Table 11. Cotton insect loss estimates for Pima cotton in California 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	4,160	2.0%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Beet Armyworm	20,800	10.0%	2,080	1.0%	1.0	$12.00	0.00%	0.01	$0.12	0.00%	0	$2,496	$0.01	0.0%
Fall Armyworm	0	0.0%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Loopers	20,800	10.0%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Cutworms	2,080	1.0%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Cotton Leaf Perforator	6,240	3.0%	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	205,920	99.0%	176,800	85.0%	3.0	$18.00	10.00%	2.55	$45.90	9.90%	79,494	$62,871,696	$302.27	77.7%
Cotton Fleahopper	0	0.0%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (other than brown stink bug)	20,800	10.0%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Brown Stink Bug	6,240	3.0%	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	124,800	60.0%	62,400	30.0%	1.0	$12.00	0.00%	0.30	$3.60	0.00%	0	$449,280	$2.16	0.6%
Thrips	104,000	50.0%	2,080	1.0%	1.0	$6.00	0.00%	0.01	$0.06	0.00%	0	$6,240	$0.03	0.0%
Aphids	166,400	80.0%	135,200	65.0%	2.0	$8.00	3.00%	1.30	$10.40	2.40%	19,271	$14,680,672	$70.58	18.1%
Grasshoppers	0	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	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Silverleaf Whitefly	104,000	50.0%	72,800	35.0%	2.0	$40.00	0.00%	0.70	$28.00	0.00%	0	$2,912,000	$14.00	3.6%
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%
TOTAL								4.87	$88.08	12.30%	98,765	$80,922,384	$389.05	

SUMMARY DATA

Data Input				Yield and Management Results		Economic Results		
State	California			Total Acres	208,000		Total	Per Acre
Region	West			Total Bales Harvested	665,600	Foliar Insecticide Costs	$18,320,640	$88.08
Year	2017			Total Bales Lost to Insects	98,765	Seed Treatment Costs	-	-
Total Acres (Pima)	208,000	In-furrow cost/treated acre	-	Percent Yield Loss	12.3%	In-Furrow Costs	-	-
Yield / Acre (Pima)	1,536	% acres in Boll Weevil Eradication	0%	Yield w/o Insects (lb/acre)	1,751	Scouting Costs	$2,265,120	$10.89
Price / lb	$1.40	Cost/acre Boll Weevil Eradication	$0.00	Av. # Applications	4.87	Eradication Costs	$1,435,200	$6.90
yield potential (lb/acre)	1,853	% acres in Pink Bollworm Eradication	100%	Total Bales lost (all factors)	142,928	Bt Cotton	-	-
Acres (Upland)	-	Cost/acre Pink Bollworm Eradication	$6.90	Total % yield Loss	17.8%	Total Costs	$22,020,960	$105.87
Yield / Acre (Upland)	-	% Insect apps by air	80%	Transgenic Cotton (arthropods) (# acres)	-	Yield Loss to Insects	$66,370,080	$319.09
% Acres Scouted	99%	No. apps by air	-	Boll Weevil Eradication (# acres)	0	Total Losses + Costs	$88,391,040	$424.96
Fee / Scouted Acre	$11.00	Cost/app by air	-	Pink Bollworm Eradication (# acres)	208,000			
No. times scouted/week	1	% insect apps by ground	20%	# Scouted Acres	205,920			
% acres Transgenic (Bt) Cotton	-	No. apps by ground	-	Seed Treatments (arthropods) (# acres)	-			
Cost/treated acre (Bt) Cotton	-	Cost/app by ground	-	In-Furrow Applications (# acres)	-			
% acres with seed treatment	-	% Loss to weather	2.0%	Applications by Air (acres)	166,400			
Seed trt. cost/ treated acre	-	% loss to non-arthropods	0.0%	Applications by Ground (acres)	41,600			
% acres with in-furrow	-	% loss to other (chemical injury, weeds, diseases, etc.)	3.5%	No. acres with no foliar insecticide applications	416			

Table 11. Cotton insect loss estimates for Pima cotton in California during 2017, continued.

Pima 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
Herbicide Traits Only	87.0%	180,960	-	-	-	-	-	-
Conventional	12.8%	26,624	-	-	-	-	-	-
Organic	0.2%	416	-	-	-	-	-	-
Total Pima Cotton	100.0%	208,000	-	-	-	-	-	-