

Table 9. Cotton insect loss estimates for Northeast Arkansas 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	294,000	100.0%	249,900	85.0%	1.5	\$22.00	4.00%	1.28	\$28.16	4.00%	49,000	\$24,743,040	\$84.16	29.8%
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	58,800	20.0%	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	102,900	35.0%	58,800	20.0%	1.0	\$18.00	0.00%	0.20	\$3.60	0.00%	0	\$370,440	\$1.26	0.4%
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	44,100	15.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	294,000	100.0%	294,000	100.0%	4.5	\$20.00	4.10%	4.50	\$90.00	4.10%	50,225	\$43,335,600	\$147.40	52.1%
Cotton Fleahopper	264,600	90.0%	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)	235,200	80.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Brown Stink Bug	235,200	80.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Clouded Plant Bug	147,000	50.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Leaf Footed Bugs	44,100	15.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	235,200	80.0%	117,600	40.0%	2.0	\$20.00	1.80%	0.80	\$16.00	1.40%	17,150	\$9,525,600	\$32.40	11.5%
Thrips	294,000	100.0%	191,100	65.0%	1.0	\$13.00	0.50%	0.65	\$8.45	0.50%	6,125	\$4,542,300	\$15.45	5.5%
Aphids	294,000	100.0%	29,400	10.0%	1.0	\$20.00	0.00%	0.10	\$2.00	0.00%	0	\$588,000	\$2.00	0.7%
Grasshoppers	29,400	10.0%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Banded Winged Whitefly	29,400	10.0%	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	\$0.00	0.00%	0	\$0	\$0.00	0.0%
<b>TOTAL</b>								7.53	\$148.21	10.00%	122,500	\$83,104,980	\$282.67	

**SUMMARY DATA**

Data Input		Yield and Management Results			Economic Results	
State	NE Arkansas	Total Acres	294,000		Total	Per Acre
Region	Mid-South	Total Bales Harvested	765,625		Foliar Insecticide Costs	\$148.21
Year	2018	Total Bales Lost to Insects	122,500		Seed Treatment Costs	\$11.88
Total Acres (Upland)	294,000	In-furrow cost/treated acre	\$19.00		In-Furrow Costs	\$3.80
Yield / Acre (Upland)	1,250	% acres in Boll Weevil Eradication	100%		Scouting Costs	\$10.00
Price / lb	\$0.70	Cost/acre Boll Weevil Eradication	\$3.00		Eradication Costs	\$3.00
yield potential (lb/acre)	2,000	% acres in Pink Bollworm Eradication	0%		Bt Cotton	\$34.13
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00		Total Costs	\$211.01
Yield / Acre (Pima)	0	% Insect apps by air	80%		Yield Loss to Insects	\$140.00
% Acres Scouted	100%	No. apps by air	3.5		Total Losses + Costs	\$351.01
Fee / Scouted Acre	\$10.00	Cost/app by air	\$10.00		Pink Bollworm Eradication (# acres)	0
No. times scouted/week	1.5	% insect apps by ground	100%		# Scouted Acres	294,000
% acres Transgenic (Bt) Cotton	99%	No. apps by ground	4		Seed Treatments (arthropods) (# acres)	279,300
Cost/treated acre (Bt) Cotton	\$34.64	Cost/app by ground	\$7.00		In-Furrow Applications (# acres)	58,800
% acres with seed treatment	95%	% Loss to weather	18.0%		Applications by Air (acres)	235,200
Seed trt. cost/ treated acre	\$12.50	% loss to non-arthropods	5.0%		Applications by Ground (acres)	294,000
% acres with in-furrow	20%	% loss to other (chemical injury, weeds, diseases, etc.)	5.0%		No. acres with no foliar insecticide applications	0

Table 9. Cotton insect loss estimates for Northeast Arkansas 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	92.0%	270,480	\$112.00	\$35.00	85%	229,908	1.5
Bollgard III	1.0%	2,940	\$112.00	\$35.00	0%	0	0.0
WideStrike	3.0%	8,820	\$97.00	\$35.00	100%	8,820	2.0
WideStrike 3	1.0%	2,940	\$112.00	\$35.00	2%	59	0.5
TwinLink	1.0%	2,940	\$112.00	\$35.00	85%	2,499	1.5
TwinLink Plus	0.5%	1,470	\$112.00	\$35.00	0%	0	0.0
<b>Total Bt</b>	<b>98.5%</b>	<b>289,590</b>	<b>\$110.41</b>	<b>\$34.64</b>	<b>83.3%</b>	<b>241,286</b>	<b>1.5</b>
Herbicide Traits Only	0.0%	0	\$0.00	-	0%	0	0.0
Conventional	1.5%	4,410	\$26.00	-	100%	4,410	2.0
Organic	0.0%	0	\$0.00	-	0%	0	0.0
<b>Total Upland Cotton</b>	<b>100.0%</b>	<b>294,000</b>	<b>\$109.14</b>	<b>\$34.64</b>	<b>83.6%</b>	<b>245,696</b>	<b>1.5</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>294,000</b>	<b>\$109.14</b>		<b>83.6%</b>	<b>245,696</b>	<b>1.5</b>