

Table 29. Cotton insect loss estimates for 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	3,634,731	97%	105,991	3%	1.0	\$19.80	0.35%	0.03	\$0.56	0.34%	52,100	\$22,036,679	\$5.87	9.5%
Beet Armyworm	17,310	0%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Fall Armyworm	329,975	9%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	68,748	2%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	183,122	5%	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Saltmarsh Caterpillar	17,310	0%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	1,610,341	43%	184,436	5%	1.0	\$14.77	0.37%	0.05	\$0.73	0.16%	24,672	\$10,641,821	\$2.83	4.6%
Cotton Fleahopper	3,237,519	86%	1,002,322	27%	1.4	\$15.60	1.23%	0.38	\$5.90	1.06%	163,516	\$81,878,584	\$21.79	35.3%
Stink Bugs (other than brown stink bug)	1,426,118	38%	461,252	12%	1.0	\$13.41	0.33%	0.12	\$1.65	0.13%	19,414	\$9,802,400	\$2.61	4.2%
Brown Stink Bug	1,171,266	31%	690,391	18%	1.0	\$13.41	1.37%	0.18	\$2.46	0.43%	66,347	\$28,363,153	\$7.55	12.2%
Clouded Plant Bug	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	844,449	22%	12,688	0%	1.0	\$2.15	0.00%	0.00	\$0.01	0.00%	0	\$6,140	\$0.00	0.0%
Spider Mites	969,444	26%	80,502	2%	1.0	\$2.97	0.00%	0.02	\$0.06	0.00%	0	\$61,643	\$0.02	0.0%
Thrips	3,756,812	100%	612,072	16%	1.0	\$8.44	0.32%	0.16	\$1.37	0.32%	49,729	\$24,260,706	\$6.46	10.5%
Aphids	1,389,007	37%	63,438	2%	1.0	\$2.20	0.00%	0.02	\$0.04	0.00%	0	\$51,488	\$0.01	0.0%
Grasshoppers	3,756,812	100%	1,731	0%	1.0	\$8.29	0.00%	0.00	\$0.00	0.00%	0	\$14,356	\$0.00	0.0%
Banded Winged Whitefly	25,842	1%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	179,175	5%	75,646	2%	1.8	\$6.17	0.64%	0.04	\$0.23	0.03%	4,705	\$1,847,858	\$0.49	0.8%
Pillbugs	24,416	1%	1,221	0%	1.0	\$4.22	0.00%	0.00	\$0.00	0.00%	0	\$34	\$0.00	0.0%
Wireworms	519,293	14%	173,098	5%	0.0	\$0.00	5.00%	0.00	\$0.00	0.69%	106,996	\$41,086,494	\$10.94	17.7%
Verde Plant Bug	253,751	7%	126,876	3%	1.0	\$2.53	3.00%	0.03	\$0.09	0.20%	31,370	\$12,067,783	\$3.21	5.2%
Boll Weevil	31,719	1%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
<b>TOTAL</b>								1.04	\$13.09	3.35%	518,851	\$232,119,138	\$61.79	

**SUMMARY DATA**

Data Input		Yield and Management Results			Economic Results		
State	Texas	Total Acres		3,756,812	Total	Per Acre	
Region	Central	Total Bales Harvested		4,260,850	Foliar Insecticide Costs	\$49,182,293	
Year	2023	Total Bales Lost to Insects		518,851	Seed Treatment Costs	\$20,394,338	
Total Acres (Upland)	3,756,812	In-furrow cost/treated acre	\$39.09	Percent Yield Loss	3.4%	In-Furrow Costs	\$2,192,118
Yield / Acre (Upland)	544	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	563	Scouting Costs	\$19,903,659
Price / lb	\$0.80	Cost/acre Boll Weevil Eradication	\$1.92	Av. # Applications	1.0	Eradication Costs	\$7,217,313
yield potential (lb/acre)	1,978	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	11,634,522	Bt Cotton	\$65,902,050
Acres (Pima)	29,079	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	72.5%	Total Costs	\$164,791,772
Yield / Acre (Pima)	1,062	% Insect apps by air	18%	Transgenic Cotton (arthropods) (# acres)	3,251,342	Yield Loss to Insects	\$199,238,699
% Acres Scouted	62%	No. apps by air	1.2	Boll Weevil Eradication (# acres)	3,756,812	Total Losses + Costs	\$364,030,471
Fee / Scouted Acre	\$8.59	Cost/app by air	\$8.61	Pink Bollworm Eradication (# acres)	0		
No. times scouted/week	1.4	% insect apps by ground	29%	# Scouted Acres	2,316,791		
% acres Transgenic (Bt) Cotton	87%	No. apps by ground	1.4	Seed Treatments (arthropods) (# acres)	2,254,658		
Cost/treated acre (Bt) Cotton	\$20.27	Cost/app by ground	\$6.59	In-Furrow Applications (# acres)	56,077		
% acres with seed treatment	60%	% Loss to weather	61.4%	Applications by Air (acres)	672,240		
Seed trt. cost/ treated acre	\$9.05	% loss to non-arthropods	2.9%	Applications by Ground (acres)	1,081,252		
% acres with in-furrow	1%	% loss to other (chemical injury, weeds, diseases, etc.)	4.8%	No. acres with no foliar insecticide applications	2,375,032		

Table 29. Cotton insect loss estimates for 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	10.19%	382,993	\$89.02	\$13.89	12.1%	46,478	1.0
Bollgard III	29.74%	1,117,171	\$95.67	\$20.54	0.0%	0	0.0
Bollgard III/Thryvon	9.30%	349,442	\$115.67	\$40.54	0.0%	0	0.0
WideStrike	0.03%	1,221	\$0.00	\$0.00	75.0%	916	1.0
WideStrike 3	15.82%	594,149	\$88.84	\$13.71	1.8%	10,595	0.2
TwinLink	5.62%	211,055	\$71.89	\$0.00	2.6%	5,515	1.0
TwinLink Plus	15.85%	595,311	\$89.34	\$14.21	1.0%	5,860	0.0
<b>Total Bt</b>	<b>86.5%</b>	<b>3,251,342</b>	<b>\$93.05</b>	<b>\$20.27</b>	<b>2.1%</b>	<b>69,364</b>	<b>0.0</b>
Herbicide Traits Only	8.92%	335,203	\$71.72		6.8%	22,939	1.0
Conventional	4.07%	152,992	\$25.08		7.8%	11,903	1.0
Organic	0.46%	17,310	\$23.94		0.0%	0	0.0
<b>Total Upland Cotton</b>	<b>100.0%</b>	<b>3,756,846</b>	<b>\$88.06</b>	<b>\$20.27</b>	<b>2.8%</b>	<b>104,207</b>	<b>0.0</b>
<b>Non Upland Cotton</b>							
Pima	0.77%	29,079	\$51.07		6.4%	1,864	1.0
Other	0.8%	29,718	\$0.00		0.0%	0	0.0
Organic	0.0%	0	\$0.00		0.0%	0	0.0
<b>Total (all Cotton)</b>		<b>3,815,644</b>	<b>\$87.09</b>		<b>2.8%</b>	<b>106,071</b>	<b>0.0</b>

  

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	\$19.64	0%	0	0	8%	25<547	1.0