

Table 27. Cotton insect loss estimates for the Rolling Plains-Trans Pecos 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	1,232,100	90%	8,214	0.6%	1.0	\$17.00	0.20%	0.01	\$0.17	0.18%	10,268	\$3,758,078	\$2.75	13.5%
Beet Armyworm	68,450	5%	0	0.0%	1.0	\$22.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Fall Armyworm	136,900	10%	0	0.0%	1.0	\$13.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	41,070	3%	0	0.0%	1.0	\$13.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	13,690	1%	0	0.0%	1.0	\$13.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cotton Leaf Perforator	0	0%	0	0.0%	1.0	\$9.50	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Saltmarsh Caterpillar	0	0%	0	0.0%	1.0	\$13.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	136,900	10%	0	0.0%	1.0	\$9.20	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cotton Fleahopper	684,500	50%	136,900	10.0%	1.1	\$8.09	1.00%	0.11	\$0.89	0.50%	28,521	\$10,465,994	\$7.64	37.5%
Stink Bugs (other than brown stink bug)	68,450	5%	6,845	0.5%	1.0	\$12.00	1.00%	0.01	\$0.12	0.05%	2,852	\$993,865	\$0.73	3.6%
Brown Stink Bug	0	0%	0	0.0%	1.0	\$13.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Clouded Plant Bug	0	0%	0	0.0%	1.0	\$8.09	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Leaf Footed Bugs	0	0%	0	0.0%	1.0	\$8.09	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	109,520	8%	2,738	0.2%	1.0	\$17.00	2.00%	0.00	\$0.00	0.16%	9,127	\$3,154,291	\$2.30	11.3%
Thrips	1,369,000	100%	13,690	1.0%	1.0	\$10.00	0.10%	0.01	\$0.10	0.10%	5,704	\$2,108,202	\$1.54	7.6%
Aphids	958,300	70%	191,660	14.0%	1.0	\$14.00	0.40%	0.14	\$1.96	0.28%	15,972	\$7,398,191	\$5.40	26.5%
Grasshoppers	136,900	10%	6,845	0.5%	1.0	\$8.09	0.00%	0.01	\$0.08	0.00%	0	\$11,075	\$0.01	0.0%
Banded Winged Whitefly	68,450	5%	0	0.0%	1.0	\$14.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	0	0%	0	0.0%	1.0	\$20.00	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>								0.29	\$3.32	1.27%	72,444	\$27,889,696	\$20.37	

**SUMMARY DATA**

	Data Input		Yield and Management Results			Economic Results			
						Total	Per Acre		
State	Texas		Total Acres	1,383,000					
Region	Central		Total Bales Harvested	2,153,323		Foliar Insecticide Costs	\$4,546,175	\$3.32	
Year	2017		Total Bales Lost to Insects	72,444		Seed Treatment Costs	\$9,856,800	\$7.20	
Total Acres (Upland)	1,369,000	In-furrow cost/treated acre	\$15.00	Percent Yield Loss	1.3%		In-Furrow Costs	\$0	\$0.00
Yield / Acre (Upland)	755	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	765		Scouting Costs	\$2,190,400	\$1.60
Price / lb	\$0.72	Cost/acre Boll Weevil Eradication	\$1.57	Av. # Applications	0.29		Eradication Costs	\$2,149,330	\$1.57
yield potential (lb/acre)	2,000	% acres in Pink Bollworm Eradication	1%	Total Bales lost (all factors)	3,609,026		Bt Cotton	\$8,423,457	\$6.15
Acres (Pima)	14,000	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	63.3%		Total Costs	\$27,166,162	\$19.84
Yield / Acre (Pima)	1,065	% Insect apps by air	25%	Transgenic Cotton (arthropods) (# acres)	1,067,820		Yield Loss to Insects	\$25,036,646	\$18.29
% Acres Scouted	16%	No. apps by air	0.3	Boll Weevil Eradication (# acres)	1,369,000		Total Losses + Costs	\$52,202,808	\$38.13
Fee / Scouted Acre	\$10.00	Cost/app by air	\$7.03	Pink Bollworm Eradication (# acres)	16,428				
No. times scouted/week	1	% insect apps by ground	75%	# Scouted Acres	219,040				
% acres Transgenic (Bt) Cotton	78%	No. apps by ground	0.7	Seed Treatments (arthropods) (# acres)	1,314,240				
Cost/treated acre (Bt) Cotton	\$7.89	Cost/app by ground	\$7.86	In-Furrow Applications (# acres)	0				
% acres with seed treatment	96%	% Loss to weather	40.0%	Applications by Air (acres)	342,250				
Seed trt. cost/ treated acre	\$7.50	% loss to non-arthropods	12.0%	Applications by Ground (acres)	1,026,750				
% acres with in-furrow	0%	% loss to other (chemical injury, weeds, diseases, etc.)	10.0%	No. acres with no foliar insecticide applications	1,026,750				

Table 27. Cotton insect loss estimates for the Rolling Plains-Trans Pecos 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	35.9%	491,471	\$45.00	\$7.00	0.2%	983	1.0	98%
Bollgard III	0.1%	1,369	\$50.00	\$12.00	0.0%	0	0.0	98%
WideStrike	6.0%	82,140	\$45.00	\$7.00	0.5%	411	1.0	98%
WideStrike 3	13.0%	177,970	\$50.00	\$12.00	0.0%	0	0.0	98%
TwinLink	22.0%	301,180	\$45.00	\$7.00	0.5%	1,506	1.0	98%
TwinLink Plus	1.0%	13,690	\$50.00	\$12.00	0.0%	0	0.0	98%
<b>Total Bt</b>	<b>78%</b>	<b>1,067,820</b>	<b>\$45.84</b>	<b>\$7.89</b>	<b>0.3%</b>	<b>2,900</b>	<b>0.8</b>	<b>97.9%</b>
Herbicide Traits Only	20.0%	273,800	\$48.00	-	2.0%	5476	1.0	98%
Conventional	2.0%	27,380	\$15.00	-	2.0%	548	1.0	98%
Organic	0.0%	0	-	-	-	-	-	-
<b>Total Upland Cotton</b>	<b>100.0%</b>	<b>1,369,000</b>	<b>\$45.66</b>	<b>\$7.89</b>	<b>0.7%</b>	<b>8,924</b>	<b>0.9</b>	<b>97.9%</b>
Non Upland Cotton								
Pima	1.0%	13,690	\$60.00	-	0%	0	0	-
Other	0.0%	0	-	-	-	-	-	-
Organic	0.0%	0	-	-	-	-	-	-
<b>Total (all Cotton)</b>		<b>1,382,690</b>	<b>\$45.80</b>		<b>0.6%</b>	<b>8,924</b>	<b>0.9</b>	