

Central Region Drought Outlook – August 2, 2012

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West of
Champaign, IL, in
early July



General Information

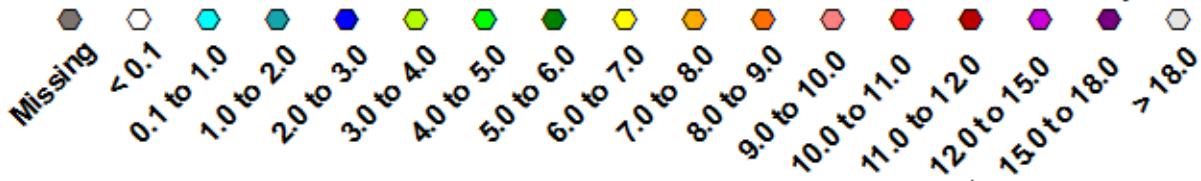
- * **Providing climate services to the Central Region**
 - * Collaboration with Jim Angel (Illinois State Climatologist), Brad Rippey (USDA), Doug Kluck (NOAA - RCSD) and John Eise (Climate Service Program Manager), State Climatologists and the Midwest Regional Climate Center, High Plains Regional Climate Center, NOAAs Climate Prediction Center, Iowa State University, National Drought Mitigation Center
- * **Next Climate/Drought Outlook Webinar – August 16**
- * **Access to Climate/Drought Webinars and information**
- * <http://mrcc.isws.illinois.edu/webinars.htm>
- * <http://www.hprcc.unl.edu>
- * **Operator Assistance for questions at the end**

Agenda

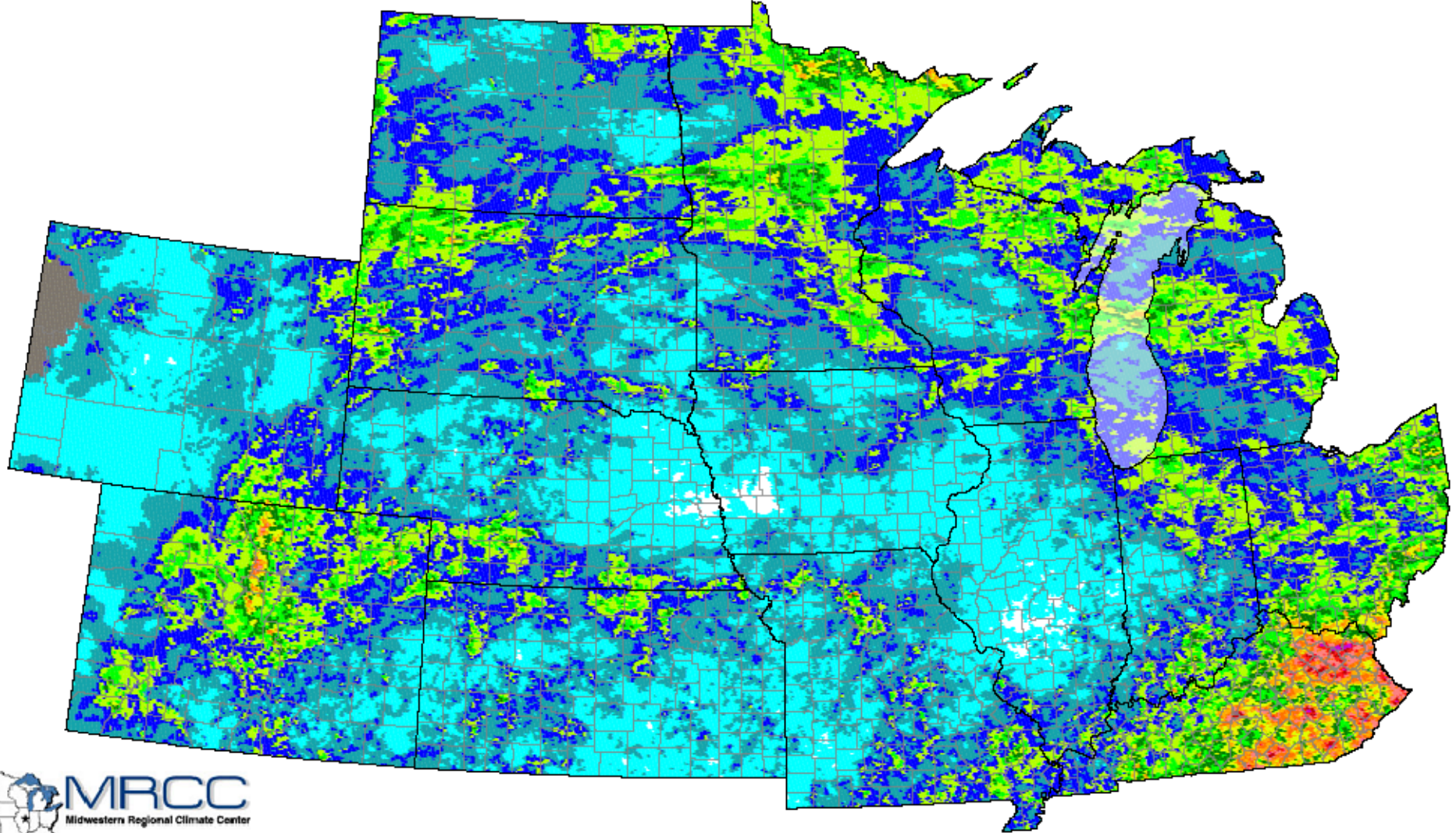
- * Current Conditions
- * Outlooks
- * Drought Impacts
- * Questions/Comments

Multi-sensor Precipitation: Observed (inches)

30-Day Period Ending the Morning of 8/2/2012

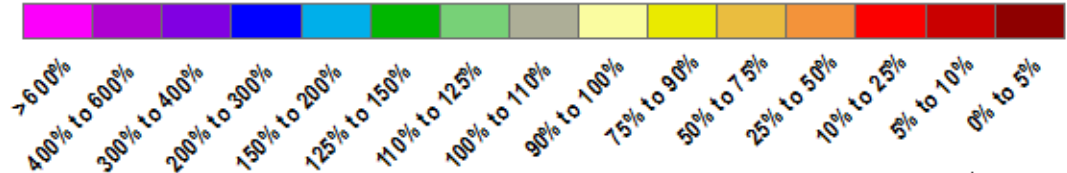


Precipitation data from NWS AHPS:
<http://water.weather.gov/precip>

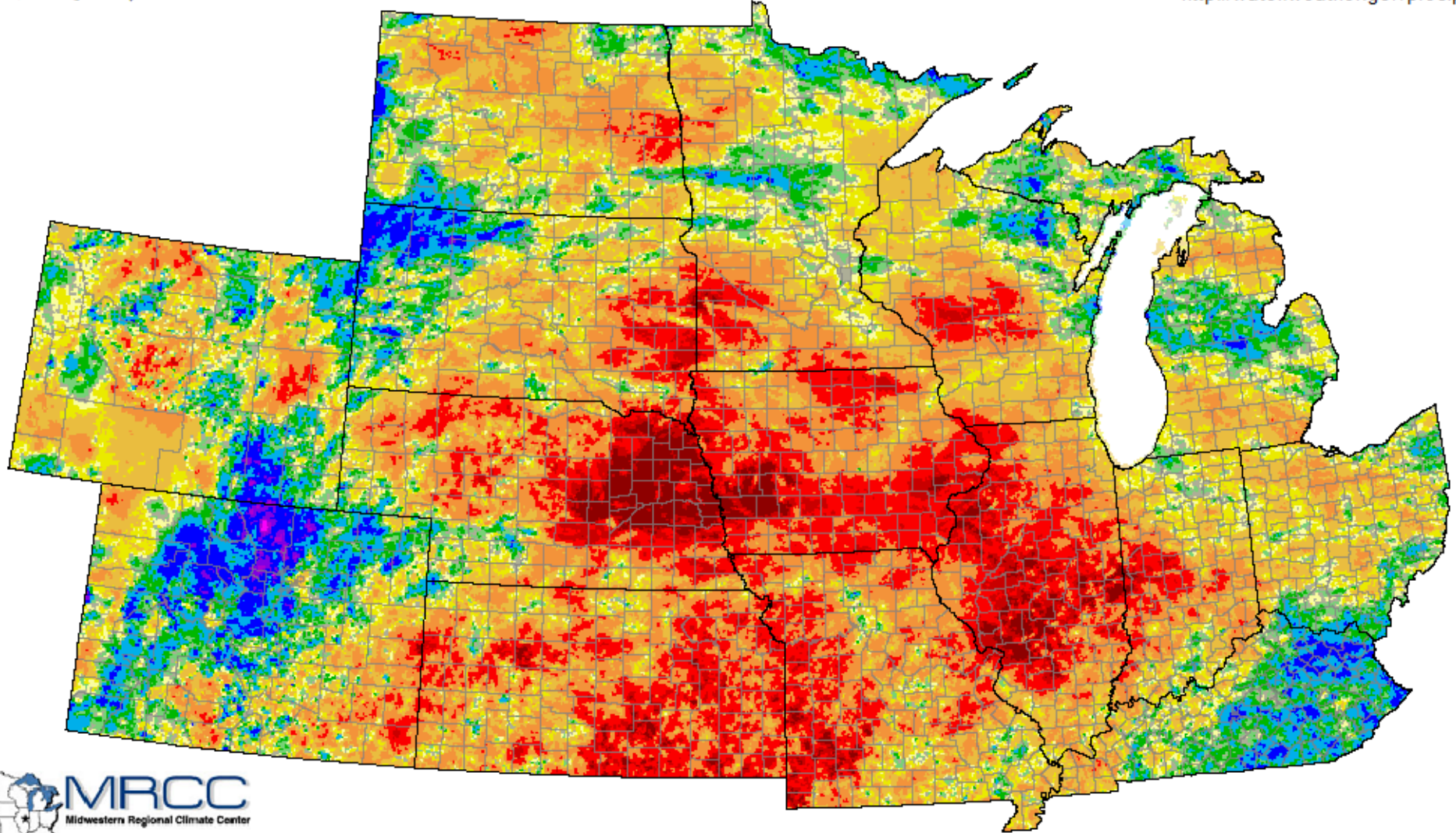


Multi-sensor Precipitation: Percent of Normal (%)

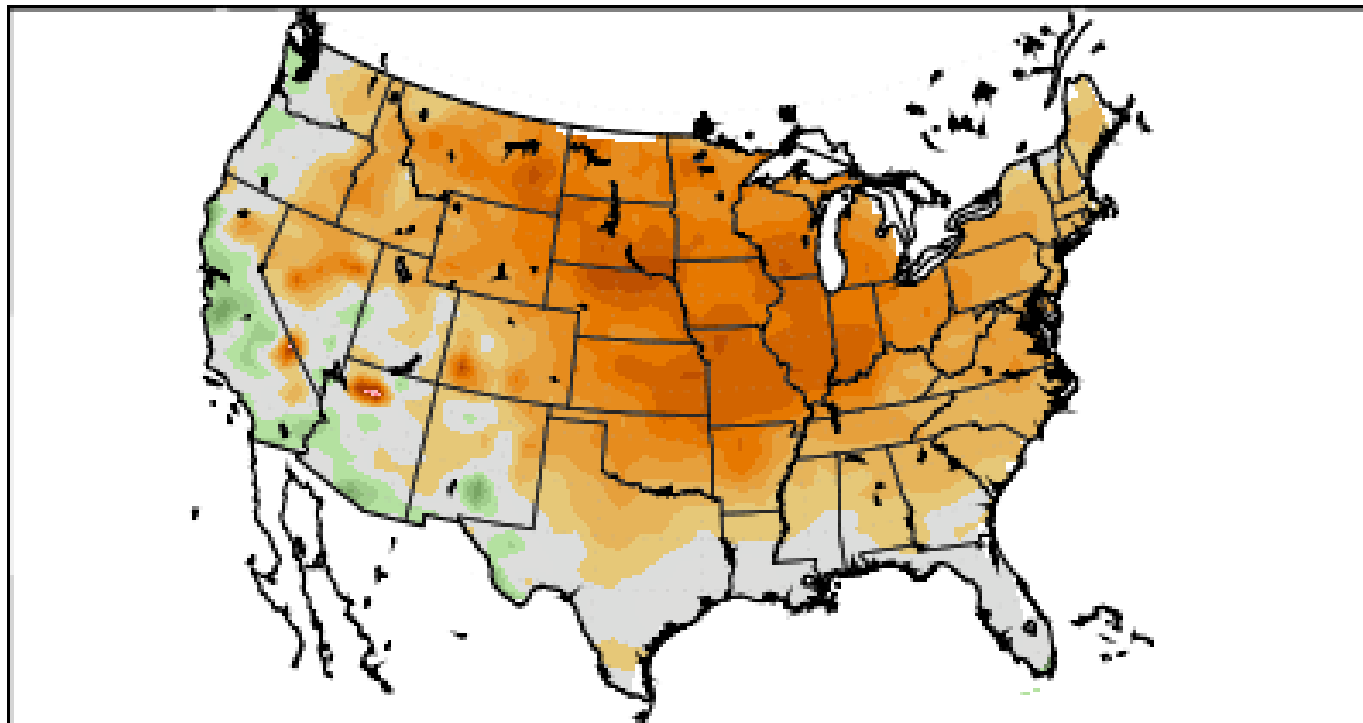
30-Day Period Ending
the Morning of 8/1/2012



Precipitation data from NWS AHPS:
<http://water.weather.gov/precip>



Average Temperature ($^{\circ}\text{F}$): Departure from Mean July 1, 2012 to July 31, 2012

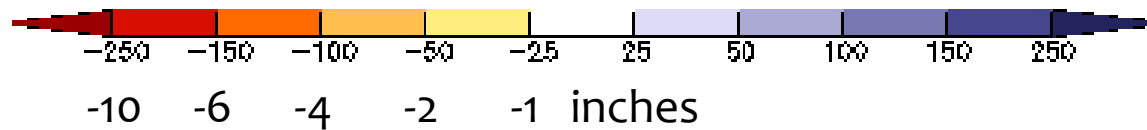
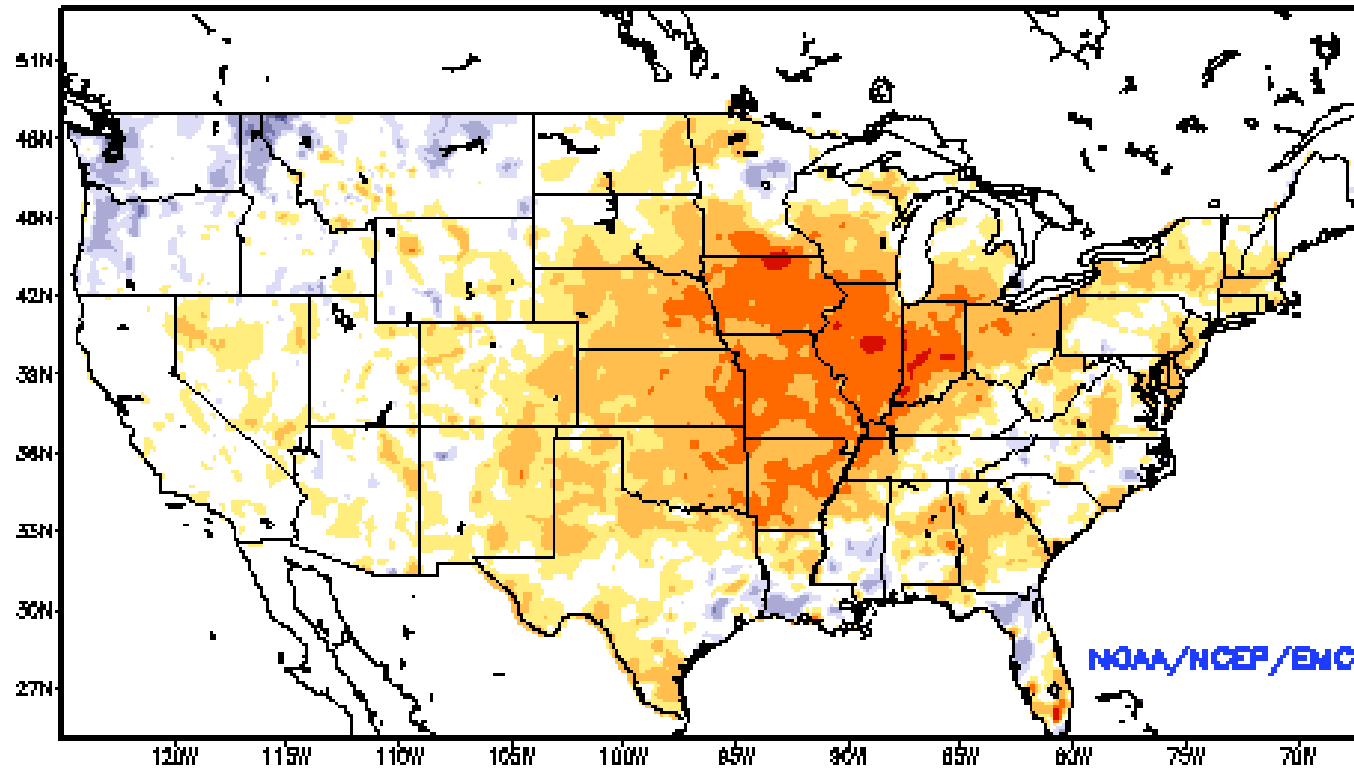


Mean period is 1981–2010.



Midwestern Regional Climate Center
Illinois State Water Survey, Prairie Research Institute
University of Illinois at Urbana-Champaign

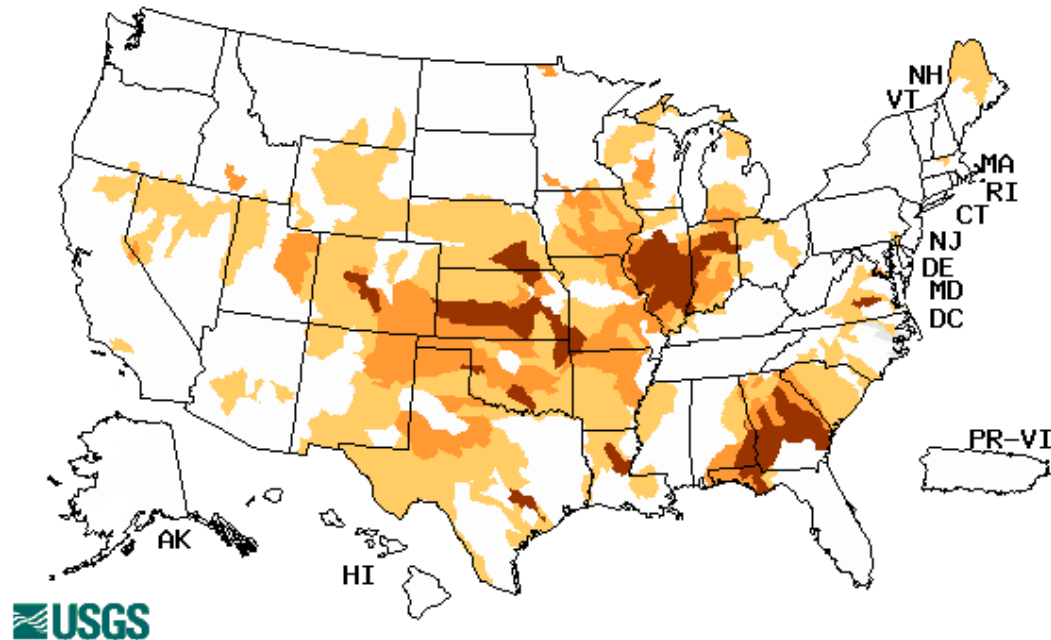
Ensemble-Mean - Current Total Column Soil Moisture Anomaly (mm)
NCEP NLDAS Products ___ Valid: JUL 27, 2012



Map of below normal 7-day average streamflow compared to historical streamflow for the day of year (United States)

State

Wednesday, August 01, 2012



Choose a data retrieval option and select a state on the map

State DroughtWatch, State map

| Explanation - Percentile classes | | | | |
|----------------------------------|---------------------------|-----------------------------|--------------|---|
| Low | <=5 | 6-9 | 10-24 | Insufficient data for a hydrologic region |
| Extreme hydrologic drought | Severe hydrologic drought | Moderate hydrologic drought | Below normal | |

U.S. Drought Monitor

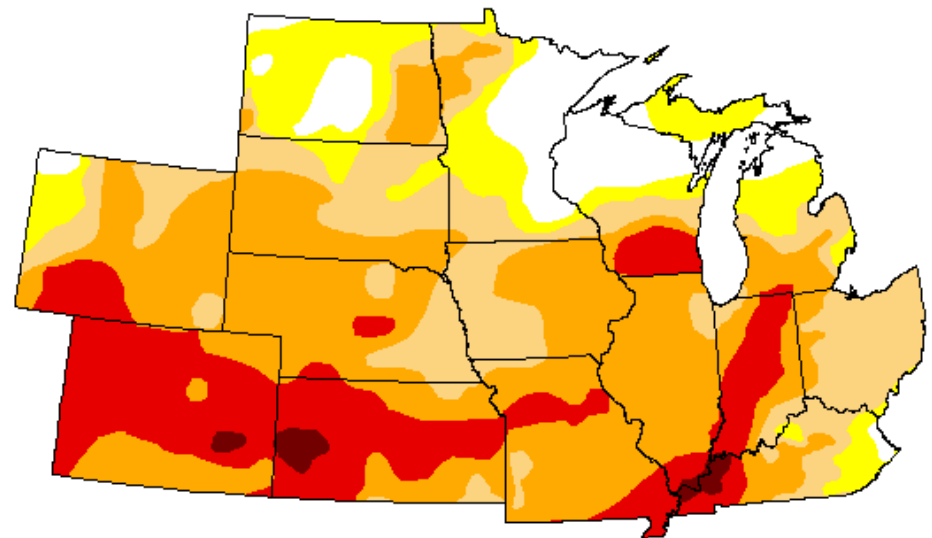
July 17, 2012

Valid 7 a.m. EST

Central Region

Drought Conditions (Percent Area)

| | None | D0 - D4 | D1 - D4 | D2 - D4 | D3 - D4 | D4 |
|-----------------------------|-------|---------|---------|---------|---------|------|
| Current | 8.75 | 91.25 | 79.36 | 58.39 | 20.06 | 1.10 |
| Last Week (7/10/2012) | 11.36 | 88.64 | 73.71 | 44.42 | 14.03 | 0.72 |
| 3 Months Ago (4/17/2012) | 51.63 | 48.37 | 20.39 | 5.92 | 0.00 | 0.00 |
| 1 Year Ago (7/12/2011) | 88.99 | 11.01 | 7.39 | 5.62 | 3.14 | 0.93 |



Intensity:

-  D0 - Abnormally Dry
-  D1 - Drought Moderate
-  D2 - Drought Severe
-  D3 - Drought Extreme
-  D4 - Drought Exceptional

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

<http://droughtmonitor.unl.edu>



Released Thursday, July 19, 2012
Richard Heim, National Climatic Data Center, NOAA

U.S. Drought Monitor

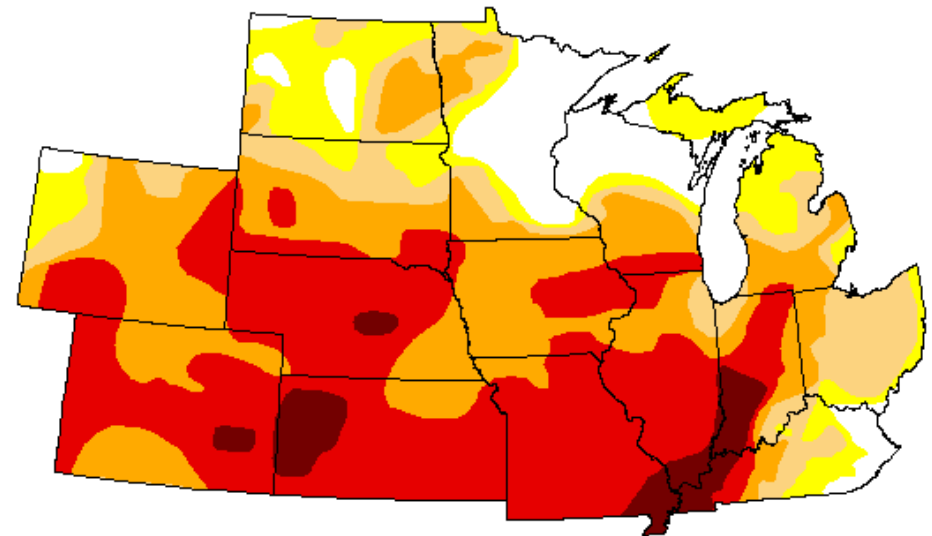
July 31, 2012

Valid 7 a.m. EST

Central Region

Drought Conditions (Percent Area)

| | None | D0 - D4 | D1 - D4 | D2 - D4 | D3 - D4 | D4 |
|-----------------------------|-------|---------|---------|---------|---------|------|
| Current | 9.71 | 90.29 | 79.17 | 66.45 | 40.12 | 4.48 |
| Last Week (7/24/2012) | 7.67 | 92.33 | 80.28 | 66.37 | 36.80 | 3.41 |
| 3 Months Ago (5/11/2012) | 56.92 | 43.08 | 14.91 | 5.89 | 0.00 | 0.00 |
| 1 Year Ago (7/26/2011) | 79.44 | 20.56 | 8.09 | 6.05 | 3.35 | 1.17 |



Intensity:

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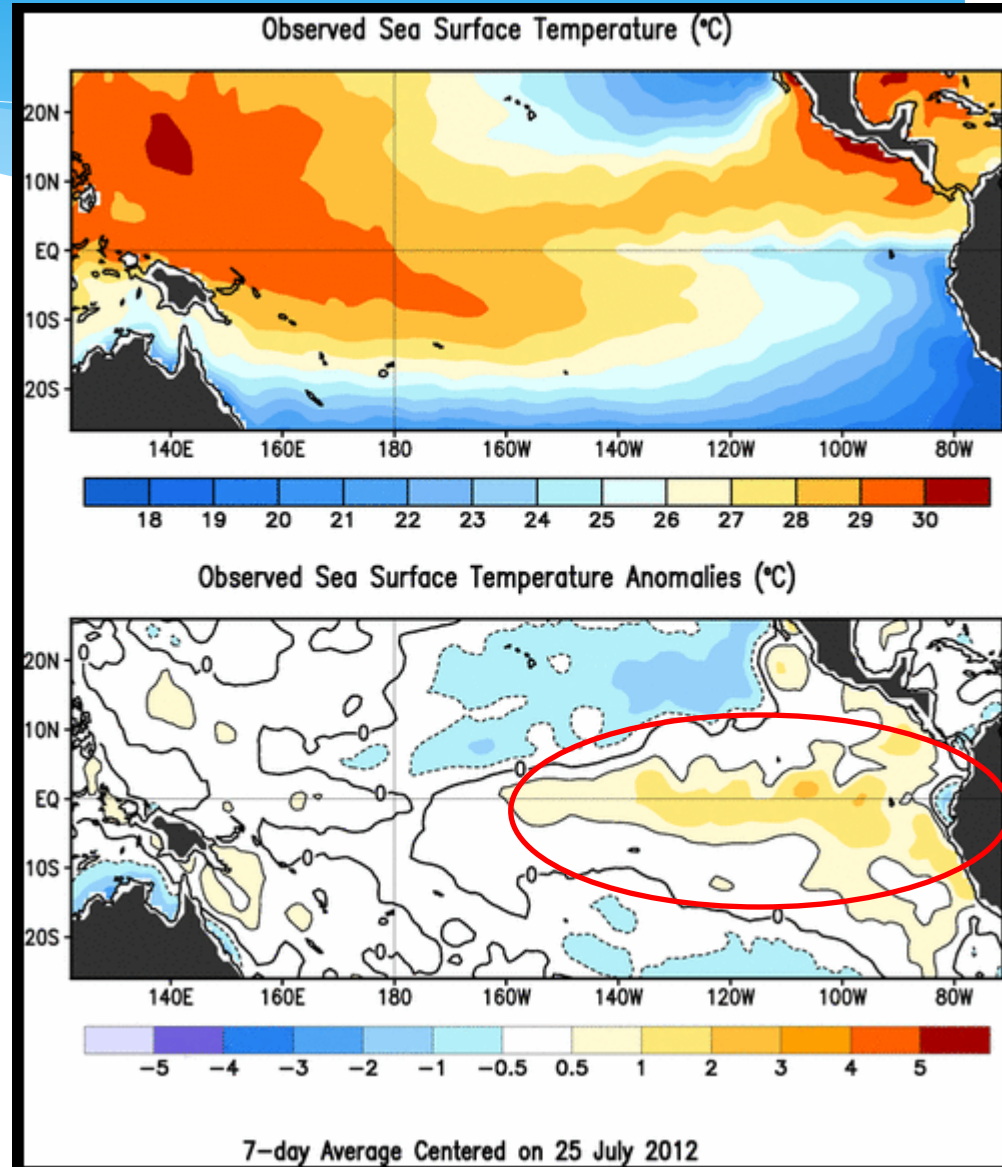
Released Thursday, August 2, 2012
Mark Svoboda, National Drought Mitigation Center

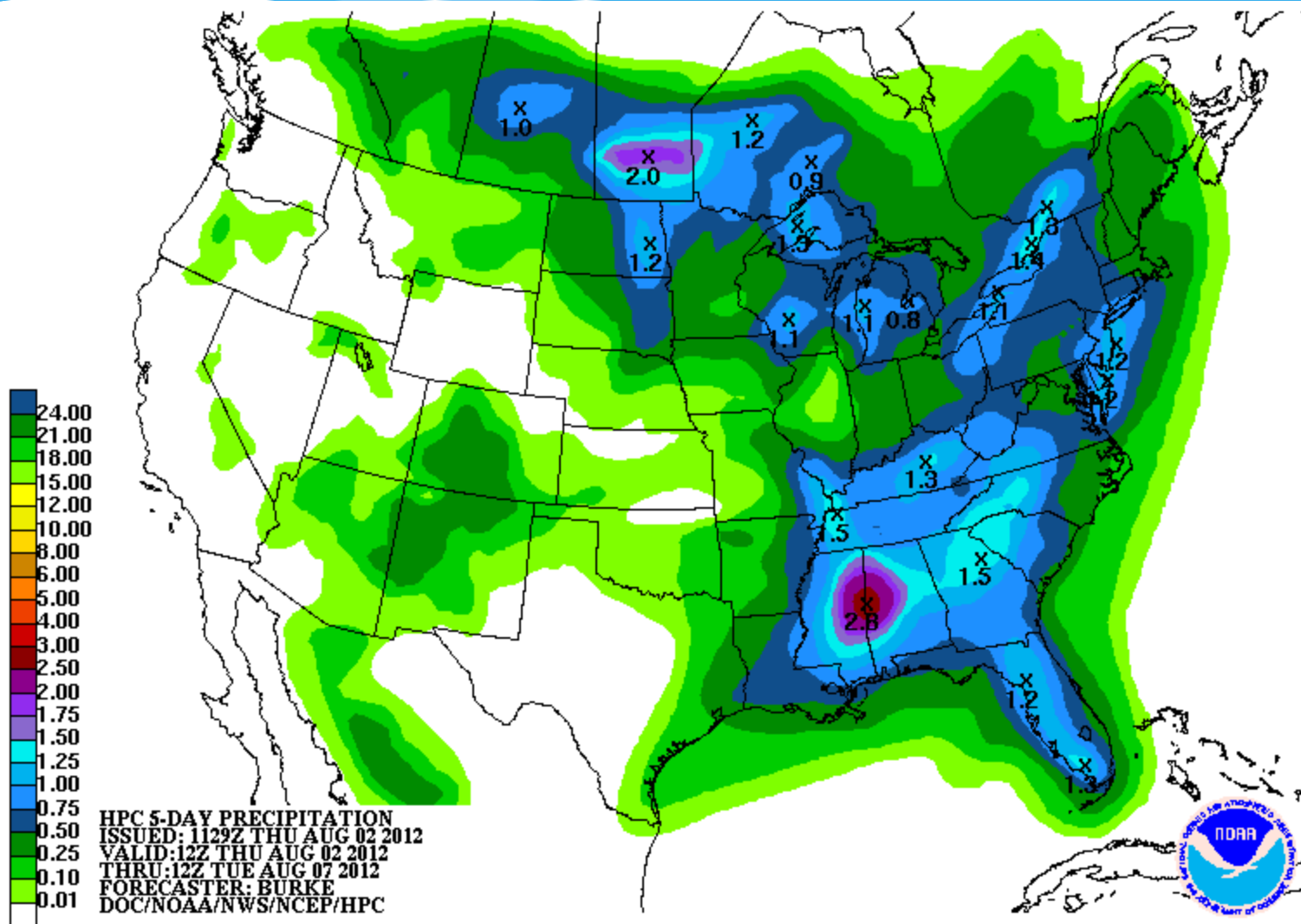
Climate Outlooks

* www.cpc.ncep.noaa.gov

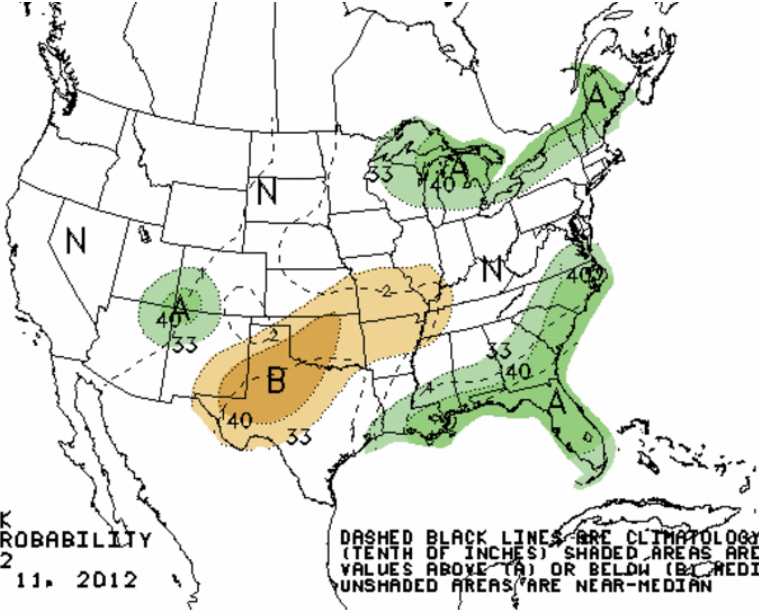
El Niño

- * Chances increase for El Niño beginning in July-September 2012, according to CPC.



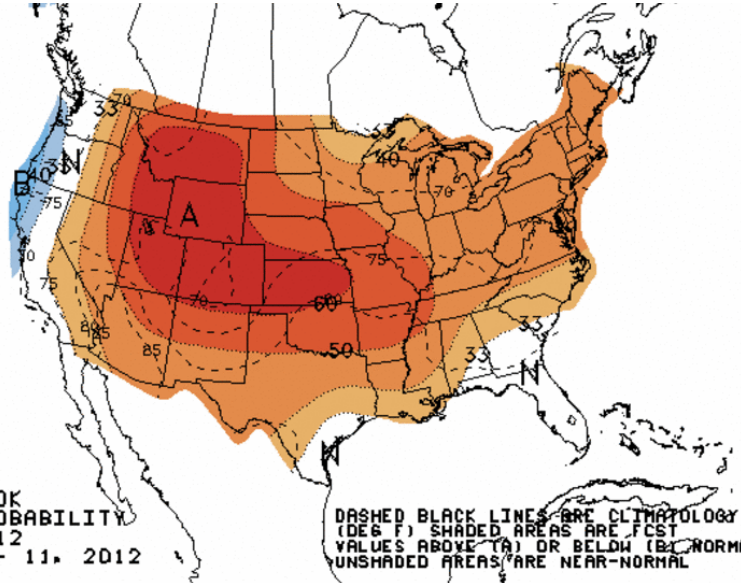
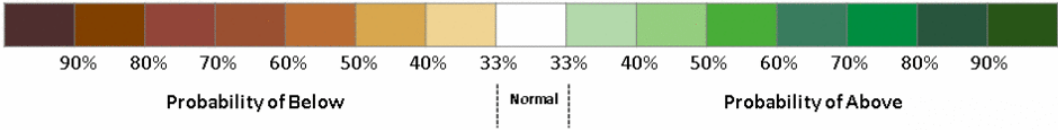


6-10 Day Forecast



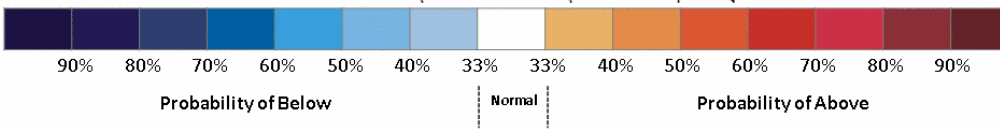
6-10 DAY OUTLOOK
 PRECIPITATION PROBABILITY
 MADE 1 AUG 2012
 VALID AUG 07 - 11, 2012

DASHED BLACK LINES ARE CLIMATOLOGY
 (TENTH OF INCHES) SHADED AREAS ARE FCST
 VALUES ABOVE (A) OR BELOW (B) MEDIAN
 UNSHADED AREAS ARE NEAR-MEDIAN

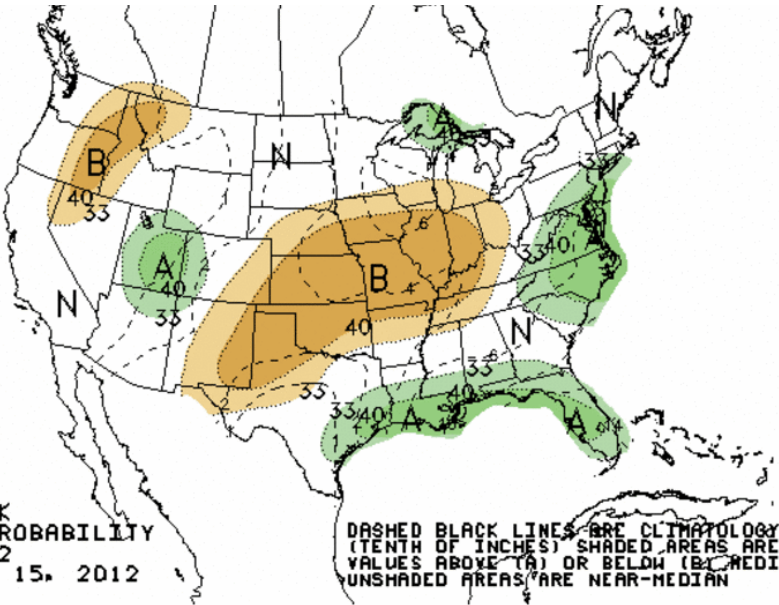


6-10 DAY OUTLOOK
 TEMPERATURE PROBABILITY
 MADE 1 AUG 2012
 VALID AUG 07 - 11, 2012

DASHED BLACK LINES ARE CLIMATOLOGY
 (DEG F) SHADED AREAS ARE FCST
 VALUES ABOVE (A) OR BELOW (B) NORMAL
 UNSHADED AREAS ARE NEAR-NORMAL

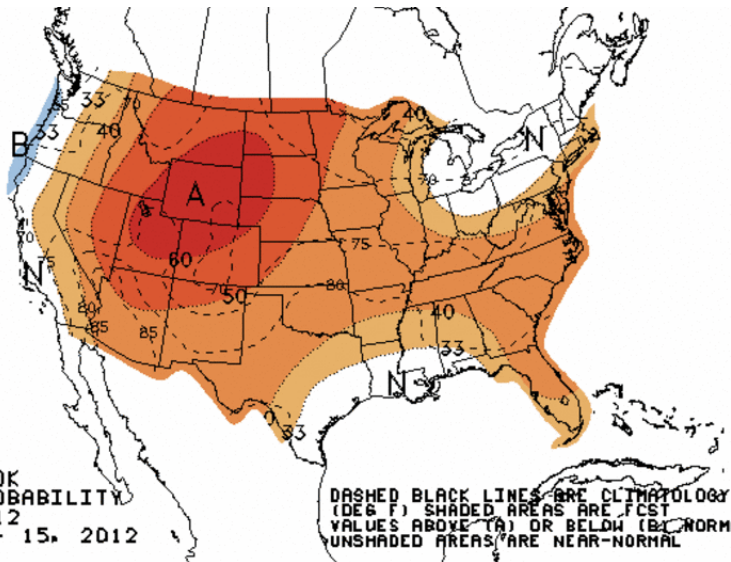
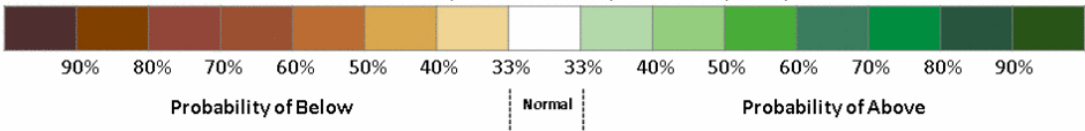


8-14 Day Forecast



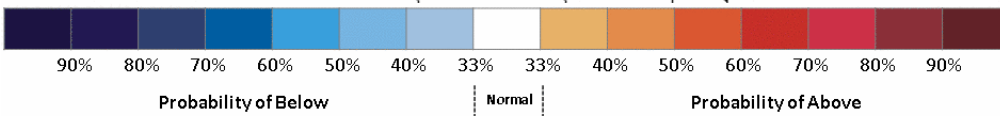
8-14 DAY OUTLOOK
 PRECIPITATION PROBABILITY
 MADE 1 AUG 2012
 VALID AUG 09 - 15, 2012

DASHED BLACK LINES ARE CLIMATOLOGY
 (TENTH OF INCHES) SHADED AREAS ARE FCS
 VALUES ABOVE (A) OR BELOW (B) MEDIAN
 UNSHADED AREAS ARE NEAR-MEDIAN

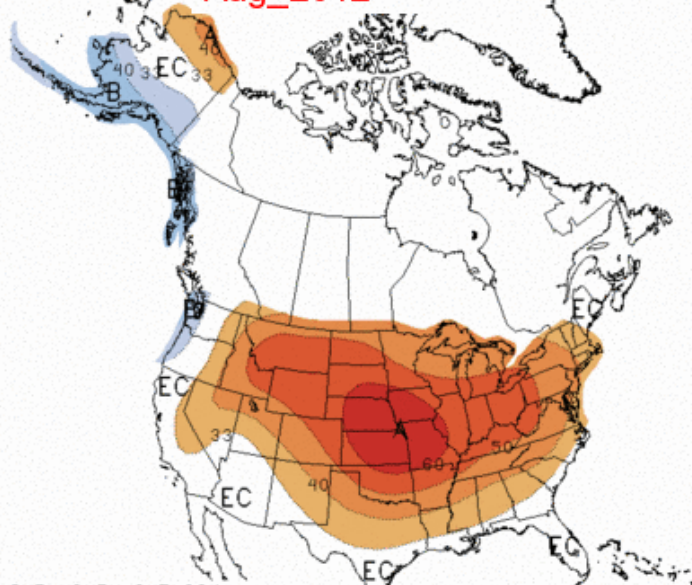


8-14 DAY OUTLOOK
 TEMPERATURE PROBABILITY
 MADE 1 AUG 2012
 VALID AUG 09 - 15, 2012

DASHED BLACK LINES ARE CLIMATOLOGY
 (DEG F) SHADED AREAS ARE FCS
 VALUES ABOVE (A) OR BELOW (B) NORMAL
 UNSHADED AREAS ARE NEAR-NORMAL



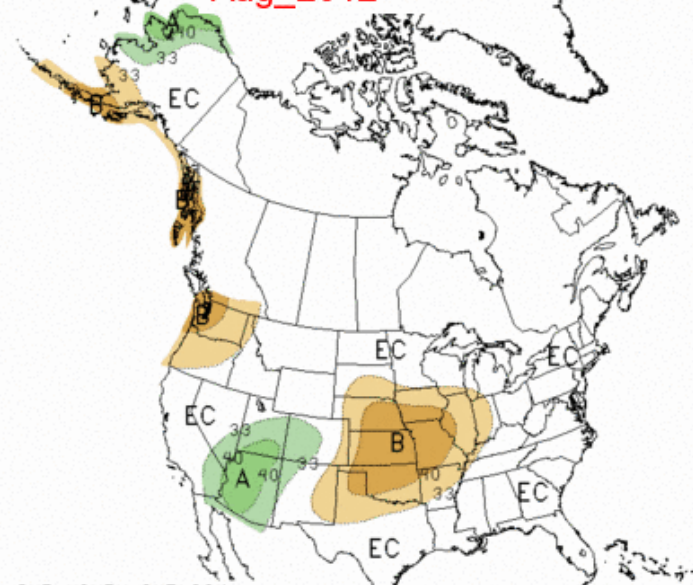
Aug_2012



ONE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.0 MONTH LEAD
VALID AUG 2012
MADE 31 JUL 2012

EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW

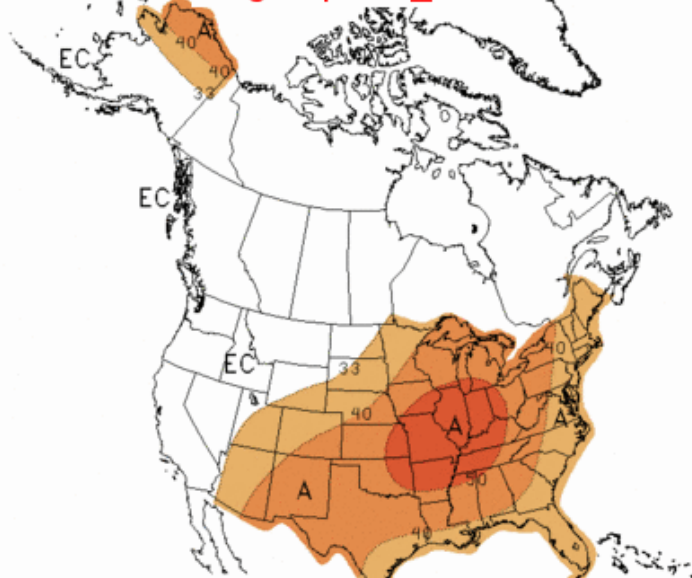
Aug_2012



ONE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.0 MONTH LEAD
VALID AUG 2012
MADE 31 JUL 2012

EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW

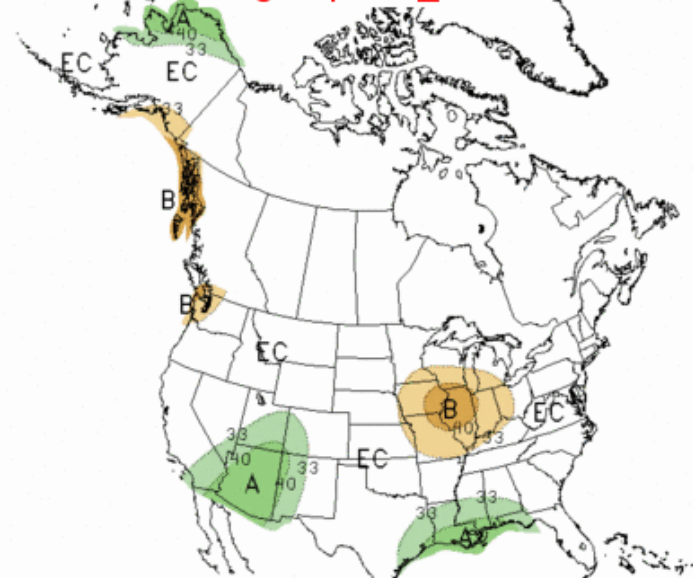
Aug-Sep-Oct_2012



THREE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.5 MONTH LEAD
VALID ASD 2012
MADE 19 JUL 2012

EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW

Aug-Sep-Oct_2012



THREE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.5 MONTH LEAD
VALID ASD 2012
MADE 19 JUL 2012

EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW

Key Points

- * Within the drought region, July was especially warm and dry.
- * Impacts are seen in soil moisture, stream flows, crops, pasture, pond and lake levels.
- * The outlook for August is grim with expectations of the hot, dry weather continuing.

Further Information

Today's Recorded Presentation:

- <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 Monitor: www.droughtmonitor.unl.edu
- National Drought Mitigation Center: www.drought.unl.edu
- Drought Impact Reporter: www.droughtreporter.unl.edu
- NIDIS Drought Portal: www.drought.gov
- State climatologists
 - <http://www.stateclimate.org>
- Regional climate centers
 - <http://mrcc.isws.illinois.edu>
 - <http://www.hprcc.unl.edu>

Thank You and Questions?

- * Questions:

- * **Climate:**

- * Jim Angel: jimangel@illinois.edu , 217-333-0729

- * Brad Rippey: brippy@oce.usda.gov, 202-720-2397

- * John Eise: john.eise@noaa.gov, 816-268-3144

- * Brian Fuchs, National Drought Mitigation Center

- * Chris Anderson, Iowa State University

- * **Weather:**

- * crhroc@noaa.gov

- * Next Webinar: August 16, 2012

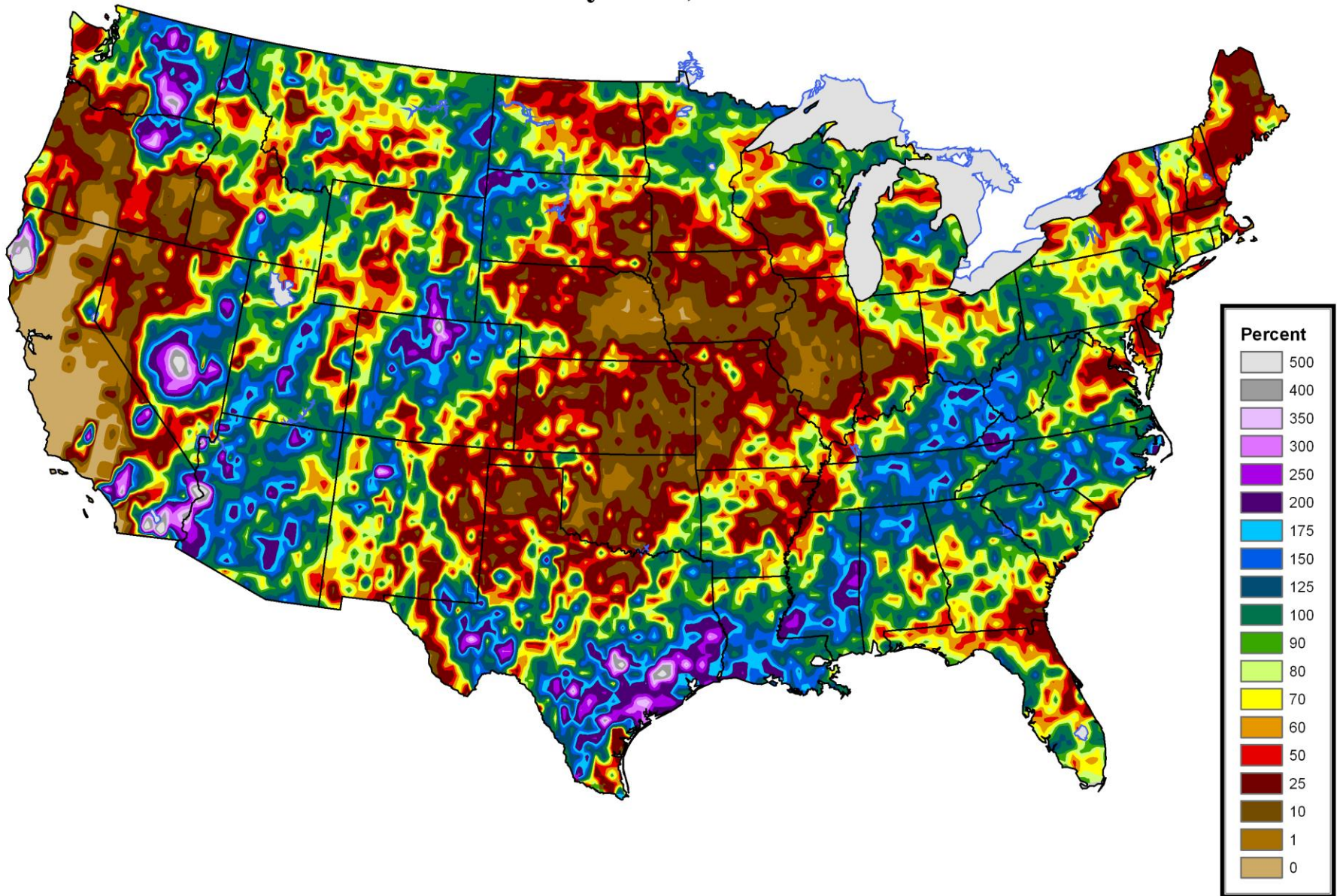
McLean Co., IL
July 27, 2012



Midwest and Great Plains Drought Update, August 2, 2012

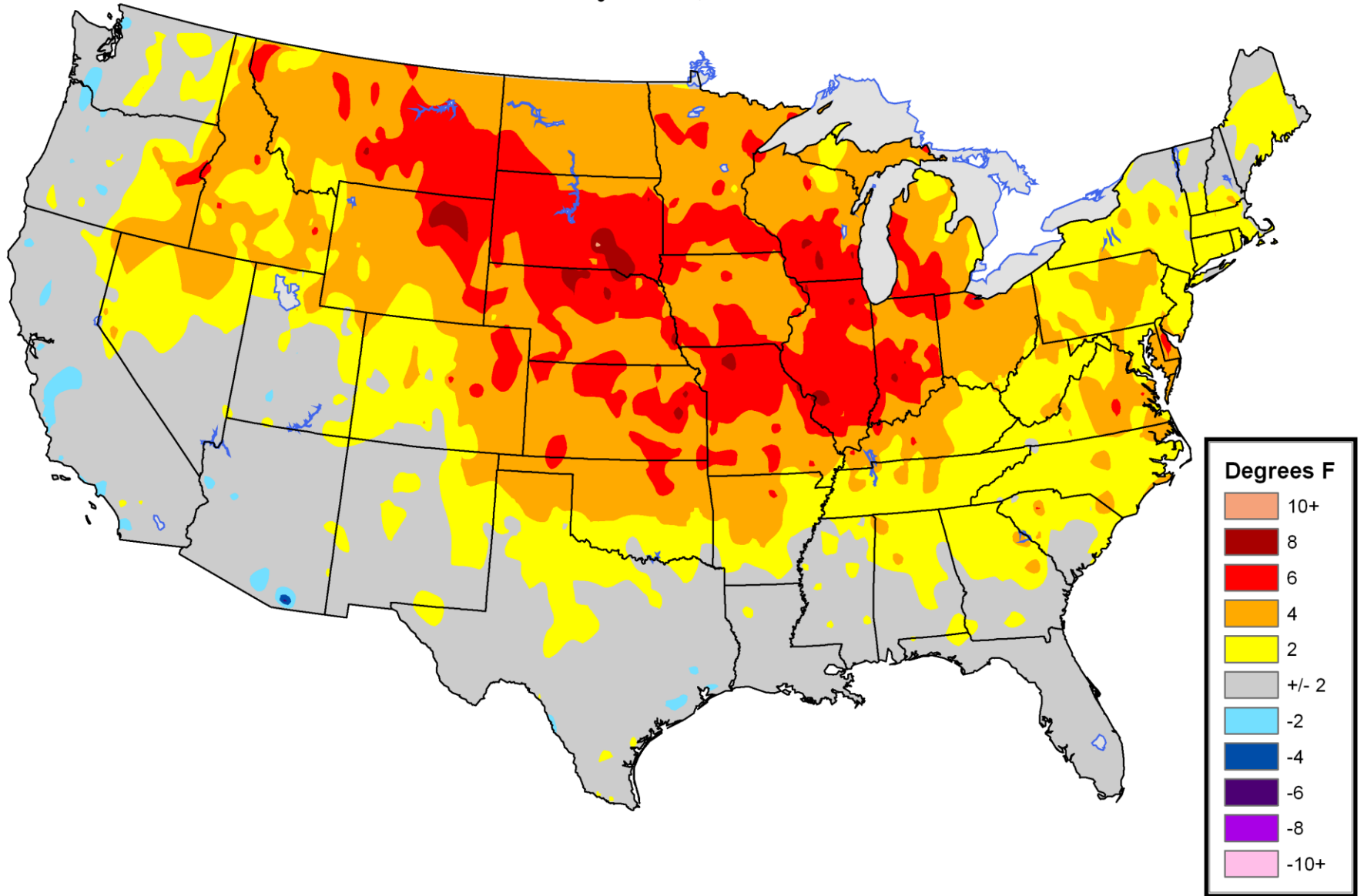
Percent of Normal Rainfall

July 1-31, 2012



Temperature Departure

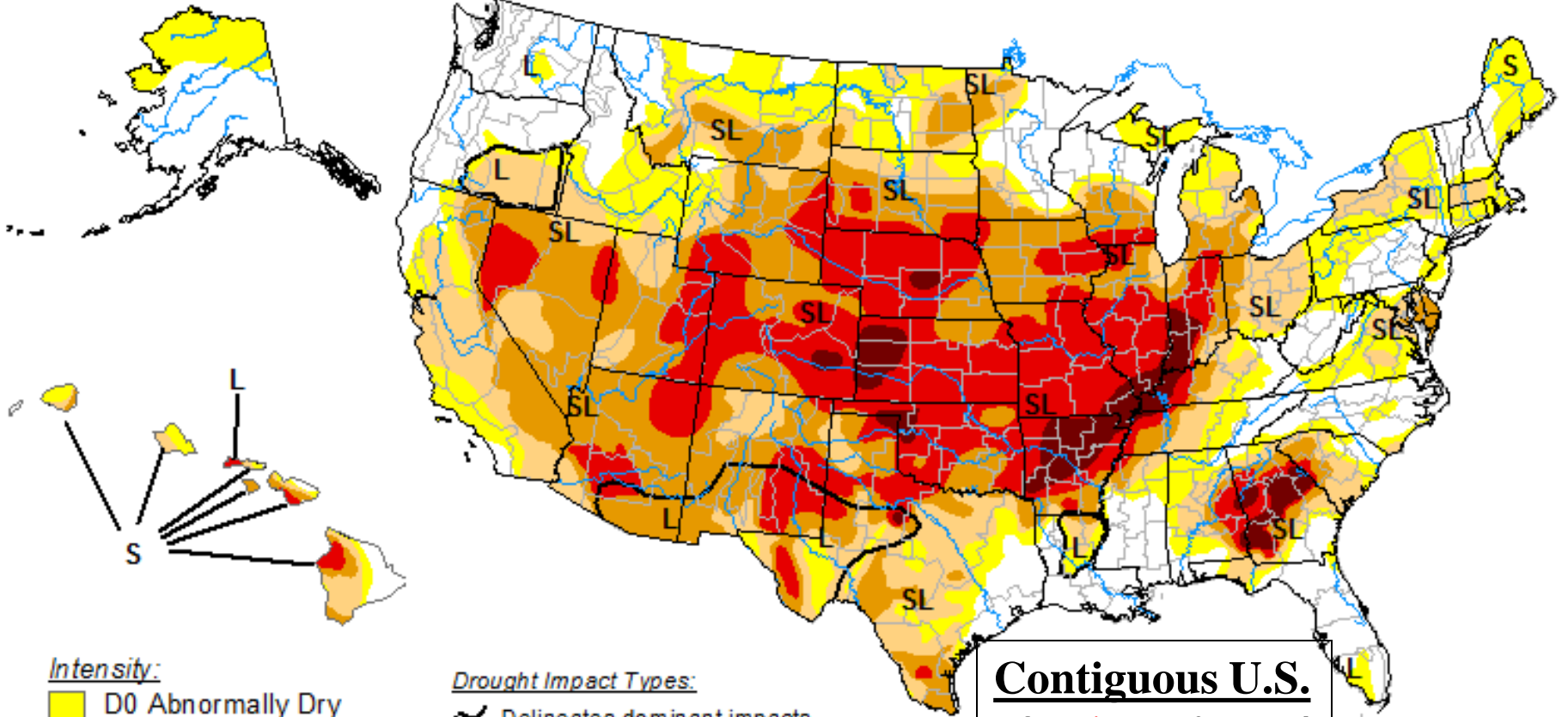
July 1-31, 2012



U.S. Drought Monitor

July 31, 2012

Valid 7 a.m. EDT



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

Drought Impact Types:

- Delineates dominant impacts
- S = Short-Term, typically <6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically >6 months (e.g. hydrology, ecology)

Contiguous U.S.

79%* D0 – D4

63%* D1 – D4

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

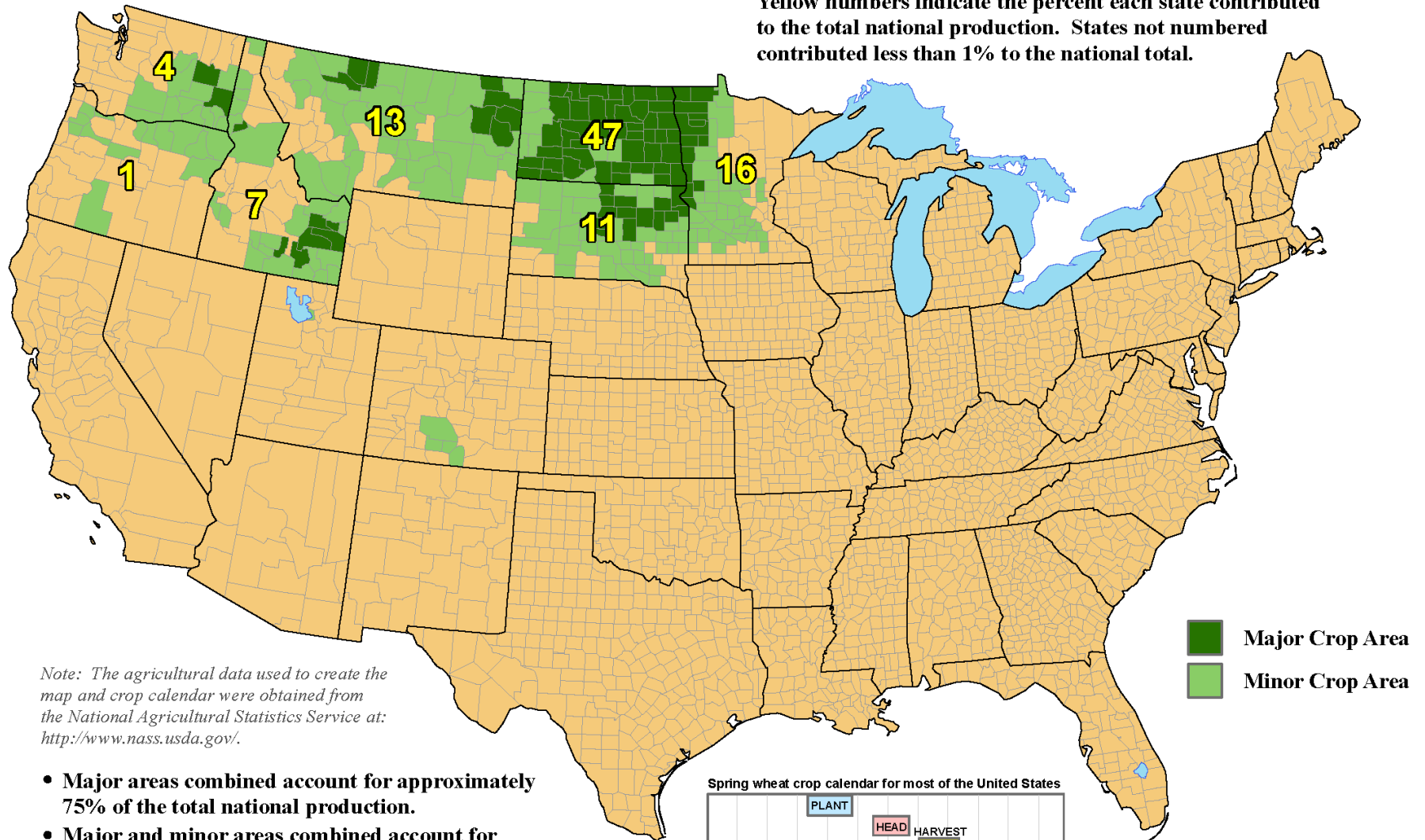


http

*** Greatest contiguous U.S. coverage of D0 – D4; was 72% in Jul. 2002**
*** Greatest contiguous U.S. coverage of D1 – D4; was 55% in Aug. 2003**

United States: Spring Wheat (excluding durum)

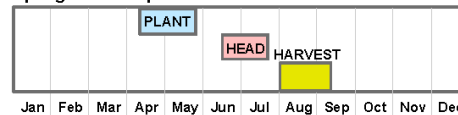
Yellow numbers indicate the percent each state contributed to the total national production. States not numbered contributed less than 1% to the national total.



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.

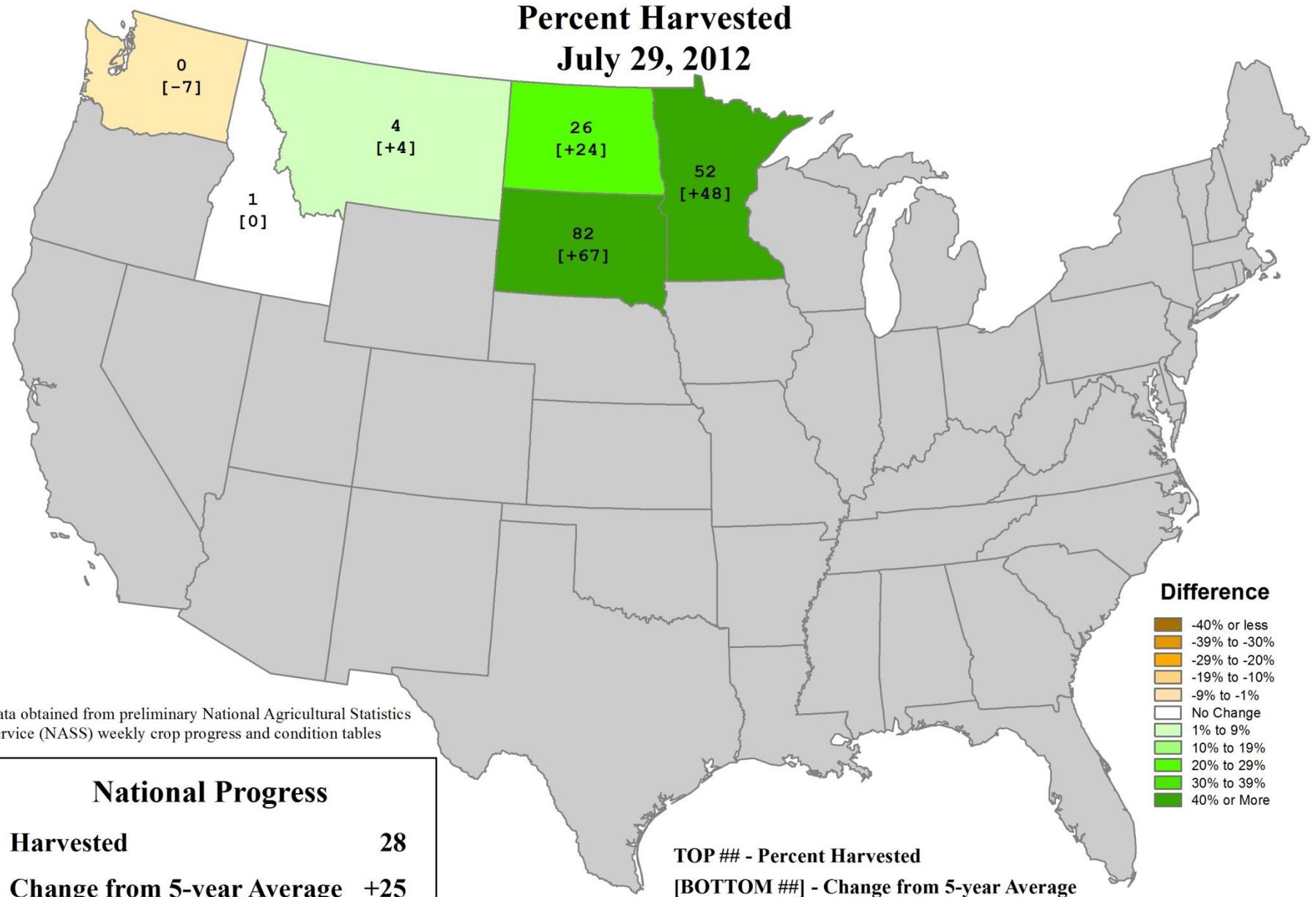
Spring wheat crop calendar for most of the United States



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
July 29, 2012



Difference

- 40% or less
- 39% to -30%
- 29% to -20%
- 19% to -10%
- 9% to -1%
- No Change
- 1% to 9%
- 10% to 19%
- 20% to 29%
- 30% to 39%
- 40% or More

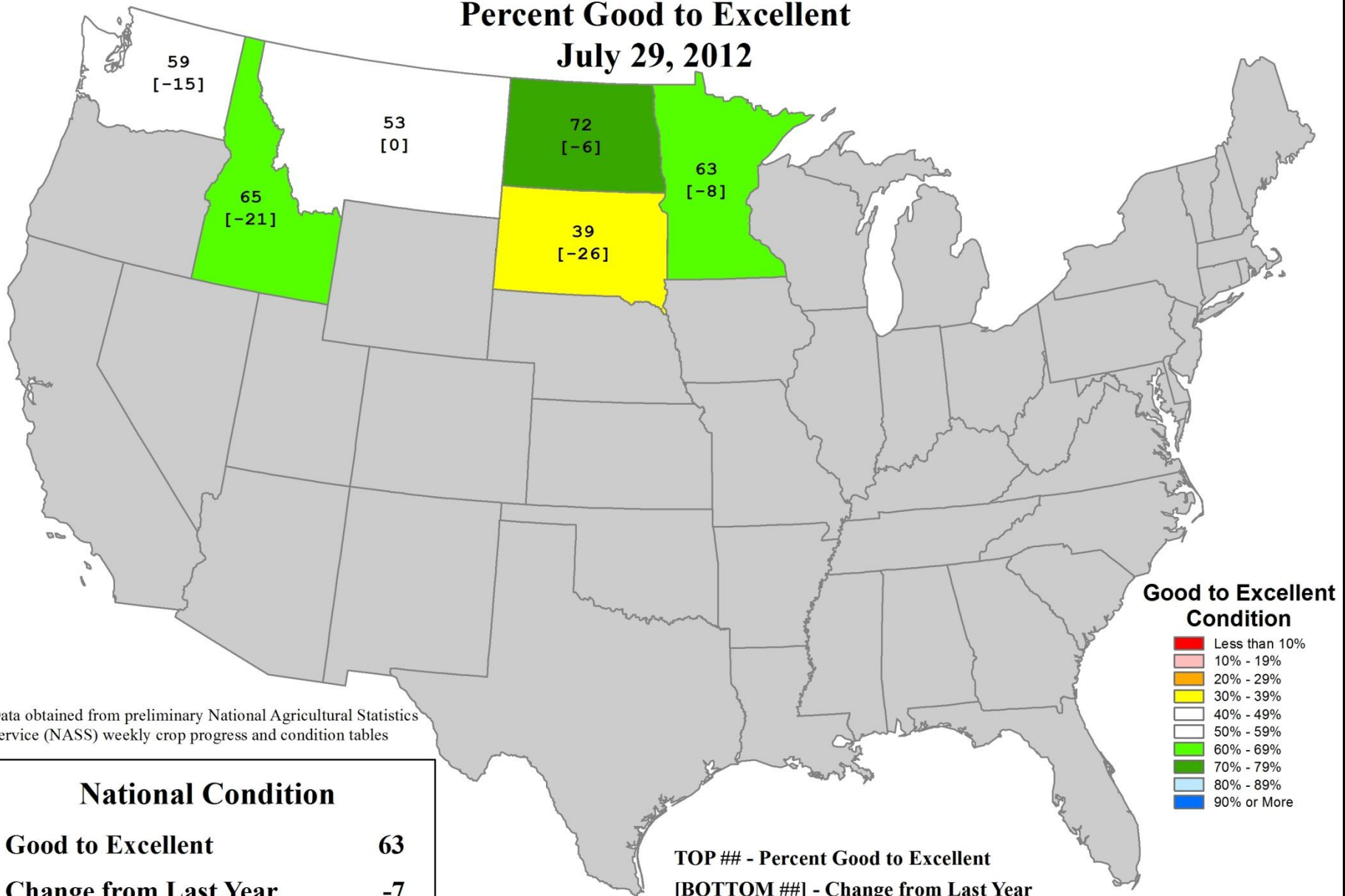
Data obtained from preliminary National Agricultural Statistics Service (NASS) weekly crop progress and condition tables

| National Progress | |
|-----------------------------------|------------|
| Harvested | 28 |
| Change from 5-year Average | +25 |

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

U.S. Spring Wheat Conditions

Percent Good to Excellent
July 29, 2012



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

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

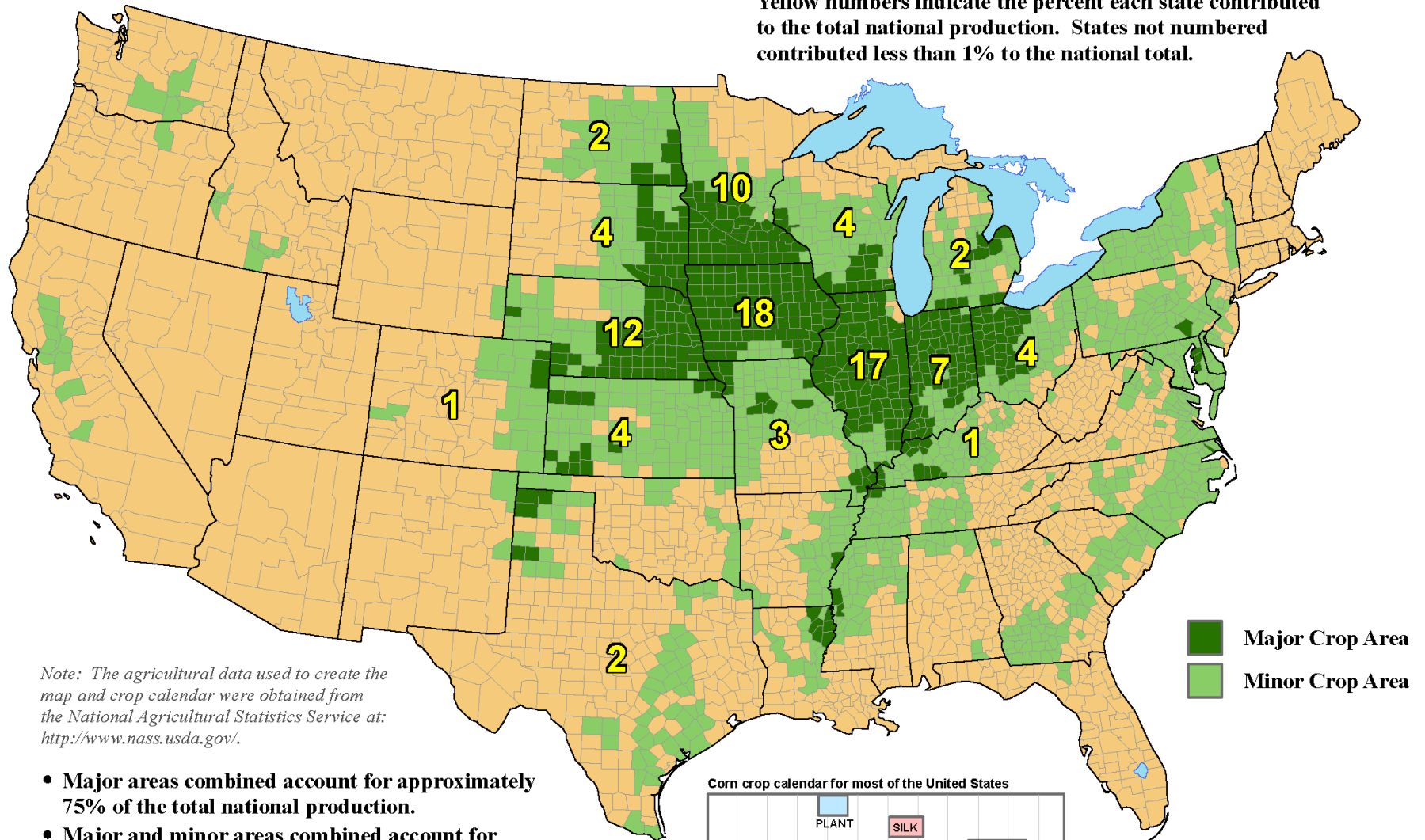
National Condition

| | |
|------------------------------|-----------|
| Good to Excellent | 63 |
| Change from Last Year | -7 |

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

United States: Corn

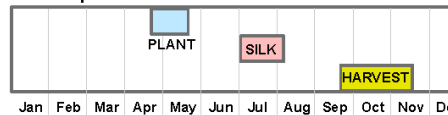
Yellow numbers indicate the percent each state contributed to the total national production. States not numbered contributed less than 1% to the national total.



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/>.

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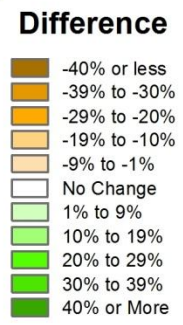
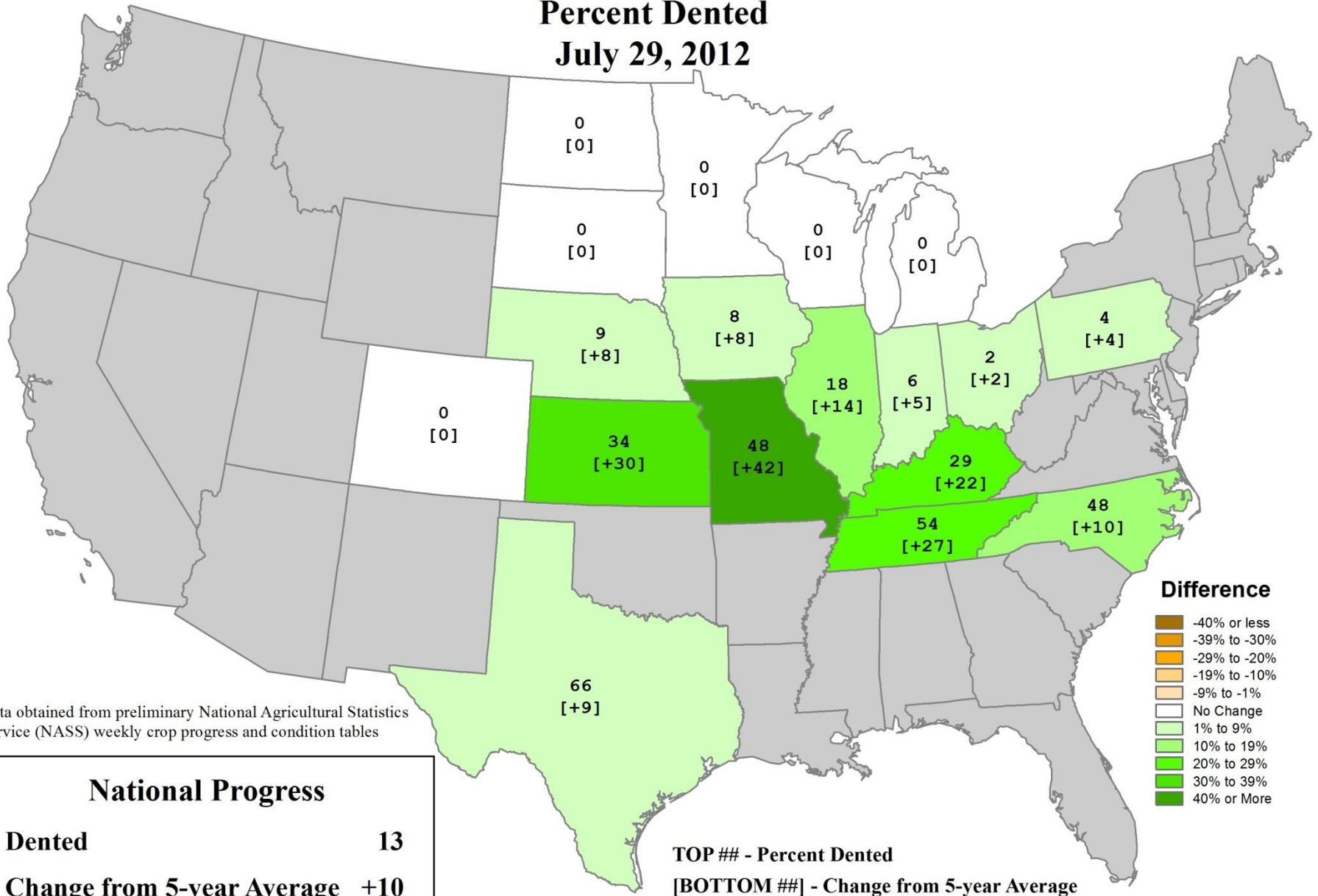
Corn crop calendar for most of the United States



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.

U.S. Corn Progress

Percent Dented
July 29, 2012



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

National Progress

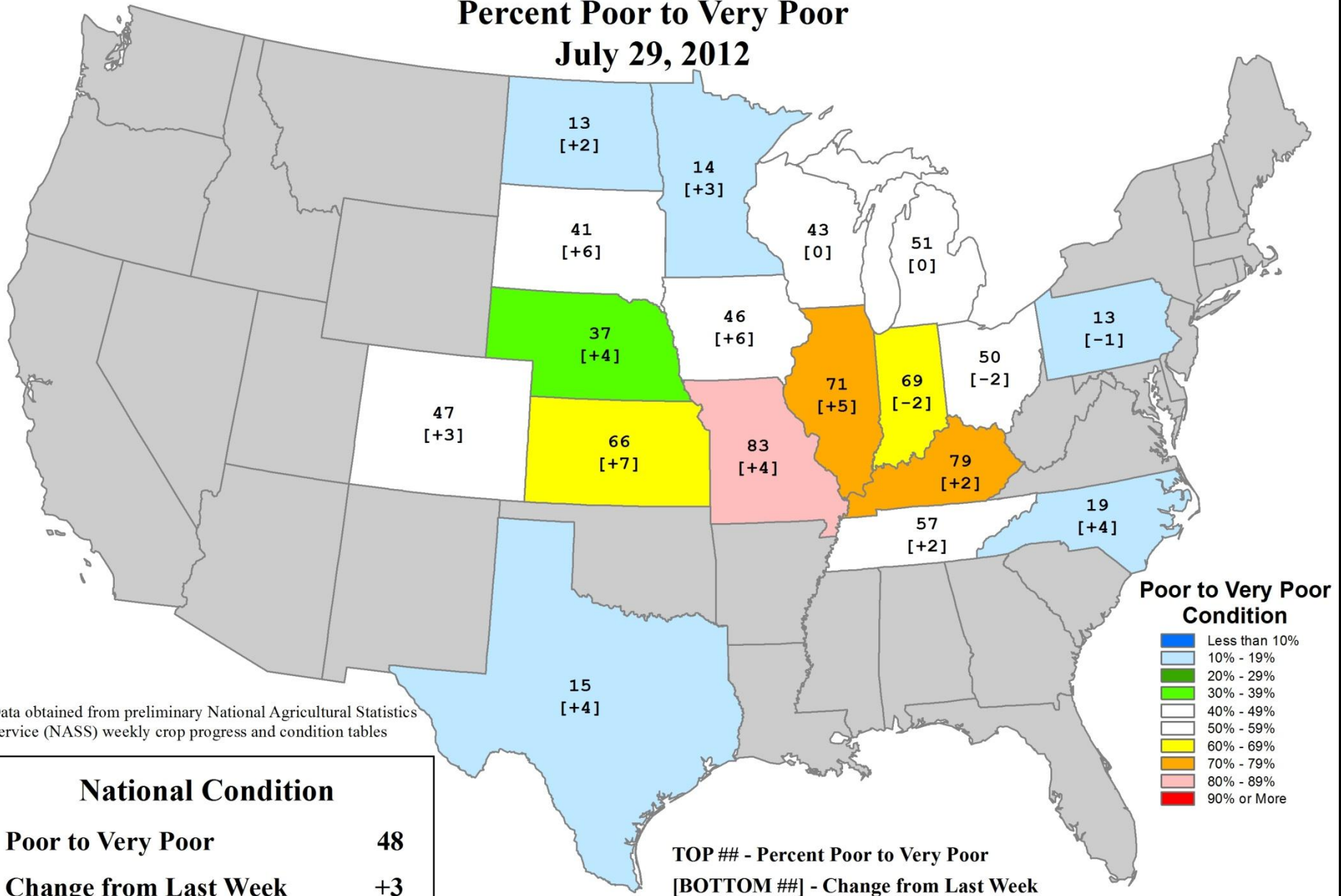
Dented **13**

Change from 5-year Average **+10**

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

U.S. Corn Conditions

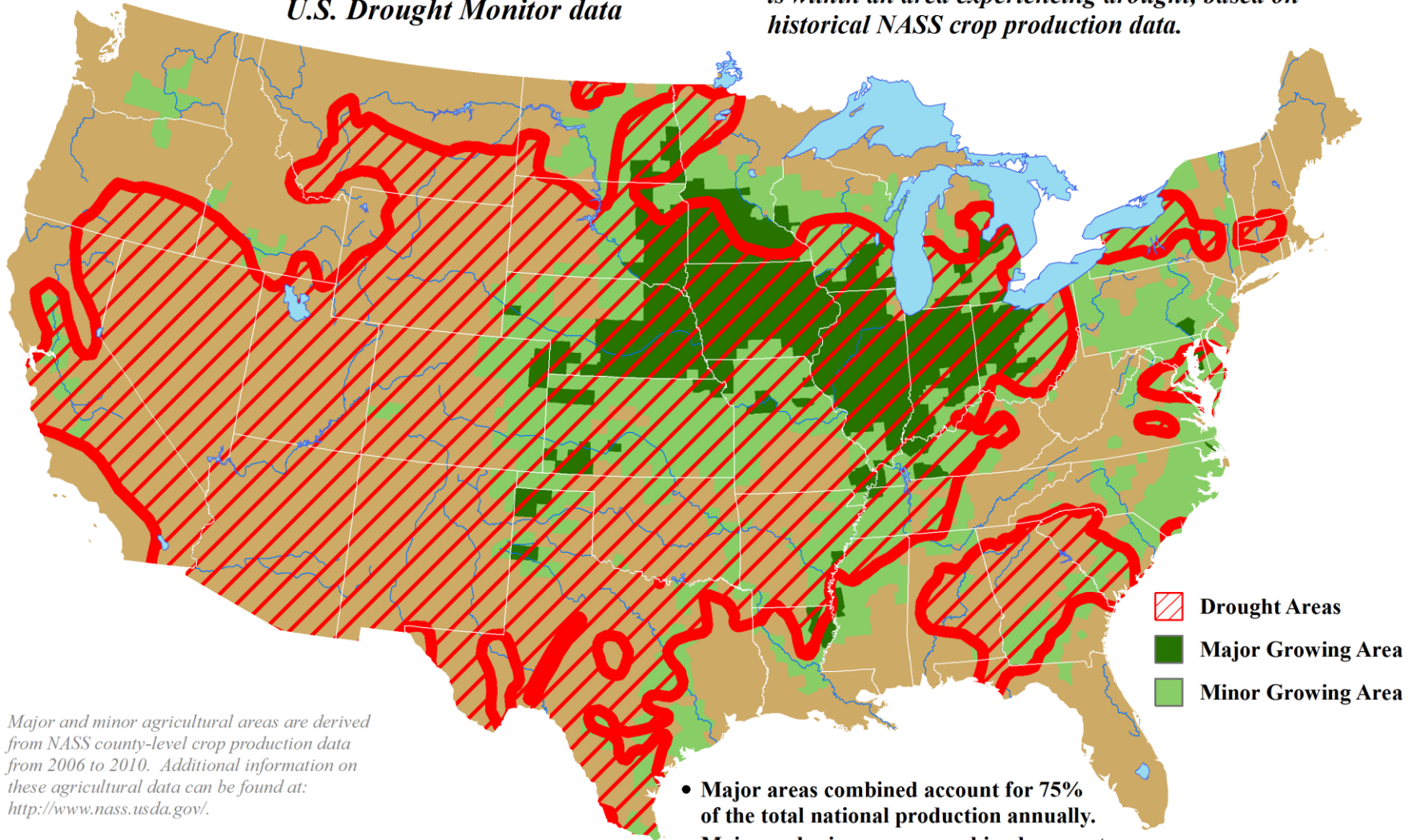
Percent Poor to Very Poor
July 29, 2012



U.S. Corn Areas Experiencing Drought

Reflects July 31, 2012
U.S. Drought Monitor data

Approximately **88%** of the corn grown in the U.S. is within an area experiencing drought, based on historical NASS crop production data.

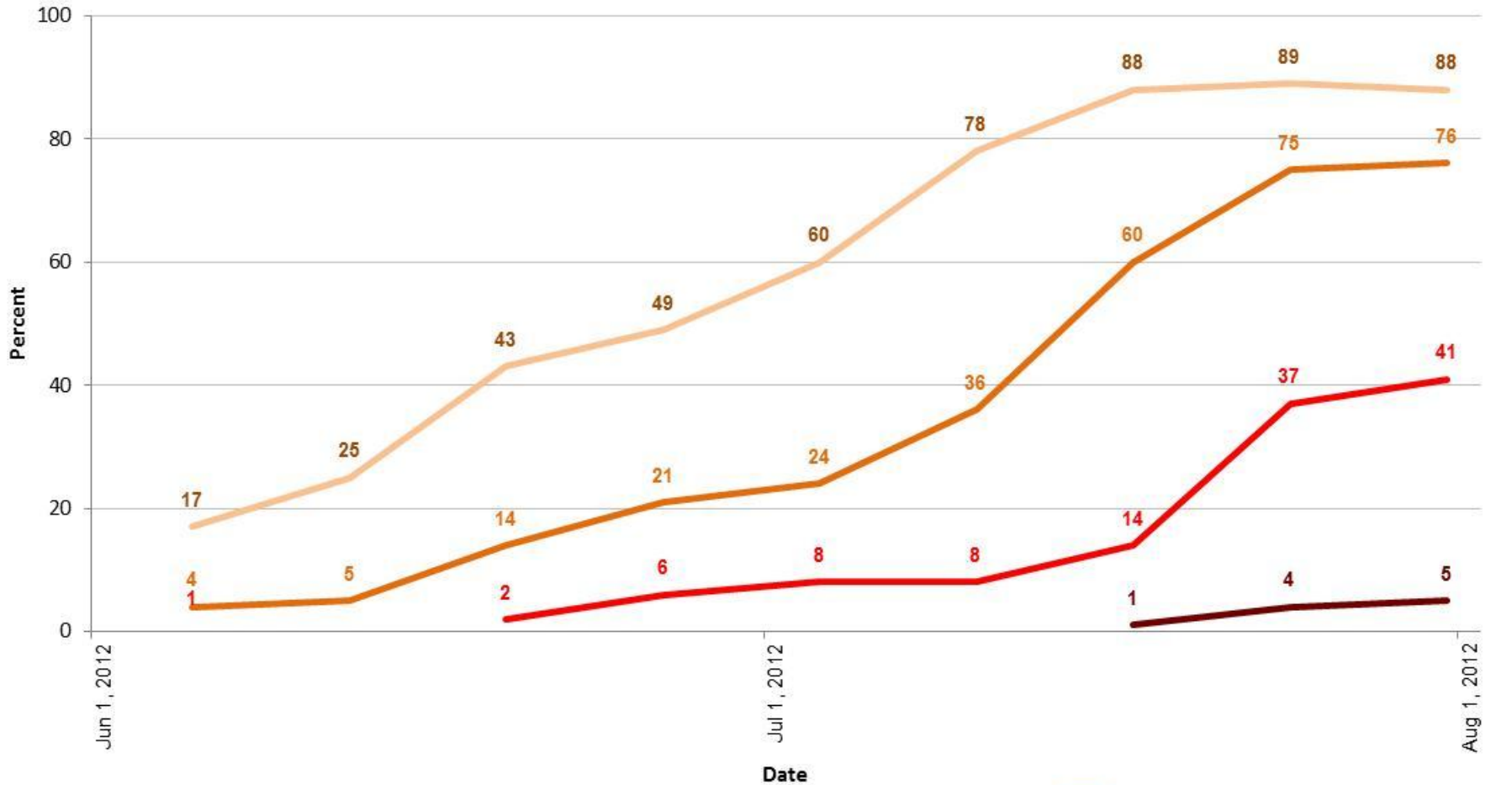


Major and minor agricultural areas are derived from NASS county-level crop production data from 2006 to 2010. Additional information on these agricultural data can be found at: <http://www.nass.usda.gov/>.

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://www.drought.unl.edu/dm/monitor.html>.

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

United States Corn Areas Located in Drought

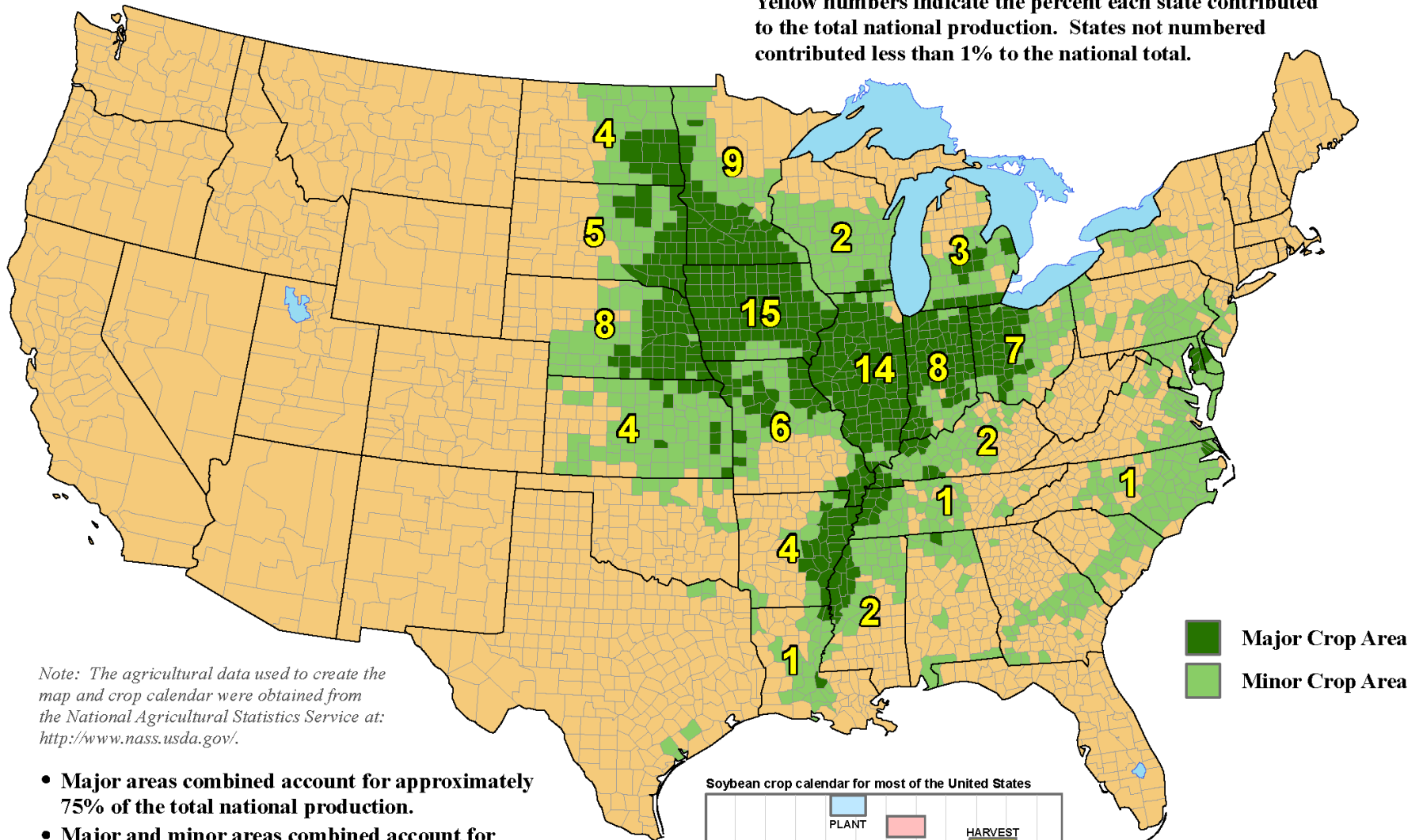


 **Agricultural Weather Assessments**
World Agricultural Outlook Board

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

United States: Soybeans

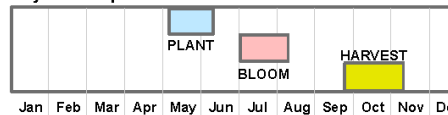
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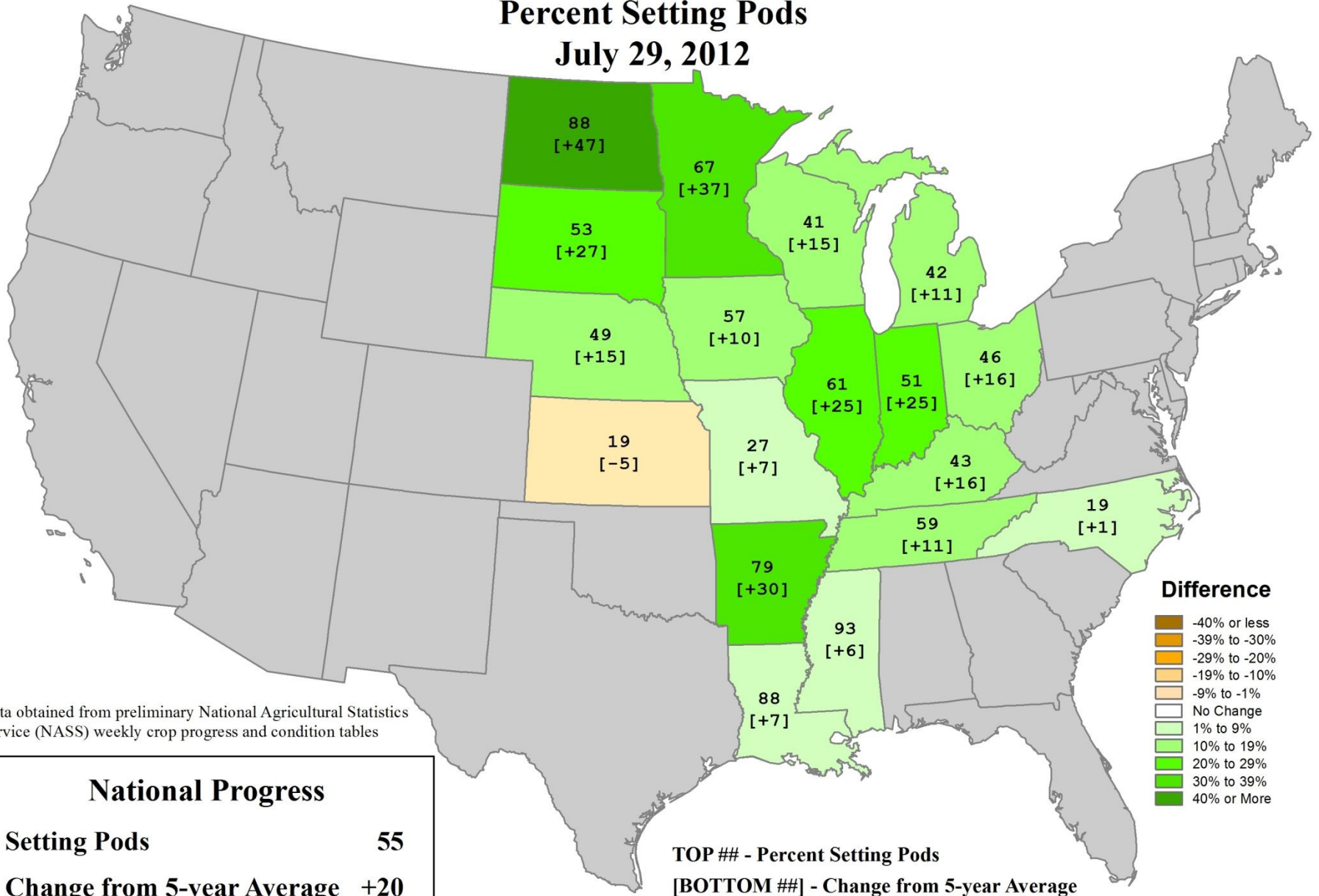
Soybean crop calendar for most of the United States



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.

U.S. Soybeans Progress

Percent Setting Pods
July 29, 2012



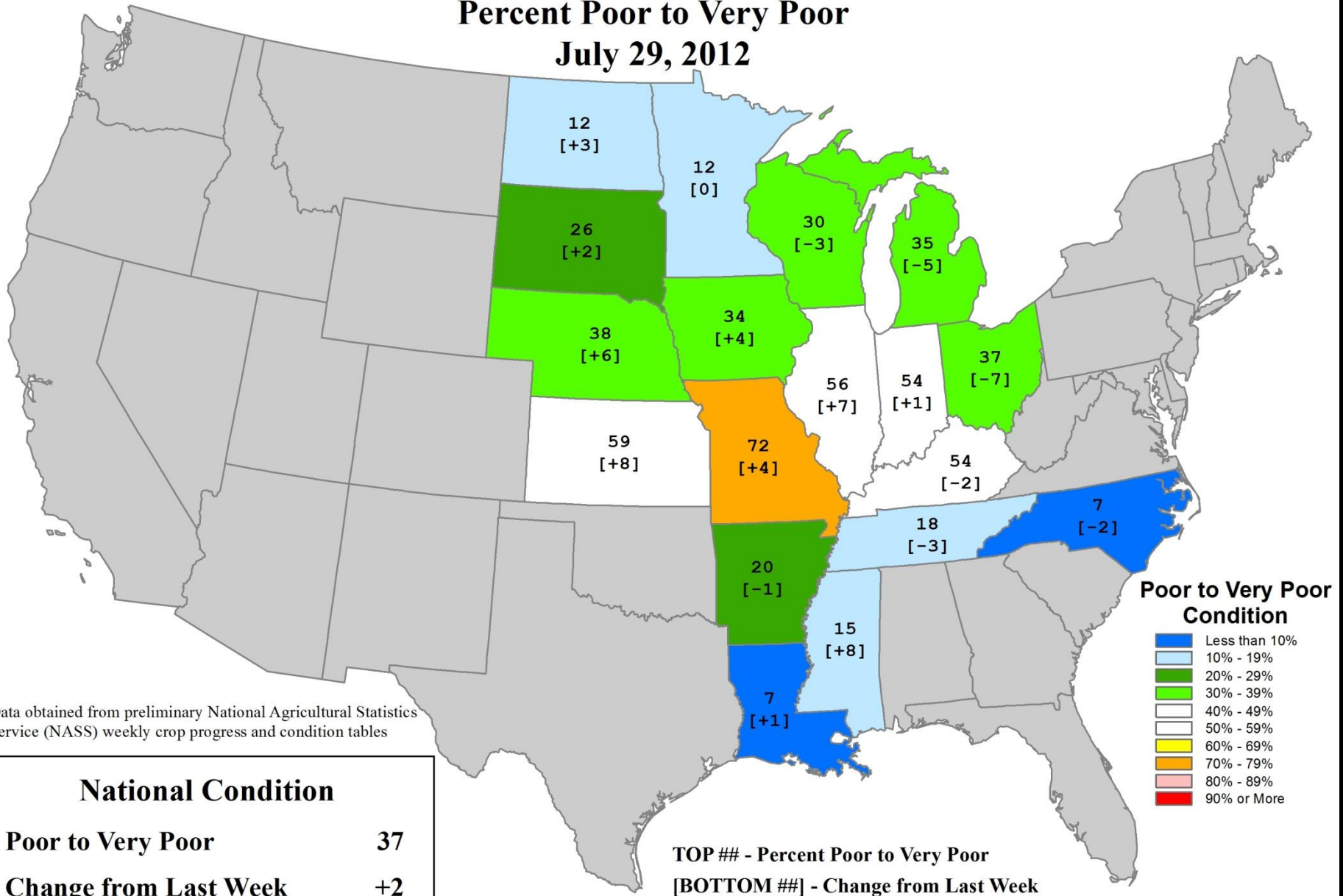
Data obtained from preliminary National Agricultural Statistics Service (NASS) weekly crop progress and condition tables

| | |
|----------------------------|------------|
| National Progress | |
| Setting Pods | 55 |
| Change from 5-year Average | +20 |

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

U.S. Soybean Conditions

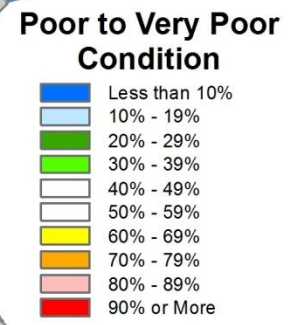
Percent Poor to Very Poor
July 29, 2012



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

| National Condition | |
|-----------------------|----|
| Poor to Very Poor | 37 |
| Change from Last Week | +2 |

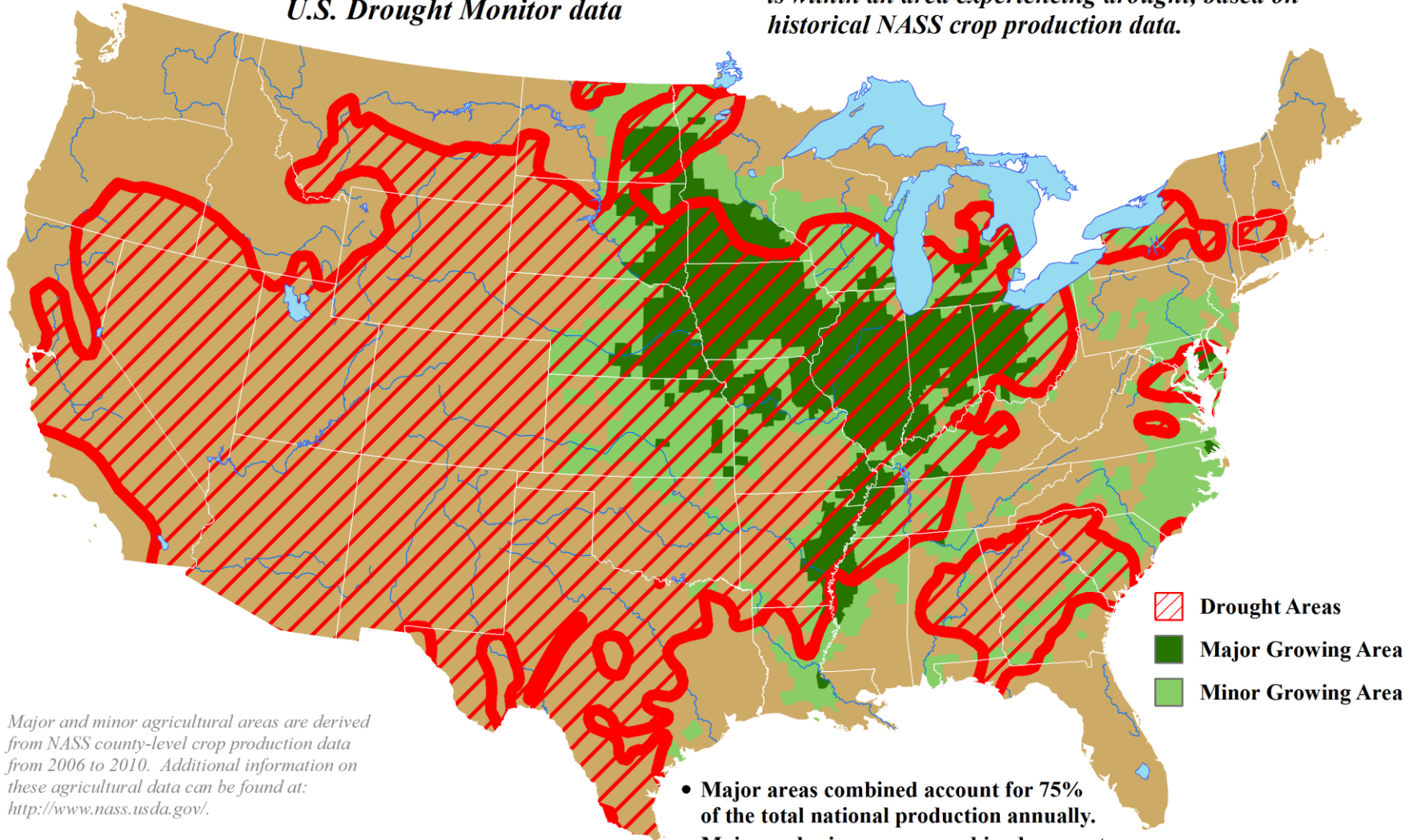
TOP ## - Percent Poor to Very Poor
[BOTTOM ##] - Change from Last Week



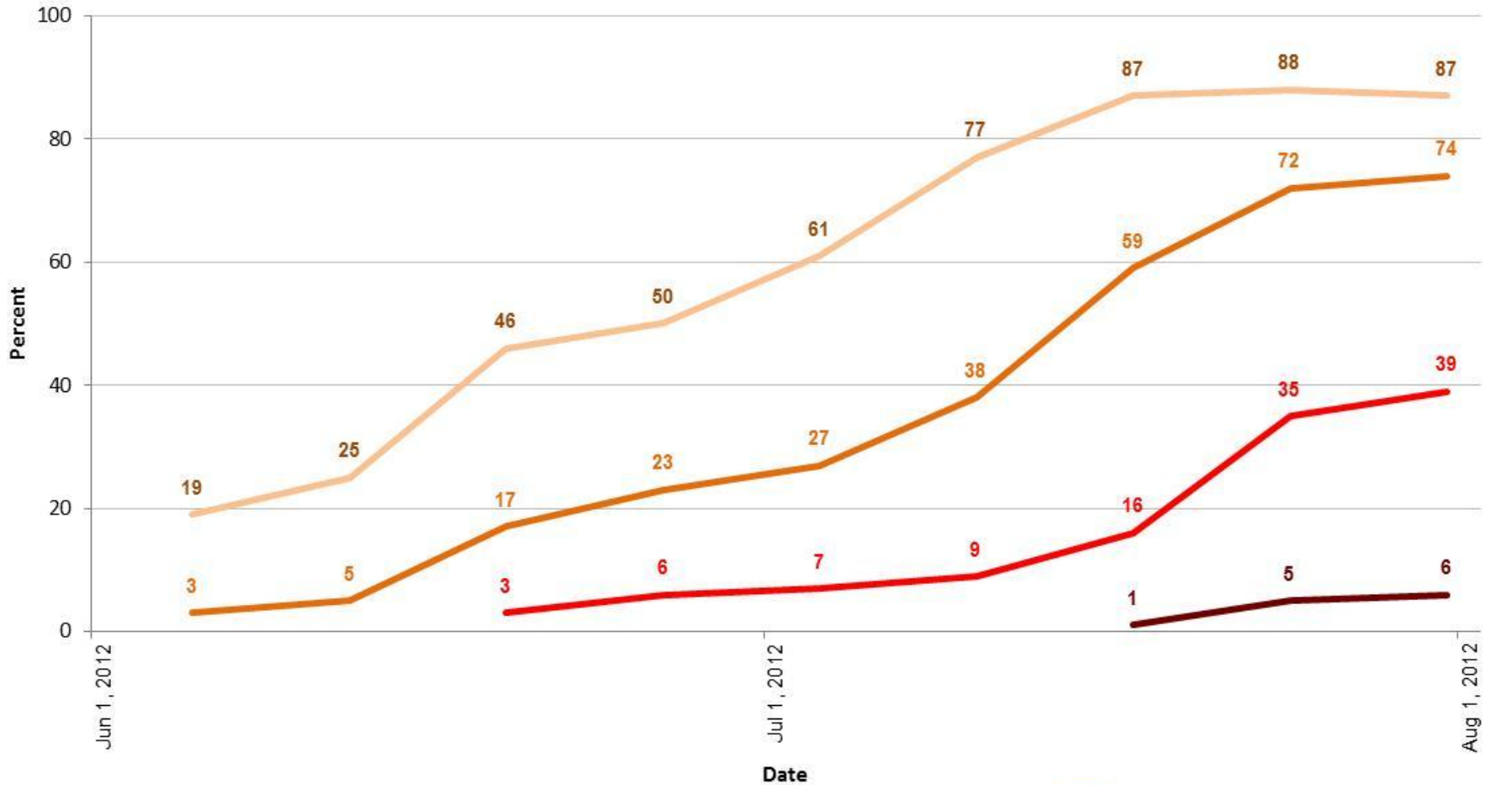
U.S. Soybean Areas Experiencing Drought

Reflects July 31, 2012
U.S. Drought Monitor data

Approximately 87% of the soybeans grown in the U.S. is within an area experiencing drought, based on historical NASS crop production data.



United States Soybean Areas Located in Drought

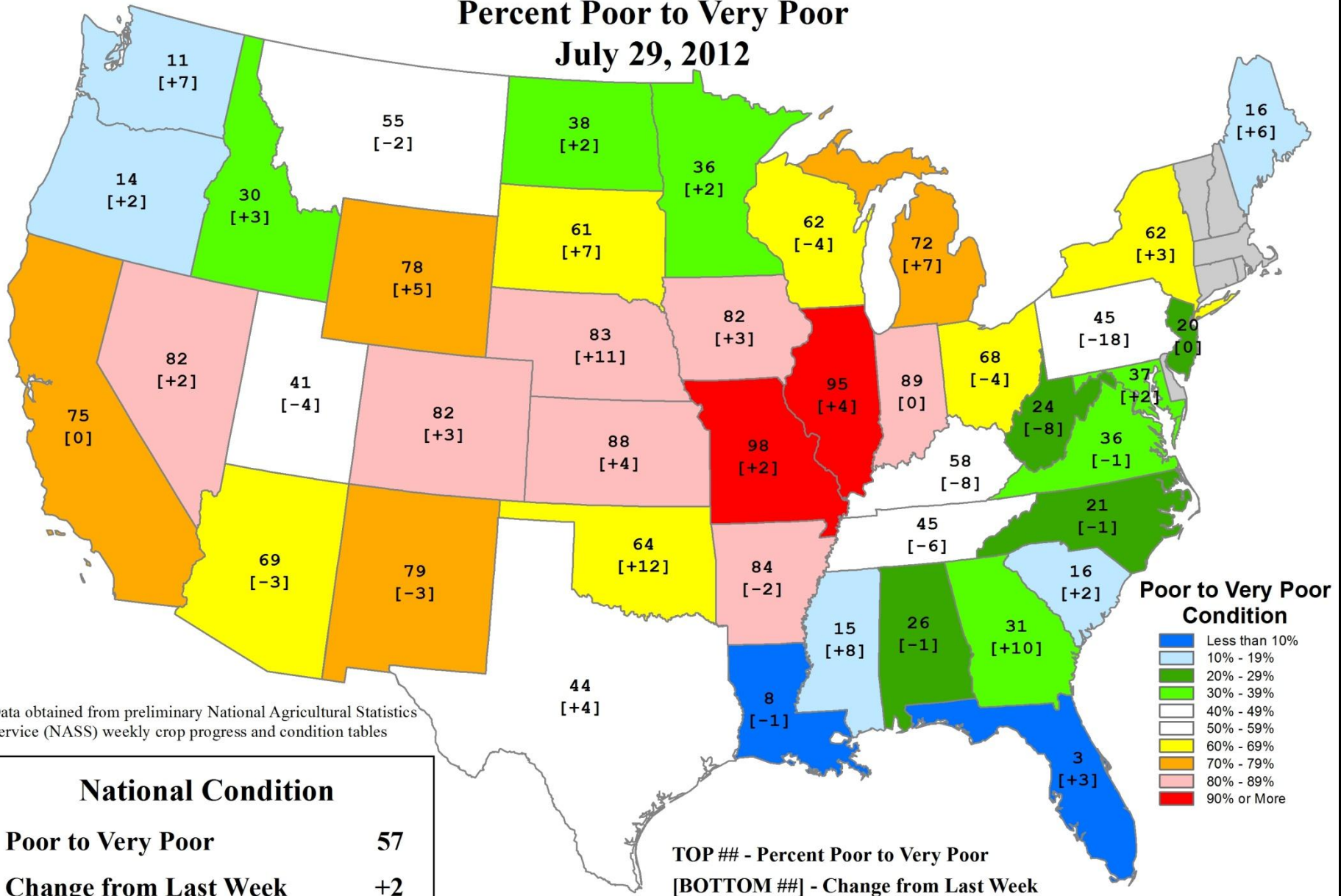


 **Agricultural Weather Assessments**
World Agricultural Outlook Board

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

U.S. Pasture and Range Conditions

Percent Poor to Very Poor
July 29, 2012

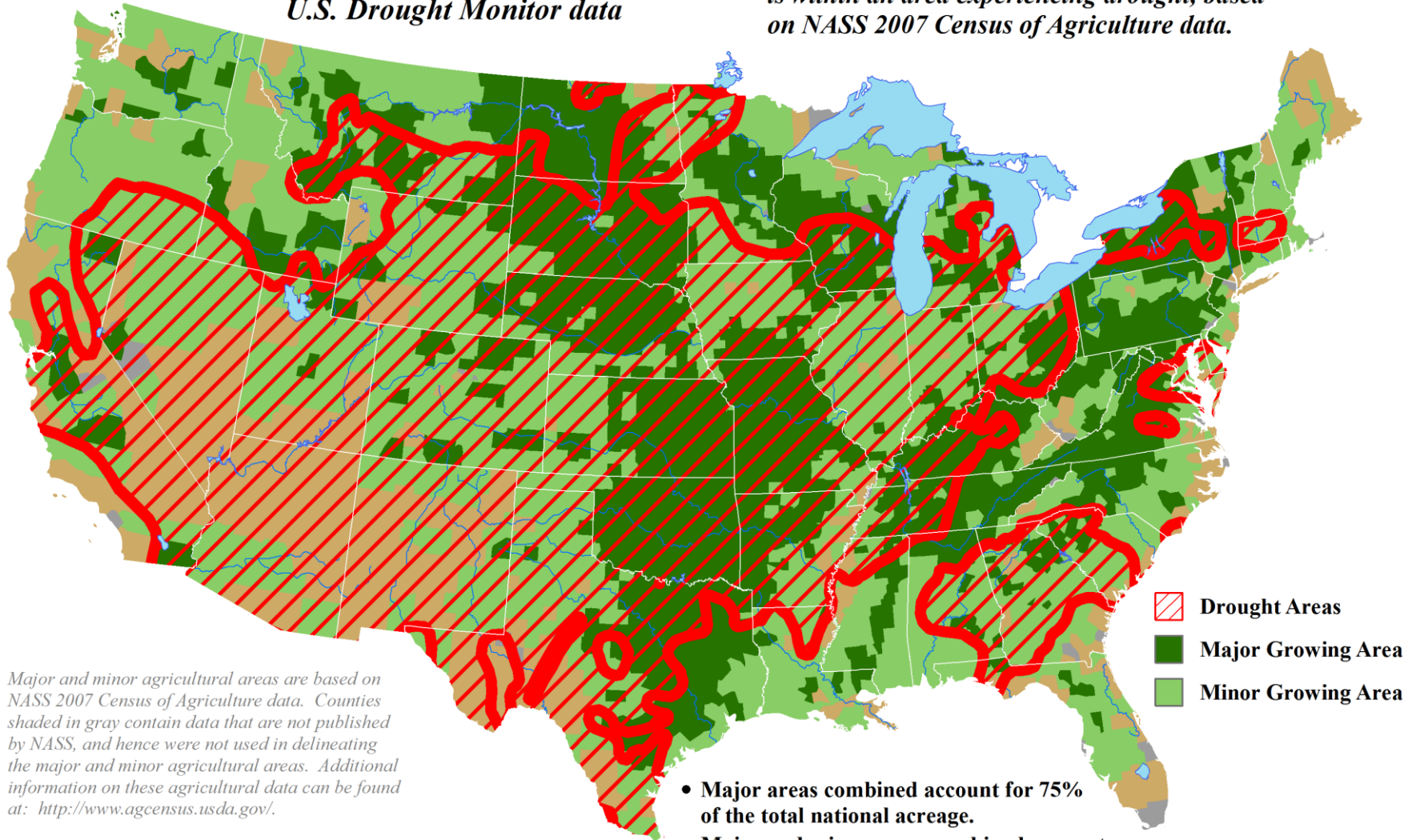


Data obtained from preliminary National Agricultural Statistics Service (NASS) weekly crop progress and condition tables

U.S. Hay Areas Experiencing Drought

Reflects July 31, 2012
U.S. Drought Monitor data

Approximately 64% of the domestic hay acreage is within an area experiencing drought, based on NASS 2007 Census of Agriculture data.

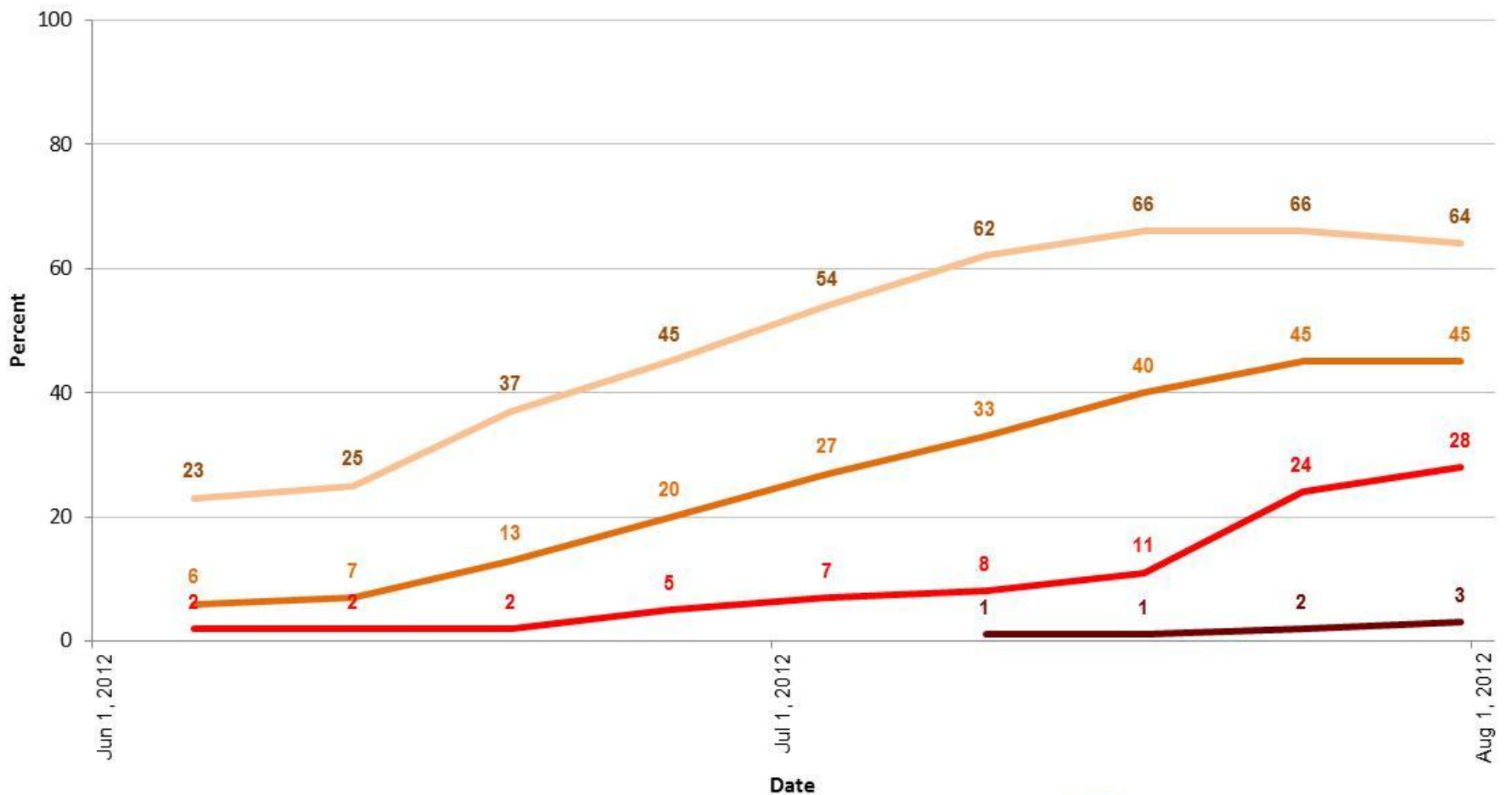


Major and minor agricultural areas are based on NASS 2007 Census of Agriculture data. Counties shaded in gray contain data that are not published by NASS, and hence were not used in delineating the major and minor agricultural areas. Additional information on these agricultural data can be found at: <http://www.agcensus.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://www.drought.unl.edu/dm/monitor.html>.

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

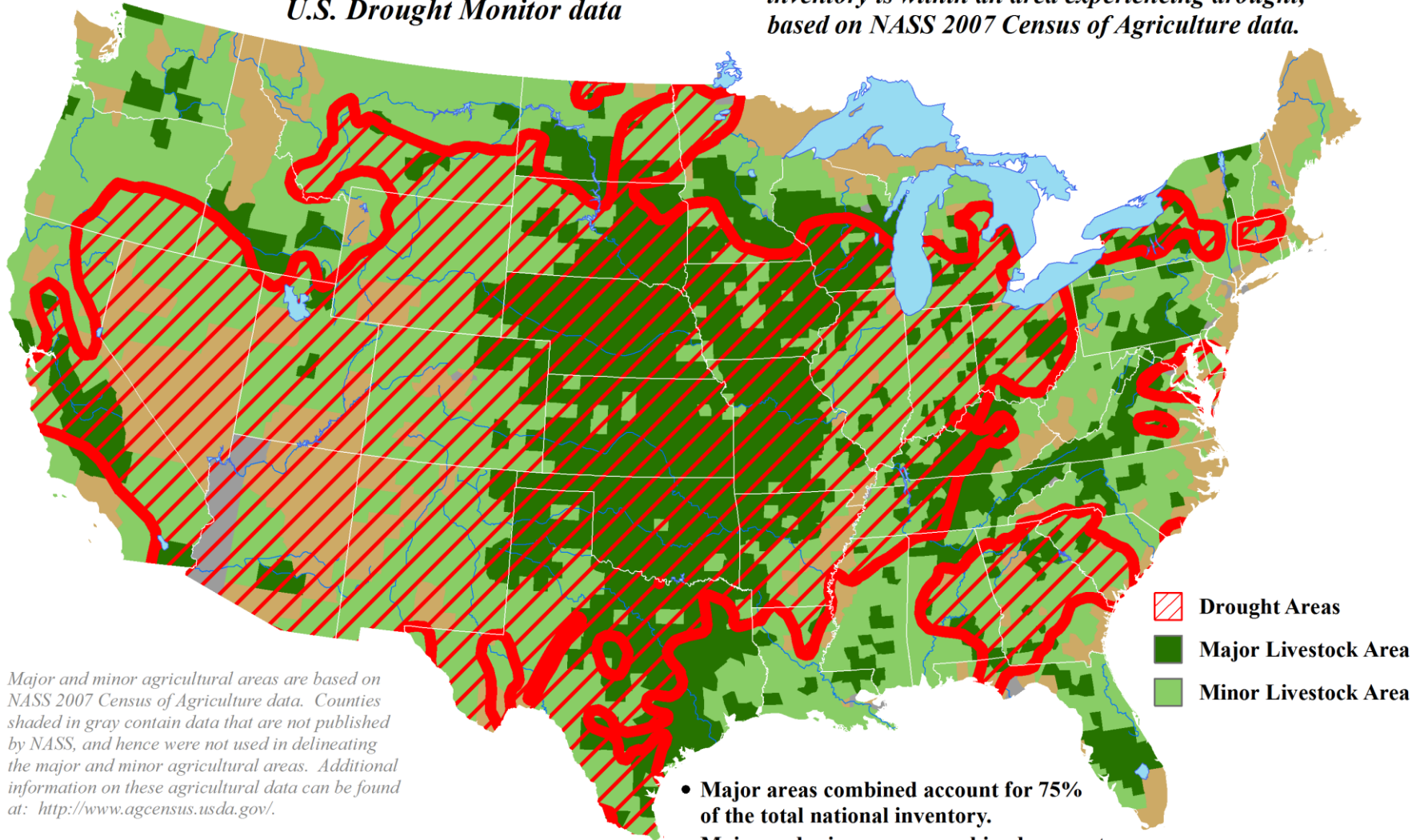
United States Hay Areas Located in Drought



U.S. Cattle Areas Experiencing Drought

Reflects July 31, 2012
U.S. Drought Monitor data

Approximately 72% of the domestic cattle inventory is within an area experiencing drought, based on NASS 2007 Census of Agriculture data.

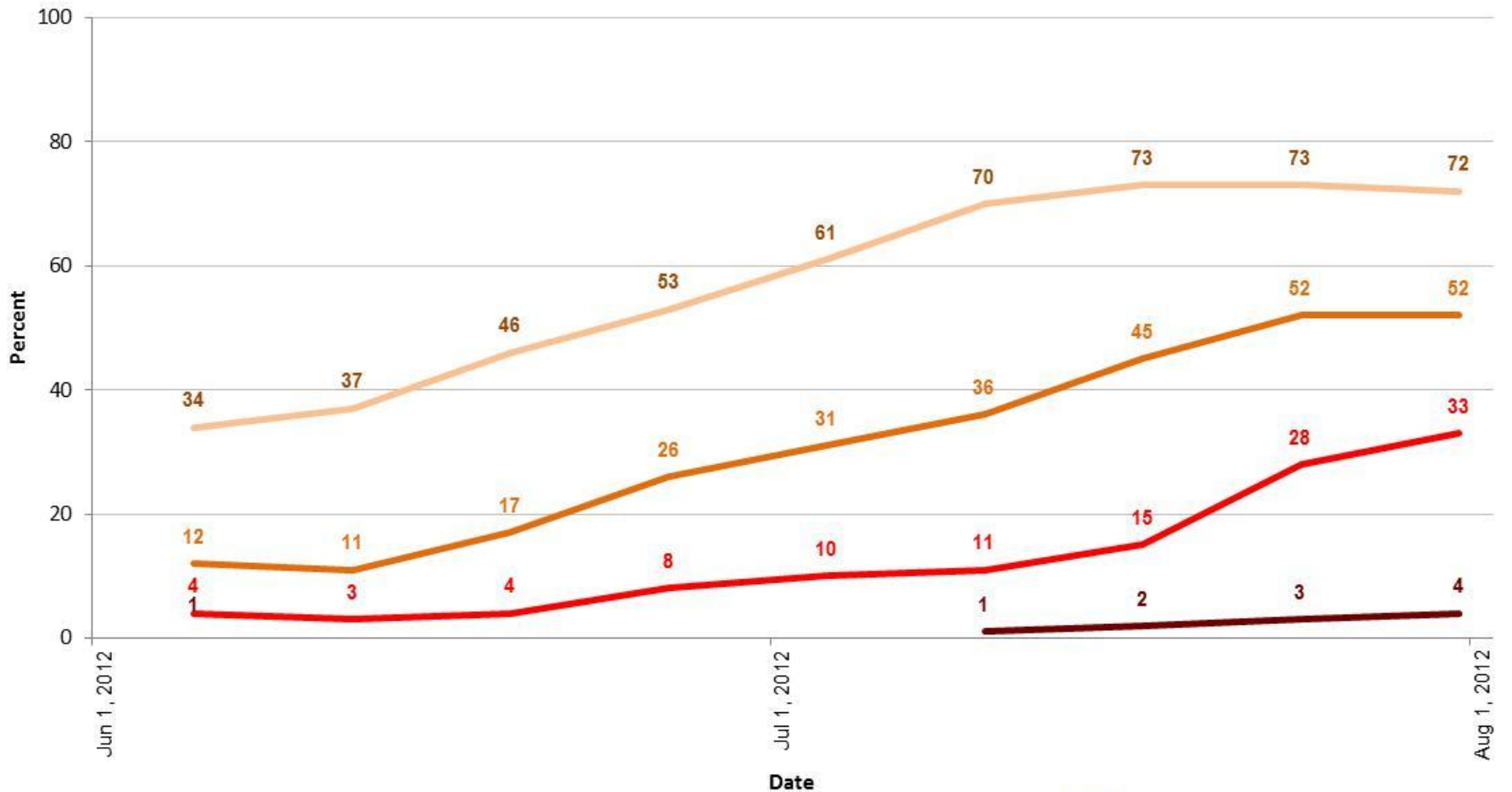


Major and minor agricultural areas are based on NASS 2007 Census of Agriculture data. Counties shaded in gray contain data that are not published by NASS, and hence were not used in delineating the major and minor agricultural areas. Additional information on these agricultural data can be found at: <http://www.agcensus.usda.gov/>.

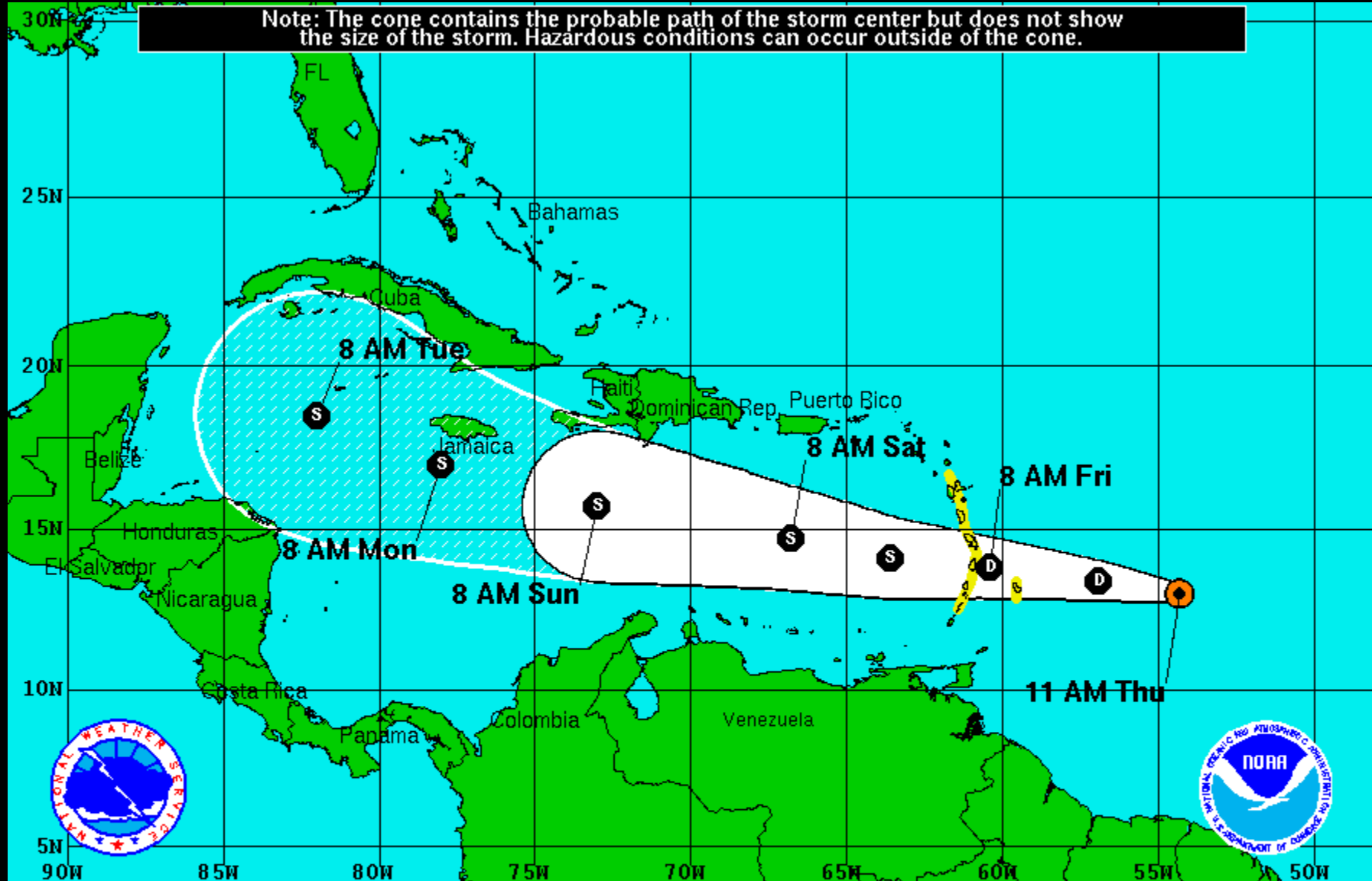
Mapped drought areas are derived from the U.S. Drought Monitor product and do not depict the intensity of drought in any particular location. More information on the Drought Monitor can be found at: <http://www.drought.unl.edu/dm/monitor.html>.

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

United States Cattle Areas Located in Drought



Note: The cone contains the probable path of the storm center but does not show the size of the storm. Hazardous conditions can occur outside of the cone.



Tropical Depression Five

Thursday August 2, 2012

11 AM EDT Advisory 4

NWS National Hurricane Center

Current Information:

Center Location 13.0 N 54.3 W

Max Sustained Wind 35 mph

Movement W at 20 mph

Forecast Positions:

● Tropical Cyclone ○ Post-Tropical

Sustained Winds: D < 39 mph

S 39-73 mph H 74-110 mph M > 110mph

Potential Track Area:

▭ Day 1-3 ▨ Day 4-5

Watches:

▭ Hurricane ▭ Trop.Storm

Warnings:

▭ Hurricane ▭ Trop.Storm