







#### Wisconsin Ag Weather Outlook Week of April 28, 2024

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# **Key Points**

Navigate to select slides by clicking on the links below.

- It was a <u>warm</u> and <u>wet</u> week across the state last week, with <u>multiple</u> <u>days</u> of precipitation for many.
- Soils are <u>wetter-than-normal</u> in the north/central, with <u>drought</u> <u>coverage</u> relatively unchanged.
- Early May is likely to be <u>warmer-than-normal</u>, with the next <u>week</u> to <u>8-14 days</u> looking less active for precip.
- 4) However, despite the warmth, the risk of frost/freeze <u>still exists</u> for this upcoming week.
- 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>.

## The Rains Continue

Accumulated Precipitation (in) April 23, 2025 to April 29, 2025



Midwestern Regional Climate Center cli-MATE: MRCC Application Tools Environment Generated at: 4/29/2025 10:34:11 AM CDT

Multiple rainy days across the state brought totals of >1<sup>"</sup> across the W & N parts of WI.

Compared to average, some in the NC saw >2x the normal precip total for last week.

Accumulated Precipitation: Percent of Mean April 23, 2025 to April 29, 2025 tern Regional Climate Center Mean period is 1991-2020 100 125 300 50 75 150 175 200

> Midwestern Regional Climate Center cli-MATE: MRCC Application Tools Environment Generated at: 4/29/2025 10:22:09 AM CDT

County	# of Days with ≥0.1" (4/23 - 4/29)				
Clark	3.5				
Forest	3.0				
Marathon	3.0				
Richland	3.0				
Rusk	3.0				
Trempealeau	3.0				
Vernon	3.0				
Chippewa	2.8				
Lincoln	2.7				
Iowa	2.5				

Table shows the counties with the highest number of days with ≥0.1" of precip last week, averaged across all measuring stations in the county (Source: ACIS).

https://mrcc.purdue.edu/CLIMATE

# 7 Day Precip



- Half inch or more of precip fell across most of the state last week.
- Heaviest precip in the Central and NE (2-4"), with totals over 1" common in the W from Prairie du Chien to the Twin Cities.
- Lesser totals in the SE, with totals of <0.25" common.</li>

https://water.noaa.gov/

# 30 Day Precip



- Heaviest precipitation concentrated in the westcentral region → 5-8"
- Totals of **4" or more** stretching from the west-central region to the NE up into the U.P.
- Less than 3" for many in the south-central and NW regions.

# 30 Day Precip Total/% Avg.



- Most above climatological normal in the WC, NW, and NC regions → 130% or more of normal
- Stations within the SC and SE regions were consistently below the 30-year normal.
  - 50-90% of normal, with instances of <50% or normal in the Monroe area (<2" over 30 days).

# 90 Day Precip Total/% Avg.



- >5" common across most of WI, with totals highest in the WC-to-NE belt → >8" common
  - **130-200%** the 30-year normal at many stations in the NE/NC.
- Above the 30-year normal is common across most of the state expect for the SC and SE.

### 2025 Precipitation (so far)



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

# Soil Moisture Models

- Compared to last week, there is an increase in 70<sup>th</sup> percentile or higher coverage in the central and NE counties. Some of the west-central area now falls into this category.
- Increasing dryness estimated by the model in the SE following another dry week in that area.
- Majority of the state is **near or above normal** for soil moisture.

#### 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.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 April 29<sup>th</sup> @ Midday



#### Wisconet Soil Temperature

Maps showing soil temperature conditions on April 29<sup>th</sup> @ Midday



https://wisconet.wisc.edu/

# **US Drought Monitor**

#### U.S. Drought Monitor Midwest



April 29, 2025 (Released Thursday, May. 1, 2025) Valid 8 a.m. EDT

	Drought Conditions (Percent Area)								
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4			
Current	69.25	30.75	6.19	0. 11	0.00	0.00			
Last Week 04-22-2025	65.57	34.43	11.00	1.07	0.00	0.00			
3 Month s Ago 01-28-2025	46.00	54.00	29.09	2.48	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 04-30-2024	65.57	34.43	18.32	4.95	0.28	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

Author: Richard Tinker CPC/NOAA/NWS/NCEP



droughtmonitor.unl.edu

- Compared to last week:
  - Decrease in D0-D2 coverage
- 1 class improvement in far SW WI, with 1 class degradation in the far SE.
- 0.1% of the Midwest remains in D2 drought, down 1% from last week.
  - D2 only remains in east-central MI.
- **94%** of the Midwest is drought free (6% in D1 or D2).

Note: D0 is not considered drought.

http://droughtmonitor.unl.edu/

# **US Drought Monitor**

#### U.S. Drought Monitor Wisconsin



April 29, 2025 (Released Thursday, May. 1, 2025) Valid 8 a.m. EDT

	Drought Conditions (Percent Area)						
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	
Current	67.79	32.21	2.41	0.00	0.00	0.00	
Last Week 04-22-2025	67.61	32.39	2.58	0.00	0.00	0.00	
3 Month s Ago 01-28-2025	36.12	63.88	39.54	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 04-30-2024	56.73	43.27	19.01	3.29	0.00	0.00	





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

#### Amount of state in:

- D1-D4 2.4% 🗸
- D2-D4 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.



### **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 5/1/25

## 7 Day Temperatures



- Average temp. range of 54-58°F in the south to 40-44°F in the far north. Highs hit 70+ in the south during a few days.
- Above normal conditions were common last week, especially in the west and south (2-4°F above normal).
- More seasonal conditions in the far N and NE.

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

### 30 Day Temperatures



- Average temperatures for the past month ranged from 44-48°F in the S & W to 34-38°F in the far NC.
  - Within -/+1°F of normal across the state compared to climatological (1991-2020) average.
  - Temps more above (below) the climatological average in the south (north).

## Crop Progress Report

#### Crop progress report for Wisconsin for the week ending on April 27<sup>th</sup>

- Corn planting is <mark>4%</mark> complete, **up 3%** from last week.
- Soybean planting is <mark>6%</mark> complete. This is **ahead** of the 5-year average (4%).
- Winter wheat is rated **58%** good to excellent.
- Pasture and range conditions are rated 37% good to excellent (up 10% from last week).
- Oats are 3% emerged and 26% planted.
- 60-65% of agricultural soils in the state with <u>adequate</u> topsoil and subsoil moisture.
- 24% of fields in the state are reported as having surplus topsoil moisture.

In the news: https://www.brownfieldagnews.com/news/wisconsin-planting-advances-where-conditions-allow/ NOTE: As of 5/1, the latest NASS crop progress and soil moisture maps had not been posted.

# 7 Day Precip Forecast

7-Day Quantitative Precipitation Forecast for May 1-8, 2025



- A **bit less active** this week for precip, compared to recent weeks.
  - Precip is most likely to occur from Thu morning thru Friday evening.
  - Highest chances for precip in the E/SE and far NW.
  - Predicted totals of **less than an inch** except for the E/SE and NW.

Forecast for 5/1/25 thru 5/8/25 (Begins at 7am CDT)

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

# Frost/Freeze Risk – This Week

**Night of 5/2-3** 

#### Night of 4/29-30



- Be aware of the risk of frost/freeze during a few upcoming nights this week.
- Wind could help reduce the risk to some degree. <u>Visit the</u> <u>link below</u> to see maps that factor in wind speed.
- Risk is higher in lowlying spots.

### **Frost/Freeze Probability**

Daily Low  $\leq 32^{\circ}F$ Daily Low  $\leq 28^{\circ}F$ • 90.1 - 99% 90.1 - 99% 75.1 - 90% 75.1 - 90% 50.1 - 75% 50 1 - 75% 0 25.1 - 50% 25.1 - 50% 10.1 - 25% 10.1 - 25%  $\mathbf{O}$ 1.1 - 10% 1.1 - 10% <= 1% <= 1% polis t Paul olis Paul WISCONSIN WISCONSIN e Eau eaire Rochester Rochester 0 Fond du Lac 👩 eb þygan Fond du Lac 👩 eb øygan La rosse Crosse Austin 0 City City  $\bigcirc$ lukee ikee Waterloo Waterloo Dubuqu Dubug 0  $\bigcirc$ O

 Maps show the probability of a freeze occurring after April 29<sup>th</sup>.

- For most of the state, there is a ≥50% chance of a 32°F freeze occurring after the 29<sup>th</sup>; 10-50% chance of a 28°F freeze.
- Likelihood is lesser along the Mississippi River and in the south/east.

https://mrcc.purdue.edu/gismaps/freeze\_probabilities\_2020

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# 8-14 Day Temp & Precip Outlook



**Early to Middle May:** Temperatures leaning/likely to be <u>above normal</u>, with precipitation leaning towards <u>below normal</u>.

# 30 Day Temp & Precip Outlook



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

# 90 Day Temp & Precip Outlook



Late Spring into Summer: Chances slightly lean toward <u>above normal</u> temperatures for S & E WI, with <u>uncertainty (equal chances</u>) for both temperature (outside of the S & E) and precipitation (statewide).

# Take-Home Points

#### **Current Conditions**

- Multiple days of precip last week brought 2-4" across portions of C and NE WI, with totals of at least a half inch common.
- Above average temperatures were common across most of the state, with several days in the south hitting highs of 70+°F.

#### Impact

- Soil moisture conditions are trending wetter-than-average across the north/central but continue to remain dry in the south.
  - >97% of the state is drought-free, with the remining D1 coverage in the far SW.
- Corn and soybean planting make small gains from last week (4% & 6% complete, respectively; Source: NASS).
- Wisconet soil temperature readings at 4" are **at or above 50°F** across the south and central regions.
- Frost/freeze risk is still existent across the state, so be wary of this as you consider your planting plans.

#### Outlook

- Be aware of the risk of frost/freeze on the mornings of April 30<sup>th</sup> and May 3<sup>rd</sup>.
- Things look less active for precip this week, with the best chances for precip in the SE corner of the state.
- Early to mid-May is showing a strong likelihood to be warmer-than-normal, with a lean towards less-than-normal precip. May as a whole is showing a lean towards warmer and drier as well.

# **Agronomic Considerations**

#### **Field Work and Conditions**

- Soil temperatures to 4" are still cool in some northern areas, ensure temps are reaching 50 degrees at a minimum before planting. (See <u>WiscoNet</u>). Also note <u>upcoming insurance dates</u>.
- Avoid trafficking fields in moist conditions to prevent compaction and rutting.
- Consider preplant nitrate tests to assess nitrate levels before fertilizing.
- Avoid fertilizer applications in wet and cool conditions. Nitrogen loss is greater in wet conditions.
- In drier regions of the state, consider earlier termination of cover crops to retain soil moisture if conditions remain dry. If conditions are wet, consider delaying termination to manage excess soil moisture.

#### **Manure Applications**

 Reminder of <u>Wisconsin's NR 151 Runoff Rules</u> with the timing of manure spreading and current runoff levels. Check <u>DATCP Runoff Risk</u> <u>Advisory Forecast.</u>

#### **Pest Management**

- Start scouting fields by foot to note any early emerging weeds.
- Ensure temperatures (day, night, and soil) are conducive for herbicide applications. Pre-emergent herbicides require moisture for activation.
- Be observant of black cutworm and true armyworm moths migrating to the state. Check trap catches in your region with the <u>DATCP Pest</u> <u>Survey</u>.

#### **Forage Management**

- Check existing alfalfa fields for signs of winterkill (Evaluating stands).
- New alfalfa seedings can germinate at 32-34°F; most of the state is past low temperatures being dangerous for new seedings.

#### **Small Grains**

• <u>Assess winter grain stands</u> and fertility needs. Reports of winterkill have been reported in Central Wisconsin and north.

More on the following slide  $\downarrow$ 

# **Agronomic Considerations**

#### **Specialty Crops**

#### Vegetables

- Adult seedcorn maggot flies, which affect a range of vegetable crops, have emerged in southern Wisconsin. These pests overwinter in Wisconsin as pupae in the soil. When the flies emerge, they are attracted to fields with high organic matter. If possible, terminate and incorporate cover crops 2-3 weeks before planting to reduce the attractiveness of these fields as egg laying sites. Delaying direct seeding until soil is warmer will reduce the risk of seedling damage. Also be aware of similar risks from cabbage and onion maggot flies, which emerge later in the season.
  - o More info on seedcorn maggots, cabbage maggots and onion maggots
- Common asparagus beetle populations will reach damaging levels in southern Wisconsin in the next 2-3 weeks. Scouting should occur in the afternoon when these beetles are most active
  - More info on <u>asparagus beetles</u>
- Start scouting for black cutworm migrating to the state with weather fronts. Check trap catches in your region with the DATCP pest survey.
  - o More info on monitoring for black cutworm
- Reference the Vegetable Disease and Insect Forecasting Network (VDIFN) to know what diseases and insects to be scouting for in your area

#### Fruit

- Plum curculio adults have been observed in southern Wisconsin this week. Growers with historic populations may consider monitoring orchard perimeters and/or use pyramid monitoring traps.
- Early-season lepidopteran larvae are emerging and growers with historic populations may consider visually scouting perimeters and/or hanging pheromone monitoring traps.
- Need insect scouting or monitoring supplies? Check out Great Lakes IPM.
- Apple growers can reference the NEWA weather station network for past and forecasted disease infection events. 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>.

# User Survey

Are you a regular user of the Wisconsin Ag Weather Outlook (WAWO)? 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 WAWO 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

#### Contact Info



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