

Georgia Economic Losses Due To 2006 Drought

Counties experiencing drought conditions that have affected Georgia agriculture since March 2006 submitted drought assessments to the Center for Agribusiness and Economic Development (CAED) at the University of Georgia in early August of 2006. Tabulation of the drought assessments indicates that counties reported agricultural production value losses totaling \$819.4 million.

Table 1 shows agricultural commodity totals for production value losses. Cotton has the greatest losses of \$239.5 million. Other field crop losses include peanuts of \$101.4 million, corn of \$40.1 million, and tobacco of \$25.3 million. Hay and forage losses of \$107.6 million and pasture losses of \$224.3 million have impacted cattle production throughout the state. Projected losses for the pecan crop are \$49.0 million. The balance of production losses are for vegetables, melons, fruits, and broilers.

Total state losses for commodities are compared to average production values over three years in order to calculate the percent loss in *Table 1*. Three-year averages are determined by data from the Georgia Agricultural Statistics Service (GASS). Statewide losses are greater than 30% of average production value for cotton, soybeans, sorghum, and tobacco. Losses are greater than 50% for corn and pecans.

Economic Impacts of Production Losses

Losses reported in *Table 1* are for values of production losses. These losses lead to additional losses as typical economic multiplier effects are not realized in the Georgia economy. Conditions that prevent planting cause a complete loss in economic activity as farmers do not purchase any inputs or services for the crop. Losses that occur at the end of the season are viewed mostly as lost farmer income that is not available as household spending. Losses occurring during the season are a combination of lost production impacts and income impacts. Data is not available to determine at what point production losses occurred. Thus, a range of economic impact losses are estimated that covers unknown conditions of losses from the beginning of the production season through the end of production. Losses occurring at the beginning of the season have greater economic impacts than losses occurring at the end of the season.

Output losses in *Table 2* are the total sales that are lost to the Georgia economy due to the direct losses reported for each commodity. Combined direct losses for a combination of hay and pasture total \$331.9 million and lead to total losses in output that range from \$390.9 million to \$572.4 million. Direct losses for cotton cause total output losses that range from \$282.1 million to \$409.7 million. Drought conditions are estimated to have total output impact losses that range from \$965.0 million to \$1.4 billion.

Output losses lead to declining incomes for workers in commodity production industries, as well as those who earn income due to agricultural production. Income losses are the best indicator of lost wealth to the Georgia economy due to the drought conditions. Labor

income impacts in *Table 3* show the income losses for proprietors and employees. Income losses on Georgia are estimated to range from \$314.5 million to \$563.0 million. Employment impacts in *Table 4* represent the number of full-time and part-time jobs that are associated with income losses in *Table 3*. Employment impacts range from 9,064 jobs to 17,450 jobs.

Table 1. Losses Due to Drought, by Commodity

	Loss \$	Average Value	Loss %
Cotton	239,522,199	510,875,333	46.9%
Peanuts	101,393,641	354,719,667	28.6%
Soybeans	12,483,555	37,919,333	32.9%
Corn	40,116,223	78,508,667	51.1%
Sorghum	1,322,165	2,930,333	45.1%
Wheat	1,367,536	27,747,667	4.9%
Rye	84,470	2,946,667	2.9%
Oats	155,496	2,300,333	6.8%
Tobacco	25,250,412	78,566,333	32.1%
Hay & Forage	107,635,485	NA	NA
Pasture	224,274,889	NA	NA
Cucumbers	244,258	40,660,333	0.6%
Watermelons	2,568,183	36,655,000	7.0%
Tomatoes	4,666,709	55,845,000	8.4%
Sweet Corn	22,611	57,414,667	0.0%
Peas	829,837	NA	NA
Snap Beans	1,002,597	27,289,333	3.7%
Butter Beans	119,359	NA	NA
Cabbage	88,752	24,529,333	0.4%
Peppers, Bell	207,355	26,970,000	0.8%
Cantaloupes	1,244,718	16,722,667	7.4%
Squash	104,790	36,195,333	0.3%
Potatoes	211,842	NA	NA
Pumpkins	289,040	NA	NA
Pecans	49,018,958	77,886,667	62.9%
Peaches	1,715,598	30,045,000	5.7%
Blueberries	3,228,558	24,793,333	13.0%
Other	228,190	NA	NA
Total	819,397,424		

Table 2. Losses and Economic Output Impacts Due to Drought

	-dollars-		
	Direct Loss	Output Impact Range	
Grains	43,045,890	50,696,078	77,624,660
Cotton	239,522,199	282,090,486	409,748,855
Peanuts	101,393,641	119,413,493	174,854,012
Soybeans	12,483,555	14,702,154	23,522,712
Tobacco	25,250,412	29,737,958	48,430,549
Hay/Pasture	331,910,374	390,898,048	572,381,690
Vegetables/Melons	11,600,050	13,661,631	21,154,435
Pecans	49,018,958	57,730,694	93,805,788
Fruits	4,944,156	5,822,840	8,231,473
Other	228,190	268,744	369,509
Total Losses	819,397,424	965,022,126	1,430,123,683

Table 3. Labor Income Impacts Due to Drought

	-dollars-	
	Labor Income Impact Range	
Grains	16,519,381	34,672,968
Cotton	91,919,543	128,147,723
Peanuts	38,911,039	70,697,427
Soybeans	4,790,715	12,170,785
Tobacco	9,690,152	24,121,915
Hay/Pasture	127,374,626	231,426,846
Vegetables/Melons	4,451,660	11,794,665
Pecans	18,811,620	46,067,763
Fruits	1,897,380	3,836,183
Other	87,571	105,223
Total Losses	314,453,687	563,041,498

Table 4. Employment Impacts Due to Drought

	-jobs-	
	Employment Impact Range	
Grains	476	1,777
Cotton	2,650	4,951
Peanuts	1,122	1,799
Soybeans	138	376
Tobacco	279	1,088
Hay/Pasture	3,672	5,890
Vegetables/Melons	128	231
Pecans	542	1,203
Fruits	55	132
Other	2	3
Total Losses	9,064	17,450