

Table 20. Cotton insect loss estimates for South Carolina 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	225,000	100.0%	67,500	30.0%	1.0	\$17.00	1.00%	0.30	\$5.10	1.00%	6,577	\$3,357,372	\$14.92	14.6%
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	56,250	25.0%	4,500	2.0%	1.0	\$10.00	0.01%	0.02	\$0.20	0.00%	20	\$17,970	\$0.08	0.1%
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	225,000	100.0%	22,500	10.0%	1.0	\$13.00	0.50%	0.10	\$1.30	0.50%	3,288	\$1,397,268	\$6.21	6.1%
Cotton Fleahopper	180,000	80.0%	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)	225,000	100.0%	213,750	95.0%	2.0	\$13.00	2.50%	1.90	\$24.70	2.50%	16,441	\$11,081,676	\$49.25	48.1%
Brown Stink Bug	225,000	100.0%	112,500	50.0%	1.0	\$13.00	1.00%	0.50	\$6.50	1.00%	6,577	\$3,672,372	\$16.32	15.9%
Clouded Plant Bug	45,000	20.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Leaf Footed Bugs	225,000	100.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	225,000	100.0%	11,250	5.0%	1.0	\$18.00	0.10%	0.05	\$0.90	0.10%	658	\$423,588	\$1.88	1.8%
Thrips	225,000	100.0%	112,500	50.0%	1.0	\$12.00	0.50%	0.50	\$6.00	0.50%	3,288	\$2,454,768	\$10.91	10.7%
Aphids	225,000	100.0%	22,500	10.0%	1.0	\$12.00	0.00%	0.10	\$1.20	0.00%	0	\$270,000	\$1.20	1.2%
Grasshoppers	225,000	100.0%	11,250	5.0%	1.0	\$13.00	0.10%	0.05	\$0.65	0.10%	658	\$367,338	\$1.63	1.6%
Banded Winged Whitefly	112,500	50.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	112,500	50.0%	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					3.52			\$46.55	5.70%		37,507	\$23,042,352	\$102.41	

SUMMARY DATA

Data Input			Yield and Management Results			Economic Results		
State	South Carolina		Total Acres	225,000		Total	Per Acre	
Region	Southeast		Total Bales Harvested	383,438		Foliar Insecticide Costs	\$10,473,750	
Year	2024		Total Bales Lost to Insects	37,507		Seed Treatment Costs	\$2,193,750	
Total Acres (Upland)	225,000	In-furrow cost/treated acre	\$25.00	Percent Yield Loss	5.7%	In-Furrow Costs	\$2,250,000	\$10.00
Yield / Acre (Upland)	818	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	867	Scouting Costs	\$1,575,000	\$7.00
Price / lb	\$0.70	Cost/acre Boll Weevil Eradication	\$1.25	Av. # Applications	3.52	Eradication Costs	\$281,250	\$1.25
yield potential (lb/acre)	1,403	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	274,262	Bt Cotton	\$7,245,000	\$32.20
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	41.7%	Total Costs	\$24,018,750	\$106.75
Yield / Acre (Pima)	0	% Insect apps by air	5%	Transgenic Cotton (arthropods) (# acres)	225,000	Yield Loss to Insects	\$12,602,352	\$56.01
% Acres Scouted	70%	No. apps by air	1	Boll Weevil Eradication (# acres)	225,000	Total Losses + Costs	\$36,621,102	\$162.76
Fee / Scouted Acre	\$10.00	Cost/app by air	\$17.00	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1	% insect apps by ground	95%	# Scouted Acres	157,500			
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2.5	Seed Treatments (arthropods) (# acres)	168,750			
Cost/treated acre (Bt) Cotton	\$32.20	Cost/app by ground	\$10.00	In-Furrow Applications (# acres)	90,000			
% acres with seed treatment	75%	% Loss to weather	20.0%	Applications by Air (acres)	11,250			
Seed trt. cost/ treated acre	\$13.00	% loss to non-arthropods	1.0%	Applications by Ground (acres)	213,750			
% acres with in-furrow	40%	% loss to other (chemical injury, weeds, diseases, etc.)	15.0%	No. acres with no foliar insecticide applications	2,250			

Table 20. Cotton insect loss estimates for South Carolina 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	34.0%	76,500	\$108.00	\$30.00	50%	38,250	1.0
Bollgard III	40.0%	90,000	\$106.00	\$30.00	1%	900	1.0
Bollgard III/Thryvon	20.0%	45,000	\$110.00	\$38.00	1%	450	1.0
WideStrike	0.0%	0	\$92.00	\$10.00	0%	0	0.0
WideStrike 3	5.0%	11,250	\$105.00	\$10.00	1%	113	1.0
TwinLink	0.0%	0	\$100.00	\$25.00	0%	0	0.0
TwinLink Plus	1.0%	2,250	\$102.00	\$30.00	1%	23	1.0
Total Bt	100.0%	225,000	\$107.39	\$32.20	17.7%	39,735	0.2
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%	225,000	\$107.39	\$32.20	17.7%	39,735	0.2
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)		225,000	\$107.39		17.7%	39,735	0.2

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	\$8.00	0.0%	0	0.0