

Table 30. Cotton insect loss estimates for Virginia 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	1,663	2%	2,494	3.0%	1.0	\$20.00	0.00%	0.03	\$0.60	0.00%	0	\$998	\$0.01	0.0%
Beet Armyworm	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	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	\$0.00	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	83,134	100%	83,134	100.0%	2.5	\$15.00	3.00%	2.50	\$37.50	3.00%	6,266	\$5,523,669	\$66.44	64.3%
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)	20,784	25%	4,157	5.0%	1.0	\$15.00	1.00%	0.05	\$0.75	0.25%	522	\$216,036	\$2.60	2.5%
Brown Stink Bug	16,627	20%	4,157	5.0%	0.0	\$15.00	1.00%	0.00	\$0.00	0.20%	418	\$160,512	\$1.93	1.9%
Clouded Plant Bug	831	1%	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	4,157	5%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Thrips	83,134	100%	83,134	100.0%	1.5	\$15.00	1.00%	1.50	\$22.50	1.00%	2,089	\$2,672,691	\$32.15	31.1%
Aphids	8,313	10%	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Banded Winged Whitefly	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Asiatic garden beetle	2,078	3%	83	0.1%	1.0	\$15.00	1.00%	0.00	\$0.00	0.03%	52	\$19,968	\$0.24	0.2%
Boll Weevil	0		0					0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
<b>TOTAL</b>					4.08				\$61.35	4.48%	9,347	\$8,593,874	\$103.37	

## SUMMARY DATA

Data Input		Yield and Management Results			Economic Results		
State	Virginia	Total Acres		83,134		Total	Per Acre
Region	Southeast	Total Bales Harvested		197,443	Foliar Insecticide Costs	\$5,100,271	\$61.35
Year	2023	Total Bales Lost to Insects		9,347	Seed Treatment Costs	\$997,608	\$12.00
Total Acres (Upland)	83,134	Percent Yield Loss		4.5%	In-Furrow Costs	\$266,029	\$3.20
Yield / Acre (Upland)	1,140	% acres in Boll Weevil Eradication	100%		Scouting Costs	\$149,641	\$1.80
Price / lb	\$0.80	Cost/acre Boll Weevil Eradication	\$0.70		Eradication Costs	\$58,194	\$0.70
yield potential (lb/acre)	1,206	% acres in Pink Bollworm Eradication	0%		Bt Cotton	\$1,330,150	\$16.00
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00		Total Costs	\$7,901,893	\$95.05
Yield / Acre (Pima)	0	% Insect apps by air	5%		Yield Loss to Insects	\$3,589,248	\$43.17
% Acres Scouted	15%	No. apps by air	1		Total Losses + Costs	\$11,491,141	\$138.22
Fee / Scouted Acre	\$12.00	Cost/app by air	\$15.00		Pink Bollworm Eradication (# acres)	0	
No. times scouted/week	1	% insect apps by ground	100%		# Scouted Acres	12,470	
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2		Seed Treatments (arthropods) (# acres)	83,134	
Cost/treated acre (Bt) Cotton	\$16.00	Cost/app by ground	\$12.00		In-Furrow Applications (# acres)	33,254	
% acres with seed treatment	100%	% Loss to weather	1.0%		Applications by Air (acres)	4,157	
Seed trt. cost/ treated acre	\$12.00	% loss to non-arthropods	0.0%		Applications by Ground (acres)	83,134	
% acres with in-furrow	40%	% loss to other (chemical injury, weeds, diseases, etc.)	0.0%		No. acres with no foliar insecticide applications	0	

Table 30. Cotton insect loss estimates for Virginia 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	3.0%	2,494	\$130.00	\$15.00	100%	2,494	1.0
Bollgard III	78.0%	64,845	\$130.00	\$15.00	0%	0	0.0
Bollgard III/Thryvon	5.0%	4,157	\$150.00	\$15.00	0%	0	0.0
WideStrike	0.0%	0	\$130.00	\$15.00	0%	0	0.0
WideStrike 3	10.0%	8,313	\$130.00	\$15.00	0%	0	0.0
TwinLink	0.0%	0	\$130.00	\$15.00	0%	0	0.0
TwinLink Plus	4.0%	3,325	\$130.00	\$15.00	0%	0	0.0
<b>Total Bt</b>	<b>100.0%</b>	<b>83,134</b>	<b>\$131.00</b>	<b>\$16.00</b>	<b>3.0%</b>	<b>2,494</b>	<b>0.0</b>
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
<b>Total Upland Cotton</b>	<b>100.0%</b>	<b>83,134</b>	<b>\$131.00</b>	<b>\$16.00</b>	<b>3.0%</b>	<b>2,494</b>	<b>0.0</b>
<b>Non Upland Cotton</b>							
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
<b>Total (all Cotton)</b>		<b>83,134</b>	<b>\$131.00</b>		<b>3.0%</b>	<b>2,494</b>	<b>0.0</b>
Upland Cotton	Thryvon	% acres treated	# acres treated	# apps	% acres treated	# acres treated	# apps
	Bt cost/acre	for Thrips	for Thrips	for Thrips	for Lygus	for Lygus	for Lygus
Bollgard III/Thryvon	\$20.00	100%	4,157	1	100%	4,157	1.5