

Table 5. Cotton insect loss estimates for Arizona Conventional 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	4,364	100.0%	2,880	66.0%	1.0	\$24.00	3.23%	0.68	\$16.32	3.23%	497	\$250,146	\$57.32	60.9%
Beet Armyworm	2,014	46.0%	1,091	25.0%	0.8	\$0.00	0.77%	0.20	\$0.00	0.36%	55	\$19,800	\$4.54	4.8%
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	1,779	41.0%	1,091	25.0%	0.6	\$0.00	0.38%	0.15	\$0.00	0.16%	24	\$8,640	\$1.98	2.1%
Cutworms	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cotton Leaf Perforator	1,679	38.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Saltmarsh Caterpillar	1,679	38.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	4,364	100.0%	2,880	66.0%	3.3	\$0.00	2.38%	2.20	\$0.00	2.39%	367	\$132,120	\$30.27	32.2%
Cotton Fleahopper	4,364	100.0%	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)	1,679	38.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Brown Stink Bug	1,763	40.0%	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	4,364	100.0%	1,964	45.0%	1.0	\$0.00	0.00%	0.45	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Thrips	4,364	100.0%	1,091	25.0%	1.0	\$0.00	0.00%	0.25	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Aphids	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
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	1,679	38.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	4,364	100.0%	2,880	66.0%	2.2	\$0.00	0.00%	1.43	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Darkling Beetle	1,679	38.0%	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
TOTAL								5.36	\$16.32	6.13%	943	\$410,706	\$94.10	

SUMMARY DATA

Data Input		Yield and Management Results			Economic Results		
	Arizona			Total Acres	4,364	Total	Per Acre
State	Arizona			Total Acres	4,364		
Region	West			Total Bales Harvested	11,214	Foliar Insecticide Costs	\$71,226
Year	2018			Total Bales Lost to Insects	943	Seed Treatment Costs	\$0
Total Acres (Upland)	4,364	In-furrow cost/treated acre	\$8.00	Percent Yield Loss	6.1%	In-Furrow Costs	\$17,582
Yield / Acre (Upland)	1,233	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	1,314	Scouting Costs	\$27,059
Price / lb	\$0.75	Cost/acre Boll Weevil Eradication	\$1.47	Av. # Applications	5.36	Eradication Costs	\$30,417
yield potential (lb/acre)	1,692	% acres in Pink Bollworm Eradication	100%	Total Bales lost (all factors)	3,968	Bt Cotton	\$0
Acres (Pima)	-	Cost/acre Pink Bollworm Eradication	\$5.50	Total % yield Loss	25.8%	Total Costs	\$146,284
Yield / Acre (Pima)	-	% Insect apps by air	80%	Transgenic Cotton (arthropods) (# acres)	0	Yield Loss to Insects	\$339,480
% Acres Scouted	60%	No. apps by air	6	Boll Weevil Eradication (# acres)	4,364	Total Losses + Costs	\$485,764
Fee / Scouted Acre	\$10.33	Cost/app by air	\$21.00	Pink Bollworm Eradication (# acres)	4,364		
No. times scouted/week	2.5	% insect apps by ground	30%	# Scouted Acres	2,619		
% acres Transgenic (Bt) Cotton	0%	No. apps by ground	1	Seed Treatments (arthropods) (# acres)	0		
Cost/treated acre (Bt) Cotton	\$0.00	Cost/app by ground	\$18.00	In-Furrow Applications (# acres)	2,198		
% acres with seed treatment	0%	% Loss to weather	14.3%	Applications by Air (acres)	3,491		
Seed trt. cost/ treated acre	-	% loss to non-arthropods	5.3%	Applications by Ground (acres)	1,309		
% acres with in-furrow	50%	% loss to other (chemical injury, weeds, diseases, etc.)	0.0%	No. acres with no foliar insecticide applications	1,528		

Table 5. Cotton insect loss estimates for Arizona Conventional 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	
Bollgard III		0				0	
WideStrike		0				0	
WideStrike 3		0				0	
TwinLink		0				0	
TwinLink Plus		0				0	
Total Bt	0.0%	0	\$0.00	\$0.00	0.0%	0	0.0
Herbicide Traits Only		0				0	
Conventional		0				0	
Organic		0				0	
Total Upland Cotton	0.0%	0	\$0.00	\$0.00	0.0%	0	0.0
Non Upland Cotton							
Pima		0				0	
Other		0				0	
Organic		0				0	
Total (all Cotton)		0				0	