

Table 2. Cotton insect loss estimates for North Alabama during 2017.

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	171,767	100%	42,942	25.0%	1.0	\$11.00	2.50%	0.25	\$2.75	2.50%	10,735	\$4,027,791	\$23.45	43.1%
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	8,588	5%	3,435	2.0%	1.0	\$7.50	0.00%	0.02	\$0.15	0.00%	0	\$1,288	\$0.01	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	171,767	100%	154,590	90.0%	2.0	\$11.00	0.75%	1.80	\$19.80	0.75%	3,221	\$4,467,782	\$26.01	47.8%
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)	171,767	100%	8,588	5.0%	1.0	\$8.50	0.03%	0.05	\$0.43	0.03%	129	\$115,726	\$0.67	1.2%
Brown Stink Bug	171,767	100%	1,718	1.0%	1.0	\$10.00	0.00%	0.01	\$0.10	0.00%	4	\$18,502	\$0.11	0.2%
Clouded Plant Bug	42,942	25%	3,435	2.0%	1.0	\$8.50	0.00%	0.02	\$0.17	0.00%	0	\$7,300	\$0.04	0.1%
Leaf Footed Bugs	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	171,767	100%	859	0.5%	1.0	\$10.00	0.00%	0.01	\$0.10	0.00%	0	\$17,177	\$0.10	0.2%
Thrips	171,767	100%	60,118	35.0%	1.0	\$9.00	0.10%	0.35	\$3.15	0.10%	429	\$683,151	\$3.98	7.3%
Aphids	171,767	100%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Grasshoppers	17,177	10%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
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	0	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								2.51	\$26.65	3.38%	14,518	\$9,338,717	\$54.37	

SUMMARY DATA

Data Input			Yield and Management Results			Economic Results	
State	Alabama		Total Acres	171,767		Total	Per Acre
Region	Southeast		Total Bales Harvested	322,063		Foliar Insecticide Costs	\$26.65
Year	2017		Total Bales Lost to Insects	14,518		Seed Treatment Costs	\$9.00
Total Acres (Upland)	171,767	In-furrow cost/treated acre	\$12.00	Percent Yield Loss	3.4%	In-Furrow Costs	\$0.60
Yield / Acre (Upland)	900	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	931	Scouting Costs	\$5.85
Price / lb	\$0.69	Cost/acre Boll Weevil Eradication	\$3.50	Av. # Applications	2.51	Eradication Costs	\$3.50
yield potential (lb/acre)	1,200	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	87,520	Bt Cotton	\$17.18
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	20.4%	Total Costs	\$62.78
Yield / Acre (Pima)	0	% Insect apps by air	15%	Transgenic Cotton (arthropods) (# acres)	171,767	Yield Loss to Insects	\$27.99
% Acres Scouted	90%	No. apps by air	1	Boll Weevil Eradication (# acres)	171,767	Total Losses + Costs	\$90.77
Fee / Scouted Acre	\$6.50	Cost/app by air	\$5.50	Pink Bollworm Eradication (# acres)	0		
No. times scouted/week	1	% insect apps by ground	85%	# Scouted Acres	154,590		
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	3	Seed Treatments (arthropods) (# acres)	154,590		
Cost/treated acre (Bt) Cotton	\$17.18	Cost/app by ground	\$5.00	In-Furrow Applications (# acres)	8,588		
% acres with seed treatment	90%	% Loss to weather	10.0%	Applications by Air (acres)	25,765		
Seed trt. cost/ treated acre	\$10.00	% loss to non-arthropods	5.0%	Applications by Ground (acres)	146,002		
% acres with in-furrow	5%	% loss to other (chemical injury, weeds, diseases, etc.)	2.0%	No. acres with no foliar insecticide applications	8,588		

Table 2. Cotton insect loss estimates for North Alabama during 2017, 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	% of Population Bollworm
Bollgard II	75.0%	128,825	\$57.00	\$18.00	25%	32,206	1.0	100%
Bollgard III	0.0%	0	-	-	-	-	-	-
WideStrike	17.0%	29,200	\$41.00	\$13.00	35%	10,220	1.5	100%
WideStrike 3	3.0%	5,153	\$47.00	\$19.00	0%	0	0.0	0%
TwinLink	5.0%	8,588	\$57.00	\$18.00	25%	2,147	1.0	100%
TwinLink Plus	0.0%	0	-	-	-	-	-	-
Total Bt	100%	171,766	\$53.98	\$17.18	25.9%	44,573	1.1	97.0%
Herbicide Traits Only	0%	0	-	-	-	-	-	-
Conventional	0%	0	-	-	-	-	-	-
Organic	0%	0	-	-	-	-	-	-
Total Upland Cotton	100.0%	171,766	\$53.98	\$17.18	25.9%	44,573	1.1	97.0%
Non Upland Cotton								
Pima	0%	0	-	-	-	-	-	-
Other	0%	0	-	-	-	-	-	-
Organic	0%	0	-	-	-	-	-	-
Total (all Cotton)		171,766	\$53.98		25.9%	44,573	1.1	