

Table 7. Cotton insect loss estimates for Southeast Arkansas 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	170,000	100%	127,500	75.0%	1.3	\$16.00	3.20%	0.94	\$15.04	3.20%	22,667	\$9,955,309	\$58.56	32.3%
Beet Armyworm	1,700	1%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Fall Armyworm	42,500	25%	3,400	2.0%	1.0	\$16.00	0.00%	0.02	\$0.32	0.00%	0	\$13,600	\$0.08	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	51,000	30%	5,100	3.0%	1.0	\$10.00	0.00%	0.03	\$0.30	0.00%	0	\$15,300	\$0.09	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	17,000	10%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	170,000	100%	170,000	100.0%	4.0	\$15.00	3.00%	4.00	\$60.00	3.00%	21,250	\$17,136,000	\$100.80	55.6%
Cotton Fleahopper	153,000	90%	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)	127,500	75%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Brown Stink Bug	127,500	75%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Clouded Plant Bug	34,000	20%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Leaf Footed Bugs	17,000	10%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	59,500	35%	34,000	20.0%	1.0	\$16.00	0.25%	0.20	\$3.20	0.09%	623	\$393,747	\$2.32	1.3%
Thrips	170,000	100%	119,000	70.0%	1.0	\$11.00	0.70%	0.70	\$7.70	0.70%	4,958	\$2,927,291	\$17.22	9.5%
Aphids	102,000	60%	51,000	30.0%	1.0	\$12.00	0.00%	0.30	\$3.60	0.00%	0	\$367,200	\$2.16	1.2%
Grasshoppers	17,000	10%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Banded Winged Whitefly	17,000	10%	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>								6.19	\$90.16	6.99%	49,498	\$30,808,447	\$181.23	

**SUMMARY DATA**

Data Input		Yield and Management Results			Economic Results			
State	Arkansas	Total Acres	170,000		Total	Per Acre		
Region	MidSouth	Total Bales Harvested	354,167	Foliar Insecticide Costs	\$15,327,200	\$90.16		
Year	2017	Total Bales Lost to Insects	49,498	Seed Treatment Costs	\$2,018,750	\$11.88		
Total Acres (Upland)	170,000	In-furrow cost/treated acre	\$19.00	Percent Yield Loss	7.0%	In-Furrow Costs	\$161,500	\$0.95
Yield / Acre (Upland)	1,000	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	1,075	Scouting Costs	\$1,530,000	\$9.00
Price / lb	\$0.68	Cost/acre Boll Weevil Eradication	\$3.00	Av. # Applications	6.19	Eradication Costs	\$510,000	\$3.00
yield potential (lb/acre)	2,000	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	346,998	Bt Cotton	\$1,584,400	\$9.32
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	49.0%	Total Costs	\$21,131,850	\$124.31
Yield / Acre (Pima)	0	% Insect apps by air	90%	Transgenic Cotton (arthropods) (# acres)	166,600	Yield Loss to Insects	\$16,156,147	\$95.04
% Acres Scouted	100%	No. apps by air	4.5	Boll Weevil Eradication (# acres)	170,000	Total Losses + Costs	\$37,287,997	\$219.34
Fee / Scouted Acre	\$9.00	Cost/app by air	\$7.00	Pink Bollworm Eradication (# acres)	0			
No. times scouted/week	1.5	% insect apps by ground	100%	# Scouted Acres	170,000			
% acres Transgenic (Bt) Cotton	98%	No. apps by ground	3.5	Seed Treatments (arthropods) (# acres)	161,500			
Cost/treated acre (Bt) Cotton	\$9.51	Cost/app by ground	\$6.50	In-Furrow Applications (# acres)	8,500			
% acres with seed treatment	95%	% Loss to weather	25.0%	Applications by Air (acres)	153,000			
Seed trt. cost/ treated acre	\$12.50	% loss to non-arthropods	2.0%	Applications by Ground (acres)	170,000			
% acres with in-furrow	5%	% loss to other (chemical injury, weeds, diseases, etc.)	15.0%	No. acres with no foliar insecticide applications	0			

