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 7, 2023

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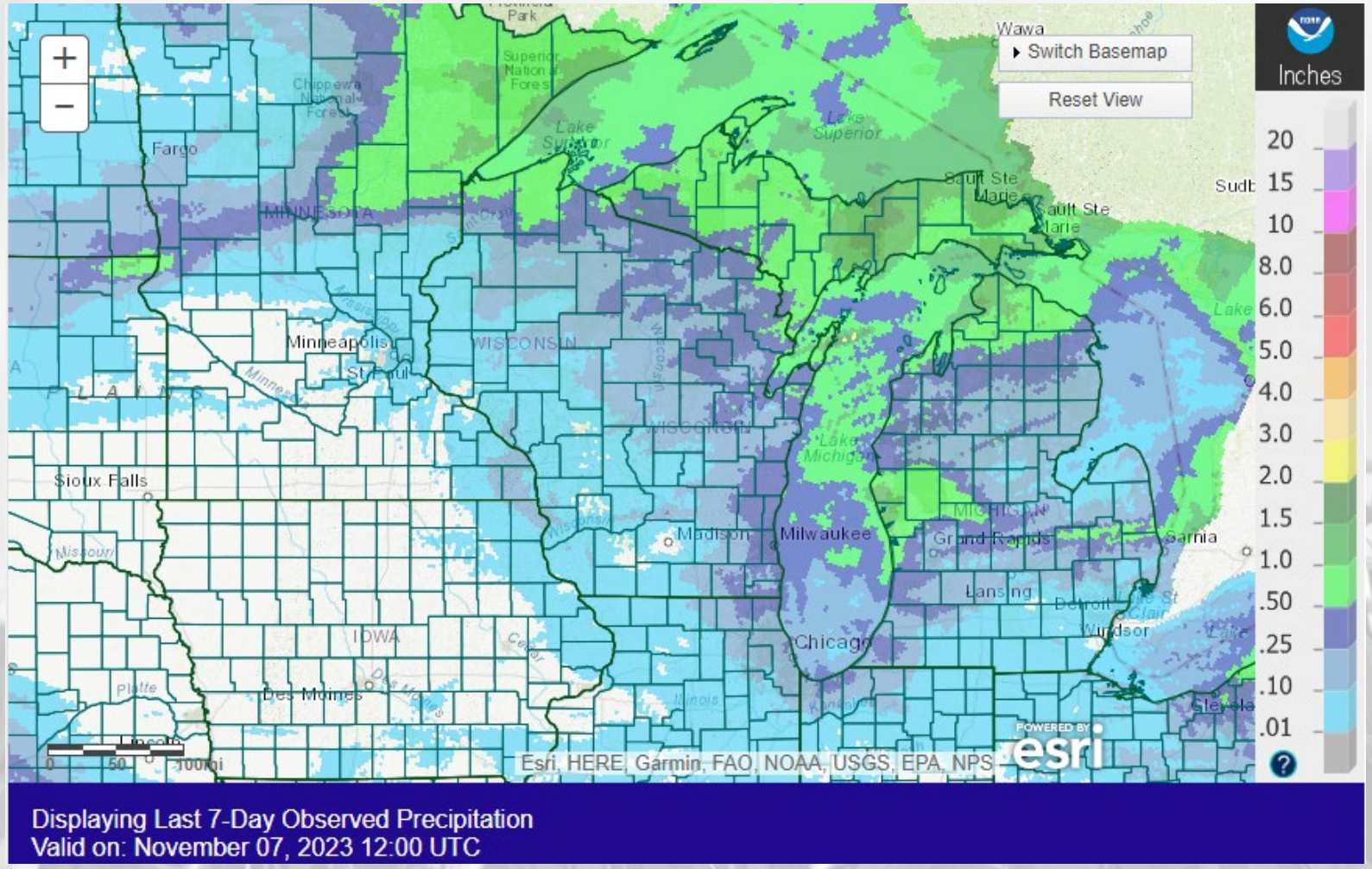
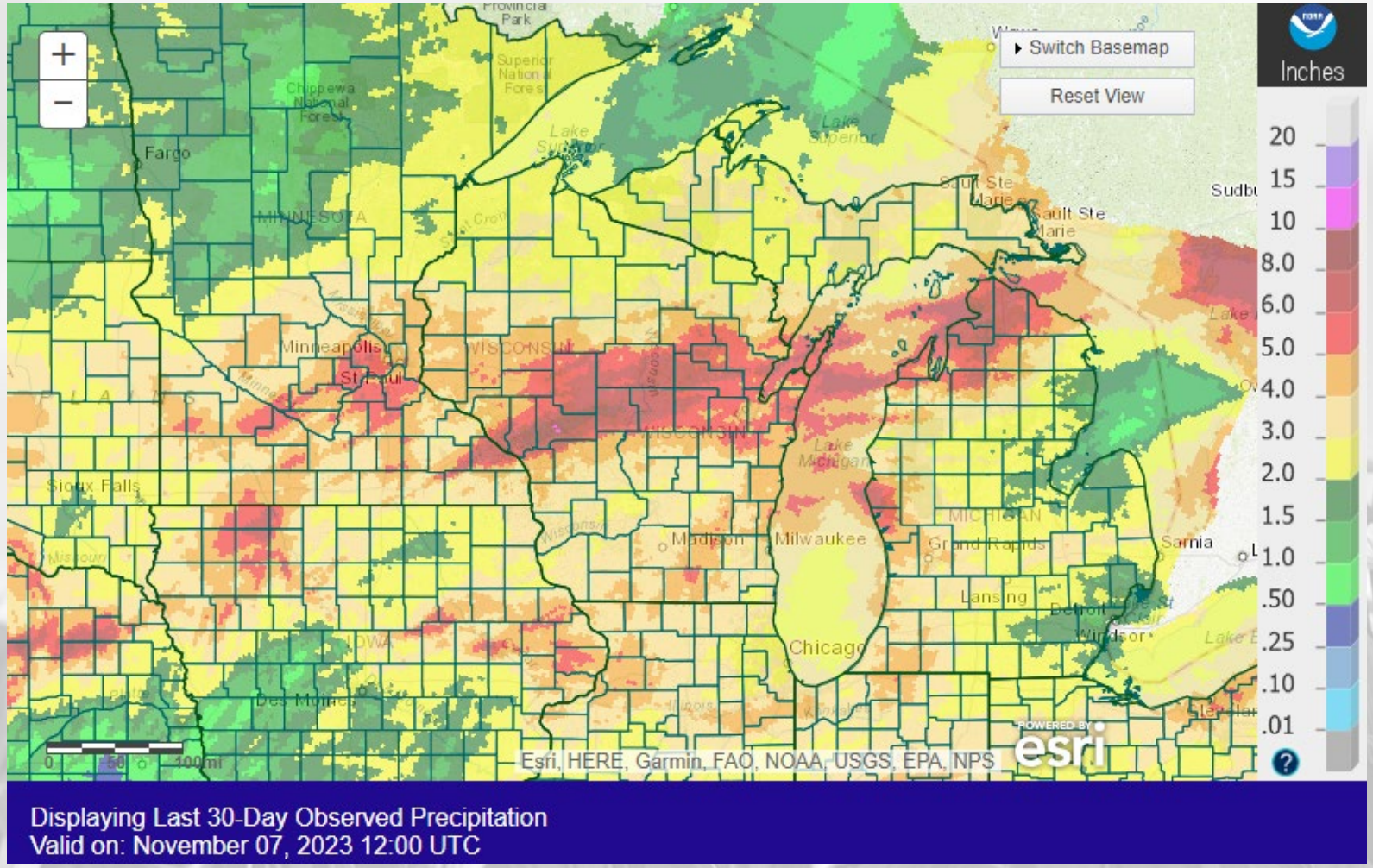
Last Week Precip



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

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

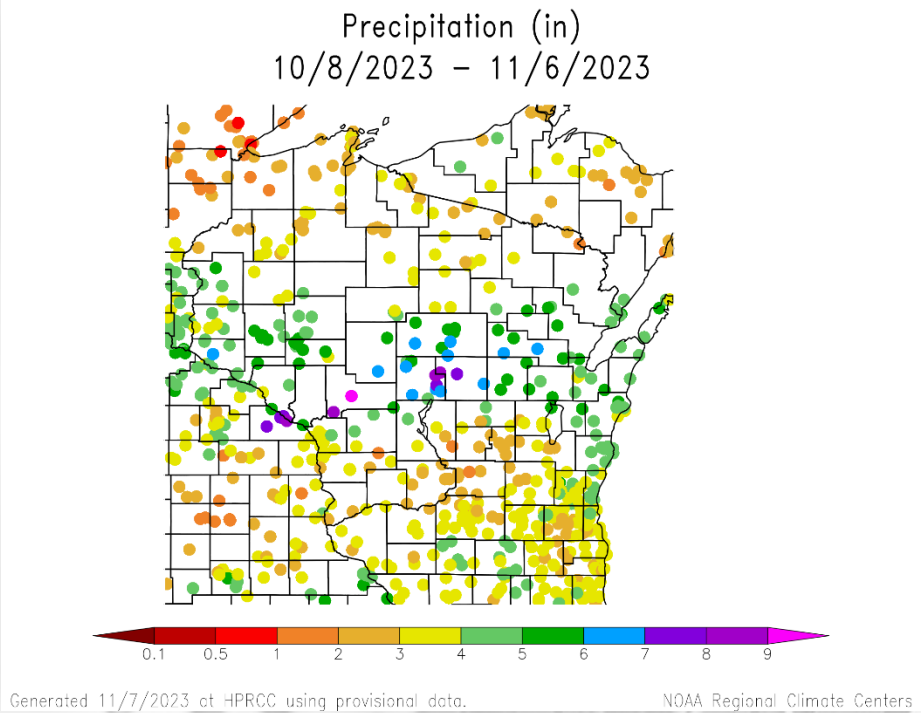
30 Day Precip



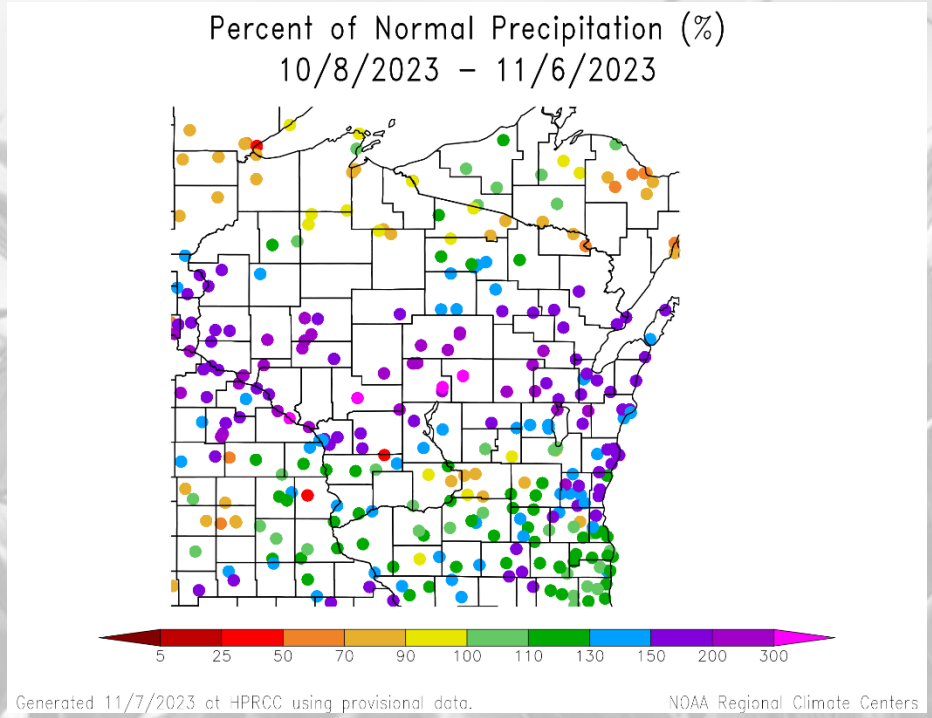
https://water.weather.gov/precip/

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

30 Day Precip Total/% Avg.

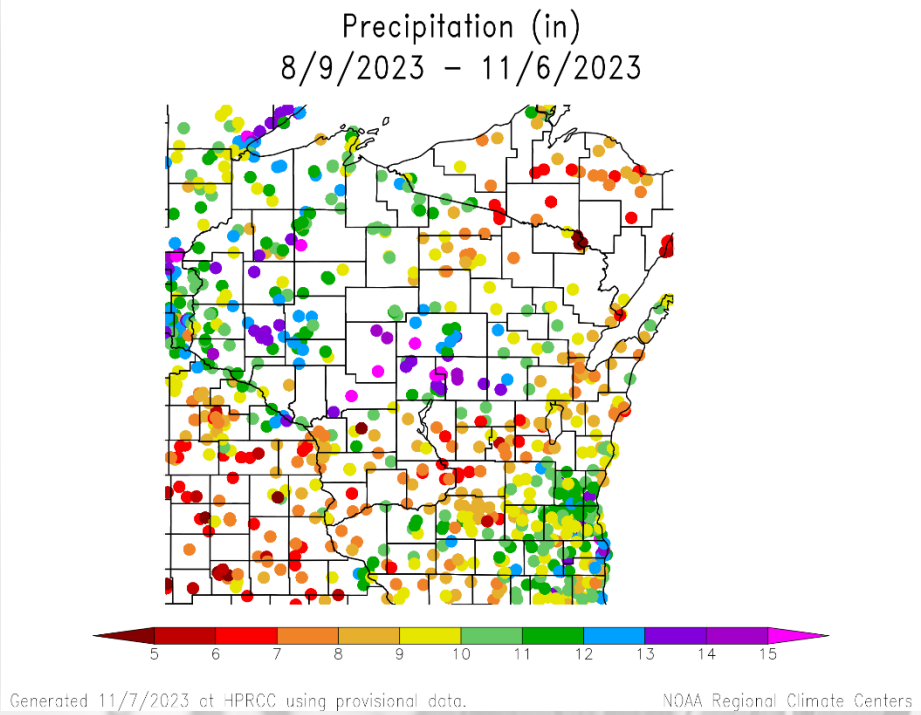


- Totals of 3+” were common, with some central WI locations receiving >7”.
- Most of the state observed higher-than-normal totals (>100%).
- Central WI received 150+% of normal precip; some stations >300%

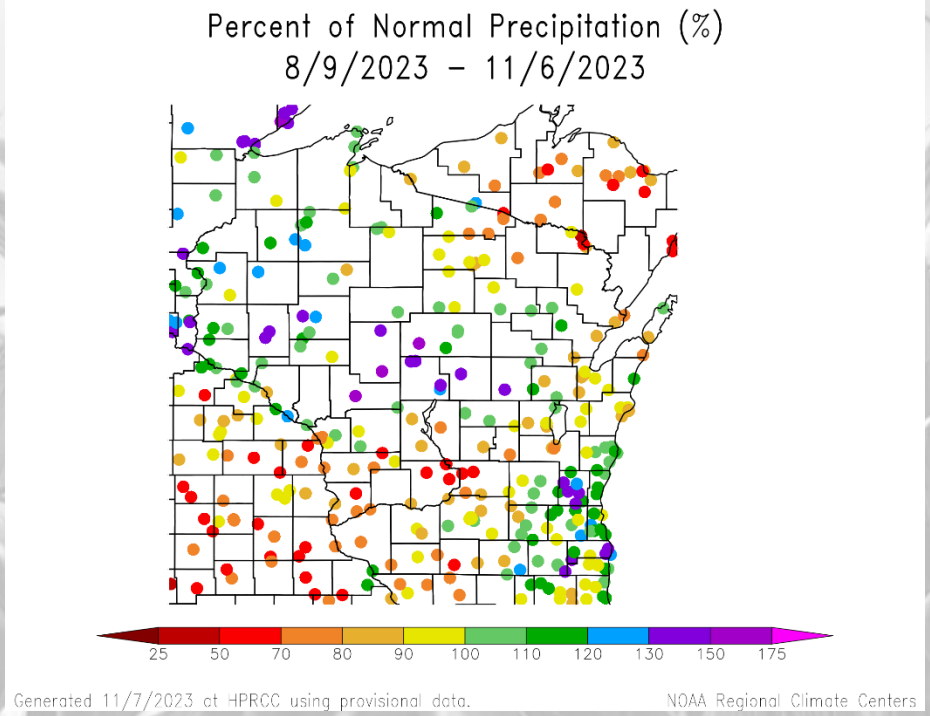


https://hprcc.unl.edu/maps.php?map=ACISClimateMaps

90 Day Precip Total/% Avg.



- 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:
  - <80% of normal in SW/SC and far NE.
  - >100% of normal in NW and SE.
  - >130% in Central WI.

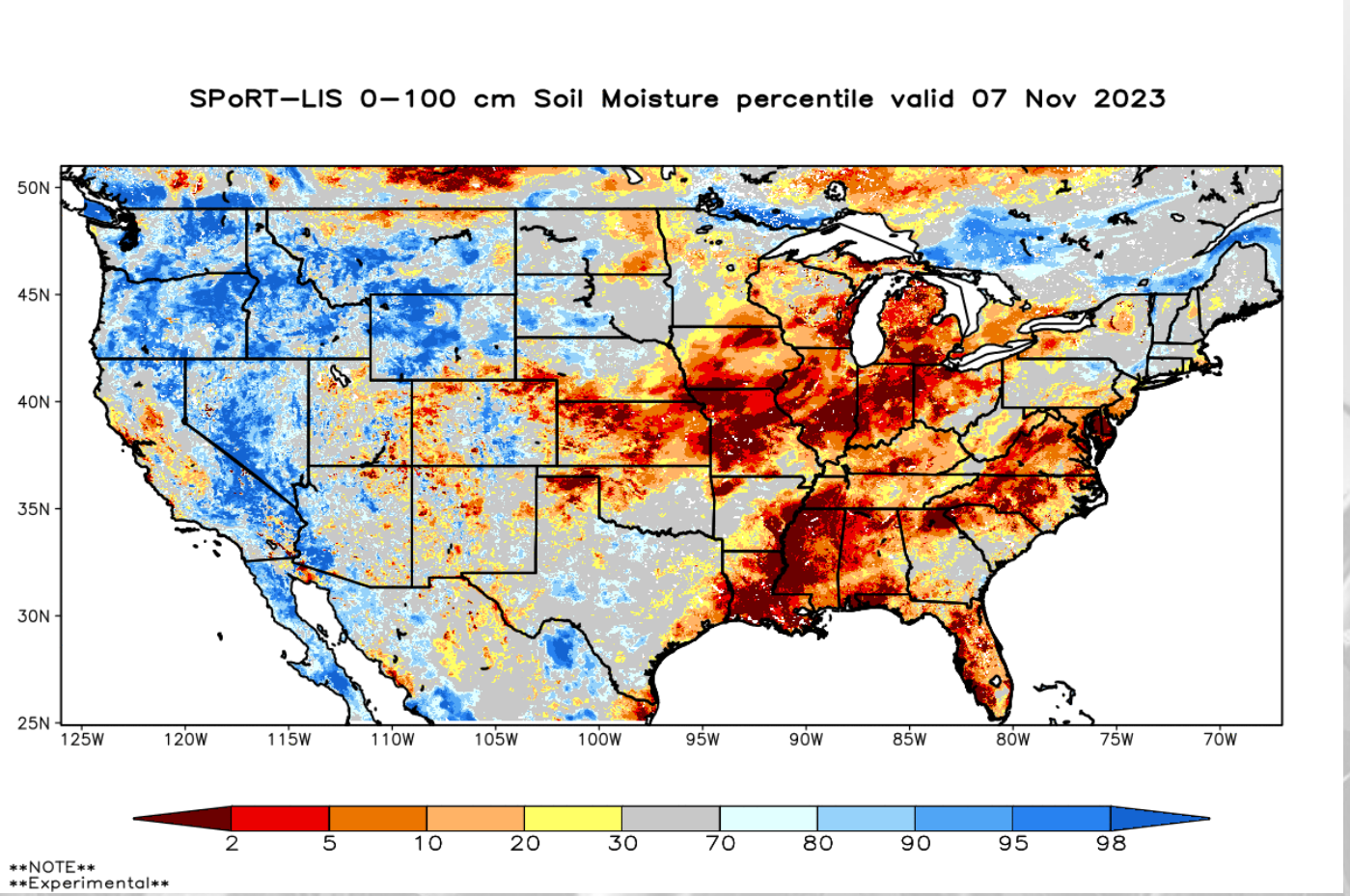


https://hprcc.unl.edu/maps.php?map=ACISClimateMaps

Modeled Soil Moisture

- Little to no improvement in WI from last week due to relatively low rainfall last week.
- Model indicates increased dryness in the E and SE.

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



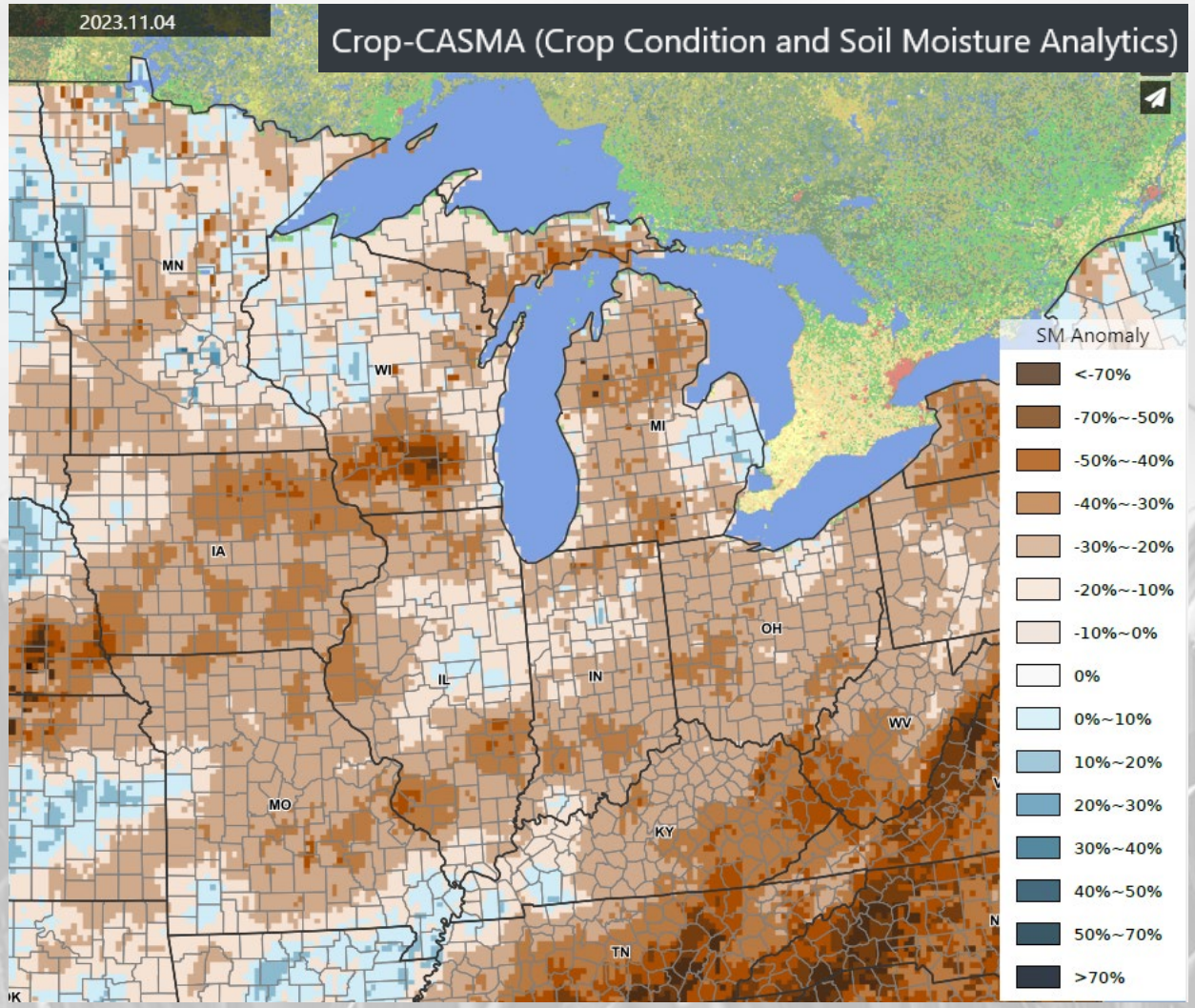
https://weather.msfc.nasa.gov/sport/case_studies/lis_CONUS.html
https://www.cpc.ncep.noaa.gov/products/Soilmst_Monitoring/US/Soilmst/Soilmst.shtml
https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp_new.shtml#

Modeled Soil Moisture

Alternate product from GMU and partners.

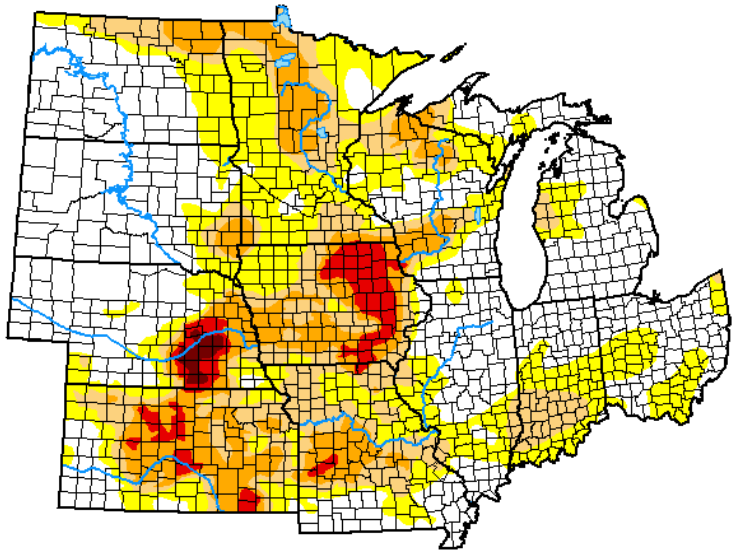
- Increased dryness across the state due to low rainfall totals from last week.
- Most dry in the SC region.
- Some areas of surplus in the NW.
- Increased dryness across the Corn Belt compared to last week.

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

October 31, 2023

(Released Thursday, Nov. 2, 2023)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	43.31	56.69	31.36	16.17	3.86	0.47
Last Week *10-24-2023*	31.65	68.35	42.06	20.82	6.33	0.65
3 Months Ago *08-01-2023*	23.26	76.74	52.94	24.06	7.95	0.66
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 *11-01-2022*	12.33	87.67	64.98	34.65	15.21	5.21

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:

Brian Fuchs

National Drought Mitigation Center

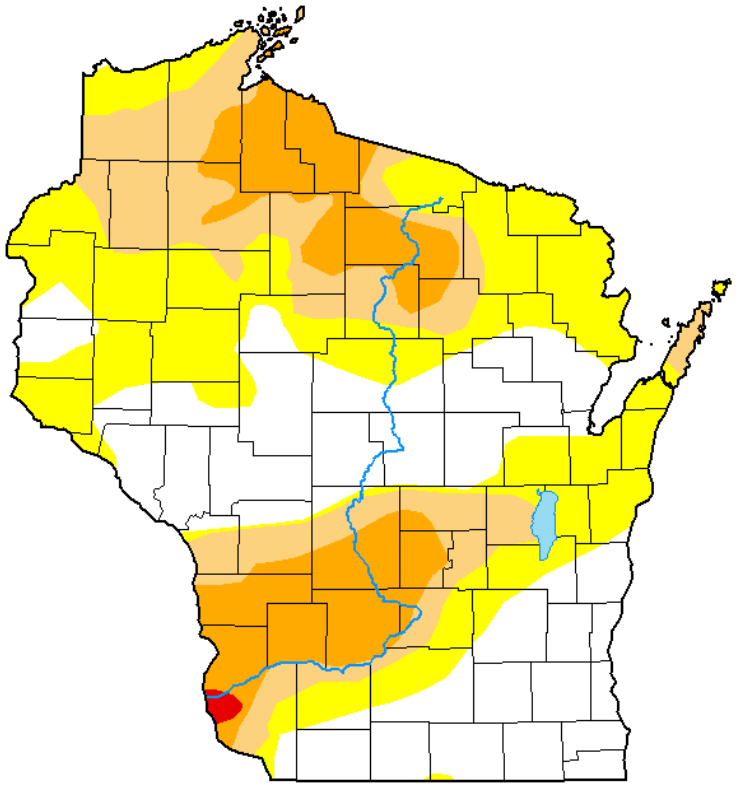
droughtmonitor.unl.edu

- Regional improvement across all intensities.
  - See current percent area compared to previous periods.
- D3 in/near Oneida County was reduced to D2.
- 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

October 31, 2023

(Released Thursday, Nov. 2, 2023)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	33.64	66.36	33.99	15.95	0.26	0.00
Last Week 10-24-2023	6.49	93.51	51.81	21.60	3.04	0.00
3 Months Ago 08-01-2023	2.06	97.94	80.64	41.92	12.15	0.00
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 11-01-2022	33.62	66.38	27.82	3.95	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
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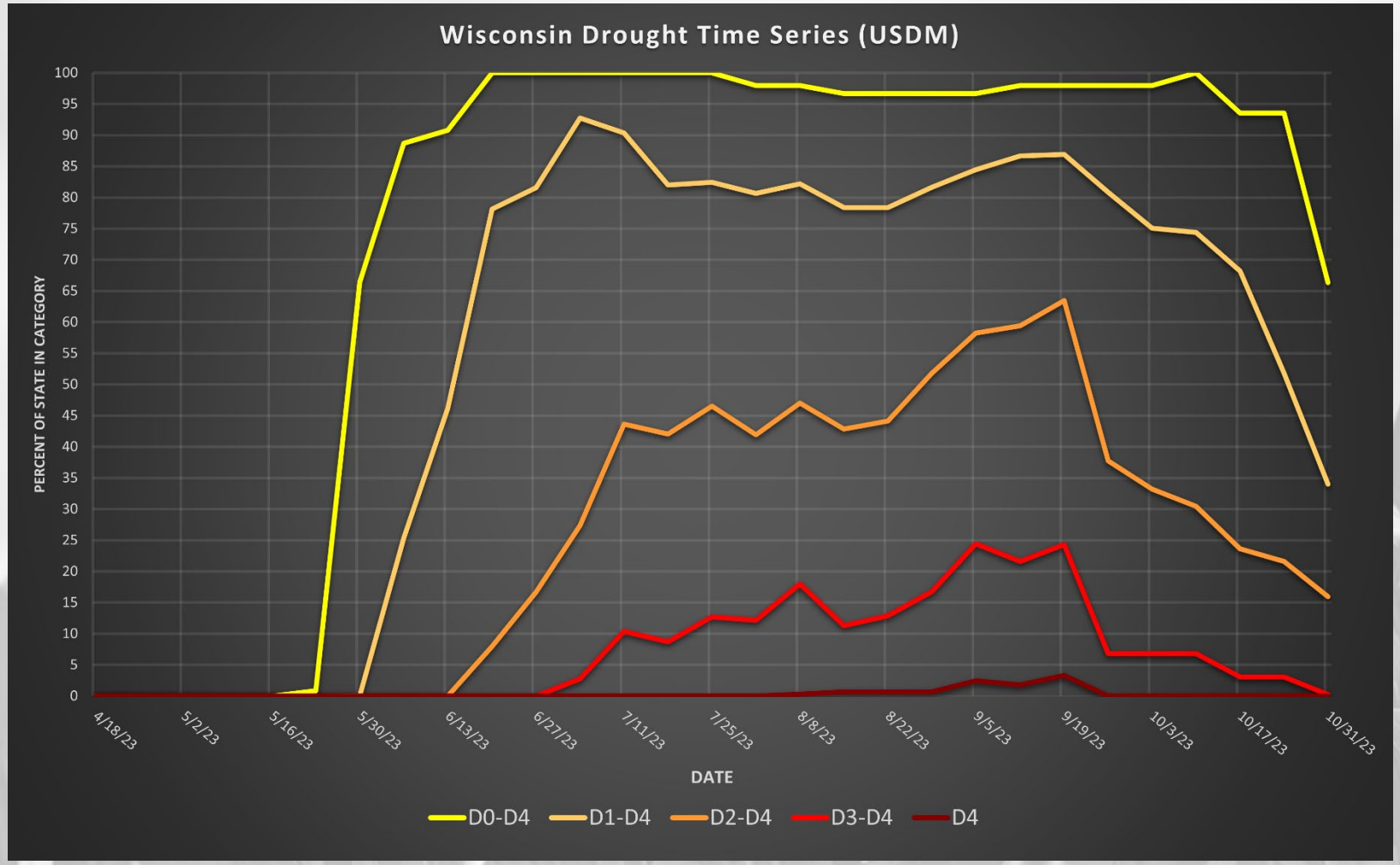
Amount of state in:

- D1-D4 – 34.0% ↓
- 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/

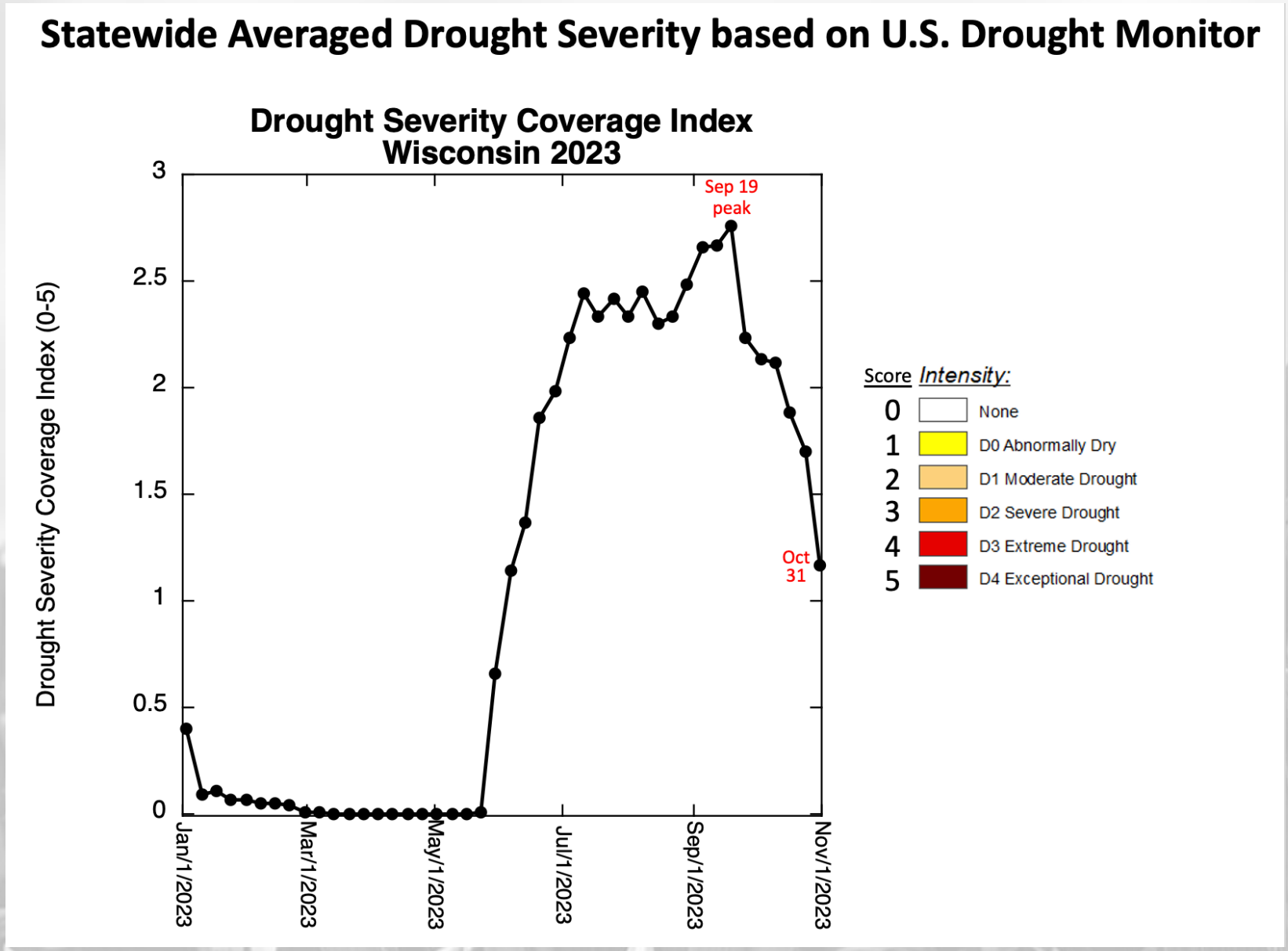
Drought in WI – Last 6 months



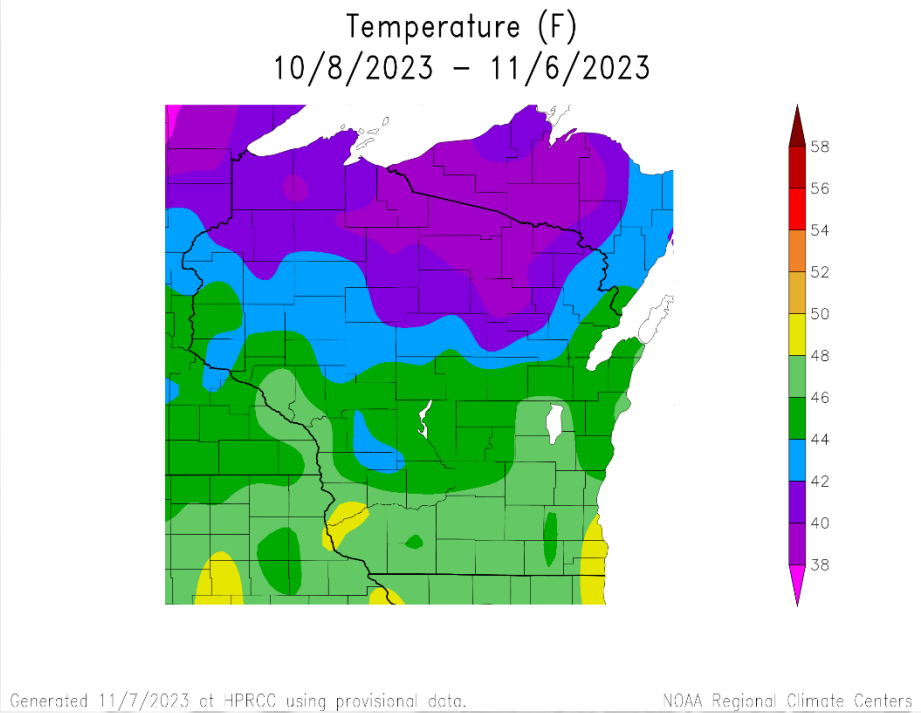
First week with essentially no D3 or D4 in Wisconsin since late June

http://droughtmonitor.unl.edu/

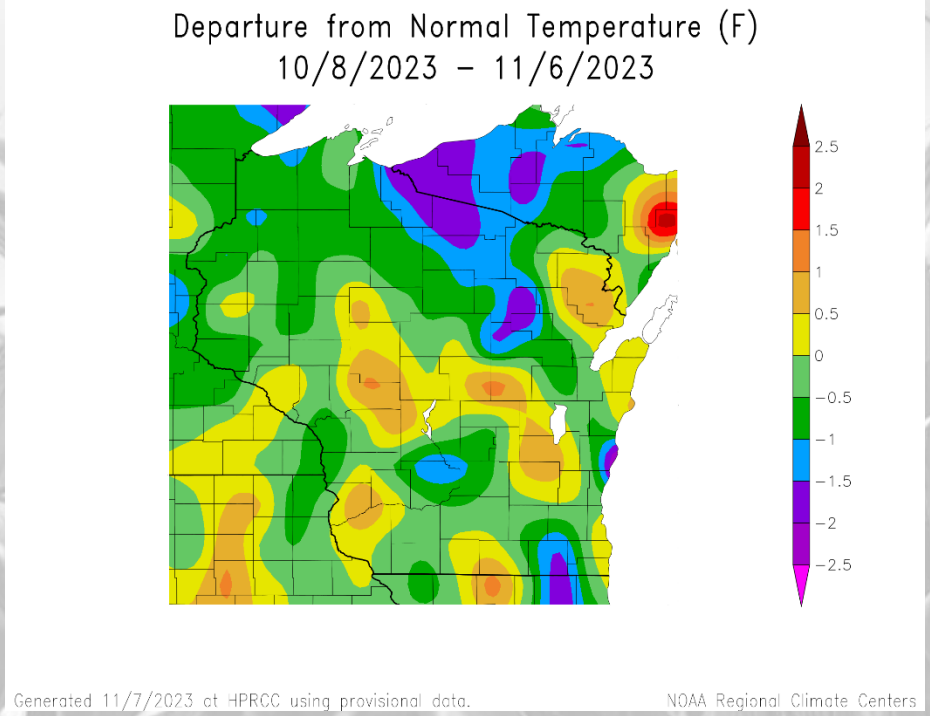
Statewide Averaged Drought Severity



30 Day Temperatures

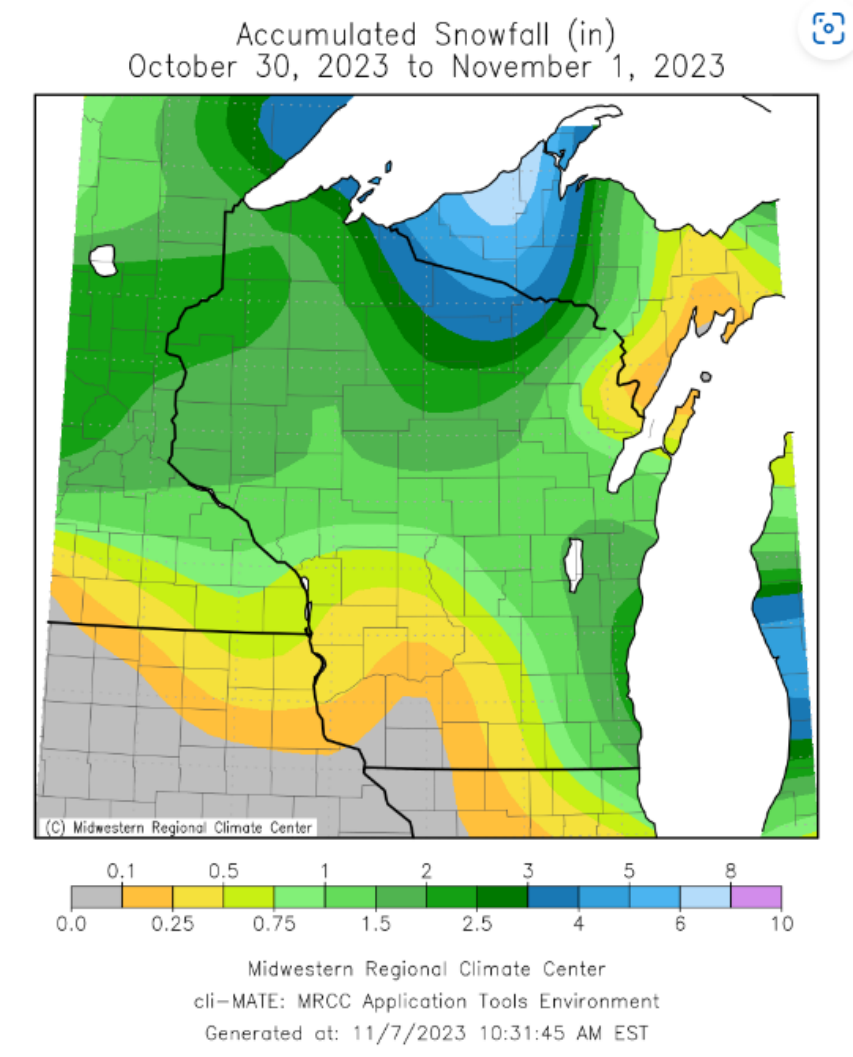


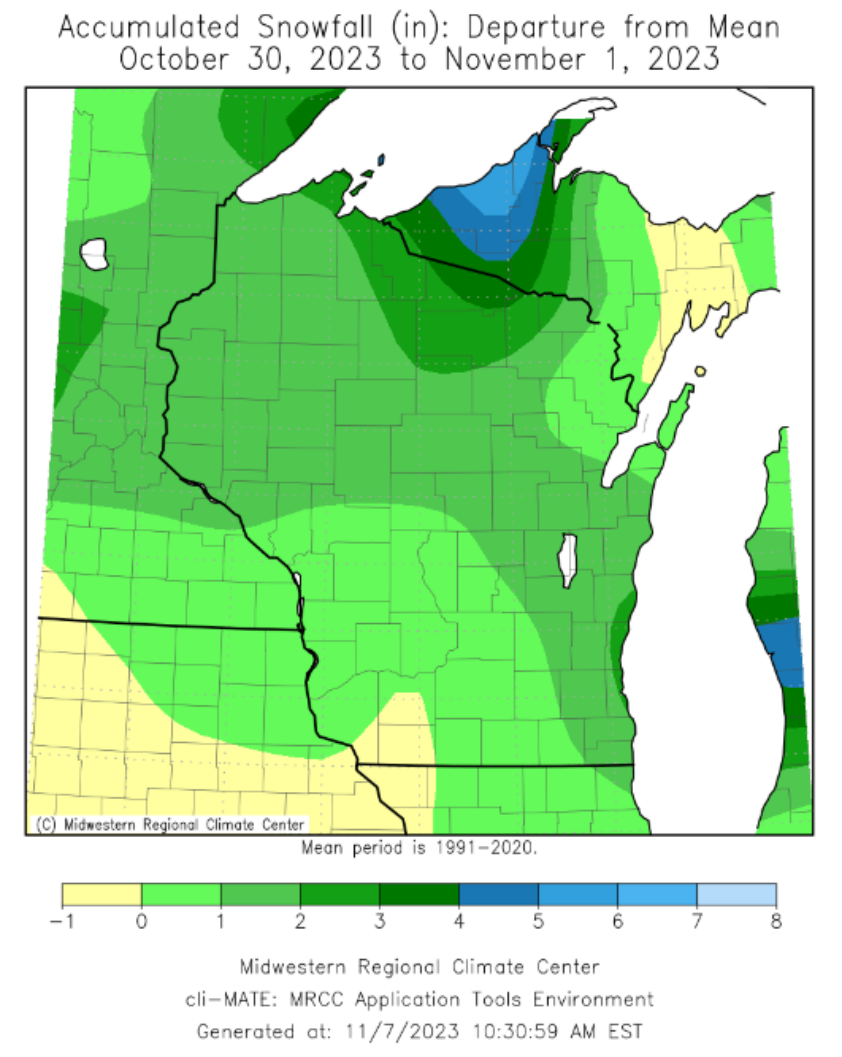
- Highest average T along the lower Wisconsin River and far SE (≥48°F).
- Lowest averages in NC WI (≤40°F).
- Monthly averages were a mixed bag, mostly ranging from -1°F to +1°F compared to normal.



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

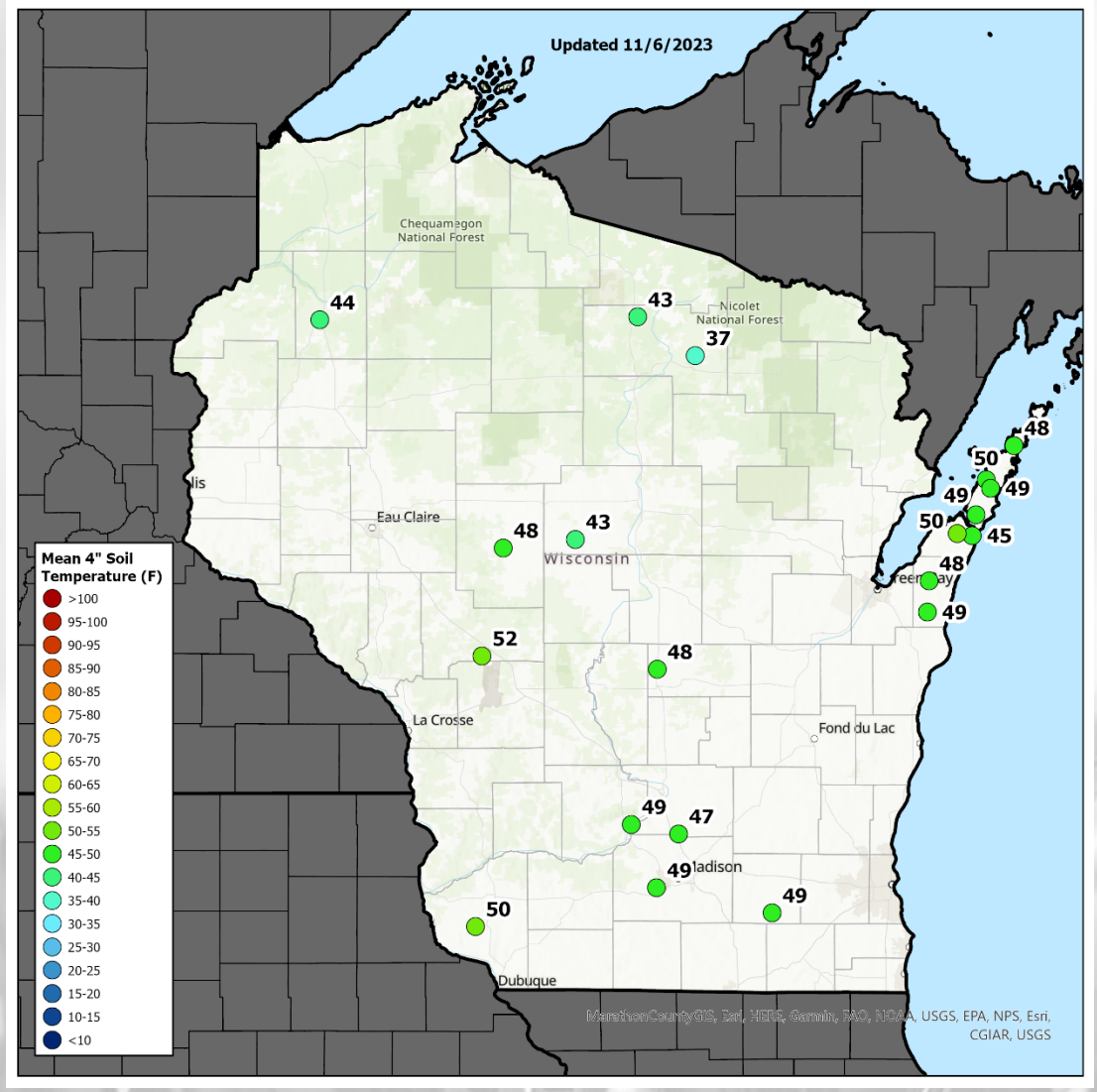
Last Week's Snow





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

Soil Temperature 4”



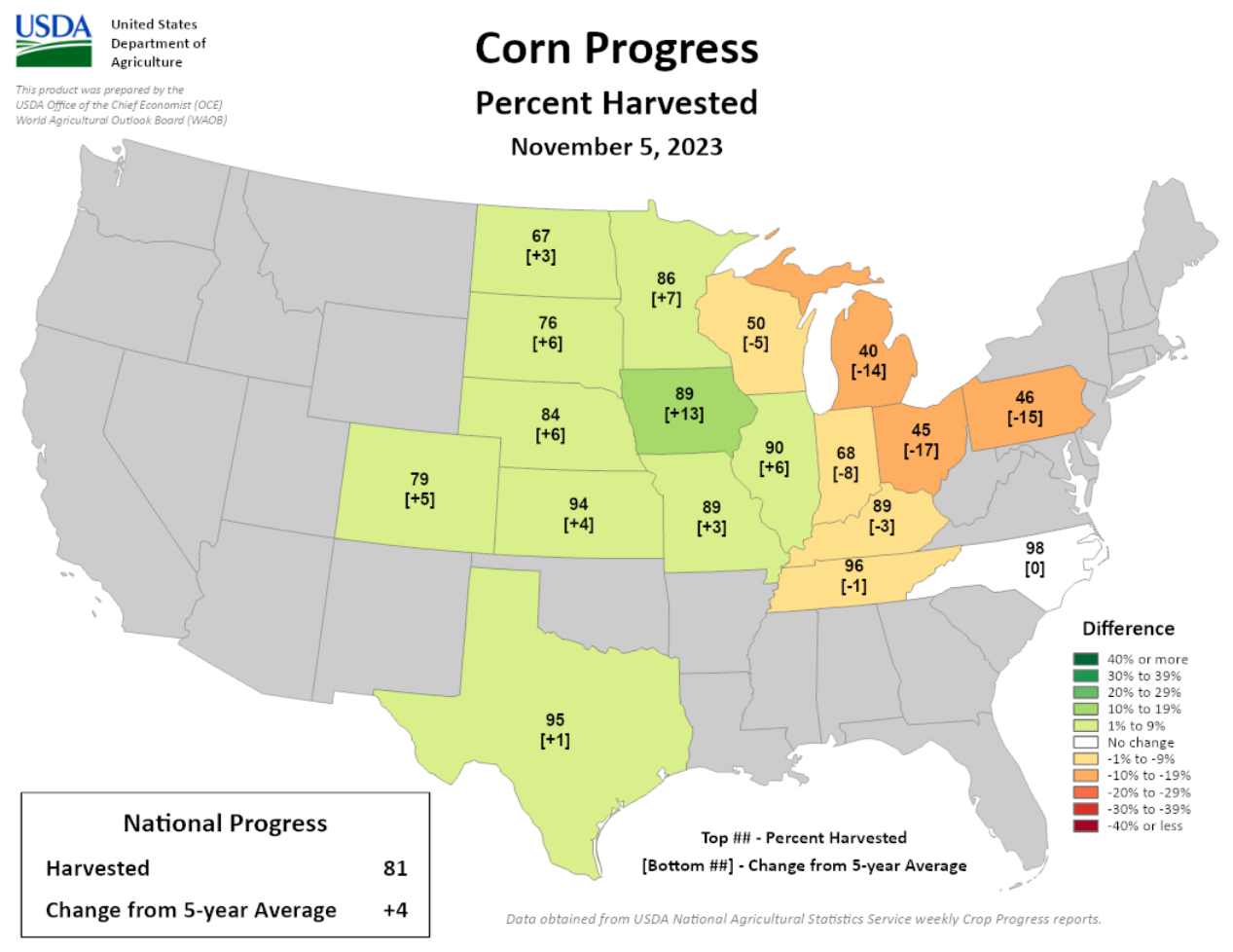
Data for 11/6/23

- Most stations are sitting in the upper 40s to low 50s.
- Rhinelander is the coldest station at 37°F.
- 4-inch soil temps ≤50°F reported in Grant, Jackson, and Door Counties.

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):

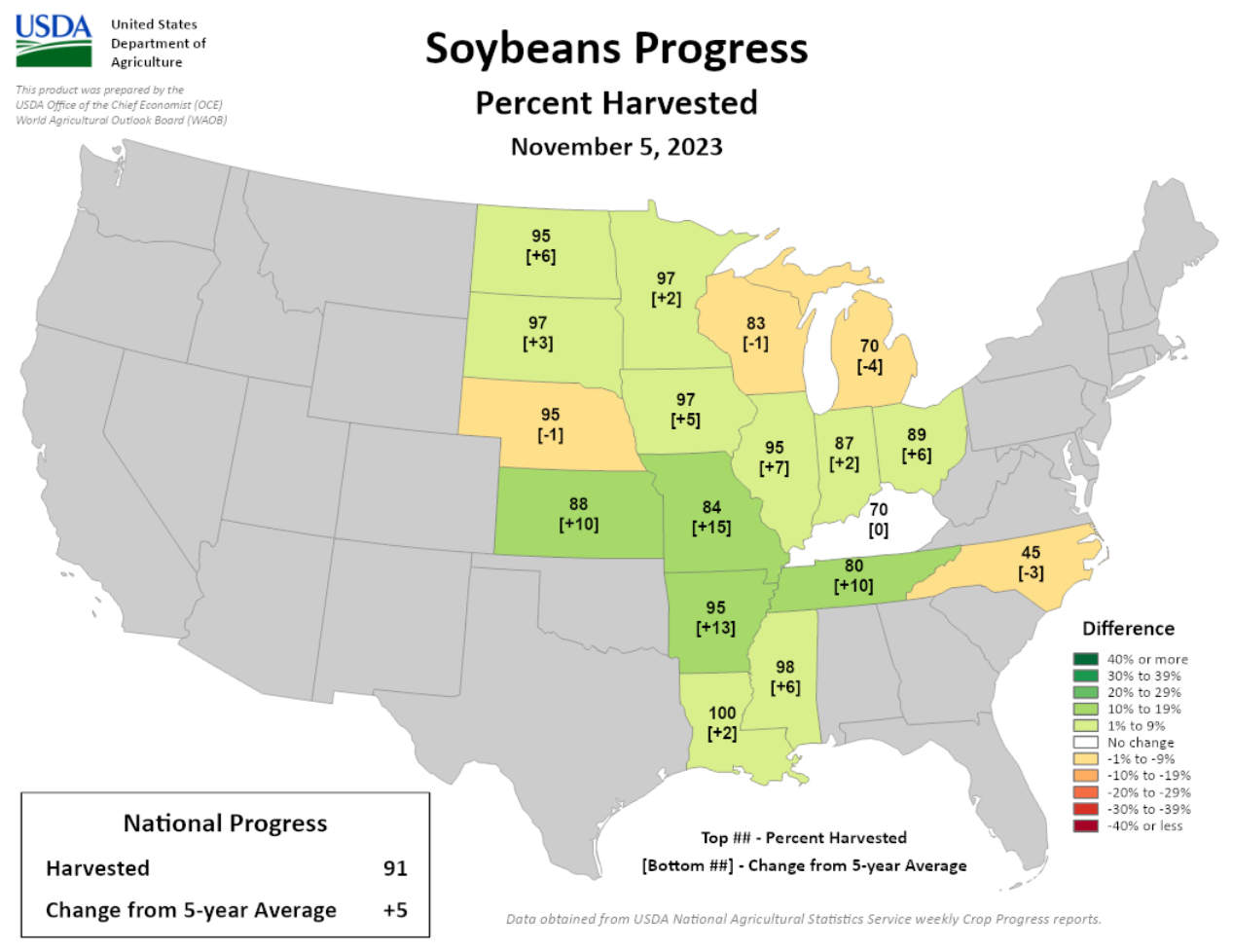
- Wisconsin: 50% (-5%)
- National: 81% (+4%)

Corn harvest running behind the 5-year average in WI. Progress increased by **15%** from last week.

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

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

Soybean Progress (NASS)



Soybean Harvested (NASS):

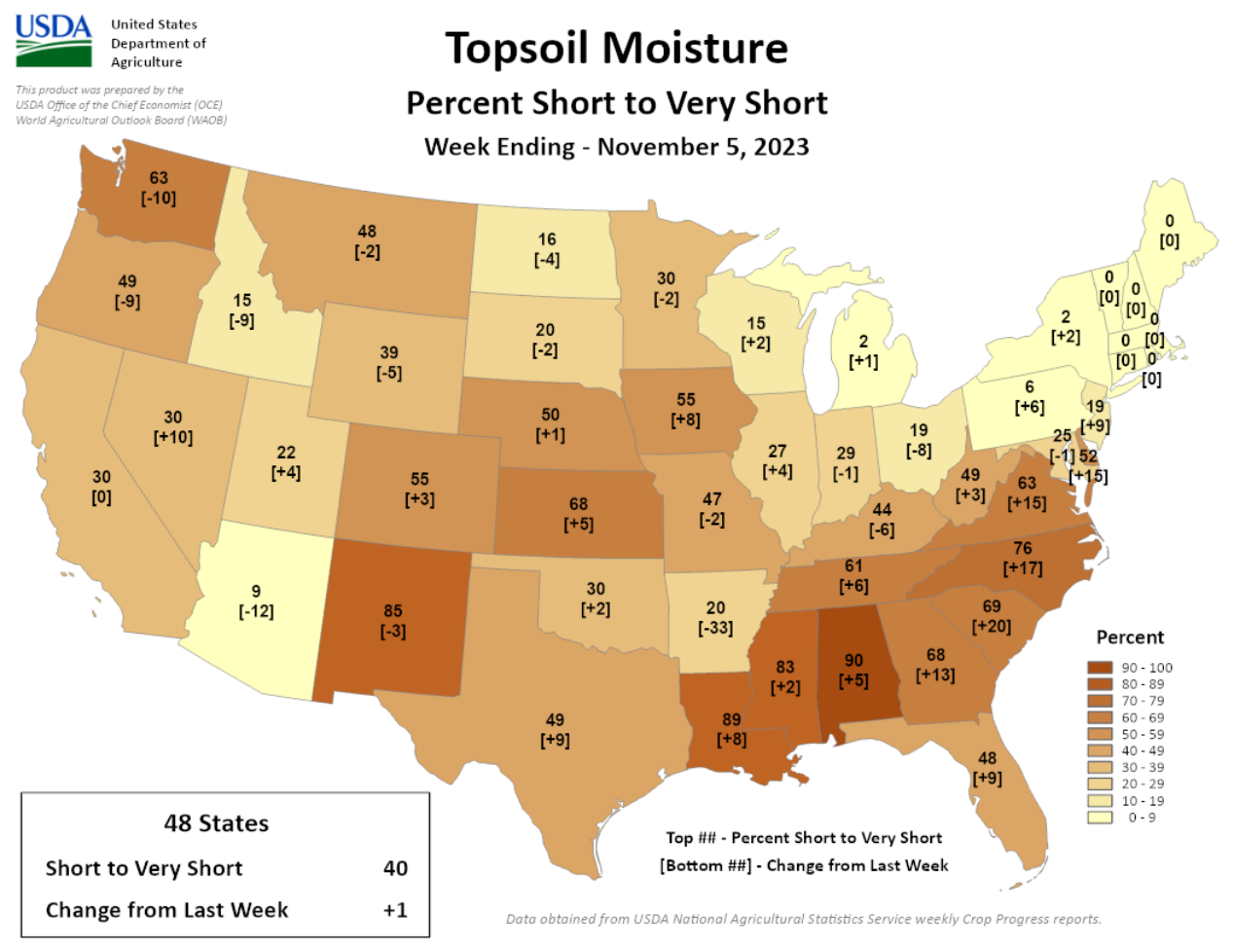
- Wisconsin: 83% (-1%)
- National: 91% (+5%)

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

Trending ahead of average in most states. A few states are ≥95% complete.

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

Soil Moisture Conditions (NASS)



Soil moisture S-VS (NASS):

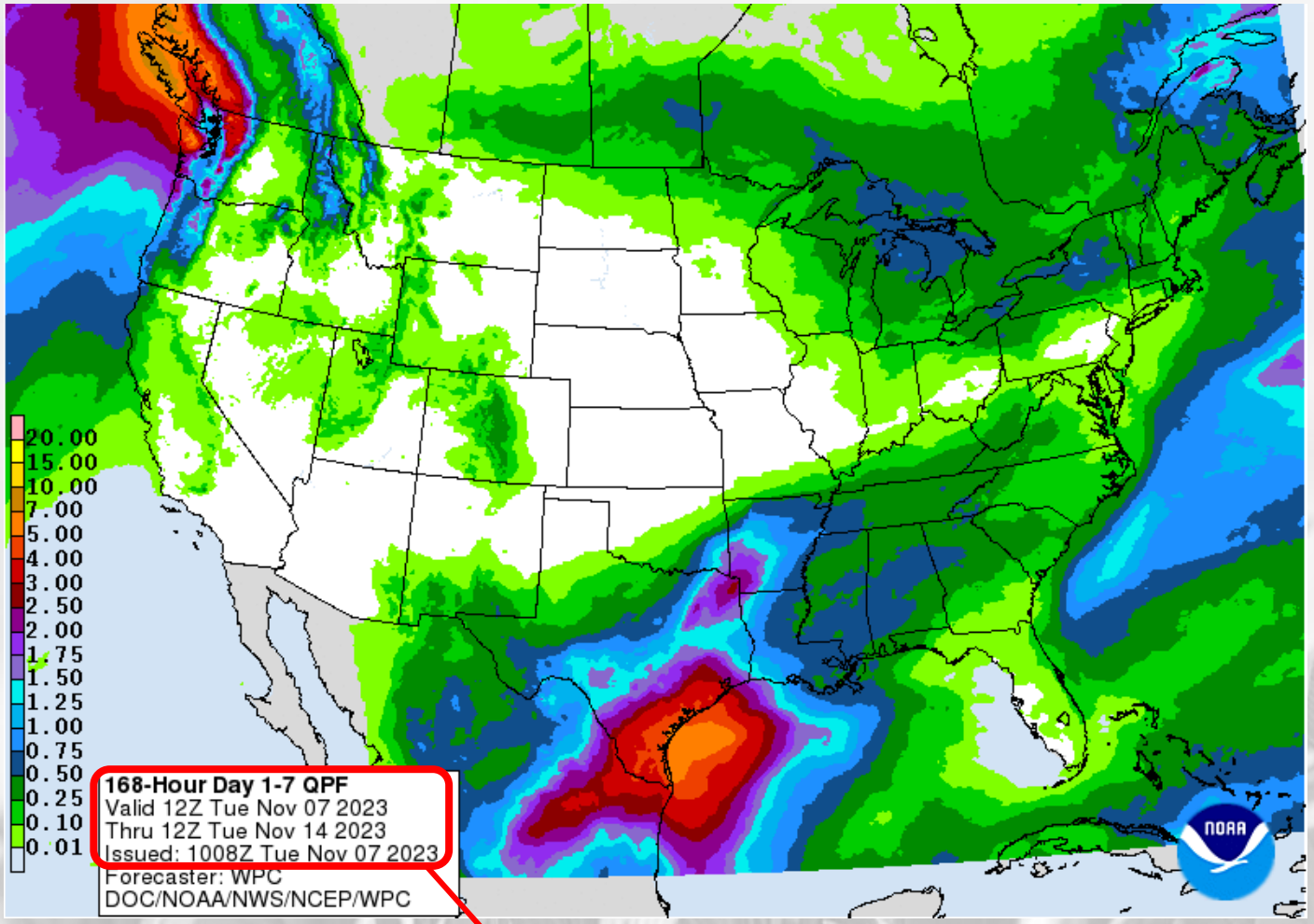
- Wisconsin: 15% (+2%)
- National: 40% (+1%)

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

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

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

7 Day Forecast Precip

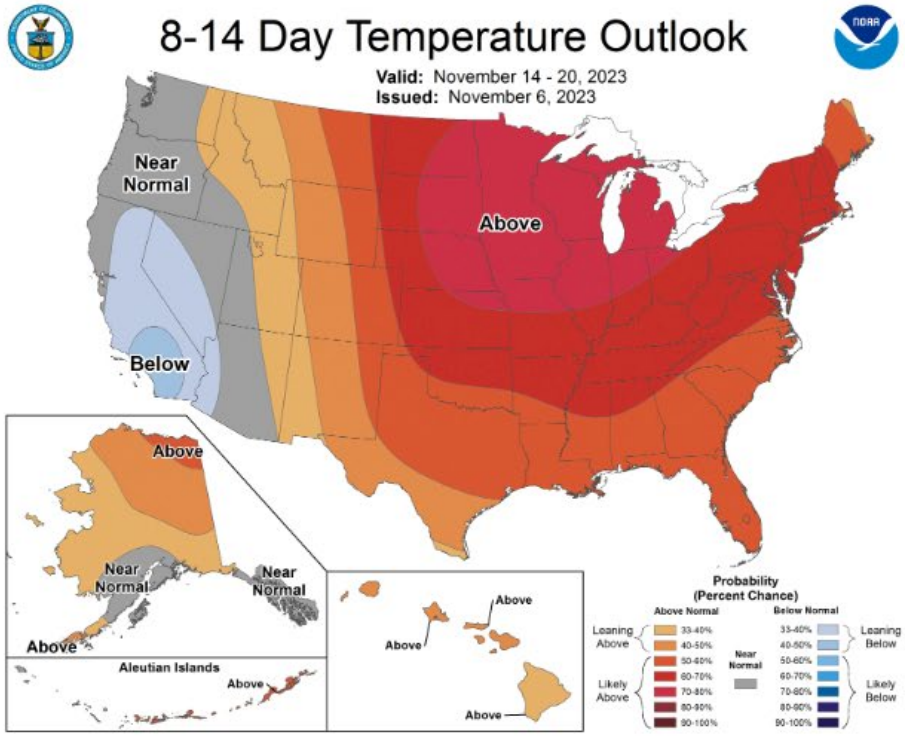


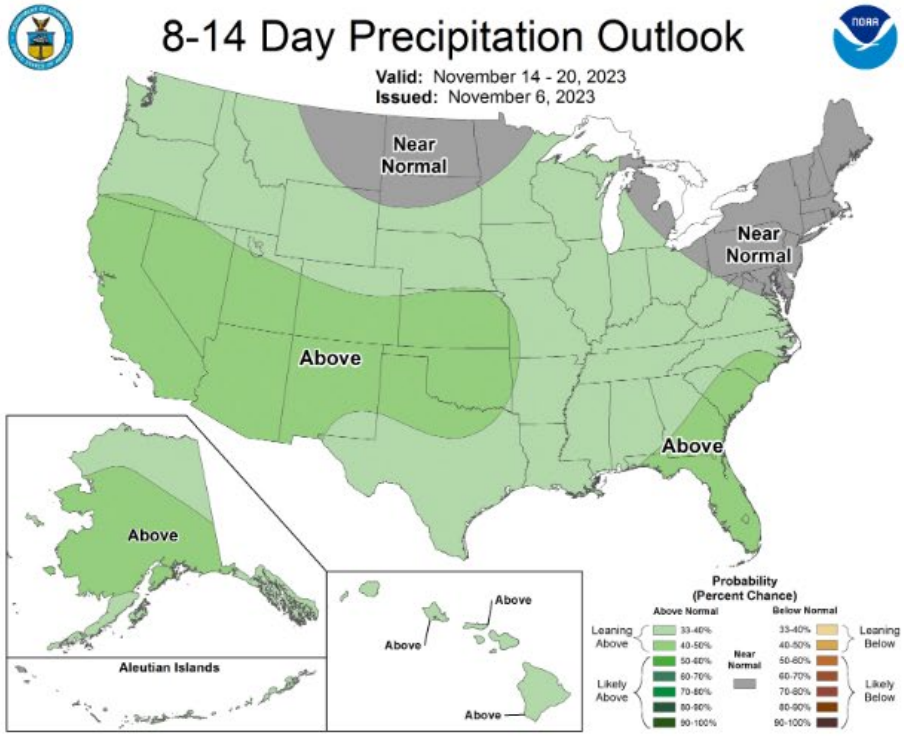
- Chances for precipitation into mid-week. However, totals are expected to be <1”.
- The highest totals are forecasted across NE WI.
- All areas in WI are forecasted to get some rain.

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

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

8-14 Day Temp & Precip Outlook

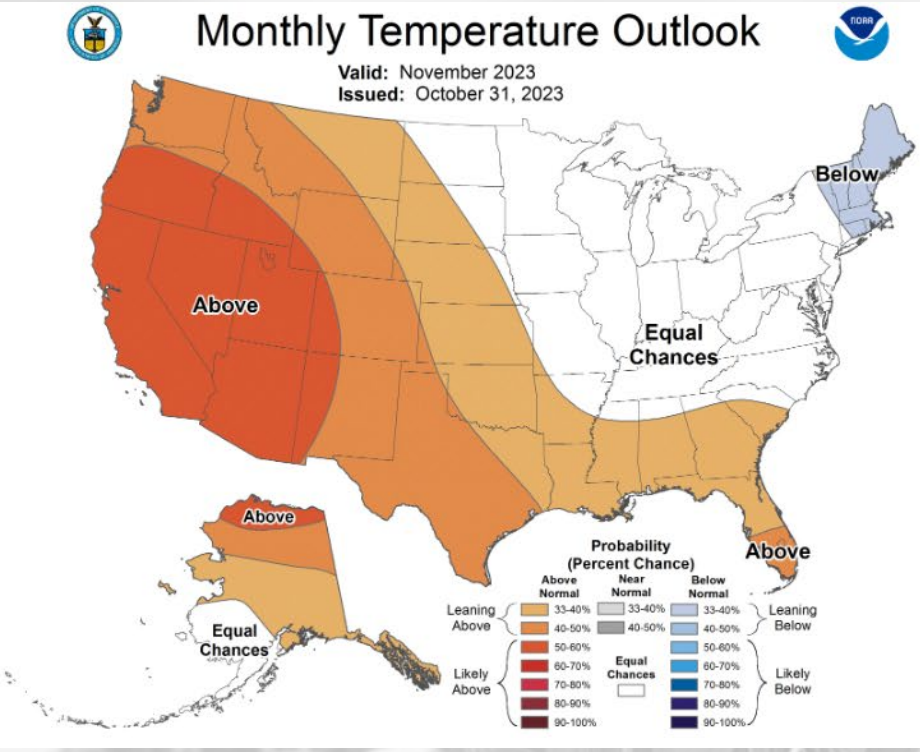


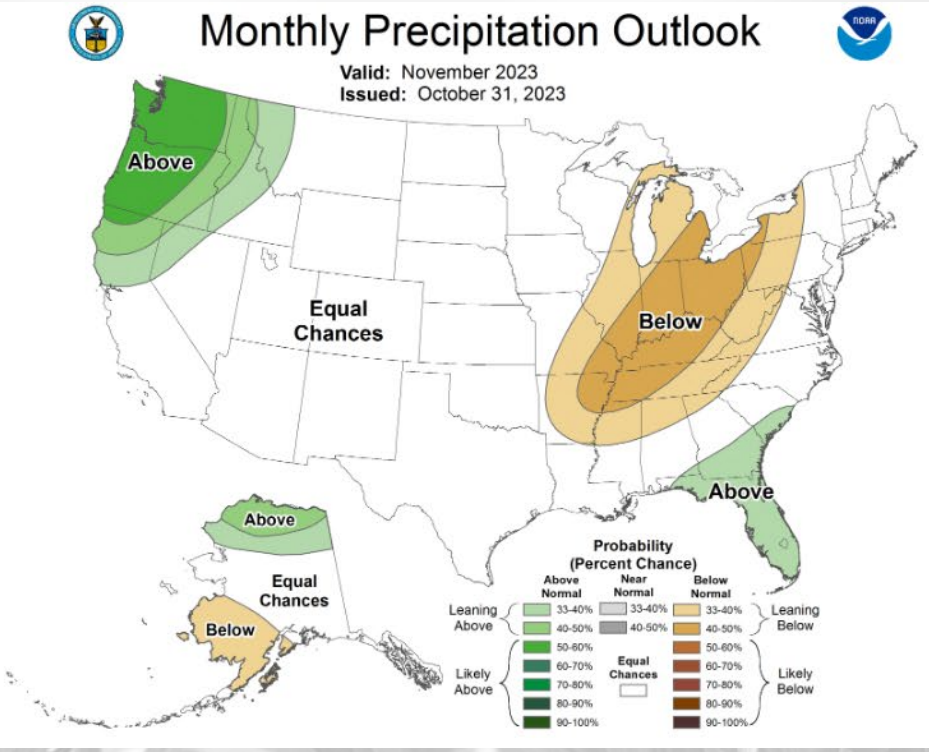


The third week of November: Temperatures likely to be above normal. Precipitation is leaning towards above normal.

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

30 Day Temp & Precip Outlook

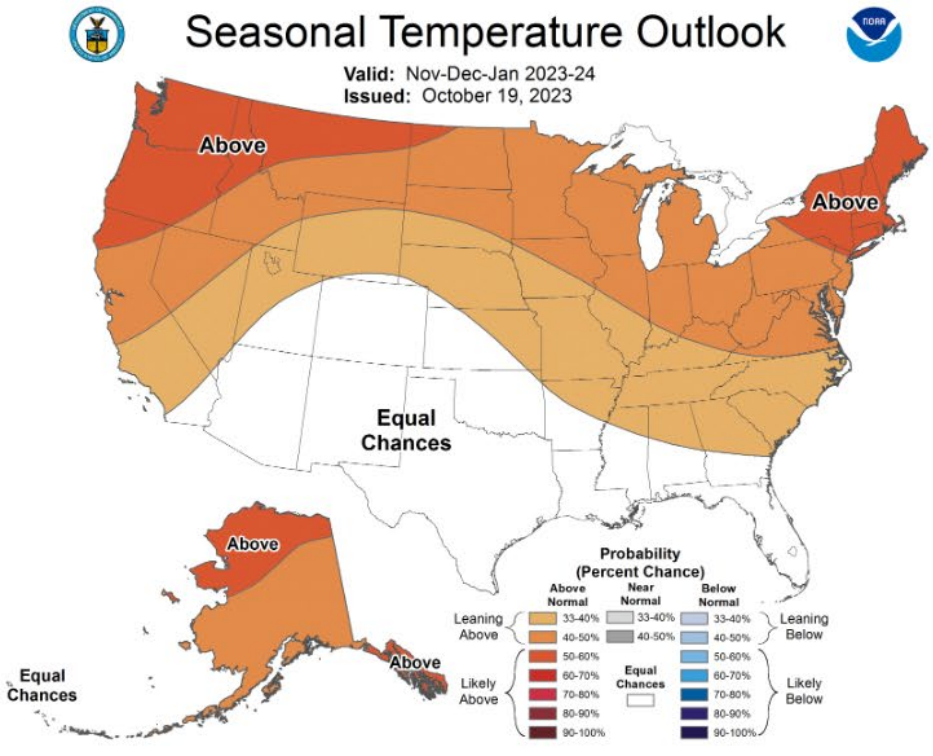


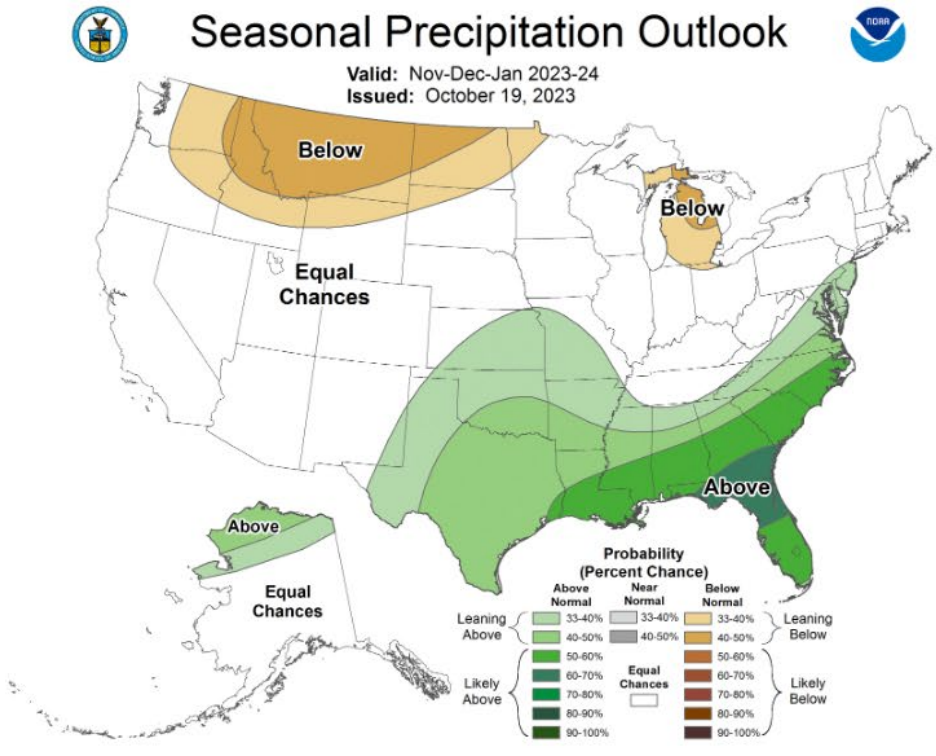


The month of November: No strong indicators for temperature for this period ("equal chances"). Precipitation forecasted to be below normal in the E/SE; no indication elsewhere.

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:
  - Soil moisture decreased from last week due in part to low precipitation totals, but drought conditions overall continue to improve.
  - Average 4” soil temperatures are sitting at or just below 50°F.
- Impact:
  - Areas of central and southeast WI have been removed from drought.
  - A relatively dry week helped accelerate corn harvest progress (15% jump from last week).
  - Soybean harvest continues to near completion, running near the 5-year average.
  - Consider soil temperatures when making fall fertilizer decisions.
- Outlook:
  - Above average temperatures are likely heading into next week.
  - Precipitation totals are forecasted to be <1” this upcoming week, with the potential for above normal totals for mid-November.
    - *Will continue to help recharge soil moisture.*

For More Information


Photo Credit: USDA

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