Wisconsin Ag Climate Outlook

Week of August 26, 2024

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Key Points

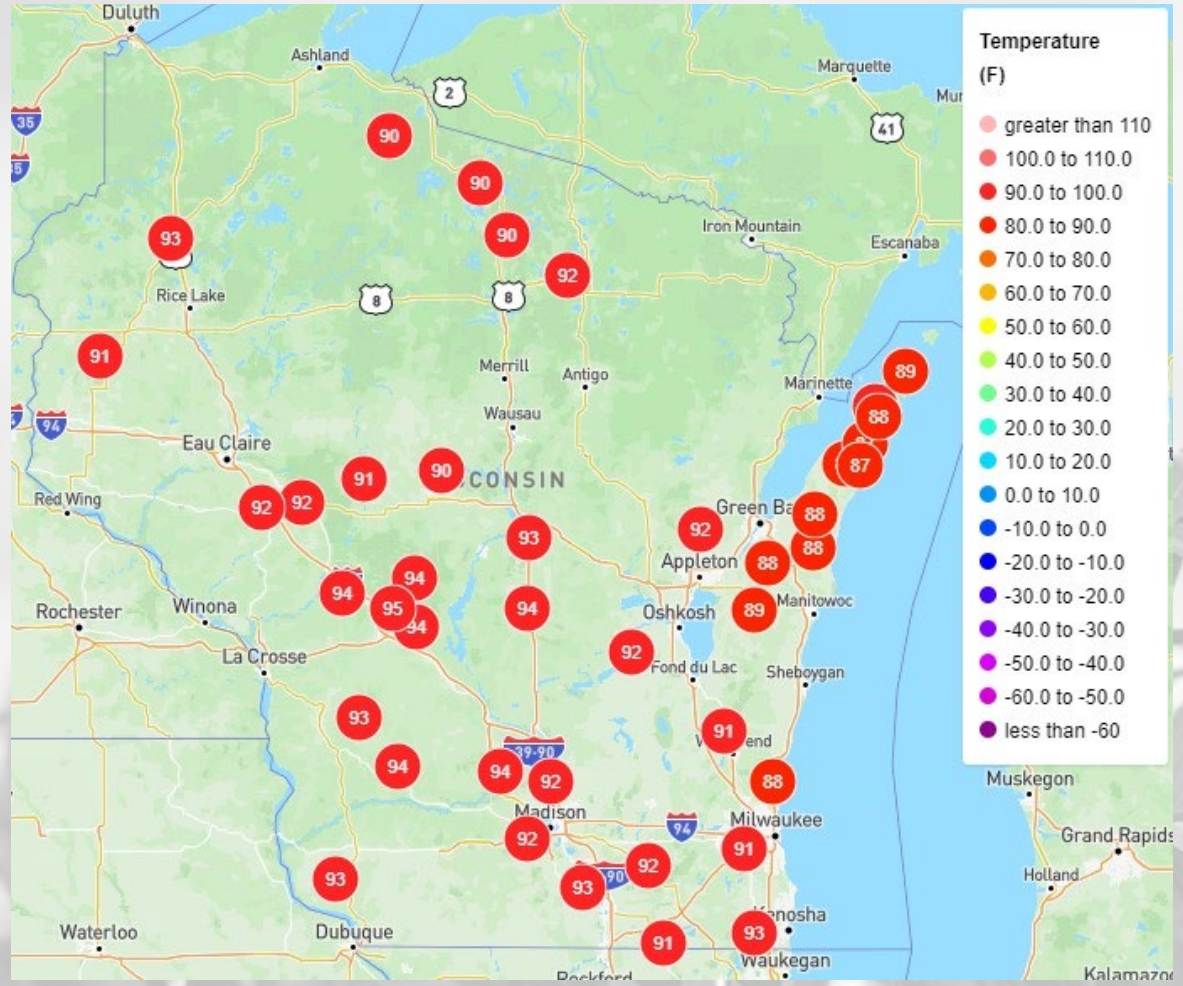
Navigate to select slides by clicking on the links below.

1) Late summer heat has been impacting the state early this week, with daily records being broken for some.
2) Soil moisture percentiles are in the middle range for most in WI, with the USDM indicating abnormal dryness in the N.
3) Temperature probabilities are leaning warmer heading into September, with chances for less-than-normal precip early in the month.

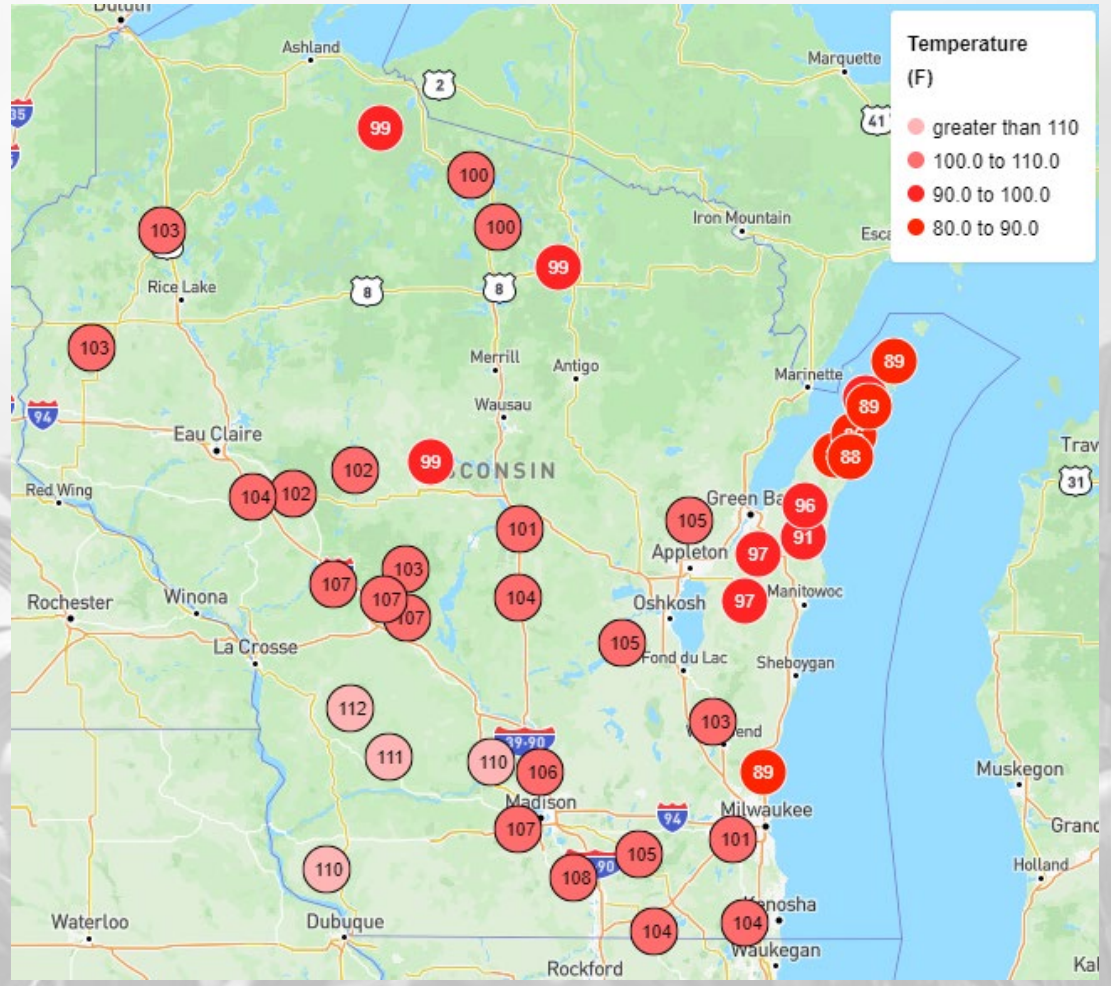
- *For this week's agronomic recommendations from UW Extension, click here.*
- *For the latest GDD accumulation maps, click here.*
- *For NASS crop progress & condition maps, click here.*

End of Summer Heat

Daily Maximum Temperature
August 26th



Heat Index
August 26th @ 4pm



https://wisconet.wisc.edu/

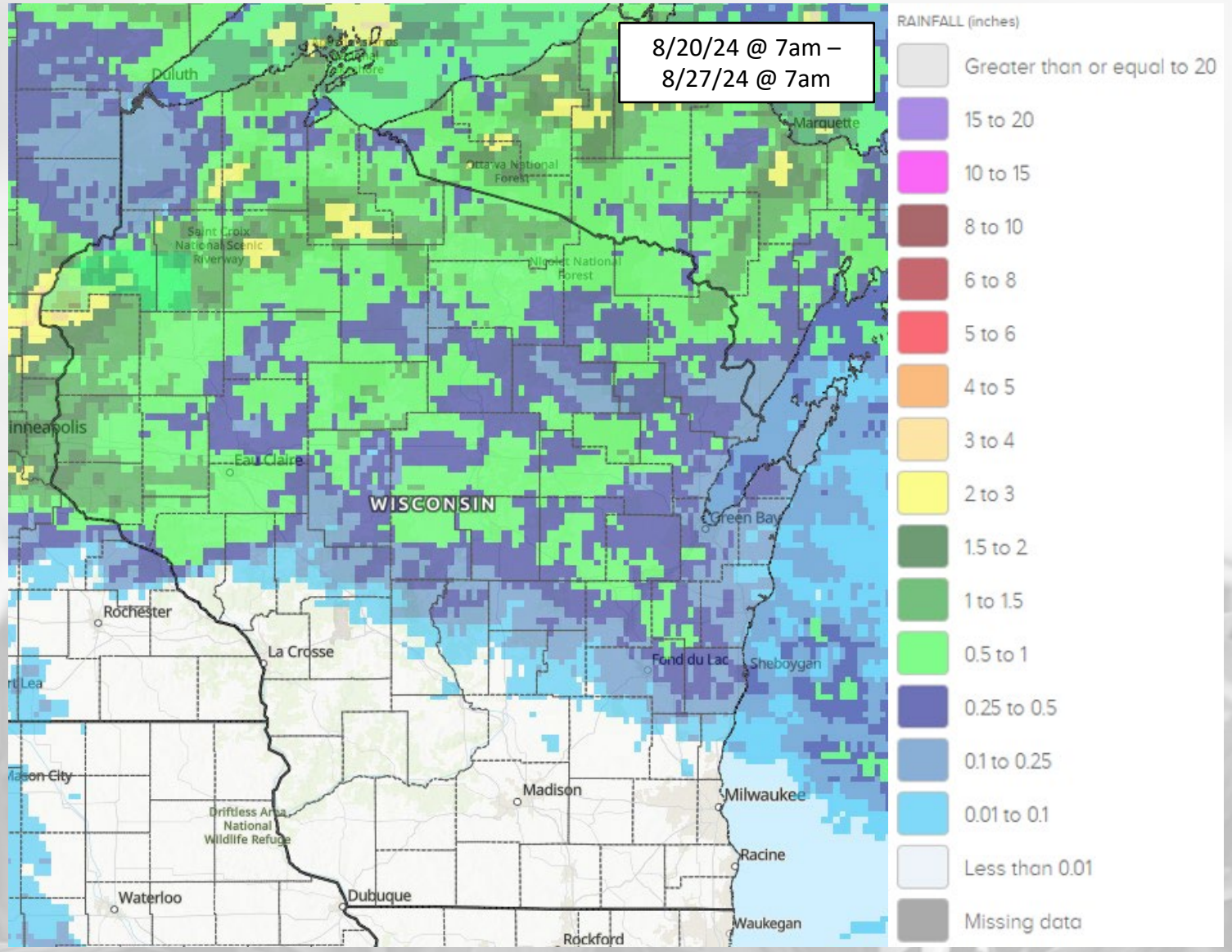
August 26th – New Daily Records*

Station Name	County	Daily High (8/26/24)	Start of Record
LA CROSSE REGIONAL AIRPORT	LA CROSSE	97	1938
BOSCOBEL AIRPORT	GRANT	97	1999
LONE ROCK TRI COUNTY AP	SAUK	96	1948
KENOSHA REGIONAL AP	KENOSHA	96	1997
WISCONSIN RAPIDS ALEXANDER FIELD	WOOD	95	1996
FOND DU LAC 1 SW	FOND DU LAC	95	2000
RHINELANDER ONEIDA COUNTY AP	ONEIDA	93	1998
SULLIVAN 3 SE - WFO MKX	JEFFERSON	92	1995
ASHLAND KENNEDY MEMORIAL AP	ASHLAND	92	1998
LA CROSSE WFO	LA CROSSE	92	2000
LODI WWTP	COLUMBIA	92	2005
RICHFIELD 3 SSW	WASHINGTON	91	2000
JACKSON	WASHINGTON	91	2001
FOND DU LAC COUNTY AIRPORT	FOND DU LAC	90	1996
OSHKOSH WITTMAN REGIONAL AP	WINNEBAGO	90	1996

**Stations with at least 20 years of data*

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

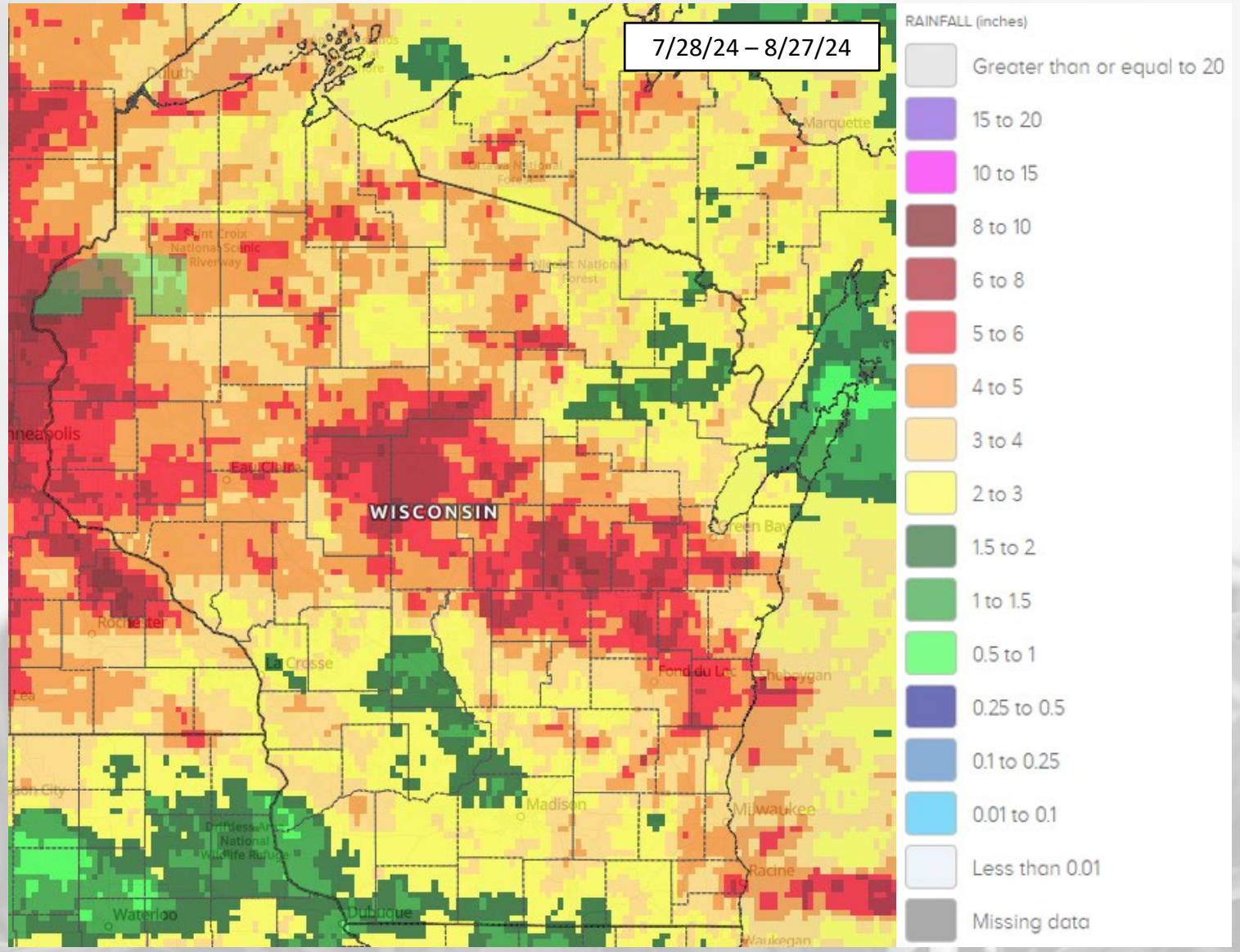
7 Day Precip



- Precip fell mainly in the **northern half** of the state this past week.
- Weekly totals were **less than 1”** for most, with **isolated 2-3”** in the far NW.
- Folks along and south of a line from La Crosse to Milwaukee received **no precip**.

https://water.noaa.gov/

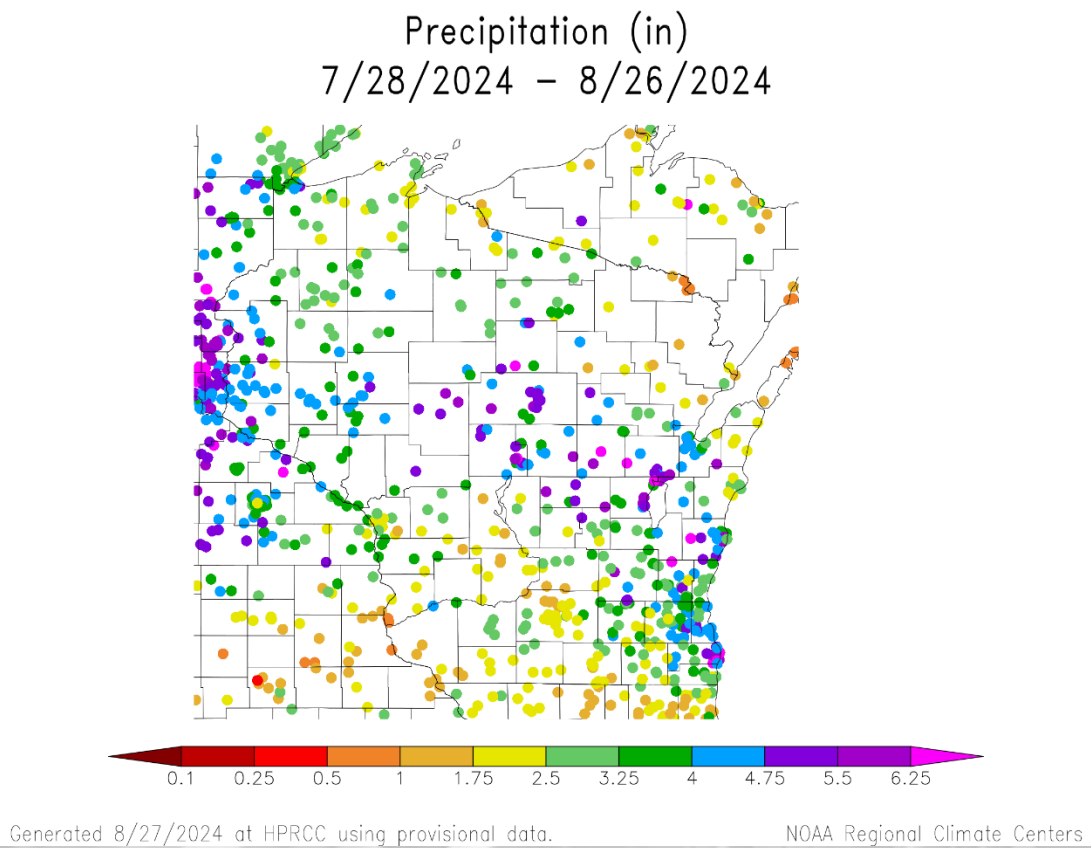
30 Day Precip

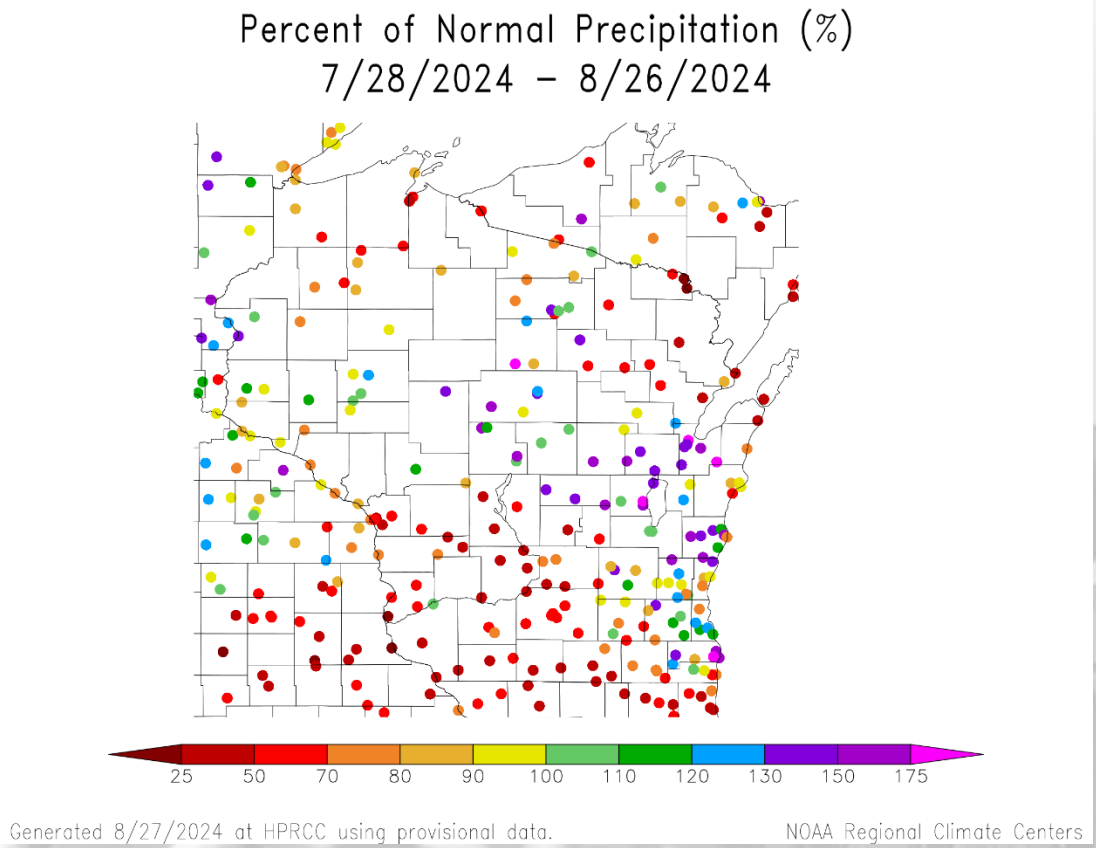


- **5” or more** was common west of the Twin Cities and in the central counties.
- Lowest totals in the SW and the far NE – **1-3” common**.
- River levels remain below flood stage statewide.

https://water.noaa.gov/

30 Day Precip Total/% Avg.

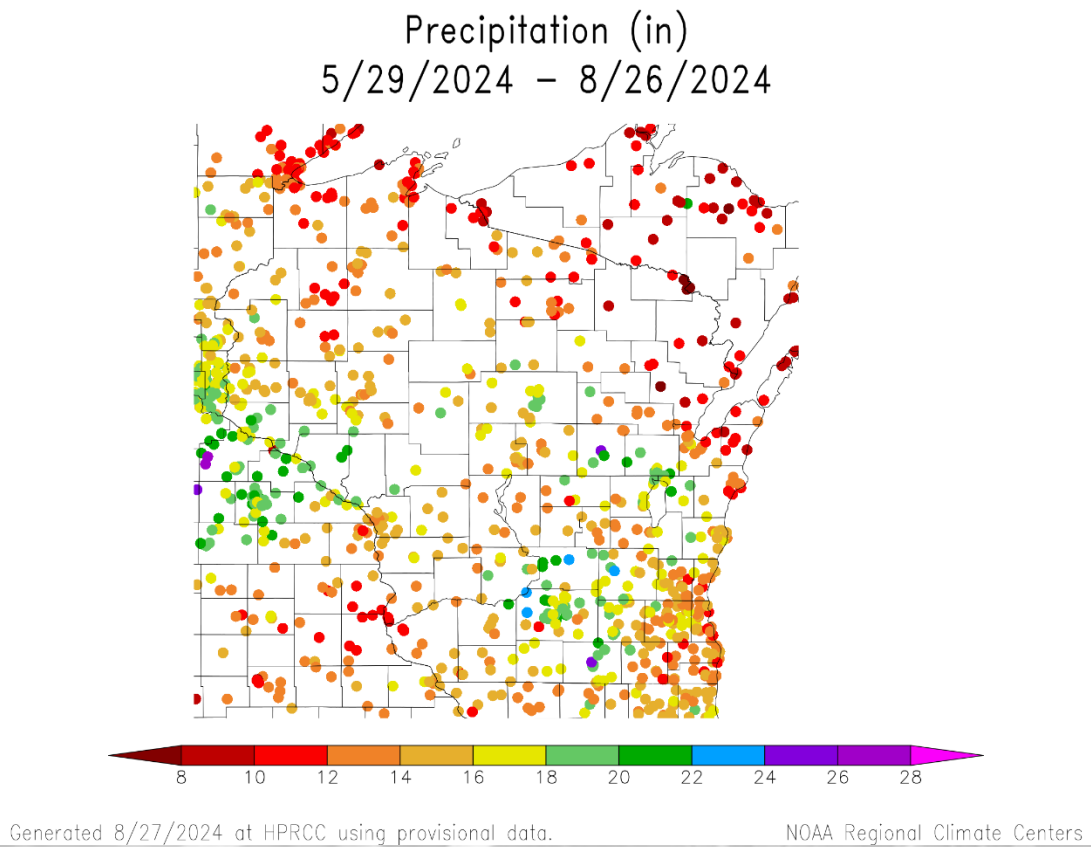


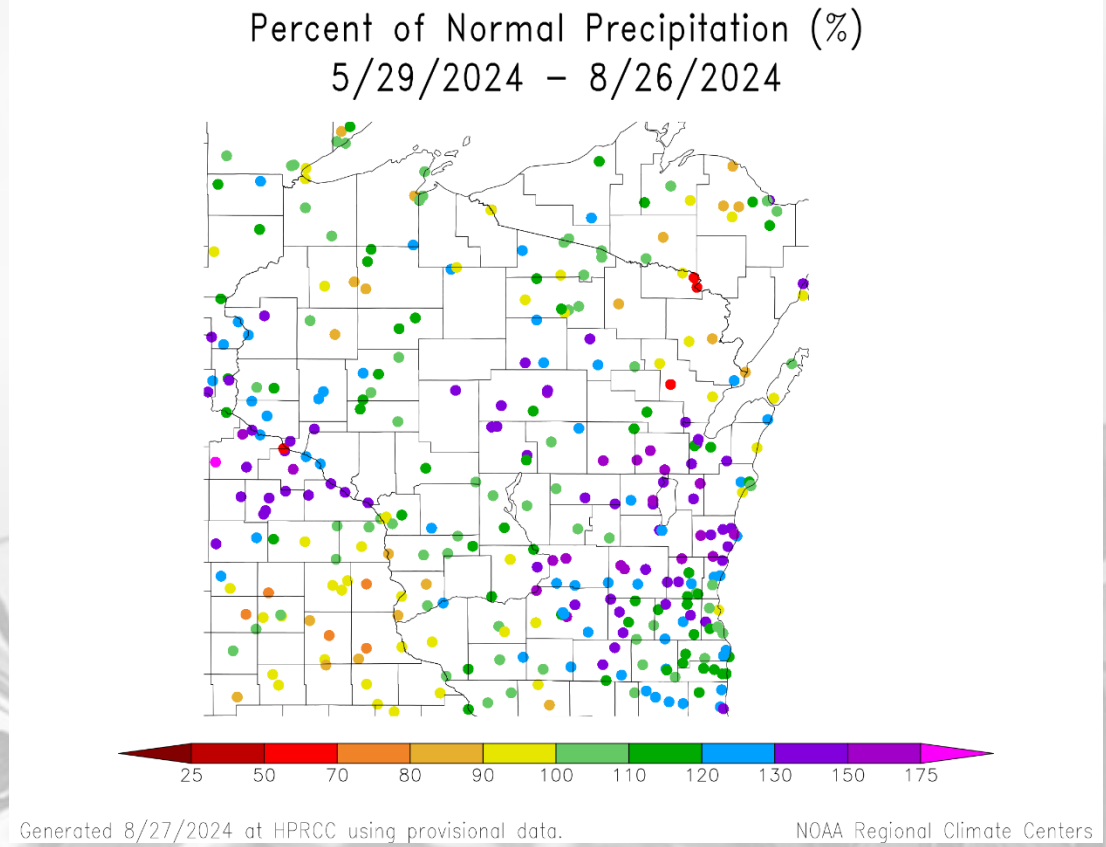


- Monthly precip totals of **4-6”** common along a line from the Twin Cities to the Fox Cities, & down to Milwaukee.
  - **120-150%** of climatological (1991-2020) average; **175+%** at some stations in the NC/NE.
- **<70% of average** common in the SC, SW, and far N → **<2.5”** of monthly precip across many stations.

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

90 Day Precip Total/% Avg.

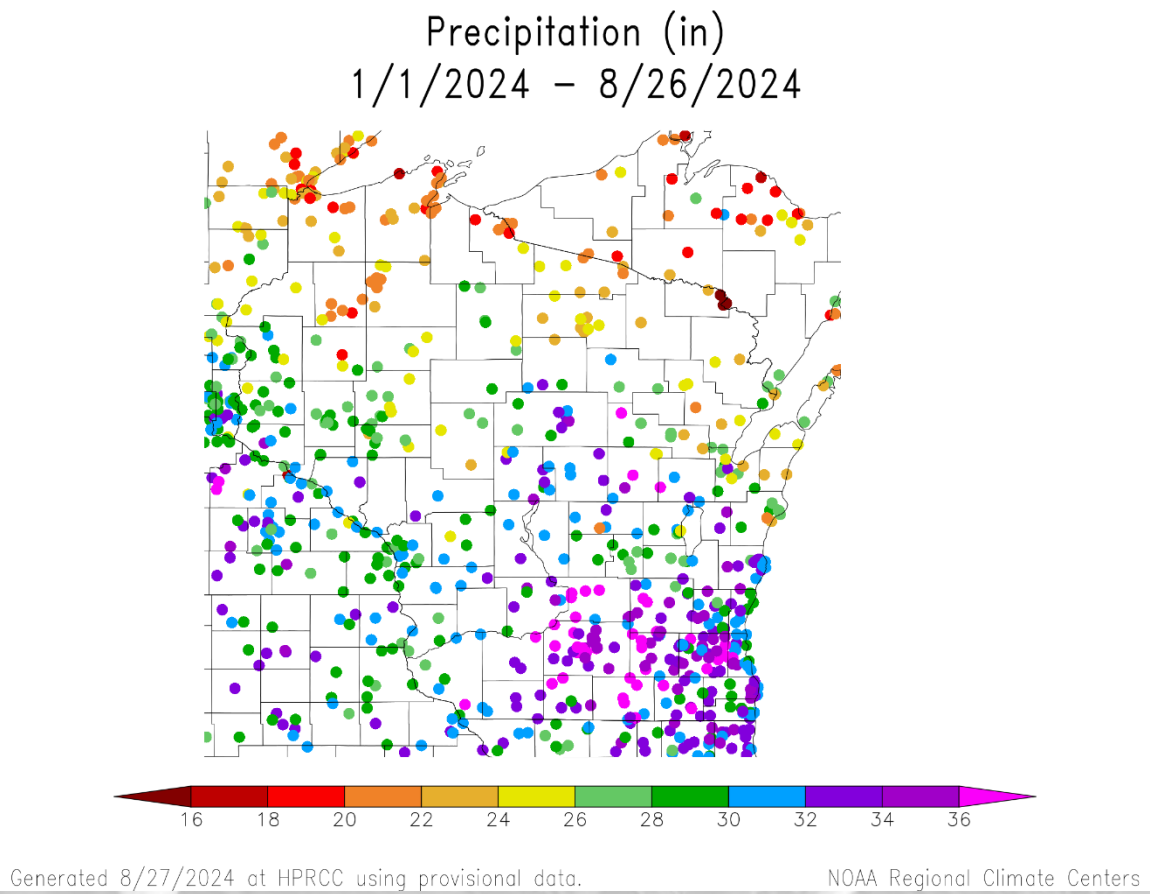


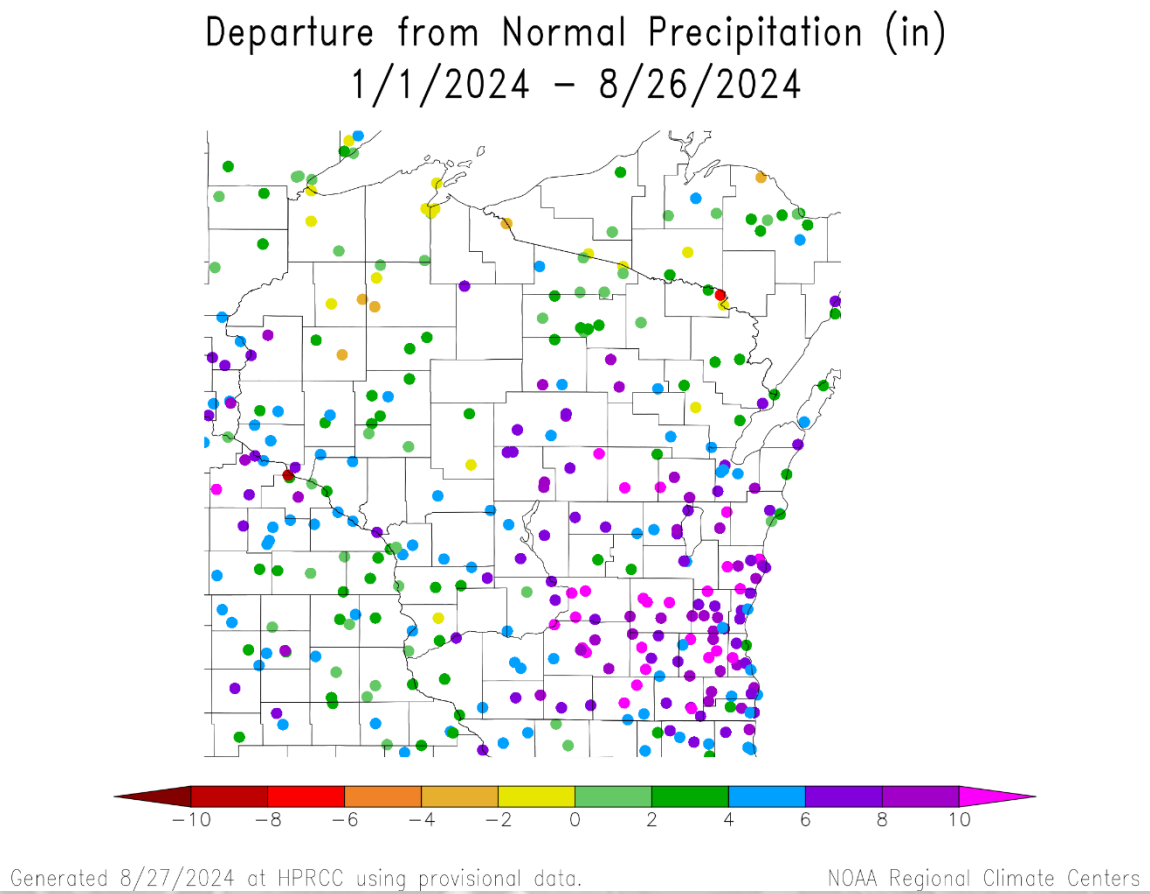


- **20-24”** at stations in Dane, Columbia, and Dodge Counties → **18-22”** in west-central WI & near Appleton.
  - **120-150%** of average very common at stations near Madison and in the eastern half of the state.
- Lowest totals in the north and in the SW → **<12”** common; **near or just below** the climatological average.

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

2024 Precipitation (so far)





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

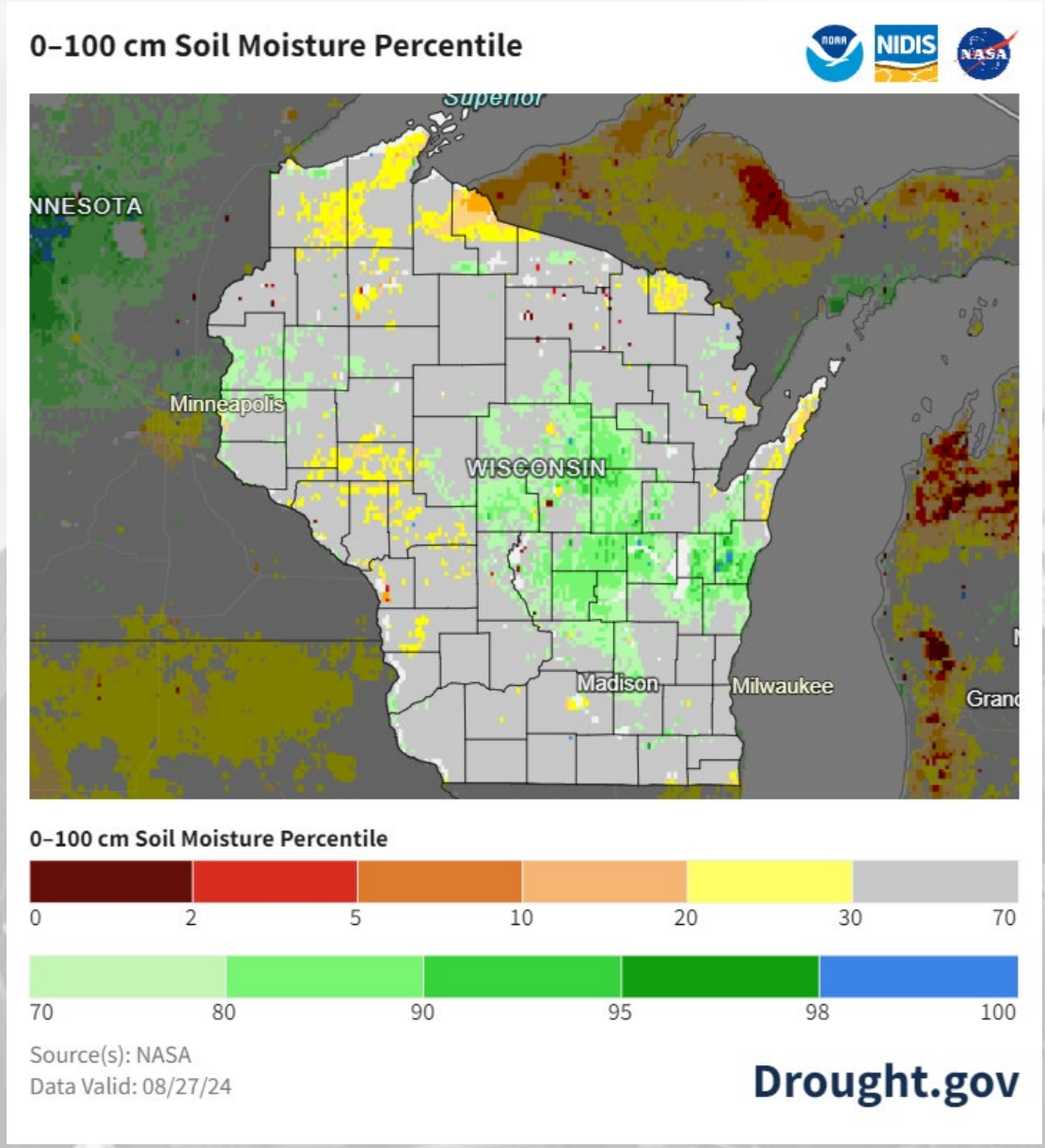
Soil Moisture Models

- **70th percentile or greater** for soil moisture conditions across the central belt of WI and the NW, where precip totals have been above normal the past few weeks.
- **Closer to normal** soil moisture for the majority of the state (grey shading).
- **Dry percentiles** in pockets in the west and north.

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.

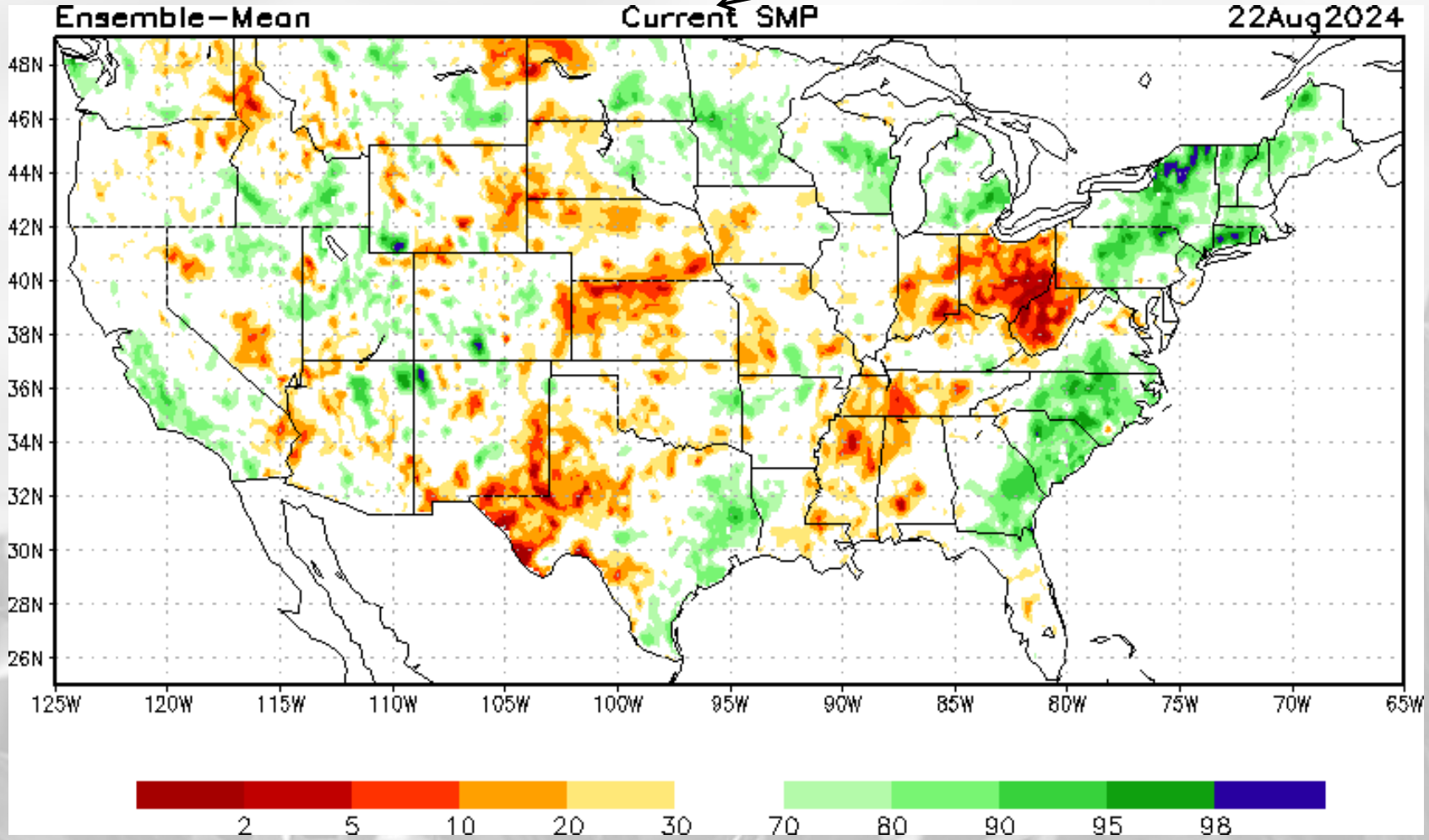
It's worth noting that each soil moisture model has their own characteristics and input variables, so there tends to be variation between models. Thus, it's worthwhile to look at multiple models opposed to just one.

https://weather.msfc.nasa.gov/sport/case_studies/lis_CONUS.html
https://www.drought.gov/states/wisconsin



Soil Moisture Models

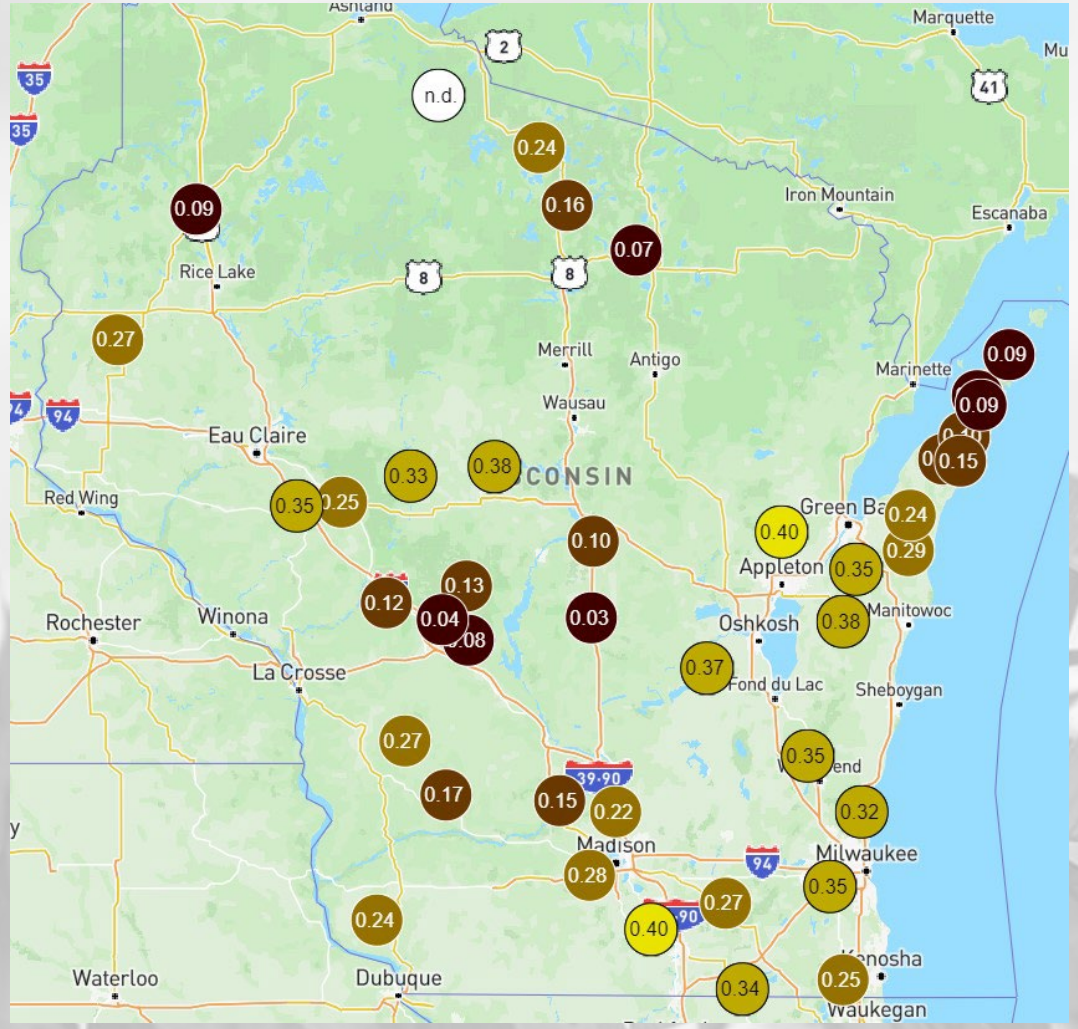
NOTE: this map displays the soil moisture percentile for August 22. It was the most recent update on August 27.



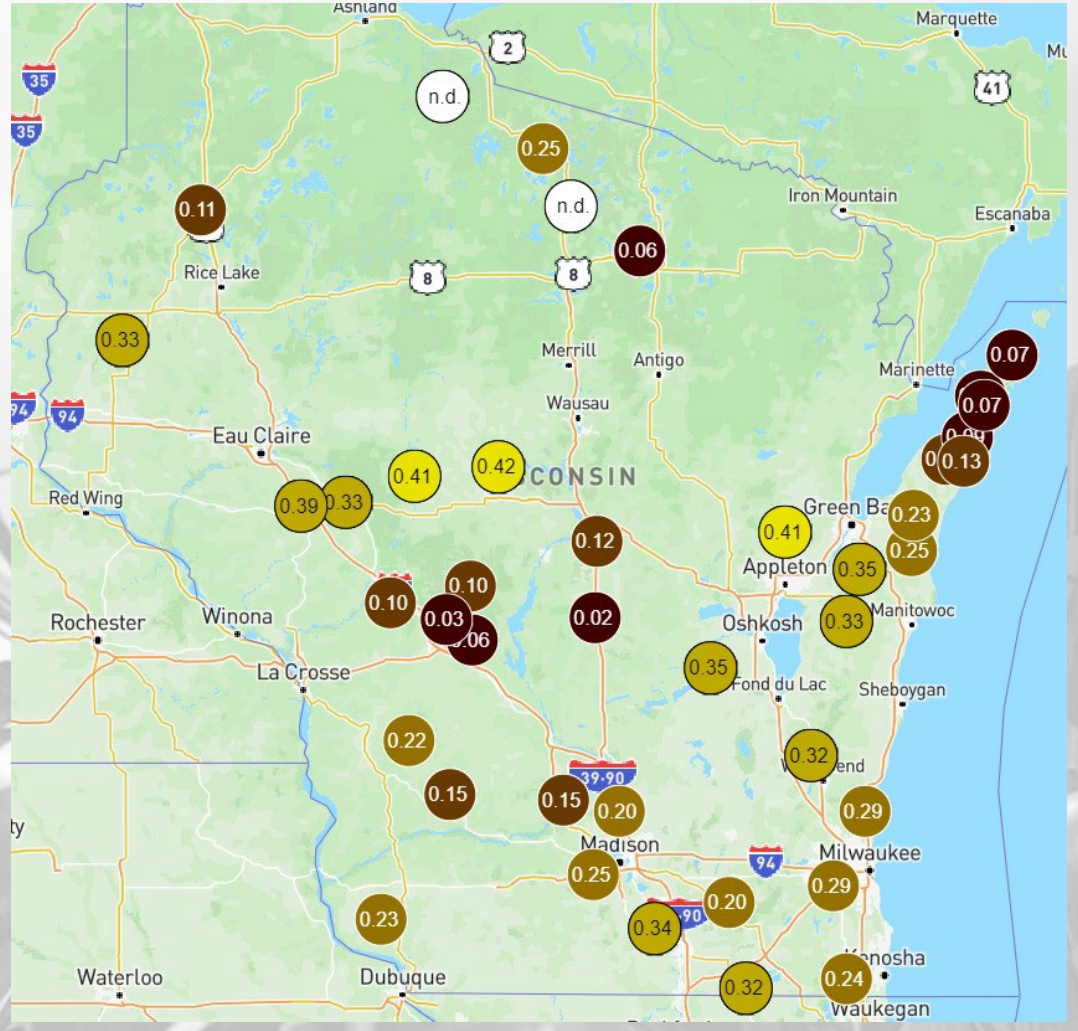
https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp_new.shtml

Wisconet Soil Moisture (4” Depth)

Friday, August 23rd @ Midday



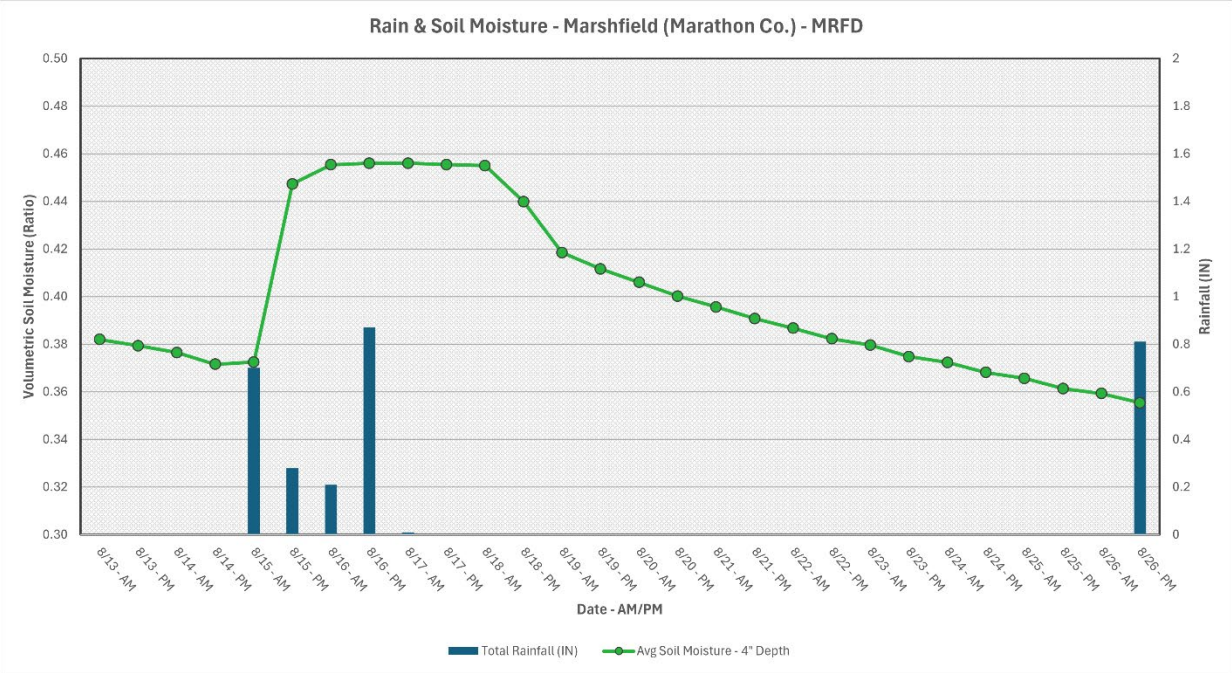
Tuesday, August 27th @ Mid-morning

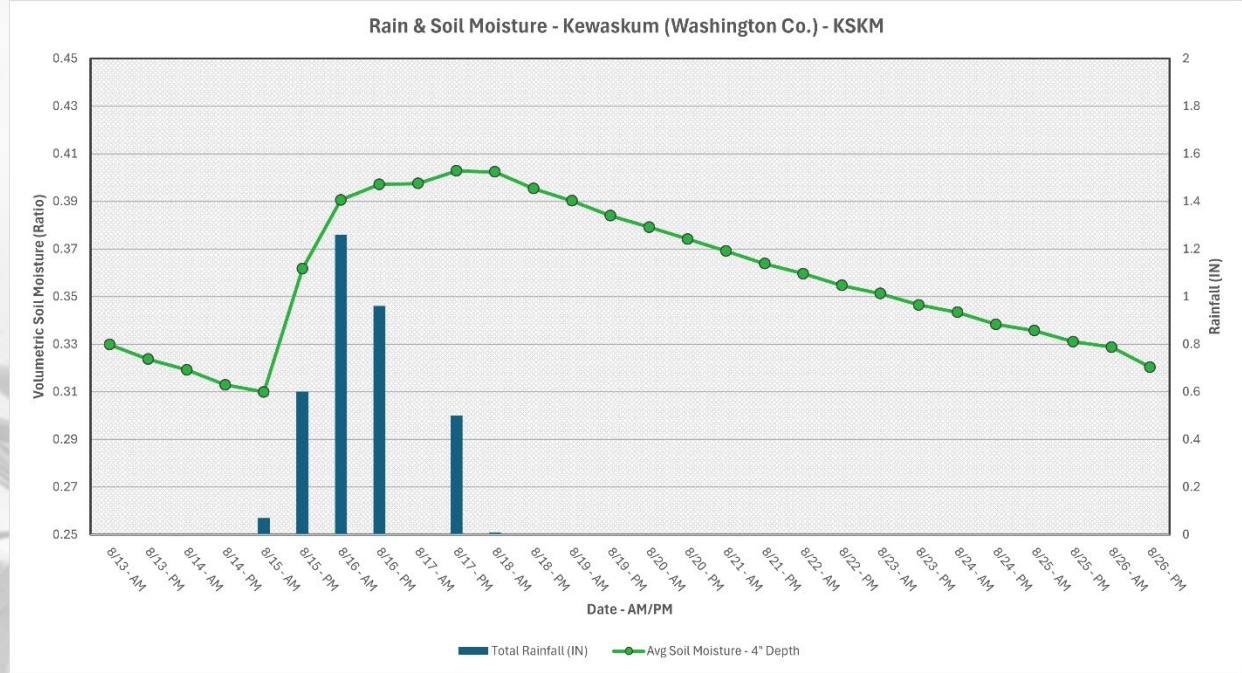


https://wisconet.wisc.edu/

Wisconet Soil Moisture – 4” Depth

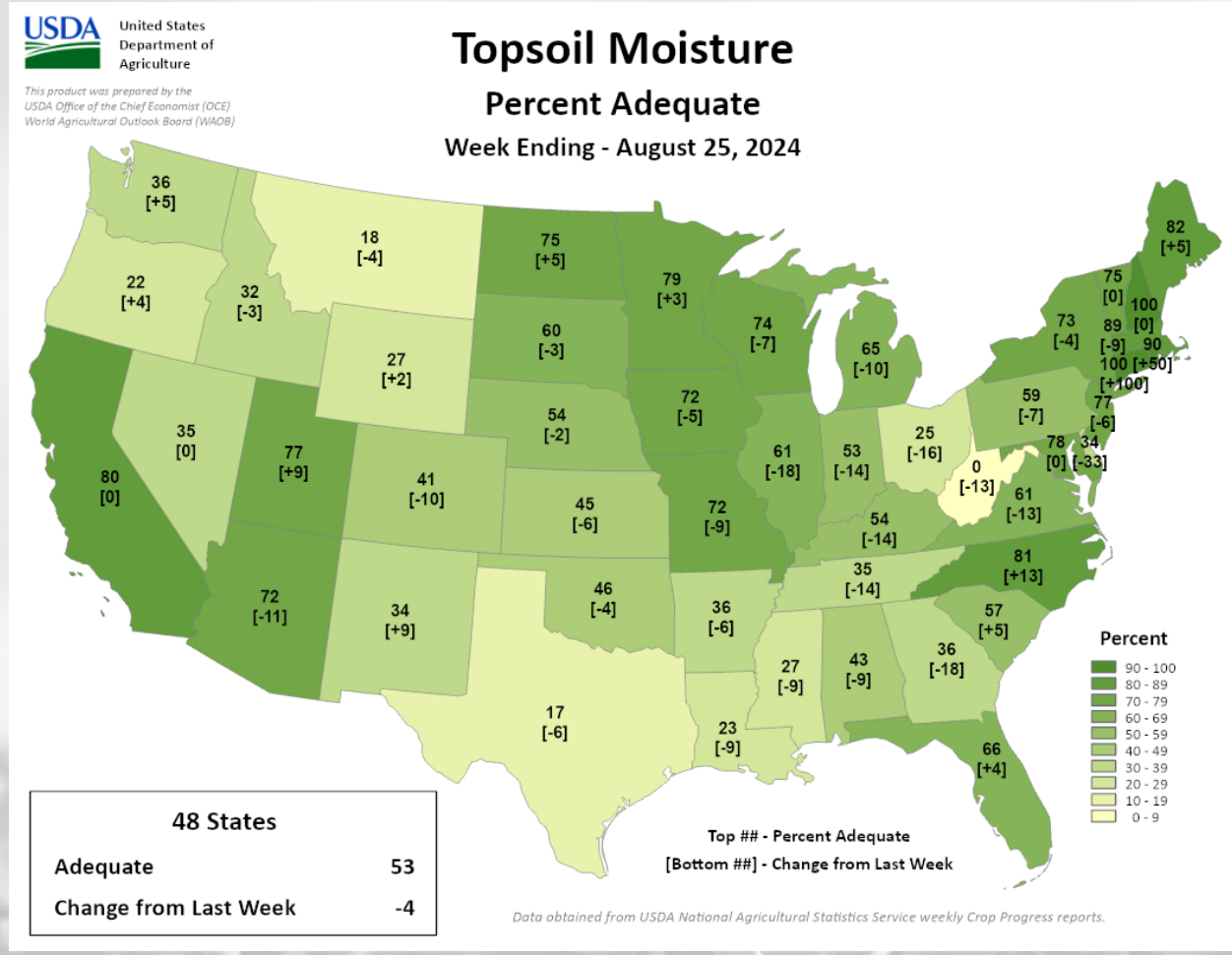
Soil moisture time series at select Wisconet stations

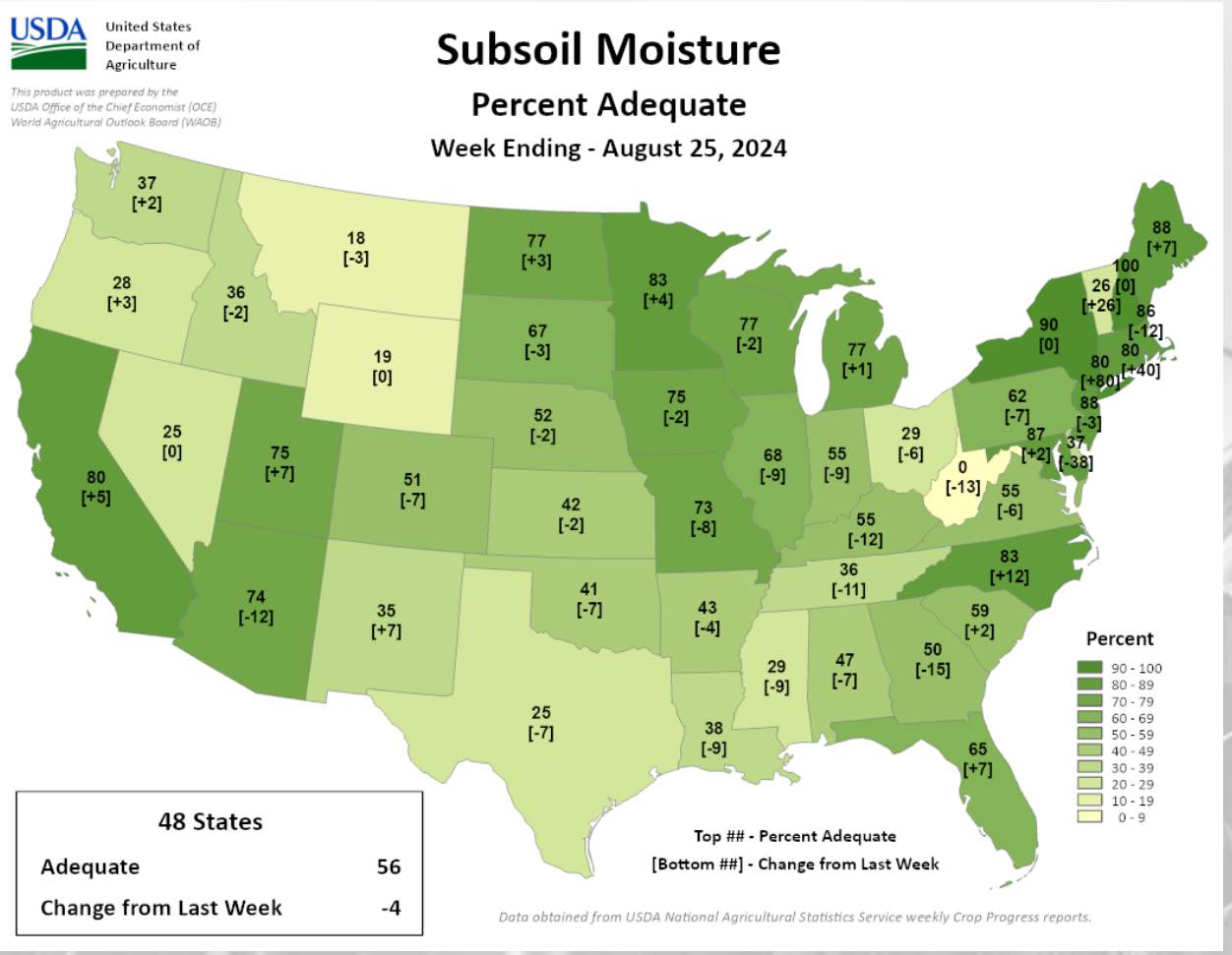




https://wisconet.wisc.edu/

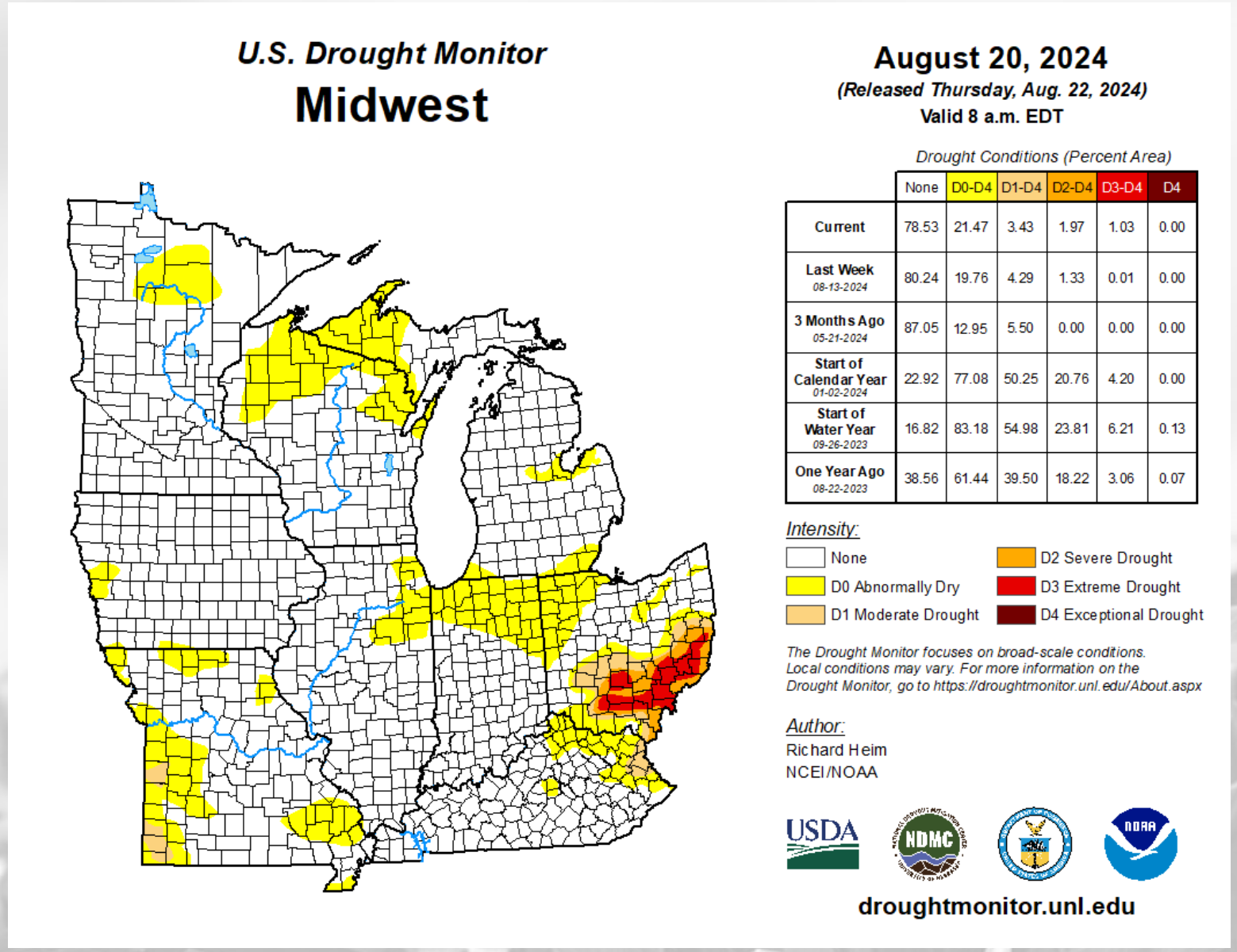
NASS Topsoil & Subsoil Moisture





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

US Drought Monitor

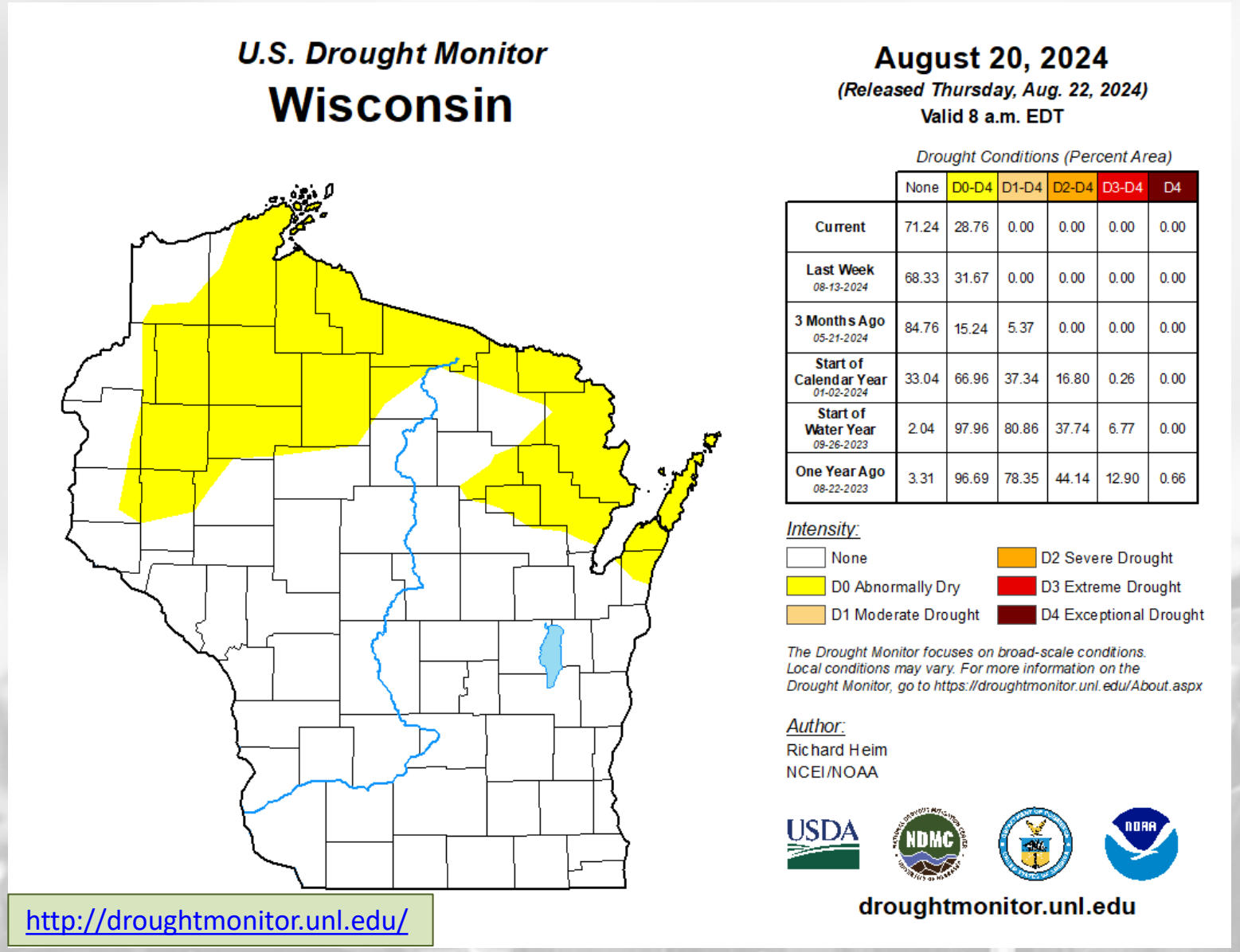


- Compared to last week:
  - Minor increase in overall dryness/drought coverage with conditions in Ohio getting worse.
- **3.4%** of the Midwest is categorized in D1 (moderate) drought.
- **1-2%** is in D2 or D3 drought, all in OH.
- **21.5%** of the Midwest is in D0 (abnormally dry) conditions, up from **19.8%** last week.

Note: D0 is not considered drought.

http://droughtmonitor.unl.edu/

US Drought Monitor

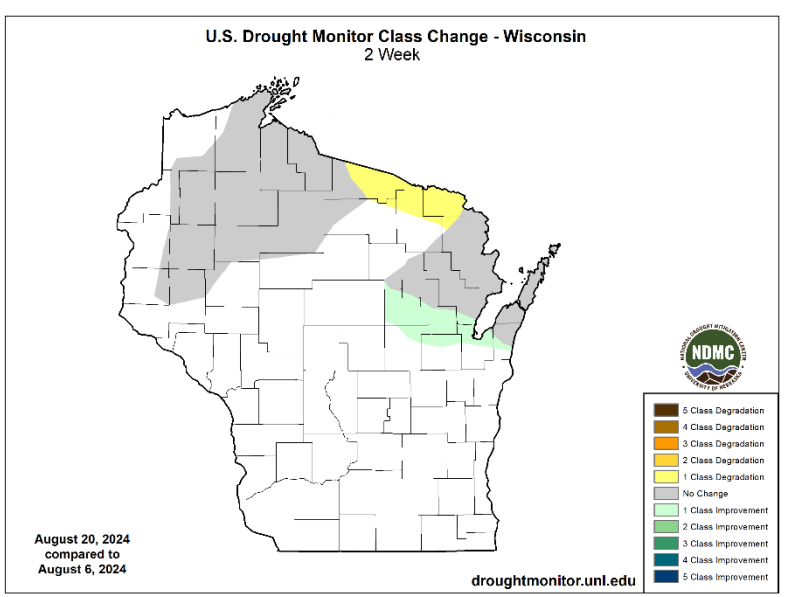


http://droughtmonitor.unl.edu/

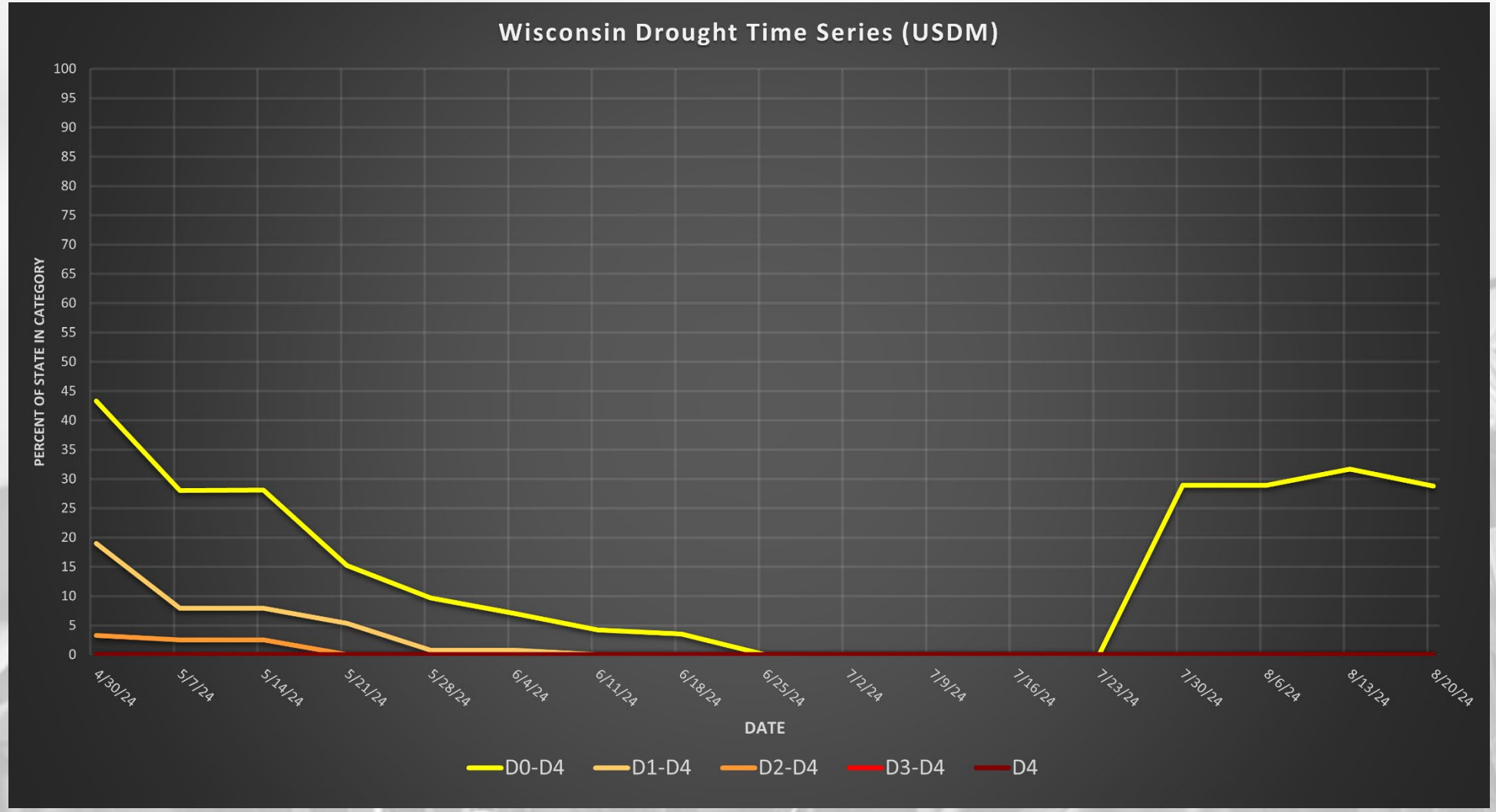
Amount of state in:

- D1-D4 – 0.0% --
- D2-D4 – 0.0% --
- D3-D4 – 0.0% --
- D4 – 0.0% --

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

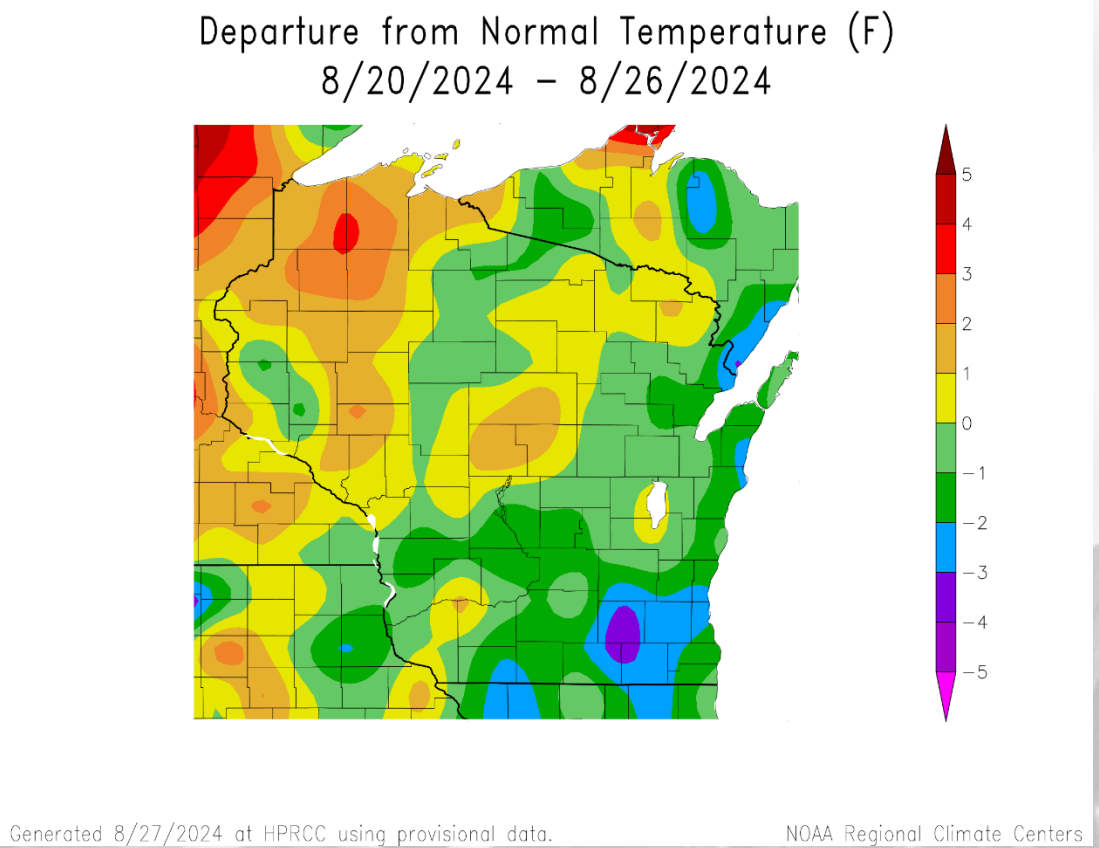


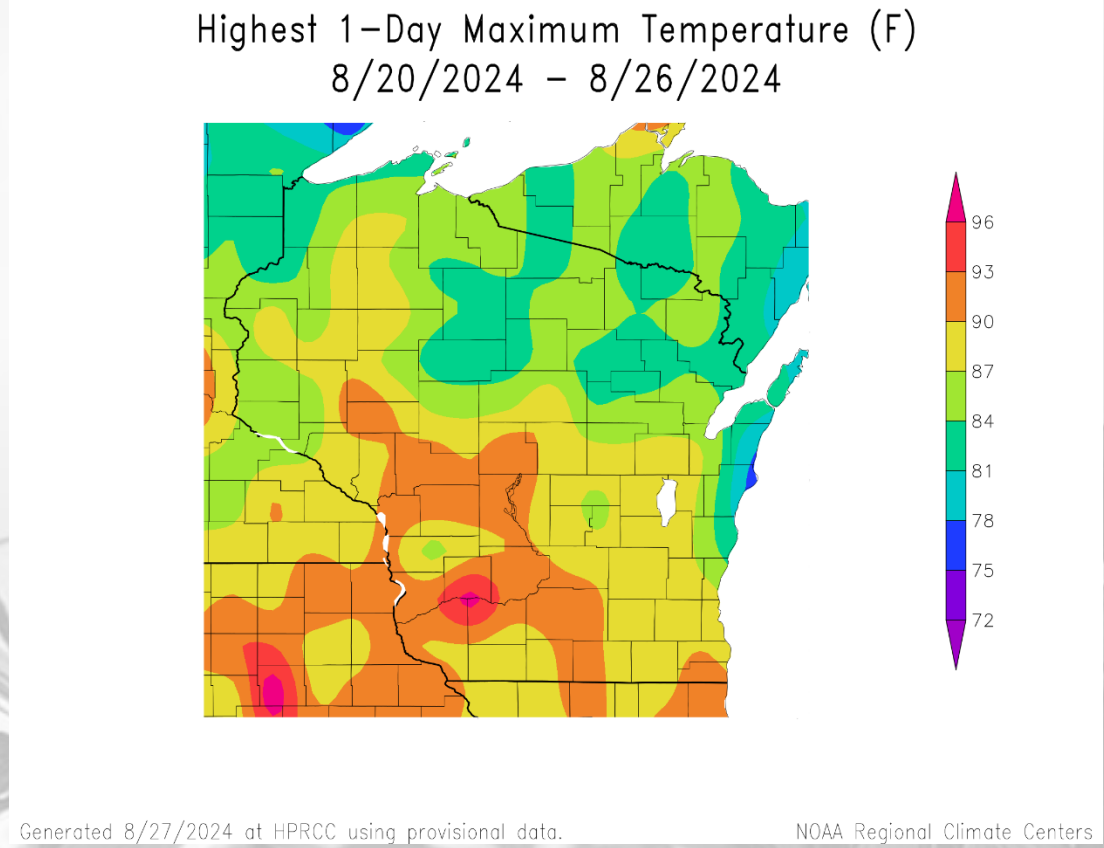
USDM Time Series



http://droughtmonitor.unl.edu/

7 Day Temperatures



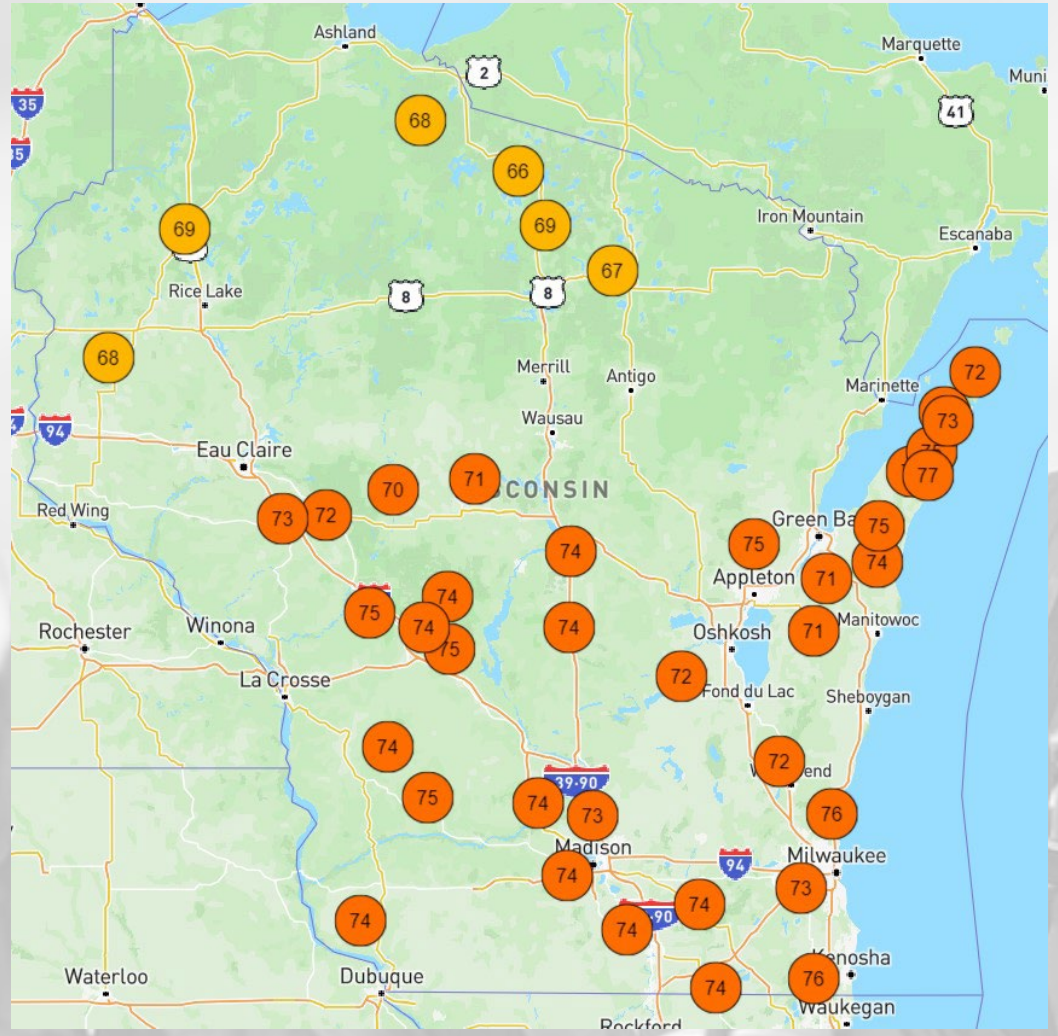


- Below normal temperatures in the S and E part of the state → **2-4°F below normal** in parts of the SE.
- **Above normal by 1-3°F** in the NW part of the state.
- Summer heat moved in early this week → Monday highs reaching into the **90s in the S/W**.

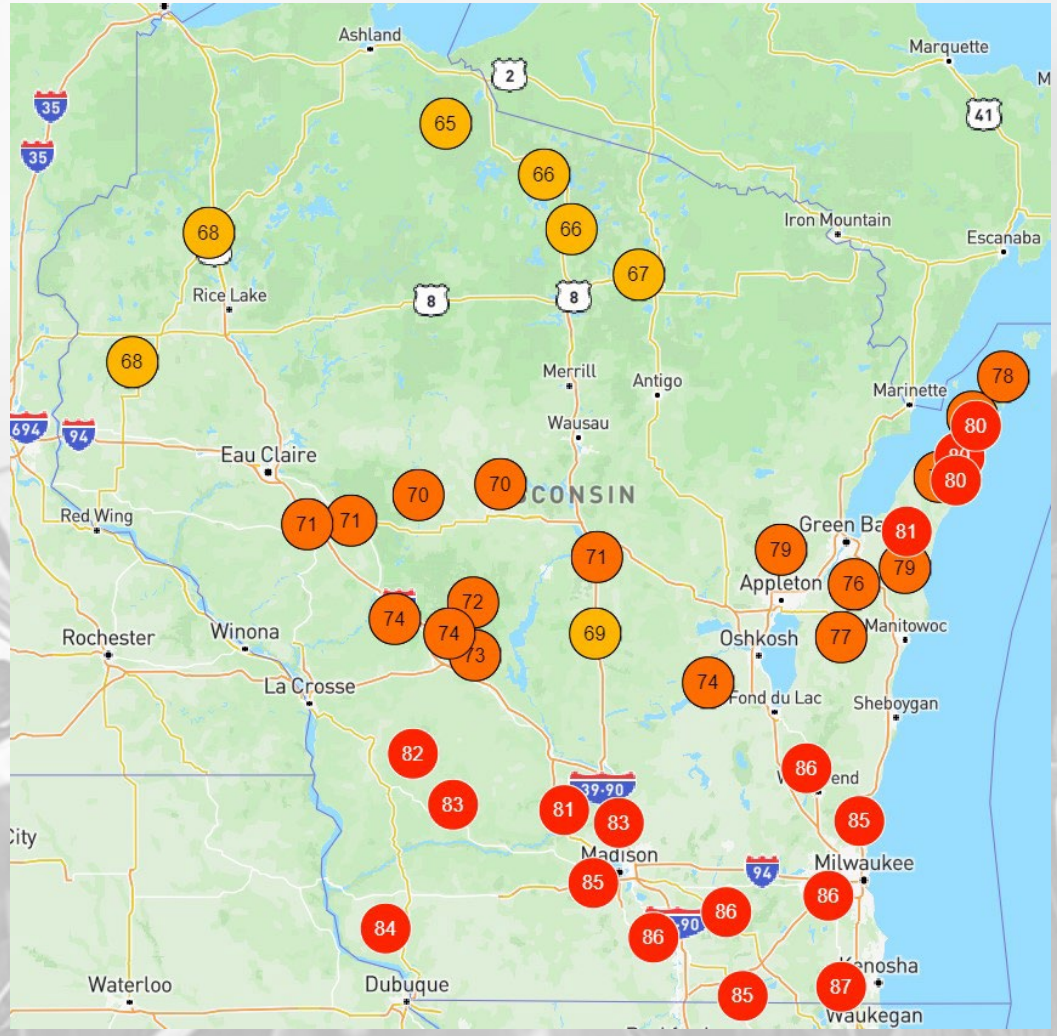
https://hprcc.unl.edu/maps.php?map=ACISClimateMaps

Wisconet Soil Temp (4” Depth)

Friday, August 23rd @ Midday

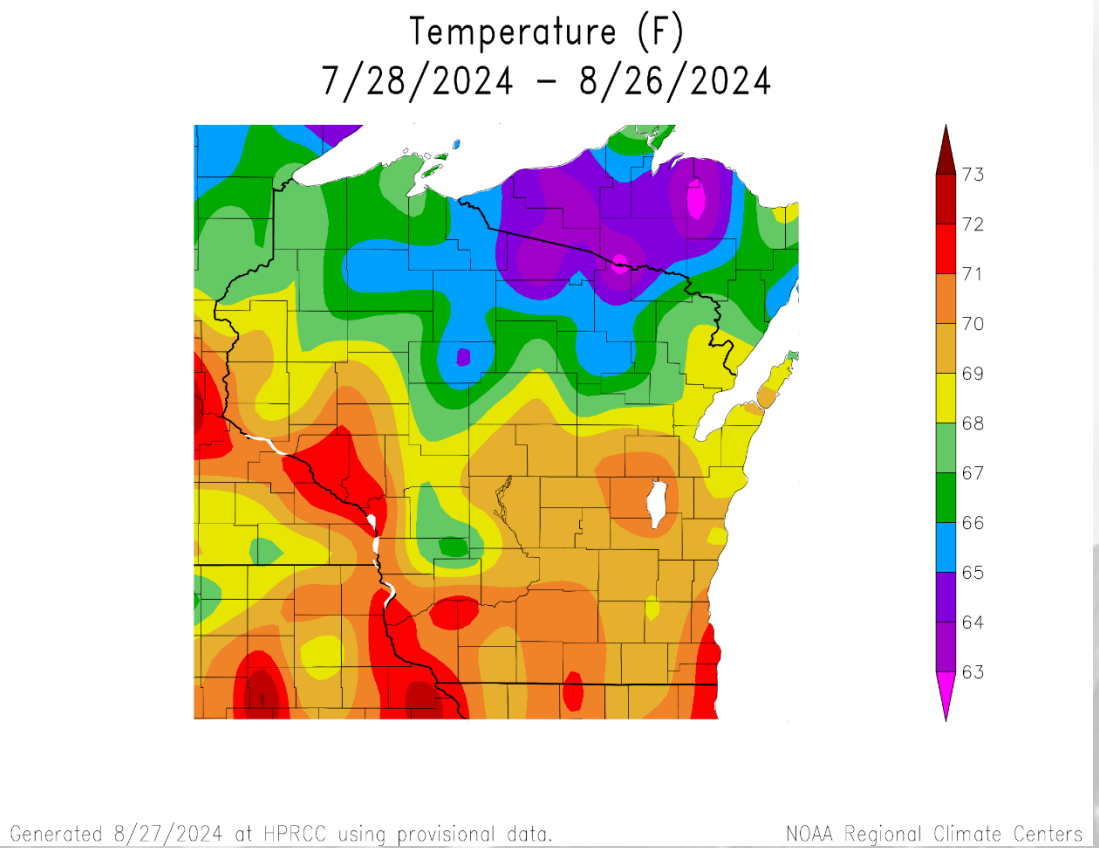


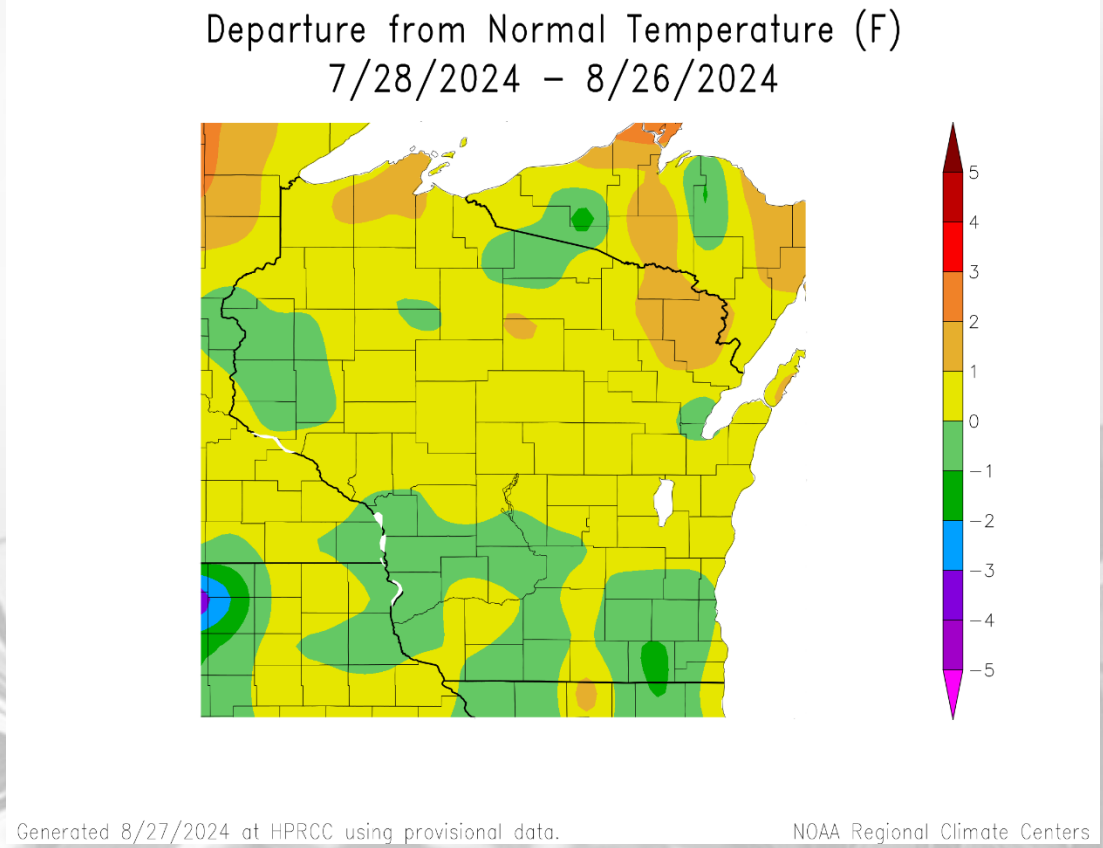
Tuesday, August 27th @ Mid-morning



https://wisconet.wisc.edu/

30 Day Temperatures

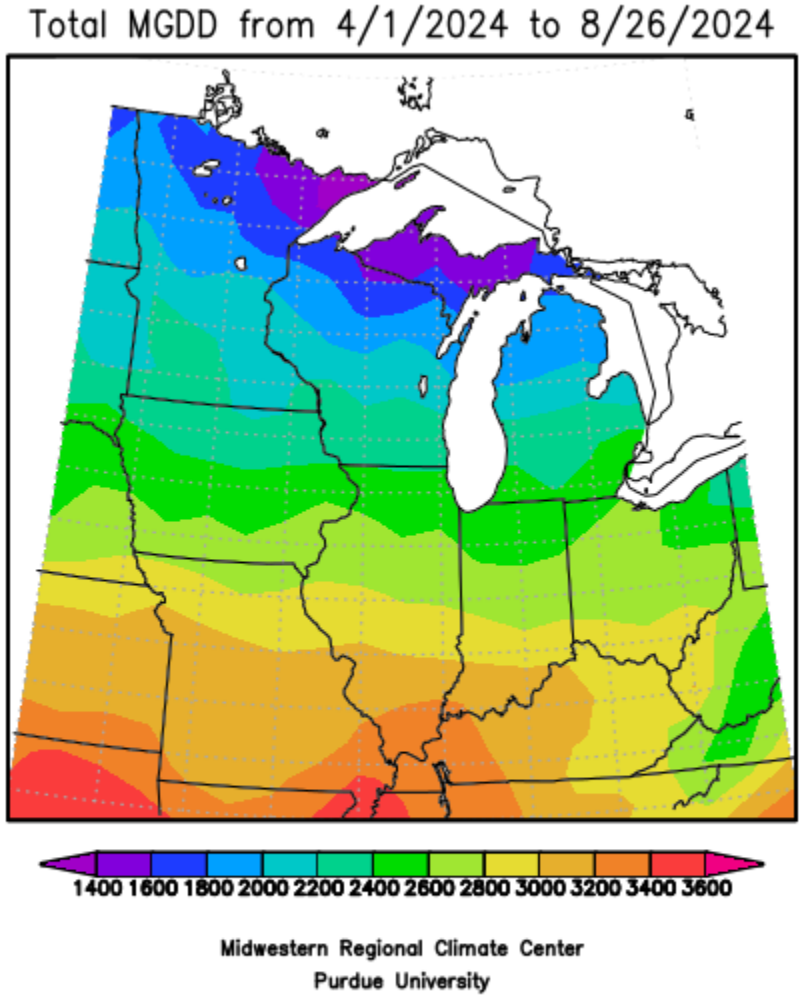


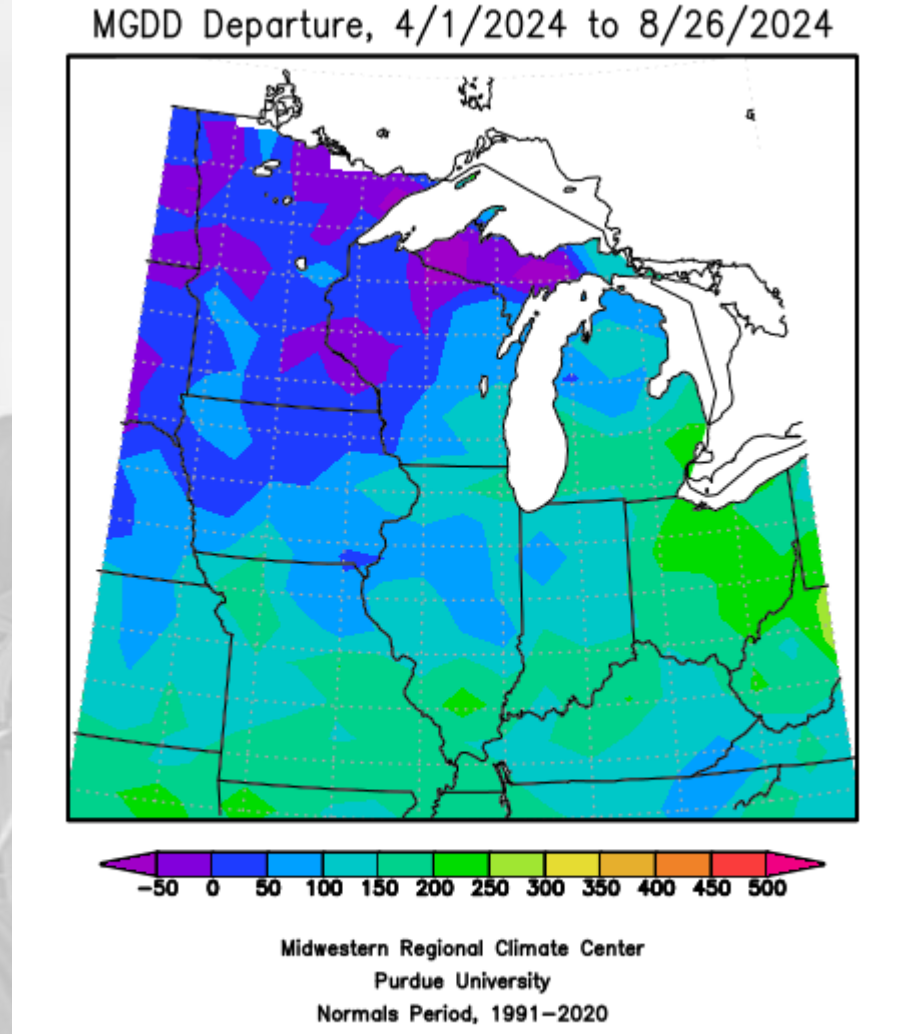


- Temperatures for the past month ranged from **70-72°F** in the S & W to **63-67°F** in the far N.
  - **Within -/+1°F** for most compared to climatological (1991-2020) average.

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

Growing Degree Days (Base = 50°F; Since April 1)





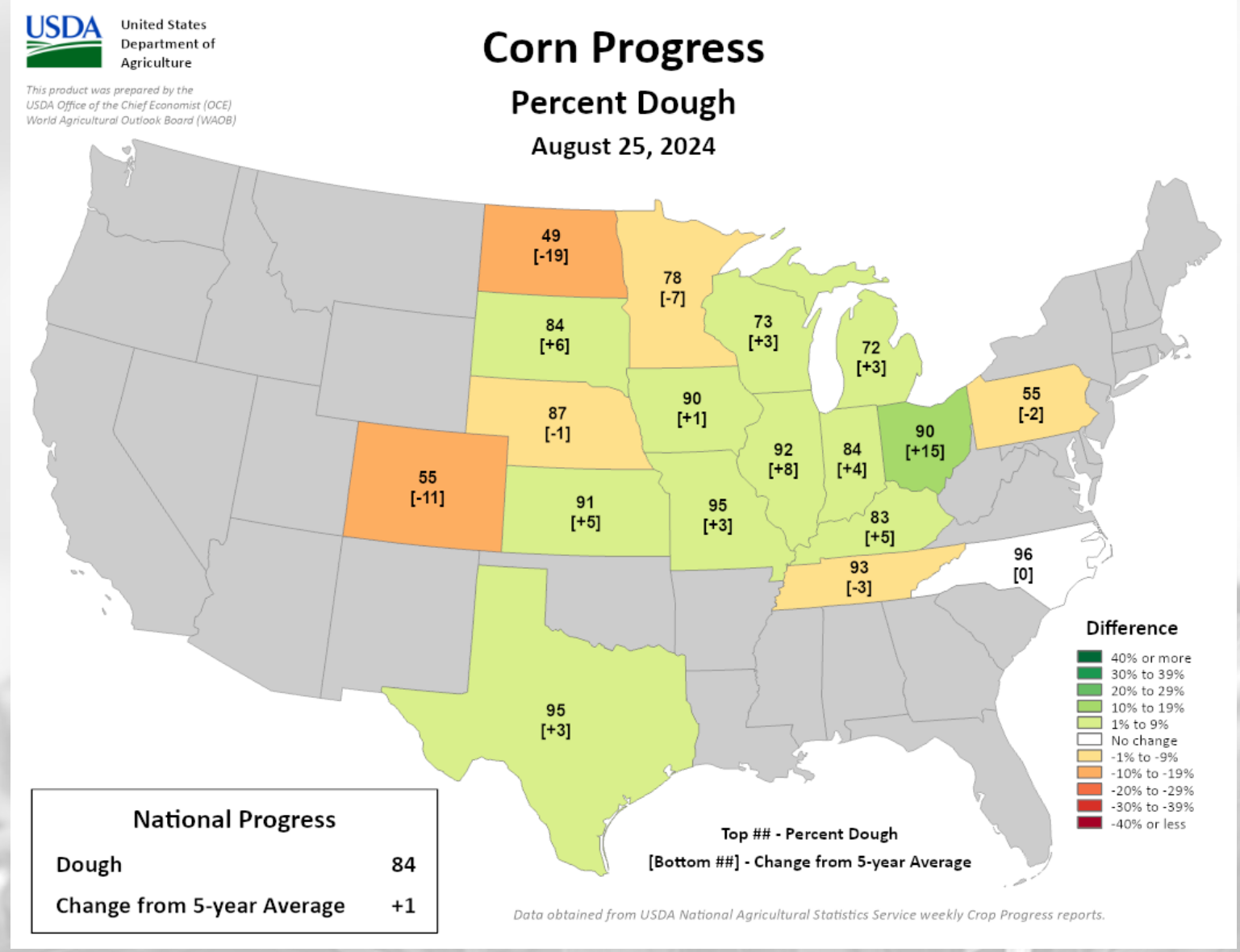
- **2200-2400** GDD in the S to **1600-2000** GDD in the N.
- SE WI is **100-150** GDD further ahead of the average; **within -/+50** of average in the W/NW and far north.

To calculate GDD for your corn variety and planting date, use this tool.

To see specific degree models for pests in your location, use the Vegetable Disease & Insect Forecasting Network.

https://mrcc.purdue.edu/climatewatch

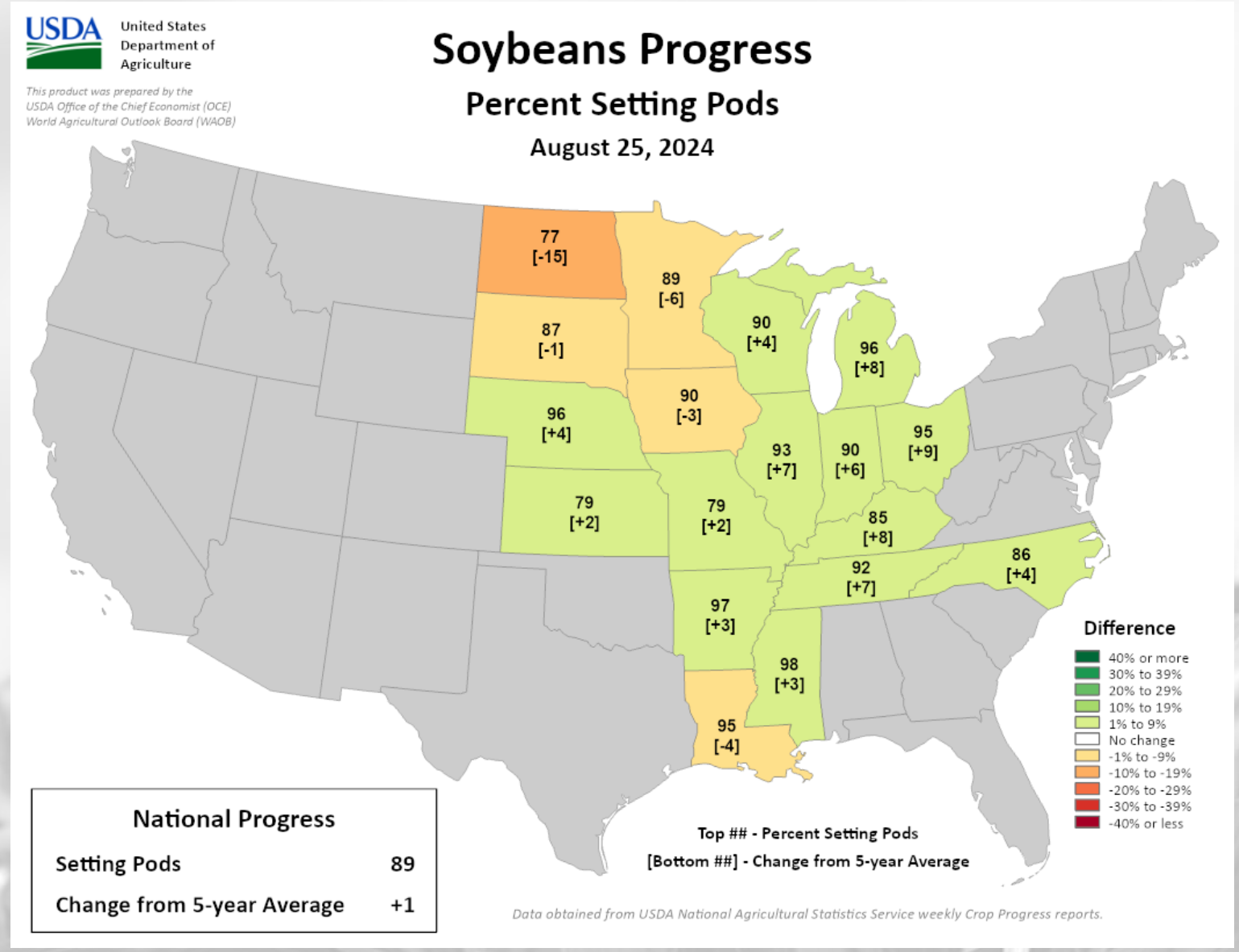
NASS Crop Progress – Corn



- Doughing & denting are underway WI corn fields. Progress is **ahead of normal pace** in WI & points to the S/E.
  - In WI, silking is **73% complete.** 3% ahead of the 5-year average pace & up **12%** from last week.
  - Denting → **25% complete**

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

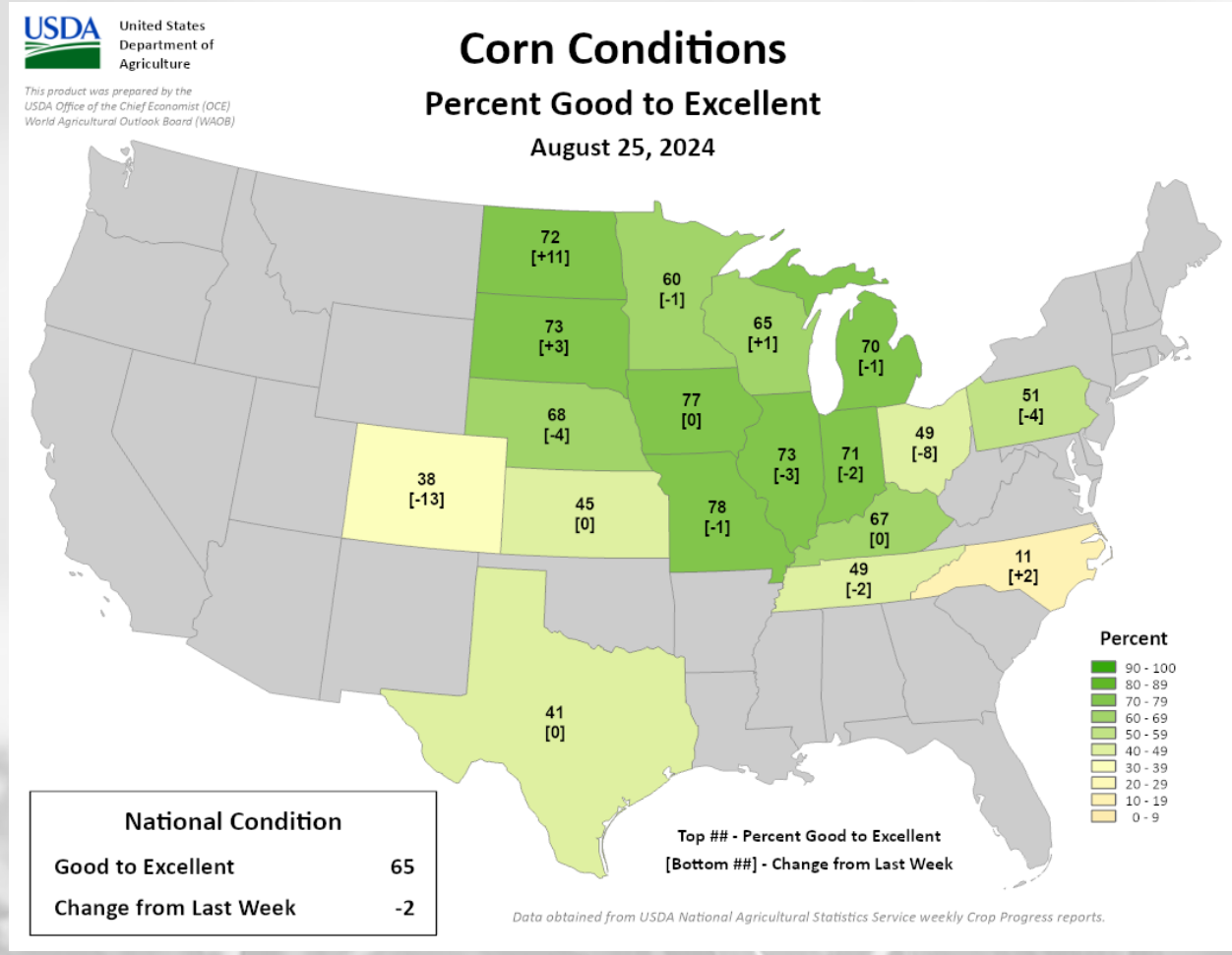
NASS Crop Progress – Soybean

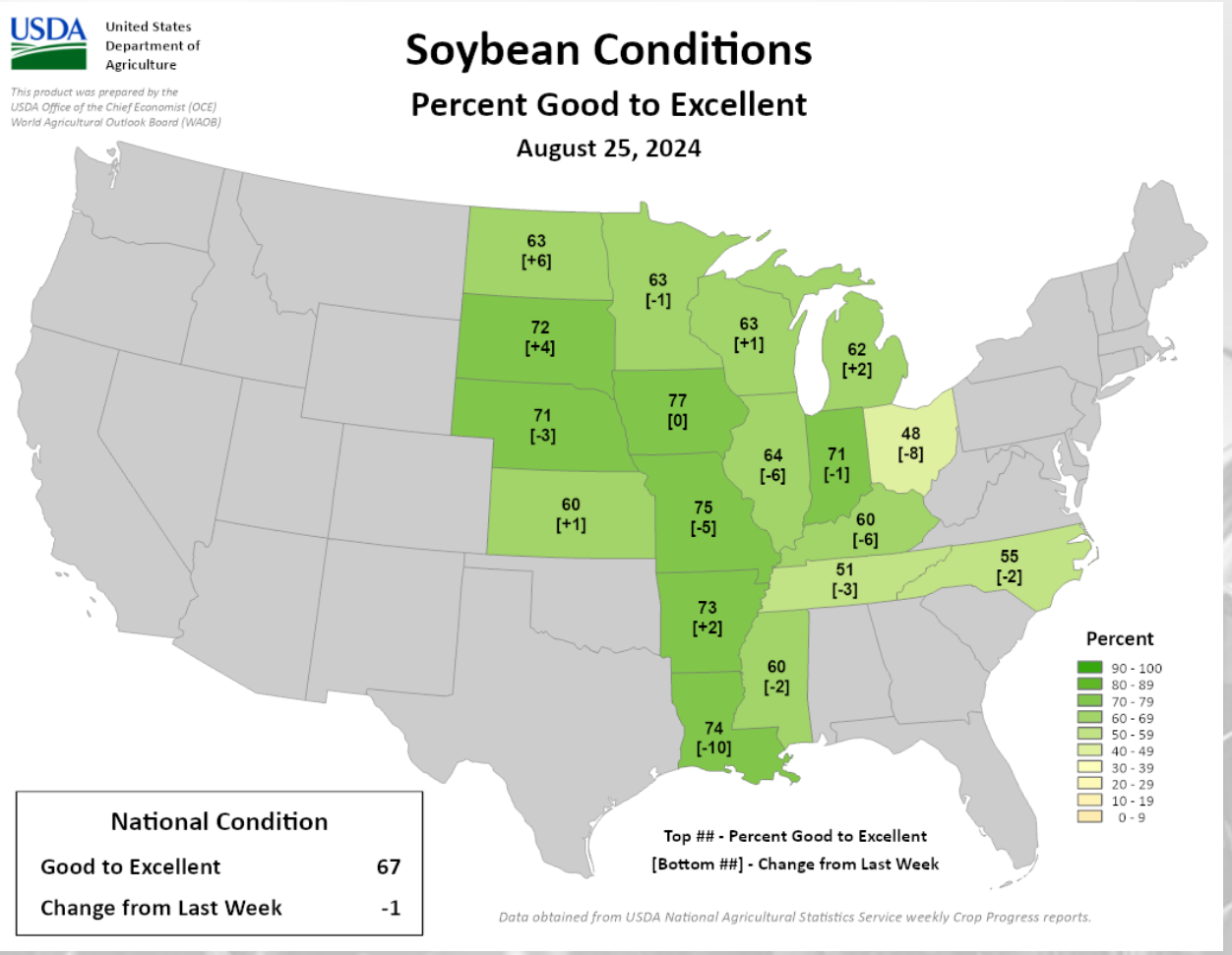


- Soybean pod setting is running **ahead of normal pace** in WI and points to the S/E.
  - In WI, pod set is **90% complete.** 4% ahead of the 5-year average pace & up **7%** from last week.
  - Leaf dropping→ not reported in WI yet but is 6% complete in IL.

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

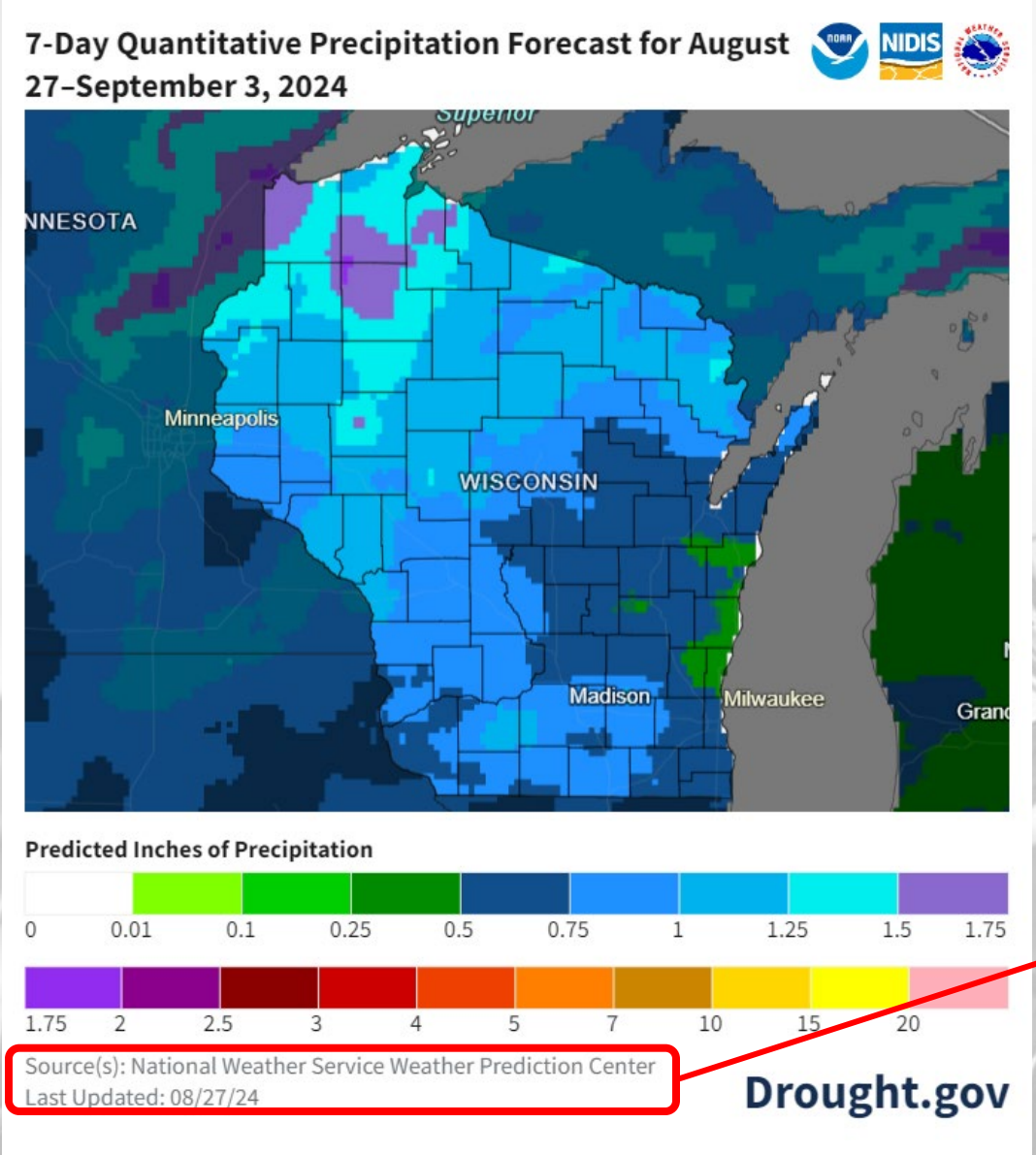
NASS Crop Condition





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

7 Day Precip Forecast

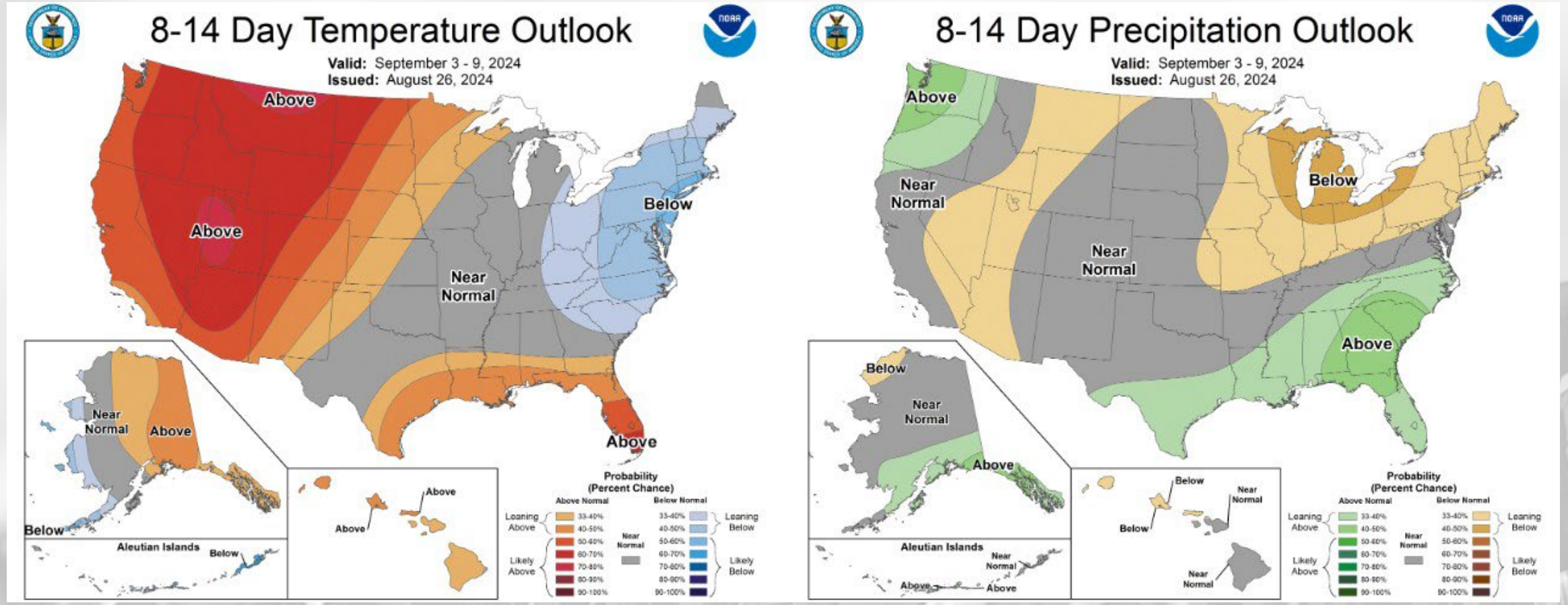


- **Statewide chances** for precip over the next week.
  - Highest chances for rain on **Tuesday and Thursday.**
  - Best chances in the **N/NW**.
  - Lesser precip chances in the **eastern counties**.

Forecast for 8/27/24 thru 9/3/24
(Begins at 7am CDT)

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

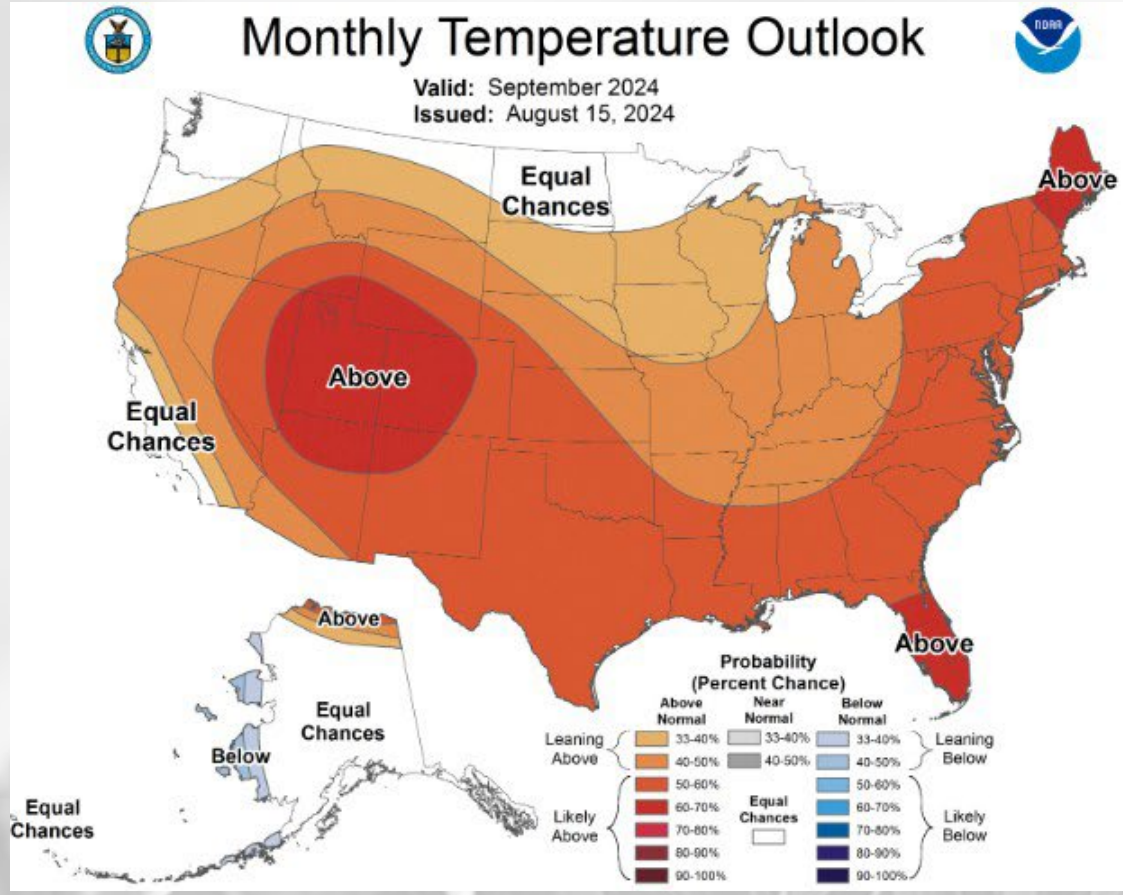
8-14 Day Temp & Precip Outlook

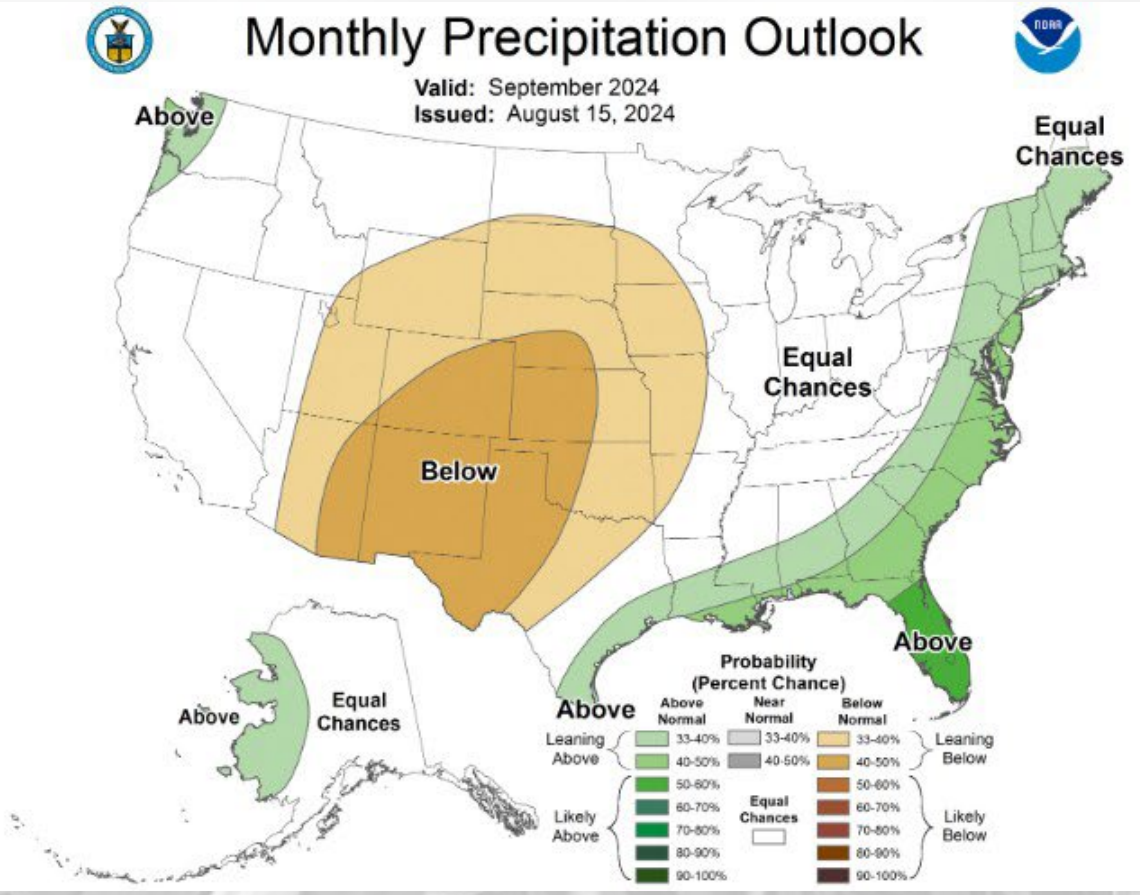


Early September: Temperatures leaning above normal in the NW, near normal elsewhere. Precipitation leaning below normal, more so in the E.

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

30 Day Temp & Precip Outlook

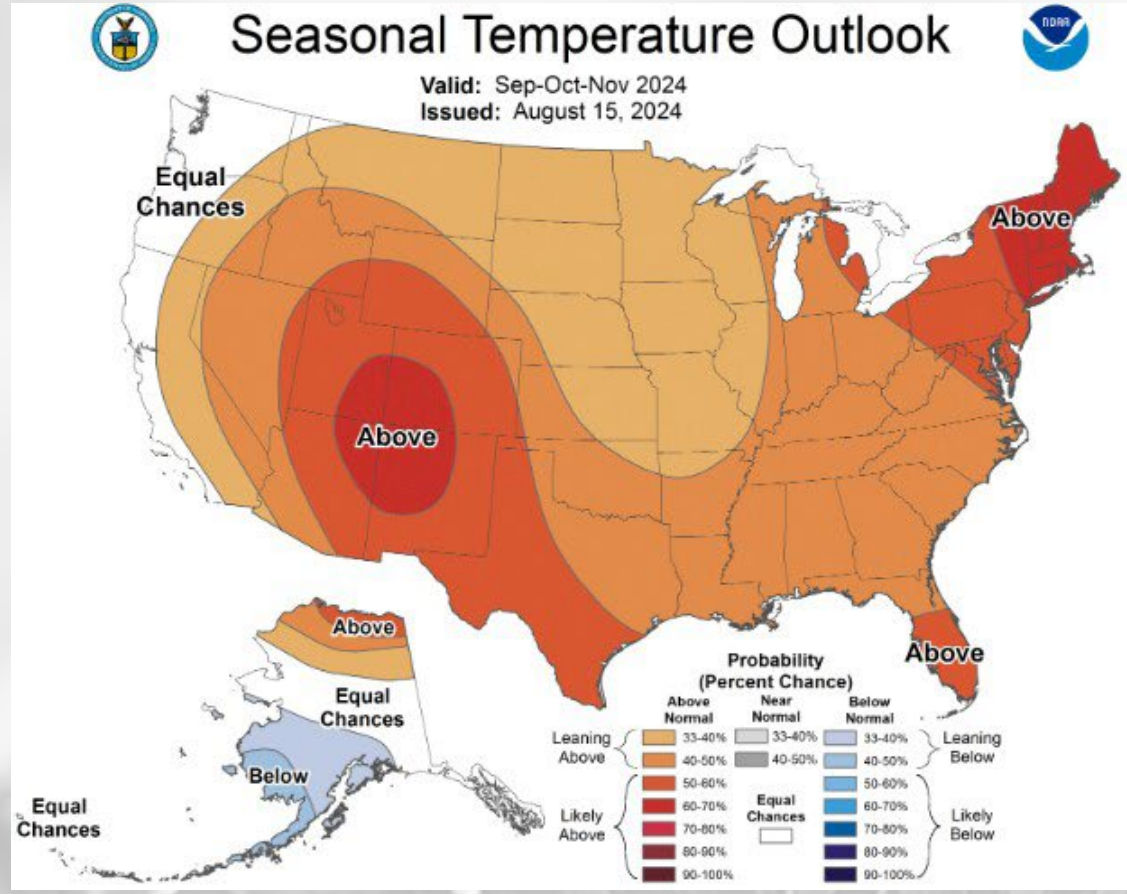


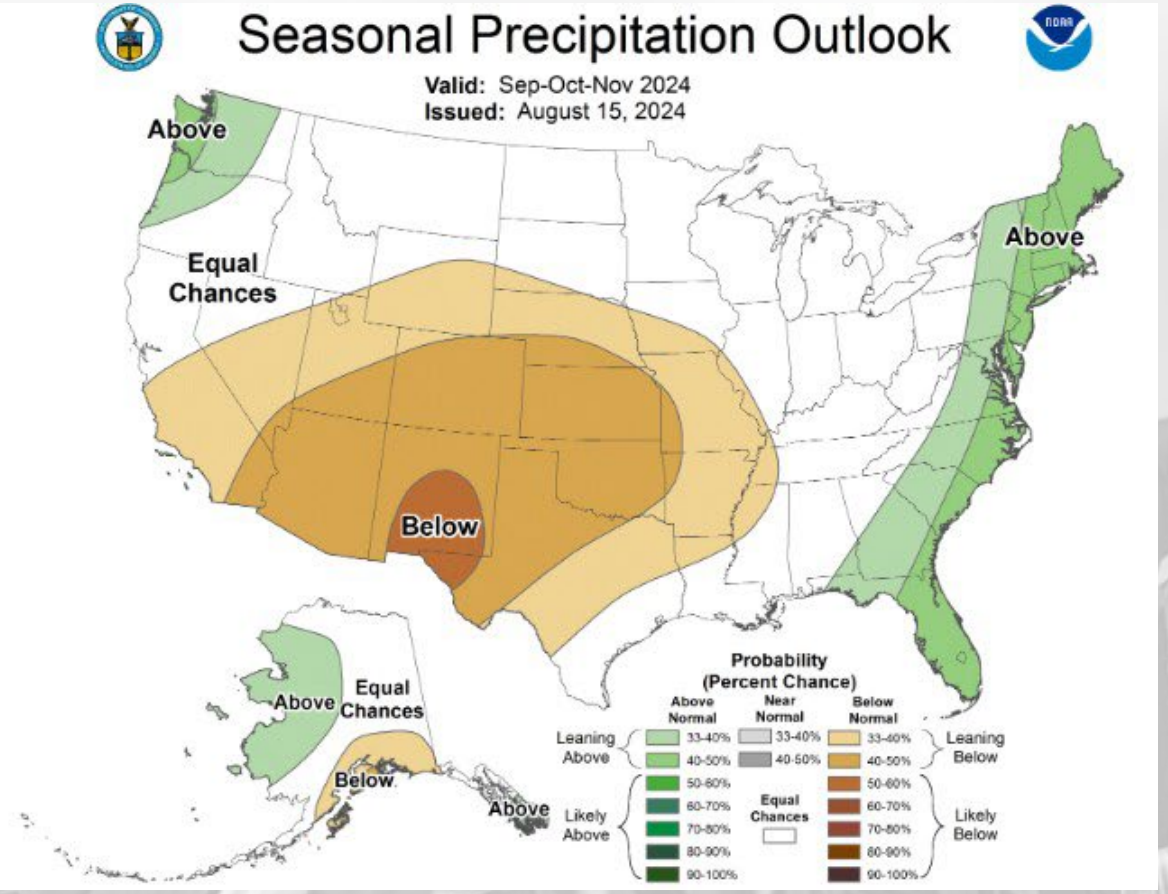


Month of September: Temperatures leaning above normal. Precipitation uncertainty with equal chances.

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

90 Day Temp & Precip Outlook





Fall 2024: Temperatures leaning towards above normal. Precipitation uncertainty with equal chances.

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

Take-Home Points

Current Conditions:

- **Late summer heat** is impacting the area early this week, with some breaking daily records. However, most of the state has been seeing near **normal temperatures since late July**.
- Central counties have experienced **several inches of precipitation** over the past 30 days, with lesser totals to the S and N.

Impact:

- Soil moisture percentiles are in the middle range for most (higher in the central region), with **abnormal dryness** indicated in the N by the USDM.
  - **Corn** doughing is running **3%** ahead of normal pace, with **65%** of the crop reported in good to excellent condition.
  - **Soybeans** pod setting is running **4%** ahead of normal pace, with **63%** of the crop reported in good to excellent condition.
- GDDs are approaching **2400 (2000) units** in the southern (northern) counties.

Outlook:

- **Statewide precip chances** forecasted this next week, with a higher likelihood in the **NW**.
- Temperatures leaning **above normal** heading into September, with the state leaning towards **below normal** precip for the first part of the month.
- The warmer-than-normal conditions have a higher probability to **continue** into the fall with a La Niña pattern taking shape. Currently, we are in a **neutral phase**.

Agronomic Considerations

Crop Development

- Scouting for crop stage and development of issues is very important this year as the wet spring means that there is a lot of variability in fields and across farms.
- As silage and other early crops come off, consider diverse cover crop mixes to help mitigate any compaction that may have occurred this spring and protect soil heading into fall.

Manure Applications

- Low runoff risk in the next week. Check the DATCP runoff risk advisory forecast here.

Pest Management

- Fall armyworm flights are underway. Sign up to receive text alerts when pests are in your region here.
- Japanese beetles have emerged, monitor for defoliation thresholds, see here for management information.
- Conditions have been right in many places for tar spot and white mold, information available here.
- Time to scout for soybean aphid, see more info here.
- Scout for corn rootworm beetle to determine pressure on next year's continuous corn.
- Southern rust of corn was found in Wisconsin this week, see more info here.
- Late blight was found on tomato in Wisconsin this week, see more info here.

Forage Management

- Look out for herbicide carryover, volunteers in late summer seeding of alfalfa wheat. Read more.
- **Corn Silage Harvest** - look for local opportunities for stalk chopping to gauge moisture content, scout fields to understand which may be ready first. For varying planting dates, plan for a segregated, longer season harvest to optimize forage quality.
    - View our silage dry down database here.
- Fall alfalfa cutting can affect persistence, read more and use our new tool to make informed decisions.

User Survey

Are you a regular user of the Wisconsin Ag Climate Outlook (WACO)? 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 WACO.

If you have any trouble accessing or filling out the survey, please email Josh Bendorf at Joshua.Bendorf@usda.gov.

Thank you!!
-The WACO Team

Citizen Science Opportunity

CoCoRaHS – Community Collaborative Rain, Hail, & Snow Network

The Mission

(From cocorahs.org)

- Provide accurate high-quality precipitation data for end-users;
- 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

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