

Table 29. Cotton insect loss estimates for Texas during 2022.

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	1,154,579	50%	33,852	1%	1.0	\$14.00	0.05%	0.01	\$0.21	0.02%	2,343	\$1,194,035	\$0.52	1.0%
Beet Armyworm	78,314	3%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Fall Armyworm	187,780	8%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	170,373	7%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	2,749	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Saltmarsh Caterpillar	50,822	2%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	1,212,466	53%	88,236	4%	1.0	\$10.21	0.34%	0.04	\$0.39	0.18%	16,915	\$7,376,746	\$3.21	6.0%
Cotton Fleahopper	2,133,594	93%	963,294	42%	1.2	\$12.90	1.37%	0.50	\$6.43	1.27%	121,467	\$63,280,549	\$27.52	51.2%
Stink Bugs (other than brown stink bug)	740,976	32%	127,277	6%	1.0	\$11.53	0.21%	0.06	\$0.64	0.07%	6,526	\$3,135,820	\$1.36	2.5%
Brown Stink Bug	680,908	30%	190,314	8%	1.4	\$5.28	1.20%	0.11	\$0.59	0.36%	34,011	\$14,279,570	\$6.21	11.5%
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	334,636	15%	3,049	0%	0.0	\$4.42	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	537,537	23%	2,749	0%	1.0	\$2.15	0.00%	0.00	\$0.00	0.00%	0	\$1,383	\$0.00	0.0%
Thrips	2,199,827	96%	514,891	22%	1.1	\$12.40	0.74%	0.25	\$3.04	0.70%	67,318	\$34,160,053	\$14.86	27.6%
Aphids	1,069,772	47%	101,498	4%	1.0	\$4.56	0.00%	0.04	\$0.20	0.00%	0	\$215,429	\$0.09	0.2%
Grasshoppers	1,354,711	59%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Banded Winged Whitefly	10,164	0%	0	0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	283,909	12%	165,709	7%	0.0	\$7.67	0.00%	0.00	\$0.01	0.00%	0	\$3,137	\$0.00	0.0%
Verde Plant Bug	135,331	6%	33,833	1%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Boll Weevil	67,666	3%	67,666	3%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
<b>TOTAL</b>								1.01	\$11.52	2.60%	248,580	\$123,646,722	\$53.78	

**SUMMARY DATA**

Data Input		Yield and Management Results			Economic Results			
State	Texas	Total Acres		2,299,176		Total	Per Acre	
Region	Central	Total Bales Harvested		3,744,872	Foliar Insecticide Costs	\$26,482,812	\$11.52	
Year	2022	Total Bales Lost to Insects		248,580	Seed Treatment Costs	\$20,979,401	\$9.12	
Total Acres (Upland)	2,299,176	In-furrow cost/treated acre	\$15.87	Percent Yield Loss	2.6%	In-Furrow Costs	\$558,442	\$0.24
Yield / Acre (Upland)	782	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	803	Scouting Costs	\$10,116,823	\$4.40
Price / lb	\$0.85	Cost/acre Boll Weevil Eradication	\$3.16	Av. # Applications	1.0	Eradication Costs	\$7,255,669	\$3.16
yield potential (lb/acre)	1,997	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	5,836,507	Bt Cotton	\$35,235,974	\$15.33
Acres (Pima)	26,672	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	60.8%	Total Costs	\$100,629,120	\$43.77
Yield / Acre (Pima)	1,096	% Insect apps by air	15%	Transgenic Cotton (arthropods) (# acres)	2,013,044	Yield Loss to Insects	\$101,420,619	\$44.11
% Acres Scouted	51%	No. apps by air	1.2	Boll Weevil Eradication (# acres)	2,299,176	Total Losses + Costs	\$202,049,739	\$87.88
Fee / Scouted Acre	\$8.61	Cost/app by air	\$7.51	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1.1	% insect apps by ground	47%	# Scouted Acres	1,175,541			
% acres Transgenic (Bt) Cotton	88%	No. apps by ground	1.3	Seed Treatments (arthropods) (# acres)	1,829,238			
Cost/treated acre (Bt) Cotton	\$17.50	Cost/app by ground	\$5.79	In-Furrow Applications (# acres)	35,179			
% acres with seed treatment	80%	% Loss to weather	53.5%	Applications by Air (acres)	343,099			
Seed trt. cost/ treated acre	\$11.47	% loss to non-arthropods	1.2%	Applications by Ground (acres)	1,090,263			
% acres with in-furrow	2%	% loss to other (chemical injury, weeds, diseases, etc.)	3.5%	No. acres with no foliar insecticide applications	314,606			

Table 29. Cotton insect loss estimates for Texas during 2022, 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	14.73%	338,606	\$76.52	\$11.67	8.1%	27,460	1.0
Bollgard III	29.40%	675,961	\$86.48	\$21.63	0.0%	0	0.0
WideStrike	0.60%	13,864	\$67.24	\$2.39	0.1%	10	1.0
WideStrike 3	27.01%	621,041	\$81.08	\$16.23	0.0%	0	0.0
TwinLink	7.10%	163,272	\$67.12	\$9.17	0.5%	875	1.0
TwinLink Plus	8.71%	200,300	\$83.18	\$25.23	0.0%	0	0.0
<b>Total Bt</b>	<b>87.56%</b>	<b>2,013,044</b>	<b>\$81.11</b>	<b>\$17.50</b>	<b>1.4%</b>	<b>28,344</b>	<b>0.014</b>
Herbicide Traits Only	9.43%	216,764	\$41.55	-	1.3%	2,826	1.0
Conventional	2.49%	57,216	\$20.29	-	3.2%	1,813	1.0
Organic	0.44%	10,164	\$20.29	-	0.0%	0	0.0
<b>Total Upland Cotton</b>	<b>99.91%</b>	<b>2,297,189</b>	<b>\$75.59</b>	<b>\$17.50</b>	<b>1.4%</b>	<b>32,983</b>	<b>0.014</b>
<b>Non Upland Cotton</b>							
Pima	1.15%	26,672	\$38.10	-	2.2%	596	1.0
Other	0.0%	0	\$0.00	-	0.0%	0	0.0
Organic	0.0%	0	\$0.00	-	0.0%	0	0.0
<b>Total (all Cotton)</b>		<b>2,323,861</b>	<b>\$75.16</b>	<b>-</b>	<b>1.4%</b>	<b>33,579</b>	<b>0.014</b>