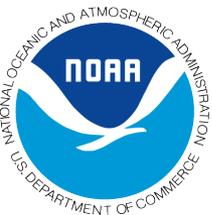


GREAT PLAINS AND MIDWEST CLIMATE OUTLOOK SEPTEMBER 17, 2015

Laura Edwards
Extension Climate Field Specialist
South Dakota State University
Aberdeen, SD
laura.edwards@sdstate.edu



SD Soil Health Coalition, 9/8/15



General Information

- **Providing climate services to the Central Region**
 - Collaboration with Dennis Todey (South Dakota State Climatologist), Jim Angel (Illinois State Climatologist), Doug Kluck and John Eise (NOAA), State Climatologists and the Midwest Regional Climate Center, High Plains Regional Climate Center, NOAAs Climate Prediction Center, Iowa State University, National Drought Mitigation Center
- **Next Climate/Drought Outlook Webinar**
 - September 17, 2015, Laura Edwards (SDSU Extension) and Brad Rippey USDA
- **Access to Future Climate Webinars and Information**
- <http://www.drought.gov/drought/content/regional-programs/regional-drought-webinars>
- **Past recorded presentations and slides can be found here:**
 - <http://mrcc.isws.illinois.edu/webinars.htm>
 - <http://www.hprcc.unl.edu/webinars.php>
- **There will be time for questions at the end**

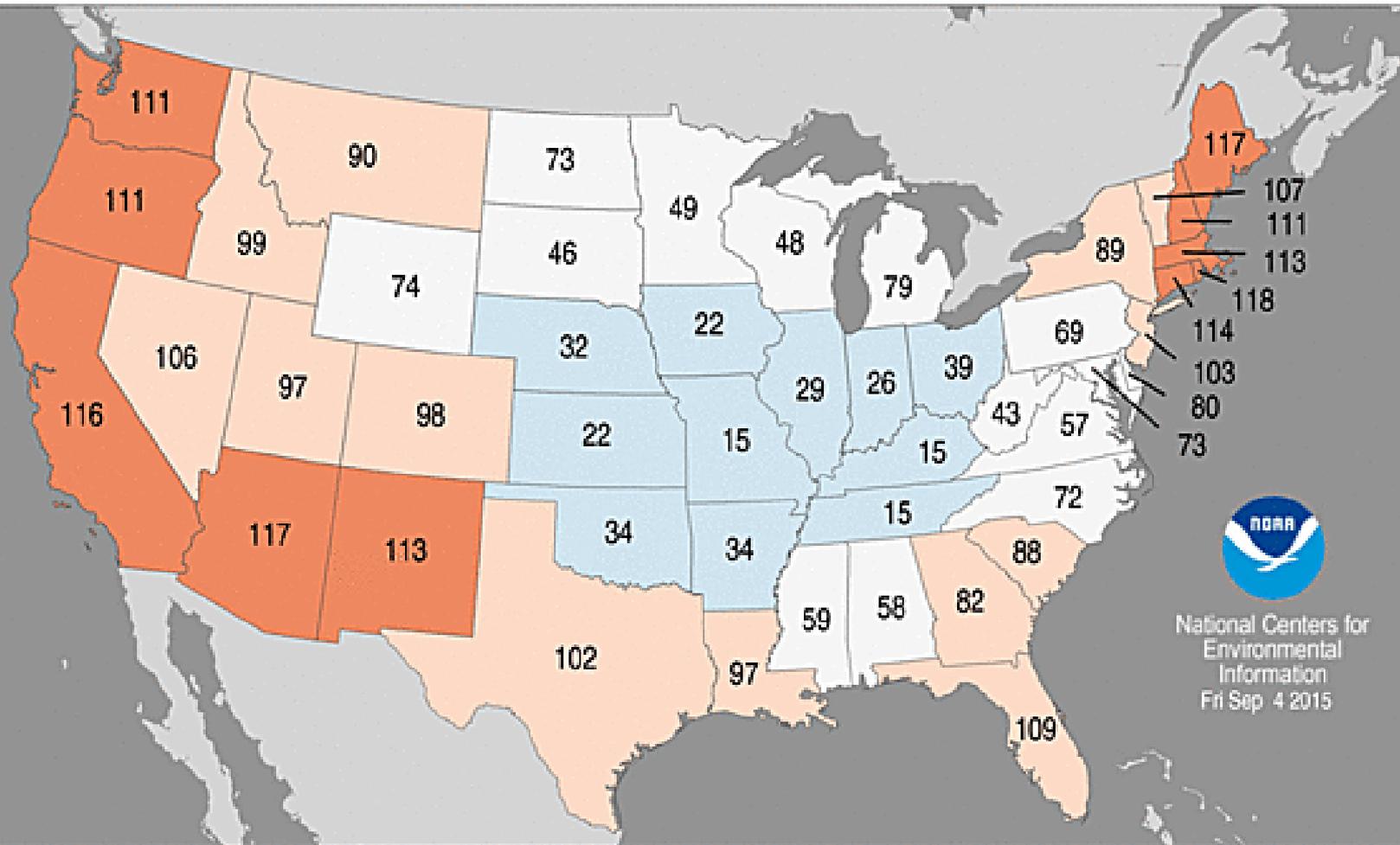
Agenda

- August 2015
- Current conditions
- Impacts
- El Niño
- Outlooks

Statewide Average Temperature Ranks

August 2015

Period: 1895-2015



National Centers for
Environmental
Information
Fri Sep 4 2015

Record
Coldest
(1)

Much
Below
Average

Below
Average

Near
Average

Above
Average

Much
Above
Average

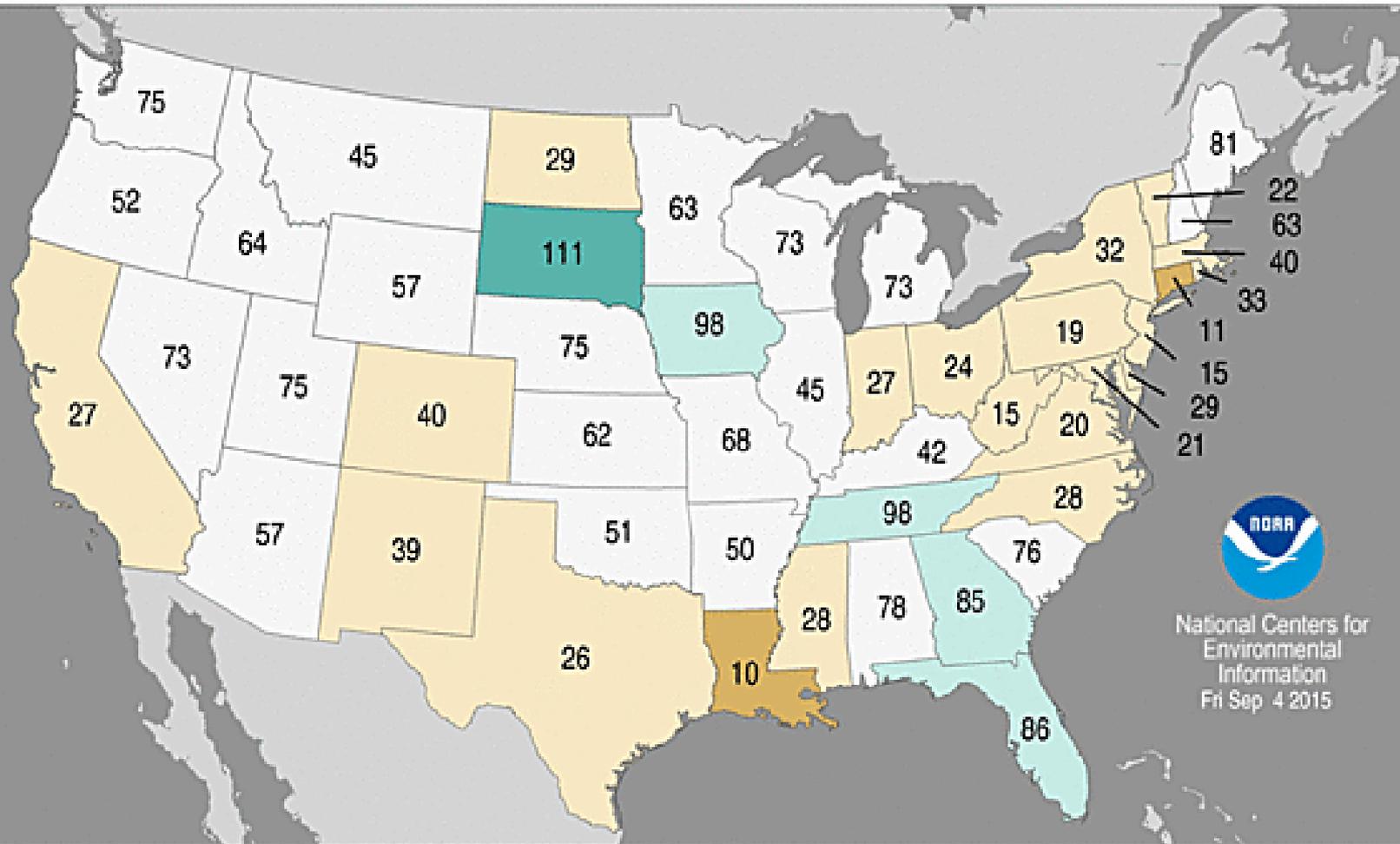
Record
Warmest
(121)

<http://www.ncdc.noaa.gov/sotc/>

Statewide Precipitation Ranks

August 2015

Period: 1895-2015



National Centers for
Environmental
Information
Fri Sep 4 2015

Record
Driest
(1)

Much
Below
Average

Below
Average

Near
Average

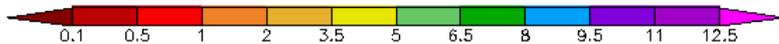
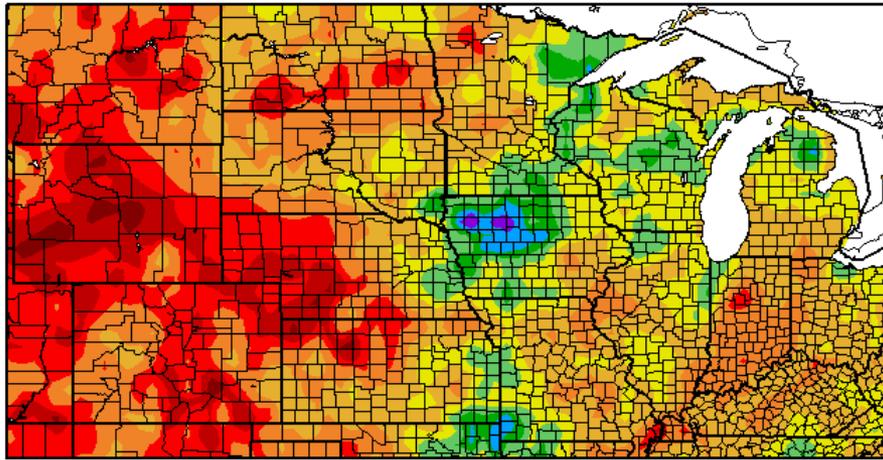
Above
Average

Much
Above
Average

Record
Wettest
(121)

30-Day Precipitation

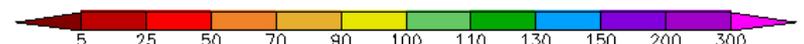
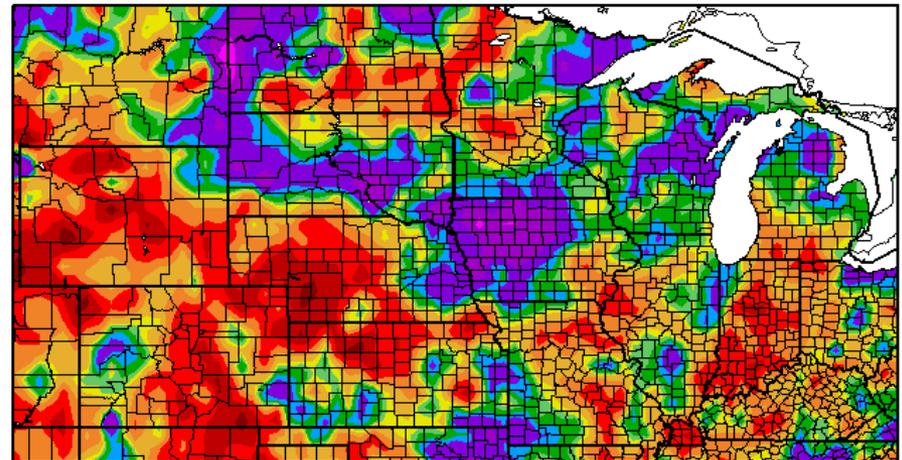
Precipitation (in)
8/17/2015 - 9/15/2015



Generated 9/16/2015 at HPRCC using provisional data.

Regional Climate Centers

Percent of Normal Precipitation (%)
8/17/2015 - 9/15/2015

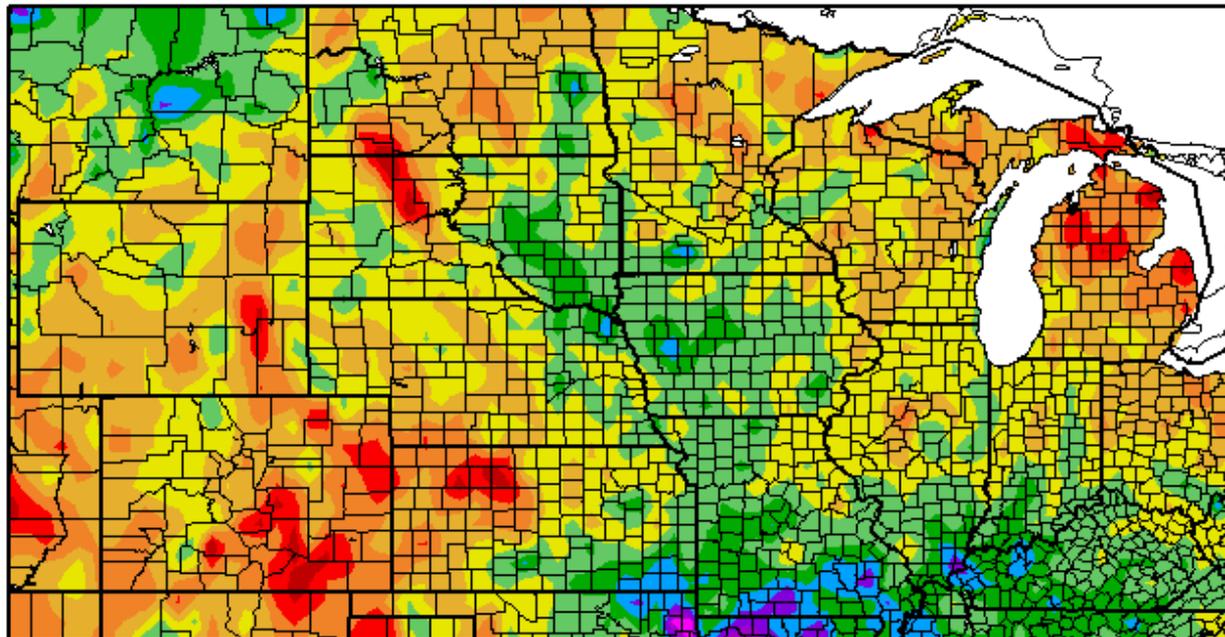


Generated 9/16/2015 at HPRCC using provisional data.

Regional Climate Centers

30-Day Temperature Departure

Departure from Normal Temperature (F)
8/17/2015 – 9/15/2015



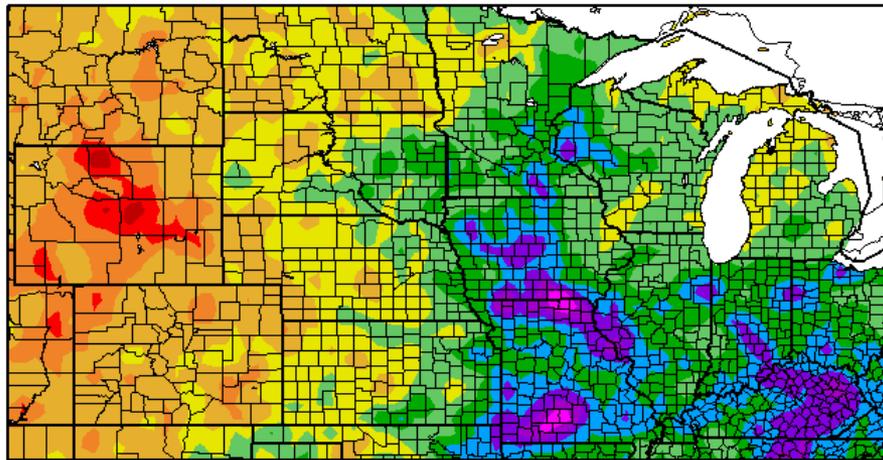
Generated 9/16/2015 at HPRCC using provisional data.

Regional Climate Centers

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

90-Day Precipitation

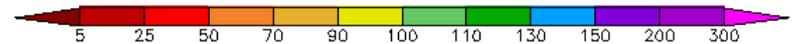
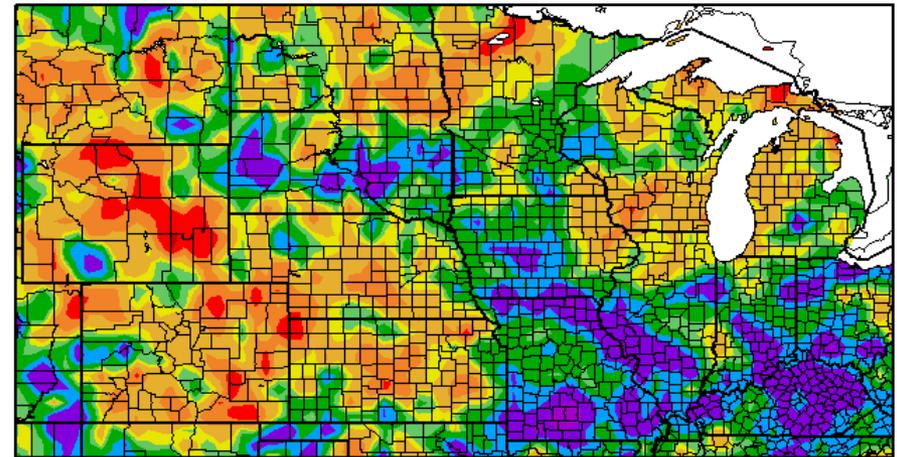
Precipitation (in)
6/18/2015 - 9/15/2015



Generated 9/16/2015 at HPRCC using provisional data.

Regional Climate Centers

Percent of Normal Precipitation (%)
6/18/2015 - 9/15/2015

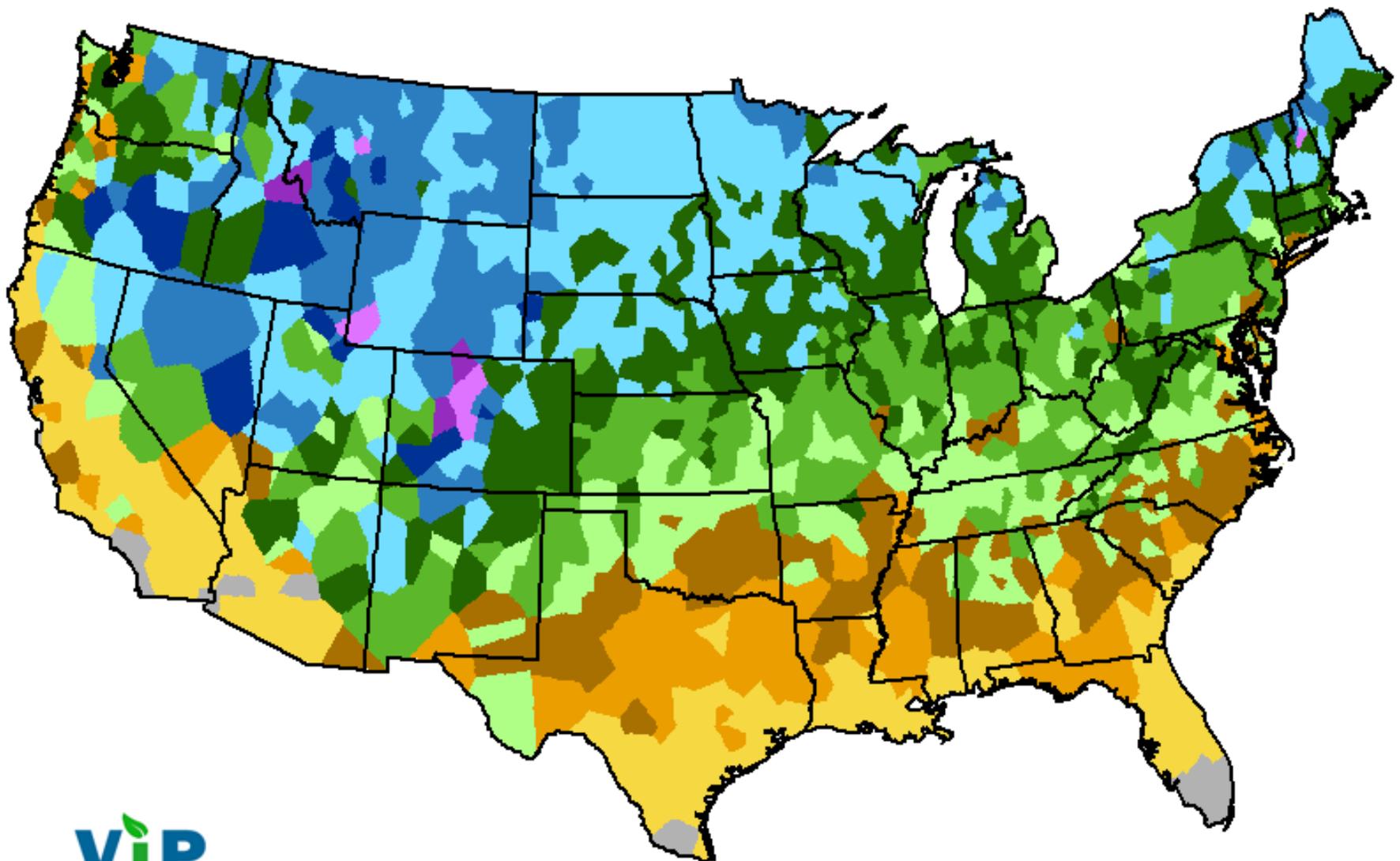
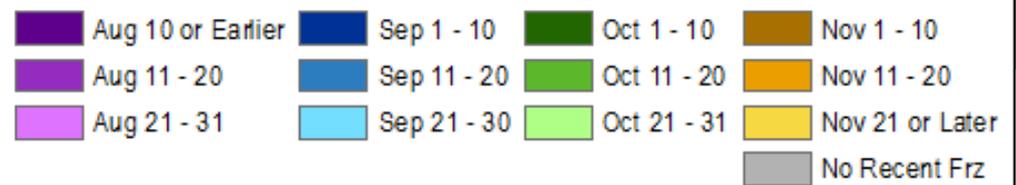


Generated 9/16/2015 at HPRCC using provisional data.

Regional Climate Centers

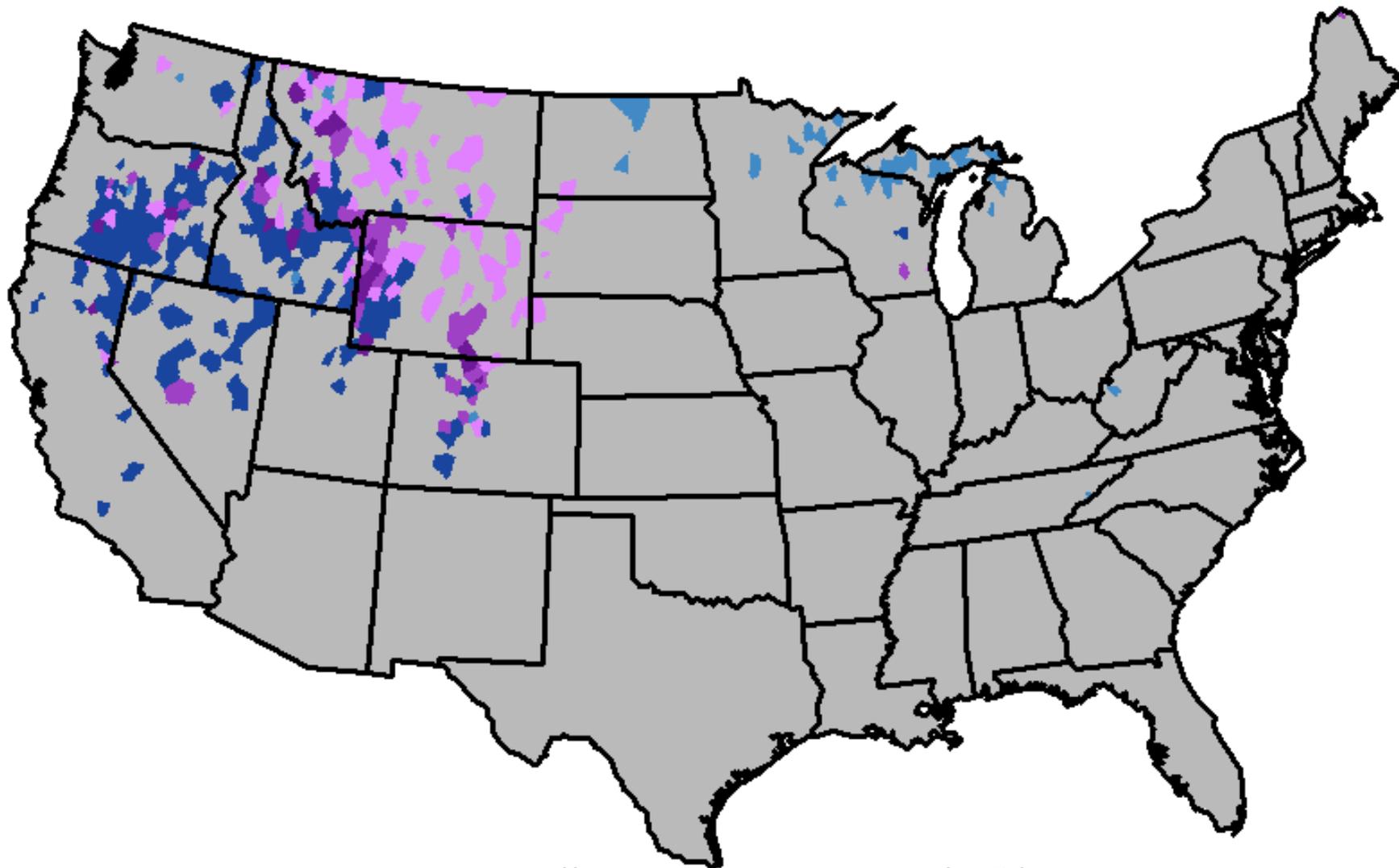
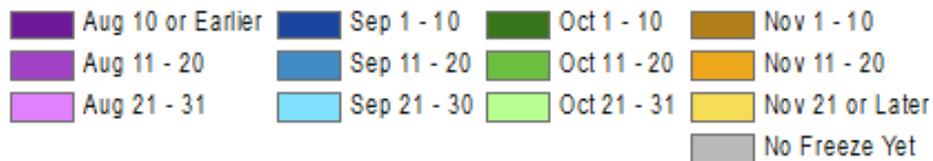
Climatological Date of Median First 32°F Freeze
For the years from 1980-81 to 2009-10

Median Defined as 50th Percentile



Date of First 32°F Freeze since 8/1

As of 9/16/2015



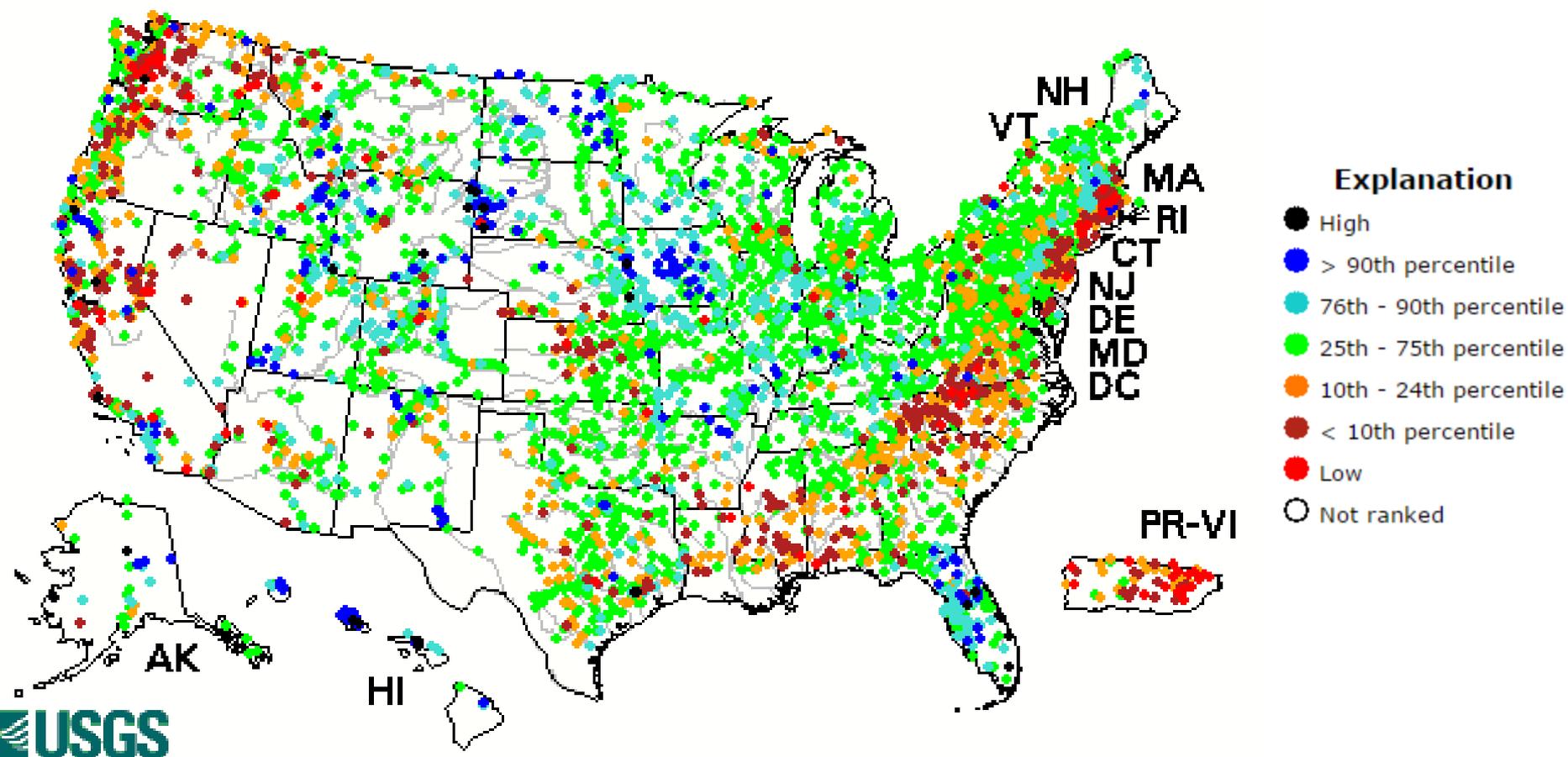
MRCC Experimental Freeze Guidance:

These experimental maps may be utilized as a guide to local and regional freeze conditions but should NOT be used by themselves for decision processes.

<http://mrcc.isws.illinois.edu/VIP/index.html>

Stream Flow - USGS

Thursday, September 17, 2015 10:30ET

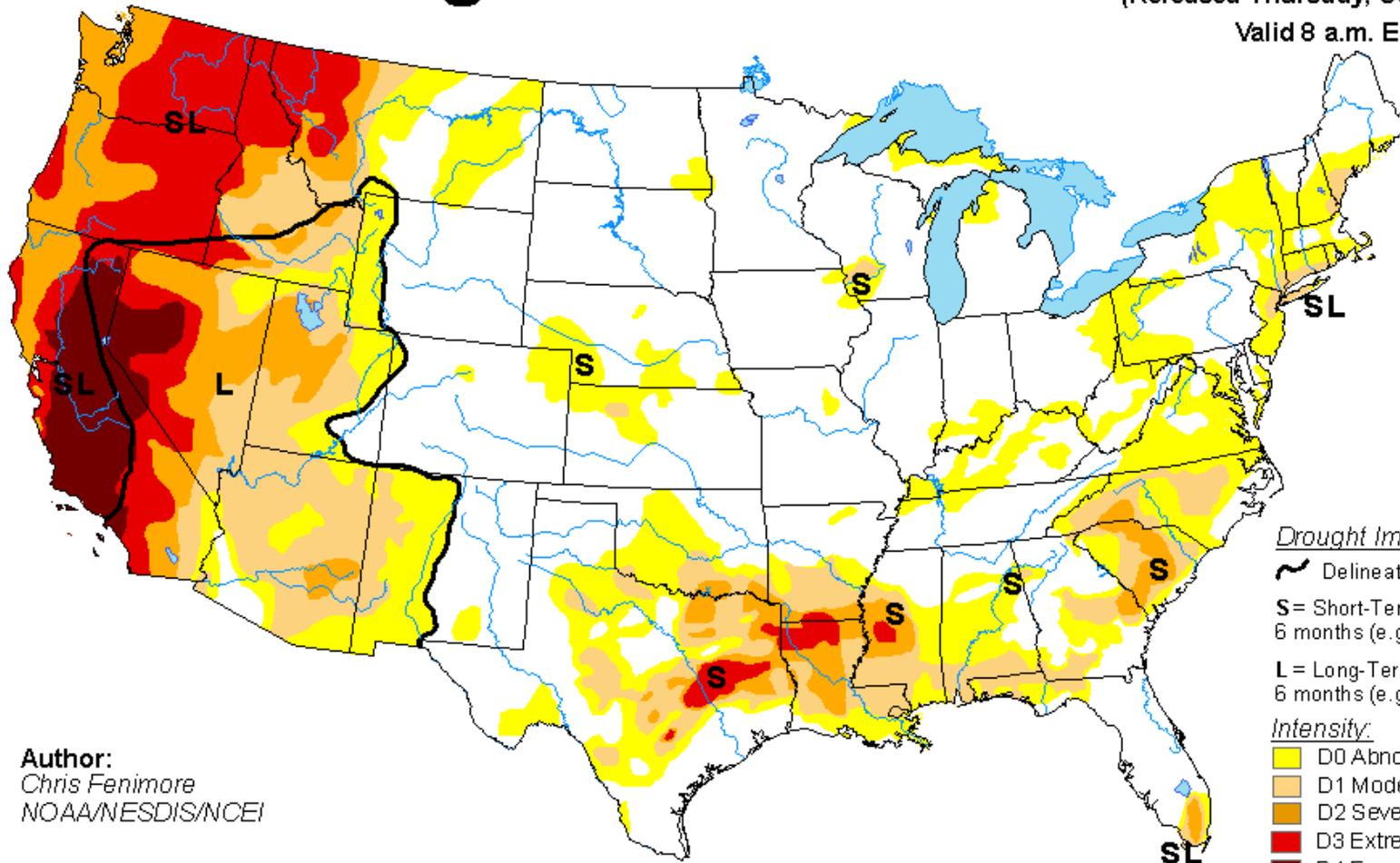


<http://waterdata.usgs.gov/nwis/rt>

U.S. Drought Monitor

September 15, 2015
(Released Thursday, Sep. 17, 2015)

Valid 8 a.m. EDT



Author:
Chris Fenimore
NOAA/NESDIS/NCEI

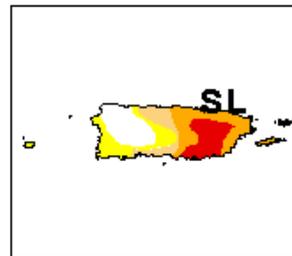
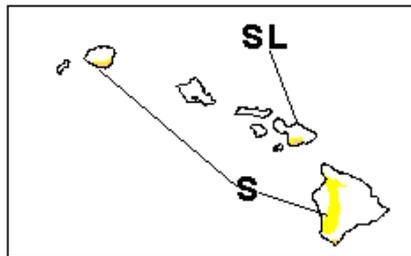
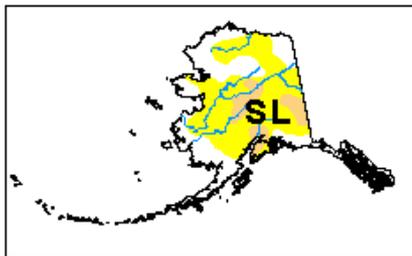
Drought Impact Types:

- ~ Delineates dominant impacts
- S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:

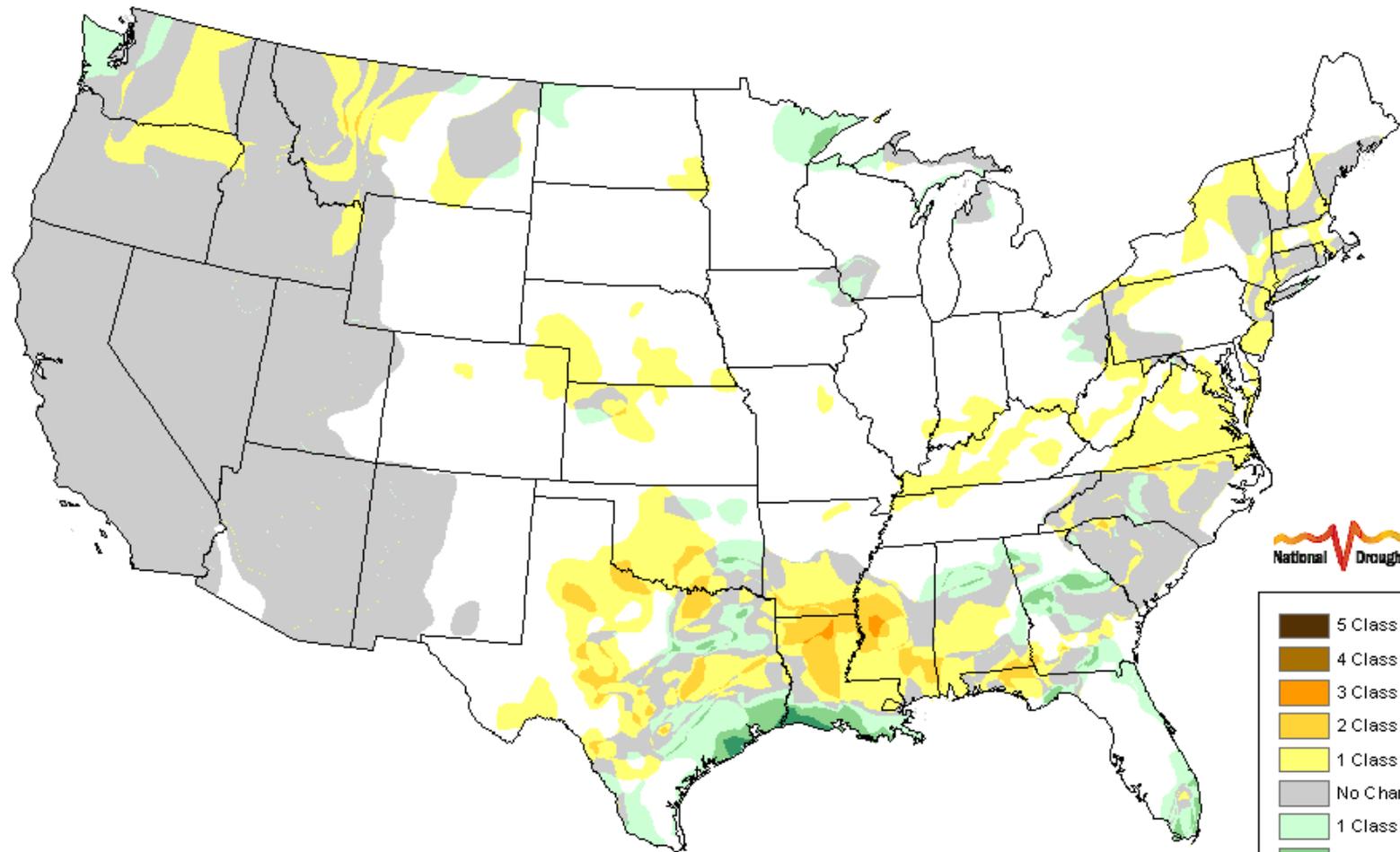
- Yellow: D0 Abnormally Dry
- Light Orange: D1 Moderate Drought
- Dark Orange: D2 Severe Drought
- Red: D3 Extreme Drought
- Dark Red: D4 Exceptional Drought

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



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

U.S. Drought Monitor Class Change 1 Month



National Drought Mitigation Center

- 5 Class Degradation
- 4 Class Degradation
- 3 Class Degradation
- 2 Class Degradation
- 1 Class Degradation
- No Change
- 1 Class Improvement
- 2 Class Improvement
- 3 Class Improvement
- 4 Class Improvement
- 5 Class Improvement

September 15, 2015
compared to
August 18, 2015

Climate Impacts

- Impacts of wet spring across the region are now being realized in lower yield, due to delayed planting and increased disease pressure, among other factors
- Late planting made some row crops more susceptible to damage in dry August, especially in corn (hastened maturity) and soybeans (low rainfall amounts during grain fill stage)
- Temperatures reached mid-30s and 40s in many areas, but no widespread frost yet
- Dry late summer could delay winter wheat planting this fall

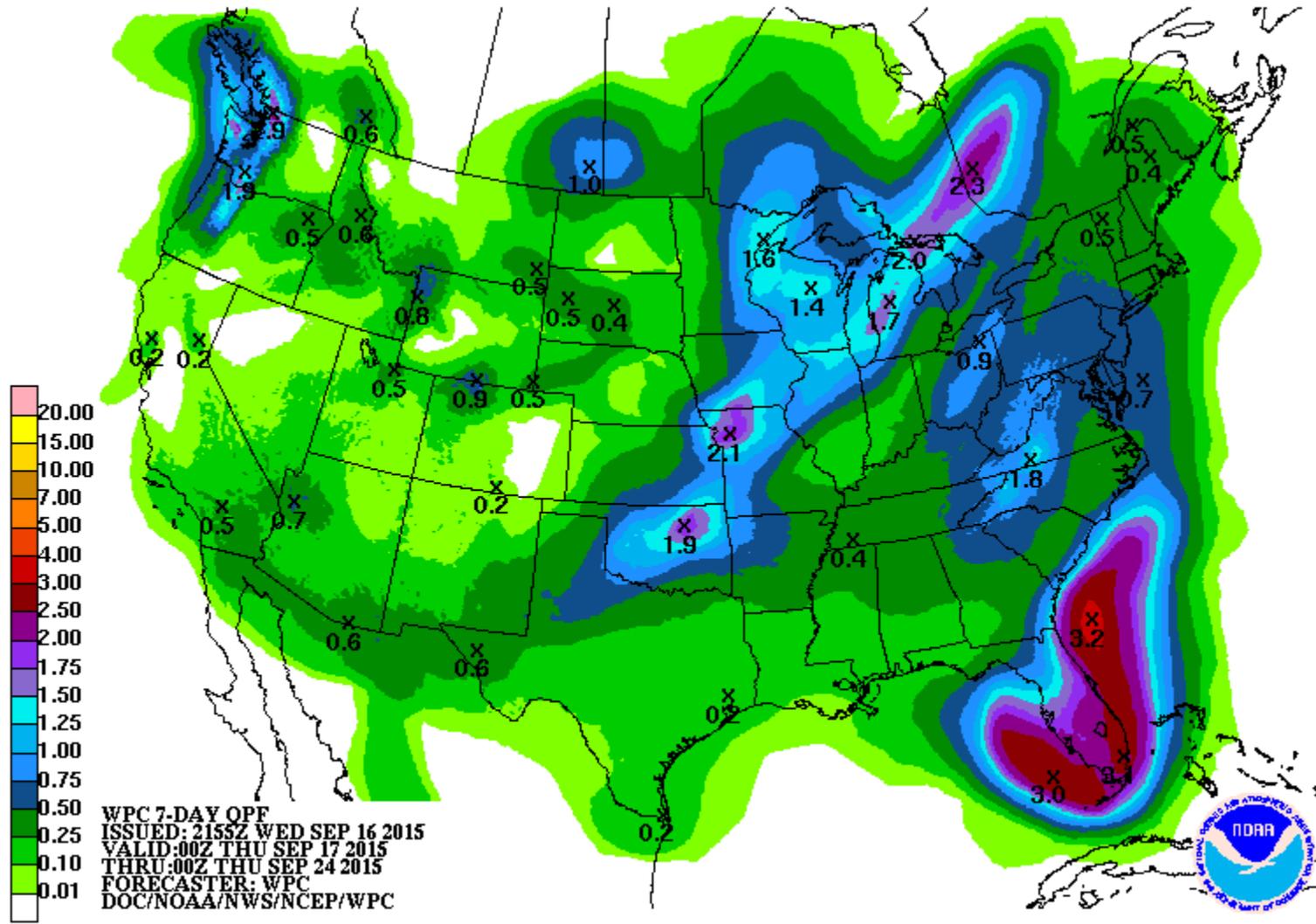
And Yet

- South Dakota and Minnesota facing record or near record soybean yields in 2015. Corn crop in both states also rates very high for this time of year.
- Reservoir storage and streamflows in Front Range of Colorado, Missouri River basin and Ohio River basin are in good shape

Climate Outlooks

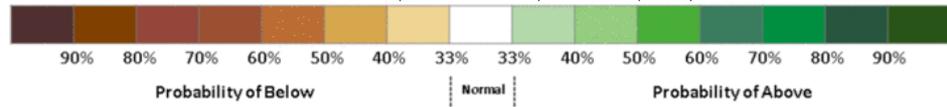
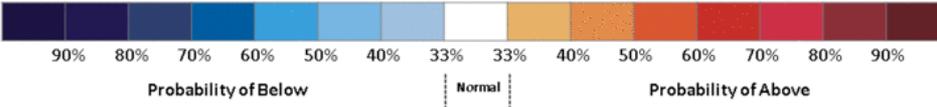
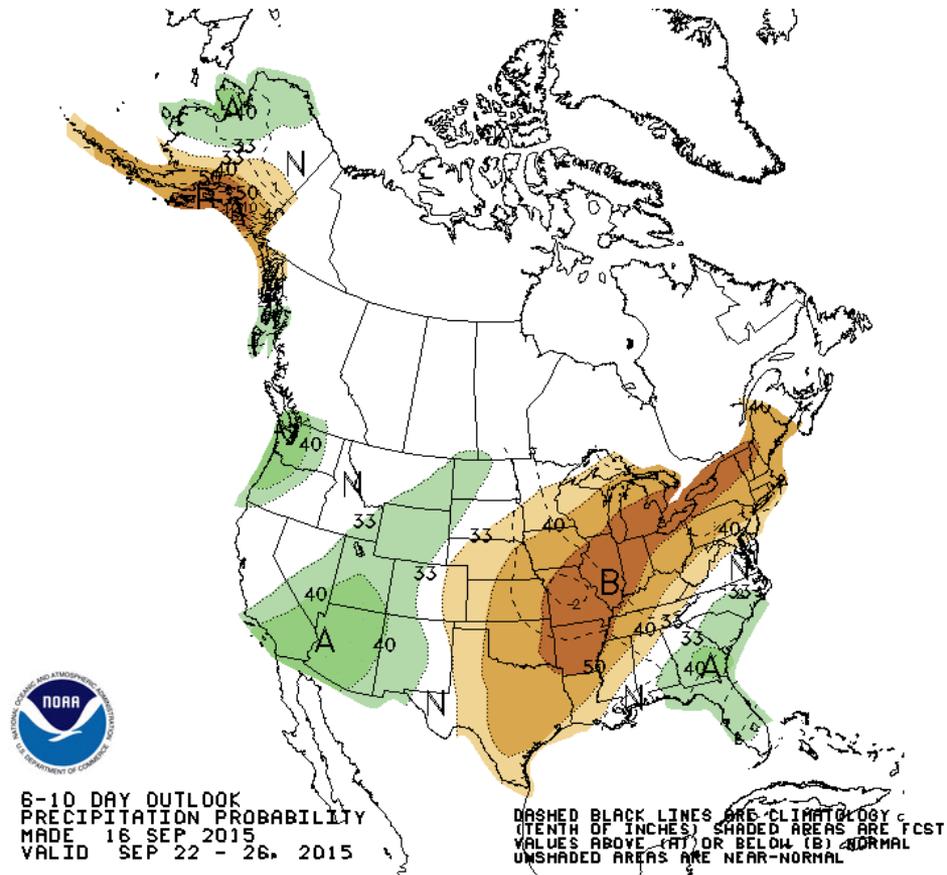
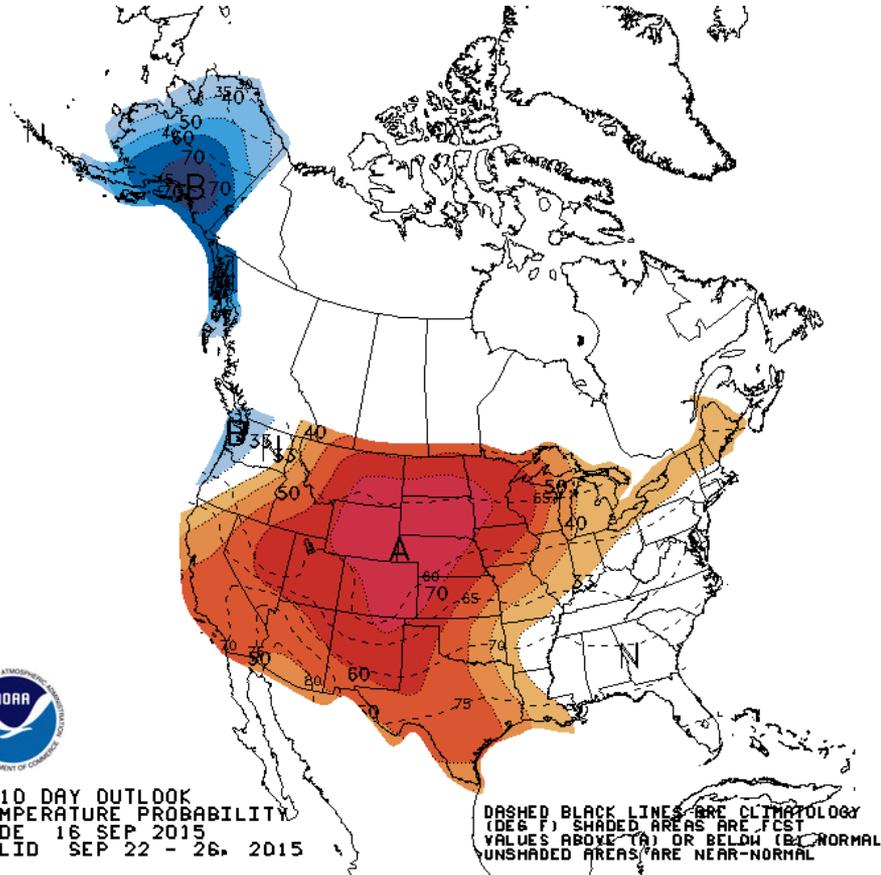
- 7-day precipitation forecast
- 6-10, 8-14 day outlook
- October
- Fall, Winter, Spring
- Drought Outlook

Forecast Precipitation Amounts (7 day)



<http://www.wpc.ncep.noaa.gov/qpf/day1-7.shtml>

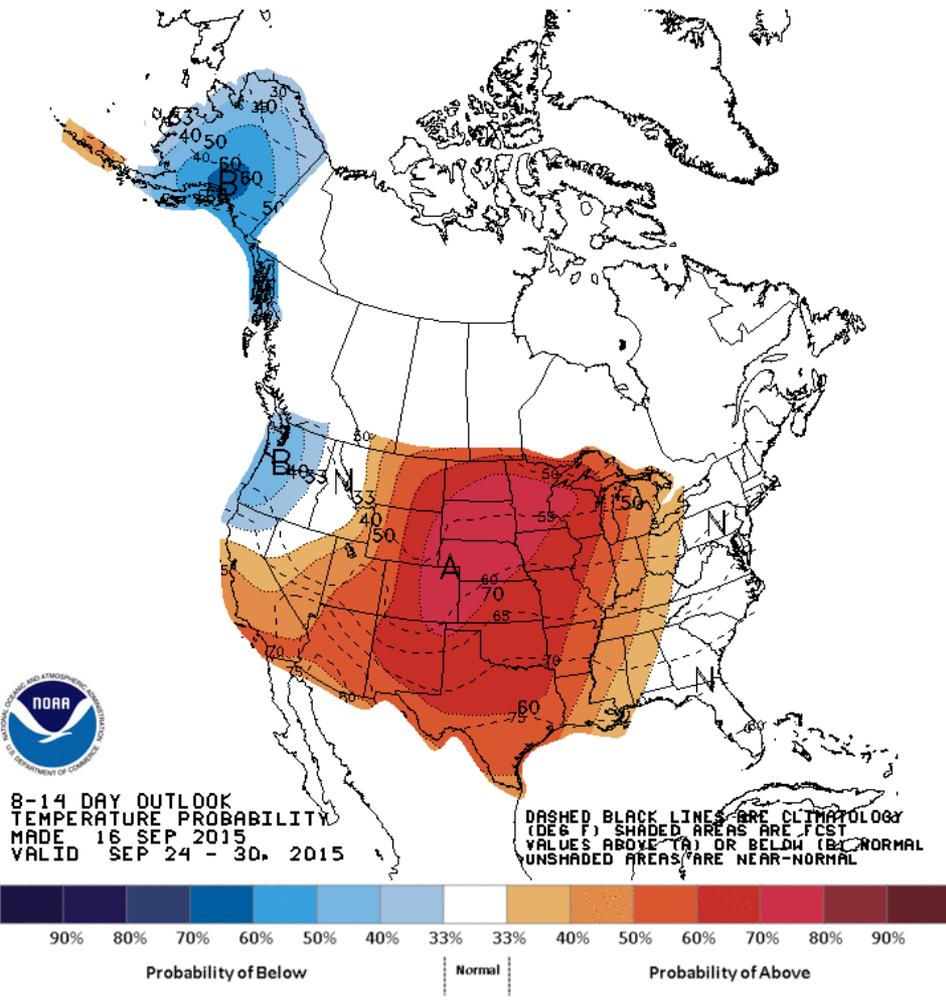
6-10 Day Forecast for Sep 22-26, 2015



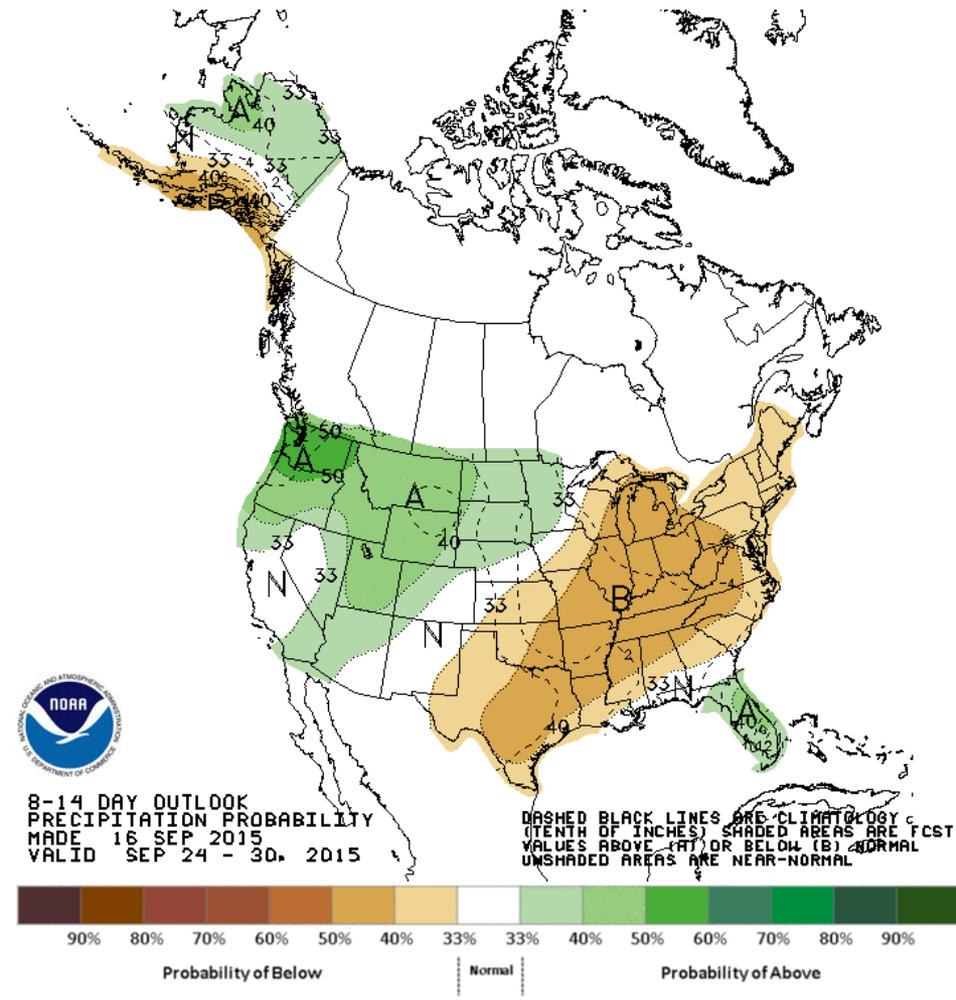
Temperature

Precipitation

8-14 Day Forecast for Sep 24-30, 2015



Temperature

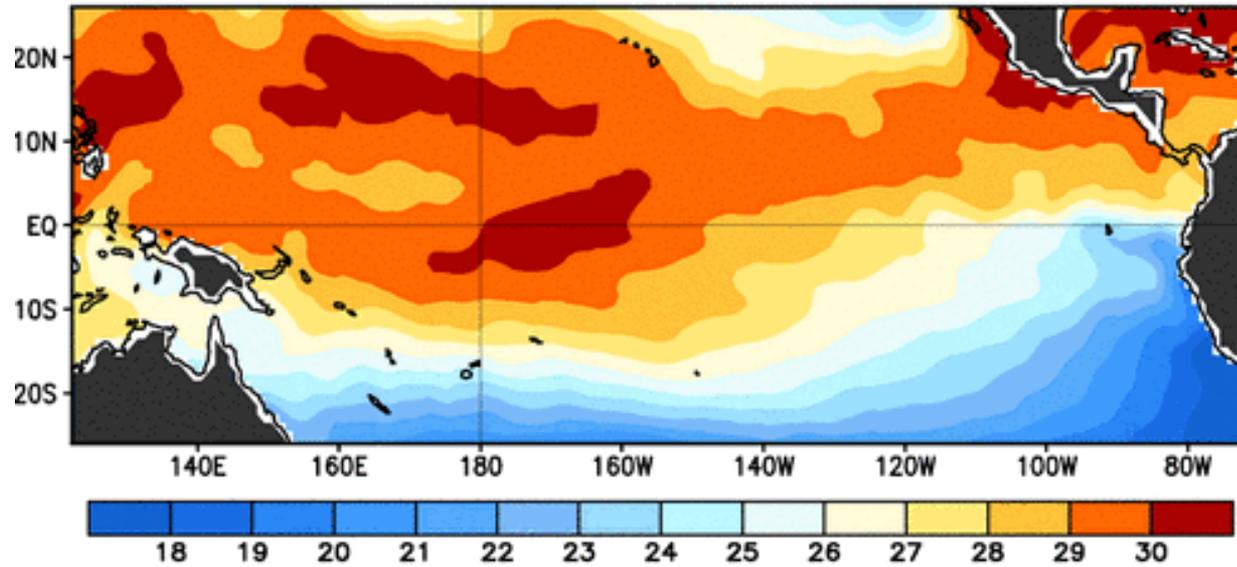


Precipitation

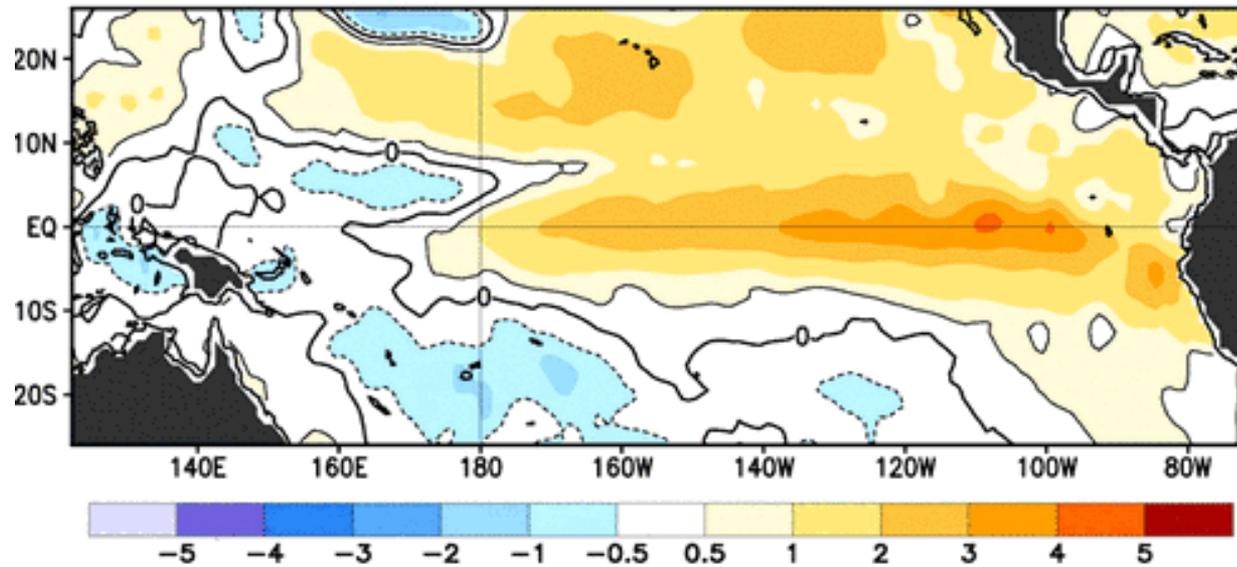
El Niño

- Based on sea surface temperatures, June-August ranked as 3rd warmest since 1950, behind 1987 and 1997
- Some measurements show August SSTs to be 2nd warmest, behind 1997
- >90% chance of continuing until March 2016
- Gradually weakening through spring season
- Two recent briefs: El Niño in Missouri River Basin and El Niño in the Midwest

Observed Sea Surface Temperature (°C)

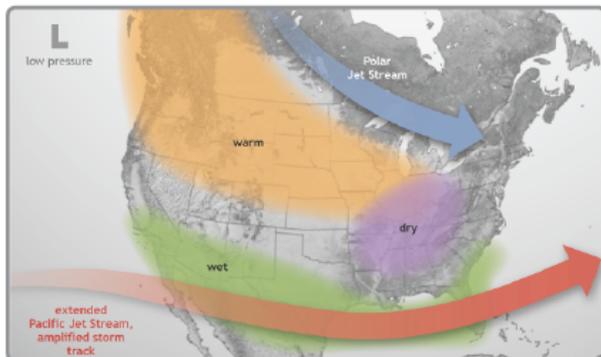


Observed Sea Surface Temperature Anomalies (°C)



7-day Average Centered on 09 September 2015

Typical El Niño Winter Pattern



The image above shows the typical pattern in the winter during El Niño events. The polar jet stream tends to stay to the north of the Midwest region, while the Pacific jet stream remains across the southern U.S. With the Midwest positioned between the storm tracks, warmer and possibly drier conditions can develop during El Niño events.

Image courtesy of the National Oceanic and Atmospheric Administration. For more information please visit: <https://www.climate.gov/news-features/department/enso-blog>

El Niño in Winter

An El Niño develops when sea surface temperatures are warmer than average in the equatorial Pacific for an extended period of time. This is important to North America because El Niño has an impact on our weather patterns, most predominantly in the winter.

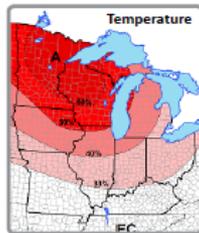
Although each El Niño is different, there are some general patterns that are predictable. For instance, the polar jet stream is typically farther north than usual, while the Pacific jet stream remains across the southern United States (see figure to left).

This pattern brings above-normal temperatures to much of the Midwest region, particularly across the northern states. This does not mean that cold weather will not happen this winter but typical extreme cold weather may be milder and less frequent. In addition, this pattern may bring drier conditions to eastern portions of the Midwest.

Warmer conditions may reduce total snowfall and the frequency of heavy snowfall events in the Midwest. However, a potentially more active storm track across the southern U.S. pose an increased risk of heavy snow events across the lower Midwest.

El Niño Outlook

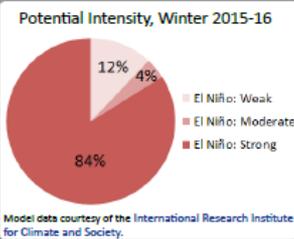
Winter Temperature and Precipitation Outlooks



EC: Equal chances of above, near or below normal
A: Above normal
B: Below normal
Valid for December 2015 - February 2016



El Niño Strength



El Niño conditions have continued this summer and forecasts indicate that this El Niño will strengthen, with an 84% chance of it peaking as a strong event in late fall or early winter. In terms of how long the event may last, the Climate Prediction Center (CPC) says there is a 95% chance that these conditions will last through the winter, gradually weakening through spring 2016. Research has shown that strong El Niños are often followed by La Niñas, so conditions should continue to be monitored closely, especially if the El Niño weakens next spring, as predicted.

Based on the September 10th ENSO outlook from CPC.

Contacts: Doug Kluck (doug.kluck@noaa.gov)
Jim Angel (jimangel@illinois.edu)



Midwest Region El Niño Impacts and Outlook | September 2015
<http://www.drought.gov/media/pplfiles/ENSO-Midwest-September2015-FINAL.pdf>
<http://mrcr.isws.illinois.edu/pubs/pubsElNiño.jsp>

Winter and Spring Impacts

Economy



Image: via Flickr CC)



Image: MSU IPF (via Flickr CC)

Mild and dry winters with less than normal snowfall can have a significant overall positive impact on the Midwest economy. During the strong El Niño of 1997-98, economic benefits outweighed losses by a factor of 10 to 1 according to one study. The largest positive impacts were reductions in home heating costs and increases in retail sales. Construction and home sales also benefited from the mild winter. The economic losses were suffered by those sectors that depend on normal winter weather. These include winter recreation, snow removal businesses, towing companies, road salt sales, and other seasonally-dependent businesses.

Transportation

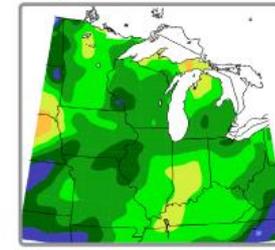


Image: Stu Foster

Transportation systems and infrastructure are vulnerable to extreme weather and climate conditions. The anticipation of warmer, drier conditions throughout much of the Midwest may positively affect the transportation sector. Past strong El Niño events since the 1950s suggest a lower risk of extreme precipitation events capable of producing widespread river flooding which disrupt barge, rail, and highway traffic. Fluctuations in an active storm track across the southern U.S. pose a risk of heavy snow events, particularly affecting the lower Midwest. Still, an expected overall decrease in the frequency and amount of snowfall could reduce costs for snow and ice removal.

Impacts and Limitations

Winter Conditions During Past El Niños



Temperature (°F, left) and percent of mean precipitation (% right) during the El Niño of 1997-98 (December-February). The mean period is 1981-2010.

Despite the winter conditions of the record breaking El Niño of 1997-98, as warmer than average but precipitation conditions varied across the Midwest El Niño is on track to be one of the strongest on record, it is important that the El Niño episode is different. Other factors can be considered such as the Arctic Oscillation, which trumped the El Niño during the winter of 2014-15. A large warm pool of water off the Pacific Northwest coast. Scientists believe that, in combination with the El Niño, may influence weather conditions in the Midwest region.

While El Niño conditions can help inform forecasters about certain conditions, there are some limitations in the Midwest region, El Niño is not known to impact:
 • Heavy snow events or blizzards
 • Heavy rain events or any single weather system
 • First freeze in the fall (early or late)
 • Last freeze in the spring (early or late)

kluck@noaa.gov
jim.angel@illinois.edu



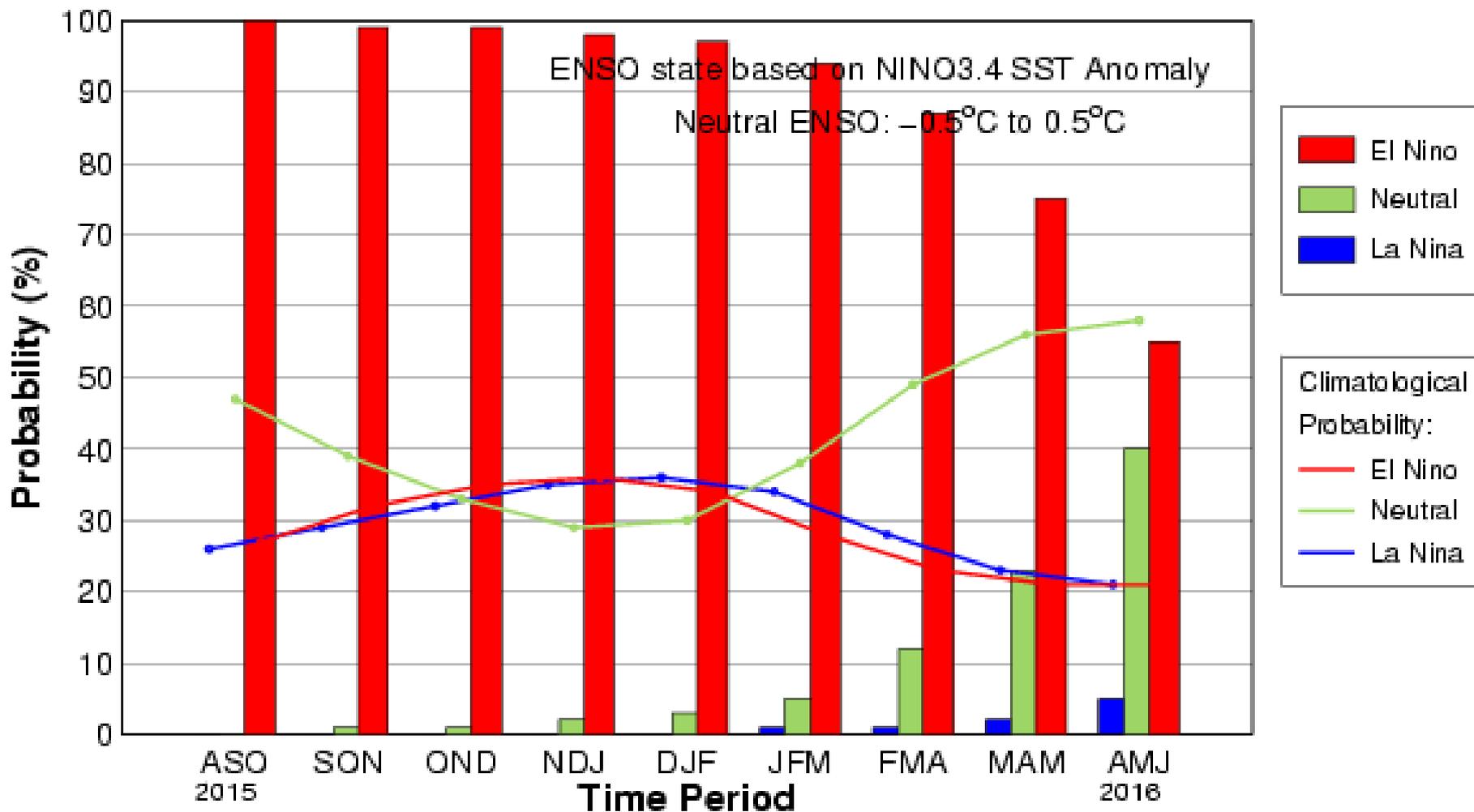
Midwest Region El Niño Impacts and Outlook | September 2015
<http://www.drought.gov/media/pplfiles/ENSO-Midwest-September2015-FINAL.pdf>
<http://mrcr.isws.illinois.edu/pubs/pubsElNiño.jsp>

Midwest Region Partners

- Midwestern Regional Climate Center
<http://mrcr.isws.illinois.edu>
- National Drought Mitigation Center
www.drought.unl.edu
- National Integrated Drought Information System
www.drought.gov
- National Oceanic and Atmospheric Administration
National Weather Service - Central Region
www.crh.noaa.gov/chr
- National Centers for Environmental Information
www.ncei.noaa.gov
- Climate Prediction Center
www.cpc.ncep.noaa.gov
- State Climatologists
www.stateclimate.org
- U.S. Department of Agriculture
Regional Climate Hubs
www.usda.gov/oc/e/climate_change/regional_hubs.htm
- U.S. Department of Interior
Northeast Climate Science Center
www.doi.gov/csc/northeast/index.cfm
- Eastern Tallgrass Prairie and Big Rivers
www.tallgrassprairiecsc.org/
- International Research Institute for Climate and Society
<http://iri.columbia.edu>

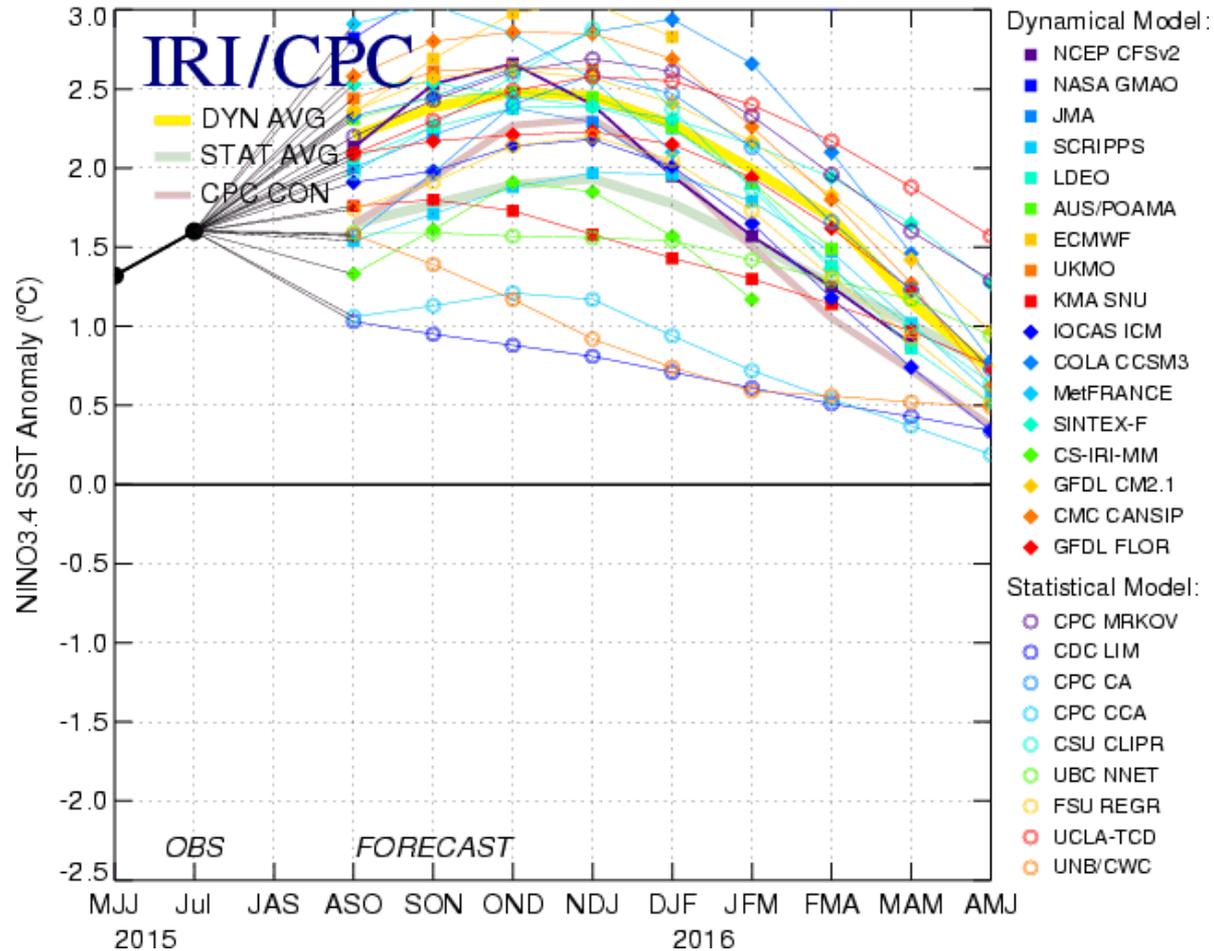
ENSO Forecast (CPC/IRI)

Early-Sep CPC/IRI Consensus Probabilistic ENSO Forecast

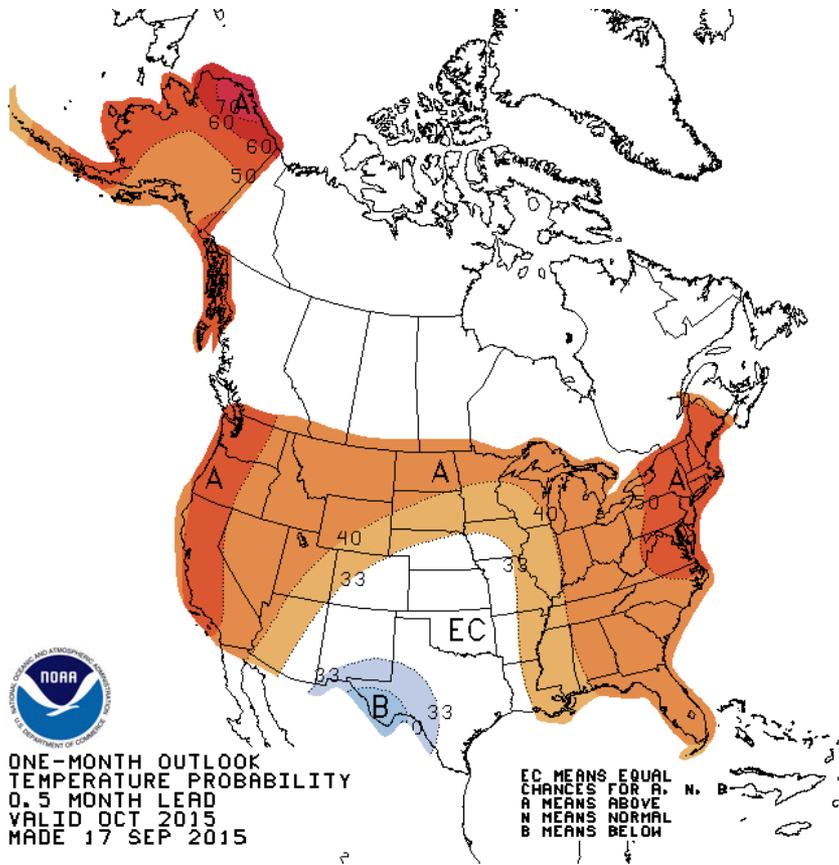


Forecast Plume for ENSO

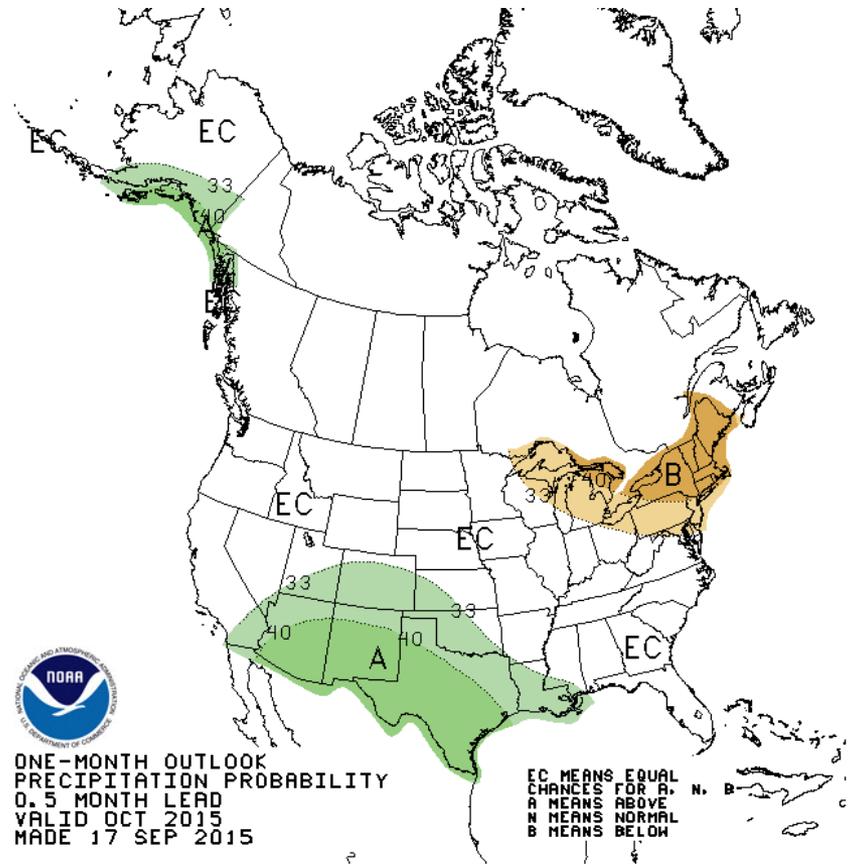
Mid-Aug 2015 Plume of Model ENSO Predictions



October Outlook

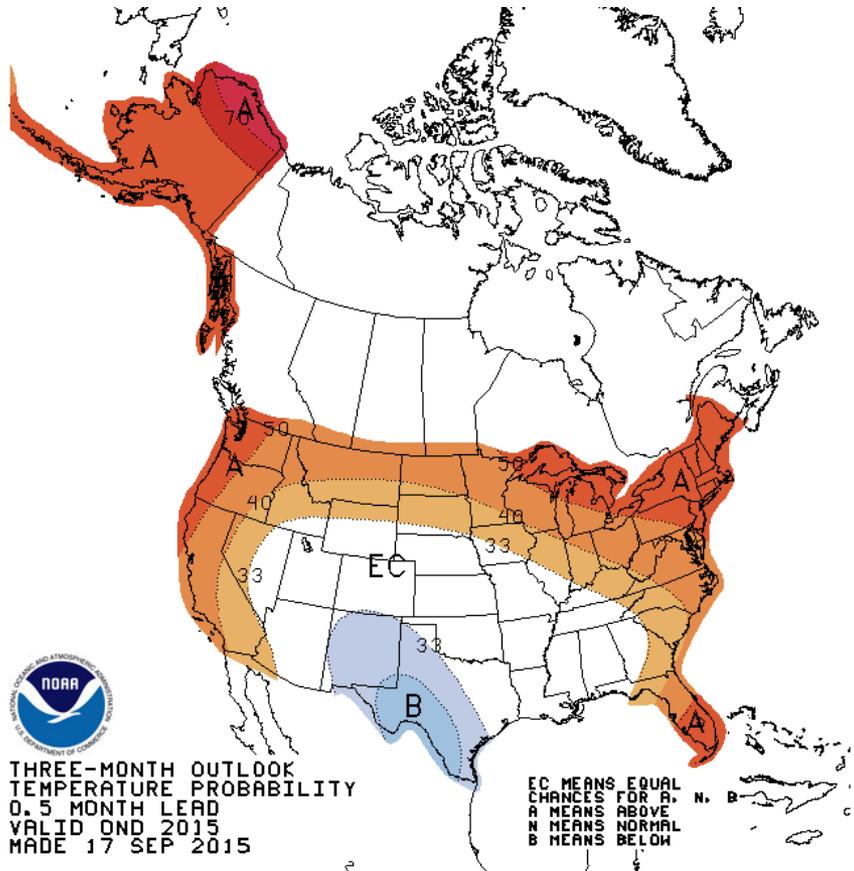


Temperature

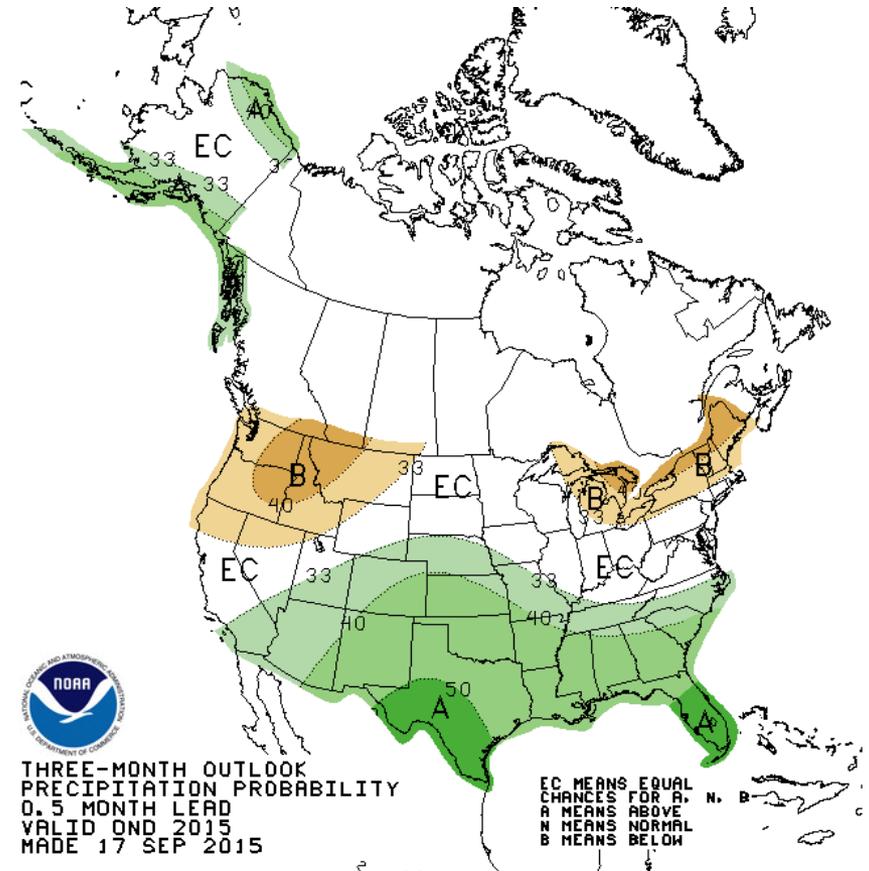


Precipitation

October – December Outlook

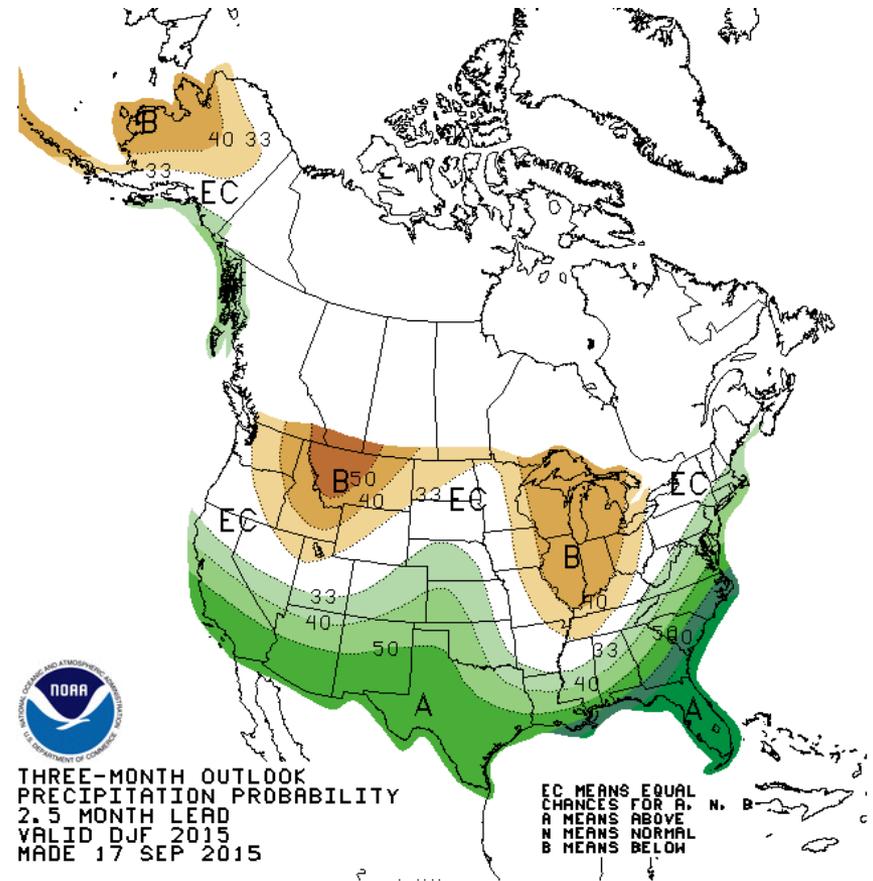
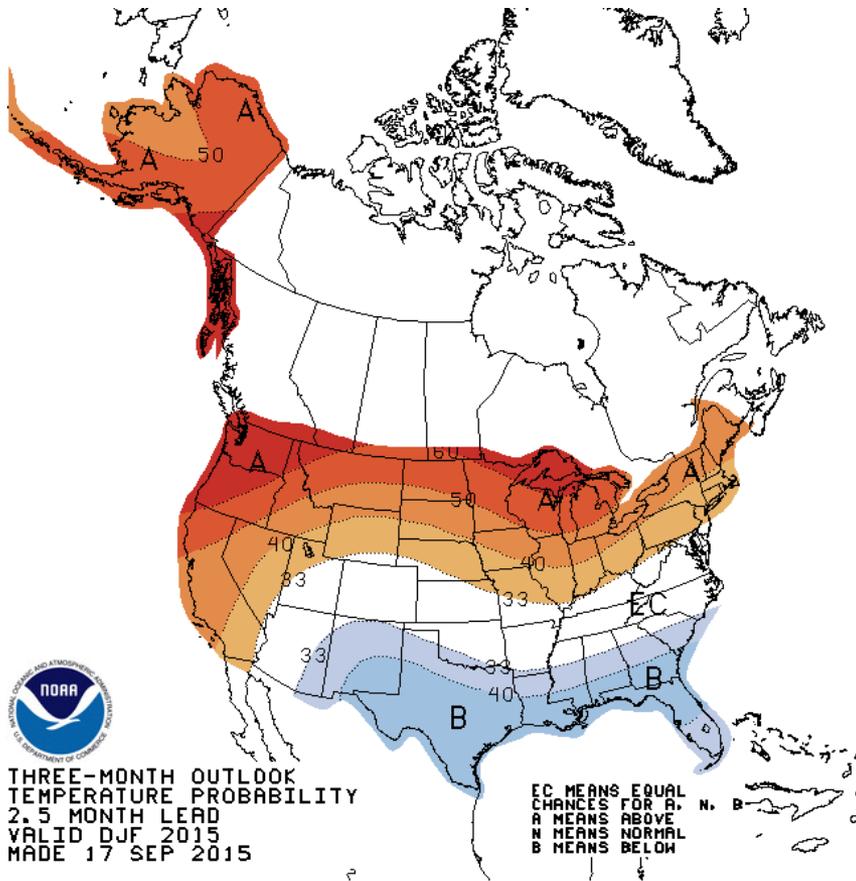


Temperature

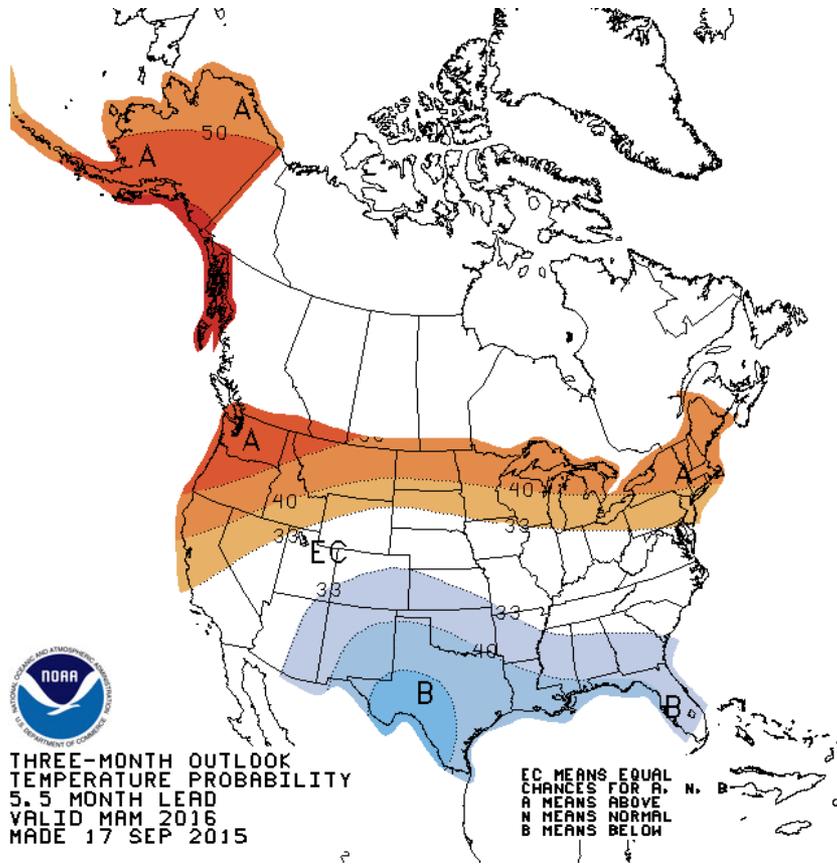


Precipitation

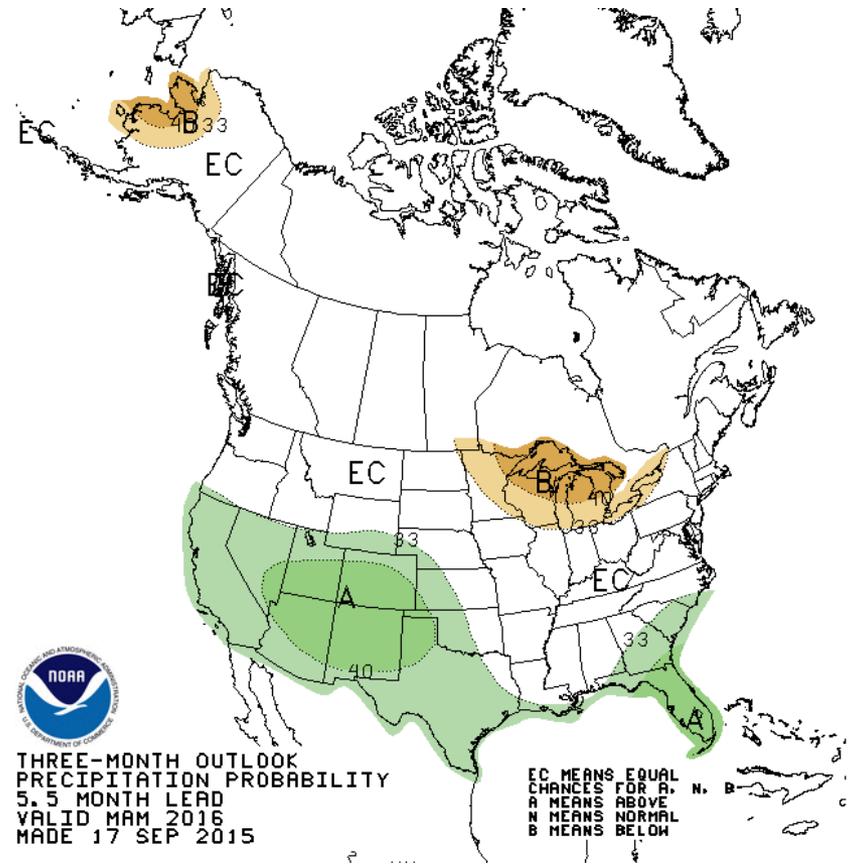
December – February Outlook



March – May Outlook



Temperature

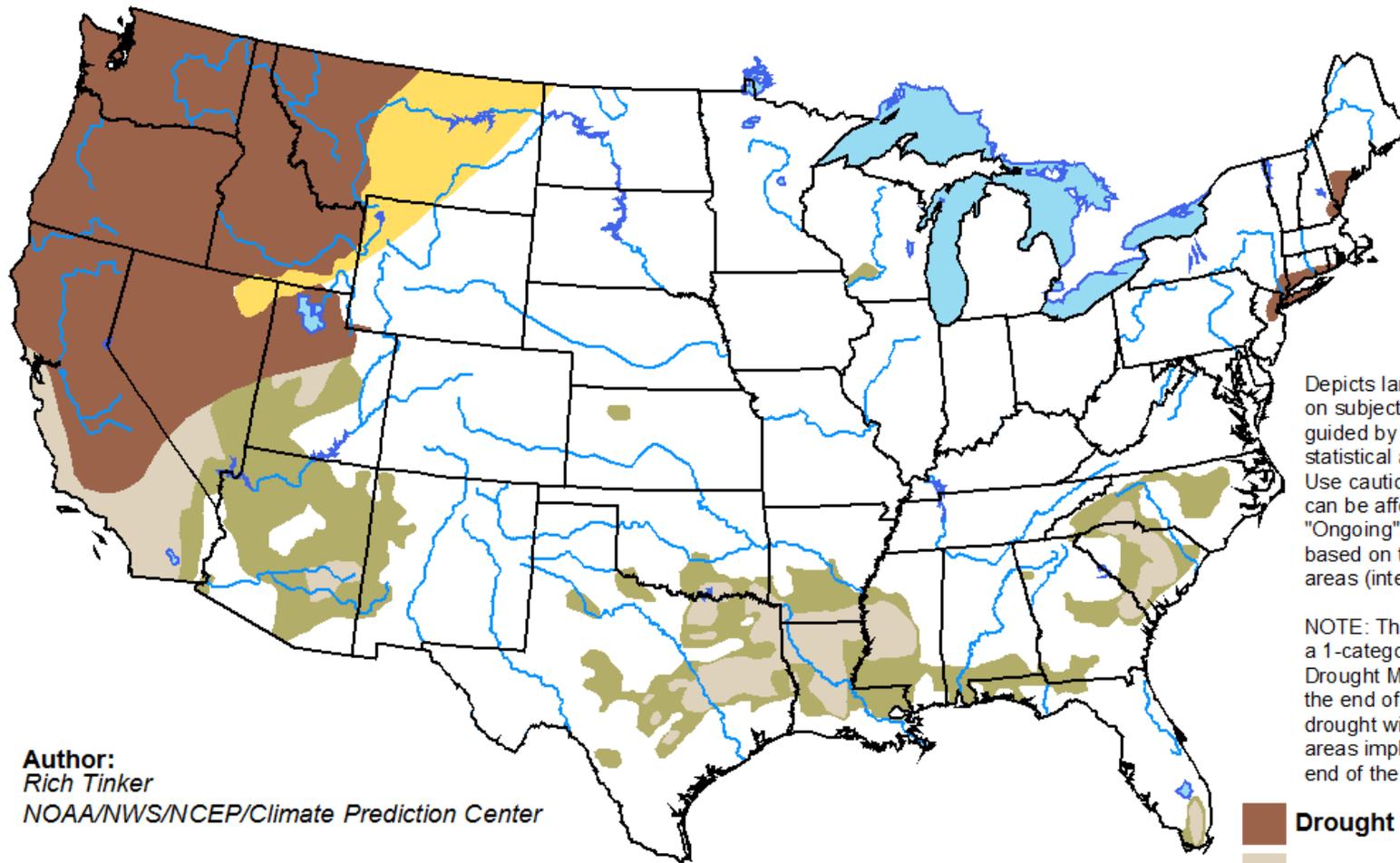


Precipitation

U.S. Seasonal Drought Outlook Valid for September 17 - December 31, 2015

Drought Tendency During the Valid Period

Released September 17, 2015

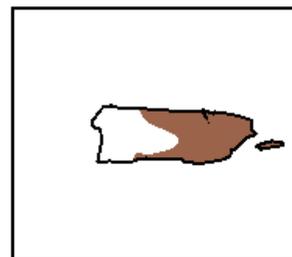
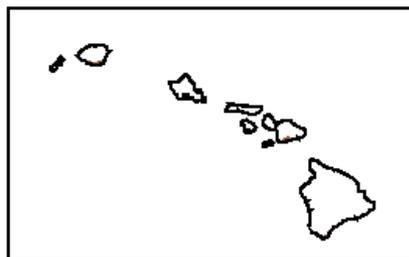
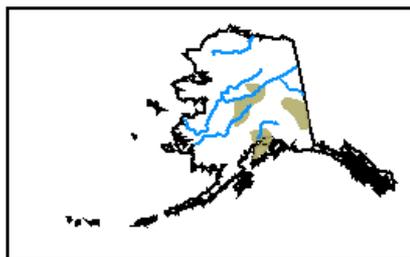


Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to 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:
 Rich Tinker
 NOAA/NWS/NCEP/Climate Prediction Center

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



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

Summary – Current Conditions

- Dry August has had some negative impacts on row crops in agriculture, particularly soybeans. Continued dry conditions could impact winter wheat planting.
- Reservoirs generally still in decent shape with earlier rains across much of the region

Summary - Forecast

- El Niño in play through winter season
- Fall – More likely warmer than average across northern US. Also more likely drier than average across Great Lakes region.
- Winter – Higher likelihood of warmer temperatures across northern states and Pacific Northwest. Enhanced probability of drier in northern Rockies and eastern Corn Belt.

Further Information - Partners

- **Today's and Past Recorded Presentations and :**
 - <http://mrcc.isws.illinois.edu/webinars.htm>
 - <http://www.hprcc.unl.edu>
- NOAA's National Climatic Data Center: www.ncdc.noaa.gov
 - Monthly climate reports (U.S. & Global):
www.ncdc.noaa.gov/sotc/
- NOAA's Climate Prediction Center: www.cpc.ncep.noaa.gov
- Climate Portal: www.climate.gov
- U.S. Drought Portal: www.drought.gov
- National Drought Mitigation Center: <http://drought.unl.edu/>
- State climatologists
 - <http://www.stateclimate.org>
- Regional climate centers
 - <http://mrcc.isws.illinois.edu>
 - <http://www.hprcc.unl.edu>

Thank You and Questions?

- Next webinar: October 15 with Nolan Doesken, CO State Climatologist
- Questions:
 - **Climate:**
 - Laura Edwards: laura.edwards@sdstate.edu, 605-626-2870
 - Jim Angel: jimangel@illinois.edu, 217-333-0729
 - Dennis Todey: dennis.todey@sdstate.edu , 605-688-5141
 - Doug Kluck: doug.kluck@noaa.gov, 816-994-3008
 - John Eise: john.eise@noaa.gov, 816-268-3144
 - Mike Timlin: mtimlin@illinois.edu; 217-333-8506
 - Natalie Umphlett: numphlett2@unl.edu ; 402 472-6764
 - Brian Fuchs: bfuchs2@unl.edu 402 472-6775
 - **Weather:**
 - crhroc@noaa.gov

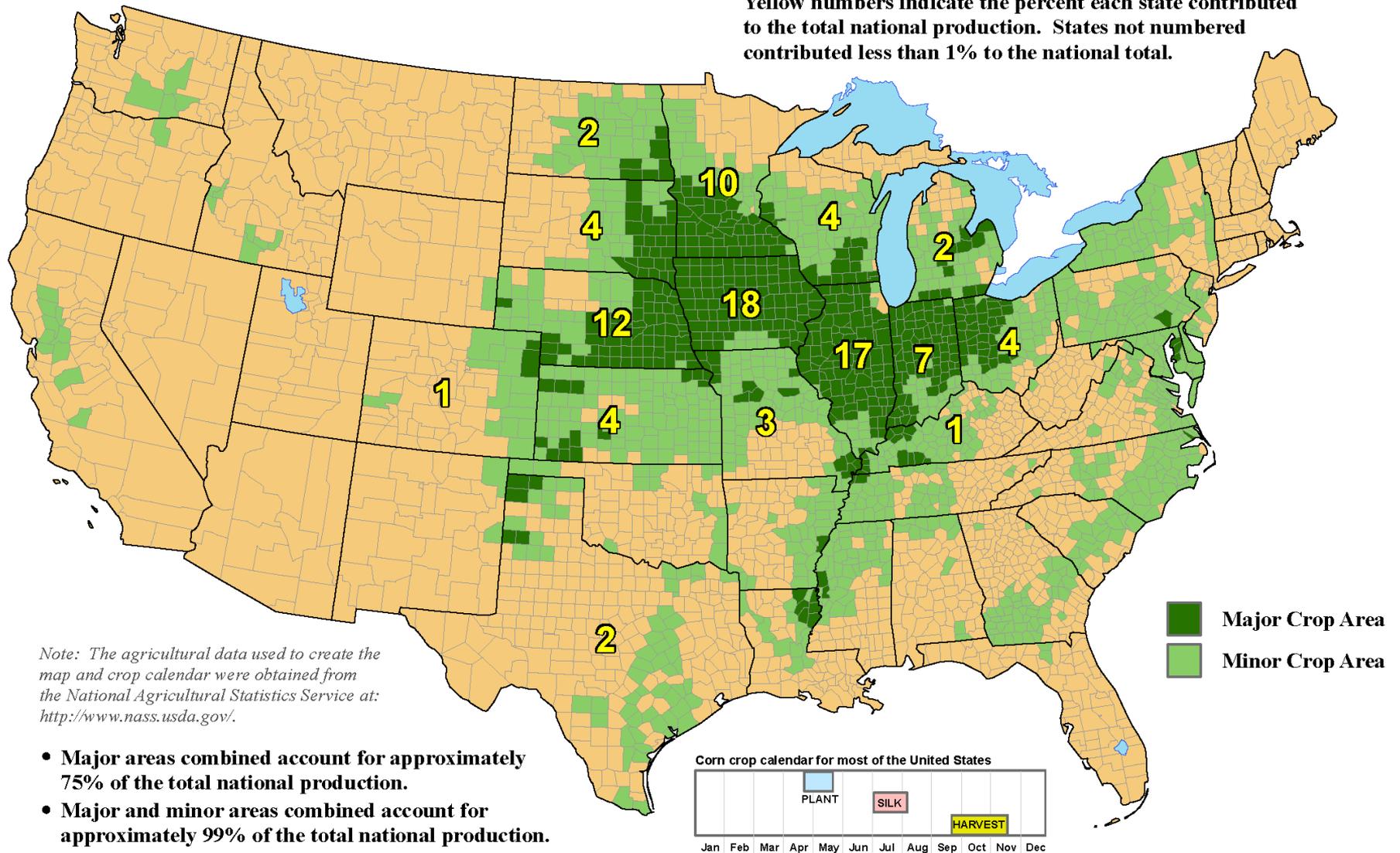
NOAA Central Region Webinar, September 17, 2015



Waseca County, MN, Late-August 2015. Photo by Michael Jewison, USDA

United States: Corn

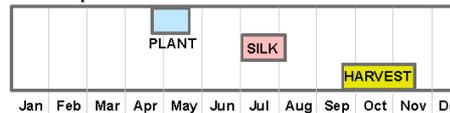
Yellow numbers indicate the percent each state contributed to the total national production. States not numbered contributed less than 1% to the national total.



Note: The agricultural data used to create the map and crop calendar were obtained from the National Agricultural Statistics Service at: <http://www.nass.usda.gov/>.

- Major areas combined account for approximately 75% of the total national production.
- Major and minor areas combined account for approximately 99% of the total national production.
- Major and minor areas and state production percentages are derived from NASS county- and state-level production data from 2006-2010.

Corn crop calendar for most of the United States



Crop calendar dates are based upon NASS crop progress data from 2006-2010. The field activities and crop development stages illustrated in the crop calendar represent the average time period when national progress advanced from 10 to 90 percent.

Waseca County, MN, Late-August 2015

Photo by Michael Jewison, USDA

- It was a mostly good year for corn, especially in the n/w Corn Belt.
- September 1 estimates, if realized, indicate record-high corn production in seven states in the north-central U.S.
- If September 1 estimates are realized, 2015 will feature the second-highest U.S. corn yield (167.5 bushels/acre) and third-largest production (13.6 billion bushels) on record.
- Drought affected less than 5% of the U.S. corn production area during the heart of the 2015 growing season.
- Currently, more than two-thirds (68%) of the U.S. corn crop is rated good to excellent.
- However, less than 60% of the corn was rated good to excellent in the southern Corn Belt States.

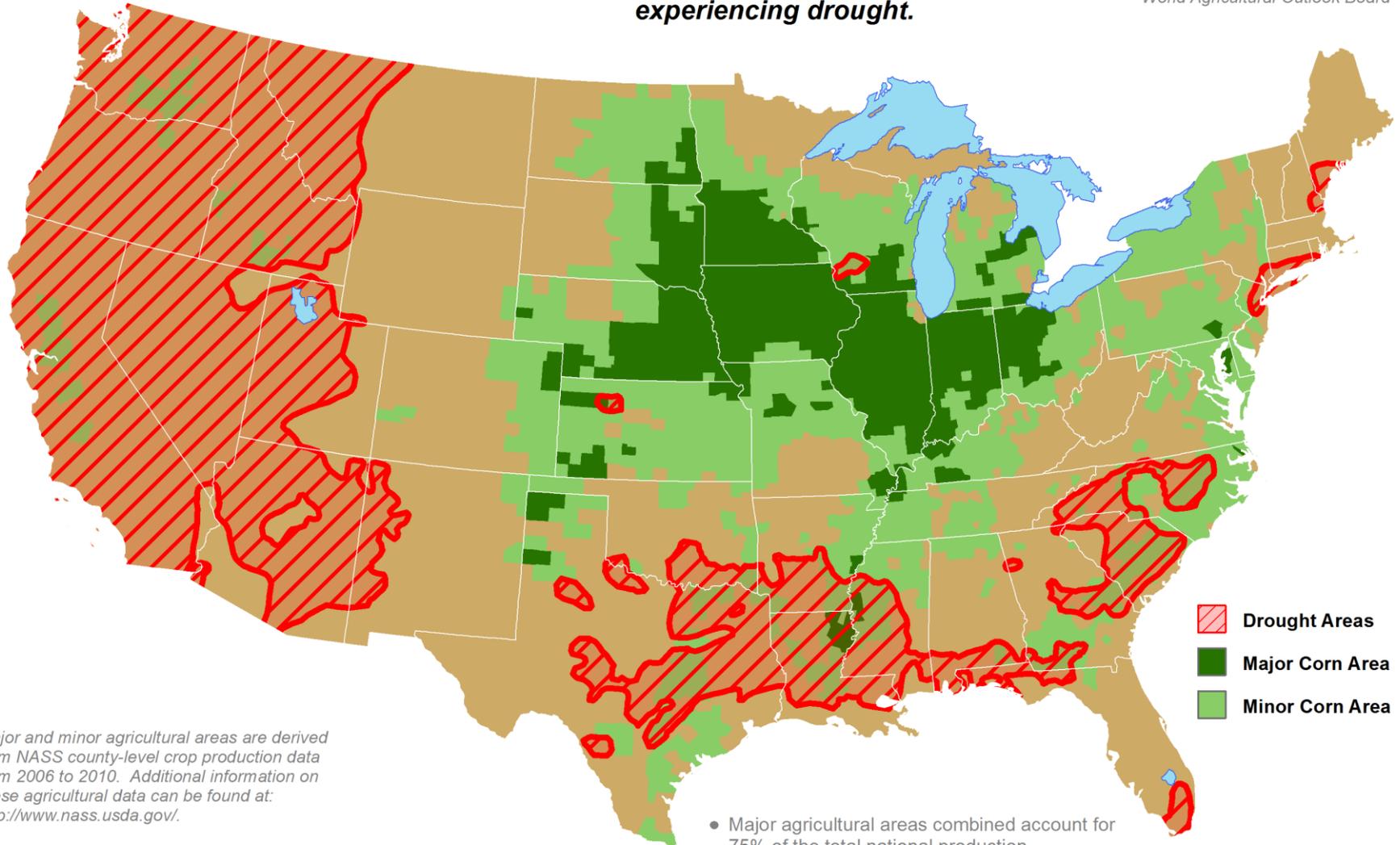


U.S. Corn Areas Experiencing Drought

Reflects **September 15, 2015**
U.S. Drought Monitor data

Approximately **4%** of corn
production is within an area
experiencing drought.

This product was prepared by the
USDA Office of the Chief Economist
World Agricultural Outlook Board

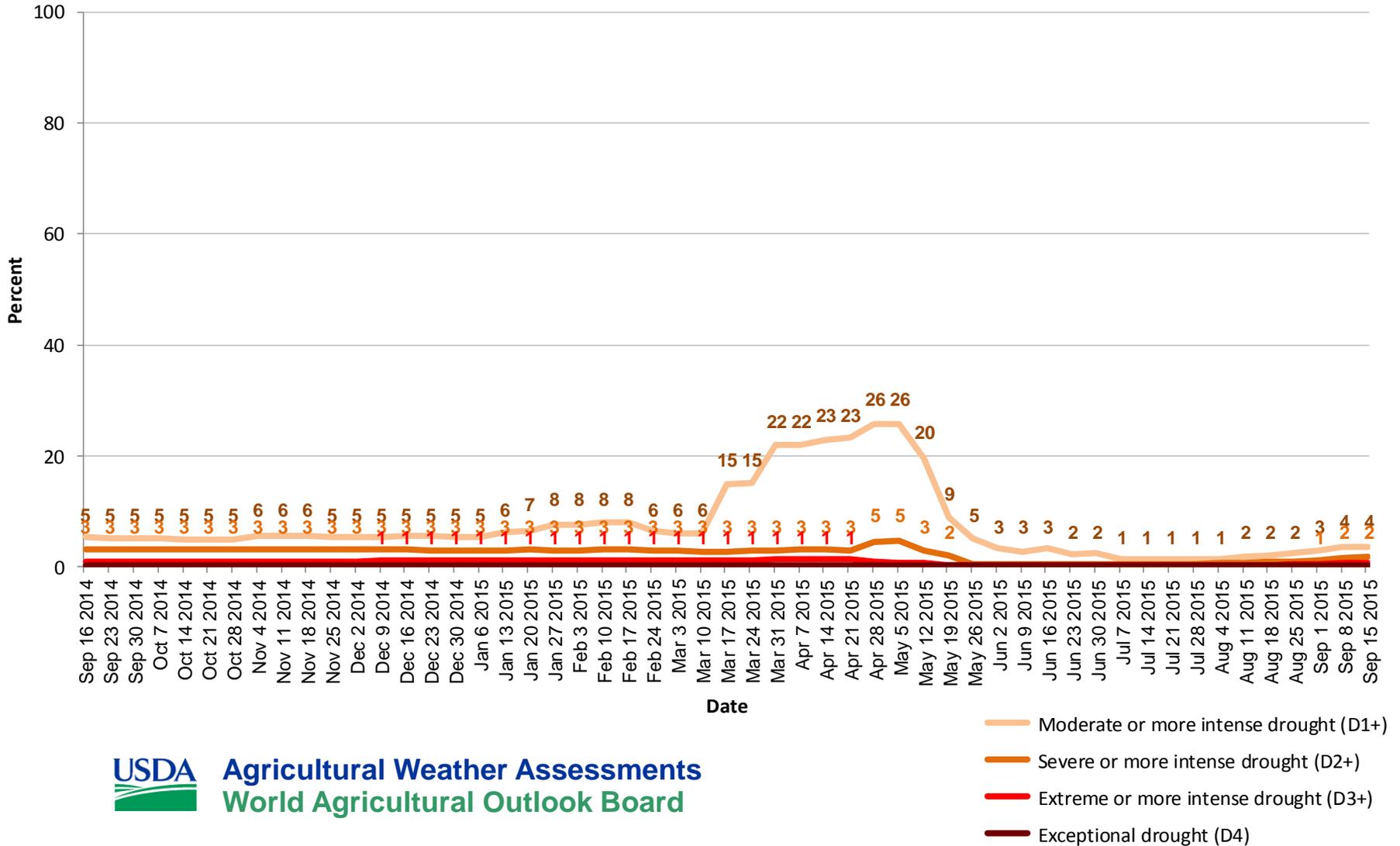


Major and minor agricultural areas are derived from NASS county-level crop production data from 2006 to 2010. Additional information on these agricultural data can be found at: <http://www.nass.usda.gov/>.

Mapped drought areas are derived from the U.S. Drought Monitor product and do not depict the intensity of drought in any particular location. More information on the Drought Monitor can be found at: <http://droughtmonitor.unl.edu/>.

- Major agricultural areas combined account for 75% of the total national production.
- Major and minor agricultural areas combined account for 99% of the total national production.

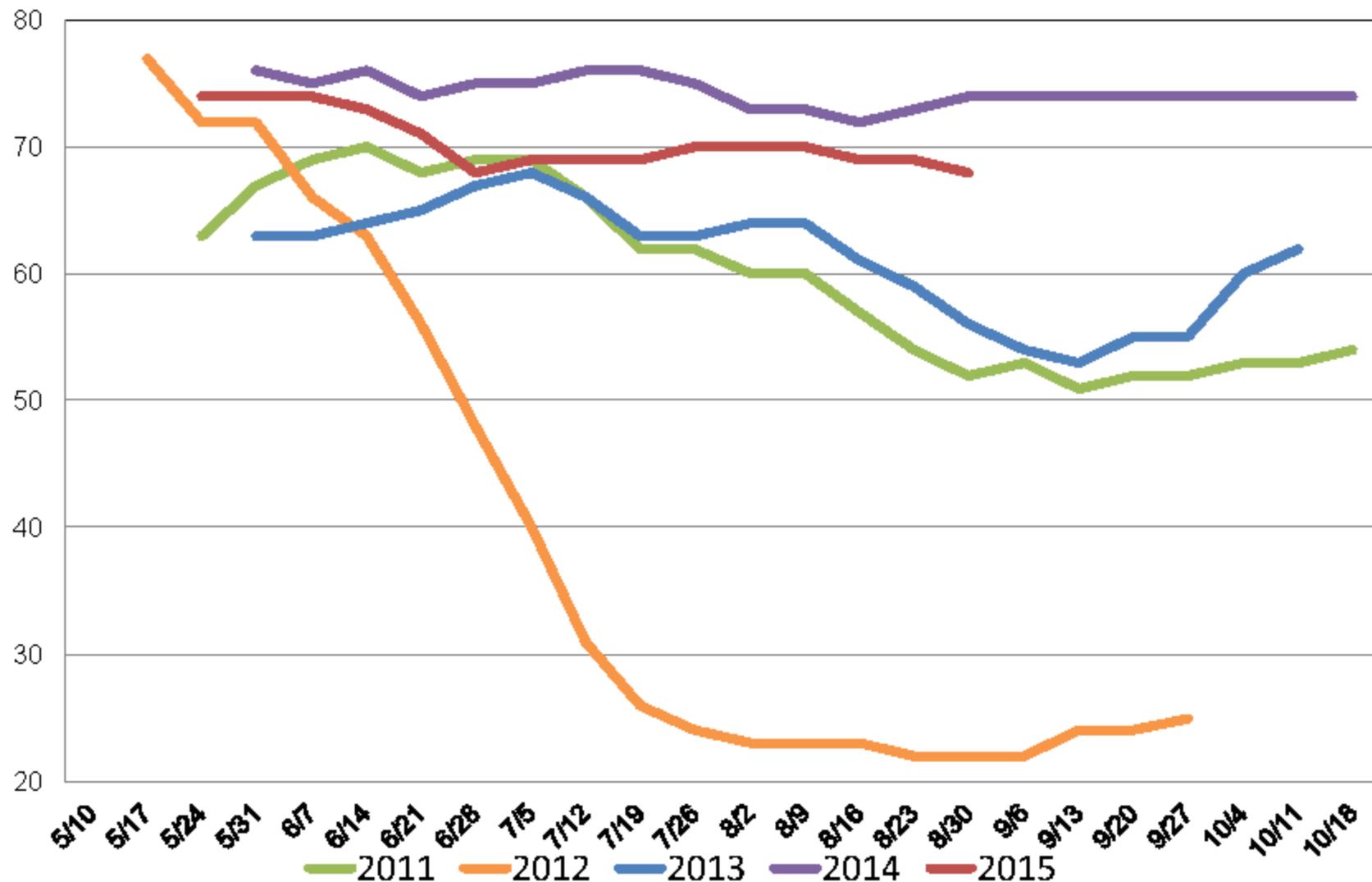
United States Corn Areas Located in Drought



U.S. Corn Condition

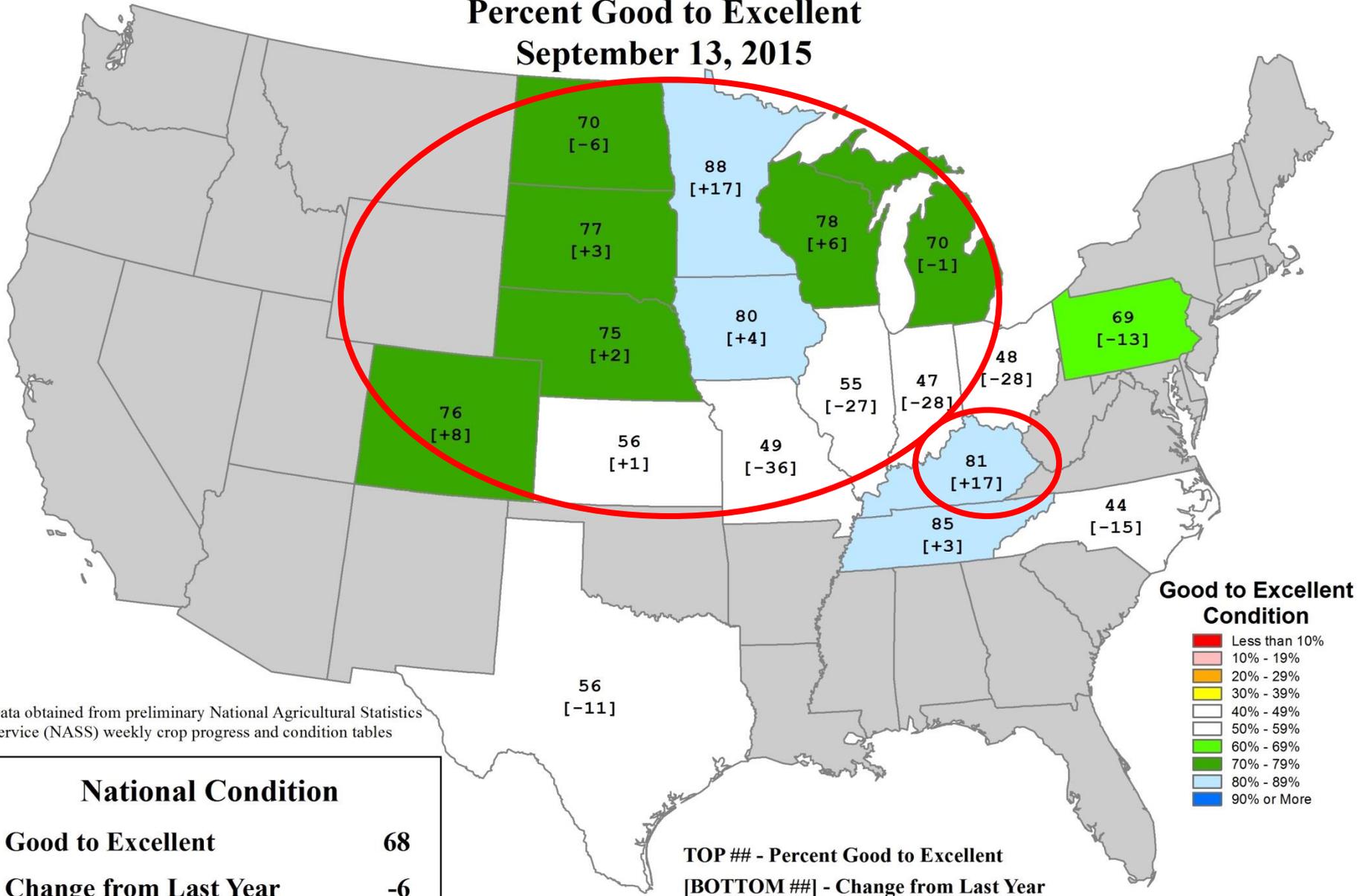
Percent Rated Good to Excellent

Percent



U.S. Corn Conditions

Percent Good to Excellent
September 13, 2015



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

National Condition	
Good to Excellent	68
Change from Last Year	-6

TOP ## - Percent Good to Excellent
[BOTTOM ##] - Change from Last Year

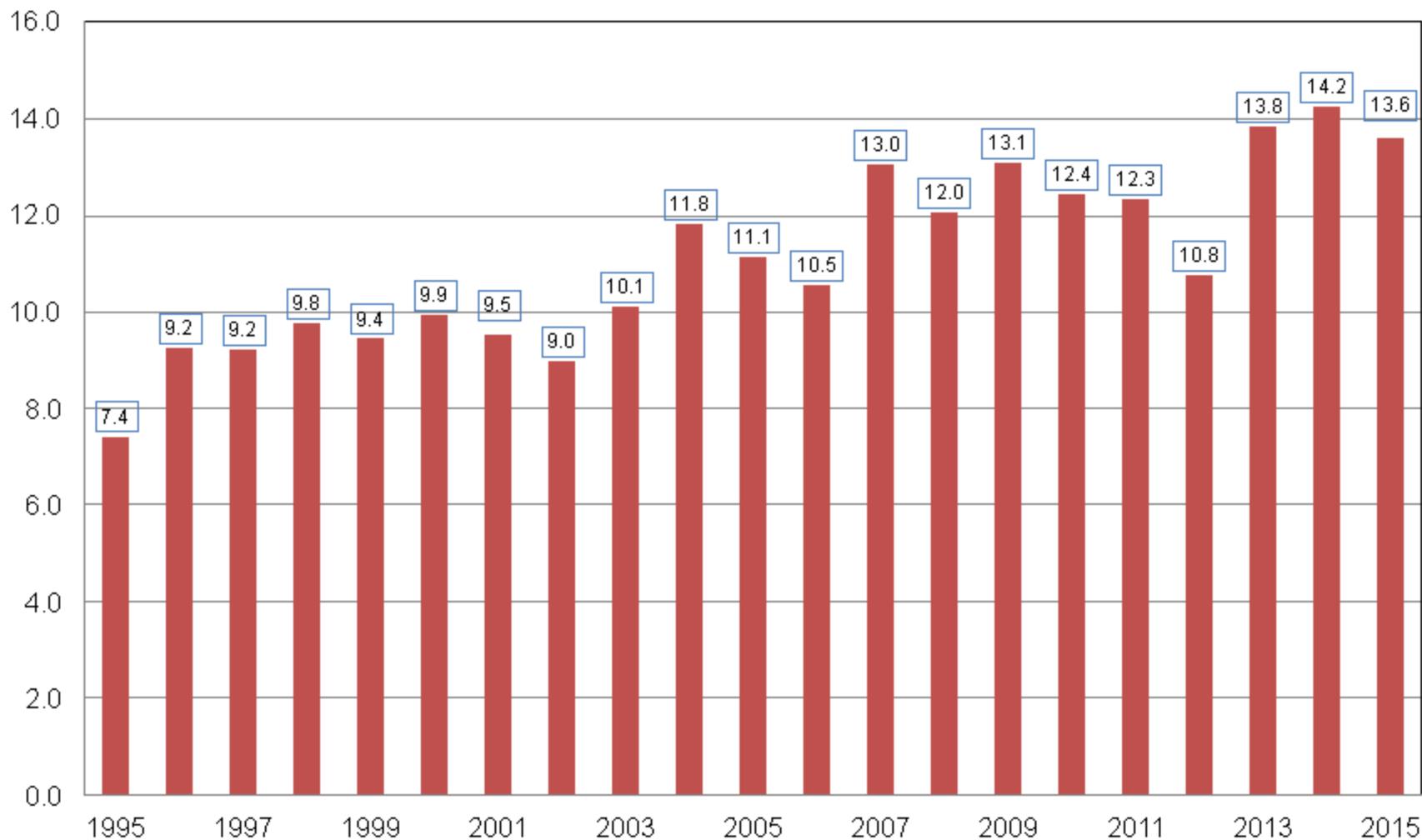
Good to Excellent Condition

- Less than 10%
- 10% - 19%
- 20% - 29%
- 30% - 39%
- 40% - 49%
- 50% - 59%
- 60% - 69%
- 70% - 79%
- 80% - 89%
- 90% or More



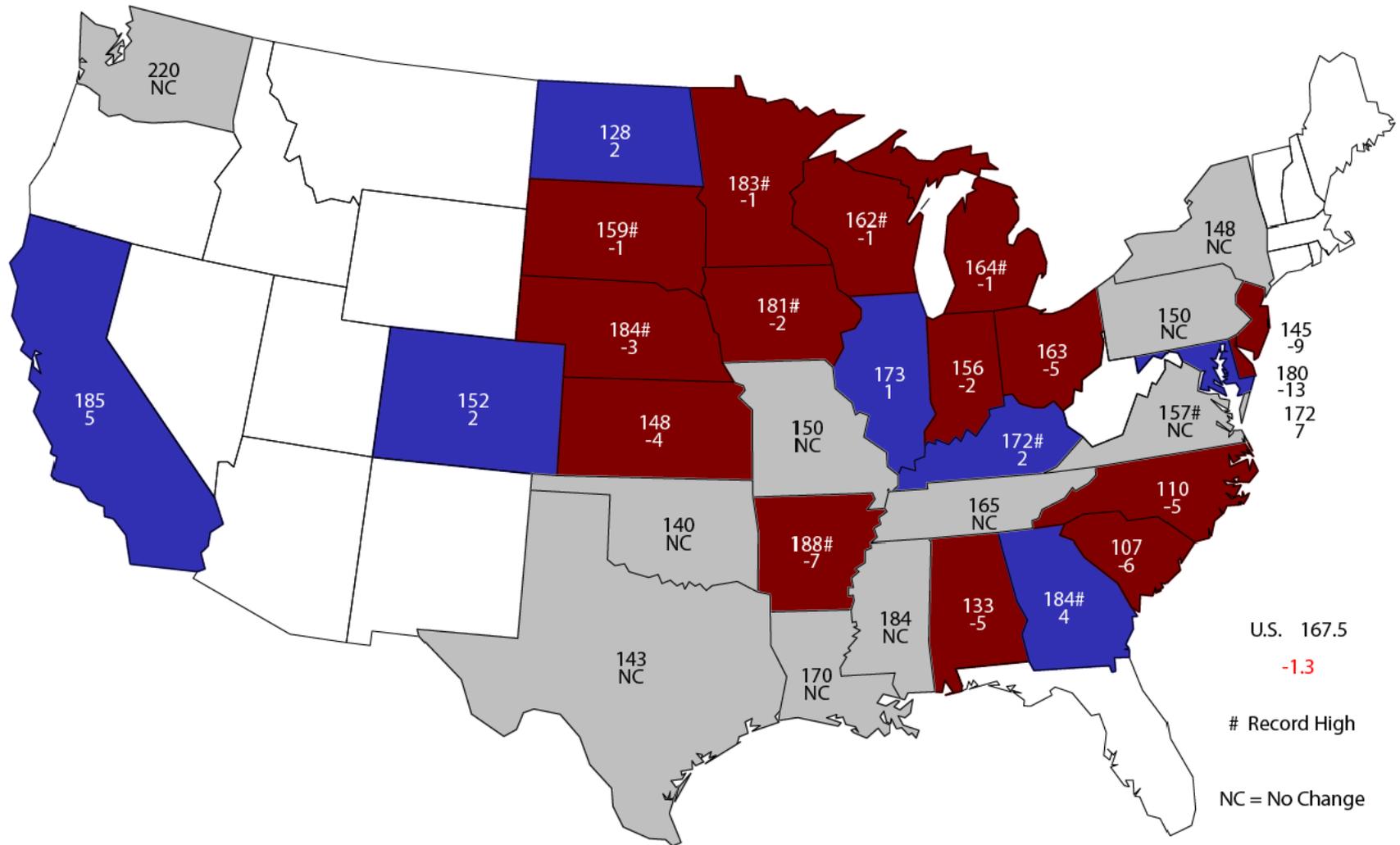
Corn for Grain Production United States

Billion Bushels



September 1, 2015 Corn Yield

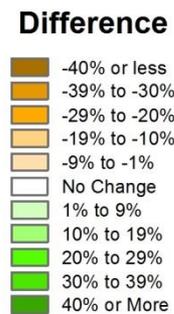
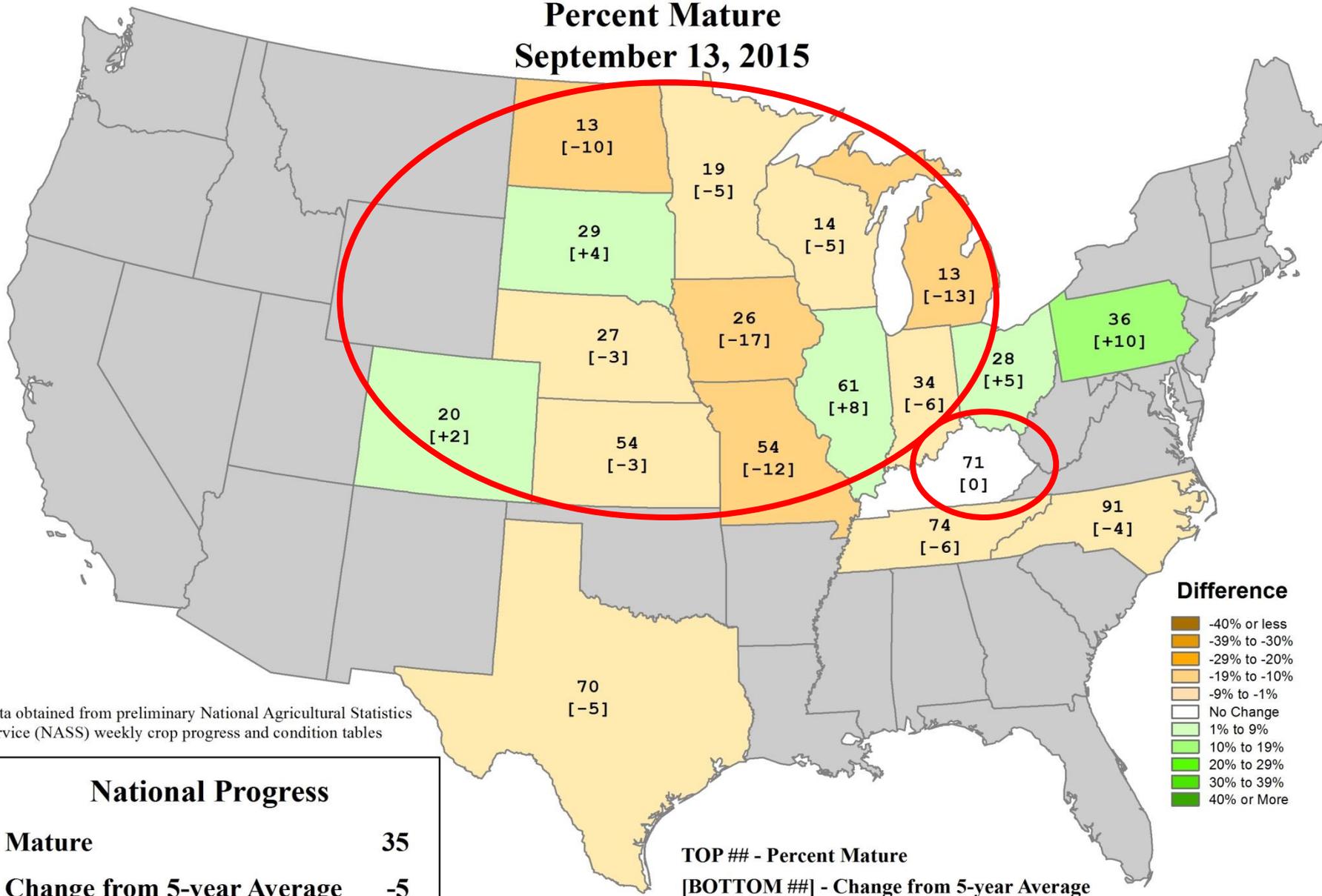
Bushels and Change From Previous Month



U.S. 167.5
 -1.3
 # Record High
 NC = No Change

U.S. Corn Progress

Percent Mature
September 13, 2015



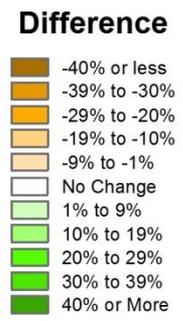
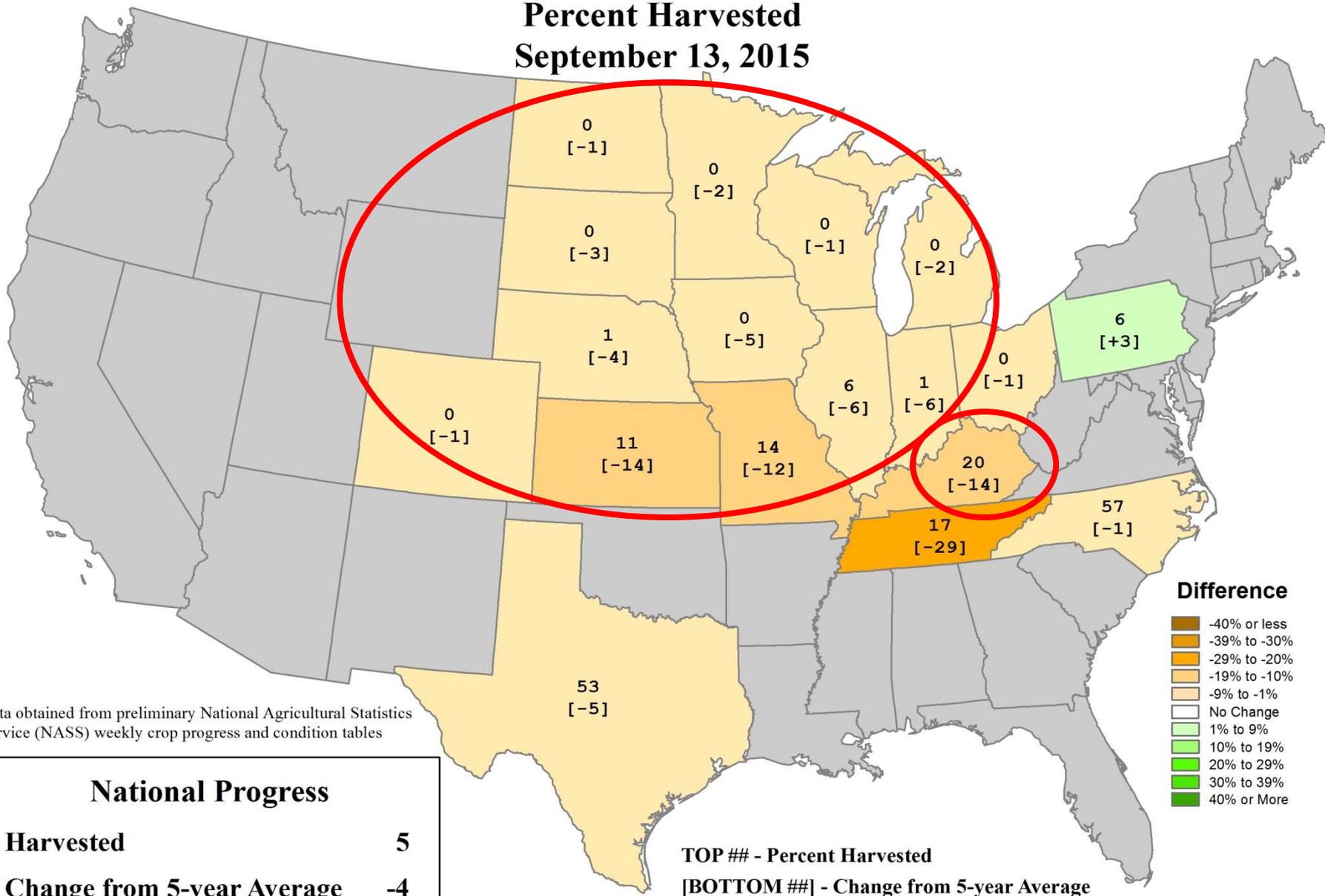
Data obtained from preliminary National Agricultural Statistics Service (NASS) weekly crop progress and condition tables

National Progress	
Mature	35
Change from 5-year Average	-5

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

U.S. Corn Progress

Percent Harvested
September 13, 2015



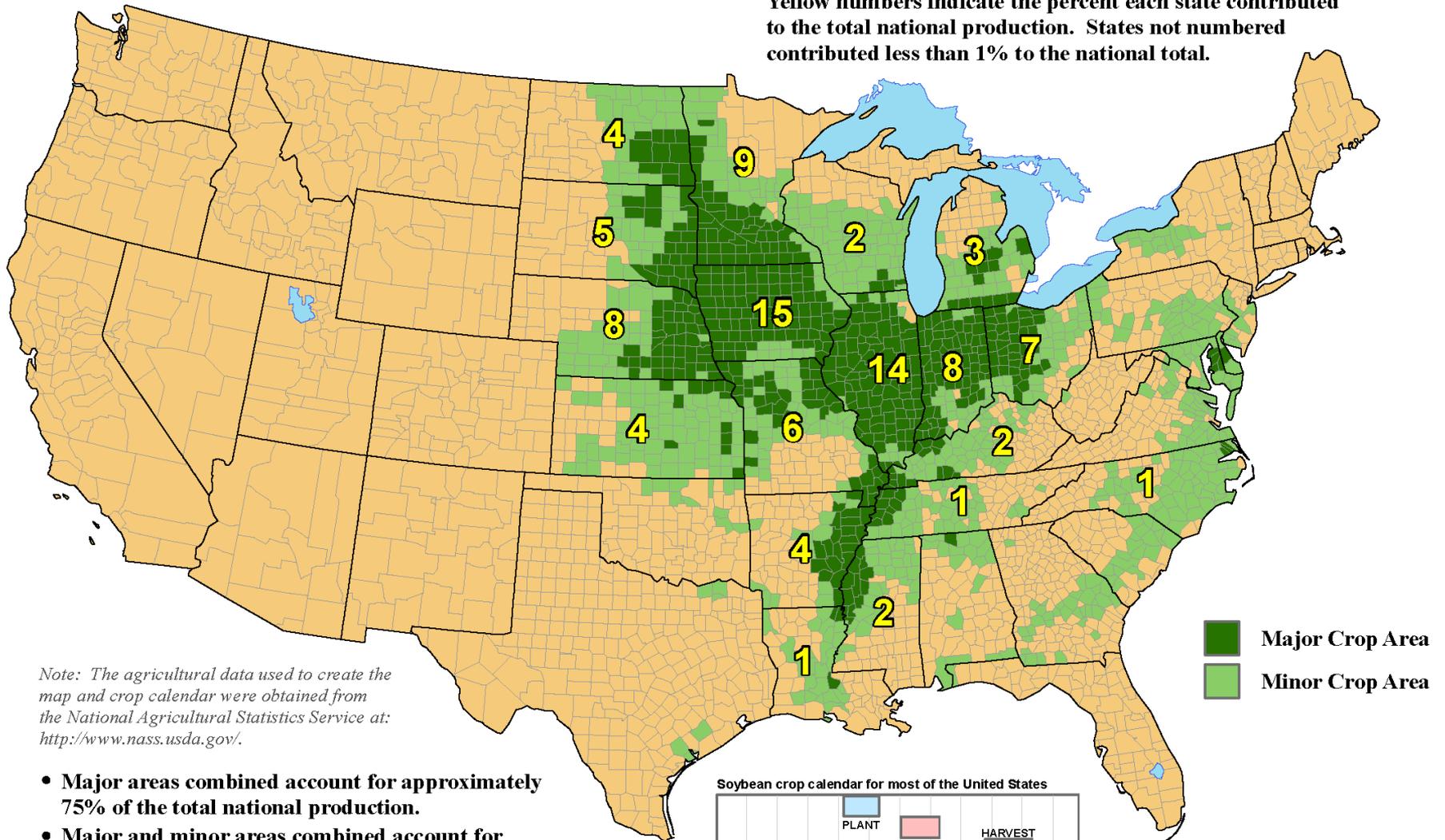
Data obtained from preliminary National Agricultural Statistics Service (NASS) weekly crop progress and condition tables

National Progress	
Harvested	5
Change from 5-year Average	-4

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

United States: Soybeans

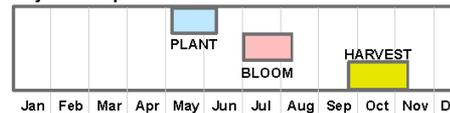
Yellow numbers indicate the percent each state contributed to the total national production. States not numbered contributed less than 1% to the national total.



Note: The agricultural data used to create the map and crop calendar were obtained from the National Agricultural Statistics Service at: <http://www.nass.usda.gov/>.

- Major areas combined account for approximately 75% of the total national production.
- Major and minor areas combined account for approximately 99% of the total national production.
- Major and minor areas and state production percentages are derived from NASS county- and state-level production data from 2006-2010.

Soybean crop calendar for most of the United States



Crop calendar dates are based upon NASS crop progress data from 2006-2010. The field activities and crop development stages illustrated in the crop calendar represent the average time period when national progress advanced from 10 to 90 percent.

Partially Flooded Soybean Field in Missouri, 2015. Photo from “2015 Weather Challenges to Missouri Agriculture,” University of Missouri Extension

- It was a mostly good year for soybeans in the northern and western Corn Belt.
- September 1 estimates, if realized, indicate record-high soybean production in six states (IA, KY, MI, MN, NE, and SD) in the north-central U.S.
- If September 1 estimates are realized, 2015 will feature the second-highest U.S. soybean yield (47.1 bushels/acre) and production (3.94 billion bushels) on record, behind only 2014.
- Drought affected less than 5% of the U.S. soybean production area during the heart of the 2015 growing season.
- Currently, 61% of the U.S. soybean crop is rated good to excellent.
- However, only 35 to 55% of the soybeans were rated good to excellent in the southern Corn Belt States.

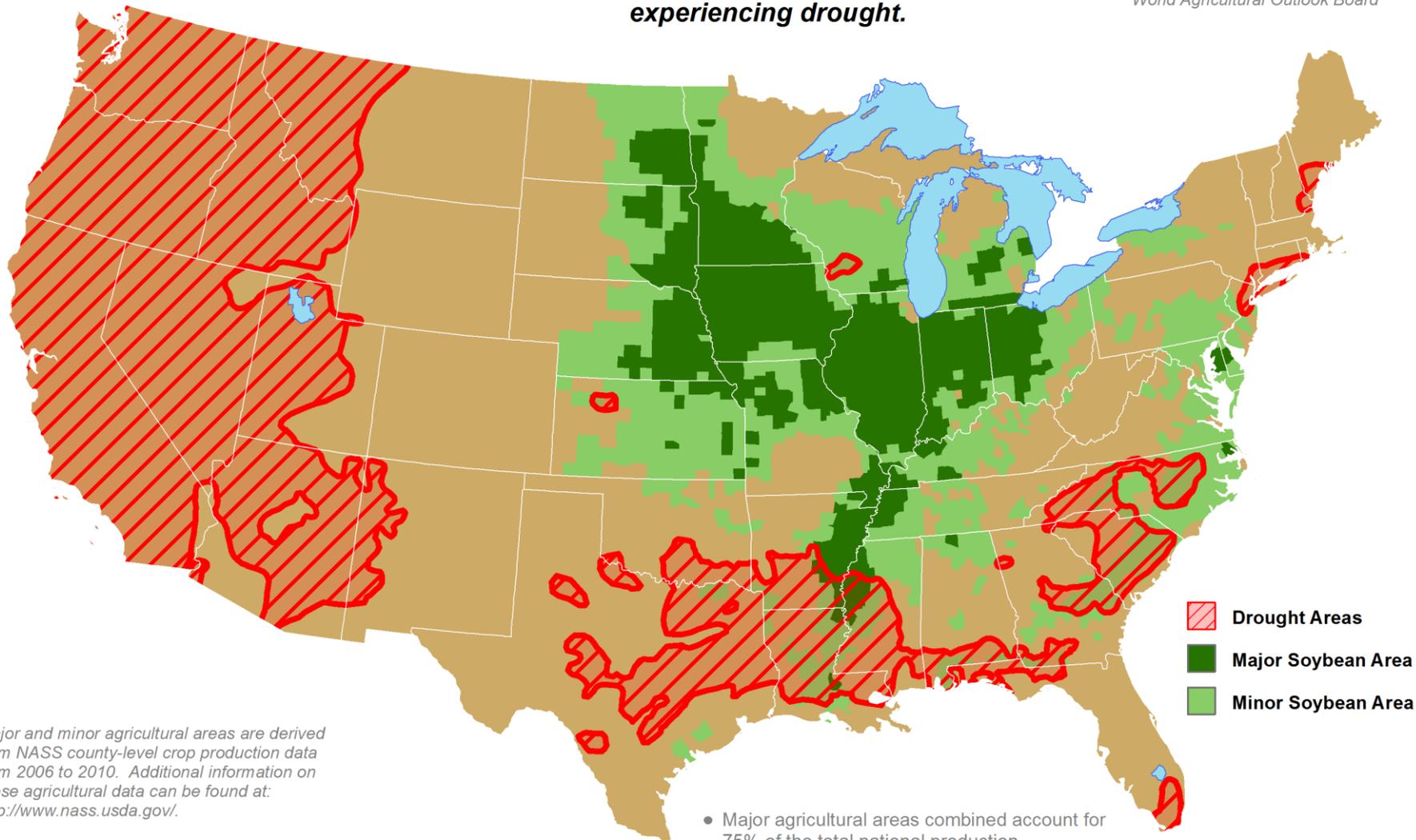


U.S. Soybean Areas Experiencing Drought

Reflects **September 15, 2015**
U.S. Drought Monitor data

Approximately **4%** of soybean
production is within an area
experiencing drought.

This product was prepared by the
USDA Office of the Chief Economist
World Agricultural Outlook Board

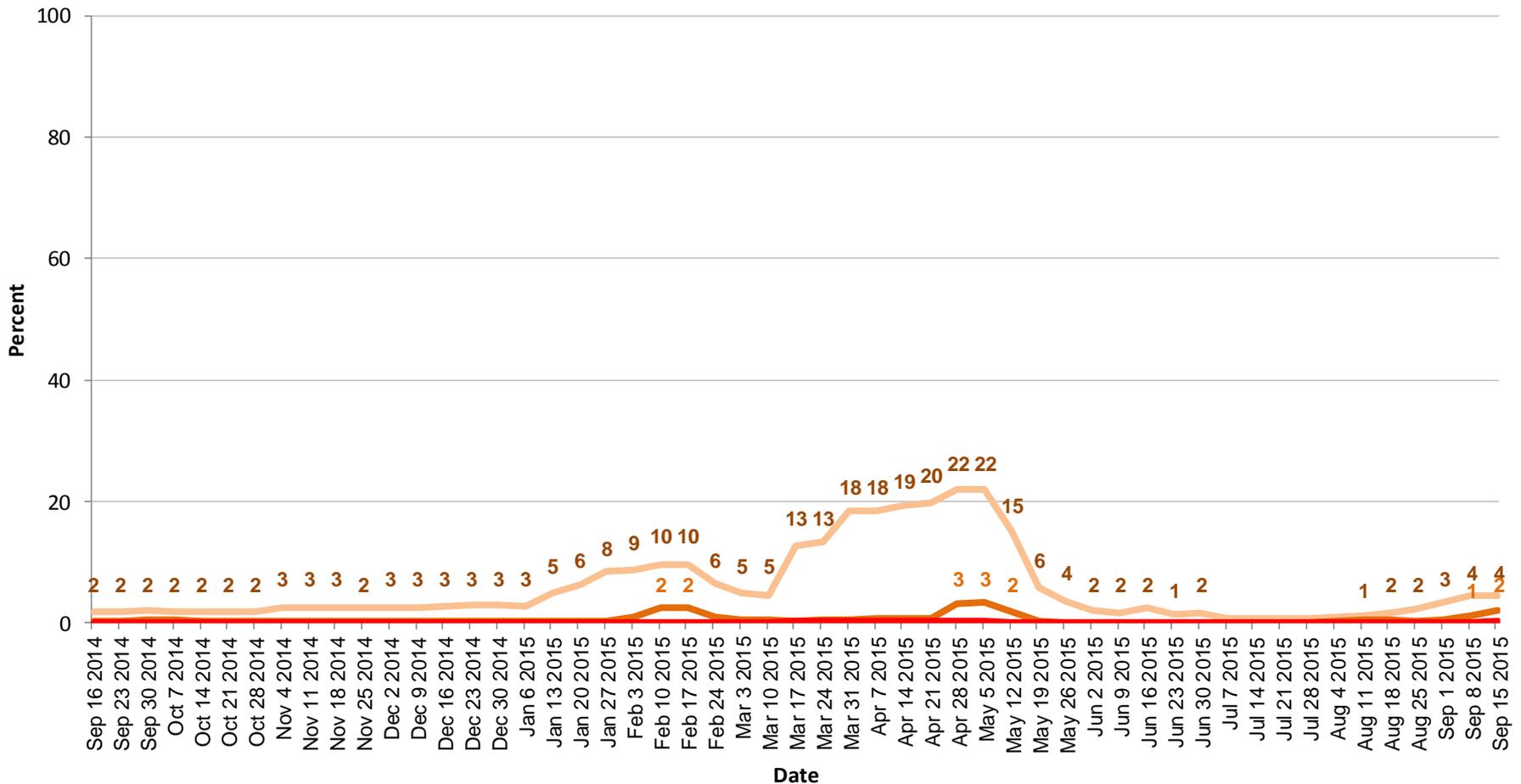


Major and minor agricultural areas are derived from NASS county-level crop production data from 2006 to 2010. Additional information on these agricultural data can be found at: <http://www.nass.usda.gov/>.

Mapped drought areas are derived from the U.S. Drought Monitor product and do not depict the intensity of drought in any particular location. More information on the Drought Monitor can be found at: <http://droughtmonitor.unl.edu/>.

- Major agricultural areas combined account for 75% of the total national production.
- Major and minor agricultural areas combined account for 99% of the total national production.

United States Soybean Areas Located in Drought

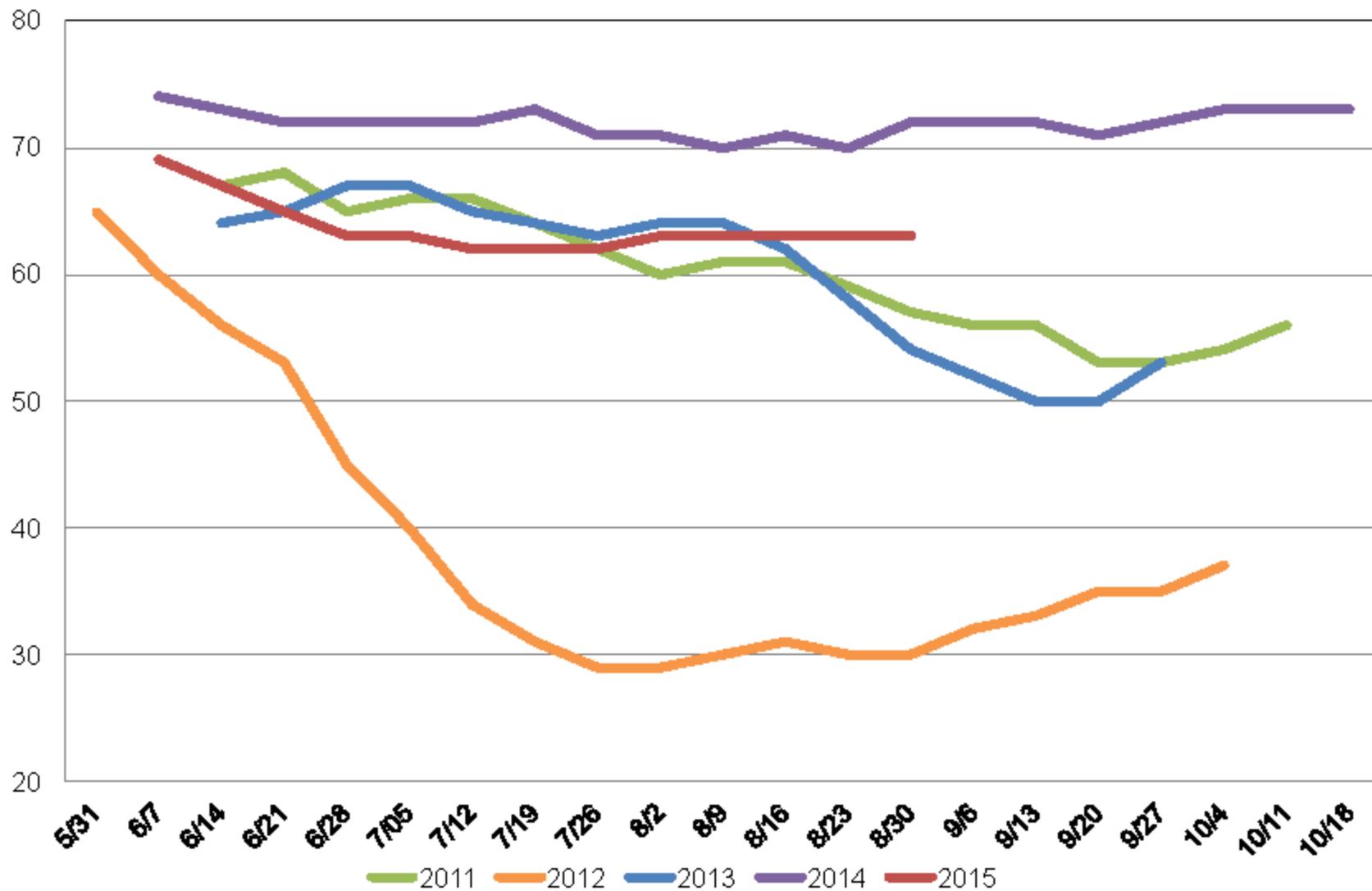


- Moderate or more intense drought (D1+)
- Severe or more intense drought (D2+)
- Extreme or more intense drought (D3+)
- Exceptional drought (D4)

U.S. Soybean Condition

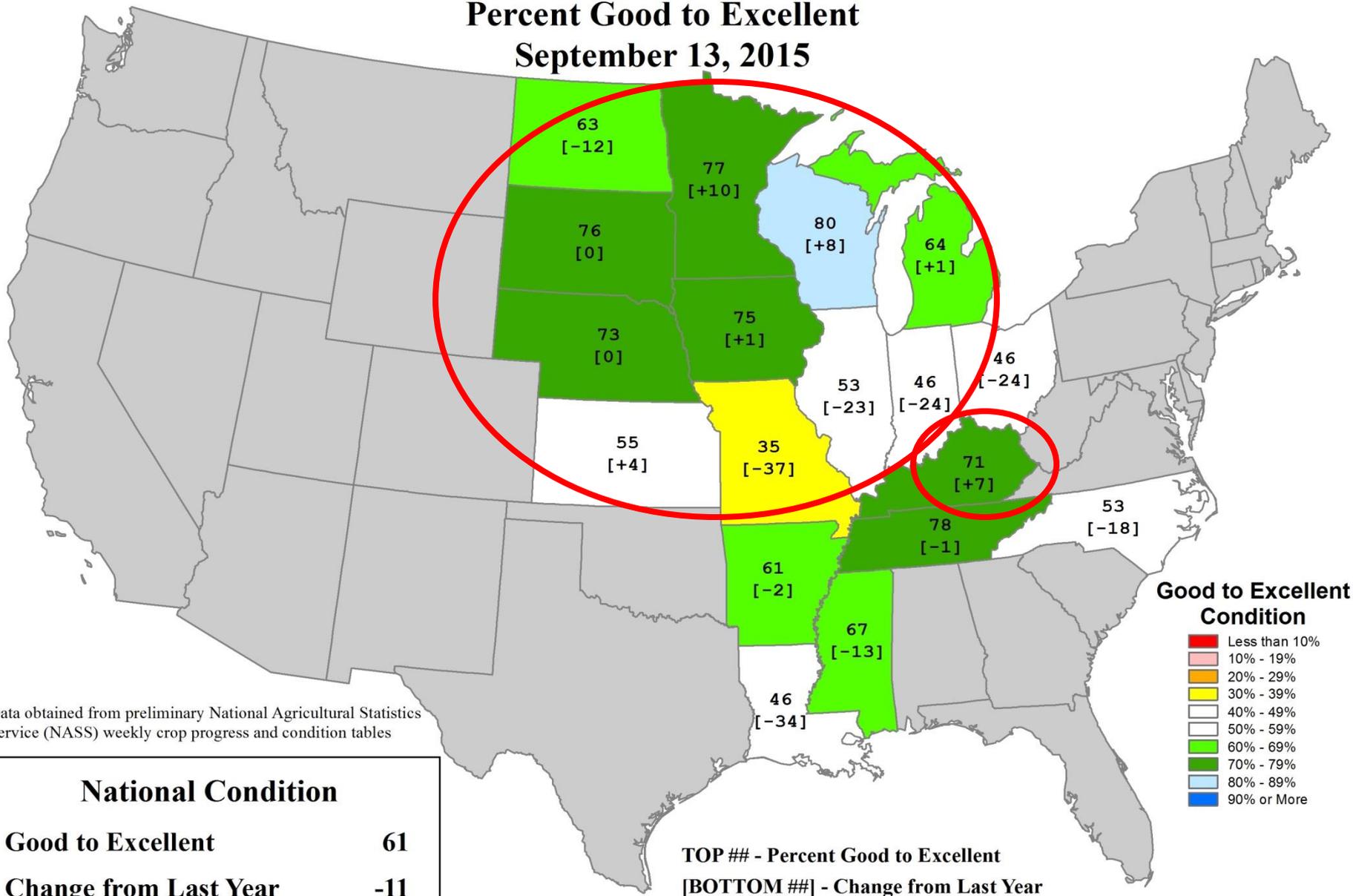
Percent Rated Good to Excellent

Percent



U.S. Soybean Conditions

Percent Good to Excellent
September 13, 2015



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

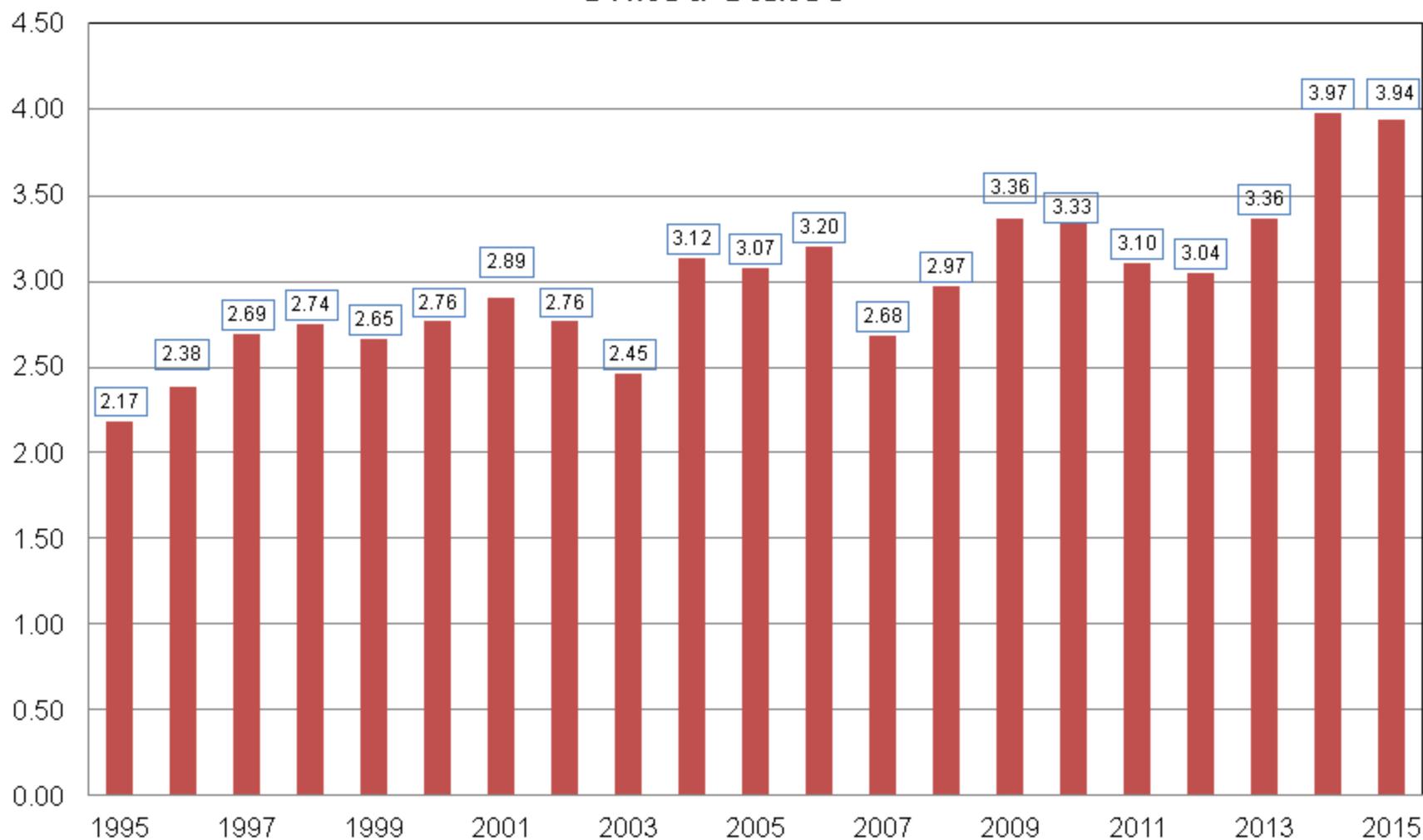
National Condition	
Good to Excellent	61
Change from Last Year	-11

TOP ## - Percent Good to Excellent
[BOTTOM ##] - Change from Last Year



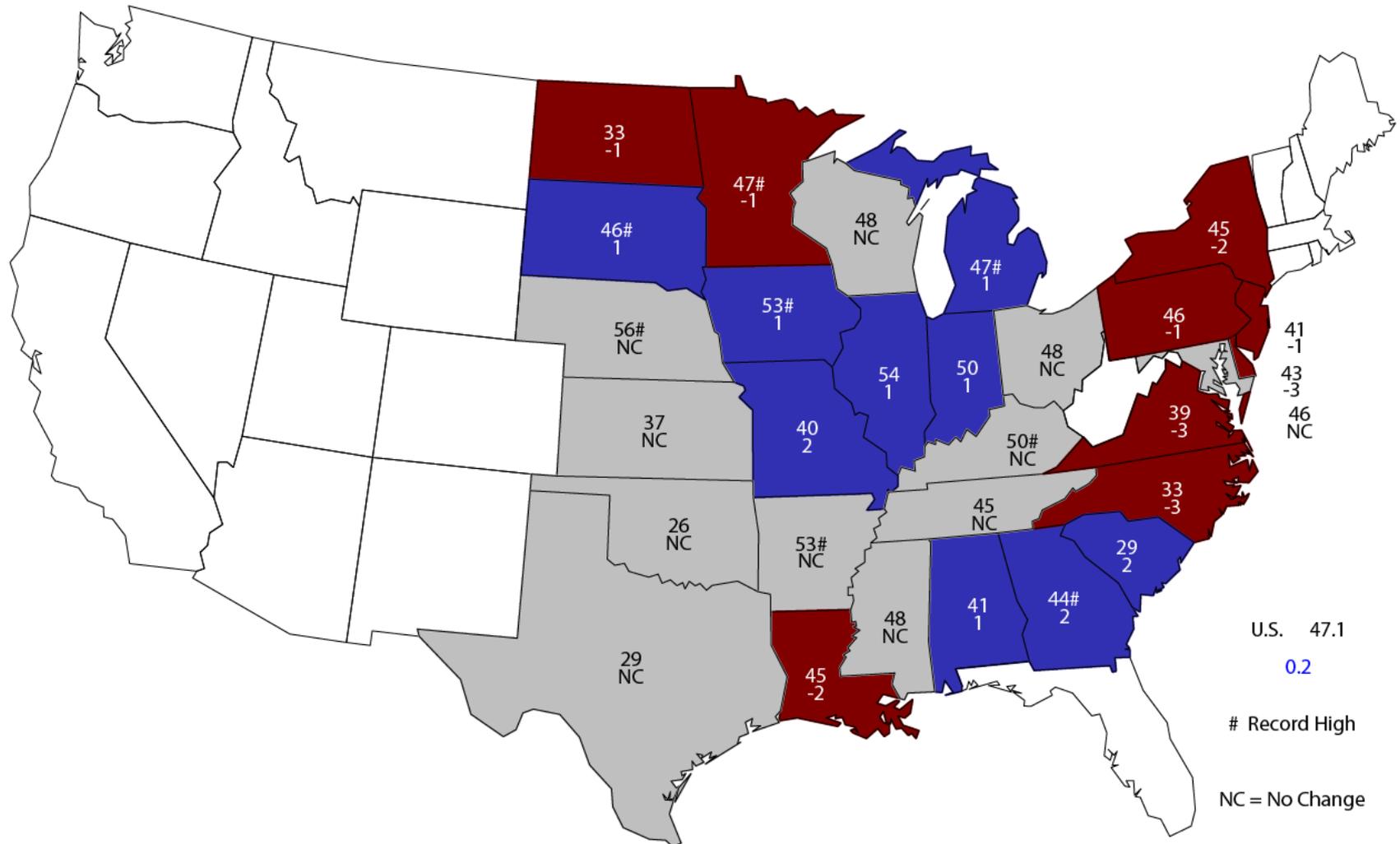
Soybean Production United States

Billion Bushels



September 1, 2015 Soybean Yield

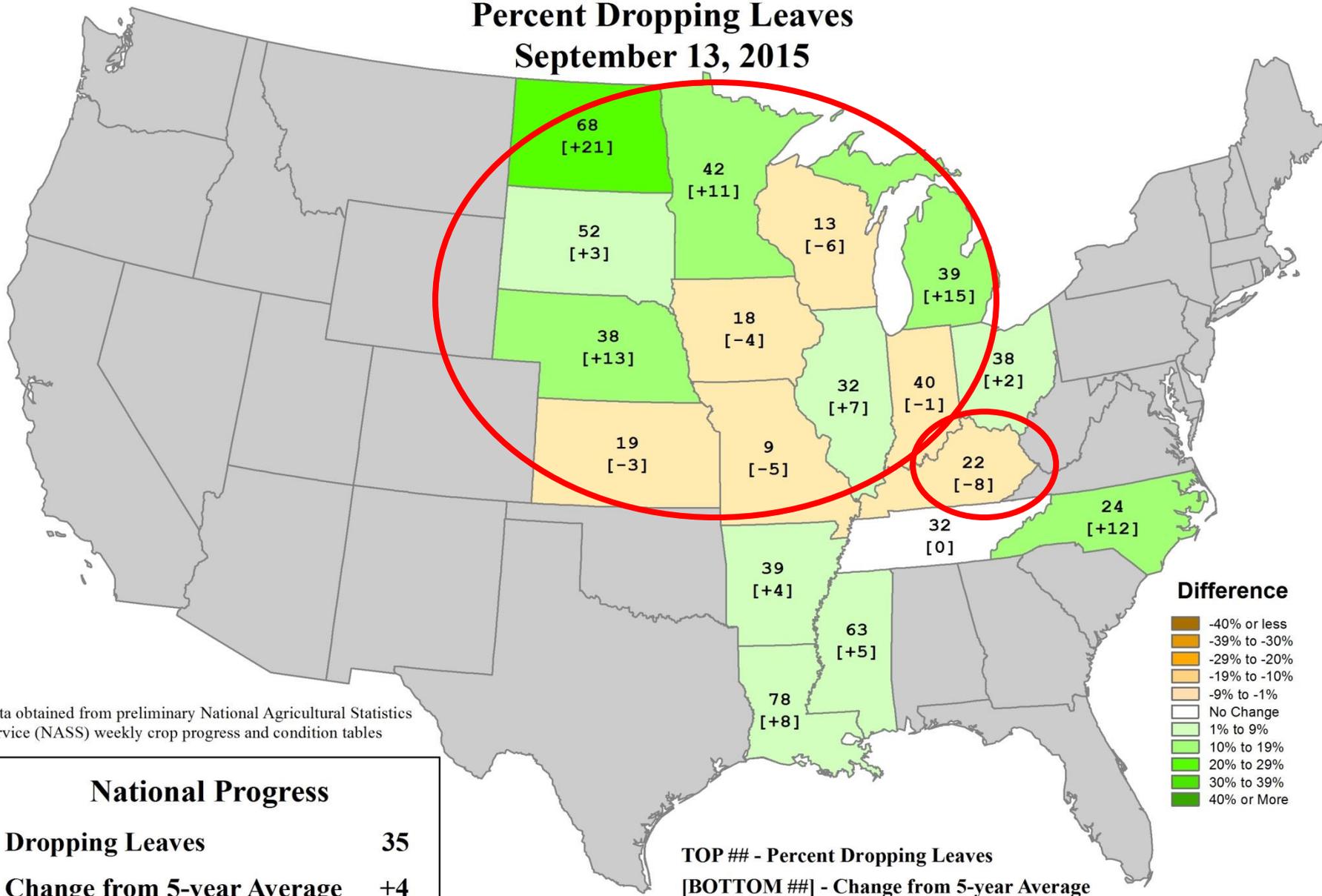
Bushels and Change From Previous Month



U.S. 47.1
 0.2
 # Record High
 NC = No Change

U.S. Soybeans Progress

Percent Dropping Leaves
September 13, 2015



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

National Progress	
Dropping Leaves	35
Change from 5-year Average	+4

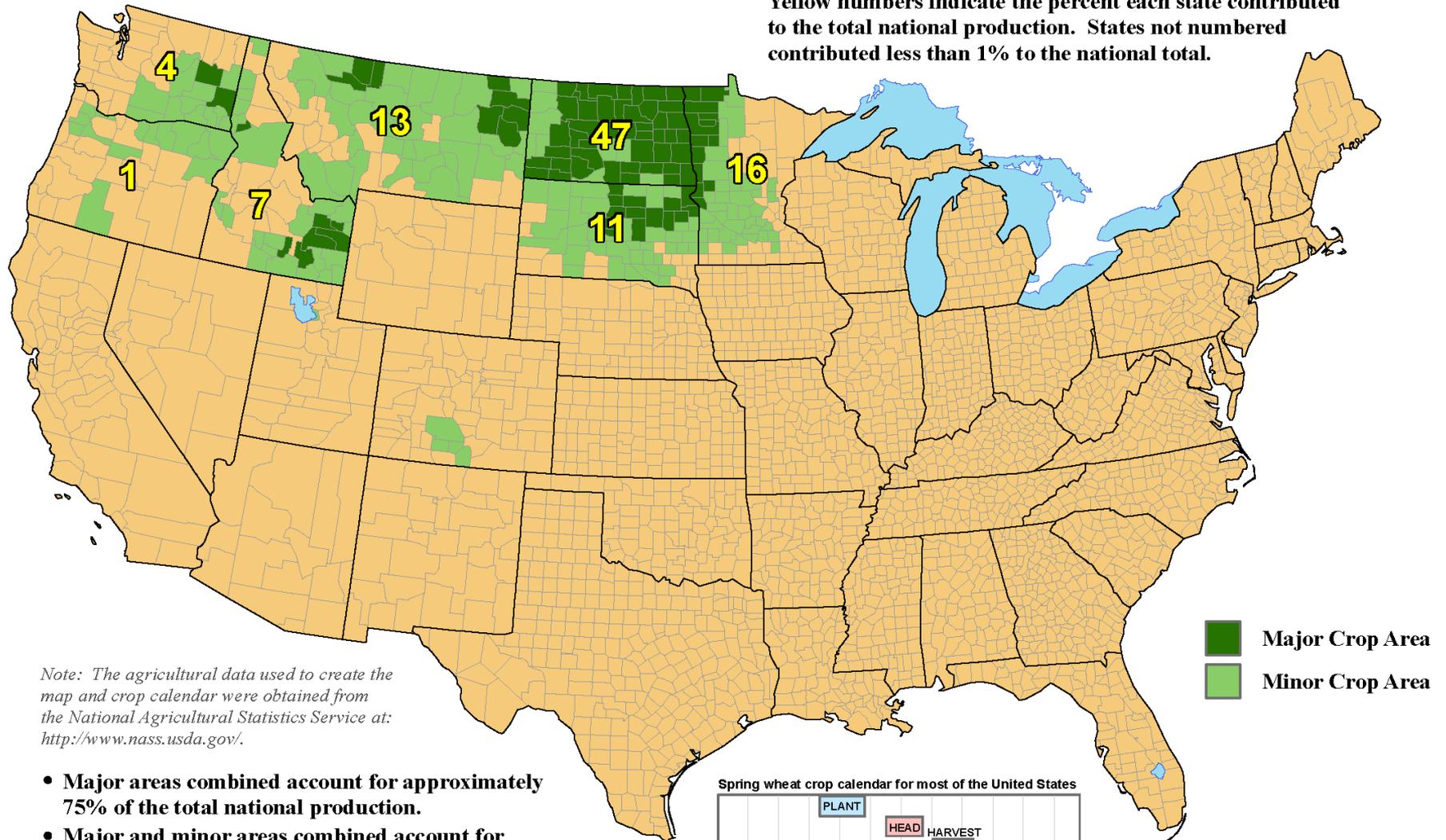
TOP ## - Percent Dropping Leaves
[BOTTOM ##] - Change from 5-year Average

Other Current Agricultural Highlights

- **The spring wheat harvest is wrapping up early.**
- **Hard Red Winter wheat planting is underway on the Plains; rain is needed in some areas.**
- **The sugarbeet harvest is off to a quick start.**
- **The sugarbeet production estimate is up more than 10% from last year; sorghum production is up nearly 33%.**
- **There were some fruit/vegetable losses due to harsh winter (2014-15) and/or spring (2015) weather.**
- **Rangeland and pastures are mostly in great shape in the north-central U.S., especially pertaining to this time of year.**

United States: Spring Wheat (excluding durum)

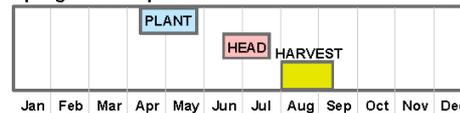
Yellow numbers indicate the percent each state contributed to the total national production. States not numbered contributed less than 1% to the national total.



Note: The agricultural data used to create the map and crop calendar were obtained from the National Agricultural Statistics Service at: <http://www.nass.usda.gov/>.

- Major areas combined account for approximately 75% of the total national production.
- Major and minor areas combined account for approximately 99% of the total national production.
- Major and minor areas and state production percentages are derived from NASS county- and state-level production data from 2006-2010.

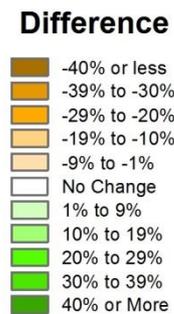
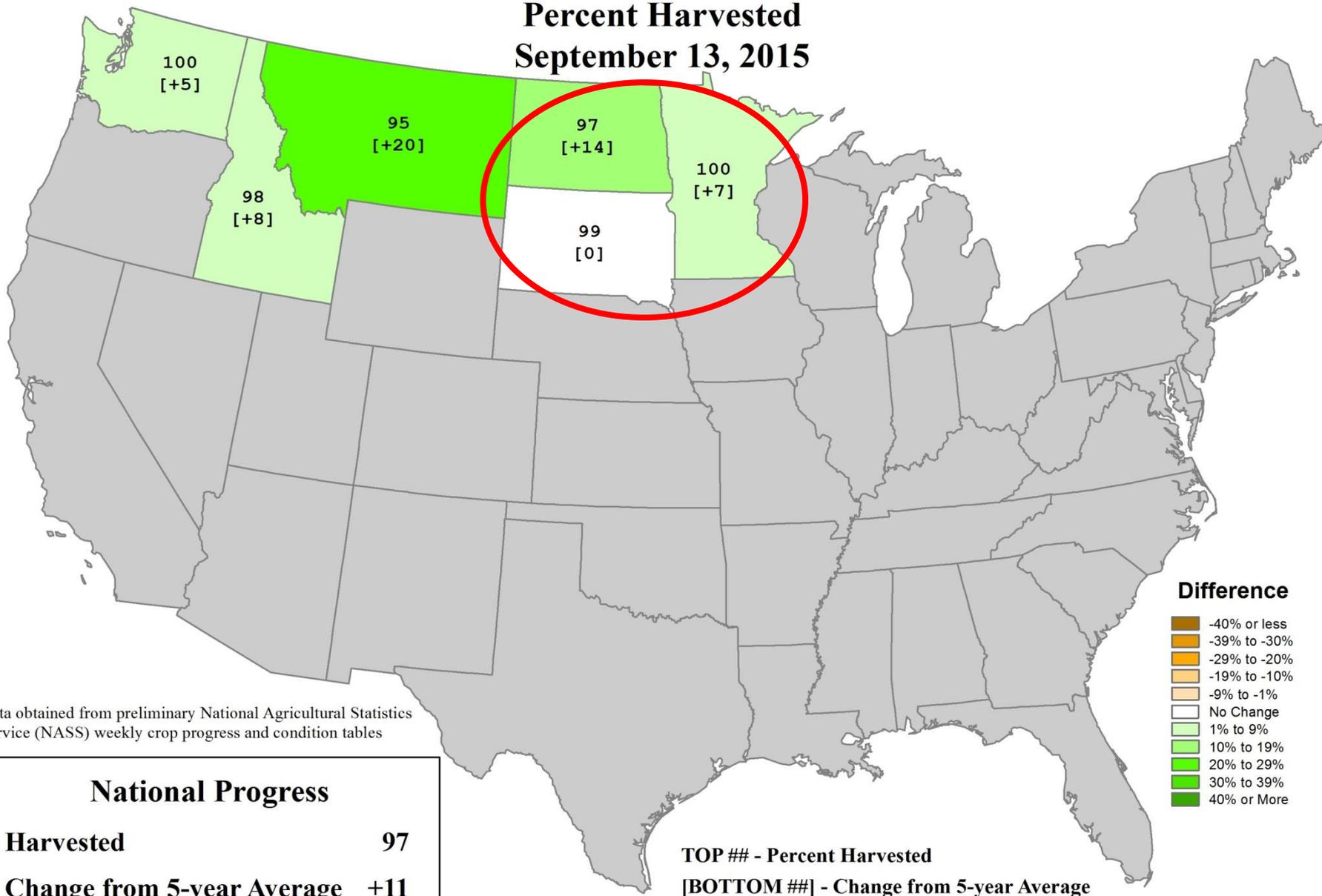
Spring wheat crop calendar for most of the United States



Crop calendar dates are based upon NASS crop progress data from 2006-2010. The field activities and crop development stages illustrated in the crop calendar represent the average time period when national progress advanced from 10 to 90 percent.

U.S. Spring Wheat Progress

Percent Harvested
September 13, 2015



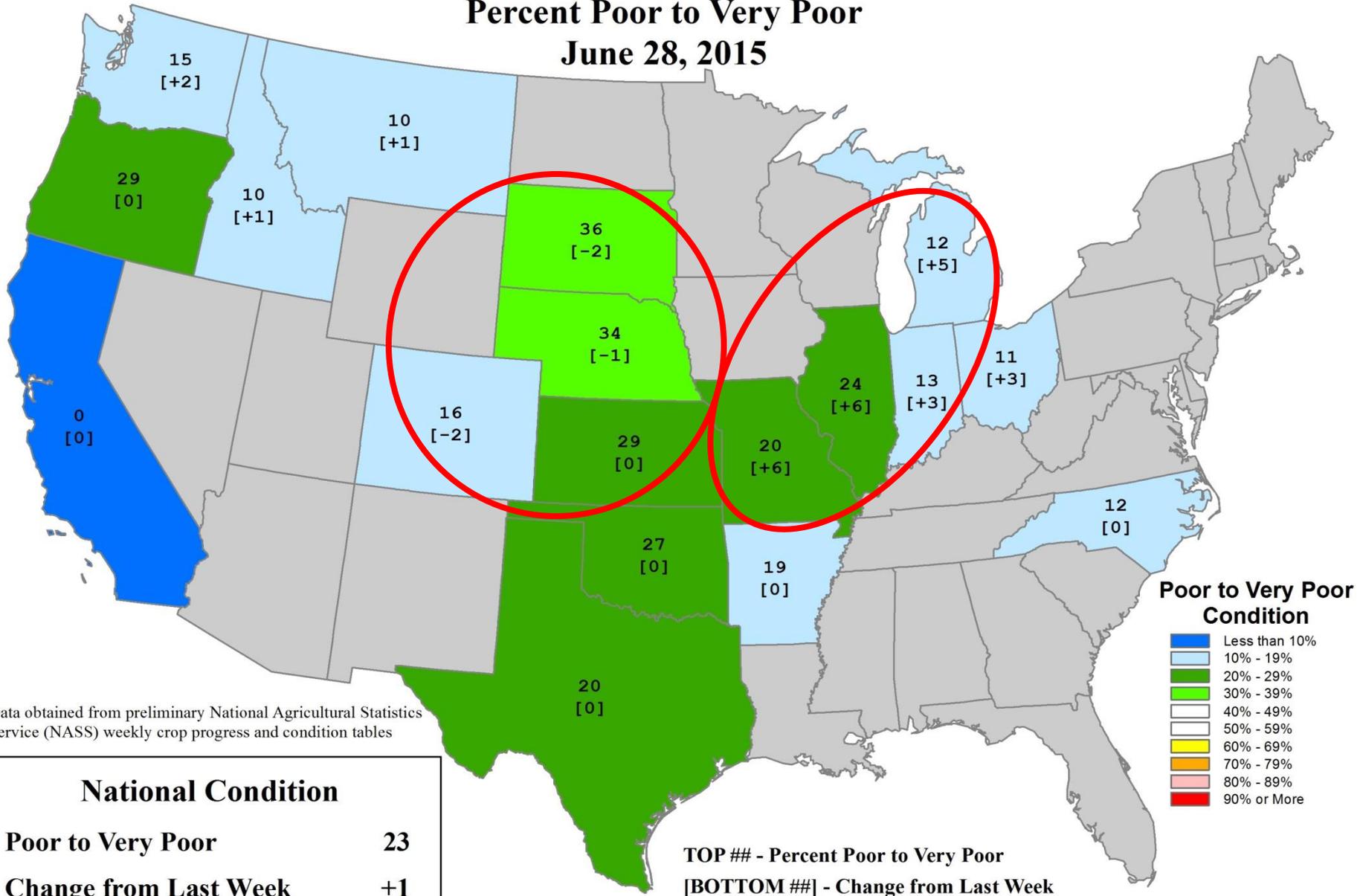
Data obtained from preliminary National Agricultural Statistics Service (NASS) weekly crop progress and condition tables

National Progress	
Harvested	97
Change from 5-year Average	+11

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

U.S. Winter Wheat Conditions

Percent Poor to Very Poor
June 28, 2015



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

National Condition	
Poor to Very Poor	23
Change from Last Week	+1

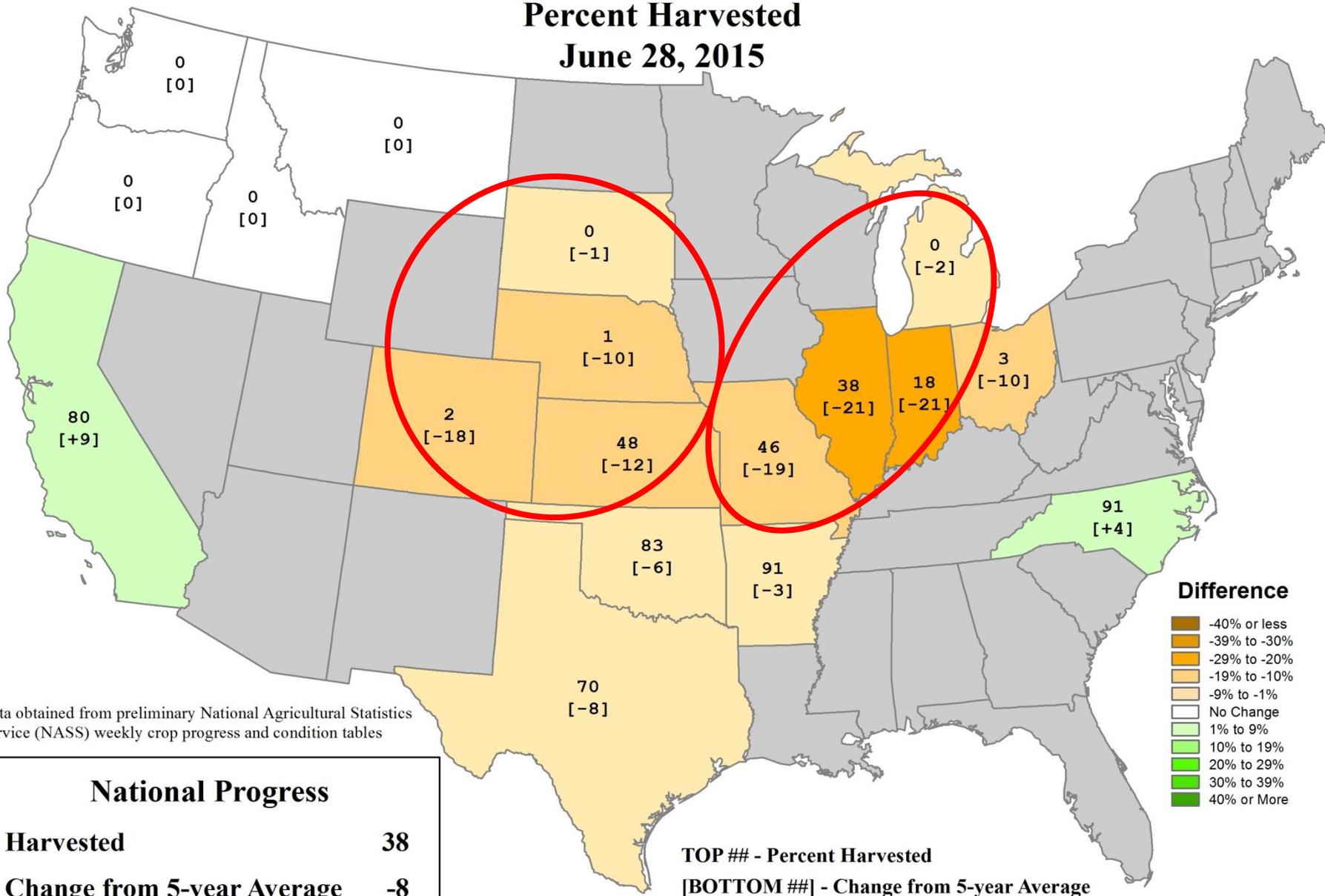
TOP ## - Percent Poor to Very Poor
[BOTTOM ##] - Change from Last Week

Poor to Very Poor Condition

- Less than 10%
- 10% - 19%
- 20% - 29%
- 30% - 39%
- 40% - 49%
- 50% - 59%
- 60% - 69%
- 70% - 79%
- 80% - 89%
- 90% or More

U.S. Winter Wheat Progress

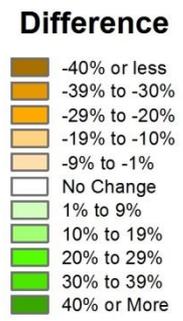
Percent Harvested
June 28, 2015



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

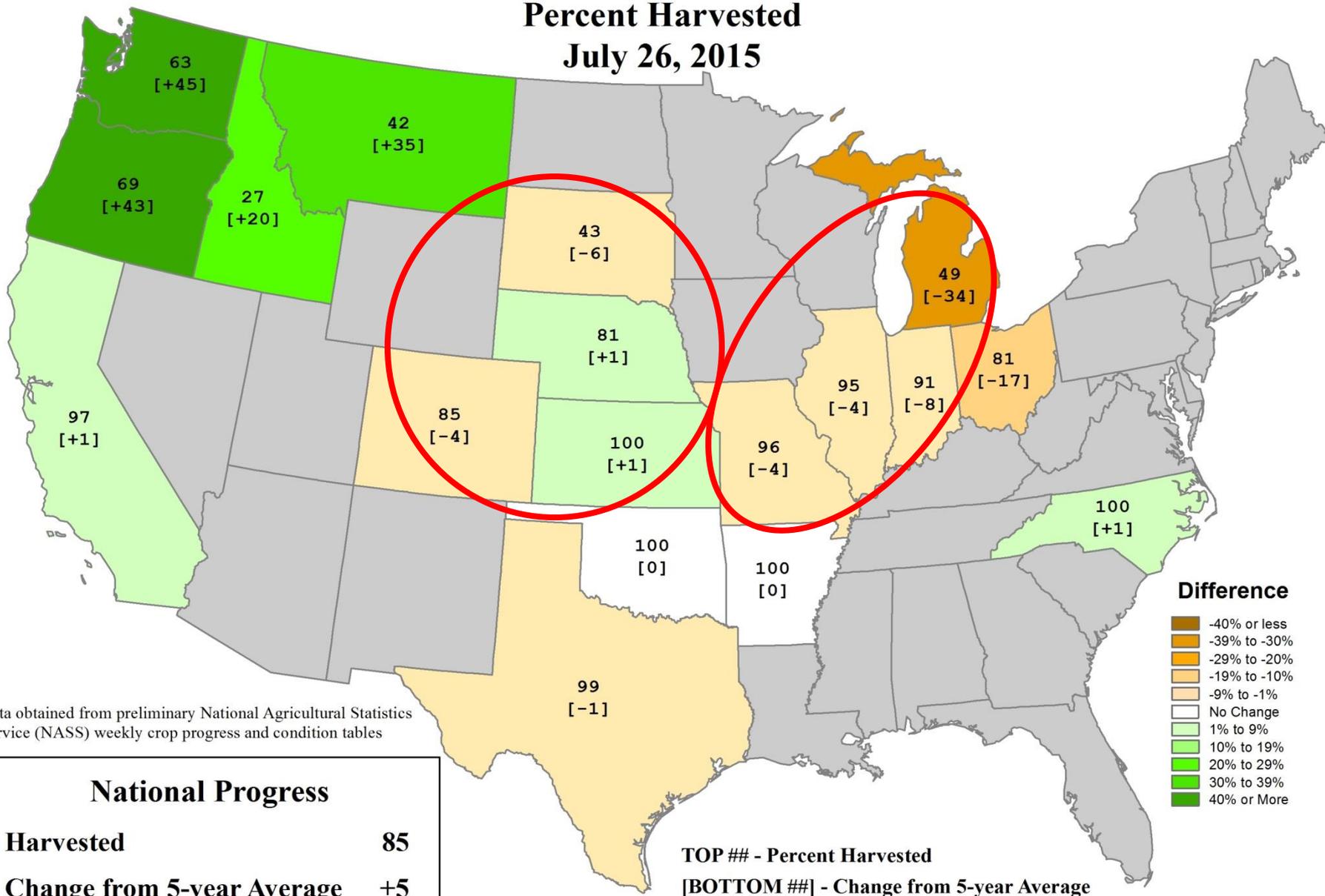
National Progress	
Harvested	38
Change from 5-year Average	-8

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



U.S. Winter Wheat Progress

Percent Harvested
July 26, 2015



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

National Progress	
Harvested	85
Change from 5-year Average	+5

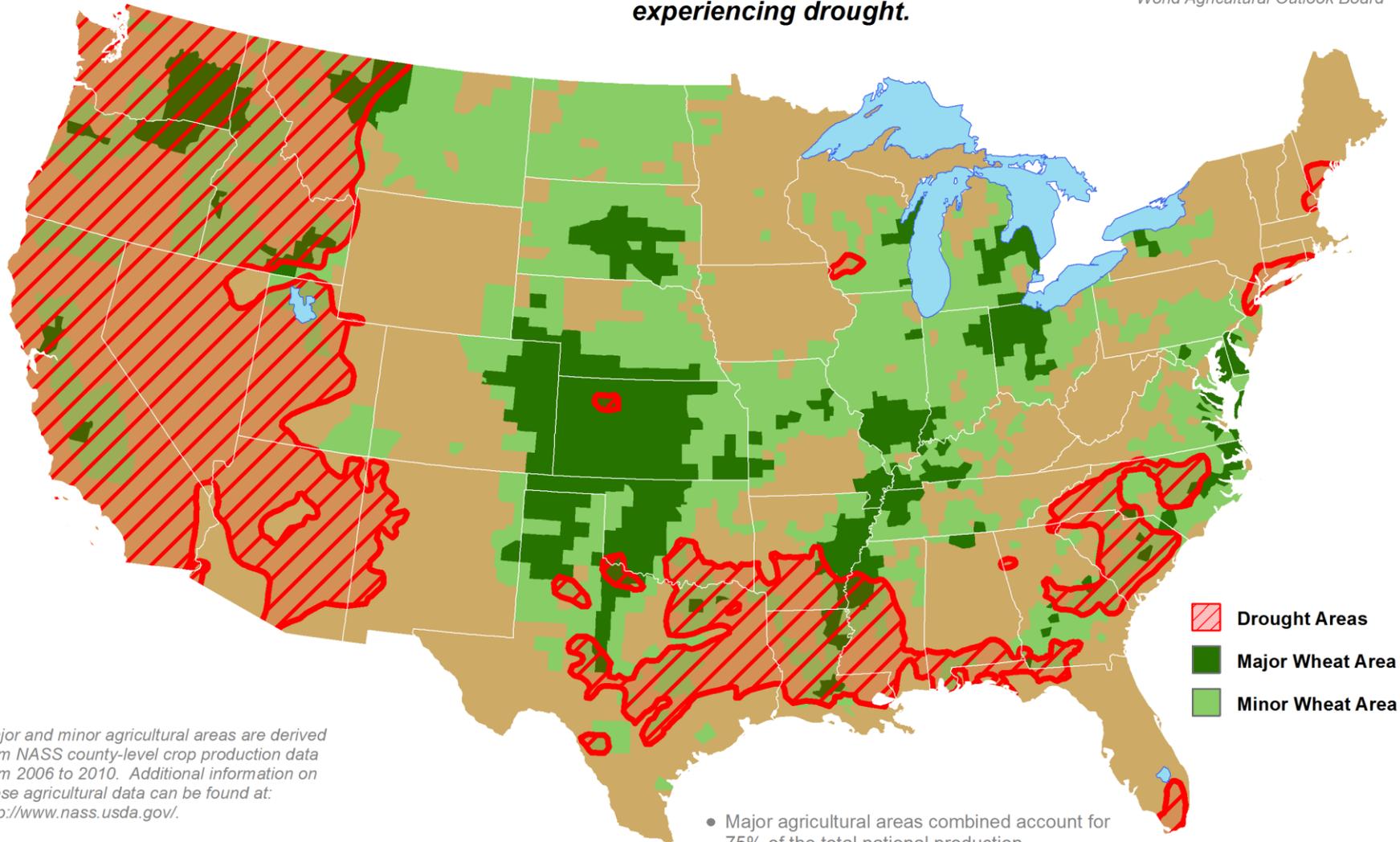
TOP ## - Percent Harvested
[BOTTOM ##] - Change from 5-year Average

U.S. Winter Wheat Areas Experiencing Drought

Reflects **September 15, 2015**
U.S. Drought Monitor data

Approximately **21%** of winter wheat
production is within an area
experiencing drought.

This product was prepared by the
USDA Office of the Chief Economist
World Agricultural Outlook Board



Major and minor agricultural areas are derived from NASS county-level crop production data from 2006 to 2010. Additional information on these agricultural data can be found at: <http://www.nass.usda.gov/>.

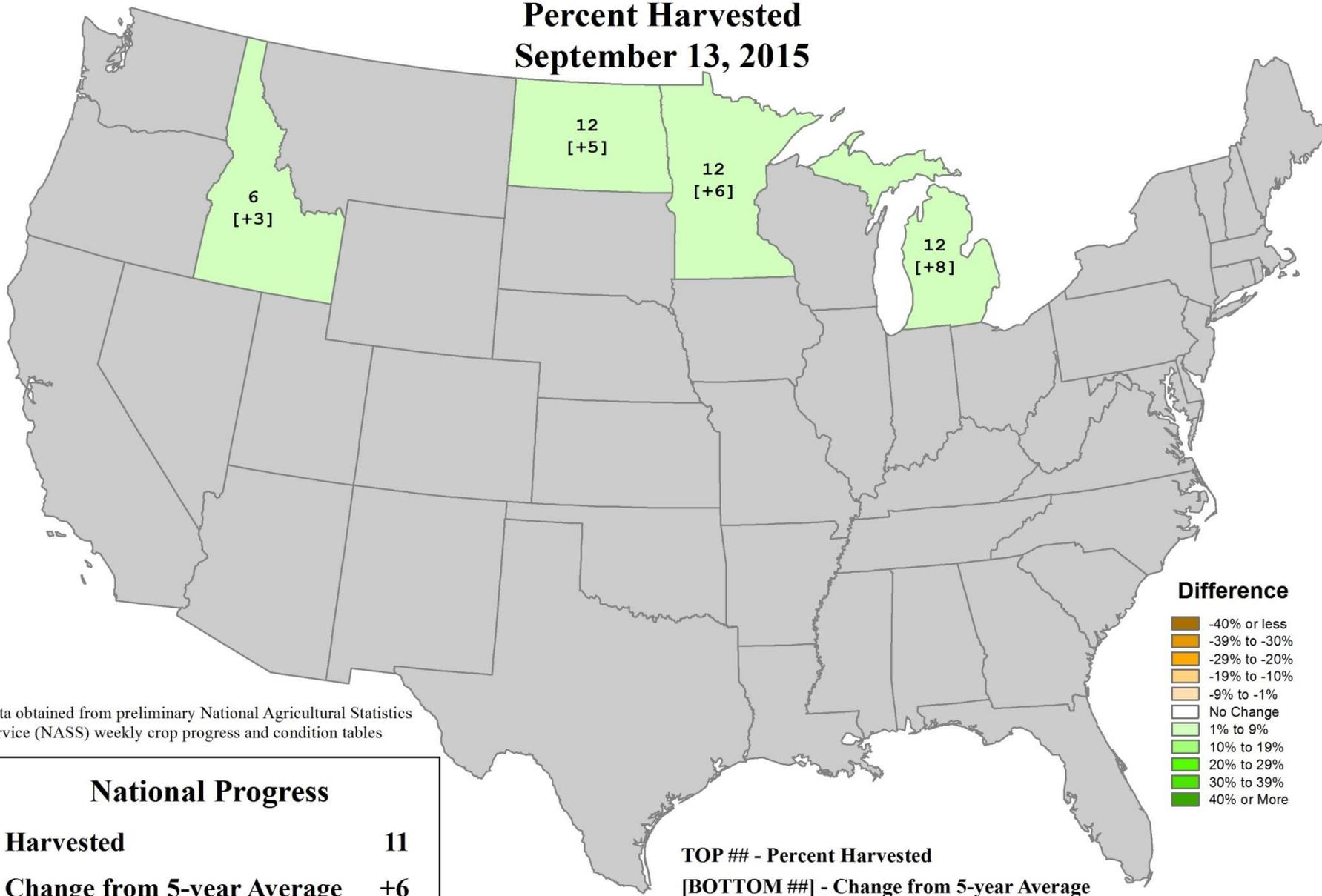
Mapped drought areas are derived from the U.S. Drought Monitor product and do not depict the intensity of drought in any particular location. More information on the Drought Monitor can be found at: <http://droughtmonitor.unl.edu/>.

- Major agricultural areas combined account for 75% of the total national production.
- Major and minor agricultural areas combined account for 99% of the total national production.



U.S. Sugarbeets Progress

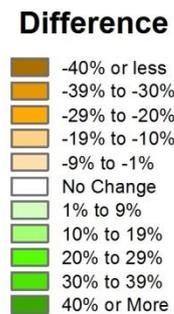
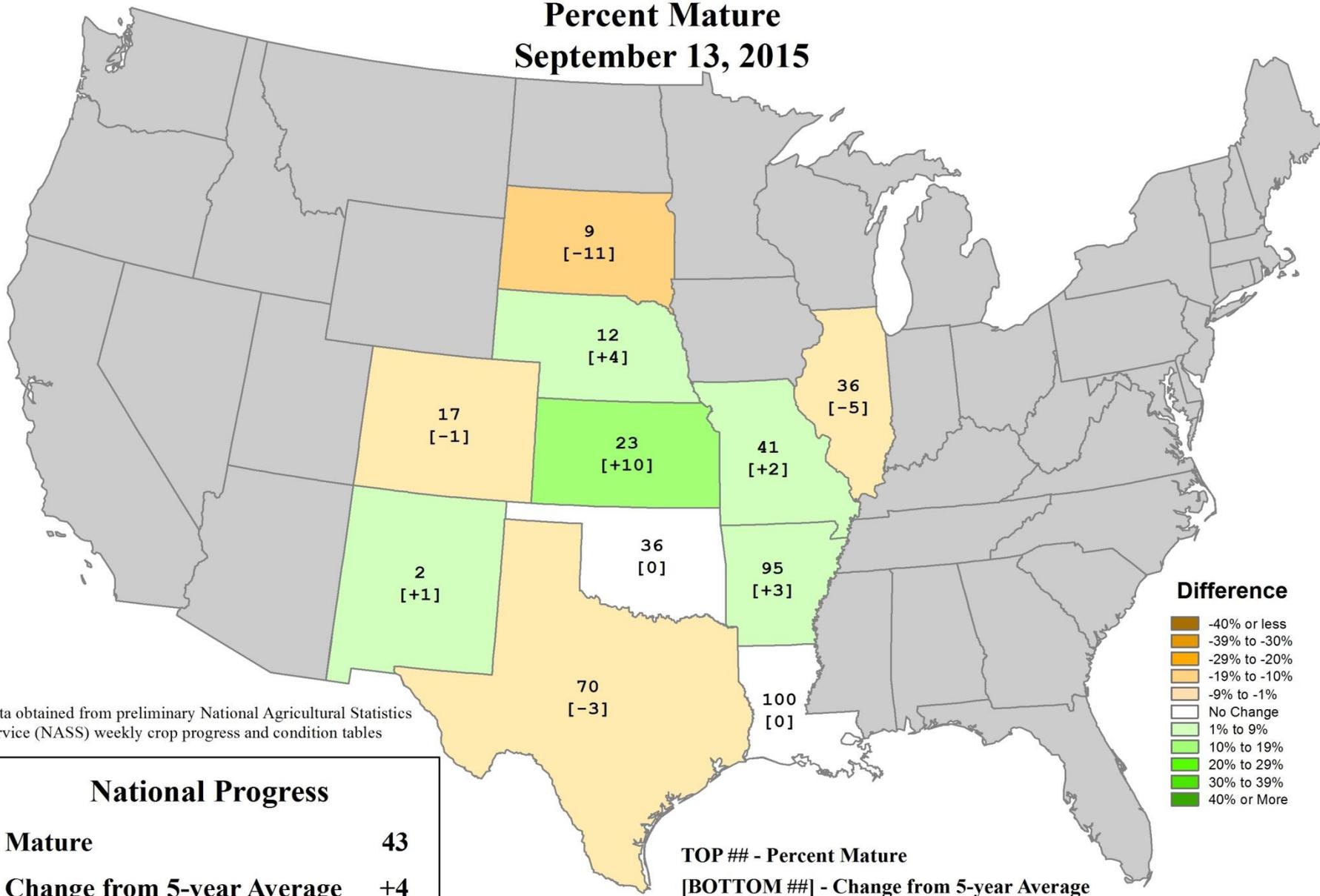
Percent Harvested
September 13, 2015



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

U.S. Sorghum Progress

Percent Mature
September 13, 2015



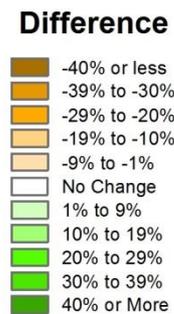
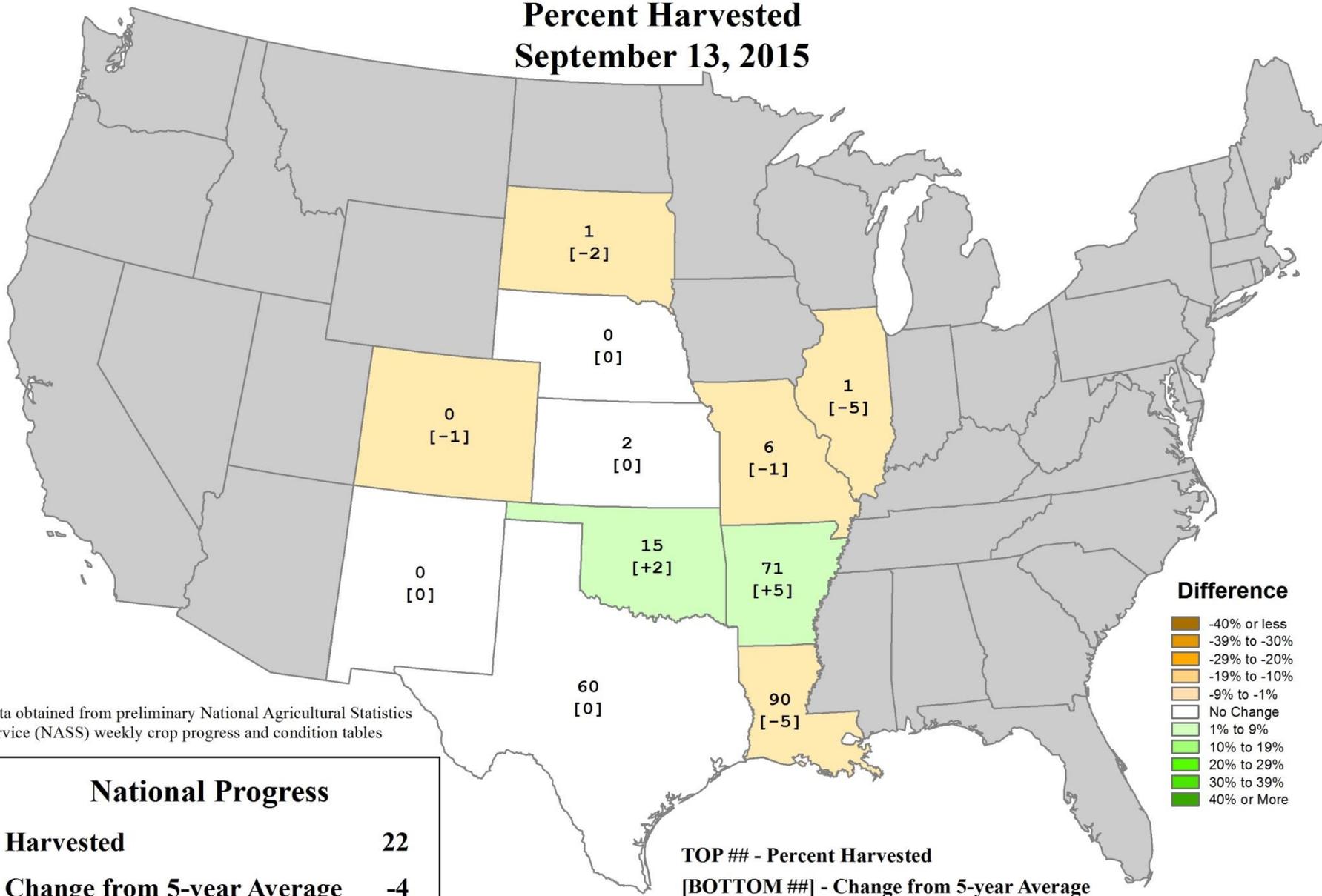
Data obtained from preliminary National Agricultural Statistics Service (NASS) weekly crop progress and condition tables

National Progress	
Mature	43
Change from 5-year Average	+4

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

U.S. Sorghum Progress

Percent Harvested
September 13, 2015



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

National Progress	
Harvested	22
Change from 5-year Average	-4

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



September 2015 Crop Production

Crop	Unit	September 2015	% Change From Previous Forecast	% Change From Previous Season
→ Sorghum	Mil Bu	574	+0.3	→ +32.8
All Tobacco	Mil Lbs	709	-1.1	-19.1
→ Sugarbeets	Mil Tons	34.6	+1.1	→ +10.2
Sugarcane	Mil Tons	31.2	-3.0	+2.5

Tart Cherry Production Down 23 Percent

United States tart cherry production is forecast at 223 million pounds, down 23 percent from the 2014 production.

In Michigan, the largest producing State, a hard freeze during late May reduced yields significantly.

In Wisconsin, growers reported damage to trees from harsh winter weather. Several growers no longer have production due to tree mortality.

Oregon and Utah growers expect a smaller than average crop this year. A freeze event led to loss of some trees that were not yet dormant.

Pennsylvania growers reported a crop that will result in a relatively good production. Favorable conditions contributed to good yields. In Washington, rains and above average temperatures during Spring, pushed maturity ahead of the normal pace. Harvest started three weeks ahead of normal.

Tart Cherry Production – States and United States: 2013, 2014, and Forecasted 2015

State	Total production		
	2013	2014	2015
	(million pounds)	(million pounds)	(million pounds)
Michigan	218.7	203.0	134.0
New York	12.0	10.0	8.2
Oregon	4.3	2.2	2.8
Pennsylvania	2.2	1.2	3.2
Utah	26.8	36.1	40.0
Washington	17.9	24.3	25.0
Wisconsin	12.3	12.0	9.4
United States	294.2	288.8	222.6

By Steve Tarter

Journal Star business editor



Posted Sep. 14, 2015 at 10:02 PM

Updated Sep 14, 2015 at 10:26 PM

The early summer rains look to impact this year's pumpkin harvest in central Illinois.

"We're disappointed that the yields this year appear to be less than anticipated. It looks like the yield could be off by as much as a third," said Roz O'Hearn, corporate and brand affairs director for Libby, the company that dominates the canned pumpkin market and grows most of its pumpkins here in central Illinois.

Libby acquired the processing plant in Morton in 1929. Nestle bought Libby in 1972.

Weather could further reduce yields this year with the harvest now underway through October or early November, said O'Hearn.

"Will this affect shoppers? We believe we'll have enough pumpkin to meet the needs presented by the fall holidays as we manage our distribution across the country and to our retailers through allocation," she said.

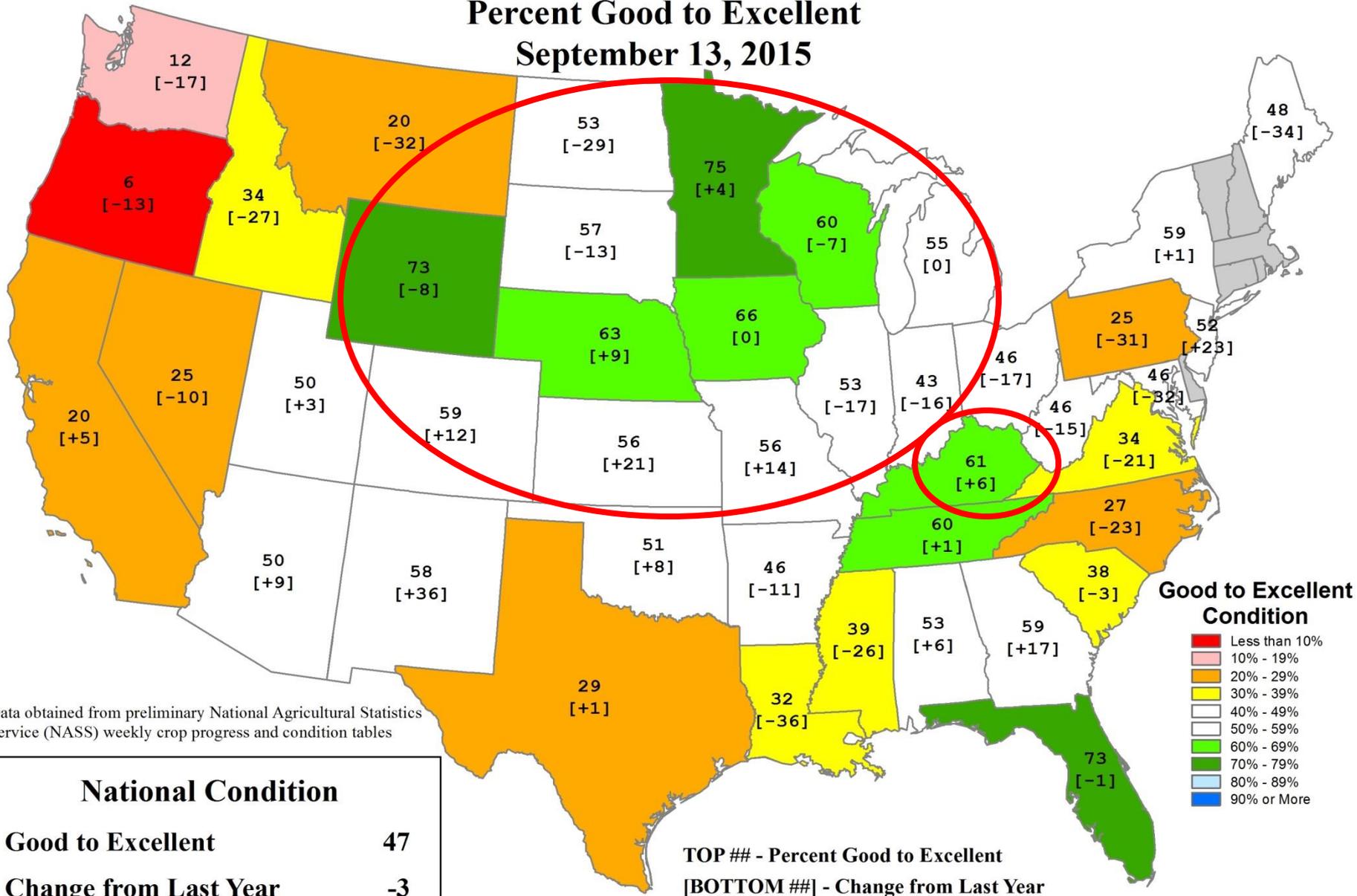
"Once we ship the remainder of the 2015 harvest (most likely by mid-November), we'll have no more Libby's pumpkin to sell until harvest 2016," said O'Hearn.

"About 8 out of 10 cans of pumpkin sold (in the U.S.) come from Libby's with the vast majority of our pumpkin coming from the Morton area," she said.

Ninety percent of the pumpkins grown in the United States are raised within a 90-mile radius of Peoria, according to the University of Illinois.

U.S. Pasture and Range Conditions

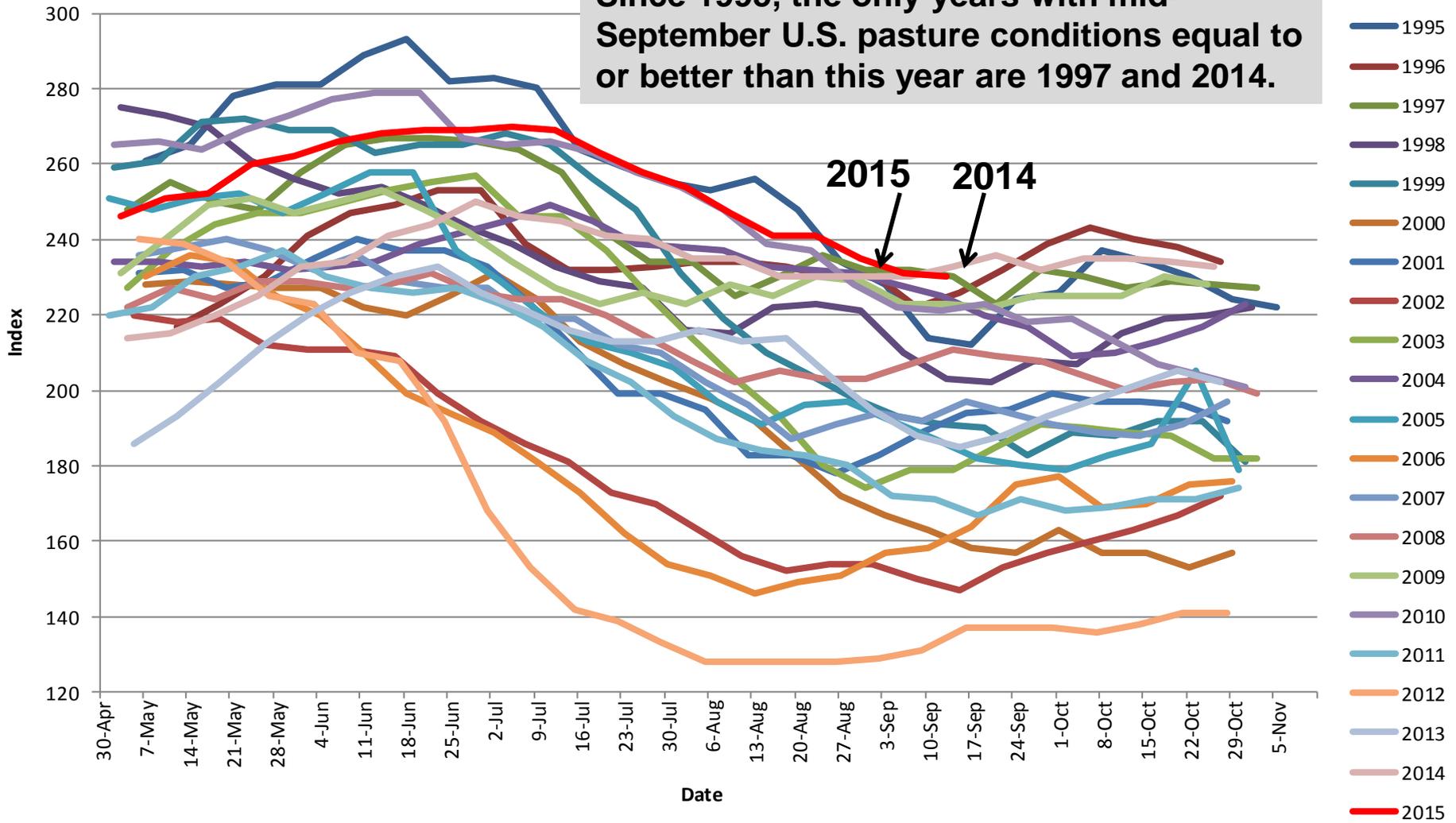
Percent Good to Excellent
September 13, 2015



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

U.S. PASTURE AND RANGE Condition Index

Since 1995, the only years with mid-September U.S. pasture conditions equal to or better than this year are 1997 and 2014.



Based on NASS crop progress data.

Index Weighting: Excellent = 4; Good = 3; Fair = 2; Poor = 1; Very Poor = 0



Cass County, Michigan
June 23, 2014
(Brad Rippey photo)

Thank you!

Contact information:

Brad Rippey, USDA Meteorologist

Office of the Chief Economist

World Agricultural Outlook Board

Washington, D.C.

Phone: 202-720-2397

E-Mail: brippy@oce.usda.gov