MAC-T Monthly Call

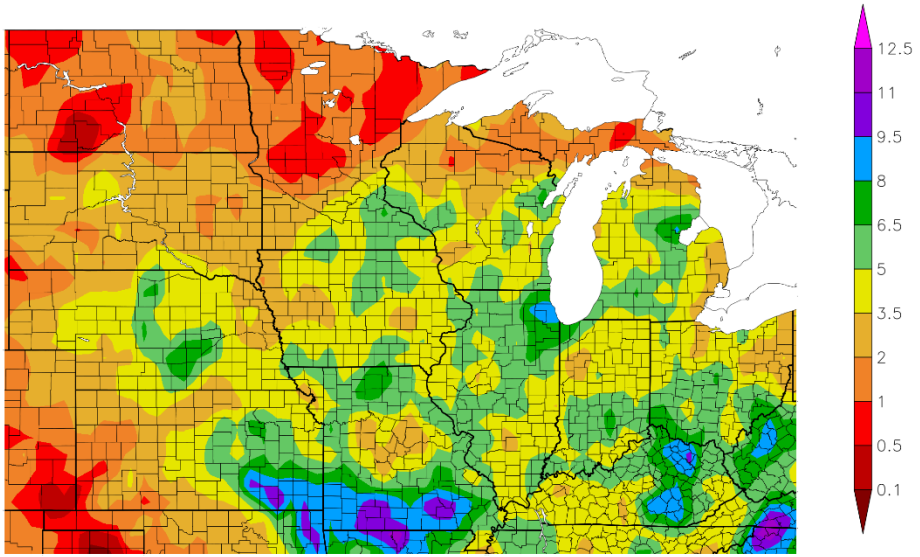
Midwest Agriculture and Climate Team

June 3, 2020

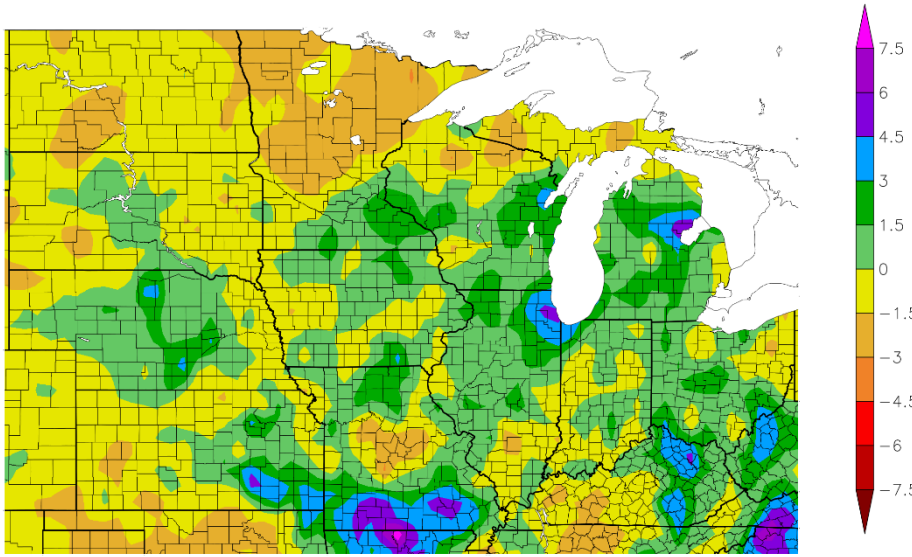
For more information:
Dennis.todey@usda.gov

USDA Midwest Climate Hub
U.S. DEPARTMENT OF AGRICULTURE

Precipitation (in)
5/2/2020 – 5/31/2020



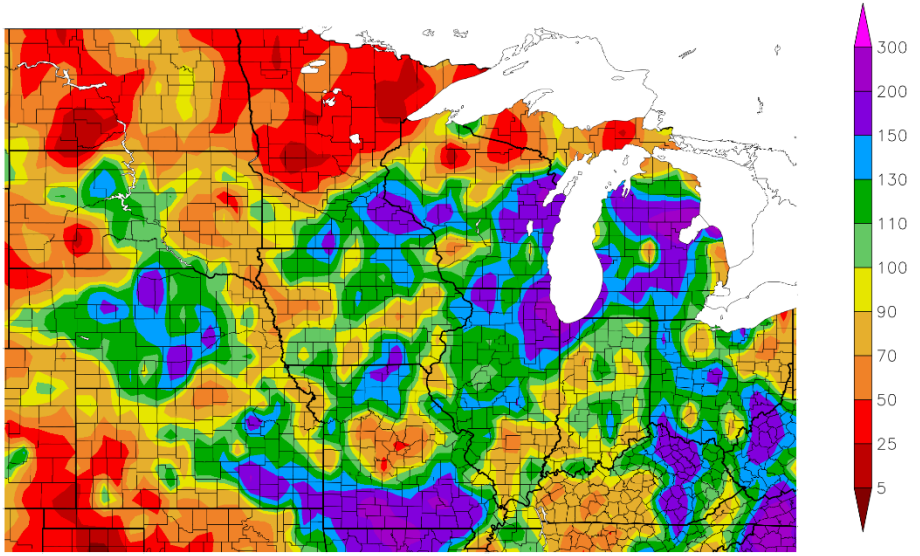
Departure from Normal Precipitation (in)
5/2/2020 – 5/31/2020



Generated 6/1/2020 at HPRCC using provisional data.

NOAA Regional Climate Center

Percent of Normal Precipitation (%)
5/2/2020 – 5/31/2020

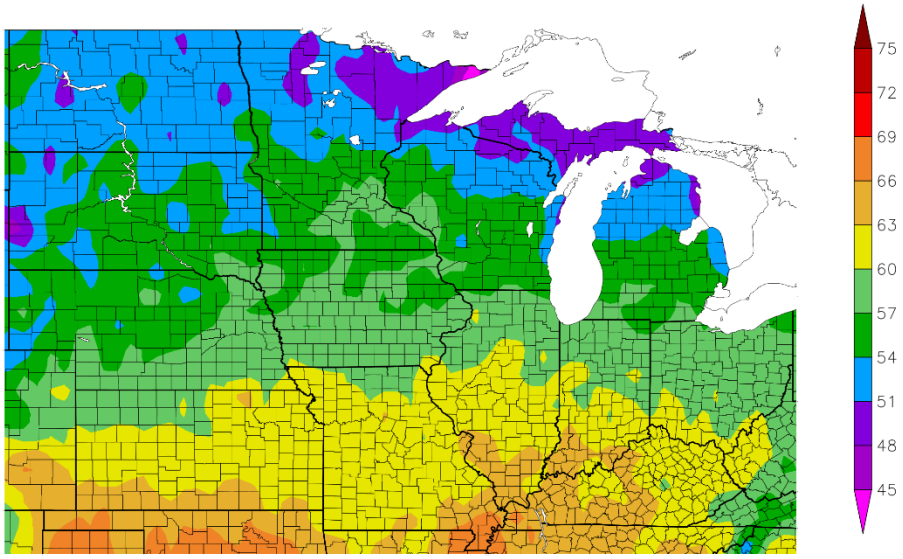


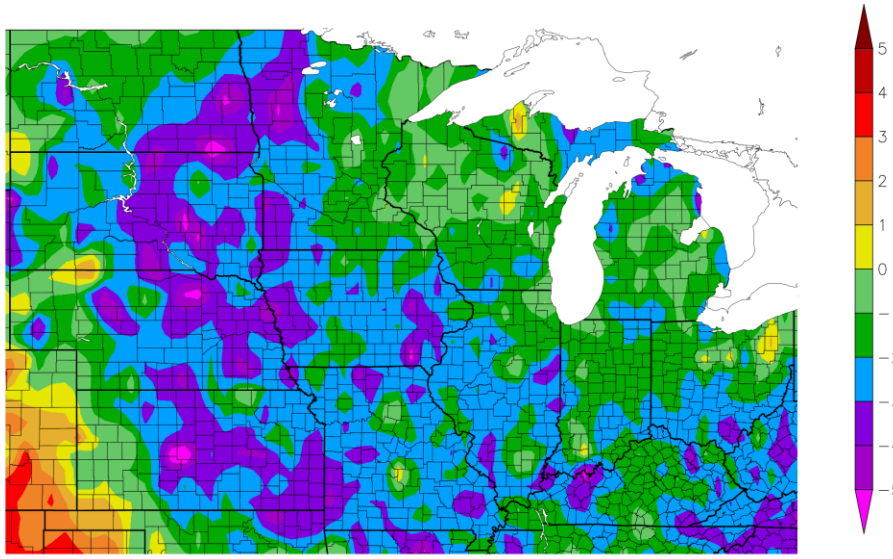
Generated 6/1/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Wet southern Missouri and southern Great Lakes
  - Missouri slow planting
  - Replant in north-central Illinois
- Continued dry in north
  - Largest departures in northern Minnesota

https://hprcc.unl.edu/maps.php?map=ACISClimateMaps



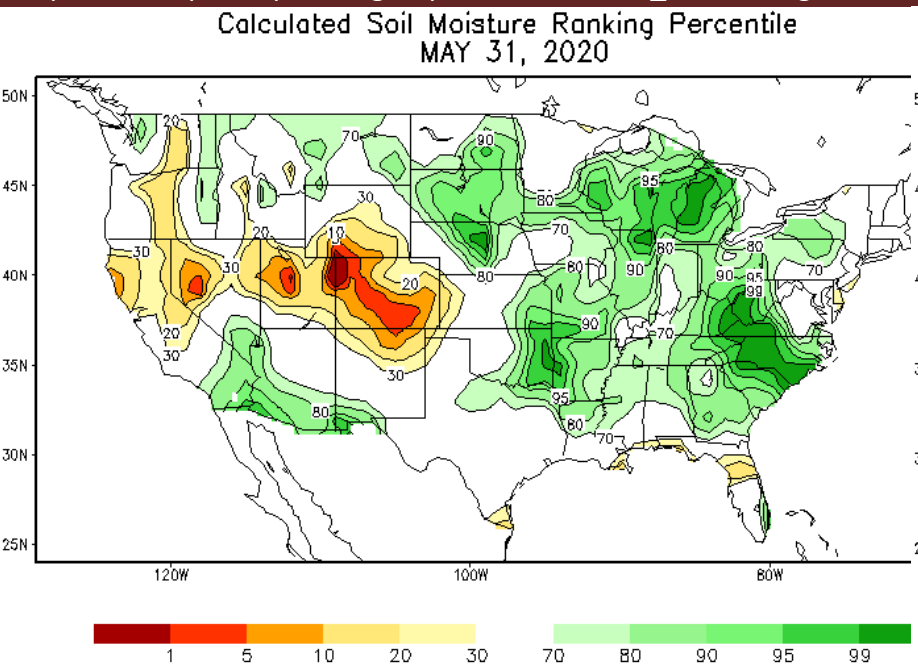


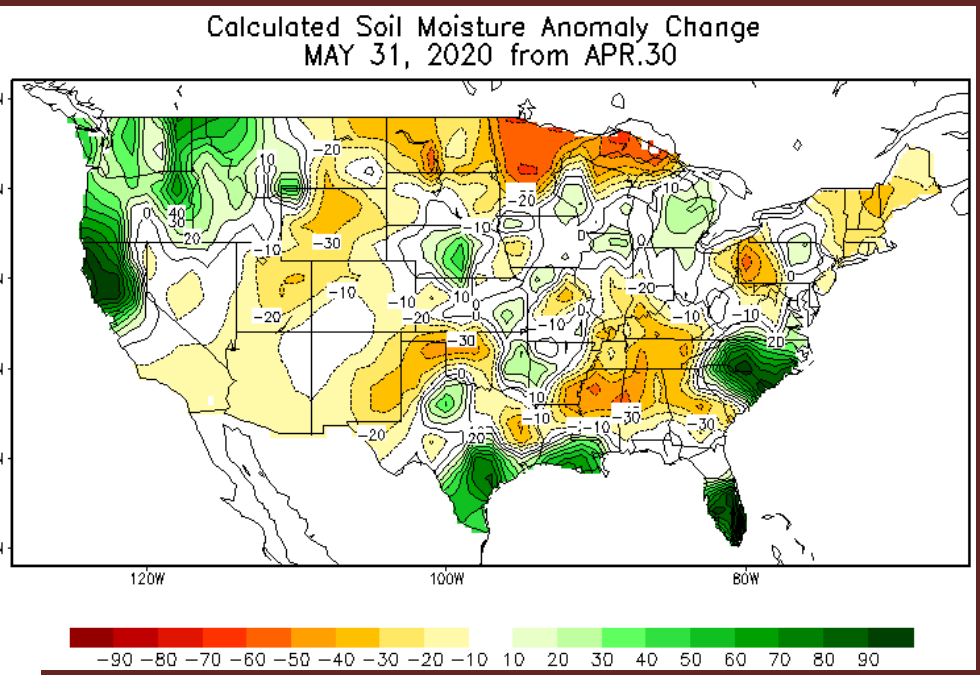
- *Still* mostly colder than average
- Deeper to the west, 4-5 degree departures
- Northeast and far southwest closer to average

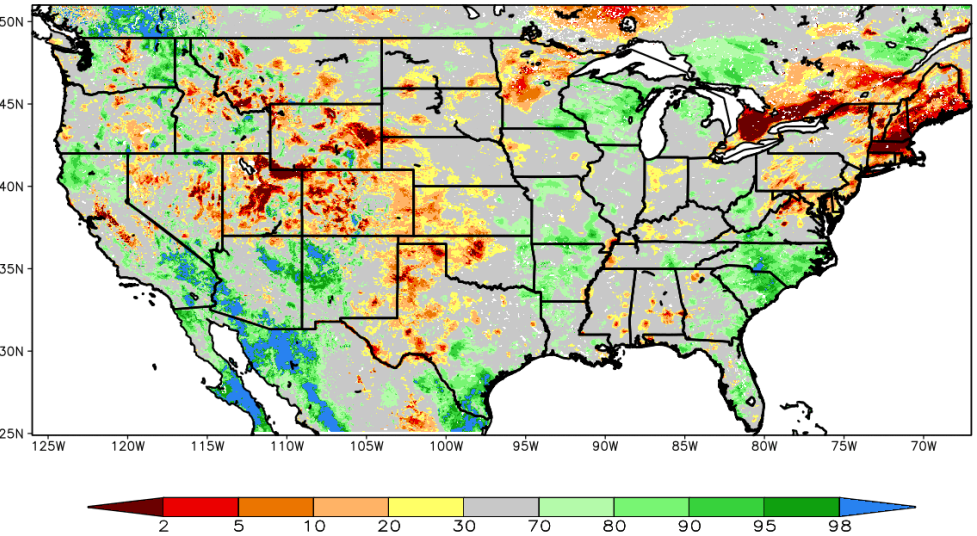
https://hprcc.unl.edu/maps.php?map=ACISClimateMaps

Soil Moisture

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



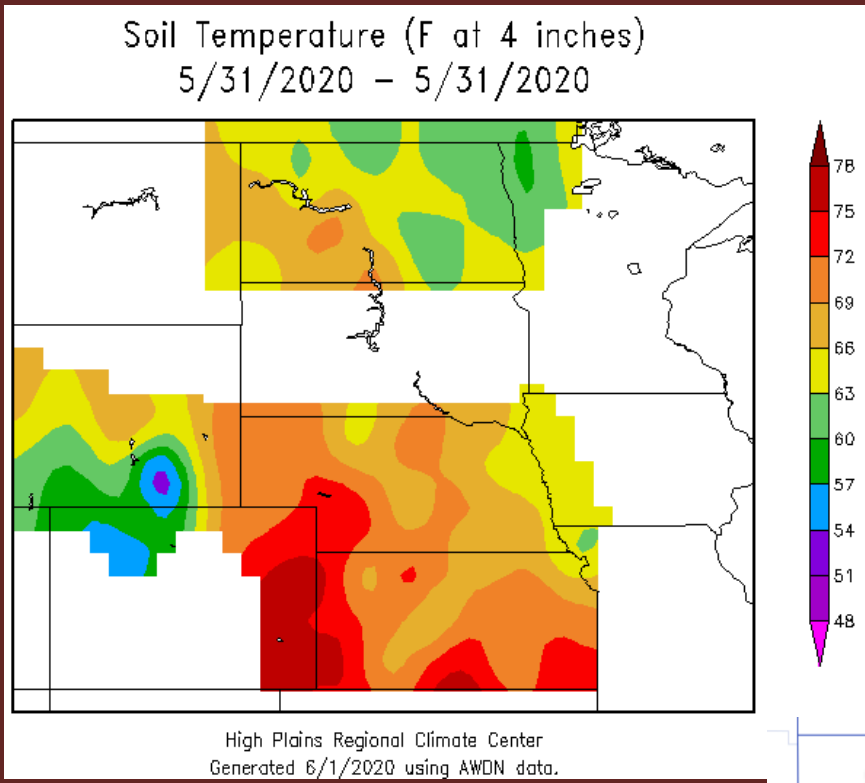


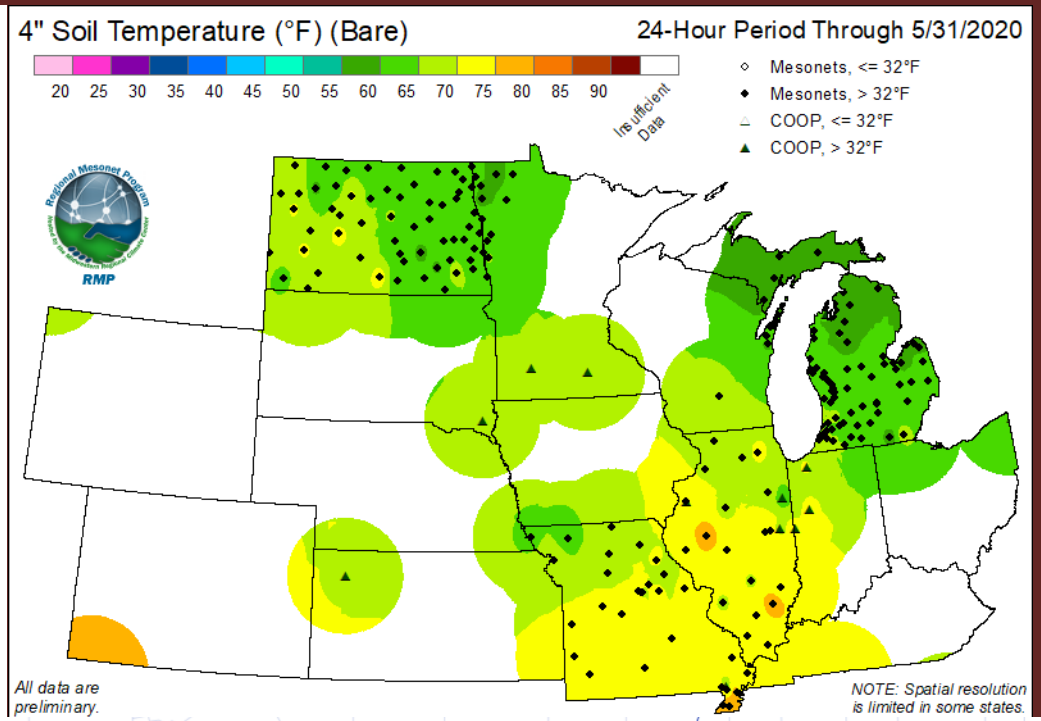


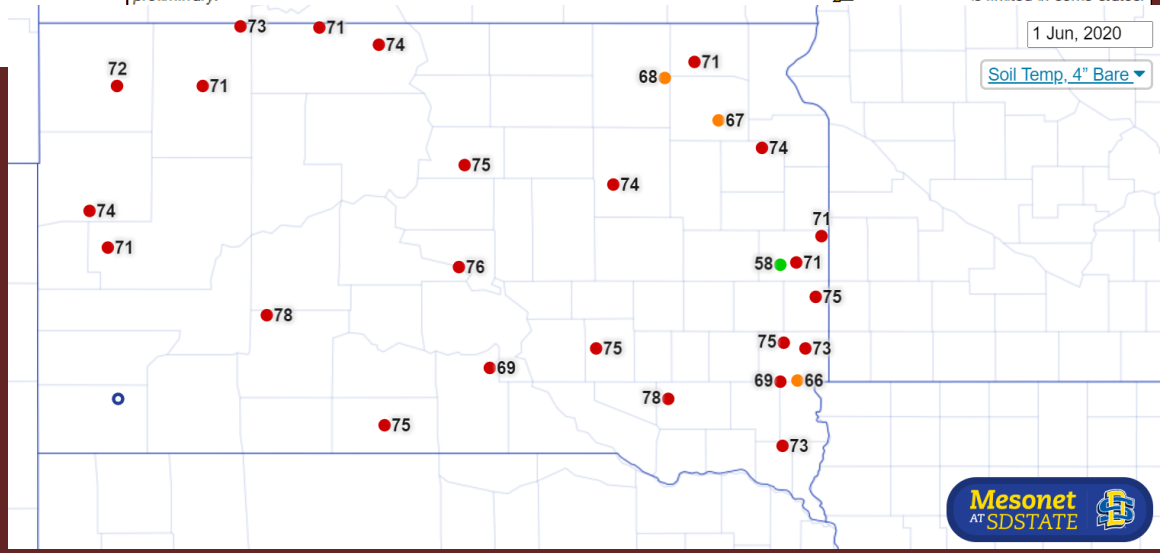
- Overall soils drying trend, particularly in northern region and southeast
- Throughout the region, most of the moisture is in the 40-100 cm column, much more drying near surface

https://weather.msfc.nasa.gov/sport/case_studies/lis_CONUS.html

Soil Temperature

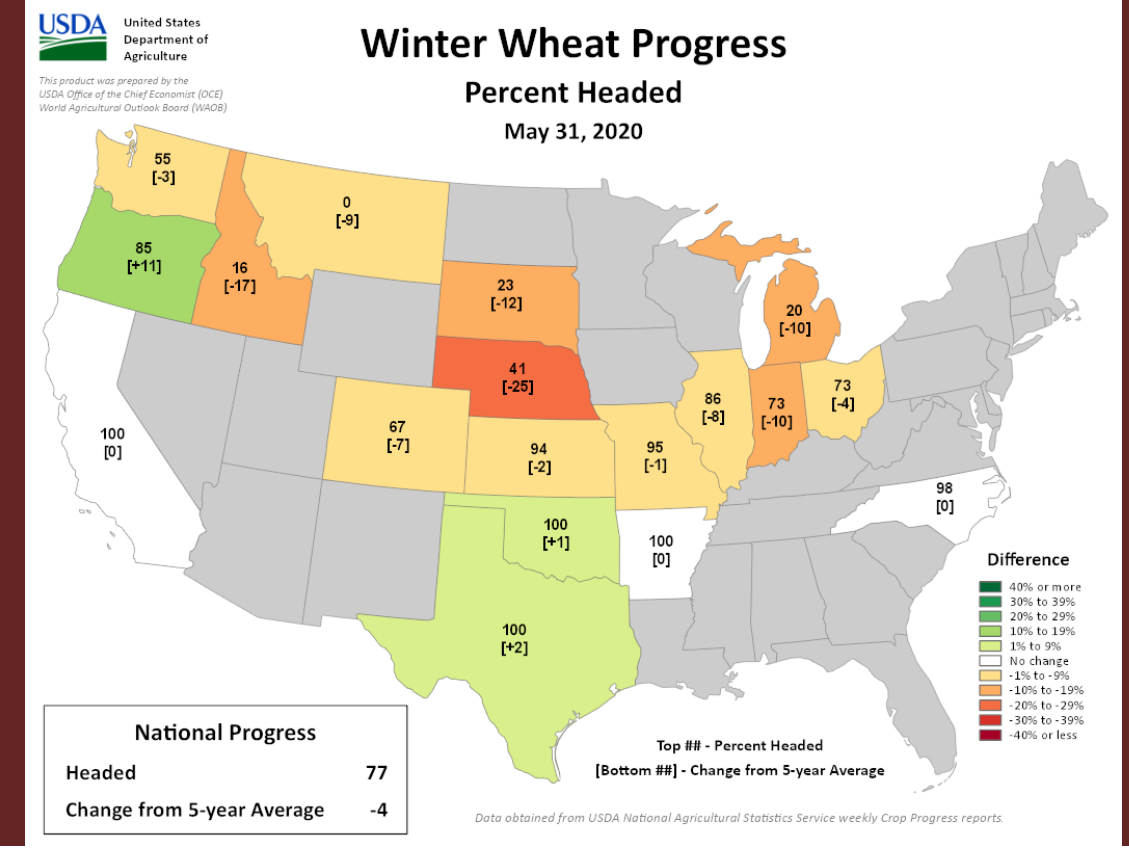






- 4” bare soil temperatures in 60s and 70s from South Dakota to Kentucky
- 50s and low 60s in northern areas

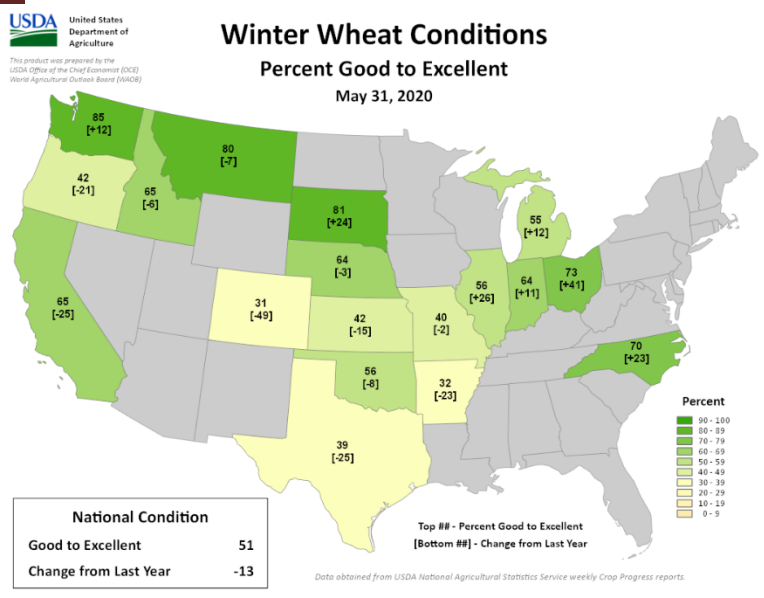
https://mrcc.illinois.edu/RMP/currentMaps.html
https://hprcc.unl.edu/maps.php?map=AWDNMaps
http://climate.sdstate.edu

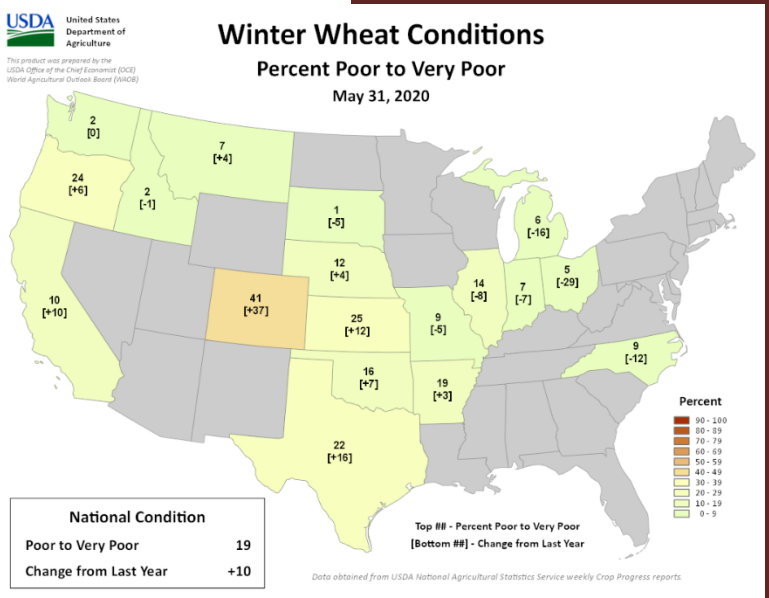


USDA NASS Crop Progress Winter Wheat

Winter wheat progress a little behind 5 year avg (-4%).

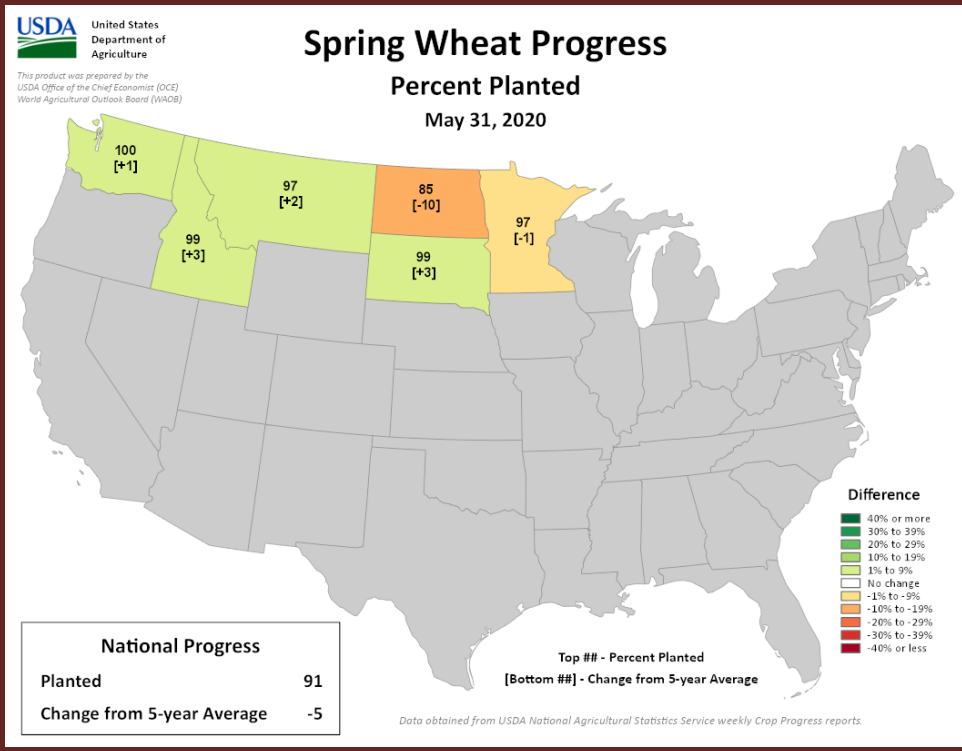
Much improved over last year in East, drought and freeze impacting condition in West?

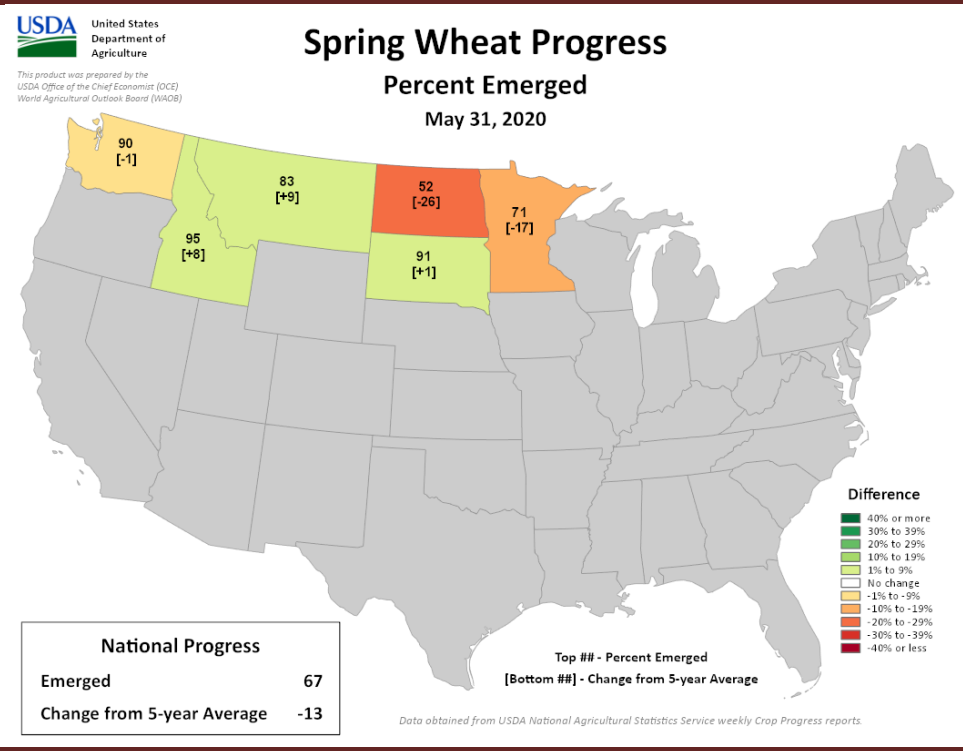




USDA NASS Crop Progress
Spring Wheat

- Spring wheat progress behind 5 year avg in ND, MN

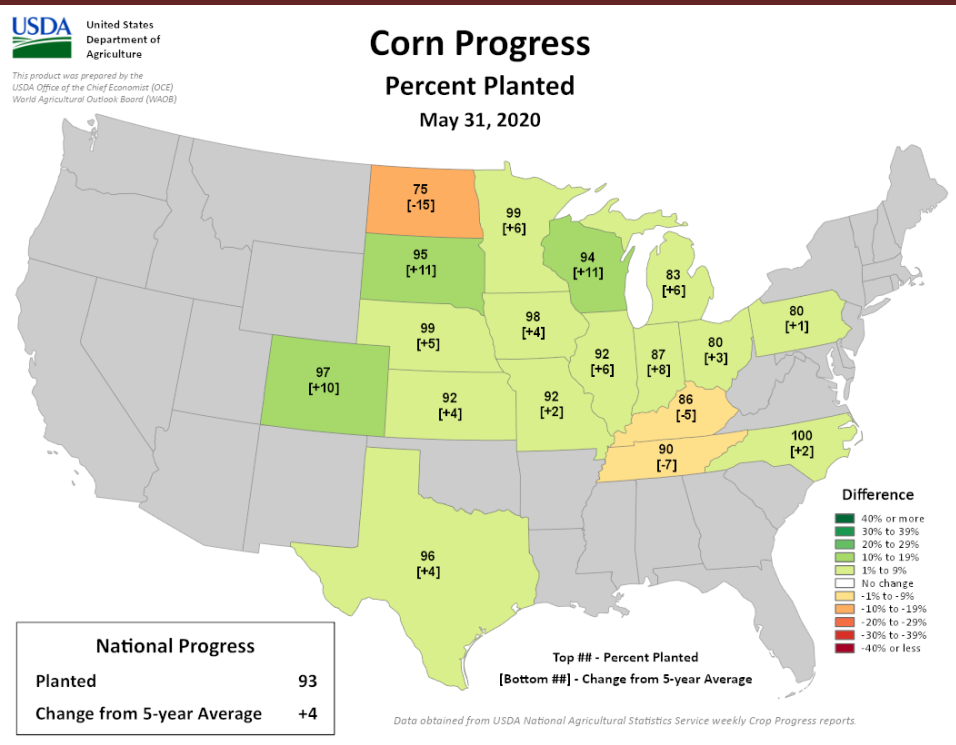


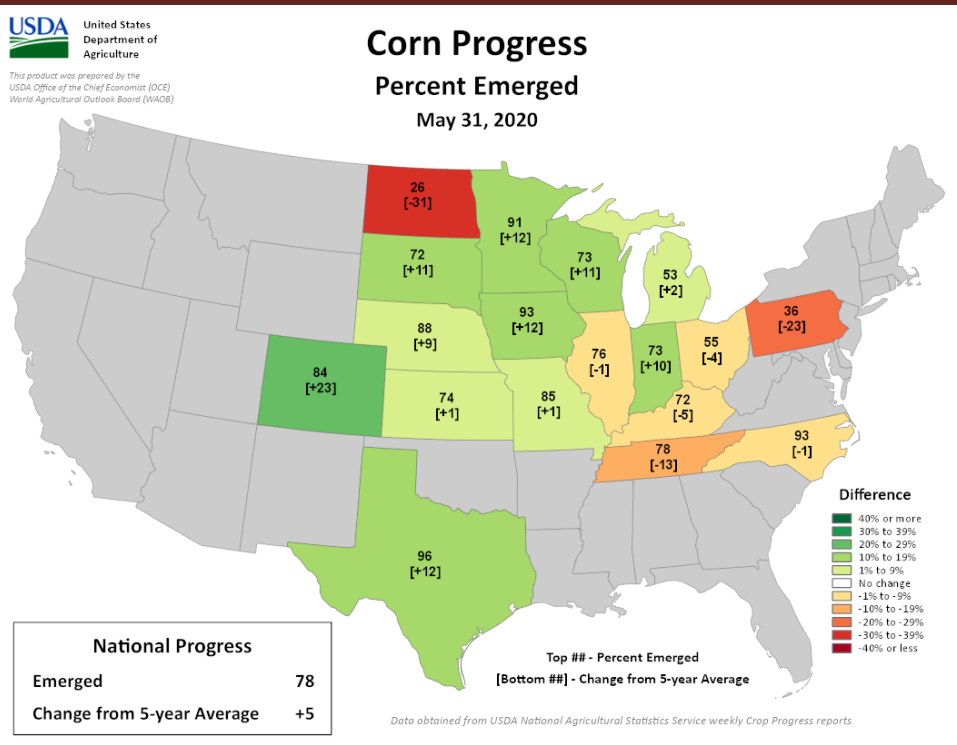


USDA NASS - Crop Progress

Corn

- Planting ahead of 5 year avg except ND (+4%).
- Emergence better in Upper Midwest and West, less so in East (+5%).

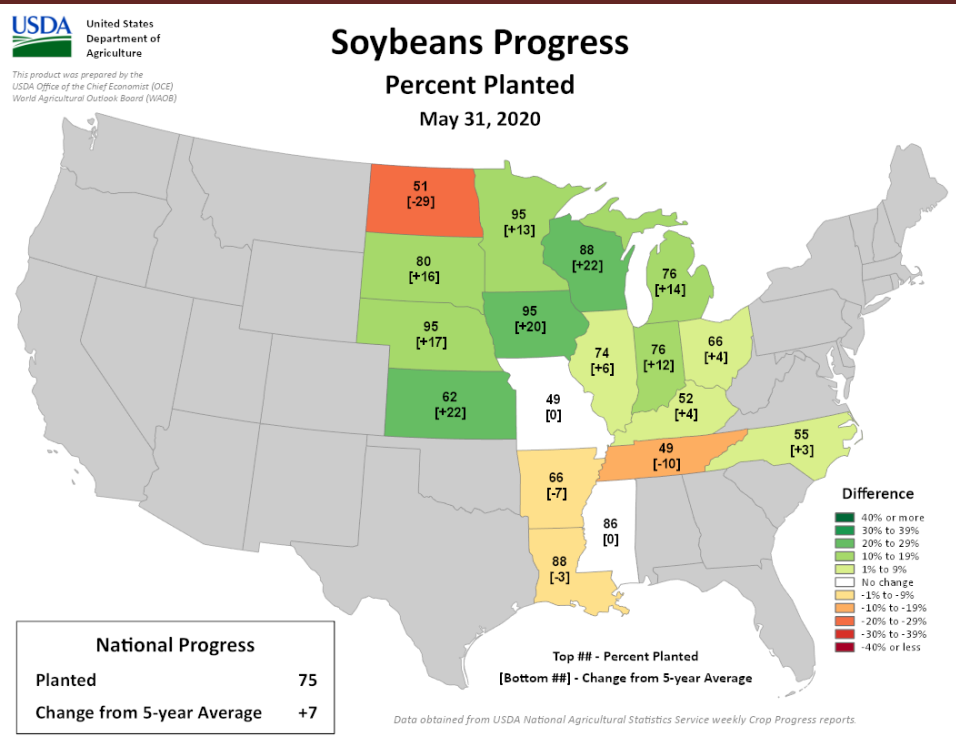


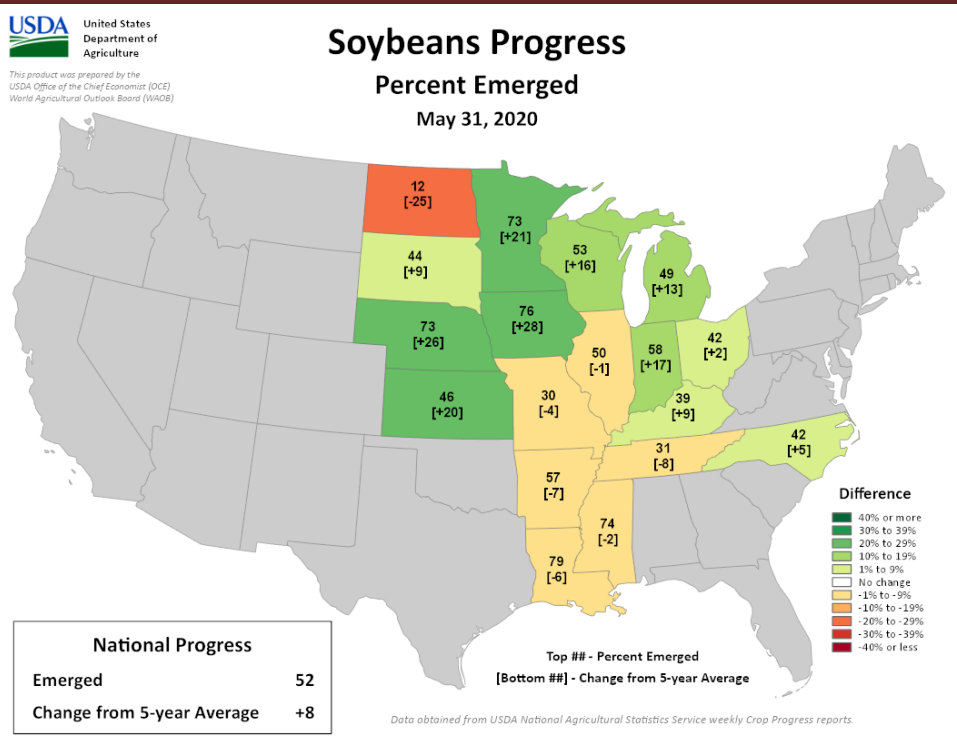


USDA NASS Crop Progress

Beans

- Planting ahead of 5 year avg except ND – similar to corn (+7%).
- Emergence much better in most places, MO and IL cold & wet (+8%)



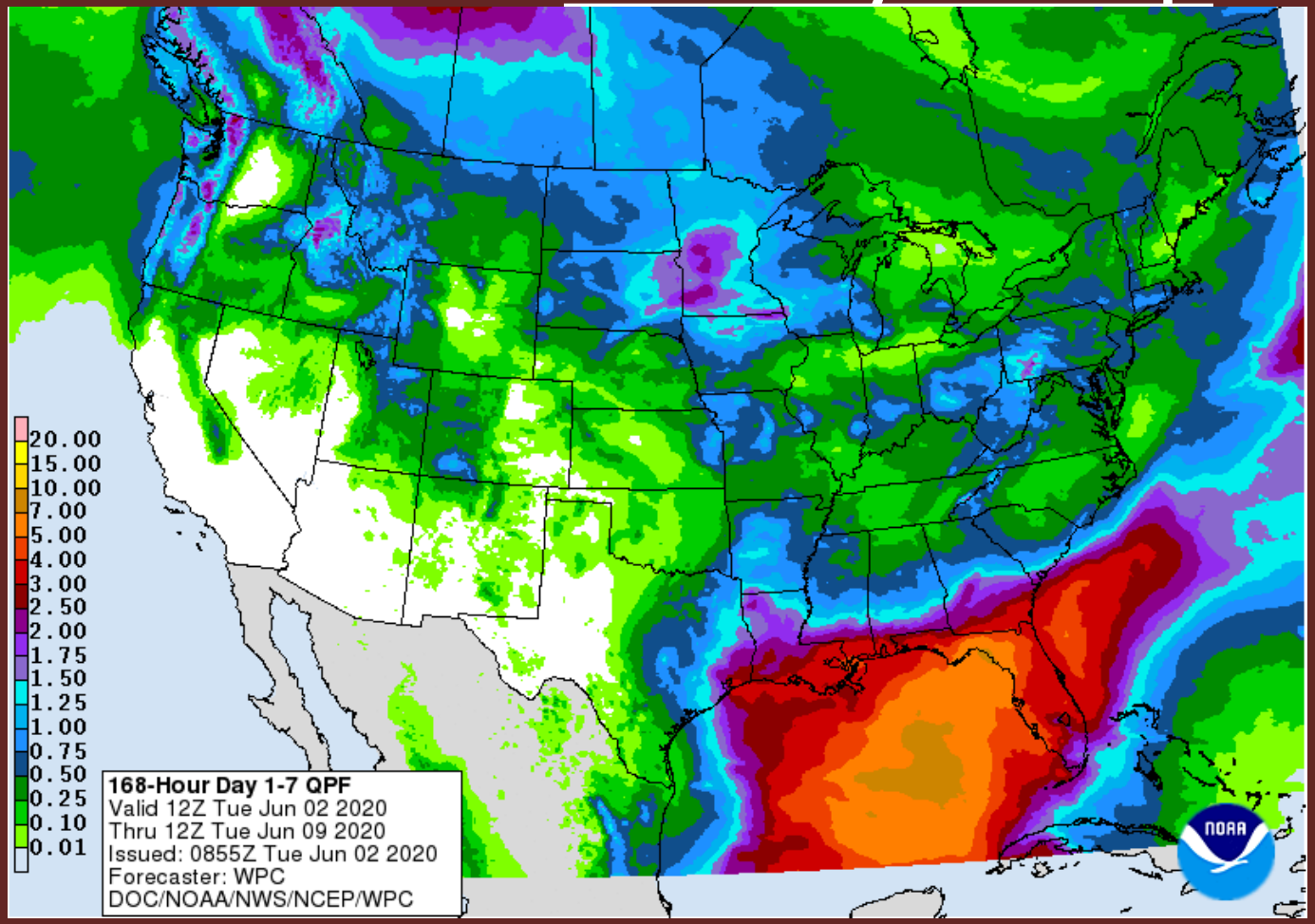


Assorted AG Issues

- Planting moved ahead quickly except for ND and pockets other places.
- Emergence picked up except for IL and MO
- PP very likely in ND

- Impacts from ongoing dryness in MN, ND?
- Replant in north-central Illinois due to excess moisture
- Rain welcomed many places NE-IA-MN helping recent dryness

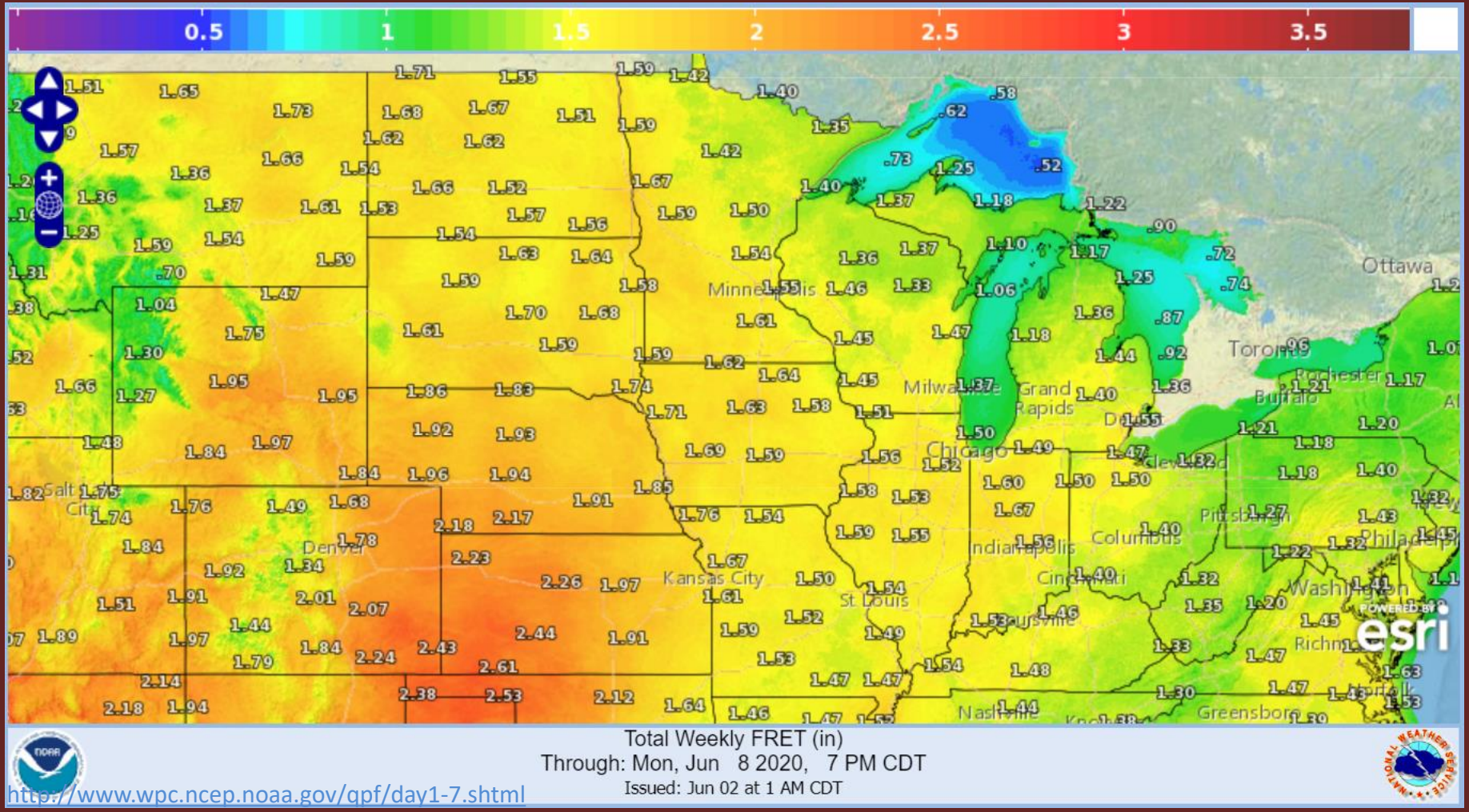
1-7 Day Precip



- Heavy rain, severe weather expected in northern plains, upper Midwest
- Drier next week for eastern Great Lakes

http://www.wpc.ncep.noaa.gov/qpf/day1-7.shtml

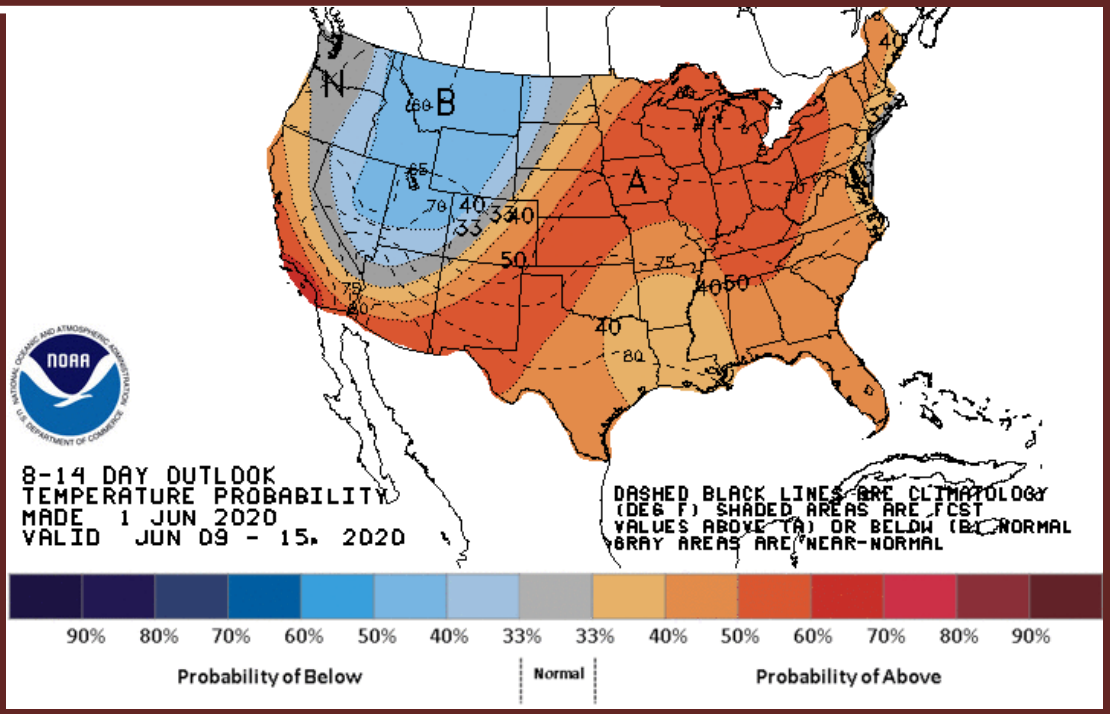
7-day Reference ET



- Elevated evaporative demand driven by warmer than average conditions
- 2”+ in southwest part of the region, 1.5”+ totals throughout

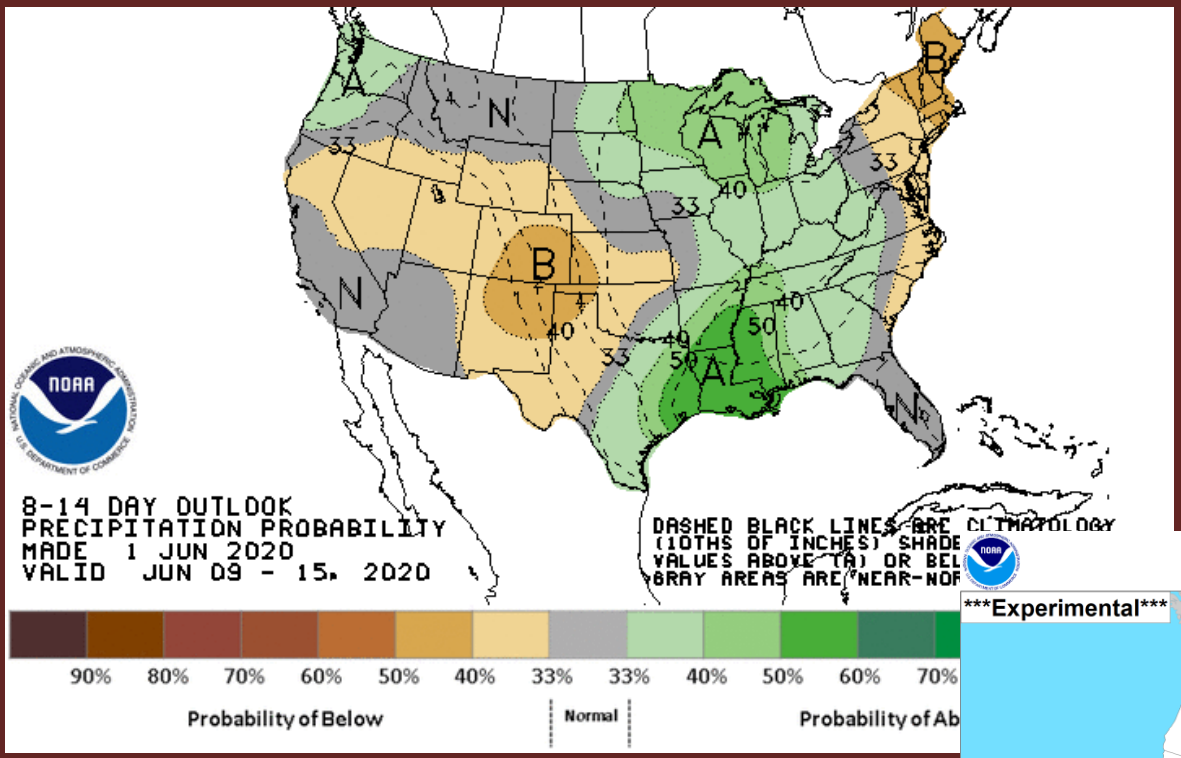
Temperature Outlook

- Warmer than avg. likely to continue throughout region into week 2.
- Higher chances in Great Lakes region
- Today's highs forecasted in mid 80s to mid 90s across region: 94 in St. Louis



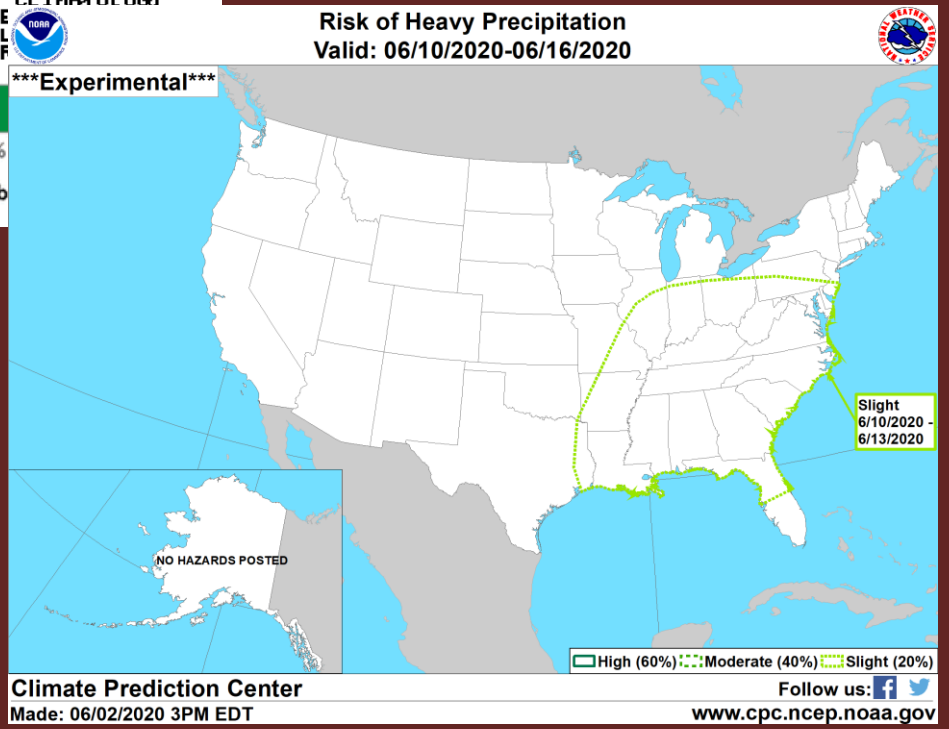
http://www.cpc.ncep.noaa.gov/

Precipitation Outlook



- Moderately elevated odds of wetter than normal conditions in upper Midwest, southeast
- Slightly elevated odds of drier than normal conditions in southwest

- Slight risk of heavy precipitation in east due to TC Christabol



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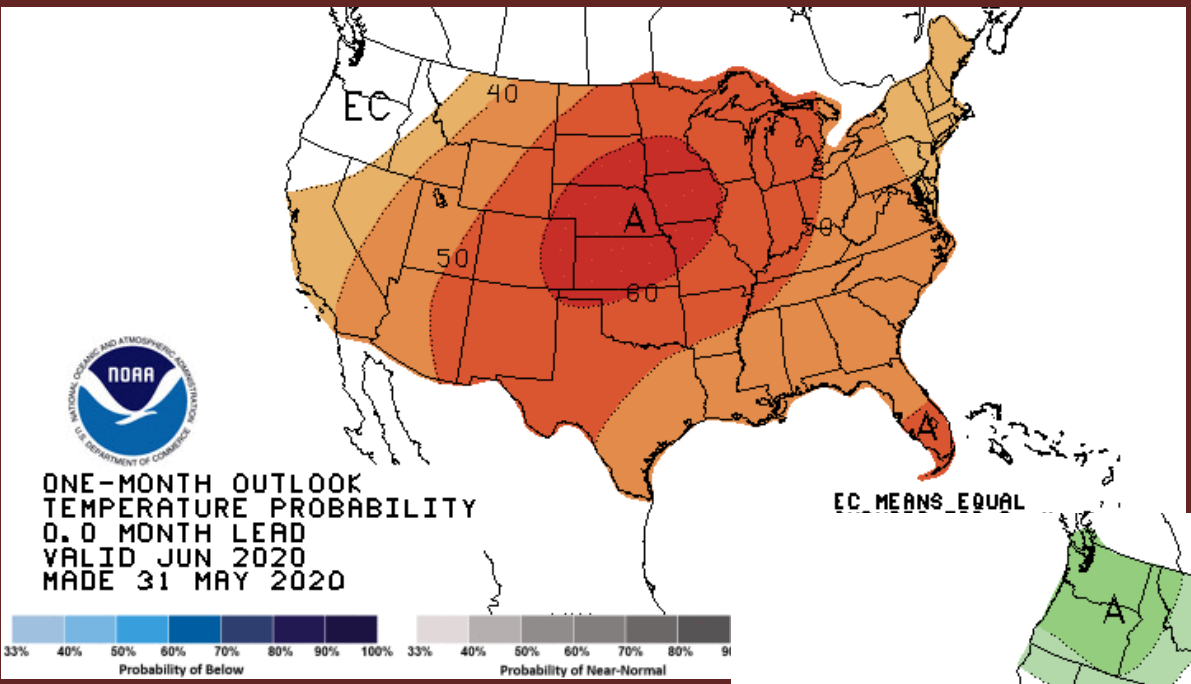
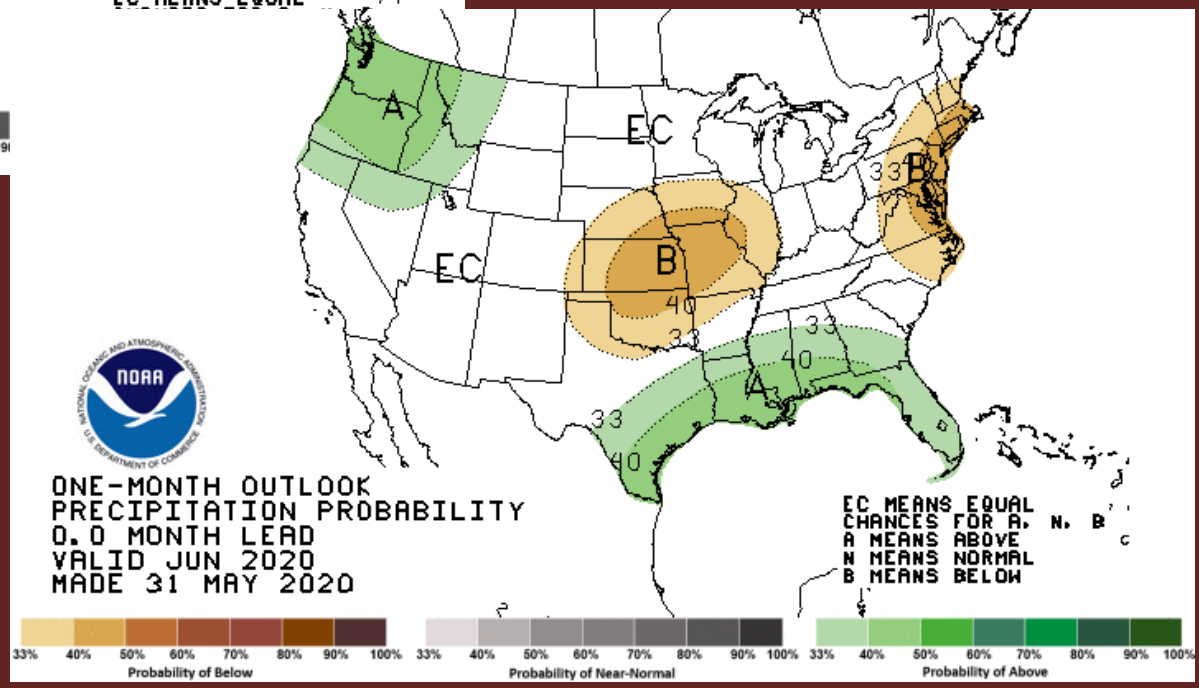
1-Month Outlook



- Strongly elevated odds of above normal temperatures across the region



- Elevated odds of below normal precipitation from Kansas to Illinois
- Equal chance everywhere else

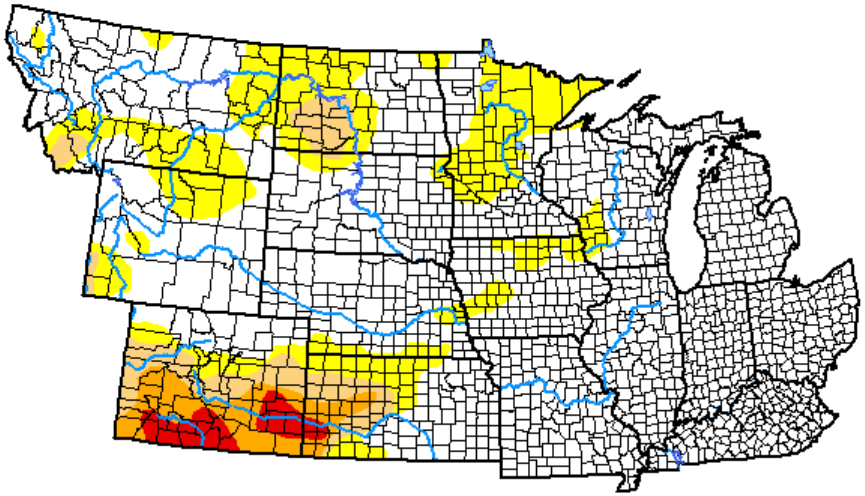
http://www.cpc.ncep.noaa.gov/

Drought in the Midwest

U.S. Drought Monitor

NWS Central Region

http://droughtmonitor.unl.edu/



- Drought expansion occurred in North Dakota and Minnesota
- Persistence in western Kansas
- Otherwise areas, especially east, remain drought free

May 26, 2020

(Released Thursday, May. 28, 2020)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	72.72	27.28	9.36	4.77	1.76	0.00
Last Week *05-19-2020*	71.33	28.67	9.15	5.00	1.76	0.00
3 Months Ago *02-25-2020*	91.54	8.46	4.29	0.44	0.00	0.00
Start of Calendar Year *12-31-2019*	87.81	12.19	5.33	2.11	0.00	0.00
Start of Water Year *10-01-2019*	79.05	20.95	8.02	2.19	0.14	0.00
One Year Ago *05-28-2019*	95.34	4.66	0.22	0.00	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. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

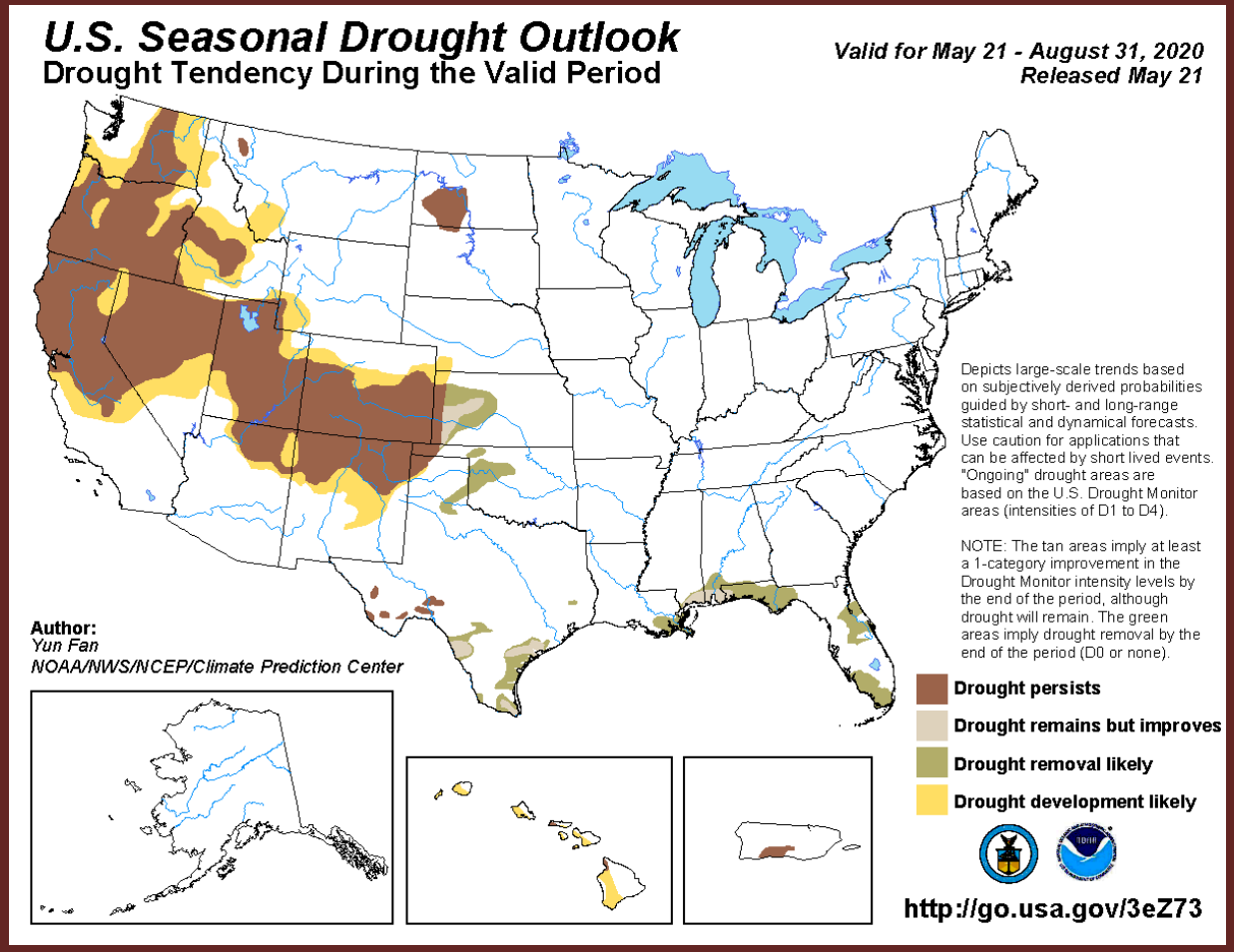
Author:

Curtis Riganti

National Drought Mitigation Center

droughtmonitor.unl.edu

Drought in the Midwest



- Summer outlook suggests drought persists in North Dakota, improves in western Kansas
- No drought development in the region

Summary

- Generally good news – rains helped some dryness, dryness helped some wet spots
- Some issues in IL – replant.
- Dryness persists in northern areas
- May was colder than average for most of the region, not a lot of GDD accumulated
- Warmth will help some drying and quicken growth this week into next, but also could exacerbate dryness in some spots
- Precipitation late this week could help alleviate dryness in northern Plains and Upper Midwest

Next MAC-T Monthly Call

Next Call

June 3rd, 2020