

Table 13. Cotton insect loss estimates for Louisiana during 2019.

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	264,000	100%	198,000	75.0%	1.2	\$22.00	2.50%	0.90	\$19.80	2.50%	26,400	\$12,830,400	\$48.60	28.2%
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	2,640	1%	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	2,640	1%	2,640	1.0%	1.0	\$7.00	0.00%	0.01	\$0.07	0.00%	0	\$185	\$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	264,000	100%	264,000	100.0%	3.5	\$12.50	4.00%	3.50	\$43.75	4.00%	42,240	\$23,715,120	\$89.83	52.2%
Cotton Fleahopper	39,600	15%	39,600	15.0%	1.0	\$9.00	0.00%	0.15	\$1.35	0.00%	0	\$53,460	\$0.20	0.1%
Stink Bugs (other than brown stink bug)	26,400	10%	5,280	2.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Brown Stink Bug	198,000	75%	3,960	1.5%	2.0	\$12.00	0.00%	0.03	\$0.36	0.00%	0	\$71,280	\$0.27	0.2%
Clouded Plant Bug	0	0%	0	0.0%	0.0	\$0.00	0.50%	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	158,400	60%	132,000	50.0%	1.0	\$15.00	0.50%	0.50	\$7.50	0.30%	3,168	\$2,100,384	\$7.96	4.6%
Thrips	264,000	100%	52,800	20.0%	1.0	\$6.25	1.00%	0.20	\$1.25	1.00%	10,560	\$3,371,280	\$12.77	7.4%
Aphids	264,000	100%	211,200	80.0%	1.0	\$10.00	0.40%	0.80	\$8.00	0.40%	4,224	\$3,328,512	\$12.61	7.3%
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								6.09	\$82.08	8.20%	86,592	\$45,470,621	\$172.24	

SUMMARY DATA

Data Input			Yield and Management Results			Economic Results		
State	Louisiana		Total Acres	264,000		Total	Per Acre	
Region	Midsouth		Total Bales Harvested	566,500	Foliar Insecticide Costs	\$21,669,120	\$82.08	
Year	2019		Total Bales Lost to Insects	86,592	Seed Treatment Costs	\$2,640,000	\$10.00	
Total Acres (Upland)	264,000	In-furrow cost/treated acre	\$7.50	Percent Yield Loss	8.2%	In-Furrow Costs	\$39,600	\$0.15
Yield / Acre (Upland)	1,030	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	1,122	Scouting Costs	\$2,112,000	\$8.00
Price / lb	\$0.60	Cost/acre Boll Weevil Eradication	\$5.00	Av. # Applications	6.09	Eradication Costs	\$1,320,000	\$5.00
yield potential (lb/acre)	1,920	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	487,872	Bt Cotton	\$9,193,800	\$34.83
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	46.2%	Total Costs	\$36,974,520	\$140.06
Yield / Acre (Pima)	0	% Insect apps by air	55%	Transgenic Cotton (arthropods) (# acres)	262,680	Yield Loss to Insects	\$24,938,496	\$94.46
% Acres Scouted	100%	No. apps by air	3.5	Boll Weevil Eradication (# acres)	264,000	Total Losses + Costs	\$61,913,016	\$234.52
Fee / Scouted Acre	\$8.00	Cost/app by air	\$6.00	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1	% insect apps by ground	45%	# Scouted Acres	264,000			
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2.5	Seed Treatments (arthropods) (# acres)	264,000			
Cost/treated acre (Bt) Cotton	\$35.00	Cost/app by ground	\$6.00	In-Furrow Applications (# acres)	5,280			
% acres with seed treatment	100%	% Loss to weather	35.0%	Applications by Air (acres)	145,200			
Seed trt. cost/ treated acre	\$10.00	% loss to non-arthropods	2.0%	Applications by Ground (acres)	118,800			
% acres with in-furrow	2%	% loss to other (chemical injury, weeds, diseases, etc.)	1.0%	No. acres with no foliar insecticide applications	0			

Table 13. Cotton insect loss estimates for Louisiana during 2019, 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	74.0%	195,360	\$85.00	\$35.00	95%	185,592	1.5
Bollgard III	15.5%	40,920	\$90.00	\$35.00	20%	8,184	0.5
WideStrike	0.0%	0	\$80.00	\$30.00	0%	0	0.0
WideStrike 3	9.5%	25,080	\$85.00	\$35.00	20%	5,016	0.5
TwinLink	0.0%	0	\$80.00	\$30.00	0%	0	0.0
TwinLink Plus	0.5%	1,320	\$85.00	\$35.00	5%	66	0.2
Total Bt	99.5%	262,680	\$85.78	\$35.00	75.7%	198,858	1.2
Herbicide Traits Only	0.0%	0	\$0.00	-	0%	0	0.0
Conventional	0.5%	1,320	\$25.00	-	100%	1,320	2.0
Organic	0.0%	0	\$0.00	-	0%	0	0.0
Total Upland Cotton	100.0%	264,000	\$85.48	\$35.00	75.8%	200,178	1.3
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)		264,000	\$85.48	-	75.8%	200,178	1.3