



Drought DISASTERS

DROUGHT DEVELOPS SLOWLY and even once rains return, its impact continues. The impact of a drought builds as day after day of no rain continues. But even once the rain starts, a drought can continue to bring crop, pasture and livestock losses.

Droughts are long-term weather patterns. When did Oklahoma's drought of 2010 and 2011 begin? Gary McManus, Oklahoma Associate State Climatologist, began talking about warmer, dryer conditions as a winter possibility back in May 2010. This was when the first indications of a developing La Niña pattern came together. A La Niña did develop! One with a strong classic pattern of above average temperatures and below average rainfall in the Southwest and South Central states. Rain fell in the Northwest, North Central and North Eastern US states, leaving Oklahoma and other states in the southwest region warm and dry.

The drought has been devastating to Oklahoma's wheat crop. As it dragged on, alfalfa took it on the chin with little growth and aphids that couldn't be controlled with typically effective plant protection products. Now large patches of alfalfa are dying. With no rain, pastures failed to grow enough for grazing. Grass hay fields won't produce a first cutting. Pasture grasses produced green blades, but they can't grow without water.

Wheat – disaster. Alfalfa – disaster. Pasture grass – disaster. Next to be impacted by our drought, cattle water ponds are drying up. Cattle ranchers are facing a summer with no water and rapidly disappearing feed for their animals.

For those areas in Oklahoma where the drought continues its destructive march, summer crops will be affected. There may not be enough moisture in the soil to plant cotton, sorghum, soybeans, or corn as dryland crops.



Dry times are common in Oklahoma, even in a year of normal rainfall. When the dryness becomes severe and stretches out, like 2010-2011 winter and spring, one Oklahoma crop after another goes from profit to loss. From profitable yield, to financial disaster.

While the eastern part of Oklahoma has received some welcome rain, areas in western and central Oklahoma continue to wait for the dry pattern to break, for the end to an already severe drought.

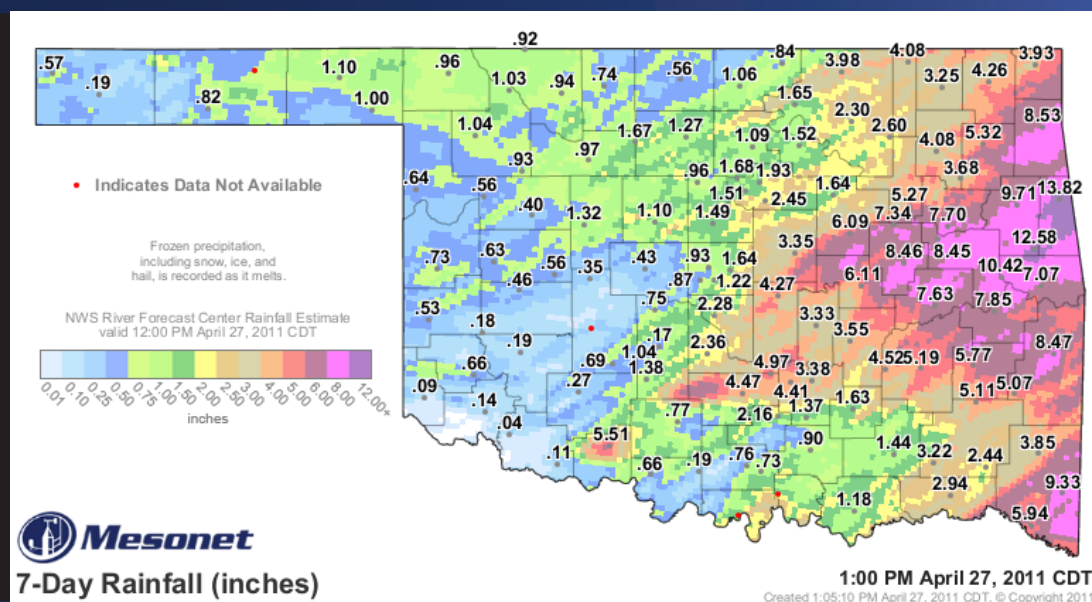
WHERE TO FIND

Advisories

- This webpage shows the display of weather advisory thumbnail maps.
- To find advisory maps, click “Weather” from the top navigation bar. Then choose “Advisories” from the left menu.
- Click on desired map to enlarge.

7-Day Rainfall

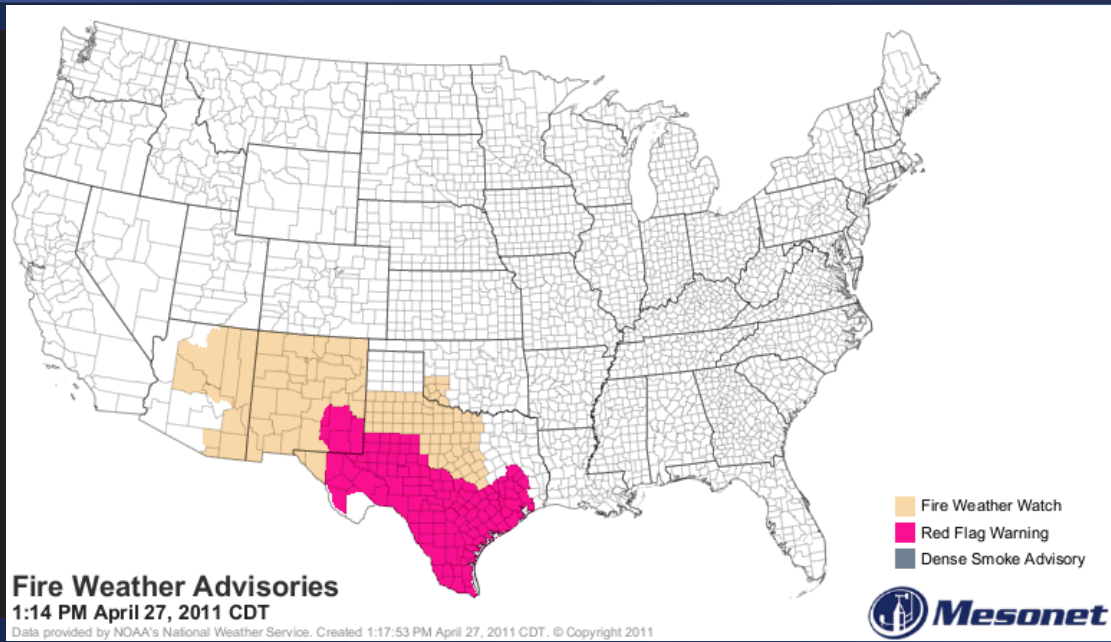
- This map displays rainfall totals for 7 days ending at 1:00 PM, April 27, 2011.
- To find rainfall maps, click “Weather” from the top navigation bar. Then choose “Rainfall” from the left menu.



WHERE TO FIND

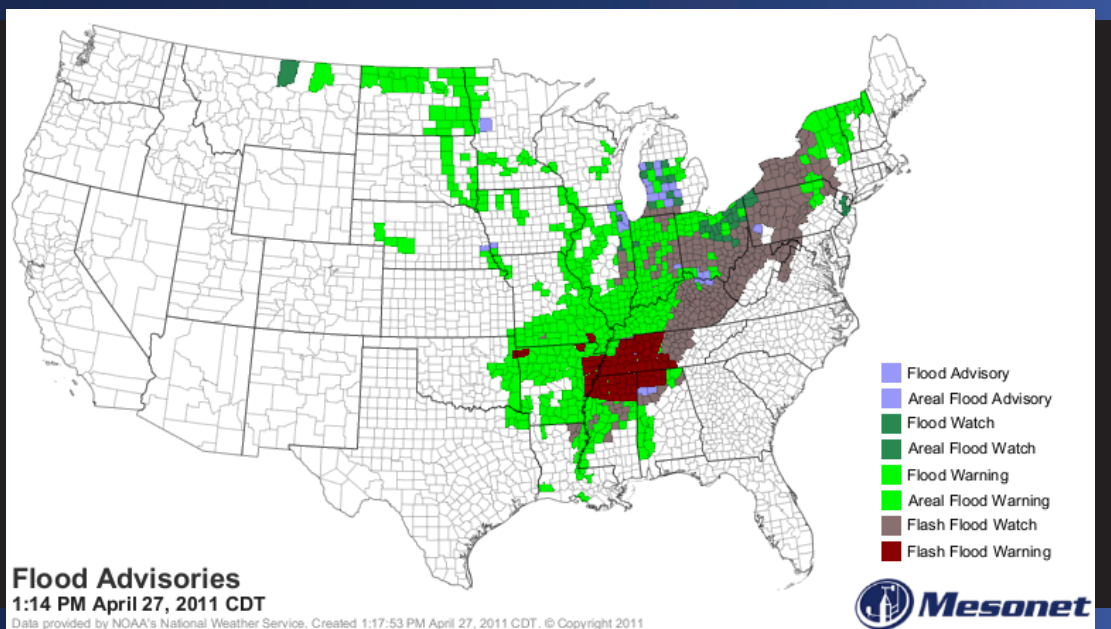
Fire Weather

- This map displays active “National Fire Weather Advisories” watches and warnings at 1:00 PM, April 27, 2011.
- Find more advisories under the “Advisory” section on the Mesonet website.



Flooding

- This map displays “National Flood Advisories” watches and warnings for flooding as of 1:00 PM, April 27, 2011.
- Find more advisories under the “Advisory” section on the Mesonet website.





“Exceptional” Drought Continues to Expand in Western Oklahoma

By Gary McManus, Associate State Climatologist

APRIL WRAP-UP

Fresh off the heels of yet another dry month in western Oklahoma, the latest map from the U.S. Drought Monitor indicates an intensification of the ongoing drought in that part of the state. Exceptional drought, the Drought Monitor’s most severe classification, now covers the extreme southwestern corner of the state and the western Oklahoma Panhandle. The Drought Monitor’s intensity scale ranges from “abnormally dry” to “exceptional”. Most of the remainder of western Oklahoma is covered by extreme to severe drought. Central Oklahoma has a mixture of extreme to moderate drought while the eastern one-third of the state is now free of drought thanks to recent heavy rains.

According to the Drought Monitor, the impacts of exceptional drought include widespread crop and pasture losses and shortages of water in reservoirs, streams and wells. Much of southwestern Oklahoma and the western Panhandle received less than 20 percent of normal rainfall during April. The Oklahoma Mesonet site at Hollis recorded less than a tenth of an inch for the month. Boise City in the far western Panhandle eclipsed a dubious record by stretching its streak of consecutive days without at least a quarter-inch of rain on any single day to 223. The record for that area is 218 days from September 1988 to April 1989. In contrast, the ironically named Westville along the Arkansas border totaled nearly 15 inches of rain as the surrounding areas dealt with flood concerns.

The dry conditions during April continue a string of dry months and mounting rainfall deficits in the western half of the state. From December 2010 through April 2011, southwestern and west central Oklahoma received 1.67 inches and 1.74 inches of rainfall, respectively. That ranks as the driest such period on record for those areas dating back to 1895. Central Oklahoma fared little better with 4.63 inches, their third driest such period on record.

Widespread damage and destruction of the winter wheat crop has already occurred in the western half of the state. Wheat in southwestern Oklahoma and the western Panhandle has been particularly hard hit. A recent unofficial estimate of this year’s wheat harvest indicates it could be nearly half of last year’s 126 million bushels. Additionally, the livestock industry has been hurt by the loss of pasture, hay, and stock ponds. The wildfire season continues to be extended in western Oklahoma thanks to a delayed green-up as vegetation continues to die or remains dormant due to the lack of moisture.

**0.1”
LOWEST**

April rainfall at the
Hollis Mesonet station

**15”
HIGHEST**

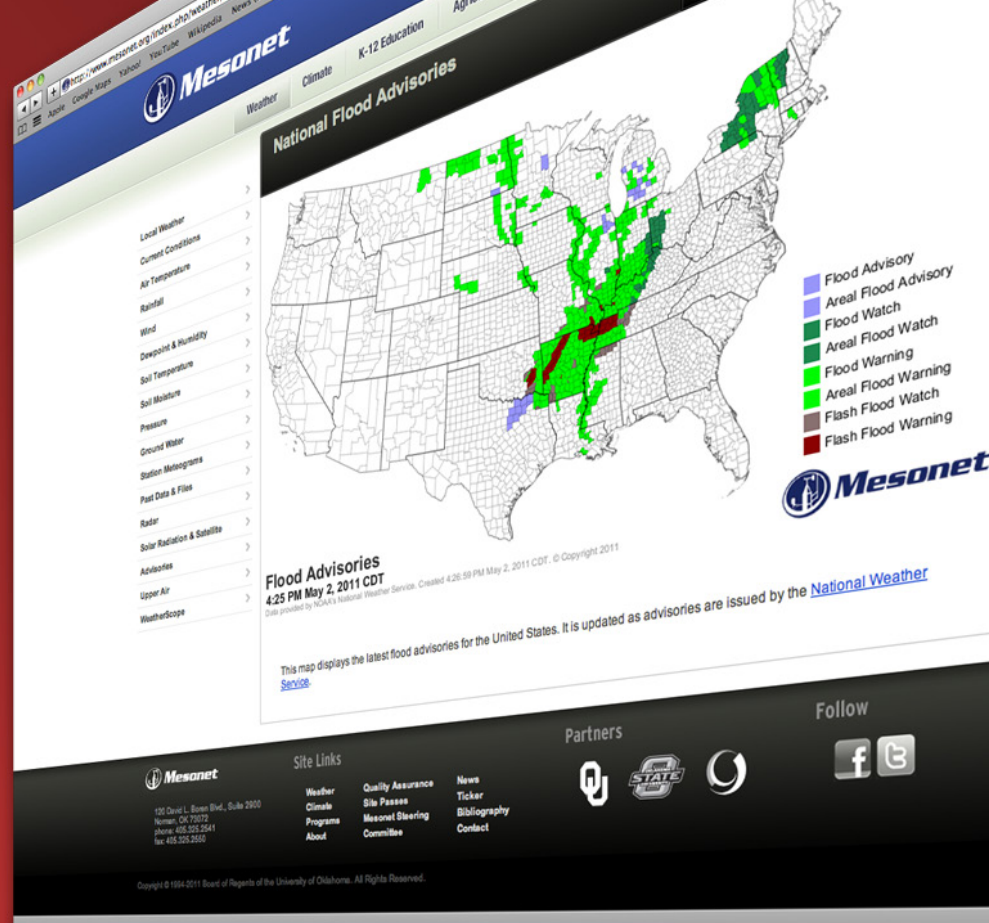
April rainfall at the
Westville Mesonet station

**20% OF
NORMAL**

April precipitation for
Panhandle and
Southwestern Oklahoma

**223
DAYS**

since the Boise City Mesonet
station recorded at least
0.25” of precipitation



Weather Aware

MESONET HAS ADDED ADVISORIES from the National Weather Service to make it easy to rapidly check on hazardous weather conditions. You'll find both Oklahoma and national maps by type of weather risk.

Whether your concerns are local, for a distant relative or because of travel, you can quickly get a perspective on where and how weather can cause problems. The visual thumbnail maps on the Mesonet website gives you a way to quickly scan for trouble. Thumbnails show weather watches and warnings, updated every five minutes. To enlarge a thumbnail map, move your mouse over the map of interest and click it.

Mesonet created advisory maps that match the types of National Weather Service Watches and Warnings. Maps have been developed for severe weather, fire, flood, high wind, heat, winter storm, frost/freeze, ice, snow and visibility. The national maps also include an Ocean Advisory map.

By separating the advisories into groups and using separate maps for Oklahoma and national watches and warnings, it's easier to see areas affected by multiple weather advisories.

These maps also show how extensive the weather concerns are. Some hazardous weather is very localized, while other events cover many states, impacting millions of people.

Advisory maps from April 27, 2011, a day of tornadoes and heart-breaking deaths and injuries in southeastern states, show how on that day Oklahoma was the transition point from a dry, windy southwest to a flooded northeast USA. Check out the maps on the following pages. They show how weather advisory maps show more than just current hazards and help us understand broad national weather patterns.

The transition from dry areas to wet areas really shows up in a 7-day Mesonet Rainfall map from April 27th. This rainfall map for Oklahoma has rainfall data from the Oklahoma Mesonet and colorized rainfall estimates from the National Weather Service River Forecast Center. They take radar data and ground truth it with rain gauge data. The map really shows how rain has fallen in bands across the state.

CALENDAR

MAY

- ▶ 3rd-4th: State FFA Convention, Oklahoma City, OK
- ▶ 5th: Meeting of the Mesonet Steering Committee, Norman, OK
- ▶ 10th: Adapting to Oklahoma's Climate Meeting, Norman, OK (OCS/SCIPP)
- ▶ 11th-12th: South Central U.S. State Drought Planning Workshop, Memphis, OK (OCS/SCIPP)

JUNE

- ▶ 2nd: Speaker Service for Trinity Lutheran Senior Group, Norman, OK
- ▶ 3rd: Master Gardener's State Conference, Enid, OK
- ▶ 5th-10th: Mesonet Summer Camp, Norman, OK
- ▶ 28th: Speaker Service, Moore Library, Moore, OK
- ▶ 28th-29th: Advisory Committee Meeting for the Southern Climate Impacts Planning Program, Austin, TX

JULY

- ▶ 5th-7th, 9th, 13th-14th: Speaker Service, various towns, OK
- ▶ 19th-22th: EarthStorm Teacher Workshop, Norman, OK
- ▶ 22-23: Oklahoma No-till 2011 Conference, Norman, OK
- ▶ 28-30: Oklahoma Cattlemen's Convention, Midwest City, OK

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: [OK-First Staff](#)

OK-FIRE

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

Not sure?

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

FORECAST FOR MAY

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

