Extension
UNIVERSITY OF WISCONSIN-MADISON

Wisconsin State Climatology Office
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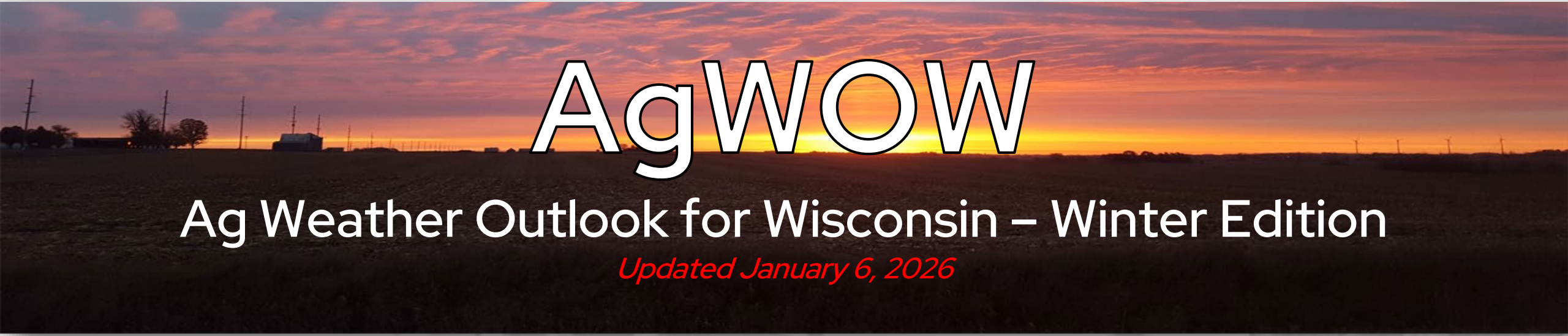
NRCS
Natural Resources Conservation Service



AgWOW

Ag Weather Outlook for Wisconsin – Winter Edition

Updated January 6, 2026

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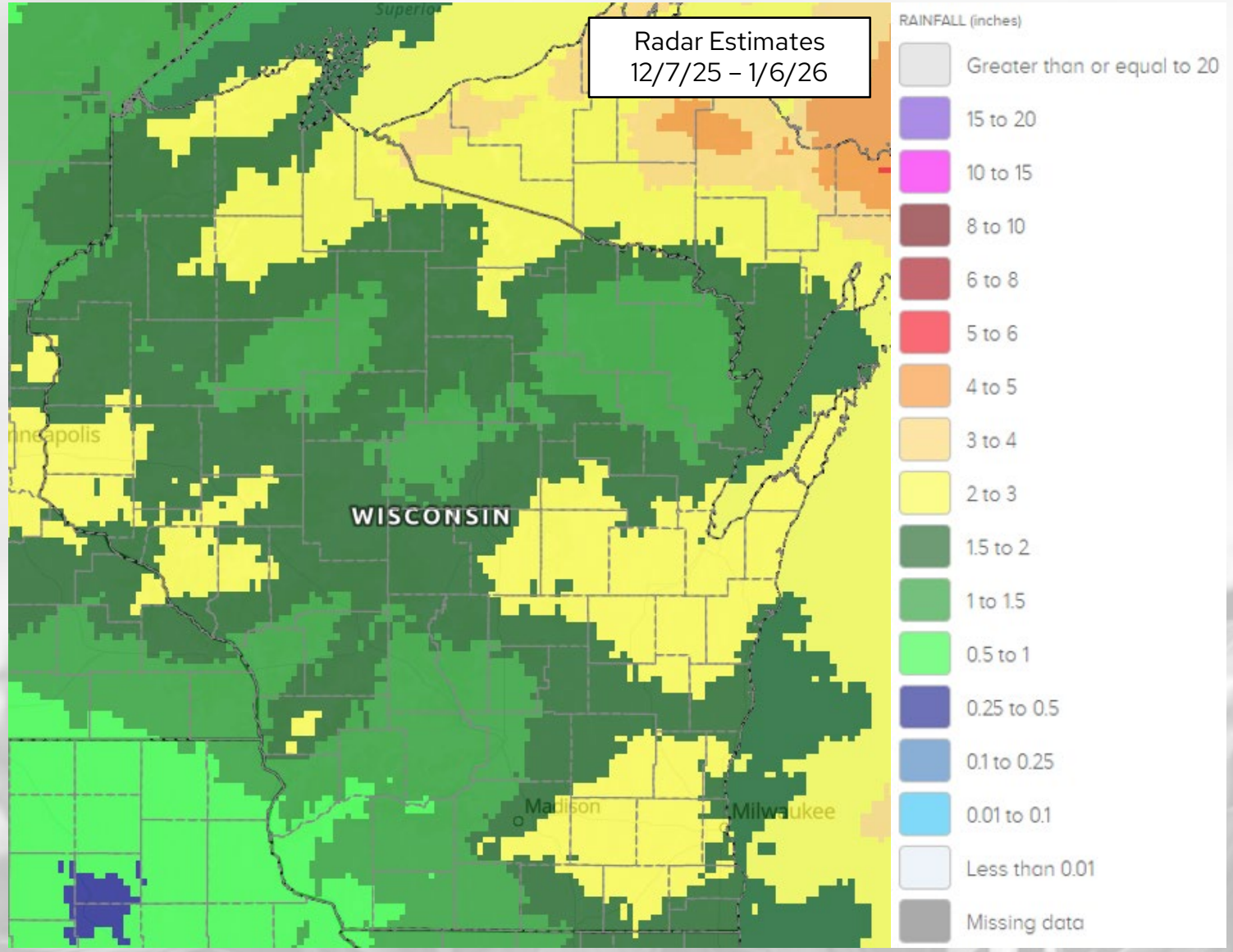
Key Points

Navigate to select slides by clicking on the links below.

1) Temperatures have been colder than normal over the past month, with multiple nights dropping to or below 0°F.
2) The northwest region of WI has seen above average precipitation, with the south and east trending drier.
3) Chilling hours for fruit range from 646 to 725 accumulated hours across WI stations.
4) Outlooks for January are showing a lean towards below normal temperatures, with a wet next 7 days on tap.

- *For this week's agronomic recommendations from UW Extension, click here.*

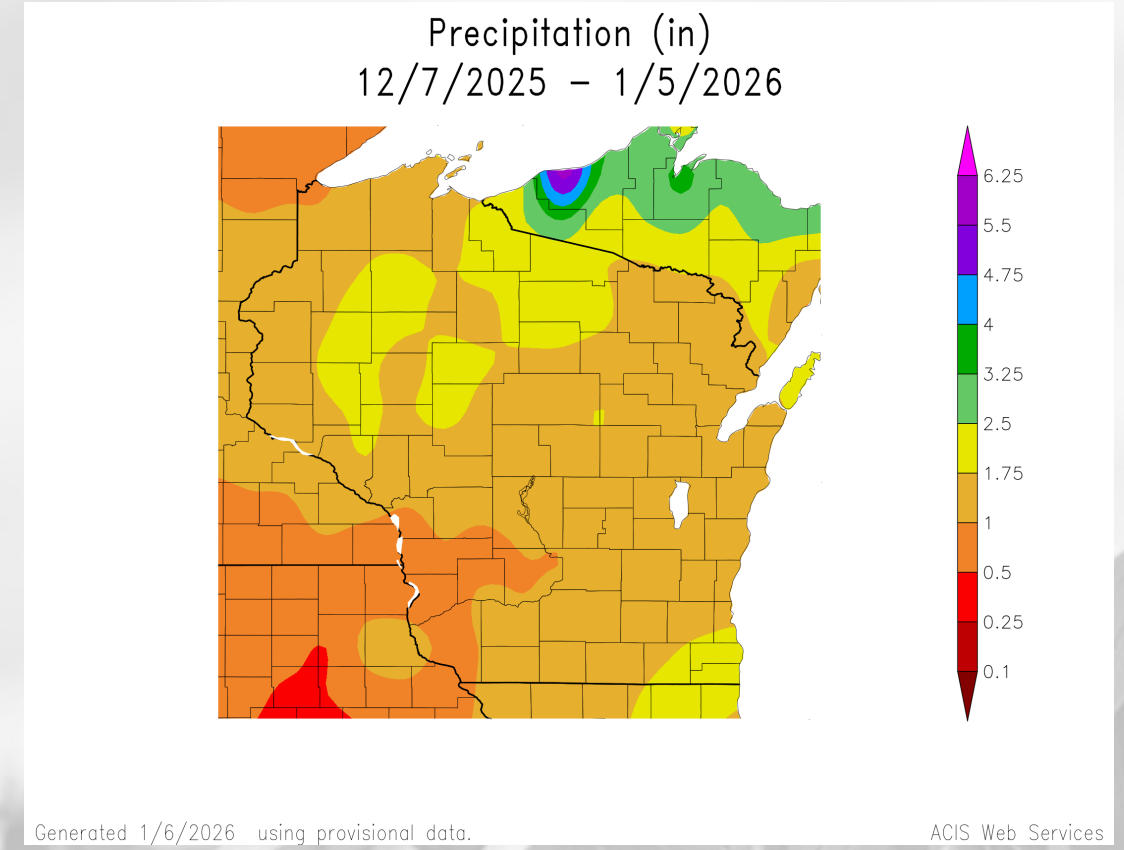
30 Day Precip (rain + melted snow)

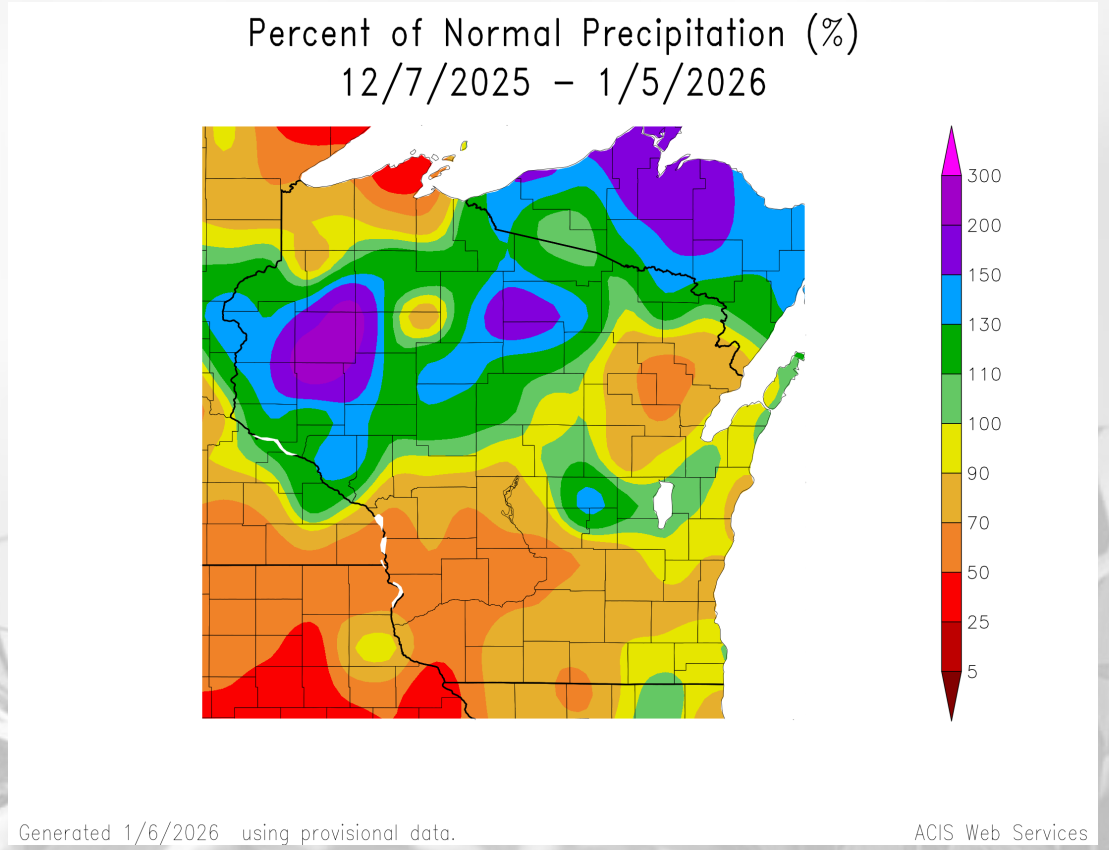


- Most in the state saw **1-2”**
- Highest totals in far N, west-central, and E/SE → **2-3”.**
- Lowest totals in the SW → **1” or less**.

https://water.noaa.gov/

30 Day Precip Total/Percent Avg.

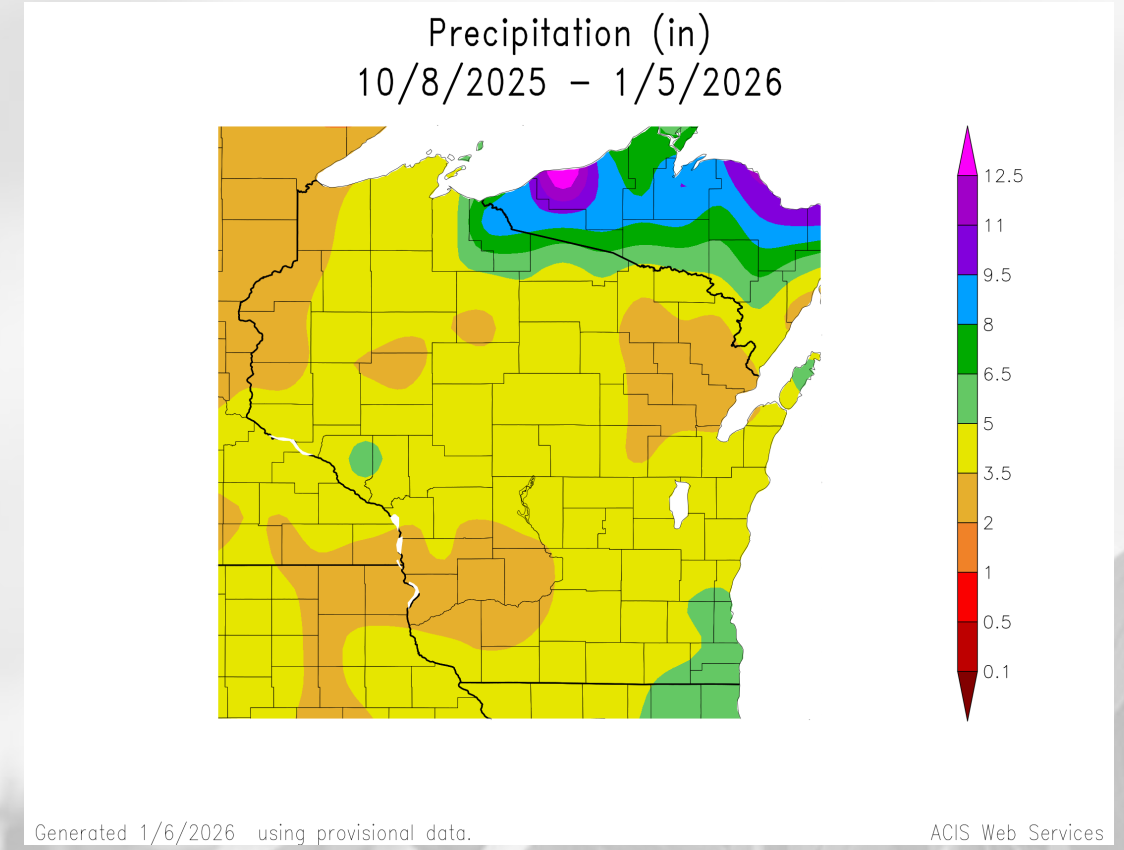


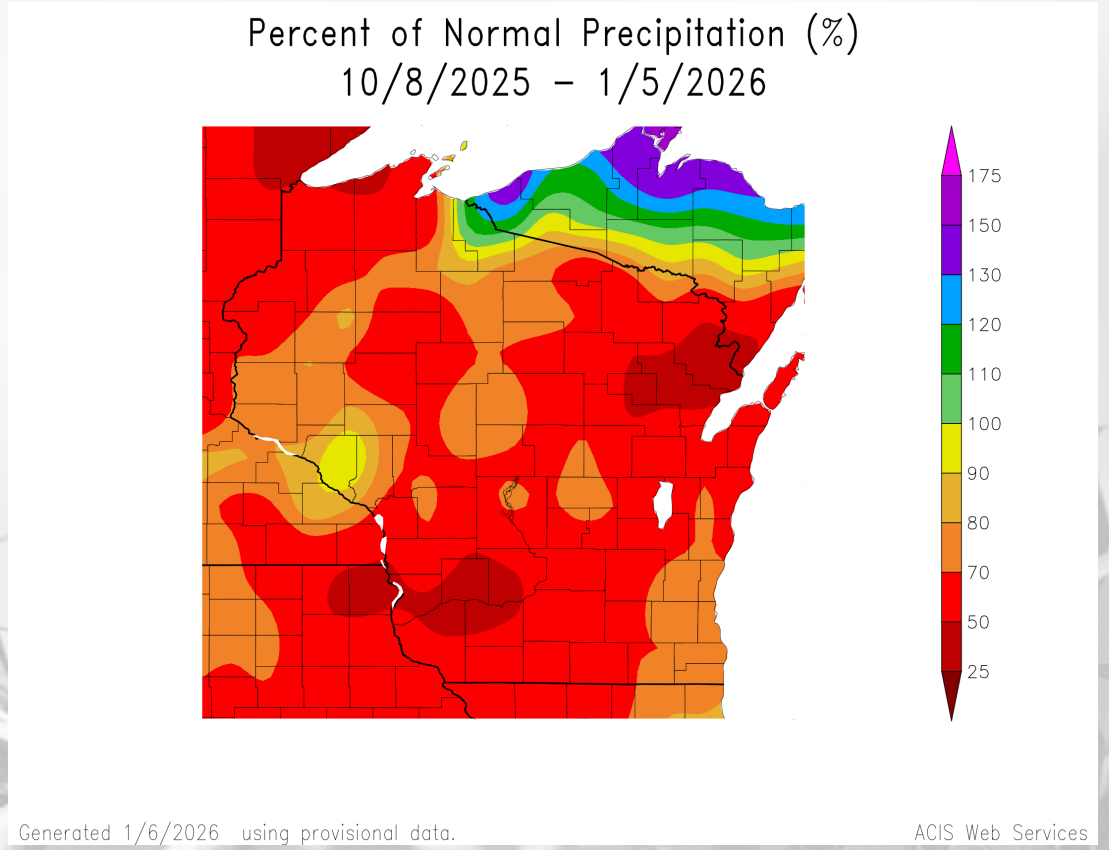


- **Below normal** for most of southern and NE WI over the past 30 days → **50-90%** of normal common.
  - **1" or less** for many in SW WI.
- **Near-to-above normal** precipitation in northwest and north-central WI → up to **200-300%** of normal.

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

90 Day Precip Total/Percent Avg.

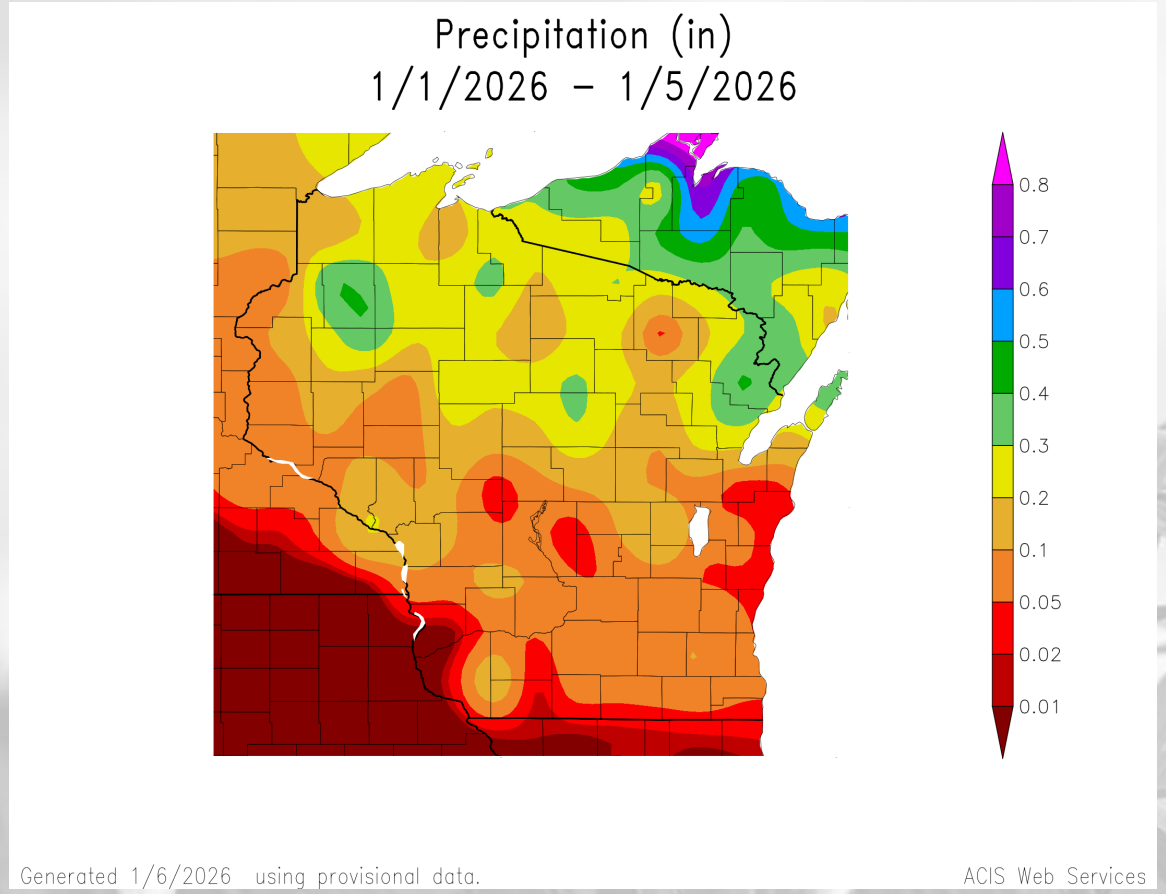


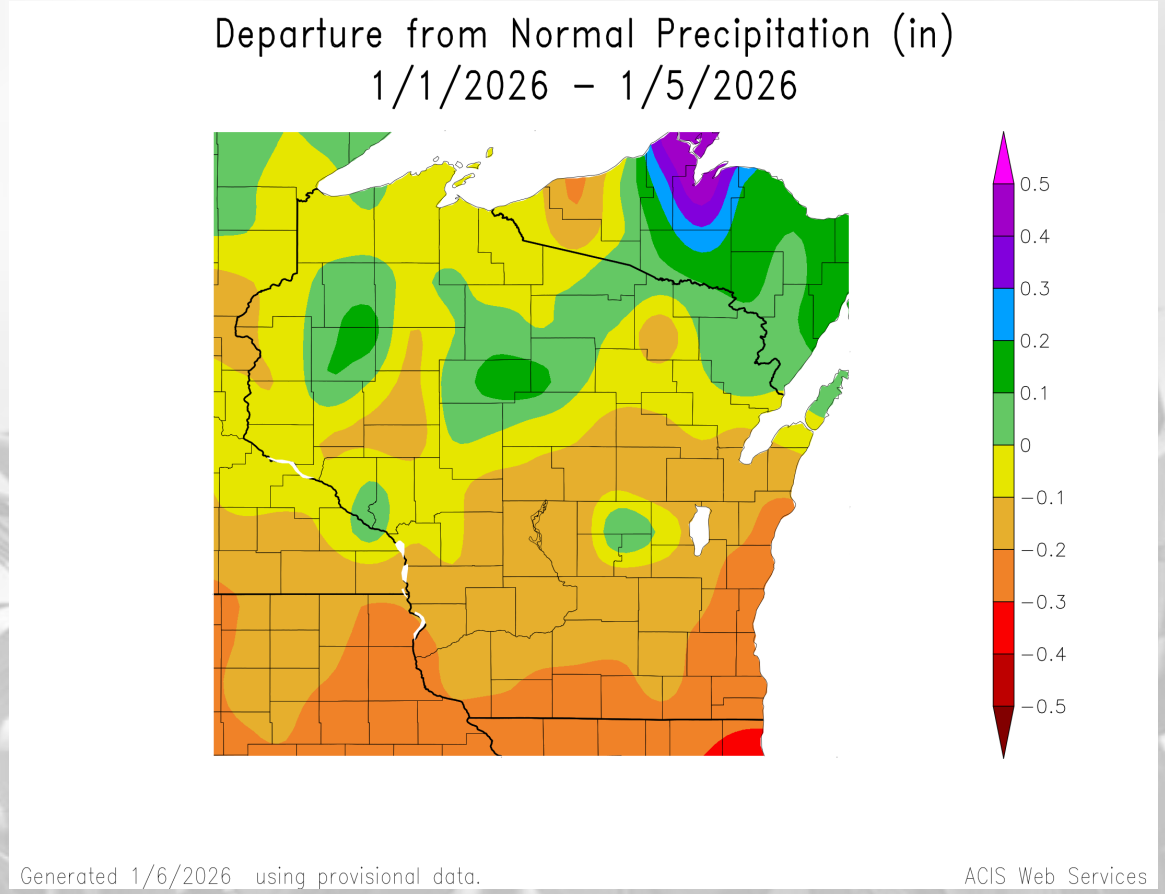


- **Below normal** for most of WI over the past 30 days → **< 70% of normal common.**
  - **5" or less** for many since early October.
- **Near to normal** in and around Iron & Buffalo Counties.

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

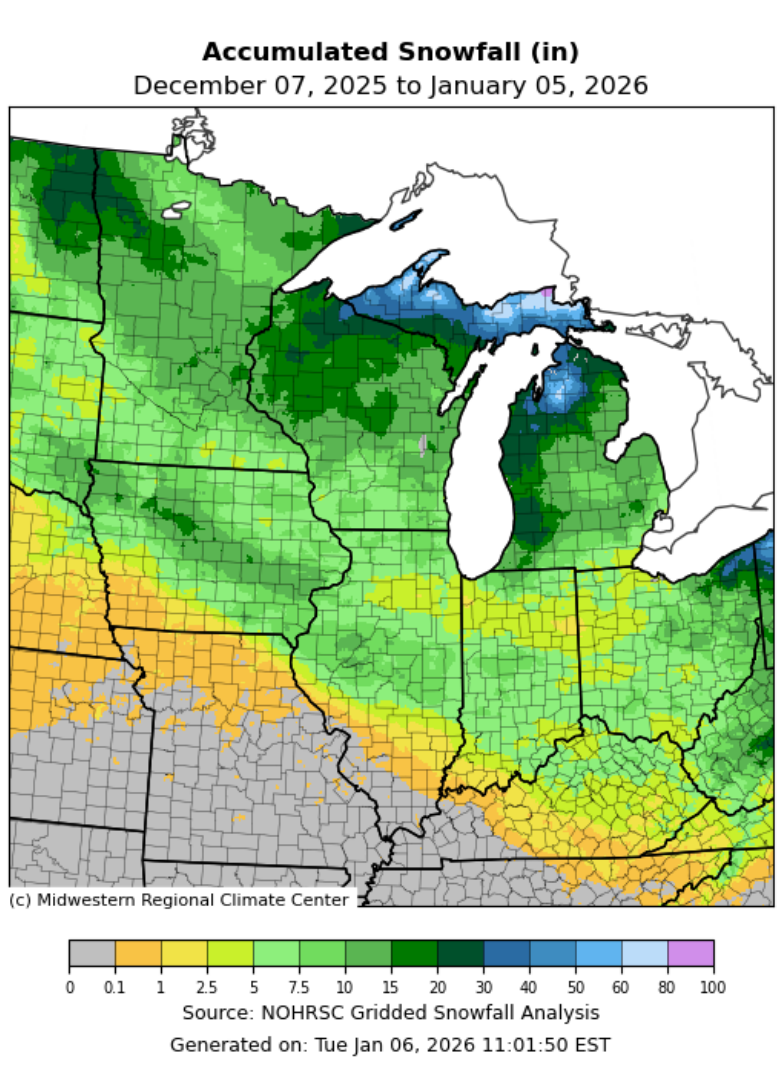
2026 Precipitation (so far)

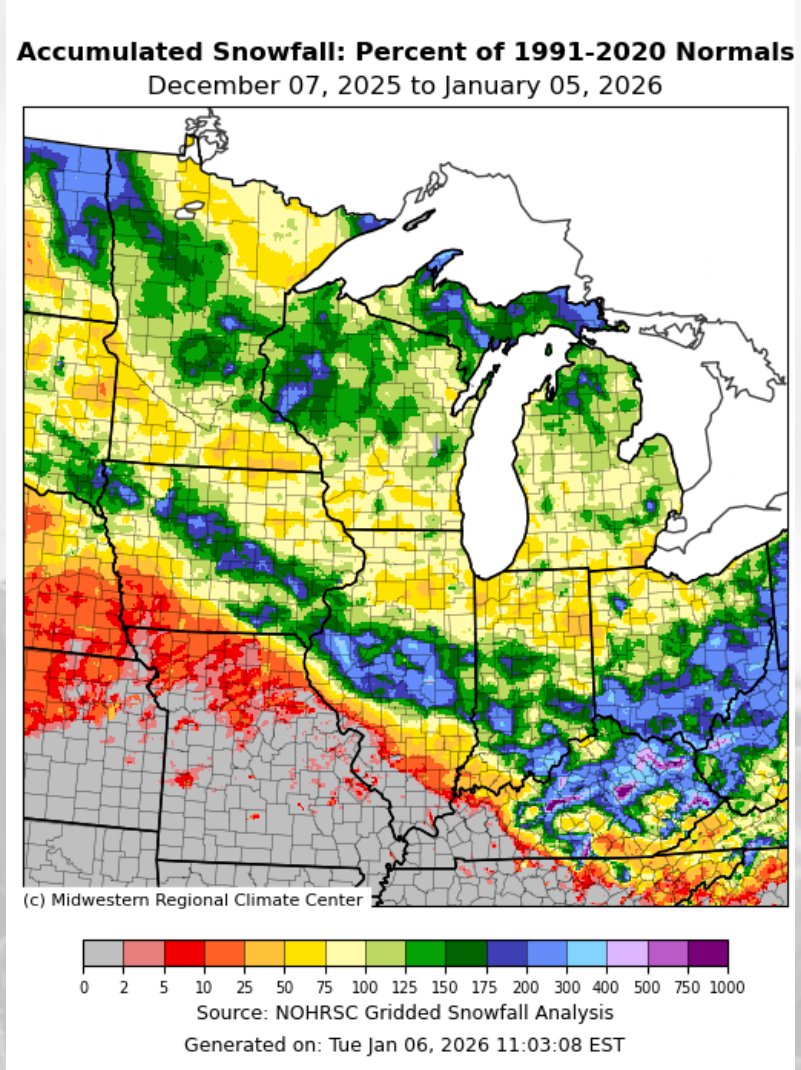




https://hprcc.unl.edu/maps.php?map=ACISClimateMaps

30 Day Snowfall

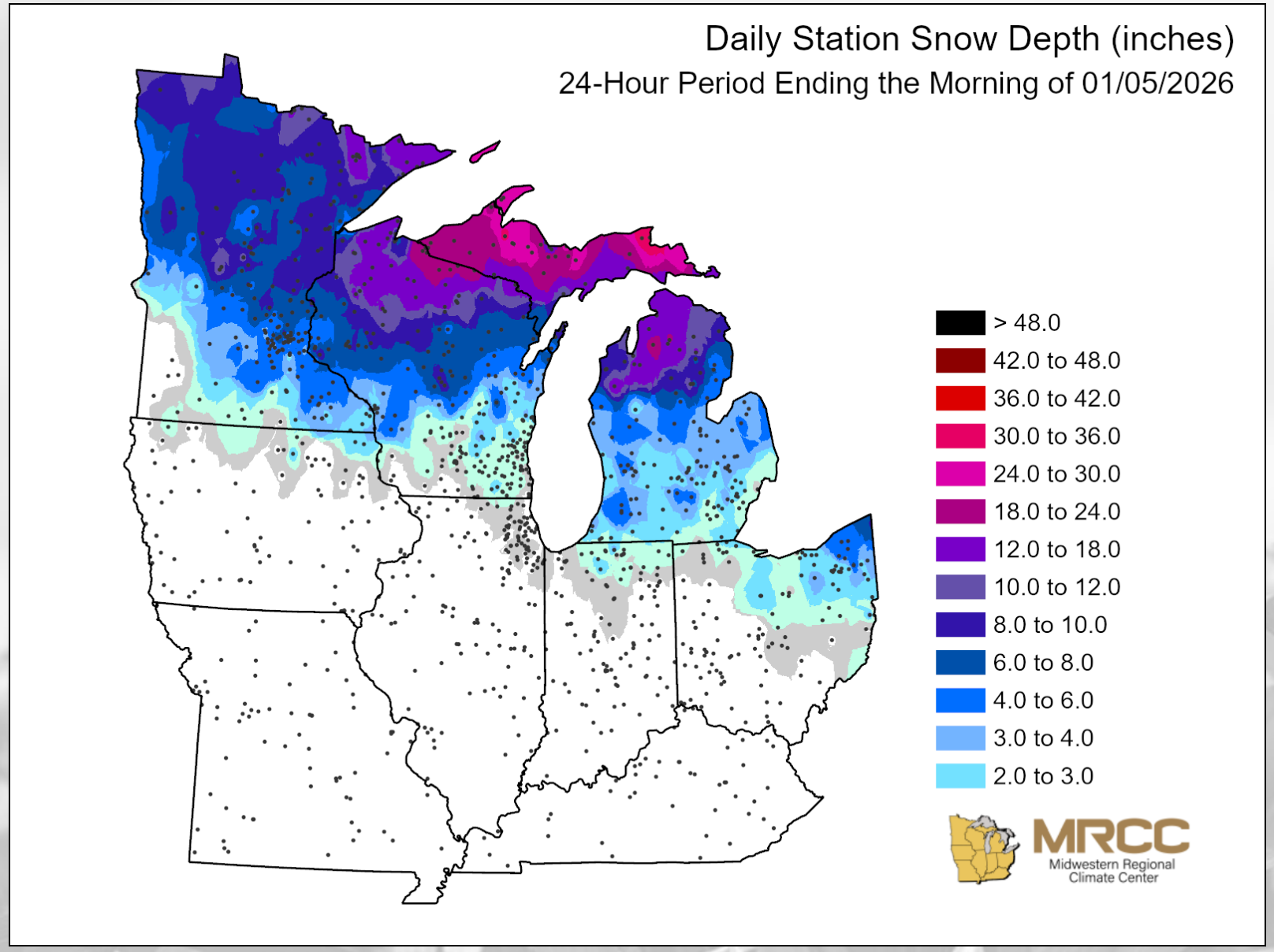




- **Above normal** for northwestern and north-central WI.
  - **> 125% of normal** for most of northern WI with totals of **15-30".**
  - **> 200% of normal** in parts of NW WI.
- **Below normal** for southern and northeastern WI.
  - **50-100% of normal** with totals of **5-10"**.

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

Current Snow Depth



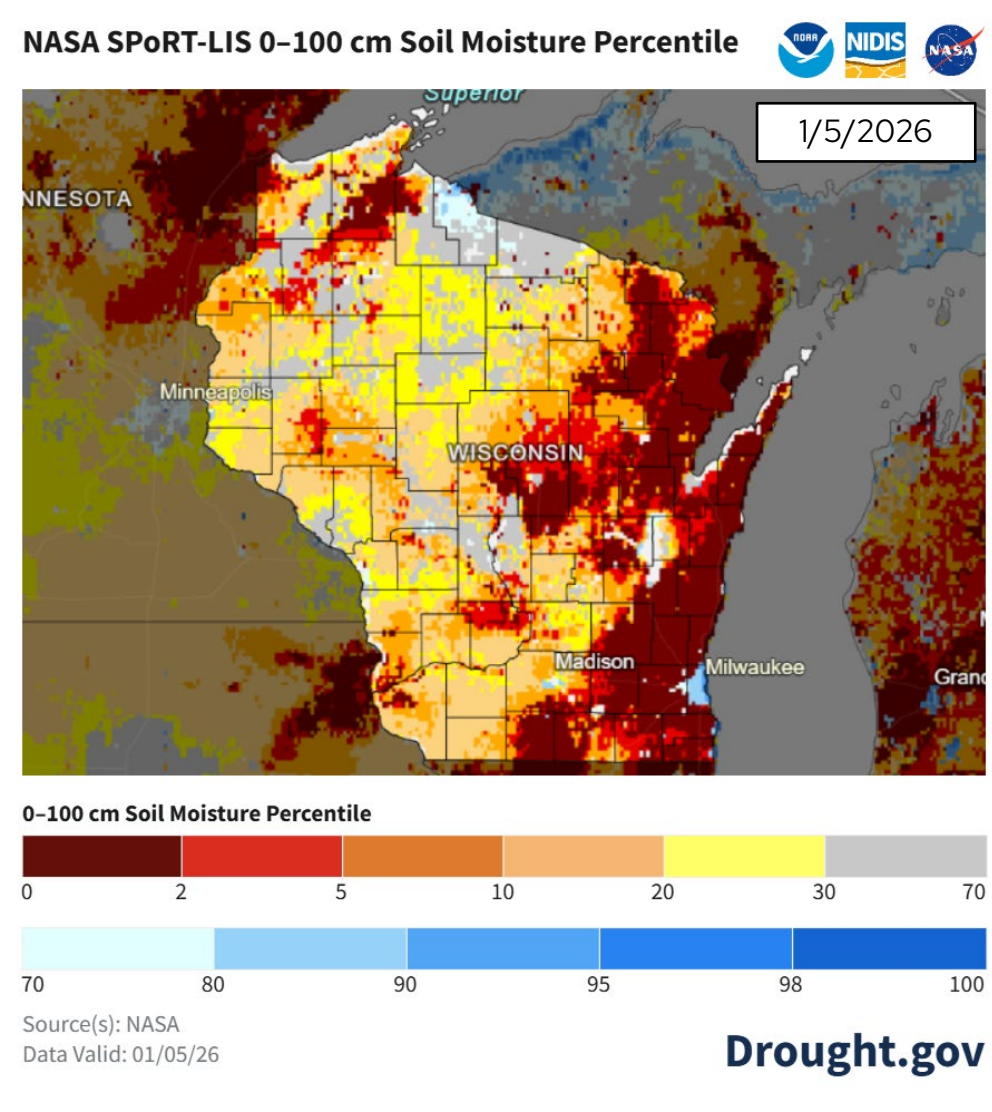
https://mrcc.purdue.edu/climate_watch/DLY_SNDP_MAPS

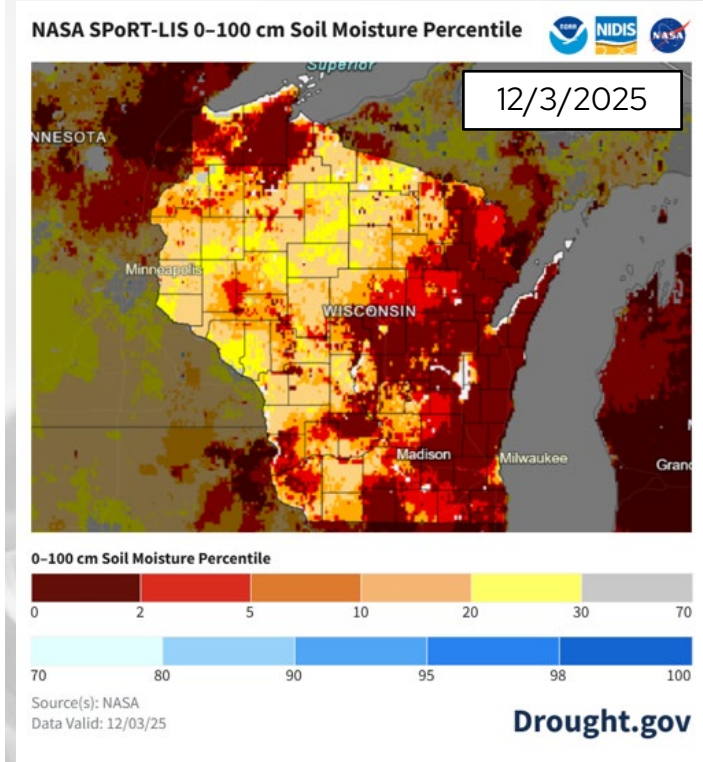
Soil Moisture Models

- **Decreasing dryness** across the northwest and north-central counties due in part to above-normal precip.
- Dryness remains in place across the **eastern half** of the state.

Model Notes:
Red areas = top 5 driest in 100 years.
Dark red areas = top 2 driest in 100 years.
Dark 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.

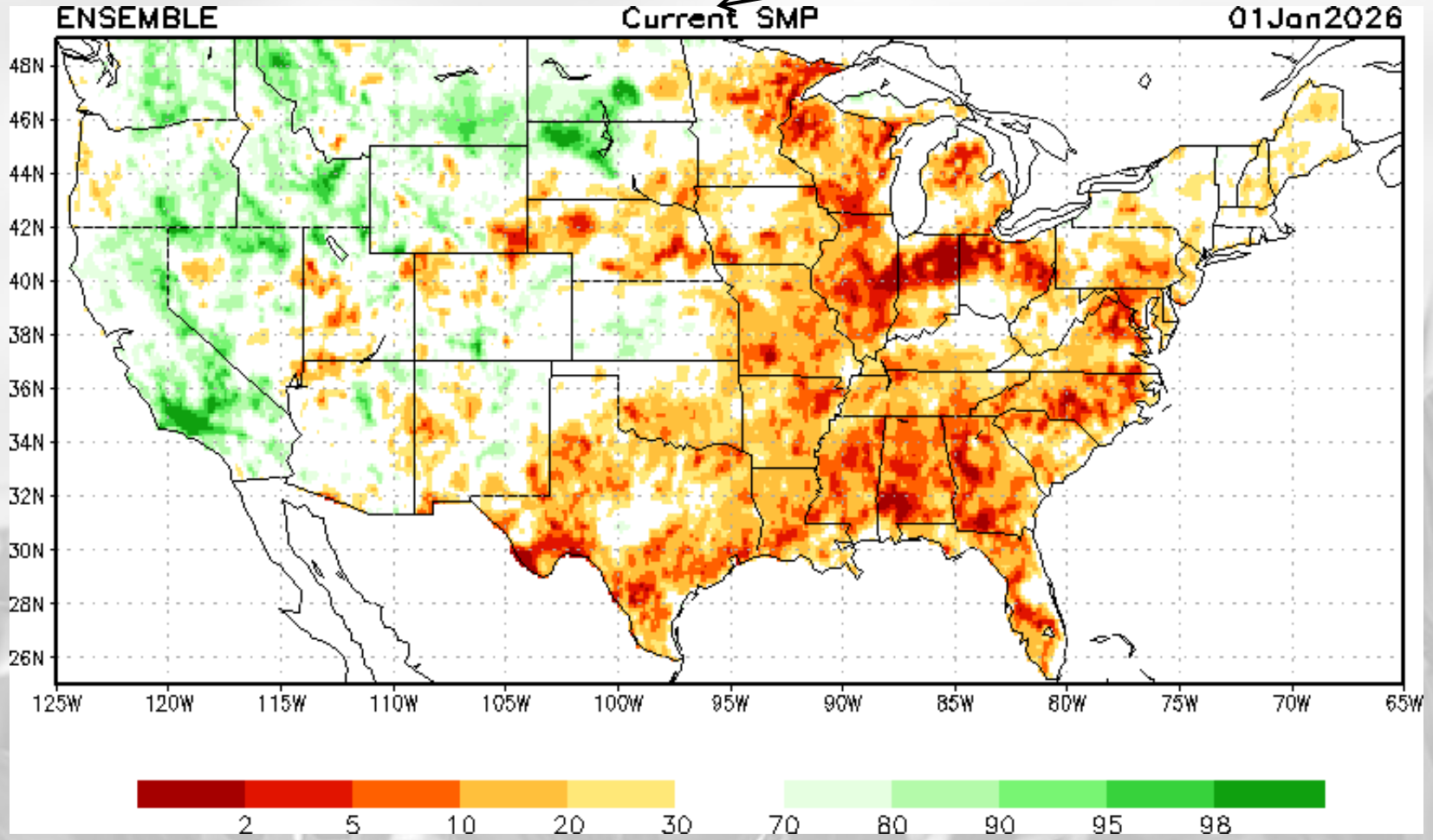




https://weather.ndc.nasa.gov/sport/case_studies/lis_CONUS.html
https://www.drought.gov/states/wisconsin

Soil Moisture Models

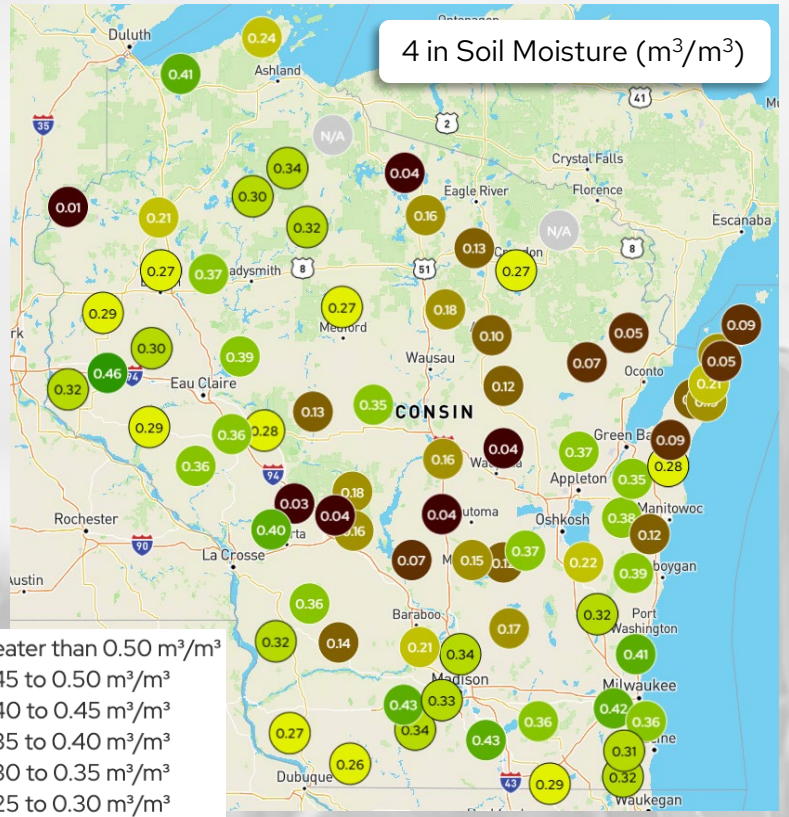
NOTE: this map displays the soil moisture percentile for Jan 1. It was the most recent update as of Jan 6.

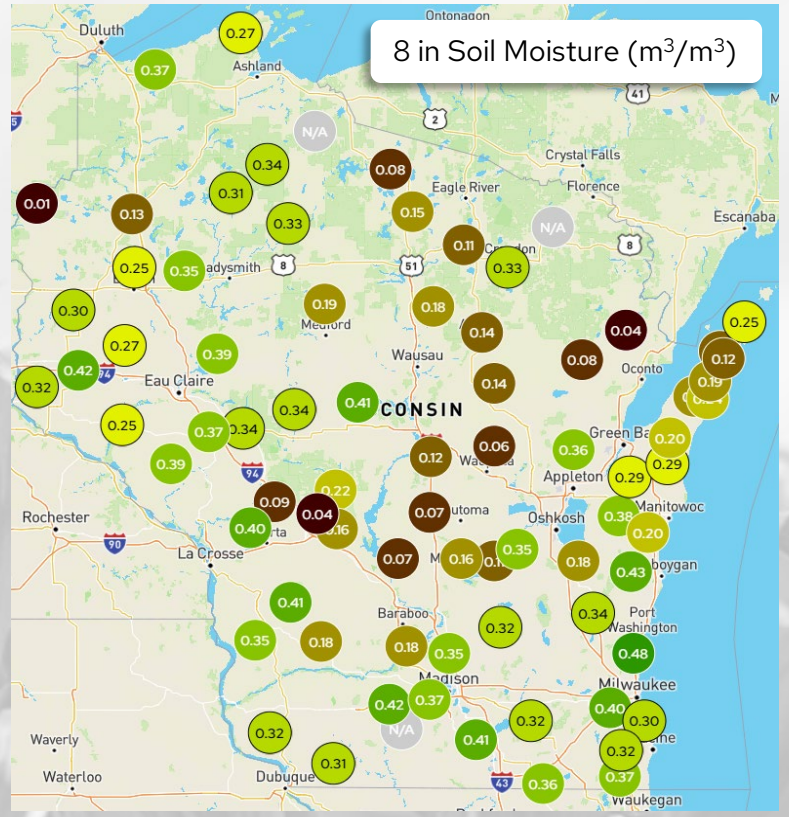


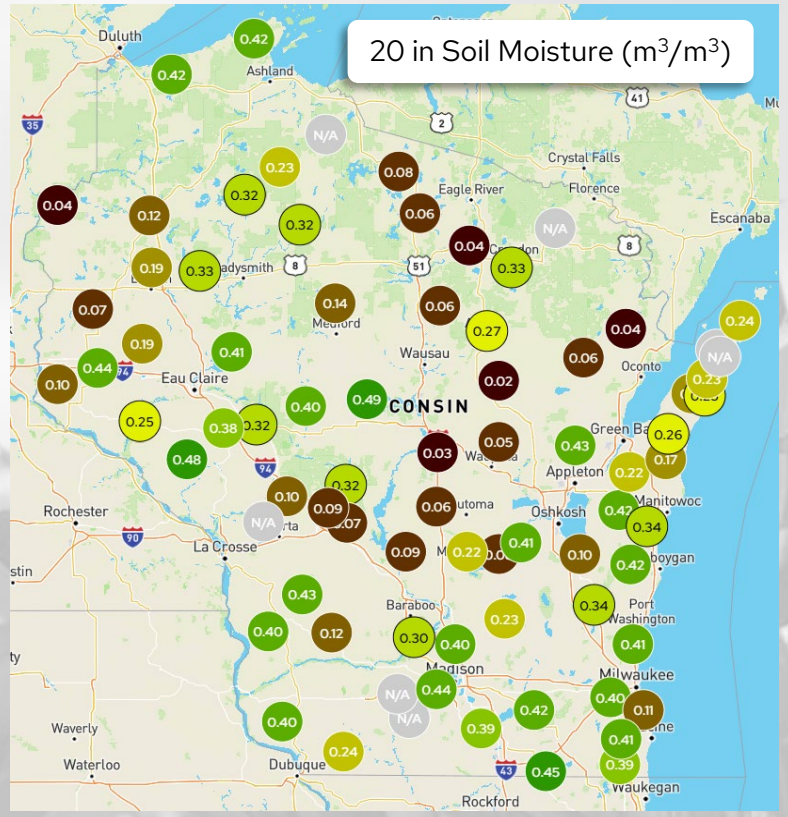
https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp_new.shtml

Wisconet Soil Moisture

Maps showing soil temperature conditions on January 6th @ 10:00 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/

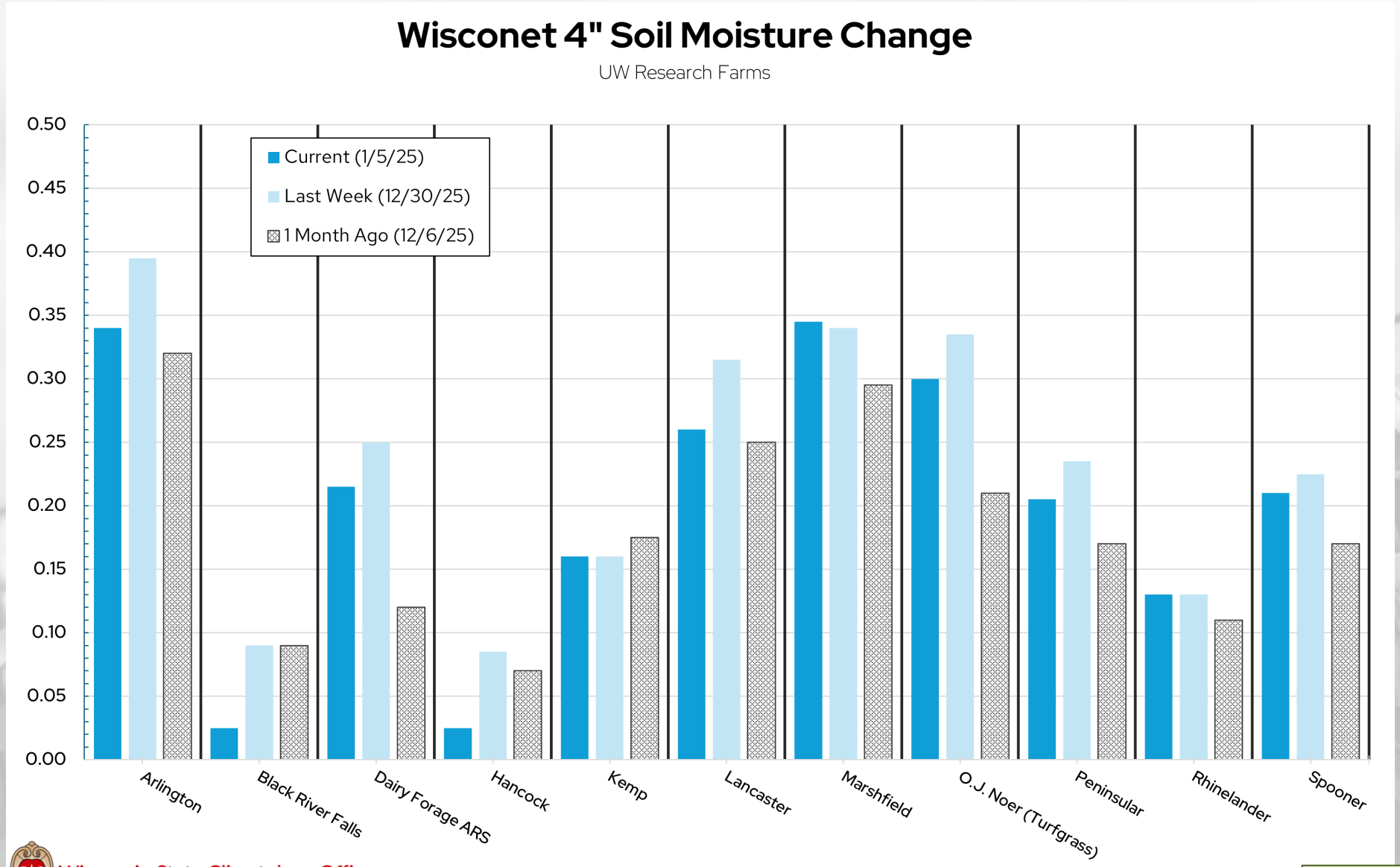
Wisconet Soil Moisture

Change in soil moisture from December 6th (Start) to January 5th (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	0.63	0.32	0.34	0.26	0.35	0.31	0.40
Black River Falls	Jackson	0.54	0.09	0.03	0.10	0.09	0.10	0.10
Dairy Forage ARS	Sauk	0.70	0.12	0.22	0.17	0.18	0.30	0.30
Hancock	Waushara	0.77	0.07	0.03	0.07	0.07	0.06	0.06
Kemp	Oneida	0.71	0.18	0.16	0.17	0.15	0.07	0.06
Lancaster	Grant	0.47	0.25	0.26	0.26	0.32	0.39	0.40
Marshfield	Marathon	0.27	0.30	0.35	0.38	0.41	0.48	0.49
O.J. Noer *(Turfgrass)*	Dane	0.96	0.21	0.30	0.27	0.35	0.39	0.43
Peninsular	Door	0.75	0.17	0.21	0.14	0.18	0.16	0.23
Rhinelander	Oneida	0.32	0.11	0.13	0.10	0.11	0.03	0.04
Spooner	Washburn	0.47	0.17	0.21	0.06	0.13	0.10	0.12

https://wisconet.wisc.edu/

Wisconet Soil Moisture



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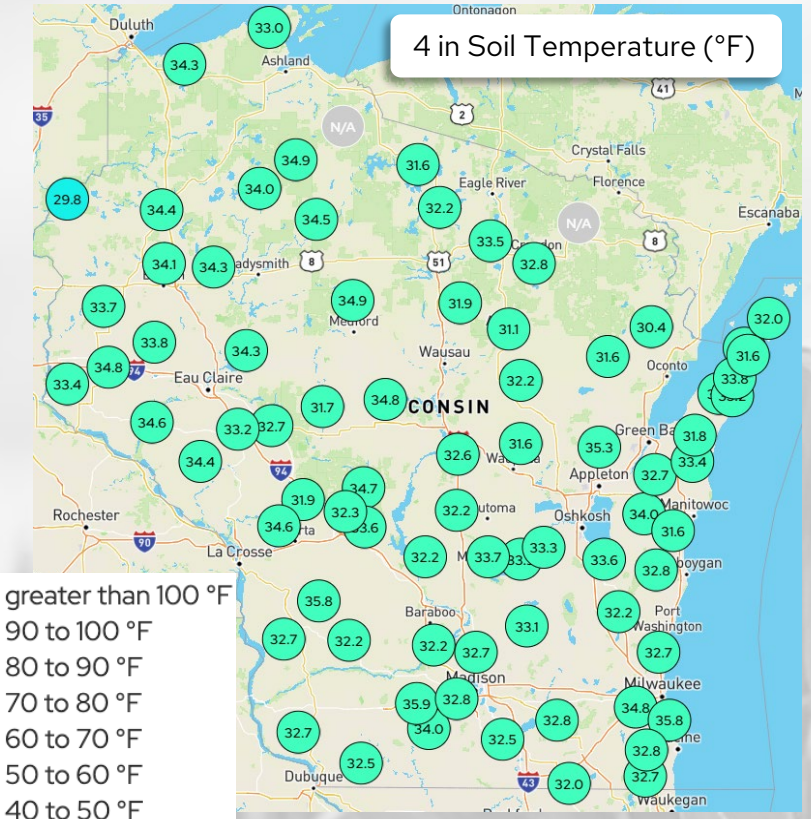
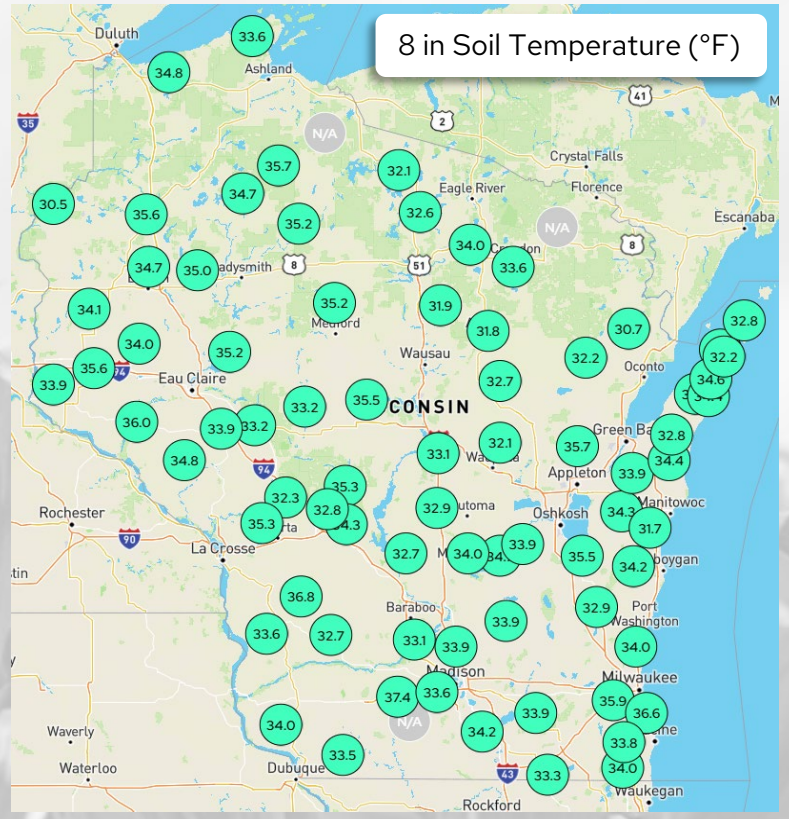
Data Source: Wisconet

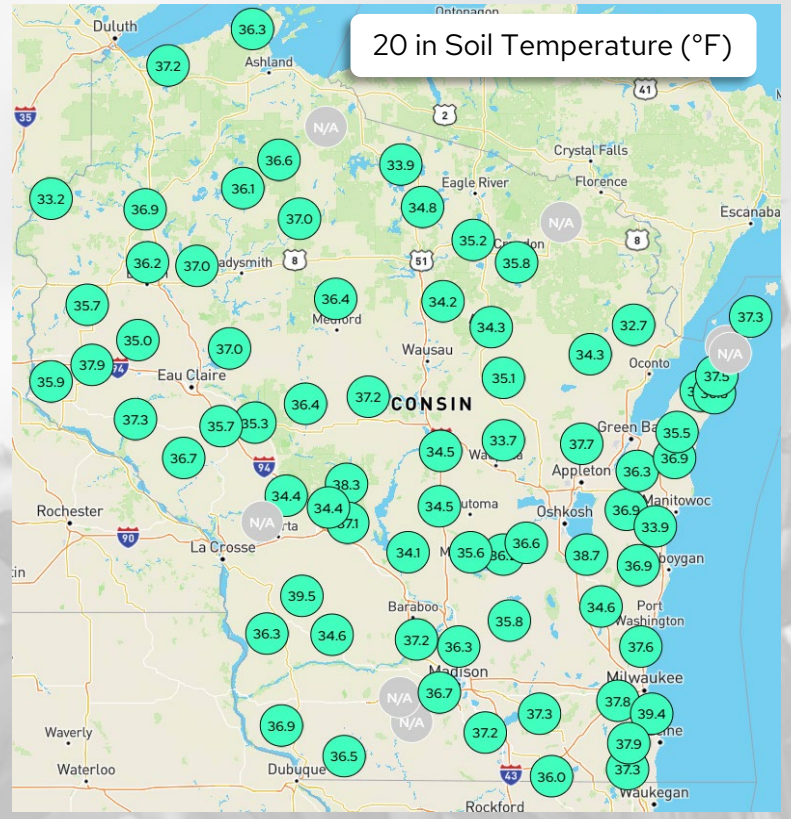
https://wisconet.wisc.edu/

Wisconet Soil Temperature

Maps showing soil temperature conditions on
January 6th @ 10:00 am.





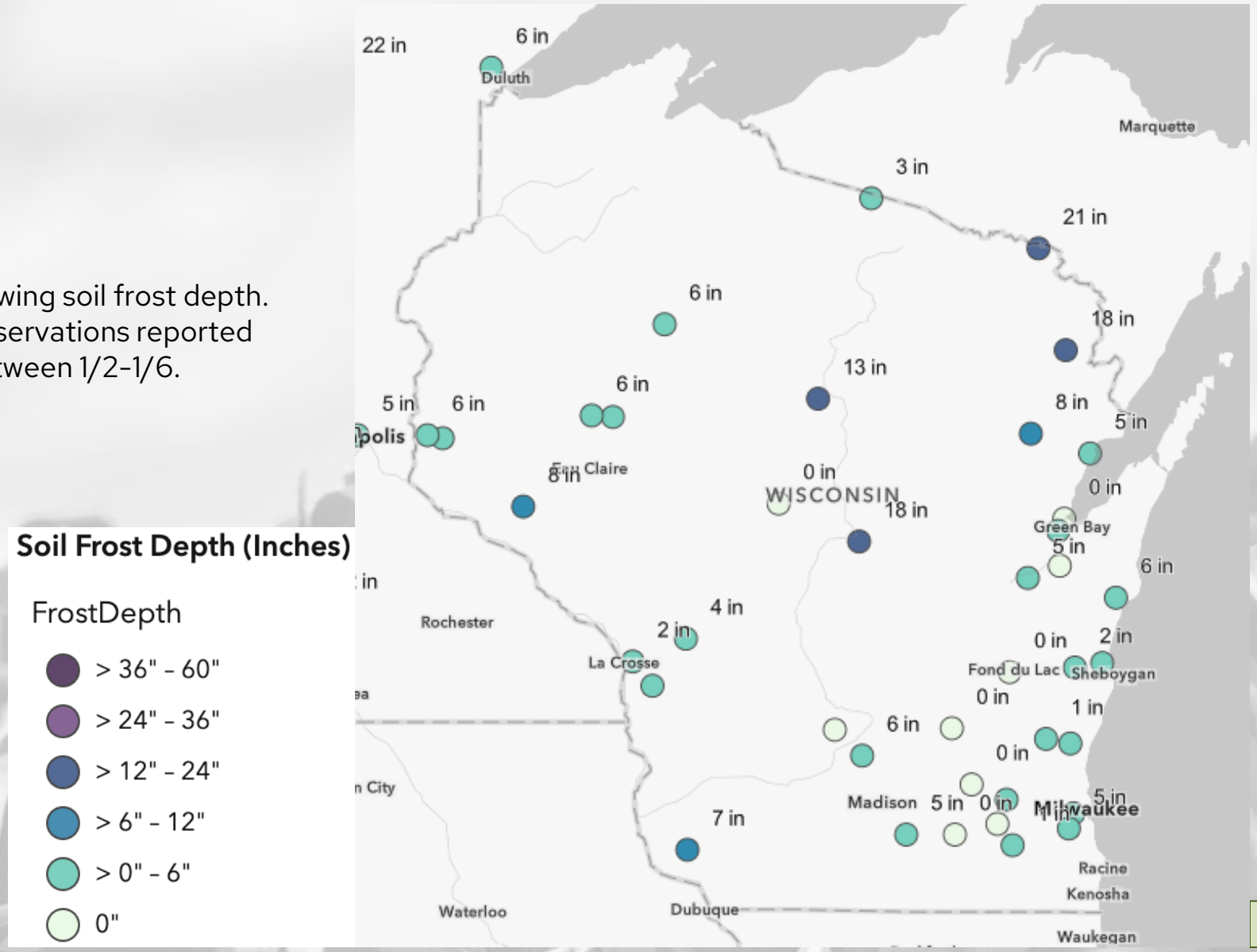


- greater than 100 °F
- 90 to 100 °F
- 80 to 90 °F
- 70 to 80 °F
- 60 to 70 °F
- 50 to 60 °F
- 40 to 50 °F
- 30 to 40 °F
- 20 to 30 °F
- 10 to 20 °F
- less than 10 °F

https://wisconet.wisc.edu/

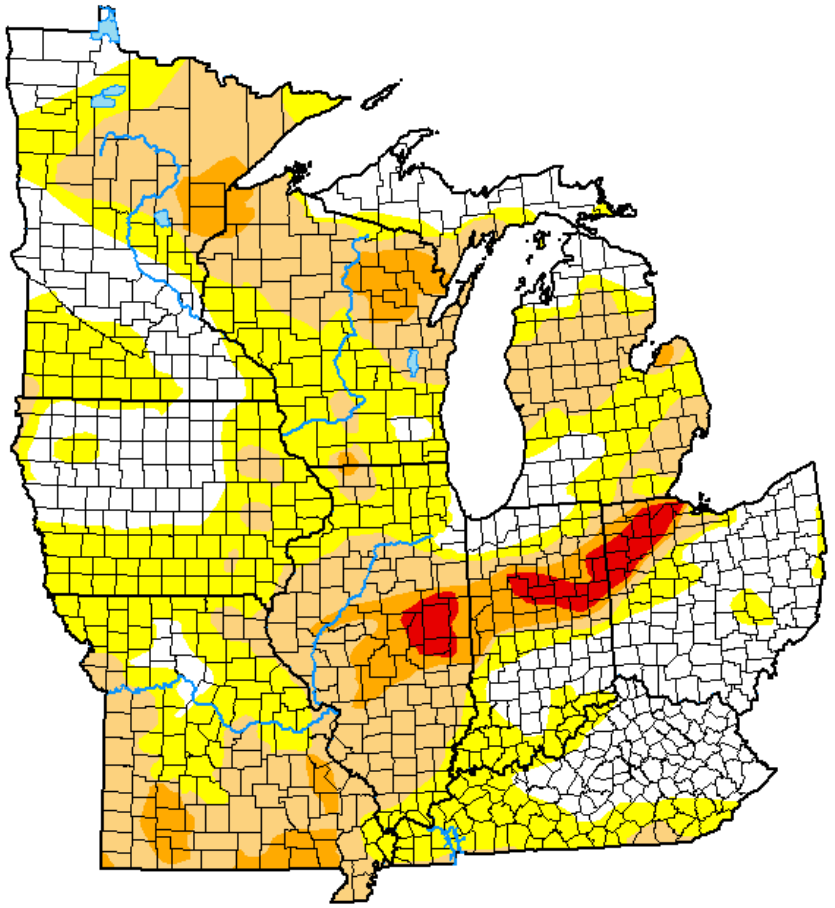
Frost Depth

Maps showing soil frost depth. Most observations reported between 1/2-1/6.



www.weather.gov/ncrfc/lmi_frostdepthmap

US Drought Monitor



January 6, 2026
(Released Thursday, Jan. 8, 2026)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	28.39	71.61	36.73	8.95	1.94	0.00
Last Week 12-30-2025	31.23	68.77	35.73	6.67	1.52	0.00
3 Months Ago 10-07-2025	23.82	76.18	38.82	12.69	1.05	0.00
Start of Calendar Year 01-06-2026	28.39	71.61	36.73	8.95	1.94	0.00
Start of Water Year 09-30-2025	34.12	65.88	34.69	10.17	0.37	0.00
One Year Ago 01-07-2025	44.12	55.88	29.47	3.56	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:
Brian Fuchs
National Drought Mitigation Center

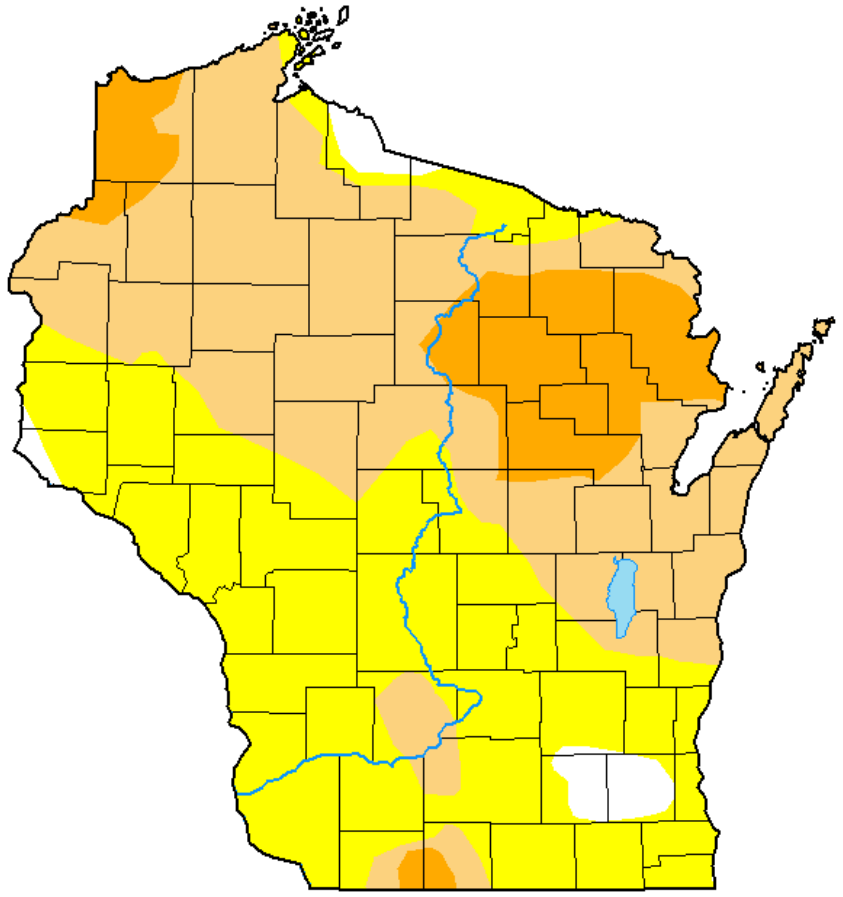
droughtmonitor.unl.edu

- Midwest: Compared to last month:
  - **2-3% increase** in D1 coverage.
- Midwest: **1-2 class degradation** across southern MO, southern IL, and western KY. **1 class improvement** in northern IL, IA, and MN.
- Wisconsin: **No change** across most of the state. Some D1 areas removed in SW Wisconsin.
- **63.3%** of the Midwest is drought free (~36.7% in D1-D4).

Note: D0 is not considered drought.

https://droughtmonitor.unl.edu/

US Drought Monitor



January 6, 2026
(Released Thursday, Jan. 8, 2026)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	2.76	97.24	53.46	12.62	0.00	0.00
Last Week 12-30-2025	2.45	97.55	56.19	12.63	0.00	0.00
3 Months Ago 10-07-2025	30.84	69.16	6.12	0.00	0.00	0.00
Start of Calendar Year 01-06-2026	2.76	97.24	53.46	12.62	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 01-07-2025	36.12	63.88	39.54	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

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National Drought Mitigation Center

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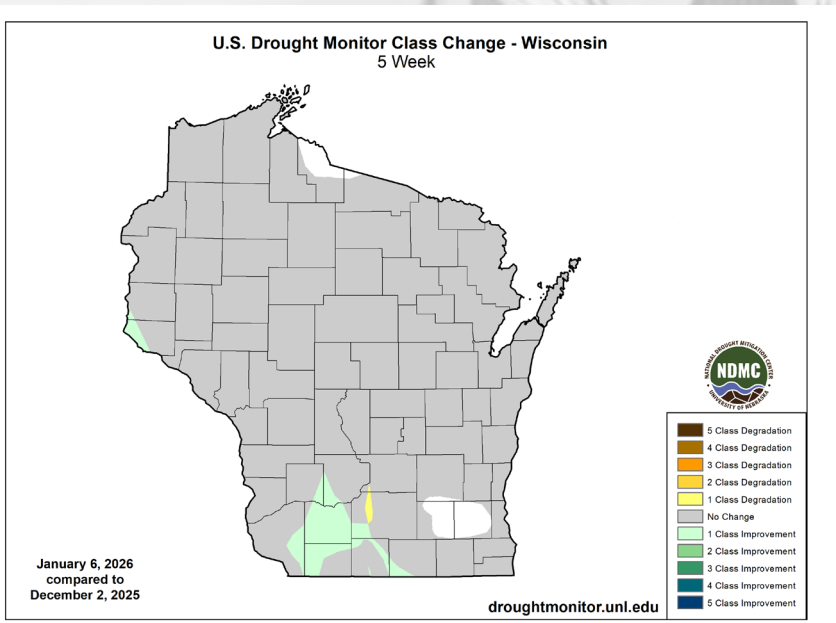
http://droughtmonitor.unl.edu/

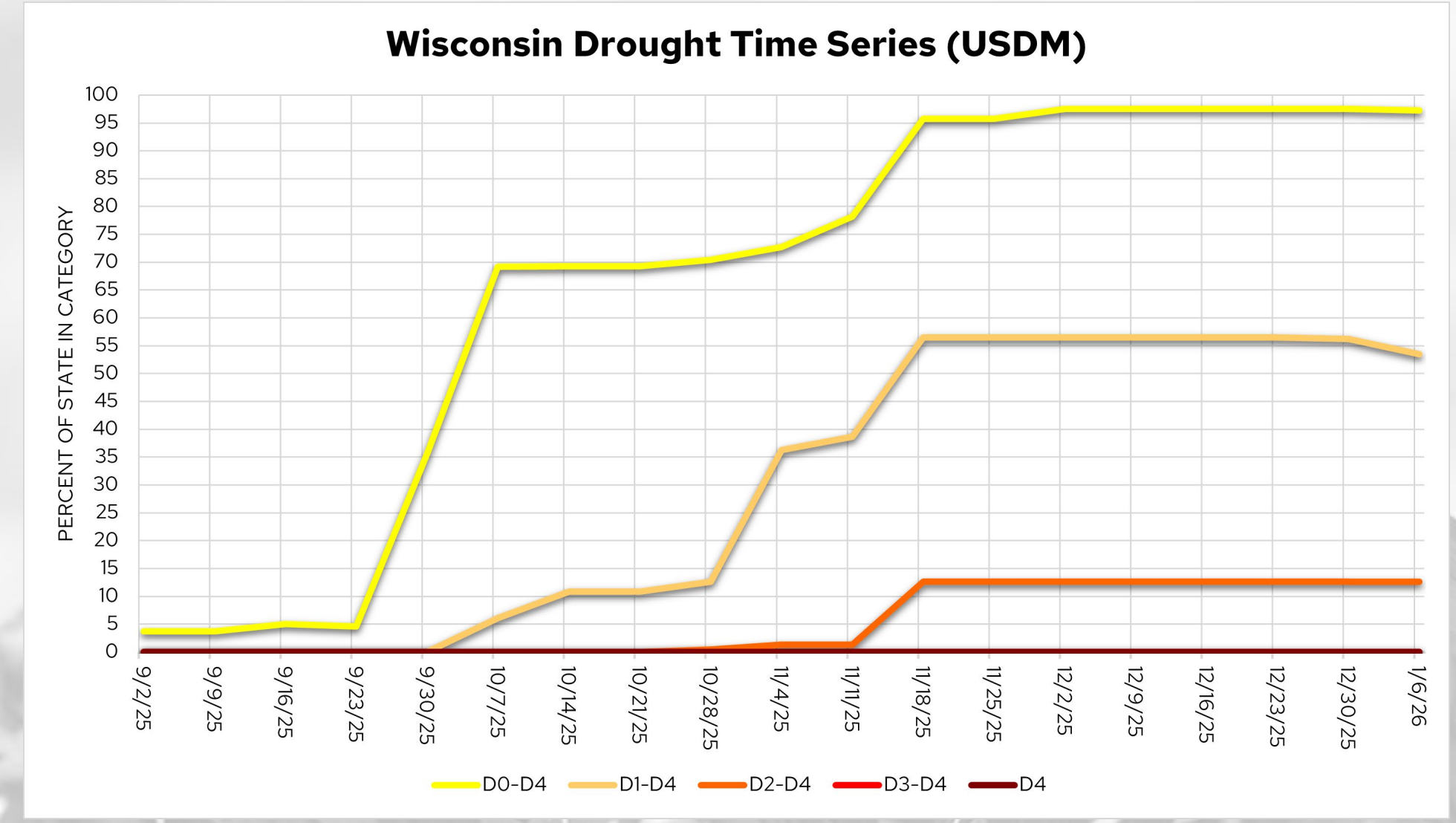
Amount of state in:

- D1-D4 – 53.5% ↓
- D2-D4 – 12.6% --
- D3-D4 – 0.0% --
- D4 – 0.0% --

Note: ↑↓ indicate change from last month. Red up arrows indicate increase in drought area; vice-versa for green arrows. -- indicates no change from last month.



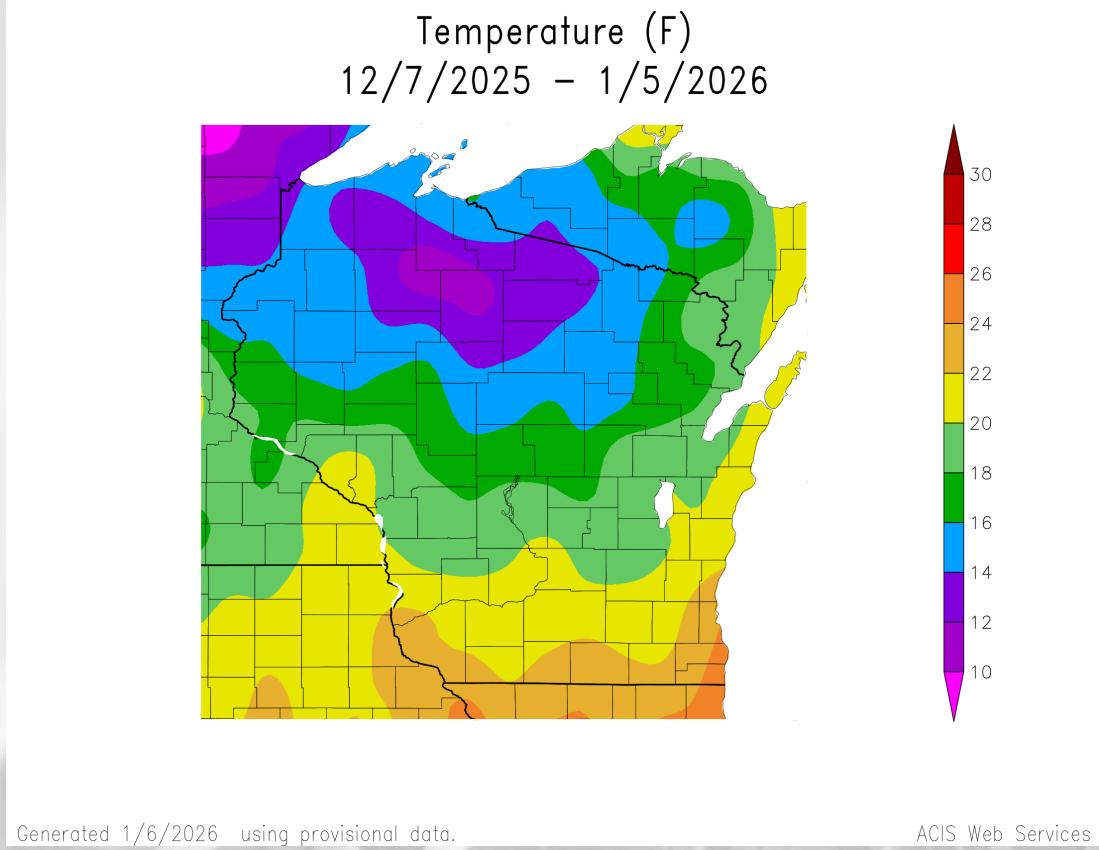
USDM Time Series

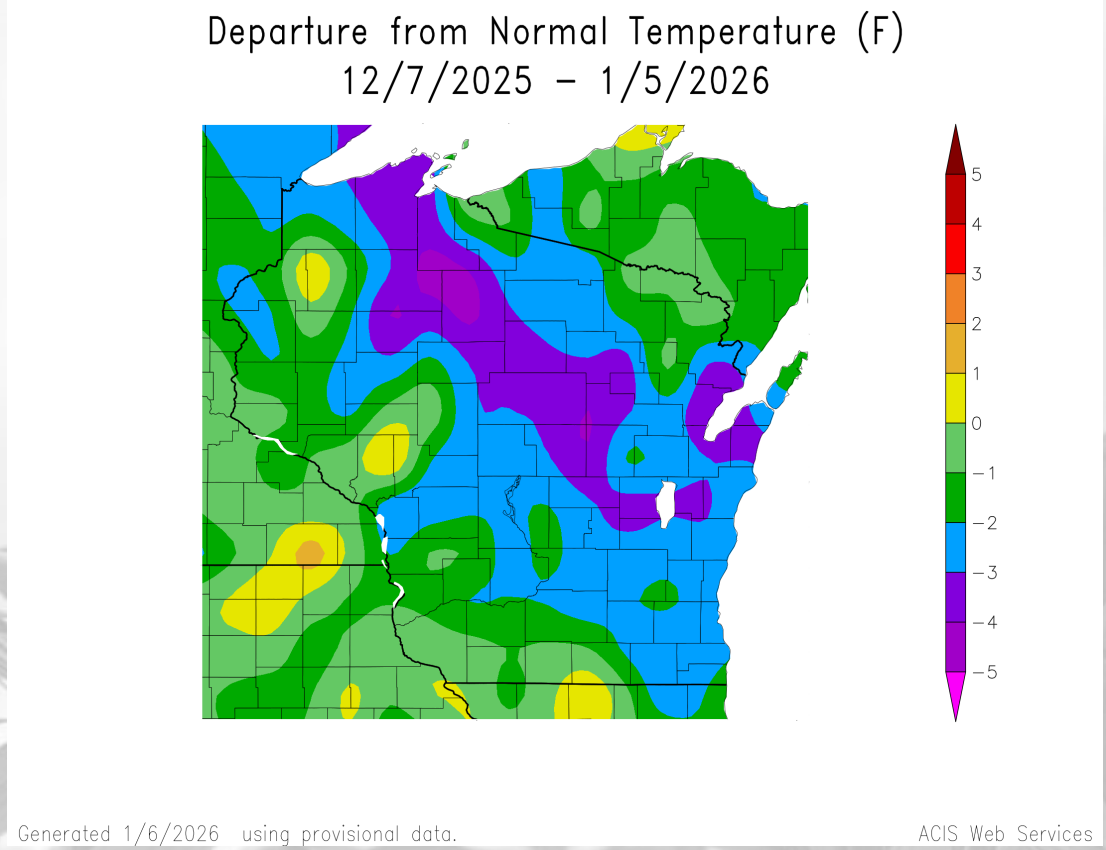


Minimal decrease in D1 coverage since early December, with **no change** in D0 and D2 coverage.

http://droughtmonitor.unl.edu/

30 Day Temperatures

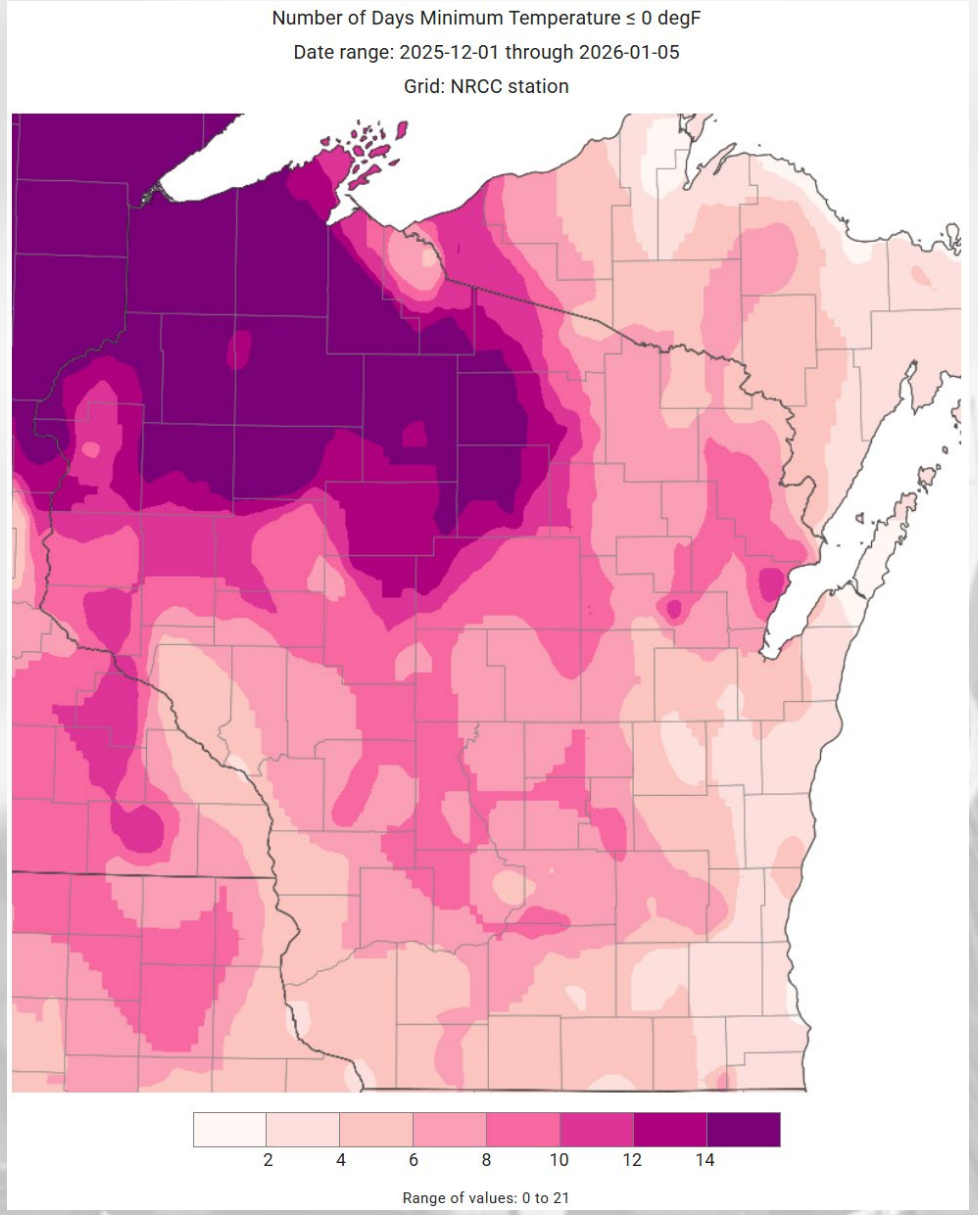




- Average temps. ranged from **20-24°F** in the southern counties; to **10-16°F** for the north.
- **1-3°F below normal** across most of WI; as much as **4-5°F below normal** in the north-central region.
- **Nearer to normal** in western & northeast WI.

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

Frigid Temperatures

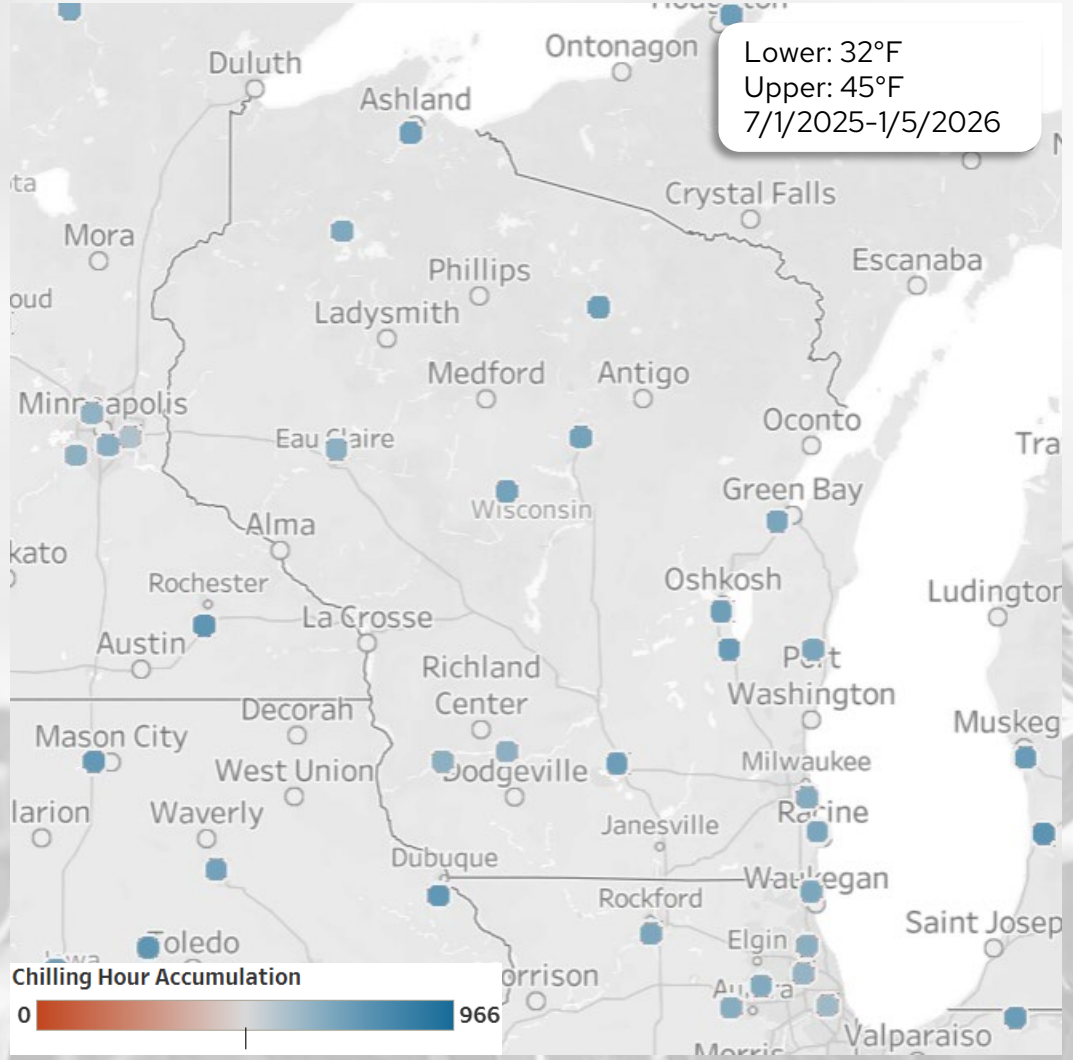


Number of days with an overnight low of 0°F or colder between Dec. 1 and Jan. 6 – this winter compared to normal

City	Days w/Low Temp ≤0 (2025-26)	Days w/Low Temp ≤0 (1991-2020 Avg.)
Madison	5	5
Milwaukee	2	2
La Crosse	4	6
Wausau	8	7
Green Bay	8	5
Eau Claire	10	9
Duluth, MN	17	12
Dubuque, IA	5	5
Twin Cities	5	7

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

Chilling Hour Accumulation for Fruit



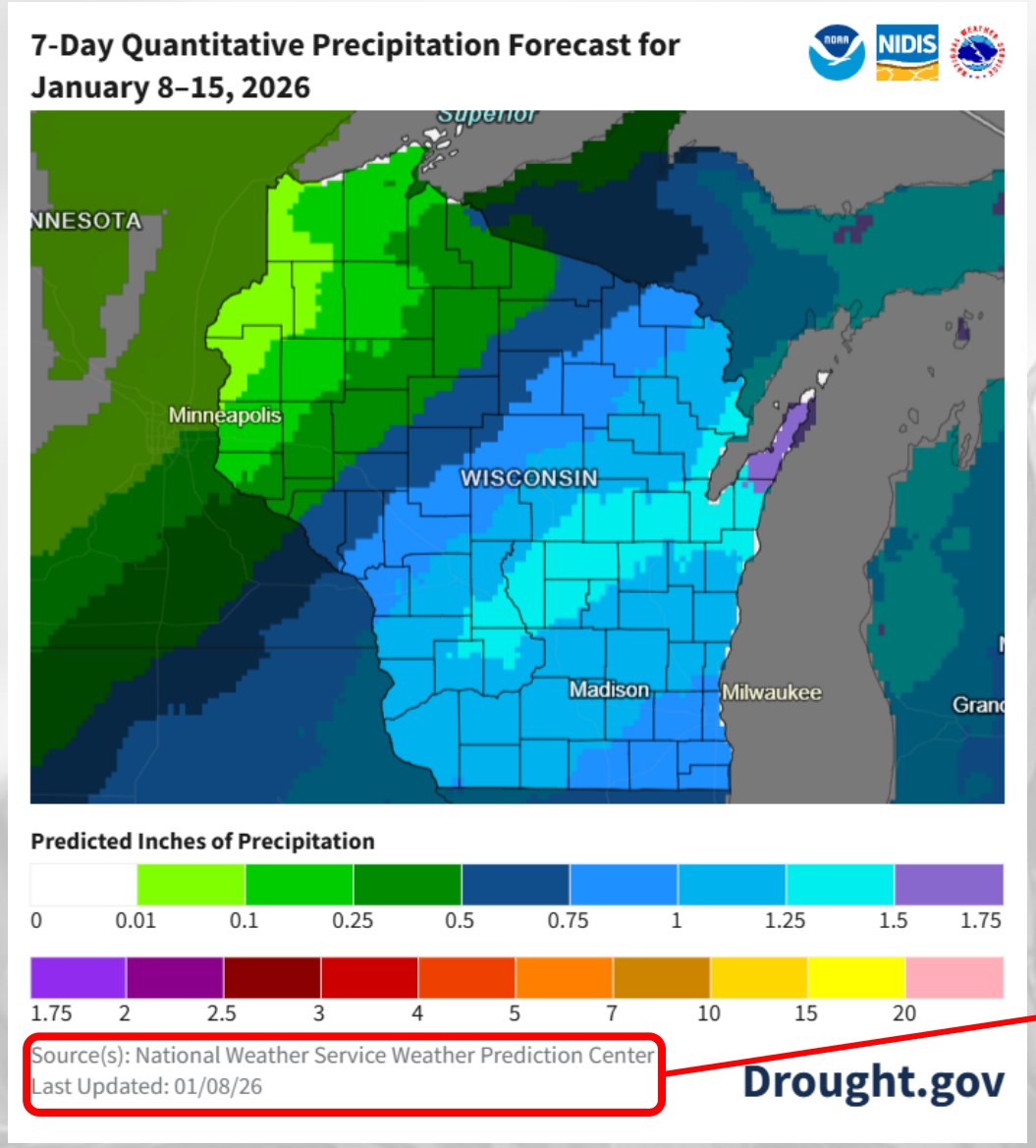
- Chilling hour accumulation in WI ranges from **646 to 725 hours**.
- To view fruit-specific chilling hour requirements, please visit this link.

Why Do People Care About Chilling Hours?

From MRCC: "Many plants become dormant during the cool season. If the cool season is not cool enough for a long enough period, many fruit-producing plants have a difficult time knowing when to overcome dormancy. Like growing degree-day units that are used to track temperature differences over a certain threshold over a period of time, chilling hours offer a way to track length of exposure to optimum dormancy temperatures."

https://mrcc.purdue.edu/ChillingHours

7 Day Precip Forecast

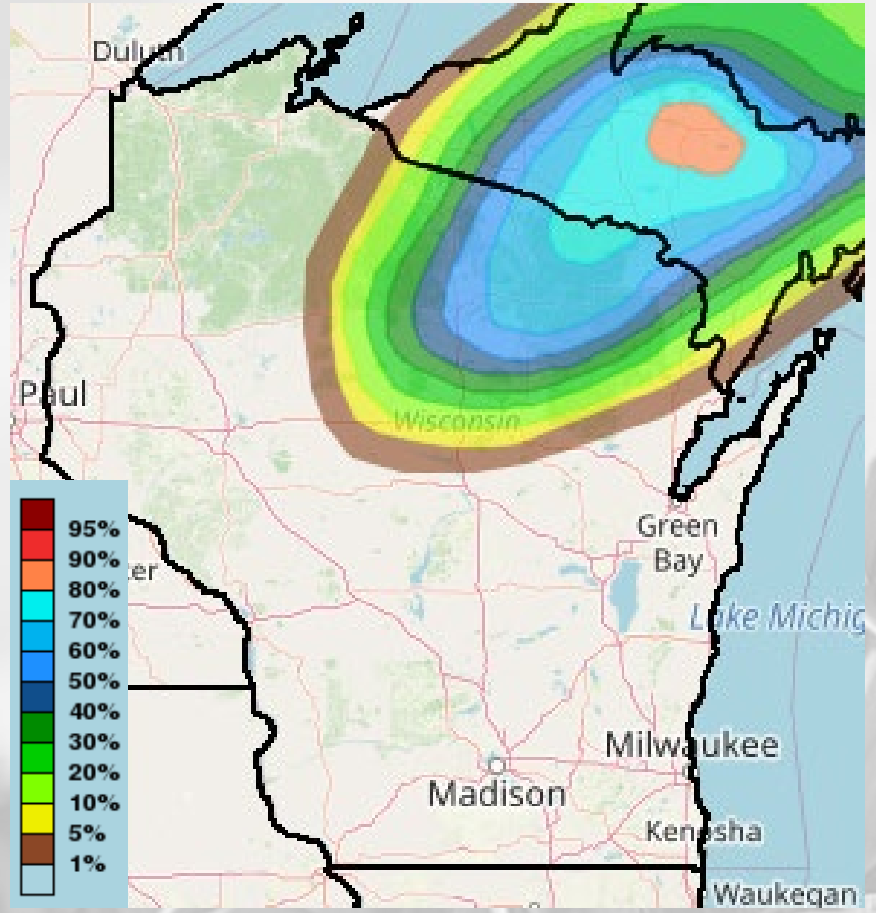


- **When?** → systems impacting the state Thu PM-Fri AM and again on Saturday. Isolated chances early next week.
- **Where?** → highest chances in the south, central, and east.
- Check your local forecast for details on totals and timing.
- Average precip (1991-2020) for this week: **0.28”**

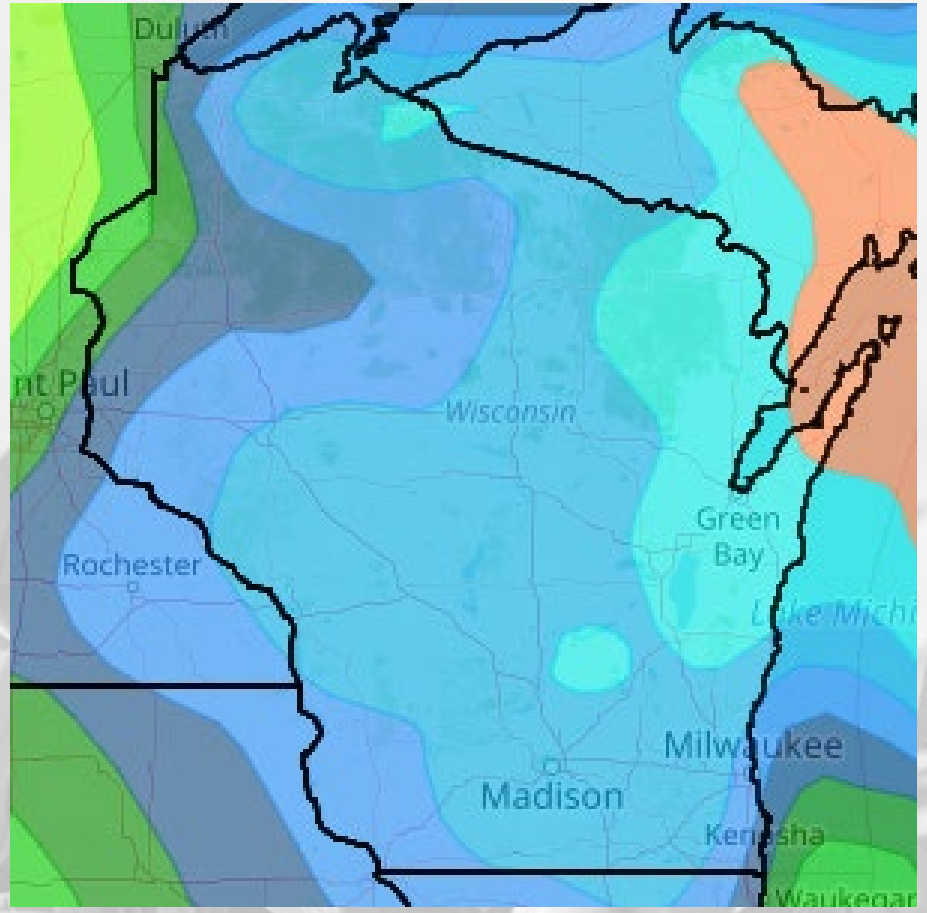
Forecast for 1/8/26 thru 1/15/26
(Begins at 6am CST)

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

Snow Chances



24-Hour chance of ≥1 inch of accumulated snow
(1/9 @ 12am CST – 1/10 @ 12am CST)

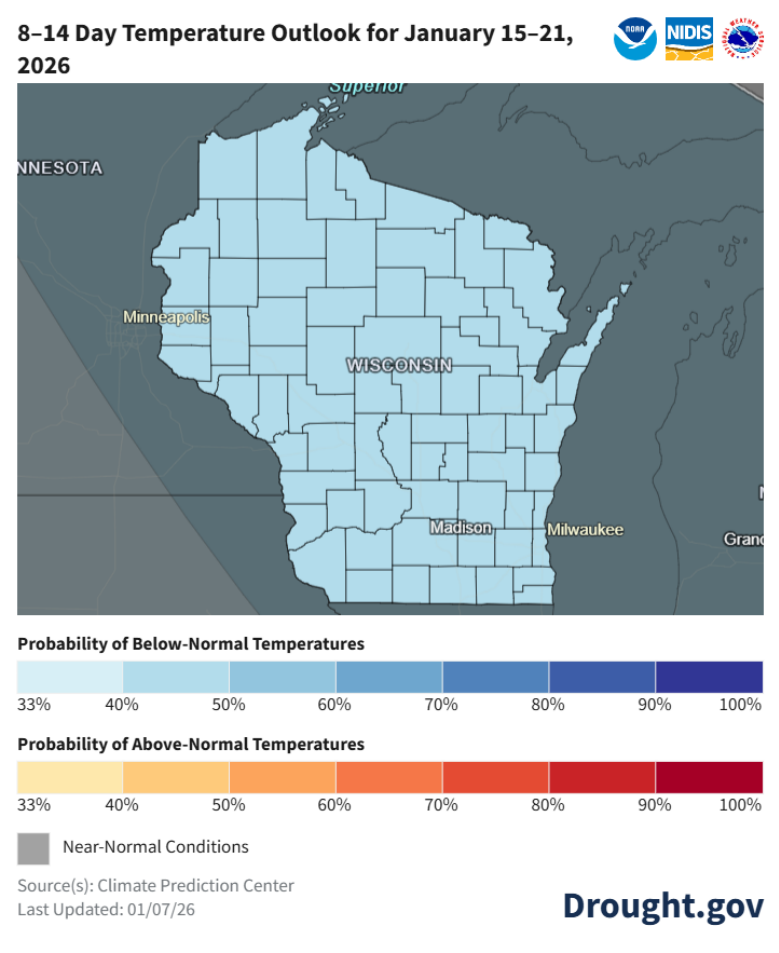


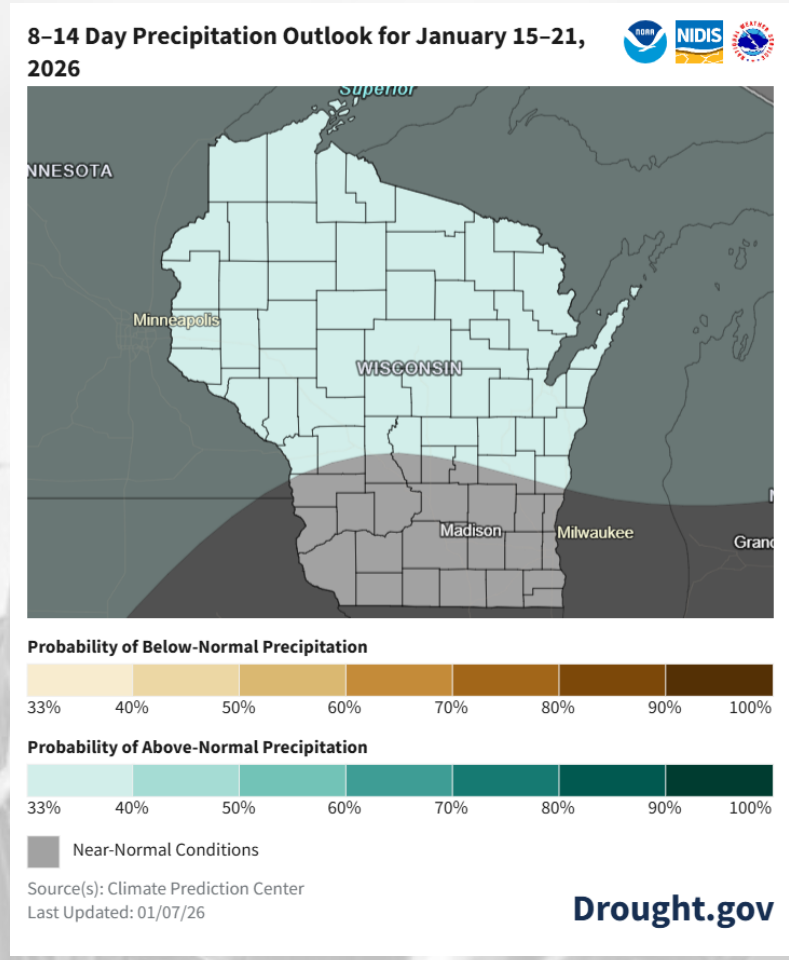
24-Hour chance of ≥1 inch of accumulated snow
(1/10 @ 12am CST – 1/11 @ 12am CST)

- Check your local forecast for details on totals and timing.
- Average snowfall (1991-2020) for January:
  - Madison: **13.7″**
  - La Crosse: **11.8″**
  - Milwaukee: **14.9″**
  - Green Bay: **13.3″**
  - Wausau: **14.8″**
  - Eau Claire: **13.5″**

https://www.wpc.ncep.noaa.gov/pwpf/wwd_accum_probs.php

8-14 Day Temp & Precip Outlook



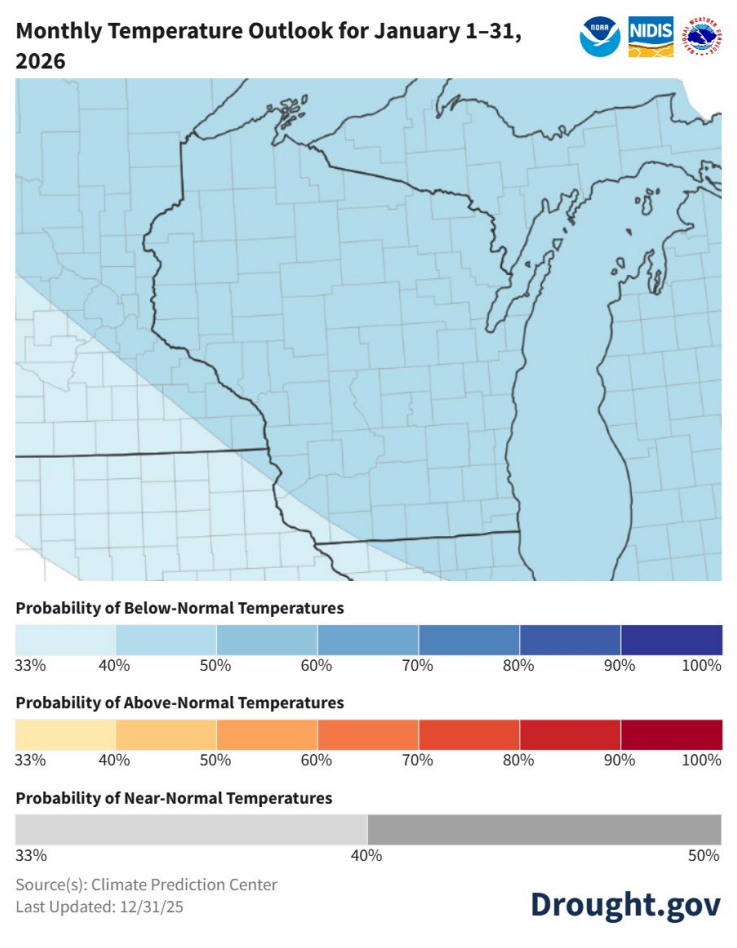


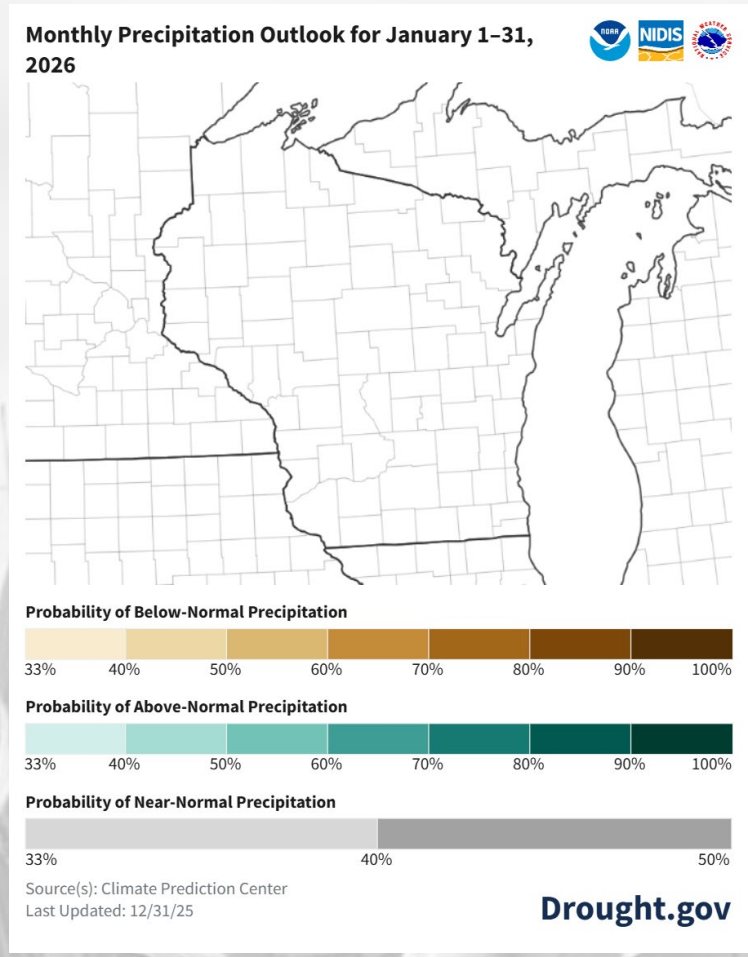
http://www.cpc.ncep.noaa.gov/
https://www.drought.gov/states/wisconsin

Mid-January: Temperatures leaning towards below normal statewide. Precip leaning towards above normal in the north and central and near normal in the south.

- Statewide normals (1991-2020) for Jan 15-21 are **14.7°F** and **0.27"**.

30 Day Temp & Precip Outlook



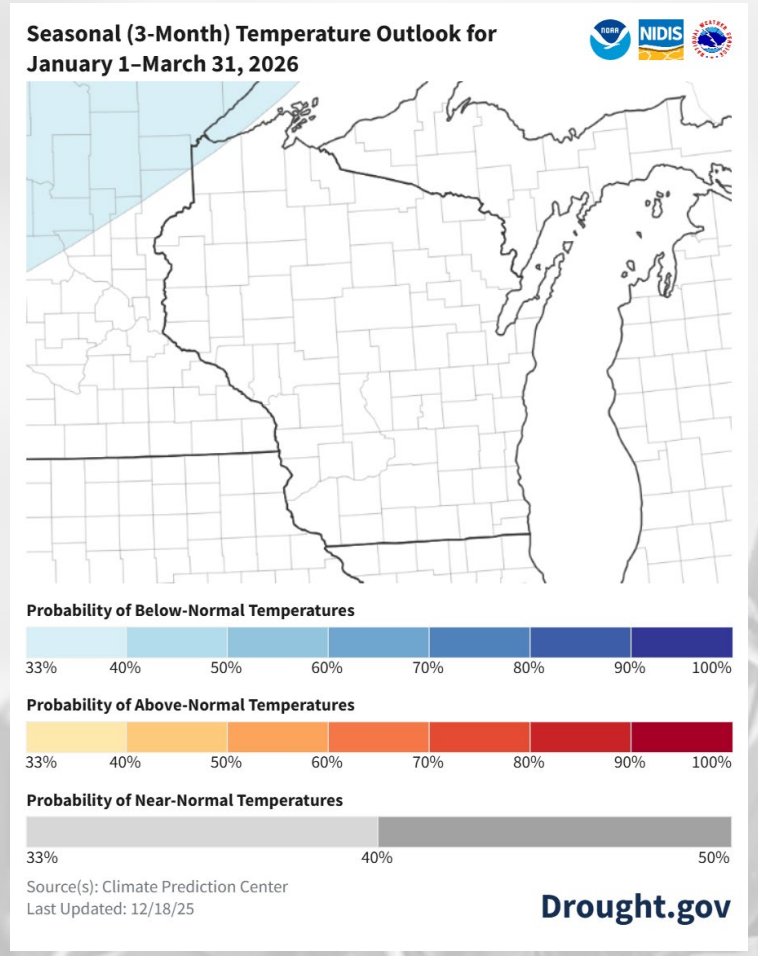


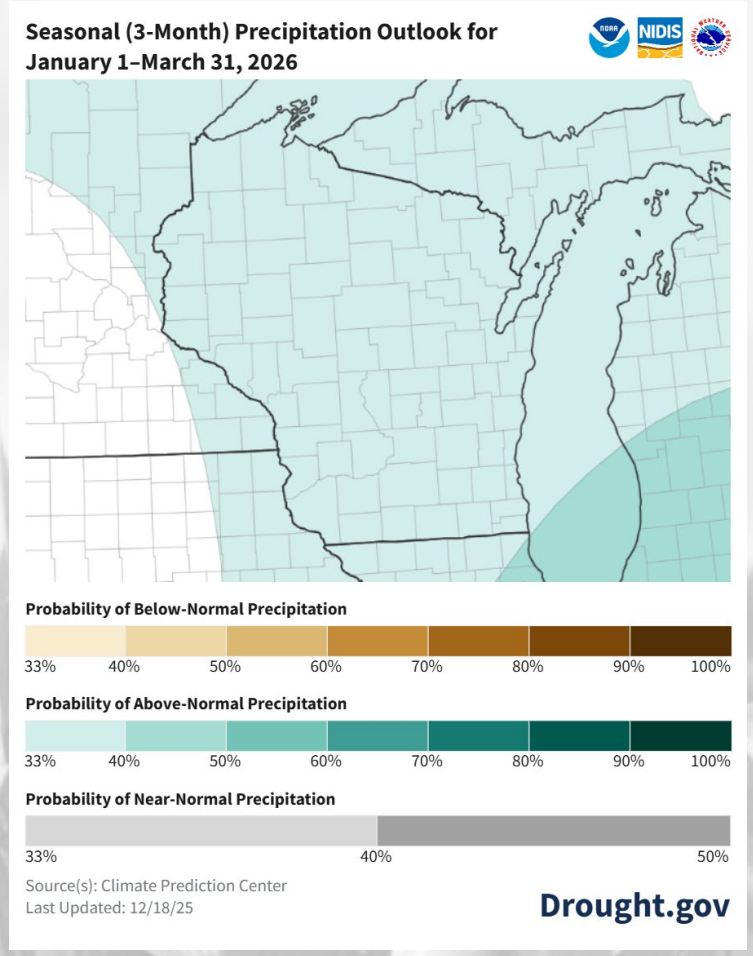
http://www.cpc.ncep.noaa.gov/
https://www.drought.gov/states/wisconsin

Month of January: A statewide lean towards below-normal temperatures (**40-50%** odds), with lesser odds in the far SW. Uncertainty for precipitation statewide.

- Statewide normals (1991-2020) for January: **15.3°F, 1.21"** of precip, and **13.2"** of snowfall.

90 Day Temp & Precip Outlook





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

Mid-Winter into Early Spring: A statewide lean towards above-normal precipitation (**33-40%** odds). Uncertainty for temperature (equal chances).

- Statewide normals (1991-2020) for Jan-Mar: **21.6°F, 4.17”** of precip, and **32.8”** of snowfall.

Take-Home Points

One-Month Conditions

- **Temperatures** were **1-4°F below normal** across most of WI but were closer to normal in the west.
- **Precipitation** totals were **2" or less** across most of WI. In general, totals were **below average in the south** and **above normal in the north**.
- **Snowfall** totals have been **125-200% of normal** across northwest/north-central WI, with totals ranging from **15-30"**. Totals in the south (5-10") have been **below average**.

Impact

- Soil moisture levels at 4" depth showed **minimal change to a decrease** across UW research farm stations (Wisconet), with satellite-based products indicating that the **eastern half of the state is the driest area** in the top 1 meter of soil.
- Frost in the **top 6" of soil** is common across WI, with some stations reporting a frost depth deeper than 1 foot.
- Chilling hours for Wisconsin's perennial fruits range from **646 to 725 accumulated hours**.
- There has been **minimal change** in D1 coverage since early December, with no change in D0 or D2 coverage.

Outlook

- Precip over the next 7 days is forecasted to be highest in the **southern, central, and eastern counties** (potential for >1 inch).
- Climate probabilities for Mid-January indicate a lean towards **below normal** temperatures statewide and **above normal** precipitation in the northern and central region.
- The outlook for January shows a lean toward **below-normal** temperatures and **uncertainty** for precipitation statewide.
- The outlook for Jan-Mar indicates a statewide lean towards **above-normal** precipitation and **uncertainty** for temperatures.

Agronomic & Vegetable Considerations

Field Crop

Field Conditions

- Soil temperatures are remaining warm (Wisconet) thanks to early season snowfall providing insulation.
- As the snow layer decreases in southern WI and precipitation falls as rain, be mindful of the risk of alfalfa winterkill, especially if freeze-thaw cycles occur causing heaving and/or ice sheet formation.
- If winter grazing, move cattle out of sensitive areas if fields get muddy to keep cattle clean.

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.

Vegetable

High tunnel management:

- During the winter when high tunnels are closed up and row covers are on, plants can be exposed to high levels of relative humidity. This moisture provides conditions that are conducive to disease development. Leafy vegetables are especially susceptible to powdery mildew and downy mildew, but other diseases can occur as well. Make sure to remove row cover a couple of times a week especially during sunny or warmer days to reduce the moisture build up around plants that promote disease.
- **Aphids** are a common pest on 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**. Management options include the release of lady beetles and green lacewings under row covers, insecticides either alone or in combination with beneficial insects, and weed management to reduce alternative hosts.
- Be on the lookout for **winter cutworms** feeding on your winter greens and overwintered crops. These cutworms are very cold hardy and can be found actively feeding anytime the temperature is above freezing. Damage often resembles foliar feeding by other caterpillars leaving holes in leaves although they can also clip plants at the base of the stem. If you would like to learn more about this pest and management options, listen to this 30 minute webinar from UNH.

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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