Table 11. Cotton insect loss estimates for Florida during 2024.

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	33,200	40.0%	830	1.0%	1.0	$11.00	0.01%	0.01	$0.11	0.00%	7	$6,172	$0.07	0.1%
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	66,400	80.0%	74,700	90.0%	1.5	$12.00	2.00%	1.35	$16.20	1.60%	2,686	$2,042,640	$24.61	40.0%
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)	74,700	90.0%	74,700	90.0%	1.4	$9.00	1.20%	1.26	$11.34	1.08%	1,813	$1,499,778	$18.07	29.4%
Brown Stink Bug	62,250	75.0%	74,700	90.0%	1.4	$11.00	1.00%	1.26	$13.86	0.75%	1,259	$1,316,025	$15.86	25.8%
Clouded Plant Bug	0	0.0%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Leaf Footed Bugs	0	0.0%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Spider Mites	8,300	10.0%	4,150	5.0%	1.0	$9.00	0.20%	0.05	$0.45	0.02%	34	$15,975	$0.19	0.3%
Thrips	78,850	95.0%	16,600	20.0%	1.0	$8.00	0.10%	0.20	$1.60	0.10%	160	$183,760	$2.21	3.6%
Aphids	16,600	20.0%	2,490	3.0%	1.0	$9.00	0.00%	0.03	$0.27	0.00%	0	$4,482	$0.05	0.1%
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	8,300	10.0%	4,150	5.0%	2.0	$17.00	0.30%	0.10	$1.70	0.03%	50	$32,110	$0.39	0.6%
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								4.26	$45.53	3.58%	6,009	$5,100,942	$61.46	

SUMMARY DATA

Data Input				Yield and Management Results		Economic Results		
State	Florida			Total Acres	83,000		Total	Per Acre
Region	Southeast			Total Bales Harvested	125,019	Foliar Insecticide Costs	$3,778,990	$45.53
Year	2024			Total Bales Lost to Insects	6,009	Seed Treatment Costs	$498,000	$6.00
Total Acres (Upland)	83,000	In-furrow cost/treated acre	$18.00	Percent Yield Loss	3.6%	In-Furrow Costs	$239,040	$2.88
Yield / Acre (Upland)	723	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	750	Scouting Costs	$373,500	$4.50
Price / lb	$0.75	Cost/acre Boll Weevil Eradication	$2.00	Av. # Applications	4.26	Eradication Costs	$166,000	$2.00
yield potential (lb/acre)	971	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	42,948	Bt Cotton	$1,336,300	$16.10
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	$0.00	Total % yield Loss	25.6%	Total Costs	$6,391,830	$77.01
Yield / Acre (Pima)	0	% Insect apps by air	15%	Transgenic Cotton (arthropods) (# acres)	83,000	Yield Loss to Insects	$2,163,240	$26.06
% Acres Scouted	50%	No. apps by air	2	Boll Weevil Eradication (# acres)	83,000	Total Losses + Costs	$8,555,070	$103.07
Fee / Scouted Acre	$9.00	Cost/app by air	$8.00	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1	% insect apps by ground	95%	# Scouted Acres	41,500			
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	3	Seed Treatments (arthropods) (# acres)	62,250			
Cost/treated acre (Bt) Cotton	$16.10	Cost/app by ground	$6.00	In-Furrow Applications (# acres)	13,280			
% acres with seed treatment	75%	% Loss to weather	20.0%	Applications by Air (acres)	12,450			
Seed trt. cost/ treated acre	$8.00	% loss to non-arthropods	1.0%	Applications by Ground (acres)	78,850			
% acres with in-furrow	16%	% loss to other (chemical injury, weeds, diseases, etc.)	1.0%	No. acres with no foliar insecticide applications	0			

Table 11. Cotton insect loss estimates for Florida during 2024, 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	5.0%	4,150	$85.00	$16.00	1%	42	1.0
Bollgard III	90.0%	74,700	$95.00	$16.00	0%	0	0.0
Bollgard III/Thryvon	1.0%	830	$105.00	$16.00	0%	0	0.0
WideStrike	0.0%	0	$0.00	$0.00	0%	0	0.0
WideStrike 3	4.0%	3,320	$83.00	$16.00	0%	0	0.0
TwinLink	0.0%	0	$0.00	$0.00	0%	0	0.0
TwinLink Plus	0.0%	0	$0.00	$0.00	0%	0	0.0
Total Bt	100.0%	83,000	$94.12	$16.10	0.1%	42	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%	83,000	$94.12	$16.10	0.1%	42	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)		83,000	$94.12		0.1%	42	0.0

Upland Cotton	% acres treated for Thrips	# acres treated for Thrips	# apps for Thrips	Thryvon Bt cost/acre	% acres treated for Lygus	# acres treated for Lygus	# apps for Lygus
Bollgard III/Thryvon	0.0%	0	0.0	$10.00	25.0%	208	1.0