

Table 20. Cotton insect loss estimates for South Carolina during 2021.

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	205,000	100%	102,500	50.0%	1.0	\$15.00	1.25%	0.50	\$7.50	1.25%	7,415	\$5,310,252	\$25.90	22.8%
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	51,250	25%	2,050	1.0%	1.0	\$8.00	0.01%	0.01	\$0.08	0.00%	18	\$13,258	\$0.06	0.1%
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	205,000	100%	30,750	15.0%	1.0	\$10.00	0.25%	0.15	\$1.50	0.25%	1,483	\$1,062,050	\$5.18	4.6%
Cotton Fleahopper	153,750	75%	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)	205,000	100%	194,750	95.0%	2.0	\$10.00	2.50%	1.90	\$19.00	2.50%	14,830	\$11,440,504	\$55.81	49.2%
Brown Stink Bug	205,000	100%	102,500	50.0%	1.0	\$10.00	0.25%	0.50	\$5.00	0.25%	1,483	\$1,779,550	\$8.68	7.7%
Clouded Plant Bug	41,000	20%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Leaf Footed Bugs	205,000	100%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	205,000	100%	20,500	10.0%	1.0	\$15.00	0.10%	0.10	\$1.50	0.10%	593	\$609,218	\$2.97	2.6%
Thrips	205,000	100%	123,000	60.0%	1.0	\$8.00	0.50%	0.60	\$4.80	0.50%	2,966	\$2,493,101	\$12.16	10.7%
Aphids	205,000	100%	41,000	20.0%	1.0	\$10.00	0.00%	0.20	\$2.00	0.00%	0	\$410,000	\$2.00	1.8%
Grasshoppers	205,000	100%	10,250	5.0%	1.0	\$10.00	0.01%	0.05	\$0.50	0.01%	59	\$132,519	\$0.65	0.6%
Banded Winged Whitefly	102,500	50%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Silverleaf Whitefly	102,500	50%	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>4.01</b>			<b>\$41.88</b>		<b>4.86%</b>	<b>28,847</b>	<b>\$23,250,452</b>	<b>\$113.42</b>	

**SUMMARY DATA**

Data Input		Yield and Management Results				Economic Results	
State	South Carolina	Total Acres	205,000		Total	Per Acre	
Region	Southeast	Total Bales Harvested	410,000		Foliar Insecticide Costs	\$8,585,400	\$41.88
Year	2021	Total Bales Lost to Insects	28,847		Seed Treatment Costs	\$2,398,500	\$11.70
Total Acres (Upland)	205,000	In-furrow cost/treated acre	\$18.00		Percent Yield Loss	4.9%	
Yield / Acre (Upland)	960	% acres in Boll Weevil Eradication	100%		Yield w/o Insects (lb/acre)	1,009	
Price / lb	\$1.06	Cost/acre Boll Weevil Eradication	\$1.25		Av. # Applications	4.01	
yield potential (lb/acre)	1,389	% acres in Pink Bollworm Eradication	0%		Total Bales lost (all factors)	183,085	
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00		Total % yield Loss	30.9%	
Yield / Acre (Pima)	0	% Insect apps by air	5%		Transgenic Cotton (arthropods) (# acres)	205,000	
% Acres Scouted	75%	No. apps by air	1		Boll Weevil Eradication (# acres)	205,000	
Fee / Scouted Acre	\$7.00	Cost/app by air	\$12.00		Pink Bollworm Eradication (# acres)	0	
No. times scouted/week	1	% insect apps by ground	95%		# Scouted Acres	153,750	
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2		Seed Treatments (arthropods) (# acres)	184,500	
Cost/treated acre (Bt) Cotton	\$28.60	Cost/app by ground	\$7.00		In-Furrow Applications (# acres)	20,500	
% acres with seed treatment	90%	% Loss to weather	15.0%		Applications by Air (acres)	10,250	
Seed trt. cost/ treated acre	\$13.00	% loss to non-arthropods	1.0%		Applications by Ground (acres)	194,750	
% acres with in-furrow	10%	% loss to other (chemical injury, weeds, diseases, etc.)	10.0%		No. acres with no foliar insecticide applications	513	

Table 20. Cotton insect loss estimates for South Carolina during 2021, 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	50.0%	102,500	\$108.00	\$30.00	50%	51,250	1.0
Bollgard III	42.4%	86,920	\$106.00	\$30.00	1%	869	1.0
WideStrike	0.0%	0	\$92.00	\$10.00	0%	0	0.0
WideStrike 3	7.0%	14,350	\$105.00	\$10.00	1%	144	1.0
TwinLink	0.1%	205	\$99.00	\$25.00	50%	103	1.0
TwinLink Plus	0.5%	1,025	\$102.00	\$30.00	1%	10	1.0
<b>Total Bt</b>	<b>100.0%</b>	<b>205,000</b>	<b>\$106.90</b>	<b>\$28.60</b>	<b>25.5%</b>	<b>52,375</b>	<b>0.3</b>
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
<b>Total Upland Cotton</b>	<b>100.0%</b>	<b>205,000</b>	<b>\$106.90</b>	<b>\$28.60</b>	<b>25.5%</b>	<b>52,375</b>	<b>0.3</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>205,000</b>	<b>\$106.90</b>		<b>25.5%</b>	<b>52,375</b>	<b>0.3</b>