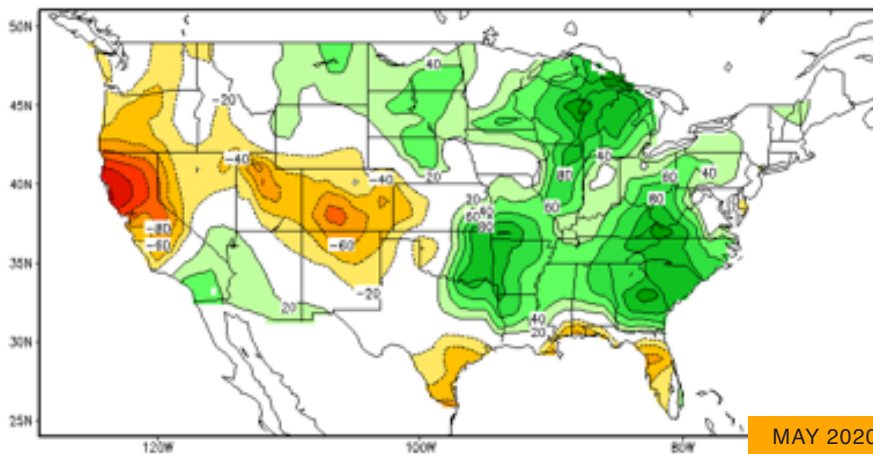


THE ATMOSPHERIC RESERVOIR

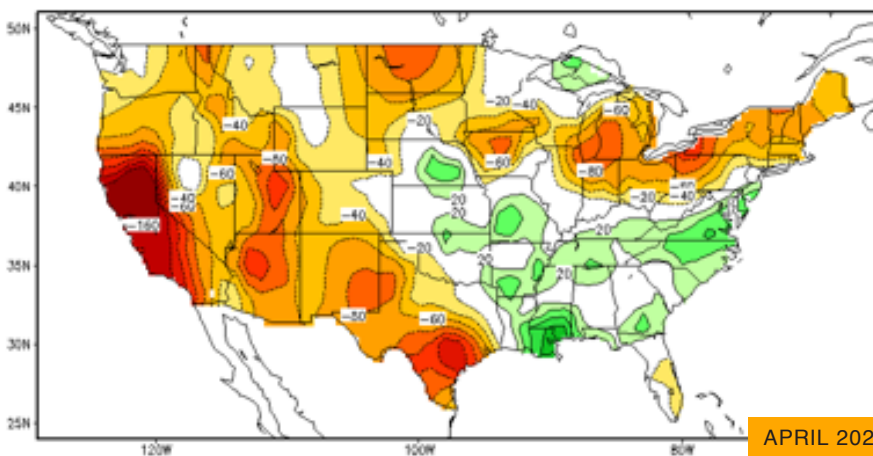
Examining the Atmosphere and Atmospheric Resource Management

PLOWING THROUGH DROUGHT

Calculated Soil Moisture Anomaly (mm)



MAY 2020



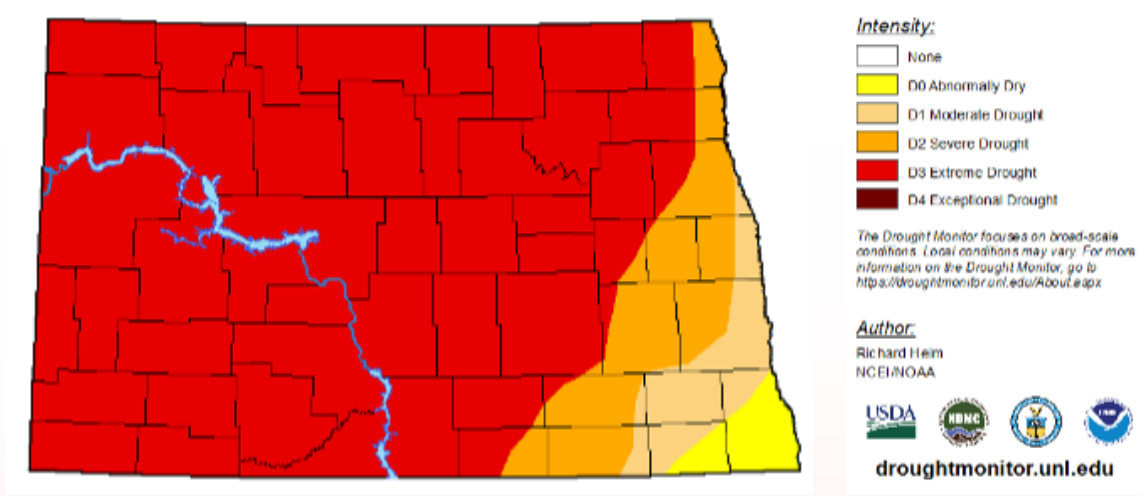
APRIL 2021



By Mark D. Schneider

Without the significant subsoil moisture that producers had to work with during last year's growing season, the ongoing drought will prove challenging this season. One glance at the two graphics reveals a stark contrast in soil moisture between May 2020 and this April. When Mother Nature's "spigot" turned off during the 2020 growing season, most crops were able to utilize soil moisture, finish maturing and make it through harvest. Allen Schlag, Hydrologist for the Bismarck National Weather Service Forecast Office commented that, "an abundance of soil moisture during the spring of 2020 allowed crops and forage to survive what was an unusually dry summer across the state." This season, precipitation must come in a timely manner to sustain crops. "Native and cultivated vegetation will live or die based on weekly rains," said Schlag. "Any crops or grasses that go 7-10 days without a wetting rain are likely to exhibit drought stress and impact yields. The dry soil profile leads me to fear that this drought will continue the current trends, and impacts will start to show up in earnest in late May and June as crops fail to meet development benchmarks."

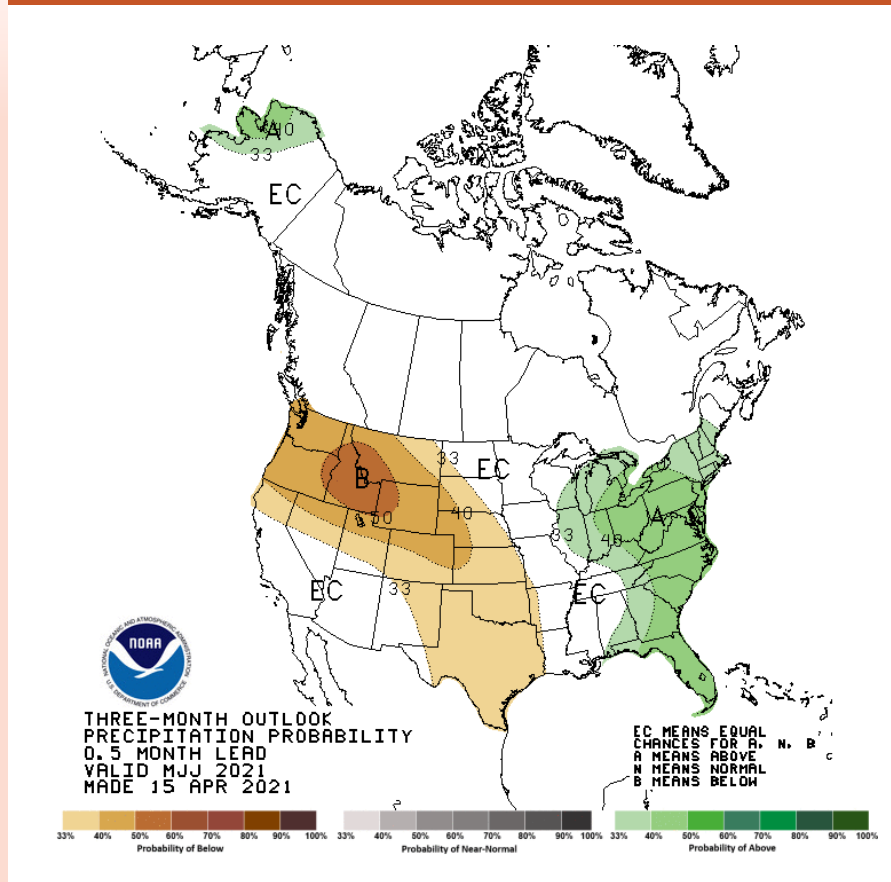
North Dakota Drought Map - April 27, 2021



The latest drought monitor graphic (when this article was written) depicts the culmination of the last year's precipitation deficit in North Dakota. Eighty-two percent of our state was experiencing D3 Extreme Drought conditions. In response to the record dry conditions, the State Water Commission has reopened the Drought Disaster Livestock Water Supply Project Assistance Program to provide cost-share assistance to livestock producers with water supply shortages caused by drought. Fifty-one of North Dakota's counties are currently eligible for this assistance.

Long-term forecasts from the Climate Prediction Center indicate a continuation of dry conditions through July. The one certainty that North Dakotans can count on is that this drought will eventually end; the big question is "When?"

Three Month Outlook - Precipitation Probability



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