

### The Continuing Severe Drought in Southwest Texas Will Make 2007 A Difficult Year for Agriculture

*Jose G. Peña, Professor and Extension Economist-Management*

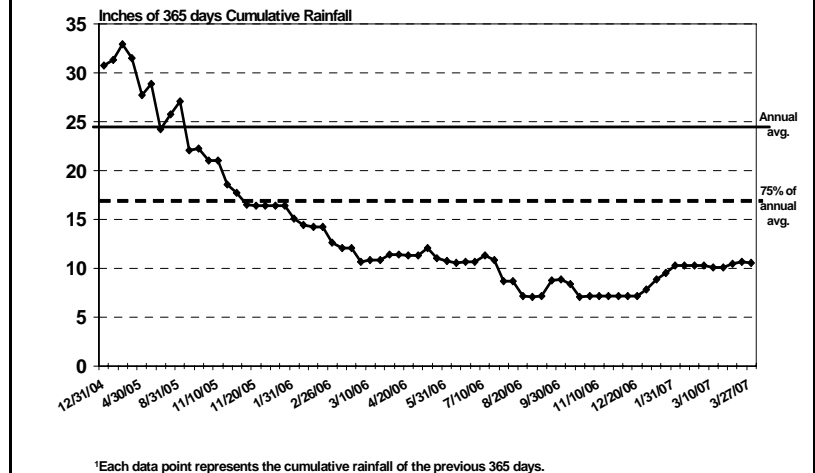
The rain in early January '07 and the recent showers in March, especially this past week's excellent rain, provided some hope, but the southwest Texas region remains very dry and forecasts for rain do not appear very optimistic. Rain this spring has been sporadic. For example, while March (through March 27) was the rainiest month on record in San Antonio, it was the 12<sup>th</sup> driest month on record in Uvalde, Texas.

It will take years for pastures and ranges to recover from this drought. Some may not recover without major range improvements. Livestock re-stocking may have to be delayed until 2008.

As measured in Uvalde, the southwest Texas region, which probably reflects the relative rainfall condition for a large portion of Texas, entered into drought conditions (75% of average annual rainfall) in mid-November 2005 and has remained in severe drought conditions since then. (See Figure 1).

The last 17 month period from,

**Figure 1: Rainfall: 365 Day Rolling Cumulative Rainfall<sup>1</sup>  
December '04 to March 27, 2007  
Uvalde Weather Station**



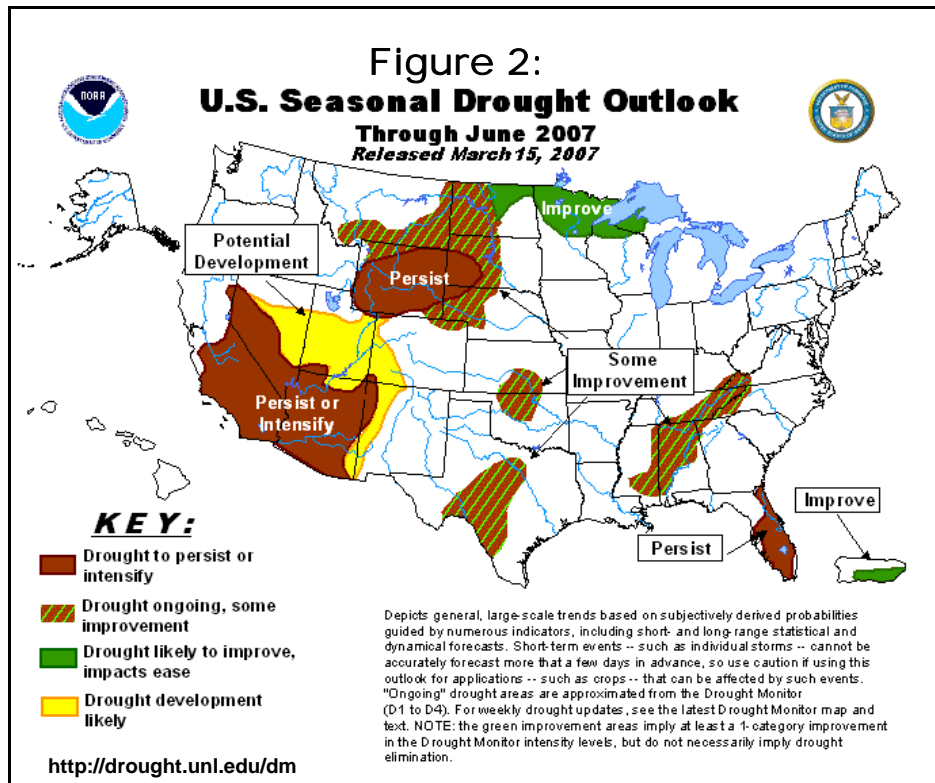
November '05-to-March 27, 2007, was the driest period on record, with cumulative rainfall at about 45 percent of the long term average.

The rolling 365-day cumulative rainfall since mid-November '05 averaged 10.8 inches of rain, 55 percent below the long term annual average of about 24.34 inches. Yes, that is about 55 percent less rainfall than the average amount which has created the ecological environment, which is dependent on that rain.

Forage is in short supply. Even with minimum livestock stocking rates, the absence of forage and adequate stock tank water will have a serious effect on wildlife, which has become the economic lifeline for many ranching operations.

### **La Niña**

Unfortunately, the short-to-mid-term outlook for rain appears dim. Weather forecasts by the national weather service indicate additional cooling during the next two to three months and rapid transition to La Niña conditions during March-May. El Niño and La Niña are terms referring to large-scale changes in sea-surface temperature across the eastern tropical Pacific. La Niña is the opposite of El Niño (warmer-than-normal temps) and is associated with cooler-than-normal ocean surface temperatures off the coast of Peru. According to the national weather service, La Niña brings nearly opposite effects of El Niño to the U.S., wetter than normal conditions across the Pacific Northwest and dryer and warmer than normal conditions across much of the southern tier. While the latest U.S. Seasonal Drought Outlook report (see figure 2) indicates a slight improvement, through June '07, for southwest Texas, the report is not very optimistic.



### Permanent Change to the Eco System?

In the final analysis, the real effect of any drought is its influence on vegetation and the vegetation's capability to recover. To recover, the vegetation's seed or rootstock must survive a drought. Seed/rootstock must be protected during periods of reduced rainfall, such as severely reducing grazing pressure. Recovery also requires abundant and timely rainfall. In addition to continued reduced stocking rates, significantly above average rainfall will be needed for several years to recover from the current drought. This appears unlikely, but even with above average rainfall it may be difficult to recover.

In addition, while ranchers were making major range improvement investments through the early 90's, these activities appears to have been reduced significantly. As a result, it appears that the eco-system in a large portion of southwest Texas will be significantly altered and become more economically dependent on wildlife management.