

MAC-T Monthly Call

Midwest Agriculture and Climate Team

Oct 2, 2019

For more information:

Dennis.todey@ars.usda.gov

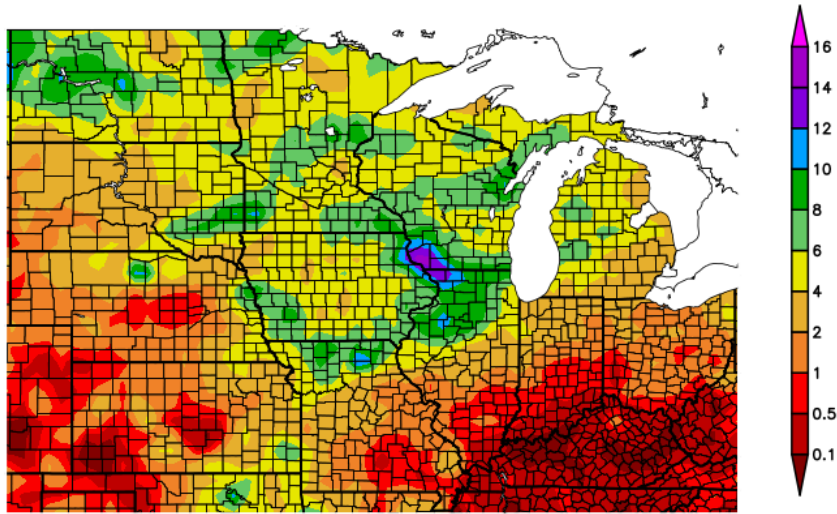
Charlene.Felkley@ars.usda.gov



Midwest Climate Hub

U.S. DEPARTMENT OF AGRICULTURE

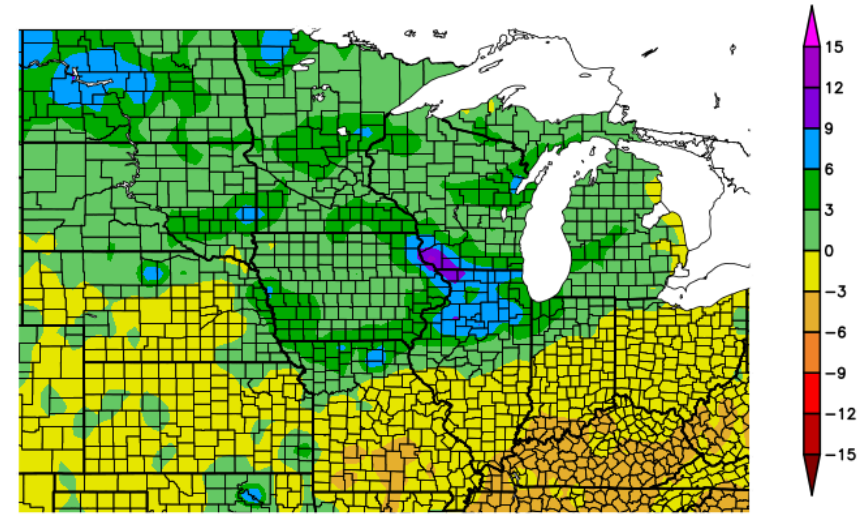
Precipitation (in)
9/1/2019 – 9/30/2019



Generated 10/1/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Precipitation (in)
9/1/2019 – 9/30/2019

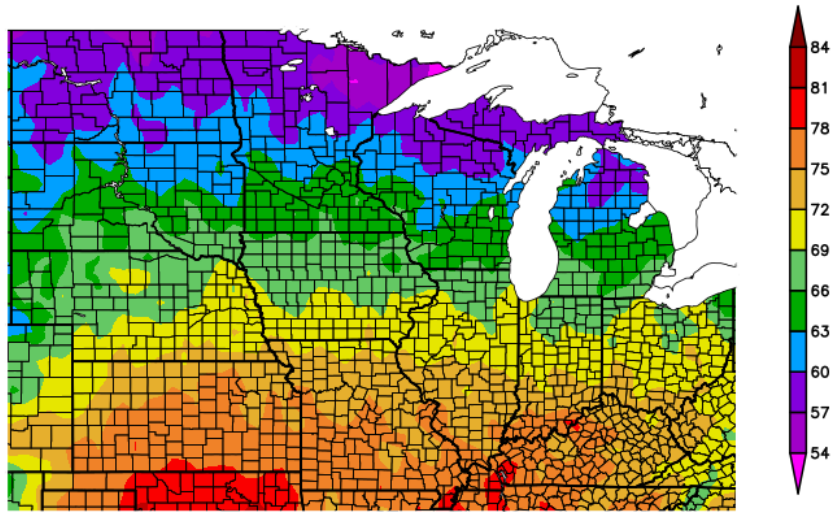


Generated 10/1/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Again a split in the region.
 - North and west mostly above average
 - East south well below – drought setting in.
- Up to 6”+ above average in some pockets
- More rain coming..... Some areas will continue to miss out.

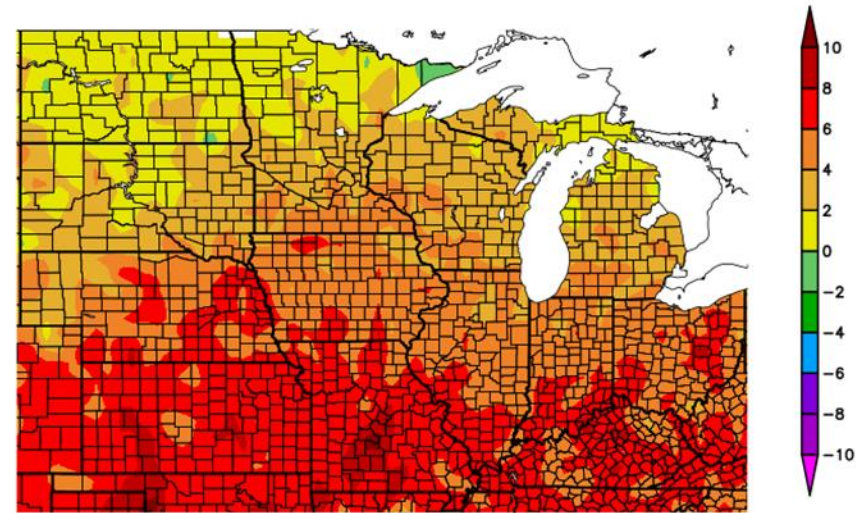
Temperature (F)
9/1/2019 – 9/30/2019



Generated 10/1/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Temperature (F)
9/1/2019 – 9/30/2019



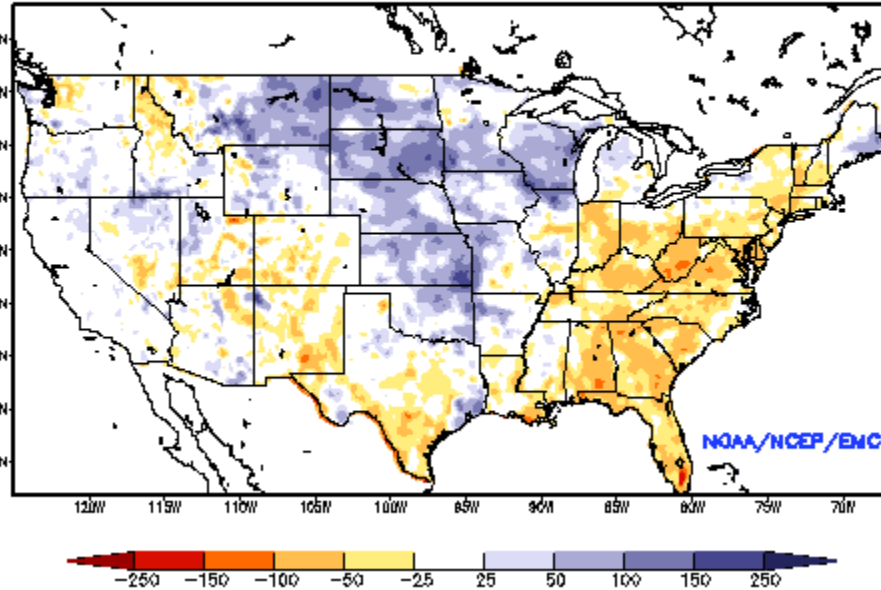
Generated 10/1/2019 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Warmer than average for September
 - Up to 8 F above in the south
 - Slightly above in the north
- Very welcomed situation for pushing crops to maturity

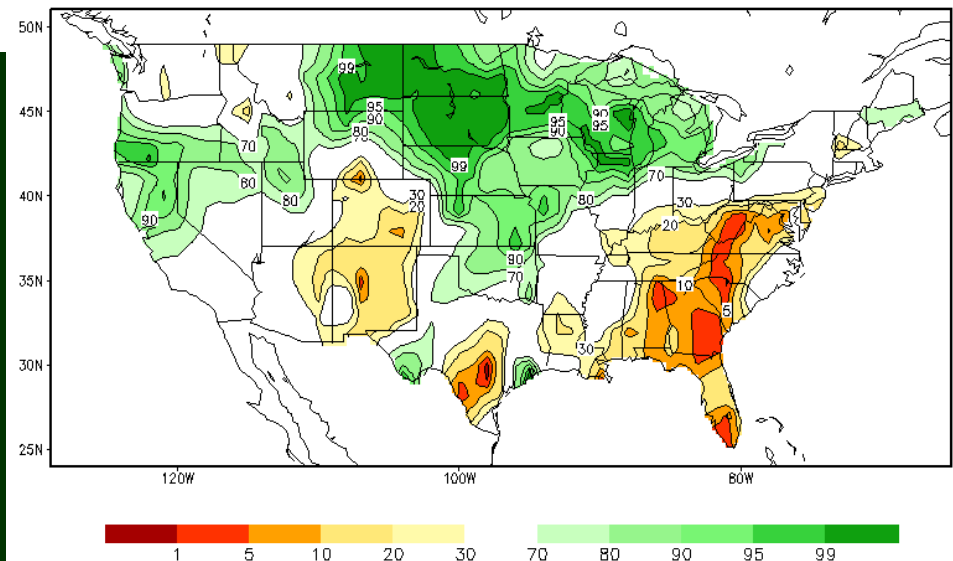
Soil Moisture

Ensemble-Mean - Current Total Column Soil Moisture Anomaly (mm)
NCEP NLDAS Products Valid: SEP 26, 2019



- Very wet soils (99th percentile in nrn plains. Somewhat wet to the south
- Drying out around the Ohio River and southward (fairly quickly).

Calculated Soil Moisture Ranking Percentile
SEP 30, 2019

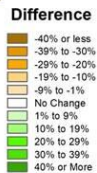
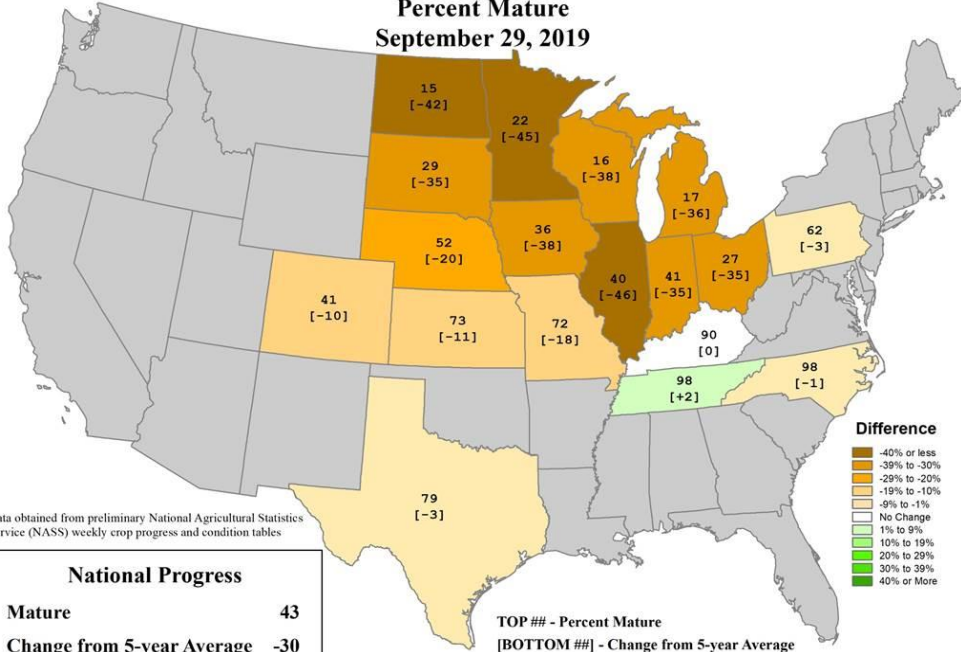


<http://www.emc.ncep.noaa.gov/mmb/nldas/drought/>

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

U.S. Corn Progress

Percent Mature
September 29, 2019



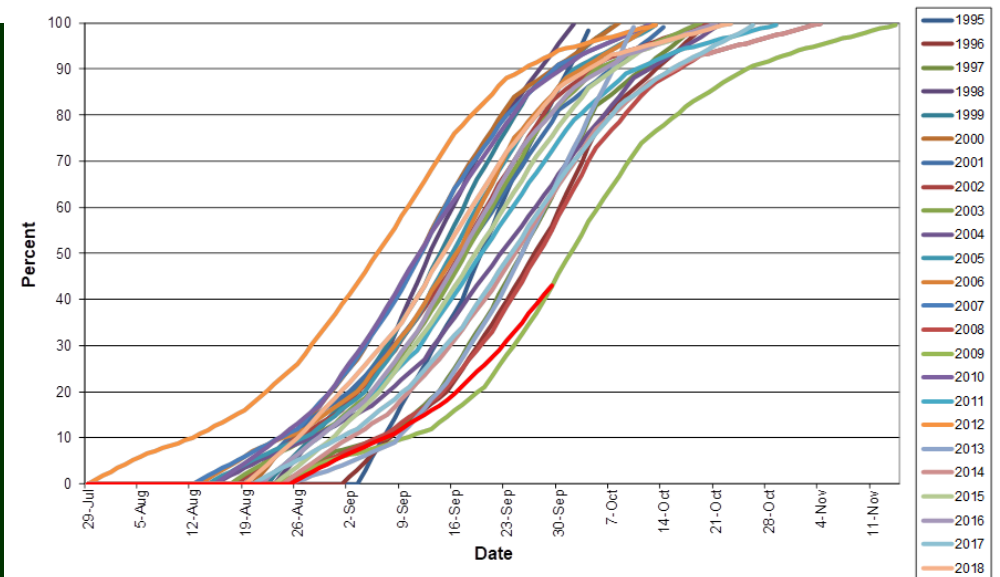
Data obtained from preliminary National Agricultural Statistics Service (NASS) weekly crop progress and condition tables

National Progress	
Mature	43
Change from 5-year Average	-30

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

USDA NASS Crop Progress (through September 29) Corn

U.S. CORN: Percent Mature



Based on NASS crop progress data.

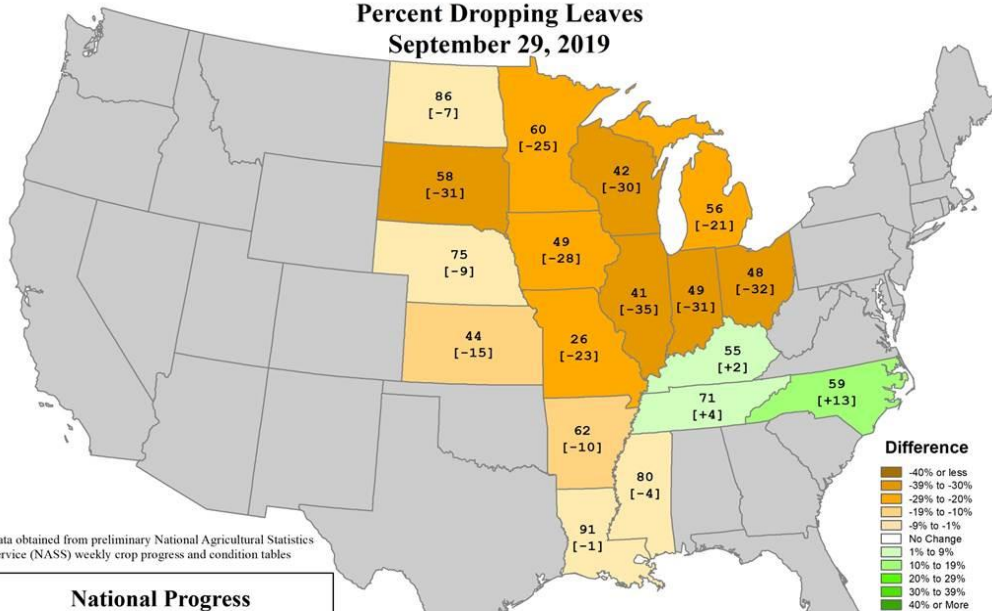
Corn mature – 43% nationally. 30% behind.

Corn neck and neck with 2009 for latest developing.

Large amount of corn at risk for freeze.
2019 bottom red line

U.S. Soybeans Progress

Percent Dropping Leaves
September 29, 2019



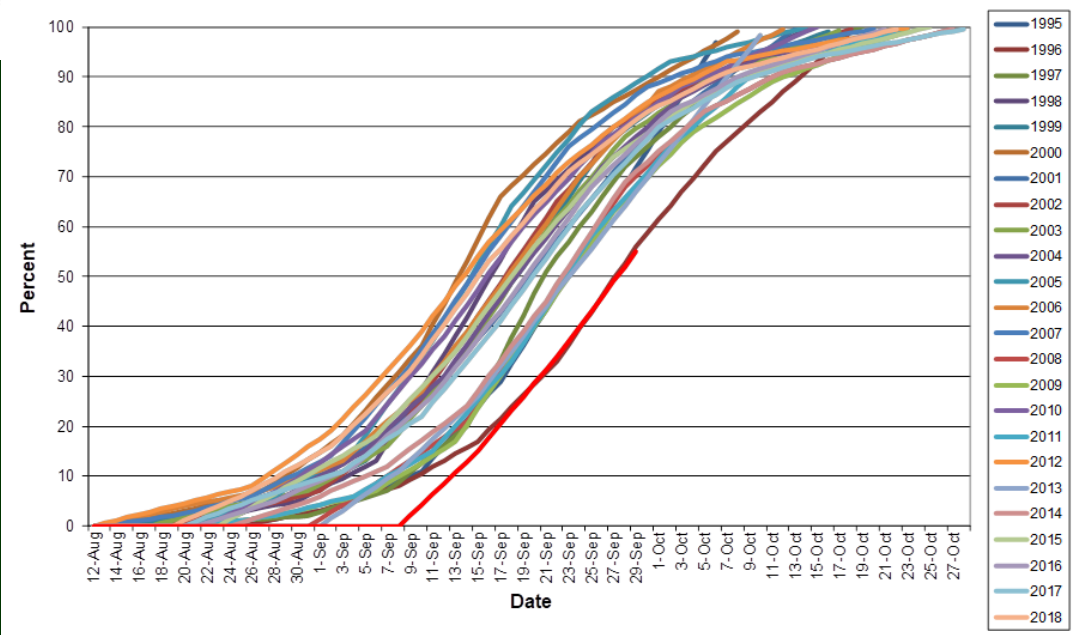
Data obtained from preliminary National Agricultural Statistics Service (NASS) weekly crop progress and condition tables

National Progress	
Dropping Leaves	55
Change from 5-year Average	-21

TOP## - Percent Dropping Leaves
[BOTTOM##] - Change from 5-year Av

USDA NASS Crop Progress (through September 29) Soybean

U.S. SOYBEANS: Percent Dropping leaves



Based on NASS crop progress data.

Beans dropping leaves – 55% nationally. 21% behind.

Beans neck and neck with 1996 for latest developing.

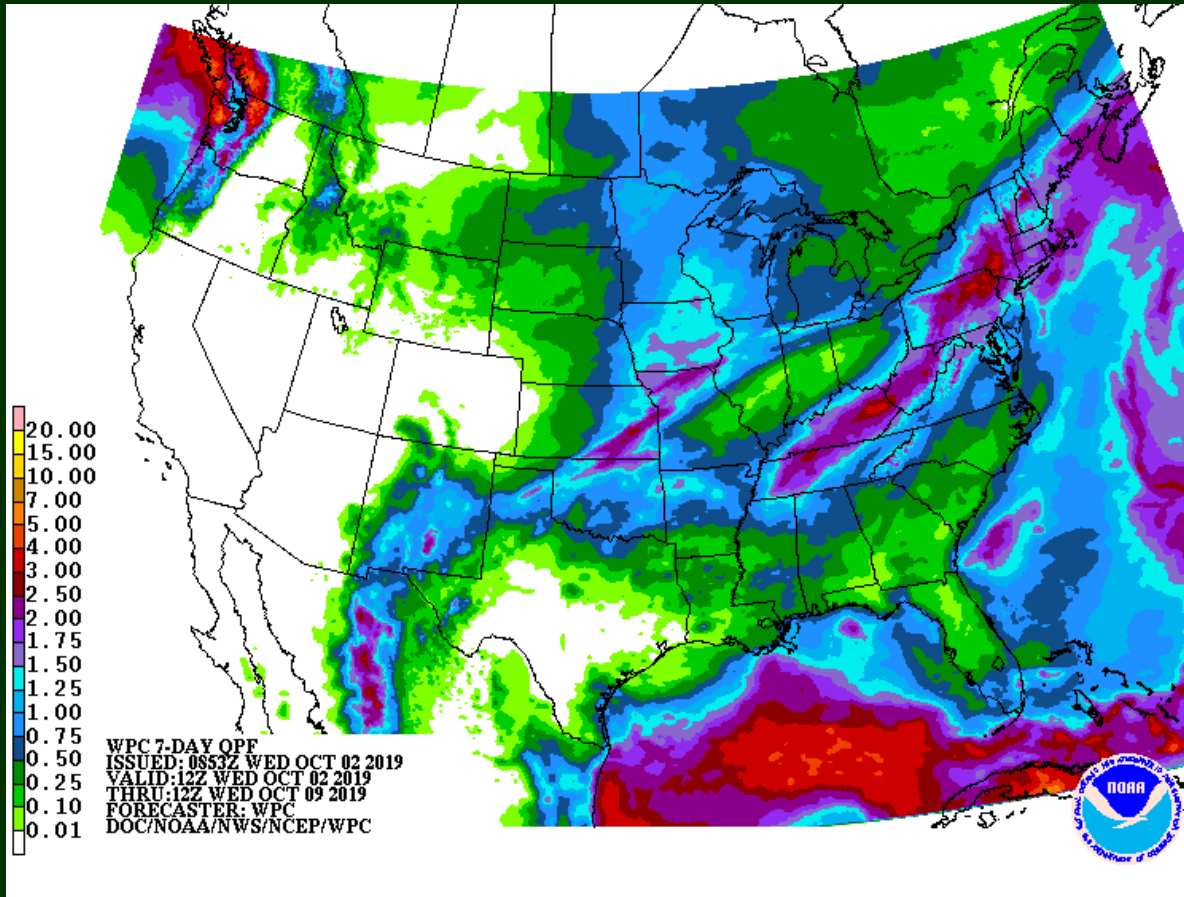
Beans also at risk for freeze. 2019 bottom red line

Assorted AG Issues

- Crop progressing – but still needs more time.
- Early yield reports are a little low
- Reports of disease issues in various states

- Soils wet or getting wet
- Harvest progress will slow – as will drydown

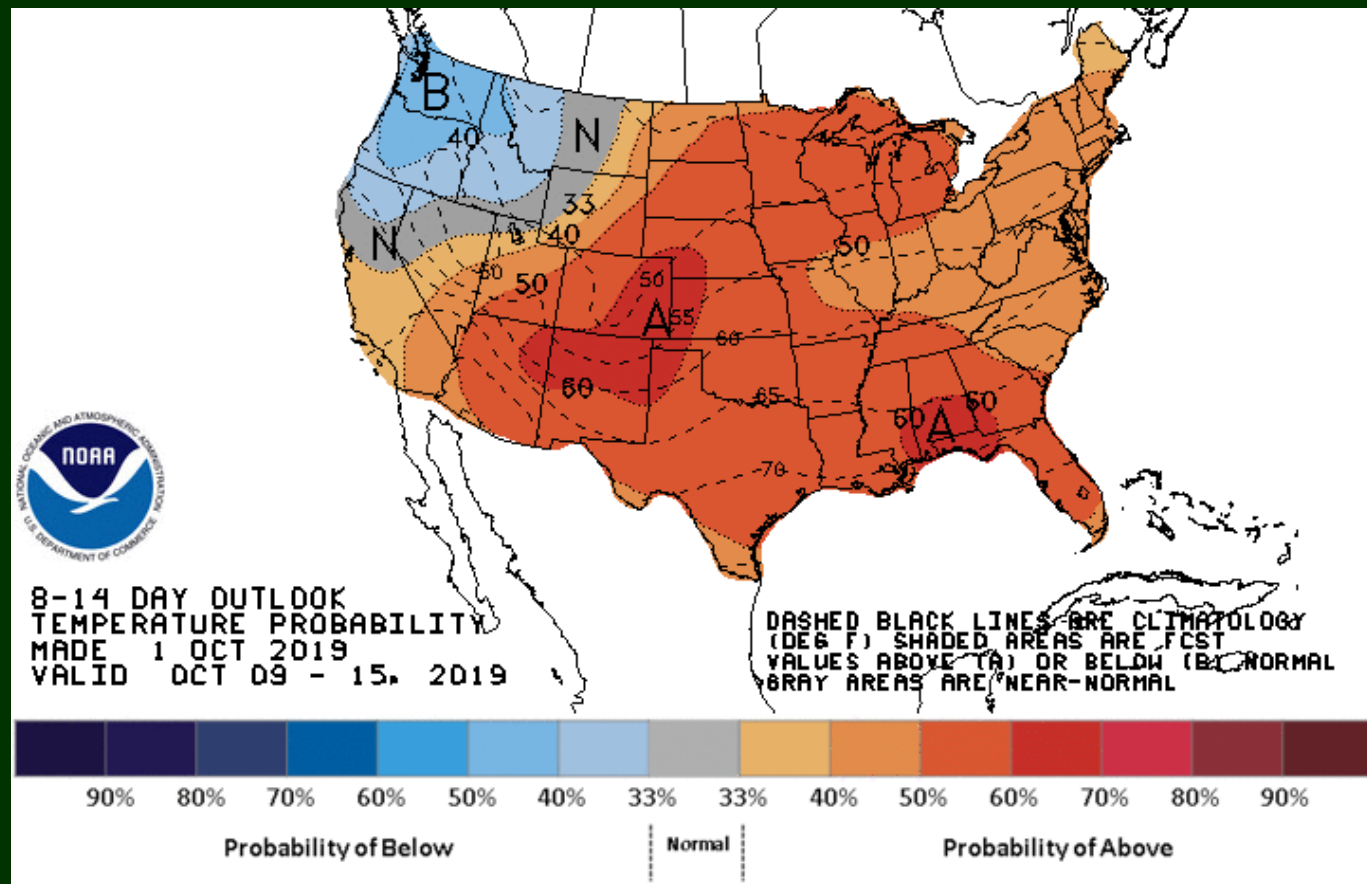
1-7 Day Precip



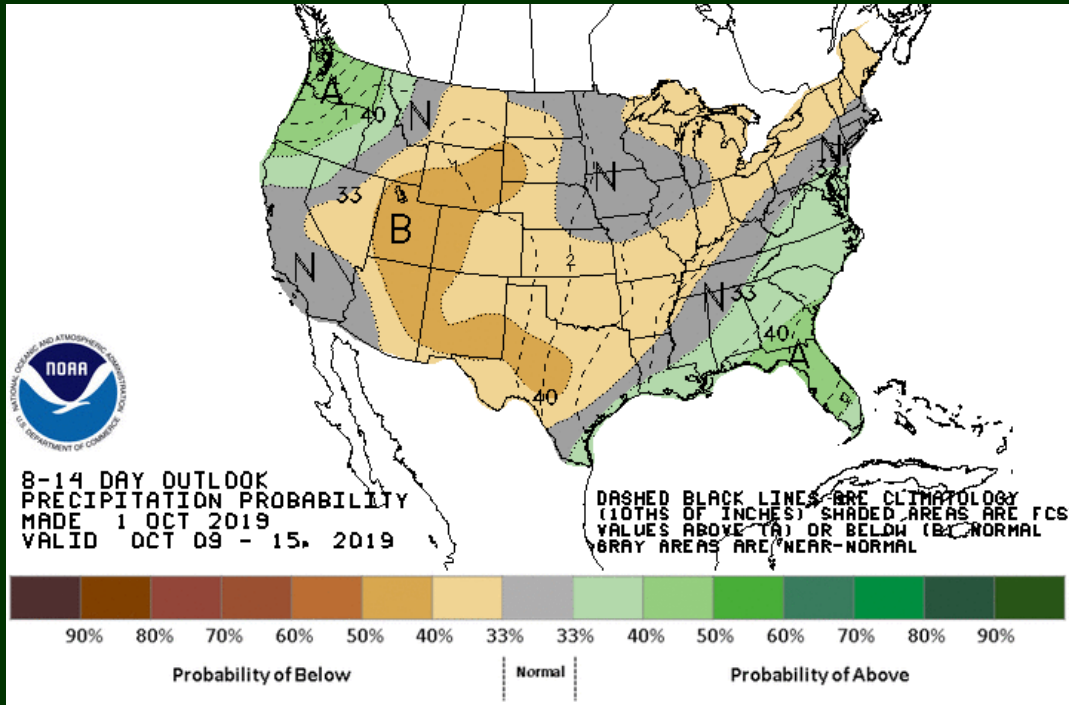
Rain continues, though amounts somewhat less.

Temperature Outlook

- Warmer than average slightly more likely through mid-October
- Again good news for crops



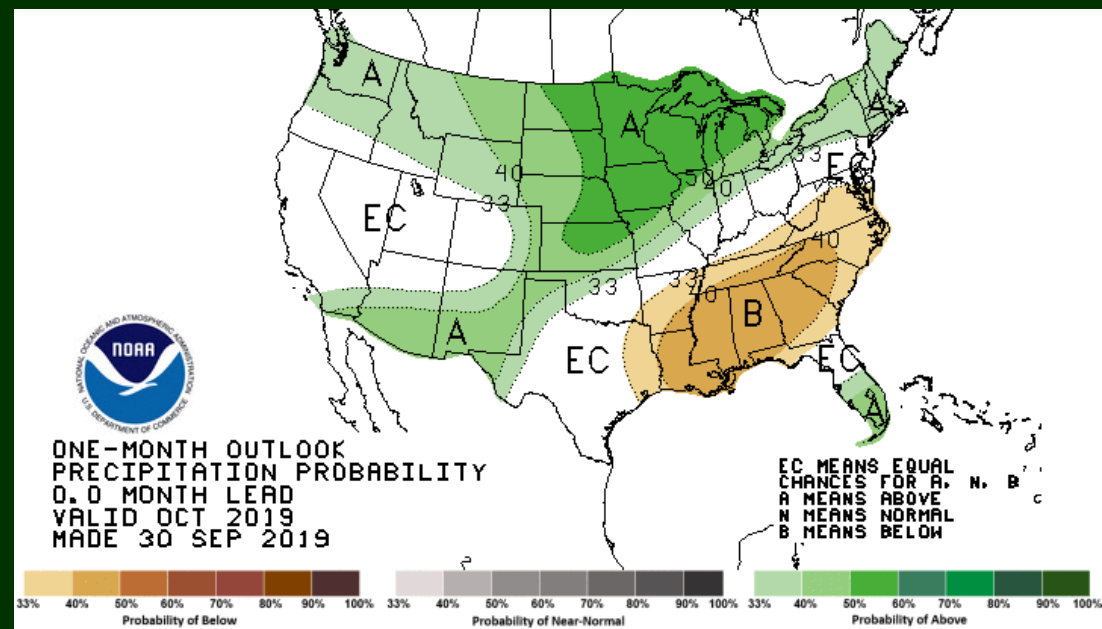
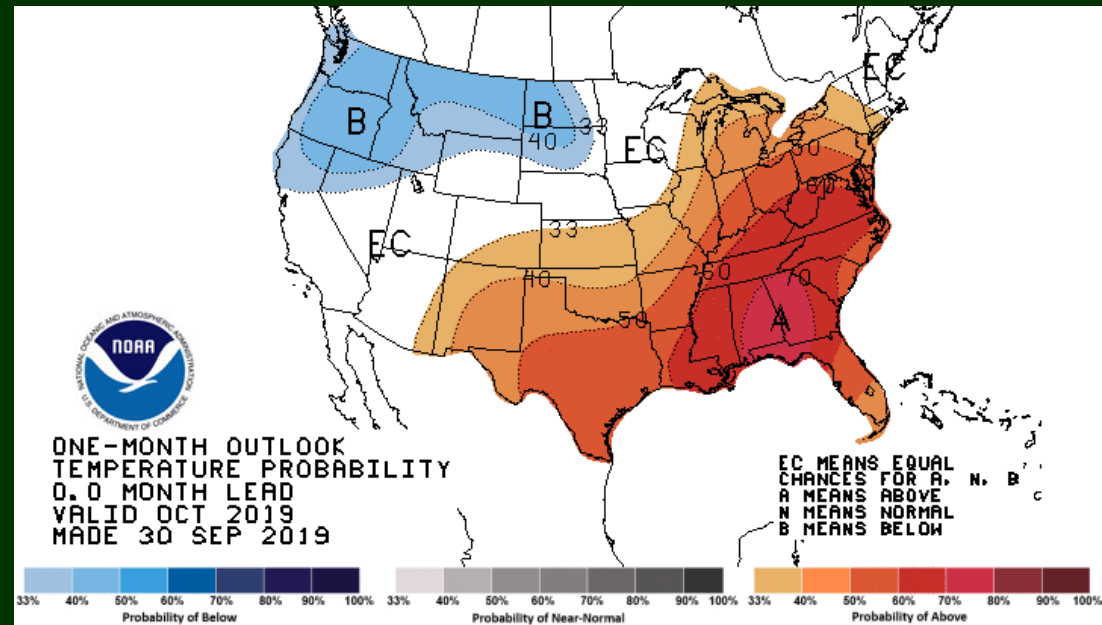
Precipitation Outlook



- Likely wetter than average into mid-October.
- Not as good news for crops.
- Overall soil wetness and fewer workable field days will be problems.
- Drydown also an issue.
- Updated map not as pessimistic on precip. 6-10 also leans dry

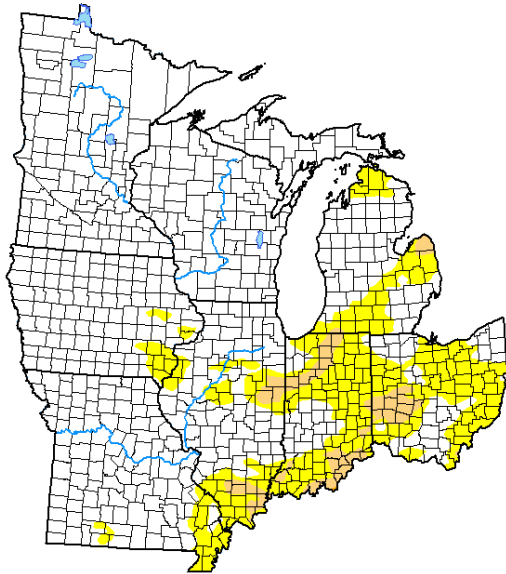
1-Month Outlook

- Wetter seems to be the more likely situation for the month.
- Equal chances on temperatures
- Again slow progress on harvest will likely be the issue.



Drought in the Midwest

U.S. Drought Monitor USDA Midwest Climate Hub



September 24, 2019
(Released Thursday, Sep. 26, 2019)
Valid 8 a.m. EDT

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	79.38	20.62	3.32	0.01	0.00	0.00
Last Week 09-17-2019	81.71	18.29	3.55	0.00	0.00	0.00
3 Months Ago 06-25-2019	96.77	3.23	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 09-25-2018	79.61	20.39	9.31	1.86	0.40	0.01
One Year Ago 09-25-2018	79.61	20.39	9.31	1.86	0.40	0.01

Intensity:
 None (White) D2 Severe Drought (Orange)
 D0 Abnormally Dry (Yellow) D3 Extreme Drought (Red)
 D1 Moderate Drought (Light Orange) D4 Exceptional Drought (Dark Red)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Eric Luebehusen
U.S. Department of Agriculture



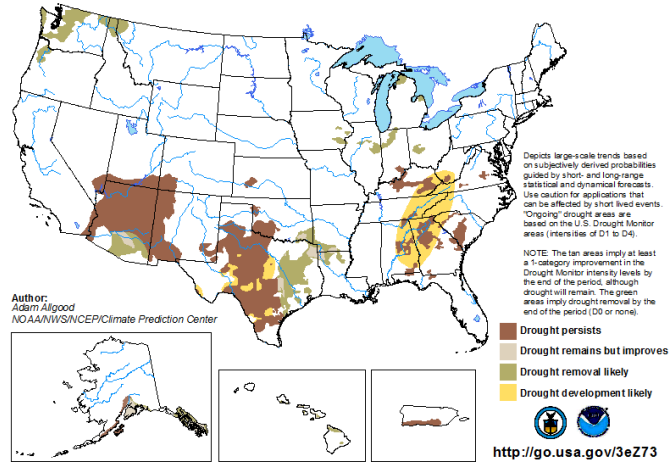
droughtmonitor.unl.edu

Additional reductions to drought intensity and coverage across the northern half of the region contrasted with rapidly intensifying and expanding drought in the south. From Iowa into Michigan (including northern portions of Illinois and Indiana), another widespread soaking rainfall (1–6 inches) eased or eradicated lingering Abnormal Dryness (D0) and Moderate Drought (D1). Conversely, temperatures in the middle 90s coupled with acute short-term moisture deficits (60-day rainfall locally less than 30 percent of normal) led to an expansion of D0 and D1 as well as the introduction of Severe Drought (D2), most notably from southern Illinois eastward into Kentucky and neighboring portions of Indiana and Ohio. State-wide average topsoil moisture was rated 55 percent short to very short (according to USDA-NASS) as of September 22 in both Indiana and Ohio, and 86 percent poor to very poor in Kentucky. Reports from the field indicate Kentucky is experiencing the same type of “flash drought” being observed across much of the south; the impacts of “flash drought” often occur more quickly than the objective data indicates.

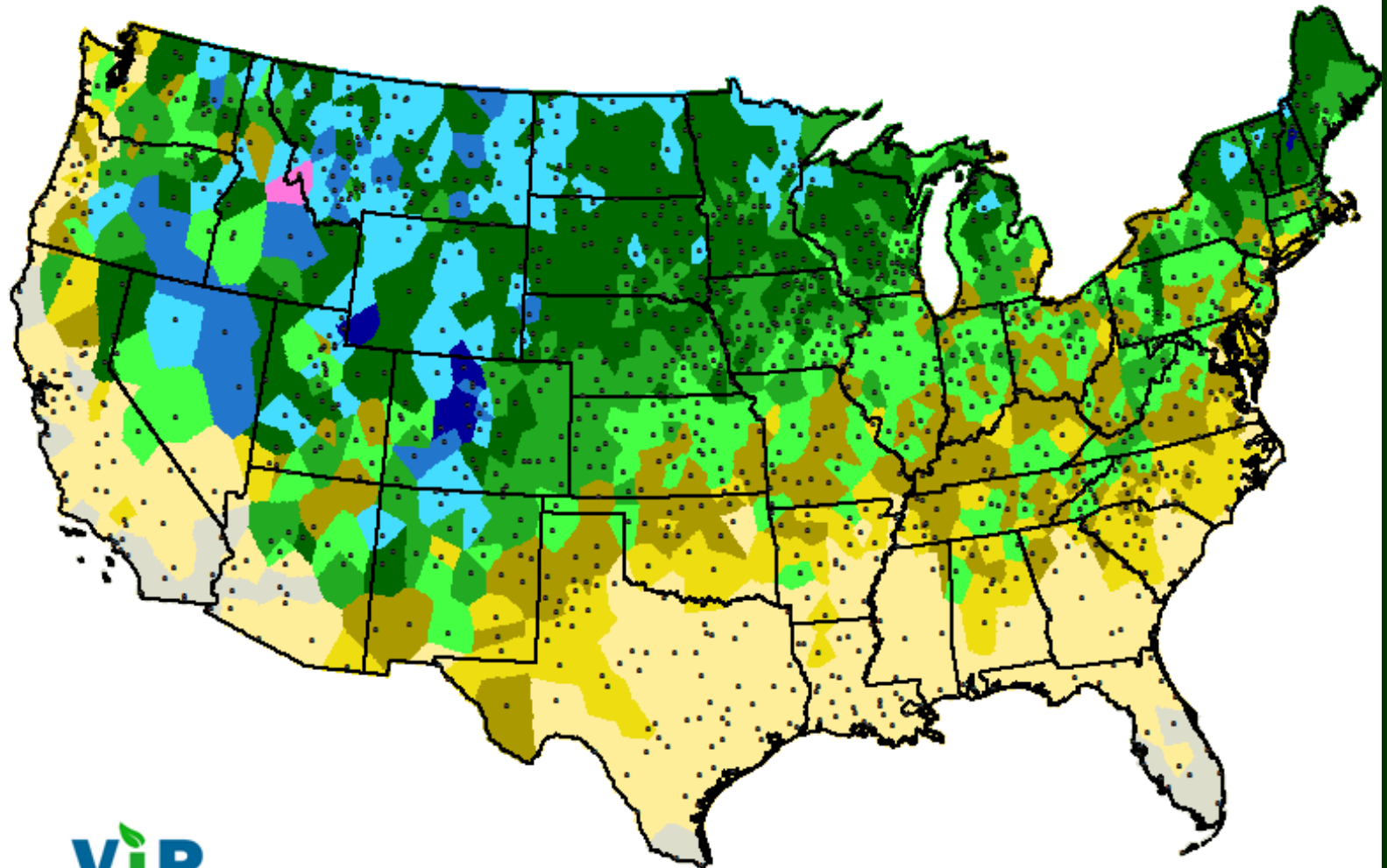
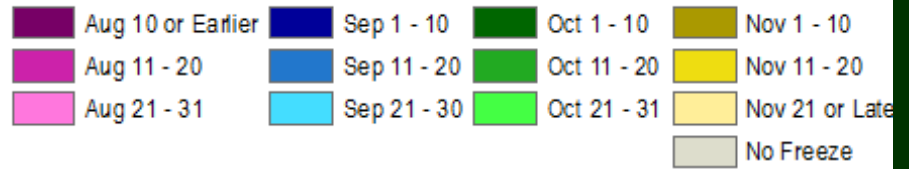
<http://droughtmonitor.unl.edu/>

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

Valid for September 19 - December 31, 2019
Released September 19



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

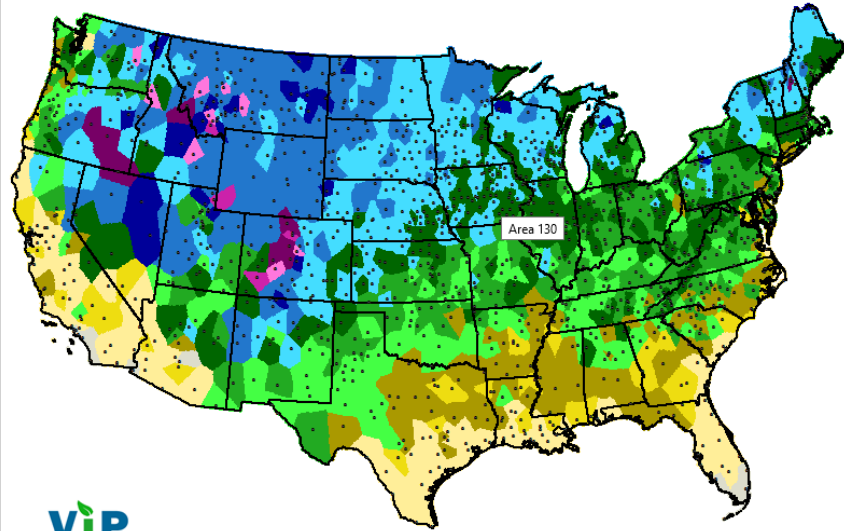
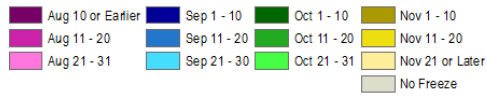


Climatological Date of Early First 28°F Freeze

For years 1980-81 to 2009-10

Freeze year beginning July 1st

Early defined as the 10th Percentile

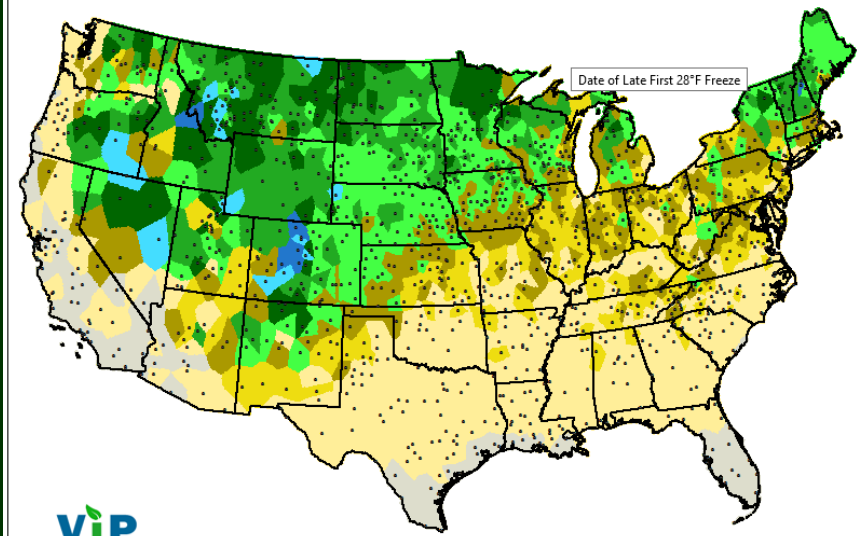
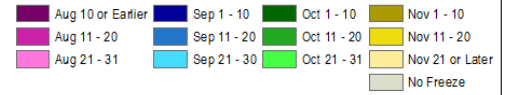


Climatological Date of Late First 28°F Freeze

For years 1980-81 to 2009-10

Freeze year beginning July 1st

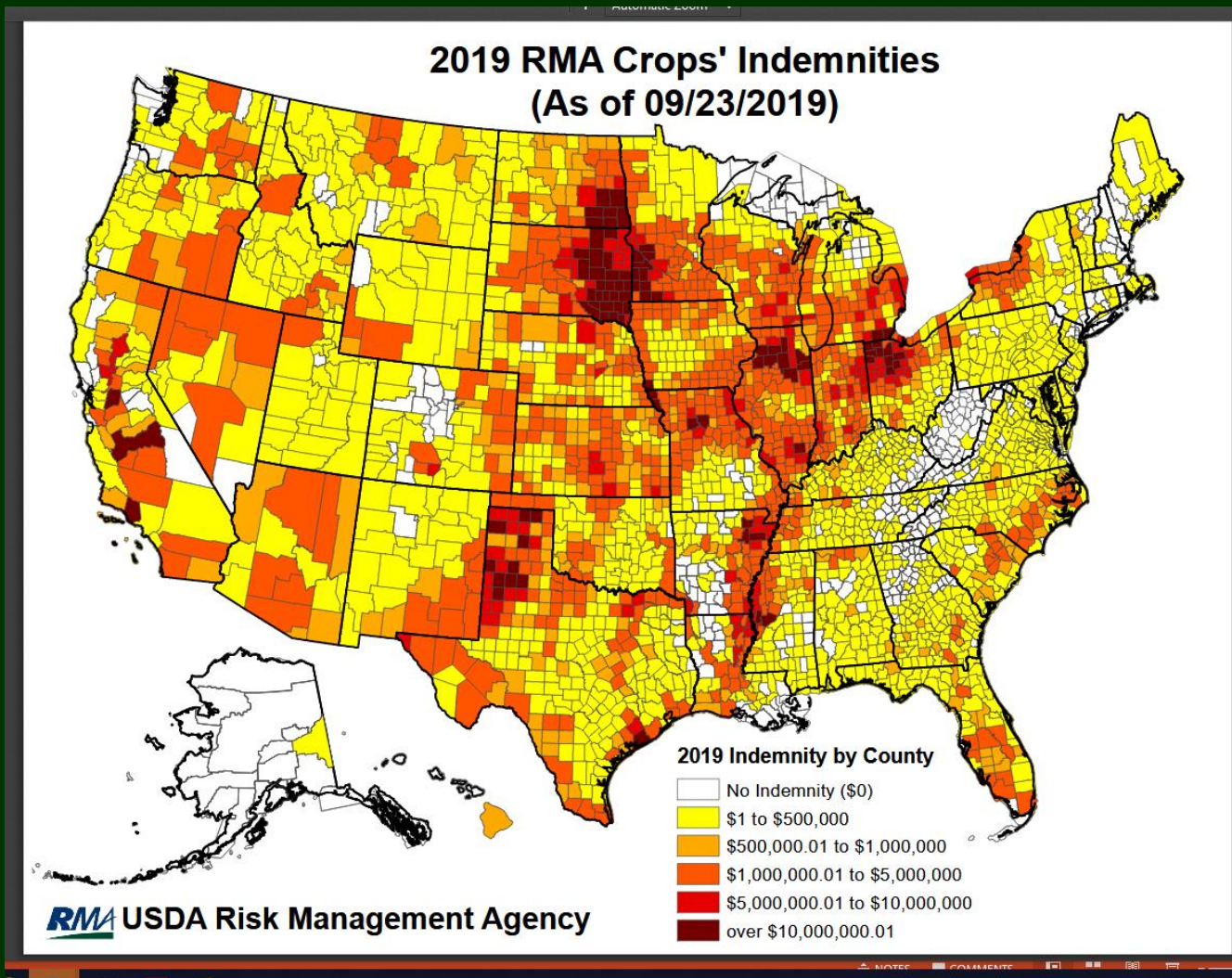
Late defined as the 90th Percentile



Summary

- Wetter conditions likely into harvest. Dry down, compacted soils and some possible disease are the issues.
- We are in climatological range for freezing.
- At this point next week has a possible chance for falling below freezing, though not below 28 F.
- Watch local forecasts for more details. Conditions can shift.
- Cooler temperatures will slow last progress toward harvest.

2019 Crop Indemnities (23 Sept.)



Next MAC-T Monthly Call

Next Call? Nov 6th?