Table 3. Cotton insect loss estimates for 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	60,621	14%	0	0.0%	0.0	$0.00	0.03%	0.00	$0.00	0.00%	45	$13,951	$0.03	0.1%
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	3,225	1%	0	0.0%	0.0	$0.00	0.01%	0.00	$0.00	0.00%	1	$279	$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	402,394	90%	372,084	83.6%	1.7	$9.72	0.45%	1.41	$13.67	0.41%	5,025	$7,067,573	$15.88	28.4%
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)	350,135	79%	287,573	64.6%	1.6	$7.50	1.94%	1.06	$7.94	1.53%	18,859	$8,663,320	$19.47	34.8%
Brown Stink Bug	307,581	69%	129,602	29.1%	0.7	$8.50	0.50%	0.20	$1.69	0.35%	4,264	$1,849,274	$4.16	7.4%
Clouded Plant Bug	117,359	26%	36,432	8.2%	1.0	$8.22	0.10%	0.08	$0.67	0.03%	325	$180,567	$0.41	0.7%
Leaf Footed Bugs	246,961	56%	56,738	12.8%	0.6	$6.06	0.08%	0.08	$0.49	0.04%	551	$293,421	$0.66	1.2%
Spider Mites	97,052	22%	42,554	9.6%	0.6	$5.42	0.06%	0.06	$0.33	0.01%	157	$81,159	$0.18	0.3%
Thrips	444,948	100%	355,958	80.0%	1.1	$6.50	1.00%	0.88	$5.72	1.00%	12,338	$6,394,570	$14.37	25.7%
Aphids	101,233	23%	14,185	3.2%	0.6	$3.83	0.00%	0.02	$0.08	0.00%	0	$7,871	$0.02	0.0%
Grasshoppers	166,034	37%	83,823	18.8%	1.0	$6.50	0.09%	0.19	$1.22	0.03%	393	$326,031	$0.73	1.3%
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	14,185	3%	7,092	1.6%	0.6	$9.24	0.00%	0.01	$0.09	0.00%	0	$1,333	$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								3.99	$31.90	3.40%	41,959	$24,879,349	$55.92	

SUMMARY DATA

Data Input				Yield and Management Results		Economic Results		
State	Alabama			Total Acres	444,948		Total	Per Acre
Region	Southeast			Total Bales Harvested	787,929	Foliar Insecticide Costs	$14,195,809	$31.90
Year	2020			Total Bales Lost to Insects	41,959	Seed Treatment Costs	$5,719,225	$12.85
Total Acres (Upland)	444,948	In-furrow cost/treated acre	$15.00	Percent Yield Loss	3.4%	In-Furrow Costs	$546,479	$1.23
Yield / Acre (Upland)	850	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	880	Scouting Costs	$3,661,489	$8.23
Price / lb	$0.65	Cost/acre Boll Weevil Eradication	$1.50	Av. # Applications	4.0	Eradication Costs	$667,422	$1.50
yield potential (lb/acre)	1,331	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	446,842	Bt Cotton	$14,883,511	$33.45
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	$0.00	Total % yield Loss	36.2%	Total Costs	$39,673,935	$89.17
Yield / Acre (Pima)	0	% Insect apps by air	15%	Transgenic Cotton (arthropods) (# acres)	444,948	Yield Loss to Insects	$13,091,242	$29.42
% Acres Scouted	97%	No. apps by air	2.0	Boll Weevil Eradication (# acres)	444,948	Total Losses + Costs	$52,765,176	$118.59
Fee / Scouted Acre	$8.50	Cost/app by air	$6.50	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1.0	% insect apps by ground	85%	# Scouted Acres	430,763			
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	3.5	Seed Treatments (arthropods) (# acres)	408,516			
Cost/treated acre (Bt) Cotton	$33.45	Cost/app by ground	$5.00	In-Furrow Applications (# acres)	36,432			
% acres with seed treatment	92%	% Loss to weather	29.2%	Applications by Air (acres)	66,742			
Seed trt. cost/ treated acre	$14.00	% loss to non-arthropods	1.0%	Applications by Ground (acres)	378,206			
% acres with in-furrow	8%	% 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 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%	244,721	$60.00	$35.00	0%	0	0.0
Bollgard III	30.0%	133,484	$63.00	$35.00	0%	0	0.0
WideStrike	0.0%	0	$45.00	$0.00	0%	0	0.0
WideStrike 3	10.0%	44,495	$48.00	$18.00	0%	0	0.0
TwinLink	0.0%	0	$0.00	$0.00	0%	0	0.0
TwinLink Plus	5.0%	22,247	$60.00	$38.00	0%	0	0.0
Total Bt	100.0%	444,948	$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%	444,948	$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)		444,948	$59.70	-	0.0%	0	0.0