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Updated 2011 Texas agricultural drought losses total $7.62 billion; commercial timber losses add another $669 million

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COLLEGE STATION – Texas agricultural losses due to the 2011 drought reached a record $7.62 billion, making it the most costly drought in history, according to updated totals by Texas AgriLife Extension Service economists.

“2011 was the driest year on record and certainly an infamous year of distinction for the state’s farmers and ranchers,” said Dr. David Anderson, AgriLife Extension livestock economist. “The $7.62 billion mark for 2011 is more than $3.5 billion higher than the 2006 drought loss estimates, which previously was the costliest drought on record. The 2011 losses also represent about 43 percent of the average value of agricultural receipts over the last four years.”

“No one alive has seen single-year drought damage to this extent,” said Dr. Travis Miller, AgriLife Extension agronomist and a member of the Governor’s Drought Preparedness Council. “Texas farmers and ranchers are not strangers to drought, but the intensity of the drought, reflected in record high temperatures, record low precipitation, unprecedented winds coupled with duration - all came together to devastate production agriculture.”

Miller said millions of acres of Texas crops never received enough rain to germinate the planting seed.

“Even irrigated farmers experienced huge losses as water supplies that they could deliver were not adequate to produce crops under these conditions with no rain,” he said. “The drought started in the fall of 2010, resulting in very little winter grazing. Many of our pastures and hay meadows never greened up after the winter.”

Diminishing water supplies and no local hay production dramatically increased the cost of maintaining livestock herds, resulting in massive culling and unprecedented runs at livestock sale rings beginning in June, Miller said.
“Hay was purchased as far away as Montana, dramatically driving up the cost of supplemental feed. While much of the state began to receive some relief from this drought in late fall or early winter, most of the large areas of the plains and West Texas have yet to receive any relief.”

Through August of 2011, AgriLife Extension economists previously reported $5.2 billion in drought losses. The following are updated drought losses for 2011 by commodity with previously reported loss estimates from August in parenthesis:

- Livestock: $3.23 billion (up from $2.06 billion);
- Lost hay production value: $750 million (no change);
- Cotton: $2.2 billion (up from $1.8 billion);
- Corn: $736 million (up from $409 million);
- Wheat: $314 million (up from $243 million);
- Sorghum: $385 million (up from $63 million);

The following are summaries by specific commodities:

Livestock - Losses due to the 2011 drought are estimated to be $3.23 billion. The estimate includes the previously reported $2.06 billion in August.

“Losses include the increased cost of feeding livestock due to the lack of pastures and ranges, and market losses,” Anderson said. “Market losses include the impact of fewer pounds sold per calf and the impact of relatively lower market prices due to the large number of cattle sold in a very short time period.”

Cotton - Texas cotton growers faced unprecedented impacts from drought in 2011, according to Dr. John Robinson, AgriLife Extension Service cotton marketing economist.

“In August, the U.S. Department of Agriculture projected a relatively low average cotton yield of 636 pounds per harvested acre, which they subsequently revised down to 557 pounds per acre by December,” Robinson said. “In Texas, cotton growers saw a historically-high acreage abandonment of 55 percent of planted acres. Compared to five-year average yields and abandonment, 2011 represents a huge loss in potential production.

“Applied to USDA’s measure of 7.57 million planted cotton acres in Texas, and valued at USDA's projected price of 91 cents per pound, this loss adds up to $2.2 billion (up from the August estimated loss of $1.8 billion). It is noteworthy that $1.8 billion is also the 10-year average total value of cotton lint and cottonseed production in Texas. Therefore, Texas cotton growers lost more market income in 2011 than they would normally make for an entire cotton crop.”

Grains and Hay - The drought of 2011 lowered grain production in Texas to about half of normal levels and is estimated to have cost wheat, corn, and sorghum grain farmers in Texas over $1.4 billion.

“Recent production revisions by the USDA lowered harvested acres and yields, and resulted in a doubling of the August loss estimate of $600 million,” said Dr. Mark Welch, AgriLife Extension Service grains marketing economist.
Wheat - Since August, USDA lowered the number of Texas wheat acres for harvest by another 100,000 acres. Texas wheat production in 2011 was 49.4 million bushels compared to a five-year average of 92.4 million, down 47 percent, according to Welch.

“Wheat yields were down from a five-year average of 30 bushels to 26 bushels per acre and abandonment is up,” he said. “The five-year average of wheat planted acres that are harvested for grain is 50 percent; 36 percent of planted acres were harvested in 2011. That reduced the number of wheat acres for harvest by over a million compared to normal years. The combination of yield losses and reduction in harvested acres put Texas wheat for grain losses at $314 million.”

Corn - Compared to the August estimates, Texas corn harvested acres have been reduced by more than 100,000 acres and yields cut from 112 bushels per acre to 93, Welch said. Texas corn production is now an estimated 136.7 million bushels compared to a five-year average of 255.4 million, down 46 percent.

“Harvested acres are down 23 percent due to higher abandonment rates, and yields are down 30 percent statewide,” Welch said. “The combination of yield losses and reduction in harvested acres put Texas corn for grain losses at $736 million.”

Sorghum - Since August, Texas grain sorghum harvested acres have been reduced by an additional 150,000 acres. Texas grain sorghum production is estimated at 56.4 million bushels compared to a five-year average of 119.5 million, down 60 percent.

“The 1.6 million acres planted in the Spring of 2011 was the fewest in Texas’ history,” Welch said. “Then the drought further lowered yields and raised abandonment rates. The combination of yield losses and reduction in harvested acres put Texas grain sorghum losses at $385 million.”

Hay - The value of hay production lost due to the drought is estimated to be $750 million. The lack of rain throughout the year led to the lack of hay to harvest.

“Corn stalks, grain sorghum, and wheat stubble from either failed grain crops or post-harvest residue is often baled during drought years, as was commonly done in 2011,” Anderson said. “The quality of these feeds is often very low, and its value is commensurate with its quality. Although, in years like this even the lowest quality feeds are used along with other supplemental feeds.”

Timber - The historic drought took a severe toll on trees across the state. The commercial timber forested area of East Texas was among the hardest hit, said Burl Carraway, Texas Forest Service department head for sustainable forestry. An estimated $558 million of standing merchantable trees (diameter of 5 inches or larger) on forestland in East Texas have succumbed to the drought.

“The loss is roughly twice the stumpage value of annual timber harvest in Texas over the past three years,” Carraway said. “The drought also has a devastating impact on seedlings and saplings, which are normally more susceptible to severe drought of this scale. Economic loss to these pre-merchantable timber stands is estimated to be an additional $111 million.”

Taking the impacts to merchantable and pre-merchantable trees into account, the direct economic loss of East Texas Forest from the recent drought is estimated to be around $669 million measured in stumpage values (sale value of standing trees), Carraway said.
Editor’s note: The following is a list of economic drought losses from 1998 through 2011, as compiled by AgriLife Extension economists:

* 2011 – $7.62 billion
* 2009 – $3.6 billion
* 2008 – $1.4 billion
* 2006 – $4.1 billion
* 2002 – $316 million
* 2000 – $1.1 billion
* 1999 – $223 million
* 1998 – $2.4 billion