

Wisconsin Ag Climate Outlook

Week of May 13, 2024

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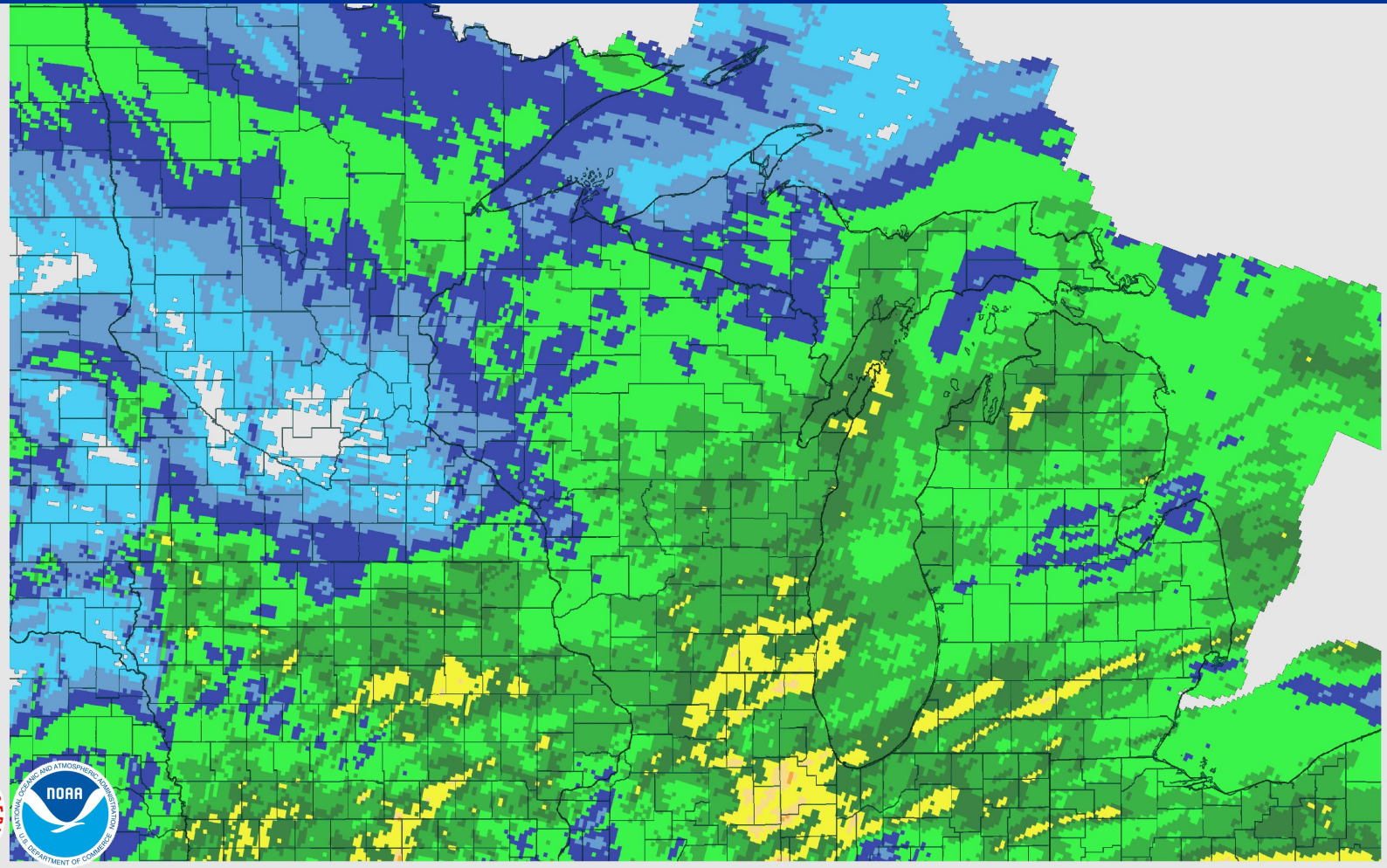
Key Points

- 1) Substantial easing of drought over the last week, although moderate to severe drought conditions remain for southwestern WI.
- 2) Soils averaged 50+°F across all Wisconet stations the last 7 days.
- 3) Planting progress remains ahead of pace, despite wet conditions throughout the state.
- 4) Spring showers will persist over the next week.

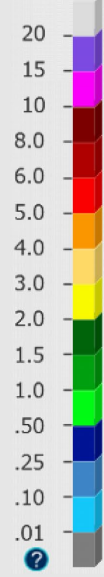
7 Day Precip

May 14, 2024 7-Day Observed Precipitation

Created on: May 14, 2024 - 19:25 UTC
Valid on: May 14, 2024 12:00 UTC



Inches



- A majority of WI received **>0.5"**.
- Parts of southeastern WI saw **>2"**, while sections along the border of western and northern WI saw **<0.5"**.

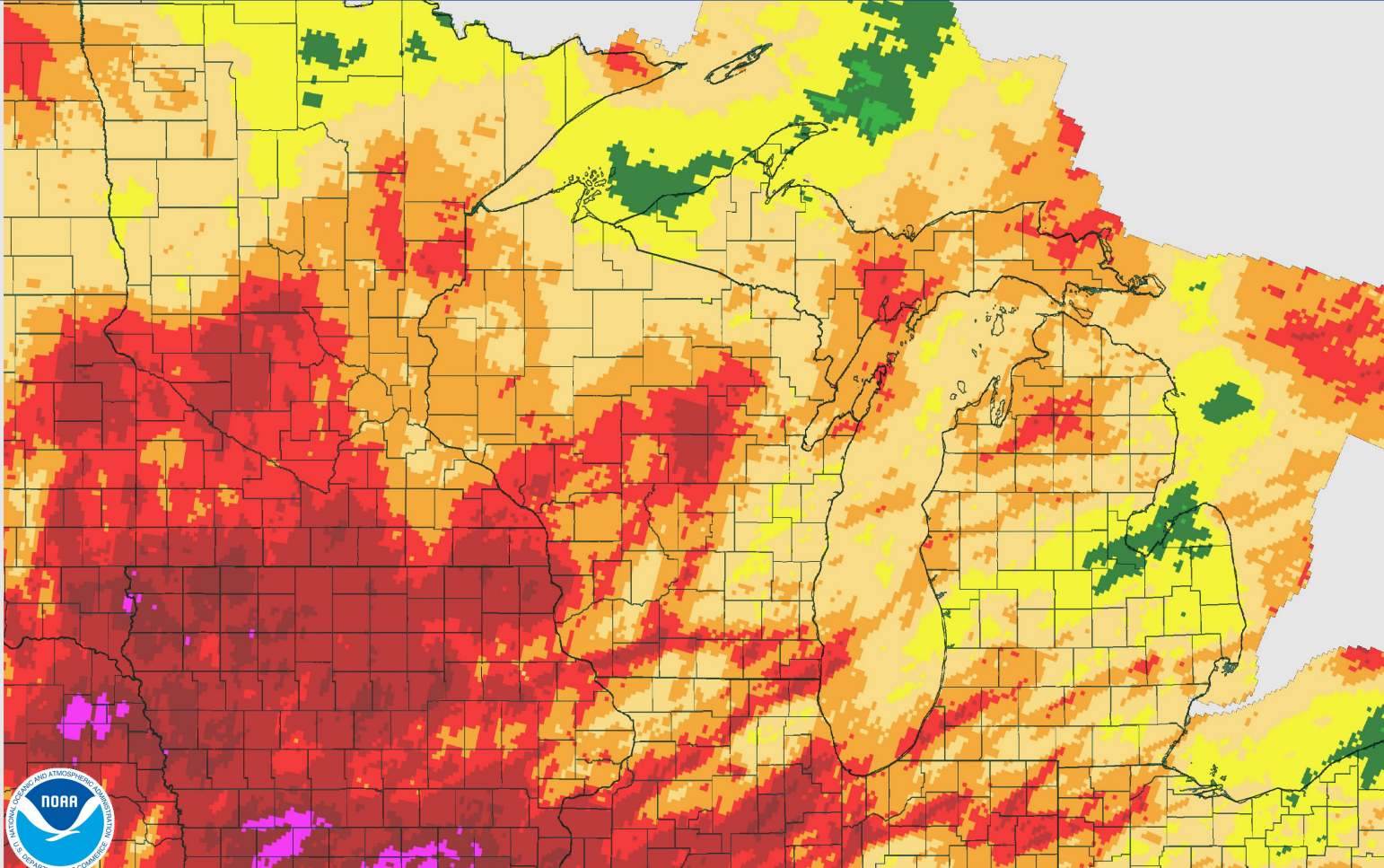


30 Day Precip

May 14, 2024 30-Day Observed Precipitation

Created on: May 14, 2024 - 20:09 UTC

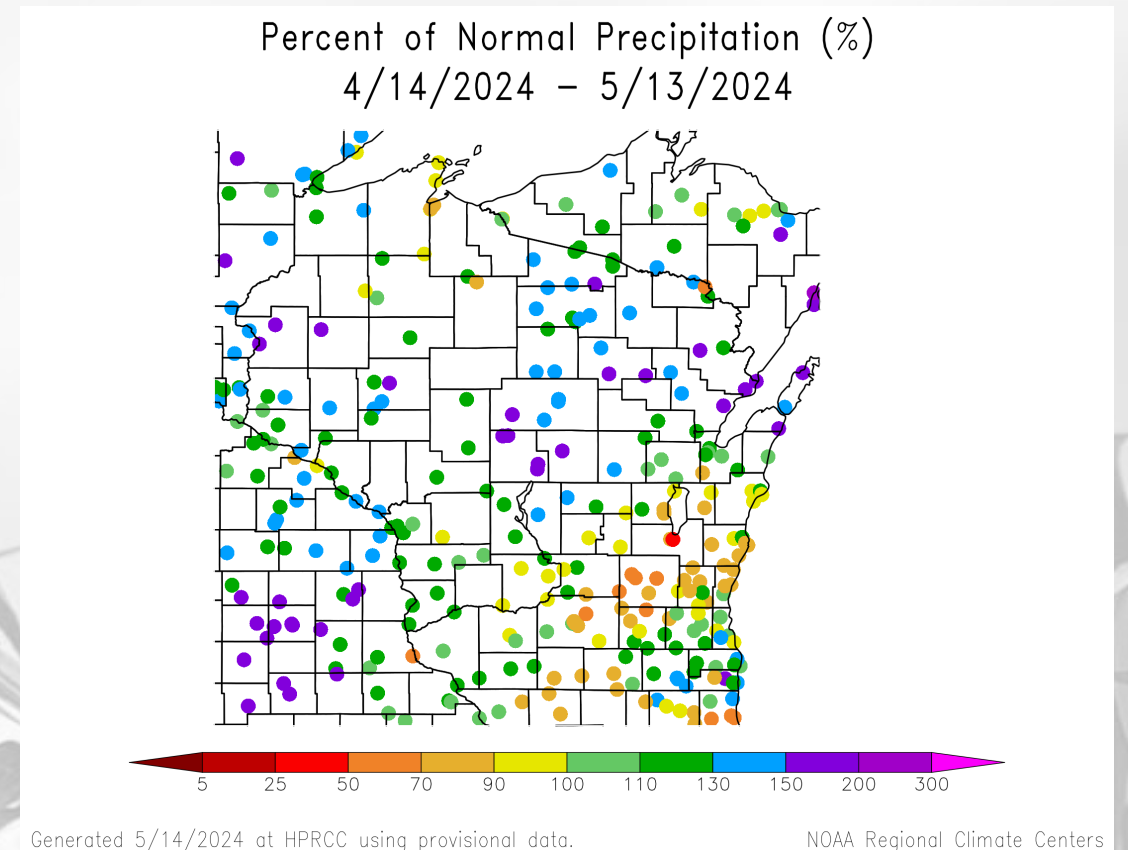
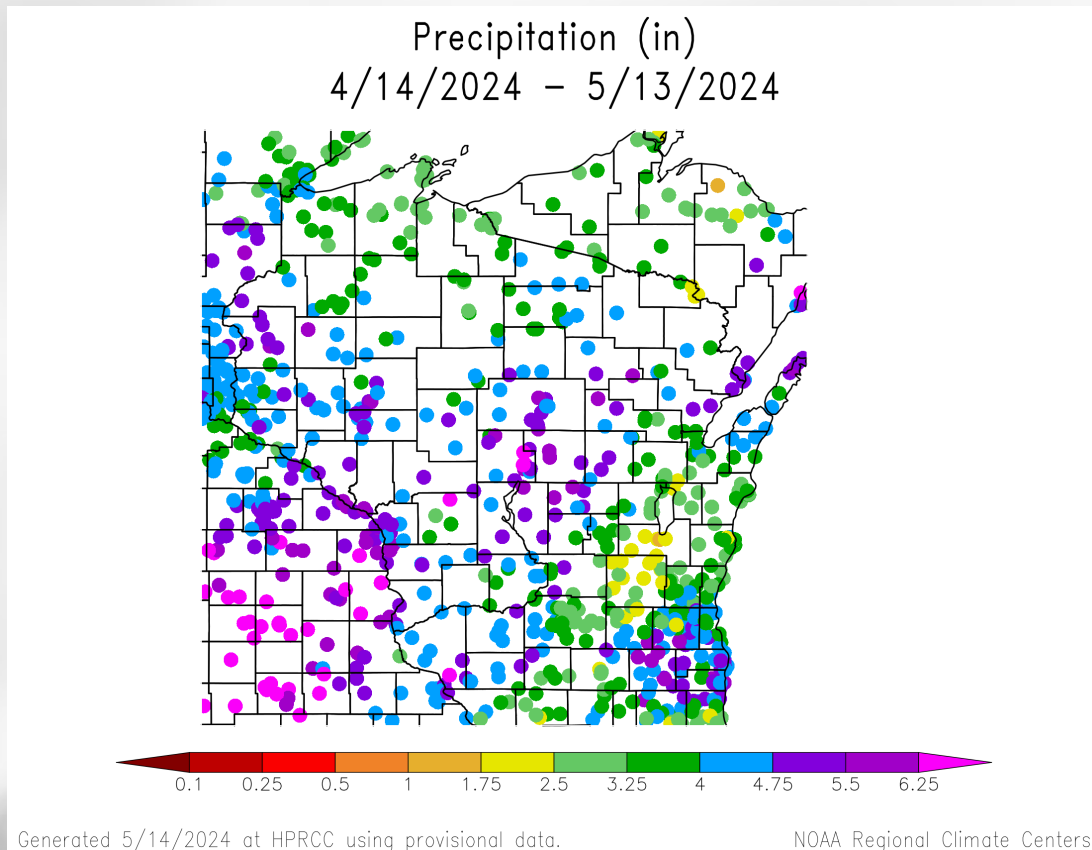
Valid on: May 14, 2024 12:00 UTC



- Most of the state has seen **3-5+''** of precip over the past month.
- Highest amounts (**>5''**) in the central, west-central, and southern parts of the state.

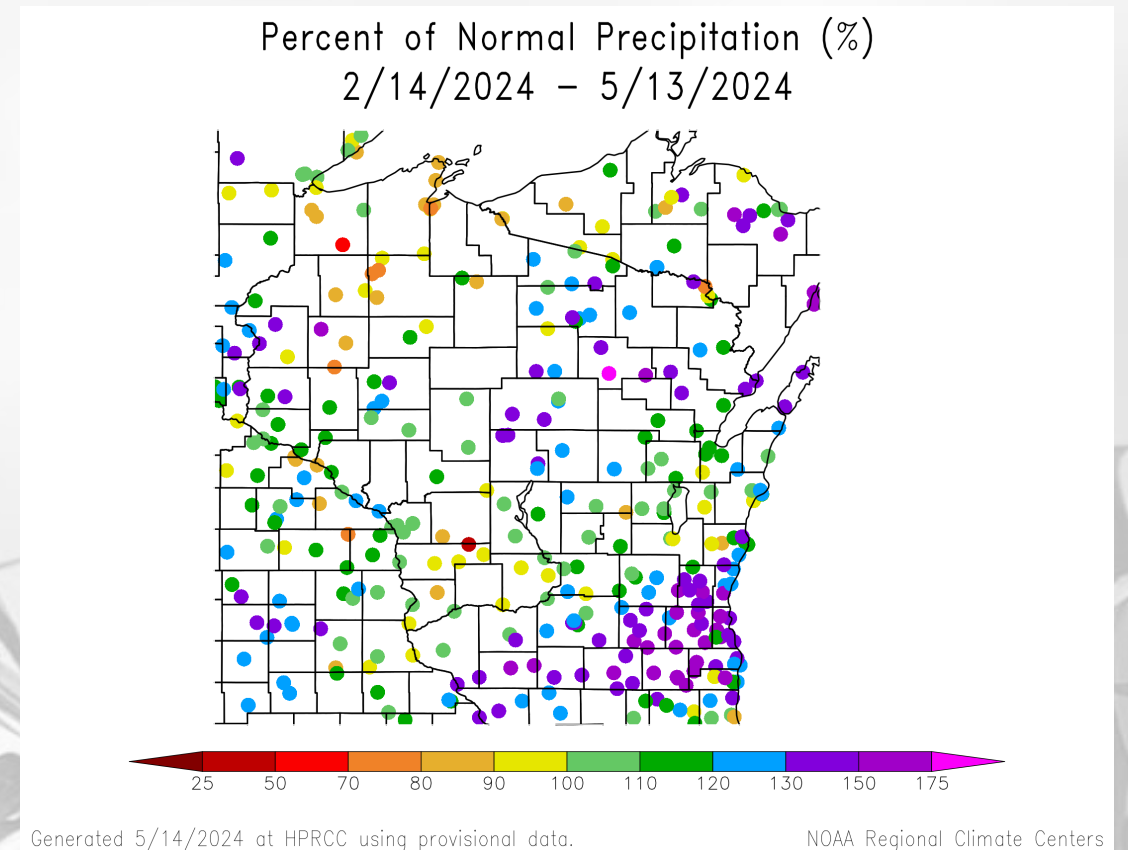
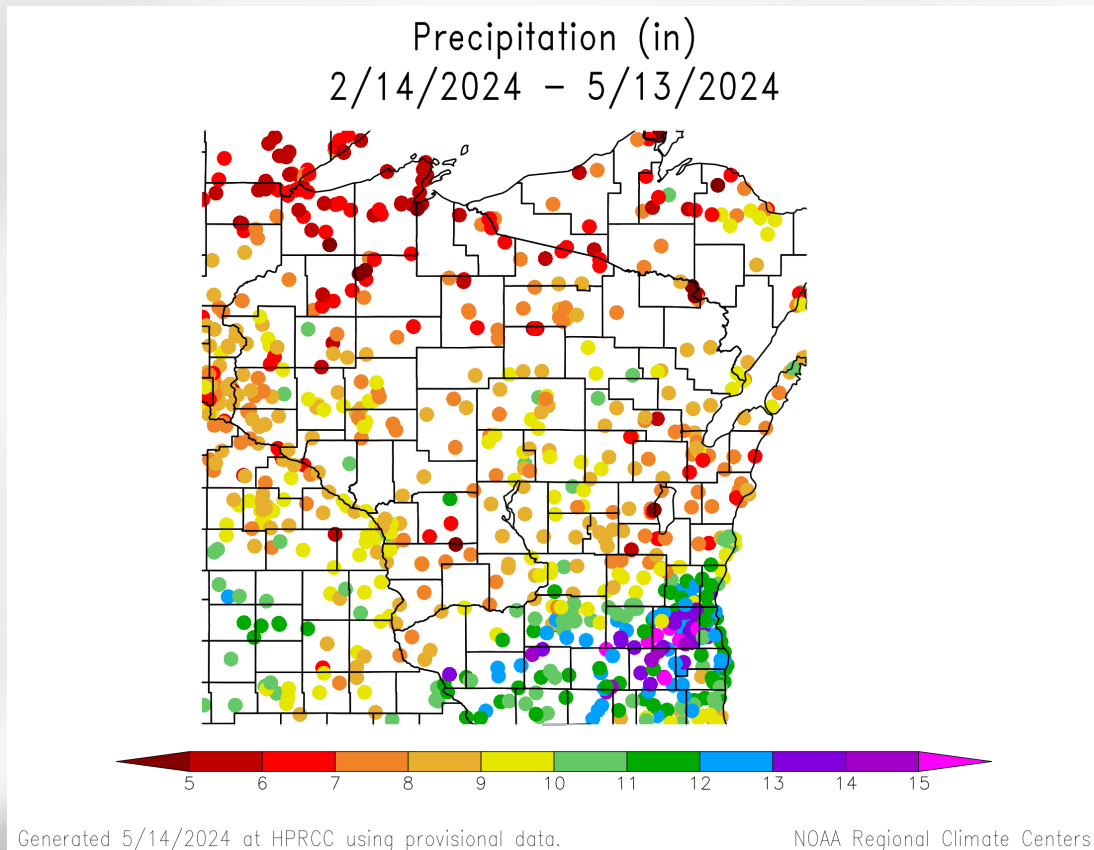


30 Day Precip Total/% Avg.



- **3.25+”** common across the state.
- Highest precip totals in the central, southeast, and western border; lowest in the east-central.
- Most of the state near or over 100% of normal, except for the east-central and south-central (<**90%** of normal).

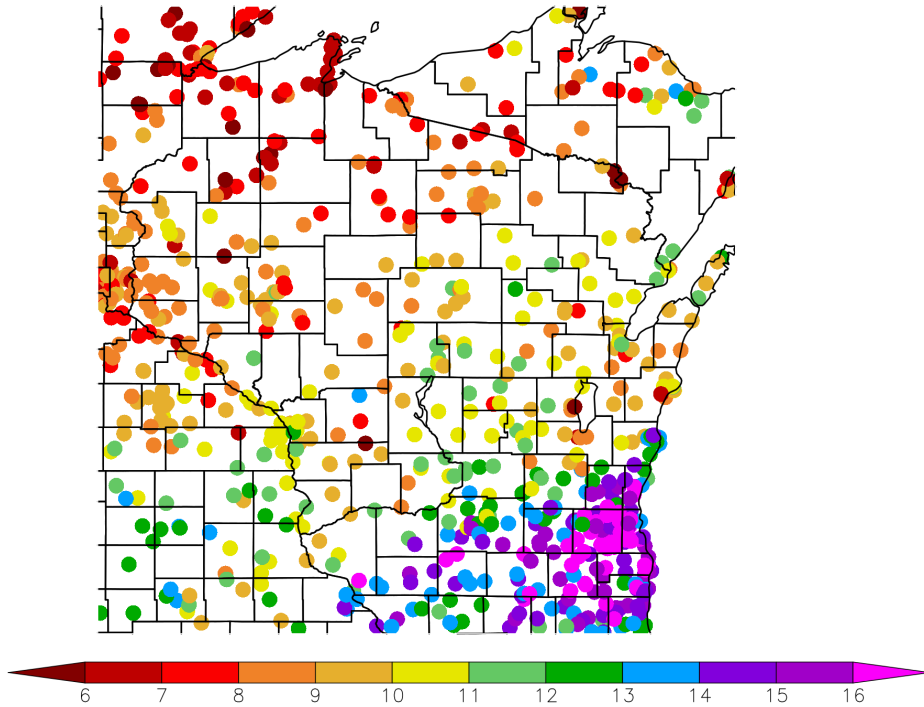
90 Day Precip Total/% Avg.



- A general gradient from north to south of **5" to 15"**.
- Again, most of the state near or over 100% of normal.
 - We continue to see less than 100% of normal in the southwest, northwest, and east-central, and well over 100% of normal in the southeast and parts of the northeast.

2024 Precipitation (so far)

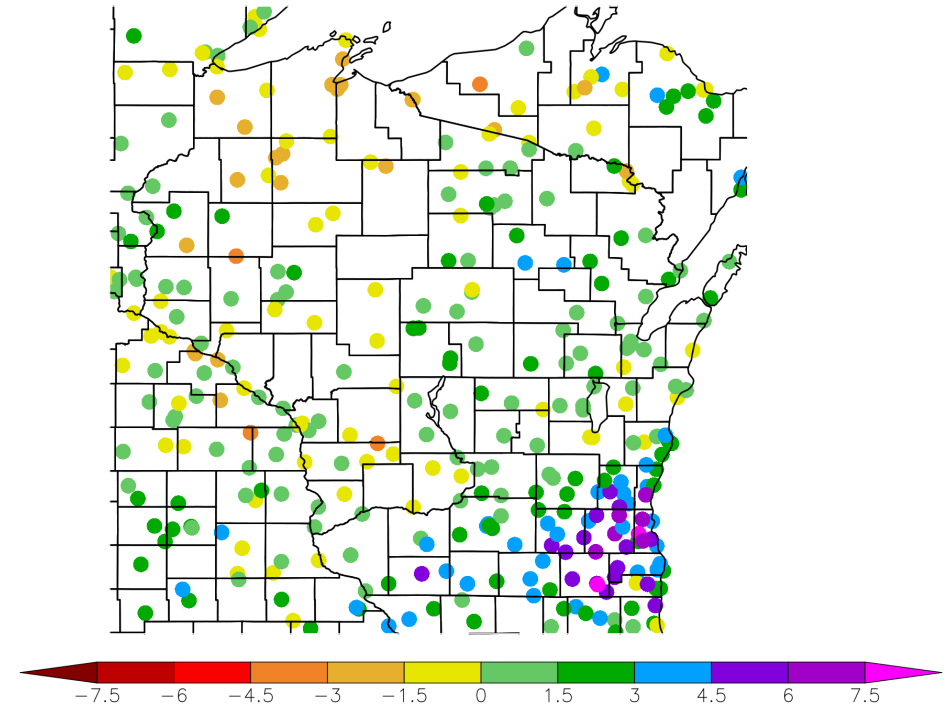
Precipitation (in)
1/1/2024 - 5/13/2024



Generated 5/14/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Precipitation (in)
1/1/2024 - 5/13/2024

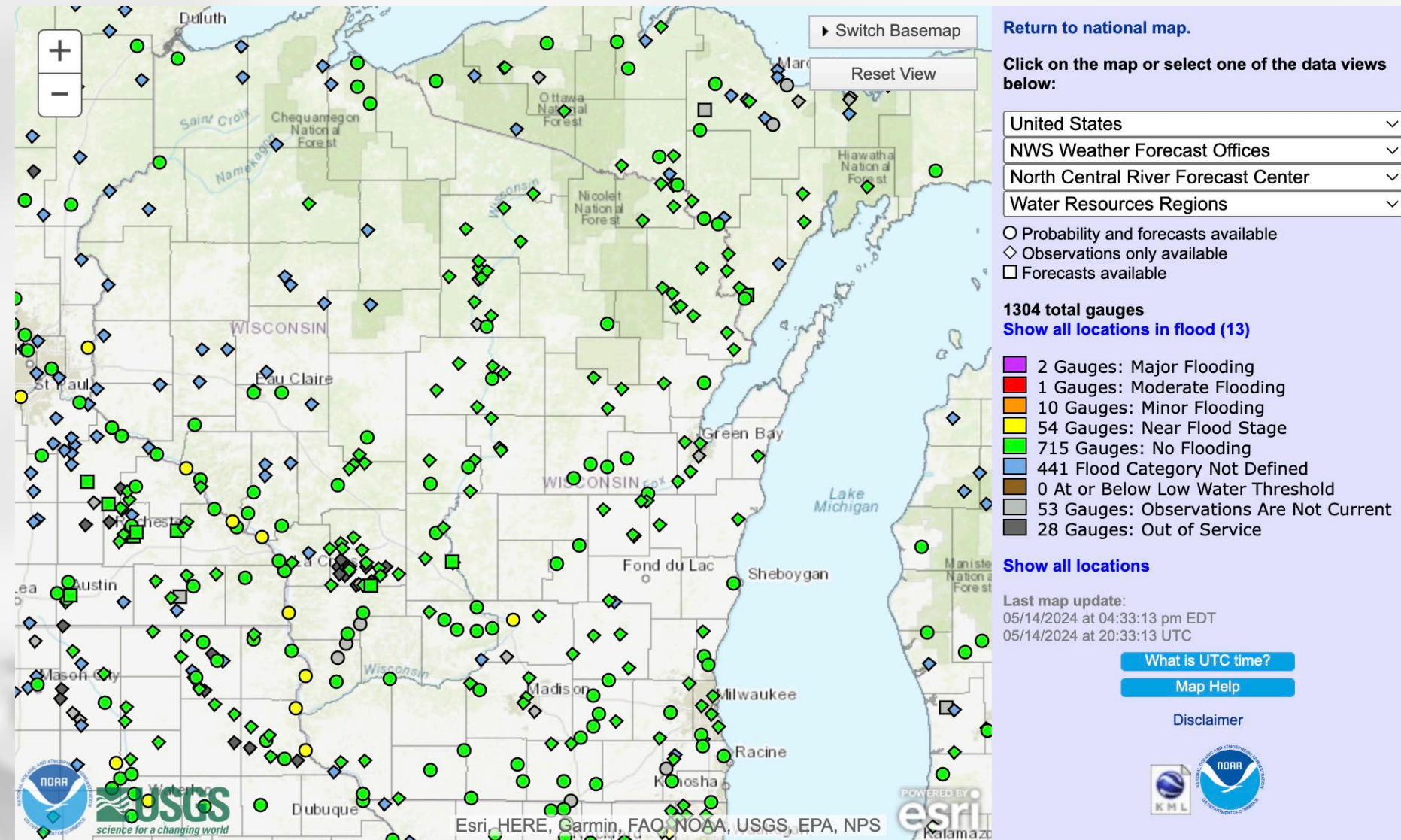


Generated 5/14/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

River Levels



- Similar to last week, a few gauges are near flood stage (yellow) along the Mississippi River. The majority are running at normal levels.

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

Soil Moisture Models

- Overall, near-normal soil moisture conditions for the state.
- Compared to last week, SW WI is showing up wetter while parts of NW WI are drier, which aligns with the past week's rain.
- This model has eased up on some of the dryness it was depicting in Door County after receiving 1+” of rain the last 7 days.

Model Notes:

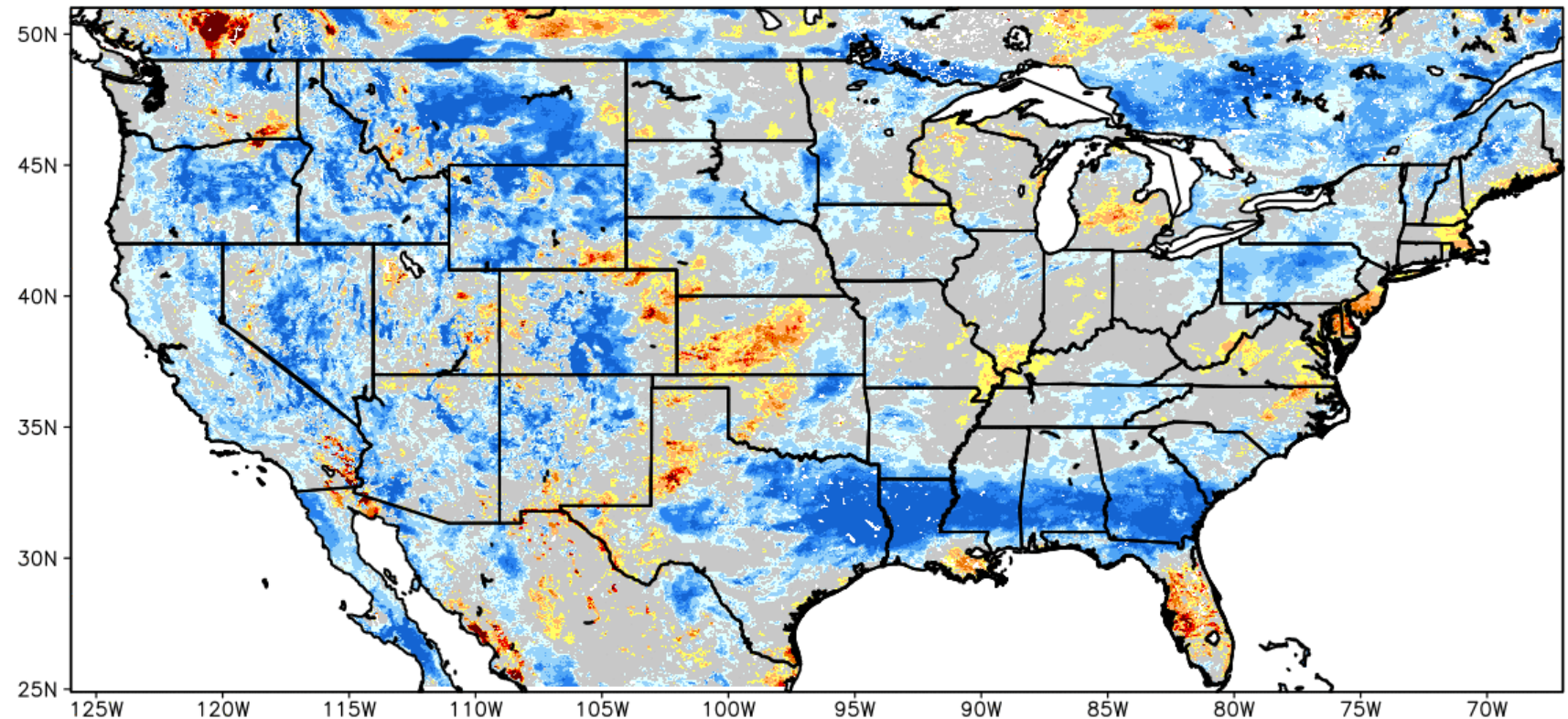
Red areas = top 5 driest in 100 years.

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

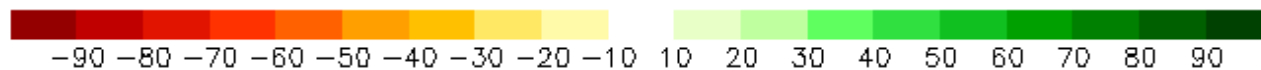
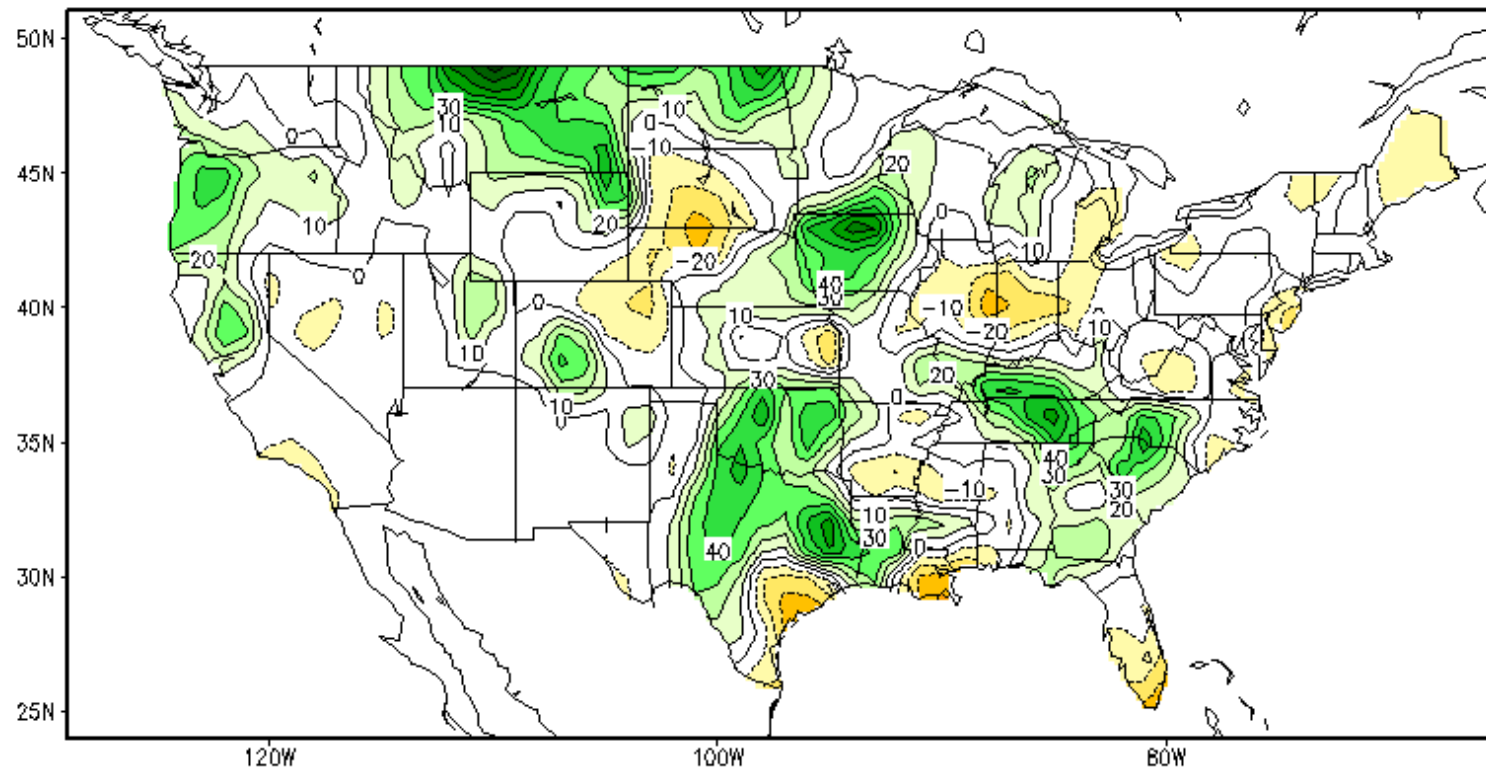
SPoRT-LIS 0-100 cm Soil Moisture percentile valid 14 May 2024



****NOTE****
****Experimental****

Soil Moisture Models

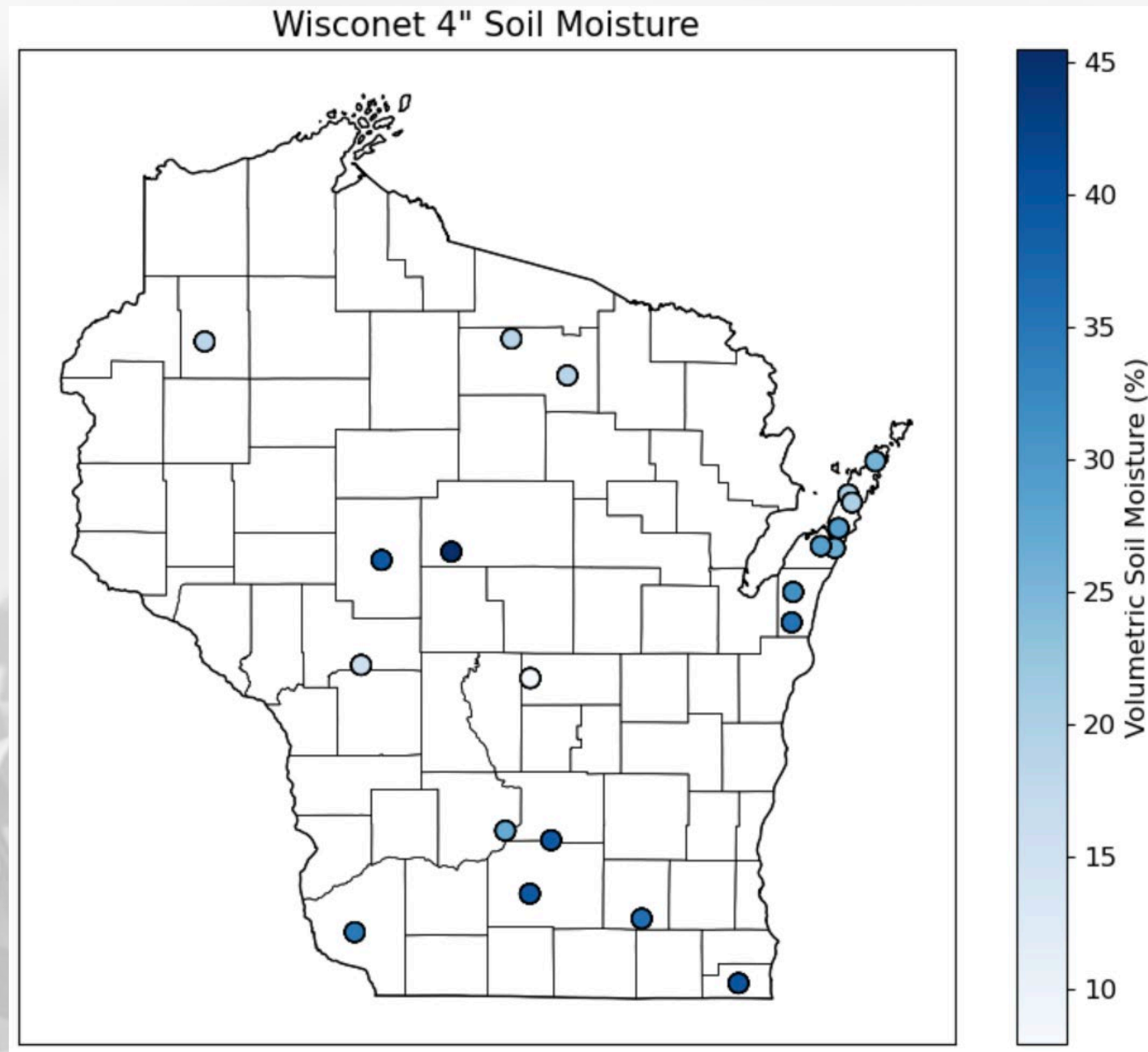
Calculated Soil Moisture Anomaly Change
MAY 13, 2024 from APR.30



- **Slight improvement** in the NW, but not much change otherwise.

https://www.cpc.ncep.noaa.gov/products/Soil_mst_Monitoring/US/Soilmst/Soilmst.shtml

Soil Moisture - Wisconet



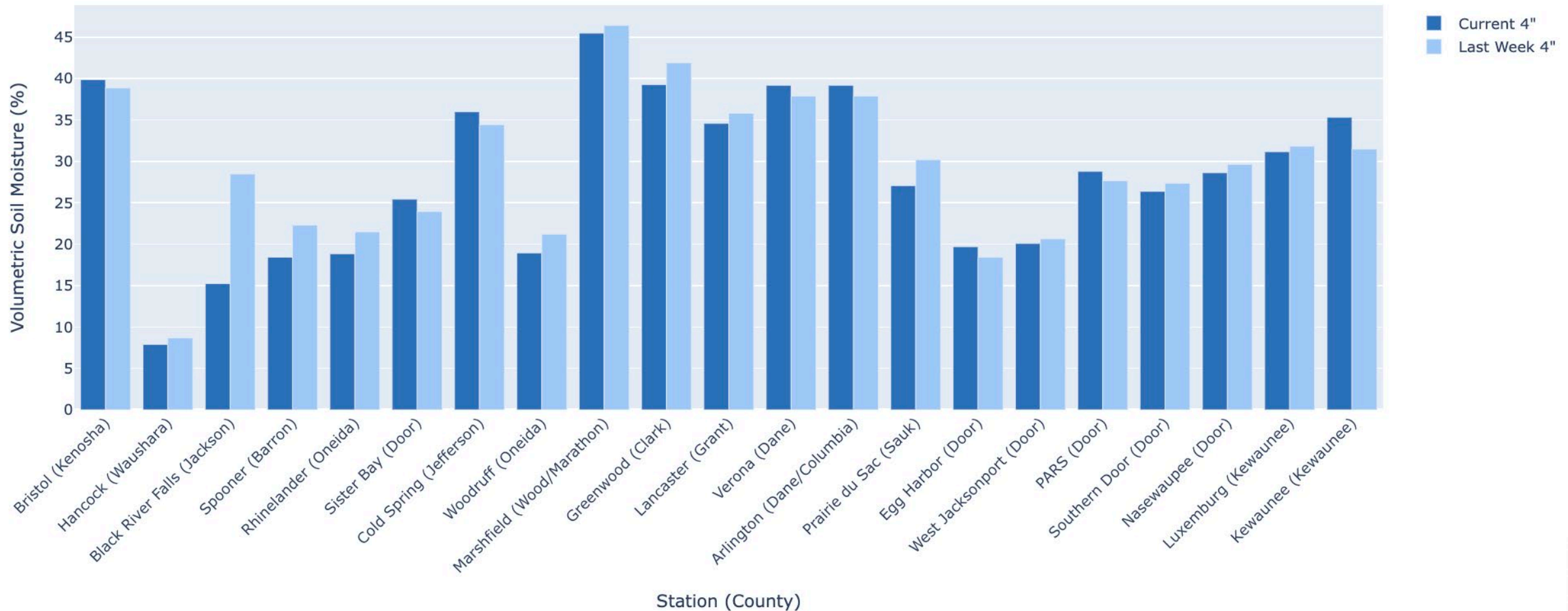
7-day average ending on 5/13.

Note:

- There is a new station in Bristol, Kenosha County (southeast-most station).
- There is also a new interactive map on the [Wisconet site](https://wisconet.wisc.edu/). Check it out!

Soil Moisture - Wisconet

Wisconet 4" Soil Moisture



Current: 7-day average ending on 5/13

Last Week: 7-day average ending on 5/6

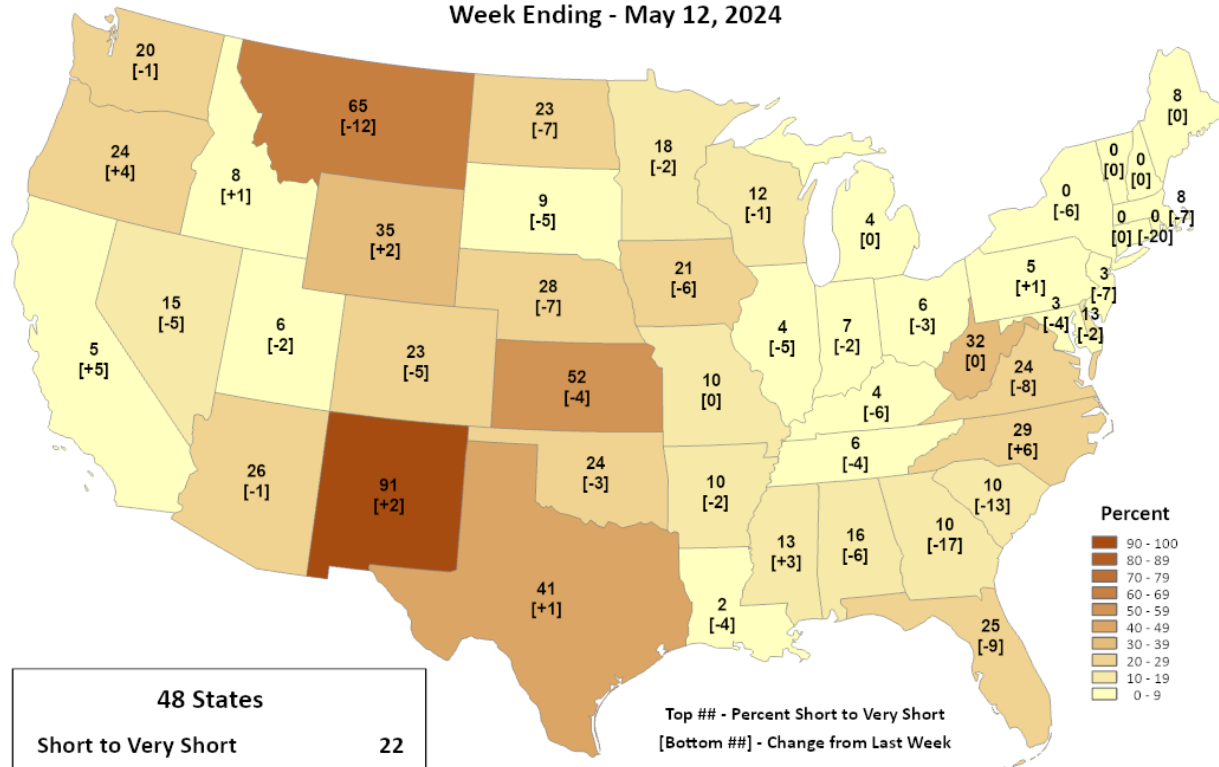
<https://wisconet.wisc.edu/>

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 12, 2024

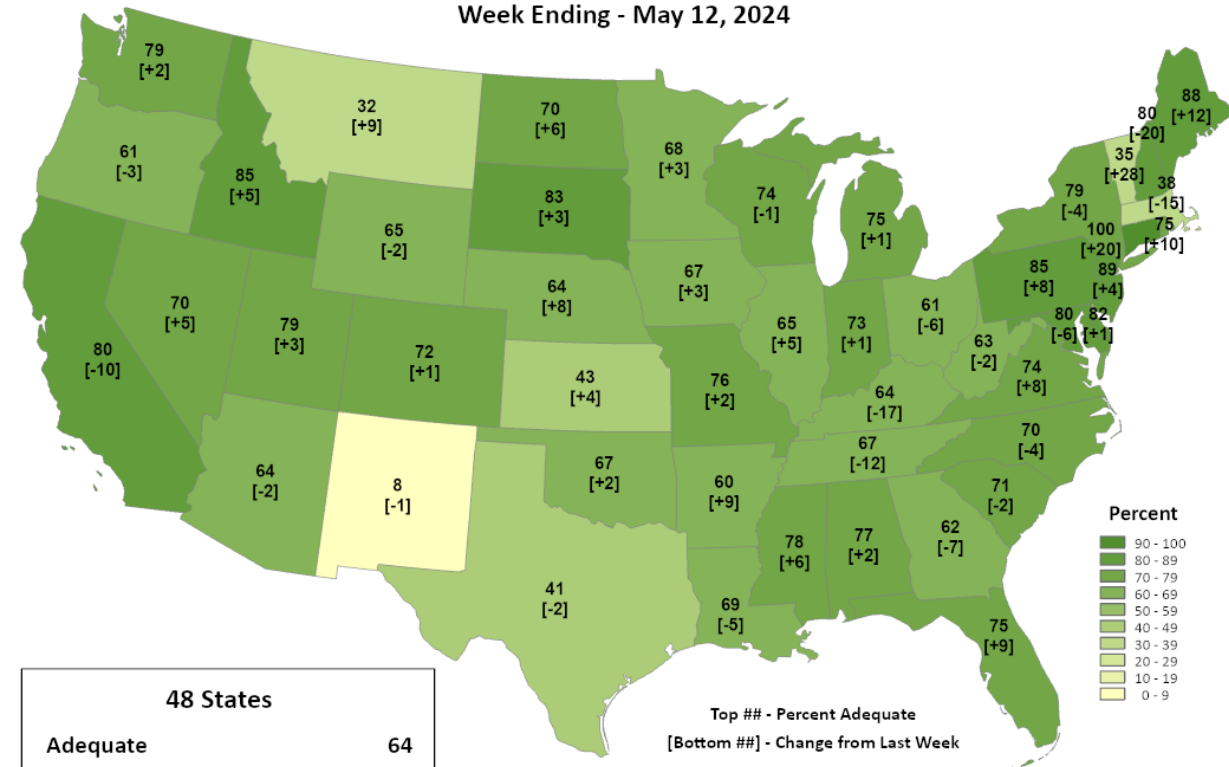


Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.



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 12, 2024

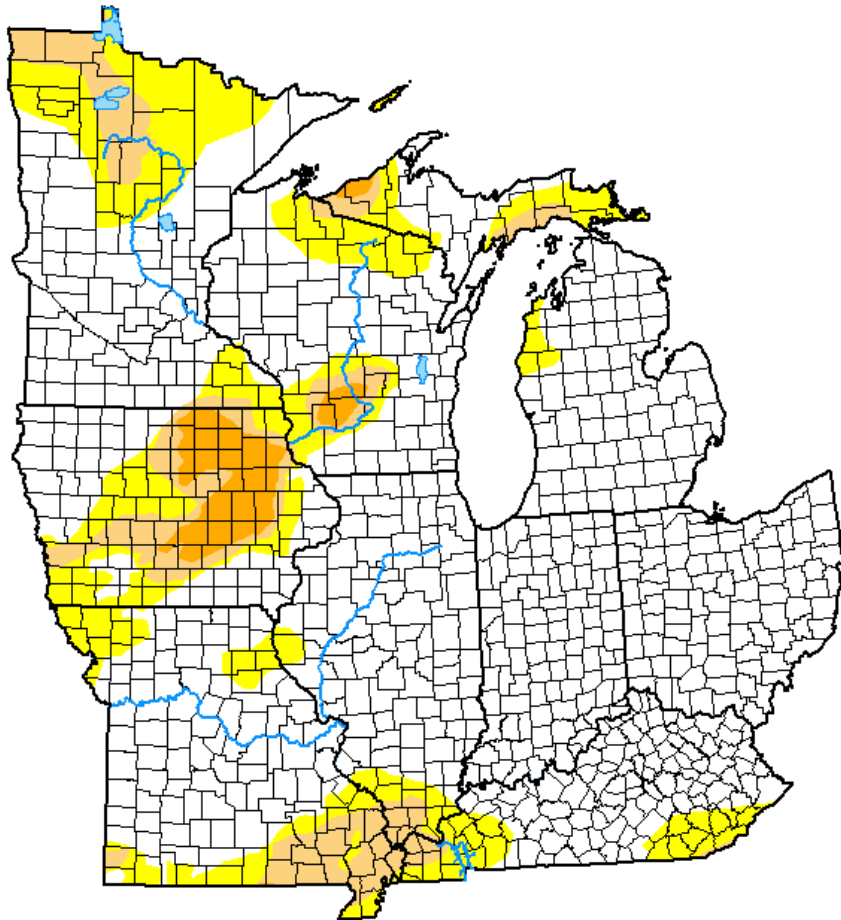


Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.

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

US Drought Monitor

U.S. Drought Monitor Midwest



May 7, 2024

(Released Thursday, May 9, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	74.02	25.98	9.97	2.59	0.00	0.00
Last Week 04-30-2024	65.57	34.43	18.32	4.95	0.28	0.00
3 Months Ago 02-06-2024	46.38	53.62	23.04	10.28	2.14	0.00
Start of Calendar Year 01-02-2024	22.92	77.08	50.25	20.76	4.20	0.00
Start of Water Year 09-26-2023	16.82	83.18	54.98	23.81	6.21	0.13
One Year Ago 05-09-2023	70.28	29.72	9.33	3.85	0.44	0.02

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:

Curtis Riganti
National Drought Mitigation Center



droughtmonitor.unl.edu

- Compared to last week:
 - 1-class improvements in drought category in MN, IA, MO, and WI.
- Eastern half of the Midwest remains relatively drought-free.
- Continued improvement in IA.
 - Complete removal of D3 in IA for the first time since June 28, 2022
 - 202nd 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

May 7, 2024

(Released Thursday, May 9, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	71.94	28.06	7.93	2.52	0.00	0.00
Last Week 04-30-2024	56.73	43.27	19.01	3.29	0.00	0.00
3 Months Ago 02-06-2024	33.63	66.37	35.52	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 05-09-2023	100.00	0.00	0.00	0.00	0.00	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>

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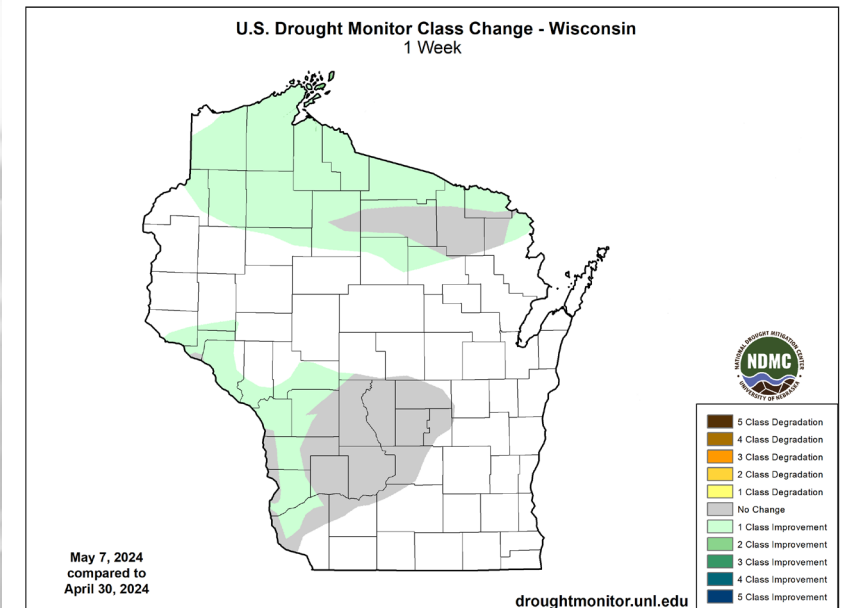
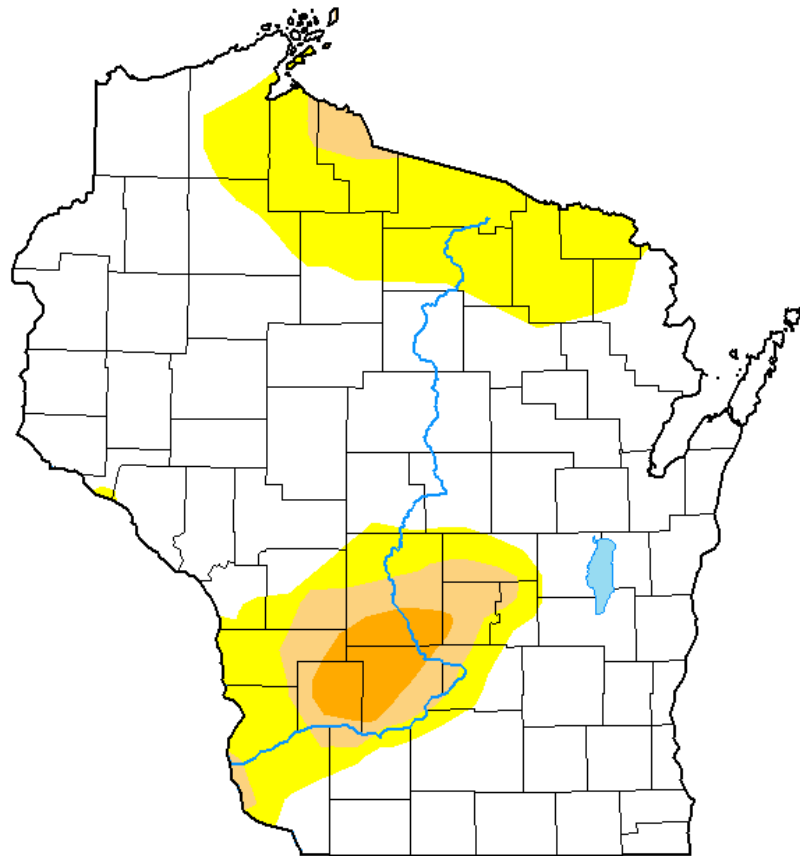


droughtmonitor.unl.edu

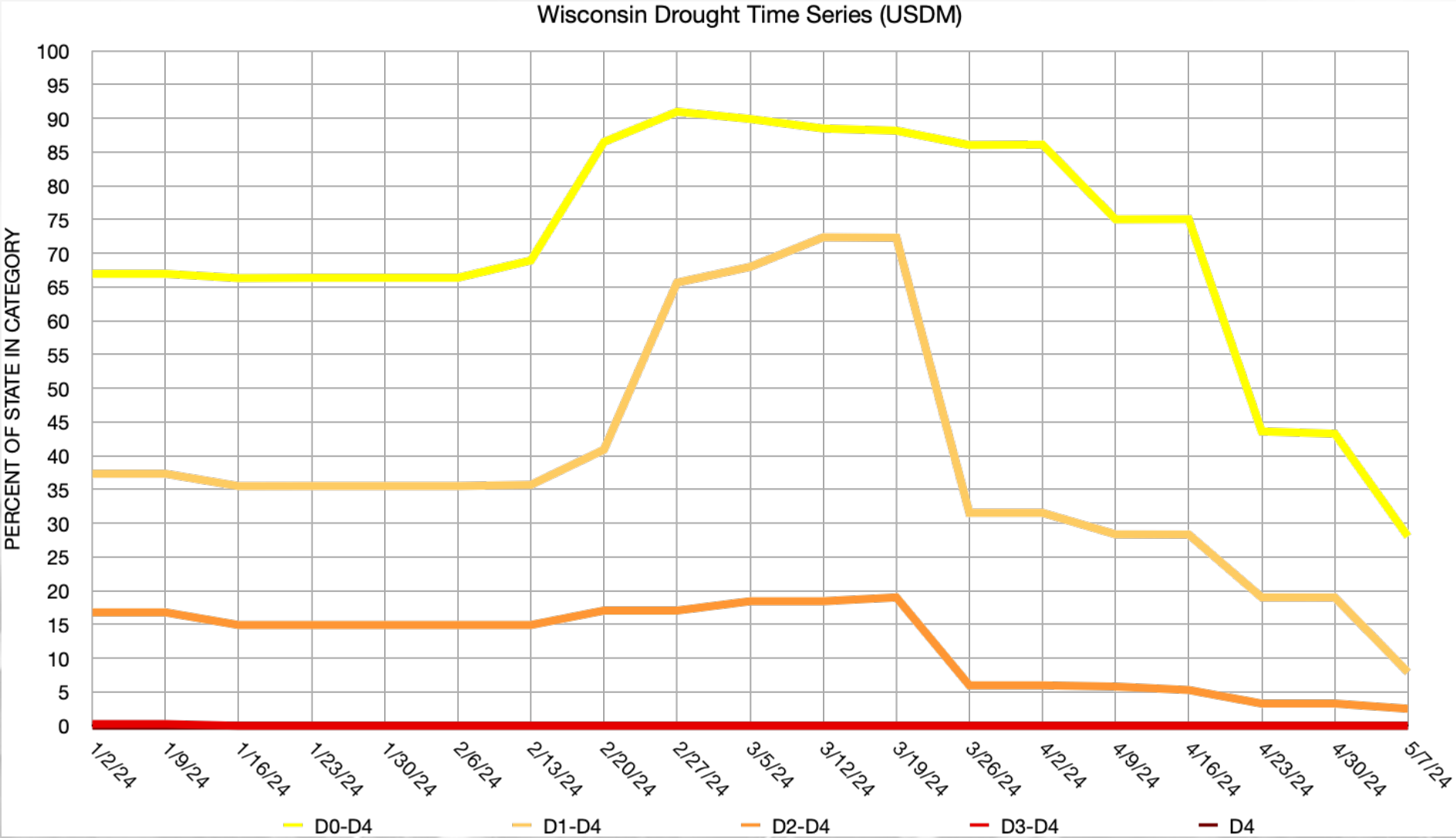
Amount of state in:

- 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.



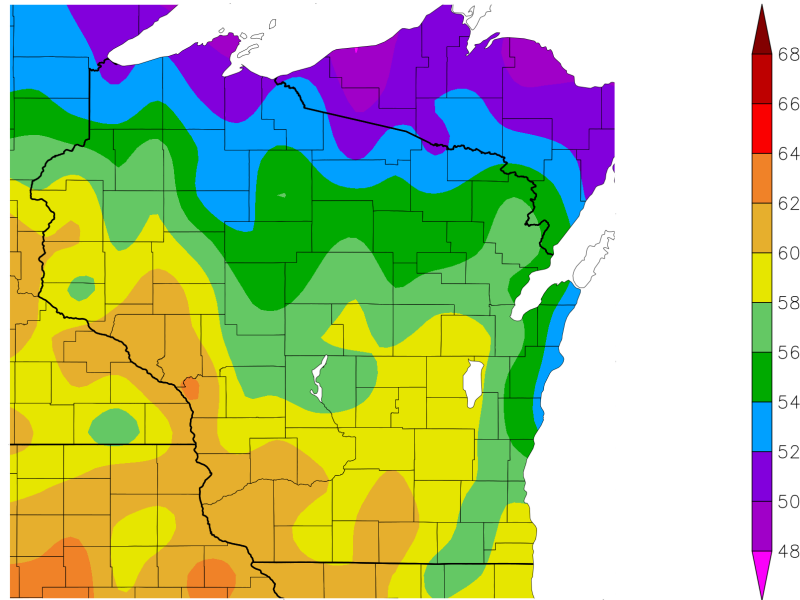
USDM Time Series



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

7 Day Temperatures

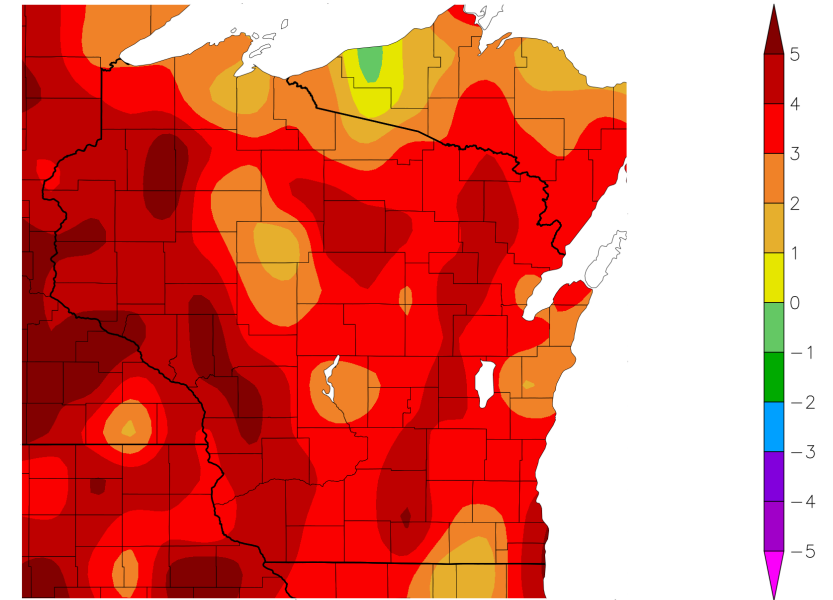
Temperature (F)
5/7/2024 – 5/13/2024



Generated 5/14/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Temperature (F)
5/7/2024 – 5/13/2024



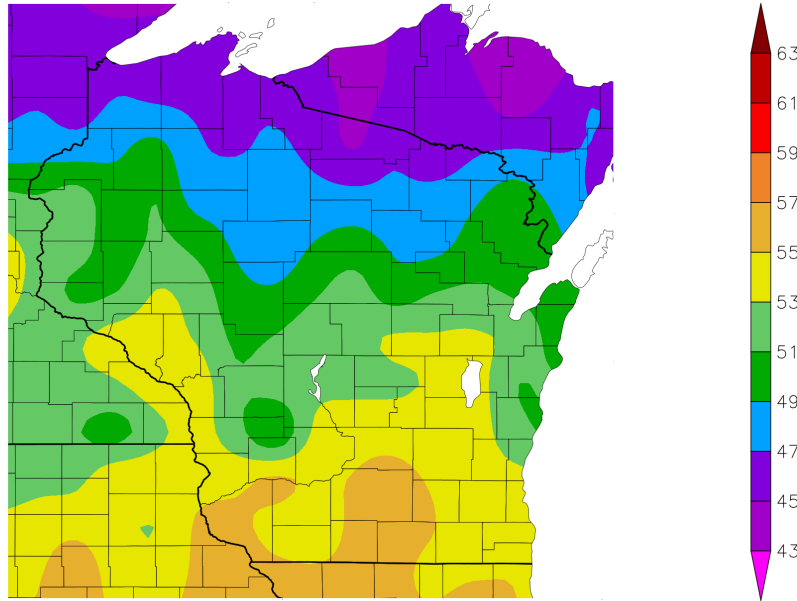
Generated 5/14/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Average temps ranged from **50-62°F** over the last week, which was **1-5°F** above normal.

30 Day Temperatures

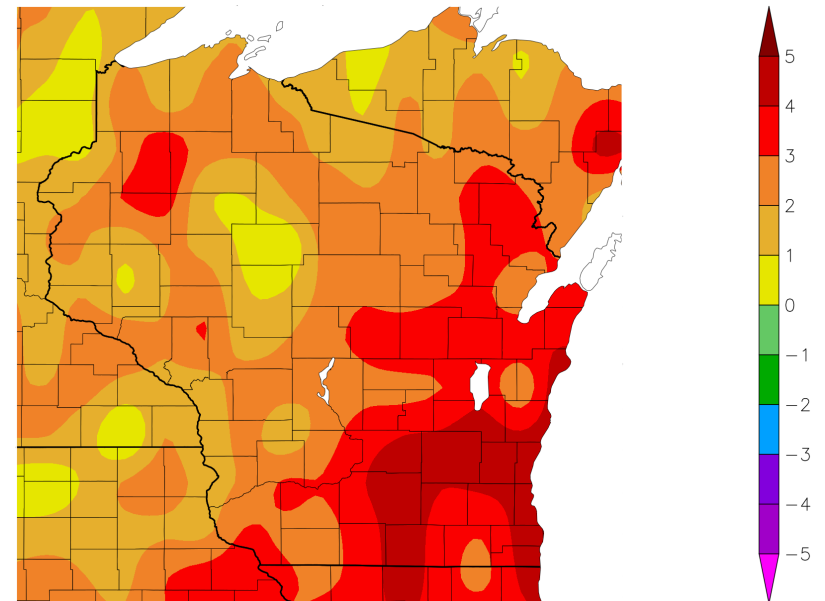
Temperature (F)
4/14/2024 - 5/13/2024



Generated 5/14/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Temperature (F)
4/14/2024 - 5/13/2024



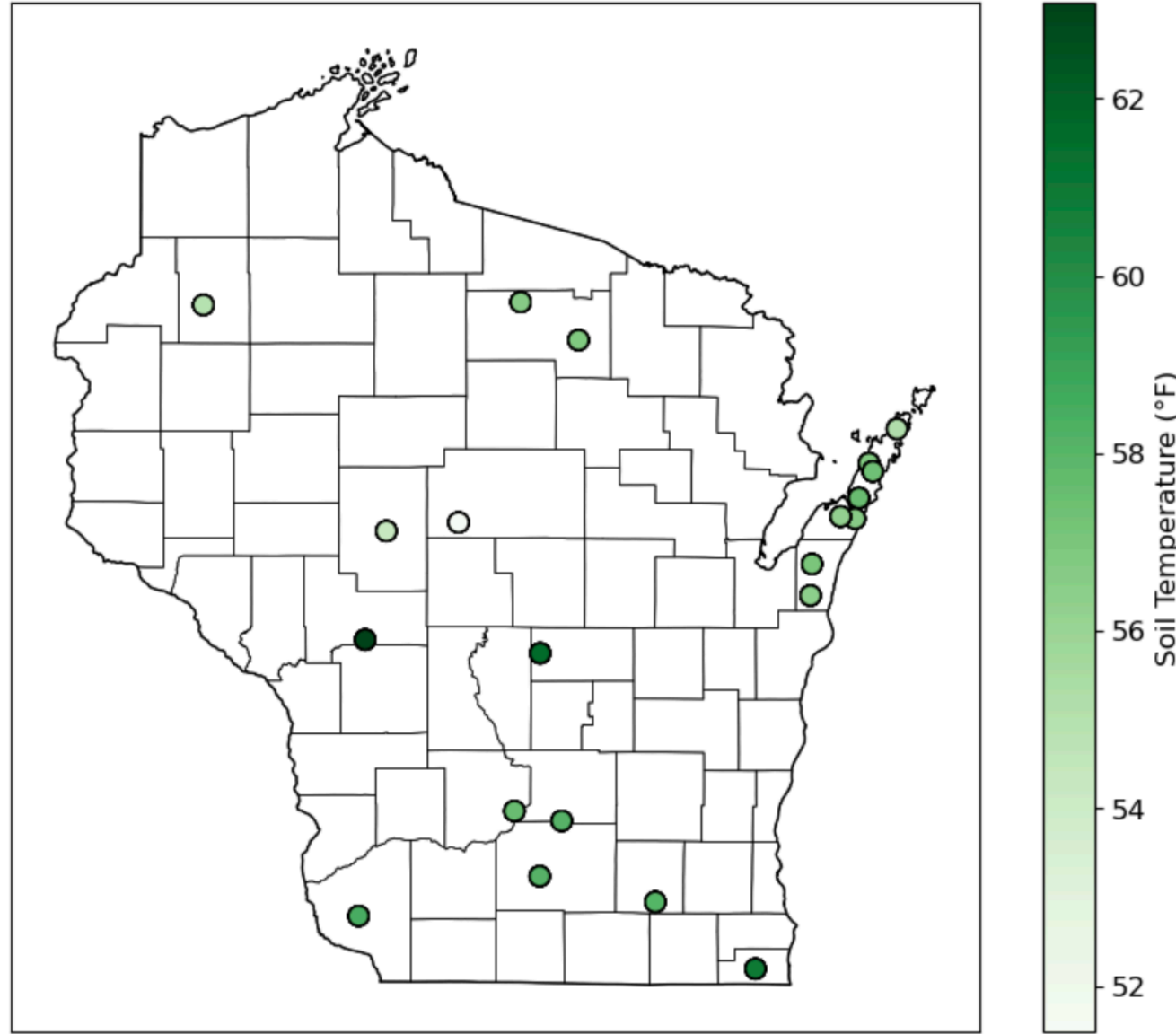
Generated 5/14/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Temp for the past month ranged from **53-55°F** in the S to **45-47°F** in the N, with temps **1-5°F** statewide.

Soil Temperature - Wisconet

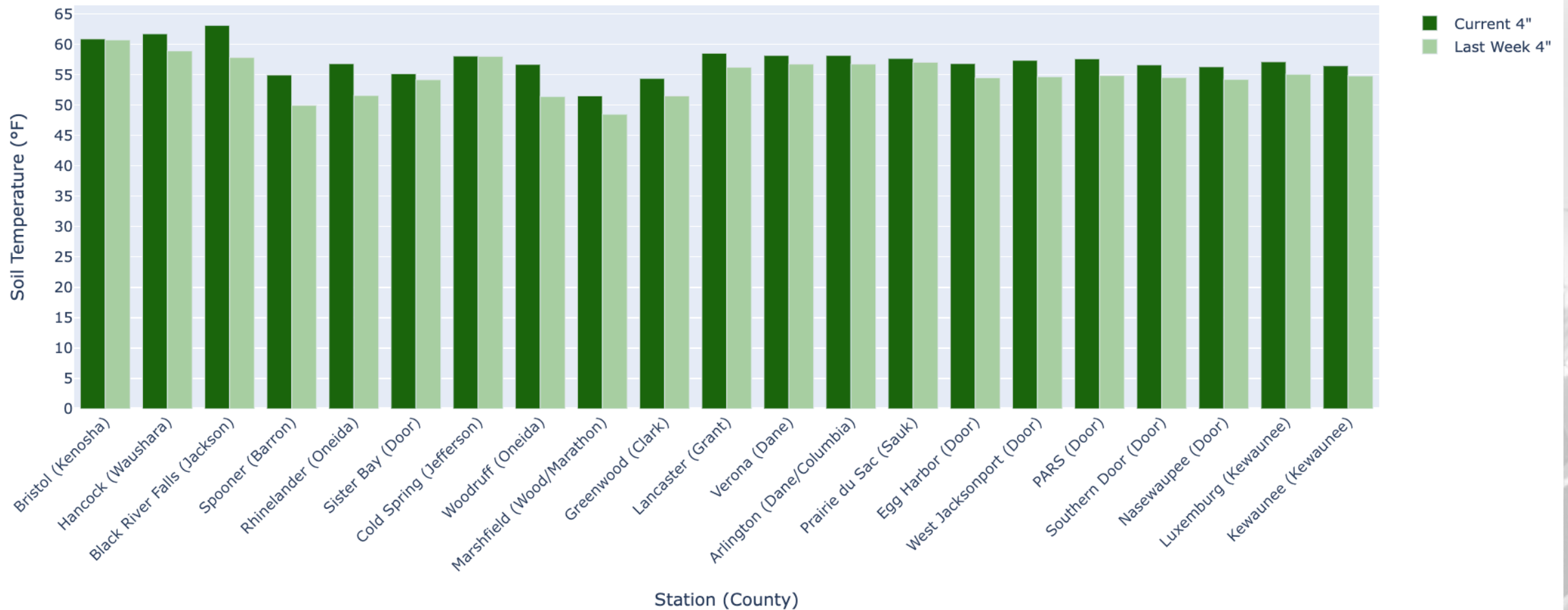
Wisconet 4" Soil Temperature



7-day average ending on 5/13.

Soil Temperature - Wisconet

Wisconet 4" Soil Temperature



Current: 7-day average ending on 5/13

Last Week: 7-day average ending on 5/6

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

NASS Crop Progress – Corn

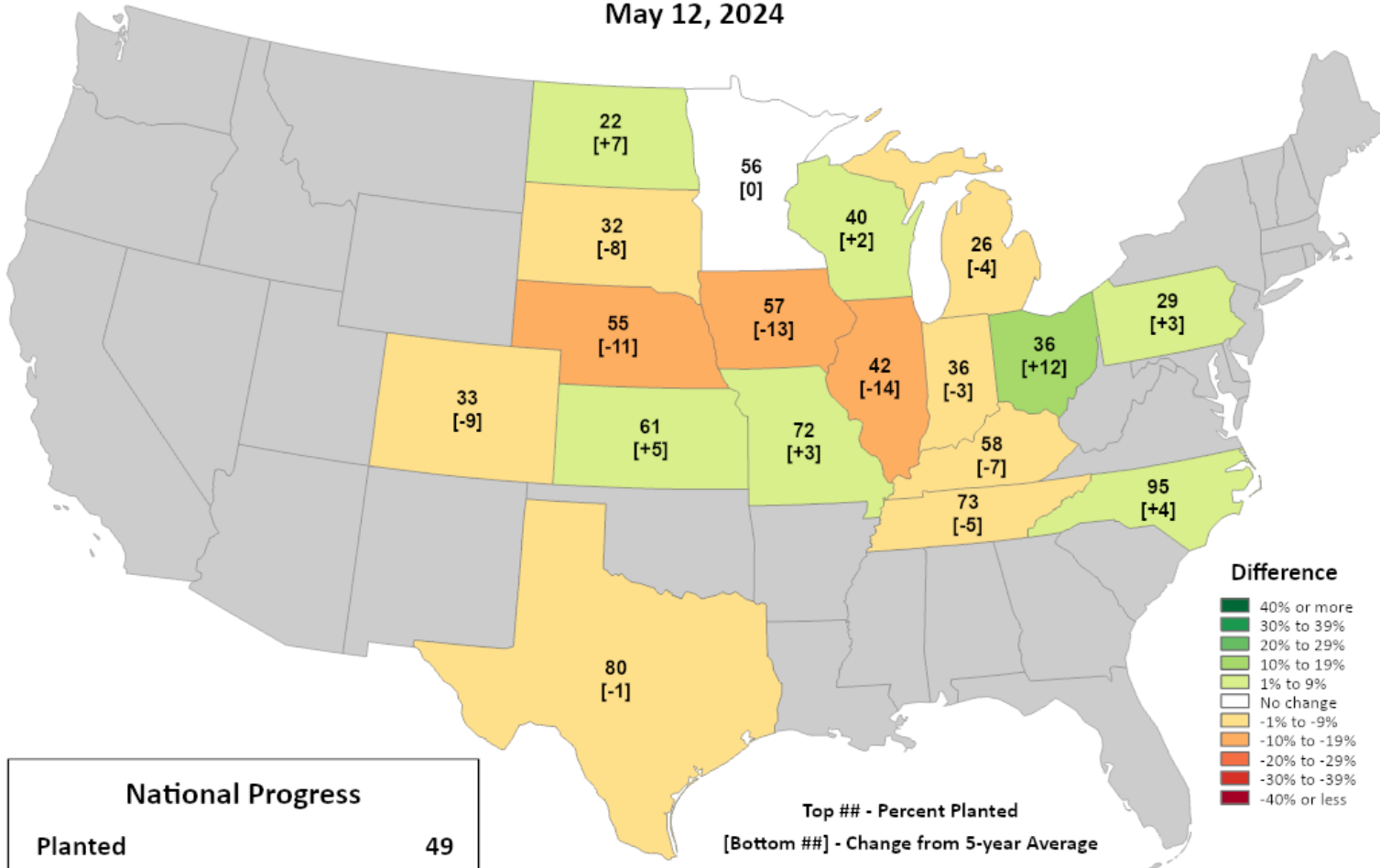


This product was prepared by the
USDA Office of the Chief Economist (OCE)
World Agricultural Outlook Board (WAOB)

Corn Progress

Percent Planted

May 12, 2024



National Progress	
Planted	49
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 **ahead** of the 5-year average in WI, OH, and MO, but **behind** in many other states.
- Wisconsin → **40%** complete; up **18%** from last week; **2%** ahead of the 5-year average.

NASS Crop Progress – Soybean

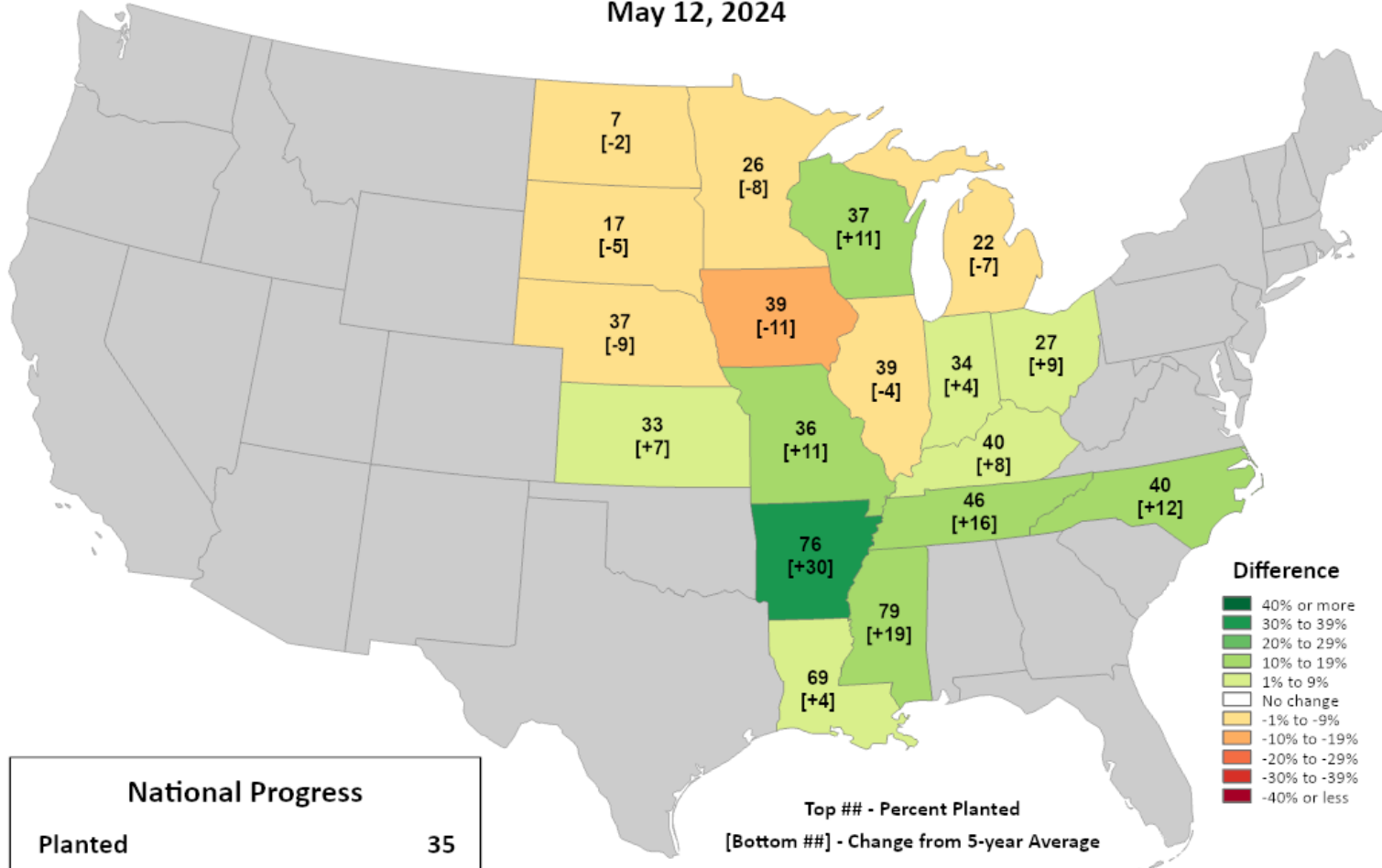


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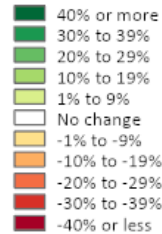
Soybeans Progress

Percent Planted

May 12, 2024



Difference



National Progress	
Planted	35
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 lower-Midwest states, but **behind** for some in the Midwest and Plains.
- Wisconsin → **37%** complete; up **15%** from last week; **11%** ahead of the 5-year average.

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

NASS Crop Progress – Oats

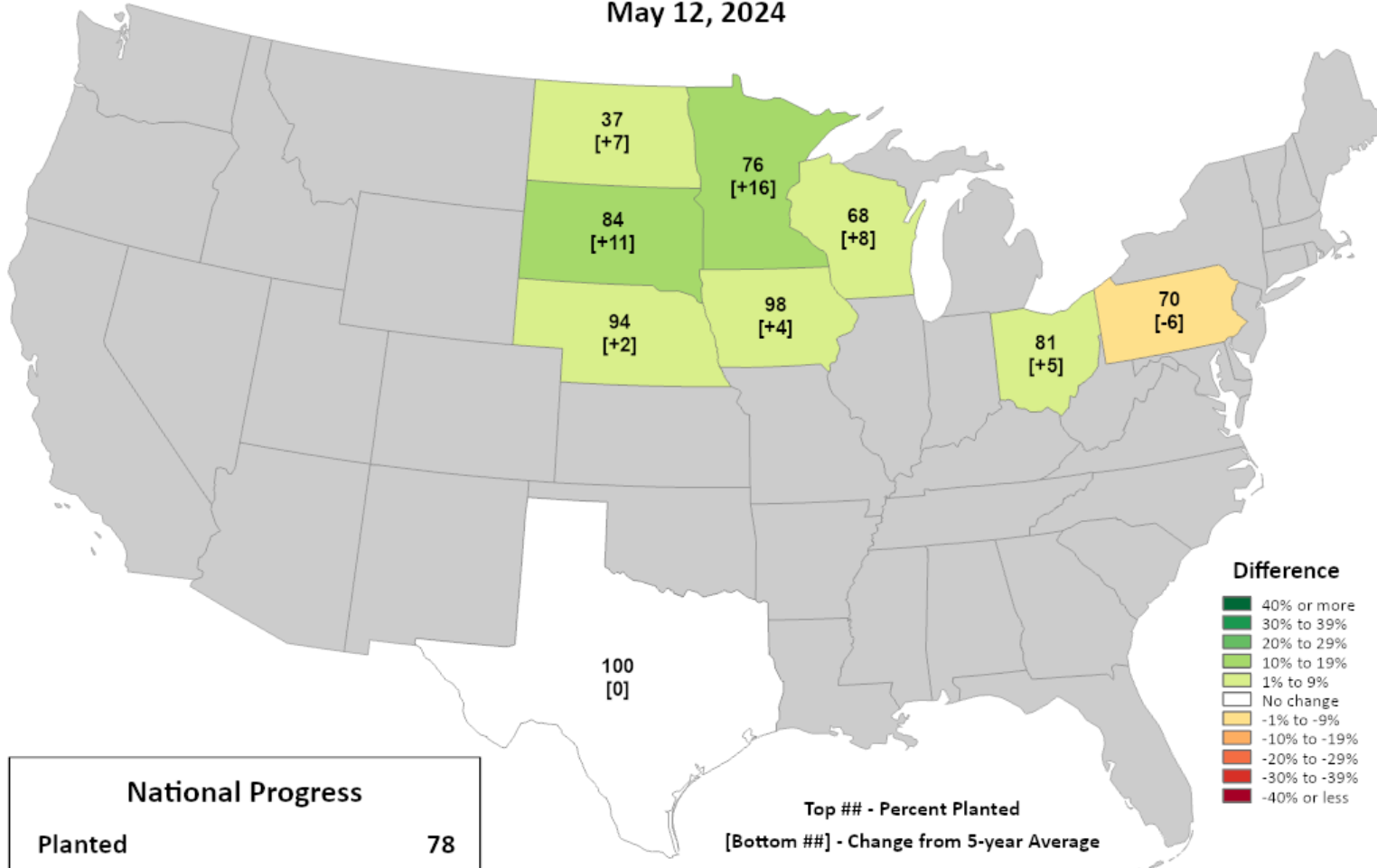


This product was prepared by the
USDA Office of the Chief Economist (OCE)
World Agricultural Outlook Board (WAOB)

Oats Progress

Percent Planted

May 12, 2024



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

- Planting is running **at or ahead** of the 5-year average for all but Pennsylvania.
- Wisconsin → **68%** complete; up **14%** from last week; **8%** ahead of the 5-year average.

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

NASS Crop Progress – Winter Wheat

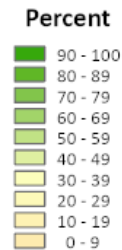
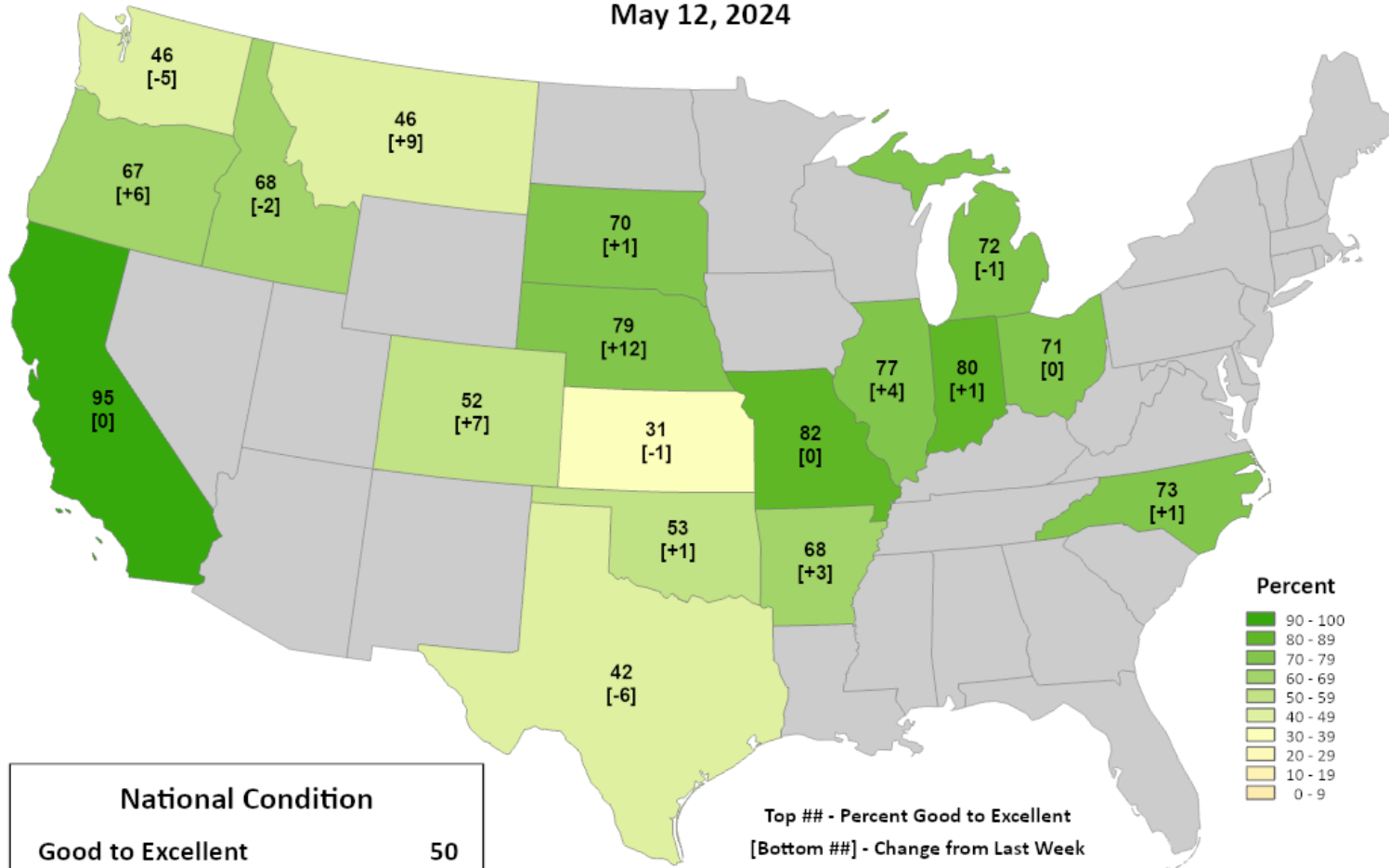


This product was prepared by the
USDA Office of the Chief Economist (OCE)
World Agricultural Outlook Board (WAOB)

Winter Wheat Conditions

Percent Good to Excellent

May 12, 2024



National Condition	
Good to Excellent	50
Change from Last Week	0

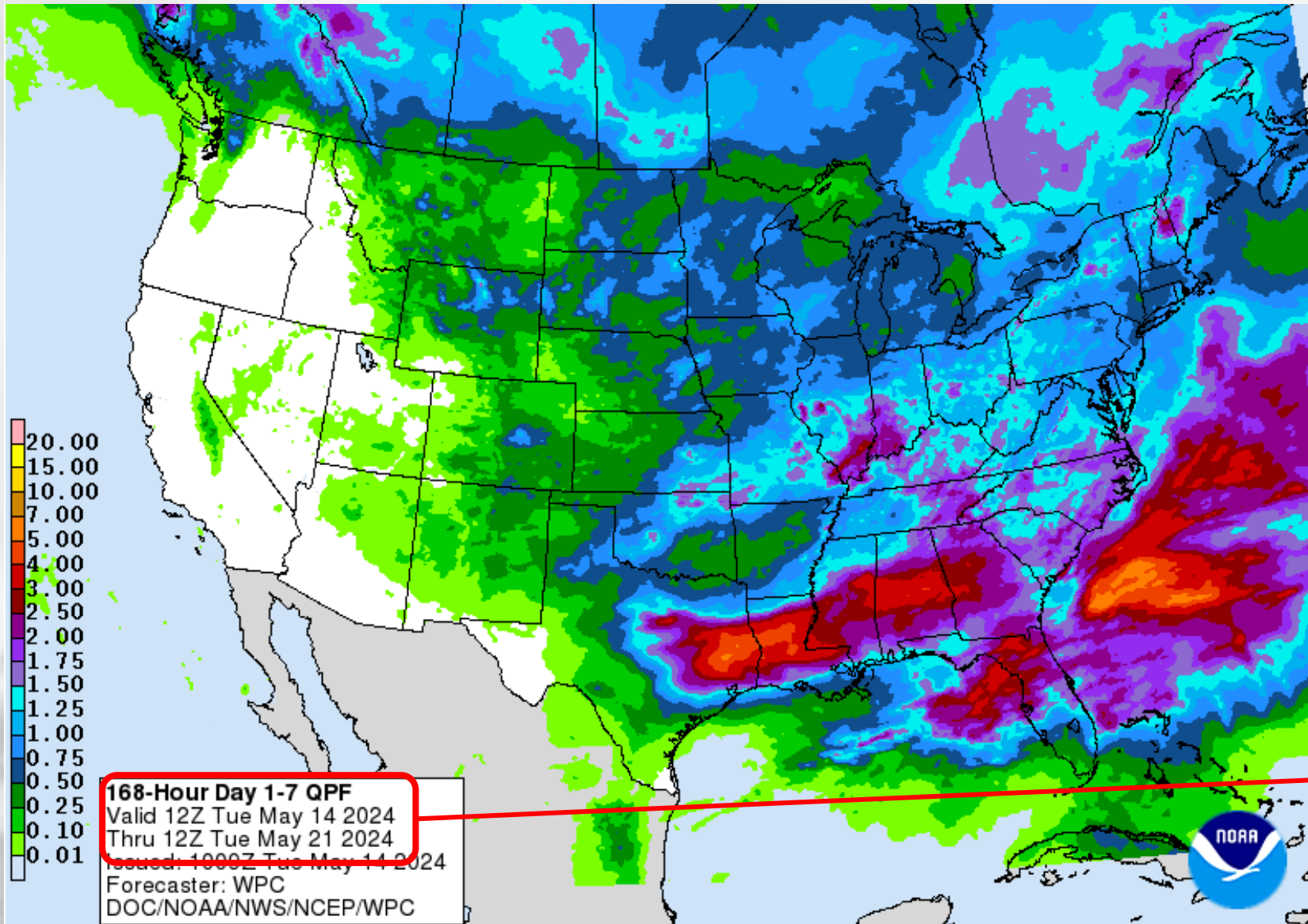
Top ## - Percent Good to Excellent
[Bottom ##] - Change from Last Week

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.
 - Improvement from last week for most states.
- Wisconsin → 85% good to excellent; down 1% from last week.

<https://agindrought.unl.edu/Other.aspx>
https://www.nass.usda.gov/Statistics_by_State/Wisconsin/Publications/Crop_Progress_&_Condition/2024/WI-Crop-Progress-05-13-24.pdf

7 Day Precip Forecast



- A couple of rounds of rain forecasted for Thu (5/16) and Sun (5/19).

Forecast for 5/14/24 thru 5/21/24
(12Z = 7am CDT)

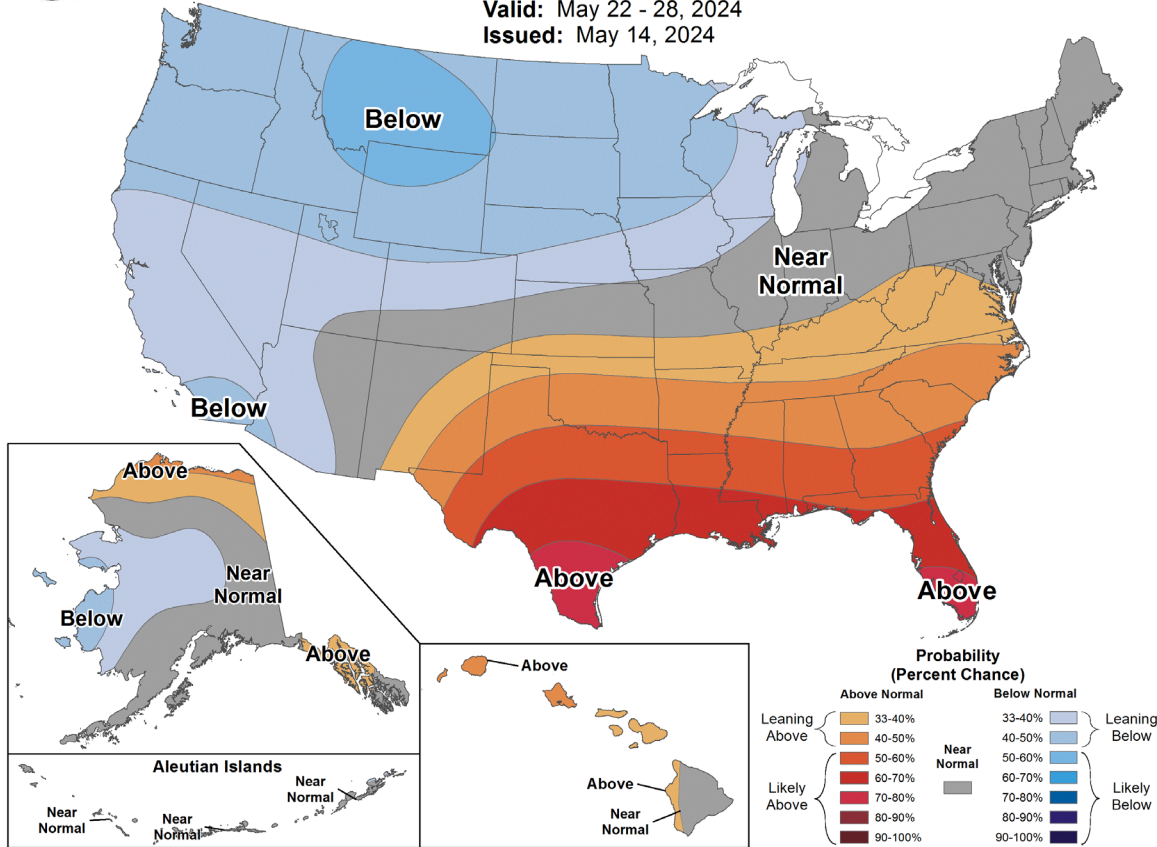
<https://www.wpc.ncep.noaa.gov/qpf/p168i.gif>

8-14 Day Temp & Precip Outlook



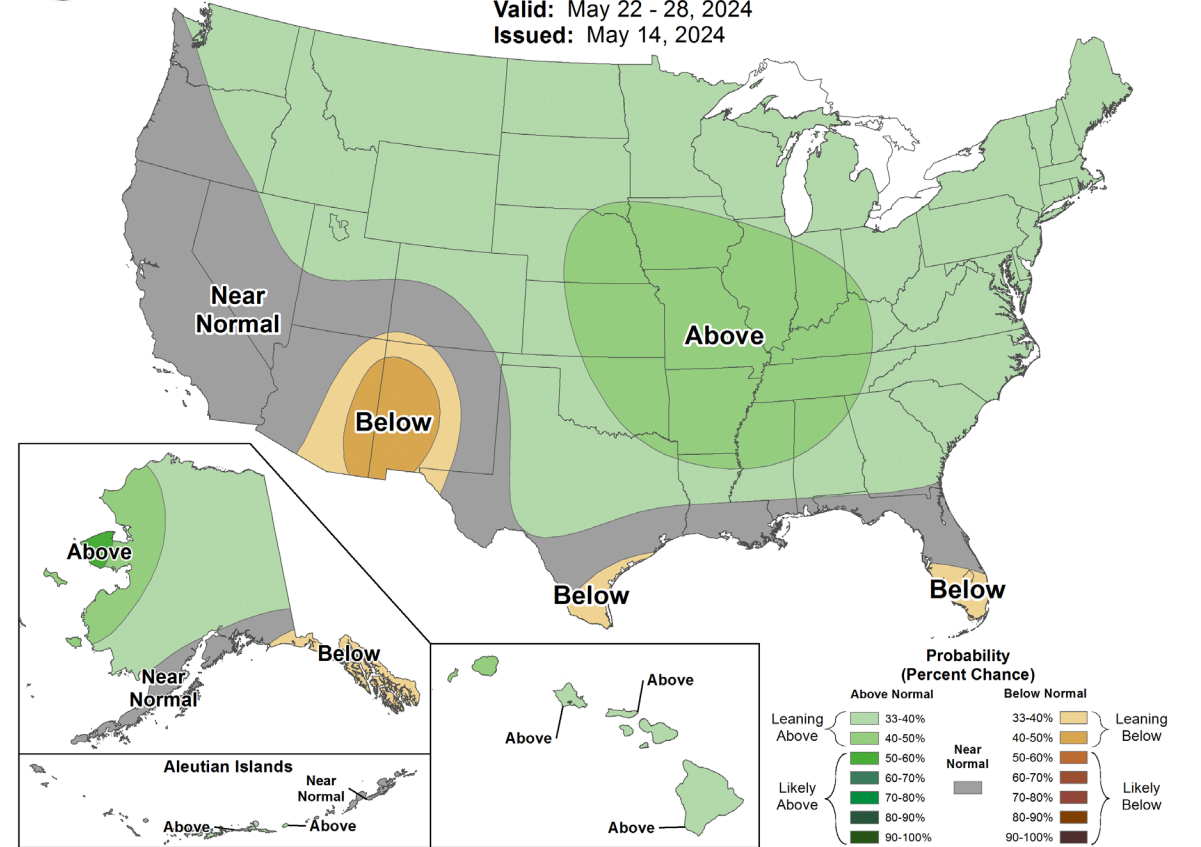
8-14 Day Temperature Outlook

Valid: May 22 - 28, 2024
Issued: May 14, 2024



8-14 Day Precipitation Outlook

Valid: May 22 - 28, 2024
Issued: May 14, 2024



Mid-May: Temperatures leaning below normal. Precipitation leaning above normal.

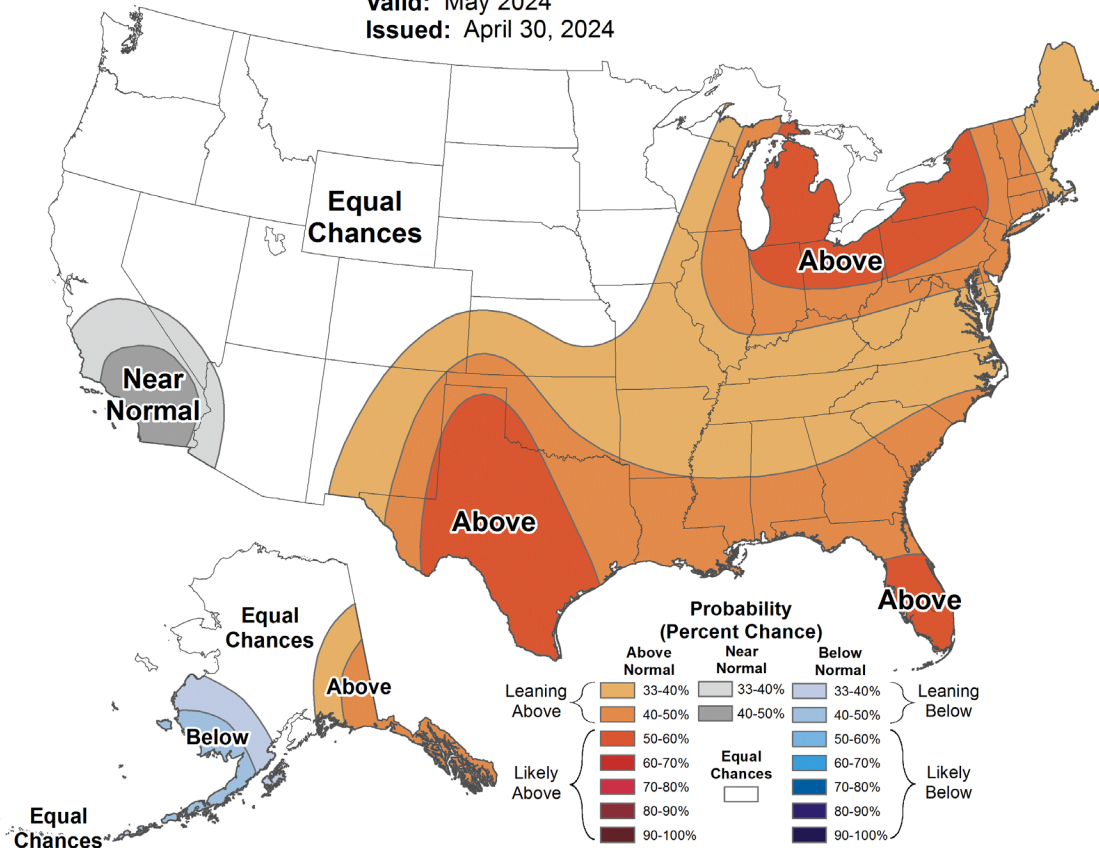
30 Day Temp & Precip Outlook



Monthly Temperature Outlook



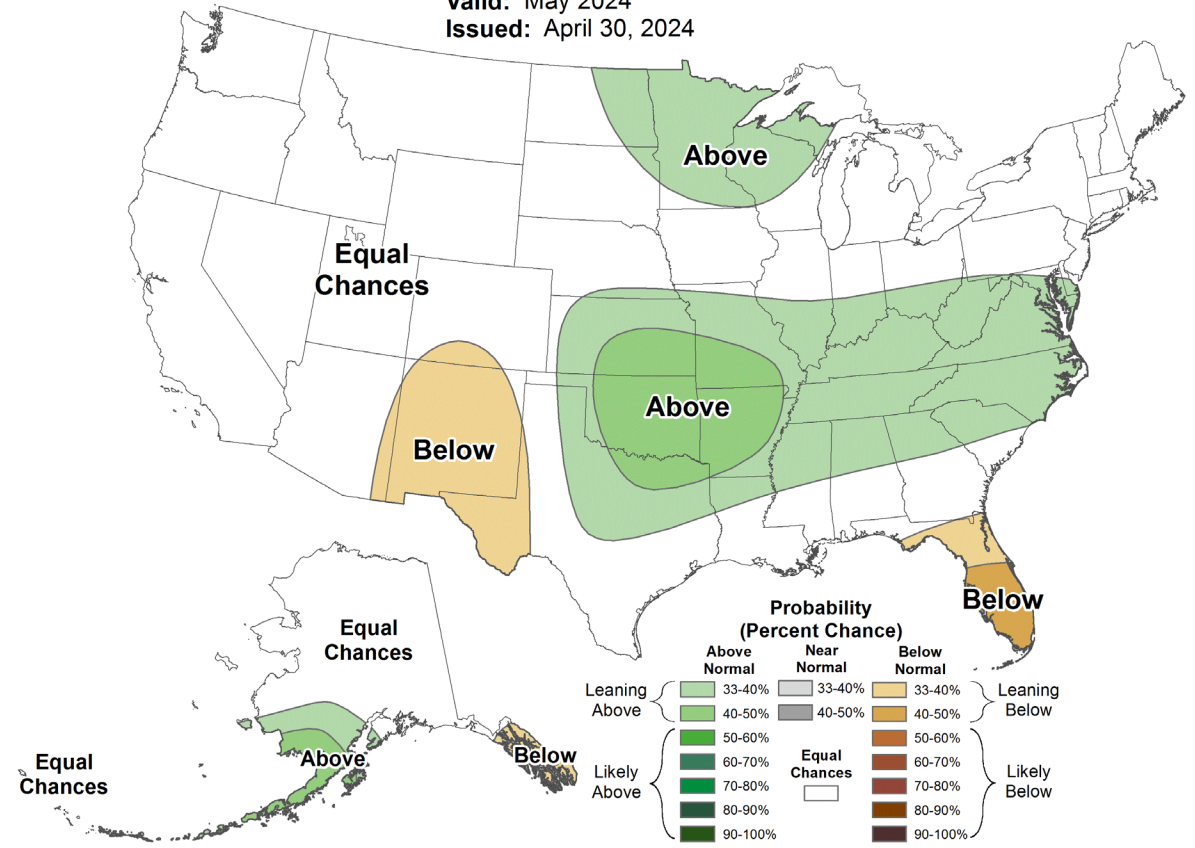
Valid: May 2024
Issued: April 30, 2024



Monthly Precipitation Outlook



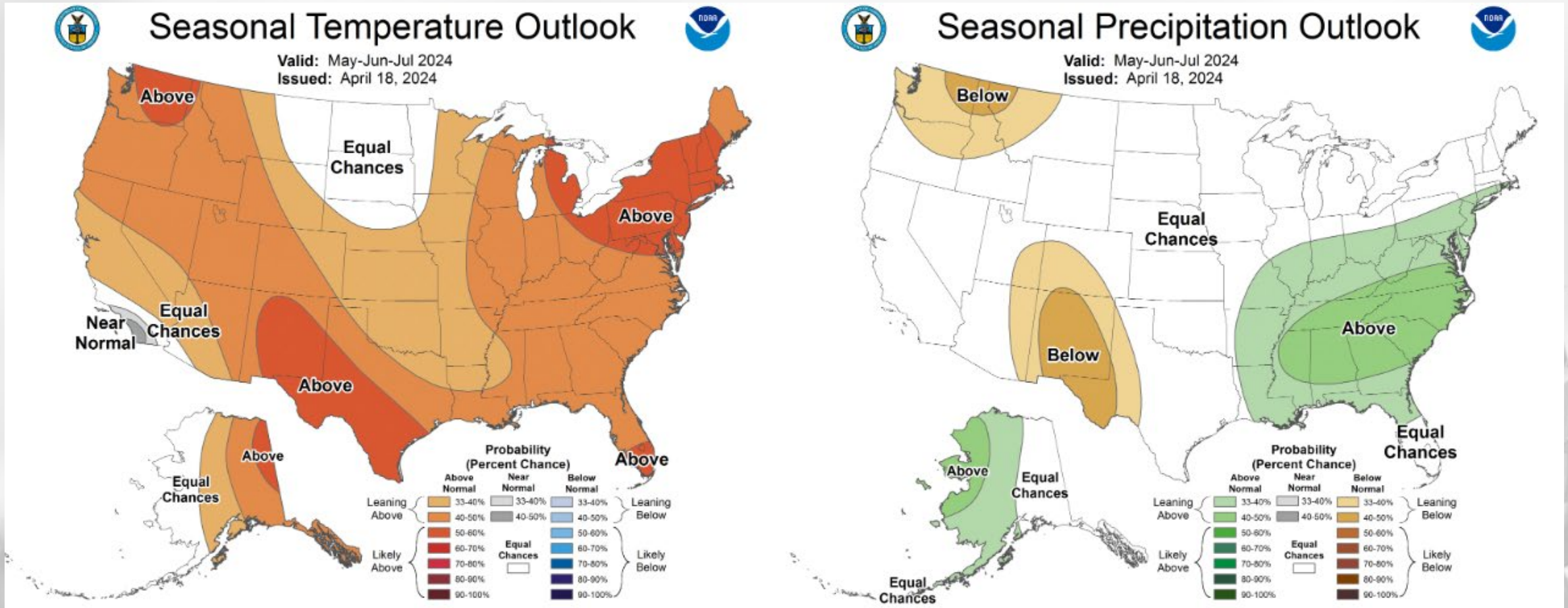
Valid: May 2024
Issued: April 30, 2024



Month of May: Temperatures leaning above normal for the eastern half of Wisconsin, and equal chances for the western half. Precipitation is leaning above normal for the northern half, and equal chances for the southern half.

<http://www.cpc.ncep.noaa.gov/>

90 Day Temp & Precip Outlook



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

Take-Home Points

Current Conditions

- Much like last week, much of the state saw at least 0.5” of rain this week.
- This week also continued the warmer-than-normal temps, averaging 50-62°F.

Impact

- Slight improvements in soil moisture at Wisconet stations that saw the highest amounts of rain the last week; otherwise, slight declines in soil moisture.
- 7-day average soil temperatures are 50+°F at all Wisconet stations.
- Widespread improvements in US Drought Monitor for WI.
- Corn, soybean, and oat planting continue to run ahead of the 5-year average pace.

Outlook

- A couple rounds of rain forecasted over the next week.
- Mid to late May has a slight lean toward cooler and wetter than normal.
- The warmer-than-normal conditions have the potential to persist into early summer.
 - *A transition to La Nina 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 using a [preplant nitrate test](#) to assess if there is nitrogen left over from last year due to long-term drought conditions.
- 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 for the weekend 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.

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.



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Photo Credit: USDA



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