

Wisconsin Ag Climate Outlook

Week of June 3, 2024

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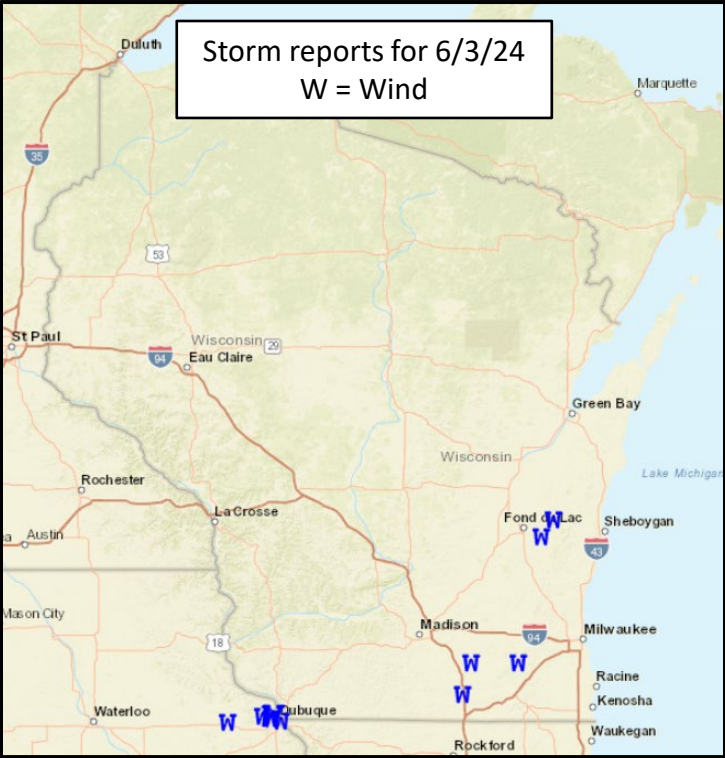
bmmason2@wisc.edu

Key Points

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

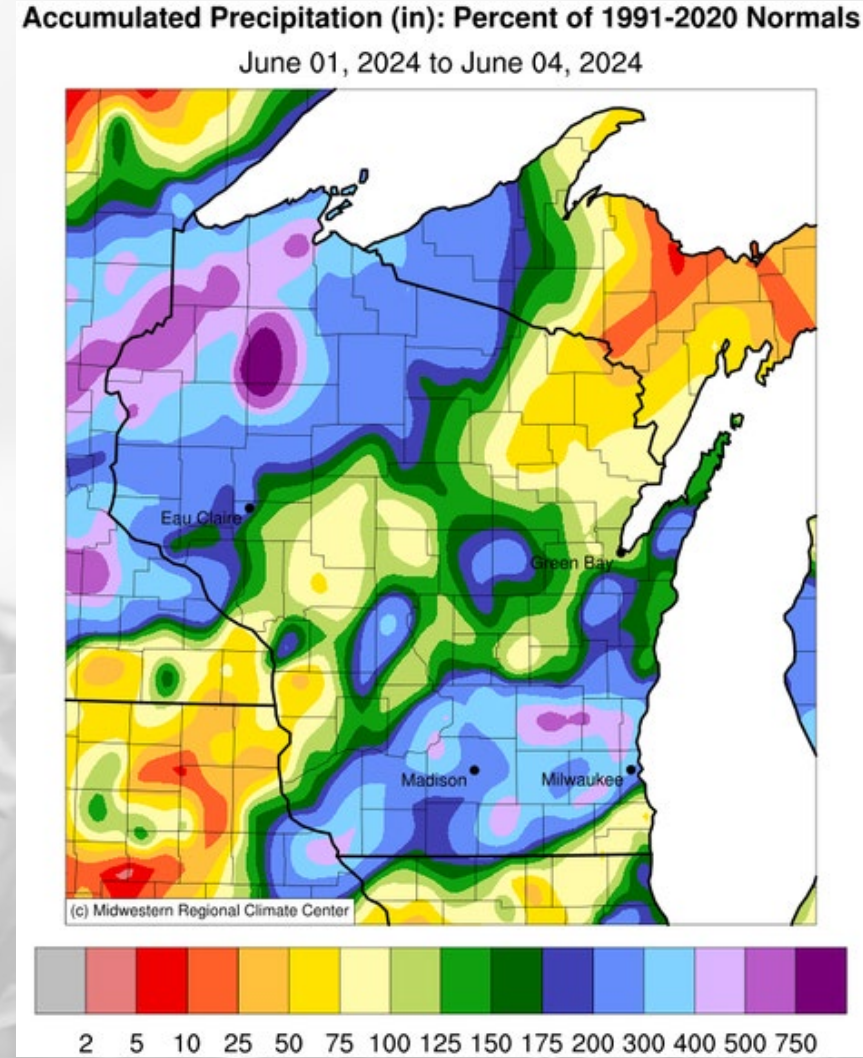
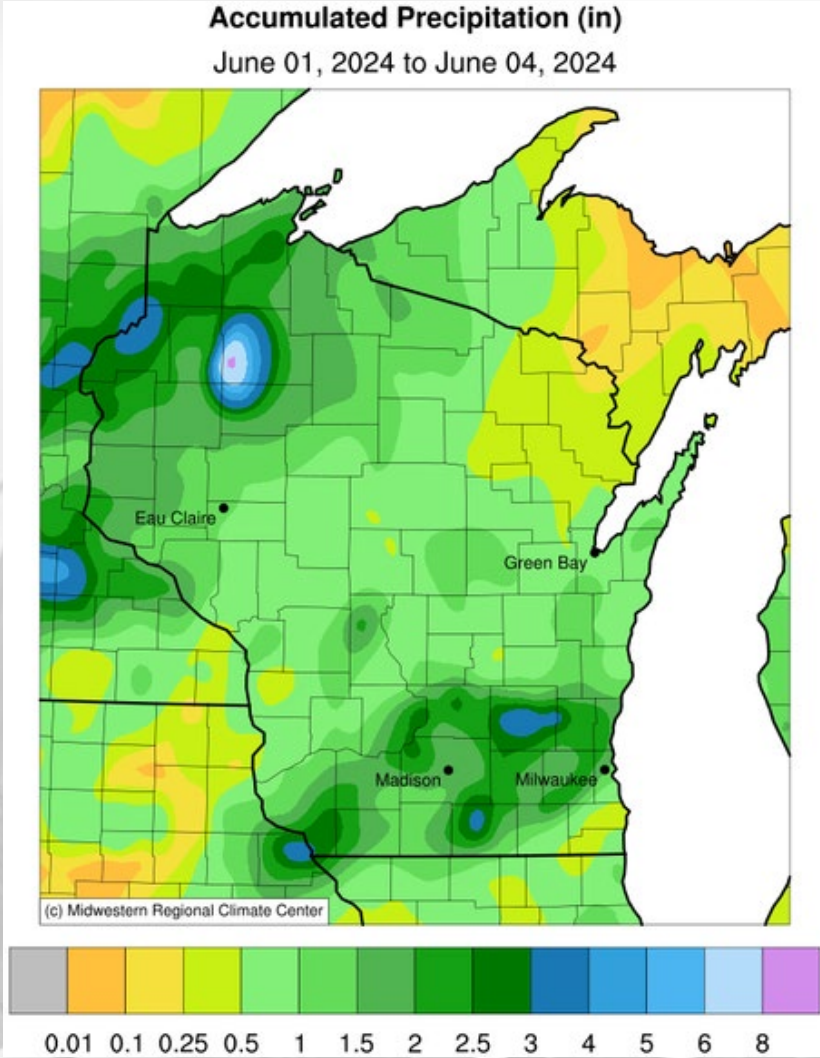
- 1) June has started off [wetter-than-normal](#) for many in the state, reducing the [drought](#) coverage even further.
 - 2) Temperatures were a bit [cooler](#) than normal last week, but [warmth](#) could be on the way for middle and late June.
 - 3) [Corn](#) and [soybean](#) emergence continue to make big strides, running ahead of the normal pace.
- *For this week's agronomic recommendations from UW Extension, click [here](#).*
 - *For NASS crop progress maps, click [here](#).*

Wet start to June

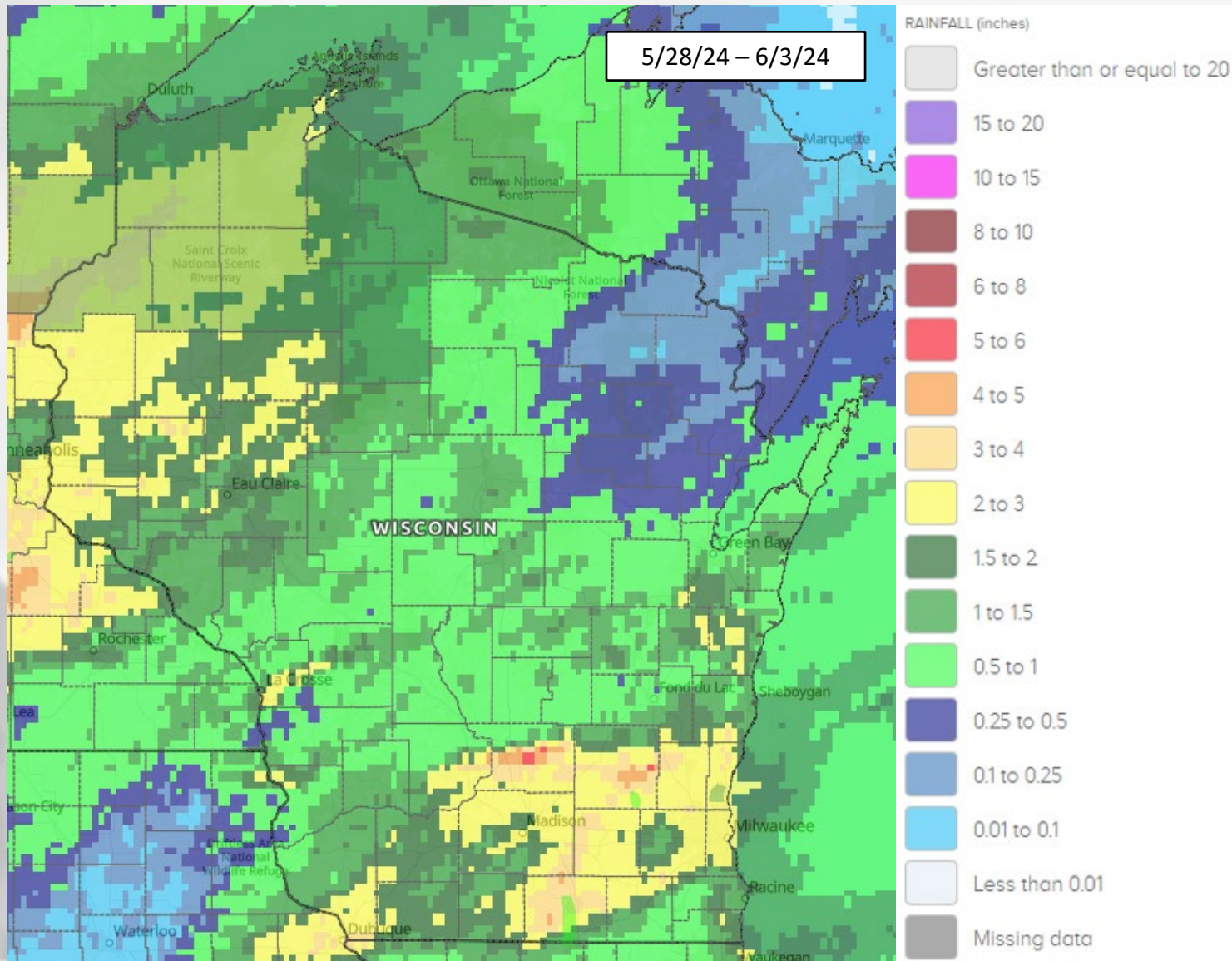


[Link to interactive storm reports map](#)

<https://mrcc.purdue.edu>



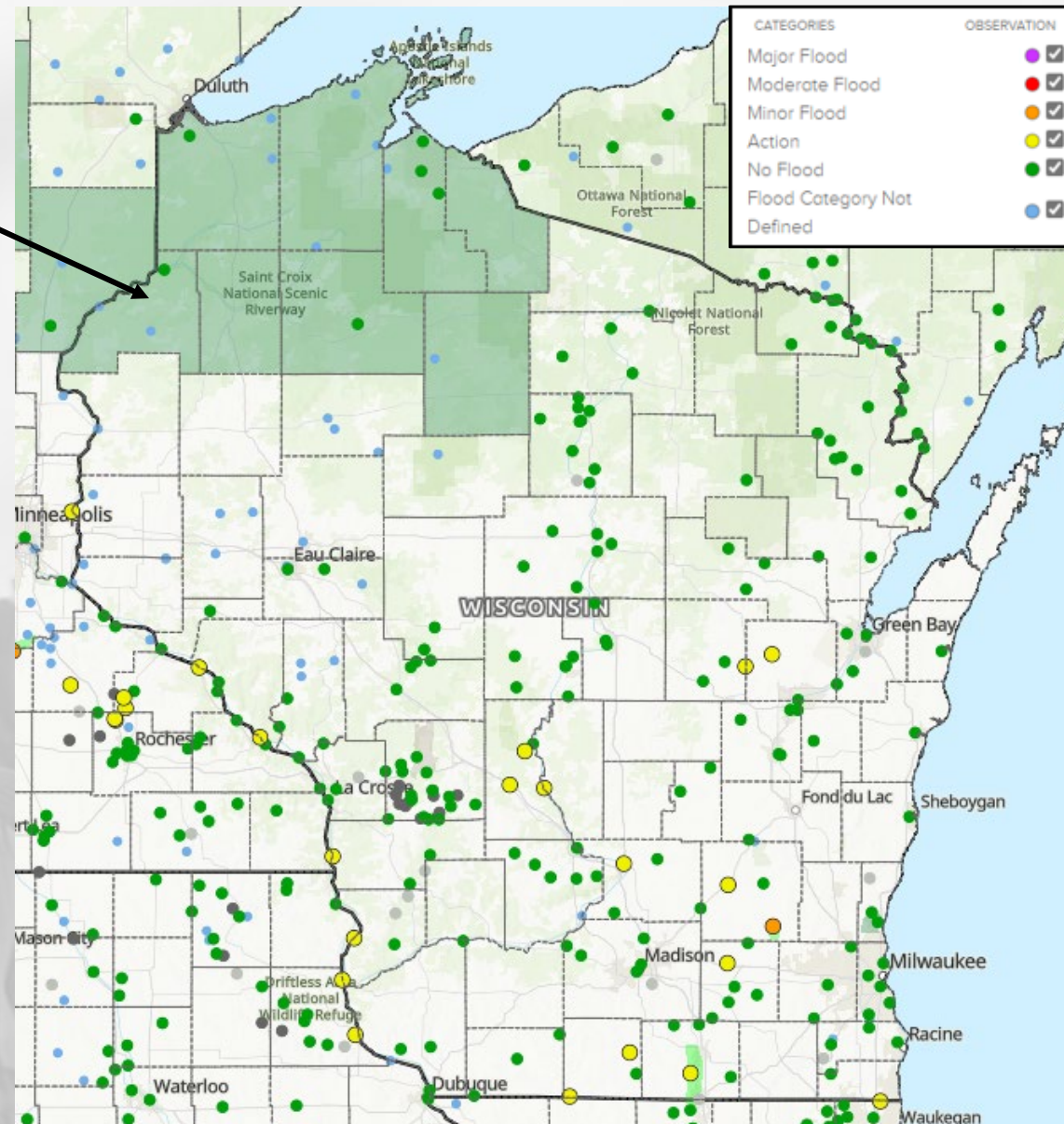
7 Day Precip



- Another week with **multiple rounds of rainfall**.
- **2+”** common across the S/SE and the NW.
- Totals **>4”** in parts of Columbia, Dodge, & Jefferson Counties.

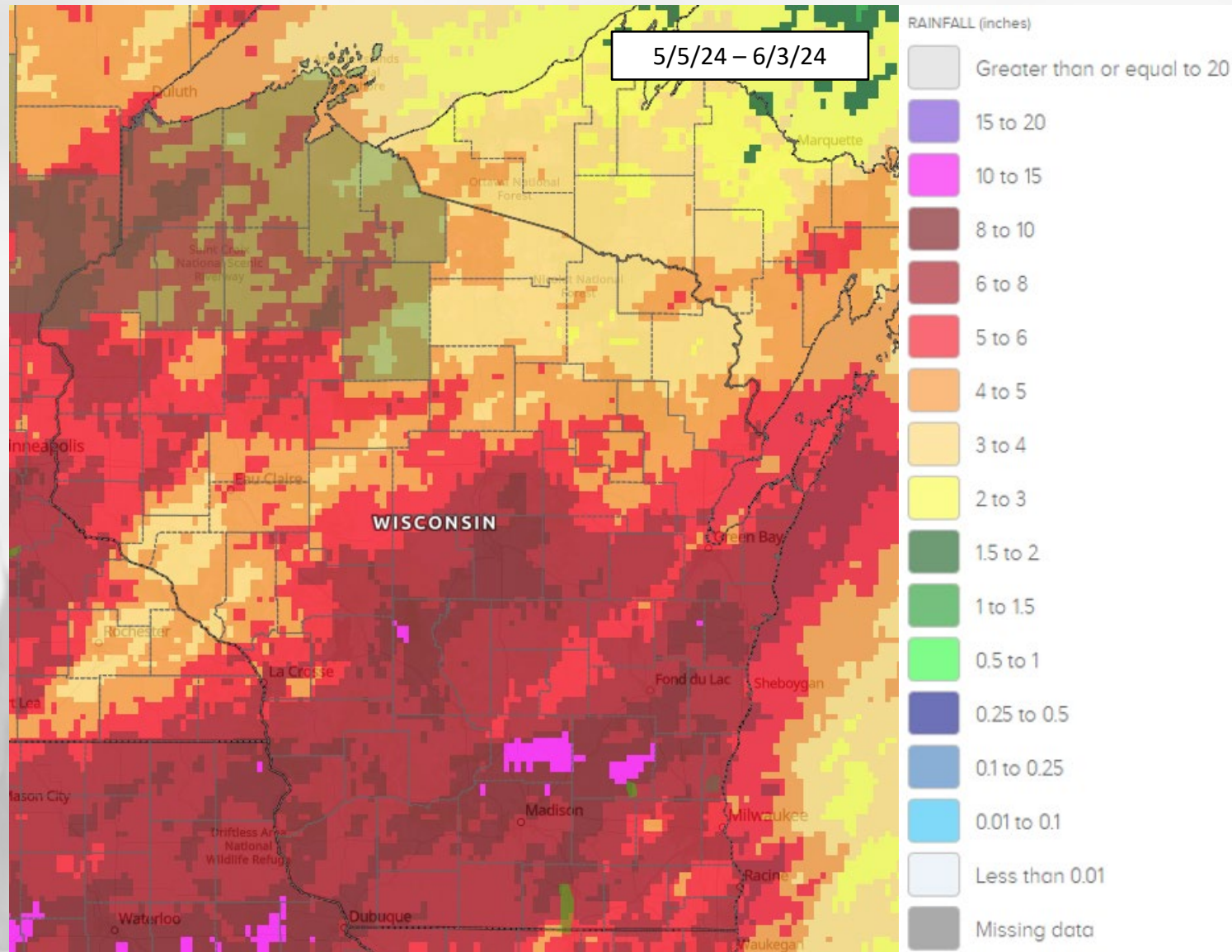
River Levels

Flood Watch (thru 6/5)



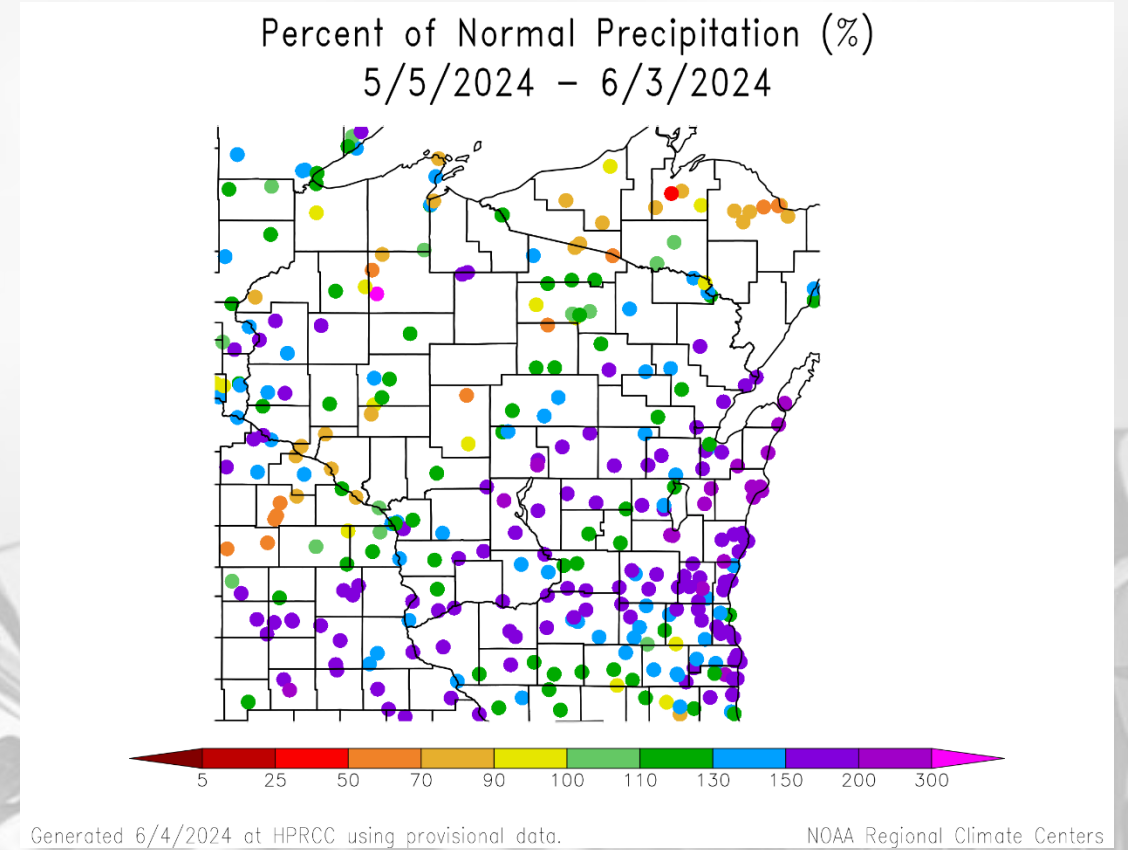
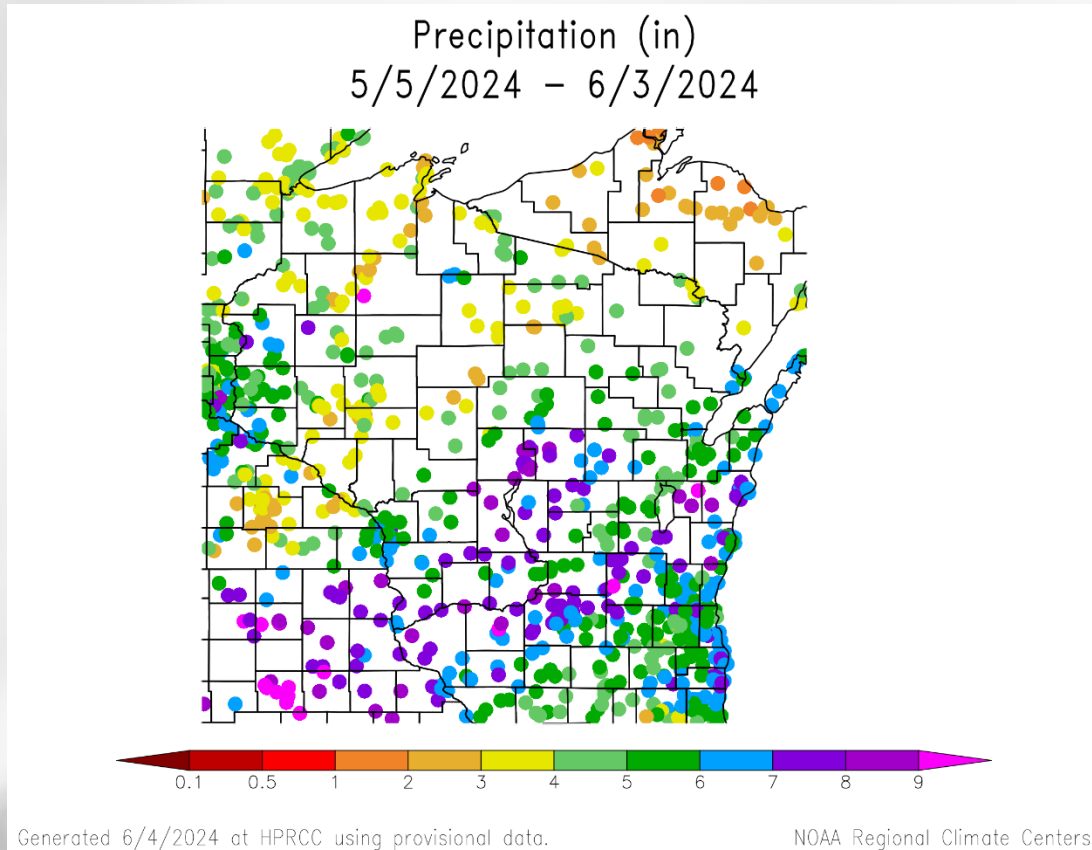
River levels on the morning of June 4, 2024

30 Day Precip



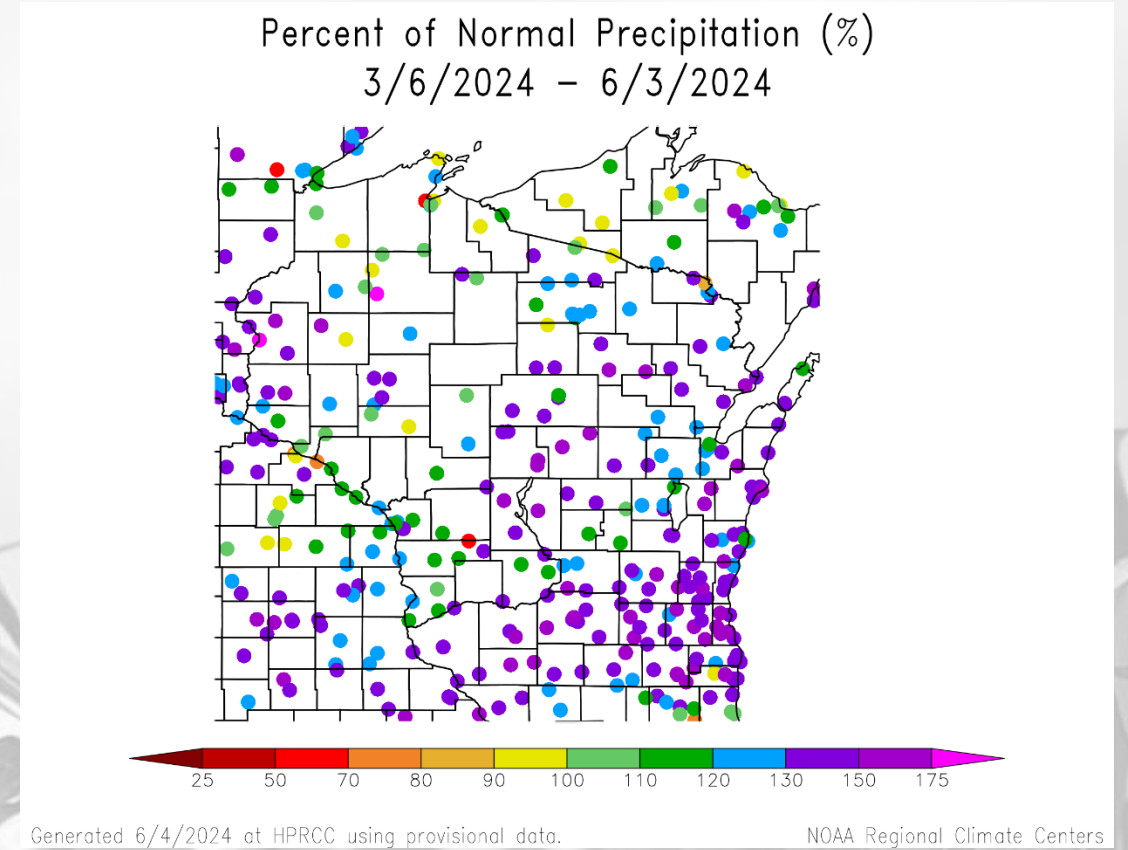
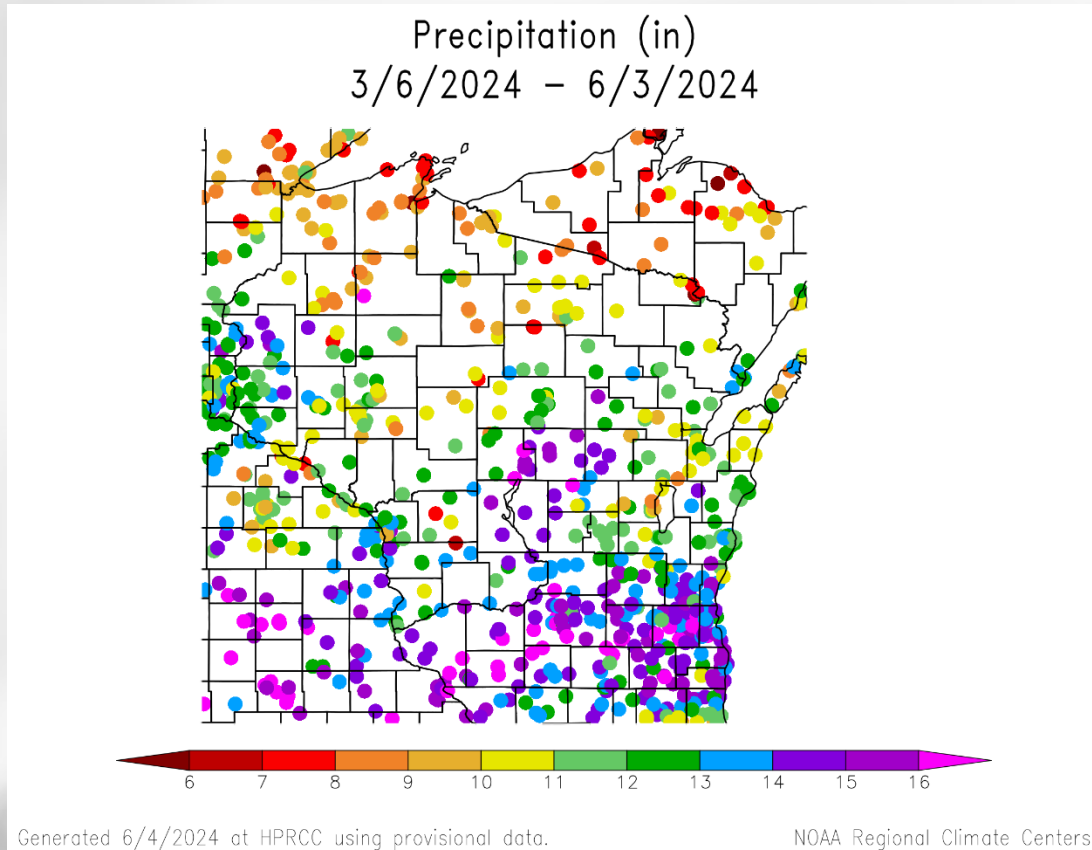
- **>5"** of monthly precip common across the southern half of the state and the NW.
- Driest in the NC region → **<4"** common.
- Wettest in Columbia & Dodge Counties → **>10"** for some.

30 Day Precip Total/% Avg.



- 30-day totals of **6+”** are common across the S, with some stations receiving **>8”**.
- Stations in the NW are **at or slightly below** the climatological average.
- Monthly totals of **150% or more** of climatological average were very common in the S, C, and E.

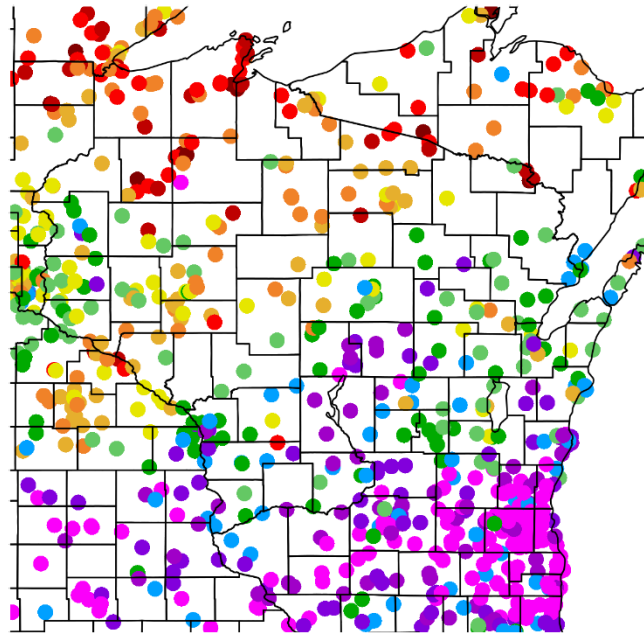
90 Day Precip Total/% Avg.



- Highest precip totals in the south → **16"** for some; **130+%** of average is common in the S, E, and C.
- Many stations are **above** 30-year average.
- 90-day totals are lower in the NW → **<10"** common, **near or slightly below** average.

2024 Precipitation (so far)

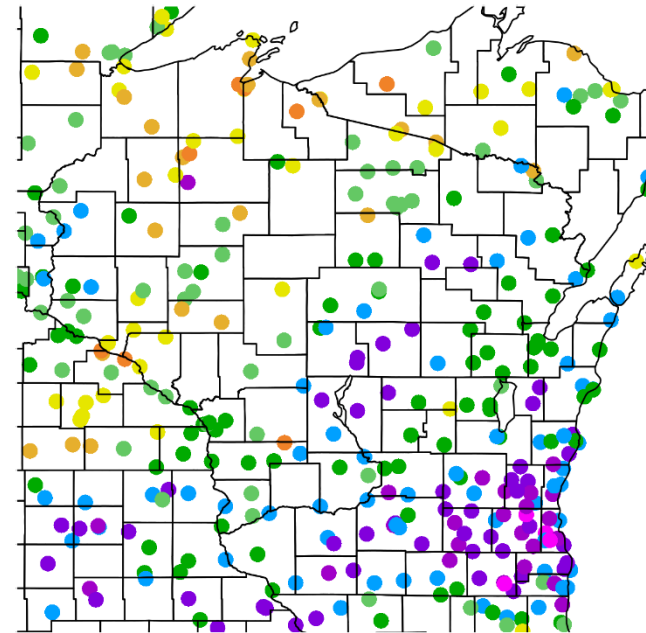
Precipitation (in)
1/1/2024 - 6/2/2024



Generated 6/3/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Precipitation (in)
1/1/2024 - 6/2/2024



Generated 6/3/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Soil Moisture Models

- **Wetter-than-normal** soil moisture conditions across most of the state, according to the NASA SPoRT-LIS model.
- Gains in soil moisture levels in the NW with the rainfall received last week.

Model Notes:

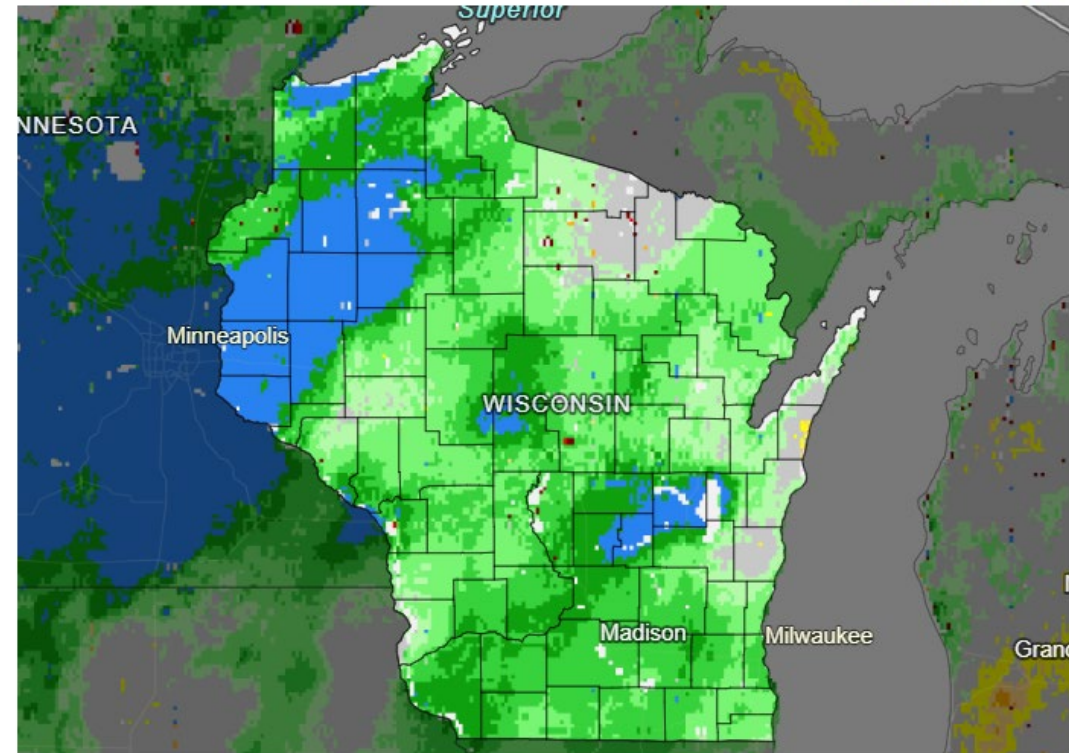
Red areas = top 5 driest in 100 years.

Dark red areas = top 2 driest in 100 years.

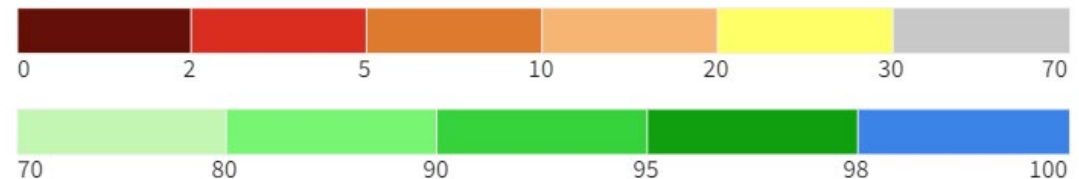
It's worth noting that each soil moisture model has their own characteristics and input variables, so there tends to be variation between models. Thus, it's worthwhile to look at multiple models opposed to just one.

https://weather.msfc.nasa.gov/sport/case_studies/lis_CONUS.html
<https://www.drought.gov/states/wisconsin>

0-100 cm Soil Moisture Percentile



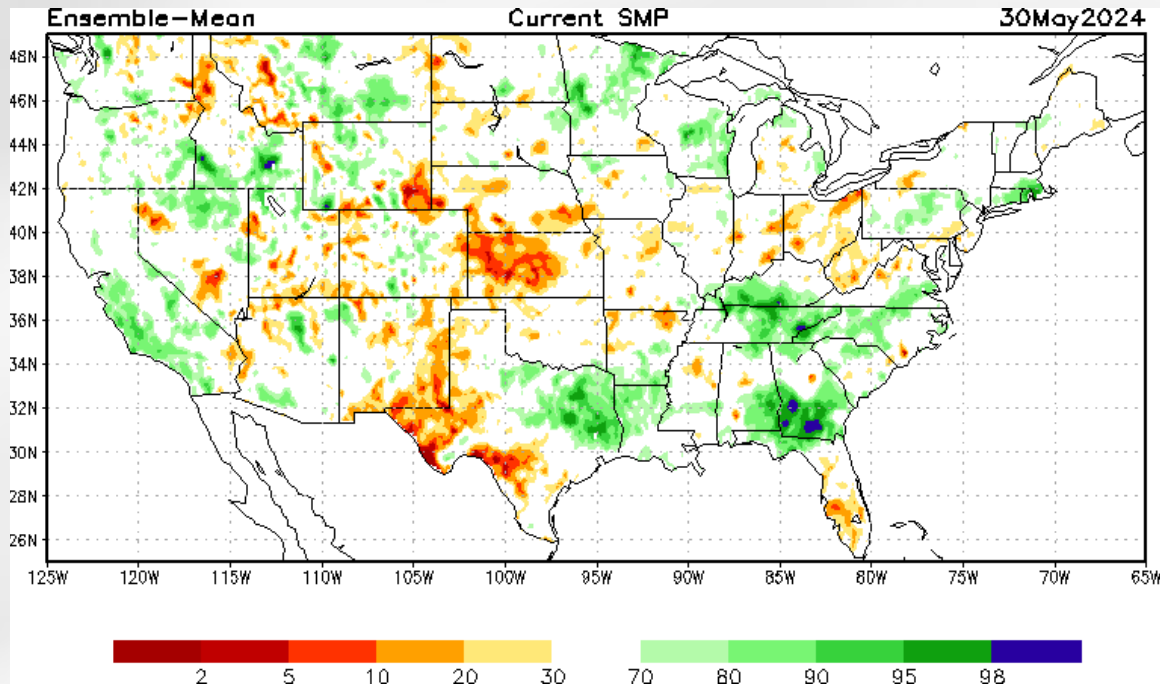
0-100 cm Soil Moisture Percentile



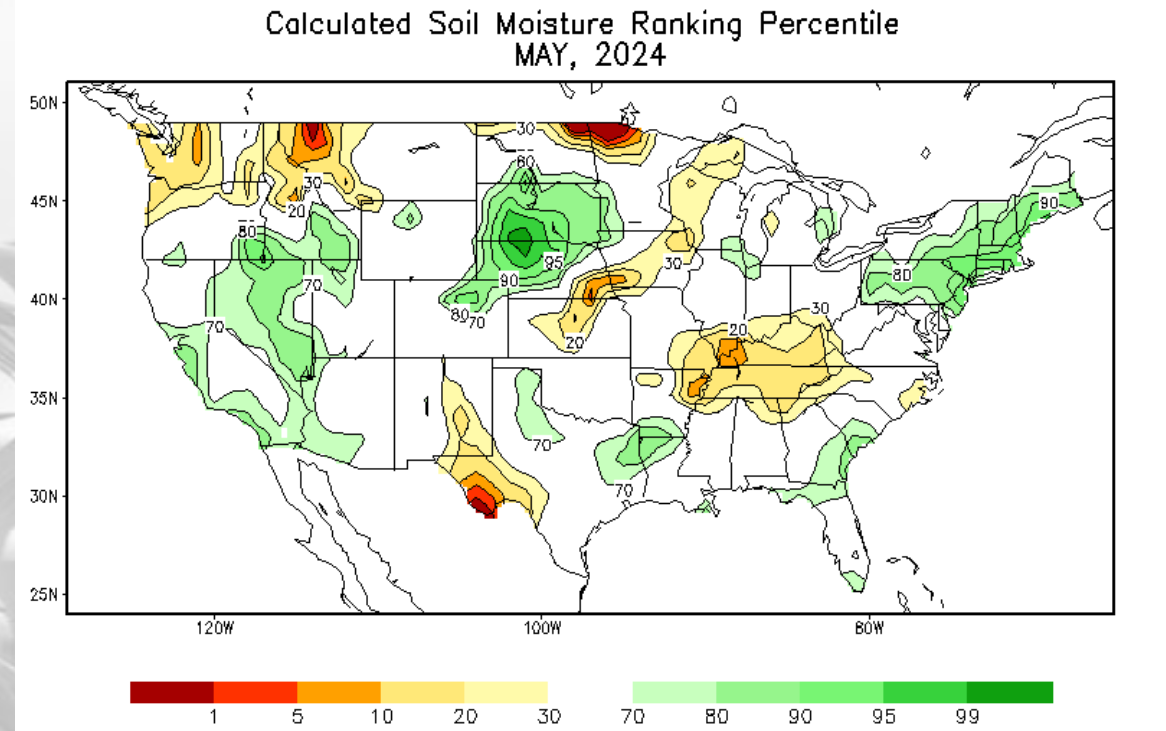
Source(s): NASA
Data Valid: 06/04/24

Drought.gov

Soil Moisture Models



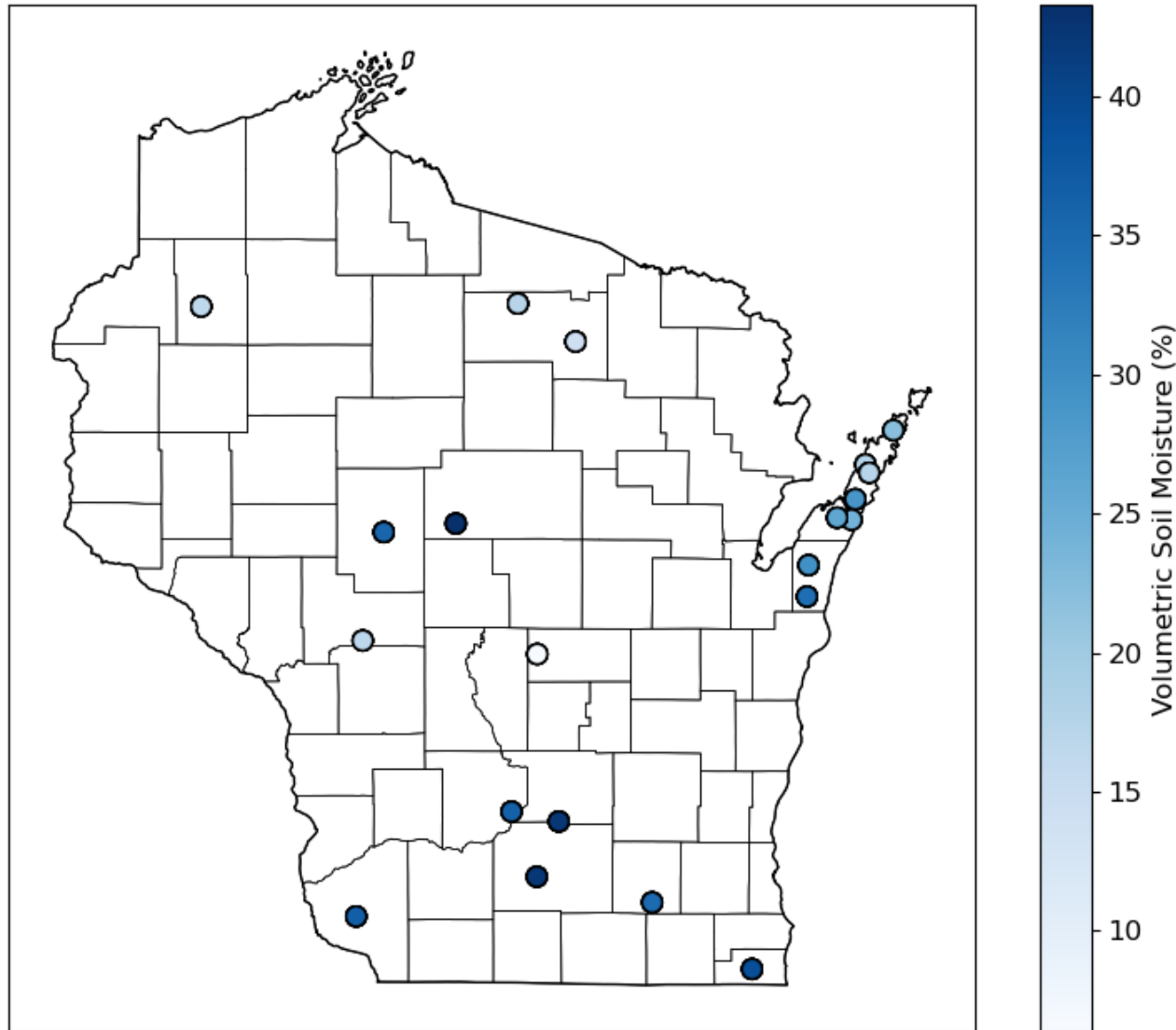
NOTE: these maps are for soil moisture percentile at the end of May. They do not account for the rainfall received in the first days of June.



https://www.cpc.ncep.noaa.gov/products/Soilmst_Monitoring/US/Soilmst/Soilmst.shtml
https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp_new.shtml

Soil Moisture - Wisconet

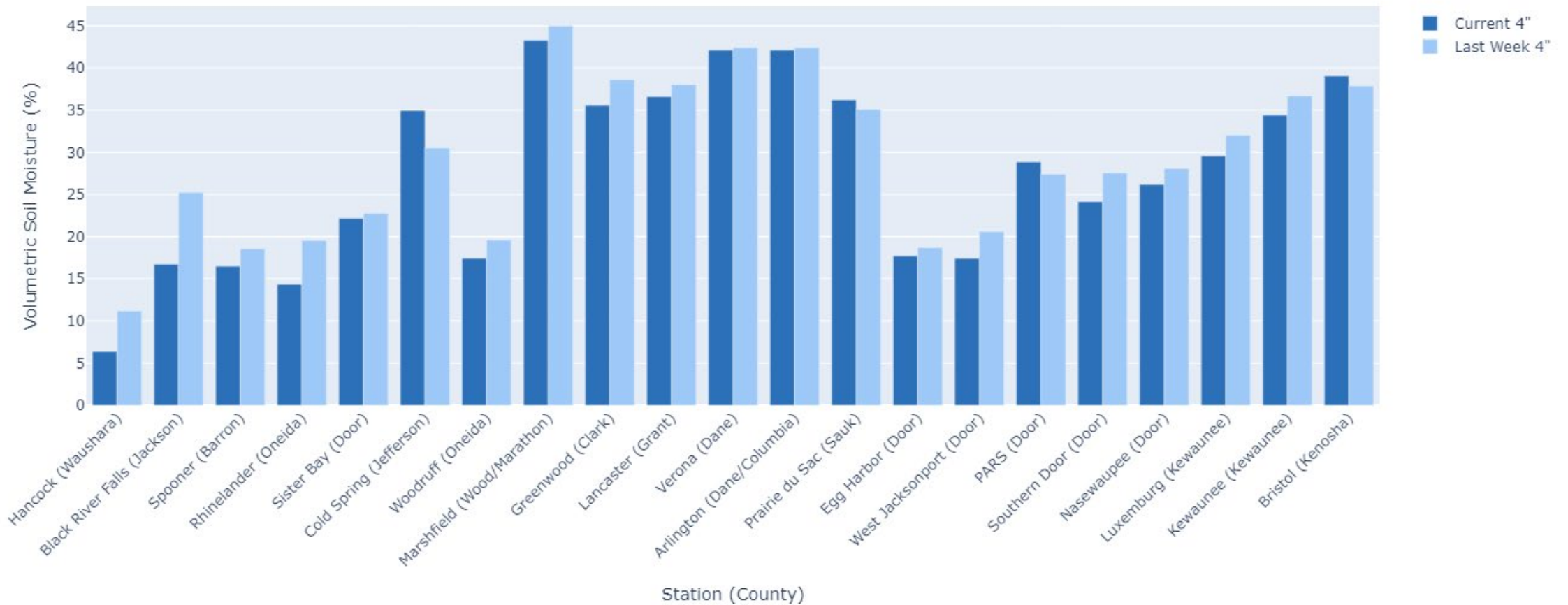
Wisconet 4" Soil Moisture



7-day average soil moisture @ 4"
depth – May 28 - June 3

Soil Moisture - Wisconet

Wisconet 4" Soil Moisture



Current: 7-day average ending on 6/3

Last Week: 7-day average ending on 5/27

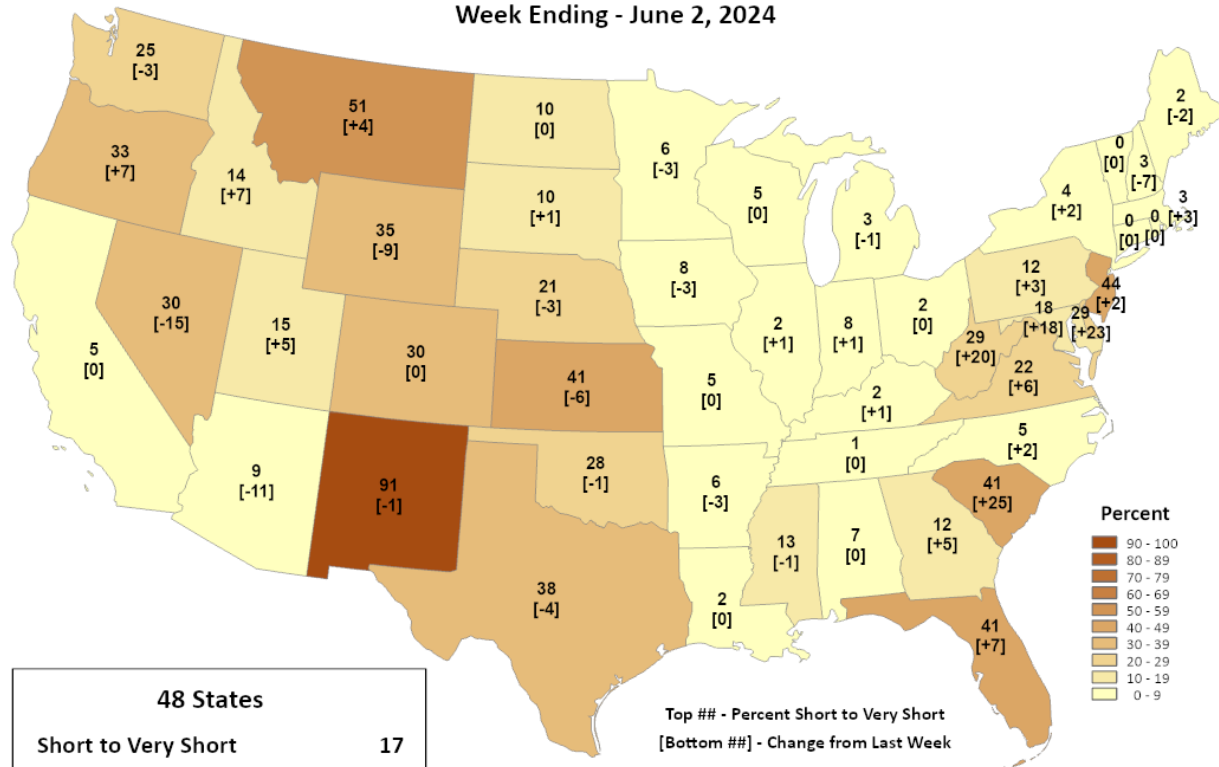
<https://wisconet.wisc.edu/>

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 - June 2, 2024



48 States	
Short to Very Short	17
Change from Last Week	0

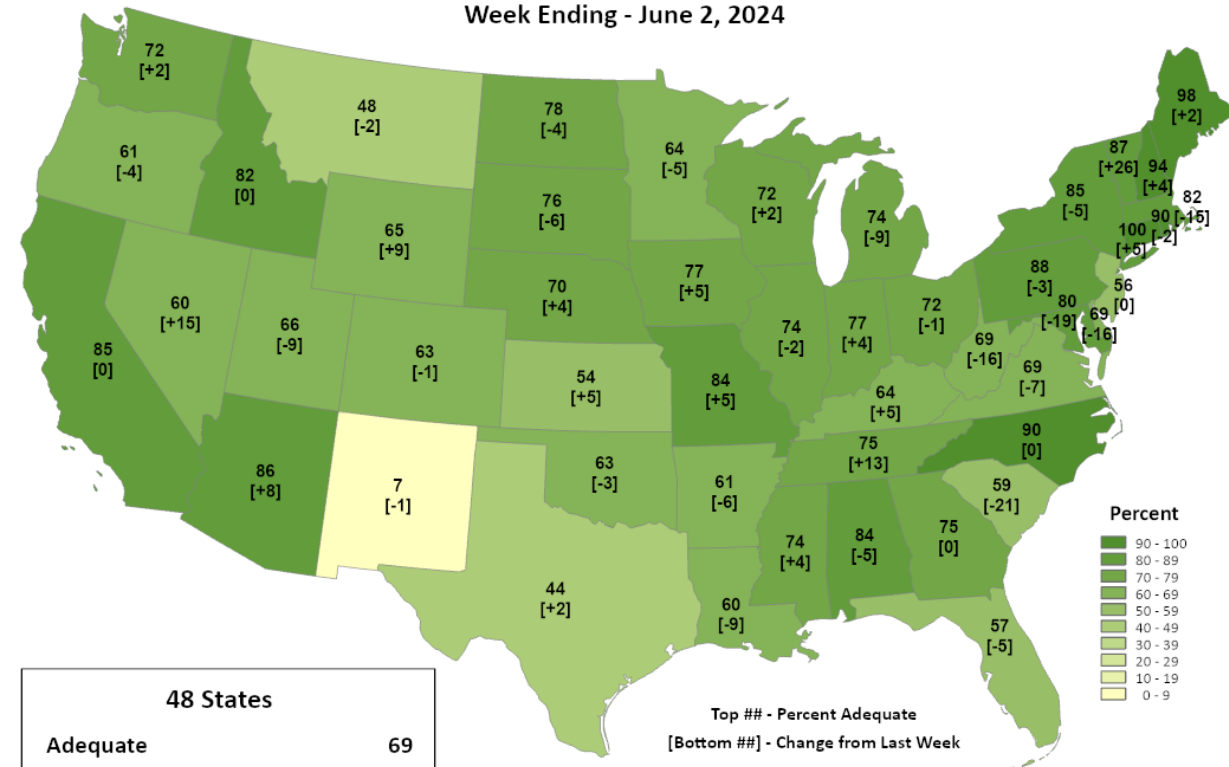
Top ## - Percent Short to Very Short
[Bottom ##] - Change from Last Week

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 - June 2, 2024



48 States	
Adequate	69
Change from Last Week	0

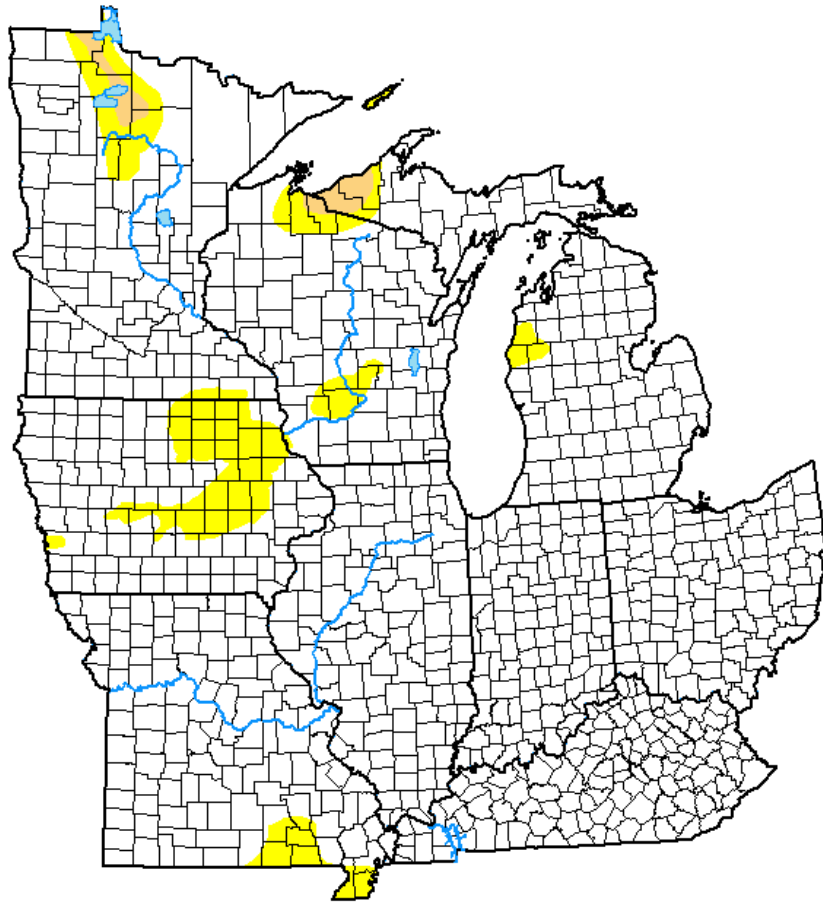
Top ## - Percent Adequate
[Bottom ##] - Change from Last Week

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 28, 2024

(Released Thursday, May. 30, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	92.73	7.27	0.83	0.00	0.00	0.00
Last Week <i>05-21-2024</i>	87.05	12.95	5.50	0.00	0.00	0.00
3 Months Ago <i>02-27-2024</i>	26.53	73.47	33.99	10.76	2.14	0.00
Start of Calendar Year <i>01-02-2024</i>	22.92	77.08	50.25	20.76	4.20	0.00
Start of Water Year <i>09-26-2023</i>	16.82	83.18	54.98	23.81	6.21	0.13
One Year Ago <i>05-30-2023</i>	33.85	66.15	14.99	3.78	1.02	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:

Rocky Bilotta
NCEI/NOAA



droughtmonitor.unl.edu

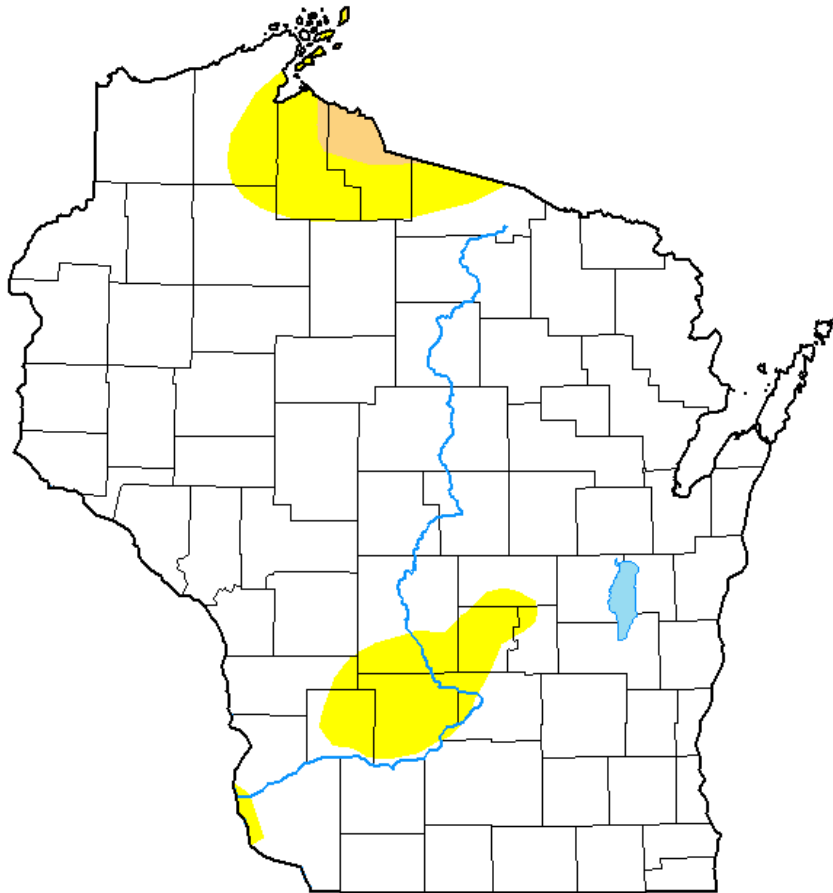
- Compared to last week:
 - Continued decreases in drought category area.
- **93%** of the Midwest is outside of D0-D4.
- D2-D4 drought are non-existent in the Midwest.
- **<1%** of the Midwest remains in D1 drought.

Note: D0 is not considered drought.

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

US Drought Monitor

U.S. Drought Monitor Wisconsin



May 28, 2024

(Released Thursday, May. 30, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	90.31	9.69	0.77	0.00	0.00	0.00
Last Week 05-21-2024	84.76	15.24	5.37	0.00	0.00	0.00
3 Months Ago 02-27-2024	9.03	90.97	65.65	17.07	0.00	0.00
Start of Calendar Year 01-02-2024	33.04	66.96	37.34	16.80	0.26	0.00
Start of Water Year 09-26-2023	2.04	97.96	80.86	37.74	6.77	0.00
One Year Ago 05-30-2023	33.62	66.38	0.05	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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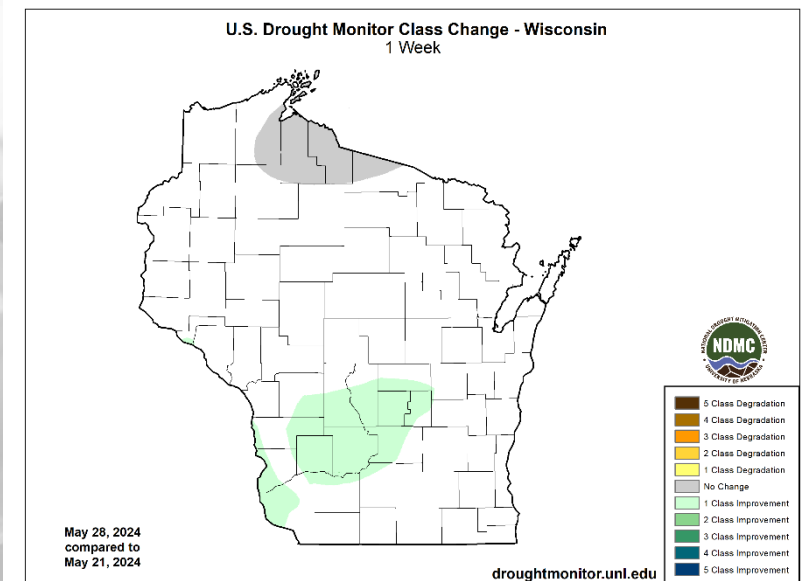
droughtmonitor.unl.edu

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

Amount of state in:

- **D1-D4** – 0.8% ↓
- **D2-D4** – 0.0% --
- **D3-D4** – 0.0% --
- **D4** – 0.0% --

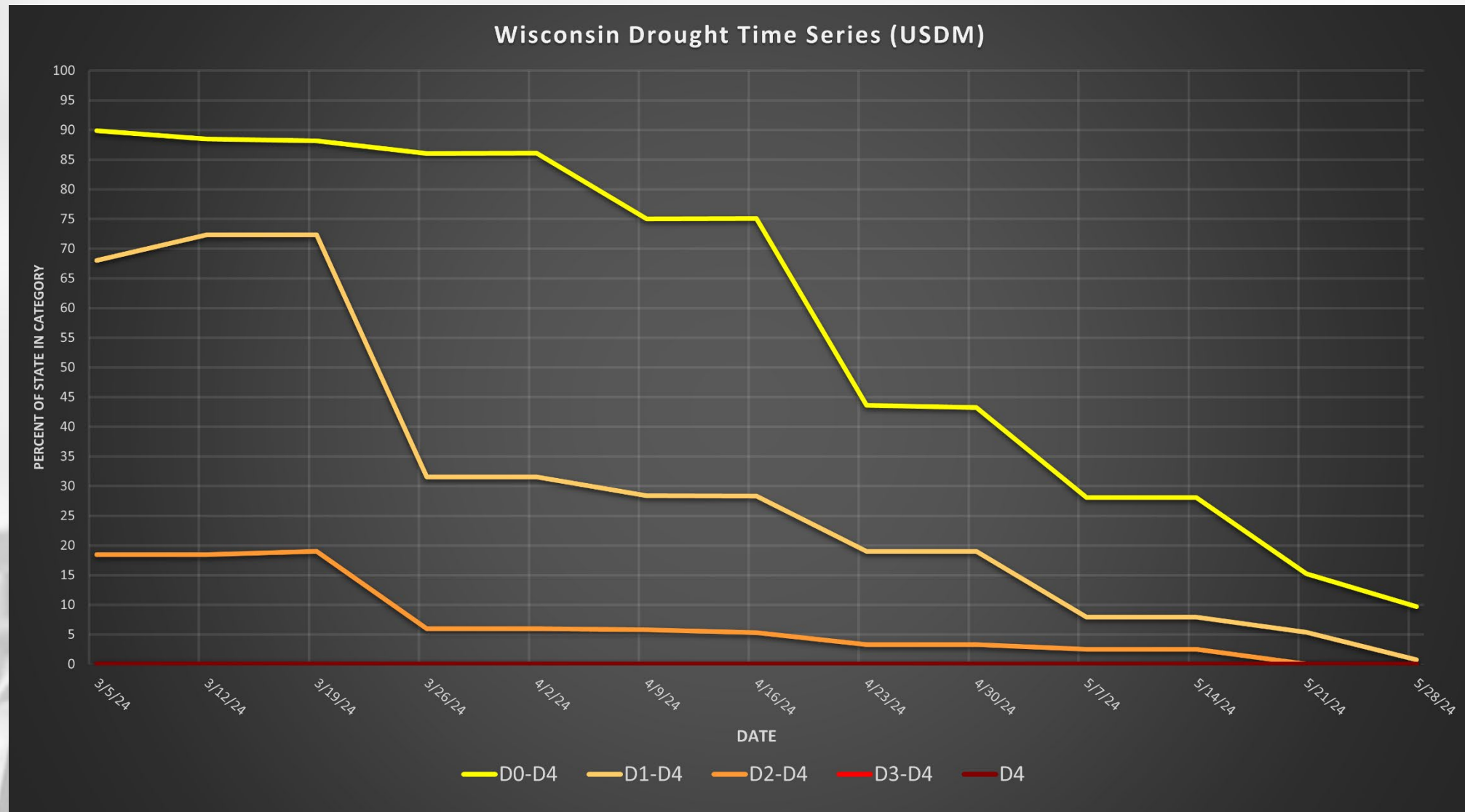
Note: ↑ ↓ indicate change from last week. Red up arrows indicate increase in drought area; vice-versa for green arrows.



May 28, 2024
compared to
May 21, 2024

droughtmonitor.unl.edu

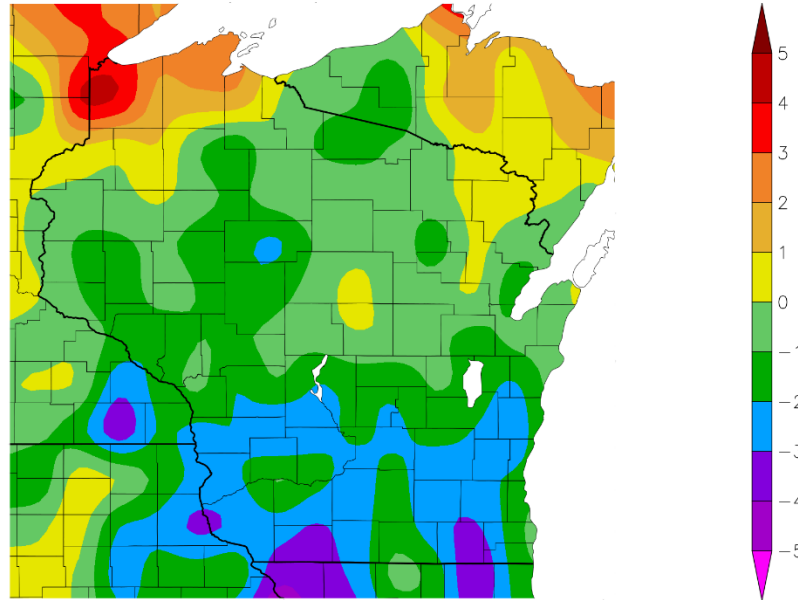
USDM Time Series



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

7 Day Temperatures

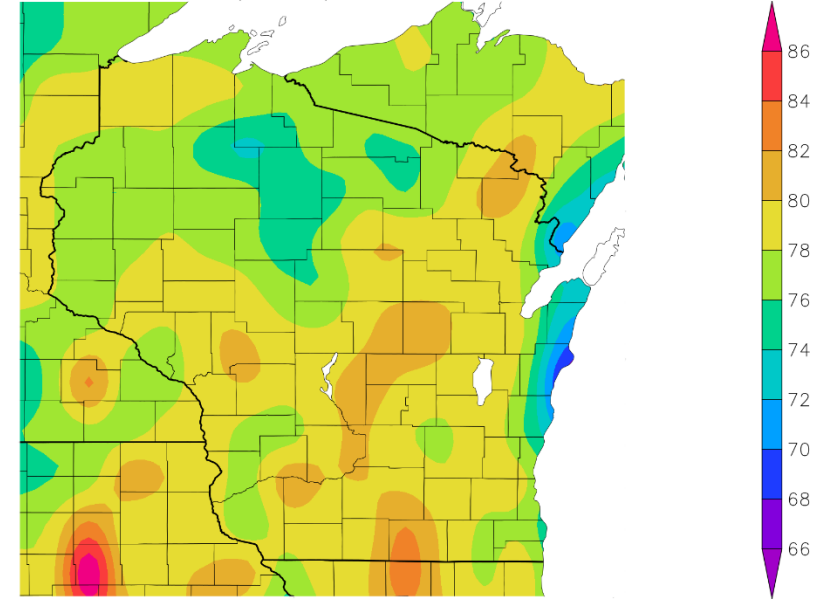
Departure from Normal Temperature (F)
5/28/2024 – 6/3/2024



Generated 6/4/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Highest 1-Day Maximum Temperature (F)
5/28/2024 – 6/3/2024



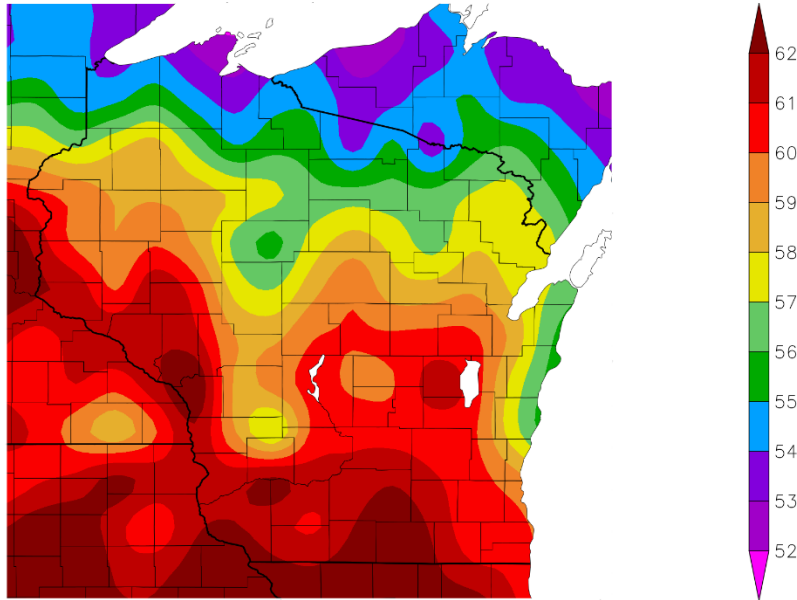
Generated 6/4/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Temps were **below normal** for most last week; **>2°F** below normal in the areas in blue & purple.
- Maximum temps last week reached the **upper 70's to low 80's** for most.

30 Day Temperatures

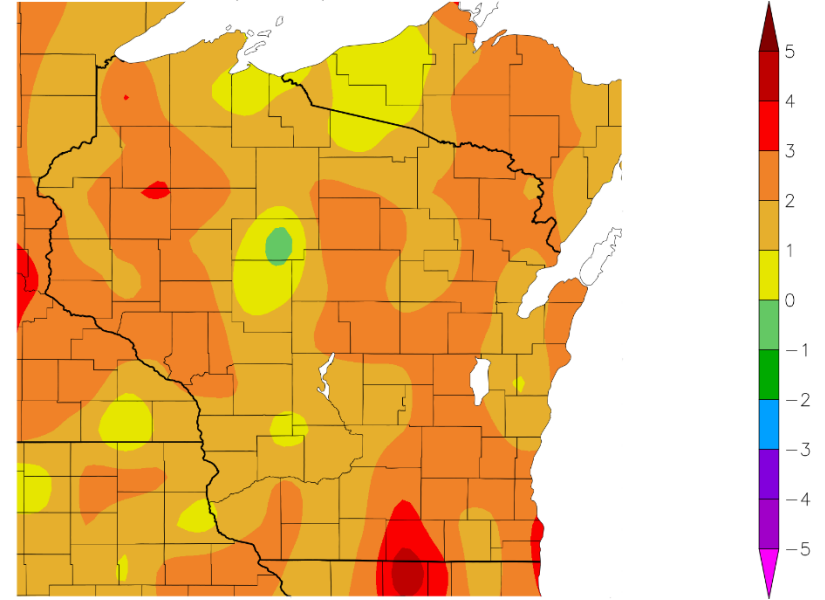
Temperature (F)
5/5/2024 – 6/3/2024



Generated 6/4/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Temperature (F)
5/5/2024 – 6/3/2024



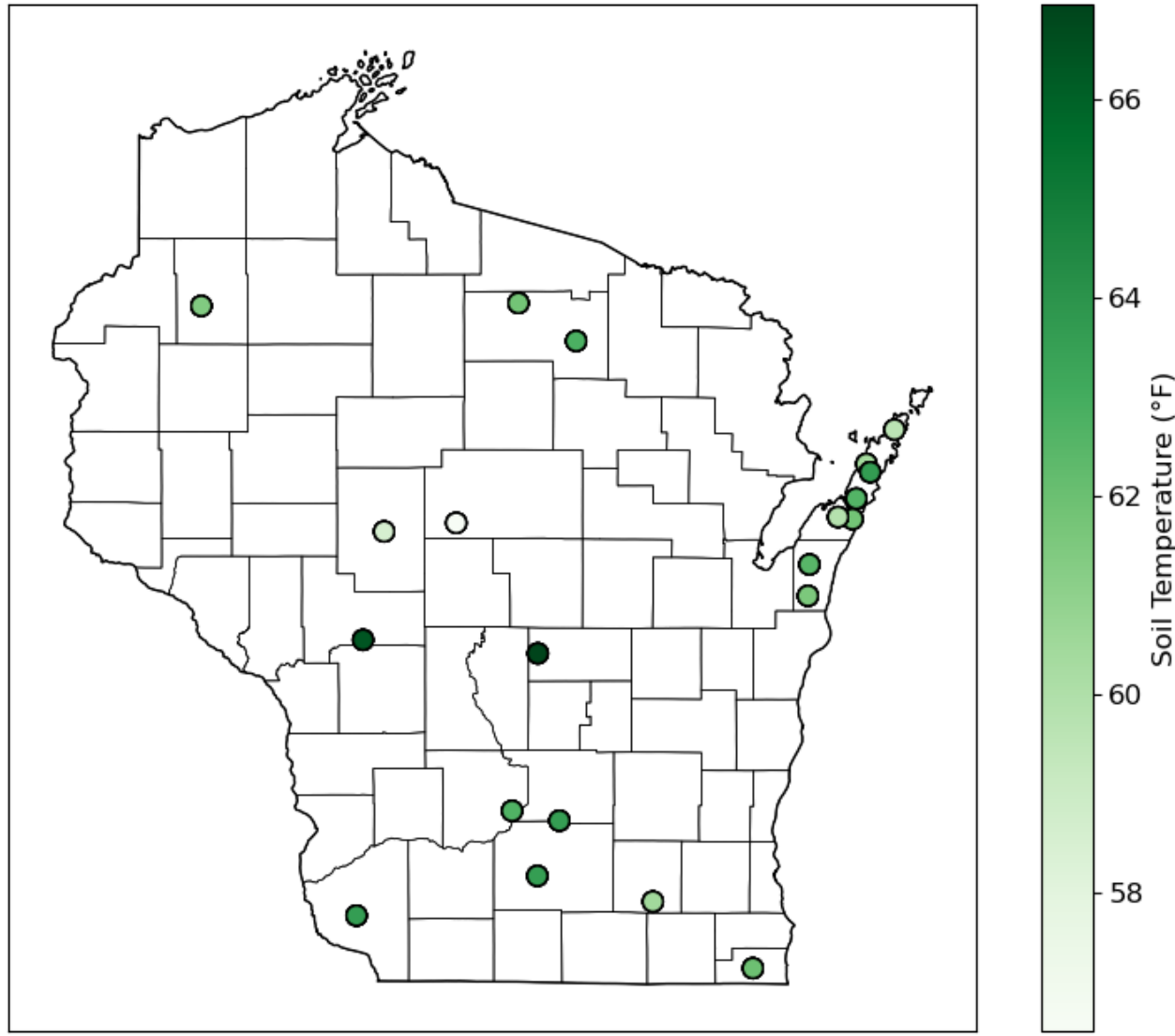
Generated 6/4/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Temperatures for the past month ranged from **>60°F** in the S & W to **<55°F** in the far N.
 - **1-3°F** above normal common across the state.
 - **>3°F** above normal near Janesville/Rock County.

Soil Temperature - Wisconet

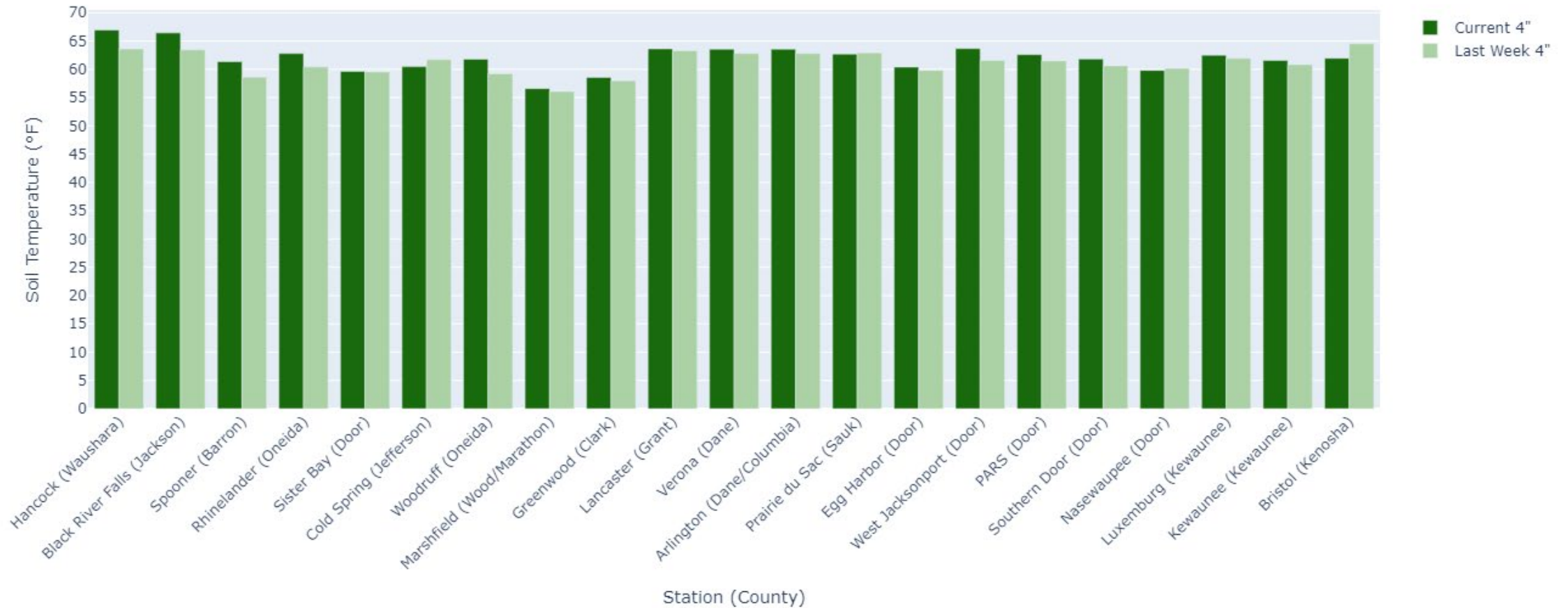
Wisconet 4" Soil Temperature



7-day average soil temperature
@ 4" depth – May 28 - June 3

Soil Temperature - Wisconet

Wisconet 4" Soil Temperature



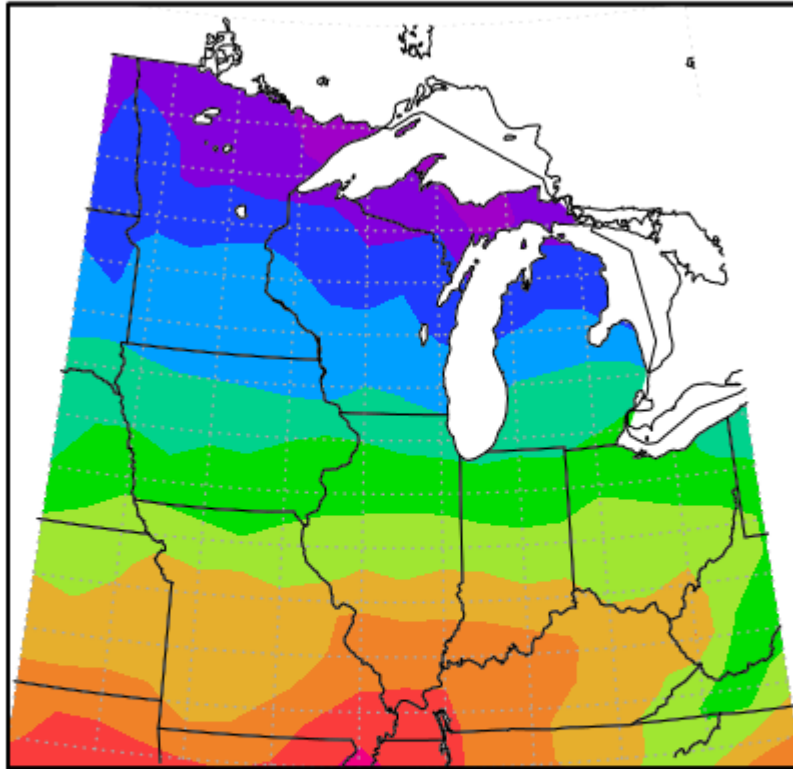
Current: 7-day average ending on 5/27

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

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

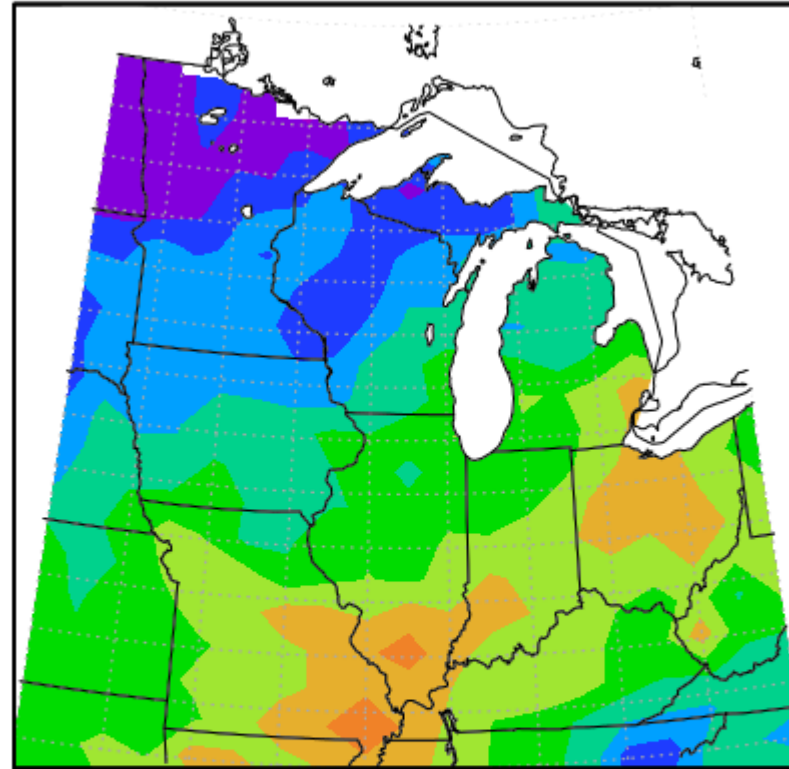
Growing Degree Days (Since April 1)

Total MGDD from 4/1/2024 to 6/3/2024



Midwestern Regional Climate Center
Purdue University

MGDD Departure, 4/1/2024 to 6/3/2024



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

- **600-700** GDD in the S to **300-400** GDD in the N.
- SE WI is 90-120 GDD further **ahead of the average**; <60 ahead of average in the W/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

NASS Crop Progress – Corn

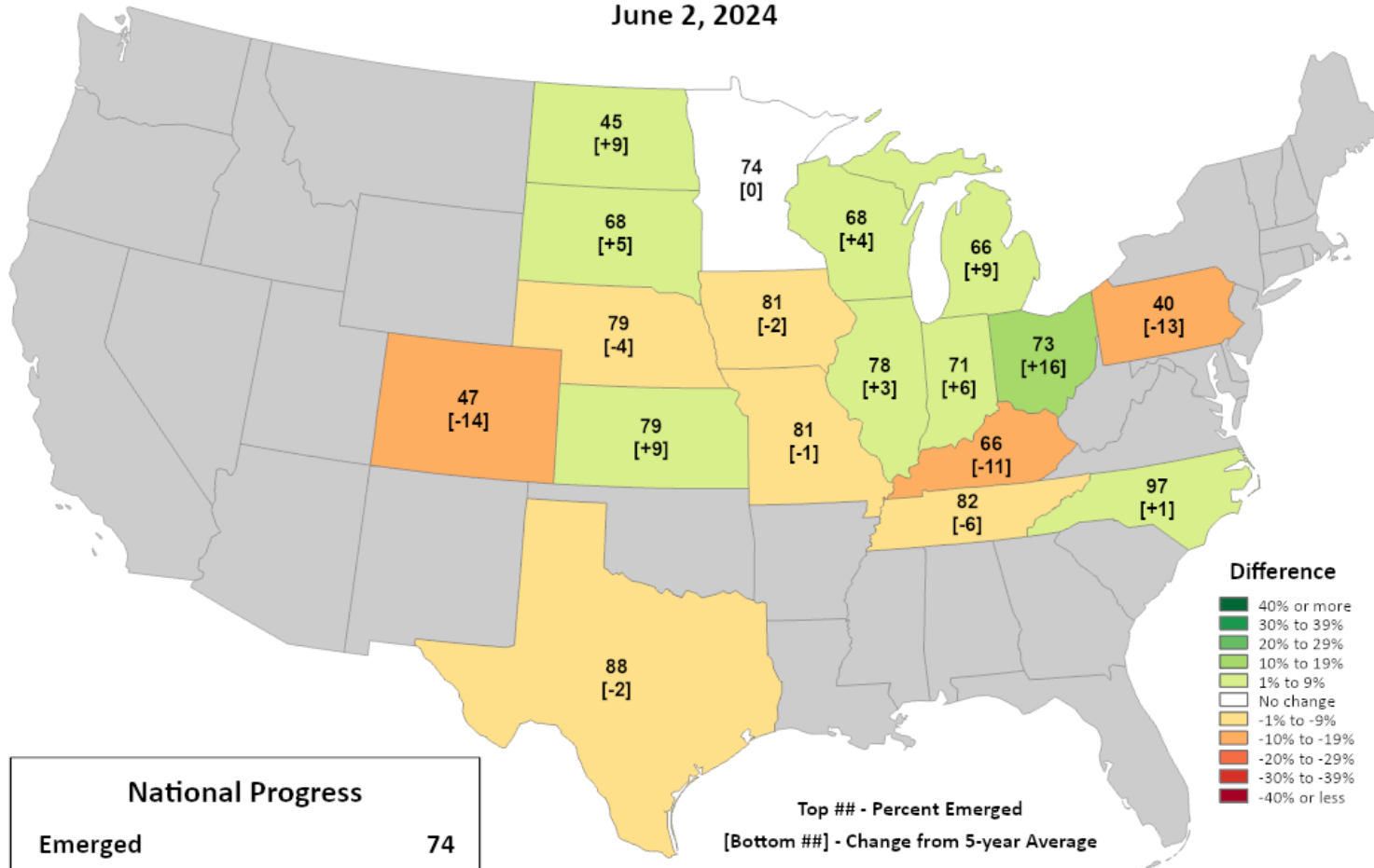


This product was prepared by the
USDA Office of the Chief Economist (OCE)
World Agricultural Outlook Board (WAOB)

Corn Progress

Percent Emerged

June 2, 2024



National Progress	
Emerged	74
Change from 5-year Average	+1

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

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

- Emergence is running ahead of the 5-year average in WI and states to the E. Behind average pace in IA.
- Wisconsin → **68% complete**; 4% ahead of the 5-year average pace. **20% increase** from last week.
- Planting → **84% planted**

NASS Crop Progress – Soybean

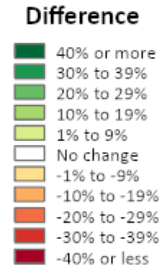
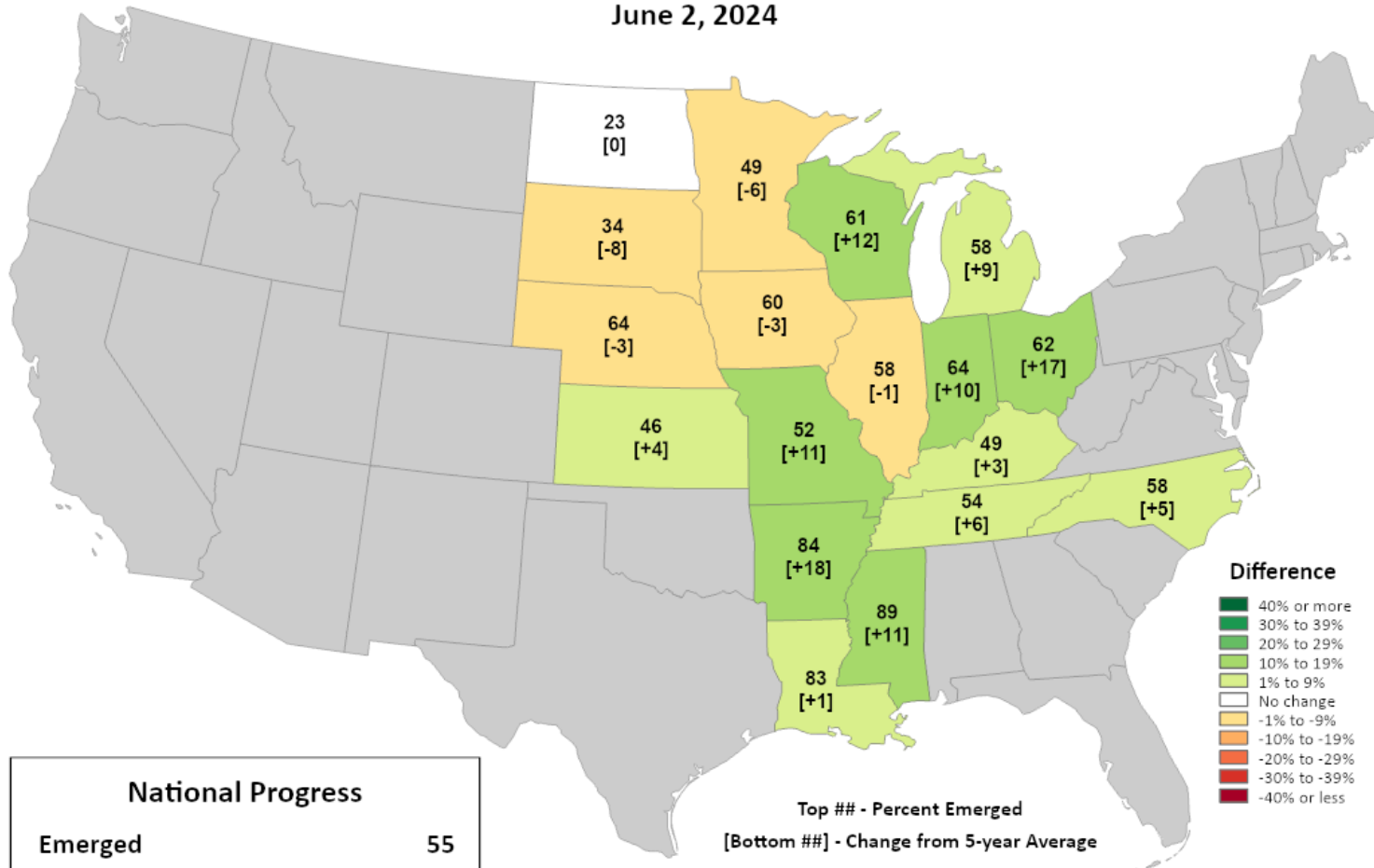


This product was prepared by the
USDA Office of the Chief Economist (OCE)
World Agricultural Outlook Board (WAOB)

Soybeans Progress

Percent Emerged

June 2, 2024



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

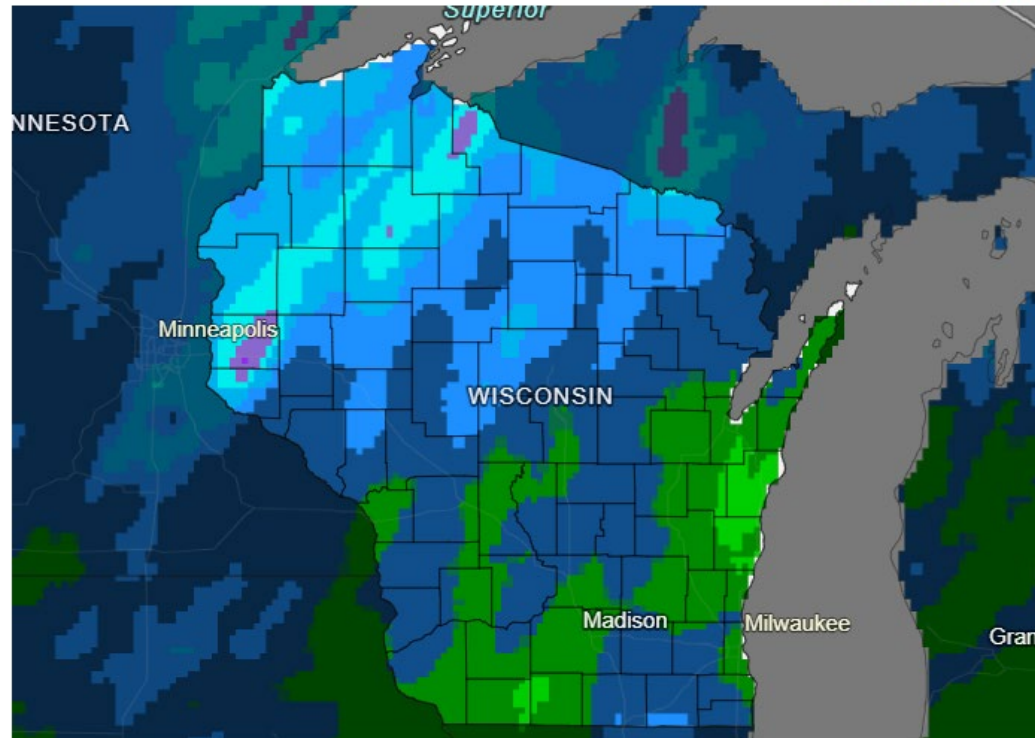
National Progress	
Emerged	55
Change from 5-year Average	+3

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

- Emergence is running **ahead** of the 5-year average in WI and states to the E. **Behind** average pace in IA, MN, & IL.
- Wisconsin → **61% complete**; 12% ahead of the 5-year average pace. **17% increase** from last week.
- Planting → **82% planted**

7 Day Precip Forecast

7-Day Quantitative Precipitation Forecast



Predicted Inches of Precipitation



Source(s): National Weather Service Weather Prediction Center
Data Valid: 06/04/24

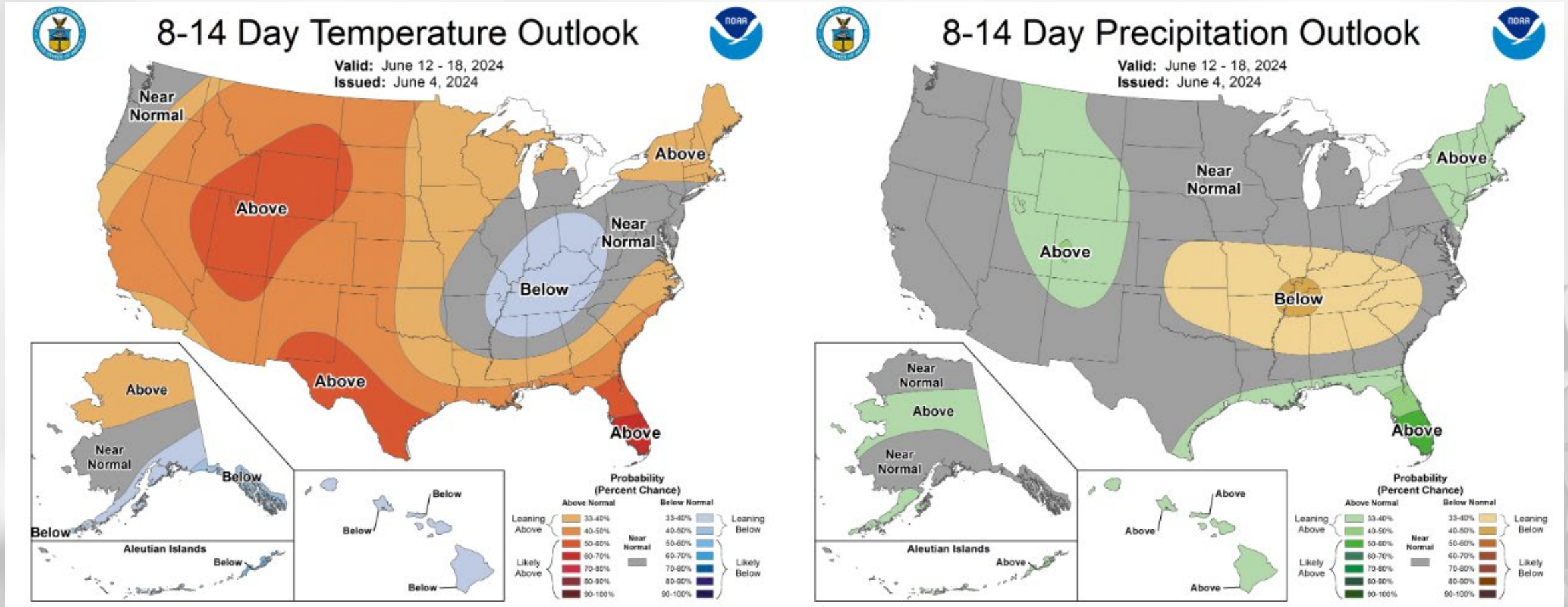
Drought.gov

- Another week with multiple rain chances is forecasted for the state.
 - Chances are higher in the north/northwest.

Forecast for 6/4/24 thru 6/11/24
(Begins at 7am CDT)

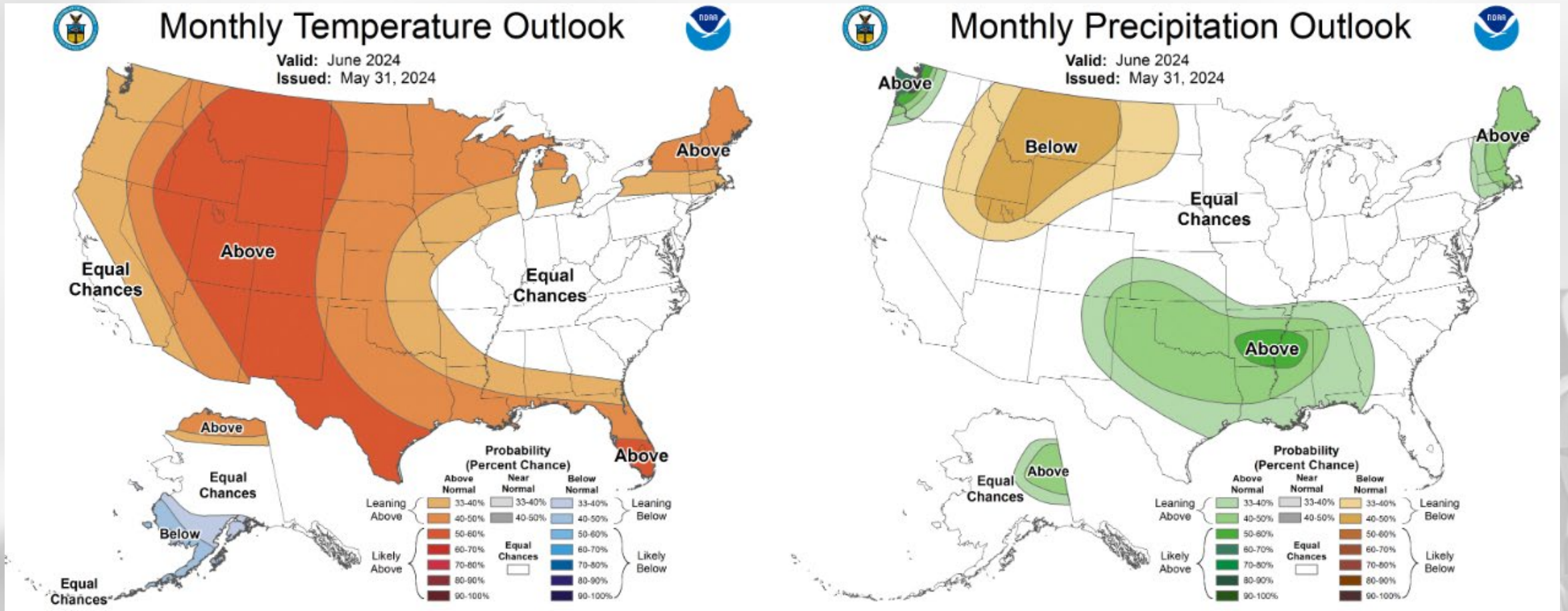
<https://www.wpc.ncep.noaa.gov/qpf/p168i.gif>
<https://www.drought.gov/states/wisconsin>

8-14 Day Temp & Precip Outlook



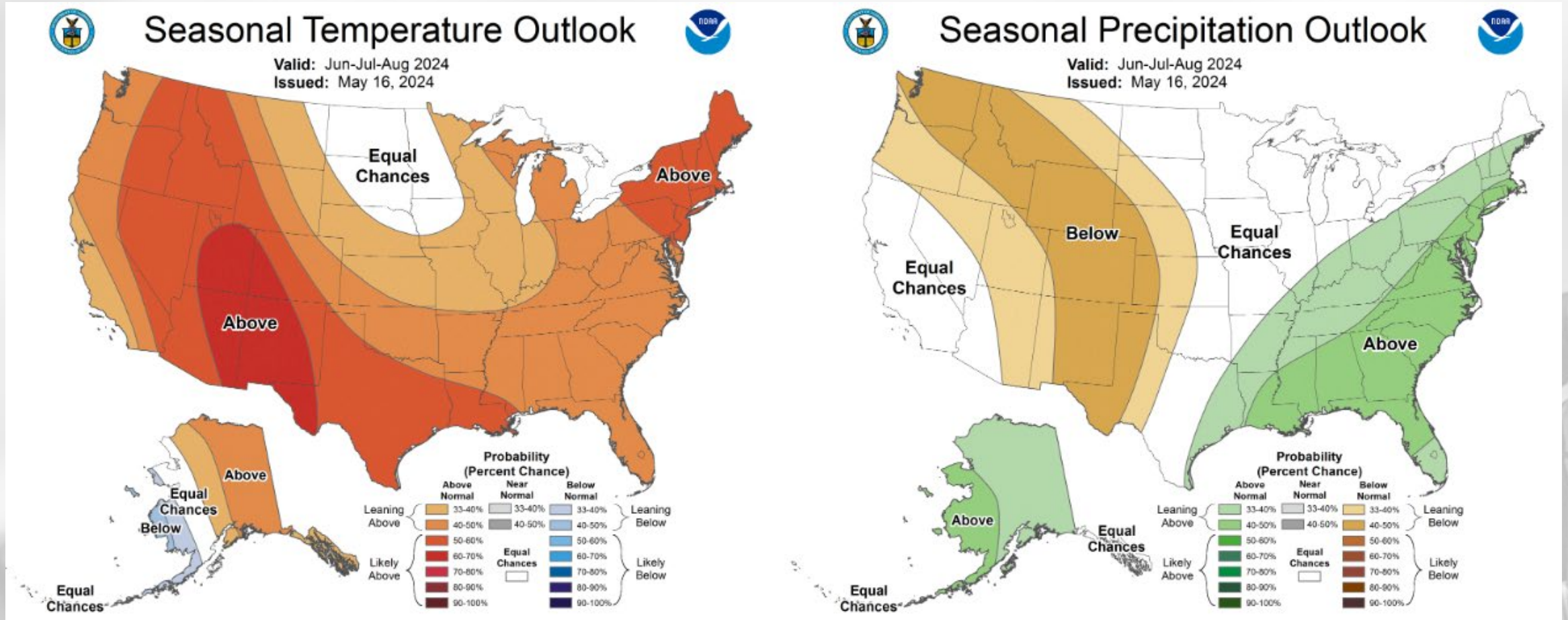
Middle of June: Temperatures leaning above normal. Precipitation leaning near normal.

30 Day Temp & Precip Outlook



Month of June: Temperature is leaning above normal. Precipitation is 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:

- June has started off wetter-than-normal for many in the S and NW, adding to yearly totals already higher-than-normal in the S.
- Temperatures last week were a bit cooler than normal for this time of year, more so in the S.

Impact:

- Soil moisture levels were similar or dropped a bit from the week of 5/20.
 - **<1%** of the state is in D1 drought, with **0%** in D2 or higher.
 - Only **5%** of the state is reporting short or very short subsoil moisture.
- GDD accumulation in the state trends is running at 600-700 GDD (300-400 GDD) in the S (N).
- Corn & soybeans are **>60%** emerged, with planting **>80%** for both crops.

Outlook:

- The forecast is calling for more rain statewide next week; highest in the NW.
- Above normal temps as June progresses, with probabilities for precip leaning near normal for mid-June.
- The warmer-than-normal conditions have a higher probability to continue through the summer.
 - *A transition to La Niña is expected over the summer months.*

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 sporadic across the state in the next week, but definitely possible. 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, variegated cutworm feeding has begun, 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, with the main feeding area moving North this week.
- 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.

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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