

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	850	6.2%	0	0.0%	0.0	\$0.00	0.00%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Beet Armyworm	535	3.9%	0	0.0%	0.0	\$0.00	0.00%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Fall Armyworm	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	700	5.1%	0	0.0%	0.0	\$0.00	0.00%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cotton Leaf Perforator	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Saltmarsh Caterpillar	35	0.3%	0	0.0%	0.0	\$0.00	0.00%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	8,879	64.4%	800	5.8%	1.0	\$32.00	1.00%	0.0580	\$1.86	0.65%	359	\$154,335	\$11.19	23.8%
Cotton Fleahopper	7,022	50.9%	320	2.3%	0.5	\$33.00	0.50%	0.0116	\$0.38	0.25%	140	\$56,448	\$4.09	8.7%
Stink Bugs (other than brown stink bug)	3,910	28.4%	0	0.0%	0.0	\$0.00	0.21%	0.0000	\$0.00	0.06%	33	\$12,672	\$0.92	2.0%
Brown Stink Bug	5,533	40.1%	0	0.0%	0.0	\$0.00	0.25%	0.0000	\$0.00	0.10%	56	\$21,504	\$1.56	3.3%
Clouded Plant Bug	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Leaf Footed Bugs	2,298	16.7%	0	0.0%	0.0	\$0.00	0.11%	0.0000	\$0.00	0.02%	11	\$4,224	\$0.31	0.7%
Spider Mites	2,649	19.2%	0	0.0%	0.0	\$0.00	0.11%	0.0000	\$0.00	0.02%	12	\$4,608	\$0.33	0.7%
Thrips	13,788	100.0%	0	0.0%	0.0	\$0.00	0.09%	0.0000	\$0.00	0.09%	51	\$19,584	\$1.42	3.0%
Aphids	192	1.4%	0	0.0%	0.0	\$0.00	0.00%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Grasshoppers	8,327	60.4%	2,240	16.2%	0.9	\$16.33	1.11%	0.1451	\$2.37	0.67%	372	\$162,583	\$11.79	25.0%
Banded Winged Whitefly	2,350	17.0%	0	0.0%	0.0	\$0.00	0.00%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	8,068	58.5%	1,000	7.3%	1.0	\$29.50	0.54%	0.0725	\$2.14	0.31%	174	\$84,071	\$6.10	12.9%
Cockroaches	0	0%	0	0%	0.0	\$0.00	0.00%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Colaspis beetles	1,335	10%	0	0%	0.0	\$0.00	0.00%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cotton stainers	2,500	18%	0	0%	0.0	\$0.00	0.00%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Crickets	4,565	33%	1,800	13%	0.2	\$14.00	0.88%	0.0300	\$0.42	0.29%	161	\$63,741	\$4.62	9.8%
Darkling Beetles	2,115	15%	330	2%	1.0	\$20.00	0.11%	0.0239	\$0.48	0.02%	10	\$4,851	\$0.35	0.7%
False Chinch Bug	2,764	20%	1,890	14%	0.7	\$16.33	0.44%	0.0982	\$1.60	0.09%	49	\$23,250	\$1.69	3.6%
Mealybugs	0	0%	0	0%	0.0	\$0.00	0.00%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Other Armyworms	0	0%	0	0%	0.0	\$0.00	0.00%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Pale-Striped Flea Beetle	4,565	33%	0	0%	0.0	\$0.00	0.18%	0.0000	\$0.00	0.06%	33	\$12,672	\$0.92	2.0%
Potato leafhopper	5,795	42%	320	2%	0.5	\$33.00	0.25%	0.0116	\$0.38	0.11%	60	\$25,258	\$1.83	3.9%
Thrips (Bean)	35	0%	0	0%	0.0	\$0.00	0.00%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Thrips (Citrus)	0	0%	0	0%	0.0	\$0.00	0.00%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Boll Weevil	0	0%	0	0%	0%	0%	0%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
TOTAL								0.4509	\$9.63	2.73%	1,521	\$649,801	\$47.13	

Table 8. Insect loss estimates for Arizona Thryvon upland cotton during 2023, continued.

SUMMARY DATA							
Data Input				Yield and Management Results		Economic Results	
State	Arizona			Total Acres	13,788		
Region	West			Total Bales Harvested	43,358	Foliar Insecticide Costs	\$132,809
Year	2023			Total Bales Lost to Insects	1,521	Seed Treatment Costs	\$59,400
Total Acres (Upland)	13,788	In-furrow cost/treated acre	\$6.00	Percent Yield Loss	2.7%	In-Furrow Costs	\$3,510
Yield / Acre (Upland)	1,509	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	1,552	Scouting Costs	\$237,154
Price / lb	\$0.80	Cost/acre Boll Weevil Eradication	\$6.22	Av. # Applications	0.4509	Eradiation Costs	\$171,385
yield potential (lb/acre)	1,937	% acres in Pink Bollworm Eradication	100%	Total Bales lost (all factors)	12,291	Bt Cotton	\$852,098
Acres (Pima)	15,460	Cost/acre Pink Bollworm Eradication	\$6.22	Total % yield Loss	22.1%	Total Costs	\$1,456,356
Yield / Acre (Pima)	825	% Insect apps by air	11%	Transgenic Cotton (arthropods) (# acres)	13,788	Yield Loss to Insects	\$584,064
% Acres Scouted	100%	No. apps by air	1	Boll Weevil Eradication (# acres)	13,788	Total Losses + Costs	\$2,040,420
Fee / Scouted Acre	\$17.20	Cost/app by air	\$9.67	Pink Bollworm Eradication (# acres)	13,788		
No. times scouted/week	1.866	% insect apps by ground	3%	# Scouted Acres	13,788		
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2	Seed Treatments (arthropods) (# acres)	3,000		
Cost/treated acre (Bt) Cotton	\$61.80	Cost/app by ground	\$20.00	In-Furrow Applications (# acres)	585		
% acres with seed treatment	22%	% Loss to weather	14.2%	Applications by Air (acres)	1,507		
Seed trt. cost/ treated acre	\$19.80	% loss to non-arthropods	0.1%	Applications by Ground (acres)	464		
% acres with in-furrow	4%	% loss to other (chemical injury, weeds, diseases, etc.)	5.1%	No. acres with no foliar insecticide applications	8,285		

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%	13,788	-	\$49.50	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	\$12.00	0%	0	0	0%	0	0