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2017 South Dakota Climate & Drought Summary

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U.S. Drought Monitor

As of July 13, 2017, 72 percent of South Dakota is in drought, a 15 point increase from last week. There was an expansion in severity from D0 through D3 categories in the state. Extreme drought now covers 10 percent, and includes 11 counties in the north central region. Moderate drought expanded towards the south and east.

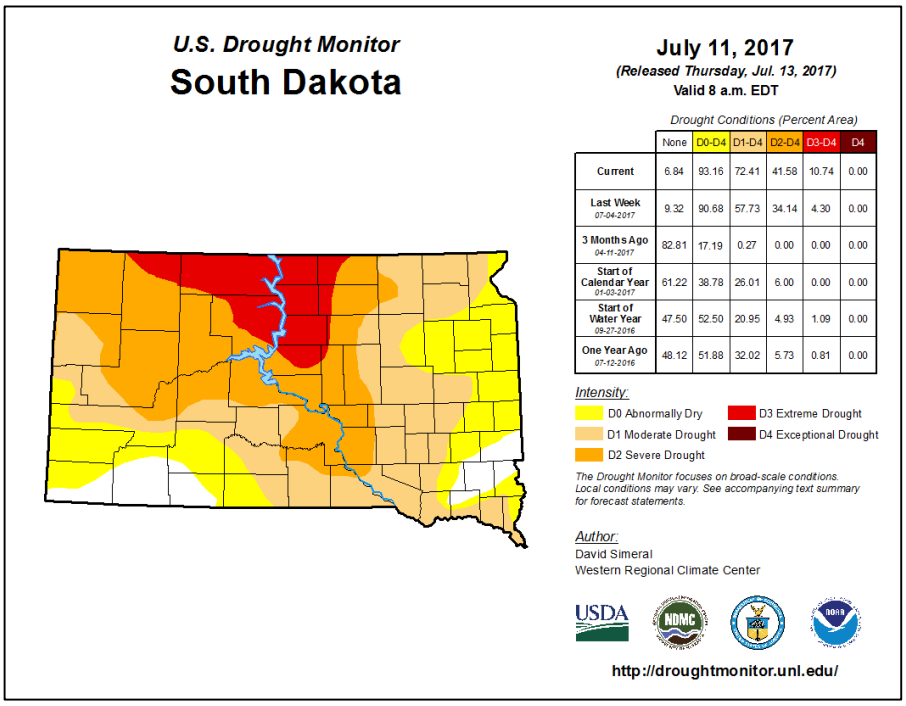

Figure 1. The U.S. Drought Monitor, http://droughtmonitor.unl.edu.

14-day Summary

Over the last two weeks, temperatures across South Dakota have turned from cooler than average to well above average. Many areas of the state have reported temperatures of 100 F or higher over the last week.

Precipitation has been scarce. The south central region and all of eastern South Dakota, except for the area south of I-90, have received less than an inch of rain. Most of these areas have measured less than one-third of an inch during this period.

The combination of warm temperatures, low moisture, abundant sunshine and breezy conditions create conditions for increasing water demand and rapid moisture loss in vegetation, crops and from ponds and small bodies of water.

View more 2017 climate and drought summaries at:
http://igrow.org/agronomy/corn/south-dakota-climate-drought-summary/

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Impacts
Drought-related impacts are now being reported in an expanding drought area in the south central and southeastern part of the state. Grass production is much lower than average, stock ponds are low and cattle sales are continuing in this region.

Corn is showing signs of both drought and heat stress. Leaf rolling and "spiky" appearance is becoming more common, even during cooler periods, which is an indicator of plant stress. Plant heights vary widely, from 5 to 6 feet tall down to just a couple of feet tall. Corn plant growth is reported to have slowed down dramatically over the last two weeks.

Figure 2. Hilltop fire, July 9, 2017. Photo courtesy of David Martin.

Soybean fields statewide are reported to have thin stands, uneven growth, small plants and early flowering.

Water in stock ponds has been testing high for total dissolved solids (TDS) in many of the quick tests performed at SDSU Extension offices. High TDS values can be harmful to livestock and cause severe illness.

Spring wheat that is cut for hay is also being sampled for nitrates. Most samples tested this week have been high in nitrates as well in the quick tests with SDSU Extension. It is highly recommended that producers get their water and forages tested as a precautionary measure to ensure animal health.

Forecast
Drought conditions are expected to worsen in the coming weeks. There is high likelihood of above average temperatures continuing in the next one to two weeks. Dry conditions are likely to prevail in the next week. In the next 5 days, little to no rainfall is expected for most of South Dakota. Towards the end of the week, there is some possibility of up to one half inch for the Black Hills, and north and eastern South Dakota. There is some indication of a possible transition to a wetter pattern starting about a week from now, but there remains some uncertainty yet on this forecast. High fire danger is likely, given warm temperatures, dry weather and dry fuels, some wind and potential for dry lightning at times.

Upcoming Events: SDSU Extension and USDA partners will host four drought management meetings: July 24 in Lemmon (9 am) and Faith (2 pm), and July 25 in Pierre (9 am) and Chamberlain (2 pm). Topics include agricultural management in the current drought, economic considerations, weather and climate updates, and USDA drought disaster programs. See http://igrow.org/ for details starting next week.

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