

Oklahoma Water Resources Bulletin & Summary of Current Conditions

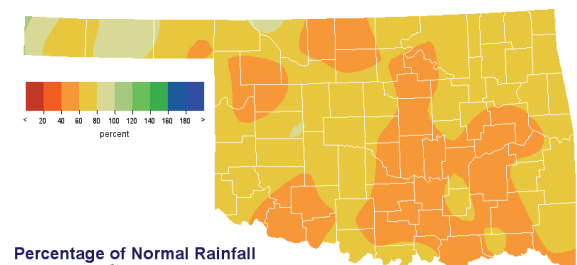
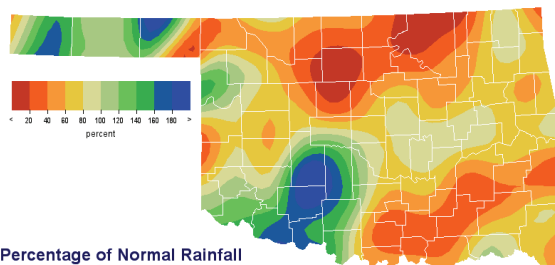


September 20, 2006

PRECIPITATION

Preliminary Statewide Precipitation

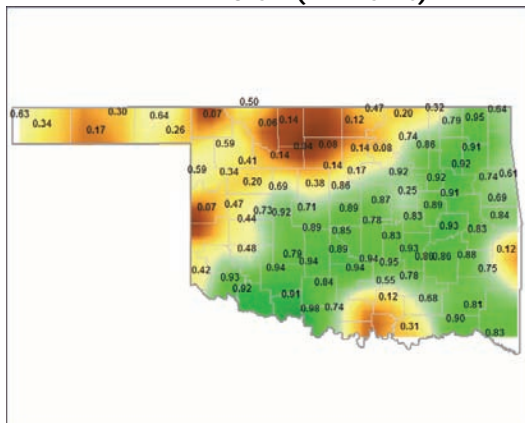
Climate Division (#)	Cool Growing Season September 1—18, 2006				Water Year October 1, 2005—September 18, 2006			
	TOTAL RAINFALL (INCHES)	DEPARTURE FROM NORMAL (INCHES)	PERCENT OF NORMAL	RANK SINCE 1921	TOTAL RAINFALL (INCHES)	DEPARTURE FROM NORMAL (INCHES)	PERCENT OF NORMAL	RANK SINCE 1921
Panhandle	1.12"	-0.01"	99%	43rd wettest	14.90"	-5.45"	73%	19th driest
North Central	0.79"	-1.08"	42%	23rd driest	18.74"	-11.65"	62%	5th driest
Northeast	1.50"	-1.37"	52%	26th driest	26.42"	-13.64"	66%	7th driest
West Central	1.29"	-0.52"	71%	39th driest	18.65"	-9.23"	67%	8th driest
Central	2.03"	-0.44"	82%	42nd driest	21.86"	-14.48"	60%	3rd driest
East Central	1.94"	-1.04"	65%	42nd driest	25.79"	-18.31"	58%	3rd driest
Southwest	2.81"	+0.78"	138%	19th wettest	18.02"	-11.42"	61%	4th driest
South Central	1.53"	-1.07"	59%	36th driest	21.43"	-17.80"	55%	2nd driest
Southeast	1.66"	-1.09"	60%	37th driest	30.48"	-18.63"	62%	4th driest
Statewide	1.63"	-0.66"	71%	37th driest	21.74"	-13.43"	62%	3rd driest



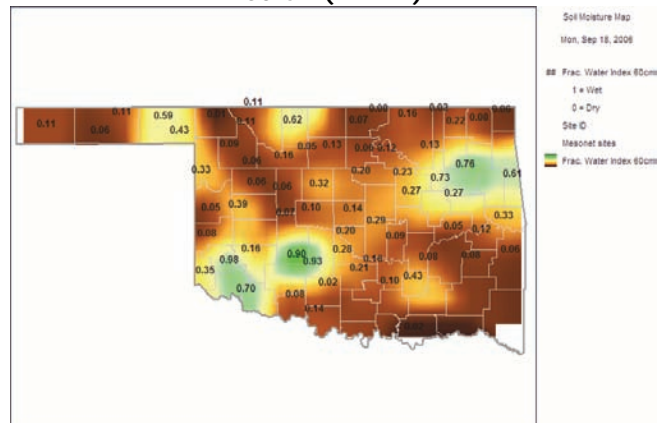
SOIL MOISTURE

Fractional Water Index¹ September 18, 2006

5 CM (~2 INCHES)



60 CM (~2 FEET)



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. Specifically, 1.0 to 0.8 equals Enhanced Growth, 0.8 to 0.5 equals Limited Growth, 0.5 to 0.3 equals Plants Wilting, 0.3 to 0.1 equals Plants Dying, and less than 0.1 equals Barren Soil.

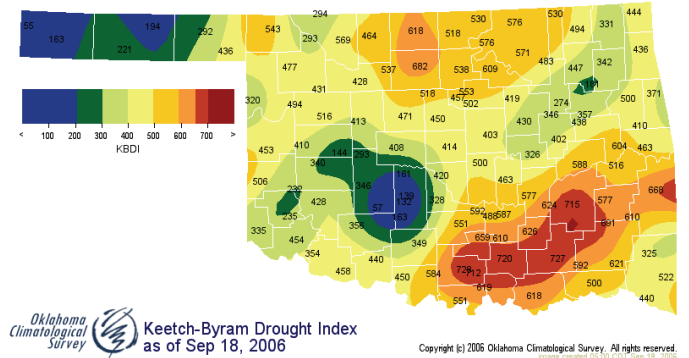
DROUGHT INDICES

Palmer Drought Severity Index ¹					Standardized Precipitation Index ² Through August 2006			
CLIMATE DIVISION (#)	CURRENT STATUS 9/16/2006	VALUE		CHANGE IN VALUE	3-MONTH	6-MONTH	9-MONTH	12-MONTH
		9/16	9/2					
Northwest (1)	INCIPIENT MOIST SPELL	0.83	-0.21	1.04	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
North Central (2)	SEVERE DROUGHT	-3.51	-3.06	-0.45	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	VERY DRY
Northeast (3)	EXTREME DROUGHT	-4.66	-4.30	-0.36	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	VERY DRY
West Central (4)	MODERATE DROUGHT	-2.67	-2.83	0.16	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL	NEAR NORMAL
Central (5)	EXTREME DROUGHT	-5.11	-4.83	-0.28	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	VERY DRY
East Central (6)	EXTREME DROUGHT	-5.18	-5.20	0.02	MODERATELY DRY	NEAR NORMAL	MODERATELY DRY	EXTREMELY DRY
Southwest (7)	MODERATE DROUGHT	-2.86	-3.45	0.59	NEAR NORMAL	NEAR NORMAL	MODERATELY DRY	VERY DRY
South Central (8)	EXTREME DROUGHT	-4.96	-4.91	-0.05	VERY DRY	MODERATELY DRY	VERY DRY	VERY DRY
Southeast (9)	EXTREME DROUGHT	-4.38	-4.22	-0.16	MODERATELY DRY	NEAR NORMAL	MODERATELY DRY	VERY DRY

- Eight climate divisions are currently experiencing drought conditions.
- Five climate divisions have undergone PDSI moisture increases since September 2.

Keetch-Byram Drought Fire Index³

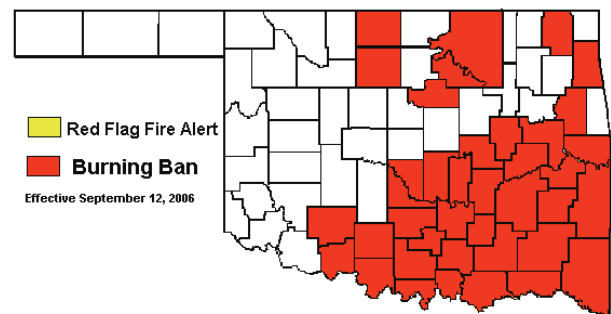
MESONET STATION	COUNTY	CLIMATE DIVISION	CURRENT VALUE 9/19/2006
Newport	Carter	South Central	728
Lane	Atoka	South Central	727
Tishomingo	Johnston	South Central	720



- Stations currently above 600 (September 19) = 19
- Stations above 600 on September 5 = 34

Statewide Wildfire Preparedness

As of September 12, the statewide Burning Ban has been amended to include 39 counties in southern, eastern, and northern Oklahoma. State officials urge citizens to avoid burning anything outdoors. Dry, grassy fuels will ignite easily when the humidity is low and the temperature and winds are high.



¹ The Palmer Drought Severity Index, the first comprehensive drought index developed in the United States, is calculated based on 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.

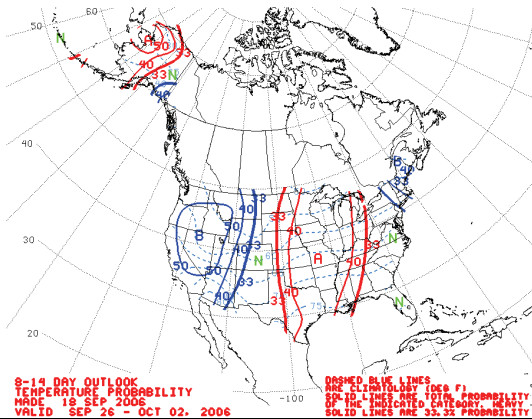
² The Standardized Precipitation Index, more sensitive than the PDSI, provides a comparison of precipitation over a specified period with precipitation totals from that same period for all years included in the historical record. The 3-month SPI provides a seasonal estimation of precipitation while the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

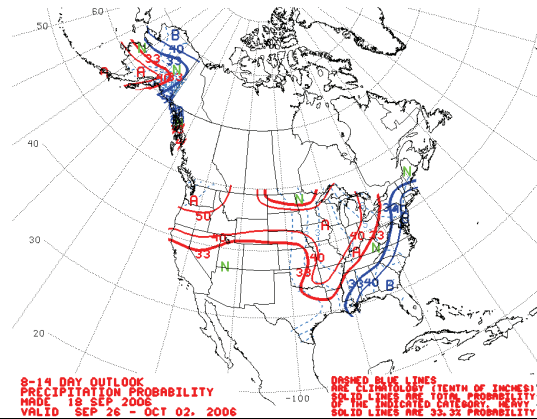
WEATHER/DROUGHT FORECAST

8 to 14-Day Forecast
September 26—October 2, 2006

Temperature



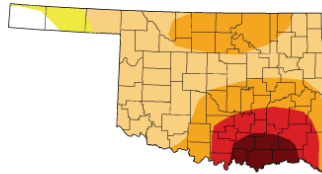
Precipitation



U.S. Drought Monitor September 19, 2006

Oklahoma
Valid 8 a.m. EST

Drought Conditions (Percent Area)	Intensity					
	None	D0-D1	D1-D2	D2-D3	D3-D4	D4
Current	2.6	97.4	94.3	46.2	16.6	5.5
Last Week (9/12/2006 map)	2.6	97.4	94.3	53.0	26.4	12.3
3 Months Ago (6/13/2006 map)	0.0	100.0	88.4	67.5	33.2	0.0
Start of Calendar Year (1/1/2006 map)	1.3	98.7	79.9	40.8	10.1	5.7
Start of Water Year (1/14/2006 map)	80.1	19.9	9.1	0.2	0.0	0.0
One Year Ago (9/20/2005 map)	87.5	12.5	4.7	1.4	0.0	0.0



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.

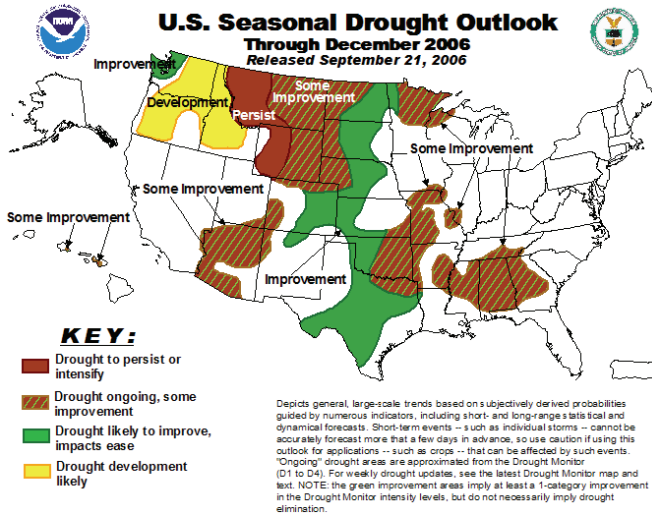
<http://drought.unl.edu/dm>

USDA
 National Drought Mitigation Center
 Released Thursday, September 21, 2006
 Author: Ned Guttman/Liz Love-Brotak, NOAA/NESDIS/NCDC

Drought Summary & Outlook—The Plains:

September 19—General drought conditions in Oklahoma improved slightly, particularly in the south central region, where weekly rainfall totals were locally more than 2 inches. Except for south central Nebraska, eastern Colorado and western Kansas, areas that were dry for the whole week, rainfall throughout the rest of the Plains was about a quarter to a half an inch. This rain kept conditions from worsening, but there was not much improvement.

According to the Drought Outlook, the first half of September saw abundant rains bringing drought relief to many parts of the country, including the Southwest, southern Plains, the Rockies, and portions of the central and northern Plains and the Southeast. Indications are that further improvement will take place over many remaining drought areas in the Great Plains. In the Southwest, a record summer monsoon ended drought over New Mexico and parts of Arizona. Through December, some limited additional improvement is anticipated over remaining drought areas in Arizona, northwestern New Mexico, and southwestern Colorado. The expectation that recently-developed El Niño conditions should persist through the end of the calendar year makes it very unlikely the upcoming snow season will see anything resembling the dearth of snow observed last winter across the Southwest, and that should benefit water supplies. Elsewhere, some improvement is likely for drought areas from northeastern Texas into Missouri, and also across the Southeast.



CROP REPORT

September 18—Windy and warm weather was prevalent during most of last week. However, many producers were relieved when the weekend rains arrived. Wheat producers in some areas last week could not plant due to wet fields while others did not want to begin planting due to the lack of moisture. Last weekend's rainfall, for those areas that received it, should help wheat producers gear up to begin wheat planting. Topsoil and subsoil moisture failed to show improvement from last week. There were 6.1 days suitable for fieldwork.

Seedbed preparations for wheat were three-fourths complete by week's end as producers continued to make progress with planting. Rye seedings jumped 21 points from last week while oat planting was just beginning at 7 percent. Areas of the state that did not receive decent rainfall were continuing to apply fertilizer to fields in preparation for upcoming planting and hoping for additional moisture to come soon. Major row crop conditions in the state remained steady from last week with peanut conditions showing slight improvement. Over three-fourths of the corn was mature and over half of the crop was already harvested. Most of the sorghum has headed with three-fourths of it turning color. Twelve percent of the sorghum was harvested. Soybeans at pod set were 6 points behind normal with harvest 3 points behind normal at 19 percent. Nearly half of the peanuts were mature. Bolls were opening on 39 percent of the cotton, which was 13 points behind normal.

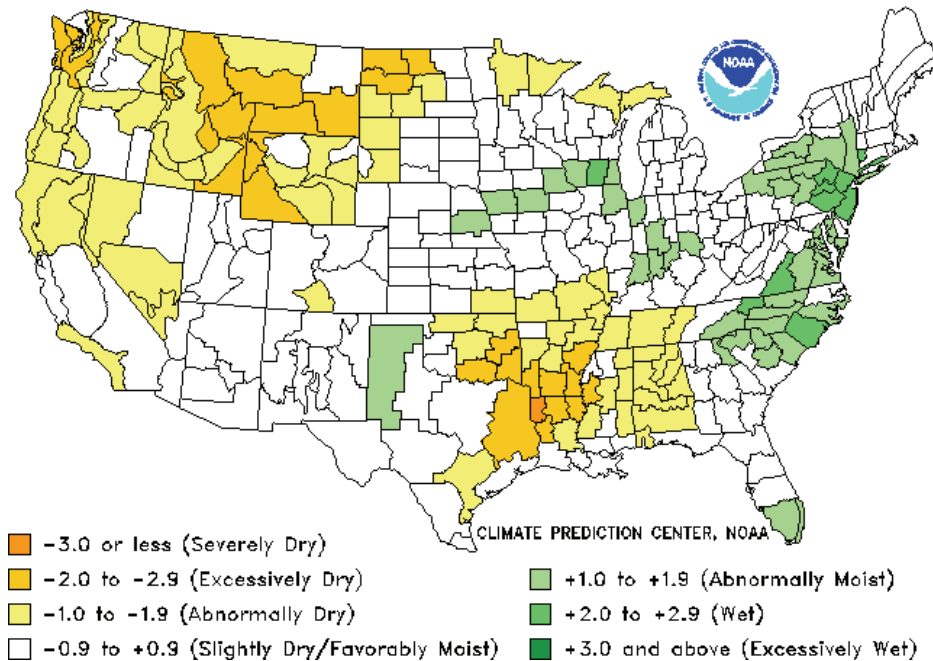
Alfalfa and other hay conditions showed little improvement from last week. Fourth cuttings of alfalfa were slowly making progress at 79 percent with fifth cuttings at 17 percent, 19 points behind normal. Other hay second cuttings showed little movement at 63 percent, 14 points behind normal. Pecan conditions were mostly fair to poor. Pecan nut set was rated as light to average.

The recent rains have continued to help green pastures. However, the shorter days and cooler temperatures may hamper additional growth. Pasture and range conditions remained mostly in the poor to very poor range. Livestock conditions showed improvement from last week but remained mostly in the fair to poor range. Livestock marketings were average with light to moderate insect activity..

Crop Moisture Index by Division

Weekly Value for Period Ending 16 SEP 2006

Short Term Need vs. Available Water in 5 Ft Profile



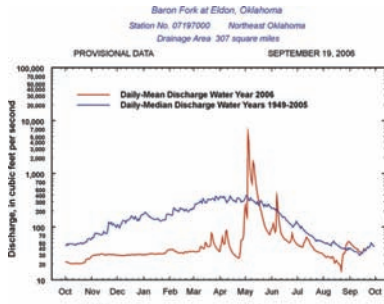
RESERVOIR STORAGE

- 0.5 decrease (87.3%) in total storage from that recorded on September 5 (87.8%)
- 27 reservoirs have experienced lake level decreases
- 25 reservoirs are currently operating at less than full capacity (compared to 26 two weeks ago)
- 7 reservoirs are now below 80 percent of their total conservation storage

Storage in Selected Oklahoma Lakes & Reservoirs			
<i>September 19, 2006</i>			
Climate Division Lake or Reservoir	Conservation Storage (acre-feet)	Present Storage (acre-feet)	Percent of Conservation Storage
North Central			
Fort Supply	13,900	10,289	74.0
Great Salt Plains	31,420	29,783	94.8
Kaw*	375,160	375,160	100.0
Regional Totals/Averages	420,480	415,232	98.8
Northeast			
Birch	19,225	17,040	88.6
Copan	34,634	28,839	83.3
Fort Gibson	365,200	365,200	100.0
Grand	1,672,000	1,507,760	90.2
Hudson	200,300	200,300	100.0
Hulah	22,565	21,345	94.6
Keystone	512,307	472,672	92.3
Oologah	552,219	520,307	94.2
Skiatook	322,700	234,996	72.8
Regional Totals/Averages	3,701,150	3,368,459	91.0
West Central			
Canton	111,310	76,061	68.3
Foss	165,480	139,332	84.2
Regional Totals/Averages	276,790	215,393	77.8
Central			
Arcadia	27,520	27,520	100.0
Heyburn	7,105	5,931	83.5
Thunderbird	119,600	80,742	67.5
Regional Totals/Averages	154,225	114,193	74.0
East Central			
Eufaula*	2,314,583	1,980,319	85.6
Tenkiller	654,100	581,180	88.9
Regional Totals/Averages	2,968,683	2,561,499	86.3
Southwest			
Fort Cobb	80,010	73,808	92.2
Lugert-Altus	132,830	10,962	8.3
Tom Steed	88,970	42,390	47.6
Regional Totals/Averages	301,810	127,160	42.1
South Central			
Arbuckle	72,400	64,185	88.7
McGee Creek	113,930	98,751	86.7
Texoma*	2,539,946	2,256,069	88.8
Waurika*	190,200	142,504	74.9
Regional Totals/Averages	2,916,476	2,561,509	87.8
Southeast			
Broken Bow*	958,180	815,510	85.1
Hugo*	158,617	158,617	100.0
Pine Creek*	59,660	59,660	100.0
Sardis	274,330	254,208	92.7
Wister	60,162	49,389	82.1
Regional Totals/Averages	1,510,949	1,337,384	88.5
State Totals	12,250,563	10,700,829	87.3

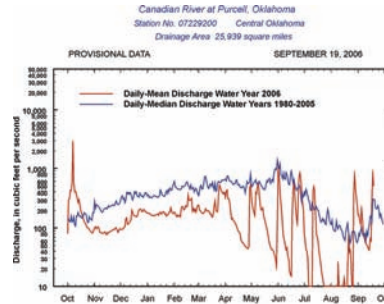
STREAMFLOW CONDITIONS

Baron Fork at Eldon



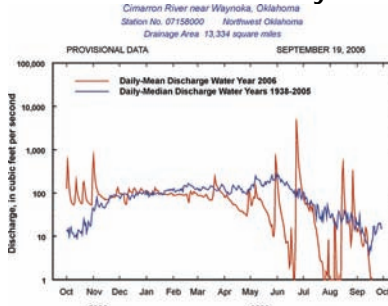
Comparison of daily discharges for water year 2006
and period of record
Data from U.S. Geological Survey

Canadian River at Purcell



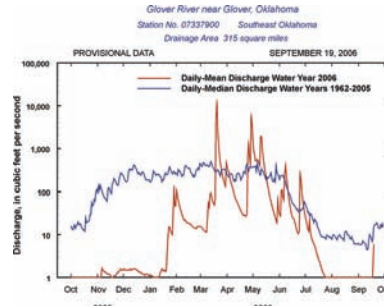
Comparison of daily discharges for water year 2006
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Cimarron River near Waynoka



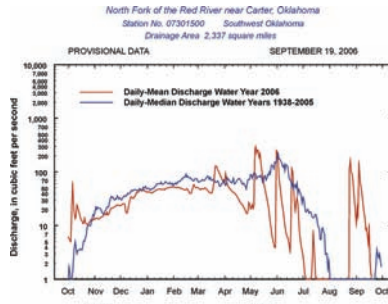
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Glover River near Glover



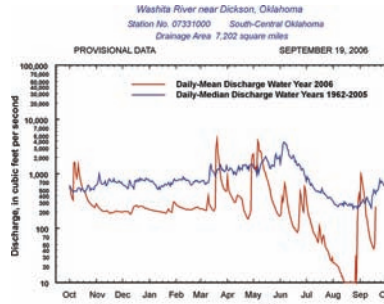
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North Fork of the Red River near Carter



Comparison of daily discharges for water year 2006
and period of record
Data from U.S. Geological Survey

Washita River near Dickson



Comparison of daily discharges for water year 2006
and period of record
Data from U.S. Geological Survey



Water Bulletin information/data courtesy of National Weather Service, Climate Prediction Center, Oklahoma Climatological Survey, State Department of Agriculture, Food, and Forestry, Agricultural Statistics Service, U.S. Army Corps of Engineers, U.S. Department of Agriculture/Forest Service, U.S. Geological Survey, Western Drought Coordination Council, and National Drought Mitigation Center. For more information, visit www.owrb.state.ok.us and <http://www.mesonet.ou.edu/public>.