

Table 12. Cotton insect loss estimates for Kansas 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	48,000	30%	16,000	10.0%	1.0	\$11.00	2.00%	0.10	\$1.10	0.60%	2,040	\$640,320	\$4.00	7.4%
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	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	80,000	50%	16,000	10.0%	15.0	\$7.00	1.00%	1.50	\$10.50	0.50%	1,700	\$1,329,600	\$8.31	15.3%
Cotton Fleahopper	128,000	80%	40,000	25.0%	25.0	\$5.00	3.00%	6.25	\$31.25	2.40%	8,160	\$6,350,080	\$39.69	73.1%
Stink Bugs (other than brown stink bug)	8,000	5%	1,600	1.0%	0.0	\$5.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Brown Stink Bug	0	0%	0	0.0%	0.0	\$0.00	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	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	8,000	5%	3,200	2.0%	0.0	\$12.00	1.00%	0.00	\$0.00	0.05%	170	\$48,960	\$0.31	0.6%
Thrips	128,000	80%	16,000	10.0%	5.0	\$5.00	0.00%	0.50	\$2.50	0.00%	0	\$320,000	\$2.00	3.7%
Aphids	0	0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Grasshoppers	4,800	3%	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	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	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
<b>TOTAL</b>								8.35	\$45.35	3.55%	12,070	\$8,688,960	\$54.31	

**SUMMARY DATA**

Data Input			Yield and Management Results			Economic Results	
State	Kansas		Total Acres	160,000		Total	Per Acre
Region	Central		Total Bales Harvested	266,667		Foliar Insecticide Costs	\$7,256,000
Year	2019		Total Bales Lost to Insects	12,070		Seed Treatment Costs	\$1,280,000
Total Acres (Upland)	160,000	In-furrow cost/treated acre	\$6.50	Percent Yield Loss	3.6%	In-Furrow Costs	\$52,000
Yield / Acre (Upland)	800	% acres in Boll Weevil Eradication	0%	Yield w/o Insects (lb/acre)	829	Scouting Costs	\$960,000
Price / lb	\$0.60	Cost/acre Boll Weevil Eradication	\$0.00	Av. # Applications	8.35	Eradication Costs	\$0
yield potential (lb/acre)	1,020	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	93,670	Bt Cotton	\$1,600,000
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	27.6%	Total Costs	\$11,148,000
Yield / Acre (Pima)	0	% Insect apps by air	70%	Transgenic Cotton (arthropods) (# acres)	160,000	Yield Loss to Insects	\$3,476,160
% Acres Scouted	75%	No. apps by air	1.5	Boll Weevil Eradication (# acres)	0	Total Losses + Costs	\$14,624,160
Fee / Scouted Acre	\$8.00	Cost/app by air	\$8.00	Pink Bollworm Eradication (# acres)	0		
No. times scouted/week	1.5	% insect apps by ground	30%	# Scouted Acres	120,000		
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	1.5	Seed Treatments (arthropods) (# acres)	160,000		
Cost/treated acre (Bt) Cotton	\$10.00	Cost/app by ground	\$6.00	In-Furrow Applications (# acres)	8,000		
% acres with seed treatment	100%	% Loss to weather	15.0%	Applications by Air (acres)	112,000		
Seed trt. cost/ treated acre	\$8.00	% loss to non-arthropods	2.0%	Applications by Ground (acres)	48,000		
% acres with in-furrow	5%	% loss to other (chemical injury, weeds, diseases, etc.)	7.0%	No. acres with no foliar insecticide applications	88,000		

Table 12. Cotton insect loss estimates for Kansas 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	20.0%	32,000	\$65.00	\$10.00	10%	3,200	1.0
Bollgard III	25.0%	40,000	\$65.00	\$10.00	0%	0	0.0
WideStrike	0.0%	0	\$0.00	\$0.00	0%	0	0.0
WideStrike 3	55.0%	88,000	\$75.00	\$10.00	10%	8,800	1.0
TwinLink	0.0%	0	\$0.00	\$0.00	0%	0	0.0
TwinLink Plus	0.0%	0	\$0.00	\$0.00	0%	0	0.0
<b>Total Bt</b>	<b>100.0%</b>	<b>160,000</b>	<b>\$70.50</b>	<b>\$10.00</b>	<b>7.5%</b>	<b>12,000</b>	<b>0.8</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>160,000</b>	<b>\$70.50</b>	<b>\$10.00</b>	<b>7.5%</b>	<b>12,000</b>	<b>0.8</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>160,000</b>	<b>\$70.50</b>	<b>-</b>	<b>7.5%</b>	<b>12,000</b>	<b>0.8</b>