

MAC-T Monthly Call

Midwest Agriculture & Climate Team

1 May 2024

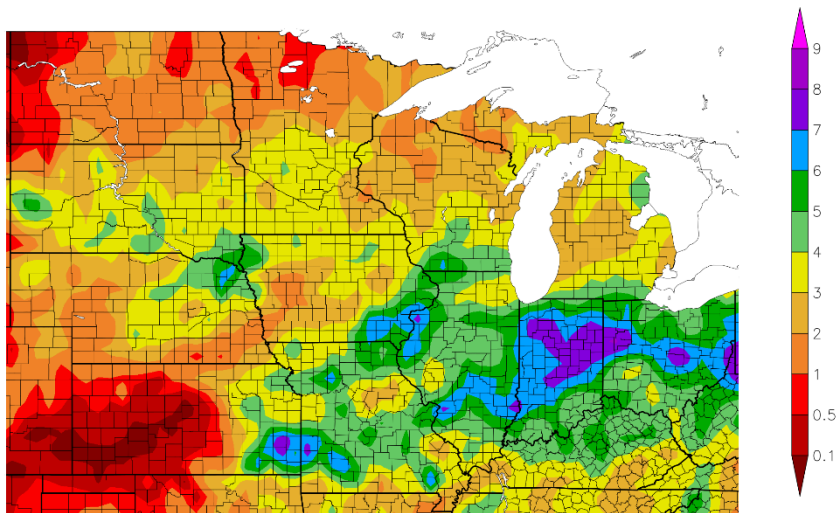
For more information:

Dennis.todey@usda.gov



Midwest Climate Hub
U.S. DEPARTMENT OF AGRICULTURE

Precipitation (in)
3/30/2024 – 4/28/2024



Monthly Precip

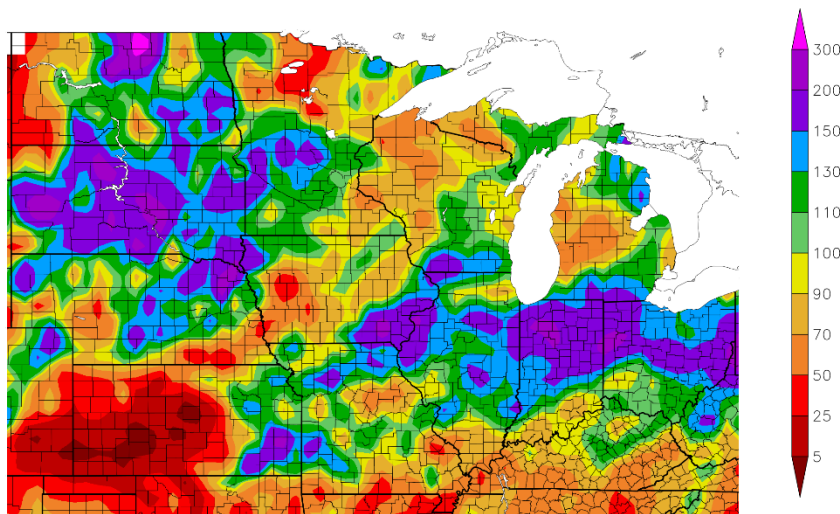
- Indiana and Ohio were the wettest states in the region.
 - Widespread totals that were >103% of average.
- Driest in KS and western ND (<1 widespread; <50% of average).
- Precip departure since January 1 is highest in the east and lowest to the south and west.

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

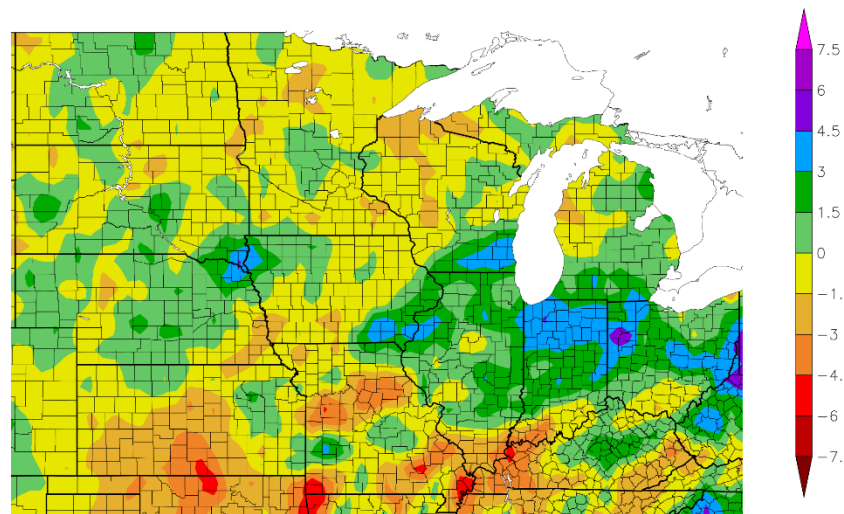
Generated 4/29/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Percent of Normal Precipitation (%)
3/30/2024 – 4/28/2024



Departure from Normal Precipitation (in)
1/1/2024 – 4/27/2024



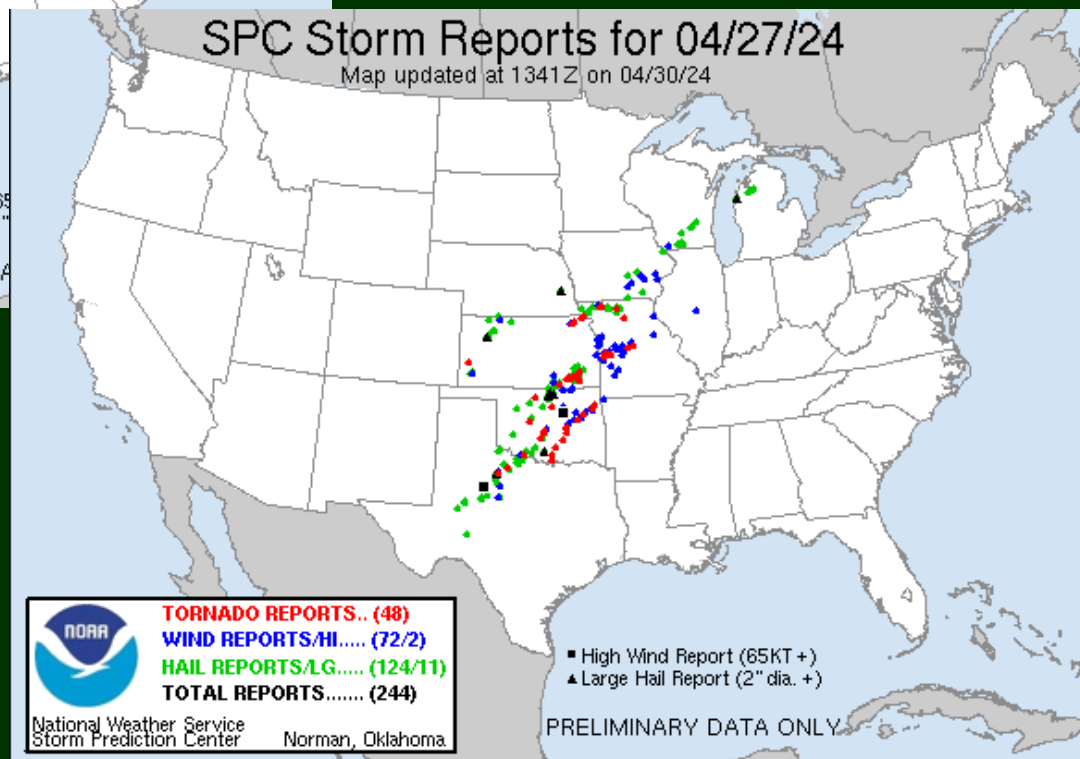
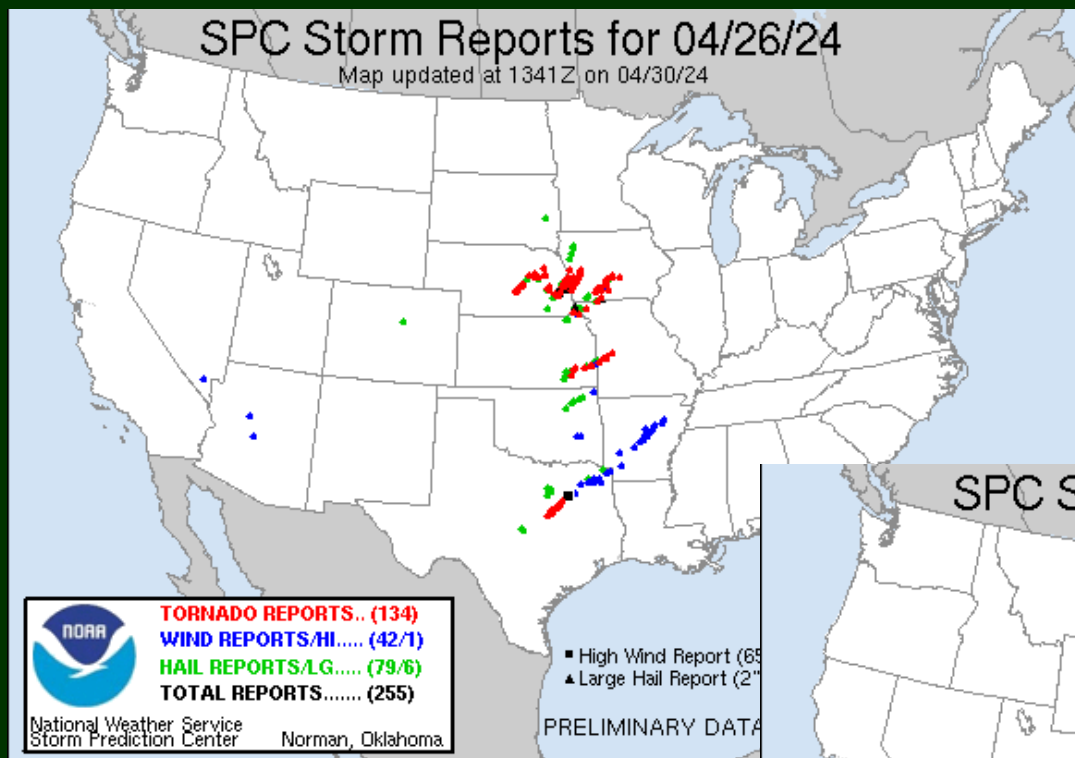
Generated 4/29/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Generated 4/28/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

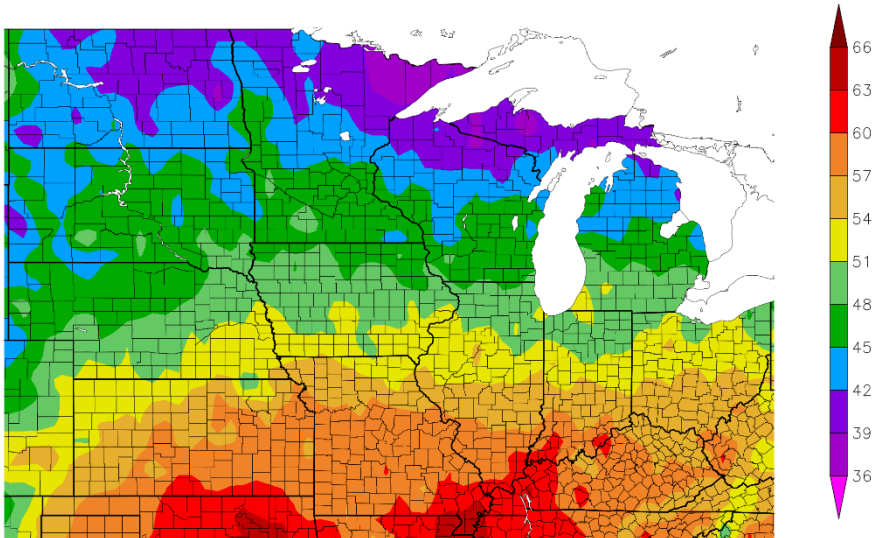
An Active Week-Severe Weather



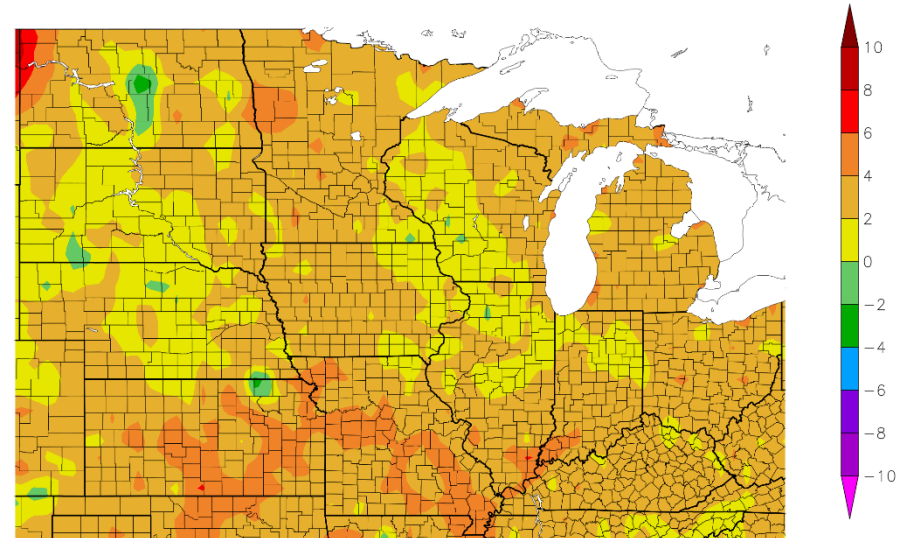
- Tornadoes, severe winds, and hail impacted several states late last week.

Monthly Temps

Temperature (F)
3/30/2024 – 4/28/2024



Departure from Normal Temperature (F)
3/30/2024 – 4/28/2024



Generated 4/29/2024 at HPRCC using provisional data.

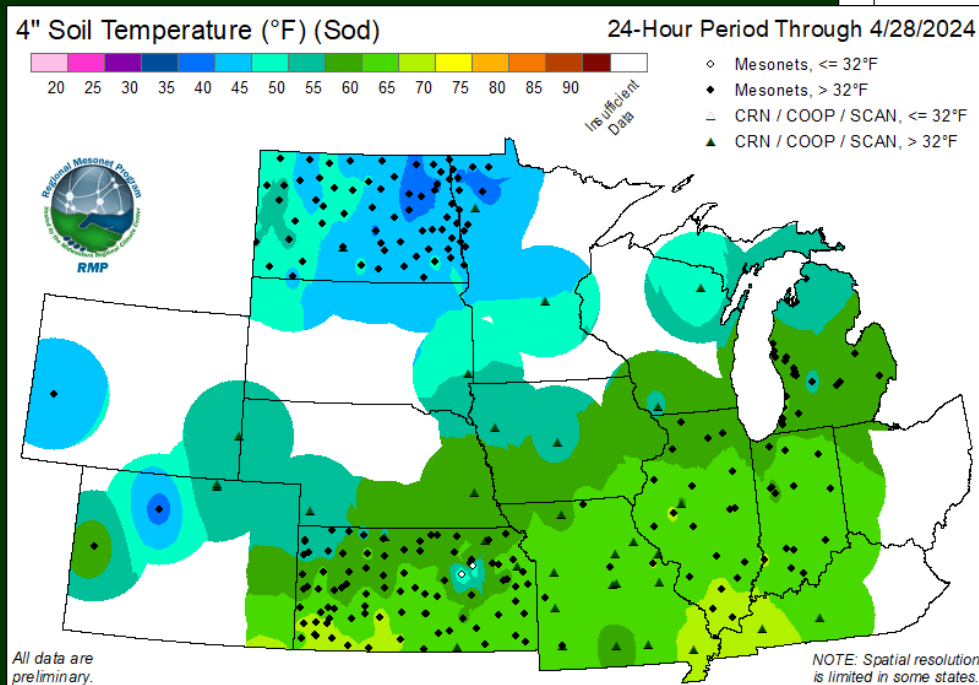
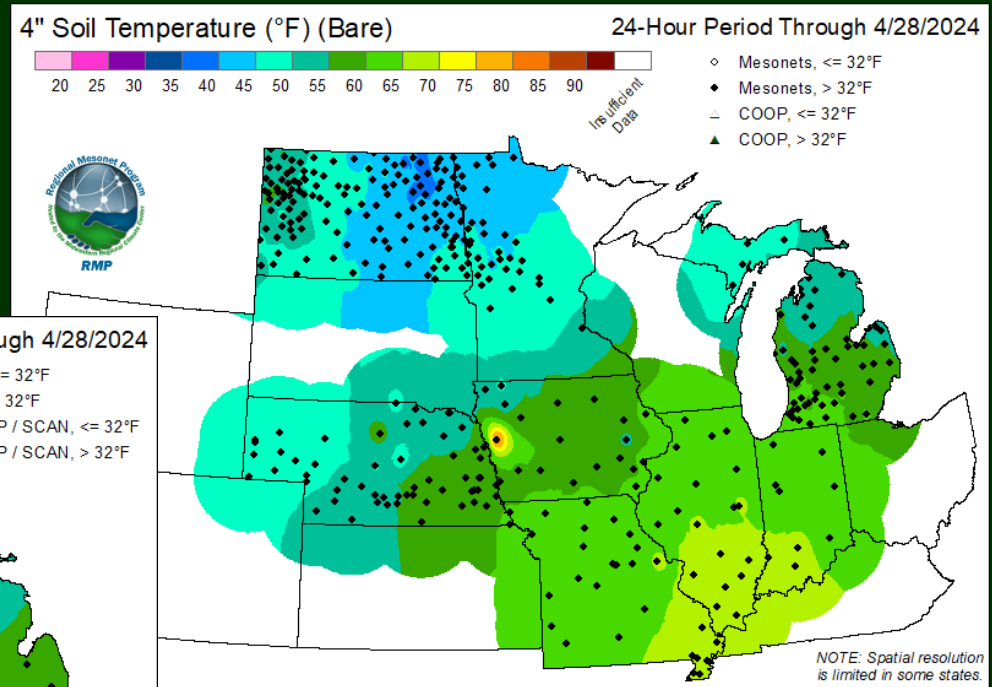
NOA Regional Climate Centers

Generated 4/29/2024 at HPRCC using provisional data.

NOA Regional Climate Centers

- Near or above-average temps region-wide
 - 2-4°F above normal for most
 - Coldest along Lake Superior (high 30s to low 40s)
 - Warmest in the far south (high 50s to low 60s)

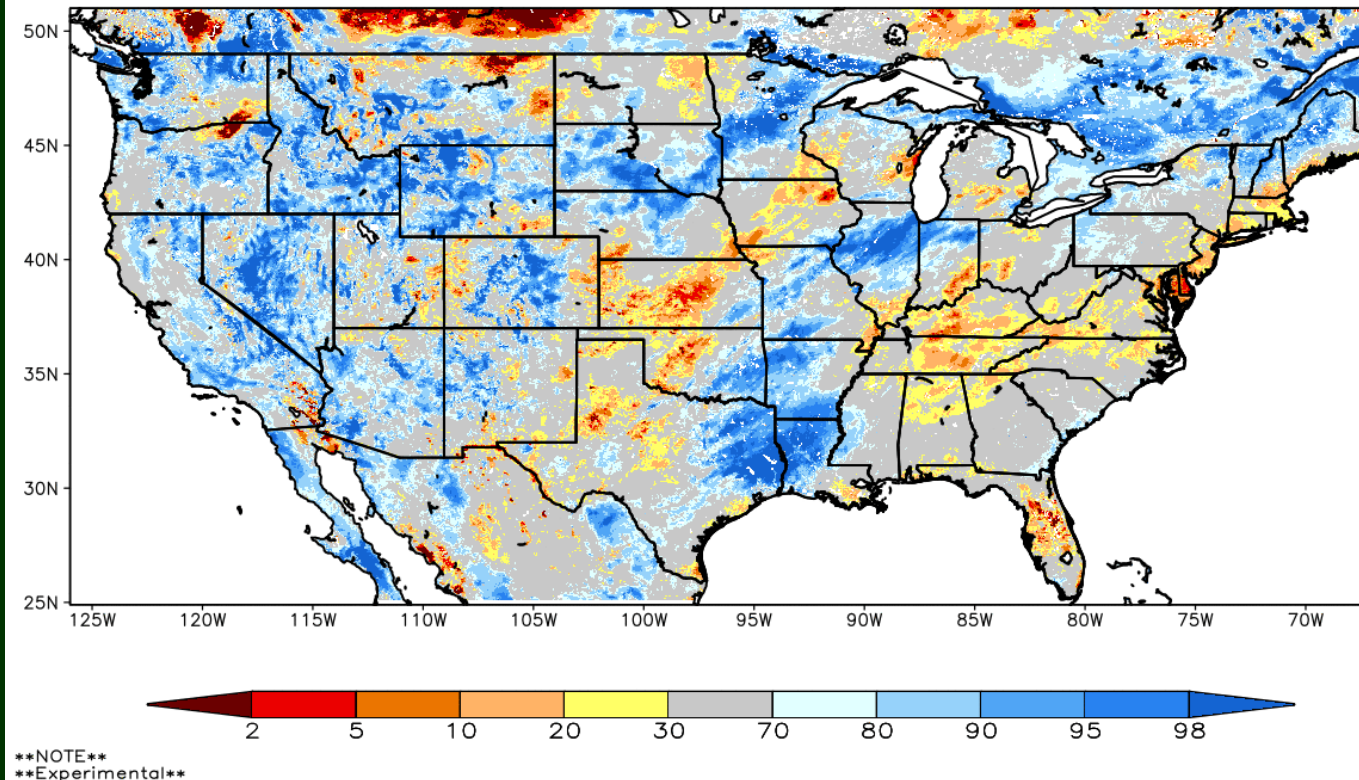
Soil Temps



- Range from 65-70°F in the S to 35-40°F in the N

Soil Moisture

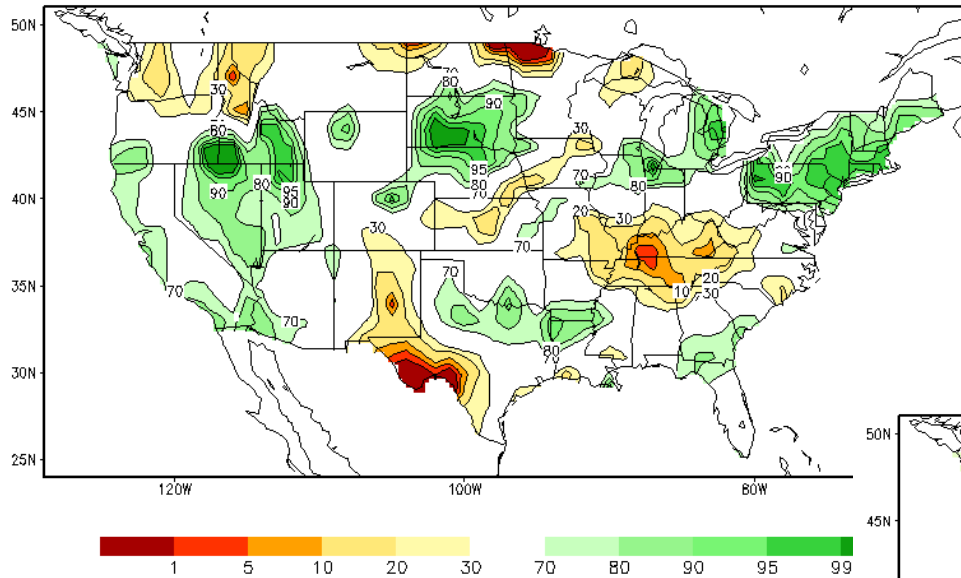
SPoRT-LIS 0-100 cm Soil Moisture percentile valid 30 Apr 2024



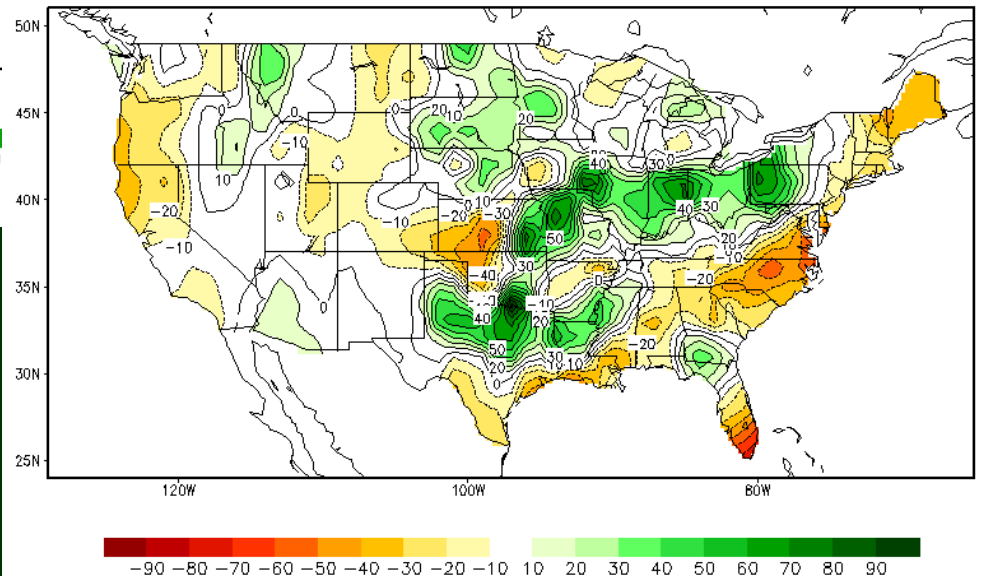
- Higher moisture levels across IL/IN, MN, and SD/Northern NE.
- Dryness remains in parts of IA & KS.

Soil Moisture

Calculated Soil Moisture Ranking Percentile
APR 29, 2024



Calculated Soil Moisture Anomaly Change
APR 29, 2024 from MAR.31



- Improvement in conditions for several states with the rainfall over the past few weeks.

NASS Subsoil Moisture

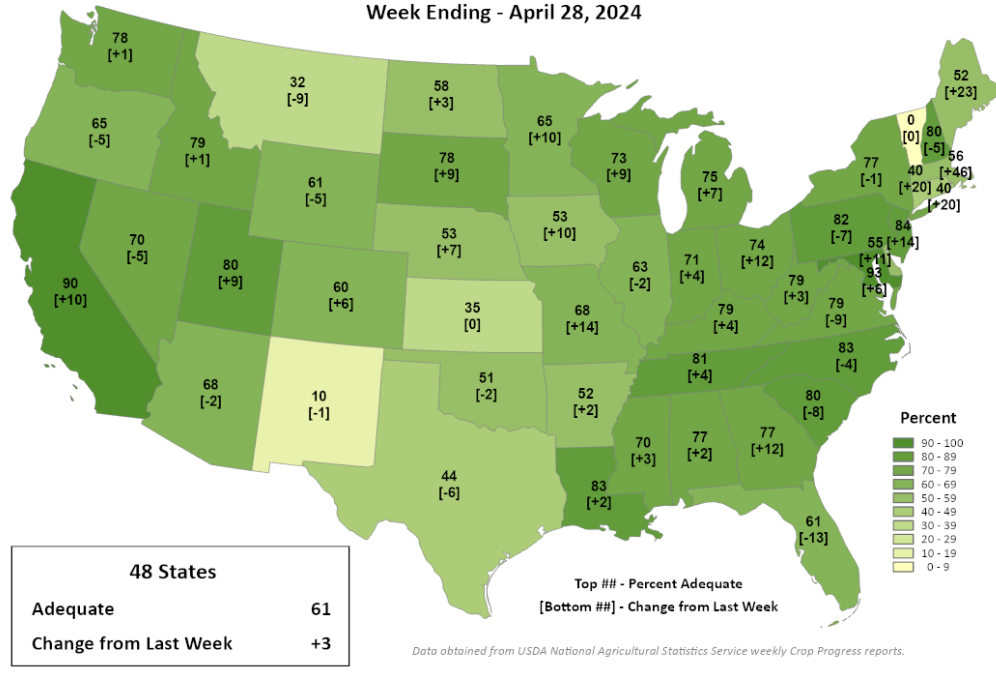


This product was prepared by the
USDA Office of the Chief Economist (OCE)
World Agricultural Outlook Board (WAOB)

Subsoil Moisture

Percent Adequate

Week Ending - April 28, 2024



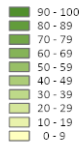
48 States

Adequate 61
Change from Last Week +3

Top ## - Percent Adequate
Bottom ## - Change from Last Week

Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.

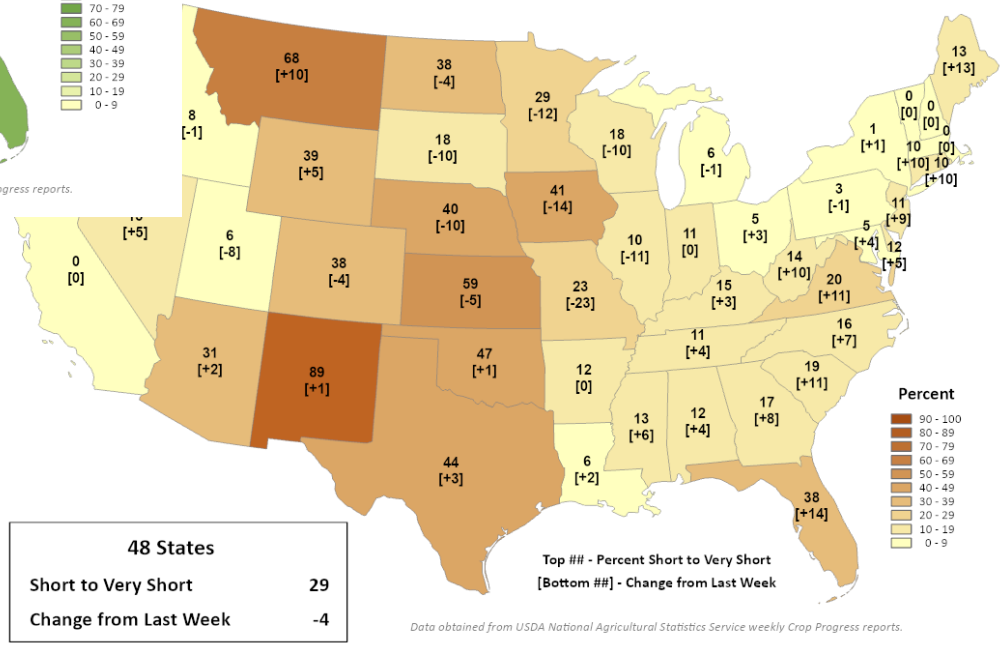
Percent



Subsoil Moisture

Percent Short to Very Short

Week Ending - April 28, 2024



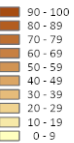
48 States

Short to Very Short 29
Change from Last Week -4

Top ## - Percent Short to Very Short
Bottom ## - Change from Last Week

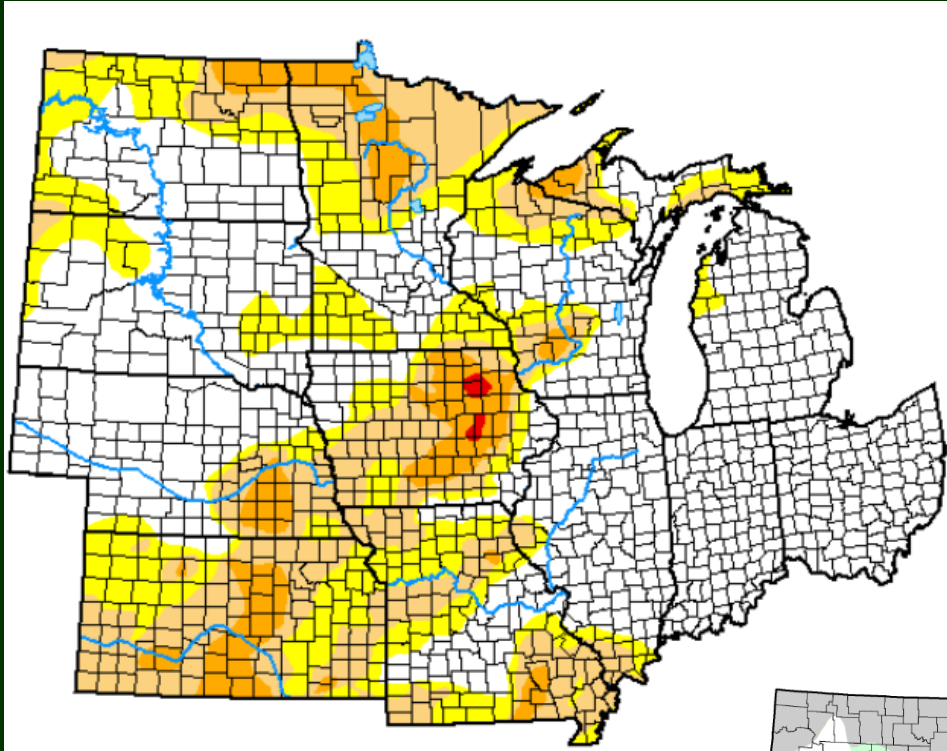
Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.

Percent



- Improvement in conditions for several states with the rainfall over the past few weeks.

US Drought Monitor



April 23, 2024
 (Released Thursday, Apr. 25, 2024)
 Valid 8 a.m. EDT

Drought Conditions (Percent Area)

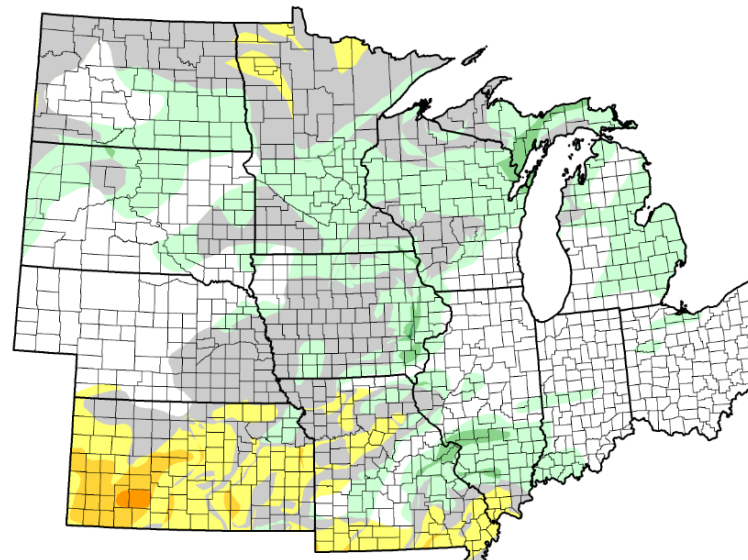
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	54.29	45.71	25.76	7.07	0.20	0.00
Last Week 04-16-2024	46.38	53.62	26.40	6.14	0.55	0.00
3 Months Ago 01-23-2024	40.85	59.15	29.07	10.79	1.85	0.00
Start of Calendar Year 01-02-2024	37.52	62.48	38.54	16.91	3.77	0.02
Start of Water Year 09-26-2023	25.87	74.13	49.98	25.16	7.67	0.73
One Year Ago 04-25-2023	54.94	45.06	27.16	16.34	11.17	5.65

Intensity:

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

- Drought remains an issue, with pockets of D3-level drought remaining in IA.
- Regional improvements of 1-2 classes where April precip was higher-than-average.

**4/23/24
 compared to
 3/26/24**



Dark Brown	5 Class Degradation
Brown	4 Class Degradation
Orange	3 Class Degradation
Yellow-Orange	2 Class Degradation
Yellow	1 Class Degradation
Grey	No Change
Light Green	1 Class Improvement
Green	2 Class Improvement
Dark Green	3 Class Improvement
Teal	4 Class Improvement
Dark Blue	5 Class Improvement

Assorted Ag Issues

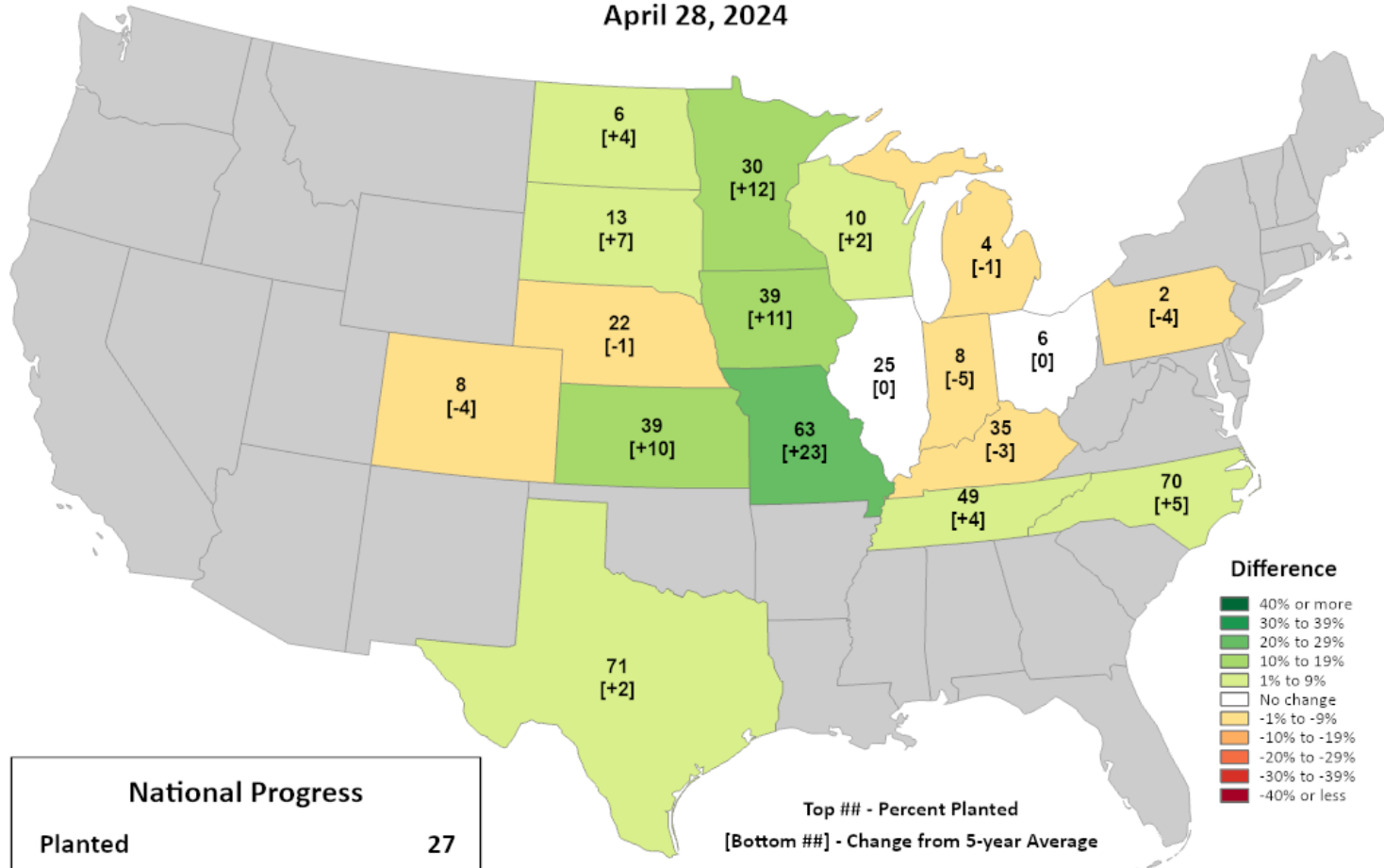
- Early planting progress has slowed with recent precipitation.
- Some excess precip/wet soils in places
- Some isolated ag damage from severe weather

Crop Progress - Corn



This product was prepared by the
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World Agricultural Outlook Board (WAOB)

Corn Progress Percent Planted April 28, 2024



Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.

Crop Progress - Soybean

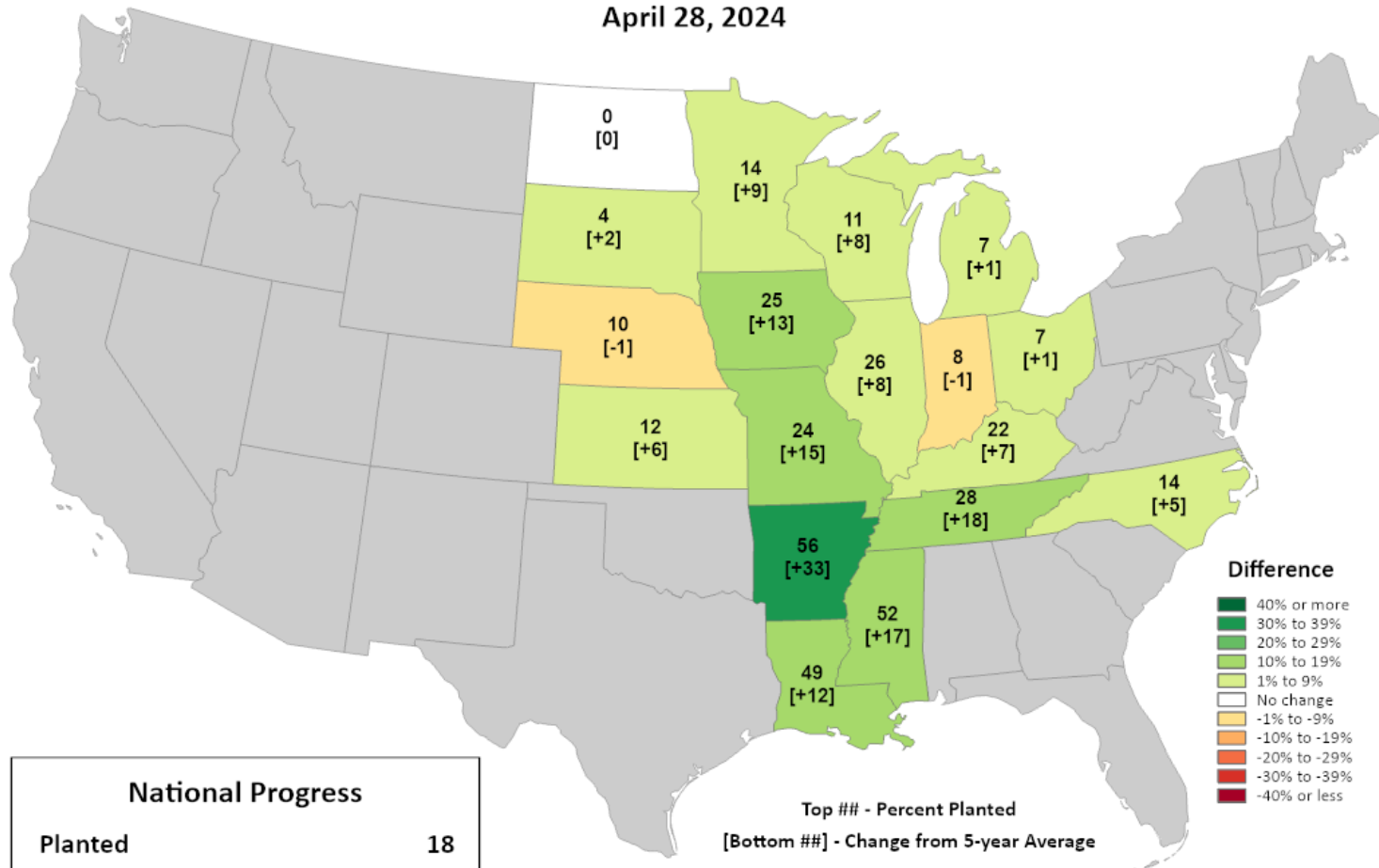


This product was prepared by the
USDA Office of the Chief Economist (OCE)
World Agricultural Outlook Board (WAOB)

Soybeans Progress

Percent Planted

April 28, 2024



Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.

Crop Progress - Oats

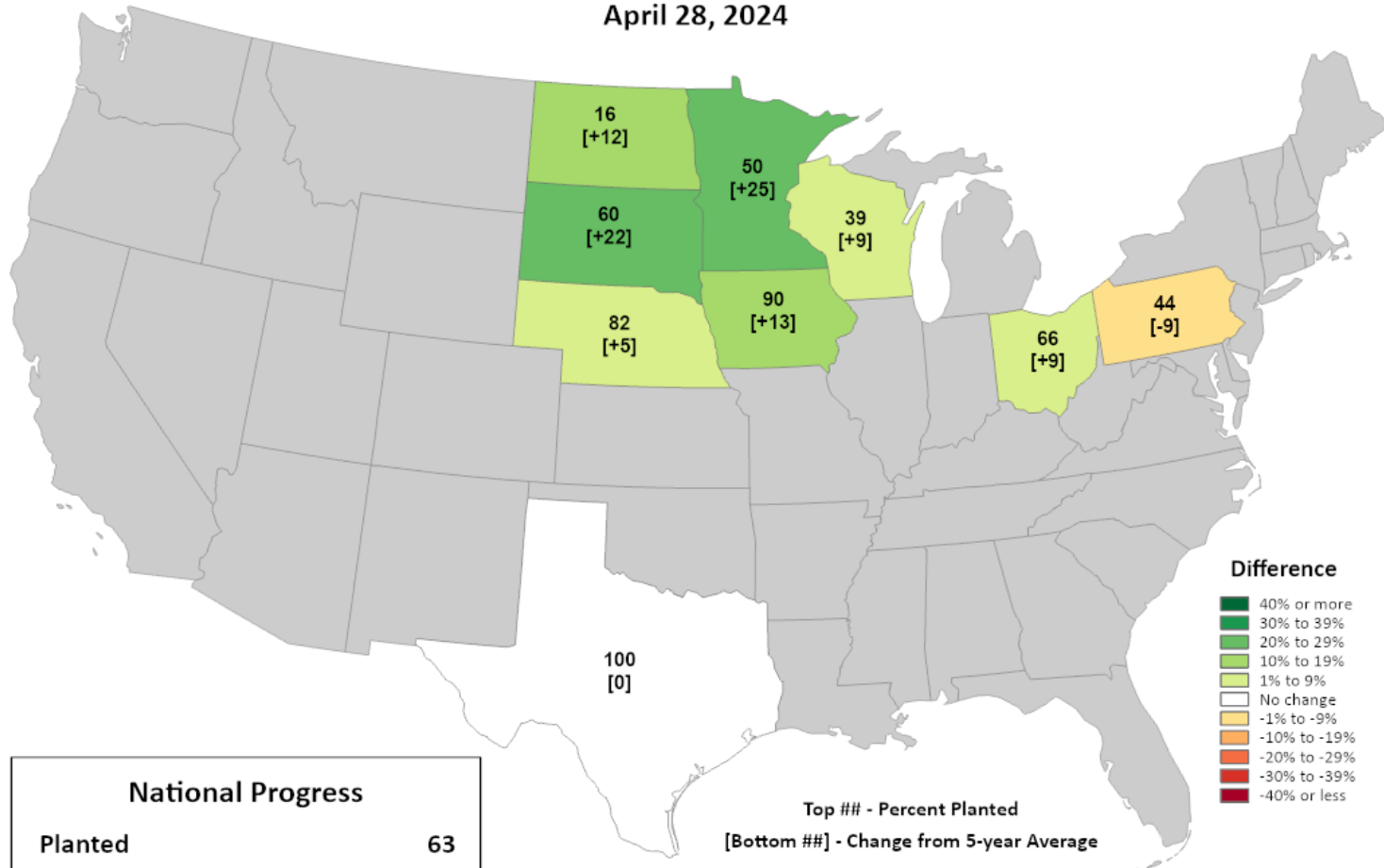


This product was prepared by the
USDA Office of the Chief Economist (OCE)
World Agricultural Outlook Board (WAOB)

Oats Progress

Percent Planted

April 28, 2024



Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.

Crop Condition – W. Wheat

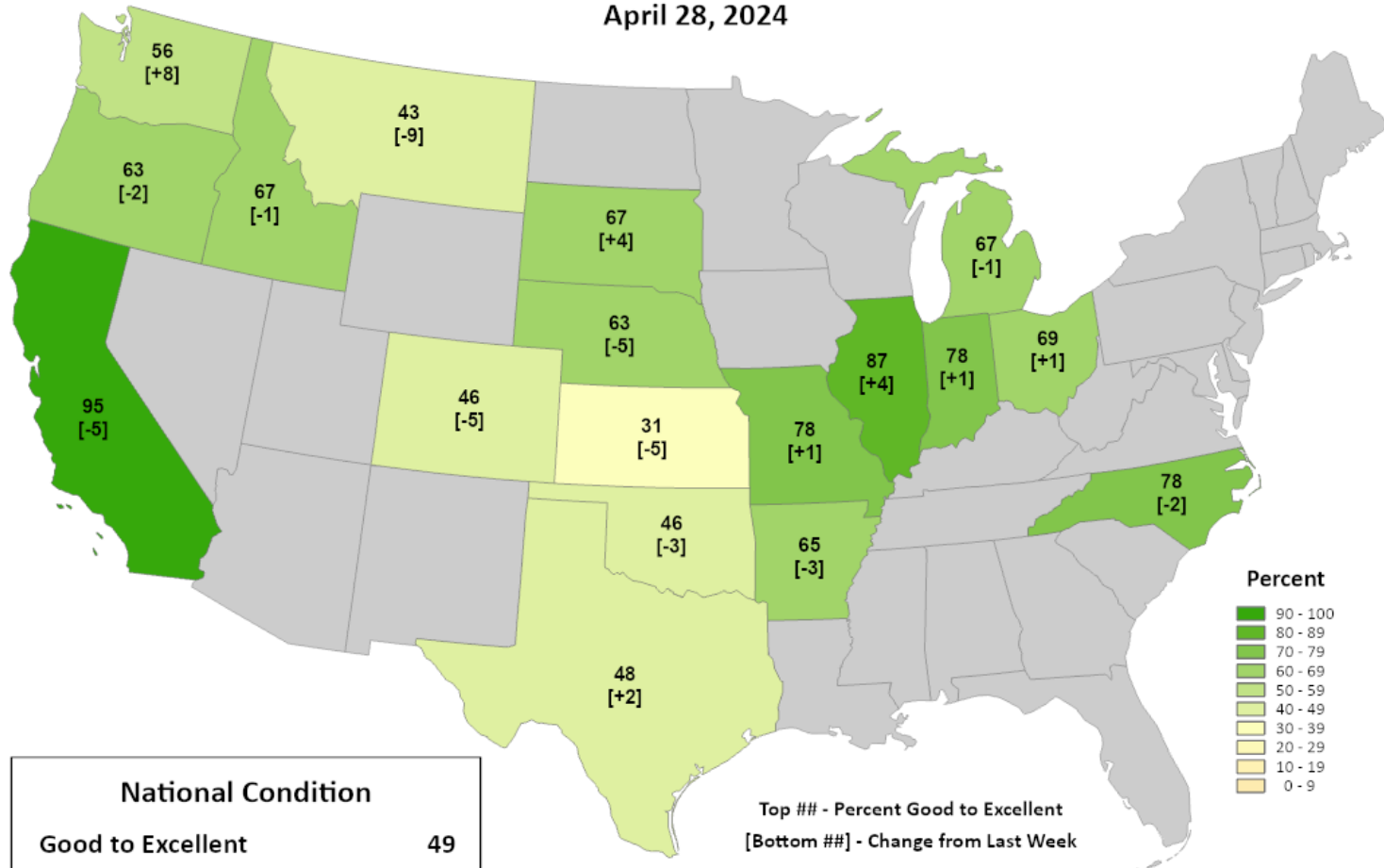


This product was prepared by the
 USDA Office of the Chief Economist (OCE)
 World Agricultural Outlook Board (WAOB)

Winter Wheat Conditions

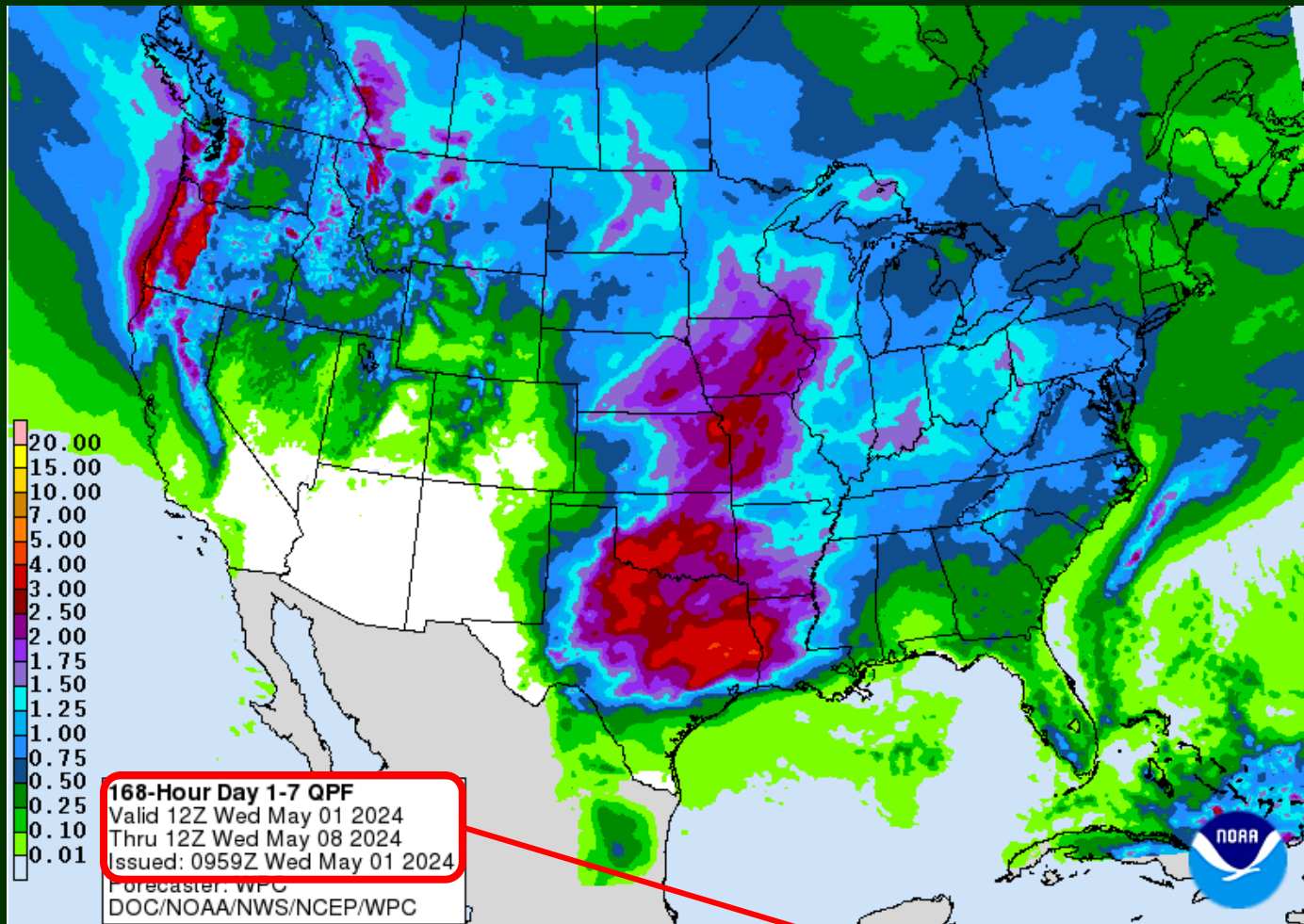
Percent Good to Excellent

April 28, 2024



Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.

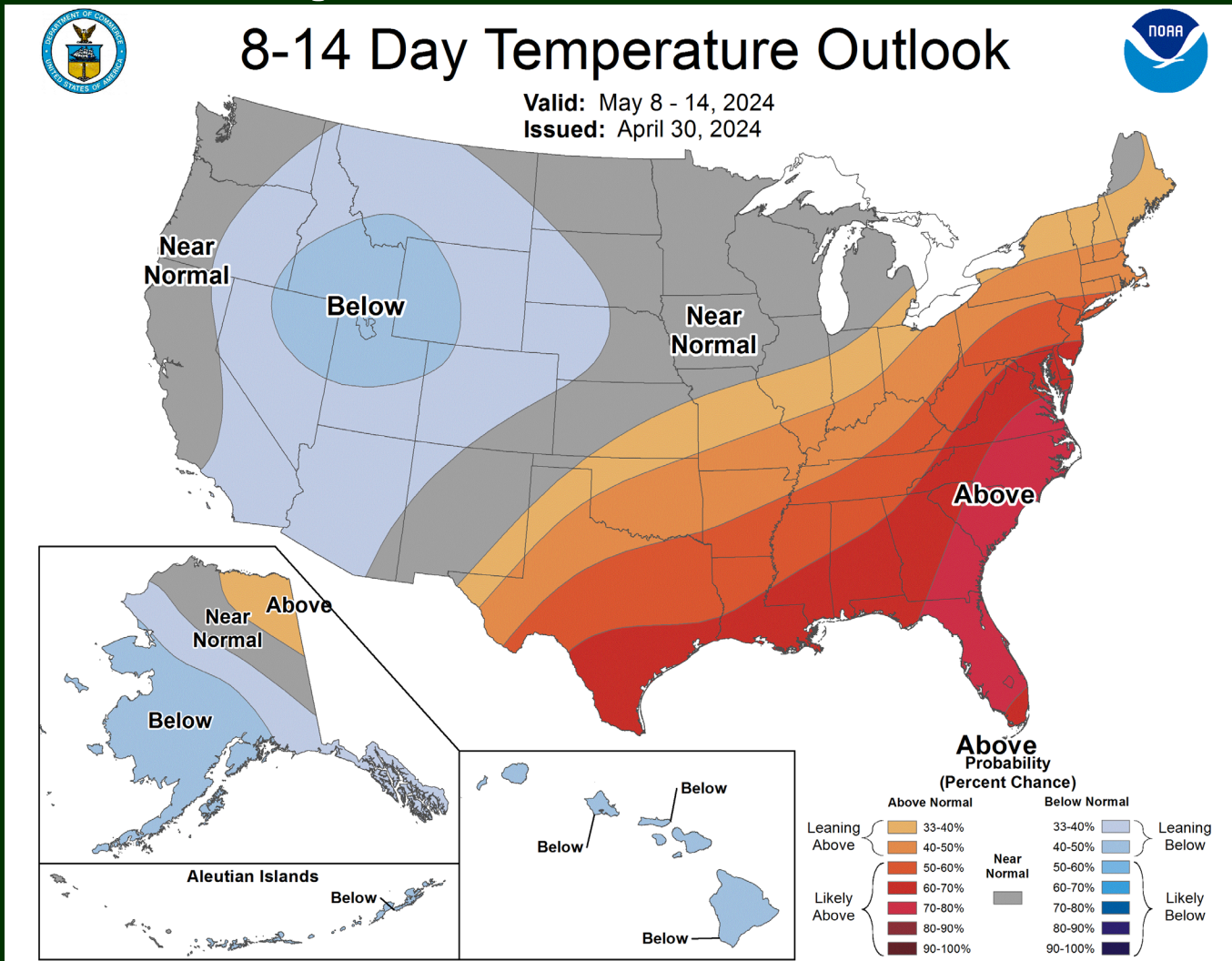
1-7 Day Precip Forecast



- The active pattern is forecasted to continue.
- Rain chances exist region-wide.
- 7-day totals of 2-3" or more are possible along the I-35 corridor.

Forecast for 4/30/24 thru 5/7/24
(12Z = 7am CDT)

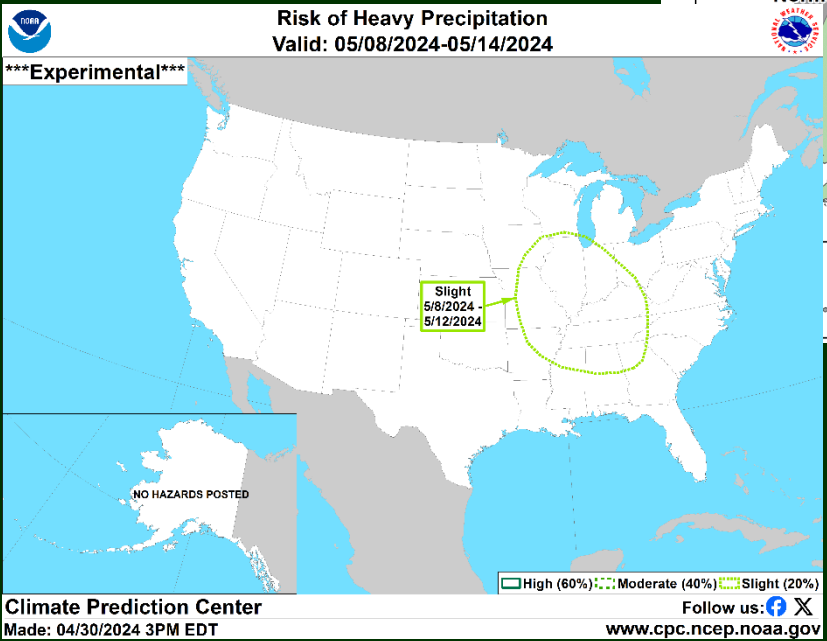
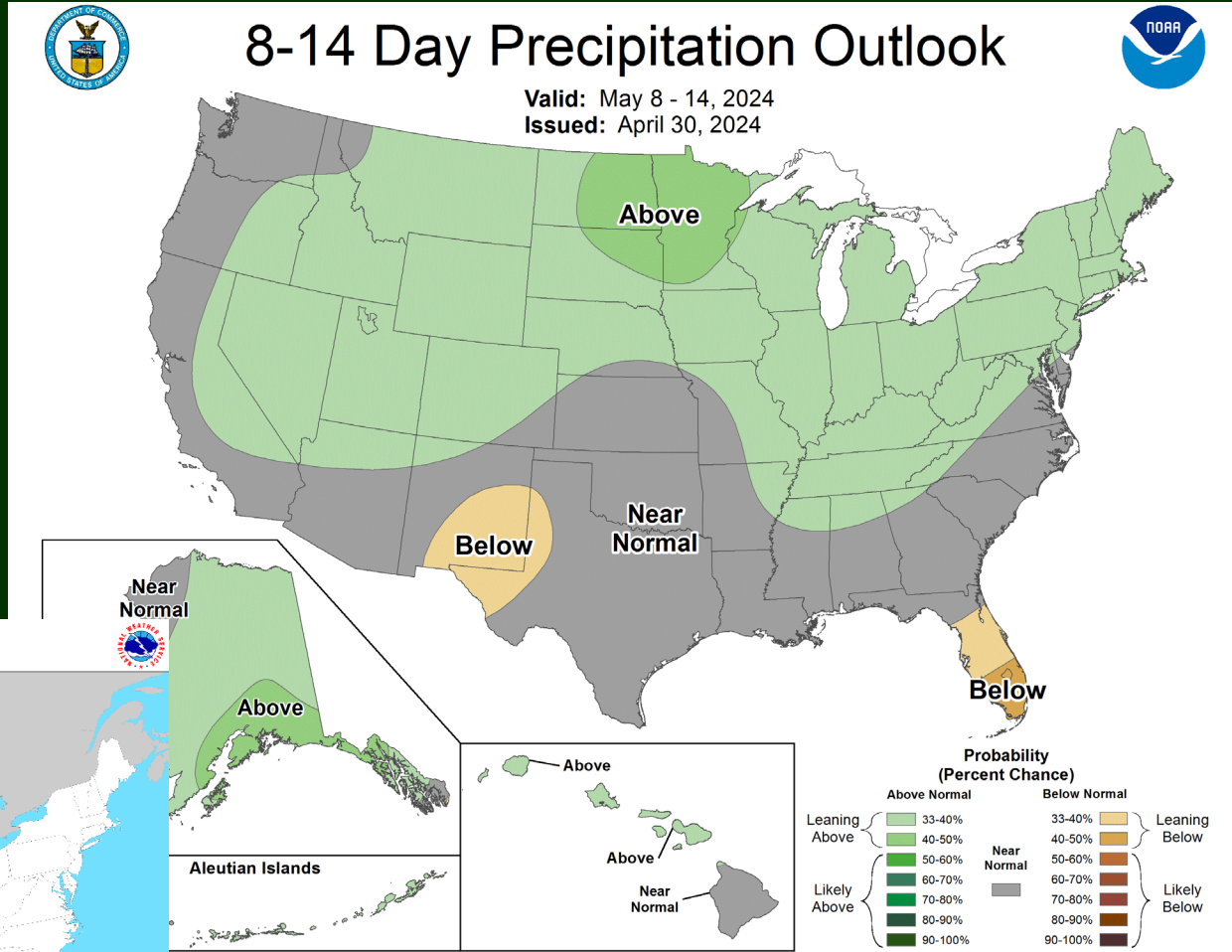
Temperature Outlook



- Temperatures probabilities leaning above average far southeast.
- Near normal for much of the region.

Precipitation Outlook

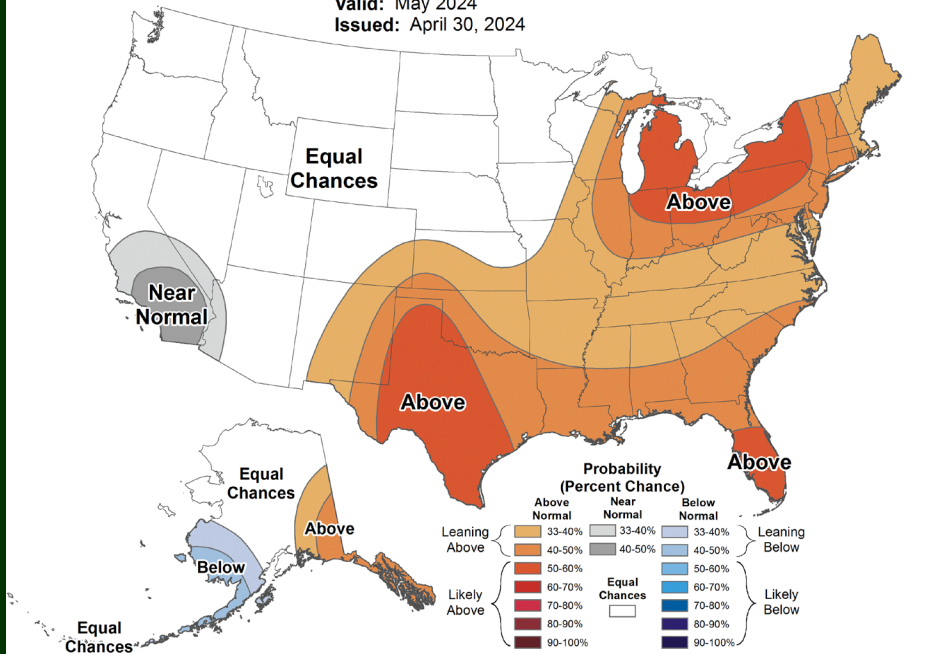
- Leaning towards above normal precipitation for most of us.
- Near normal for KS.
- Slight risk of heavy precipitation exists for next week Ohio Valley.



1-Month Outlook

Monthly Temperature Outlook

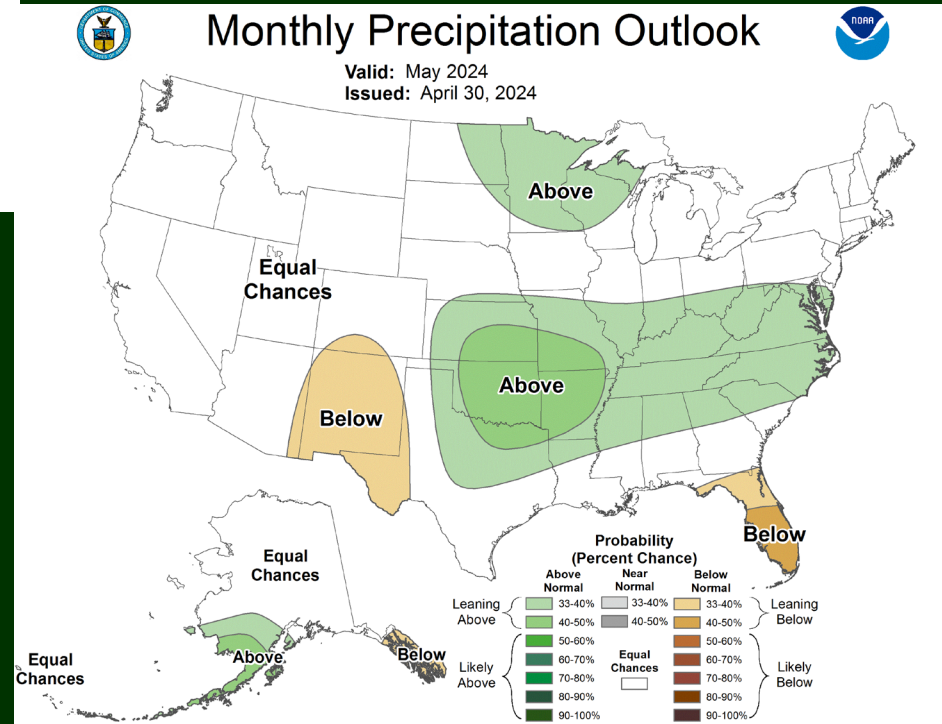
Valid: May 2024
 Issued: April 30, 2024



- Likely above normal temps in the Great Lakes region and leaning above normal east of the Dakotas.
- Leaning towards above normal precip in the south and central Plains. Equal chances elsewhere.

Monthly Precipitation Outlook

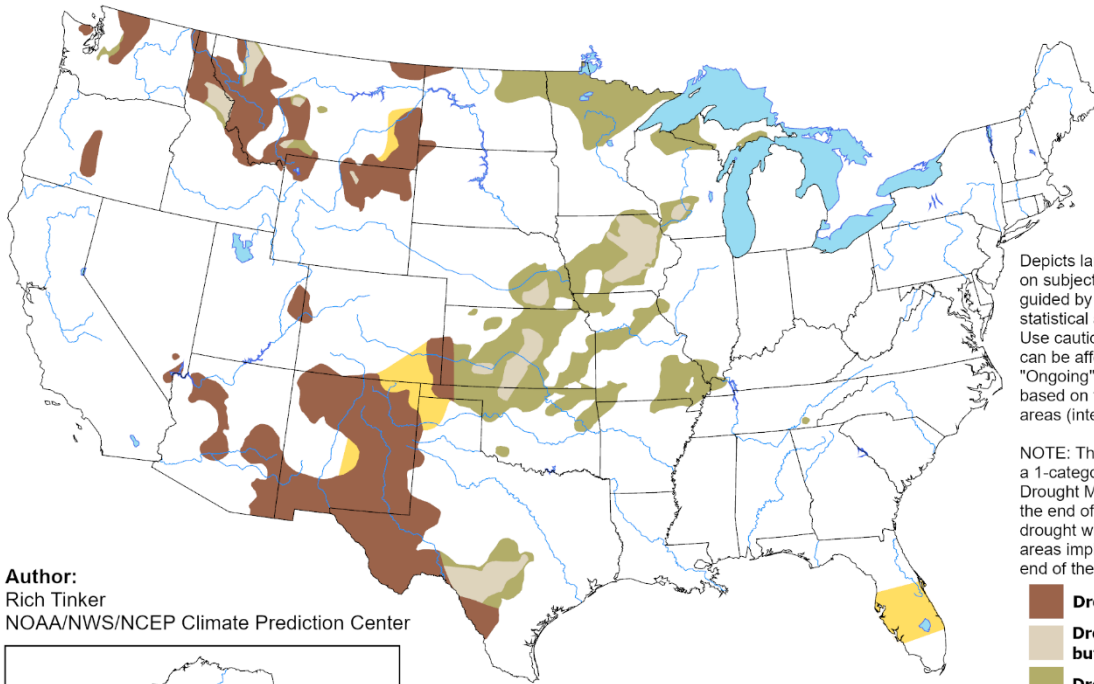
Valid: May 2024
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Drought in the Midwest/Plains

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

Valid for May 2024
Released April 30, 2024

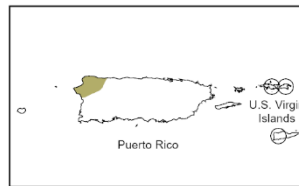
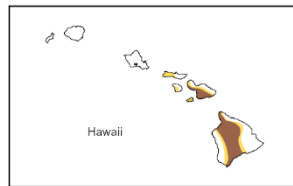


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to 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
- No drought

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



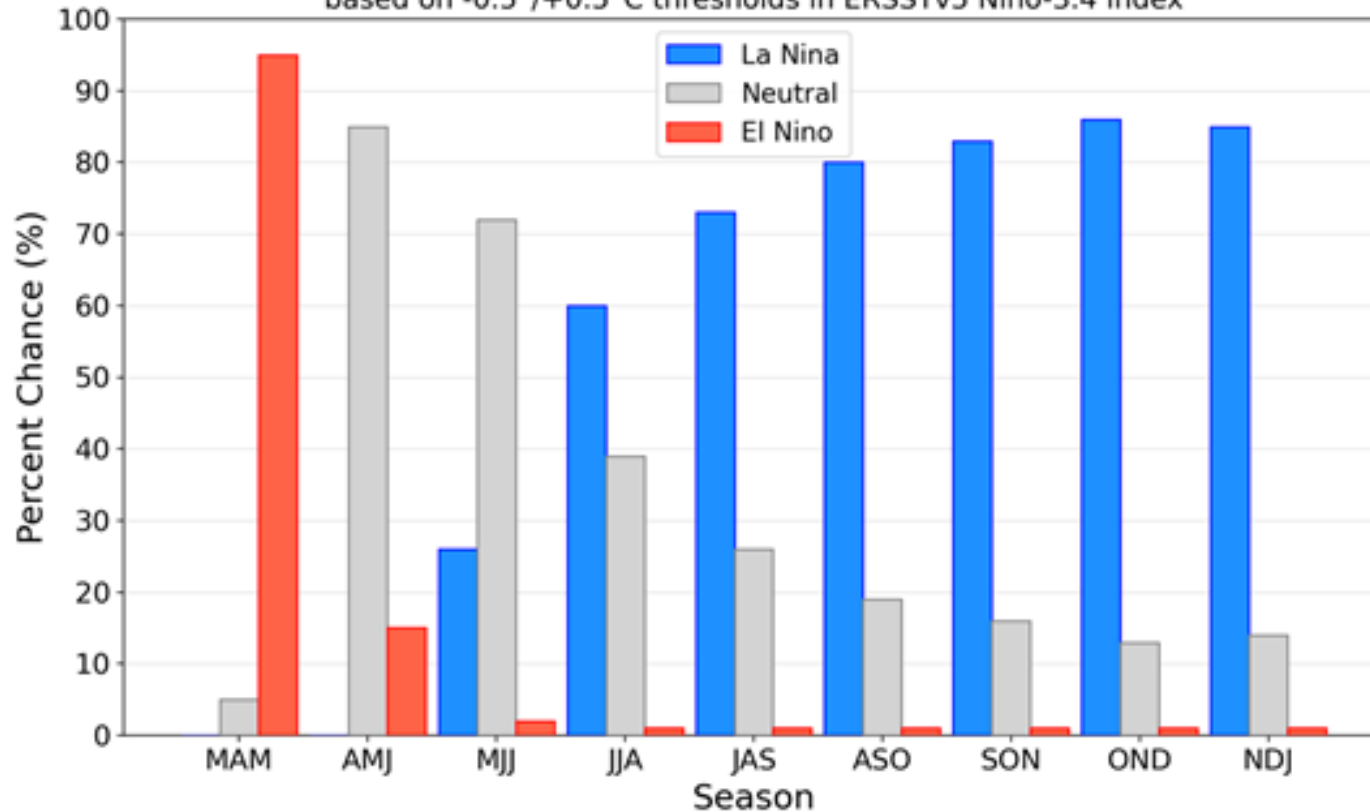
<https://go.usa.gov/3eZGd>

- Drought improvement across the region seems likely – more so from near-term precipitation.

La Niña Watch

Official NOAA CPC ENSO Probabilities (issued Apr. 2024)

based on $-0.5^{\circ}/+0.5^{\circ}\text{C}$ thresholds in ERSSTv5 Niño-3.4 index



- A rapid transition from El Niño to La Niña by mid-summer → see “Summary” for expected impacts

Summary

- Soil moisture & drought showed improvements in regions that received higher-than-normal rainfall in April.
 - Drought conditions worsened in parts of KS that saw <50% of long-term average rainfall in April.
- April saw above normal temps for most, a trend that expected to continue into early May.
- A rainy week is on tap for many across the Corn Belt; some could see multiple inches of rainfall.
- Transition from El Niño to La Niña this summer
 - This can sometimes be associated with drought, but not a consistent signal.
 - Recent research has pointed to warmer temperatures being more likely during the summer of these rapid transitions; the current CPC outlook for MJJ supports this.

Next MAC-T Monthly Call

Next Call
June 5 – 9 am CDT