

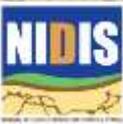
# **NOAA-NWS and Partners Midwest and Great Plains Drought Update Webinar**

**Brian Fuchs  
Mark Svoboda**

**National Drought Mitigation Center  
School of Natural Resources  
University of Nebraska-Lincoln**

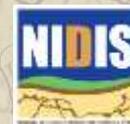


**NOAA-NWS CR Webinar Series, July 19, 2012**



# General Information

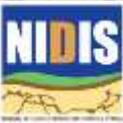
- \* **Providing climate services to the Central Region**
  - \* Collaboration with Dennis Todey (South Dakota State Climatologist), Doug Kluck (NOAA - RCSD) and John Eise (Climate Service Program Manager), State Climatologists and the Midwest Regional Climate Center, High Plains Regional Climate Center, NOAAs Climate Prediction Center, Iowa State University, National Drought Mitigation Center
- \* **Next Climate/Drought Outlook Webinar**
- \* **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

National Drought Mitigation Center

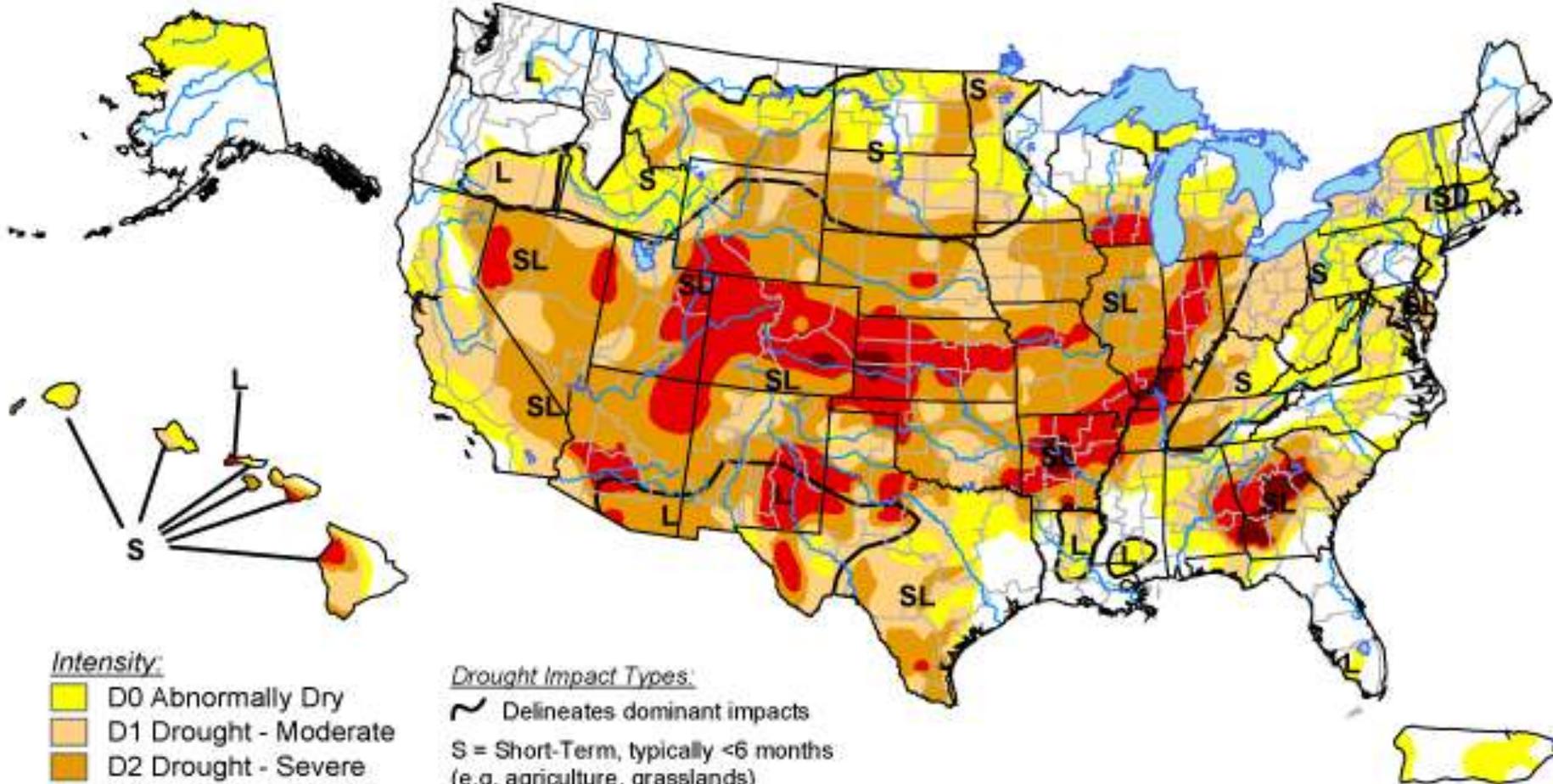


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# U.S. Drought Monitor

July 17, 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, July 19, 2012

Author: Richard Heim/Liz Love-Brotak, NOAA/NESDIS/NCDC

## Drought Condition (Percent Area): United States

Conditions for the U.S., including Alaska, Hawaii and Puerto Rico

Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
One Year Ago	07/12/11	66.75	33.25	24.00	19.79	15.60	9.99
Start of Water Year	09/27/11	63.45	36.55	24.42	19.61	14.87	9.50
Start of Calendar Year	12/27/11	58.88	41.12	23.89	15.88	8.37	2.76
3 Months Ago	04/17/12	50.23	49.77	30.94	16.44	5.50	1.58
Last Week	07/10/12	28.30	71.70	50.92	31.11	9.71	0.62
Current	07/17/12	27.62	72.38	53.17	35.32	11.32	0.83

## Conditions for the Contiguous U.S.

Week	Date	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
One Year Ago	07/12/11	64.33	35.67	28.70	23.69	18.67	11.96
Start of Water Year	09/27/11	56.45	43.55	29.13	23.44	17.80	11.37
Start of Calendar Year	12/27/11	50.89	49.11	28.49	18.95	10.01	3.31
3 Months Ago	04/17/12	40.55	59.45	36.94	19.60	6.57	1.89
Last Week	07/10/12	20.02	79.98	60.84	37.19	11.61	0.74
Current	07/17/12	19.25	80.75	63.54	42.23	13.53	0.99

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# U.S. Drought Monitor

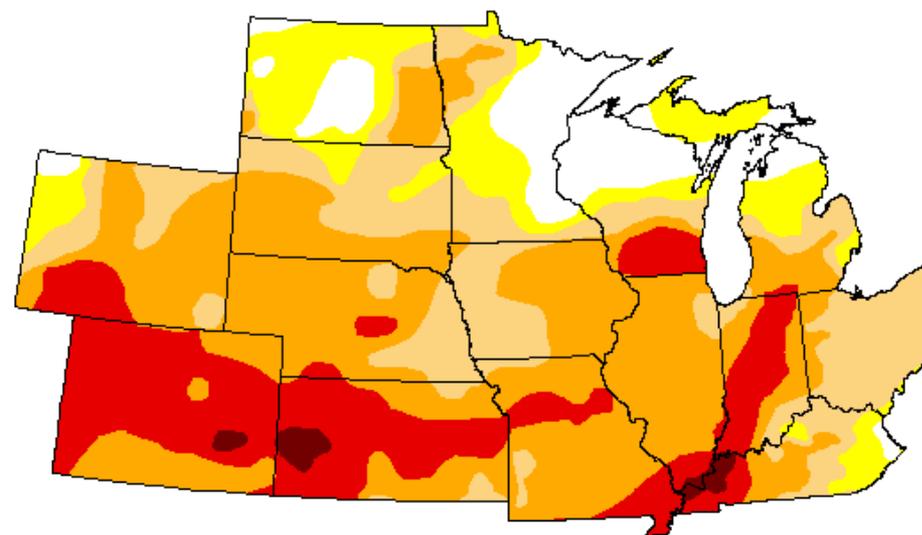
## Central Region

July 17, 2012

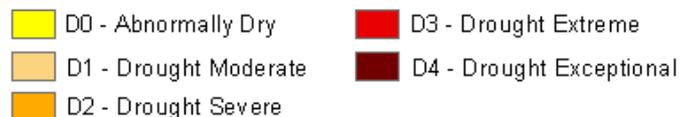
Valid 7 a.m. EST

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:



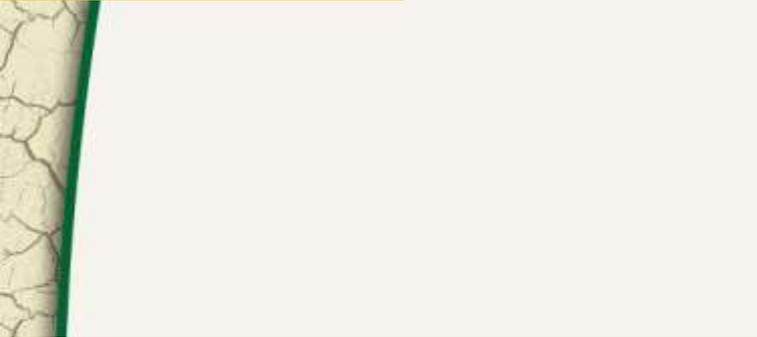
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://droughtmonitor.unl.edu>

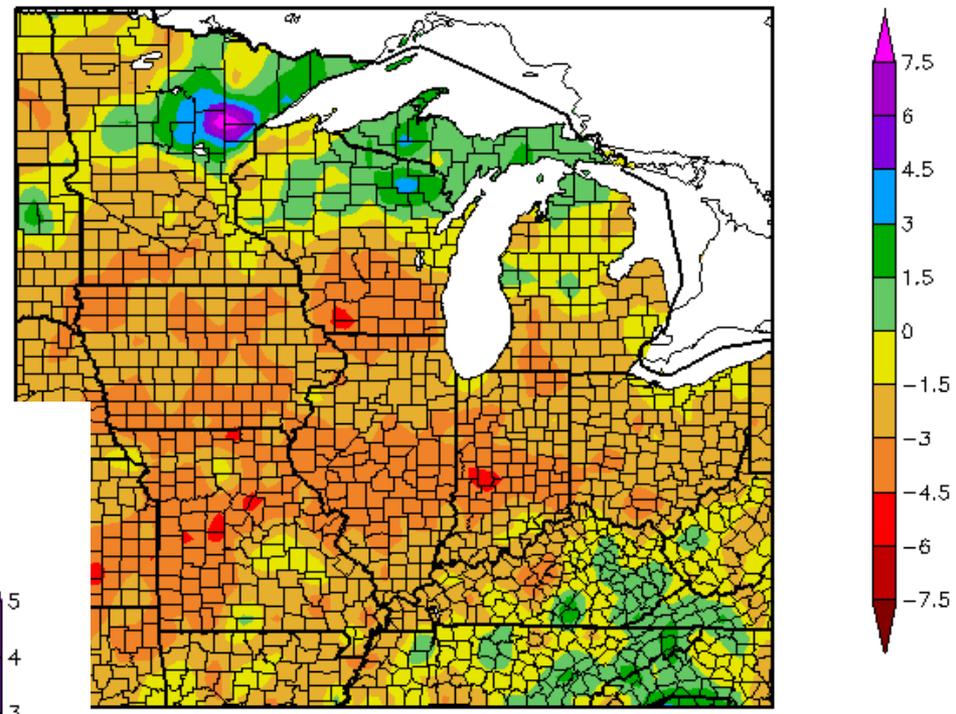


Released Thursday, July 19, 2012  
Richard Heim, National Climatic Data Center, NOAA

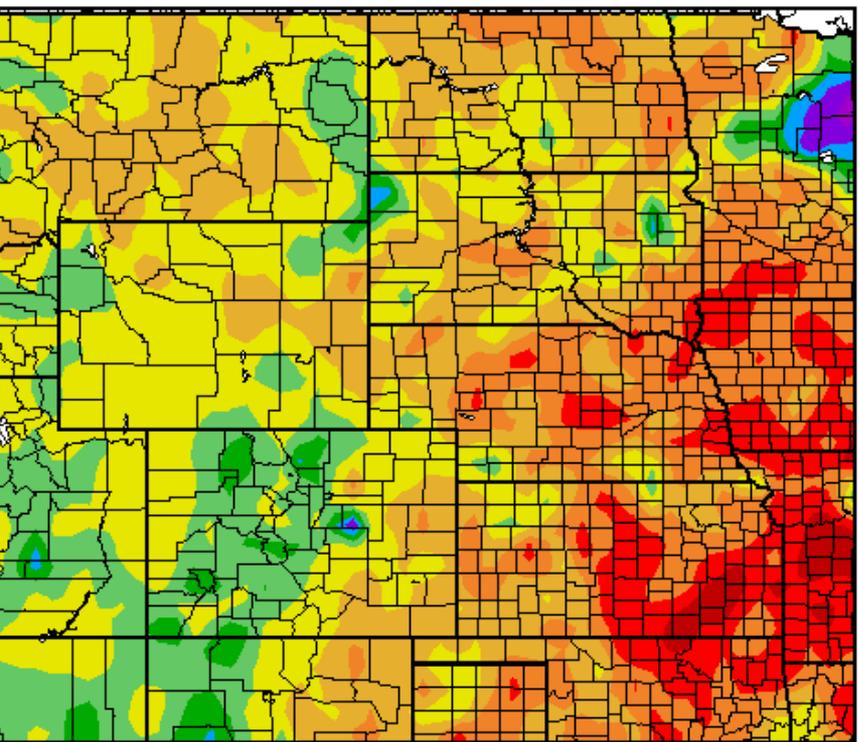
30 Day ACIS  
Departure from  
Normal



Departure from Normal Precipitation (in)  
6/19/2012 - 7/18/2012



Departure from Normal Precipitation (in)  
6/19/2012 - 7/18/2012



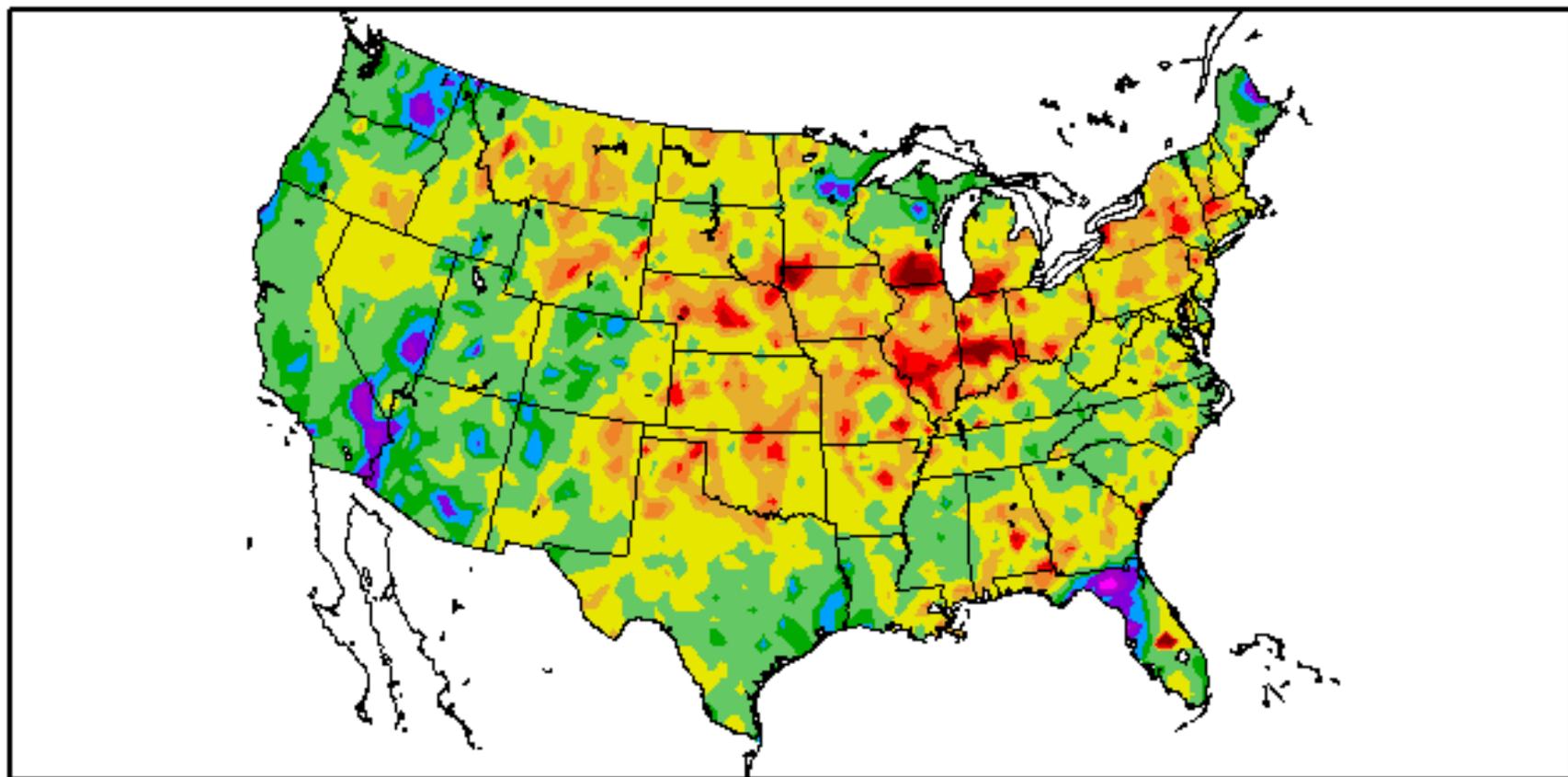
IPRCC using provisional data.

Regional Climate Center

A collage of logos and branding. At the top left is the NIDIS logo. Below it is the University of Nebraska Lincoln logo. At the bottom right is the National Drought Mitigation Center logo, which includes a stylized tree icon. The background of this section features a close-up of cracked soil texture.

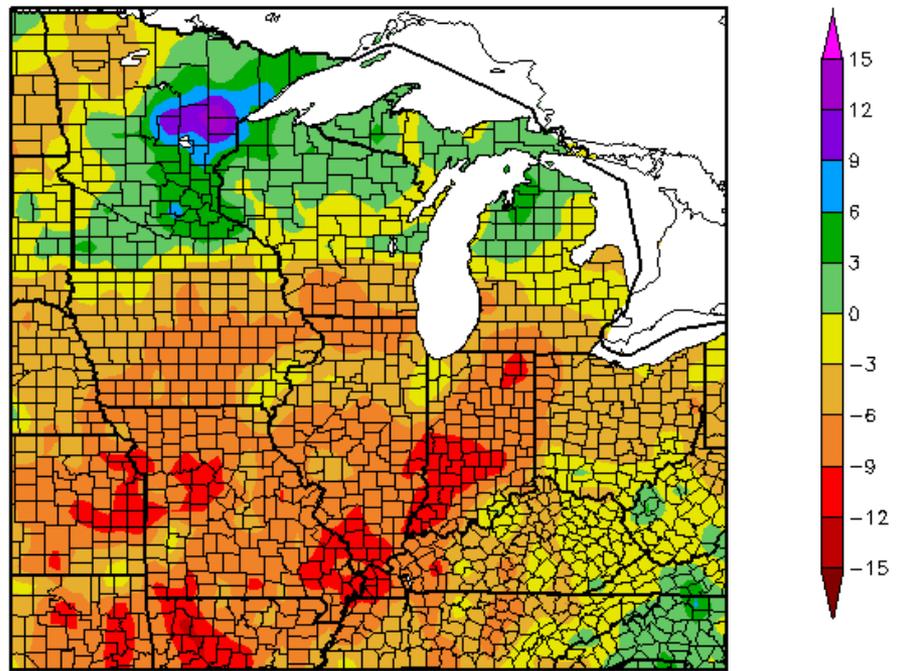
# 30 Day SPI

6/19/2012 - 7/18/2012

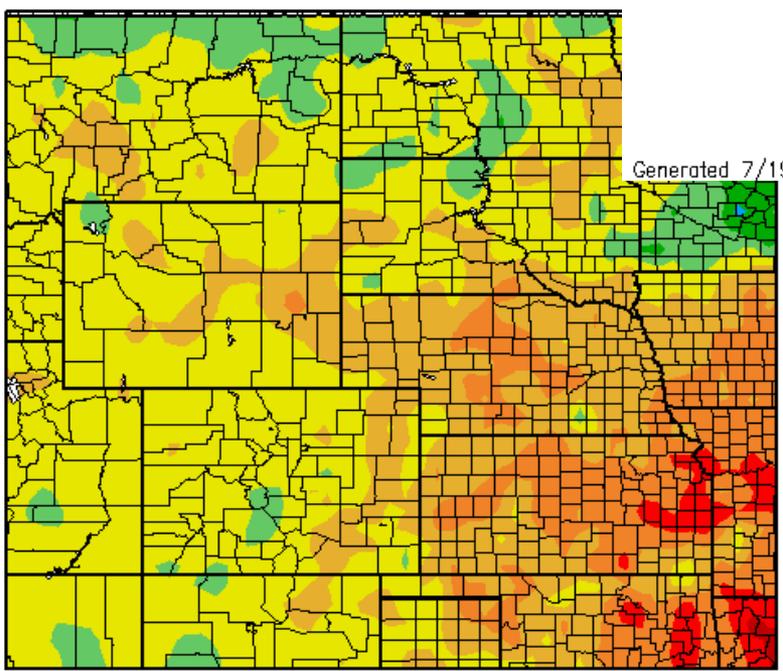


90 Day ACIS  
Departure  
from Normal

Departure from Normal Precipitation (in)  
4/20/2012 - 7/18/2012

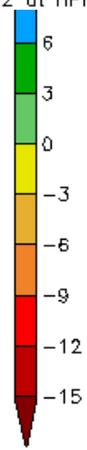


Departure from Normal Precipitation  
4/20/2012 - 7/18/2012



Generated 7/19/2012 at HPRCC using provisional data.

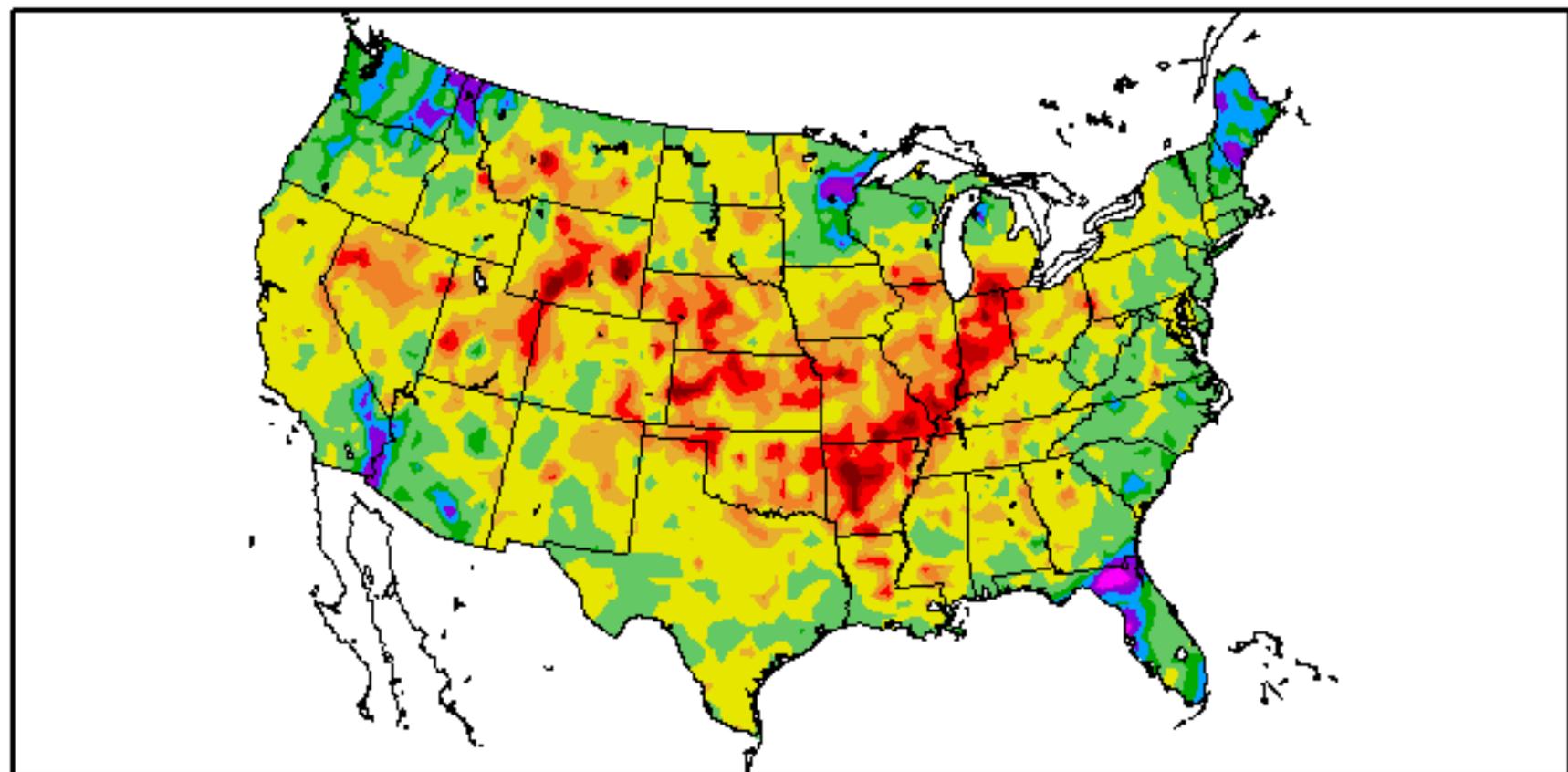
Regional Climate Centers



Generated 7/19/2012 at HPRCC using provisional data.

Regional Climate Centers

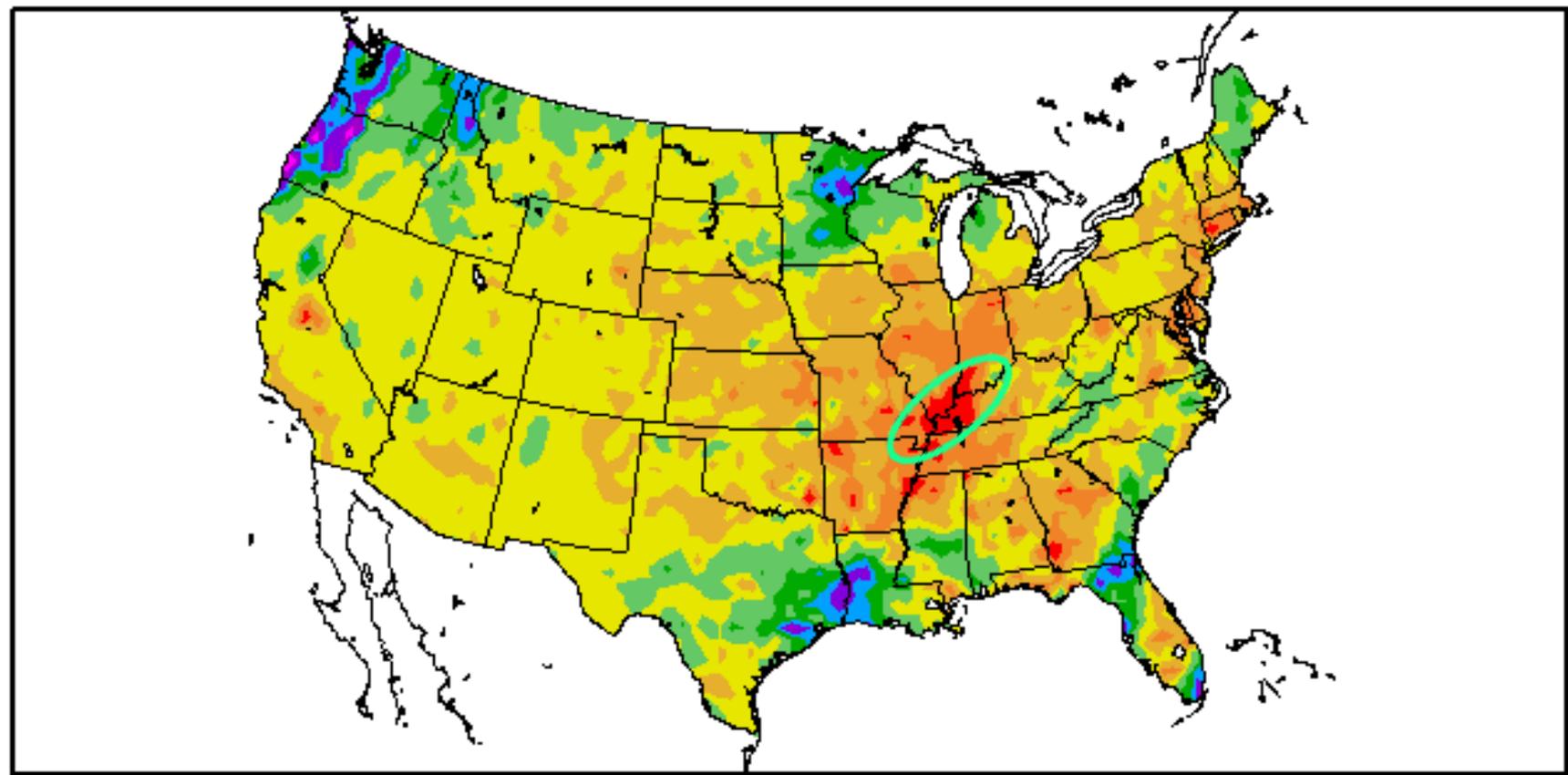
90 Day SPI  
4/20/2012 - 7/18/2012



Year to Date  
ACIS  
Departure  
from Normal

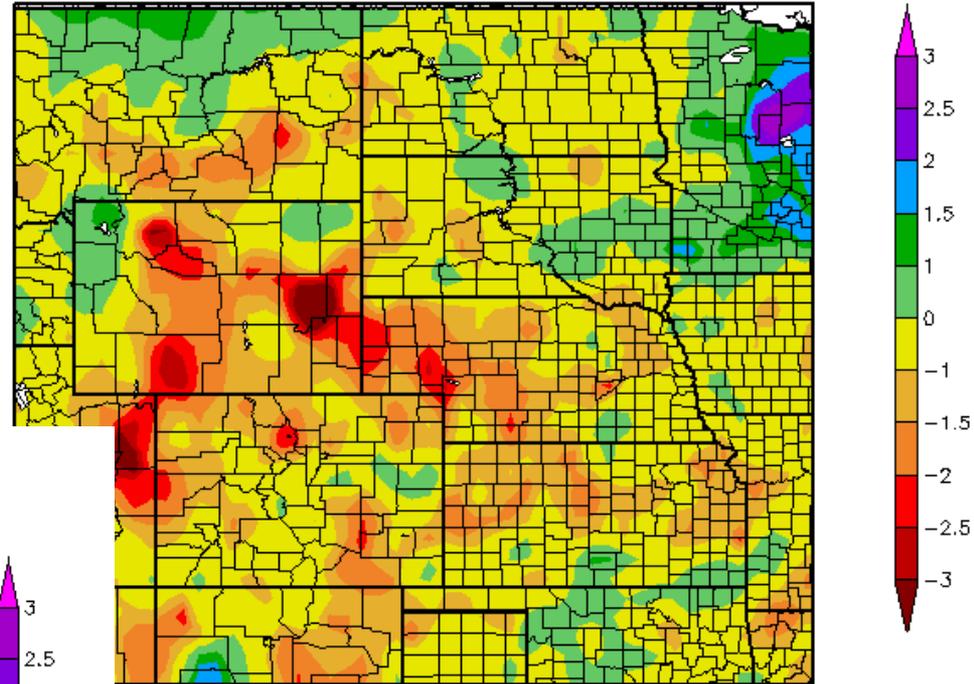
# Departure from Normal Precipitation (in)

1/1/2012 - 7/17/2012

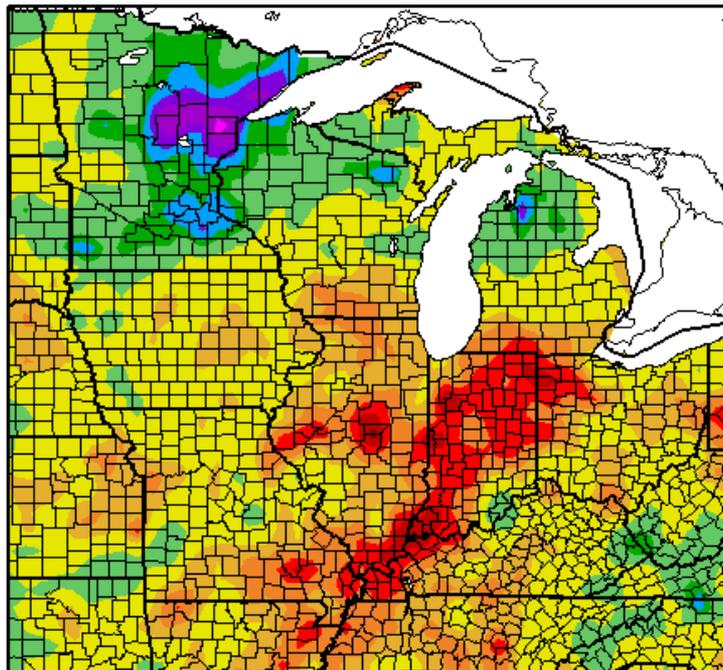


# 6-Month SPI

6 Month SPI  
1/19/2012 - 7/18/2012



6 Month SPI  
1/19/2012 - 7/18/2012

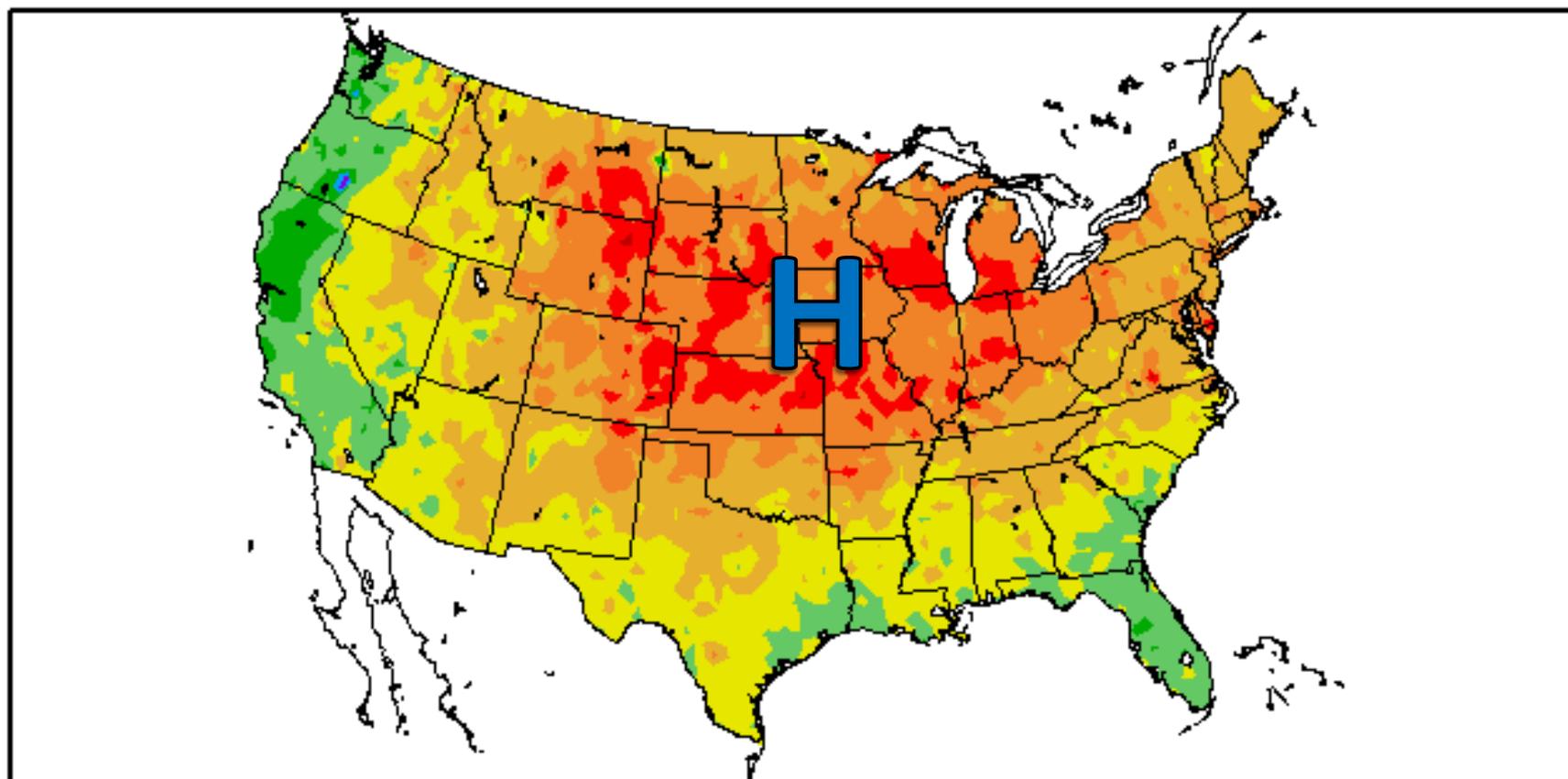


HPRCC using provisional data.

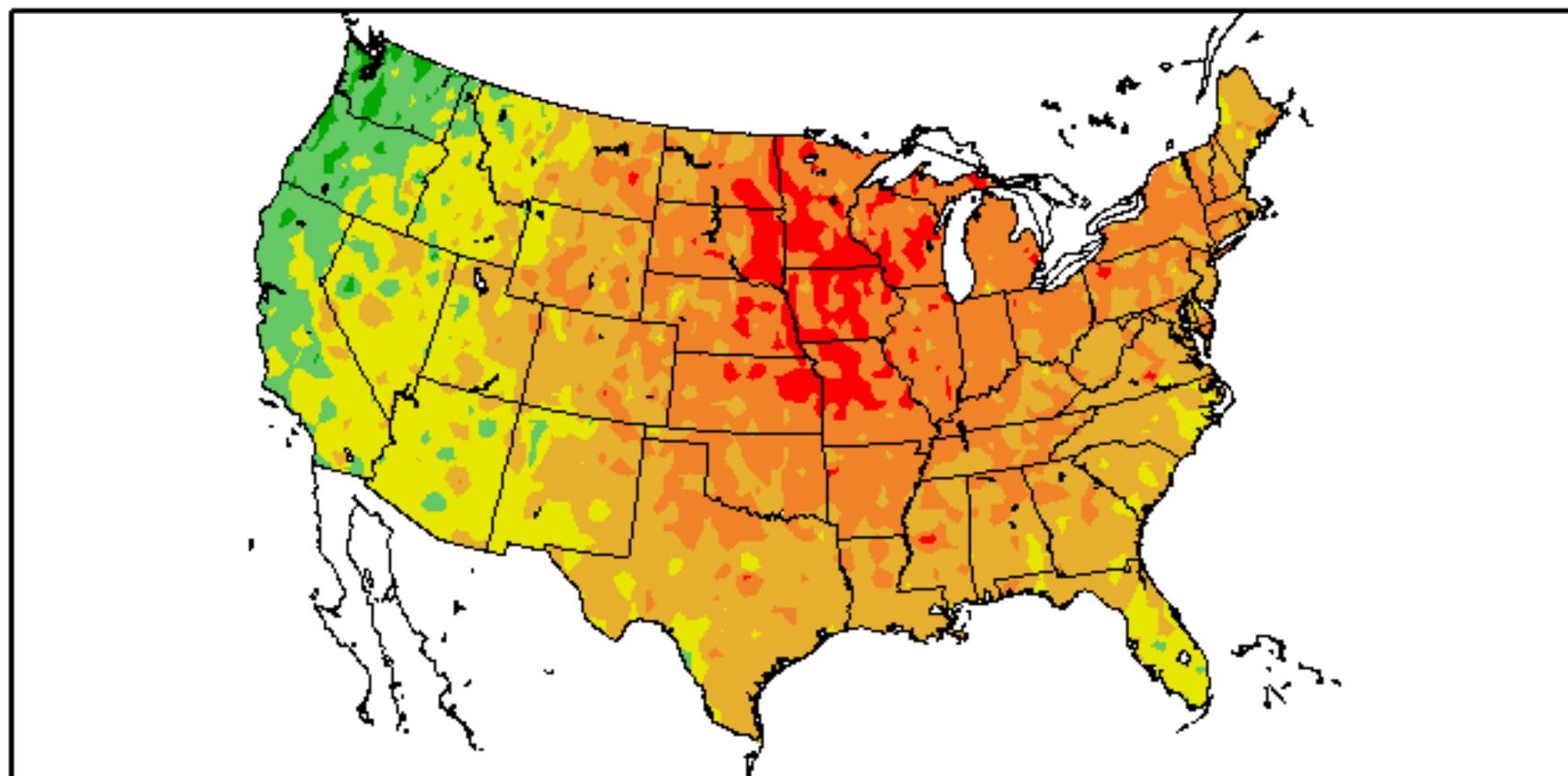
Regional Climate Centers



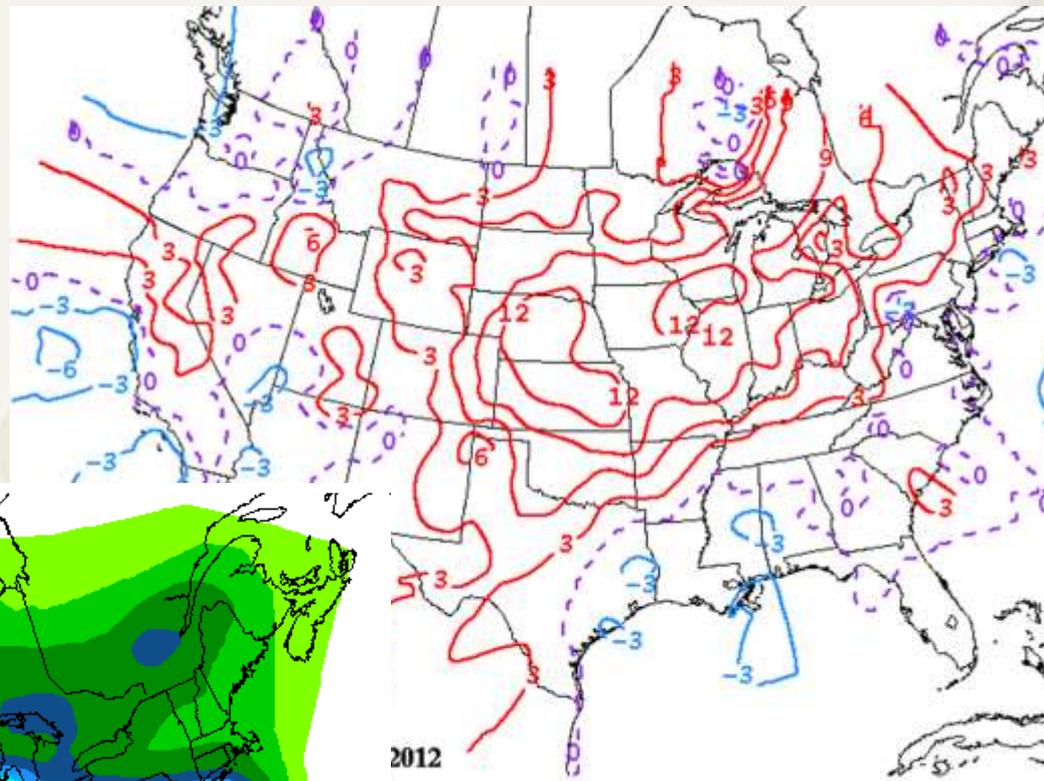
# Departure from Normal Temperature (F) 6/19/2012 - 7/18/2012



# Departure from Normal Temperature (F) 1/1/2012 - 7/17/2012

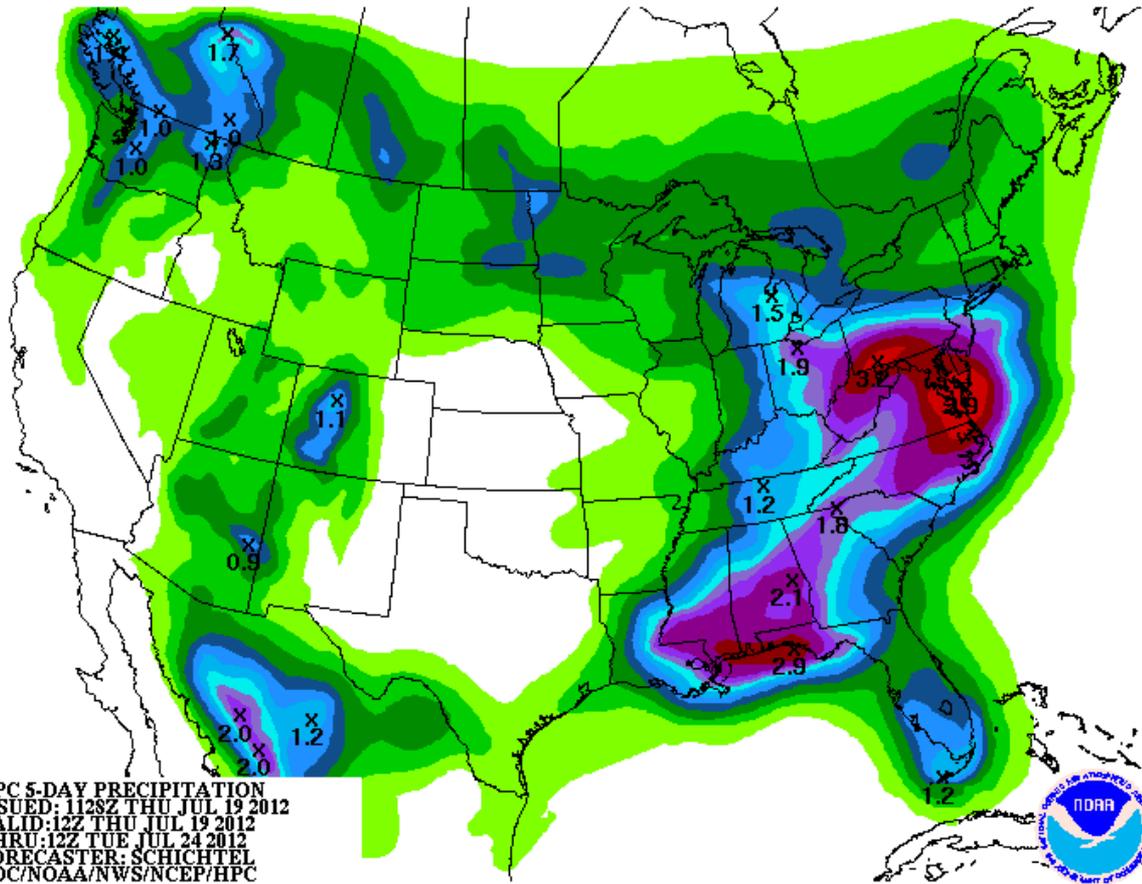
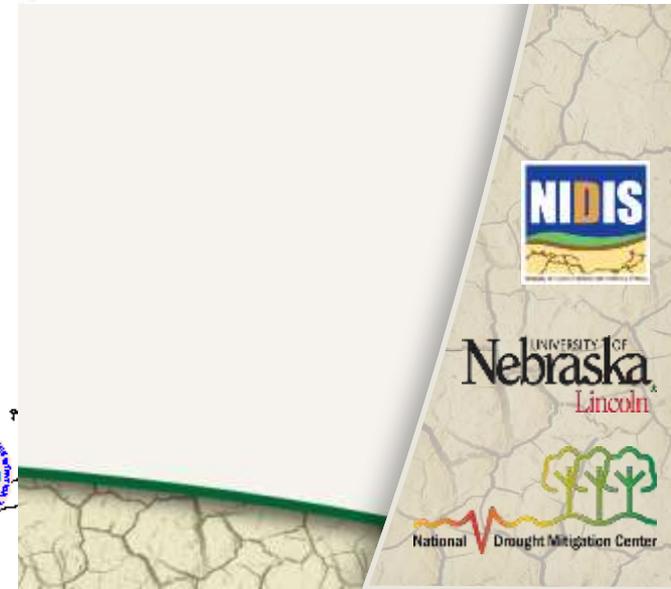


# HPC 5-Day Outlook



2012

C

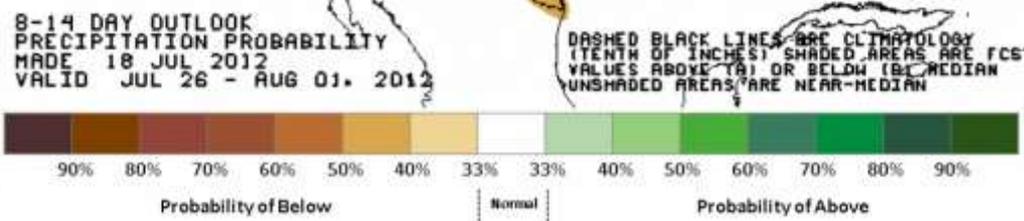
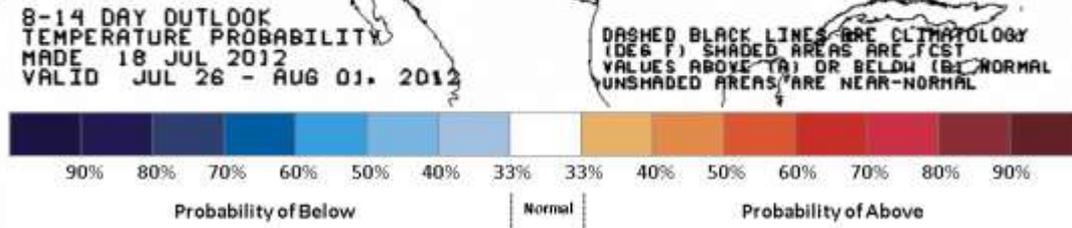
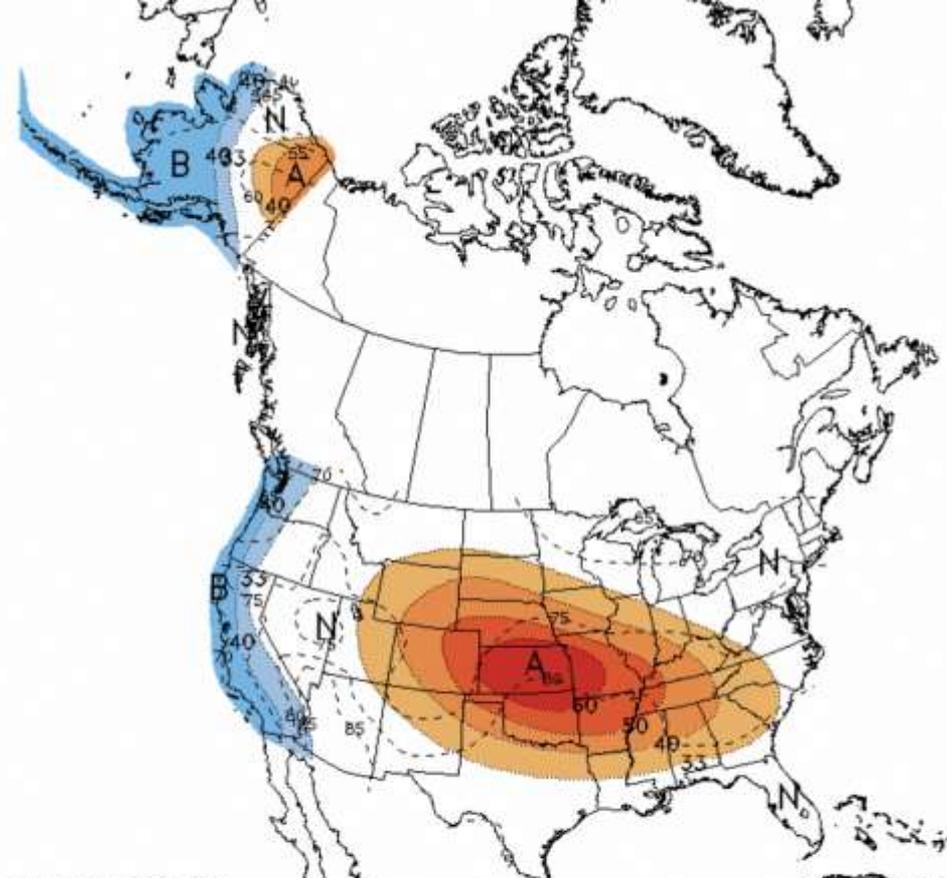
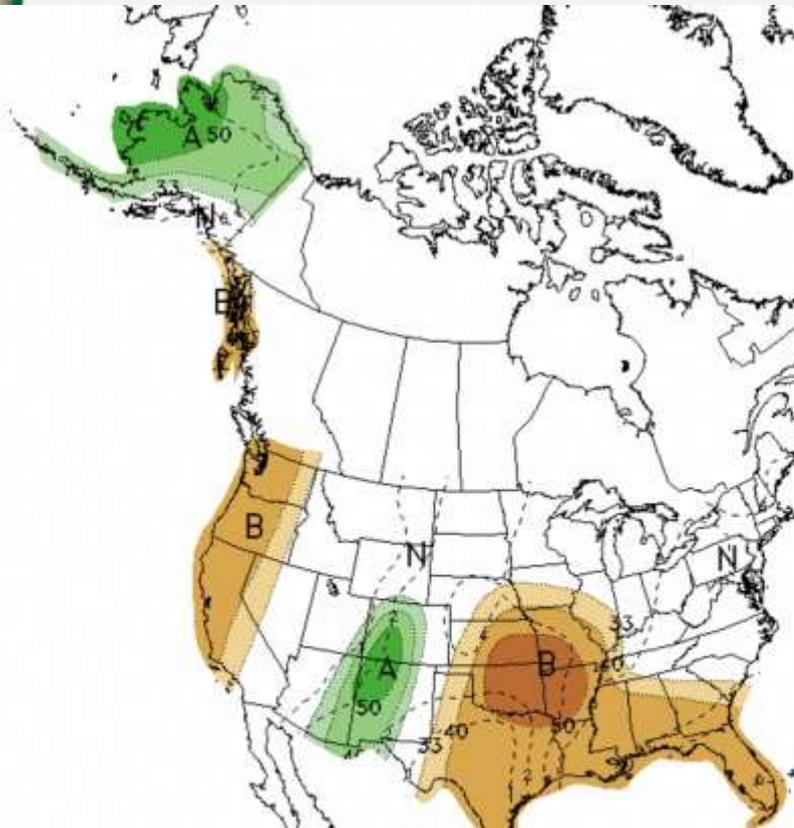


HPC 5-DAY PRECIPITATION  
ISSUED: 1128Z THU JUL 19 2012  
VALID: 12Z THU JUL 19 2012  
THRU: 12Z TUE JUL 24 2012  
FORECASTER: SCHICHTEL  
DOC/NOAA/NWS/NCEP/HPC





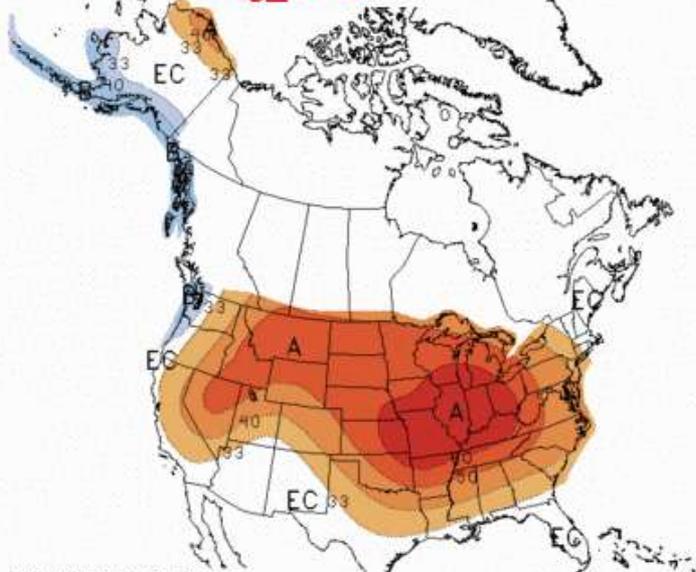
# CPC 8-14-Day Outlook



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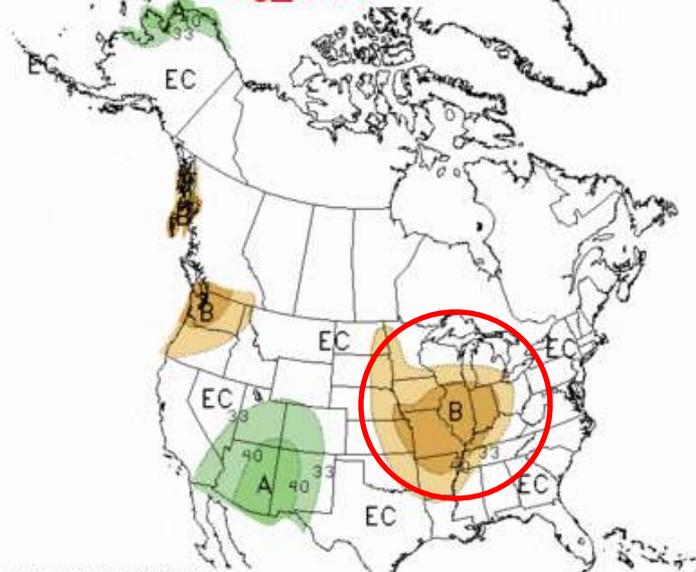
Aug\_2012



ONE-MONTH OUTLOOK  
TEMPERATURE PROBABILITY  
0.5 MONTH LEAD  
VALID AUG 2012  
MADE 19 JUL 2012

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

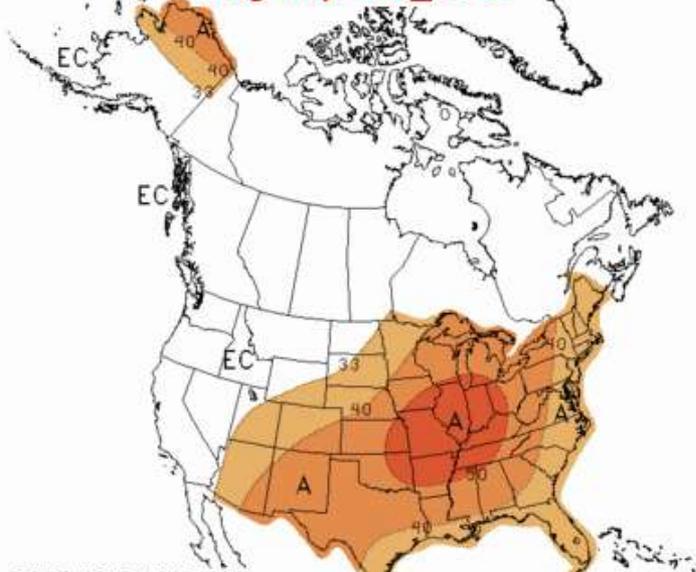
Aug\_2012



ONE-MONTH OUTLOOK  
PRECIPITATION PROBABILITY  
0.5 MONTH LEAD  
VALID AUG 2012  
MADE 19 JUL 2012

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

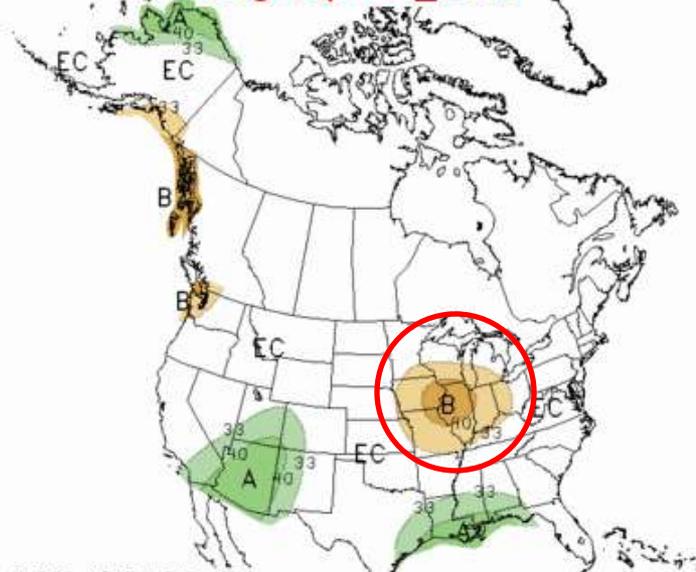
Aug-Sep-Oct\_2012



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

EC MEANS EQUAL CHANCES FOR A, N, B  
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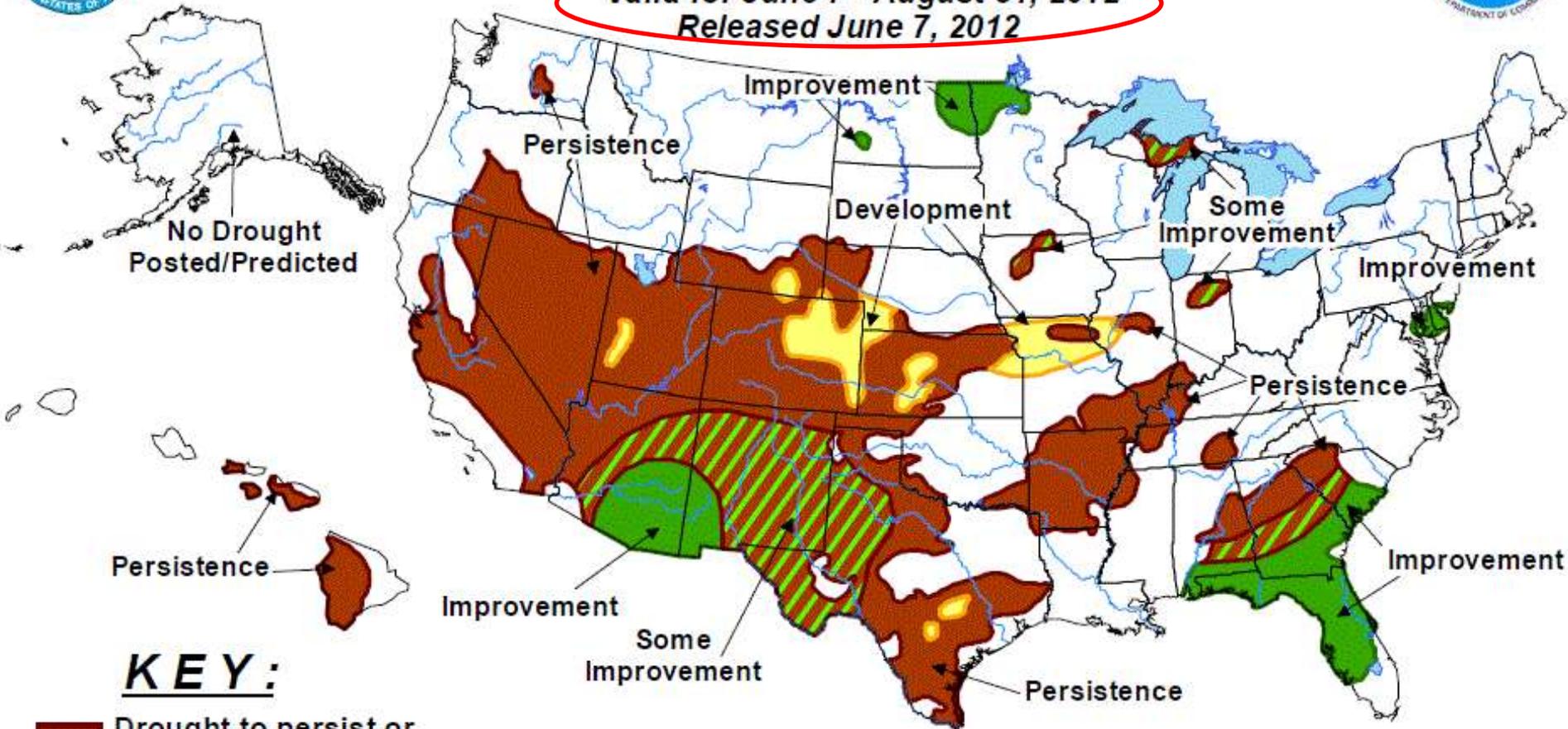


# U.S. Seasonal Drought Outlook

## Drought Tendency During the Valid Period

Valid for June 7 - August 31, 2012

Released June 7, 2012



No Drought Posted/Predicted

Persistence

### KEY:

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

No Drought Posted/Predicted

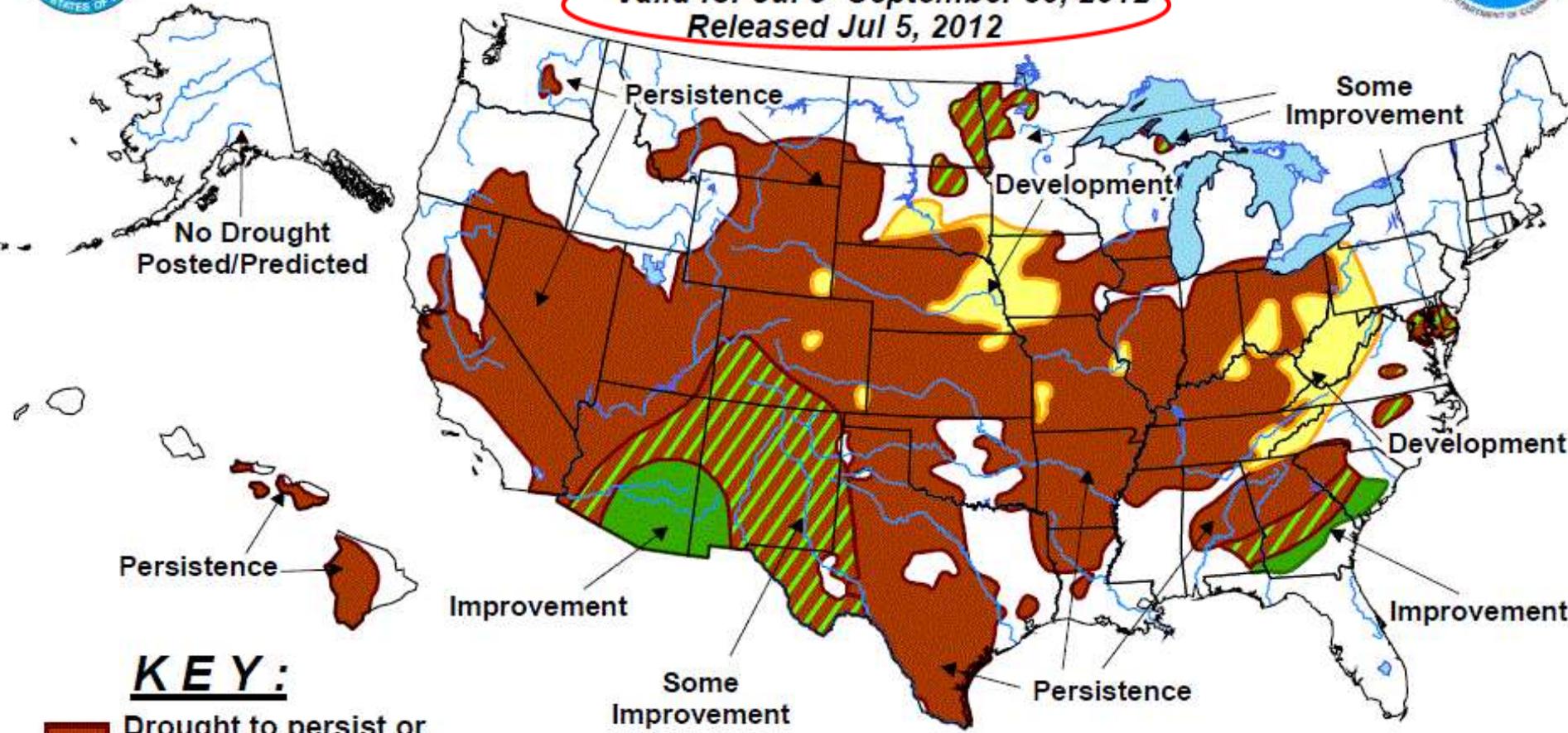
Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events -- such as individual storms -- cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- 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.



# U.S. Seasonal Drought Outlook

## Drought Tendency During the Valid Period

Valid for Jul 5 -September 30, 2012  
Released Jul 5, 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.

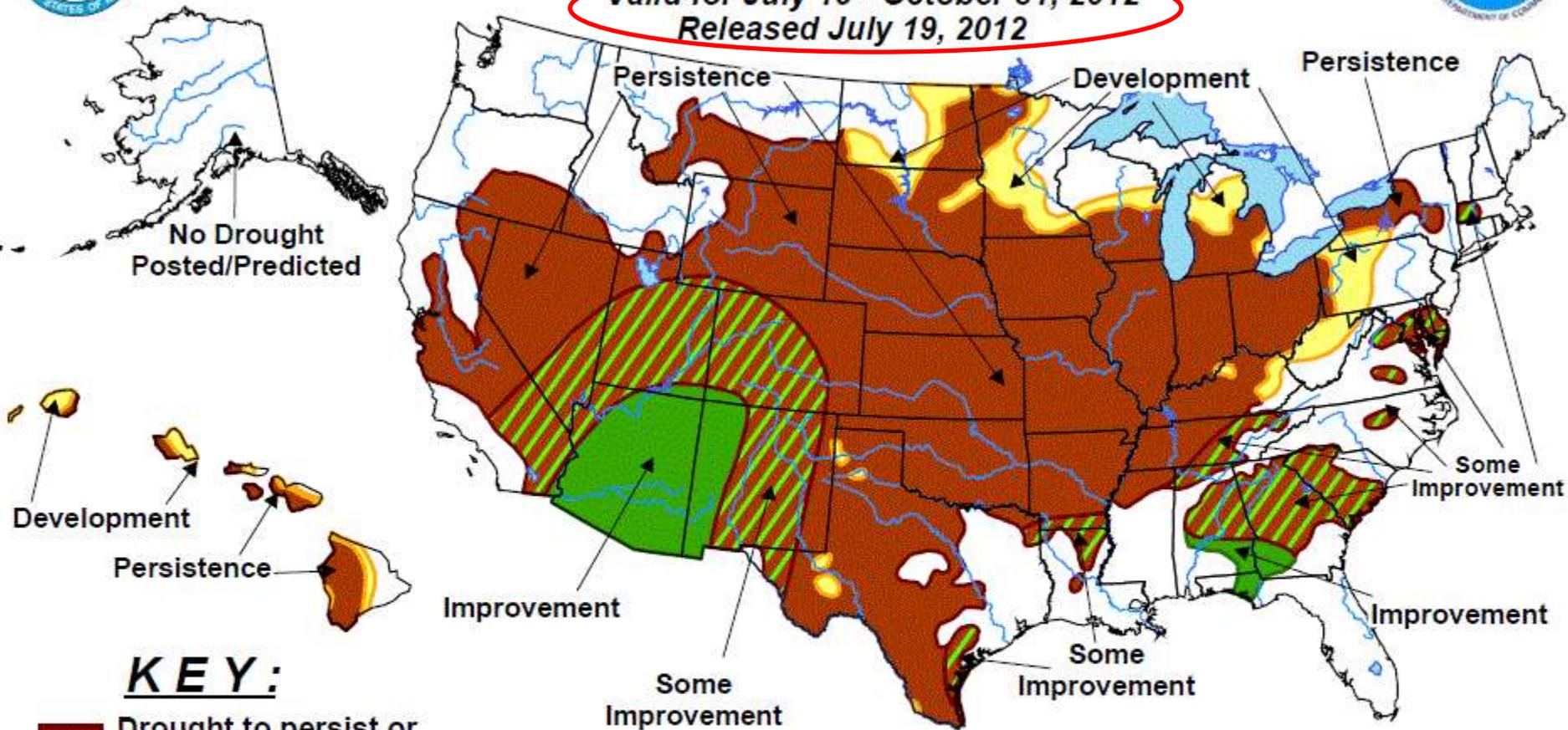


# U.S. Seasonal Drought Outlook

## Drought Tendency During the Valid Period



*Valid for July 19 - October 31, 2012*  
*Released July 19, 2012*



### KEY:

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

No Drought Posted/Predicted

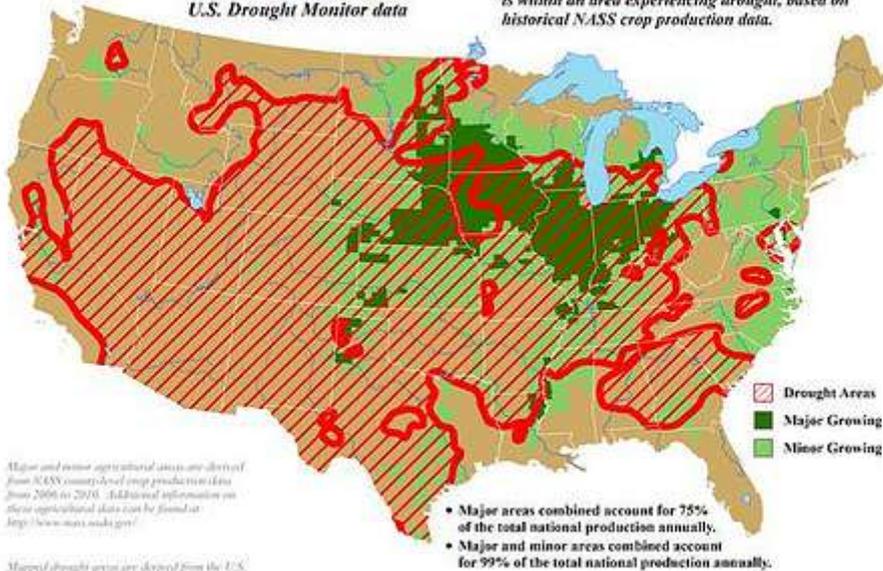
Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events – such as individual storms – cannot be accurately forecast more than a few days in advance. Use caution for applications -- such as crops -- that 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.

# Drought Impacts: Corn, Other Ag

## U.S. Corn Areas Experiencing Drought

Reflects July 10, 2012  
U.S. Drought Monitor data

Approximately 78% 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 30-year county-level crop production data from 2000 to 2010. Additional information on these agricultural data can be found at: <http://www.nass.usda.gov/>

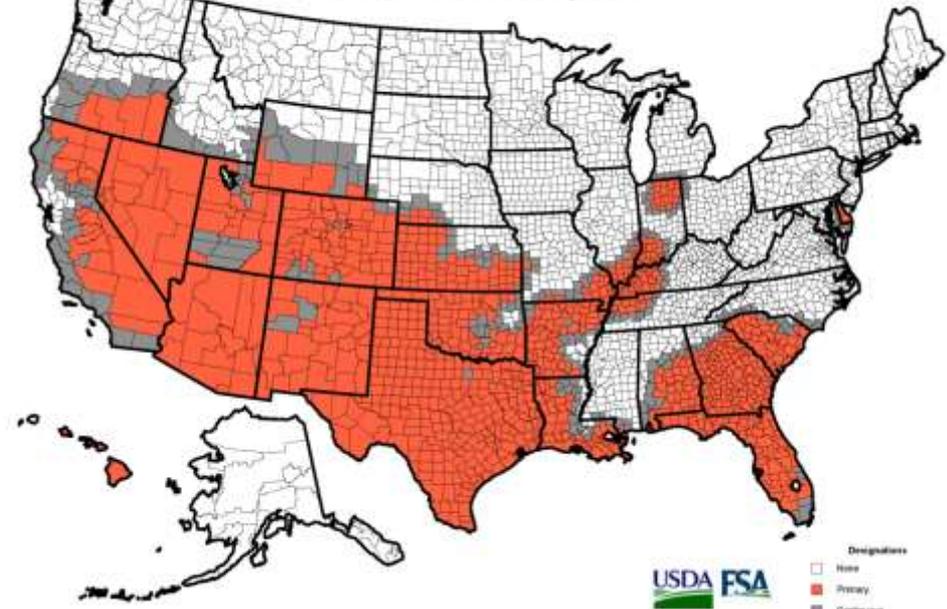
Mapped drought areas are derived from the U.S. Drought Monitor product and do not depict the intensity of drought in any particular location. More information on the Drought Monitor can be found at: <http://www.drought.gov/cda/forbusiness.html>

USDA Agricultural Weather Assessments  
World Agricultural Outlook Board

On July 11, US Secretary of Agriculture Tom Vilsack announced a streamlined disaster declaration process:

- 40 percent faster processing
- Lower interest rate
- Lower CRP payment
- Tied to D2 – Severe Drought
- Doesn't have to be initiated by a governor or tribal council

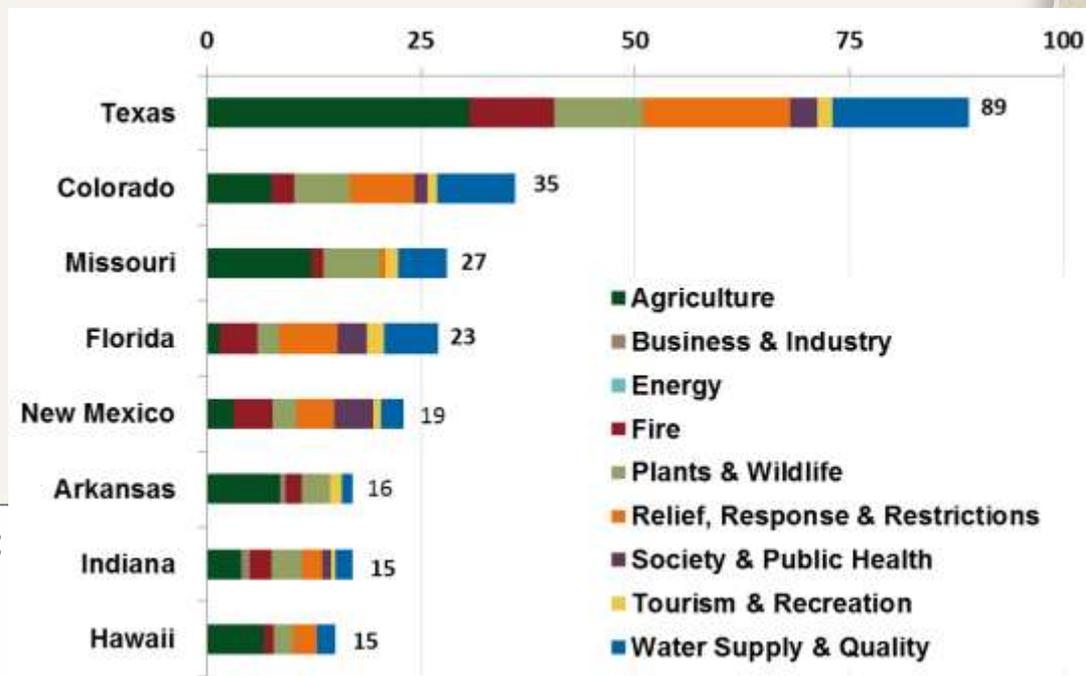
SECRETARIAL DESIGNATIONS - 2012  
PRIMARY AND CONTIGUOUS COUNTIES Designated under DROUGHT PART-TRACK  
REPORT #1a - 07/11/2012 - 1016 Primary Counties



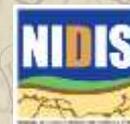
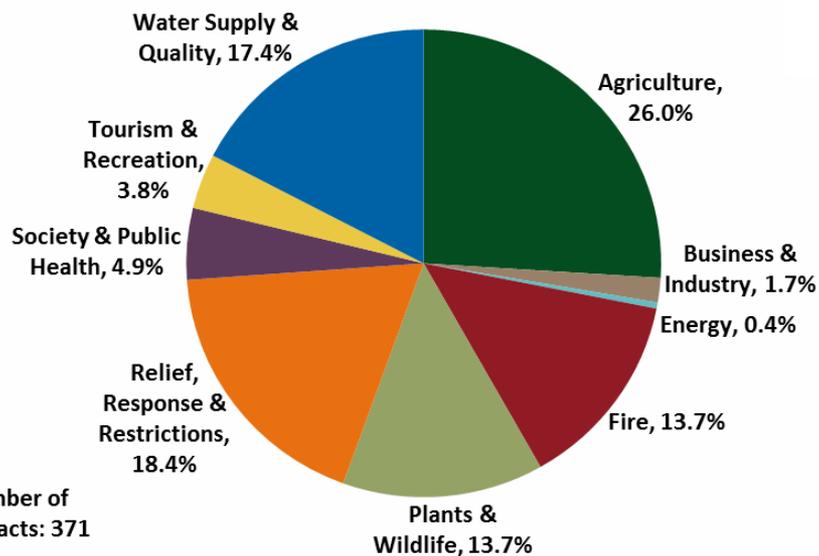
On July 11, USDA's World Agricultural Outlook Board cut the estimate for the 2012 U.S. corn crop by 1.82 billion bushels to "reflect expected impacts of persistent and extreme June and early-July dryness and heat across the central and eastern Corn Belt." The 12% cut, which left the projected U.S. corn production at 12.97 billion bushels, is a direct result of the nation's worst drought in a generation—since 1988. — Brad Rippey, USDA Meteorologist, Office of the Chief Economist

# Drought Impacts by Sector and State

Impacts by state, April-June 2012



Drought impacts in the Drought Impact Reporter for April - June 2012



# Drought Impacts Timeline (Selected)

Mid-July 2012: Concern about reduced crop yields, food prices, as USDA lowers yield forecasts and streamlines the disaster declaration process. Drought spreading across the Corn Belt.

Mid-July 2012: City of Warrenton MO declares a water emergency and imposes mandatory conservation due to drought. Other communities face similar circumstances.

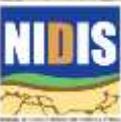
July 2012: Many reports of irrigation water denied or curtailed, including 1,000 surface water users across the state of Nebraska.

Early July 2012: Insect proliferation and damage reported in Missouri, Arkansas

Late June 2012: Waldo Canyon Fire in Colorado was the most destructive in the state's history, with 346 homes burned.

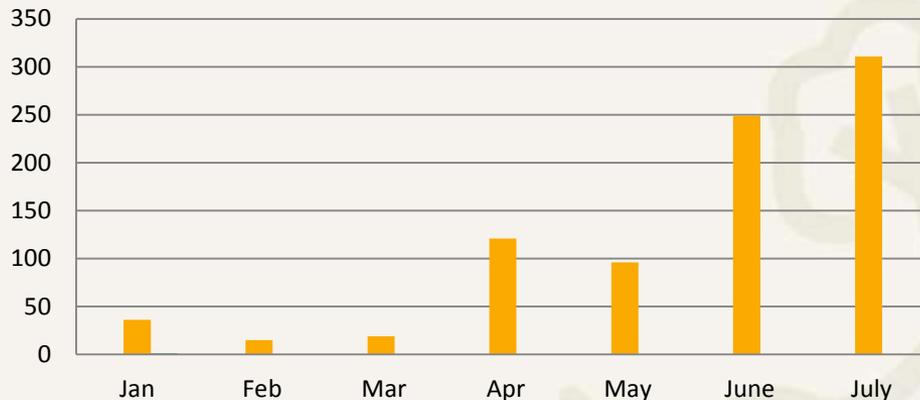
June-July 2012: Many communities across the central U.S. banned fireworks displays.

May 2012: NM Gov. Susana Martinez issued a formal drought declaration to make it easier for communities and agricultural producers to seek assistance. Whitewater-Baldy fire in Southwest New Mexico burned 297,845 acres and was the largest in the state's history, expected to smolder until monsoons.



# Voluntarily Reported Drought Impacts

## Volunteer-Submitted Reports, Jan. 1-July 15



Severe crop (corn and soybeans and pasture) stress in Marion and Jefferson counties, Illinois. Some corn at tassel stage. From Martin Culik, Bloomington, Illinois, on June 29, 2012

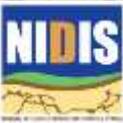
Reports for each month of 2012 (including the first half of July) submitted by volunteers to the Drought Impact Reporter

“With the record-setting high temps. and several days of 108 to 113 degree temps, irrigation water shutting off and the dry hot wind, conditions of pasture have turned from bad to worse. Ranchers are now calling in with reports of finding dead antelope fawns in the shade of cedar posts, very sad situation. Cattle are starting to go to town.” From a farmer/rancher in Eads, Colorado, on June 28, 2012

# 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](http://www.ncdc.noaa.gov)
  - Monthly climate reports (U.S. & Global): [www.ncdc.noaa.gov/sotc/](http://www.ncdc.noaa.gov/sotc/)
- NOAA's Climate Prediction Center: [www.cpc.ncep.noaa.gov](http://www.cpc.ncep.noaa.gov)
- Climate Portal: [www.climate.gov](http://www.climate.gov)
- U.S. Drought Monitor: [www.droughtmonitor.unl.edu](http://www.droughtmonitor.unl.edu)
- National Drought Mitigation Center: [www.drought.unl.edu](http://www.drought.unl.edu)
- Drought Impact Reporter: [www.droughtreporter.unl.edu](http://www.droughtreporter.unl.edu)
- NIDIS Drought Portal: [www.drought.gov](http://www.drought.gov)
- State climatologists
  - <http://www.stateclimate.org>
- Regional climate centers
  - <http://mrcc.isws.illinois.edu>
  - <http://www.hprcc.unl.edu>



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402-472-8238

National Drought Mitigation Center  
School of Natural Resources  
University of Nebraska-Lincoln

