Drought Charges Ahead During September
Gary McManus, State Climatologist
October 1, 2015

Flash drought continued to spread across southern Oklahoma during a dry, hot September, and had enveloped nearly 17 percent of the state by month's end. According to preliminary data from the Oklahoma Mesonet, the statewide average rainfall total was 1.43 inches below normal at 2.1 inches, the $33^{\text {rd }}$ driest September since records began in 1895. It was particularly dry across south central and southeastern Oklahoma, areas that had seen record rainfall from April through July. The Mesonet site at Idabel recorded a measly 0.38 inches of rainfall for the month, nearly 4 inches below normal and the lowest total in the state. Eighteen of the 119 Mesonet sites recorded less than an inch of rain during September, concentrated mostly in southern Oklahoma. Fifty-seven stations received less than 2 inches. There were a few isolated areas that had good moisture, however. Oilton reported 7.5 inches, and seven other stations recorded at least 4 inches of rain.

The dry September combined with a dry August to enable the flash drought to develop and intensify. The August-September statewide average of 4.54 inches was over 2 inches below normal and the $33^{\text {rd }}$ driest on record. In some cases, the deficits stretch even farther back. Madill in south central Oklahoma recorded nearly 43 inches of rain between April 13 and July 8, but only 1.16 inches since. Idabel, so dry during September, has seen less than an inch dating back to July 9. The drier than normal months also took a bite out of the 2015's chances to eclipse 1957 as the wettest year on record for Oklahoma. The JanuarySeptember statewide average rainfall total of 38.84 inches is still 10.45 inches above normal, but fell to fourth place in the rankings behind 1957's top mark of 41.3 inches. The record-setting total that year was 47.88 inches. In order to surpass 1957's total, 2015 has a mere three months to add another 9 inches. The normal October-December precipitation total for Oklahoma is 8.11 inches.

Despite a few cool spells, the majority of September was warmer than normal, and emphatically hot at times. Those periods of intense heat further worsened moisture stress on the state and invigorated the flash drought. The statewide average temperature according to preliminary Mesonet data was 76.3 degrees, 4 degrees above normal to rank this September as the $15^{\text {th }}$ warmest on record. The Mesonet recorded its last triple-digit temperature for the year, barring any unusual October occurrences, on Sept. 17 with readings of 103 degrees at Freedom and Buffalo. September's highest temperature was 108 degrees at Freedom on the seventh while the lowest was a chilly 42 degrees at Kenton on the $19^{\text {th }}$. September boosted the year-to-date average temperature to 63.6 degrees, 0.2 degrees above normal, to rank the January-September ranking to $47^{\text {th }}$ warmest.

Although most of the state remains drought free, the latest U.S. Drought Monitor report does show over 30 percent of the state in "abnormally dry" conditions. While that designation is not considered drought by the Drought Monitor, it can be considered a pre-cursor to further drought development. Of the 16.79 percent of the state in drought, 10.42 percent was considered "moderate," 5.4 percent "severe" and 0.97 percent "extreme." The Drought Monitor's intensity scale slides from moderate-severe-extremeexceptional, with exceptional being the worst classification.

The October precipitation outlook from the Climate Prediction Center (CPC) indicates increased odds of above normal moisture for the southwestern half of the state. The temperature outlook was noncommittal with equal chances of above-, below- or near-normal conditions. The precipitation outlook lends confidence for possible drought relief. The U.S. Monthly Drought Outlook portrays the drought stricken areas in southern Oklahoma as seeing drought either improving or disappearing by the end of the month.

