

Drought Update

August 3, 2018

Current status

Rainfall for the week ending on July 31st was near to above normal for all except the Northeast Division. The Southwest Division was the wettest with an average of 3.79 inches or 578 percent of normal. Of the 106 stations in Southwest Kansas that reported, 88 had 2 inches or more of rainfall during the week. In contrast the Northeast Division averaged 0.66 inches or 74 percent of normal. Statewide average precipitation was 2.02 inches, which was 268 percent of normal and resulted in a surplus of 1.23 inches for the week. The highest precipitation total for a National Weather Service Coop station was 7.43 inches at the Garden City Experiment Station in Finney County. The highest total for a Community Collaborative Rain Hail and Snow (CoCoRaHS) station was 6.79 inches at Pratt 2.6 S, Pratt County. The greatest total for a Kansas Mesonet station was 8.38 inches, at the Garden City station in Finney County.

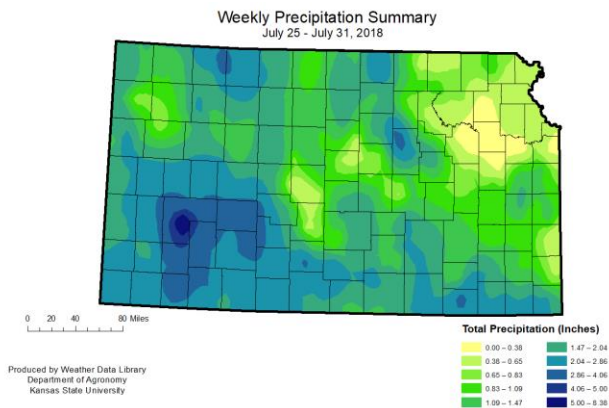


Figure 1. Weekly total precipitation for Kansas during the week of July 25 – July 31, 2018 via Cooperative Observer (COOP), Community Collaborative Rain Hail Snow Network (CoCoRaHS) and Kansas Mesonet.

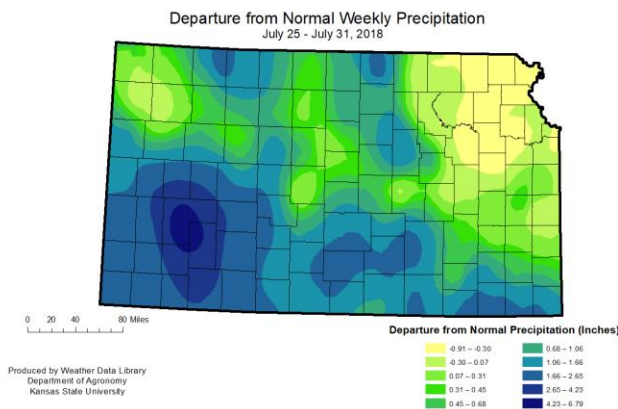


Figure 2. Departures of weekly precipitation from normal for Kansas during the week July 25 – July 31, 2018 via Cooperative Observer (COOP), Community Collaborative Rain Hail Snow Network (CoCoRaHS) and Kansas Mesonet.

Temperatures were much cooler than normal state wide. The Northwest Division had the greatest departure. The average for the division was 70.8 °F, which is 6.1 degrees cooler than normal. The eastern divisions were closer to normal, although all of them were at least four degrees cooler than normal. The Northeast and East Central divisions came closest to normal with averages of 73.8 °F and 74.4 °F, respectively. Both divisions came in at 4.3 degrees cooler than normal. The statewide average temperature was 73.8 °F, or 5.1 degrees cooler than normal. The highest maximum temperature was 101 °F at Tribune 1W, Greeley County, on the 26th of July. The lowest minimum temperature was 41 °F at Brewster 4W, Sherman County, on the 31st of July.

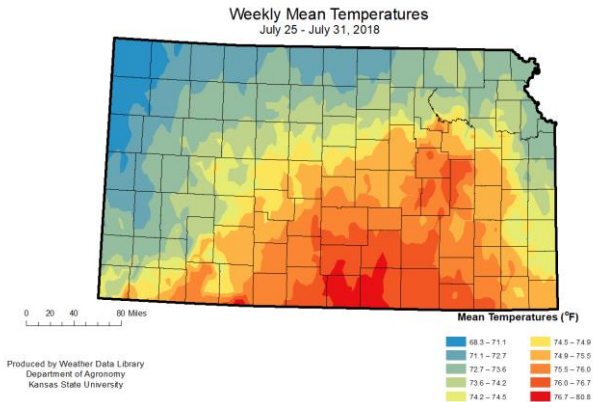


Figure 3. Weekly mean temperatures for Kansas during the week of July 25 – July 31, 2018 via Cooperative Observer (COOP) and Kansas Mesonet.

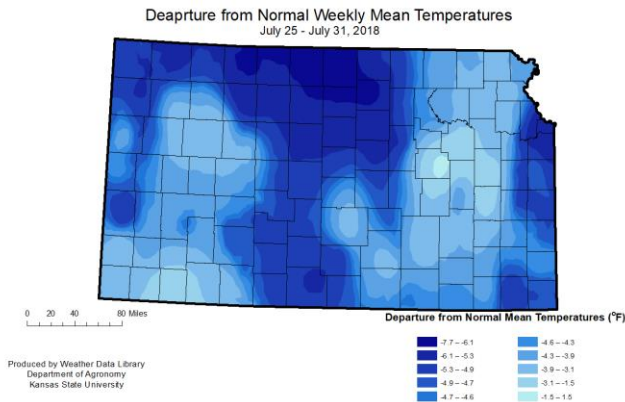


Figure 4. Departures of weekly mean temperatures for Kansas during the week July 25 – July 31, 2018 via Cooperative Observer (COOP) and Kansas Mesonet.

Widespread rains in the west resulted in improvement in drought conditions in that region. The low precipitation in the east has resulted in expansion the extreme drought in the East Central (Figure 5). Further deterioration was noted the eastern parts of the state as well as into the North Central Division. The change in drought categories map (Figure 6) shows that there where changes occurred during the week.

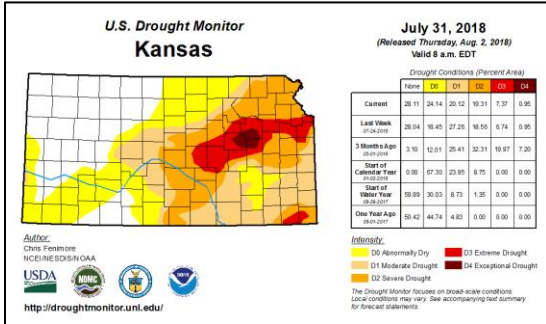


Figure 5. Current drought from the Drought Monitor.

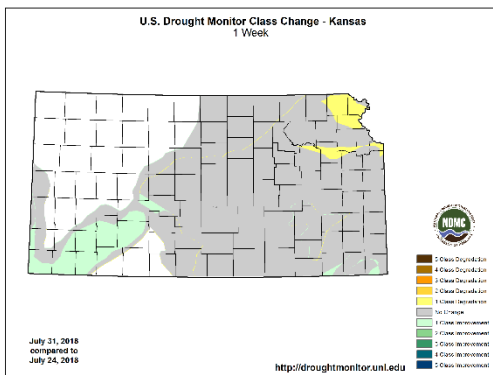


Figure 6. Difference in drought categories (US Drought Monitor).

The quantitative precipitation forecast for the 7-day period, ending on August 9th shows the heaviest rainfall will be along the borders of the state (Figure 7). The areas with heaviest amounts may see as much as an inch of precipitation. Most of state is expected to see less than a quarter of an inch. With warmer than normal temperatures expected, this would do little to improve drought conditions. The 8 to 14-day precipitation outlook (Figure 8) indicates below normal precipitation across much of the state. The temperature outlook favors a return to warmer than normal temperatures for the period.

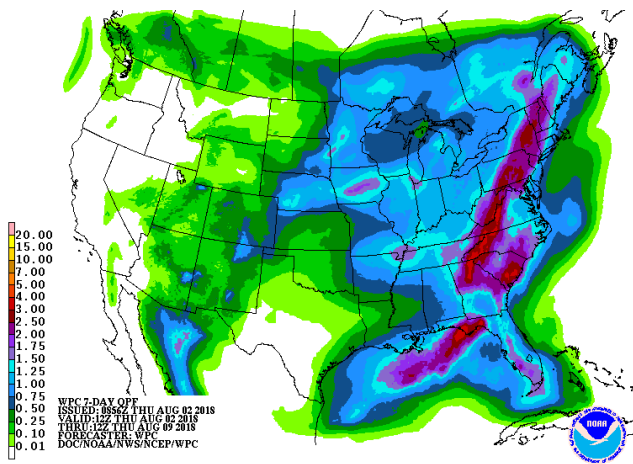


Figure 7. Quantitative Precipitation Forecast the 7-day period ending 9-Aug-2018 (NCEP)

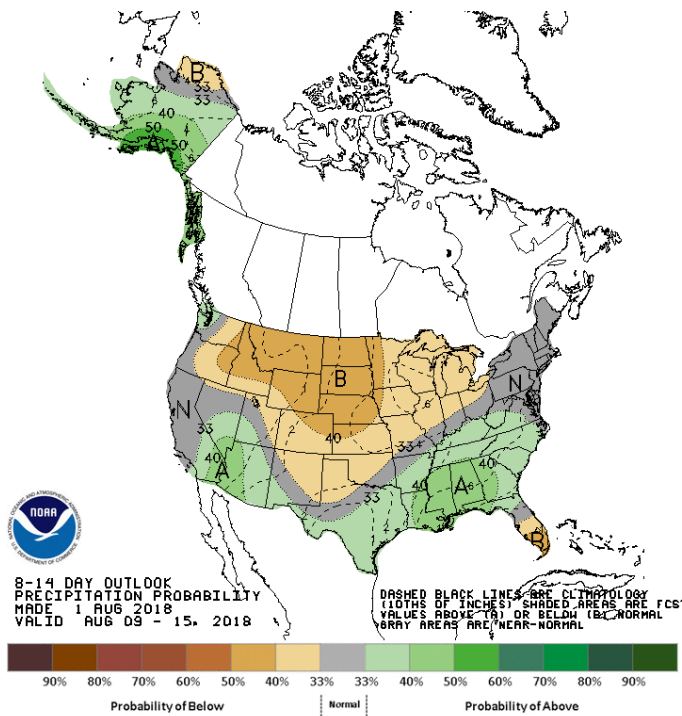


Figure 8. 8-10 day Precipitation Outlook for period ending 15-Aug-2018 (CPC)

Additional information can be found in the latest Agronomy eUpdate at https://webapp.agron.ksu.edu/agr_social/eu.throck

Or on the Kansas Climate website under weekly maps or drought reports

<http://climate.k-state.edu/maps/weekly>

<http://climate.k-state.edu/reports/weekly/2018/>

Mary Knapp, Weather Data Library

Mknapp@ksu.edu

Christopher Redmond, Kansas Mesonet

Christopherredmond@ksu.edu