

Agweather Connection

<http://agweather.mesonet.org/>

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Out with the old...

By Derek Arndt and Laura McKay

As ponds dried up and pastures wilted, the lack of rainfall grew to be the biggest weather story of 2006. The never-ending sunshine scorched Oklahoma and caused the second driest water year since 1921. The water year, which measures precipitation from Oct. 1 to Sept. 30, coincides with wheat growth. Due to the increasing drought conditions, wheat planted in the fall of 2005 took a direct hit. The warm, dry winter and spring resulted in the smallest wheat harvest in fifty years.

The warm weather that plagued Oklahoma in 2006 was almost record-setting. The average temperature topped 62 degrees, second only to the heat of 1954.

As a result of the crippling dry conditions, drought or wildfire affected almost every Oklahoma farmer. January

through May saw repeated outbreaks of severe wildfires that brought multiple disaster declarations to the state. Nearly one million acres of Oklahoma burned during the year, which was one of the largest totals in recent memory.

In 2006, Oklahoma lacked any real severe weather. The state saw just two "significant" tornadoes (F2 or greater on the Fujita Tornado Intensity Scale) during the entire year. In May, a 106-mile-per-hour wind gust was recorded during a thunderstorm near Idabel.

The year finally ended with notable winter weather events. A major winter storm brought a mixed bag of precipitation during November. A second major snowstorm returned exactly one month later, leaving parts



The New Year brings hope for better weather. Drought in 2006 resulted in nearly one million acres going up in flames and also is blamed for the worst wheat harvest in 50 years. Long-term forecasts for 2007 indicate a return to average temperatures and average precipitation.

of northwestern Oklahoma to ring in the New Year with a blanket of snow.

As we bid 2006 adieu, 2007 brings renewed hope and promise of a wetter year. In addition to the December 2006 storm, much of Oklahoma received significant snow, sleet or ice in January. The 2007 water year also is showing dramatic changes, ranking Oklahoma at 101 percent of normal precipitation and in its 29th wettest year ever. ■

INSIDE

- How did the weather for 2006 measure up?
- We dodged freeze damage during December '06 storm

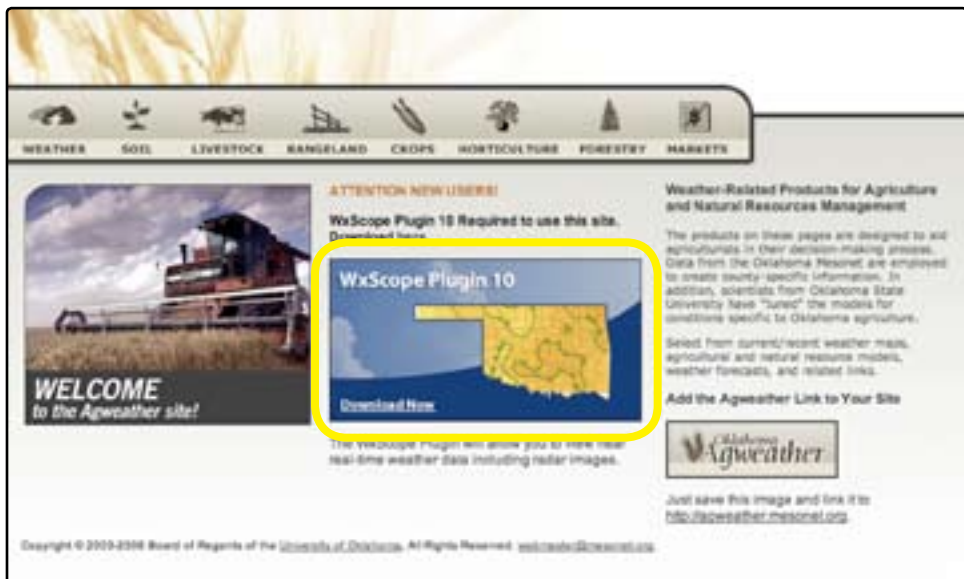
Farewell 2006

By Laura K. McKay
Mesonet Ag Extension Associate

As we welcome the new year, it is important to remember the changes brought by 2006. Whether you experienced drought conditions or warmer-than-average temperatures, it was not a normal year.

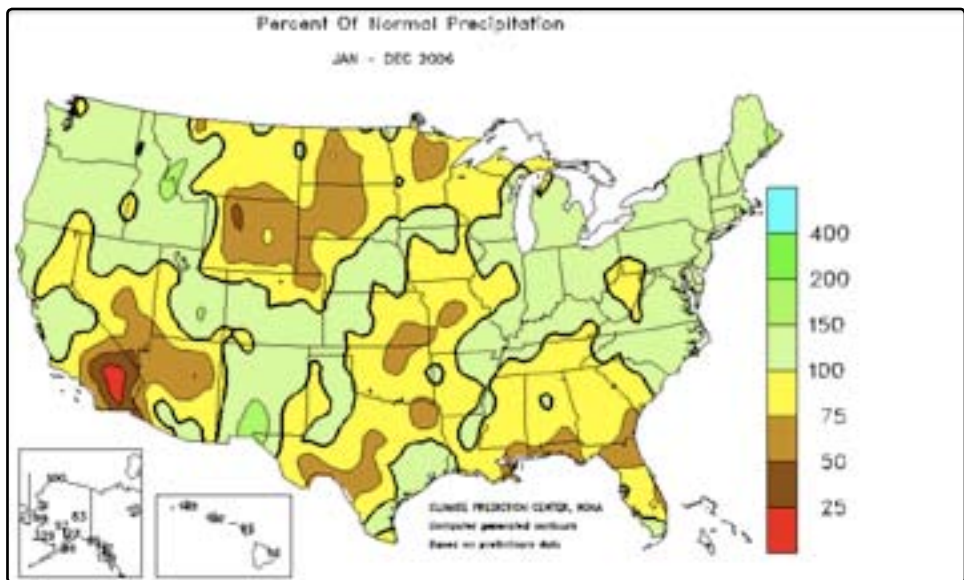
To see how 2006 was different, you can utilize several weather tools found on the free Agweather Web site at <http://agweather.mesonet.org>.

Checking out these products takes just a few moments. To help you get started, step-by-step directions are listed below. If you have any questions or need more information, call (405) 325-3126 or send e-mail to laura.k.mckay@okstate.edu or albert.sutherland@okstate.edu.



Free download

Start at <http://agweather.mesonet.org/>. Be sure to download the WxScope Plugin. It's safe and free, and allows you to view all of the resources that Agweather offers.



Wetter or dryer year?

From the Agweather home page at <http://agweather.mesonet.org/>, choose the "Weather" button. Then select "Monthly and Climate," then "National Climate Data." Then select "Nat. Precip & Temp Analyses." You will be redirected to another page because the Web site has moved.

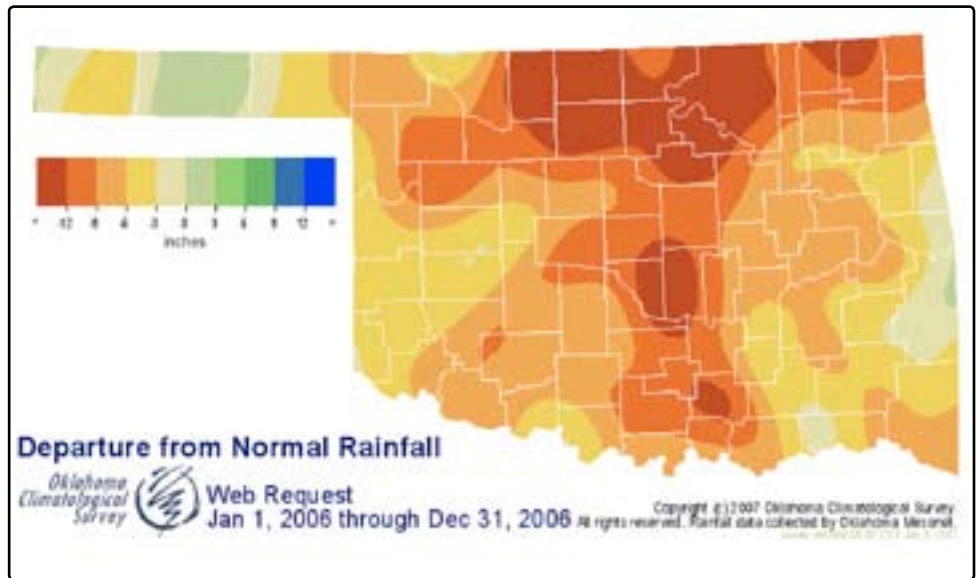
Select "12-Month" and then "Percent of Normal Precipitation."

This map illustrates whether the year has been wetter or dryer than normal.

Okla.'s departure from normal rain

From the home page located at <http://agweather.mesonet.org/>, select the "Weather" icon. Then choose "Monthly and Climate," then "Oklahoma Climate Data," and finally "Rainfall and Drought Update."

Then, select "Last 365 Days" from the horizontal menu, which is centered at the top of the page. Scroll down the page and select the Oklahoma map that is titled "Departure." It should be in the bottom left corner. This map shows Oklahoma's deviation from normal rainfall.

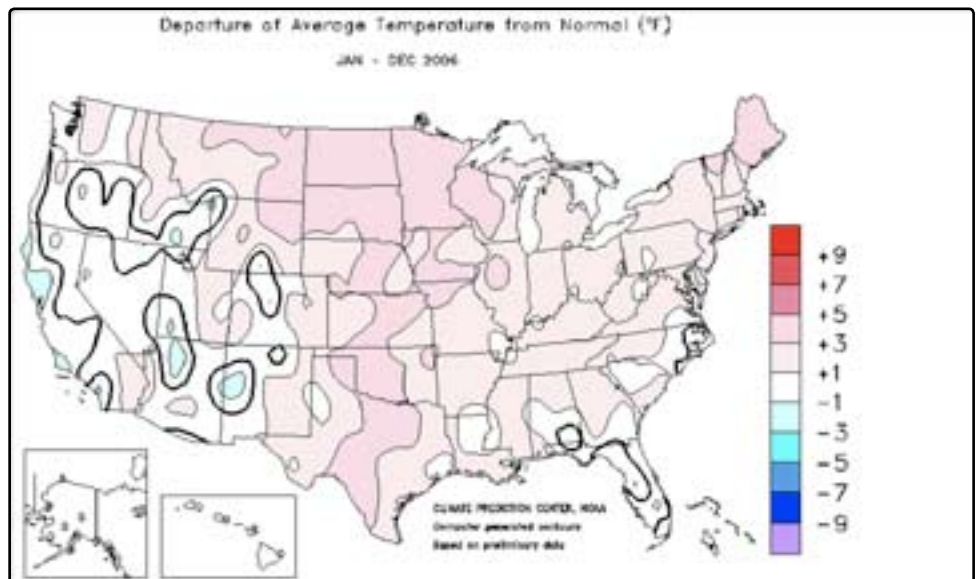


Hotter or colder year?

From the Agweather home page at <http://agweather.mesonet.org/>, choose the "Weather" button. Then select "Monthly and Climate," then "National Climate Data." Then select "Nat. Precip & Temp Anlyses." You will be redirected to another page because the Web site has moved.

Select "12-Month" and then "Departure of Average Temperature from Normal."

This map illustrates whether the year has been hotter or colder than normal.



365-day dryness ranking

From the Agweather home page located at <http://agweather.mesonet.org/>, select the "Weather" icon. Then choose "Monthly and Climate," then "Oklahoma Climate Data," and finally "Rainfall and Drought Update." Then, select "Last 365 Days" from the top horizontal menu.

This image shows the dryness ranking for each of the climate divisions in Oklahoma. This Web page also features the "Water Year to Date" ranking. Its button is located directly above the "Last 365 Days" button.

Last 365 Days: Jan 3, 2006 through Jan 2, 2007						
Climate Division	Total Rainfall	Departure from Normal	Pct of Normal	Driest since	Wettest since	Rank since 1921 (85 periods)
Panhandle	17.58"	-3.52"	83%	1976-77 (15.14")	2004-05 (25.76")	23rd driest
N. Central	19.85"	-11.80"	63%	1966-67 (17.83")	2004-05 (37.26")	6th driest
Northeast	31.78"	-10.19"	76%	1980-81 (29.71")	2004-05 (46.56")	12th driest
W. Central	23.17"	-5.92"	80%	2003-04 (20.10")	2004-05 (35.18")	21st driest
Central	27.42"	-10.57"	72%	1980-81 (26.48")	2004-05 (40.77")	13th driest
E. Central	38.94"	-7.15"	84%	2003-04 (34.01")	2004-05 (46.82")	25th driest
Southwest	23.78"	-7.02"	77%	2003-04 (20.63")	2004-05 (37.01")	22nd driest
S. Central	31.05"	-9.91"	76%	2003-04 (29.10")	2004-05 (46.68")	15th driest
Southeast	46.57"	-4.37"	91%	2003-04 (36.62")	2004-05 (51.72")	33rd driest



This winter, freezing temperatures and ice mostly will result in cosmetic damage to wheat. Tissue damage is somewhat offset by beneficial precipitation. Snow, ice or water actually can act as a buffer that allows soil around the plant to resist temperature change. For more information about wheat and other small grains, visit <http://quicksilver.okstate.edu/wheat/>.

Wheat sustained minimal damage

In late 2006, snow and ice fell throughout Oklahoma and the worries of wheat producers began stacking up.

Farmers feared the wheat, already showing effects of the drought, would suffer freeze damage from the December storm.

However, Dr. Jeff Edwards, small grains specialist for Oklahoma State University, felt the storm's benefits outweighed the drawbacks.

"This precipitation was much needed...definitely a good situation," said Edwards. "We need to think of the snow as a nice layer of insulation on top of the wheat."

With temperatures dipping into the low teens, Edwards said the snow hopefully would prevent heaving of the roots.

"Heaving is a situation you can have, especially with small wheat, where you have freezing, then thawing, day after day. It actually moves the wheat root right out of the ground," said Edwards. "Hopefully the snow will prevent some of that."

Although there will be some tissue damage to Oklahoma wheat, Edwards said the root system is still there and in good shape.

"I think we dodged a bullet this time," said Edwards. ■

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<http://agweather.mesonet.org/>

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