

MAC-T Monthly Call

Midwest Agriculture and Climate Team

July 3, 2019

For more information:

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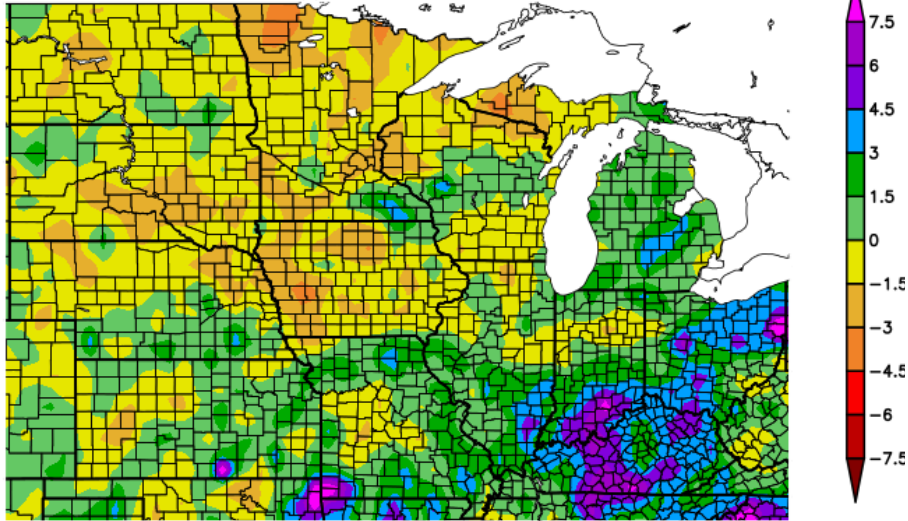
Charlene.Felkley@ars.usda.gov



Midwest Climate Hub

U.S. DEPARTMENT OF AGRICULTURE

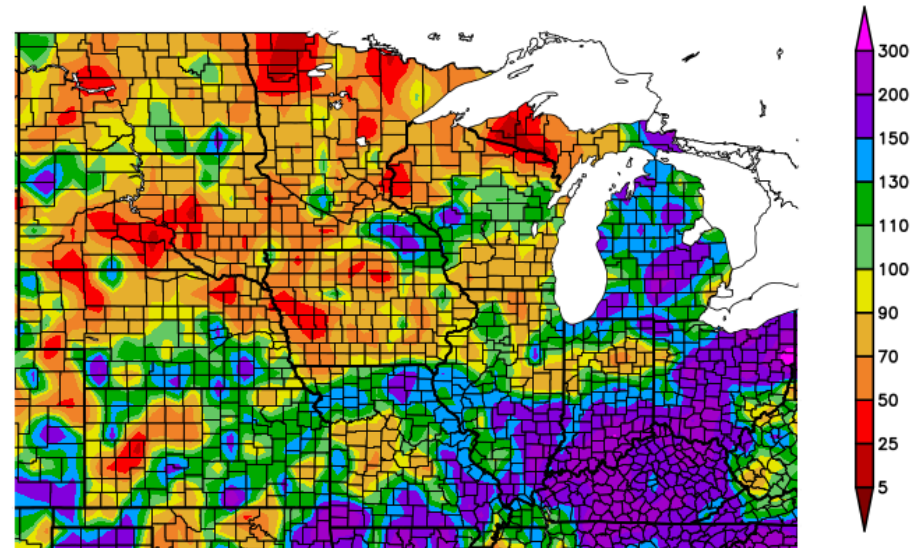
Departure from Normal Precipitation (in)
5/31/2019 – 6/29/2019



Generated 6/30/2019 at HPRCC using provisional data.

NOAA Regional Climate Center

Percent of Normal Precipitation (%)
5/31/2019 – 6/29/2019



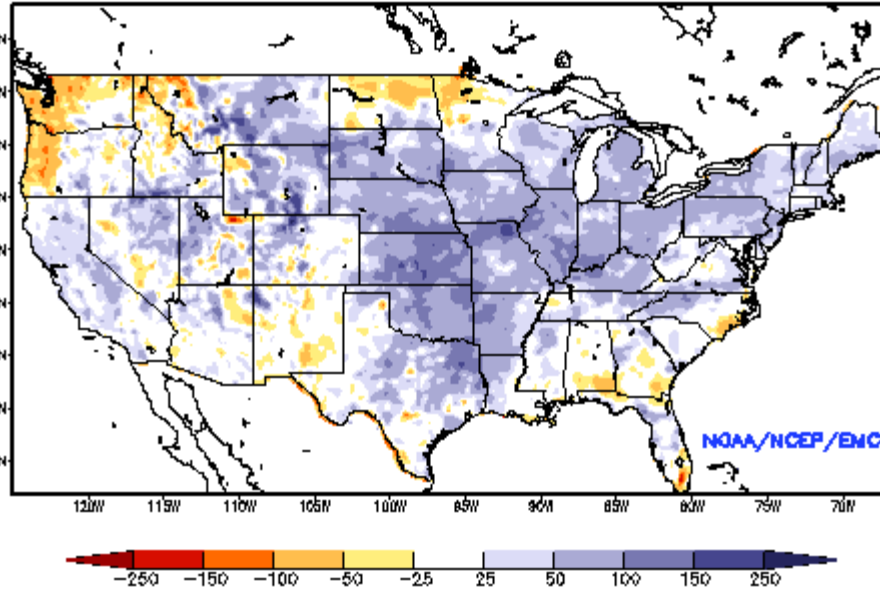
Generated 6/30/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Interesting change in precipitation. Mostly wetter than average last 30 days across southern areas. Shift to drier with some places less than 50% avg.

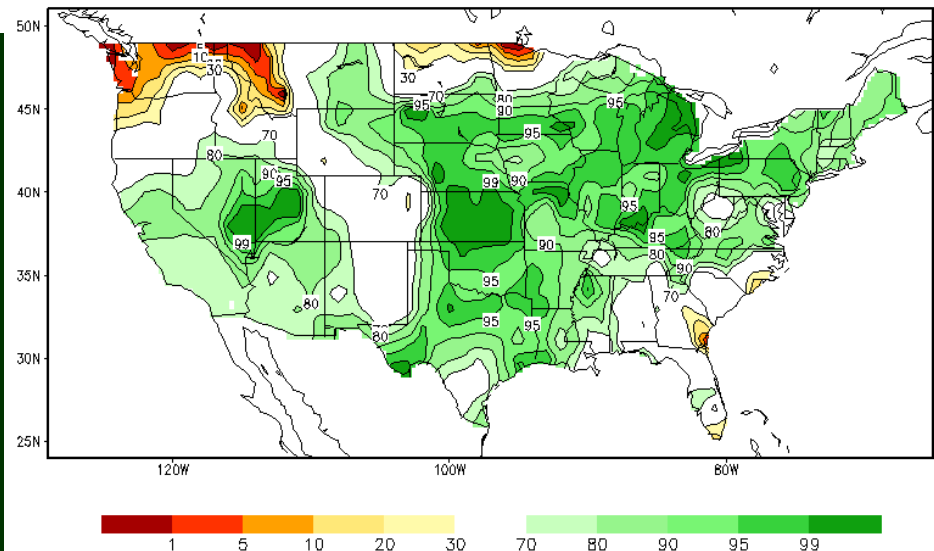
Soil Moisture

Ensemble-Mean - Current Total Column Soil Moisture Anomaly (mm)
NCEP NLDAS Products Valid: JUN 26, 2019



- Despite the dryness soil moisture still mostly wet. Not enough time to dry surface and extract sub-surface moisture yet.

Calculated Soil Moisture Ranking Percentile
JUN 29, 2019



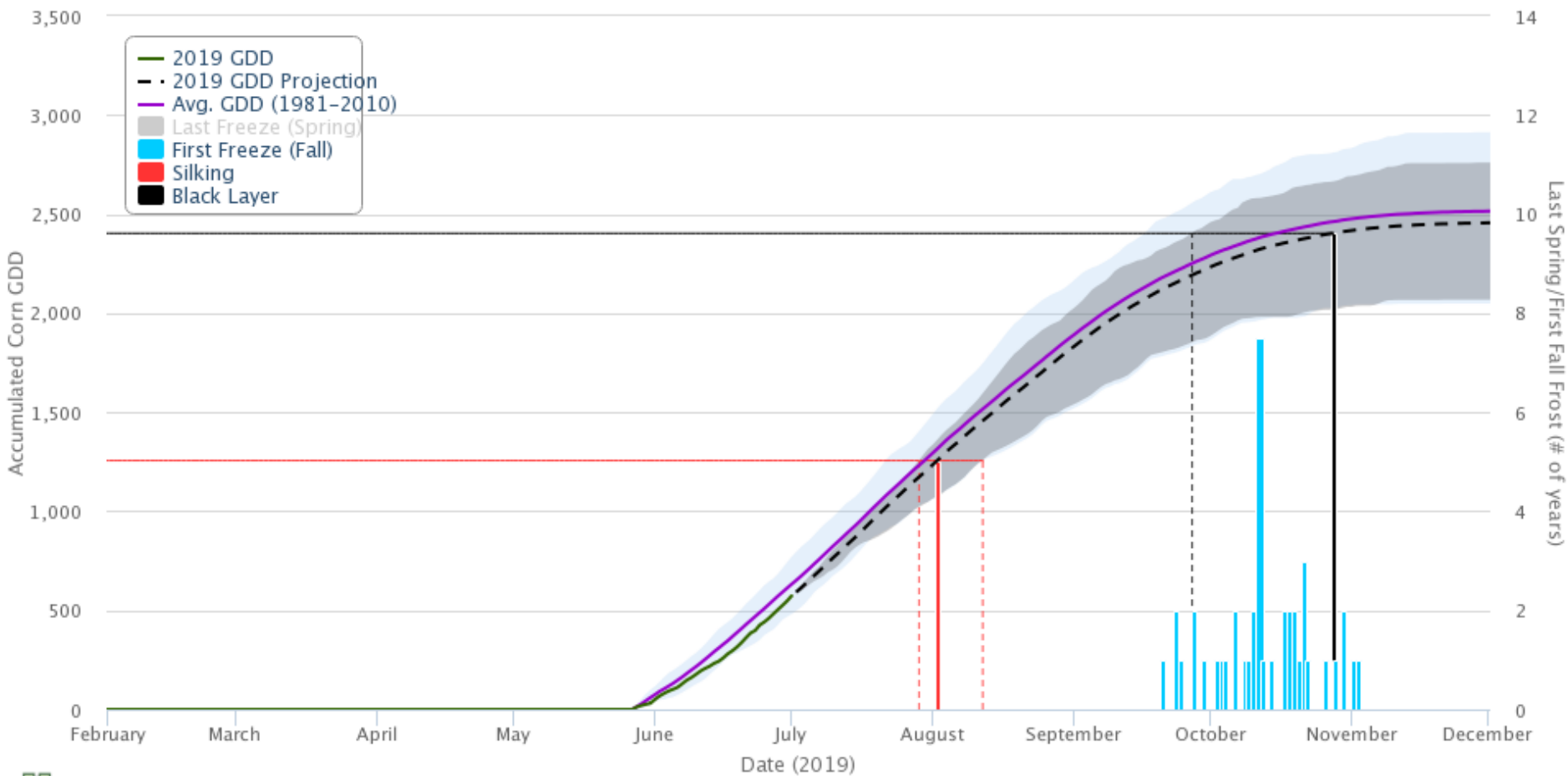
<http://www.emc.ncep.noaa.gov/mmb/nldas/drought/>

http://www.cpc.ncep.noaa.gov/products/Soilmst_Monitoring/US/Soilmst/Soilmst.shtml#

GDD Progress

Corn Growing Degree Day Tool

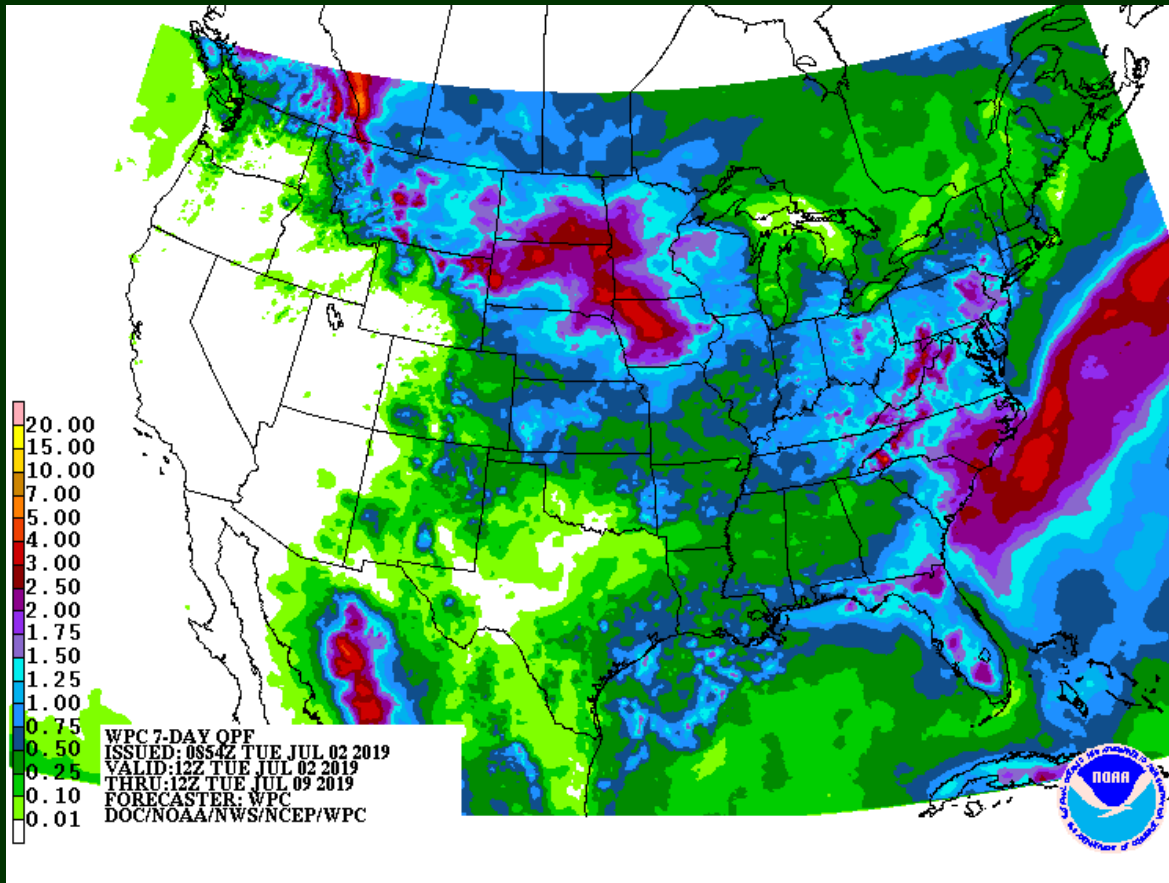
Location: 42.48, -91.89 in Buchanan Co., IA, Start Date: May 27, Maturity Days: 100, Freeze Temp: 28°F, Variation: All Years



Assorted AG Issues

- Slow crop development
- Many questions on acres planted
- Weed/disease issues continue
- Late developing crop
 - Drying problems
 - Fall wetness possible
 - First freeze? Unknown
- Encourage cover cropping.

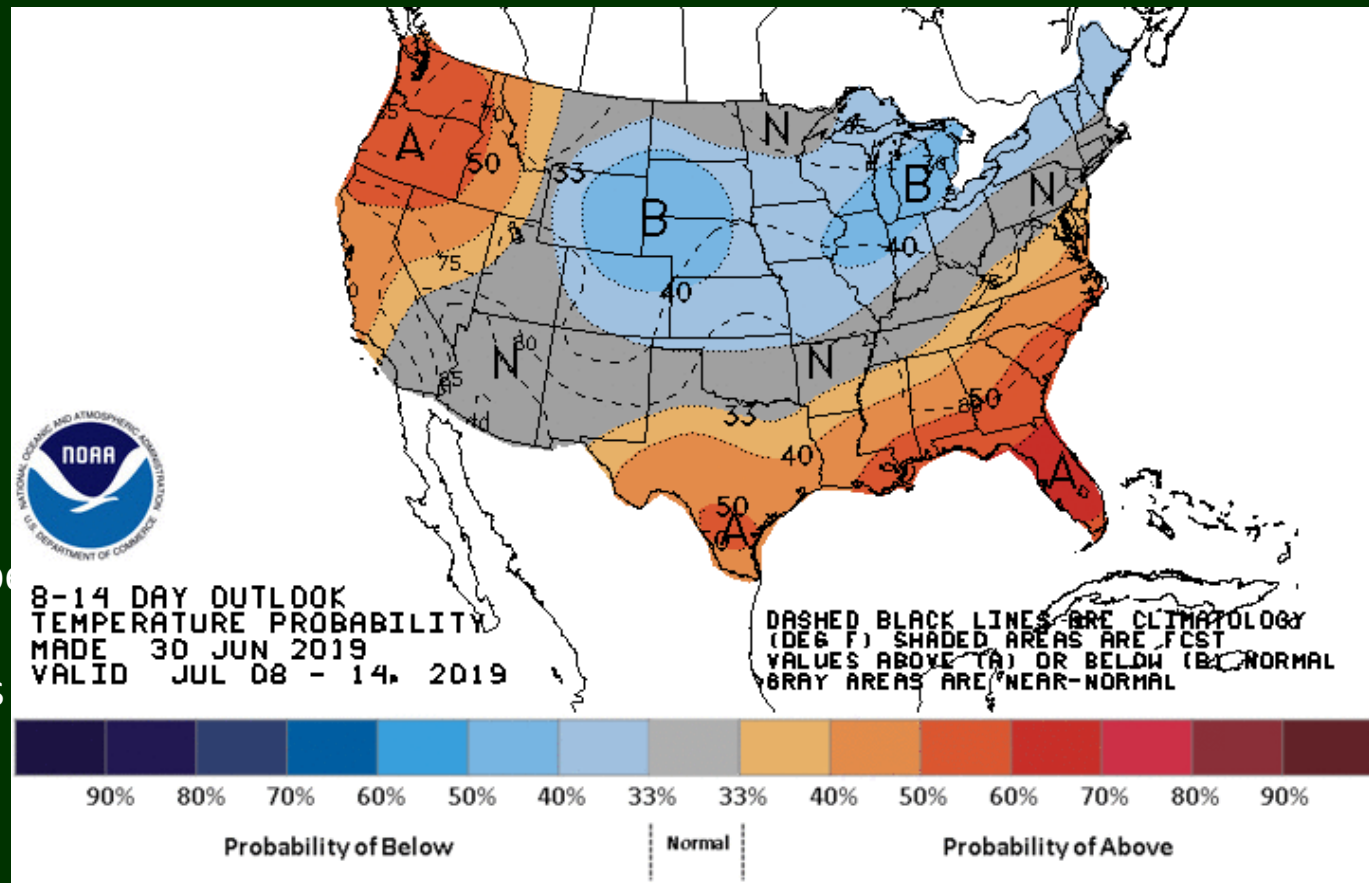
1-7 Day Precip



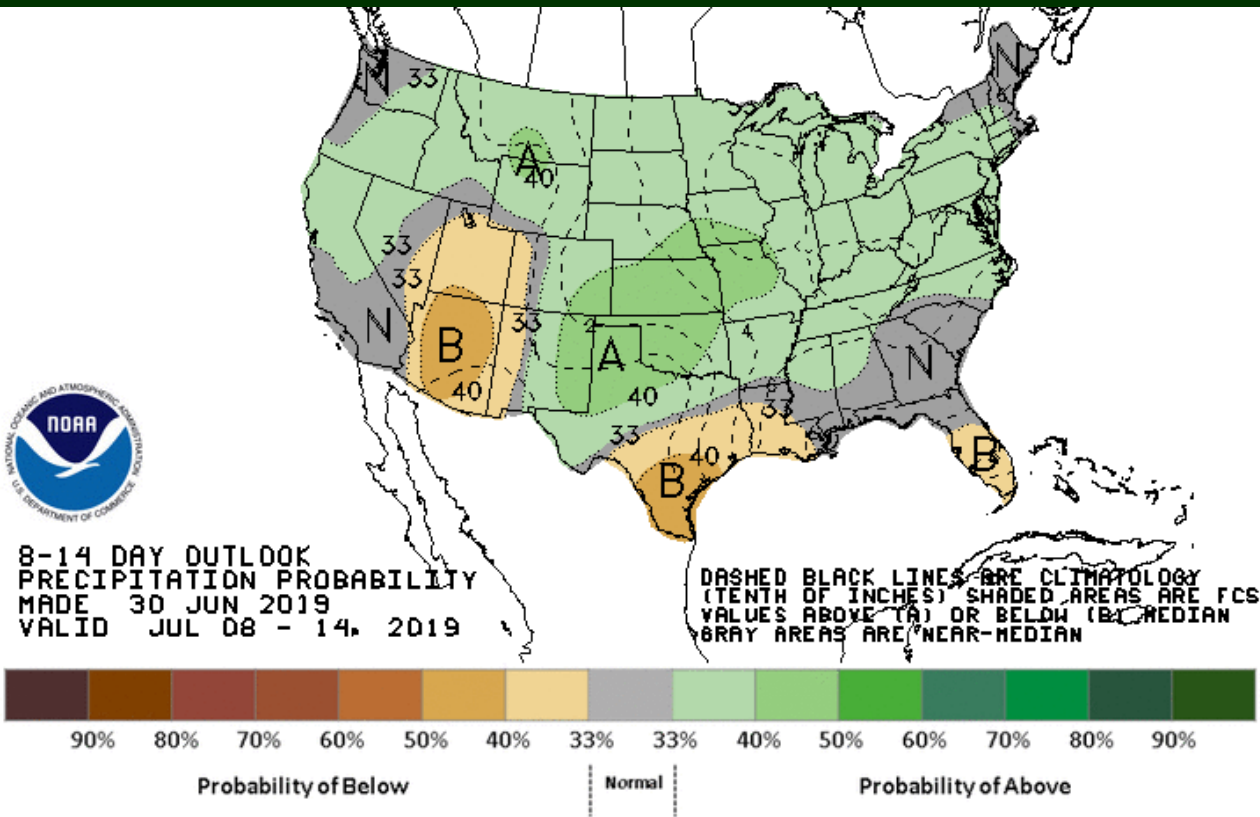
- Wetness returns to northern plains and MN/IA. Somewhat less in the far eastern corn belt.
- Several precip events likely over the next week.

Temperature Outlook

- Early-July warmth will give way to cooler than average temperatures by mid-month.
- Usually this would be great for crop conditions. Not this year.



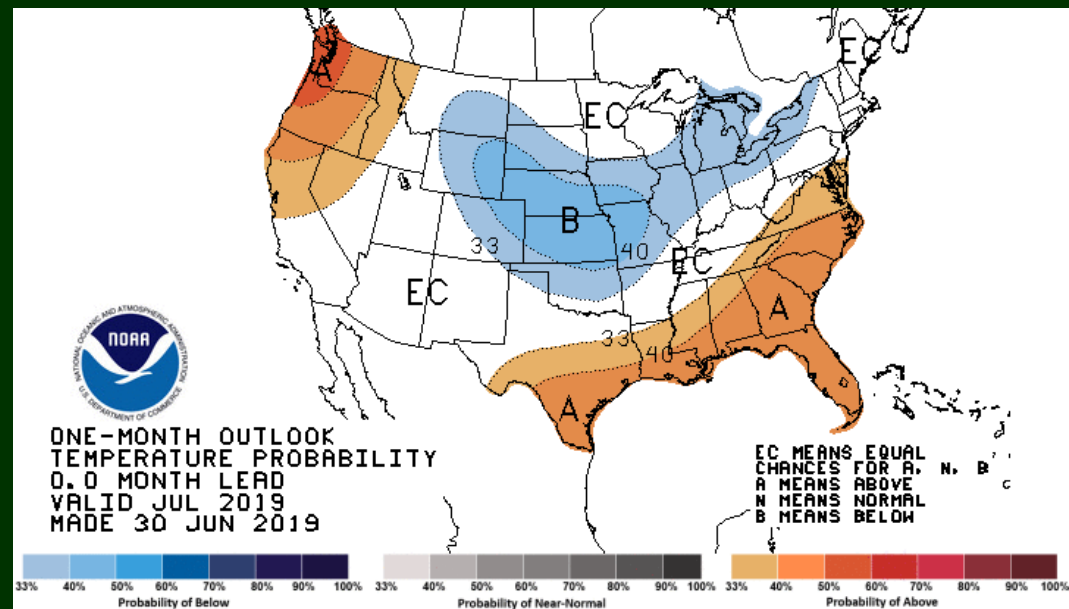
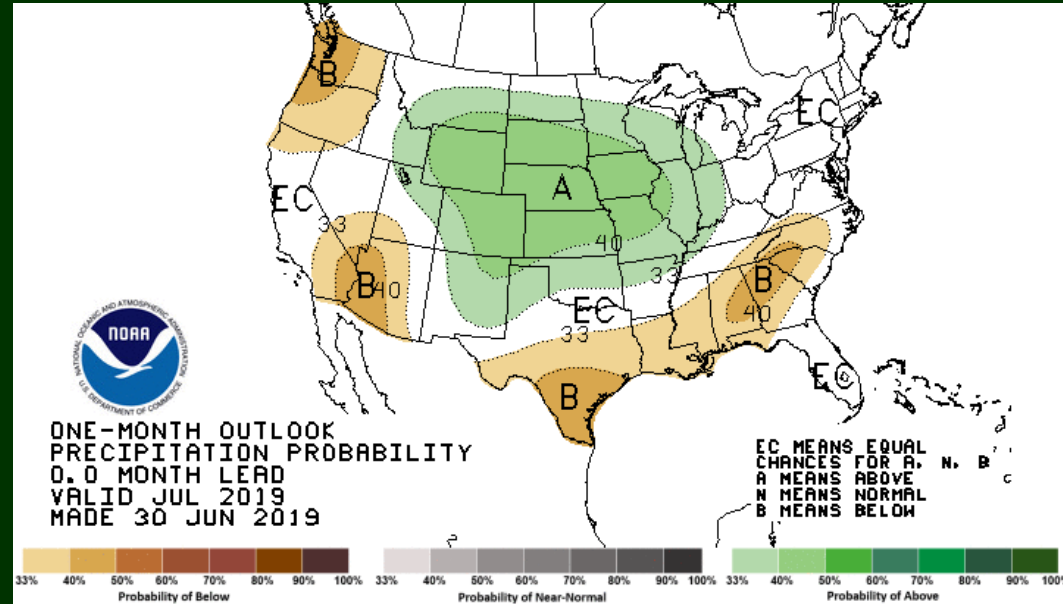
Precipitation Outlook



- Multiple chances for precipitation will continue through mid-month. Storms are convective and spotty. But there will be many chances for them.

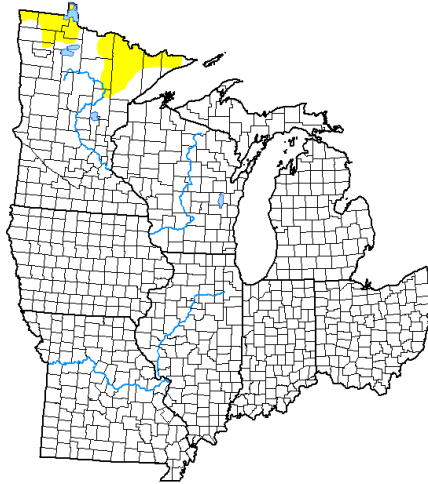
1-Month Outlook

- July outlook reflects the 8-14 day outlook. Mostly moderate to cool conditions likely for the month. Minimal chance of turning hot for any extended period.
- Those multiple precipitation chances continue also.



Drought in the Midwest

U.S. Drought Monitor USDA Midwest Climate Hub



June 25, 2019
(Released Thursday, Jun. 27, 2019)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	96.77	3.23	0.00	0.00	0.00	0.00
Last Week 06-18-2019	96.77	3.23	0.00	0.00	0.00	0.00
3 Months Ago 03-26-2019	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year 01-01-2019	99.21	0.79	0.00	0.00	0.00	0.00
Start of Water Year 09-25-2018	79.61	20.39	9.31	1.86	0.40	0.01
One Year Ago 06-26-2018	81.17	18.83	6.90	2.69	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Brad Pugh
CPC/NOAA

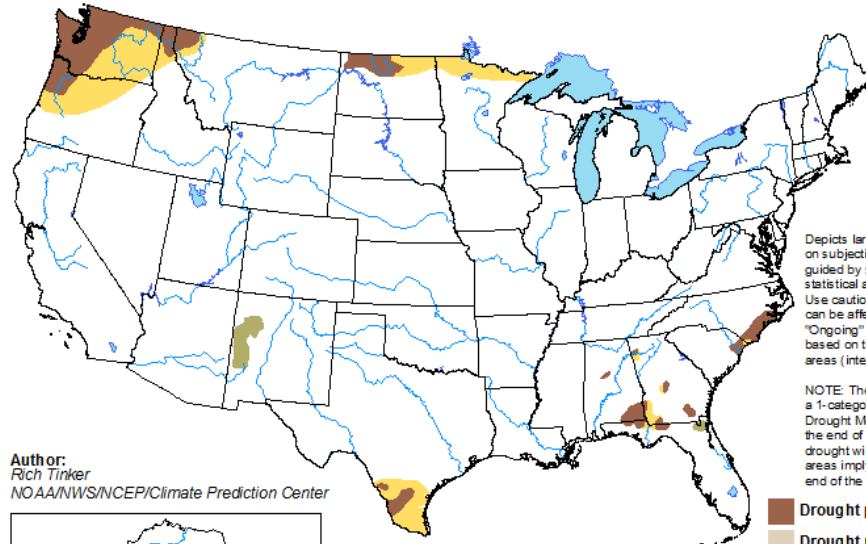


The Midwest remained free of drought. Some D0 areas existed in northern MN.

Extension of the drought area possible far north.

U.S. Monthly Drought Outlook Drought Tendency During the Valid Period

Valid for July 2019
Released June 30, 2019



Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short-lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

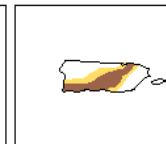
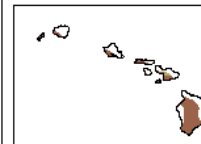
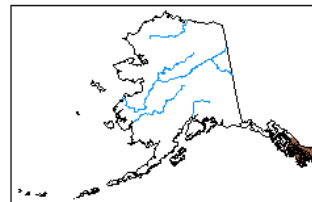
NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

- Drought persists
- Drought remains but improves
- Drought removal likely
- Drought development likely



<http://go.usa.gov/3eZGd>

Author:
Rich Tinker
NOAA/NWS/NCEP/Climate Prediction Center



Summary

- Numerous ag issues with delayed crop development and wetness issues.
- Short term warm and dry conditions should shift to cooler and wetter for much of July
- Normally this would be an excellent pattern. This year – it is not.
- Slow crop development will continue. GDDs will be at a premium.

Next MAC-T Monthly Call

Next Call **Wednesday, Aug 7th.**