Table 7. Cotton insect loss estimates for Arkansas during 2019.

	Acres	% Acres		% Acres	# of apps	Cost of 1	% loss /acre	# of apps/		overall %	Bales lost /		Loss +	% Total
Pest	Infested	Infested	Acres Treated	Treated	/acres treated	application	infested	total acres	cost/acre	reduction	pest	Loss + cost	cost/acre	Loss+Cost
Bollworm/Budworm	610,000	100%	445,300	73.0%	1.3	\$25.78	3.78%	0.96	\$24.85	3.78%	74,554	\$40,313,301	\$66.09	33.4%
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	42,700	7%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Loopers	9,150	2%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Cutworms	134,200	22%	48,800	8.0%	1.0	\$11.16	0.00%	0.08	\$0.89	0.00%	0	\$119,814	\$0.20	0.1%
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	91,500	15%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Lygus	610,000	100%	610,000	100.0%	4.5	\$14.00	3.98%	4.50	\$63.00	3.98%	78,499	\$64,918,658	\$106.42	53.9%
Cotton Fleahopper	420,900	69%	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	427,000	70%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
brown stink bug)														
Brown Stink Bug	427,000	70%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Clouded Plant Bug	323,300	53%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Leaf Footed Bugs	12,200	2%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Spider Mites	439,200	72%	201,300	33.0%	1.4	\$20.00	1.64%	0.45	\$8.98	1.18%	23,289	\$11,801,005	\$19.35	9.8%
Thrips	610,000	100%	109,800	18.0%	1.0	\$13.00	0.00%	0.18	\$2.34	0.00%	0	\$1,427,400	\$2.34	1.2%
Aphids	610,000	100%	97,600	16.0%	1.0	\$20.00	0.00%	0.16	\$3.20	0.00%	0	\$1,952,000	\$3.20	1.6%
Grasshoppers	53,680	9%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Banded Winged	78,080	13%	0	0.0%	0.0	\$0.00	0.00%	0.00	\$0.00	0.00%	0	\$0	\$0.00	0.0%
Whitefly														
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								6.33	\$103.25	8.94%	176,342	\$120,532,177	\$197.59	

SUMMARY DATA

	Data	a Input	Yield and Management Results	Econor	Economic Results			
State	Arkansas			Total Acres	610,000		Total	Per Acre
Region	MidSouth			Total Bales Harvested	1,461,458	Foliar Insecticide Costs	\$62,985,100	\$103.25
Year	2019			Total Bales Lost to Insects	176,342	Seed Treatment Costs	\$7,243,750	\$11.88
Total Acres (Upland)	610,000	In-furrow cost/treated acre	\$15.00	Percent Yield Loss	8.9%	In-Furrow Costs	\$1,098,000	\$1.80
Yield / Acre (Upland)	1,150	% acres in Boll Weevil Eradication	100%	Yield w/o Insects (lb/acre)	1,263	Scouting Costs	\$6,100,000	\$10.00
Price / lb	\$0.70	Cost/acre Boll Weevil Eradication	\$3.00	Av. # Applications	6.33	Eradication Costs	\$1,830,000	\$3.00
yield potential (lb/acre)	1,552	% acres in Pink Bollworm Eradication	0%	Total Bales lost (all factors)	688,979	Bt Cotton	\$21,029,750	\$34.48
Acres (Pima)	0	Cost/acre Pink Bollworm Eradication	\$0.00	Total % yield Loss	34.9%	Total Costs	\$100,286,600	\$164.40
Yield / Acre (Pima)	0	% Insect apps by air	80%	Transgenic Cotton (arthropods) (# acres)	600,850	Yield Loss to Insects	\$59,504,972	\$97.55
% Acres Scouted	100%	No. apps by air	3.5	Boll Weevil Eradication (# acres)	610,000	Total Losses + Costs	\$159,791,572	\$261.95
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	610,000			
% acres Transgenic (Bt) Cotton	99%	No. apps by ground	4.0	Seed Treatments (arthropods) (# acres)	579,500			
Cost/treated acre (Bt) Cotton	\$35.00	Cost/app by ground	\$7.00	In-Furrow Applications (# acres)	73,200			
% acres with seed treatment	95%	% Loss to weather	16.0%	Applications by Air (acres)	488,000			
Seed trt. cost/ treated acre	\$12.50	% loss to non-arthropods	5.0%	Applications by Ground (acres)	610,000			
% acres with in-furrow	12%	% loss to other (chemical injury,	5.0%	No. acres with no foliar insecticide	0			
		weeds, diseases, etc.)		applications				

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	81.5%	497,150	\$112.00	\$35.00	79%	392,749	1.4
Bollgard III	7.0%	42,700	\$112.00	\$35.00	0%	0	0.0
WideStrike	0.0%	0	\$97.00	\$35.00	0%	0	0.0
WideStrike 3	5.0%	30,500	\$112.00	\$35.00	2%	610	0.5
TwinLink	0.0%	0	\$112.00	\$35.00	0%	0	0.0
TwinLink Plus	5.0%	30,500	\$112.00	\$35.00	0%	0	0.0
Total Bt	98.5%	600,850	\$112.00	\$35.00	65.5%	393,359	1.2
Herbicide Traits Only	0.0%	0	\$0.00	-	0%	0	0.0
Conventional	1.5%	9,150	\$26.00	-	100%	9,150	2.0
Organic	0.0%	0	\$0.00	-	0%	0	0.0
Total Upland Cotton	100.0%	610,000	\$110.71	\$35.00	66.0%	402,509	1.2
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)		610,000	\$110.71	-	66.0%	402,509	1.2

Table 7. Cotton insect loss estimates for Arkansas during 2019, continued.