Extension
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Climatology Office
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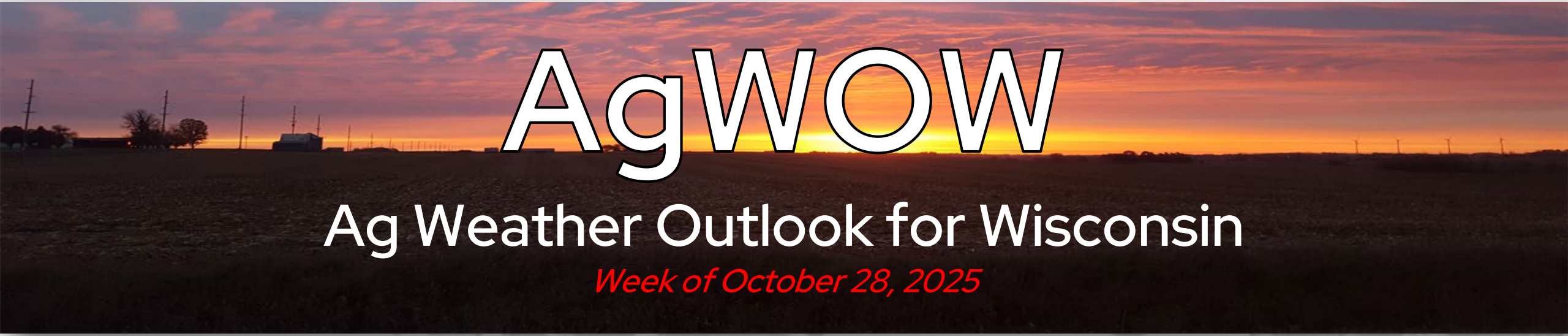
NRCS
Natural Resources Conservation Service



AgWOW

Ag Weather Outlook for Wisconsin

Week of October 28, 2025

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Key Points

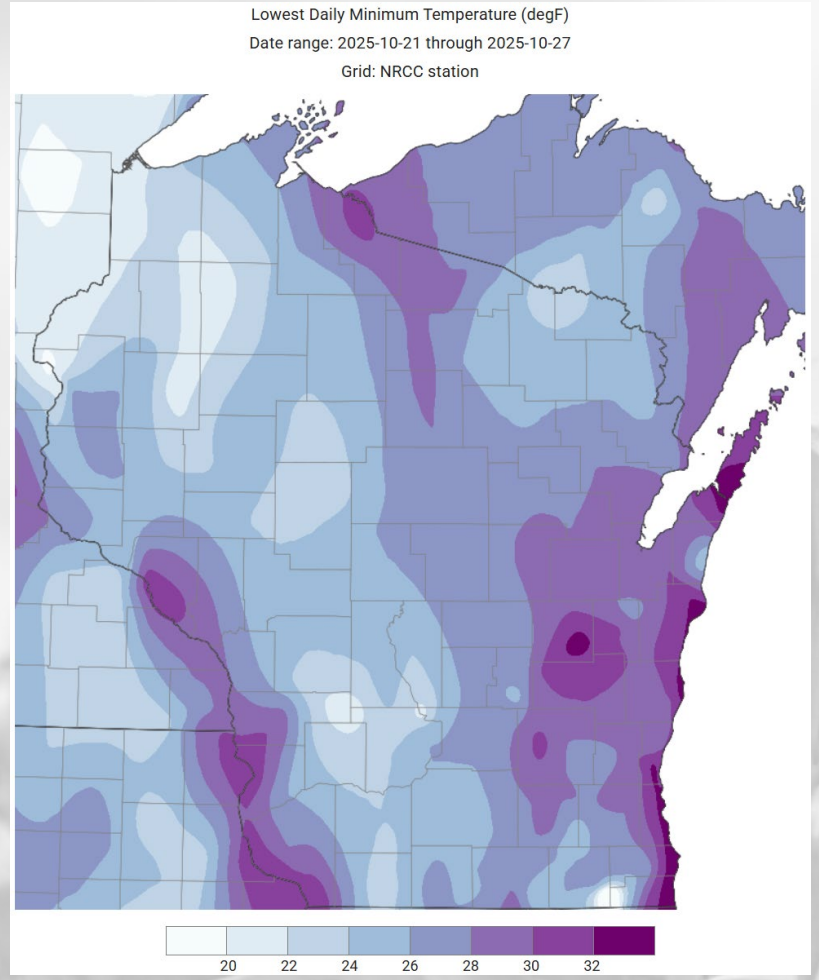
Navigate to select slides by clicking on the links below.

1) Rainfall totals were low last week, with most receiving a quarter inch or less.
2) Temperatures were not as warm last week, with some nights dipping below freezing.
3) D2 level drought was added near the IL border, with D1 expansion in the SW.
4) Outlooks for early-middle November show a stronger lean towards warmer-than-normal temps.

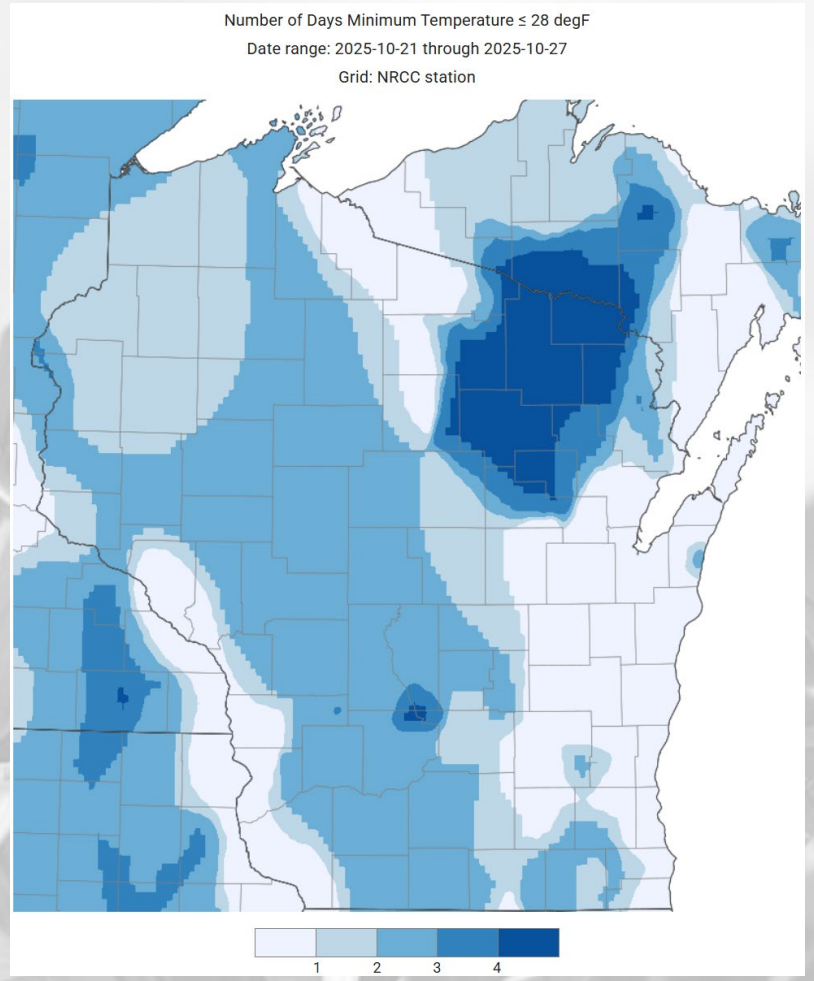
- *For this week's agronomic recommendations from UW Extension, click here.*
- *NOTE: There will be no USDA NASS update this week due to the federal government shutdown.*

Wx Highlight → Hard Freeze

7-Day Minimum Temperature Reached
10/21 through 10/27



Number of days reaching 28°F or colder
10/21 through 10/27



All parts of WI reached over night lows below freezing last week *(exceptions along Lake Michigan)*. **Many saw a hard freeze** (≤28°F).

Eastern WI: On average, the first hard freeze occurs during the **last week of October**.

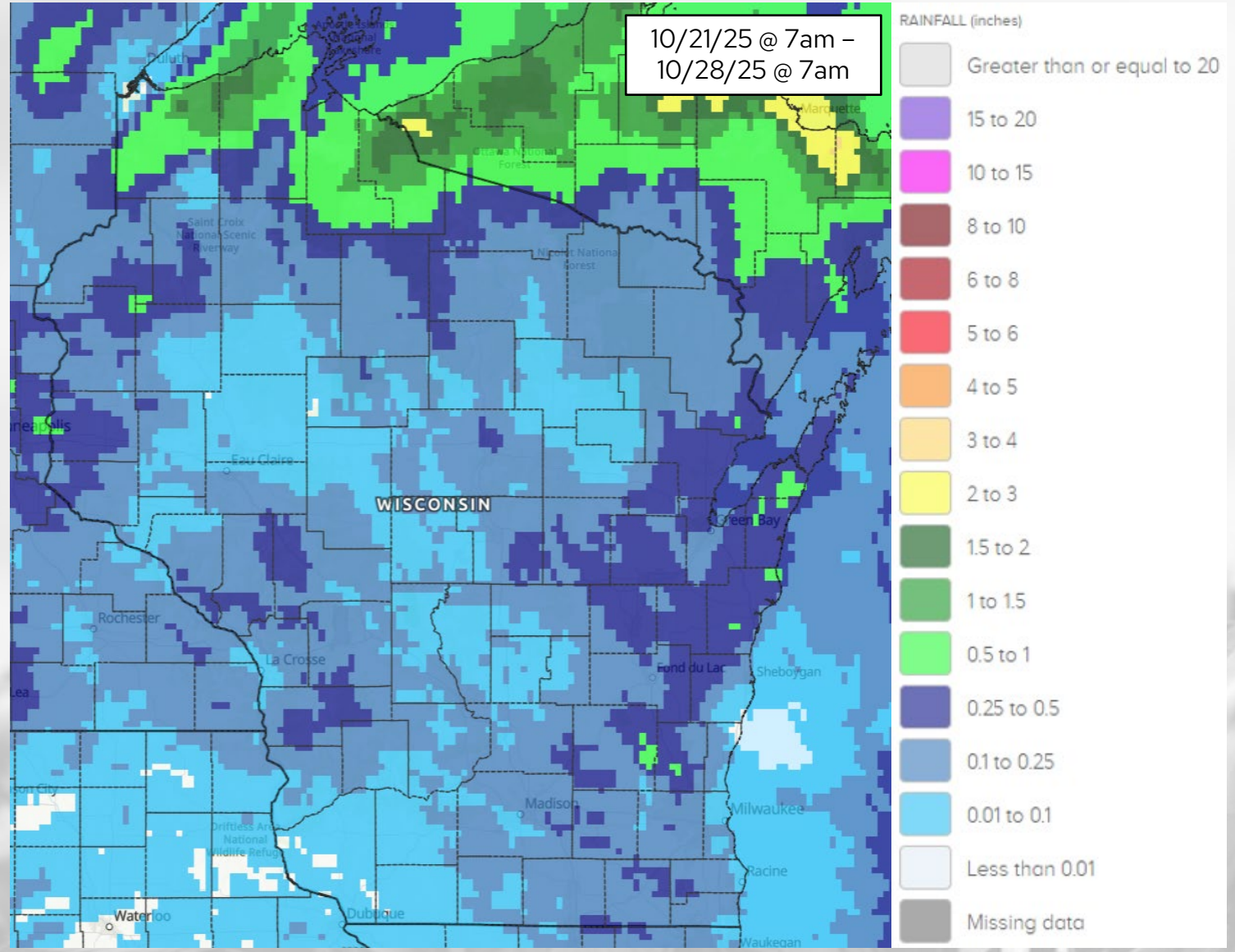
Lowest Wisconet temp:

- Grantsburg, Burnett Co. → 10/24, **18.3°F**

To view the latest freeze forecast for your area, check out this tool from NWS Milwaukee.

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

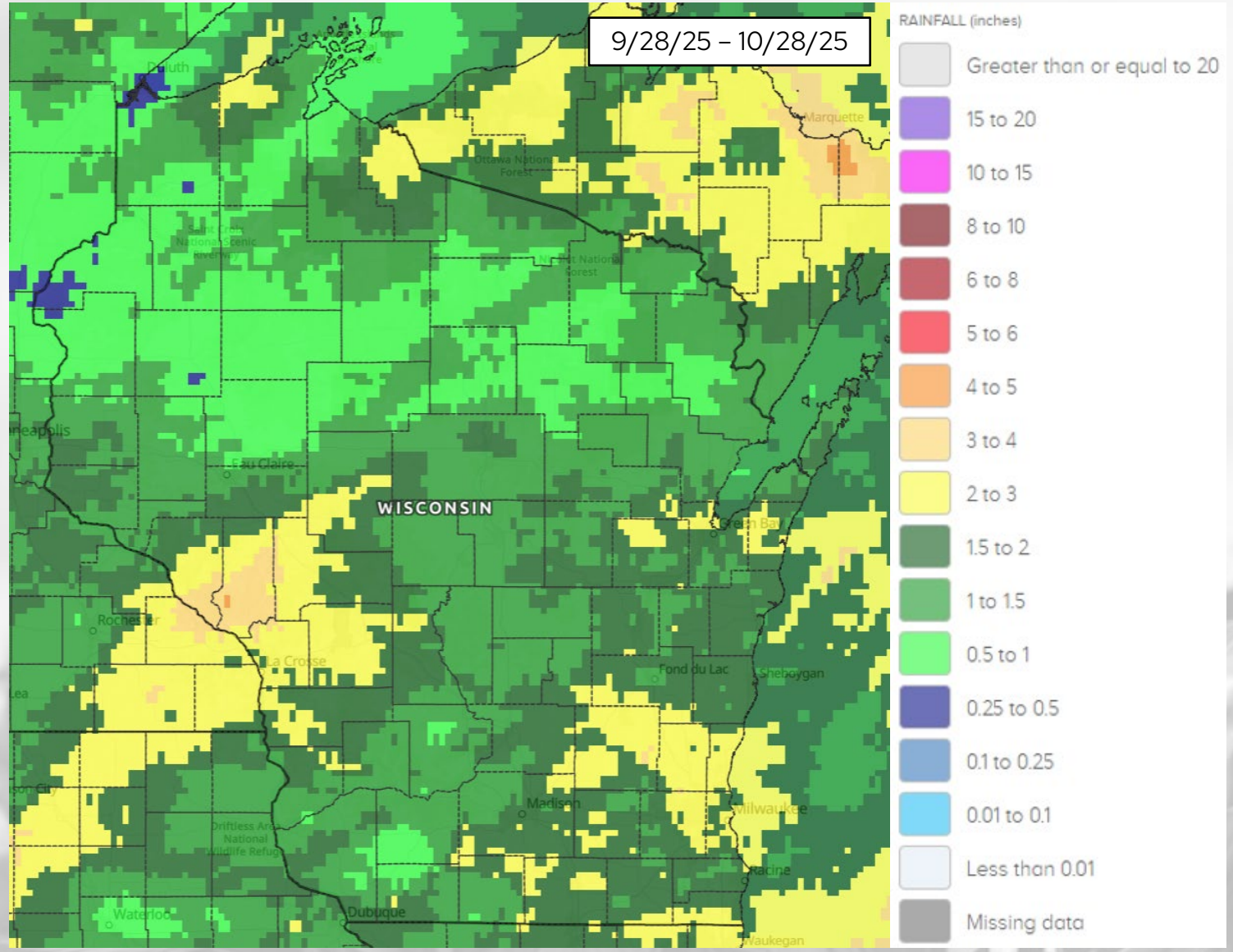
7 Day Precip (radar estimates)



- Totals of **less than 0.25”** were common across most of Wisconsin.
- Highest totals near to Lake Superior → **1-2”**
- Pockets of **0.25-0.5”** in the west-central, eastern, and northwest regions.

https://water.noaa.gov/

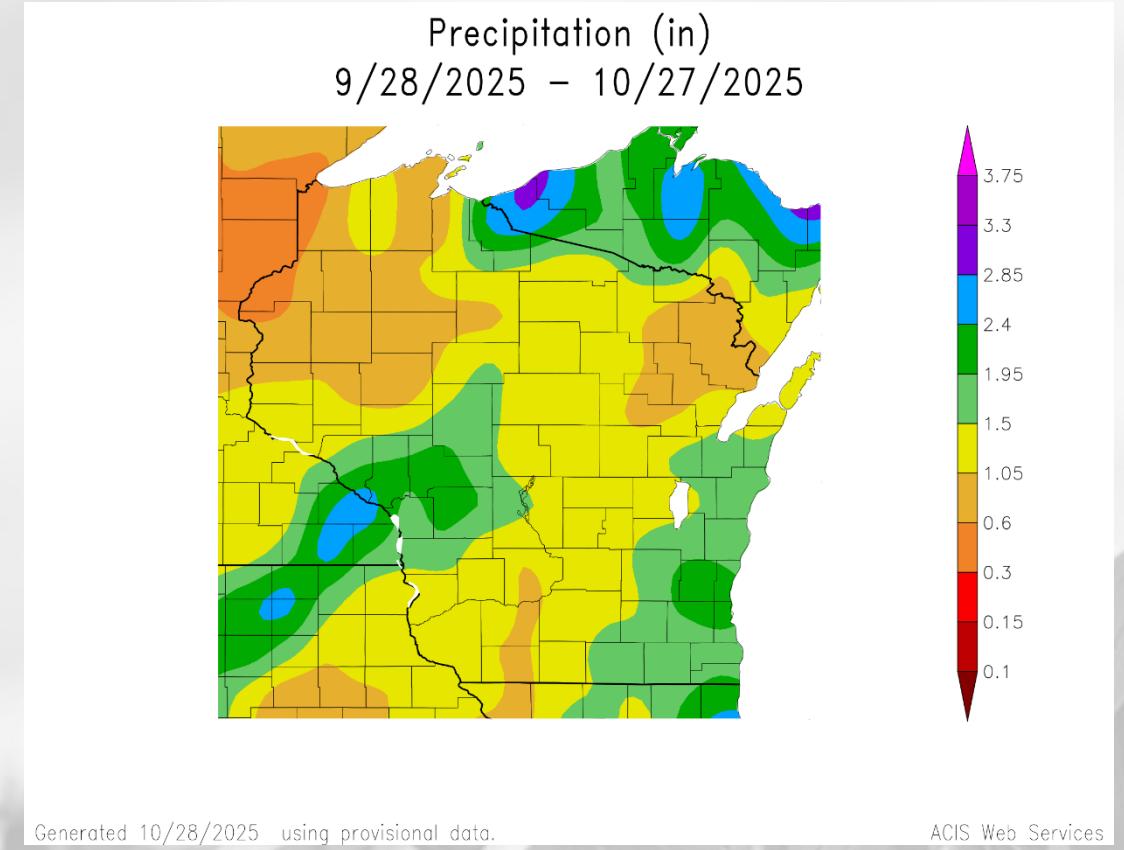
30 Day Precip (radar estimates)

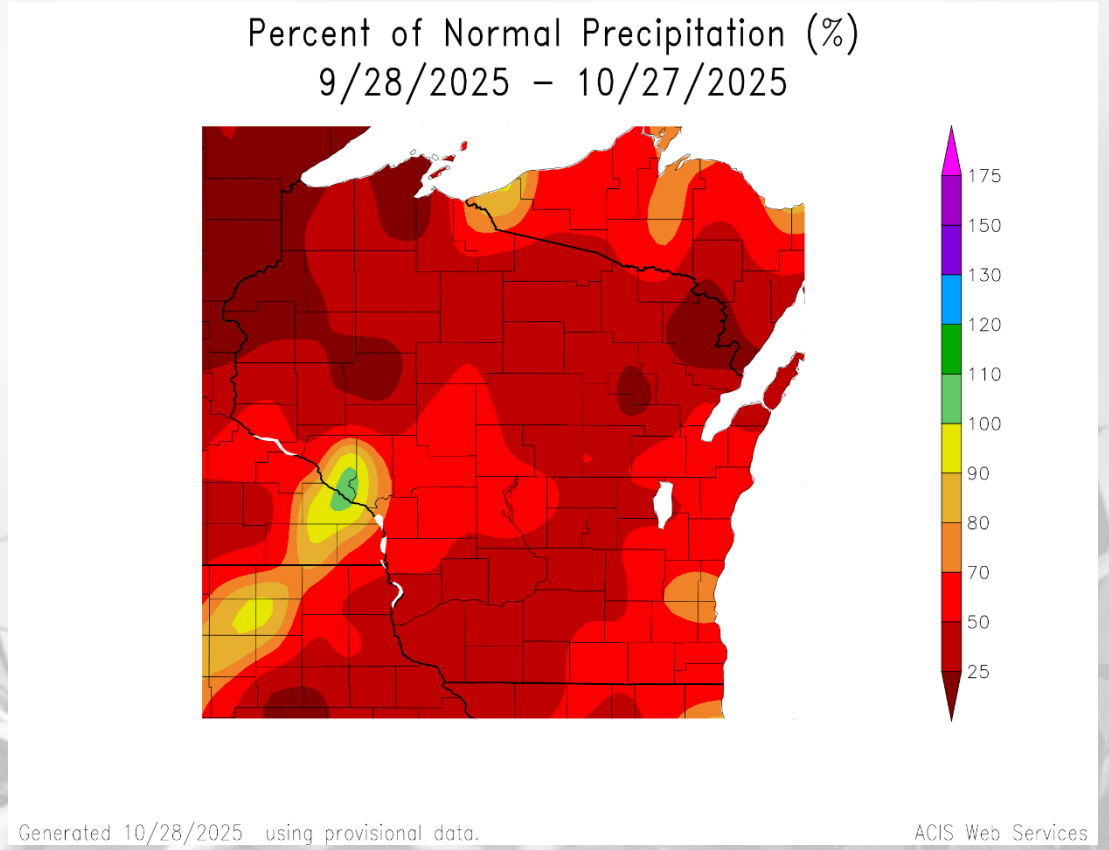


- Large area of **2-5”** across the west-central region.
- **1.5”-3”** common in the southeast and east-central counties, as well as along Lake Superior.
- Driest across the northern region → **1” or less** common.

https://water.noaa.gov/

30 Day Precip Total/Percent Avg.

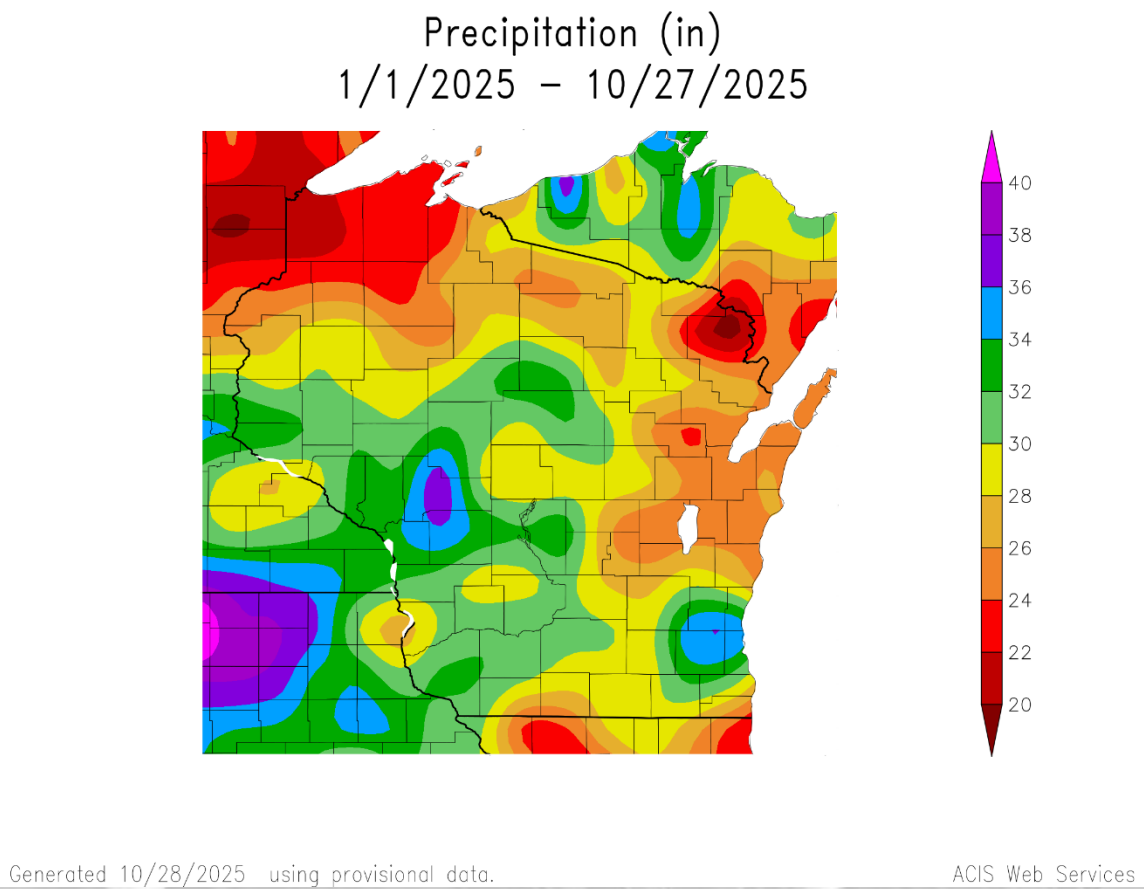


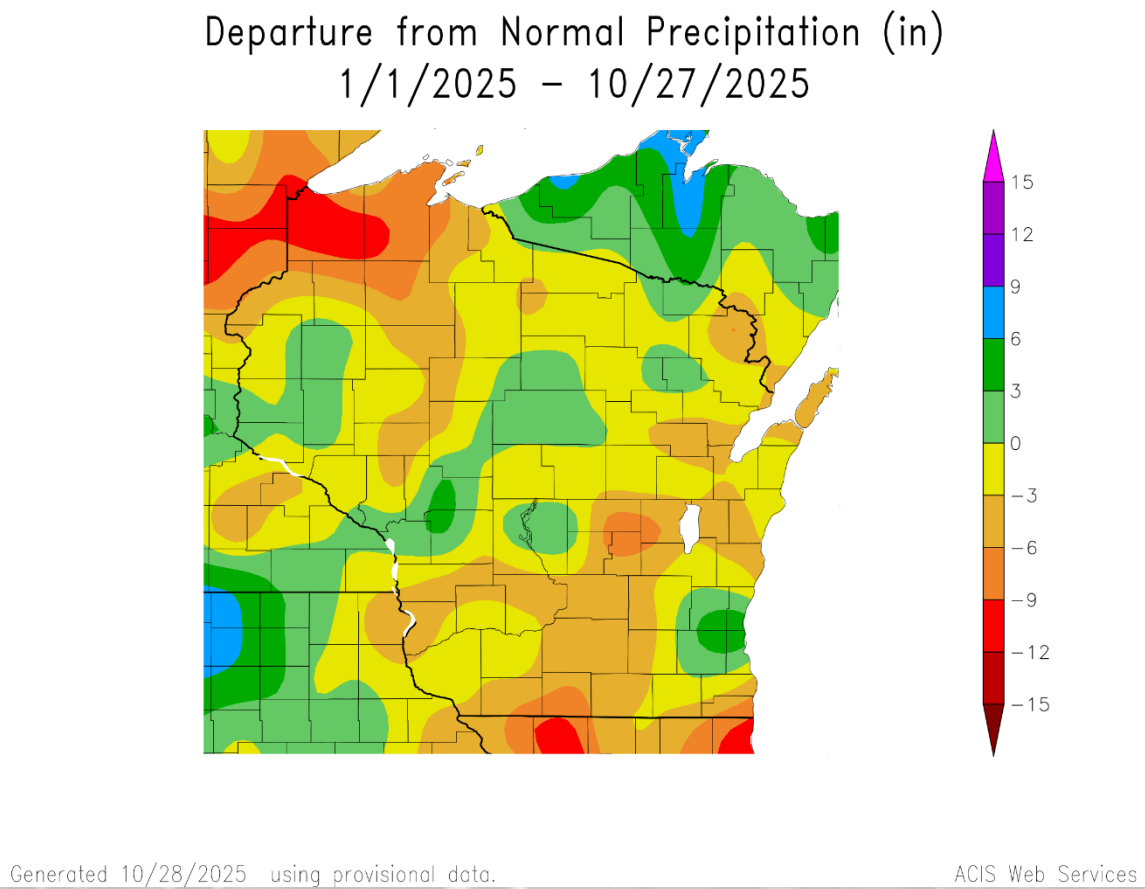


- **Below normal** for most of WI over the past 30 days → **25-70% common**, with regions of **<25%** the N.
  - **1.5" or less** for many since Sept. 28.
- **Localized area** of near-to-above normal precipitation in the west-central, where totals were **2" or more**.

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

2025 Precipitation (so far)





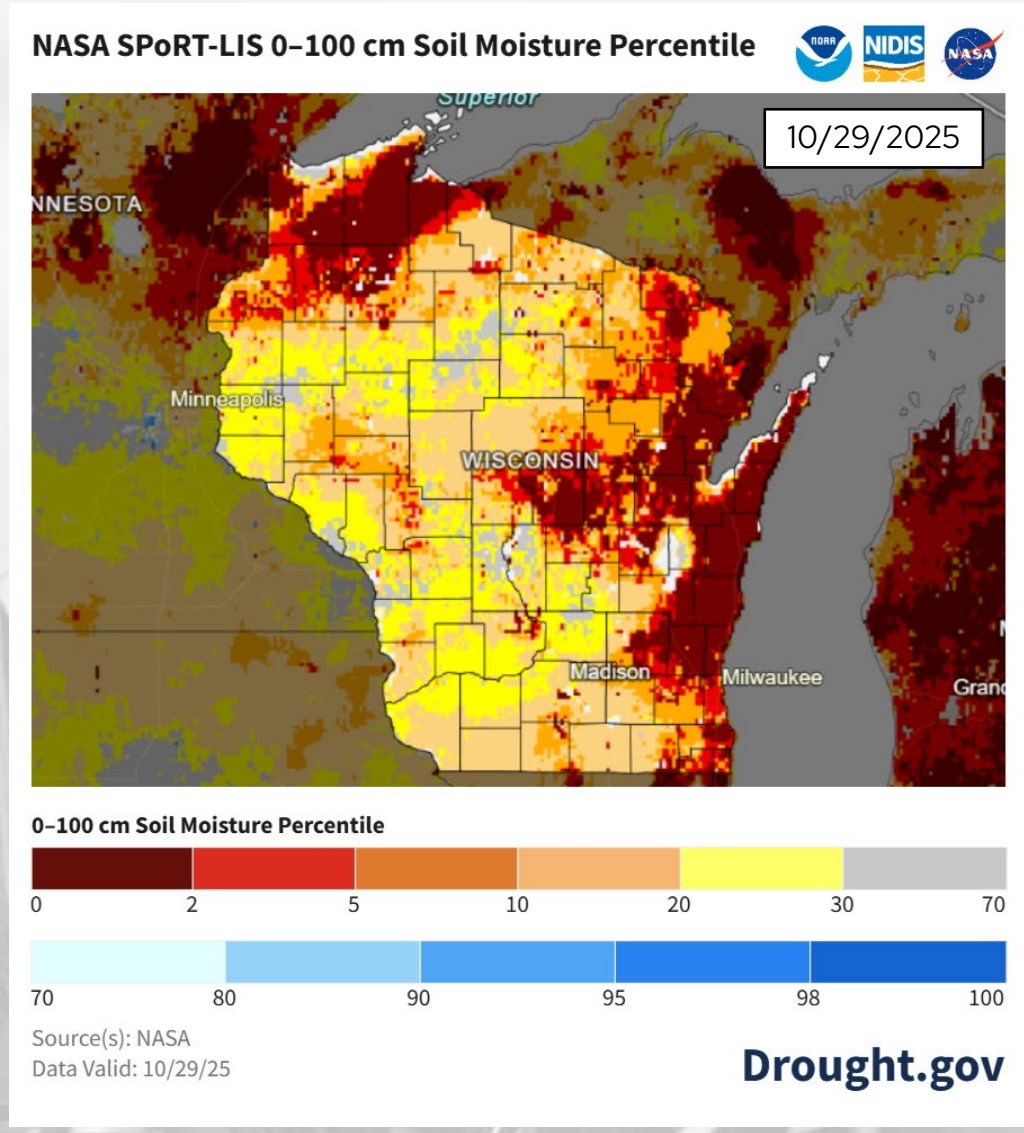
https://hprcc.unl.edu/maps.php?map=ACISClimateMaps

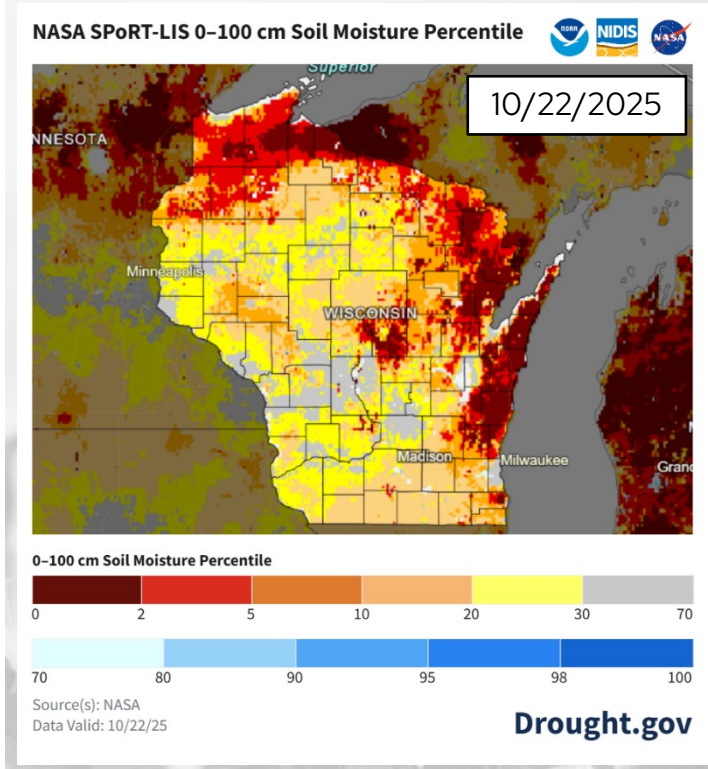
Soil Moisture Models

- **Similar conditions** compared to last week, with the driest soil moisture conditions in the **northwest and east**.
- **Improvements** across north-central WI where rainfall totals were higher.
- **Nearest to normal** in the west-central region and parts of the NW.

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.

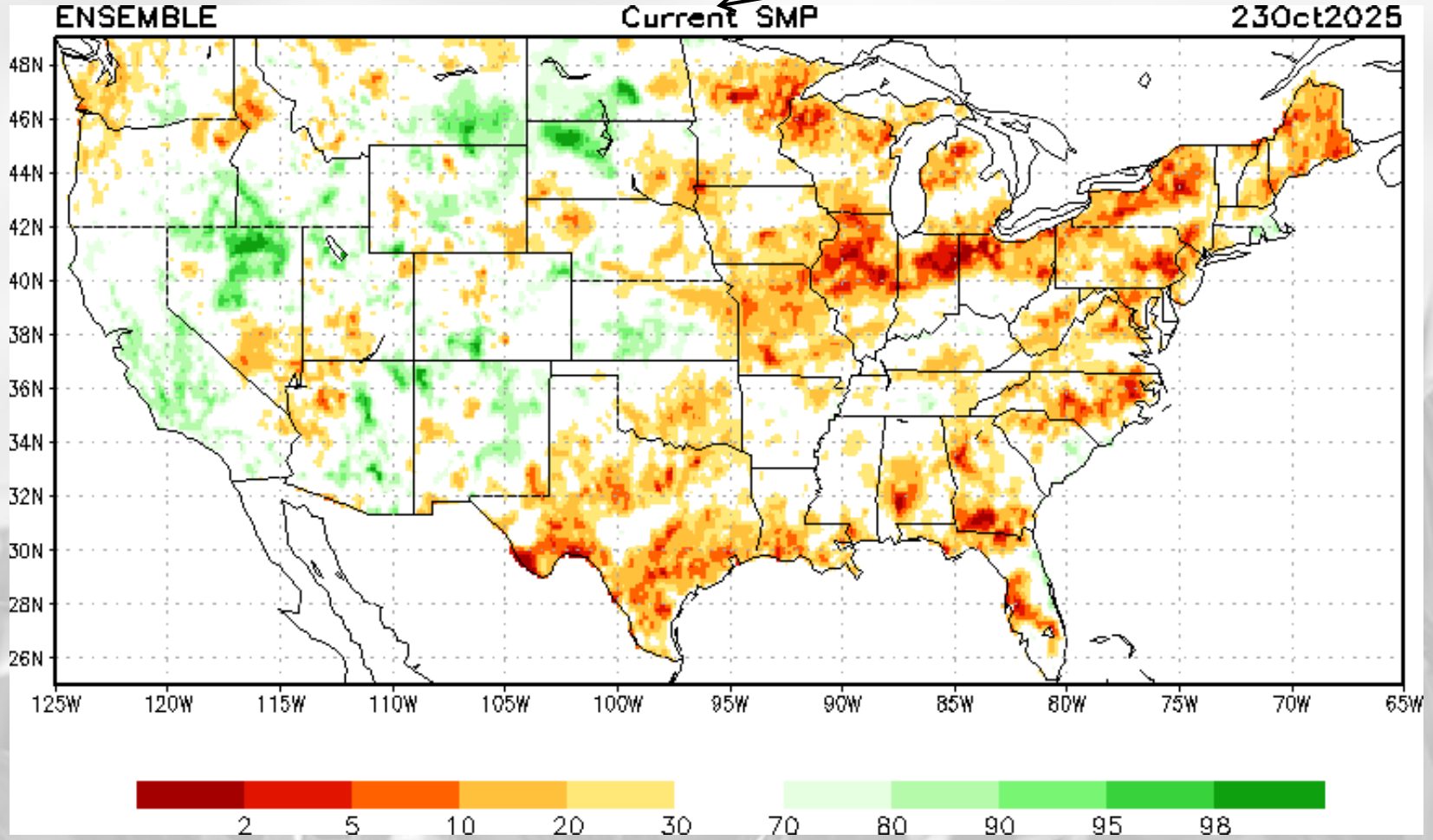




https://weather.ndc.nasa.gov/sport/case_studies/lis_CONUS.html
https://www.drought.gov/states/wisconsin

Soil Moisture Models

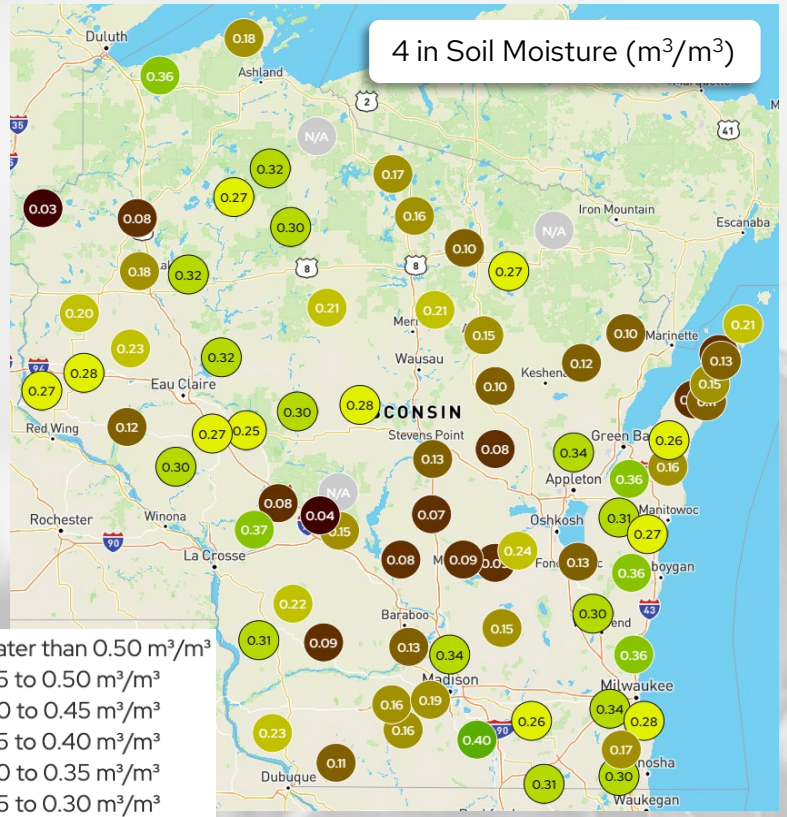
NOTE: this map displays the soil moisture percentile for Oct 23. It was the most recent update as of Oct 28.

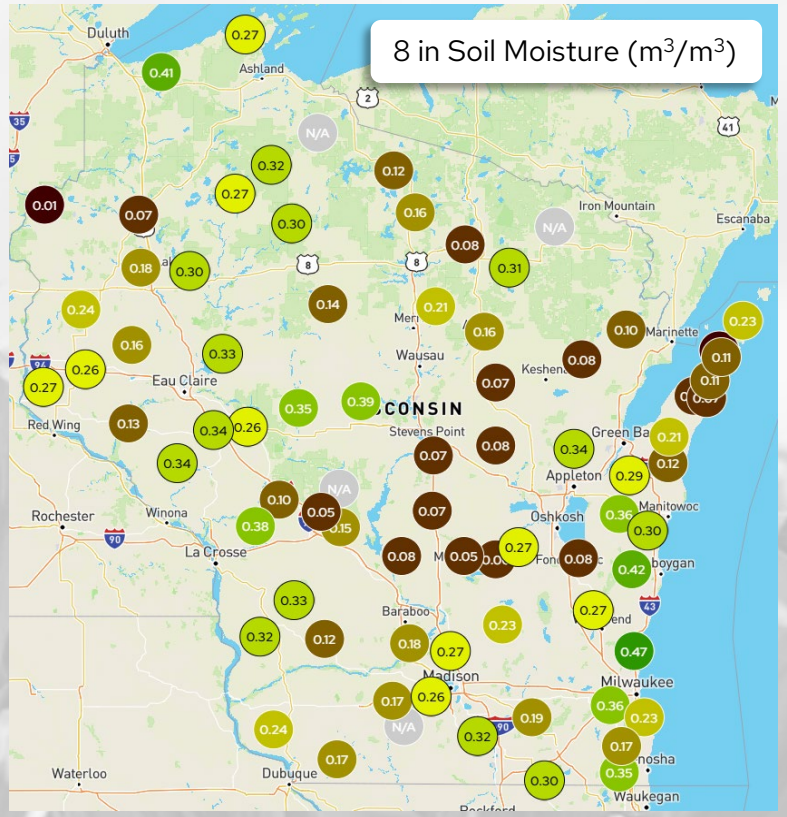


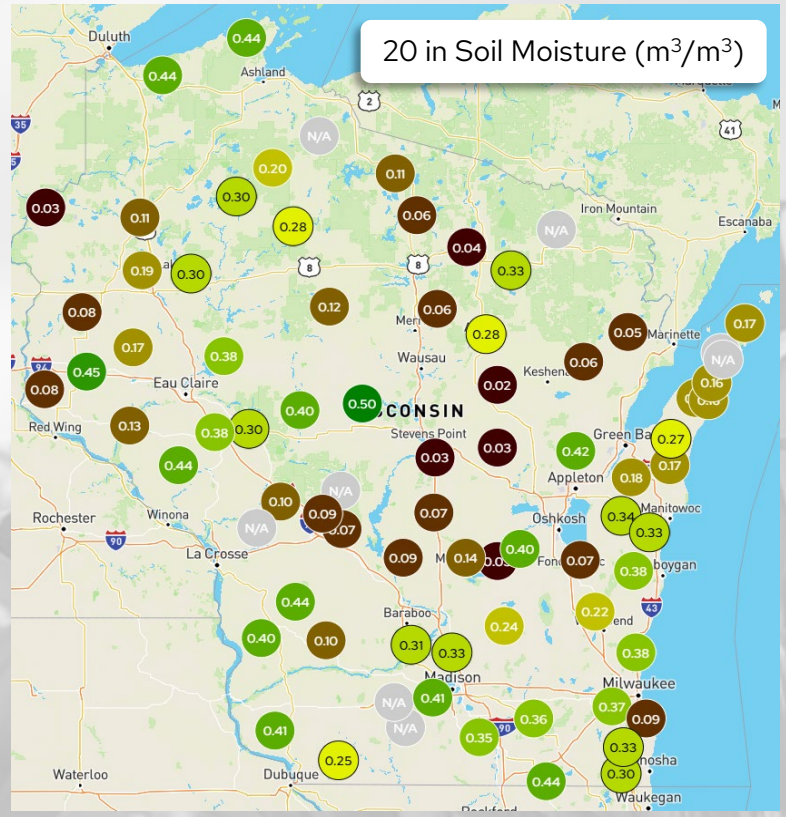
https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp_new.shtml

Wisconet Soil Moisture

Maps showing soil temperature conditions on October 28th @ 12:00 pm.
Units of map values are {Volume of water}/{Volume of soil}.







- greater than 0.50 m^3/m^3
- 0.45 to 0.50 m^3/m^3
- 0.40 to 0.45 m^3/m^3
- 0.35 to 0.40 m^3/m^3
- 0.30 to 0.35 m^3/m^3
- 0.25 to 0.30 m^3/m^3
- 0.20 to 0.25 m^3/m^3
- 0.15 to 0.20 m^3/m^3
- 0.10 to 0.15 m^3/m^3
- 0.05 to 0.10 m^3/m^3
- 0.00 to 0.05 m^3/m^3

https://wisconet.wisc.edu/

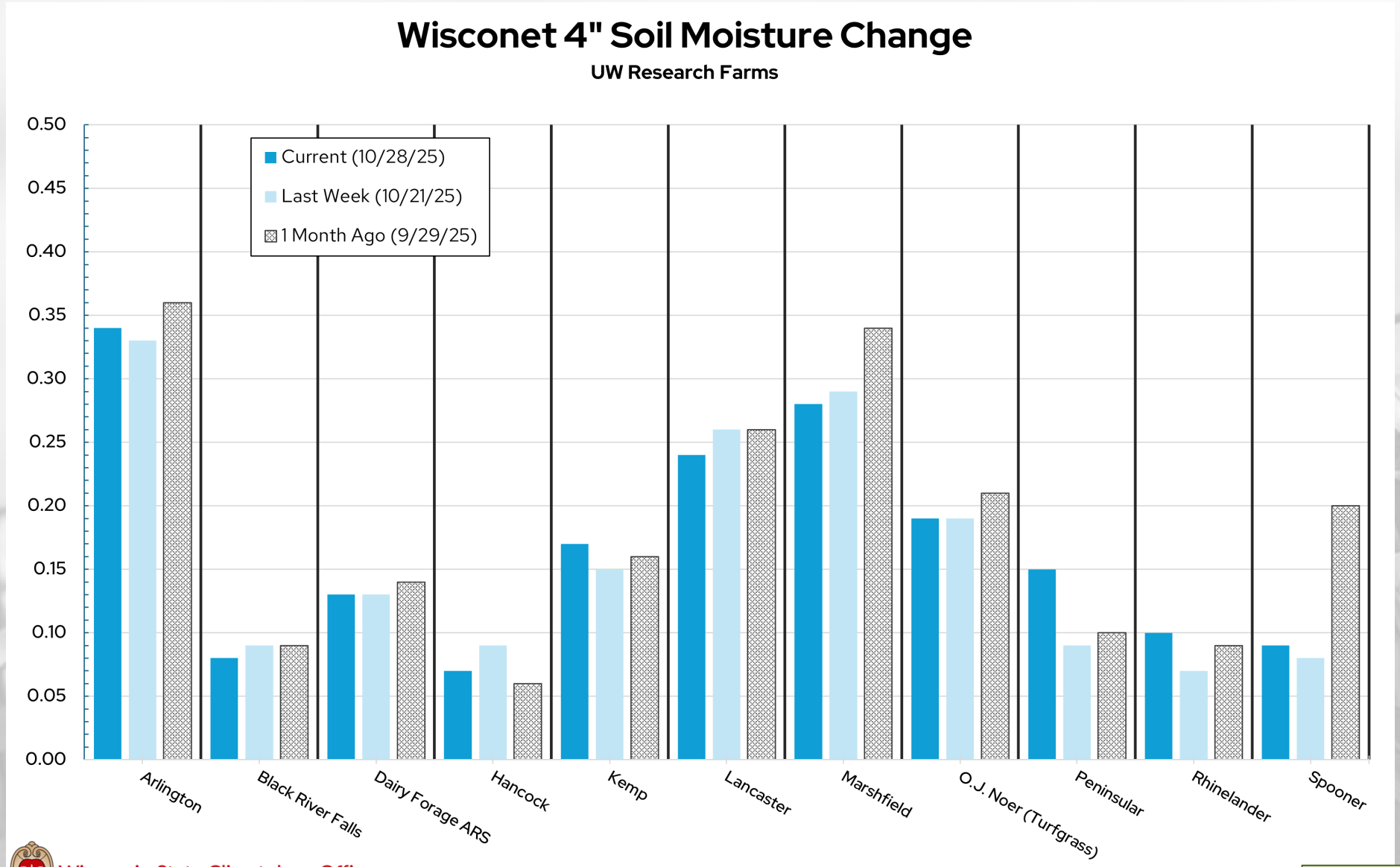
Wisconet Soil Moisture

Change in soil moisture from October 21st (Start) to October 27th (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	0.12	0.33	0.34	0.26	0.27	0.34	0.33
Black River Falls	Jackson	0.05	0.09	0.08	0.10	0.10	0.10	0.10
Dairy Forage ARS	Sauk	0.12	0.13	0.13	0.18	0.18	0.32	0.31
Hancock	Waushara	0.18	0.09	0.07	0.08	0.08	0.06	0.07
Kemp	Oneida	0.35	0.15	0.17	0.14	0.16	0.05	0.06
Lancaster	Grant	0.01	0.26	0.24	0.26	0.25	0.42	0.41
Marshfield	Marathon	0.08	0.29	0.28	0.40	0.40	0.51	0.50
O.J. Noer *(Turfgrass)*	Dane	0.07	0.19	0.19	0.25	0.26	0.41	0.41
Peninsular	Door	0.48	0.09	0.15	0.10	0.11	0.16	0.16
Rhinelander	Oneida	0.23	0.07	0.10	0.05	0.08	0.04	0.04
Spooner	Washburn	0.16	0.08	0.09	0.07	0.07	0.12	0.11

https://wisconet.wisc.edu/

Wisconet Soil Moisture



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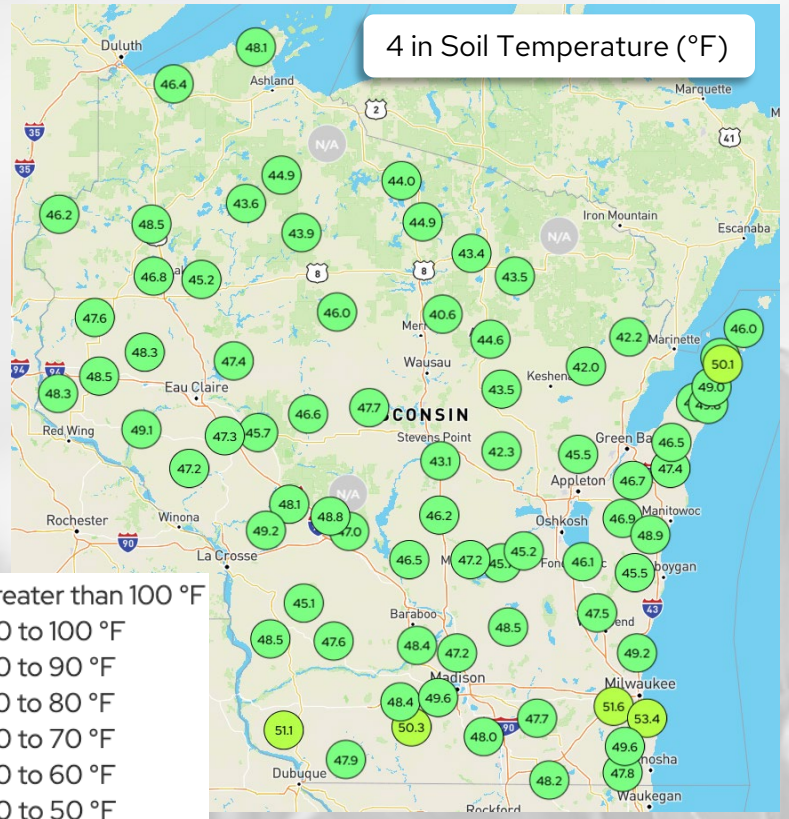
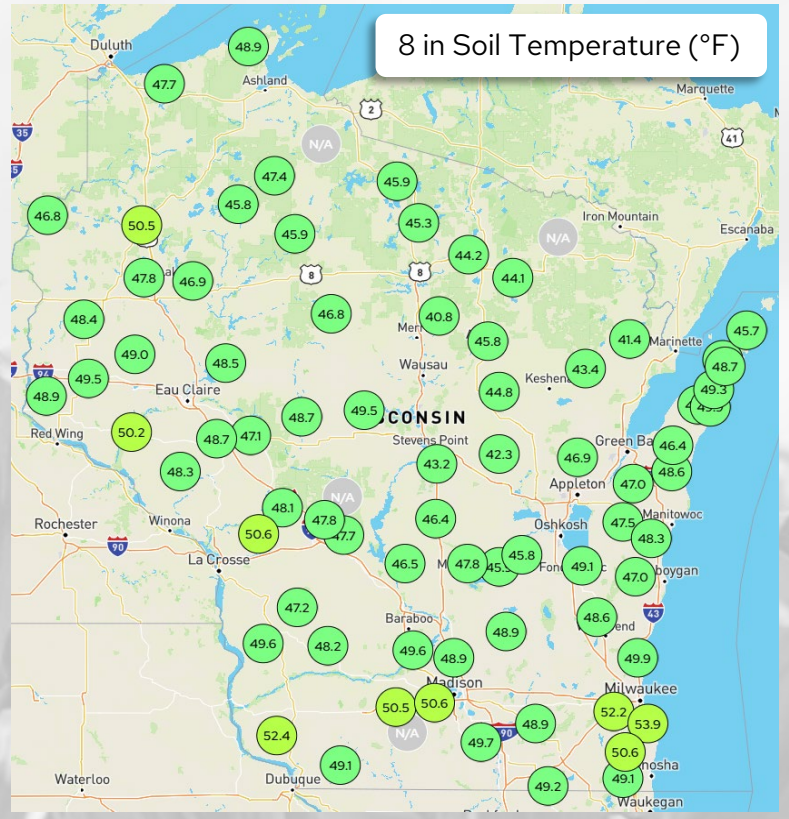
Data Source: Wisconet

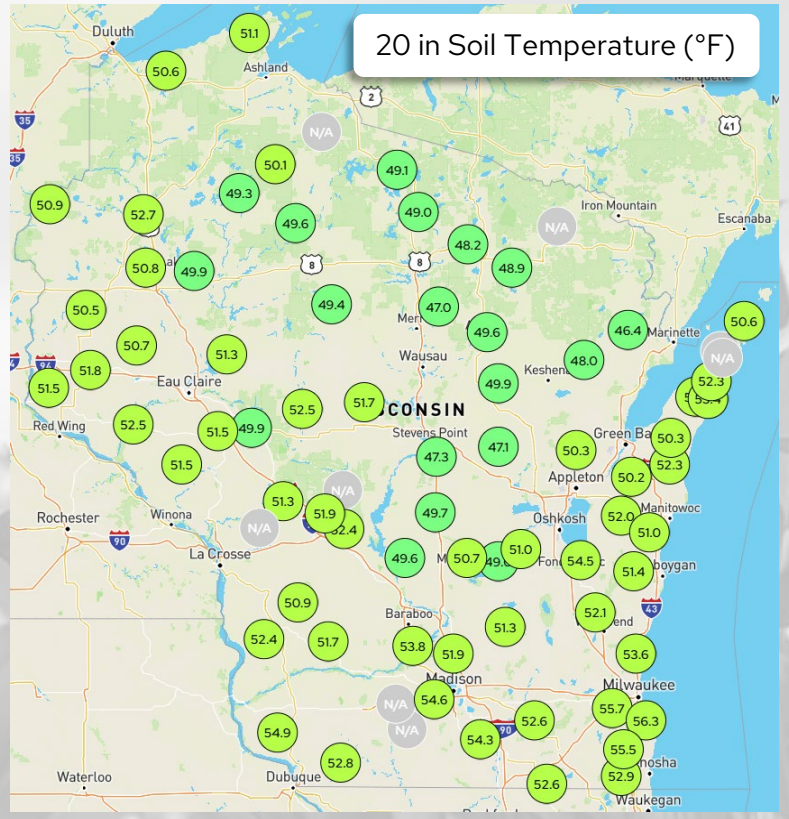
https://wisconet.wisc.edu/

Wisconet Soil Temperature

Maps showing soil temperature conditions on
October 28th @ 12:00 pm.



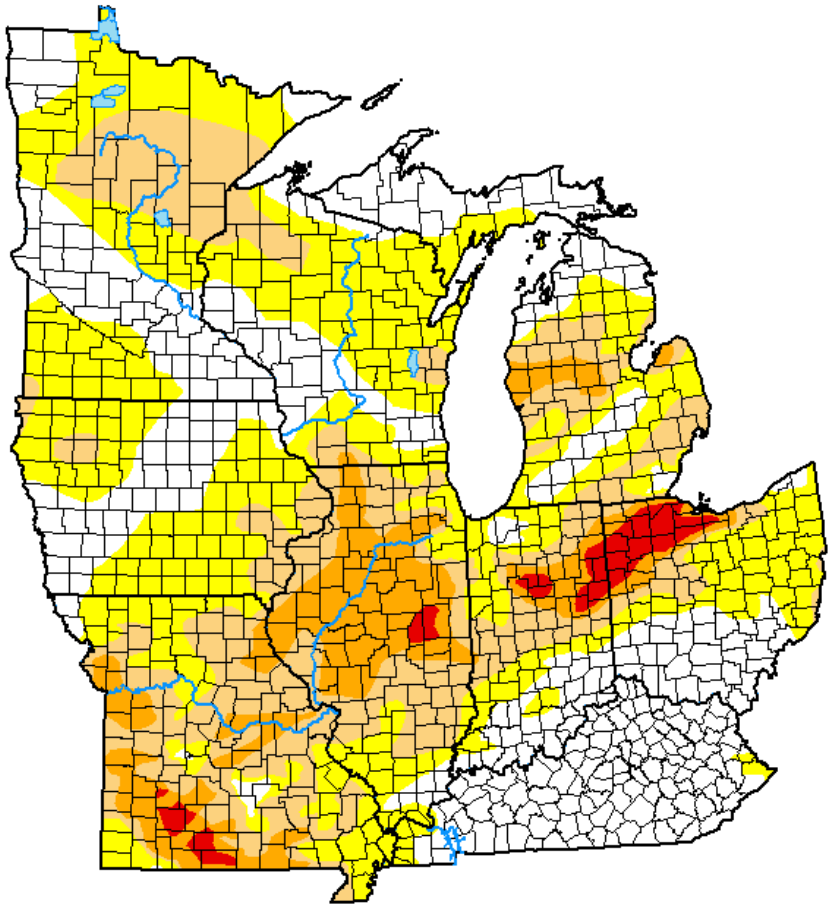




- greater than 100 °F
- 90 to 100 °F
- 80 to 90 °F
- 70 to 80 °F
- 60 to 70 °F
- 50 to 60 °F
- 40 to 50 °F
- 30 to 40 °F
- 20 to 30 °F
- 10 to 20 °F
- less than 10 °F

https://wisconet.wisc.edu/

US Drought Monitor



U.S. Drought Monitor

Midwest

October 28, 2025

(Released Thursday, Oct. 30, 2025)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	31.22	68.78	33.55	11.64	1.93	0.00
Last Week 10-21-2025	28.80	71.20	36.35	9.74	1.71	0.00
3 Months Ago 07-29-2025	91.50	8.50	2.41	0.04	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 09-30-2025	34.12	65.88	34.69	10.17	0.37	0.00
One Year Ago 10-29-2024	3.46	96.54	74.51	37.89	4.14	0.66

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:

Richard Tinker

CPC/NOAA/NWS/NCEP

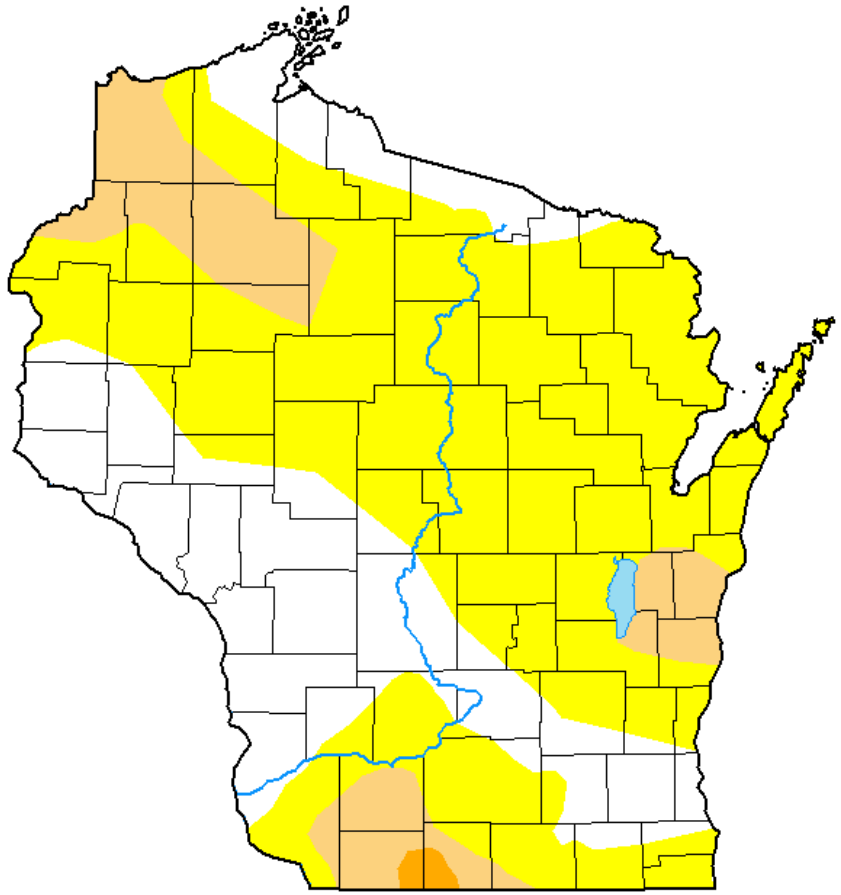
droughtmonitor.unl.edu

- Midwest: Compared to last week:
  - **Small decrease** in D0-D1 coverage, with some **increase in D2-D3**.
- Midwest: **1 class improvements** across the IL/MO/KY tri-states, MI, and OH. **1 class degradation** in pockets of IA, IL, MO, and WI.
- Wisconsin: **D2 added** in southwest WI, near Monroe. **D1 expanding** up into Grant and Iowa Counties.
- **63.6%** of the Midwest is drought free (~36.4% in D1-D4).

Note: D0 is not considered drought.

http://droughtmonitor.unl.edu/

US Drought Monitor



October 28, 2025
(Released Thursday, Oct. 30, 2025)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	29.57	70.43	12.61	0.46	0.00	0.00
Last Week 10-21-2025	30.71	69.29	10.85	0.00	0.00	0.00
3 Months Ago 07-29-2025	99.24	0.76	0.00	0.00	0.00	0.00
Start of Calendar Year 01-07-2025	36.12	63.88	39.54	0.00	0.00	0.00
Start of Water Year 09-30-2025	64.44	35.56	0.00	0.00	0.00	0.00
One Year Ago 10-29-2024	0.00	100.00	100.00	31.63	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to https://droughtmonitor.unl.edu/About.aspx

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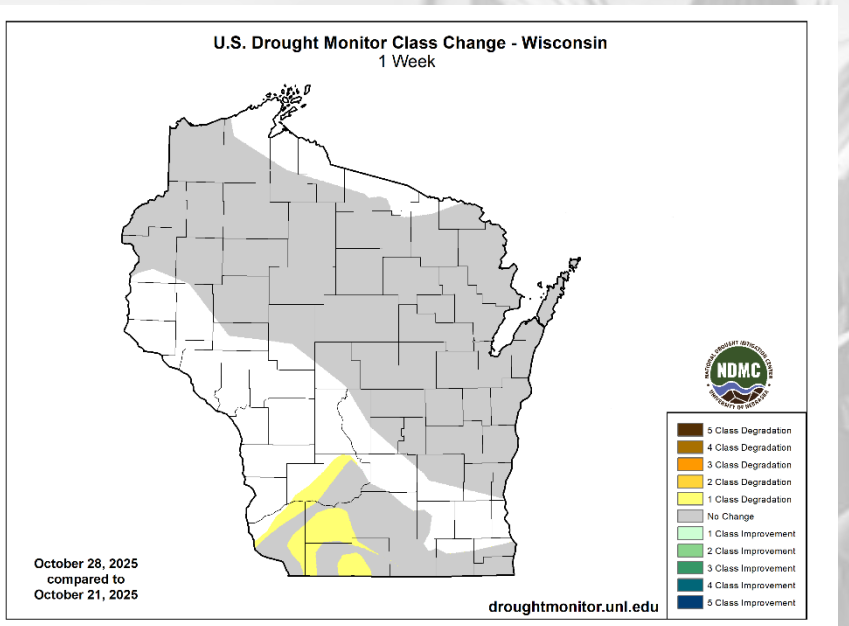
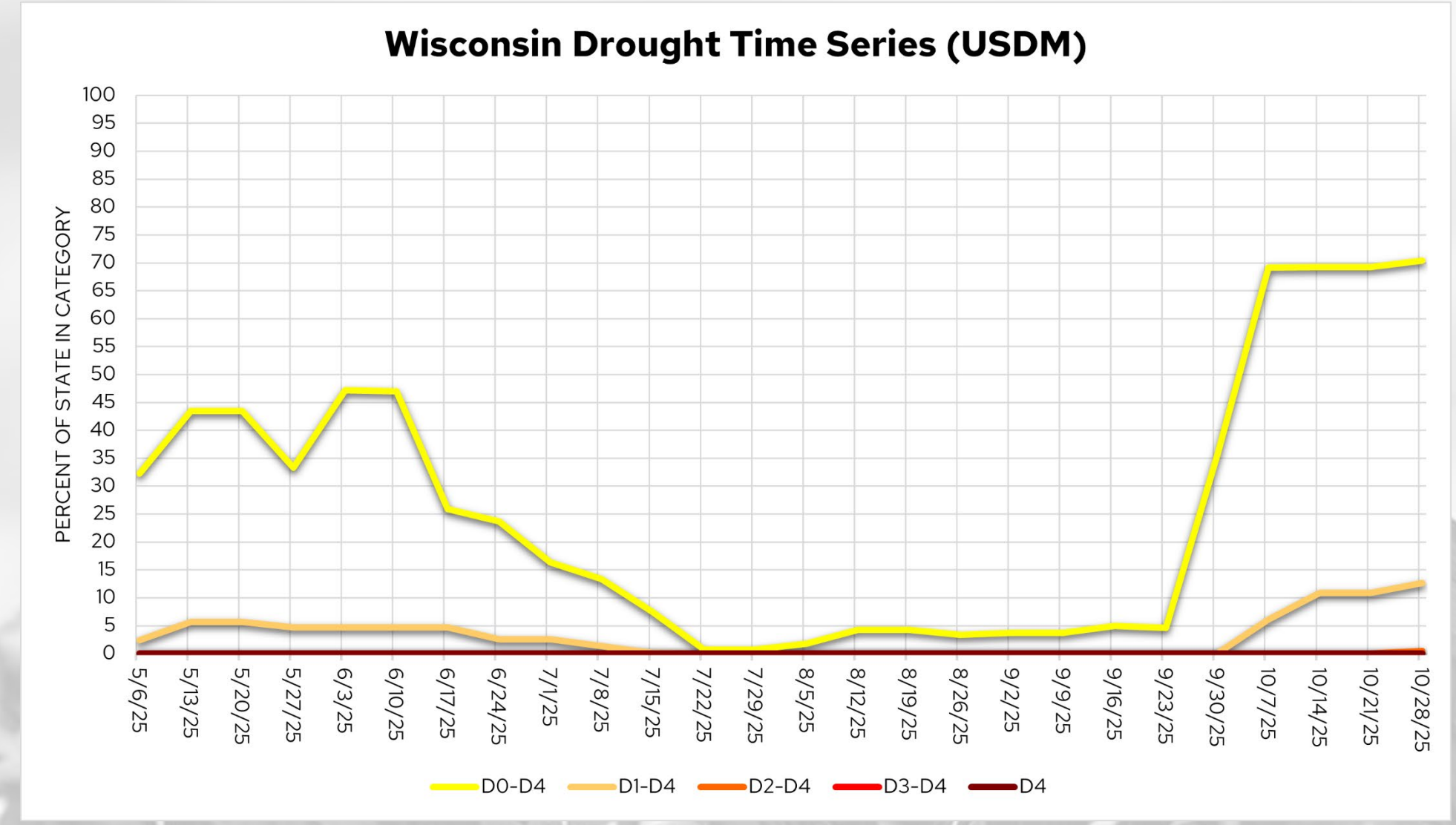
Amount of state in:

- D1-D4 – 12.6% ↑
- D2-D4 – 0.5% ↑
- 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.



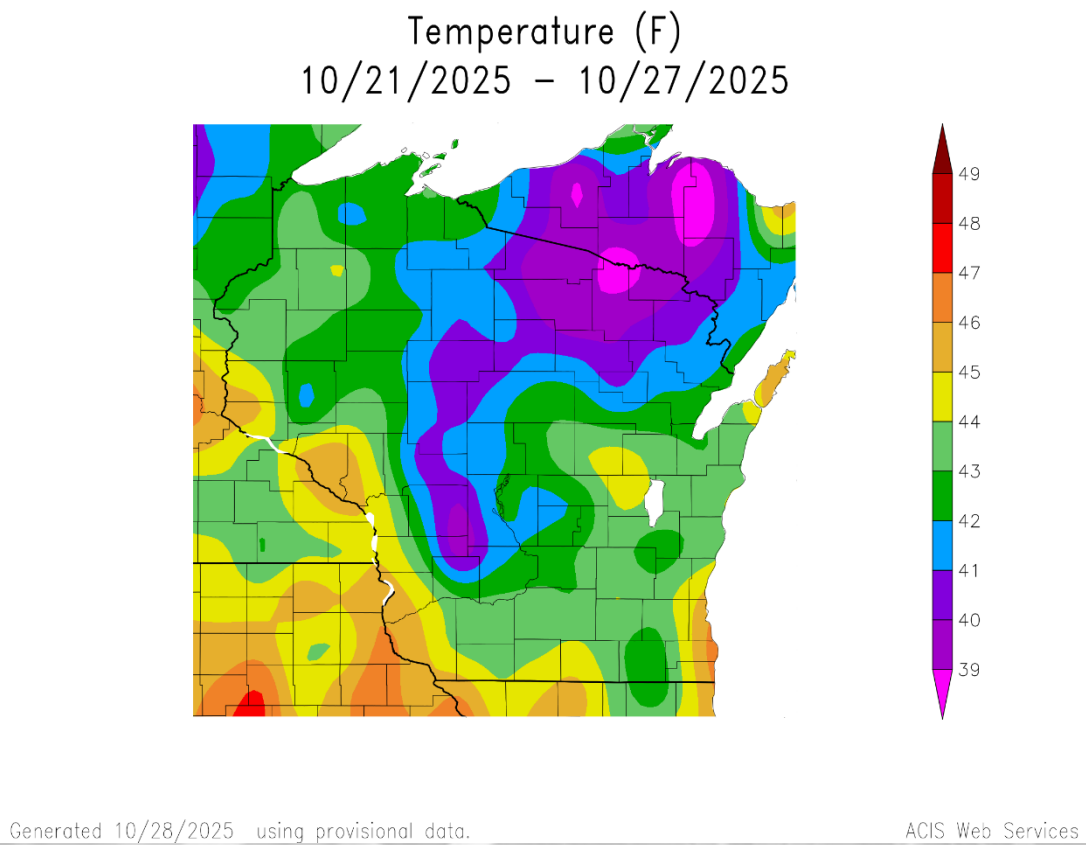
USDM Time Series

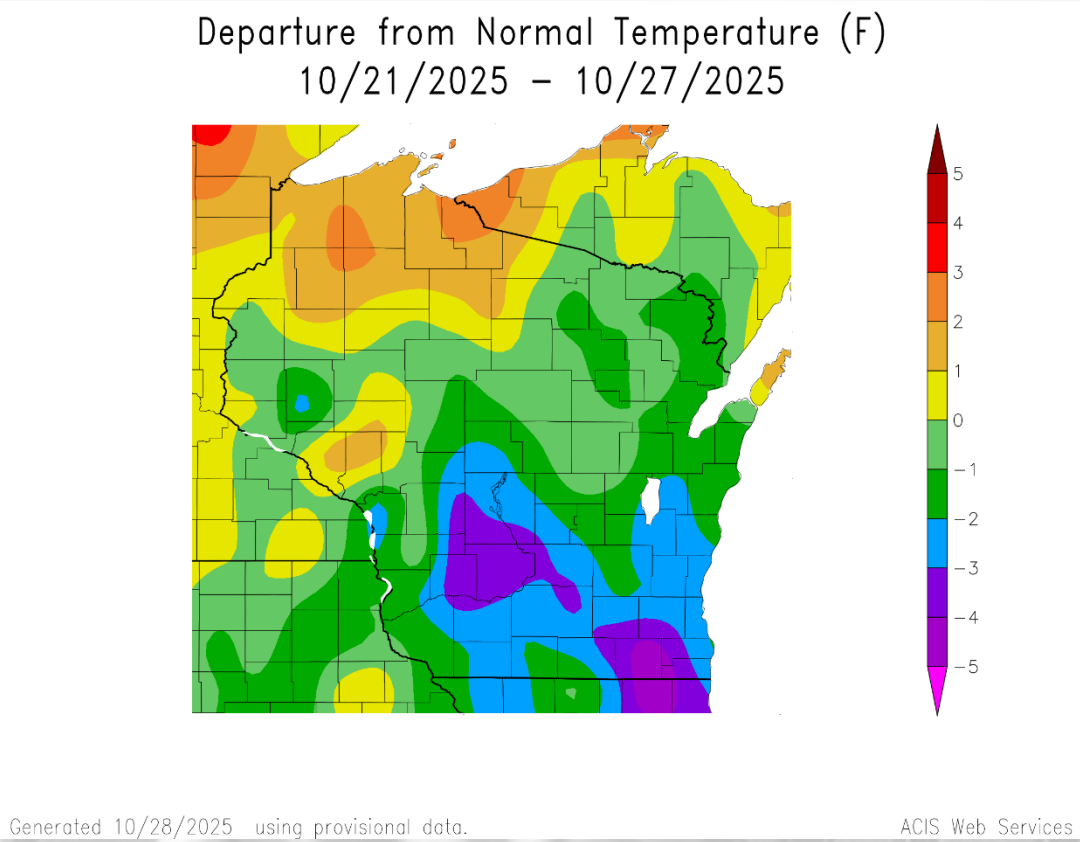


Increases in D0-D1 coverage from last week, with the **addition of D2** near the IL border.

http://droughtmonitor.unl.edu/

7 Day Temperatures

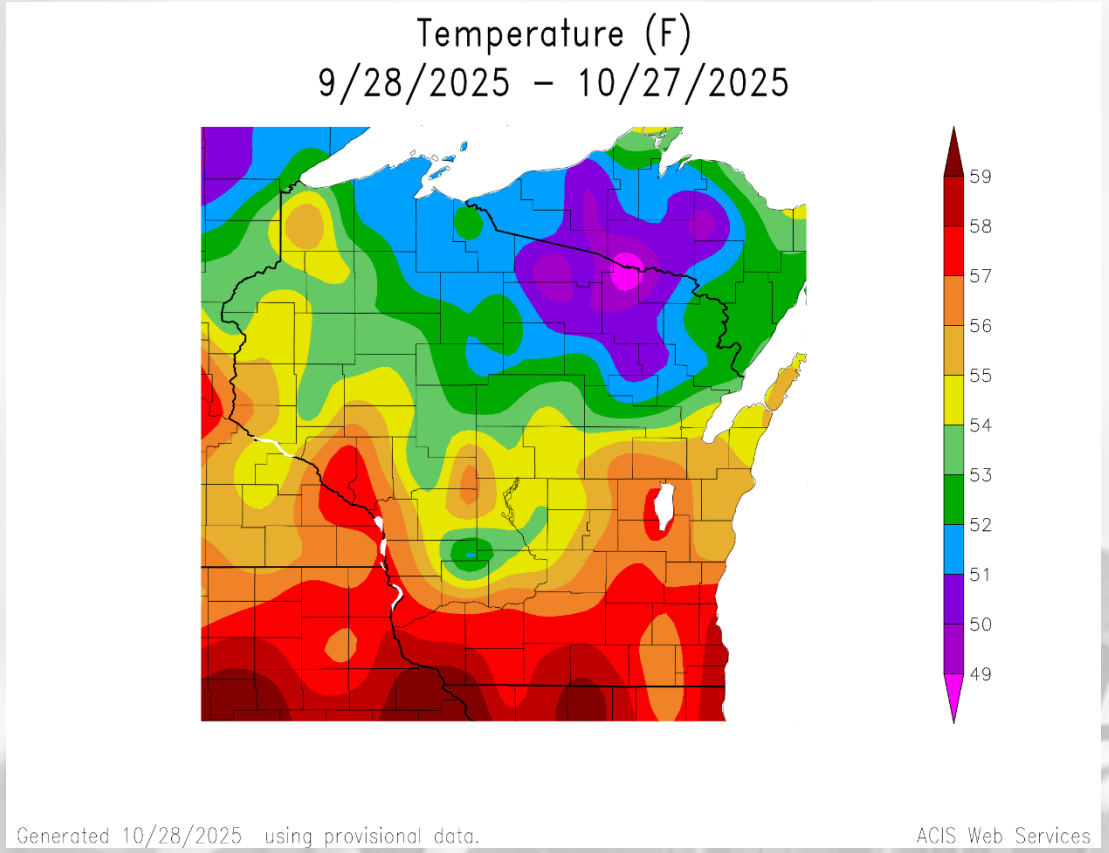


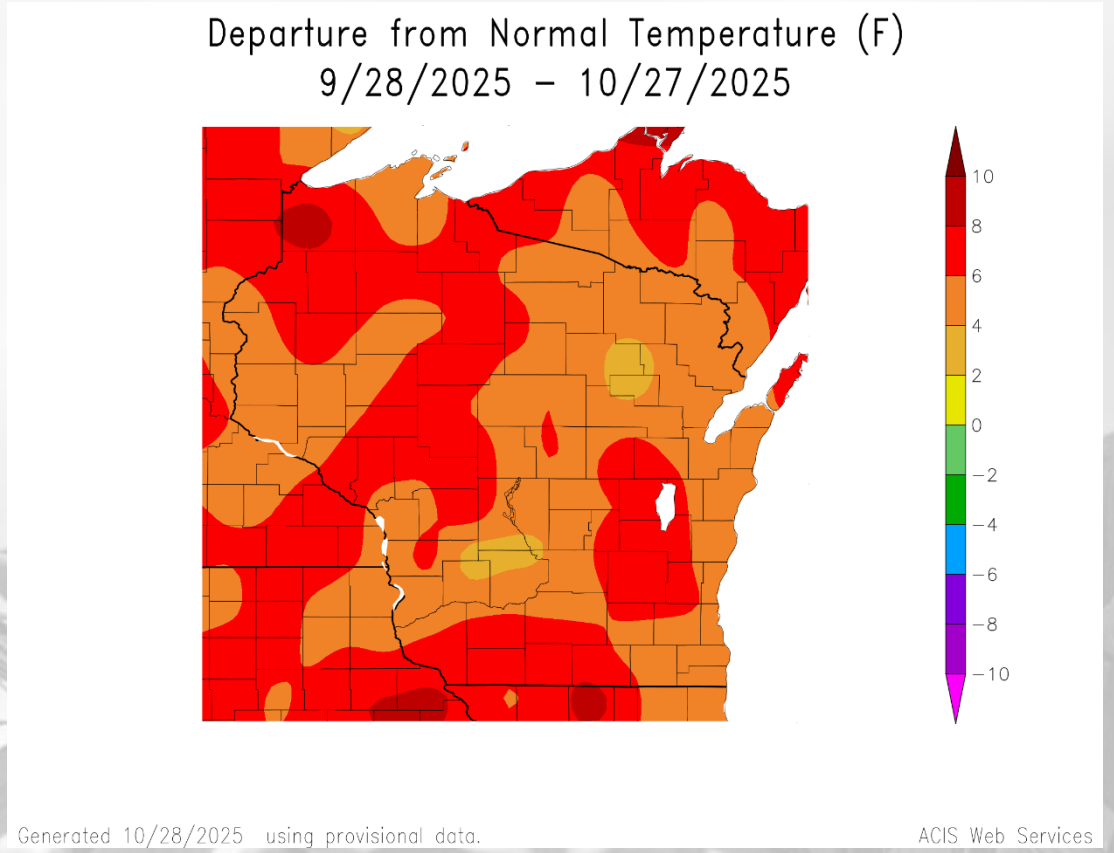


- Average temp. range of **44-47°F** in the south; **39-41°F** in the far north and parts of the west.
- **2-4°F above normal** in the south/southeast; **within -/+2°F** of normal in the central, west, and north.

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

30 Day Temperatures

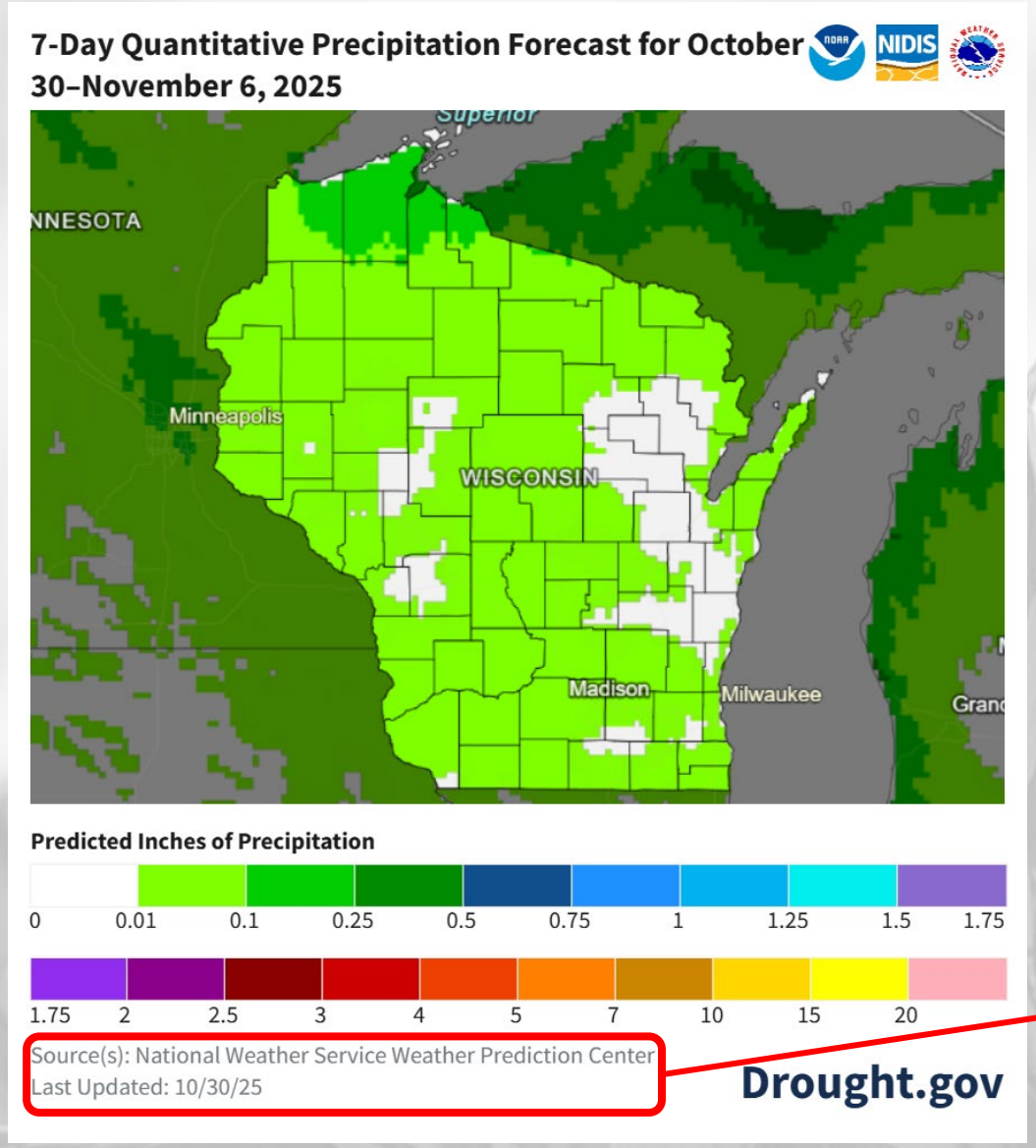




- Average temps. ranged from **56-59°F** in the south, west-central, and east-central regions; **49-52°F** for the north.
- **4-8°F above normal** across most of the state.

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

7 Day Precip Forecast

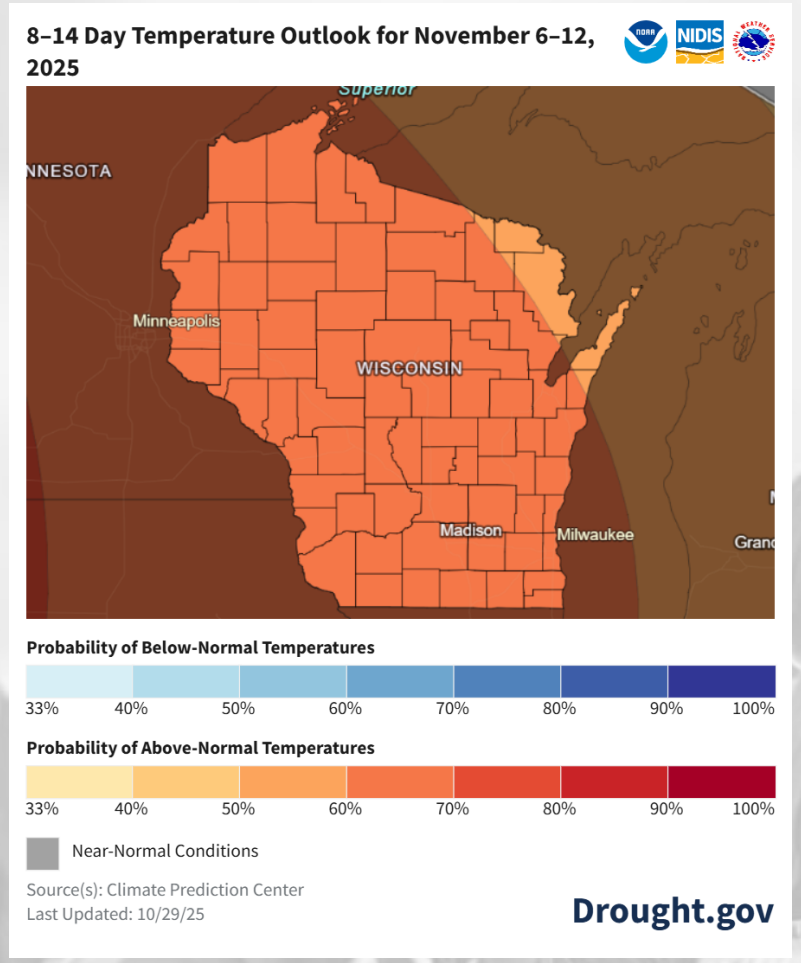


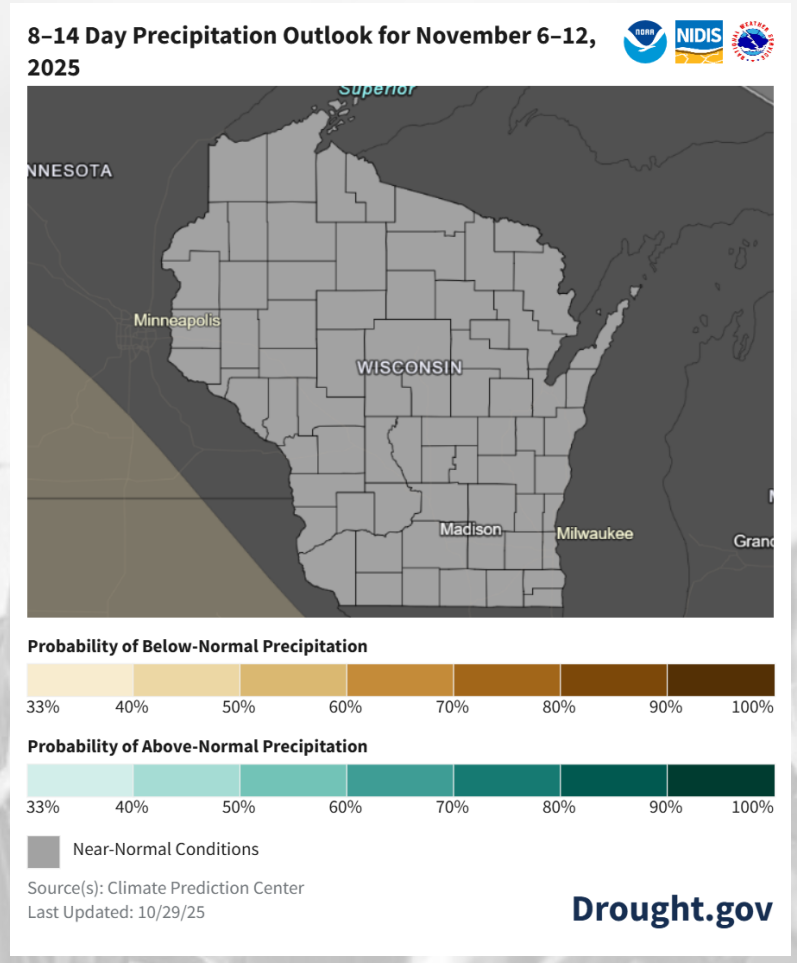
- **When?** → chances for light rain on **Friday through the weekend**. Dry during first half of next week.
- **Where?** → statewide chances for light rain, **highest near to Lake Superior**.
- Check your local forecast for details on totals and timing.
- Average precip (1991-2020) for this week: **0.54”**

Forecast for 10/30/25 thru 11/6/25
(Begins at 6am CST)

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

8-14 Day Temp & Precip Outlook



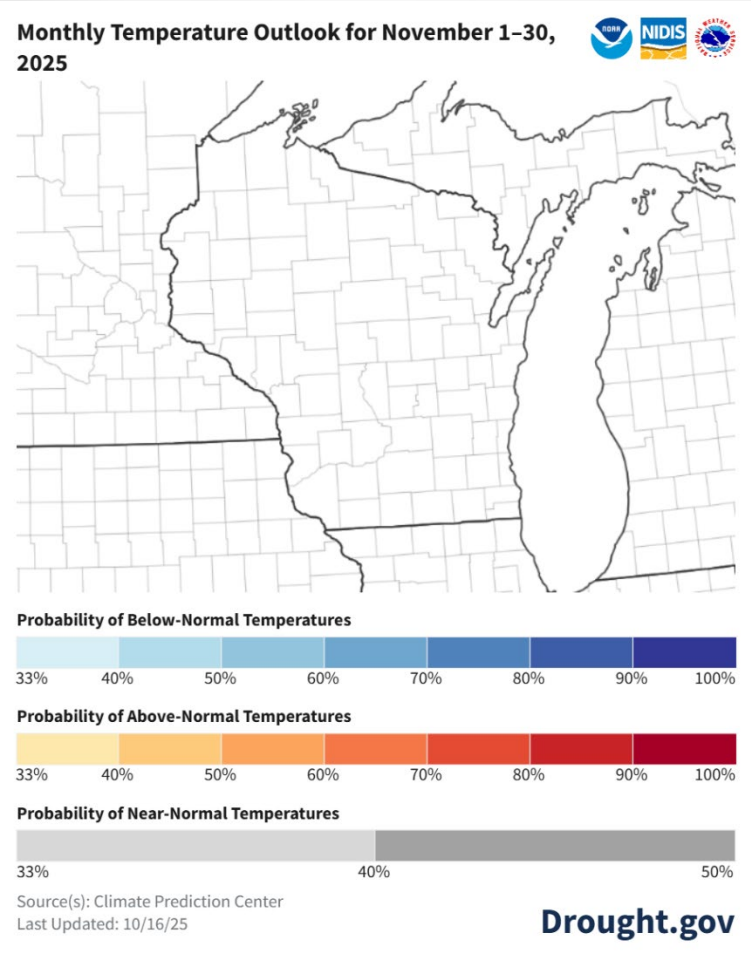


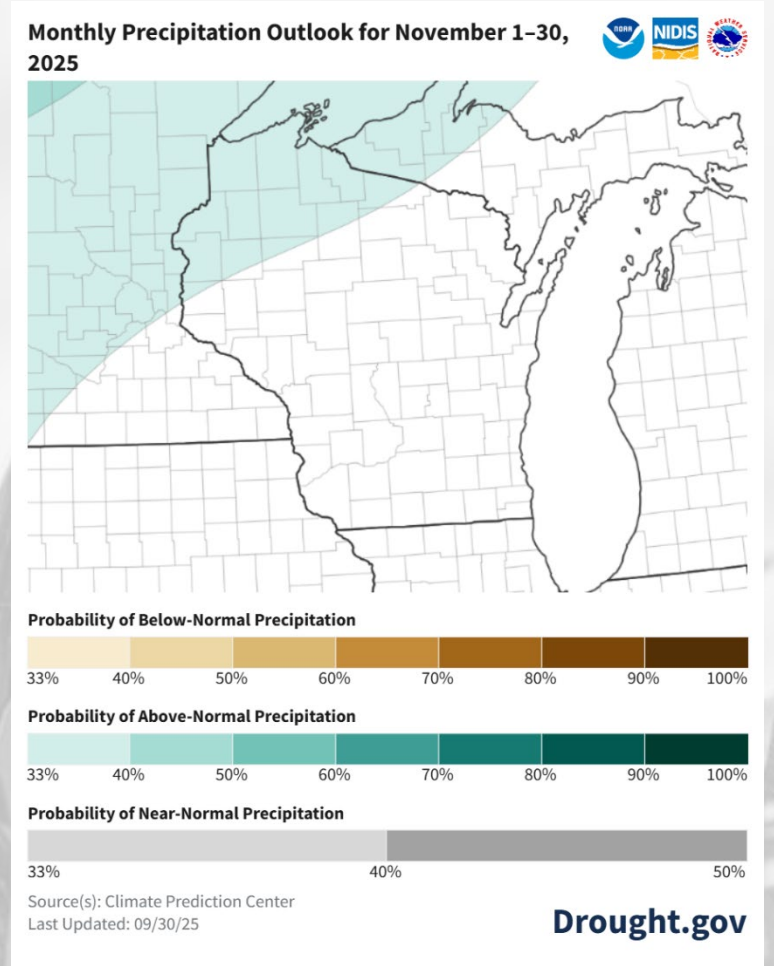
http://www.cpc.ncep.noaa.gov/
https://www.drought.gov/states/wisconsin

Early-Mid November: Elevated probabilities for warmer-than-normal temperatures (**60-70%** odds for most), with precip leaning towards near normal.

- Statewide normals (1991-2020) for Nov 6-12 are **36.3°F** and **0.48”**.

30 Day Temp & Precip Outlook



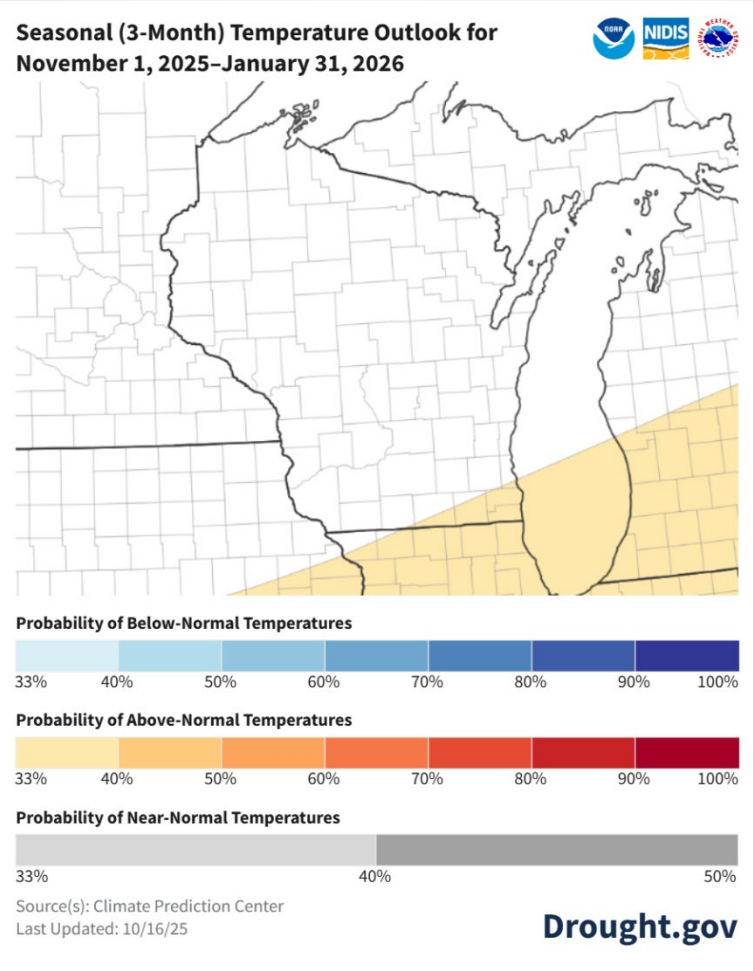


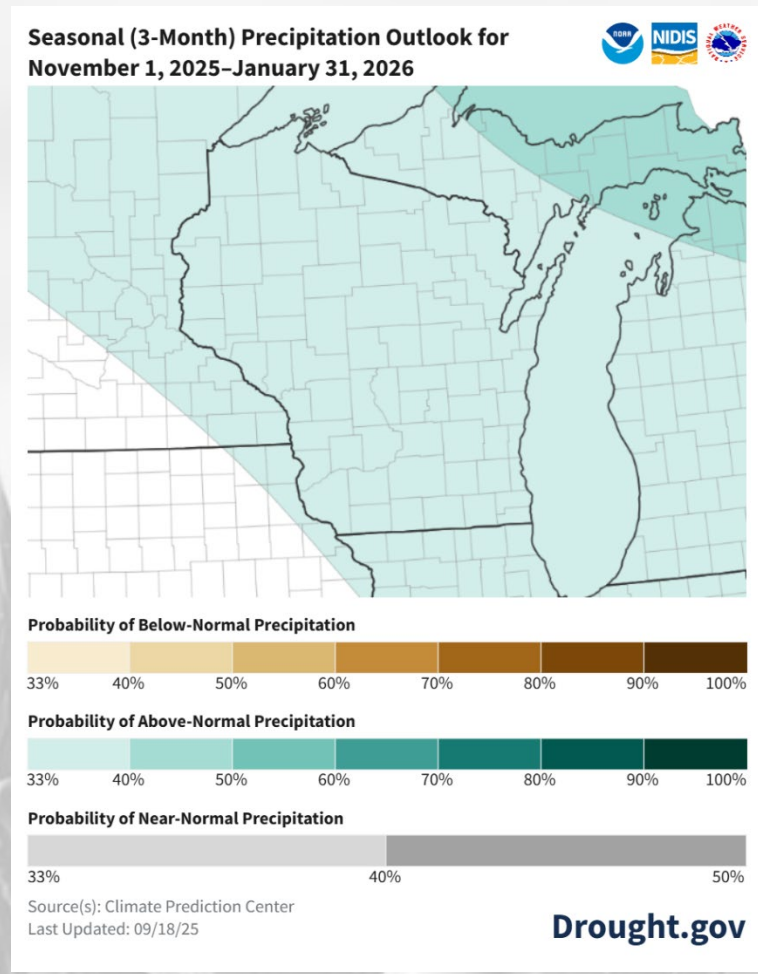
http://www.cpc.ncep.noaa.gov/
https://www.drought.gov/states/wisconsin

Month of November: Uncertainty for temperatures with equal chances statewide. Northern WI is showing a lean towards above normal precip, with uncertainty elsewhere.

- Statewide normals (1991-2020) for November are **33.4°F** and **1.99”**.

90 Day Temp & Precip Outlook





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

Late Fall into Winter '25/'26: Equal chances for temperatures statewide, with a slight lean towards above normal in the far SE. Slight lean towards above normal precip statewide.

- Statewide normals (1991-2020) for Nov-Jan are **23.2°F** and **4.72"**.

Take-Home Points

Current Conditions

- Temperatures were closer to normal last week, a shift from what has been a very warm fall. The southern region was **1-4°F below normal**, with conditions **closer to seasonal** in the north.
- Rainfall totals were **0.25" or less** across most of WI last week, with higher totals closer to Lake Superior (**1-2"**) and on the east-central side of the state (**0.25-0.5"**).

Impact

- Topsoil moisture at most Wisconet research farm stations were **within 1-2% of last week's moisture levels**. Satellite-based soil moisture products indicate **soils are much drier than normal in the east and north**, but closer to normal in the west.
- D0-D1 coverage **expanded in the state**, primarily in the southwest. **D2 was added** near Monroe, by the IL border.
- NASS crop progress reports are unavailable this week due to the federal government shutdown.

Outlook

- The best chances for rain over the next 7 days are in the **far north**, with **lighter totals forecasted statewide** through Sunday (11/2).
- Climate probabilities for early to middle November indicate a stronger lean towards **warmer-than-normal** conditions.
- The outlooks for the month of November *(updated on 10/16)* indicate **uncertainty** for temperatures and precip for most of WI. There is a slight lean towards **above normal precip in the north**.

Agronomic Considerations

Field Work and Conditions

- Check cover crop growth as recent rain may have allowed static seeds to germinate.
- After crop harvest is an ideal time to take soil samples and plan ahead for next year's crop nutrient needs.
- It is not too late to plant a cover crop! Cereal rye can germinate at temperatures as low as 33°.

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 and Disease Management

- In order to prevent weed seed spread from field to field, combine cleaning is essential for reducing seed travel between fields. There have also been many combine fires this year. Keeping combines clean will help minimize risk.
- If you have ear rots present in your corn fields, prioritize harvesting diseased grain first and dry quickly. Read how to manage mycotoxins in storage.

Forage Management

- After corn is harvested, you may consider grazing corn stalks or harvesting corn stover, based on livestock needs.

Fruit and Vegetable Considerations

Fruit:

- **Fall Sanitation:** Clean up weeds around trees and vines, mow aisles to allow for better light penetration to aid in decomposition of leaf/plant material.
- **Fall Sanitation:** After leaf drop, chop, compost, remove or burn (where permitted) fallen leaf and plant material to limit potential for disease inoculum and any overwintering pests.
- Remember to note observable fruit damage at harvest to make adjustments in next year's pest management plan.
- Wisconsin fruit growers can reference the **Midwest Fruit Pest Management Guide** (MFPMG) for a list of registered products and recommended best practices. View the MFPMG Online or order a hard copy here: MFPMG Hard Copy.
- **Reminder:** Always read and follow directions on the label and keep in mind pre-harvest intervals (PHI) as we move through harvest!

Vegetables:

- Fall is a great time to test your soil in part because it gives you more time to make management decisions based on your results. Although remember to make accurate comparisons over time it is important to test at the same time of year each time. A list of certified labs can be found here.
- As crops finish up for the season, there is still time to **establish a winter rye cover crop** across the state. Rye has many potential benefits including prevention of erosion and holding nutrients in the soil, but keep in mind that cover crop benefits are strongly related to biomass. Knowing the planting window for your county can help you predict the amount of biomass and thus the likely cover crop benefits. If you are planting towards the end of the window, it is recommended to increase seeding rate to achieve more biomass. More management suggestions can be found here.
- Pest management for next year's crops starts this fall as many insects and diseases overwinter on crop residue. **Residue management** (either removing or tilling in residue) **can help reduce next year's pest and disease pressure**. Additional info can be found here.
- **Aphids** are a common high tunnel pest on fall and winter greens. The common species in high tunnels- green peach aphid, potato aphid, and fox glove aphid- are able to survive temperatures as low as 5°F. Population control will only become more difficult as temperatures drop so make sure to monitor and, when necessary, manage aphids this fall. Management options include the release of lady beetles, insecticides, and weed management to reduce alternative hosts.

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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