Table 1. Cotton insect loss estimates for South Alabama during 2018.

	Acres	% Acres		% Acres	# of apps	Cost of 1	% loss /acre	# of apps/		overall %	Bales lost /		Loss +	% Total
Pest	Infested	Infested	Acres Treated	Treated	/acres treated	application	infested	total acres	cost/acre	reduction	pest	Loss + cost	cost/acre	Loss+Cost
Bollworm/Budworm	254,400	80.0%	6,360	2.0%	1.0	\$7.00	0.50%	0.02	\$0.14	0.40%	3,313	\$35,616	\$0.11	0.6%
Beet Armyworm	0	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	\$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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cotton Leaf Perforator	0	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	63,600	20.0%	15,900	5.0%	1.0	\$6.00	0.20%	0.05	\$0.30	0.04%	331	\$19,080	\$0.06	0.3%
Cotton Fleahopper	0	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	318,000	100.0%	302,100	95.0%	1.0	\$7.00	1.50%	0.95	\$6.65	1.50%	12,422	\$2,114,700	\$6.65	38.5%
brown stink bug)														
Brown Stink Bug	318,000	100.0%	302,100	95.0%	1.0	\$8.00	1.50%	0.95	\$7.60	1.50%	12,422	\$2,416,800	\$7.60	44.0%
Clouded Plant Bug	6,360	2.0%	6,360	2.0%	1.0	\$7.00	0.00%	0.02	\$0.14	0.00%	0	\$890	\$0.00	0.0%
Leaf Footed Bugs	111,300	35.0%	63,600	20.0%	1.0	\$8.00	0.00%	0.20	\$1.60	0.00%	0	\$178,080	\$0.56	3.2%
Spider Mites	47,700	15.0%	9,540	3.0%	1.0	\$8.00	0.00%	0.03	\$0.24	0.00%	0	\$11,448	\$0.04	0.2%
Thrips	318,000	100.0%	63,600	20.0%	1.0	\$7.00	0.10%	0.20	\$1.40	0.10%	828	\$445,200	\$1.40	8.1%
Aphids	127,200	40.0%	63,600	20.0%	1.0	\$5.00	0.20%	0.20	\$1.00	0.08%	663	\$127,200	\$0.40	2.3%
Grasshoppers	222,600	70.0%	31,800	10.0%	1.0	\$6.00	0.00%	0.10	\$0.60	0.00%	0	\$133,560	\$0.42	2.4%
Banded Winged	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Whitefly														
Silverleaf Whitefly	47,700	15.0%	3,180	1.0%	1.0	\$18.00	0.00%	0.01	\$0.18	0.00%	0	\$8,586	\$0.03	0.2%
Boll Weevil	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
TOTAL								2.73	\$19.85	3.62%	29,979	\$5,491,160	\$17.27	

SUMMARY	DATA
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	Data	Input		Yield and Management Results	Economic Results			
State	Alabama			Total Acres	318,000		Total	Per Acre
Region	Southeast			Total Bales Harvested	579,688	Foliar Insecticide Costs	\$6,312,300	\$19.85
Year	2018			Total Bales Lost to Insects	29,979	Seed Treatment Costs	\$4,229,400	\$13.30
Total Acres (Upland)	318,000	In-furrow cost/treated acre	\$12.00	Percent Yield Loss	3.6%	In-Furrow Costs	\$190,800	\$0.60
Yield / Acre (Upland)	875	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	908	Scouting Costs	\$2,162,400	\$6.80
Price / lb	\$0.75	Cost/acre Boll Weevil Eradication	\$2.00	Av. # Applications	2.7	Eradication Costs	\$636,000	\$2.00
yield potential (lb/acre)	1,250	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	278,416	Bt Cotton	\$10,147,380	\$31.91
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	33.6%	Total Costs	\$23,678,280	\$74.46
Yield / Acre (Pima)	0	% Insect apps by air	20%	Transgenic Cotton (arthropods) (# acres)	318,000	Yield Loss to Insects	\$10,792,440	\$33.94
% Acres Scouted	80%	No. apps by air	1.0	Boll Weevil Eradication (# acres)	318,000	Total Losses + Costs	\$34,470,720	\$108.40
Fee / Scouted Acre	\$8.50	Cost/app by air	\$6.00	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1.0	% insect apps by ground	80%	# Scouted Acres	254,400			
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2.0	Seed Treatments (arthropods) (# acres)	302,100			
Cost/treated acre (Bt) Cotton	\$31.91	Cost/app by ground	\$5.00	In-Furrow Applications (# acres)	15,900			
% acres with seed treatment	95%	% Loss to weather	20.0%	Applications by Air (acres)	63,600			
Seed trt. cost/ treated acre	\$14.00	% loss to non-arthropods	5.0%	Applications by Ground (acres)	254,400			
% acres with in-furrow	5%	% loss to other (chemical injury,	5.0%	No. acres with no foliar insecticide	15,900			
		weeds, diseases, etc.)		applications				

Table 1. Cotton insect loss estimates for South Alabama during 2018, continued.

					% acres treated	# acres treated	# apps
Upland Cotton	% Acres	# Acres	Total cost/acre	Bt cost/acre	for BW/TBW	for BW/TBW	for BW/TBW
Bollgard II	64.0%	203,520	\$60.00	\$35.00	5%	10,176	1.0
Bollgard III	15.0%	47,700	\$63.00	\$35.00	0%	0	0.0
WideStrike	3.0%	9,540	\$45.00	\$15.00	75%	7,155	1.0
WideStrike 3	15.0%	47,700	\$48.00	\$18.00	0%	0	0.0
TwinLink	1.0%	3,180	\$60.00	\$35.00	5%	159	1.0
TwinLink Plus	2.0%	6,360	\$60.00	\$38.00	0%	0	0.0
Total Bt	100.0%	318,000	\$58.20	\$31.91	5.5%	17,490	0.7
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%	318,000	\$48.75	\$31.91	5.5%	17,490	0.7
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)		318,000	\$48.75		5.5%	17,490	0.7