

Table 3. Cotton insect loss estimates for 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	19,923	5%	0	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	\$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	\$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	384,812	97%	364,889	91.6%	2.2	\$9.50	1.08%	1.98	\$18.76	1.04%	11,567	\$11,661,443	\$29.27	35.2%
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)	398,459	100%	322,054	80.8%	1.8	\$8.00	1.50%	1.49	\$11.91	1.50%	16,611	\$11,125,611	\$27.92	33.6%
Brown Stink Bug	358,613	90%	186,678	46.8%	0.5	\$9.50	0.50%	0.23	\$2.23	0.45%	4,983	\$2,711,608	\$6.81	8.2%
Clouded Plant Bug	135,376	34%	81,883	20.5%	0.7	\$5.14	0.09%	0.14	\$0.72	0.03%	341	\$228,981	\$0.57	0.7%
Leaf Footed Bugs	203,612	51%	54,589	13.7%	0.7	\$6.51	0.09%	0.09	\$0.61	0.05%	531	\$328,245	\$0.82	1.0%
Spider Mites	240,171	60%	16,158	4.1%	1.0	\$8.50	0.00%	0.04	\$0.34	0.00%	0	\$82,781	\$0.21	0.3%
Thrips	398,459	100%	291,473	73.2%	1.0	\$6.50	1.00%	0.73	\$4.75	1.00%	11,074	\$6,146,928	\$15.43	18.6%
Aphids	94,435	24%	2,729	0.7%	0.7	\$4.45	0.00%	0.00	\$0.02	0.00%	0	\$1,973	\$0.00	0.0%
Grasshoppers	229,811	58%	176,318	44.2%	1.1	\$7.50	0.00%	0.47	\$3.55	0.00%	0	\$814,928	\$2.05	2.5%
Banded Winged Whitefly	0	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	3%	0	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
TOTAL								5.18	\$42.90	4.07%	45,107	\$33,102,497	\$83.08	

SUMMARY DATA

	Data Input		Yield and Management Results			Economic Results	
	Alabama	Region	Total Acres	Total Bales Harvested	Foliar Insecticide Costs	Total	Per Acre
State	Alabama	Southeast	398,459	718,679	\$17,094,408	\$42.90	
Year	2021			45,107	\$4,829,523	\$12.12	
Total Acres (Upland)	398,459	In-furrow cost/treated acre	\$15.00	Percent Yield Loss	\$802,397	\$2.01	
Yield / Acre (Upland)	866	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	\$2,878,866	\$7.23	
Price / lb	\$0.80	Cost/acre Boll Weevil Eradication	\$1.50	Av. # Applications	\$597,689	\$1.50	
yield potential (lb/acre)	1,334	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	\$12,989,763	\$32.60	
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	\$39,192,645	\$98.36	
Yield / Acre (Pima)	0	% Insect apps by air	15%	Transgenic Cotton (arthropods) (# acres)	\$17,321,010	\$43.47	
% Acres Scouted	85%	No. apps by air	2.0	Boll Weevil Eradication (# acres)	\$56,513,655	\$141.83	
Fee / Scouted Acre	\$8.50	Cost/app by air	\$7.50	Pink Bollworm Eradication (# acres)	0		
No. times scouted/week	1.0	% insect apps by ground	85%	# Scouted Acres	338,690		
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	4.5	Seed Treatments (arthropods) (# acres)	344,966		
Cost/treated acre (Bt) Cotton	\$32.60	Cost/app by ground	\$5.00	In-Furrow Applications (# acres)	53,493		
% acres with seed treatment	87%	% Loss to weather	27.5%	Applications by Air (acres)	59,769		
Seed trt. cost/ treated acre	\$14.00	% loss to non-arthropods	1.0%	Applications by Ground (acres)	338,690		
% acres with in-furrow	13%	% loss to other (chemical injury, weeds, diseases, etc.)	2.5%	No. acres with no foliar insecticide applications	0		

Table 3. Cotton insect loss estimates for 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%	179,307	\$60.00	\$35.00	0%	0	0.0
Bollgard III	35.0%	139,461	\$63.00	\$35.00	0%	0	0.0
WideStrike	0.0%	0	\$45.00	\$0.00	0%	0	0.0
WideStrike 3	15.0%	59,769	\$48.00	\$18.00	0%	0	0.0
TwinLink	0.0%	0	\$0.00	\$0.00	0%	0	0.0
TwinLink Plus	5.0%	19,923	\$60.00	\$38.00	0%	0	0.0
Total Bt	100.0%	398,459	\$59.25	\$32.60	0.0%	0	0.0
Herbicide Traits Only	0.0%	0	\$0.00	-	0	0	\$0.00
Conventional	0.0%	0	\$0.00	-	0	0	\$0.00
Organic	0.0%	0	\$0.00	-	0	0	\$0.00
Total Upland Cotton	100.0%	398,459	\$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)		398,459	\$59.25		0.0%	0	0.0