

Table 15. Cotton insect loss estimates for Louisiana during 2023.

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	109,250	95%	57,500	50.0%	1.0	\$19.00	1.50%	0.50	\$9.50	1.43%	4,722	\$2,805,792	\$24.40	16.4%
Beet Armyworm	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	0	0%	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cotton Leaf Perforator	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Saltmarsh Caterpillar	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	115,000	100%	115,000	100.0%	3.0	\$13.50	5.00%	3.00	\$40.50	5.00%	16,567	\$10,860,185	\$94.44	63.6%
Cotton Fleahopper	11,500	10%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Stink Bugs (other than brown stink bug)	11,500	10%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Brown Stink Bug	11,500	10%	11,500	10.0%	1.0	\$10.00	0.50%	0.10	\$1.00	0.05%	166	\$73,650	\$0.64	0.4%
Clouded Plant Bug	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	5,750	5%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	23,000	20%	11,500	10.0%	1.0	\$11.50	1.00%	0.10	\$1.15	0.20%	663	\$274,677	\$2.39	1.6%
Thrips	115,000	100%	69,000	60.0%	1.0	\$10.00	1.00%	0.60	\$6.00	1.00%	3,313	\$1,930,387	\$16.79	11.3%
Aphids	80,500	70%	28,750	25.0%	1.0	\$13.50	1.00%	0.25	\$3.38	0.70%	2,319	\$1,139,921	\$9.91	6.7%
Grasshoppers	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Banded Winged Whitefly	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Boll Weevil	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
TOTAL					4.55			\$61.53		8.38%	27,750	\$17,084,612	\$148.56	

SUMMARY DATA

	Data Input		Yield and Management Results			Economic Results	
						Total	Per Acre
State	Louisiana		Total Acres		115,000		
Region	Midsouth		Total Bales Harvested		210,115	Foliar Insecticide Costs	\$7,075,375
Year	2023		Total Bales Lost to Insects		27,750	Seed Treatment Costs	\$1,725,000
Total Acres (Upland)	115,000	In-furrow cost/treated acre	\$15.00	Percent Yield Loss	8.4%	In-Furrow Costs	\$86,250
Yield / Acre (Upland)	877	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	957	Scouting Costs	\$1,127,000
Price / lb	\$0.78	Cost/acre Boll Weevil Eradication	\$4.00	Av. # Applications	4.55	Eradication Costs	\$460,000
yield potential (lb/acre)	1,383	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	121,189	Bt Cotton	\$3,829,500
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	36.6%	Total Costs	\$14,303,125
Yield / Acre (Pima)	0	% Insect apps by air	75%	Transgenic Cotton (arthropods) (# acres)	113,850	Yield Loss to Insects	\$10,389,600
% Acres Scouted	98%	No. apps by air	2	Boll Weevil Eradication (# acres)	115,000	Total Losses + Costs	\$24,692,725
Fee / Scouted Acre	\$10.00	Cost/app by air	\$7.00	Pink Bollworm Eradication (# acres)	0		
No. times scouted/week	1	% insect apps by ground	90%	# Scouted Acres	112,700		
% acres Transgenic (Bt) Cotton	99%	No. apps by ground	3	Seed Treatments (arthropods) (# acres)	115,000		
Cost/treated acre (Bt) Cotton	\$33.64	Cost/app by ground	\$3.50	In-Furrow Applications (# acres)	5,750		
% acres with seed treatment	100%	% Loss to weather	25.0%	Applications by Air (acres)	86,250		
Seed trt. cost/ treated acre	\$15.00	% loss to non-arthropods	1.0%	Applications by Ground (acres)	103,500		
% acres with in-furrow	5%	% loss to other (chemical injury, weeds, diseases, etc.)	2.2%	No. acres with no foliar insecticide applications	0		

Table 15. Cotton insect loss estimates for Louisiana during 2023, 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	18.0%	20,700	\$110.00	\$25.00	75%	15,525	1.0
Bollgard III	57.0%	65,550	\$115.00	\$30.00	5%	3,278	1.0
Bollgard III/Thryvon	15.0%	17,250	\$145.00	\$30.00	5%	863	1.0
WideStrike	0.0%	0	\$0.00	\$0.00	0%	0	0.0
WideStrike 3	8.0%	9,200	\$115.00	\$30.00	30%	2,760	1.0
TwinLink	0.0%	0	\$0.00	\$0.00	0%	0	0.0
TwinLink Plus	1.0%	1,150	\$115.00	\$30.00	10%	115	1.0
Total Bt	99.0%	113,850	\$118.64	\$33.64	19.8%	22,540	0.2
Herbicide Traits Only	0.0%	0	\$0.00		0%	0	0.0
Conventional	1.0%	1,150	-		0%	0	-
Organic	0.0%	0	\$0.00		0%	0	0.0
Total Upland Cotton	100.0%	115,000	\$117.45	\$33.64	19.6%	22,540	0.2
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)		115,000	\$117.45		19.6%	22,540	0.2

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	\$30.00	0%	0	0	100%	17,250	1.5