

Table 2. Cotton insect loss estimates for North Alabama during 2018.

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	183,168	100.0%	9,158	5.0%	1.0	\$13.00	0.3%	0.05	\$0.65	0.25%	1,145	\$531,259	\$2.90	9.7%
Beet Armyworm	0	0.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Fall Armyworm	0	0.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	0	0.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	9,158	5.0%	1,832	1.0%	1.0	\$7.50	0.0%	0.01	\$0.08	0.00%	0	\$687	\$0.00	0.0%
Cotton Leaf Perforator	0	0.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Saltmarsh Caterpillar	0	0.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	183,168	100.0%	164,851	90.0%	1.3	\$11.00	0.5%	1.12	\$12.32	0.50%	2,290	\$3,081,030	\$16.82	56.3%
Cotton Fleahopper	18,317	10.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Stink Bugs (other than brown stink bug)	183,168	100.0%	5,495	3.0%	1.0	\$8.50	0.5%	0.03	\$0.26	0.50%	2,290	\$871,108	\$4.76	15.9%
Brown Stink Bug	183,168	100.0%	1,832	1.0%	1.0	\$10.00	0.1%	0.01	\$0.10	0.10%	458	\$183,197	\$1.00	3.3%
Clouded Plant Bug	91,584	50.0%	9,158	5.0%	1.0	\$10.00	0.1%	0.05	\$0.50	0.05%	229	\$128,232	\$0.70	2.3%
Leaf Footed Bugs	9,158	5.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	183,168	100.0%	916	1.0%	1.0	\$8.00	0.0%	0.01	\$0.08	0.00%	0	\$14,653	\$0.08	0.3%
Thrips	183,168	100.0%	54,950	30.0%	1.0	\$9.00	0.1%	0.30	\$2.70	0.10%	458	\$659,434	\$3.60	12.1%
Aphids	183,168	100.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Grasshoppers	45,792	25.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Banded Winged Whitefly	0	0.0%	0	0.0%	0.0	\$0.00	0.0%	0.0	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	0	0.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Boll Weevil	0	0.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
TOTAL								1.58	\$16.68	1.50%	6,870	\$5,469,600	\$29.86	

SUMMARY DATA

Data Input			Yield and Management Results			Economic Results		
State	Alabama		Total Acres	183,168		Total		Per Acre
Region	Southeast		Total Bales Harvested	419,760		Foliar Insecticide Costs	\$3,055,242	
Year	2018		Total Bales Lost to Insects	6,870		Seed Treatment Costs	\$1,795,046	
Total Acres (Upland)	183,168	In-furrow cost/treated acre	\$12.00	Percent Yield Loss	1.5%		In-Furrow Costs	\$43,960
Yield / Acre (Upland)	1,100	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	1,117		Scouting Costs	\$1,153,958
Price / lb	\$0.75	Cost/acre Boll Weevil Eradication	\$3.50	Av. # Applications	1.58		Eradication Costs	\$641,088
yield potential (lb/acre)	1,200	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	84,715		Bt Cotton	\$3,174,307
Acres (Pima)	-	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	18.5%		Total Costs	\$9,863,601
Yield / Acre (Pima)	-	% Insect apps by air	15%	Transgenic Cotton (arthropods) (# acres)	183,168		Yield Loss to Insects	\$2,473,200
% Acres Scouted	90%	No. apps by air	1.0	Boll Weevil Eradication (# acres)	183,168		Total Losses + Costs	\$12,336,801
Fee / Scouted Acre	\$7.00	Cost/app by air	\$5.50	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1.2	% insect apps by ground	85%	# Scouted Acres	164,851			
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2.5	Seed Treatments (arthropods) (# acres)	179,505			
Cost/treated acre (Bt) Cotton	\$17.33	Cost/app by ground	\$5.00	In-Furrow Applications (# acres)	3,663			
% acres with seed treatment	98%	% Loss to weather	10.0%	Applications by Air (acres)	27,475			
Seed trt. cost/ treated acre	\$10.00	% loss to non-arthropods	5.0%	Applications by Ground (acres)	155,693			
% acres with in-furrow	2%	% loss to other (chemical injury, weeds, diseases, etc.)	2.0%	No. acres with no foliar insecticide applications	3,663			

Table 2. Cotton insect loss estimates for North Alabama during 2018, 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	80.0%	146,534	\$58.00	\$18.00	4%	5,861	1.0
Bollgard III	3.0%	5,495	\$65.00	\$25.00	0%	0	0.0
WideStrike	5.0%	9,158	\$43.00	\$13.00	5%	458	1.0
WideStrike 3	10.0%	18,317	\$48.00	\$18.50	0%	0	0.0
TwinLink	1.0%	1,832	\$50.00	\$18.00	2%	37	1.0
TwinLink Plus	1.0%	1,832	\$55.00	\$25.00	0%	0	0.0
Total Bt	100.0%	183,168	\$54.40	\$17.33	3.5%	6,356	0.9
Herbicide Traits Only	0%	0	\$0.00	-	0%	0	0.0
Conventional	0%	0	\$0.00	-	0%	0	0.0
Organic	0%	0	\$0.00	-	0%	0	0.0
Total Upland Cotton	100.0%	183,168	\$54.40	\$17.33	3.5%	6,356	0.9
Non Upland Cotton							
Pima	0%	0	\$0.00	-	0%	0	0.0
Other	0%	0	\$0.00	-	0%	0	0.0
Organic	0%	0	\$0.00	-	0%	0	0.0
Total (all Cotton)		183,168	\$54.40		3.5%	6,356	0.9