

Table 12. Cotton insect loss estimates for Florida during 2017.

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	30,000	30%	20,000	20.0%	1.0	\$9.50	2.00%	0.20	\$1.90	0.60%	1,375	\$558,600	\$5.59	2.7%
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	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	40,000	40%	20,000	20.0%	1.0	\$16.50	0.80%	0.20	\$3.30	0.32%	733	\$399,398	\$3.99	1.9%
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	70,000	70%	60,000	60.0%	1.0	\$8.50	5.00%	0.60	\$5.10	3.50%	8,021	\$3,283,061	\$32.83	15.6%
Cotton Fleahopper	5,000	5%	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)	90,000	90%	50,000	50.0%	1.0	\$9.75	1.00%	0.50	\$4.88	0.90%	2,063	\$1,191,332	\$11.91	5.7%
Brown Stink Bug	45,000	45%	50,000	50.0%	1.5	\$9.75	0.50%	0.75	\$7.31	0.23%	516	\$517,299	\$5.17	2.5%
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	30,000	30%	15,000	15.0%	1.0	\$10.50	1.00%	0.15	\$1.58	0.30%	688	\$298,232	\$2.98	1.4%
Spider Mites	40,000	40%	40,000	40.0%	1.2	\$12.00	0.00%	0.48	\$5.76	0.00%	0	\$230,400	\$2.30	1.1%
Thrips	100,000	100%	50,000	50.0%	1.0	\$6.50	0.50%	0.50	\$3.25	0.50%	1,146	\$743,061	\$7.43	3.5%
Aphids	50,000	50%	20,000	20.0%	1.0	\$7.00	0.00%	0.20	\$1.40	0.00%	0	\$70,000	\$0.70	0.3%
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	95,000	95%	40,000	40.0%	2.0	\$24.50	15.00%	0.80	\$19.60	14.25%	32,656	\$13,774,909	\$137.75	65.4%
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>4.38</b>			<b>\$54.07</b>		<b>20.60%</b>	<b>47,198</b>	<b>\$21,066,292</b>	<b>\$210.66</b>	

**SUMMARY DATA**

Data Input		Yield and Management Results			Economic Results		
State	Florida	Total Acres		100,000		Total	Per Acre
Region	Southeast	Total Bales Harvested		161,458	Foliar Insecticide Costs	\$5,407,250	\$54.07
Year	2017	Total Bales Lost to Insects		47,198	Seed Treatment Costs	\$1,020,000	\$10.20
Total Acres (Upland)	100,000	Percent Yield Loss		20.6%	In-Furrow Costs	\$1,000,000	\$10.00
Yield / Acre (Upland)	775	Yield w/o Insects (lb/acre)		976	Scouting Costs	\$382,500	\$3.83
Price / lb	\$0.76	Av. # Applications		4.38	Eradication Costs	\$200,000	\$2.00
yield potential (lb/acre)	1,100	Total Bales lost (all factors)		118,239	Bt Cotton	\$1,512,200	\$15.12
Acres (Pima)	0	Total % yield Loss		51.6%	Total Costs	\$9,521,950	\$95.22
Yield / Acre (Pima)	0	Transgenic Cotton (arthropods) (# acres)		100,000	Yield Loss to Insects	\$17,217,830	\$172.18
% Acres Scouted	45%	Boll Weevil Eradication (# acres)		100,000	Total Losses + Costs	\$26,739,780	\$267.40
Fee / Scouted Acre	\$8.50	Pink Bollworm Eradication (# acres)		0			
No. times scouted/week	1	# Scouted Acres		45,000			
% acres Transgenic (Bt) Cotton	100%	Seed Treatments (arthropods) (# acres)		60,000			
Cost/treated acre (Bt) Cotton	\$15.12	In-Furrow Applications (# acres)		40,000			
% acres with seed treatment	60%	Applications by Air (acres)		3,000			
Seed trt. cost/ treated acre	\$17.00	Applications by Ground (acres)		97,000			
% acres with in-furrow	40%	No. acres with no foliar insecticide applications		0			
		% loss to other (chemical injury, weeds, diseases, etc.)		1.0%			

Table 12. Cotton insect loss estimates for Florida during 2017, 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	% of Population Bollworm
Bollgard II	76.0%	76,000	\$87.50	\$15.44	20%	15,200	1.0	100%
Bollgard III	0.0%	0	-	-	-	-	-	-
WideStrike	18.0%	18,000	\$80.00	\$13.66	22%	3,960	1.0	100%
WideStrike 3	6.0%	6,000	\$80.30	\$15.48	10%	600	1.0	100%
TwinLink	0.0%	0	-	-	-	-	-	-
TwinLink Plus	0.0%	0	-	-	-	-	-	-
<b>Total Bt</b>	<b>100%</b>	<b>100,000</b>	<b>\$85.72</b>	<b>\$15.12</b>	<b>19.8%</b>	<b>19,760</b>	<b>1.0</b>	<b>100.0%</b>
Herbicide Traits Only	0%	0	-	-	-	-	-	-
Conventional	0%	0	-	-	-	-	-	-
Organic	0%	0	-	-	-	-	-	-
<b>Total Upland Cotton</b>	<b>100%</b>	<b>100,000</b>	<b>\$85.72</b>	<b>\$15.12</b>	<b>19.8%</b>	<b>19,760</b>	<b>1.0</b>	<b>100.0%</b>
Non Upland Cotton								
Pima	0%	0	-	-	-	-	-	-
Other	0%	0	-	-	-	-	-	-
Organic	0%	0	-	-	-	-	-	-
<b>Total (all Cotton)</b>		<b>100,000</b>	<b>\$85.72</b>		<b>19.8%</b>	<b>19,760</b>	<b>1.0</b>	