

Oklahoma Water Resources Bulletin & Summary of Current Conditions

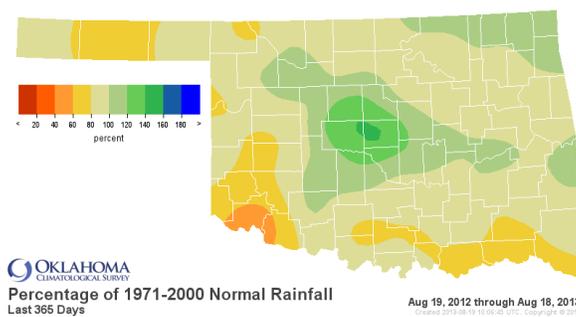
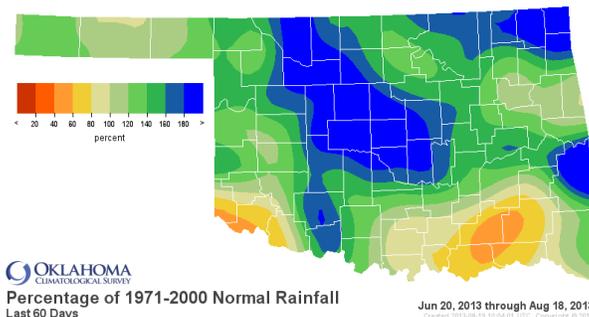


August 22, 2013

PRECIPITATION

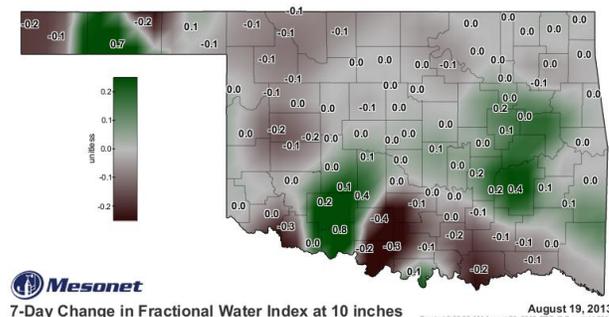
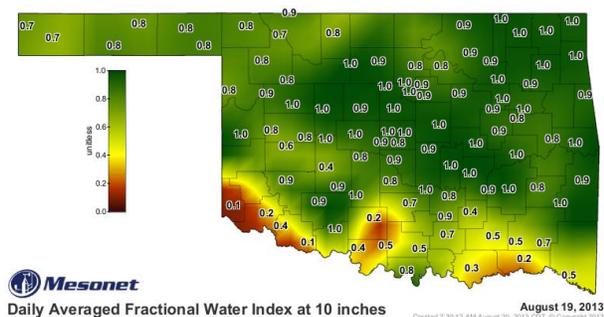
Statewide Precipitation

CLIMATE DIVISION	Last 60 Days June 20, 2013 – August 18, 2013				Last 365 Days August 19, 2012 – August 18, 2013			
	TOTAL RAINFALL (INCHES)	DEPARTURE FROM NORMAL (INCHES)	PERCENT OF NORMAL	RANK SINCE 1921	TOTAL RAINFALL (INCHES)	DEPARTURE FROM NORMAL (INCHES)	PERCENT OF NORMAL	RANK SINCE 1921
Panhandle	6.45"	+1.40"	128%	16th wettest	16.51"	-4.59"	78%	18th driest
North Central	10.08"	+3.88"	163%	10th wettest	29.06"	-2.59"	92%	43rd wettest
Northeast	10.64"	+3.94"	159%	11th wettest	41.69"	-0.28"	99%	34th wettest
West Central	7.18"	+2.06"	140%	16th wettest	24.66"	-4.43"	85%	36th driest
Central	10.36"	+4.59"	179%	9th wettest	42.26"	+4.27"	111%	17th wettest
East Central	8.40"	+1.97"	131%	25th wettest	43.24"	-2.85"	94%	44th wettest
Southwest	6.58"	+1.32"	125%	19th wettest	25.10"	-5.70"	81%	33rd driest
South Central	5.90"	+0.18"	103%	35th wettest	34.49"	-6.47"	84%	34th driest
Southeast	7.25"	+0.37"	105%	39th wettest	43.28"	-7.66"	85%	24th driest
Statewide	8.24"	+2.33"	139%	13th wettest	33.73"	-2.96"	92%	44th wettest



SOIL MOISTURE

Fractional Water Index¹ August 19, 2013



¹ The Fractional Water Index ranges from very dry soil having a value of 0 to soil at field capacity illustrated by a value of 1. [1.0-0.8 = Enhanced Growth; 0.8-0.5 = Limited Growth; 0.5-0.3 = Plants Wilting; 0.3-0.1 = Plants Dying; <0.1 = Barren Soil.]

DROUGHT INDICES

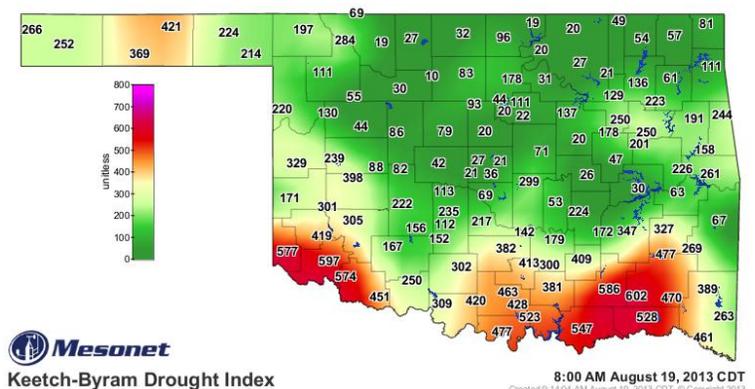
Palmer Drought Severity Index ¹					Standardized Precipitation Index ² Through July 2013			
CLIMATE DIVISION	CURRENT STATUS 8/17/2013	VALUE		CHANGE IN VALUE	3-MONTH	6-MONTH	12-MONTH	24-MONTH
		8/17	7/20					
Northwest	MILD DROUGHT	-1.22	-4.25	3.03	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
North Central	UNUSUAL MOIST SPELL	2.45	-0.54	2.99	ABNORMALLY MOIST	MODERATELY MOIST	NEAR NORMAL	NEAR NORMAL
Northeast	MOIST SPELL	1.87	-1.05	2.92	NEAR NORMAL	ABNORMALLY MOIST	NEAR NORMAL	NEAR NORMAL
West Central	NEAR NORMAL	0.08	-2.18	2.26	NEAR NORMAL	NEAR NORMAL	ABNORMALLY DRY	ABNORMALLY DRY
Central	UNUSUAL MOIST SPELL	2.87	0.16	2.71	VERY MOIST	EXTREMELY MOIST	MODERATELY MOIST	NEAR NORMAL
East Central	INCIPIENT MOIST SPELL	0.97	-1.44	2.41	ABNORMALLY MOIST	ABNORMALLY MOIST	NEAR NORMAL	NEAR NORMAL
Southwest	INCIPIENT DROUGHT	-0.66	-2.33	1.67	NEAR NORMAL	ABNORMALLY MOIST	NEAR NORMAL	ABNORMALLY DRY
South Central	INCIPIENT DROUGHT	-0.87	-1.55	0.68	MODERATELY MOIST	ABNORMALLY MOIST	NEAR NORMAL	NEAR NORMAL
Southeast	NEAR NORMAL	-0.24	-2.12	1.88	MODERATELY MOIST	ABNORMALLY MOIST	NEAR NORMAL	NEAR NORMAL

- Only one climate division is now classified as experiencing drought conditions, according to the PDSI. No regions have undergone a PDSI moisture decrease since July 20. According to the latest SPI, only two climate divisions are experiencing near long-term dry conditions.

Keetch-Byram Drought Fire Index³

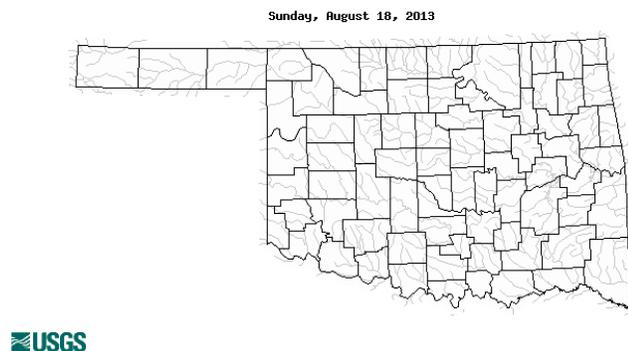
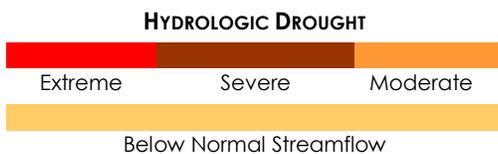
MESONET STATION	CLIMATE DIVISION	CURRENT VALUE 8/19/2013
Antlers	Southeast	602
Altus	Southwest	597
Lane	South Central	586

- Stations currently at or above 600 (August 19) = 1
- Stations above 600 on July 22 = 2



STREAMFLOW CONDITIONS

August 18, 2013



¹ The Palmer Drought Severity Index is based upon precipitation, temperature, and soil moisture. Though widely used by government agencies and states to trigger drought relief programs, the PDSI may underestimate or overestimate the severity of ongoing dry periods.

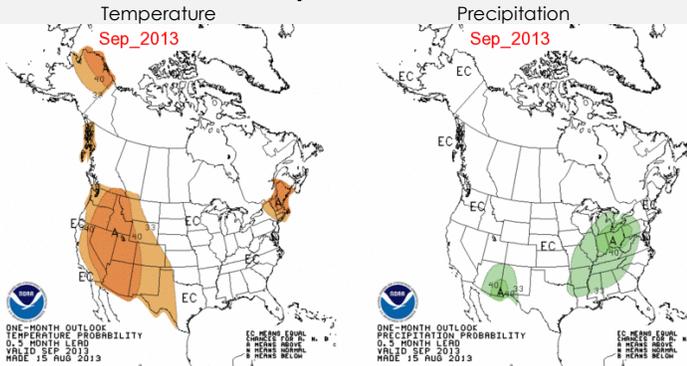
² The Standardized Precipitation Index, more sensitive than the PDSI, provides a comparison of precipitation over a specified period with precipitation totals from that same period for all years included in the historical record. The 3-month SPI provides a seasonal estimation of precipitation while the 6-month SPI can be very effective in showing precipitation over distinct seasons.

³ The Keetch-Byram Drought Index measures the state of near-surface soil moisture (within the uppermost eight inches of soil) as well as the amount of fuel available for fires. KBDI values of 600 and above are often associated with more severe drought and increased wildfire occurrence.

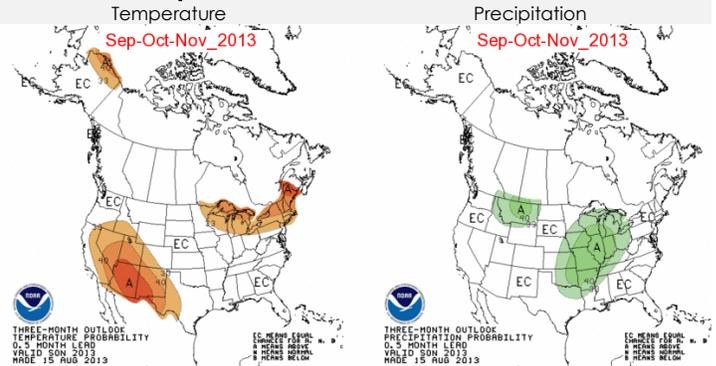
WEATHER/DROUGHT FORECAST

Seasonal Outlook

September



September-October-November



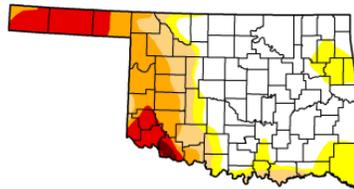
Regional Drought Summary & Outlook

U.S. Drought Monitor

August 20, 2013
Valid 7 a.m. EST

Oklahoma

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	63.91	46.09	32.82	22.26	9.89	0.54
Last Week (08/13/2013 map)	49.40	50.60	32.98	22.62	12.57	0.19
3 Months Ago (05/21/2013 map)	25.21	74.79	61.60	50.91	26.73	10.60
Start of Calendar Year (01/01/2013 map)	0.00	100.00	100.00	100.00	94.89	37.06
Start of Water Year (09/25/2012 map)	0.00	100.00	100.00	99.98	95.33	42.09
One Year Ago (08/14/2012 map)	0.00	100.00	100.00	100.00	94.59	38.86

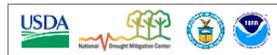


Intensity:



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, August 22, 2013
Michael Brewer, National Climatic Data Center, NOAA

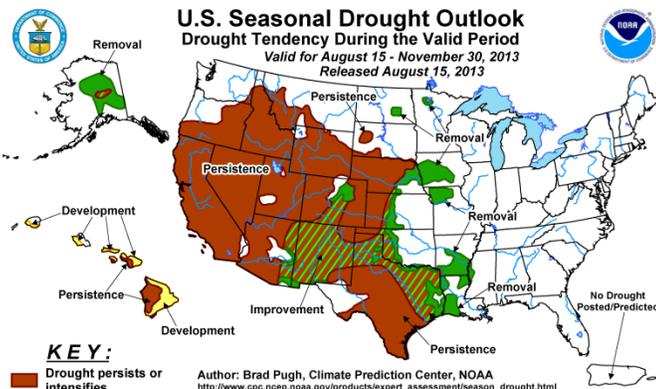
August 20—In the southern Plains, Beneficial rains fell again this week across portions of northern Texas, Oklahoma, Kansas, and Arkansas, leading to improvements in drought conditions in western and central Kansas, western and central Oklahoma, the Panhandle of Texas, south-central Arkansas, and eastern Louisiana. Conversely, Extreme (D3), Severe (D2) and Moderate Drought (D1) expanded in Texas and northern Louisiana and Abnormal Dryness (D0) expanded in Louisiana and southern Arkansas.

More than half the state is now completely free from drought due to an uncharacteristically wet and mild mid-summer period. Less than 10 percent of Oklahoma is now classified in Extreme Drought, down from 30 percent one month ago. Less than one percent of the state—a very small portion of southwest Oklahoma—is considered Exceptional, the most intense drought category.

According to the latest Drought Outlook (August 15), drought is expected to persist or intensify only in the Panhandle region of Oklahoma through November. Improvement is expected elsewhere.

U.S. Seasonal Drought Outlook

Drought Tendency During the Valid Period
Valid for August 15 - November 30, 2013
Released August 15, 2013



KEY:

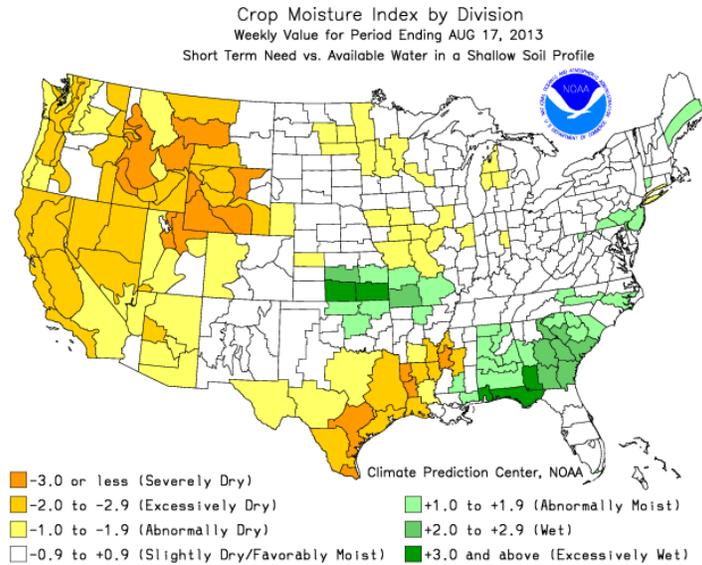
- Drought persists or intensifies
- Drought removal likely
- Drought development likely

Author: Brad Pugh, Climate Prediction Center, NOAA
http://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.html

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 and Brown hatched 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).

CROP REPORT SUMMARY

August 19, 2013 – Parts of the Panhandle and southwestern Oklahoma remain the hardest hit by the drought, but did receive relief this past week as 2.31 inches of rain was measured in Goodwell and almost two inches fell in Grandfield. Crop conditions for all row crops except for cotton were rated mostly in good condition, and cotton conditions improved significantly. Pastures continued to green-up and hay conditions improved slightly. Other hay cutting made very little progress due to wet conditions. Temperatures continued to be cooler than normal for August. Topsoil moisture conditions were mostly adequate, with 75 percent rated adequate or surplus and only 25 percent rated short to very short. Subsoil moisture conditions improved slightly and were rated 56 percent adequate and 43 percent short to very short. There were 4.2 days suitable for fieldwork due to wet conditions.



RESERVOIR STORAGE

August 19, 2013

