Table 26. Cotton insect loss estimates for the Blacklands-Winter Garden 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	302,673	90%	201,782	60.0%	1.2	$24.00	6.00%	0.72	$17.28	5.40%	75,668	$31,381,045	$93.31	46.2%
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	33,630	10%	16,815	5.0%	1.0	$24.00	0.50%	0.05	$1.20	0.05%	701	$282,622	$0.84	0.4%
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	16,815	5%	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	117,706	35%	6,726	2.0%	1.0	$18.00	0.00%	0.02	$0.36	0.00%	0	$42,374	$0.13	0.1%
Cotton Fleahopper	336,303	100%	252,227	75.0%	2.3	$11.00	2.00%	1.72	$18.92	2.00%	28,025	$16,048,293	$47.72	23.6%
Stink Bugs (other than brown stink bug)	269,042	80%	168,152	50.0%	1.0	$14.00	2.00%	0.50	$7.00	1.60%	22,420	$9,631,649	$28.64	14.2%
Brown Stink Bug	201,782	60%	50,445	15.0%	1.0	$14.00	0.50%	0.15	$2.10	0.30%	4,204	$1,876,644	$5.58	2.8%
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	67,261	20%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Spider Mites	134,521	40%	16,815	5.0%	1.0	$18.00	1.00%	0.05	$0.90	0.40%	5,605	$2,058,157	$6.12	3.0%
Thrips	336,303	100%	67,261	20.0%	1.0	$11.00	1.00%	0.20	$2.20	1.00%	14,013	$5,582,759	$16.60	8.2%
Aphids	319,488	95%	67,261	20.0%	1.0	$16.00	0.00%	0.20	$3.20	0.00%	0	$1,022,361	$3.04	1.5%
Grasshoppers	201,782	60%	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%
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								3.61	$53.16	10.75%	150,636	$67,925,904	$201.98	

SUMMARY DATA

Data Input				Yield and Management Results		Economic Results		
State	Texas			Total Acres	336,303		Total	Per Acre
Region	Central			Total Bales Harvested	805,726	Foliar Insecticide Costs	$17,877,867	$53.16
Year	2017			Total Bales Lost to Insects	150,636	Seed Treatment Costs	$4,035,636	$12.00
Total Acres (Upland)	336,303	In-furrow cost/treated acre	$18.00	Percent Yield Loss	10.8%	In-Furrow Costs	$6,053	$0.02
Yield / Acre (Upland)	1,150	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	1,289	Scouting Costs	$2,690,424	$8.00
Price / lb	$0.72	Cost/acre Boll Weevil Eradication	$7.19	Av. # Applications	3.61	Eradication Costs	$2,418,019	$7.19
yield potential (lb/acre)	2,000	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	564,008	Bt Cotton	$3,985,189	$11.85
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	$0.00	Total % yield Loss	40.3%	Total Costs	$31,013,188	$92.22
Yield / Acre (Pima)	0	% Insect apps by air	60%	Transgenic Cotton (arthropods) (# acres)	336,303	Yield Loss to Insects	$52,059,802	$154.80
% Acres Scouted	80%	No. apps by air	3	Boll Weevil Eradication (# acres)	336,303	Total Losses + Costs	$83,072,990	$247.02
Fee / Scouted Acre	$10.00	Cost/app by air	$8.80	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1	% insect apps by ground	40%	# Scouted Acres	269,042			
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2	Seed Treatments (arthropods) (# acres)	336,303			
Cost/treated acre (Bt) Cotton	$11.85	Cost/app by ground	$7.50	In-Furrow Applications (# acres)	336			
% acres with seed treatment	100%	% Loss to weather	19.5%	Applications by Air (acres)	201,782			
Seed trt. cost/ treated acre	$12.00	% loss to non-arthropods	2.0%	Applications by Ground (acres)	134,521			
% acres with in-furrow	0.1%	% loss to other (chemical injury, weeds, diseases, etc.)	8.0%	No. acres with no foliar insecticide applications	0			

Table 26. Cotton insect loss estimates for the Blacklands-Winter Garden 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	50.0%	168,152	$60.00	$12.00	50%	84,076	1.2	100%
Bollgard III	0.0%	0	$0.00	$0.00	0%	0	0.0	0%
WideStrike	20.0%	67,261	$40.00	$10.00	90%	60,535	1.5	100%
WideStrike 3	5.0%	16,815	$66.00	$14.00	0%	0	0.0	100%
TwinLink	20.0%	67,261	$64.00	$12.00	75%	50,446	1.2	100%
TwinLink Plus	5.0%	16,815	$75.00	$15.00	0%	0	0.0	100%
Total Bt	100%	336,304	$57.85	$11.85	58.0%	195,057	1.1	100.0%
Herbicide Traits Only	0%	0				0		
Conventional	0%	0				0		
Organic	0%	0				0		
Total Upland Cotton	100.0%	336,304	$57.85	$11.85	58.0%	195,057	1.1	100.0%
Non Upland Cotton								
Pima	0%	0				0		
Other	0%	0				0		
Organic	0%	0				0		
Total (all Cotton)		336,304	$57.85		58.0%	195,057	1.1	