

Table 11. Cotton insect loss estimates for Georgia during 2021.

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	696,000	60%	6,960	0.6%	1.0	\$8.00	0.10%	0.01	\$0.08	0.06%	2,638	\$1,195,296	\$1.03	1.7%
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	11,600	1%	0	0.0%	0.0	\$0.00	0.01%	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	754,000	65%	394,400	34.0%	1.2	\$8.00	0.50%	0.41	\$3.28	0.33%	14,287	\$8,645,104	\$7.45	12.2%
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)	1,044,000	90%	928,000	80.0%	1.2	\$8.00	1.00%	0.96	\$7.68	0.90%	39,563	\$25,109,136	\$21.65	35.3%
Brown Stink Bug	1,044,000	90%	870,000	75.0%	1.0	\$9.00	1.00%	0.75	\$6.75	0.90%	39,563	\$24,138,216	\$20.81	34.0%
Clouded Plant Bug	406,000	35%	174,000	15.0%	1.0	\$8.00	0.50%	0.15	\$1.20	0.18%	7,693	\$3,810,576	\$3.28	5.4%
Leaf Footed Bugs	23,200	2%	0	0.0%	0.0	\$0.00	0.20%	0.00	\$0.00	0.00%	176	\$76,032	\$0.07	0.1%
Spider Mites	11,600	1%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Thrips	1,148,400	99%	301,600	26.0%	1.0	\$6.00	0.20%	0.26	\$1.56	0.20%	8,704	\$5,551,632	\$4.79	7.8%
Aphids	1,102,000	95%	81,200	7.0%	1.0	\$8.00	0.10%	0.07	\$0.56	0.10%	4,176	\$2,421,152	\$2.09	3.4%
Grasshoppers	11,600	1%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Banded Winged Whitefly	11,600	1%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	81,200	7%	5,800	0.5%	1.1	\$15.00	0.10%	0.01	\$0.15	0.01%	308	\$145,236	\$0.13	0.2%
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%
TOTAL					2.62			\$21.26		2.66%	117,108	\$71,092,380	\$61.29	

SUMMARY DATA

	Data Input		Yield and Management Results				Economic Results	
	Georgia		Total Acres			Total	Per Acre	
State	Georgia		1,160,000					
Region	Southeast		Total Bales Harvested	2,300,667	Foliar Insecticide Costs	\$24,661,600	\$21.26	
Year	2021		Total Bales Lost to Insects	117,108	Seed Treatment Costs	\$6,264,000	\$5.40	
Total Acres (Upland)	1,160,000	In-furrow cost/treated acre	\$15.00	Percent Yield Loss	2.7%	In-Furrow Costs	\$3,480,000	\$3.00
Yield / Acre (Upland)	952	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	978	Scouting Costs	\$6,496,000	\$5.60
Price / lb	\$0.90	Cost/acre Boll Weevil Eradication	\$1.44	Av. # Applications	2.62	Eradication Costs	\$1,670,400	\$1.44
yield potential (lb/acre)	1,819	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	2,095,270	Bt Cotton	\$17,400,000	\$15.00
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	47.7%	Total Costs	\$59,972,000	\$51.70
Yield / Acre (Pima)	0	% Insect apps by air	20%	Transgenic Cotton (arthropods) (# acres)	1,160,000	Yield Loss to Insects	\$50,590,656	\$43.61
% Acres Scouted	70%	No. apps by air	2	Boll Weevil Eradication (# acres)	1,160,000	Total Losses + Costs	\$110,562,656	\$95.31
Fee / Scouted Acre	\$8.00	Cost/app by air	\$7.00	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1.1	% insect apps by ground	85%	# Scouted Acres	812,000			
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2.5	Seed Treatments (arthropods) (# acres)	1,044,000			
Cost/treated acre (Bt) Cotton	\$15.00	Cost/app by ground	\$4.00	In-Furrow Applications (# acres)	232,000			
% acres with seed treatment	90%	% Loss to weather	30.0%	Applications by Air (acres)	232,000			
Seed trt. cost/ treated acre	\$6.00	% loss to non-arthropods	5.0%	Applications by Ground (acres)	986,000			
% acres with in-furrow	20%	% loss to other (chemical injury, weeds, diseases, etc.)	10.0%	No. acres with no foliar insecticide applications	174,000			

Table 11. Cotton insect loss estimates for Georgia during 2021, 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	20.2%	234,320	\$85.00	\$15.00	2%	4,686	1.0
Bollgard III	73.0%	846,800	\$90.00	\$15.00	0%	0	0.0
WideStrike	0.2%	2,320	\$82.00	\$15.00	50%	1,160	1.0
WideStrike 3	3.5%	40,600	\$83.00	\$15.00	0%	0	0.0
TwinLink	0.1%	1,160	\$85.00	\$15.00	1%	12	1.0
TwinLink Plus	3.0%	34,800	\$90.00	\$15.00	0%	0	0.0
Total Bt	100.0%	1,160,000	\$88.72	\$15.00	0.5%	5,858	0.005
Herbicide Traits Only	0.0%	0	\$0.00	-	0%	0	0.0
Conventional	0.0%	0	\$0.00	-	0%	0	0.0
Organic	0.0%	0	\$0.00	-	0%	0	0.0
Total Upland Cotton	100.0%	1,160,000	\$88.72	\$15.00	0.5%	5,858	0.005
Non Upland Cotton							
Pima	0.0%	0	\$0.00	-	0%	0	0.0
Other	0.0%	0	\$0.00	-	0%	0	0.0
Organic	0.0%	0	\$0.00	-	0%	0	0.0
Total (all Cotton)		1,160,000	\$88.72		0.5%	5,858	0.005