

Table 22. Cotton insect loss estimates for South Texas 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	790,625	100%	78,023	9.9%	1.0	\$21.00	0.50%	0.10	\$2.10	0.50%	16,463	\$9,562,553	\$12.09	11.7%
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	79,063	10%	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	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	632,500	80%	15,605	2.0%	0.0	\$12.00	0.20%	0.00	\$0.00	0.16%	5,268	\$2,528,640	\$3.20	3.1%
Cotton Fleahopper	790,625	100%	437,442	55.3%	1.5	\$12.00	2.00%	0.83	\$9.96	2.00%	65,852	\$39,483,585	\$49.94	48.2%
Stink Bugs (other than brown stink bug)	790,625	100%	234,068	29.6%	0.5	\$11.00	1.00%	0.15	\$1.65	1.00%	32,926	\$17,109,011	\$21.64	20.9%
Brown Stink Bug	790,625	100%	0	0.0%	0.0	\$11.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	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	316,250	40%	20,806	2.6%	1.0	\$0.00	1.00%	0.03	\$0.00	0.40%	13,170	\$6,321,600	\$8.00	7.7%
Spider Mites	0	0%	0	0.0%	0.0	\$13.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Thrips	790,625	100%	305,847	38.7%	1.0	\$11.00	0.00%	0.39	\$4.29	0.00%	0	\$3,391,781	\$4.29	4.1%
Aphids	711,563	90%	279,316	35.3%	1.0	\$13.00	0.00%	0.35	\$4.55	0.00%	0	\$3,237,609	\$4.09	4.0%
Grasshoppers	790,625	100%	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	316,250	40%	40,571	5.1%	1.0	\$0.00	0.00%	0.05	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Verde Plant Bug	197,656	25%	7,282	0.9%	1.0	\$12.00	0.07%	0.01	\$0.12	0.02%	527	\$276,679	\$0.35	0.3%
Boll Weevil	40,322	5%	40,322	5.1%	17.0	\$0.00	0.00%	0.87	\$0.00	0.00%	0	\$0	\$0.00	0.0%
<b>TOTAL</b>								2.78	\$22.67	4.08%	134,206	\$81,911,458	\$103.60	

**SUMMARY DATA**

Data Input		Yield and Management Results			Economic Results	
State	Texas	Total Acres		790,625		
Region	Central	Total Bales Harvested		1,597,721	Foliar Insecticide Costs	\$17,923,469
Year	2021	Total Bales Lost to Insects		134,206	Seed Treatment Costs	\$8,301,563
Total Acres (Upland)	790,625	In-furrow cost/treated acre	\$12.00	Percent Yield Loss	In-Furrow Costs	\$94,875
Yield / Acre (Upland)	970	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	Scouting Costs	\$6,641,250
Price / lb	\$1.00	Cost/acre Boll Weevil Eradication	\$7.60	Av. # Applications	Eradication Costs	\$6,008,750
yield potential (lb/acre)	1,999	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	Bt Cotton	\$16,816,597
Acres (Pima)	66	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	Total Costs	\$55,786,504
Yield / Acre (Pima)	1,000	% Insect apps by air	64%	Transgenic Cotton (arthropods) (# acres)	Yield Loss to Insects	\$64,418,880
% Acres Scouted	80%	No. apps by air	1.35	Boll Weevil Eradication (# acres)	Total Losses + Costs	\$120,205,384
Fee / Scouted Acre	\$10.50	Cost/app by air	\$7.00	Pink Bollworm Eradication (# acres)		
No. times scouted/week	1.5	% insect apps by ground	98%	# Scouted Acres		
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	3.38	Seed Treatments (arthropods) (# acres)		
Cost/treated acre (Bt) Cotton	\$21.27	Cost/app by ground	\$5.50	In-Furrow Applications (# acres)		
% acres with seed treatment	100%	% Loss to weather	35.0%	Applications by Air (acres)		
Seed trt. cost/ treated acre	\$10.50	% loss to non-arthropods	3.0%	Applications by Ground (acres)		
% acres with in-furrow	1%	% loss to other (chemical injury, weeds, diseases, etc.)	9.4%	No. acres with no foliar insecticide applications		

Table 22. Cotton insect loss estimates for South Texas 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	27.0%	213,469	\$85.00	\$17.00	32%	68,310	1.0
Bollgard III	55.0%	434,844	\$93.00	\$25.00	0%	0	0.0
WideStrike	0.0%	0	\$68.00	\$5.00	0%	0	0.0
WideStrike 3	15.0%	118,594	\$83.00	\$15.00	5%	5,930	1.0
TwinLink	1.0%	7,906	\$73.00	\$14.00	45%	3,558	1.0
TwinLink Plus	2.0%	15,813	\$86.00	\$27.00	0%	0	0.0
<b>Total Bt</b>	<b>100.0%</b>	<b>790,626</b>	<b>\$89.00</b>	<b>\$21.27</b>	<b>9.8%</b>	<b>77,797</b>	<b>0.10</b>
Herbicide Traits Only	0.0%	0	\$44.00	-	0%	0	0.0
Conventional	0.0%	0	\$19.00	-	0%	0	0.0
Organic	0.0%	0	\$19.00	-	0%	0	0.0
<b>Total Upland Cotton</b>	<b>100.0%</b>	<b>790,626</b>	<b>\$89.00</b>	<b>\$21.27</b>	<b>9.8%</b>	<b>77,797</b>	<b>0.10</b>
<b>Non Upland Cotton</b>							
Pima	0.009%	71	\$65.00	-	0%	0	0
Other	0%	0	\$19.00	-	0%	0	0
Organic	0%	0	\$65.00	-	0%	0	0
<b>Total (all Cotton)</b>		<b>790,697</b>	<b>\$89.00</b>		<b>9.8%</b>	<b>77,797</b>	<b>0.10</b>