

MAC-T Monthly Call

Midwest Agriculture and Climate Team

Nov 6, 2019

For more information:

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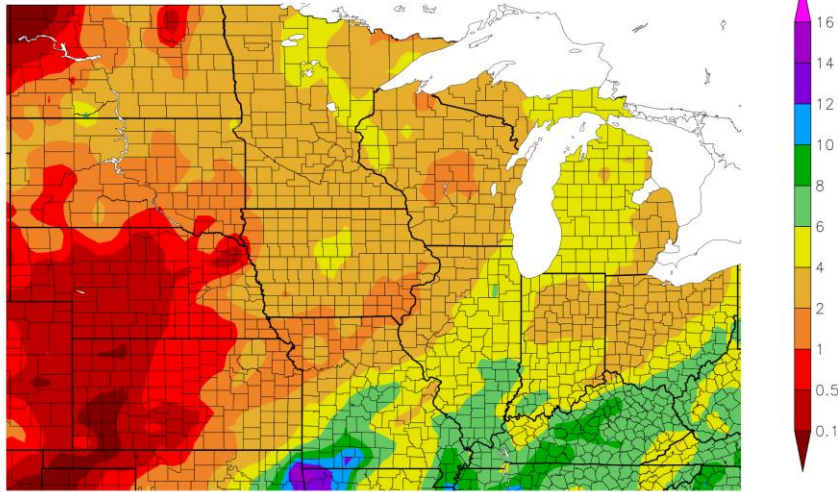
Charlene.Felkley@ars.usda.gov



Midwest Climate Hub

U.S. DEPARTMENT OF AGRICULTURE

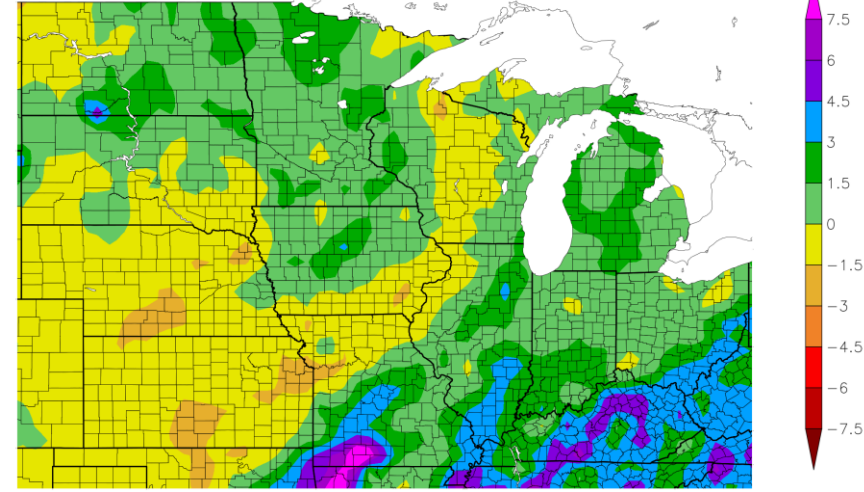
Precipitation (in)
10/5/2019 – 11/3/2019



Generated 11/4/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Precipitation (in)
10/5/2019 – 11/3/2019

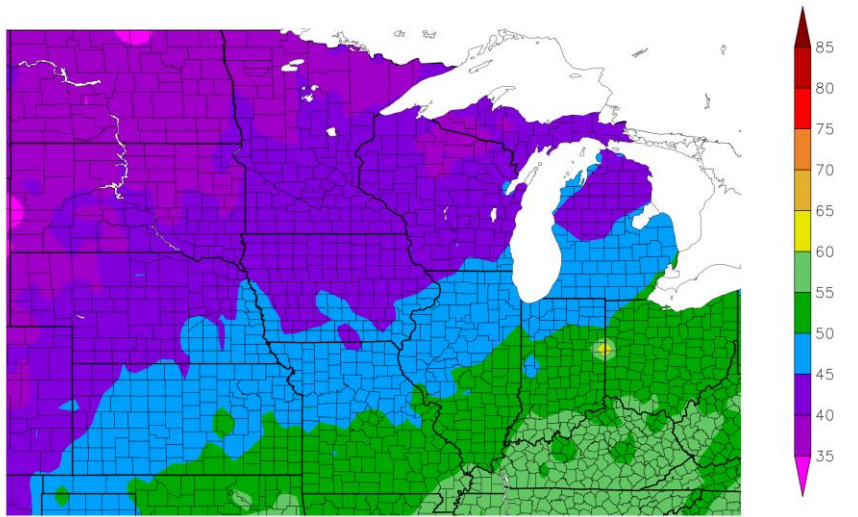


Generated 11/4/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Recent precipitation has had some good news for the region. Overall dryness in the plains/parts is MO/IA has allowed some harvest progress.
- Wetness in eastern Corn Belt has helped overcome dryness

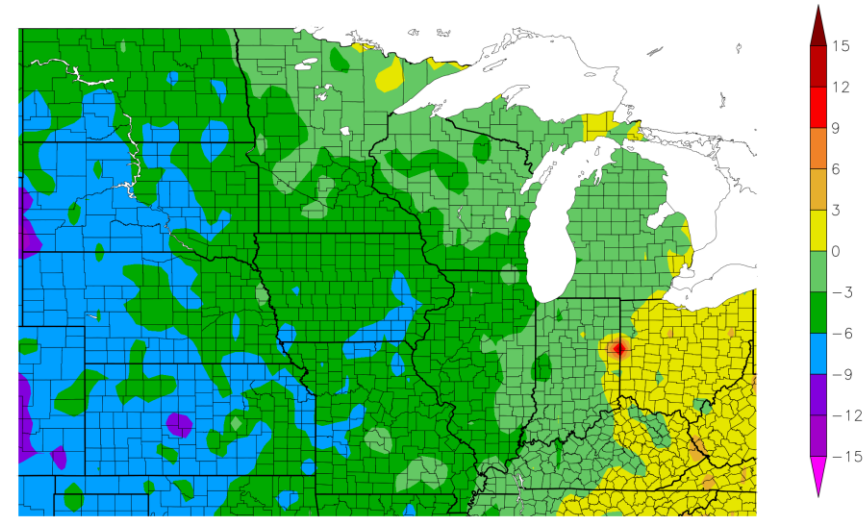
Temperature (F)
10/5/2019 – 11/3/2019



Generated 11/4/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Temperature (F)
10/5/2019 – 11/3/2019



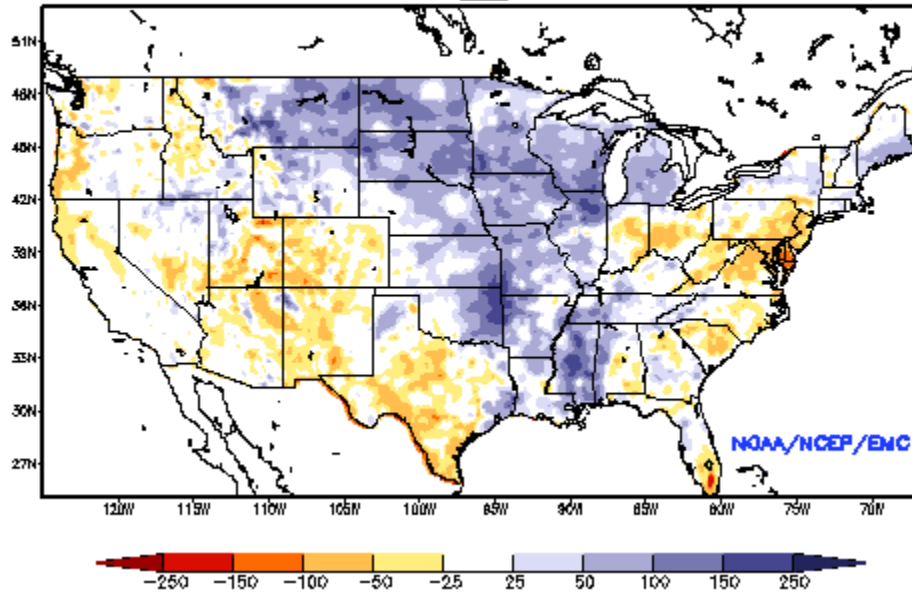
Generated 11/4/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Cold has become pervasive over the region.
- Colder than average everywhere except the far east. More than 6°f below in the west to slightly above in Ohio and south.

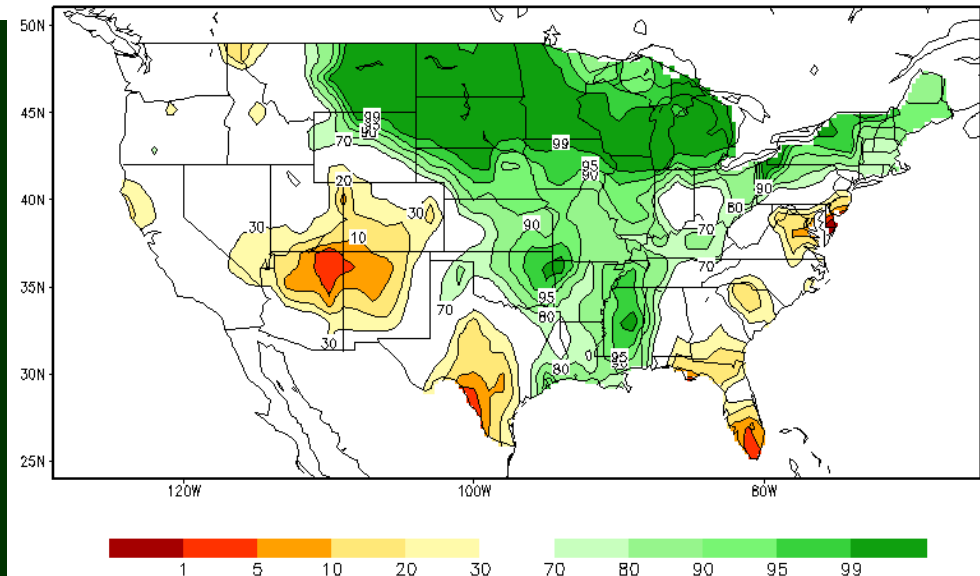
Soil Moisture

Ensemble-Mean - Current Total Column Soil Moisture Anomaly (mm)
NCEP NLDAS Products Valid: OCT 31, 2019



- No real surprises on soil moisture. Several inches above avg. most of Corn Belt (except east).
- This has concerns for spring flooding and field work.

Calculated Soil Moisture Ranking Percentile
NOV 04, 2019

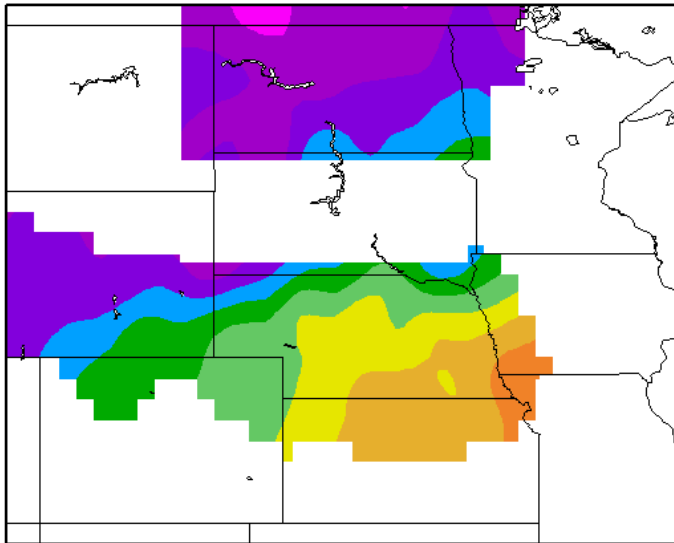


<http://www.emc.ncep.noaa.gov/mmb/nldas/drought/>

http://www.cpc.ncep.noaa.gov/products/Soilmst_Monitoring/US/Soilmst/Soilmst.shtml#

Soil Temperature

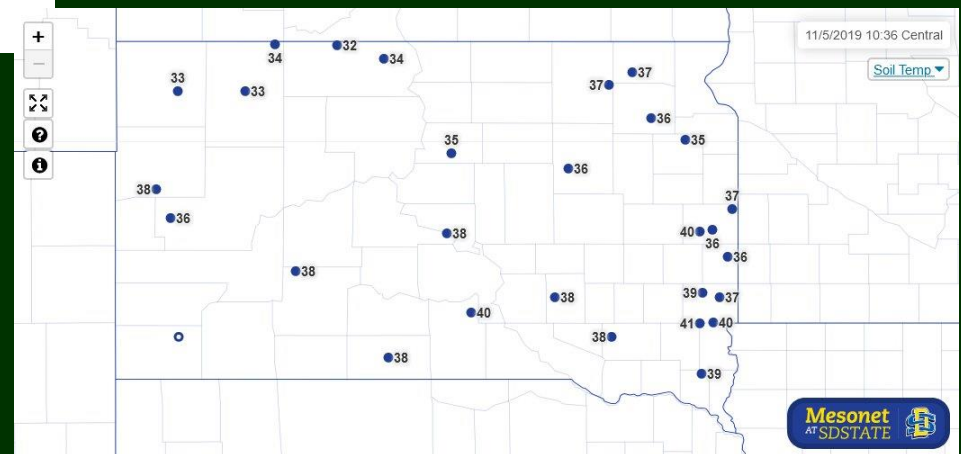
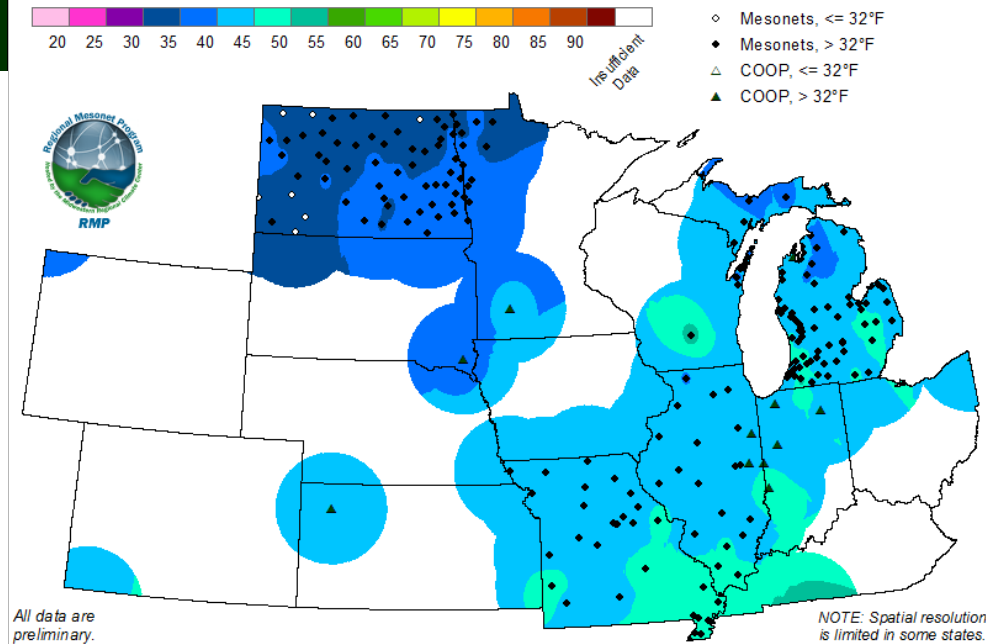
Soil Temperature (F at 4 inches)
11/4/2019 - 11/4/2019



High Plains Regional Climate Center
Generated 11/5/2019 using AWDN data.

- Soil temperatures into the 30s NW. Some frozen in Dakotas.
- Mostly 40s across Corn Belt.

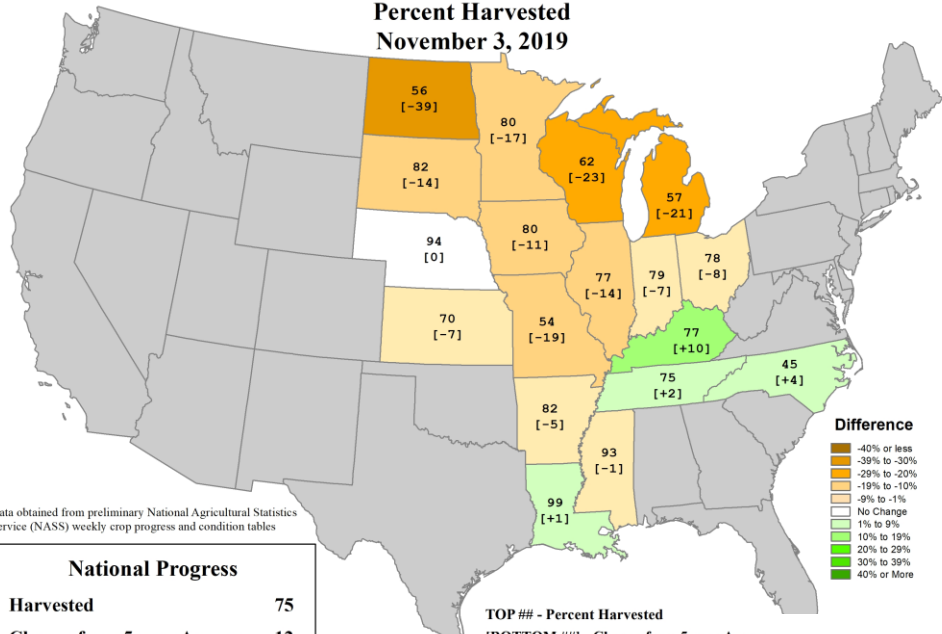
4" Soil Temperature (°F) (Bare) 24-Hour Period Through 11/3/2019



Mesonet
AT SDSTATE

U.S. Soybeans Progress

Percent Harvested
November 3, 2019



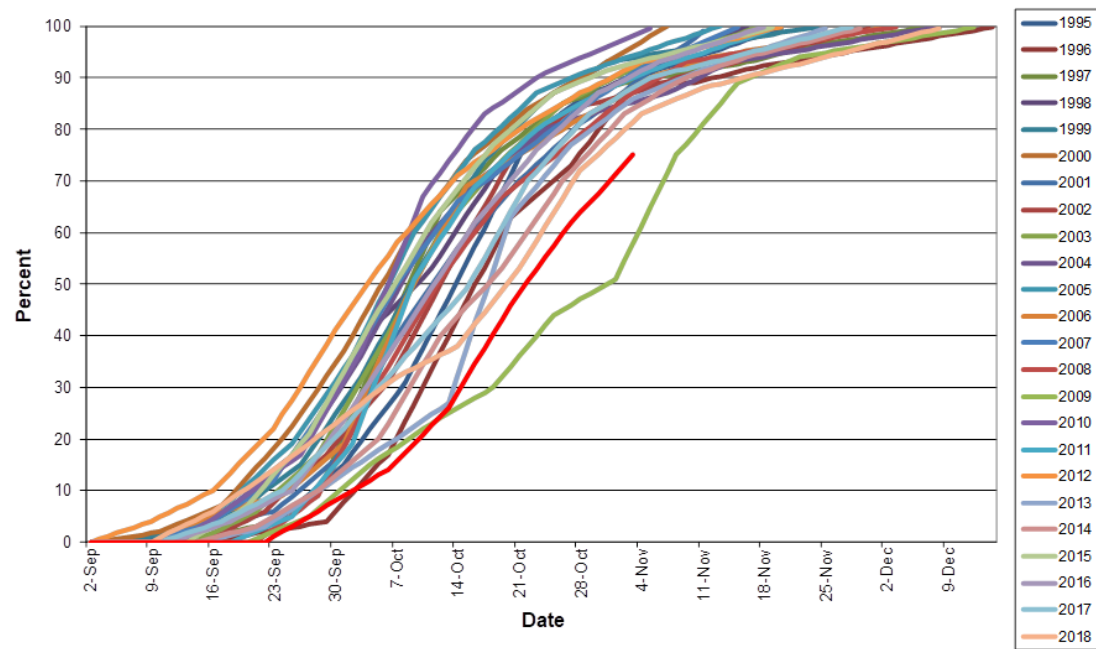
Data obtained from preliminary National Agricultural Statistics Service (NASS) weekly crop progress and condition tables

National Progress	
Harvested	75
Change from 5-year Average	-12

TOP ## - Percent Harvested
[BOTTOM ##] - Change from 5-year Average

USDA NASS Crop Progress Soybean

U.S. SOYBEANS: Percent Harvested



Based on NASS crop progress data.

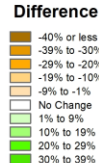
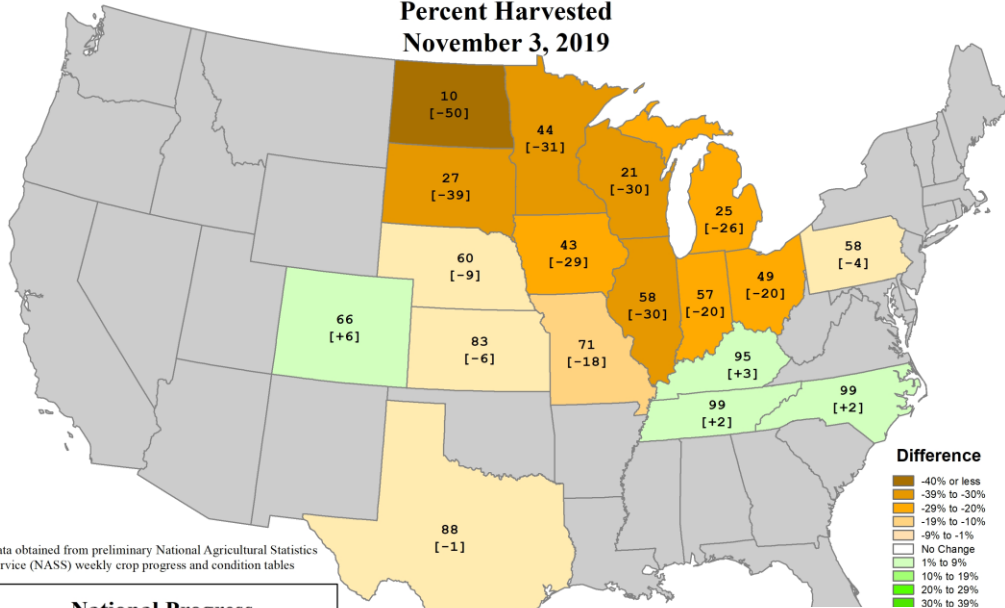
Soybean harvested nationally – 75% (12% behind avg.)

Mixed but mostly worst north.

2nd slowest harvest behind 2009.

U.S. Corn Progress

Percent Harvested
November 3, 2019



Data obtained from preliminary National Agricultural Statistics Service (NASS) weekly crop progress and condition tables

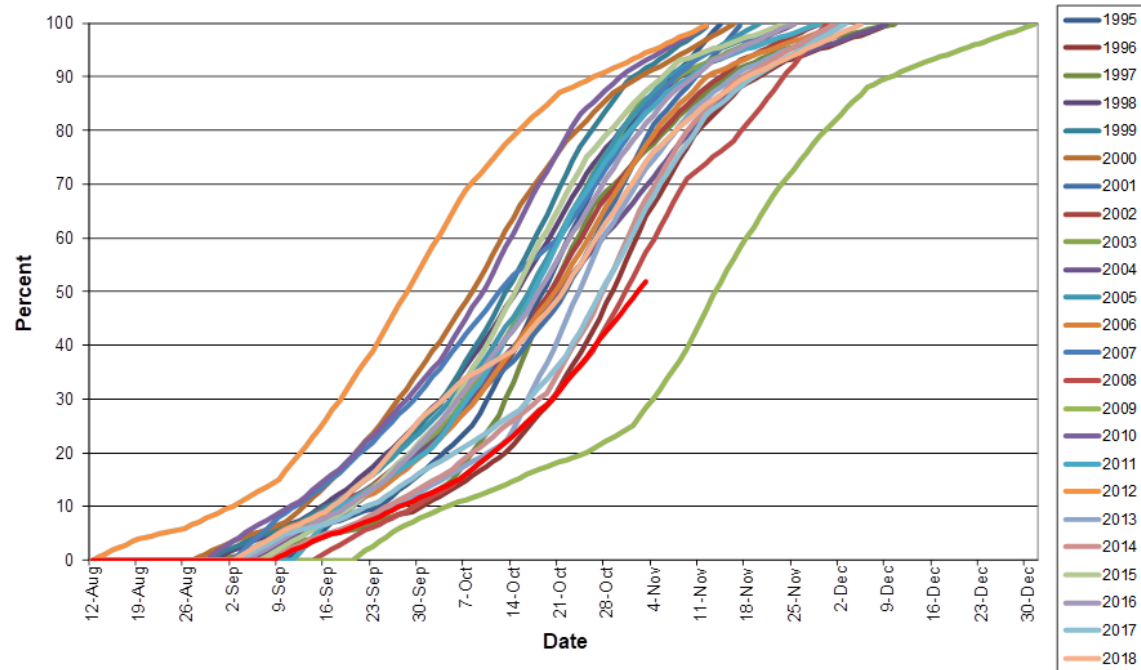
National Progress

Harvested	52
Change from 5-year Average	-23

TOP ## - Percent Harvested
[BOTTOM ##] - Change from

USDA NASS Crop Progress Corn

U.S. CORN: Percent Harvested



Corn harvested nationally –
52% (23% behind avg.)

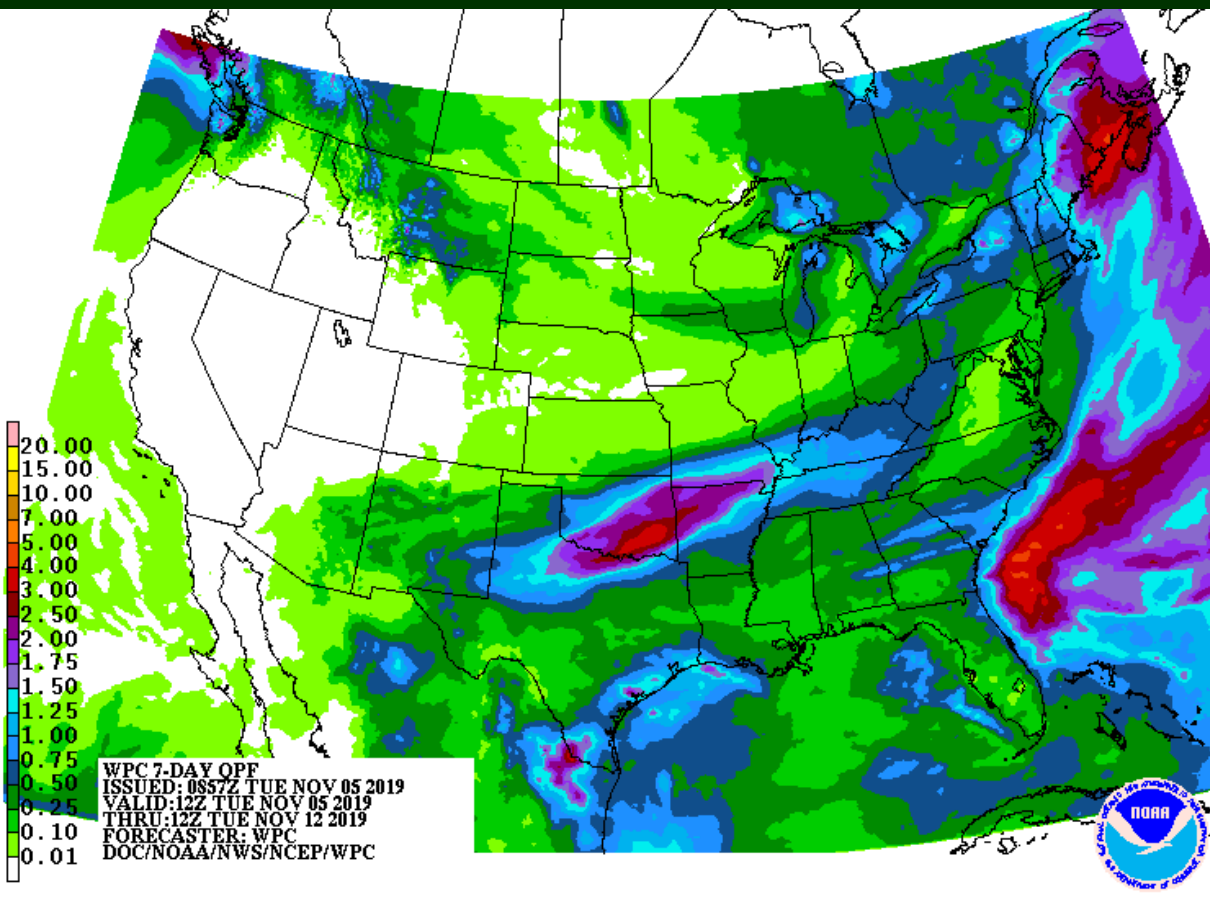
Clearly worst north –
delayed maturity and wet
conditions.

2nd slowest harvest behind
2009.

Assorted AG Issues

- Harvest progressing decently though still well behind.
- Recent dryness has helped in some areas. Wetter conditions in the north particularly may require frozen soils before harvest. Or may not be able to harvest.
- Cold temps have also been a benefit to easing toxicity/disease issues.
- Soil temps in the 30s Dakotas to mostly 40s across the Corn Belt. Some at freezing western Dakotas.
- Wet soils likely to carry over to spring. Also, increased winter precip chances would also add to potential flood issues.

1-7 Day Precip

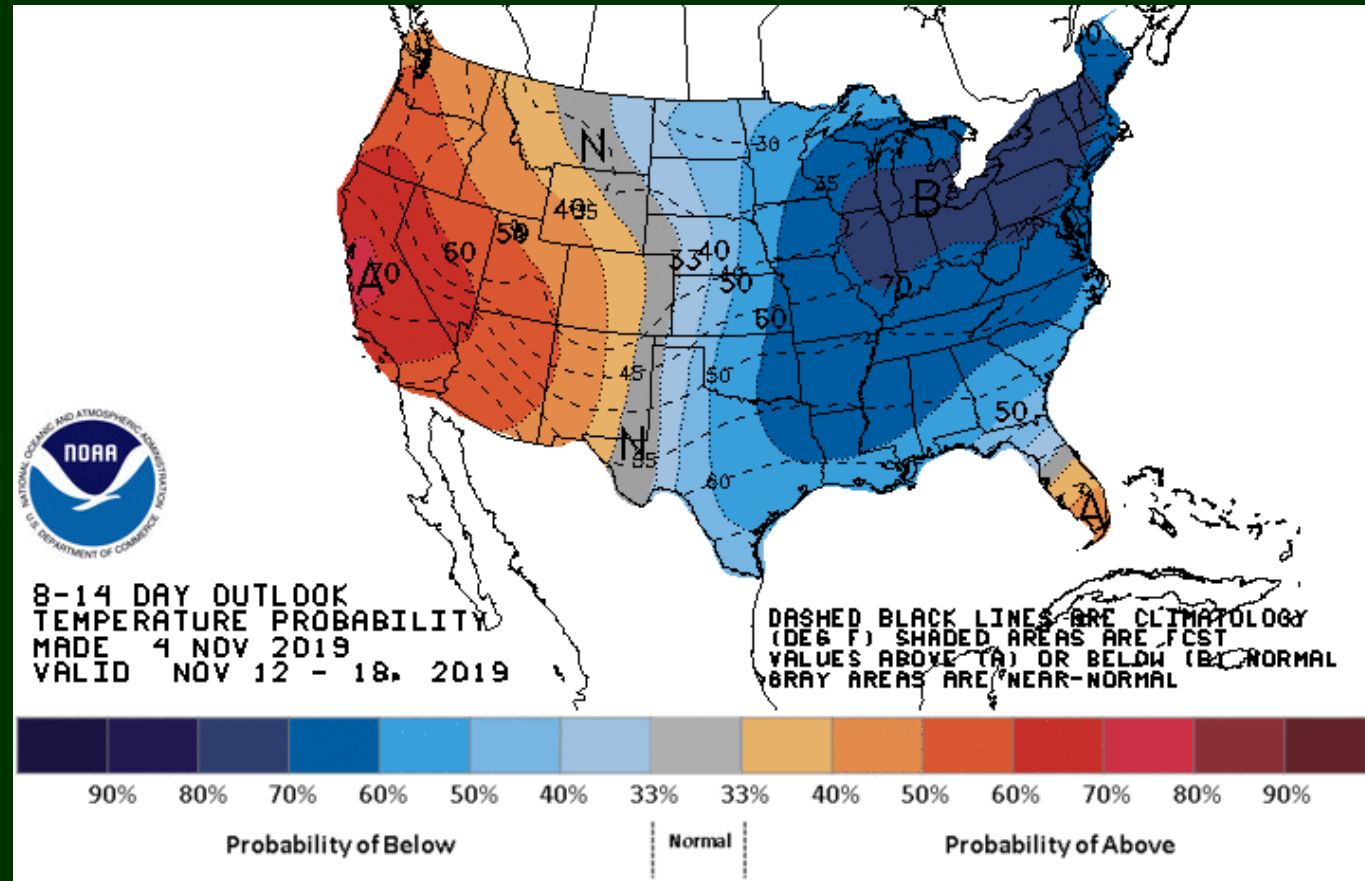


Mostly light precip except far south.
Northern band will fall as snow.

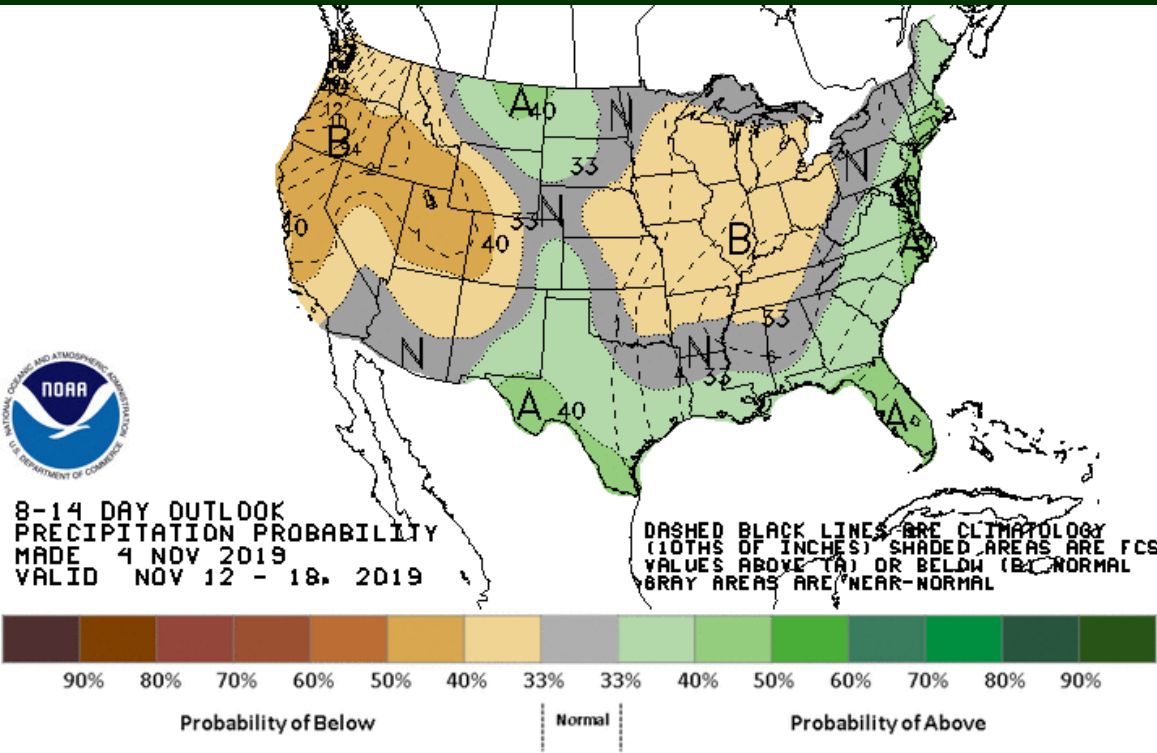
Mostly light overall – better news.

Temperature Outlook

- Quite likely colder than average into mid-November.
- Lesser chance further west.



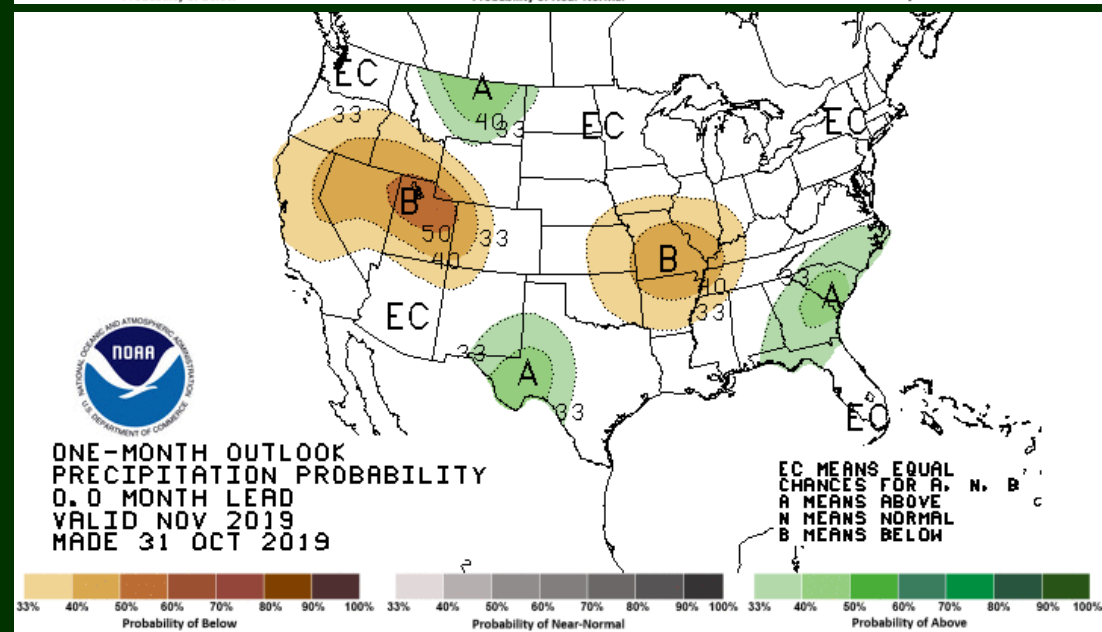
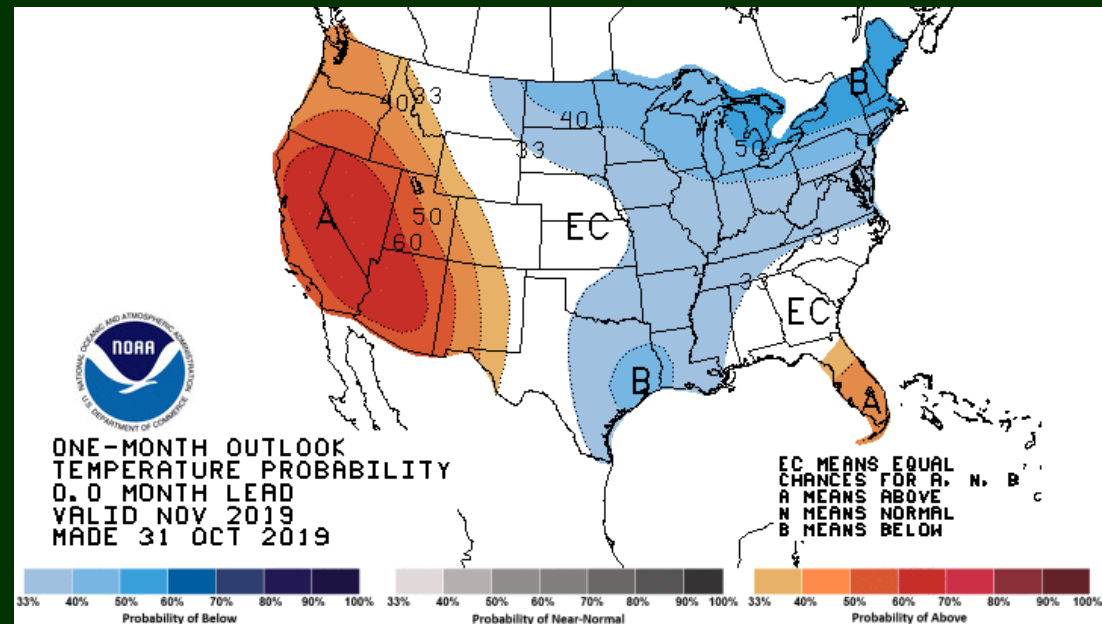
Precipitation Outlook



- Mostly slightly below avg. chances for precip.
- Slightly higher far northern plains.
- Will see lake effects start to set in with cold outbreaks.

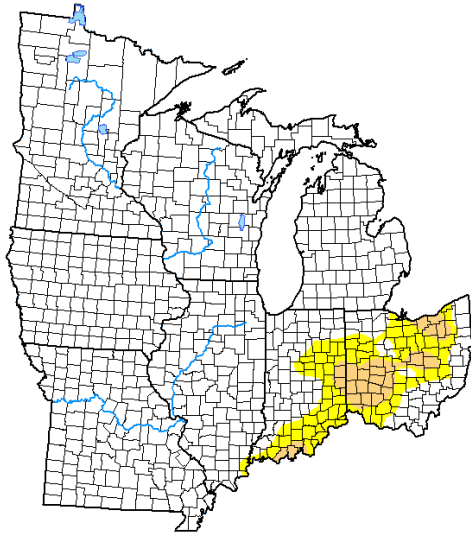
1-Month Outlook

- Early month cold seems to give way later in the month to more moderate temps. Likely not enough to get the month above avg. after cold start.
- Again not much on the precip side, drier likely centered on Missouri and maybe wetter in Montana.



Drought in the Midwest

U.S. Drought Monitor USDA Midwest Climate Hub



October 29, 2019
(Released Thursday, Oct. 31, 2019)
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	91.03	8.97	2.78	0.00	0.00	0.00
Last Week 10-22-2019	87.46	12.54	4.70	0.26	0.00	0.00
3 Months Ago 07-30-2019	91.26	8.74	0.00	0.00	0.00	0.00
Start of Calendar Year 01-01-2019	99.21	0.79	0.00	0.00	0.00	0.00
Start of Water Year 10-01-2019	80.58	19.42	4.98	0.39	0.00	0.00
One Year Ago 10-30-2018	93.91	6.09	0.16	0.00	0.00	0.00

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. See accompanying text summary for forecast statements.

Author:

David Simeral
Western Regional Climate Center



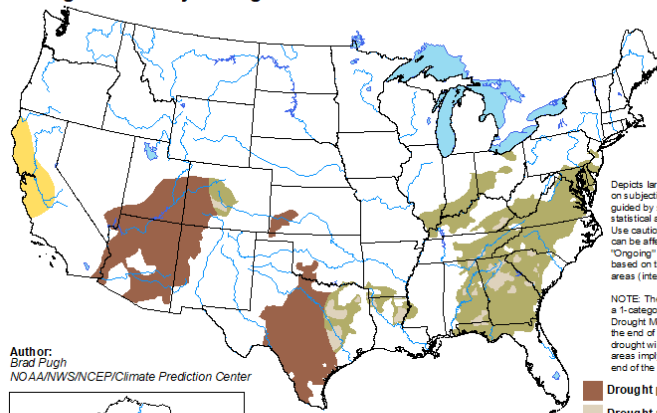
droughtmonitor.unl.edu

On this week's map, one-category improvements were made in areas of Severe Drought (D2) and Moderate Drought (D1) in Indiana and Kentucky in response to precipitation accumulations ranging from 1-to-3 inches. According to the USGS, streamflows are running at normal to well above normal levels across nearly the entire region. According to the USDA for the week ending October 27th, the percent of subsoil by state rated short to very short was as follows: Minnesota 1%, Iowa 2%, Missouri 3%, Wisconsin 0%, Illinois 12%, Michigan 4%, Indiana 39%, Ohio 43%, and Kentucky 49%. For the week, average temperatures were mainly near normal to slightly above normal across much of Indiana, Kentucky, and Ohio, while further west in the region temperatures were 4-to-8 degrees below normal.

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

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

Valid for October 17, 2019 - January 31, 2020
Released October 17, 2019



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).

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

Author:
Brad Pugh
NOAA/NWS/NCEP/Climate Prediction Center

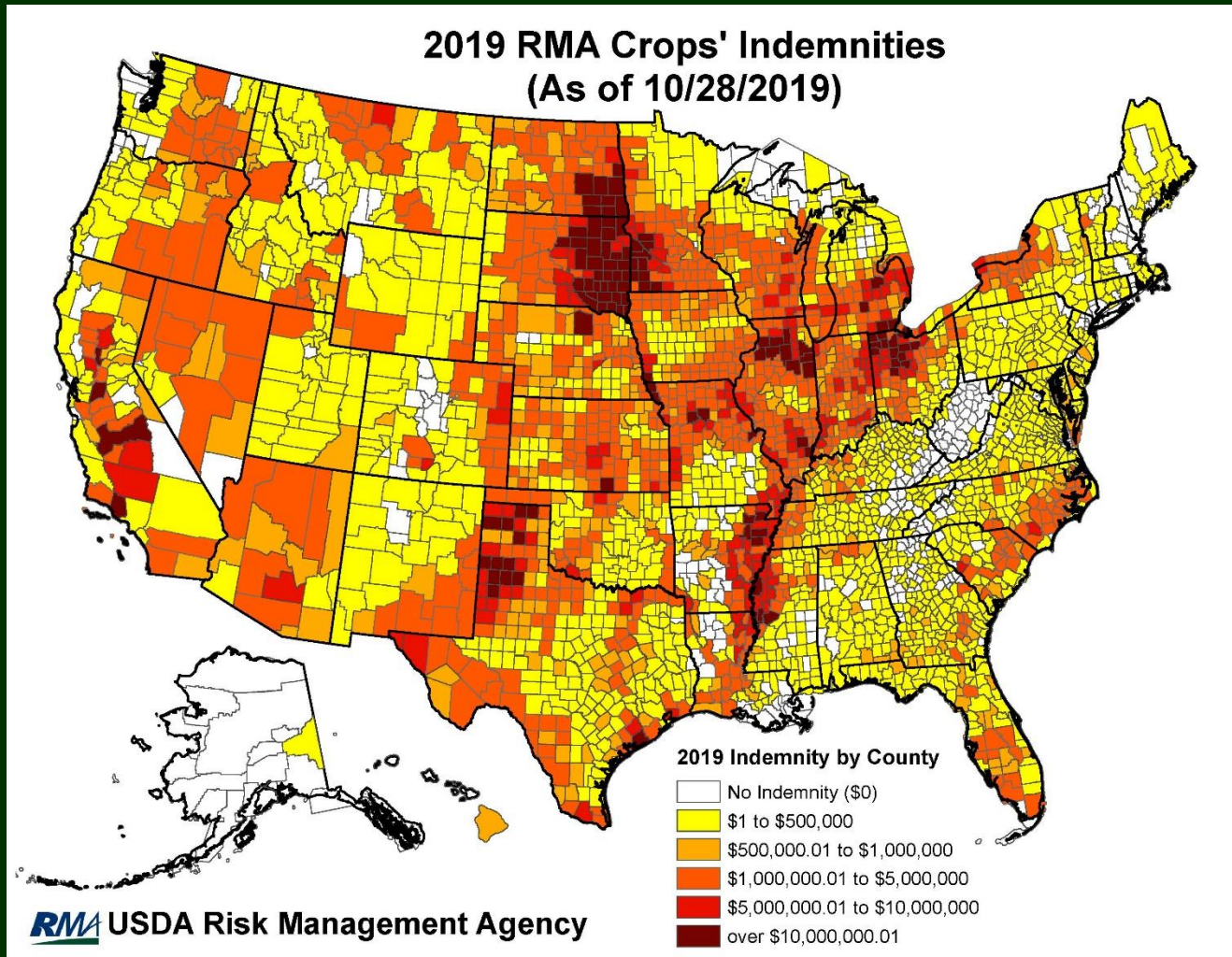


<http://go.usa.gov/3eZ73>

Summary

- Harvest progress will continue at moderate speed – some may have to wait for frozen soils/spring.
- Cold into mid-November with some later month recovery possible.
- Precip chances not too serious currently.
- Mixed chances for winter temperatures as a whole.
- Some concern about wetter than average winter possible.
- Overall winter outlook confidence is lower.

2019 Crop Indemnities (28 Oct.)



Next MAC-T Monthly Call

Next Call? In....



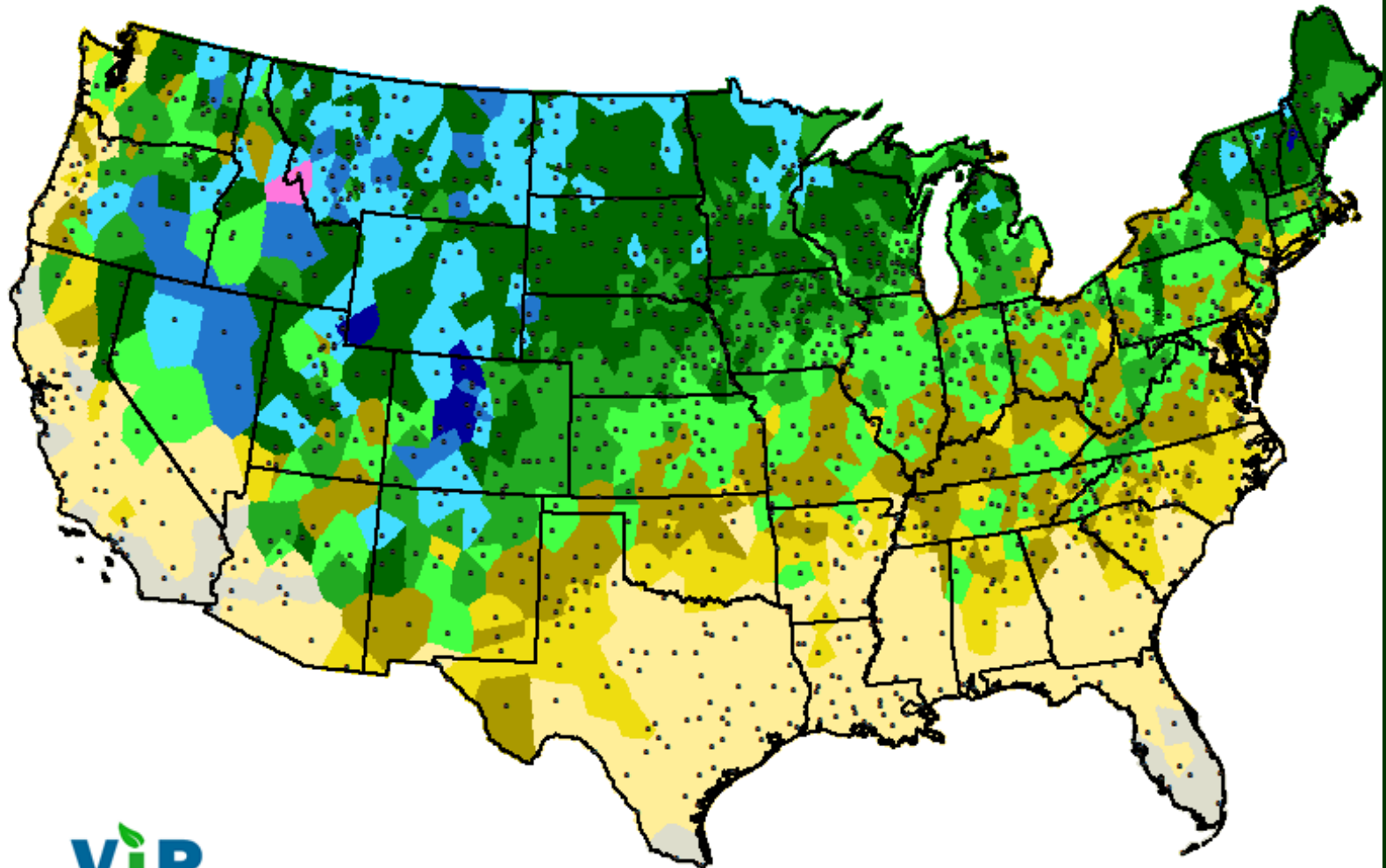
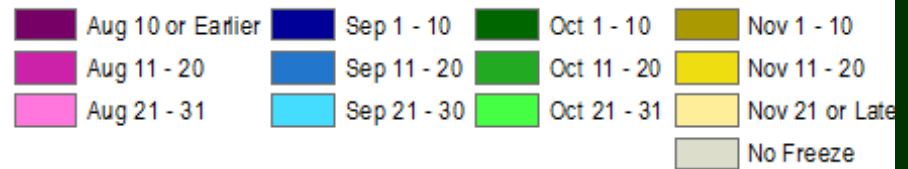
(Unless needed prior to)

Climatological Date of Median First 28°F Freeze

For years 1980-81 to 2009-10

Freeze year beginning July 1st

Median defined as the 50th Percentile

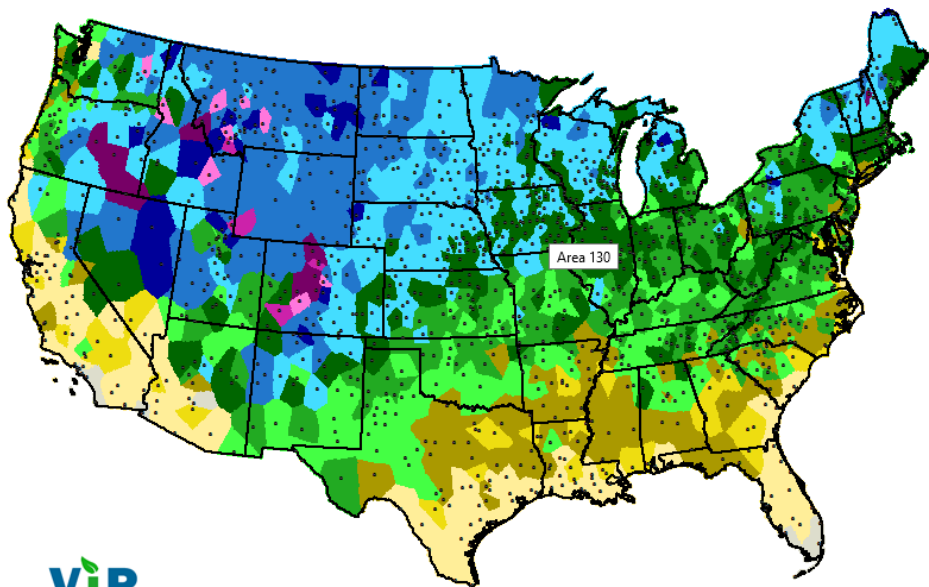
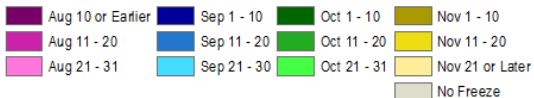


Climatological Date of Early First 28°F Freeze

For years 1980-81 to 2009-10

Freeze year beginning July 1st

Early defined as the 10th Percentile



Climatological Date of Late First 28°F Freeze

For years 1980-81 to 2009-10

Freeze year beginning July 1st

Late defined as the 90th Percentile

