

Table 29. Cotton insect loss estimates for Texas High Plains during 2018.

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	2,586,419	55.0%	564,310	12.0%	1.0	\$20.00	1.00%	0.12	\$2.40	0.55%	107,767	\$46,038,089	\$9.79	92.0%
Beet Armyworm	470,258	10.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Fall Armyworm	282,155	6.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	470,258	10.0%	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	\$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	\$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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	940,516	20.0%	47,026	1.0%	1.0	\$15.00	0.00%	0.01	\$0.15	0.00%	0	\$141,077	\$0.03	0.3%
Cotton Fleahopper	940,516	20.0%	47,026	1.0%	1.0	\$11.00	0.00%	0.01	\$0.11	0.00%	0	\$103,457	\$0.02	0.2%
Stink Bugs (other than brown stink bug)	470,258	10.0%	47,026	1.0%	1.0	\$12.00	0.10%	0.01	\$0.12	0.01%	1,959	\$780,477	\$0.17	1.6%
Brown Stink Bug	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Clouded Plant Bug	0	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	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	47,026	1.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Thrips	3,291,806	70.0%	470,258	10.0%	1.0	\$9.00	0.00%	0.10	\$0.90	0.00%	0	\$2,962,625	\$0.63	5.9%
Aphids	1,175,645	25.0%	0	0.0%	1.0	\$18.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Grasshoppers	47,026	1.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Banded Winged Whitefly	94,052	2.0%	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Kurtoma Thrips	235,129	5.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Wireworms	235,129	5.0%	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
<b>TOTAL</b>								0.25	\$3.68	0.56%	109,726	\$50,025,725	\$10.64	

**SUMMARY DATA**

Data Input		Yield and Management Results			Economic Results			
State	Texas	Total Acres	4,702,580	Total Bales Harvested	4,751,565	Foliar Insecticide Costs	\$17,305,494	Per Acre
Region	Central	Total Bales Lost to Insects	109,726	Seed Treatment Costs	\$37,620,640		\$8.00	
Year	2018	Percent Yield Loss	0.6%	In-Furrow Costs	\$2,539,393		\$0.54	
Total Acres (Upland)	4,702,580	Yield w/o Insects (lb/acre)	488	Scouting Costs	\$21,161,610		\$4.50	
Yield / Acre (Upland)	485	Av. # Applications	0.25	Eradication Costs	\$7,053,870		\$1.50	
Price / lb	\$0.77	Total Bales lost (all factors)	18,645,730	Bt Cotton	\$39,919,261		\$8.49	
yield potential (lb/acre)	2,000	Total % yield Loss	95.2%	Total Costs	\$125,600,268		\$26.71	
Acres (Pima)	0	Transgenic Cotton (arthropods) (# acres)	3,385,858	Yield Loss to Insects	\$40,554,730		\$8.62	
Yield / Acre (Pima)	0	Boll Weevil Eradication (# acres)	4,702,580	Total Losses + Costs	\$166,154,998		\$35.33	
% Acres Scouted	50%	Pink Bollworm Eradication (# acres)	0					
Fee / Scouted Acre	\$9.00	# Scouted Acres	2,351,290					
No. times scouted/week	1	Seed Treatments (arthropods) (# acres)	3,762,064					
% acres Transgenic (Bt) Cotton	72%	In-Furrow Applications (# acres)	141,077					
Cost/treated acre (Bt) Cotton	\$11.79	Applications by Air (acres)	2,586,419					
% acres with seed treatment	80%	Applications by Ground (acres)	2,116,161					
Seed trt. cost/ treated acre	\$10.00	No. acres with no foliar insecticide applications	3,668,012					
% acres with in-furrow	3%							

Table 29. Cotton insect loss estimates for Texas High Plains during 2018, 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	32.0%	1,504,826	\$80.00	\$12.00	2%	30,097	1.0
Bollgard III	1.0%	47,026	\$90.00	\$20.00	0%	0	0.0
WideStrike	5.0%	235,129	\$60.00	\$5.00	5%	11,756	1.0
WideStrike 3	8.0%	376,206	\$90.00	\$15.00	0%	0	0.0
TwinLink	25.0%	1,175,645	\$80.00	\$12.00	2%	23,513	1.0
TwinLink Plus	1.0%	47,026	\$90.00	\$20.00	0%	0	0.0
<b>Total Bt</b>	<b>72.0%</b>	<b>3,385,858</b>	<b>\$78.75</b>	<b>\$11.79</b>	<b>1.9%</b>	<b>65,366</b>	<b>0.9</b>
Herbicide Traits Only	20.0%	940,516	\$65.00	-	75%	705,387	1.0
Conventional	7.0%	329,181	\$25.00	-	75%	246,886	1.0
Organic	1.0%	47,026	\$25.00	-	0%	0	0.0
<b>Total Upland Cotton</b>	<b>100.0%</b>	<b>4,702,581</b>	<b>\$71.70</b>	<b>\$11.79</b>	<b>21.6%</b>	<b>1,017,639</b>	<b>0.9</b>
Non Upland Cotton							
Pima	0%	0	\$0.00	-	0%	0	0
Other	0%	0	\$0.00	-	0%	0	0
Organic	0%	0	\$0.00	-	0%	0	0
<b>Total (all Cotton)</b>		<b>4,702,581</b>	<b>\$71.70</b>		<b>21.6%</b>	<b>1,017,639</b>	<b>0.9</b>