

Oklahoma Water Resources Bulletin & Summary of Current Conditions

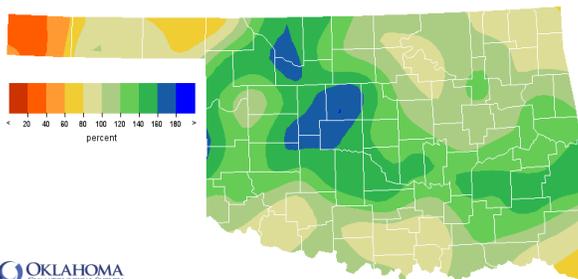


April 4, 2013

PRECIPITATION

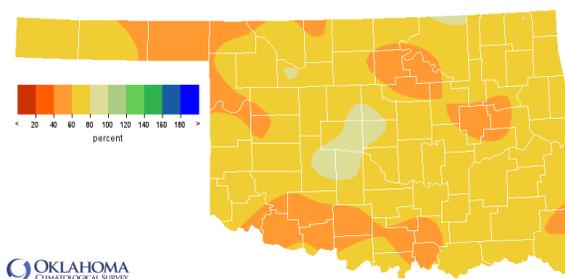
Statewide Precipitation

CLIMATE DIVISION	Last 60 Days February 3, 2013 – April 3, 2013				Last 365 Days April 4, 2012 – April 3, 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	1.94"	-0.46"	81%	36th wettest	12.36"	-8.74"	59%	3rd driest
North Central	5.25"	+1.14"	128%	15th wettest	20.40"	-11.25"	64%	8th driest
Northeast	6.02"	+0.12"	102%	26th wettest	29.52"	-12.45"	70%	10th driest
West Central	4.96"	+1.25"	134%	13th wettest	18.80"	-10.29"	65%	5th driest
Central	6.94"	+1.62"	130%	8th wettest	26.36"	-11.63"	69%	11th driest
East Central	8.35"	+1.57"	123%	13th wettest	29.78"	-16.31"	65%	5th driest
Southwest	4.30"	+0.54"	114%	19th wettest	20.00"	-10.80"	65%	6th driest
South Central	6.34"	+0.37"	106%	24th wettest	25.56"	-15.40"	62%	4th driest
Southeast	9.21"	+1.36"	117%	20th wettest	34.06"	-16.88"	67%	3rd driest
Statewide	5.91"	+0.83"	116%	14th wettest	24.12"	-12.57"	66%	4th driest



OKLAHOMA CLIMATOLOGICAL SURVEY
Percentage of Normal Rainfall
Last 60 Days

Feb 3, 2013 through Apr 3, 2013
Created 6:30:51 AM April 2, 2013 GMT. © Copyright 2013



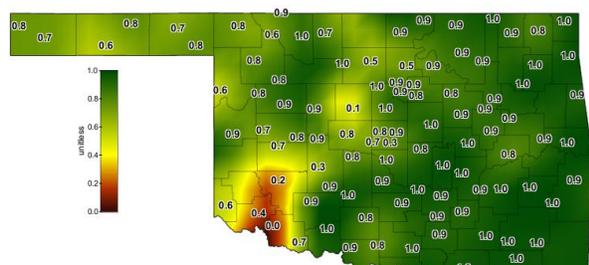
OKLAHOMA CLIMATOLOGICAL SURVEY
Percentage of Normal Rainfall
Last 365 Days

Apr 4, 2012 through Apr 3, 2013
Created 2013-04-04 10:01:09 GMT. © Copyright 2013

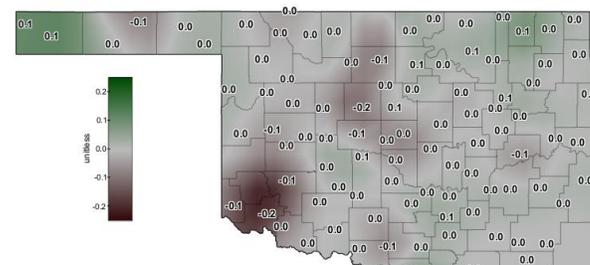
SOIL MOISTURE

Fractional Water Index¹

April 1, 2013



Mesonet
Daily Averaged Fractional Water Index at 10 inches
April 1, 2013
Created 7:30:13 AM April 2, 2013 GMT. © Copyright 2013



Mesonet
7-Day Change in Fractional Water Index at 10 inches
April 1, 2013
Created 6:30:51 AM April 2, 2013 GMT. © Copyright 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

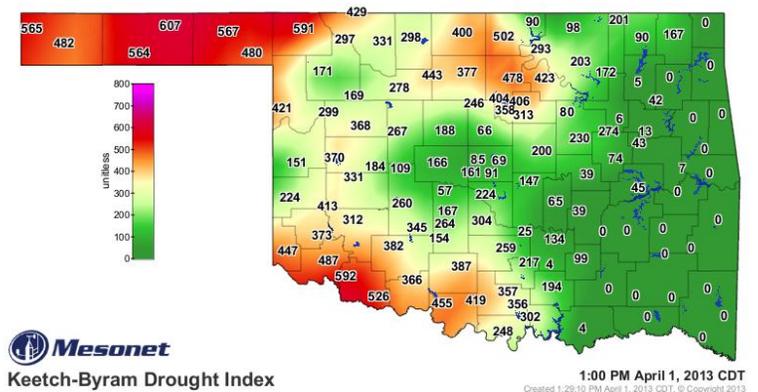
Palmer Drought Severity Index ¹				Standardized Precipitation Index ² Through February 2013				
CLIMATE DIVISION	CURRENT STATUS 3/30/2013	VALUE		CHANGE IN VALUE	3-MONTH	6-MONTH	9-MONTH	12-MONTH
		3/30	3/2					
Northwest	MODERATE DROUGHT	-2.25	-1.88	-0.37	MODERATELY MOIST	NEAR NORMAL	MODERATELY DRY	ABNORMALLY DRY
North Central	INCIPIENT DROUGHT	-0.97	-0.86	-0.11	MODERATELY MOIST	ABNORMALLY DRY	EXTREMELY DRY	MODERATELY DRY
Northwest	MILD DROUGHT	-1.06	-1.34	0.28	ABNORMALLY MOIST	ABNORMALLY DRY	SEVERELY DRY	MODERATELY DRY
West Central	INCIPIENT DROUGHT	-0.61	-0.11	-0.50	VERY MOIST	NEAR NORMAL	ABNORMALLY DRY	MODERATELY DRY
Central	MILD DROUGHT	-1.85	-1.36	-0.49	ABNORMALLY MOIST	NEAR NORMAL	MODERATELY DRY	MODERATELY DRY
East Central	INCIPIENT DROUGHT	-0.51	-1.17	0.66	NEAR NORMAL	ABNORMALLY DRY	MODERATELY DRY	MODERATELY DRY
Southwest	MODERATE DROUGHT	-2.11	-1.26	-0.85	ABNORMALLY MOIST	NEAR NORMAL	MODERATELY DRY	ABNORMALLY DRY
South Central	MODERATE DROUGHT	-2.27	-2.23	-0.04	NEAR NORMAL	ABNORMALLY DRY	MODERATELY DRY	MODERATELY DRY
Southeast	MILD DROUGHT	-1.43	-2.21	0.78	NEAR NORMAL	MODERATELY DRY	MODERATELY DRY	SEVERELY DRY

- Recent moisture continues to improve the drought situation, although six climate divisions continue to experience mild to moderate drought conditions, according to the PDSI. Three regions have undergone a PDSI moisture increase since March 2. According to the SPI, all climate divisions continue to experience near long-term dry conditions, although the short-term (3-month) indices indicate considerable improvement.

Keetch-Byram Drought Fire Index³

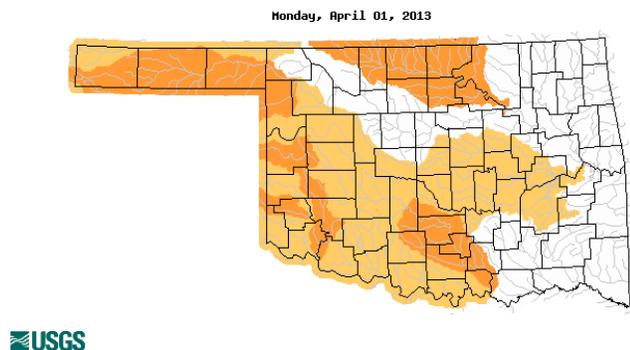
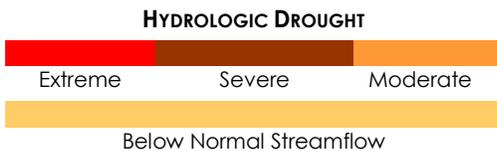
MESONET STATION	CLIMATE DIVISION	CURRENT VALUE 4/1/2013
Hooker	Northwest	607
Buffalo	Northwest	592
Tipton	Southwest	591

- Stations currently at or above 600 (April 1) = 1
- Stations above 600 on March 4 = 1



STREAMFLOW CONDITIONS

April 1, 2013



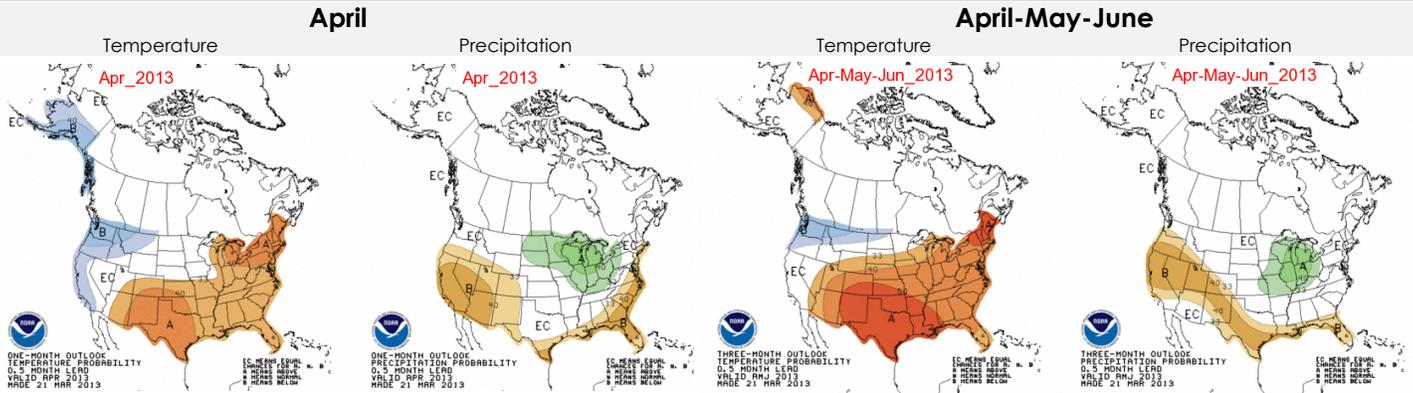
¹ The Palmer Drought Severity Index is based upon precipitation, temperature, and soil moisture. Though widely used by government agencies and states to trigger drought relief programs, the PDSI may underestimate or overestimate the severity of ongoing dry periods.

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

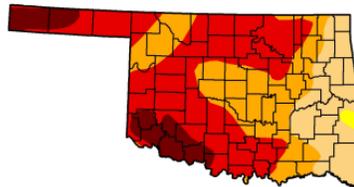


Regional Drought Summary & Outlook

U.S. Drought Monitor Oklahoma

April 2, 2013
Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	99.30	80.68	52.97	9.90
Last Week (03/26/2013 map)	0.00	100.00	100.00	83.07	53.07	9.90
3 Months Ago (01/01/2013 map)	0.00	100.00	100.00	100.00	94.89	37.06
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 (03/27/2012 map)	66.48	33.52	23.64	11.88	4.97	1.05



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>

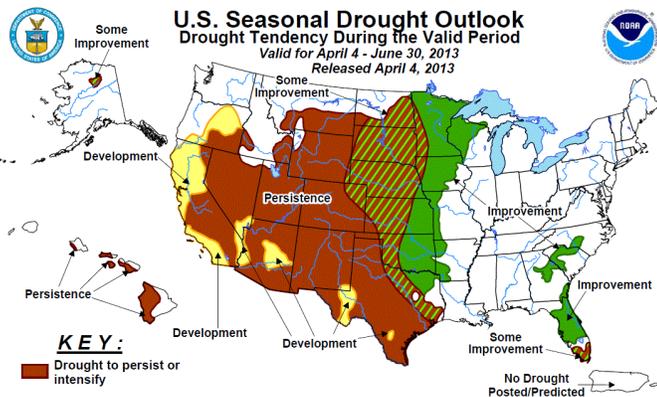


April 2—Precipitation totals exceeding one inch were widespread from northeastern Texas and northwestern Louisiana northward through southwestern Missouri and part of southeastern Kansas. Some of the northern reaches of this area, extending as far south as central Arkansas and east central Oklahoma, measured 2 to 4 inches of rain. As a result, drought classifications improved in several areas that were generally in the D0 to D2 range last week.

Elsewhere, most locations in the central Plains received anywhere from a few tenths of an inch to slightly over an inch while only isolated measurable precipitation was reported in central and southern Texas, the High Plains, and northern Great Plains. Some areas of degradation were introduced in roughly the southwestern half of Texas and the northwestern Plains, but conditions remained essentially unchanged in most areas.

About 53 percent of Oklahoma is classified in Extreme Drought, down from 62 percent one month ago. Less than 10 percent of the state—including portions of the western Panhandle and southwest regions—is considered Exceptional, the most intense drought category. Overall, recent precipitation has had a significant positive impact on Oklahoma's drought situation. However, more rain is needed, especially in the west.

According to the latest Drought Outlook (April 4), improvement is forecast across eastern Kansas, eastern Oklahoma, and northeast Texas, but prospects for drought improvement decrease further southwest across the southern High Plains and south Texas.



KEY:

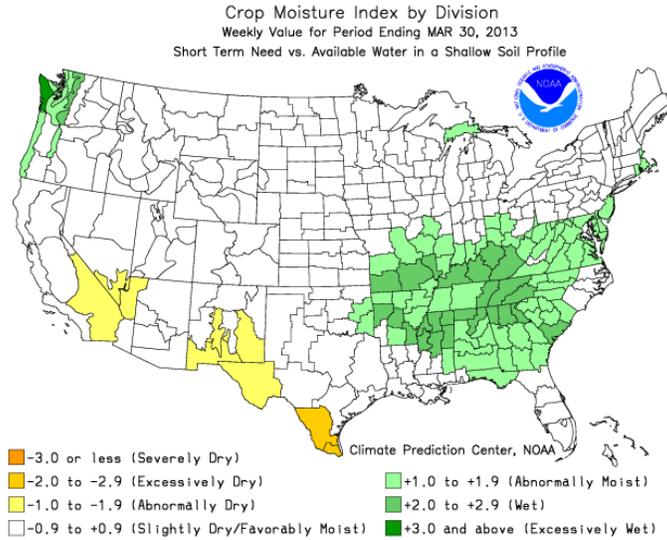
- Drought to persist or intensify
- Drought ongoing, some improvement
- Drought likely to improve, impacts ease
- Drought development likely

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.

CROP REPORT SUMMARY

April 1, 2013 – Cooler weather has slowed crop and forage development, and small grain jointing continued to be behind normal. Canola blooming was reported, though well behind last year, and corn was being planted in limited areas. Topsoil moisture conditions continued to be rated mostly adequate to short. Subsoil moisture conditions were still rated mostly short to very short with 15 percent of the state rated as adequate. There were 5.9 days suitable for fieldwork.

Condition ratings for all wheat, rye and oats continued to be rated mostly good to fair. Crop progress was behind normal for all small grains. Seedbed preparation continued on all row crops, and corn planting was underway. Conditions of pasture and range improved slightly, but continued to be rated mostly poor to very poor. Warmer temperatures were needed to encourage forage growth. Stock pond levels have improved where run-off was received in the eastern half of the state. Livestock conditions were still rated mostly good to fair.



RESERVOIR STORAGE

April 1, 2013

