

# Wisconsin Ag Climate Outlook

*Week of May 27, 2024*

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# Key Points

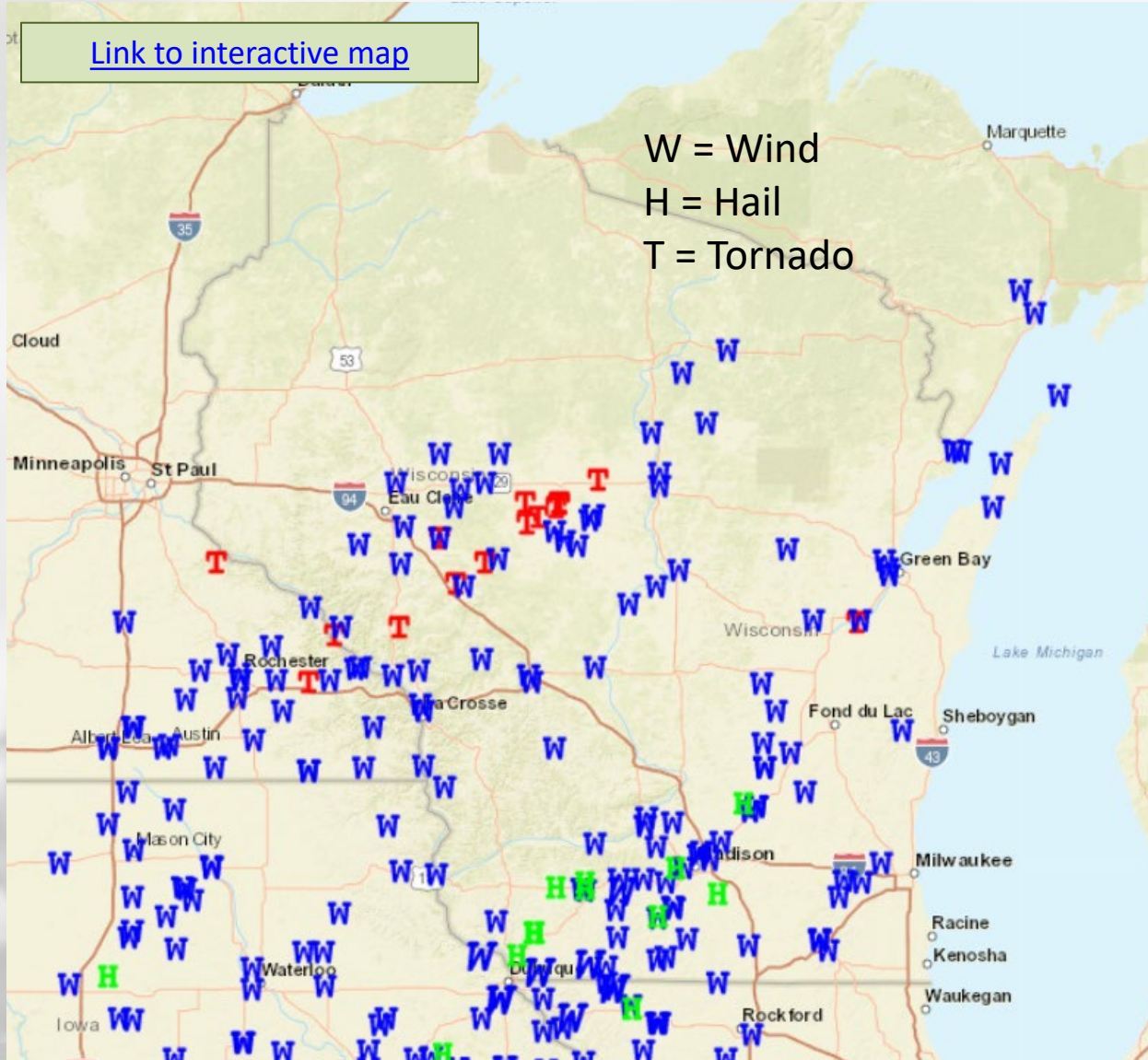
Navigate to select slides by clicking on the [links](#) below.

- 1) A week of [heavy rain](#) events was observed in the state.
  - Some storms were [severe](#).
- 2) [Soil moisture](#) levels continue to make gains with the rainfall, lessening [drought severity](#).
- 3) [GDD's](#) are trending ahead of normal, with the [outlook](#) leaning towards above-normal temps into early June.
  - *For this week's agronomic recommendations from UW Extension, click [here](#).*
  - *For NASS crop progress maps, click [here](#).*

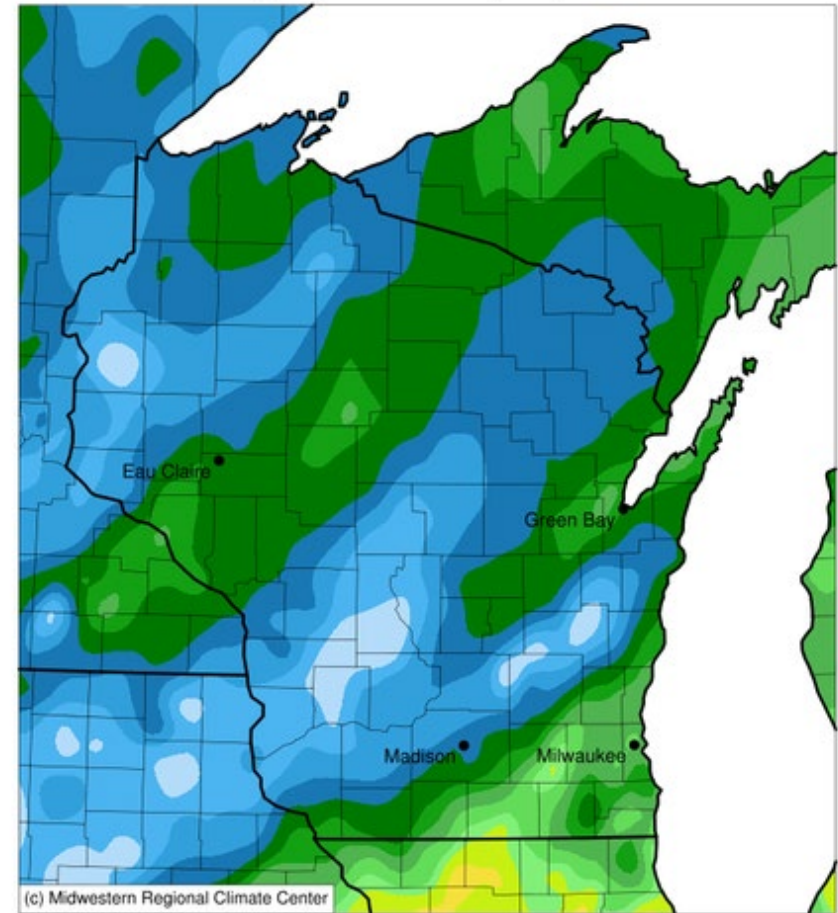
# Severe Wx & Heavy Rain – May 21-22

[Link to interactive map](#)

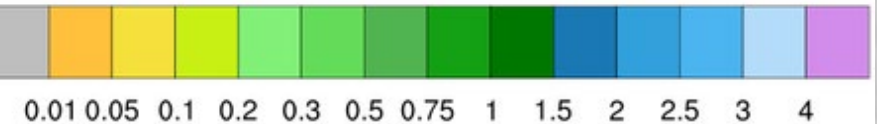
W = Wind  
H = Hail  
T = Tornado



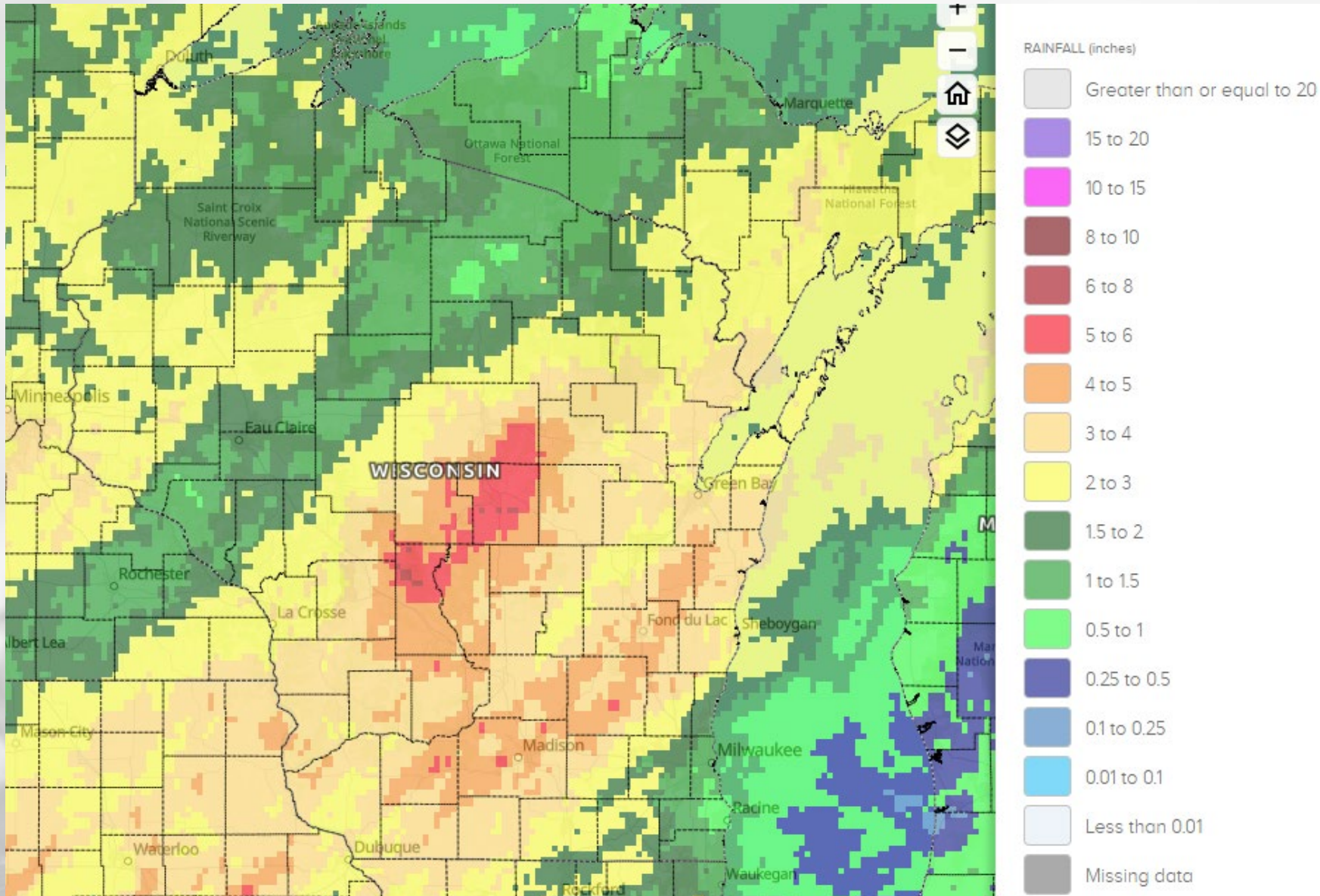
Accumulated Precipitation (in)  
May 21, 2024 to May 22, 2024



(c) Midwestern Regional Climate Center

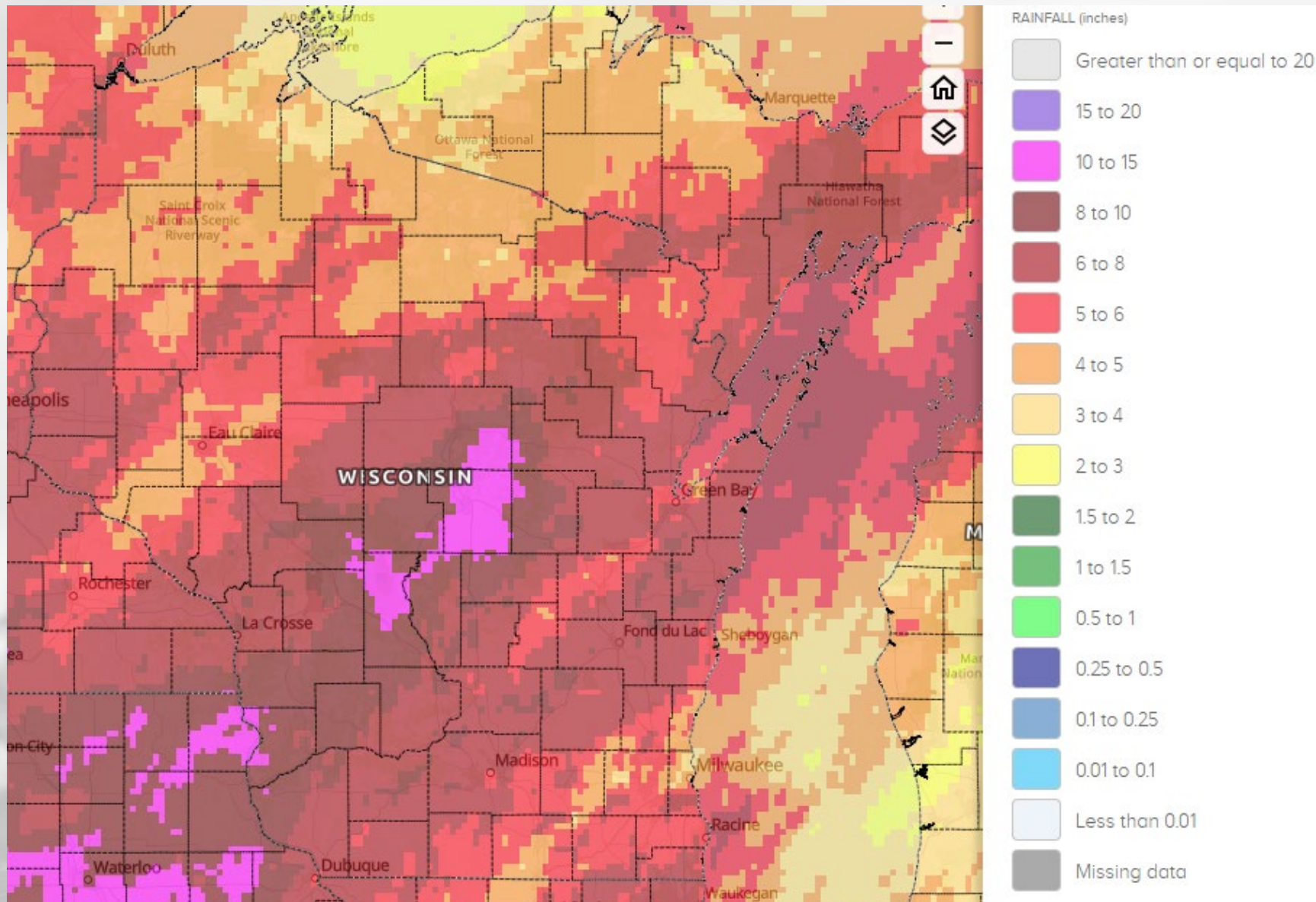


# 7 Day Precip



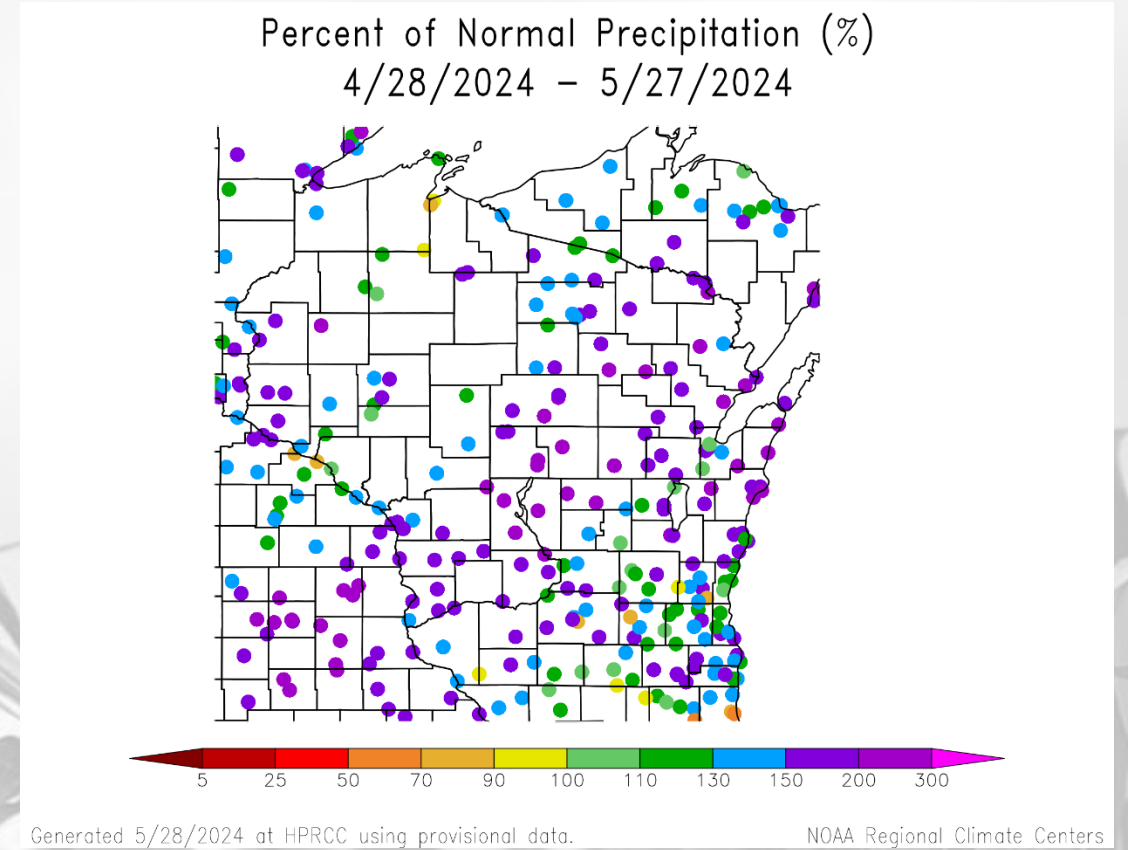
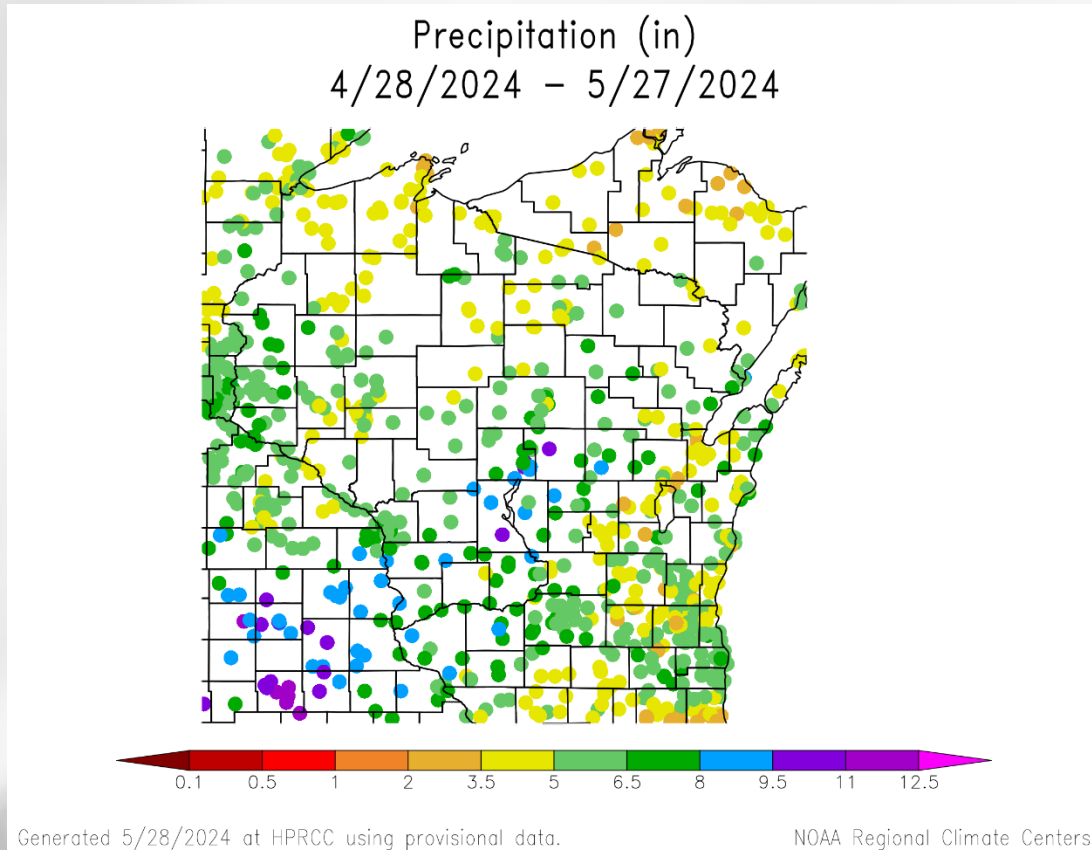
- A week of **severe storms** and **multiple rounds of rainfall**.
- Large swath of **3+”** across the state.
- Totals **>5”** in parts of the central region, as well as isolated pockets in the south.

# 30 Day Precip



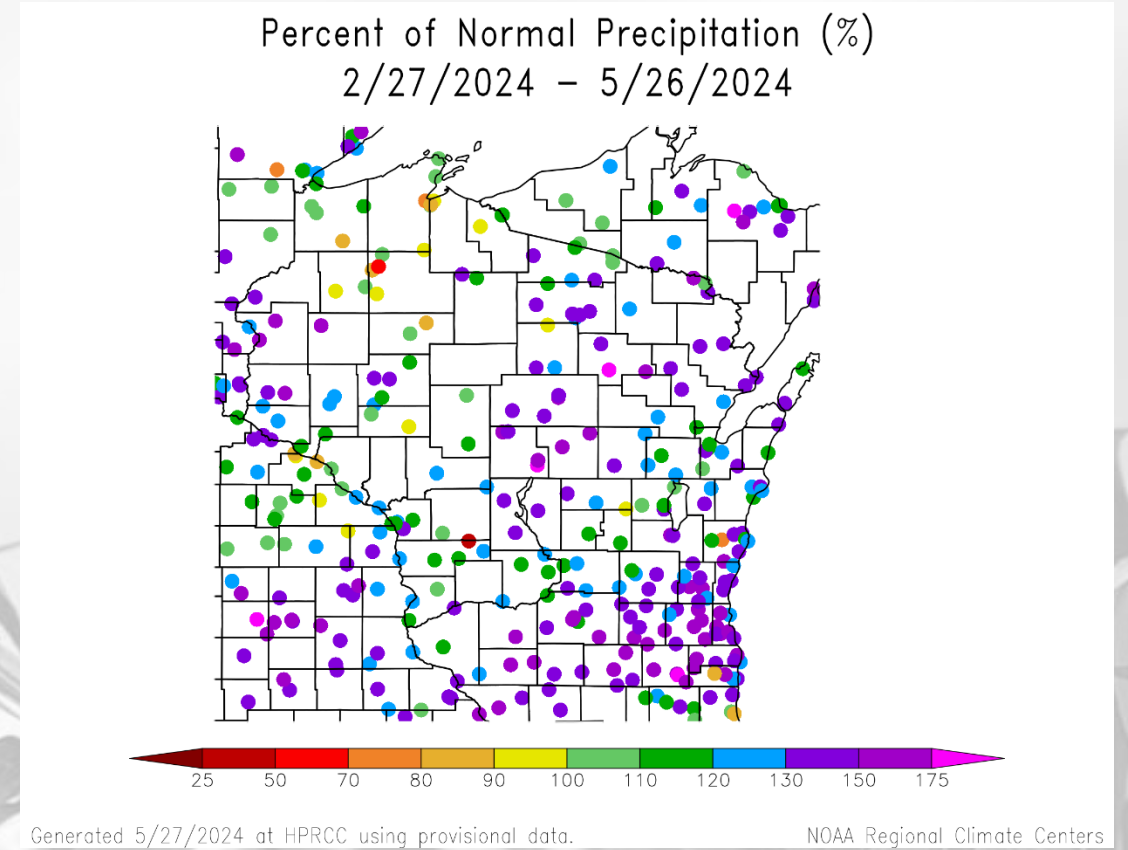
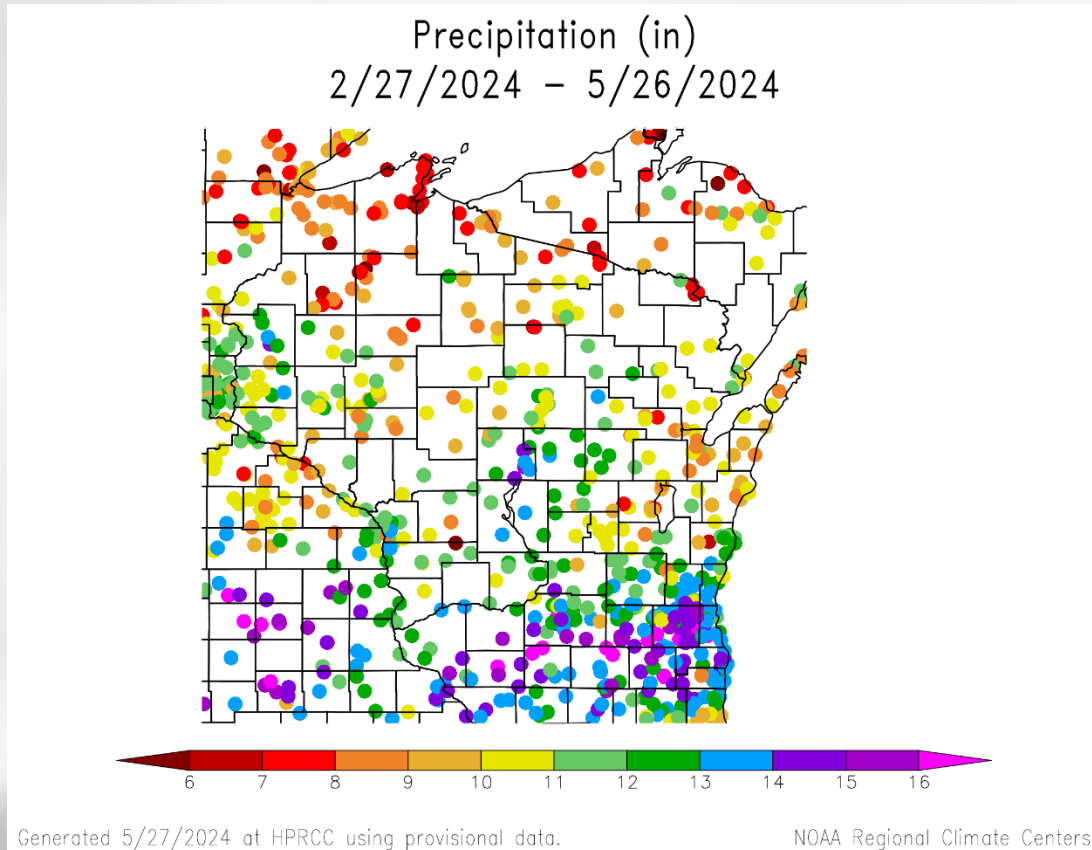
- High totals across the state.
- At least 5" of observed monthly precip across most of the state (except far NW).
- Over 10" in & around Stevens Point/Portage County.

# 30 Day Precip Total/% Avg.



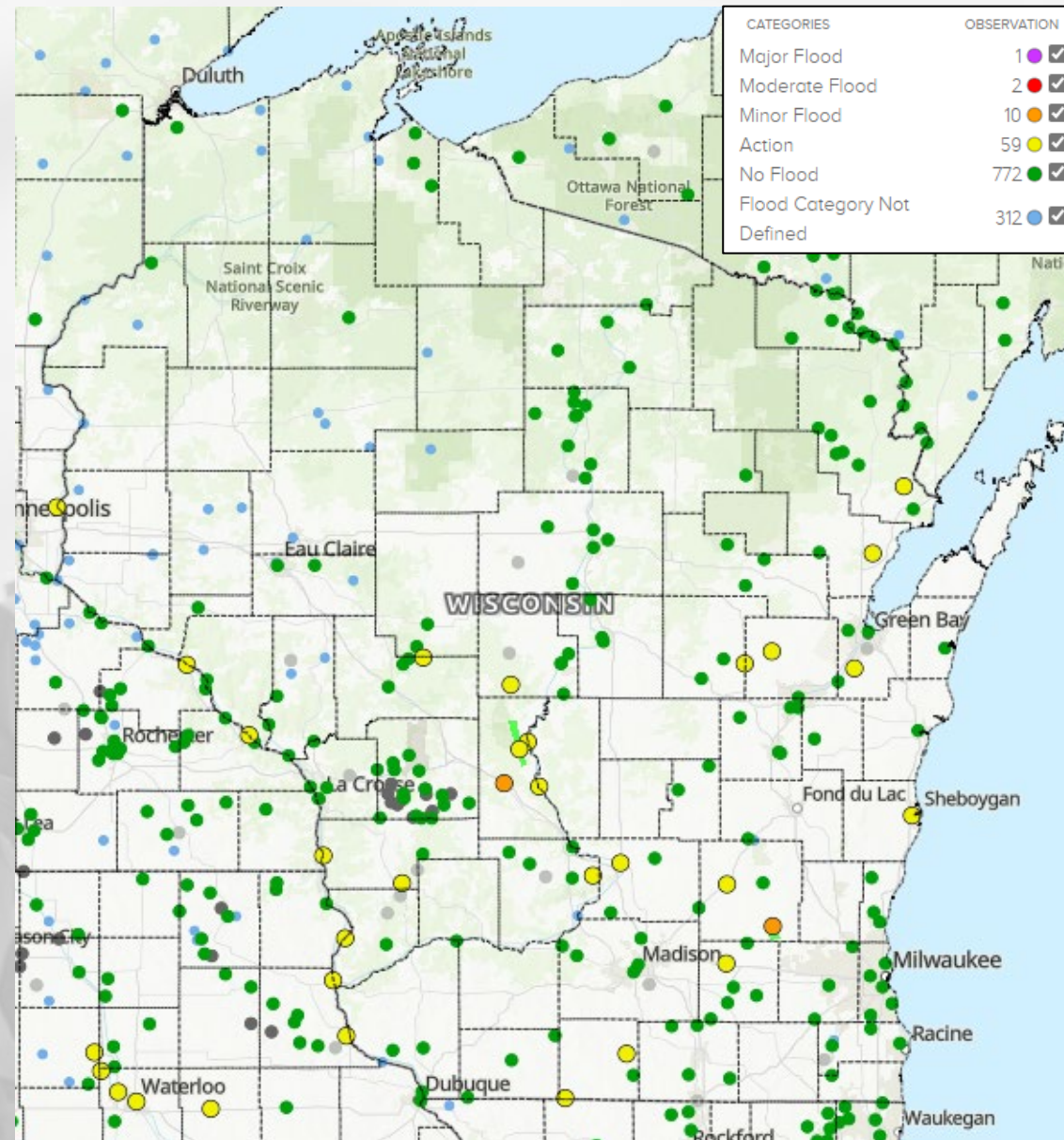
- 30-day totals of **5+”** are common across the state; some in the SW and Central are over **8”**.
- All stations except for a few observed 30-day totals **higher than the climatological average**.
- Monthly totals of **150% or more** of climatological average were very common.

# 90 Day Precip Total/% Avg.



- Highest precip totals near to the IL state line → **14"** for some; **+130%** of average is common
- Many stations are **near or above** 30-year average.
- **<90%** of average can be found at stations in the far NW (**8" or less**)

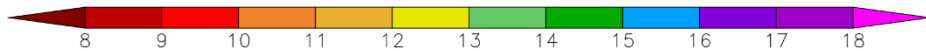
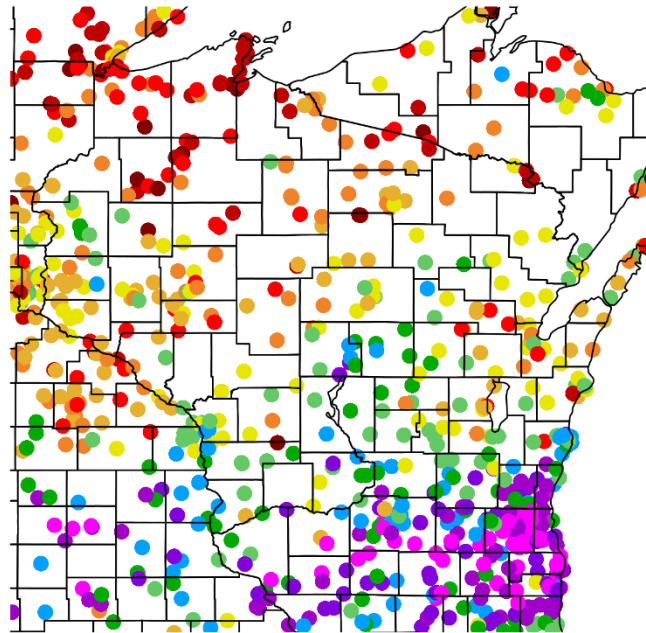
# River Levels





# 2024 Precipitation (so far)

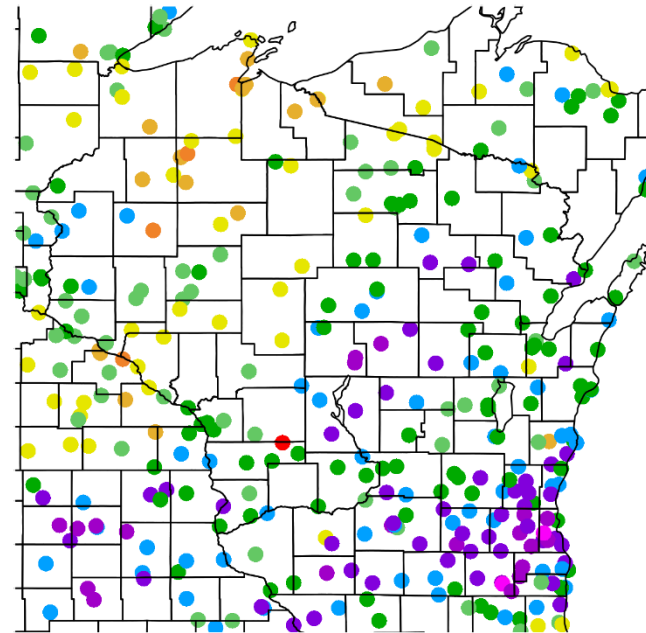
Precipitation (in)  
1/1/2024 - 5/26/2024



Generated 5/27/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Precipitation (in)  
1/1/2024 - 5/27/2024



Generated 5/28/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

# Soil Moisture Models

- **Substantial gains** in soil moisture percentile across the state, according to the NASA SPoRT-LIS model.
- Wetter-than-normal conditions statewide with the rainy week that was experienced.

Model Notes:

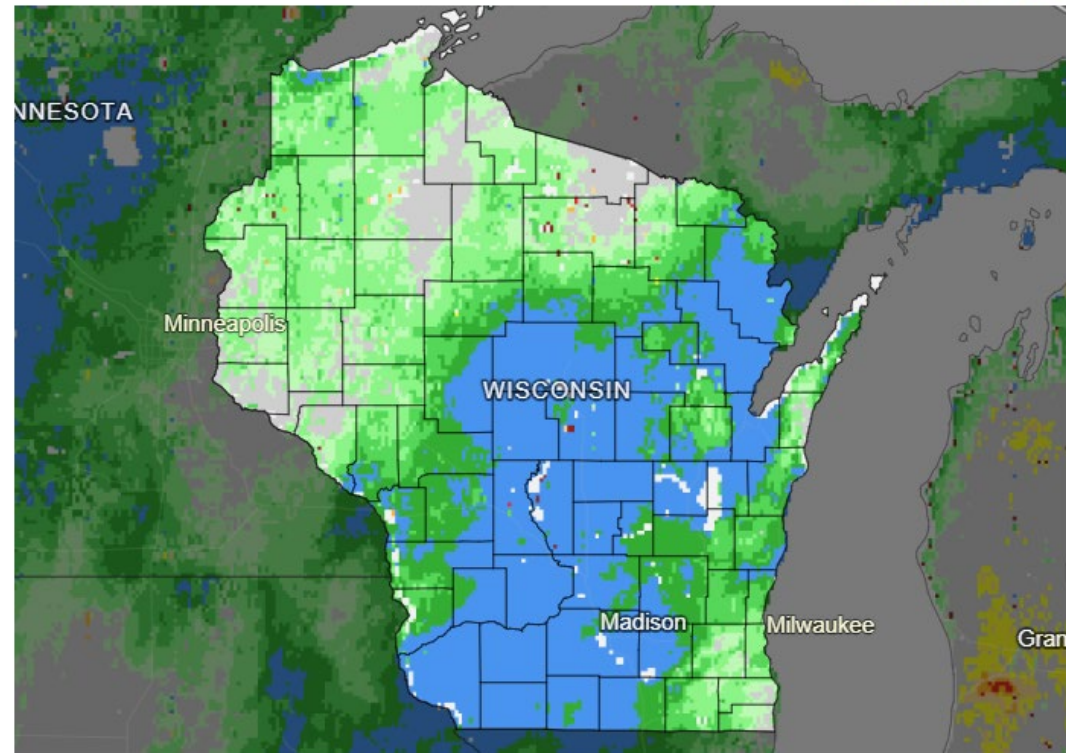
Red areas = top 5 driest in 100 years.

Dark red areas = top 2 driest in 100 years.

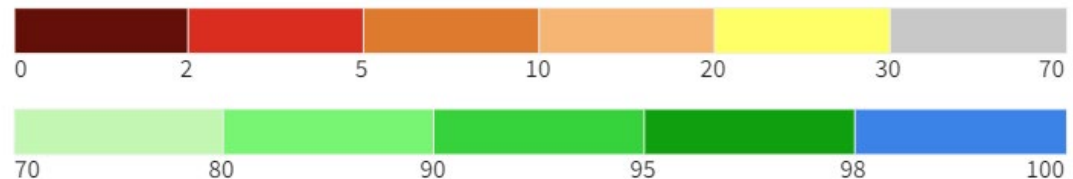
*It's worth noting that each soil moisture model has their own characteristics and input variables, so there tends to be variation between models. Thus, it's worthwhile to look at multiple models opposed to just one.*

[https://weather.msfc.nasa.gov/sport/case\\_studies/lis\\_CONUS.html](https://weather.msfc.nasa.gov/sport/case_studies/lis_CONUS.html)  
<https://www.drought.gov/states/wisconsin>

0-100 cm Soil Moisture Percentile



0-100 cm Soil Moisture Percentile

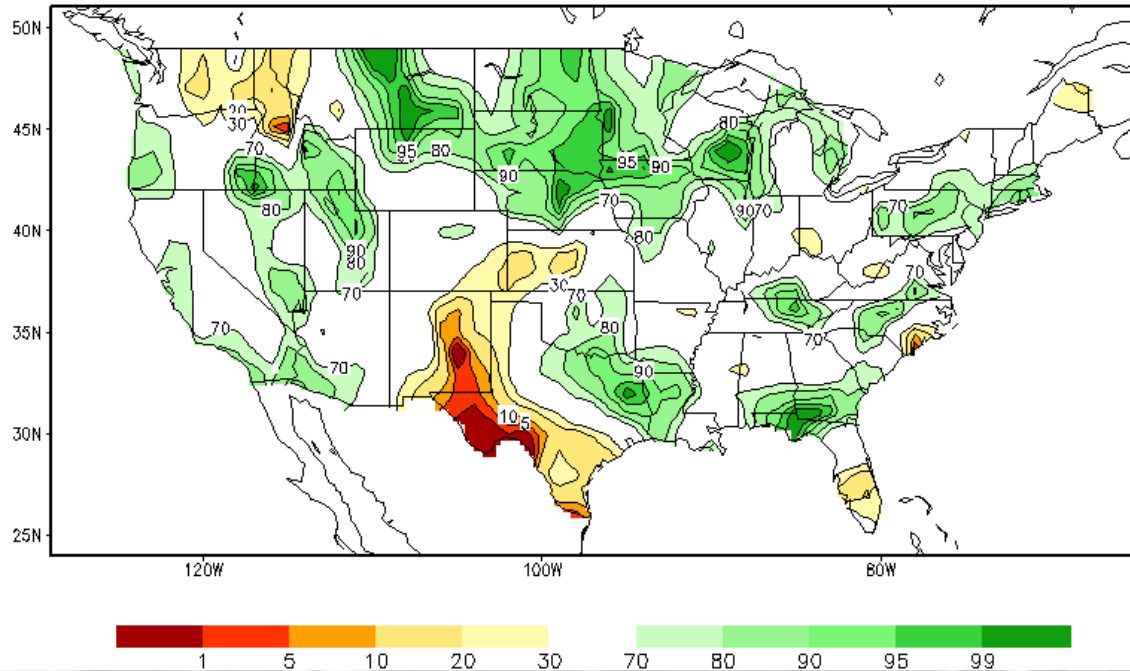


Source(s): NASA  
Data Valid: 05/28/24

**Drought.gov**

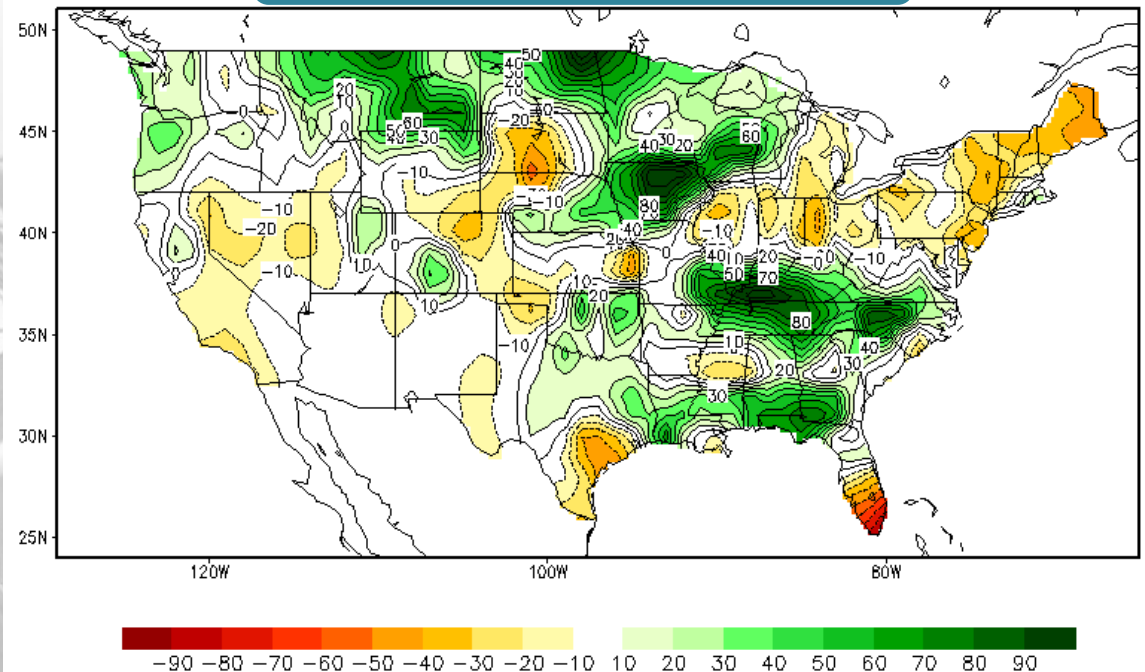
# Soil Moisture Models

Calculated Soil Moisture Ranking Percentile  
MAY 27, 2024

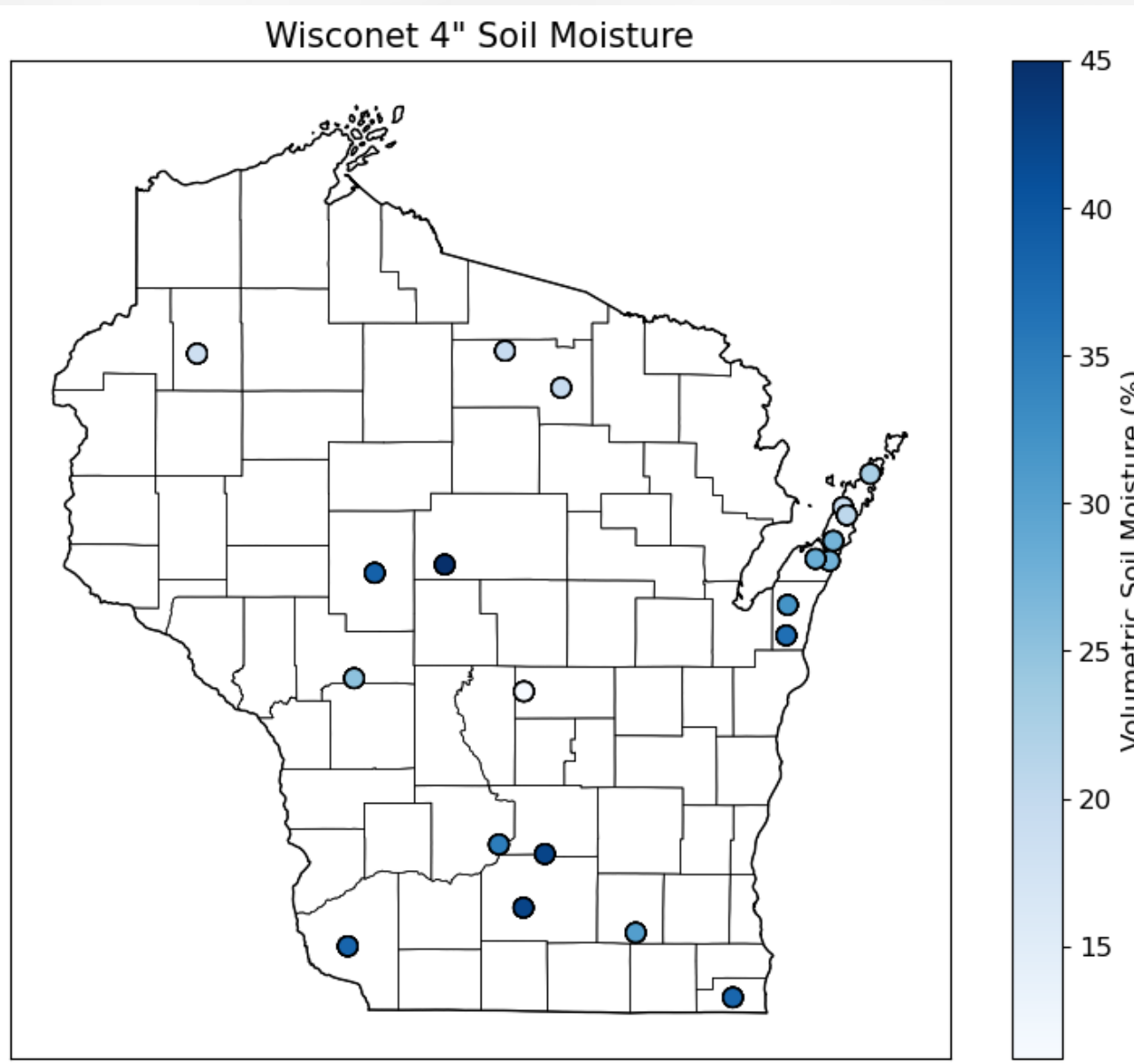


Soil moisture gains statewide  
since last month.

Calculated Soil Moisture Anomaly Change  
MAY 27, 2024 from APR.30

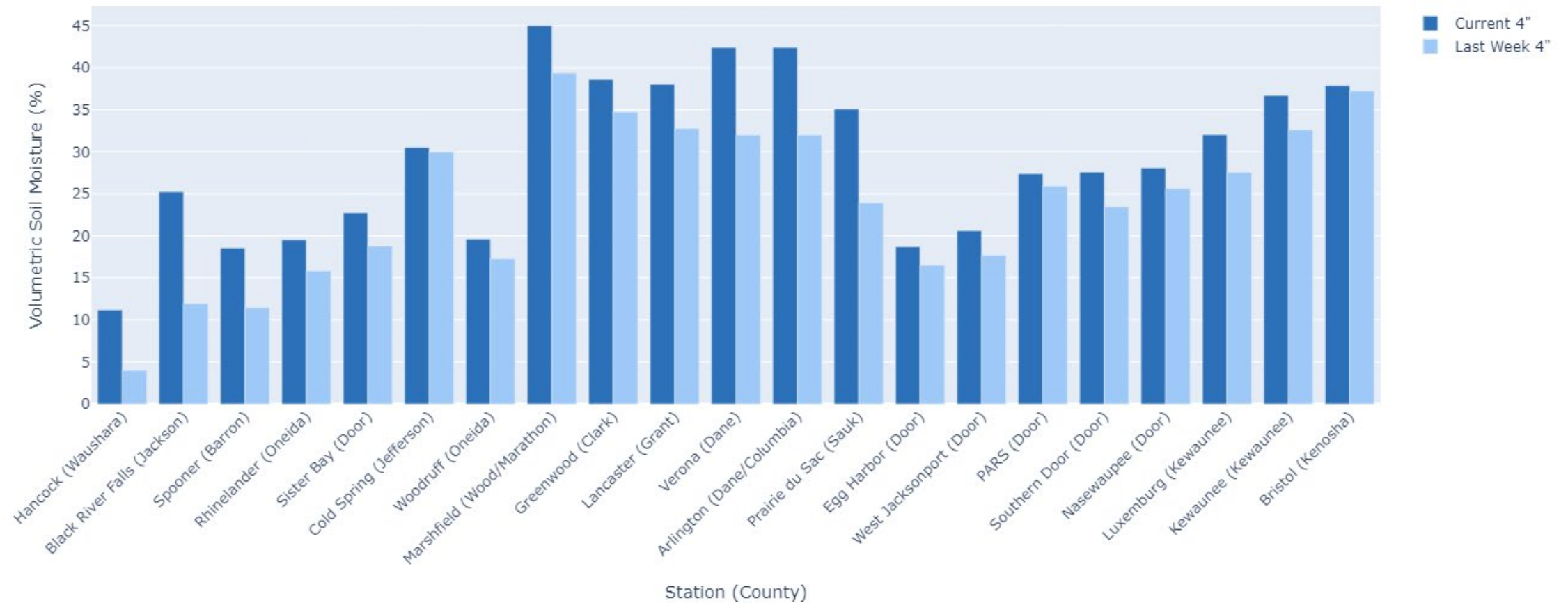


# Soil Moisture - Wisconet



# Soil Moisture - Wisconet

Wisconet 4" Soil Moisture



**Current:** 7-day average ending on 5/27

**Last Week:** 7-day average ending on 5/20

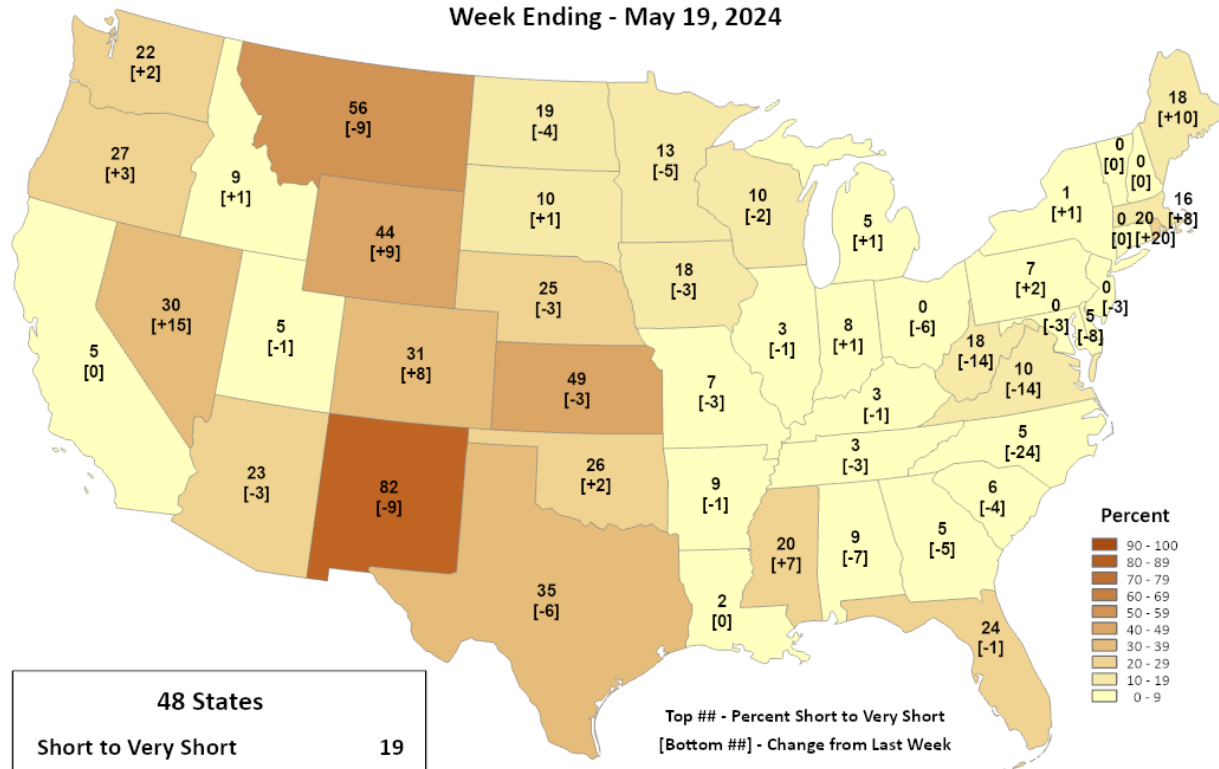
<https://wisconet.wisc.edu/>

# 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 - May 19, 2024

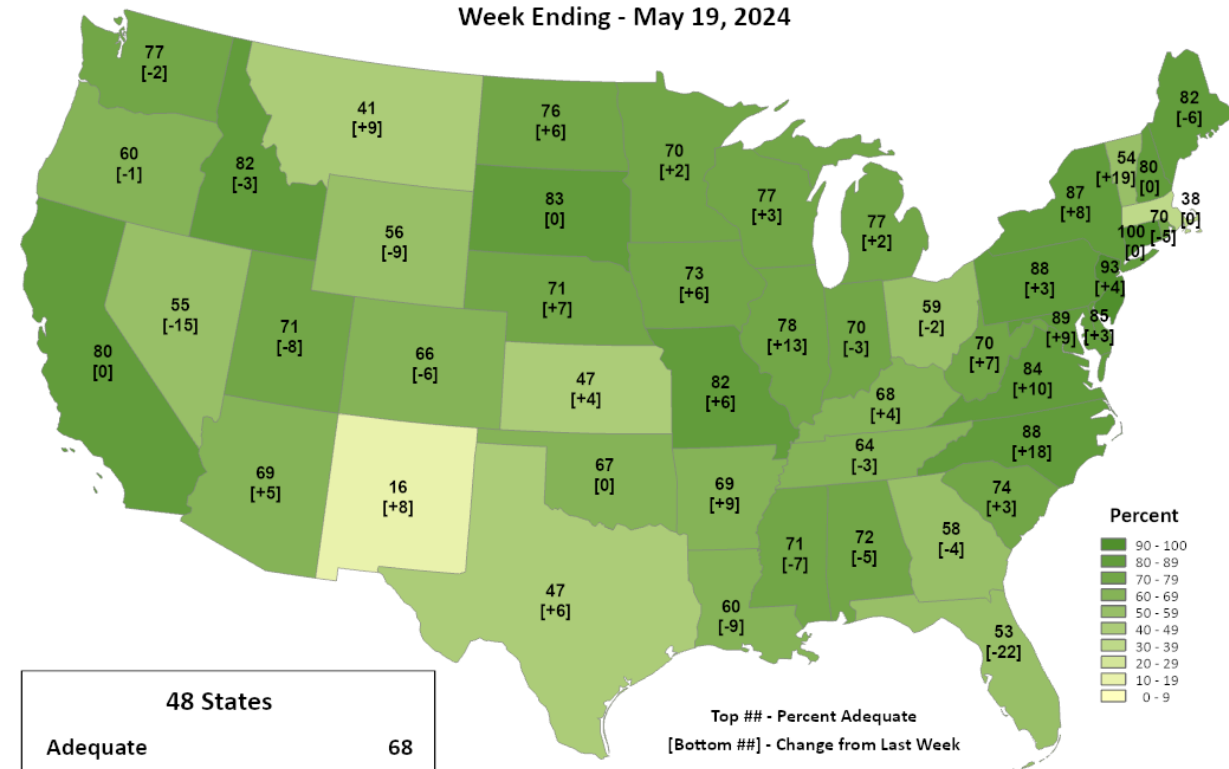


Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.



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

## Subsoil Moisture Percent Adequate Week Ending - May 19, 2024

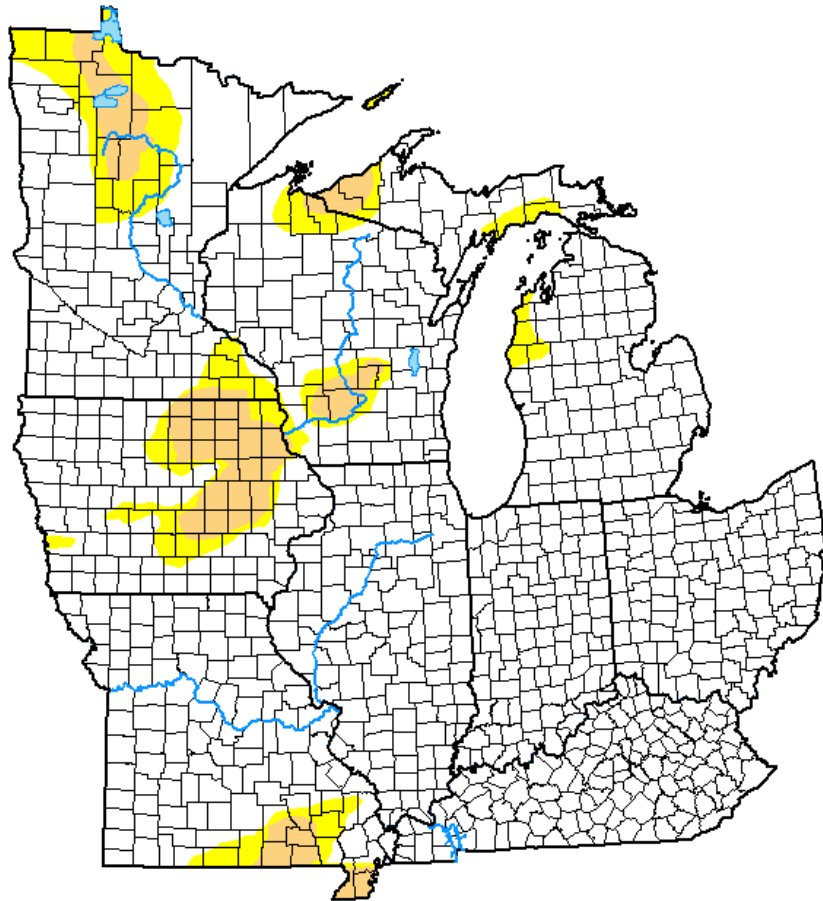


Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.

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

# US Drought Monitor

## U.S. Drought Monitor Midwest



May 21, 2024

(Released Thursday, May. 23, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	87.05	12.95	5.50	0.00	0.00	0.00
<b>Last Week</b> <i>05-14-2024</i>	79.46	20.54	7.64	2.22	0.00	0.00
<b>3 Months Ago</b> <i>02-20-2024</i>	43.41	56.59	26.89	10.76	2.14	0.00
<b>Start of Calendar Year</b> <i>01-02-2024</i>	22.92	77.08	50.25	20.76	4.20	0.00
<b>Start of Water Year</b> <i>09-26-2023</i>	16.82	83.18	54.98	23.81	6.21	0.13
<b>One Year Ago</b> <i>05-23-2023</i>	73.04	26.96	8.79	2.08	0.17	0.00

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate 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:

David Simeral  
Western Regional Climate Center



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

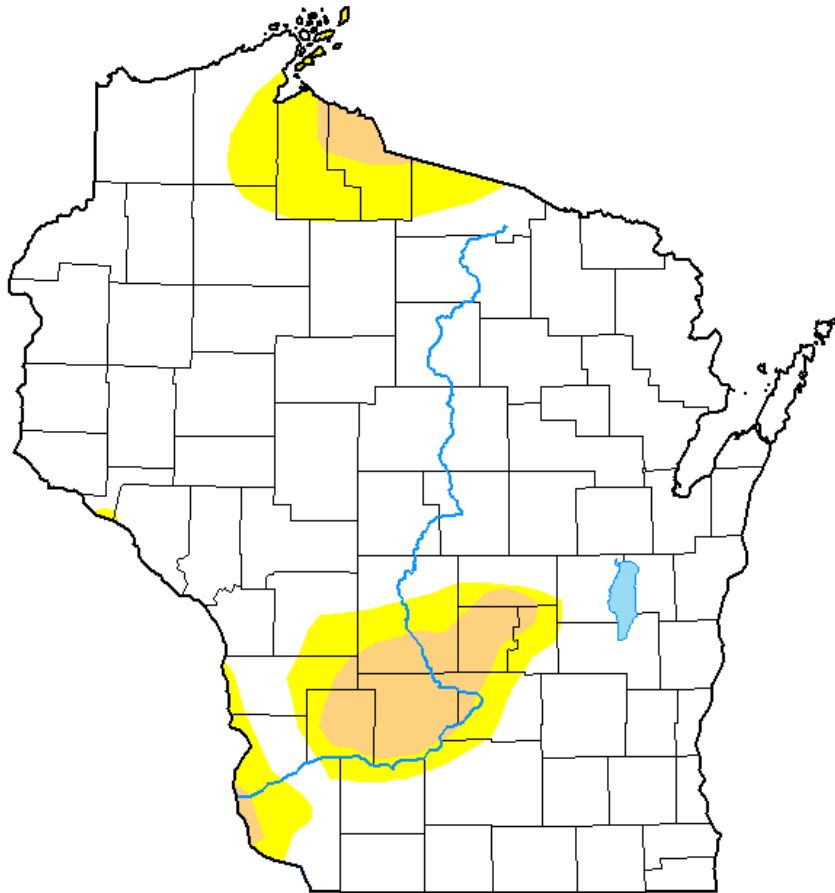
- Compared to last week:
  - Continued decreases in drought category area.
- **87%** of the Midwest is outside of D0-D4.
- D2-D4 drought are non-existent in the Midwest.
- Only **5.5%** of the Midwest remains in D1 drought.

*Note: D0 is not considered drought.*

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

# US Drought Monitor

## U.S. Drought Monitor Wisconsin



**May 21, 2024**

(Released Thursday, May. 23, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	84.76	15.24	5.37	0.00	0.00	0.00
<b>Last Week</b> 05-14-2024	71.90	28.10	7.93	2.52	0.00	0.00
<b>3 Months Ago</b> 02-20-2024	13.51	86.49	40.91	17.07	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> 05-23-2023	99.18	0.82	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>

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Western Regional Climate Center



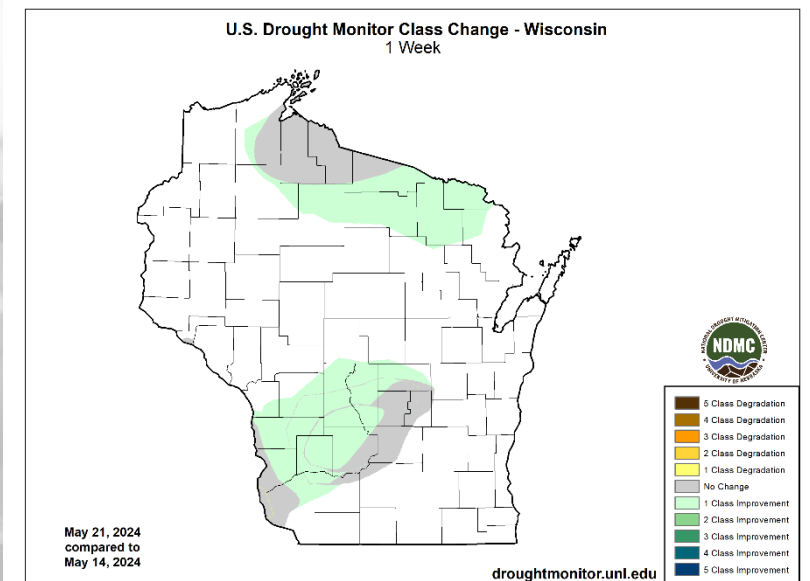
[droughtmonitor.unl.edu](http://droughtmonitor.unl.edu)

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

Amount of state in:

- **D1-D4** – 5.4% ↓
- **D2-D4** – 0.0% ↓
- **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.

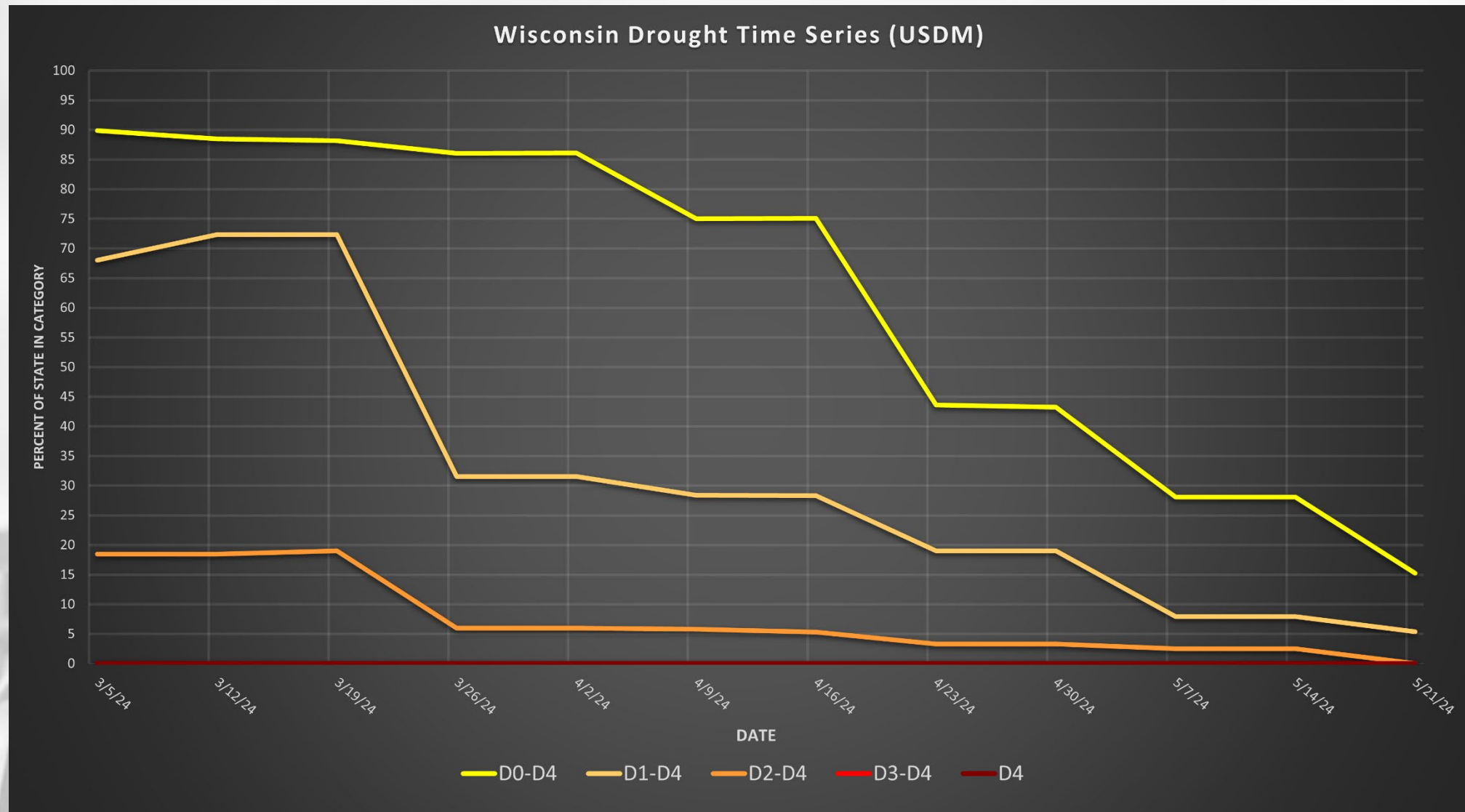


May 21, 2024  
compared to  
May 14, 2024

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



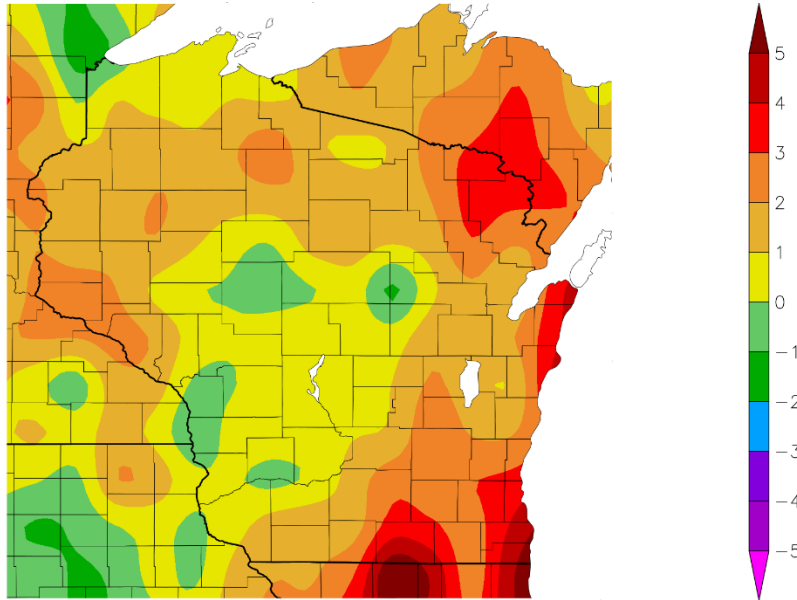
# USDM Time Series



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

# 7 Day Temperatures

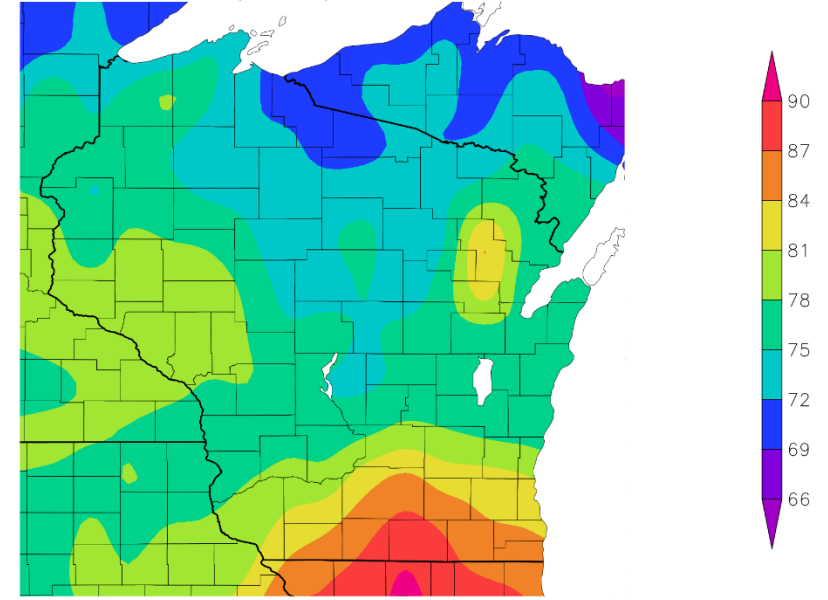
Departure from Normal Temperature (F)  
5/21/2024 – 5/27/2024



Generated 5/28/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Highest 1-Day Maximum Temperature (F)  
5/21/2024 – 5/27/2024



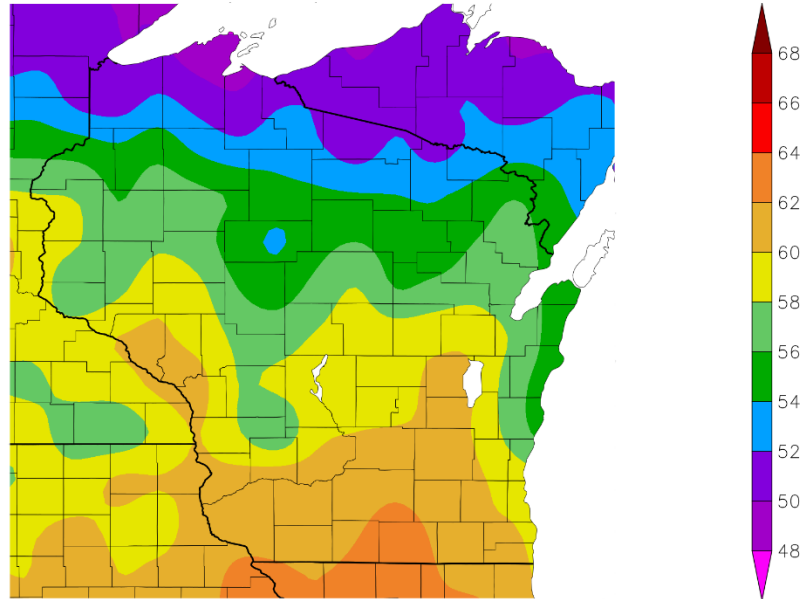
Generated 5/28/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Temps were within  $-/+2^{\circ}\text{F}$  of normal for most last week;  $>3^{\circ}\text{F}$  above normal in the areas in red.
- Maximum temps were a bit cooler than last week, reaching the **mid 70's** in the N and **low 80's** in the S.

# 30 Day Temperatures

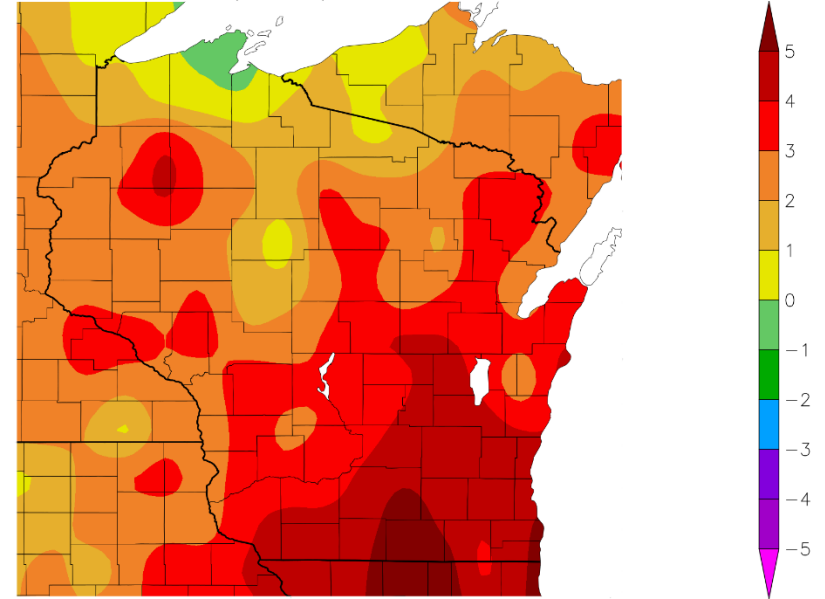
Temperature (F)  
4/28/2024 – 5/27/2024



Generated 5/28/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Temperature (F)  
4/28/2024 – 5/27/2024

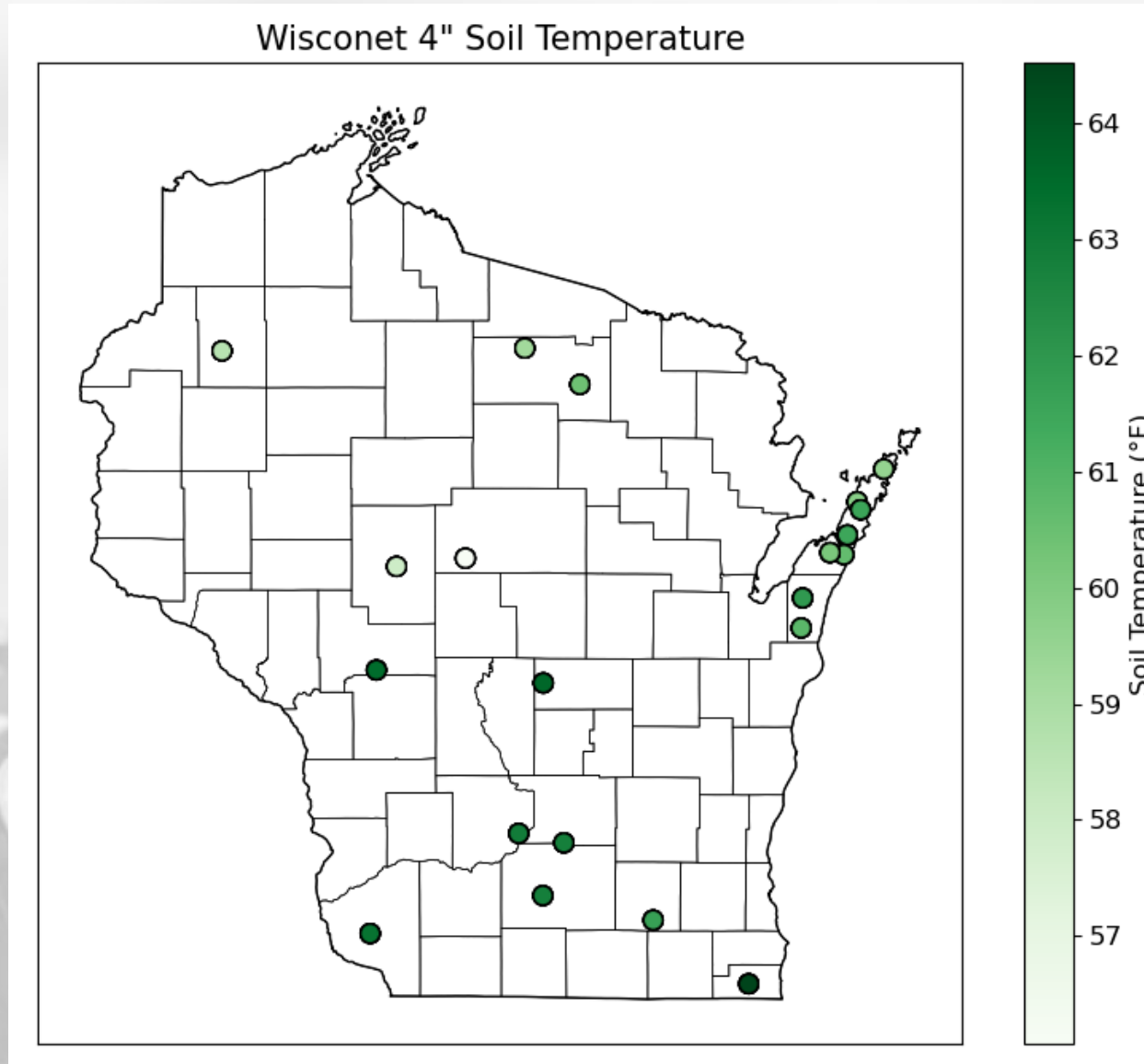


Generated 5/28/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

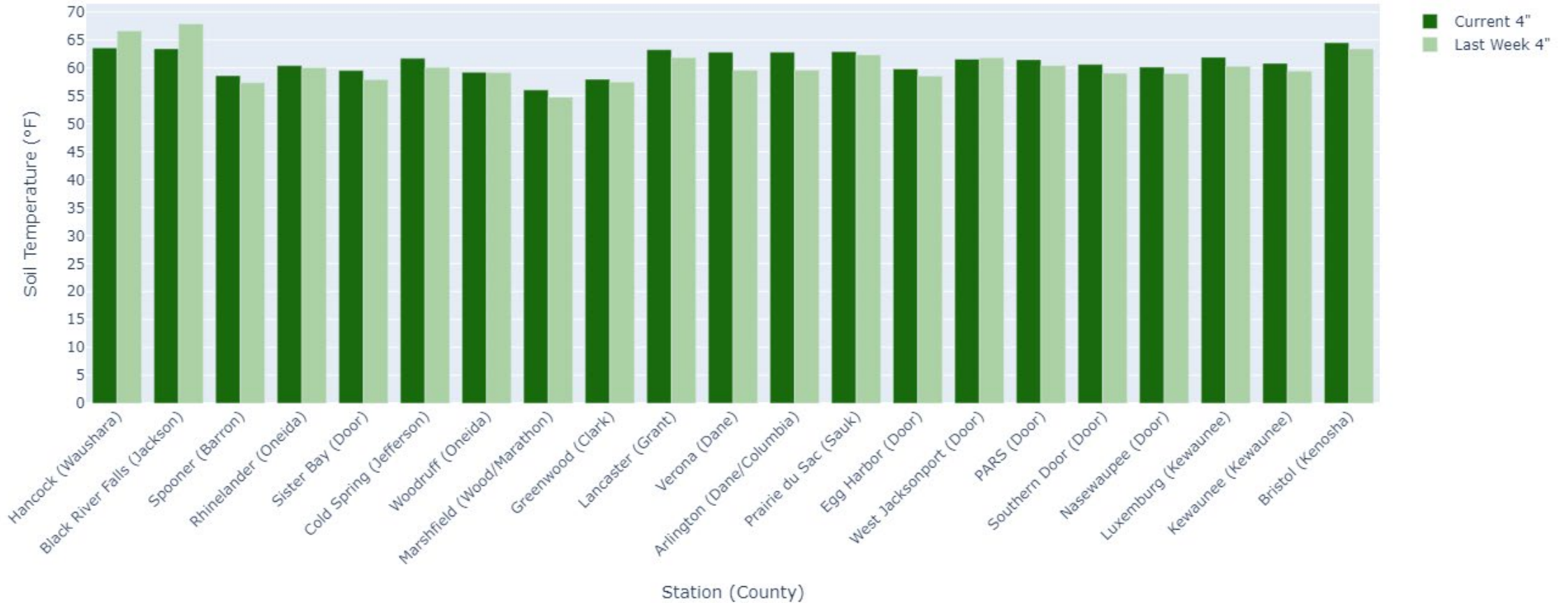
- Temperatures for the month of May ranged from **60-64°F** in the S to **50-54°F** in the far N.
  - Warmer in the south & east → **3-5°F** above normal.
  - Cooler in the northwest/north central → within **-/+1°F** of long-term normal.

# Soil Temperature - Wisconet



# Soil Temperature - Wisconet

Wisconet 4" Soil Temperature



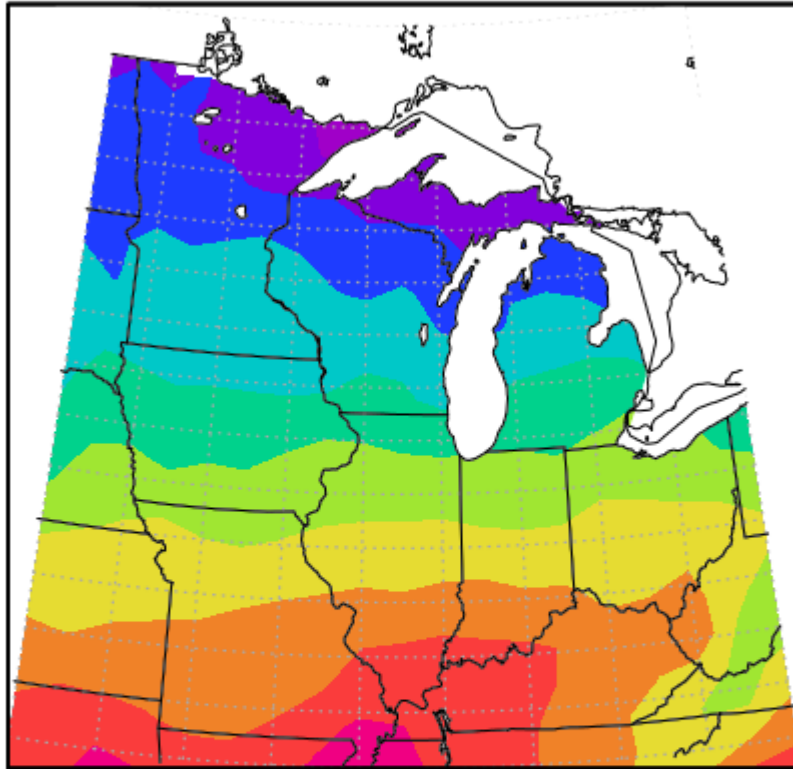
**Current:** 7-day average ending on 5/27

**Last Week:** 7-day average ending on 5/20

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

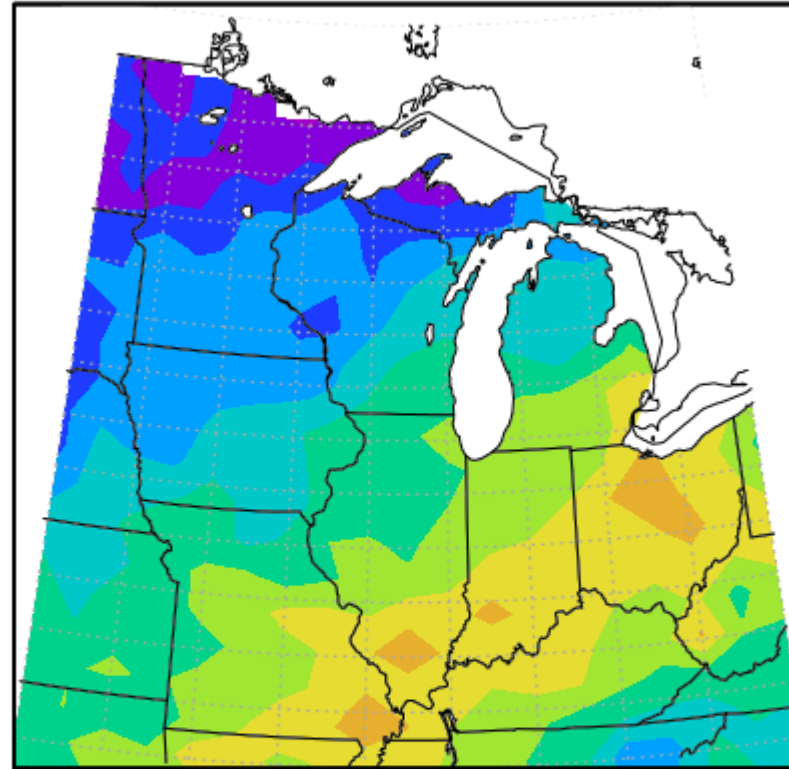
# Growing Degree Days (Since April 1)

Total MGDD from 4/1/2024 to 5/27/2024



Midwestern Regional Climate Center  
Purdue University

MGDD Departure, 4/1/2024 to 5/27/2024



Midwestern Regional Climate Center  
Purdue University  
Normals Period, 1991-2020

- All of WI is tracking ahead of average on degree days
- SE WI is 90-120 GDD further ahead of the average; 30-60 ahead of average in the NW.

To calculate GDD for your corn variety and planting date, use [this tool](#).

To see specific degree models for pests in your location, use the [Vegetable Disease & Insect Forecasting Network](#).

[https://mrcc.purdue.edu/climate\\_watch](https://mrcc.purdue.edu/climate_watch)

# NASS Crop Progress – Corn

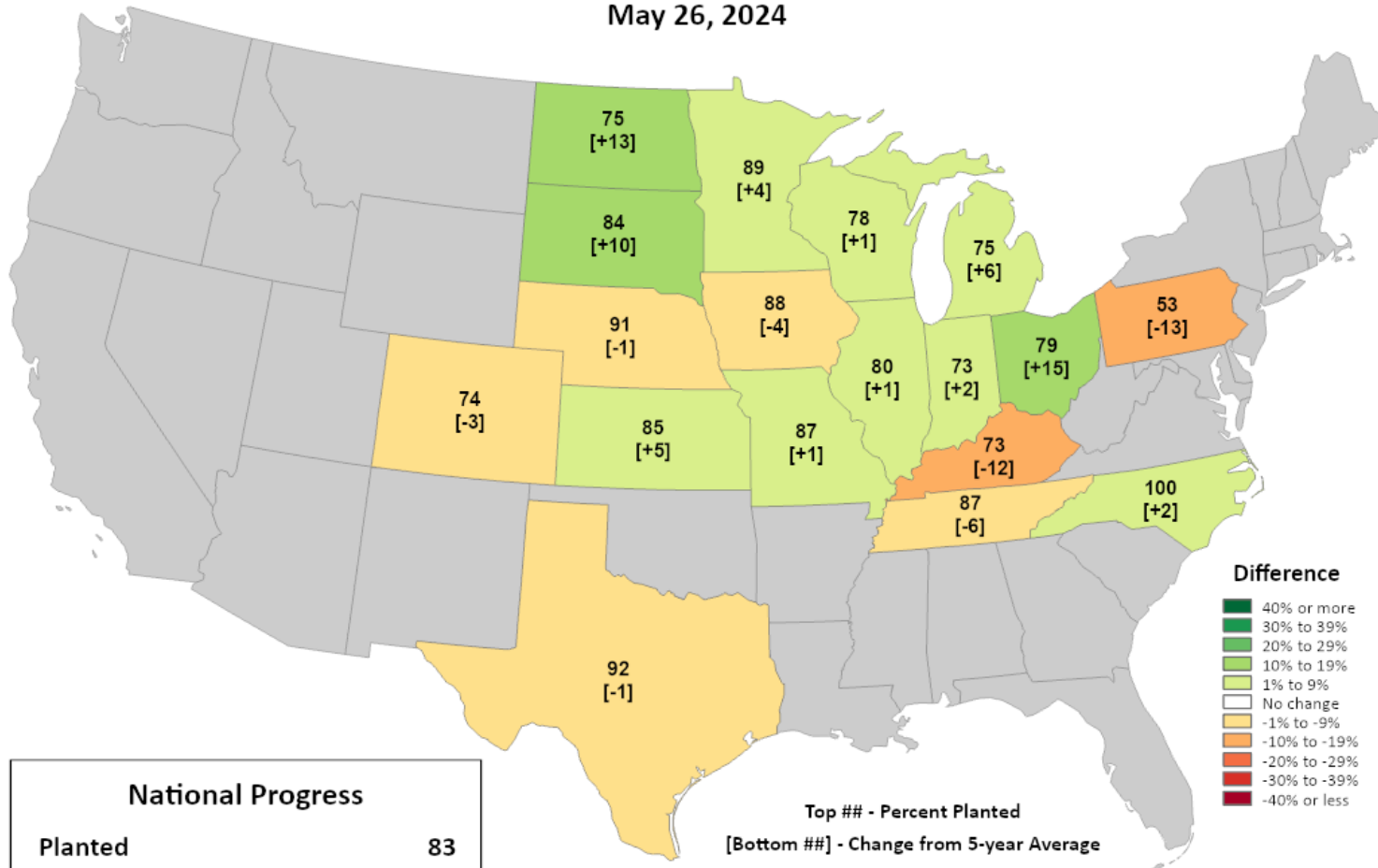


This product was prepared by the  
USDA Office of the Chief Economist (OCE)  
World Agricultural Outlook Board (WAOB)

## Corn Progress

### Percent Planted

May 26, 2024



National Progress	
Planted	83
Change from 5-year Average	+1

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

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

- Planting is running **ahead** of the 5-year average in WI and states to the N & W. **Behind** average pace in IA.
- Wisconsin → **78% complete**; slightly ahead of the 5-year average pace. **12% increase** from last week.
- Emergence → **48% emerged**

# NASS Crop Progress – Soybean

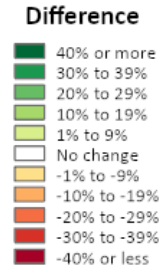
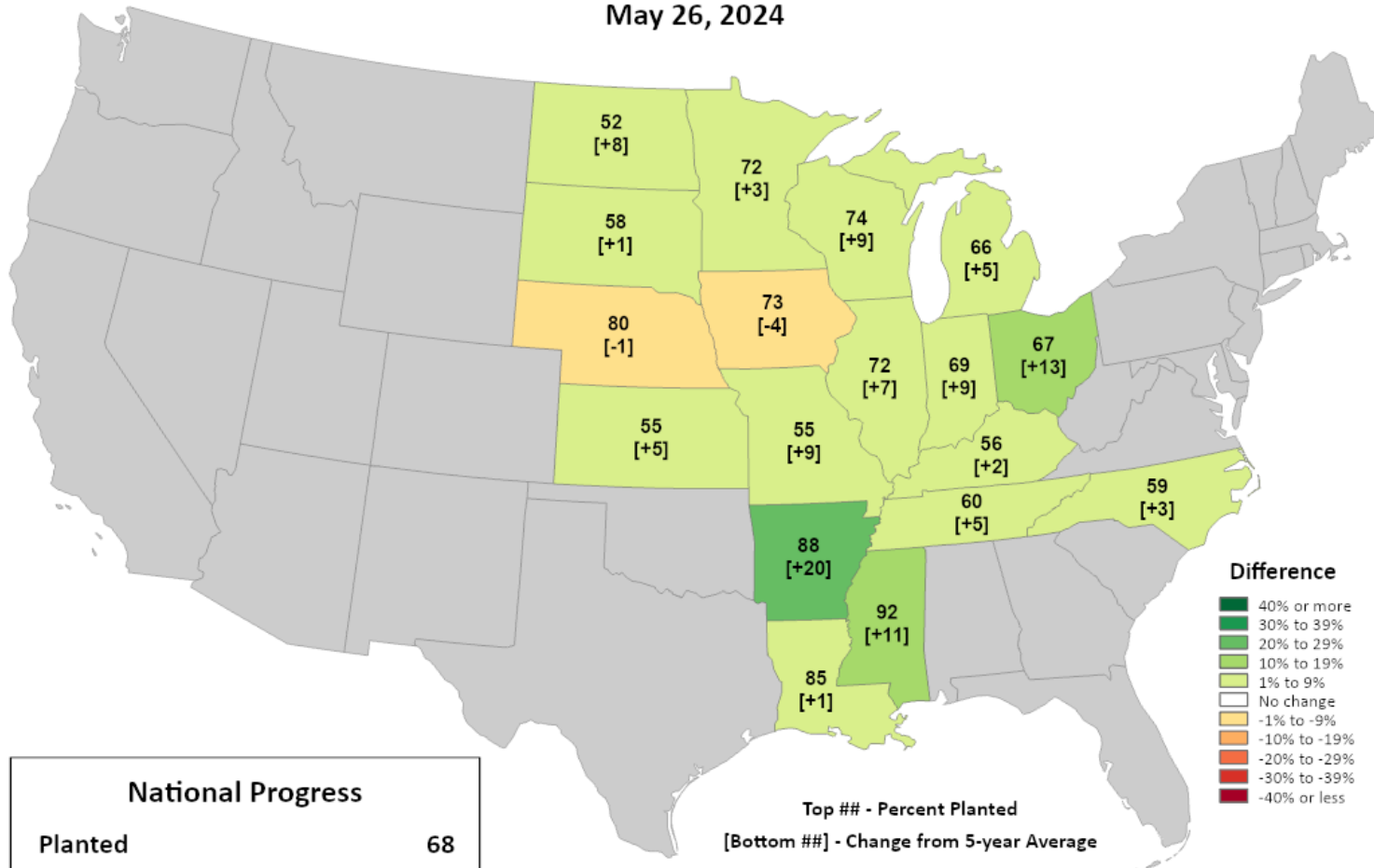


This product was prepared by the  
USDA Office of the Chief Economist (OCE)  
World Agricultural Outlook Board (WAOB)

## Soybeans Progress

### Percent Planted

May 26, 2024



National Progress	
Planted	68
Change from 5-year Average	+5

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

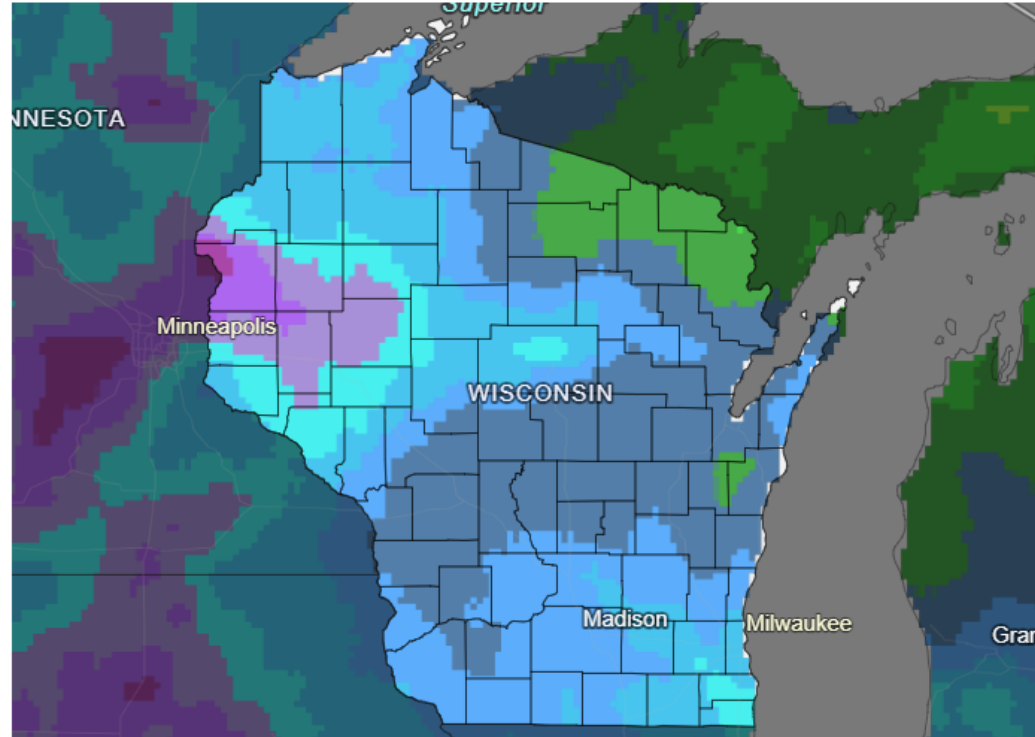
Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.

- Planting is running **at or ahead** of the 5-year average in WI and surrounding states (minus IA).
  - Wisconsin → **74% complete**; 9% ahead of the 5-year average pace. **17% increase** from last week.
  - Emergence → **44% emerged**

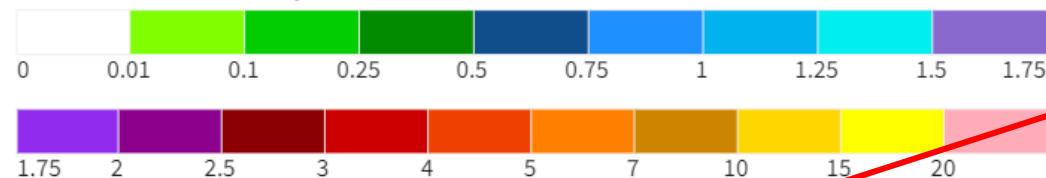


# 7 Day Precip Forecast

## 7-Day Quantitative Precipitation Forecast



### Predicted Inches of Precipitation



Source(s): National Weather Service Weather Prediction Center  
Data Valid: 05/28/24

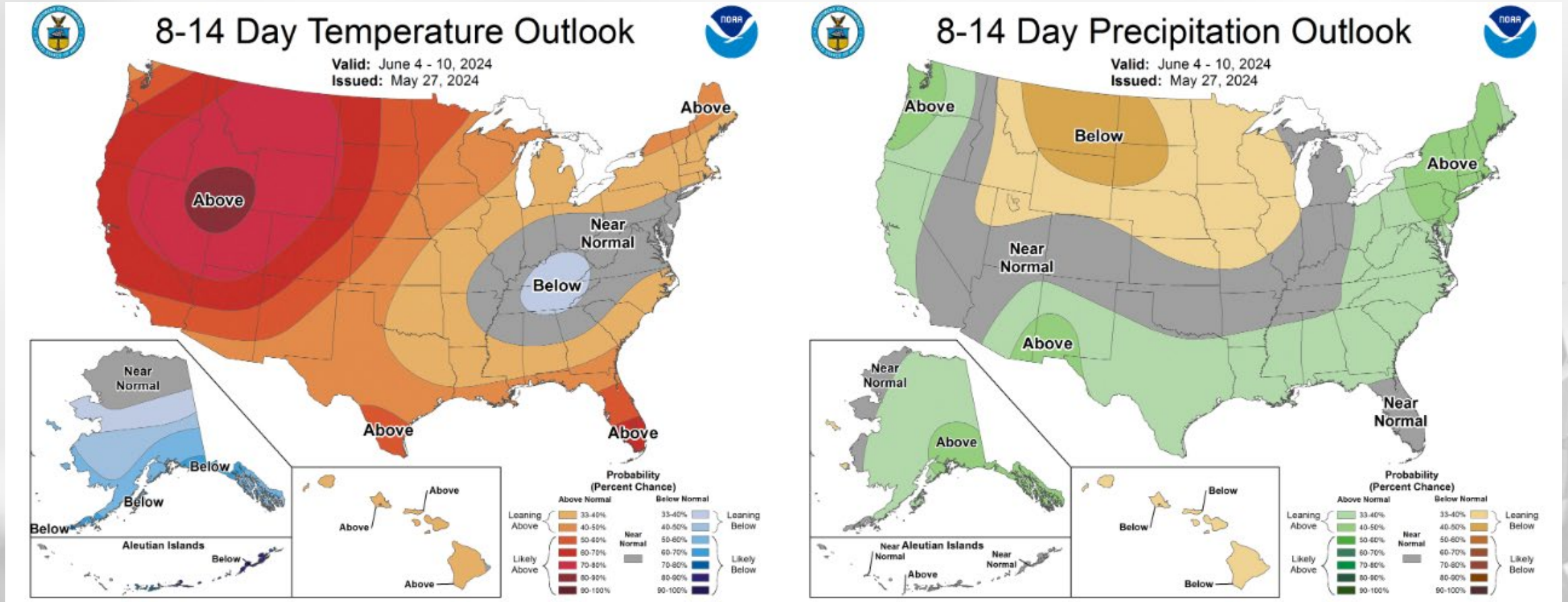
Drought.gov

- Not as rainy as last week, but rains is still forecasted statewide.
- Chances for rain this weekend into early next week.

Forecast for 5/28/24 thru 6/4/24  
(Begins at 7am CDT)

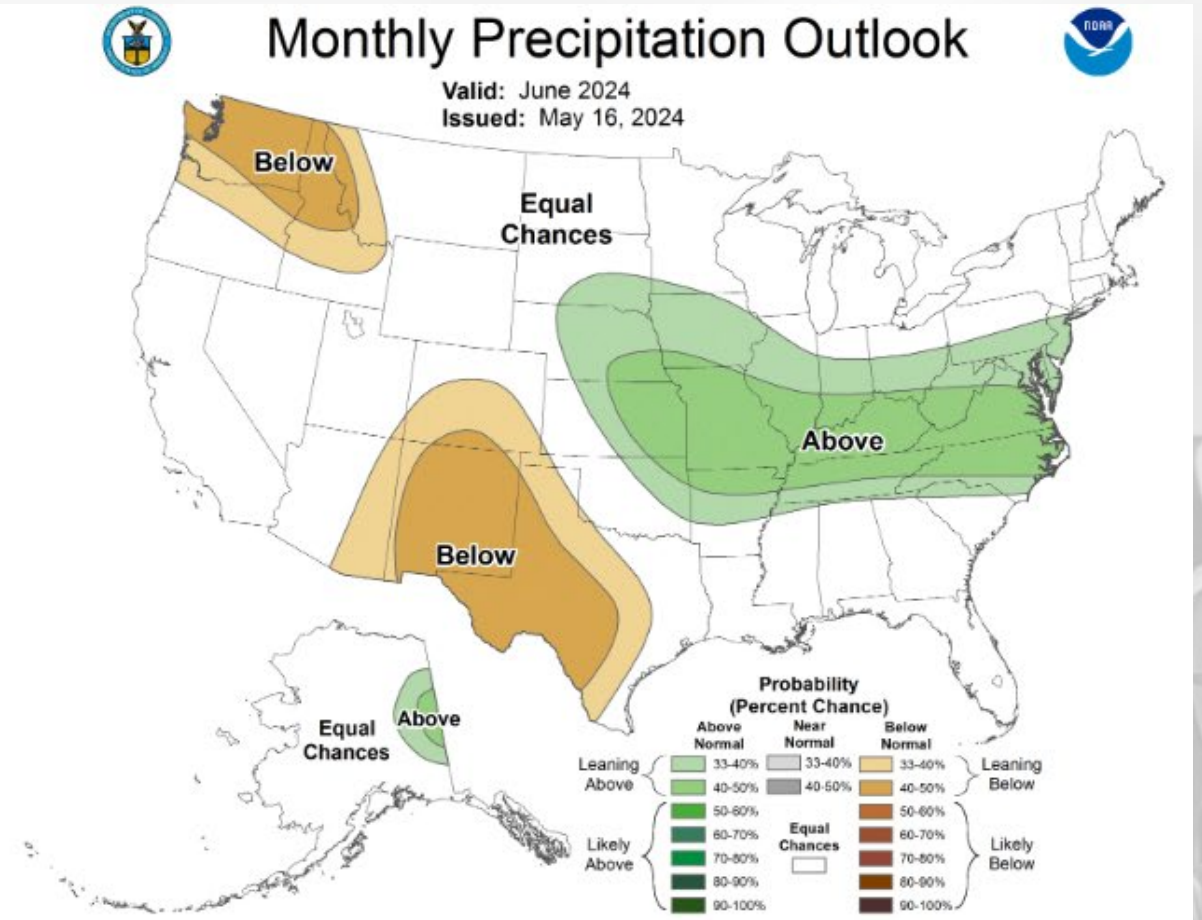
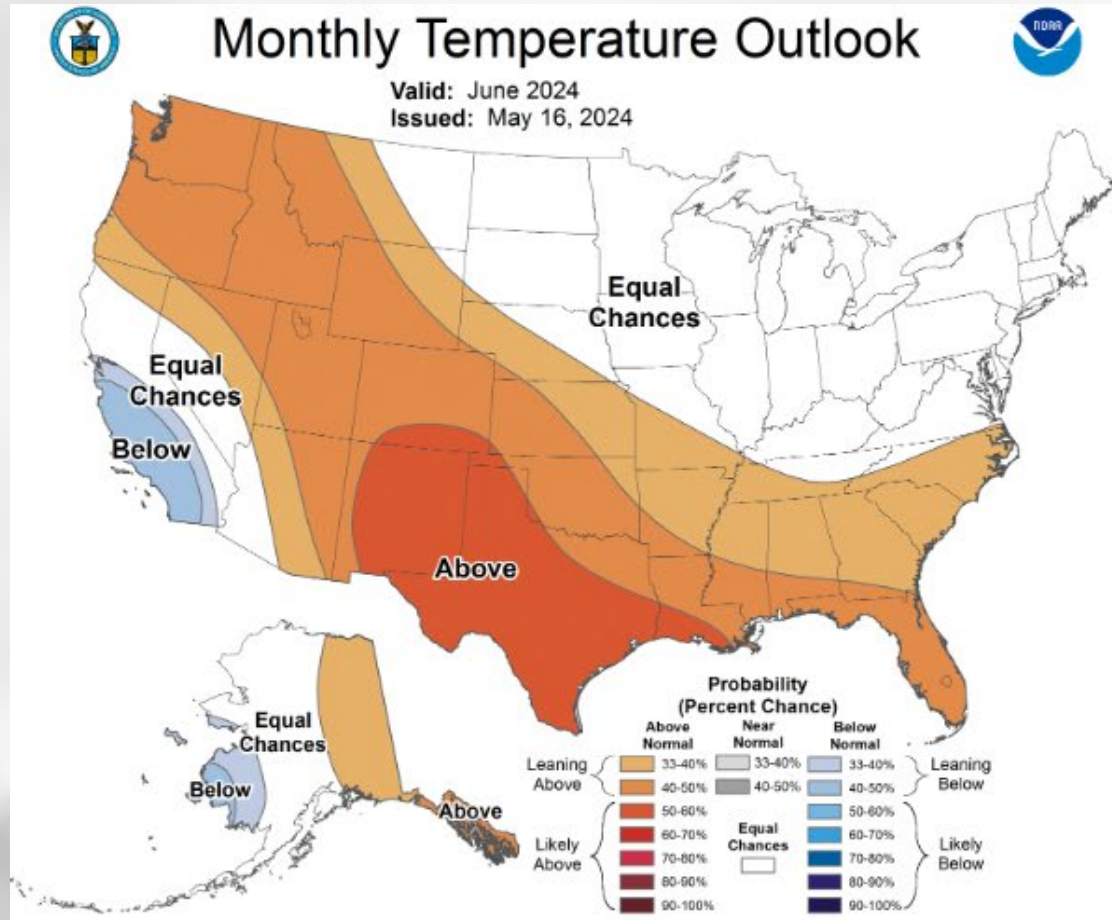
<https://www.wpc.ncep.noaa.gov/qpf/p168i.gif>  
<https://www.drought.gov/states/wisconsin>

# 8-14 Day Temp & Precip Outlook



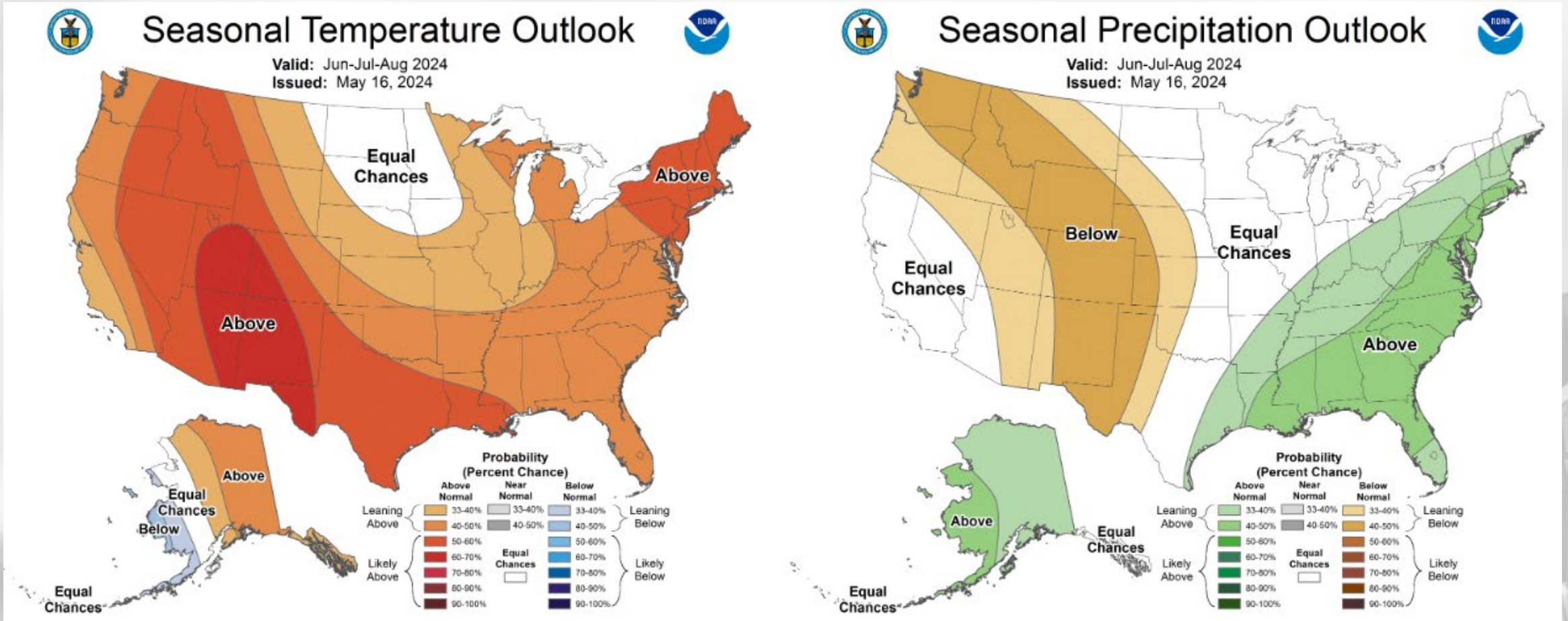
First week of June: Temperatures leaning above normal. Precipitation leaning below normal.

# 30 Day Temp & Precip Outlook



Month of June: Temperature & precipitation are showing equal chances.

# 90 Day Temp & Precip Outlook



**Summer 2024:** Temperatures leaning towards above normal. Precipitation indications are for equal chances of above/at/below average.

# Take-Home Points

## Current conditions:

- After a week of multiple rounds of rainfall, including severe storms, many stations in the state are at or above their 30-year precip normal for the year.
- Temperatures were seasonal last week, with high temps topping out in the mid 70s (N) to low 80s (S).

## Impact:

- Soil moisture levels improved compared to the week of 5/13, with further reductions in drought coverage.
- Soil temperatures are a bit warmer than the week of 5/13, with more-seasonal air temps.
- GDD accumulation in the state trends ahead of average pace, especially in the SE.
- Corn & soybeans are >70% planted, with emergence nearing 50% for both crops.

## Outlook:

- The forecast is calling for more rain over the next week, but not as much as was received last week.
- Above normal temps as we head into early June, with probabilities for precip leaning below normal.
- The warmer-than-normal conditions have a higher probability to continue through the 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 rain forecasted.
- In the event of poor soybean emergence, consider replanting using [these tools](#) to aid your decision
- As we near the end of planting season, consult your crop insurance agent before making decisions regarding prevent plant or replant

## Nutrient & Herbicide Applications

- Consider doing tissue testing and pre-sidedress nitrate testing after crop has emerged to assess fertilizer need.
- Early planted corn and soybeans have emerged. Properly staging your crop assists with timing future applications. Growth stage guides available for corn, soybean and wheat at [Growing Guides – Integrated Pest and Crop Management – UW–Madison \(wisc.edu\)](#)

## Manure Applications

- Runoff risk is low to moderate for the next week in the Southeast, East, and far North. Be mindful of the possibility of runoff and plan manure applications accordingly. Check the DATCP runoff risk advisory forecast [here](#).

## Pest Management

- Black cutworm feeding damage is ongoing throughout Wisconsin, and true armyworms are also still likely. Sign up to receive text alerts when pests are in your region [here](#).
- Alfalfa weevil damage is present throughout the state
- Consider applying a fungicide on winter wheat as conditions have been right for Fusarium Head Blight and vomitoxin development, read more [here](#).

## Forage Management

- Watch alfalfa for lodging as RFQ values from lab testing are outpacing predictions based on PEAQ readings, favorable conditions have led to a crop that grows quite tall before entering reproductive stages

# 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>



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Photo Credit: USDA



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