Wisconsin State Climatology Office
Nelson Institute for Environmental Studies

Extension
University of Wisconsin-Madison

USDA Midwest Climate Hub
U.S. DEPARTMENT OF AGRICULTURE

NRCS
Natural Resources Conservation Service

Wisconsin Ag Weather Outlook

Week of May 12, 2025

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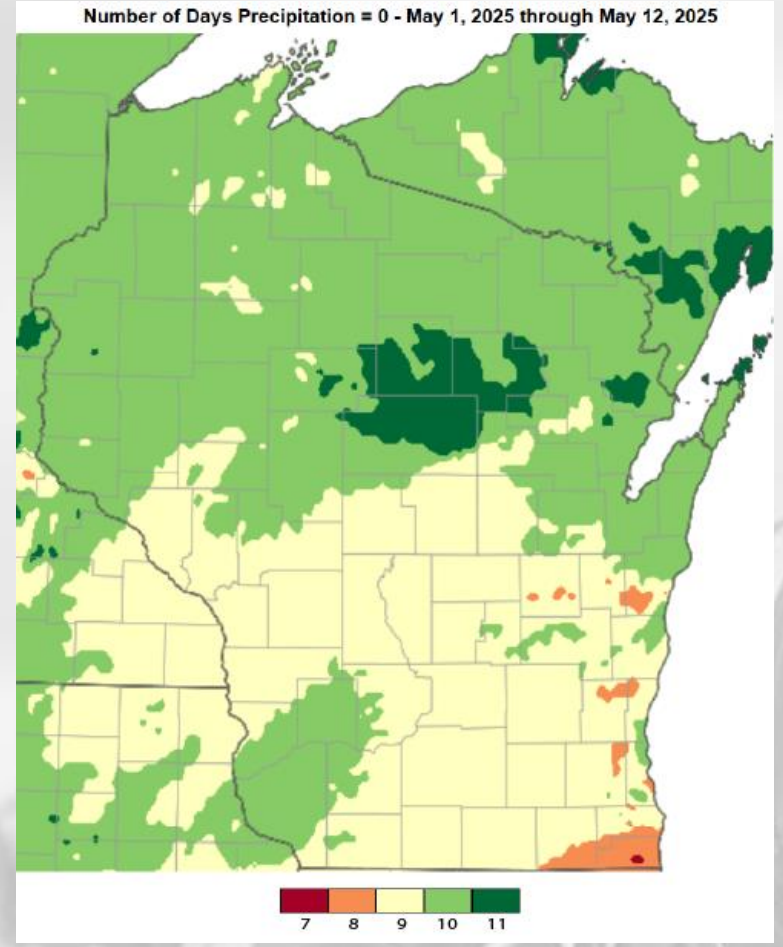
Key Points

Navigate to select slides by clicking on the links below.

1) Most of the state received no precip last week, continuing what has been a very dry May so far.
2) Temperatures were above average for most in the state, especially in the west.
3) Soils have dried out since last week's report, with drought coverage expanding to the east.
4) Things look a bit more active for precip over the next 7 days, with a likelihood for cooler conditions 8-14 days out.

- *For this week's agronomic recommendations from UW Extension, click here.*
- *For this week's crop progress updates from USDA NASS, click here.*

A Very Dry May



Days with 0" of Precip (May 1-12)	No. of Stations in WI Recording 0"
6	1
7	8
8	52
9	231
10	173
11	33
12	2

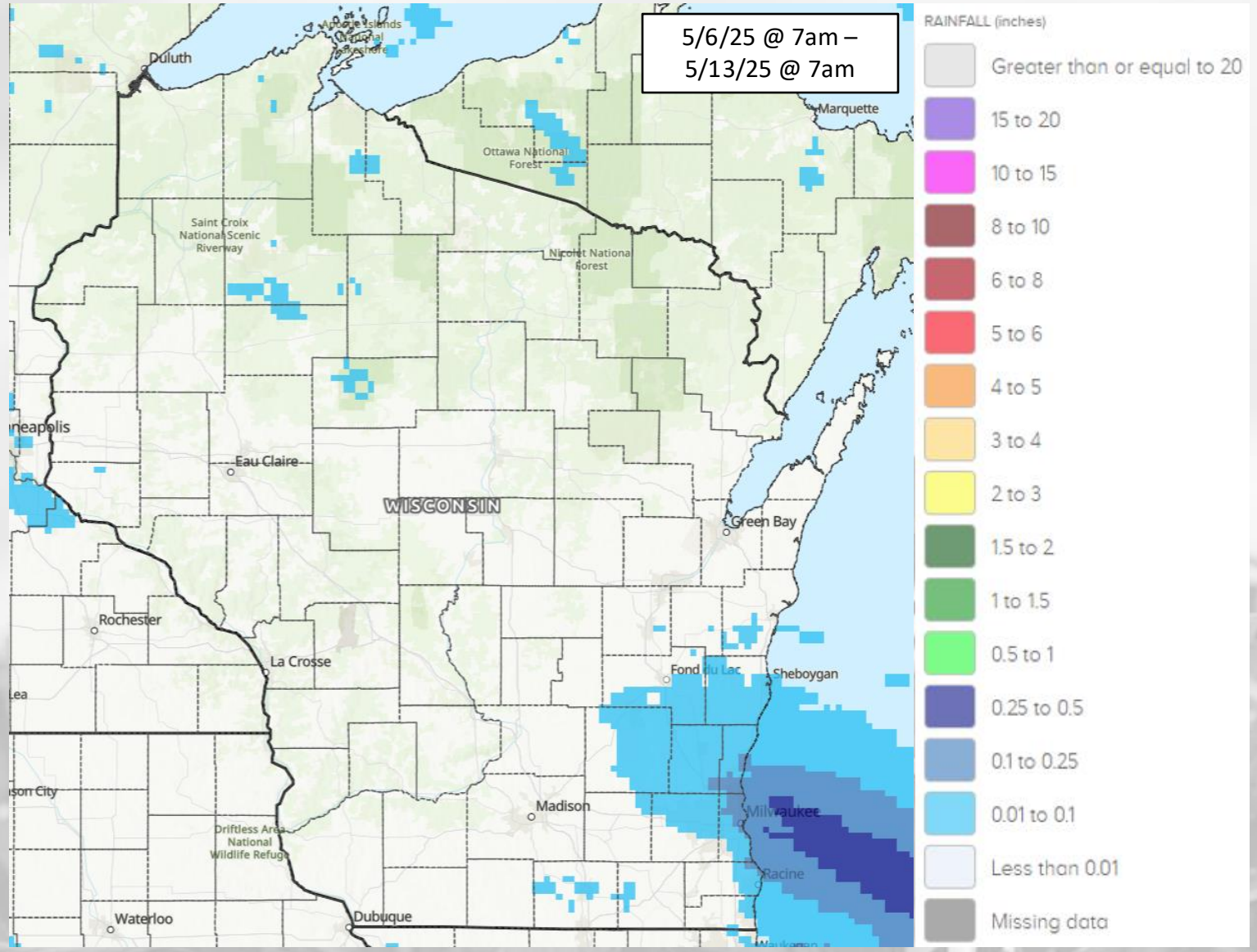
Table shows the count of stations in the state that recorded 0" of precip for a given number of days between May 1-12 (Source: ACIS).

Climate Division	% of Normal (1/1 – 4/30)	% of Normal (1/1 – 5/12)
WI01	125	109
WI02	147	127
WI03	140	127
WI04	121	106
WI05	122	116
WI06	105	103
WI07	93	89
WI08	80	82
WI09	84	84

Precip stats by climate division → 2025 totals before and after May 1

https://scacis.rcc-acis.org/

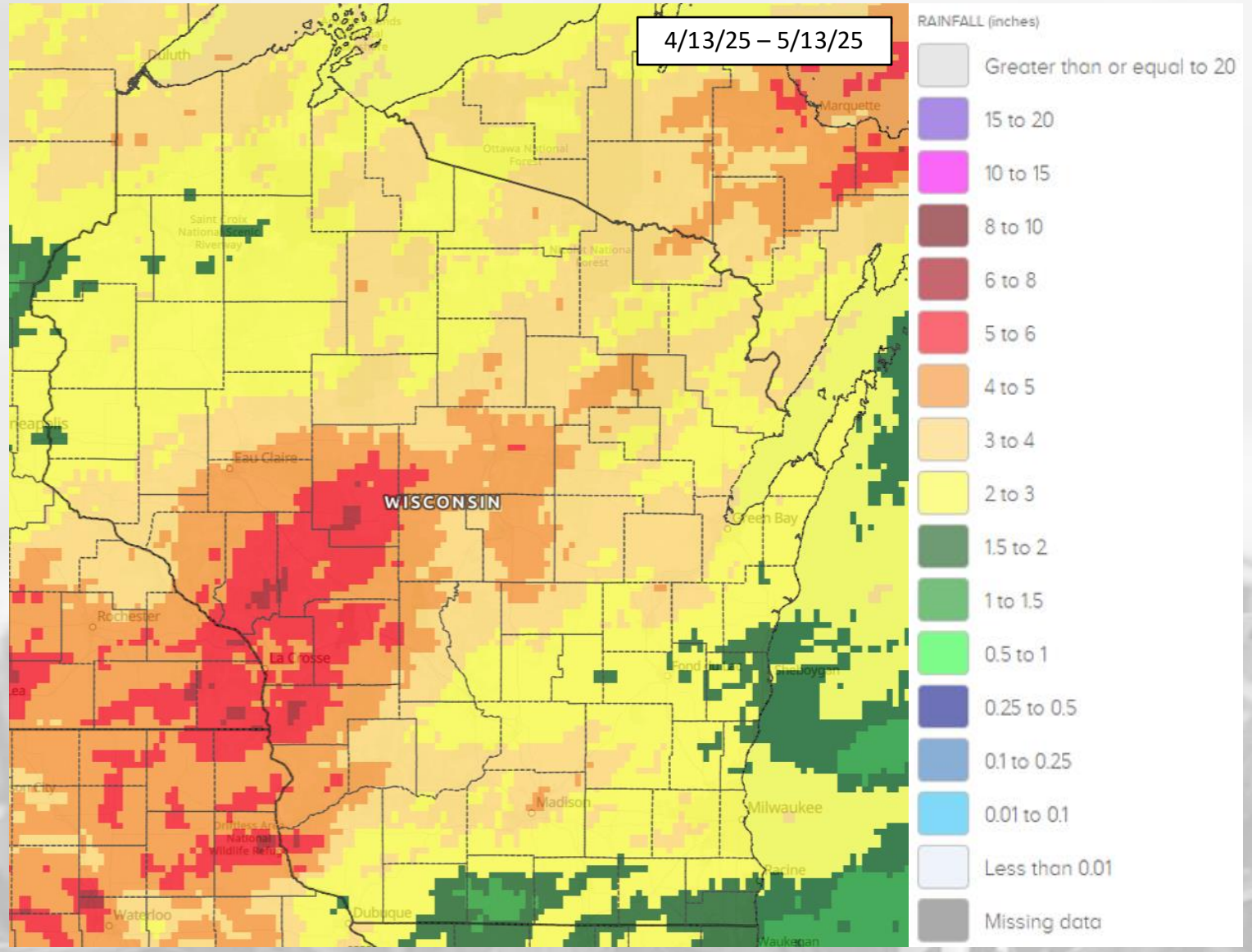
7 Day Precip



- For most of the state, there was **no measured precip last week.**
- **Very minor totals** in the southeast, mainly near Milwaukee.

https://water.noaa.gov/

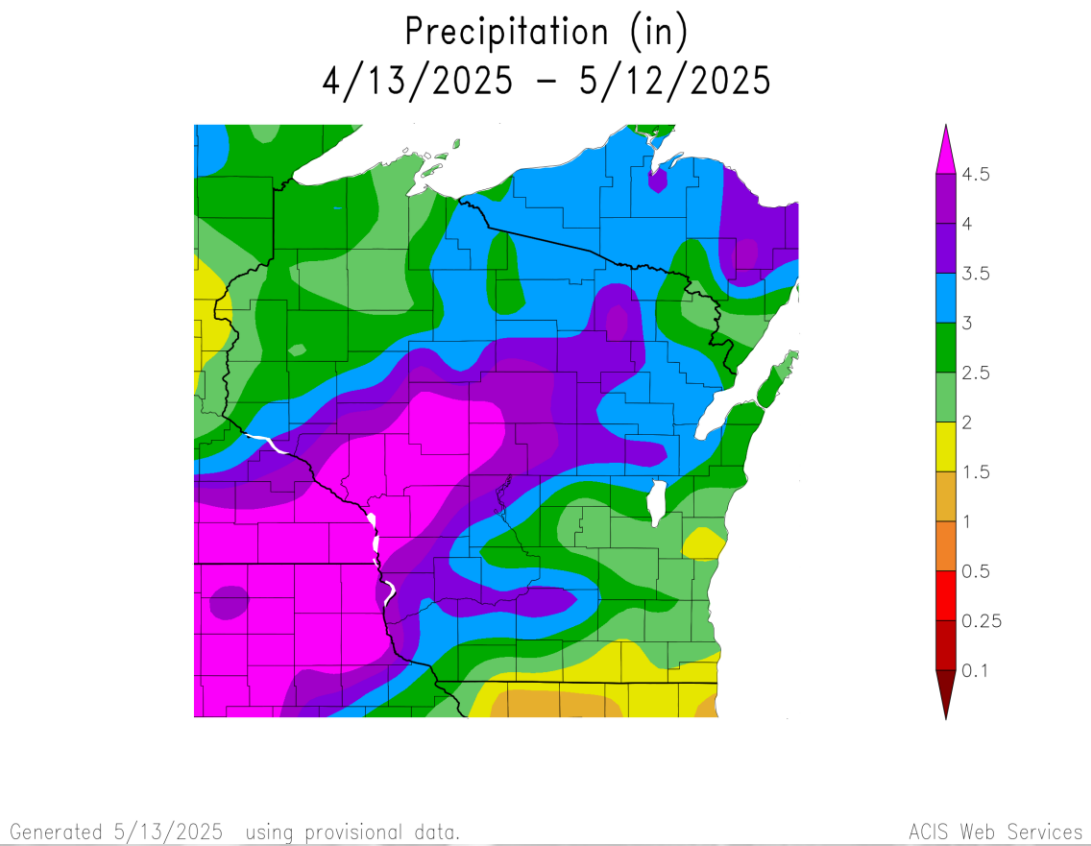
30 Day Precip

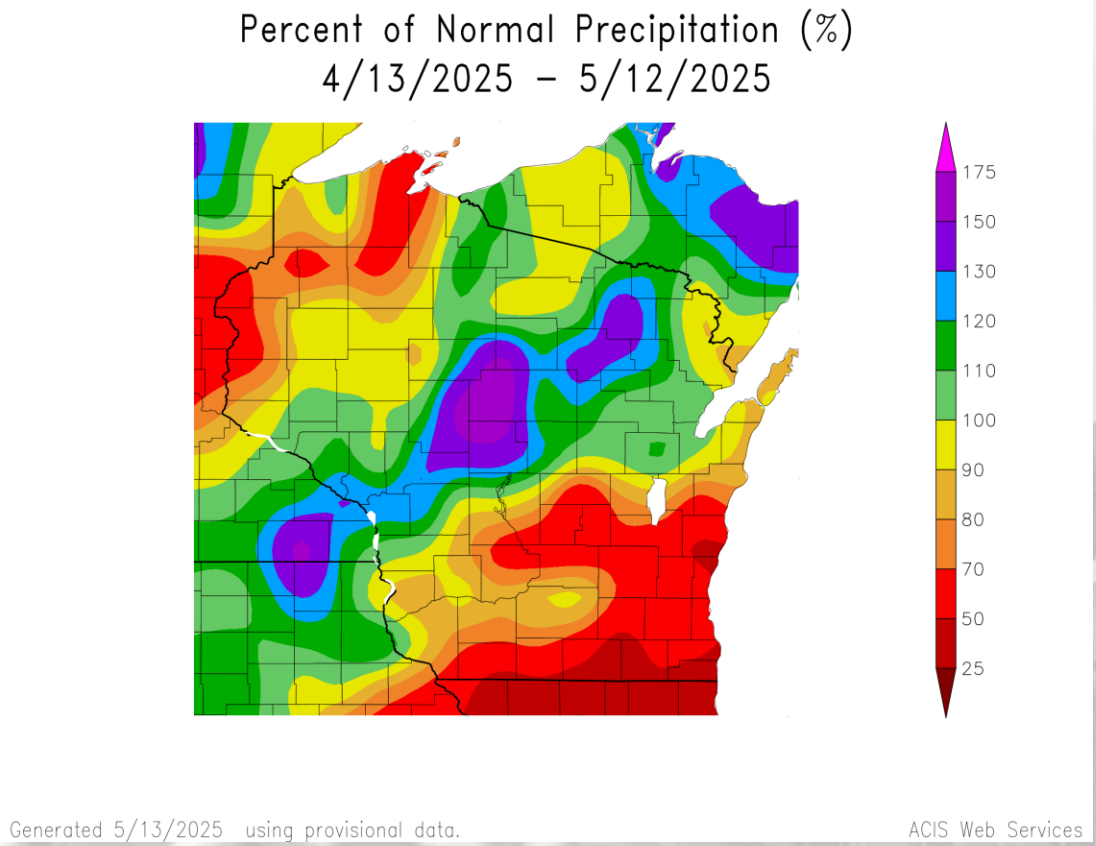


- Heaviest precipitation concentrated in the west-central region→ **4-6”**
- Totals of **3” or more** stretching from the west-central region to the NE up into the U.P.
- **2-4”** for many in the south-central, eastern, and NW regions.
  - Pockets of **<2”** along the IL border and by Sheboygan.

https://water.noaa.gov/

30 Day Precip Total/% Avg.

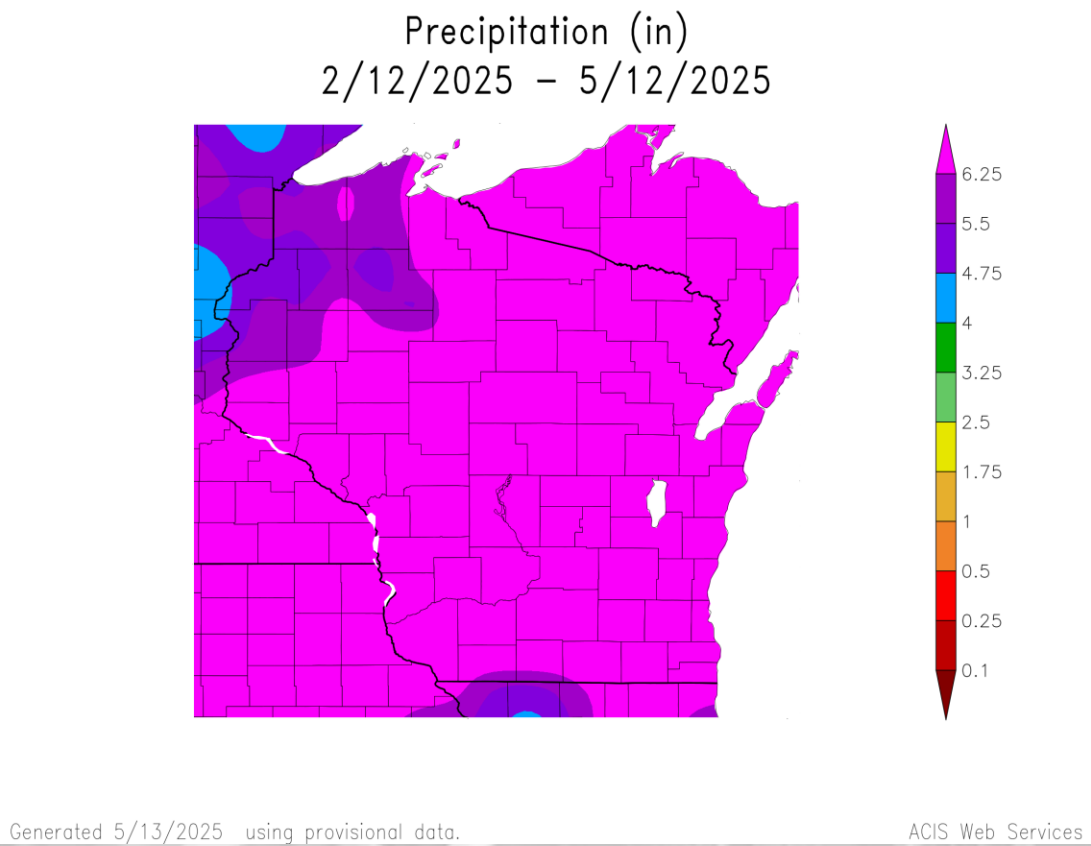


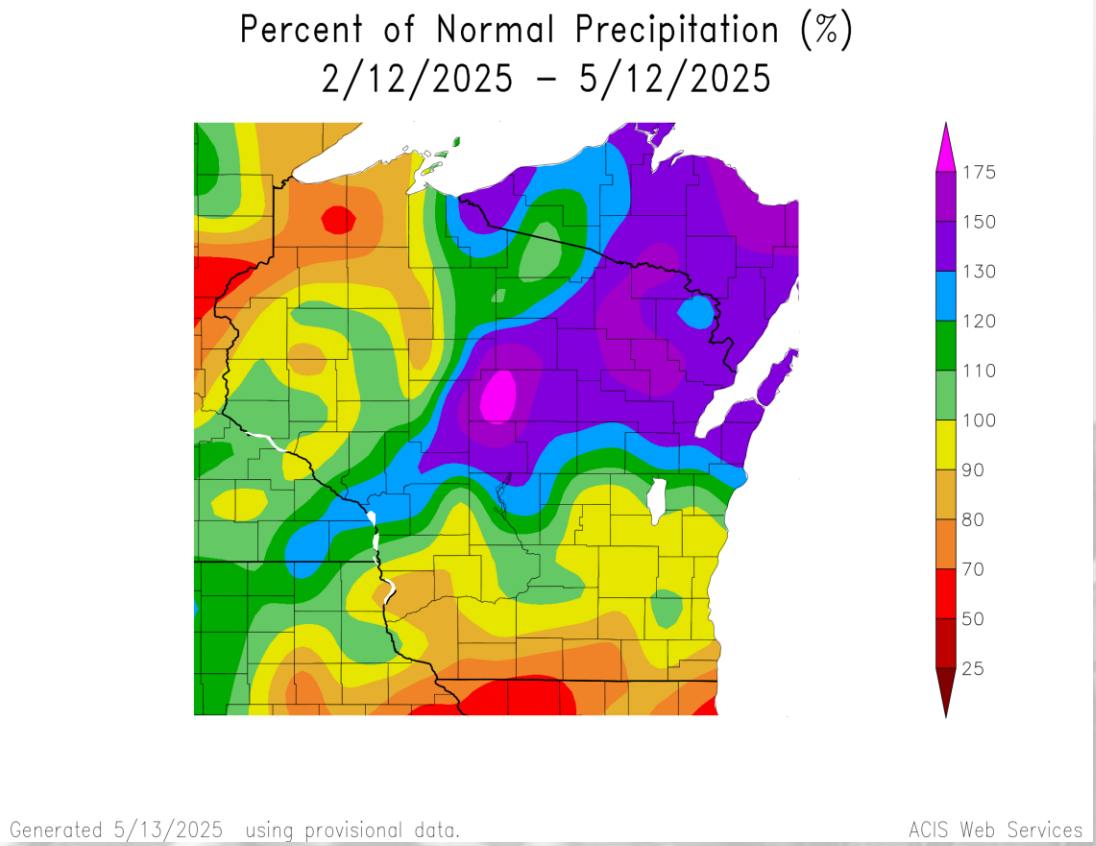


- Above climatological normal in a **WC-to-NE belt → 3-4.5+"**common in this belt.
- Stations within the SC, SE, and far NW regions were consistently **80% or less of the 30-year normal.**
  - **<2" over 30 days** along the IL border.

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

90 Day Precip Total/% Avg.

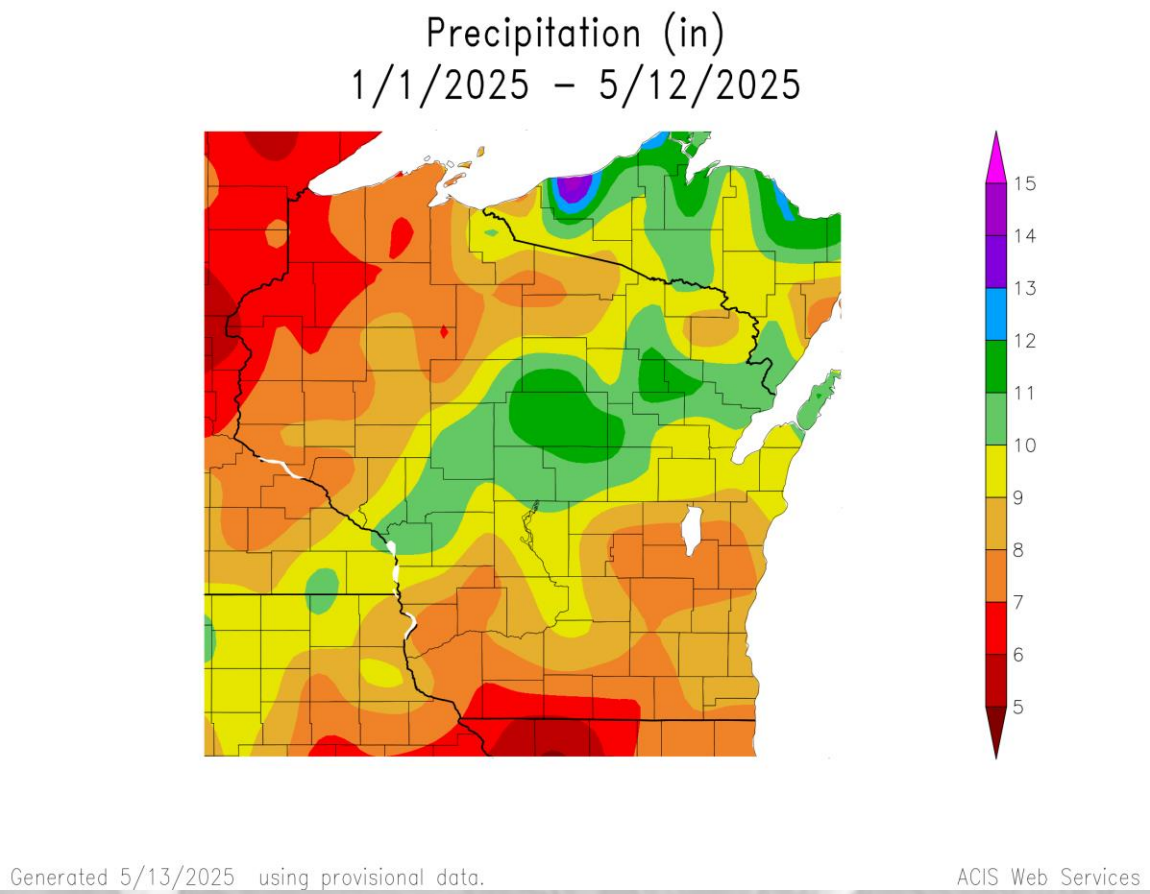


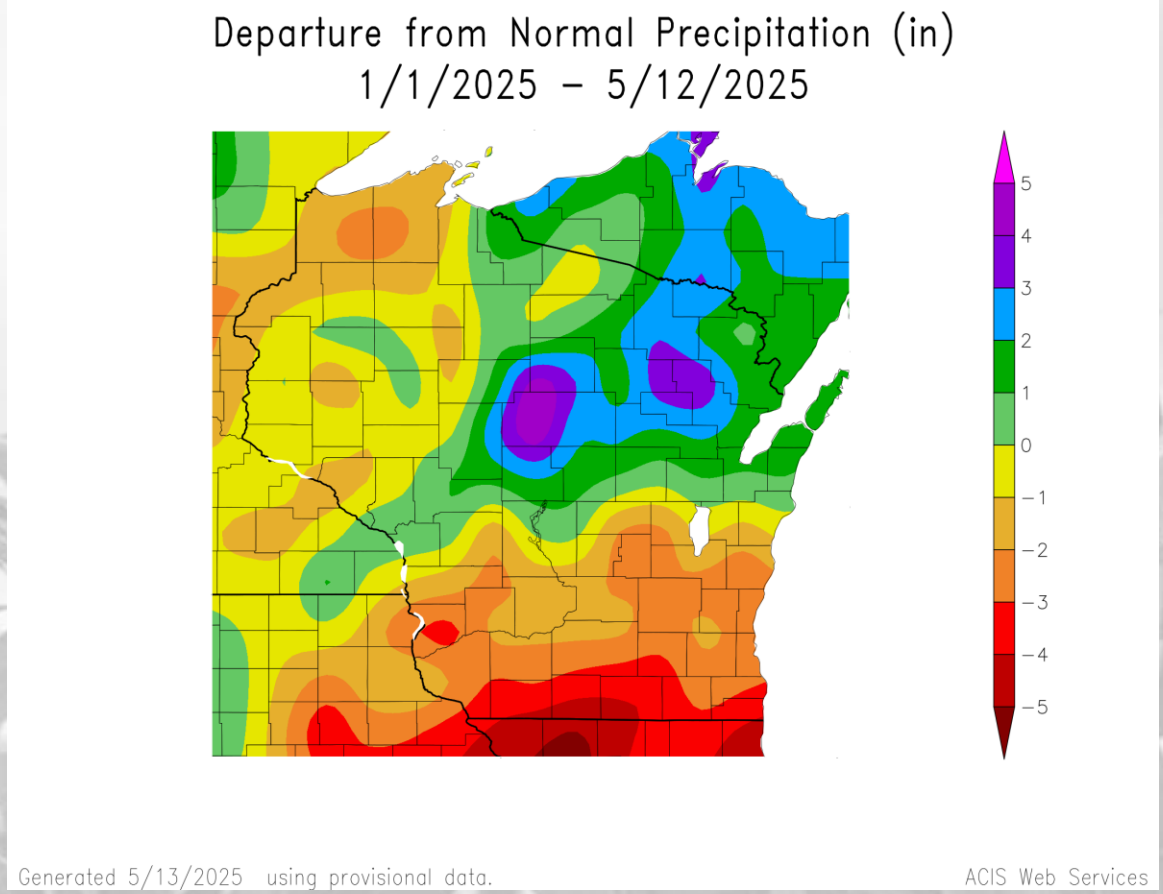


- **>6”** common across most of WI. *(NOTE: apologies for the color shading; this is an issue with the online ACIS mapping tool.)*
- **120-150%** the 30-year normal at many stations in the WC-to-NE belt, with **instances of >150%**.
- **Below the 30-year normal** is common in the south (especially near the IL border) and the far NW.

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

2025 Precipitation (so far)





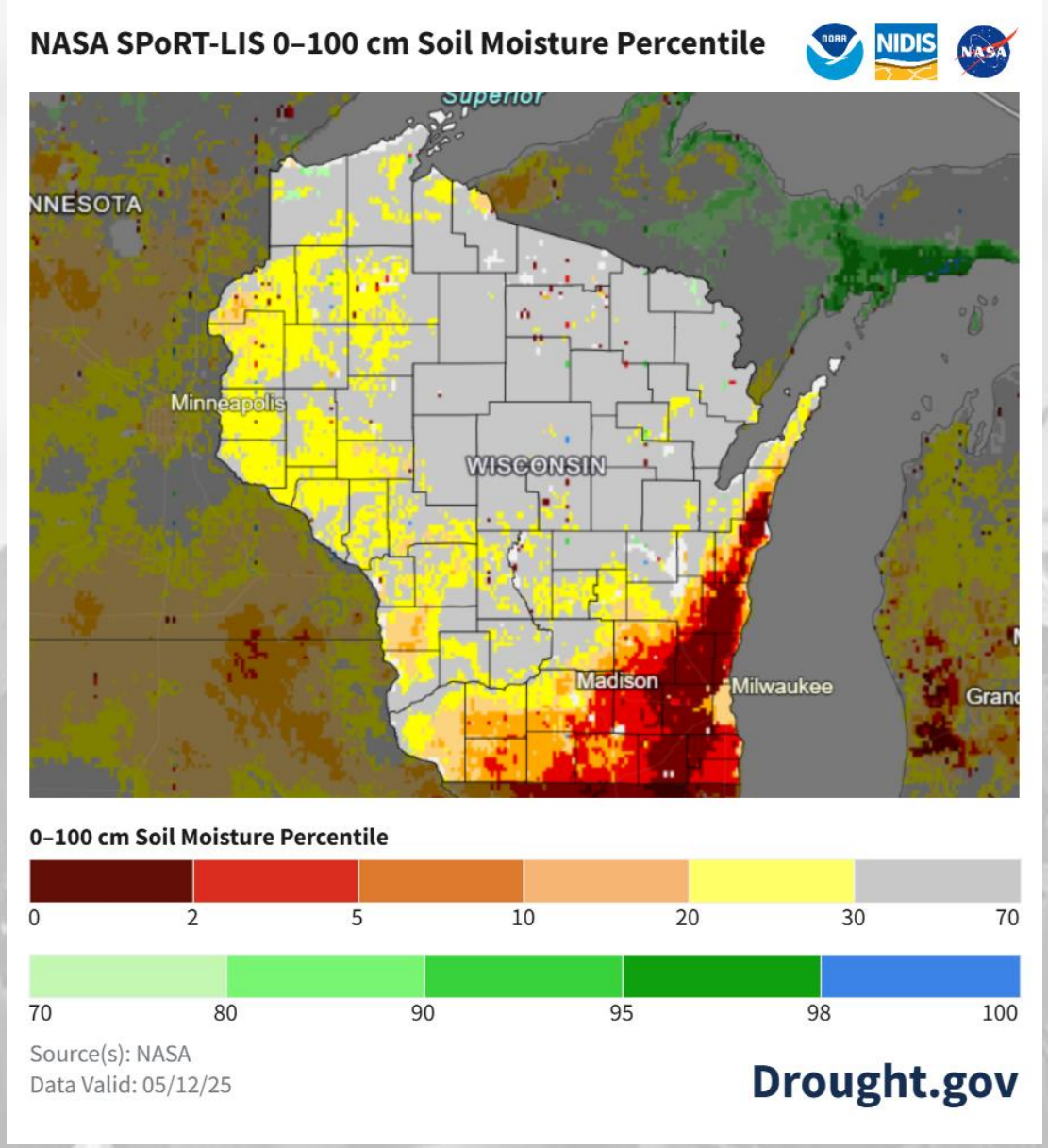
https://hprcc.unl.edu/maps.php?map=ACISClimateMaps

Soil Moisture Models

- Compared to last week, the area in green (abnormally wet) has **changed to near-normal** conditions after a week of little to no precip.
- **Abnormal dryness** has expanded in the west and is more severe in the southeast/south central.
- Majority of the state is **near normal** for soil moisture.

Model Notes:
Red areas = top 5 driest in 100 years.
Dark red areas = top 2 driest in 100 years.
Blue areas = top 2 wettest in 100 years.

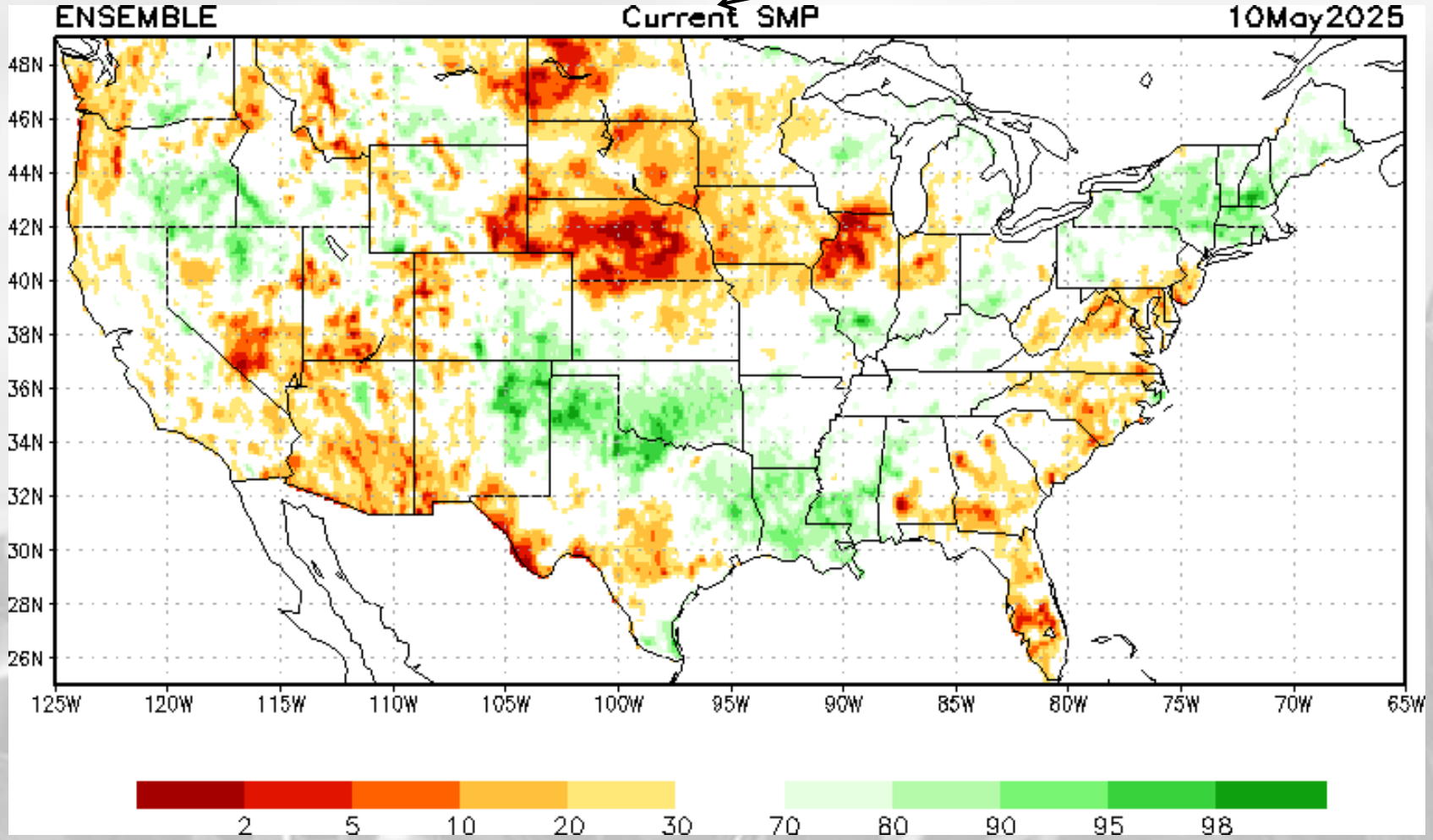
It's worth noting that each soil moisture model has their own characteristics and input variables, so there tends to be variation between models. Thus, it's worthwhile to look at multiple models opposed to just one.



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

Soil Moisture Models

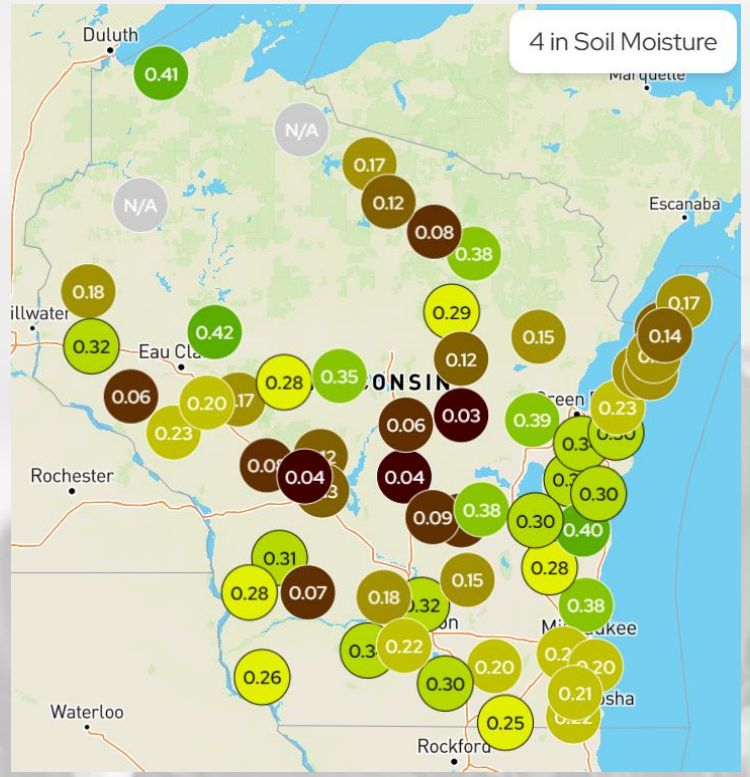
NOTE: this map displays the soil moisture percentile for May 10. It was the most recent update on May 15.

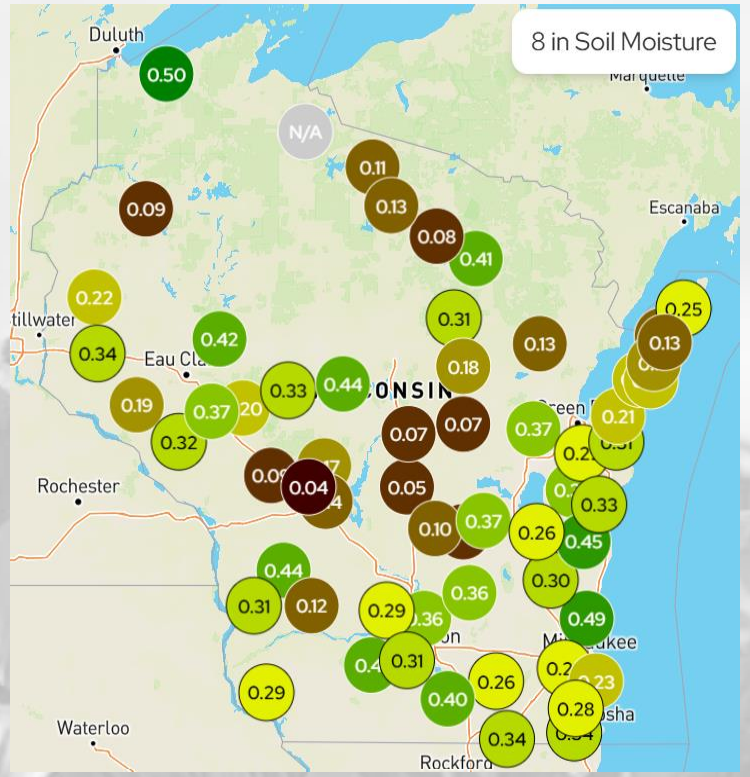


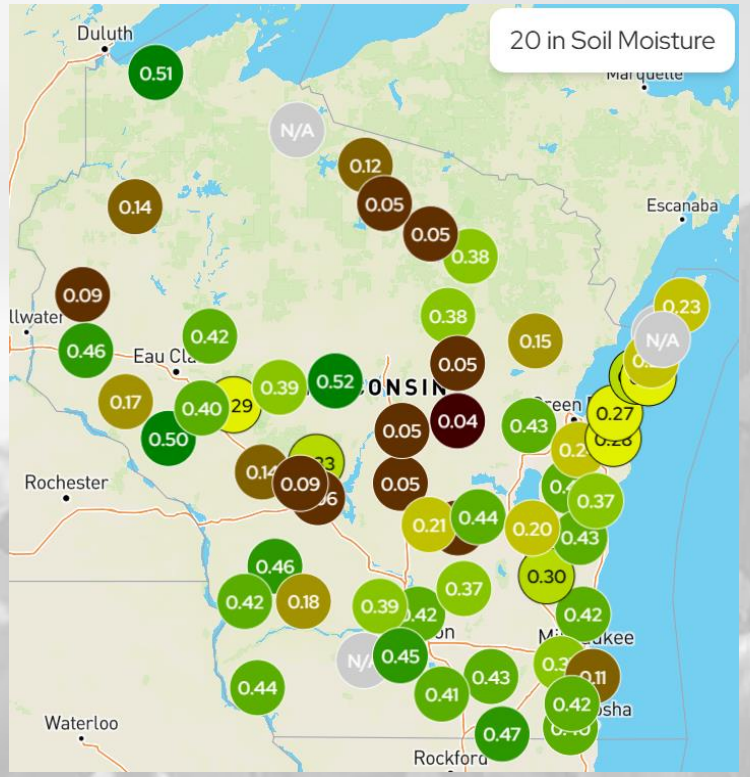
https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp_new.shtml

Wisconet Soil Moisture

Maps showing soil moisture conditions on May 13th @ Midday.
Units of map values are {Volume of water}/{Volume of soil}.







https://wisconet.wisc.edu/

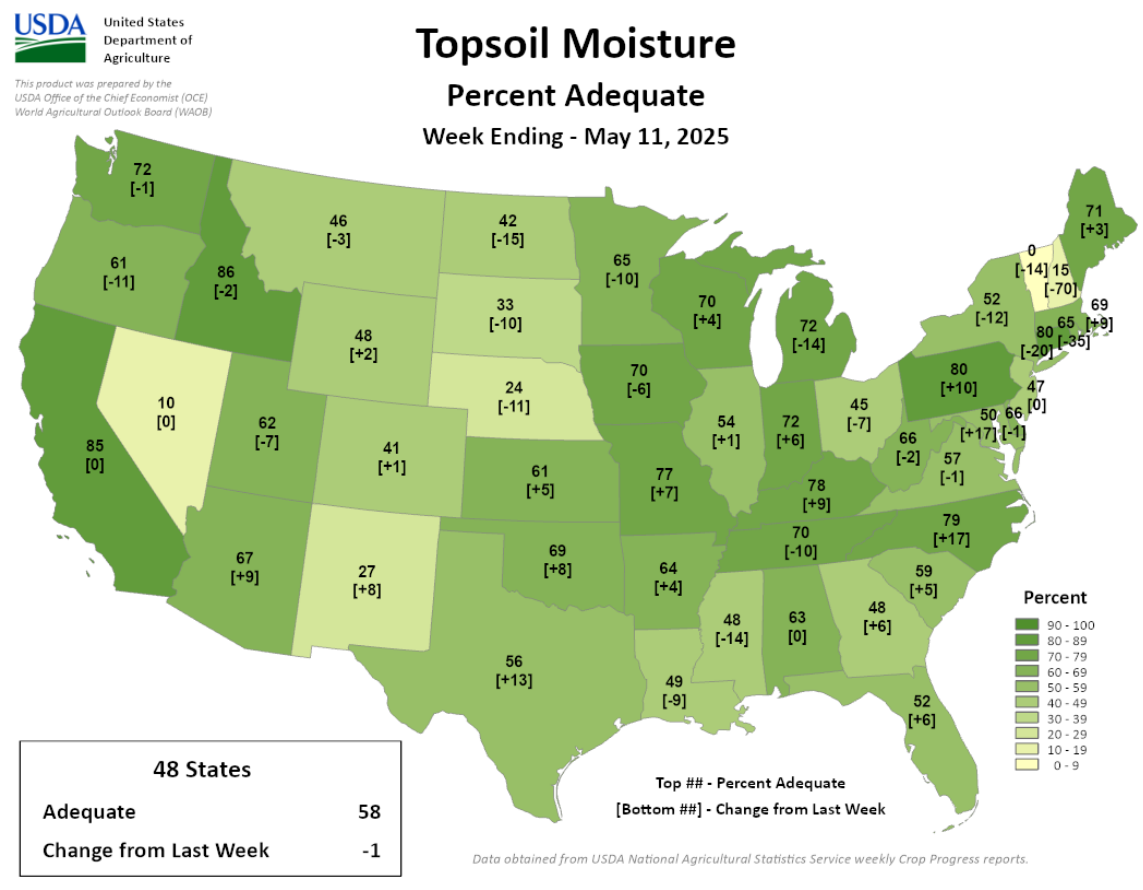
Wisconet Soil Moisture

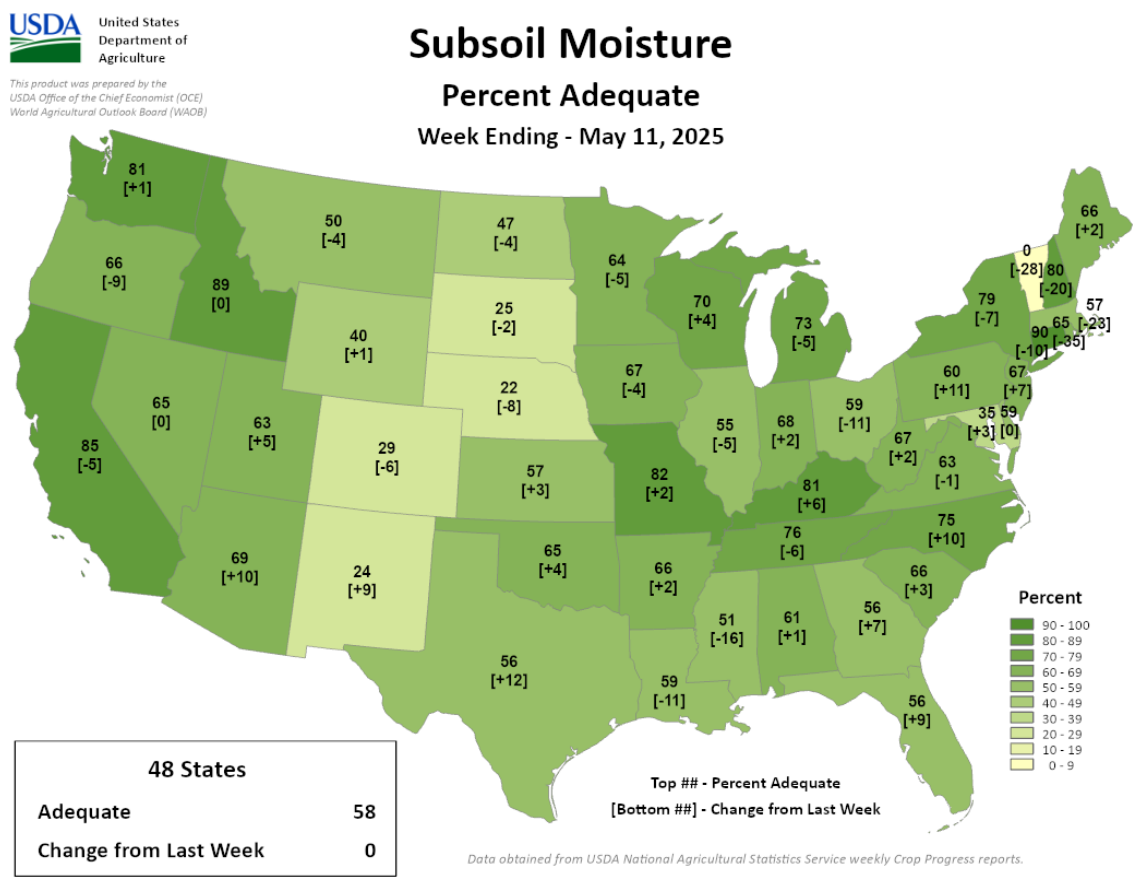
Change in soil moisture from May 6th to May 13th.
Units of change values are {Volume of water}/{Volume of soil}.

Research Farm	County	4” Change	8” Change	20” Change
Arlington	Columbia	-0.07	-0.04	-0.01
Dairy Forage ARS	Sauk	-0.10	-0.04	-0.01
Hancock	Waushara	-0.03	-0.02	-0.01
Kemp	Oneida	-0.04	-0.03	-0.02
Lancaster	Grant	-0.06	-0.06	-0.02
Marshfield	Marathon	-0.06	-0.04	-0.01
O.J. Noer *(Turfgrass)*	Dane	-0.13	-0.06	-0.01
Peninsular	Door	-0.04	-0.02	-0.02
Rhinelander	Oneida	-0.05	-0.05	-0.01
Spooner	Washburn	No Data	-0.05	-0.02
Black River Falls	Jackson	-0.04	-0.02	-0.12

https://wisconet.wisc.edu/

Adequate Soil Moisture



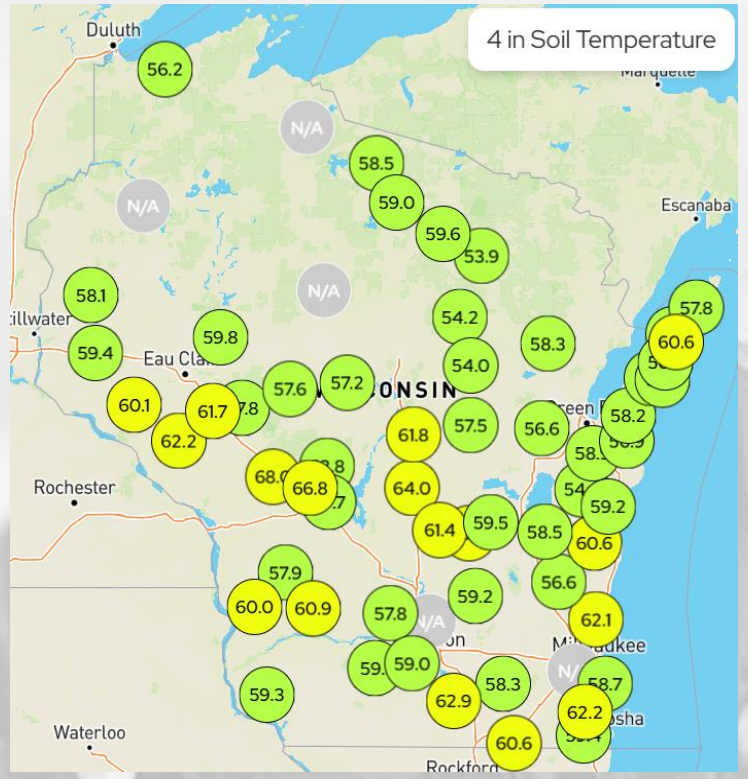


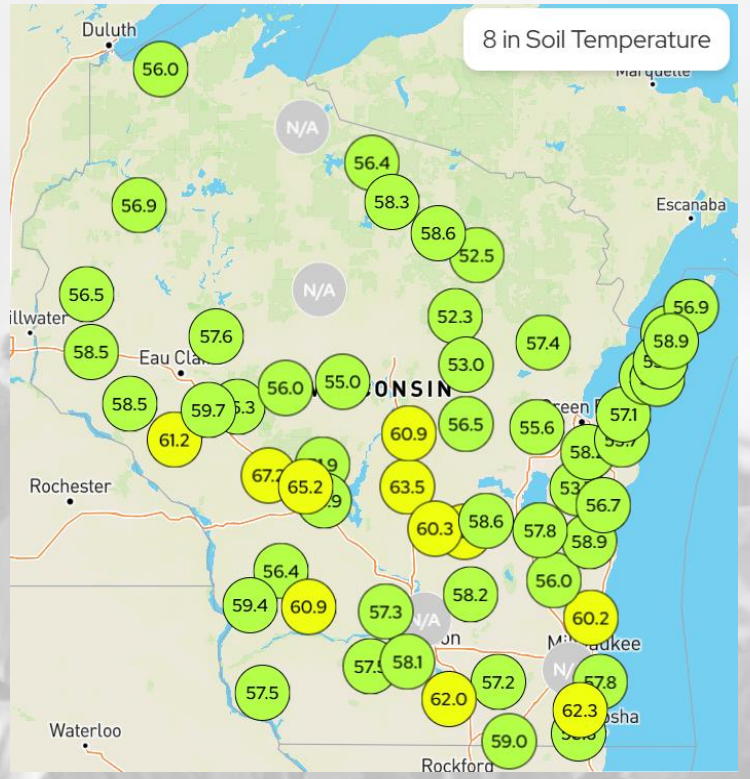
- **70%** of agricultural soils in the state with **adequate** topsoil and subsoil moisture.
- **10%** of fields in the state are reported as having **surplus** topsoil moisture, **down 17%** from last week.

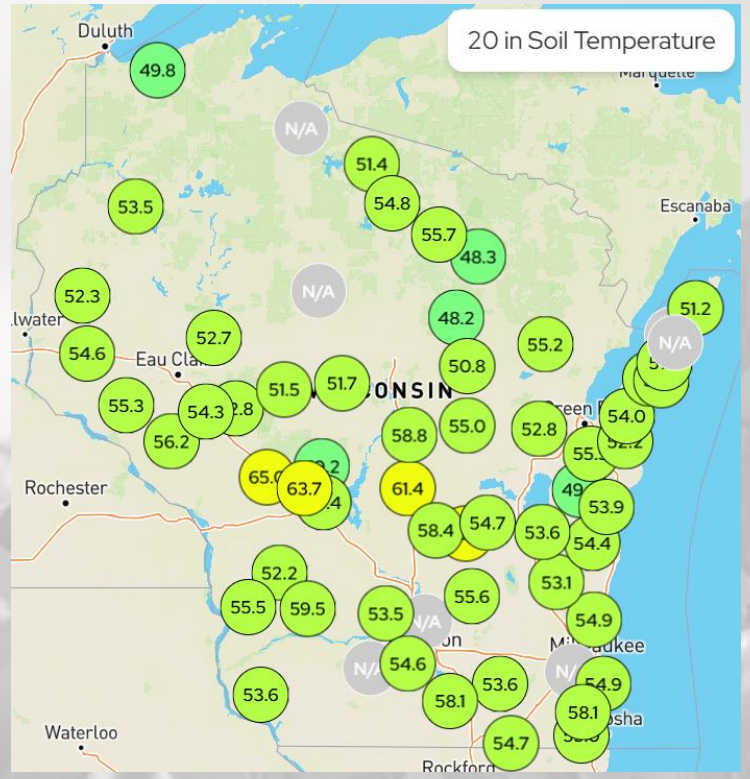
https://agindrought.unl.edu/Other.aspx

Wisconet Soil Temperature

Maps showing soil temperature conditions
on May 14th @ Mid-morning

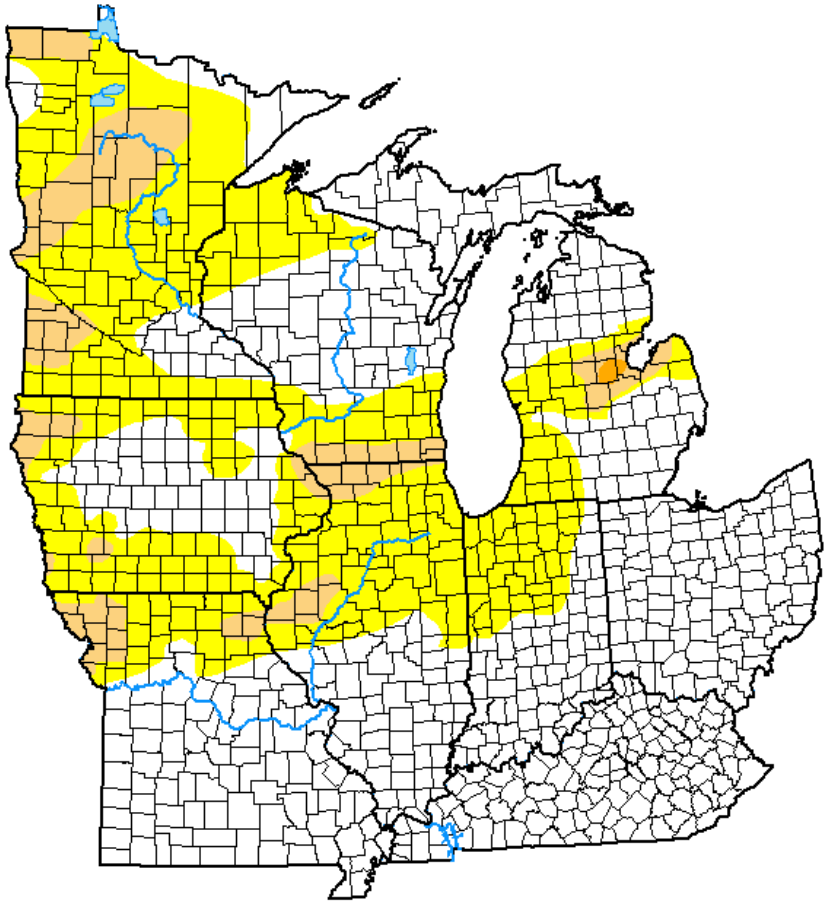






https://wisconet.wisc.edu/

US Drought Monitor



U.S. Drought Monitor

Midwest

May 13, 2025

(Released Thursday, May. 15, 2025)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	59.19	40.81	7.93	0.11	0.00	0.00
Last Week 05-06-2025	67.29	32.71	6.10	0.11	0.00	0.00
3 Months Ago 02-11-2025	34.55	65.45	31.62	2.46	0.00	0.00
Start of Calendar Year 01-07-2025	44.12	55.88	29.47	3.56	0.00	0.00
Start of Water Year 10-01-2024	21.78	78.22	28.15	6.40	1.46	0.66
One Year Ago 05-14-2024	79.46	20.54	7.64	2.22	0.00	0.00

Intensity:

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

Rocky Bilotta

NCEI/NOAA

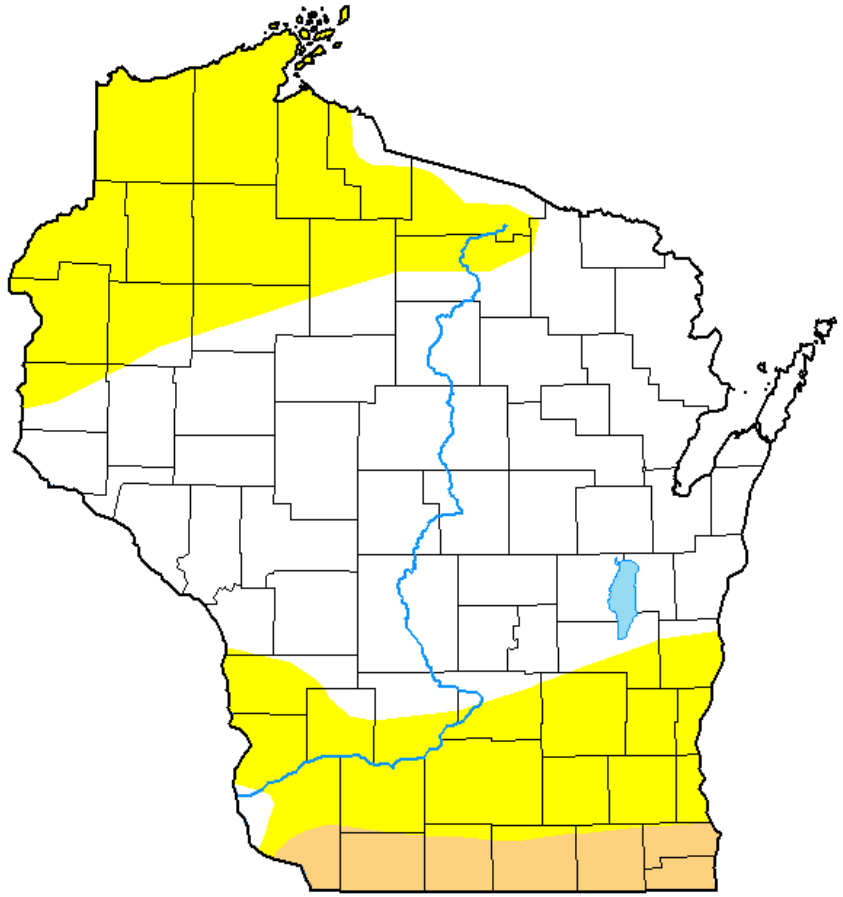
droughtmonitor.unl.edu

- Compared to last week:
  - Increases in D0 and D1 coverage.
- **1 class degradation** in the southeast corner of WI, with **D1 coverage expanding** along the IL border.
- **0.1%** of the Midwest remains in D2 drought.
  - D2 only remains in **east-central MI**.
- **92%** of the Midwest is drought free (8% in D1 or D2).

Note: D0 is not considered drought.

http://droughtmonitor.unl.edu/

US Drought Monitor



May 13, 2025
(Released Thursday, May. 15, 2025)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	56.53	43.47	5.69	0.00	0.00	0.00
Last Week 05-06-2025	67.75	32.25	2.41	0.00	0.00	0.00
3 Months Ago 02-11-2025	15.27	84.73	43.00	0.00	0.00	0.00
Start of Calendar Year 01-07-2025	36.12	63.88	39.54	0.00	0.00	0.00
Start of Water Year 10-01-2024	18.68	81.32	29.83	8.45	0.00	0.00
One Year Ago 05-14-2024	71.90	28.10	7.93	2.52	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme 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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NCEI/NOAA

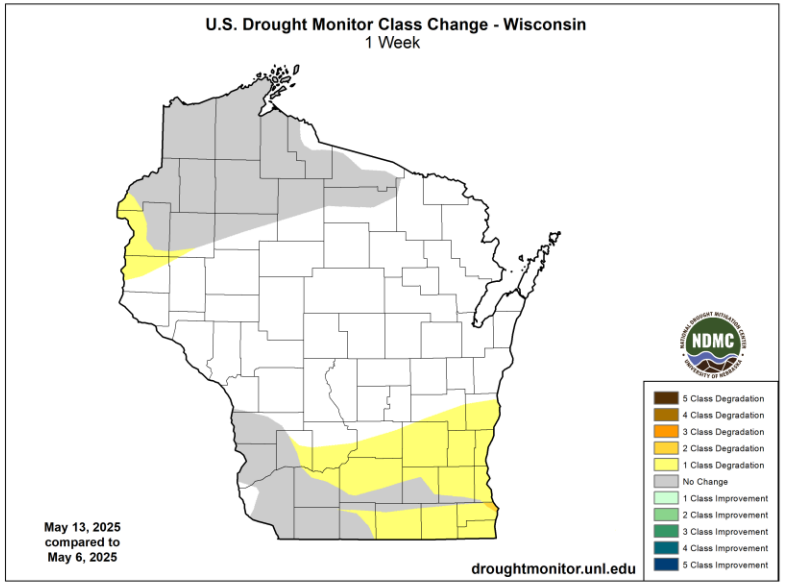
droughtmonitor.unl.edu

http://droughtmonitor.unl.edu/

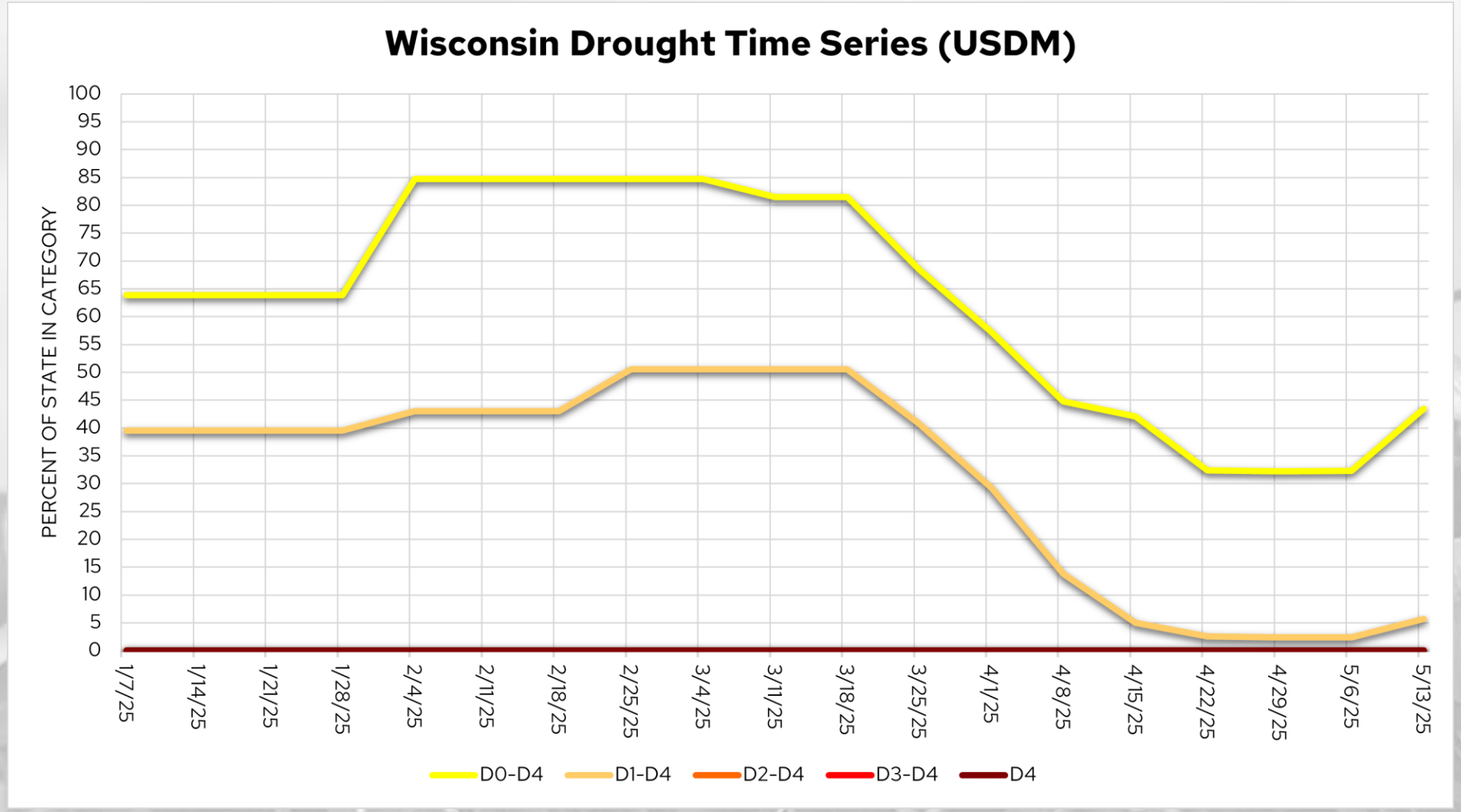
Amount of state in:

- D1-D4 – 5.7% ↑
- 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.

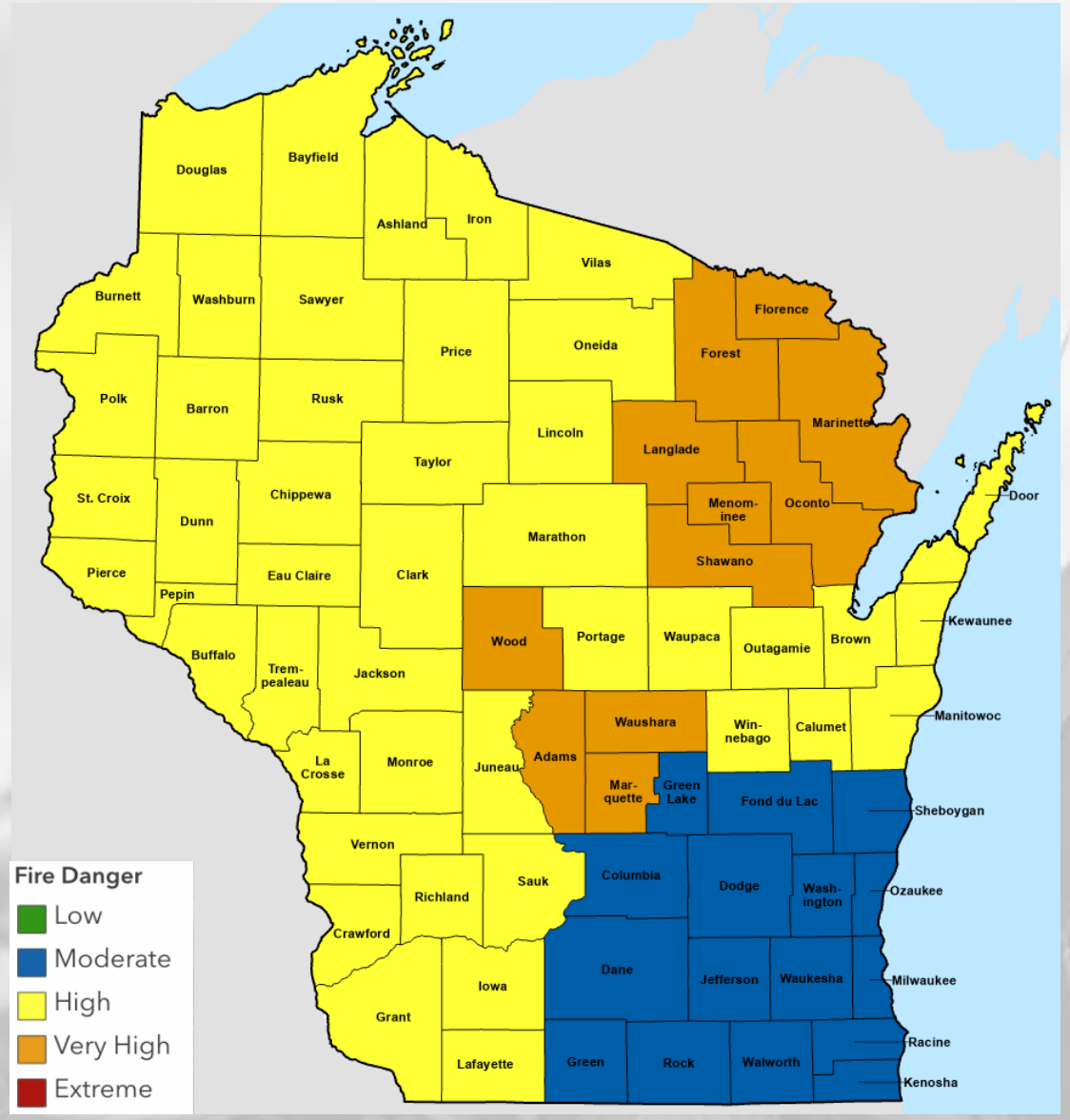


USDM Time Series



http://droughtmonitor.unl.edu/

Wildfire Risk



A fire danger of **LOW** means wildfires do not easily ignite and will spread slowly.

A fire danger of **MODERATE** means wildfires can ignite and will spread but are relatively easy to contain.

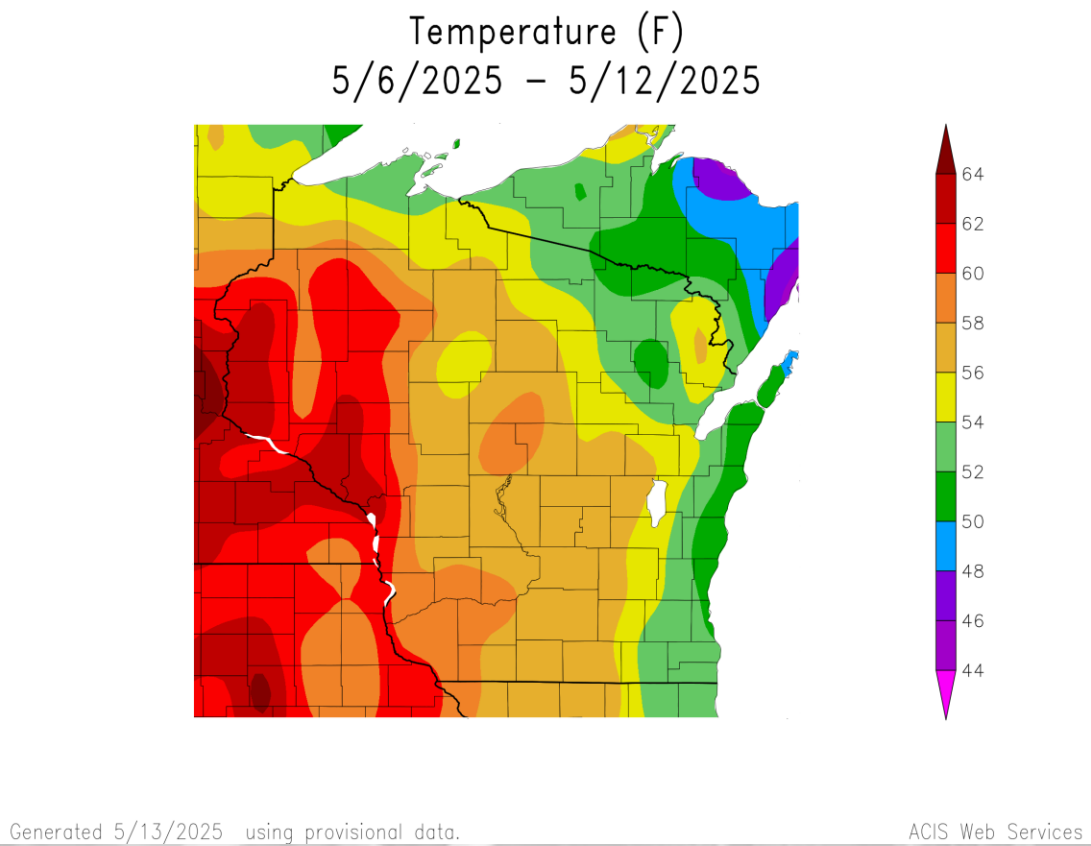
A fire danger of **HIGH** means wildfires ignite easily, spread rapidly, and can be challenging to control.

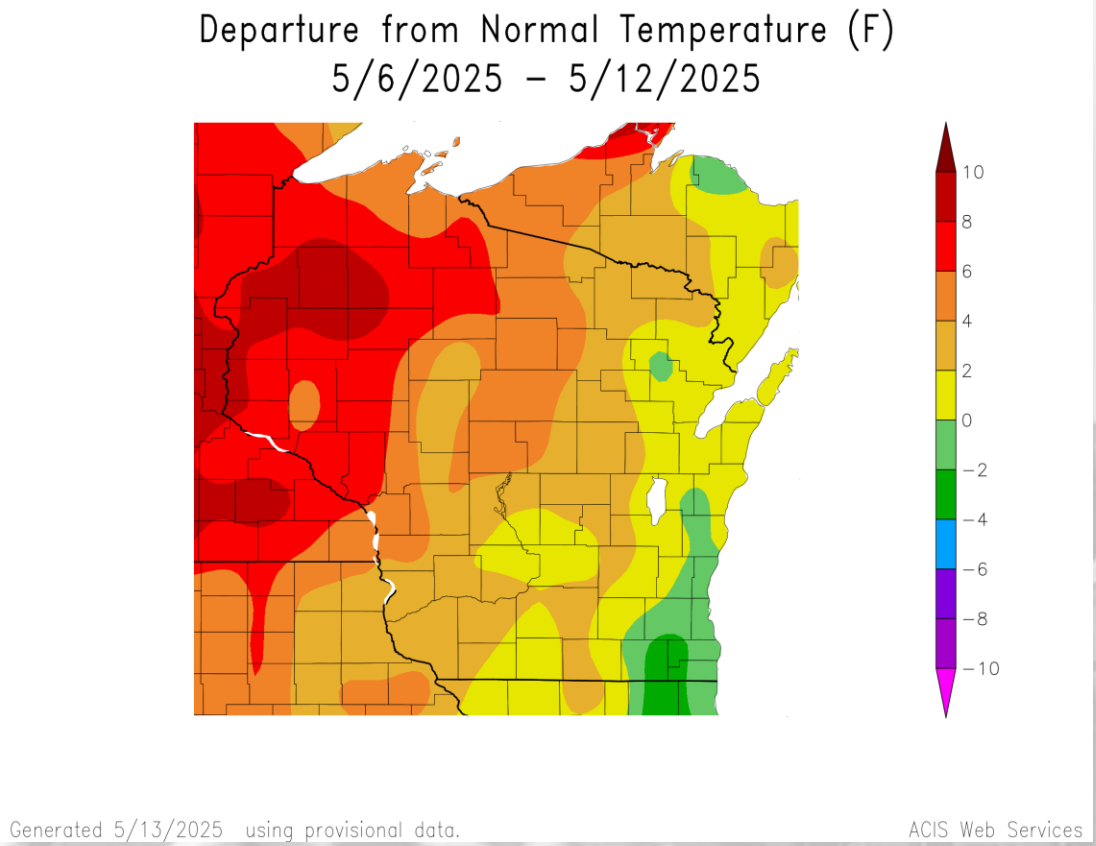
A fire danger of **VERY HIGH** means wildfires start easily, spread rapidly with increased intensity and are difficult to control.

Map updated on 5/15/25

https://apps.dnr.wi.gov/wisburn/#/

7 Day Temperatures

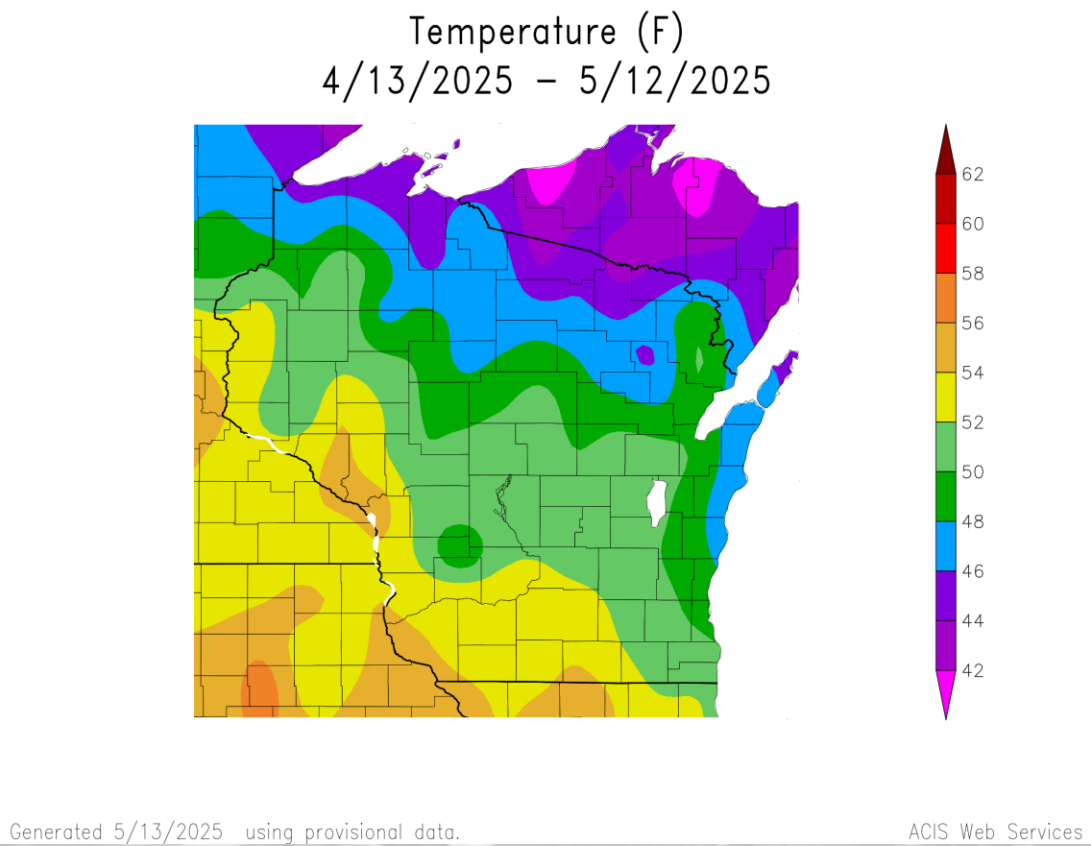


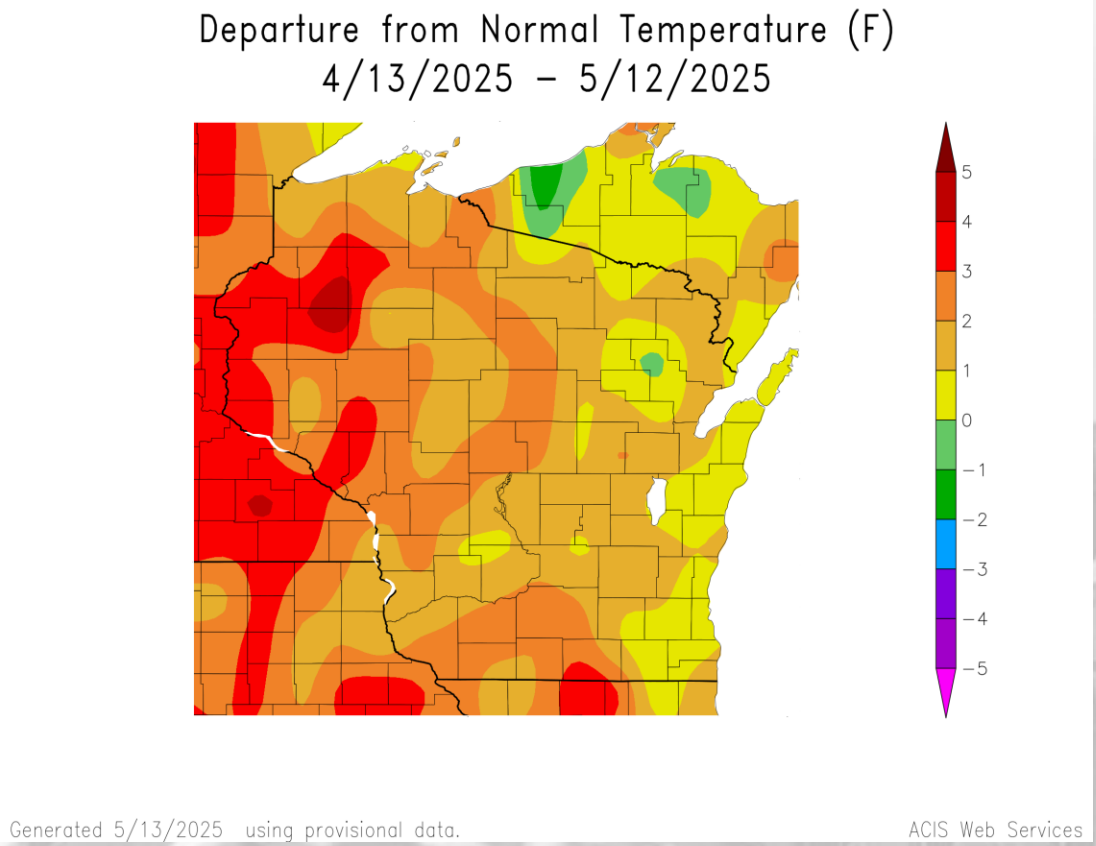


- Average temp. range of **60-64°F** in the west to **50-54°F** in the east near Lake Michigan.
- **Highs hit 80+°F** in the west/northwest on 2 or more days last week.
- **Above normal** across most of the state, with temps of **>6°F above normal** in the west. Near average in the east.

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

30 Day Temperatures

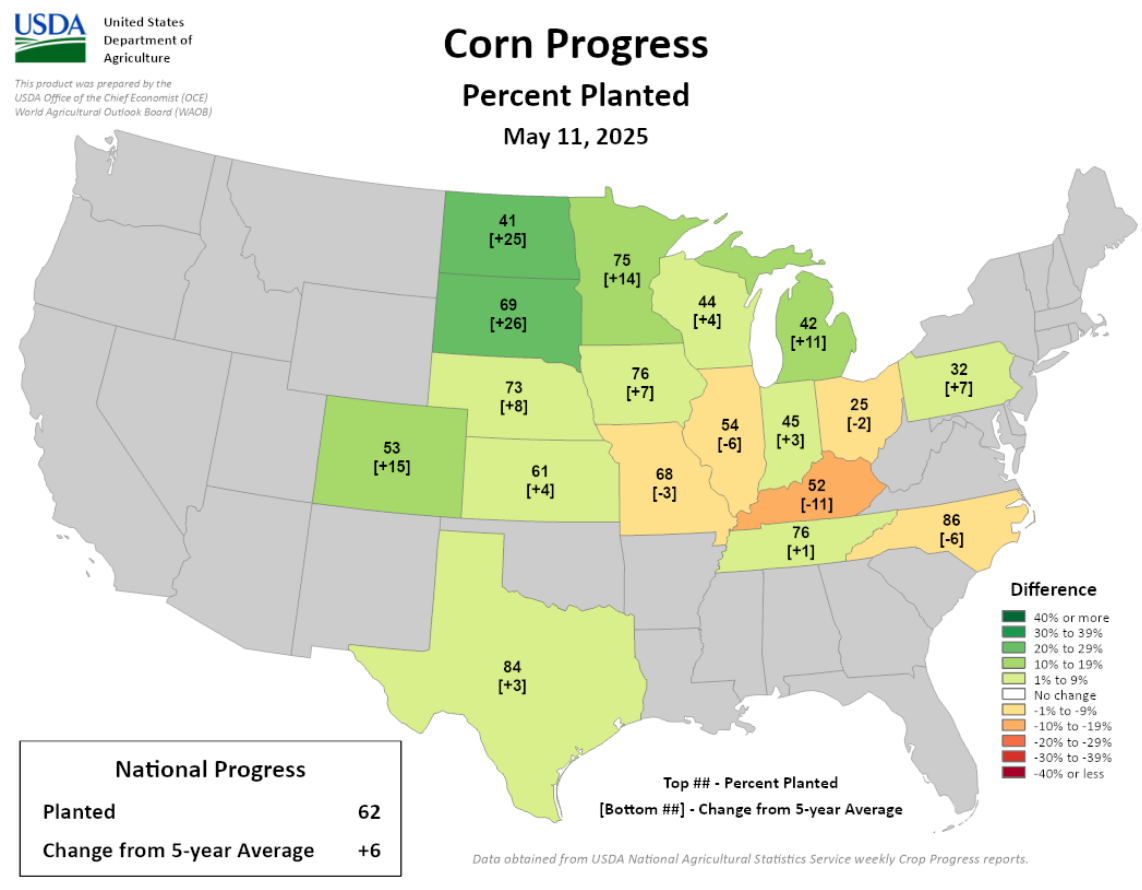


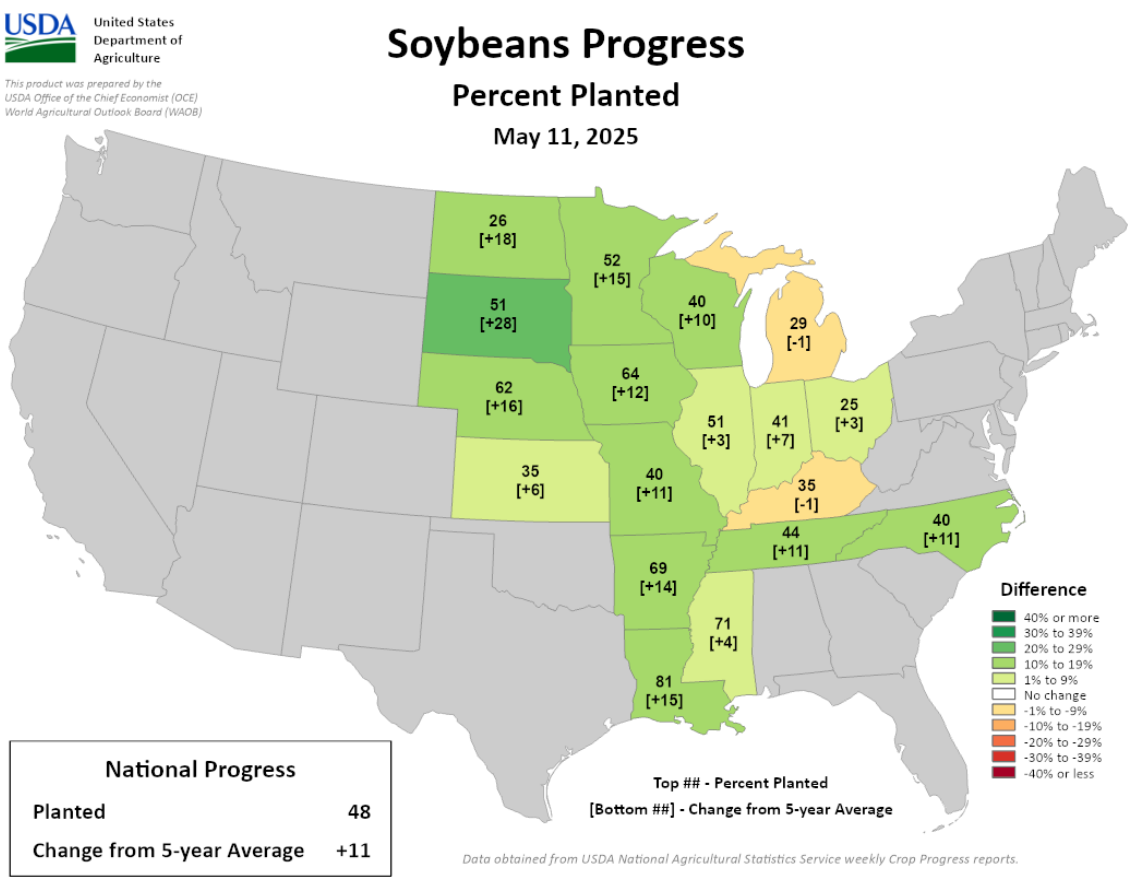


- Average temperatures for the past month ranged from **52-56°F** in the S & W to **42-46°F** in the far NC.
  - **1-3°F of normal** across most the state compared to climatological (1991-2020) average.
  - Temps **>3°F above normal** in the NW, and closer to average in the east.

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

Corn & Soybean Progress





- Corn and soybean planting made **>20% jumps** in progress from last week, now running **ahead of normal pace**.
- Both crops are **5% emerged**.

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

Crop Progress Report

Crop progress report for Wisconsin for the week ending on May 12th

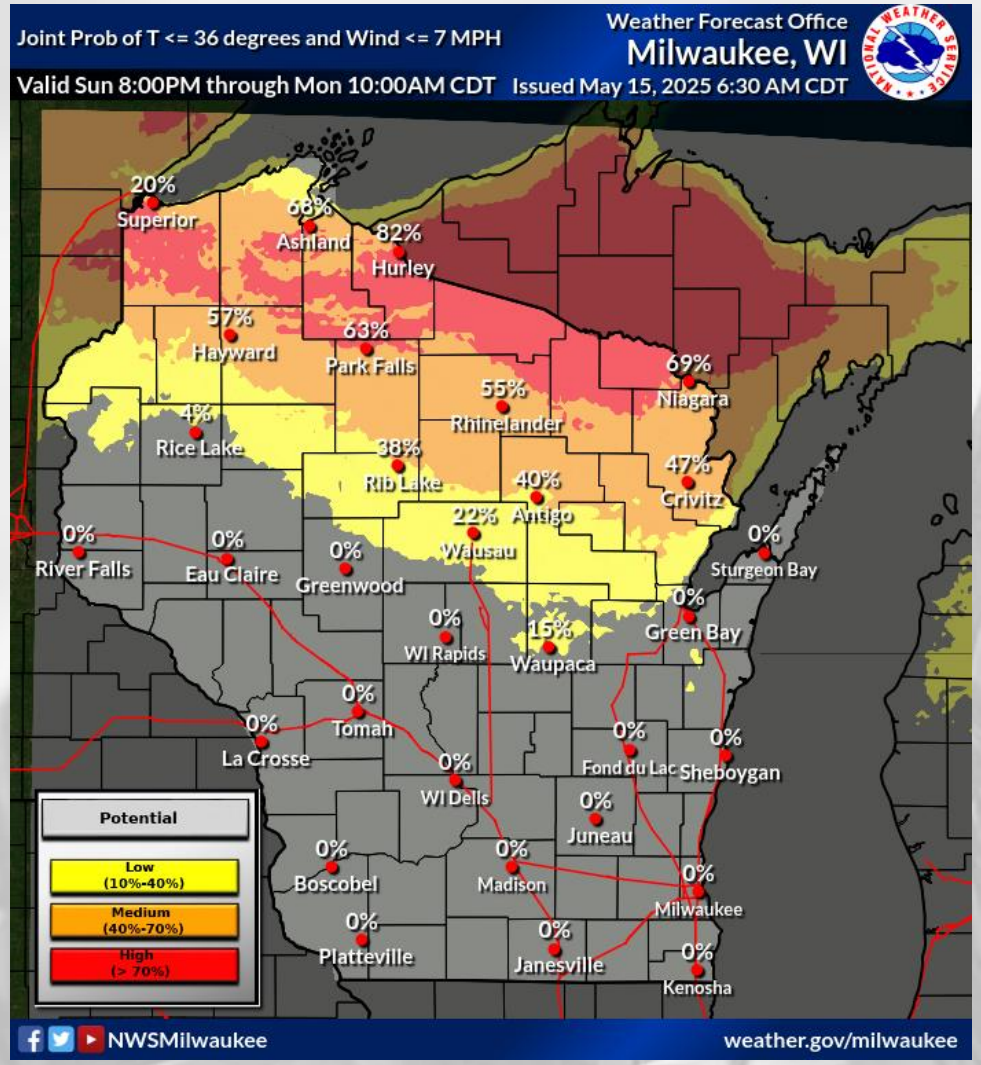
- Corn planting is **44%** complete, **up 28%** from last week.
- Soybean planting is **40%** complete, **up 23%** from last week.
- Winter wheat is rated **65%** good to excellent.
- Pasture and range conditions are rated **62%** good to excellent (**up 15%** from last week).
- Oats are **23%** emerged and **62%** planted.
- Potato planting is **75%** complete, which is very near the average pace for planting.

In the news: https://www.brownfieldagnews.com/news/planting-pace-picks-up-in-wisconsin/

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

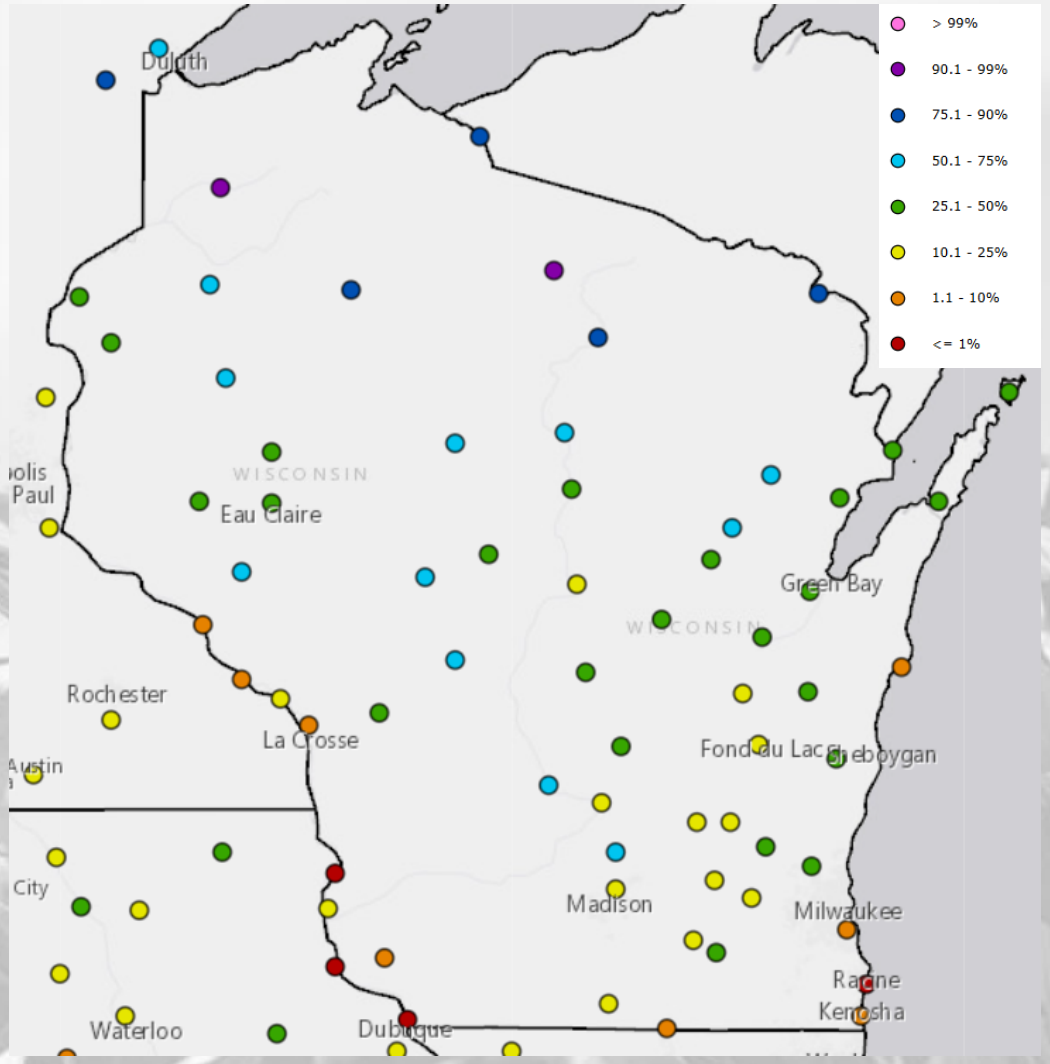
Frost/Freeze Risk

Night of 5/18-19 (Inc. wind)



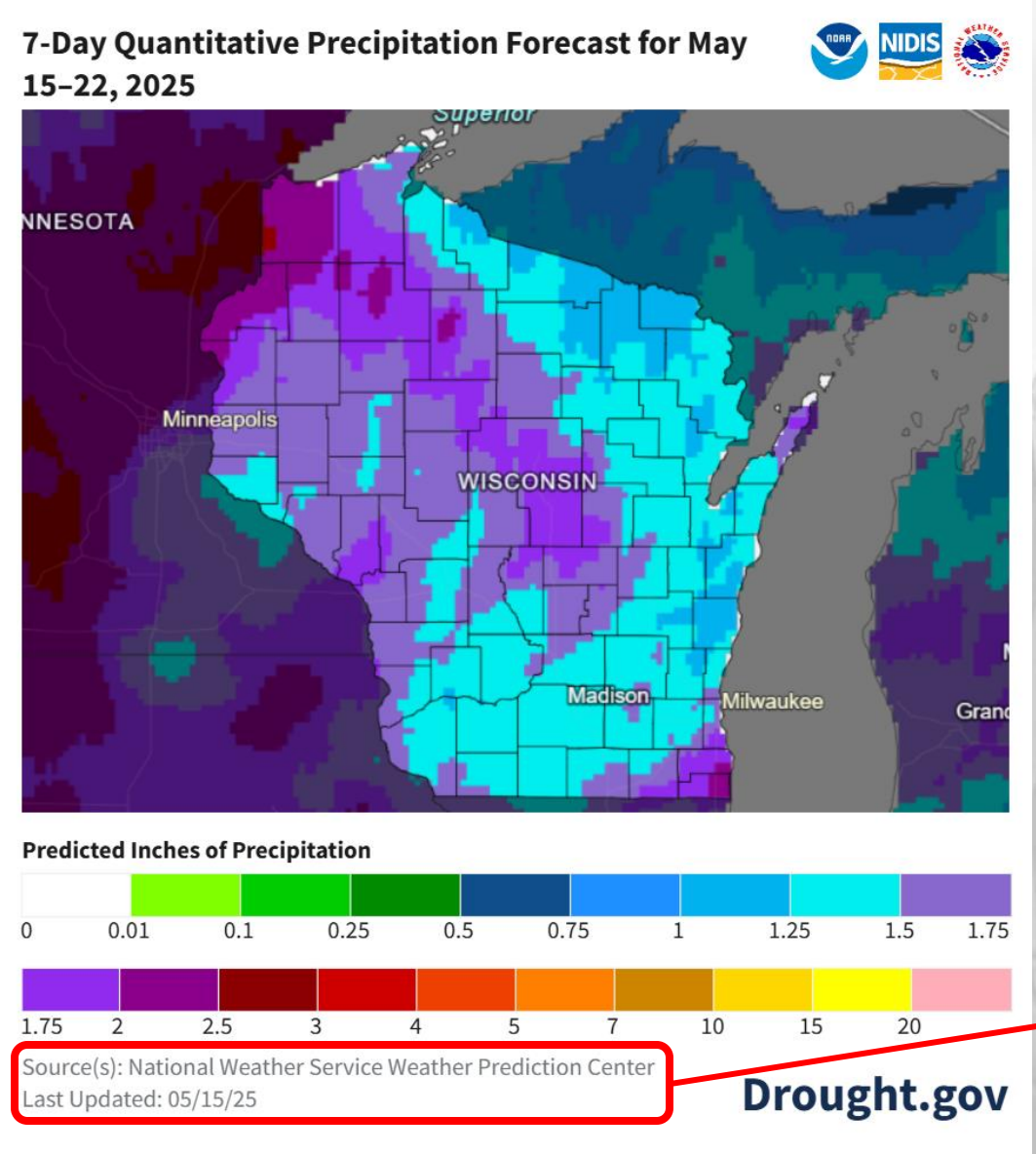
https://www.weather.gov/mkx/FrostFreezeProbs

After May 13 – Prob. Of Daily Low ≤ 32°F



https://mrcc.purdue.edu/gismaps/freeze_probabilities_2020

7 Day Precip Forecast

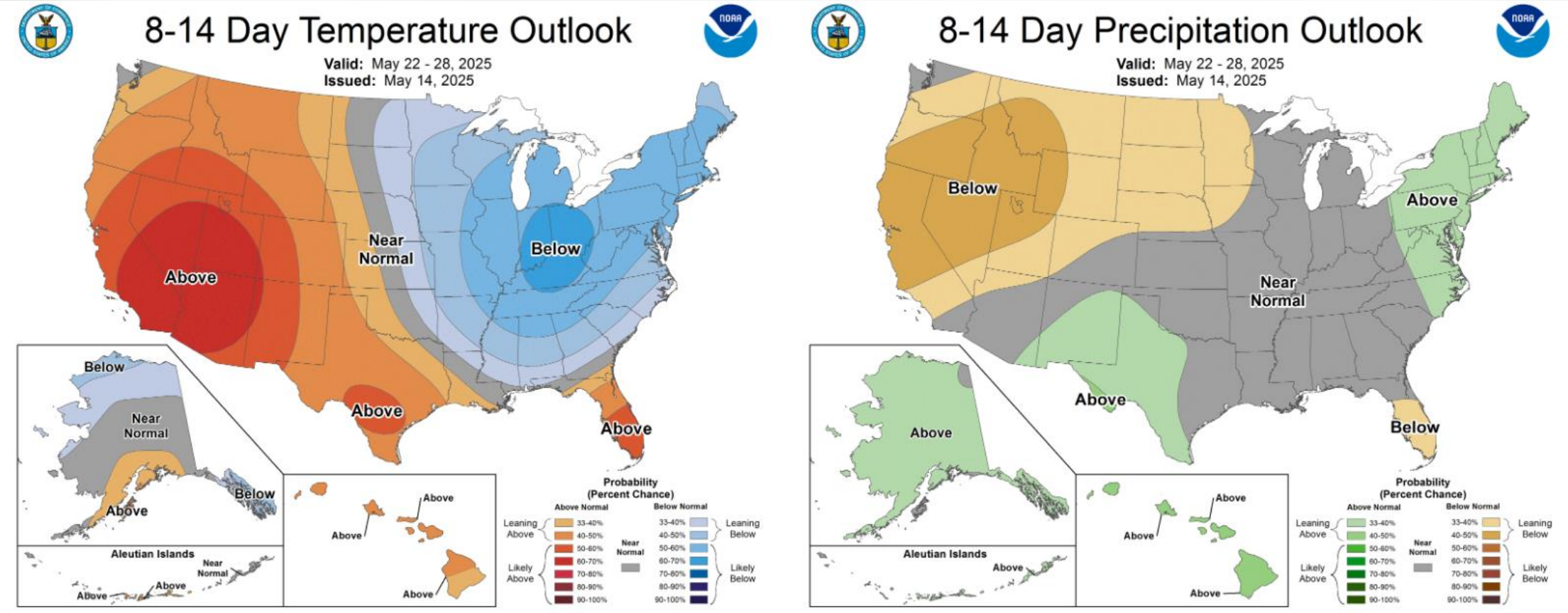


- Things looking a **bit more active** compared to last week.
  - Highest chances for precip in the **NW and central regions**. Lesser to the south & east, with some **higher chances in the far SE**.
  - Predicted totals of **1" or more** for most of the state with **multiple chances for rain** over the week.
  - Check your local forecast for details on totals and timing.

Forecast for 5/13/25 thru 5/20/25
(Begins at 7am CDT)

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

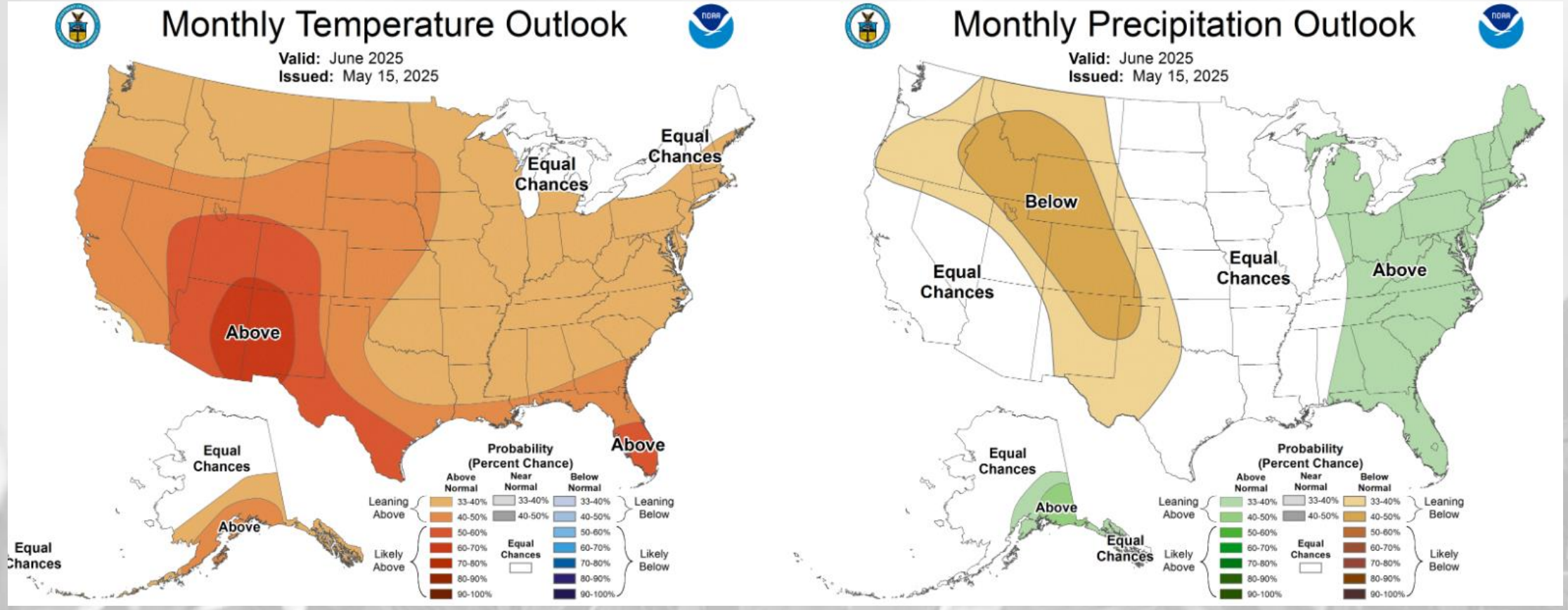
8-14 Day Temp & Precip Outlook



Late May: Temperatures leaning towards <u>below normal</u>, more so in the S and E. Precip leaning towards <u>near normal</u>, with the far NW leaning <u>below normal</u>.

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

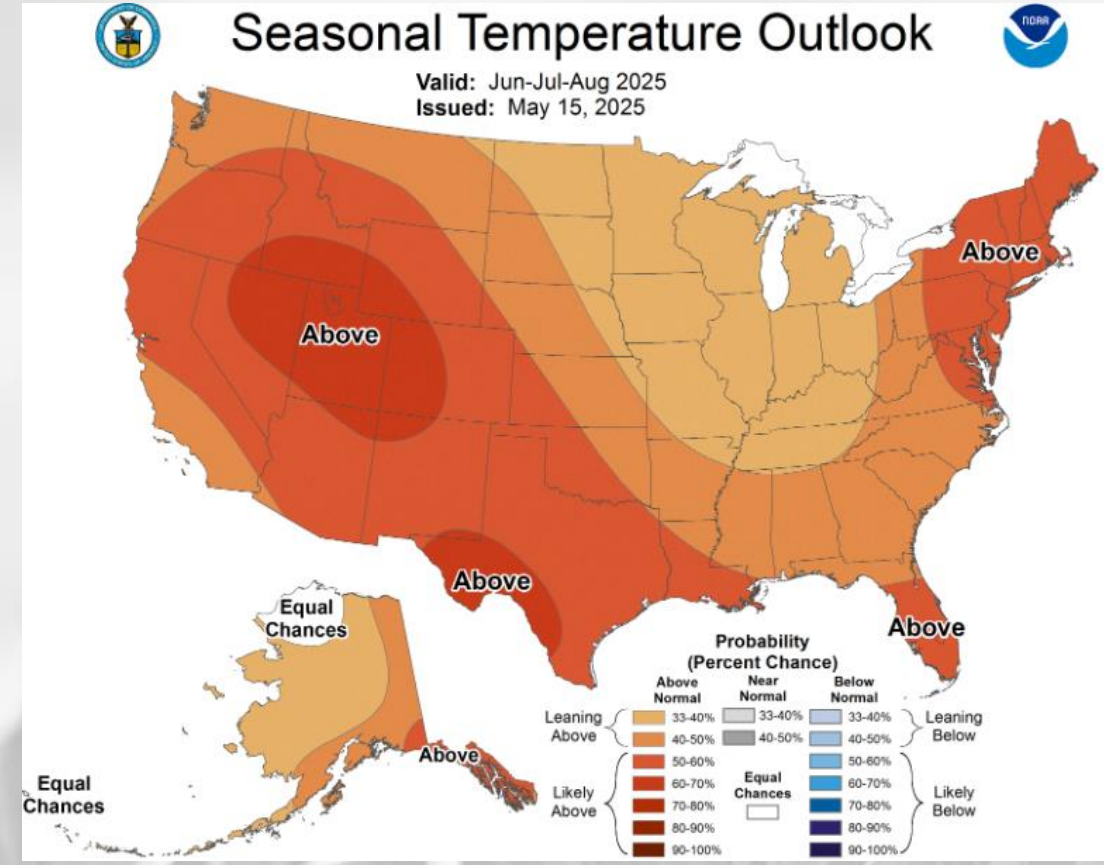
30 Day Temp & Precip Outlook

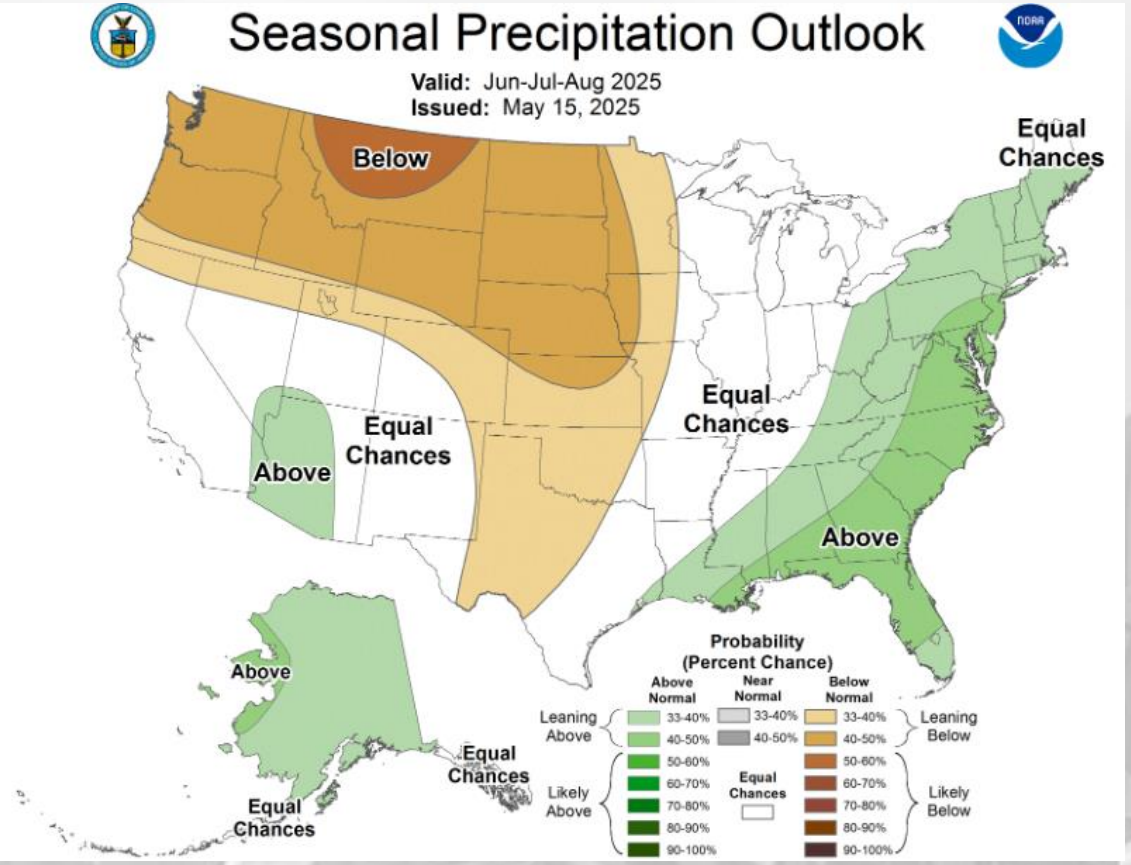


Month of June: Temperatures leaning towards being above normal, with a lean towards below-normal precip.

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

90 Day Temp & Precip Outlook





Summer months: Temperature chances slightly lean toward above normal, with uncertainty (equal chances) for precipitation except for the far NW (below normal lean).

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

Take-Home Points

Current Conditions

- Minus some locations around Milwaukee/SE WI, the state recorded **no precip over the past week** (May 6-13). The southeast has been the **driest region of the state** over the past 30 days.
- Temperatures were **above normal across most of the state**, with temps of >6°F above normal in the west and **multiple days topping 80°F**.

Impact

- Soil moisture conditions **dried out some** after a week of virtually no precip. Conditions are **driest in the southeast**, and the central/north region is now estimated at **near-normal conditions.**
  - D1 drought coverage has **expanded to the east** along the Illinois border (just under **6%** of the state covered).
- Corn and soybean planting made big gains from last week (**44% & 40% complete**, respectively), with **some emergence reported** (Source: NASS).
- Wisconet soil temperature readings at 4" are in the **upper 50's to low 60's**.

Outlook

- Frost/freeze risk is **still existent** across the state, but the **risk is slim** outside of the north & central. Check this link for day-to-day freeze chances from NWS Milwaukee.
- Things look **a bit more active** for precip this week, with the best chances for precip in the northwest and central.
- Late May probabilities are showing a likelihood for **cooler-than-normal temps** and a lean towards **near-normal precip**.

Agronomic Considerations

Field Work and Conditions

- Soil temperatures and conditions have favored planting this week. Very Northern areas of the state still have a frost risk this week.
- Avoid trafficking fields in moist conditions to prevent compaction and rutting with upcoming predicted precipitation.
- In drier regions of the state, particularly southern and southwest WI, consider earlier termination of cover crops to retain soil moisture if conditions remain dry. If conditions are wet, consider delaying termination to manage excess soil moisture.

Manure Applications

- Reminder of Wisconsin's NR 151 Runoff Rules with the timing of manure spreading and current runoff levels. Check DATCP Runoff Risk Advisory Forecast.

Pest Management

- Scout fields to note which weed species are emerging.
- As corn and soybean crops emerge, note growth stages to time future applications and sampling.
- Ensure temperatures (day, night, and soil) are conducive for herbicide applications. Pre-emergent herbicides require moisture for activation.
- Be observant of black cutworm and true armyworm moths migrating to the state. Check trap catches in your region with the DATCP Pest Survey. Sign up for insect pest alerts specific to your region.
    - Reports of black cutworm larvae have started. Begin scouting for signs of feeding as soon as corn plants emerge.

Forage Management

- Continue scouting for alfalfa weevil as alfalfa stands grow.
- Alfalfa stands in southern WI are rapidly growing. Watch for lodging if plants reach tall heights before first harvest. See first harvest considerations here.

Small Grains

- Revisit small grain fertility needs.
- Reminder to properly stage small grains such as winter wheat, as many herbicides cannot be applied after Feekes 5.

More on the following slide ↓

Agronomic Considerations

Specialty Crops

Vegetables

- Adult seed corn maggot flies have emerged across Wisconsin while onion maggot and cabbage maggot flies have emerged in southern and western portions of the state. These pests overwinter in Wisconsin as pupae in the soil. When the flies emerge, they are attracted to fields with high organic matter. If possible, terminate and incorporate cover crops 2-3 weeks before planting to reduce the attractiveness of these fields as egg laying sites. Delaying direct seeding until soil is warmer will reduce the risk of seedling damage.
- Common asparagus beetle populations are at damaging levels across much of the state. Northeast Wisconsin can expect damaging levels in the next 1-2 weeks. If you have had problems before, make sure to scout the edges of those fields in the afternoon when these beetles are most active.
- Scout for black cutworm migrating to the state with weather fronts. Check trap catches in your region with the DATCP pest survey.
- Reference the Vegetable Disease and Insect Forecasting Network (VDIFN) to know what diseases and insects to be scouting for in your area.

Fruit

- Wisconsin fruit growers can reference the Midwest Fruit Pest Management Guide for a list of registered products and recommended best practices. View the MFPMG Online or order a hard copy here: MFPMG Hard Copy.
- Apple growers can reference the NEWA weather station network to monitor disease infection events for apple scab and fire blight. Make sure to keep track of green tip and petal fall dates. Check out your nearest weather station: NEWA Weather Station Network (Cornell).
- Codling moth have been captured in Southern WI. Make sure to check traps after warm, calm evenings to establish a biofix date. Biofix occurs when ~5 or more moths are captured in one evening or captured across consecutive nights. First generation larvae will emerge after ~250 degree-days base 50°F from the biofix date.
- Keep track of degree-days (base 50°F) from petal fall to determine the end of plum curculio movement into the orchard. Plum curculio will continue movement into the orchard until ~308 degree-days base 50°F have accumulated from petal fall.
- Grape growers can begin fertilization prior to bloom and should review last year's petiole analysis to determine nutrient needs. Check out this recent UW Fruit News article on Fertilizing Wine Grapes.

User Survey

Are you a regular user of the Wisconsin Ag Weather Outlook (WAWO)? 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 WAWO.

If you have any trouble accessing or filling out the survey, please email Josh Bendorf at jbendorf@wisc.edu.

Thank you!!
-The WAWO 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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