NRCS Natural Resources Conservation Service

USDA Midwest Climate Hub
U.S. DEPARTMENT OF AGRICULTURE

Wisconsin State Climatology Office
Nelson Institute for Environmental Studies

Extension
University of Wisconsin-Madison

Wisconsin Ag Climate Weekly Outlook

Updated November 14, 2023

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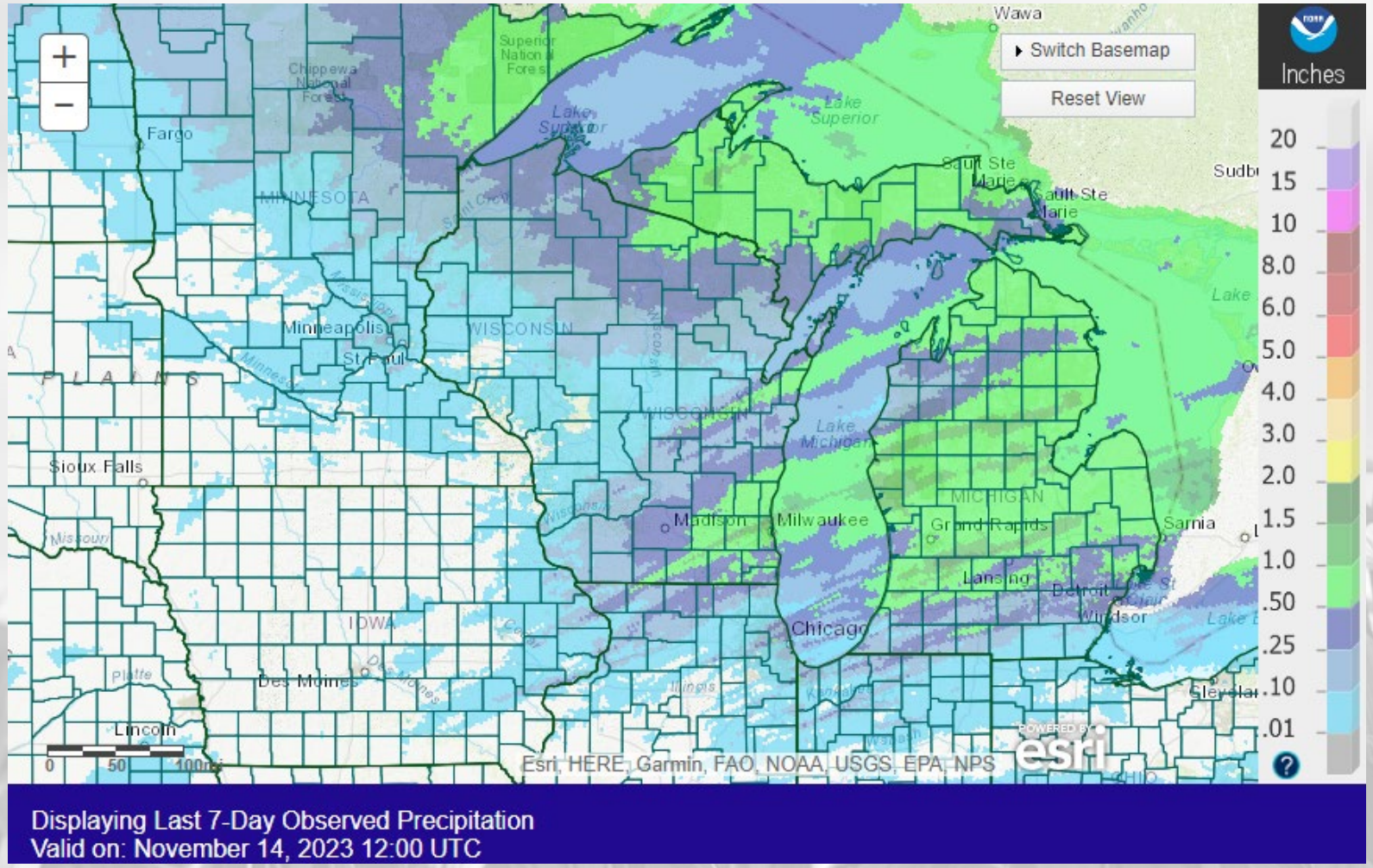
Key Points

1) Drought conditions remain mostly unchanged this week.
2) Corn harvest made big strides this week, due to the dry weather.
3) Very little precipitation is expected during the upcoming week.

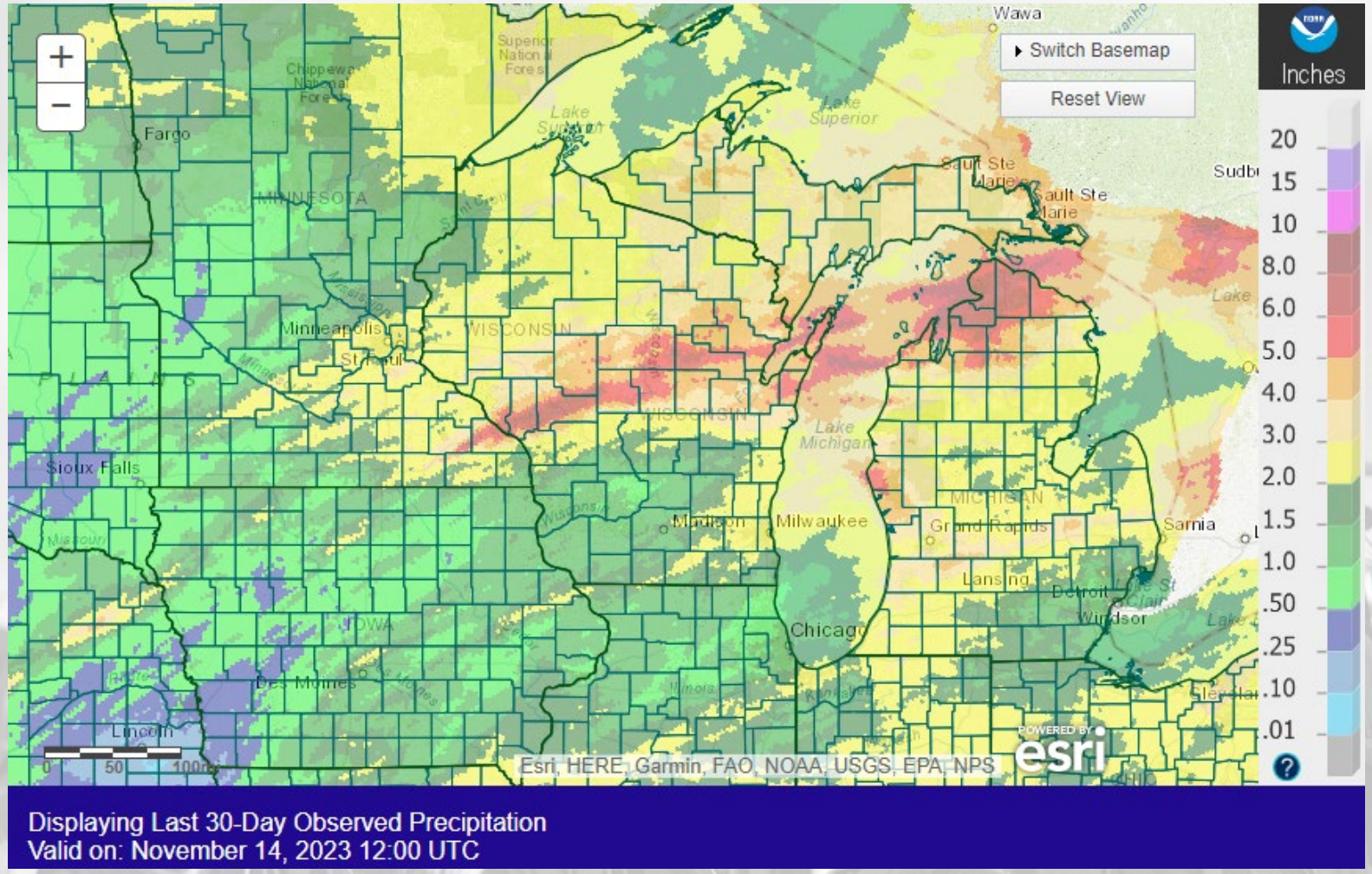
Last Week Precip



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

- Highest totals in the SE and far NC (≥0.5”)
- Lowest totals in the W (≤0.1”)

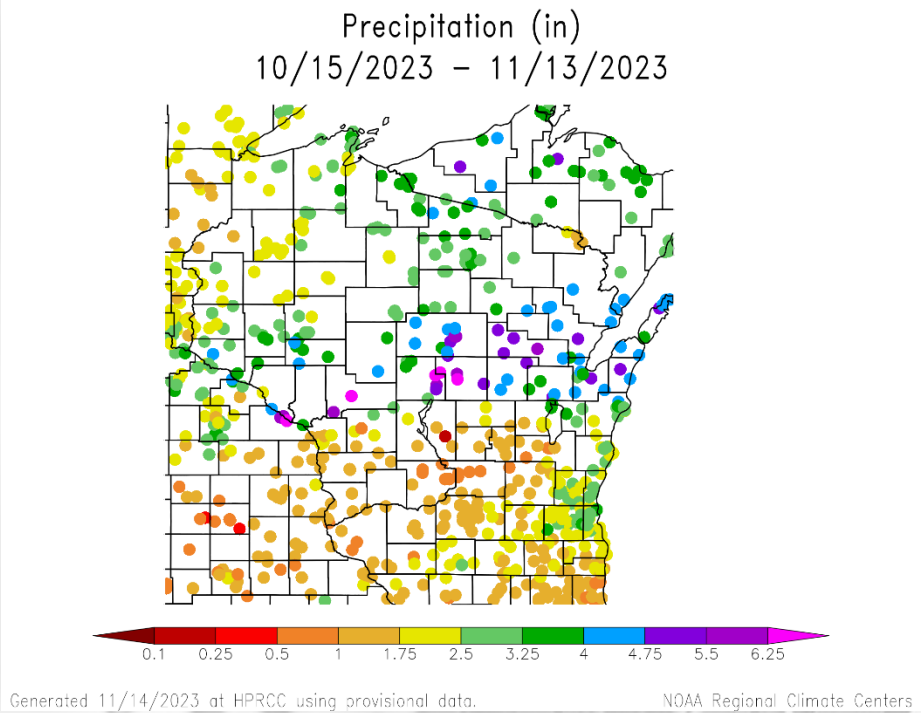
30 Day Precip



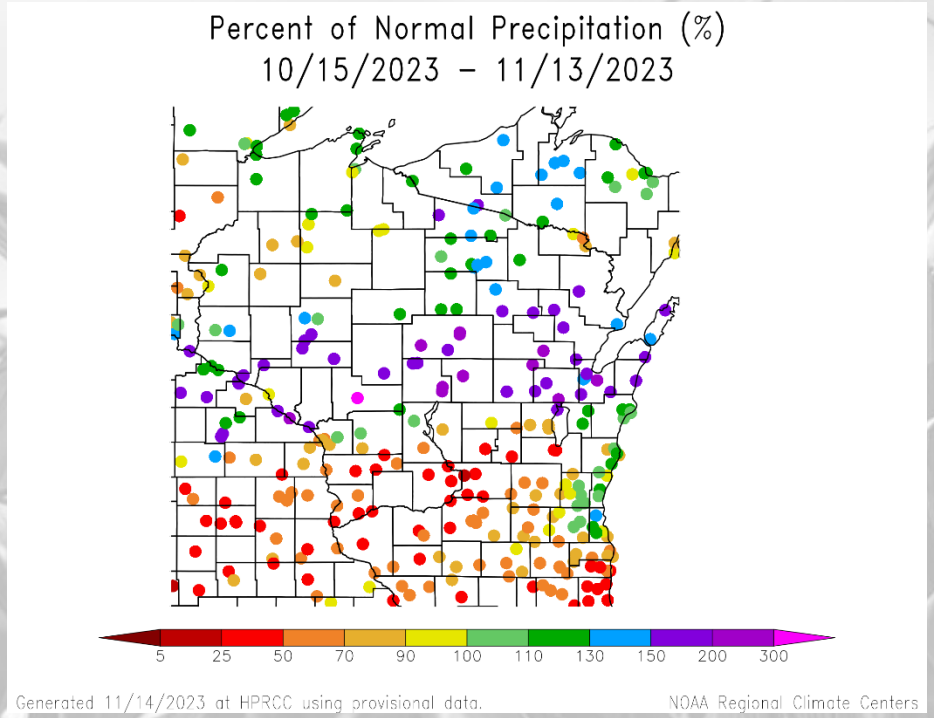
https://water.weather.gov/precip/

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

30 Day Precip Total/% Avg.

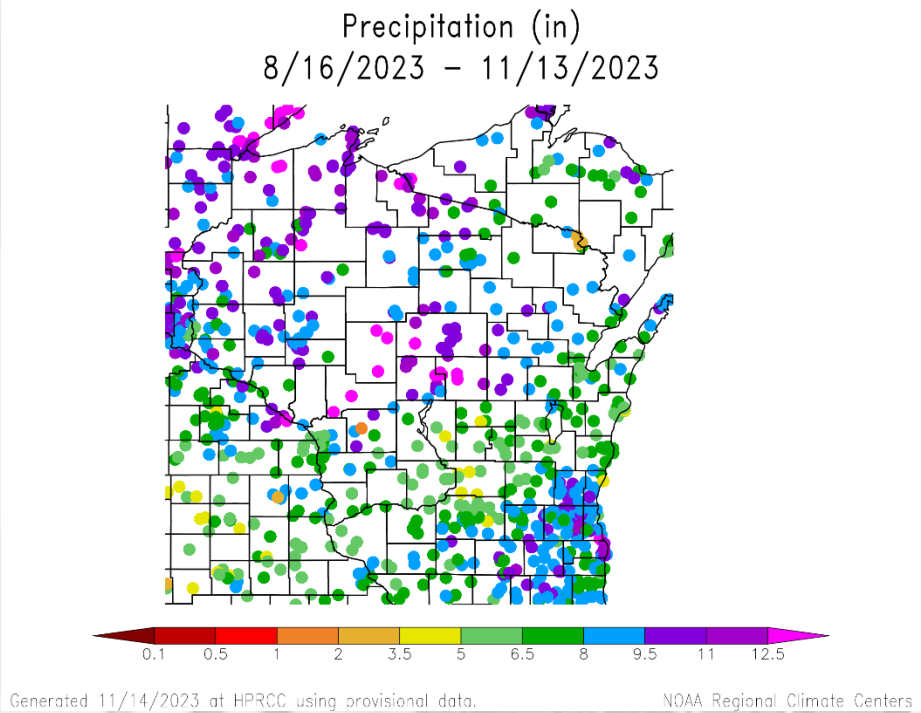


- Totals ranged from <2” in the SC/SW to >4” across Central WI.
- Lower-than-normal totals (<100%) were common in the SC/SW and in the NW.
- Central WI received 150+% of normal precip.

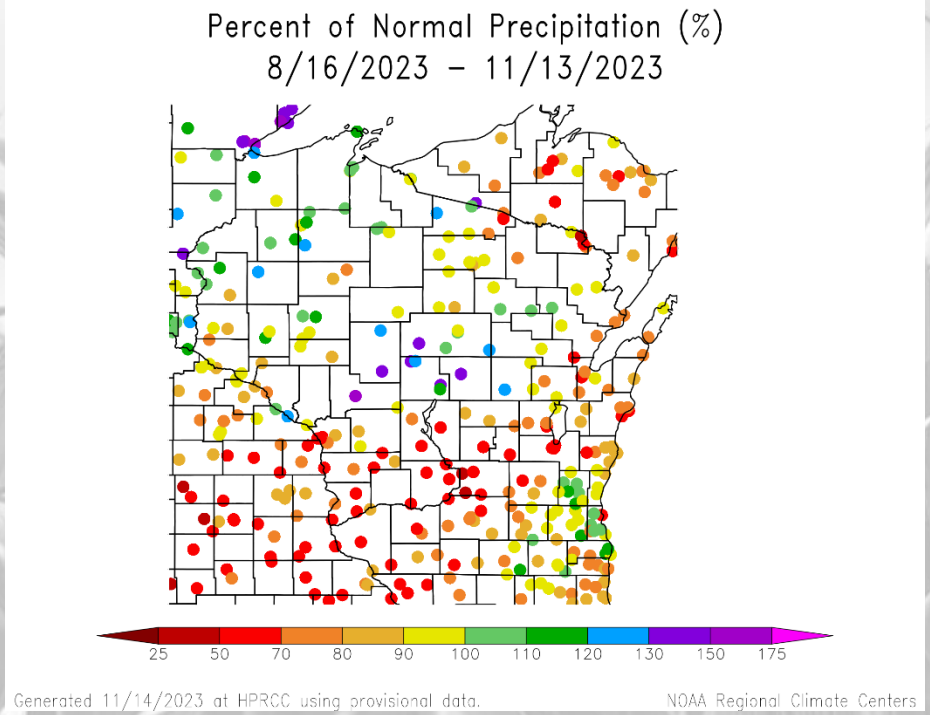


https://hprcc.unl.edu/maps.php?map=ACISClimateMaps

90 Day Precip Total/% Avg.

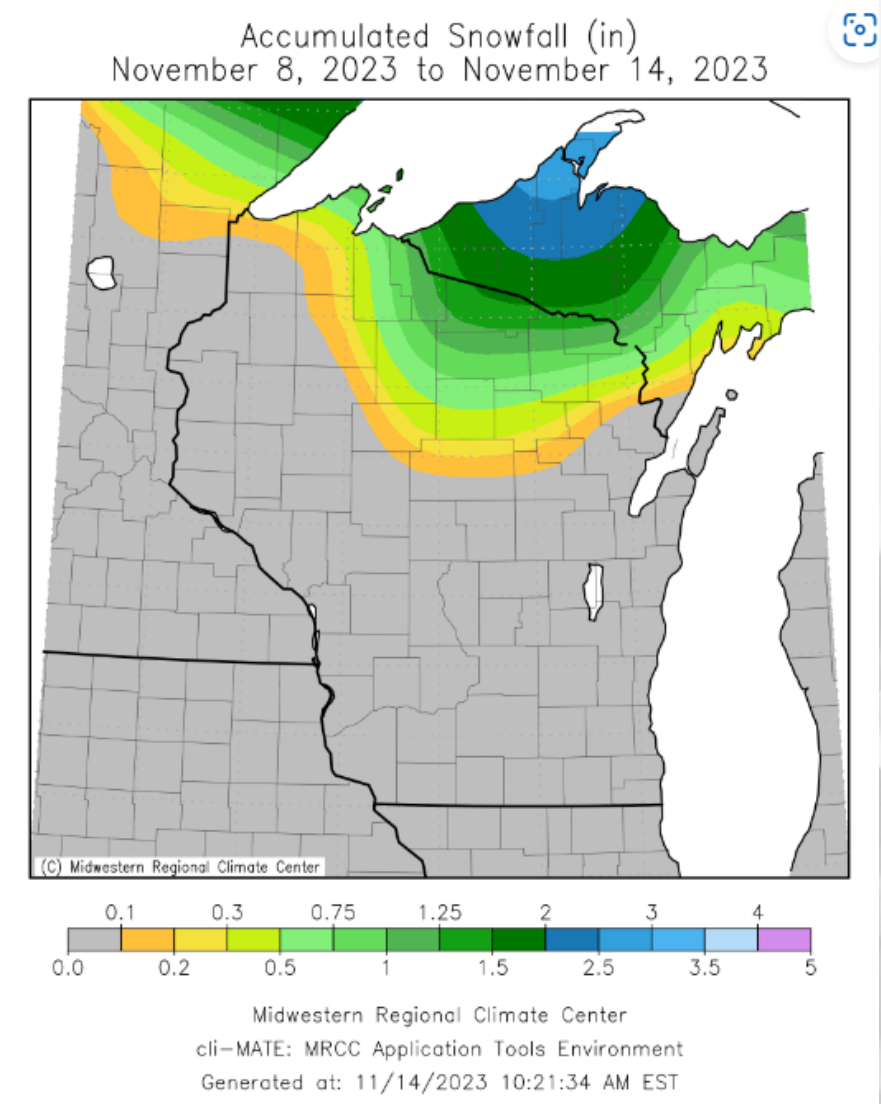


- Totals >5” are common statewide, with the highest totals in the SE, Central, and NW regions (stations >9.5”).
- Percentages are a mixed bag:
  - Most of the state was below normal.
  - >100% of normal in NW and SE.
  - >120% in Central WI.



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

Last Week's Snow

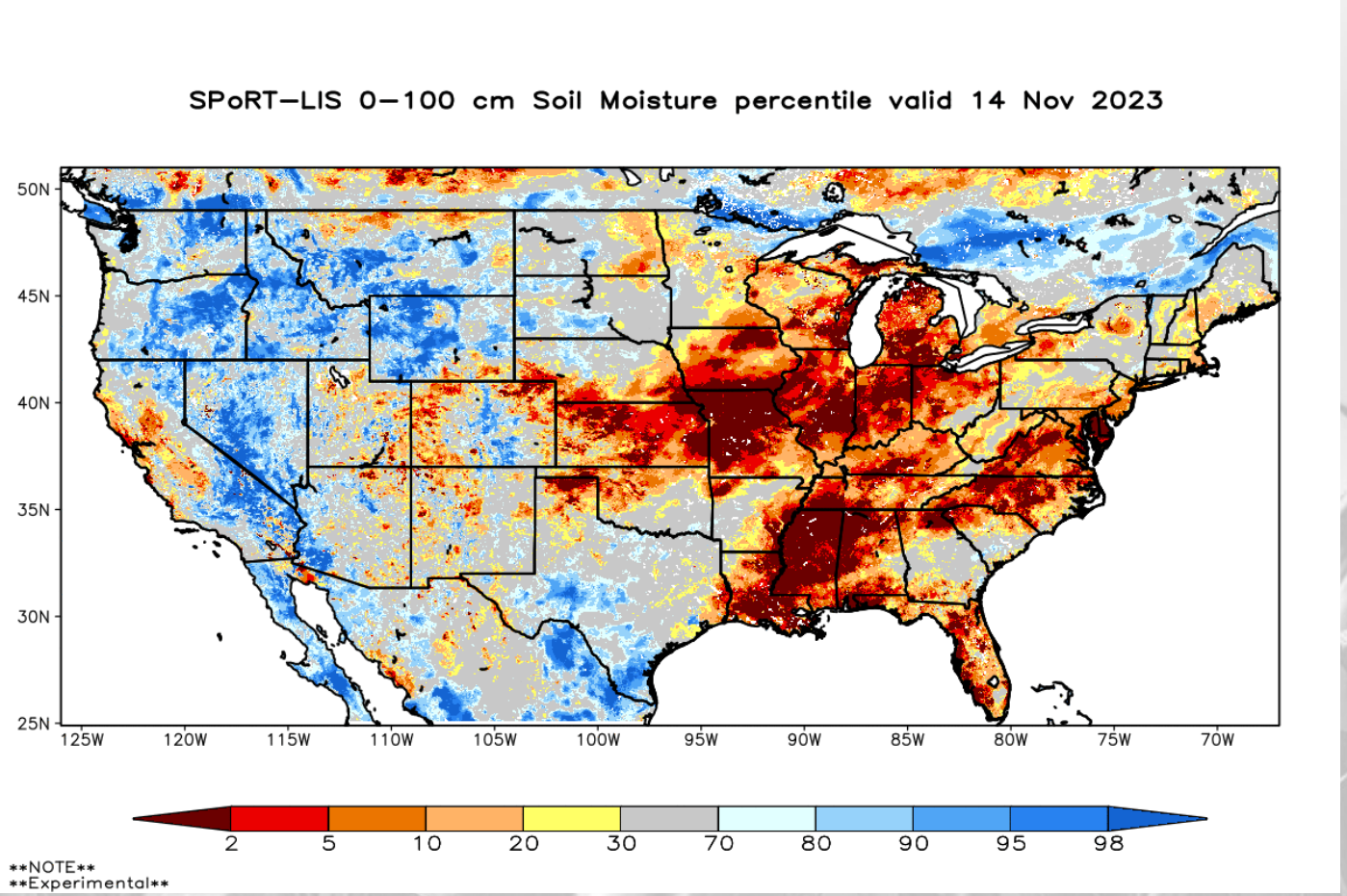


https://mrcc.purdue.edu/CLIMATE/

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.



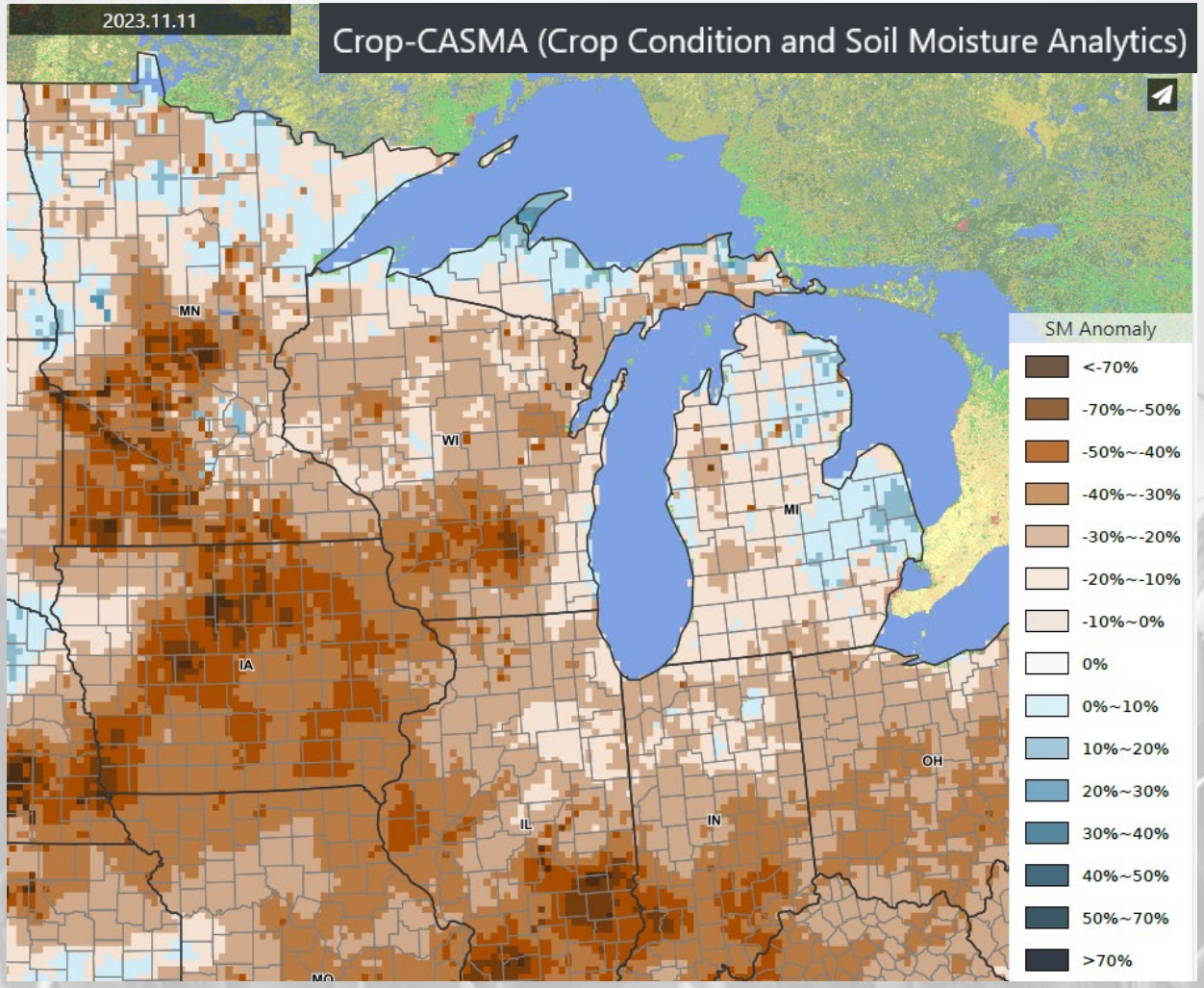
https://weather.msfc.nasa.gov/sport/case_studies/lis_CONUS.html
https://www.cpc.ncep.noaa.gov/products/Soilmst_Monitoring/US/Soilmst/Soilmst.shtml
https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp_new.shtml#

Modeled Soil Moisture

Alternate product from GMU and partners.

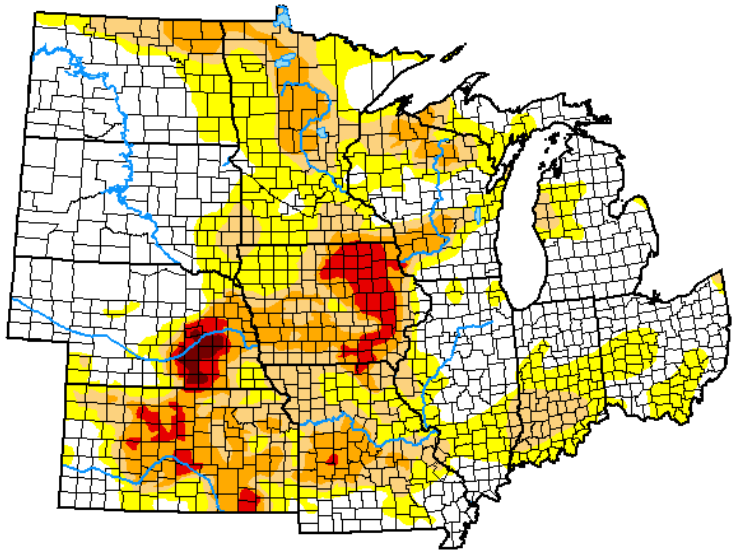
- Minimal change in dryness/wetness in WI compared to last week.
- Most dry in the SC region.
- Increased dryness in the NW.
- Increased dryness to the S and W of WI compared to last week.

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 7, 2023

(Released Thursday, Nov. 9, 2023)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	43.93	56.07	31.77	15.76	3.79	0.47
Last Week *10-31-2023*	43.31	56.69	31.36	16.17	3.86	0.47
3 Months Ago *08-08-2023*	27.96	72.04	47.34	21.54	7.36	0.50
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 *11-08-2022*	15.14	84.86	63.43	31.40	15.06	5.26

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:

Lindsay Johnson

National Drought Mitigation Center

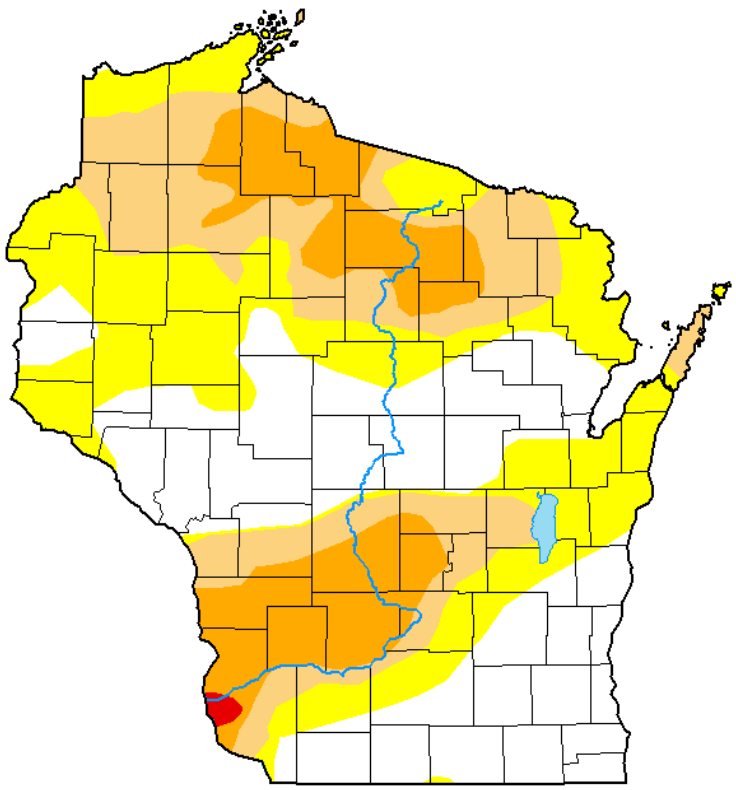
droughtmonitor.unl.edu

- Minimal change in regional drought intensity.
  - See current percent area compared to previous periods.
- Small area of D3 remains near Prairie du Chien.
- Parts of Central & SE WI no longer in drought or abnormal dryness.

Note: D0 is not considered drought.

http://droughtmonitor.unl.edu/

US Drought Monitor



U.S. Drought Monitor

Wisconsin

November 7, 2023

(Released Thursday, Nov. 9, 2023)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	33.59	66.41	36.22	16.02	0.26	0.00
Last Week 10-31-2023	33.64	66.36	33.99	15.95	0.26	0.00
3 Months Ago 08-08-2023	2.02	97.98	82.18	47.02	17.96	0.32
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 11-08-2022	59.74	40.26	16.20	3.95	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
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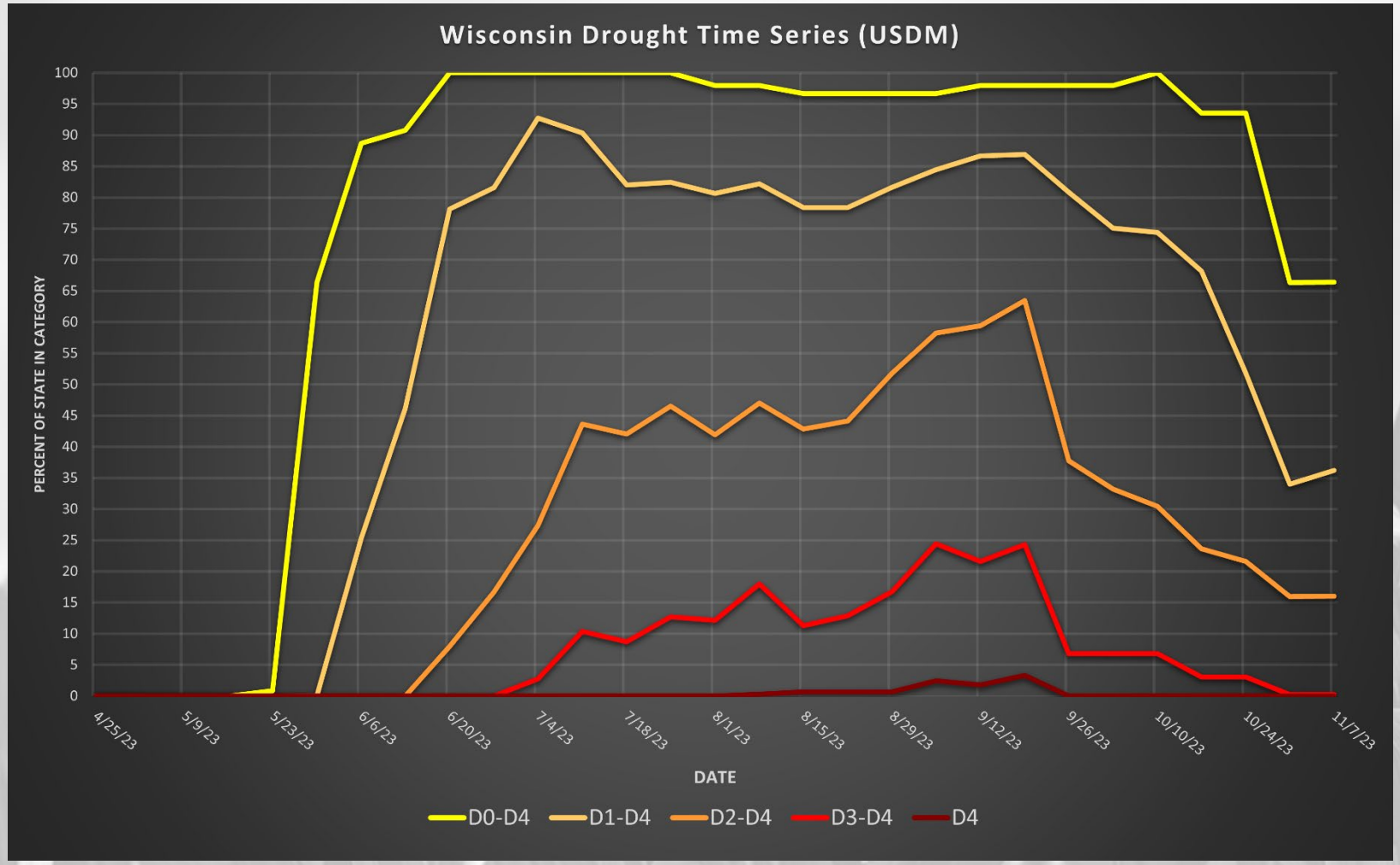
Amount of state in:

- D1-D4 – 36.2% ↑
- D2-D4 – 16.0% --
- 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.

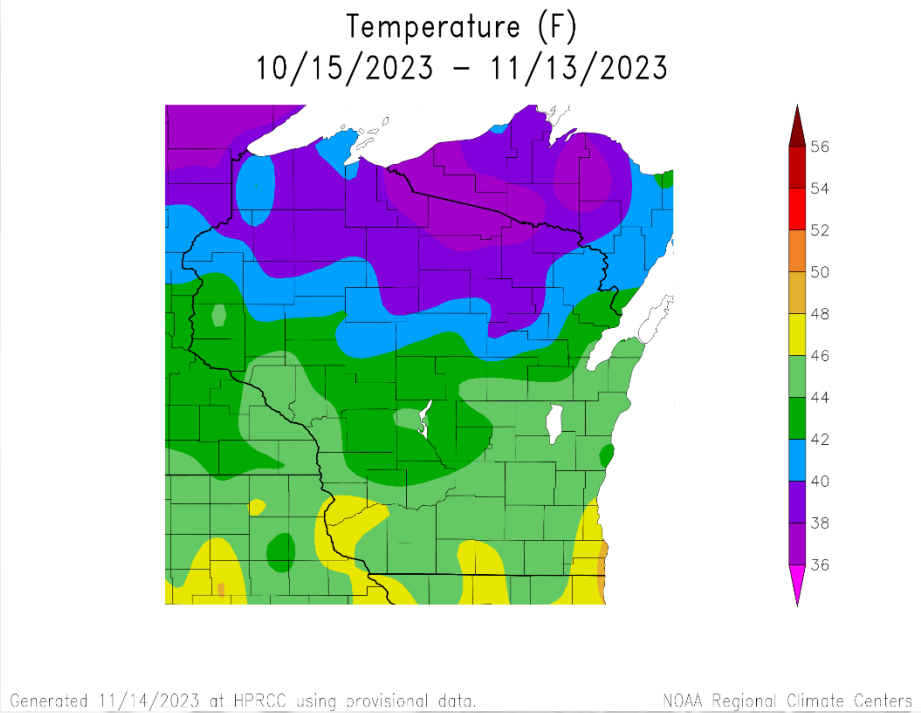
http://droughtmonitor.unl.edu/

Drought in WI – Last 6 months

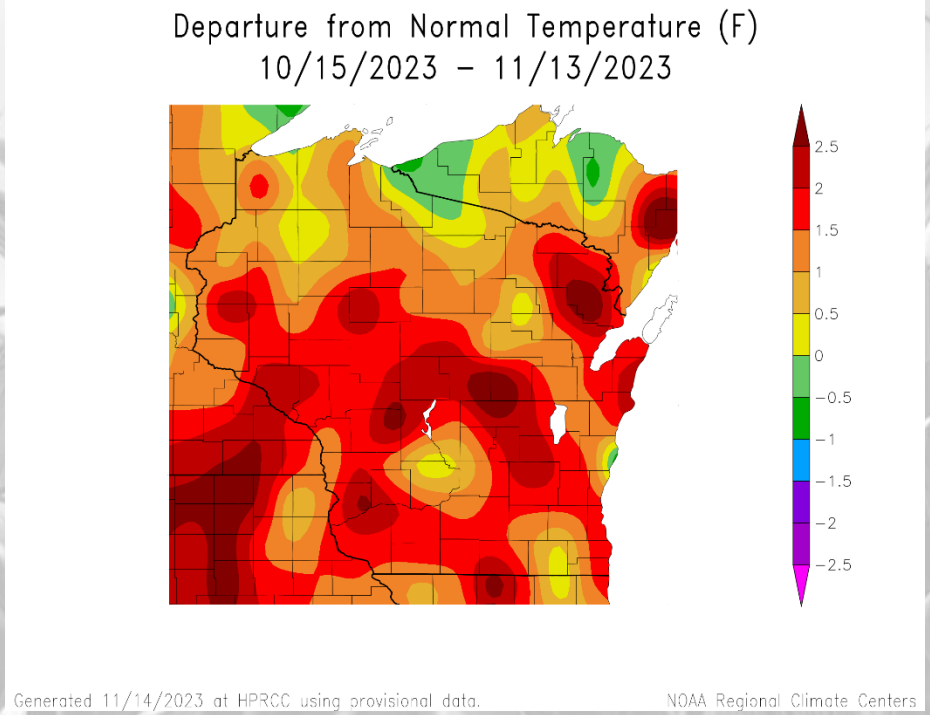


http://droughtmonitor.unl.edu/

30 Day Temperatures

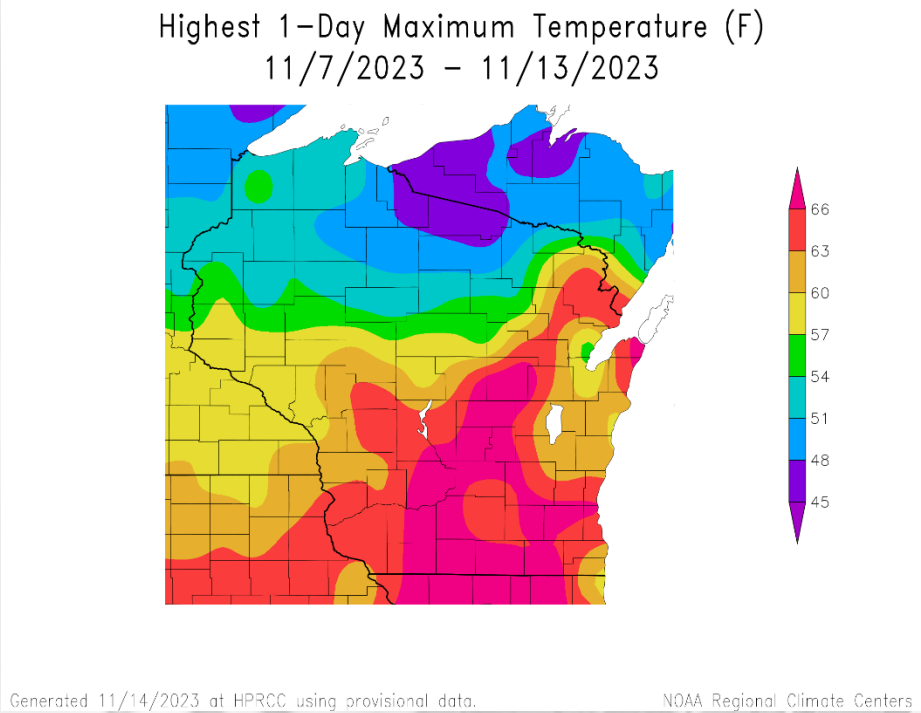


- Highest average T along the lower Wisconsin River and far SE (≥46°F).
- Lowest averages in NC WI (≤38°F).
- Monthly averages across the state were mostly higher-than-normal by ≥1-2°F.

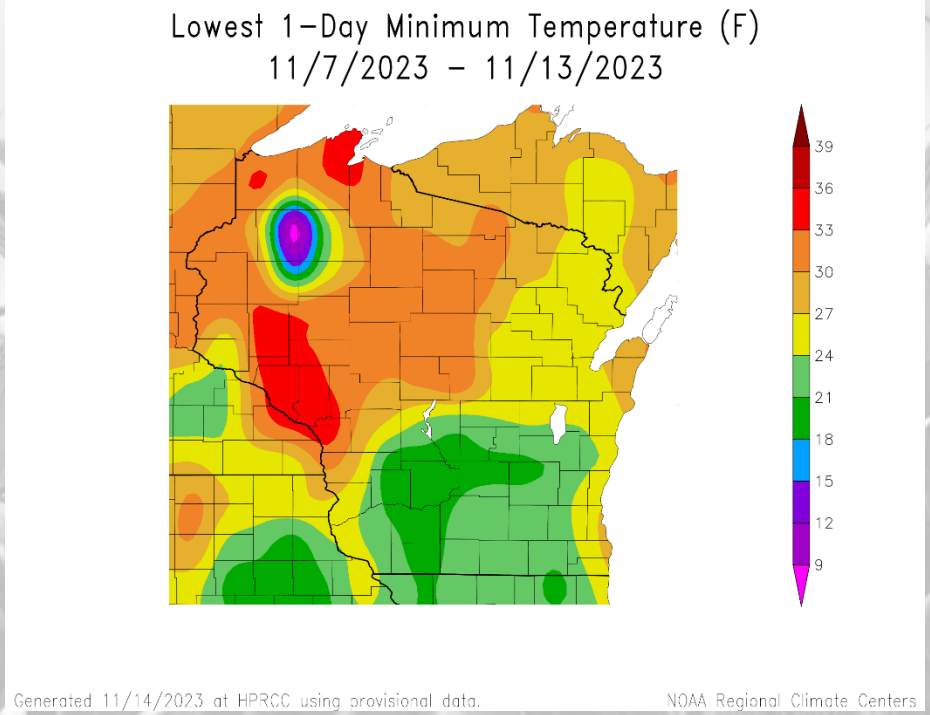


https://hprcc.unl.edu/maps.php?map=ACISClimateMaps

Last Week's Temp Swing

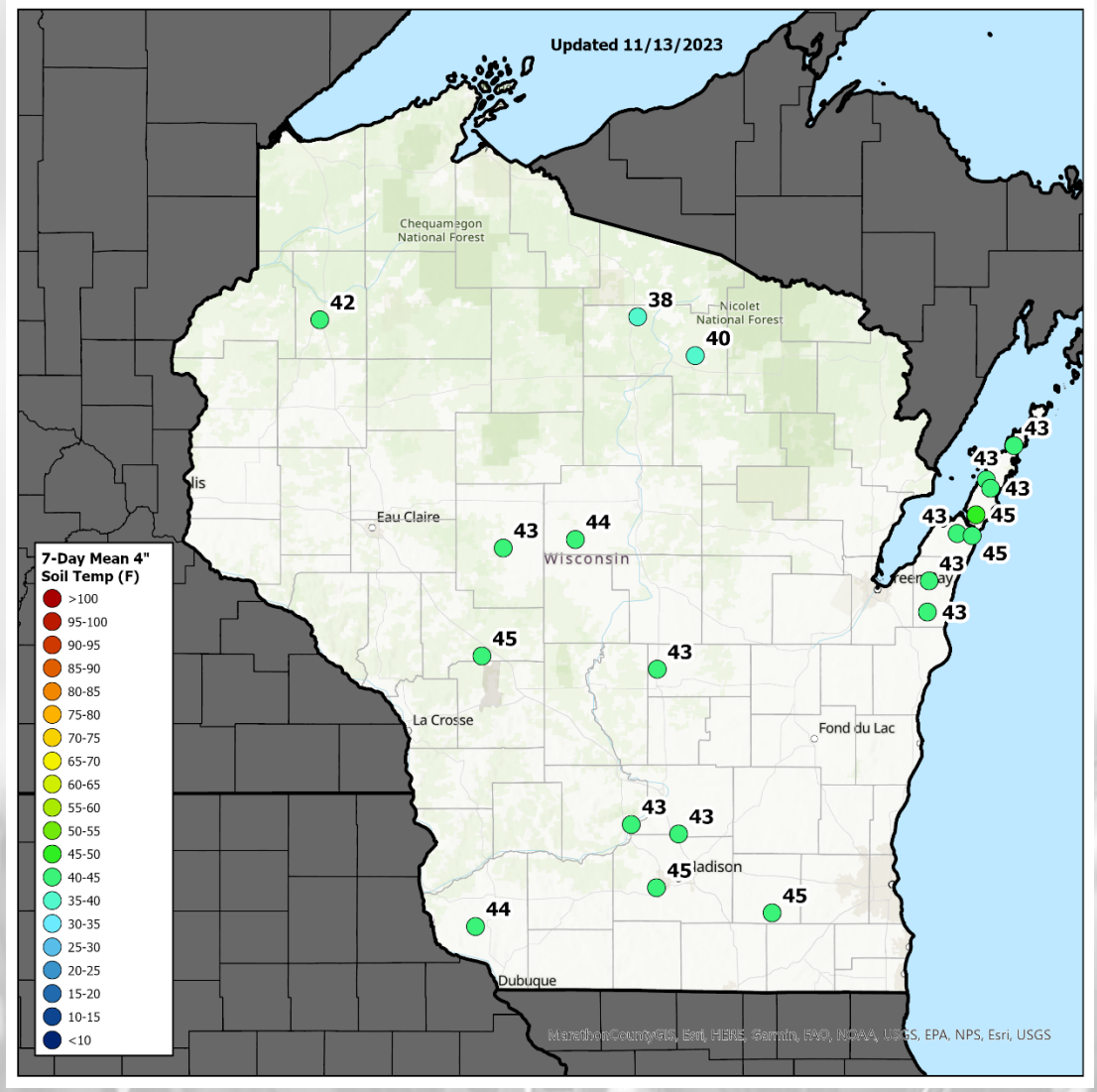


- Big swings in temperature in southern WI last week:
  - Highest daily max in the low to mid 60s.
  - Lowest daily min in the mid to low 20s; some upper teens.



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

Soil Temperature 4”



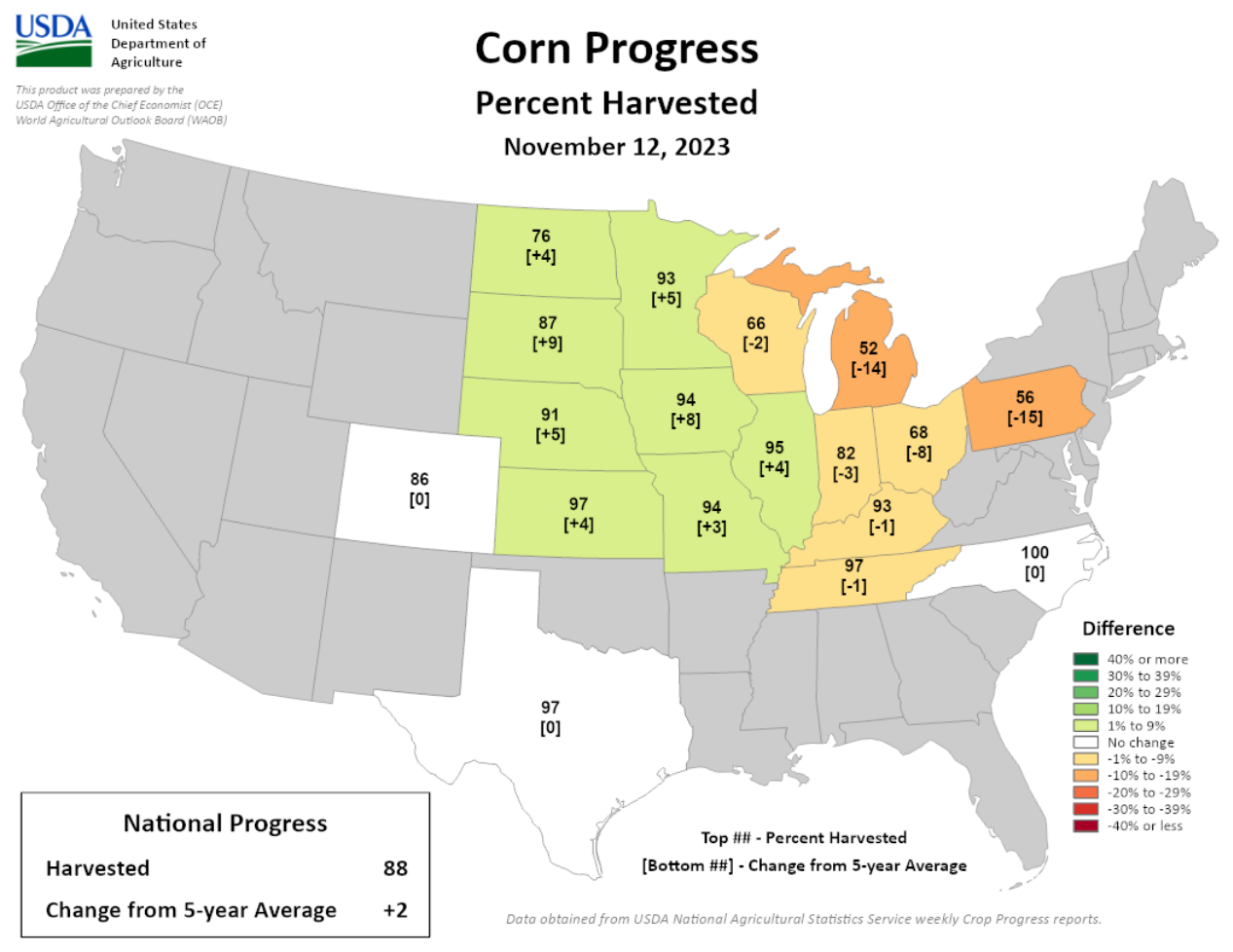
7-Day Avg. Data (11/7 -11/13)

- Most stations are sitting in the low to mid 40s.
- Woodruff is the coldest station at 38°F.
- Weekly average 4” soil temps of <50°F reported statewide.

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

http://wisconet.wisc.edu/ → More stations to come soon!

Corn Progress (NASS)



Corn Harvested (NASS):

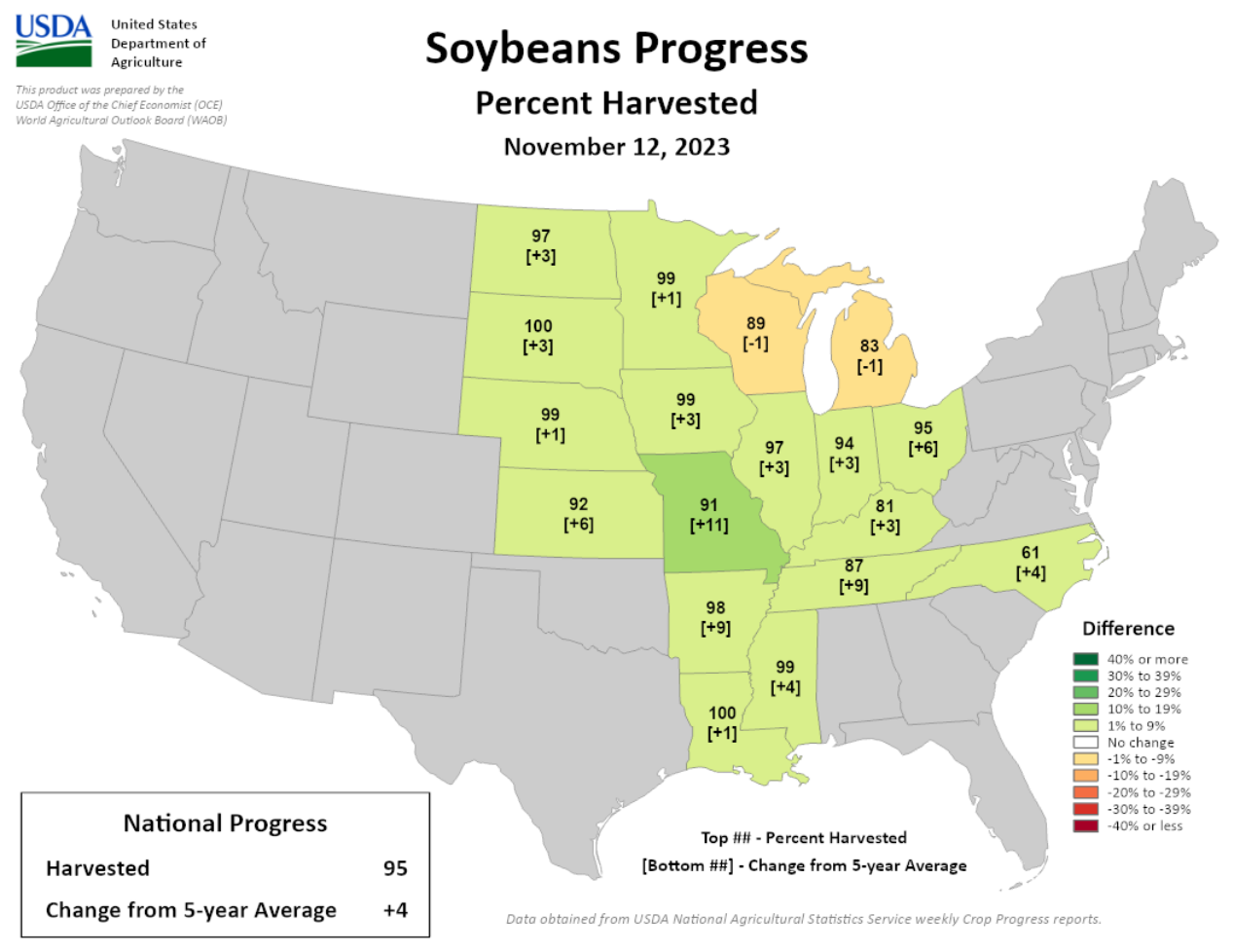
- Wisconsin: 66% (-2%)
- National: 88% (+2%)

Corn harvest running slightly behind the 5-year average in WI. Progress increased by **16%** from last week.

Trending behind average to the E. Nearing completion to the S and W.

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

Soybean Progress (NASS)



Soybean Harvested (NASS):

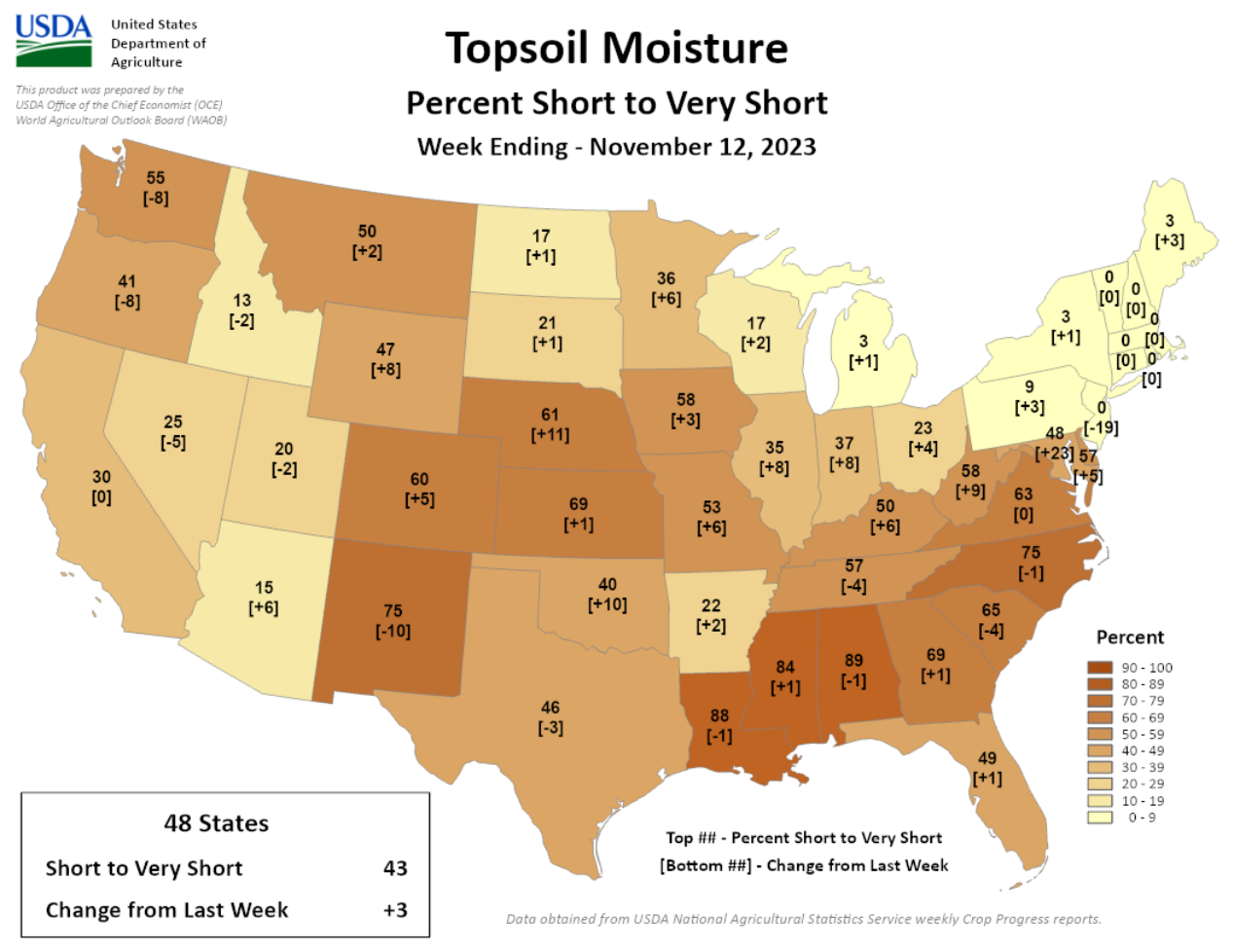
- Wisconsin: 89% (-1%)
- National: 95% (+4%)

Soybeans running slightly behind the 5-year average in WI. Progress increased by **6%** from last week.

Trending ahead of or near average nationwide. A few states are ≥99% complete.

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

Soil Moisture Conditions (NASS)



Soil moisture S-VS (NASS):

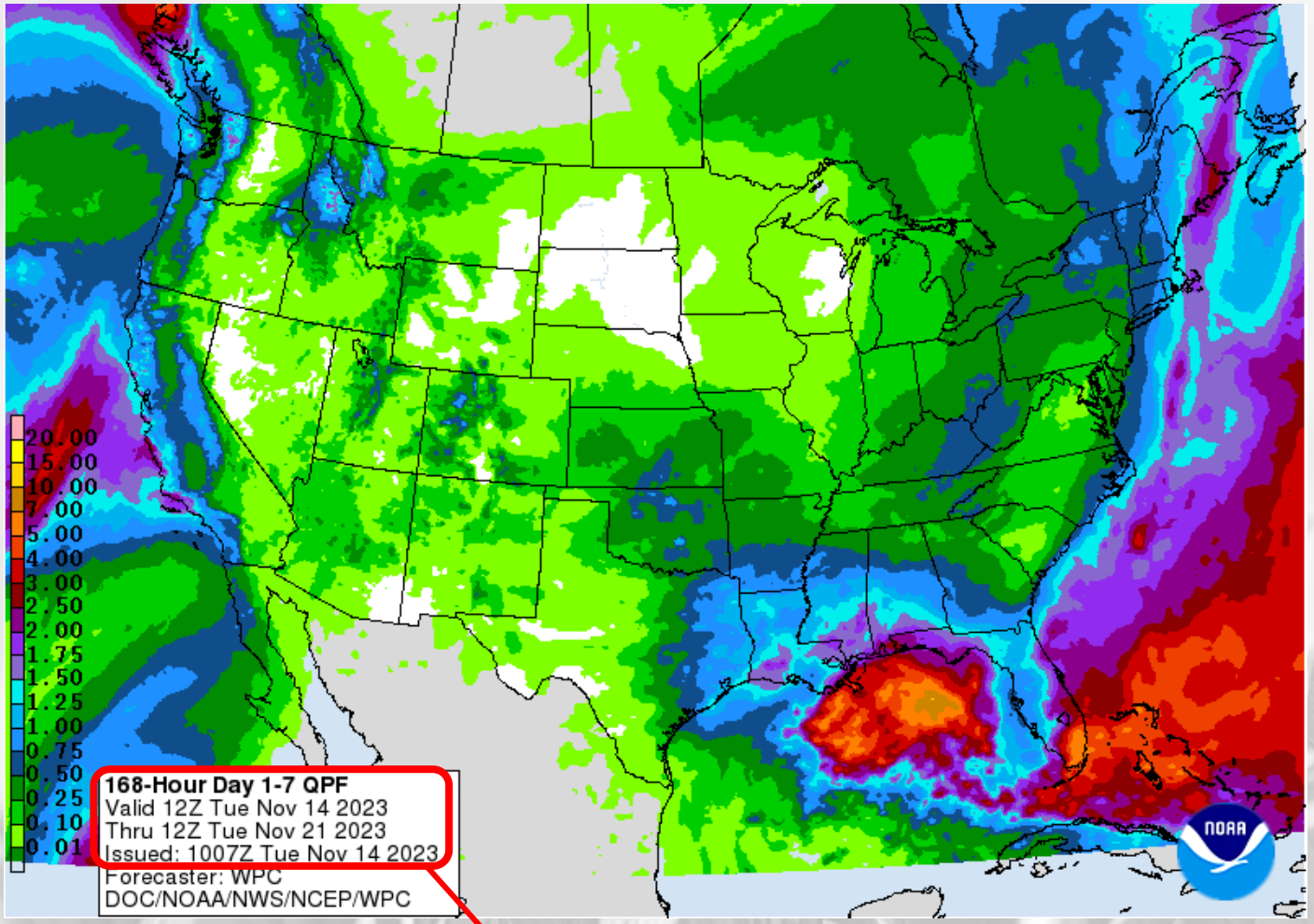
- Wisconsin: 17% (+2%)
- National: 43% (+3%)

Conditions worsen slightly in WI with a week of low rainfall.

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

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

7 Day Forecast Precip

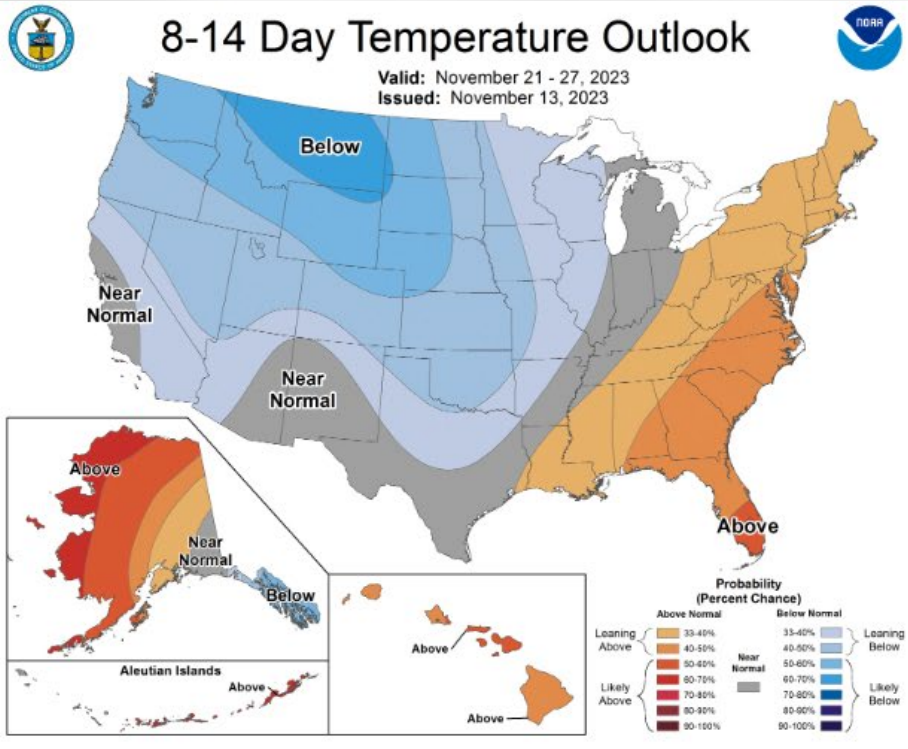


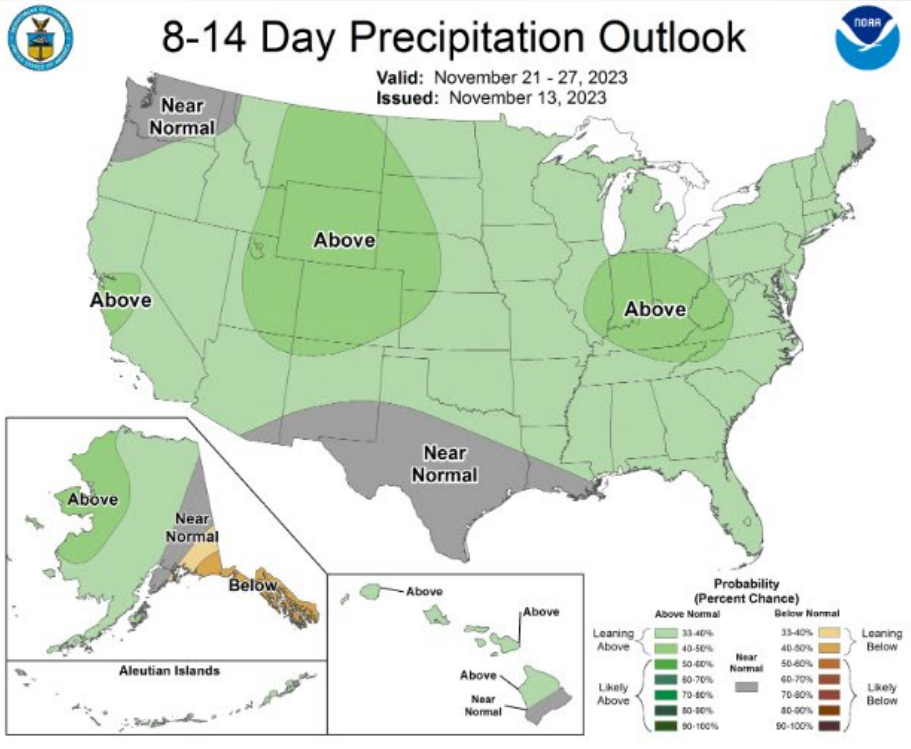
- Expect a dry week this week.
- Chances for precipitation into early next week, but totals are expected to be minimal (<0.5”).
- Areas in the EC parts of WI may see no precip this week.

Forecast for 11/7/23 thru 11/13/23

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

8-14 Day Temp & Precip Outlook

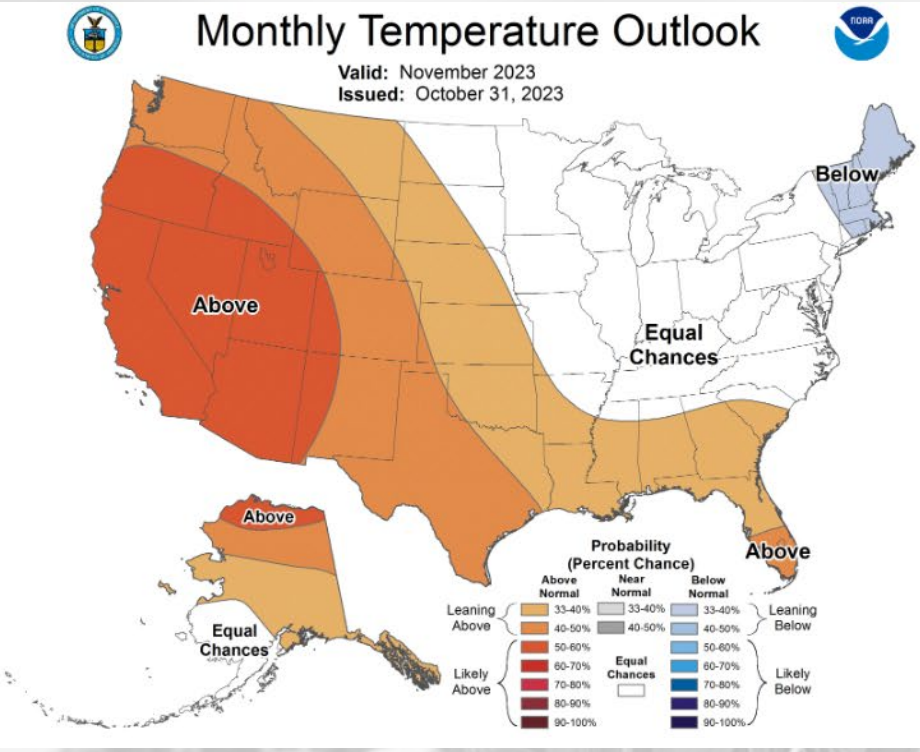


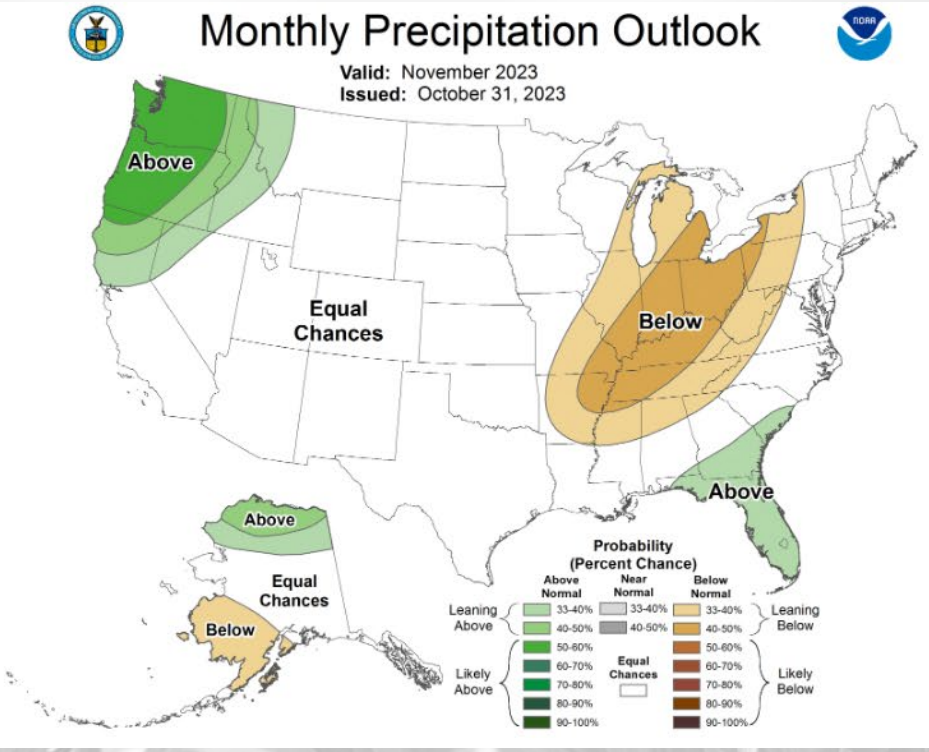


Thanksgiving week: Temperatures leaning towards below normal. Precipitation is leaning towards above normal.

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

30 Day Temp & Precip Outlook

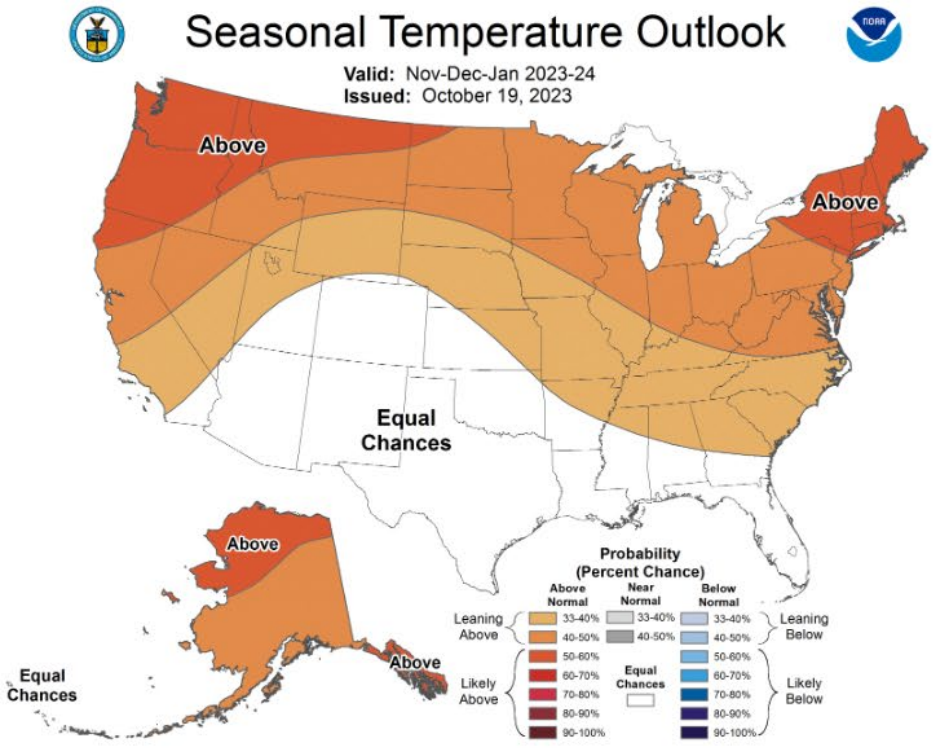


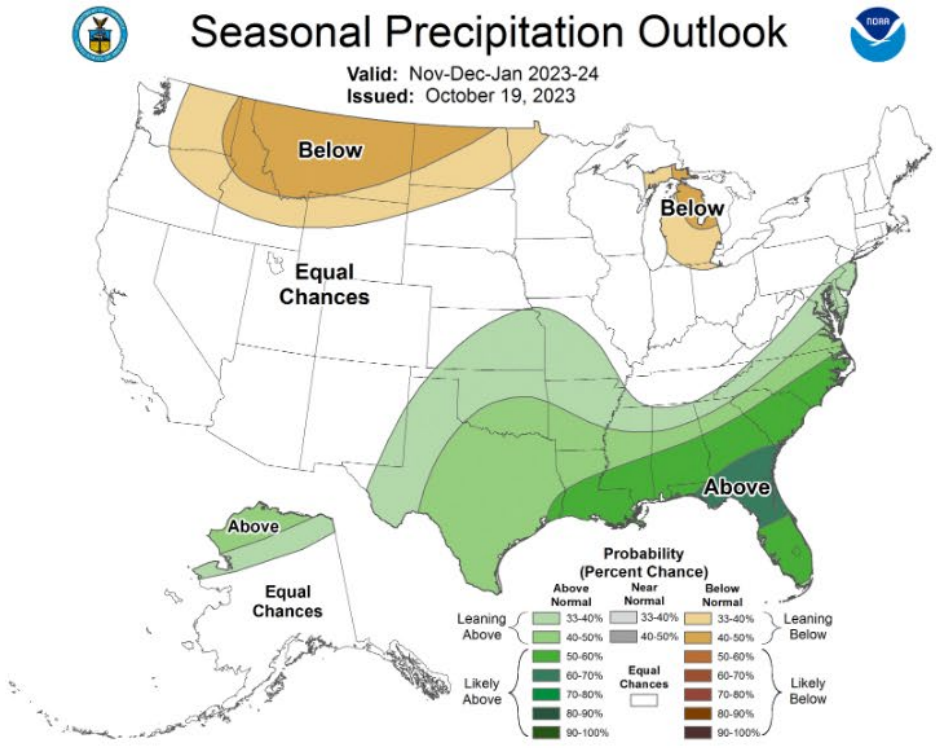


The month of November: No strong indicators for temperature for this period ("equal chances"). Precipitation forecasted to be below normal in the E/SE; no indication elsewhere.

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

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.

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

Take Home

- Current conditions:
  - Drought conditions remain mostly unchanged after a dry week for most. Topsoil moisture levels dropped slightly from last week.
  - A warm week in the state that also included some chilly nights.
  - Weekly average 4” soil temperatures are below 50°F statewide.
- Impact:
  - Corn harvest continues to make big strides with a dry week (**16%** jump to **66%**).
  - Soybean harvest continues to near completion (**89%**), running near the 5-year average.
  - Consider soil temperatures when making fall fertilizer decisions.
- Outlook:
  - The state could experience a cool down heading into the Thanksgiving holiday.
  - Precipitation totals are forecasted to be low this upcoming week, with the potential for above normal totals for the following week.
    - *Will continue to help recharge soil moisture.*

For More Information


Photo Credit: USDA

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