

Central Region Drought Outlook

16 August 2012

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16 August, 2012
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Corn near Beresford, SD—9 Aug. 2012
Author photo



General Information

- * **Providing climate services to the Central Region**

- * Collaboration with Dennis Todey (South Dakota State Climatologist), 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, National Drought Mitigation Center, Iowa State University

- * **Next Climate/Drought Outlook Webinar**

- * September 6th, 2012 (1 PM CDT)
- * Hosted by (TBD)

- * **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 & historical context**
- * **Current impacts**
- * **Predictions**
- * **Questions/Comments**

Turner, County, SD – 8 August 2012
Author photo



Key Points

* **Current Conditions**

- * Still dry – some precip in isolated areas
- * Pattern change cooler conditions near-term
- * Setting many record for temp/precip
- * Ag impacts still large
- * Env. Impacts showing up now

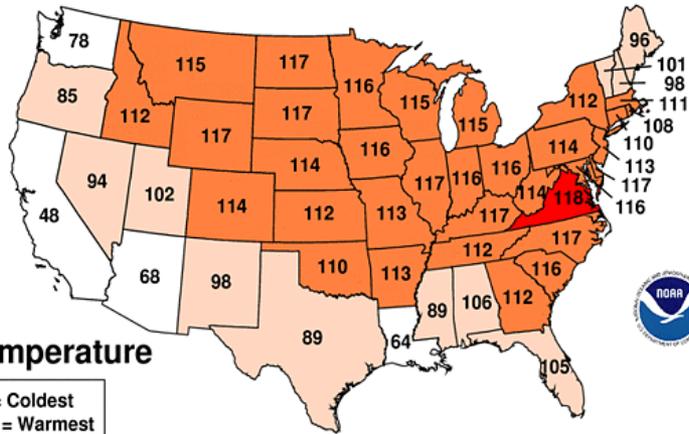
* **Predictions**

- * Near term cooler conditions
- * Fall possibly still warm
- * No major precipitation changes
- * Drought conditions will stay – some reductions likely
- * El Nino impacting future outlooks

Statewide Ranks for July and May-JJuly

July 2012 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



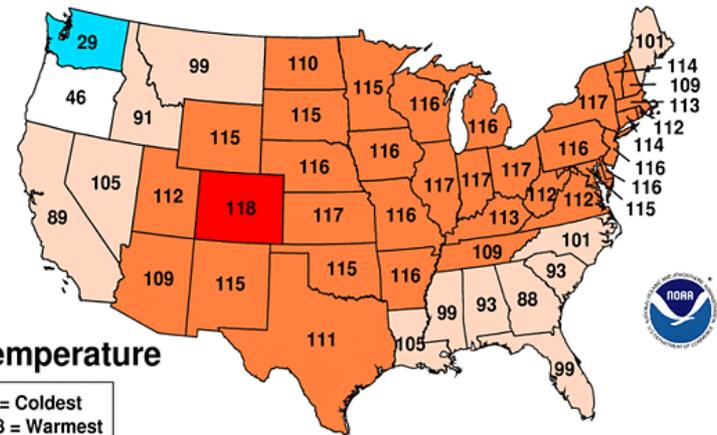
Temperature

1 = Coldest
118 = Warmest



May-July 2012 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



Temperature

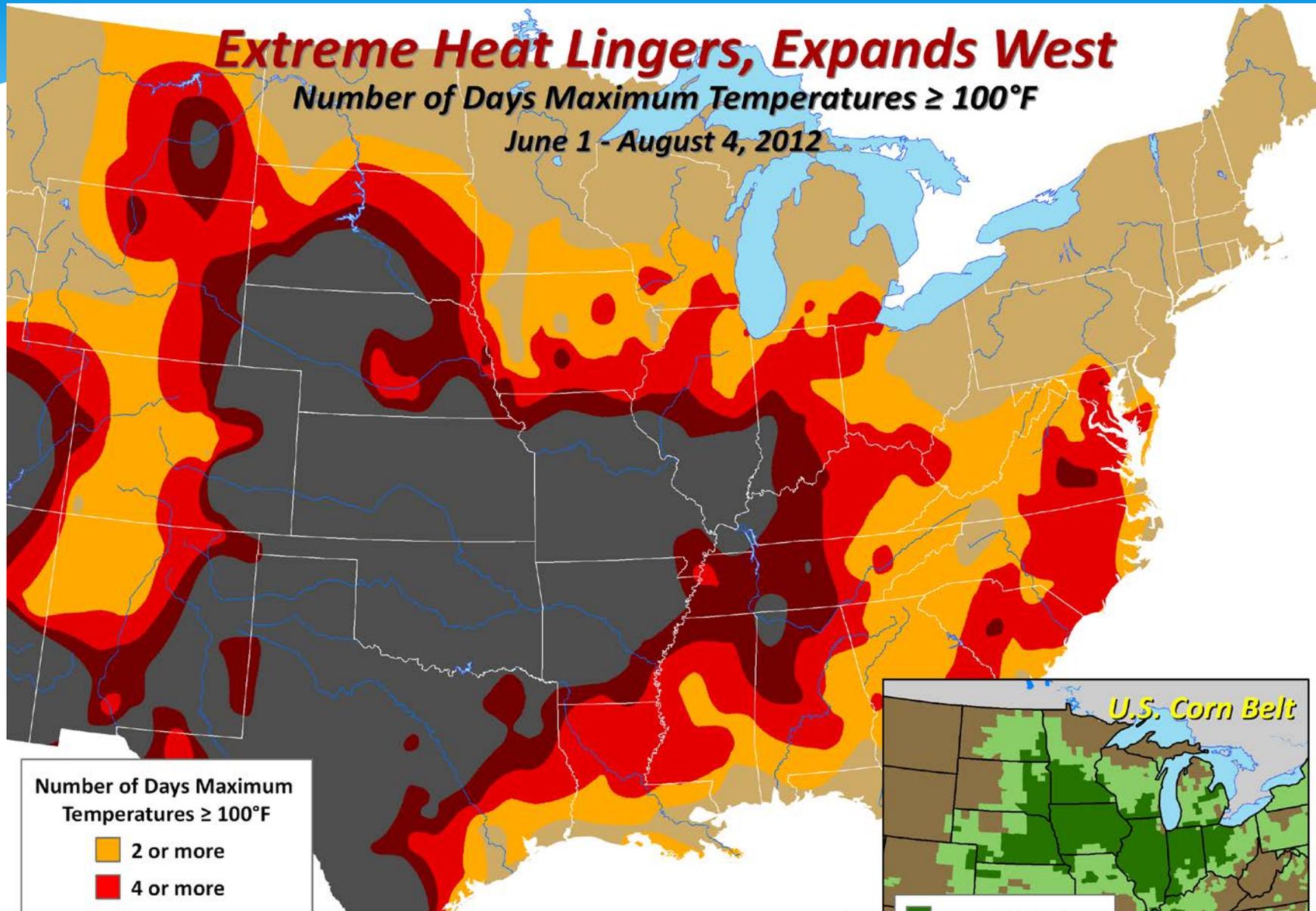
1 = Coldest
118 = Warmest



Extreme Heat Lingers, Expands West

Number of Days Maximum Temperatures $\geq 100^{\circ}\text{F}$

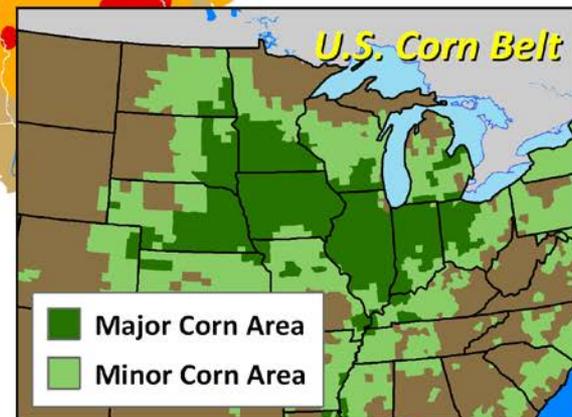
June 1 - August 4, 2012



Number of Days Maximum
Temperatures $\geq 100^{\circ}\text{F}$

- 2 or more
- 4 or more
- 8 or more
- 12 or more

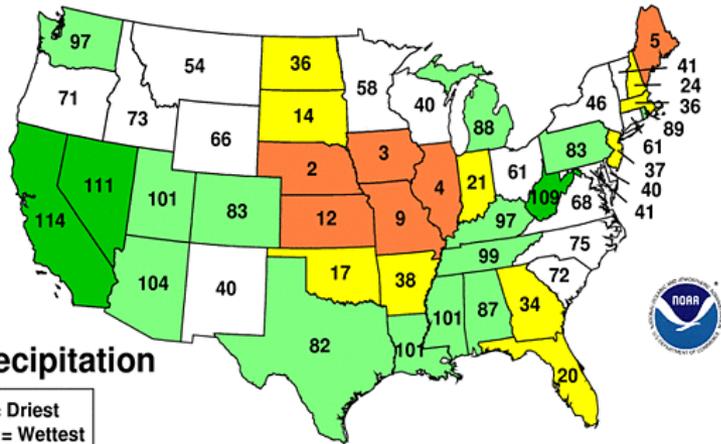
USDA Agricultural Weather Assessments
World Agricultural Outlook Board



July Precipitation Ranks

July 2012 Statewide Ranks

National Climatic Data Center/NESDIS/NOAA



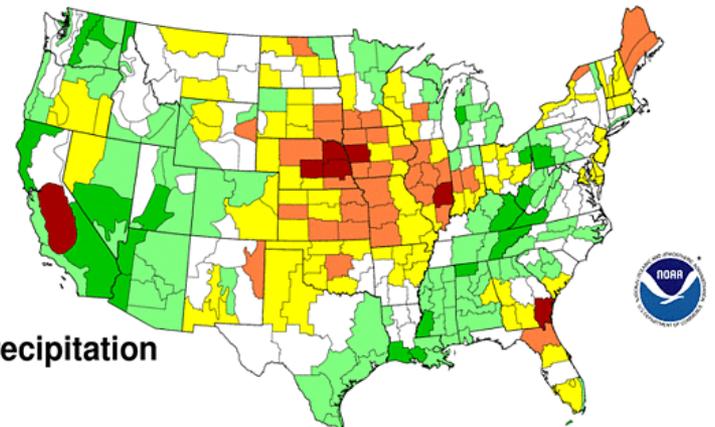
Precipitation

1 = Driest
118 = Wettest



Jul 2012 Divisional Ranks

National Climatic Data Center/NESDIS/NOAA



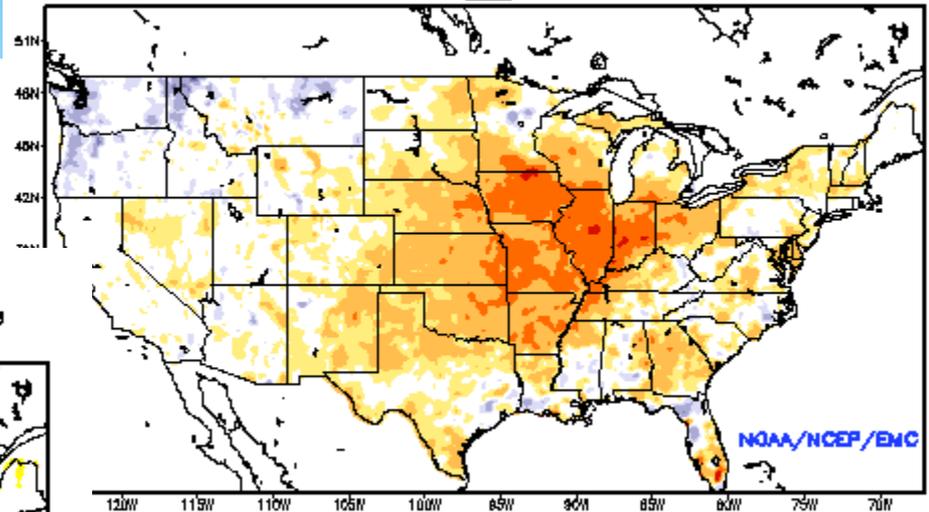
Precipitation



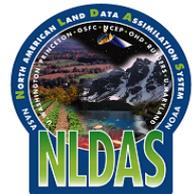
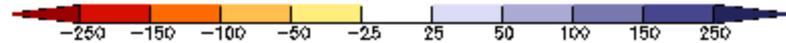
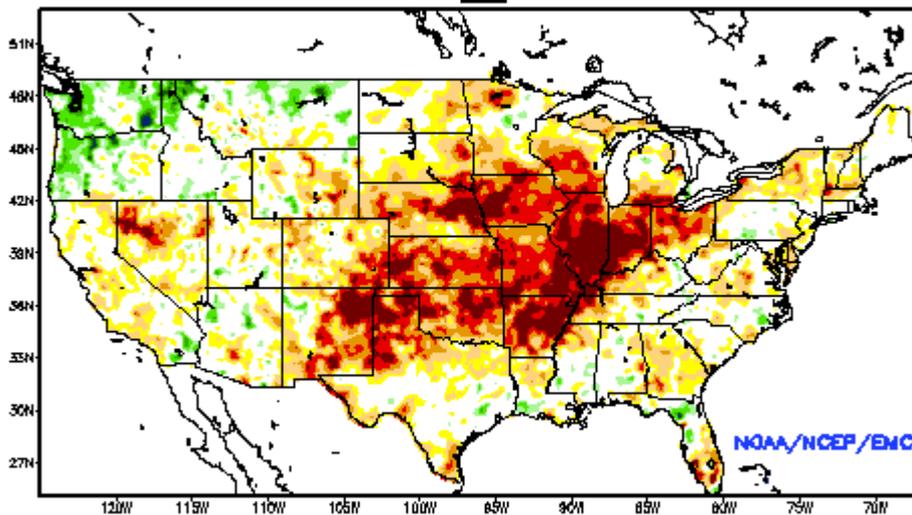
<http://www.ncdc.noaa.gov/sotc/national/2012/7>

Current Soil Moisture

Ensemble-Mean - Current Total Column Soil Moisture Anomaly (mm)
NCEP NLDAS Products Valid: AUG 02, 2012



Ensemble-Mean - Current Total Column Soil Moisture Percentile
NCEP NLDAS Products Valid: AUG 02, 2012



Current Large Incidents

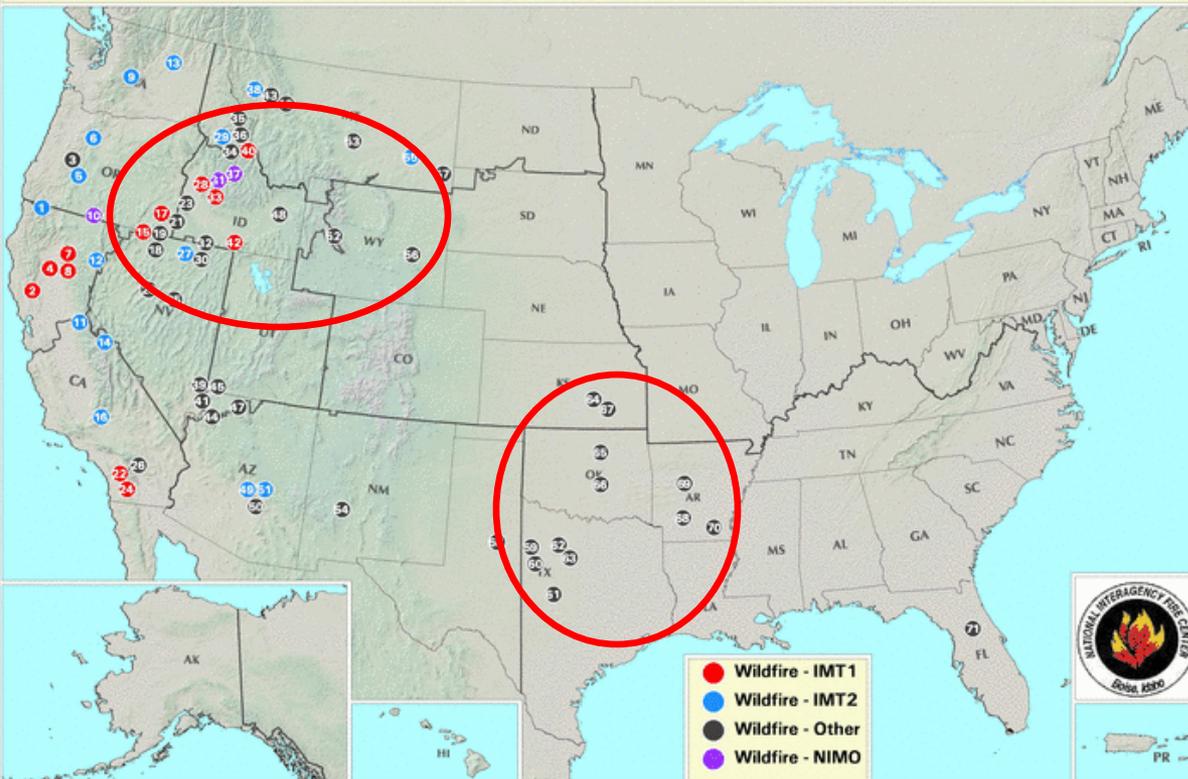
August 16, 2012

Large Fires

USDA Forest Service

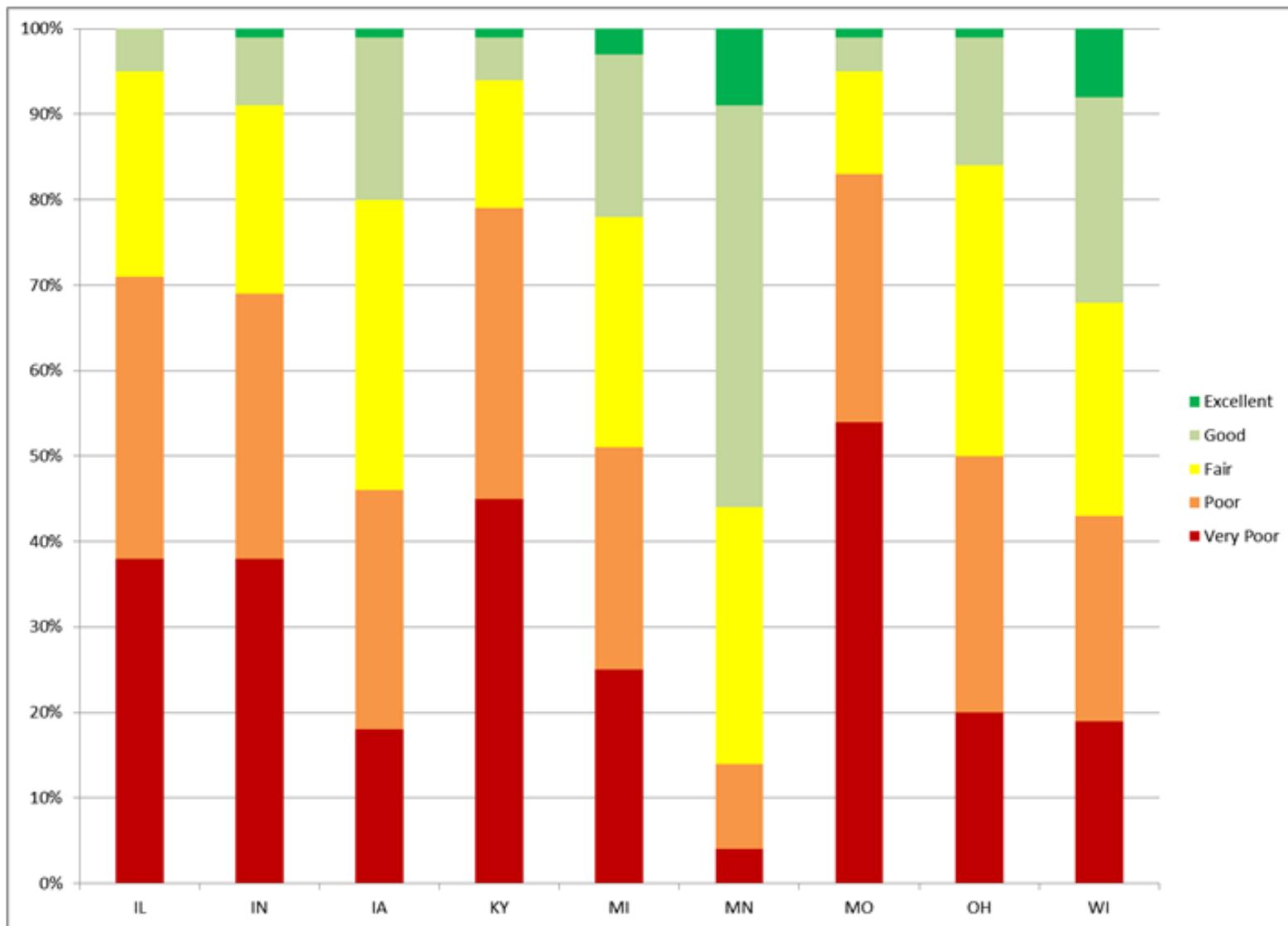
Fire conditions exist and will continue to exist across much of the central region

<http://activefiremaps.fs.fed.us/>



- | | | | |
|----------------------|--------------------------------|-----------------------|--------------------------|
| 1 FORT COMPLEX | 19 BUCKSKIN | 37 HALSTEAD | 55 ROSEBUD CREEK COMPLEX |
| 2 WYE | 20 CAIN | 38 WEST GARCEAU | 56 LITTLE BOX ELDER |
| 3 BUCKHEAD COMPLEX | 21 GRASSHOPPER | 39 SHIVWITS | 57 CROW |
| 4 MILL | 22 BUCK | 40 MUSTANG | 58 RILEY |
| 5 BUTTE | 23 CHAULKY | 41 EASTERN MINE | 59 DAWSON CREEK |
| 6 WATERFALLS 2 | 24 VALLECITO LIGHTNING COMPLEX | 42 MINIDOKA COMPLEX | 60 DAVIS HAYNES RANCH |
| 7 READING | 25 FRAISER | 43 CONDON MOUNTAIN | 61 LOMETA RANCH |
| 8 CHIPS | 26 QUAIL | 44 PIGEON CANYON | 62 DARK VALLEY |
| 9 TAYLOR BRIDGE | 27 BULL RUN COMPLEX | 45 RESERVE | 63 RHODES RANCH II |
| 10 BARRY POINT | 28 SPRINGS | 46 ELBOW PASS COMPLEX | 64 NW 140TH/HWY 77 |
| 11 RAMSEY | 29 STEEP CORNER | 47 JUMPUP | 65 LAGOON CREEK |
| 12 RUSH | 30 STUD | 48 GUN RANGE | 66 BOWLEGS |
| 13 BUFFALO LAKE ROAD | 31 BENCH | 49 CHARLEY | 67 HWY 77 AND NW 150TH |
| 14 INDIAN | 32 WEST MARYS | 50 QUEEN | 68 ROSE HILL |
| 15 HOLLOWAY | 33 TRINITY RIDGE | 51 MISTAKE PEAK | 69 CASA |
| 16 JAWBONE COMPLEX | 34 MALLARD | 52 ALPINE LAKE | 70 LACEY |
| 17 TEN MILE COMPLEX | 35 VISTA | 53 ANDERSON | 71 POWERLINE 37 |
| 18 HANSON | 36 GOAT/DITCH | 54 HOLD UP | |

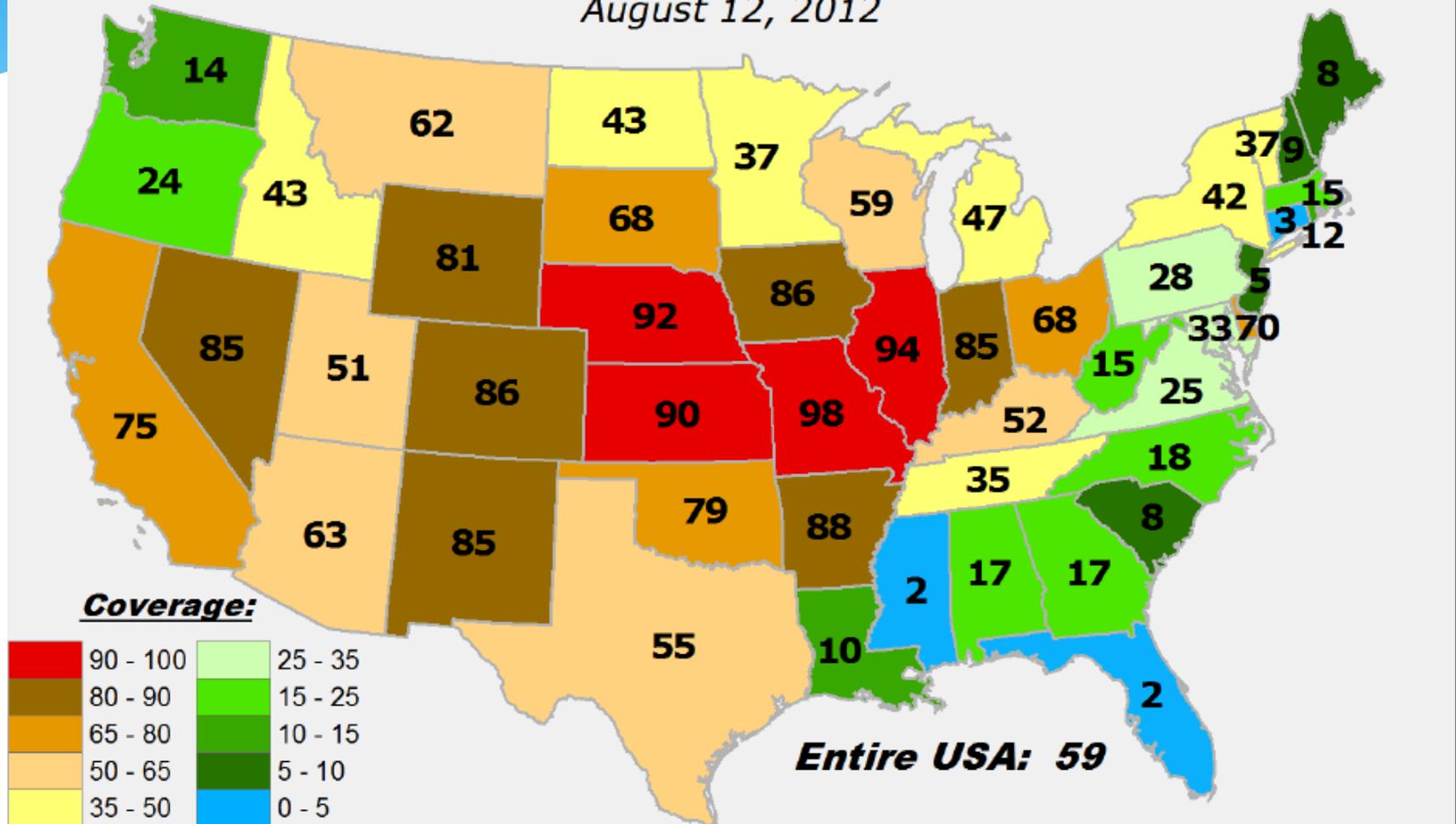
Corn Crop Conditions for Each Midwest State - July 28, 2012



USDA crop reports (8/12)

Percent of Pasture & Range Land in "Poor" or "Very Poor" Condition

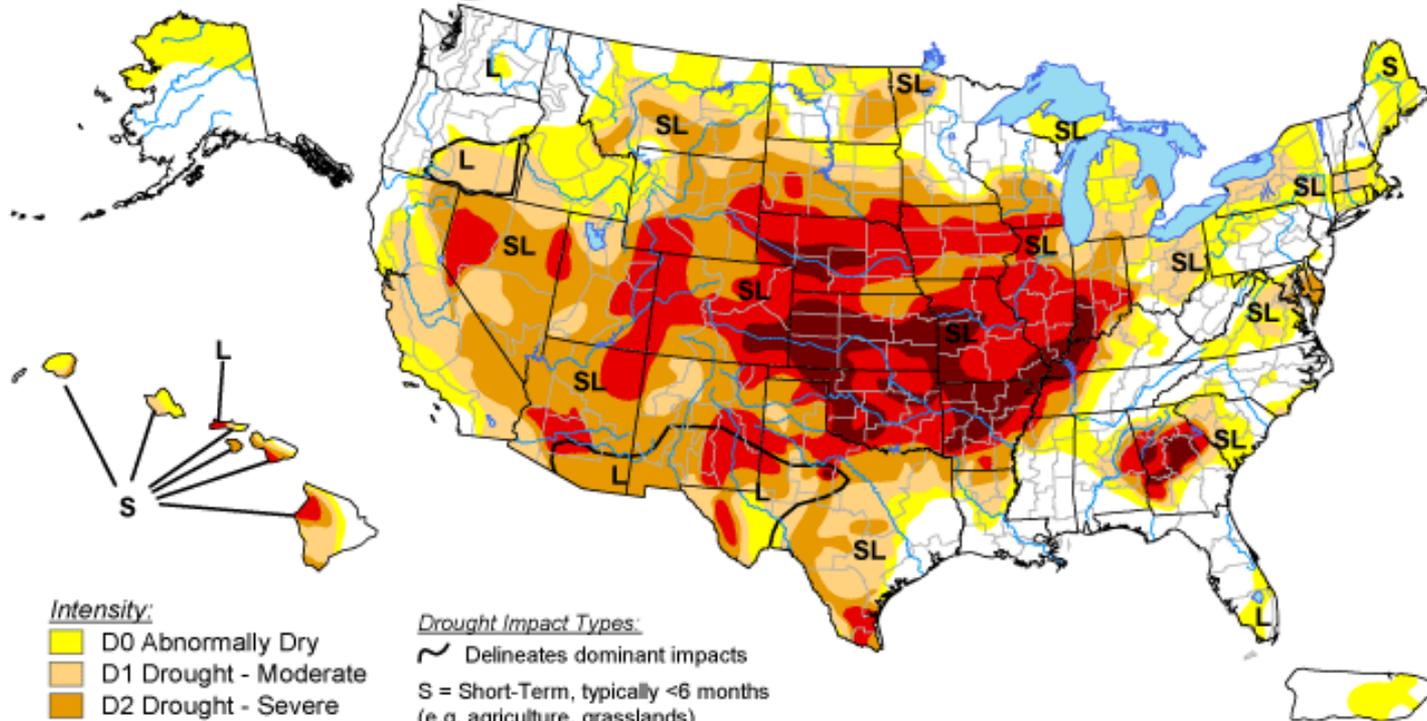
August 12, 2012



Drought Monitor Update

U.S. Drought Monitor

August 14, 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)

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, August 16, 2012

Author: Michael Brewer/Liz Love-Brotak, NOAA/NESDIS/NCDC

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

U.S. Drought Monitor

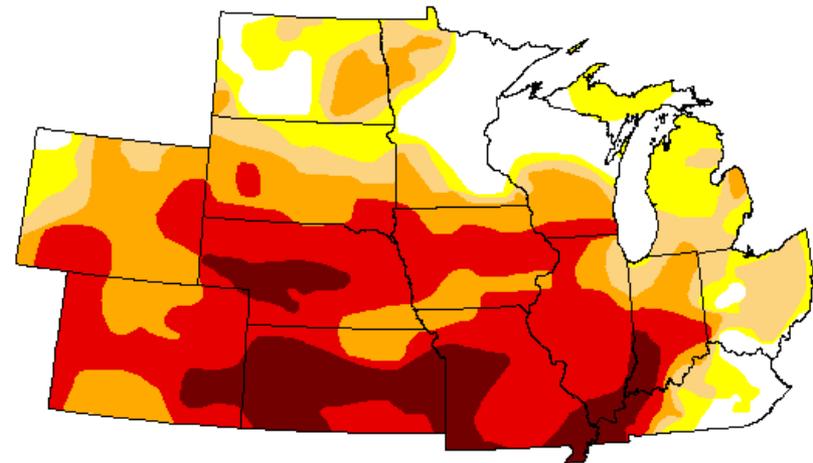
August 14, 2012

Valid 7 a.m. EST

Central Region

Drought Conditions (Percent Area)

	None	D0 - D4	D1 - D4	D2 - D4	D3 - D4	D4
Current	11.79	88.21	76.34	64.35	42.63	11.88
Last Week (8/7/2012)	10.39	89.61	78.23	66.28	43.80	6.86
3 Months Ago (5/15/2012)	58.71	41.29	12.82	3.46	0.00	0.00
1 Year Ago (8/9/2011)	70.11	29.89	13.41	6.48	3.75	1.34



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, August 16, 2012
Michael Brewer, National Climatic Data Center, NOAA

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

Impacts

* Impacts

- * Fish kills in several state (water temps)
- * Row crops major yield losses
- * Commodity prices major increases
- * Corn chopping for silage many areas
- * Numerous fires (western areas and others)
- * Watering restrictions more locations
- * Wells going dry (IN)

Associated Press
Waterloo, NE

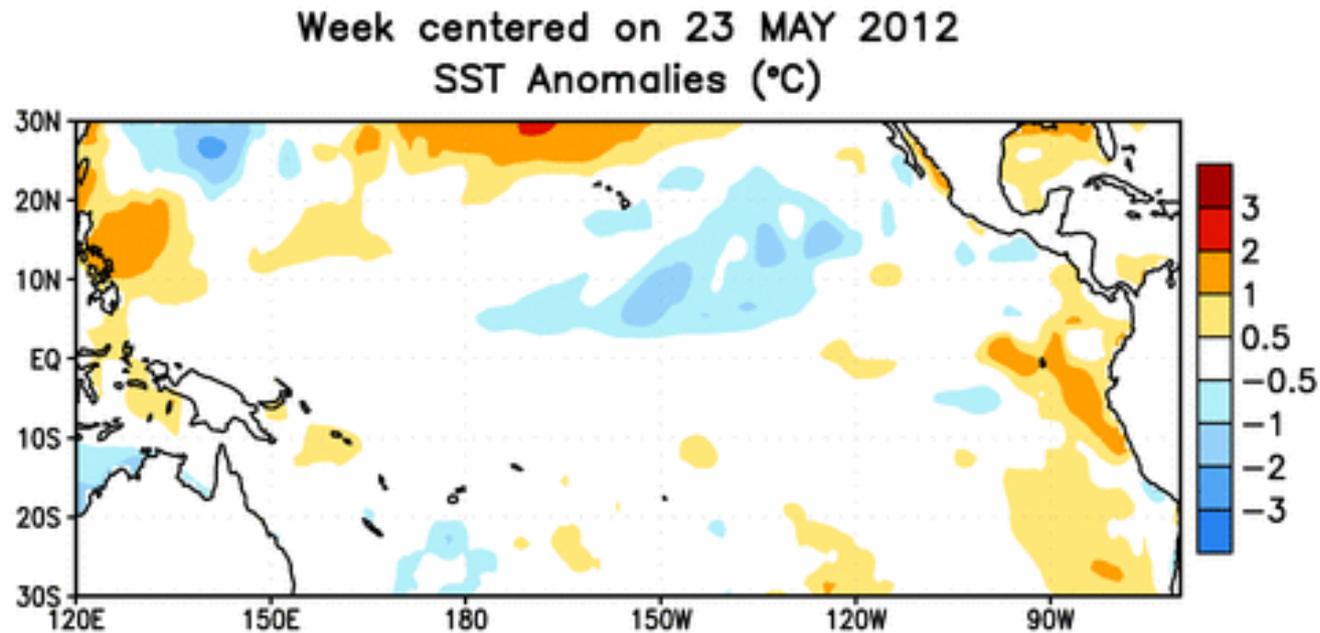


Climate Outlooks

- * **2 weeks out (8-14 days)**
- * **September**
- * **3 Months (September - November)**
- * www.cpc.ncep.noaa.gov
- * **Drought Monitor Outlook**

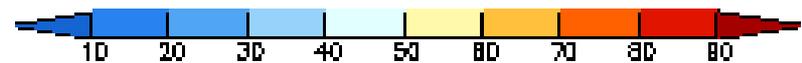
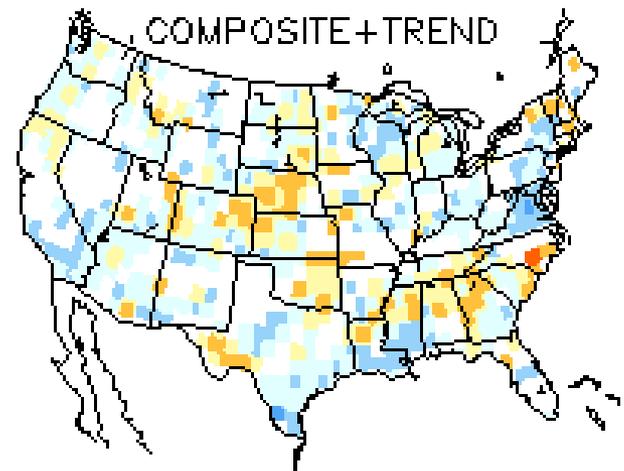
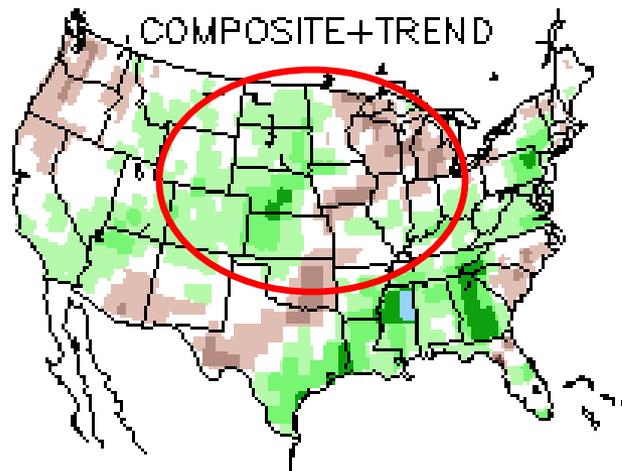
- * **Released Thursday 8/16/2012**

El Nino Resurgence – SST loop



<http://www.cpc.ncep.noaa.gov/products/precip/CWlink/MJO/enso.shtml>

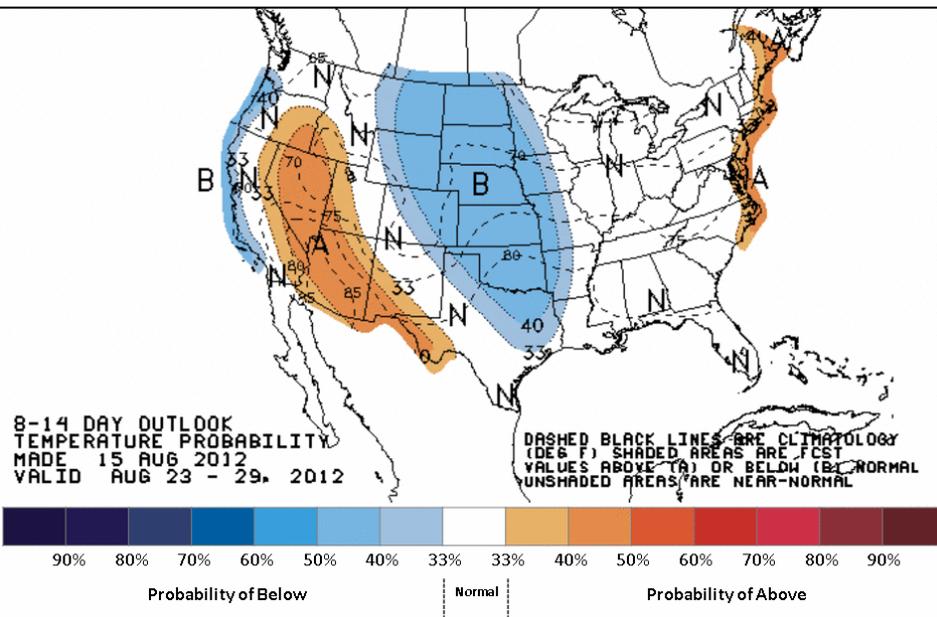
Sept.-Nov. El Nino Precipitation Signal



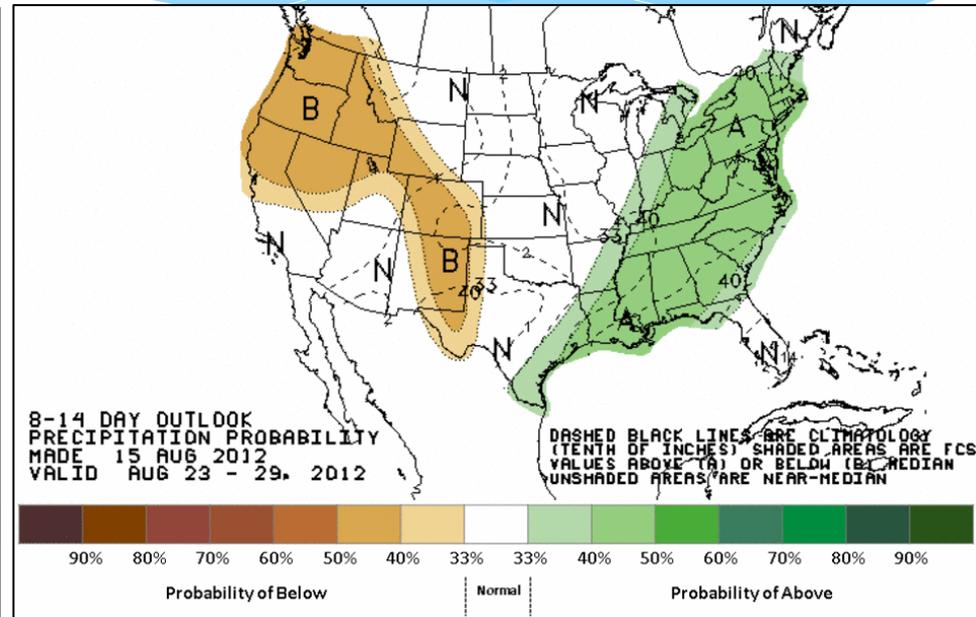
(20 CASES: 1951 1953 1957 1963 1965 1968 1969 1972 1976 1977 1982 1986 1987 1991 1994
1997 2002 2004 2006 2009)

http://www.cpc.ncep.noaa.gov/products/precip/CWlink/ENSO/composites/EC_ENP_index.shtml

Temperature and Precipitation Probabilities for 8/23- 8/29/12



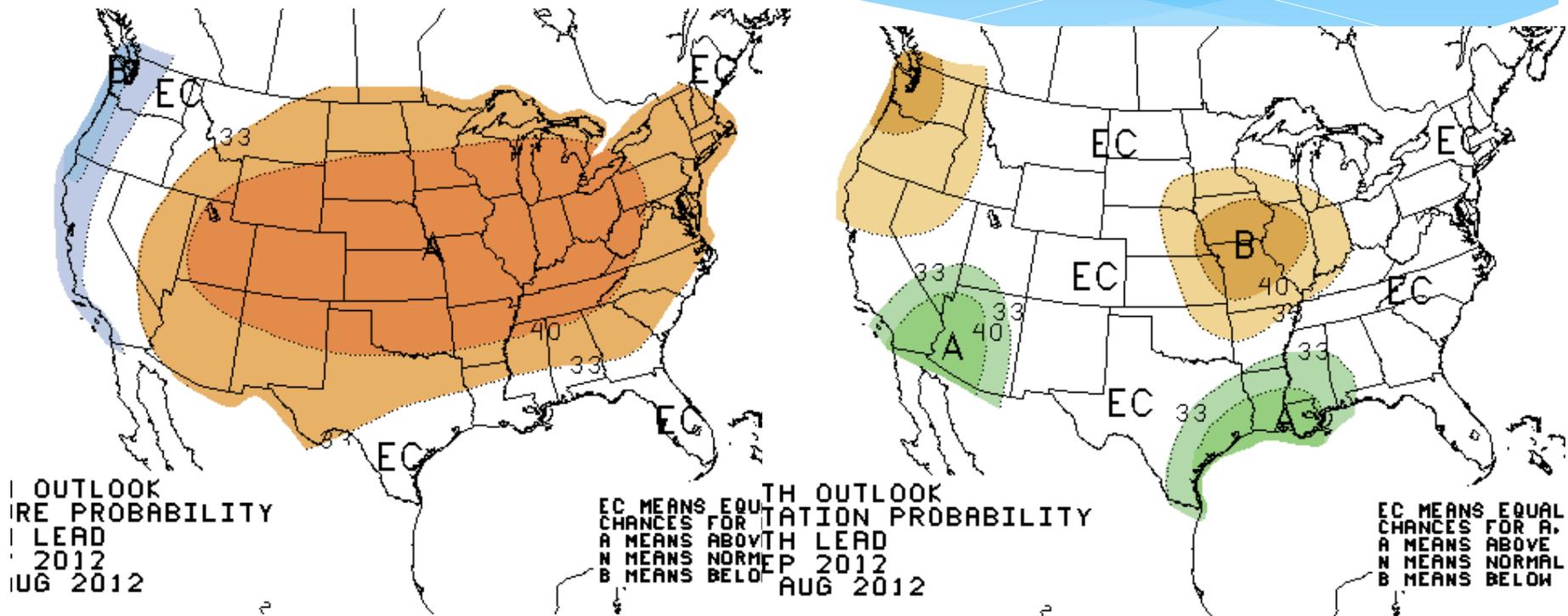
Temperature



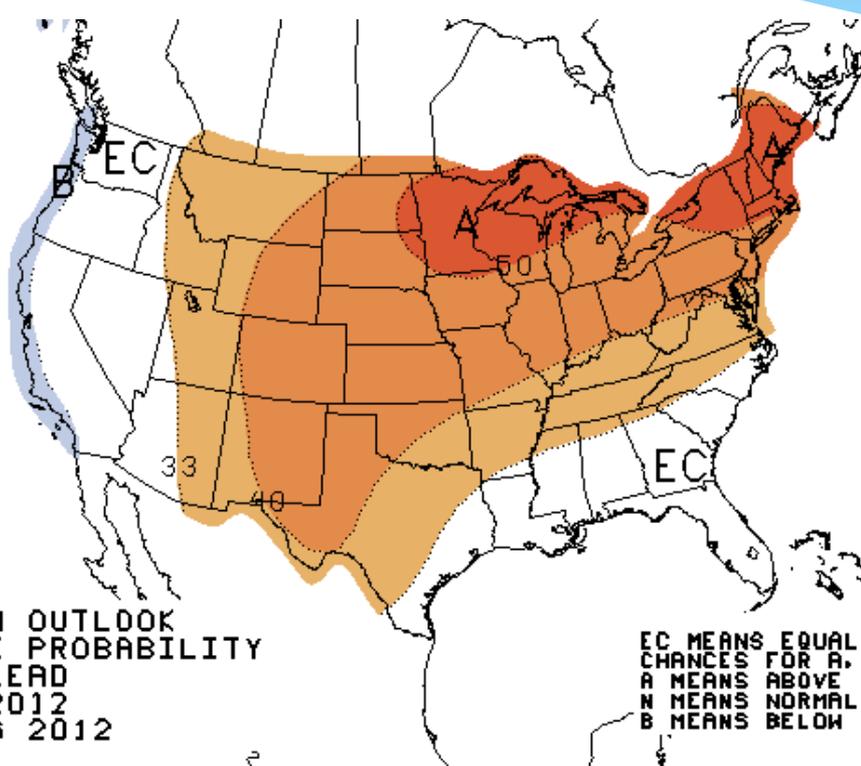
Precipitation

<http://www.cpc.ncep.noaa.gov/products/predictions/814day/index.php>

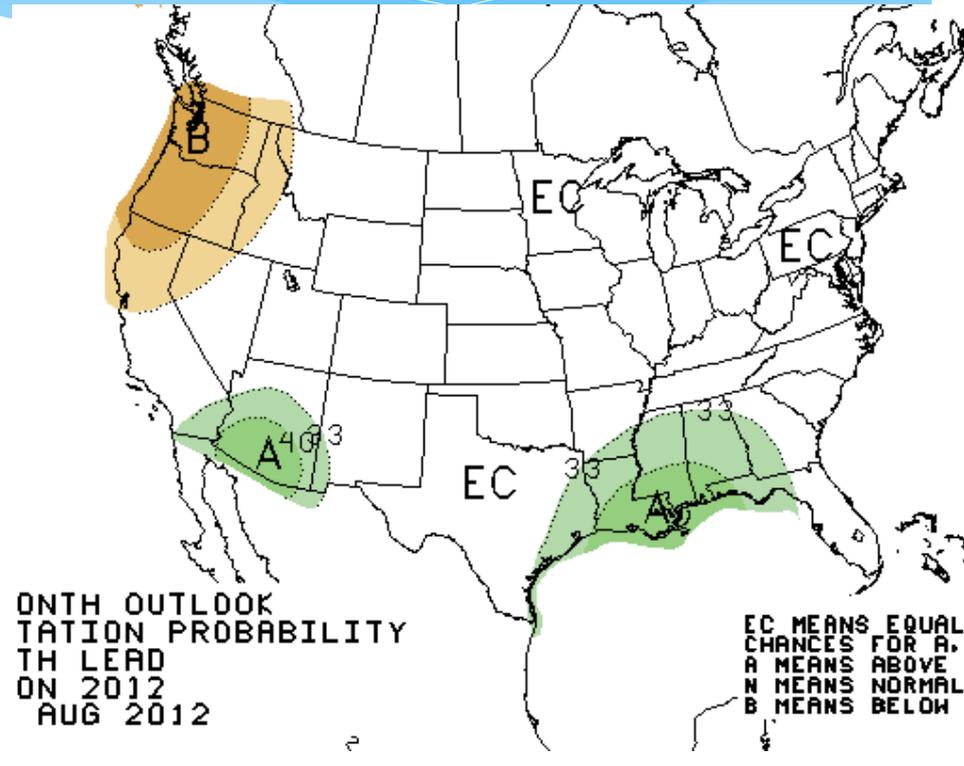
September Temperature and Precipitation Probabilities



3 Month Temperature and Precipitation Probabilities (September - November)



Temperature

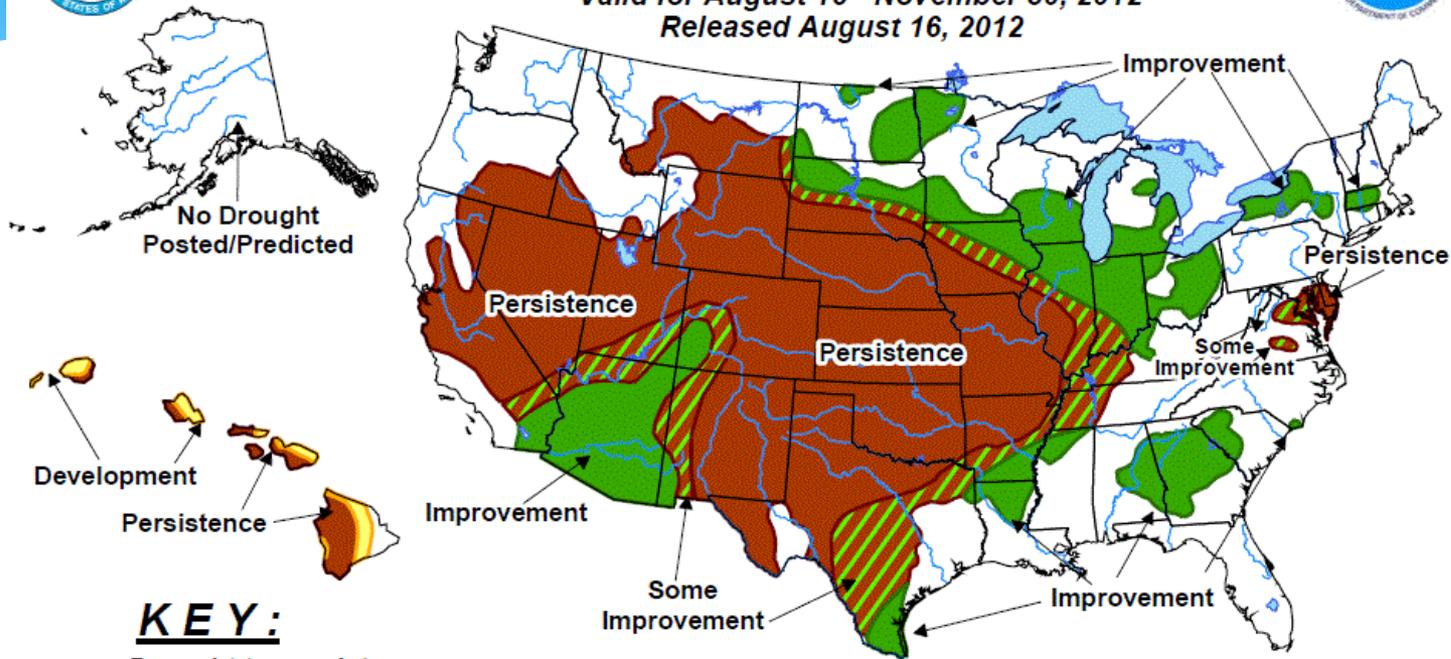


Precipitation

Drought Outlook



U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period Valid for August 16 - November 30, 2012 Released August 16, 2012



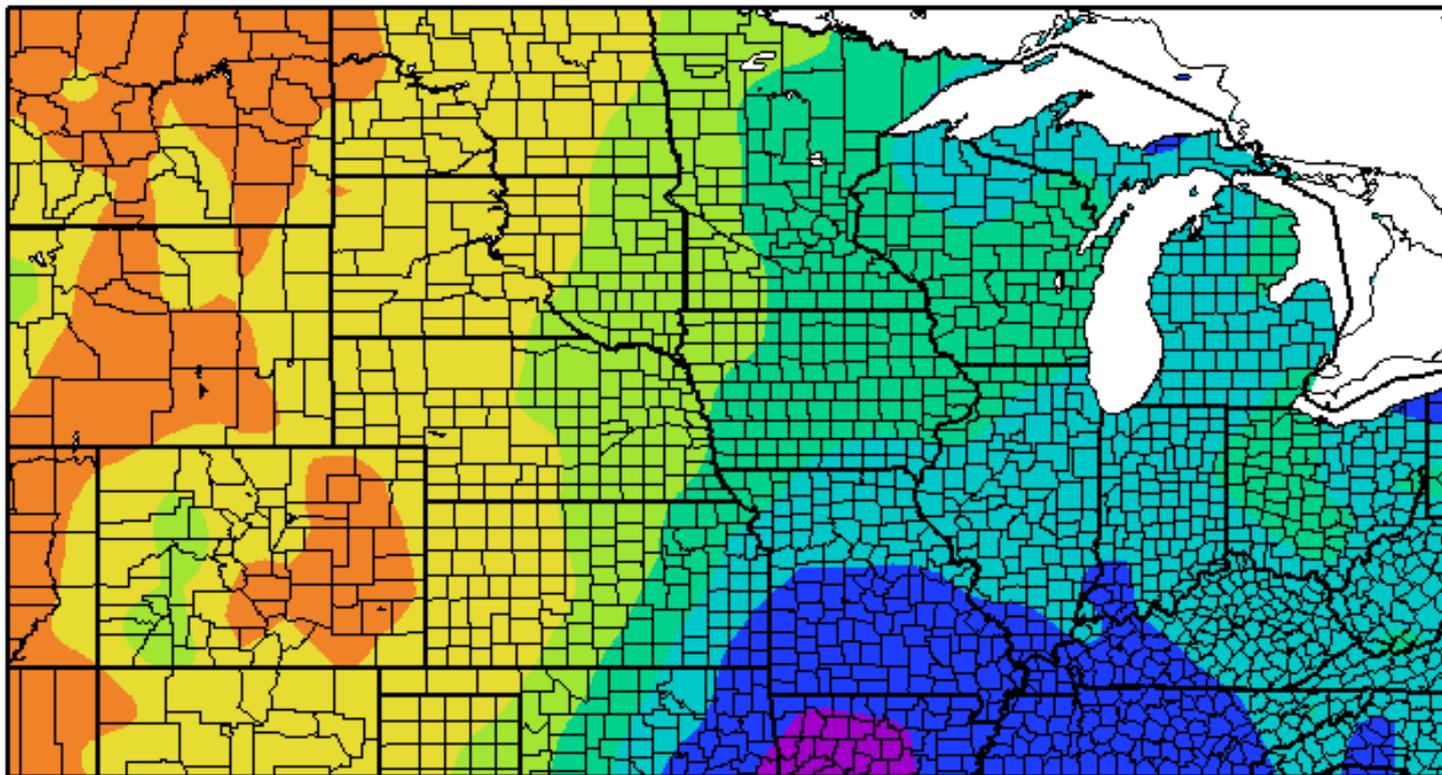
KEY:

- Drought to persist or intensify
- Drought ongoing, some improvement
- Drought likely to improve, impacts ease
- Drought development likely

No Drought
Posted/Predicted

Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

Normal Fall Precipitation (in)



Other Information

- * **Early freeze issues not likely**
 - * Warm season has pushed crop ahead at record rates
 - * Or crop is already done
- * Soybean little chance for further recovery
- * Some fall recovery will happen (temp/prec)
 - * Full recharge not likely
- * Fires could still be an issue in the fall

Summary

* **Current Conditions**

- * Still dry – some precip in isolated areas
- * Pattern change cooler conditions near-term
- * Setting many record for temp/precip
- * Ag impacts still large
- * Env. Impacts showing up now

* **Predictions**

- * Near term cooler conditions
- * Fall possibly still warm
- * No major precipitation changes
- * Drought conditions will stay – some reductions likely

Further Information - Partners

- **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 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?

- * Questions:

- * **Climate:**

- * Dennis Todey: dennis.todey@sdstate.edu, 605-688-5678

- * 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