

Table 13. Cotton insect loss estimates for Louisiana during 2020.

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	200,000	100%	160,000	80.0%	1.5	\$22.00	2.50%	1.20	\$26.40	2.50%	20,198	\$11,581,776	\$57.91	30.0%
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	2,000	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	2,000	1%	1,000	0.5%	1.0	\$7.00	0.00%	0.01	\$0.07	0.00%	0	\$140	\$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	200,000	100%	200,000	100.0%	4.5	\$12.00	4.00%	4.50	\$54.00	4.00%	32,317	\$20,882,904	\$104.41	54.0%
Cotton Fleahopper	20,000	10%	20,000	10.0%	1.0	\$9.00	0.00%	0.10	\$0.90	0.00%	0	\$18,000	\$0.09	0.0%
Stink Bugs (other than brown stink bug)	40,000	20%	10,000	5.0%	1.0	\$12.00	0.00%	0.05	\$0.60	0.00%	0	\$24,000	\$0.12	0.1%
Brown Stink Bug	160,000	80%	10,000	5.0%	1.0	\$12.00	0.00%	0.05	\$0.60	0.00%	0	\$96,000	\$0.48	0.2%
Clouded Plant Bug	2,000	1%	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	40,000	20%	50,000	25.0%	1.0	\$15.00	0.50%	0.25	\$3.75	0.10%	808	\$402,096	\$2.01	1.0%
Thrips	200,000	100%	100,000	50.0%	1.0	\$6.25	1.00%	0.50	\$3.13	1.00%	8,079	\$3,145,648	\$15.73	8.1%
Aphids	200,000	100%	150,000	75.0%	1.0	\$10.00	0.40%	0.75	\$7.50	0.40%	3,232	\$2,508,384	\$12.54	6.5%
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%
<b>TOTAL</b>					<b>7.41</b>			<b>\$96.95</b>		<b>8.00%</b>	<b>64,634</b>	<b>\$38,658,948</b>	<b>\$193.29</b>	

**SUMMARY DATA**

	Data Input		Yield and Management Results			Economic Results	
State	Louisiana		Total Acres	200,000		Total	Per Acre
Region	Midsouth		Total Bales Harvested	424,167		Foliar Insecticide Costs	\$19,389,000
Year	2020		Total Bales Lost to Insects	64,634		Seed Treatment Costs	\$1,980,000
Total Acres (Upland)	200,000	In-furrow cost/treated acre	\$7.50	Percent Yield Loss	8.0%	In-Furrow Costs	\$15,000
Yield / Acre (Upland)	1,018	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	1,107	Scouting Costs	\$2,000,000
Price / lb	\$0.65	Cost/acre Boll Weevil Eradication	\$5.00	Av. # Applications	7.41	Eradication Costs	\$1,000,000
yield potential (lb/acre)	1,939	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	383,760	Bt Cotton	\$3,640,600
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	47.5%	Total Costs	\$28,024,600
Yield / Acre (Pima)	0	% Insect apps by air	45%	Transgenic Cotton (arthropods) (# acres)	200,000	Yield Loss to Insects	\$20,165,808
% Acres Scouted	100%	No. apps by air	2.5	Boll Weevil Eradication (# acres)	200,000	Total Losses + Costs	\$48,190,408
Fee / Scouted Acre	\$10.00	Cost/app by air	\$7.00	Pink Bollworm Eradication (# acres)	0		
No. times scouted/week	1.5	% insect apps by ground	55%	# Scouted Acres	200,000		
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	3.5	Seed Treatments (arthropods) (# acres)	198,000		
Cost/treated acre (Bt) Cotton	\$18.20	Cost/app by ground	\$6.00	In-Furrow Applications (# acres)	2,000		
% acres with seed treatment	99%	% Loss to weather	33.00%	Applications by Air (acres)	90,000		
Seed trt. cost/ treated acre	\$10.00	% loss to non-arthropods	2.5%	Applications by Ground (acres)	110,000		
% acres with in-furrow	1%	% loss to other (chemical injury, weeds, diseases, etc.)	4.0%	No. acres with no foliar insecticide applications	0		

Table 13. Cotton insect loss estimates for Louisiana during 2020, 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	62.9%	125,800	\$85.00	\$16.00	70%	88,060	1.2
Bollgard III	16.4%	32,800	\$91.00	\$23.00	1%	328	0.1
WideStrike	0.0%	0	\$70.00	\$0.00	100%	0	1.0
WideStrike 3	19.7%	39,400	\$91.00	\$21.00	10%	3,940	0.1
TwinLink	0.0%	0	\$77.00	\$19.00	51%	0	1.0
TwinLink Plus	1.0%	2,000	\$84.00	\$23.00	0%	0	0.1
<b>Total Bt</b>	<b>100.0%</b>	<b>200,000</b>	<b>\$87.16</b>	<b>\$18.20</b>	<b>46.2%</b>	<b>92,328</b>	<b>0.5</b>
Herbicide Traits Only	0.0%	600	\$0.00	-	0%	0	0.0
Conventional	0.0%	1,400	\$0.00	-	0%	0	0.0
Organic	0.0%	0	\$0.00	-	0%	0	0.0
<b>Total Upland Cotton</b>	<b>100.0%</b>	<b>202,000</b>	<b>\$86.29</b>	<b>\$18.20</b>	<b>45.7%</b>	<b>92,328</b>	<b>0.5</b>
<b>Non Upland Cotton</b>							
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
<b>Total (all Cotton)</b>		<b>202,000</b>	<b>\$86.29</b>	<b>-</b>	<b>45.7%</b>	<b>92,328</b>	<b>0.5</b>