Table 13. Cotton insect loss estimates for Florida 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	118,000	100.0%	23,600	20.0%	1.0	$7.00	0.80%	0.20	$1.40	0.80%	2,163	$943,880	$8.00	7.8%
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	3,540	3.0%	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	118,000	100.0%	118,000	100.0%	1.2	$8.50	2.00%	1.20	$10.20	2.00%	5,408	$3,150,480	$26.70	25.9%
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 brown stink bug)	118,000	100.0%	106,200	90.0%	1.7	$7.50	2.00%	1.53	$11.48	2.00%	5,408	$3,300,930	$27.97	27.1%
Brown Stink Bug	118,000	100.0%	106,200	90.0%	1.7	$8.50	1.00%	1.53	$13.01	1.00%	2,704	$2,508,030	$21.25	20.6%
Clouded Plant Bug	29,500	25.0%	29,500	25.0%	1.0	$8.50	0.80%	0.25	$2.13	0.20%	541	$257,448	$2.18	2.1%
Leaf Footed Bugs	94,400	80.0%	59,000	50.0%	1.0	$9.00	1.00%	0.50	$4.50	0.80%	2,163	$1,203,480	$10.20	9.9%
Spider Mites	14,160	12.0%	11,800	10.0%	1.0	$10.00	0.00%	0.10	$1.00	0.00%	0	$14,160	$0.12	0.1%
Thrips	118,000	100.0%	82,600	70.0%	1.0	$4.50	0.00%	0.70	$3.15	0.00%	0	$371,700	$3.15	3.1%
Aphids	118,000	100.0%	59,000	50.0%	1.0	$7.00	0.00%	0.50	$3.50	0.00%	0	$413,000	$3.50	3.4%
Grasshoppers	0	0.0%	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	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Silverleaf Whitefly	35,400	30.0%	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	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
TOTAL								6.51	$50.36	6.80%	18,387	$12,163,108	$103.08	

SUMMARY DATA

Data Input				Yield and Management Results		Economic Results		
State	Florida			Total Acres	118,000		Total	Per Acre
Region	Southeast			Total Bales Harvested	92,188	Foliar Insecticide Costs	$5,941,890	$50.36
Year	2018			Total Bales Lost to Insects	18,387	Seed Treatment Costs	$982,350	$8.33
Total Acres (Upland)	118,000	In-furrow cost/treated acre	$23.00	Percent Yield Loss	6.8%	In-Furrow Costs	$1,357,000	$11.50
Yield / Acre (Upland)	375	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	402	Scouting Costs	$453,120	$3.84
Price / lb	$0.75	Cost/acre Boll Weevil Eradication	$2.00	Av. # Applications	6.51	Eradication Costs	$236,000	$2.00
yield potential (lb/acre)	1,100	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	207,680	Bt Cotton	$4,114,896	$34.87
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	$0.00	Total % yield Loss	76.8%	Total Costs	$13,085,256	$110.89
Yield / Acre (Pima)	0	% Insect apps by air	0%	Transgenic Cotton (arthropods) (# acres)	118,000	Yield Loss to Insects	$6,619,320	$56.10
% Acres Scouted	48%	No. apps by air	0	Boll Weevil Eradication (# acres)	118,000	Total Losses + Costs	$19,704,576	$166.99
Fee / Scouted Acre	$8.00	Cost/app by air	$0.00	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1	% insect apps by ground	100%	# Scouted Acres	56,640			
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	3.5	Seed Treatments (arthropods) (# acres)	53,100			
Cost/treated acre (Bt) Cotton	$34.87	Cost/app by ground	$3.50	In-Furrow Applications (# acres)	59,000			
% acres with seed treatment	45%	% Loss to weather	69.0%	Applications by Air (acres)	0			
Seed trt. cost/ treated acre	$18.50	% loss to non-arthropods	0.0%	Applications by Ground (acres)	118,000			
% acres with in-furrow	50%	% loss to other (chemical injury, weeds, diseases, etc.)	1.0%	No. acres with no foliar insecticide applications	0			

Table 13. Cotton insect loss estimates for Florida 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	91.0%	107,380	$114.00	$35.00	20%	21,476	1.0
Bollgard III	3.0%	3,540	-	$35.00	0%	0	0.0
WideStrike	4.0%	4,720	$103.18	$38.15	20%	944	1.0
WideStrike 3	1.0%	1,180	$109.58	$44.60	0%	0	0.0
TwinLink	1.0%	1,180	-	-	0%	0	0.0
TwinLink Plus	0.0%	0	$0.00	$0.00	0%	0	0.0
Total Bt	100.0%	118,000	$108.96	$34.87	19.0%	22,420	1.0
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%	118,000	$108.96	$34.87	19.0%	22,420	1.0
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)		118,000	$108.96		19.0%	22,420	1.0