

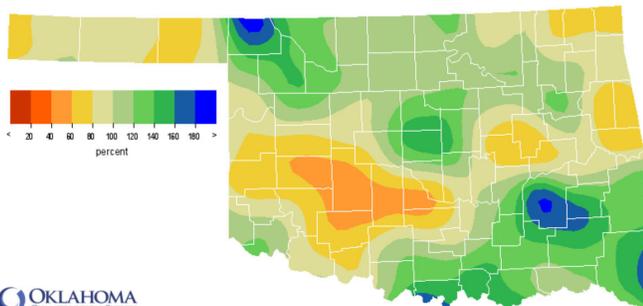
Oklahoma Water Resources Bulletin & Summary of Current Conditions

August 25, 2014

PRECIPITATION

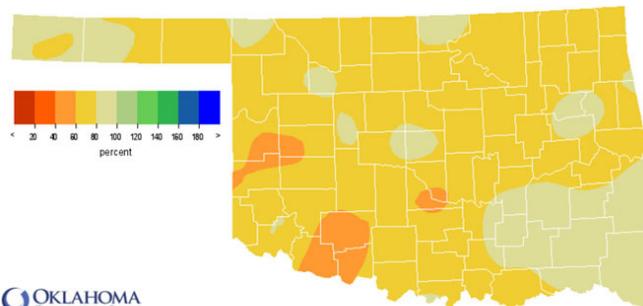
Statewide Precipitation

CLIMATE DIVISION	Last 60 Days June 26 – August 24, 2014				Last 365 Days August 25, 2013 – August 24, 2014			
	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	5.04"	-0.19"	96%	40th wettest	16.14"	-4.44"	78%	19th driest
North Central	7.37"	+1.38"	123%	27th wettest	23.70"	-7.72"	75%	20th driest
Northeast	6.65"	-0.03"	100%	44th wettest	30.44"	-12.23"	71%	10th driest
West Central	4.07"	-0.92"	82%	44th driest	19.49"	-8.91"	69%	10th driest
Central	6.25"	+0.32"	105%	33rd wettest	26.51"	-11.12"	70%	8th driest
East Central	5.89"	-0.35"	94%	47th wettest	34.88"	-11.26"	76%	16th driest
Southwest	3.98"	-0.99"	80%	43rd driest	21.09"	-9.18"	70%	11th driest
South Central	6.24"	+0.94"	118%	27th wettest	30.53"	-10.18"	75%	16th driest
Southeast	8.88"	+2.42"	138%	23rd wettest	46.51"	-4.08"	92%	36th driest
Statewide	6.08"	+0.30"	105%	34th wettest	27.51"	-8.96"	75%	14th driest



OKLAHOMA CLIMATOLOGICAL SURVEY
Percentage of 1981-2010 Normal Rainfall
Last 60 Days

Jun 26, 2014 through Aug 24, 2014

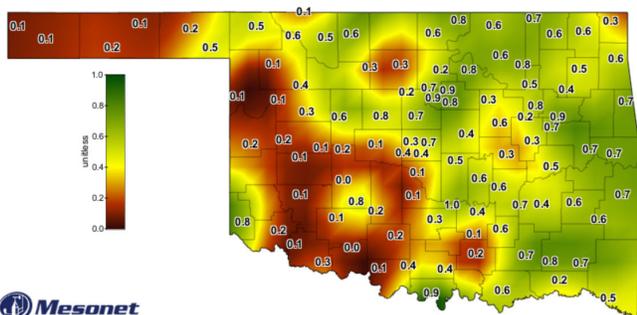


OKLAHOMA CLIMATOLOGICAL SURVEY
Percentage of 1981-2010 Normal Rainfall
Last 365 Days

Aug 25, 2013 through Aug 24, 2014

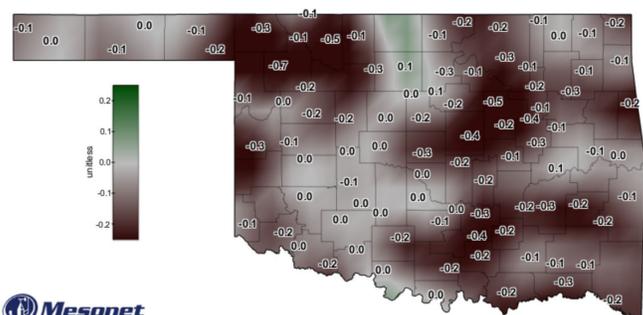
SOIL MOISTURE

Fractional Water Index¹ August 24, 2014



Mesonet
Daily Averaged Fractional Water Index at 10 inches

August 24, 2014



Mesonet
7-Day Change in Fractional Water Index at 10 inches

August 24, 2014

¹The 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 Index²

Standardized Precipitation Index³ Through July 2014

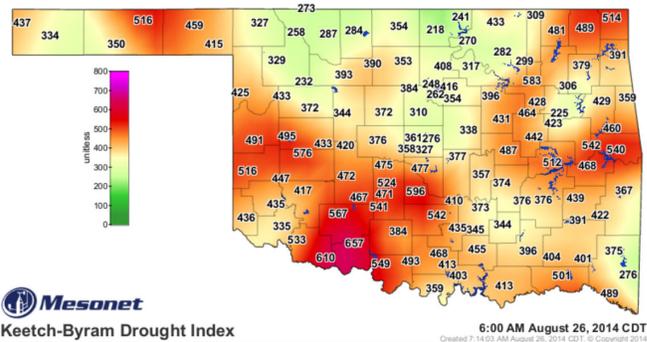
CLIMATE DIVISION	CURRENT STATUS 8/16/2014	VALUE			CHANGE IN VALUE	3-MONTH	12-MONTH	24-MONTH
		8/16	7/19					
Northwest	MODERATE DROUGHT	-2.74	-2.58	-0.16		NEAR NORMAL	NEAR NORMAL	MODERATELY DRY
North Central	NEAR NORMAL	1.04	1.08	-0.04		MODERATELY MOIST	NEAR NORMAL	ABNORMALLY DRY
Northwest	NEAR NORMAL	-1.18	-1.26	0.08		NEAR NORMAL	MODERATELY DRY	ABNORMALLY DRY
West Central	SEVERE DROUGHT	-2.99	-2.62	-0.37		MODERATELY MOIST	NEAR NORMAL	ABNORMALLY DRY
Central	NEAR NORMAL	-1.75	-1	-0.75		NEAR NORMAL	ABNORMALLY DRY	NEAR NORMAL
East Central	NEAR NORMAL	-1.36	-1.09	-0.27		NEAR NORMAL	ABNORMALLY DRY	NEAR NORMAL
Southwest	SEVERE DROUGHT	-3.81	-3.39	-0.42		ABNORMALLY MOIST	ABNORMALLY DRY	MODERATELY DRY
South Central	NEAR NORMAL	-1.27	-0.85	-0.42		NEAR NORMAL	MODERATELY DRY	MODERATELY DRY
Southeast	NEAR NORMAL	0.03	-0.22	0.25		MODERATELY MOIST	NEAR NORMAL	NEAR NORMAL

- According to the PDSI, all of western Oklahoma is experiencing drought conditions with severe drought conditions in the West Central and Southwest climate divisions. The rest of the state is classified as near normal; all divisions except Northeast and Southeast have experienced moisture decrease since July 19.
- According to the latest SPI, only the Central, East Central, and Southeast climate divisions are *not* experiencing longer-term dry conditions (through the last two years). No climate divisions show drought conditions for the 3-month time period.

Keetch-Byram Drought Fire Index⁴

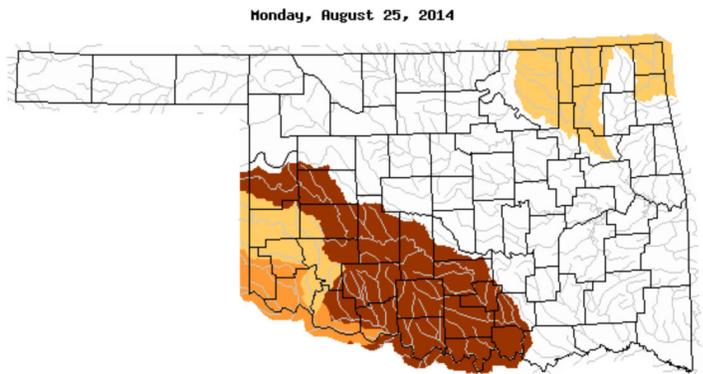
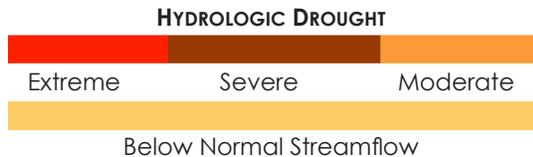
MESONET STATION	CLIMATE DIVISION	CURRENT VALUE 8/26/2014
Walters	Southwest	657
Grandfield	Southwest	610
Washington	Central	596

- Stations currently at or above 600 (Aug 26) = 2
- Stations above 600 on July 25 = 0



STREAMFLOW CONDITIONS

August 25, 2014



² 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.

³ 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.

⁴ 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

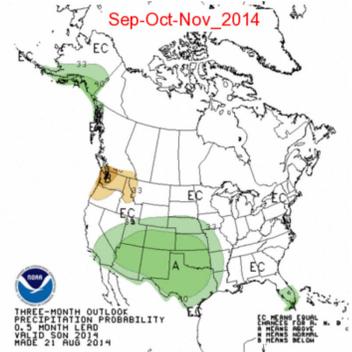
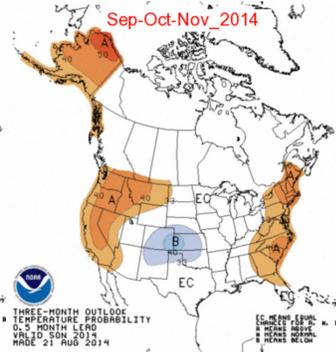
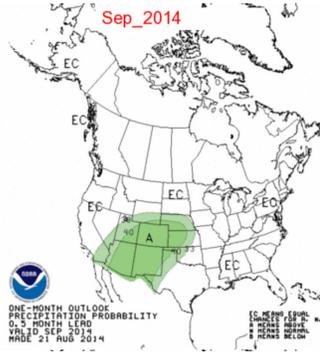
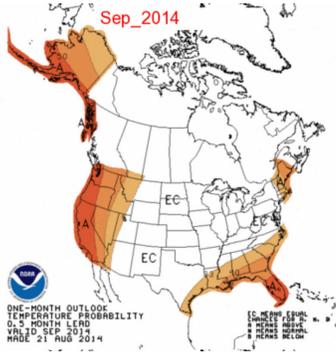
Temperature

Precipitation

September-October-November

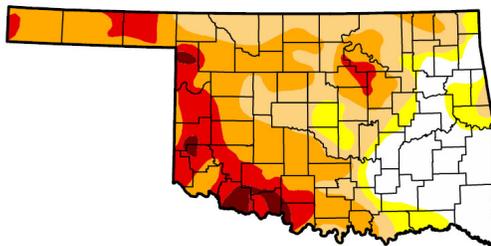
Temperature

Precipitation



Regional Drought Summary & Outlook

U.S. Drought Monitor Oklahoma



August 19, 2014
(Released Thursday, Aug. 21, 2014)
Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	19.52	80.48	71.14	47.11	15.35	2.25
Last Week 8/12/2014	19.56	80.44	71.08	48.39	16.12	2.25
3 Months Ago 5/29/2014	5.78	94.22	81.06	73.26	61.24	34.25
Start of Calendar Year 1/21/2013	50.84	49.16	38.17	18.99	4.84	2.40
Start of Water Year 10/1/2013	21.74	78.26	43.00	17.62	4.42	1.45
One Year Ago 8/20/2013	53.91	46.09	32.82	22.26	9.89	0.54



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

Author:
Richard Tinker
CPC/NOAA/NWS/NCEP

Intensity:

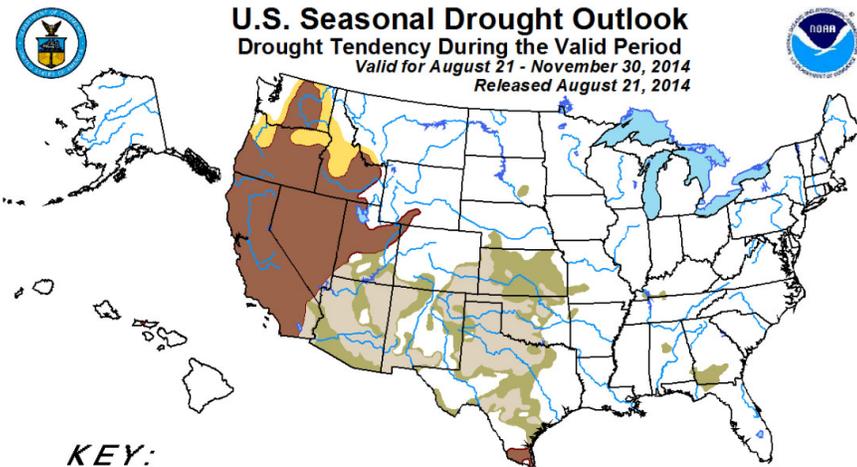
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

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

August 25—According to the U.S. Drought Monitor, recent scattered rainfall prompted some improvement in central Oklahoma, central and part of northeastern Texas, and some small areas farther north. However, short-term moisture deficits have increased enough to warrant the introduction of D0 in a swath from south-central Minnesota through eastern Iowa, southwestern Wisconsin, and northwestern Illinois. Less than half of normal precipitation has fallen since mid-July in most of these areas, and 8-week rainfall is 5 to 8 inches below normal in much of the region.

In the past month, Oklahoma has experienced improvement in the Severe to Exceptional Drought (D2-D4) categories, especially in the Panhandle and western half of the state, with less than half as much of the state experiencing Exceptional Drought (down from 5.57% to 2.25% for D4). However, more than 71% of the state still remains in at least Moderate Drought. More than 47% of the state remains classified in Severe Drought or worse, with more than 80% of the state experiencing Abnormally Dry conditions or worse. Parts of the state that are not experiencing dry conditions are all in the East, with the entire Southeast region free from any drought classification.

U.S. Seasonal Drought Outlook Drought Tendency During the Valid Period Valid for August 21 - November 30, 2014 Released August 21, 2014



KEY:

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

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

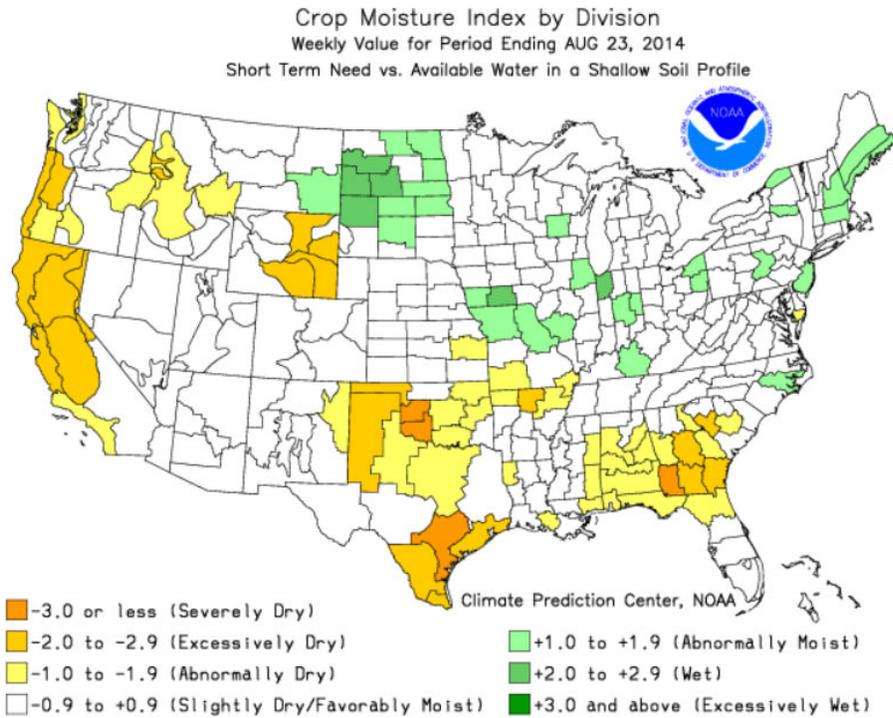
Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Short-term events – such as individual storms – cannot be accurately forecast more than a few days in advance. Use caution for applications – such as crops – that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

According to the seasonal drought outlook, during the period between mid-August and the end of November, drought conditions will likely remain but improve in most central and western parts of the state. Much of the eastern part of the state is expected not to experience drought conditions. No areas of the state are expected to experience persistent or intensifying drought conditions or likely drought development.

CROP REPORT

August 25 -High temperatures returned to the state last week, topping 100° F in several areas of the state. The summer heat continued to deplete topsoil and subsoil moisture in areas still behind normal rainfall for the growing season. Minimal rainfall was received, which allowed for hay harvest to make significant progress with good yields and quality reported. Producers in the Southwest District continued to irrigate summer crops; however, more rainfall is needed for irrigation wells. Crop progress in some portions of the Southwest District was slowed due to the excessive heat.

Topsoil and subsoil moisture conditions continued to be rated mostly adequate to short. All row crop conditions continued to be rated mostly good to fair. Conditions of alfalfa hay and other hay continued to be rated mostly good to fair. Conditions of pasture and range were rated mostly good to fair. Stock ponds still need more runoff rainfall and grasshoppers continued to be an issue in some parts of the state.



RESERVOIR STORAGE

Oklahoma Surface Water Resources Reservoir Levels and Storage as of 8/25/2014

