



Extension University of Wisconsin-Madison



Midwest Climate Hub U.S. DEPARTMENT OF AGRICULTURE



Agwow

Ag Weather Outlook for Wisconsin Week of May 26, 2025

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Key Points

Navigate to select slides by clicking on the links below.

- 1) May 20-21 were <u>active precip days</u> in the state, bringing over 2" for some. However, May is still <u>drier-than-normal</u> for most in WI.
- 2) Rainfall from last week helped improve <u>soil moisture conditions</u>, with 1 class <u>drought improvements</u> in the southeast.
- 3) An active week for <u>precip is on tap</u>, with chances for rain to wrap up this week and another system moving in next week.
- 4) After a <u>chilly week</u> last week, <u>early June</u> is leaning towards being warmer than normal.
- For this week's agronomic recommendations from UW Extension, click <u>here</u>.
- For this week's crop progress updates from USDA NASS, click <u>here</u>.

Shifting Gears





Climate Division	% of Normal (5/1 – 5/26)
WI01 (NW)	81
WI02 (NC)	56
WI03 (NE)	61
WI04 (WC)	97
W105 (C)	108
WI06 (EC)	125
W107 (SW)	95
WI08 (SC)	112
WI09 (SE)	118

Precip stats by climate division → May 2025 totals compared to normal (1991-2020)

- > The first half of May, to date, brought 3 or less days with measurable precip to the state.
- The second half has been more active, with 5 days or more of measurable precip for most of WI. (Source: ACIS)

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

7 Day Precip



- Tuesday and Wednesday last week were active precipitation days in the state.
- Totals of 1-3" were commonplace in a belt stretching from the Twin Cities to Milwaukee.
- Lesser totals to the north/central → half inch or less.

https://water.noaa.gov/

Addition – May 27-28 Precip



- Since Tuesday morning, a quarter inch or more of precip has fallen in parts of the southeast and west-central regions.
- Outside of the north-central region, the state has received measurable precipitation since Tuesday morning.

https://water.noaa.gov/

30 Day Precip



- Heaviest precipitation concentrated in the westcentral region and in the southeast → 4-6"
 - However, most of this precip fell **prior to May 1**.
- 2-4" for most of the state, with lesser totals in the north/northwest and in the far SW (1-2").

https://water.noaa.gov/

30 Day Precip Total/% Avg.

Accumulated Precipitation (in): Percent of 1991-2020 Normals

April 27, 2025 to May 26, 2025



Eau Cla Green Bay (c) Midwestern Regional Climate Center 25 50 150 200 75 100 125 175

- Precip from last week's system helped bring 30-day totals up to or just above normal, particularly in the SE.
 - Instances of **4**" or more near Eau Claire and north of Milwaukee
- **2.5" or less** common across the far south in the north, where 30-day totals are **at or below 75% of normal**.

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

90 Day Precip Total/% Avg.



February 26, 2025 to May 26, 2025 Milwauke (c) Midwestern Regional Climate Center 50 75 100 125 175 150

Accumulated Precipitation (in): Percent of 1991-2020 Normals

- >7.5" common across most of WI, with totals highest in the WC-to-NE belt → >10" common
 - 100-150% the 30-year normal at many stations in the WCto-NE belt.
- Below the 30-year normal is common in the south (esp. near the IL border) and the NW.

2025 Precipitation (so far)

Accumulated Precipitation (in) January 01, 2025 to May 26, 2025 Eau Claire Green Bay Madison Milwaukee (c) Midwestern Regional Climate Center 1 5 7.5 10 12.5 15 0.01 0.1 0.5 1.5 2 3 4

Accumulated Precipitation (in): Departure from 1991-2020 Normals

January 01, 2025 to May 26, 2025



https://mrcc.purdue.edu/CLI MATE/

Soil Moisture Models

- The area of abnormally wet soil (green shading) has greatly expanded following last week's rainfall.
 Most of the state is now estimated to be near or above normal by this model.
- Abnormal dryness in the south has been greatly reduced in area and severity. 10th percentile or lower remains in the far SE.

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. NASA SPoRT-LIS 0-100 cm Soil Moisture Percentile









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

Soil Moisture Models



Wisconet Soil Moisture

Maps showing soil moisture conditions on May 27th @ Midday. Units of map values are {Volume of water}/{Volume of soil}.



Wisconet Soil Moisture

Change in soil moisture from May 20th to May 27th. 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	1.38	0.03	0.01	0.02
Dairy Forage ARS	Sauk	2.40	0.07	0.00	0.01
Hancock	Waushara	1.16	-0.03	0.00	0.03
Kemp	Oneida	0.33	0.00	0.00	0.00
Lancaster	Grant	1.07	0.01	0.03	-0.01
Marshfield	Marathon	0.46	-0.03	0.00	0.00
O.J. Noer (Turfgrass)	Dane	1.28	0.06	0.03	0.00
Peninsular	Door	0.69	-0.04	-0.02	0.00
Rhinelander	Oneida	0.40	0.02	0.00	0.00
Spooner	Washburn	0.64	No Data	0.02	-0.01
Black River Falls	Jackson	1.84	-0.10	-0.09	0.01

Adequate Soil Moisture



- **75-80%** of agricultural soils in the state with **adequate** topsoil and subsoil moisture.
- **11%** of fields in the state are reported as having **surplus** topsoil moisture, **up 2%** from last week.

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

Wisconet Soil Temperature

Maps showing soil temperature conditions on May 27th @ Midday.



https://wisconet.wisc.edu/

US Drought Monitor

U.S. Drought Monitor Midwest



May 27, 2025 (Released Thursday, May. 29, 2025) Valid 8 a.m. EDT

	Drought Conditions (Percent Area)						
	No	ne	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	63.	46	36.54	9.47	0. 11	0.00	0.00
Last Week 05-20-2025	61.	08	38.92	8.29	0. 11	0.00	0.00
3 Month s Ag 02-25-2025	o 33.	68	66.32	39.70	3.92	0.00	0.00
Start of Calendar Ye 01-07-2025	ar 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 Ag 05-28-2024	o 92.	73	7.27	0.83	0.00	0.00	0.00

Intensity:



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

<u>Author:</u> Brad Pugh

CPC/NOAA



droughtmonitor.unl.edu

- Compared to last week:
 - Increase in D1 coverage, but it was very minor. D0 area went down by 2%.
- 1 class improvement in drought coverage in SE WI and in the far NW from last week.
- **0.1%** of the Midwest remains in D2 drought.
 - D2 only remains in east-central MI.
- 90.5% of the Midwest is drought free (9.5% in D1 or D2).

Note: D0 is not considered drought.

http://droughtmonitor.unl.edu/

US Drought Monitor

U.S. Drought Monitor Wisconsin



May 27, 2025 (Released Thursday, May. 29, 2025) Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	66.73	33.27	4.73	0.00	0.00	0.00
Last Week 05-20-2025	56.53	43.47	5.69	0.00	0.00	0.00
3 Month s Ago 02-25-2025	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 05-28-2024	90.31	9.69	0.77	0.00	0.00	0.00





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

Amount of state in:

- D1-D4 4.7% 🗸
- <mark>D2-D4</mark> 0.0% -

<u>Note</u>: $\uparrow \downarrow$ indicate change from last week. Red up arrows indicate increase in drought area; vice-versa for green arrows.



http://droughtmonitor.unl.edu/

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 5/29/25

7 Day Temperatures



Average Temperature (°F): Departure from 1991-2020 Normals May 20, 2025 to May 26, 2025



- Average temp. range of 50-55°F in the south/west to 45-50°F in the far north/east.
- Well below normal across all the state; 8-10°F below normal was commonplace.
- Most locations in the east and north did not hit 70°F last week, with lows dipping down into the 30°F's even in the south.

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

30 Day Temperatures

Average Temperature (°F): Departure from 1991-2020 Normals

April 27, 2025 to May 26, 2025



Eau Claire Green Bay Madison Milwauke (c) Midwestern Regional Climate Cente 6

- Average temperatures for the past month ranged from 55-60°F in the S & W to 45-50°F along Lake Superior.
 - Near normal across most of the state compared to climatological (1991-2020) average.
 - Temps more above the climatological average in the northwest, and below normal in the east.

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

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





0 -40 -20 0 20 40 60 80 100

Midwestern Regional Climate Center Purdue University Normals Period, 1991–2020 250-300 GDD in the W to
 150-200 GDD in the E.

•

GDD accumulation is behind normal pace in the E and ahead of normal elsewhere. Most ahead of normal pace in the NW.

To calculate GDD for your corn variety and planting date, use this <u>tool</u>.

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

> https://mrcc.purdue.edu/cli mate_watch

Corn & Soybean Progress



- Corn and soybean emergence made >20% jumps in progress from last week, running ahead of normal pace.
- Both crops are nearing planting completion (≥80% planted).

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

Crop Progress Report

Crop progress report for Wisconsin for the week ending on May 25th

- Corn planting is 85% complete, up 12% from last week. Emergence is 52% complete. Condition was rated 62% good to excellent
- Soybean planting is 80% complete, up 14% from last week. Emergence is 42% complete.
- Winter wheat is rated 68% good to excellent and is 15% headed.
- The first cutting of alfalfa hay was 20% complete.
- Pasture and range conditions are rated 73% good to excellent (up 8% from last week).
- Oats are 68% emerged and 90% planted.
- Potato planting is 88% complete.

In the news: https://www.brownfieldagnews.com/news/most-of-wisconsins-crops-are-planted-haying-started/

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

7 Day Precip Forecast



- Statewide precip chances for the next 7 days, more so in the west/northwest.
 - Scattered showers and storm chances thru Saturday morning, with another system forecasted to move through on Tues/Wed next week.
 - Areas in the west forecasted to receive >1" at some locations.
 - <u>Check your local forecast</u> for details on totals and timing.

Forecast for 5/29/25 thru 6/5/25 (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



Early June: Temperatures leaning above normal statewide, with precipitation leaning above normal.

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

30 Day Temp & Precip Outlook



Month of June: Temperatures leaning towards being <u>above normal</u>, with a lean towards <u>below-normal</u> precip.

90 Day Temp & Precip Outlook



Summer months: Temperature chances slightly lean toward <u>above normal</u>, with <u>uncertainty (equal</u> <u>chances</u>) for precipitation except for the far NW (<u>below normal</u> lean).

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

Take-Home Points

Current Conditions

- An active May 20-21 brought 2" or more for some, especially in the SE. This was a switch from the first part of May, where most of the state had 3 days
 or less with measurable precip. Overall, most of the state has had a drier-than-normal May.
- Temperatures were **unseasonably chilly** last week, with most locations in the state reporting **8-10°F below normal** for average temps including a few nights with **lows in the 30°F's**.

Impact

- Soil moisture conditions showed widespread improvement from last week, with a large portion of the state estimated to have wetter-than-normal soils.
 Several Wisconet stations showed moisture gains following the precip last week.
 - Rains in the southeast lead to 1 class improvements in drought severity in that region.
- Corn and soybean emergence made big gains from last week (52% & 42% complete, respectively), with planting nearing completion (Source: NASS).

Outlook

- Overnight frost/freeze risk is non-existent this upcoming week. Climatologically speaking, the odds for a frost/freeze after this week are very slim.
- Multiple rain chances throughout the state for the next 7 days, with the highest chances in the NW.
- Early June climate probabilities are leaning towards warmer and wetter than normal. The remainder of June is also leaning towards warmer-thannormal, with uncertainty for precip (equal chances).

Agronomic Considerations

Field Work and Conditions

- Avoid trafficking fields in moist conditions to prevent compaction with recent heavy precipitation.
- See these considerations for early season corn management.

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 emerge, <u>note growth stages</u> 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 <u>SlugNet</u>.
- 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 is beginning. Begin scouting for signs of feeding as soon as corn plants emerge.

Forage Management

- Continue <u>scouting for alfalfa weevil</u> as alfalfa stands grow.
- Many alfalfa stands in Southern WI have been harvested. See first harvest considerations here.

Small Grains

- Reminder to properly stage small grains such as winter wheat, as many herbicides cannot be applied after Feekes 5.
- Scout for stripe rust and any early signs of disease with recent cool and wet weather.
 - Fusarium Head Blight risk is low across the state but consider this reminder about <u>spraying fungicides</u>. Scab alerts and risk forecast can be found <u>here</u>.

More on the following slide \downarrow

Agronomic Considerations

Vegetables

- Be on the lookout for <u>purple spot</u> in asparagus. The recent wet and cool conditions promote the release of spores from infected residue from last season.
- Common <u>asparagus beetle</u> populations are still at damaging levels in northern WI and along Lake Michigan. If you have had problems before, make sure to scout the edges of those fields in the afternoon when these beetles are most active.
- The first generation of <u>seed corn maggot</u> have emerged and the second generation is starting to enter the southwest corner of the state. Mated females will begin laying eggs in southern WI in the next 10-12 days. Risk will be high in southern WI during the first week of June. <u>Onion maggot</u> continues to progress across the state with the greatest severity in northern and central WI. <u>Cabbage maggot</u> severity is high across most of 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. If possible, incorporate residue or apply organic fertilizer at least 2 weeks prior to planting to reduce the attractiveness.
- Cucurbit growers may consider a kaolin clay drench of trays before transplanting as a mechanical barrier and repellant to reduce cucumber beetle feeding.
- Start scouting for <u>Colorado potato beetle</u> on potatoes and eggplant. <u>Adults and initial egg masses have been detected</u> in the southwest and southern WI will start seeing more in the next week.
- Cover eggplant with row cover immediately after transplanting to prevent damage from Colorado potato beetle and <u>flea beetles</u>. Keep the plants covered until they recover from transplant shock and start growing vigorously. Remember to remove when flowering!

Fruit

- Wisconsin fruit growers can reference the Midwest Fruit Pest Management Guide for a list of registered products and recommended best practices. View the <u>MFPMG Online</u> or order a hard copy here: <u>MFPMG Hard Copy</u>.
- 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: <u>NEWA Weather Station Network (Cornell)</u>.
- <u>Codling moth</u> 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 <u>plum curculio</u> 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: <u>NEWA Grape Diseases Model</u>.
- 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 <u>jbendorf@wisc.edu</u>.

Thank you!! -The AgWOW Team

Citizen Science Opportunity

CoCoRaHS – <u>Co</u>mmunity <u>Co</u>llaborative <u>Ra</u>in, <u>H</u>ail, & <u>S</u>now Network

The Mission

(From cocorahs.org)

- Provide accurate high-quality precipitation data for endusers;
- Increasing the density of precipitation data available throughout the country;
- Encouraging citizens to have fun participating in meteorological science and heightening their awareness about weather;
- Providing weather education opportunities.



Sign Up Here: https://cocorahs.org/Content.aspx?page=application

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