

Table 5. Cotton insect loss estimates for Northeast Arkansas 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	384,000	100.0%	42,240	11.0%	1.0	\$34.50	1.3%	0.11	\$3.80	1.30%	19,760	\$7,717,248	\$20.10	8.8%
Beet Armyworm	0	0.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Fall Armyworm	3,840	1.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	0	0.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	30,720	8.0%	3,840	1.0%	1.0	\$14.50	0.1%	0.01	\$0.15	0.01%	122	\$43,104	\$0.11	0.0%
Cotton Leaf Perforator	0	0.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Saltmarsh Caterpillar	3,840	1.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	384,000	100.0%	380,160	99.0%	4.0	\$23.50	4.0%	3.96	\$93.06	4.00%	60,800	\$54,996,480	\$143.22	62.7%
Cotton Fleahopper	115,200	30.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Stink Bugs (other than brown stink bug)	364,800	95.0%	11,520	3.0%	3.0	\$23.50	0.3%	0.09	\$2.12	0.29%	4,332	\$2,143,930	\$5.58	2.4%
Brown Stink Bug	364,800	95.0%	11,520	3.0%	3.0	\$23.50	0.2%	0.09	\$2.12	0.19%	2,888	\$1,686,470	\$4.39	1.9%
Clouded Plant Bug	349,440	91.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Leaf Footed Bugs	7,680	2.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	268,800	70.0%	115,200	30.0%	1.5	\$23.50	1.5%	0.45	\$10.58	1.05%	15,960	\$7,898,688	\$20.57	9.0%
Thrips	384,000	100.0%	230,400	60.0%	1.5	\$17.50	1.5%	0.90	\$15.75	1.50%	22,800	\$13,271,040	\$34.56	15.1%
Aphids	384,000	100.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Grasshoppers	76,800	20.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Banded Winged Whitefly	23,040	6.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	0	0.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Boll Weevil	0	0.0%	0	0.0%	0.0	\$0.00	0.0%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
<b>TOTAL</b>					5.61				\$127.56	8.33%	126,662	\$87,756,960	\$228.53	

## SUMMARY DATA

Data Input			Yield and Management Results			Economic Results		
State	Arkansas		Total Acres	384,000		Total	Per Acre	
Region	MidSouth		Total Bales Harvested	1,020,000		Foliar Insecticide Costs	\$48,981,120	\$127.56
Year	2024		Total Bales Lost to Insects	126,662		Seed Treatment Costs	\$4,608,000	\$12.00
Total Acres (Upland)	384,000	In-furrow cost/treated acre	\$15.00	Percent Yield Loss	8.3%	In-Furrow Costs	\$576,000	\$1.50
Yield / Acre (Upland)	1,275	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	1,391	Scouting Costs	\$3,840,000	\$10.00
Price / lb	\$0.66	Cost/acre Boll Weevil Eradication	\$3.00	Av. # Applications	5.61	Eradication Costs	\$1,152,000	\$3.00
yield potential (lb/acre)	1,900	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	499,822	Bt Cotton	\$14,534,400	\$37.85
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	32.9%	Total Costs	\$73,691,520	\$191.91
Yield / Acre (Pima)	0	% Insect apps by air	100%	Transgenic Cotton (arthropods) (# acres)	384,000	Yield Loss to Insects	\$40,126,522	\$104.50
% Acres Scouted	100%	No. apps by air	2.5	Boll Weevil Eradication (# acres)	384,000	Total Losses + Costs	\$113,818,042	\$296.40
Fee / Scouted Acre	\$10.00	Cost/app by air	\$11.00	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1.5	% insect apps by ground	100%	# Scouted Acres	384,000			
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2.5	Seed Treatments (arthropods) (# acres)	384,000			
Cost/treated acre (Bt) Cotton	\$37.85	Cost/app by ground	\$8.50	In-Furrow Applications (# acres)	38,400			
% acres with seed treatment	100%	% Loss to weather	14.6%	Applications by Air (acres)	384,000			
Seed trt. cost/ treated acre	\$12.00	% loss to non-arthropods	5.0%	Applications by Ground (acres)	384,000			
% acres with in-furrow	10%	% loss to other (chemical injury, weeds, diseases, etc.)	5.0%	No. acres with no foliar insecticide applications				

Table 5. Cotton insect loss estimates for Northeast Arkansas 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	1.0%	3,840	\$112.00	\$35.00	100%	3,840	2.0
Bollgard III	82.0%	314,880	\$112.00	\$35.00	10%	31,488	1.0
Bollgard III/Thryvon	15.0%	57,600	\$131.00	\$35.00	10%	5,760	1.0
WideStrike	0.0%	0	\$97.00	\$35.00	0%	0	0.0
WideStrike 3	2.0%	7,680	\$112.00	\$35.00	10%	768	1.0
TwinLink	0.0%	0	\$112.00	\$35.00	0%	0	0.0
TwinLink Plus	0.0%	0	\$112.00	\$35.00	0%	0	0.0
Total Bt	100.0%	384,000	\$114.85	\$37.85	10.9%	41,856	0.1
Herbicide Traits Only	0.0%	0	\$0.00	-	0%	0	0.0
Conventional	0.0%	0	\$0.00	-	0%	0	0.0
Organic	0.0%	0	\$0.00	-	0%	0	0.0
Total Upland Cotton	100.0%	384,000	\$114.85	\$37.85	10.9%	41,856	0.1
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)		384,000	\$114.85		10.9%	41,856	0.1

  

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	2.0%	1,152	1.0	\$19.00	75.0%	43,200	1.5