

Table 19. Cotton insect loss estimates for Oklahoma 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	435	0.1%	0	0.0%	1.0	\$25.00	0.50%	0.00	\$0.00	0.00%	9	\$3,024	\$0.01	0.0%
Beet 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%
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	2,175	0.5%	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	0	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	8,700	2.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cotton Fleahopper	108,750	25.0%	65,250	15.0%	1.0	\$12.00	2.00%	0.15	\$1.80	0.50%	4,441	\$1,687,926	\$3.88	14.1%
Stink Bugs (other than brown stink bug)	43,500	10.0%	21,750	5.0%	1.0	\$15.00	1.00%	0.05	\$0.75	0.10%	888	\$330,993	\$0.76	2.8%
Brown Stink 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%
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	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Thrips	217,500	50.0%	108,750	25.0%	1.0	\$9.00	1.00%	0.25	\$2.25	0.50%	4,441	\$1,981,551	\$4.56	16.5%
Aphids	8,700	2.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Grasshoppers	261,000	60.0%	174,000	40.0%	1.0	\$25.00	3.00%	0.40	\$10.00	1.80%	15,986	\$7,981,296	\$18.35	66.6%
Banded Winged Whitefly	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Burrower Bug	435	0.1%	0	0.0%	0.0	\$0.00	0.25%	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%
<b>TOTAL</b>								0.85	\$14.80	2.90%	25,765	\$11,984,790	\$27.55	

## SUMMARY DATA

Data Input				Yield and Management Results			Economic Results		
State	Oklahoma			Total Acres	435,000		Total	Per Acre	
Region	Central			Total Bales Harvested	400,563	Foliar Insecticide Costs	\$6,438,000	\$14.80	
Year	2024			Total Bales Lost to Insects	25,765	Seed Treatment Costs	\$2,756,378	\$6.34	
Total Acres (Upland)	435,000	In-furrow cost/treated acre	\$0.00	Percent Yield Loss	2.9%	In-Furrow Costs	\$0	\$0.00	
Yield / Acre (Upland)	442	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	455	Scouting Costs	\$1,957,500	\$4.50	
Price / lb	\$0.70	Cost/acre Boll Weevil Eradication	\$2.50	Av. # Applications	0.85	Eradication Costs	\$1,087,500	\$2.50	
yield potential (lb/acre)	980	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	487,590	Bt Cotton	\$6,825,041	\$15.69	
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	54.9%	Total Costs	\$19,064,419	\$43.83	
Yield / Acre (Pima)	0	% Insect apps by air	25%	Transgenic Cotton (arthropods) (# acres)	434,565	Yield Loss to Insects	\$8,657,040	\$19.90	
% Acres Scouted	60%	No. apps by air	1	Boll Weevil Eradication (# acres)	435,000	Total Losses + Costs	\$27,721,459	\$63.73	
Fee / Scouted Acre	\$7.50	Cost/app by air	\$8.00	Pink Bollworm Eradication (# acres)	0				
No. times scouted/week	1	% insect apps by ground	75%	# Scouted Acres	261,000				
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	1	Seed Treatments (arthropods) (# acres)	413,250				
Cost/treated acre (Bt) Cotton	\$15.71	Cost/app by ground	\$6.50	In-Furrow Applications (# acres)	0				
% acres with seed treatment	95%	% Loss to weather	50.0%	Applications by Air (acres)	108,750				
Seed trt. cost/ treated acre	\$6.67	% loss to non-arthropods	1.0%	Applications by Ground (acres)	326,250				
% acres with in-furrow	0%	% loss to other (chemical injury, weeds, diseases, etc.)	1.0%	No. acres with no foliar insecticide applications	217,500				

Table 19. Cotton insect loss estimates for Oklahoma 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	5.0%	21,750	\$65.20	\$11.90	1%	109	1.0
Bollgard III	65.0%	282,750	\$76.50	\$15.40	0%	0	0.0
Bollgard III/Thryvon	5.0%	21,750	\$83.50	\$18.00	0%	0	0.0
WideStrike	0.0%	0	\$0.00	\$0.00	0%	0	0.0
WideStrike 3	20.0%	87,000	\$69.55	\$13.30	0%	0	0.0
TwinLink	0.0%	0	\$0.00	\$0.00	0%	0	0.0
TwinLink Plus	4.9%	21,315	\$69.10	\$12.75	0%	0	0.0
Total Bt	99.9%	434,565	\$74.53	\$15.71	0.0%	109	0.0
Herbicide Traits Only	0.0%	0	-	-	0%	0	0.0
Conventional	0.1%	435	-	-	0%	0	0.0
Organic	0.0%	0	-	-	0%	0	0.0
Total Upland Cotton	100.0%	435,000	\$74.46	\$15.71	0.0%	109	0.0
Non Upland Cotton							
Pima	0.0%	0	\$0.00	-	0%	0	0.0
Other	0.0%	0	\$0.00	-	0%	0	0.0
Organic	0.0%	0	\$0.00	-	0%	0	0.0
Total (all Cotton)		435,000	\$74.46		0.0%	109	0.0

  

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	0.0%	0	0.0	\$18.00	0.0%	0	0.0