

Table 12. Cotton insect loss estimates for Kansas during 2020.

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	39,000	20%	9,750	5.0%	1.0	\$11.00	2.00%	0.05	\$0.55	0.40%	1,742	\$523,146	\$2.68	10.8%
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	68,250	35%	9,750	5.0%	1.5	\$9.00	1.00%	0.08	\$0.72	0.35%	1,524	\$488,052	\$2.50	10.1%
Cotton Fleahopper	146,250	75%	58,500	30.0%	2.0	\$7.50	2.00%	0.60	\$4.50	1.50%	6,533	\$2,539,629	\$13.02	52.5%
Stink Bugs (other than brown stink bug)	5,850	3%	0	0.0%	0.0	\$0.00	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	1,950	1%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Thrips	97,500	50%	13,650	7.0%	1.0	\$5.00	2.00%	0.07	\$0.35	1.00%	4,355	\$1,288,365	\$6.61	26.6%
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	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	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%
TOTAL					0.80				\$6.12	3.25%	14,154	\$4,839,192	\$24.82	

SUMMARY DATA

	Data Input		Yield and Management Results			Economic Results			
						Total	Per Acre		
State	Kansas		Total Acres	195,000					
Region	Central		Total Bales Harvested	316,875		Foliar Insecticide Costs	\$1,193,400	\$6.12	
Year	2020		Total Bales Lost to Insects	14,154		Seed Treatment Costs	\$1,560,000	\$8.00	
Total Acres (Upland)	195,000	In-furrow cost/treated acre	\$6.50	Percent Yield Loss	3.3%		In-Furrow Costs	\$25,350	\$0.13
Yield / Acre (Upland)	780	% acres in Boll Weevil Eradication	0%	Yield w/o Insects (lb/acre)	806		Scouting Costs	\$1,170,000	\$6.00
Price / lb	\$0.60	Cost/acre Boll Weevil Eradication	\$0.00	Av. # Applications	0.8		Eradication Costs	\$0	\$0.00
yield potential (lb/acre)	1,072	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	118,674		Bt Cotton	\$1,950,000	\$10.00
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	27.3%		Total Costs	\$5,898,750	\$30.25
Yield / Acre (Pima)	0	% Insect apps by air	70%	Transgenic Cotton (arthropods) (# acres)	195,000		Yield Loss to Insects	\$4,076,352	\$20.90
% Acres Scouted	75%	No. apps by air	1.5	Boll Weevil Eradication (# acres)	0		Total Losses + Costs	\$9,975,102	\$51.15
Fee / Scouted Acre	\$8.00	Cost/app by air	\$11.00	Pink Bollworm Eradication (# acres)	0				
No. times scouted/week	1.5	% insect apps by ground	30%	# Scouted Acres	146,250				
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	1.5	Seed Treatments (arthropods) (# acres)	195,000				
Cost/treated acre (Bt) Cotton	\$10.00	Cost/app by ground	\$8.00	In-Furrow Applications (# acres)	3,900				
% acres with seed treatment	100%	% Loss to weather	20.0%	Applications by Air (acres)	136,500				
Seed trt. cost/ treated acre	\$8.00	% loss to non-arthropods	1.0%	Applications by Ground (acres)	58,500				
% acres with in-furrow	2%	% loss to other (chemical injury, weeds, diseases, etc.)	3.0%	No. acres with no foliar insecticide applications	107,250				

Table 12. Cotton insect loss estimates for Kansas during 2020, 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%	39,000	\$65.00	\$10.00	10%	3,900	1.0
Bollgard III	25.0%	48,750	\$65.00	\$10.00	0%	0	0.0
WideStrike	0.0%	0	\$0.00	\$0.00	0%	0	0.0
WideStrike 3	55.0%	107,250	\$75.00	\$10.00	10%	10,725	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
Total Bt	100.0%	195,000	\$70.50	\$10.00	7.5%	14,625	0.08
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
Total Upland Cotton	100.0%	195,000	\$70.50	\$10.00	7.5%	14,625	0.08
Non Upland Cotton							
Pima	0.0%	0	\$0.00	-	0%	0	0.0
Other	0.0%	0	\$0.00	-	0%	0	0.0
Organic	0.0%	0	\$0.00	-	0%	0	0.0
Total (all Cotton)		195,000	\$70.50	-	7.5%	14,625	0.08