

Table 4. Cotton insect loss estimates for Arizona 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	13,989	100.0%	2,647	18.9%	1.3	\$8.33	0.40%	0.24	\$2.00	0.43%	169	\$149,658	\$10.70	22.9%
Beet Armyworm	945	7.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	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	945	7.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
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	11,626	83.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Saltmarsh Caterpillar	12,099	86.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	13,989	100.0%	5,180	37.0%	2.9	\$10.90	0.90%	1.07	\$11.66	0.91%	358	\$420,915	\$30.09	64.5%
Cotton Fleahopper	1,244	9.0%	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)	5,671	41.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Brown Stink Bug	2,458	18.0%	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	567	4.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Thrips	13,989	100.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Aphids	1,550	11.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Grasshoppers	945	7.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Banded Winged Whitefly	10,964	78.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	3,630	26.0%	3,025	21.6%	2.3	\$12.75	0.80%	0.49	\$6.25	0.21%	83	\$82,436	\$5.89	12.6%
Darkling Beetle	1,134	8.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Pale-Striped Flea Beetle	1,134	8.0%	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%	0.0	\$0.00	0.00%	0	\$0	\$0.00	0.0%
<b>TOTAL</b>								<b>1.8</b>	<b>\$19.91</b>	<b>1.55%</b>	<b>610</b>	<b>\$653,009</b>	<b>\$46.68</b>	

**SUMMARY DATA**

Data Input		Yield and Management Results			Economic Results	
State	Arizona	Total Acres	13,989			
Region	West	Total Bales Harvested	32,908	Foliar Insecticide Costs	\$278,531	\$19.91
Year	2018	Total Bales Lost to Insects	610	Seed Treatment Costs	\$137,207	\$9.81
Total Acres (Pima)	13,989	In-furrow cost/treated acre	\$15.00	Percent Yield Loss	\$14,178	\$1.01
Yield / Acre (Pima)	1,129	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	\$99,323	\$7.10
Price / lb	\$1.50	Cost/acre Boll Weevil Eradication		Av. # Applications	\$0	\$0.00
yield potential (lb/acre)	1,349	% acres in Pink Bollworm Eradication	100%	Total Bales lost (all factors)	\$0	\$0.00
% Acres Scouted	60%	Cost/acre Pink Bollworm Eradication		Total % yield Loss	\$529,239	\$37.83
Fee / Scouted Acre	\$11.83	% Insect apps by air	30%	Transgenic Cotton (arthropods) (# acres)	\$439,200	\$31.40
No. times scouted/week	1.75	No. apps by air	3	Boll Weevil Eradication (# acres)	\$968,439	\$69.23
% acres Transgenic (Bt) Cotton	\$0.00	Cost/app by air	\$13.00	Pink Bollworm Eradication (# acres)		
Cost/treated acre (Bt) Cotton	\$0.00	% insect apps by ground	40%	# Scouted Acres		
% acres with seed treatment	51%	No. apps by ground	2	Seed Treatments (arthropods) (# acres)		
Seed trt. cost/ treated acre	\$19.10	Cost/app by ground	\$11.00	In-Furrow Applications (# acres)		
% acres with in-furrow	7%	% Loss to weather	10.2%	Applications by Air (acres)		
		% loss to non-arthropods	2.0%	Applications by Ground (acres)		
		% loss to other (chemical injury, weeds, diseases, etc.)	6.3%	No. acres with no foliar insecticide applications		

Table 4. Cotton insect loss estimates for Arizona 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	
Bollgard III		0				0	
WideStrike		0				0	
WideStrike 3		0				0	
TwinLink		0				0	
TwinLink Plus		0				0	
<b>Total Bt</b>	<b>0.0%</b>	<b>0</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>0.0%</b>	<b>0</b>	<b>0.0</b>
Herbicide Traits Only		0				0	
Conventional		0				0	
Organic		0				0	
<b>Total Upland Cotton</b>	<b>0.0%</b>	<b>0</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>0.0%</b>	<b>0</b>	<b>0.0</b>
Non Upland Cotton							
Pima		0				0	
Other		0				0	
Organic		0				0	
<b>Total (all Cotton)</b>		<b>0</b>				<b>0</b>	