



**OKLAHOMA CLIMATOLOGICAL SURVEY  
NEWS RELEASE**

Contact: Cerry Leffler  
(405) 325-2541  
cerry@ou.edu

FOR IMMEDIATE RELEASE  
August 10, 2006

**Drought in Southern Oklahoma Deemed “Exceptional”  
by Gary McManus – Climatologist  
Oklahoma Climatological Survey**

NORMAN - The National Drought Mitigation Center (NDMC) has downgraded the drought designation in southern and southwestern Oklahoma from “extreme” to “exceptional”, the most severe of their five drought intensity levels. NDMC characterizes the drought impacts in the southern quarter of the state as “exceptional and widespread crop/pasture losses; shortages of water in reservoirs, streams, and wells creating water emergencies.” This designation came at the urging of climatologists from the Oklahoma Climatological Survey, who noted that parts of southwestern Oklahoma have received less than six inches of precipitation since the beginning of the year. The entire state is now experiencing drought conditions, the bulk of which are labeled as “extreme”.

According to data from the Oklahoma Mesonet, Grandfield has recorded a scant 5.63 inches of precipitation since the beginning of the year, less than 20 percent of their normal value. Statistics from Altus are similar with only 7.10 inches during that same period. The bulk of that precipitation occurred more than three months ago, leaving the hot summer months high and dry. Madill, Sulphur, and Grandfield have all received less than an inch of precipitation in the last 90 days. In addition to its meager rainfall total, Grandfield has reported triple-digit high temperatures 41 times since April.

The current drought episode in south central and southwestern Oklahoma actually has its roots at the beginning of last fall. The southwest is 13.28 inches below normal since October 1, 2005, the driest such period on record for that section of the state. Central Oklahoma’s deficit of 15.32 inches ranks as its 2<sup>nd</sup> driest. On average, the state as a whole is 13.59 inches below normal, the 2<sup>nd</sup> driest since 1921.

The ferocity of the drought is compounded by the intense summer heat wave the state is experiencing. Drought and heat enjoy a symbiotic relationship during the warm months, as many of Oklahoma’s worst heat waves have come during its worst droughts. As the lack of rain increases, soil moisture decreases and vegetation dies or becomes dormant.

This allows more of the sun’s radiation to heat the earth’s surface instead of evaporating moisture. As more and more of the available soil moisture is evaporated, less becomes available for cloud and precipitation processes; thus, less rainfall is the result, which worsens the drought. Through these feedback processes, extreme heat and drought are able to feed off of each other. Of the state’s top 10 driest summers, seven were amongst the top 10 warmest as well.

The Climate Prediction Center’s most recent forecast calls for drought to persist across much of Oklahoma through October.

Drought and heat waves work hand in hand. Oklahoma’s 10 Driest years and how they rank in temperature.			
YEAR	Summer Avg. Rain	Summer Avg Temp	Temperature Rank (1=driest)
1936	2.83	84.3	2
1954	4.07	84.2	4
1980	4.53	84.3	3
1943	4.61	82.9	6
1934	5.19	85.1	1
1913	5.43	81.1	17
1901	5.49	81.8	11
1998	5.80	82.8	7 (tie)
1956	5.80	82.8	7 (tie)
2001	5.82	81.7	12

Attachment: August 10 drought monitor map