

Table 27. Cotton insect loss estimates for the Rolling Plains-Trans Pecos area of Texas 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	1,098,731	90%	37,845	3.1%	1.0	\$22.97	0.50%	0.03	\$0.69	0.45%	23,325	\$9,713,935	\$7.96	20.9%
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	244,162	20.0%	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	183,122	15%	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	793,528	65%	0	0.0%	0.0	\$15.50	0.05%	0.00	\$0.00	0.03%	1,711	\$657,024	\$0.54	1.4%
Cotton Fleahopper	1,220,812	100%	61,041	5.0%	1.0	\$18.50	0.50%	0.05	\$0.93	0.50%	25,917	\$11,081,379	\$9.08	23.9%
Stink Bugs (other than brown stink bug)	488,325	40%	0	0.0%	1.0	\$13.00	0.05%	0.00	\$0.00	0.02%	1,037	\$398,208	\$0.33	0.9%
Brown Stink Bug	366,244	30%	0	0.0%	0.0	\$13.00	0.40%	0.00	\$0.00	0.12%	6,220	\$2,388,480	\$1.96	5.1%
Clouded Plant Bug	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	183,122	15%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	366,244	30%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Thrips	1,220,812	100%	0	0.0%	0.0	\$0.00	0.20%	0.00	\$0.00	0.20%	10,367	\$3,980,928	\$3.26	8.6%
Aphids	549,365	45%	0	0.0%	0.0	\$0.00	0.83%	0.00	\$0.00	0.37%	19,386	\$7,444,224	\$6.10	16.0%
Grasshoppers	1,220,812	100%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	52	\$19,968	\$0.02	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	122,081	10%	12,208	1.0%	1.0	\$12.50	5.00%	0.01	\$0.13	0.50%	25,917	\$9,967,388	\$8.16	21.5%
Pillbugs	24,416	2.0%	1,221	0.10%	1.0	\$13.00	2.00%	0.00	\$0.00	0.04%	2,073	\$796,032	\$0.65	1.7%
Boll Weevil	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
TOTAL								0.09	\$1.74	2.24%	116,005	\$46,447,566	\$38.05	

SUMMARY DATA

Data Input		Yield and Management Results			Economic Results	
State	Texas	Total Acres	1,220,812		Total	Per Acre
Region	Central	Total Bales Harvested	1,335,263	Foliar Insecticide Costs	\$2,123,114	\$1.74
Year	2023	Total Bales Lost to Insects	116,005	Seed Treatment Costs	\$1,648,096	\$1.35
Total Acres (Upland)	1,220,812	In-furrow cost/treated acre	\$40.00	In-Furrow Costs	\$4,883	\$0.00
Yield / Acre (Upland)	525	% acres in Boll Weevil Eradication	100%	Scouting Costs	\$1,348,997	\$1.10
Price / lb	\$0.80	Cost/acre Boll Weevil Eradication	\$1.09	Eradication Costs	\$1,330,685	\$1.09
yield potential (lb/acre)	2,038	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	\$23,701,584	\$19.41
Acres (Pima)	15,129	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	\$30,157,359	\$24.70
Yield / Acre (Pima)	1,165	% Insect apps by air	2%	Transgenic Cotton (arthropods) (# acres)	\$44,545,920	\$36.49
% Acres Scouted	13%	No. apps by air	1	Boll Weevil Eradication (# acres)	\$74,703,279	\$61.19
Fee / Scouted Acre	\$8.50	Cost/app by air	\$9.75	Pink Bollworm Eradication (# acres)	0	
No. times scouted/week	1.75	% insect apps by ground	3%	# Scouted Acres	158,706	
% acres Transgenic (Bt) Cotton	97%	No. apps by ground	1	Seed Treatments (arthropods) (# acres)	183,122	
Cost/treated acre (Bt) Cotton	\$20.12	Cost/app by ground	\$7.50	In-Furrow Applications (# acres)	122	
% acres with seed treatment	15%	% Loss to weather	66.0%	Applications by Air (acres)	24,416	
Seed trt. cost/ treated acre	\$9.00	% loss to non-arthropods	5.0%	Applications by Ground (acres)	36,624	
% acres with in-furrow	0.010%	% loss to other (chemical injury, weeds, diseases, etc.)	1.0%	No. acres with no foliar insecticide applications	1,098,731	

Table 27. Cotton insect loss estimates for the Rolling Plains-Trans Pecos area of Texas 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	9.9%	120,860	\$89.02	\$13.89	2%	2,417	1.0
Bollgard III	29.0%	354,035	\$95.67	\$20.54	0%	0	0.0
Bollgard III/Thryvon	9.5%	115,977	\$115.67	\$40.54	0%	0	0.0
WideStrike	0.1%	1,221	\$0.00	\$0.00	75%	916	1.0
WideStrike 3	22.0%	268,579	\$88.84	\$13.71	3%	8,057	0.0
TwinLink	2.0%	24,416	\$71.89	\$0.00	19%	4,639	1.0
TwinLink Plus	24.0%	292,995	\$89.34	\$14.21	2%	5,860	0.0
Total Bt	96.5%	1,178,083	\$93.23	\$20.12	1.9%	21,889	0.0
Herbicide Traits Only	1.0%	12,208	\$75.13		48%	5,860	1.0
Conventional	2.5%	30,520	\$25.08		27%	8,240	1.0
Organic	0.0%	0	\$25.08		0%	0	0.0
Total Upland Cotton	100.0%	1,220,811	\$91.35	\$20.12	2.9%	35,989	0.0
Non Upland Cotton							
Pima	1.3%	15,871	\$65.00		10%	1,587	1.0
Other	0.0%	0	\$0.00		0%	0	0.0
Organic	0.0%	0	\$0.00		0%	0	0.0
Total (all Cotton)		1,236,682	\$91.01		3.0%	37,576	0.0

Upland Cotton	Thryvon Bt cost/acre	% acres treated for Thrips	# acres treated for Thrips	# apps for Thrips	% acres treated for Lygus	# acres treated for Lygus	# apps for Lygus
Bollgard III/Thryvon	\$19.00	0%	0	0	0%	0	0