

Table 14. Cotton insect loss estimates for Georgia during 2018.

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	675,000	50.0%	48,600	4.0%	1.0	\$8.00	0.10%	0.04	\$0.32	0.05%	2,109	\$1,025,856	\$0.76	1.4%
Beet Armyworm	0	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	13,500	1.0%	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	\$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	\$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	\$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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	742,500	55.0%	162,000	12.0%	1.0	\$8.00	0.10%	0.12	\$0.96	0.06%	2,320	\$1,603,680	\$1.19	2.3%
Cotton Fleahopper	0	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)	1,215,000	90.0%	1,080,000	80.0%	1.2	\$8.00	1.50%	0.96	\$7.68	1.35%	56,953	\$31,201,152	\$23.11	44.0%
Brown Stink Bug	1,215,000	90.0%	1,080,000	80.0%	1.1	\$9.00	1.50%	0.88	\$7.92	1.35%	56,953	\$31,492,752	\$23.33	44.4%
Clouded Plant Bug	270,000	20.0%	13,500	1.0%	1.0	\$8.00	0.10%	0.01	\$0.08	0.02%	844	\$345,696	\$0.26	0.5%
Leaf Footed Bugs	27,000	2.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	135,000	10.0%	13,500	1.0%	1.0	\$9.00	0.10%	0.01	\$0.09	0.01%	422	\$174,198	\$0.13	0.2%
Thrips	1,336,500	99.0%	202,500	15.0%	1.0	\$6.00	0.10%	0.15	\$0.90	0.10%	4,177	\$2,806,818	\$2.08	4.0%
Aphids	1,080,000	80.0%	270,000	20.0%	1.0	\$7.00	0.00%	0.20	\$1.40	0.00%	0	\$1,512,000	\$1.12	2.1%
Grasshoppers	135,000	10.0%	13,500	1.0%	1.0	\$0.00	0.00%	0.01	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Banded Winged Whitefly	27,000	2.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	270,000	20.0%	27,000	2.0%	1.0	\$16.00	0.20%	0.02	\$0.32	0.04%	1,688	\$734,592	\$0.54	1.0%
Boll Weevil	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
TOTAL								2.40	\$19.67	2.97%	125,466	\$70,896,744	\$52.52	

SUMMARY DATA

Data Input			Yield and Management Results			Economic Results	
State	Georgia		Total Acres	1,350,000		Total	Per Acre
Region	Southeast		Total Bales Harvested	1,901,250		Foliar Insecticide Costs	\$26,554,500
Year	2018		Total Bales Lost to Insects	125,719		Seed Treatment Costs	\$8,019,000
Total Acres (Upland)	1,350,000	In-furrow cost/treated acre	\$6.00	Percent Yield Loss	3.0%	In-Furrow Costs	\$1,215,000
Yield / Acre (Upland)	676	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	697	Scouting Costs	\$6,615,000
Price / lb	\$0.80	Cost/acre Boll Weevil Eradication	\$1.06	Av. # Applications	2.4	Eradication Costs	\$1,431,000
yield potential (lb/acre)	1,500	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	2,319,469	Bt Cotton	\$20,356,650
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	55.0%	Total Costs	\$64,191,150
Yield / Acre (Pima)	0	% Insect apps by air	15%	Transgenic Cotton (arthropods) (# acres)	1,348,650	Yield Loss to Insects	\$48,178,944
% Acres Scouted	70%	No. apps by air	2	Boll Weevil Eradication (# acres)	1,350,000	Total Losses + Costs	\$112,370,094
Fee / Scouted Acre	\$7.00	Cost/app by air	\$7.00	Pink Bollworm Eradication (# acres)	0		
No. times scouted/week	1.1	% insect apps by ground	85%	# Scouted Acres	945,000		
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2.5	Seed Treatments (arthropods) (# acres)	1,336,500		
Cost/treated acre (Bt) Cotton	\$15.09	Cost/app by ground	\$4.00	In-Furrow Applications (# acres)	202,500		
% acres with seed treatment	99%	% Loss to weather	45.0%	Applications by Air (acres)	202,500		
Seed trt. cost/ treated acre	\$6.00	% loss to non-arthropods	5.0%	Applications by Ground (acres)	1,147,500		
% acres with in-furrow	15%	% loss to other (chemical injury, weeds, diseases, etc.)	2.0%	No. acres with no foliar insecticide applications	270,000		

Table 14. Cotton insect loss estimates for Georgia during 2018, 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	75.9%	1,024,650	\$85.00	\$15.00	2%	20,493	1.0
Bollgard III	7.4%	99,900	\$90.00	\$17.00	0%	0	0.0
WideStrike	9.7%	130,950	\$82.00	\$14.00	20%	26,190	1.0
WideStrike 3	3.3%	44,550	\$83.00	\$16.00	0%	0	0.0
TwinLink	3.1%	41,850	\$85.00	\$15.00	2%	837	1.0
TwinLink Plus	0.5%	6,750	\$90.00	\$17.00	0%	0	0.0
Total Bt	100.0%	1,348,650	\$85.04	\$15.09	3.5%	47,520	0.9
Herbicide Traits Only	0.0%	0	\$0.00	-	0%	0	0.0
Conventional	0.1%	1,350	\$25.00	-	70%	945	2.0
Organic	0.0%	0	\$0.00	-	0%	0	0.0
Total Upland Cotton	100.0%	1,350,000	\$78.32	\$15.09	3.6%	48,465	0.9
Non Upland Cotton							
Pima	0%	0	\$0.00	-	0%	0	0
Other	0%	0	\$0.00	-	0%	0	0
Organic	0%	0	\$0.00	-	0%	0	0
Total (all Cotton)		1,350,000	\$78.32		3.6%	48,465	0.9