

Table 22. Cotton insect loss estimates for South 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	738,526	100.0%	73,853	10.0%	1.0	\$18.00	5.00%	0.10	\$1.80	5.00%	137,550	\$47,546,147	\$64.38	28.9%
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	516,968	70.0%	147,705	20.0%	1.0	\$15.00	2.00%	0.20	\$3.00	1.40%	38,514	\$14,491,609	\$19.62	8.8%
Cotton Fleahopper	738,526	100.0%	701,600	95.0%	1.5	\$10.00	3.00%	1.43	\$14.30	3.00%	82,530	\$38,291,002	\$51.85	23.3%
Stink Bugs (other than brown stink bug)	590,821	80.0%	553,895	75.0%	1.0	\$11.00	0.00%	0.75	\$8.25	0.00%	0	\$4,874,272	\$6.60	3.0%
Brown Stink Bug	738,526	100.0%	516,968	70.0%	1.0	\$11.00	2.00%	0.70	\$7.70	2.00%	55,020	\$24,173,370	\$32.73	14.7%
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	553,895	75.0%	14,771	2.0%	1.0	\$12.00	0.00%	0.02	\$0.24	0.00%	0	\$132,935	\$0.18	0.1%
Spider Mites	627,747	85.0%	36,926	5.0%	1.0	\$13.00	0.00%	0.05	\$0.65	0.00%	0	\$408,036	\$0.55	0.2%
Thrips	738,526	100.0%	332,337	45.0%	1.0	\$12.50	0.00%	0.45	\$5.63	0.00%	0	\$4,154,209	\$5.63	2.5%
Aphids	738,526	100.0%	73,853	10.0%	1.0	\$15.00	0.00%	0.10	\$1.50	0.00%	0	\$1,107,789	\$1.50	0.7%
Grasshoppers	553,895	75.0%	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	553,895	75.0%	73,853	10.0%	2.0	\$14.00	2.00%	0.20	\$2.80	1.50%	41,265	\$15,415,945	\$20.87	9.4%
Wireworms	553,895	75.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Verde Plant Bug	553,895	75.0%	184,632	25.0%	0.0	\$15.00	2.00%	0.00	\$0.00	1.50%	41,265	\$13,865,040	\$18.77	8.4%
Boll Weevil	36,926	5.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
TOTAL								4.00	\$45.87	14.40%	396,144	\$164,460,354	\$222.69	

SUMMARY DATA

Data Input				Yield and Management Results				Economic Results		
State	Texas			Total Acres	738,526				Total	Per Acre
Region	Central			Total Bales Harvested	1,323,192	Foliar Insecticide Costs			\$33,872,495	\$45.87
Year	2024			Total Bales Lost to Insects	396,144	Seed Treatment Costs			\$7,015,997	\$9.50
Total Acres (Upland)	738,526	In-furrow cost/treated acre	\$40.00	Percent Yield Loss	14.4%	In-Furrow Costs			\$295,410	\$0.40
Yield / Acre (Upland)	860	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	1,005	Scouting Costs			\$7,015,997	\$9.50
Price / lb	\$0.70	Cost/acre Boll Weevil Eradication	\$4.32	Av. # Applications	4	Eradication Costs			\$3,190,432	\$4.32
yield potential (lb/acre)	1,788	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	1,428,049	Bt Cotton			\$18,346,221	\$24.84
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	51.9%	Total Costs			\$69,736,552	\$94.43
Yield / Acre (Pima)	0	% Insect apps by air	60%	Transgenic Cotton (arthropods) (# acres)	722,278	Yield Loss to Insects			\$133,104,384	\$180.23
% Acres Scouted	95%	No. apps by air	2	Boll Weevil Eradication (# acres)	738,526	Total Losses + Costs			\$202,840,936	\$274.66
Fee / Scouted Acre	\$10.00	Cost/app by air	\$4.33	Pink Bollworm Eradication (# acres)	0					
No. times scouted/week	1.5	% insect apps by ground	90%	# Scouted Acres	701,600					
% acres Transgenic (Bt) Cotton	98%	No. apps by ground	3	Seed Treatments (arthropods) (# acres)	701,600					
Cost/treated acre (Bt) Cotton	\$25.40	Cost/app by ground	\$6.50	In-Furrow Applications (# acres)	7,385					
% acres with seed treatment	95%	% Loss to weather	26.0%	Applications by Air (acres)	443,116					
Seed trt. cost/ treated acre	\$10.00	% loss to non-arthropods	1.5%	Applications by Ground (acres)	664,673					
% acres with in-furrow	1%	% loss to other (chemical injury, weeds, diseases, etc.)	10.0%	No. acres with no foliar insecticide applications	36,926					

Table 22. Cotton insect loss estimates for South 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	5.0%	36,926	\$94.27	\$13.20	40%	14,770	1.0
Bollgard III	48.0%	354,492	\$98.73	\$14.82	0%	0	1.0
Bollgard III/Thryvon	21.8%	160,999	\$113.56	\$52.38	0%	0	0.0
WideStrike	0.0%	0	\$72.34	\$9.70	0%	0	0.0
WideStrike 3	20.0%	147,705	\$85.99	\$4.92	2%	2,954	1.0
TwinLink	2.0%	14,771	\$71.52	\$8.88	2%	295	1.0
TwinLink Plus	1.0%	7,385	\$75.40	\$12.76	0%	0	0.0
Total Bt	97.8%	722,278	\$98.41	\$25.40	2.5%	18,020	0.02
Herbicide Traits Only	2.0%	14,771	\$81.07	-	95%	14,032	1.0
Conventional	0.2%	1,477	\$25.20	-	95%	1,403	1.0
Organic	0.0%	0	\$25.20	-	0%	0	0.0
Total Upland Cotton	100.0%	738,526	\$97.91	\$25.40	4.5%	33,455	0.05
Non Upland Cotton							
Pima	0.0%	0	\$65.00	-	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)		738,526	\$97.91		4.5%	33,455	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	15.0%	24,150	1.0