



**OKLAHOMA CLIMATOLOGICAL SURVEY
NEWS RELEASE**

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El Niño and Oklahoma Drought: Friend or Foe?

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El Niño conditions have recently developed in the equatorial Pacific waters, according to the Climate Prediction Center's lead El Niño forecaster Vernon Kousky: "Currently, weak El Niño conditions exist, but there is a potential for this event to strengthen into a moderate event by winter." Drought still lingers in the state, along with thoughts of the decimated wheat crop of 2005-06. Oklahoma wheat farmers can ill afford another dry fall and winter. And while an El Niño can influence Oklahoma's winter towards the mild and wet side, the effect on precipitation appears to depend primarily upon the strength of each particular El Niño.

The Oklahoma Climatological Survey studied 20 previous El Niño episodes since 1950 and tracked the corresponding October-March precipitation totals in an effort to detail the warm Pacific water's effects on Oklahoma's climate. Of the 20 El Niño episodes, four were considered "strong", while the remaining 16 events were broken down into eight of both "moderate" and "weak" classifications.

The influence of the four strong events was easily seen, with above average rainfall in all areas of the state. In fact, the wettest October-March since 1951 occurred in east central Oklahoma with the strong El Niño of 1998, along with the 2nd wettest such period in the southeast. This follows typical El Niño influences in which the southeastern United States receives above average moisture. The effect extends westward into southeastern Oklahoma during a strong event, and can actually extend farther west to benefit the entire state.

Moderate El Niño events appear to influence the weather differently across the state. Western Oklahoma has an increased chance of above average rainfall in the case of a moderate event, while the results for eastern and central Oklahoma are nondescript. Of the eight moderate events tracked, north central and west central Oklahoma had above

average rainfall in six of those instances, while the Panhandle, southwest, and south central areas observed above average precipitation five times.

The prospects for drought relief become bleak during weak events. All areas of the state experienced below average precipitation during weak El Niños. Of the eight weak events tracked, all regions were below average at least five times. South central Oklahoma fared the worst with seven below-average periods.

The cool months are important, especially during times of drought, since they are a time of recharge for the state's groundwater. The demand by vegetation and the human population drops considerably, as does the sun's ability to evaporate available moisture. This allows a larger percentage of the precipitation that falls to go towards the replenishment of groundwater.

Oklahomans should keep a keen eye towards the development of this particular El Niño. While past strong El Niños have unfortunately proven destructive to other parts of the world, they would appear to aid in Oklahoma's drought relief. Should the El Niño remain in the weak or moderate category, it might mean more drought for an already beleaguered state.