

Table 28. Cotton insect loss estimates for the United States 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	5,786,606	68.4%	298,286	3.52%	1.00	\$19.33	1.061%	0.0355	\$0.69	0.73%	256,642	\$90,102,062	\$10.64	11.3%
Beet Armyworm	990,476	11.7%	4,246	0.05%	1.00	\$1.10	0.001%	0.0005	\$0.00	0.00%	28	\$9,945	\$0.00	0.0%
Fall Armyworm	1,355,031	16.0%	9,200	0.11%	1.00	\$6.50	0.014%	0.0011	\$0.01	0.00%	646	\$226,222	\$0.03	0.0%
Loopers	1,039,570	12.3%	2,602	0.03%	1.00	\$3.45	0.000%	0.0003	\$0.00	0.00%	7	\$3,450	\$0.00	0.0%
Cutworms	498,131	5.9%	131,994	1.56%	1.00	\$6.66	0.015%	0.0158	\$0.10	0.00%	280	\$146,202	\$0.02	0.0%
Cotton Leaf Perforator	1,472	0.0%	0	0.00%	0.00	\$0.00	0.000%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Saltmarsh Caterpillar	85,664	1.0%	394	0.00%	1.00	\$19.08	0.000%	0.0000	\$0.00	0.00%	1	\$527	\$0.00	0.0%
Lygus	7,289,851	86.1%	3,588,283	42.39%	3.02	\$15.85	1.872%	1.2784	\$20.26	1.61%	502,285	\$316,255,103	\$37.36	39.6%
Cotton Fleahopper	4,011,889	47.4%	1,225,784	14.48%	1.39	\$13.01	1.108%	0.2019	\$2.63	0.52%	198,729	\$77,234,206	\$9.12	9.7%
Stink Bugs (other than brown stink bug)	5,921,837	70.0%	2,547,548	30.10%	1.19	\$10.34	0.440%	0.3572	\$3.69	0.31%	84,024	\$50,075,196	\$5.92	6.3%
Brown Stink Bug	3,623,785	42.8%	2,203,761	26.04%	0.83	\$8.78	1.046%	0.2168	\$1.90	0.45%	146,339	\$56,010,267	\$6.62	7.0%
Clouded Plant Bug	1,662,727	19.6%	645,559	7.63%	2.31	\$10.76	0.360%	0.1761	\$1.90	0.07%	20,521	\$10,038,711	\$1.19	1.3%
Leaf Footed Bugs	3,282,680	38.8%	41,234	0.49%	0.95	\$4.91	0.000%	0.0046	\$0.02	0.00%	28	\$84,088	\$0.01	0.0%
Spider Mites	3,645,088	43.1%	851,596	10.06%	1.31	\$13.80	0.469%	0.1314	\$1.81	0.20%	62,607	\$27,621,944	\$3.26	3.5%
Thrips	7,602,585	89.8%	3,165,320	37.40%	1.23	\$11.77	0.474%	0.4601	\$5.42	0.43%	122,544	\$82,303,770	\$9.72	10.3%
Aphids	5,522,012	65.2%	553,735	6.54%	0.83	\$12.07	0.105%	0.0545	\$0.66	0.07%	21,374	\$10,806,787	\$1.28	1.4%
Grasshoppers	4,373,651	51.7%	314,769	3.72%	0.95	\$16.96	0.185%	0.0354	\$0.60	0.10%	16,719	\$8,238,192	\$0.97	1.0%
Banded Winged Whitefly	2,345,897	27.7%	353	0.00%	0.50	\$17.35	0.000%	0.0000	\$0.00	0.00%	3	\$1,732	\$0.00	0.0%
Silverleaf Whitefly	1,336,551	15.8%	240,497	2.84%	1.56	\$15.69	0.883%	0.0444	\$0.70	0.14%	53,827	\$18,997,594	\$2.24	2.4%
Other insect pests*	3,456,755	40.8%	195,102	2.30%	0.05	\$3.71	0.948%	0.0005	\$0.00	0.3871%	151,022	\$50,693,294	\$5.99	6.346%
Boll Weevil	47,580	0.6%	1,532	0.02%	1.04	\$13.88	0.002%	0.0000	\$0.00	0.00%	0	\$0	\$0.00	0.0%
TOTAL								3.0145	\$40.38	5.01%	1,637,625	\$798,849,293	\$94.38	

SUMMARY DATA

Data Input				Yield and Management Results				Economic Results		
								Total		Per Acre
Year 2024				Total Acres	8,464,404					
Total Acres (Upland)				Total Bales Harvested	13,942,969			Foliar Insecticide Costs	\$341,826,779	\$40.38
Yield / Acre (Upland)				Total Bales Lost to Insects	1,637,625			Seed Treatment Costs	\$72,636,578	\$8.58
Price / lb				Percent Yield Loss	5.0%			In-Furrow Costs	\$22,553,744	\$2.66
yield potential (lb/acre)				Yield w/o Insects (lb/acre)	828			Scouting Costs	\$56,443,404	\$6.67
Acres (Pima)				Av. # Applications	3.014473443			Eradication Costs	\$14,533,320	\$1.72
Yield / Acre (Pima)				Total Bales lost (all factors)	20,079,148			Bt Cotton	\$180,440,542	\$21.32
% Acres Scouted				Total % yield Loss	53.2%			Total Costs	\$688,434,367	\$81.33
Fee / Scouted Acre				Transgenic Cotton (arthropods) (# acres)	7,827,877			Yield Loss to Insects	\$549,635,696	\$64.93
No. times scouted/week				Boll Weevil Eradication (# acres)	8,452,129			Total Losses + Costs	\$1,238,070,063	\$146.27
% acres Transgenic (Bt) Cotton				Pink Bollworm Eradication (# acres)	107,618					
Cost/treated acre (Bt) Cotton				# Scouted Acres	5,923,837					
% acres with seed treatment				Seed Treatments (arthropods) (# acres)	6,801,591					
Seed trt. cost/ treated acre				In-Furrow Applications (# acres)	1,131,023					
% acres with in-furrow				Applications by Air (acres)	2,741,007					
				Applications by Ground (acres)	6,517,112					
				No. acres with no foliar insecticide applications	2,086,637					

* See individual states for details on "other insect pests".

Table 28. Cotton insect loss estimates for the United States during 2024, 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	6.7%	563,881	\$94.05	\$19.22	21.7%	122,539	1.1
Bollgard III	50.3%	4,259,523	\$100.45	\$21.03	1.3%	53,380	1.0
Bollgard III/Thryvon	13.4%	1,130,299	\$108.49	\$33.13	0.9%	10,050	1.0
WideStrike	0.1%	8,259	\$63.75	\$18.64	0.0%	0	0.0
WideStrike 3	13.5%	1,139,962	\$91.42	\$10.44	0.4%	4,635	0.9
TwinLink	2.0%	172,863	\$67.44	\$15.63	0.2%	295	1.0
TwinLink Plus	6.5%	553,091	\$87.88	\$16.55	0.0%	23	1.0
Total Bt	92.5%	7,827,878	\$98.18	\$23.05	2.4%	190,922	0.0
Herbicide Traits Only	5.4%	456,935	\$35.26	-	3.1%	14,032	1.0
Conventional	1.9%	157,986	\$10.96	-	0.9%	1,403	1.0
Organic	0.3%	21,605	\$10.96	-	0.0%	0	0.0
Total Upland Cotton	100.0%	8,464,404	\$92.93	\$23.05	2.4%	206,357	0.0

See individual states for Pima cotton data.

Upland Cotton	% acres treated for Thrips	# acres treated for Thrips	# apps for Thrips	Thryvon Bt cost/acre	% acres treated for Lygus	# acres treated for Lygus	# apps for Lygus
Bollgard III/Thryvon	0.4%	4,348	1.1	\$16.53	51.5%	581,611	2.1