

# Wisconsin Ag Climate Outlook

*Week of April 22, 2024*

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# Key Points

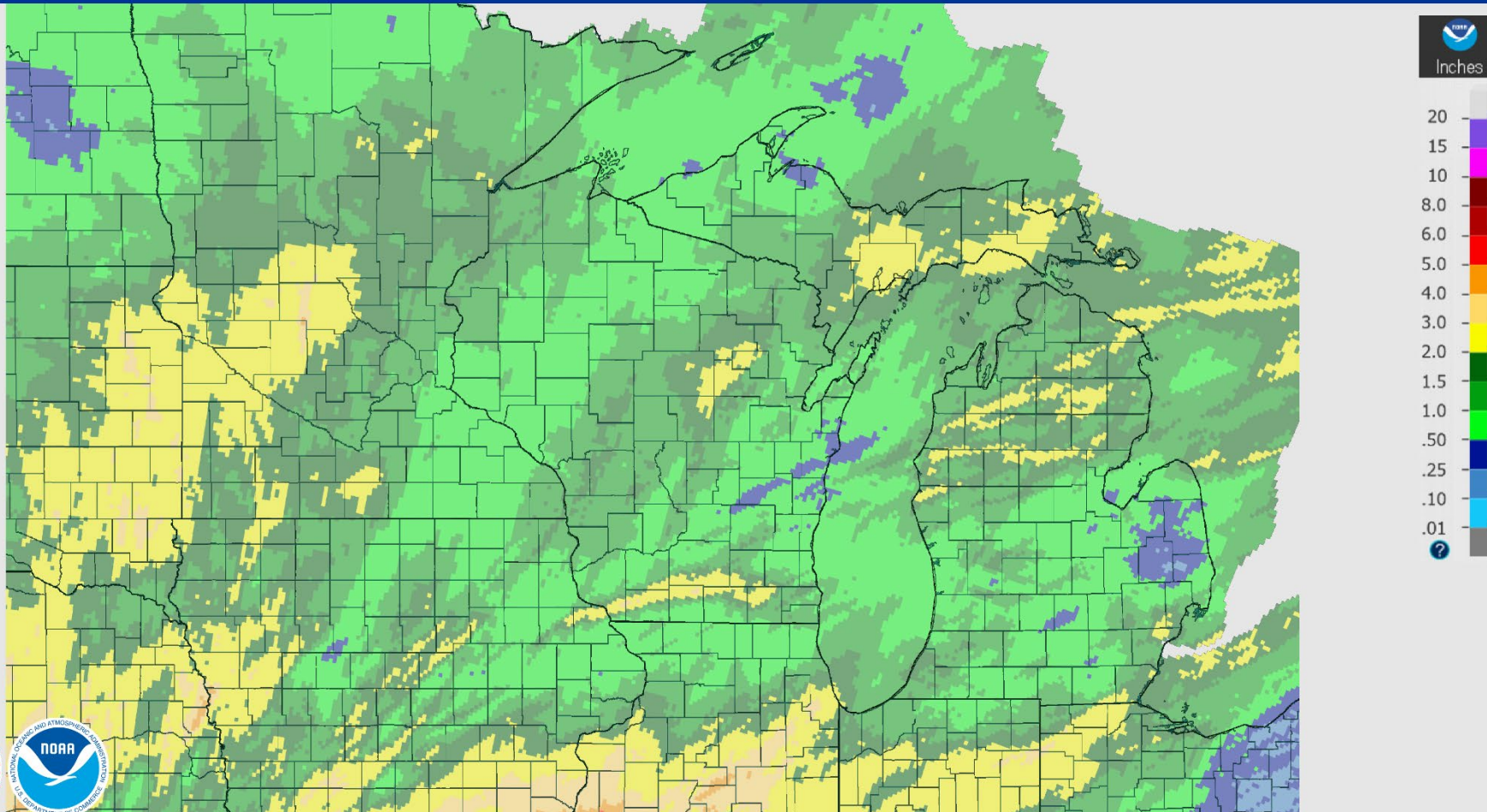
- 1) Rains over the past week have helped to continue to alleviate drought conditions and replenish subsoil moisture.
- 2) April wrapped up as a warmer-than-average month for most, with some summer-like heat last week in the south.
- 3) Be on the lookout for more rainfall this week, and more days with above-average temps as we head into May.

# 7 Day Precip

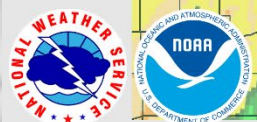
## April 30, 2024 7-Day Observed Precipitation

Created on: April 30, 2024 - 16:52 UTC

Valid on: April 30, 2024 12:00 UTC



- Majority of the state saw **0.5-2"** of precip last week.
- Areas in yellow saw **>2"** of precip.
- **Severe hail** accompanied some of the southern WI storms on [April 27](#).

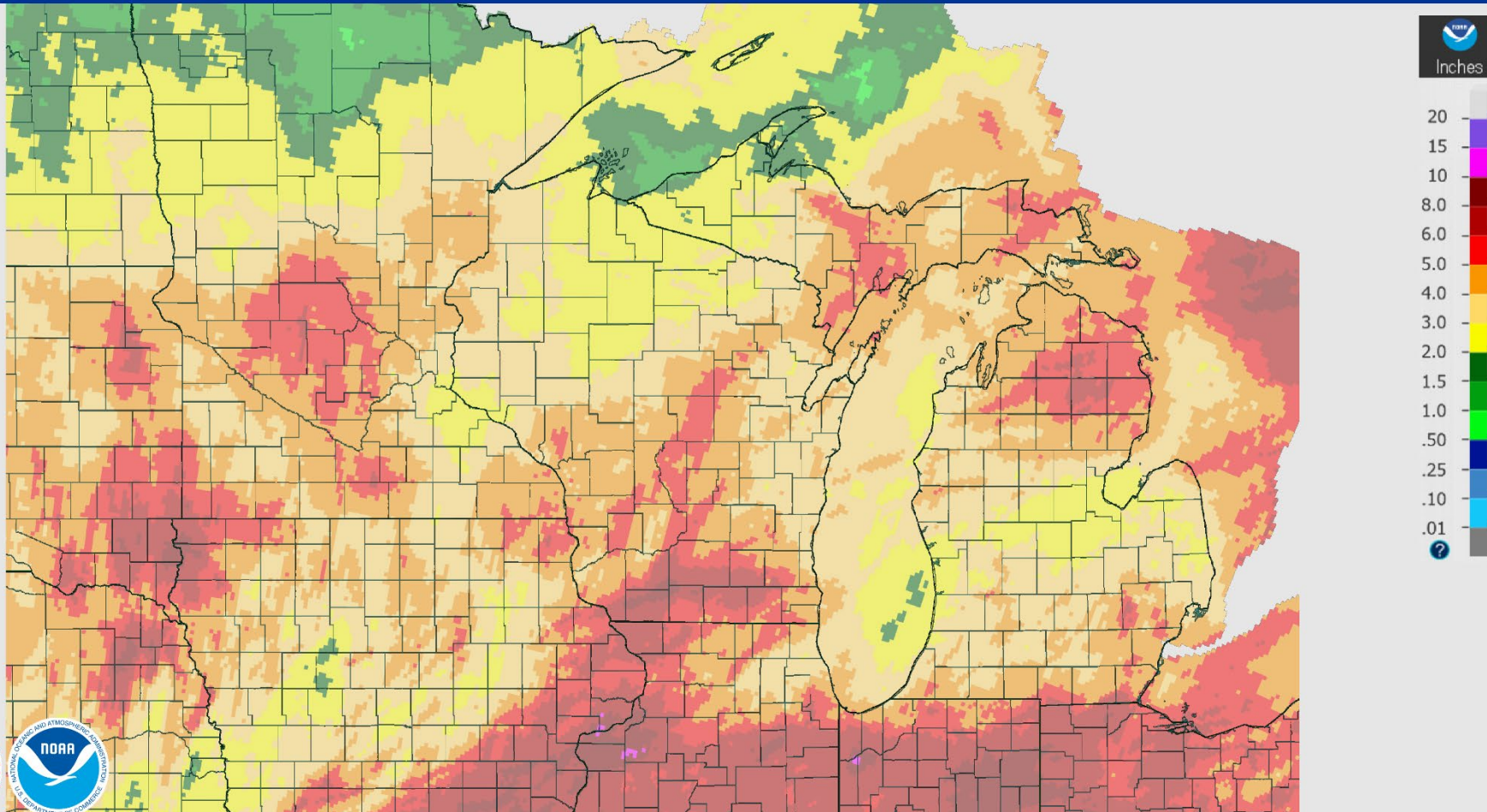


# 30 Day Precip

## April 30, 2024 30-Day Observed Precipitation

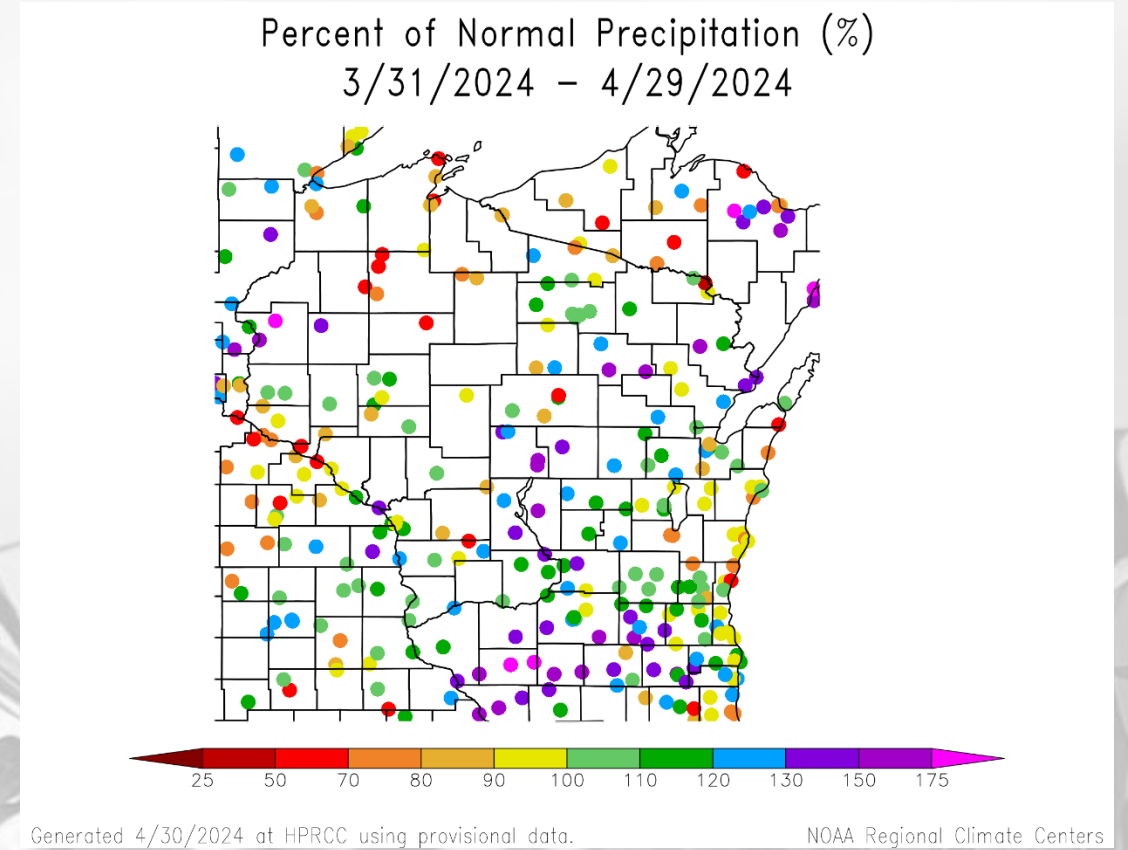
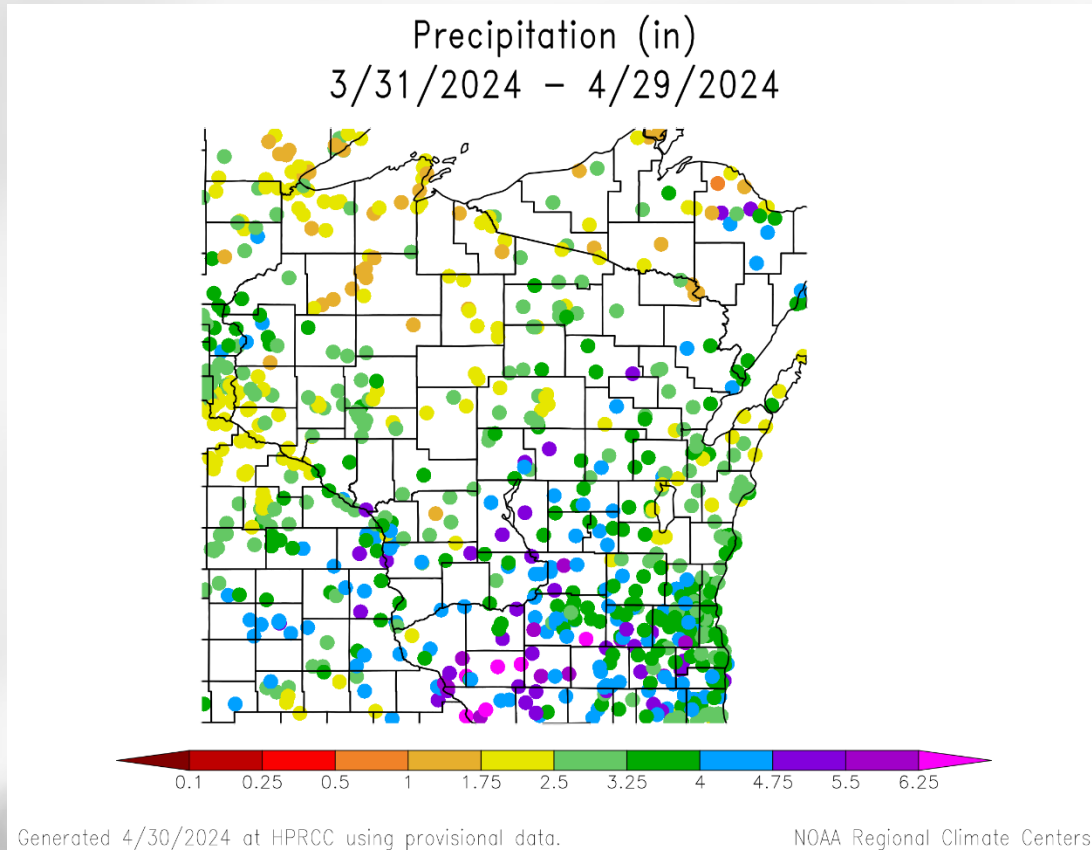
Created on: April 30, 2024 - 16:52 UTC

Valid on: April 30, 2024 12:00 UTC



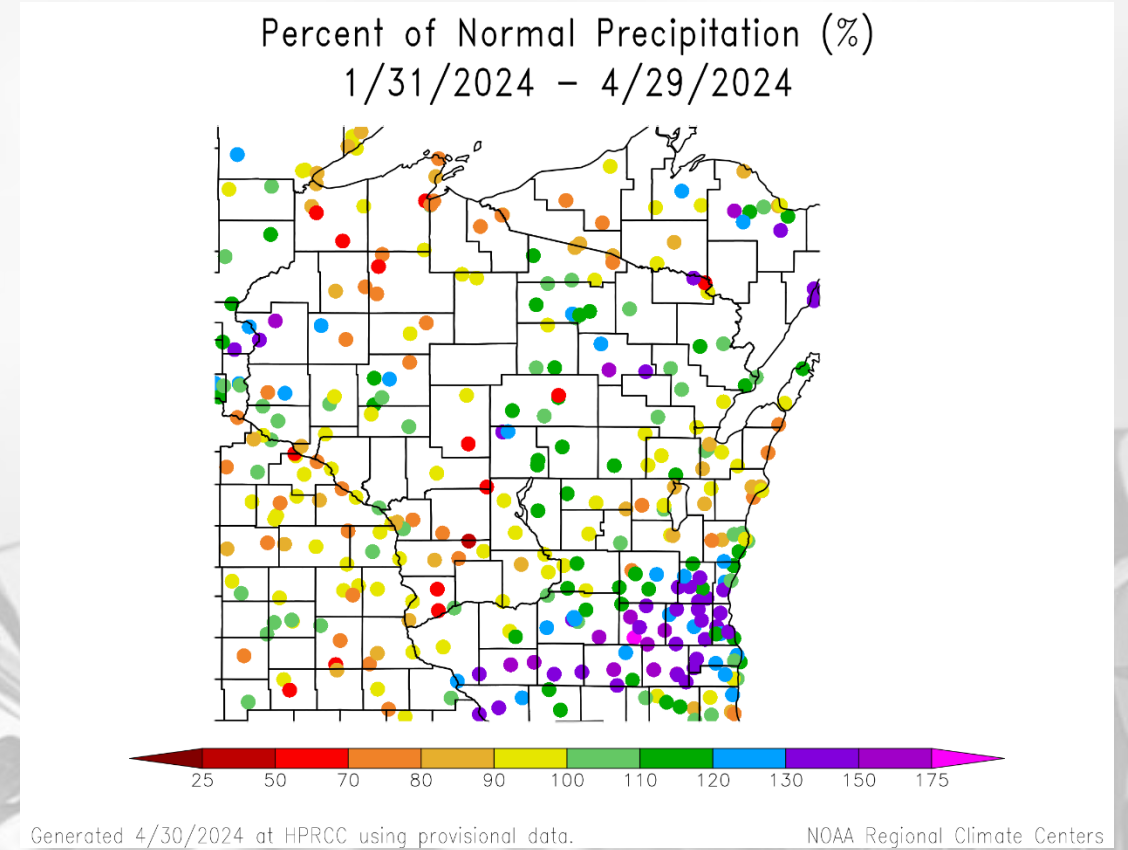
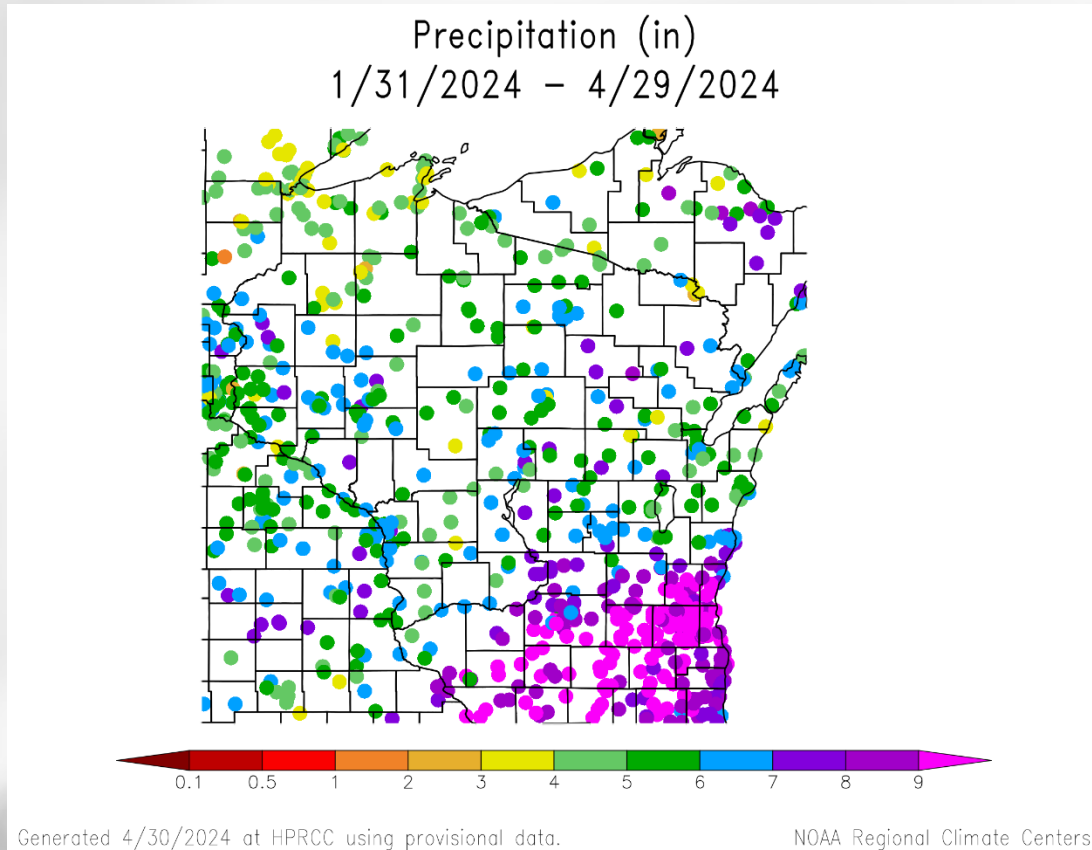
- Most of the state has seen **3-6+''** of precip over the past month.
- Highest amounts in the SC part of the state → **>6''** from Platteville to Jefferson/Walworth Cos.

# 30 Day Precip Total/% Avg.



- Highest precip totals in the southwest (>6" for some); 3+" common in the southern half of WI.
- How stations across the state compare to long-term average is a mixed bag.
  - **130+%** of average was common in southern and central sands sites.

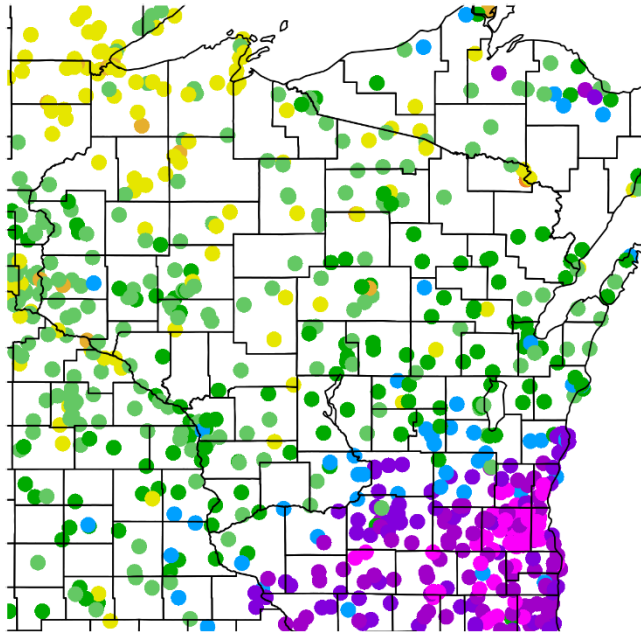
# 90 Day Precip Total/% Avg.



- Highest precip totals in the SE (>9") and lowest in the NW (<4").
- **130+**% of long-term average near the IL state line and near Milwaukee; some in the N.
- **<100%** of average was common in the W, NW, and east-central regions.

# 2024 Precipitation (so far)

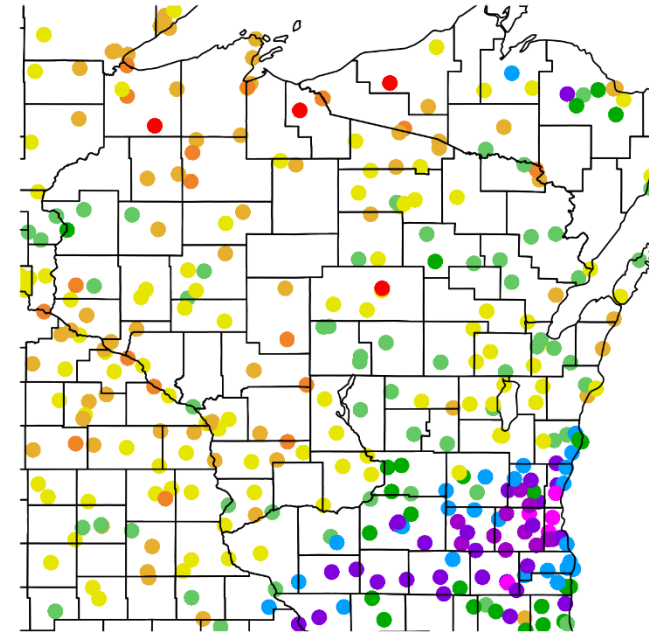
Precipitation (in)  
1/1/2024 - 4/25/2024



Generated 4/26/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Precipitation (in)  
1/1/2024 - 4/25/2024

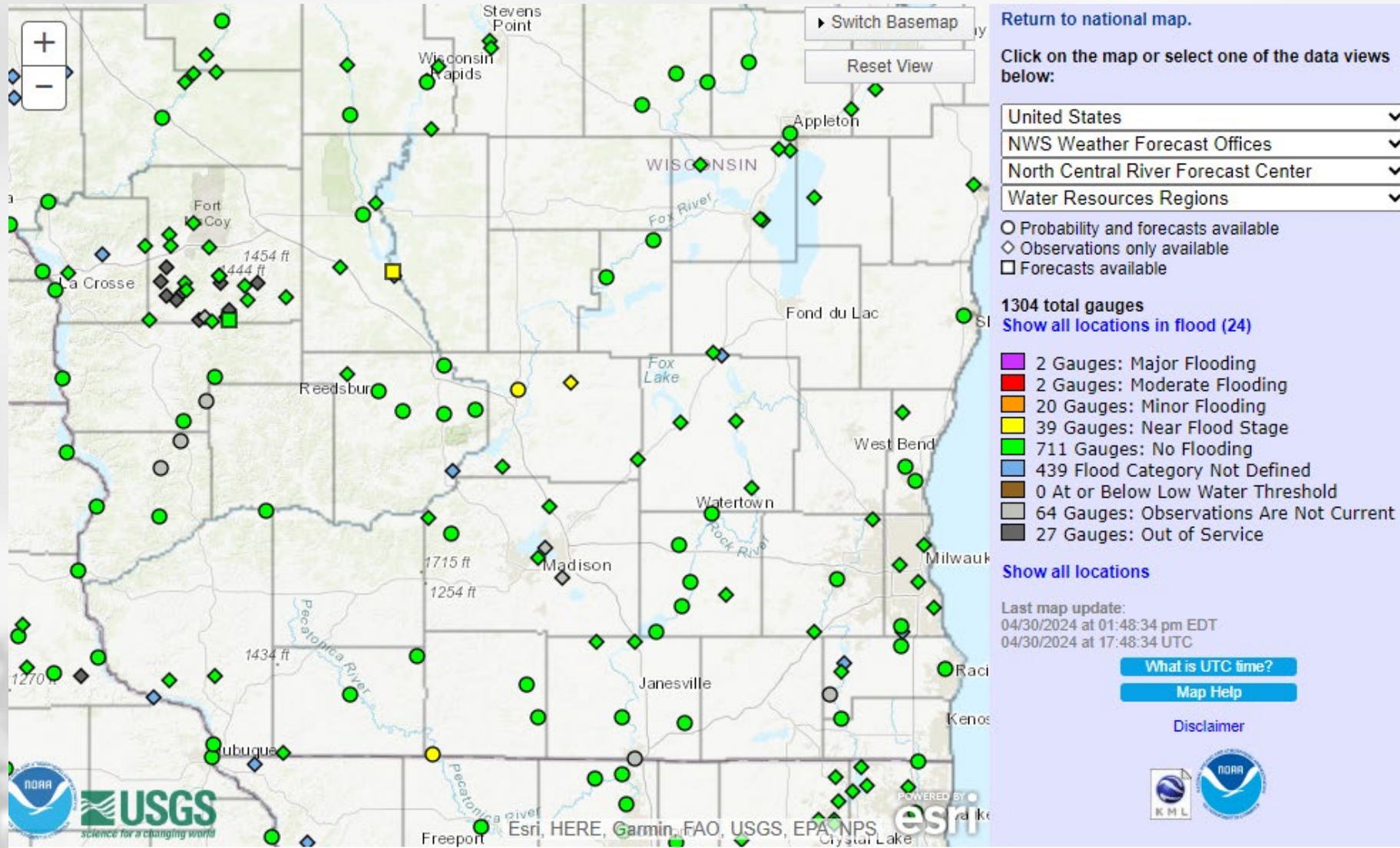


Generated 4/26/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

# River Levels



- Only a few gauges remain near flood stage (yellow). The majority are running at normal levels.

<https://water.weather.gov/ahps/>



# Soil Moisture Models

- **Moisture improvement** region-wide with the accumulated precip from last week.
- **Driest soil moisture conditions** in Kansas up through NW Wisconsin. Model still indicating dryness in/near Door County.

*Model Notes:*

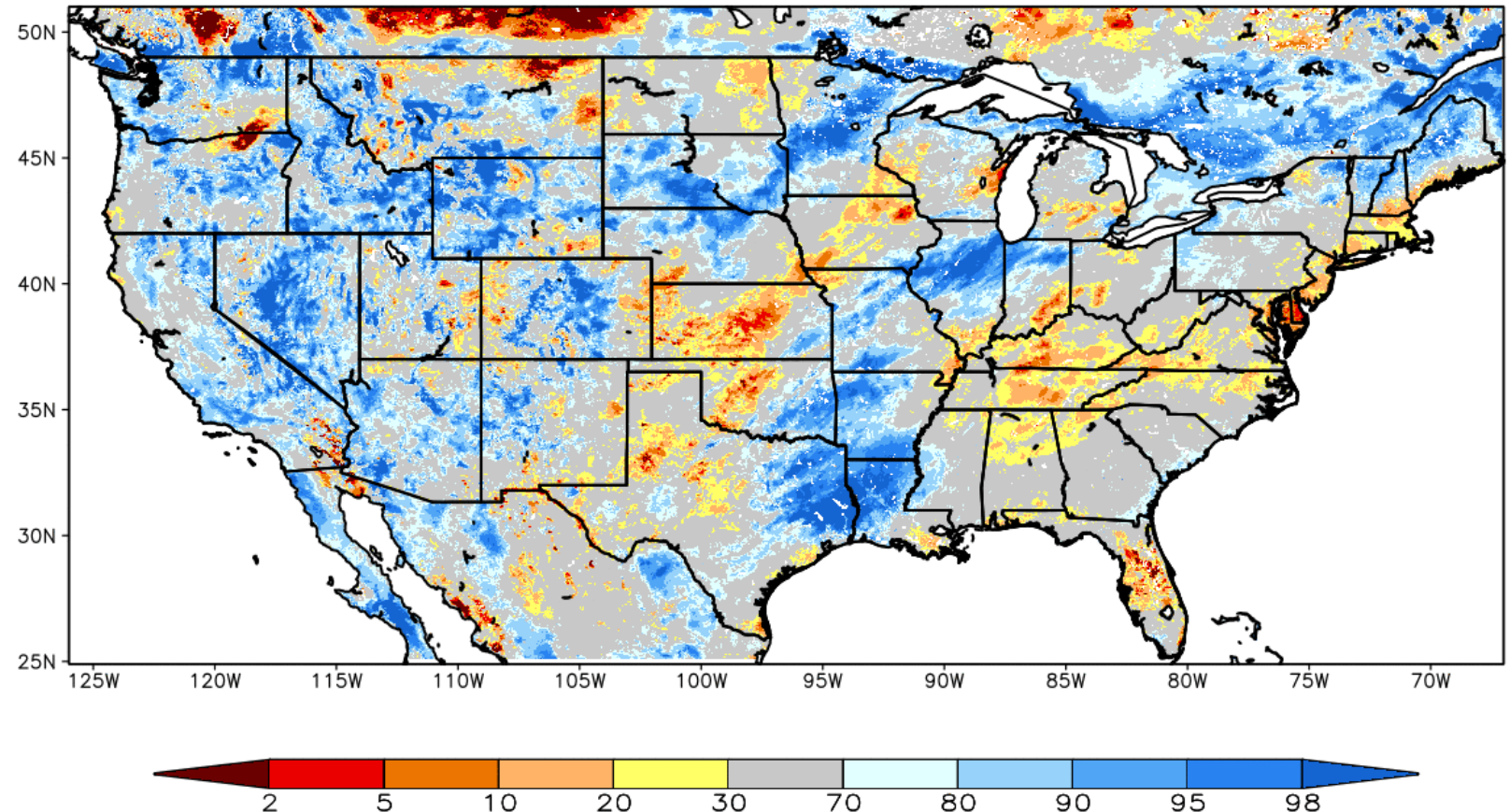
*Red areas = top 5 driest in 100 years.*

*Dark red areas = top 2 driest in 100 years.*

*It's worth noting that each soil moisture model has their own characteristics and input variables, so there tends to be variation between models. Thus, it's worthwhile to look at multiple models opposed to just one.*

[https://weather.msfc.nasa.gov/sport/case\\_studies/lis\\_CONUS.html](https://weather.msfc.nasa.gov/sport/case_studies/lis_CONUS.html)

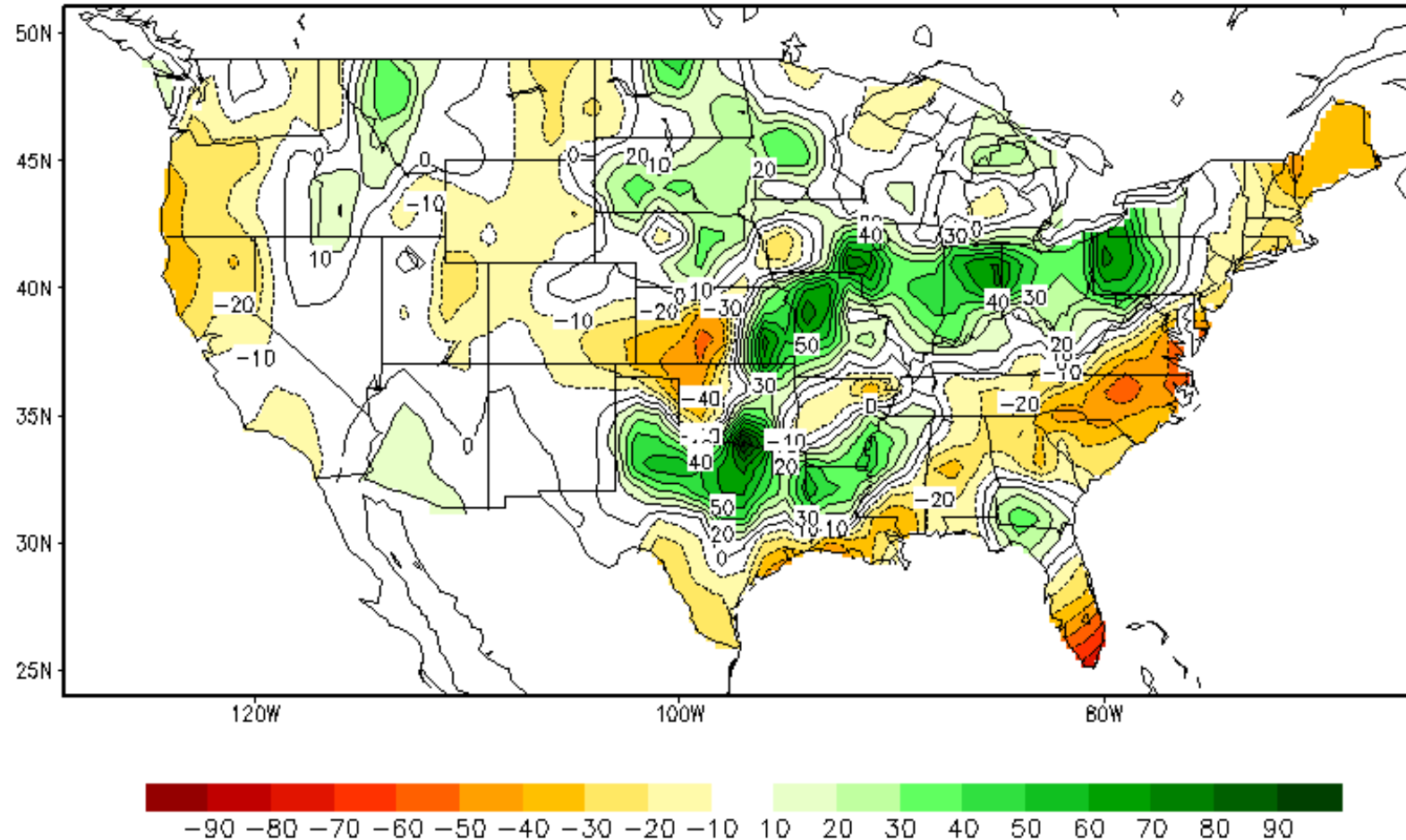
SPoRT-LIS 0-100 cm Soil Moisture percentile valid 30 Apr 2024



**\*\*NOTE\*\***  
**\*\*Experimental\*\***

# Soil Moisture Models

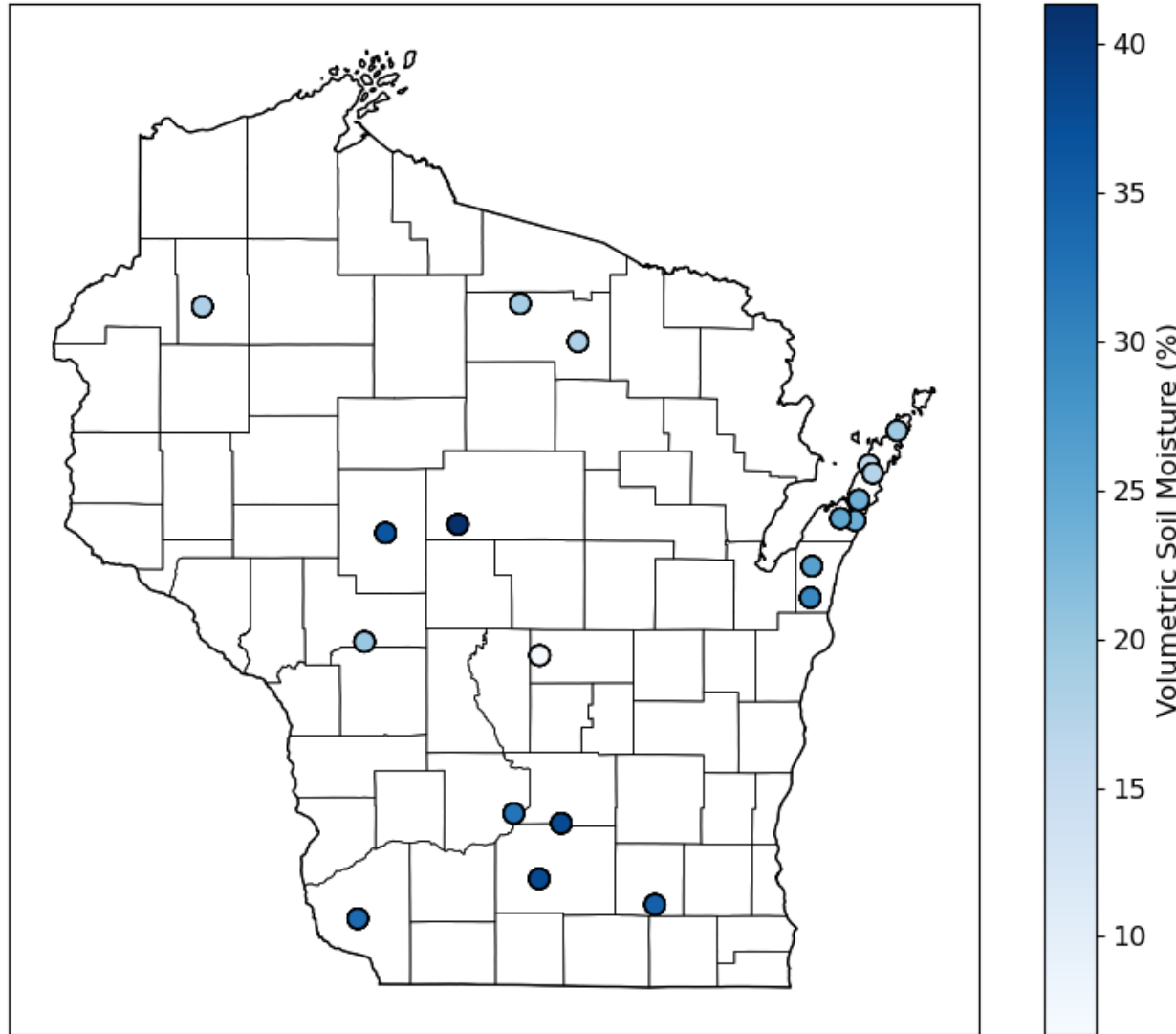
Calculated Soil Moisture Anomaly Change  
APR 29, 2024 from MAR.31



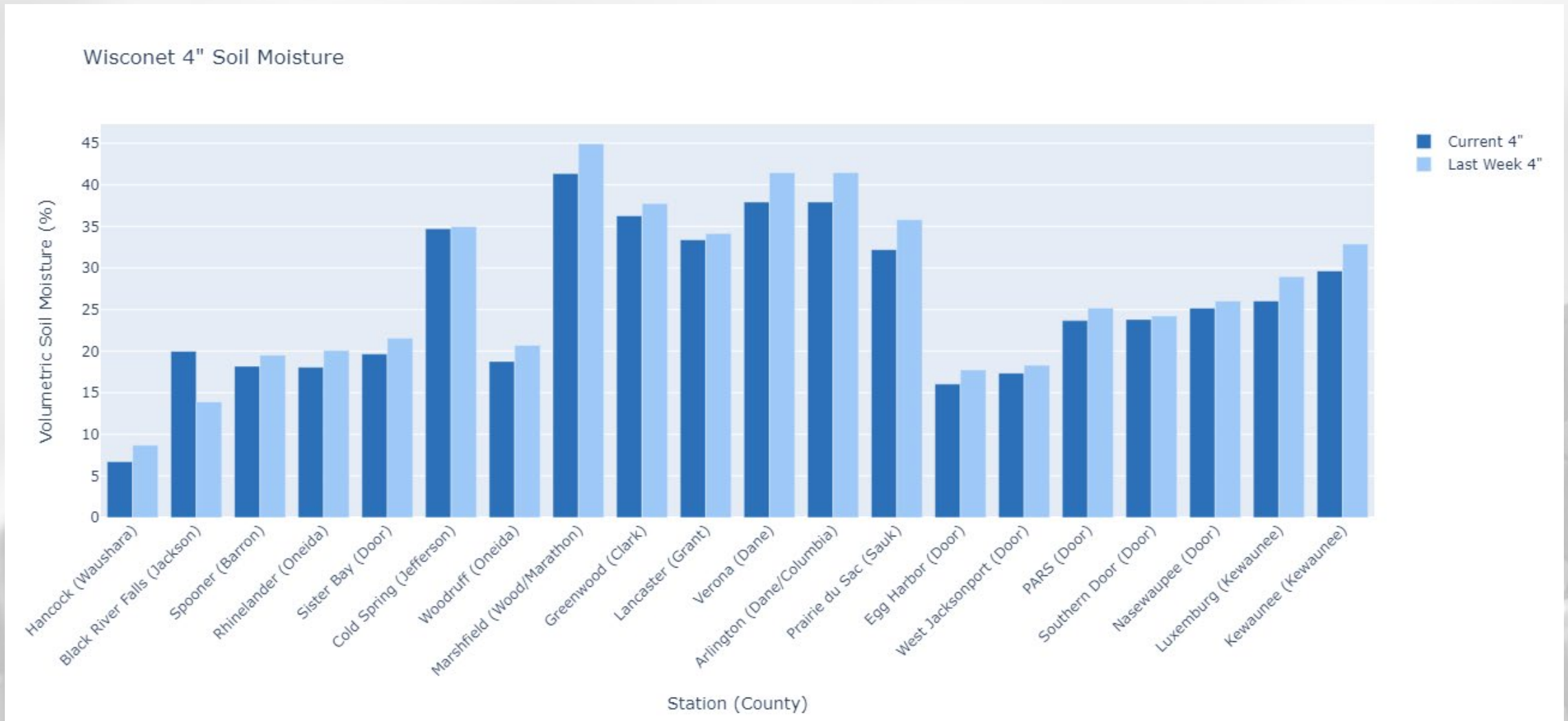
- **Moisture improvement** to the south of WI where precip totals in April were higher.

# Soil Moisture - Wisconet

Wisconet 4" Soil Moisture



# Soil Moisture - Wisconet



**Current:** 7-day average ending on 4/29 – dryer levels probably due to higher evaporation due to warmer temperatures

**Last Week:** 7-day average ending on 4/22

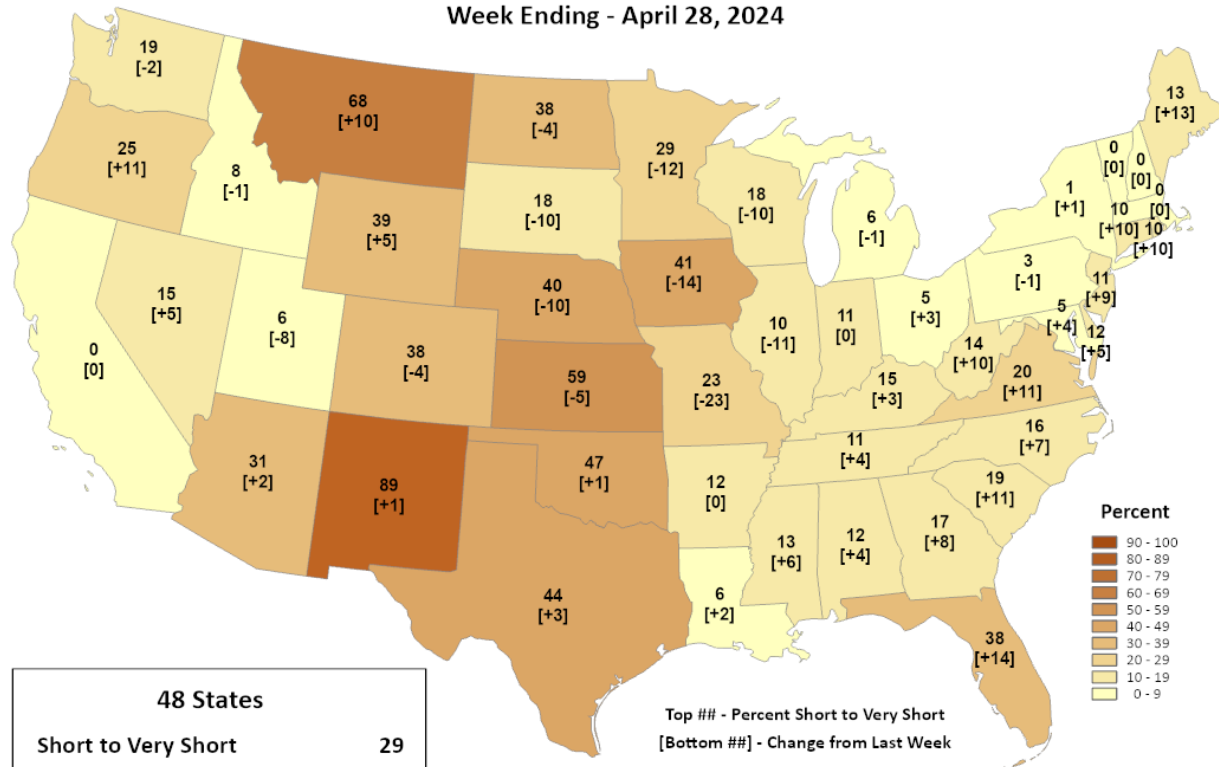
<https://wisconet.wisc.edu/>

# NASS Subsoil Moisture



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

## Subsoil Moisture Percent Short to Very Short Week Ending - April 28, 2024

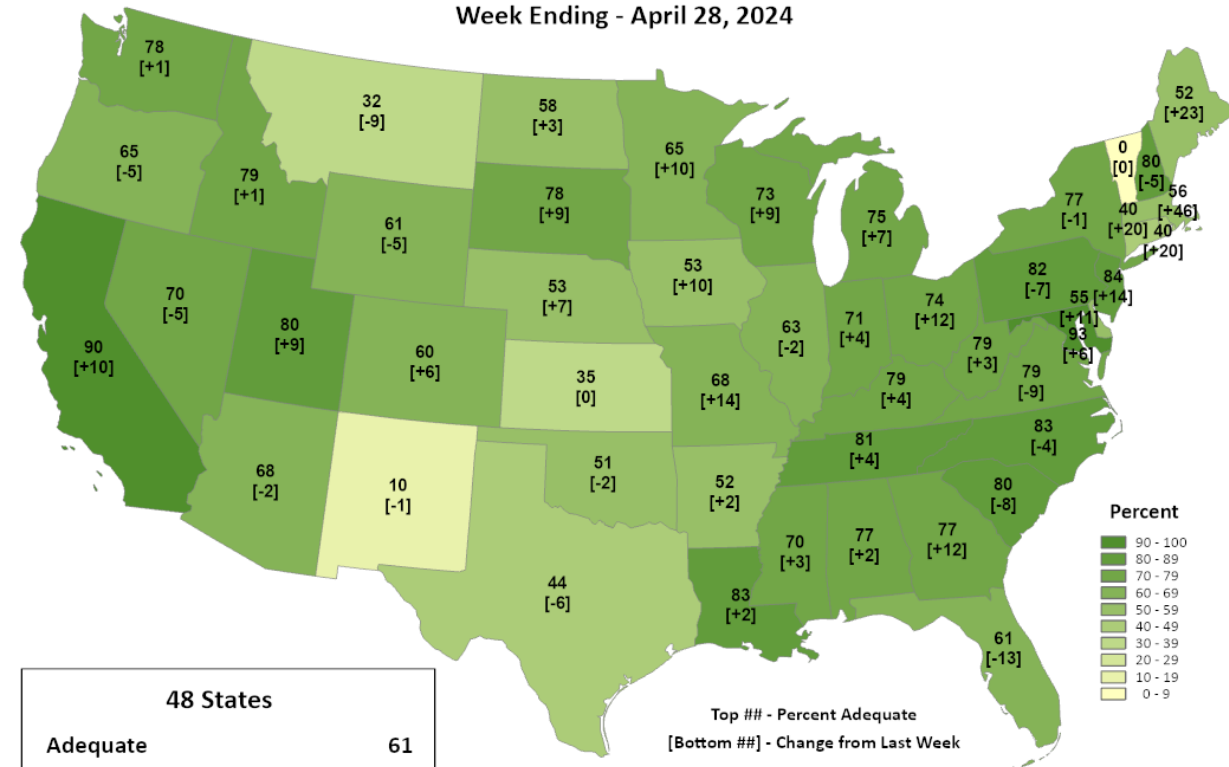


Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.



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

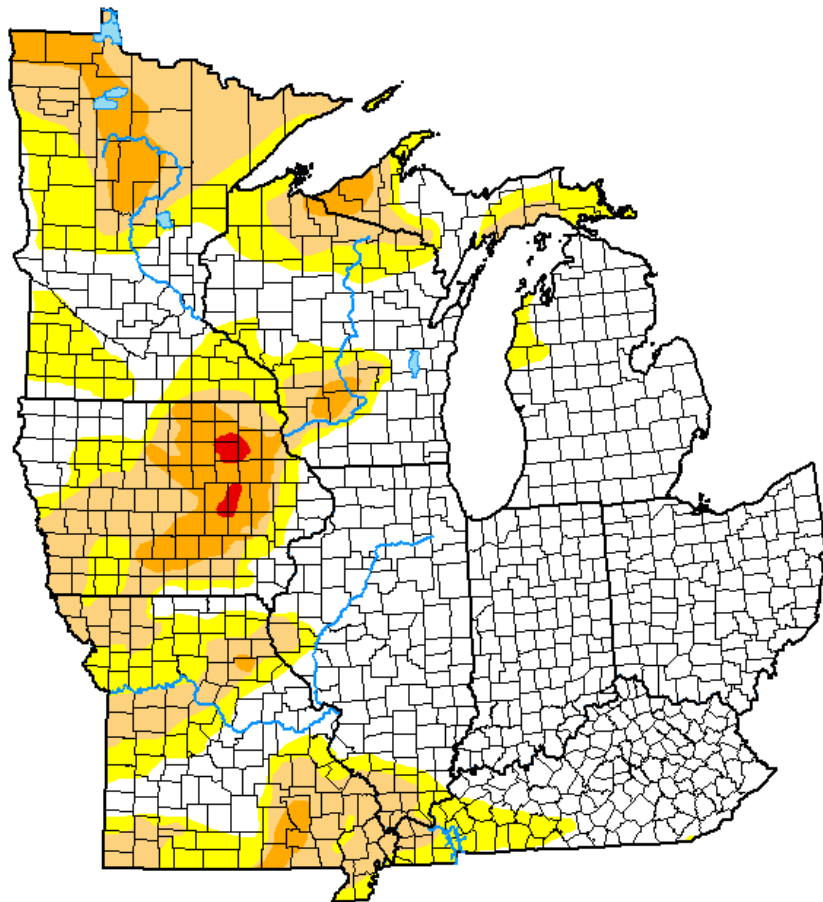


Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.

<https://agindrought.unl.edu/Other.aspx>

# US Drought Monitor

## U.S. Drought Monitor Midwest



**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
<b>Current</b>	58.41	41.59	23.36	6.34	0.30	0.00
<b>Last Week</b> <small>04-16-2024</small>	48.71	51.29	25.60	6.57	0.84	0.00
<b>3 Months Ago</b> <small>01-23-2024</small>	30.48	69.52	33.53	12.64	2.76	0.00
<b>Start of Calendar Year</b> <small>01-02-2024</small>	22.92	77.08	50.25	20.76	4.20	0.00
<b>Start of Water Year</b> <small>09-26-2023</small>	16.82	83.18	54.98	23.81	6.21	0.13
<b>One Year Ago</b> <small>04-25-2023</small>	81.89	18.11	5.15	1.19	0.14	0.06

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:

David Simeral  
Western Regional Climate Center



[droughtmonitor.unl.edu](http://droughtmonitor.unl.edu)

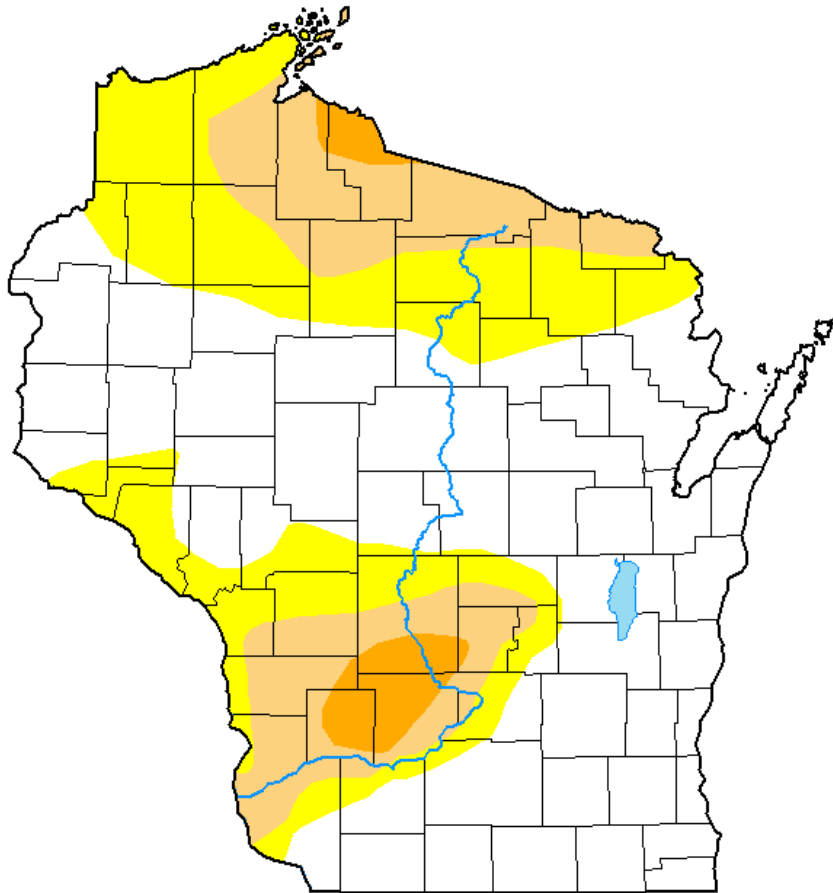
- Compared to last week:
  - Minor decreases in drought category area.
- Eastern half of the Midwest is relatively drought-free.
- Majority of drought is west of the Mississippi River
- D2/3 level drought persists in eastern IA.
  - 200<sup>th</sup> consecutive week of IA having at least D1 conditions somewhere in the state

*Note: D0 is not considered drought.*

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

# US Drought Monitor

## U.S. Drought Monitor Wisconsin



**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
<b>Current</b>	56.39	43.61	19.02	3.29	0.00	0.00
<b>Last Week</b> 04-16-2024	24.94	75.06	28.34	5.30	0.00	0.00
<b>3 Months Ago</b> 01-23-2024	33.63	66.37	35.52	14.93	0.00	0.00
<b>Start of Calendar Year</b> 01-02-2024	33.04	66.96	37.34	16.80	0.26	0.00
<b>Start of Water Year</b> 09-26-2023	2.04	97.96	80.86	37.74	6.77	0.00
<b>One Year Ago</b> 04-25-2023	100.00	0.00	0.00	0.00	0.00	0.00

Intensity:



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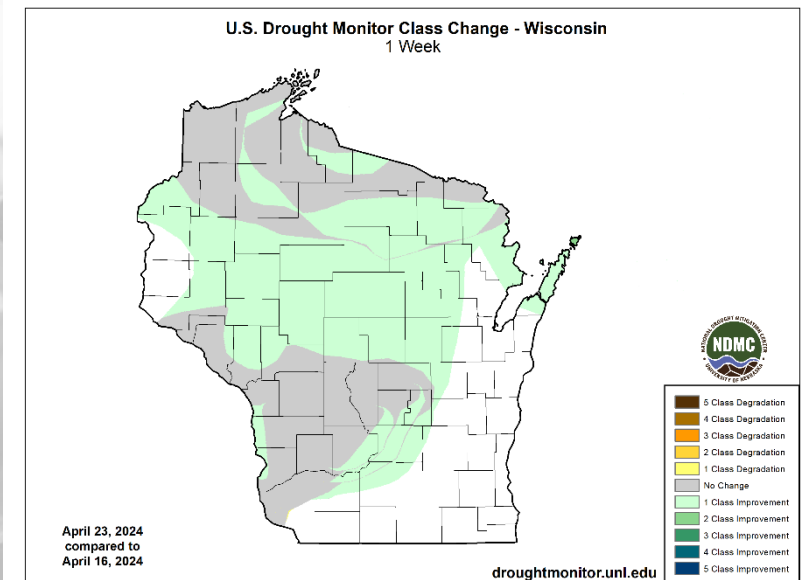
[droughtmonitor.unl.edu](http://droughtmonitor.unl.edu)

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

Amount of state in:

- **D1-D4** – 19.0% ↓
- **D2-D4** – 3.3% ↓
- **D3-D4** – 0.0% --
- **D4** – 0.0% --

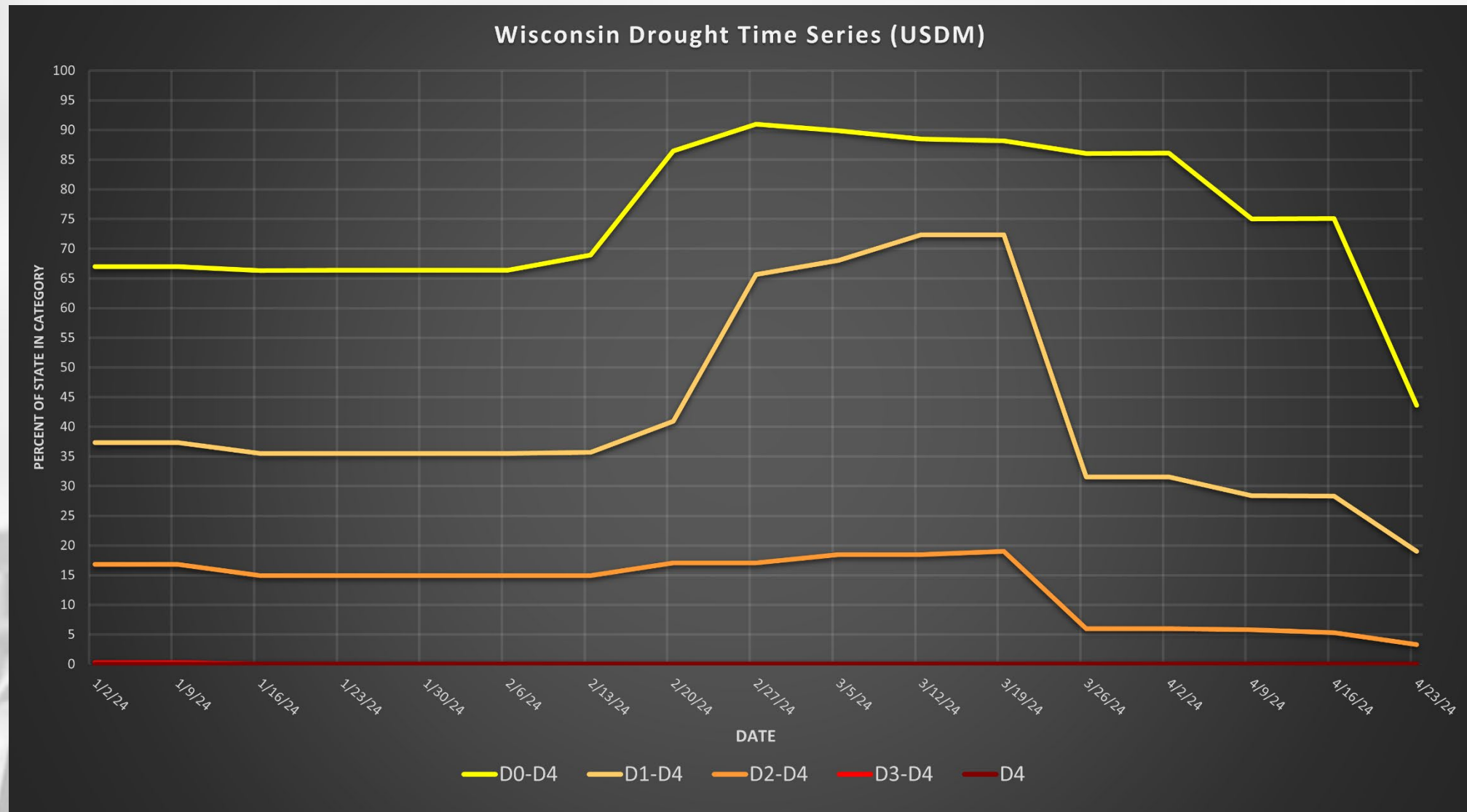
*Note:* ↑ ↓ indicate change from last week. Red up arrows indicate increase in drought area; vice-versa for green arrows.



April 23, 2024  
compared to  
April 16, 2024

[droughtmonitor.unl.edu](http://droughtmonitor.unl.edu)

# USDM Time Series

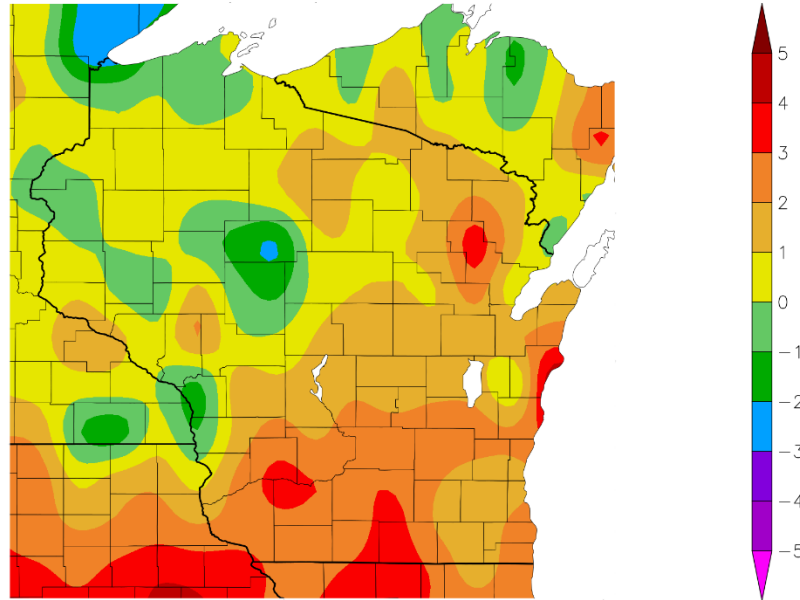


<http://droughtmonitor.unl.edu/>



# 7 Day Temperatures

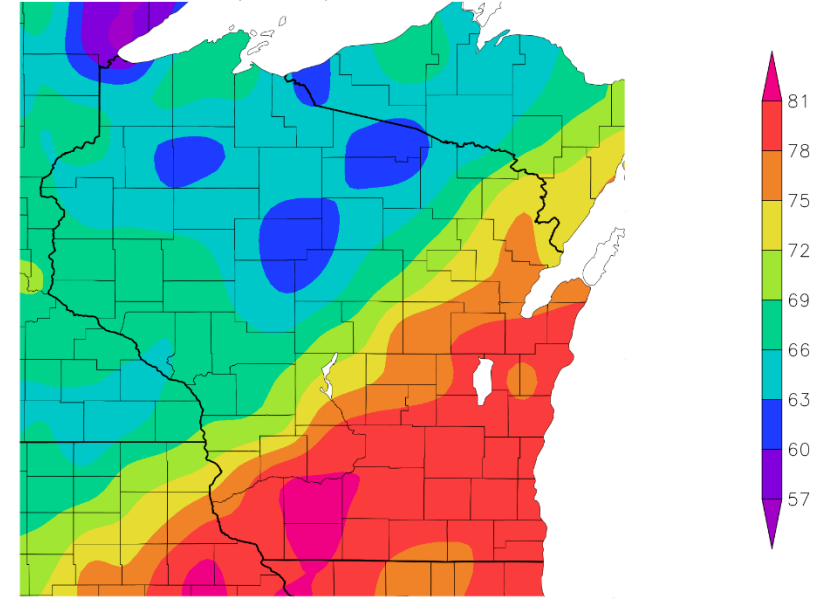
Departure from Normal Temperature (F)  
4/23/2024 – 4/29/2024



Generated 4/30/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Highest 1-Day Maximum Temperature (F)  
4/23/2024 – 4/29/2024



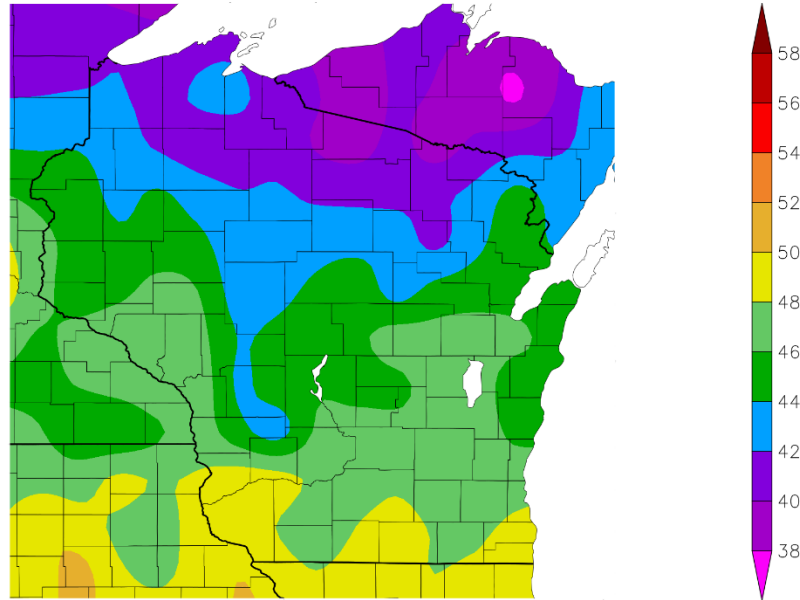
Generated 4/30/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Temps were **2-4°F** above normal in the south last week.
- Maximum temps for the week reached the **upper 70's to low 80's** in the south and east.

# 30 Day Temperatures

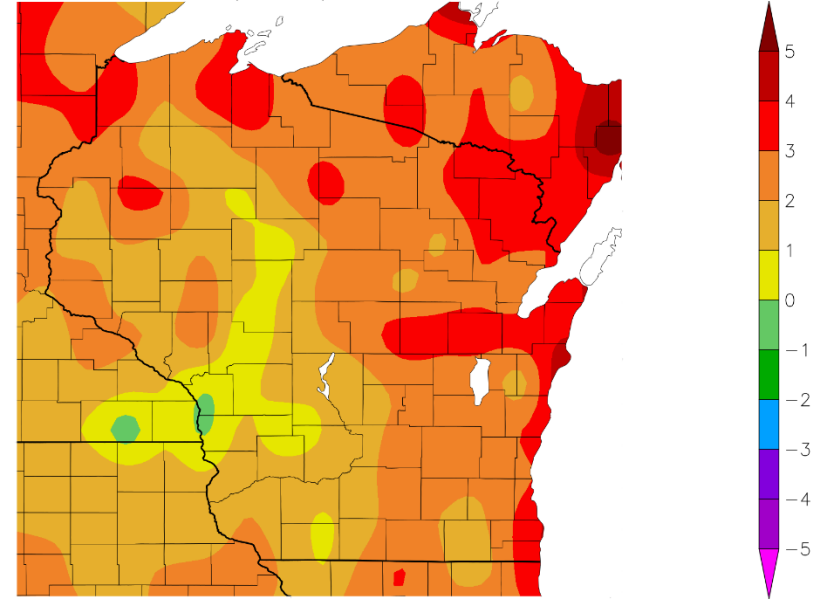
Temperature (F)  
3/31/2024 - 4/29/2024



Generated 4/30/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Temperature (F)  
3/31/2024 - 4/29/2024



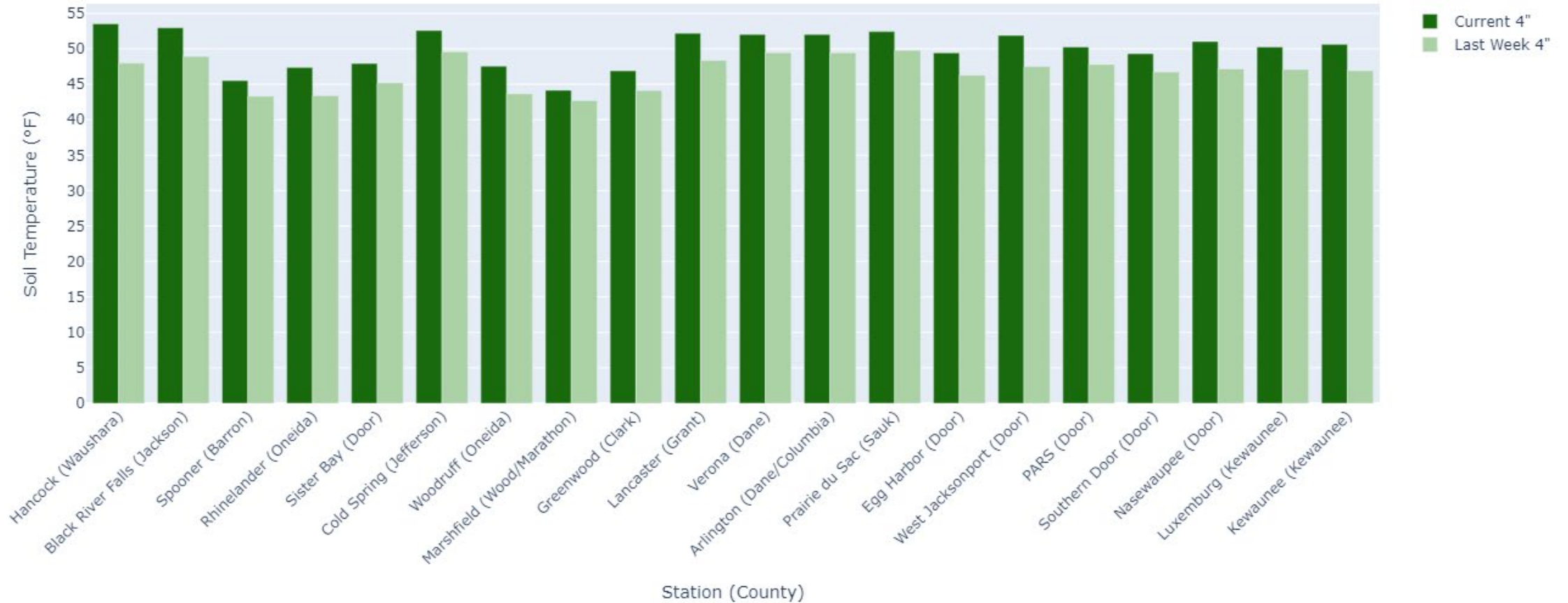
Generated 4/30/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Temperatures for the month of April ranged from **46-50°F** in the S to **38-42°F** in the far N.
  - Warmer closer to Lake Michigan → **3-5°F** above normal.
  - Cooler over in the Driftless Region → within **-/+1°F** of long-term normal.

# Soil Temperature - Wisconet

Wisconet 4" Soil Temperature



**Current:** 7-day average ending on 4/29

**Last Week:** 7-day average ending on 4/22

<https://wisconet.wisc.edu/>

# NASS Crop Progress – Corn

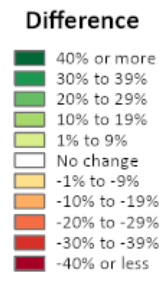
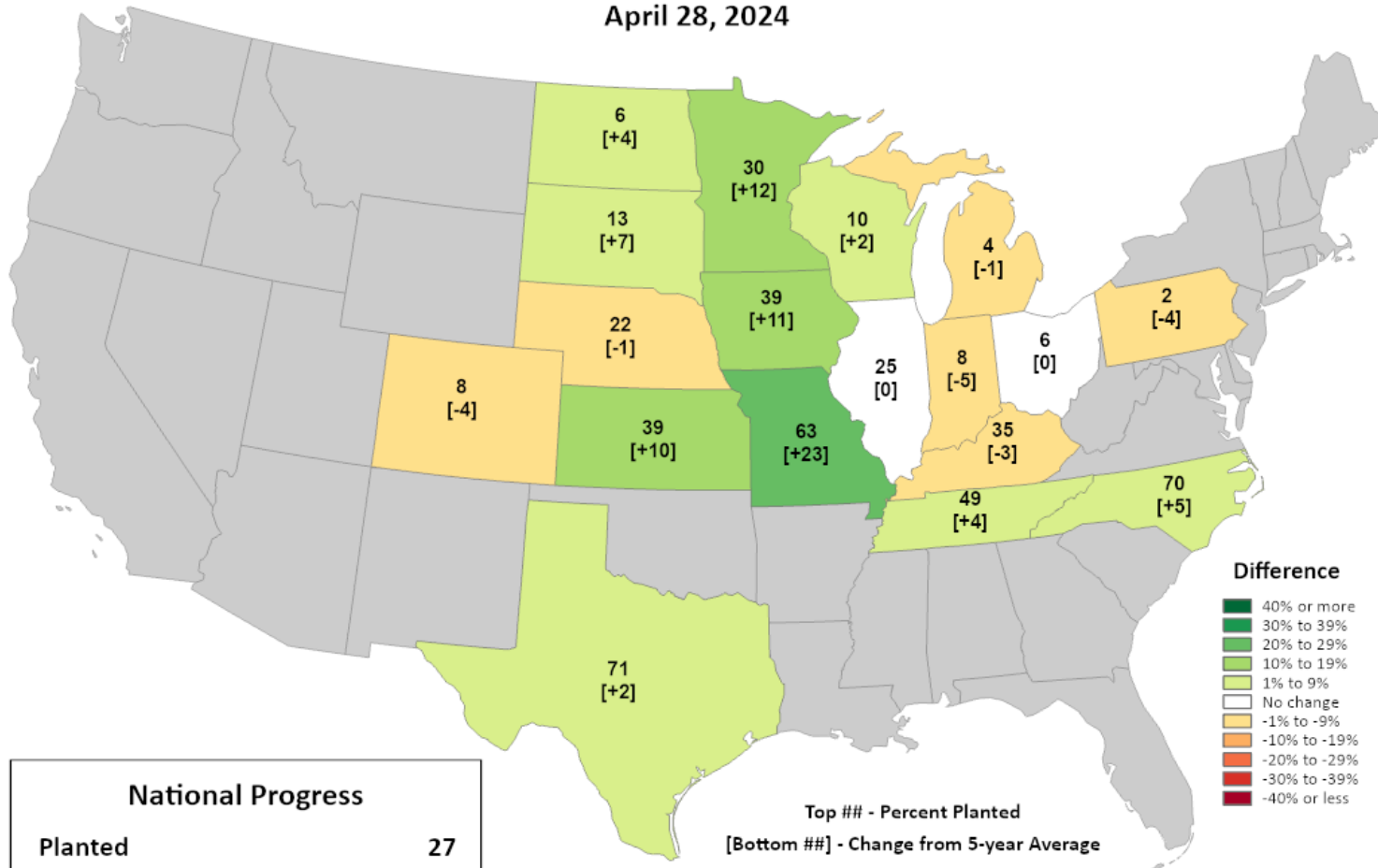


This product was prepared by the  
USDA Office of the Chief Economist (OCE)  
World Agricultural Outlook Board (WAOB)

## Corn Progress

### Percent Planted

April 28, 2024



National Progress	
Planted	27
Change from 5-year Average	+5

Top ## - Percent Planted  
[Bottom ##] - Change from 5-year Average

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

- Planting is running **at or ahead** of the 5-year average in WI and states to the W.
- Wisconsin → **10% complete**; ahead of the 5-year average pace.

# NASS Crop Progress – Soybean

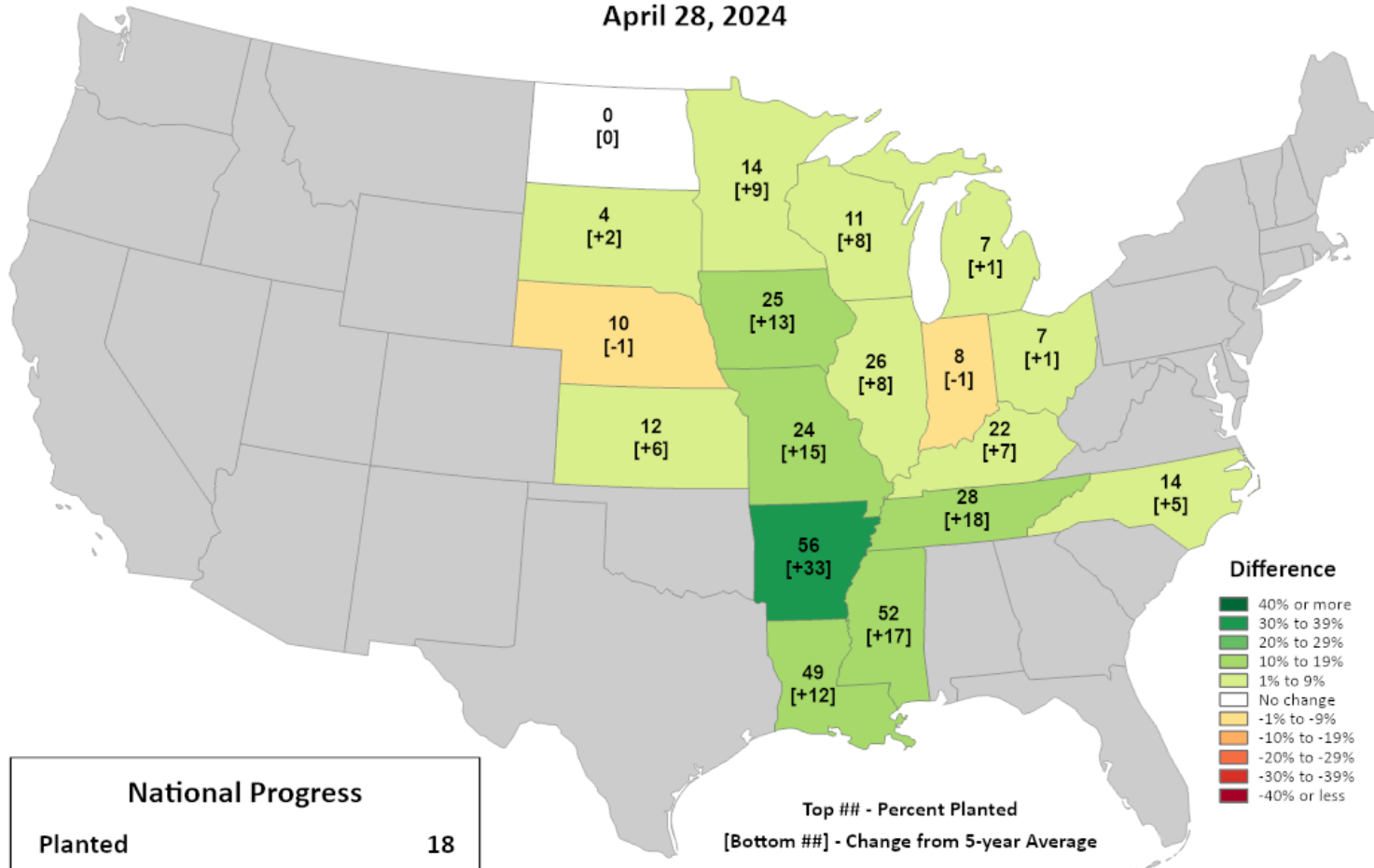


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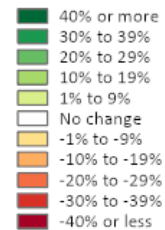
## Soybeans Progress

### Percent Planted

April 28, 2024



#### Difference



#### National Progress

Planted	18
Change from 5-year Average	+8

Top ## - Percent Planted  
[Bottom ##] - Change from 5-year Average

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

- Planting is running **at or ahead** of the 5-year average in WI and surrounding states.
- Wisconsin → **11% complete**; ahead of the 5-year average pace.

# NASS Crop Progress – Winter Wheat

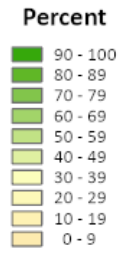
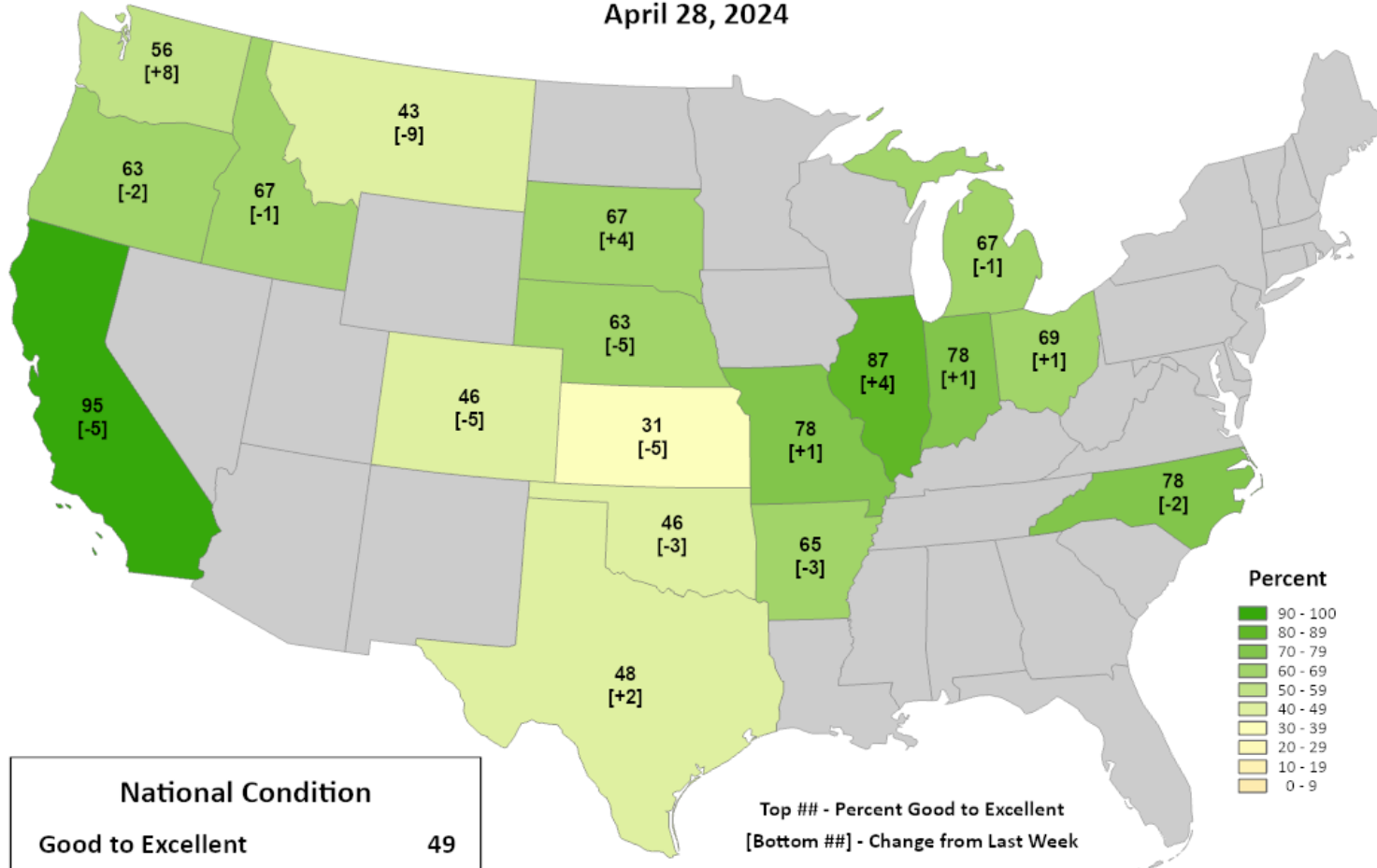


This product was prepared by the  
USDA Office of the Chief Economist (OCE)  
World Agricultural Outlook Board (WAOB)

## Winter Wheat Conditions

### Percent Good to Excellent

April 28, 2024



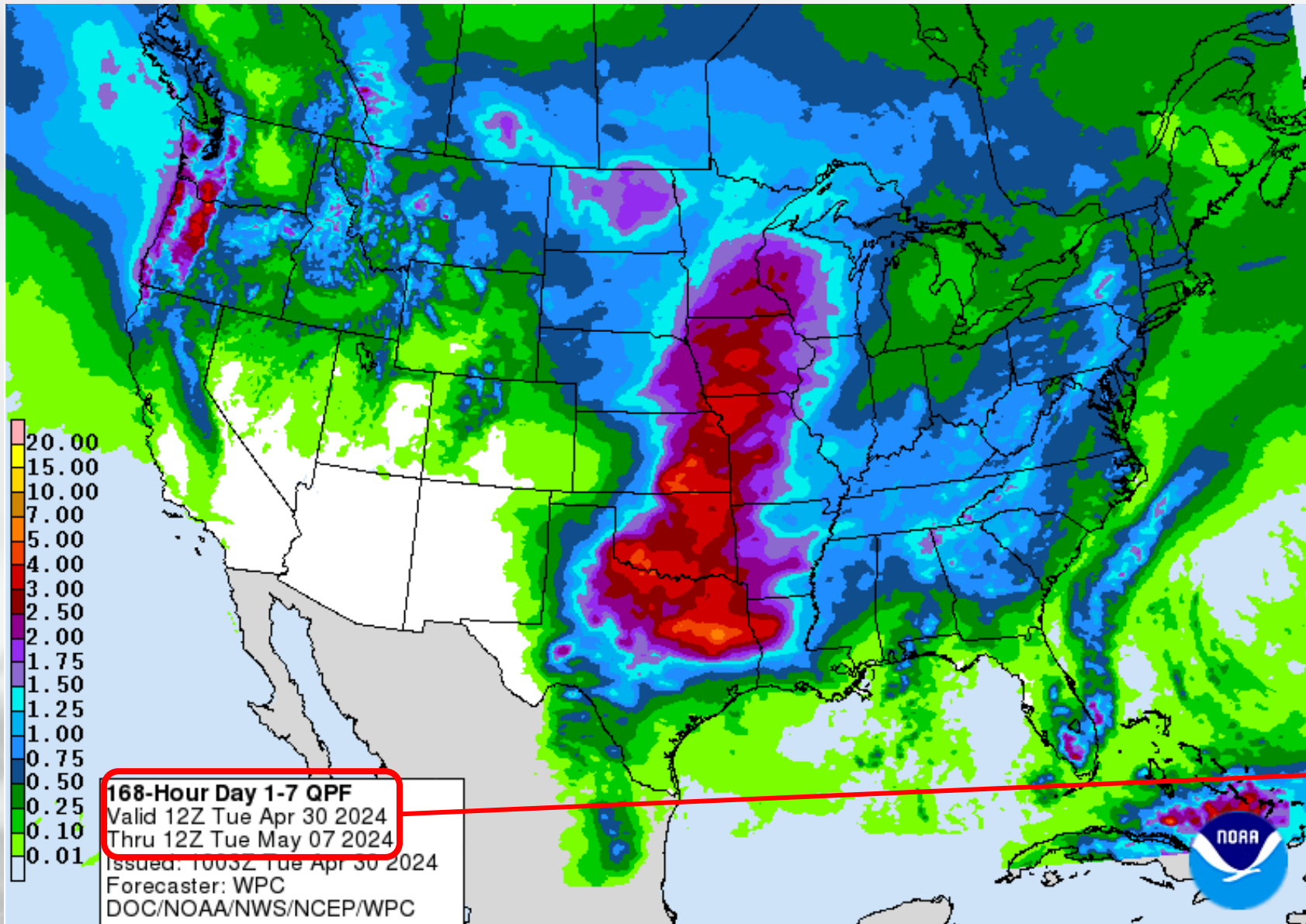
National Condition	
Good to Excellent	49
Change from Last Week	-1

Top ## - Percent Good to Excellent  
[Bottom ##] - Change from Last Week

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

- In states around Wisconsin, winter wheat condition is **>70-80%** good to excellent.
  - Slight improvement from last week.

# 7 Day Precip Forecast

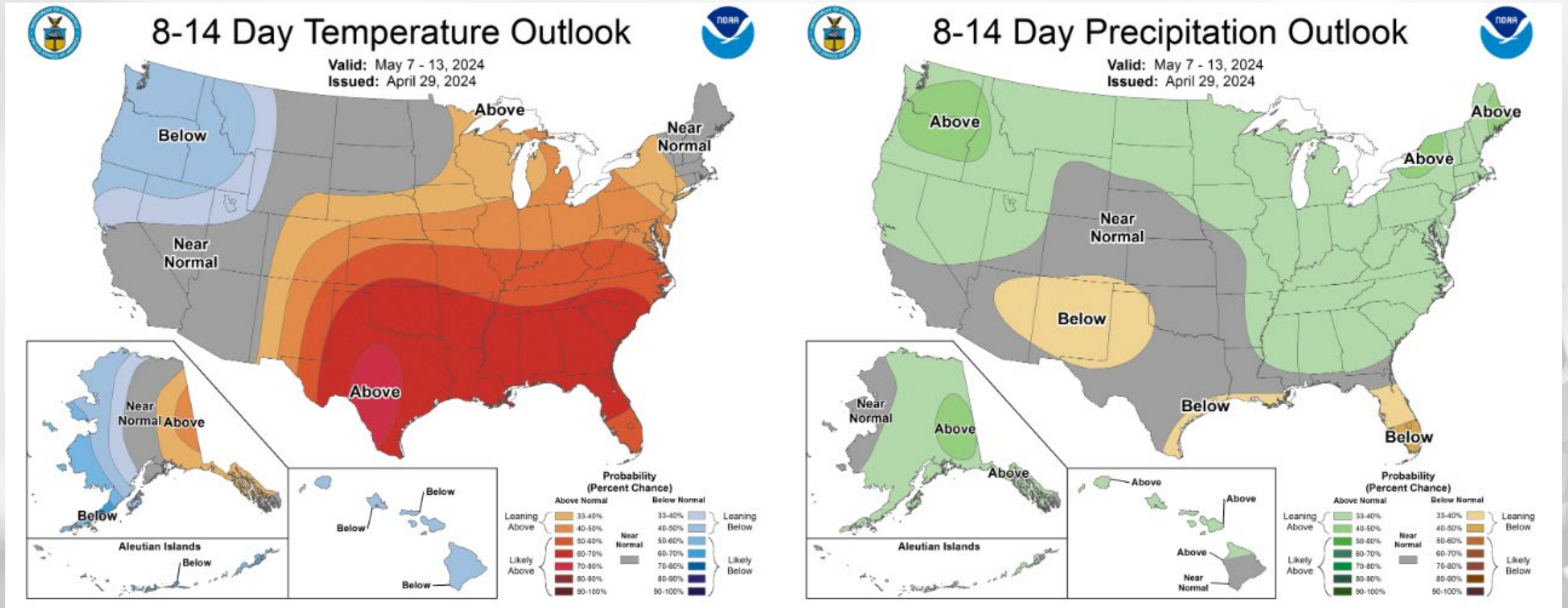


- A very active week is forecasted for the state → **higher totals in the W (1.5" or more)**
- Multiple rounds of precip forecasted to impact the state this week.

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

<https://www.wpc.ncep.noaa.gov/qpf/p168i.gif>

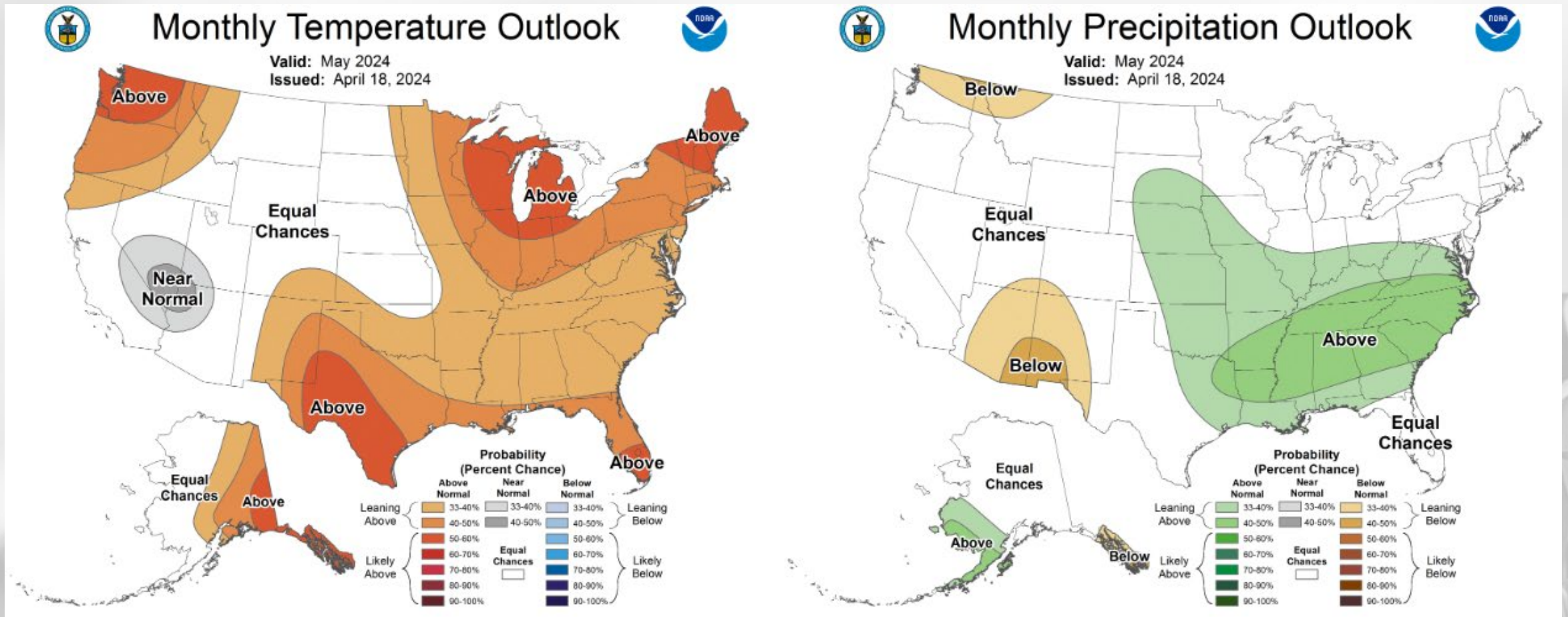
# 8-14 Day Temp & Precip Outlook



**Second week of May: Temperatures leaning above normal. Precipitation also leaning above normal.**

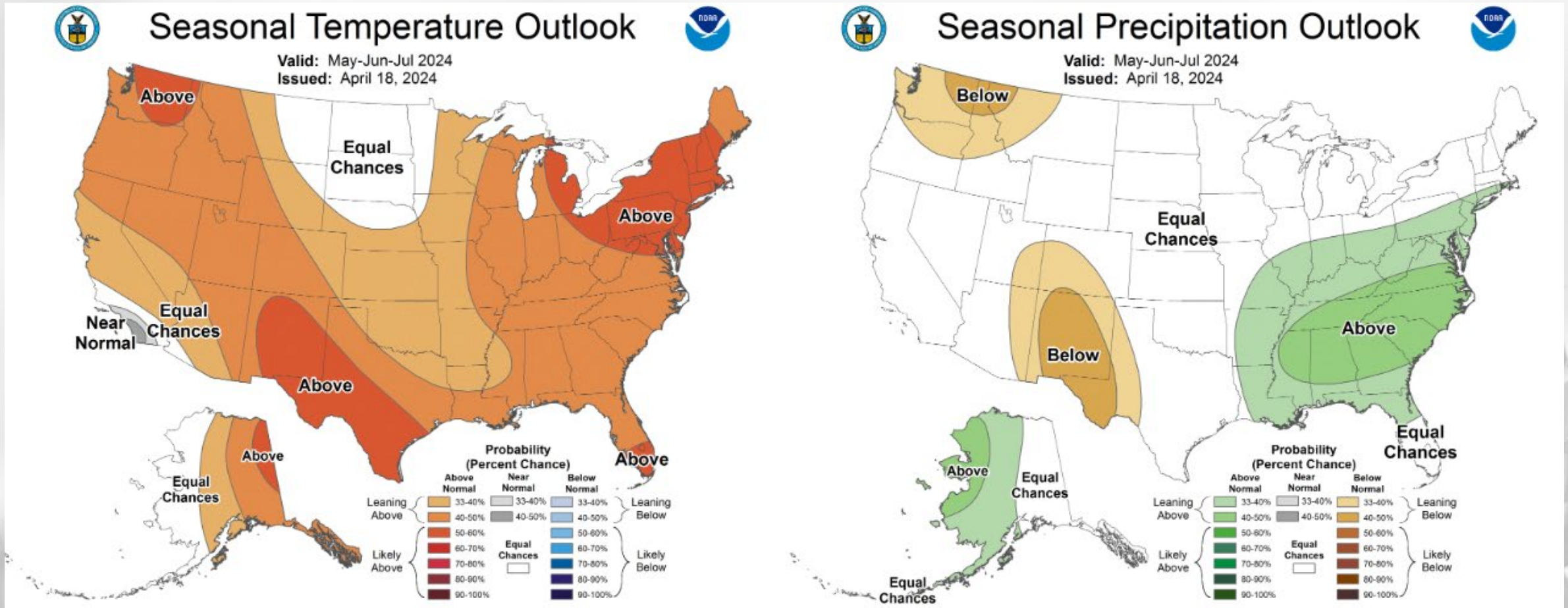


# 30 Day Temp & Precip Outlook



**Month of May:** Temperatures likely to be above normal. Precipitation is showing equal chances.

# 90 Day Temp & Precip Outlook



**Late Spring into Summer:** Temperatures leaning towards above normal. Precipitation indications are for equal chances of above/at/below average.

# Take-Home Points

## Current conditions:

- Another active week in the state for rainfall, where many in the state saw at least 0.5” of rain.
- April wrapped up as a warmer-than-average month for most in WI, with some very warm highs (**75°F+**) in the south last week.

## Impact:

- Slight declines in soil moisture at most Wisconet stations despite the rainfall, but NASS is indicating that subsoil moisture levels are adequate for **73%** of the state.
- Soil temperatures are at or above 50°F at Wisconet sites in the south.
- US Drought Monitor improvements across the state, mainly in the central region.
- Corn and soybean planting continue to run ahead of the 5-year average pace.

## Outlook:

- The rainy trend is forecasted to continue into this next week – some could see multiple inches of precip.
- Early to mid May is leaning towards being warmer & wetter than average.
- The warmer-than-normal conditions have a higher probability to persist into early summer.
  - *A transition to La Niña is expected by June.*

# Agronomic Considerations

## Planting Considerations

- Soil moisture is adequate or even high in most places, be cautious about planting into muddy conditions, especially with more precipitation later in the week.
- Soil temperatures are now adequate for planting in most of the state.

## Nutrient & Herbicide Applications

- Consider using a preplant nitrate test to assess if there is nitrogen left over from last year due to drought conditions.
- Observe soil moisture conditions before doing fieldwork so as to avoid soil compaction.
- Read herbicide labels from products used last year to assess if carryover is a possibility due to warmth and lack of moisture.

## Manure Applications

- Due to the already moist soil conditions and the anticipated precipitation, be mindful of the possibility of runoff and plan manure applications accordingly.
- Early season manure applications into warm soil conditions may lead to increased mineralization/nitrification and potential for N loss if receive “typical” heavy spring rainfall events, particularly if not applied to a growing cover crop or if the cash crop will not be planted soon after application.

## Pest Management

- Black cut worms now arriving. We had conducive weather patterns for migration, the moths which can be carried on low-level jet stream currents from overwintering areas in Texas and Mexico to Wisconsin in only two days. Determining their arrival date and the first intense trap catches (April 10th 2024 Dodge Co.) can help to identify the most opportune time to scout for cutworm larvae and apply controls, if needed. link to DTCAP website. [DATCP Home Black Cutworm \(wi.gov\)](https://www.datcp.wisconsin.gov/black-cutworm/)

## Breaking Dormancy

- Overnight lows in the upper 30's could occur in the N this week. Be aware that over night lows below freezing still remain a possibility this time of year.
  - MRCC County-level freeze dates: [mrcc.purdue.edu/freeze/freezedatetool](https://mrcc.purdue.edu/freeze/freezedatetool)

# User Survey

Are you a regular user of the Wisconsin Ag Climate Outlook (WACO)? Or maybe you are viewing these slides for the first time this week? Either way, we want to hear **your** feedback on this new resource! Please take a few minutes and fill out this survey:

**[LINK TO SURVEY](#)**

Your feedback will help us better serve your ag-climate data needs through WACO.

If you have any trouble accessing or filling out the survey, please email Josh Bendorf at [Joshua.Bendorf@usda.gov](mailto:Joshua.Bendorf@usda.gov).

Thank you!!

-The WACO Team

# Citizen Science Opportunity

## CoCoRaHS – Community Collaborative Rain, Hail, & Snow Network

### The Mission

(From cocorahs.org)

- Provide accurate high-quality precipitation data for end-users;
- Increasing the density of precipitation data available throughout the country;
- Encouraging citizens to have fun participating in meteorological science and heightening their awareness about weather;
- Providing weather education opportunities.



Sign Up Here:

<https://cocorahs.org/Content.aspx?page=application>

# Contact Info

Photo Credit: USDA



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