

Table 26. Cotton insect loss estimates for the Blacklands-Winter Garden area of 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	274,914	100%	27,491	10.0%	1.0	\$22.88	0.02%	0.10	\$2.29	0.02%	230	\$722,843	\$2.63	2.2%
Beet Armyworm	27,491	10%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Fall Armyworm	123,711	45%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	68,729	25%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	2,749	1%	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	247,423	90%	13,746	5.0%	1.0	\$12.75	0.00%	0.05	\$0.64	0.00%	0	\$157,732	\$0.57	0.5%
Cotton Fleahopper	274,914	100%	261,168	95.0%	1.7	\$13.40	2.00%	1.61	\$21.57	2.00%	22,955	\$15,296,635	\$55.64	45.6%
Stink Bugs (other than brown stink bug)	219,931	80%	27,491	10.0%	1.0	\$12.75	0.02%	0.10	\$1.28	0.02%	184	\$355,484	\$1.29	1.1%
Brown Stink Bug	274,914	100%	54,983	20.0%	1.0	\$12.75	0.02%	0.20	\$2.55	0.02%	230	\$794,871	\$2.89	2.4%
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	206,186	75%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	192,440	70%	2,749	1.0%	1.0	\$18.00	0.00%	0.01	\$0.18	0.00%	0	\$34,639	\$0.13	0.1%
Thrips	274,914	100%	247,423	90.0%	1.2	\$15.00	2.50%	1.08	\$16.20	2.50%	28,694	\$16,160,759	\$58.78	48.2%
Aphids	274,914	100%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Grasshoppers	274,914	100%	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
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								3.15	\$44.70	4.56%	52,293	\$33,522,963	\$121.94	

SUMMARY DATA

Data Input		Yield and Management Results				Economic Results	
State	Texas	Total Acres			274,914	Total	Per Acre
Region	Central	Total Bales Harvested			366,552	Foliar Insecticide Costs	\$44.70
Year	2022	Total Bales Lost to Insects			52,293	Seed Treatment Costs	\$13.00
Total Acres (Upland)	274,914	In-furrow cost/treated acre	\$12.00	Percent Yield Loss	4.6%	In-Furrow Costs	\$0.06
Yield / Acre (Upland)	640	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	671	Scouting Costs	\$8.00
Price / lb	\$0.85	Cost/acre Boll Weevil Eradication	\$2.67	Av. # Applications	3.15	Eradication Costs	\$2.67
yield potential (lb/acre)	2,004	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	781,124	Bt Cotton	\$18.30
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	68.1%	Total Costs	\$86.74
Yield / Acre (Pima)	0	% Insect apps by air	38%	Transgenic Cotton (arthropods) (# acres)	274,914	Yield Loss to Insects	\$77.61
% Acres Scouted	80%	No. apps by air	2	Boll Weevil Eradication (# acres)	274,914	Total Losses + Costs	\$164.35
Fee / Scouted Acre	\$10.00	Cost/app by air	\$7.00	Pink Bollworm Eradication (# acres)	0		
No. times scouted/week	1.5	% insect apps by ground	95%	# Scouted Acres	219,931		
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2	Seed Treatments (arthropods) (# acres)	274,914		
Cost/treated acre (Bt) Cotton	\$18.30	Cost/app by ground	\$5.50	In-Furrow Applications (# acres)	1,375		
% acres with seed treatment	100%	% Loss to weather	58.5%	Applications by Air (acres)	104,467		
Seed trt. cost/ treated acre	\$13.00	% loss to non-arthropods	0.0%	Applications by Ground (acres)	261,168		
% acres with in-furrow	0.5%	% loss to other (chemical injury, weeds, diseases, etc.)	5.0%	No. acres with no foliar insecticide applications	0		

Table 26. Cotton insect loss estimates for the Blacklands-Winter Garden area of 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	25.0%	68,729	\$76.52	\$11.67	39%	26,804	1.0
Bollgard III	58.5%	160,825	\$86.48	\$21.63	0%	0	0.0
WideStrike	0.0%	0	\$67.24	\$2.39	0%	0	0.0
WideStrike 3	15.0%	41,237	\$81.08	\$16.23	0%	0	0.0
TwinLink	0.5%	1,375	\$67.12	\$9.17	40%	550	1.0
TwinLink Plus	1.0%	2,749	\$83.18	\$25.23	0%	0	0.0
Total Bt	100.0%	274,915	\$83.05	\$18.30	10.0%	27,354	0.10
Herbicide Traits Only	0%	0	\$41.14	-	0%	0	0.0
Conventional	0%	0	\$23.71	-	0%	0	0.0
Organic	0%	0	\$23.71	-	0%	0	0.0
Total Upland Cotton	100.0%	274,915	\$83.05	\$18.30	10.0%	27,354	0.10
Non Upland Cotton							
Pima	0%	0	-	-	0%	0	0.0
Other	0%	0	-	-	0%	0	0.0
Organic	0%	0	-	-	0%	0	0.0
Total (all Cotton)		274,915	\$83.05	-	10.0%	27,354	0.10