

Table 25. Cotton insect loss estimates for the High Plains 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	1,620,359	75.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Beet Armyworm	972,215	45.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Fall Armyworm	1,296,287	60.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	972,215	45.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	216,048	10.0%	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	43,210	2.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	2,160,478	100.0%	108,024	5.0%	1.0	\$18.00	0.50%	0.05	\$0.90	0.50%	63,577	\$23,306,302	\$10.79	23.5%
Cotton Fleahopper	2,160,478	100.0%	324,072	15.0%	1.0	\$18.00	0.50%	0.15	\$2.70	0.50%	63,577	\$27,195,163	\$12.59	27.5%
Stink Bugs (other than brown stink bug)	2,160,478	100.0%	10,802	0.5%	1.0	\$13.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Brown Stink 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%
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	2,160,478	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	108,024	5.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Thrips	2,160,478	100.0%	540,120	25.0%	1.0	\$8.00	0.01%	0.25	\$2.00	0.01%	1,272	\$4,748,348	\$2.20	4.8%
Aphids	1,512,335	70.0%	43,210	2.0%	1.0	\$18.00	0.00%	0.02	\$0.36	0.00%	0	\$544,440	\$0.25	0.5%
Grasshoppers	2,160,478	100.0%	43,210	2.0%	1.0	\$12.00	0.00%	0.02	\$0.24	0.00%	0	\$518,515	\$0.24	0.5%
Banded Winged Whitefly	2,160,478	100.0%	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%
Wireworms	2,160,478	100.0%	0	0.0%	0.0	\$0.00	1.00%	0.00	\$0.00	1.00%	127,153	\$42,723,408	\$19.77	43.1%
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								0.49	\$6.20	2.01%	255,579	\$99,036,176	\$45.84	

SUMMARY DATA

Data Input				Yield and Management Results			Economic Results		
State	Texas			Total Acres	2,160,478			Total	Per Acre
Region	Central			Total Bales Harvested	2,160,478	Foliar Insecticide Costs	\$13,394,964		\$6.20
Year	2024			Total Bales Lost to Insects	255,579	Seed Treatment Costs	\$16,203,585		\$7.50
Total Acres (Upland)	2,160,478	In-furrow cost/treated acre	\$40.00	Percent Yield Loss	2.0%	In-Furrow Costs	\$1,728,382		\$0.80
Yield / Acre (Upland)	480	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	490	Scouting Costs	\$10,802,390		\$5.00
Price / lb	\$0.70	Cost/acre Boll Weevil Eradication	\$0.70	Av. # Applications	0.49	Eradication Costs	\$1,512,335		\$0.70
yield potential (lb/acre)	2,825	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	10,554,982	Bt Cotton	\$19,244,255		\$8.91
Acres (Pima)	15,000	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	83.0%	Total Costs	\$62,885,911		\$29.11
Yield / Acre (Pima)	850	% Insect apps by air	20%	Transgenic Cotton (arthropods) (# acres)	1,598,754	Yield Loss to Insects	\$85,874,544		\$39.75
% Acres Scouted	50%	No. apps by air	1	Boll Weevil Eradication (# acres)	1,160,478	Total Losses + Costs	\$148,760,455		\$68.86
Fee / Scouted Acre	\$10.00	Cost/app by air	\$14.00	Pink Bollworm Eradication (# acres)	0				
No. times scouted/week	1	% insect apps by ground	80%	# Scouted Acres	1,080,239				
% acres Transgenic (Bt) Cotton	74%	No. apps by ground	1	Seed Treatments (arthropods) (# acres)	1,620,359				
Cost/treated acre (Bt) Cotton	\$12.04	Cost/app by ground	\$6.00	In-Furrow Applications (# acres)	43,210				
% acres with seed treatment	75%	% Loss to weather	75.5%	Applications by Air (acres)	432,096				
Seed trt. cost/ treated acre	\$10.00	% loss to non-arthropods	0.5%	Applications by Ground (acres)	1,728,382				
% acres with in-furrow	2%	% loss to other (chemical injury, weeds, diseases, etc.)	5.0%	No. acres with no foliar insecticide applications	1,080,239				

Table 25. Cotton insect loss estimates for the High Plains 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	4.0%	86,419	\$94.27	\$13.20	0%	0	0.0
Bollgard III	25.0%	540,120	\$98.73	\$14.82	0%	0	0.0
Bollgard III/Thryvon	2.0%	43,210	\$113.56	\$32.48	0%	0	0.0
WideStrike	0.0%	0	\$72.34	\$9.70	0%	0	0.0
WideStrike 3	20.0%	432,096	\$85.99	\$4.92	0%	0	0.0
TwinLink	5.0%	108,024	\$71.52	\$8.88	0%	0	0.0
TwinLink Plus	18.0%	388,886	\$75.40	\$12.76	0%	0	0.0
Total Bt	74.0%	1,598,755	\$87.93	\$12.04	0.0%	0	0.0
Herbicide Traits Only	18.0%	388,886	\$81.07	-	0%	0	0.0
Conventional	7.0%	151,233	\$25.20	-	0%	0	0.0
Organic	1.0%	21,605	\$25.20	-	0%	0	0.0
Total Upland Cotton	100.0%	2,160,479	\$81.68	\$12.04	0.0%	0	0.0
Non Upland Cotton							
Pima	0.47%	10,154	\$65.00	-	0%	0	0.0
Other	0.00%	0	\$0.00	-	0%	0	0.0
Organic	0.00%	0	\$0.00	-	0%	0	0.0
Total (all Cotton)		2,170,633	\$81.60		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	0.0%	0	0.0