

Table 25. Cotton insect loss estimates for the South Texas area of Texas during 2017.

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	828,697	100%	348,053	42.0%	1.0	\$11.00	0.50%	0.42	\$4.62	0.50%	17,265	\$9,463,876	\$11.42	14.1%
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	41,435	5%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	0	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	\$0.00	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	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cotton Fleahopper	828,697	100%	671,245	81.0%	1.7	\$8.50	1.00%	1.38	\$11.73	1.00%	34,529	\$20,990,881	\$25.33	31.4%
Stink Bugs (other than brown stink bug)	497,218	60%	497,218	60.0%	1.0	\$11.00	2.00%	0.60	\$6.60	1.20%	41,435	\$16,806,024	\$20.28	25.1%
Brown Stink Bug	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Leaf Footed Bugs	538,653	65%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	339,766	41%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Thrips	828,697	100%	281,757	34.0%	1.0	\$9.50	0.75%	0.34	\$3.23	0.75%	25,897	\$11,129,472	\$13.43	16.6%
Aphids	828,697	100%	571,801	69.0%	1.2	\$9.50	0.10%	0.83	\$7.89	0.10%	3,453	\$7,661,335	\$9.25	11.5%
Grasshoppers	0	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	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%
Creontiades	381,201	46%	124,305	15.0%	1.0	\$10.00	0.05%	0.15	\$1.50	0.02%	794	\$830,963	\$1.00	1.2%
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					3.72	\$35.57			3.57%		123,373	\$66,882,551	\$80.71	

SUMMARY DATA

Data Input			Yield and Management Results			Economic Results	
State	Texas		Total Acres	828,697		Total	Per Acre
Region	Central		Total Bales Harvested	2,170,150		Foliar Insecticide Costs	\$29,472,609
Year	2017		Total Bales Lost to Insects	123,373		Seed Treatment Costs	\$3,857,585
Total Acres (Upland)	828,697	In-furrow cost/treated acre	\$0.00	Percent Yield Loss	3.6%	In-Furrow Costs	\$0
Yield / Acre (Upland)	1,257	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	1,304	Scouting Costs	\$8,400,501
Price / lb	\$0.68	Cost/acre Boll Weevil Eradication	\$9.15	Av. # Applications	3.72	Eradication Costs	\$7,582,578
yield potential (lb/acre)	2,000	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	1,400,947	Bt Cotton	\$7,342,256
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	40.6%	Total Costs	\$56,655,529
Yield / Acre (Pima)	0	% Insect apps by air	29%	Transgenic Cotton (arthropods) (# acres)	828,697	Yield Loss to Insects	\$40,268,947
% Acres Scouted	93%	No. apps by air	1.5	Boll Weevil Eradication (# acres)	828,697	Total Losses + Costs	\$96,924,476
Fee / Scouted Acre	\$10.90	Cost/app by air	\$8.71	Pink Bollworm Eradication (# acres)	0		
No. times scouted/week	1	% insect apps by ground	71%	# Scouted Acres	770,688		
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2.5	Seed Treatments (arthropods) (# acres)	812,123		
Cost/treated acre (Bt) Cotton	\$8.86	Cost/app by ground	\$7.21	In-Furrow Applications (# acres)	0		
% acres with seed treatment	98%	% Loss to weather	30.0%	Applications by Air (acres)	240,322		
Seed trt. cost/ treated acre	\$4.75	% loss to non-arthropods	3.0%	Applications by Ground (acres)	588,375		
% acres with in-furrow	0%	% loss to other (chemical injury, weeds, diseases, etc.)	4.0%	No. acres with no foliar insecticide applications	0		

Table 25. Cotton insect loss estimates for the South Texas area of Texas during 2017, 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	% of Population Bollworm
Bollgard II	48.0%	397,775	\$60.00	\$9.00	29%	115,355	1.0	100%
Bollgard III	0.0%	0	-	-	-	-	-	-
WideStrike	42.0%	348,053	\$40.00	\$8.00	61%	212,312	1.0	100%
WideStrike 3	1.0%	8,287	\$66.00	\$10.00	0%	0	0.0	0%
TwinLink	9.0%	74,583	\$64.00	\$12.00	25%	18,646	0.0	100%
TwinLink Plus	0.0%	0	-	-	-	-	-	-
Total Bt	100%	828,698	\$52.02	\$8.86	41.8%	346,313	0.9	100.0%
Herbicide Traits Only	0.0%	0	-	-	-	-	-	-
Conventional	0.5%	4143	\$6.00	-	100%	4143	2.0	100%
Organic	0.0%	0	-	-	-	-	-	-
Total Upland Cotton	100.5%	832,841	\$51.79	\$8.86	42.1%	350,456	0.9	100.0%
Non Upland Cotton								
Pima	0%	0	-	-	-	-	-	-
Other	0%	0	-	-	-	-	-	-
Organic	0%	0	-	-	-	-	-	-
Total (all Cotton)		832,841	\$51.79		42.1%	350,456	0.9	