Table 9. Cotton insect loss estimates for California Pima during 2019.

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	6,150	3%	0	0%	0.0	$0.00	0.0%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Beet Armyworm	20,500	10%	8,200	4%	1.0	$11.30	0.3%	0.04	$0.45	0.03%	198	$113,810	$0.56	0.4%
Fall Armyworm	0	0%	0	0%	0.0	$0.00	0.0%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Loopers	10,250	5%	0	0%	0.0	$0.00	0.0%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Cutworms	2,050	1%	0	0%	0.0	$0.00	0.0%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Cotton Leaf Perforator	0	0%	0	0%	0.0	$0.00	0.0%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	0	0%	0	0%	0.0	$0.00	0.0%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Lygus	184,500	90%	153,750	75%	2.0	$21.60	6.0%	1.50	$32.40	5.40%	42,666	$28,505,448	$139.05	93.2%
Cotton Fleahopper	0	0%	0	0%	0.0	$0.00	0.0%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Stink Bugs (other than brown stink bug)	10,250	5%	4,100	2%	1.0	$20.00	0.3%	0.02	$0.40	0.01%	103	$58,484	$0.29	0.2%
Brown Stink Bug	0	0%	0	0%	0.0	$0.00	0.0%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Clouded Plant Bug	0	0%	0	0%	0.0	$0.00	0.0%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Leaf Footed Bugs	0	0%	0	0%	0.0	$0.00	0.0%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Spider Mites	61,500	30%	30,750	15%	1.0	$17.50	0.5%	0.15	$2.63	0.15%	1,185	$787,118	$3.84	2.6%
Thrips	20,500	10%	0	0%	0.0	$0.00	0.0%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Aphids	30,750	15%	30,750	15%	1.0	$20.00	0.5%	0.15	$3.00	0.08%	593	$405,354	$1.98	1.3%
Grasshoppers	0	0%	0	0%	0.0	$0.00	0.0%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Banded Winged Whitefly	0	0%	0	0%	0.0	$0.00	0.0%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Silverleaf Whitefly	71,750	35%	51,250	25%	1.2	$33.00	0.0%	0.30	$9.90	0.00%	0	$710,325	$3.47	2.3%
Boll Weevil	0	0%	0	0%	0.0	$0.00	0.0%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
TOTAL								2.16	$48.78	5.66%	44,745	$30,580,539	$149.17	

SUMMARY DATA

Data Input			Yield and Management Results		Economic Results		
						Total	Per Acre
State	California		Total Acres	205,000			
Region	West		Total Bales Harvested	687,604	Foliar Insecticide Costs	$9,999,285	$48.78
Year	2019		Total Bales Lost to Insects	44,745	Seed Treatment Costs	$1,363,250	$6.65
Total Acres (Pima)	205,000	In-furrow cost/treated acre	$21.00	Percent Yield Loss	5.7%	In-Furrow Costs	$344,400	$1.68
Yield / Acre (Pima)	1,610	% acres in Boll Weevil Eradication	0%	Yield w/o Insects (lb/acre)	1,707	Scouting Costs	$2,337,000	$11.40
Price / lb	$1.10	Cost/acre Boll Weevil Eradication	$0.00	Av. # Applications	2.16	Eradication Costs	$410,000	$2.00
yield potential (lb/acre)	1,850	% acres in Pink Bollworm Eradication	100%	Total Bales lost (all factors)	101,631	Bt Cotton	$0	$0.00
Acres (Upland)	-	Cost/acre Pink Bollworm Eradication	$2.00	Total % yield Loss	12.9%	Total Costs	$14,453,935	$70.51
Yield / Acre (Upland)	-	% Insect apps by air	80%	Transgenic Cotton (arthropods) (# acres)	0	Yield Loss to Insects	$23,625,360	$115.25
% Acres Scouted	95%	No. apps by air	1.5	Boll Weevil Eradication (# acres)	0	Total Losses + Costs	$38,079,295	$185.75
Fee / Scouted Acre	$12.00	Cost/app by air	$16.00	Pink Bollworm Eradication (# acres)	205,000			
No. times scouted/week	1.5	% insect apps by ground	60%	# Scouted Acres	194,750			
% acres Transgenic (Bt) Cotton	0%	No. apps by ground	2	Seed Treatments (arthropods) (# acres)	194,750			
Cost/treated acre (Bt) Cotton	$0.00	Cost/app by ground	$13.00	In-Furrow Applications (# acres)	16,400			
% acres with seed treatment	95%	% Loss to weather	3.0%	Applications by Air (acres)	164,000			
Seed trt. cost/ treated acre	$7.00	% loss to non-arthropods	0.0%	Applications by Ground (acres)	123,000			
% acres with in-furrow	8%	% loss to other (chemical injury, weeds, diseases, etc.)	4.2%	No. acres with no foliar insecticide applications	0			