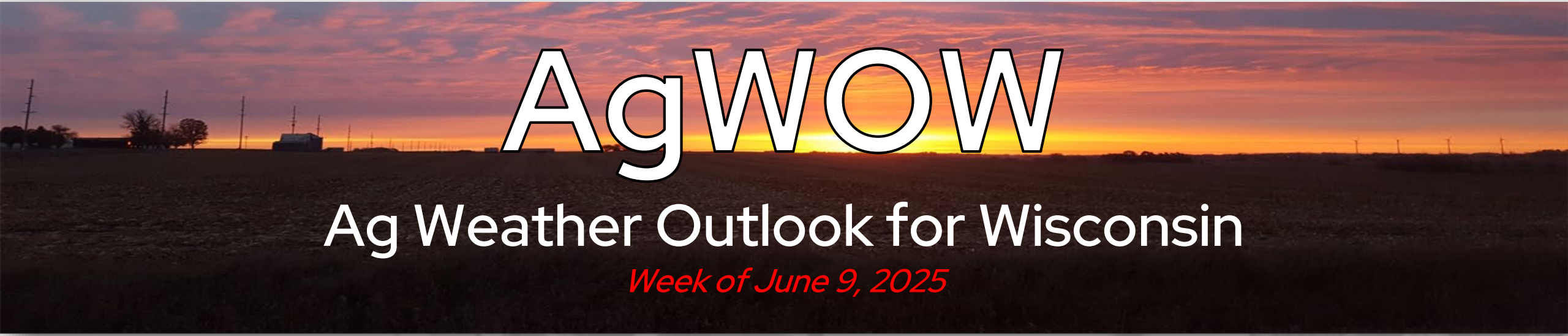
Wisconsin State Climatology Office
Nelson Institute for Environmental Studies

Extension
University of Wisconsin-Madison

USDA Midwest Climate Hub
U.S. DEPARTMENT OF AGRICULTURE

NRCS
Natural Resources Conservation Service



AgWOW

Ag Weather Outlook for Wisconsin

Week of June 9, 2025

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Key Points

Navigate to select slides by clicking on the links below.

1) Most of the state received 1-2" of precip last week, helping to improve soil moisture conditions in areas that had been dry.
2) GDD accumulation (since 5/1) has been lagging the normal pace in the south due to a cooler-than-normal last 30 days.
3) Drought coverage & severity was virtually unchanged from last week.
4) The next 7 days are looking a bit more active for precip. Probabilities for 8-14 days out are showing a lean towards warmer and wetter.

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

May Climate Rankings

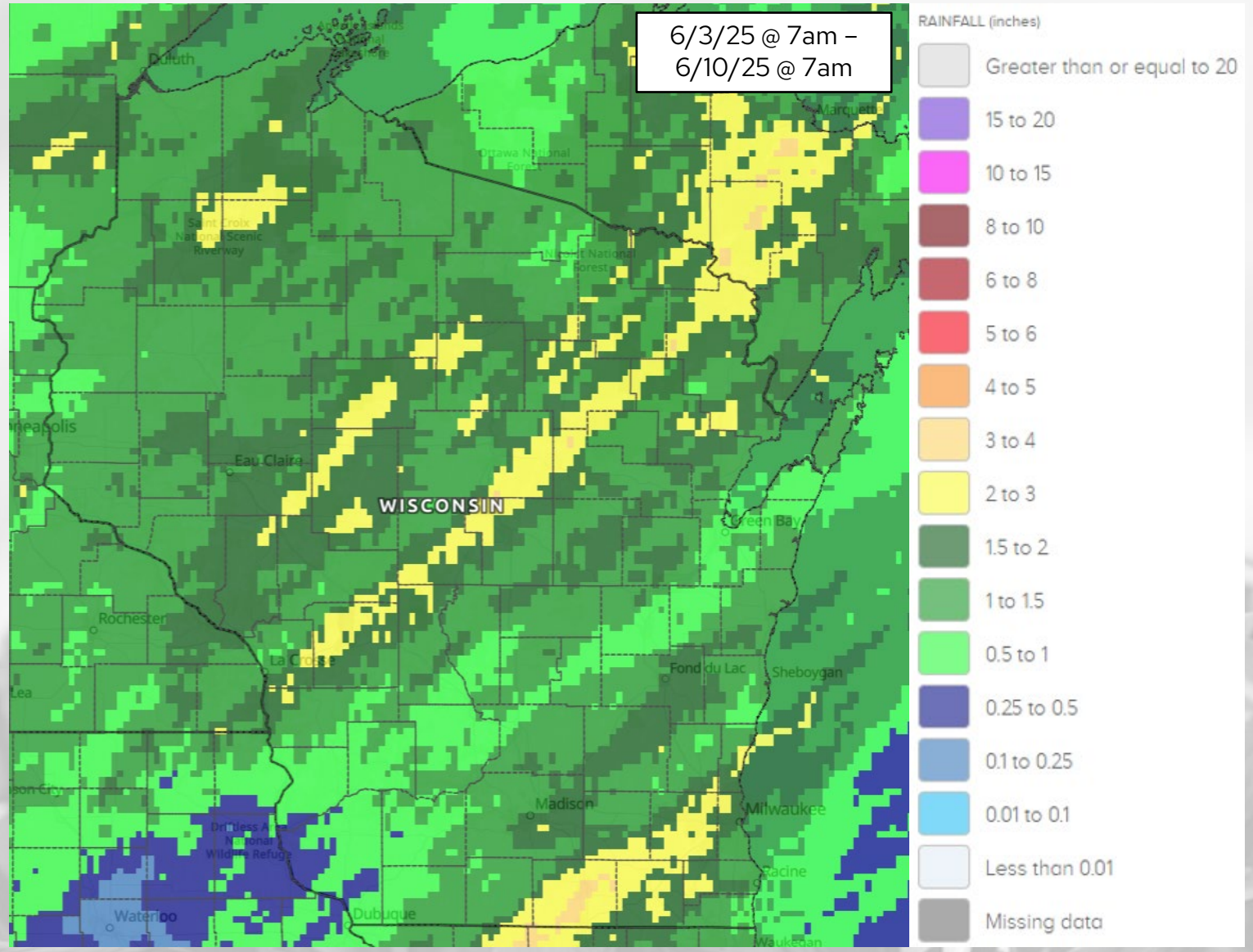
Climate Division	May Precip Anomaly	May Precip Rank	May Temperature Anomaly	May Temperature Rank
WI01 (NW)	-1.48"	20th Driest	1.6°F	46th Warmest
WI02 (NC)	-2.04"	6th Driest	1.0°F	55th Warmest
WI03 (NE)	-1.76"	7th Driest	0.5°F	57th Warmest
WI04 (WC)	-0.70"	45th Driest	0.3°F	62nd Warmest
WI05 (C)	-0.73"	48th Driest	0.1°F	69th Warmest
WI06 (EC)	0.12"	53rd Wettest	-0.6°F	56th Coldest
WI07 (SW)	-0.99"	32nd Driest	-0.5°F	52nd Coldest
WI08 (SC)	-0.11"	69th Driest	-0.7°F	54th Coldest
WI09 (SE)	0.03"	59th Wettest	-2.2°F	34th Coldest

Record Driest
Bottom 1/10
Bottom 1/3
Normal
Top 1/3
Top 1/10
Record Wettest
Record Driest
Bottom 1/10
Bottom 1/3
Normal
Top 1/3
Top 1/10
Record Wettest

- Statewide, May 2025 ranked as the **26th driest** May on record. This is following a March-April that was the **8th wettest on record**.
- For temperature, May 2025 ranked as the **64th warmest** on record, which is very near to average for May in Wisconsin.
- Period of record: 1895-2025 (**131 Years**)

https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/

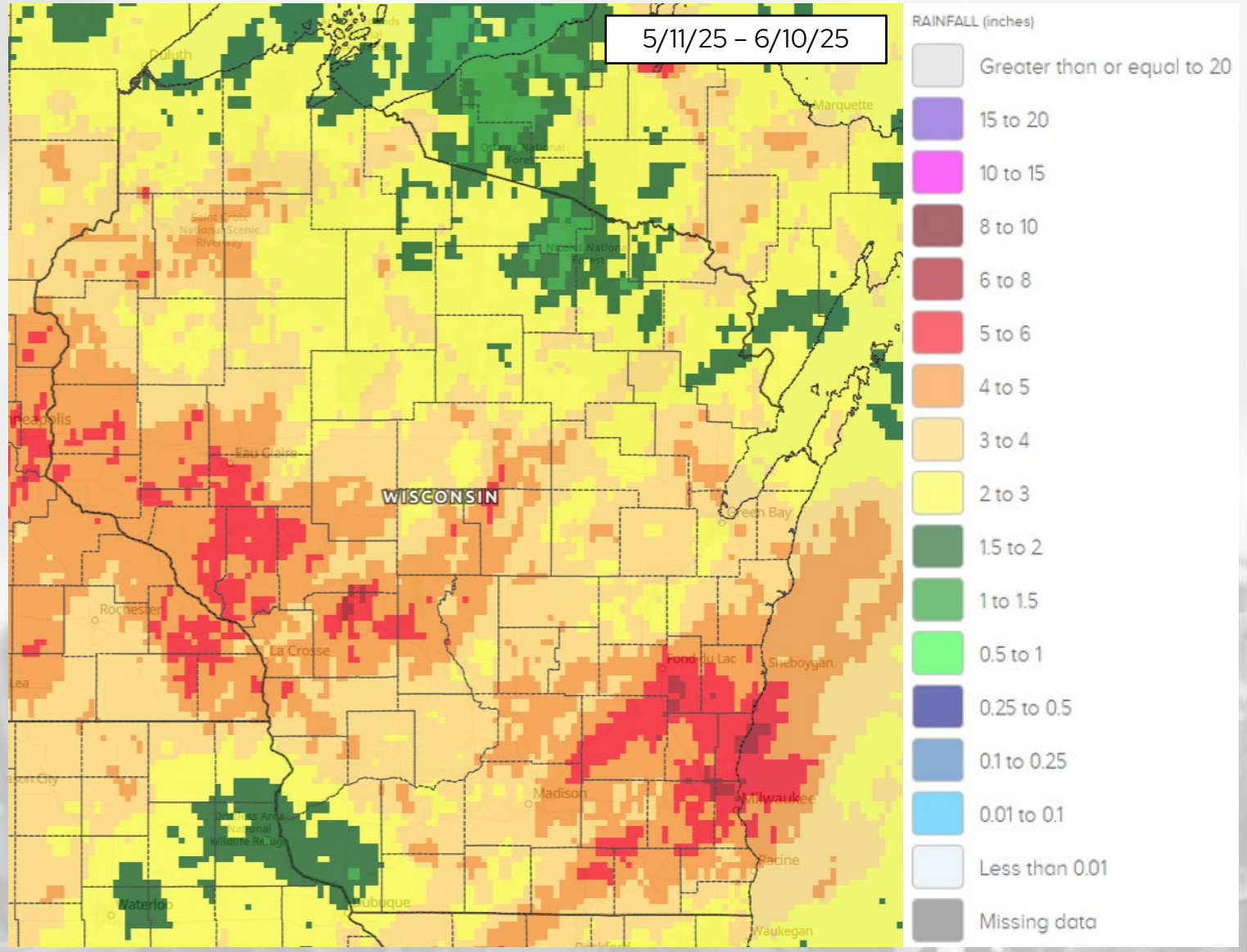
7 Day Precip



- The bulk of last week's precip come on Wednesday last week. Most saw **an inch or more**.
- A few **bands of 2" or more** in central and far south-central WI. Instances of **3" or more** in Rock County.
- Lowest totals in the SW → **0.5"-1"**
- Last week's maximum total: Janesville WWTP, Rock Co. (COOP) → **3.39"**

https://water.noaa.gov/

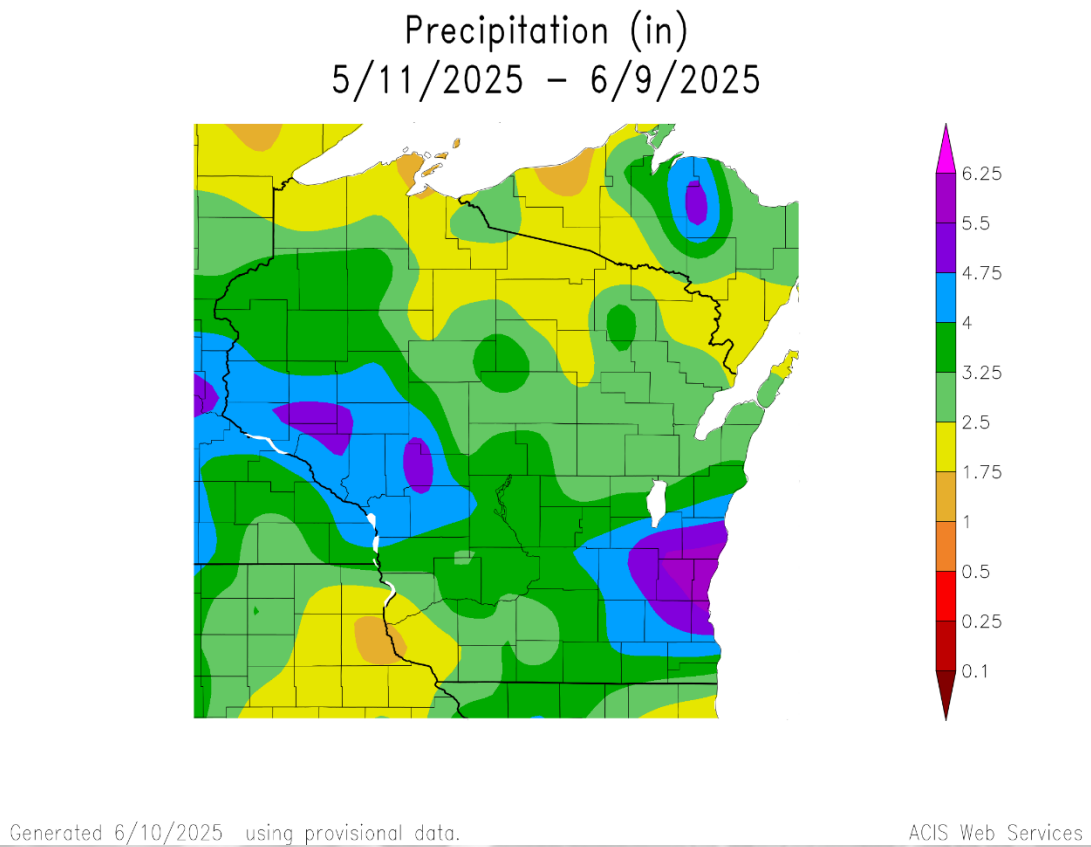
30 Day Precip

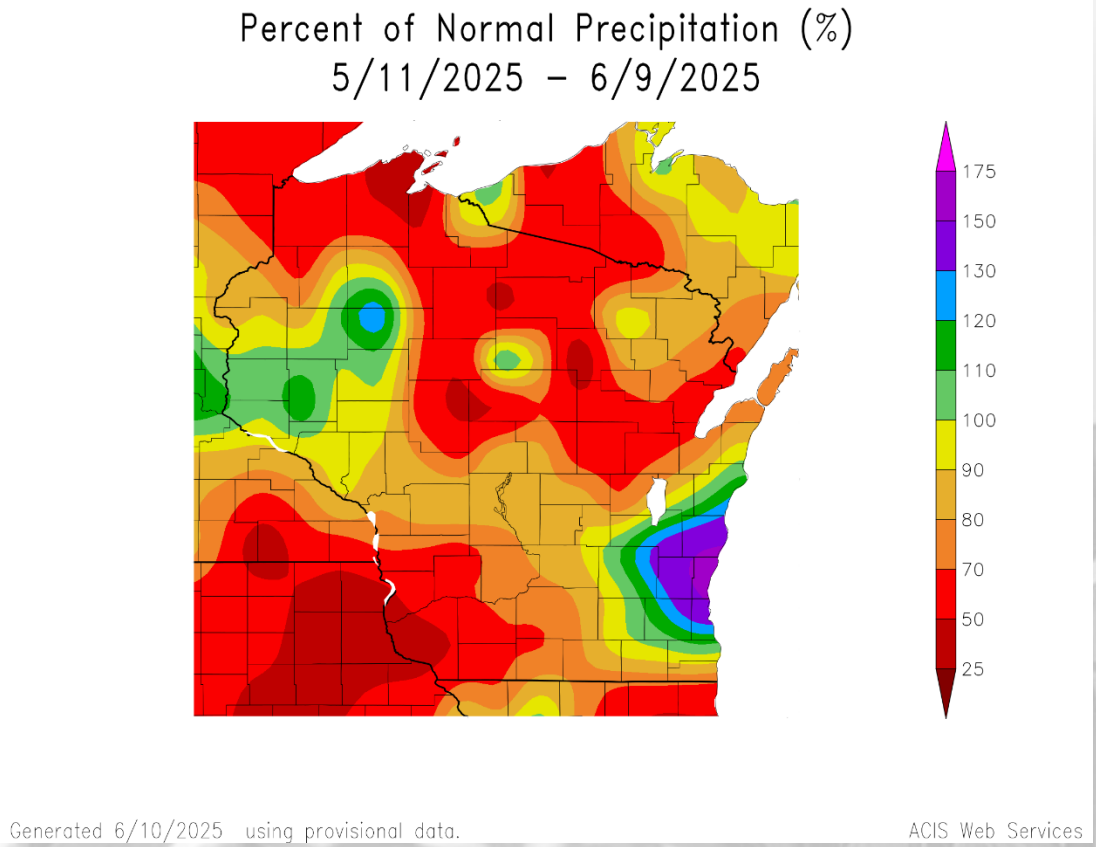


- Heaviest precipitation was concentrated:
  - Between Milwaukee & Fond du Lac → **5-8”**
  - In the west-central counties → **4-6”**
- Lesser totals in the north and in the far southwest (**2” or less**). Most of the state saw **2-5”**.

https://water.noaa.gov/

30 Day Precip Total/% Avg.

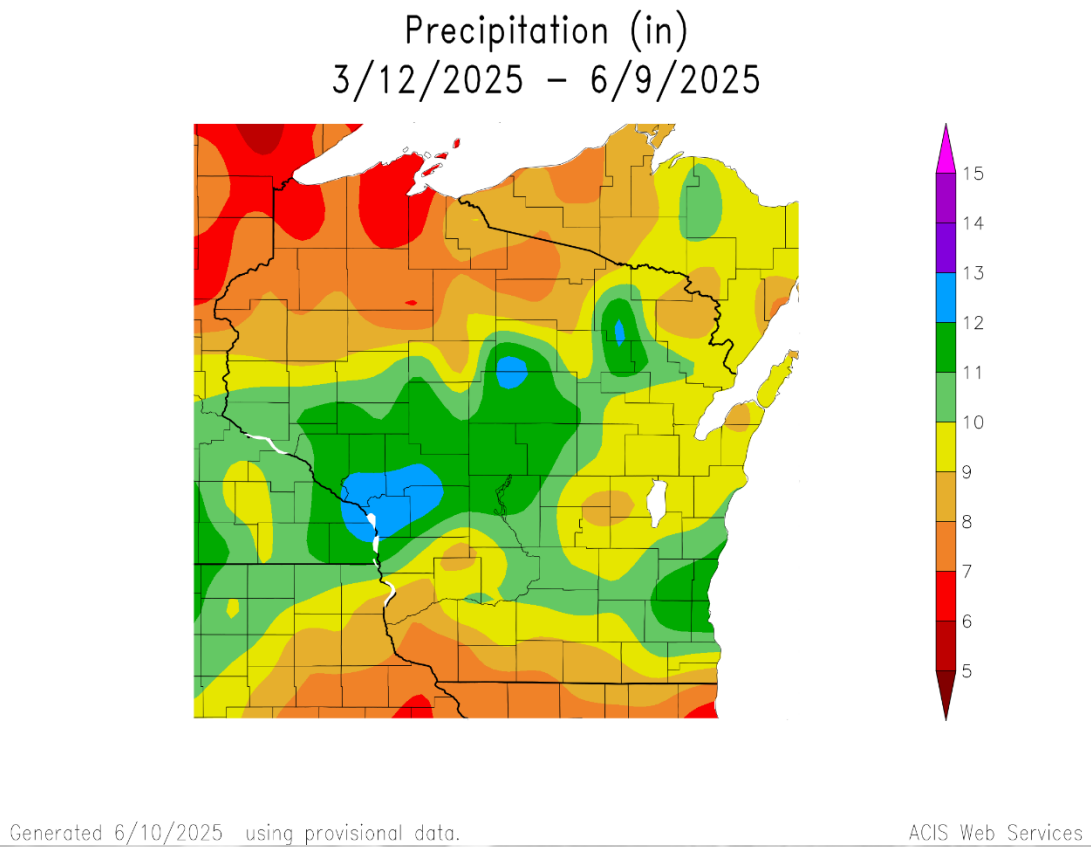


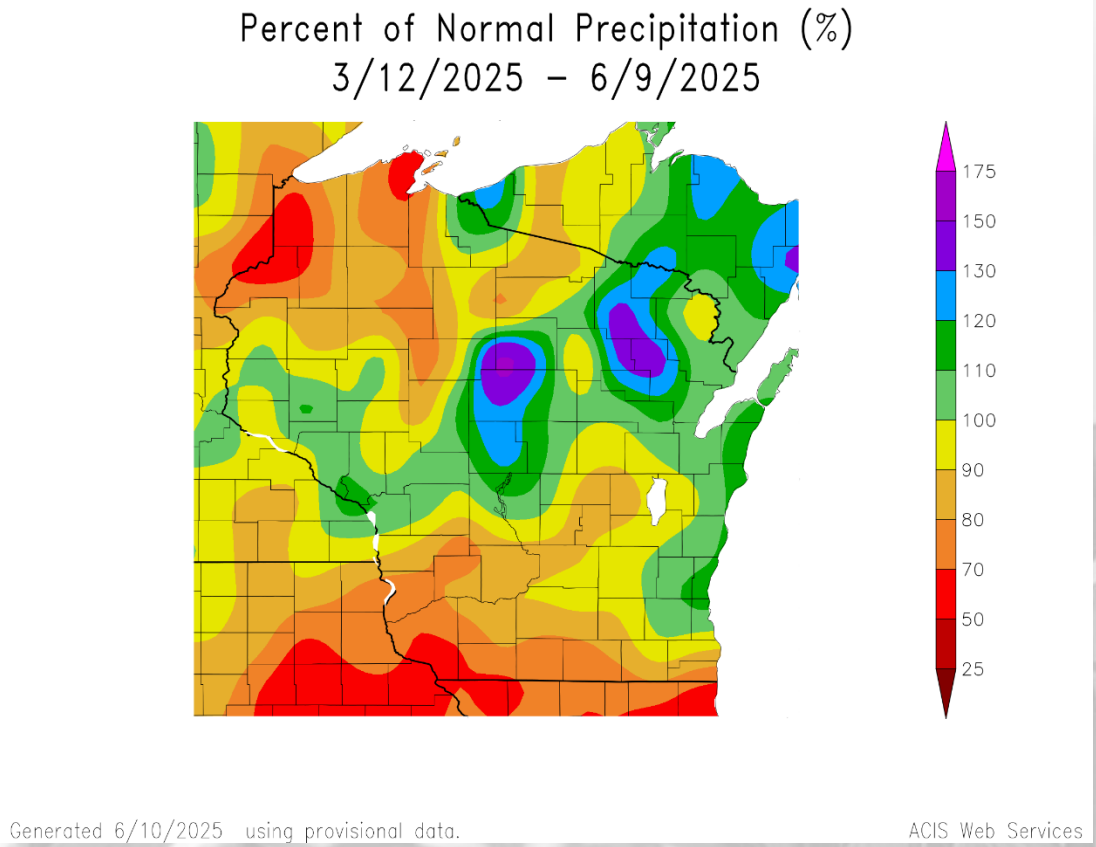


- **Below climatological normal** across most of the state. **70% of normal or less** in the SW and north (**2.5" or less**).
- **Near to above normal** precip in parts of the NW and SE → **4" or more**.
- Highest totals between Milwaukee & Sheboygan → **130-150% of normal**.

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

90 Day Precip Total/% Avg.

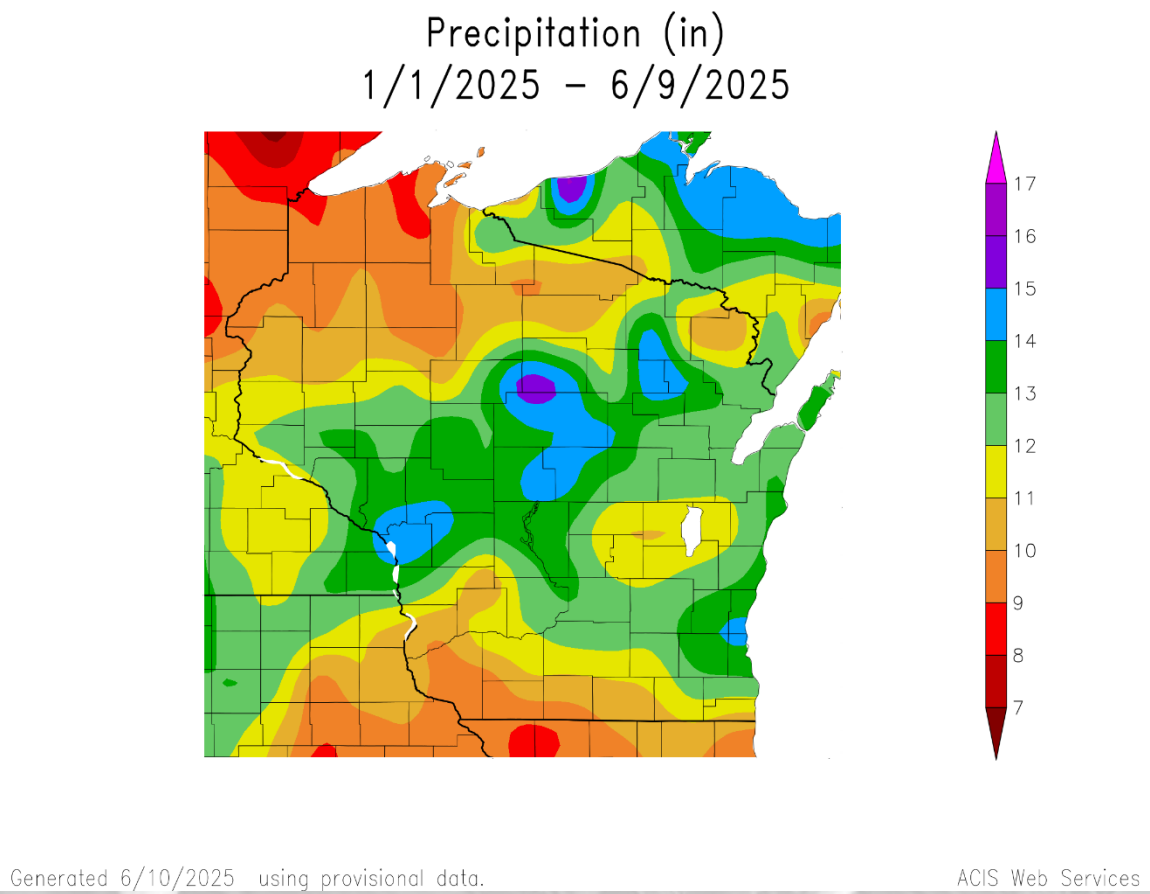


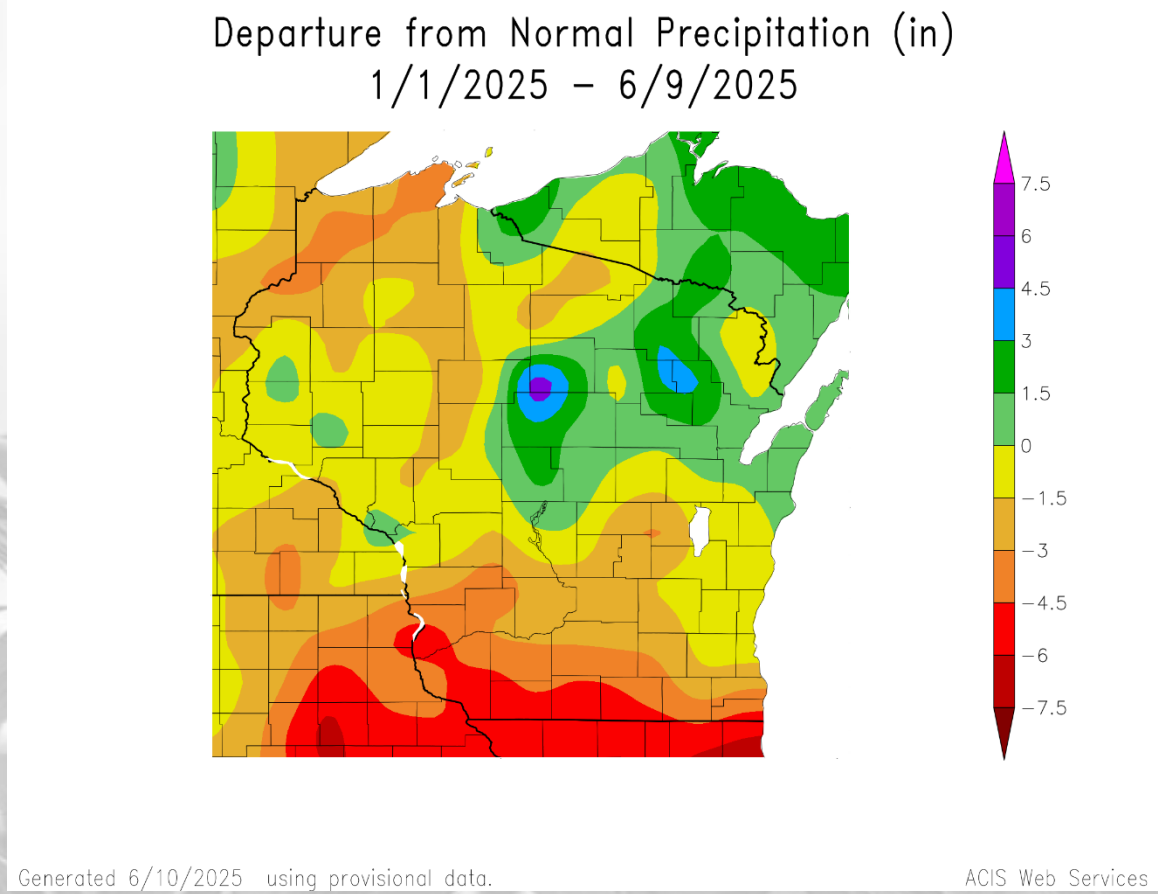


- **>9”** common across most of WI, with **totals highest in the WC, central, and near Milwaukee** (>11” for some).
  - Above normal in these regions.
- **Lower totals** in the northwest and far south → **7-9”, or <90% of normal**.
  - At or below normal across **most of the state**, especially in the SW and NW.

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

2025 Precipitation (so far)





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

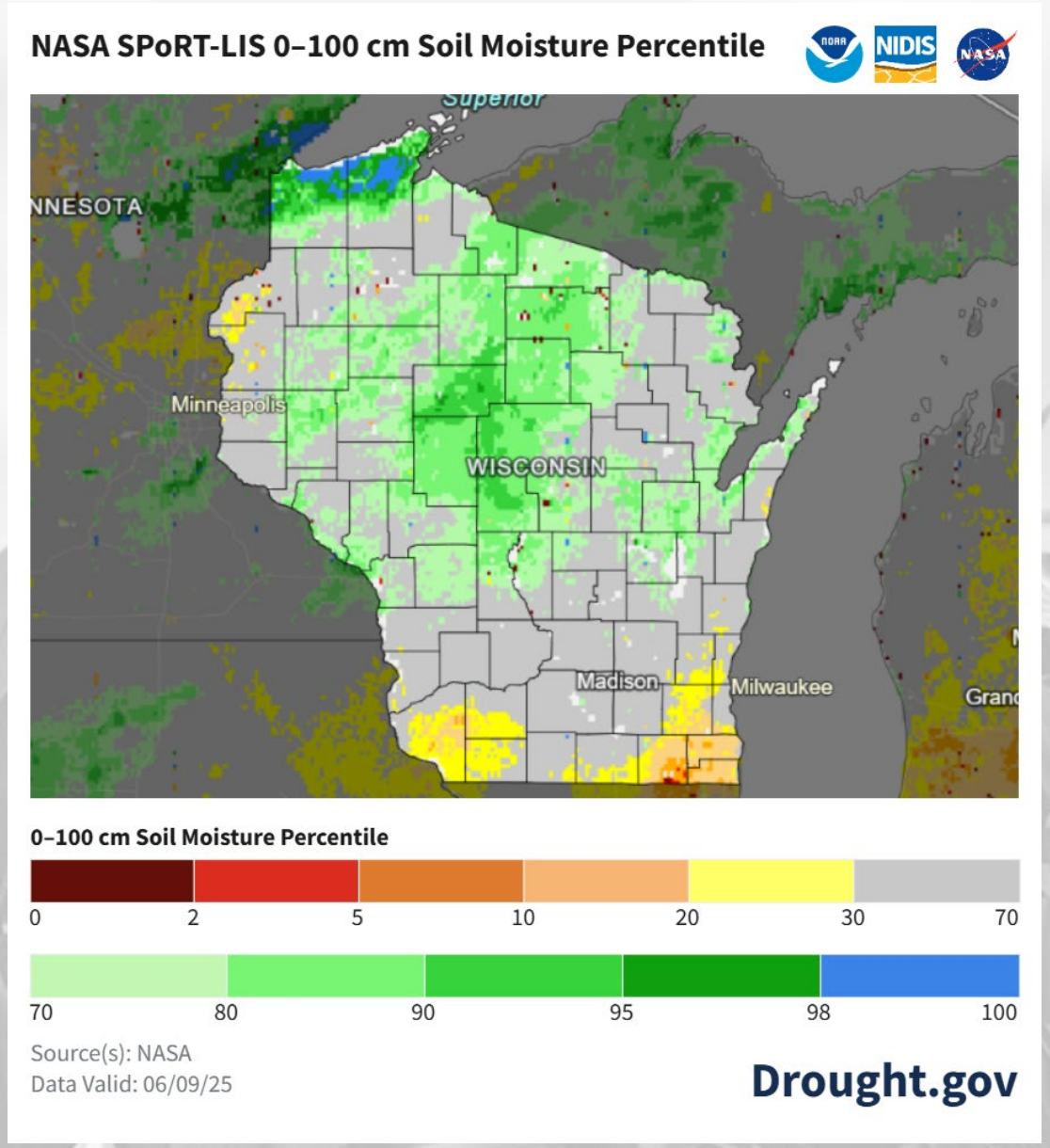
Soil Moisture Models

- The area of abnormally wet soil (green shading) has **expanded to the north** after a week of above normal precip up there; this is a shift from a very dry May.

- **Abnormal dryness** in the south **decreased in coverage area** from last week's report, only remaining in the **far SW and SE**. There is no more abnormal dryness indicated in the north.

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.

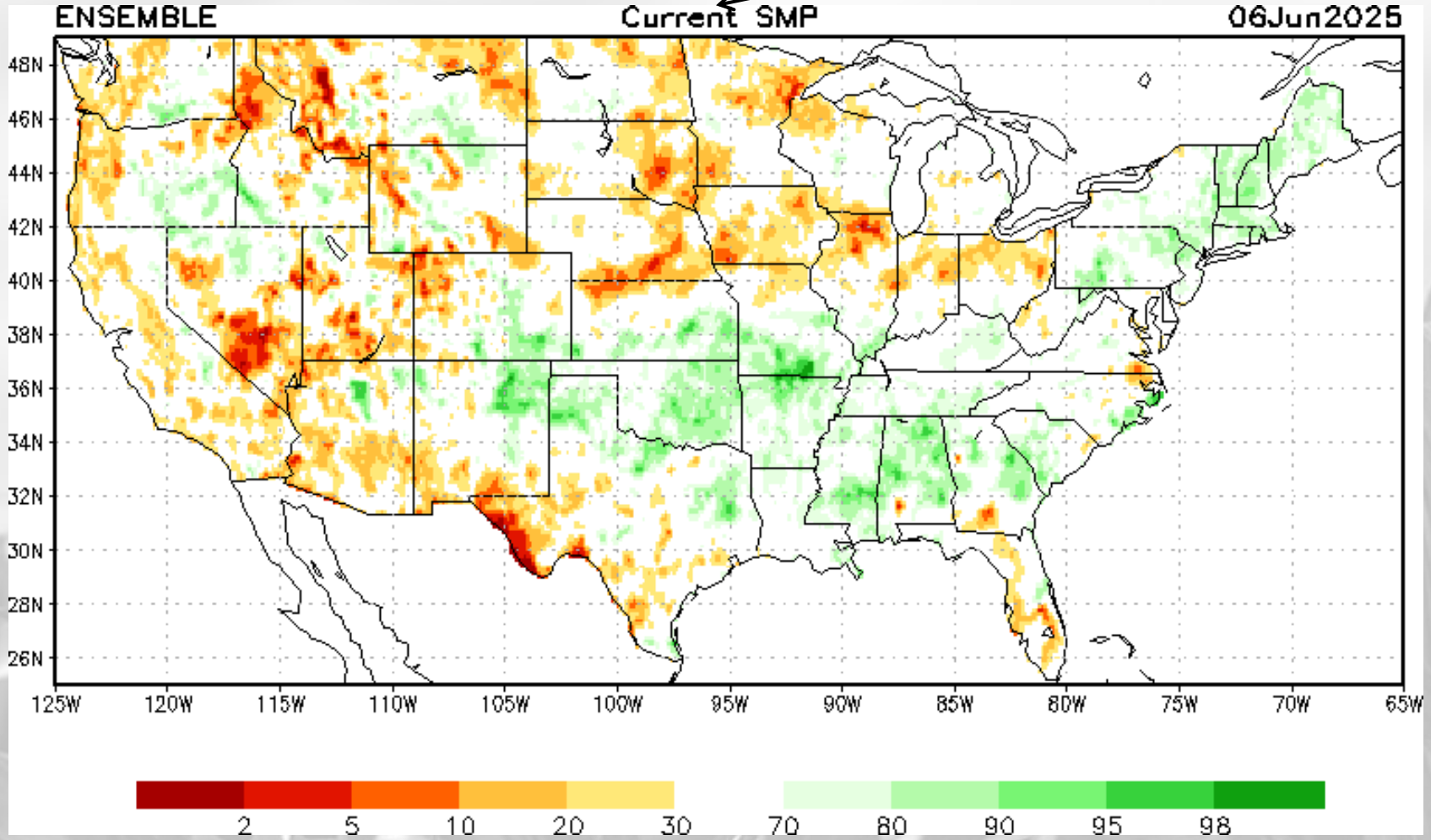
It's worth noting that each soil moisture model has their own characteristics and input variables, so there tends to be variation between models. Thus, it's worthwhile to look at multiple models opposed to just one.



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

Soil Moisture Models

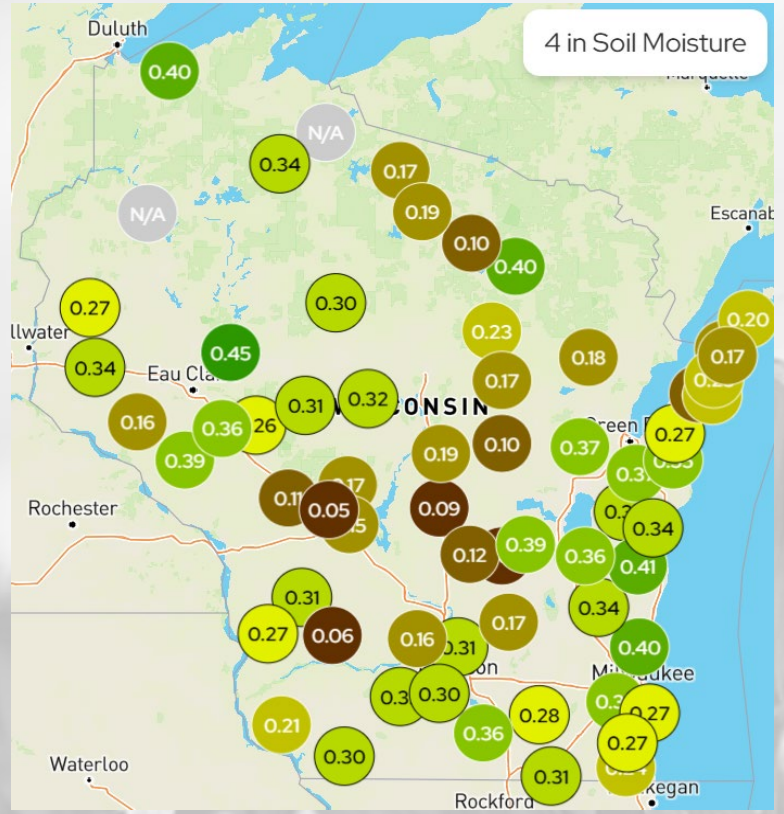
NOTE: this map displays the soil moisture percentile for June 6. It was the most recent update on June 10.

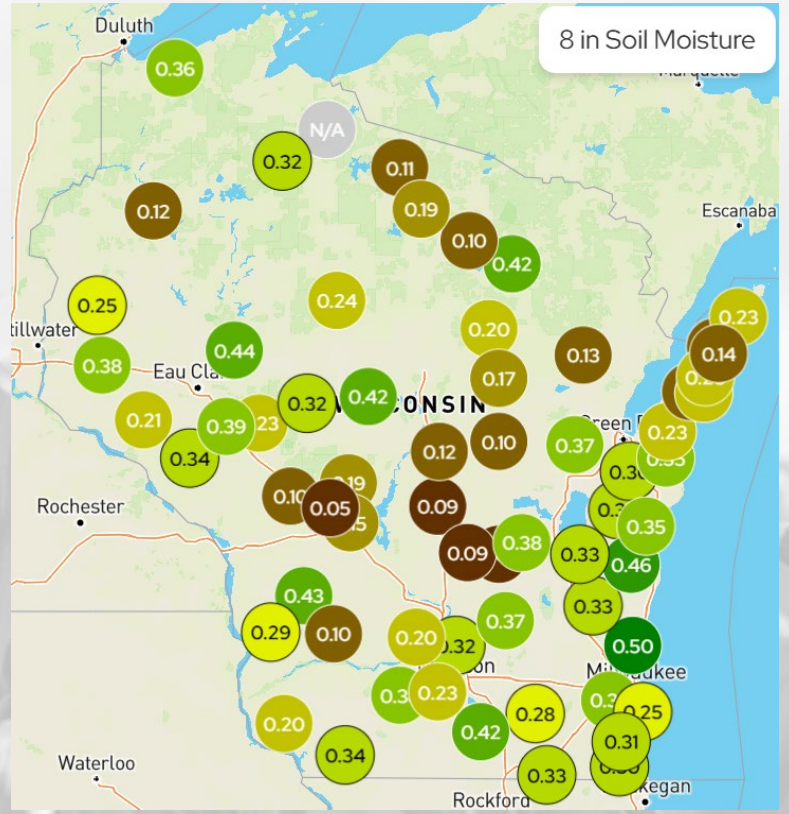


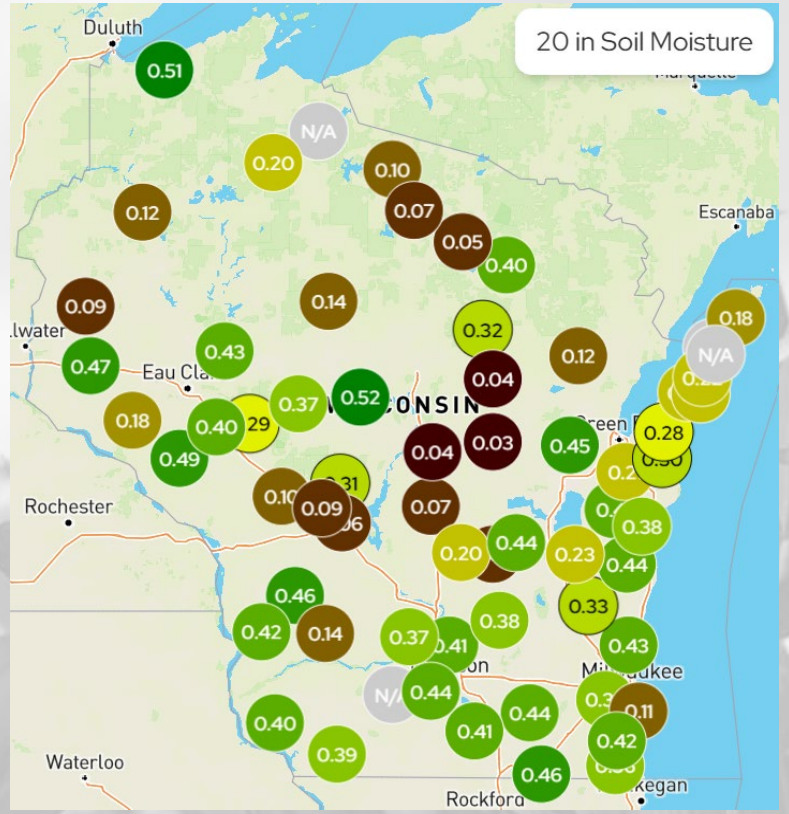
https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp_new.shtml

Wisconet Soil Moisture

Maps showing soil moisture conditions on June 10th @ Mid-afternoon.
Units of map values are {Volume of water}/{Volume of soil}.







https://wisconet.wisc.edu/

Wisconet Soil Moisture

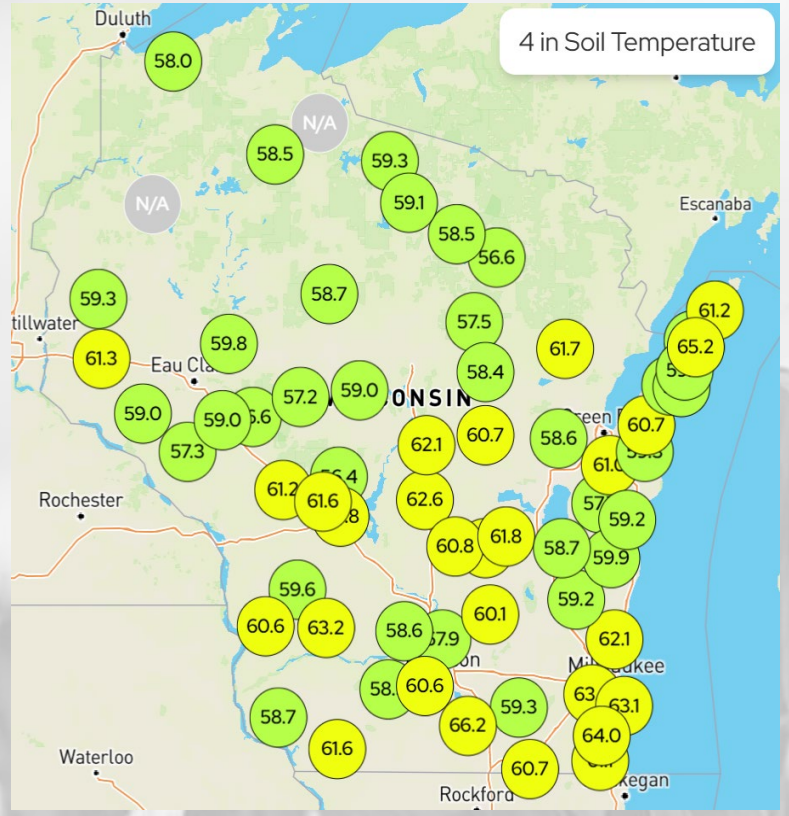
Change in soil moisture from June 3rd (Start) to June 10th (End).
Units of change values are {Volume of water}/{Volume of soil}.

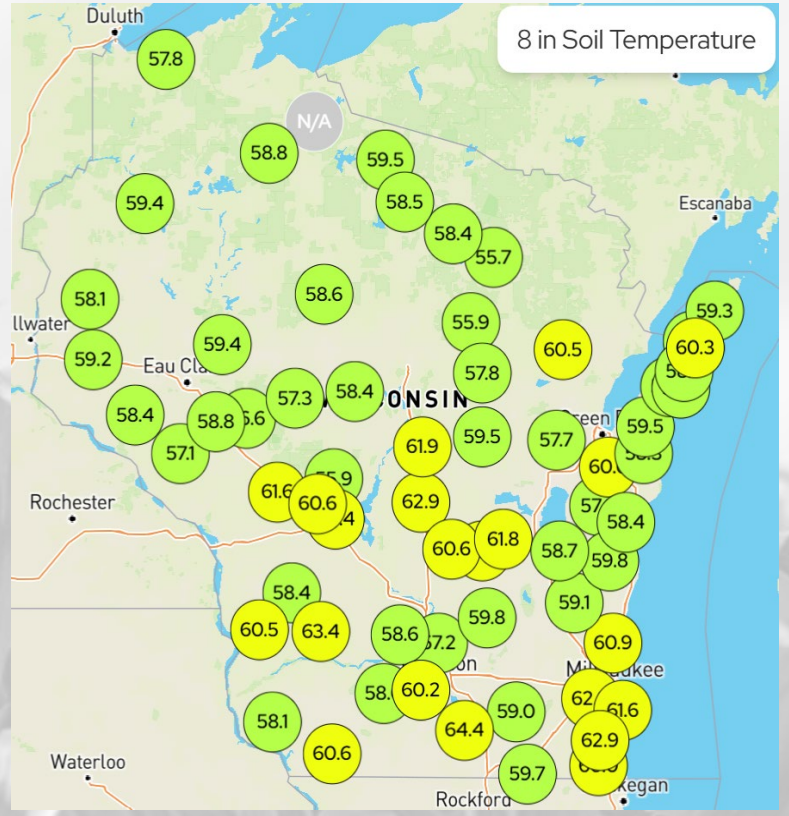
Research Farm	County	Total Precip (in)	4" Change (Start)	4" Change (End)	8" Change (Start)	8" Change (End)	20" Change (Start)	20" Change (End)
Arlington	Columbia	1.18	0.31	0.32	0.35	0.33	0.41	0.41
Black River Falls	Jackson	1.10	0.12	0.12	0.10	0.10	0.10	0.10
Dairy Forage ARS	Sauk	1.01	0.17	0.16	0.21	0.20	0.38	0.37
Hancock	Waushara	1.08	0.08	0.10	0.07	0.10	0.05	0.07
Kemp	Oneida	2.22	0.15	0.20	0.17	0.20	0.05	0.07
Lancaster	Grant	0.59	0.22	0.21	0.22	0.21	0.40	0.40
Marshfield	Marathon	1.28	0.30	0.32	0.42	0.42	0.52	0.52
O.J. Noer *(Turfgrass)*	Dane	1.40	0.28	0.32	0.22	0.23	0.44	0.44
Peninsular	Door	1.41	0.16	0.27	0.16	0.22	0.23	0.23
Rhinelander	Oneida	2.17	0.05	0.09	0.05	0.08	0.04	0.05
Spooner	Washburn	1.73	--	--	0.05	0.11	0.12	0.12

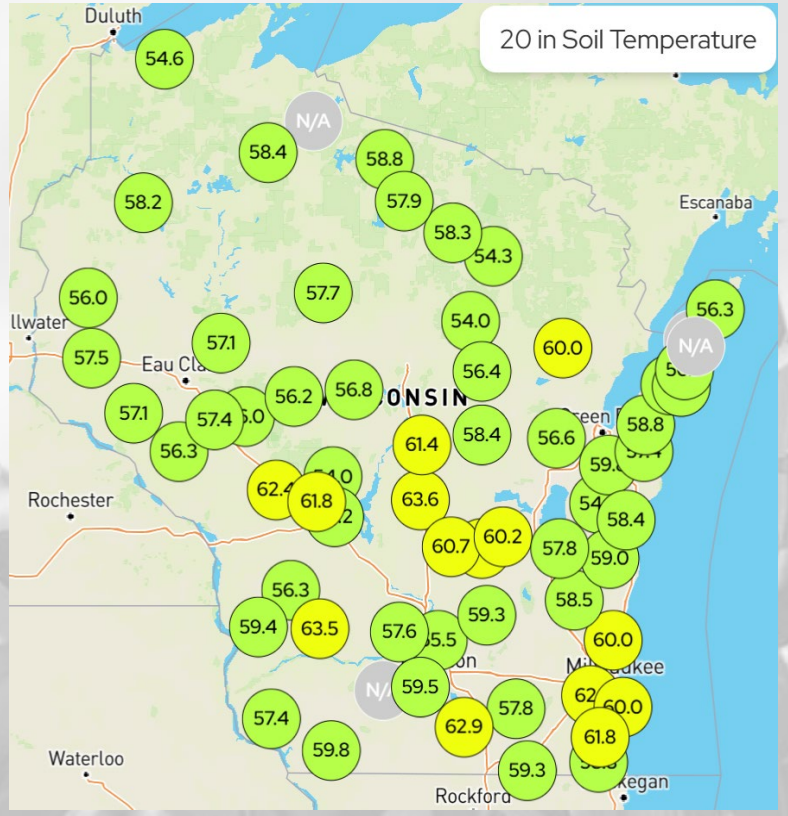
https://wisconet.wisc.edu/

Wisconet Soil Temperature

Maps showing soil temperature conditions on
June 10th @ Mid-afternoon.

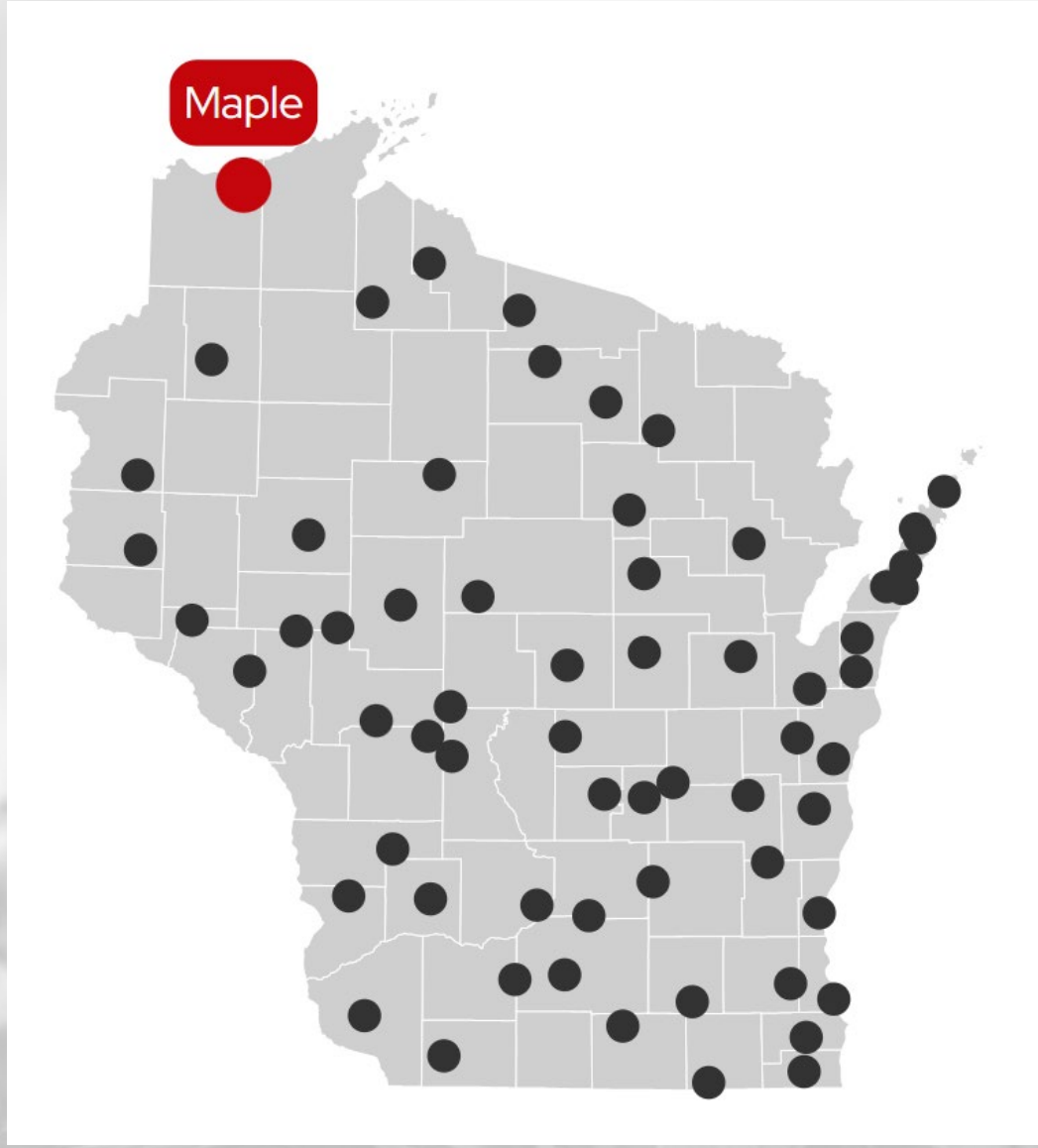






https://wisconet.wisc.edu/

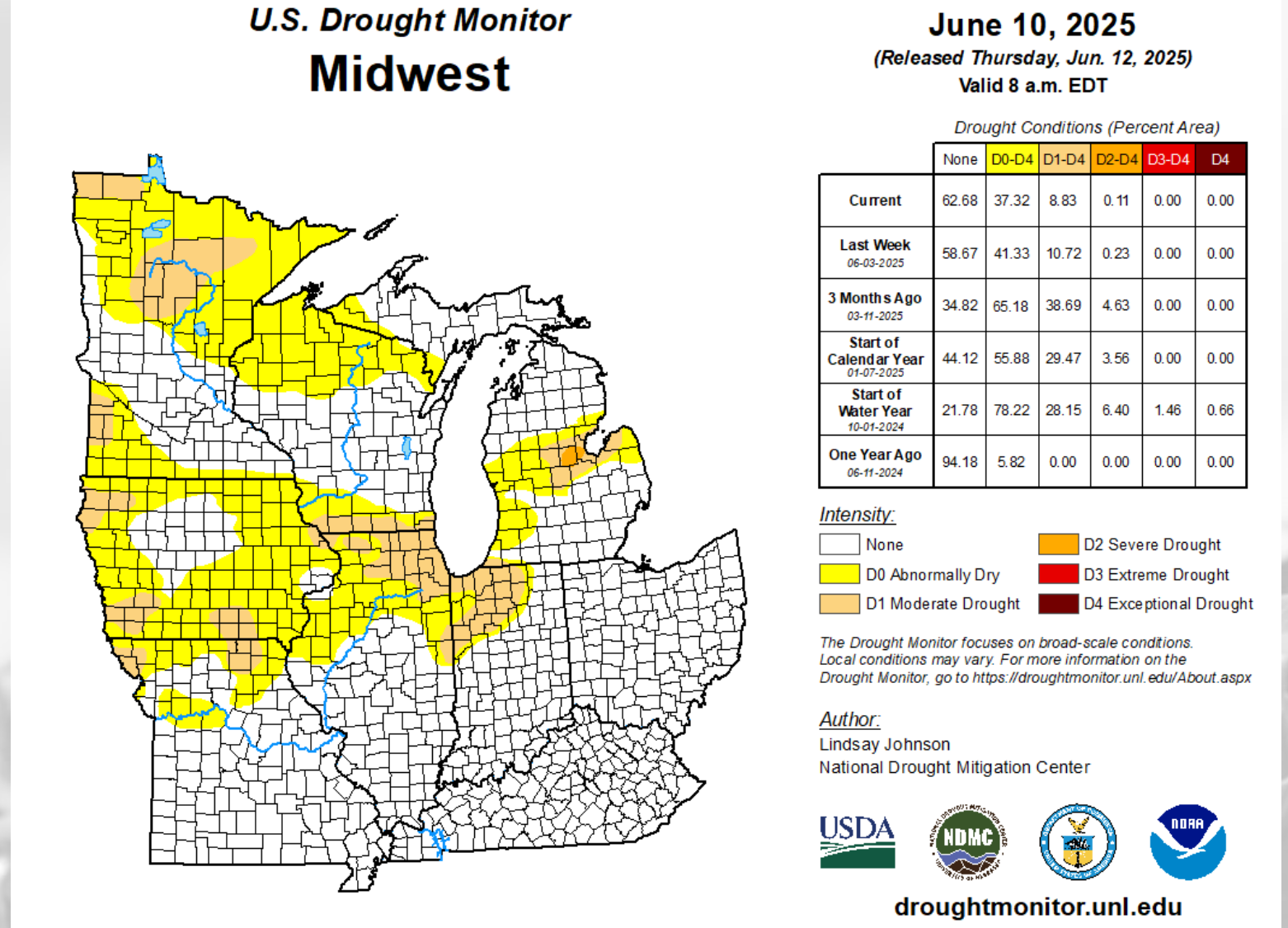
Wisconet Stations



- As of June 10, 2025, there are **64 Wisconet stations** across the state.
- To find data for the station nearest to you, **click this link** to go to a webpage with an interactive Wisconet station map.
- **Stations added since January 1, 2025**:
  - Taycheedah, Fond du Lac County (4/23/25)
  - Brigham, Iowa County (5/7/25)
  - Westboro, Taylor County (5/13/25)
  - Shanagolden, Ashland County (5/28/25)
  - Darlington, Lafayette County (5/29/25)

https://wisconet.wisc.edu/

US Drought Monitor

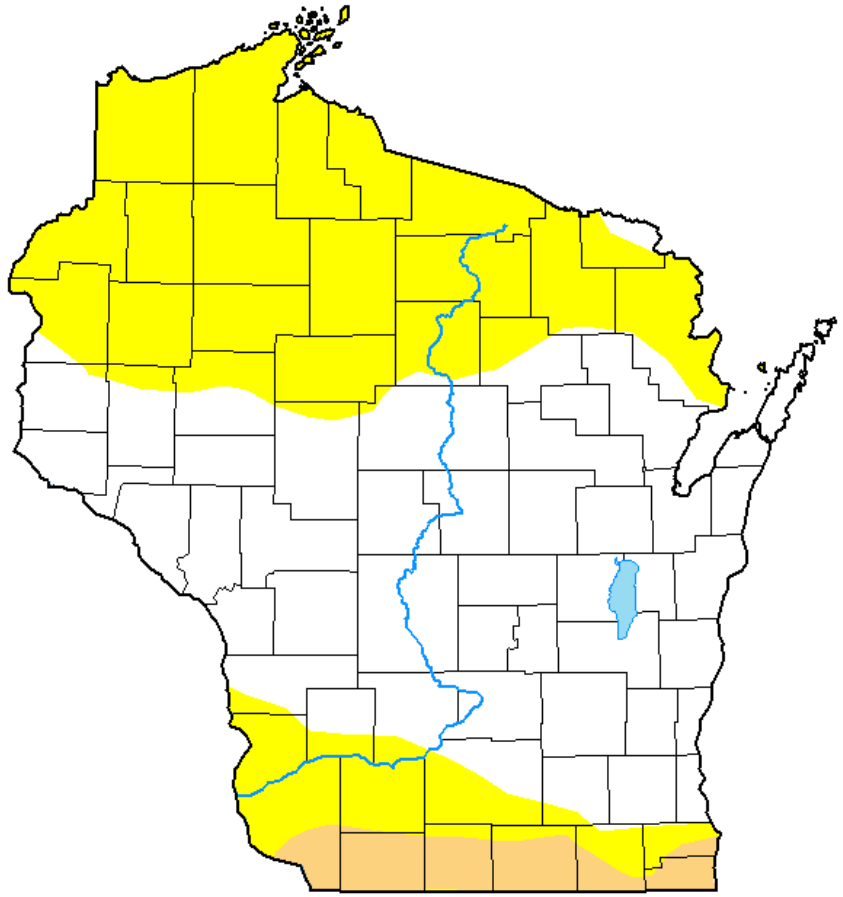


- Compared to last week:
  - Decrease in D0-D2 coverage.
- **Virtually no change** in drought coverage area or severity Wisconsin for last week. Minor shifts in the SW.
- **0.1%** of the Midwest is in D2 drought, **down** from last week.
  - D2 drought was removed from northwest IL.
- **91.2%** of the Midwest is drought free (8.8% in D1 or D2).

Note: D0 is not considered drought.

http://droughtmonitor.unl.edu/

US Drought Monitor



June 10, 2025
(Released Thursday, Jun. 12, 2025)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	52.97	47.03	4.70	0.00	0.00	0.00
Last Week 06-03-2025	52.83	47.17	4.73	0.00	0.00	0.00
3 Months Ago 03-11-2025	18.55	81.45	50.50	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 06-11-2024	95.75	4.25	0.00	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:
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National Drought Mitigation Center

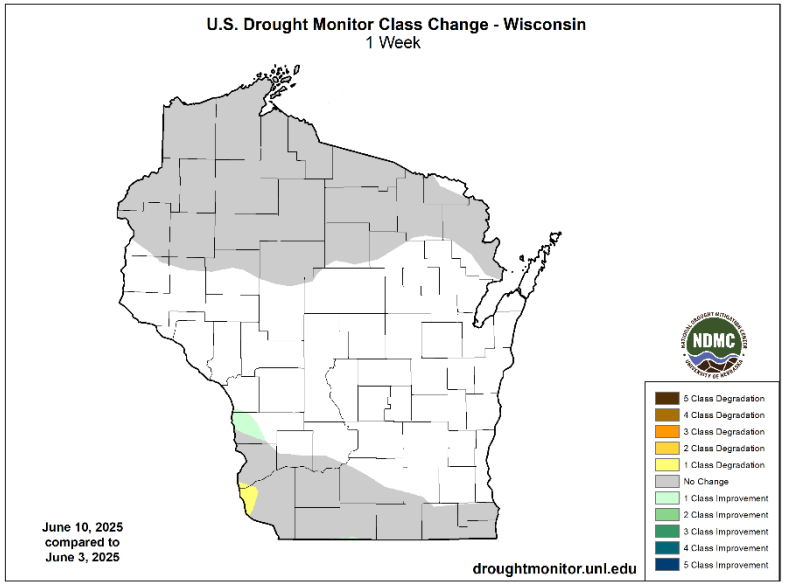
droughtmonitor.unl.edu

http://droughtmonitor.unl.edu/

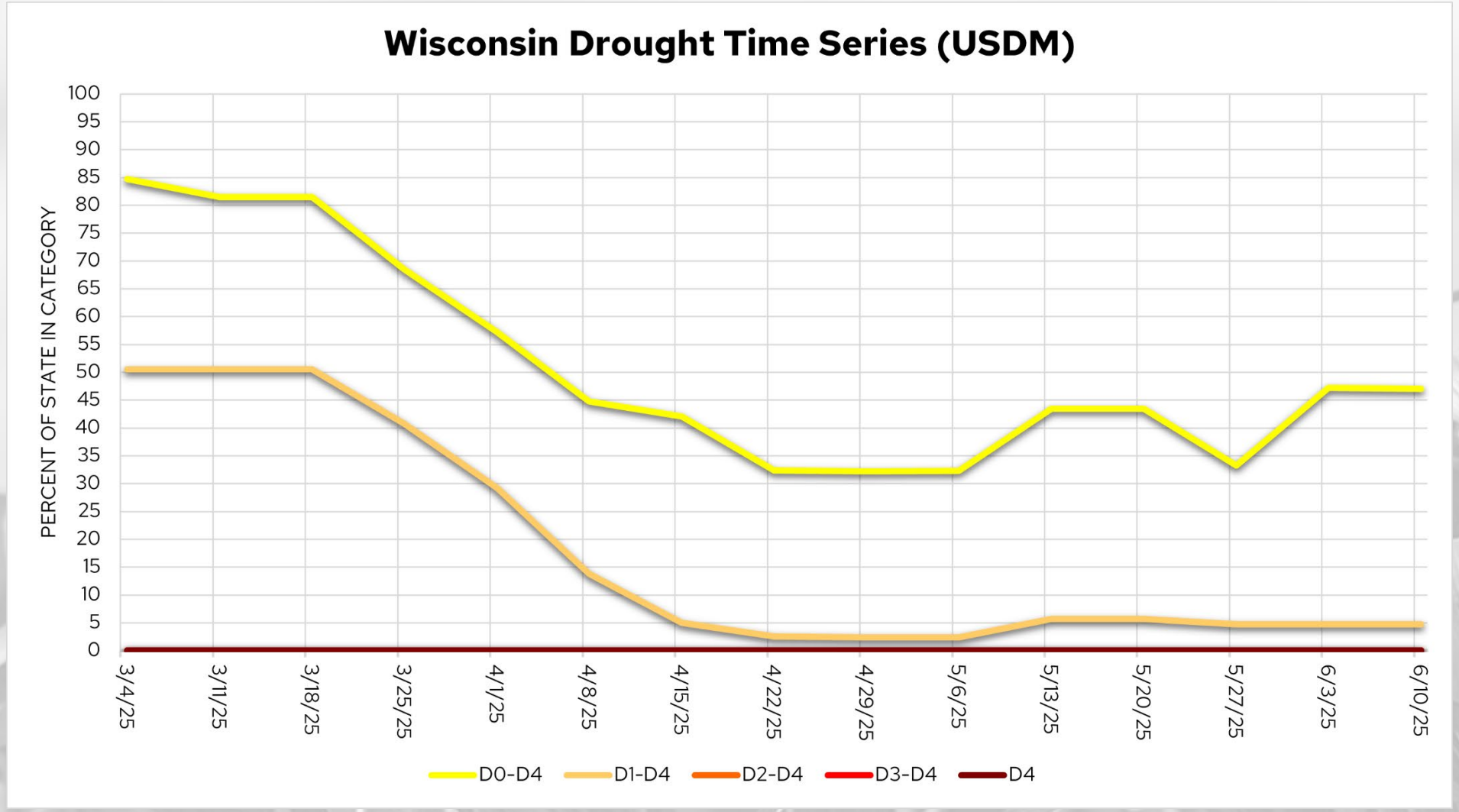
Amount of state in:

- D1-D4 – 4.7% --
- 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.

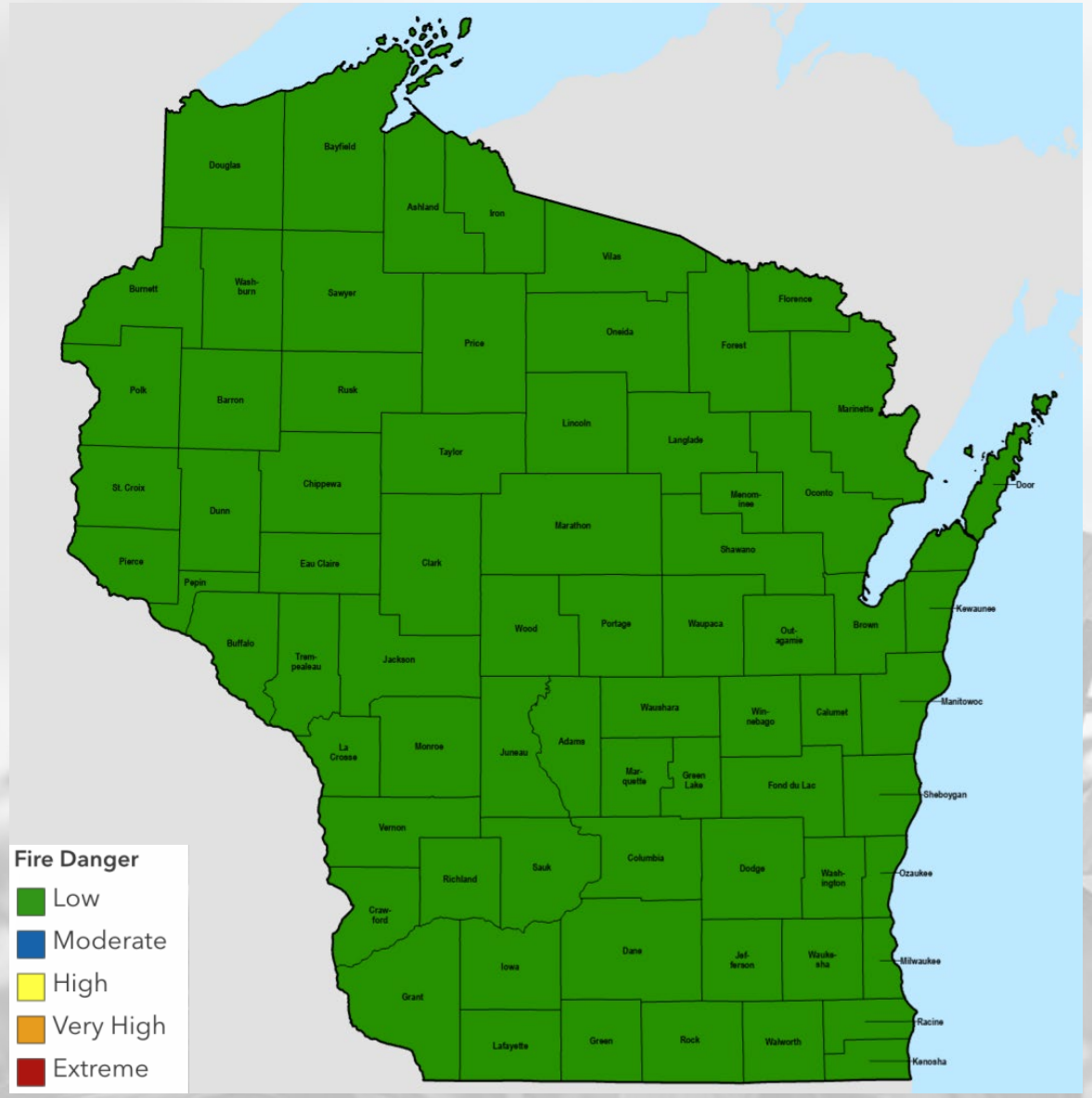


USDM Time Series



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.

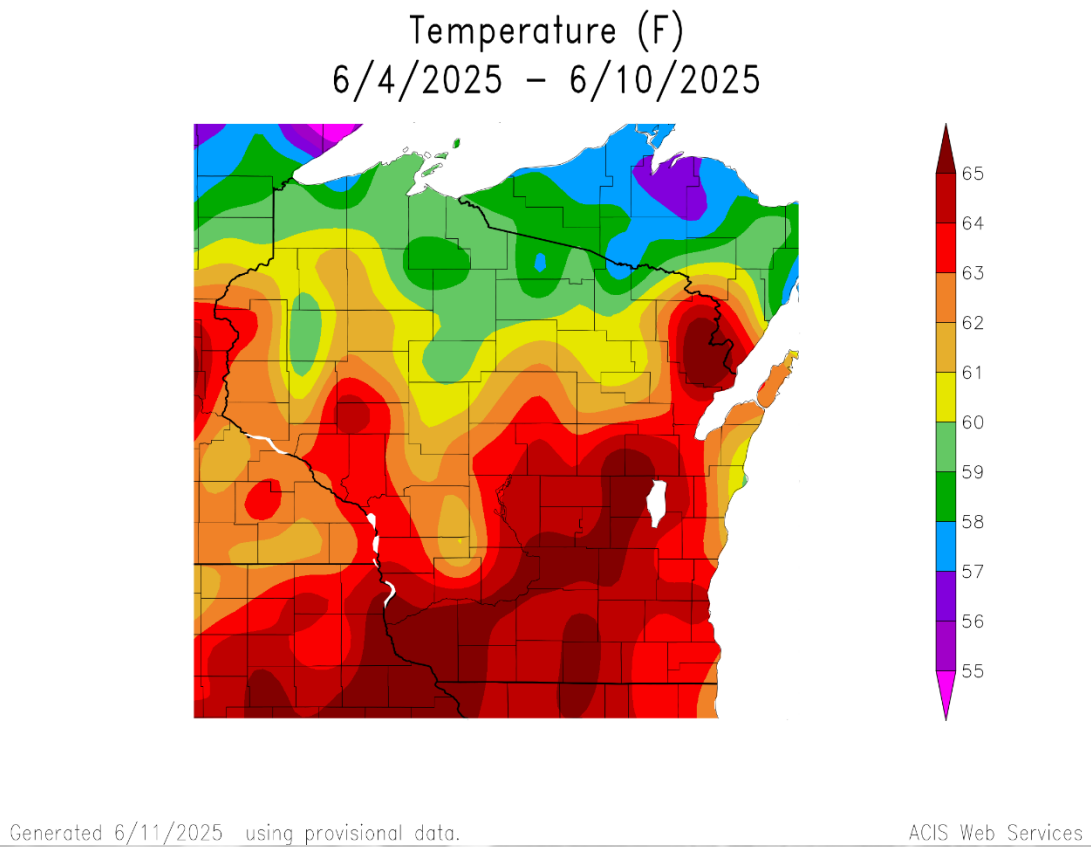
A fire danger of **HIGH** means wildfires ignite easily, spread rapidly, and can be challenging to control.

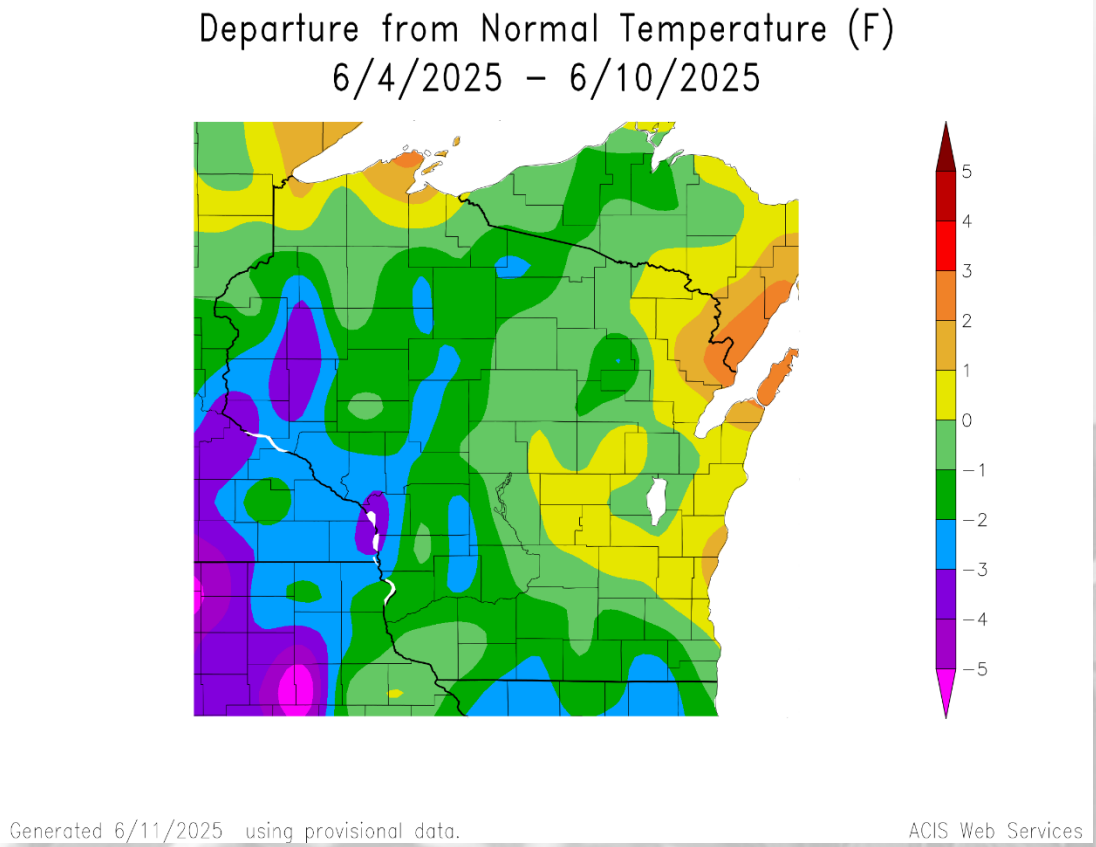
A fire danger of **VERY HIGH** means wildfires start easily, spread rapidly with increased intensity and are difficult to control.

Map updated on 6/12/25

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

7 Day Temperatures

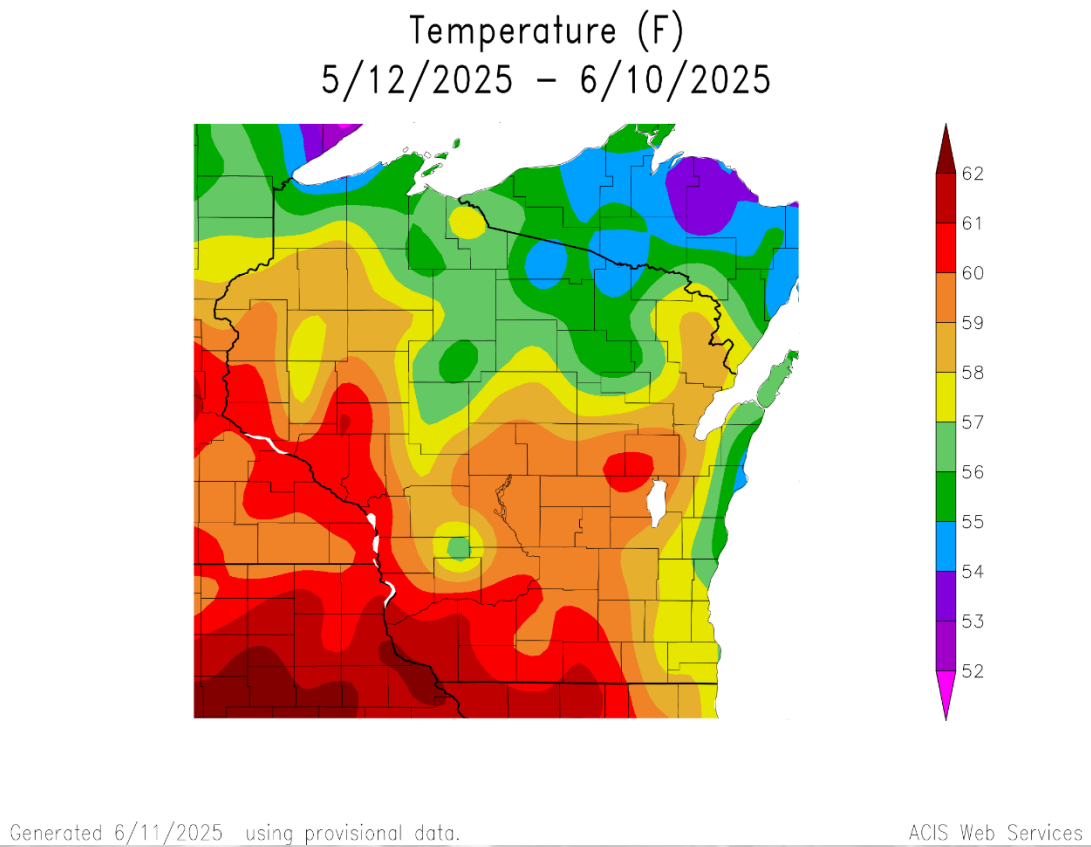


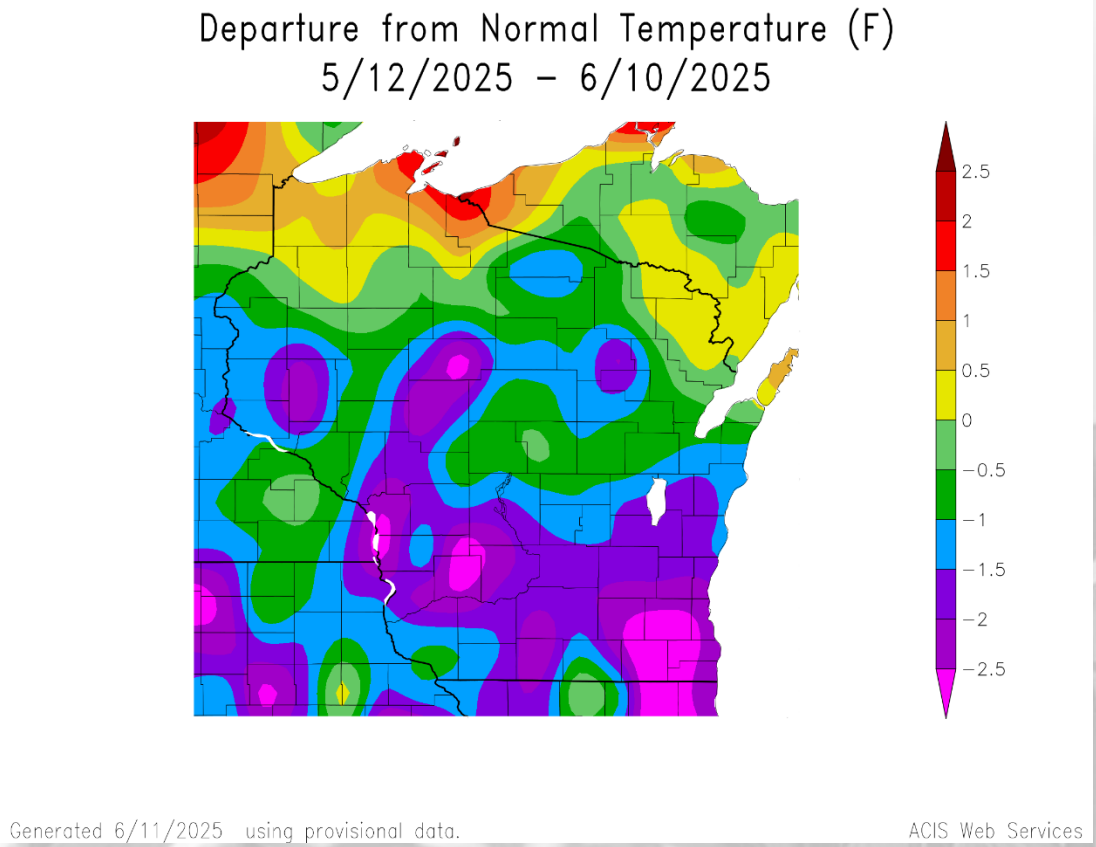


- Average temp. range of **63-65+°F** in the west, south, and central; to **58-60°F** in the far north.
- **Below normal** in the south and west by **1-3°F**, despite this area being the warmest last week. **Near normal** in the eastern half of WI.
- The western half of WI only had **1 day where highs reached 80°F+**. By contrast, **2-3 days topped 80°F** in the east.

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

30 Day Temperatures

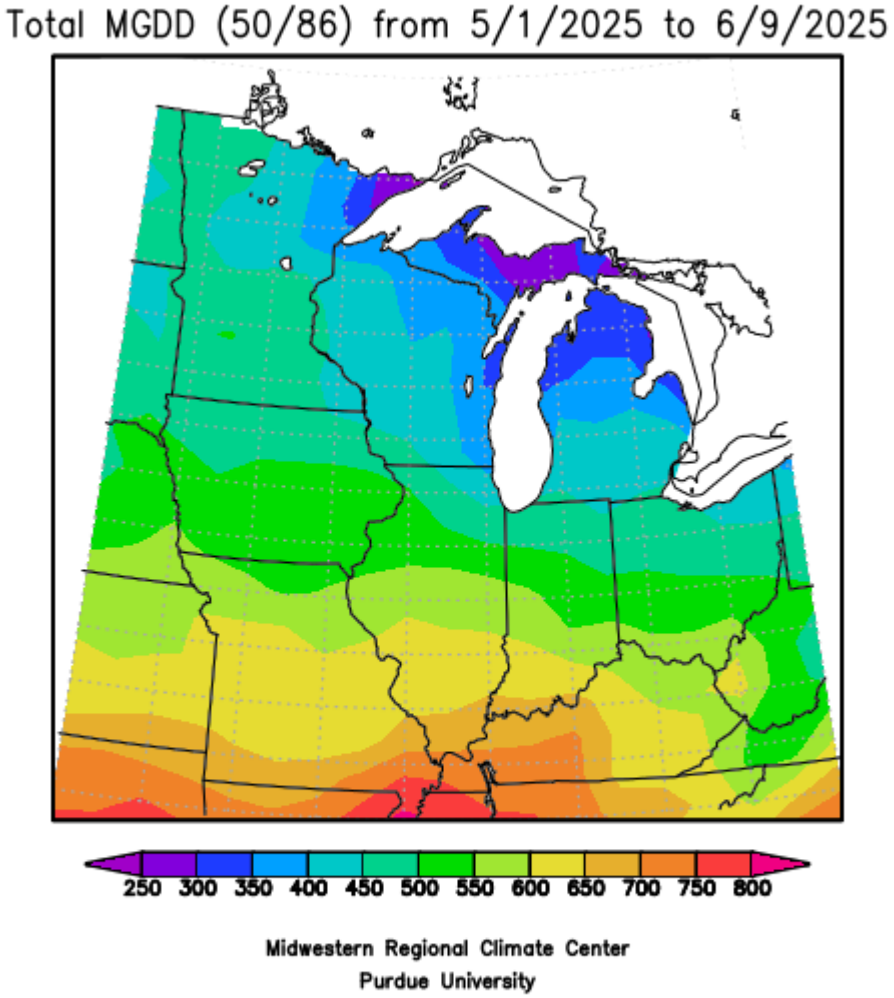


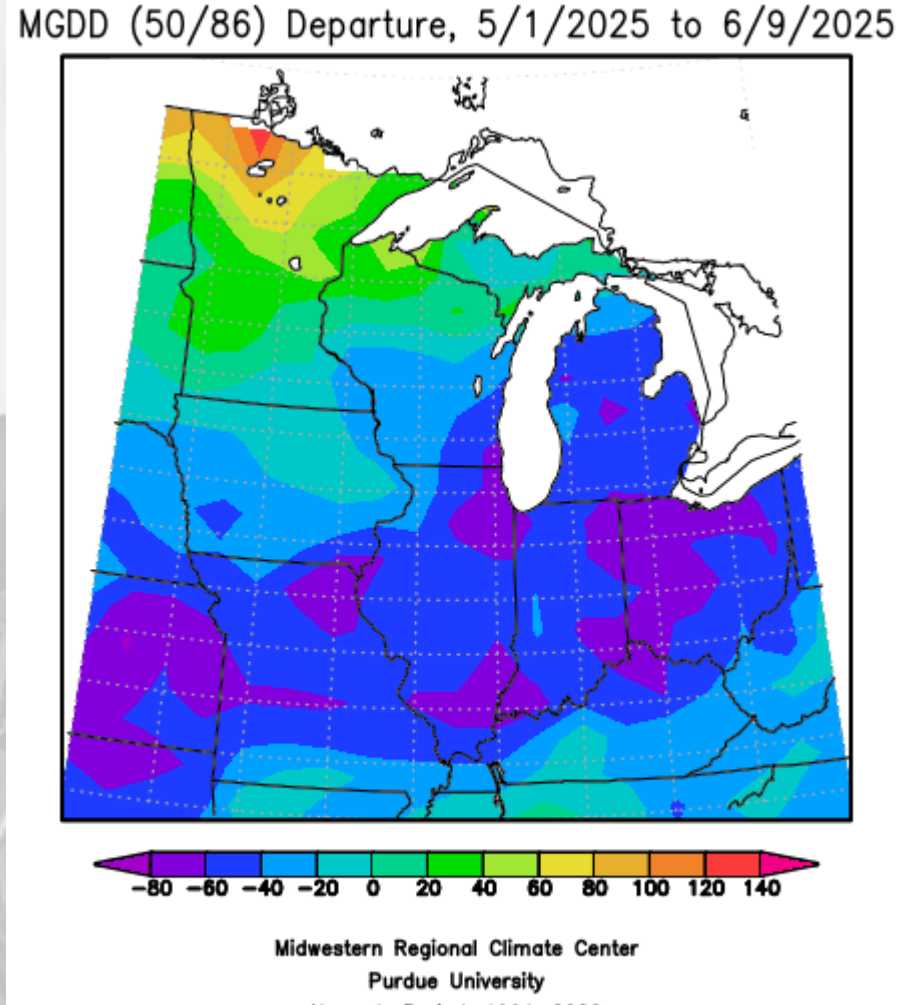


- Average temperatures for the past month ranged from **60-62°F** in the S & W to **54-57°F** in the N & E.
- **Below normal** across most of the state; **1-3°F below normal** across the south, west, and central.
- **Near normal** in the far north.

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

Growing Degree Days (Base = 50°F; Since May 1)





- **350-450** GDD across most of the state. **300-400** GDD in the E, & closer to **450 GDD** in the W.
- GDD accumulation is **behind normal pace** in the southern 2/3 of WI. **Faster-than-normal** accumulation pace in the N.

To calculate GDD for your corn variety and planting date, use this tool.

To see specific degree models for pests in your location, use the Vegetable Disease & Insect Forecasting Network.

https://mrcc.purdue.edu/climate_watch

Crop Progress Report

Crop progress report for Wisconsin for the week ending on June 8th

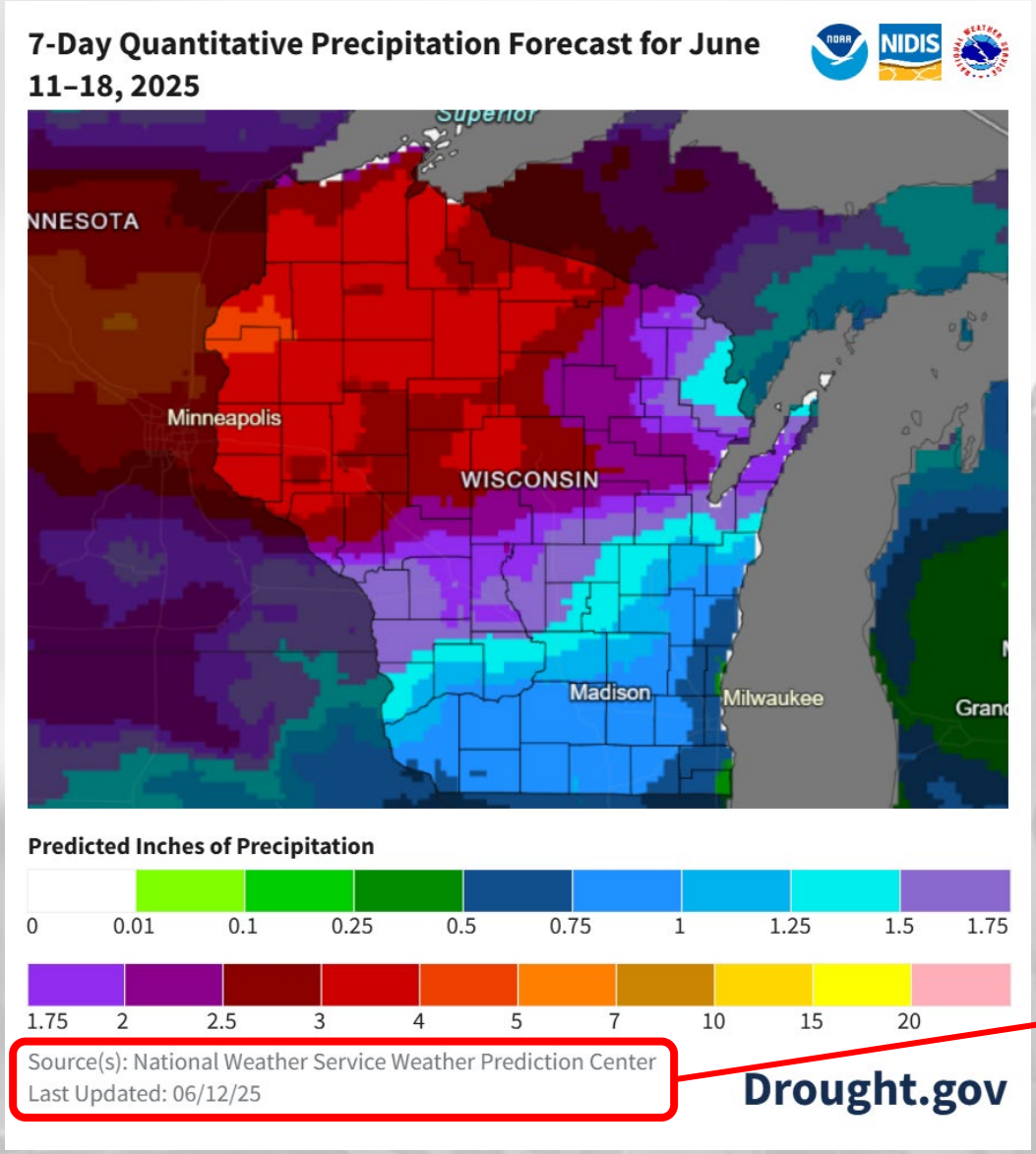
- Corn emergence is **82%** complete and planting is **96%** complete.
  - Condition was rated **74%** good to excellent.
- Soybean emergence is **73%** complete and planting is **95%** complete.
  - Condition was rated **79%** good to excellent.
- Winter wheat is **52%** headed and is rated **70%** good to excellent.
- The first cutting of alfalfa hay was **68%** complete.
- Pasture and range conditions are rated **78%** good to excellent (**up 6%** from last week).
- Oats are **89%** emerged and **97%** planted.
- Potato planting is **98%** complete.
- **80-85%** of agricultural soils in the state have **adequate** topsoil and subsoil moisture.

In the news: https://www.brownfieldagnews.com/news/weed-control-a-top-priority-for-many-wisconsin-farmers/
Full report: https://www.nass.usda.gov/Statistics_by_State/Wisconsin/Publications/Crop_Progress_&_Condition/2025/WI-Crop-Progress-06-09-25.pdf

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

NOTE: The NASS Crop Progress Maps for the June 8th update were not available at the time that these slides were published.

7 Day Precip Forecast

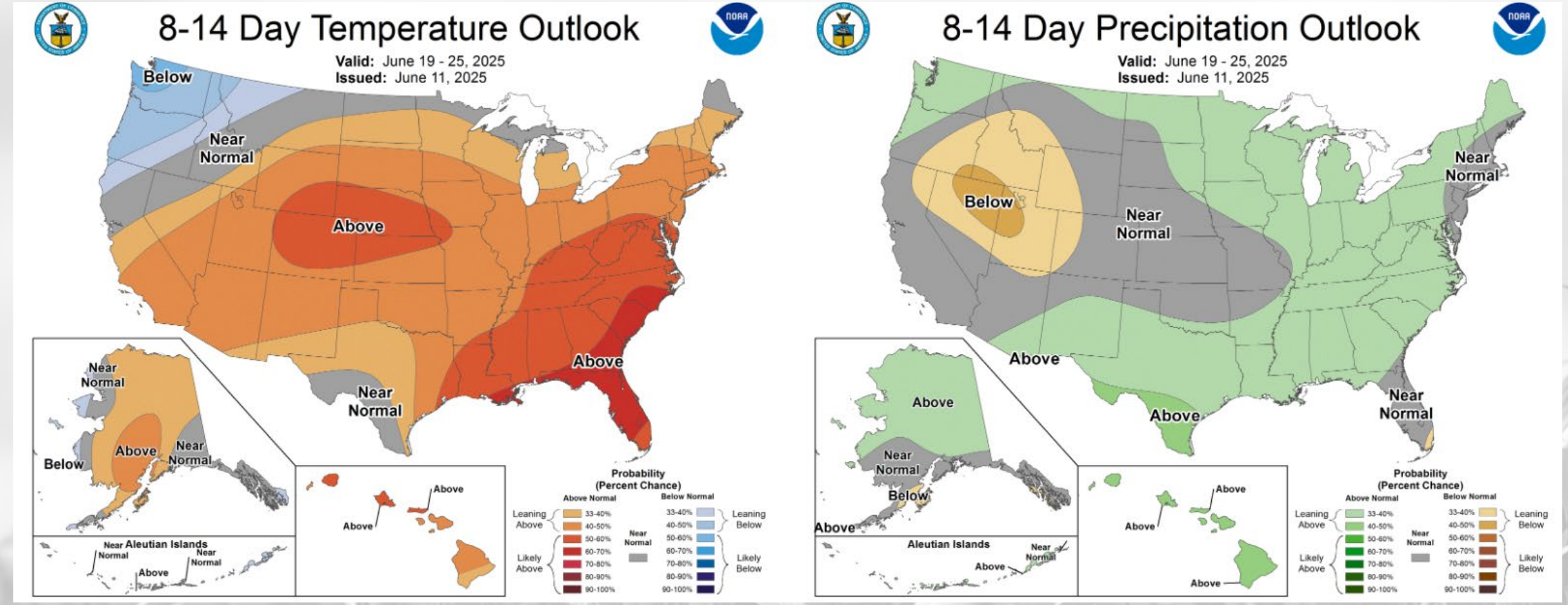


- An **active next 7 days** for precip is forecasted for WI.
  - Best chances for precip in the **north/northwest**. Totals of **1" or more** are forecasted for the northern & central regions.
  - Precip chances exist on **all 7 days** next week for at least part of the state.
  - Check your local forecast for details on totals and timing.

Forecast for 6/12/25 thru 6/19/25
(Begins at 7am CDT)

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

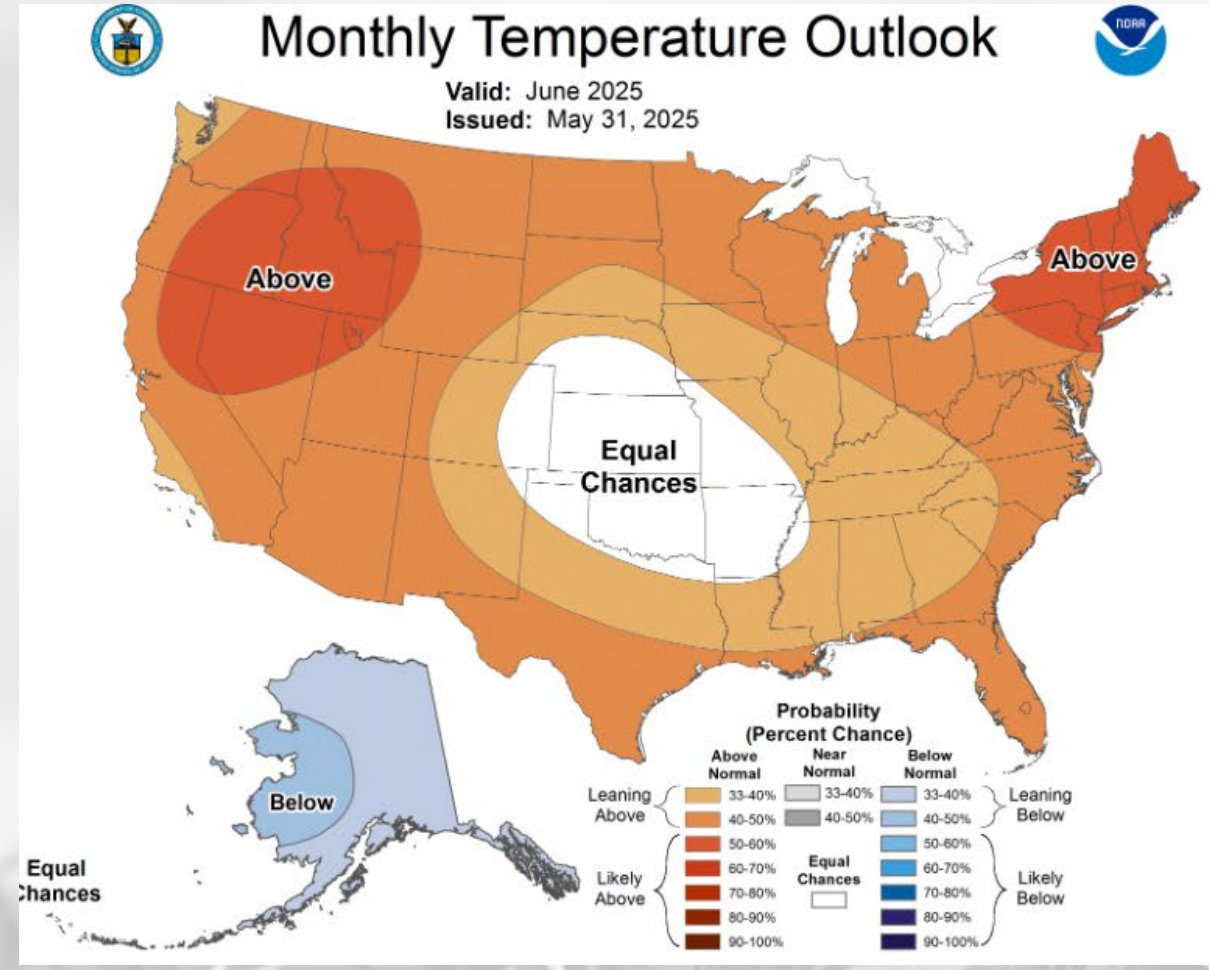
8-14 Day Temp & Precip Outlook

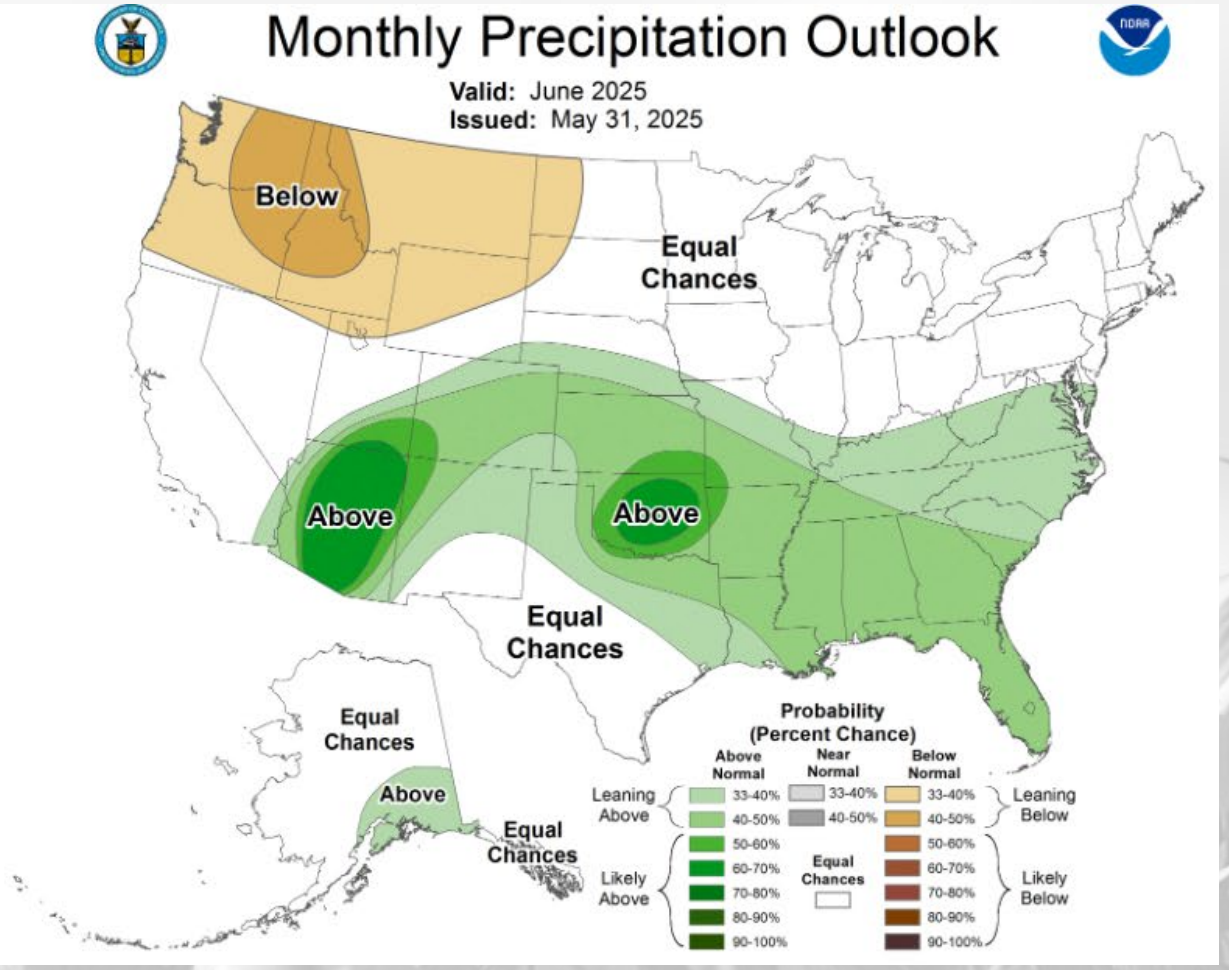


Mid-to-Late June: Temperatures leaning towards above normal, with higher odds of being above normal in the south. Precipitation is slightly leaning towards above normal statewide.

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

30 Day Temp & Precip Outlook

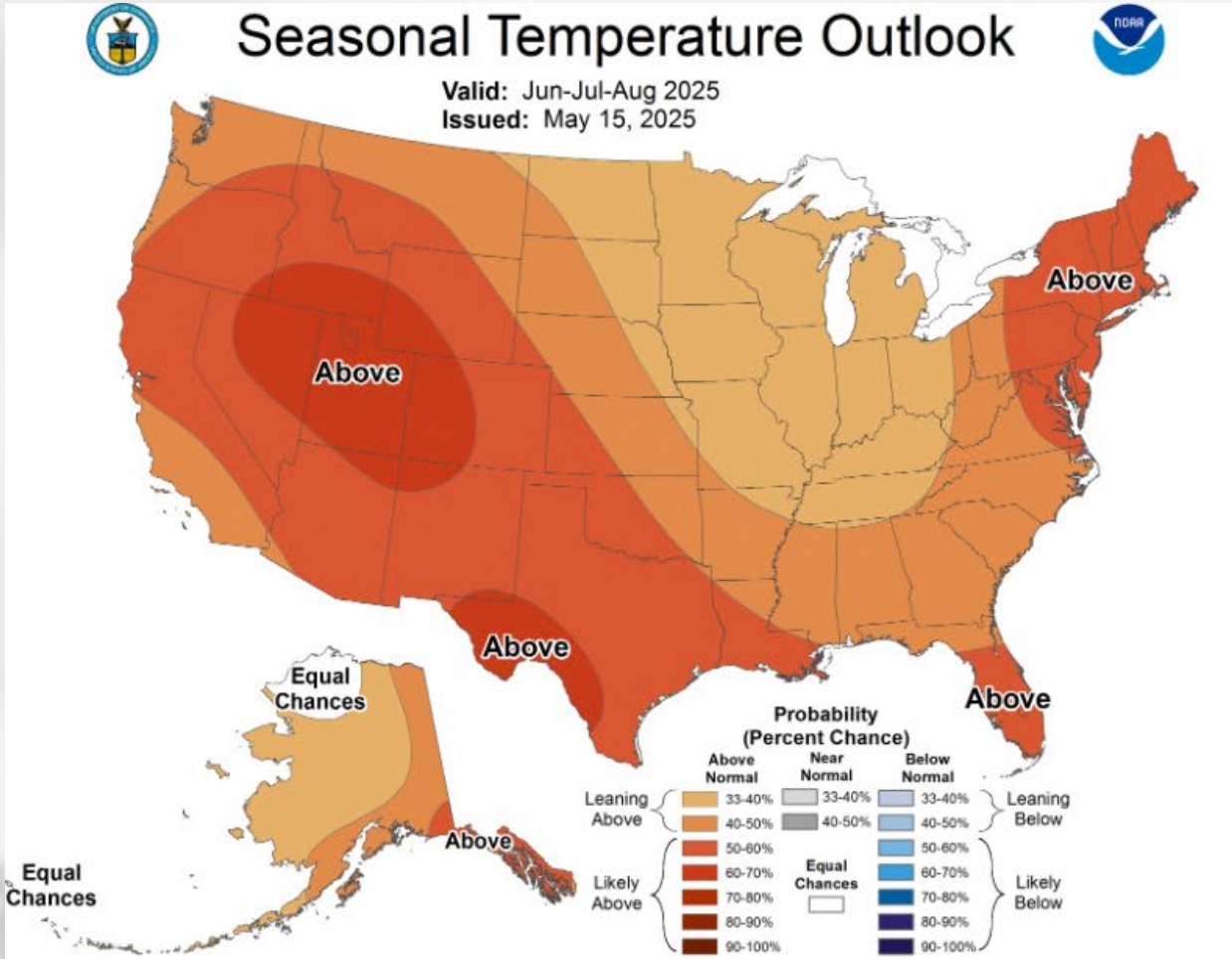


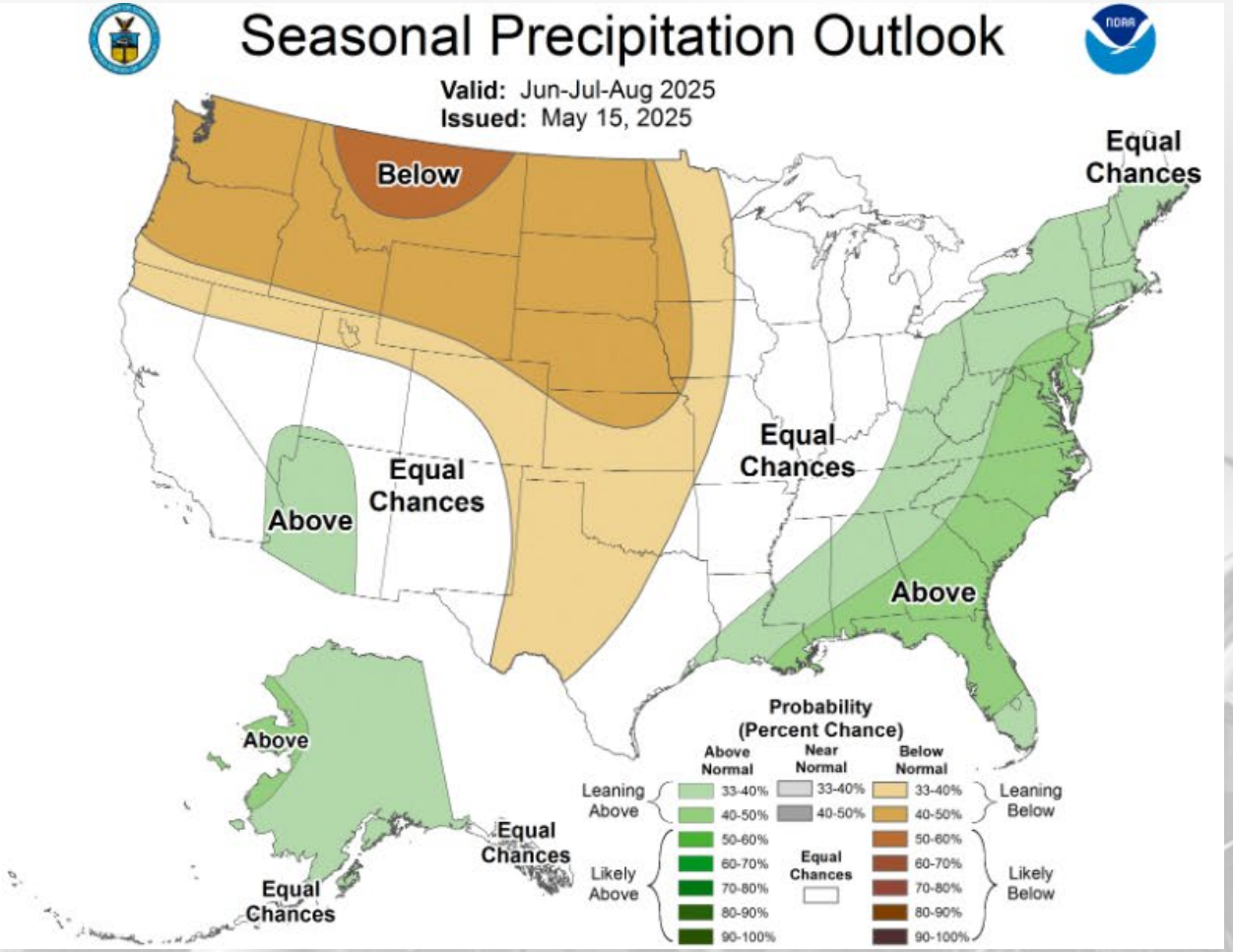


Month of June: Temperatures leaning towards being above normal, with uncertainty for precip with equal chances for above, near, and below normal.

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

- Precip totals from last week were on the order of **an inch or more** across the state, with **a few bands of 2"+**. Some in Rock County received **over 3"**, mainly from last Wednesday's system.
- Temperatures in the state were **near-to-below normal last week**, which has also been the case for most of the state over the past 30 days. The south has been averaging temps that are **below normal by 1-3°F** since mid-May.

Impact

- Soil moisture conditions **improved following the rains last week**, with models indicating that most of the state has **near-to-above soil moisture conditions**. Wisconet stations indicate a **gain in moisture** in the top few inches of soil since last week's report.
- Drought coverage & severity was **virtually unchanged** from last week.
- Corn and soybean planting are **virtually complete**, with emergence making **>10% gains from last week** for both crops. Crop condition for corn, soybeans, and winter wheat are **≥70% good to excellent** (Source: NASS).

Outlook

- The next 7 days are looking a **bit more active** for precip, with the highest chances for precip in the north/northwest.
- Mid-to-Late June climate probabilities are **leaning slightly towards near-to-above normal statewide**. Best odds for warmer-than-normal temps are in the north. Precip is **not currently showing a strong probability** towards above or below normal.
- The month of June probabilities (*updated on May 31*) are showing a **lean towards warmer-than-normal**, with **uncertainty for precip** (equal chances).

Agronomic Considerations

Field Work and Conditions

- Avoid trafficking fields in moist conditions to prevent compaction.
- See these considerations for early season corn management. See how wildfire haze may impact corn growth.
- Crop growth has been slowed with cooler temperatures. Much of the corn crop is short due to a lack of heat units.
- Take stand counts to make any replant decisions. See the corn and soybean replant guides. Hailed corn decisions can be found here.
- Early planted corn is reaching the growth stage appropriate for taking presidedress soil nitrate tests (PSNT).

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 grow, note growth stages to time future applications and sampling.
- While slug issues have not been as severe this year, UW is monitoring populations weekly across the state with SlugNet.
- Check moth trap catches in your region with the DATCP Pest Survey. Sign up for insect pest alerts specific to your region.
    - Reports of black cutworm have started, and the window of damage has begun for the Northern region. Feeding damage has been reported. Begin scouting for signs of feeding as soon as corn plants emerge. Low numbers of true armyworm have been found; continue routine scouting through the end of June.

Forage Management

- Continue scouting for alfalfa weevil as risk has shifted to northern regions. View the VDIFN model to see local risk.
- Alfalfa stands in northern WI are still being harvested. See first harvest considerations here.
- Consider annual forage options depending on your situation and forage goals.

Small Grains

- Scout for stripe rust and any signs of disease with recent cool and wet weather. Cephalosporium stripe is showing up in Wisconsin.
- Fusarium Head Blight risk is low across the state but consider spraying fungicide, especially to susceptible varieties. Scab alerts and risk forecast can be found here.

Specialty Crop Considerations

Vegetables

- The second generation of seed corn maggot is in central and NW WI and will start effecting northern and NE regions in the next week. The risk is high in central WI where mated females will begin laying eggs in the next 5-7 days. Cabbage maggot severity is decreasing in SW WI but remains high in northern and central regions as well as along Lake Michigan. Adults are attracted to areas of high organic matter such as a recently tilled field or areas of high residue to lay eggs.
- Start scouting for aster leafhoppers. Aster leafhoppers transmit aster yellows to a wide variety of crops including carrots, onions, lettuce, celery, and garlic. Leafhoppers move into nearby vegetable fields when alfalfa is harvested. Not all leafhoppers carry the pathogen that causes aster yellows; however leafhoppers can migrate to WI already infected with the pathogen. The best way to control aster yellows is by controlling the leafhoppers. Once plants are infected, they will not recover and must be removed to reduce the spread of this disease. Use the aster yellows index (page 19) in the Commercial Vegetable Production guide to help determine when to spray. You can also sign up for text alerts from Michigan State University on infectivity rates from their trapping network.
- Potato leafhopper is a pest of snap beans and potatoes that also moves into vegetable fields when alfalfa is harvested. The greatest injury occ urs when plants are small.
- Continue scouting for Colorado potato beetle on potatoes and eggplant. Adults are now in southern, central and NW regions of the state. Egg hatch is well underway in the south and in the next week 10-25% will be hatched in central WI. Once hatched, larva prefer to feed on new foliage at the plant crown.
- Downy mildew spores were detected in air samples in Michigan. Spores are detected a few days to a few weeks before symptoms are seen. Keep an eye on cucumbers and melons. Find management information here.

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 insect pests and diseases. Make sure to keep track of green tip, petal fall and biofix dates. Check out your nearest weather station: NEWA Weather Station Network (Cornell).
- Apple growers should continue monitoring for Codling moth. Make sure to check pheromone monitoring traps after warm, calm evenings to establish a biofix date. Biofix occurs when ~5 or more moths are captured in one evening, or across consecutive nights. First generation larvae will emerge after ~250 degree-days base 50°F have accumulated from the biofix date.
- Apple growers should 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.
- Recent rain events have driven infection periods for grape diseases. Grape growers may consider reviewing grape phomopsis monitoring and management.
- Grape phylloxera has been observed in Southern WI. Grape growers may reference this article on scouting for phylloxera and scale.
- Grape growers can reference the NEWA weather station network to monitor disease infection events for phomopsis, powdery mildew and black rot. Check out your nearest weather station: NEWA Grape Diseases Model.
- Strawberry growers may consider reviewing scouting and management strategies for thrips, tarnished plant bug and mites.

User Survey

Are you a regular user of the Ag Weather Outlook for Wisconsin (AgWOW)? 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-weather data needs through AgWOW.

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

Thank you!!
-The AgWOW 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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