Table 8. Insect loss estimates for Arizona Thryvon upland cotton during 2024.

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	913	3.1%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Beet Armyworm	74	0.3%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Fall Armyworm	7	0.0%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Loopers	5,299	18.2%	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	736	2.5%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Saltmarsh Caterpillar	7	0.0%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Lygus	29,181	100.0%	14,970	51.3%	1.2	$32.32	2.96%	0.59	$19.07	2.96%	3,568	$1,840,895	$63.09	79.6%
Cotton Fleahopper	19,842	68.0%	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)	9,038	31.0%	0	0.0%	0.0	$0.00	0.03%	0.00	$0.00	0.01%	13	$4,680	$0.16	0.2%
Brown Stink Bug	7,536	25.8%	0	0.0%	0.0	$0.00	0.01%	0.00	$0.00	0.00%	5	$1,800	$0.06	0.1%
Clouded Plant Bug	221	0.8%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Leaf Footed Bugs	2,112	7.2%	184	0.6%	1.0	$28.50	0.05%	0.01	$0.29	0.00%	5	$2,402	$0.08	0.1%
Spider Mites	5,888	20.2%	515	1.8%	1.0	$18.00	0.00%	0.02	$0.36	0.00%	0	$2,120	$0.07	0.1%
Thrips	24,456	83.8%	589	2.0%	1.0	$24.00	0.09%	0.02	$0.48	0.07%	86	$42,699	$1.46	1.8%
Aphids	1,766	6.1%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Grasshoppers	9,214	31.6%	37	0.1%	0.2	$12.00	0.08%	0.00	$0.00	0.03%	31	$11,160	$0.38	0.5%
Banded Winged Whitefly	3,753	12.9%	0	0.0%	0.0	$0.00	0.02%	0.00	$0.00	0.00%	2	$720	$0.02	0.0%
Silverleaf Whitefly	19,533	66.9%	6,175	21.2%	0.8	$44.29	0.76%	0.17	$7.53	0.51%	617	$369,172	$12.65	16.0%
Cockroaches	515	1.8%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Colaspis beetles	7,124	24.4%	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	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Crickets	6,167	21.1%	37	0.1%	0.8	$12.00	0.08%	0.00	$0.00	0.02%	19	$6,840	$0.23	0.3%
Darkling Beetles	3,781	13.0%	368	1.3%	1.0	$20.00	0.00%	0.01	$0.20	0.00%	0	$756	$0.03	0.0%
False Chinch Bug	971	3.3%	368	1.3%	1.0	$20.00	1.06%	0.01	$0.20	0.04%	42	$15,314	$0.52	0.7%
Mealybugs	0	0.0%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Other Armyworms	0	0.0%	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	14,763	50.6%	59	0.2%	1.0	$20.00	0.01%	0.00	$0.00	0.00%	4	$1,440	$0.05	0.1%
Potato leafhopper	16,846	57.7%	294	1.0%	1.6	$30.00	0.01%	0.02	$0.60	0.01%	7	$12,628	$0.43	0.5%
Thrips (Bean)	155	0.5%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
Thrips (Citrus)	0	0.0%	0	0.0%	0.0	$0.00	0.00%	0.00	$0.00	0.00%	0	$0	$0.00	0.0%
White-marked fleahopper	294	1.0%	294	1.0%	0.3	$30.00	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								0.85	$28.72	3.65%	4,399	$2,312,626	$79.25	

Table 8. Insect loss estimates for Arizona Thryvon upland cotton during 2024, continued.

SUMMARY DATA

Data Input				Yield and Management Results		Economic Results		
State	Arizona			Total Acres			Total	Per Acre
Region	West			Total Bales Harvested	29,181	Foliar Insecticide Costs	$838,116	$28.72
Year	2024			Total Bales Lost to Insects	95,704	Seed Treatment Costs	$209,137	$7.17
Total Acres (Upland)	29,181	In-furrow cost/treated acre	$8.50	Percent Yield Loss	4,399	In-Furrow Costs	$8,132	$0.28
Yield / Acre (Upland)	1,574	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	3.7%	Scouting Costs	$486,046	$16.66
Price / lb	$0.75	Cost/acre Boll Weevil Eradication	$4.01	Av. # Applications	1,634	Eradication Costs	$234,122	$8.02
yield potential (lb/acre)	1,981	% acres in Pink Bollworm Eradication	100%	Total Bales lost (all factors)	0.85	Bt Cotton	$1,804,845	$61.85
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	$4.01	Total % yield Loss	24,708	Total Costs	$3,580,398	$122.70
Yield / Acre (Pima)	0	% Insect apps by air	31%	Transgenic Cotton (arthropods) (# acres)	20.5%	Yield Loss to Insects	$1,583,640	$54.27
% Acres Scouted	100%	No. apps by air	1.24	Boll Weevil Eradication (# acres)	29,181	Total Losses + Costs	$5,164,038	$176.97
Fee / Scouted Acre	$16.66	Cost/app by air	$12.45	Pink Bollworm Eradication (# acres)	29,181			
No. times scouted/week	2.0	% insect apps by ground	33%	# Scouted Acres	29,181			
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	1.4	Seed Treatments (arthropods) (# acres)	10,120			
Cost/treated acre (Bt) Cotton	$61.85	Cost/app by ground	$13.83	In-Furrow Applications (# acres)	957			
% acres with seed treatment	35%	% Loss to weather	11.2%	Applications by Air (acres)	9,029			
Seed trt. cost/ treated acre	$20.67	% loss to non-arthropods	0.1%	Applications by Ground (acres)	9,659			
% acres with in-furrow	3%	% loss to other (chemical injury, weeds, diseases, etc.)	5.6%	No. acres with no foliar insecticide applications	13,380			

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/Thryvon	100%	29,181	-	$41.85	0%	0	0.0

Upland Cotton	Thryvon Bt cost/acre	% acres treated for Thrips	# acres treated for Thrips	# apps for Thrips	% acres treated for Lygus	# acres treated for Lygus	# apps for Lygus
Bollgard III/Thryvon	$20.00	2.0%	584	1.0	51.3%	14,970	1.2