

Wisconsin Ag Climate Outlook

Week of May 20, 2024

Natasha Paris

Crops Educator – Adams, Green Lake,
Marquette, Waushara Cos.

natasha.paris@wisc.edu

Kristin Foehringer

NRCS State Working Lands Climate
Smart Specialist

kristin.foehringer@usda.gov

Dennis Todey

Director, Midwest Climate Hub

dennis.todey@usda.gov

Josh Bendorf

Ag Climatologist Fellow, Midwest Climate
Hub

joshua.bendorf@usda.gov

Steve Vavrus

State Climatologist of Wisconsin

svavrus@wisc.edu

Bridgette Mason

Assistant State Climatologist of
Wisconsin

bmmason2@wisc.edu

Key Points

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

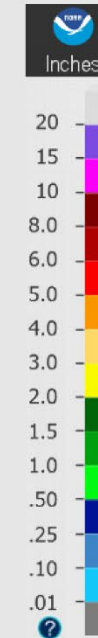
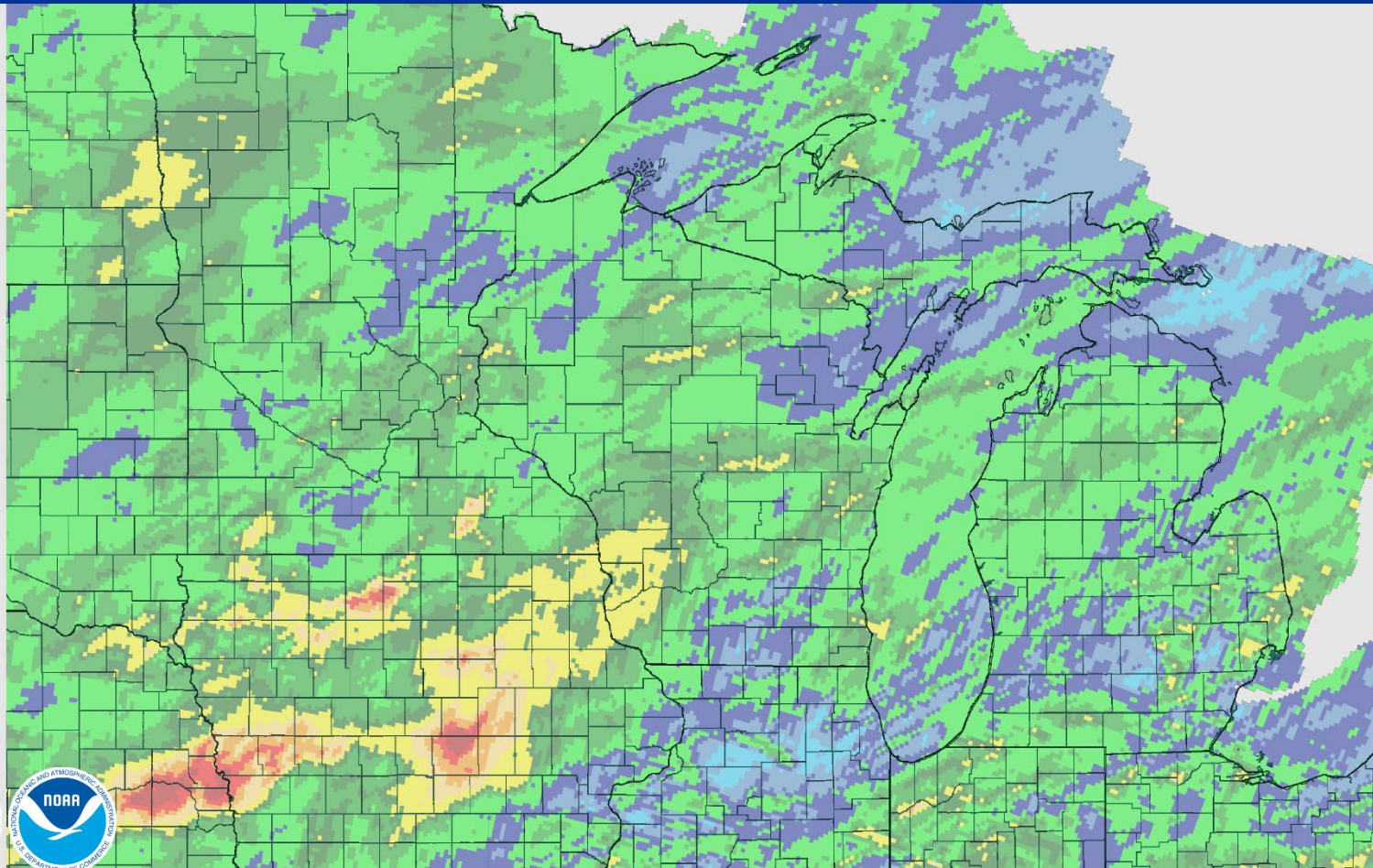
- 1) Last week, many in the state received at least a [half inch](#) of rainfall, with [temps](#) a few degrees above normal.
- 2) [Soil moisture](#) levels are near or above normal for this time of year, with over 70% of the state out of any [USDM](#) category.
- 3) Near normal [temps & precip](#) to wrap up May, with projections for [summer](#) leaning warmer.
 - For this week's agronomic recommendations from UW Extension, click [here](#).
 - For GDD plots at select stations, click [here](#).
 - For NASS crop progress maps, click [here](#).

7 Day Precip

May 21, 2024 7-Day Observed Precipitation

Created on: May 21, 2024 - 14:16 UTC

Valid on: May 21, 2024 12:00 UTC



- Majority of the state saw **0.5-2"** of precip last week.
- Areas in yellow saw **>2"** of precip. Highest totals in the Driftless Region.
- **NOTE:** this map was updated before Tuesday night's storms.

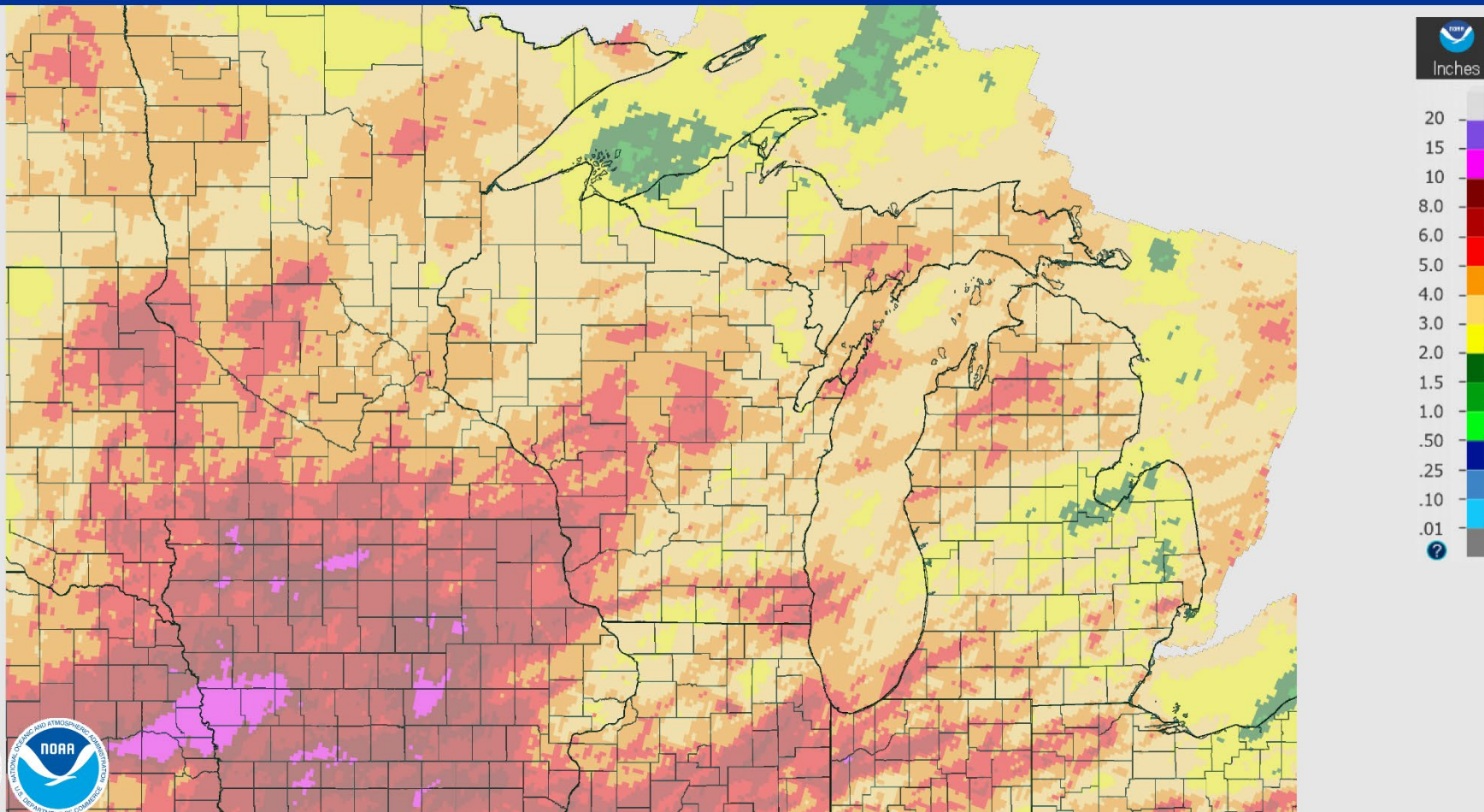


30 Day Precip

May 21, 2024 30-Day Observed Precipitation

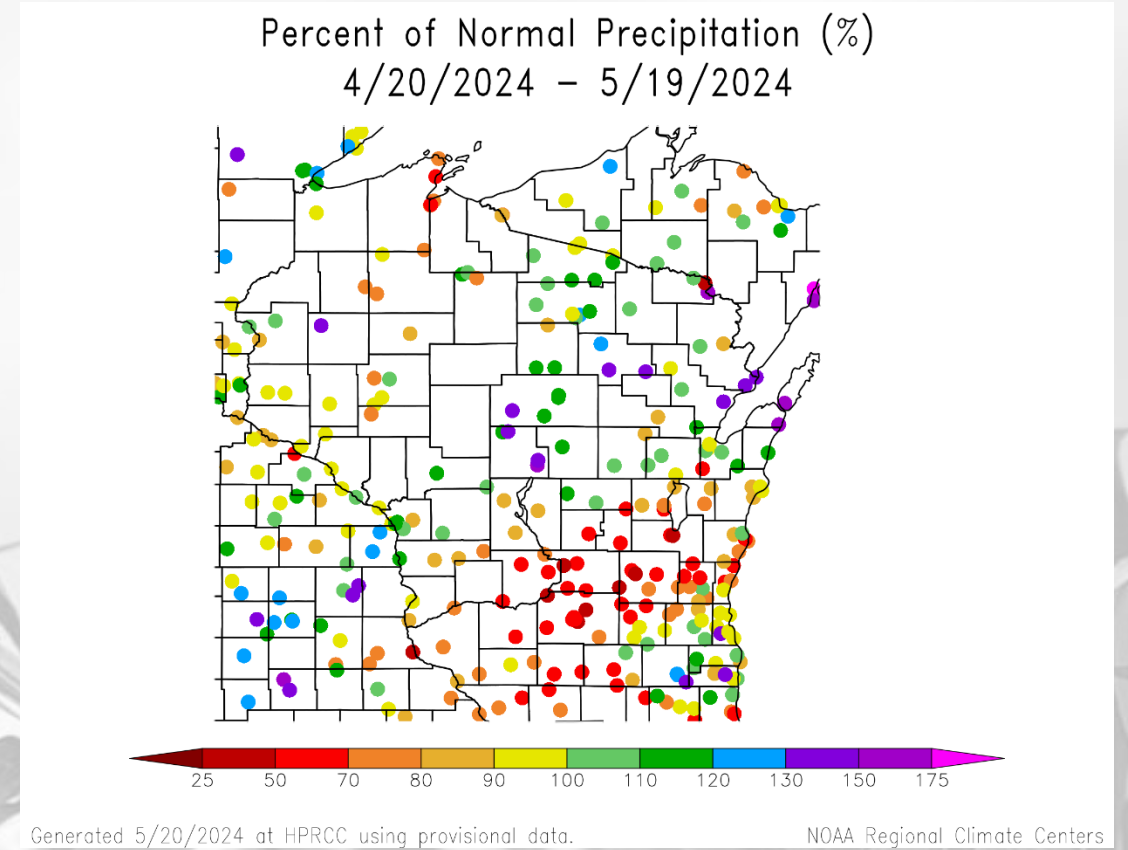
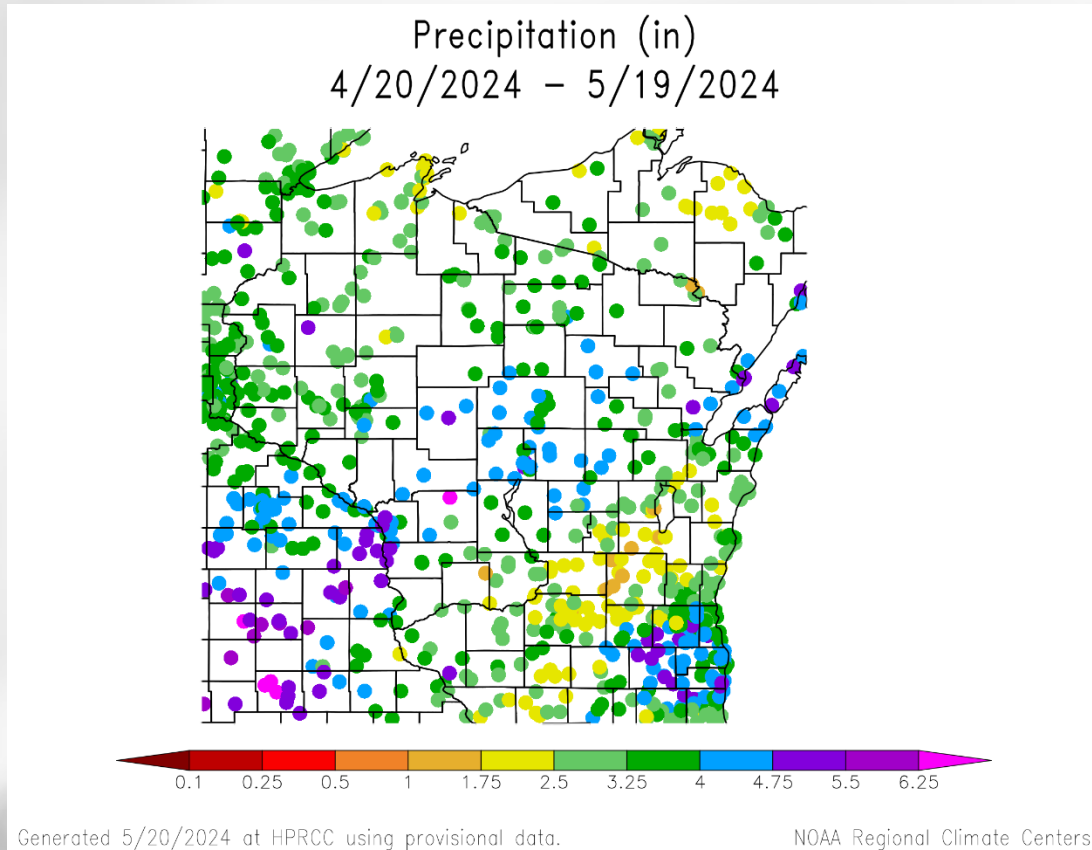
Created on: May 21, 2024 - 14:18 UTC

Valid on: May 21, 2024 12:00 UTC



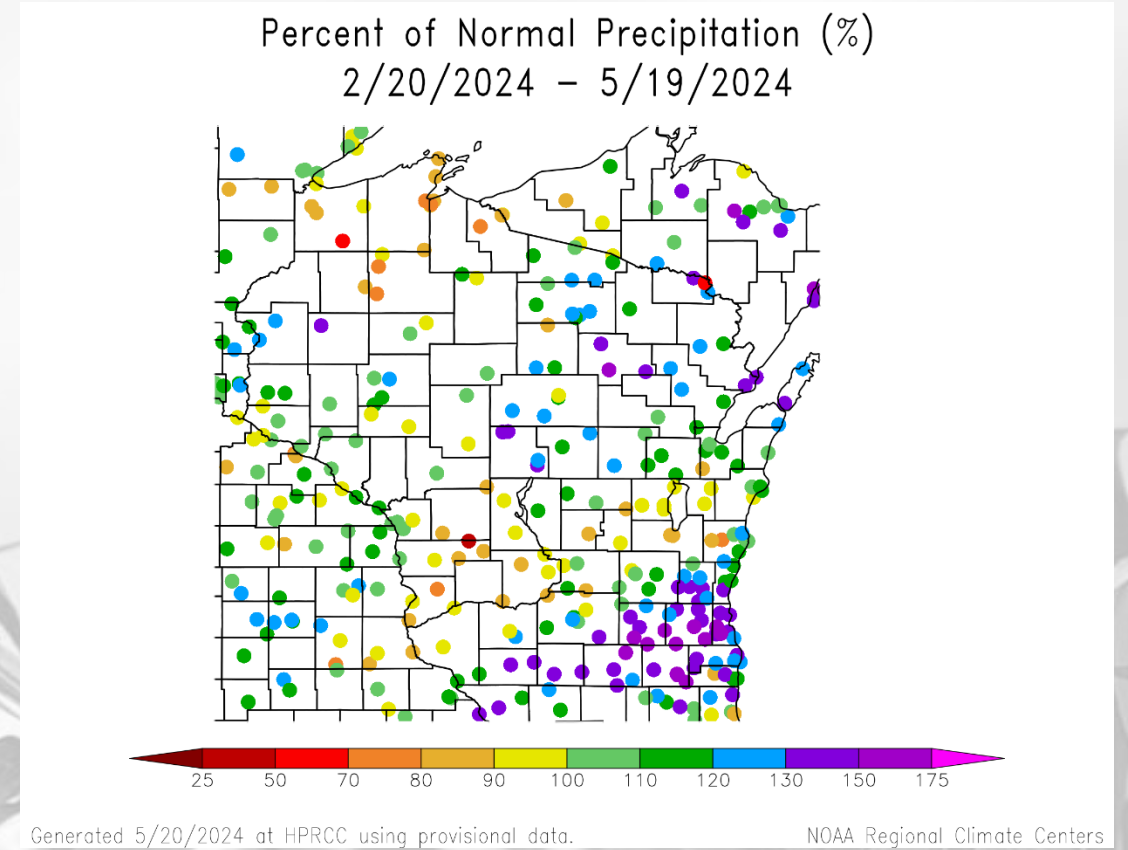
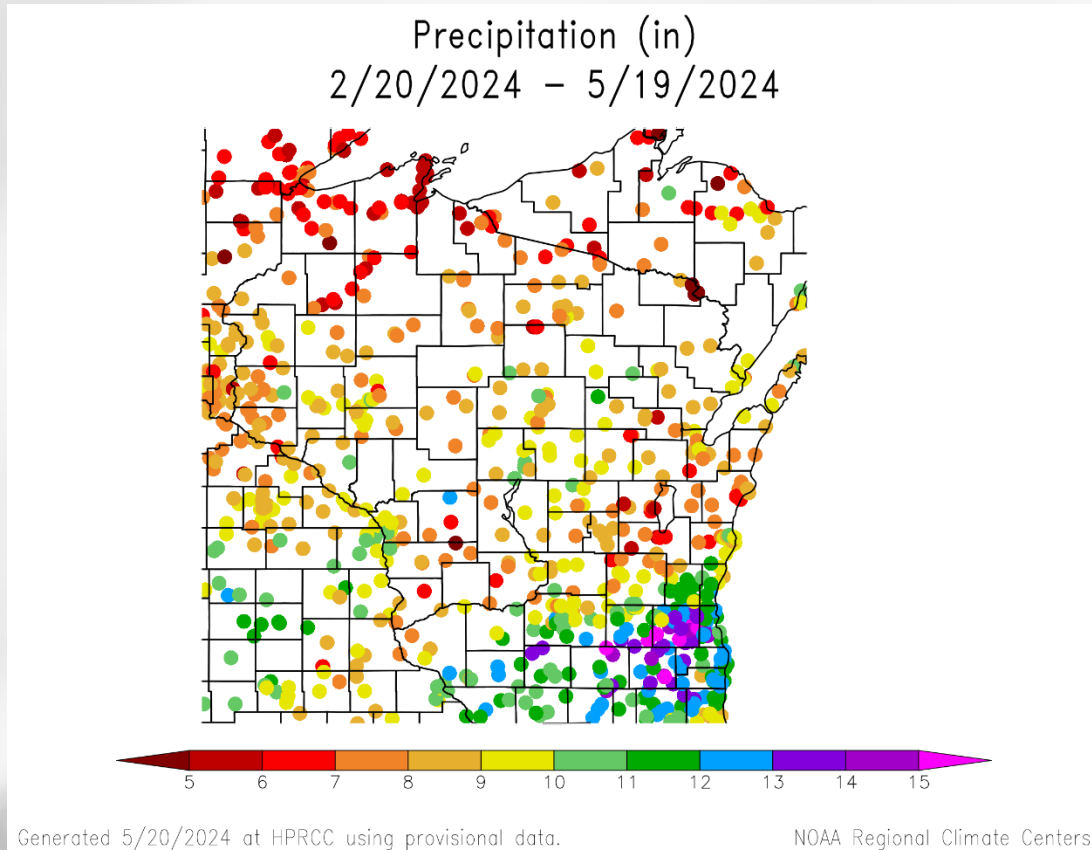
- Most of the state has seen **3-5+''** of precip over the past month.
- **>5''** in the Driftless Region, Central Sands, and far SE.
- Pockets of **3''** or less scattered.

30 Day Precip Total/% Avg.



- 30-day totals of **5+”** around La Crosse, Green Bay, and Waukesha/Whitewater
- **3-4” common** across the state; **near or slightly above** the 30-year average
- Lowest totals from Madison up through the Fox Cities; **<70%** of climatological average

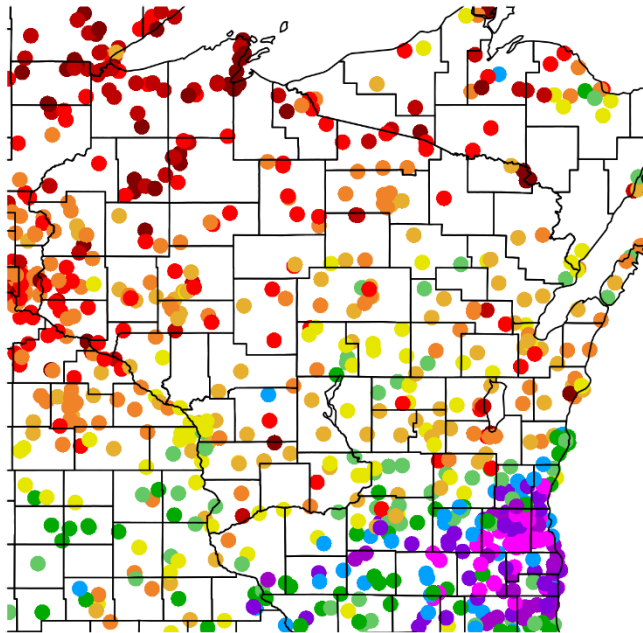
90 Day Precip Total/% Avg.



- Highest precip totals near to the IL state line → **1 foot or more** for some; **130+”** of average is common
- Many stations are at **90%** of 30-year average or greater
- **<90%** of average can be found at stations in the far NW, Driftless, and Fox Cities area (**7” or less**)

2024 Precipitation (so far)

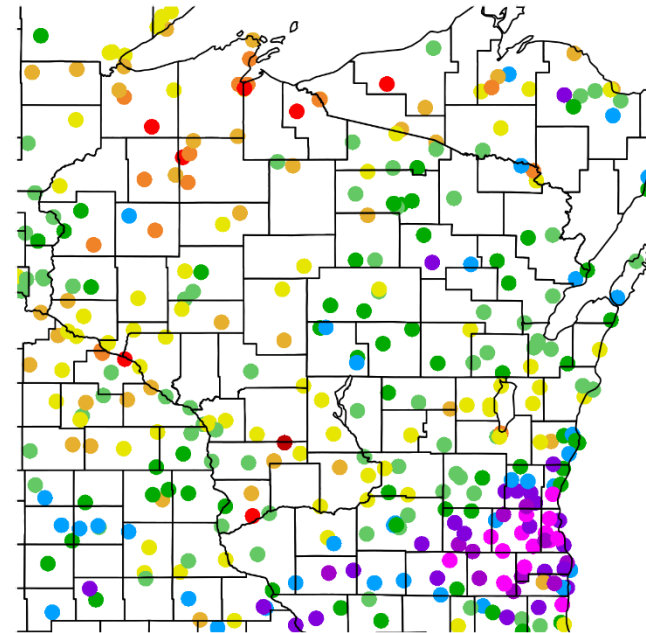
Precipitation (in)
1/1/2024 – 5/20/2024



Generated 5/21/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Precipitation (in)
1/1/2024 – 5/20/2024



Generated 5/21/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

Soil Moisture Models

- **Moisture improvement** in the state with the accumulated precip from last week, particularly in the SW.
- Wetter-than-normal conditions in the SW corner up through the central sands and NE.

Model Notes:

Red areas = top 5 driest in 100 years.

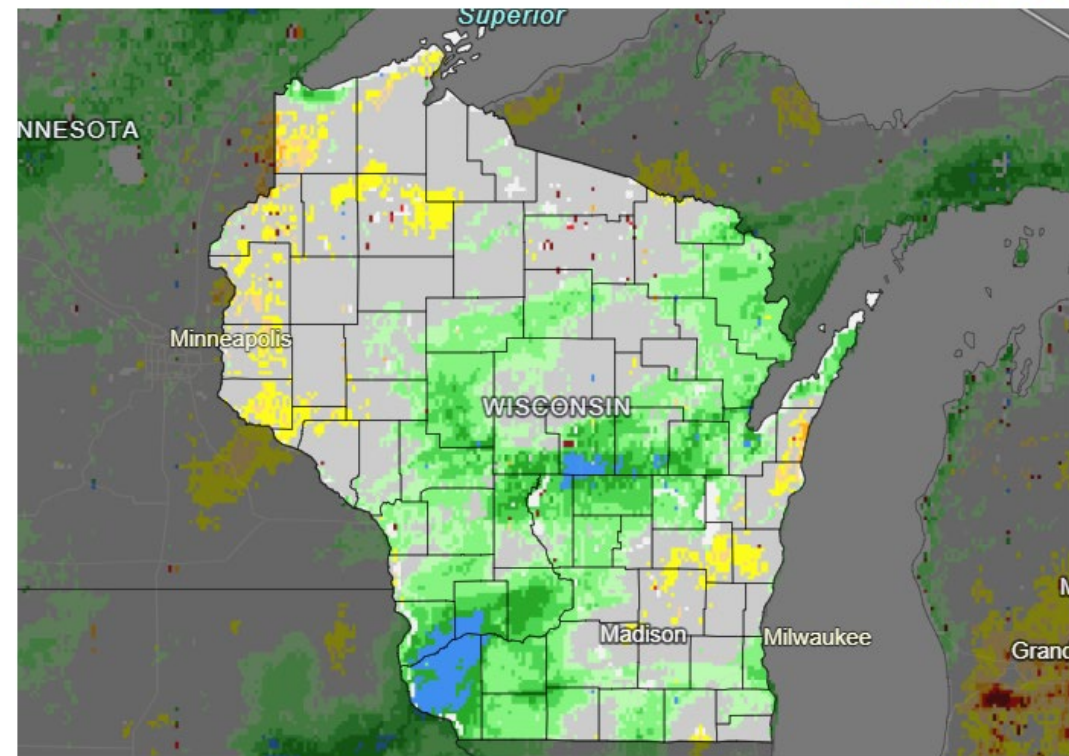
Dark red areas = top 2 driest in 100 years.

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.

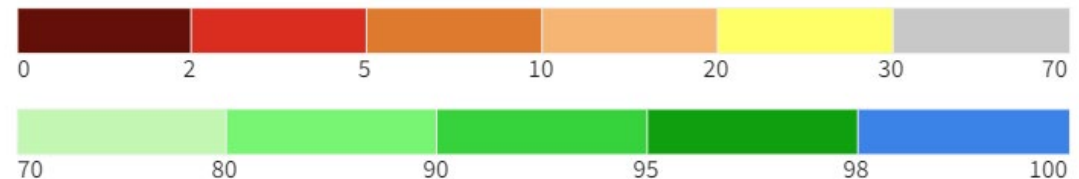
https://weather.msfc.nasa.gov/sport/case_studies/lis_CONUS.html

<https://www.drought.gov/states/wisconsin>

0-100 cm Soil Moisture Percentile



0-100 cm Soil Moisture Percentile

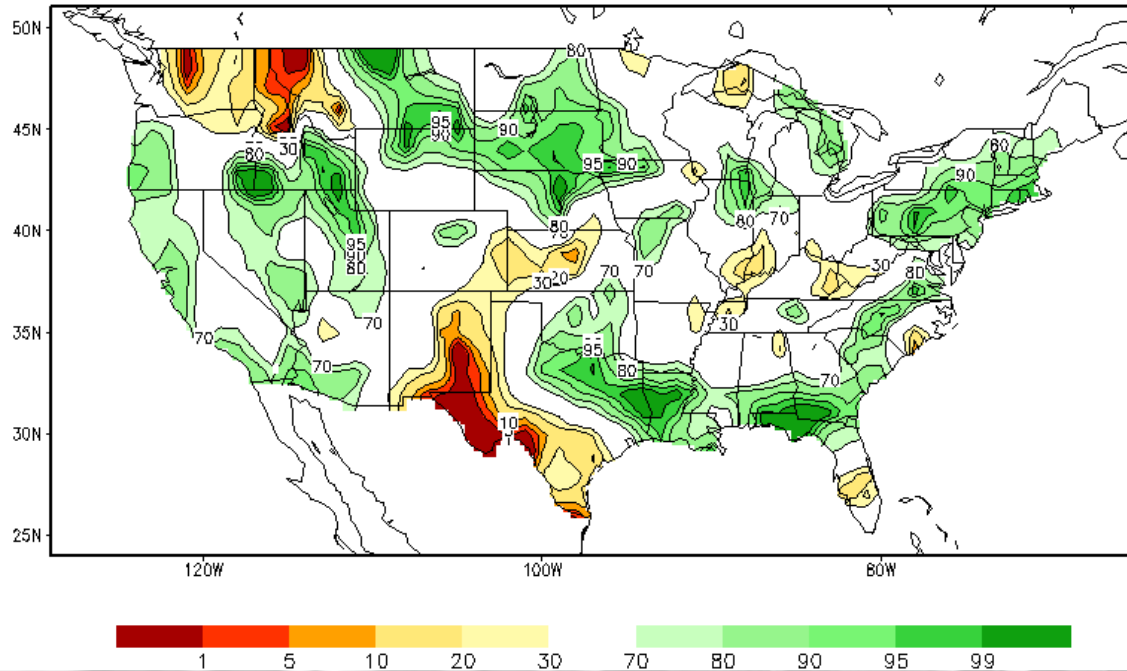


Source(s): NASA
Data Valid: 05/21/24

Drought.gov

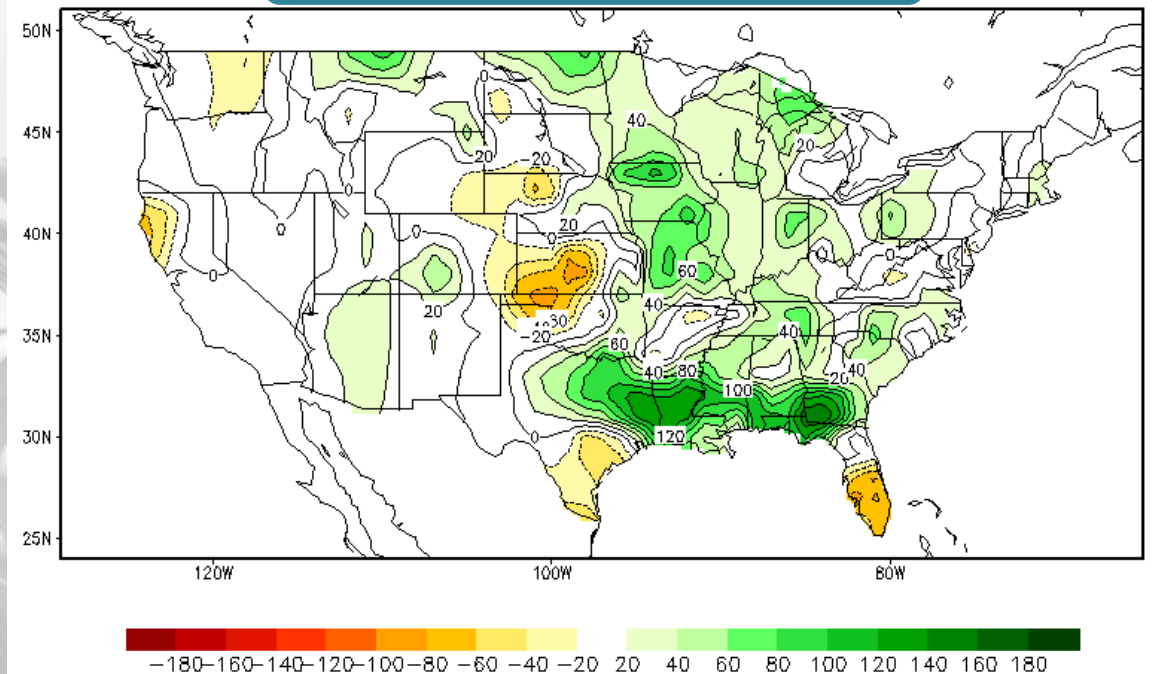
Soil Moisture Models

Calculated Soil Moisture Ranking Percentile
MAY 20, 2024



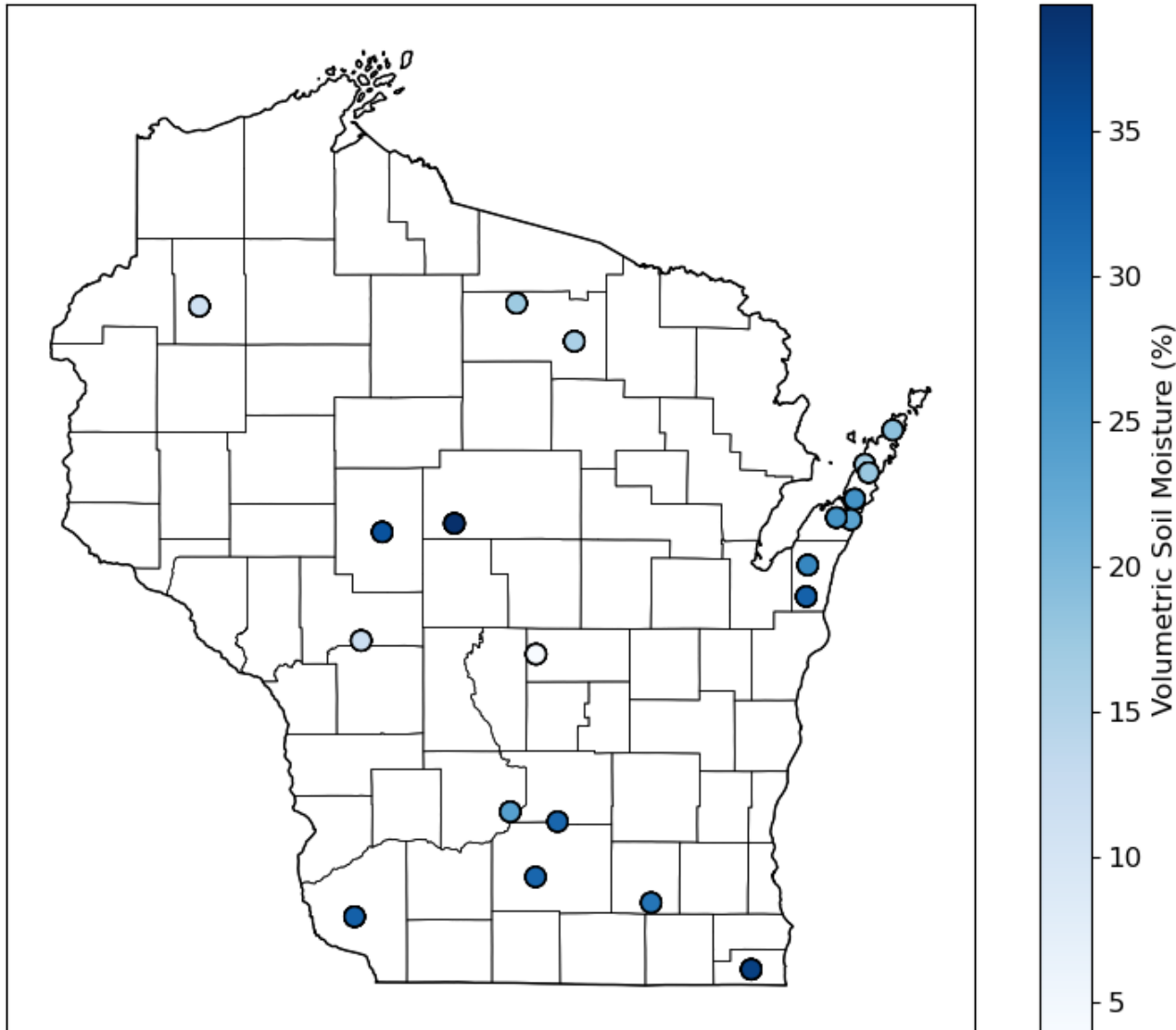
Soil moisture improvement
statewide since late winter.

Calculated Soil Moisture Anomaly Change
MAY 20, 2024 from FEB.28



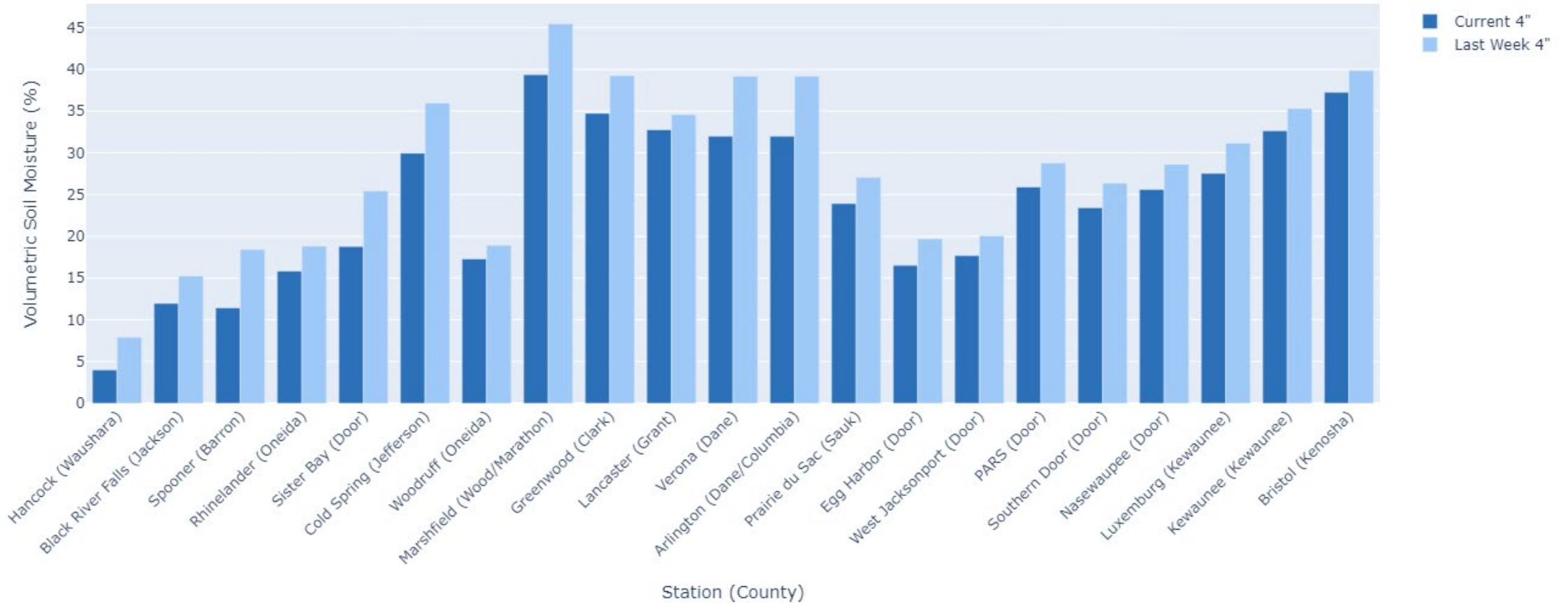
Soil Moisture - Wisconet

Wisconet 4" Soil Moisture



Soil Moisture - Wisconet

Wisconet 4" Soil Moisture



Current: 7-day average ending on 5/20

Last Week: 7-day average ending on 5/13

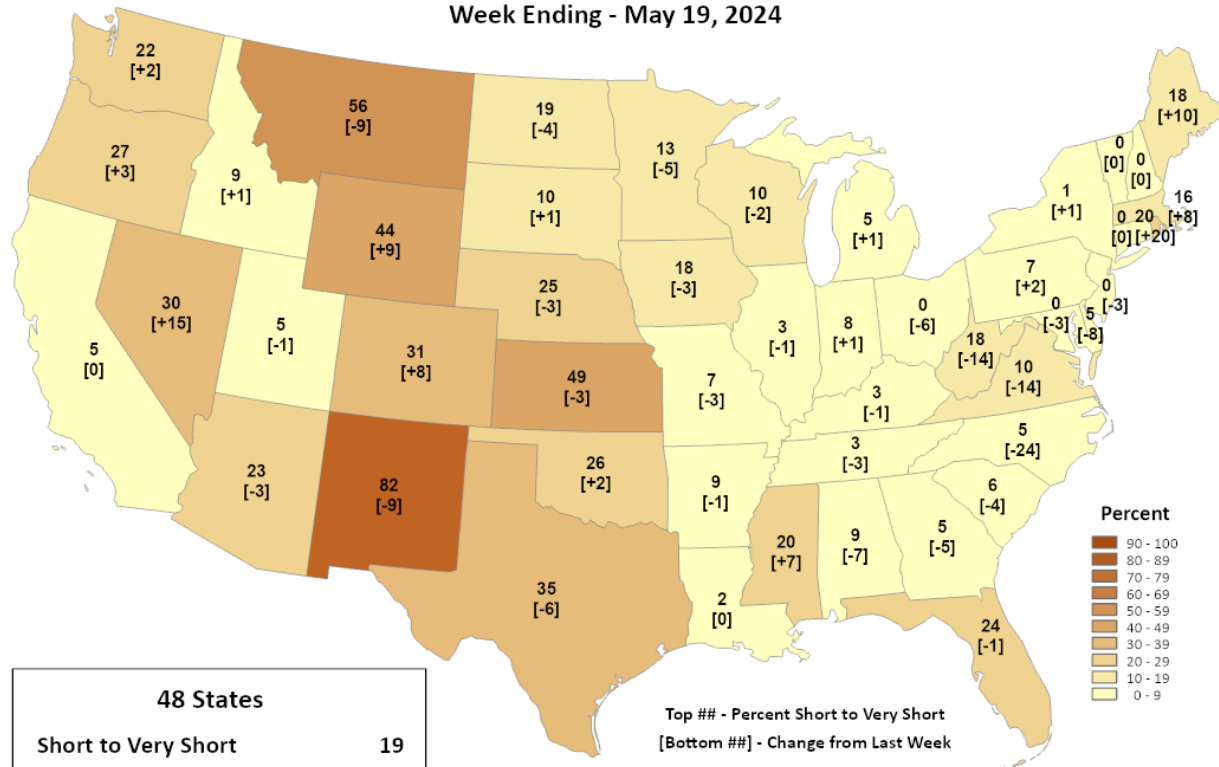
<https://wisconet.wisc.edu/>

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

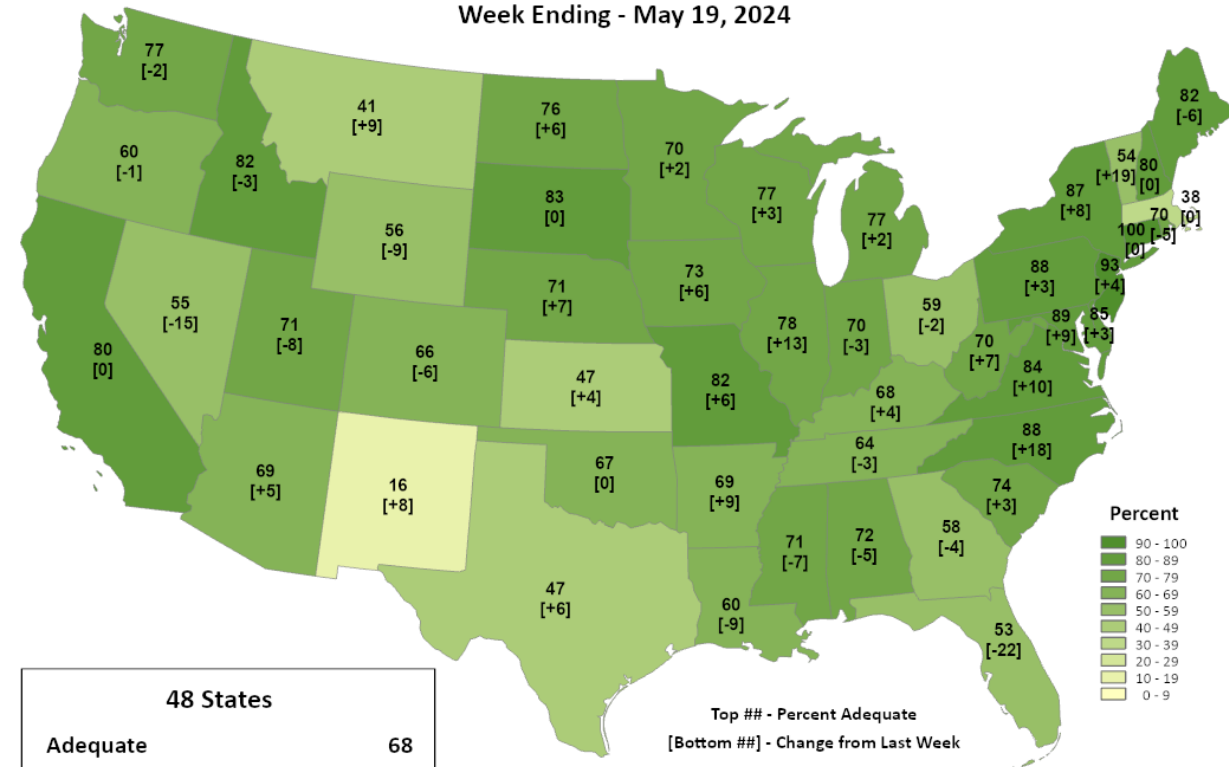


Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.



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

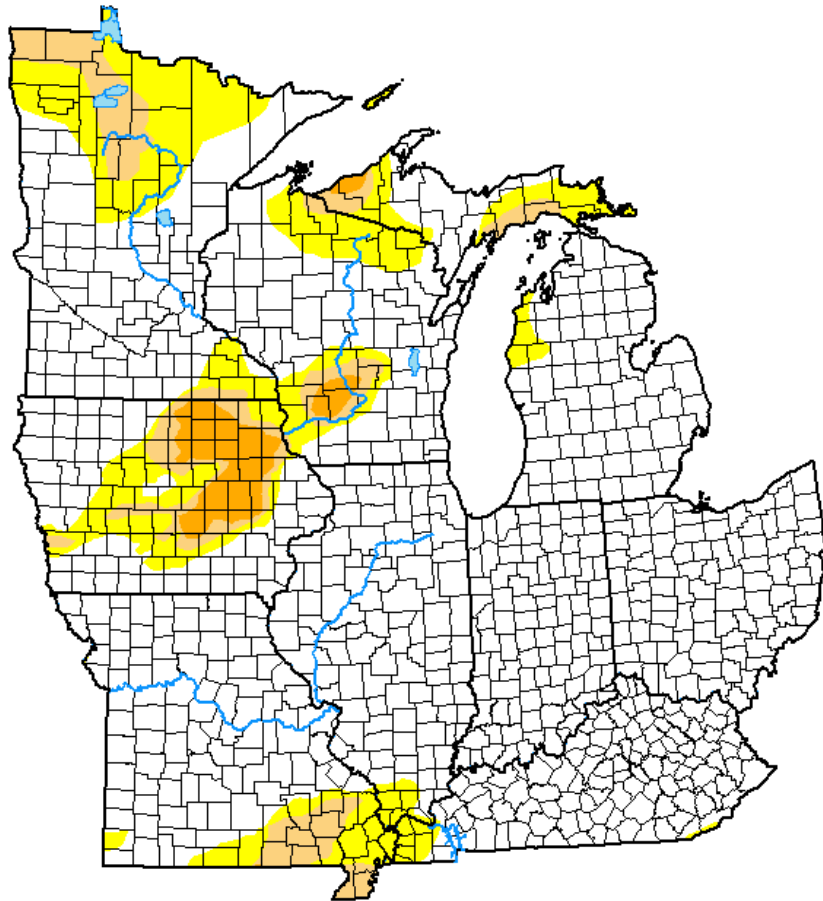


Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.

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

US Drought Monitor

U.S. Drought Monitor Midwest



May 14, 2024

(Released Thursday, May 16, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	79.46	20.54	7.64	2.22	0.00	0.00
Last Week <i>05-07-2024</i>	74.02	25.98	9.97	2.59	0.00	0.00
3 Months Ago <i>02-13-2024</i>	48.07	51.93	23.14	10.28	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>05-16-2023</i>	77.82	22.18	7.60	1.94	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:

Lindsay Johnson
National Drought Mitigation Center



droughtmonitor.unl.edu

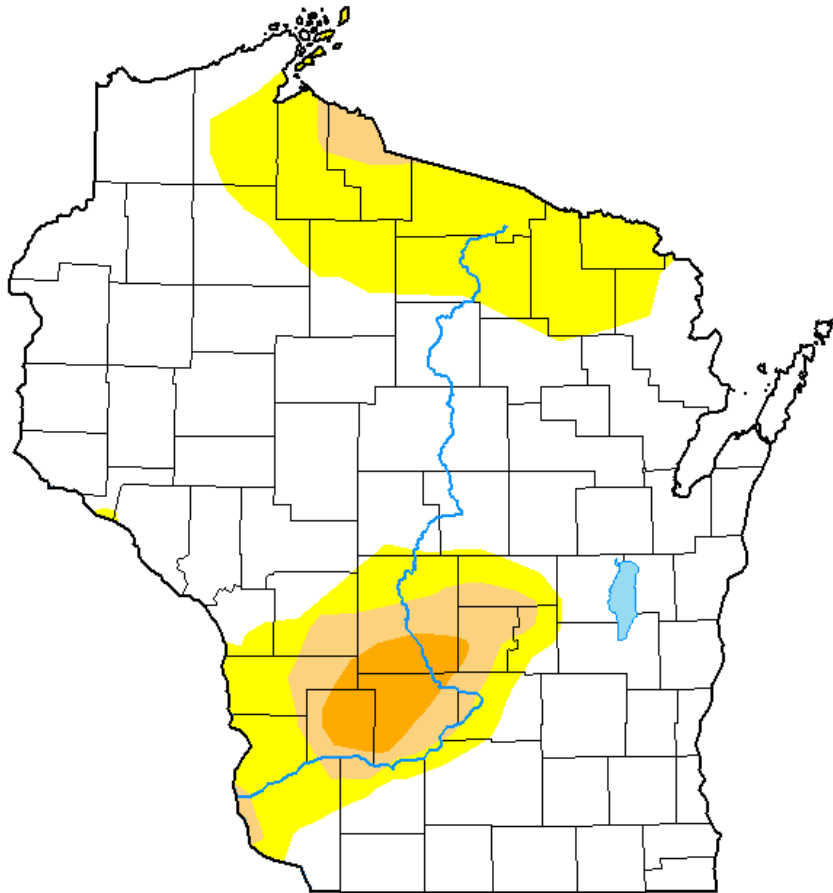
- Compared to last week:
 - Continued decreases in drought category area.
- Nearly **80%** of the Midwest is outside of D0-D4.
- Majority of drought is in IA, WI, & MN.
 - Large area of D2 remains in Iowa.
- D3 and D4 drought are non-existent in the Midwest.

Note: D0 is not considered drought.

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

US Drought Monitor

U.S. Drought Monitor Wisconsin



May 14, 2024

(Released Thursday, May. 16, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	71.90	28.10	7.93	2.52	0.00	0.00
Last Week 05-07-2024	71.94	28.06	7.93	2.52	0.00	0.00
3 Months Ago 02-13-2024	31.06	68.94	35.69	14.93	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 05-16-2023	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>

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National Drought Mitigation Center



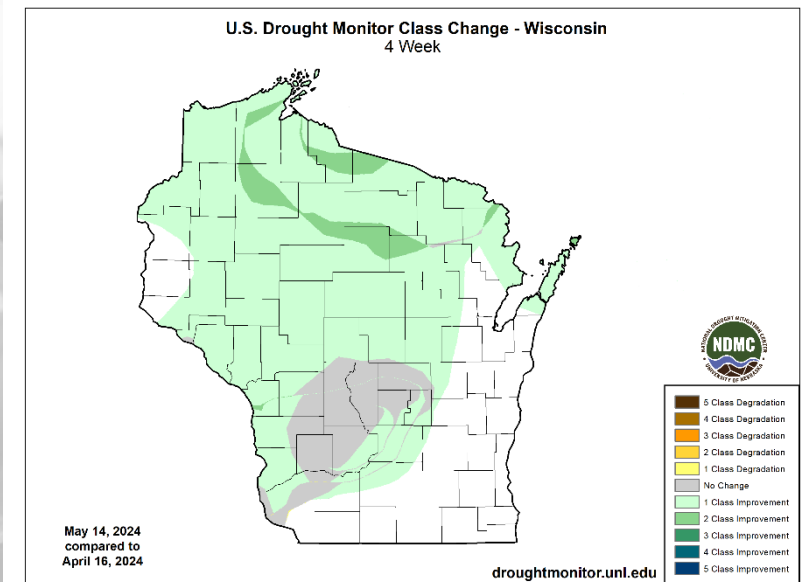
droughtmonitor.unl.edu

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

Amount of state in:

- D1-D4 – 7.9% --
- D2-D4 – 2.5% --
- D3-D4 – 0.0% --
- D4 – 0.0% --

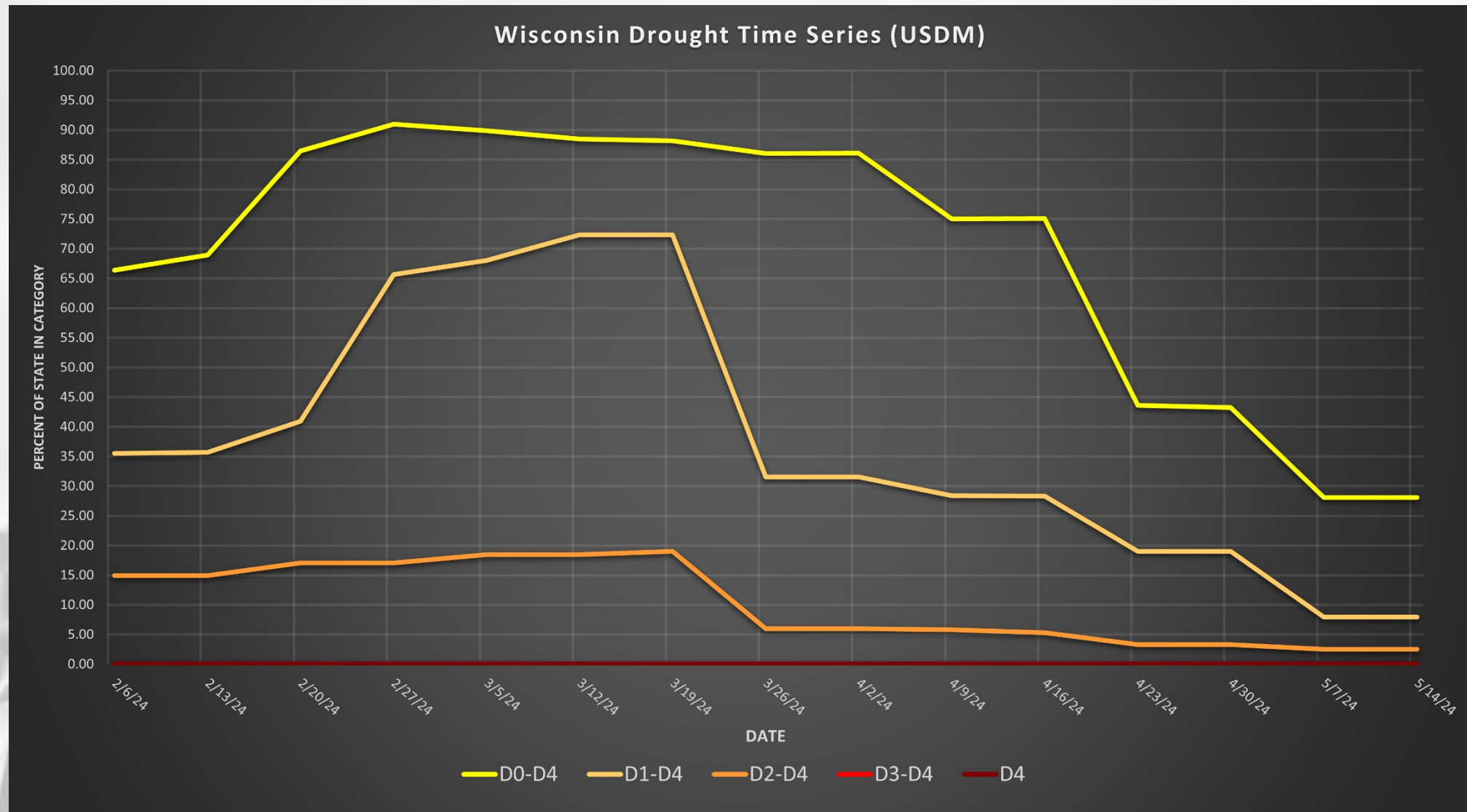
Note: ↑↓ indicate change from last week. Red up arrows indicate increase in drought area; vice-versa for green arrows.



May 14, 2024
compared to
April 16, 2024

droughtmonitor.unl.edu

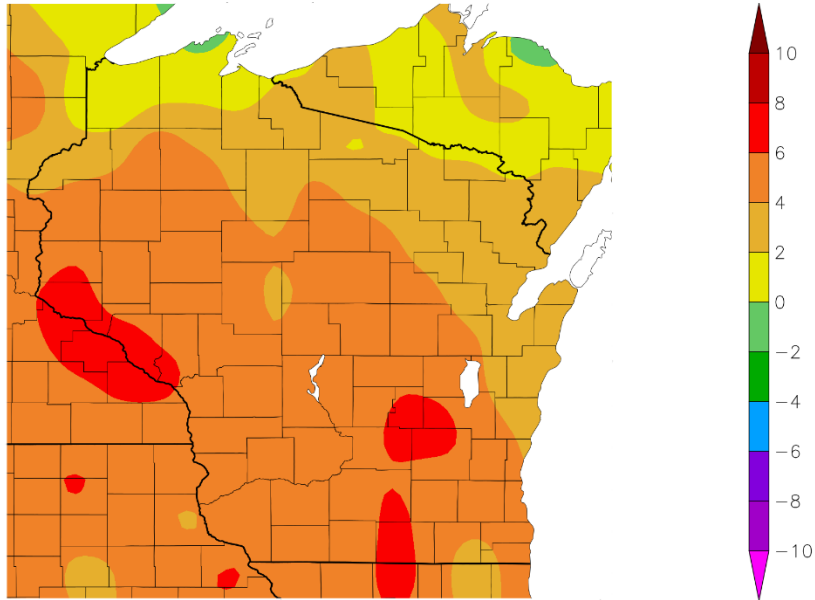
USDM Time Series



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

7 Day Temperatures

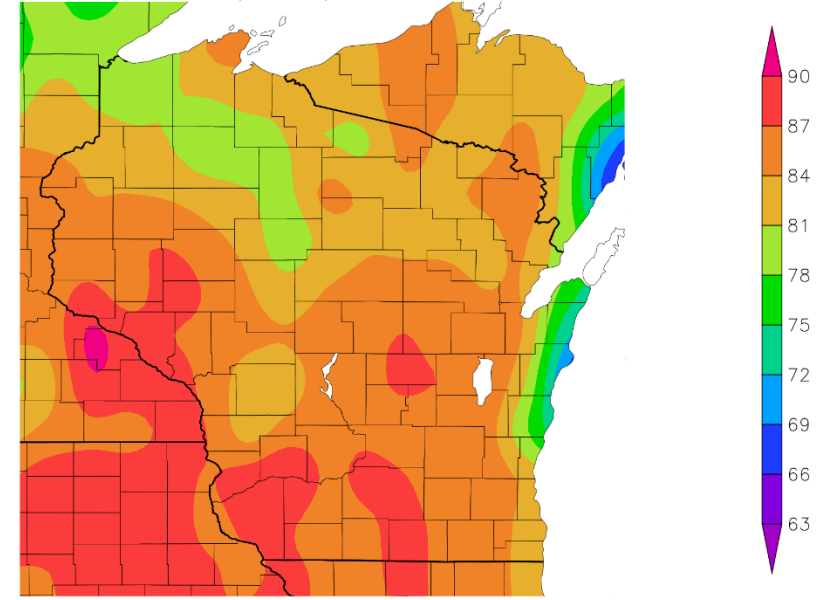
Departure from Normal Temperature (F)
5/13/2024 – 5/19/2024



Generated 5/20/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Highest 1-Day Maximum Temperature (F)
5/13/2024 – 5/19/2024



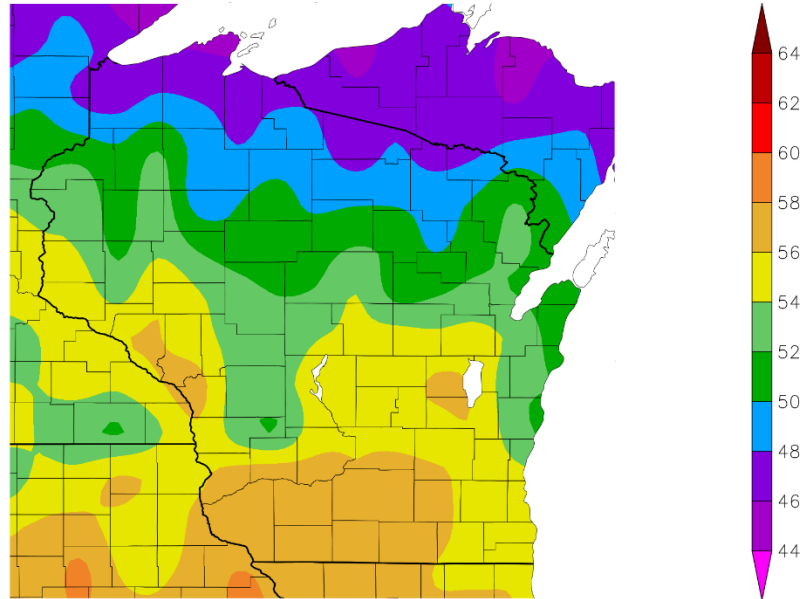
Generated 5/20/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Temps were **4-6°F** above normal for most last week; **>6°F** above normal in the areas in red.
- Maximum temps for the week reached the **mid to upper 80's** for most; especially S and W.

30 Day Temperatures

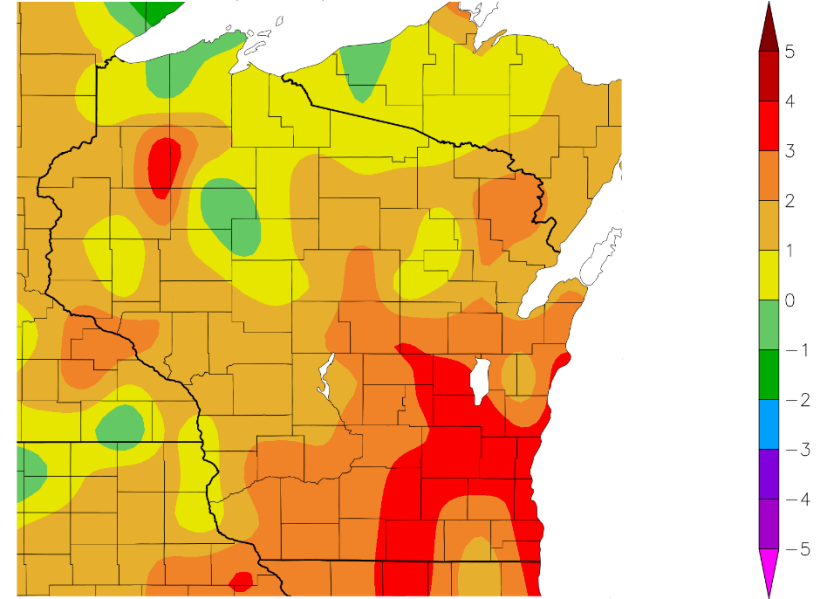
Temperature (F)
4/20/2024 – 5/19/2024



Generated 5/20/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Temperature (F)
4/20/2024 – 5/19/2024

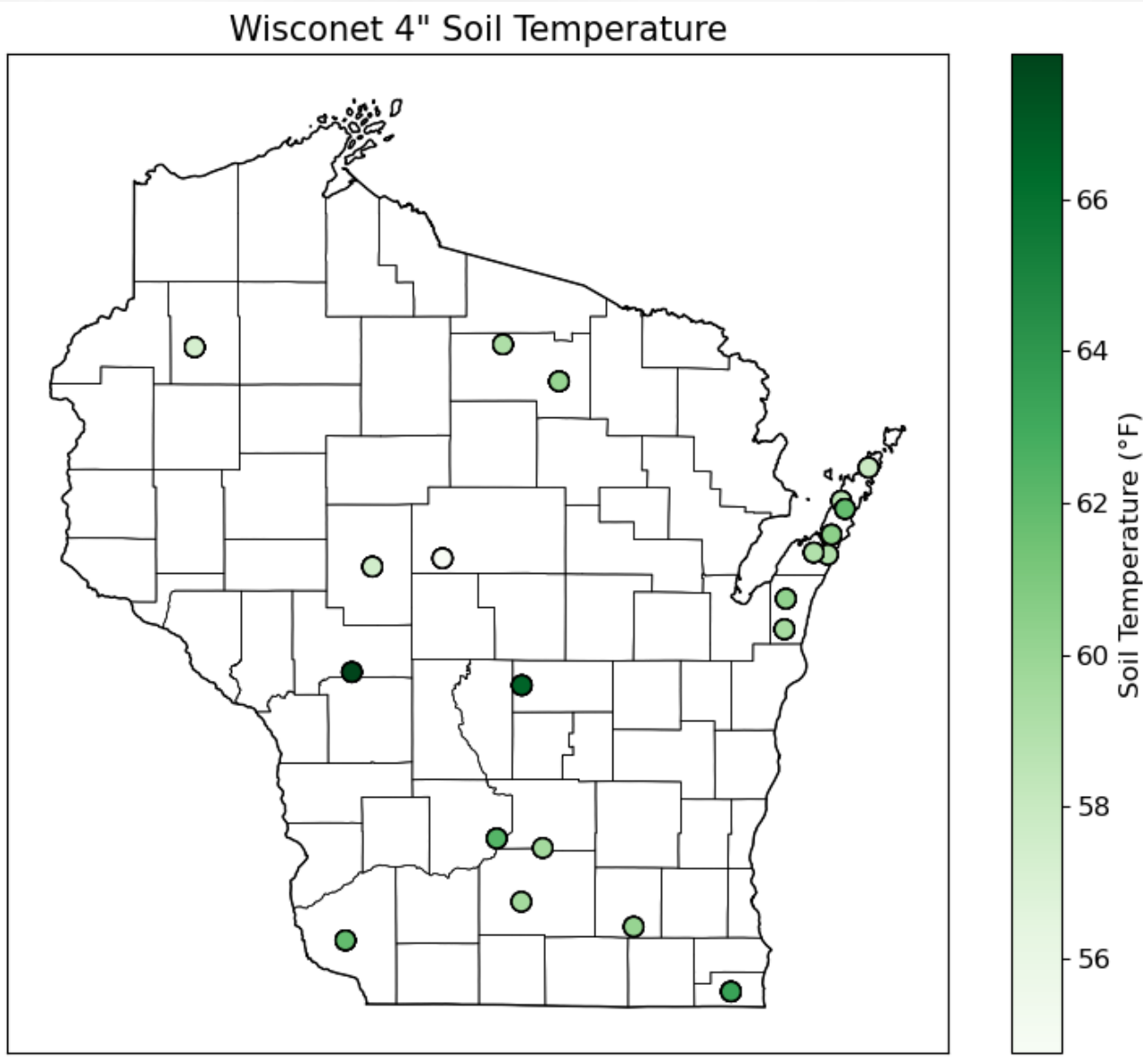


Generated 5/20/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

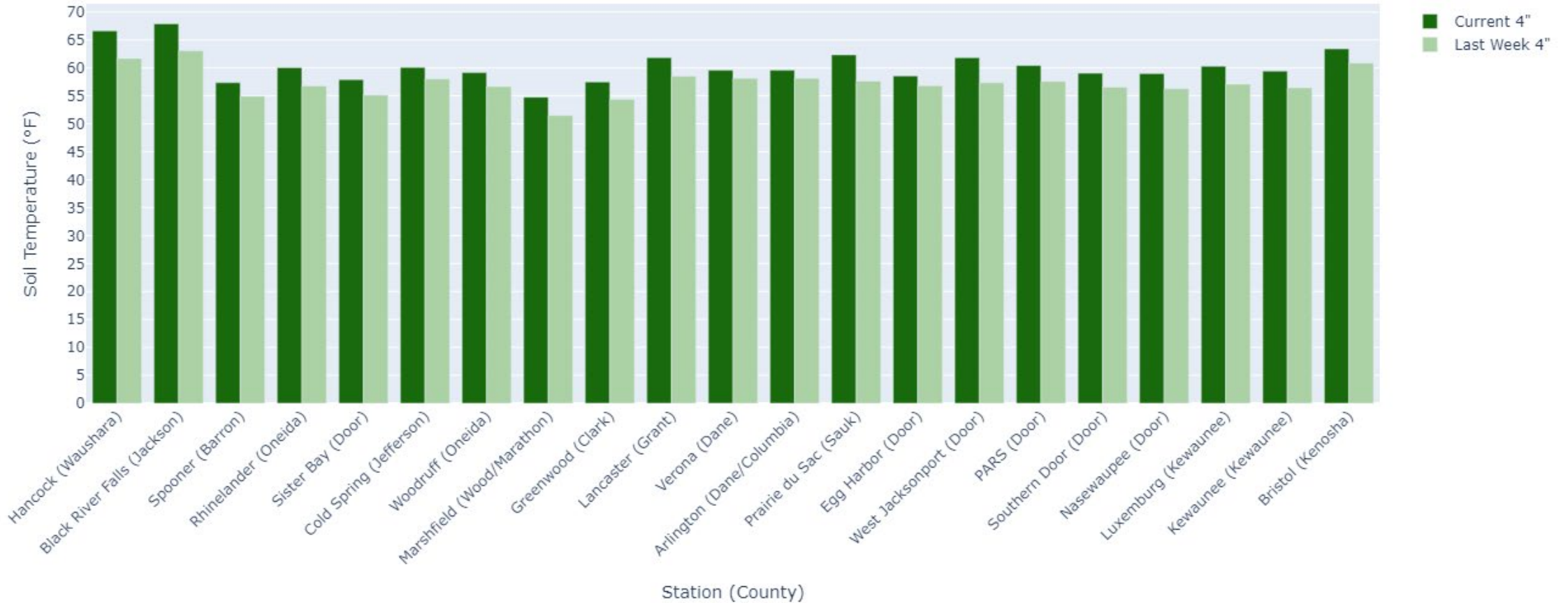
- Temperatures for the month of April ranged from **54-58°F** in the S to **46-50°F** in the far N.
 - Warmer in the southeast → **3-4°F** above normal.
 - Cooler in the northwest/north central → within **-/+1°F** of long-term normal.

Soil Temperature - Wisconet



Soil Temperature - Wisconet

Wisconet 4" Soil Temperature



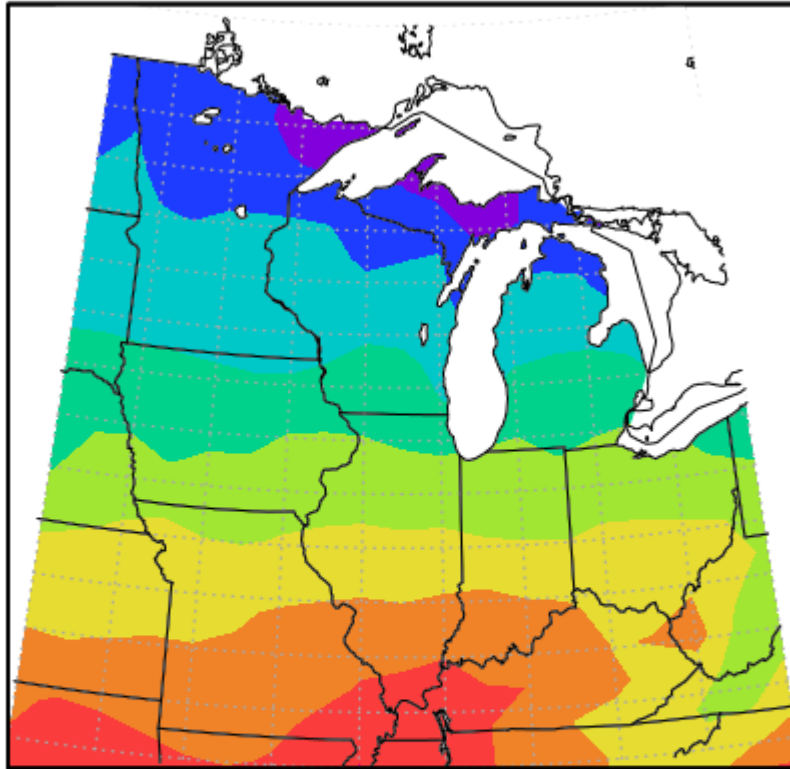
Current: 7-day average ending on 5/20

Last Week: 7-day average ending on 5/13

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

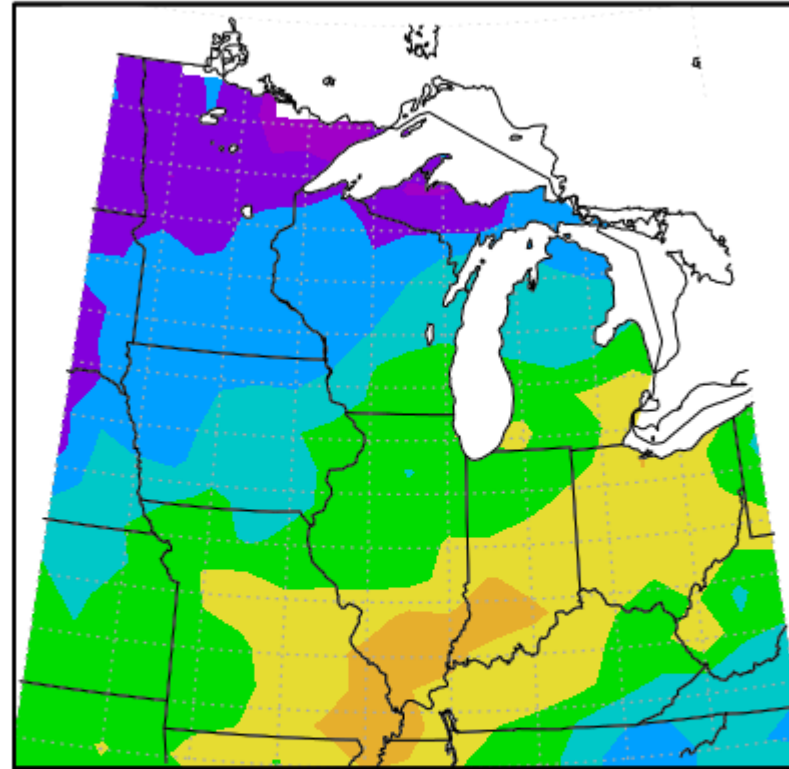
Growing Degree Days Since April 1

Total MGDD from 4/1/2024 to 5/21/2024



Midwestern Regional Climate Center
Purdue University

MGDD Departure, 4/1/2024 to 5/21/2024



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

- All of WI is tracking ahead of average on degree days
- Southeast WI is 60 GDD further ahead of the average than in the Northwest
- 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](#).

NASS Crop Progress – Corn

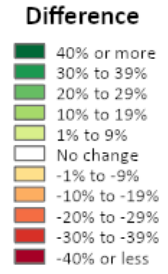
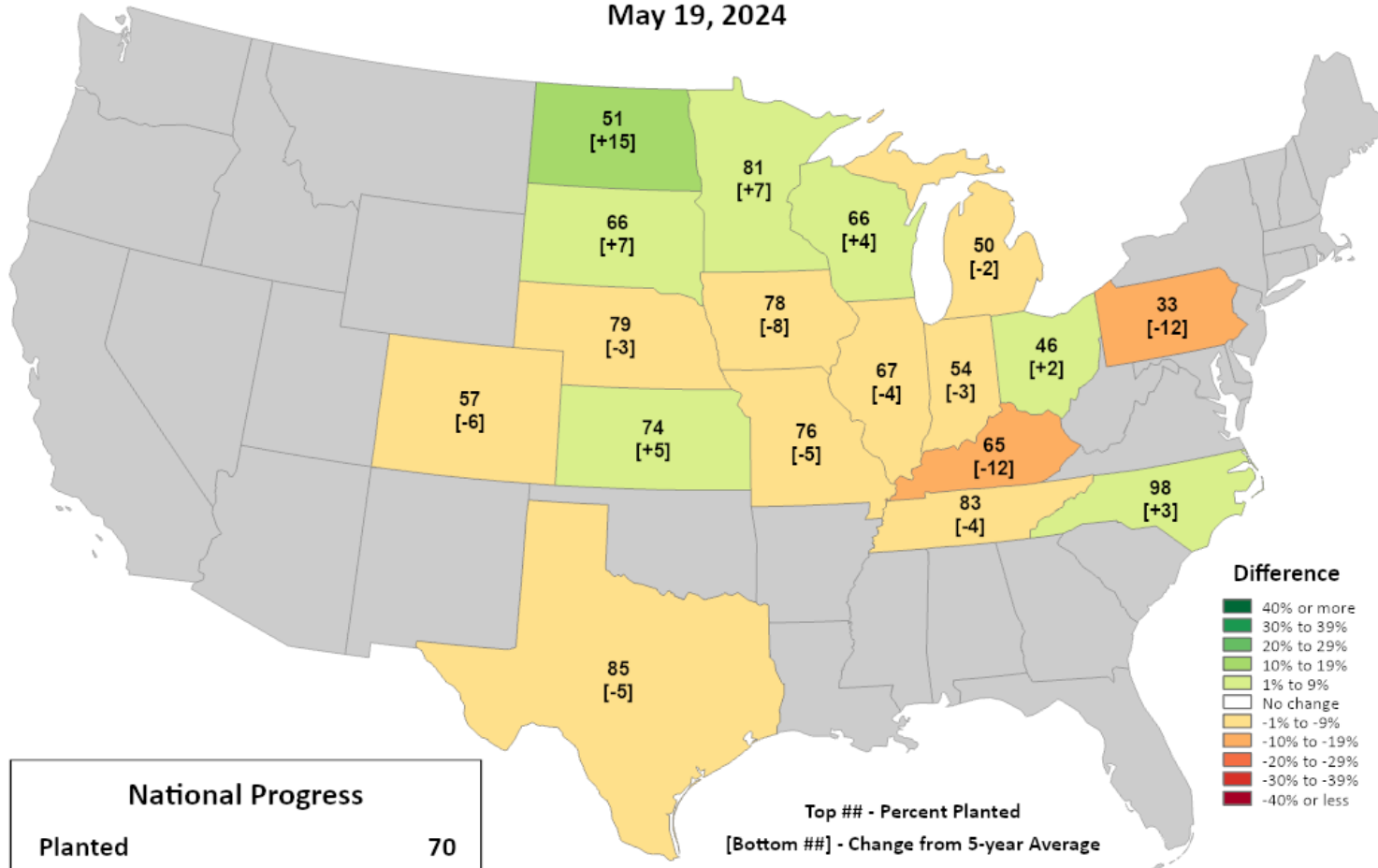


This product was prepared by the
USDA Office of the Chief Economist (OCE)
World Agricultural Outlook Board (WAOB)

Corn Progress

Percent Planted

May 19, 2024



National Progress	
Planted	70
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 to the S.
- Wisconsin → **66% complete**; ahead of the 5-year average pace. **26% increase** from last week.

NASS Crop Progress – Soybean

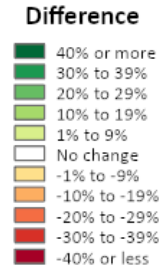
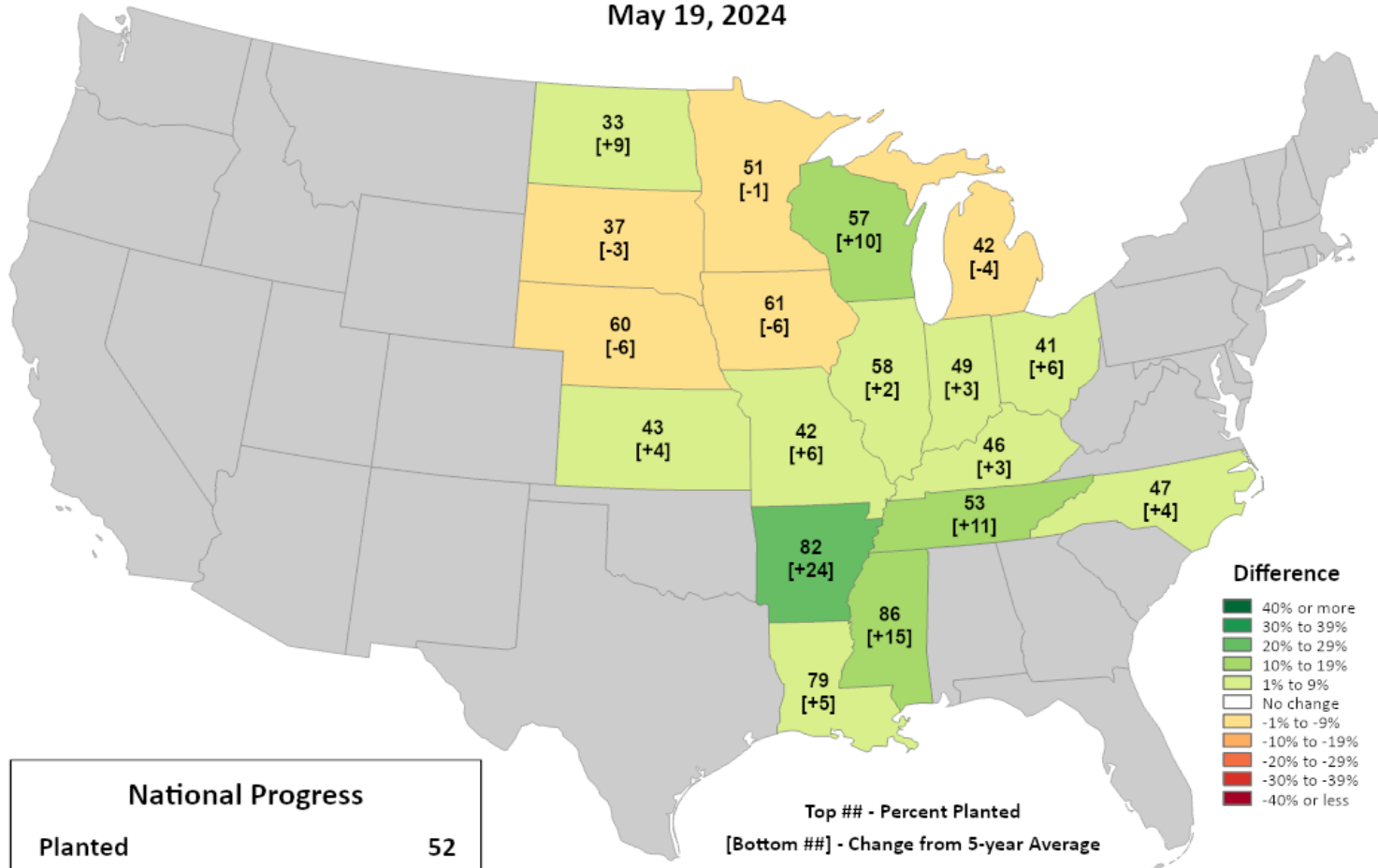


This product was prepared by the
USDA Office of the Chief Economist (OCE)
World Agricultural Outlook Board (WAOB)

Soybeans Progress

Percent Planted

May 19, 2024



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

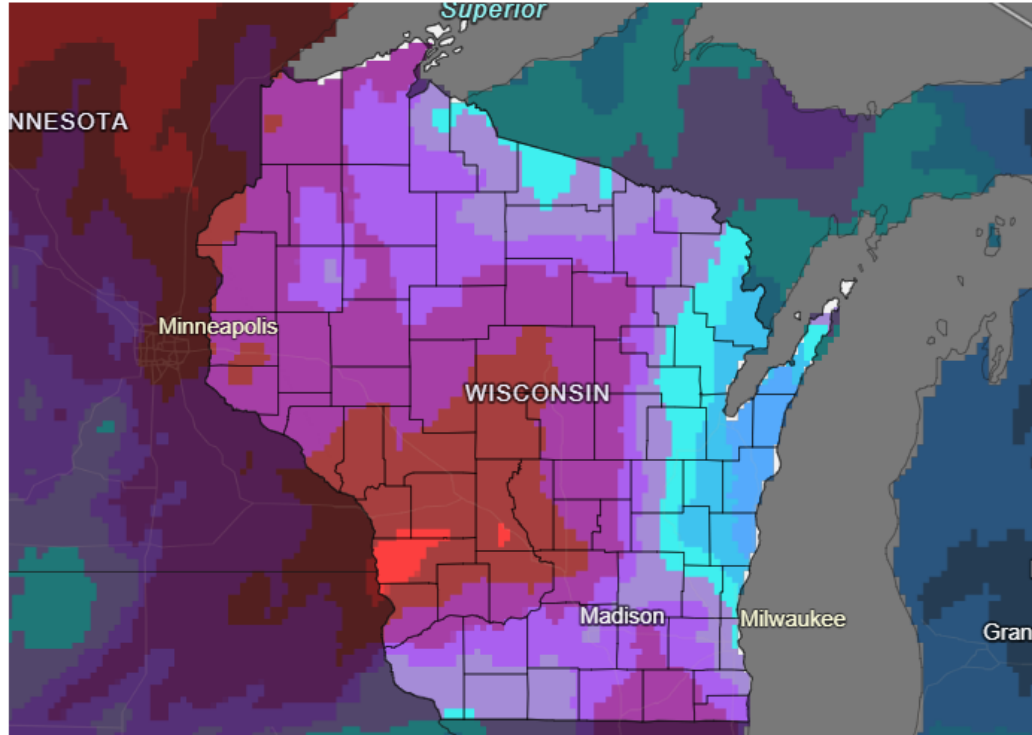
National Progress	
Planted	52
Change from 5-year Average	+3

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

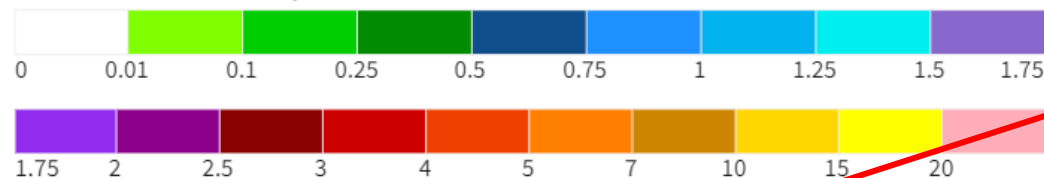
- Planting is running **at or ahead** of the 5-year average in WI and states to the S.
- Wisconsin → **57% complete**; 10% ahead of the 5-year average pace. **20% increase** from last week.

7 Day Precip Forecast

7-Day Quantitative Precipitation Forecast



Predicted Inches of Precipitation



Source(s): National Weather Service Weather Prediction Center
Data Valid: 05/20/24

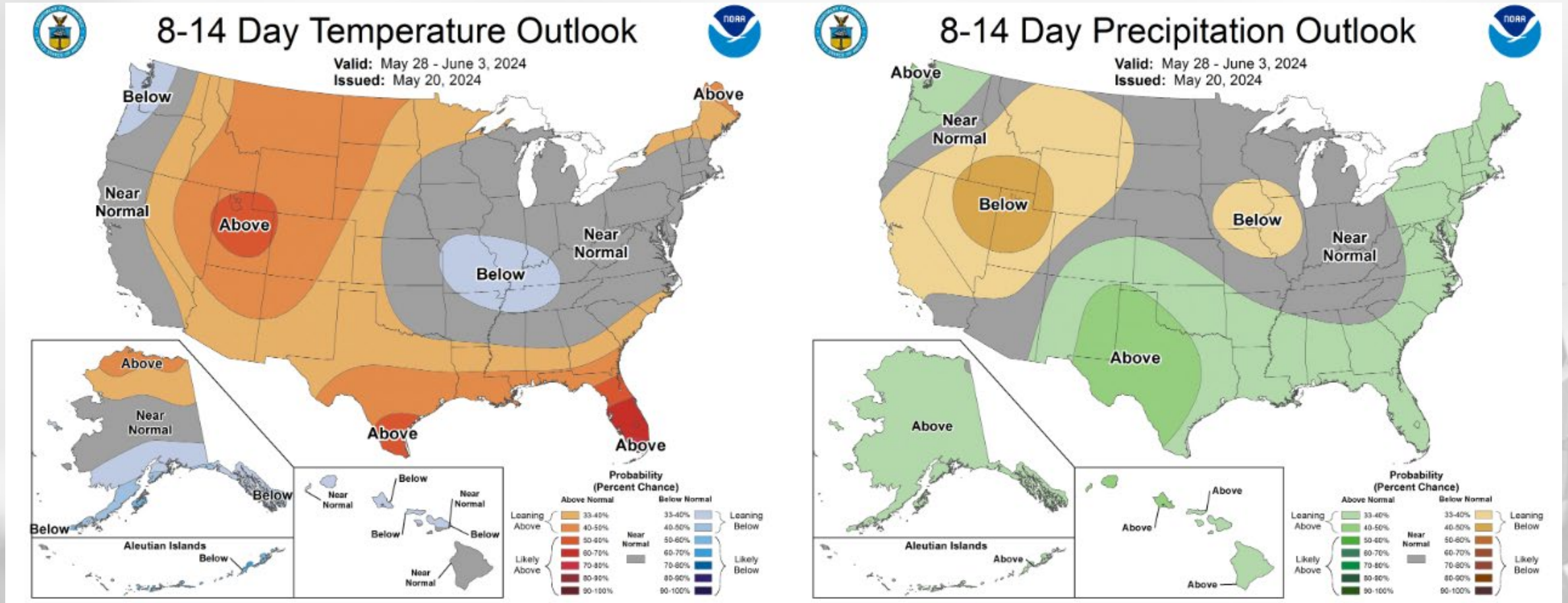
Drought.gov

- Another week is forecasted for the state → **higher totals in the W (2" or more)**
 - Strong storms with heavy rainfall forecasted for Tuesday night (5/21).
 - More chances into the weekend and early next week.

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

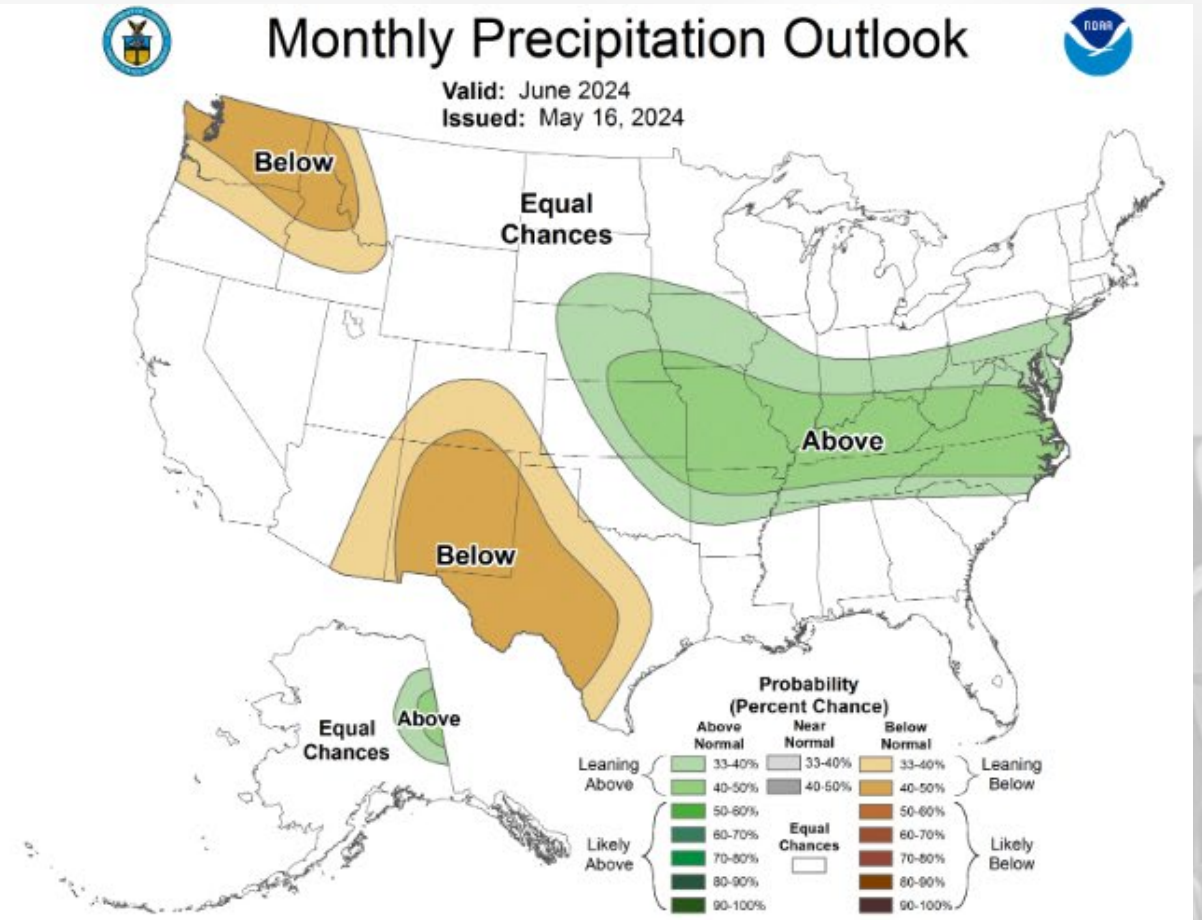
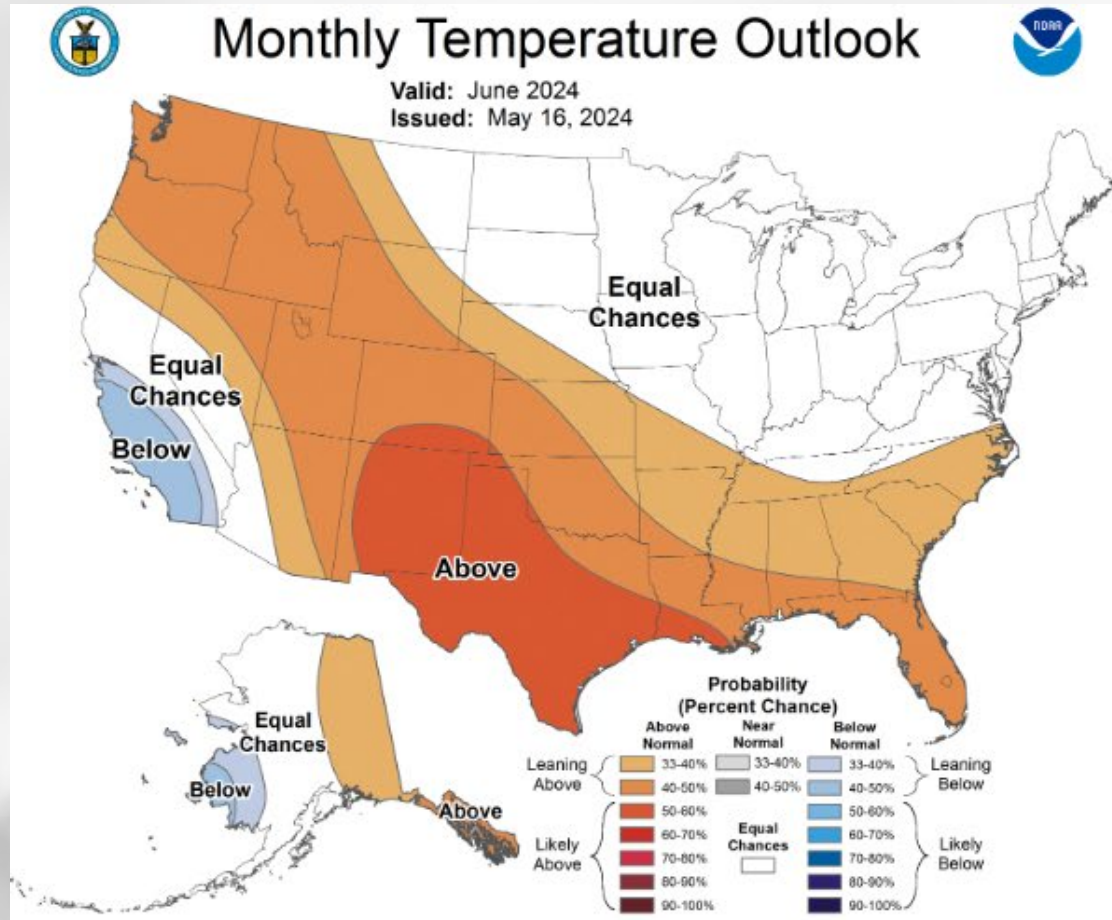
<https://www.wpc.ncep.noaa.gov/qpf/p168i.gif>
<https://www.drought.gov/states/wisconsin>

8-14 Day Temp & Precip Outlook



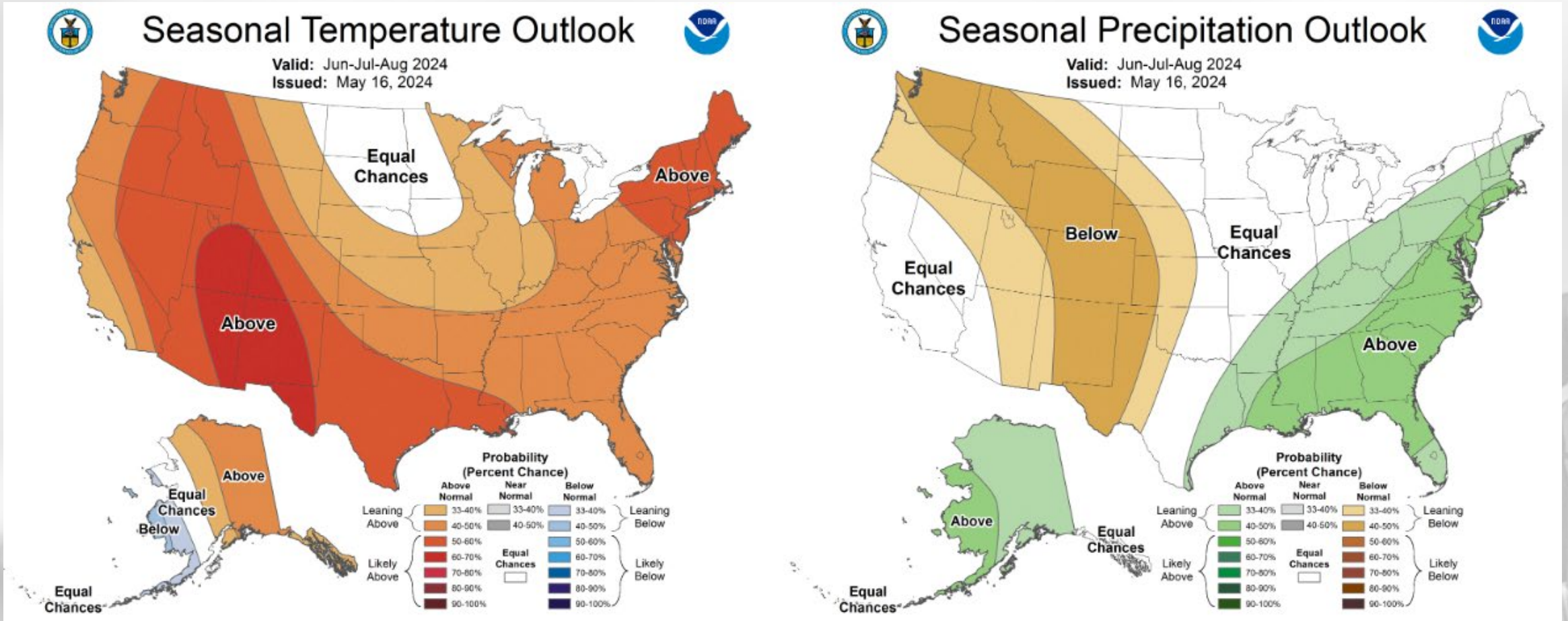
End of May into first days of June: Temperatures leaning near normal. Precipitation leaning near or below (SW) normal.

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:

- A half inch or more of rain fell across the state this past week, bringing yearly totals to near or above the 30-year average for many stations.
- Temperatures at least 2°F above normal for most last week, with daily highs topping out in the mid to upper 80's

Impact:

- Slight declines in soil moisture at most Wisconet stations despite the rainfall, but models indicate that soil moisture levels are near or wetter than normal.
- Soil temperatures are near 60°F at Wisconet sites, a jump from last week.
- No change in the US Drought Monitor in the state from last week.
- Corn and soybean planting made big strides over the past week and continue to outpace the 5-year average.

Outlook:

- The rainy trend is forecasted to continue into this next week – some could see multiple inches of precip.
- Near normal temps & precip to wrap up May, with uncertainty for June conditions (equal chances).
- 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 temperatures are now adequate for planting throughout the state.
- Soil moisture is adequate or even high in most places. Be cautious about planting into muddy conditions, especially with more rain forecasted.
- Cover crop termination:
 - If local soil conditions are dry, consider an earlier cover crop termination to reduce evapotranspiration.
 - If local soil conditions are wet, consider delaying cover crop termination until crop planting or later to manage excess soil moisture for planting.

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 moderate to severe for the next week across the state. 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 expected to begin this week in Southern 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 increasing in the southern part of 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.

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



Natasha Paris

Crops Educator – Adams, Green Lake,
Marquette, Waushara Cos.

natasha.paris@wisc.edu

Kristin Foehringer

NRCS State Working Lands Climate Smart
Specialist

kristin.foehringer@usda.gov

Dennis Todey

Director, Midwest Climate Hub

dennis.todey@usda.gov

Josh Bendorf

Ag Climatologist Fellow, Midwest Climate Hub

joshua.bendorf@usda.gov

Steve Vavrus

State Climatologist of Wisconsin

sjvavrus@wisc.edu

Bridgette Mason

Assistant State Climatologist of Wisconsin

bmmason2@wisc.edu