

## Drought Impact on Agriculture Approaches \$1.5 Billion Early in 2011

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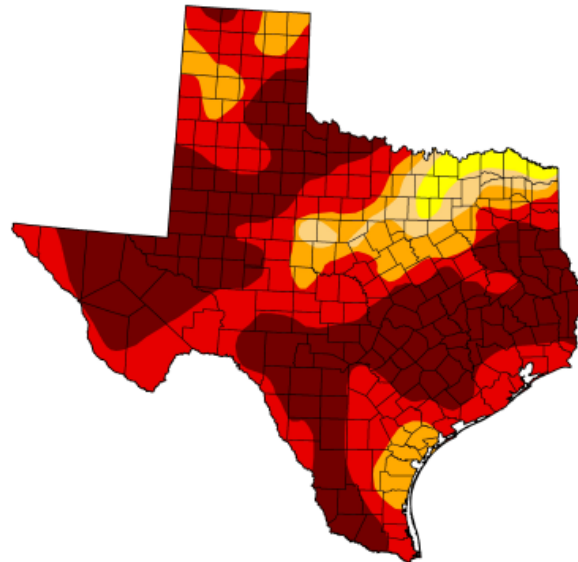
The dry weather that began in the fall of 2010 has expanded and intensified in 2011. In early August, 2010 the Drought Monitor showed that over 90% of Texas was drought free and only 2.5% in moderate or worse drought conditions. Range and pastures were rated 80% fair or better. By November 2<sup>nd</sup> over 50% of the state was at least abnormally dry and the condition of ranges and pastures was 31% poor and very poor and 69% fair or better. The newly planted wheat crop was rated as 70% fair or better. By March, 100% of the state was abnormally dry. The most recent Drought Monitor, May 10, 2011, shows 100% of the state with at least abnormally dry conditions and 82% classified as extreme and exceptional. Prior to this spring, the last time 100 percent of Texas was classified in a drought was March 2009 and June 2006.

# U.S. Drought Monitor

## Texas

May 10, 2011  
 Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	97.78	93.89	82.06	47.55
Last Week (05/03/2011 map)	0.00	100.00	98.86	93.99	73.73	25.96
3 Months Ago (02/08/2011 map)	15.72	84.28	57.15	37.35	7.78	0.00
Start of Calendar Year (12/28/2010 map)	7.89	92.11	69.43	37.46	9.59	0.00
Start of Water Year (09/28/2010 map)	75.57	24.43	2.43	0.99	0.00	0.00
One Year Ago (05/04/2010 map)	89.19	10.81	0.32	0.00	0.00	0.00



**Intensity:**

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>



Released Thursday, May 12, 2011  
 Rich Tinker, NOAA/NWS/NCEP/CPC

Even with the severity of the current drought, estimation of economic losses is difficult given that we are still early in the growing season. Much of the state has yet to plant spring row crops and there is still time for weather patterns to change. But for wheat growers, cotton and grain farmers in Central and South Texas who have planted or are facing final planting deadlines, and ranchers supplemental feeding on short pastures, each day without rainfall is one in which crop and livestock losses mount.

Drought has numerous impacts in the farm community. It not only reduces farmers' income from lost crop production, it results in fewer dollars spent on farm inputs. With dry conditions at planting, farmers are likely to delay the purchases of fertilizer, seed, pesticides, and other inputs until they get the crop up and off to a good start. If it stays dry, farm input suppliers will experience reduced sales, the consequences of which ripple through the farm community. Following is a discussion of drought impacts by major commodity: 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.

The sudden severe onset of the drought has forced livestock producers to purchase even more hay, driving up prices sharply.

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.

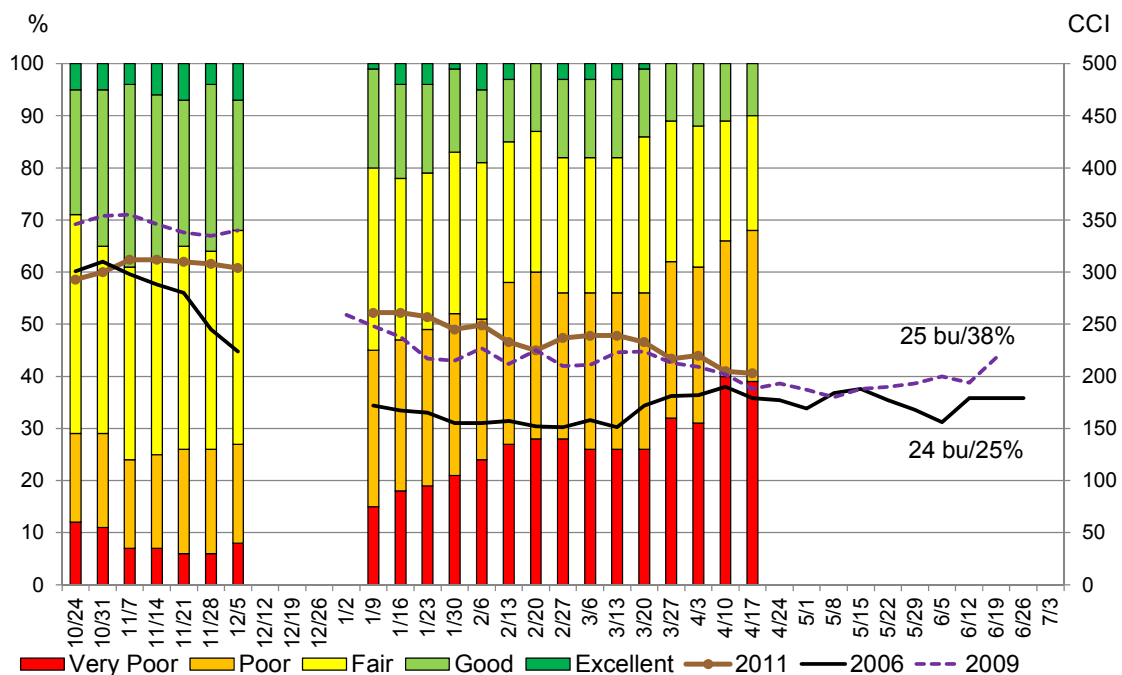
**• The economic impact of drought for livestock is estimated to be \$1.2 billion from November, 2010 until May 1, 2011. That includes increased feeding costs and lost value of wheat pasture grazing.**

Texas is the largest beef cow producing state in the United States, with more than 5 million head. More than 90 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 fewer calves born the next year. The lack of feed results in lower cattle sale weights and forces ranchers to sell cattle earlier. Range and pasture recovery from drought can take multiple years and can result in reduced stocking rates while ranges recover. This drought has been severe enough that many stock tanks providing water for livestock have become dangerously low or dry. This requires even higher costs to haul water dairy to meet livestock needs.

## Grains

Last fall, Texas farmers planted 5.65 million acres of winter wheat. Crop conditions have deteriorated over the winter with the percent rated as poor and very poor climbing from less than 30 percent in November to about 70 percent today. The condition scores of this year's crop track closely with those of 2009 and 2006. In those years the average yield was 25 and 24 bushels and the percent of acres planted that were harvested were 38 and 25. The long term average wheat yield in Texas is 30 bushels per acre and we normally harvest 50 percent of the acres sown.

2011 Texas Winter Wheat Condition Ratings and Average Wheat Yield/% Harvested



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

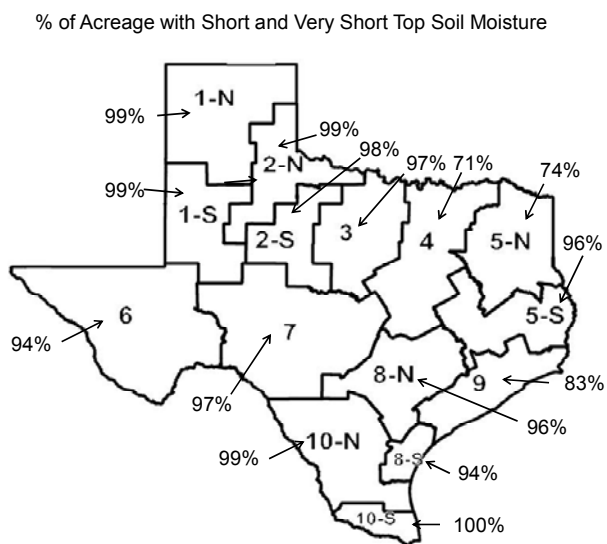
Assuming that the crop conditions of 2011 continue on their current track, we can expect total Texas wheat production in 2011 to be about 34 million bushels. This would come off 25 percent harvested acres and an average yield of 24 bushels. High wheat prices in 2011 will offset some of the revenue lost to poor wheat yields for those farmers who still make a crop. Prices are up 50 percent to \$8.08 per bushel compared to the 2010 annual average price of \$5.25. The total value of this year's crop is currently estimated at \$274 million, about half of the five-year average of \$555 million (-\$281 million). The low harvested percentage is compounded by several factors in addition to the drought: 1) record high calf prices increase the value of wheat for grazing, especially if grain production prospects are poor and 2) record high cotton prices offer incentives for producers to terminate a poor stand of wheat in hopes of producing a high value cotton crop.

Preliminary Estimates for Texas Wheat 2011

	<u>5-yr average</u>	<u>2010</u>	<u>2011</u>	<u>Annual % Change</u>	<u>% of normal</u>
Planted acres (mil)	5.93	5.70	5.65	-1%	95%
Harvested acres (mil)	2.90	3.75	1.4	-62%	48%
Yield per acre (bu)	30.8	34.0	24.0	-20%	78%
Production (mil bu)	95.5	127.5	33.9	-66%	35%
Price(\$/bu)	5.81	5.25	8.08	+54%	139%
Value of Production (\$mil)	555	669	274	-59%	49%

The immediate drought impacts on Texas corn and sorghum are a lack of adequate top soil moisture for seed germination and deeper subsoil moisture to sustain crops that are up. 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 receives 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.



Source: USDA and NASS

Source: *Texas Crop Weather*, NASS, April 19, 2011

**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 usually planted until May, there is still time for conditions to change