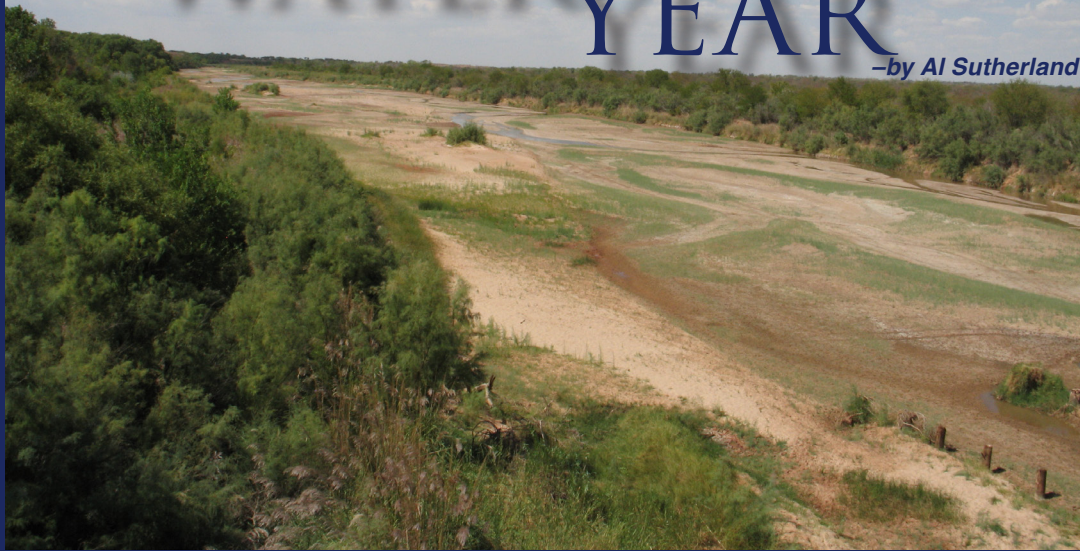




A WANTING WATER YEAR

—by Al Sutherland



We live in calendar years, but for climatologists one important year is the water year. Why should climatologists confuse us with reporting rainfall by the water year? It covers the time of winter water recharge through the end of summer use. A water year runs from October 1 of one year to September 30 of the following year.

October 1 is traditionally when the scales tip from water drawdown to soil water recharge. Summer crops have been harvested, and the growth of summer grasses and native plants is winding down. Our winter plants are just getting established. For Oklahoma, the beginning of the water year coincides with the time when wheat begins to appear across the landscape. Comparing water years gives us a good feel for the water available for Oklahoma crops.

The 2010-2011 Water Year was one for the record books. In four of our nine Oklahoma Climate Divisions, it was the driest period since 1921. These areas experienced a water year that was drier than any water year during the record Oklahoma droughts of the 1950s or the 1930s' Dust Bowl.

You can see the division rainfall amounts in the table on page two. The Panhandle, West Central, Central and Southwest Oklahoma Climate Divisions came in with less than half of their normal rainfall. The lowest division was the Southwest with only 39 percent of their normal rainfall. This division recorded 12.14 inches of rainfall over the 2010-2011 Water Year, 18.61 inches below normal.

An example of how this low rainfall has devastated crop production can be seen by comparing the USDA NASS Oklahoma Crop Progress and Condition Report for October 23, 2011 to one for October 25, 2010. In the 2011 report, 96 percent of the Oklahoma cotton crop was "Very Poor" or "Poor." Only 3 percent of the cotton was rated as "Fair," 1 percent as "Good," and none as "Excellent." For 2010 cotton, none were rated "Very Poor" and only 14 percent as "Poor." 44 percent of the crop was rated as "Fair" and a combined 42 percent as "Good" or "Excellent." Oklahoma cotton producers have gone from the elation from one of their better production years, to the blow of almost no harvestable cotton. ■

MESONET IN PICTURES

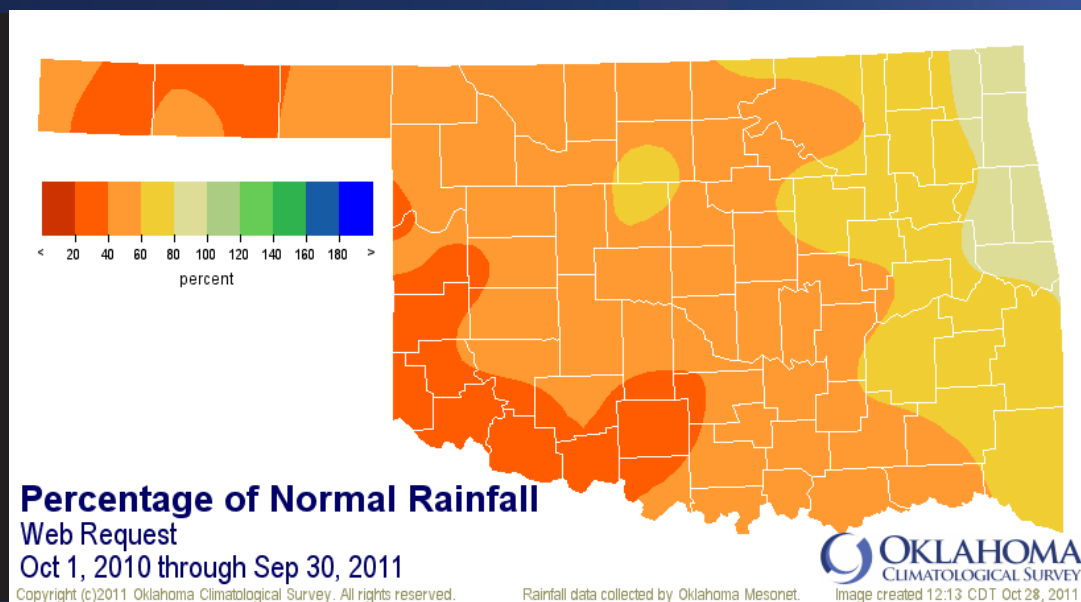
2010-2011 Oklahoma Water Year

- This table shows rainfall amounts for the state and the nine Oklahoma Climate Divisions for the 2010-2011 Water Year.

Climate Division	Total Rainfall	Departure from Normal	Percent of Normal	Rank of 89 such periods	Driest on Record	Wettest on Record
Oklahoma Statewide	20.41"	-16.14"	56%	2nd driest	18.16" (1955-56)	48.72" (1972-73)
OK-1: Panhandle	8.67"	-12.32"	41%	1st driest	8.67" (2010-2011)	30.38" (1986-87)
OK-2: N. Central	16.56"	-15.39"	52%	2nd driest	15.00" (1955-56)	52.74" (1998-99)
OK-3: Northeast	29.95"	-12.87"	70%	10th driest	21.62" (1955-56)	58.99" (1972-73)
OK-4: W. Central	12.59"	-16.56"	43%	1st driest	12.59" (2010-2011)	41.82" (1994-95)
OK-5: Central	19.53"	-17.78"	52%	1st driest	19.53" (2010-2011)	52.68" (1944-45)
OK-6: E. Central	33.52"	-12.63"	73%	11th driest	22.45" (1955-56)	69.69" (1944-45)
OK-7: Southwest	12.14"	-18.61"	39%	1st driest	12.14" (2010-2011)	44.54" (1994-95)
OK-8: S. Central	18.45"	-21.19"	47%	2nd driest	15.87" (1955-56)	63.25" (1944-45)
OK-9: Southeast	33.01"	-17.77"	65%	3rd driest	25.58" (1955-56)	78.58" (1944-45)

2010-2011 Water Year

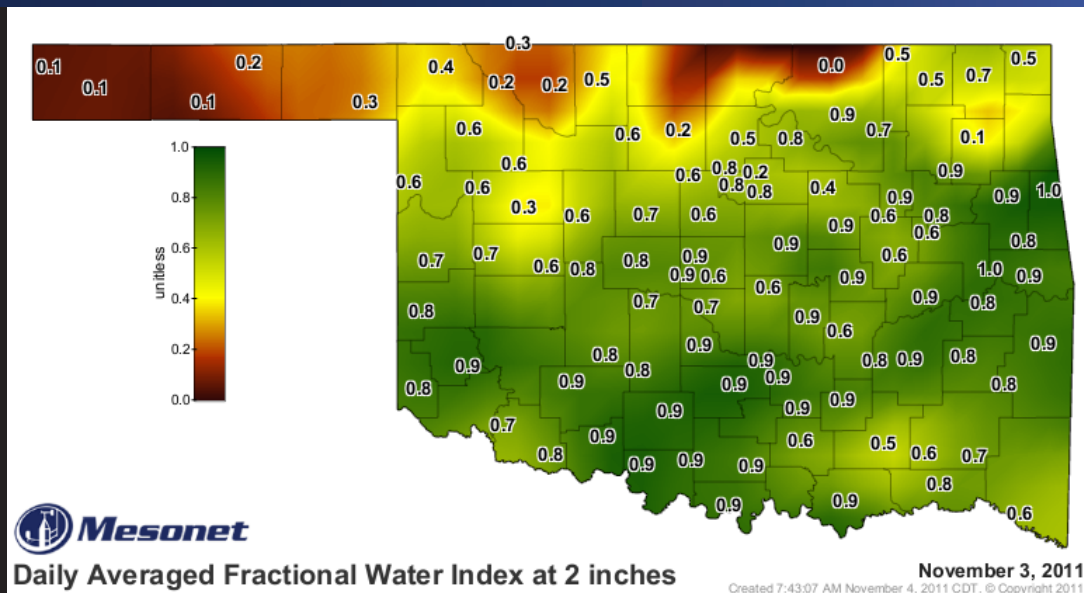
- This is a percent of normal rainfall for the 2010-2011 Water Year. To access the most current water year map, select "Climate" from the top Mesonet tab, then "Rainfall summaries by climate division," and select "Water Year" from the menu choices.



MESONET IN PICTURES

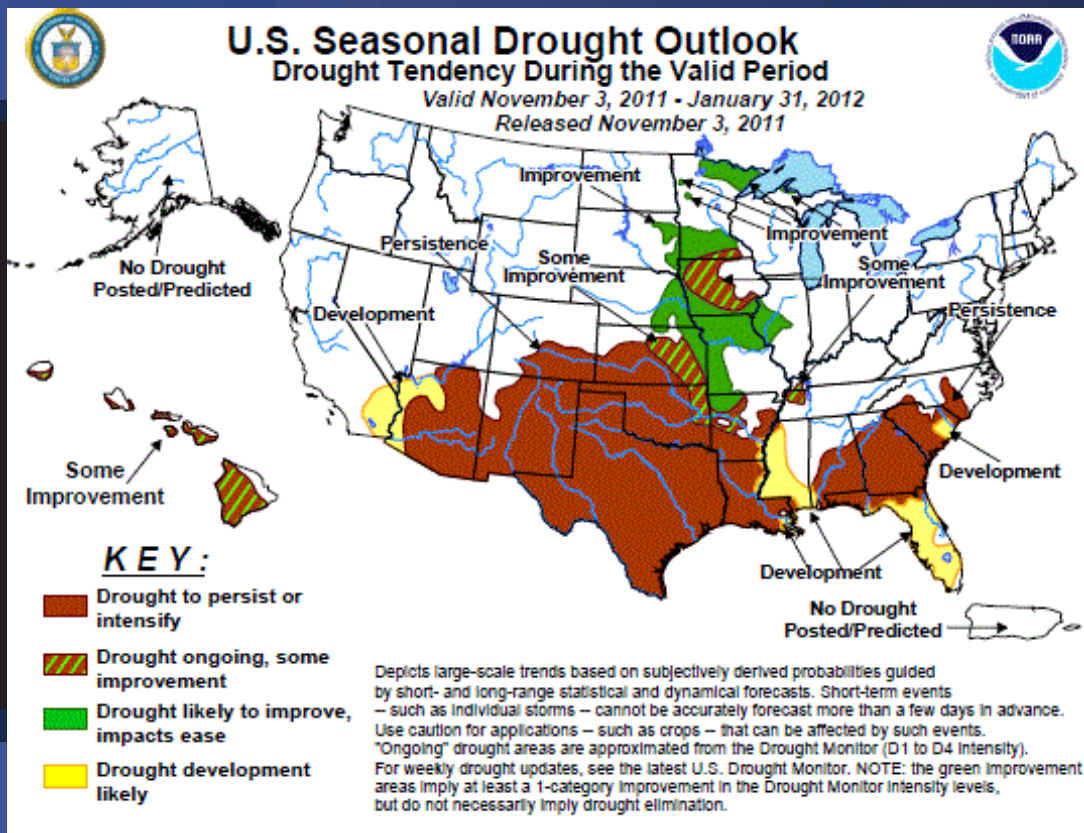
2-Inch Soil Moisture Map

- The 2-Inch Soil Moisture Map can be accessed by clicking the "Weather" top menu button and clicking the "Soil Moisture" button on the side menu.



U.S. Seasonal Drought Outlook

- The Seasonal Drought Outlook can be accessed by clicking the "Climate" top menu then scrolling down to "Outlooks from the Climate Prediction Center."





Timely Rainfall Vital for Winter Wheat

—by Stephanie Bowen

AFTER A LONG, HOT SUMMER, farmers have returned to their fields to plant winter wheat. However, in the middle of an extensive drought, farmers are doing more than planting. They are hoping – hoping for rain. In order to have a successful wheat crop, timely rainfall is vital throughout the growing season.

The primary difference between this year's crop compared to a year with normal rainfall is there is not much wheat up in the fields yet, said Jeff Edwards, associate professor and small grains extension specialist at Oklahoma State University.

“Normally in Oklahoma, we would see a lot of wheat in the fields at Labor Day and quite a bit of growth and fall forage for cattle grazing,” Edwards said. “This year we don't have that. That's the biggest effect, there's not much wheat pasture at all.”

Due to recent rainfall, more wheat will be planted in the coming weeks, early enough for grain production. If

planted by November, full yield potential can be expected. However, the dry summer is rough on cattle producers because fall forage for grazing is almost nonexistent.

“It's a double whammy for our cattle producers,” Edwards said. “Cow-calf producers needed the fall forage for grazing because there isn't much hay available. Stocker producers will be hit also because that is a primary source of production for their farm. If they committed to the stocker cattle in the summer, they are trying to get out of those contracts.”

Edwards added it is crucial to have timely rainfall. The early October rainfall put enough moisture into the fields to last through mid-November, but moisture will be needed in coming months. A critical time for wheat will be in February and March because moisture is needed to help move top dress nitrogen into the soil. ■



Rains ease drought woes during October

By Gary McManus, Associate State Climatologist

OCTOBER WRAP-UP

September brought Oklahomans relief from the heat and October did its part with a bit of drought relief. The drought conditions remain quite severe across the state despite the rain, however. The statewide average rainfall total was 2.89 inches, about a half of an inch below normal and the 52nd wettest October since 1895. The month was also a bit on the warm side at more than a half a degree above normal. The statewide average temperature of 61.9 degrees ranks as the 53rd warmest October on record. The rains came at a very opportune time for Oklahoma's wheat crop, already in jeopardy due to the drought, and eased dangerous wildfire conditions. Combined with September, the fall's first two months fell 2.64 inches below normal to rank as the 36th driest on record. The season was also off to a cool start with a September-October statewide average of 66.4 degrees, the 46th coolest such period on record and about a half a degree below normal.

Data from the Oklahoma Mesonet show above normal rainfall amounts, substantial in some areas, from south central through central Oklahoma. Along that path, Oklahoma Mesonet stations reported 4-7 inches of rain with widespread totals of 3-4 inches radiating outward. The heaviest rains fell from Jefferson through eastern Kingfisher and western Logan counties. Unfortunately, some parts of the state remained significantly below normal after missing a couple of the month's rain chances. Much of the Panhandle had less than an inch of rain but did see a light dusting of snow during the month's last week. The Mesonet station at Ketchum Ranch near Duncan led the state with 7.08 inches of rain while Kenton came in with the least at 0.17 inches. Of the 120 Mesonet stations across the state, 61 recorded at least 3 inches of rain for the month. October's highest temperature of 96 degrees was recorded at Beaver on the third and the lowest, 23 degrees, occurred at three different northeastern locations on the 20th.

The January-October statewide average precipitation total finished at 18.84 inches, approximately 13 inches below normal. The state's driest year on record was 1910 with an average of 19.04 inches of rainfall. Regnier holds the record for lowest annual total at an individual station with a total of 6.53 inches from 1956. The Mesonet station at Hooker has recorded a total of 3.8 inches for the year thus far.

55%
D4 DROUGHT
percent of Oklahoma
in highest drought rating
on October 27

96°F
HIGHEST
October temperature recorded
at Beaver on Oct. 3, 2011

13"
BELOW
statewide precipitation
for Jan. 1, 2011 to Oct. 31, 2011

3"
RAINFALL
recorded at 61 Mesonet stations
across the state for October

CALENDAR

NOVEMBER

- ▶ 2nd-3rd: Oklahoma Ag Expo, OKC
- ▶ 4th: Mesonet Steering Committee Meeting, Norman
- ▶ 4th: OK-First Advisory Committee Meeting, Norman
- ▶ 7th: Kingfisher Cattleman's Assoc., Drought talk
- ▶ 8th: Drought presentation, OKC Blue Thumb, OKC
- ▶ 9th: Central OK Chapter of the CAMS, Drought/heat talk, NWC-Norman
- ▶ 10th: OK Assoc. of Conservation Districts area meeting, Drought talk, Muskogee
- ▶ 10th: OK-Fire Training Workshop, Drumright
- ▶ 11th-12th: Oklahoma Farm Bureau exhibit, OKC
- ▶ 14th: Drought talk, Beaver County Extension
- ▶ 14th: Drought talk, Cimarron County Extension
- ▶ 15th: OACD meeting, Drought talk, Woodward
- ▶ 15th-16th: OK Turf Conference exhibit, Stillwater
- ▶ 17th: OACD meeting, Wilburton
- ▶ 29th: EarthStorm Field Trip, McCloud Elementary

DECEMBER

- ▶ 1st: EarthStorm Field Trip, Enid High School
- ▶ 13th: Drought Update, OSU Winter Crop School, Stillwater
- ▶ 17th: OSU Intro to Plant and Soil Systems course presentation, Stillwater
- ▶ 23rd-Jan 2nd: OCS/Mesonet Closed for OU/OSU Winter Break

CONTACTS

Accessing recent (within the past 7 days)
Mesonet data

Contact: [Mesonet Operator](#)

Instrumentation, telecommunications, or
other technical specifications

Contact: [Chris Fiebrich](#)

Mesonet agricultural data and products

Contact: [Al Sutherland](#)

Mesonet meteorological data

Contact: [OCS Data Requests](#)

K-12 educational outreach

Contact: [Andrea Melvin](#)

OK-First

Contact: [James Hocker](#)

OK-FIRE

Contact: [J.D. Carlson](#)

Not sure?

Contact: 405-325-2541 or [Chris Fiebrich](#).

FORECAST FOR NOVEMBER

[Click here to view the original maps from the Climate Prediction Center.](#)

