

Table 27. Cotton insect loss estimates for Texas Blacklands-Winter Garden during 2018.

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	364,784	100.0%	145,914	40.0%	1.2	\$24.00	3.00%	0.48	\$11.52	3.00%	45,598	\$21,055,332	\$57.72	25.9%
Beet Armyworm	0	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	54,718	15.0%	18,239	5.0%	1.0	\$24.00	0.50%	0.05	\$1.20	0.08%	1,140	\$487,005	\$1.34	0.6%
Loopers	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	7,296	2.0%	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	\$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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	91,196	25.0%	3,648	1.0%	1.0	\$15.00	0.00%	0.01	\$0.15	0.00%	0	\$13,679	\$0.04	0.0%
Cotton Fleahopper	364,784	100.0%	346,545	95.0%	2.3	\$11.00	2.00%	2.19	\$24.09	2.00%	30,399	\$20,023,117	\$54.89	24.6%
Stink Bugs (other than brown stink bug)	364,784	100.0%	72,957	20.0%	1.0	\$11.00	3.00%	0.20	\$2.20	3.00%	45,598	\$17,655,546	\$48.40	21.7%
Brown Stink Bug	291,827	80.0%	18,239	5.0%	1.0	\$11.00	0.50%	0.05	\$0.55	0.40%	6,080	\$2,407,673	\$6.60	3.0%
Clouded Plant Bug	0	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	91,196	25.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	237,110	65.0%	54,718	15.0%	1.0	\$14.00	2.50%	0.15	\$2.10	1.63%	24,699	\$9,626,681	\$26.39	11.8%
Thrips	364,784	100.0%	91,196	25.0%	1.0	\$11.00	1.00%	0.25	\$2.75	1.00%	15,199	\$6,620,706	\$18.15	8.1%
Aphids	364,784	100.0%	36,478	10.0%	1.0	\$16.00	0.50%	0.10	\$1.60	0.50%	7,600	\$3,392,614	\$9.30	4.2%
Grasshoppers	218,870	60.0%	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	\$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	\$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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
<b>TOTAL</b>								<b>3.48</b>	<b>\$46.16</b>	<b>11.60%</b>	<b>176,313</b>	<b>\$81,282,353</b>	<b>\$222.82</b>	

**SUMMARY DATA**

Data Input		Yield and Management Results			Economic Results			
State	Texas	Total Acres	364,784	Total		Per Acre		
Region	Central	Total Bales Harvested	664,971	Foliar Insecticide Costs	\$16,838,429	\$46.16		
Year	2018	Total Bales Lost to Insects	176,465	Seed Treatment Costs	\$3,647,840	\$10.00		
Total Acres (Upland)	364,784	In-furrow cost/treated acre	\$11.00	Percent Yield Loss	11.6%	In-Furrow Costs	\$40,126	\$0.11
Yield / Acre (Upland)	875	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	990	Scouting Costs	\$2,918,272	\$8.00
Price / lb	\$0.77	Cost/acre Boll Weevil Eradication	\$7.19	Av. # Applications	3.48	Eradication Costs	\$2,622,797	\$7.19
yield potential (lb/acre)	2,000	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	1,086,904	Bt Cotton	\$4,399,295	\$12.06
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	71.5%	Total Costs	\$30,466,759	\$83.52
Yield / Acre (Pima)	0	% Insect apps by air	60%	Transgenic Cotton (arthropods) (# acres)	364,784	Yield Loss to Insects	\$65,165,285	\$178.64
% Acres Scouted	80%	No. apps by air	2	Boll Weevil Eradication (# acres)	364,784	Total Losses + Costs	\$95,632,044	\$262.16
Fee / Scouted Acre	\$10.00	Cost/app by air	\$7.00	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1.25	% insect apps by ground	40%	# Scouted Acres	291,827			
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2	Seed Treatments (arthropods) (# acres)	364,784			
Cost/treated acre (Bt) Cotton	\$12.06	Cost/app by ground	\$5.50	In-Furrow Applications (# acres)	3,648			
% acres with seed treatment	100%	% Loss to weather	55.9%	Applications by Air (acres)	218,870			
Seed trt. cost/ treated acre	\$10.00	% loss to non-arthropods	2.0%	Applications by Ground (acres)	145,914			
% acres with in-furrow	1%	% loss to other (chemical injury, weeds, diseases, etc.)	2.0%	No. acres with no foliar insecticide applications	10,944			

Table 27. Cotton insect loss estimates for Texas Blackland-Winter Garden during 2018, 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	70.0%	255,349	\$80.00	\$12.00	40%	102,140	1.2
Bollgard III	2.0%	7,296	\$90.00	\$20.00	0%	0	0.0
WideStrike	8.0%	29,183	\$60.00	\$5.00	80%	23,346	1.5
WideStrike 3	10.0%	36,478	\$90.00	\$15.00	3%	1,094	1.0
TwinLink	8.0%	29,183	\$80.00	\$12.00	40%	11,673	1.2
TwinLink Plus	2.0%	7,296	\$90.00	\$20.00	0%	0	0.0
<b>Total Bt</b>	<b>100.0%</b>	<b>364,785</b>	<b>\$79.80</b>	<b>\$12.06</b>	<b>37.9%</b>	<b>138,254</b>	<b>1.2</b>
Herbicide Traits Only	0%	0	\$0.00	-	0%	0	0.0
Conventional	0%	0	\$0.00	-	0%	0	0.0
Organic	0%	0	\$0.00	-	0%	0	0.0
<b>Total Upland Cotton</b>	<b>100.0%</b>	<b>364,785</b>	<b>\$78.00</b>	<b>\$12.06</b>	<b>37.9%</b>	<b>138,254</b>	<b>1.2</b>
Non Upland Cotton							
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>364,785</b>	<b>\$78.00</b>	<b>-</b>	<b>37.9%</b>	<b>138,254</b>	<b>1.2</b>