

Table 27. Cotton insect loss estimates for Virginia 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	4,424	5.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
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	88,485	100.0%	88,485	100.0%	1.6	\$8.50	3.00%	1.60	\$13.60	3.00%	7,748	\$3,918,295	\$44.28	46.1%
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)	70,788	80.0%	88,485	100.0%	0.9	\$8.50	1.00%	0.87	\$7.40	0.80%	2,066	\$1,247,404	\$14.10	14.7%
Brown Stink Bug	61,940	70.0%	61,940	70.0%	0.75	\$8.50	1.00%	0.53	\$4.51	0.70%	1,808	\$912,561	\$10.31	10.7%
Clouded Plant Bug	1,770	2.0%	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	8,849	10.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Thrips	88,485	100.0%	88,485	100.0%	1.0	\$7.00	2.00%	1.00	\$7.00	2.00%	5,165	\$2,429,211	\$27.45	28.6%
Aphids	13,273	15.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
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	0	0.0%	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					4.00				\$32.50	6.50%	16,787	\$8,507,471	\$96.15	

SUMMARY DATA

Data Input		Yield and Management Results			Economic Results		
State	Virginia	Total Acres	88,485		Total	Per Acre	
Region	Southeast	Total Bales Harvested	176,970	Foliar Insecticide Costs	\$2,875,763	\$32.50	
Year	2024	Total Bales Lost to Insects	16,787	Seed Treatment Costs	\$1,194,548	\$13.50	
Total Acres (Upland)	88,485	In-furrow cost/treated acre	\$22.00	Percent Yield Loss	6.5%	In-Furrow Costs	\$973,335
Yield / Acre (Upland)	960	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	1,027	Scouting Costs	\$398,183
Price / lb	\$0.73	Cost/acre Boll Weevil Eradication	\$1.50	Av. # Applications	4	Eradication Costs	\$132,728
yield potential (lb/acre)	1,401	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	81,354	Bt Cotton	\$1,353,825
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	31.5%	Total Costs	\$6,928,382
Yield / Acre (Pima)	0	% Insect apps by air	0%	Transgenic Cotton (arthropods) (# acres)	88,485	Yield Loss to Insects	\$5,882,165
% Acres Scouted	30%	No. apps by air	0	Boll Weevil Eradication (# acres)	88,485	Total Losses + Costs	\$12,810,547
Fee / Scouted Acre	\$15.00	Cost/app by air	\$0.00	Pink Bollworm Eradication (# acres)	0		
No. times scouted/week	1	% insect apps by ground	100%	# Scouted Acres	26,546		
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	4	Seed Treatments (arthropods) (# acres)	66,364		
Cost/treated acre (Bt) Cotton	\$15.30	Cost/app by ground	\$8.00	In-Furrow Applications (# acres)	44,243		
% acres with seed treatment	75%	% Loss to weather	15.0%	Applications by Air (acres)	0		
Seed trt. cost/ treated acre	\$18.00	% loss to non-arthropods	5.0%	Applications by Ground (acres)	88,485		
% acres with in-furrow	50%	% loss to other (chemical injury, weeds, diseases, etc.)	5.0%	No. acres with no foliar insecticide applications	0		

Table 27. Cotton insect loss estimates for Virginia 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	2.0%	1,770	\$130.00	\$15.00	0%	0	0.0
Bollgard III	77.5%	68,576	\$130.00	\$15.00	0%	0	0.0
Bollgard III/Thryvon	2.0%	1,770	\$130.00	\$15.00	0%	0	0.0
WideStrike	0.0%	0	\$130.00	\$15.00	0%	0	0.0
WideStrike 3	11.0%	9,733	\$130.00	\$15.00	0%	0	0.0
TwinLink	0.0%	0	\$130.00	\$15.00	0%	0	0.0
TwinLink Plus	7.5%	6,636	\$130.00	\$15.00	0%	0	0.0
Total Bt	100.0%	88,485	\$0.00	\$15.30	0.0%	0	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%	88,485	\$130.00	\$15.30	0.0%	0	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)		88,485	\$130.00		0.0%	0	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	\$15.00	100.0%	1,770	2.0