

Table 1. Cotton insect loss estimates for South 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	261,209	100%	26,121	10%	1.0	\$7.00	1.00%	0.10	\$0.70	1.00%	6,177	\$2,228,669	\$8.53	27.5%
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	7,836	3%	26,121	10%	1.0	\$5.00	0.00%	0.10	\$0.50	0.00%	0	\$3,918	\$0.01	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	52,242	20%	13,060	5%	1.0	\$5.00	0.10%	0.05	\$0.25	0.02%	124	\$54,129	\$0.21	0.7%
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)	261,209	100%	208,967	80%	1.5	\$4.50	1.00%	1.20	\$5.40	1.00%	6,177	\$3,456,351	\$13.23	42.7%
Brown Stink Bug	261,209	100%	52,242	20%	1.0	\$5.00	0.10%	0.20	\$1.00	0.10%	618	\$465,891	\$1.78	5.7%
Clouded Plant Bug	39,181	15%	26,121	10%	1.0	\$5.00	0.10%	0.10	\$0.50	0.02%	93	\$50,392	\$0.19	0.6%
Leaf Footed Bugs	78,363	30%	130,605	50%	1.0	\$5.00	0.00%	0.50	\$2.50	0.00%	0	\$195,907	\$0.75	2.4%
Spider Mites	52,242	20%	7,836	3%	1.0	\$10.00	0.00%	0.03	\$0.30	0.00%	0	\$15,673	\$0.06	0.2%
Thrips	261,209	100%	52,242	20%	1.0	\$5.00	0.20%	0.20	\$1.00	0.20%	1,235	\$670,241	\$2.57	8.3%
Aphids	91,423	35%	13,060	5%	1.0	\$3.00	0.00%	0.05	\$0.15	0.00%	0	\$13,713	\$0.05	0.2%
Grasshoppers	65,302	25%	39,181	15%	1.0	\$7.00	0.00%	0.15	\$1.05	0.00%	0	\$68,567	\$0.26	0.8%
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	65,302	25%	52,242	20%	1.5	\$24.00	0.80%	0.30	\$7.20	0.20%	1,235	\$879,208	\$3.37	10.9%
Boll Weevil	0	0%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
<b>TOTAL</b>								2.98	\$20.55	2.54%	15,659	\$8,102,659	\$31.02	

**SUMMARY DATA**

Data Input			Yield and Management Results			Economic Results		
State	Alabama		Total Acres	261,209		Total		Per Acre
Region	Southeast		Total Bales Harvested	492,488	Foliar Insecticide Costs	\$5,367,845		\$20.55
Year	2017		Total Bales Lost to Insects	15,659	Seed Treatment Costs	\$3,291,233		\$12.60
Total Acres (Upland)	261,209	In-furrow cost/treated acre	\$12.00	Percent Yield Loss	2.5%	In-Furrow Costs	\$156,725	\$0.60
Yield / Acre (Upland)	905	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	929	Scouting Costs	\$1,887,235	\$7.22
Price / lb	\$0.69	Cost/acre Boll Weevil Eradication	\$3.50	Av. # Applications	2.98	Eradication Costs	\$914,232	\$3.50
yield potential (lb/acre)	1,135	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	124,982	Bt Cotton	\$4,586,824	\$17.56
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	20.2%	Total Costs	\$16,204,094	\$62.03
Yield / Acre (Pima)	0	% Insect apps by air	15%	Transgenic Cotton (arthropods) (# acres)	261,209	Yield Loss to Insects	\$5,186,261	\$19.85
% Acres Scouted	85%	No. apps by air	1	Boll Weevil Eradication (# acres)	261,209	Total Losses + Costs	\$21,390,355	\$81.89
Fee / Scouted Acre	\$8.50	Cost/app by air	\$5.50	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1	% insect apps by ground	85%	# Scouted Acres	222,028			
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2.5	Seed Treatments (arthropods) (# acres)	235,088			
Cost/treated acre (Bt) Cotton	\$17.56	Cost/app by ground	\$4.50	In-Furrow Applications (# acres)	13,060			
% acres with seed treatment	90%	% Loss to weather	10.7%	Applications by Air (acres)	39,181			
Seed trt. cost/ treated acre	\$14.00	% loss to non-arthropods	5.0%	Applications by Ground (acres)	222,028			
% acres with in-furrow	5%	% loss to other (chemical injury, weeds, diseases, etc.)	2.0%	No. acres with no foliar insecticide applications	5,224			

Table 1. Cotton insect loss estimates for South 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%	195,907	\$60.00	\$20.00	10%	19,591	1.0	100%
Bollgard III	0.0%	0	-	-	-	-	-	-
WideStrike	13.0%	33,957	\$45.00	\$12.00	30%	10,187	1.0	100%
WideStrike 3	7.0%	18,285	-	-	-	-	-	-
TwinLink	5.0%	13,060	\$60.00	\$20.00	10%	1,306	1.0	100%
TwinLink Plus	0.0%	0	-	-	-	-	-	-
<b>Total Bt</b>	<b>100%</b>	<b>261,209</b>	<b>\$53.85</b>	<b>\$17.56</b>	<b>11.9%</b>	<b>31,084</b>	<b>0.9</b>	<b>93.0%</b>
Herbicide Traits Only	0%	0	-	-	-	-	-	-
Conventional	0%	0	-	-	-	-	-	-
Organic	0%	0	-	-	-	-	-	-
<b>Total Upland Cotton</b>	<b>100.0%</b>	<b>261,209</b>	<b>\$53.85</b>	<b>\$17.56</b>	<b>11.9%</b>	<b>31,084</b>	<b>0.9</b>	<b>93.0%</b>
Non Upland Cotton			-	-	-	-	-	-
Pima	0%	0	-	-	-	-	-	-
Other	0%	0	-	-	-	-	-	-
Organic	0%	0	-	-	-	-	-	-
<b>Total (all Cotton)</b>		<b>275,387</b>	<b>\$53.85</b>		<b>11.9%</b>	<b>32,771</b>	<b>0.9</b>	