

# Wisconsin Ag Climate Weekly Outlook

*Updated October 31, 2023*

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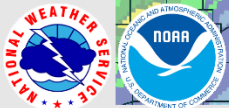
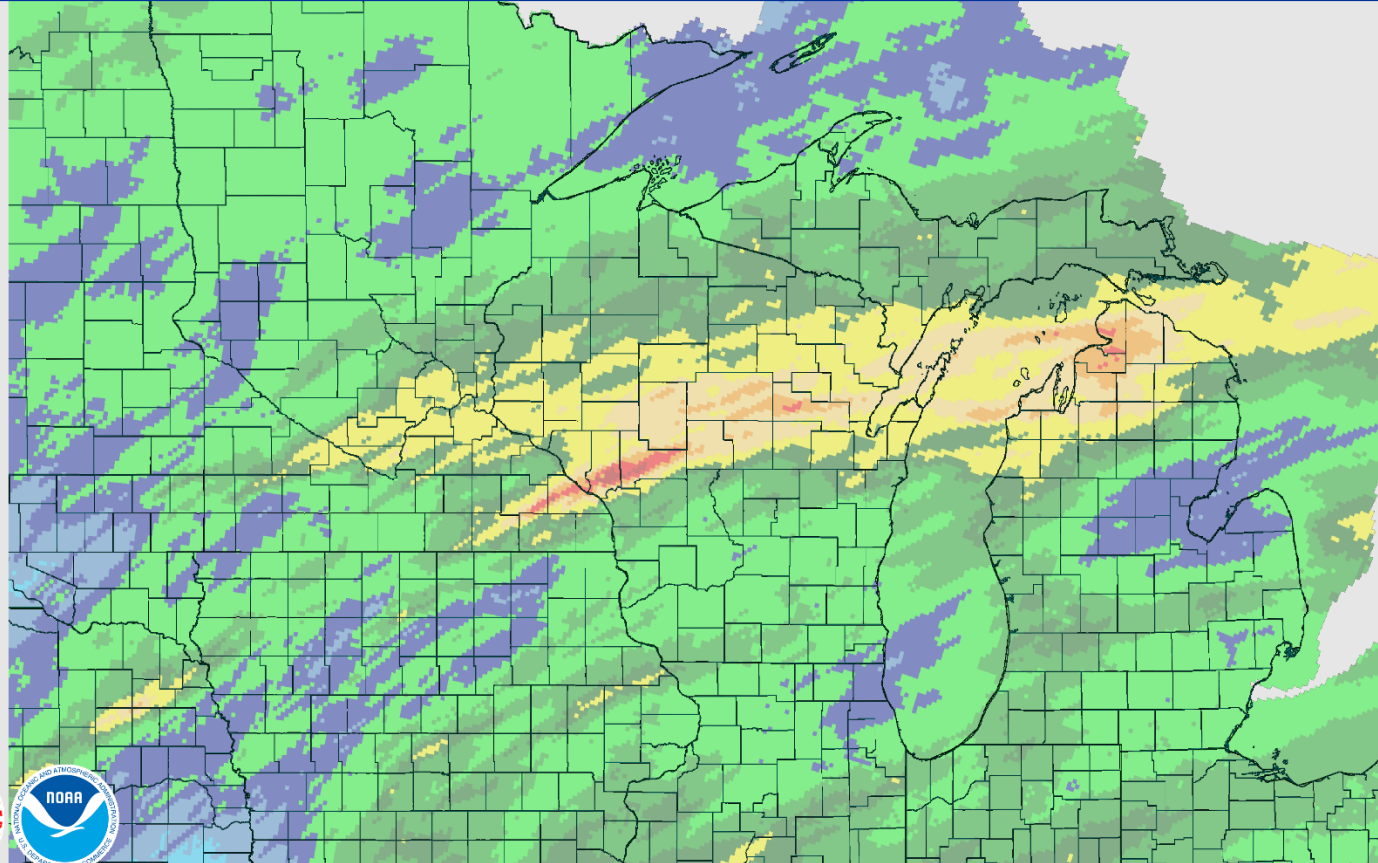
[sjvavrus@wisc.edu](mailto:sjvavrus@wisc.edu)

# Last Week Precip

## October 31, 2023 7-Day Observed Precipitation

Created on: October 31, 2023 - 14:04 UTC

Valid on: October 31, 2023 12:00 UTC



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

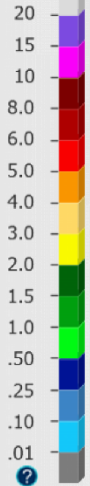
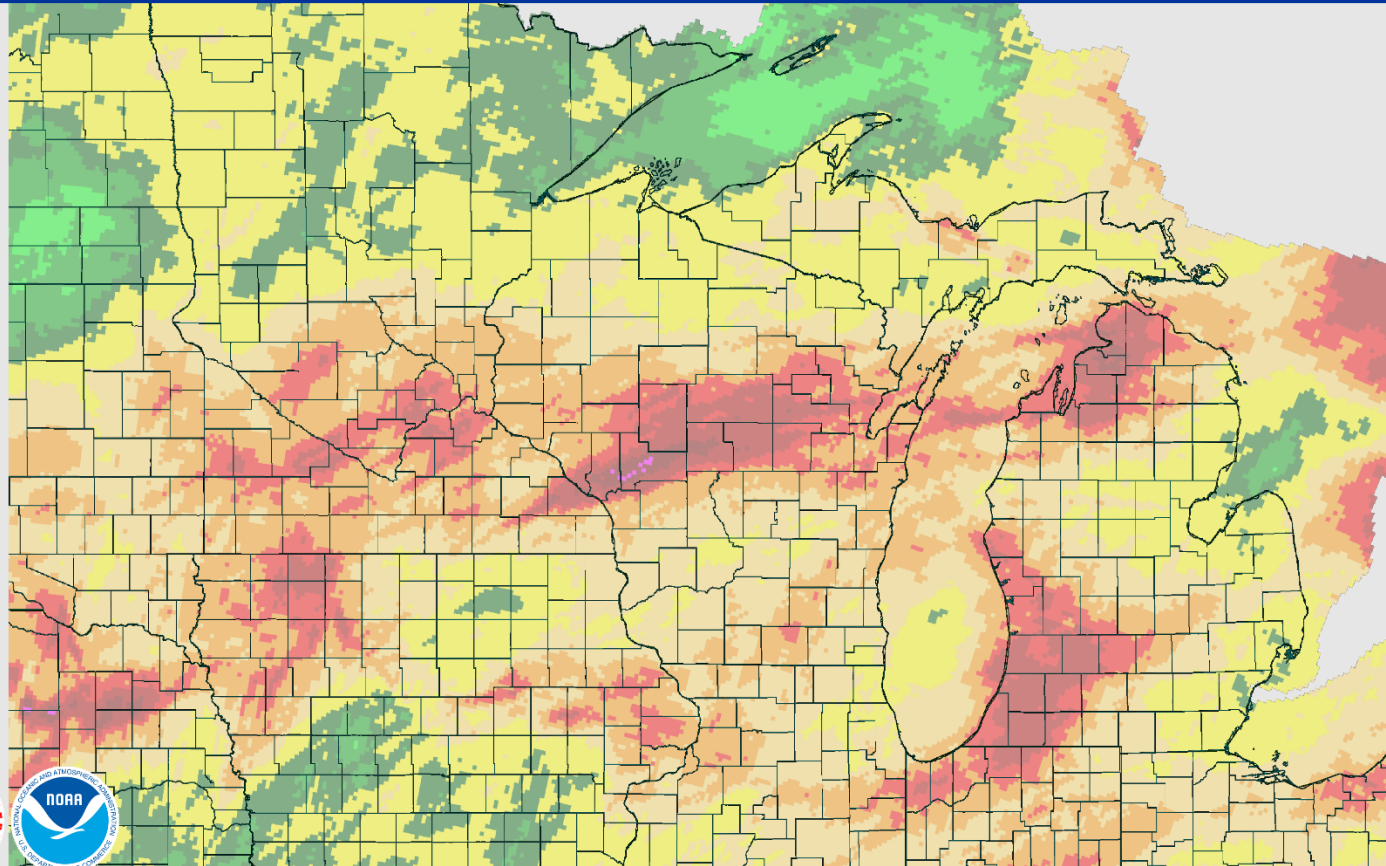
- Highest totals in Central WI (2-5");  $\geq 5$ " in parts of Jackson & Trempealeau Counties.
- Lowest totals in the far NW and S ( $\leq 1$ " )

# 30 Day Precip

## October 31, 2023 30-Day Observed Precipitation

Created on: October 31, 2023 - 14:05 UTC

Valid on: October 31, 2023 12:00 UTC



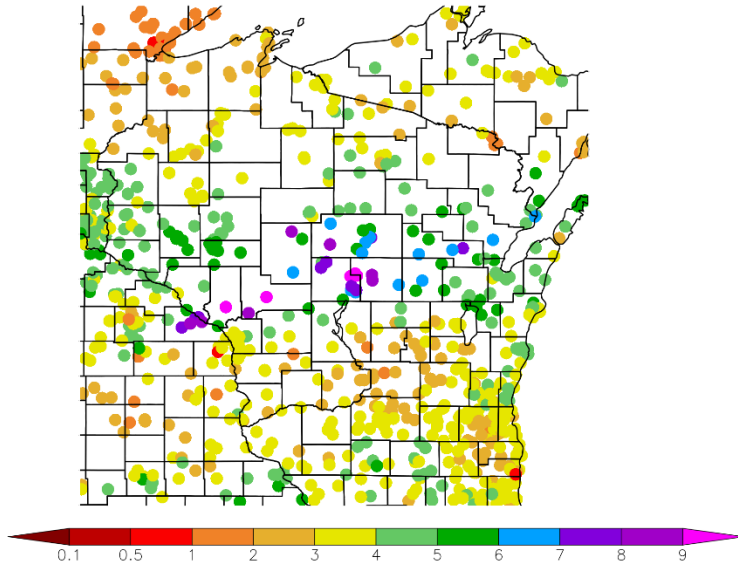
<https://water.weather.gov/precip/>

*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)  
10/1/2023 - 10/30/2023

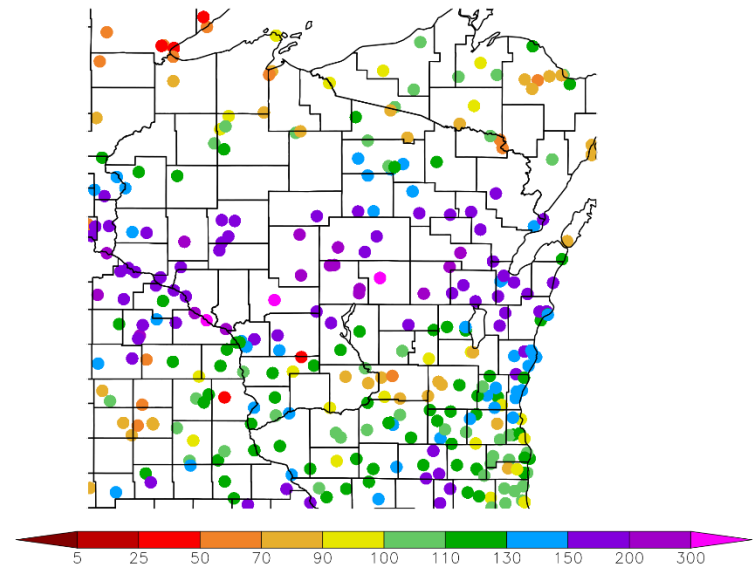


Generated 10/31/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Totals of 3+” were common, with some central WI locations receiving >7”.
- Most of the state observed higher-than-normal totals (>100%).
- Central WI received 150+% of normal precip.

Percent of Normal Precipitation (%)  
10/1/2023 - 10/30/2023



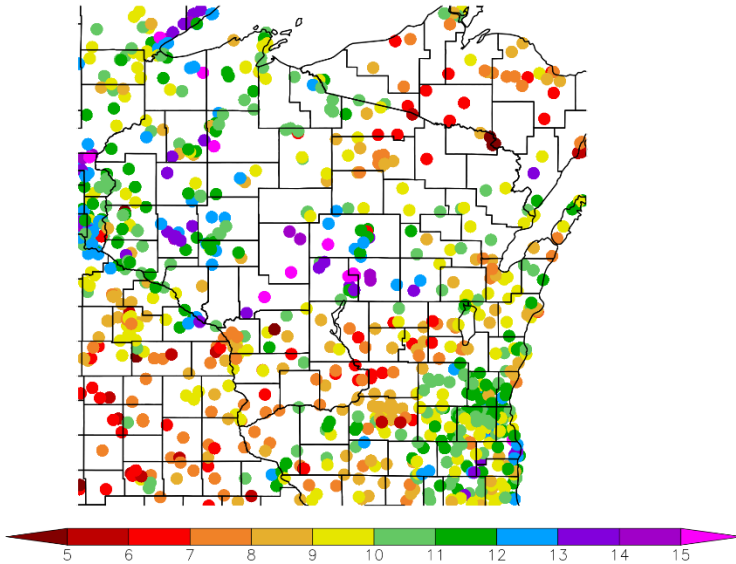
Generated 10/31/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

# 90 Day Precip Total/% Avg.

Precipitation (in)  
8/2/2023 - 10/30/2023

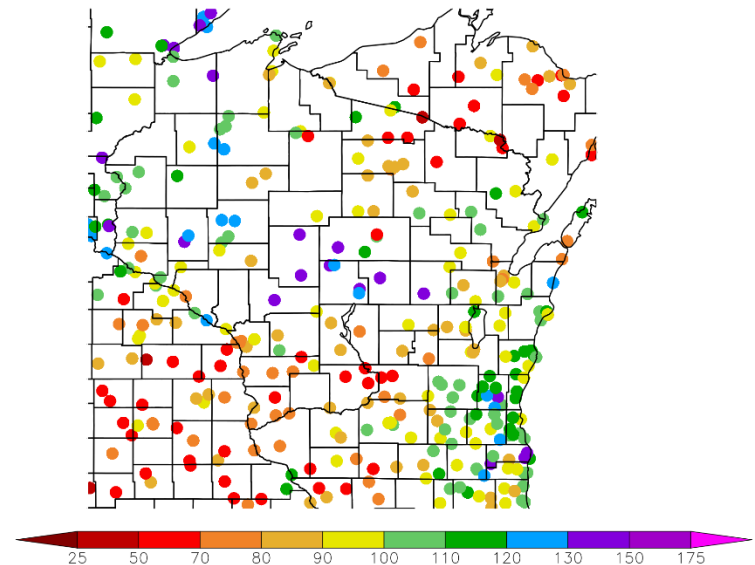


Generated 10/31/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Totals range from <7" at stations in the SW/SC and far N to >13" in the Central and NW areas.
- Percentages are a mixed bag:
  - <70% of normal in SW and far NE.
  - >100% of normal in NW and SE.
  - >130% in Central WI.

Percent of Normal Precipitation (%)  
8/2/2023 - 10/30/2023



Generated 10/31/2023 at HPRCC using provisional data.

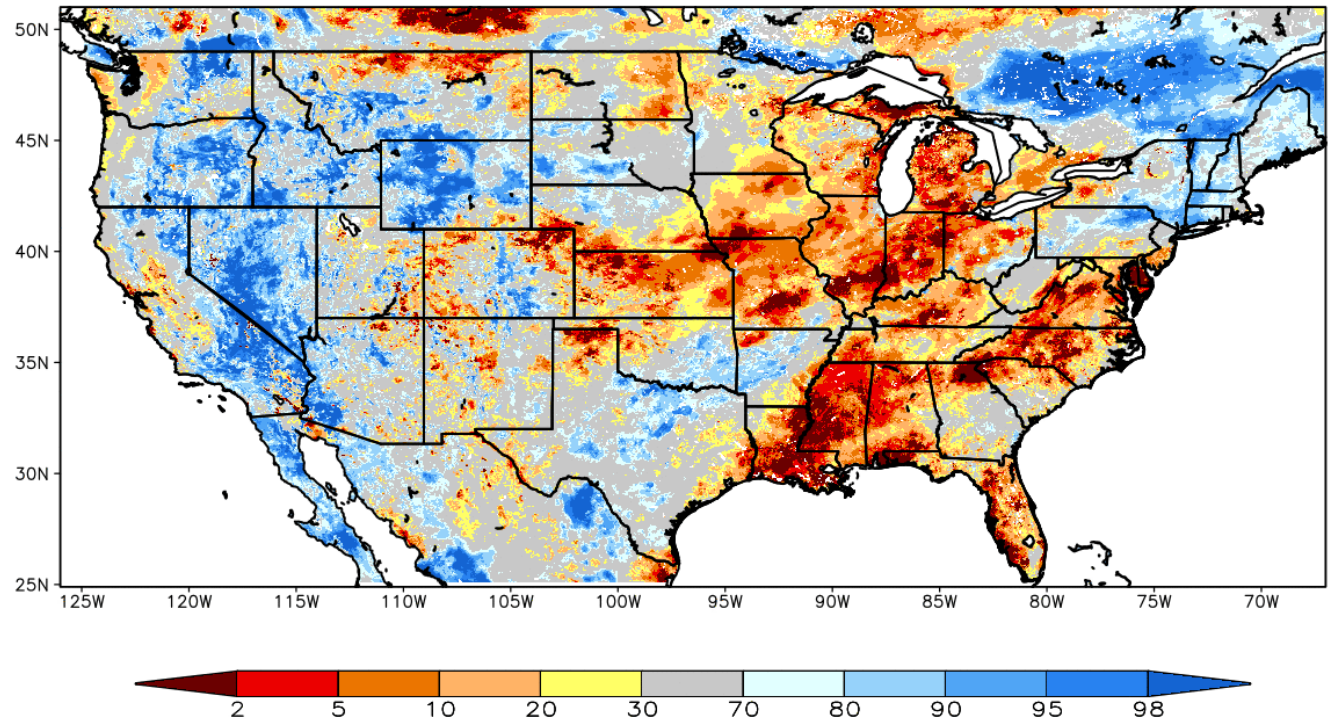
NOAA Regional Climate Centers

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

# Modeled Soil Moisture

- Improved soil moisture conditions from last week due in part to recharge from last week's rainfall.
- In WI, dryness has improved but remains across most of the state.

SPoRT-LIS 0-100 cm Soil Moisture percentile valid 31 Oct 2023



*Model Notes:*

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

\*\*NOTE\*\*  
\*\*Experimental\*\*

[https://weather.msfc.nasa.gov/sport/case\\_studies/lis\\_CONUS.html](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/Soilmst_Monitoring/US/Soilmst/Soilmst.shtml)  
[https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp\\_new.shtml#](https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp_new.shtml#)



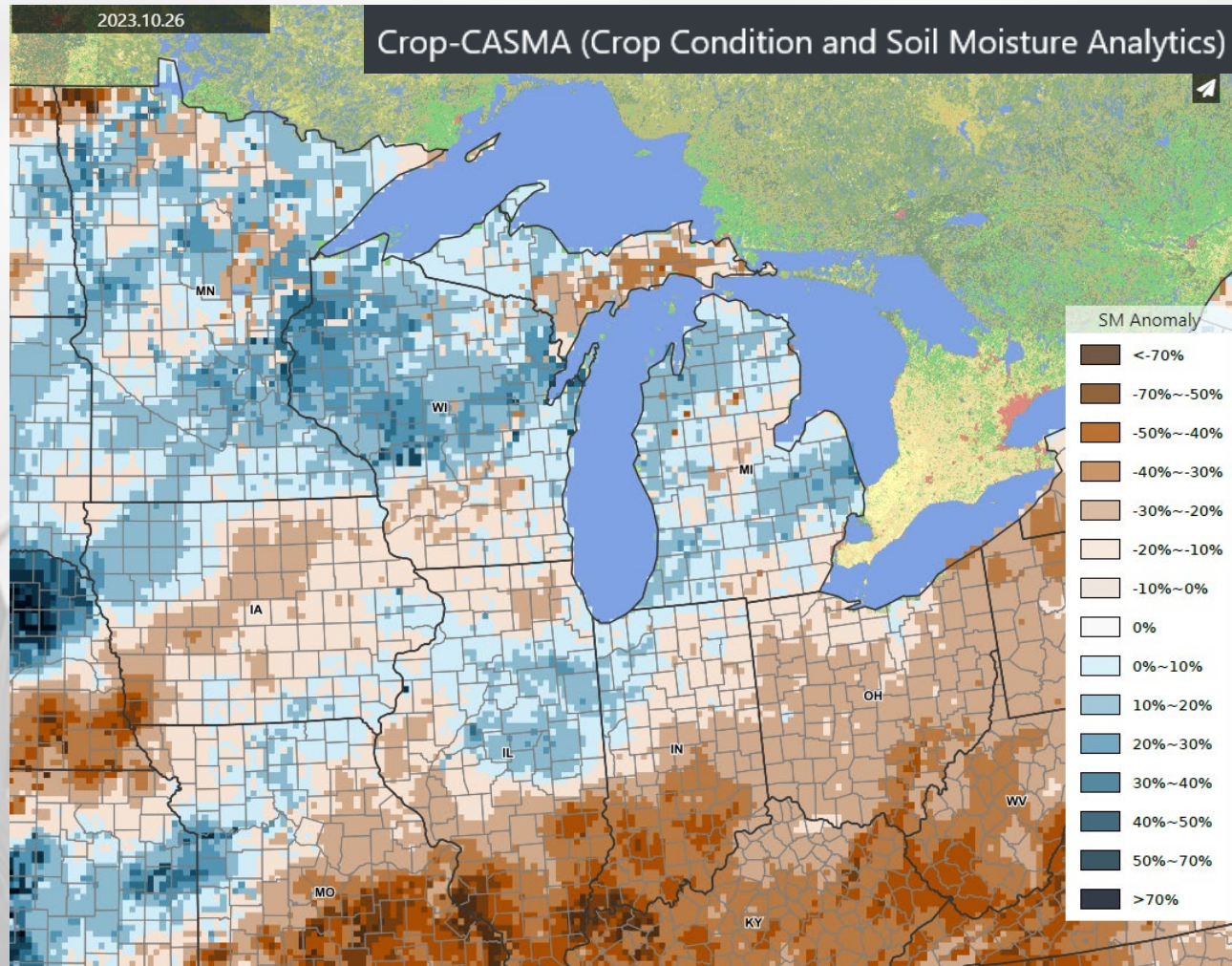
# Modeled Soil Moisture

**Alternate product from GMU and partners.**

- Some disagreement with SPoRT-LIS (last slide) in the E; this map suggests abnormal wetness in the E.
- Improved conditions across the state due to last week's rainfall.
- Most of the state is now showing a surplus.
- Corn Belt conditions are variable.

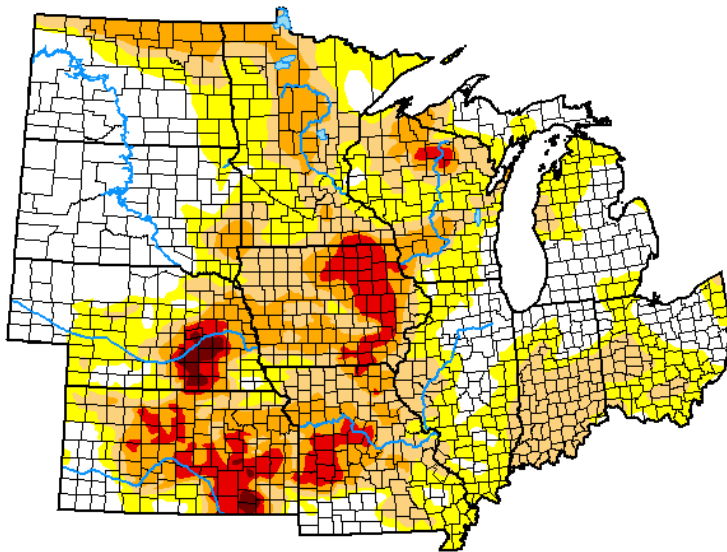
**Model Notes:**

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



# US Drought Monitor

## U.S. Drought Monitor North Central States



**October 24, 2023**

(Released Thursday, Oct. 26, 2023)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	31.65	68.35	42.06	20.82	6.33	0.65
<b>Last Week</b> 10-17-2023	29.38	70.62	44.16	21.06	6.33	0.65
<b>3 Months Ago</b> 07-25-2023	20.00	80.00	55.09	23.83	8.33	0.66
<b>Start of Calendar Year</b> 01-03-2023	23.51	76.49	51.22	24.39	11.79	5.25
<b>Start of Water Year</b> 09-26-2023	25.87	74.13	49.98	25.16	7.67	0.73
<b>One Year Ago</b> 10-25-2022	11.51	88.49	64.44	31.07	14.68	4.89

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:

Rocky Bilotta  
NCEI/NOAA



[droughtmonitor.unl.edu](http://droughtmonitor.unl.edu)

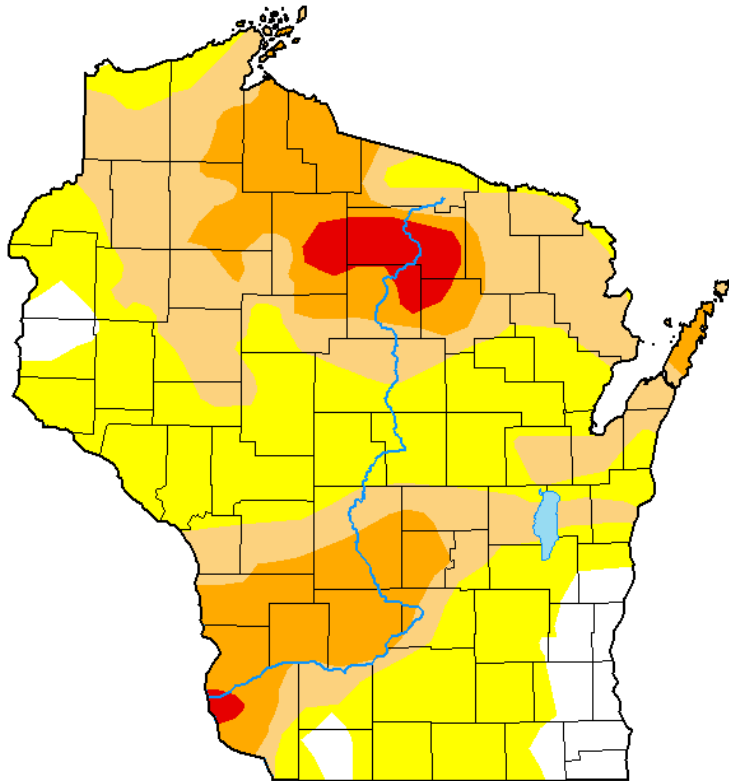
- Regional improvement in lower intensities.
- See current percent area compared to previous periods.
- Areas of D3 were unchanged in/near Grant and Oneida Cos.
- Improvement across Central WI.

*Note: D0 is not considered drought.*



# US Drought Monitor

## U.S. Drought Monitor Wisconsin



**October 24, 2023**

(Released Thursday, Oct. 26, 2023)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	6.49	93.51	51.81	21.60	3.04	0.00
<b>Last Week</b> 10-17-2023	6.49	93.51	68.19	23.65	3.04	0.00
<b>3 Months Ago</b> 07-25-2023	0.00	100.00	82.44	46.51	12.70	0.00
<b>Start of Calendar Year</b> 01-03-2023	67.99	32.01	5.71	1.84	0.00	0.00
<b>Start of Water Year</b> 09-26-2023	2.04	97.96	80.86	37.74	6.77	0.00
<b>One Year Ago</b> 10-25-2022	33.62	66.38	24.91	3.95	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>

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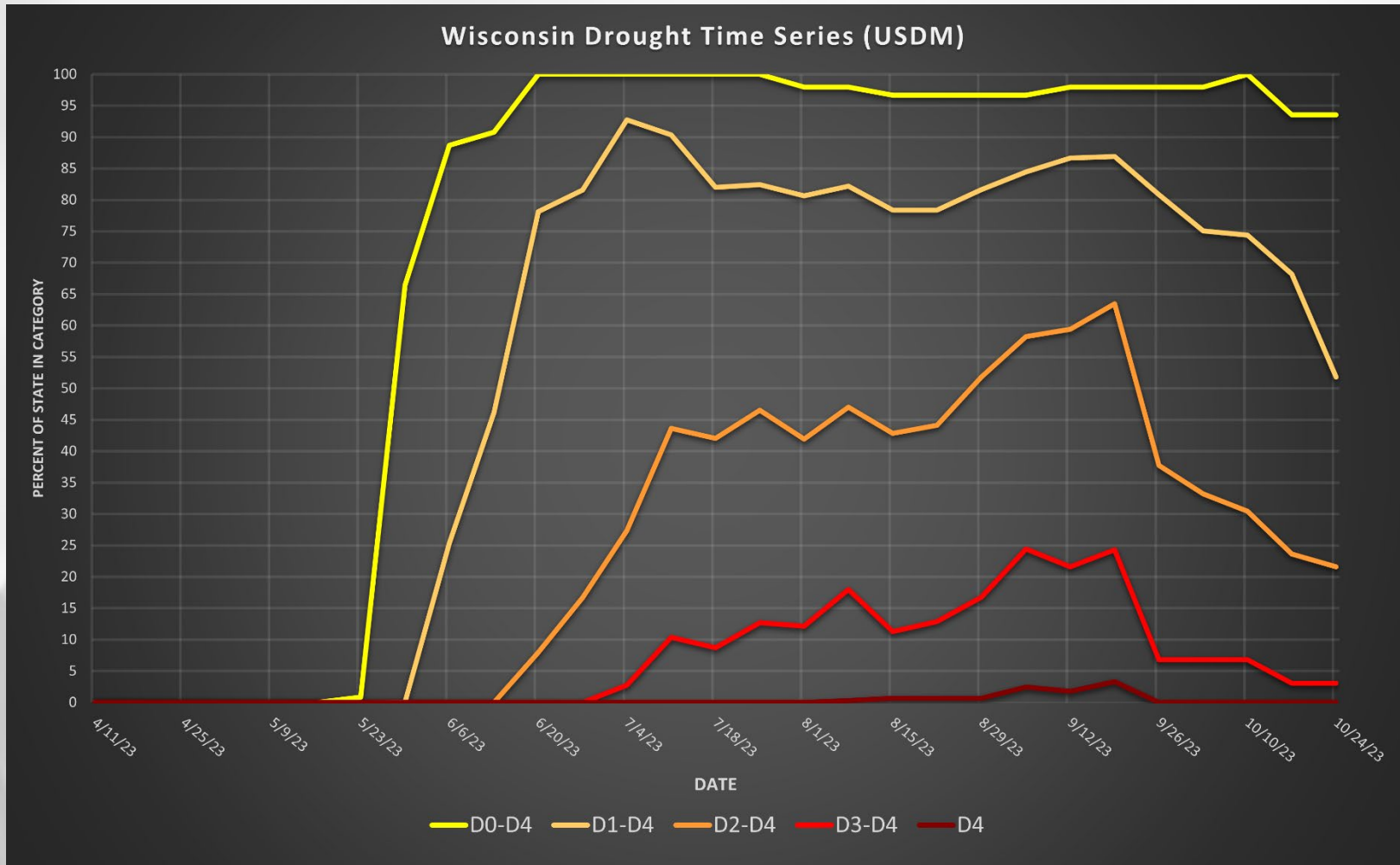
[droughtmonitor.unl.edu](http://droughtmonitor.unl.edu)

Amount of state in:

- **D1-D4** – 51.8% ↓
- **D2-D4** – 21.6% ↓
- **D3-D4** – 3.0% --
- **D4** – 0.0% --

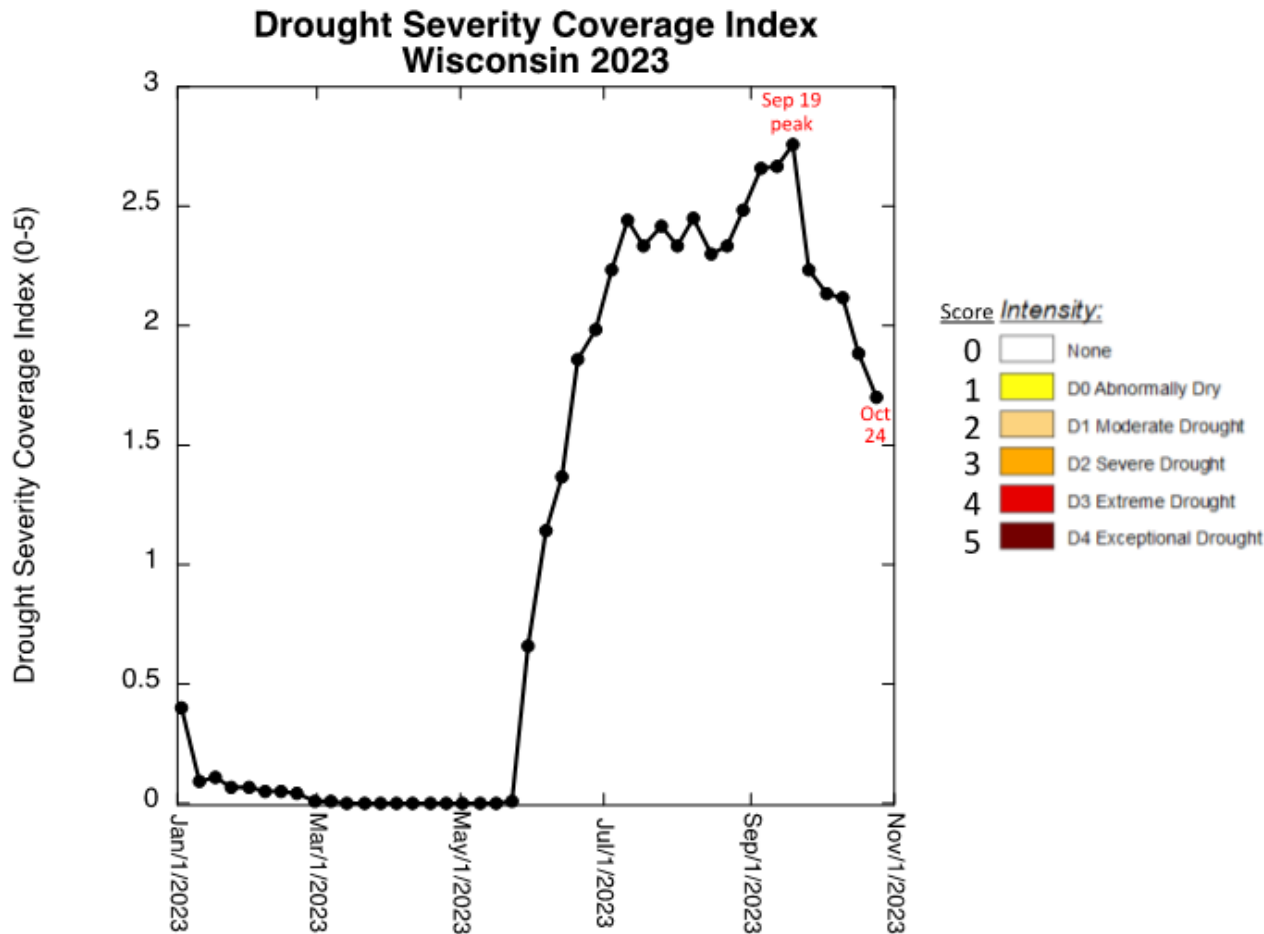
*Note:* ↑ ↓ indicate change from the previous week. Red up arrows indicate increase in drought area; vice-versa for green arrows.

# Drought in WI – Last 6 months



# Statewide Averaged Drought Severity

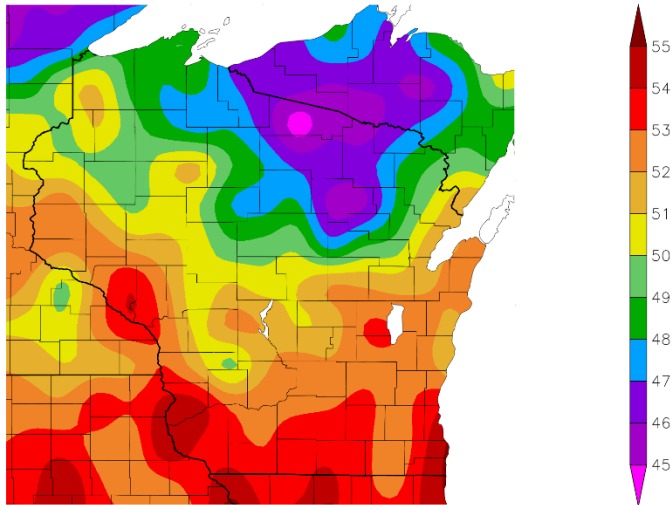
## Statewide Averaged Drought Severity based on U.S. Drought Monitor





# 30 Day Temperatures

Temperature (F)  
10/1/2023 - 10/30/2023

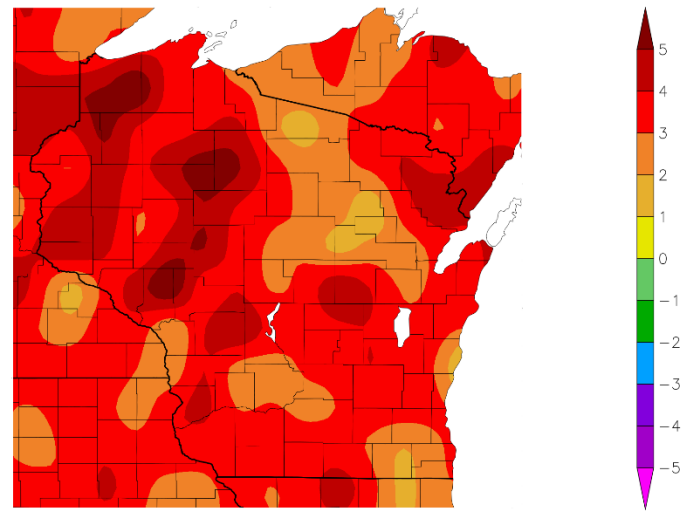


Generated 10/31/2023 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Highest average T along the Mississippi River and SE/SC ( $\geq 53^\circ\text{F}$ ).
- Lowest averages in NC WI ( $\leq 47^\circ\text{F}$ ).
- Monthly averages were 3-5°F above normal across most of the state.

Departure from Normal Temperature (F)  
10/1/2023 - 10/30/2023



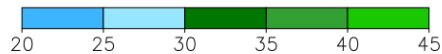
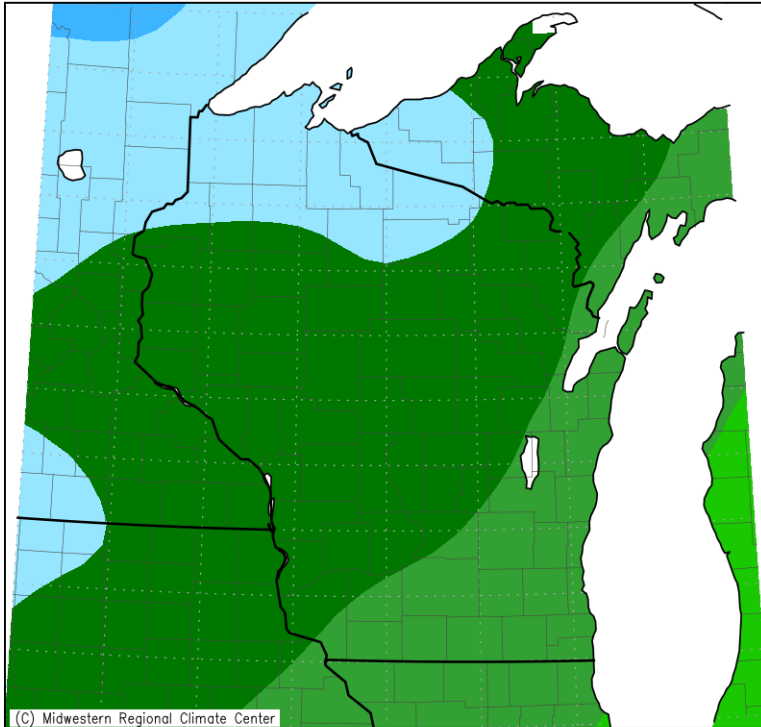
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NOAA Regional Climate Centers

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

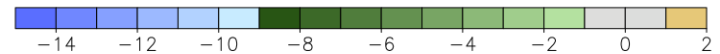
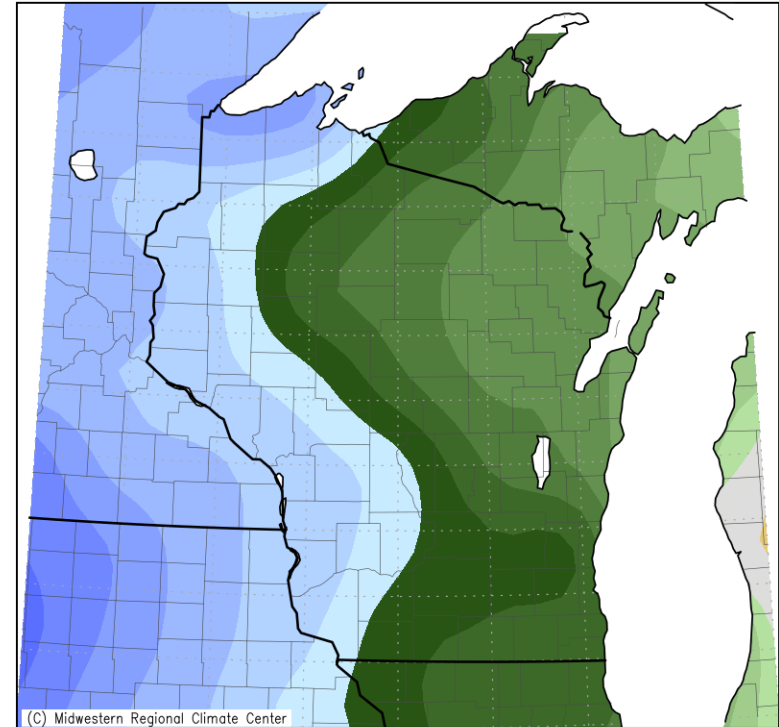
# Recent Cold Snap

Average Temperature (°F)  
October 28, 2023 to October 30, 2023



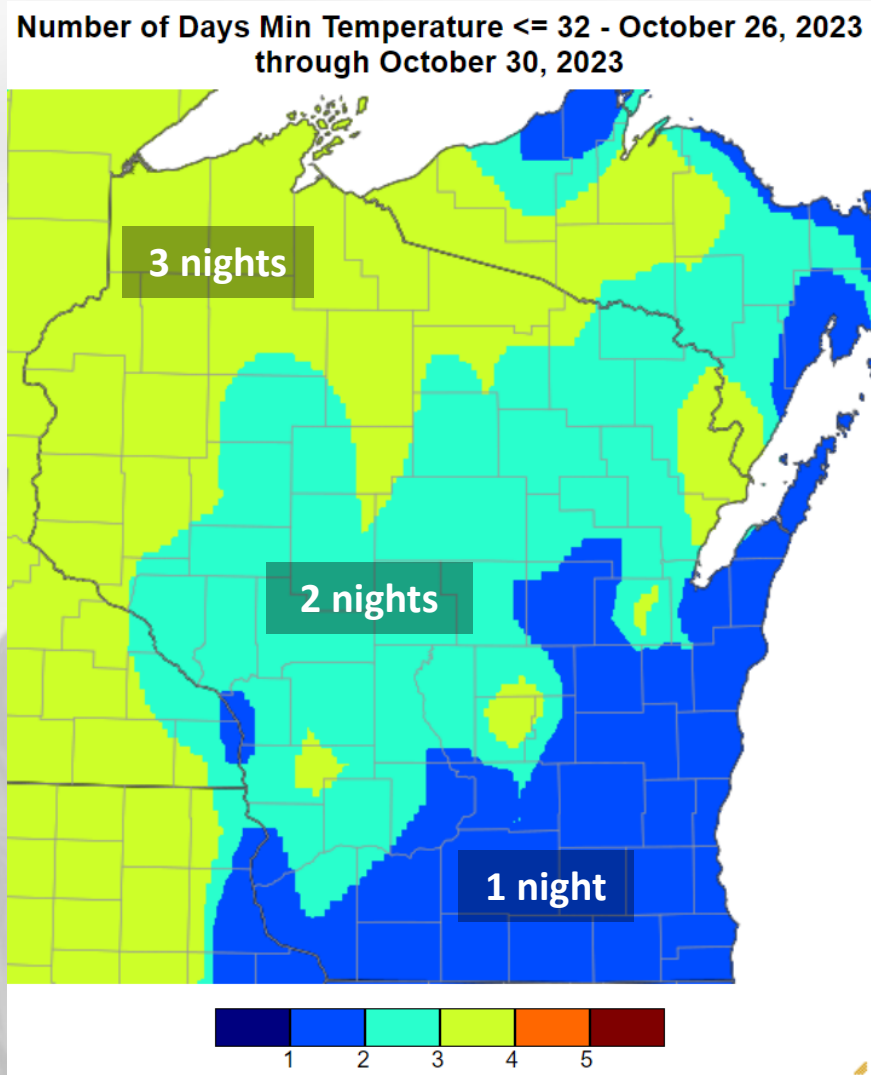
Midwestern Regional Climate Center  
cli-MATE: MRCC Application Tools Environment  
Generated at: 10/31/2023 10:18:15 AM EDT

Average Temperature (°F): Departure from Mean  
October 28, 2023 to October 30, 2023



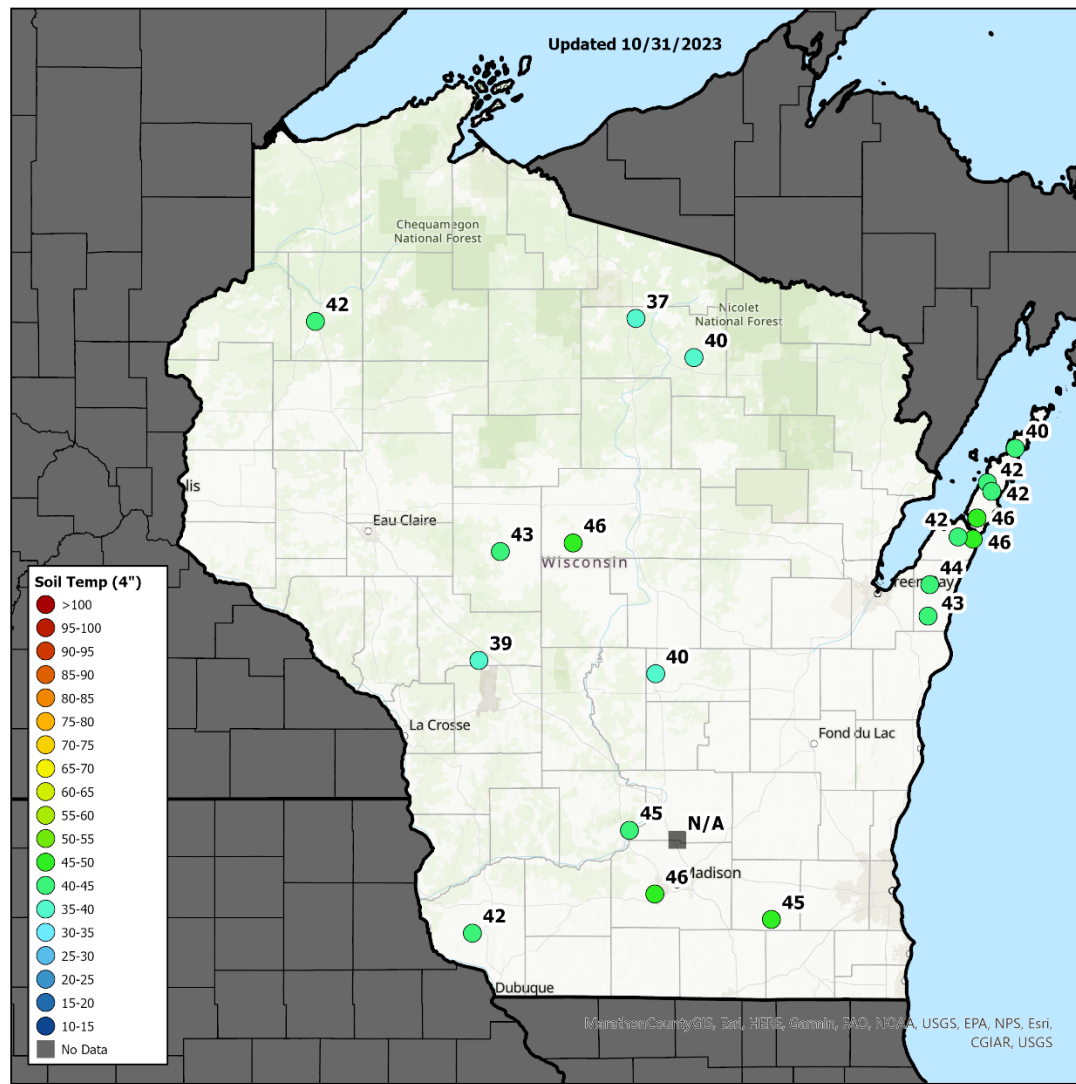
Midwestern Regional Climate Center  
cli-MATE: MRCC Application Tools Environment  
Generated at: 10/31/2023 10:16:39 AM EDT

# Recent Cold Snap





# Soil Temperature 4"



## Data for 10/30/23

- Most stations are sitting in the low 40s.
- All stations are reporting a mean 4-inch temp <50°F.
- Some stations are showing temps ≤40°F (Oneida, Jackson, Waushara Cos.)

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

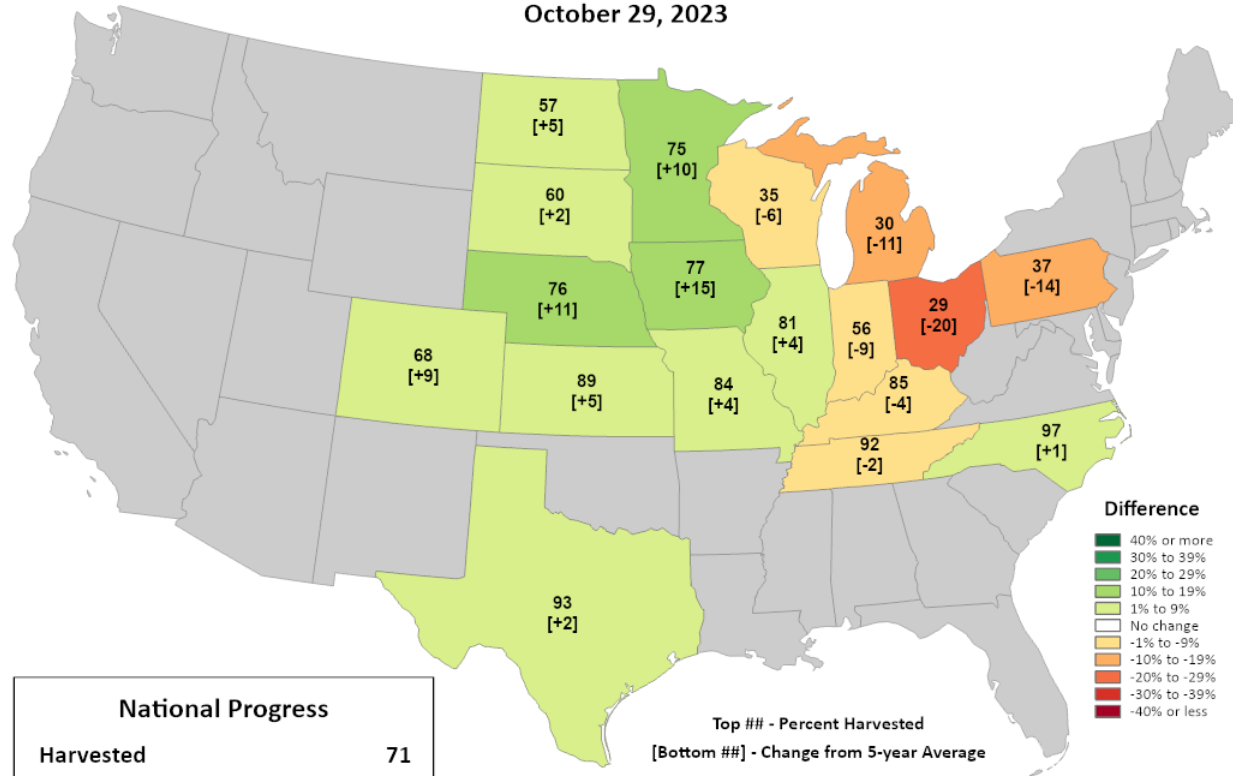
# Corn Progress (NASS)



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

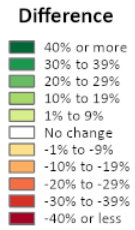
## Corn Progress Percent Harvested

October 29, 2023



National Progress	
Harvested	71
Change from 5-year Average	+5

Top ## - Percent Harvested  
[Bottom ##] - Change from 5-year Average



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

## Corn Harvested (NASS):

- Wisconsin: 35% (-6%)
- National: 71% (+5%)

Corn harvest running behind the 5-year average in WI. Progress increased by **11%** from last week.

Trending ahead of average to the S and W and behind to the E.

# Soybean Progress (NASS)

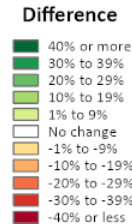
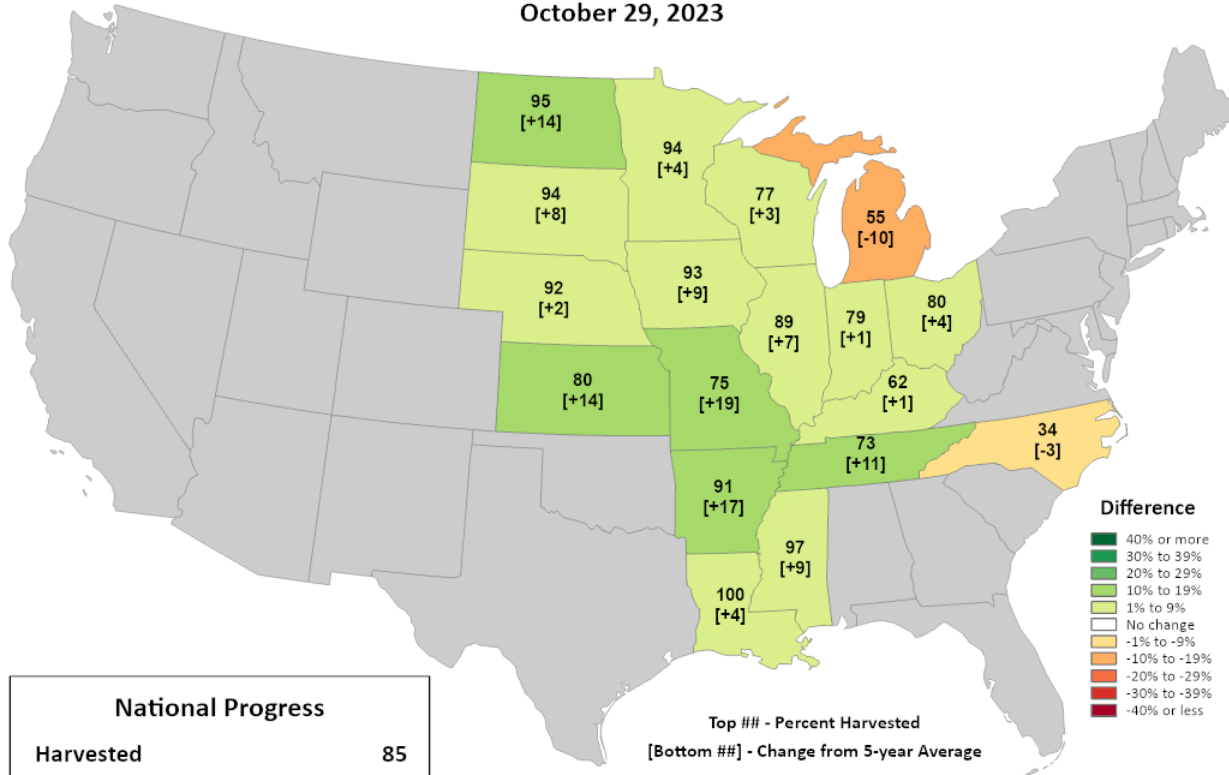


This product was prepared by the  
USDA Office of the Chief Economist (OCE)  
World Agricultural Outlook Board (WAOB)

## Soybeans Progress

### Percent Harvested

October 29, 2023



National Progress	
Harvested	85
Change from 5-year Average	+7

Top ## - Percent Harvested  
[Bottom ##] - Change from 5-year Average

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

## Soybean Harvested (NASS):

- Wisconsin: 77% (+3%)
- National: 85% (+7%)

Soybeans still ahead of the 5-year average nationally and in WI. Progress increased by **8%** from last week.

Trending behind average in MI and NC and ahead of average to the W/SW.



# Pasture Conditions (NASS)

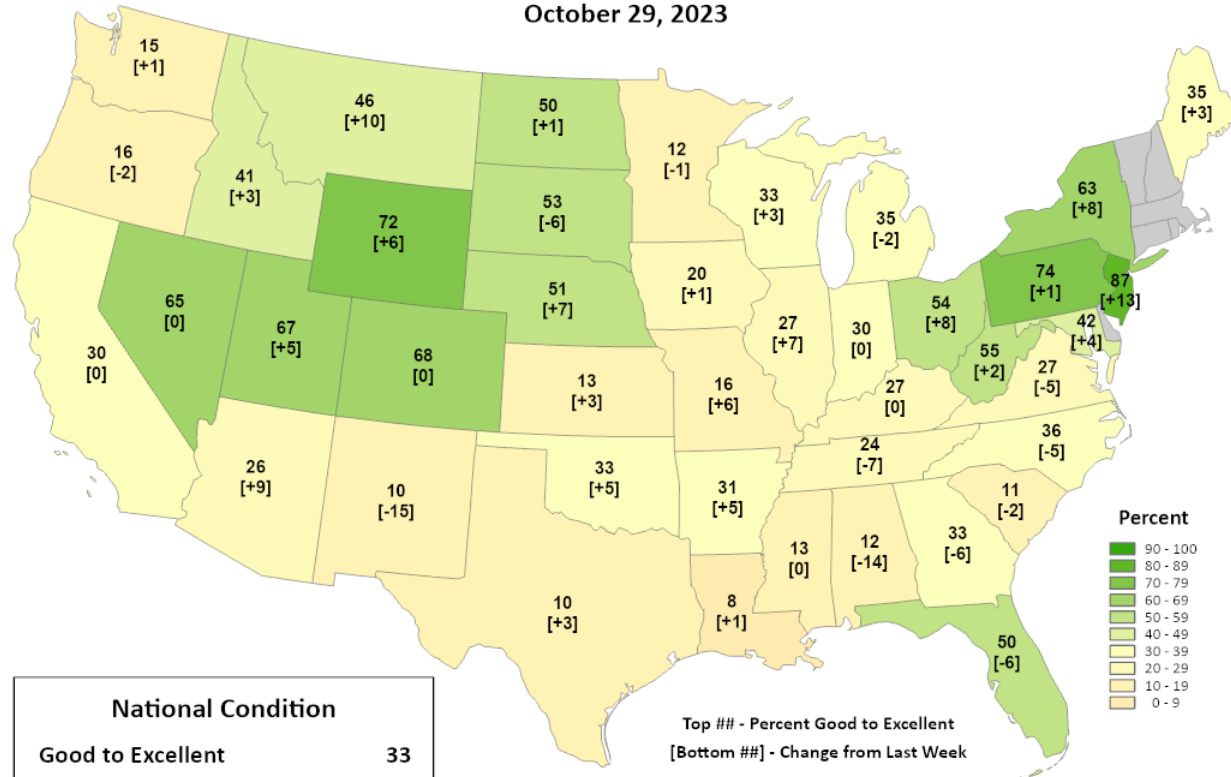


## Pasture and Range Conditions

Percent Good to Excellent

October 29, 2023

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



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

## Pasture and Range Conditions (NASS):

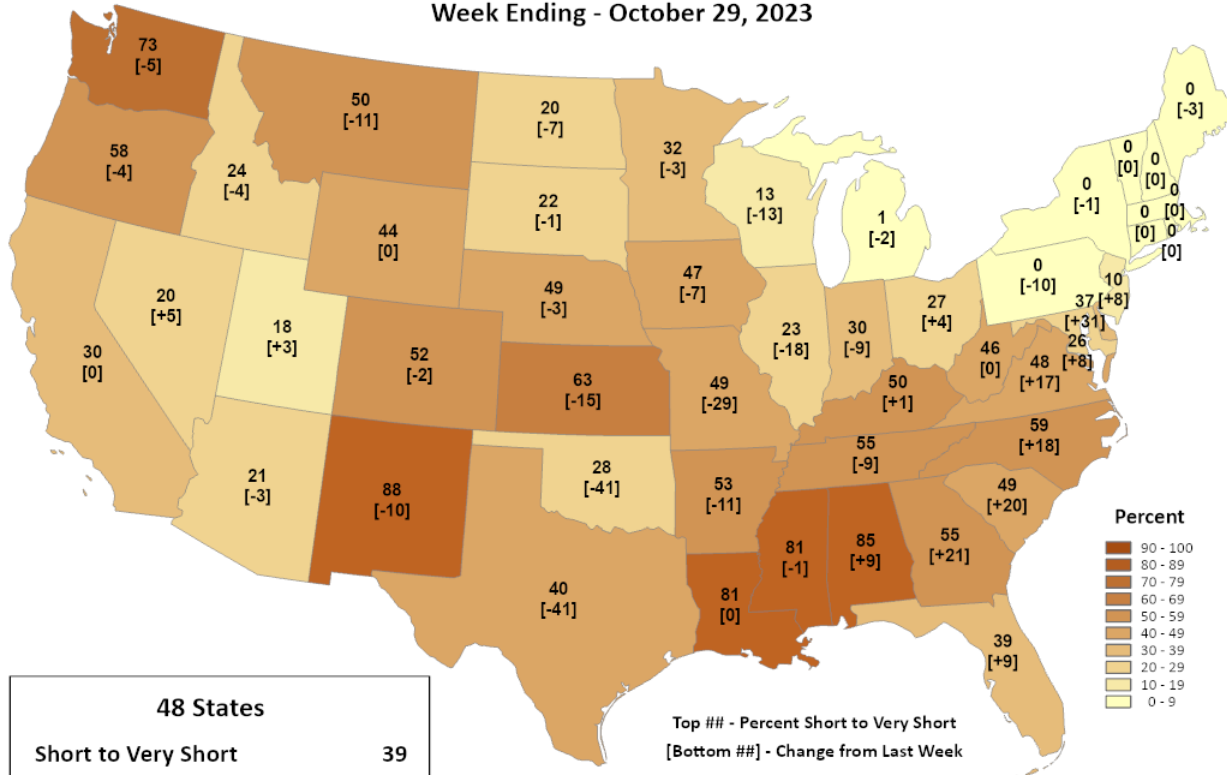
- Conditions show minimal changes across the region. Challenges persist in the central Midwest.
- Wisconsin: 33% (+3%)
- National: 33% (+2%)

# 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 - October 29, 2023



<b>48 States</b>	
Short to Very Short	<b>39</b>
Change from Last Week	<b>-10</b>

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):

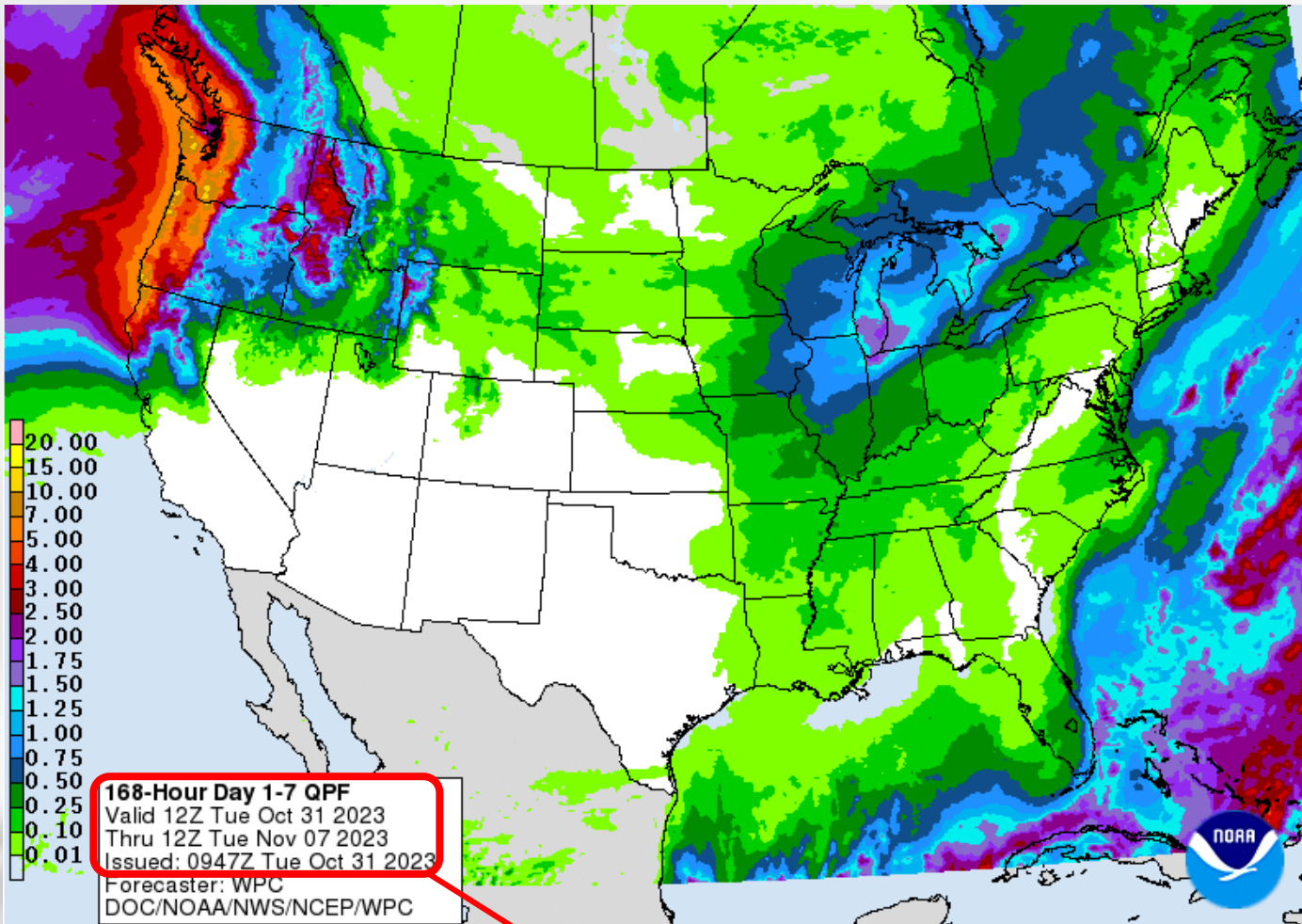
- Wisconsin: 13% (-13%)
- National: 39% (-10%)

Conditions improve in WI with the recent rainfall.

Improvement (reduction in %) was also observed in neighboring states and nationally.

# 7 Day Forecast Precip

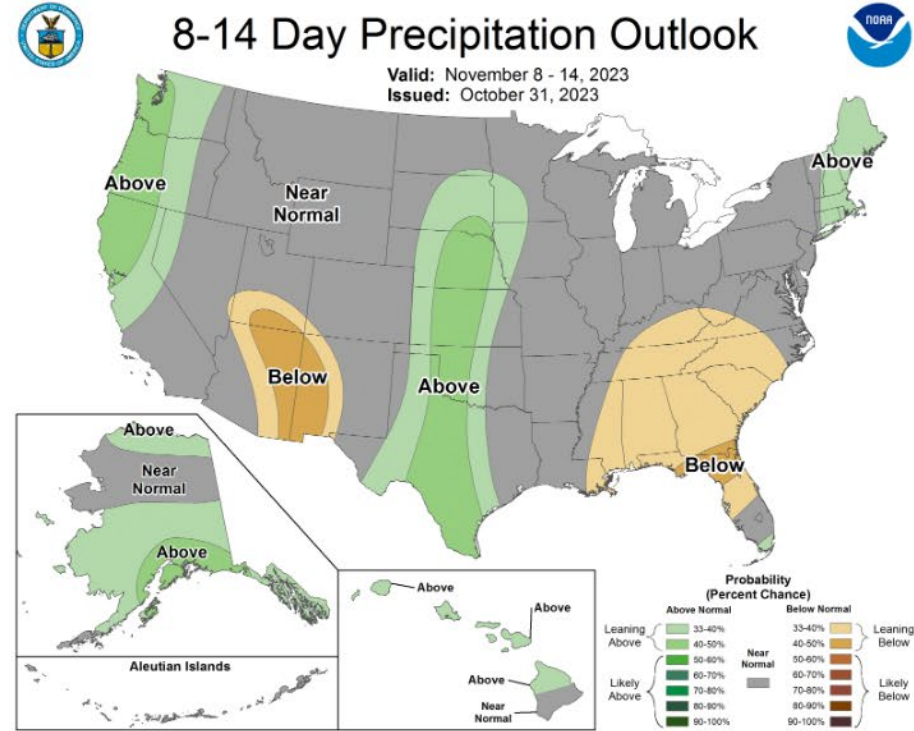
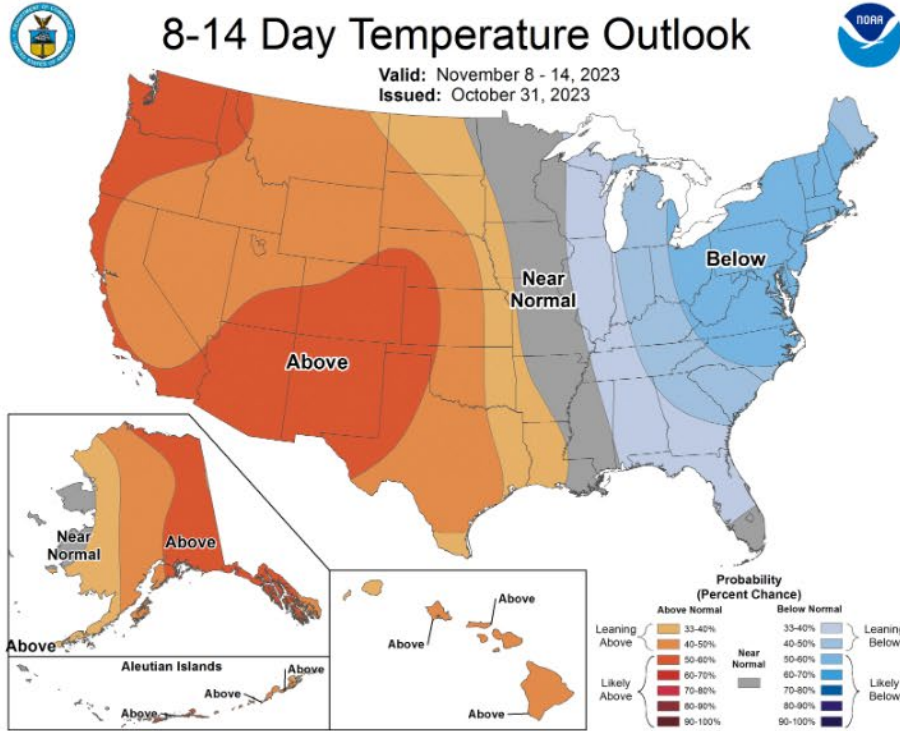
- Chances for precipitation expected into the weekend and early next week.
- The highest totals are forecasted across E/SE WI.
- All areas in WI are forecasted to get some rain.



Forecast for 10/31/23 thru 11/6/23



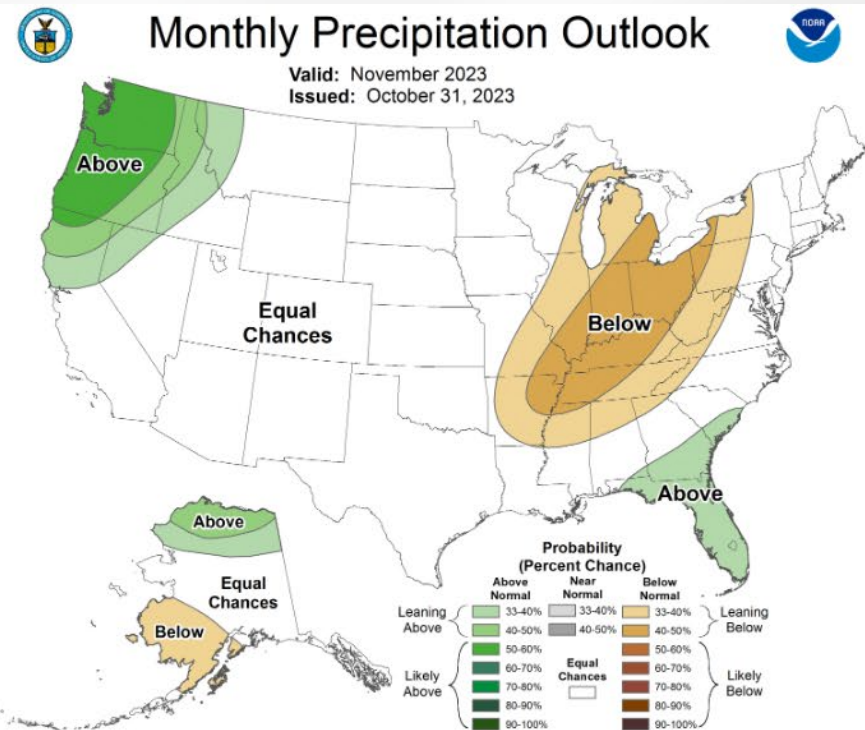
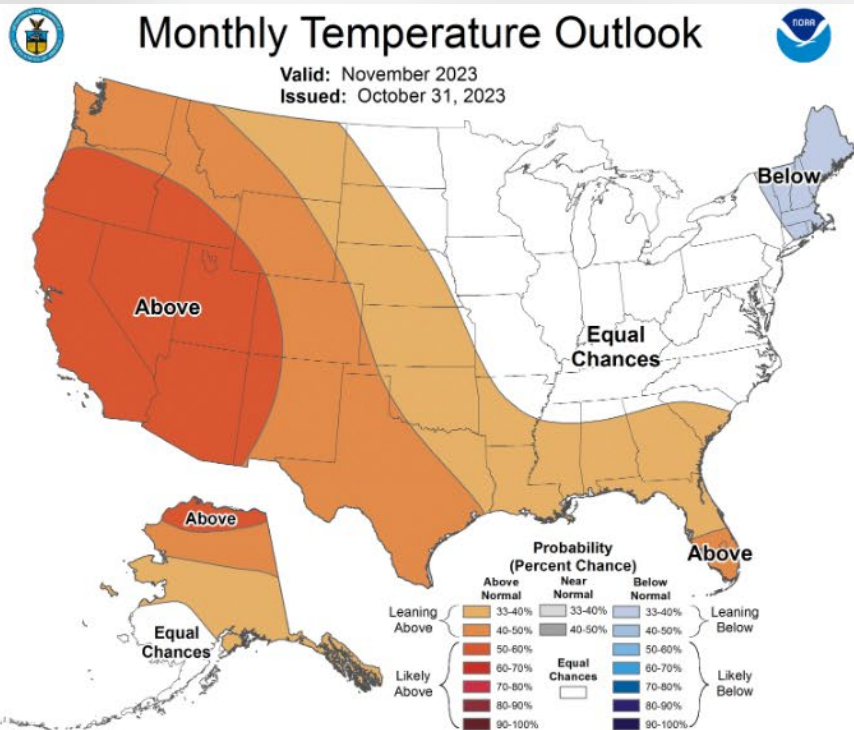
# 8-14 Day Temp & Precip Outlook



**The second week of November:** Temperatures to be near or below normal. Precipitation likely to be near normal.

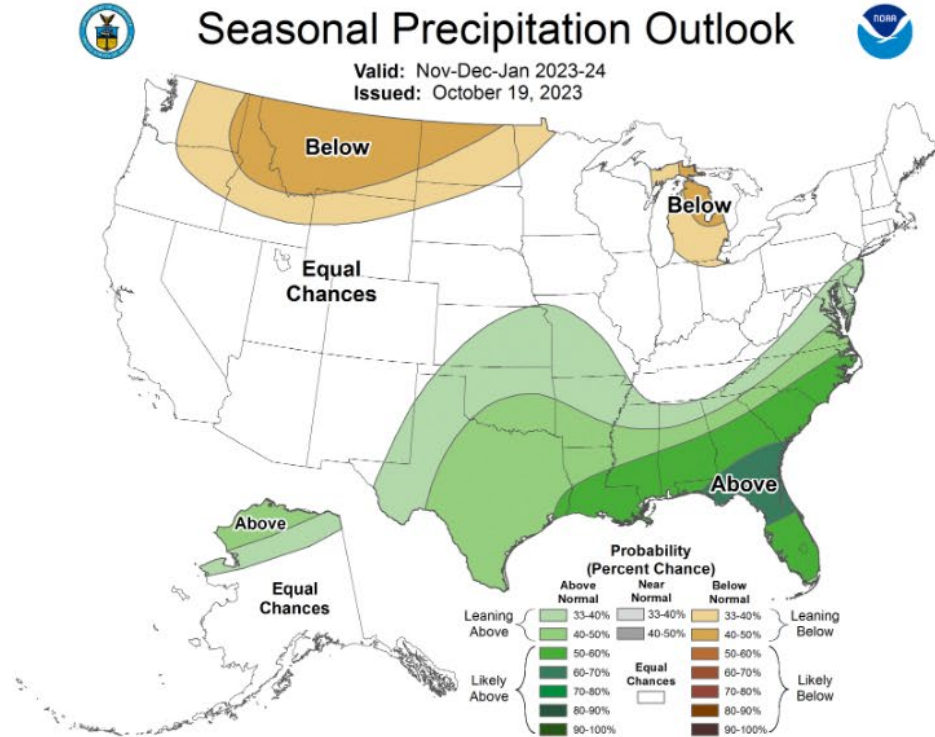
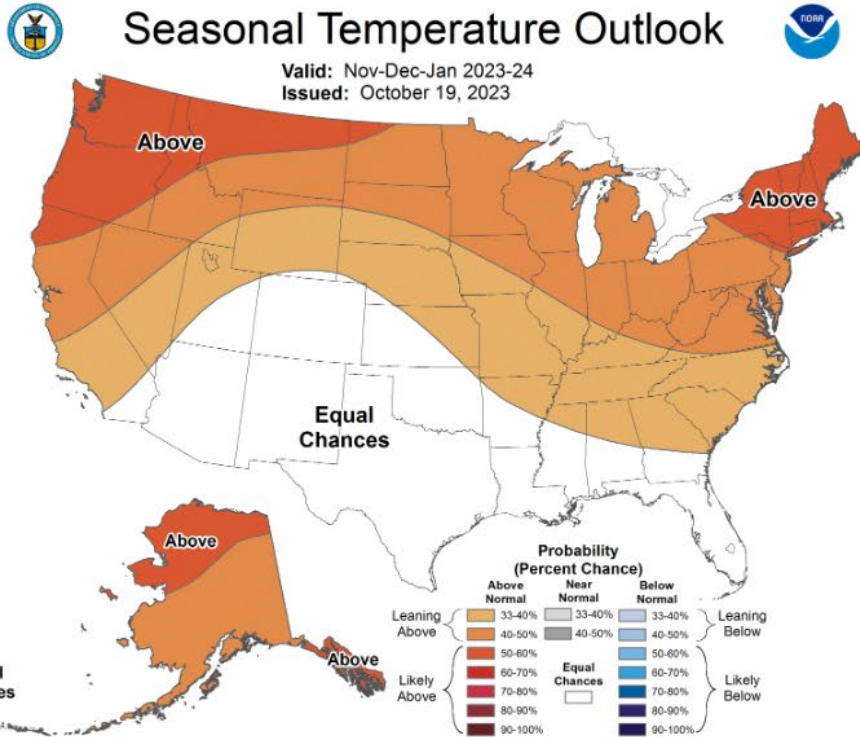


# 30 Day Temp & Precip Outlook



**The month of November:** No strong indicators for temperature for this period (“equal chances”). Precipitation forecasted to be below normal in the E/SE; no indication elsewhere.

# 90 Day Temp & Precip Outlook



**November – January:** Temperatures likely to be above average. No indication on precipitation departure from average. El Nino is a major driver of these conditions.

# Take Home

- **Current conditions:**
  - A wetter-than-normal week & month in many parts of WI helped alleviate dryness regionally.
  - A cold end to an October that has seen mostly higher-than-normal temperatures.
- **Impact:**
  - Drought conditions have been improving with recent rains.
  - Recent rains have slowed down corn harvest for some (trending behind 5 yr. avg.)
  - Recent rains could help for cover crop growth, pastures/grass, and start of soil moisture recharge.
- **Outlook:**
  - More moderate temperatures heading into the weekend and next week.
  - Precipitation chances increasing into early next week, especially in E/SE WI.
    - *Will continue to help recharge soil moisture.*



# For More Information



Photo Credit: USDA

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