

MAC-T Monthly Call

Midwest Agriculture and Climate Team

April 1, 2020

For more information:

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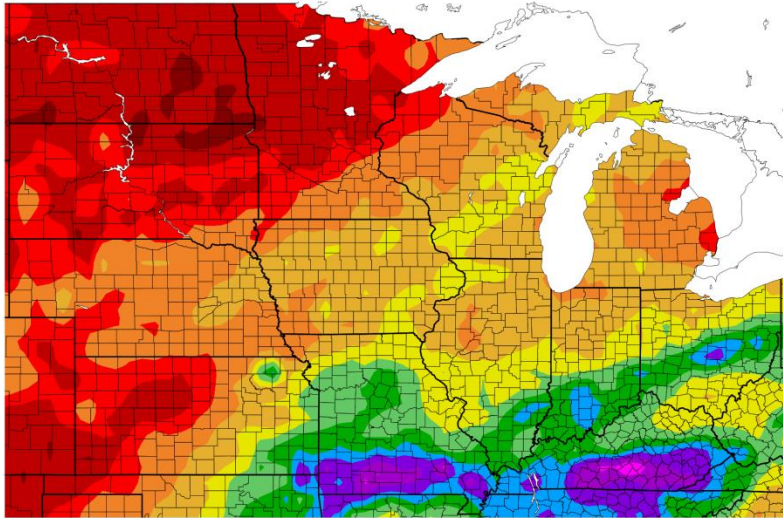


Midwest Climate Hub

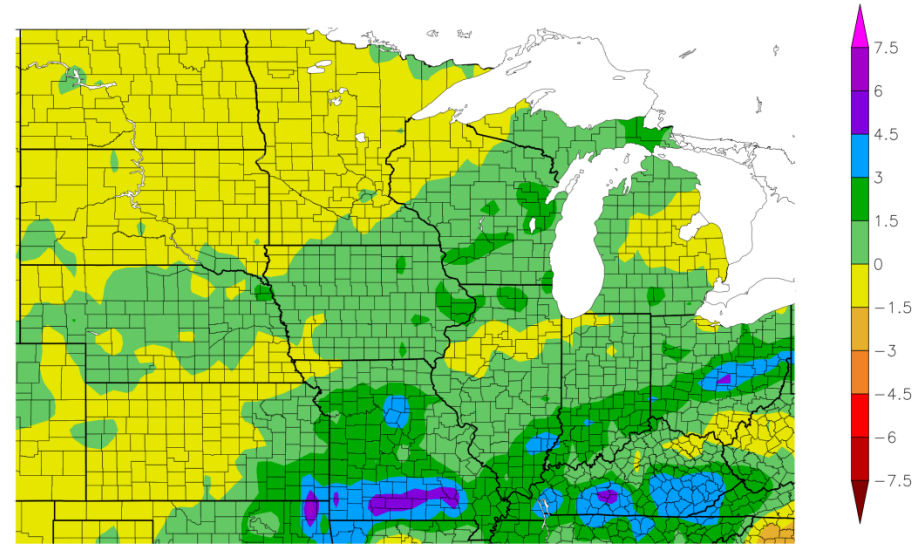
U.S. DEPARTMENT OF AGRICULTURE



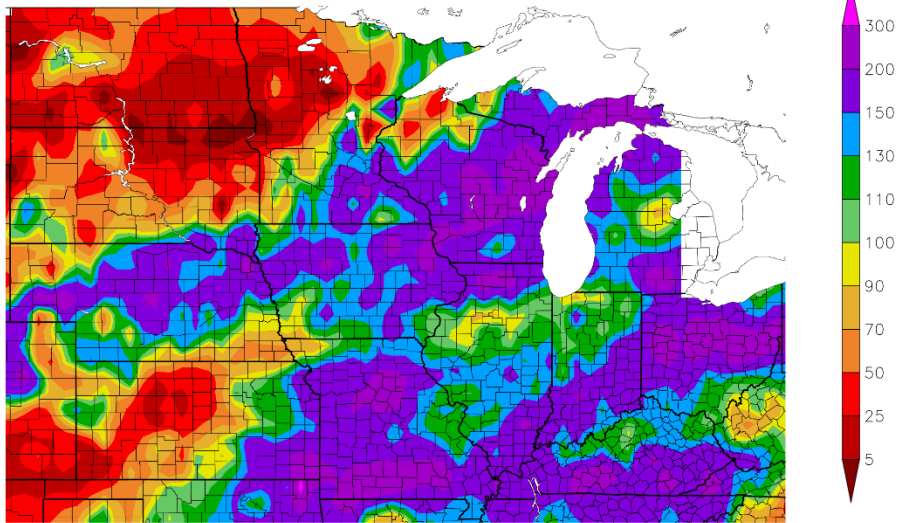
Precipitation (in)
2/28/2020 – 3/28/2020



Departure from Normal Precipitation (in)
2/28/2020 – 3/28/2020



Percent of Normal Precipitation (%)
2/29/2020 – 3/29/2020

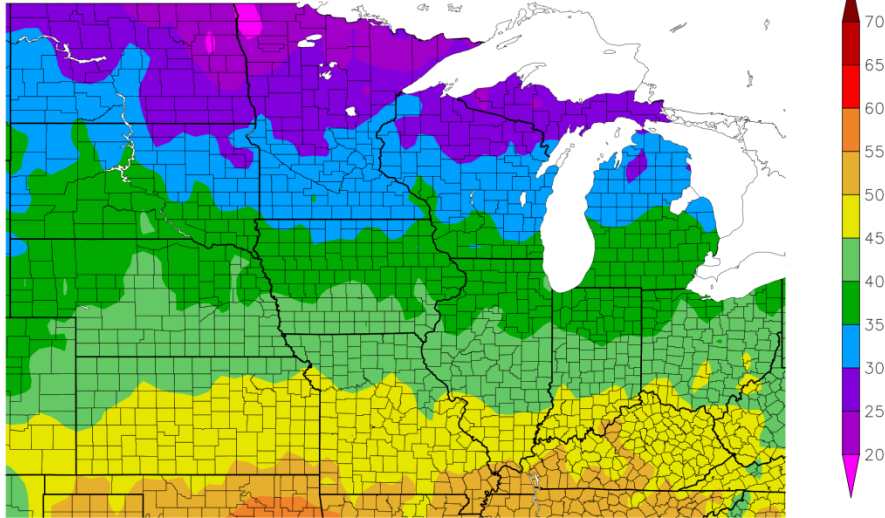


Generated 3/29/2020 at HPRCC using provisional data.

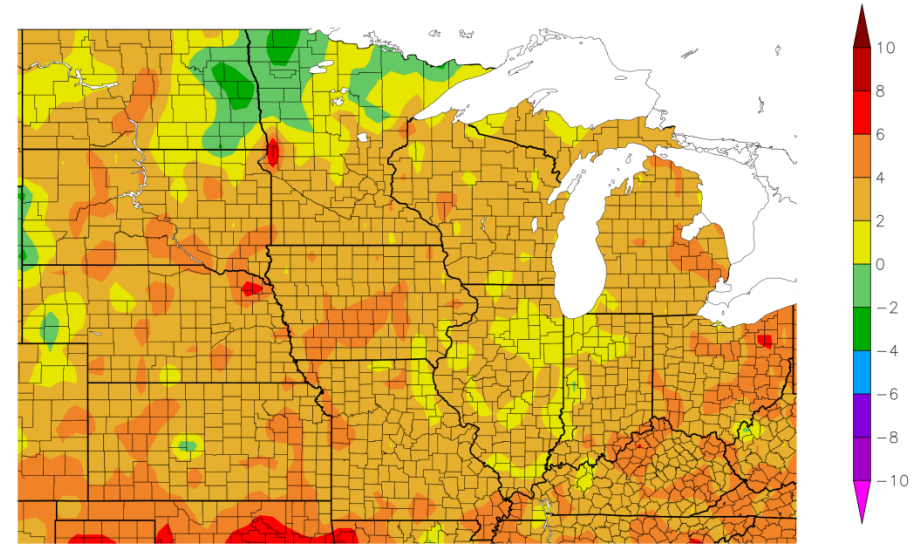
NOAA Regional Climate Centers

- Mostly wetter than avg. across the state last 30 days Iowa and southeast.
- Drier to the north and west
- Still small pocket drier than avg. SW.

Temperature (F)
2/28/2020 – 3/28/2020



Departure from Normal Temperature (F)
2/28/2020 – 3/28/2020



Generated 3/29/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

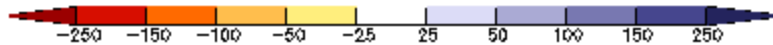
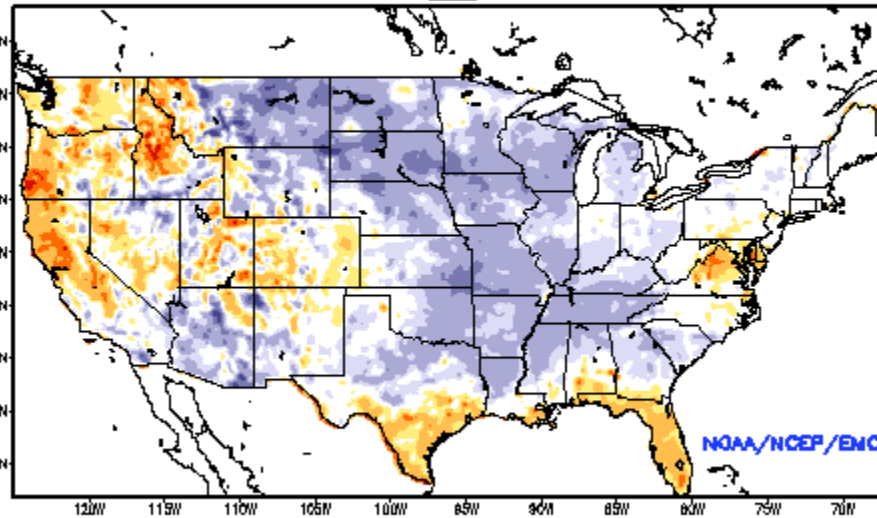
Generated 3/29/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Warmer than average (2-4 F) last 30 days.
- Still some days falling below freezing.
- Phenology ahead of average mostly everywhere.

Soil Moisture

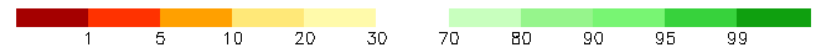
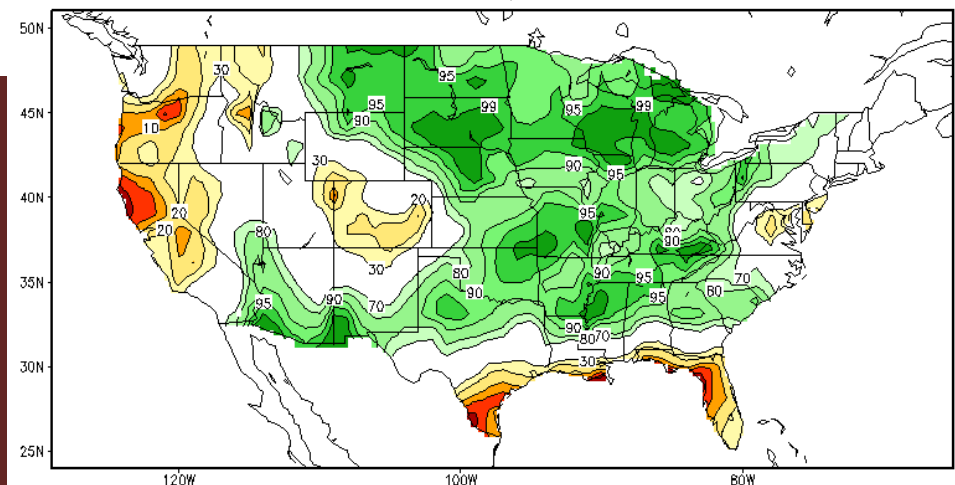
Ensemble-Mean - Current Total Column Soil Moisture Anomaly (mm)
NCEP NLDAS Products Valid: MAR 25, 2020



- Wetter than average everywhere (IA and Corn Belt).
- Varying levels of wetness.

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

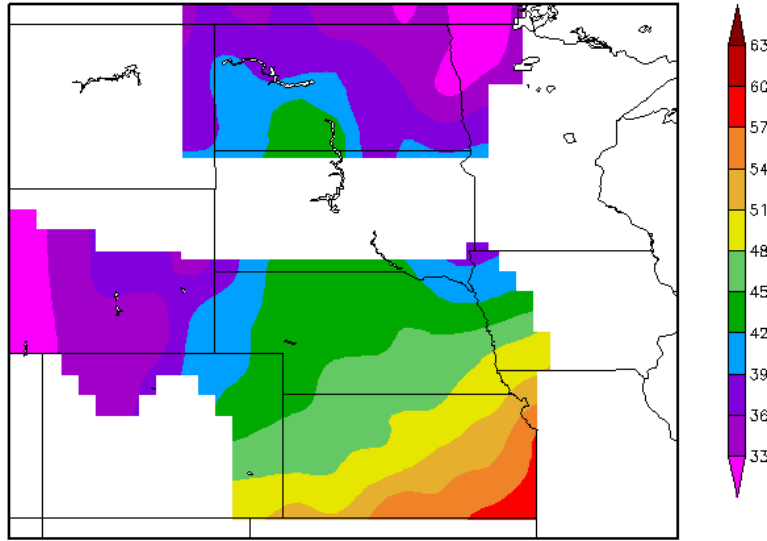
Calculated Soil Moisture Ranking Percentile
MAR 29, 2020



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

Soil Temperature

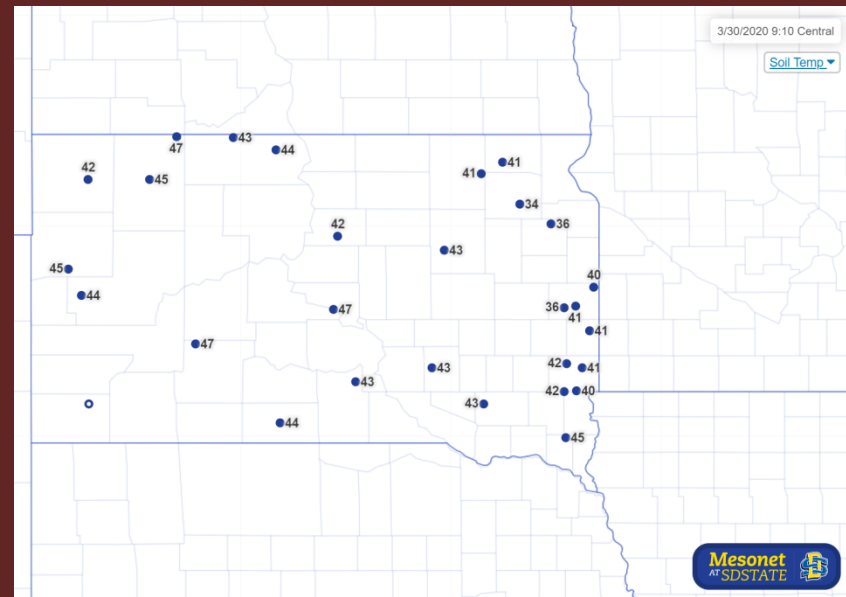
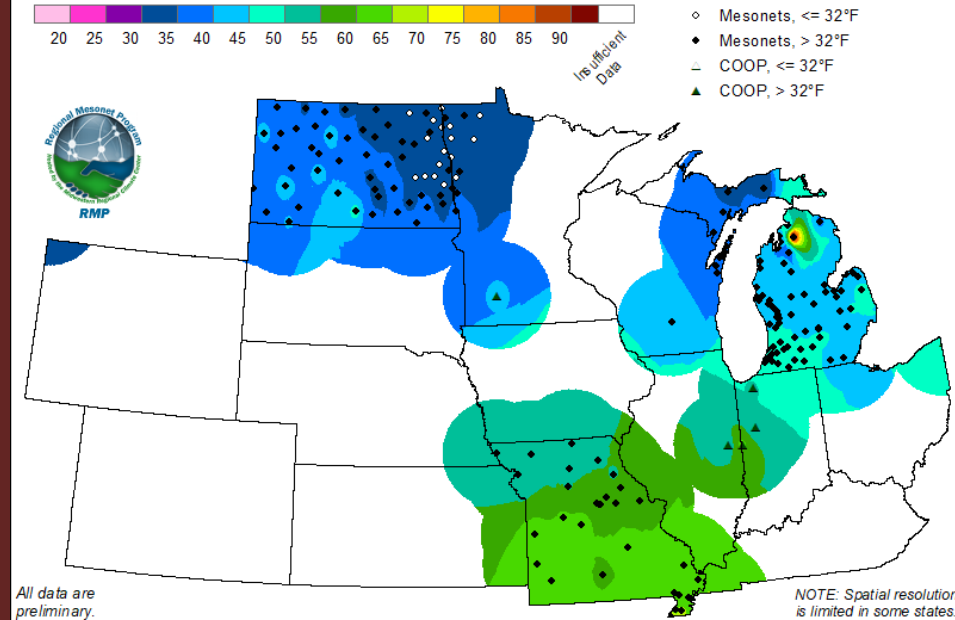
Soil Temperature (F at 4 inches)
3/29/2020 - 3/29/2020



High Plains Regional Climate Center
Generated 3/30/2020 using AWDN data.

4" Soil Temperature (°F) (Bare)

24-Hour Period Through 3/28/2020



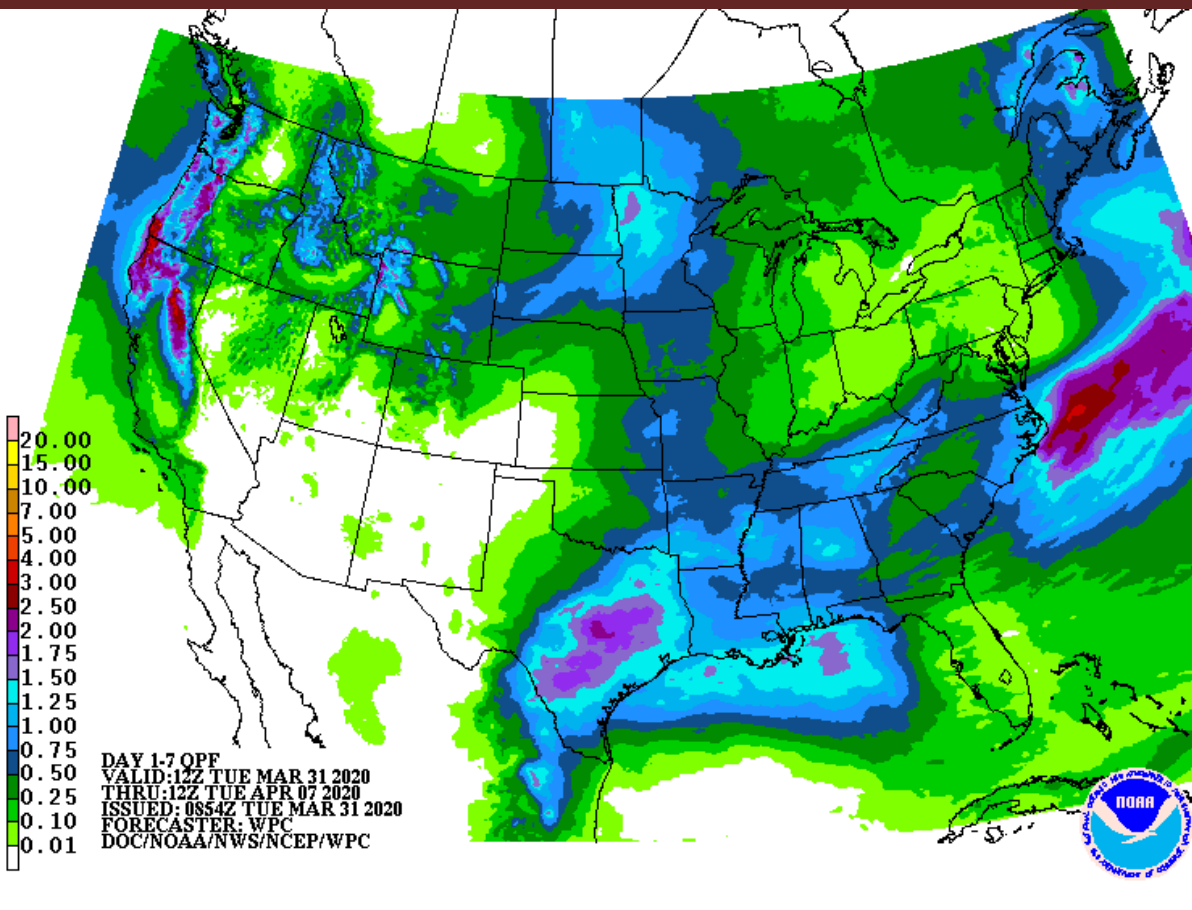
- Soils starting to warm regionally
- Still frozen in part ND
- KS-MO-IL around 50 F level.

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

Assorted AG Issues

- Wet soils everywhere (varying levels wetness)
- Some flooding occurring – potential exists for more
- What else?

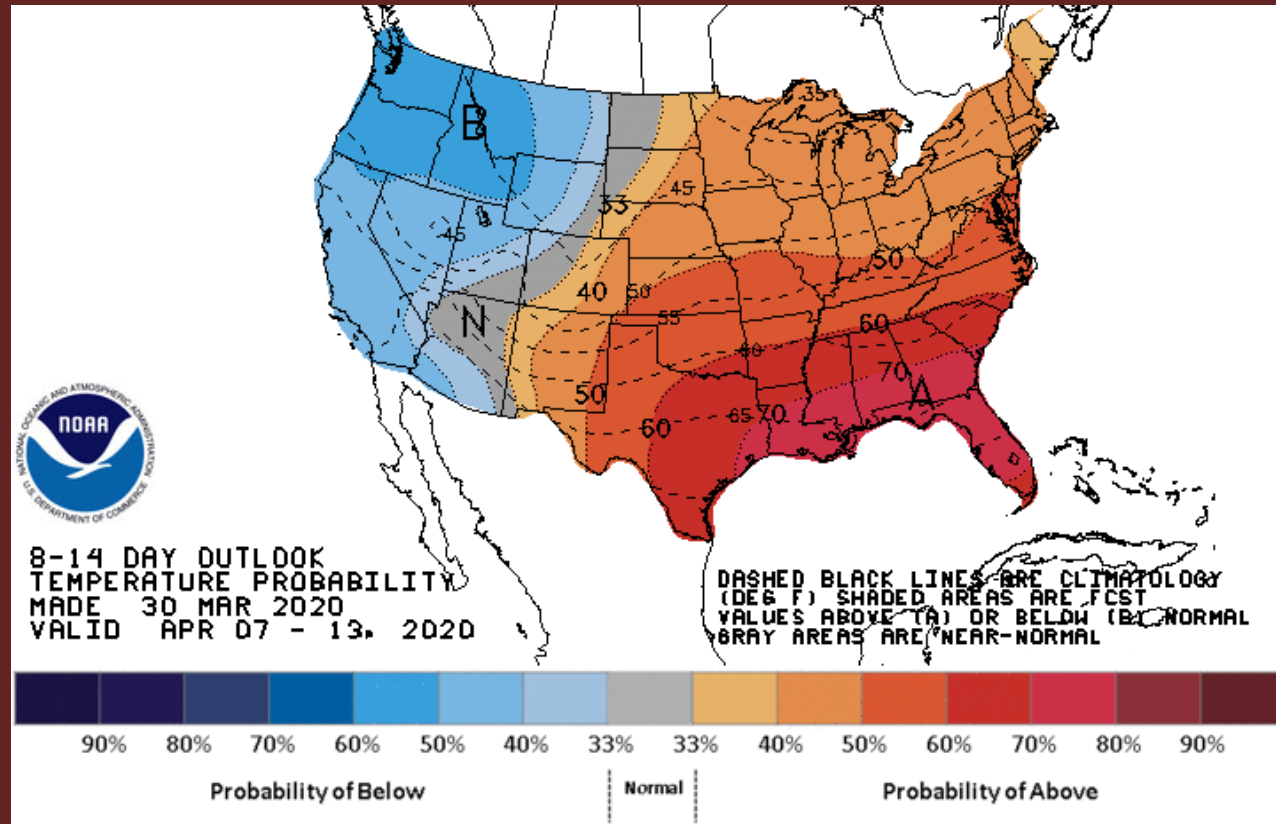
1-7 Day Precip



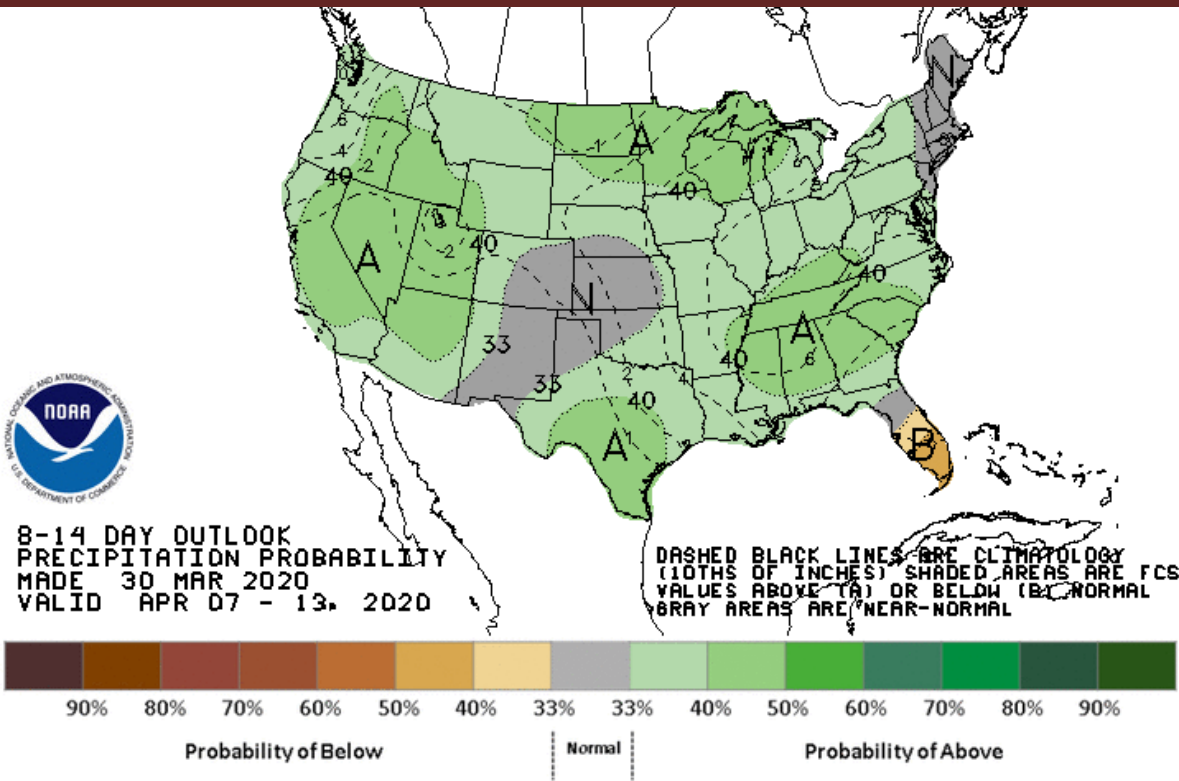
- Less precip eastern corn belt
- Heavier amounts MN- eastern Dakotas and KS-MO
- Up to 1.5" amounts possible these areas.
- Still not good news for wet soils.

Temperature Outlook

- Better news – warmer temps more likely whole area
- Big shift from weekend/latter week outlooks
- Would be beneficial to ag across region



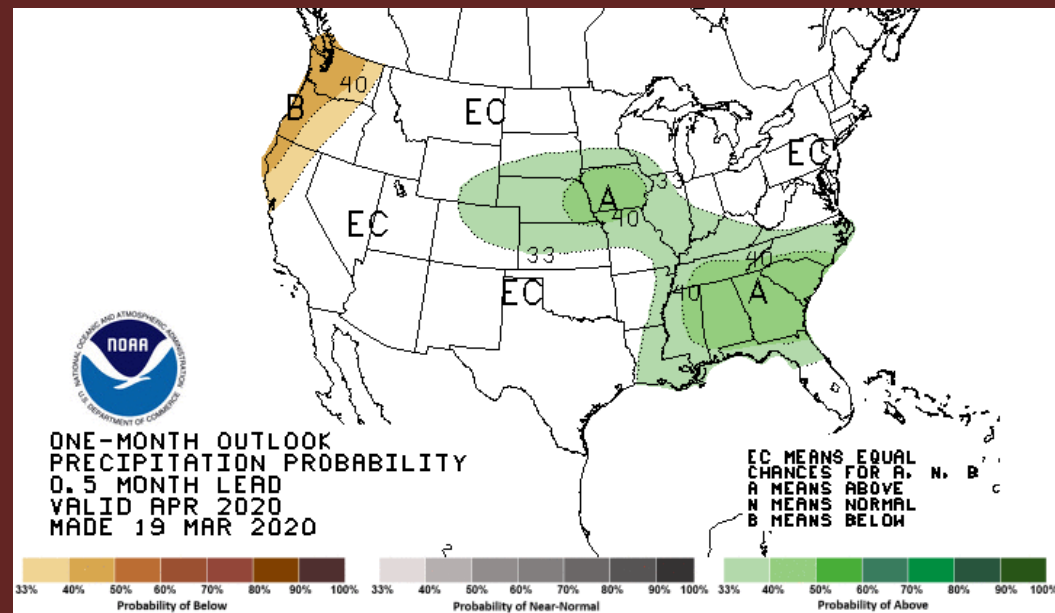
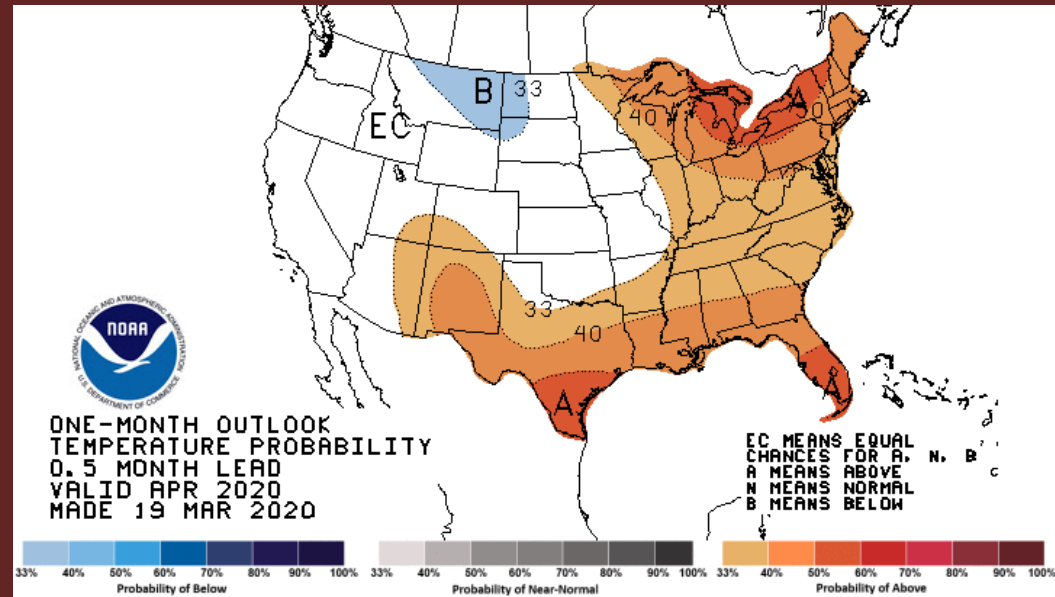
Precipitation Outlook



- Wetter conditions slightly more likely except for KS.
- Balance with warm conditions for impact on soils.
- Not as good news for ag

1-Month Outlook

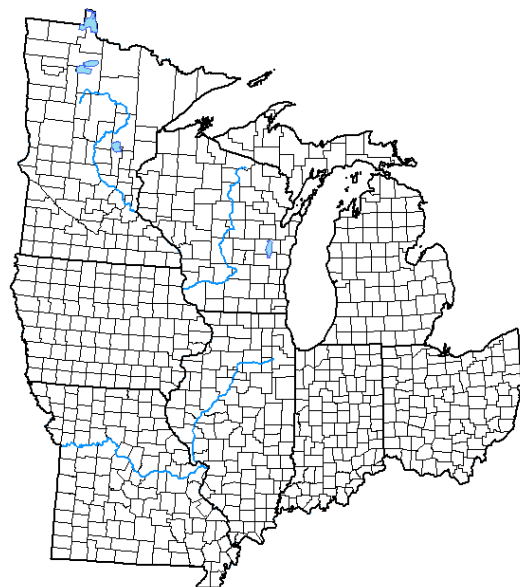
- Mid-month outlooks (will be updated sometime Tuesday – before Wednesday call).
- Current version warmer slightly more likely eastern and Great Lakes.
- Small chance cooler nrn plains
- Wetter more likely central Plains to central Corn Belt.



Drought in the Midwest

U.S. Drought Monitor

USDA Midwest Climate Hub



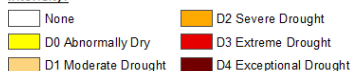
March 24, 2020

(Released Thursday, Mar. 26, 2020)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

| | None | D0-D4 | D1-D4 | D2-D4 | D3-D4 | D4 |
|--------------------------------------|--------|-------|-------|-------|-------|------|
| Current | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Last Week 03-17-2020 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3 Months Ago 12-24-2019 | 99.31 | 0.69 | 0.00 | 0.00 | 0.00 | 0.00 |
| Start of Calendar Year 12-31-2019 | 99.71 | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 |
| Start of Water Year 10-01-2019 | 80.58 | 19.42 | 4.98 | 0.39 | 0.00 | 0.00 |
| One Year Ago 03-26-2019 | 100.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Intensity:



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:

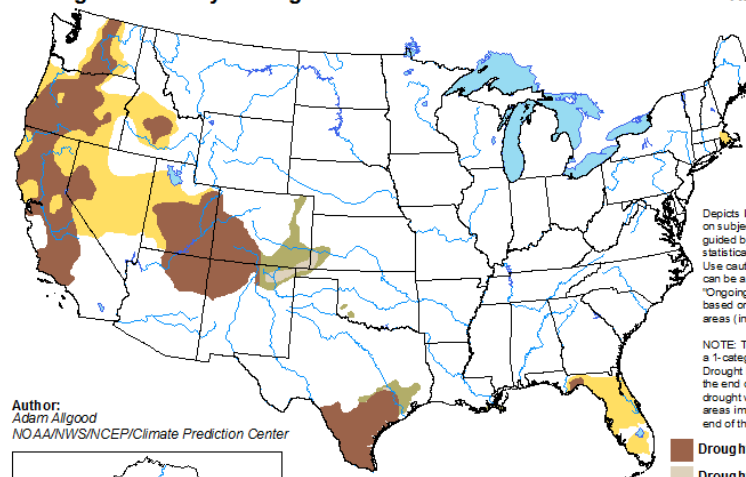
Brad Rippey
U.S. Department of Agriculture



droughtmonitor.unl.edu

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

Valid for March 19 - June 30, 2020
Released March 19

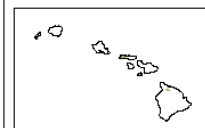
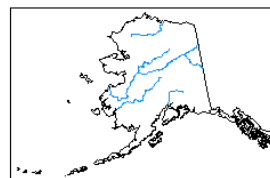


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to 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:
Adam Aligood
NOAA/NWS/NCEP/Climate Prediction Center



<http://go.usa.gov/3eZ73>

The Midwest has been completely free of drought early-November 2019 and has experienced no dryness (D0) since January 7, 2020. It was a wet week across the region, with rain changing to snow in Iowa and portions of neighboring states. In Sioux City, Iowa, March 19-20 featured precipitation totaling 1.60 inches and 3.8 inches of snow. Meanwhile, heavy rain fell from Missouri into the Ohio Valley.

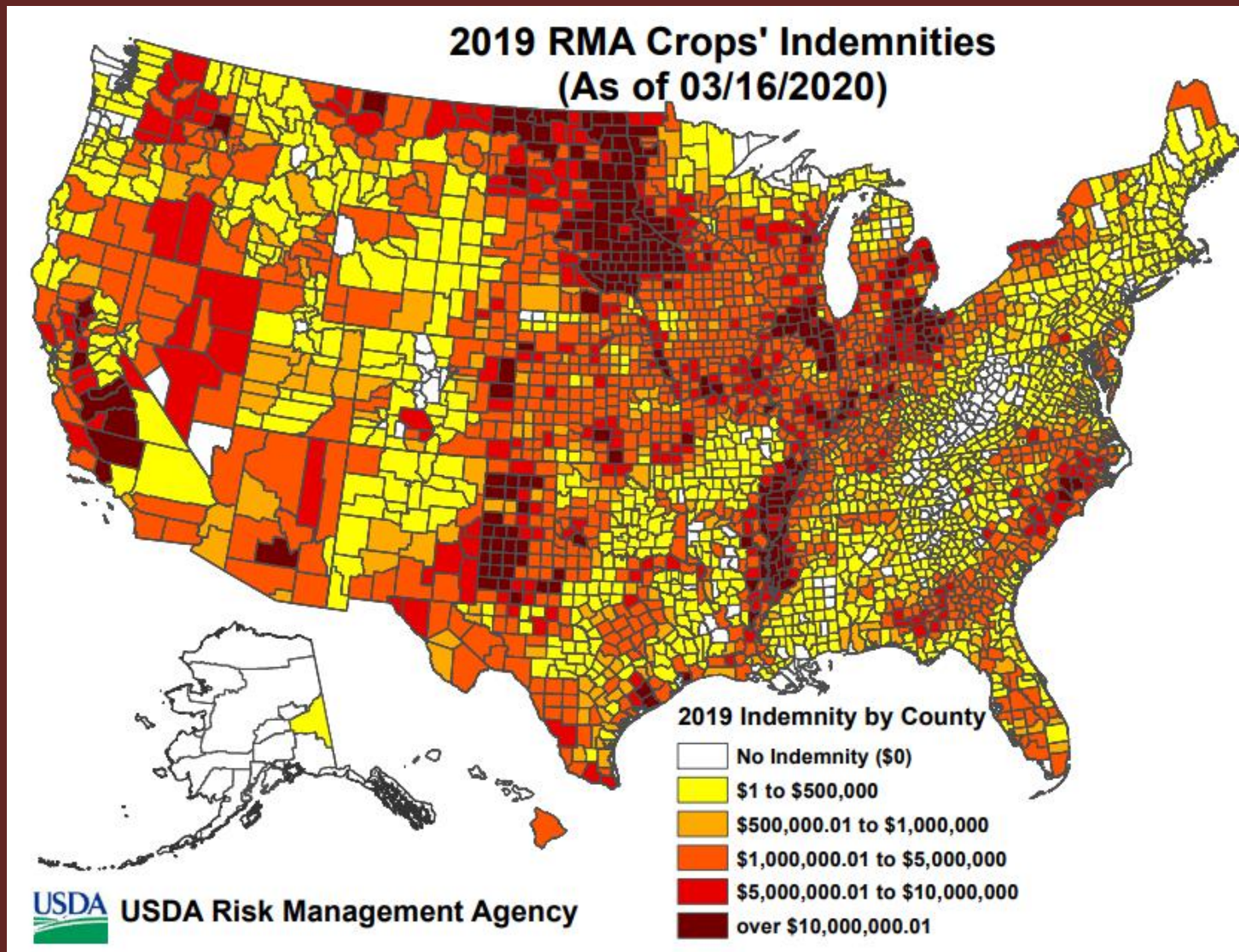
<http://droughtmonitor.unl.edu/>

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

Summary

- Limited late season snow welcomed – lesser problem with livestock issues compared to last year.
- Still getting widespread rainfalls (definite problem).
- All Corn Belt soils wetter than avg.
- Planting going to be an issue. Delays likely. How much is the question.
- Flooding definitely possible but again variable by location.

2019 Crop Indemnities



Next MAC-T Monthly Call

Next Call
May 6th, 2020