

MAC-T Monthly Call

Midwest Agriculture and Climate Team

November 3, 2021

For more information:

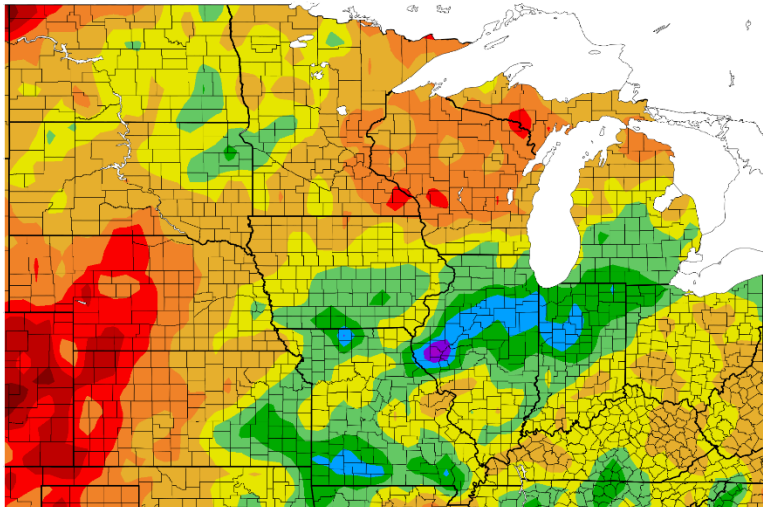
Dennis.todey@usda.gov



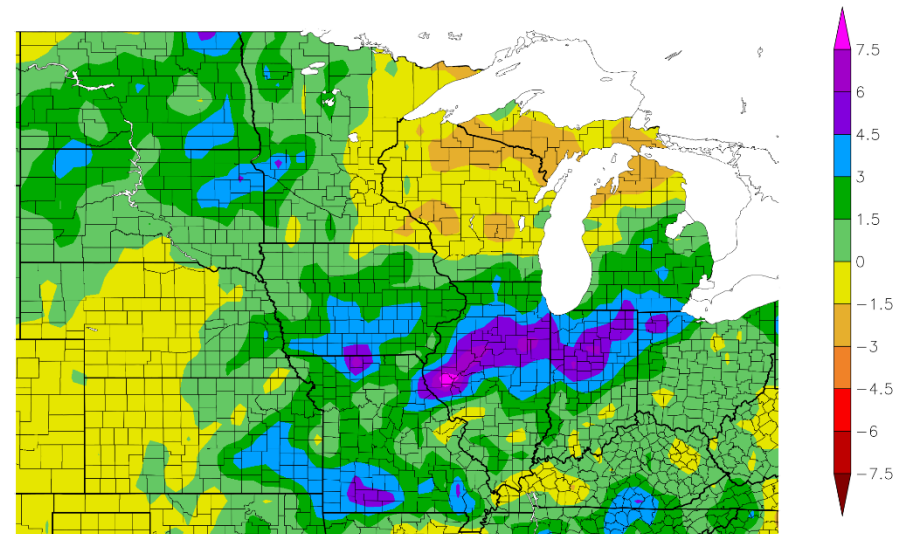
Midwest Climate Hub
U.S. DEPARTMENT OF AGRICULTURE



Precipitation (in)
10/2/2021 – 10/31/2021



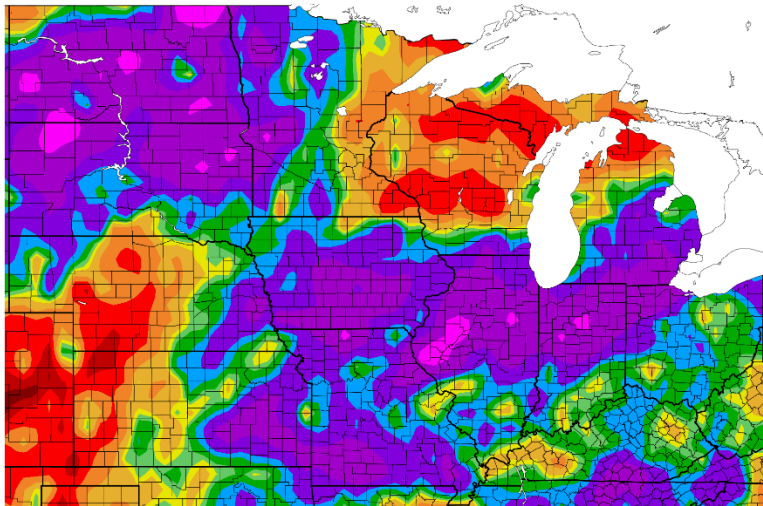
Departure from Normal Precipitation (in)
10/2/2021 – 10/31/2021



Generated 11/1/2021 at HPRCC using provisional data.

NOAA Regional Climate Centers

Percent of Normal Precipitation (%)
10/2/2021 – 10/31/2021



Generated 11/1/2021 at HPRCC using provisional data.

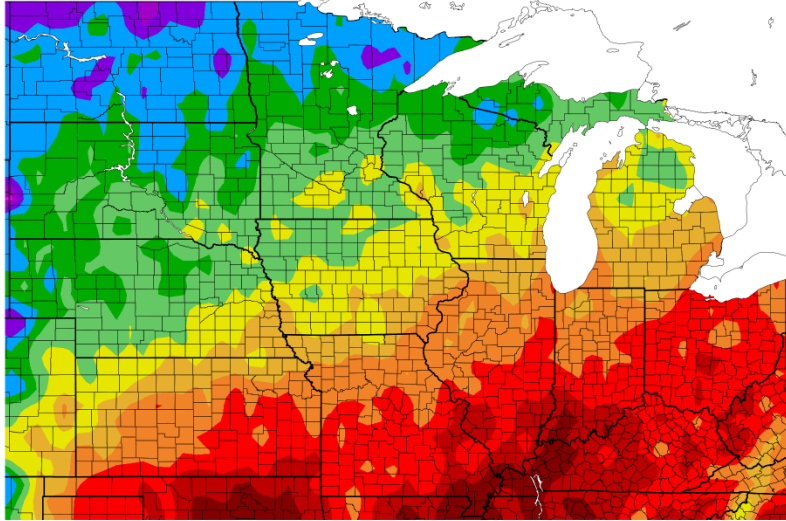
NOAA Regional Climate Centers

Generated 11/1/2021 at HPRCC using provisional data.

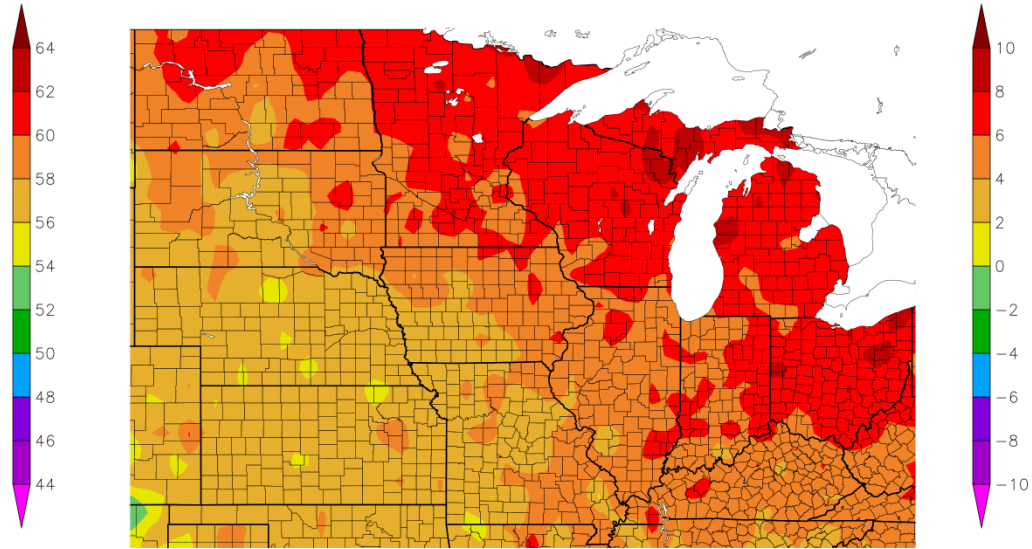
NOAA Regional Climate Centers

- In a switch from the previous month most of the region had above average precipitation.
- Central Plains and an area centered in Wisconsin have missed on precip.

Temperature (F)
10/2/2021 - 10/31/2021



Departure from Normal Temperature (F)
10/2/2021 - 10/31/2021



Generated 11/1/2021 at HPRCC using provisional data.

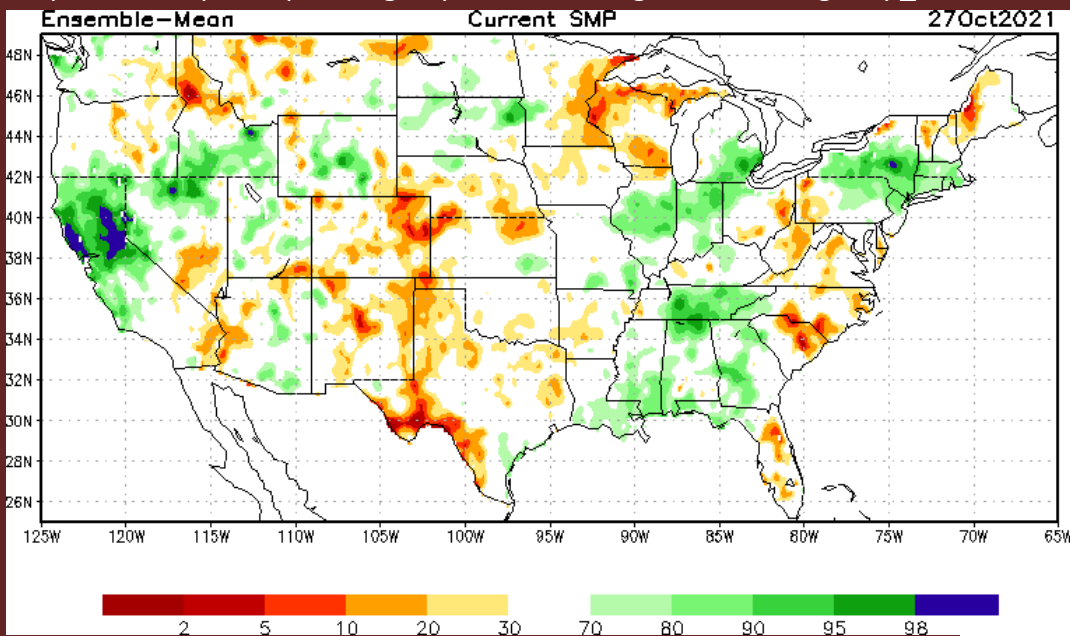
NOAA Regional Climate Centers Generated 11/1/2021 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Warmer than normal whole region
- Mostly 4-6 F above average.

Soil Moisture

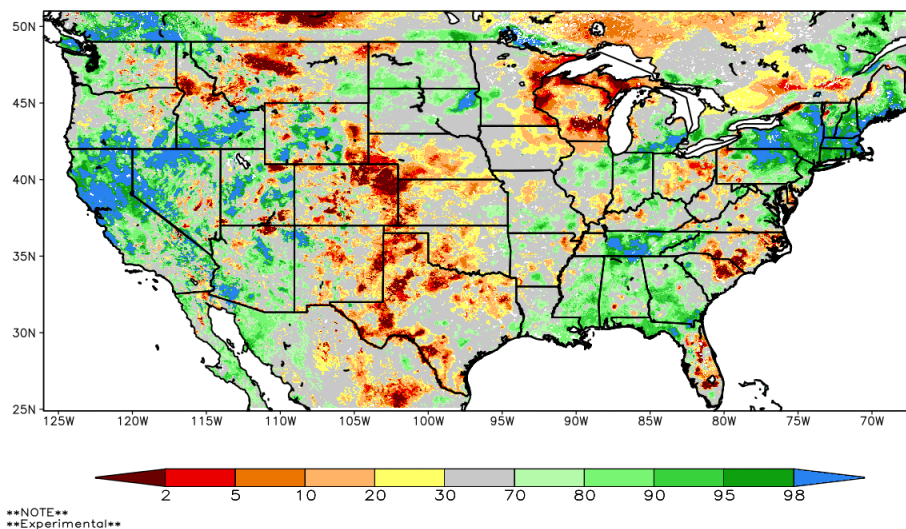
https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp_new.shtml#



- Precipitation has eased the soil moisture deficits over large areas
- Parts of Dakotas and Eastern Corn Belt are too wet in areas.
- Central Plains to MN/WI still has some deficits.

- Both percentile maps
- Upper – whole profile
- Lower – top 100 cm (~40")

SPoRT-LIS 0-100 cm Soil Moisture percentile valid 01 Nov 2021



https://weather.msfc.nasa.gov/sport/case_studies/lis_CONUS.html

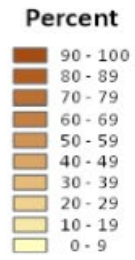
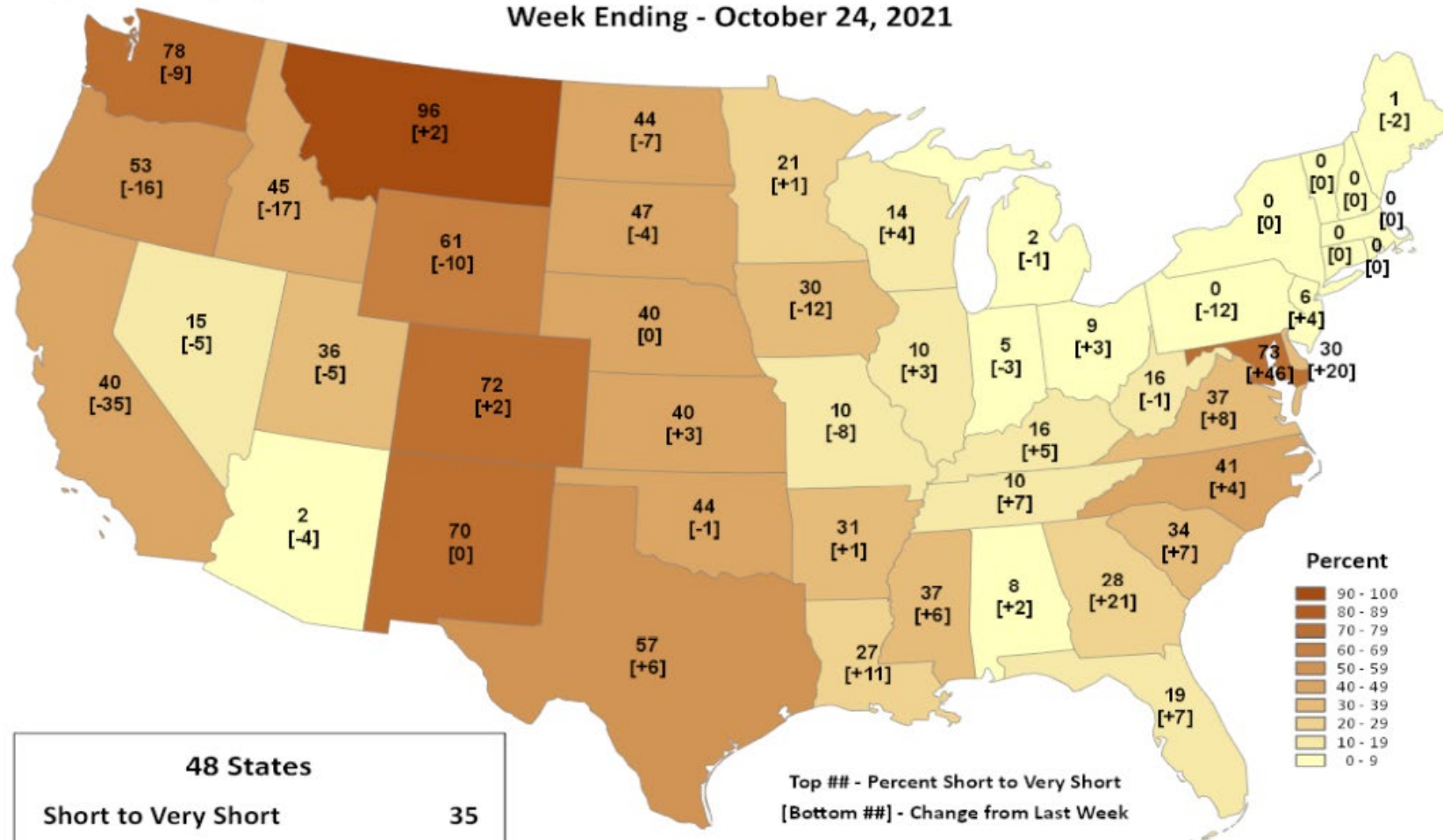
USDA NASS Soil Moisture



United States
Department of
Agriculture

*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 24, 2021



48 States	
Short to Very Short	35
Change from Last Week	-2

Top ## - Percent Short to Very Short
[Bottom ##] - Change from Last Week

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

Drought in the Midwest

U.S. Drought Monitor North Central States

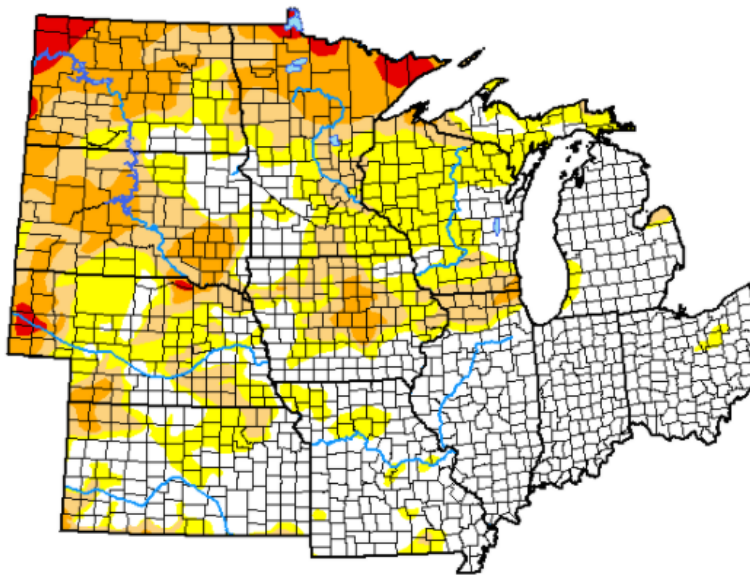
October 26, 2021

(Released Thursday, Oct. 28, 2021)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	46.25	53.75	31.29	14.74	1.87	0.00
Last Week <i>10-19-2021</i>	44.85	55.15	31.97	14.95	1.88	0.00
3 Months Ago <i>07-27-2021</i>	48.28	51.72	38.89	27.35	9.10	0.96
Start of Calendar Year <i>12-29-2020</i>	34.48	65.52	38.13	15.29	4.66	0.00
Start of Water Year <i>09-28-2021</i>	39.88	60.12	38.68	24.50	9.27	0.04
One Year Ago <i>10-27-2020</i>	37.24	62.76	30.28	13.48	1.93	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>

Author:

Richard Heim
NCEI/NOAA

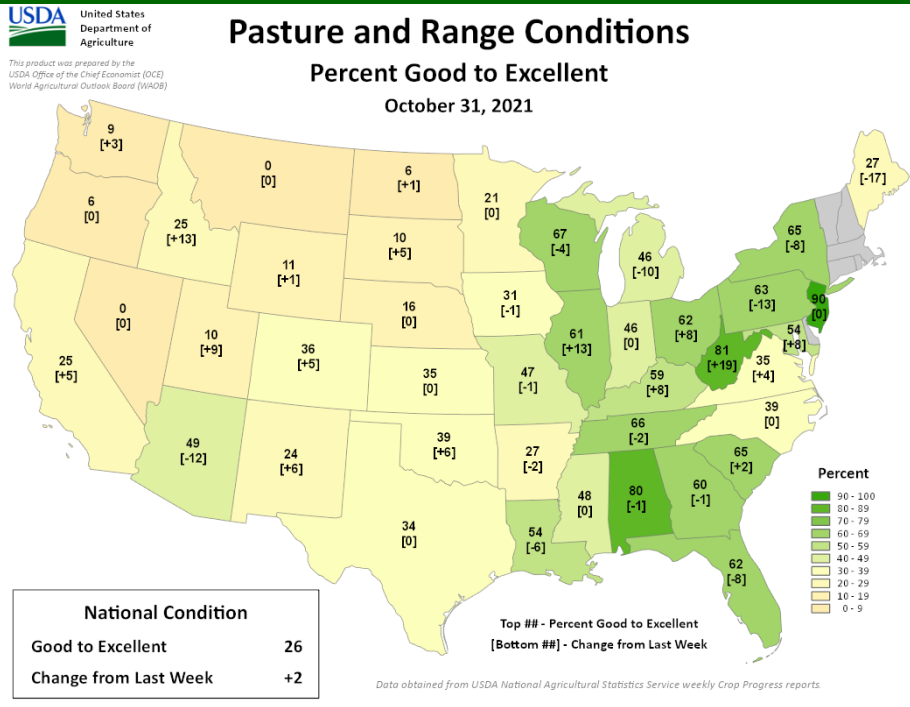


droughtmonitor.unl.edu

- Some improvement but still serious drought
- D3-D2 nrn plains.
- Lesser further south.

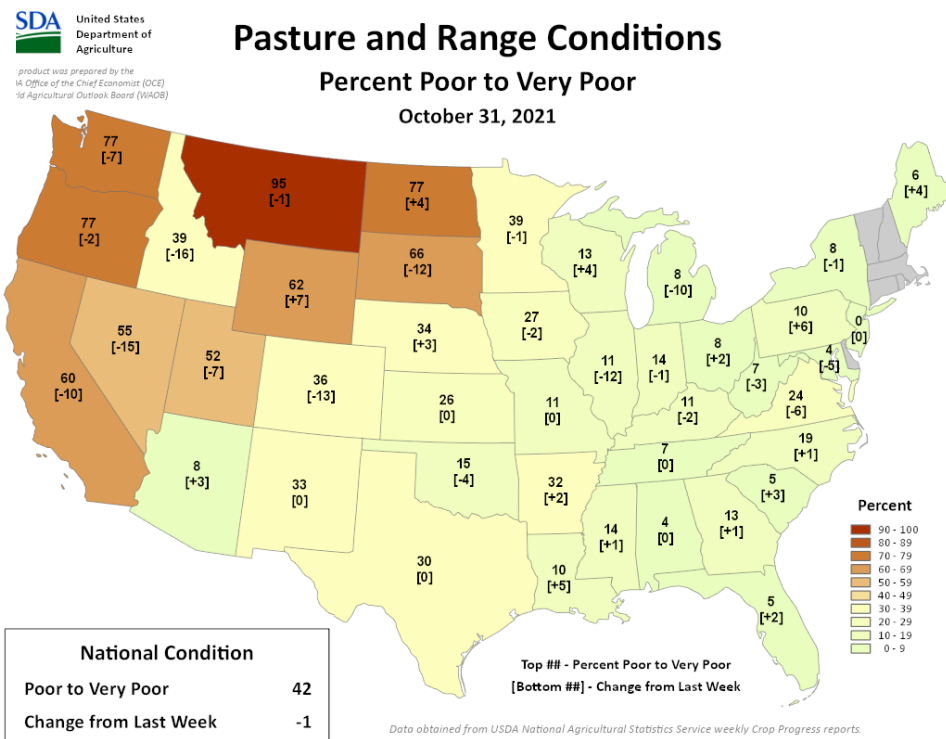
<http://droughtmonitor.unl.edu/>

Pasture/Range Conditions (NASS)



Pasture and range conditions poor over much of west and northern plains.

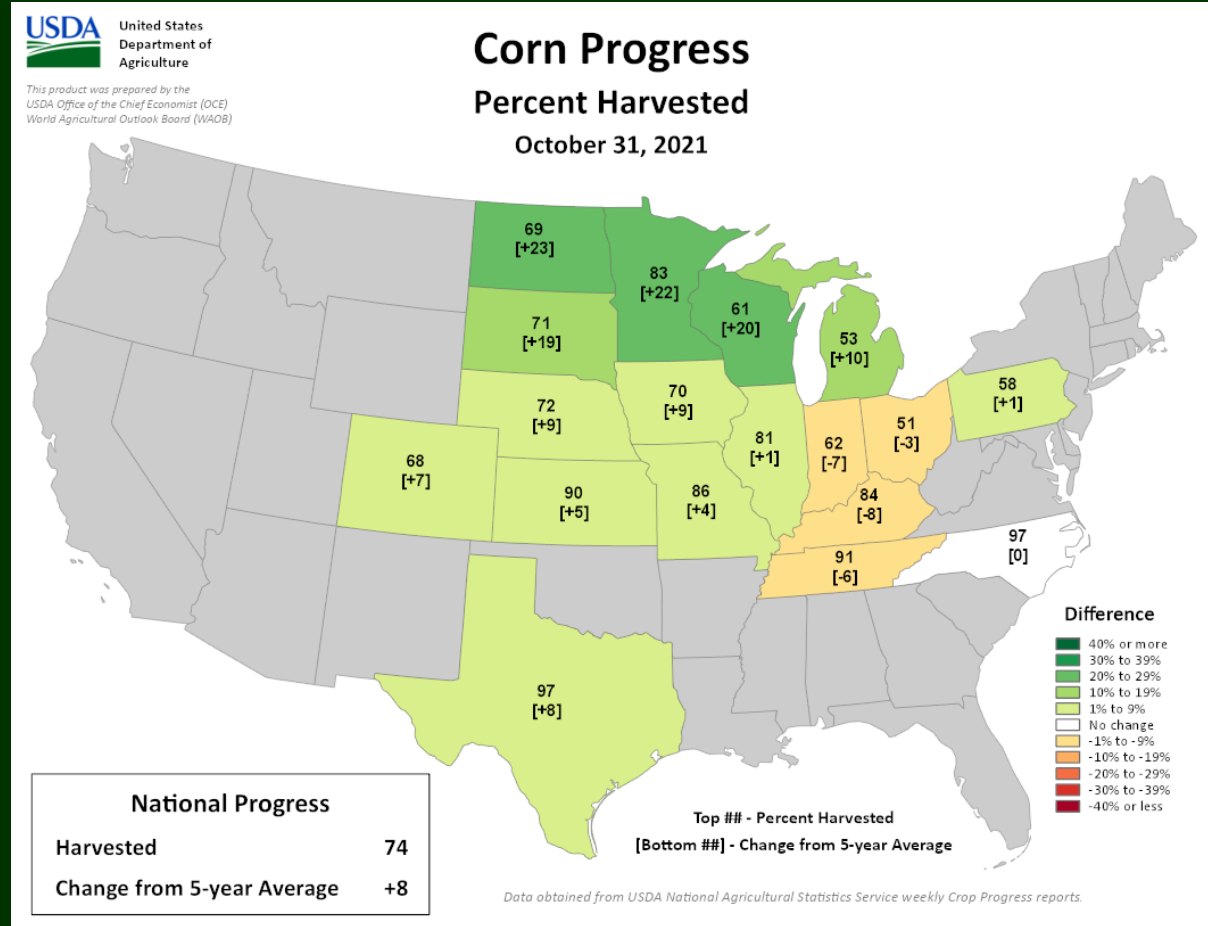
Rangeland G-E (NASS): National 26% (0%).
 Condition P-VP – National 42% (0%).



Corn Harvest (NASS)

Corn harvest progressing but slowed a bit by rains. Eastern Corn Belt actually behind 5 year average. Northern areas still far ahead.

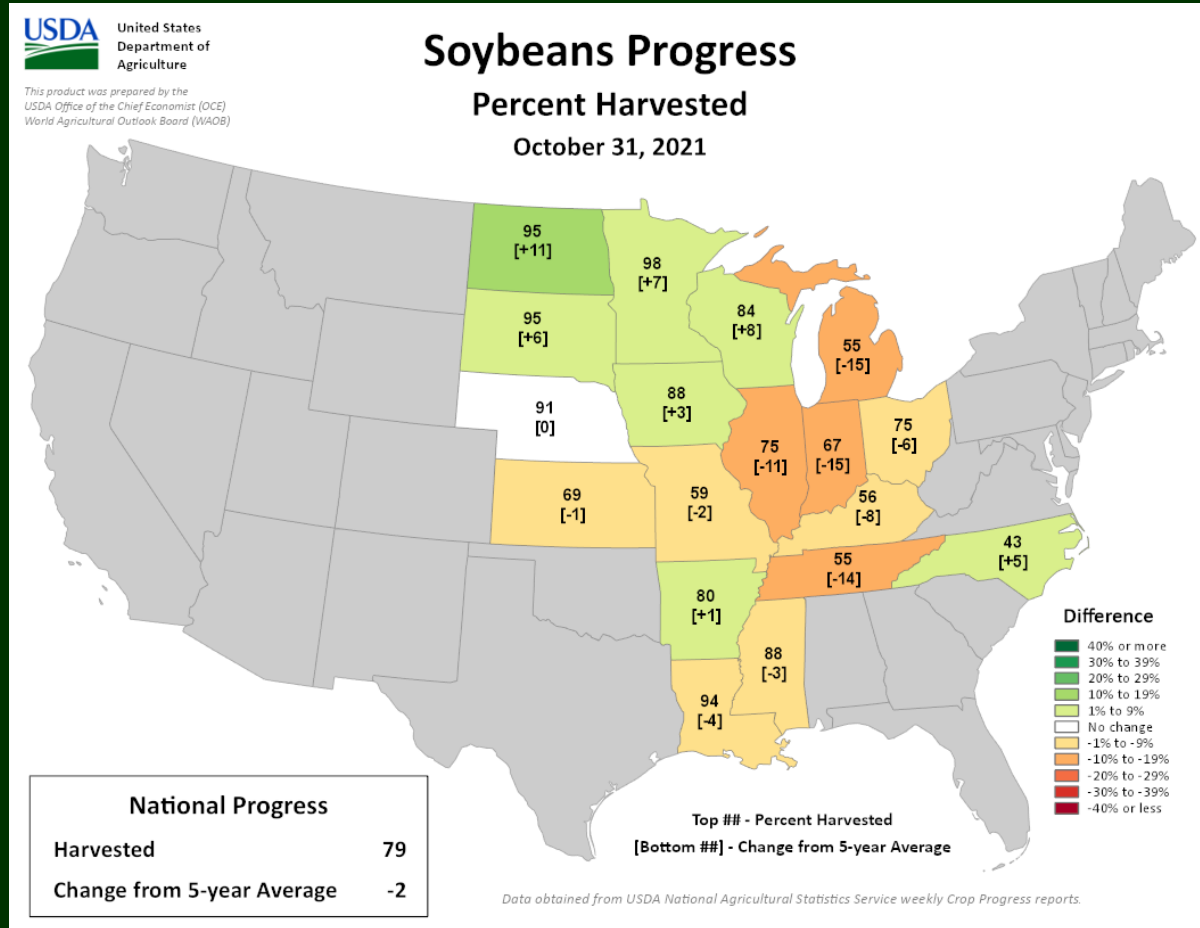
Corn progress (NASS):
Harvested - National 74%
(+8%).



Soybean Harvest (NASS)

Crop progress (soybean) harvest slowed much more. Mostly done northwest states – well behind eastern. Overall behind 5 year average.

Soybean progress (NASS): Dropping leaves - National 79% (22%).



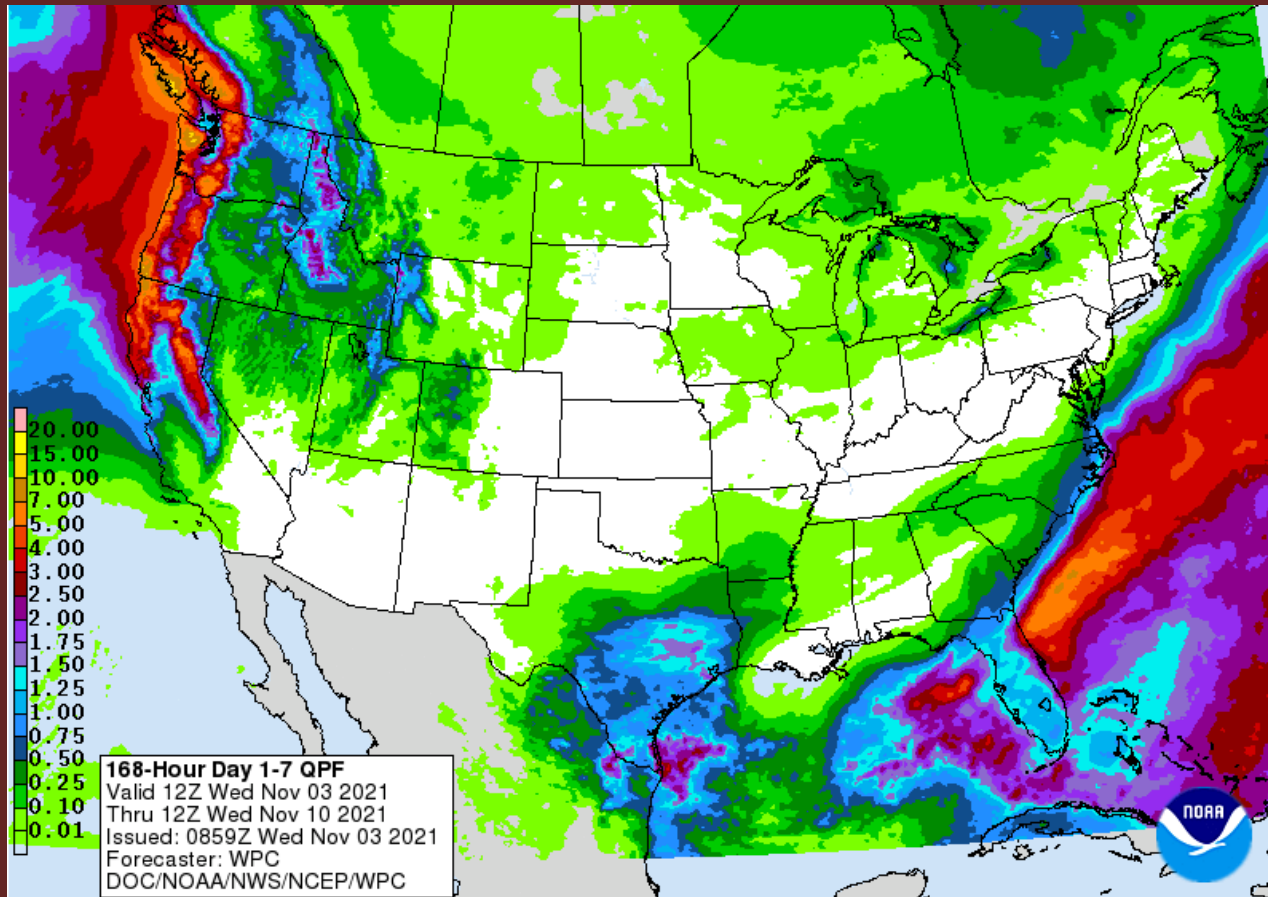
Assorted AG Issues

- Rains have shifted soil moisture situation
- Soil moisture improvement to too wet in places
- Drier than average still central plains to MN/WI

- Crop conditions Winter wheat in OK condition

- Harvest moving quickly (early maturity-good weather). Slowed by recent rains – particularly east.
- Late freeze – just occurred east.

1-7 Day Precip

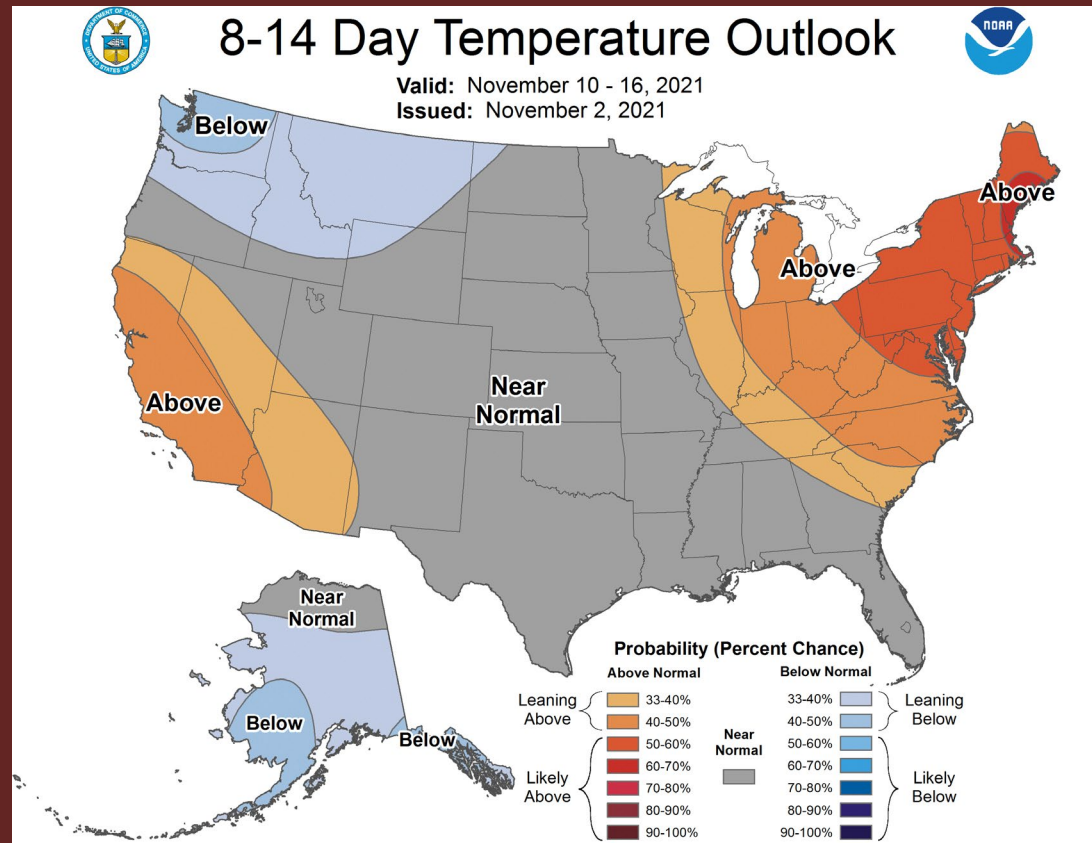


Next 7 days

- Mostly quiet over region with some only light amounts

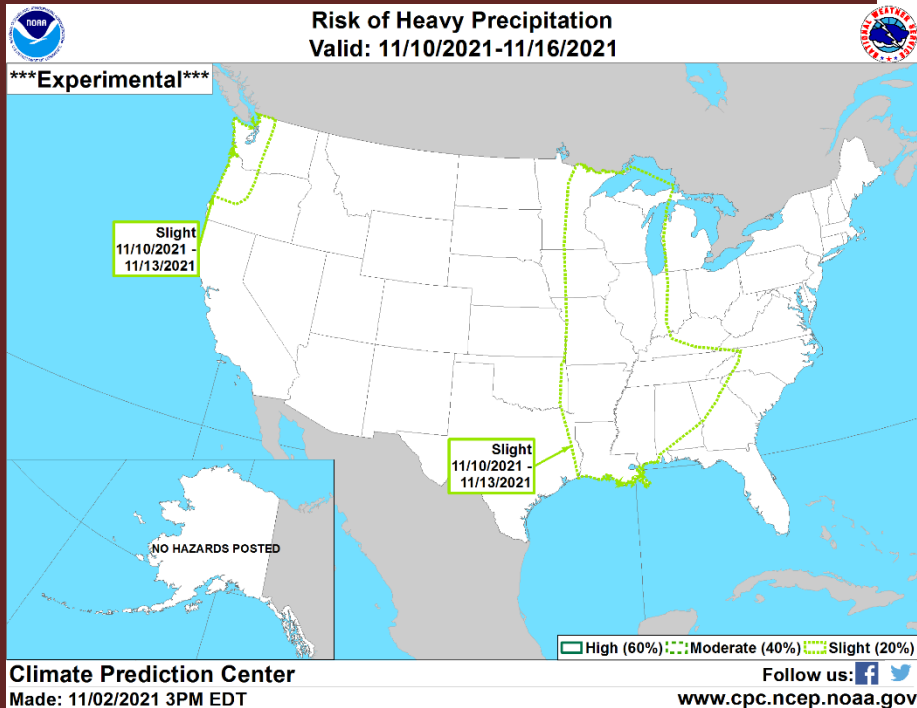
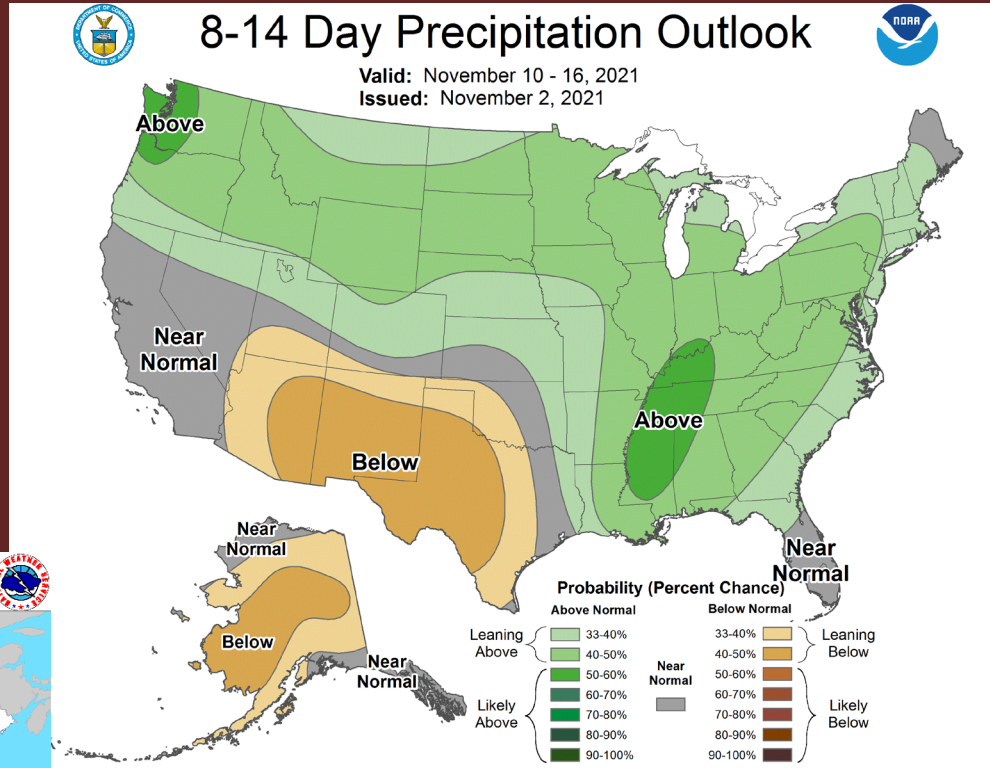
Temperature Outlook

- Warmer more likely most of eastern half o part of region.
- Colder more likely far west.
- Transitioning from warmer in 6-10 day outlook to colder conditions likely again.



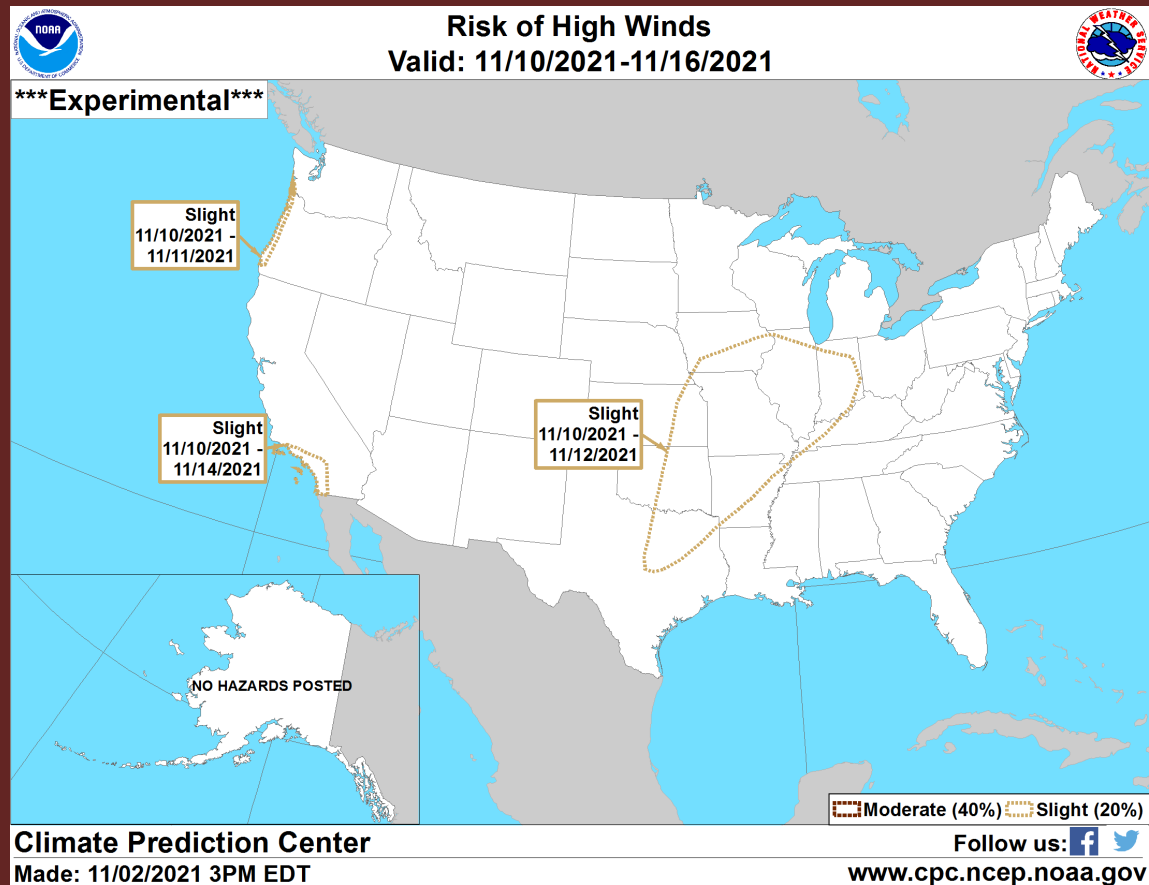
Precipitation Outlook

- Most of region has above average chances for precip
- Some risk of heavier precip from western Great Lakes south.
- Precip will help some areas but developing concerns about excess wetness

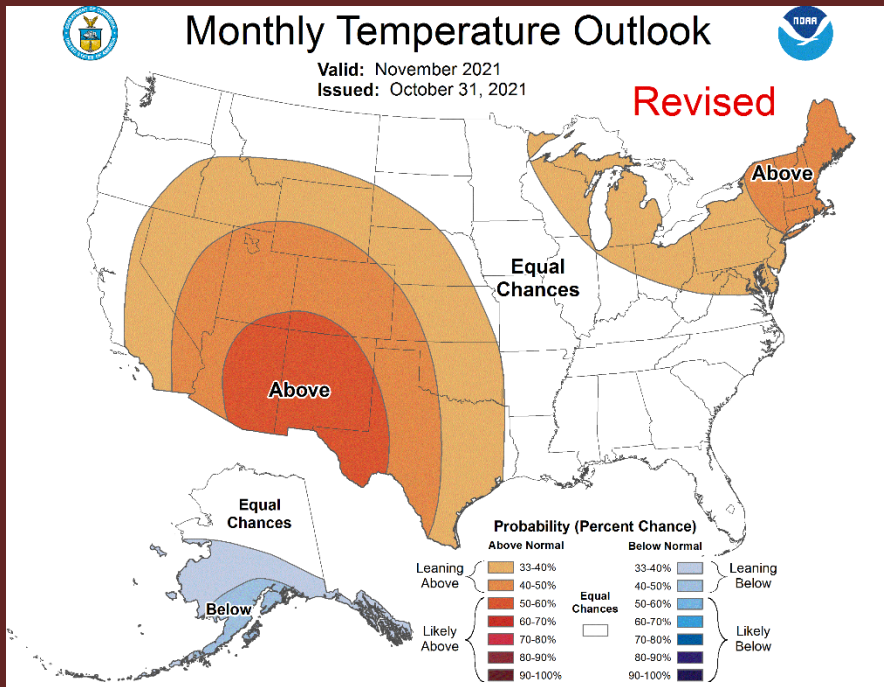


Wind Hazards

- Slight risk of strong winds southern parts of region.

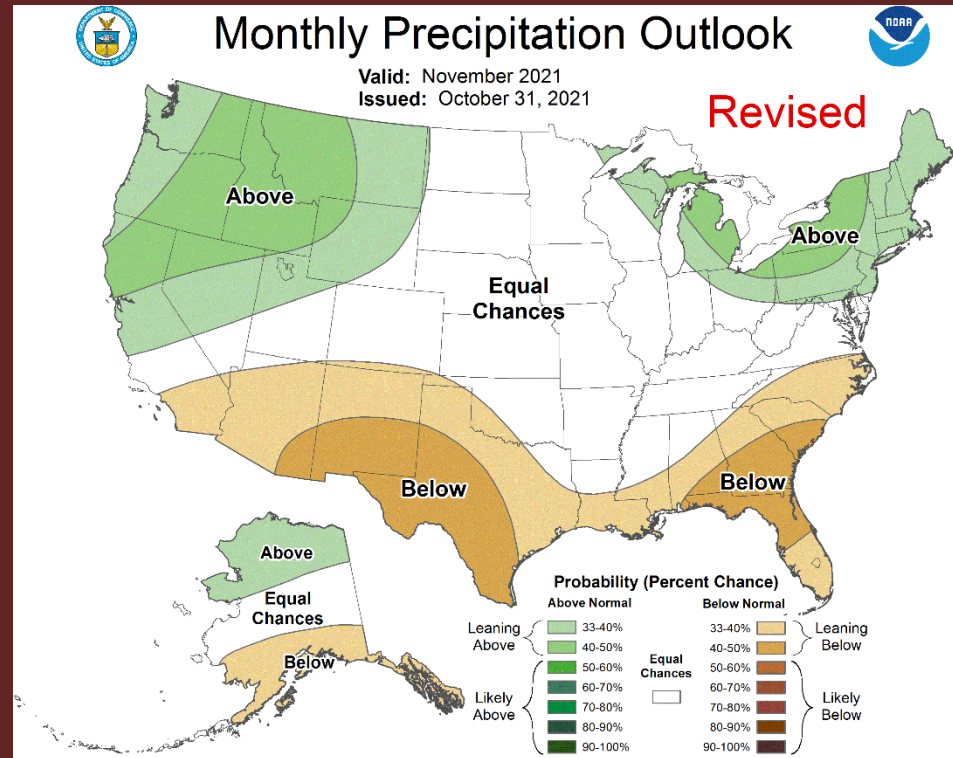


1-Month Outlook

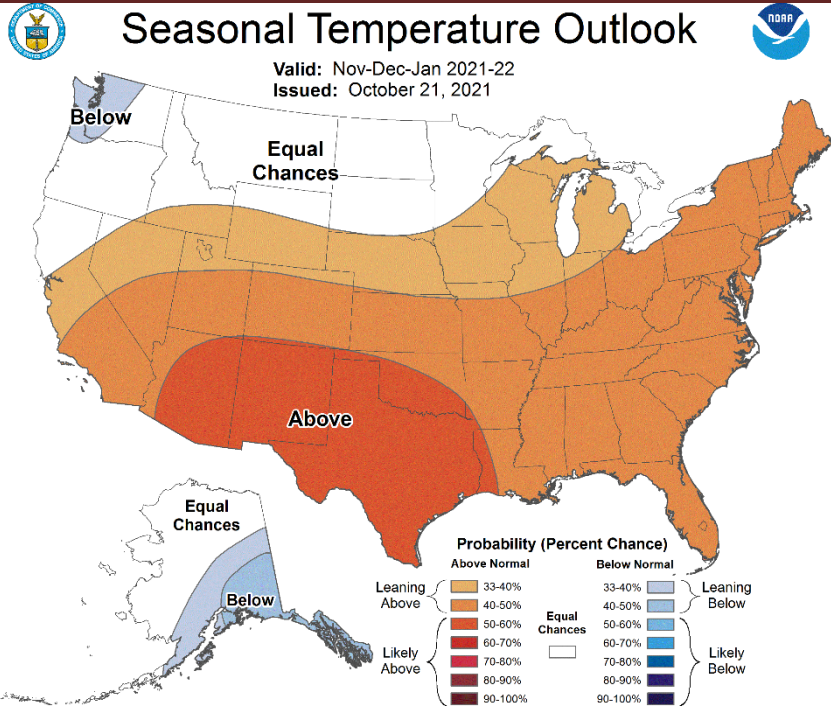


- November outlook
 - Slight chance of warmer Great Lakes and Plains
 - Slight chance increased precip Great Lakes and far west
 - Outlooks switching to La Niña view

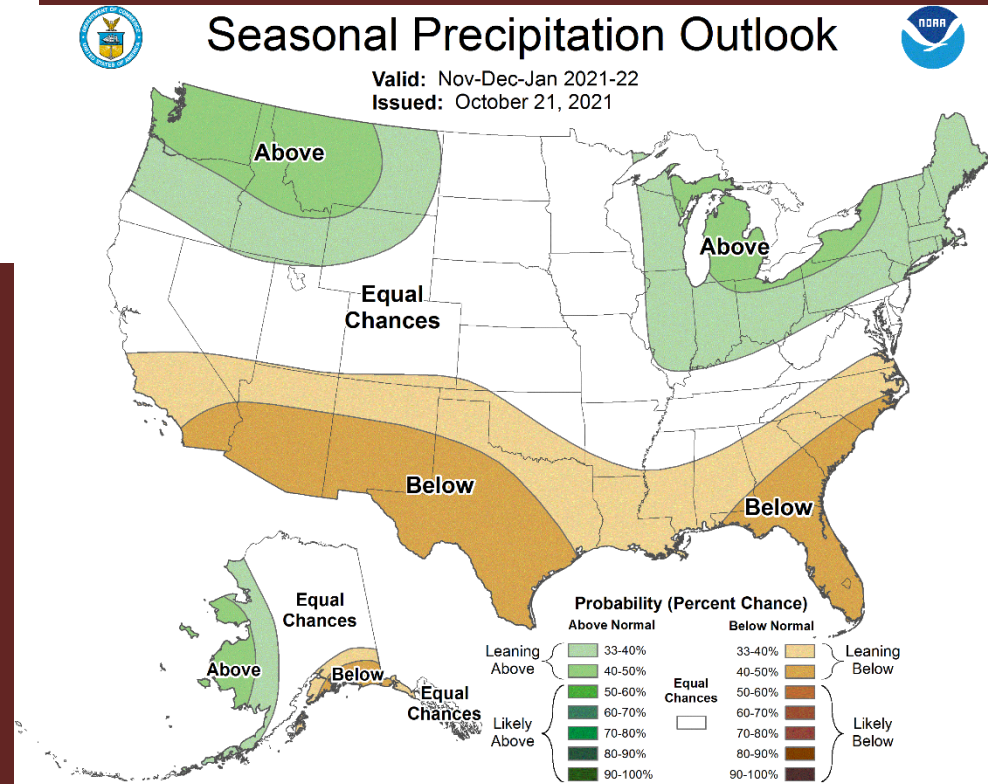
- Still some harvest to go – would add moisture to some wet areas, help Wisconsin and UP Mich.



November-January Outlook



- La Niña pattern.
- Slight chance warmer south/east.
- Slight chance wetter Great Lakes and far NW.

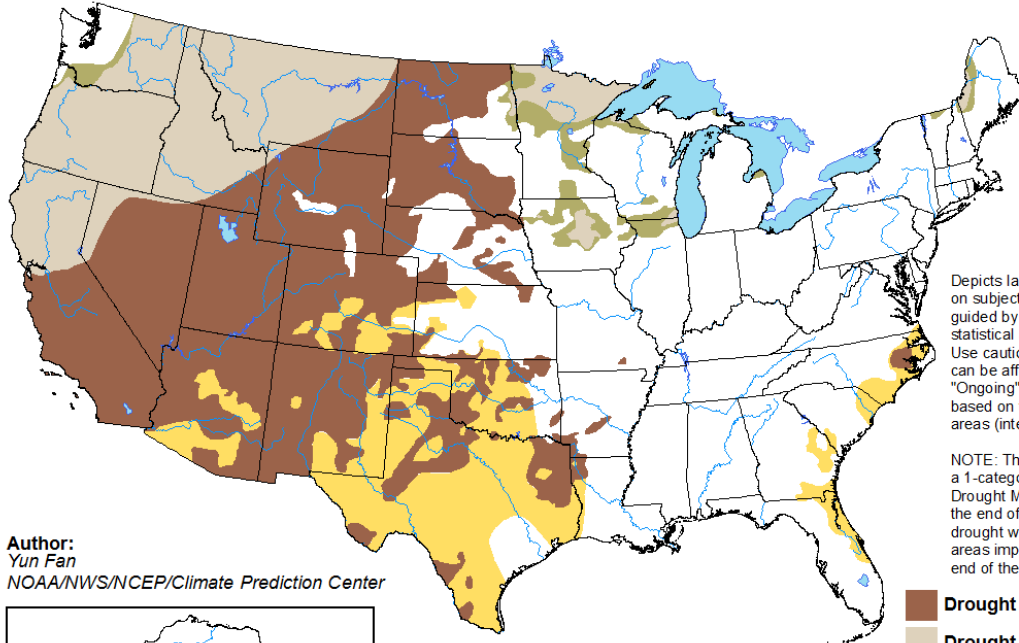


- Better chance precip east later winter.
- Could start causing more soil moisture problems for spring

Drought in the Midwest/Plains

U.S. Monthly Drought Outlook Drought Tendency During the Valid Period

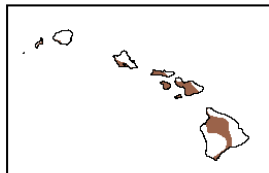
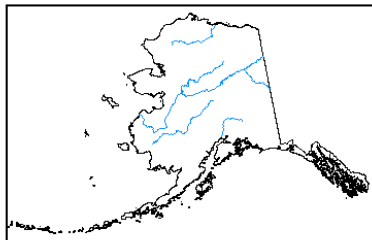
Valid for November 2021
Released October 31, 2021







Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

Author:
Yun Fan
NOAA/NWS/NCEP/Climate Prediction Center



-  Drought persists
-  Drought remains but improves
-  Drought removal likely
-  Drought development likely



<http://go.usa.gov/3eZGd>

- Monthly outlook for November 2021
- Drought continues with no change in the plains
- Could worsen south with warm/dry possible
- Some improvements possible across parts of Midwest with expected precipitation – and from precip already fallen included in this week's map.

Summary

- Crop harvest continuing quickly-slowed by recent rains.
- Soil moisture recovered to too wet in places-more needed in some.
- La Niña impacting winter outlooks.
 - Could lead to excess wetness east.
 - More active could help dry northern areas.

Next MAC-T Monthly Call

Next Call
December or ???