## **Drought Impact on Agriculture Approaches \$1 Billion Early in 2009**

David P. Anderson J. Mark Welch John Robinson Texas AgriLife Extension Service

The extremely dry weather that began in 2008 has continued and expanded in early 2009. Late rains in August, 2008 that came too late for crop farmers, granted a bit of a reprieve for ranchers in some parts of Texas as it allowed some late season hay and pasture growth. That reprieve was short lived as dry weather returned and has remained throughout winter.

As of March 3<sup>rd</sup>, 100 percent of Texas was categorized as being in abnormal to exceptional drought according to the National Oceanic and Atmospheric Administration, or NOAA. Forty-four percent of Texas was in the Extreme and Exceptional drought categories, the worst drought conditions.



The last time that all of the state was categorized in drought was in June, 2006. March, 2009 has the largest percent of the state in exceptional drought (9.6 percent) for a March since March, 2006 (13.2 percent).

The difficulty in estimating drought economic losses this early in the year is that there is a long growing season remaining. But, this is planting time for Central Texas and past planting time for South Texas. Rains may come in the nick of time to produce a crop, but likely, or expected, damage increases by the day for crop agriculture.

Drought has numerous impacts in the farm community. It not only reduces farmers' income from lost grain production, it results in fewer dollars spent on farm inputs. Record high fertilizer prices in 2008 have been coming down since last fall and many farmers have delayed fertilizer purchases in the hope that prices would continue to be lower this spring. Now with dry conditions at planting, farmers are likely to delay these purchases further until they get the crop up and off to a good start. If it stays dry, sales of fertilizer, chemicals, fuel, and other crop inputs will be down.

The following discusses drought impact by major commodity, including livestock, grains, and cotton.

#### Livestock

It is common for ranchers to supplement range and pasture feed resources over the winter. The ongoing drought, however, has forced ranchers to start feeding hay earlier in the season and to increase the amount fed due to lack of pasture growth. This increased feeding cost over normal levels is a direct economic impact on the livestock producers.

Drought last summer reduced hay production which, when combined with greater feed needs, has led to even tighter hay supplies and higher prices. Higher quality hay has been in shorter supply, as well, adding costs to horse owners.

Calves are commonly grazed on wheat pasture in Texas. Wheat is planted in the Fall and the calves graze on the vegetative growth. In the Spring, the calves are moved to other pastures and the wheat continues to grow for harvest as grain later in the early Summer. The lack of rain has reduced wheat grazing production resulting in less forage available and lost income from grazing.

Livestock economic impacts include the effects of increased feeding costs and lost value of wheat pasture grazing.

- The economic impact of drought for livestock is estimated to be \$569 million from November, 2008 until March 1, 2009. That includes increased feeding costs and lost value of wheat pasture grazing.
- When drought losses from earlier in 2008 are added to those this winter the total loss from the current drought is \$829 million.

Texas is the largest beef cow producing state in the United States, with more than 5 million head. More than 60 percent of the state's beef cows are located in counties categorized as being in Severe to Exceptional drought. The effects of drought on livestock go well beyond the immediate year. Drought results in reduced conception rates and calf crops the next year. The lack of feed results in lower cattle sale weights. Range and pasture recovery from drought can take multiple years and can result in reduced stocking rates while ranges recover.

#### Grains

Last fall, Texas farmers planted 5.9 million acres of winter wheat. Over the course of the winter, the condition of that wheat crop has deteriorated. According to the Texas Department of Agriculture, about 2/3rds of the Texas wheat crop is rated as being in very poor to poor condition. These are the worst wheat condition ratings since the drought of 2006. That year only 25% of planted wheat acres were harvested and the yield on those acres averaged 24 bushels. The long term average wheat yield in Texas is 30 bushels per acre.

Comparing 2009's wheat crop conditions to those in 2006 reveals that the 2009 crop is in a little better shape than in 2006. The condition ratings are about 15 percentage points higher, but the percentage of the crop in poor and very poor condition has increased rapidly to over 60 percent.



# **Texas Wheat Crop Condition Ratings**

CCI = (Very Poor\*1) + (Poor\*2) + (Fair\*3) + (Good\*4) + (Excellent\*5)

Dry soils are having an impact on corn and sorghum as well as many producers do not have adequate top soil moisture for seed germination and deep subsoil moisture is deficient as well. Farmers in south and central Texas need to plant corn at this time of year to avoid silking and pollinating in the heat of summer. Late season corn is more susceptible to mold infestation and aflatoxin contamination. The impact of high levels of aflatoxin range from discounts in price to the requirement to destroy the grain altogether. Grain sorghum is a much more drought hardy plant that requires lower inputs than corn, but also generally produces lower yields and a lower price. While the water needs of sorghum increase during its reproductive stages in summer as well, sorghum can better tolerate heat and short periods of water stress.



Percent of Topsoil Moisture that is Short and Very Short by Crop Reporting District.

### Cotton

Given the regular occurrence of dry weather in West and South Texas, and the late planting date in West Texas, it is not unusual to be facing uncertainty about the level and condition of cotton plantings in Texas. As the West Texas crop is not planted until May, there is still ample time for conditions to change.