

Table 26. Cotton insect loss estimates for the Blacklands-Winter Garden 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	170,644	100%	19,283	11.3%	1.0	\$22.00	2.00%	0.11	\$2.42	2.00%	14,242	\$5,881,886	\$34.47	13.0%
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	51,193	30%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	34,129	20%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	0	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	\$0.00	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	170,644	100%	8,532	5.0%	1.0	\$16.50	0.50%	0.05	\$0.83	0.50%	3,560	\$1,507,821	\$8.84	3.3%
Cotton Fleahopper	170,644	100%	165,525	97.0%	1.7	\$13.40	5.00%	1.65	\$22.11	5.00%	35,604	\$17,444,875	\$102.23	38.6%
Stink Bugs (other than brown stink bug)	170,644	100%	8,532	5.0%	1.0	\$12.75	2.00%	0.05	\$0.64	2.00%	14,242	\$5,577,714	\$32.69	12.3%
Brown Stink Bug	170,644	100%	119,451	70.0%	1.0	\$12.75	2.00%	0.70	\$8.93	2.00%	14,242	\$6,991,926	\$40.97	15.5%
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	136,515	80%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	170,644	100%	17,064	10.0%	1.0	\$17.00	0.00%	0.10	\$1.70	0.00%	0	\$290,095	\$1.70	0.6%
Thrips	170,644	100%	162,112	95.0%	1.0	\$12.50	2.00%	0.95	\$11.88	2.00%	14,242	\$7,495,326	\$43.92	16.6%
Aphids	170,644	100%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Grasshoppers	170,644	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	8,532	5%	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%
<b>TOTAL</b>	<b>0</b>	<b>0%</b>	<b>0</b>	<b>0.0%</b>	<b>0.0</b>	<b>\$0.00</b>	<b>0.00%</b>	<b>0.00</b>	<b>\$0.00</b>	<b>0.00%</b>	<b>0</b>	<b>\$0</b>	<b>\$0.00</b>	<b>0.0%</b>

**SUMMARY DATA**

Data Input		Yield and Management Results				Economic Results		
State	Texas	Total Acres			170,644	Total	Per Acre	
Region	Central	Total Bales Harvested			263,432	Foliar Insecticide Costs	\$8,274,954	\$48.49
Year	2023	Total Bales Lost to Insects			96,132	Seed Treatment Costs	\$1,706,440	\$10.00
Total Acres (Upland)	170,644	In-furrow cost/treated acre	\$20.00	Percent Yield Loss	13.5%	In-Furrow Costs	\$17,064	\$0.10
Yield / Acre (Upland)	741	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	857	Scouting Costs	\$1,706,440	\$10.00
Price / lb	\$0.80	Cost/acre Boll Weevil Eradication	\$2.98	Av. # Applications	3.61	Eradication Costs	\$508,519	\$2.98
yield potential (lb/acre)	2,003	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	448,612	Bt Cotton	\$3,490,005	\$20.45
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	63.0%	Total Costs	\$15,703,422	\$92.02
Yield / Acre (Pima)	0	% Insect apps by air	45%	Transgenic Cotton (arthropods) (# acres)	170,644	Yield Loss to Insects	\$36,914,688	\$216.33
% Acres Scouted	100%	No. apps by air	1.5	Boll Weevil Eradication (# acres)	170,644	Total Losses + Costs	\$52,618,110	\$308.35
Fee / Scouted Acre	\$10.00	Cost/app by air	\$9.00	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1.5	% insect apps by ground	95%	# Scouted Acres	170,644			
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2	Seed Treatments (arthropods) (# acres)	170,644			
Cost/treated acre (Bt) Cotton	\$20.45	Cost/app by ground	\$6.50	In-Furrow Applications (# acres)	853			
% acres with seed treatment	100%	% Loss to weather	38.5%	Applications by Air (acres)	76,790			
Seed trt. cost/ treated acre	\$10.00	% loss to non-arthropods	1.0%	Applications by Ground (acres)	162,112			
% acres with in-furrow	0.5%	% loss to other (chemical injury, weeds, diseases, etc.)	10.0%	No. acres with no foliar insecticide applications	0			

Table 26. Cotton insect loss estimates for the Blacklands-Winter Garden 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	15.0%	25,597	\$89.02	\$13.89	73%	18,686	1.0
Bollgard III	63.5%	108,359	\$95.67	\$20.54	0%	0	0.0
Bollgard III/Thryvon	5.0%	8,532	\$115.67	\$40.54	0%	0	0.0
WideStrike	0.0%	0	\$0.00	\$0.00	0%	0	0.0
WideStrike 3	15.0%	25,597	\$88.84	\$13.71	0%	0	0.0
TwinLink	0.5%	853	\$71.89	\$0.00	73%	623	1.0
TwinLink Plus	1.0%	1,706	\$89.34	\$14.21	0%	0	0.0
<b>Total Bt</b>	<b>100.0%</b>	<b>170,644</b>	<b>\$94.47</b>	<b>\$20.45</b>	<b>11.3%</b>	<b>19,309</b>	<b>0.1</b>
Herbicide Traits Only	0.0%	0	\$0.00		0%	0	0.0
Conventional	0.0%	34	\$25.08		100%	34	1.0
Organic	0.0%	0	\$0.00		0%	0	0.0
<b>Total Upland Cotton</b>	<b>100.0%</b>	<b>170,678</b>	<b>\$94.45</b>	<b>\$20.45</b>	<b>11.3%</b>	<b>19,343</b>	<b>0.1</b>
Non Upland Cotton							
Pima	0.0%	0	\$0.00		0%	0	0.0
Other	0.0%	0	\$0.00		0%	0	0.0
Organic	0.0%	0	\$0.00		0%	0	0.0
<b>Total (all Cotton)</b>		<b>170,678</b>	<b>\$94.45</b>		<b>11.3%</b>	<b>19,343</b>	<b>0.1</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	\$22.00	0%	0	0	0	0	0