Table 24. Cotton insect loss estimates for the Rolling Plains-Trans Pecos area of Texas during 2019.

	Acres	% Acres		% Acres	# of apps	Cost of 1	% loss /acre	# of apps/		overall %	Bales lost /		Loss +	% Total
Pest	Infested	Infested	Acres Treated	Treated	/acres treated	application	infested	total acres	cost/acre	reduction	pest	Loss + cost	cost/acre	Loss+Cost
Bollworm/Budworm	308,603	20%	15,430	1.0%	1.0	\$17.00	2.00%	0.01	\$0.17	0.40%	25,717	\$8,446,491	\$5.47	18.4%
Beet Armyworm	15,430	1%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Fall Armyworm	0	0%	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	30,860	2%	0	0.0%	0.0	\$0.00	0.05%	0.00	\$0.00	0.00%	64	\$20,890	\$0.01	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	46,290	3%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cotton Fleahopper	925,808	60%	154,301	10.0%	1.0	\$10.00	1.50%	0.10	\$1.00	0.90%	57,863	\$19,812,292	\$12.84	43.1%
Stink Bugs (other than	154,301	10%	30,860	2.0%	1.0	\$12.00	0.50%	0.02	\$0.24	0.05%	3,215	\$1,086,408	\$0.70	2.4%
brown stink bug)														
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	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	0	0%	7,715	0.5%	1.0	\$15.00	5.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Thrips	925,808	60%	154,301	10.0%	1.0	\$6.00	0.00%	0.10	\$0.60	0.00%	0	\$555,485	\$0.36	1.2%
Aphids	385,754	25%	15,430	1.0%	1.0	\$15.00	1.00%	0.01	\$0.15	0.25%	16,073	\$5,304,090	\$3.44	11.5%
Grasshoppers	154,301	10%	77,151	5.0%	2.0	\$17.00	5.00%	0.10	\$1.70	0.50%	32,146	\$10,754,767	\$6.97	23.4%
Banded Winged	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Whitefly														
Silverleaf Whitefly	772	0%	772	0.1%	4.0	\$17.00	2.00%	0.00	\$0.00	0.00%	64	\$20,890	\$0.01	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								0.34	\$3.86	2.10%	135,142	\$46,001,313	\$29.81	

SUMMARY DATA									
Data Input				Yield and Management Results	Economic Results				
State	Texas			Total Acres	1,551,043		Total	Per Acre	
Region	Central			Total Bales Harvested	964,384	Foliar Insecticide Costs	\$5,956,034	\$3.86	
Year	2019			Total Bales Lost to Insects	135,142	Seed Treatment Costs	\$14,658,633	\$9.50	
Total Acres (Upland)	1,543,014	In-furrow cost/treated acre	\$0.00	Percent Yield Loss	2.1%	In-Furrow Costs	\$0	\$0.00	
Yield / Acre (Upland)	300	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	306	Scouting Costs	\$1,465,863	\$0.95	
Price / lb	\$0.68	Cost/acre Boll Weevil Eradication	\$0.62	Av. # Applications	0.34	Eradication Costs	\$956,669	\$0.62	
yield potential (lb/acre)	2,000	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	6,410,066	Bt Cotton	\$29,070,379	\$18.84	
Acres (Pima)	8,029	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	99.7%	Total Costs	\$52,107,578	\$33.77	
Yield / Acre (Pima)	1,200	% Insect apps by air	5%	Transgenic Cotton (arthropods) (# acres)	1,450,433	Yield Loss to Insects	\$44,110,349	\$28.59	
% Acres Scouted	10%	No. apps by air	1	Boll Weevil Eradication (# acres)	1,543,014	Total Losses + Costs	\$96,217,927	\$62.36	
Fee / Scouted Acre	\$9.50	Cost/app by air	\$7.00	Pink Bollworm Eradication (# acres)	0				
No. times scouted/week	1	% insect apps by ground	15%	# Scouted Acres	154,301				
% acres Transgenic (Bt) Cotton	94%	No. apps by ground	1	Seed Treatments (arthropods) (# acres)	1,463,863				
Cost/treated acre (Bt) Cotton	\$20.04	Cost/app by ground	\$5.50	In-Furrow Applications (# acres)	0				
% acres with seed treatment	95%	% Loss to weather	91.6%	Applications by Air (acres)	77,151,				
Seed trt. cost/ treated acre	\$10.00	% loss to non-arthropods	4.0%	Applications by Ground (acres)	231,452				
% acres with in-furrow	0%	% loss to other (chemical injury,	2.0%	No. acres with no foliar insecticide	1,234,411				
		weeds, diseases, etc.)		applications					

Table 24 Cotton insect loss estimates for the Rolling Plains-Trans Pecos area of Texas during 2019, continued.

					% acres treated	# acres treated	# apps
Upland Cotton	% Acres	# Acres	Total cost/acre	Bt cost/acre	for BW/TBW	for BW/TBW	for BW/TBW
Bollgard II	55.0%	848,658	\$81.00	\$19.00	1.0%	8,487	1.0
Bollgard III	13.0%	200,592	\$93.00	\$26.00	0.0%	0	0.0
WideStrike	5.5%	84,866	\$67.00	\$5.00	5.0%	4,243	1.0
WideStrike 3	14.0%	216,022	\$87.00	\$24.00	0.0%	0	0.0
TwinLink	4.5%	69,436	\$76.00	\$19.00	1.0%	694	1.0
TwinLink Plus	2.0%	30,860	\$86.00	\$26.00	0.0%	0	0.0
Total Bt	94%	1,450,434	\$82.60	\$20.04	0.9%	13,424	0.7
Herbicide Traits Only	5.0%	77,151	\$65.00	-	2.0%	1,543	1.0
Conventional	1.0%	15,430	\$25.00	-	2.0%	309	1.0
Organic	0.0%	0	\$0.00	-	2.0%	0	0.0
Total Upland Cotton	100.0%	1,543,015	\$81.14	\$20.04	1.0%	15,276	0.7
Non Upland Cotton							
Pima	0.5%	8,029	\$60.00	-	0.0%	0	0.0
Other	0.0%	0	\$0.00	-	0.0%	0	0.0
Organic	0.0%	0	\$0.00	-	0.0%	0	0.0
Total (all Cotton)		1,551,044	\$81.04	-	1.0%	15,276	0.7