

Table 12. Cotton insect loss estimates for California-Pima during 2018.

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	2,060	1.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Beet Armyworm	10,300	5.0%	4,120	2.0%	1.0	\$11.00	0.50%	0.02	\$0.22	0.03%	220	\$128,986	\$0.63	0.4%
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	20,600	10.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	2,060	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	2,060	1.0%	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	175,100	85.0%	133,900	65.0%	1.7	\$21.00	5.00%	1.11	\$23.31	4.25%	37,391	\$25,618,797	\$124.36	84.7%
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)	2,060	1.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Brown Stink Bug	0	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	\$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	61,800	30.0%	30,900	15.0%	1.0	\$17.00	1.00%	0.15	\$2.55	0.30%	2,639	\$1,677,654	\$8.14	5.5%
Thrips	61,800	30.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Aphids	41,200	20.0%	15,450	7.5%	1.0	\$19.00	1.00%	0.08	\$1.52	0.20%	1,760	\$1,076,384	\$5.23	3.6%
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	103,000	50.0%	72,100	35.0%	1.5	\$32.00	0.00%	0.53	\$16.96	0.00%	0	\$1,746,880	\$8.48	5.8%
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								1.89	\$44.56	4.78%	42,010	\$30,248,701	\$146.84	

SUMMARY DATA

	Data Input		Yield and Management Results			Economic Results	
	California		Total Acres			Total	Per Acre
State	California		206,000				
Region	West		738,167	Total Bales Harvested		\$9,179,360	\$44.56
Year	2018		42,010	Total Bales Lost to Insects		\$1,225,700	\$5.95
Total Acres (Pima)	206,000	In-furrow cost/treated acre	\$21.00	Percent Yield Loss	4.8%	\$43,260	\$0.21
Yield / Acre (Pima)	1,720	% acres in Boll Weevil Eradication	0%	Yield w/o Insects (lb/acre)	1,806	\$2,447,280	\$11.88
Price / lb	\$1.20	Cost/acre Boll Weevil Eradication	\$0.00	Av. # Applications	1.89	\$1,421,400	\$6.90
yield potential (lb/acre)	2,050	% acres in Pink Bollworm Eradication	100%	Total Bales lost (all factors)	99,197	\$0	\$0.00
Acres (Upland)	-	Cost/acre Pink Bollworm Eradication	\$6.90	Total % yield Loss	11.3%	\$14,317,000	\$69.50
Yield / Acre (Upland)	-	% Insect apps by air	60%	Transgenic Cotton (arthropods) (# acres)	0	\$24,197,760	\$117.46
% Acres Scouted	99%	No. apps by air	1.2	Boll Weevil Eradication (# acres)	0	\$38,514,760	\$186.96
Fee / Scouted Acre	\$12.00	Cost/app by air	\$16.00	Pink Bollworm Eradication (# acres)	206,000		
No. times scouted/week	1.5	% insect apps by ground	40%	# Scouted Acres	203,940		
% acres Transgenic (Bt) Cotton	0%	No. apps by ground	2	Seed Treatments (arthropods) (# acres)	175,100		
Cost/treated acre (Bt) Cotton	\$0.00	Cost/app by ground	\$13.00	In-Furrow Applications (# acres)	2,060		
% acres with seed treatment	85%	% Loss to weather	2.0%	Applications by Air (acres)	123,600		
Seed trt. cost/ treated acre	\$7.00	% loss to non-arthropods	0.0%	Applications by Ground (acres)	82,400		
% acres with in-furrow	1%	% loss to other (chemical injury, weeds, diseases, etc.)	4.5%	No. acres with no foliar insecticide applications	0		

Table 12. Cotton insect loss estimates for California-Pima during 2018, 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
Bollgard II	0.0%	0	-	-	-	-	-
Bollgard III	0.0%	0	-	-	-	-	-
WideStrike	0.0%	0	-	-	-	-	-
WideStrike 3	0.0%	0	-	-	-	-	-
TwinLink	0.0%	0	-	-	-	-	-
TwinLink Plus	0.0%	0	-	-	-	-	-
Total Bt	0.0%	0	-	-	-	-	-
Herbicide Traits Only	0.0%	0	-	-	-	-	-
Conventional	0.0%	0	-	-	-	-	-
Organic	0.0%	0	-	-	-	-	-
Total Upland Cotton	0.0%	0	-	-	-	-	-
Non Upland Cotton							
Herbicide Traits	85.1%	175,306	-	-	-	-	-
Conventional	14.9%	30,694	-	-	-	-	-
Organic	0	0	-	-	-	-	-
Total (all Cotton)		206,000					