

Table 11. Cotton insect loss estimates for Georgia during 2019.

Pest	Acres Infested	% Acres Infested	Acres Treated	% Acres Treated	# of apps /acres treated	Cost of 1 application	% loss /acre infested	# of apps/ total acres	cost/acre	overall % reduction	Bales lost / pest	Loss + cost	Loss + cost/acre	% Total Loss+Cost
Bollworm/Budworm	695,000	50%	69,500	5.0%	1.0	\$8.00	0.20%	0.05	\$0.40	0.10%	3,831	\$1,473,272	\$1.06	3.0%
Beet Armyworm	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Fall Armyworm	6,950	1%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cotton Leaf Perforator	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Saltmarsh Caterpillar	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	695,000	50%	208,500	15.0%	1.2	\$8.00	0.10%	0.18	\$1.44	0.05%	1,916	\$1,598,592	\$1.15	3.2%
Cotton Fleahopper	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Stink Bugs (other than brown stink bug)	1,181,500	85%	1,112,000	80.0%	1.0	\$8.00	1.00%	0.80	\$6.40	0.85%	32,565	\$17,721,880	\$12.75	35.5%
Brown Stink Bug	1,181,500	85%	1,112,000	80.0%	1.0	\$9.00	1.00%	0.80	\$7.20	0.85%	32,565	\$18,667,080	\$13.43	37.4%
Clouded Plant Bug	556,000	40%	27,800	2.0%	1.0	\$8.00	0.10%	0.02	\$0.16	0.04%	1,532	\$566,944	\$0.41	1.1%
Leaf Footed Bugs	69,500	5%	6,950	0.5%	1.0	\$8.00	0.50%	0.01	\$0.08	0.03%	958	\$304,456	\$0.22	0.6%
Spider Mites	208,500	15%	41,700	3.0%	1.0	\$8.00	0.10%	0.03	\$0.24	0.02%	575	\$229,440	\$0.17	0.5%
Thrips	1,376,100	99%	528,200	38.0%	1.0	\$6.00	0.10%	0.38	\$2.28	0.10%	3,793	\$4,320,924	\$3.11	8.7%
Aphids	1,251,000	90%	139,000	10.0%	1.0	\$7.00	0.00%	0.10	\$0.70	0.00%	0	\$875,700	\$0.63	1.8%
Grasshoppers	27,800	2%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Banded Winged Whitefly	13,900	1%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	417,000	30%	83,400	6.0%	1.5	\$14.00	1.00%	0.09	\$1.26	0.30%	11,494	\$4,111,548	\$2.96	8.2%
Boll Weevil	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
<b>TOTAL</b>								2.46	\$20.16	2.33%	89,229	\$49,869,836	\$35.88	

**SUMMARY DATA**

Data Input		Yield and Management Results			Economic Results	
State	Georgia	Total Acres	1,390,000		Total	Per Acre
Region	Southeast	Total Bales Harvested	2,600,458	Foliar Insecticide Costs	\$28,022,400	\$20.16
Year	2019	Total Bales Lost to Insects	89,229	Seed Treatment Costs	\$7,506,000	\$5.40
Total Acres (Upland)	1,390,000	Percent Yield Loss	2.3%	In-Furrow Costs	\$1,251,000	\$0.90
Yield / Acre (Upland)	898	Yield w/o Insects (lb/acre)	919	Scouting Costs	\$7,784,000	\$5.60
Price / lb	\$0.65	Av. # Applications	2.46	Eradication Costs	\$1,946,000	\$1.40
yield potential (lb/acre)	1,323	Total Bales lost (all factors)	1,813,263	Bt Cotton	\$21,452,426	\$15.43
Acres (Pima)	0	Total % yield Loss	47.3%	Total Costs	\$67,961,826	\$48.89
Yield / Acre (Pima)	0	Transgenic Cotton (arthropods) (# acres)	1,389,166	Yield Loss to Insects	\$27,839,448	\$20.03
% Acres Scouted	70%	Boll Weevil Eradication (# acres)	1,390,000	Total Losses + Costs	\$95,801,274	\$68.92
Fee / Scouted Acre	\$8.00	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1.1	# Scouted Acres	973,000			
% acres Transgenic (Bt) Cotton	100%	Seed Treatments (arthropods) (# acres)	1,251,000			
Cost/treated acre (Bt) Cotton	\$15.44	In-Furrow Applications (# acres)	208,500			
% acres with seed treatment	90%	Applications by Air (acres)	208,500			
Seed trt. cost/ treated acre	\$6.00	Applications by Ground (acres)	1,181,500			
% acres with in-furrow	15%	No. acres with no foliar insecticide applications	278,000			
		% loss to non-arthropods	5.0%			
		% loss to other (chemical injury, weeds, diseases, etc.)	5.0%			

Table 11. Cotton insect loss estimates for Georgia during 2019, continued.

Upland Cotton	% Acres	# Acres	Total cost/acre	Bt cost/acre	% acres treated for BW/TBW	# acres treated for BW/TBW	# apps for BW/TBW
Bollgard II	62.3%	865,275	\$85.00	\$15.00	3%	25,958	1.0
Bollgard III	20.8%	289,398	\$90.00	\$17.00	0%	0	0.0
WideStrike	6.9%	95,771	\$82.00	\$14.00	30%	28,731	1.0
WideStrike 3	8.1%	112,729	\$83.00	\$16.00	0%	0	0.0
TwinLink	1.2%	16,402	\$85.00	\$15.00	3%	492	1.0
TwinLink Plus	0.7%	9,591	\$90.00	\$17.00	0%	0	0.0
<b>Total Bt</b>	<b>99.9%</b>	<b>1,389,166</b>	<b>\$85.71</b>	<b>\$15.44</b>	<b>4.0%</b>	<b>55,182</b>	<b>0.7</b>
Herbicide Traits Only	0.0%	0	\$0.00	-	0%	0	0.0
Conventional	0.1%	1,390	\$25.00	-	50%	695	2.0
Organic	0.0%	0	\$0.00	-	0%	0	0.0
<b>Total Upland Cotton</b>	<b>100.0%</b>	<b>1,390,556</b>	<b>\$85.65</b>	<b>\$15.44</b>	<b>4.0%</b>	<b>55,877</b>	<b>0.7</b>
<b>Non Upland Cotton</b>							
Pima	0.0%	0	\$0.00	-	0%	0	0
Other	0.0%	0	\$0.00	-	0%	0	0
Organic	0.0%	0	\$0.00	-	0%	0	0
<b>Total (all Cotton)</b>		<b>1,390,556</b>	<b>\$85.65</b>	<b>-</b>	<b>4.0%</b>	<b>55,877</b>	<b>0.7</b>