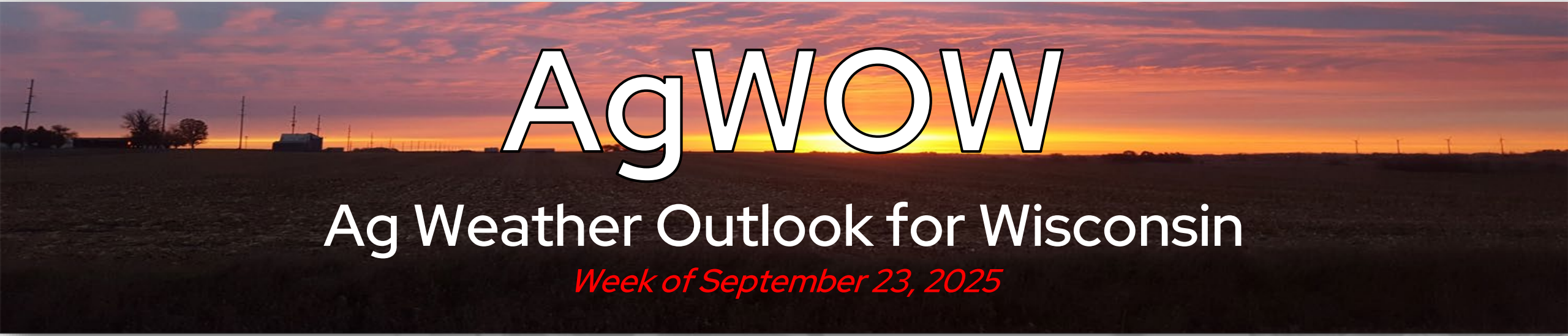
Wisconsin State Climatology Office
Nelson Institute for Environmental Studies

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 September 23, 2025

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Key Points

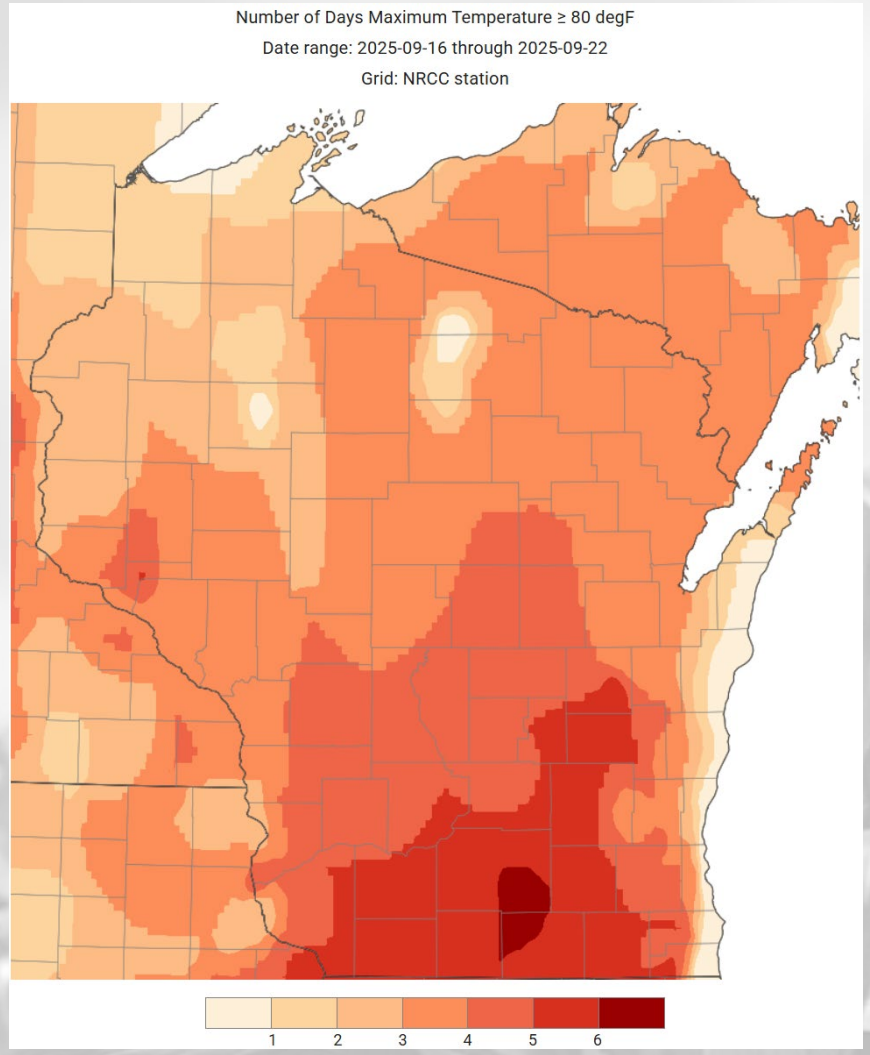
Navigate to select slides by clicking on the links below.

1) The warmth remained over the state as temps were as much as 10°F above normal.
2) Multiple days with measurable precip helped alleviate some dryness where totals were higher.
3) Drought severity and coverage was relatively unchanged from last week.
4) The next 7 days look very dry, and indications are that early October will be warmer than normal.

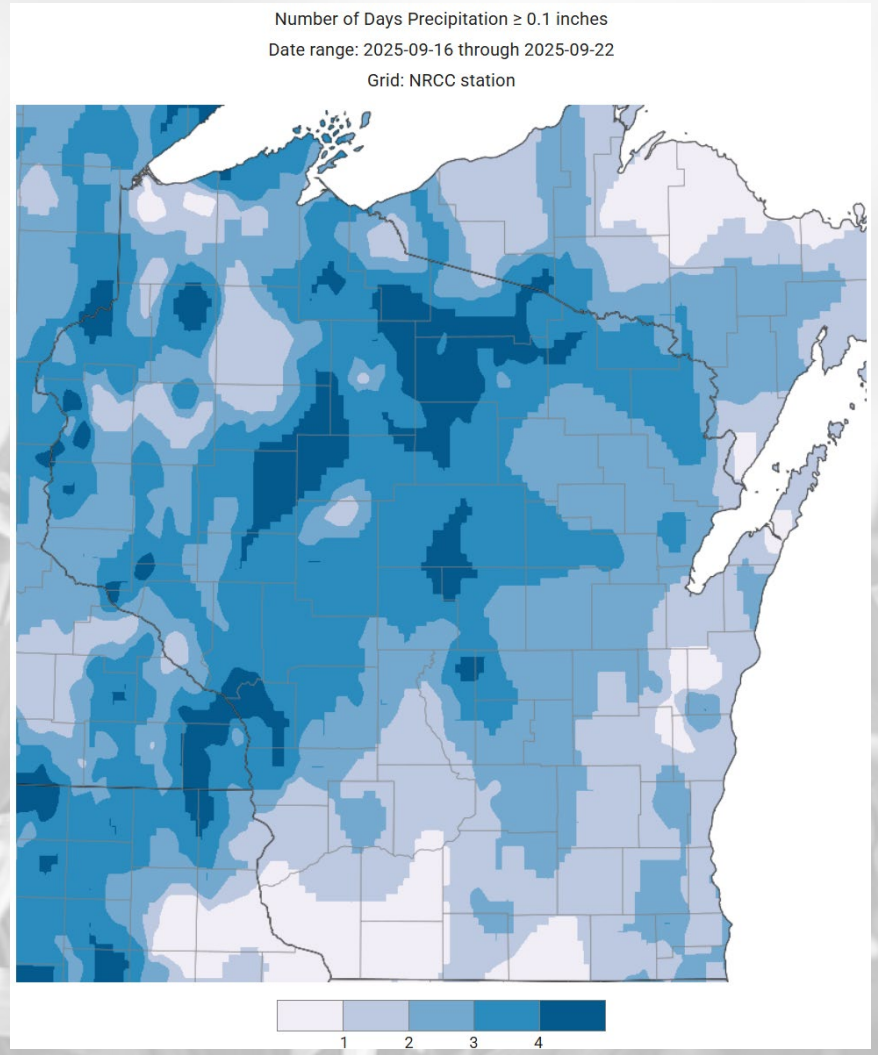
- *For this week's agronomic recommendations from UW Extension, click here.*
- *For this week's crop progress updates from USDA NASS, click here.*

Wx Highlight → Warm & Rainy

Days with a High Temp of 80°F or above
9/16 thru 9/22



Days with a Precip Total of 0.1" or More
9/16 thru 9/22



Summer-like conditions remained over the state last week, with **multiple rainy days** in the west and north.

New records high temp set:

- Sept. 16 → 11 stations
- Sept. 17 → 17 stations
- Sept. 18 → 10 stations
- Sept. 19 → 20 stations

Highest Wisconet temp:

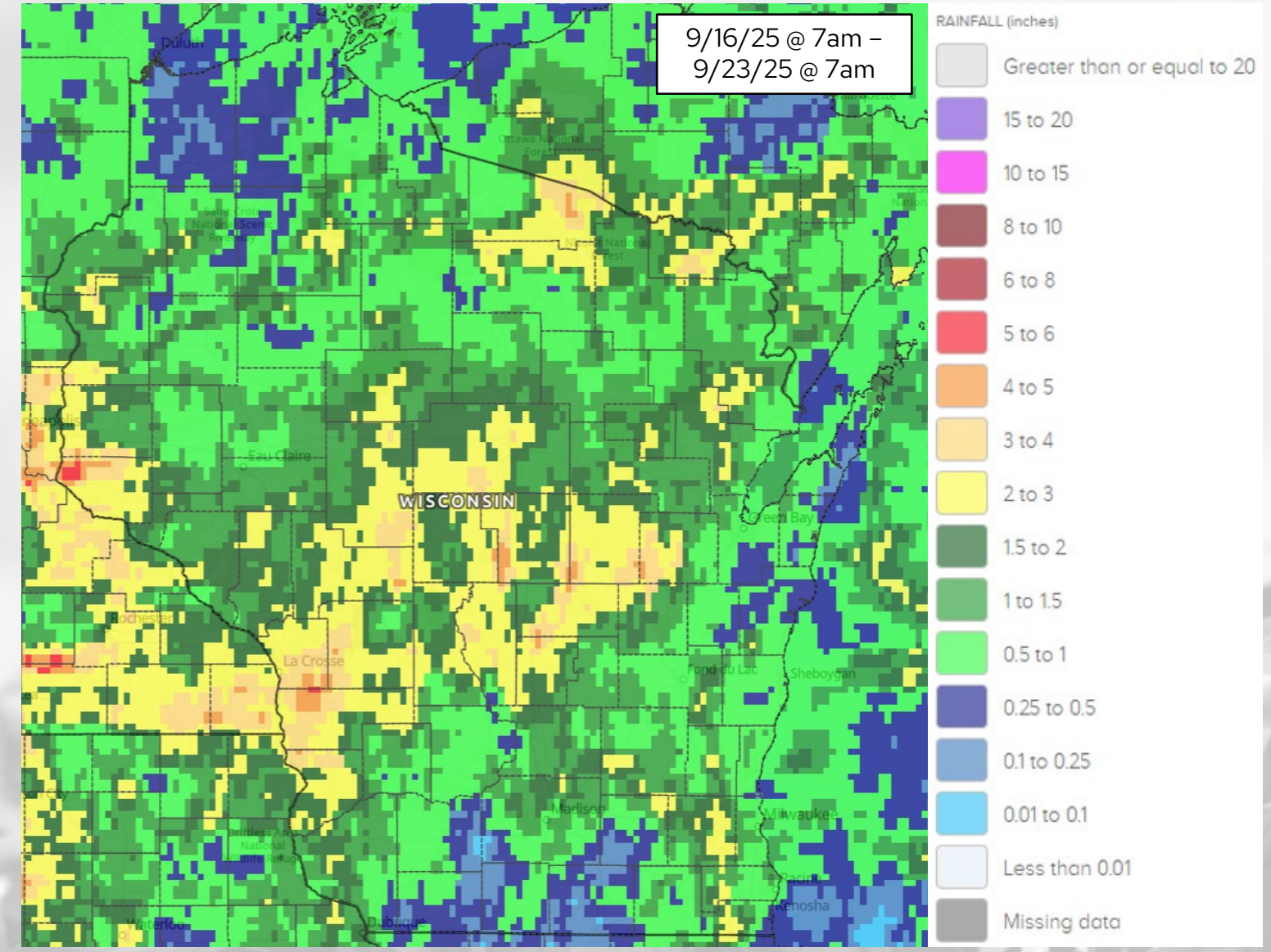
- River Falls, Pierce Co. → 9/16, **89.2°F**

Highest Wisconet 7-day rain:

- River Falls, Pierce Co. → **3.49"**

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

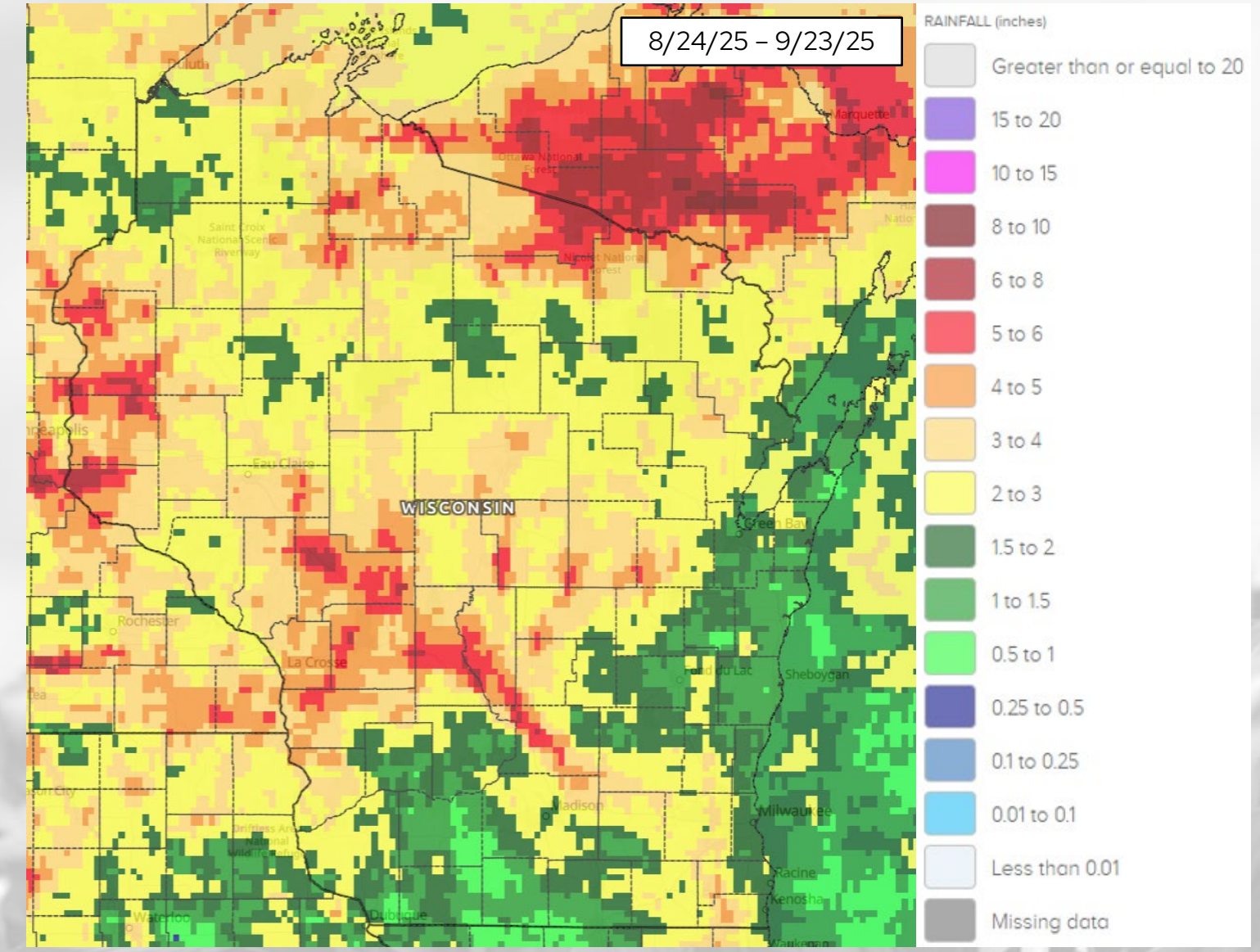
7 Day Precip



- **0.5" or more** across most of the state.
- Highest totals in the central, west-central, and far north → pockets of **3" or more**.
- **2-4"** common in the central region.
- **Less than 0.5"** south of Madison and in the far NW.

https://water.noaa.gov/

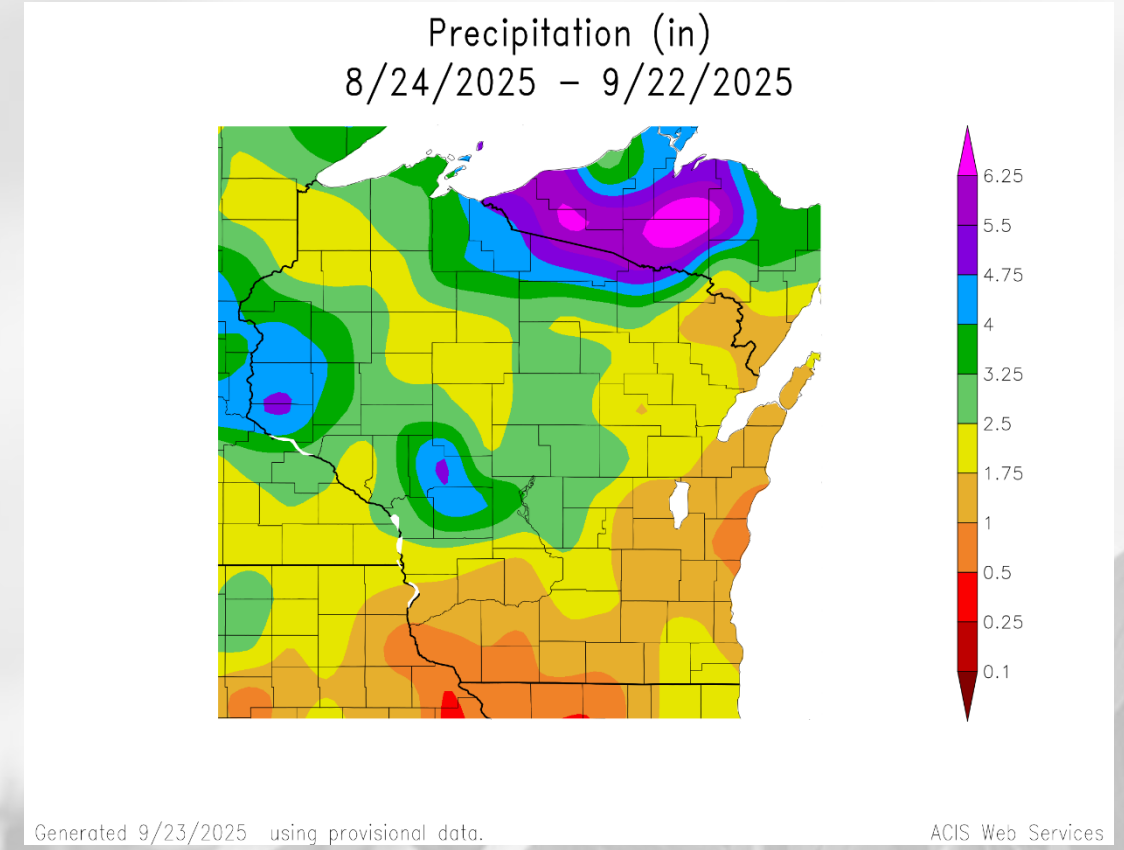
30 Day Precip

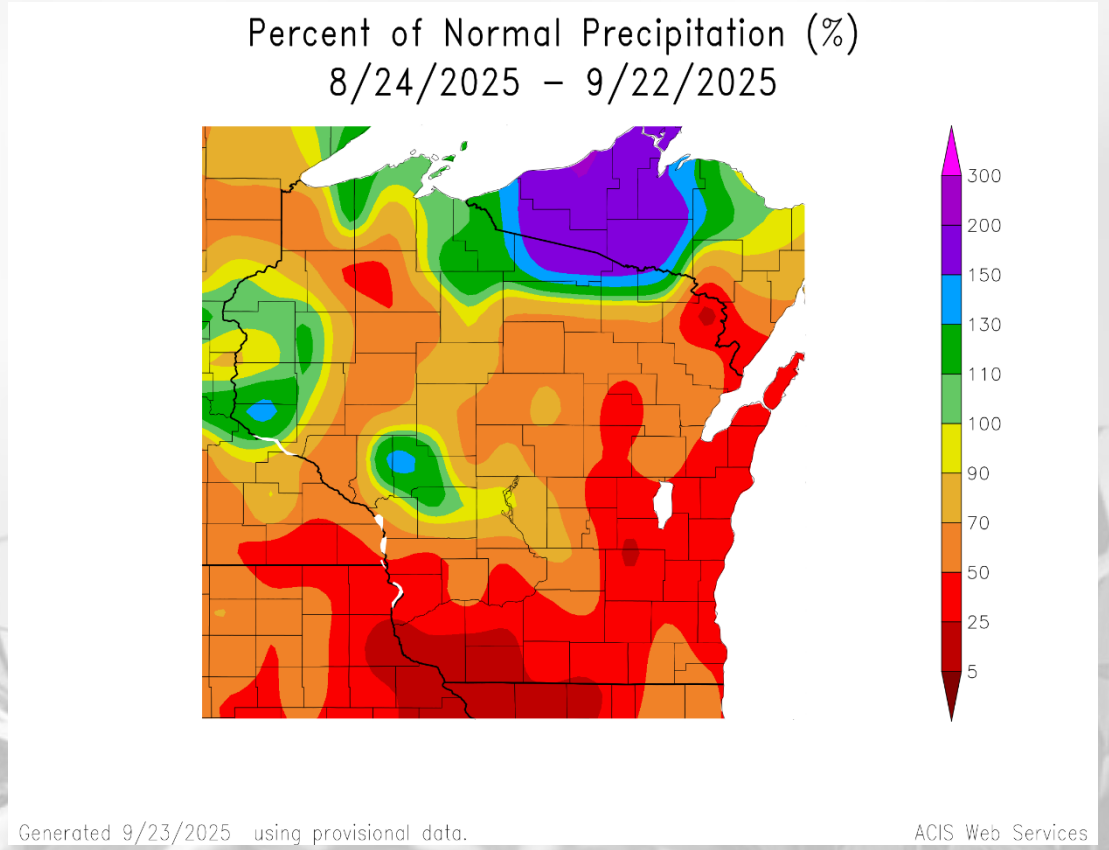


- **2-4”** across most of the state, with higher totals in the west and north.
- Pockets of **4” or more** in the central region, west of the Twin Cities, and along the MI border.
- Lowest totals in the south and east → **generally less than 2”**

https://water.noaa.gov/

30 Day Precip Total/Percent Avg.

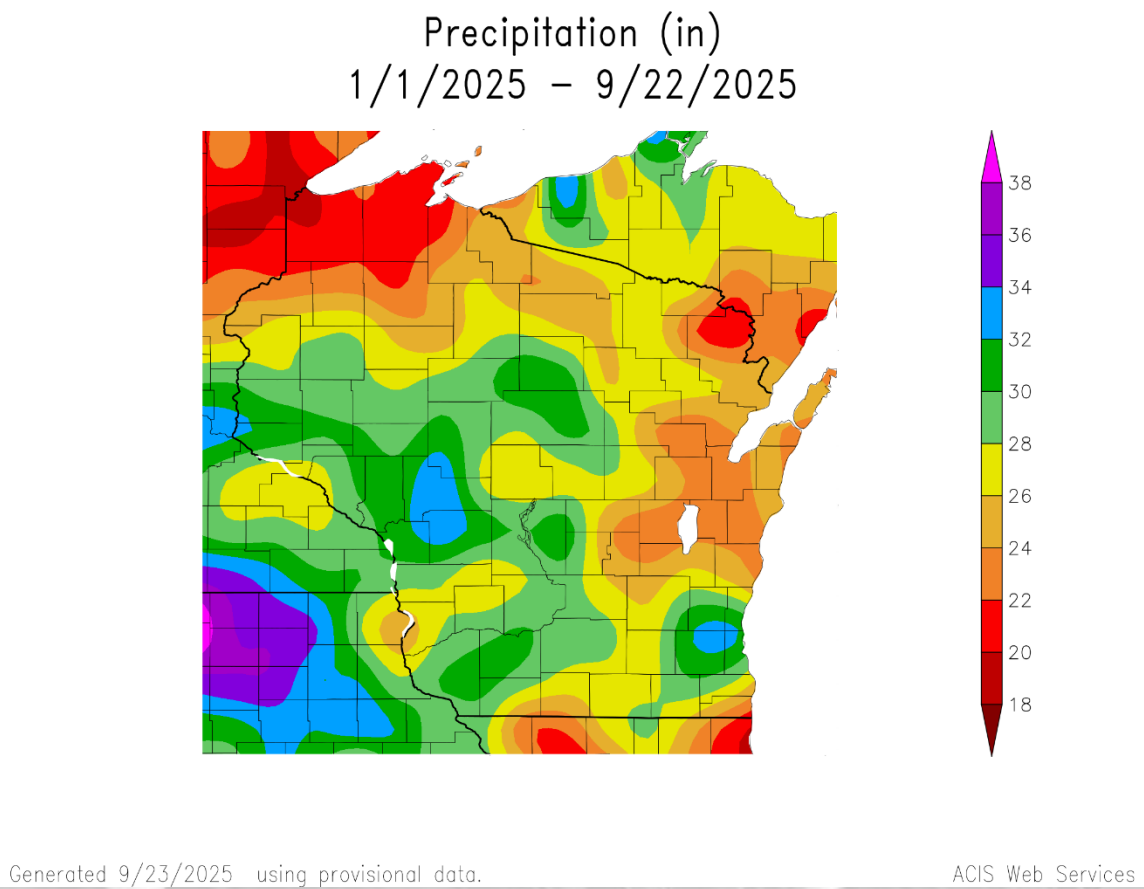


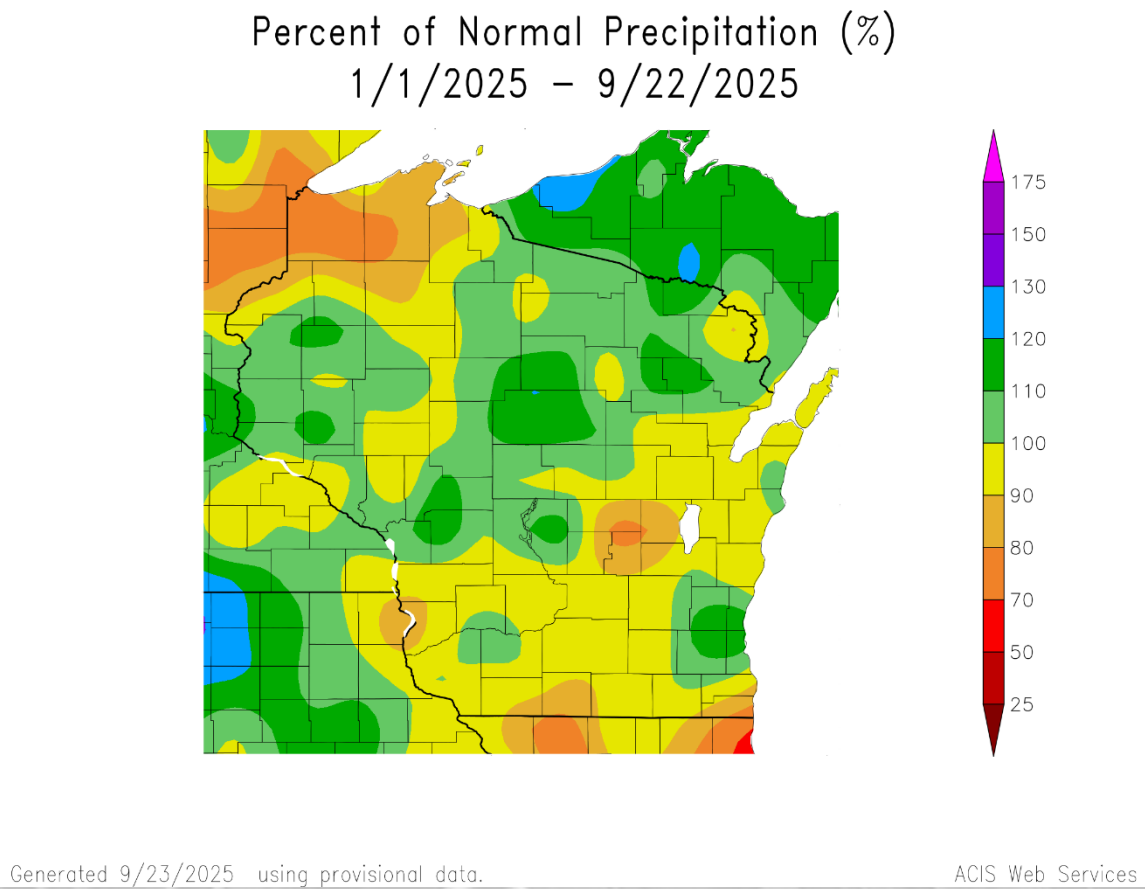


- **Below normal** for most of WI over the past 30 days → **90% or less common**, with 50% or less in the S & E.
  - Southwest → **25% or less** of normal from Prairie du Chein to Monroe & points south
- **Localized areas** of above normal precipitation in regions where totals were **4" or more**.

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

2025 Precipitation (so far)





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

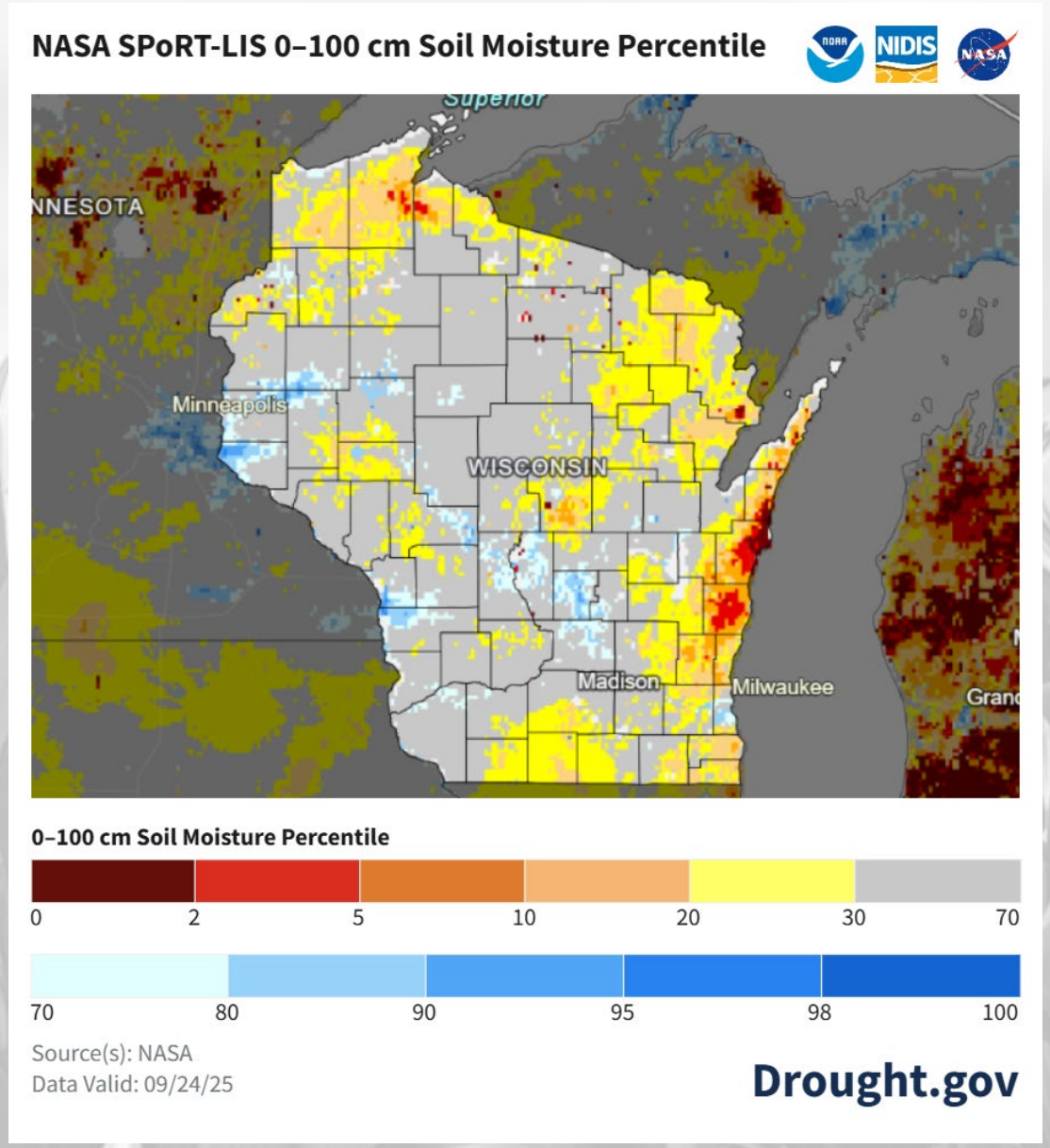
Soil Moisture Models

- **Reduction in dryness** in the central region after receiving 1" or more of precip last week. **Near normal** conditions for most.
- **Near to above normal** in pockets of the central and western regions.
- **Continued dryness** in the east and northwest.

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.

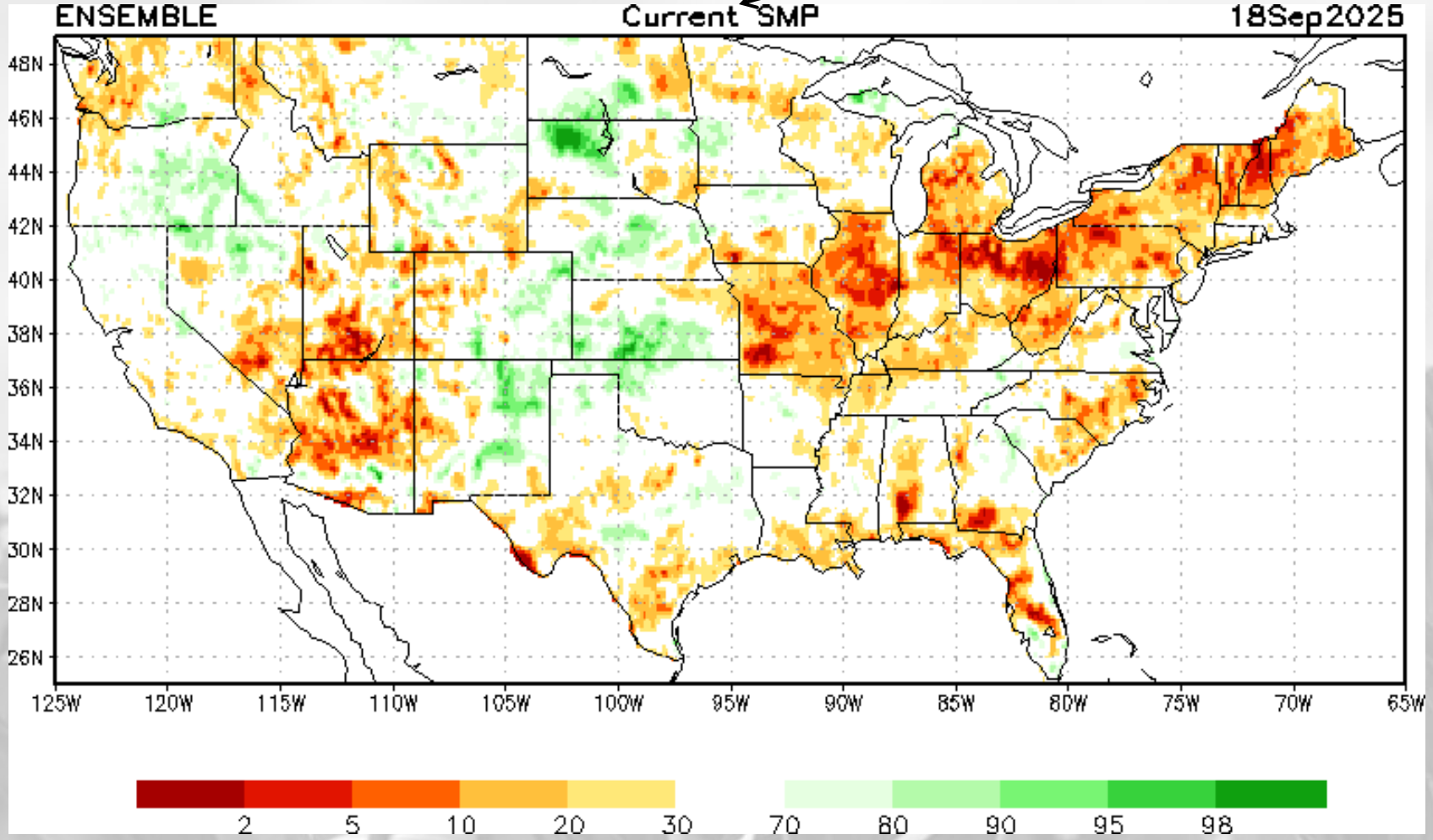
It's worth noting that each soil moisture model has their own characteristics and input variables, so there tends to be variation between models. Thus, it's worthwhile to look at multiple models opposed to just one.

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



Soil Moisture Models

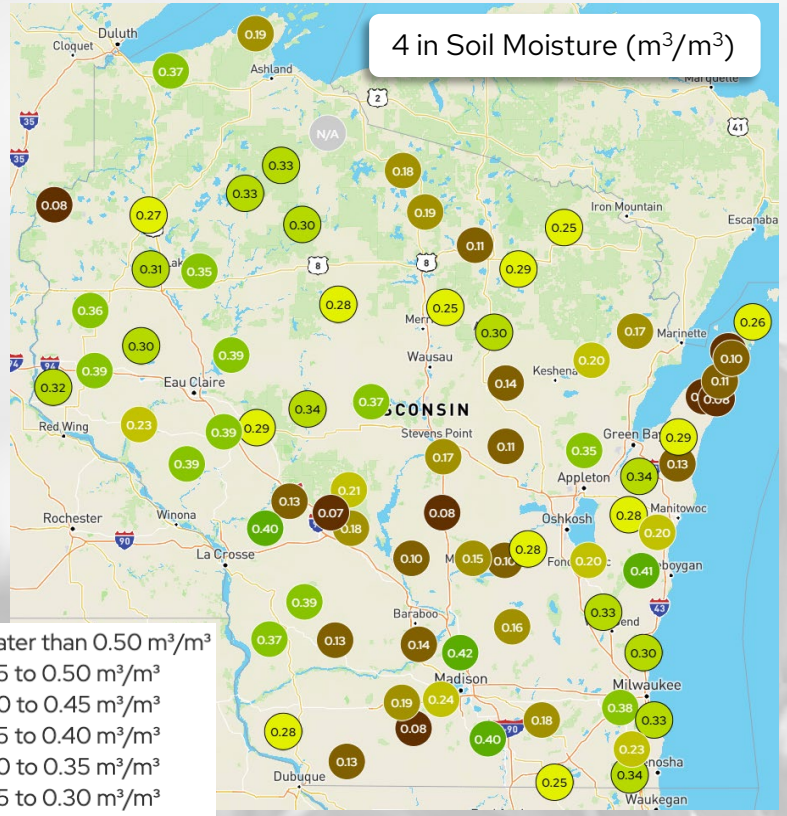
NOTE: this map displays the soil moisture percentile for Sep 11. It was the most recent update as of Sep 16.

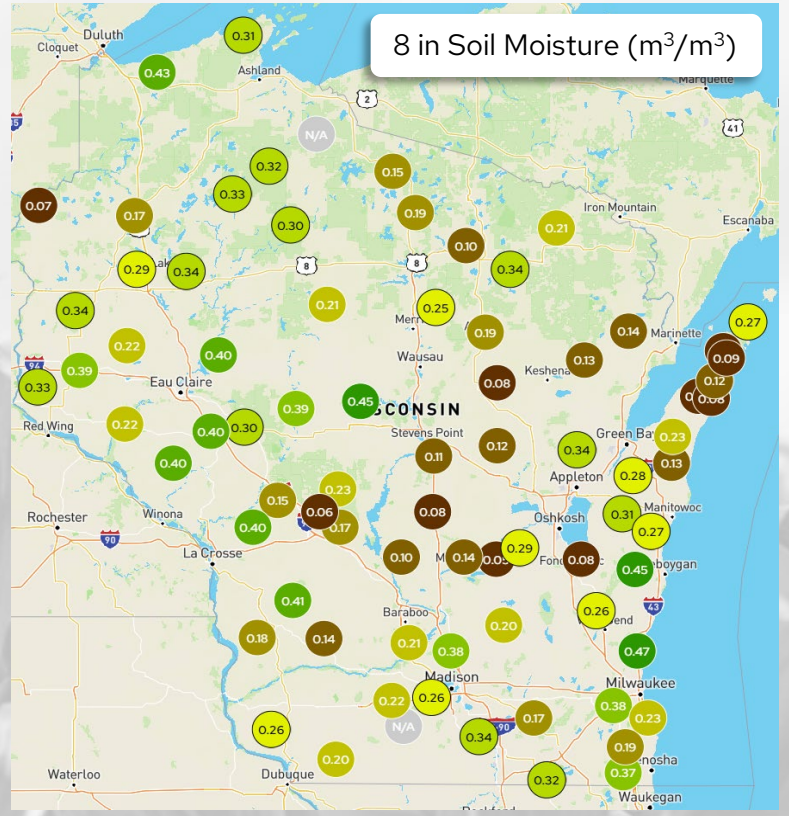


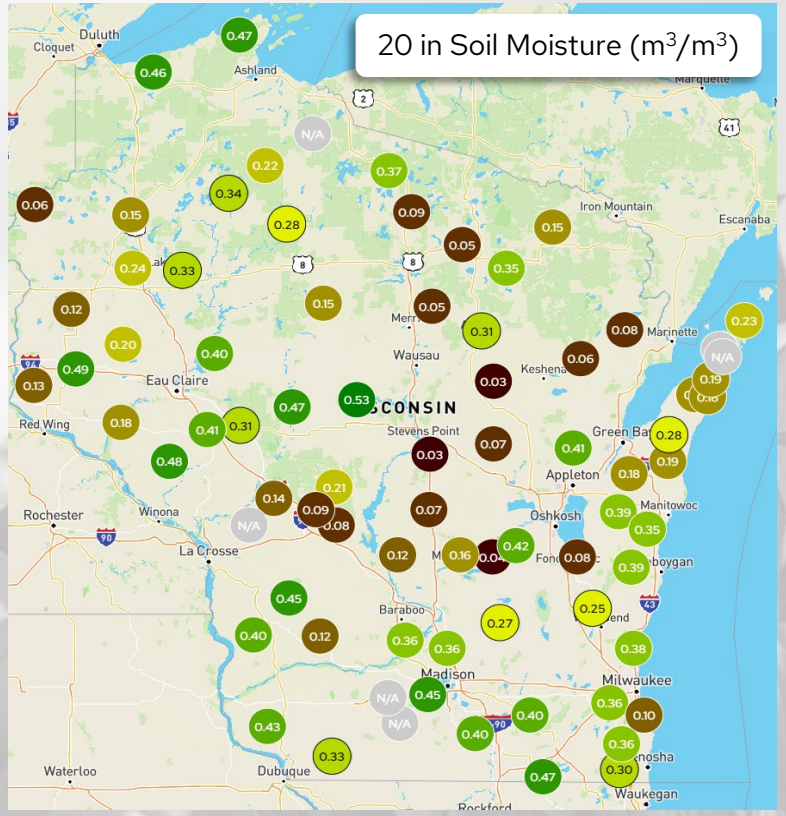
https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp_new.shtml

Wisconet Soil Moisture

Maps showing soil temperature conditions on September 23rd @ 9:00 am.
Units of map values are {Volume of water}/{Volume of soil}.







- greater than 0.50 m³/m³
- 0.45 to 0.50 m³/m³
- 0.40 to 0.45 m³/m³
- 0.35 to 0.40 m³/m³
- 0.30 to 0.35 m³/m³
- 0.25 to 0.30 m³/m³
- 0.20 to 0.25 m³/m³
- 0.15 to 0.20 m³/m³
- 0.10 to 0.15 m³/m³
- 0.05 to 0.10 m³/m³
- 0.00 to 0.05 m³/m³

https://wisconet.wisc.edu/

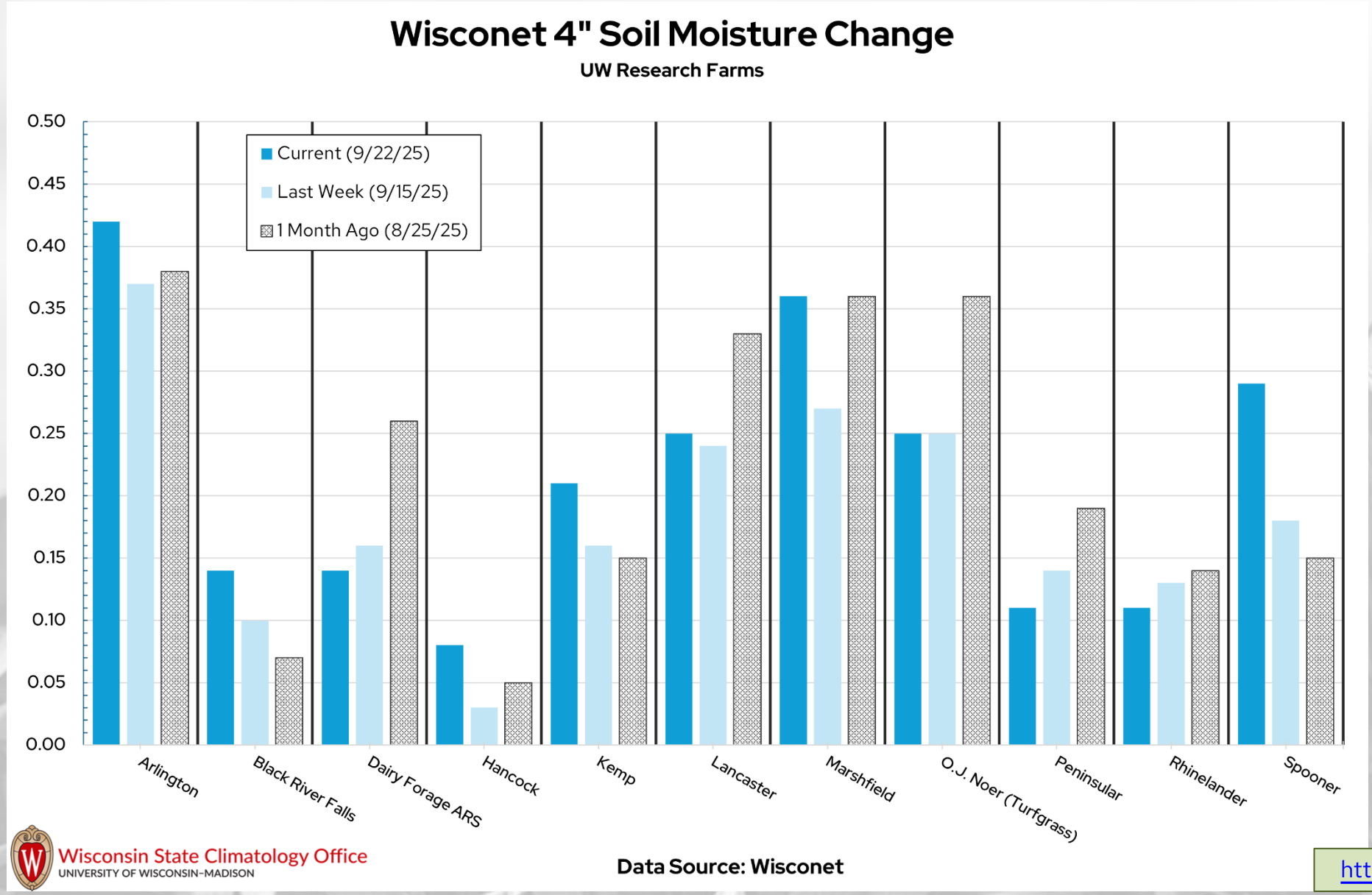
Wisconet Soil Moisture

Change in soil moisture from September 16th (Start) to September 22nd (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	1.12	0.36	0.42	0.32	0.37	0.37	0.36
Black River Falls	Jackson	2.48	0.10	0.14	0.13	0.16	0.10	0.15
Dairy Forage ARS	Sauk	0.63	0.15	0.14	0.23	0.21	0.37	0.36
Hancock	Waushara	1.13	0.03	0.08	0.02	0.09	0.04	0.07
Kemp	Oneida	2.65	0.16	0.21	0.16	0.21	0.07	0.10
Lancaster	Grant	0.00	0.24	0.25	0.27	0.26	0.44	0.43
Marshfield	Marathon	2.32	0.26	0.36	0.40	0.44	0.51	0.53
O.J. Noer *(Turfgrass)*	Dane	0.50	0.24	0.25	0.26	0.26	0.45	0.45
Peninsular	Door	0.12	0.13	0.11	0.14	0.12	0.19	0.19
Rhinelander	Oneida	0.36	0.12	0.11	0.11	0.10	0.05	0.05
Spooner	Washburn	1.99	0.17	0.29	0.07	0.14	0.11	0.13

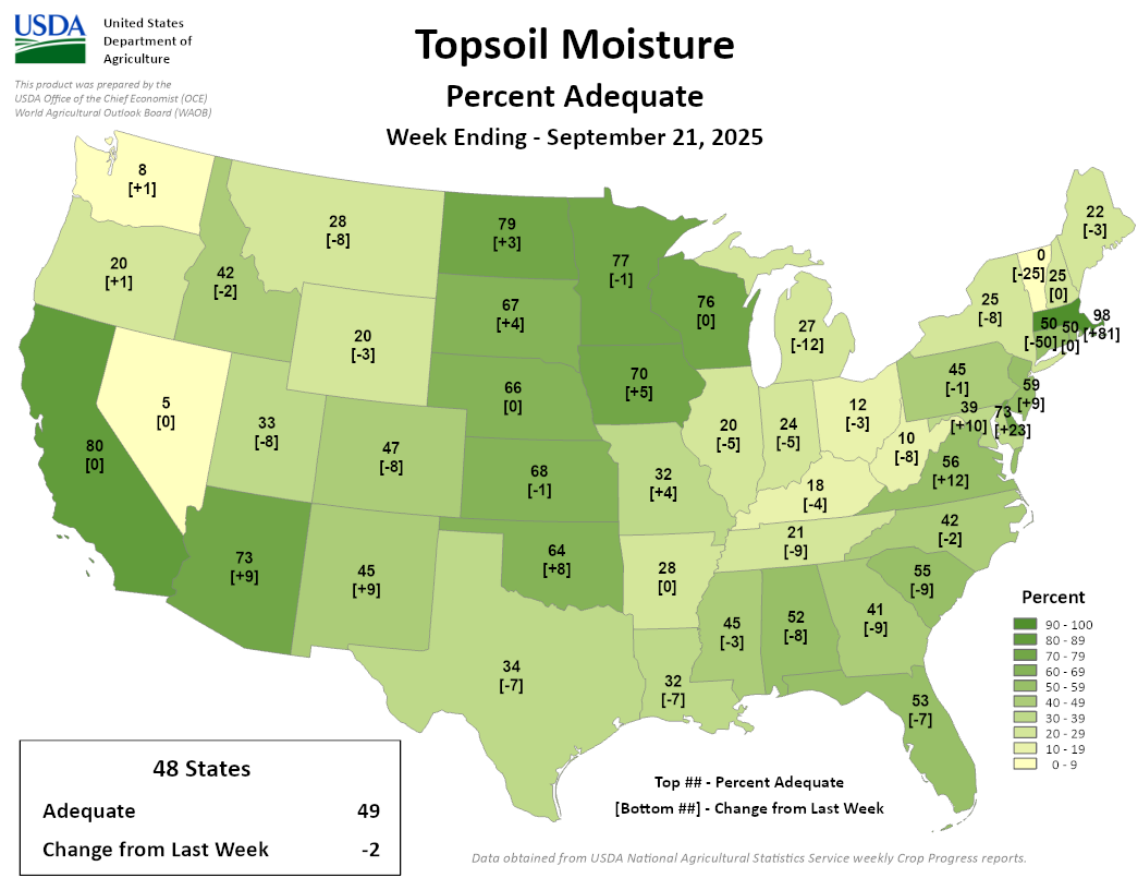
https://wisconet.wisc.edu/

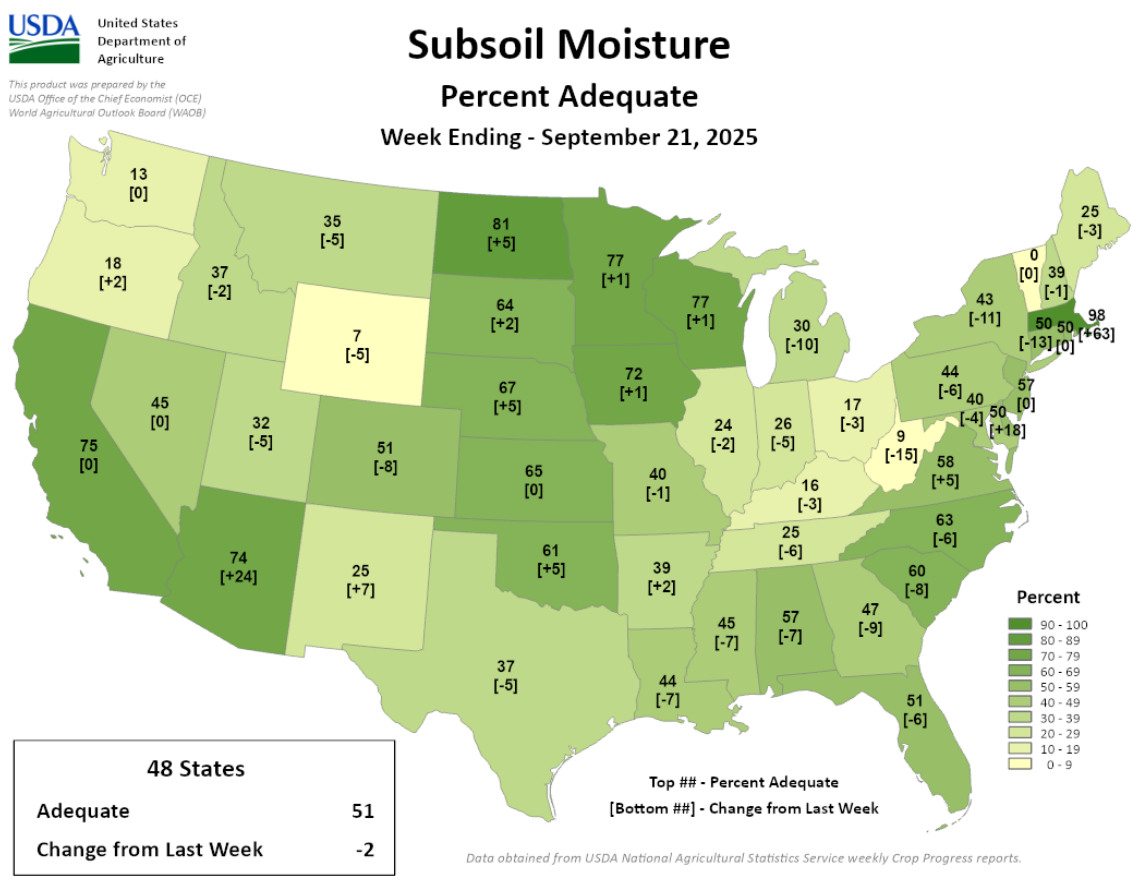
Wisconet Soil Moisture



https://wisconet.wisc.edu/

Adequate Soil Moisture



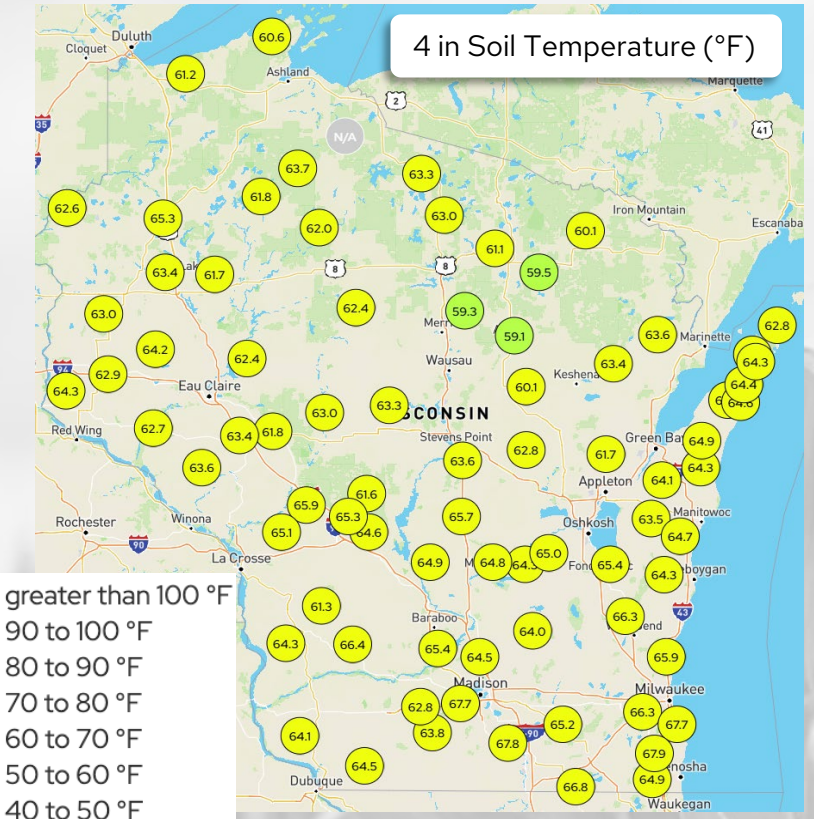


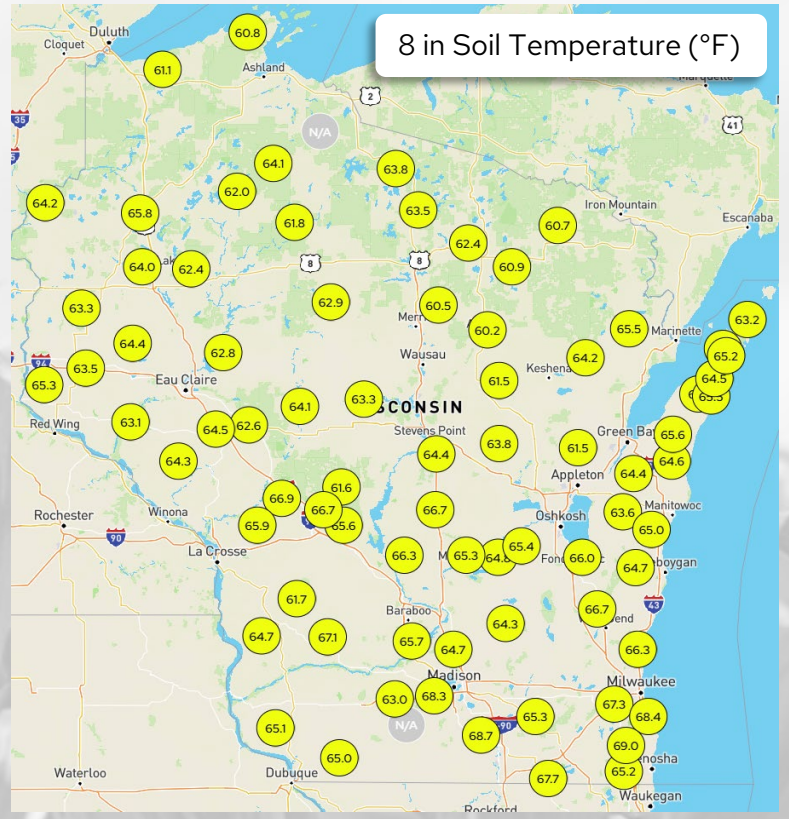
- **76-77%** of agricultural soils in the state reporting adequate topsoil and subsoil moisture.
- **19-21%** of fields in the state are reported as having short to very short topsoil moisture, a **1% decrease** from last week.

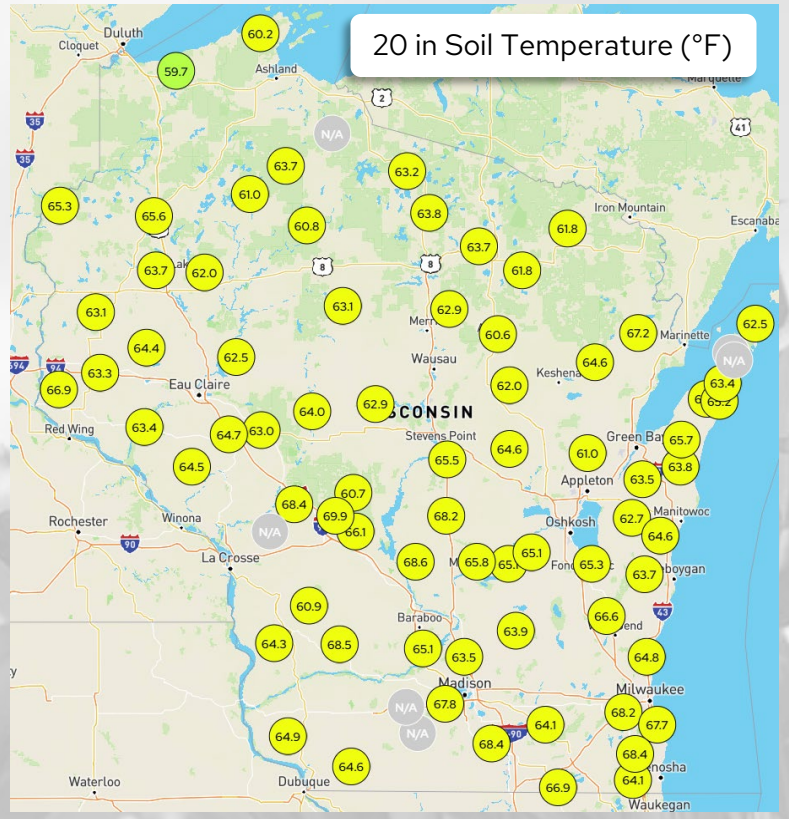
https://agindrought.unl.edu/Other.aspx

Wisconet Soil Temperature

Maps showing soil temperature conditions on
September 23rd @ 9:00 am.



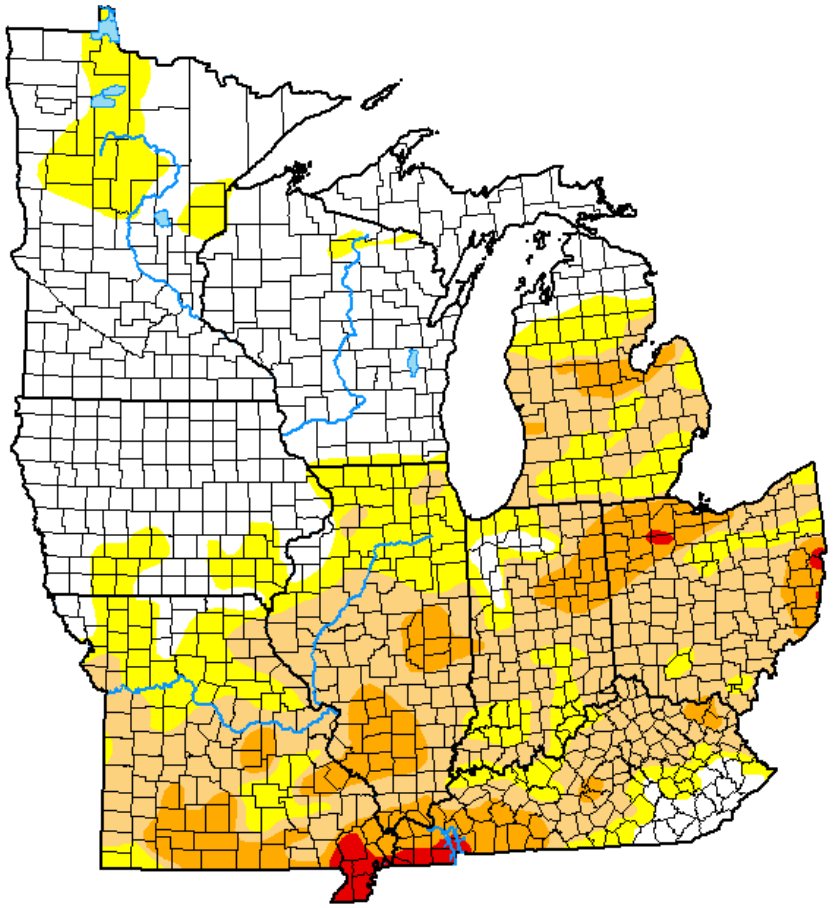




- greater than 100 °F
- 90 to 100 °F
- 80 to 90 °F
- 70 to 80 °F
- 60 to 70 °F
- 50 to 60 °F
- 40 to 50 °F
- 30 to 40 °F
- 20 to 30 °F
- 10 to 20 °F
- less than 10 °F

https://wisconet.wisc.edu/

US Drought Monitor



September 23, 2025
(Released Thursday, Sep. 25, 2025)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	41.43	58.57	37.81	10.70	0.95	0.00
Last Week 09-16-2025	40.88	59.12	36.93	10.56	0.73	0.00
3 Months Ago 06-24-2025	70.78	29.22	6.13	0.11	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 09-24-2024	20.61	79.39	31.51	9.38	3.27	1.04

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 Rippey
U.S. Department of Agriculture

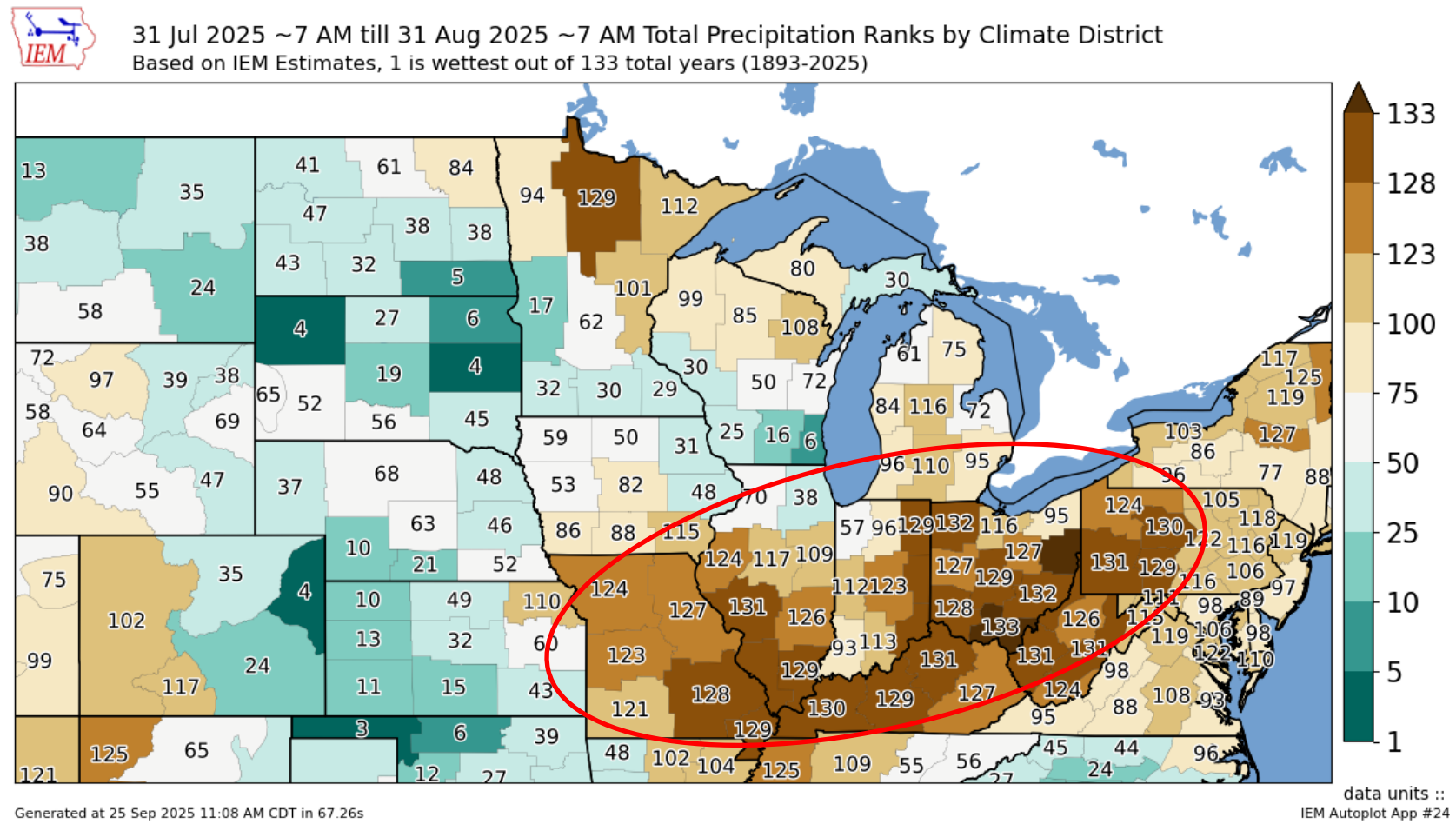
droughtmonitor.unl.edu

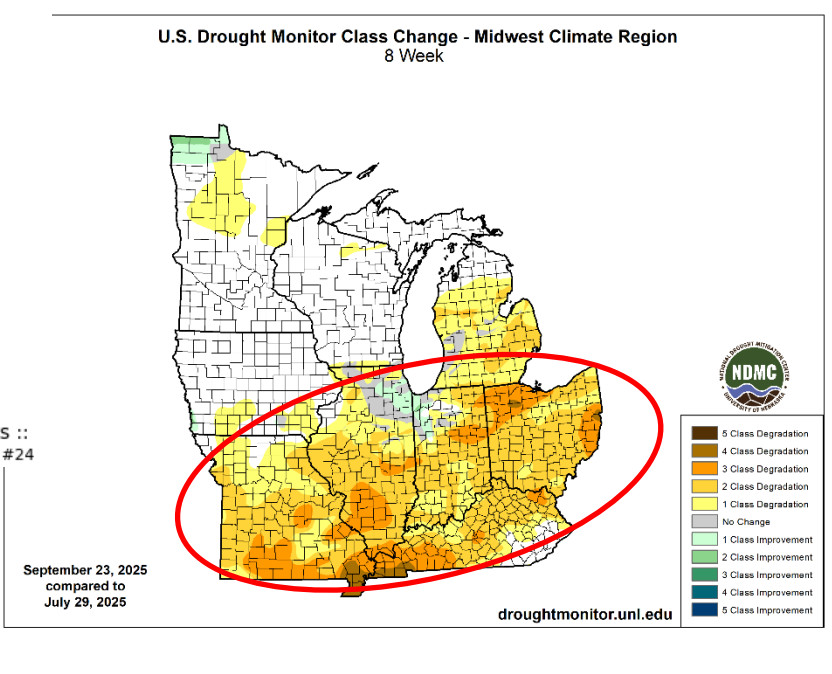
- Midwest: Compared to last week:
  - **Minor increases** in D1-D3 coverage.
  - **D3** expanding in SW KY & NW OH.
- Midwest: **D2 expansion** across northern OH & IN. **Removal of D0** across southern IA and northern MO.
- Wisconsin: The state is still **drought-free**, but D0 is now indicated along the WI-IL border.
- **62.2%** of the Midwest is drought free (~37.8% in D1-D3).

Note: D0 is not considered drought.

http://droughtmonitor.unl.edu/

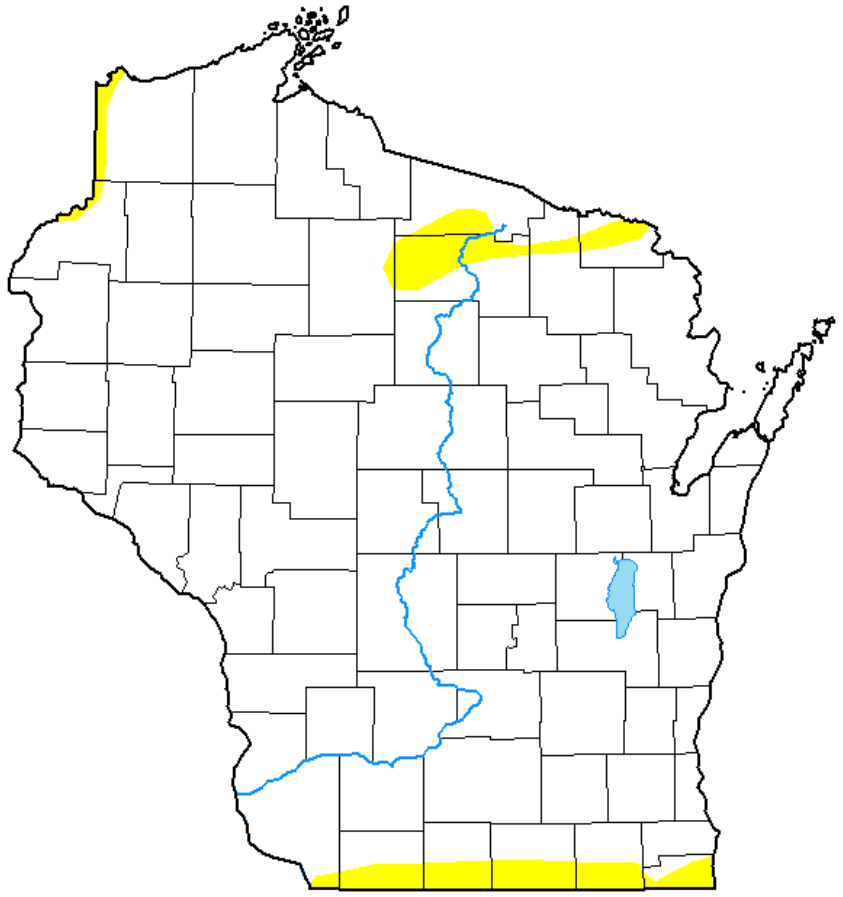
August Precip Rankings





http://droughtmonitor.unl.edu/
https://mesonet.agron.iastate.edu/plotting/auto/

US Drought Monitor



September 23, 2025
(Released Thursday, Sep. 25, 2025)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	95.36	4.64	0.00	0.00	0.00	0.00
Last Week 09-16-2025	95.00	5.00	0.00	0.00	0.00	0.00
3 Months Ago 06-24-2025	76.29	23.71	2.55	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 09-24-2024	46.45	53.55	16.00	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:
Brad Rippey
U.S. Department of Agriculture

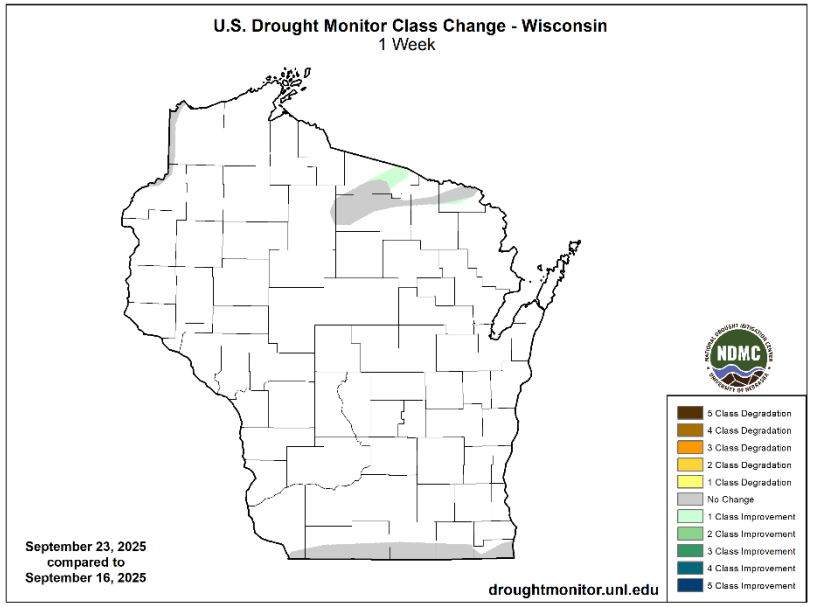
droughtmonitor.unl.edu

http://droughtmonitor.unl.edu/

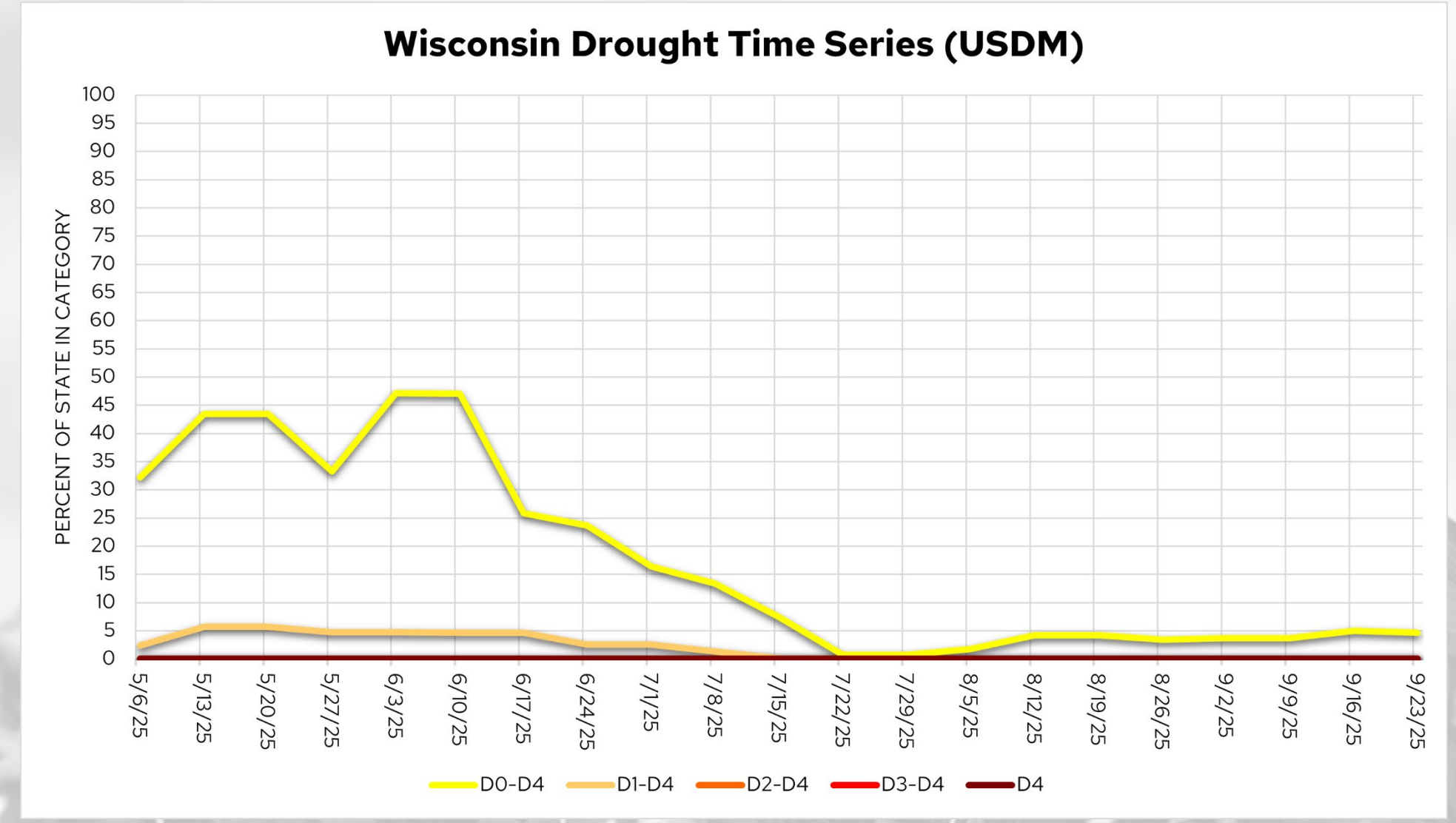
Amount of state in:

- D1-D4 – 0.0% --
- 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. -- indicates no change from last week.



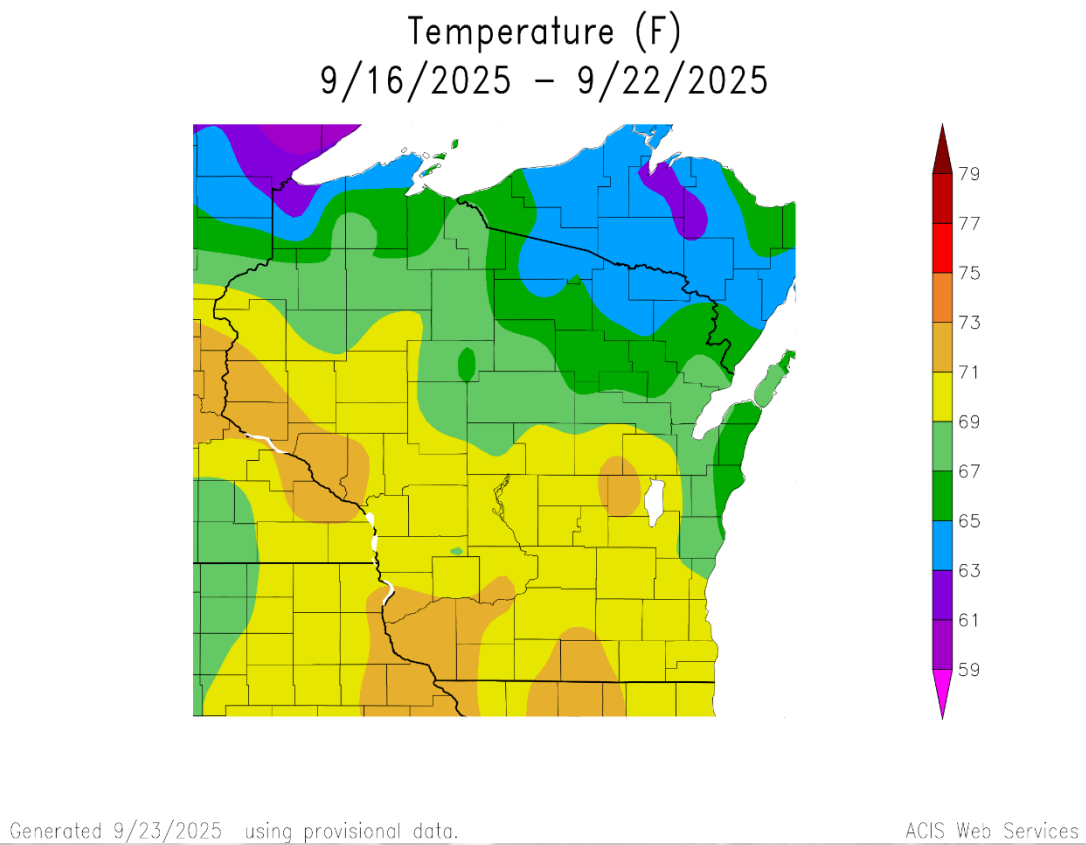
USDM Time Series

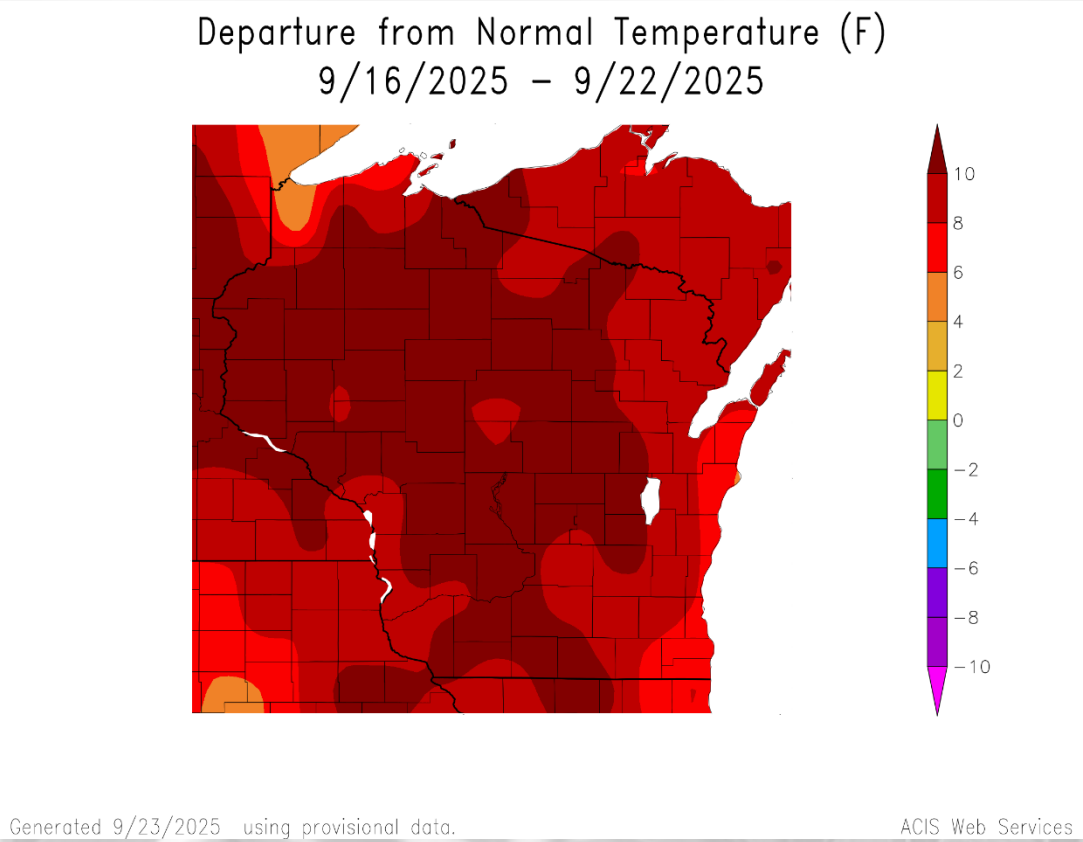


Minor decrease in D0 coverage (far north) since last week.

http://droughtmonitor.unl.edu/

7 Day Temperatures

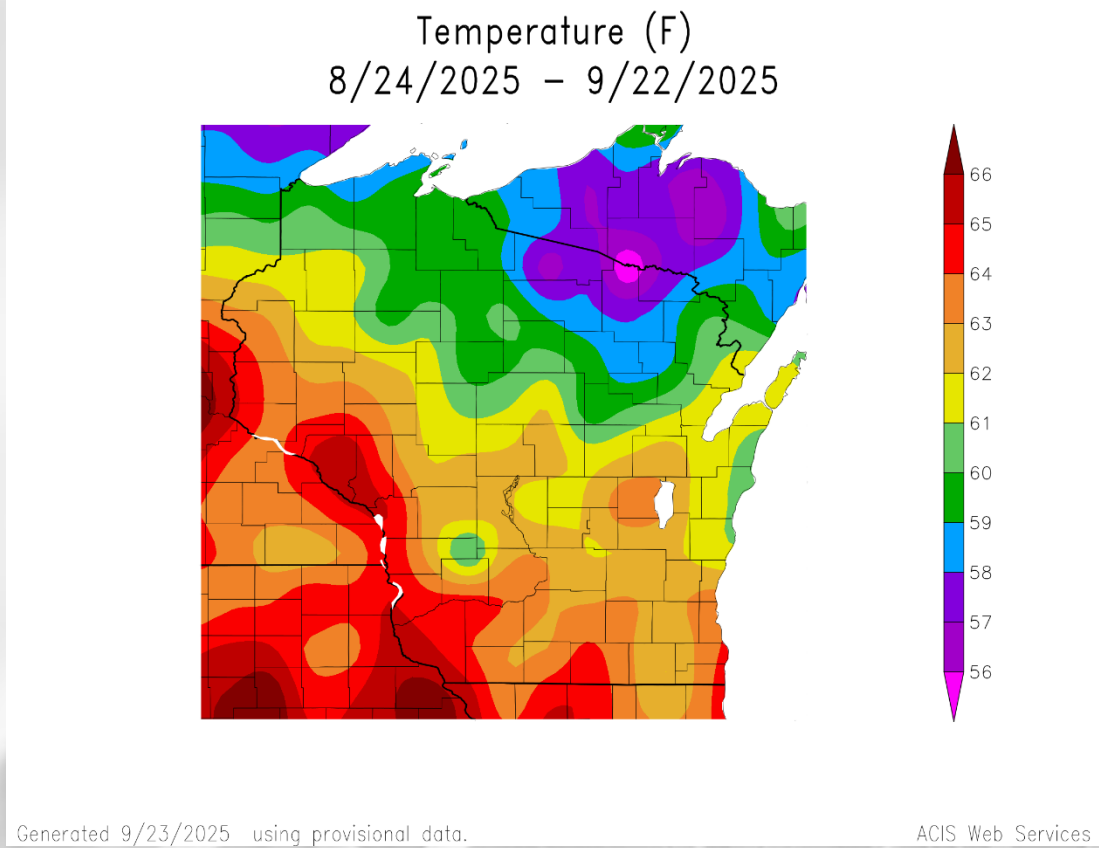


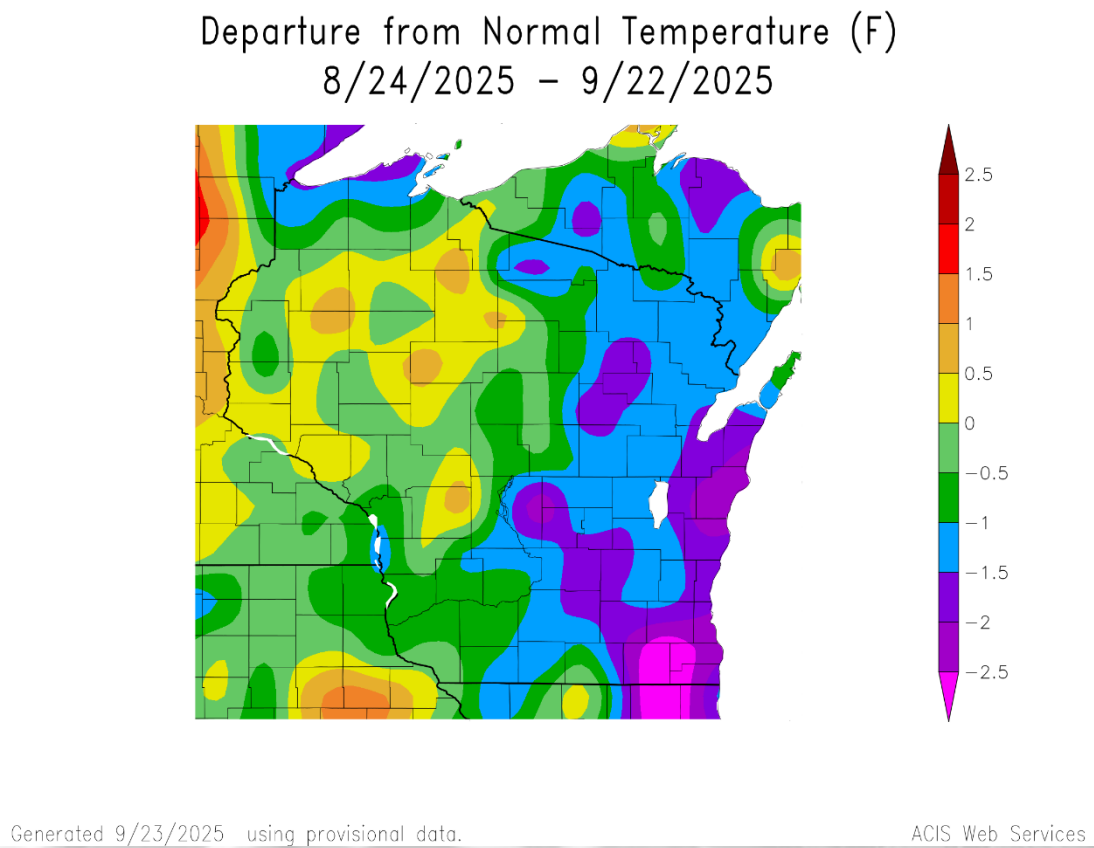


- Average temp. range of **71-73°F** in the south and west; to **63-67°F** in north-central WI.
- **Above average** temperatures for all of WI.
  - **8-10+°F above normal** for most, with **6-8°F above normal** along the Great Lakes.

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

30 Day Temperatures

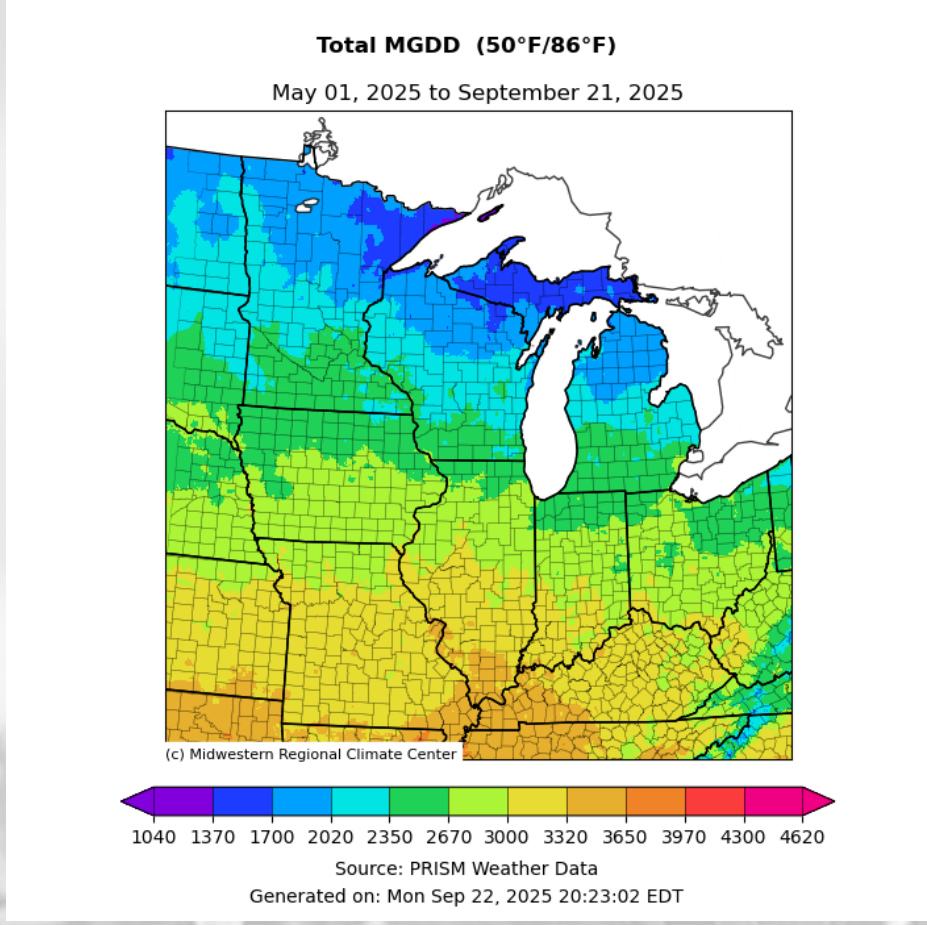


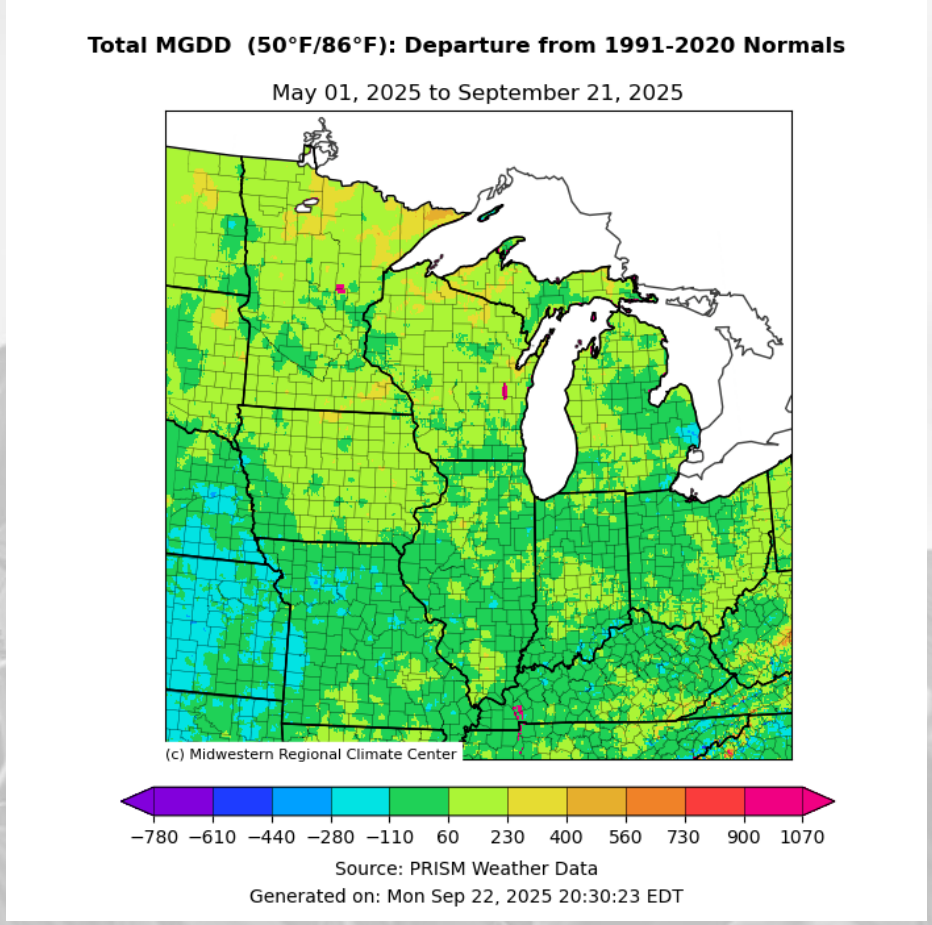


- Average temps. ranged from **64-66°F** in the south and west; to **56-59°F** for the far north.
- **Within -/+1°F of normal** on the western half of the state.
- **1-3°F below normal** on the eastern half of WI.

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

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





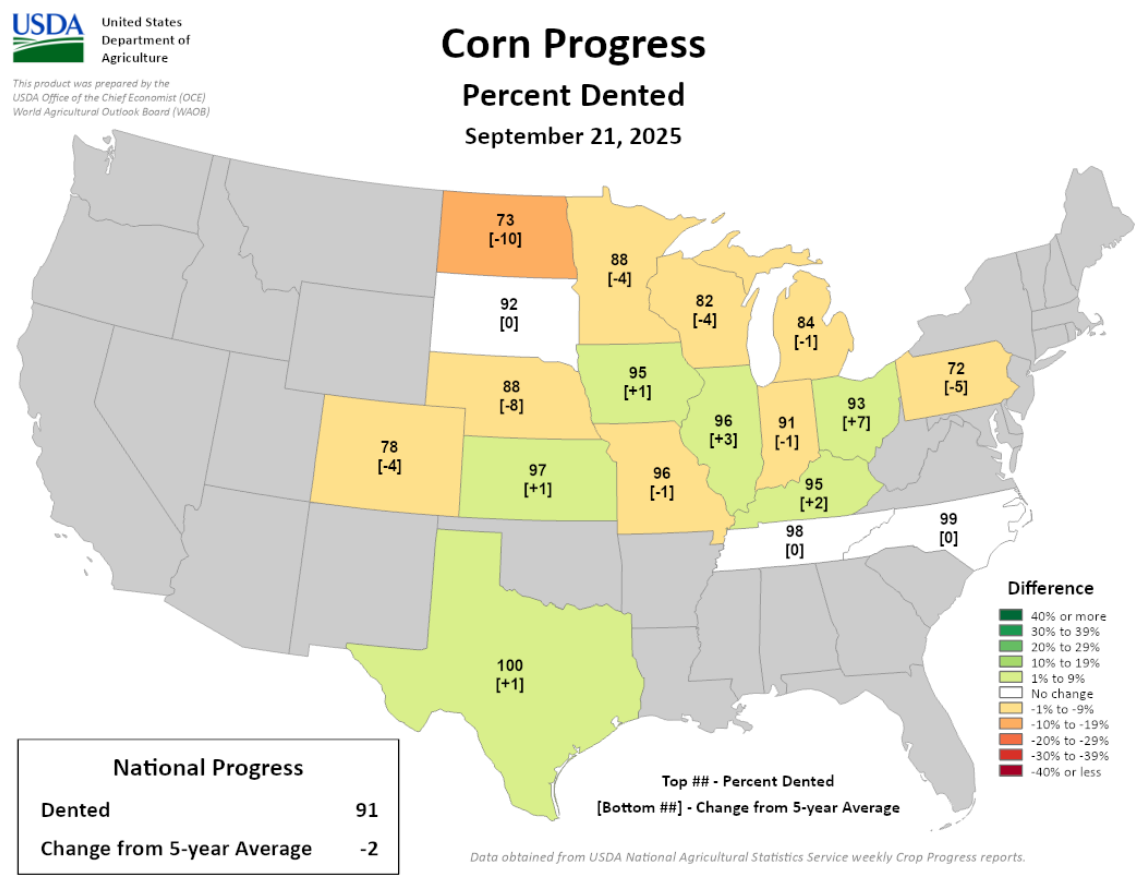
- Range from **2400-2600 GDD** in the SW to **1700-2000 GDD** in the N.
- GDD accumulation is running **60-230 GDD ahead of schedule** across most of WI.

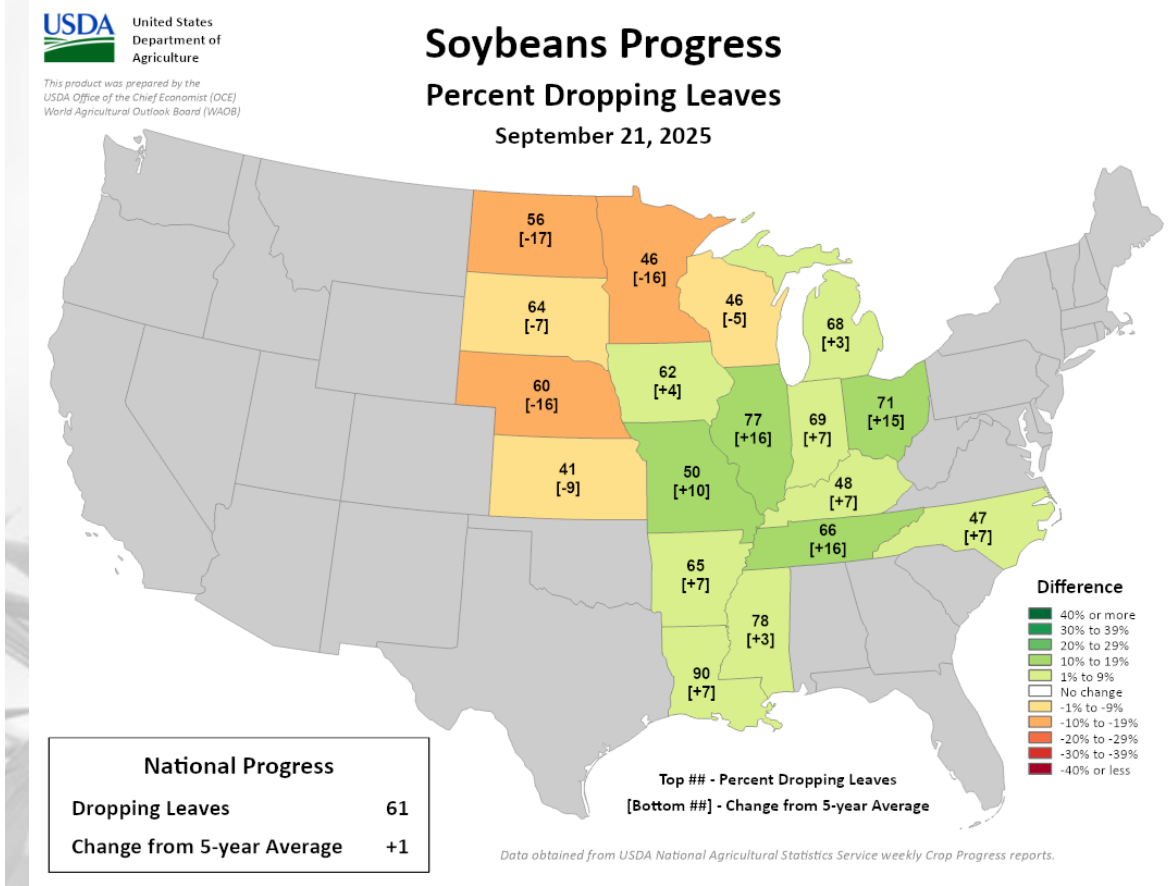
To calculate GDD for your corn variety and planting date, use this tool.

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

https://mrcc.purdue.edu/ag-climate-dashboard

Corn & Soybean Progress

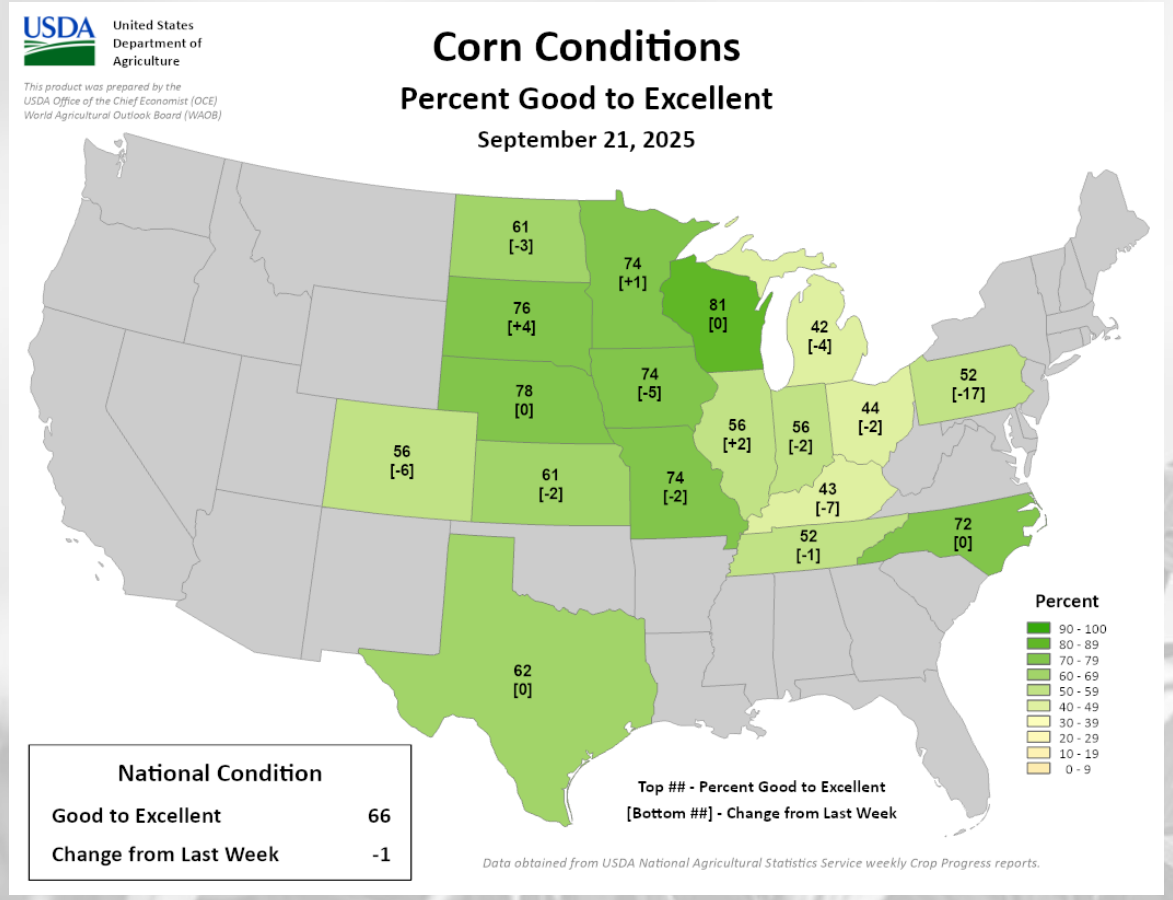


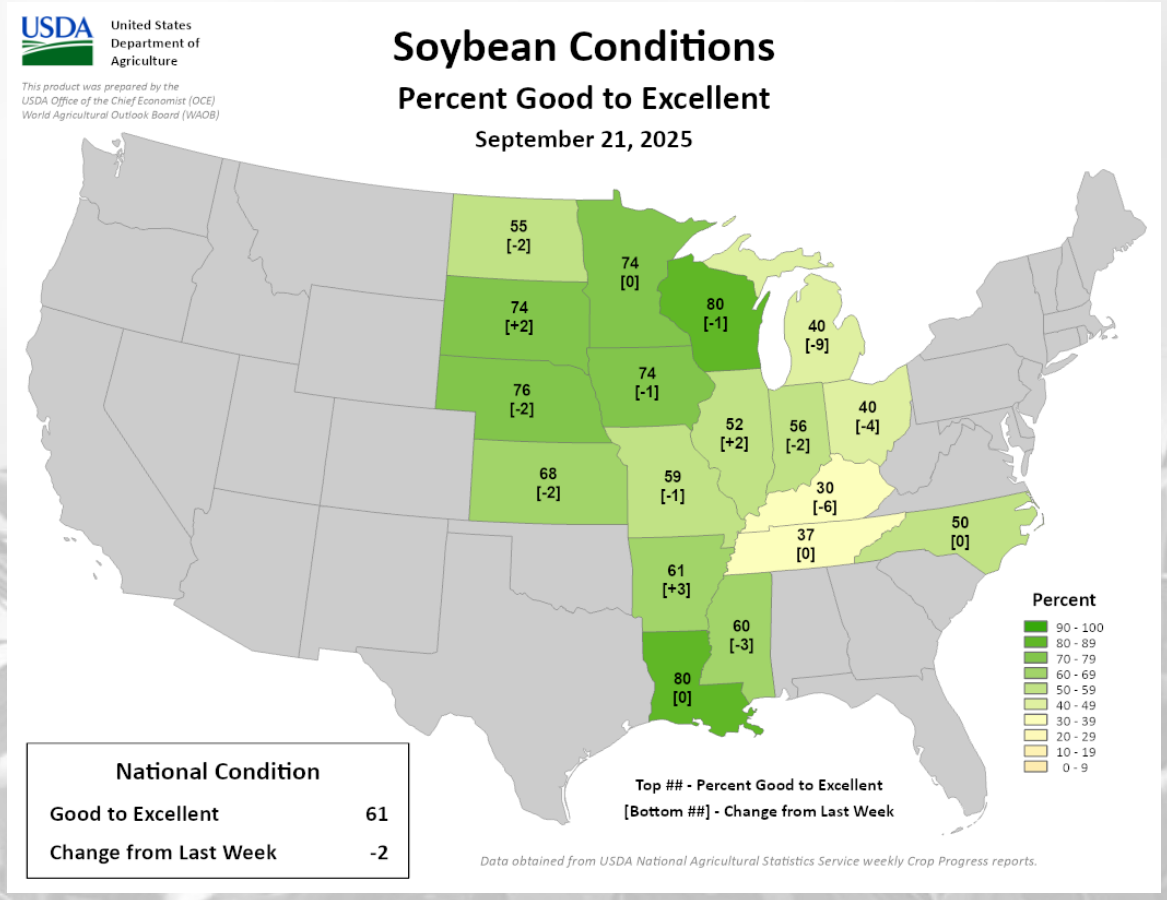


- Corn denting is **82% complete** in WI fields which is behind the normal pace for late September.
  - **28%** of the corn crop in WI is mature and **1%** is harvested.
- Soybean leaf dropping is **46% complete** in WI fields which is behind the normal pace for late September.
  - Harvest is **1%** complete.

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

Corn & Soybean Condition





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

Crop Progress Report

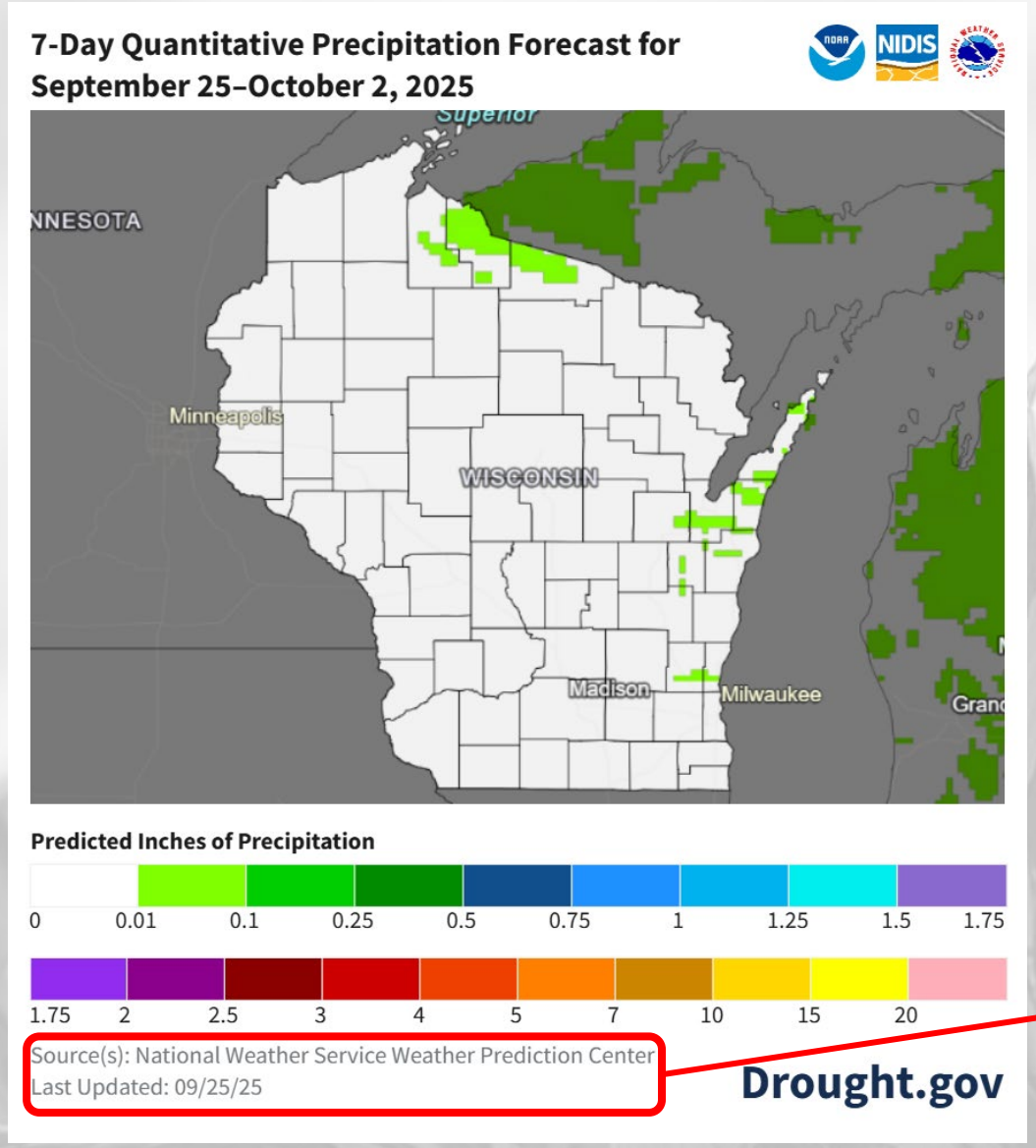
Crop progress report for Wisconsin for the week ending on Sep 21st

- Corn denting is **82%** complete and **28%** of the crop is mature (5 days behind the 5-year average).
  - Condition was rated **81%** good to excellent.
  - Corn silage is **41%** harvested.
- Soybean coloring is running at **82%** complete, with **19%** of the crop dropping leaves (1 day behind the 5-year average).
  - Condition was rated **80%** good to excellent.
- Winter wheat seeding for next year is **29%** complete, with emergence at **10%**.
- The fourth cutting of alfalfa hay was **85%** complete (3 days ahead of the 5-year average).
- Pasture and range conditions are rated **63%** good to excellent (**down 5%** from last week).
- Potato harvest is at **65%** complete.

Full report: https://www.nass.usda.gov/Statistics_by_State/Wisconsin/Publications/Crop_Progress_&_Condition/2025/WI-Crop-Progress-09-22-25.pdf

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

7 Day Precip Forecast

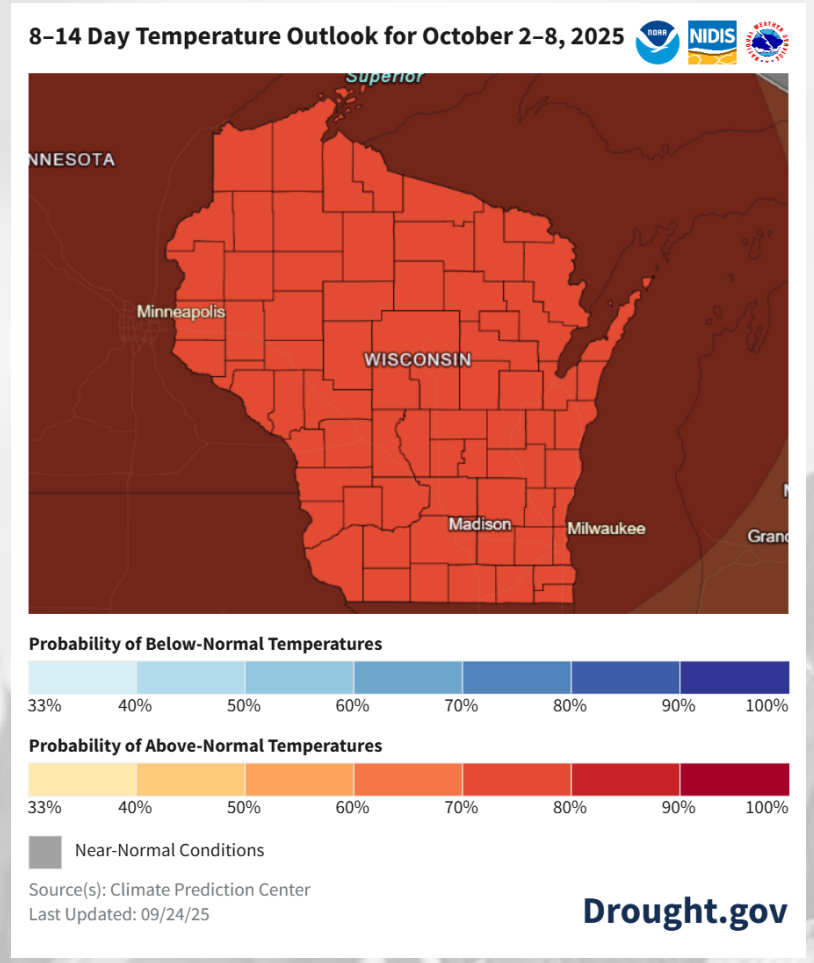


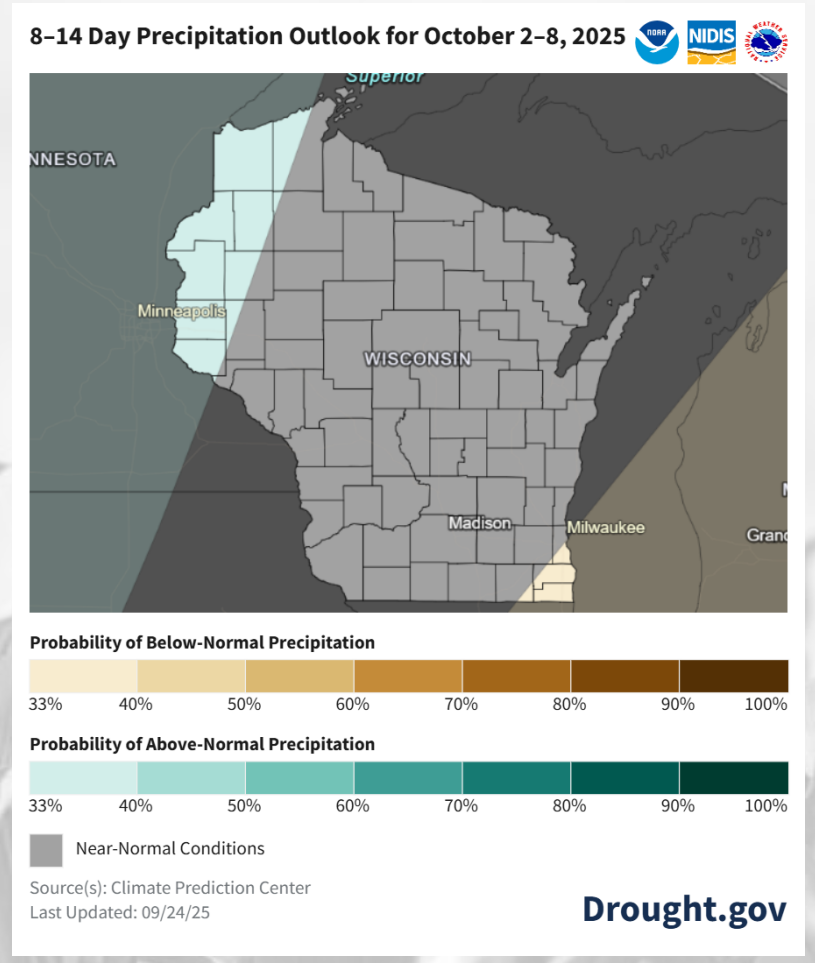
- **When?** → very dry week upcoming with little to no chance of precip.
- **Where?** → far north and east could get some lighter showers.
- Check your local forecast for details on totals and timing.
- Average precip (1991-2020) for this week: **0.82”**

Forecast for 9/25/25 thru 10/2/25
(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



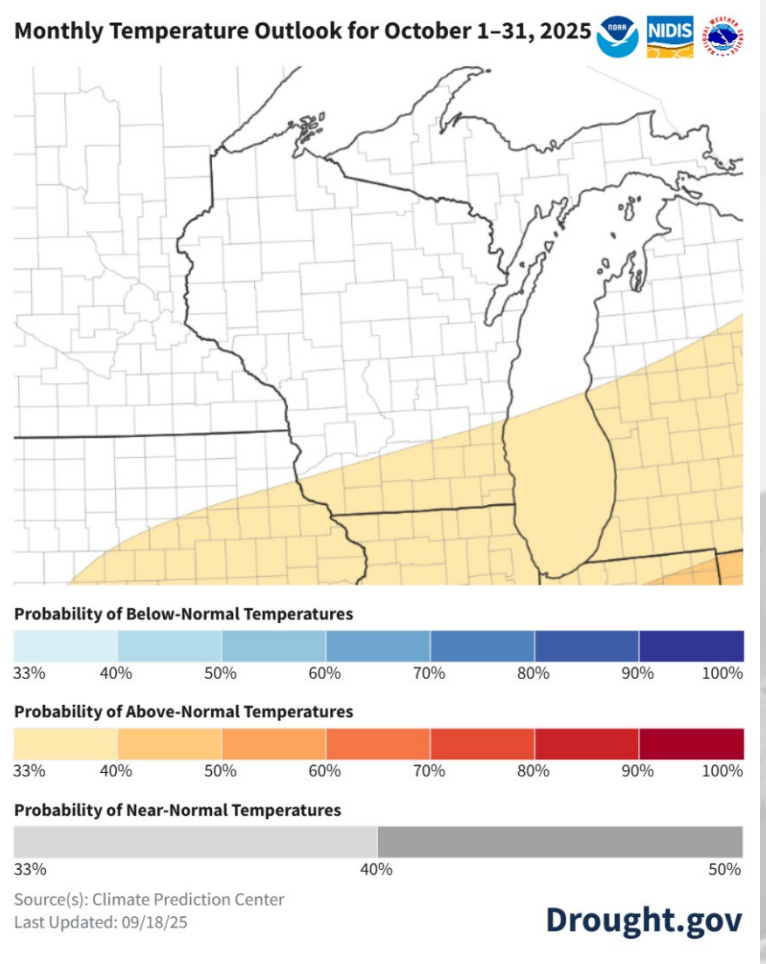


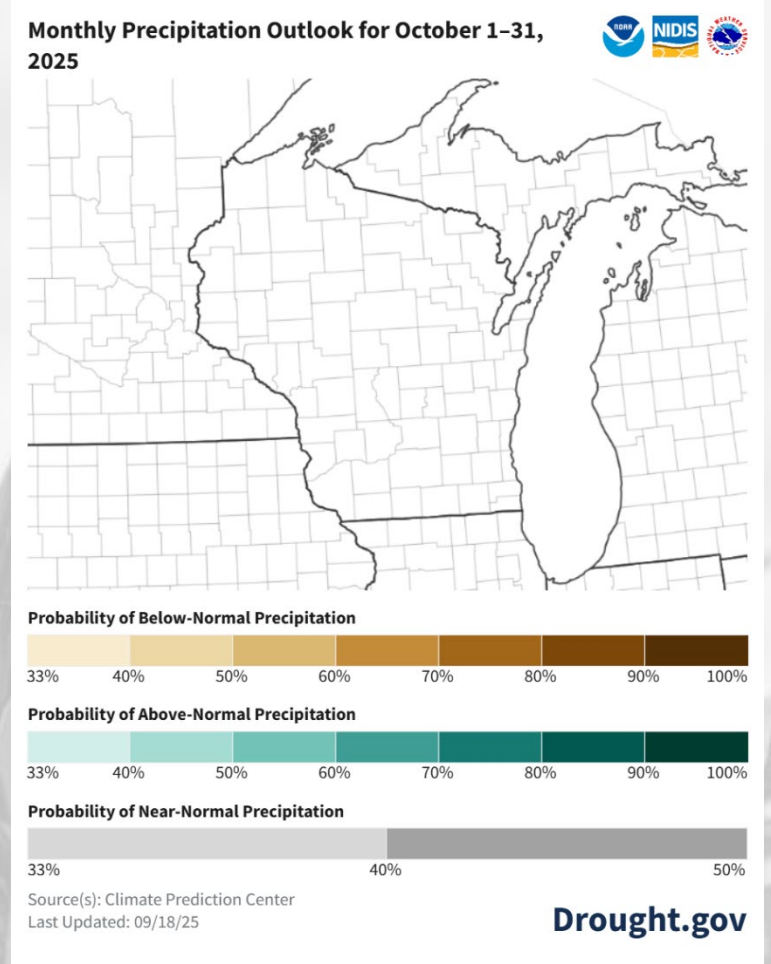
http://www.cpc.ncep.noaa.gov/
https://www.drought.gov/states/wisconsin

Early October: Temperatures are very likely (70-80% chance) to be above normal. Precip is a mixed bag, with most of the state leaning towards near normal.

- Statewide normals (1991-2020) for October 2-8 are **51.4°F** and **0.77"**.

30 Day Temp & Precip Outlook



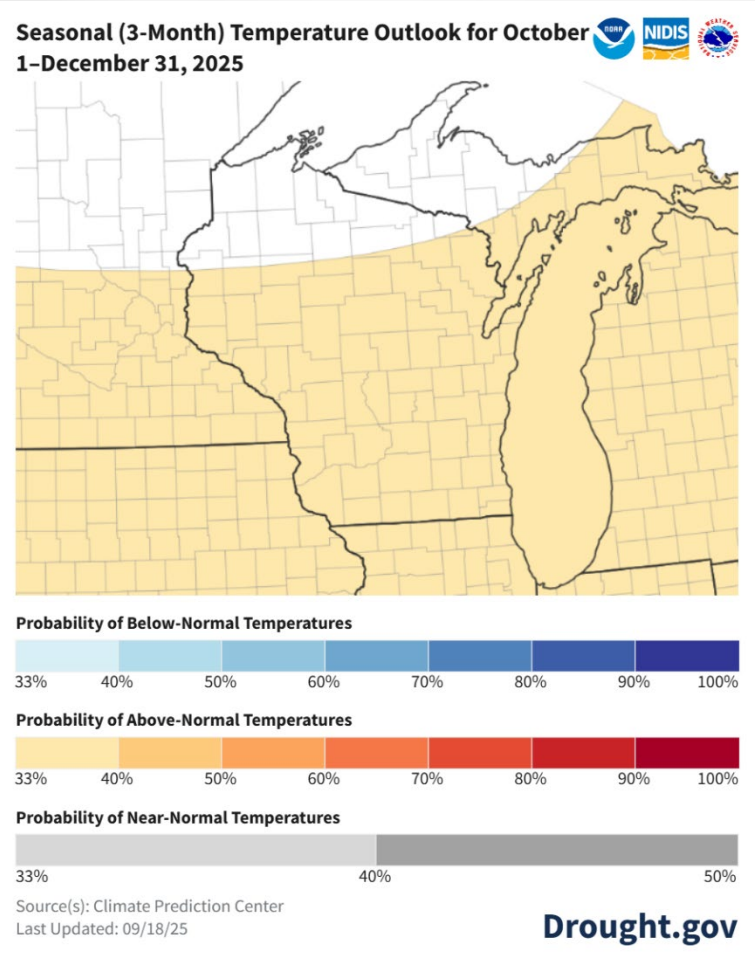


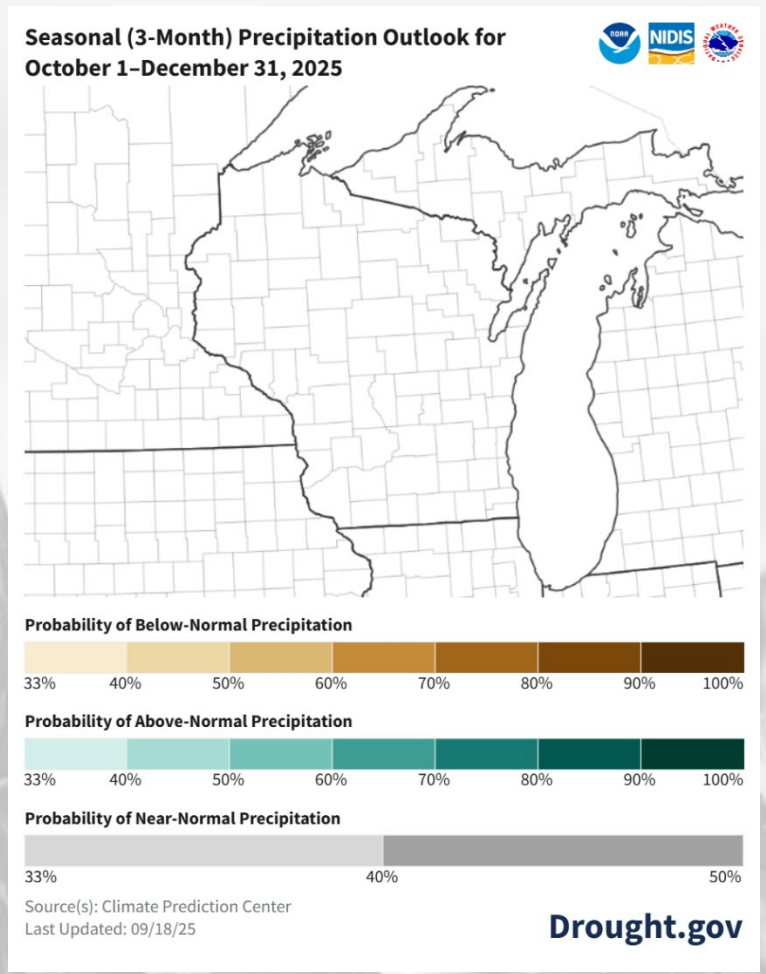
http://www.cpc.ncep.noaa.gov/
https://www.drought.gov/states/wisconsin

Month of October: Equal chances for precipitation statewide. Slight lean towards above normal temps in southern WI (uncertainty elsewhere).

- Statewide normals (1991-2020) for October are **46.8°F** and **3.01”**.

90 Day Temp & Precip Outlook





http://www.cpc.ncep.noaa.gov/
https://www.drought.gov/states/wisconsin

Fall to Early Winter 2025: Equal chances for precipitation statewide. Slight lean towards above normal temps for most of WI (uncertainty in the far N).

- Statewide normals (1991-2020) for Oct-Dec are **33.9°F** and **6.52"**.

Take-Home Points

Current Conditions

- **Summertime warmth** remained over the state last week, with **multiple days in the 80's**. A large portion of WI was **8-10°F above normal** as some locations had days that approached 90°F.
- Multiple days of measurable rainfall last week brought an **inch or more of precipitation** across most of WI. Totals ranged from **less than 0.5"** in the south and NW; to **over 3"** in pockets in the central, west-central, and far north counties.

Impact

- Topsoil moisture at most Wisconet research farm stations were **at or above levels from last week** due to rainfall. The latest NASS report indicates a **very minor increase** (1%) in the percentage of agricultural soils that are dry to very dry.
- Drought severity and coverage remain **relatively unchanged** in WI despite the recent dryness.
- Corn and soybean crops are **near maturity or at maturity** in most WI fields, with conditions remaining **good to excellent for most** (NASS). Winter wheat is beginning to emerge as the fourth cutting of alfalfa is nearing completion.

Outlook

- **Little to no precip** is expected over the next 7 days.
- Climate probabilities for early October indicate a **strong likelihood (70-80% chance)** to be **warmer than normal**, with a mixed bag for precipitation.
- The outlooks for the month of October *(updated 9/18)* **do not show any strong indications** of above or below normal conditions.

Agronomic Considerations

Field Work and Conditions

- Corn and soybean grain harvest has begun on a limited scale.

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.
- Fall is a great time to have manure samples analyzed for nutrient content before spreading. Here is a list of Wisconsin certified labs.
- As you conduct fall spreading, keeping field records is important to estimate nutrient credits for next year's crop and avoid over-application. A2809 can provide guidance on these nutrient estimates.

Pest Management

- The DATCP Pest Survey has concluded for the season as pest pressure is winding down.
- Southern Rust has been reported across the state. Heavy disease pressure can cause premature dry down, reduced kernel weight, and lower yield potential.
- In order to prevent weed seed spread from field to field, combine cleaning is essential for reducing seed travel between fields.

Forage Management

- Silo gas has been present around a variety of silage storage structures this year. Be aware of the dangers of silo gas and stay away from recently filled structures, particularly when the weather is calm with no wind.
- Use the alfalfa cutting tool if you will make a final cut to manage for stand persistence.
- Begin sampling and estimating moisture as silage matures. Read corn silage harvest management considerations.
- Foliar disease presence can make silage harvest timing critical. Read these considerations for managing disease at chopping.
- Explore the new Corn Silage Dry Down Monitoring Tool to see what samples are measuring at in your region as well as read regional reports.
- Consider planting a cover crop after silage. This will aid in reducing soil erosion going into winter.

Small Grains

- The window to plant winter wheat is here (September 20-October 10). Review planting and management guidelines as well as Top 9 suggestions for 2025 establishment.

Fruit Considerations

General

- **Reminder:** Always read and follow directions on the label and keep in mind pre-harvest intervals (PHI) as we move through harvest!
- Sun scald and southwest injury to trunks and branches have been observed across many orchards and vineyards this summer, likely due to wide variations in winter temperatures that can cause trunk and branch cracking. Growers may consider flagging trees and branches while harvesting, then return this winter to prune out impacted branches and take a closer look at injury.
- Fruit sunburn continues to be observed across many fruit crops in southern WI. Consider removing this fruit while out picking to prevent other pests attracted to the volatiles (scent).
- **Sanitation**: remove and destroy (chop/compost) fallen fruit ~weekly to prevent any internally developing larvae from reaching maturity, and to limit the spread of disease.
- WI fruit growers can reference the Midwest Fruit Pest Management Guide (MFPMG) for a list of registered products and recommended best practices. (MFPMG Hard Copy)
- Brown marmorated stink bug has been observed at West Madison. Keep an eye out for large populations. Hosts include apple, cherry, peach, pear, raspberry, and cranberry.

Apples

- Apple and grape growers can reference the NEWA weather station network to monitor for disease infection periods in their area. Check out your nearest weather station: NEWA Weather Station Network (Cornell).
- Apple growers should continue monitoring pheromone traps and degree-day (base 50°F) accumulation for Codling moth through harvest.
- Apple maggot pressure is variable across the state. Growers should continue to use red sphere traps to monitor populations.
- Check out the WI DATCP Orchard Insect Pest Bulletin for more information on current insect trap captures across the state.

Grapes

- Table and wine grape harvest is officially completed at West Madison Research Station, harvesting Petite Pearl, La Crescent and Frontenac this week. Check out last week's WI Fruit Crop Scouting Report for updates on grape maturity testing.
- Grape growers dealing with uneven ripening may reference this 2024 WI Fruit News article: Understanding and Addressing Uneven Ripening in Grapes.
- Black rot and fruit rot symptoms continue to be reported in vineyards around WI. Review this 2022 article by Dr. Leslie Holland on Fruit and Cluster Rots for more information on black rot and fruit rot management around harvest.
- Downy mildew may impact grape quality at harvest. Read more about signs/symptoms and management in this 2024 WI Fruit News article on late-season downy mildew.

Berries

- Grape and berry growers monitoring spotted wing drosophila should continue checking and refreshing traps weekly through harvest.

Vegetable Considerations

General

- As crops finish up for the season, there is still time to establish winter rye across the state as well as winter wheat and winter barley in southern WI. Use the Midwest Cover Crop Council's cover crop selector tool to determine the latest planting date for each species in your specific county.

Pests

- Have you struggled with **asparagus beetle**s in the past? Once ferns are completely brown, it is recommended to either chop or mow them and then remove and compost elsewhere when possible. This will prevent the beetles from overwintering in your field.
- Be on the lookout for **cabbage aphids** and **green peach aphids** in fall brassicas & greens. They can be difficult to see so look for yellowing & wilting leaves, deformed heads, & drops of honeydew aka aphid poop which is a thick, sticky liquid. Their populations can explode quickly in the fall as reproduction rates actually increase in cool temps (50-68°F).
- The risk of damage from **western flower thrips** is high across northern WI and along lake Michigan. Thrips can be difficult to control as of result of their small size and their tendency to hide. However, there are many tactics that can be combined for better management. Options include promoting more beneficial insects such as minute pirate bugs, using reflective mulch, and chemical control. More details on control options can be found here.

Diseases

- This year's moisture stress combined with high temperatures can increase the risk of potato tuber diseases this time of year. Test dig potatoes to look for pink eye, enlarged lenticels, and other physiological conditions. If you notice any of these abnormalities, make sure you are carefully monitoring for disease in storage. Diseases to be monitoring for include **pink rot**, **late blight**, **pythium leak**, and **bacterial soft rot**. More information on symptoms and management options can be found here.
- Potato yield and tuber size can be negatively affected by **silver scurf** and **black dot**. These diseases can both occur on the same plant and are difficult to distinguish. An important management strategy for both diseases include limiting the amount of time between vine kill and harvesting as tubers are at greater risk the longer they remain in warm, moist soil. Read Dr. Amanda Gevens' newsletter for more information on the life cycle and management of both diseases.
- When possible, harvest mature winter squash rather than let it sit in the field. As vines die back, squash bugs will be more attracted to the fruit. The damage caused by their feeding can provide entry points for diseases. Additionally, during rain events, fruits can become infected by the soil dwelling pathogens **fusarium** and **phytophthora**.
- Scout for symptoms of **alternaria and cercospora** on carrot leaves. These diseases can be difficult to tell apart as both cause brown lesions often surrounded by a yellow halo. One distinguishing factor can be the timing of infection. Cercospora often occurs on young, rapidly growing plants while alternaria often occurs on older plants although can occur on young plants as well. Both can cause yield loss due to petioles breaking off during mechanical harvest is disease pressure is high.
- Recent conditions with warm days, cool nights, and heavy dew in the morning are right for the formation of **alternaria** in brassicas. Leaf spots are grey or black in color and have concentric rings as they enlarge. It can be spread by rain, wind, and insects like flea beetles. Although due to their larger size, spores cannot travel as far on the wind as downy or powdery mildew spores. Management options include planting resistant varieties, removing alternative hosts such as sheperd's purse and field mustard, and fungicides.

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 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

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