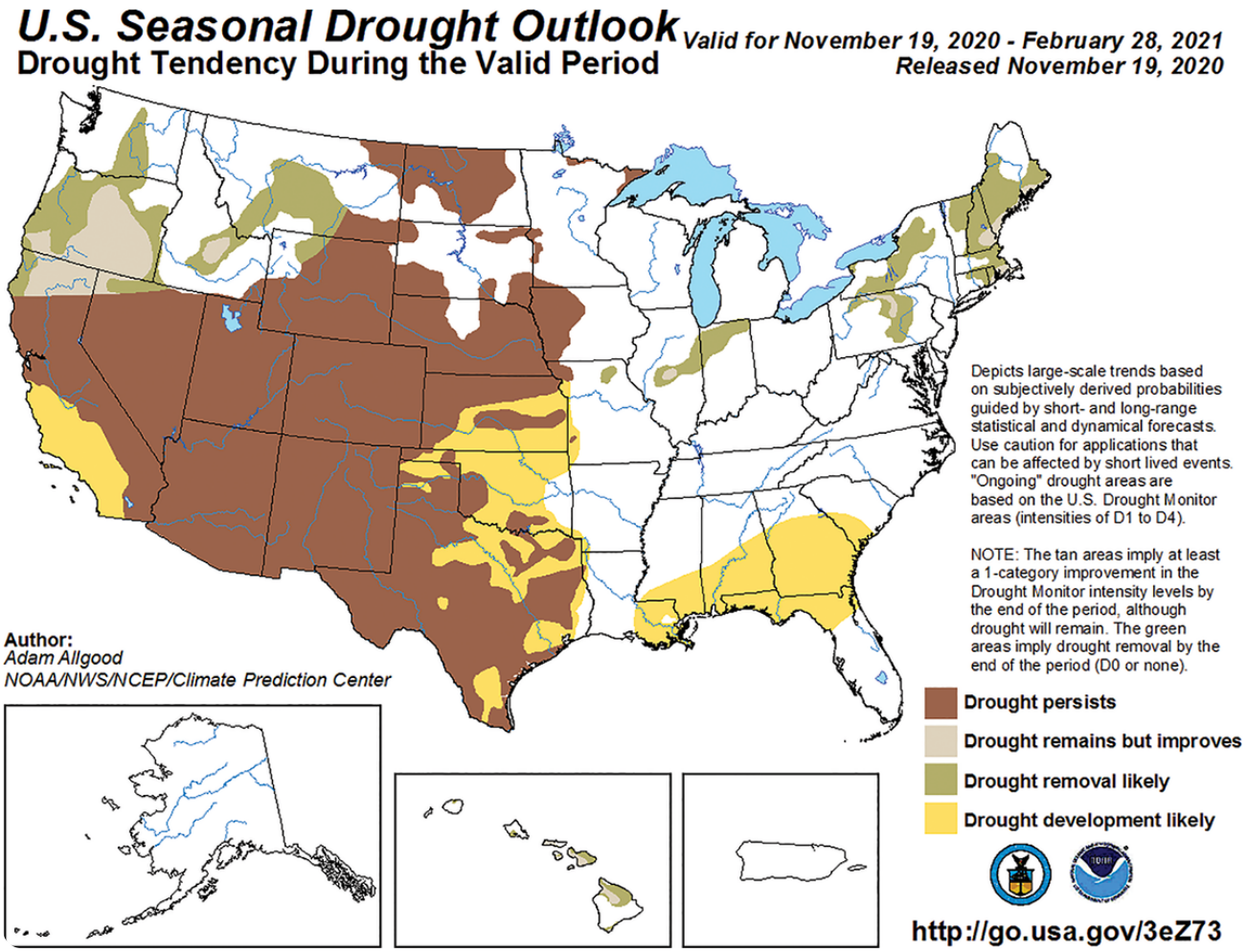
Science Societies

New government drought website will help farmers, CCAs

By Megan Sever

December 29, 2020



Screenshot from the newly designed drought.gov website showing the seasonal drought outlook for the U.S. Source: Courtesy of drought.gov.

No one knows better the dangers of drought than growers and their CCAs. A newly designed government website—**www.drought.gov**—aims to help.

At the start of 2020, about 11% of the U.S. was under drought conditions. By the end of 2020, almost half of the country was experiencing drought. None of the U.S. was under extreme or exceptional drought levels at the beginning of the year; at the end, 21% of the U.S. was experiencing extreme drought and another 10% was experiencing exceptional drought, the worst category. Because this is a La Niña winter, drought conditions are likely to intensify and persist across much of the western and southern U.S., said Mark Svoboda, a climatologist at the National Drought Mitigation Center, at a press conference in December.

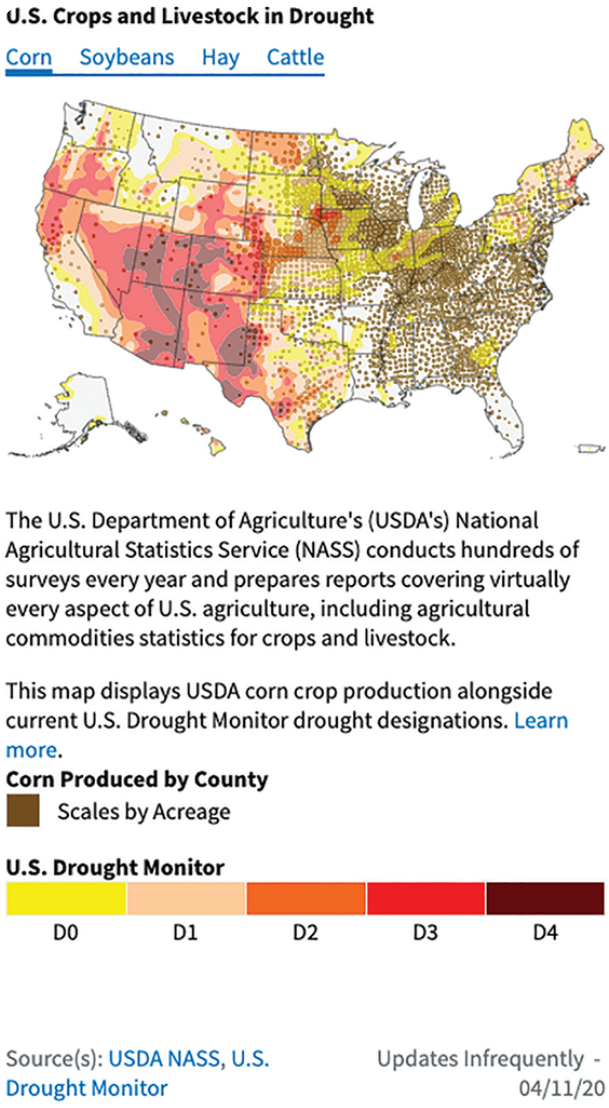
La Niña patterns suggest cooler, wetter conditions across the northern tier states, from Washington to Minnesota. The northern region from Washington and Oregon through Illinois, Michigan, and Ohio should be prepared for above-normal precipitation, Svoboda said.

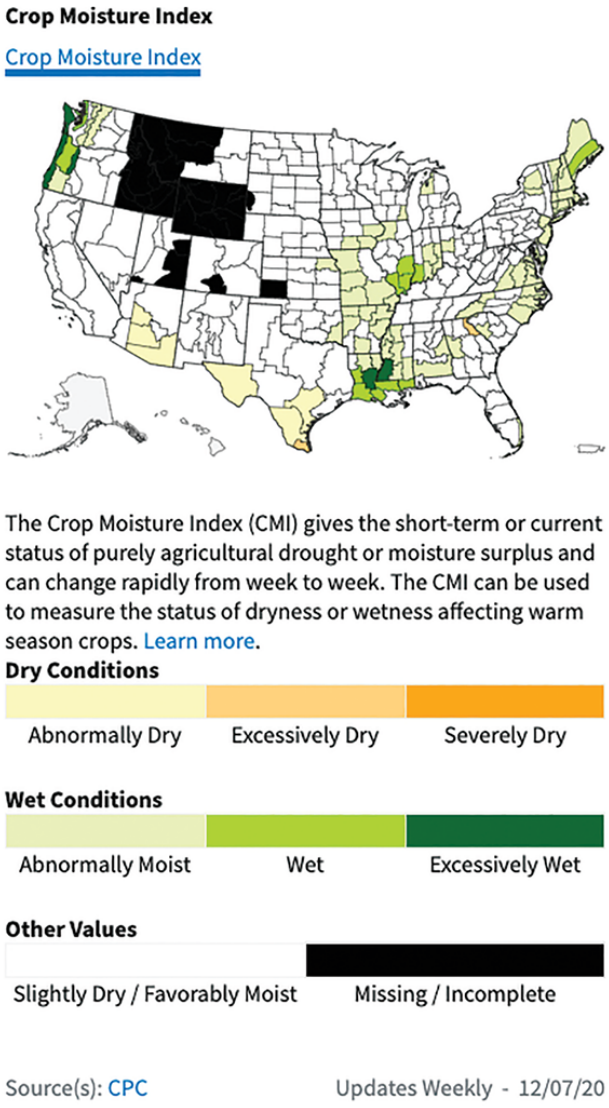
Meanwhile, southern tier states, from California through the Gulf Coast to the coastal Carolinas, are likely to see drier and warmer conditions. Of particular concern is the Four Corners region, Svoboda noted, where a significant portion of the Southwest and California's water comes from: Much of this region is already under exceptional drought, and that is expected to intensify. Also of particular concern are snowpack

levels in the Four Corners, southern Rockies, and southern Sierra Nevada. Snowpack is important because it's where much of the Southwest's water is locked up until spring. If snowpack is low due to less precipitation, or if precipitation falls as rain rather than snow, the drought situation will be exacerbated.

A More Localized View

This is predicted to be the general trend, but how do you know more precisely how your fields or the fields you manage will likely be affected? That's where the new drought portal, launched in January, comes in.





Screenshot from the newly designed drought.gov website showing USDA corn crop production alongside current U.S. Drought Monitor drought designations (left) and Crop Moisture Index data (right). Source: USDA-NASS, U.S. Drought Monitor and Crop Moisture Index, compiled for ***drought.gov****.*

The portal has three major new features, said Kelsey Satalino, Digital Communications Coordinator with NIDIS, at the press conference. First, as Deheza said, the portal allows you to view drought conditions down to the city and county level by typing in your zip code. In your location, you can see current conditions, key indicators of drought, outlooks and forecasts, and historical drought conditions. Second, it includes high-resolution interactive data and maps, including three exceptional historical data sets: Drought Monitor data going back 20 years, standardized precipitation index data going back 125 years, and paleoclimate data (like from tree-ring analysis) going back 2,000 years. Those data sets allow you to compare historical and current conditions even at the county level. Third, Satalino said, is a new "By Sector" section, which shows drought impacts on different economic sectors, like livestock (cattle) and crops, including corn, soybeans, and hay.

The By Sector section is designed to be "a one-stop shop for background resources for drought impacts" for each sector, Satalino said. It includes a summary plus an in-depth background on the impacts of drought on the sector. For example, for Agriculture, the landing page starts by defining agricultural drought as "link[ing] various characteristics of meteorological (or hydrological) drought to agricultural impacts." Then it notes how precipitation deficits, evapotranspiration (including maps of both vegetation drought response index, or VegDRI, and evaporative stress index, or ESI, all based on satellite data), and soil water deficits (as measured from the GRACE satellites) are important for this sector. Each of these has maps and charts and full discussion pages as well. You can explore current and historical agricultural conditions

down to the county level.

Next, the By Sector section includes summaries of agricultural impacts from drought—like reduced crop yields, increased expenses for irrigation or watering livestock, and even widespread economic losses globally. Finally, the section includes links to a curated list of web resources and research papers.

The portal will be updated regularly, the NIDIS team said, so check in often to see the current and projected scenarios for your farm or the farms you manage.

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