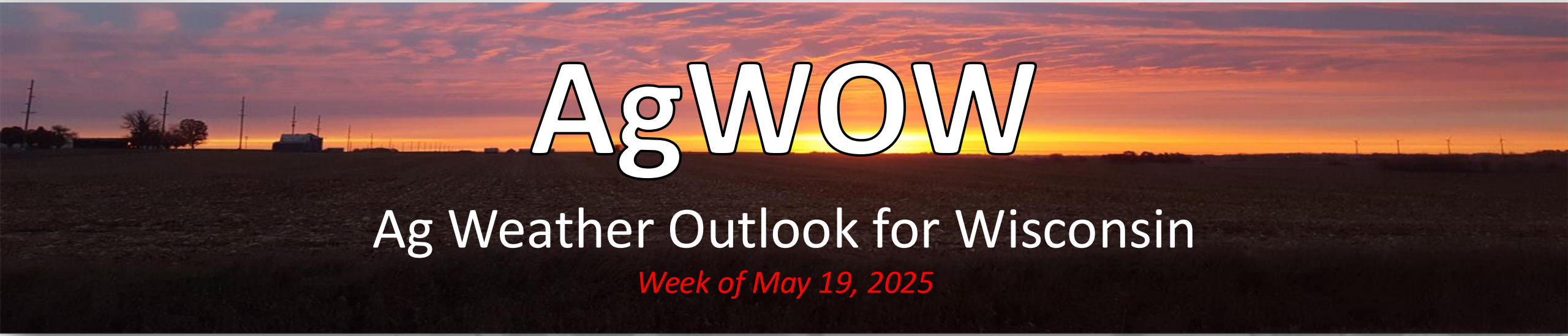

# AgWOW

## Ag Weather Outlook for Wisconsin

*Week of May 19, 2025*


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# Key Points

Navigate to select slides by clicking on the links below.

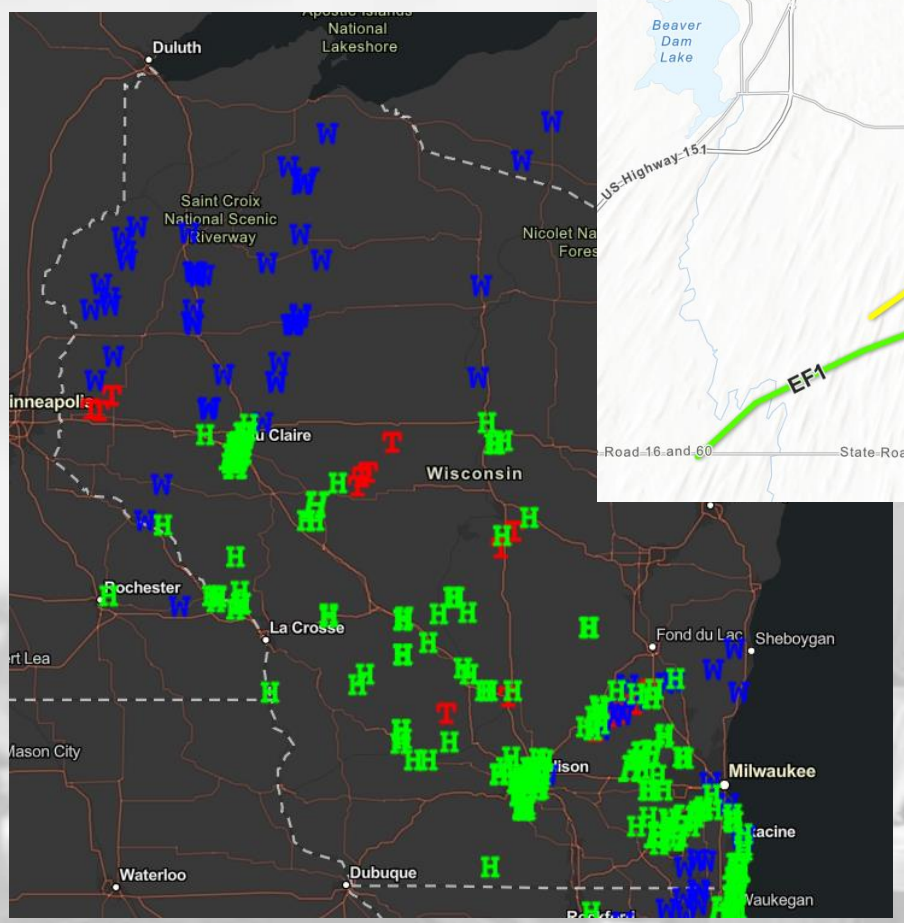
1) Thursday brought very warm temps and severe storms last week, but most of the state is still below normal for 30-day precip totals.
2) Corn and soybean planting have made big strides yet again thanks to warm and dry conditions (prior to Thursday).
3) A quiet 7 days in on tap for precip.
4) Temperature outlooks to wrap up May are a mixed bag, with a lean toward below normal precip.

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

# Thursday's Storms

(Map below) Storm reports for the state of Wisconsin from Thursday, May 15 (Source: SPC).

(Map right) Damage tracks and ratings for the Dodge County tornadoes (Source: NWS).



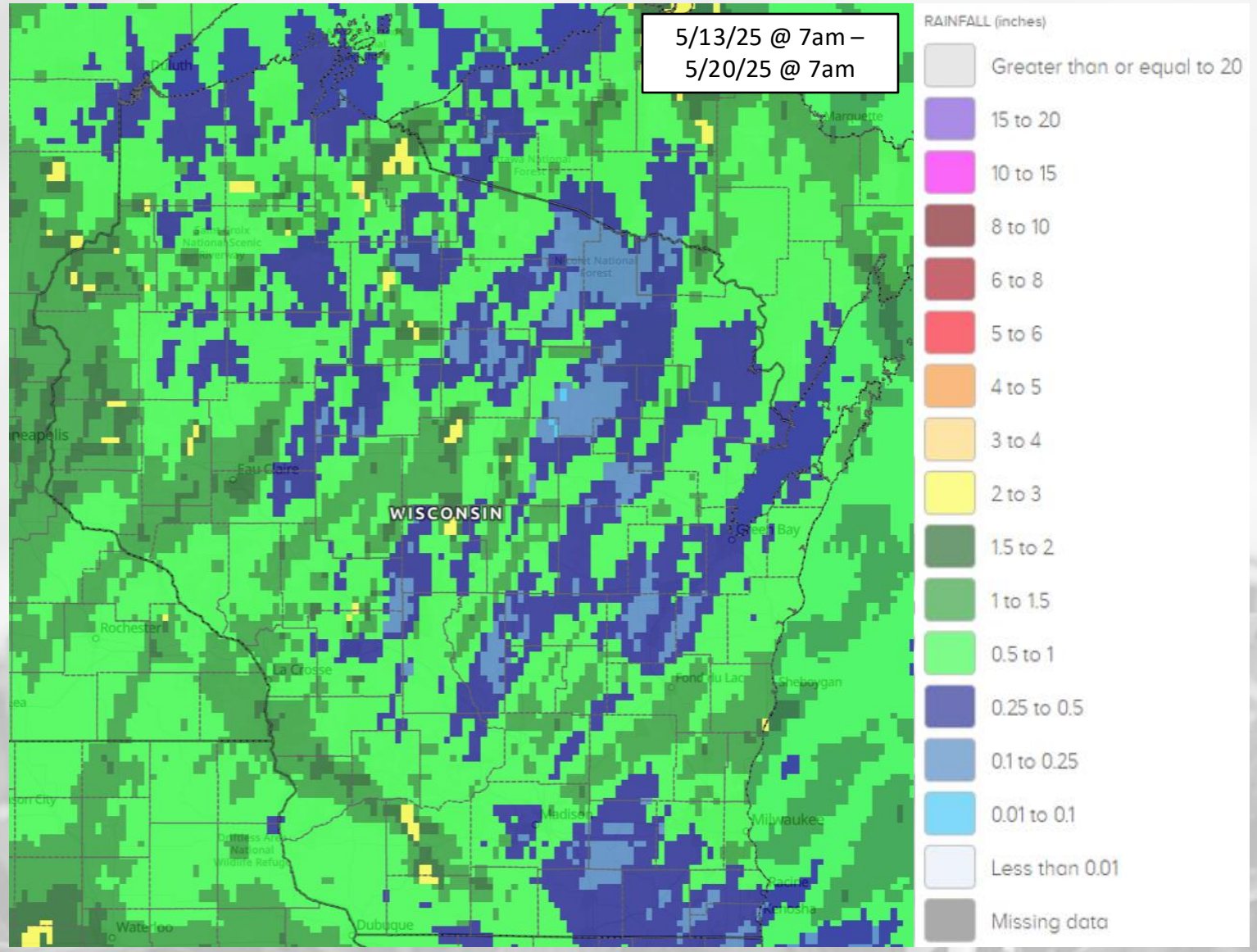


National Weather Service Summaries of the May 15th Storms:

[Twin Cities]
[La Crosse]
[Milwaukee]


Storm damage to farms in the Juneau and Mayville area
(Source: Fox6 Milwaukee).

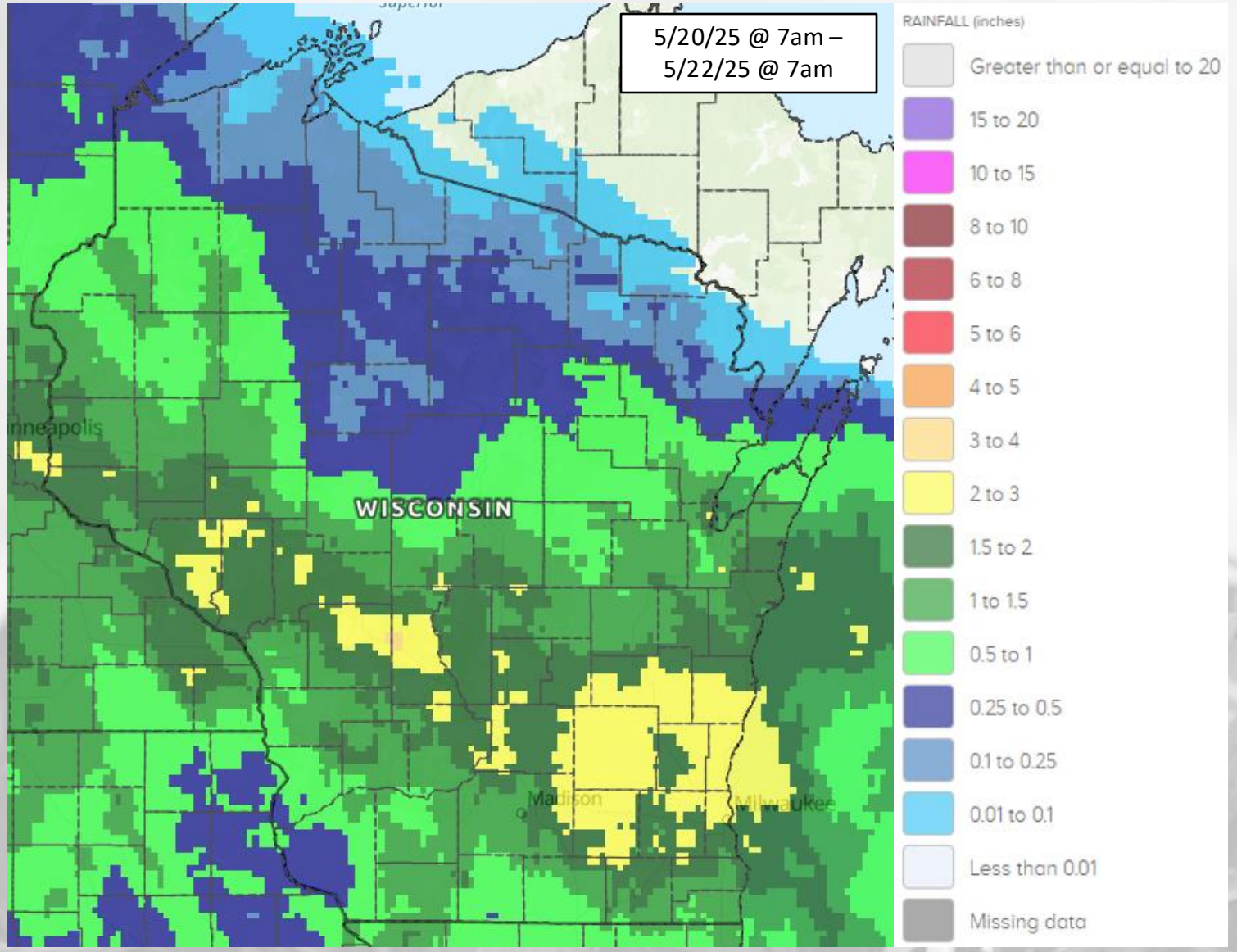
# 7 Day Precip




- There was a lot of **variability in precip totals** across the state last week with hit-or-miss storms.
- Totals of **>1" in locations where the storms tracked**, with areas of <0.25" not far away.
- At 7am on Tuesday morning (5/20), **precip was falling** in the western half of the state (see next slide).

https://water.noaa.gov/

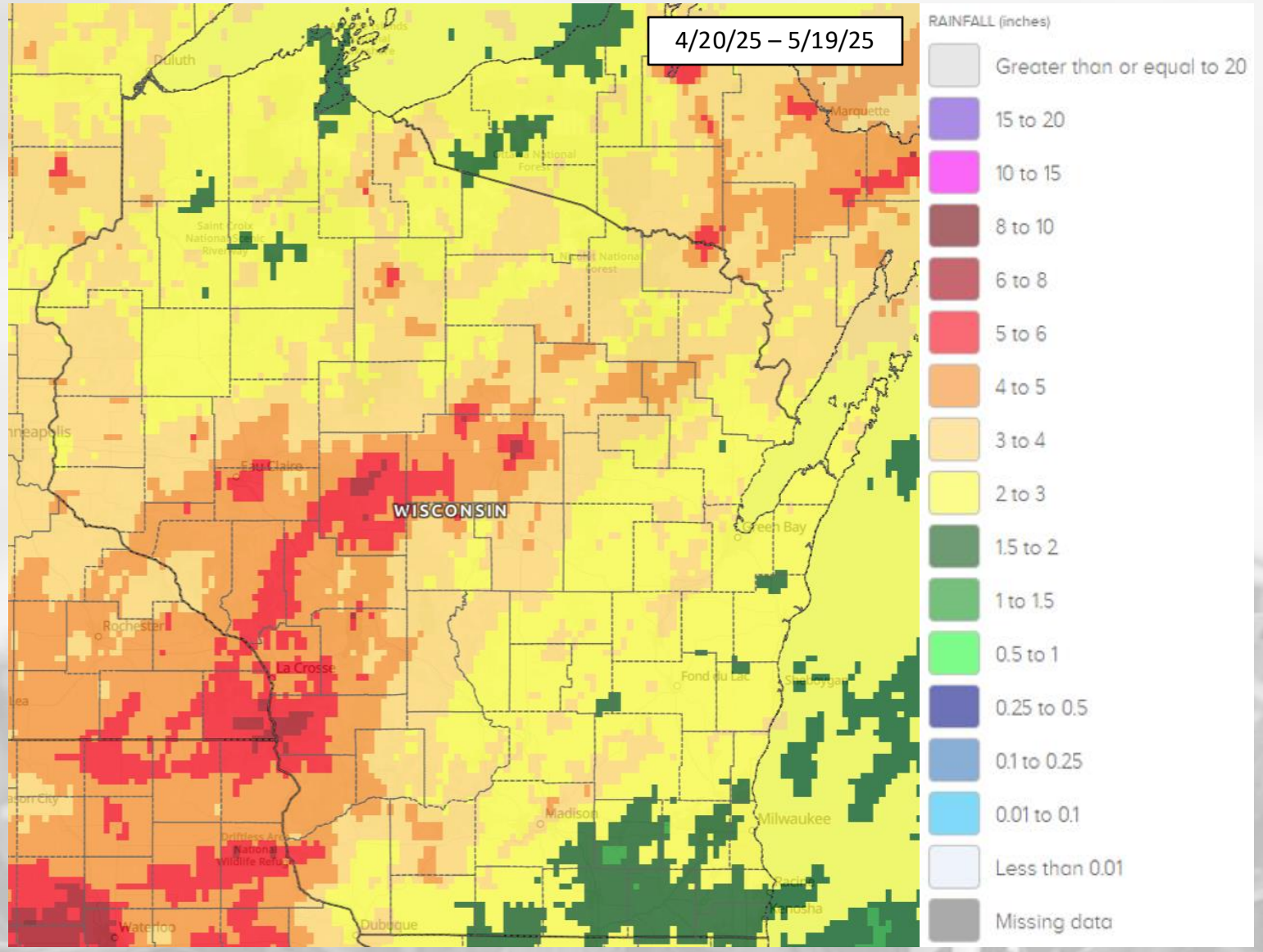
# Addition – May 20-21 Precip




- Steady rainfall over the past 2 days brought **multiple inches of precip** for some parts of the state.
- Instances of **2+" particularly in the southeast**, but also in parts of the west-central.
- This rain has helped bring the south **near to normal or above normal** for May precip.

https://water.noaa.gov/

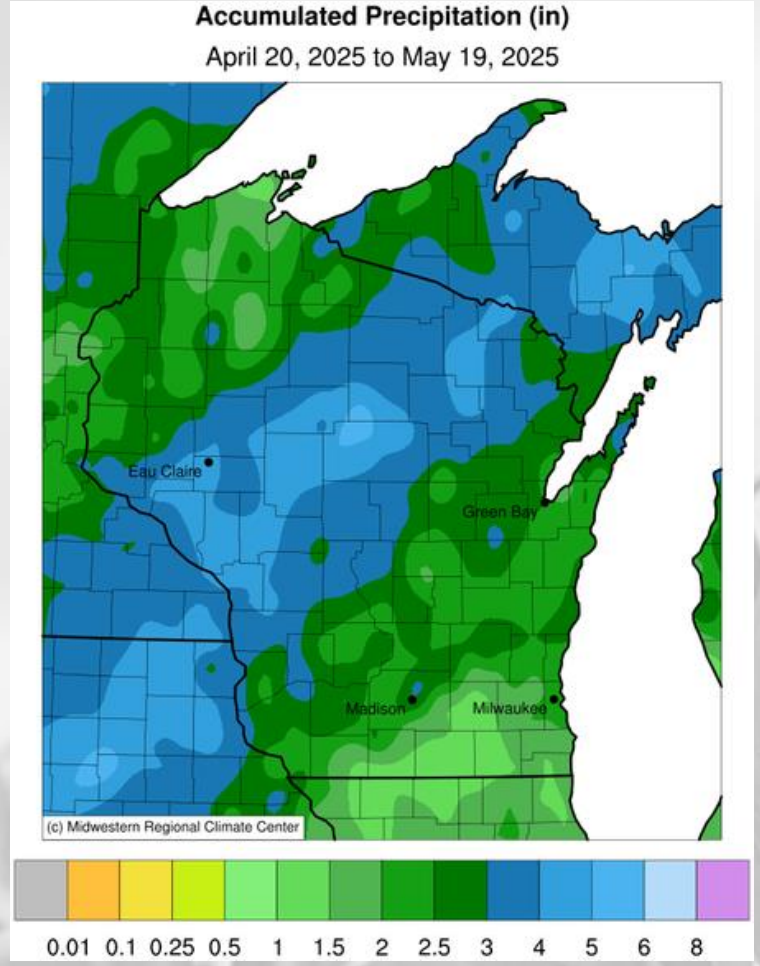
# 30 Day Precip

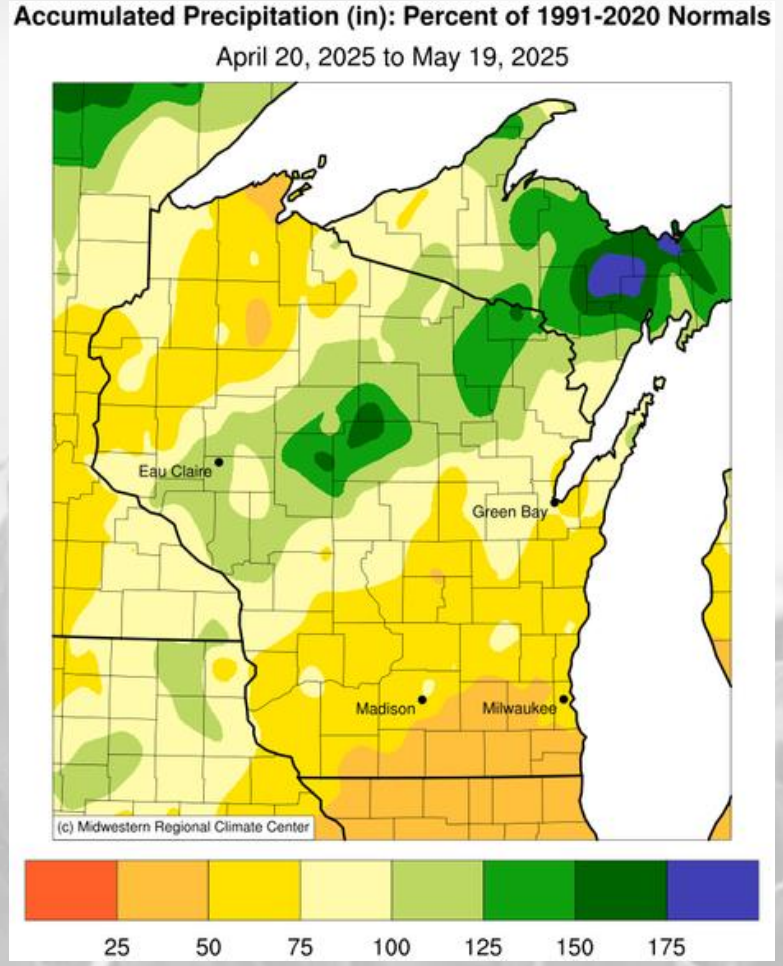



- Heaviest precipitation concentrated in the west-central region up to Marathon County → **4-6”**
  - However, most of this precip fell **prior to May 1**.
- **2-4”** for many in the south-central, eastern, and NW regions.
  - Pockets of **<2”** along the IL border and by Sheboygan.

https://water.noaa.gov/

# 30 Day Precip Total/% Avg.

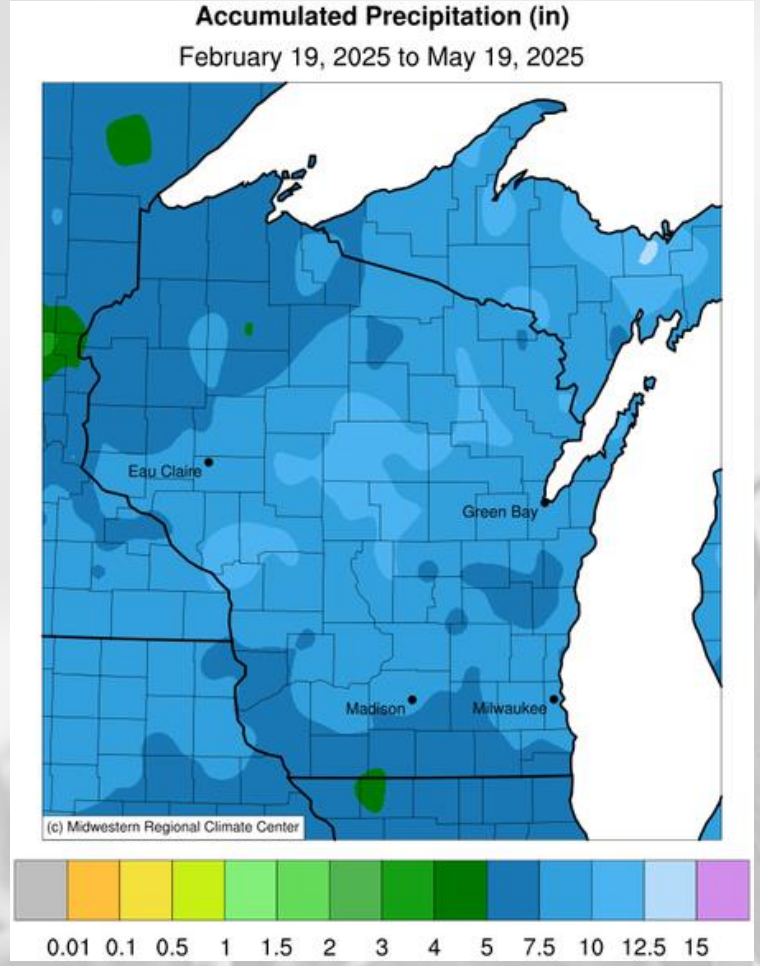


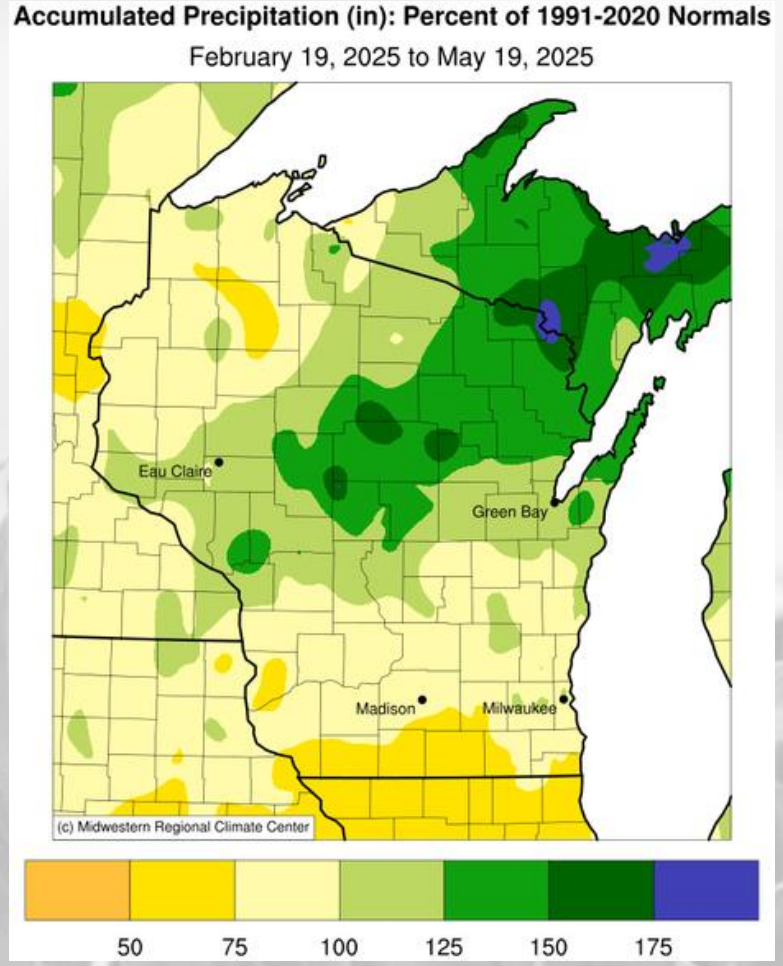




- Most of the state has experienced **below-normal precip** over the past 30 days.
  - **50% or less** of normal along the IL border, where <2" have fallen since April 20th.
- At or above normal in a **WC-to-NE belt**, with totals of **3-5"**.
  - However, most of this rain fell **prior to May 1**.

https://mrcc.purdue.edu/CLIMATE/

# 90 Day Precip Total/% Avg.

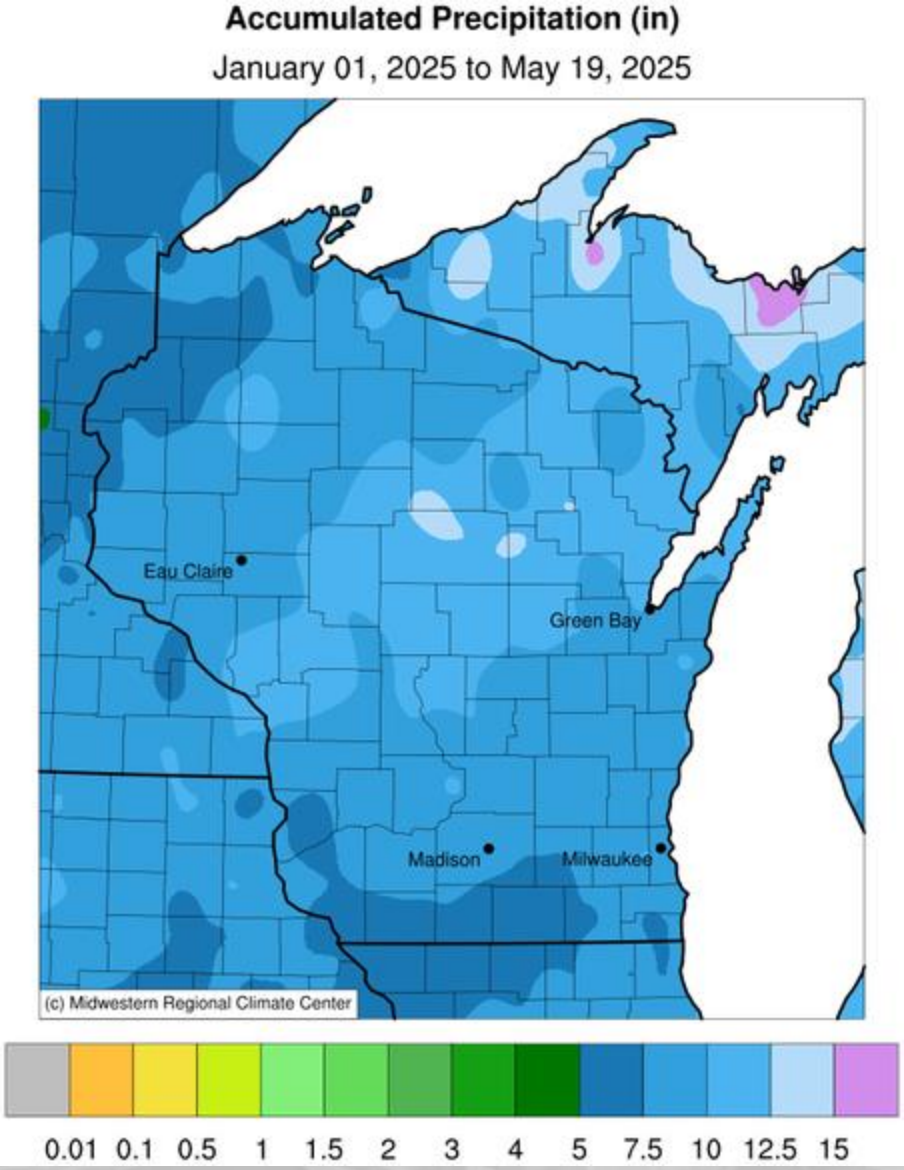


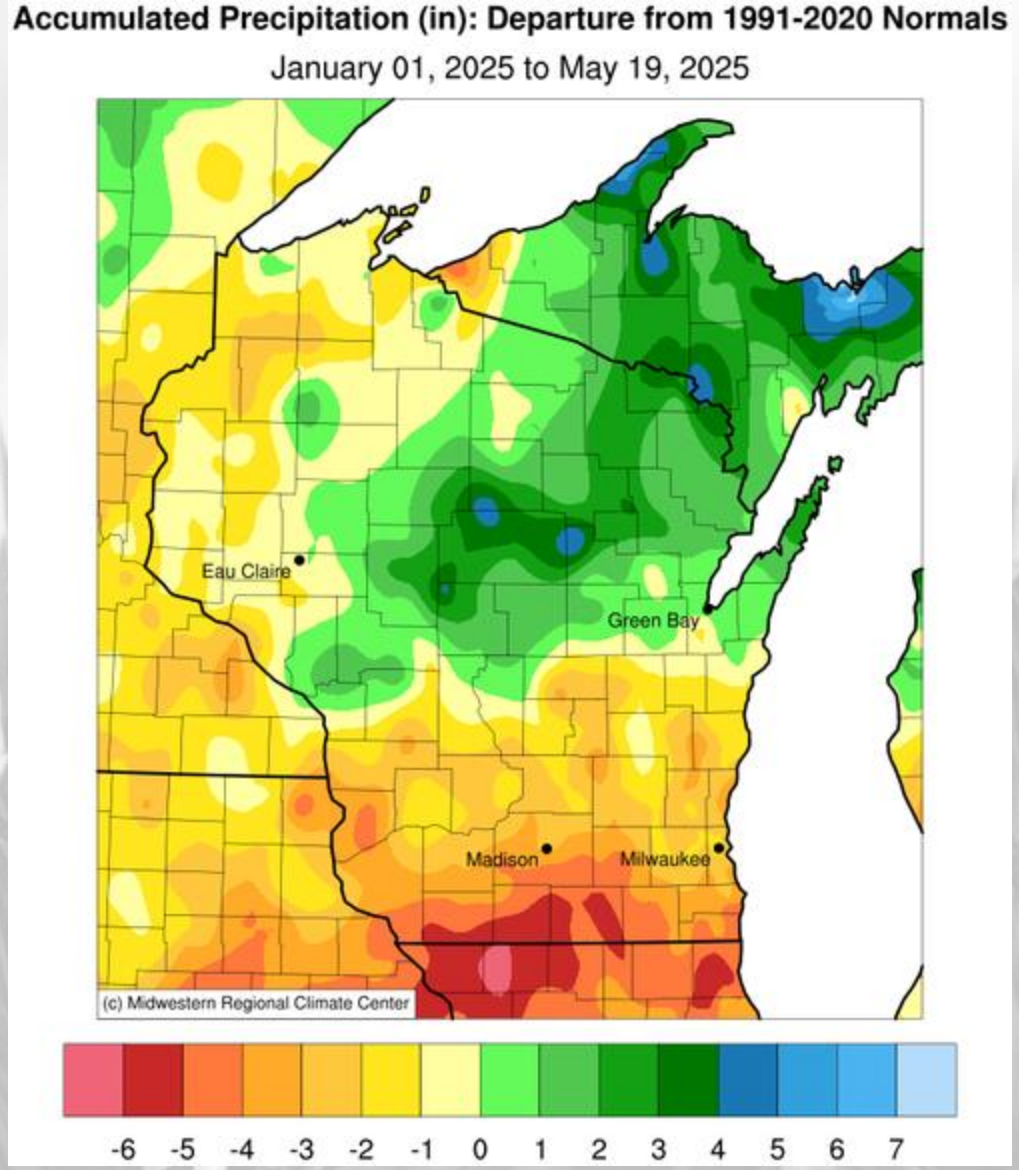




- **>5”** common across most of WI, with **totals highest in the WC-to-NE belt** → instances of >10”
  - **100-150%** the 30-year normal at many stations in the WC-to-NE belt.
- **Below the 30-year normal** is common in the south (esp. near the IL border) and the NW.

https://mrcc.purdue.edu/CLIMATE/

# 2025 Precipitation (so far)




https://mrcc.purdue.edu/CLIMATE/

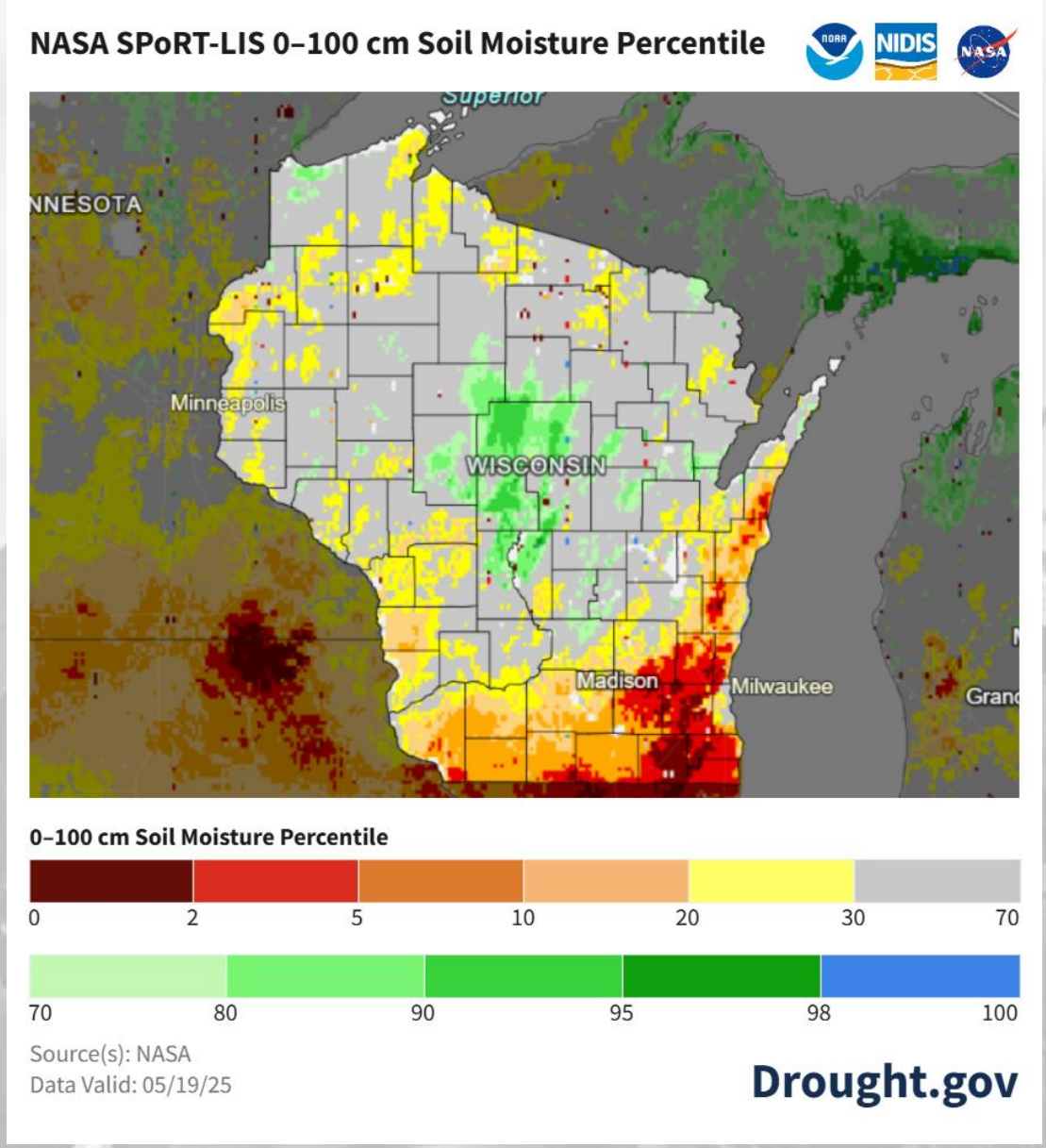
# Soil Moisture Models

- The area of abnormally wet soil (green shading) **re-emerged in the central region** after last week's rains.
- **Abnormal dryness** was somewhat reduced in the west and south from rainfall, with the **driest conditions in the SE**.
- 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.*

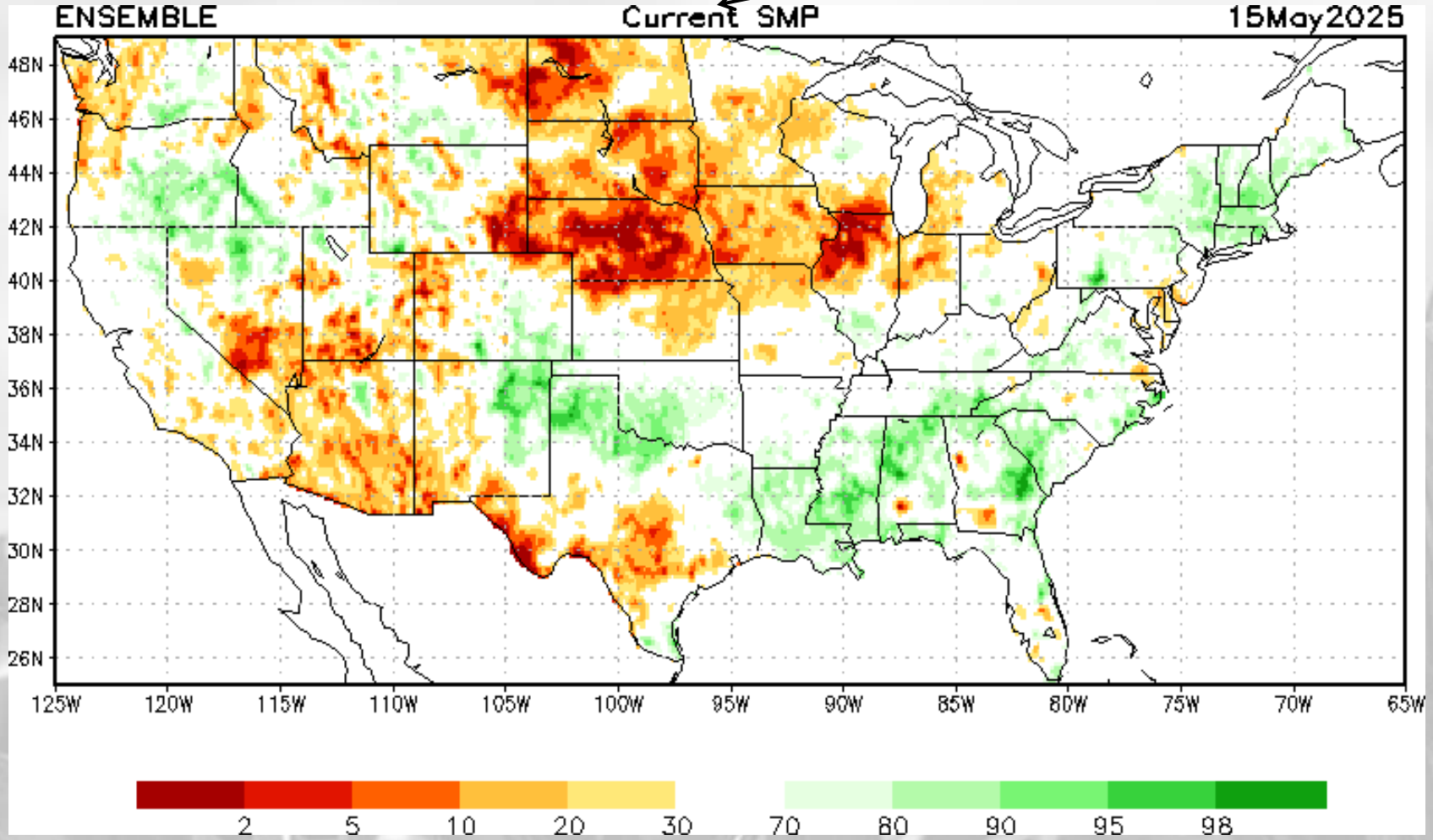
*It's worth noting that each soil moisture model has their own characteristics and input variables, so there tends to be variation between models. Thus, it's worthwhile to look at multiple models opposed to just one.*

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



# Soil Moisture Models

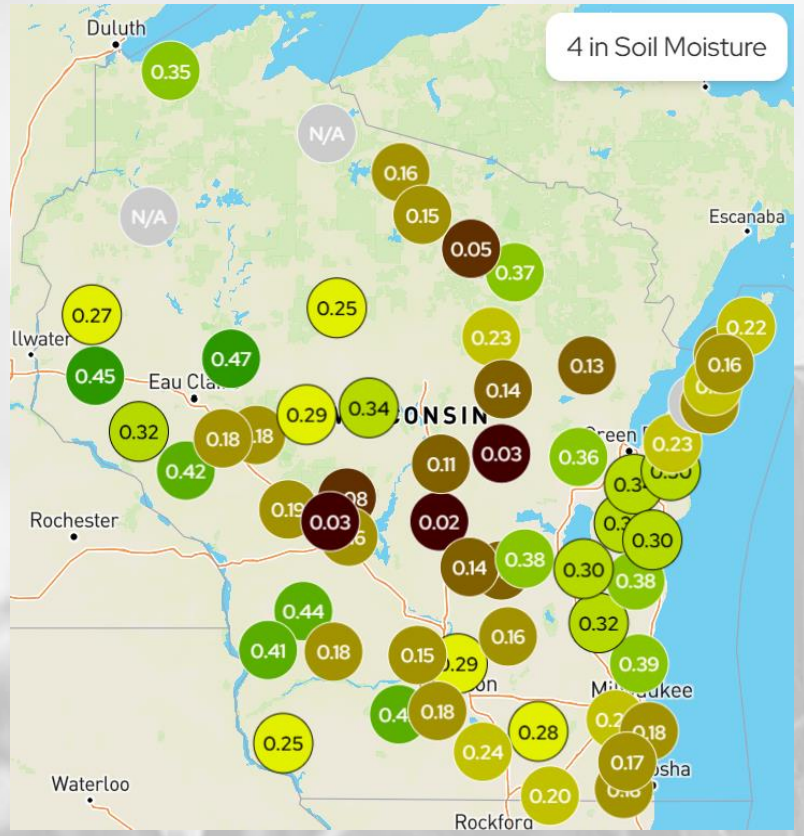
**NOTE:** this map displays the soil moisture percentile for May 15. It was the most recent update on May 20.

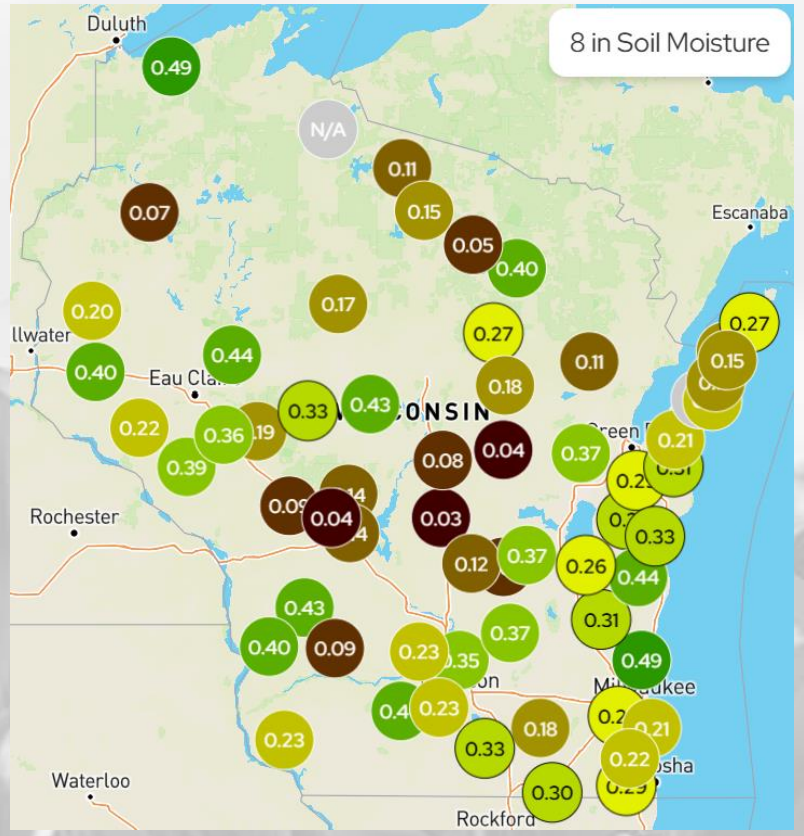


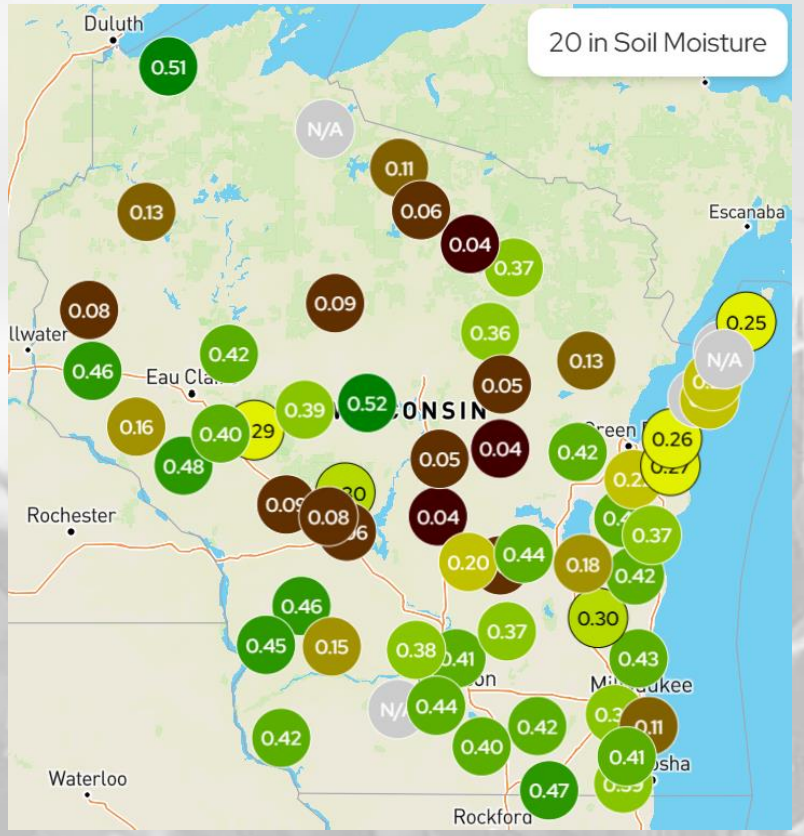

https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp_new.shtml

# Wisconet Soil Moisture

Maps showing soil moisture conditions on May 20th @ Mid-morning.
Units of map values are {Volume of water}/{Volume of soil}.




https://wisconet.wisc.edu/

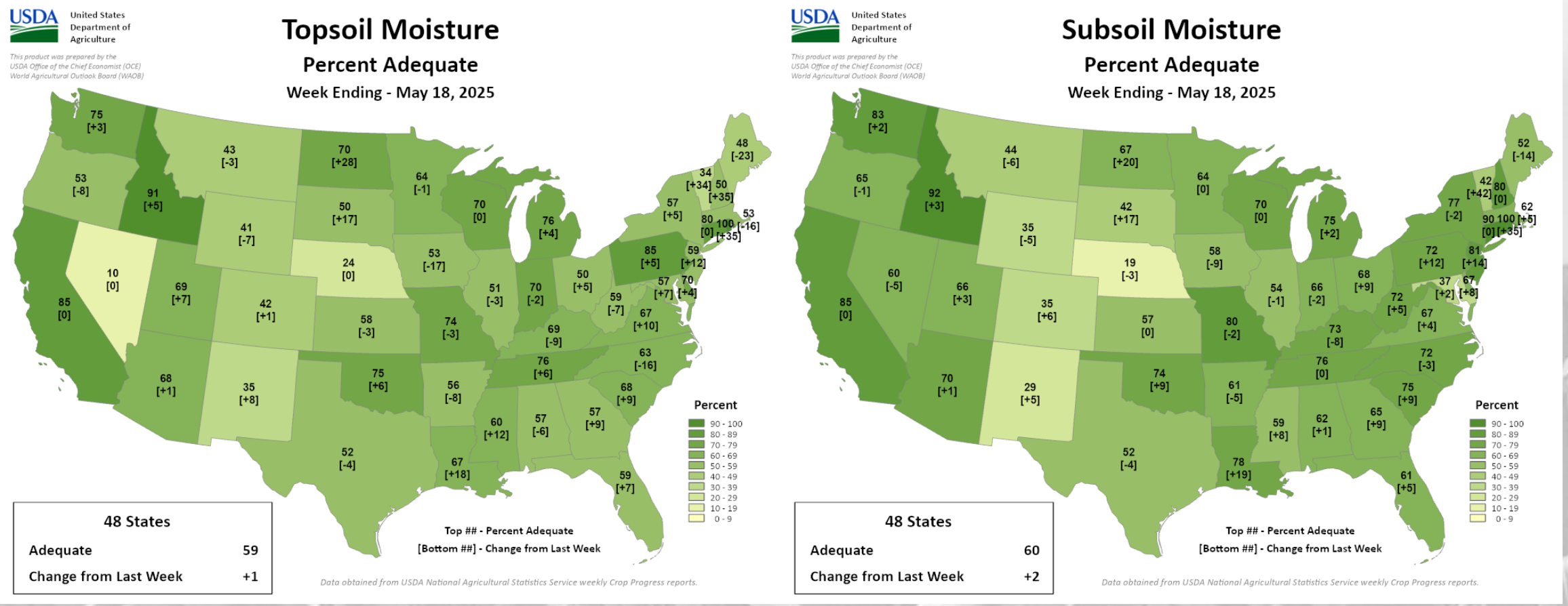
# Wisconet Soil Moisture

Change in soil moisture from May 13th to May 20th.
Units of change values are {Volume of water}/{Volume of soil}.

| Research Farm | County | Total Precip (in) | 4” Change | 8” Change | 20” Change |
|---|---|---|---|---|---|
| Arlington | Columbia | 0.41 | -0.03 | -0.04 | -0.01 |
| Dairy Forage ARS | Sauk | 0.35 | -0.04 | -0.06 | -0.01 |
| Hancock | Waushara | 0.10 | -0.01 | -0.02 | -0.01 |
| Kemp | Oneida | 0.61 | 0.04 | 0.03 | 0.01 |
| Lancaster | Grant | 0.04 | -0.06 | -0.06 | -0.02 |
| Marshfield | Marathon | 0.57 | -0.01 | -0.01 | -0.01 |
| O.J. Noer *(Turfgrass)* | Dane | 0.07 | -0.07 | -0.08 | -0.01 |
| Peninsular | Door | 0.80 | 0.05 | 0.02 | 0.00 |
| Rhinelander | Oneida | 0.20 | -0.02 | -0.02 | -0.01 |
| Spooner | Washburn | 0.39 | No Data | -0.02 | -0.01 |
| Black River Falls | Jackson | 0.40 | 0.00 | 0.00 | -0.05 |

https://wisconet.wisc.edu/

# Adequate Soil Moisture

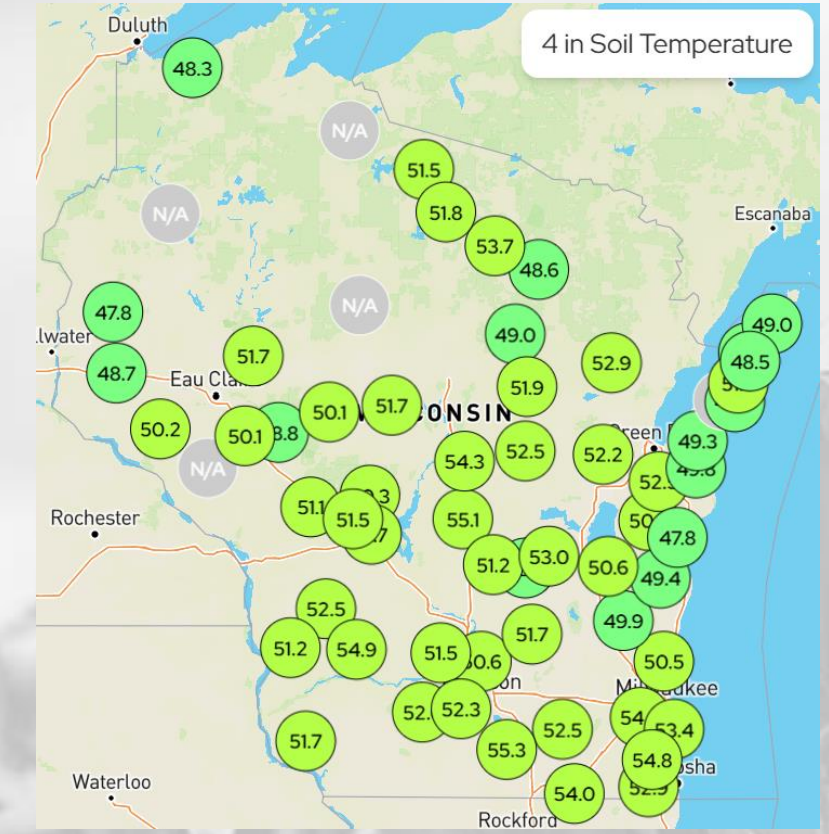


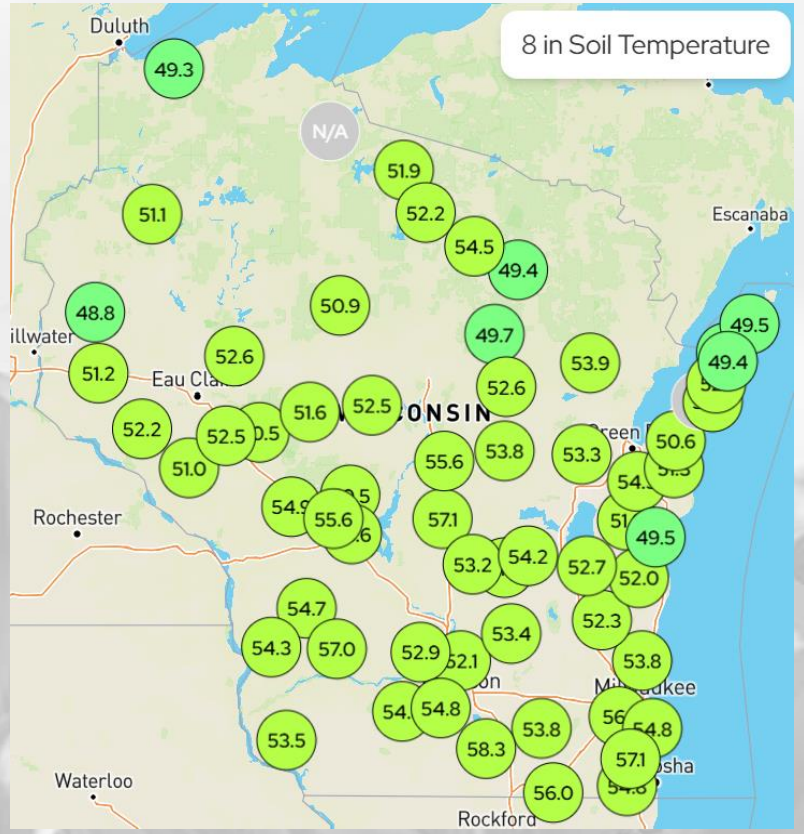

- **70%** of agricultural soils in the state with **adequate** topsoil and subsoil moisture.
- **7%** of fields in the state are reported as having **surplus** topsoil moisture, **down 3%** from last week.

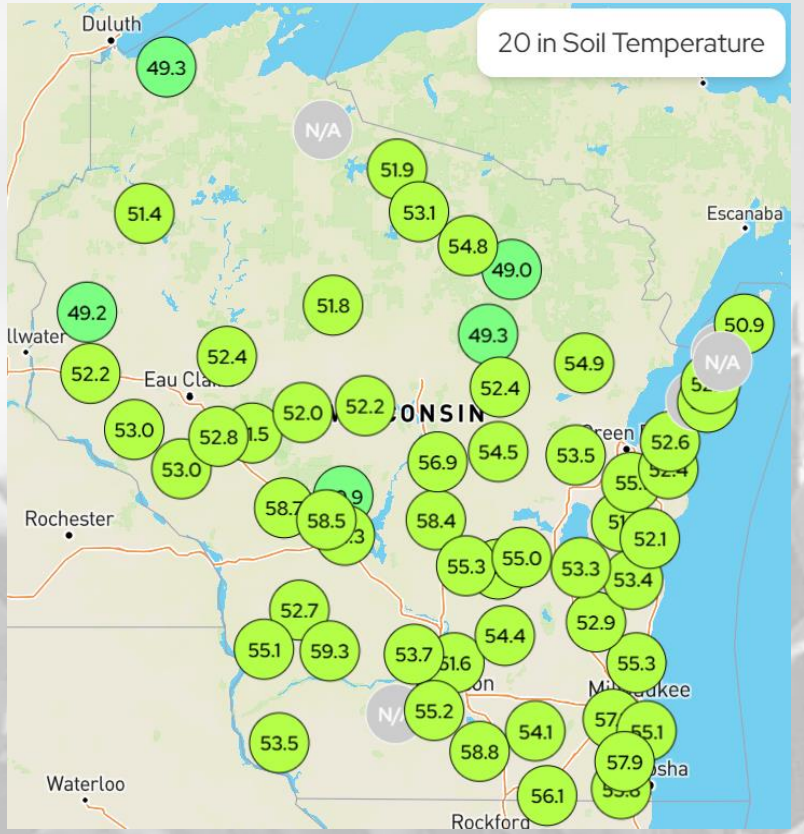
https://agindrought.unl.edu/Other.aspx

# Wisconet Soil Temperature

Maps showing soil temperature conditions
on May 20th @ Mid-morning

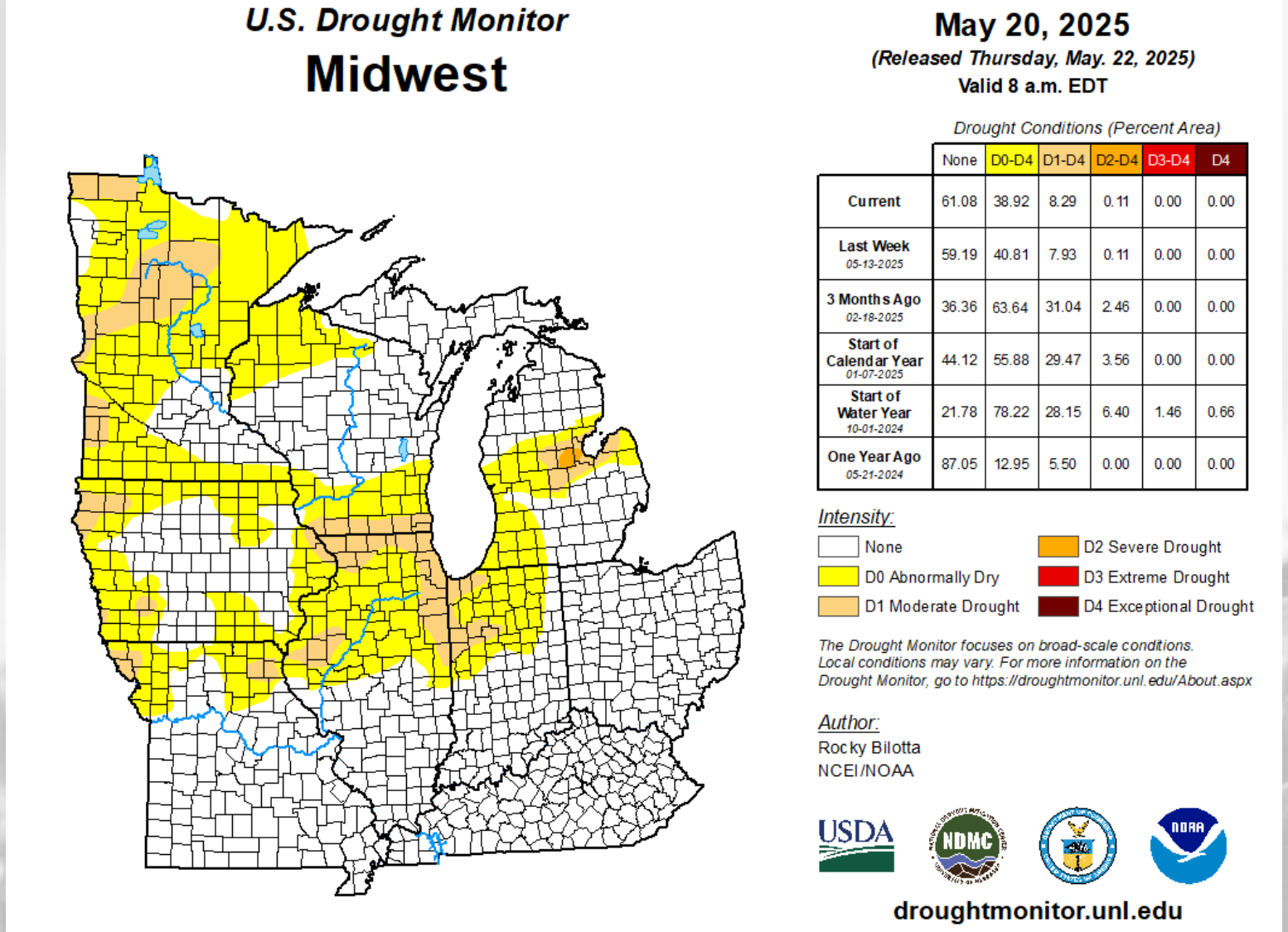



https://wisconet.wisc.edu/

# US Drought Monitor

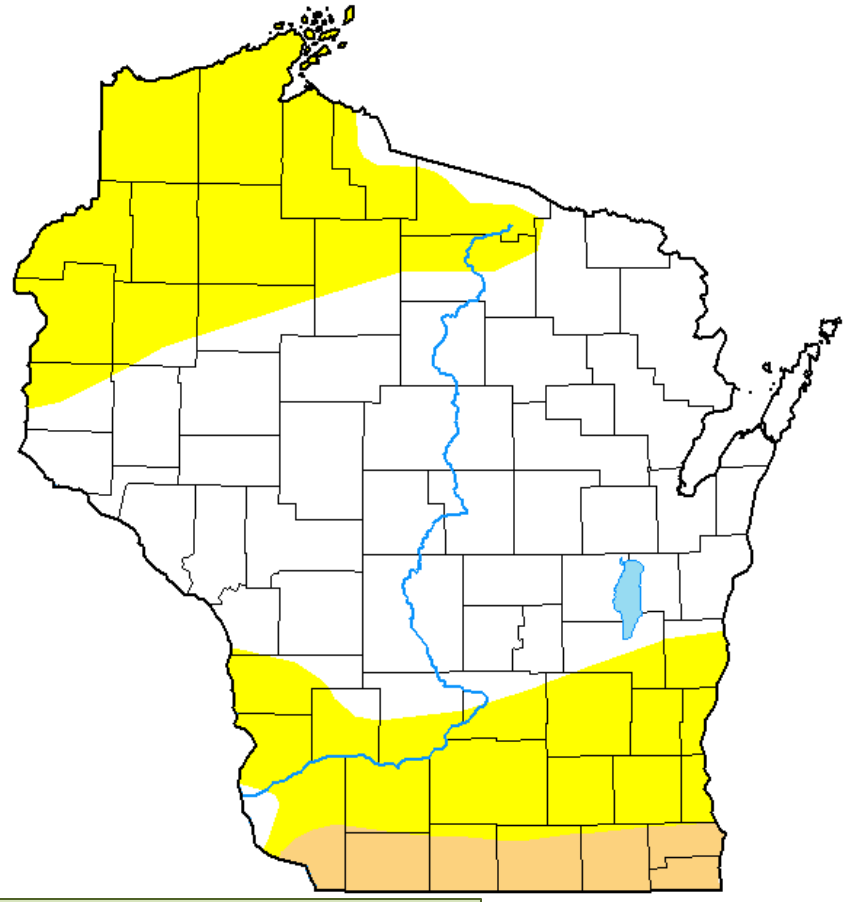



- Compared to last week:
  - Increase in D1 coverage, but it was very minor. D0 area went down slightly.
- **No change** in drought coverage in WI from last week.
- **0.1%** of the Midwest remains in D2 drought.
  - D2 only remains in **east-central MI**.
- **92%** of the Midwest is drought free (8% in D1 or D2).

*Note: D0 is not considered drought.*

http://droughtmonitor.unl.edu/

# US Drought Monitor




**May 20, 2025**
***(Released Thursday, May. 22, 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** 05-13-2025 | 56.53 | 43.47 | 5.69 | 0.00 | 0.00 | 0.00 |
| **3 Months Ago** 02-18-2025 | 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** 05-21-2024 | 84.76 | 15.24 | 5.37 | 0.00 | 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

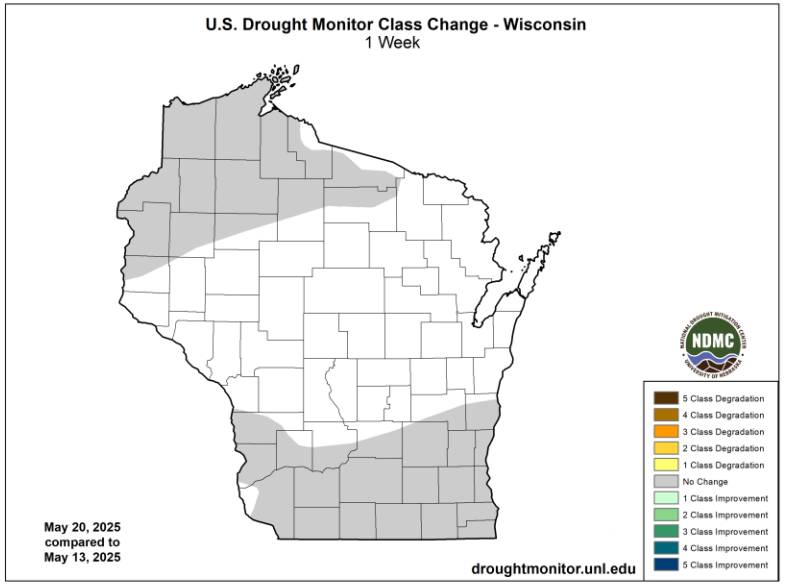
**droughtmonitor.unl.edu**

http://droughtmonitor.unl.edu/

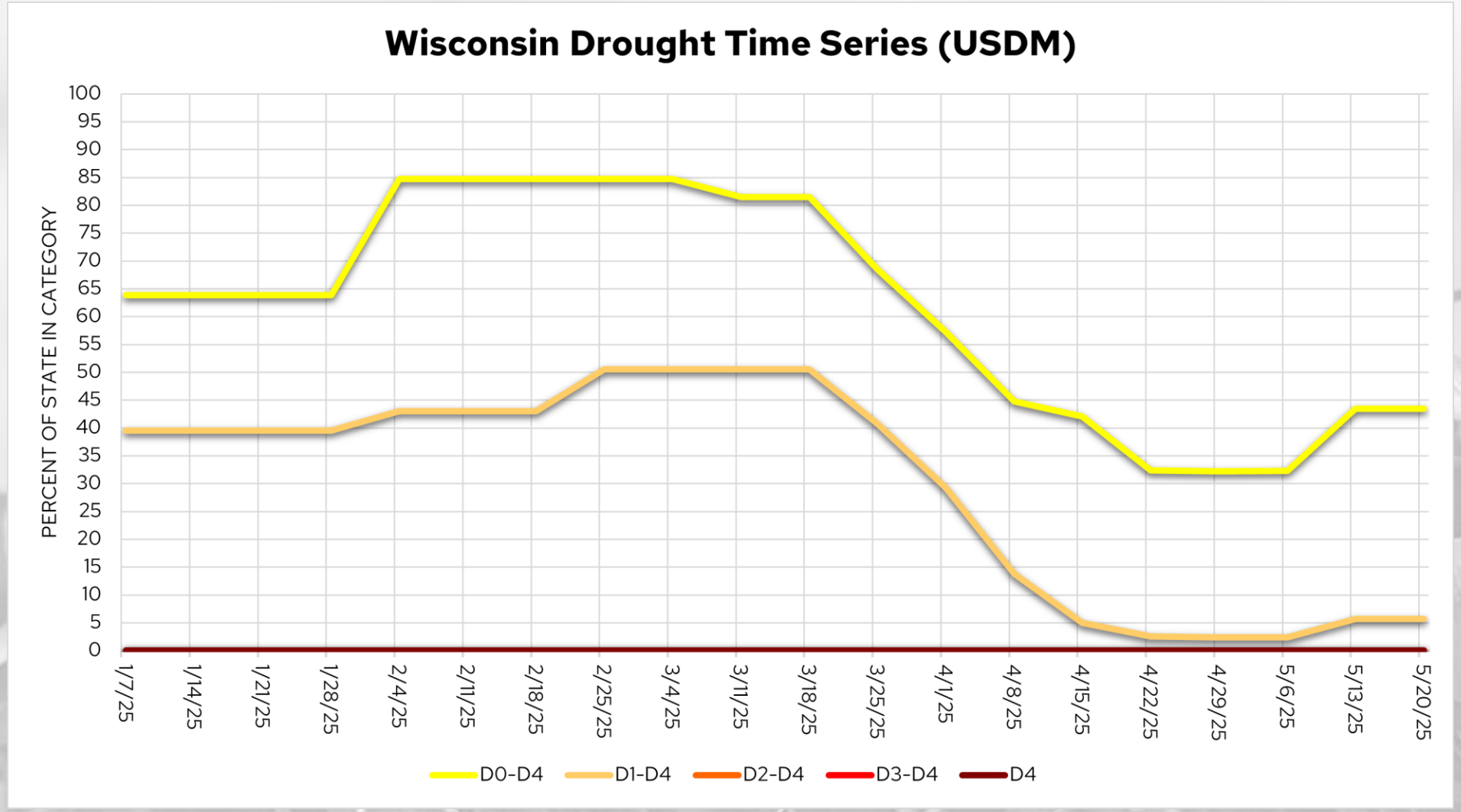
Amount of state in:

- 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.*

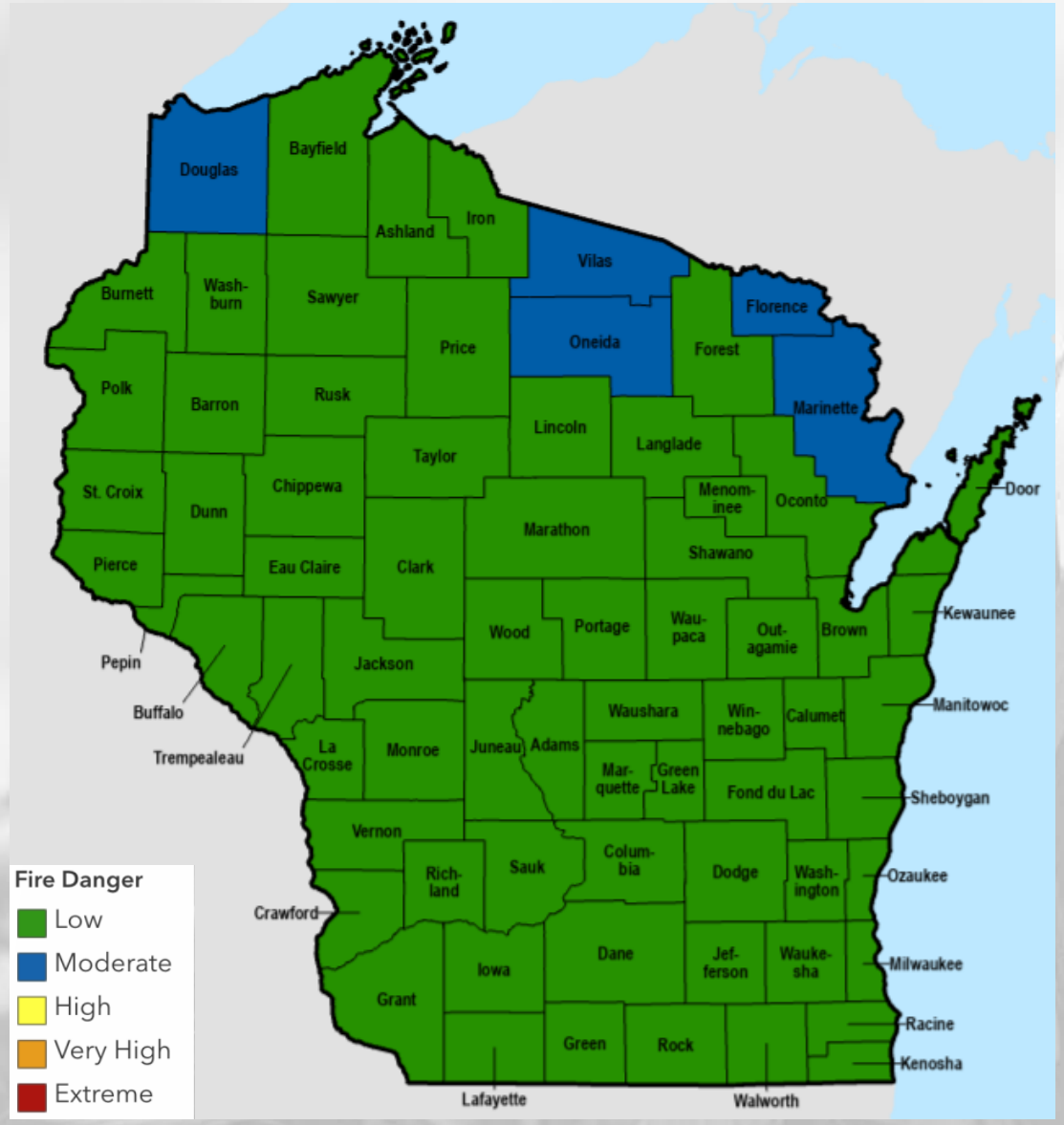


# USDM Time Series




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.

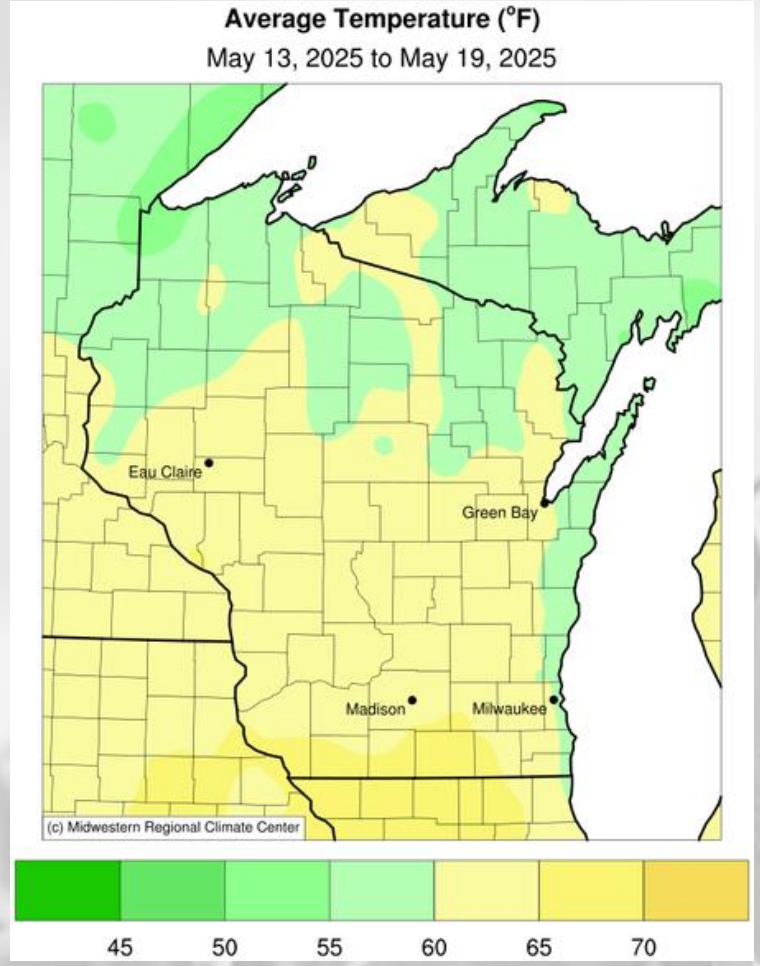
A fire danger of **HIGH** means wildfires ignite easily, spread rapidly, and can be challenging to control.

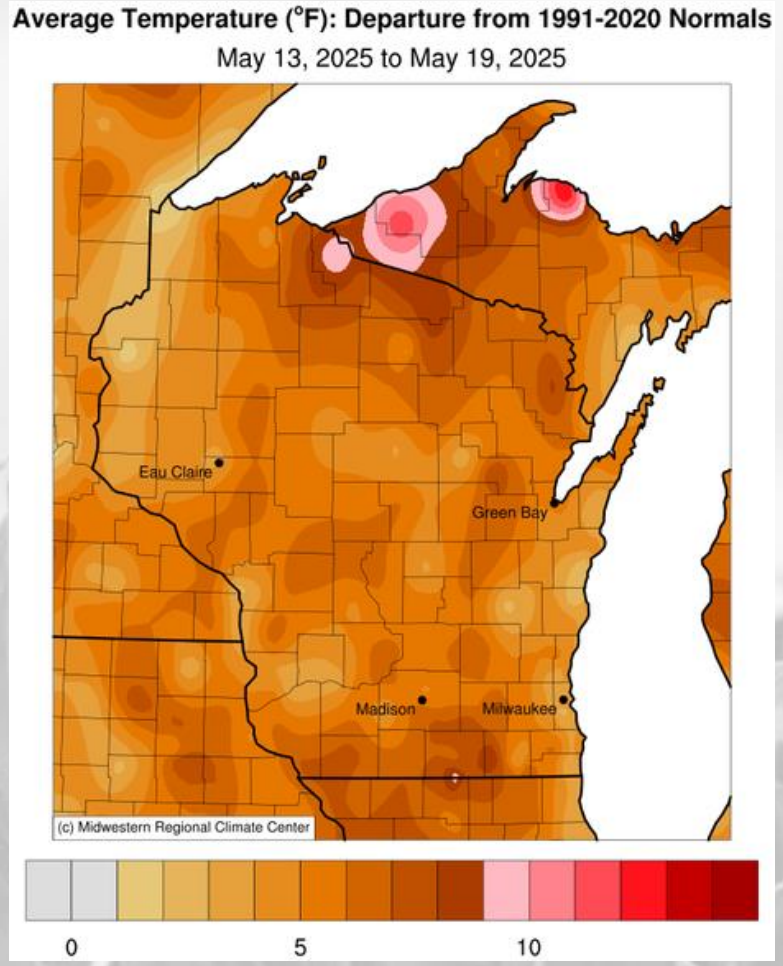
A fire danger of **VERY HIGH** means wildfires start easily, spread rapidly with increased intensity and are difficult to control.

Map updated on 5/22/25

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

# 7 Day Temperatures

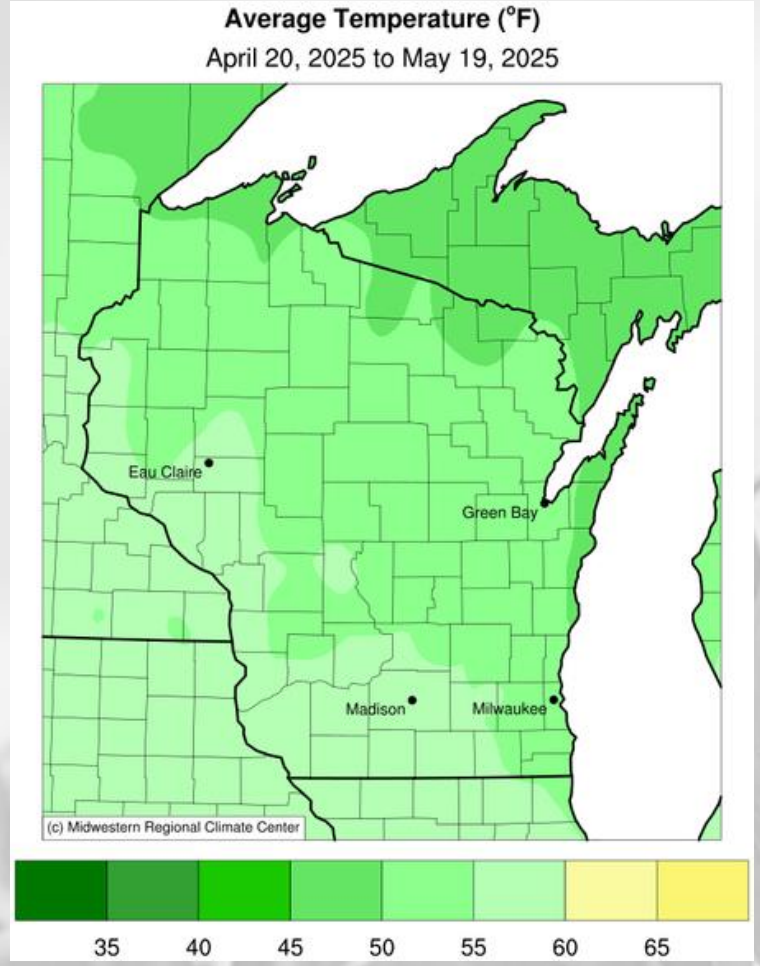


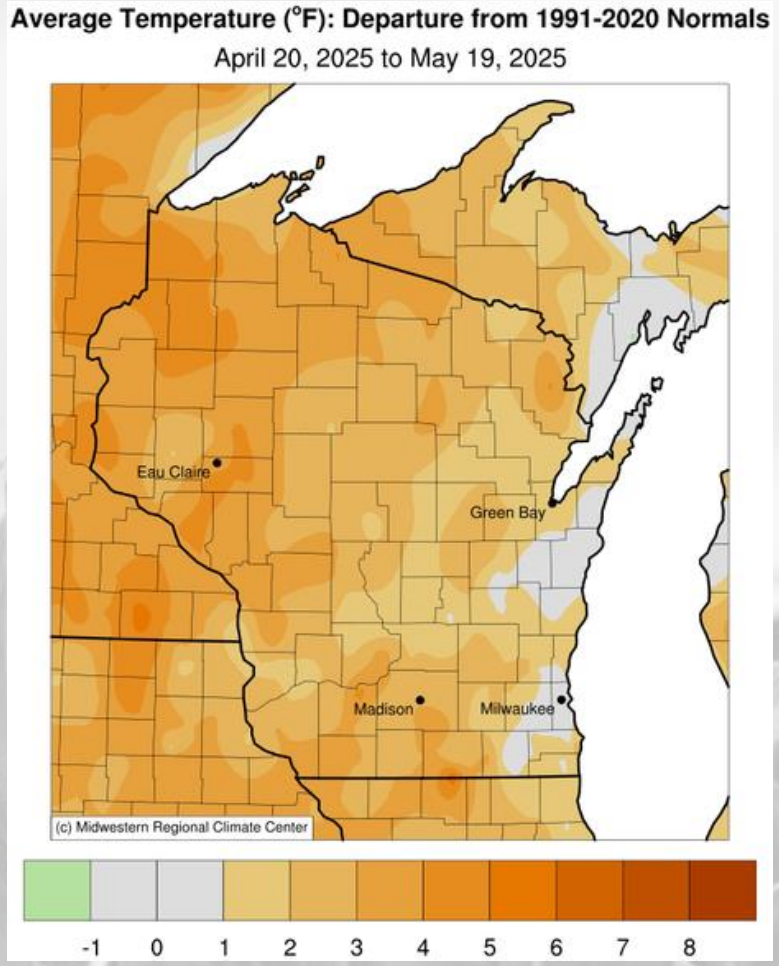




- Average temp. range of **65-70°F** in the south to **55-60°F** in the far north. **Highs hit 90°F** at some stations in the south on Thursday.
- **Above normal** across all the state. Most were **5°F or more** above normal, less so in the NW.

https://mrcc.purdue.edu/CLIMATE/

# 30 Day Temperatures

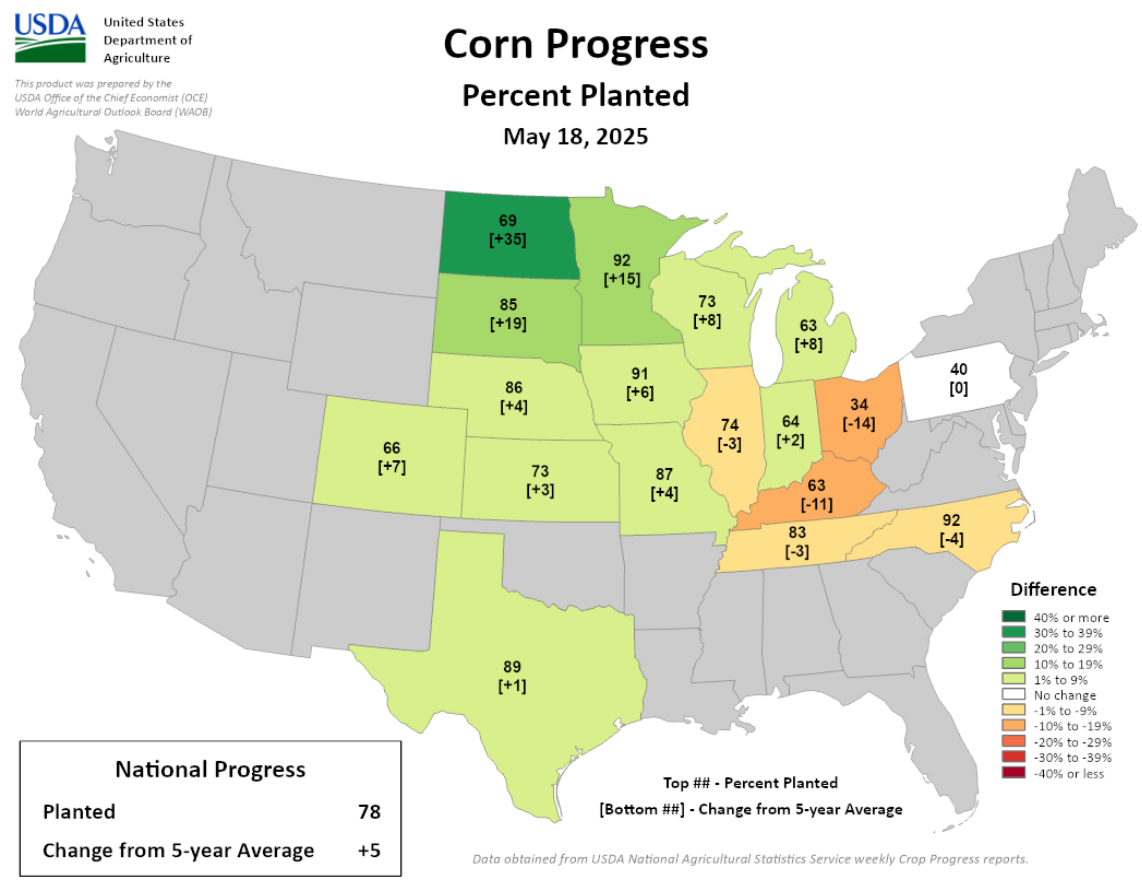


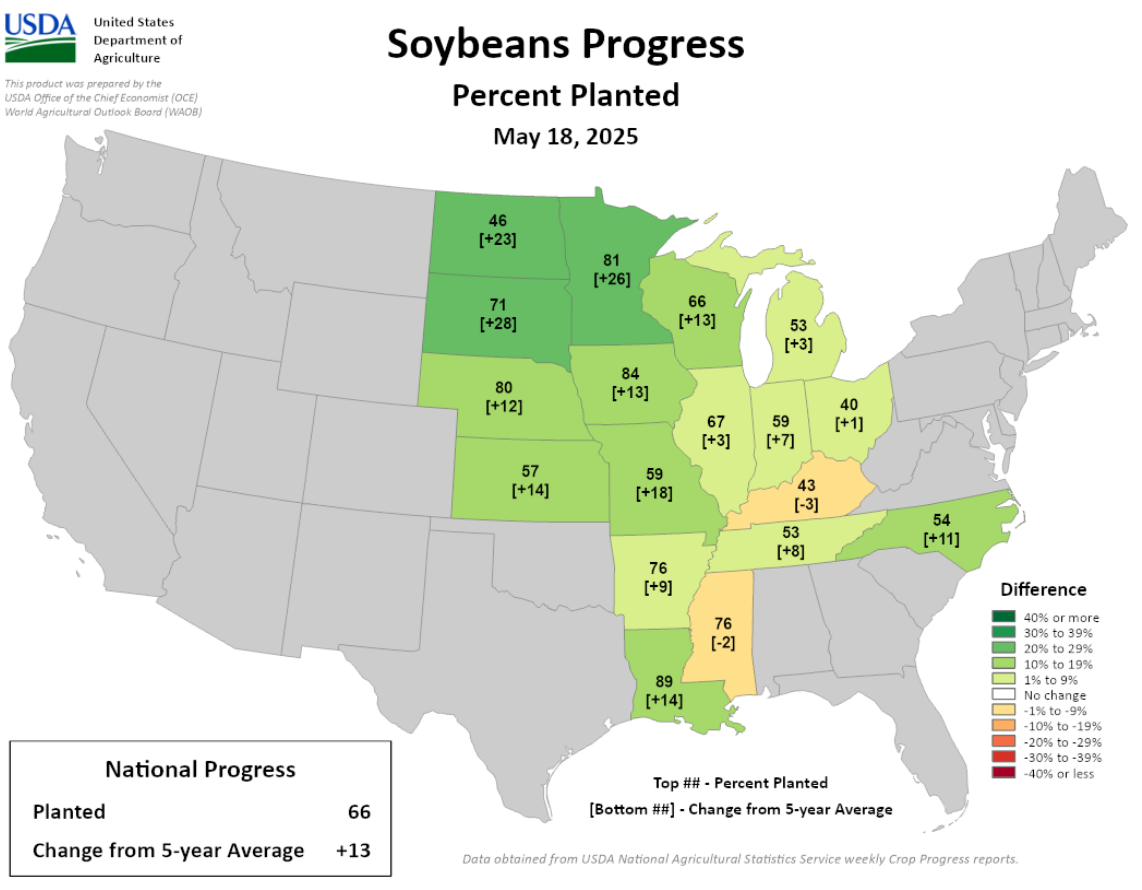




- Average temperatures for the past month ranged from **55-60°F** in the S & W to **45-50°F** in the far NC.
  - **1-3°F above normal** across most of the state compared to climatological (1991-2020) average.
  - Temps more above the climatological average in the west.

https://mrcc.purdue.edu/CLIMATE/

# Corn & Soybean Progress




- Corn and soybean planting made **>25% jumps** in progress from last week, running **well ahead of normal pace**.
- Both crops are **~20% emerged**.

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

# Crop Progress Report

**Crop progress report for Wisconsin for the week ending on May 18th**

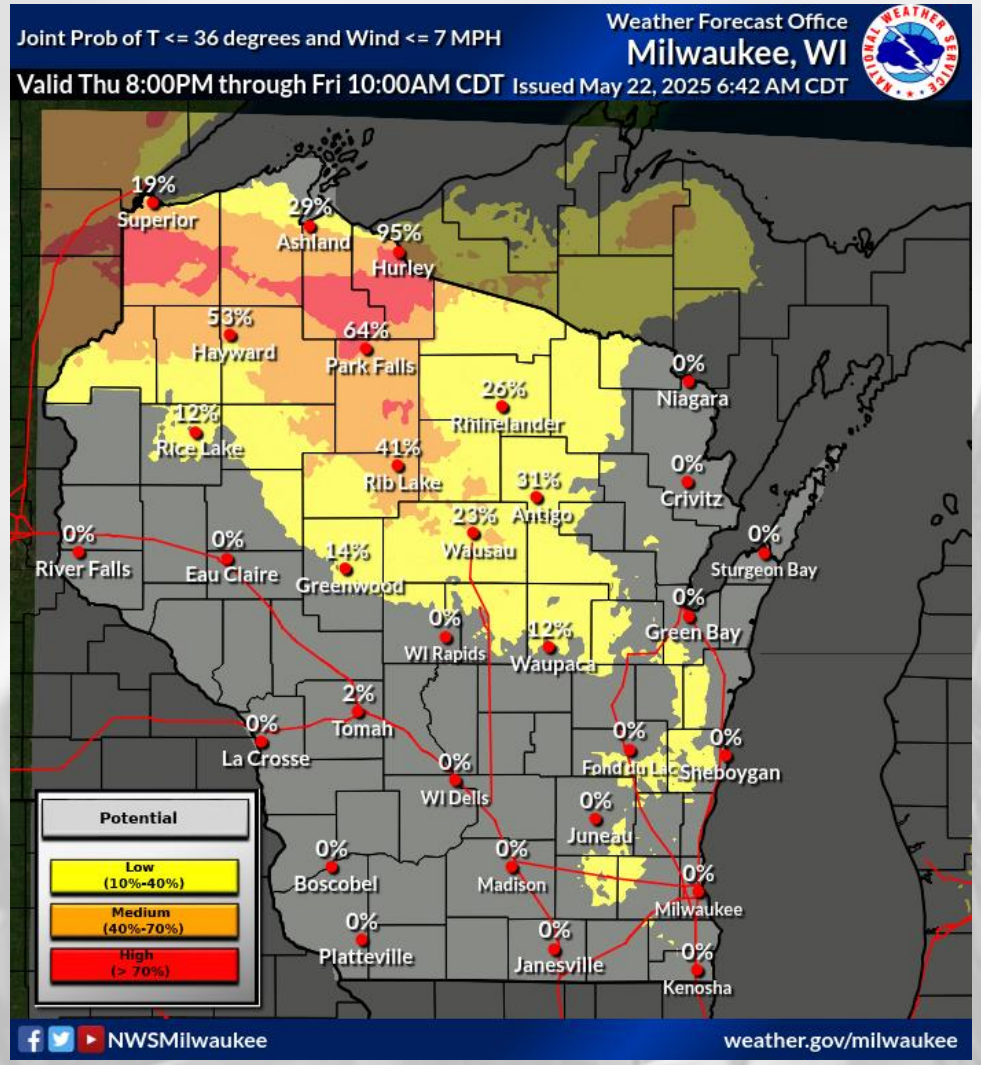
- Corn planting is **73%** complete, **up 29%** from last week. Emergence is **23%** complete.
- Soybean planting is **66%** complete, **up 26%** from last week. Emergence is **19%** complete.
- Winter wheat is rated **66%** good to excellent and is **6%** headed.
- The first cutting of alfalfa hay was **5%** complete.
- Pasture and range conditions are rated **65%** good to excellent (**up 3%** from last week).
- Oats are **48%** emerged and **82%** planted.
- Potato planting is **84%** complete.

**In the news**: https://www.brownfieldagnews.com/news/wisconsin-corn-planting-heads-into-final-stretch/

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

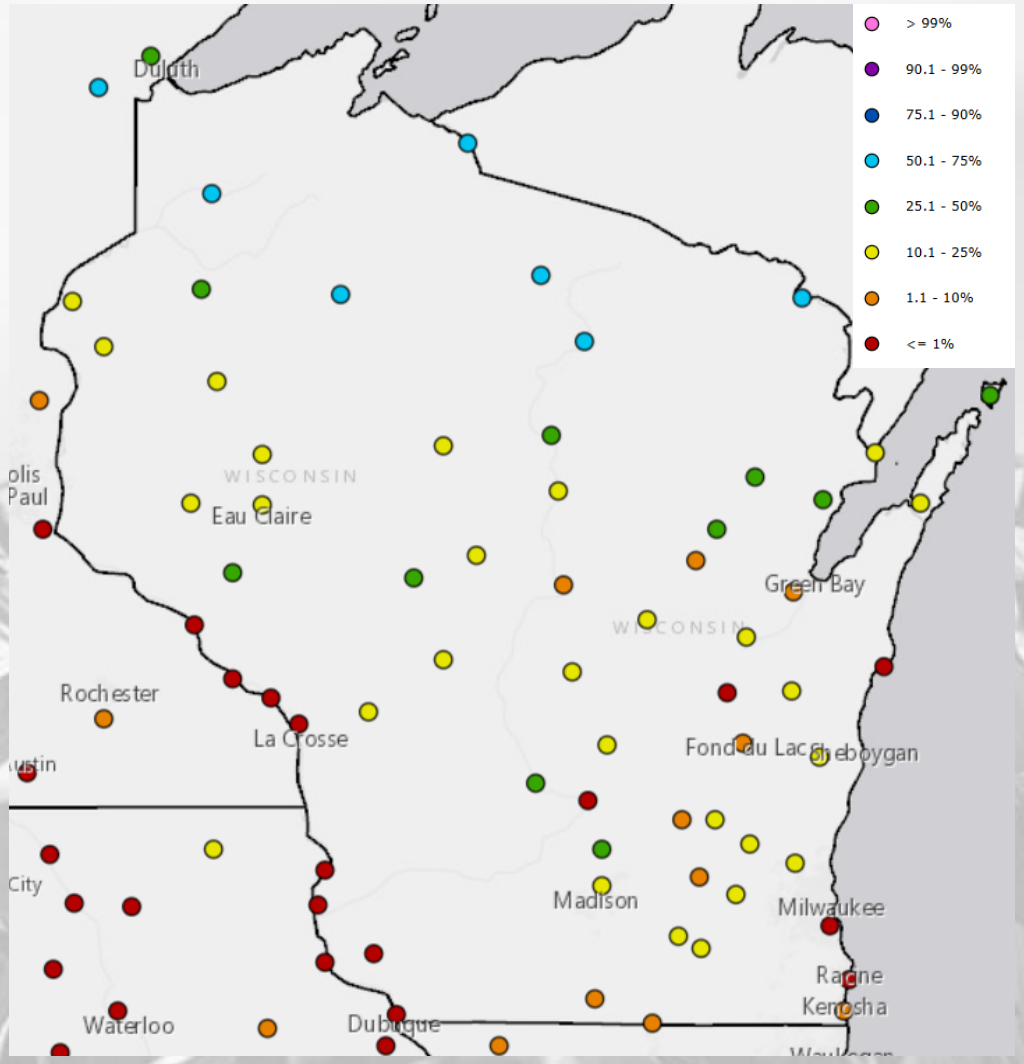
# Frost/Freeze Risk

## Night of 5/22-23 (Inc. wind)



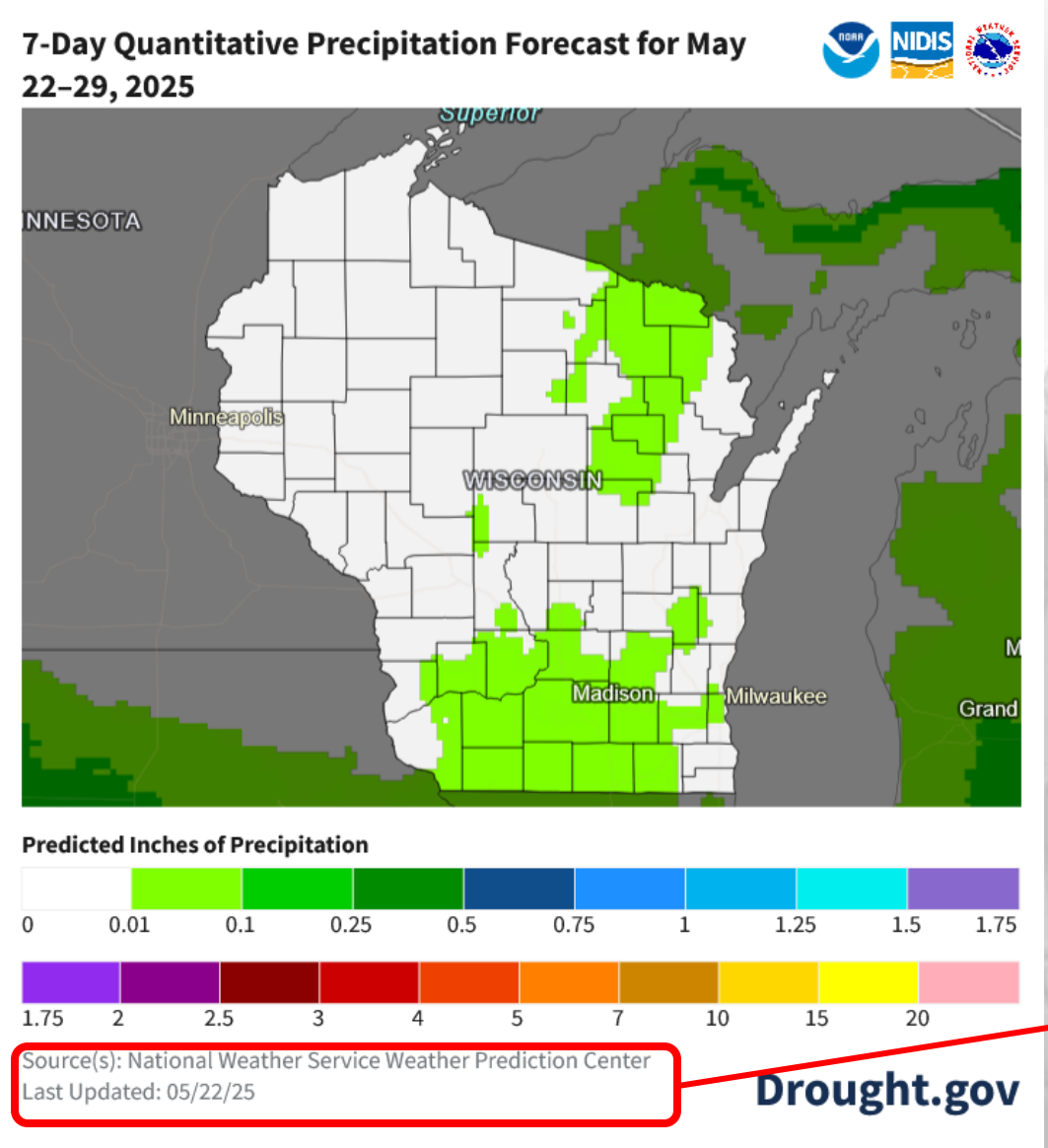

https://www.weather.gov/mkx/FrostFreezeProbs

## After May 20th – Prob. Of Daily Low ≤ 32°F




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

# 7 Day Precip Forecast

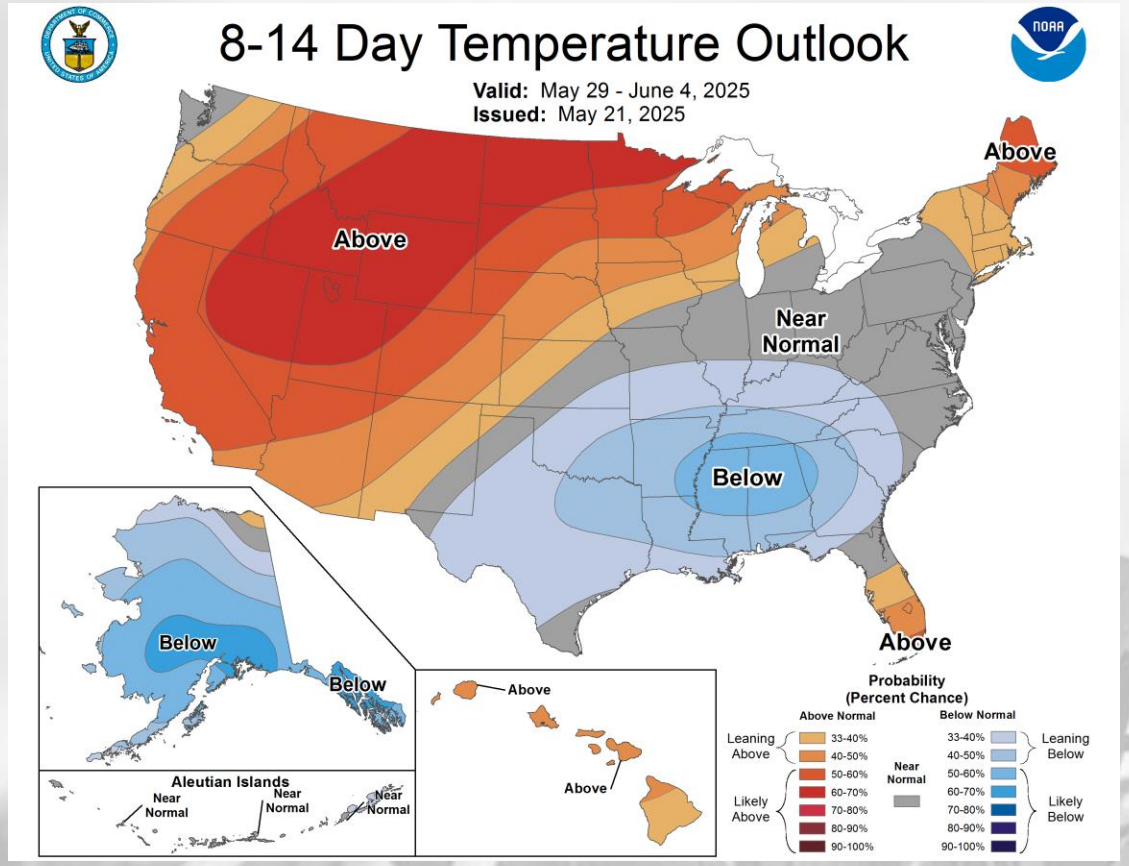


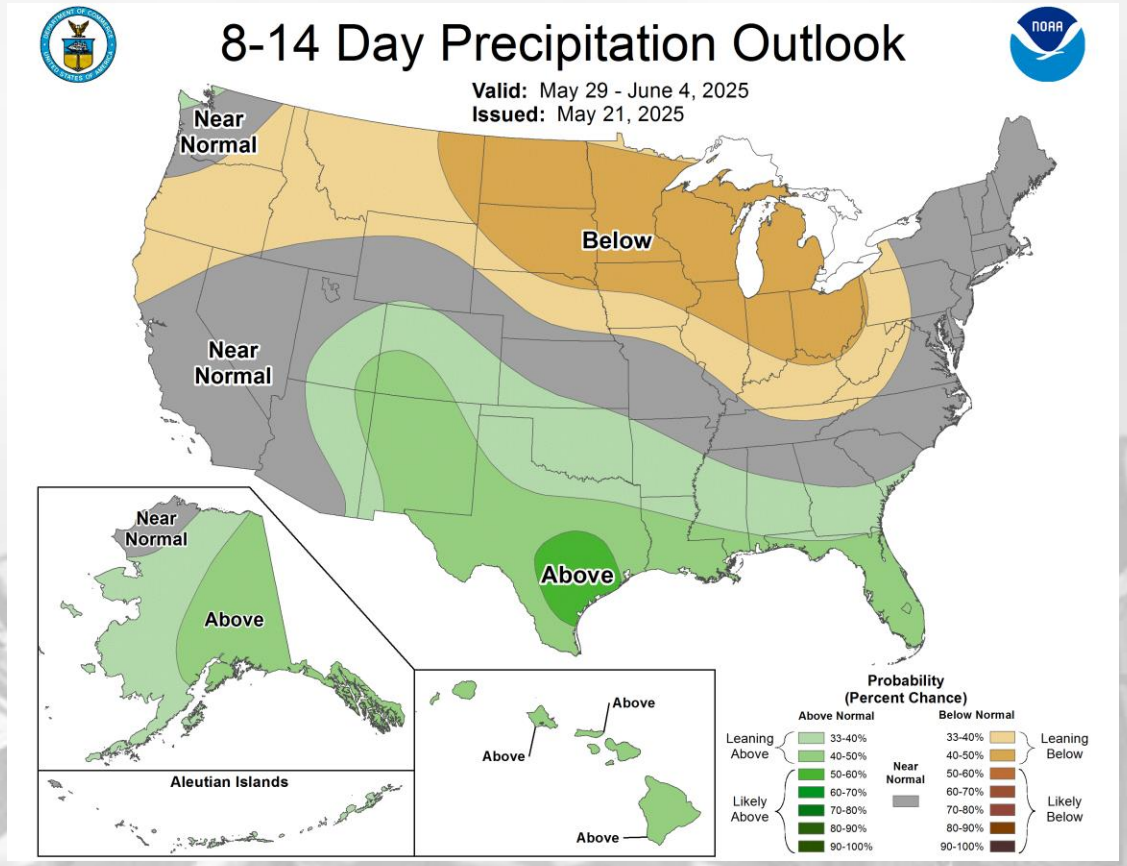

- Following a wet May 20 and 21, the next 7 days look **very quiet** for precip in the state.
  - Currently, the only rain chance over the next 7 days is for next week on Tuesday and Wednesday.
  - Check your local forecast for details on totals and timing.

**Forecast for 5/22/25 thru 5/29/25**
(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

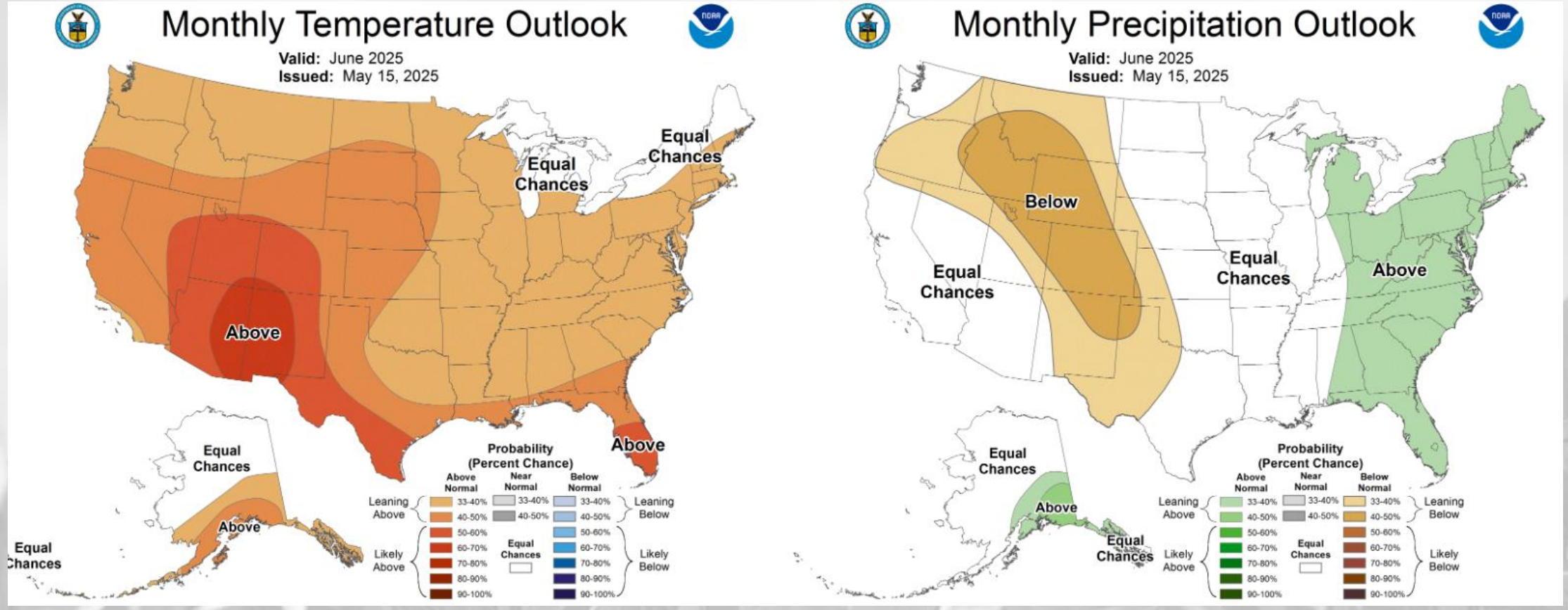



**End of May into Early June:** Temperatures near-normal in southeast but leaning toward above normal across north. Most of state is leaning toward below normal precip for this period.

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

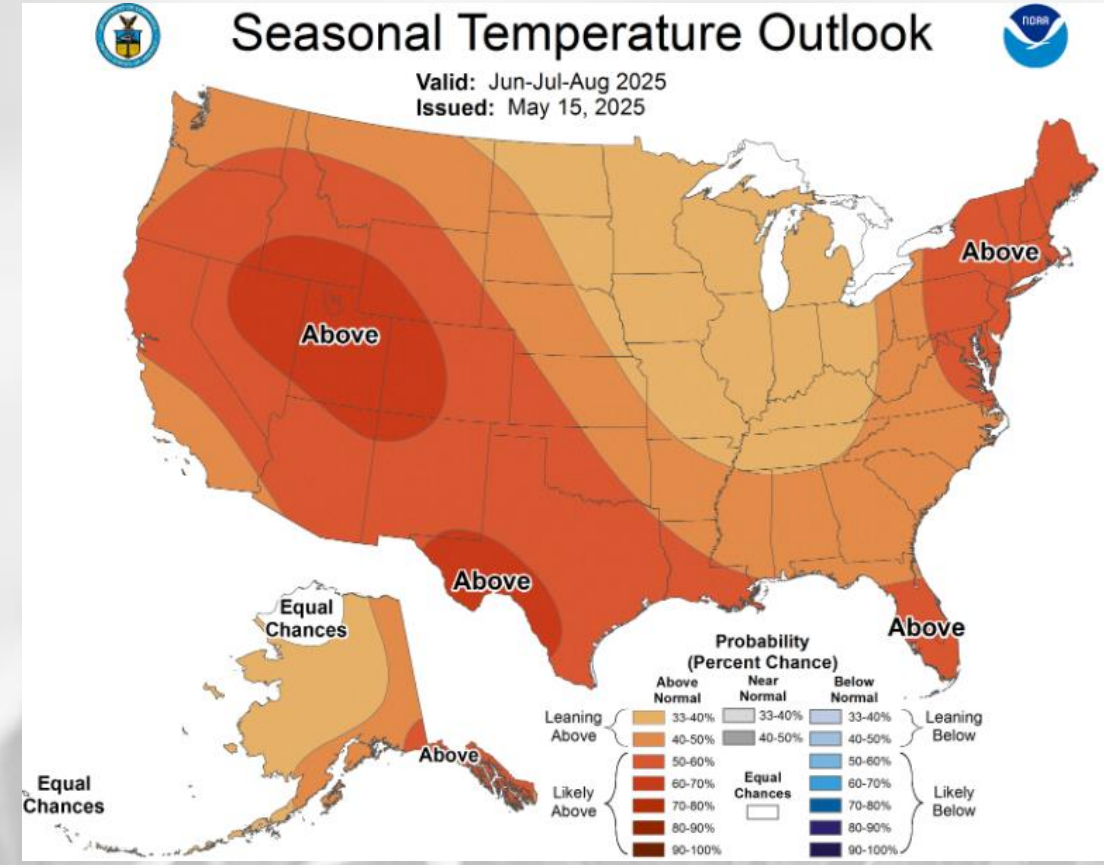
# 30 Day Temp & Precip Outlook

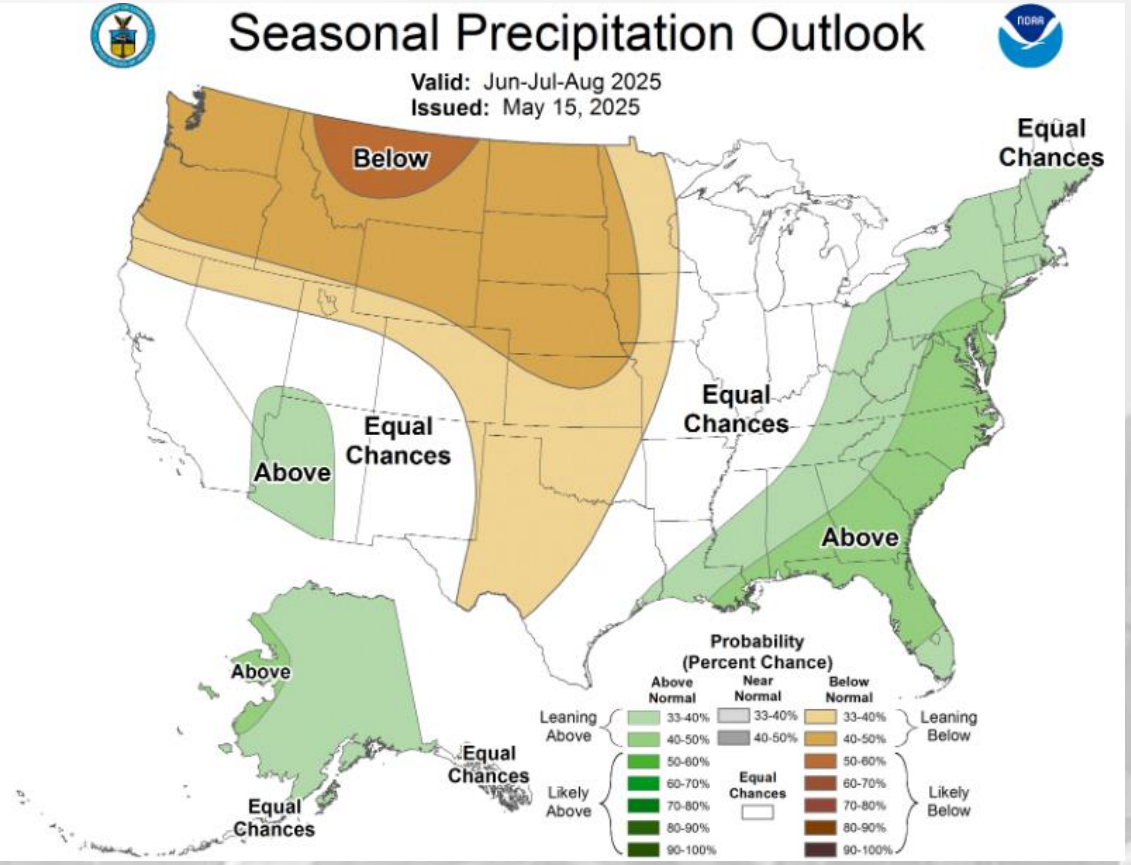



**Month of June:** Temperatures leaning towards being above normal, with a lean towards below-normal precip.

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

- Precipitation was very **hit-or-miss** last week, with many receiving totals of 0.5” or more where storms tracked. 30-day precip totals are **below average for most of the state**, especially near the IL border.
  - An active May 20-21 brought **2” or more** for some.
- Temperatures were **above normal across the** state by 5°F or more, with **high temps topping 90°F** at some southern locations on Thursday.

## Impact

- Soil moisture conditions showed **minor improvement** from last week. However, the southern and eastern parts of the state still remain **much drier than normal**.
  - No change in drought coverage in WI compared to last week.
- Corn and soybean planting once again made big gains (**73% & 66% complete**, respectively), with **emergence well underway** (Source: NASS).
  - Dry and warm conditions (prior to Thursday’s storms) allowed for rapid planting progress.

## Outlook

- Overnight frost/freeze risk is **slim** outside of the north & central. Check this link for day-to-day freeze chances from NWS Milwaukee.
- A **quiet week** for precip is on tap, with a few minor chances for rain during the middle of next week.
- As we warp up May and head into the first days of June, temperature probabilities are a **mixed bag** in the state, with a lean towards **below normal precip**.

# Agronomic Considerations

## Field Work and Conditions

- 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 recent heavy precipitation.
- In drier regions of the state, 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.
- While slug issues have not been as severe this year, UW is monitoring populations weekly across the state with SlugNet.
- 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, and the window of damage is beginning. 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.
- Monitor alfalfa quality closely in the next week. Quality is expected to drop, especially with upcoming return to warmer temperatures. Be mindful to not damage fields when harvesting if fields are still wet.

## Small Grains

- Reminder to properly stage small grains such as winter wheat, as many herbicides cannot be applied after Feekes 5.
- Scout for stripe rust and any early signs of disease with recent cool and wet weather.
    - Fusarium Head Blight risk is low across the state but consider this reminder about spraying fungicides. Scab alerts and risk forecast can be found here.

More on the following slide ↓

# Agronomic Considerations

**Vegetables**

- Be on the lookout for purple spot in asparagus. The recent wet and cool conditions promote the release of spores from infected residue from last season.
- Common asparagus beetle populations are at damaging levels across most of the state including the north although they are starting to decrease in southwest Wisconsin. If you have had problems before, make sure to scout the edges of those fields in the afternoon when these beetles are most active.
- The greatest risk for seed corn maggot damage is the northeast and along Lake Michigan. Onion maggot continues to progress across the state with the greatest severity in NW, central and SE WI. Cabbage maggot severity is greatest in the south, central and northwest regions 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.
- Reminder that trap crops like blue hubbard squash need to be planted at least two weeks ahead of your cash crop for cucumber beetle management.
- Cucurbit growers may consider a kaolin clay drench of trays before transplanting as a mechanical barrier and repellant to reduce cucumber beetle feeding.
- Scout for black cutworm damage (feeding on leaf edges and cutting of seedlings) caused by moths brought to Wisconsin on weather fronts. Check trap catches in your region with the DATCP pest survey.

**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

# Contact Info


Photo Credit: USDA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