

Table 22. Cotton insect loss estimates for South Texas 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	738,649	90%	205,180	25.0%	1.0	\$20.50	0.10%	0.25	\$5.13	0.09%	3,078	\$4,790,233	\$5.84	2.6%
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	41,036	5%	0	0.0%	1.0	\$20.50	0.10%	0.00	\$0.00	0.01%	171	\$55,814	\$0.07	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	820,721	100%	328,288	40.0%	1.0	\$15.00	0.50%	0.40	\$6.00	0.50%	17,098	\$10,505,111	\$12.80	5.6%
Cotton Fleahopper	820,721	100%	738,649	90.0%	1.5	\$11.00	10.00%	1.35	\$14.85	10.00%	341,967	\$123,805,730	\$150.85	66.1%
Stink Bugs (other than brown stink bug)	328,288	40%	131,315	16.0%	1.0	\$11.00	1.00%	0.16	\$1.76	0.40%	13,679	\$5,042,613	\$6.14	2.7%
Brown Stink Bug	328,288	40%	164,144	20.0%	1.0	\$11.00	2.00%	0.20	\$2.20	0.80%	27,357	\$9,651,559	\$11.76	5.2%
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	270,838	33%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	517,054	63%	123,108	15.0%	1.0	\$14.00	0.50%	0.15	\$2.10	0.32%	10,772	\$4,601,794	\$5.61	2.5%
Thrips	820,721	100%	188,766	23.0%	1.0	\$11.00	0.00%	0.23	\$2.53	0.00%	0	\$2,076,423	\$2.53	1.1%
Aphids	820,721	100%	476,018	58.0%	1.0	\$13.50	0.50%	0.58	\$7.83	0.50%	17,098	\$12,007,029	\$14.63	6.4%
Grasshoppers	738,649	90%	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	492,432	60%	328,288	40.0%	1.0	\$10.00	1.00%	0.40	\$4.00	0.60%	20,518	\$8,666,805	\$10.56	4.6%
Verde Plant Bug	180,559	22%	180,559	22.0%	1.0	\$8.00	1.00%	0.22	\$1.76	0.22%	7,523	\$2,773,290	\$3.38	1.5%
Boll Weevil	820,721	100%	656,576	80.0%	1.0	\$0.00	0.30%	0.80	\$0.00	0.30%	10,259	\$3,348,538	\$4.08	1.8%
<b>TOTAL</b>								4.74	\$48.16	13.73%	469,520	\$187,324,939	\$228.24	

**SUMMARY DATA**

Data Input		Yield and Management Results			Economic Results			
State	Texas	Total Acres	820,721	Total Bales Harvested	1,444,810	Foliar Insecticide Costs	Total	Per Acre
Region	Central	Total Bales Lost to Insects	469,520	Seed Treatment Costs	\$7,386,485	In-Furrow Costs	\$443,189	\$0.54
Year	2019	Percent Yield Loss	13.7%	Scouting Costs	\$6,155,405	Eradication Costs	\$6,237,480	\$7.60
Total Acres (Upland)	820,721	Yield w/o Insects (lb/acre)	979	Bt Cotton	\$16,857,604	Total Costs	\$76,601,963	\$93.34
Yield / Acre (Upland)	845	Av. # Applications	4.74	Bt Cotton	\$16,857,604	Yield Loss to Insects	\$153,251,328	\$186.73
Price / lb	\$0.68	Total Bales lost (all factors)	1,430,448	Total % yield Loss	41.8%	Total Losses + Costs	\$229,853,291	\$280.06
yield potential (lb/acre)	2,000	Transgenic Cotton (arthropods) (# acres)	820,721	Boll Weevil Eradication (# acres)	820,721			
Acres (Pima)	0	Pink Bollworm Eradication (# acres)	0	# Scouted Acres	615,540			
Yield / Acre (Pima)	0	Total % yield Loss	41.8%	Seed Treatments (arthropods) (# acres)	738,649			
% Acres Scouted	75%	Transgenic Cotton (arthropods) (# acres)	820,721	In-Furrow Applications (# acres)	24,622			
Fee / Scouted Acre	\$10.00	Boll Weevil Eradication (# acres)	820,721	Applications by Air (acres)	738,649			
No. times scouted/week	1.2	Pink Bollworm Eradication (# acres)	0	Applications by Ground (acres)	820,721			
% acres Transgenic (Bt) Cotton	100%	# Scouted Acres	615,540	No. acres with no foliar insecticide applications	0			
Cost/treated acre (Bt) Cotton	\$20.54	Seed Treatments (arthropods) (# acres)	738,649					
% acres with seed treatment	90%	In-Furrow Applications (# acres)	24,622					
Seed trt. cost/ treated acre	\$10.00	Applications by Air (acres)	738,649					
% acres with in-furrow	3%	Applications by Ground (acres)	820,721					
		% loss to other (chemical injury, weeds, diseases, etc.)	2.0%					

Table 22 Cotton insect loss estimates for South Texas 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	47.0%	385,739	\$81.00	\$19.00	35%	135,009	1.2
Bollgard III	6.0%	49,243	\$93.00	\$26.00	0%	0	0.0
WideStrike	6.0%	49,243	\$67.00	\$5.00	99%	48,751	1.2
WideStrike 3	38.5%	315,977	\$87.00	\$24.00	5%	15,799	1.0
TwinLink	2.0%	16,414	\$76.00	\$19.00	35%	5,745	1.2
TwinLink Plus	0.5%	4,104	\$86.00	\$26.00	0%	0	0.0
<b>Total Bt</b>	<b>100%</b>	<b>820,720</b>	<b>\$83.12</b>	<b>\$20.54</b>	<b>25.0%</b>	<b>205,303</b>	<b>1.0</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>820,720</b>	<b>\$83.12</b>	<b>\$20.54</b>	<b>25.0%</b>	<b>205,303</b>	<b>1.0</b>
<b>Non Upland Cotton</b>							
Pima	0%	0	\$0.00	-	0%	0	0
Other	0%	0	\$0.00	-	0%	0	0
Organic	0%	0	\$0.00	-	0%	0	0
<b>Total (all Cotton)</b>		<b>820,720</b>	<b>\$83.12</b>	<b>-</b>	<b>25.0%</b>	<b>205,303</b>	<b>1.0</b>