

Table 1. Cotton insect loss estimates for South Alabama during 2020.

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	28,369	10%	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	241,137	85%	226,953	80%	1.5	\$8.00	0.25%	1.20	\$9.60	0.21%	1,645	\$2,828,159	\$9.97	16.1%
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)	269,506	95%	255,322	90%	2.0	\$7.50	2.00%	1.80	\$13.50	1.90%	14,677	\$8,217,561	\$28.97	46.7%
Brown Stink Bug	226,953	80%	113,476	40%	0.5	\$8.50	0.50%	0.20	\$1.70	0.40%	3,090	\$1,349,900	\$4.76	7.7%
Clouded Plant Bug	85,107	30%	28,369	10%	1.0	\$7.50	0.10%	0.10	\$0.75	0.03%	232	\$136,214	\$0.48	0.8%
Leaf Footed Bugs	198,584	70%	56,738	20%	1.0	\$9.50	0.10%	0.20	\$1.90	0.07%	541	\$546,101	\$1.92	3.1%
Spider Mites	56,738	20%	42,554	15%	1.0	\$8.50	0.10%	0.15	\$1.28	0.02%	154	\$120,389	\$0.42	0.7%
Thrips	283,691	100%	226,953	80%	1.1	\$6.50	1.00%	0.88	\$5.72	1.00%	7,725	\$4,032,913	\$14.22	22.9%
Aphids	85,107	30%	14,185	5%	1.0	\$6.00	0.00%	0.05	\$0.30	0.00%	0	\$25,532	\$0.09	0.1%
Grasshoppers	141,846	50%	70,923	25%	1.0	\$6.50	0.10%	0.25	\$1.63	0.05%	386	\$350,931	\$1.24	2.0%
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	14,185	5%	7,092	3%	1.0	\$14.50	0.00%	0.02	\$0.29	0.00%	0	\$4,114	\$0.01	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							4.15%	4.85	\$36.66	3.68%	28,450	\$17,611,814	\$62.08	

SUMMARY DATA

Data Input		Yield and Management Results			Economic Results		
State	Alabama	Total Acres		283,691	Total	Per Acre	
Region	Southeast	Total Bales Harvested		502,369	Foliar Insecticide Costs	\$10,400,112	
Year	2020	Total Bales Lost to Insects		28,450	Seed Treatment Costs	\$3,574,507	
Total Acres (Upland)	283,691	In-furrow cost/treated acre	\$15.00	Percent Yield Loss	3.7%	In-Furrow Costs	\$425,537
Yield / Acre (Upland)	850	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	883	Scouting Costs	\$2,290,805
Price / lb	\$0.65	Cost/acre Boll Weevil Eradication	\$1.50	Av. # Applications	4.85	Eradication Costs	\$425,537
yield potential (lb/acre)	1,307	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	270,232	Bt Cotton	\$9,489,467
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	35.0%	Total Costs	\$26,605,965
Yield / Acre (Pima)	0	% Insect apps by air	15%	Transgenic Cotton (arthropods) (# acres)	283,691	Yield Loss to Insects	\$8,876,400
% Acres Scouted	95%	No. apps by air	2	Boll Weevil Eradication (# acres)	283,691	Total Losses + Costs	\$35,482,365
Fee / Scouted Acre	\$8.50	Cost/app by air	\$6.50	Pink Bollworm Eradication (# acres)	0		
No. times scouted/week	1	% insect apps by ground	85%	# Scouted Acres	269,506		
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	3.5	Seed Treatments (arthropods) (# acres)	255,322		
Cost/treated acre (Bt) Cotton	\$33.45	Cost/app by ground	\$5.00	In-Furrow Applications (# acres)	28,369		
% acres with seed treatment	90%	% Loss to weather	27.8%	Applications by Air (acres)	42,554		
Seed trt. cost/ treated acre	\$14.00	% loss to non-arthropods	1.0%	Applications by Ground (acres)	241,137		
% acres with in-furrow	10%	% 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 2020, 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	55.0%	156,030	\$60.00	\$35.00	0%	0	0.0
Bollgard III	30.0%	85,107	\$63.00	\$35.00	0%	0	0.0
WideStrike	0.0%	0	\$45.00	\$0.00	0%	0	0.0
WideStrike 3	10.0%	28,369	\$48.00	\$18.00	0%	0	0.0
TwinLink	0.0%	0	\$0.00	\$0.00	0%	0	0.0
TwinLink Plus	5.0%	14,185	\$60.00	\$38.00	0%	0	0.0
Total Bt	100.0%	283,691	\$59.70	\$33.45	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%	283,691	\$59.70	\$33.45	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)		283,691	\$59.70	-	0.0%	0	0.0