

COTTON INSECT LOSSES - 1997
COMPILED FOR NATIONAL COTTON COUNCIL

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Background

This information was provided by state coordinators and was collected from surveys of county agents, extension specialists, private consultants and research entomologists. **All data are averaged over a total reporting unit**, state, etc. For example, if a unit report represents 100 acres and an 8% loss on 25 of these acres, then in the table summary this shows up as a 2% loss. $((.08 \times 25)/100)$. This type of averaging is used for all data reported including yields and costs of control. Because of averaging and rounding some individual state summary numbers listed as '0' are slightly larger. Cost are averaged to the nearest cent, bales and acres to the nearest whole number, other numbers are rounded to the nearest .001. Bales are calculated at 480 pounds, and a cost of \$0.65 per pound of lint is used in figuring costs.

Highlights

Arthropod pests reduced overall yield by 9.42% in 1997. The boll weevil, even though it is absent from 9 states, is the number one pest of cotton in 1997 causing 4.02% loss. Only 58% of US acreage is reported infested by boll weevils. Seventy-nine percent (79%) of the US cotton acreage was infested with bollworm/budworm in 1997, with a 2.01% reduction in yield from this pest complex. The bollworm (*H. zea*) made up 78% of the population. The

2.27 million acres of Bt cotton in 1997, along with boll weevil eradication in the southeast have brought shifts in pests and reduced the effect of the tobacco budworm (*H. virescens*). *Lygus* (0.91%), aphids (0.75%), and thrips (0.47%) complete the the top five insect pests of 1997. Stink bugs (0.23%) and fall armyworms (0.195%) also contributed heavily to losses in some areas. Total cost of management and loss to insects to the 1997 crop was \$1.63 billion or \$121.04 per acre. Of those costs approximately \$63 are direct insect management costs and the other \$58 are loss in yield.

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Explanation of Tables

In an attempt at capturing as many of the costs of insect management as possible, the Cotton Insect Losses estimates have changed in the last few years. They were begun as a simple attempt to arrive at the 'average cost of spraying insecticide' for control of cotton arthropod pests. We still attempt to arrive at the most accurate estimate possible for

spray activities, but have also added some of the other costs which are incurred in cotton insect pest management. These 'additional' costs increase the bottom line of expenditures for arthropod pest management - but also more accurately reflect true expenditures. We have added 'at planting insecticide costs,' 'Bt cotton costs,' 'eradication costs' and

new this year 'scouting costs' to the traditional 'foliar insecticide costs.' Bales lost are also given a dollar value using 480 pound bales at \$0.65 per pound. Remember, these are estimates and may not totally reflect an individual farm or area, but they do reflect trends and serve as a general comparison.

State	upland Cotton			Cotton yields pounds per acre		
	Acres Planted	Acres harvested	Est. Yield *	November	December	1996
Alabama	420000	420000	627	571	571	734
Arizona	329000	329000	1250	1196	1196	1189
Arkansas	930000	930000	880	846	846	793
California	1061790	875000	1201	1207	1207	1153
Florida	100000	100000	720	720	720	637
Georgia	1435000	1435000	662	686	662	747
Kansas	15000	13500	N/R	480	480	492
Louisiana	625877	625000	725	730	760	697
Mississippi	962585	960000	863	880	900	819
Missouri	375000	375000	752	684	704	737
New Mexico	66000	66000	714	669	640	733
North Carolina	695000	675000	595	569	604	677
Oklahoma	210000	210000	525	503	503	306
South Carolina	290000	285000	675	674	674	774
Tennessee	510000	500000	654	634	634	611
Texas	5390753	5300000	486	489	480	509
Virginia	101000	99000	675	601	601	748
total US	13517005	13197500	673	665	665	701
	Pima	Pima		Pima	Pima	Pima
Arizona	20000	20000		960	960	852
California	184000	184000		1096	1096	1098
New Mexico	13000	13000		628	628	651
Texas	32000	32000		840	840	801
total US	249000	249000		1027	1027	991
	all cotton	all cotton		all cotton	all cotton	all cotton
TOTAL US	13766005	13446500		672	672	707

From: USDA Agricultural Statistics Service, January, 1998 *estimates from: losses Coordinators

State	Number acres	Weighted Avg Cost	Cost/Treated Acre	Total Cost
Alabama, North	125000	\$10.50	\$10.50	\$1,312,500
Alabama, Central	78000	\$10.24	\$10.50	\$819,000
Alabama, South	200000	\$10.24	\$10.50	\$2,100,000
Arizona	70000	\$3.40	\$16.00	\$1,120,000
Arkansas, Southeast	292000	\$8.00	\$10.00	\$2,920,000
Arkansas, Northeast	463300	\$6.56	\$8.00	\$3,706,400
California, SJV	100000	\$1.43	\$15.00	\$1,500,000
California, Sacramento Valley	7000	\$13.16	\$20.00	\$140,000
Florida	95000	\$11.78	\$12.40	\$1,178,000
Georgia	1250000	\$8.71	\$10.00	\$12,500,000
Louisiana	440750	\$7.18	\$10.20	\$4,495,645
Mississippi, Delta	484986	\$8.50	\$10.90	\$5,286,347
Mississippi, Hills	250097	\$6.32	\$8.63	\$2,158,337
Missouri	354632	\$10.92	\$11.39	\$4,039,258
New Mexico	45000	\$6.48	\$9.50	\$427,500
North Carolina	639000	\$12.87	\$14.00	\$8,946,000
Oklahoma	75000	\$3.24	\$8.00	\$600,000
South Carolina	275000	\$14.22	\$15.00	\$4,125,000
Tennessee	413000	\$9.31	\$11.50	\$4,749,500
Texas, North Central	78000	\$2.10	\$7.00	\$546,000
Texas, North Rolling Plains	35000	\$0.59	\$6.44	\$225,400
Texas, High Plains	1350000	\$2.60	\$6.55	\$8,842,500
Texas, Coastal Bend	95888	\$1.51	\$6.85	\$656,833
Texas, Southern Rolling Plains	1650	\$0.04	\$8.50	\$14,025
Texas, Lower Rio Grande	15000	\$0.56	\$6.00	\$90,000
Texas, Southern Blacklands	50000	\$4.61	\$6.00	\$300,000
Texas, Far West	0	\$0.00	\$0.00	\$0
Virginia	100000	\$13.86	\$14.00	\$1,400,000
Total US	7383303	\$5.52	\$10.05	\$74,198.2

State	Number Acres	Cost/Acre	Wt cost/acre	Total Cost
Alabama, North	125000	\$10.30	\$10.30	\$1,287,500
Alabama, Central	80000	\$19.25	\$19.25	\$1,540,000
Alabama, South	205000	\$5.00	\$5.00	\$1,025,000
Arizona	329000	\$1.79	\$1.79	\$588,910
Arkansas	4989	\$5.00	\$0.03	\$24,945
Florida	100000	\$5.00	\$5.00	\$500,000
Georgia	1435000	\$5.00	\$5.00	\$7,175,000
Louisiana	72898	\$10.00	\$1.16	\$728,983
Mississippi	341812	\$23.43	\$8.32	\$8,008,655
Missouri	0	\$0.00	\$0.00	\$0
New Mexico	28500	\$2.29	\$0.99	\$65,265
North Carolina	695000	\$3.60	\$3.60	\$2,502,000
Oklahoma	0	\$0.00	\$0.00	\$0
South Carolina	290000	\$5.50	\$5.50	\$1,595,000
Tennessee	7800	\$19.50	\$0.30	\$152,100
Texas, summary	766288	\$13.47	\$1.92	\$10,325,184
Texas, North Rolling Plains	132000	\$10.00	\$3.46	\$1,320,000
Texas, Coastal Bend	274288	\$18.00	\$11.33	\$4,937,184
Texas, Southern Rolling Plains	360000	\$11.30	\$11.30	\$4,068,000
Virginia	101000	\$3.35	\$3.35	\$338,350
Total US - Boll Weevil	4582287	\$7.83	\$2.89	\$35,856,892
California **PINK BOLLWORM	1061790	\$4.30	\$0.34	\$4,565,697
Total US - Cotton Insect Eradication	5644077	\$7.16	\$3.00	\$40,422,589

State	Number acres	Bt cost/Acre	Seed Cost	Average/all Acres	Total Cost
Alabama	285500	\$32.00	\$1.50	\$23.33	\$9,564,250
Arizona	200000	\$32.00	\$1.68	\$20.47	\$6,736,000
Arkansas	116400	\$32.00	\$1.20	\$4.16	\$3,864,480
California	0	\$0.00	\$0.00	\$0.00	\$0
Florida	60000	\$32.00	\$10.00	\$25.20	\$2,520,000
Georgia	550000	\$32.00	\$1.00	\$12.65	\$18,150,000
Louisiana	238709	\$32.00	\$1.38	\$12.73	\$7,968,120
Mississippi	413303	\$32.00	\$1.50	\$14.38	\$13,845,651
Missouri	3700	\$32.00	\$8.00	\$0.40	\$148,000
New Mexico	4200	\$32.00	\$2.16	\$2.17	\$143,472
North Carolina	21027	\$32.00	\$1.60	\$1.02	\$706,507
Oklahoma	16000	\$32.00	\$1.00	\$2.85	\$528,000
South Carolina	90000	\$32.00	\$1.00	\$10.24	\$2,970,000
Tennessee	15000	\$32.00	\$1.50	\$0.99	\$502,500
Texas	257785	\$32.00	\$3.65	\$1.70	\$9,189,694
Virginia	200	\$32.00	\$8.00	\$0.08	\$8,000
Total US	2271824	\$32.00	\$1.82	\$5.71	\$76,844,674

State	% Treated by	Cost/Acre by	% Treated by	Cost/Acre by	Average #	Average #
	air	air	ground	ground	air	ground
Alabama, North	20	\$2.75	80	\$1.65	2.000	2.000
Alabama, Central	10	\$3.00	90	\$2.50	1.000	1.500
Alabama, South	30	\$3.00	70	\$2.50	2.000	3.000
Arizona	97	\$4.08	100	\$5.13	4.880	1.750
Arkansas, Northeast	50	\$3.25	100	\$1.60	1.500	2.000
Arkansas, Southeast	65	\$3.50	100	\$1.60	5.000	3.000
California, San Joaquin Valley	30	\$10.00	70	\$8.00	1.000	2.000
California, Sacramento Valley	25	\$10.00	75	\$8.00	3.000	3.000
Florida	69	\$4.00	31	\$3.00	2.700	2.700
Georgia	50	\$3.50	75	\$3.00	3.000	4.000
Louisiana	90	\$2.79	70	\$1.99	5.200	3.620
Mississippi Delta	63	\$2.76	35	\$2.11	0.941	1.692
Mississippi Hills	51	\$2.47	45	\$1.86	1.336	0.948
Missouri	41	\$3.90	87	\$4.09	1.440	1.640
New Mexico	95	\$4.28	2	\$0.14	2.000	0.950
North Carolina	20	\$5.00	80	\$2.75	1.900	2.400
Oklahoma	80	\$2.40	20	\$0.60	1.216	4.054
South Carolina	40	\$4.00	70	\$3.75	4.000	4.000
Tennessee	30	\$3.50	86	\$3.00	1.000	2.500
Texas, Coastal Bend	28	\$3.00	72	\$2.00	1.600	4.200
Texas, Far West	85	\$11.90	15	\$8.00	2.000	2.000
Texas, High Plains	60	\$3.75	40	\$3.25	3.000	2.500
Texas, Lower Rio Grande	60	\$3.00	40	\$1.75	2.600	1.700
Texas, North Central	40	\$2.75	60	\$2.60	2.000	2.000
Texas, North Rolling Plains	68	\$3.50	24	\$1.50	1.400	1.100
Texas, Southern Blacklands	90	\$2.00	5	\$1.75	12.000	6.000
Texas, South Rolling Plains	20	\$3.35	80	\$3.35	0.250	0.660
Virginia	10	\$0.65	90	\$4.05	0.594	3.366
US AVERAGE	57	\$3.48	61	\$2.51	1.623	1.541

State	Acres Scouted	Times per week	wt Avg Cost	Cost/scouted acre	Total Cost
		Scouted	over all acres		
Alabama	328750	1.790	\$5.50	\$6.86	\$2,254,375
Arizona	322420	1.950	\$8.72	\$8.90	\$2,869,538
Arkansas	841636	1.390	\$6.14	\$6.78	\$5,705,816
California	851559	2.000	\$6.42	\$8.00	\$6,812,472
Florida	80000	1.800	\$6.96	\$8.70	\$696,000
Georgia	1248450	1.750	\$7.60	\$7.60	\$9,488,220
Louisiana	563289	1.660	\$7.20	\$8.00	\$4,506,313
Mississippi	861451	1.740	\$5.44	\$6.08	\$5,240,824
Missouri	329448	2.000	\$5.08	\$5.70	\$1,877,854
New Mexico	34000	1.000	\$3.86	\$7.50	\$255,000
North Carolina	625000	1.000	\$4.50	\$5.00	\$3,125,000
Oklahoma	150000	1.500	\$4.05	\$5.00	\$750,000
South Carolina	270000	1.300	\$7.45	\$8.00	\$2,160,000
Tennessee	321000	1.000	\$3.34	\$5.30	\$1,701,300
Texas	1859286	1.188	\$1.69	\$4.89	\$9,091,025
Virginia	40000	1.500	\$3.37	\$8.50	\$340,000
US AVERAGE	8726290	1.528	\$4.22	\$6.52	\$56,873,735

Table 7 **US Summary** Cotton Insect Losses 1997

Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost
Boll weevil	7762858	5691476	1.332	6.49	8.48	4.020	1074651
Bollworm/budworm	10590368	6900232	1.208	9.95	12.01	2.007	536618
Pink Bollworm	483724	147432	0.026	10.77	0.29	0.132	35292
Cotton Fleahopper	5115466	1769078	0.170	4.74	0.85	0.393	105150
Lygus	6881843	3564777	0.462	9.82	4.03	0.905	241801
Cotton Leaf Perforator	171000	1200	0.000	14.34	0.00	0.000	0
Spider Mites	1728186	932560	0.103	18.34	1.89	0.136	36351
Thrips, early season	10642753	2436115	0.206	4.69	0.97	0.470	125538
Beet Armyworm	2005770	506324	0.047	12.80	0.62	0.055	14715
Fall Armyworm	2563416	631419	0.070	11.80	0.84	0.195	52118
European Cornborer	524020	7925	0.000	7.01	0.00	0.017	4537
Stink Bugs	2716879	637855	0.053	7.49	0.39	0.233	62156
Grasshoppers	825910	202000	0.017	8.85	0.15	0.010	2598
Saltmarsh Caterpillars	215295	9000	0.001	10.24	0.01	0.000	12
Aphids	9135666	2601280	0.277	13.19	4.23	0.751	200845
Bandedwing Whitefly	1022243	19583	0.001	7.36	0.01	0.005	1421
Sweet Potato Whitefly	750595	431400	0.061	31.09	1.88	0.081	21786
Soybean Loopers	899148	47356	0.003	9.65	0.03	0.000	0
Cabbage Loopers	564330	14604	0.001	6.43	0.01	0.002	620
Western Flower Thrips	1004233	0	0.000	n/a	0.00	0.000	0
Cutworms	796538	287801	0.016	4.14	0.063	0.008	2243
			est. yield/acre	673		foliar insecticide	Cost/ Acre
Percent Lost	9.42					at planting	\$36.75
Total Acres	13462005		cost + loss	\$1,495,022,107		Bt use fees	\$5.51
Acres Harvested	13362436		cost + loss/acre	\$111.05		eradication	\$1.95
Total Bales lost	2518453					scouting	\$2.68
Bales lost in dollars	\$785,757,451					Total	\$52.69

Table 8 **Alabama Summary** Cotton Insect Losses 1997

Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost
Boll weevil	0	0	0.000	n/a	0.00	0.000	0
Bollworm/budworm	410000	185000	0.500	9.00	4.50	3.154	30260
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0
Cotton Fleahopper	122000	0	0.000	n/a	0.00	0.000	0
Lygus	410000	171000	0.187	5.50	1.03	2.854	27385
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0
Spider Mites	20000	0	0.000	n/a	0.00	0.025	244
Thrips, early season	410000	109000	0.183	4.00	0.73	0.869	8336
Beet Armyworm	34000	2000	0.005	14.00	0.07	0.000	0
Fall Armyworm	382000	123000	0.600	15.00	9.00	0.626	6008
European Cornborer	25000	2000	0.000	n/a	0.00	0.000	0
Stink Bugs	385000	193000	0.419	7.00	2.93	1.568	15044
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0
Aphids	410000	17000	0.024	9.98	0.24	0.517	4964
Bandedwing Whitefly	265000	0	0.000	n/a	0.00	0.000	0
Sweet Potato Whitefly	5000	0	0.000	n/a	0.00	0.000	0
Soybean Loopers	21000	2000	0.005	14.00	0.07	0.000	0
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0
Western Flower Thrips	125000	0	0.000	n/a	0.00	0.000	0
Cutworms	38000	21000	0.002	7.96	0.02	0.002	0
			est. yield/acre	627		foliar insecticide	Cost/ Acre
Percent Lost	9.61					at planting	\$18.59
Total Acres	410000					Bt use fees	\$10.32
Harvested acres	405000		cost + loss	\$56,302,953		eradication	\$23.33
Total Bales lost	92241.15		cost + loss/acre	\$137.32		scouting	\$9.40
Bales lost in dollars	\$28,779,238					Total	\$5.50
							\$67.13

Table 8a		North Alabama			Cotton Insect Losses 1997			
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	0	0	0.000	n/a	0.00	0.000	0	
Bollworm/budworm	125000	70000	0.560	9.00	5.04	1.000	3047	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	0	0	0.000	n/a	0.00	0.000	0	
Lygus	125000	100000	1.600	4.80	7.68	5.000	15234	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	20000	0	0.000	n/a	0.00	0.080	244	
Thrips, early season	125000	30000	0.240	3.00	0.72	2.000	6094	
Beet Armyworm	30000	0	0.000	n/a	0.00	0.000	0	
Fall Armyworm	125000	0	0.000	n/a	0.00	0.500	1523	
European Cornborer	5000	2000	0.016	10.00	0.16	0.000	0	
Stink Bugs	100000	0	0.000	n/a	0.00	0.000	0	
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	125000	5000	0.040	11.00	0.44	1.000	3047	
Bandedwing Whitefly	125000	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	125000	0	0.000	n/a	0.00	0.000	0	
Cutworms	35000	20000	0.160	5.00	0.80	0.000	0	
							Cost/ Acre	
Percent Lost	9.58	est. yield/acre		585	foliar insecticide		\$14.84	
Total Acres	125000				at planting		\$10.50	
Harvested acres	125000	cost + loss		\$17,558,238	Bt use fees		\$26.13	
Total Bales lost	29189	cost + loss/acre		\$140.47	eradication		\$10.30	
Bales lost in dollars	\$9,106,988				scouting		\$5.84	
							Total	\$67.61

Table 8b		Central Alabama			Cotton Insect Losses 1997			
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	0	0	0.000	n/a	0.00	0.000	0	
Bollworm/budworm	80000	12500	0.156	9.00	1.41	2.500	4792	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	40000	0	0.000	n/a	0.00	0.000	0	
Lygus	80000	20000	0.250	5.50	1.38	4.000	7667	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	0	0	0.000	n/a	0.00	0.000	0	
Thrips, early season	80000	4000	0.050	4.00	0.20	0.000	0	
Beet Armyworm	0	0	0.000	n/a	0.00	0.000	0	
Fall Armyworm	52000	0	0.000	n/a	0.00	0.000	0	
European Cornborer	0	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	80000	50000	0.625	6.00	3.75	2.000	3833	
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	80000	2000	0.025	10.00	0.25	1.000	1917	
Bandedwing Whitefly	40000	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	1000	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	0	0	0.000	n/a	0.00	0.000	0	
							Cost/ Acre	
Percent Lost	9.50	est. yield/acre		700	foliar insecticide		\$6.98	
Total Acres	80000				at planting		\$10.24	
Harvested acres	80000	cost + loss		\$11,401,500	Bt use fees		\$28.48	
Total Bales lost	18208.33	cost + loss/acre		\$142.52	eradication		\$19.25	
Bales lost in dollars	\$5,681,000				scouting		\$6.56	
							Total	\$71.51

Table 8c		South Alabama				Cotton Insect Losses 1997	
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost
Boll weevil	0	0	0.000	n/a	0.00	0.000	0
Bollworm/budworm	205000	102500	1.000	9.00	9.00	5.000	22422
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0
Cotton Fleahopper	82000	0	0.000	n/a	0.00	0.000	0
Lygus	205000	51000	0.373	5.50	2.05	1.000	4484
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0
Spider Mites	0	0	0.000	n/a	0.00	0.000	0
Thrips, early season	205000	75000	0.366	4.00	1.46	0.500	2242
Beet Armyworm	4000	2000	0.010	14.00	0.14	0.000	0
Fall Armyworm	205000	123000	1.200	15.00	18.00	1.000	4484
European Cornborer	20000	0	0.000	n/a	0.00	0.000	0
Stink Bugs	205000	143000	0.837	7.00	5.86	2.500	11211
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0
Aphids	205000	10000	0.049	10.00	0.49	0.000	0
Bandedwing Whitefly	100000	0	0.000	n/a	0.00	0.000	0
Sweet Potato Whitefly	5000	0	0.000	n/a	0.00	0.000	0
Soybean Loopers	20000	2000	0.010	14.00	0.14	0.000	0
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0
Cutworms	3000	1000	0.005	8.00	0.04	0.000	0

						Cost/ Acre	
Percent Lost	10.00	est. yield/acre	625	foliar insecticide			\$37.18
Total Acres	205000			at planting			\$10.24
Harvested Acres	200000	cost + loss	\$29,756,575	Bt use fees			\$19.61
Total Bales lost	44844	cost + loss/acre	\$145.15	eradication			\$5.00
Bales Lost in Dollars	\$13,991,250			scouting			\$4.88
				Total			\$76.90

Table 9		Arizona				Cotton Insect Losses 1997	
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost
Boll weevil	0	0	0.000	n/a	0.00	0.000	0
Bollworm/budworm	140000	34000	0.155	12.57	1.95	0.043	438
Pink Bollworm	320000	100000	0.912	12.05	10.99	2.626	27000
Cotton Fleahopper	329000	10000	0.030	9.41	0.29	0.000	0
Lygus	329000	300000	2.097	17.96	37.67	2.630	27040
Cotton Leaf Perforator	70000	1200	0.004	14.34	0.05	0.000	0
Spider Mites	12000	1200	0.004	18.00	0.07	0.000	0
Thrips, early season	329000	66000	0.201	8.97	1.80	0.000	0
Beet Armyworm	250000	25000	0.076	18.24	1.39	0.000	0
Fall Armyworm	0	0	0.000	n/a	0.00	0.000	0
European Cornborer	0	0	0.000	n/a	0.00	0.000	0
Stink Bugs	100000	10000	0.030	15.00	0.46	0.030	313
Grasshoppers	20000	0	0.000	n/a	0.00	0.000	0
Saltmarsh Caterpillars	60000	4000	0.012	12.05	0.15	0.000	0
Aphids	250000	500	0.002	14.05	0.02	0.000	0
Bandedwing Whitefly	250000	0	0.000	n/a	0.00	0.000	0
Sweet Potato Whitefly	310000	280000	1.813	29.08	52.72	1.027	10559
Soybean Loopers	200000	0	0.000	n/a	0.00	0.000	0
Cabbage Loopers	25000	0	0.000	n/a	0.00	0.000	0
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0
Cutworms	2000	0	0.000	n/a	0.00	0.000	0

						Cost/ Acre	
Percent Lost	6.36	est. yield/acre	1250	foliar insecticide			\$107.53
Harvested Acres	329000			at planting			\$3.40
Total Acres	329000	cost + loss	\$67,081,291	Bt use fees			\$20.47
Total Bales lost	65349	cost + loss/acre	\$203.89	eradication			\$1.79
Bales lost in dollars	\$20,388,908			scouting			\$8.72
				Total			\$141.92

Table 10		Arkansas				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	725000	585000	2.043	7.15	14.61	1.560	36260	
Bollworm/budworm	878600	712250	1.626	9.70	15.77	2.670	62078	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	0	0	0.000	n/a	0.00	0.000	0	
Lygus	873500	612000	1.074	6.33	6.80	1.195	27779	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	214750	48900	0.092	16.71	1.54	0.073	1692	
Thrips, early season	930000	168400	0.181	4.05	0.73	0.991	23042	
Beet Armyworm	0	0	0.000	n/a	0.00	0.000	0	
Fall Armyworm	88775	16050	0.017	16.22	0.28	0.041	946	
European Cornborer	40000	2500	0.003	10.80	0.03	0.000	0	
Stink Bugs	91250	2000	0.002	6.60	0.01	0.000	0	
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	10000	0	0.000	n/a	0.00	0.000	0	
Aphids	348500	56500	0.061	8.09	0.49	0.029	677	
Bandedwing Whitefly	15000	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	18000	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	16000	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	211200	75000	0.081	2.96	0.24	0.045	1058	
							Cost/ Acre	
Percent Lost	6.60	est. yield/acre		880	foliar insecticide		\$40.50	
Harvested Acres	930000				at planting		\$7.13	
Total Acres	930000	cost + loss		\$101,793,299	Bt use fees		\$4.16	
Total Bales lost	153533	cost + loss/acre		\$109.46	eradication		\$0.03	
Bales lost in dollars	\$47,902,155				scouting		\$6.14	
							Total	\$57.95

Table 10a		Northeast Arkansas				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	360000	220000	0.779	7.65	5.96	1.274	17250	
Bollworm/budworm	513600	367250	0.845	8.35	7.06	3.182	43068	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	0	0	0.000	n/a	0.00	0.000	0	
Lygus	508500	282000	0.599	6.00	3.59	1.350	18274	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	84750	33900	0.120	17.75	2.13	0.075	1015	
Thrips, early season	565000	102700	0.182	4.05	0.74	1.000	13536	
Beet Armyworm	0	0	0.000	n/a	0.00	0.000	0	
Fall Armyworm	39500	15050	0.027	16.20	0.43	0.070	946	
European Cornborer	0	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	0	0	0.000	n/a	0.00	0.000	0	
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	56500	34500	0.061	8.25	0.50	0.050	677	
Bandedwing Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	101700	25000	0.044	2.87	0.13	0.036	487	
							Cost/ Acre	
Percent Lost	7.04	est. yield/acre		860	foliar insecticide		\$20.54	
Harvested Acres	565000				at planting		\$6.56	
Total Acres	565000	cost + loss		\$48,189,582	Bt use fees		\$0.14	
Total Bales lost	95254	cost + loss/acre		\$85.29	eradication		\$0.00	
Bales lost in dollars	\$29,719,217				scouting		\$5.45	
							Total	\$32.69

Table 10b		Southeast Arkansas				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	365000	365000	4.000	7.00	28.00	2.000	19010	
Bollworm/budworm	365000	345000	2.836	10.32	29.26	2.000	19010	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	0	0	0.000	n/a	0.00	0.000	0	
Lygus	365000	330000	1.808	6.50	11.75	1.000	9505	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	130000	15000	0.049	12.80	0.63	0.071	677	
Thrips, early season	365000	65700	0.180	4.05	0.73	1.000	9505	
Beet Armyworm	0	0	0.000	n/a	0.00	0.000	0	
Fall Armyworm	49275	1000	0.003	16.45	0.05	0.000	0	
European Cornborer	40000	2500	0.007	10.80	0.07	0.000	0	
Stink Bugs	91250	2000	0.005	6.60	0.04	0.000	0	
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	10000	0	0.000	n/a	0.00	0.000	0	
Aphids	292000	22000	0.060	7.85	0.47	0.000	0	
Bandedwing Whitefly	15000	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	18000	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	16000	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	109500	50000	0.137	3.00	0.41	0.060	570	
							Cost/ Acre	
Percent Lost	6.13		est. yield/acre	910		foliar insecticide	\$71.42	
Harvested Acres	365000					at planting	\$8.00	
Total Acres	365000		cost + loss	\$53,603,717		Bt use fees	\$10.37	
Total Bales lost	58279		cost + loss/acre	\$146.86		eradication	\$0.07	
Bales lost in dollars	\$18,182,938					scouting	\$7.19	
						Total	\$97.04	

Table 11		California				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	0	0	0.000	n/a	0.00	0.000	0	
Bollworm/budworm	50750	500	0.000	15.00	0.01	0.000	0	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	0	0	0.000	n/a	0.00	0.000	0	
Lygus	910000	385000	0.367	34.62	12.71	1.798	56934	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	902000	752000	1.061	20.00	21.23	0.854	27037	
Thrips, early season	0	0	0.000	n/a	0.00	0.000	0	
Beet Armyworm	400000	200000	0.283	15.00	4.24	0.379	12000	
Fall Armyworm	0	0	0.000	n/a	0.00	0.000	0	
European Cornborer	0	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	0	0	0.000	n/a	0.00	0.000	0	
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	908000	808000	1.518	25.00	37.95	3.425	108440	
Bandedwing Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	350000	150000	0.212	35.00	7.42	0.332	10500	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	0	0	0.000	n/a	0.00	0.000	0	
							Cost/ Acre	
Percent Lost	6.79					foliar insecticide	\$83.56	
Total Acres	1061790		est. yield/acre	1201		at planting	\$1.54	
Acres Harvested	1061790					Bt use fees	\$0.00	
Total Bales lost	214911		cost + loss	\$168,792,882		eradication	\$4.30	
Bales lost in dollars	\$67,052,213		cost + loss/acre	\$158.97		scouting	\$6.42	
						Total	\$95.82	

Table 11a		California, San Joaquin Valley				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll Weevil	0	0	0.000	n/a	0.00	0.000	0	
Bollworm/budworm	50000	0	0.000	n/a	0.00	0.000	0	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	0	0	0.000	n/a	0.00	0.000	0	
Lygus	900000	375000	0.357	35.00	12.49	1.712	54000	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	900000	750000	1.070	20.00	21.41	0.856	27000	
Thrips, early season	0	0	0.000	n/a	0.00	0.000	0	
Beet Armyworm	400000	200000	0.285	15.00	4.28	0.381	12000	
Fall Armyworm	0	0	0.000	n/a	0.00	0.000	0	
European Cornborer	0	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	0	0	0.000	n/a	0.00	0.000	0	
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	900000	800000	1.522	25.00	38.05	3.425	108000	
Bandedwing Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	350000	150000	0.214	35.00	7.49	0.333	10500	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	0	0	0.000	n/a	0.00	0.000	0	
							Cost/ Acre	
Percent Lost	6.71	est. yield/acre		1200	foliar insecticide		\$83.72	
Total Acres	1051155				at planting		\$1.43	
Acres Harvested	1051155	cost + loss		\$166,735,358	Bt use fees		\$0.00	
Total Bales lost	211500	cost + loss/acre		\$158.62	eradication		\$4.30	
Bales lost in dollars	\$65,988,000				scouting		\$6.40	
							Total	\$95.84

Table 11b		California, Sacramento Valley				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	0	0	0.000	n/a	0.00	0.000	0	
Bollworm/budworm	750	500	0.047	15.00	0.71	0.000	0	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	0	0	0.000	n/a	0.00	0.000	0	
Lygus	10000	10000	1.410	25.00	35.26	7.525	2934	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	2000	2000	0.188	20.00	3.76	0.094	37	
Thrips, early season	0	0	0.000	n/a	0.00	0.000	0	
Beet Armyworm	0	0	0.000	n/a	0.00	0.000	0	
Fall Armyworm	0	0	0.000	n/a	0.00	0.000	0	
European Cornborer	0	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	0	0	0.000	n/a	0.00	0.000	0	
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	8000	8000	1.128	25.00	28.21	1.128	440	
Bandedwing Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	0	0	0.000	n/a	0.00	0.000	0	
							Cost/ Acre	
Percent Lost	8.75	est. yield/acre		1250	foliar insecticide		\$67.94	
Total Acres	10635				at planting		\$13.16	
Acres Harvested	10635	cost + loss		\$2,057,523	Bt use fees		\$0.00	
Total Bales lost	3411	cost + loss/acre		\$193.47	eradication		\$4.30	
Bales lost in dollars	\$1,064,213				scouting		\$8.00	
							Total	\$93.40

Table 12		Florida				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	300	0	0.000	n/a	0.00	0.000	0	
Bollworm/budworm	100000	65200	0.952	10.75	10.23	4.320	8460	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	5000	0	0.000	n/a	0.00	0.000	0	
Lygus	97000	70500	0.705	1.25	0.88	1.940	3799	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	0	0	0.000	n/a	0.00	0.000	0	
Thrips, early season	100000	27730	0.277	6.20	1.72	0.400	783	
Beet Armyworm	100	0	0.000	n/a	0.00	0.000	0	
Fall Armyworm	63700	16000	0.160	15.70	2.51	0.701	1372	
European Cornborer	500	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	30000	22000	0.220	6.25	1.38	0.261	511	
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	100000	7000	0.070	5.75	0.40	0.400	783	
Bandedwing Whitefly	20000	5000	0.050	n/a	0.55	0.030	59	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	0	0	0.000	n/a	0.00	0.000	0	

						Cost/ Acre	
Percent Lost	8.05	est. yield/acre	720	foliar insecticide			\$17.67
Harvested Acres	99000			at planting			\$11.78
Total Acres	100000	cost + loss	\$11,580,904	Bt use fees			\$25.20
Total Bales lost	15768	cost + loss/acre	\$115.81	eradication			\$5.00
Bales lost in dollars	\$4,919,589			scouting			\$6.96
				Total			\$66.61

Table 13		Georgia				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	0	0	0.000	n/a	0.00	0.000	0	
Bollworm/budworm	1350000	1100000	2.530	10.00	25.30	2.452	73294	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	0	0	0.000	n/a	0.00	0.000	0	
Lygus	600000	200000	0.139	6.00	0.84	0.209	6250	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	25000	5000	0.003	10.00	0.03	0.000	0	
Thrips, early season	1300000	150000	0.105	5.00	0.52	0.000	0	
Beet Armyworm	400000	150000	0.105	10.00	1.05	0.000	0	
Fall Armyworm	1000000	300000	0.314	10.00	3.14	0.448	13383	
European Cornborer	0	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	750000	200000	0.209	7.00	1.46	0.923	27594	
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	600000	25000	0.017	7.00	0.12	0.000	0	
Bandedwing Whitefly	100000	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	5000	1000	0.001	15.00	0.02	0.017	521	
Soybean Loopers	200000	25000	0.017	12.00	0.21	0.000	0	
Cabbage Loopers	100000	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	20000	5000	0.003	7.00	0.02	0.000	0	

						Cost/ Acre	
Percent Lost	4.05	est. yield/acre	662	foliar insecticide			\$32.71
Harvested Acres	1435000			at planting			\$8.71
Total Acres	1435000	cost + loss	\$132,028,851	Bt use fees			\$12.65
Total Bales lost	121042	cost + loss/acre	\$92.01	eradication			\$5.00
Bales lost in dollars	\$37,765,000			scouting			6.62
				Total			\$65.69

Table 14		Louisiana				Cotton Insect Losses 1997	
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost
Boll weevil	623200	608074	3.838	5.37	20.61	2.997	36474
Bollworm/budworm	591114	553047	3.225	10.27	33.12	1.870	22758
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0
Cotton Fleahopper	97463	24045	0.046	4.32	0.20	0.030	360
Lygus	539619	480703	2.389	5.29	12.64	1.612	19621
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0
Spider Mites	65766	4648	0.006	8.96	0.05	0.003	38
Thrips, early season	617650	289792	0.532	3.83	2.04	0.691	8407
Beet Armyworm	128437	28172	0.040	9.18	0.37	0.068	824
Fall Armyworm	70557	8965	0.009	9.05	0.08	0.006	69
European Cornborer	0	0	0.000	n/a	0.00	0.000	0
Stink Bugs	27976	436	0.000	1.15	0.00	0.001	16
Grasshoppers	654	0	0.000	n/a	0.00	0.000	0
Saltmarsh Caterpillars	73395	0	0.000	n/a	0.00	0.000	0
Aphids	327911	135538	0.238	9.72	2.32	0.131	1594
Bandedwing Whitefly	21658	3135	0.002	3.83	0.01	0.000	0
Sweet Potato Whitefly	1595	0	0.000	n/a	0.00	0.000	0
Soybean Loopers	208026	5956	0.007	5.66	0.04	0.010	121
Cabbage Loopers	123527	4604	0.003	2.30	0.01	0.000	0
Western Flower Thrips	243180	0	0.000	n/a	0.00	0.000	0
Cutworms	106562	69257	0.094	2.72	0.26	0.003	41

				Cost/ Acre	
Percent Lost	7.42	est. yield/acre	740	foliar insecticide	\$71.73
Total Acres	625877			at planting	\$7.20
Harvested Acres	625877	cost + loss	\$90,786,071	Bt use fees	\$12.73
Total Bales lost	90323	cost + loss/acre	\$145.05	eradication	\$1.16
Bales lost in dollars	\$28,180,910			scouting	\$7.20
				Total	\$100.03

Table 15		Mississippi				Cotton Insect Losses 1997	
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost
Boll weevil	830249	805049	2.983	4.62	13.77	1.425	31896
Bollworm/budworm	852372	679495	2.541	9.70	24.65	2.400	53712
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0
Cotton Fleahopper	130497	28480	0.015	6.66	0.10	0.015	329
Lygus	874827	712640	1.594	5.03	8.02	1.301	29119
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0
Spider Mites	121717	32500	0.022	10.21	0.23	0.079	1767
Thrips, early season	638697	290575	0.396	3.77	1.49	0.074	1658
Beet Armyworm	147847	36552	0.028	11.75	0.32	0.060	1341
Fall Armyworm	299222	92350	0.123	10.77	1.32	0.456	10212
European Cornborer	27250	550	0.001	8.10	0.01	0.002	54
Stink Bugs	78797	6900	0.012	5.81	0.07	0.013	291
Grasshoppers	63447	0	0.000	n/a	0.00	0.000	0
Saltmarsh Caterpillars	18900	1000	0.001	6.00	0.01	0.000	9
Aphids	802532	387920	0.320	7.97	2.55	0.788	17640
Bandedwing Whitefly	269597	10850	0.008	6.83	0.05	0.061	1362
Sweet Potato Whitefly	3000	400	0.000	10.00	0.00	0.009	202
Soybean Loopers	240122	14400	0.011	6.61	0.07	0.000	2
Cabbage Loopers	113697	2000	0.002	7.00	0.01	0.026	583
Western Flower Thrips	193197	0	0.000	n/a	0.00	0.000	0
Cutworms	103700	41150	0.040	3.67	0.15	0.029	638

				Cost/ Acre	
Percent Lost	6.74	est. yield/acre	863	foliar insecticide	\$52.84
Total Acres	962585			at planting	\$7.73
Acres Harvested	960550	cost + loss	\$132,451,095	Bt use fees	\$14.38
Total Bales lost	150816	cost + loss/acre	\$137.60	eradication	\$8.32
Bales lost in dollars	\$47,054,447			scouting	\$5.44
				Total	\$88.72

Table 15a. Mississippi Delta

Cotton Insect Losses 1997

Table 15a		Mississippi Delta				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	490237	478237	3.044	4.97	15.12	1.688	26741	
Bollworm/budworm	515140	488740	3.206	9.85	31.60	2.437	38605	
Pink Bollworm	0	0	0.000	n/a		0.000	0	
Cotton Fleahopper	67400	22480	0.014	7.48	0.10	0.021	329	
Lygus	551240	510240	2.292	5.00	11.46	1.421	22512	
Cotton Leaf Perforator	0	0	0.000	n/a		0.000	0	
Spider Mites	61400	21280	0.012	9.38	0.12	0.104	1650	
Thrips, early season	375775	201600	0.368	4.88	1.80	0.065	1034	
Beet Armyworm	54000	24350	0.019	12.72	0.24	0.042	669	
Fall Armyworm	117500	46100	0.079	9.14	0.73	0.430	6819	
European Cornborer	11700	0	0.000	n/a	0.00	0.002	31	
Stink Bugs	11700	0	0.000	n/a	0.00	0.000	6	
Grasshoppers	2750	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	3700	0	0.000	n/a	0.00	0.001	9	
Aphids	480275	265000	0.282	8.33	2.35	0.729	11553	
Bandedwing Whitefly	55500	4000	0.000	1.00	0.00	0.053	833	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	45500	9500	0.009	5.99	0.05	0.019	303	
Cabbage Loopers	8000	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	74100	0	0.000	n/a	0.00	0.000	0	
Cutworms	38050	24100	0.035	3.86	0.14	0.002	29	
							Cost/ Acre	
							foliar insecticide	\$63.70
							at planting	\$8.50
							Bt use fees	\$10.55
							eradication	\$0.00
							scouting	\$5.64
							Total	\$88.40
Percent Lost	7.01		Est. Yield/Acre	903				
Total Acres	620773							
Total Bales lost	111125		cost + loss	\$89,548,153				
Bales lost in dollars	\$34,670,912		cost + loss/acre	\$144.25				

Table 15b

Mississippi Hills

Cotton Insect Losses 1997

Table 15b		Mississippi Hills				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	340012	326812	2.871	3.94	11.31	0.687	5155	
Bollworm/budworm	337232	190755	1.333	9.02	12.03	2.013	15106	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	63097	6000	0.018	5.50	0.10	0.000	0	
Lygus	323587	202400	0.326	5.44	1.77	0.881	6607	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	60317	11220	0.040	10.67	0.43	0.016	117	
Thrips, early season	262922	88975	0.447	2.11	0.94	0.083	624	
Beet Armyworm	93847	12202	0.043	10.98	0.47	0.089	671	
Fall Armyworm	181722	46250	0.202	11.93	2.41	0.452	3393	
European Cornborer	15550	550	0.003	8.10	0.02	0.003	23	
Stink Bugs	67097	6900	0.035	5.81	0.20	0.038	285	
Grasshoppers	60697	15000	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	15200	1000	0.003	6.00	0.02	0.000	0	
Aphids	322257	122920	0.388	7.50	2.91	0.811	6086	
Bandedwing Whitefly	214097	6850	0.022	6.83	0.15	0.070	528	
Sweet Potato Whitefly	3000	400	0.001	10.00	0.01	0.027	202	
Soybean Loopers	194622	4900	0.014	7.30	0.10	0.000	1	
Cabbage Loopers	105697	2000	0.006	7.00	0.04	0.078	583	
Western Flower Thrips	119097	0	0.000	n/a	0.00	0.000	0	
Cutworms	65650	17050	0.050	3.43	0.17	0.081	609	
							Cost/ Acre	
							foliar insecticide	\$33.11
							at planting	\$6.32
							Bt use fees	\$21.34
							eradication	\$23.43
							scouting	\$5.09
							Total	\$89.29
Percent Lost	5.33		est. yield/acre	789				
Total Acres	341812							
Total Bales lost	39993		cost + loss	\$42,997,189				
Bales lost in dollars	\$12,477,782		cost + loss/acre	\$125.79				

Table 16		Missouri				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	244070	222726	1.451	9.59	13.91	3.389	24812	
Bollworm/budworm	317322	198530	0.708	8.52	6.03	1.286	9418	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	0	0	0.000	n/a	0.00	0.000	0	
Lygus	328947	273051	0.959	5.00	4.80	1.329	9729	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	55153	46402	0.251	5.77	1.45	0.238	1746	
Thrips, early season	165950	47371	0.128	4.55	0.58	0.45	3283	
Beet Armyworm	598	0	0.000	n/a	0.00	0.000	0	
Fall Armyworm	9971	2954	0.008	15.00	0.12	0.044	324	
European Cornborer	67780	1025	0.003	5.00	0.01	0.015	107	
Stink Bugs	28458	2050	0.001	5.00	0.00	0.049	360	
Grasshoppers	2809	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	35385	20175	0.055	6.45	0.35	0.057	420	
Bandedwing Whitefly	2988	598	0.002	5.00	0.01	0.000	1	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	90106	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	29276	8644	0.023	4.90	0.11	0.051	377	
							Cost/ Acre	
Percent Lost	6.91	est. yield/acre		752	foliar insecticide		\$27.39	
Total Acres	370000				at planting		\$10.92	
Acres Harvested	365000	cost + loss		\$31,977,648	Bt use fees		\$0.40	
Total Bales lost	50576	cost + loss/acre		\$86.43	eradication		\$0.00	
Bales lost in dollars	\$15,779,564				scouting		\$5.08	
							Total	\$43.78

Table 17		New Mexico				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	61000	32000	0.533	9.75	5.20	0.500	726	
Bollworm/budworm	59000	44000	0.667	13.50	9.00	5.526	8024	
Pink Bollworm	44000	12000	0.015	9.75	0.15	3.091	4488	
Cotton Fleahopper	0	0	0.000	n/a	0.00	0.000	0	
Lygus	12500	1000	0.015	9.75	0.15	0.220	319	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	0	0	0.000	n/a	0.00	0.000	0	
Thrips, early season	39000	0	0.000	n/a	0.00	0.118	172	
Beet Armyworm	800	100	0.002	16.50	0.03	0.012	18	
Fall Armyworm	0	0	0.000	n/a	0.00	0.000	0	
European Cornborer	0	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	15000	3000	0.045	10.50	0.48	0.682	990	
Grasshoppers	12000	12000	0.076	8.50	0.64	0.018	26	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	22000	5000	0.000	n/a	0.00	0.500	726	
Bandedwing Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	2000	0	0.000	n/a	0.00	0.003	4	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	0	0	0.000	n/a	0.00	0.000	0	
							Cost/ Acre	
Percent Lost	10.67	est. yield/acre		714	foliar insecticide		\$15.64	
Harvested Acres	66000				at planting		\$6.48	
Total Acres	66000	cost + loss		\$6,675,310	Bt use fees		\$0.93	
Total Bales lost	15493	cost + loss/acre		\$101.14	eradication		\$0.99	
Bales lost in dollars	\$4,833,707				scouting		\$3.86	
							Total	\$27.90

Table 18		North Carolina				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	0	0	0.000	n/a	0.00	0.000	0	
Bollworm/budworm	695000	678000	1.980	8.75	17.33	5.300	92088	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	0	0	0.000	n/a	0.00	0.000	0	
Lygus	695000	8000	0.013	6.20	0.08	0.500	8688	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	120000	10000	0.017	13.20	0.23	0.199	3450	
Thrips, early season	695000	360000	0.725	5.70	4.13	1.500	26063	
Beet Armyworm	0	0	0.000	n/a	0.00	0.000	0	
Fall Armyworm	230000	40000	0.058	12.20	0.70	1.026	17825	
European Cornborer	350000	1000	0.002	8.95	0.02	0.252	4375	
Stink Bugs	695000	2000	0.003	8.95	0.03	0.470	8166	
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	695000	18000	0.026	5.00	0.13	0.100	1738	
Bandedwing Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	0	0	0.000	n/a	0.00	0.000	0	
							Cost/ Acre	
Percent Lost	9.35		est. yield/acre	595		foliar insecticide	\$22.64	
Harvested Acres	675000					at planting	\$12.87	
Total Acres	695000		cost + loss	\$81,680,952		Bt use fees	\$1.02	
Total Bales lost	162391		cost + loss/acre	\$117.53		eradication	\$3.60	
Bales lost in dollars	\$50,666,070					scouting	\$4.50	
							Total	\$44.63

Table 19		Oklahoma				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	170000	160000	3.459	6.00	20.76	7.581	19723	
Bollworm/budworm	185000	120000	1.946	12.00	23.35	3.000	7805	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	185000	100000	0.000	n/a	0.00	0.750	1951	
Lygus	0	0	0.000	n/a	0.00	0.000	0	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	20000	3000	0.016	10.50	0.17	0.027	70	
Thrips, early season	185000	50000	0.270	6.00	1.62	0.250	650	
Beet Armyworm	0	0	0.000	n/a	0.00	0.000	0	
Fall Armyworm	0	0	0.000	n/a	0.00	0.000	0	
European Cornborer	0	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	0	0	0.000	n/a	0.00	0.000	0	
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	120000	70000	0.757	8.50	6.43	1.297	3375	
Bandedwing Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	0	0	0.000	n/a	0.00	0.000	0	
							Cost/ Acre	
Percent Lost	12.91		est. Yield/acre	525		foliar insecticide	\$52.33	
Harvested Acres	185000					at planting	\$3.24	
Total Acres	185000		cost + loss	\$22,034,656		Bt use fees	\$2.85	
Total Bales lost	33574		cost + loss/acre	\$119.11		eradication	\$0.00	
Bales lost in dollars	\$10,475,156					scouting	\$4.05	
							Total	\$62.48

Table 20		South Carolina				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	1440	0	0.000	n/a	0.00	0.000	0	
Bollworm/budworm	275000	275000	3.319	10.00	33.19	4.741	27214	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	0	0	0.000	n/a	0.00	0.000	0	
Lygus	20000	20000	0.069	7.50	0.52	0.007	40	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	10000	1000	0.005	15.00	0.08	0.017	99	
Thrips, early season	280000	60000	0.207	5.00	1.03	0.966	5542	
Beet Armyworm	5000	500	0.002	15.00	0.03	0.000	0	
Fall Armyworm	100000	30000	0.155	15.50	2.41	0.345	1979	
European Cornborer	5000	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	150000	125000	0.431	9.00	3.88	0.776	4453	
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	190000	50000	0.172	9.00	1.55	0.131	752	
Bandedwing Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	500	100	0.000	10.00	0.00	0.001	5	
							Cost/ Acre	
Percent Lost	6.98	est. yield/acre		675	foliar insecticide		\$42.68	
Harvested Acres	290000				at planting		\$14.22	
Total Acres	290000	cost + loss		\$35,734,419	Bt use fees		\$10.24	
Total Bales lost	40083	cost + loss/acre		\$123.22	eradication		\$5.50	
Bales lost in dollars	\$12,505,919				scouting		\$7.45	
							Total	\$80.10

Table 21		Tennessee				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	492156	363341	2.137	5.80	12.40	3.426	32140	
Bollworm/budworm	349350	132753	0.346	10.70	3.70	1.041	9768	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	0	0	0.000	n/a	0.00	0.000	0	
Lygus	499800	241383	0.549	6.00	3.29	1.960	18388	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	7800	1910	0.004	9.60	0.04	0.000	1	
Thrips, early season	387600	229500	0.450	5.00	2.25	0.502	4706	
Beet Armyworm	0	0	0.000	n/a	0.00	0.000	0	
Fall Armyworm	6450	1000	0.002	13.50	0.03	0.000	0	
European Cornborer	7140	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	173200	25000	0.049	5.90	0.29	0.194	1816	
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	130700	15117	0.030	8.50	0.25	0.038	361	
Bandedwing Whitefly	33500	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	36000	0	0.000	n/a	0.00	0.004	33	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	8600	2150	0.004	4.60	0.02	0.000	0	
							Cost/ Acre	
Percent Lost	7.16	est. yield/acre		654	foliar insecticide		\$22.27	
Harvested Acres	500000				at planting		\$9.31	
Total Acres	510000	cost + loss		\$39,432,908	Bt use fees		\$0.99	
Total Bales lost	67214	cost + loss/acre		\$77.32	eradication		\$0.30	
Bales lost in dollars	\$20,970,921				scouting		\$3.34	
							Total	\$36.20

Table 22		Texas				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	4615443	2930286	1.569	6.95	10.90	11.151	892621	
Bollworm/budworm	4241860	2027457	0.556	10.20	5.67	1.629	130390	
Pink Bollworm	119724	35432	0.009	7.50	0.06	0.048	3804	
Cotton Fleahopper	4246506	1606553	0.415	4.98	2.07	1.281	102510	
Lygus	691650	89500	0.018	7.05	0.12	0.084	6710	
Cotton Leaf Perforator	101000	0	0.000	n/a	0.00	0.000	0	
Spider Mites	151000	24000	0.005	12.51	0.06	0.003	206	
Thrips, early season	4463856	502747	0.110	4.26	0.47	0.524	41924	
Beet Armyworm	638988	64000	0.019	12.47	0.24	0.007	533	
Fall Armyworm	312741	1100	0.000	8.80	0.00	0.000	0	
European Cornborer	850	350	0.000	11.50	0.00	0.000	0	
Stink Bugs	187198	42469	0.007	7.19	0.05	0.032	2546	
Grasshoppers	727000	190000	0.041	8.87	0.37	0.032	2572	
Saltmarsh Caterpillars	53000	4000	0.001	9.50	0.01	0.000	3	
Aphids	4145638	985530	0.244	7.57	1.85	0.742	59376	
Bandedwing Whitefly	44500	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	74000	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	12000	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	60000	8000	0.001	8.66	0.01	0.000	3	
Western Flower Thrips	442856	0	0.000	n/a	0.00	0.000	0	
Cutworms	275000	29000	0.005	7.26	0.04	0.002	125	
							Cost/ Acre	
Percent Lost	15.53					foliar insecticide	\$21.92	
Total Acres	5390753	est. yield/acre		486		at planting	\$1.98	
Harvested acres	5334219					Bt use fees	\$1.70	
Total Bales lost	1243322	cost + loss		\$545,338,937		eradication	\$1.92	
Bales lost in dollars	\$387,916,367	cost + loss/acre		\$101.16		scouting	\$1.69	
							Total	\$29.20

Table 22a		Texas, Coastal Bend				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	435856	435856	4.500	3.39	15.26	3.000	21520	
Bollworm/budworm	435856	239721	1.100	8.78	9.66	3.000	21520	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	435856	383553	1.760	5.28	9.29	0.008	54	
Lygus	210000	24500	0.056	8.15	0.46	0.482	3456	
Cotton Leaf Perforator	100000	0	0.000	n/a	0.00	0.000	0	
Spider Mites	35000	0	0.000	n/a	0.00	0.000	0	
Thrips, early season	435856	100247	0.230	4.40	1.01	0.000	0	
Beet Armyworm	400988	0	0.000	n/a	0.00	0.000	0	
Fall Armyworm	300741	1100	0.003	8.80	0.02	0.000	0	
European Cornborer	0	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	145000	21793	0.050	7.00	0.35	0.333	2386	
Grasshoppers	50000	2386	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	15000	0	0.000	n/a	0.00	0.000	0	
Aphids	435856	152550	0.350	6.70	2.35	2.000	14347	
Bandedwing Whitefly	9500	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	24000	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	12000	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	25000	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	435856	0	0.000	n/a	0.00	0.000	0	
Cutworms	250000	20000	0.046	6.47	0.30	0.000	0	
							Cost/ Acre	
Percent Lost	8.82	est. yield/acre		537		foliar insecticide	\$38.69	
Total Acres	435856.00					at planting	\$1.51	
Harvested acres	418422	cost + loss		\$45,467,836		Bt use fees	\$2.99	
Total Bales lost	63284.90	cost + loss/acre		\$104.32		eradication	\$11.33	
Bales lost in dollars	\$19,744,888					scouting	\$4.50	
							Total	\$59.02

Table 22b		Texas, North Central				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	252000	250000	3.188	4.52	14.42	9.014	25389	
Bollworm/budworm	10000	10000	0.038	7.00	0.27	0.012	33	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	250000	200000	1.154	4.00	4.62	0.000	0	
Lygus	60000	30000	0.115	8.00	0.92	0.415	1170	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	3000	2000	0.008	8.00	0.06	0.014	39	
Thrips, early season	250000	180000	1.038	3.75	3.89	0.577	1625	
Beet Armyworm	0	0	0.000	n/a	0.00	0.000	0	
Fall Armyworm	0	0	0.000	n/a	0.00	0.000	0	
European Cornborer	0	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	0	0	0.000	n/a	0.00	0.000	0	
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	60000	10000	0.038	7.00	0.27	0.138	390	
Bandedwing Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	0	0	0.000	n/a	0.00	0.000	0	
							Cost/ Acre	
Percent Lost	10.17		est. yield/acre	410		foliar insecticide	\$24.46	
Total Acres	260000					at planting	\$2.10	
Harvested acres	260000		cost + loss	\$18,259,246.00		Bt use fees	\$6.11	
Total Bales lost	28646		cost + loss/acre	\$70.23		eradication	\$0.00	
Bales lost in dollars	\$8,937,396					scouting	\$3.19	
							Total	\$35.85

Table 22c		Texas, North Rolling Plains				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	372000	260000	1.565	5.80	9.08	5.414	25854	
Bollworm/budworm	190000	130000	0.579	11.00	6.36	0.771	3681	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	372000	140000	0.366	4.75	1.74	0.555	2651	
Lygus	0	0	0.000	n/a	0.00	0.000	0	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	30000	11000	0.029	12.00	0.35	0.002	8	
Thrips, early season	25000	14000	0.037	4.50	0.16	0.001	3	
Beet Armyworm	38000	24000	0.075	12.50	0.94	0.008	38	
Fall Armyworm	12000	0	0.000	n/a	0.00	0.000	0	
European Cornborer	0	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	13000	6000	0.016	6.70	0.11	0.000	2	
Grasshoppers	58000	38000	0.099	5.15	0.51	0.020	94	
Saltmarsh Caterpillars	13000	0	0.000	n/a	0.00	0.000	0	
Aphids	108000	80000	0.272	7.75	2.11	0.116	554	
Bandedwing Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	25000	8000	0.021	n/a	0.18	0.001	3	
Western Flower Thrips	7000	0	0.000	n/a	0.00	0.000	0	
Cutworms	15000	7000	0.018	10.00	0.18	0.000	0	
							Cost/ Acre	
Percent Lost	6.89		est. yield/acre	347		foliar insecticide	\$21.73	
Total Acres	382000					at planting	\$0.59	
Harvested Acres	382000		cost + loss	\$20,603,305.00		Bt use fees	\$0.06	
Total Bales lost	32887		cost + loss/acre	\$53.94		eradication	\$3.46	
Bales lost in dollars	10260705					scouting	\$1.24	
							Total	\$27.07

Table 22d

Texas High Plains

Cotton Insect Losses 1997

Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	2850000	1500000	1.257	8.97	11.28	11.400	787313	
Bollworm/budworm	3000000	1200000	0.494	10.75	5.31	1.324	91406	
Pink Bollworm	300	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	2600000	700000	0.226	4.80	1.09	1.147	79219	
Lygus	400000	30000	0.011	5.80	0.06	0.024	1625	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	75000	10000	0.003	13.75	0.04	0.002	152	
Thrips, early season	3200000	200000	0.059	4.85	0.29	0.565	39000	
Beet Armyworm	150000	5000	0.001	12.85	0.02	0.004	305	
Fall Armyworm	0	0	0.000	n/a	0.00	0.000	0	
European Cornborer	850	350	0.000	11.50	0.00	0.000	0	
Stink Bugs	0	0	0.000	n/a	0.00	0.000	0	
Grasshoppers	600000	0	0.053	9.75	0.52	0.035	2438	
Saltmarsh Caterpillars	15000	4000	0.001	9.50	0.01	0.000	3	
Aphids	3000000	460000	0.162	7.85	1.27	0.529	36563	
Bandedwing Whitefly	3000	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	0	0	0.000	n/a	0.00	0.000	0	
							Cost/ Acre	
Percent Lost	15.03		est. yield/acre	505		foliar insecticide	\$19.90	
Total Acres	3400000					at planting	\$2.60	
Harvested acres	3400000		cost + loss	\$404,651,622.00		Bt use fees	\$0.01	
Total Bales lost	1038023		cost + loss/acre	\$119.02		eradication	\$0.00	
Bales lost in dollars	323863098					scouting	\$1.26	
							Total	\$23.76

Table 22e		Texas Far West				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	160487	114430	1.265	3.24	4.09	2.840	13478	
Bollworm/budworm	55904	32736	0.110	13.50	1.48	0.409	1943	
Pink Bollworm	119424	35432	0.141	7.50	1.05	0.802	3804	
Cotton Fleahopper	43650	0	0.000	n/a	0.00	0.000	0	
Lygus	1650	0	0.000	n/a	0.00	0.000	0	
Cotton Leaf Perforator	1000	0	0.000	n/a	0.00	0.000	0	
Spider Mites	0	0	0.000	n/a	0.00	0.000	0	
Thrips, early season	183000	500	0.000	1.00	0.00	0.056	265	
Beet Armyworm	0	0	0.000	n/a	0.00	0.000	0	
Fall Armyworm	0	0	0.000	n/a	0.00	0.000	0	
European Cornborer	0	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	27198	14676	0.027	8.00	0.21	0.033	158	
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	21782	4980	0.015	8.33	0.13	0.003	13	
Bandedwing Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	0	0	0.000	n/a	0.00	0.000	0	

				Cost/ Acre	
Percent Lost	4.14	est. yield/acre	507	foliar insecticide	\$6.97
Total Acres	327797			at planting	\$0.00
Harvested acres	327797	cost + loss	\$10,760,373.00	Bt use fees	\$5.88
Total Bales lost	19659	cost + loss/acre	\$32.83	eradication	\$0.00
Bales lost in dollars	6133760			scouting	\$1.27
				Total	\$14.11

		Texas, Lower Rio Grande Valley				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	155000	110000	4.750	2.51	11.94	1.356	3106	
Bollworm/budworm	160000	100000	1.250	10.00	12.50	0.800	1832	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	160000	155000	1.453	6.00	8.72	0.600	1374	
Lygus	0	0	0.000	n/a	0.00	0.000	0	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	0	0	0.000	n/a	0.00	0.000	0	
Thrips, early season	0	0	0.000	N/A	0.00	0.000	0	
Beet Armyworm	40000	30000	0.375	12.00	4.50	0.075	172	
Fall Armyworm	0	0	0.000	n/a	0.00	0.000	0	
European Cornborer	0	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	0	0	0.000	n/a	0.00	0.000	0	
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	160000	80000	0.500	10.00	5.00	0.100	229	
Bandedwing Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	50000	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	0	0	0.000	n/a	0.00	0.000	0	

				Cost/ Acre	
Percent Lost	2.93	est. yield/acre	526	foliar insecticide	\$42.65
Total Acres	160000			at planting	\$0.56
Harvested Acres	160000	cost + loss	\$10,088,920.00	Bt use fees	\$2.00
Total Bales lost	6713	cost + loss/acre	\$63.06	eradication	\$0.00
Bales lost in dollars	2094320			scouting	\$4.75
				Total	\$49.97

Table 22g		Texas, South Rolling Plains				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	325000	200000	0.556	7.75	4.31	0.361	1178	
Bollworm/budworm	325000	260000	0.722	10.00	7.22	0.813	2651	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	325000	3000	0.008	6.00	0.05	0.090	295	
Lygus	0	0	0.000	n/a	0.00	0.000	0	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	8000	1000	0.006	13.00	0.07	0.002	7	
Thrips, early season	325000	0	0.000	n/a	0.00	0.000	0	
Beet Armyworm	10000	5000	0.028	15.00	0.42	0.006	18	
Fall Armyworm	0	0	0.000	n/a	0.00	0.000	0	
European Cornborer	0	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	2000	0	0.000	n/a	0.00	0.000	0	
Grasshoppers	15000	0	0.000	n/a	0.00	0.002	7	
Saltmarsh Caterpillars	10000	0	0.000	n/a	0.00	0.000	0	
Aphids	325000	195000	1.138	7.00	7.96	1.986	6480	
Bandedwing Whitefly	32000	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	10000	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	0	0	0.000	n/a	0.00	0.000	0	
							Cost/ Acre	
Percent Lost	3.26		est. yield/acre	370		foliar insecticide	\$20.03	
Total Acres	360000					at planting	\$0.04	
Harvested acres	325000		cost + loss	\$16,941,998		Bt use fees	\$6.11	
Total Bales lost	10635		cost + loss/acre	\$47.06		eradication	\$11.30	
Bales lost in dollars	\$3,318,213					scouting	\$0.36	
							Total	\$37.84

Table 22h		Texas, Southern Blacklands				Cotton Insect Losses 1997		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	65100	60000	9.217	2.85	26.27	10.900	14783	
Bollworm/budworm	65100	55000	1.690	6.50	10.98	5.400	7324	
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0	
Cotton Fleahopper	60000	25000	0.384	4.85	1.86	1.014	1375	
Lygus	20000	5000	0.077	5.00	0.38	0.338	458	
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0	
Spider Mites	0	0	0.000	n/a	0.00	0.000	0	
Thrips, early season	45000	8000	0.123	4.50	0.55	0.760	1031	
Beet Armyworm	0	0	0.000	n/a	0.00	0.000	0	
Fall Armyworm	0	0	0.000	n/a	0.00	0.000	0	
European Cornborer	0	0	0.000	n/a	0.00	0.000	0	
Stink Bugs	0	0	0.000	n/a	0.00	0.000	0	
Grasshoppers	4000	2000	0.061	4.85	0.30	0.025	33	
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0	
Aphids	35000	3000	0.046	5.50	0.25	0.591	802	
Bandedwing Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0	
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0	
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0	
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0	
Cutworms	10000	2000	0.031	5.50	0.17	0.092	125	
							Cost/ Acre	
Percent Lost	19.12		est. yield/acre	710		foliar insecticide	\$40.77	
Total Acres	65100					at planting	\$4.61	
Harvested acres	61000		cost + loss	\$13,092,395		Bt use fees	\$27.65	
Total Bales lost	25932		cost + loss/acre	\$201.11		eradication	\$0.00	
Bales lost in dollars	\$8,090,745					scouting	\$3.80	
							Total	\$76.83

Table 23

			Virginia			Cotton Insect Losses 1997	
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost
Boll weevil	0	0	0.000	n/a	0.00	0.000	0
Bollworm/budworm	95000	95000	1.176	12.00	14.11	0.344	914
Pink Bollworm	0	0	0.000	n/a	0.00	0.000	0
Cotton Fleahopper	0	0	0.000	n/a	0.00	0.000	0
Lygus	0	0	0.000	n/a	0.00	0.000	0
Cotton Leaf Perforator	0	0	0.000	n/a	0.00	0.000	0
Spider Mites	3000	2000	0.020	16.00	0.32	0.000	0
Thrips, early season	101000	85000	0.842	5.00	4.21	0.500	972
Beet Armyworm	0	0	0.000	n/a	0.00	0.000	0
Fall Armyworm	0	0	0.000	n/a	0.00	0.000	0
European Cornborer	500	500	0.005	12.00	0.06	0.000	0
Stink Bugs	5000	4000	0.040	12.00	0.48	0.050	96
Grasshoppers	0	0	0.000	n/a	0.00	0.000	0
Saltmarsh Caterpillars	0	0	0.000	n/a	0.00	0.000	0
Aphids	50000	0	0.000	n/a	0.00	0.000	0
Bandedwing Whitefly	0	0	0.000	n/a	0.00	0.000	0
Sweet Potato Whitefly	0	0	0.000	n/a	0.00	0.000	0
Soybean Loopers	0	0	0.000	n/a	0.00	0.000	0
Cabbage Loopers	0	0	0.000	n/a	0.00	0.000	0
Western Flower Thrips	0	0	0.000	n/a	0.00	0.000	0
Cutworms	1700	1500	0.015	12.00	0.18	0.000	0
						Cost/ Acre	
Percent Lost	0.89					foliar insecticide	\$19.35
Harvested Acres	101000	est. yield/acre		675		at planting	\$13.86
Total Acres	101000					Bt use fees	\$0.08
Total Bales lost	1983	cost + loss		\$4,331,846		eradication	\$3.35
Bales lost in dollars	\$618,618	cost + loss/acre		\$42.89		scouting	\$0.13
						Total	\$36.76