

Table 15. Cotton insect loss estimates for Louisiana during 2022.

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	187,000	100%	78,129	41.8%	0.6	\$22.00	2.50%	0.25	\$5.50	2.50%	15,856	\$6,964,986	\$37.25	21.0%
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	1,870	1%	935	0.5%	1.0	\$7.00	0.00%	0.01	\$0.07	0.00%	0	\$131	\$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	187,000	100%	187,000	100.0%	4.0	\$14.00	4.00%	4.00	\$56.00	4.00%	25,370	\$19,970,528	\$106.79	60.1%
Cotton Fleahopper	18,700	10%	9,350	5.0%	1.0	\$8.00	0.00%	0.05	\$0.40	0.00%	0	\$7,480	\$0.04	0.0%
Stink Bugs (other than brown stink bug)	9,350	5%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Brown Stink Bug	9,350	5%	9,350	5.0%	1.0	\$12.00	0.00%	0.05	\$0.60	0.00%	0	\$5,610	\$0.03	0.0%
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	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	74,800	40%	37,400	20.0%	1.5	\$15.00	0.50%	0.30	\$4.50	0.20%	1,268	\$811,339	\$4.34	2.4%
Thrips	187,000	100%	187,000	100.0%	1.5	\$9.00	1.00%	1.50	\$13.50	1.00%	6,342	\$4,898,945	\$26.20	14.7%
Aphids	187,000	100%	28,050	15.0%	1.0	\$11.50	0.10%	0.15	\$1.73	0.10%	634	\$559,945	\$2.99	1.7%
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					6.31			\$82.30		7.80%	49,470	\$33,218,964	\$177.64	

SUMMARY DATA

	Data Input		Yield and Management Results			Economic Results	
						Total	Per Acre
State	Louisiana		Total Acres			187,000	
Region	Midsouth		Total Bales Harvested			331,146	
Year	2022		Total Bales Lost to Insects			49,470	
Total Acres (Upland)	187,000	In-furrow cost/treated acre	\$7.50	Percent Yield Loss	7.8%	Foliar Insecticide Costs	\$15,389,165
Yield / Acre (Upland)	850	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	922	Seed Treatment Costs	\$1,851,300
Price / lb	\$0.78	Cost/acre Boll Weevil Eradication	\$5.00	Av. # Applications	6.31	In-Furrow Costs	\$14,025
yield potential (lb/acre)	1,628	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	303,168	Scouting Costs	\$1,870,000
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	47.8%	Eradication Costs	\$935,000
Yield / Acre (Pima)	0	% Insect apps by air	80%	Transgenic Cotton (arthropods) (# acres)	187,000	Bt Cotton	\$3,596,010
% Acres Scouted	100%	No. apps by air	3.5	Boll Weevil Eradication (# acres)	187,000	Total Costs	\$23,655,500
Fee / Scouted Acre	\$10.00	Cost/app by air	\$7.00	Pink Bollworm Eradication (# acres)	0	Yield Loss to Insects	\$18,521,568
No. times scouted/week	1.5	% insect apps by ground	80%	# Scouted Acres	187,000	Total Losses + Costs	\$42,177,068
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2.5	Seed Treatments (arthropods) (# acres)	185,130		
Cost/treated acre (Bt) Cotton	\$19.23	Cost/app by ground	\$6.00	In-Furrow Applications (# acres)	1,870		
% acres with seed treatment	99%	% Loss to weather	25.0%	Applications by Air (acres)	149,600		
Seed trt. cost/ treated acre	\$10.00	% loss to non-arthropods	5.0%	Applications by Ground (acres)	149,600		
% acres with in-furrow	1%	% loss to other (chemical injury, weeds, diseases, etc.)	10.0%	No. acres with no foliar insecticide applications	0		

Table 15. Cotton insect loss estimates for Louisiana during 2022, 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	51.0%	95,370	\$85.00	\$16.00	80%	76,296	1.5
Bollgard III	38.0%	71,060	\$91.00	\$23.00	2%	1,421	1.0
WideStrike	0.0%	0	\$70.00	\$0.00	0%	0	0.0
WideStrike 3	10.0%	18,700	\$91.00	\$21.00	2%	374	1.0
TwinLink	0.0%	0	\$77.00	\$0.00	0%	0	0.0
TwinLink Plus	1.0%	1,870	\$84.00	\$23.00	2%	37	1.0
Total Bt	100.0%	187,000	\$87.87	\$19.23	41.8%	78,129	0.6
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%	187,000	\$87.87	\$19.23	41.8%	78,129	0.6
Non Upland Cotton							
Pima	0.0%	0	\$0.00	-	0%	0	0
Other	0.0%	0	\$0.00	-	0%	0	0
Organic	0.0%	0	\$0.00	-	0%	0	0
Total (all Cotton)		187,000	\$87.87	-	41.8%	78,129	0.6