

Table 23. Cotton insect loss estimates for the Blacklands-Winter Garden area of Texas 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	132,163	100.0%	6,608	5.0%	1.0	\$22.00	1.00%	0.05	\$1.10	1.00%	5,287	\$1,921,811	\$14.54	6.0%
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	19,824	15.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	13,216	10.0%	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	13,216	10.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	132,163	100.0%	2,643	2.0%	1.0	\$16.50	0.50%	0.02	\$0.33	0.50%	2,643	\$931,662	\$7.05	2.9%
Cotton Fleahopper	132,163	100.0%	132,163	100.0%	2.0	\$14.00	7.00%	2.00	\$28.00	7.00%	37,006	\$16,134,580	\$122.08	50.1%
Stink Bugs (other than brown stink bug)	132,163	100.0%	6,608	5.0%	1.0	\$12.75	0.50%	0.05	\$0.64	0.50%	2,643	\$972,302	\$7.36	3.0%
Brown Stink Bug	132,163	100.0%	92,514	70.0%	1.2	\$12.75	3.00%	0.84	\$10.71	3.00%	15,860	\$6,744,426	\$51.03	20.9%
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	66,082	50.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	118,947	90.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Thrips	132,163	100.0%	118,947	90.0%	1.0	\$12.50	2.00%	0.90	\$11.25	2.00%	10,573	\$5,039,362	\$38.13	15.7%
Aphids	132,163	100.0%	6,608	5.0%	1.0	\$15.00	0.20%	0.05	\$0.75	0.20%	1,057	\$454,274	\$3.44	1.4%
Grasshoppers	132,163	100.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Banded Winged Whitefly	6,608	5.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	6,608	5.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Wireworms	99,122	75.0%	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					3.91				\$52.78	14.20%	75,069	\$32,198,417	\$243.63	

SUMMARY DATA

Data Input				Yield and Management Results			Economic Results		
State	Texas			Total Acres	132,163			Total	Per Acre
Region	Central			Total Bales Harvested	264,326	Foliar Insecticide Costs	\$6,975,233		\$52.78
Year	2024			Total Bales Lost to Insects	75,069	Seed Treatment Costs	\$1,321,630		\$10.00
Total Acres (Upland)	132,163	In-furrow cost/treated acre	\$20.00	Percent Yield Loss	14.2%	In-Furrow Costs	\$13,216		\$0.10
Yield / Acre (Upland)	960	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	1,119	Scouting Costs	\$1,321,630		\$10.00
Price / lb	\$0.70	Cost/acre Boll Weevil Eradication	\$4.17	Av. # Applications	3.91	Eradication Costs	\$551,120		\$4.17
yield potential (lb/acre)	1,920	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	264,326	Bt Cotton	\$2,092,446		\$15.83
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	50.0%	Total Costs	\$12,275,275		\$92.88
Yield / Acre (Pima)	0	% Insect apps by air	60%	Transgenic Cotton (arthropods) (# acres)	132,163	Yield Loss to Insects	\$25,223,184		\$190.85
% Acres Scouted	100%	No. apps by air	3	Boll Weevil Eradication (# acres)	132,163	Total Losses + Costs	\$37,498,459		\$283.73
Fee / Scouted Acre	\$10.00	Cost/app by air	\$9.00	Pink Bollworm Eradication (# acres)	0				
No. times scouted/week	1.5	% insect apps by ground	95%	# Scouted Acres	132,163				
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	3	Seed Treatments (arthropods) (# acres)	132,163				
Cost/treated acre (Bt) Cotton	\$15.83	Cost/app by ground	\$6.50	In-Furrow Applications (# acres)	661				
% acres with seed treatment	100%	% Loss to weather	24.8%	Applications by Air (acres)	79,298				
Seed trt. cost/ treated acre	\$10.00	% loss to non-arthropods	1.0%	Applications by Ground (acres)	125,555				
% acres with in-furrow	0.5%	% loss to other (chemical injury, weeds, diseases, etc.)	10.0%	No. acres with no foliar insecticide applications	0				

Table 23. Cotton insect loss estimates for the Blacklands-Winter Garden area of Texas 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	10.0%	13,216	\$94.27	\$13.20	50%	6,608	1.0
Bollgard III	67.0%	88,549	\$98.73	\$14.82	0%	0	0.0
Bollgard III/Thryvon	5.0%	6,608	\$113.56	\$52.38	0%	0	0.0
WideStrike	0.0%	0	\$72.34	\$9.70	0%	0	0.0
WideStrike 3	17.0%	22,468	\$85.99	\$4.92	0%	0	0.0
TwinLink	0.0%	0	\$71.52	\$8.88	0%	0	0.0
TwinLink Plus	1.0%	1,322	\$75.40	\$12.76	0%	0	0.0
Total Bt	100.0%	132,163	\$96.63	\$15.83	5.0%	6,608	0.05
Herbicide Traits Only	0.0%	0	\$81.07	-	0%	0	0.0
Conventional	0.0%	0	\$25.20	-	0%	0	0.0
Organic	0.0%	0	\$25.20	-	0%	0	0.0
Total Upland Cotton	100.0%	132,163	\$96.63	\$15.83	5.0%	6,608	0.05
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)		132,163	\$96.63		5.0%	6,608	0.05

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	\$20.00	0.0%	0	0.0