

Wisconsin Ag Climate Outlook

Week of April 15, 2024

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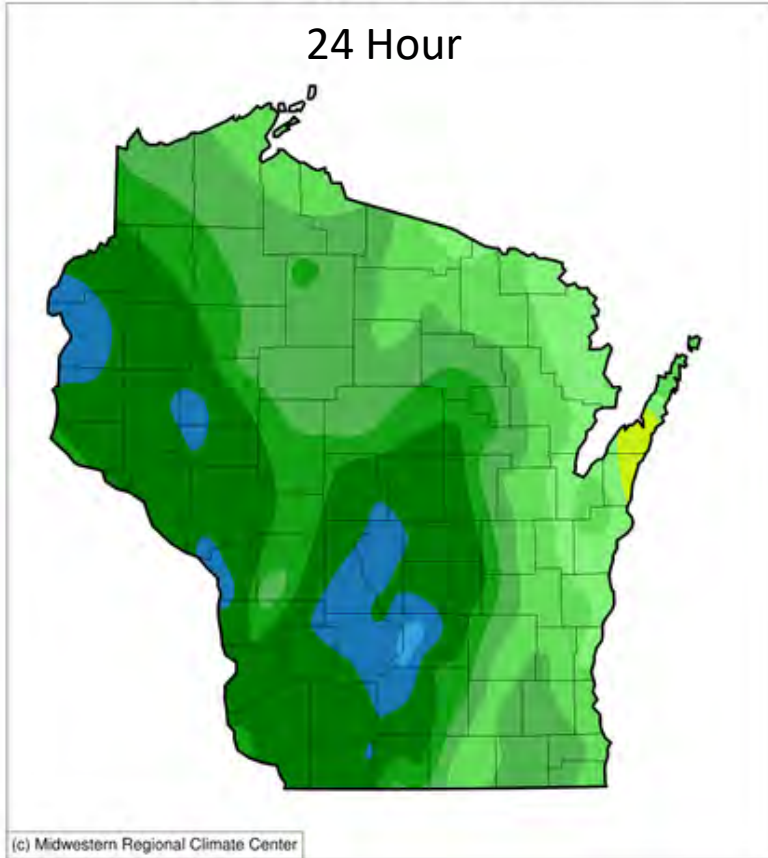
Key Points

- 1) Despite abundant precipitation 4/16-4/17, a combination of week-long dryness and warmth decreased 7-day average soil moisture and increased soil temperature.
- 2) US Drought Monitor showed slight improvement for parts of the state, but remains largely unchanged since last week.
- 3) Late April likely to see above-normal temps with a slight lean toward above-normal precip.

24 Hour and 7 Day Precip

Accumulated Precipitation (in)
April 16, 2024 to April 17, 2024

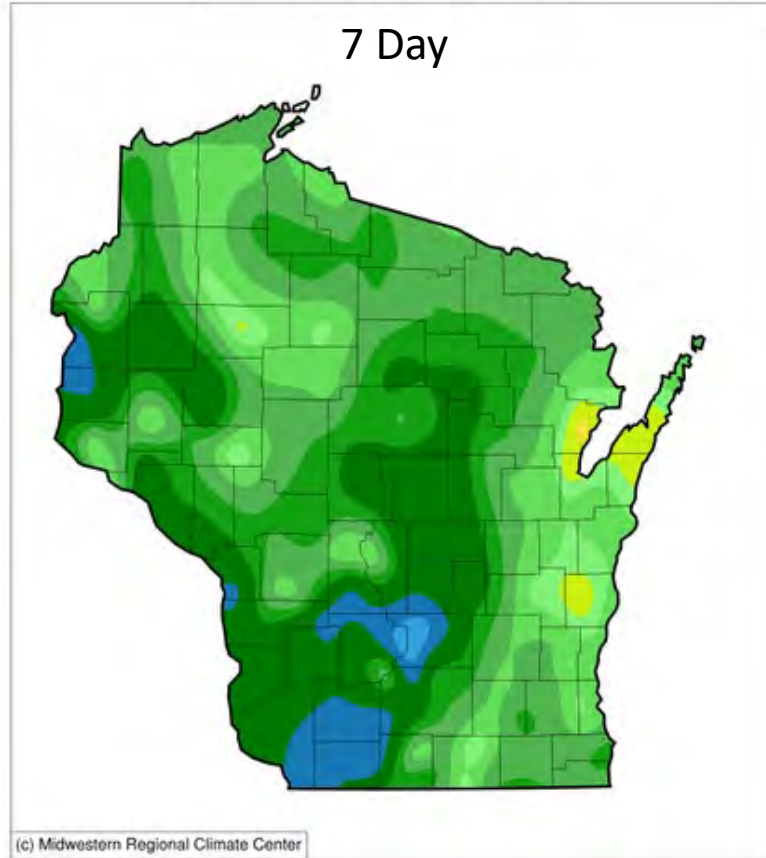
24 Hour



(c) Midwestern Regional Climate Center

Accumulated Precipitation (in)
April 09, 2024 to April 17, 2024

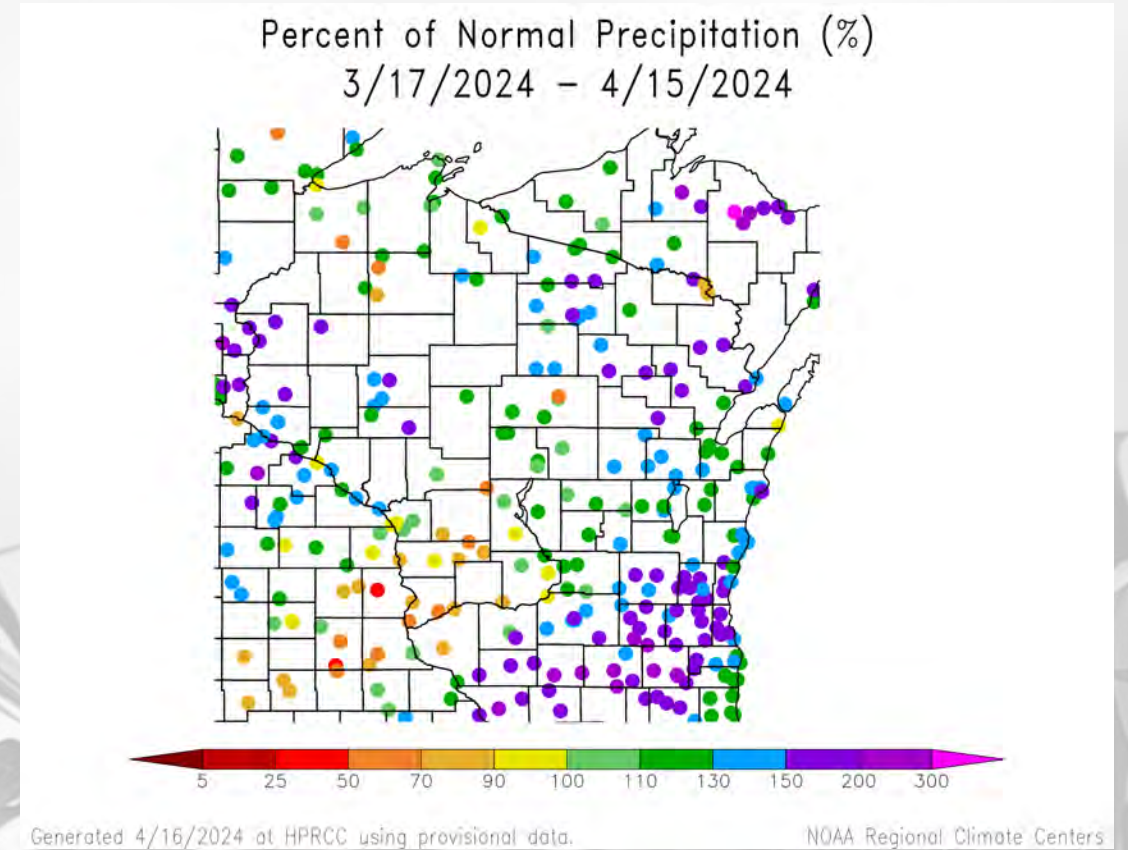
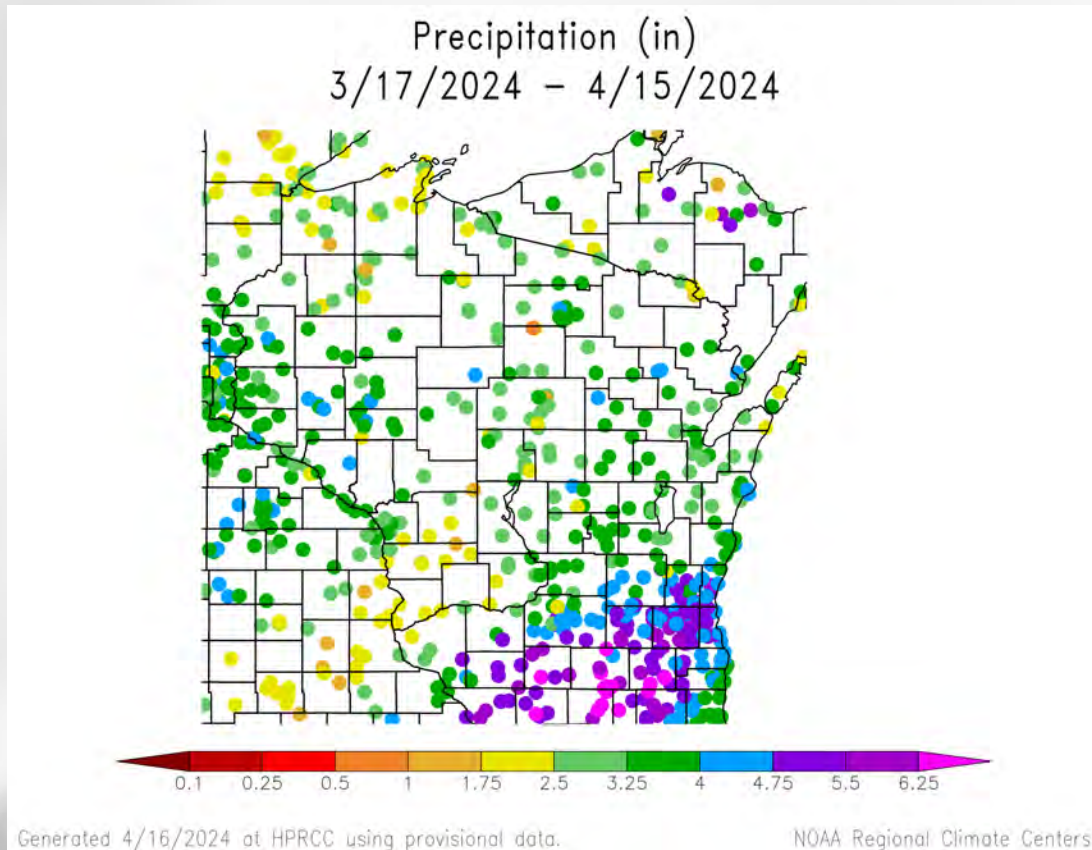
7 Day



(c) Midwestern Regional Climate Center

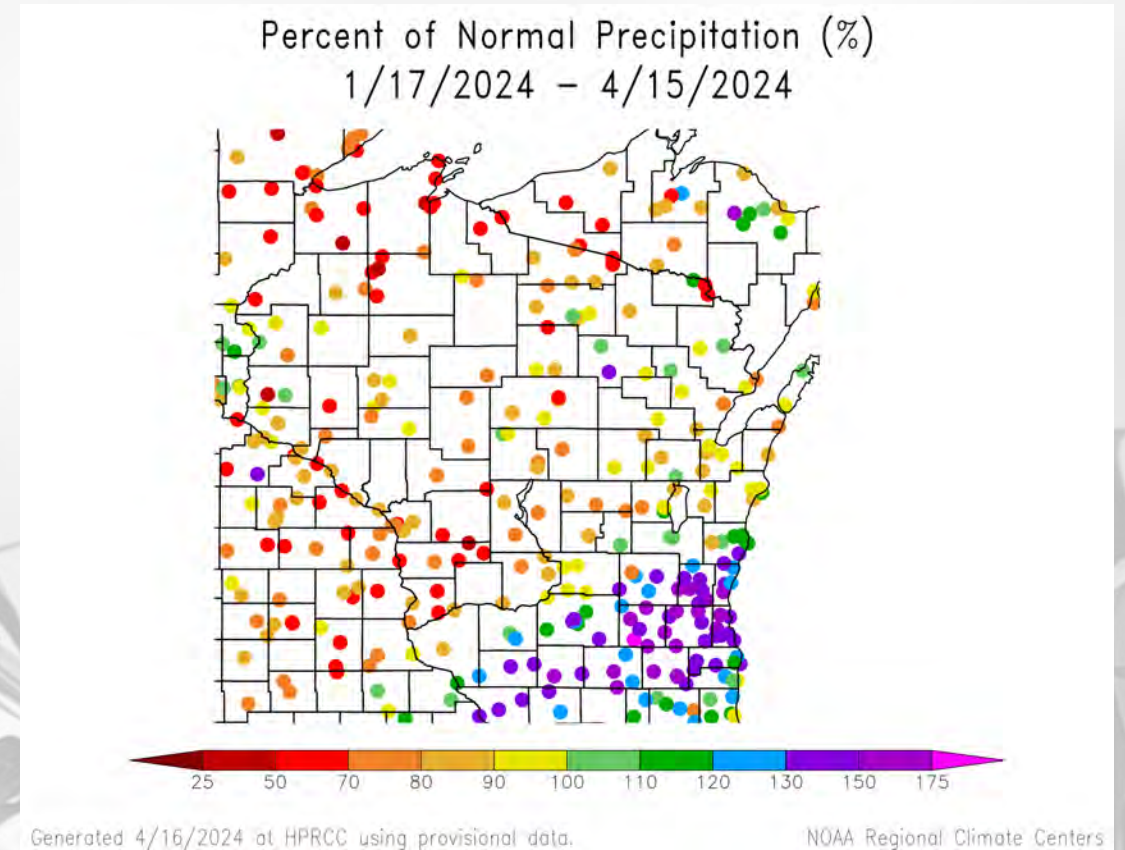
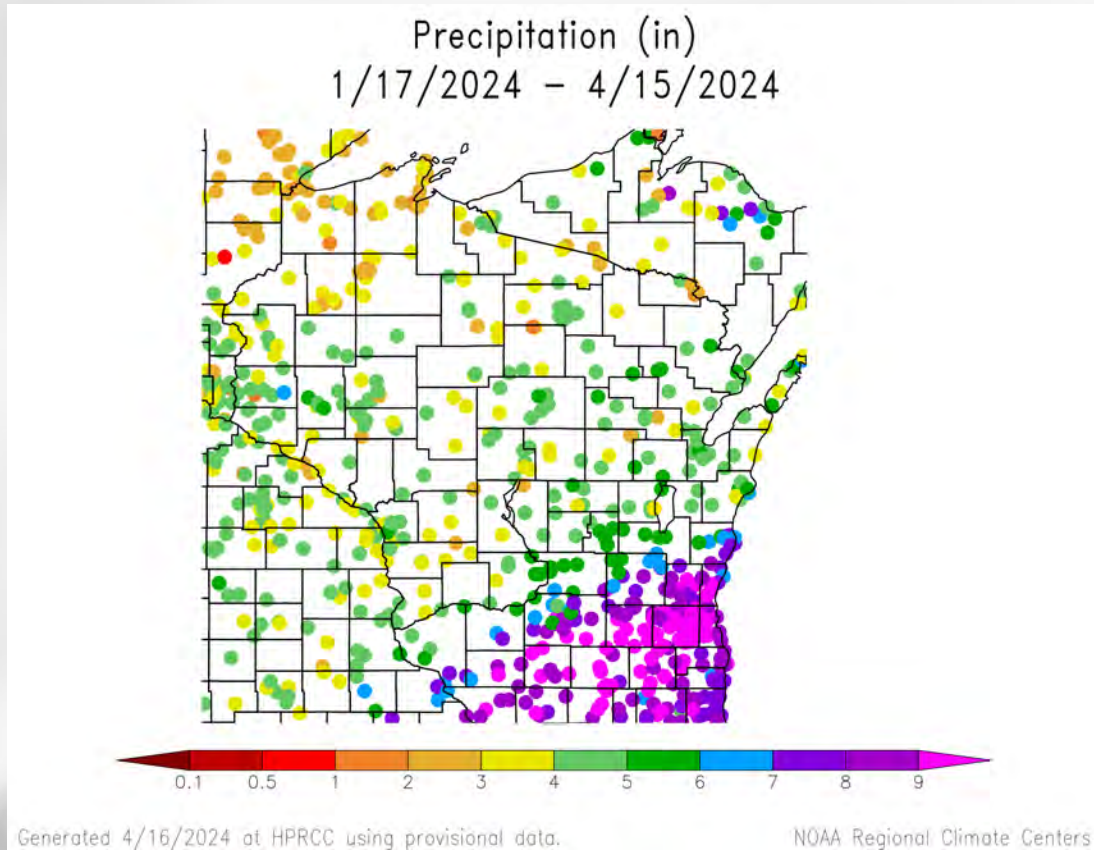
- The SW and NW received much-needed precip (**1-2"**) over the last week, while areas around Green Bay saw just **0.1-0.2"**
- Most of the 7-day precip fell as rain between Tue (4/16)-Wed (4/17)

30 Day Precip Total/% Normal.



- Highest precip totals in the SE (>4") and lowest in the Driftless & far NW (<2.5")
- Majority of stations at or above normal, except for some in the SW and NW

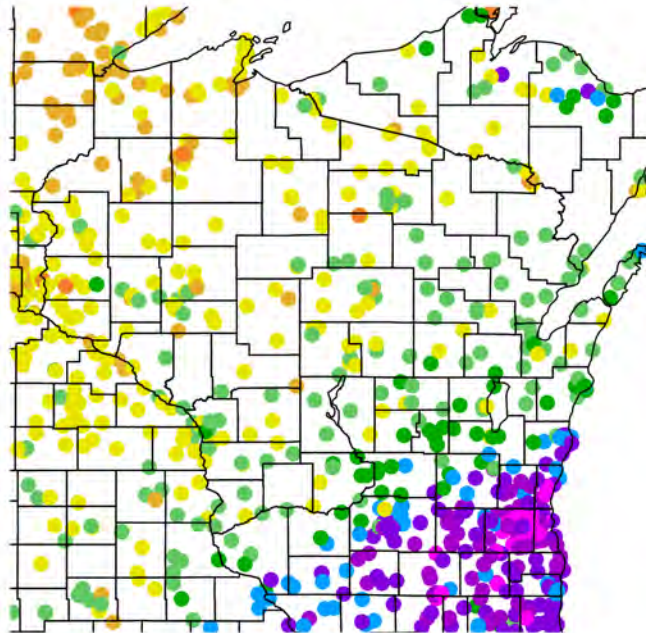
90 Day Precip Total/% Normal.



- Highest precip totals in the SE (>7") and lowest in the NW (<3")
- 130+% of normal precip in the SE
- <100% of normal across much of the state, with multiple stations recording <70% of normal

Precipitation since Jan. 1

Precipitation (in)
1/1/2024 - 4/13/2024

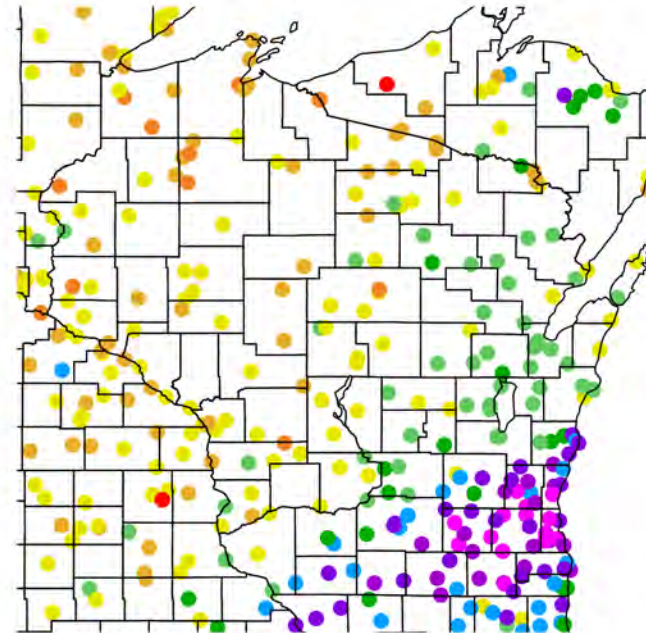


0.1 0.5 1 2 3.5 5 6.5 8 9.5 11 12.5

Generated 4/14/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Precipitation (in)
1/1/2024 - 4/13/2024



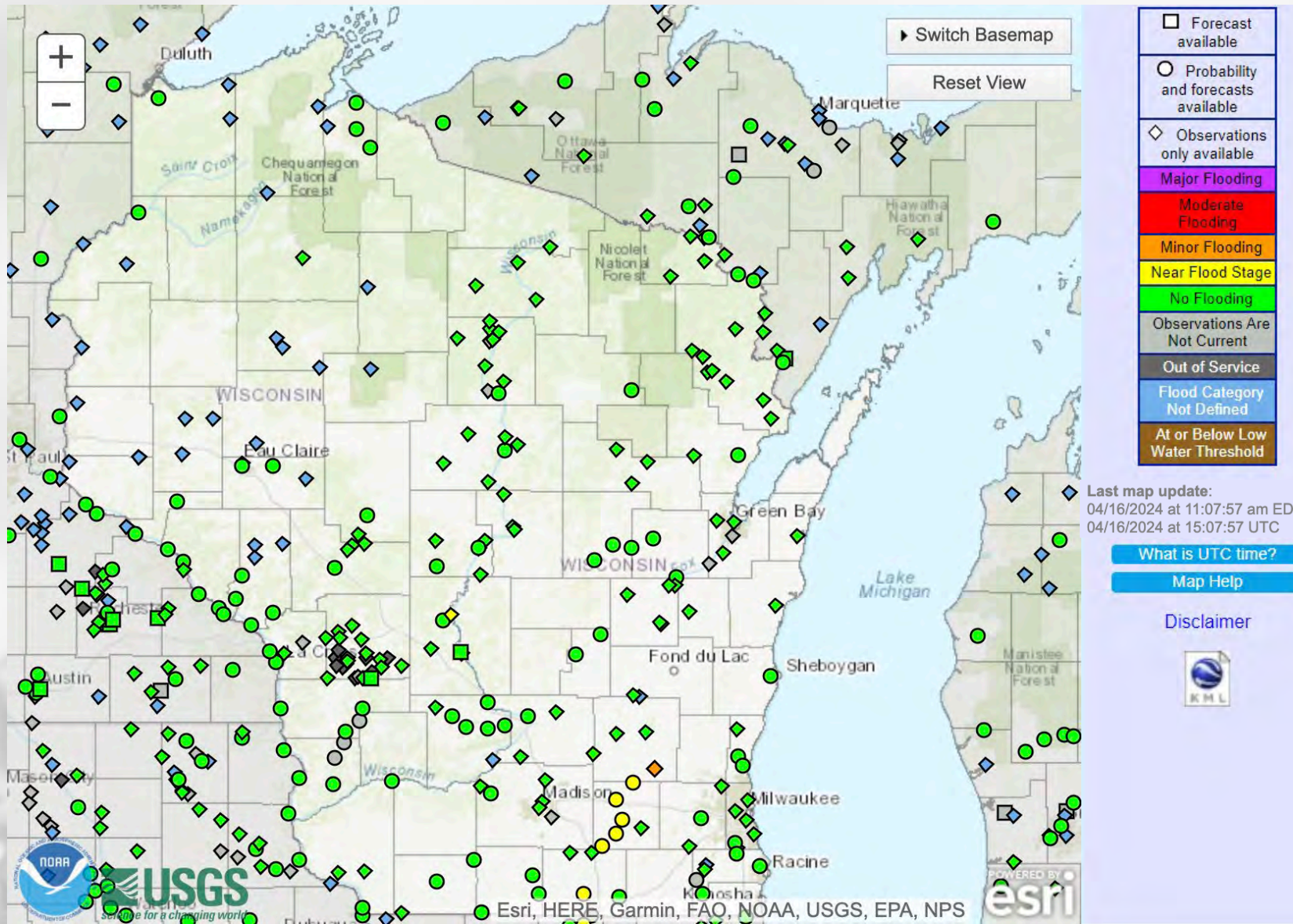
-5 -4 -3 -2 -1 0 1 2 3 4 5

Generated 4/14/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

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

River Levels



- With the lack of precipitation this past week, flooding is not present for most of Wisconsin.
- There remain a handful of stations **near or at minor flood stage** in SE WI.

<https://water.weather.gov/ahps/>
https://www.weather.gov/lot/hydrology_definitions

Soil Moisture Models

- Expansion of dry soils across the southern half of the state due to the lack of precipitation
- Driest soil moisture conditions remain for the Door County area, according to this model.

Model Notes:

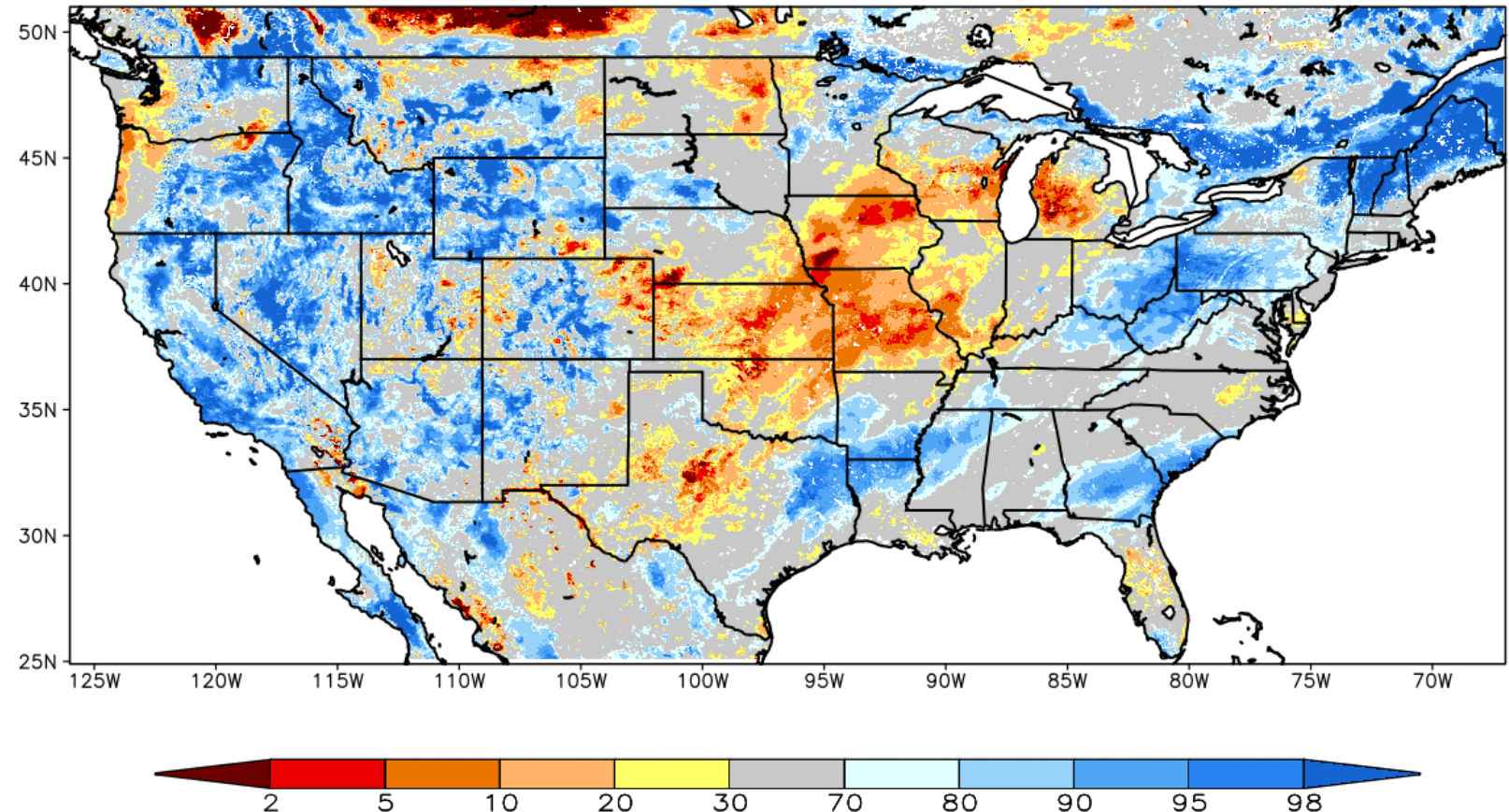
Red areas: top 5 driest in 100 years

Dark red areas: top 2 driest 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

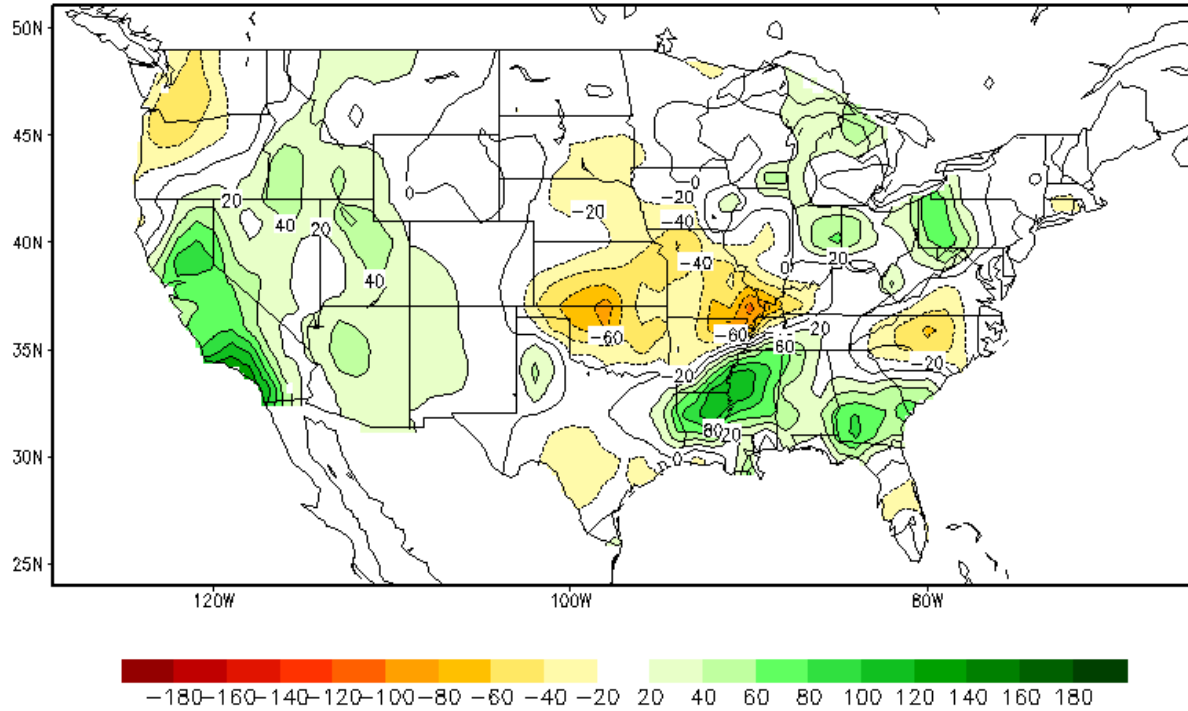
SPoRT-LIS 0-100 cm Soil Moisture percentile valid 16 Apr 2024



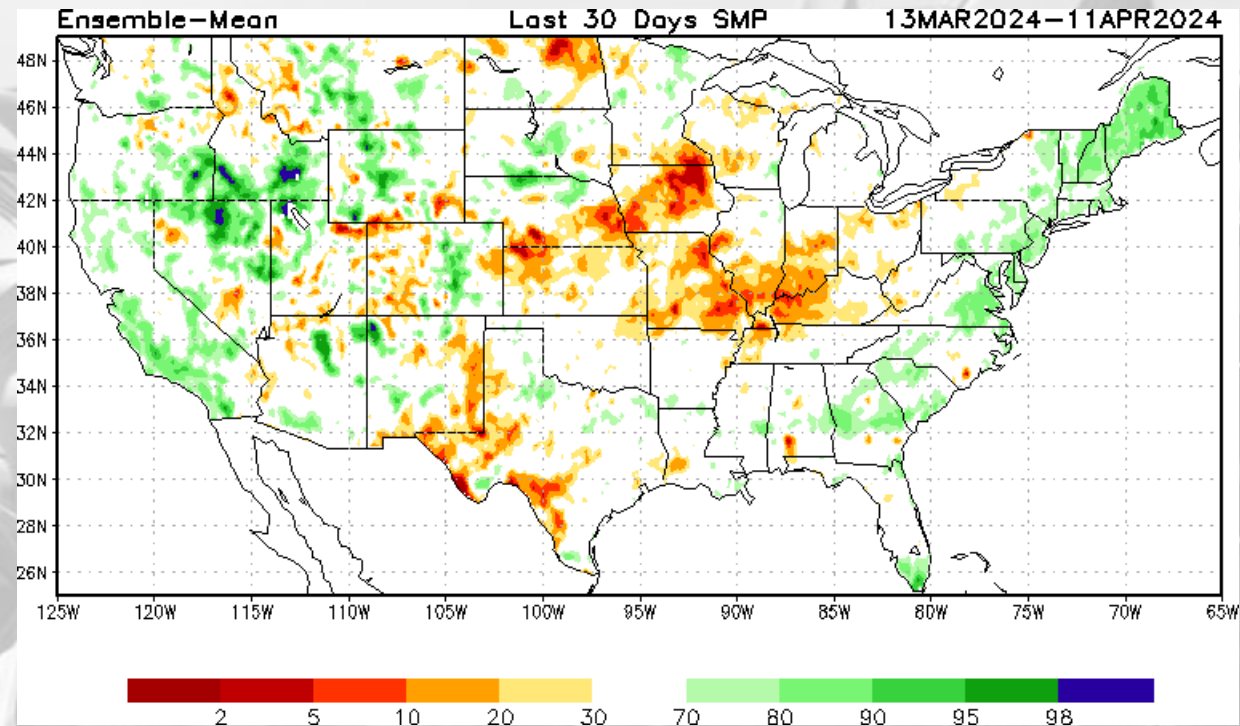
****NOTE****
****Experimental****

Soil Moisture Models

Calculated Soil Moisture Anomaly Change
APR 14, 2024 from JAN.31

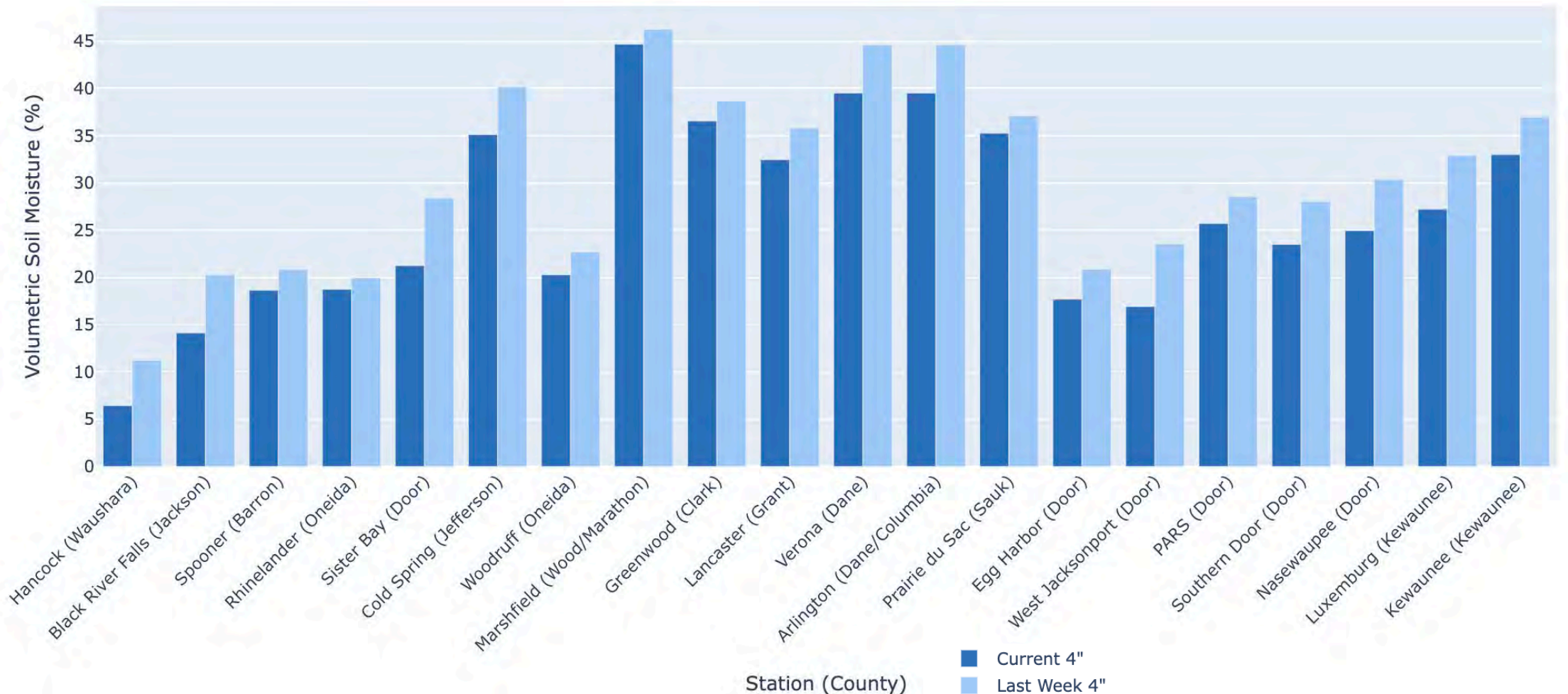


- Soil moisture improvement in SE WI since January
- 30-day soil moisture percentile continues to show drier conditions in SW and N WI



Soil Moisture - Wisconet

Wisconet 4" Soil Moisture



Current: 7-day average ending on 4/15

Last Week: 7-day average ending on 4/8

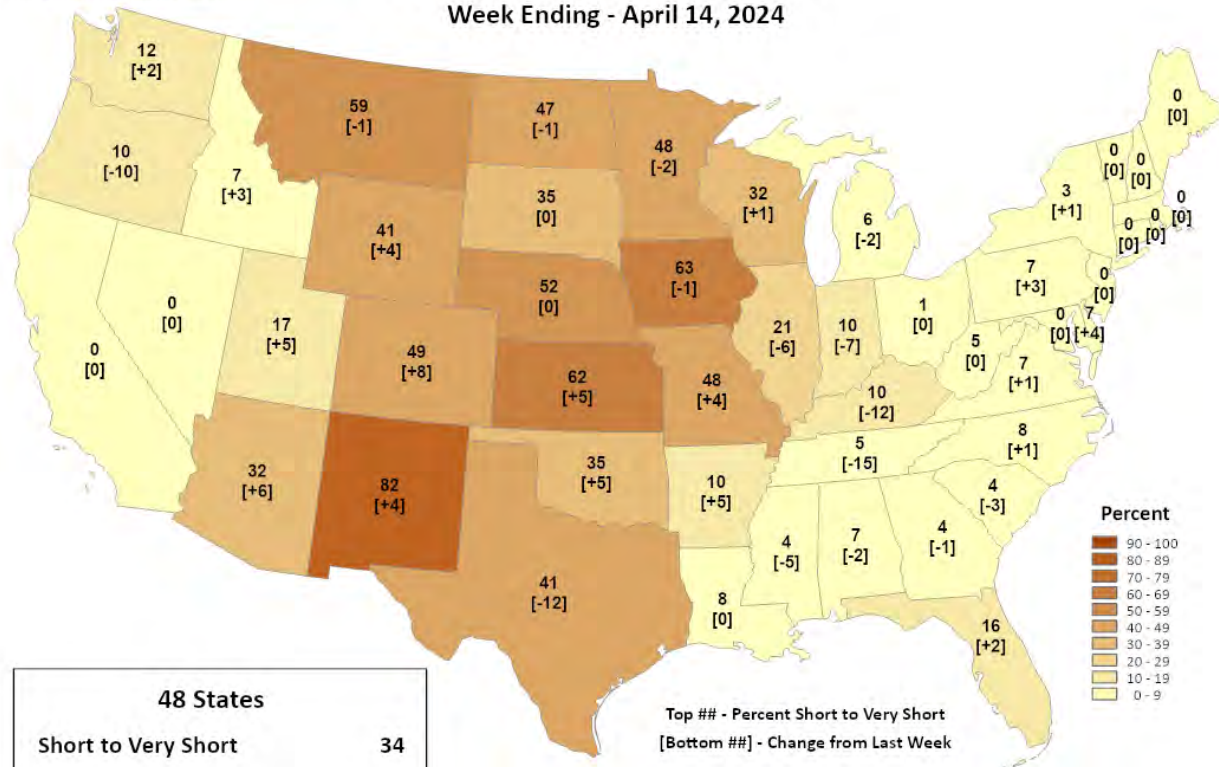
<https://wisconet.wisc.edu/>

NASS Subsoil Moisture



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

Subsoil Moisture Percent Short to Very Short Week Ending - April 14, 2024

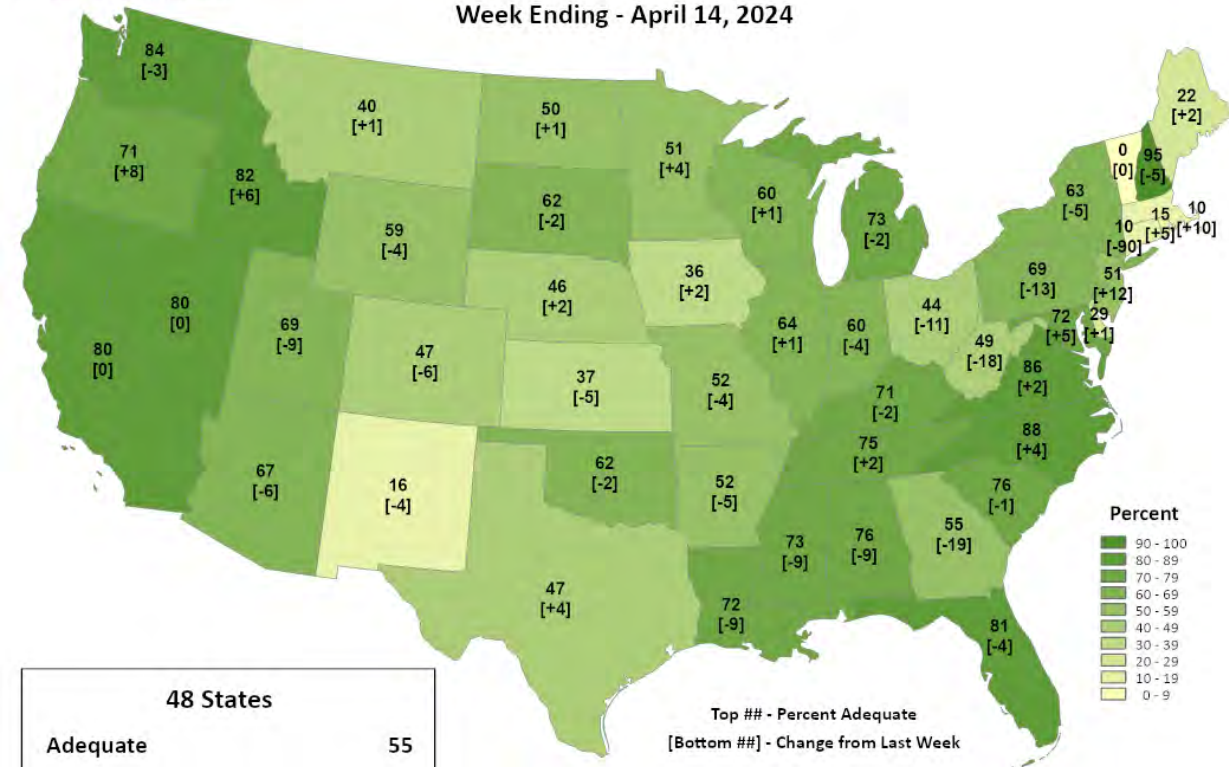


Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.



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

Subsoil Moisture Percent Adequate Week Ending - April 14, 2024

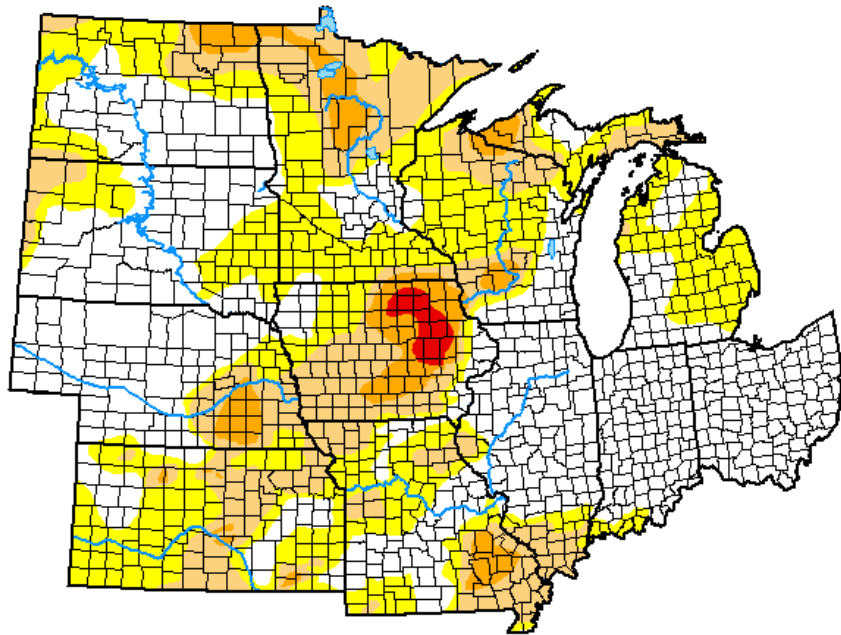


Data obtained from USDA National Agricultural Statistics Service weekly Crop Progress reports.

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

US Drought Monitor

U.S. Drought Monitor North Central States



April 9, 2024

(Released Thursday, Apr. 11, 2024)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	46.38	53.62	24.14	6.12	0.78	0.00
Last Week <small>04-02-2024</small>	38.82	61.18	25.26	5.92	0.85	0.00
3 Months Ago <small>01-09-2024</small>	37.47	62.53	38.46	15.97	3.36	0.00
Start of Calendar Year <small>01-02-2024</small>	37.52	62.48	38.54	16.91	3.77	0.02
Start of Water Year <small>09-26-2023</small>	25.87	74.13	49.98	25.16	7.67	0.73
One Year Ago <small>04-11-2023</small>	53.48	46.52	27.66	16.88	9.08	5.23

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 Pugh
CPC/NOAA



droughtmonitor.unl.edu

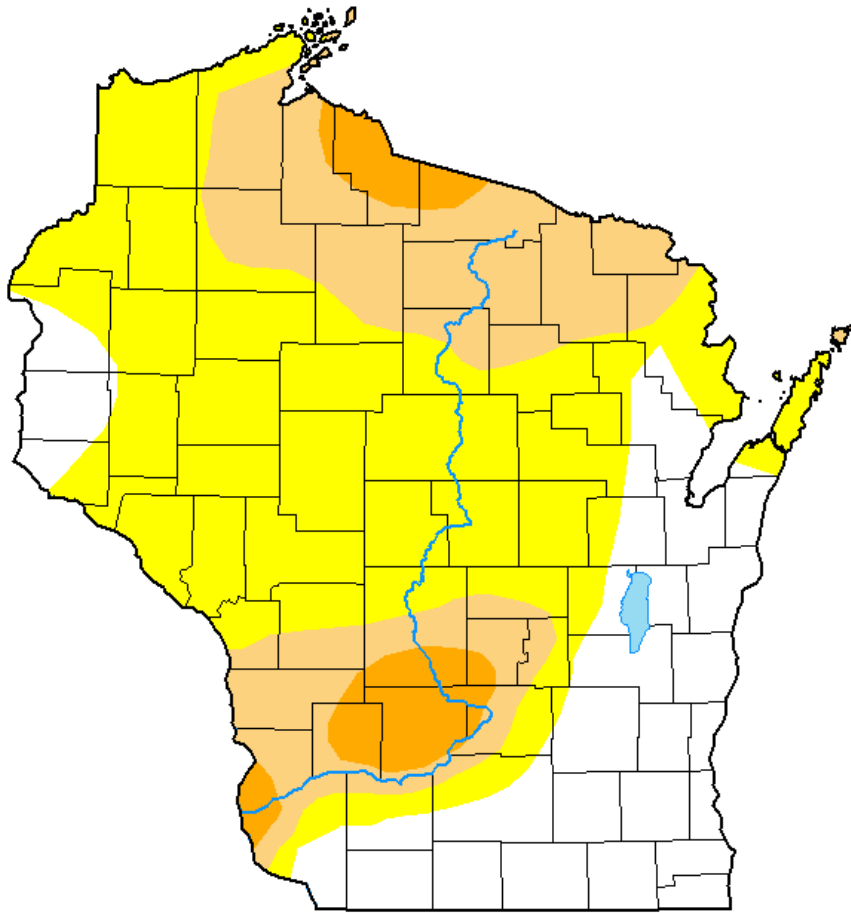
- Compared to last week:
 - Minor changes in drought category area (-/+)
- Ohio is drought-free
- Lower Michigan & Indiana are nearly drought-free
- D3 level drought persists in eastern IA
 - 198th consecutive week of IA having at least D1 conditions somewhere in the state

Note: D0 is not considered drought.

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

US Drought Monitor

U.S. Drought Monitor Wisconsin

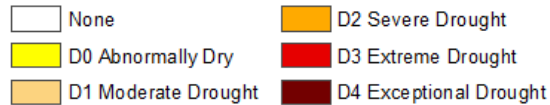


April 9, 2024
(Released Thursday, Apr. 11, 2024)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	24.97	75.03	28.36	5.81	0.00	0.00
Last Week 04-02-2024	13.90	86.10	31.55	5.99	0.00	0.00
3 Months Ago 01-09-2024	33.04	66.96	37.34	16.80	0.26	0.00
Start of Calendar Year 01-02-2024	33.04	66.96	37.34	16.80	0.26	0.00
Start of Water Year 09-26-2023	2.04	97.96	80.86	37.74	6.77	0.00
One Year Ago 04-11-2023	100.00	0.00	0.00	0.00	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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CPC/NOAA

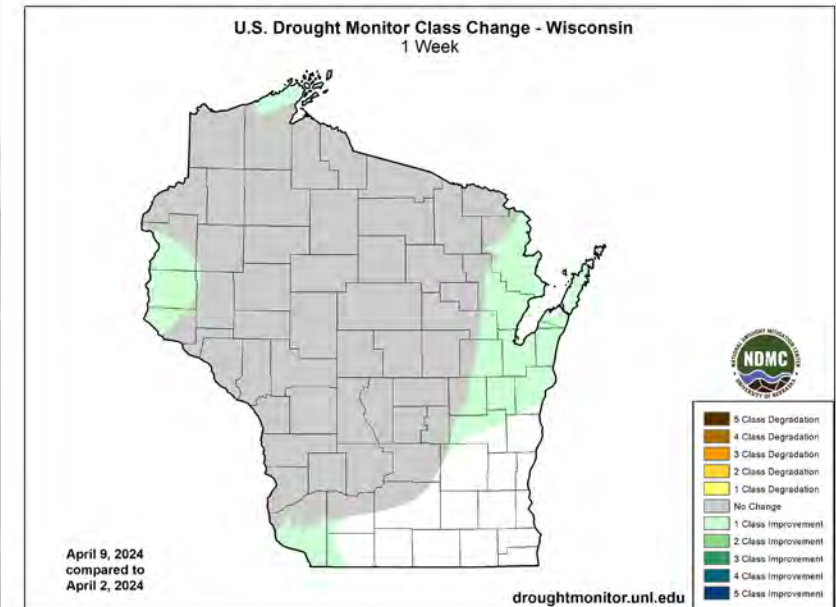


droughtmonitor.unl.edu

Amount of state in:

- **D1-D4** – 28.36% ↓
- **D2-D4** – 5.81% ↓
- **D3-D4** – 0.0% --
- **D4** – 0.0% --

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



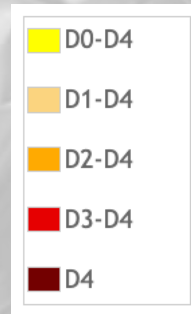
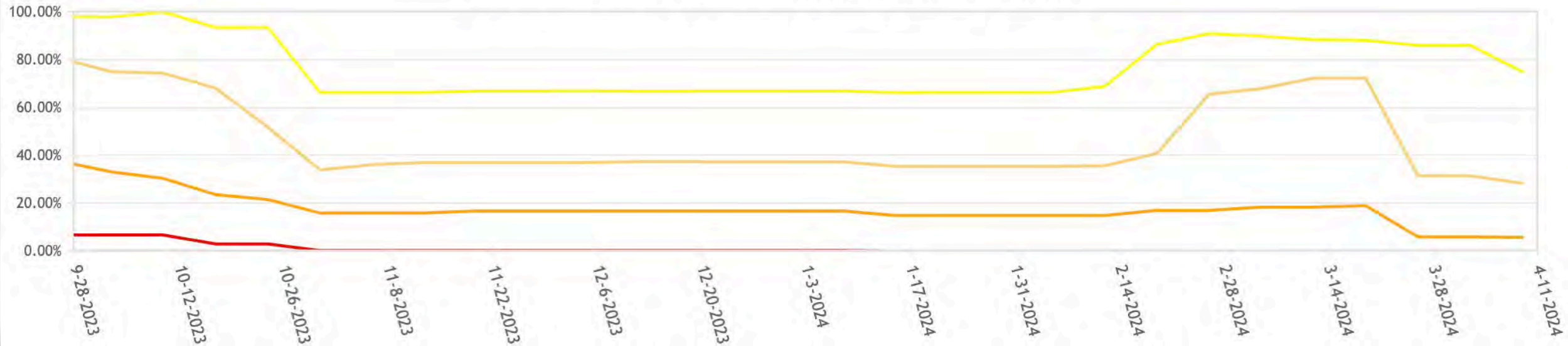
April 9, 2024
compared to
April 2, 2024

droughtmonitor.unl.edu



USDM Time Series

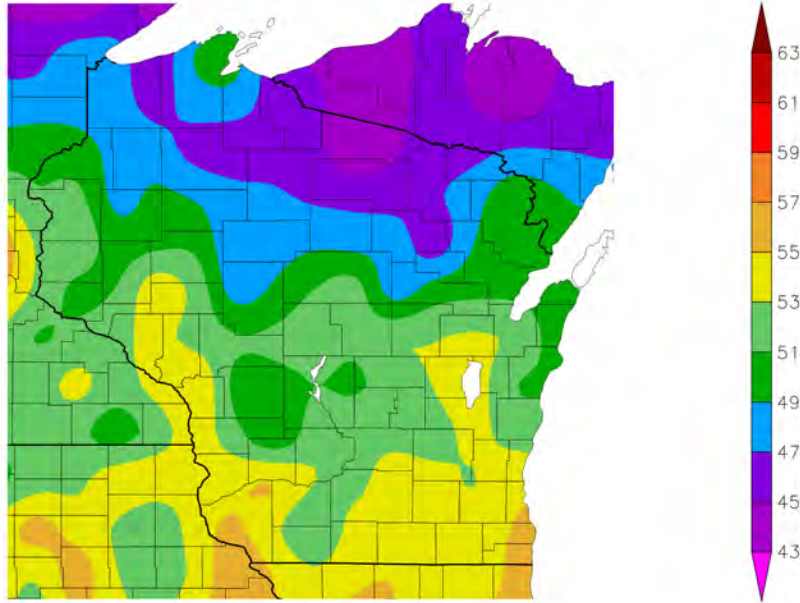
Wisconsin Percent Area in U.S. Drought Monitor Categories



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

7 Day Temperatures

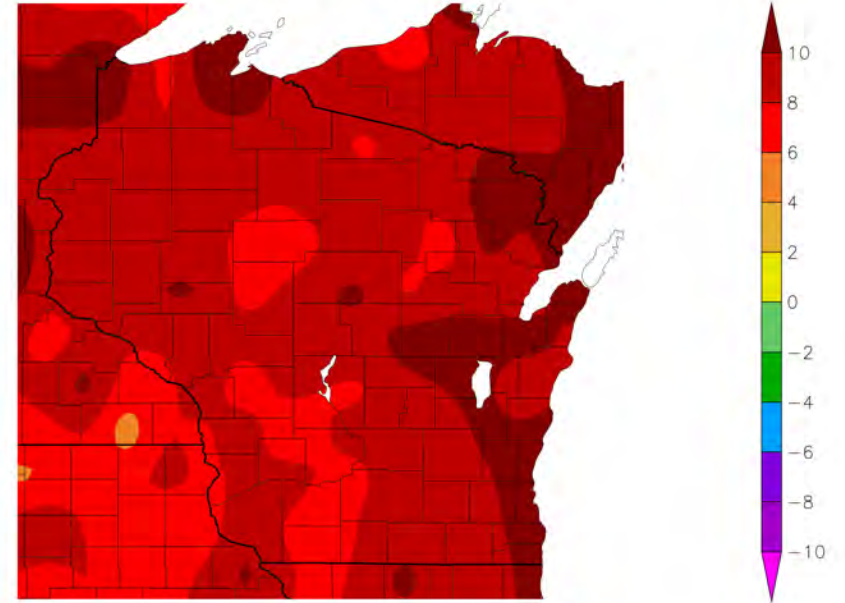
Temperature (F)
4/9/2024 - 4/15/2024



Generated 4/16/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Temperature (F)
4/9/2024 - 4/15/2024



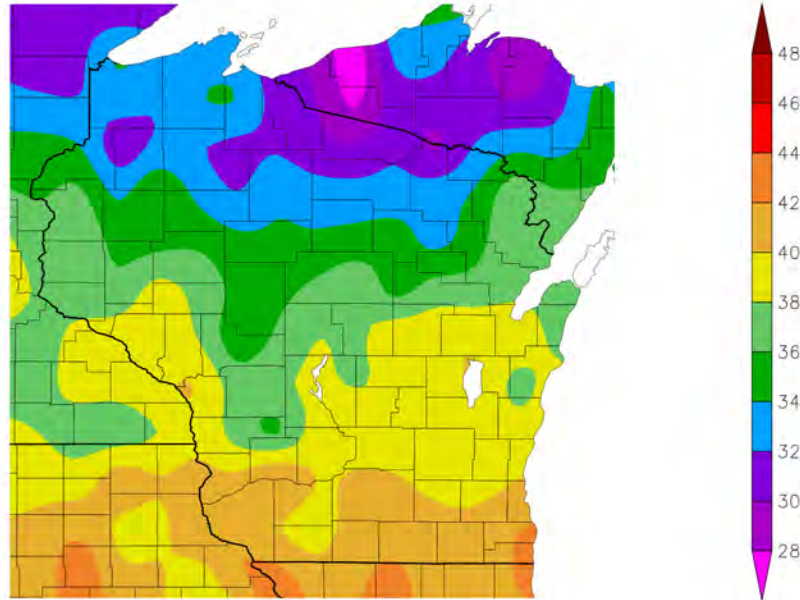
Generated 4/16/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Temperatures over the last 7 days ranged from **51-55°F** in the S to **45-49°F** in the N
- The entire state was **6-10°F** warmer-than-normal

30 Day Temperatures

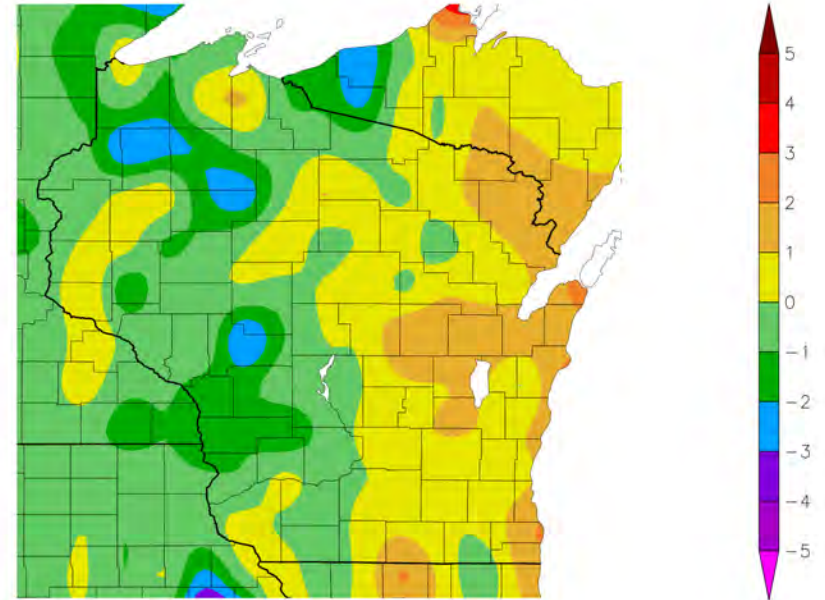
Temperature (F)
3/17/2024 - 4/15/2024



Generated 4/16/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Temperature (F)
3/17/2024 - 4/15/2024

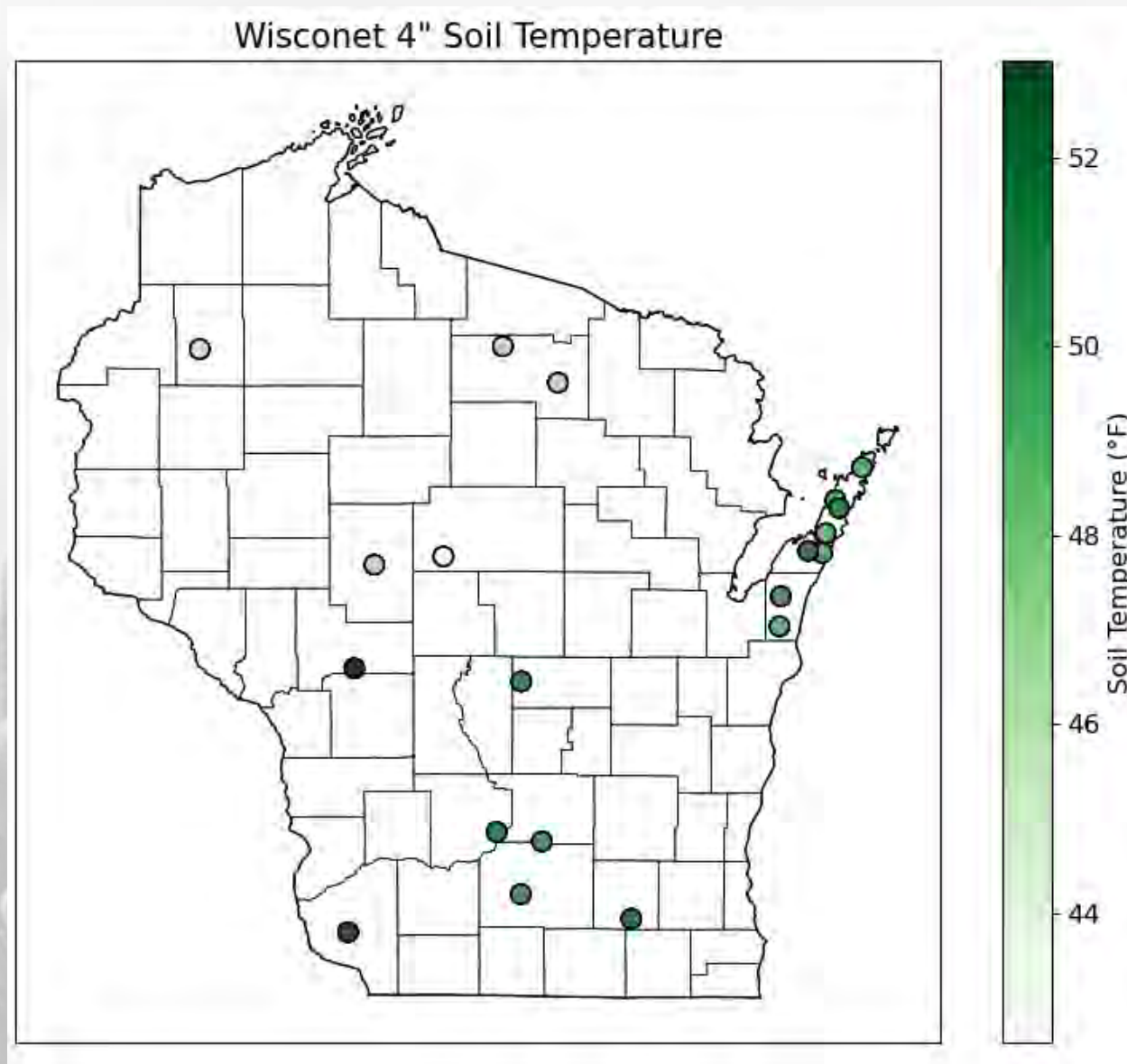


Generated 4/16/2024 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Temperatures over the last 30 days ranged from **38-42°F** in the S to **30-36°F** in the N
- Generally, eastern WI was **0-2°F** above average while western WI was **0-3°F** below average

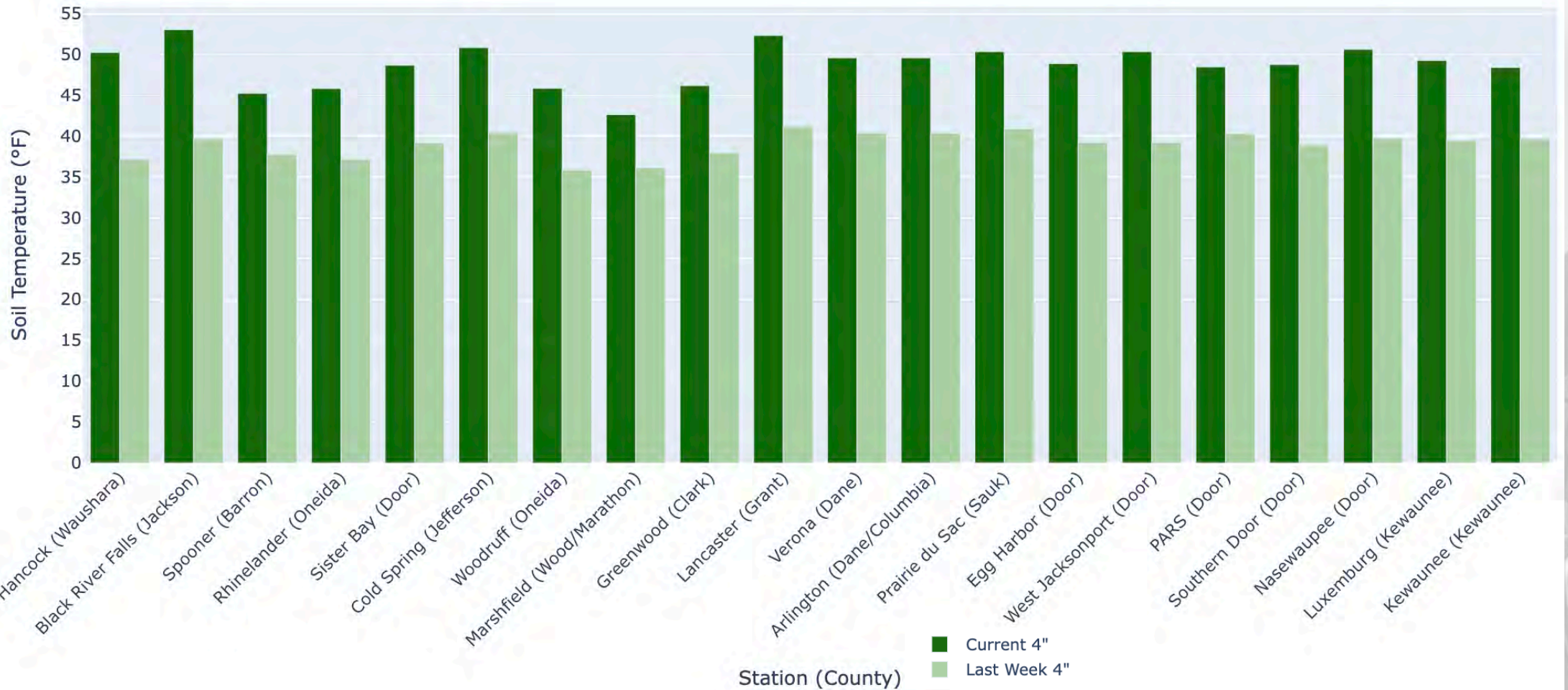
Soil Temperature - Wisconet



- 4" soil temperatures over the last 7 days (4/9-4/15) ranged from **43-53°F**

Soil Temperature - Wisconet

Wisconet 4" Soil Temperature



Current: 7-day average ending on 4/15

Last Week: 7-day average ending on 4/8

<https://wisconet.wisc.edu/>

NASS Crop Progress – Corn

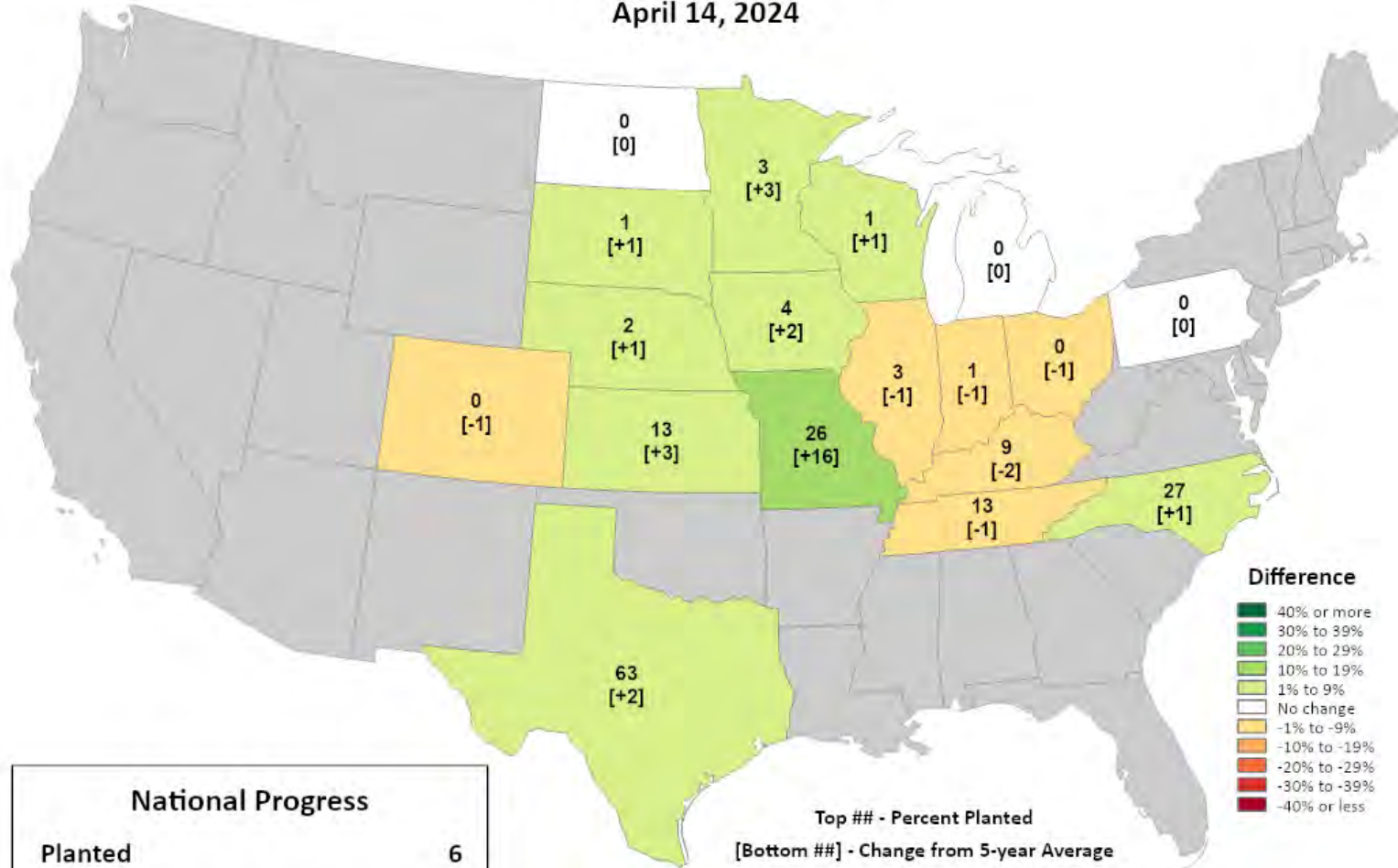


This product was prepared by the
USDA Office of the Chief Economist (OCE)
World Agricultural Outlook Board (WAOB)

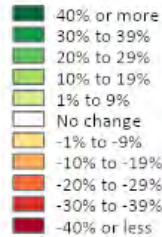
Corn Progress

Percent Planted

April 14, 2024



Difference



National Progress

Planted	6
Change from 5-year Average	+1

Top ## - Percent Planted

[Bottom ##] - Change from 5-year Average

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

- Scattered corn planting was reported in eastern and southern WI
 - This is slightly **ahead of schedule** for WI
- States to the west (south-southeast) are slightly ahead of (behind) schedule, with the exception of Missouri being greatly ahead

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

NASS Crop Progress – Winter Wheat

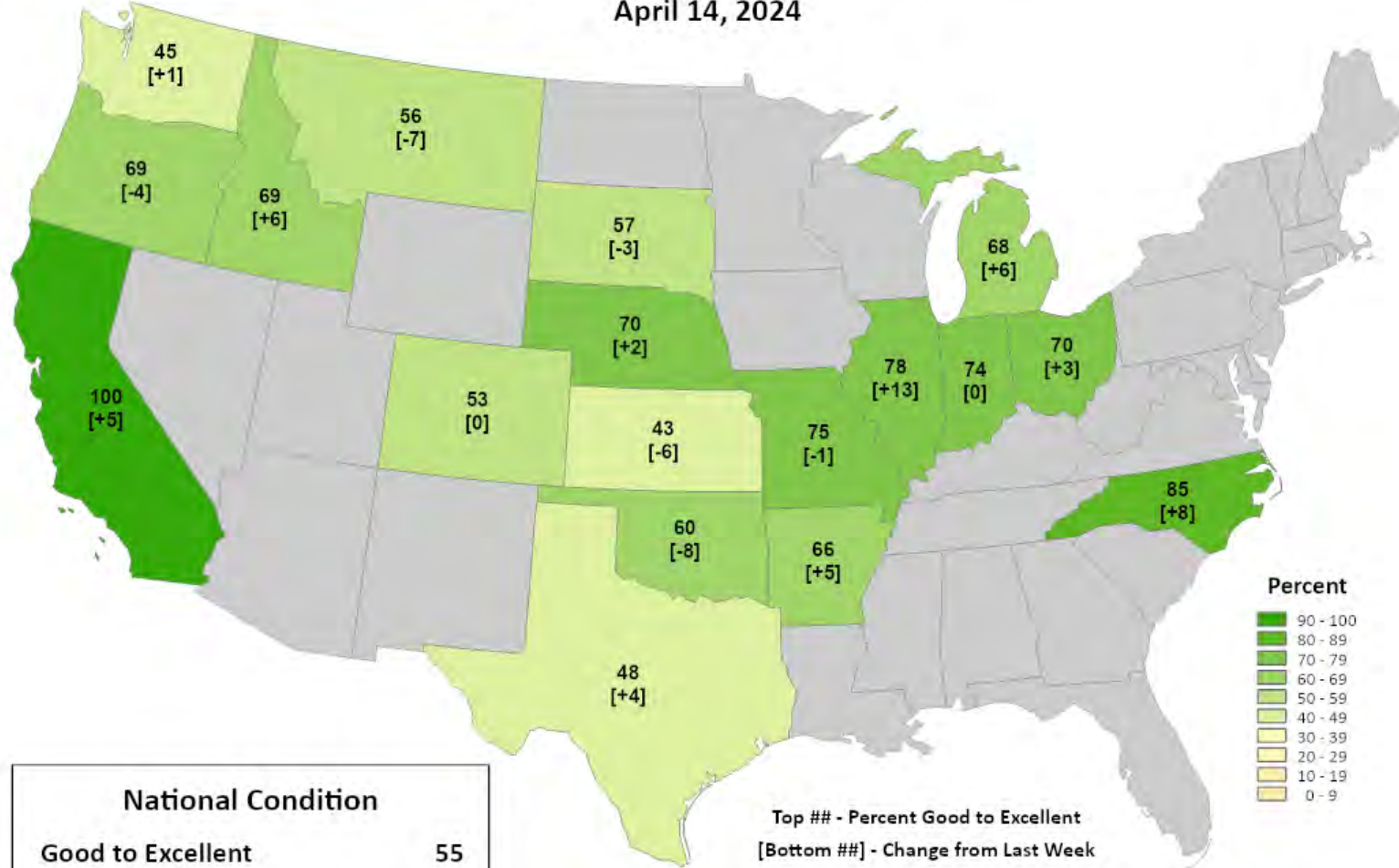


This product was prepared by the
USDA Office of the Chief Economist (OCE)
World Agricultural Outlook Board (WAOB)

Winter Wheat Conditions

Percent Good to Excellent

April 14, 2024



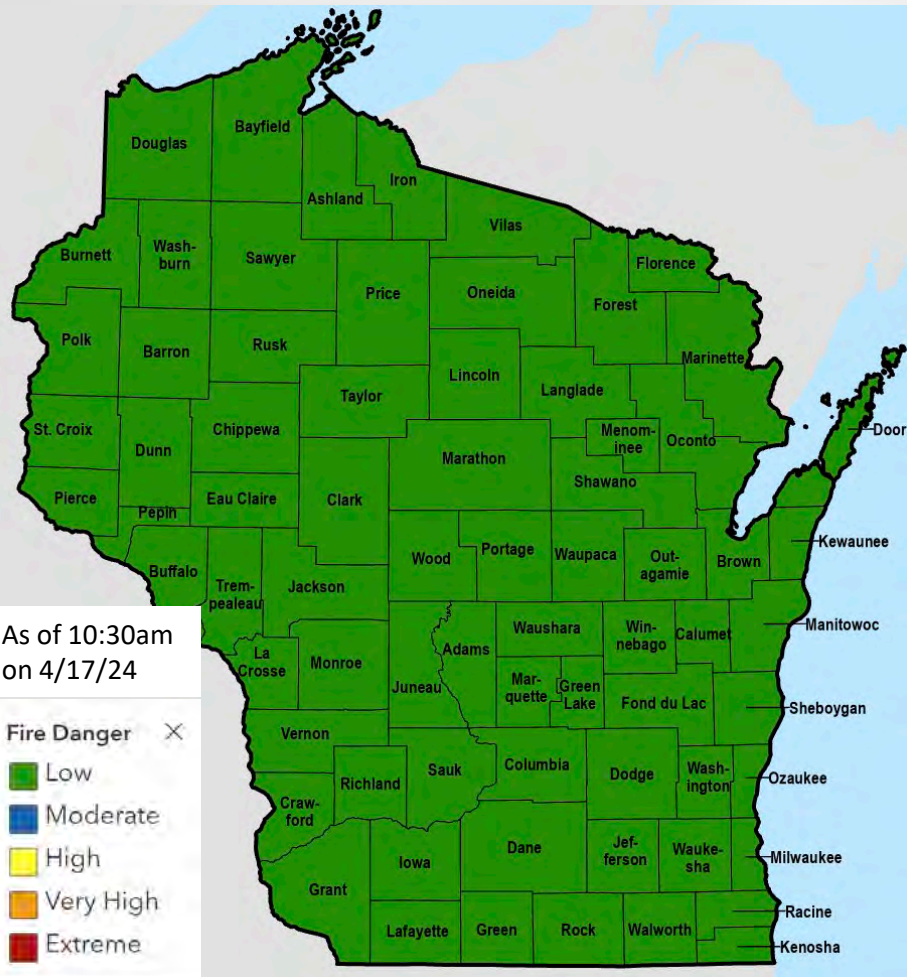
National Condition	
Good to Excellent	55
Change from Last Week	-1

Top ## - Percent Good to Excellent
[Bottom ##] - Change from Last Week

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

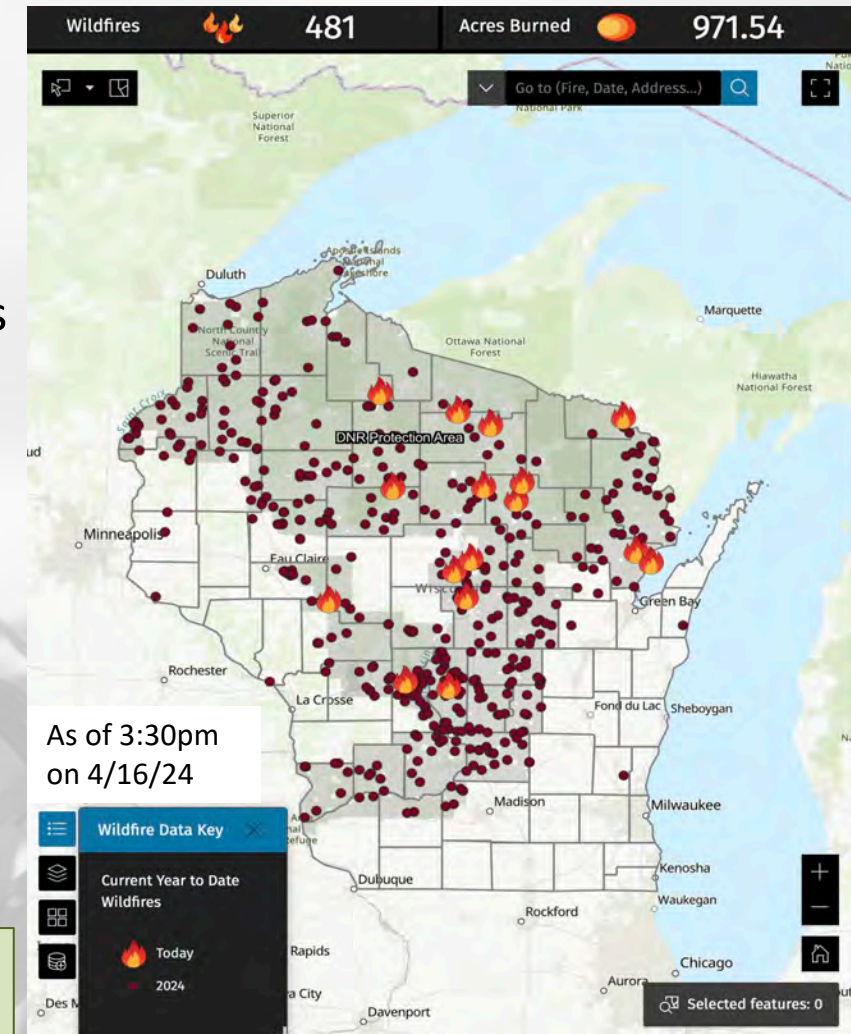
- In states around Wisconsin, winter wheat condition is >68% good to excellent.

Wildfire Concerns



- After Tue (4/16)-Wed (4/17) rain, fire danger dropped to low
- However, wildfires have been an increased concern for WI this year, especially when hot, dry, and windy conditions are present
- Please check DNR WisBurn for fire danger conditions before burning and have fire safety plans in place

<https://apps.dnr.wi.gov/wisburn/#/>
<https://dnrmaps.wi.gov/wildfiredashboard/>



7 Day Precip Forecast

- Please note that there is a server malfunction at NOAA causing this 7-day forecast product to not be updated since Monday (4/15).
- If you'd like to check for an update, please head to: <https://water.weather.gov/precip/>.
- There looks to be the potential for precip on Thu (4/18) and Mon (4/22), but feel free to check <https://www.weather.gov/> for your local forecast.

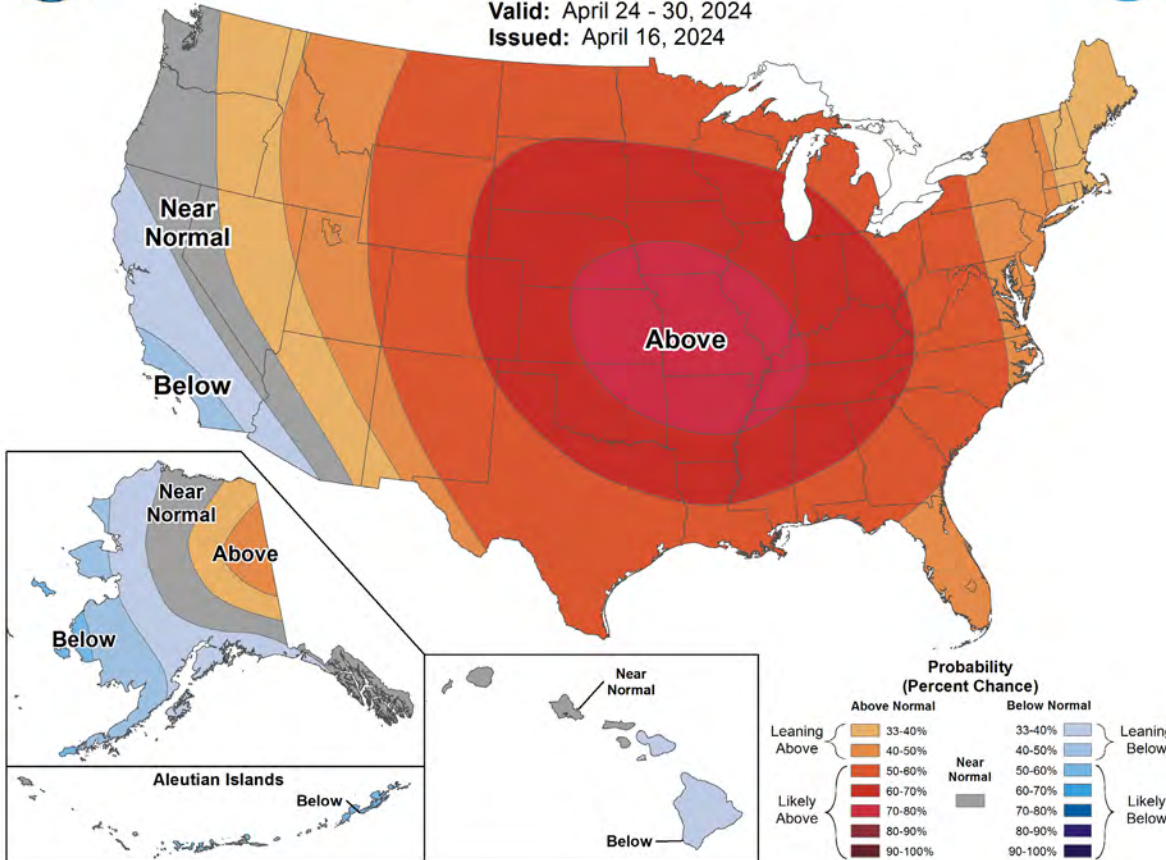
8-14 Day Temp & Precip Outlook



8-14 Day Temperature Outlook



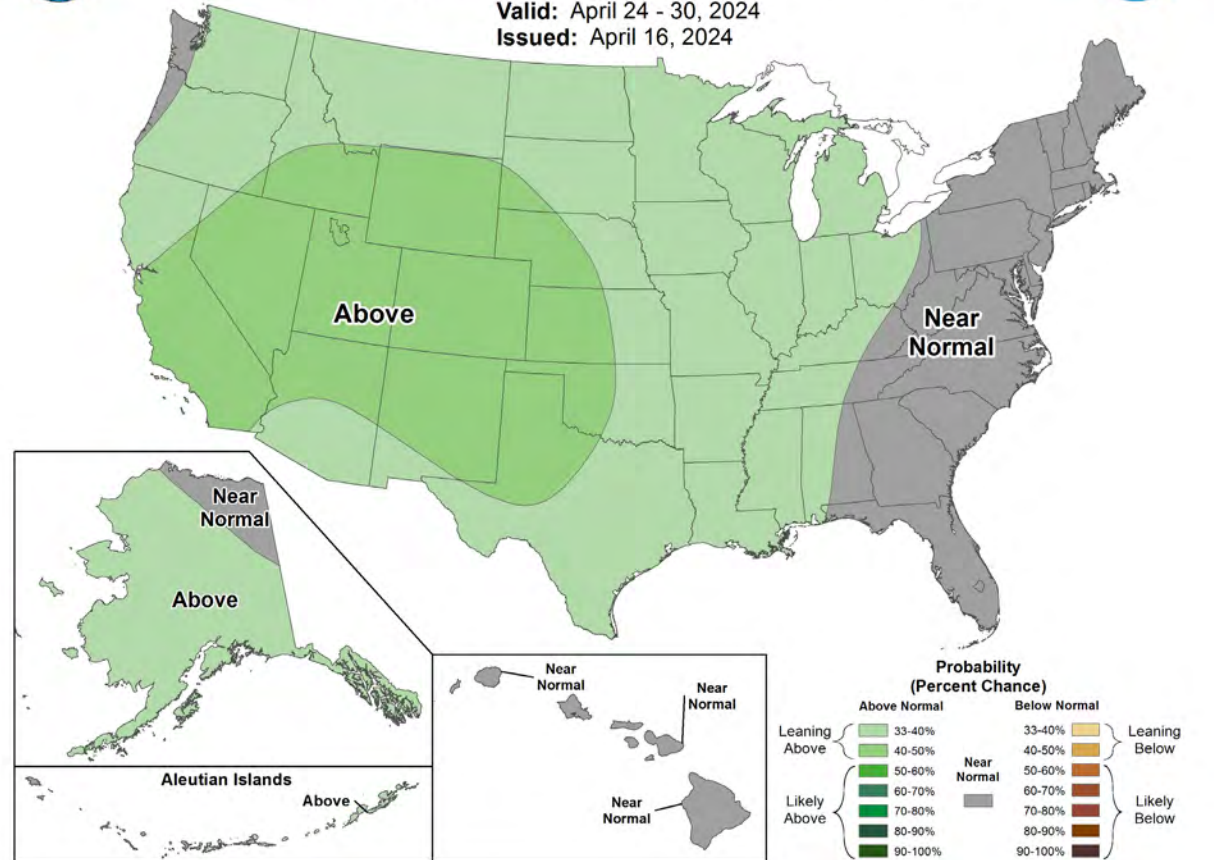
Valid: April 24 - 30, 2024
Issued: April 16, 2024



8-14 Day Precipitation Outlook



Valid: April 24 - 30, 2024
Issued: April 16, 2024



Third/fourth week in April: Temperatures will likely be above normal. Precipitation leaning above normal.

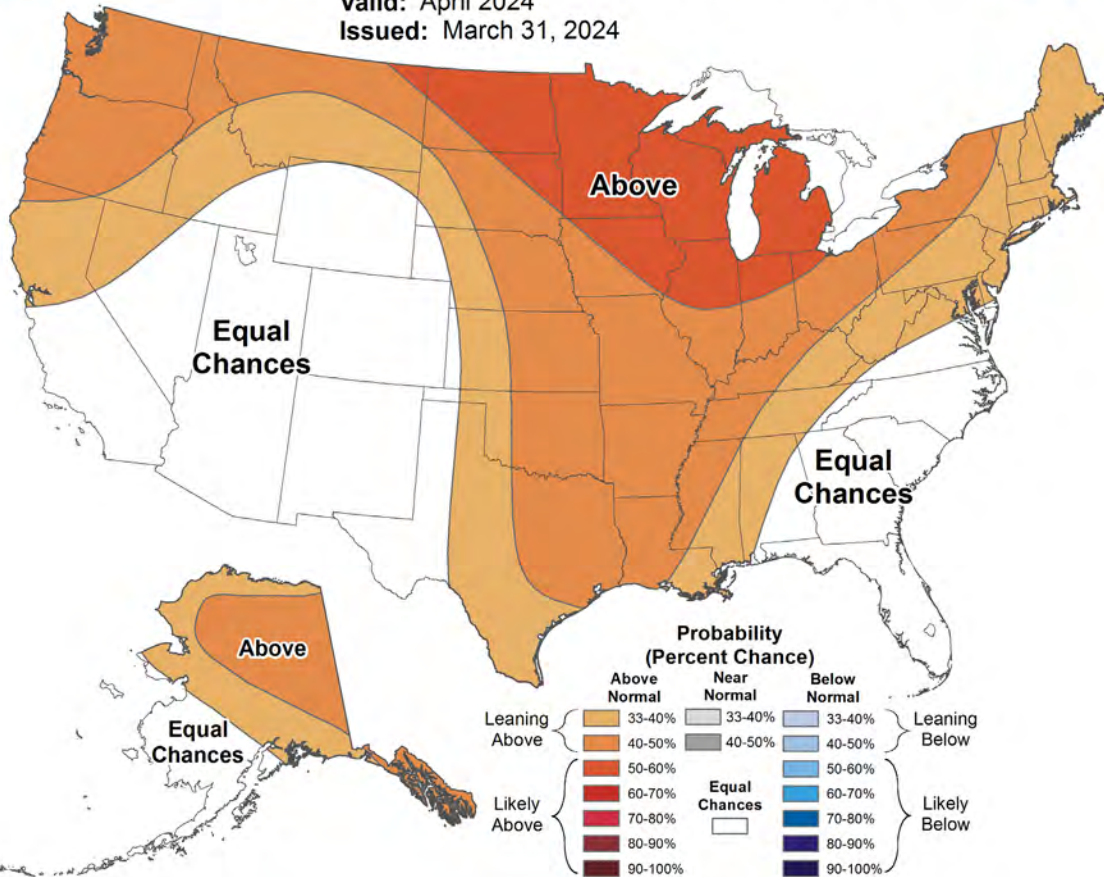
30 Day Temp & Precip Outlook



Monthly Temperature Outlook



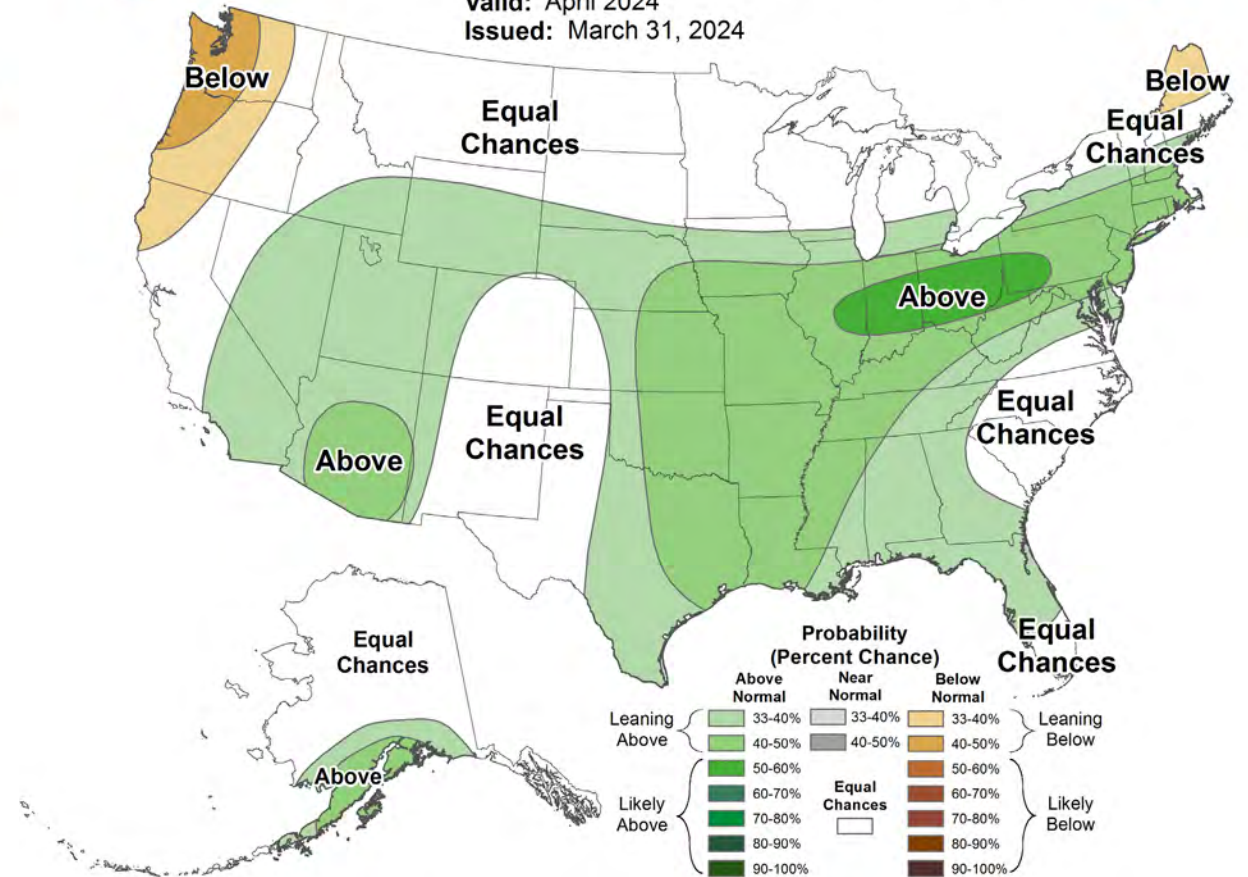
Valid: April 2024
Issued: March 31, 2024



Monthly Precipitation Outlook



Valid: April 2024
Issued: March 31, 2024



Month of April: Temperature likely to be above normal. Equal chances for precipitation, except for above normal near the IL border.

Take-Home Points

Current conditions:

- Little precipitation over the last week (<0.5" statewide), until 4/16-17 when an additional ~0.2-2.5" fell statewide.
- All of WI saw temperatures 6-10°F above normal over the last week.

Impact:

- 4" soil moisture dropped slightly since last week with minimal 7-day precipitation.
- 4" soil temperature increased with last week's temperatures being warmer-than-normal.
- US Drought Monitor showed slight improvements, mostly for NE WI, but remains largely unchanged from last week.
- Scattered corn planting has been reported in eastern and southern WI.
- Wildfire concerns have eased with precipitation, but still need to be considered in decision-making.

Outlook:

- Chances of precip for southern WI Thu (4/18) and statewide Mon (4/22).
- Temperatures are likely to be warmer-than-normal, with the chance for above-normal precip for the last week of April.
- Warmer-than-normal conditions likely to persist through spring, with uncertainty about precip.
- Warm conditions due in part to continued El Niño; however, a transition to La Niña is expected by June.

Agronomic Considerations

Planting Considerations

- Monitor soil moisture to avoid compaction, with recent precipitation it is advisable to wait with field work.
- Consider termination timing of cover crops to preserve deep soil moisture.
- If planting early, consider planting depth adjustments to ensure planting into moisture. Also, check insurance policies.

Nutrient & Herbicide Applications

- Consider using a preplant nitrate test to assess if there is nitrogen left over from last year due to drought conditions.
- Ensure daytime, nighttime, & soil temperatures are conducive for the necessary duration for effective herbicide applications. Remember, pre-emergent herbicides require moisture for activation and consider duration of effectiveness if planting early.
- Read herbicide labels from products used last year to assess if carryover is a possibility due to warmth and lack of moisture.

Manure Applications

- [DATCP](#) is forecasting low-to-moderate runoff risk in the Southwest part of the state.
- Early season manure applications into warm soil conditions may lead to increased mineralization/nitrification and potential for N loss if receive “typical” heavy spring rainfall events, particularly if not applied to a growing cover crop or if the cash crop will not be planted soon after application.

Small Grains

- Wheat has greened up in much of the state, so time to make decisions about nitrogen application.
- Potential for earlier planting of spring grains, if warmer weather continues. However, there is still a risk with potential for freeze.

Breaking Dormancy

- Likely early breaking of dormancy for overwintering crops – potential for increased winterkill if temperatures snap back to cold.
- When seeding alfalfa, be aware that it can germinate at 32-34°F but will die if temperatures drop below 24°F, so it is best to wait to plant alfalfa until those low temperatures are unlikely.

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 resource! Please take a few minutes and fill out this survey:

[LINK TO SURVEY](#)

SPECIAL REQUEST: As we head into this growing season, we understand the lack of precipitation and overall drought is likely on your mind. Please feel free to share your drought concerns, request relevant drought information that could help you manage your practices, or share management practices that have or haven't worked for you in drought conditions so that we can better serve your 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>

Contact Info

Photo Credit: USDA



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