

Table 2. Cotton insect loss estimates for North 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	32,251	20%	0	0%	0.0	\$0.00	0.05%	0.00	\$0.00	0.01%	46	\$14,352	\$0.09	0.2%
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	3,225	2%	0	0%	0.0	\$0.00	0.01%	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	161,257	100%	145,131	90%	2.0	\$12.75	0.75%	1.80	\$22.95	0.75%	3,467	\$4,782,552	\$29.66	53.0%
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)	80,629	50%	32,251	20%	1.0	\$7.50	1.75%	0.20	\$1.50	0.88%	4,045	\$1,382,983	\$8.58	15.3%
Brown Stink Bug	80,629	50%	16,126	10%	1.0	\$8.50	0.50%	0.10	\$0.85	0.25%	1,156	\$429,206	\$2.66	4.8%
Clouded Plant Bug	32,251	20%	8,063	5%	1.0	\$9.50	0.10%	0.05	\$0.48	0.02%	92	\$44,023	\$0.27	0.5%
Leaf Footed Bugs	48,377	30%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	40,314	25%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Thrips	161,257	100%	129,006	80%	1.1	\$6.50	1.00%	0.88	\$5.72	1.00%	4,623	\$2,364,766	\$14.66	26.2%
Aphids	16,126	10%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Grasshoppers	24,189	15%	12,901	8%	1.0	\$6.50	0.00%	0.08	\$0.52	0.00%	0	\$12,578	\$0.08	0.1%
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	0	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							4.16%	3.11	\$32.02	2.91%	13,429	\$9,030,460	\$56.00	

SUMMARY DATA

	Data Input		Yield and Management Results			Economic Results	
	Alabama		Total Acres			Total	Per Acre
State	Alabama		161,257				
Region	Southeast		285,559	Total Bales Harvested		\$5,162,643	\$32.02
Year	2020		13,429	Total Bales Lost to Insects		\$2,144,718	\$13.30
Total Acres (Upland)	161,257	In-furrow cost/treated acre	\$15.00	Percent Yield Loss	2.9%	\$120,943	\$0.75
Yield / Acre (Upland)	850	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	875	\$1,370,685	\$8.50
Price / lb	\$0.65	Cost/acre Boll Weevil Eradication	\$1.50	Av. # Applications	3.11	\$241,886	\$1.50
yield potential (lb/acre)	1,376	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	176,610	\$5,394,042	\$33.45
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	38.2%	\$14,434,917	\$89.51
Yield / Acre (Pima)	0	% Insect apps by air	15%	Transgenic Cotton (arthropods) (# acres)	161,257	\$4,189,848	\$25.98
% Acres Scouted	100%	No. apps by air	2	Boll Weevil Eradication (# acres)	161,257	Total Losses + Costs	\$18,624,765
Fee / Scouted Acre	\$8.50	Cost/app by air	\$6.50	Pink Bollworm Eradication (# acres)	0		
No. times scouted/week	1.1	% insect apps by ground	85%	# Scouted Acres	161,257		
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	3.5	Seed Treatments (arthropods) (# acres)	153,194		
Cost/treated acre (Bt) Cotton	\$33.45	Cost/app by ground	\$5.00	In-Furrow Applications (# acres)	8,063		
% acres with seed treatment	95%	% Loss to weather	31.8%	Applications by Air (acres)	24,189		
Seed trt. cost/ treated acre	\$14.00	% loss to non-arthropods	1.0%	Applications by Ground (acres)	137,068		
% acres with in-furrow	5%	% loss to other (chemical injury, weeds, diseases, etc.)	2.5%	No. acres with no foliar insecticide applications	0		

Table 2. Cotton insect loss estimates for North 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%	88,691	\$60.00	\$35.00	0%	0	0.0
Bollgard III	30.0%	48,377	\$63.00	\$35.00	0%	0	0.0
WideStrike	0.0%	0	\$45.00	\$0.00	0%	0	0.0
WideStrike 3	10.0%	16,126	\$48.00	\$18.00	0%	0	0.0
TwinLink	0.0%	0	\$0.00	\$0.00	0%	0	0.0
TwinLink Plus	5.0%	8,063	\$60.00	\$38.00	0%	0	0.0
Total Bt	100.0%	161,257	\$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%	161,257	\$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)		161,257	\$59.70	-	0.0%	0	0.0