

Table 16. Cotton insect loss estimates for Mississippi 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	376,000	72.3%	37,888	7.3%	1.0	\$21.00	2.18%	0.07	\$1.53	1.58%	28,768	\$10,241,475	\$19.70	12.6%
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	18,000	3.5%	5,200	1.0%	1.0	\$11.50	1.00%	0.01	\$0.12	0.03%	632	\$214,254	\$0.41	0.3%
Loopers	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	72,000	13.8%	72,000	13.8%	1.0	\$6.19	0.06%	0.14	\$0.86	0.01%	140	\$108,885	\$0.21	0.1%
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	490,000	94.2%	486,800	93.6%	4.1	\$12.00	4.00%	3.86	\$46.36	3.77%	68,763	\$45,821,634	\$88.12	56.2%
Cotton Fleahopper	3,200	0.6%	0	0.0%	0.0	\$0.00	0.10%	0.00	\$0.00	0.00%	11	\$3,772	\$0.01	0.0%
Stink Bugs (other than brown stink bug)	42,000	8.1%	14,800	2.8%	0.3	\$9.50	0.83%	0.01	\$0.09	0.07%	1,228	\$416,263	\$0.80	0.5%
Brown Stink Bug	168,000	32.3%	59,200	11.4%	1.0	\$9.50	1.30%	0.11	\$1.08	0.42%	7,690	\$2,765,628	\$5.32	3.4%
Clouded Plant Bug	58,000	11.2%	13,200	2.5%	0.2	\$10.42	0.93%	0.01	\$0.06	0.10%	1,895	\$640,272	\$1.23	0.8%
Leaf Footed Bugs	3,200	0.6%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	340,000	65.4%	260,000	50.0%	1.3	\$12.31	2.03%	0.65	\$8.05	1.33%	24,208	\$10,869,815	\$20.90	13.3%
Thrips	420,000	80.8%	356,000	68.5%	1.5	\$9.50	1.12%	1.03	\$9.76	0.90%	16,489	\$9,637,783	\$18.53	11.8%
Aphids	188,000	36.2%	92,000	17.7%	0.0	\$10.00	0.34%	0.00	\$0.00	0.12%	2,245	\$754,432	\$1.45	0.9%
Grasshoppers	16,000	3.1%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Banded Winged Whitefly	3,200	0.6%	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%
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					5.89			\$67.90	8.34%		152,069	\$81,474,212	\$156.68	

SUMMARY DATA

Data Input		Yield and Management Results				Economic Results	
State	Mississippi	Total Acres	520,000			Total	Per Acre
Region	MidSouth	Total Bales Harvested	1,158,333			Foliar Insecticide Costs	\$35,308,263
Year	2024	Total Bales Lost to Insects	152,069			Seed Treatment Costs	\$4,761,400
Total Acres (Upland)	520,000	In-furrow cost/treated acre	\$12.50			In-Furrow Costs	\$210,000
Yield / Acre (Upland)	1,069	% acres in Boll Weevil Eradication	100%			Scouting Costs	\$3,905,169
Price / lb	\$0.70	Cost/acre Boll Weevil Eradication	\$1.00			Eradication Costs	\$520,000
yield potential (lb/acre)	1,684	% acres in Pink Bollworm Eradication	0%			Bt Cotton	\$18,304,000
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00			Total Costs	\$63,008,833
Yield / Acre (Pima)	0	% Insect apps by air	57%			Yield Loss to Insects	\$51,095,322
% Acres Scouted	99%	No. apps by air	4.1			Total Losses + Costs	\$114,104,154
Fee / Scouted Acre	\$7.62	Cost/app by air	\$8.08				
No. times scouted/week	1.7	% insect apps by ground	62%				
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2.6				
Cost/treated acre (Bt) Cotton	\$35.20	Cost/app by ground	\$6.00				
% acres with seed treatment	96%	% Loss to weather	18.0%				
Seed trt. cost/ treated acre	\$9.50	% loss to non-arthropods	3.2%				
% acres with in-furrow	3%	% loss to other (chemical injury, weeds, diseases, etc.)	7.0%				

Table 16. Cotton insect loss estimates for Mississippi 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	10.0%	52,000	\$140.00	\$32.00	72%	37,600	1.0
Bollgard III	70.0%	364,000	\$140.00	\$32.00	0%	0	0.0
Bollgard III/Thryvon	10.0%	52,000	\$155.00	\$48.00	0%	0	0.0
WideStrike	0.0%	0	\$140.00	\$32.00	0%	0	0.0
WideStrike 3	8.6%	44,800	\$140.00	\$32.00	1%	288	0.0
TwinLink	0.0%	0	\$140.00	\$32.00	0%	0	0.0
TwinLink Plus	1.4%	7,200	\$140.00	\$32.00	0%	0	0.0
Total Bt	100.0%	520,000	\$141.50	\$35.20	7.3%	37,888	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%	520,000	\$141.50	\$35.20	7.3%	37,888	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)		520,000	\$141.50		7.3%	37,888	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	0.0	0	0.0	\$16.00	90.0%	47,000	3.2