

Table 1. Cotton insect loss estimates for South Alabama 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	13,647	5%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Beet Armyworm	0	0%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Fall Armyworm	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Saltmarsh Caterpillar	0	0%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	259,297	95%	245,650	90%	2.0	\$8.00	1.00%	1.80	\$14.40	0.95%	7,098	\$6,459,506	\$23.67	28.1%
Cotton Fleahopper	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)	272,944	100%	259,297	95%	2.0	\$8.00	1.50%	1.90	\$15.20	1.50%	11,208	\$8,452,621	\$30.97	36.8%
Brown Stink Bug	245,650	90%	136,472	50%	0.5	\$9.50	0.50%	0.25	\$2.38	0.45%	3,362	\$1,874,426	\$6.87	8.2%
Clouded Plant Bug	122,825	45%	81,883	30%	1.0	\$7.50	0.10%	0.30	\$2.25	0.05%	336	\$405,380	\$1.49	1.8%
Leaf Footed Bugs	191,061	70%	54,589	20%	1.0	\$9.50	0.10%	0.20	\$1.90	0.07%	523	\$563,848	\$2.07	2.5%
Spider Mites	177,414	65%	13,647	5%	1.0	\$8.50	0.00%	0.05	\$0.43	0.00%	0	\$75,401	\$0.28	0.3%
Thrips	272,944	100%	191,061	70%	1.0	\$6.50	1.00%	0.70	\$4.55	1.00%	7,472	\$4,111,143	\$15.06	17.9%
Aphids	81,883	30%	2,729	1%	1.0	\$6.50	0.00%	0.01	\$0.07	0.00%	0	\$5,322	\$0.02	0.0%
Grasshoppers	204,708	75%	163,766	60%	1.1	\$7.50	0.00%	0.66	\$4.95	0.00%	0	\$1,013,305	\$3.71	4.4%
Banded Winged Whitefly	0	0%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	13,647	5%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Boll Weevil	0	0%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
TOTAL							4.20%	5.87	\$46.12	4.02%	29,999	\$22,960,952	\$84.12	

SUMMARY DATA

Data Input		Yield and Management Results				Economic Results		
State	Alabama	Total Acres			Total	Per Acre		
Region	Southeast	Total Bales Harvested	483,338	Foliar Insecticide Costs	\$12,586,813	\$46.12		
Year	2021	Total Bales Lost to Insects	29,999	Seed Treatment Costs	\$3,248,034	\$11.90		
Total Acres (Upland)	272,944	In-furrow cost/treated acre	\$15.00	Percent Yield Loss	4.0%	In-Furrow Costs	\$614,124	\$2.25
Yield / Acre (Upland)	850	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	886	Scouting Costs	\$1,972,020	\$7.22
Price / lb	\$0.80	Cost/acre Boll Weevil Eradication	\$1.50	Av. # Applications	5.87	Eradication Costs	\$409,416	\$1.50
yield potential (lb/acre)	1,314	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	263,868	Bt Cotton	\$8,897,967	\$32.60
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	35.3%	Total Costs	\$27,728,374	\$101.59
Yield / Acre (Pima)	0	% Insect apps by air	15%	Transgenic Cotton (arthropods) (# acres)	272,944	Yield Loss to Insects	\$11,519,616	\$42.21
% Acres Scouted	85%	No. apps by air	2	Boll Weevil Eradication (# acres)	272,944	Total Losses + Costs	\$39,247,990	\$143.80
Fee / Scouted Acre	\$8.50	Cost/app by air	\$7.50	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1	% insect apps by ground	85%	# Scouted Acres	232,002			
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	4.5	Seed Treatments (arthropods) (# acres)	232,002			
Cost/treated acre (Bt) Cotton	\$32.60	Cost/app by ground	\$5.00	In-Furrow Applications (# acres)	40,942			
% acres with seed treatment	85%	% Loss to weather	27.8%	Applications by Air (acres)	40,942			
Seed trt. cost/ treated acre	\$14.00	% loss to non-arthropods	1.0%	Applications by Ground (acres)	232,002			
% acres with in-furrow	15%	% loss to other (chemical injury, weeds, diseases, etc.)	2.5%	No. acres with no foliar insecticide applications	0			

Table 1. Cotton insect loss estimates for South Alabama 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	45.0%	122,825	\$60.00	\$35.00	0%	0	0.0
Bollgard III	35.0%	95,530	\$63.00	\$35.00	0%	0	0.0
WideStrike	0.0%	0	\$45.00	\$0.00	0%	0	0.0
WideStrike 3	15.0%	40,942	\$48.00	\$18.00	0%	0	0.0
TwinLink	0.0%	0	\$0.00	\$0.00	0%	0	0.0
TwinLink Plus	5.0%	13,647	\$60.00	\$38.00	0%	0	0.0
Total Bt	100.0%	272,944	\$59.25	\$32.60	0.0%	0	0.0
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%	272,944	\$59.25	\$32.60	0.0%	0	0.0
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)		272,944	\$59.25		0.0%	0	0.0