

Table 13. Cotton insect loss estimates for Florida during 2023.

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	53,400	60%	4,450	5.0%	1.0	\$10.00	1.00%	0.05	\$0.50	0.60%	1,750	\$673,500	\$7.57	3.7%
Beet Armyworm	13,350	15%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Fall Armyworm	17,800	20%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	1,780	2%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	890	1%	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	\$0.00	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	89,000	100%	80,100	90.0%	1.5	\$15.00	8.00%	1.35	\$20.25	8.00%	23,333	\$10,426,127	\$117.15	57.8%
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)	84,550	95%	80,100	90.0%	1.5	\$8.00	2.00%	1.35	\$10.80	1.90%	5,542	\$2,961,463	\$33.27	16.4%
Brown Stink Bug	44,500	50%	53,400	60.0%	1.0	\$8.50	1.00%	0.60	\$5.10	0.50%	1,458	\$765,827	\$8.60	4.2%
Clouded Plant Bug	17,800	20%	13,350	15.0%	1.0	\$10.00	0.50%	0.15	\$1.50	0.10%	292	\$134,623	\$1.51	0.7%
Leaf Footed Bugs	8,900	10%	8,900	10.0%	1.0	\$8.00	0.00%	0.10	\$0.80	0.00%	0	\$7,120	\$0.08	0.0%
Spider Mites	26,700	30%	53,400	60.0%	1.0	\$9.00	2.00%	0.60	\$5.40	0.60%	1,750	\$790,980	\$8.89	4.4%
Thrips	80,100	90%	80,100	90.0%	1.0	\$6.00	0.00%	0.90	\$5.40	0.00%	0	\$432,540	\$4.86	2.4%
Aphids	84,550	95%	44,500	50.0%	1.0	\$5.00	0.00%	0.50	\$2.50	0.00%	0	\$211,375	\$2.38	1.2%
Grasshoppers	13,350	15%	8,900	10.0%	1.0	\$6.00	0.00%	0.10	\$0.60	0.00%	0	\$8,010	\$0.09	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	22,250	25%	17,800	20.0%	2.5	\$25.00	5.00%	0.50	\$12.50	1.25%	3,646	\$1,625,687	\$18.27	9.0%
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					6.20			\$65.35		12.95%	37,771	\$18,037,252	\$202.67	

SUMMARY DATA

Data Input		Yield and Management Results			Economic Results	
State	Florida	Total Acres	89,000		Total	Per Acre
Region	Southeast	Total Bales Harvested	157,604		Foliar Insecticide Costs	\$5,816,150
Year	2023	Total Bales Lost to Insects	37,771		Seed Treatment Costs	\$1,281,600
Total Acres (Upland)	89,000	Percent Yield Loss	13.0%		In-Furrow Costs	\$1,201,500
Yield / Acre (Upland)	850	Yield w/o Insects (lb/acre)	976		Scouting Costs	\$400,500
Price / lb	\$0.77	Av. # Applications	6.2		Eradication Costs	\$178,000
yield potential (lb/acre)	1,573	Total Bales lost (all factors)	134,018		Bt Cotton	\$3,115,000
Acres (Pima)	0	Total % yield Loss	46.0%		Total Costs	\$11,992,750
Yield / Acre (Pima)	0	Transgenic Cotton (arthropods) (# acres)	89,000		Yield Loss to Insects	\$13,960,162
% Acres Scouted	50%	Boll Weevil Eradication (# acres)	89,000		Total Losses + Costs	\$25,952,912
Fee / Scouted Acre	\$9.00	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1	# Scouted Acres	44,500			
% acres Transgenic (Bt) Cotton	100%	Seed Treatments (arthropods) (# acres)	71,200			
Cost/treated acre (Bt) Cotton	\$35.00	In-Furrow Applications (# acres)	44,500			
% acres with seed treatment	80%	Applications by Air (acres)	17,800			
Seed trt. cost/ treated acre	\$18.00	Applications by Ground (acres)	89,000			
% acres with in-furrow	50%	No. acres with no foliar insecticide applications	0			

Table 13. Cotton insect loss estimates for Florida during 2023, 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	20.0%	17,800	\$114.00	\$35.00	7%	1,246	1.0
Bollgard III	75.0%	66,750	\$110.00	\$35.00	1%	334	1.0
Bollgard III/Thryvon	0.0%	0	\$103.18	\$0.00	0%	0	0.0
WideStrike	0.0%	0	\$109.58	\$0.00	0%	0	0.0
WideStrike 3	5.0%	4,450	\$109.58	\$35.00	0%	0	0.0
TwinLink	0.0%	0	\$109.58	\$0.00	0%	0	0.0
TwinLink Plus	0.0%	0	\$110.78	\$0.00	0%	0	0.0
Total Bt	100.0%	89,000	\$110.78	\$35.00	1.8%	1,580	0.0
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%	89,000	\$110.78	\$35.00	1.8%	1,580	0.0
Non Upland Cotton							
Pima	0.0%	0	\$0.00		0%	0	0.0
Other	0.0%	0	\$0.00		0%	0	0.0
Organic	0.0%	0	\$0.00		0%	0	0.0
Total (all Cotton)		89,000	\$110.78		1.8%	1,580	0.0

Upland Cotton	Thryvon Bt cost/acre	% acres treated for Thrips	# acres treated for Thrips	# apps for Thrips	% acres treated for Lygus	# acres treated for Lygus	# apps for Lygus
Bollgard III/Thryvon	\$0.00	0%	0	0	0%	0	0