

Table 8. Insect loss estimates for Arizona Thryvon cotton during 2022.

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	270	3%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Beet Armyworm	270	3%	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	270	3%	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cotton Leaf Perforator	0	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	7,753	99%	821	10.5%	1.0	\$32.33	2.06%	0.11	\$3.56	2.05%	653	\$278,326	\$35.68	79.5%
Cotton Fleahopper	3,217	41%	54	0.7%	0.1	\$10.00	0.08%	0.00	\$0.00	0.04%	11	\$4,224	\$0.54	1.2%
Stink Bugs (other than brown stink bug)	1,558	20%	0	0.0%	0.0	\$0.00	0.02%	0.00	\$0.00	0.01%	2	\$768	\$0.10	0.2%
Brown Stink Bug	3,733	48%	0	0.0%	0.0	\$0.00	0.24%	0.00	\$0.00	0.11%	36	\$13,824	\$1.77	3.9%
Clouded Plant Bug	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	337	4%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	472	6%	351	4.5%	1.0	\$19.00	0.00%	0.05	\$0.95	0.00%	0	\$448	\$0.06	0.1%
Thrips	7,800	100%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Aphids	135	2%	54	0.7%	0.9	\$10.00	0.00%	0.01	\$0.10	0.00%	0	\$13	\$0.00	0.0%
Grasshoppers	2,219	28%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Banded Winged Whitefly	1,533	20%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	6,285	81%	987	12.7%	1.2	\$33.33	0.21%	0.15	\$5.00	0.17%	53	\$51,776	\$6.64	14.8%
Colaspis beetles	1,477	19%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cotton stainers	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Crickets	1,815	23%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Darkling Beetles	1,899	24%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
False Chinch Bug	135	2%	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	2,851	37%	135	1.7%	1.0	\$15.00	0.00%	0.02	\$0.30	0.00%	0	\$855	\$0.11	0.2%
Potato leafhopper	741	10%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Thrips (Bean)	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Mealybugs	0	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
TOTAL								0.34	\$9.91	2.37%	755	\$350,234	\$44.90	

SUMMARY DATA

Data Input		Yield and Management Results			Economic Results				
State	Arizona	Total Acres	7,800	Total Bales Harvested	26,408	Foliar Insecticide Costs	\$77,272	Per Acre	\$9.91
Region	West	Total Bales Lost to Insects	755	Seed Treatment Costs	\$0		\$0.00		
Year	2022	Percent Yield Loss	2.4%	In-Furrow Costs	\$0		\$0.00		
Total Acres (Upland)	7,800	Yield / acre (Upland)	1,665	Scouting Costs	\$130,000		\$16.67		
Price / lb	\$0.80	Cost/acre Boll Weevil Eradication	\$4.18	Av. # Applications	\$68,961		\$8.84		
yield potential (lb/acre)	1,959	% acres in Pink Bollworm Eradication	100%	Total Bales lost (all factors)	\$351,000		\$45.00		
Acres (Pima)	-	Cost/acre Pink Bollworm Eradication	\$4.66	Total % yield Loss	\$627,233		\$80.41		
Yield / Acre (Pima)	-	% Insect apps by air	14%	Transgenic Cotton (arthropods) (# acres)	\$289,920		\$37.17		
% Acres Scouted	100%	No. apps by air	0.3	Boll Weevil Eradication (# acres)	\$917,153		\$117.58		
Fee / Scouted Acre	\$16.67	Cost/app by air	\$9.83	Pink Bollworm Eradication (# acres)					
No. times scouted/week	1.94	% insect apps by ground	24%	# Scouted Acres					
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	1	Seed Treatments (arthropods) (# acres)					
Cost/treated acre (Bt) Cotton	\$45.00	Cost/app by ground	\$14.00	In-Furrow Applications (# acres)	0				
% acres with seed treatment	100%	% Loss to weather	7.5%	Applications by Air (acres)	1,109				
Seed trt. cost/ treated acre	\$0.00	% loss to non-arthropods	0.0%	Applications by Ground (acres)	1,907				
% acres with in-furrow	0%	% loss to other (chemical injury, weeds, diseases, etc.)	7.2%	No. acres with no foliar insecticide applications	5,192				

Table 8. Insect loss estimates for Arizona Thryvon cotton during 2022, 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 III	100.0%	7,800	-	\$45.00	0.0%	0	0.0