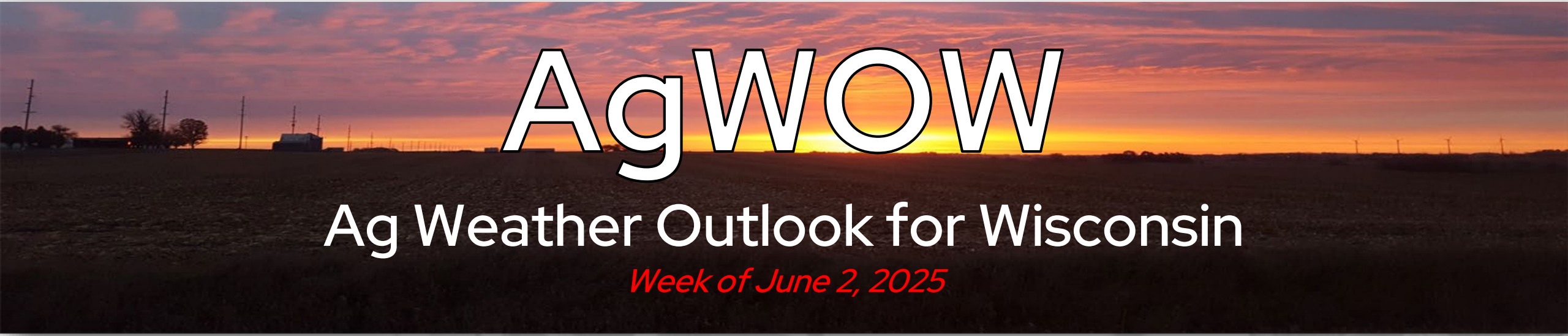
Wisconsin State Climatology Office
Nelson Institute for Environmental Studies

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 2, 2025

Josh Bendorf
Climate Outreach Specialist
Wisconsin State Climatology Office
jbendorf@wisc.edu

Bridgette Mason
Assistant State Climatologist
Wisconsin State Climatology Office
bmmason2@wisc.edu

Steve Vavrus
State Climatologist
Wisconsin State Climatology Office
sjvavrus@wisc.edu

Dennis Todey
Director
USDA Midwest Climate Hub
dennis.todey@usda.gov

Anastasia Kurth
Regional Crops & Soils Educator
Sauk, Juneau, and Richland Counties
UW-Madison Division of Extension
anastasia.kurth@wisc.edu

Rue Genger
Emerging & Specialty Crops Program Manager
UW-Madison Division of Extension
rkgenger@wisc.edu

Emilee Gaulke
Diversified Vegetable Educator
Waukesha County
UW-Madison Division of Extension
emilee.gaulke@wisc.edu

Derrick Raspor
GLRI Field Coordinator
Wisconsin USDA-NRCS
derrick.raspor@usda.gov

Key Points

Navigate to select slides by clicking on the links below.

1) Most in WI received a half inch or less of precipitation last week, wrapping up what has been a very dry past 30 days.
2) Temperatures have been cooler-than-normal in the south, leading to a slight lag in GDD accumulation.
3) Wisconet measurements of near-surface soil moisture decreased from last week, contributing to D0 coverage expanding in the north.
4) An active next 7 days is forecasted for precip, with a lean towards wetter-than-normal for the middle of June.

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

May Recap

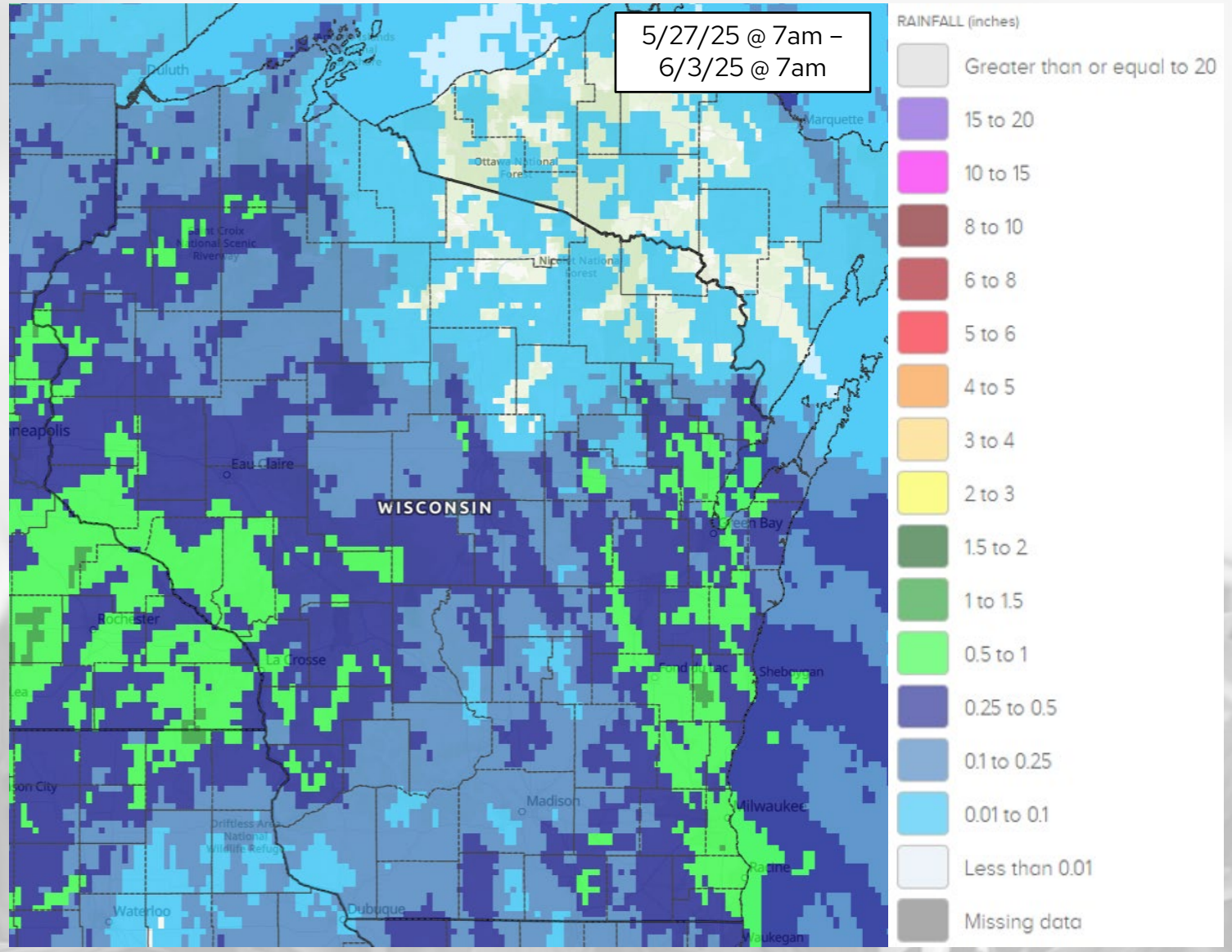
Climate Division	% of Normal Precip	Highest 1-day Precip	Warmest High Temperature	Coldest Low Temperature
WI01 (NW)	64	1.41″ (5/16, Chippewa)	90°F (5/11, Superior)	26°F (5/1, Douglas)
WI02 (NC)	45	1.85″ (5/16, Marathon)	90°F (5/13, Ashland)	25°F (5/8 & 5/9, Ashland)
WI03 (NE)	50	1.31″ (5/21, Oconto)	86°F (5/13, Florence & Marinette)	26°F (5/8, Florence)
WI04 (WC)	82	1.93″ (5/21, Pepin)	89°F (5/11 & 5/15)	27°F (5/9, Monroe)
WI05 (C)	90	1.82″ (5/21, Juneau)	87°F (5/16 & 5/17)	21°F (5/1, Portage)
WI06 (EC)	109	2.03″ (5/16, Sheboygan)	86°F (5/16, Brown)	30°F (5/1 & 5/9)
WI07 (SW)	82	1.96″ (5/20, Grant)	93°F (5/15, Grant)	25°F (5/9, Vernon)
WI08 (SC)	96	2.18″ (5/21, Columbia)	94°F (5/16, Rock)	27°F (5/21, Dodge)
WI09 (SE)	107	2.30″ (5/21, Ozaukee)	93°F (5/16, Walworth)	29°F (5/9 & 5/24)

- Most stations hit their monthly maximum temperature on **May 16th** (58 stations), May 13th (25), or May 17th (25).
- Most stations hit their monthly minimum temperature on **May 9th** (93 stations).

(Source: ACIS)

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

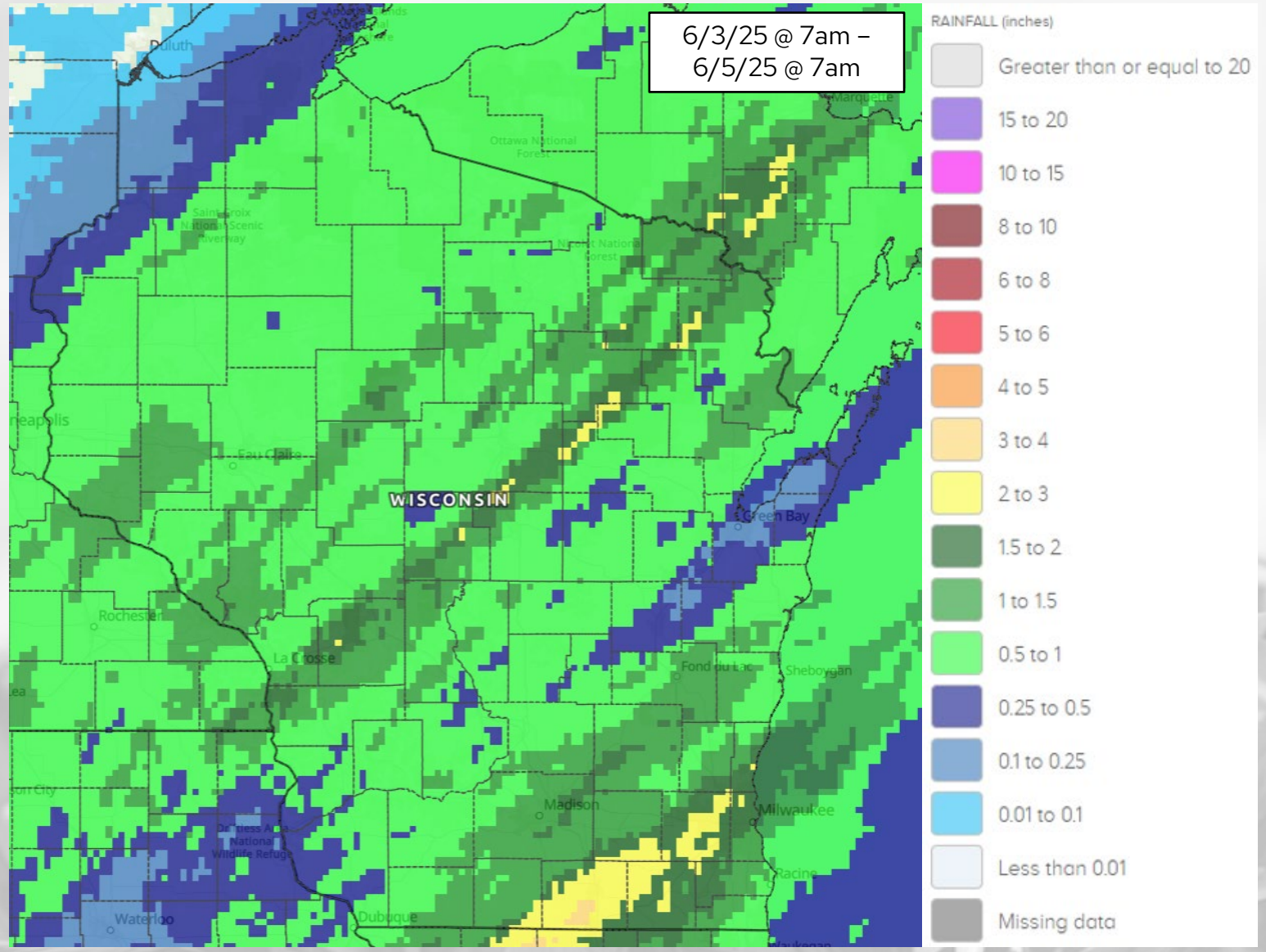
7 Day Precip



- Precipitation last week was **generally light** across the state last week. Most saw **less than a half inch**.
- Totals were higher along Lake Michigan and in the west-central region, with **totals approaching 1”**.
- Last week’s maximum total: Franksville 7.0 WNW, Racine Co. (CoCoRaHS) → **1.05”**

https://water.noaa.gov/

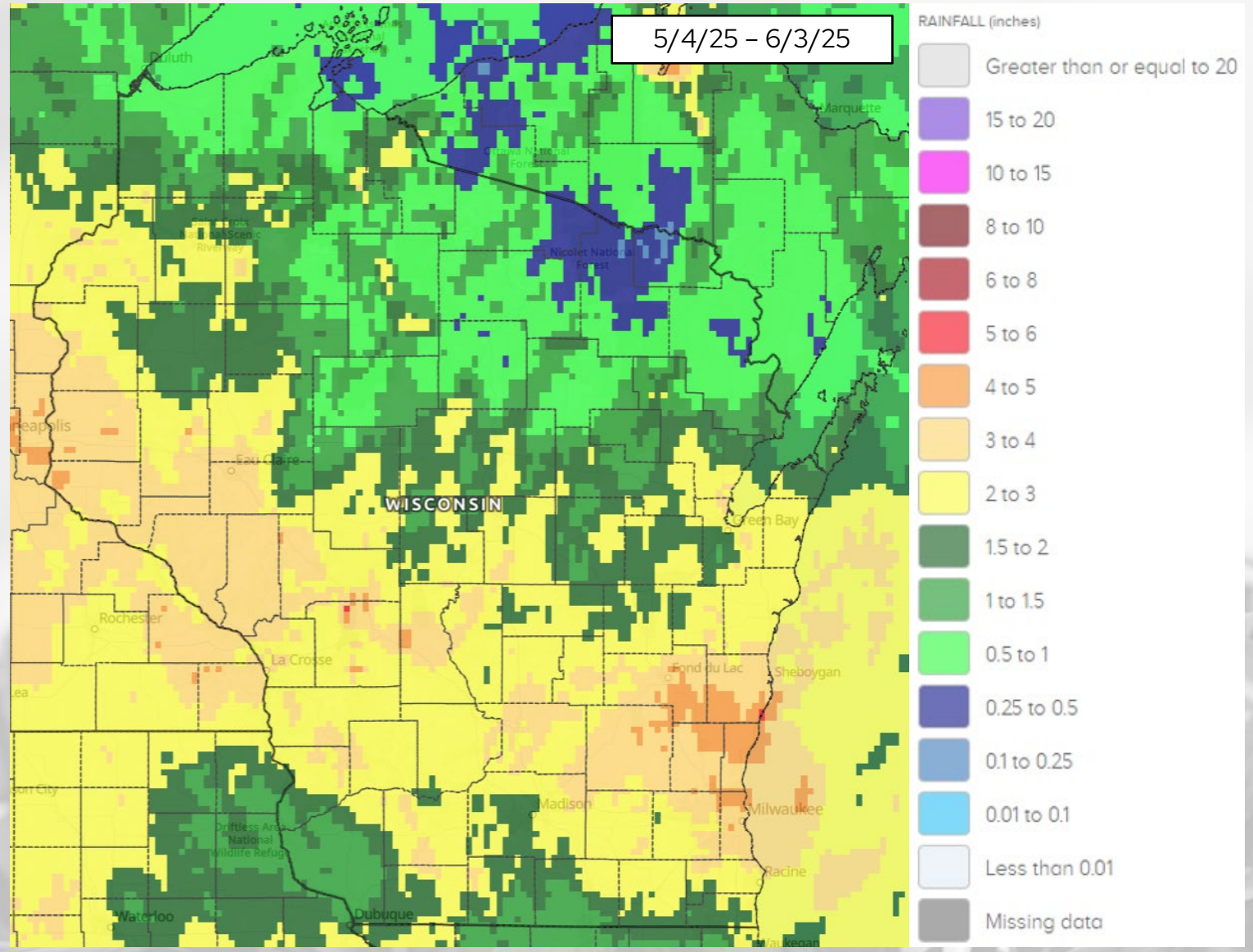
Addition – June 3-4 Precip



- Tuesday (6/3) was a very **active precip day** across the state, with **multiple rounds** of precip moving through.
- Some of the storms were on the **stronger side**. Click this link for severe storm reports.
- Rainfall totals were highest in the south, with some getting **2" or more**.
- Maximum 2-day total: Janesville WWTP, Rock Co. (COOP) → **3.36"**

https://water.noaa.gov/

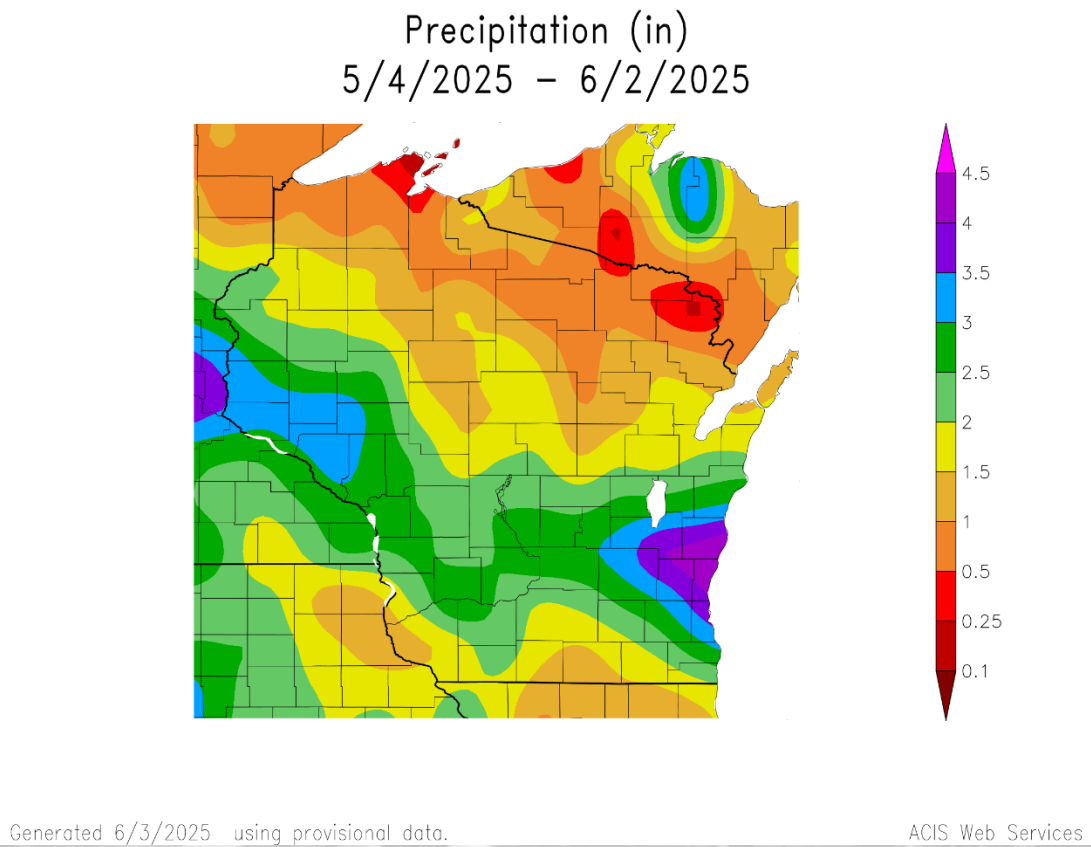
30 Day Precip

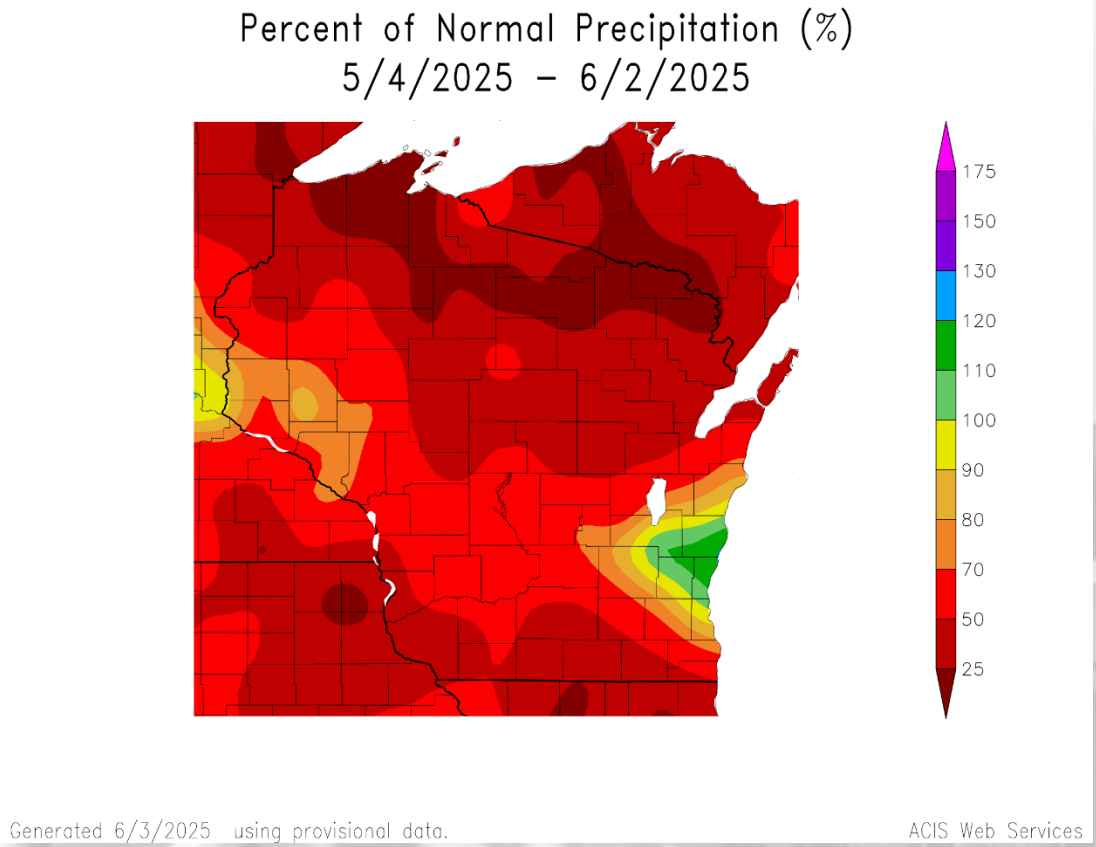


- Heaviest precipitation concentrated in a belt from the Twin Cities to Milwaukee → **2-4+”**
  - The May 20-21 event contributed a fair amount to these totals.
- Lesser totals in the north and in the far south (**1.5” or less**). Less than 1” common in the far north.

https://water.noaa.gov/

30 Day Precip Total/% Avg.

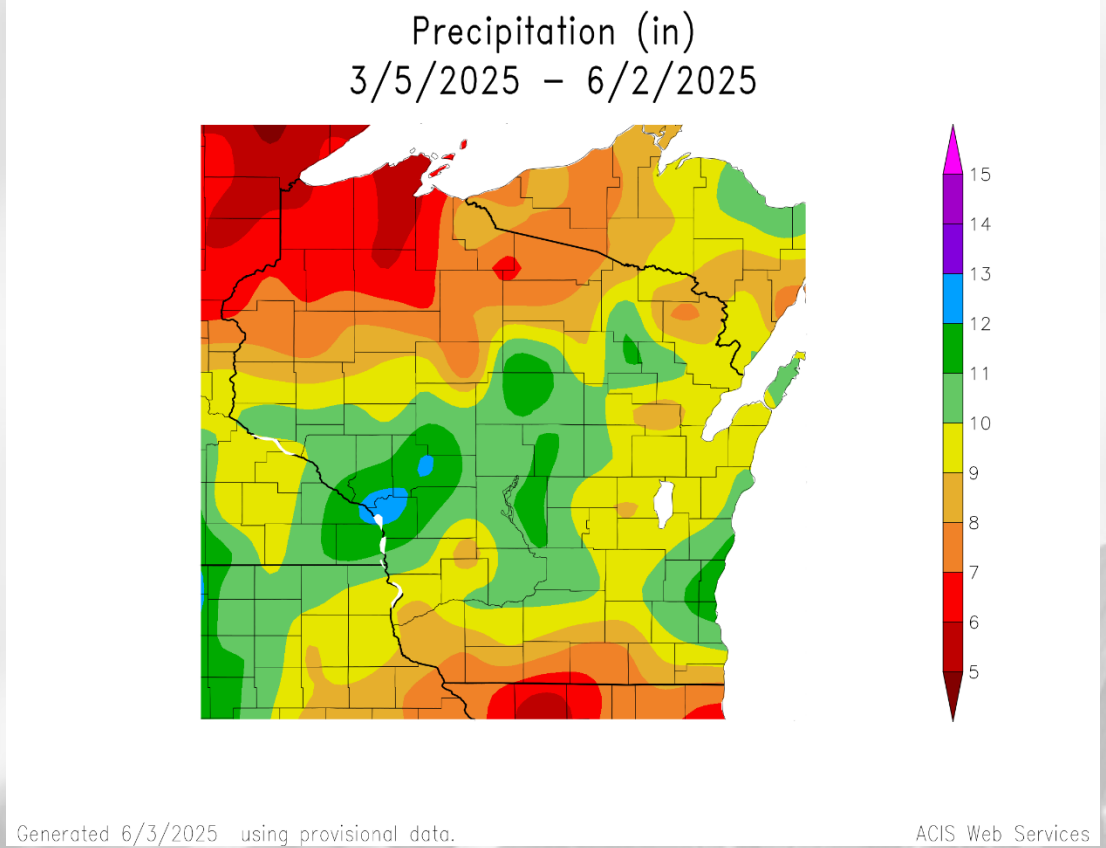


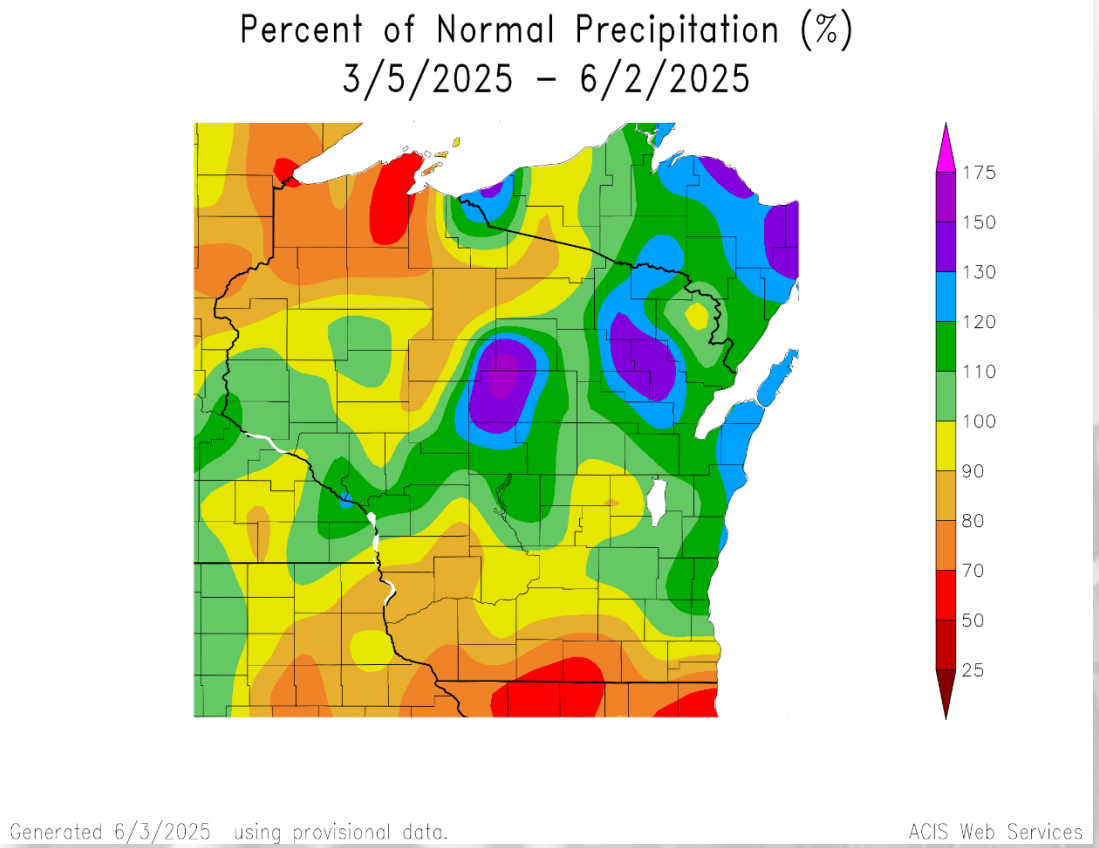


- **70% of normal or less** across most of the state, with totals of **2" or less** not uncommon.
- Near or above normal north of Milwaukee, with monthly total of **3" or more**.
- Lowest totals are in the far north → **<1" since May 4th, or <50% of normal**.

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

90 Day Precip Total/% Avg.

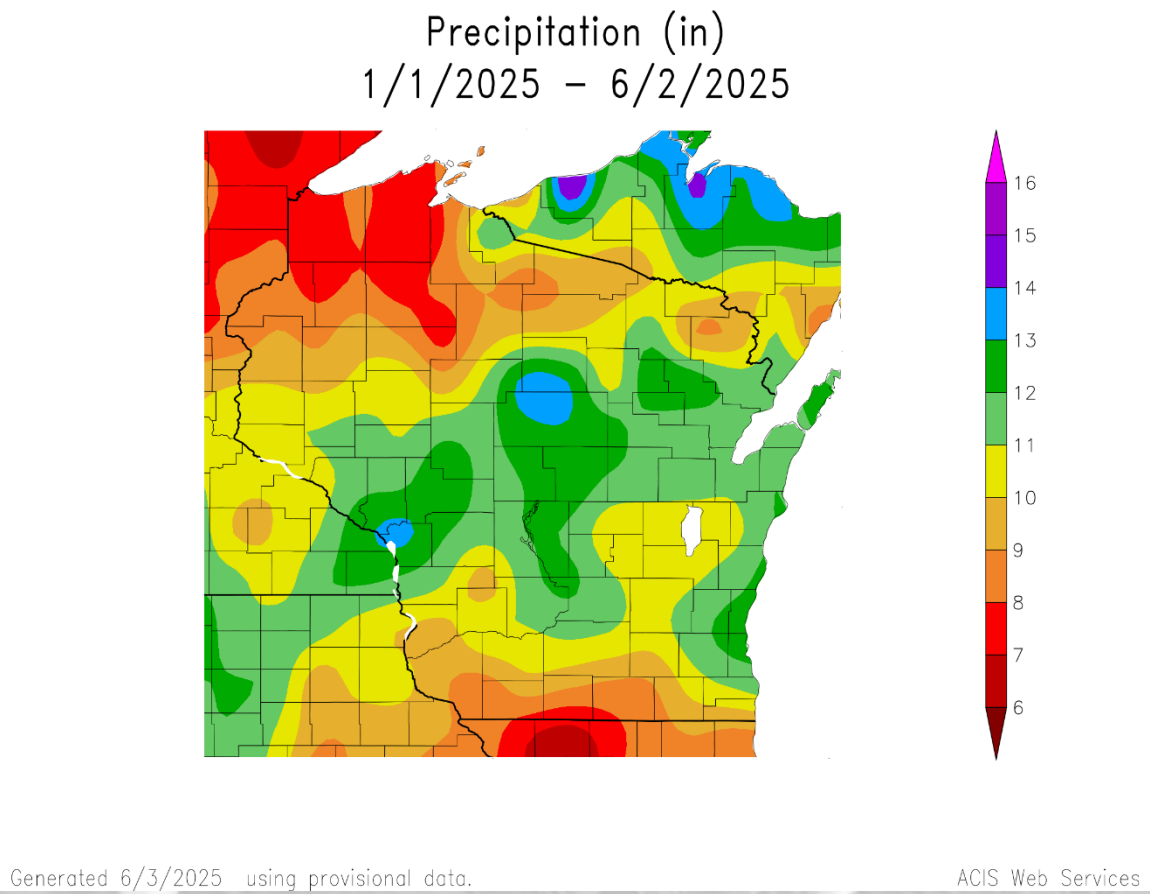


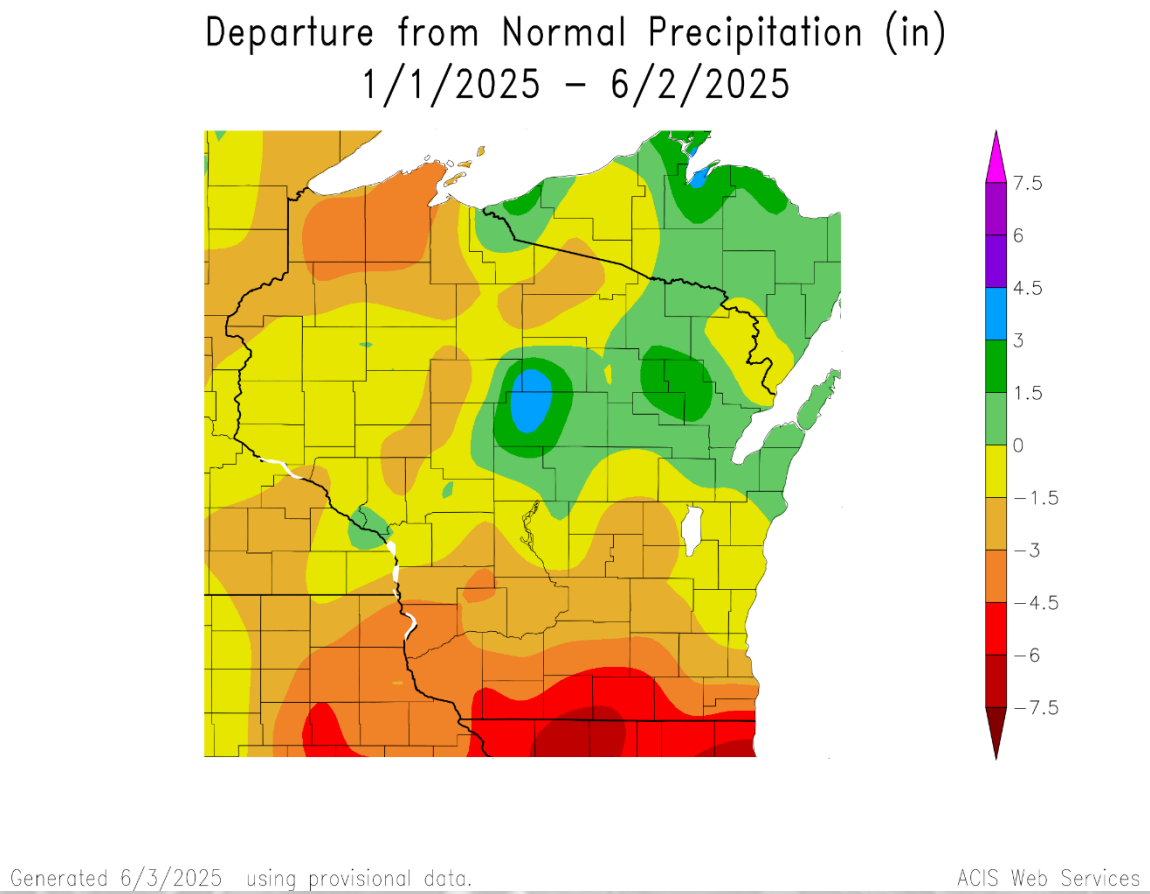


- **>9”** common across most of WI, with **totals highest in the WC, central, and near Milwaukee** (>11” for some).
- **Lower totals** in the northwest and far south → **6-8”, or <80% of normal**.
  - Outside of the NW and far S, 90-day totals have been **at or above normal**.

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

2025 Precipitation (so far)





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

Soil Moisture Models

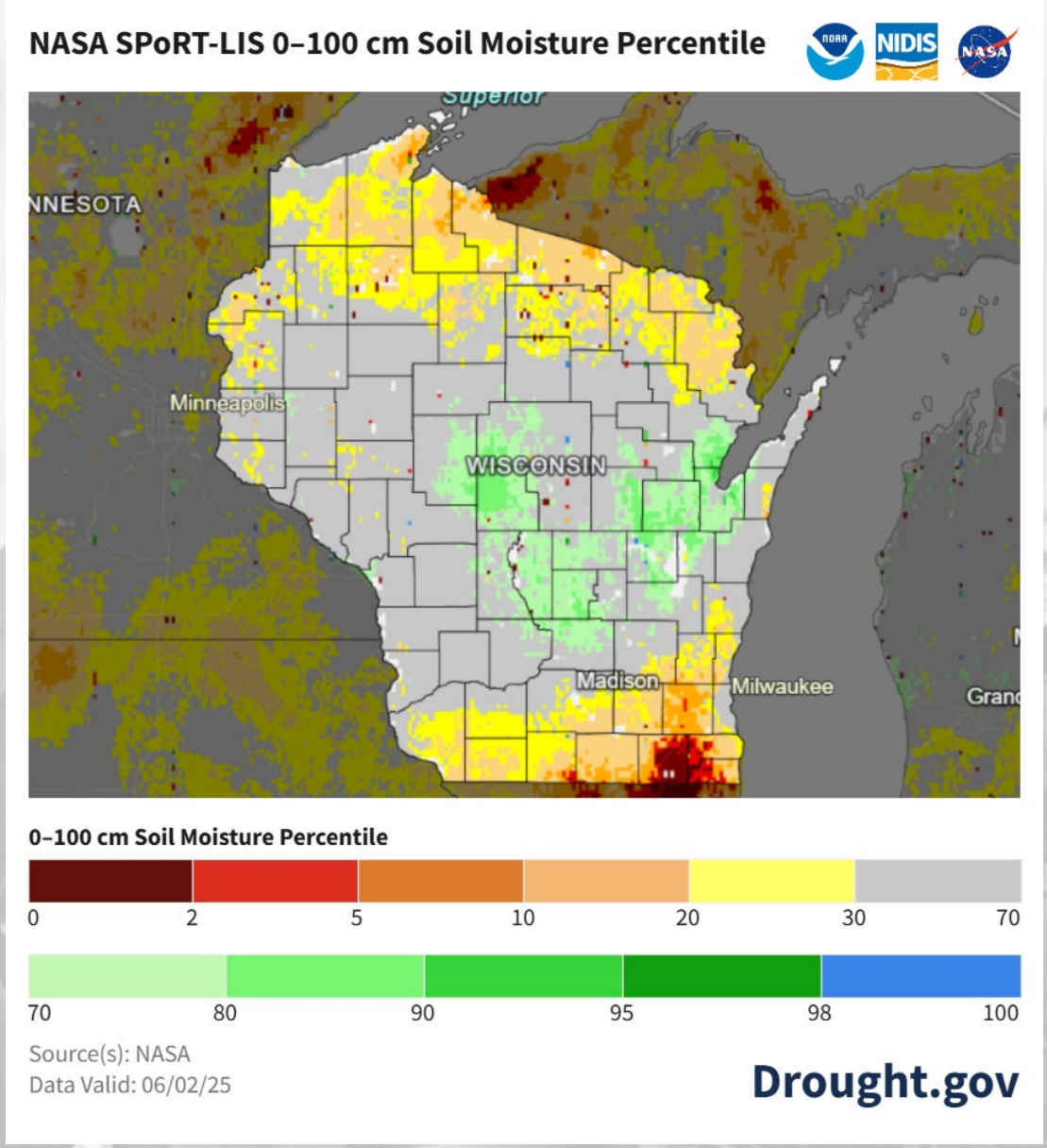
- The area of abnormally wet soil (green shading) has **reduced in size** after a week of lighter precip. Most of the state is now estimated to be **near or above normal** by this model.

- **Abnormal dryness** in the south **increased in severity** from last week's report, with soils in the north now being indicated as abnormally dry.

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.

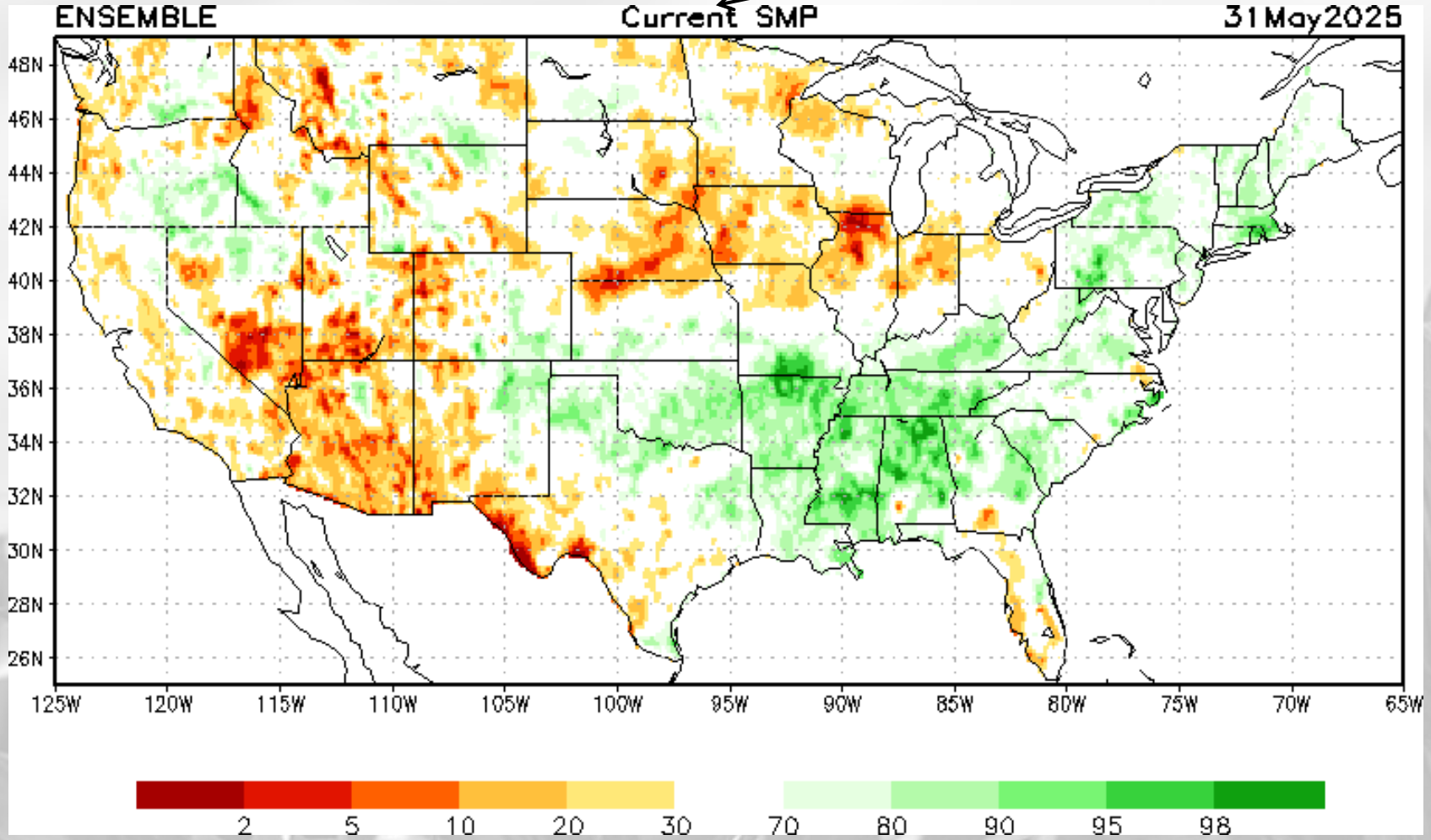
It's worth noting that each soil moisture model has their own characteristics and input variables, so there tends to be variation between models. Thus, it's worthwhile to look at multiple models opposed to just one.

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



Soil Moisture Models

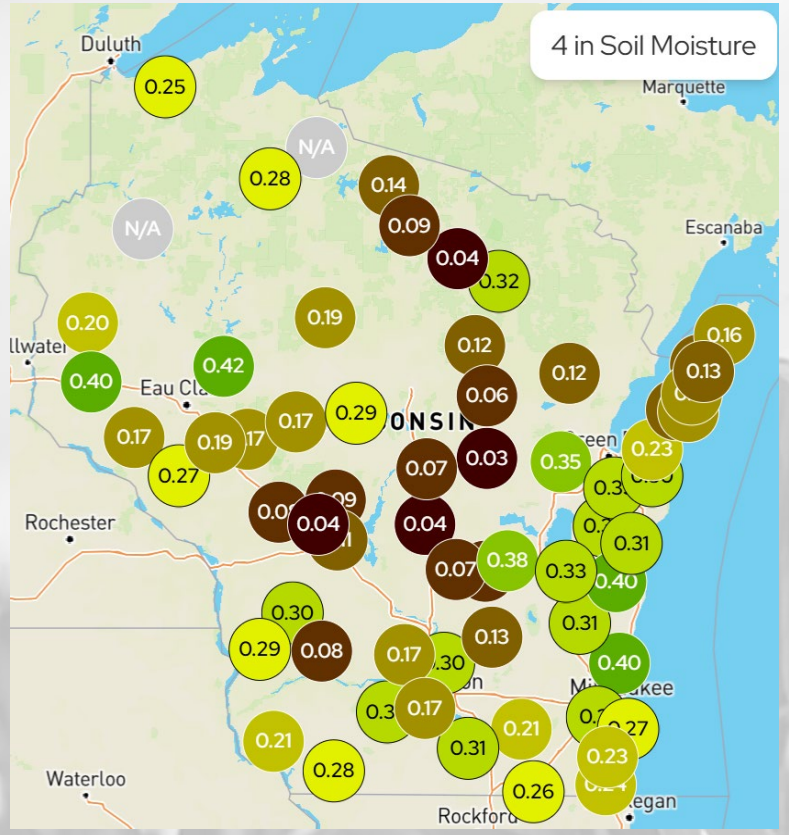
NOTE: this map displays the soil moisture percentile for May 31. It was the most recent update on June 5.

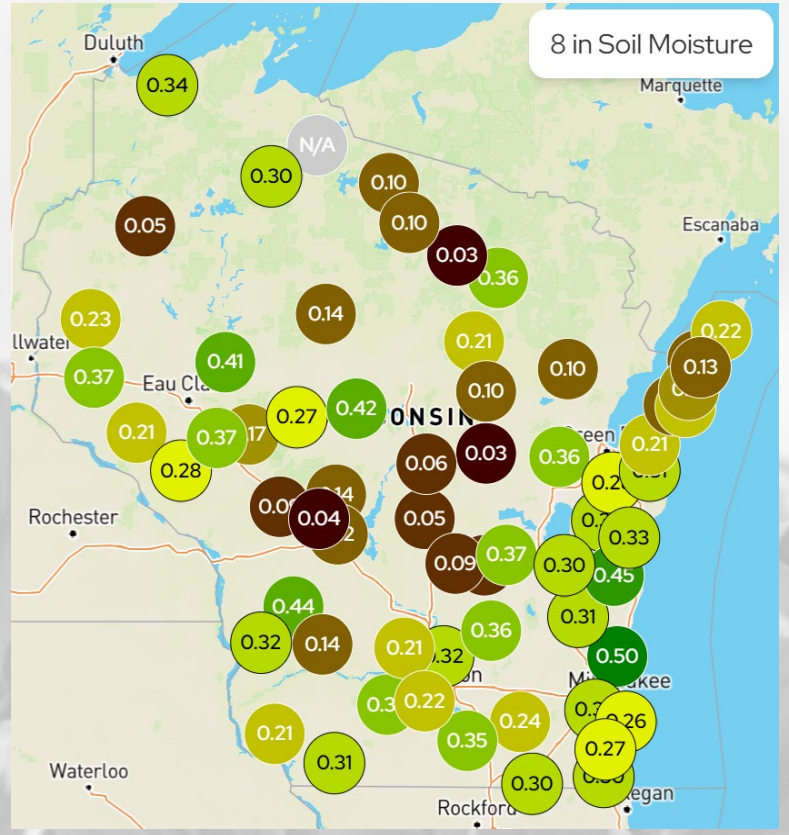


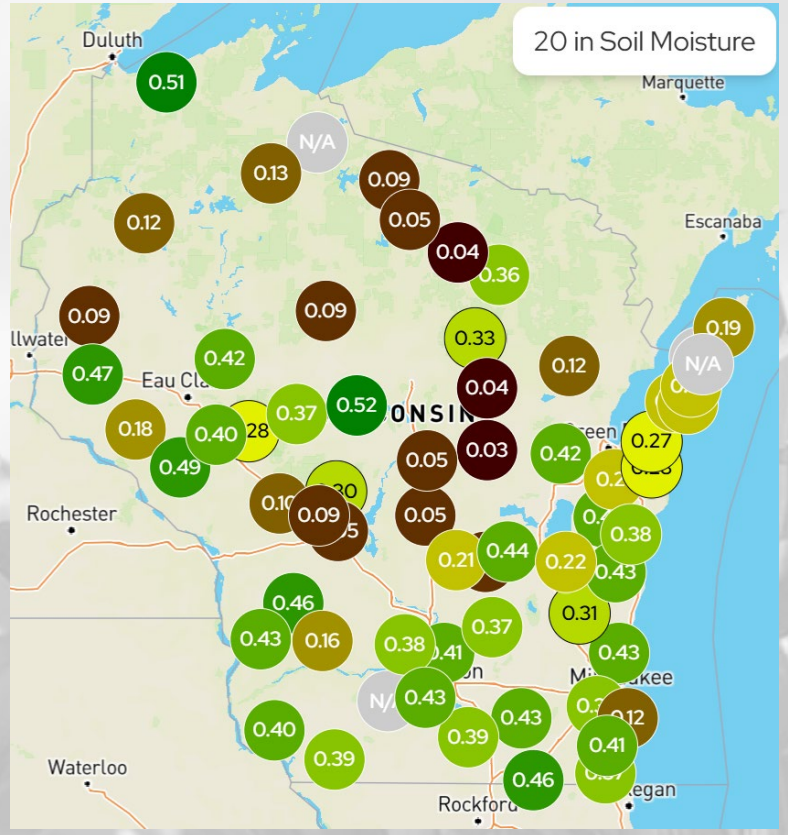
https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp_new.shtml

Wisconet Soil Moisture

Maps showing soil moisture conditions on June 3rd @ Midday.
Units of map values are {Volume of water}/{Volume of soil}.







https://wisconet.wisc.edu/

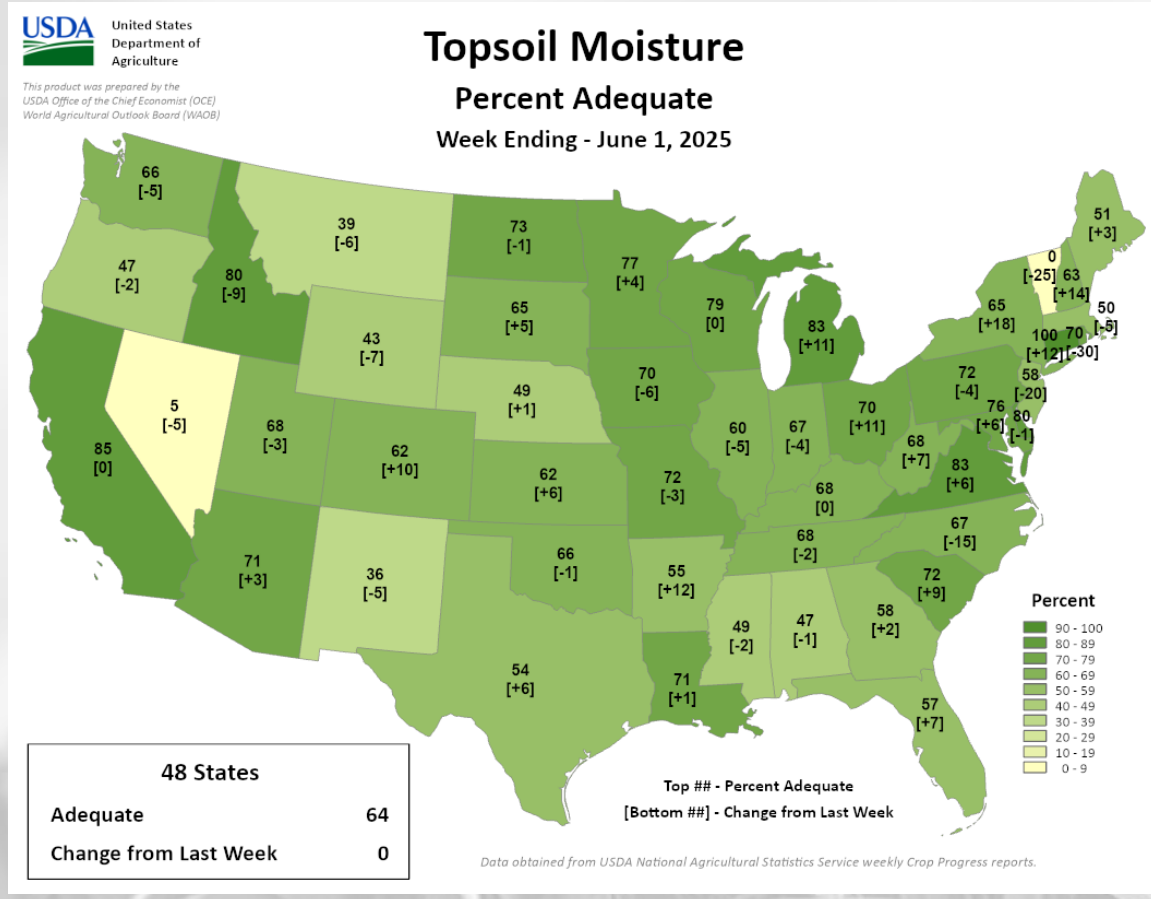
Wisconet Soil Moisture

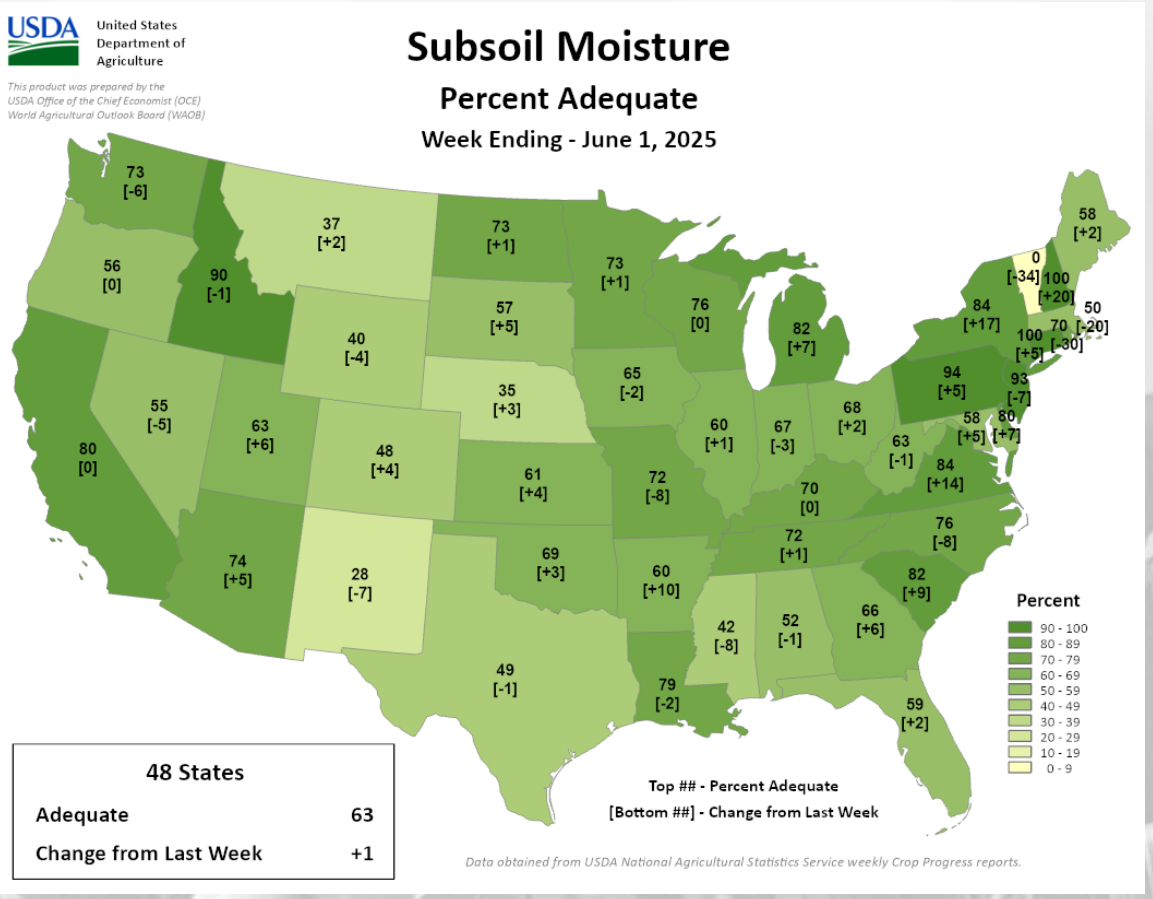
Change in soil moisture from May 27th to June 3rd.
Units of change values are {Volume of water}/{Volume of soil}.

Research Farm	County	Total Precip (in)	4" Change	8" Change	20" Change
Arlington	Columbia	0.13	-0.05	-0.04	-0.02
Black River Falls	Jackson	0.34	-0.02	-0.01	-0.02
Dairy Forage ARS	Sauk	0.11	-0.04	-0.02	-0.01
Hancock	Waushara	0.11	-0.02	-0.02	-0.01
Kemp	Oneida	0.00	-0.05	-0.03	-0.01
Lancaster	Grant	0.09	-0.03	-0.03	0.00
Marshfield	Marathon	0.13	-0.02	-0.01	-0.01
O.J. Noer *(Turfgrass)*	Dane	0.02	-0.05	-0.04	-0.01
Peninsular	Door	0.09	-0.03	-0.02	0.00
Rhinelander	Oneida	0.01	-0.03	-0.02	0.00
Spooner	Washburn	0.34	No Data	-0.03	0.00

https://wisconet.wisc.edu/

Adequate Soil Moisture



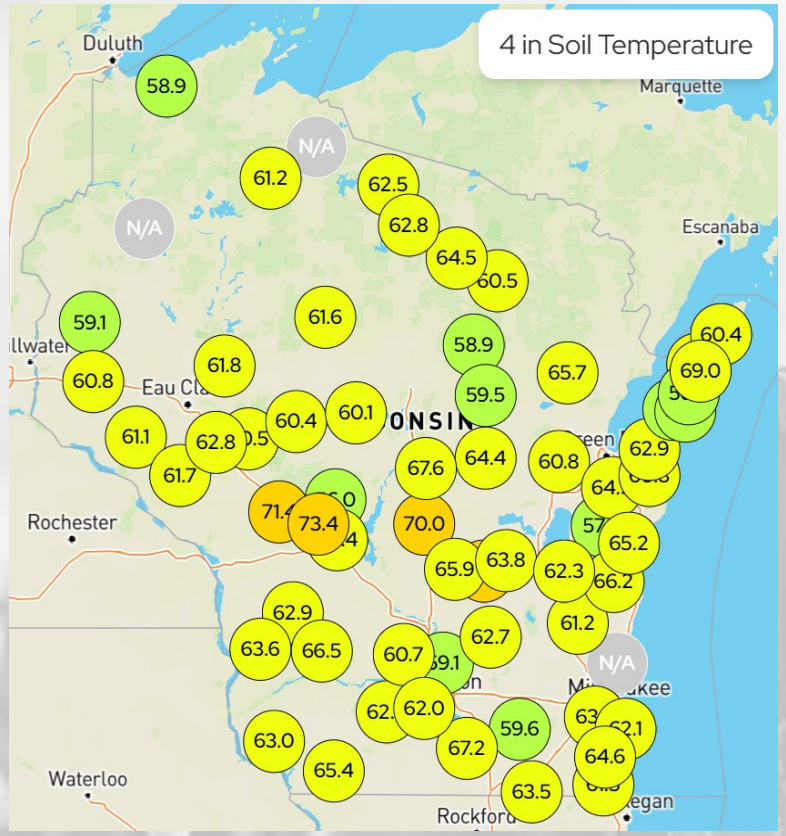


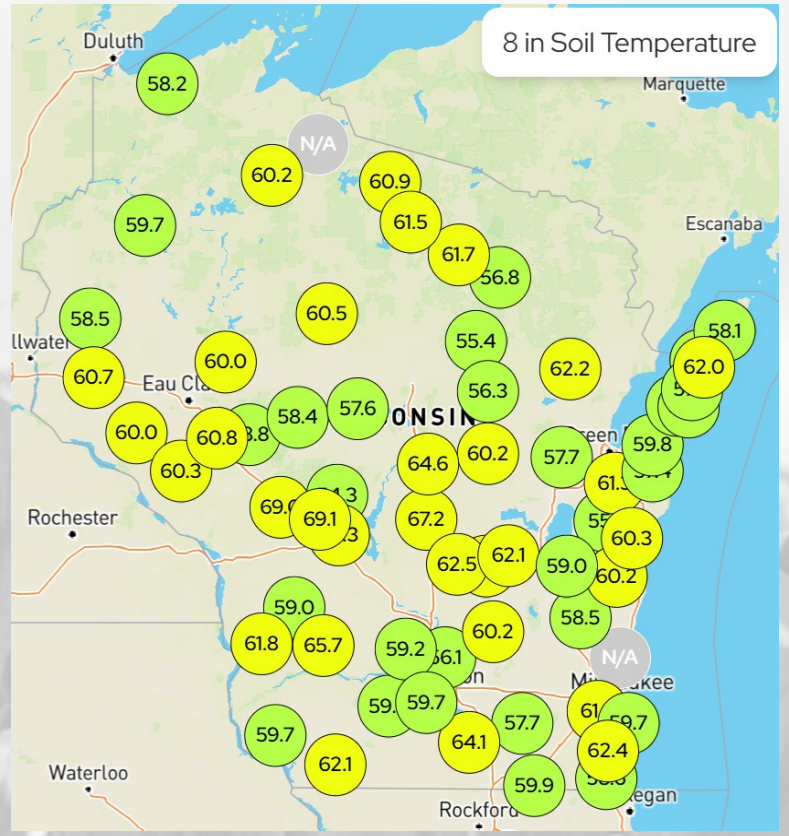
- **75-80%** of agricultural soils in the state with **adequate** topsoil and subsoil moisture.
- **6%** of fields in the state are reported as having **surplus** topsoil moisture, **down 5%** from last week.

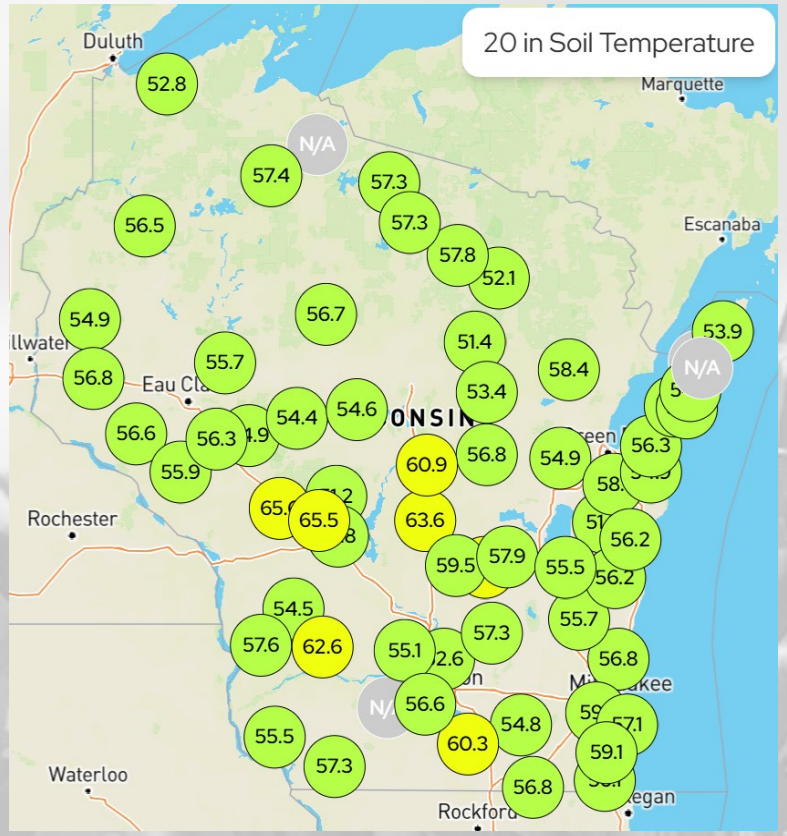
https://agindrought.unl.edu/Other.aspx

Wisconet Soil Temperature

Maps showing soil temperature conditions on June 3rd @ Midday.

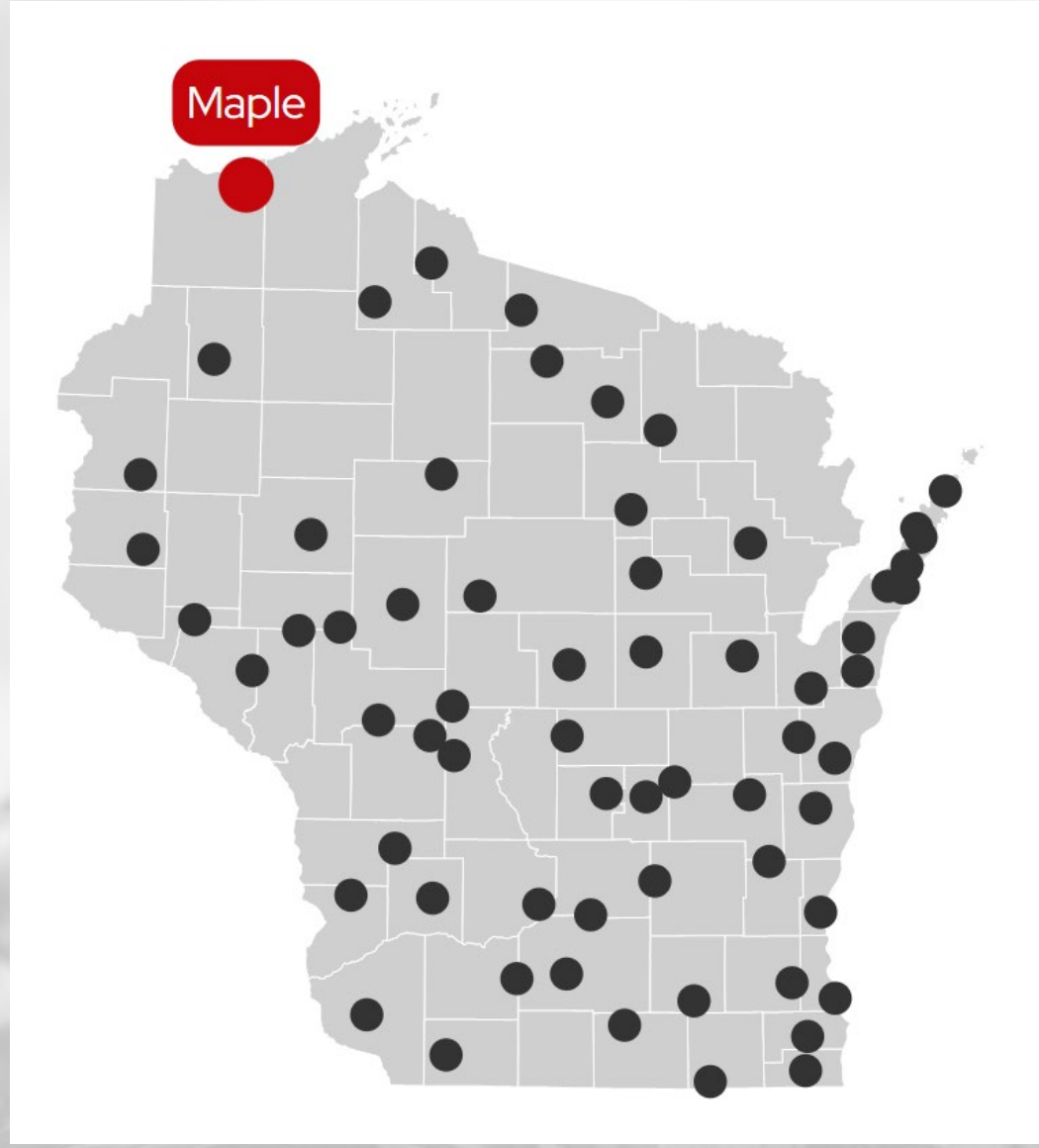






https://wisconet.wisc.edu/

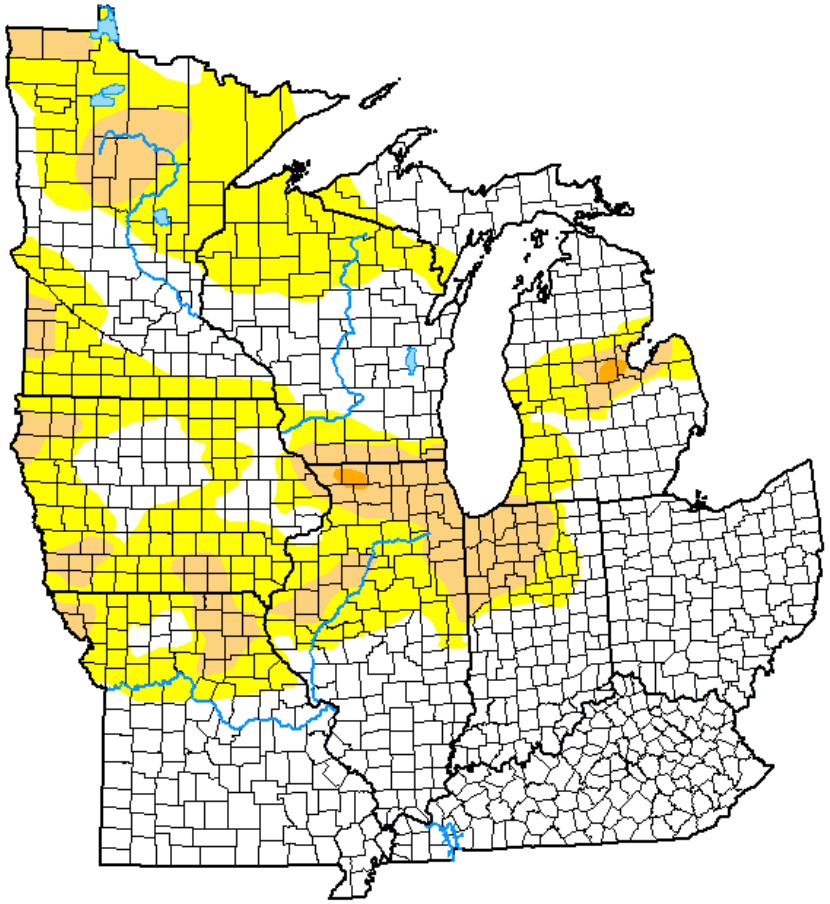
Wisconet Stations



- As of June 3, 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. Or scan the QR code below.
- **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



U.S. Drought Monitor

Midwest

June 3, 2025

(Released Thursday, Jun. 5, 2025)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	58.67	41.33	10.72	0.23	0.00	0.00
Last Week *05-27-2025*	63.46	36.54	9.47	0.11	0.00	0.00
3 Months Ago *03-04-2025*	32.64	67.36	42.87	4.39	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 *06-04-2024*	93.32	6.68	0.43	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:

Brad Pugh

CPC/NOAA

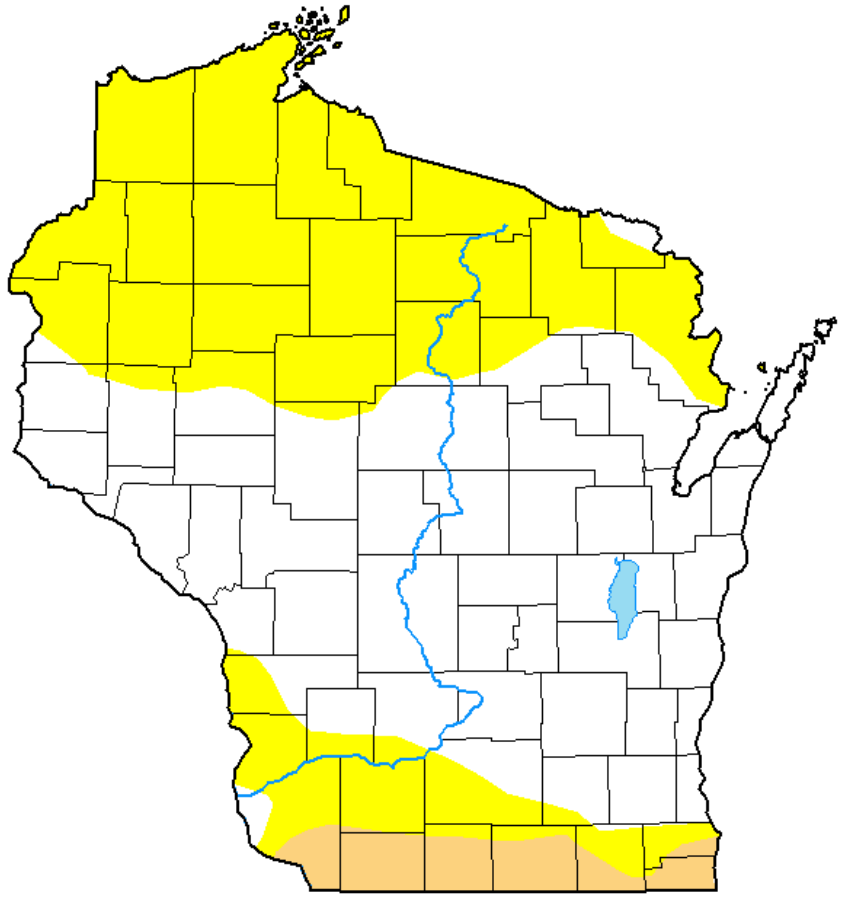
droughtmonitor.unl.edu

- Compared to last week:
  - Increase in D0-D2 coverage.
- **1 class degradation** in northern WI to abnormally dry (D0), following what has been a very dry last few weeks.
- **0.2%** of the Midwest is in D2 drought, **up** from last week.
  - D2 drought now in place over **northwest IL**, just south of the state line.
- **89.3%** of the Midwest is drought free (10.7% in D1 or D2).

Note: D0 is not considered drought.

http://droughtmonitor.unl.edu/

US Drought Monitor



June 3, 2025
(Released Thursday, Jun. 5, 2025)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	52.83	47.17	4.73	0.00	0.00	0.00
Last Week 05-27-2025	66.73	33.27	4.73	0.00	0.00	0.00
3 Months Ago 03-04-2025	15.27	84.73	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 06-04-2024	92.96	7.04	0.77	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:
Brad Pugh
CPC/NOAA

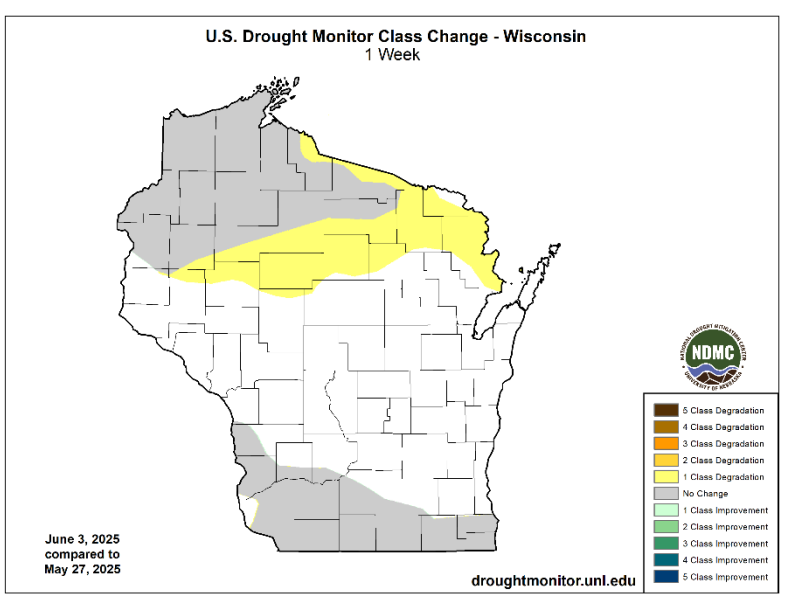
droughtmonitor.unl.edu

http://droughtmonitor.unl.edu/

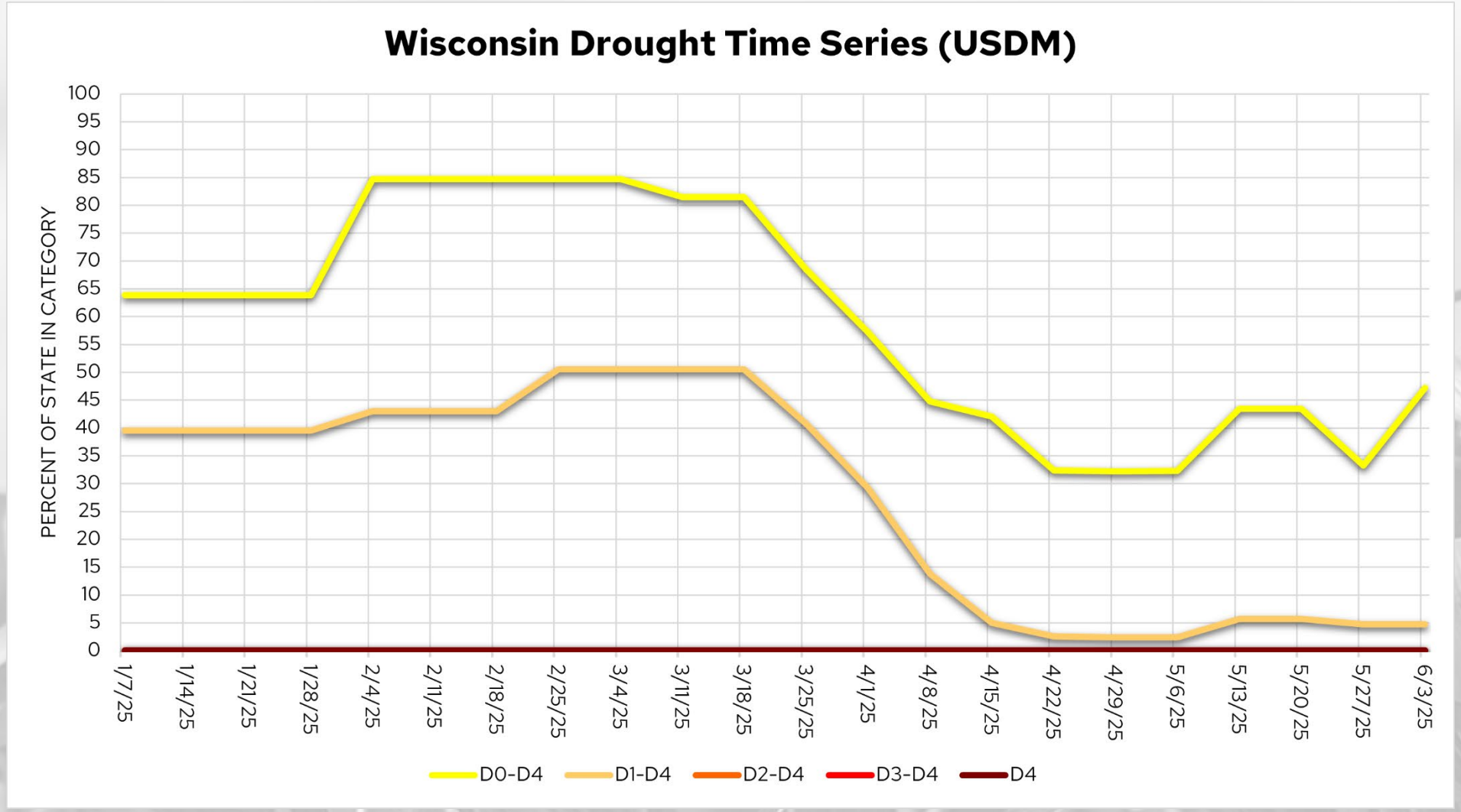
Amount of state in:

- 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.

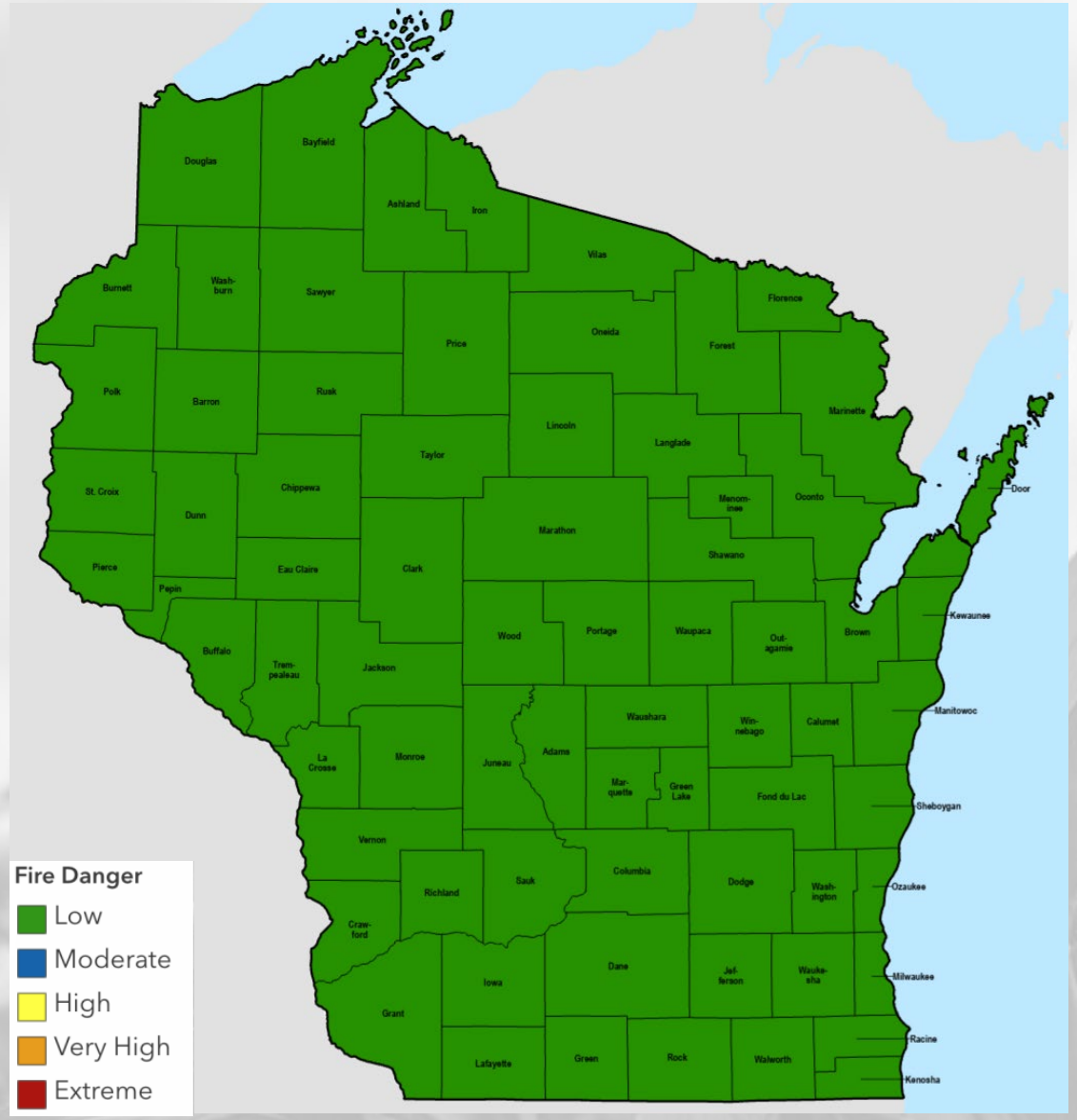


USDM Time Series



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.

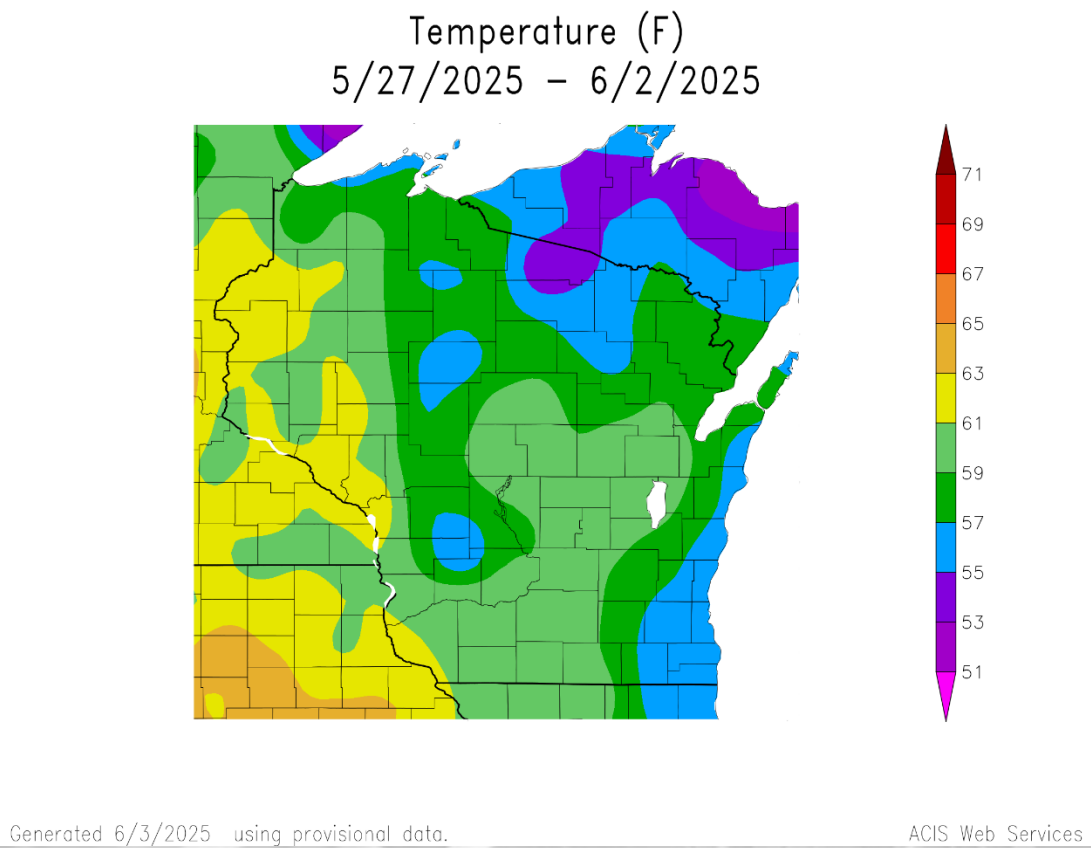
A fire danger of **HIGH** means wildfires ignite easily, spread rapidly, and can be challenging to control.

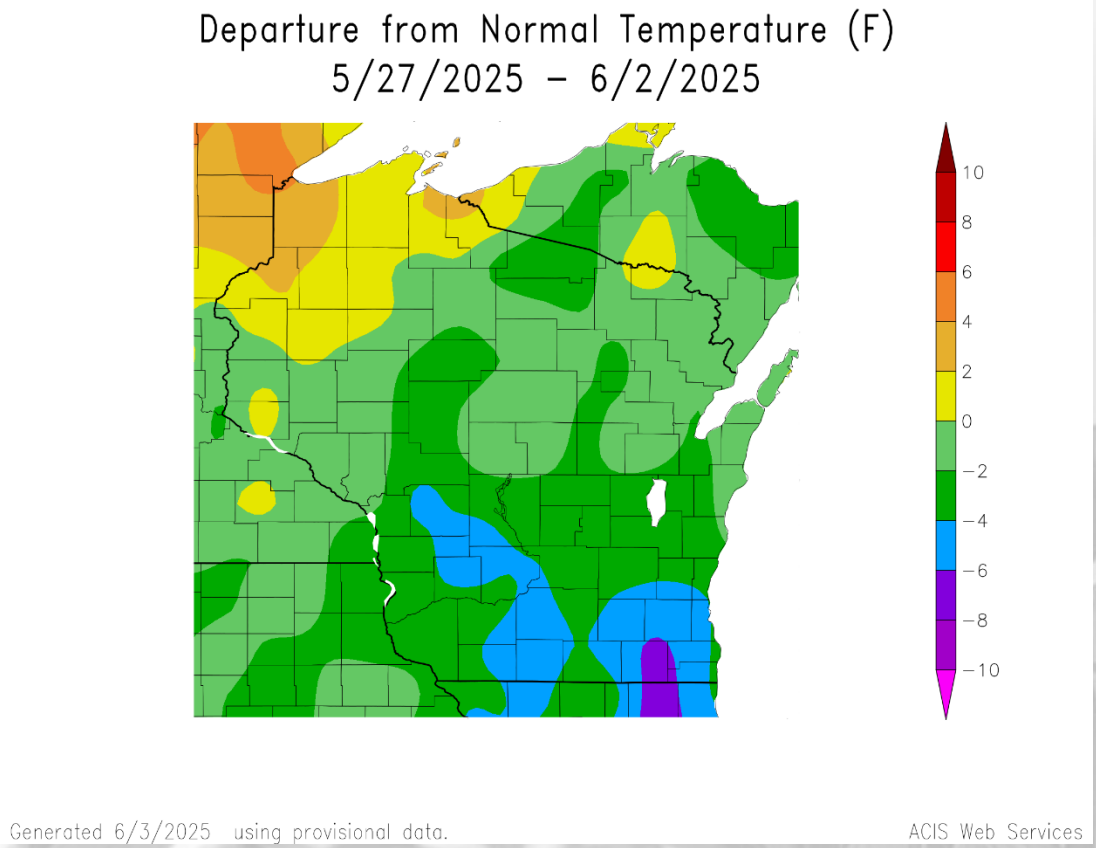
A fire danger of **VERY HIGH** means wildfires start easily, spread rapidly with increased intensity and are difficult to control.

Map updated on 6/5/25

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

7 Day Temperatures

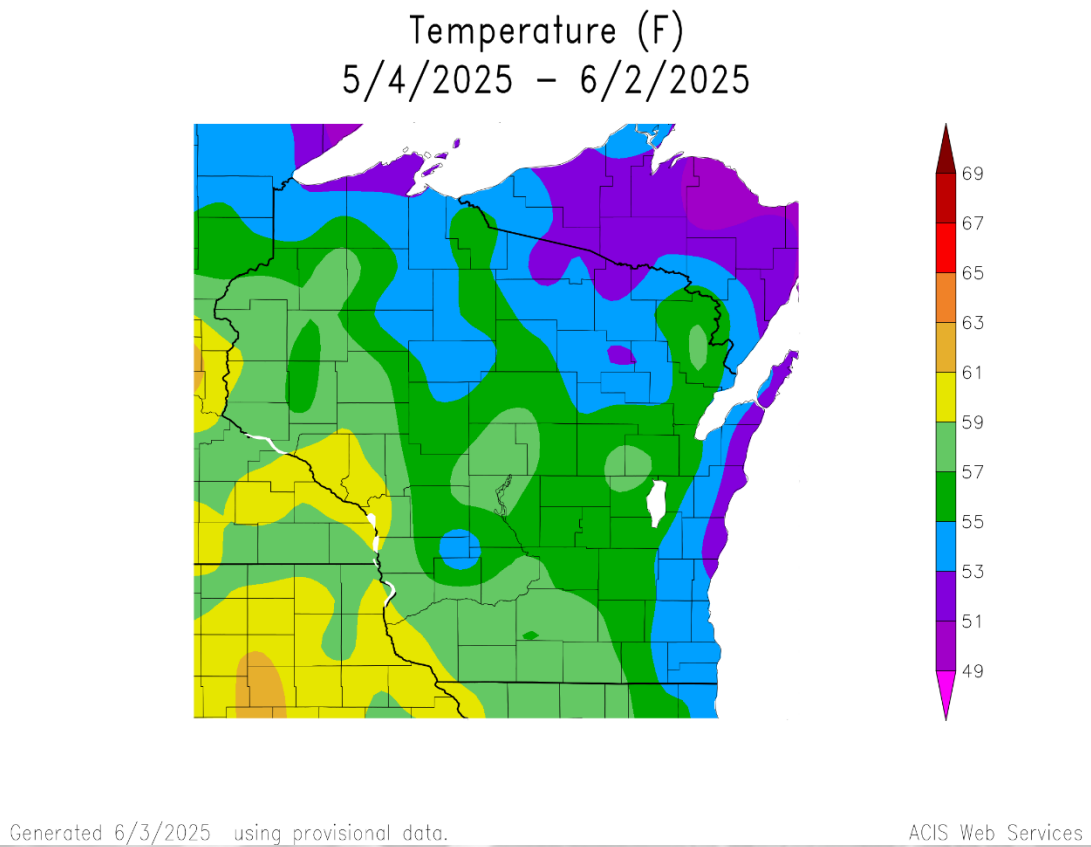


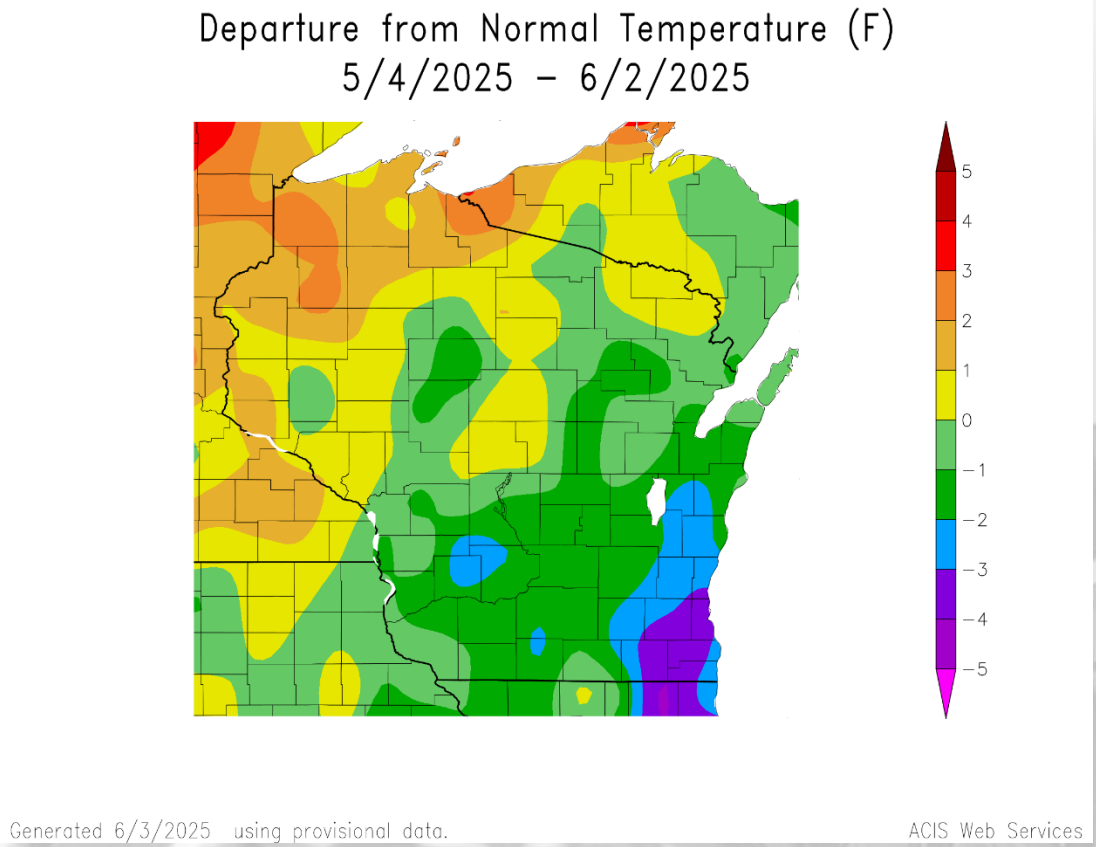


- Average temp. range of **61-63°F** in the west to **53-57°F** in the far north and east.
- **Below normal** across most of the state; **2-6°F below normal** in the south, & closer to normal in the north. Above normal in the far NW.
- Most of the state had **4-5 days** last week where **highs reached the 70°F's**. Only the far NW topped 80°F.

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

30 Day Temperatures

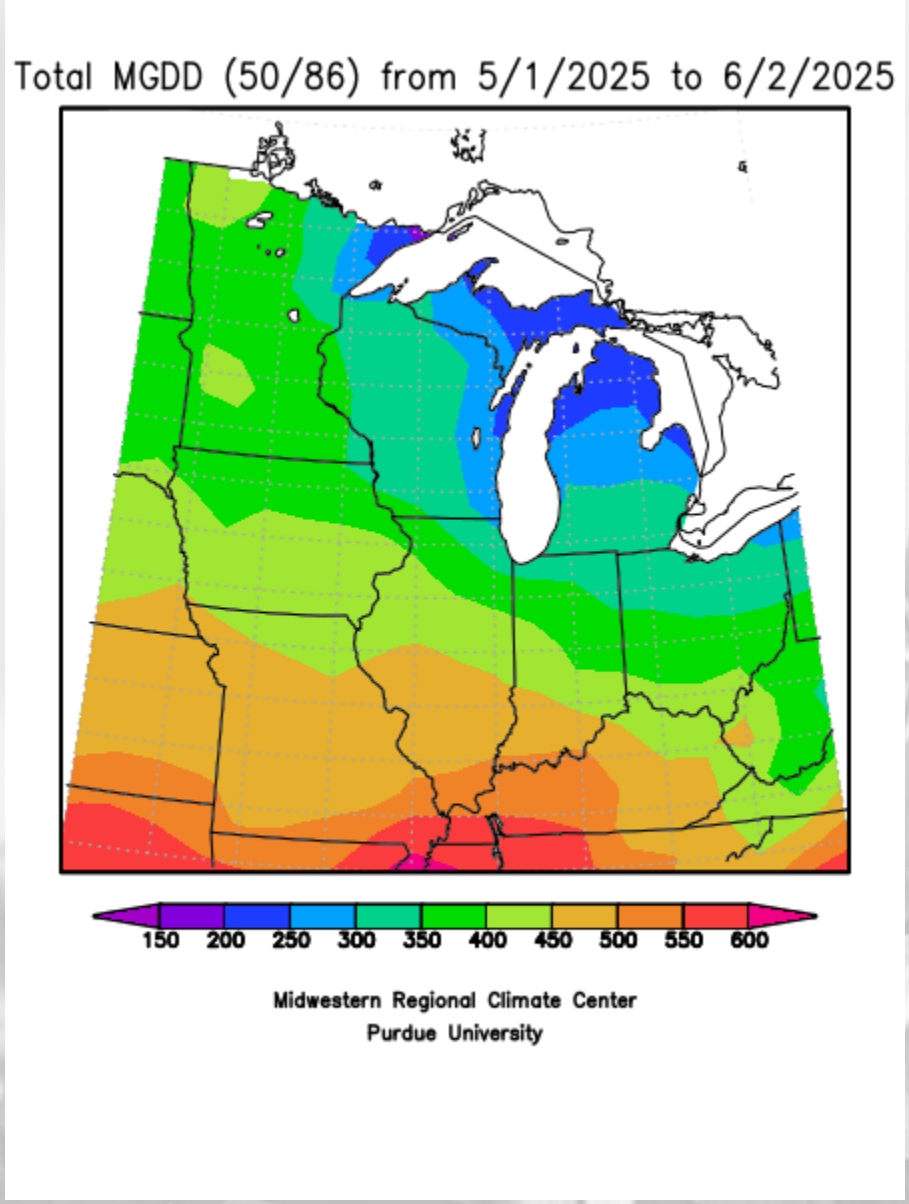


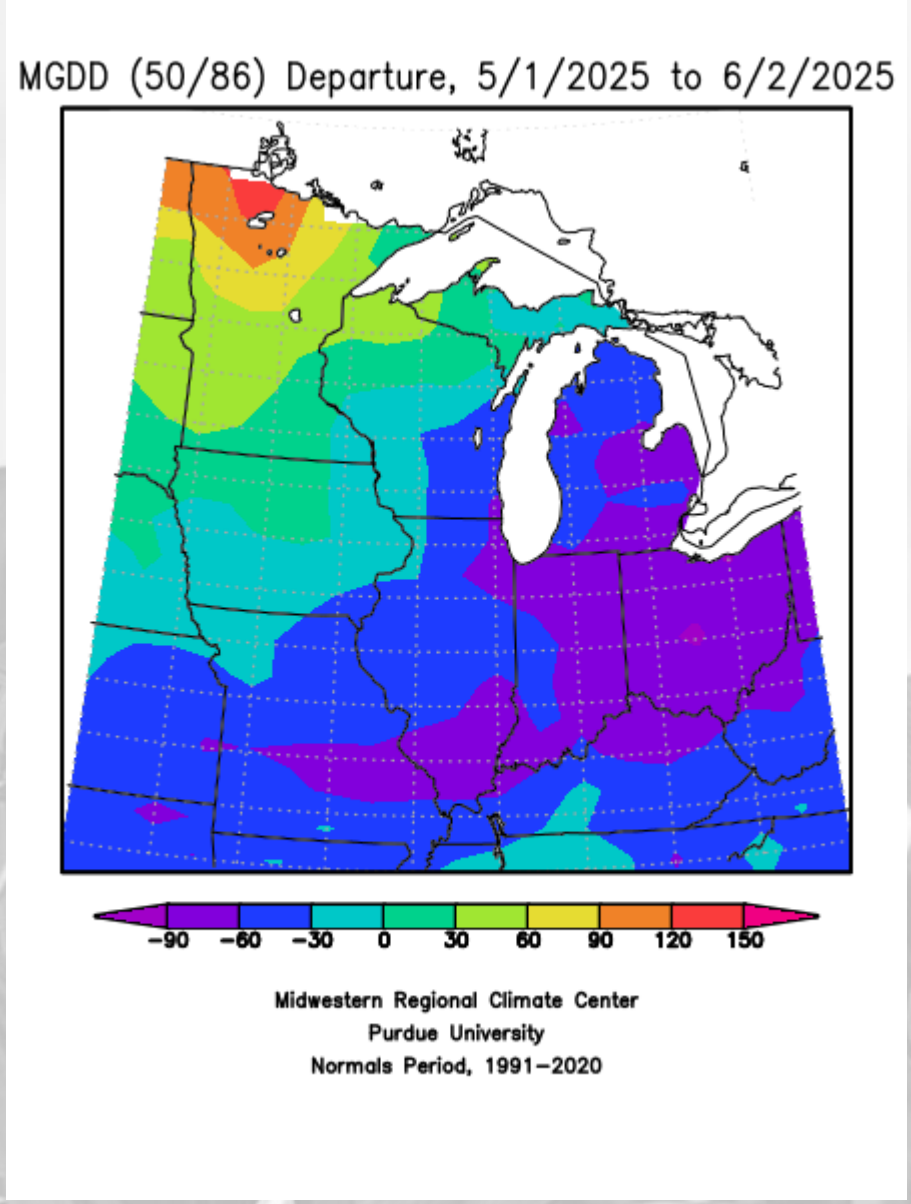


- Average temperatures for the past month ranged from **57-61°F** in the S & W to **51-55°F** in the N & E.
- **Above normal by 1-3°F** in the NW. **Near to average** in the central region.
- **2-4°F below normal** in the SE corner of WI, with **1-2°F below normal** common across the south.

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

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





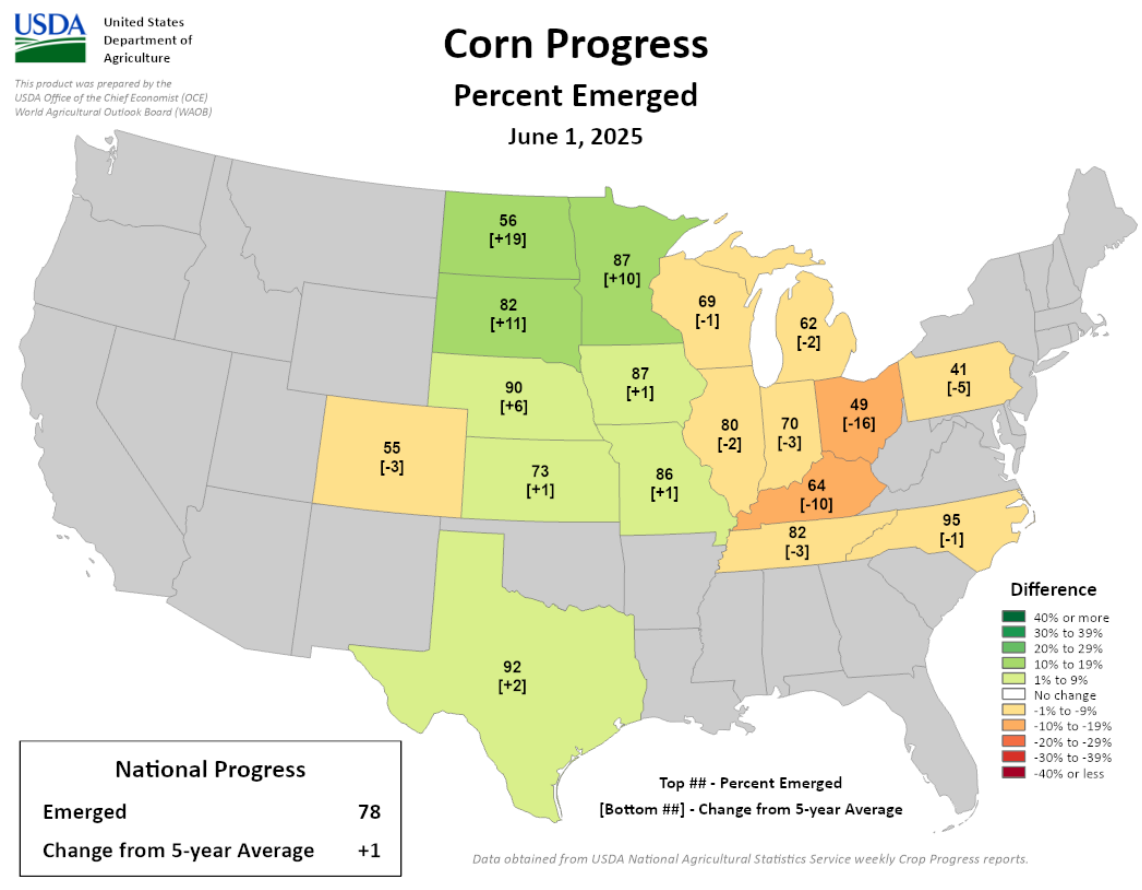
- **300-350** GDD across most of the state. **250-300** GDD in the E, & closer to **400 GDD** in the W.
- GDD accumulation is **behind normal pace** in the southern 2/3 of WI. **Faster-than-normal** accumulation pace in the N.

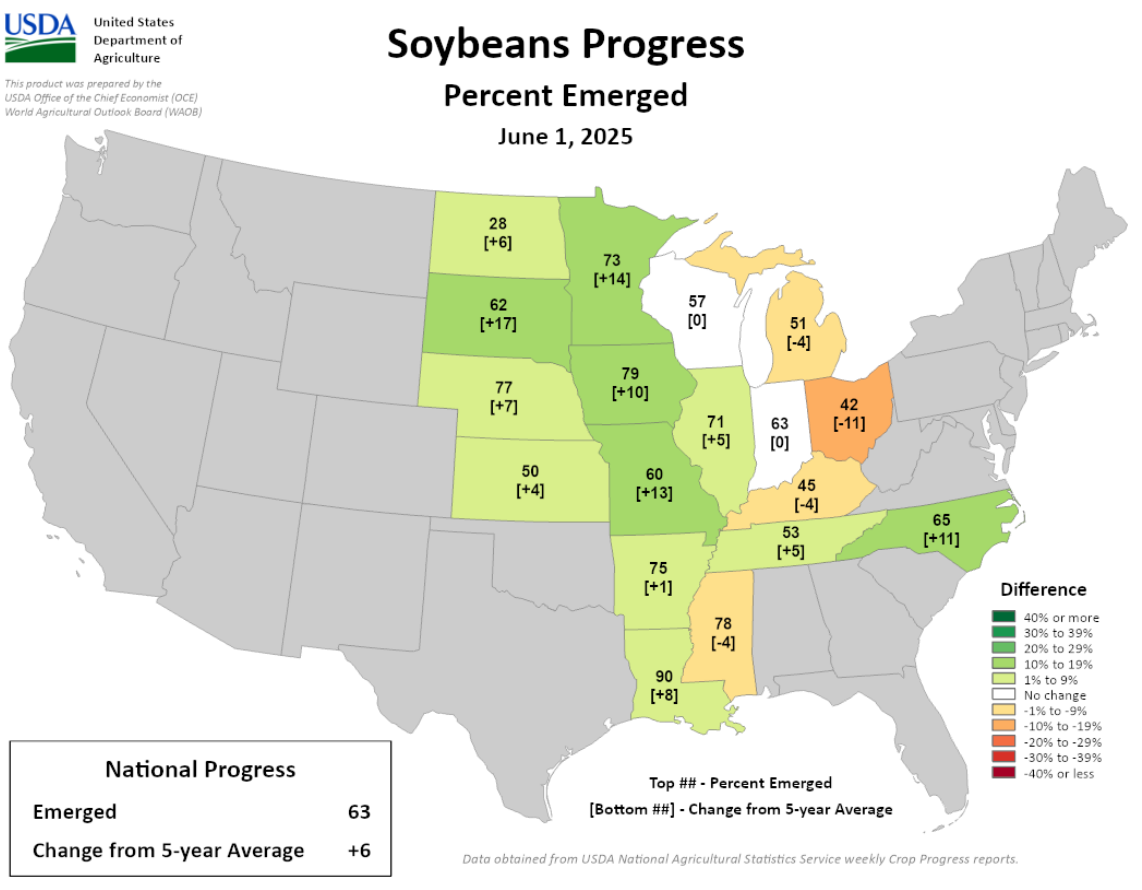
To calculate GDD for your corn variety and planting date, use this tool.

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

https://mrcc.purdue.edu/climate_watch

Corn & Soybean Progress





- Corn and soybean emergence made **>15% jumps** in progress from last week, running at **near to normal pace**.
- Both crops are nearing planting completion **(≥90% planted)**.

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

Crop Progress Report

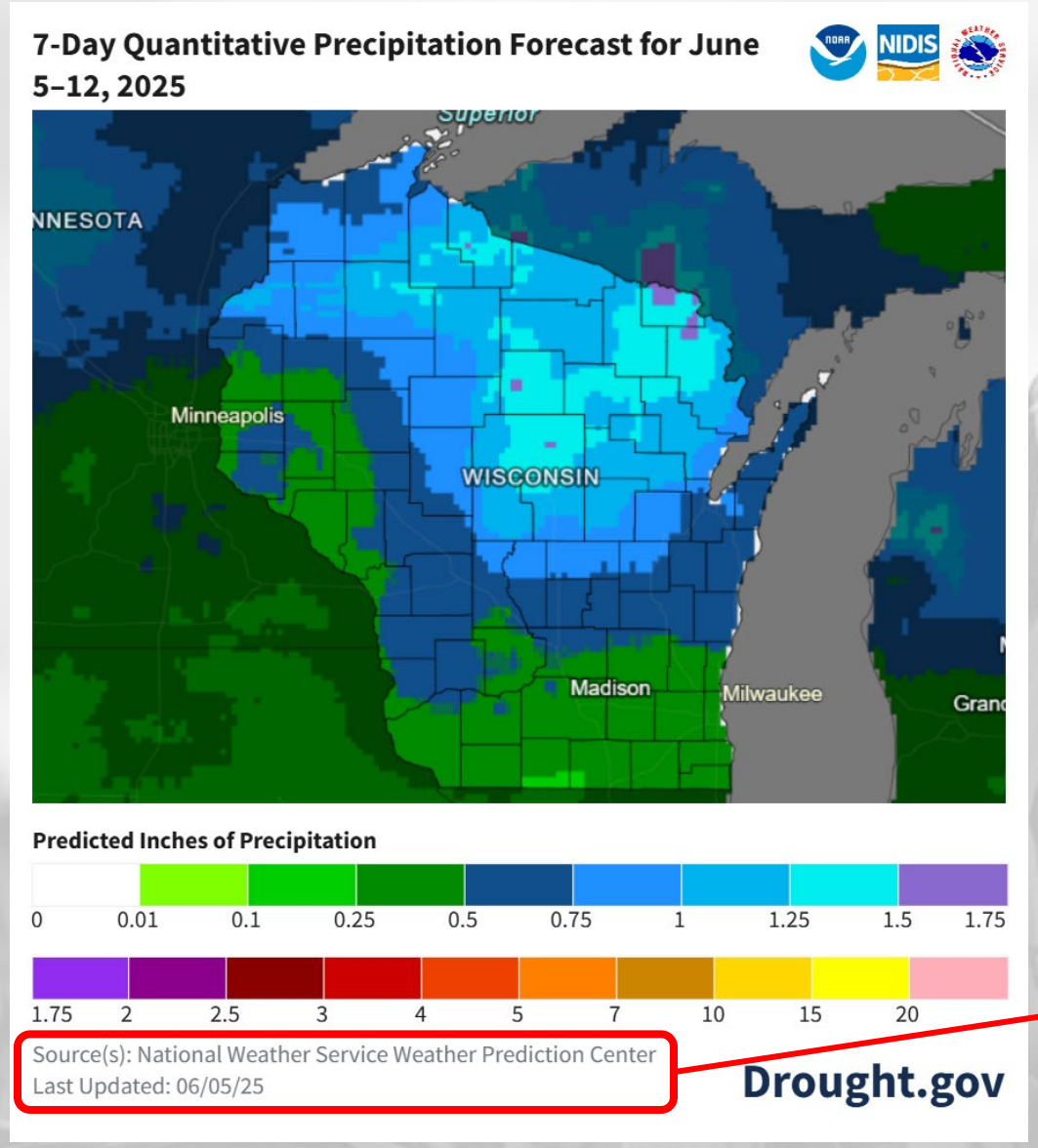
Crop progress report for Wisconsin for the week ending on June 1st

- Corn emergence is **69%** complete and planting is **93%** complete.
  - Condition was rated **70%** good to excellent.
- Soybean emergence is **57%** complete and planting is **90%** complete.
  - Condition was rated **80%** good to excellent.
- Winter wheat is **26%** headed and is rated **67%** good to excellent.
- The first cutting of alfalfa hay was **46%** complete.
- Pasture and range conditions are rated **72%** good to excellent (**down 1%** from last week).
- Oats are **79%** emerged and **95%** planted.
- Potato planting is **92%** complete.

In the news: https://www.brownfieldagnews.com/news/wisconsin-crops-soil-conditions-vary/

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

7 Day Precip Forecast

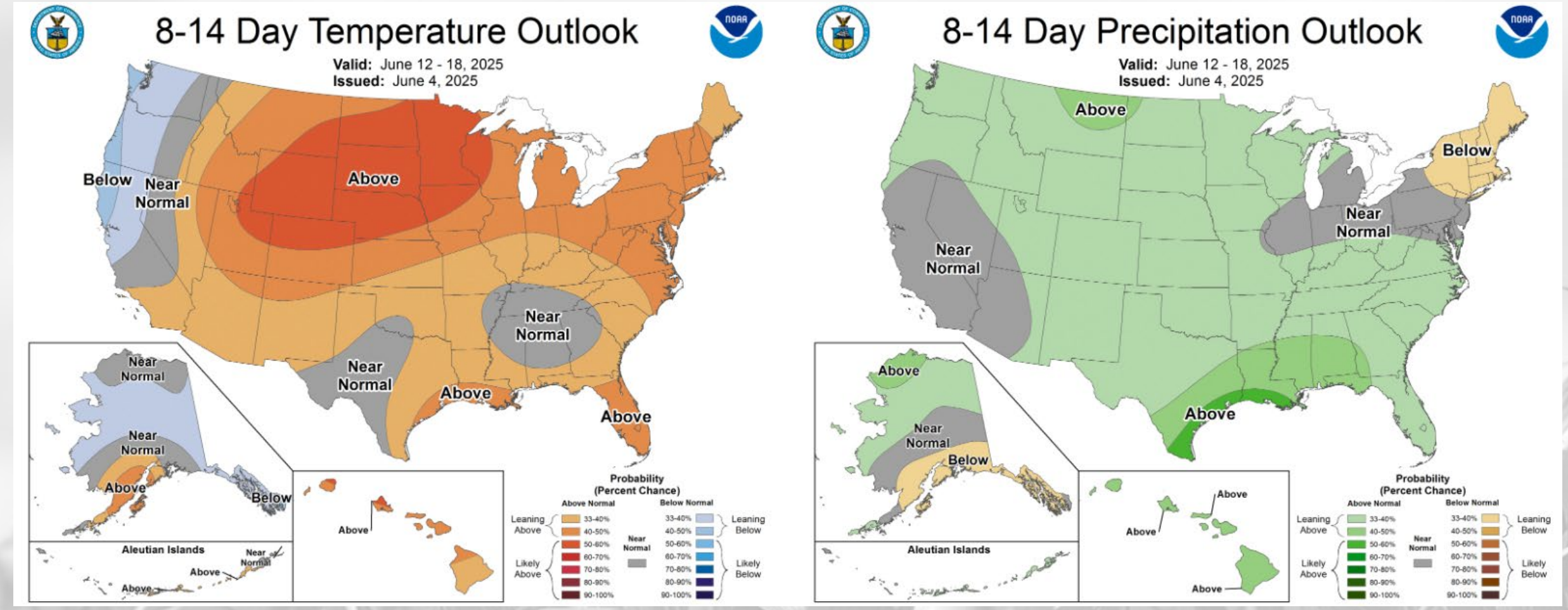


- Precip chances exist **statewide** this next week, with the **best odds in the central and north**.
  - Watch for **precip chances over the next several days** as multiple systems are forecasted to move through.
  - Current forecast shows the highest probability for precip in the NC region, with **totals of 1" or more**.
  - Check your local forecast for details on totals and timing.

Forecast for 6/5/25 thru 6/12/25
(Begins at 7am CDT)

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

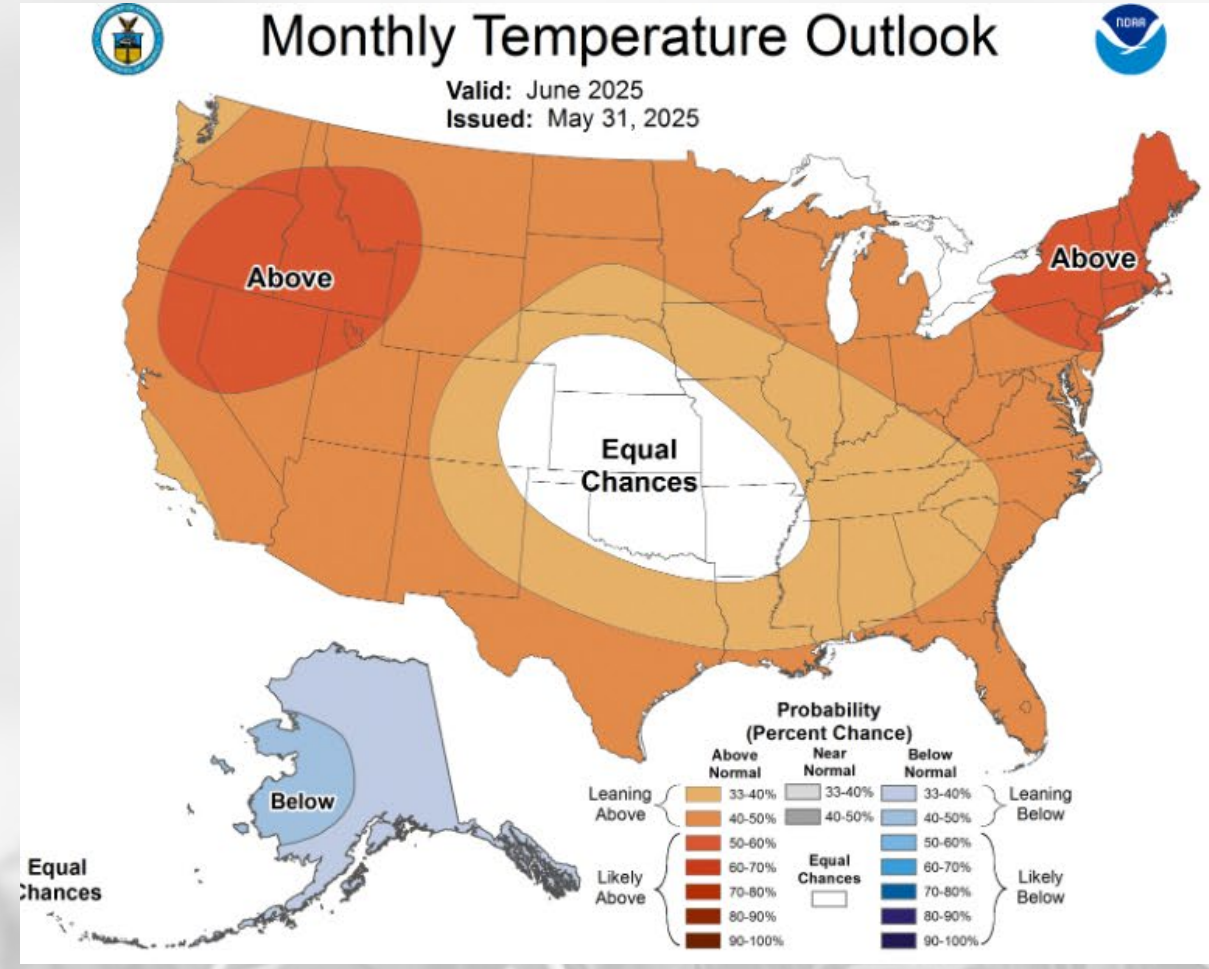
8-14 Day Temp & Precip Outlook

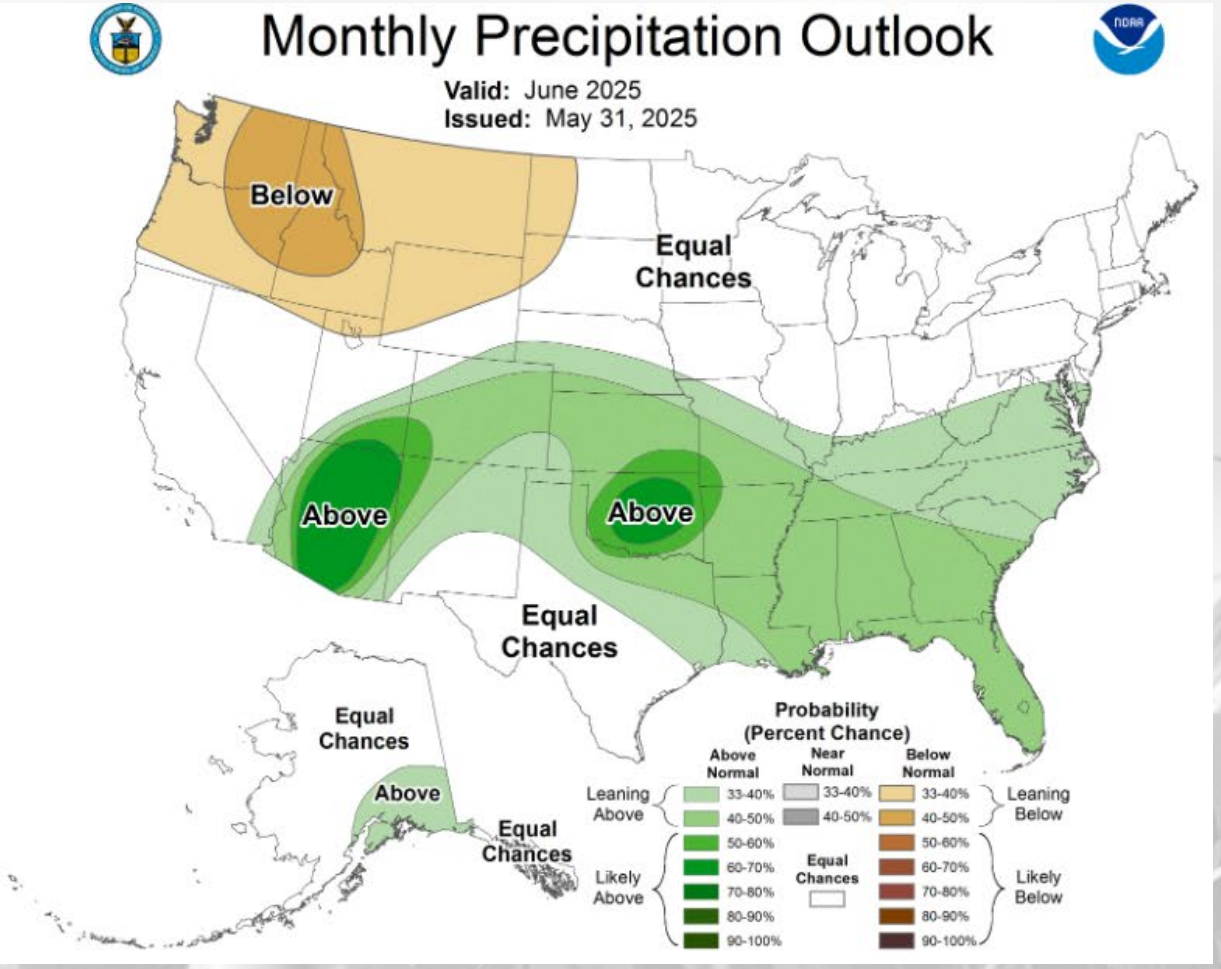


Mid-June: Temperatures leaning above normal, especially in the W/NW. Precipitation is slightly leaning towards above normal statewide.

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

30 Day Temp & Precip Outlook

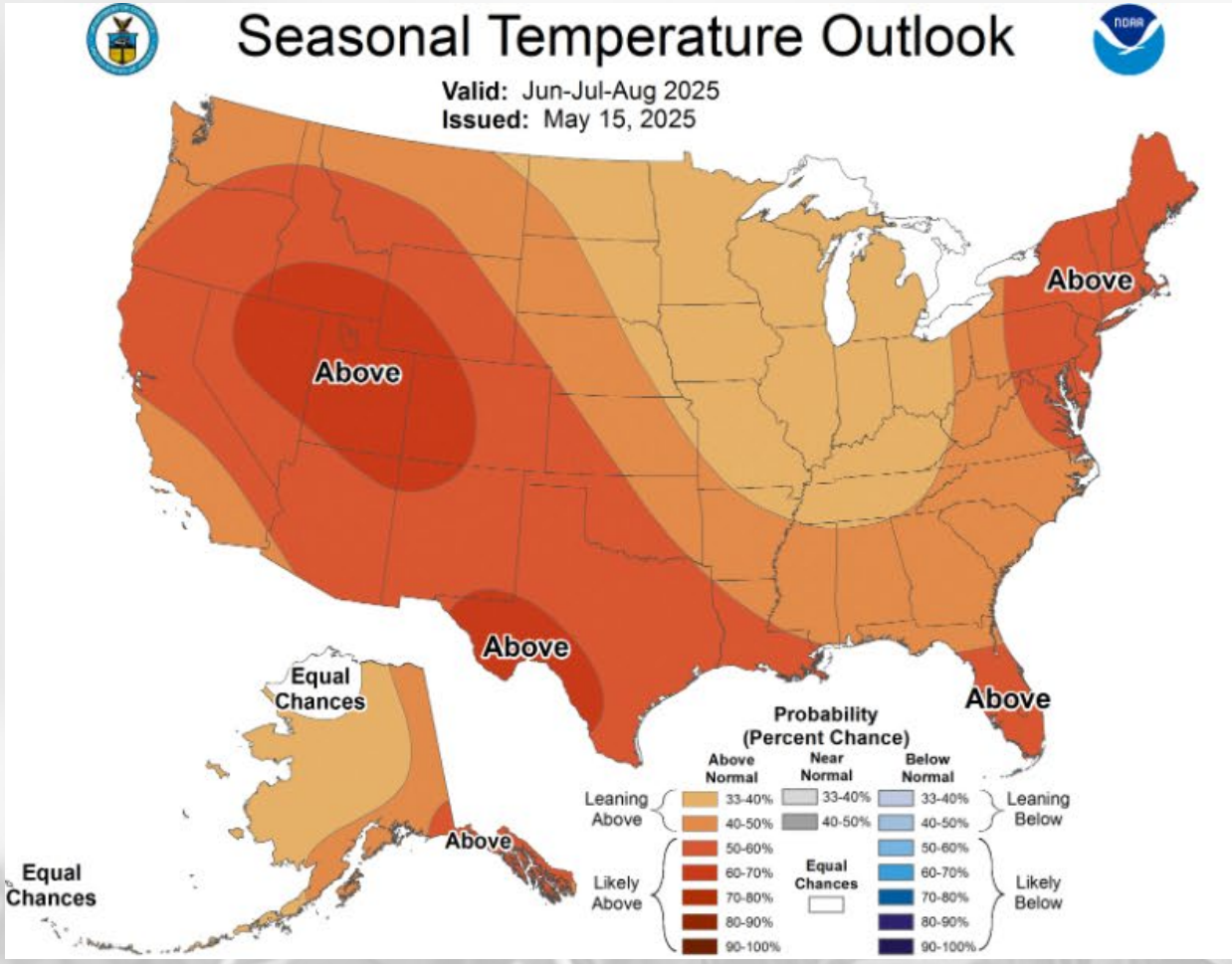


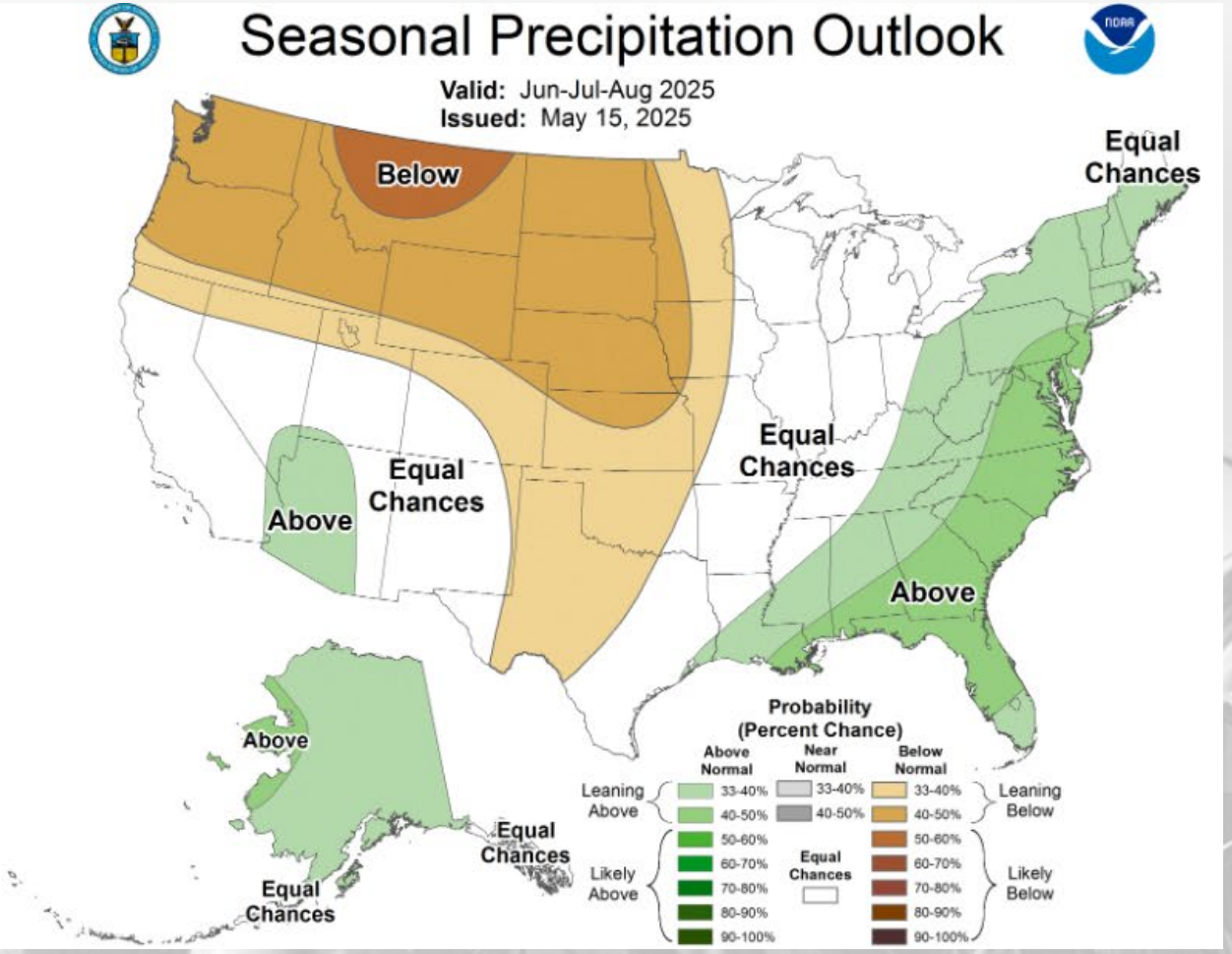


Month of June: Temperatures leaning towards being above normal, with uncertainty for precip with equal chances for above, near, and below normal.

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

- Precipitation last week across most of the state was light, mainly at a **half inch or less**. Most of the state has been **at or below 70% of normal precip since May 4th** (30 days ago).
- **Cooler-than-normal** temperatures were common across the southern 2/3 of the state (**2-6°F below normal**), with closer-to-normal conditions in the north. The past 30 days have also been cooler-than-normal in the south, with a **slight lag in GDD accumulation**.

Impact

- Soil moisture conditions across **most of the state are near normal**, as estimated by the SPoRT-LIS model. Following a week with not a lot of precip, Wisconet stations across the state have showed a **decline in near-surface soil moisture** since last week Tuesday.
- The area of abnormal dryness in the north, as indicated by the USDM, **expanded by >10%** from last week after a very dry last few weeks.
- Corn and soybean emergence continue to make **sizable gains** in emergence progress (**69% & 57% complete**, respectively), with **planting nearing completion** (Source: NASS).

Outlook

- Precip chances are **highest in the central and north** over the next week with multiple days with precip chances coming up.
- Mid-June climate probabilities are **leaning strongly towards warmer than normal statewide**. Best odds for warmer-than-normal temps are in the W/NW. This will **add to the GDD total since planting** and help push crop progress along.
- 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.
- Crop growth has been slowed with cooler temperatures. See how wildfire haze may impact corn growth.
- Take stand counts to make any replant decisions. See the corn and soybean replant guides. Hailed corn decisions can be found here.

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.
- 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 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.

Forage Management

- Continue scouting for alfalfa weevil as alfalfa stands regrow. Weevil feeding can slow regrowth.
- Most alfalfa stands in Southern WI have been 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. Remember that fungicides for stripe rust are also effective for FHB.
- Fusarium Head Blight risk is low across the state but consider this reminder about spraying fungicides, especially to susceptible varieties. Scab alerts and risk forecast can be found here.

Specialty Crop Considerations

Vegetables

- The first generation of seed corn maggot have emerged and the second generation is in southern WI now and will start making its way to central WI next week. Mated females will begin laying eggs in southern WI in the next 5-7 days. Risk will be high in southern WI during the first week of June. Onion maggot risk is high in the north, but it is decreasing in the south. Cabbage maggot severity is high across the state. 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 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 occurs when plants are small.
- Continue scouting for Colorado potato beetle on potatoes and eggplant. Adults are now in most southern and central portions of the state with exception of the most eastern portions of these regions. Egg masses have been detected in the SW. Focus early season scouting on border rows.
- Cover eggplant with row cover immediately after transplanting to prevent damage from Colorado potato beetle and flea beetles. Keep the plants covered until they start growing vigorously. Remember to remove when flowering.
- 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.

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.
- Recent rain events have driven infection periods for grape diseases. Grape growers may consider reviewing grape phomopsis monitoring and management.
- 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-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 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

Contact Info

Josh Bendorf
Climate Outreach Specialist
Wisconsin State Climatology Office
jbendorf@wisc.edu

Anastasia Kurth
Regional Crops & Soils Educator
Sauk, Juneau, and Richland Counties
UW-Madison Division of Extension
anastasia.kurth@wisc.edu

Bridgette Mason
Assistant State Climatologist
Wisconsin State Climatology Office
bmmason2@wisc.edu

Rue Genger
Emerging & Specialty Crops Program Manager
UW-Madison Division of Extension
rkgenger@wisc.edu

Steve Vavrus
State Climatologist
Wisconsin State Climatology Office
sjvavrus@wisc.edu

Emilee Gaulke
Diversified Vegetable Educator
Waukesha County
UW-Madison Division of Extension
emilee.gaulke@wisc.edu

Dennis Todey
Director
USDA Midwest Climate Hub
dennis.todey@usda.gov

Derrick Raspor
GLRI Field Coordinator
Wisconsin USDA-NRCS
derrick.raspor@usda.gov