

MAC-T Monthly Call

Midwest Agriculture and Climate Team

Aug 7, 2019

For more information:

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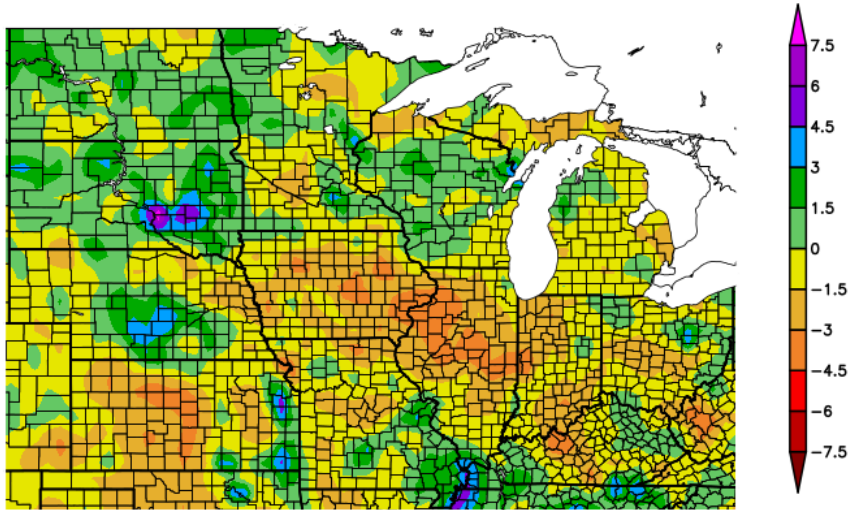
Charlene.Felkley@ars.usda.gov



Midwest Climate Hub

U.S. DEPARTMENT OF AGRICULTURE

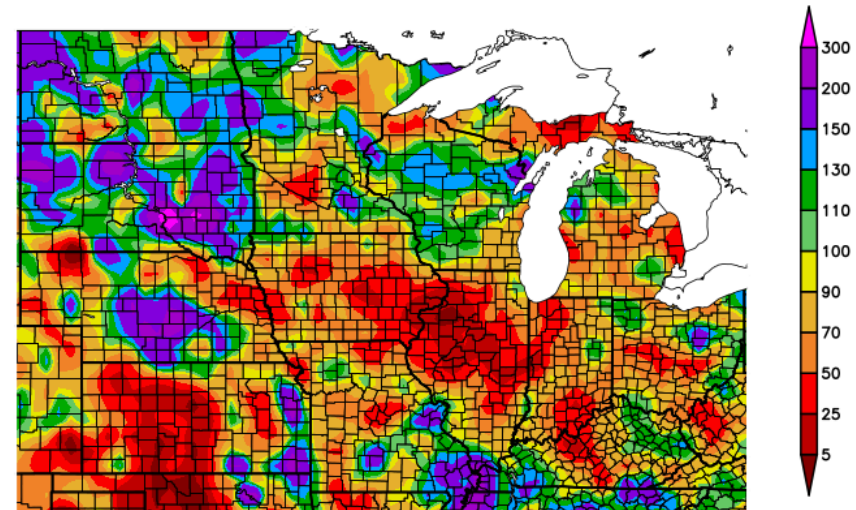
Departure from Normal Precipitation (in)
7/7/2019 – 8/5/2019



Generated 8/6/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

Percent of Normal Precipitation (%)
7/7/2019 – 8/5/2019

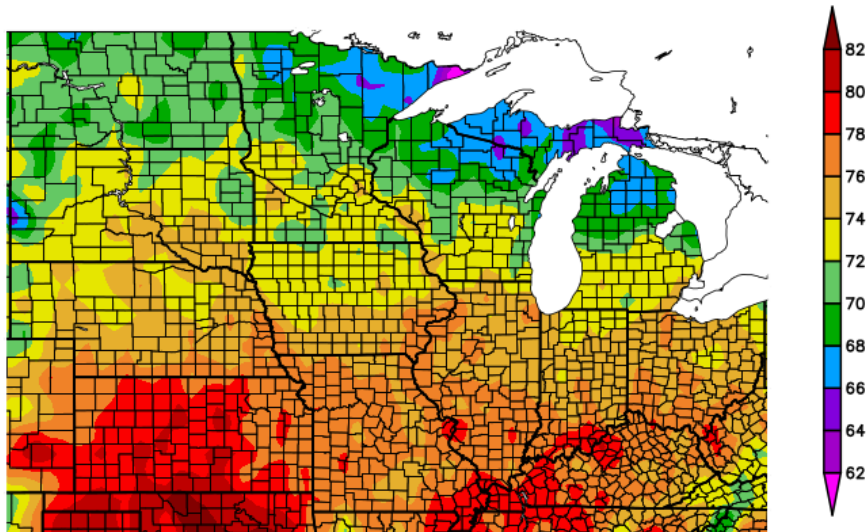


Generated 8/6/2019 at HPRCC using provisional data.

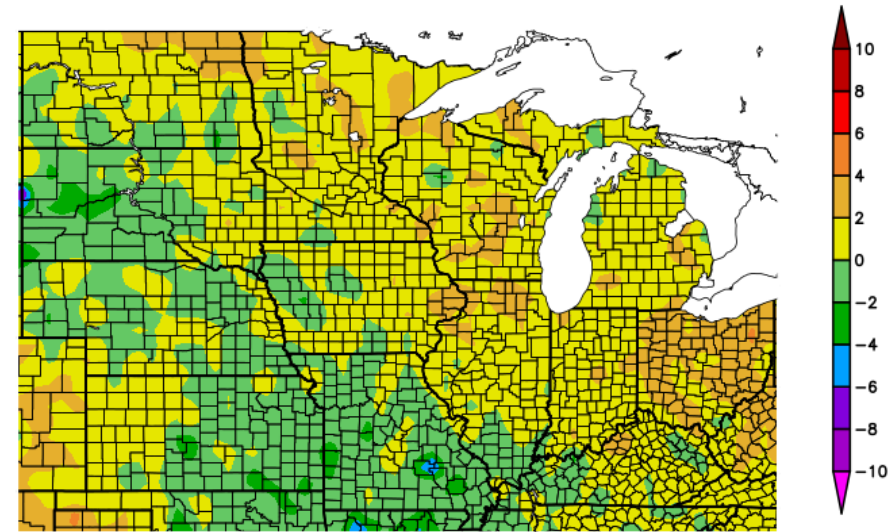
NOAA Regional Climate Centers

- Precipitation amounts have slowed somewhat across the region. Northern areas still above average.
- Biggest concern area is Iowa to the east where precip has dropped off quickly with less than 25% of avg. in the core area.

Temperature (F)
7/7/2019 – 8/5/2019



Departure from Normal Temperature (F)
7/7/2019 – 8/5/2019



Generated 8/6/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

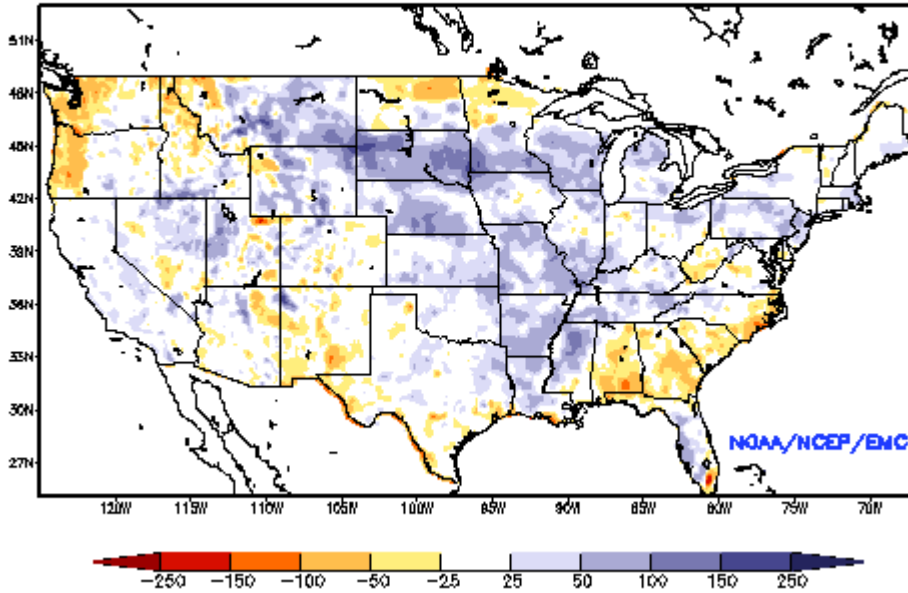
Generated 8/6/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Overall temperatures have not been extreme except for a few short periods. SD to MO has been slightly below avg. Northeast areas have been up to 2 F above average.

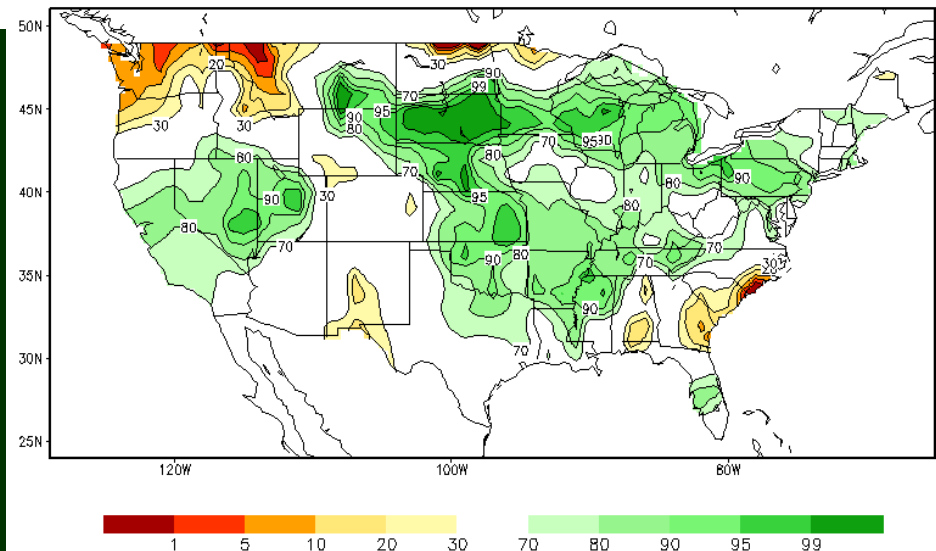
Soil Moisture

Ensemble-Mean - Current Total Column Soil Moisture Anomaly (mm)
NCEP NLDAS Products Valid: AUG 01, 2019



- Soil moisture issues are tough to quantify and open to some questions.
- Drying occurring in the core dry area.
- Other areas showing wet, though it may be deeper in the soil profile.
- Still wet soils in SD and parts of the plains.

Calculated Soil Moisture Ranking Percentile
AUG 05, 2019



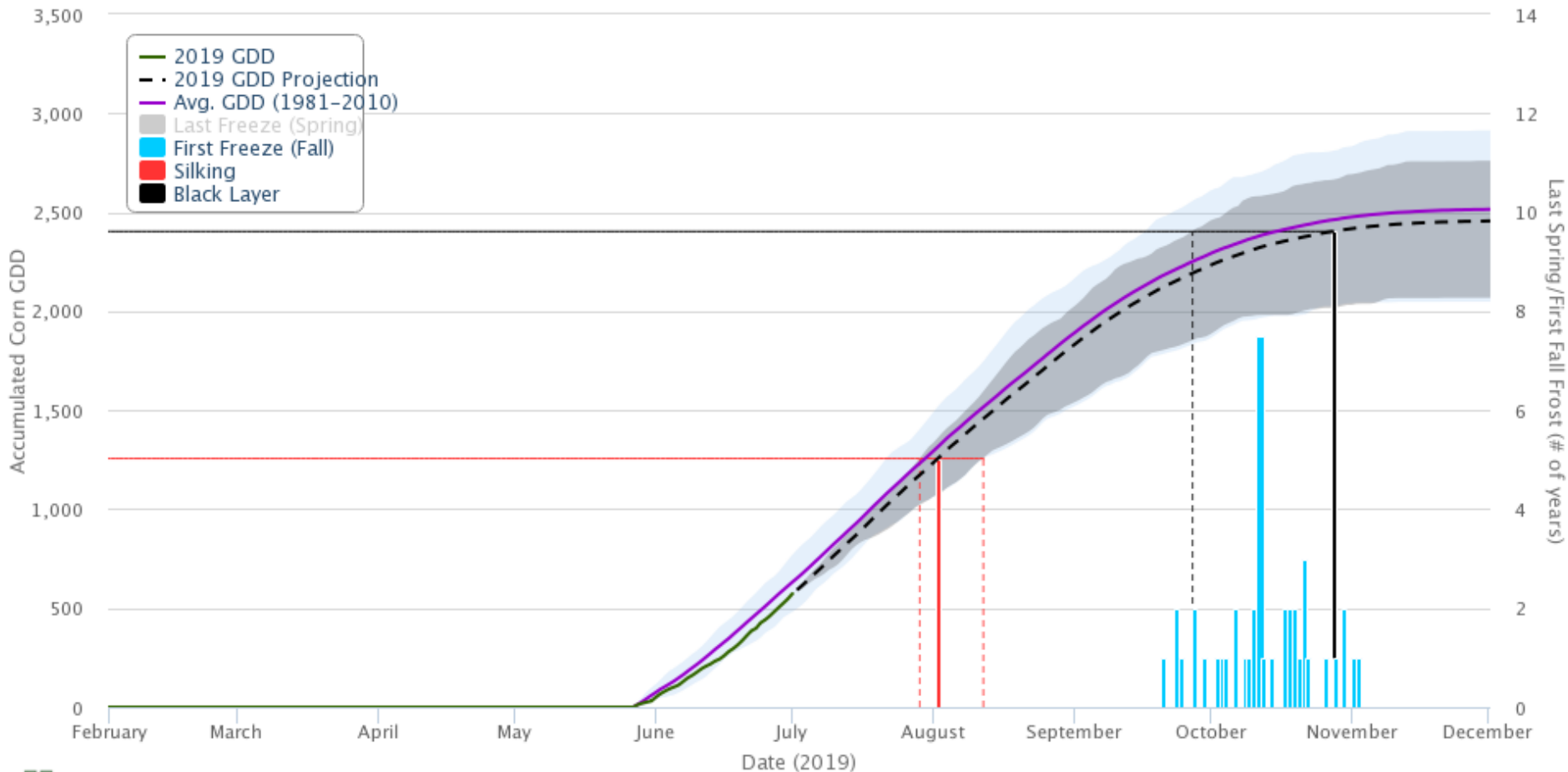
<http://www.emc.ncep.noaa.gov/mmb/nldas/drought/>

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



GDD Base 50/86 (degrees F); Created: 07/02/2019

- Check the tool. Too many combinations to deal with right now.

<https://mrcc.illinois.edu/U2U/gdd/>

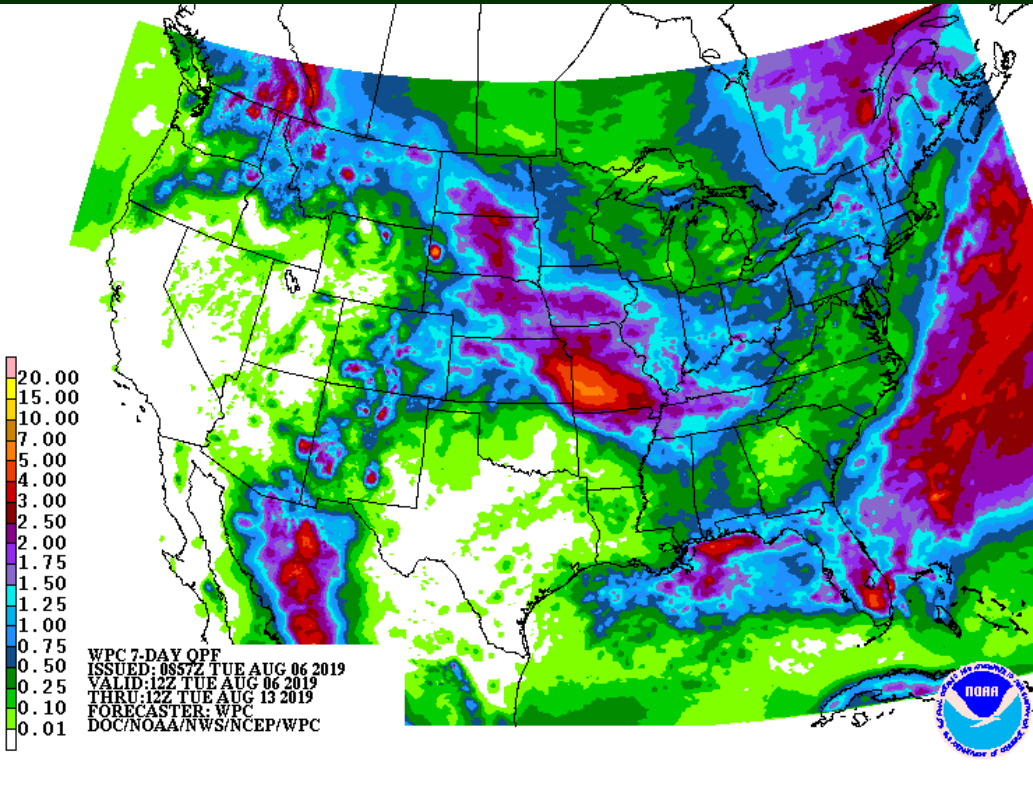
Assorted AG Issues

- Crop conditions have been fairly steady – though generally still not very good.
- Delayed development has improved a little. But still a long way to go in the season.
- Stresses showing in corn and beans in many dry areas adding to yield losses.

- Various insect issues
- Drift complaints
- May have to watch for aflatoxin(?) for stress after early wetness

- Others?

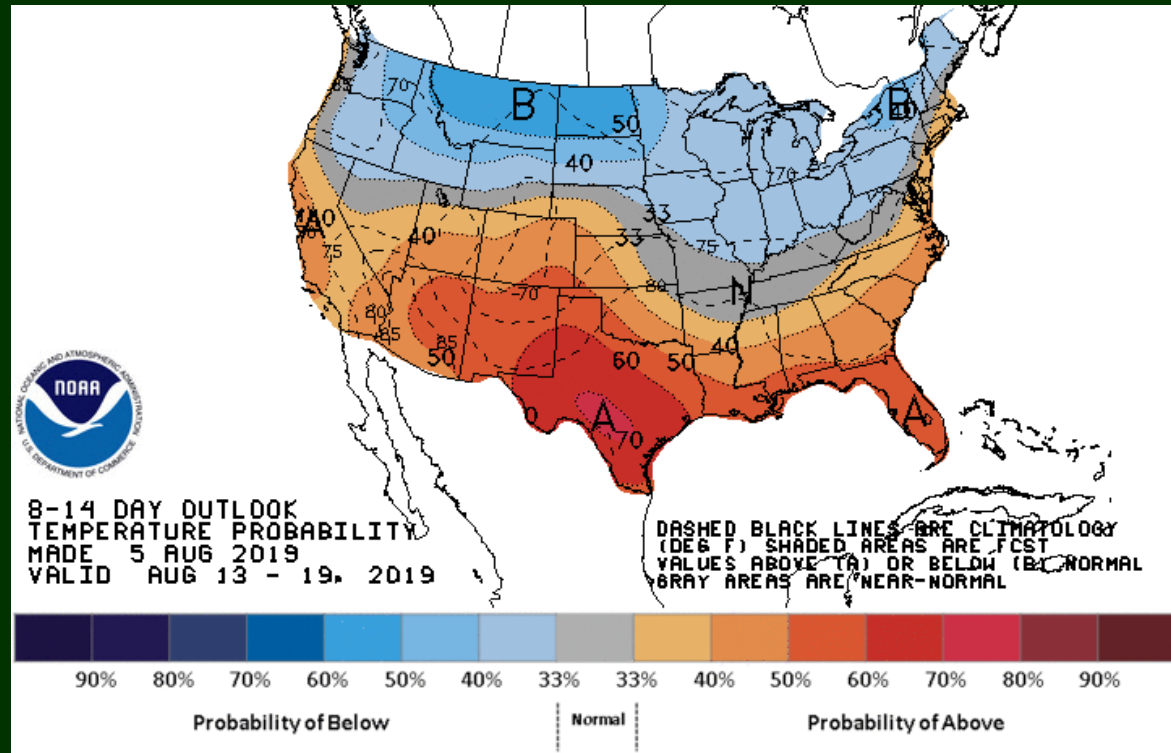
1-7 Day Precip



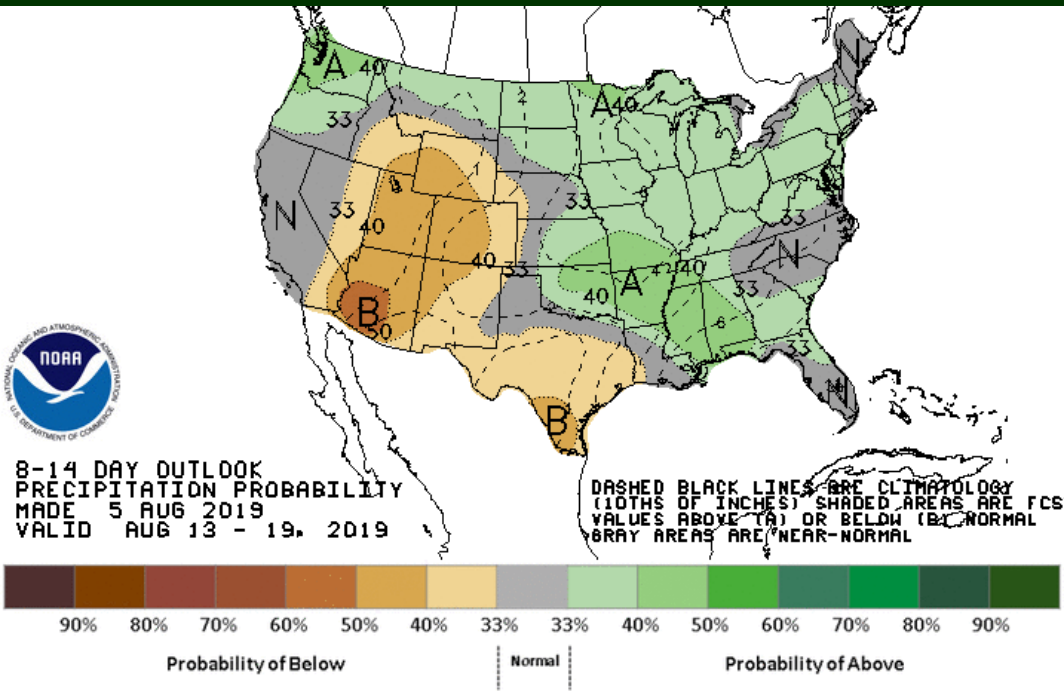
- Better precip amounts possible in western corn belt and plains.
- Some chances east, but amounts more limited
- Some stressed areas will not see much help.

Temperature Outlook

- Mid-August leans cool over most of the area.
- Will be trying to balance reduced stress from water limited crops with GDD need for maturity.



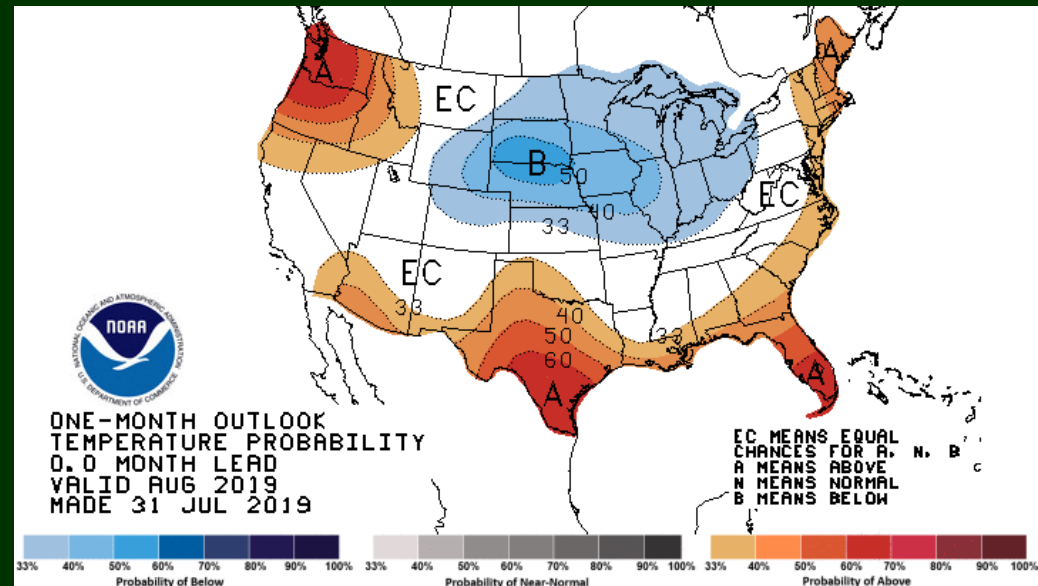
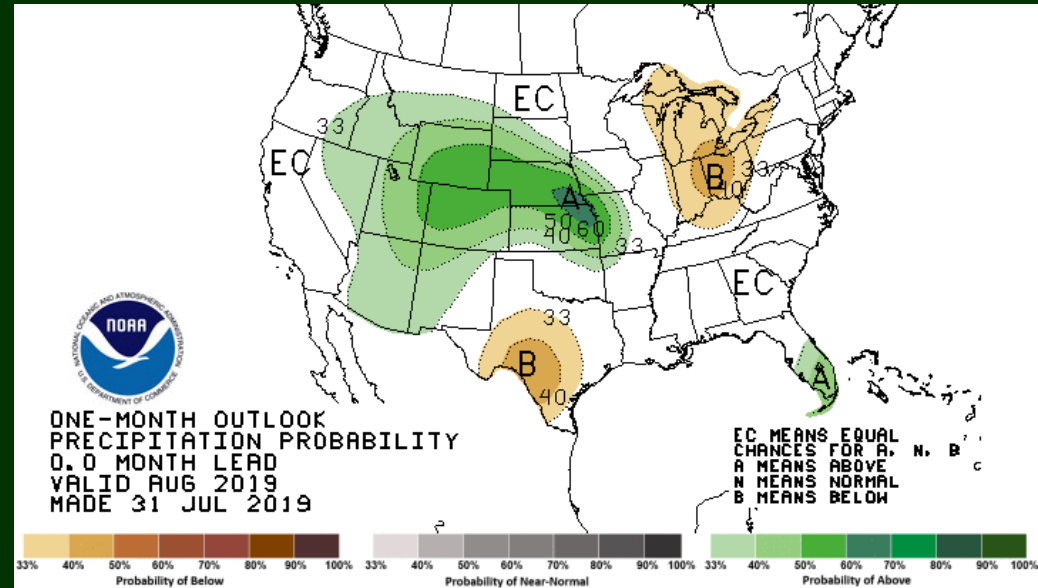
Precipitation Outlook



- Precipitation chances slightly above average. Will be curious if this holds together.
- Late summer precip tends to be spotty. Not everyone gets help.

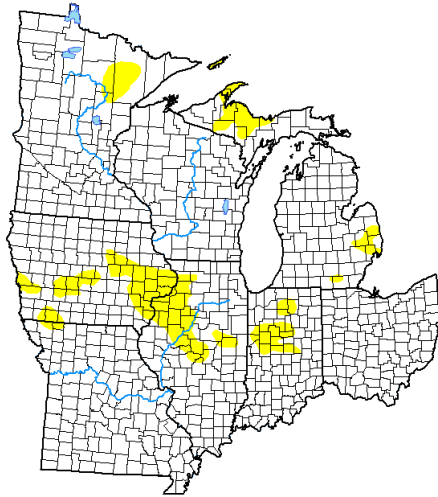
1-Month Outlook

- August outlooks dominated by northerly flow from Canada. Ridge of high pressure stays over the Rockies/Plains.
- Cooler temperatures more likely
- Air is also drier.
- Plains has a better chance of staying wetter – eastern Corn Belt slightly likely to be drier.



Drought in the Midwest

U.S. Drought Monitor USDA Midwest Climate Hub



July 30, 2019
(Released Thursday, Aug. 1, 2019)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	91.26	8.74	0.00	0.00	0.00	0.00
Last Week 07-23-2019	94.19	5.61	0.00	0.00	0.00	0.00
3 Months Ago 04-30-2019	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 07-29-2018	61.73	38.27	15.28	5.30	2.76	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:
Curtis Riganti
National Drought Mitigation Center

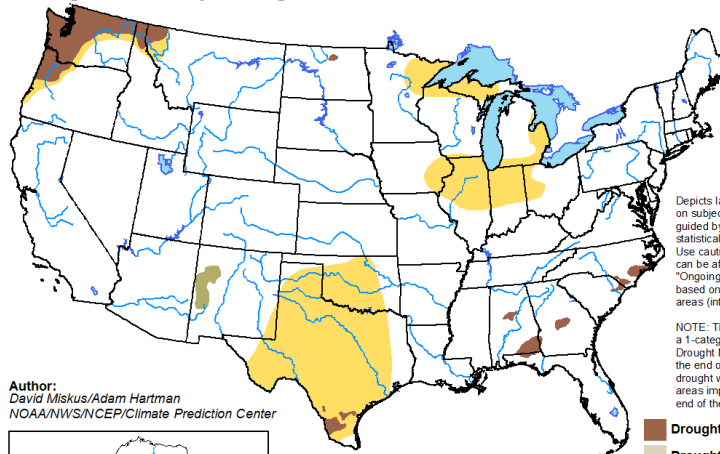


droughtmonitor.unl.edu

Widespread rainfall occurred in Minnesota, Wisconsin, southwest Iowa, and Missouri, while rain coverage was more spotty elsewhere in the region. Temperatures varied from below normal in the southern and western parts of the region, across Kentucky, Missouri, and western Iowa, to above normal in Michigan, Wisconsin, and surrounding areas. The region remained free of drought, though several areas of abnormal dryness grew in coverage in response to short-term precipitation deficits and reported agricultural impacts. These increases in abnormal dryness occurred in Indiana, Illinois, Iowa, and the Michigan Upper Peninsula.

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

Valid for August 2019
Released July 31, 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

Author:
David Miskus/Adam Hartman
NOAA/NWS/NCEP/Climate Prediction Center



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

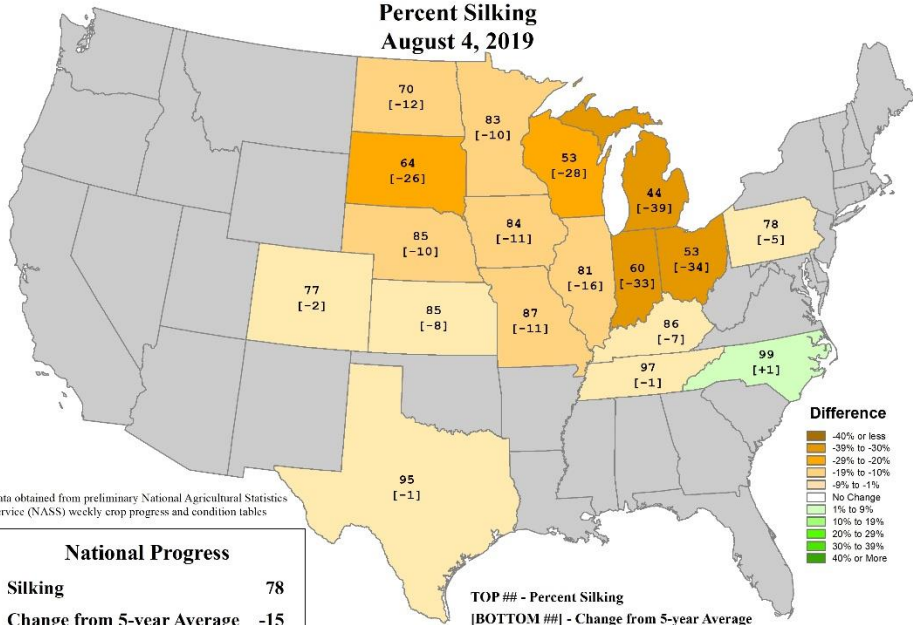
Summary

- Walking a balance on crops to get enough heat to reach maturity while not stressing water limited crops with higher temperatures
- Have lost more yield to stress
- Still watching overall maturities.

- Freeze/frost – can give no indications on freeze/frost dates at this time other than averages and trends. These are generally in our favor right now – later.

U.S. Corn Progress

Percent Silking
August 4, 2019



Data obtained from preliminary National Agricultural Statistics Service (NASS) weekly crop progress and condition tables

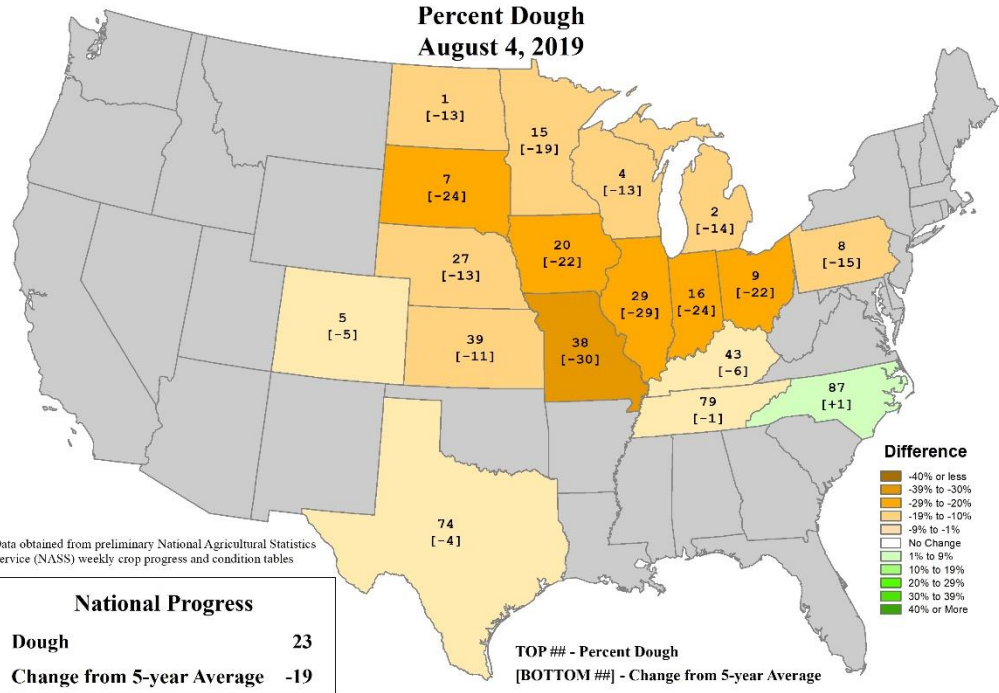
National Progress	
Silking	78
Change from 5-year Average	-15

TOP## - Percent Silking
[BOTTOM ##] - Change from 5-year Average

USDA NASS Crop Progress (through August 4)

U.S. Corn Progress

Percent Dough
August 4, 2019



Data obtained from preliminary National Agricultural Statistics Service (NASS) weekly crop progress and condition tables

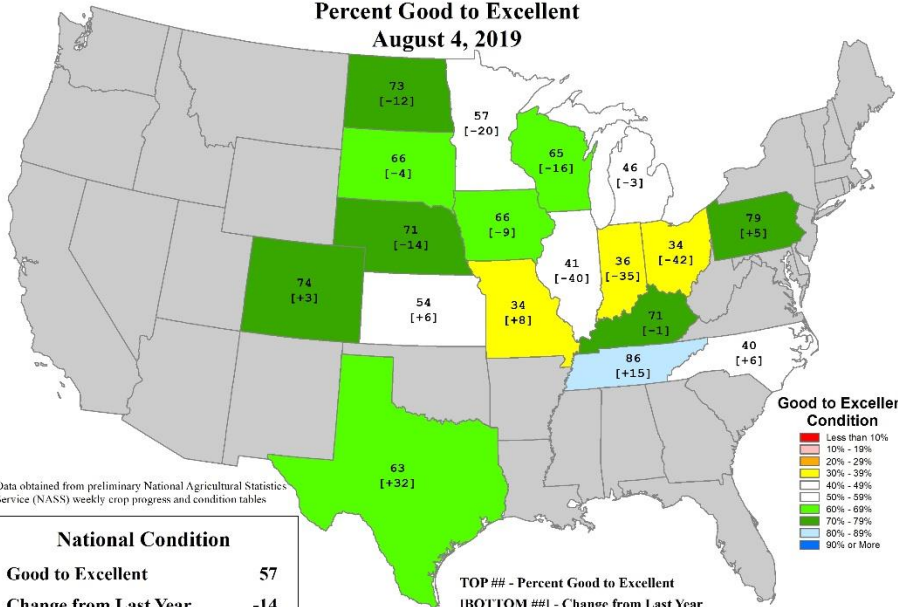
National Progress	
Dough	23
Change from 5-year Average	-19

TOP## - Percent Dough
[BOTTOM ##] - Change from 5-year Average

Crop progress (corn silking and dough) nationally through Aug 4 (silking 78% -15%; dough 23% -19%).

U.S. Corn Conditions

Percent Good to Excellent
August 4, 2019



Data obtained from preliminary National Agricultural Statistics Service (NASS) weekly crop progress and condition tables

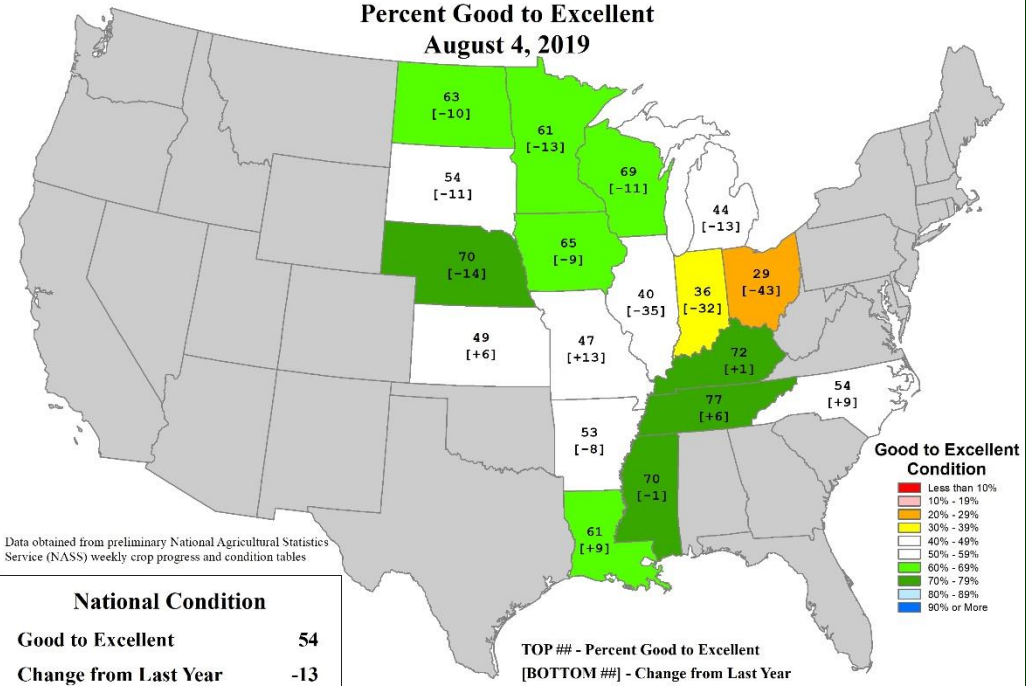
National Condition	
Good to Excellent	57
Change from Last Year	-14

TOP ## - Percent Good to Excellent
[BOTTOM ##] - Change from Last Year

USDA NASS Crop Conditions (through August 4)

U.S. Soybean Conditions

Percent Good to Excellent
August 4, 2019



Data obtained from preliminary National Agricultural Statistics Service (NASS) weekly crop progress and condition tables

National Condition	
Good to Excellent	54
Change from Last Year	-13

TOP ## - Percent Good to Excellent
[BOTTOM ##] - Change from Last Year

Crop condition (G-E) nationally through August 4 compared to 2018 (corn 57% -14%; beans 54% -13%).

Next MAC-T Monthly Call

Next Call **Wednesday, SEPT 4th.**