

Wisconsin Ag Climate Outlook

Updated November 28, 2023

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Key Points

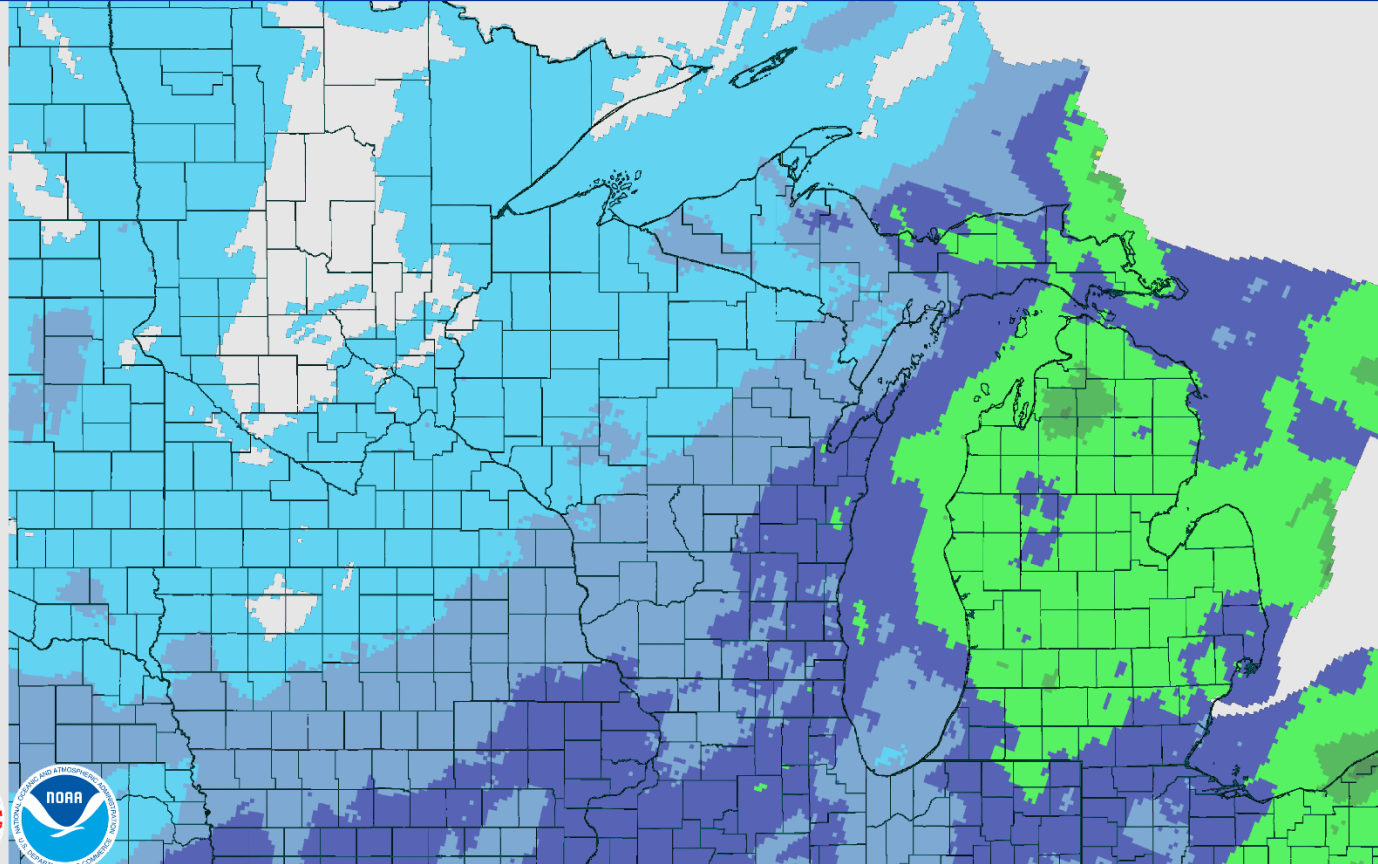
- 1) November wraps up as a dry month for many in the state.
- 2) Corn and soybean harvest are nearing or at completion regionally.
- 3) The past few days have brought snow and cold, but early December predictions indicate a higher probability for warmer temps.

Last Week Precip

November 28, 2023 7-Day Observed Precipitation

Created on: November 28, 2023 - 14:58 UTC

Valid on: November 28, 2023 12:00 UTC



<https://water.weather.gov/precip/>

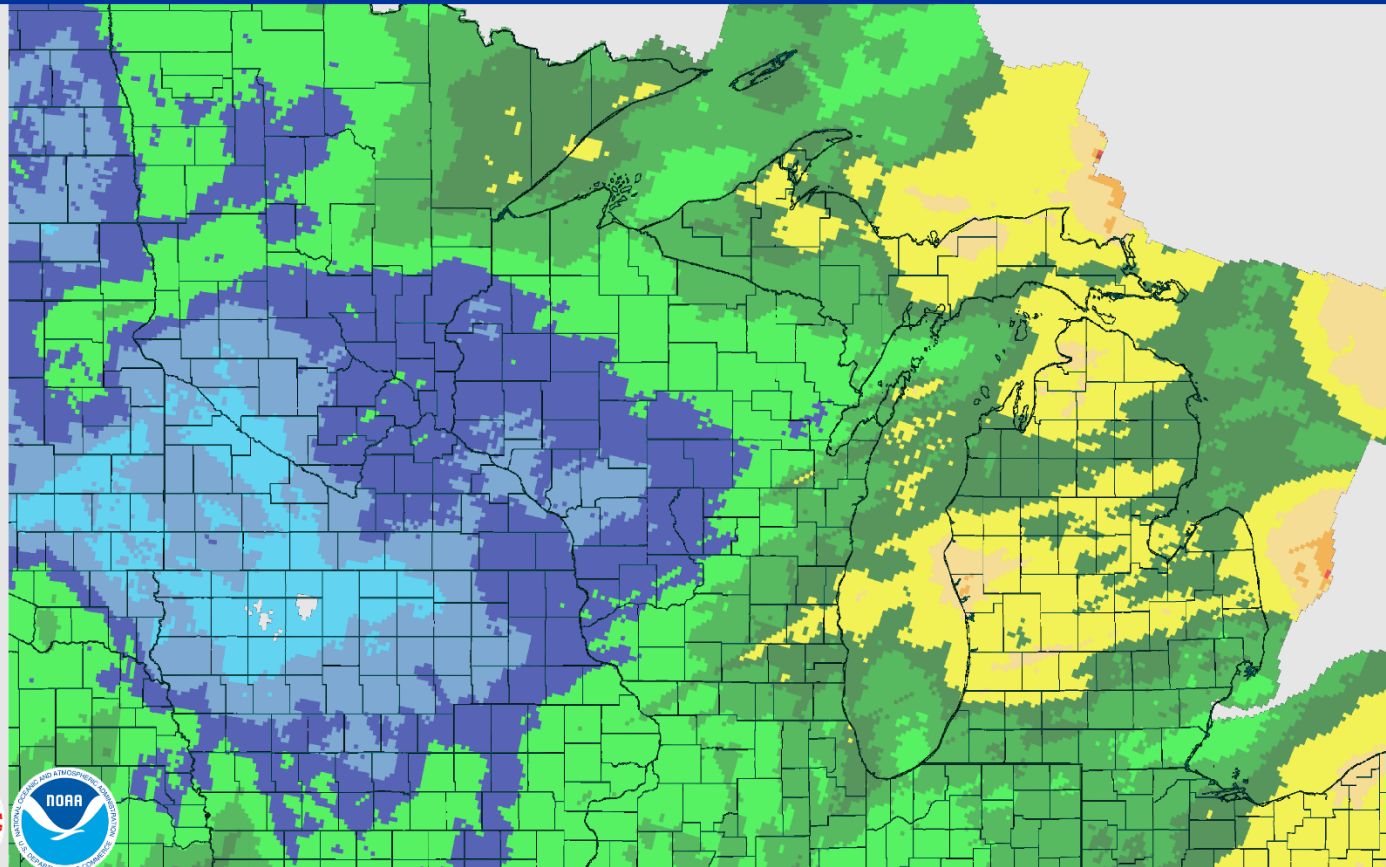
- Another relatively dry week in WI
- Highest totals in the SE/SC (0.25" – 0.5")

30 Day Precip

November 28, 2023 30-Day Observed Precipitation

Created on: November 28, 2023 - 15:03 UTC

Valid on: November 28, 2023 12:00 UTC

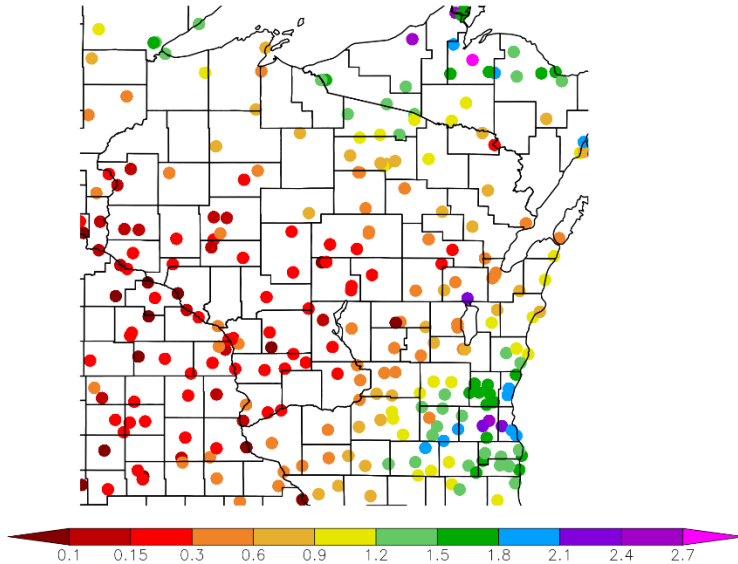


<https://water.weather.gov/precip/>

NOTE: This map is created using both measured precipitation at ground sites and radar estimates of total precipitation.

30 Day Precip Total/% Avg.

Precipitation (in)
10/29/2023 – 11/27/2023

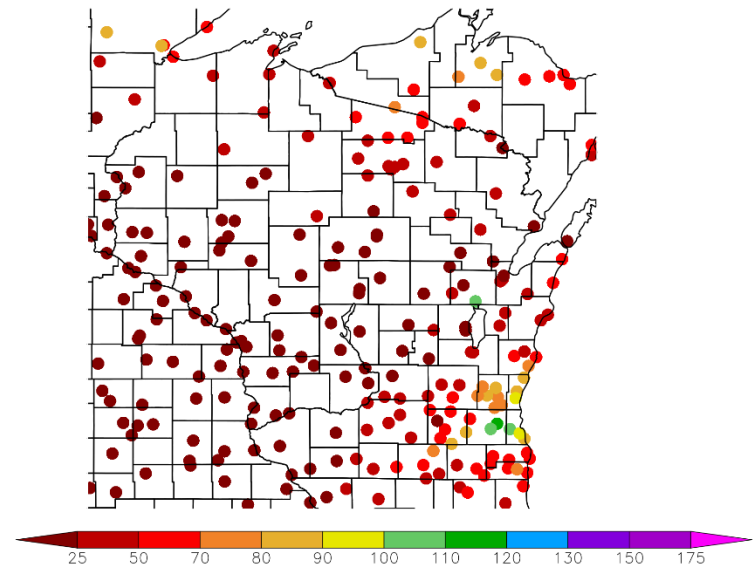


Generated 11/28/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

- November was a dry month for most parts of the state
- Most stations reported $\leq 25\%$ of normal 30-day total precipitation.
- The Milwaukee area reported at or above normal precipitation (≥ 2 ").

Percent of Normal Precipitation (%)
10/29/2023 – 11/27/2023



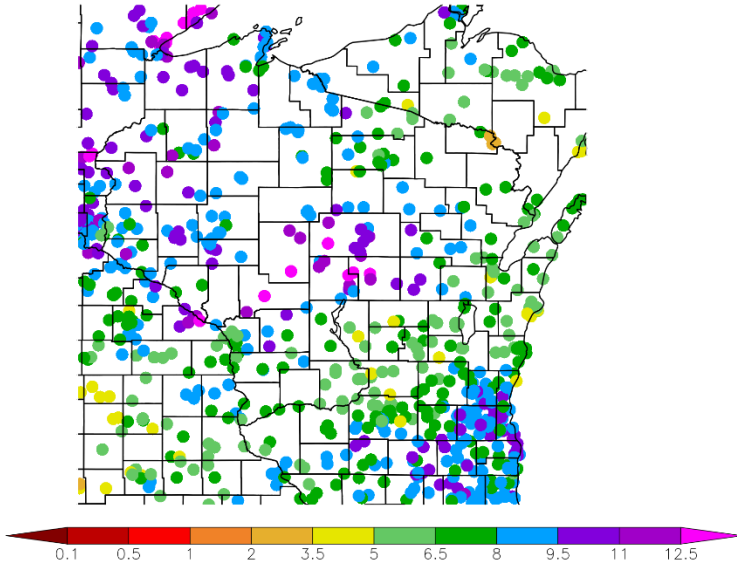
Generated 11/28/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

90 Day Precip Total/% Avg.

Precipitation (in)
8/30/2023 - 11/27/2023

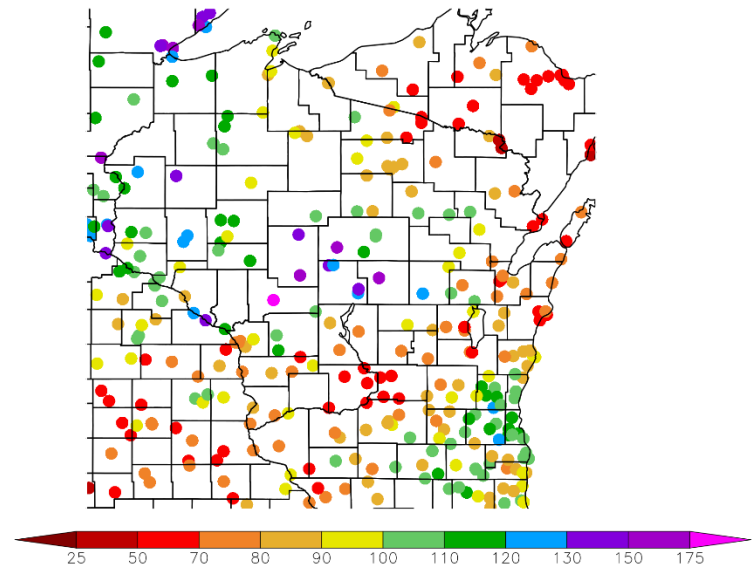


Generated 11/28/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Totals >5" are common statewide, with the highest totals in the SE, Central, and NW regions (stations >9.5").
- Percentages are a mixed bag:
 - >70% of normal in NE and SC.
 - >120% in Central and NW WI.

Percent of Normal Precipitation (%)
8/30/2023 - 11/27/2023



Generated 11/28/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

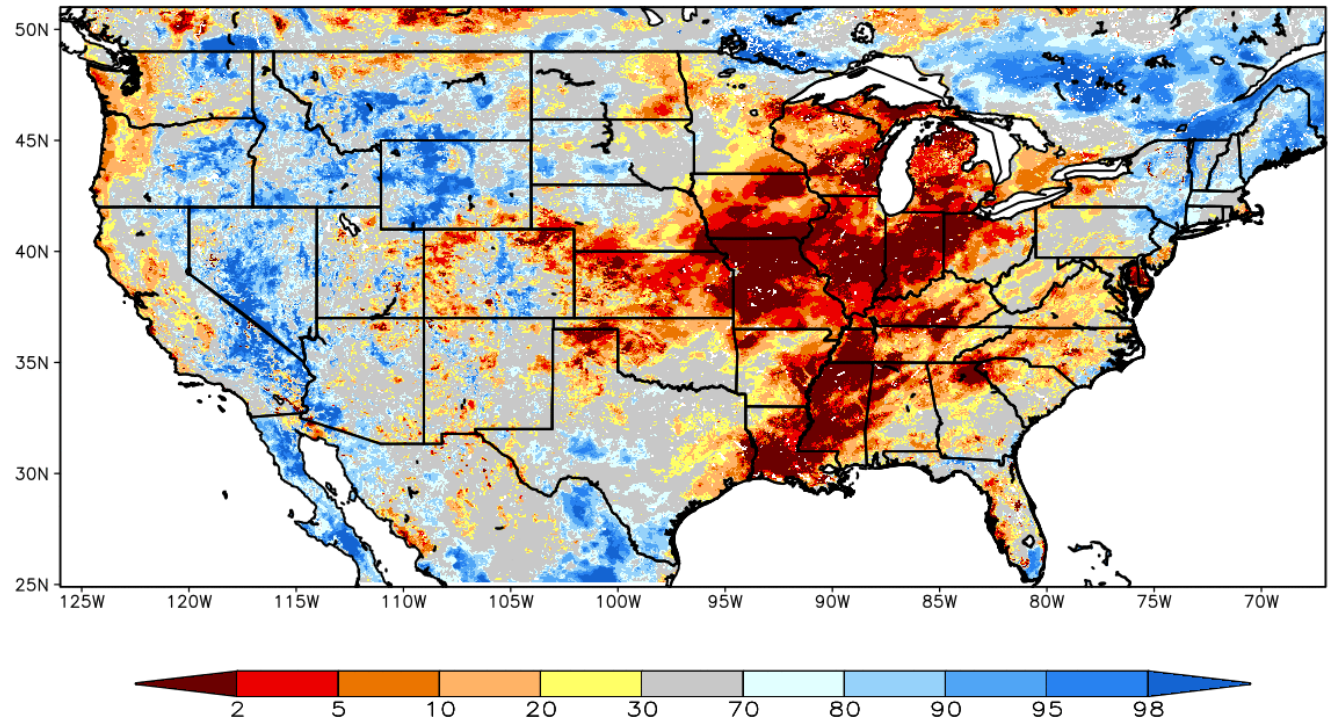
Modeled Soil Moisture

- Little to no change in WI from last week due to relatively low rainfall last week.
- Model indicates higher level of dryness in the E and SE.

Model Notes:

Red areas would be top 5 driest in 100 years. Dark red = top 2 driest.

SPoRT-LIS 0-100 cm Soil Moisture percentile valid 28 Nov 2023



NOTE
Experimental

https://weather.msfc.nasa.gov/sport/case_studies/lis_CONUS.html

https://www.cpc.ncep.noaa.gov/products/Soilmst_Monitoring/US/Soilmst/Soilmst.shtml

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

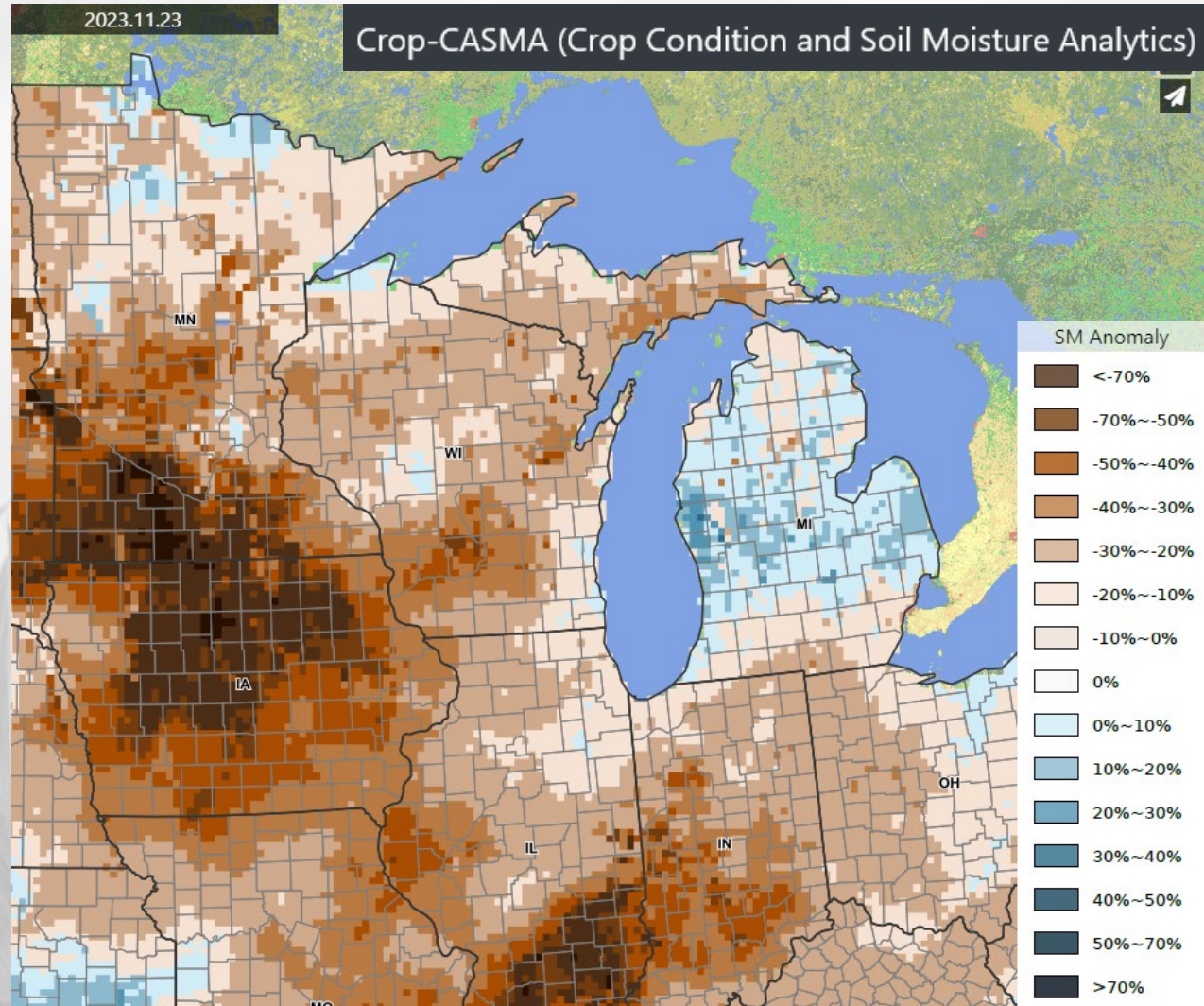
Modeled Soil Moisture

Alternate product from GMU and partners.

- Improvements in the SE due to last week's precip.
- Minimal change in dryness/wetness elsewhere in WI.
- Most dry in the SW/SC region.

Model Notes:

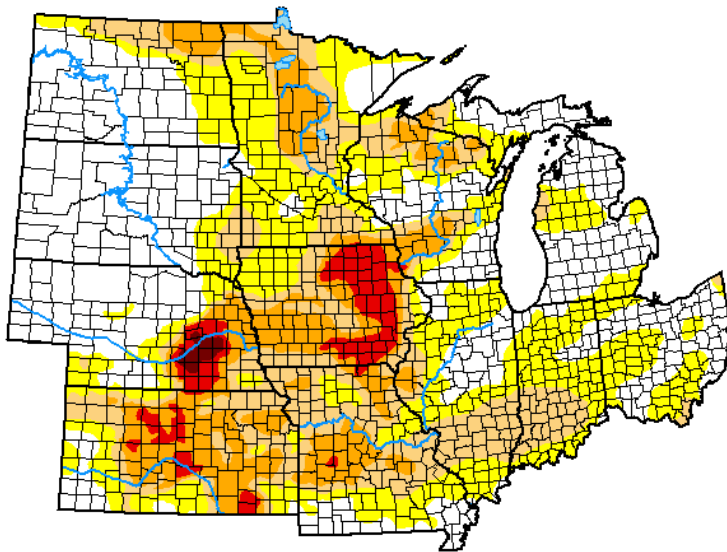
Model compares to time of year – suggests that soils are drier/wetter than is typical for this time of the season.



<https://nassgeo.csiss.gmu.edu/CropCASMA/>

US Drought Monitor

U.S. Drought Monitor North Central States



November 21, 2023
(Released Wednesday, Nov. 22, 2023)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	37.84	62.16	35.06	17.06	4.07	0.37
Last Week 11-14-2023	40.52	59.48	33.62	16.51	4.07	0.47
3 Months Ago 08-22-2023	36.06	63.94	42.38	21.17	5.44	0.32
Start of Calendar Year 01-03-2023	23.51	76.49	51.22	24.39	11.79	5.25
Start of Water Year 09-26-2023	25.87	74.13	49.98	25.16	7.67	0.73
One Year Ago 11-22-2022	16.53	83.47	62.23	28.57	14.96	5.53

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:

Brad Rippey
U.S. Department of Agriculture



droughtmonitor.unl.edu

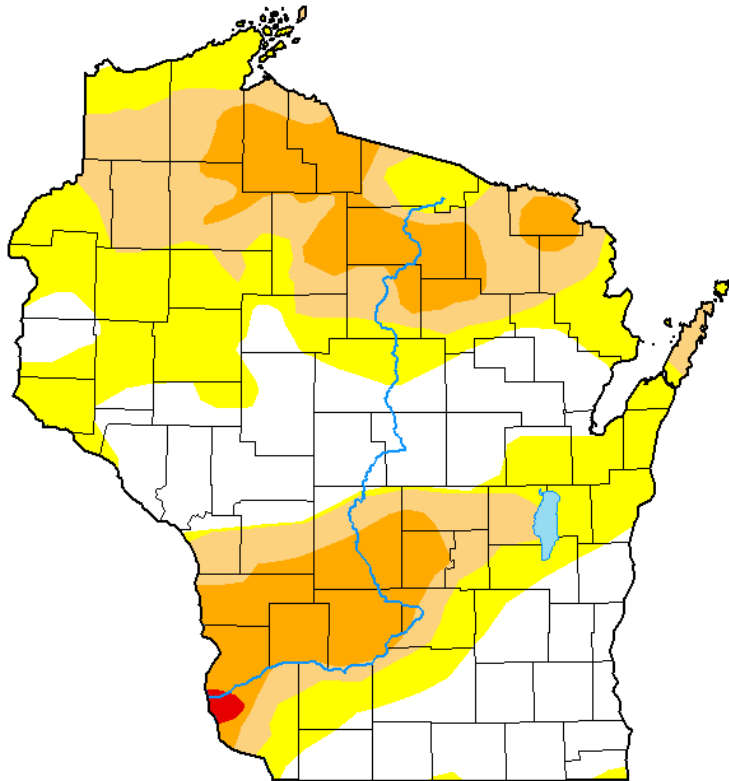
- Minimal change in regional drought intensity.
- See current percent area compared to previous periods.
- D3-D4 drought is most widespread in eastern IA, eastern NE, and localized parts of KS & MO.

Note: D0 is not considered drought.

<http://droughtmonitor.unl.edu/>

US Drought Monitor

U.S. Drought Monitor Wisconsin



November 21, 2023
(Released Wednesday, Nov. 22, 2023)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	33.04	66.96	37.07	16.80	0.26	0.00
Last Week 11-14-2023	33.59	66.41	37.07	16.02	0.26	0.00
3 Months Ago 08-22-2023	3.31	96.69	78.35	44.14	12.90	0.66
Start of Calendar Year 01-03-2023	67.99	32.01	5.71	1.84	0.00	0.00
Start of Water Year 09-26-2023	2.04	97.96	80.86	37.74	6.77	0.00
One Year Ago 11-22-2022	68.37	31.63	11.61	1.84	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>

Author:

Brad Rippey
U.S. Department of Agriculture



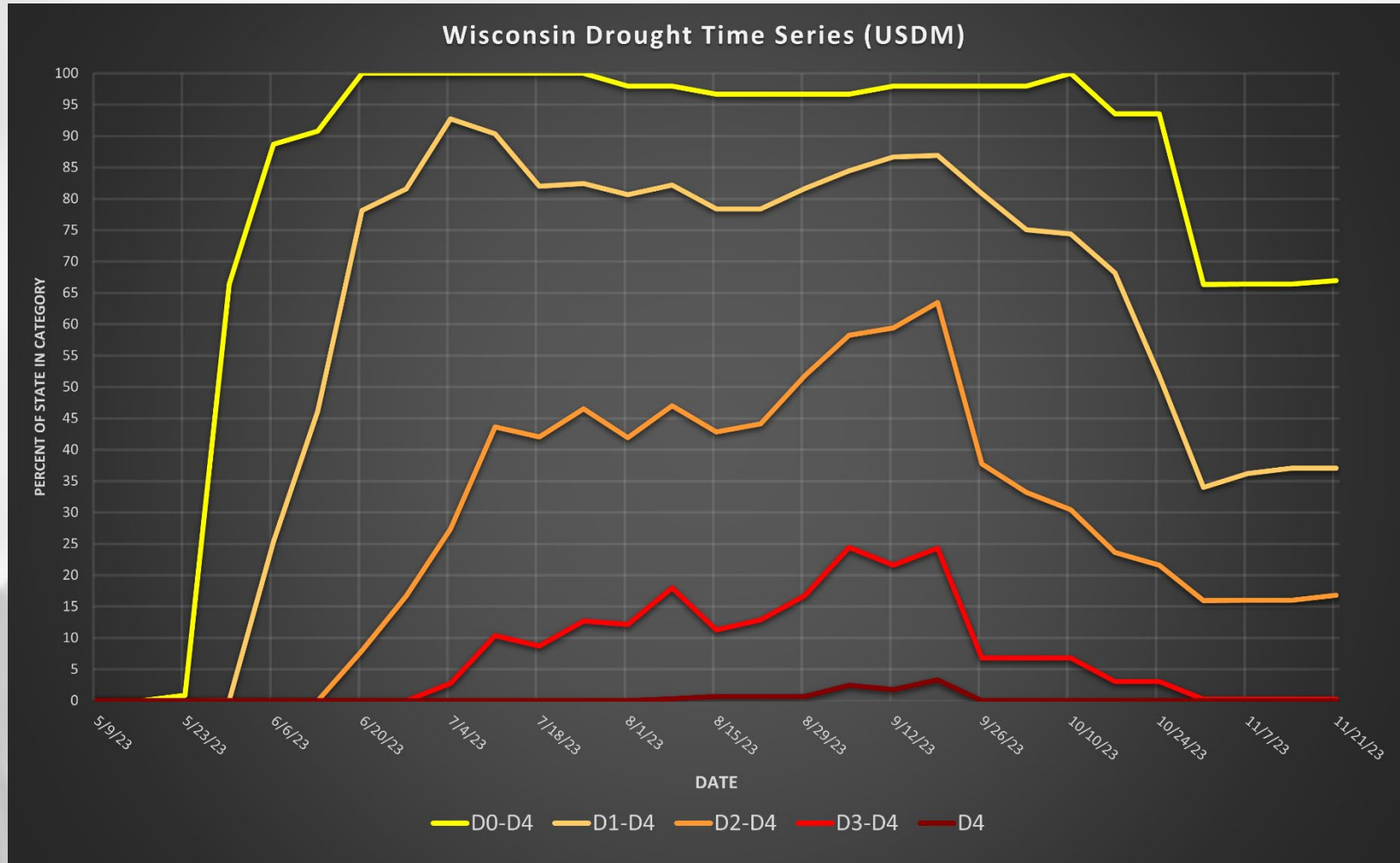
droughtmonitor.unl.edu

Amount of state in:

- **D1-D4** – 37.1% --
- **D2-D4** – 16.8% ↑
- **D3-D4** – 0.3% --
- **D4** – 0.0% --

Note: ↑ ↓ indicate change from the previous week. Red up arrows indicate increase in drought area; vice-versa for green arrows.

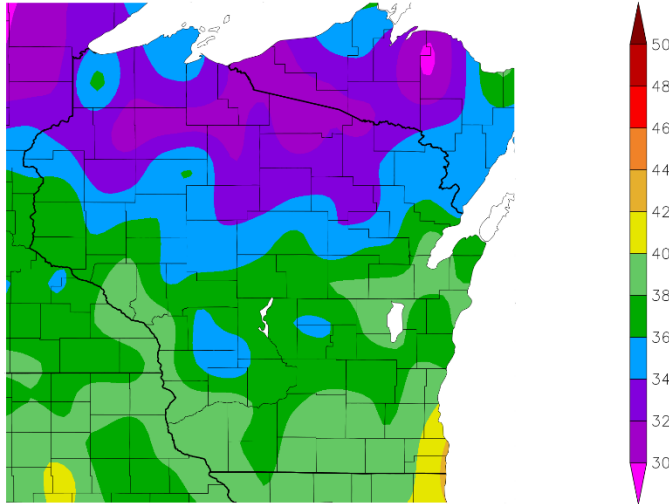
Drought in WI – Last 6 months



<http://droughtmonitor.unl.edu/>

30 Day Temperatures

Temperature (F)
10/29/2023 - 11/27/2023

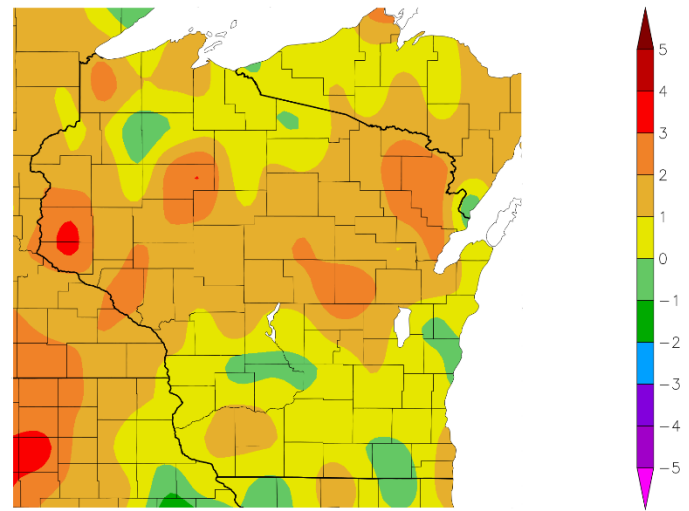


Generated 11/28/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Highest average T in the far SE (40-44°F).
- $\leq 40^\circ\text{F}$ across most of the state.
- Lowest averages in NC WI ($\leq 32^\circ\text{F}$).
- Monthly averages across the state were near or slightly above normal.

Departure from Normal Temperature (F)
10/29/2023 - 11/27/2023



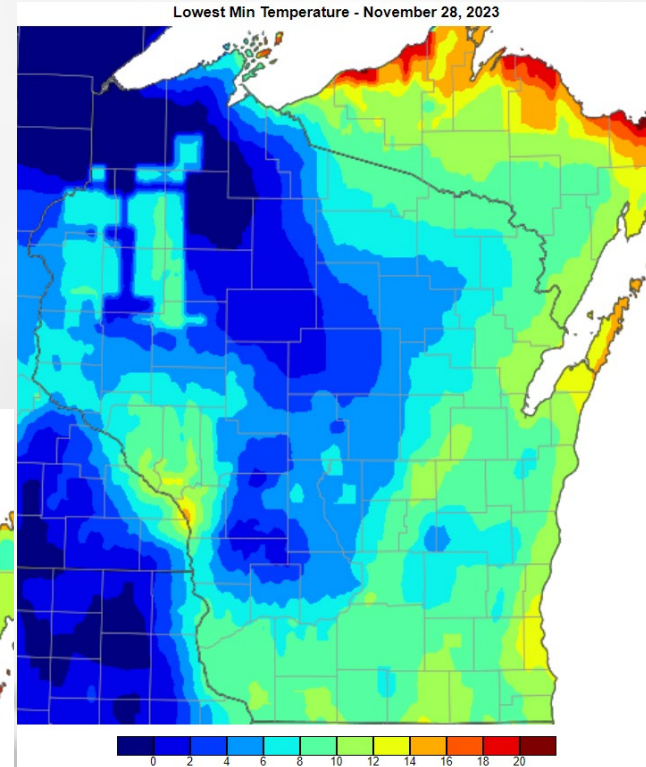
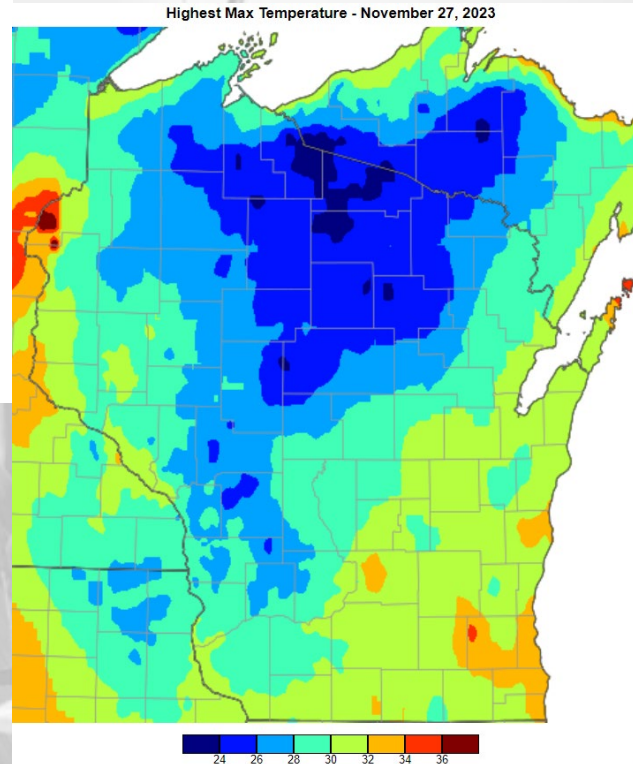
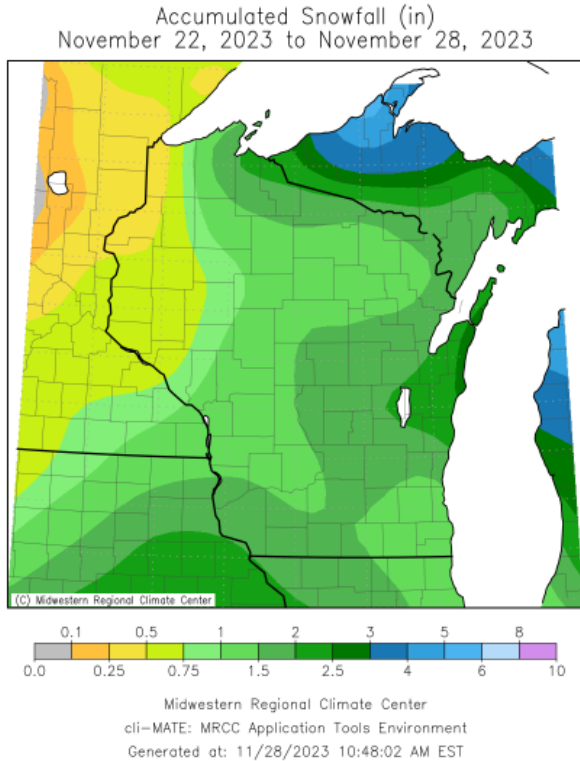
Generated 11/28/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

A taste of winter

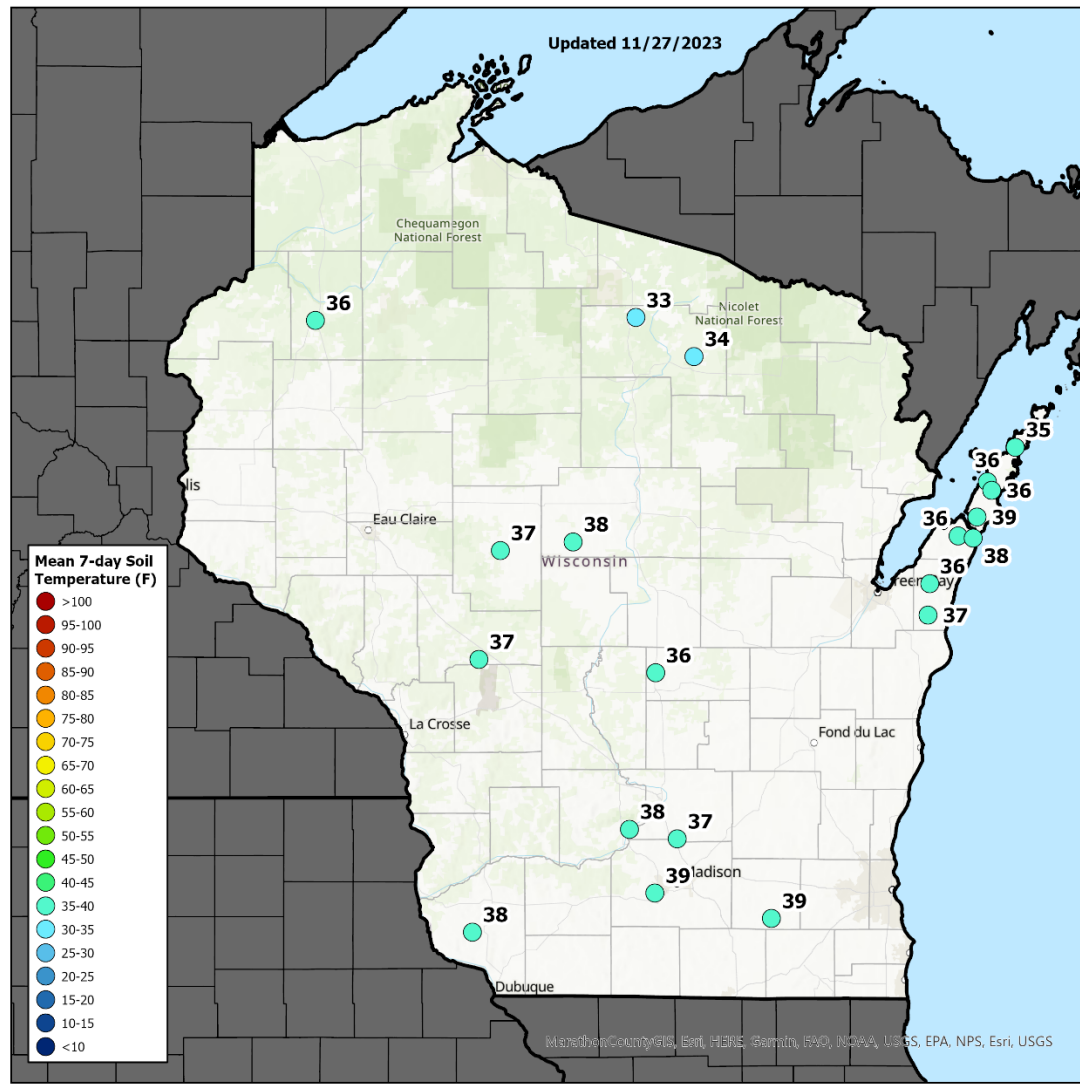
- Snow on Sat night thru Sunday (1-3").
- Snow event followed by cold temps on Monday and Tues morning.



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

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

Soil Temperature 4"



7-Day Avg. Data (11/21 -11/27)

- All stations are sitting in the 30s.
- Woodruff & Rhinelander are the coldest stations at 33-34°F.

Note: consider using this data when making fall management decisions, such as fall fertilizer applications.

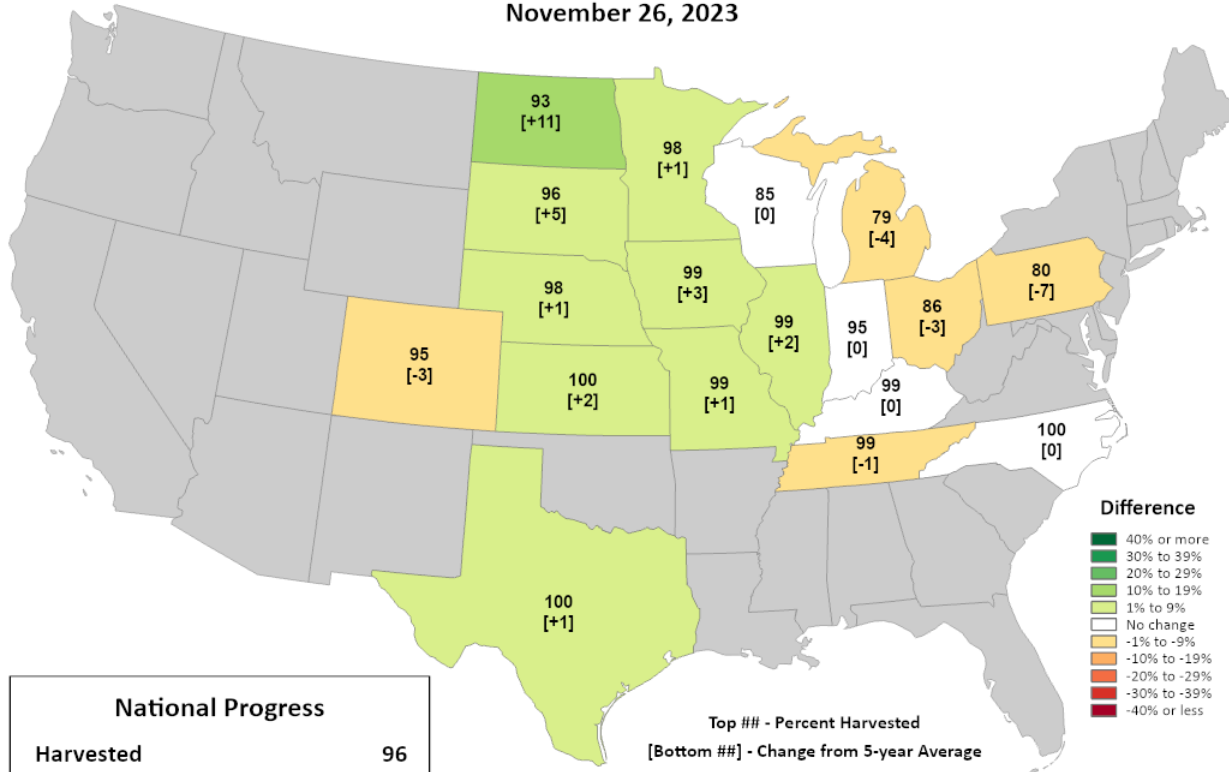
Corn Progress (NASS)



This product was prepared by the
 USDA Office of the Chief Economist (OCE)
 World Agricultural Outlook Board (WAOB)

Corn Progress Percent Harvested

November 26, 2023



National Progress	
Harvested	96
Change from 5-year Average	+1

Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.

Corn Harvested (NASS):

- Wisconsin: 85% (0%)
- National: 96% (+1%)

Corn harvest running right at the 5-year average in WI. Progress increased by **7%** from last week.

Trending behind average to the E.

Nearing completion to the S and W. Several states are reporting harvest at **98-100%** complete.

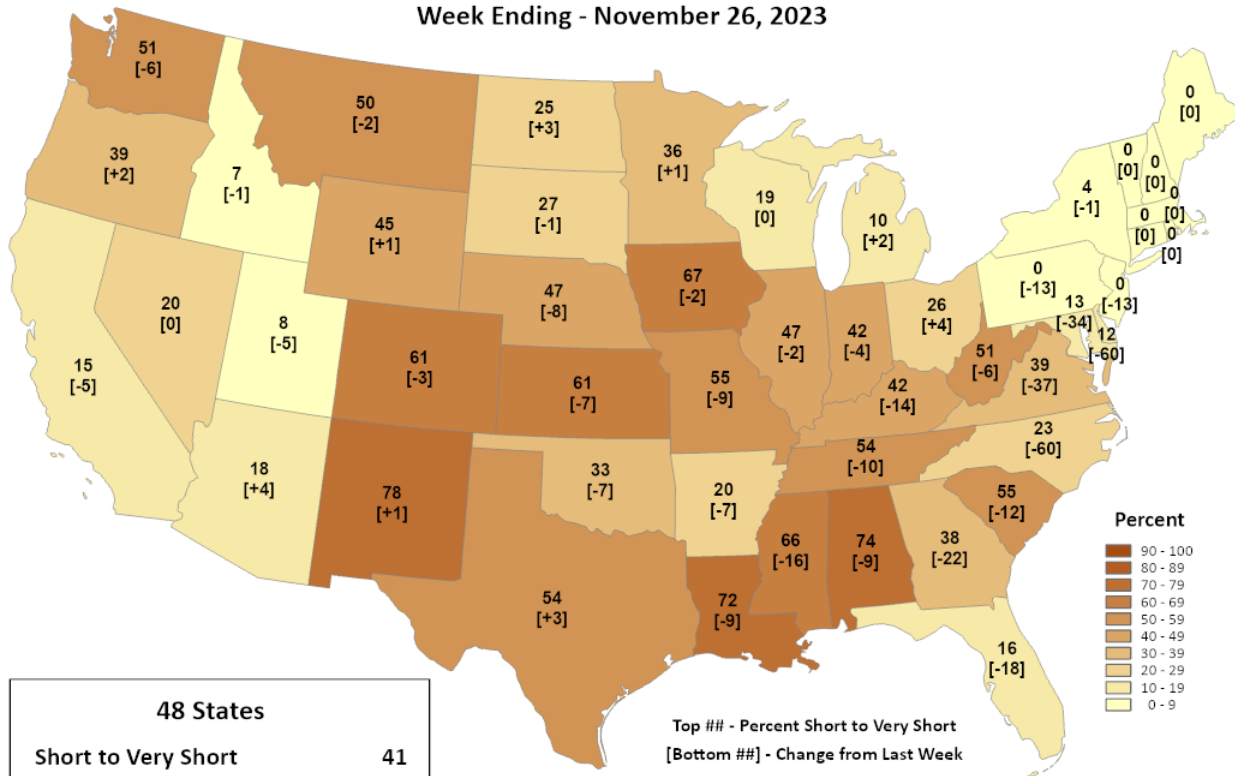
<https://agindrought.unl.edu/Other.aspx>

Soil Moisture Conditions (NASS)



This product was prepared by the
 USDA Office of the Chief Economist (OCE)
 World Agricultural Outlook Board (WAOB)

Topsoil Moisture Percent Short to Very Short Week Ending - November 26, 2023



48 States	
Short to Very Short	41
Change from Last Week	-5

Top ## - Percent Short to Very Short
 [Bottom ##] - Change from Last Week

Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.

Soil moisture S-VS (NASS):

- Wisconsin: 19% (0%)
- National: 41% (-5%)

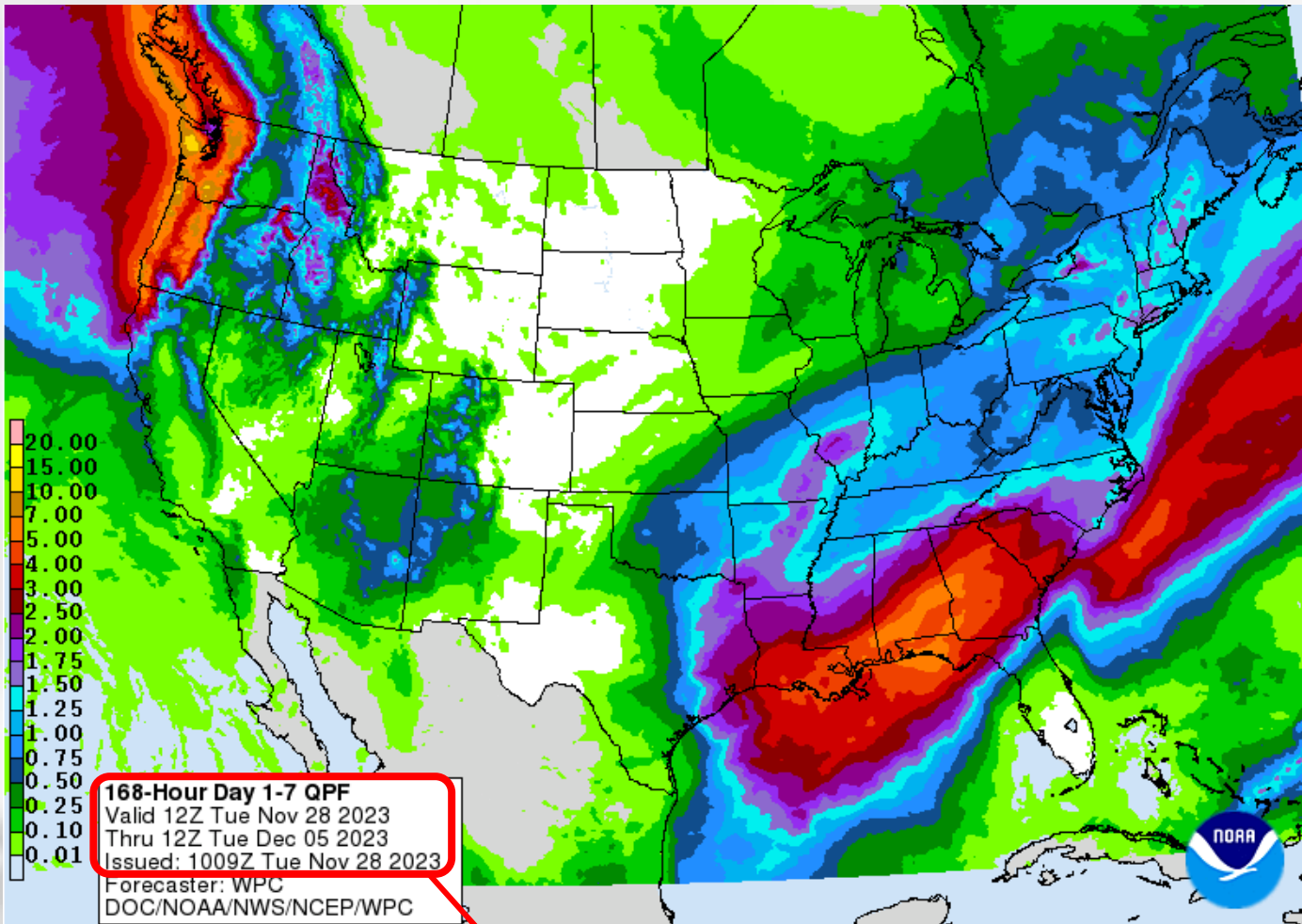
No change WI with a week of low rainfall. Some improvement nationally.

Compared to neighboring states, WI has a much lower S-VS percentage.

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

7 Day Forecast Precip

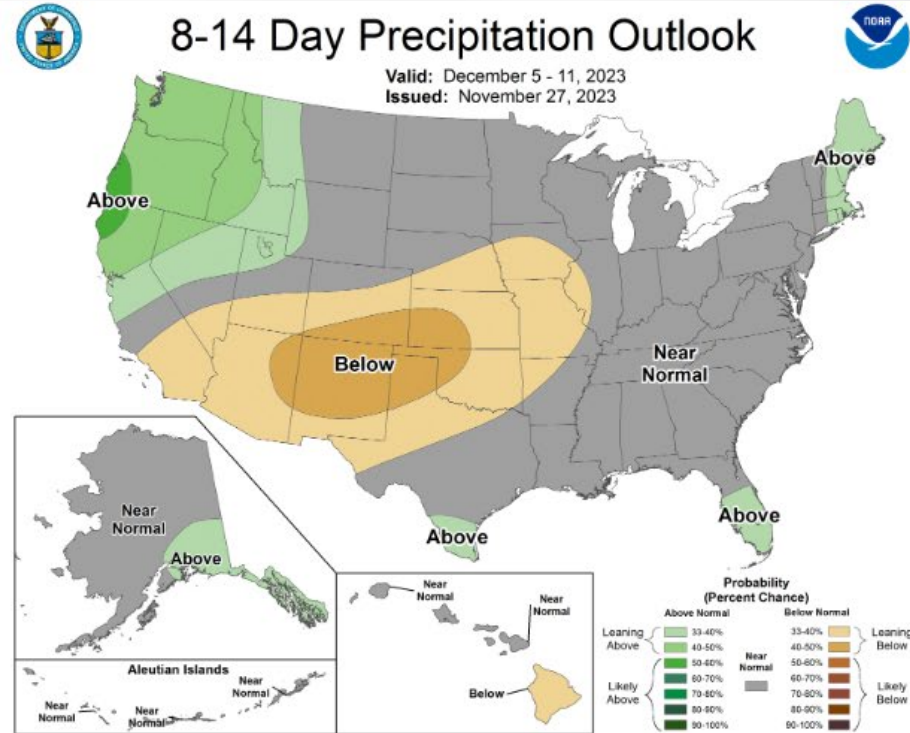
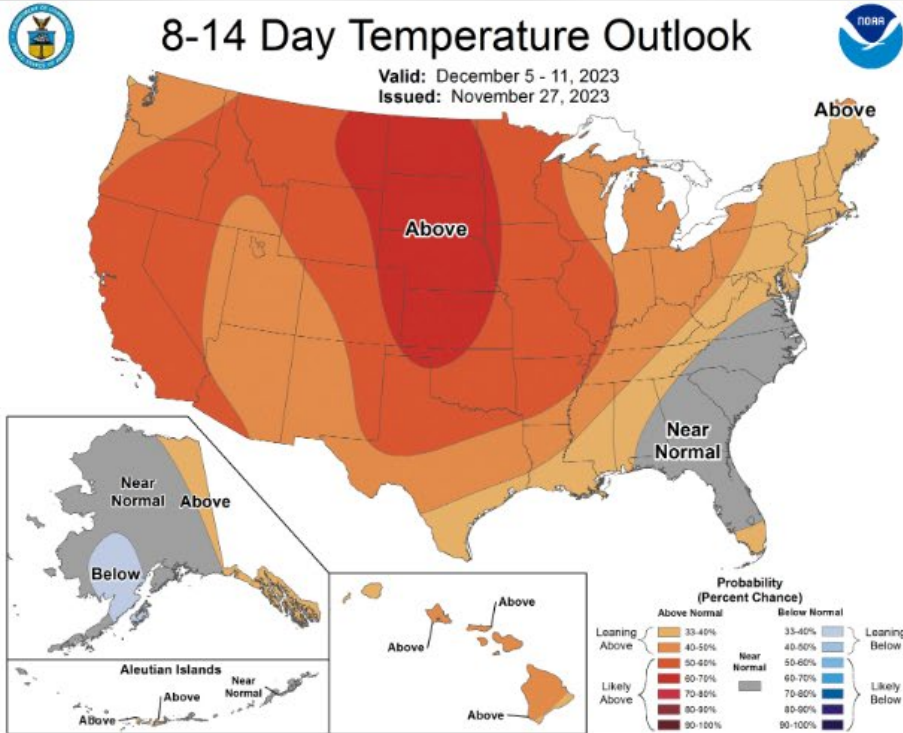
- Chances for precipitation exist statewide, but totals look to once again be low (<0.5").
- Precip may fall as snow.
- Highest totals forecasted across WC/Central WI.



Forecast for 11/28/23 thru 12/4/23

<https://www.wpc.ncep.noaa.gov/qpf/p168i.gif>

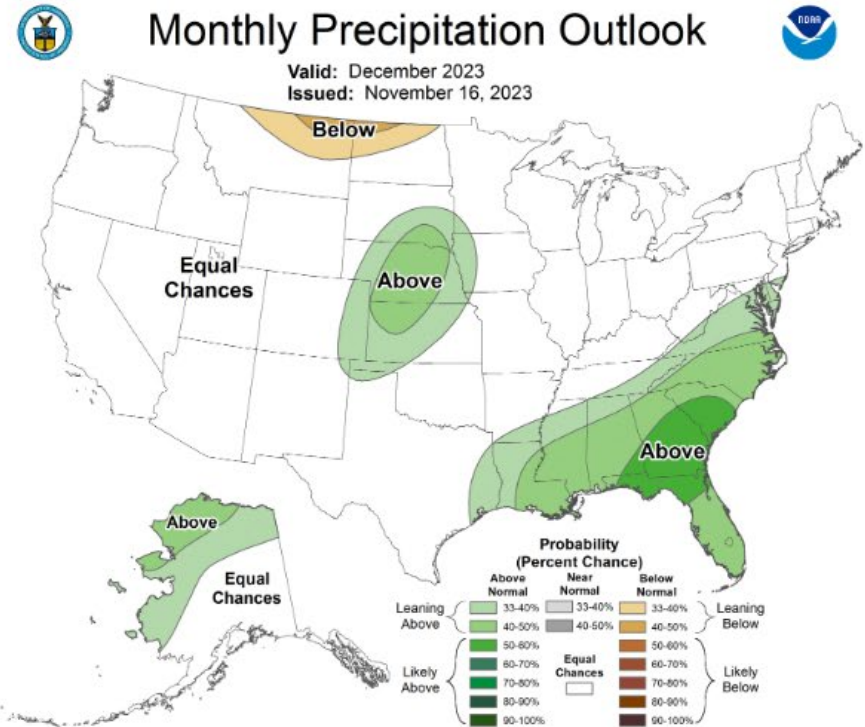
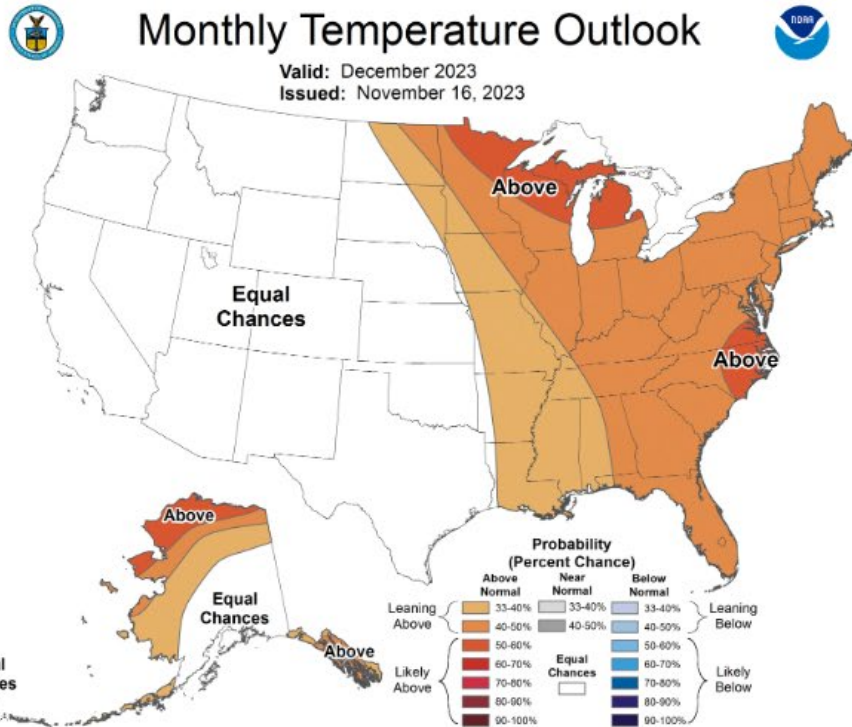
8-14 Day Temp & Precip Outlook



Early December: Temperatures likely to be above normal. Precipitation is leaning near normal.

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

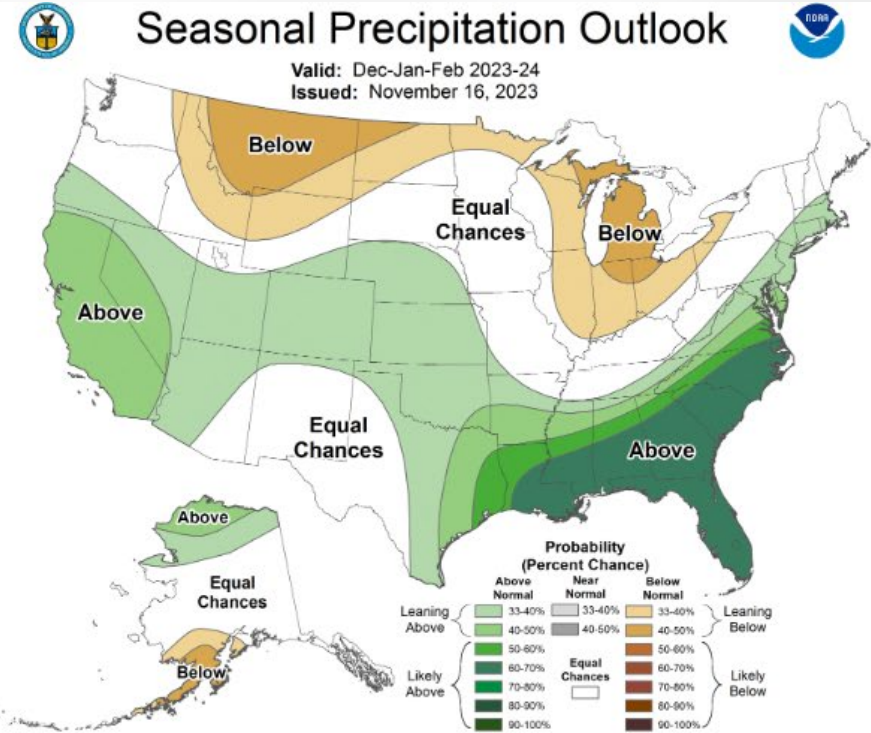
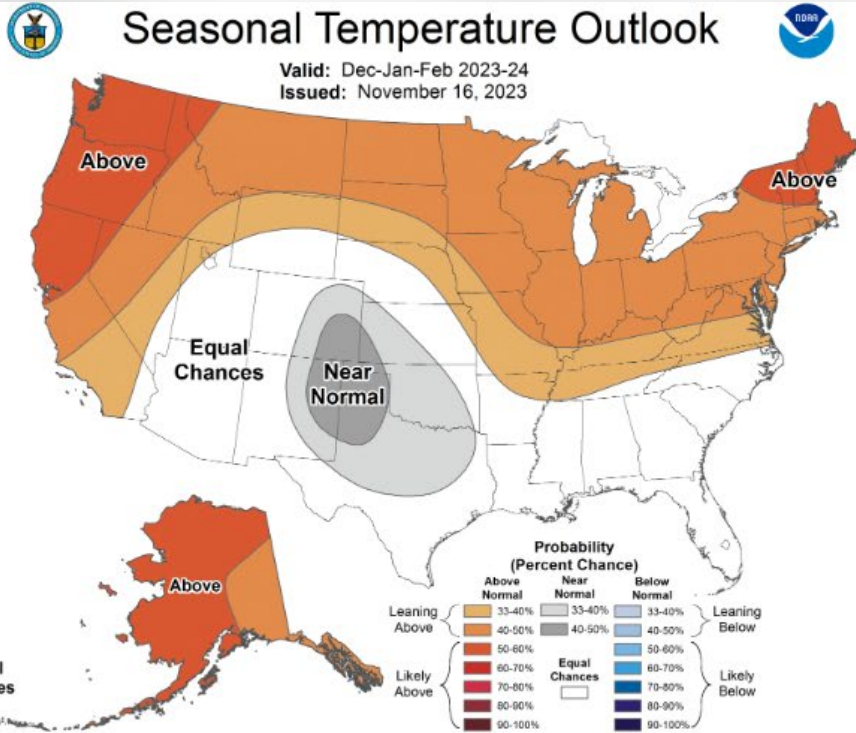
30 Day Temp & Precip Outlook



The month of **December**: Temperatures have the potential to be above normal. No strong indicators for precipitation for this period (“equal chances”).

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

90 Day Temp & Precip Outlook



December – February: Temperatures leaning towards above average. Precipitation is leaning below average in the E half of WI. *El Nino is a major driver of these conditions.*

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

Take Home

- Current conditions:

- Soil moisture conditions remain mostly unchanged after a dry week & month for most, with some improvement in the SE.
- A weekend snowfall event followed by a blast of cold.
- Weekly average 4" soil temperatures are below 40°F statewide.

- Impact:

- Corn harvest continues to near completion (**85%**). Southern WI is near or above **90%** complete.
- Soybean harvest is very near completion (**98%**). A few parts of the state are reporting **100%** complete.
- Nearly all winter wheat in the state has emerged (**97%**).

- Outlook:

- The first 1-2 weeks of December have a higher probability for warmer-than-average temperatures in WI.
- Precipitation totals are leaning near average for early December.

Important Update!

- During the winter months, the Wisconsin Ag Climate Outlook (WACO) will be updated **once a month** as opposed to once a week.
- With corn and soybean harvest nearing completion in the state, the WACO will shift to monthly updates on climate and soil conditions as we approach the 2024 growing season.
- As planting season nears in the spring of 2024, we will once again begin updating the WACO slides weekly to provide farmers with up-to-date climate & environmental data as they prepare to begin field work.
- Please feel free to reach out to the team at anytime with questions or feedback on our slides. We are always looking for ways to improve WACO to better serve our farmers!

For More Information



Photo Credit: USDA

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