

Table 15. Cotton insect loss estimates for Kansas 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	40,000	25.0%	16,000	10.0%	1.0	\$9.50	2.00%	0.10	\$0.95	0.50%	1,833	\$583,501	\$3.65	16.1%
Bollworm/Budworm	0	0.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
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	0	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	\$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	\$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	96,000	60.0%	32,000	20.0%	1.0	\$6.00	1.00%	0.20	\$1.20	0.60%	2,200	\$769,920	\$4.81	21.3%
Lygus	136,000	85.0%	40,000	25.0%	1.0	\$4.50	2.00%	0.25	\$1.13	1.70%	6,233	\$2,007,941	\$12.55	55.5%
Cotton Fleahopper	16,000	10.0%	4,800	3.0%	0.0	\$4.50	1.00%	0.00	\$0.00	0.10%	367	\$109,219	\$0.68	3.0%
Stink Bugs (other than brown stink 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%
Brown Stink 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%
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	16,000	10.0%	8,000	5.0%	1.0	\$11.50	1.00%	0.05	\$0.58	0.10%	367	\$118,419	\$0.74	3.3%
Spider Mites	120,000	75.0%	8,000	5.0%	1.0	4.5	0.00%	0.05	\$0.23	0.00%	0	\$27,000	\$0.17	0.7%
Thrips	0	0.0%	0	0.0%	0.0	0.0	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Aphids	0	0.0%	0	0.0%	0.0	0.0	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Grasshoppers	0	0.0%	0	0.0%	0.0	0.0	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	0.0%	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%
TOTAL								0.65	\$4.08	3.00%	11,000	\$3,616,000	\$22.60	

SUMMARY DATA

Data Input		Yield and Management Results			Economic Results	
State	Kansas	Total Acres		160,000		
Region	Central	Total Bales Harvested		316,667	Foliar Insecticide Costs	\$652,000
Year	2018	Total Bales Lost to Insects		11,000	Seed Treatment Costs	\$1,200,000
Total Acres (Upland)	160,000	In-furrow cost/treated acre	\$6.50	Percent Yield Loss		\$104,000
Yield / Acre (Upland)	950	% acres in Boll Weevil Eradication	0%	Yield w/o Insects (lb/acre)		\$900,000
Price / lb	\$0.62	Cost/acre Boll Weevil Eradication	\$0.00	Av. # Applications		\$0
yield potential (lb/acre)	1,100	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)		\$1,600,000
Acres (Pima)	-	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss		\$4,456,000
Yield / Acre (Pima)	-	% Insect apps by air	70%	Transgenic Cotton (arthropods) (# acres)	160,000	\$3,273,600
% Acres Scouted	75%	No. apps by air	1.5	Boll Weevil Eradication (# acres)	0	\$7,729,600
Fee / Scouted Acre	\$7.50	Cost/app by air	\$8.00	Pink Bollworm Eradication (# acres)	0	\$48.31
No. times scouted/week	1.5	% insect apps by ground	30%	# Scouted Acres	120,000	
% acres Transgenic (Bt) Cotton	100%	No. apps by ground	2	Seed Treatments (arthropods) (# acres)	160,000	
Cost/treated acre (Bt) Cotton	\$10.00	Cost/app by ground	\$5.50	In-Furrow Applications (# acres)	16,000	
% acres with seed treatment	100%	% Loss to weather	8.0%	Applications by Air (acres)	112,000	
Seed trt. cost/ treated acre	\$7.50	% loss to non-arthropods	1.0%	Applications by Ground (acres)	48,000	
% acres with in-furrow	10%	% loss to other (chemical injury, weeds, diseases, etc.)	6.0%	No. acres with no foliar insecticide applications	64,000	

Table 15. Cotton insect loss estimates for Kansas 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	65.0%	104,000	\$65.00	\$10.00	10%	10,400	1.0
Bollgard III	0.0%	0	\$0.00	\$0.00	0%	0	0.0
WideStrike	0.0%	0	\$0.00	\$0.00	0%	0	0.0
WideStrike 3	35.0%	56,000	\$75.00	\$10.00	10%	5,600	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%	160,000	\$68.50	\$10.00	10.0%	16,000	1.0
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
Total Upland Cotton	100.0%	160,000	\$68.50	\$10.00	10.0%	16,000	1.0
Non Upland Cotton							
Pima	0%	0	\$0.00	-	0%	0	0.0
Other	0%	0	\$0.00	-	0%	0	0.0
Organic	0%	0	\$0.00	-	0%	0	0.0
Total (all Cotton)		160,000	\$68.50		10.0%	16,000	1.0