

COTTON INSECT LOSSES 1998

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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.** 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. Costs 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 7.98% in 1998. Both acreage and yields were down, partially due to weather. The bollworm/budworm complex, causing 2.71% loss, was the number one arthropod pest of cotton in 1998.

Eight-five percent (85%) of US cotton acres was infested by heliothines. Of those, 70% were bollworms, *H. zea*. Only 55% of US acreage is reported infested by boll weevils but they are 1998's second worst pest at 2.3% loss. *Lygus* at 1.04% loss is the only other pest to exceed 1% reduction in yield. Thrips (0.352%) and aphids (0.333%) complete the top five insect pests of 1998. Beet and fall armyworms (0.281 and 0.221%) also contributed heavily to losses in some areas. Cotton fleahoppers (0.208%) and spider mites (0.241%) were also significant pests in some areas of the belt. Total cost of management and loss to insects to the 1998 crop was \$1.22 billion or \$114.28 per acre. Of those costs approximately \$63 are direct insect management costs.

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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 include 'at planting insecticide costs,'(an estimate of the cost of systemic insecticides applied at planting for control of thrips and other pests of seedling cotton) 'Bt cotton costs,'(an estimate of the technology fee and the seed surcharge) 'eradication costs'(which include the maintenance fee in those states which have eradicated the weevil and other eradication projects) and '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.

Table 1

USDA Cotton Yield Estimates

Cotton insect losses - 1998

State	Upland Cotton		Est. Yield *	Cotton yields in pounds lint per acre		
	Acres Planted	Acres harvested		December	January	1997
Alabama	495,000	475,000	556	601	576	597
Arizona	250,000	248,000	1100	1118	1,123	1255
Arkansas	920,000	900,000	674	685	651	859
California	650,000	620,000	917	849	890	1202
Florida	89,000	80,000	450	498	408	577
Georgia	1,400,000	1,320,000	517	517	564	646
Kansas	17,000	16,000	N/R	501	402	418
Louisiana	535,000	525,000	725	573	590	757
Mississippi	950,000	940,000	717	755	740	901
Missouri	370,000	357,000	520	509	471	723
New Mexico	60,000	58,000	690	781	745	676
North Carolina	710,000	705,000	750	669	684	671
Oklahoma	160,000	120,000	475	540	560	462
South Carolina	290,000	286,000	600	600	587	691
Tennessee	450,000	445,000	617	593	588	662
Texas	5,650,000	3,300,000	444	519	509	479
Virginia	92,000	91,000	750	770	737	659
total US	13,088,000	10,486,000	593	616	612	673
	Pima	Pima		Pima	Pima	Pima
Arizona	15,900	15,500		768	743	912
California	200,000	180,000		900	920	1141
New Mexico	9,000	9,000		617	587	641
Texas	105,000	32,000		649	750	815
total US	329,900	236,500		842	873	1056
				all cotton	all cotton	all cotton
TOTAL US	13,417,900	10,722,500		621	618	680

From USDA/NASS Agricultural Statistics Service, January, 1999

*estimates from losses Coordinators

Table 1a

Planted and Harvested Acres 1996 - 1998*

Cotton insect losses - 1998

State	Area Planted			Area Harvested		
	1996	1997	1998	1996	1997	1998
<u>Upland</u>						
Alabama	520,000	535,000	495,000	516,000	442,000	475,000
Arizona	315,000	325,000	250,000	314,000	324,000	248,000
Arkansas	1,000,000	980,000	920,000	990,000	965,000	900,000
California	1,000,000	880,000	650,000	995,000	875,000	620,000
Florida	99,000	100,000	89,000	98,200	99,000	80,000
Georgia	1,340,000	1,440,000	1,400,000	1,336,000	1,425,000	1,320,000
Kansas	4,500	12,000	17,000	4,000	10,000	16,000
Louisiana	890,000	655,000	535,000	885,000	650,000	525,000
Mississippi	1,120,000	985,000	950,000	1,100,000	970,000	940,000
Missouri	390,000	395,000	370,000	385,000	390,000	357,000
New Mexico	59,000	70,000	60,000	55,000	66,000	58,000
North Carolina	740,000	690,000	710,000	730,000	685,000	705,000
Oklahoma	290,000	200,000	160,000	210,000	190,000	120,000
South Carolina	284,000	290,000	290,000	282,000	286,000	286,000
Tennessee	540,000	490,000	450,000	530,000	480,000	445,000
Texas	5,700,000	5,500,000	5,650,000	4,100,000	5,200,000	3,300,000
Virginia	103,000	101,000	92,000	102,000	100,000	91,000
total US	14,394,500	13,648,000	13,088,000	12,632,200	13,157,000	10,486,000
<u>Pima</u>						
Arizona	42,000	22,000	15,900	41,900	22,000	15,500
California	165,000	185,000	200,000	164,000	184,000	180,000
New Mexico	14,000	11,000	9,000	14,000	11,000	9,000
Texas	37,000	32,000	105,000	36,000	32,000	32,000
total US	258,000	250,000	329,900	255,900	249,000	236,500
TOTAL US	14652500	13898000	13417900	12888100	13406000	10722500

*USDA/NASS - January 1999 estimates

State	Number acres	Weighted Avg Cost	Cost/Treated Acre	Total Cost
Alabama, Central	75000	\$10.31	\$11.00	\$825,000
Alabama, North	184000	\$12.43	\$12.50	\$2,300,000
Alabama, South	171000	\$9.90	\$11.00	\$1,881,000
Arizona	87500	\$5.60	\$16.00	\$1,400,000
Arkansas, Northeast	410400	\$8.48	\$10.60	\$4,350,240
Arkansas, Southeast	300000	\$9.12	\$10.40	\$3,120,000
California, Imperial Valley	0	\$0.00	\$0.00	\$0
California, Sacramneto Valley	6000	\$8.73	\$16.00	\$96,000
California, San Joaquin Valley	404000	\$1.00	\$2.00	\$808,000
Florida	78000	\$7.07	\$7.25	\$565,500
Georgia	1150000	\$8.85	\$10.00	\$11,500,000
Louisiana	398196	\$6.31	\$8.56	\$3,408,558
Mississippi Delta	438700	\$7.00	\$9.02	\$3,957,074
Mississippi Hills	237350	\$6.89	\$10.60	\$2,515,910
Missouri	316075	\$8.13	\$9.00	\$2,844,675
New Mexico	14000	\$2.22	\$9.50	\$133,000
North Carolina	658000	\$12.78	\$13.50	\$8,883,000
Oklahoma	50000	\$1.25	\$3.00	\$150,000
South Carolina	266000	\$14.25	\$15.00	\$3,990,000
Tennessee	389700	\$9.72	\$11.22	\$4,372,434
Texas, Coastal Bend	63818	\$1.04	\$6.91	\$440,982
TEXAS, Far West	0	\$0.00	\$0.00	\$0
Texas, High Plains	1105000	\$40.52	\$6.60	\$7,293,000
Texas, Lower Rio Grande	20000	\$0.42	\$5.00	\$100,000
TEXAS, North Central	72000	\$2.51	\$7.50	\$540,000
Texas, North Rolling Plains	30000	\$0.10	\$6.44	\$193,200
Texas, Southern Blacklands	50000	\$0.94	\$3.00	\$150,000
TEXAS, South Rolling Plains	7000	\$0.35	\$8.50	\$59,500
Virginia	91000	\$12.00	\$12.00	\$1,092,000
Total US	7072739	\$6.25	\$9.51	\$66,969,073

State	Number Acres	Cost/Acre	Wt cost/acre	Total Cost
Alabama, Central	80000	\$7.00	\$7.00	\$560,000
Alabama, North	185000	\$7.50	\$7.50	\$1,387,500
Alabama, South	190000	\$5.00	\$5.00	\$950,000
Arizona	250000	\$1.79	\$1.79	\$447,500
Arkansas, Northeast	0	\$0.00	\$0.00	\$0
Arkansas, Southeast	0	\$0.00	\$0.00	\$0
California, Imperial Valley	0	\$0.00	\$0.00	\$0
California, Sacramneto Valley	0	\$0.00	\$0.00	\$0
California, San Joaquin Valley	0	\$0.00	\$0.00	\$0
Florida	80000	\$6.00	\$6.00	\$480,000
Georgia	1300000	\$4.50	\$4.50	\$5,850,000
Louisiana	51000	\$35.00	\$3.31	\$1,785,000
Mississippi Delta	126311	\$22.00	\$4.92	\$2,778,842
Mississippi Hills	365260	\$23.20	\$23.20	\$8,474,032
Missouri	0	\$0.00	\$0.00	\$0
New Mexico	29000	\$10.20	\$4.93	\$295,800
North Carolina	695000	\$3.60	\$3.60	\$2,502,000
Oklahoma	120000	\$12.25	\$12.25	\$1,470,000
South Carolina	280000	\$5.75	\$5.75	\$1,610,000
Tennessee	123000	\$12.36	\$3.38	\$1,520,280
Texas, Coastal Bend	285000	\$23.14	\$15.50	\$6,594,900
TEXAS, Far West	0	\$0.00	\$0.00	\$0
Texas, High Plains	0	\$0.00	\$0.00	\$0
Texas, Lower Rio Grande	0	\$0.00	\$0.00	\$0
TEXAS, North Central	0	\$0.00	\$0.00	\$0
Texas, North Rolling Plains	120000	\$10.00	\$0.63	\$1,200,000
Texas, Southern Blacklands	0	\$0.00	\$0.00	\$0
TEXAS, South Rolling Plains	479281	\$11.10	\$31.29	\$5,320,019
Virginia	91000	\$3.75	\$3.75	\$341,250
Total US - BOLL WEEVIL	4849852	\$4.13	\$1.87	\$20,016,785
California PINK BOLLWORM	808000	\$4.30	\$4.20	\$3,474,400
Arizona	250000	\$0.50	\$0.50	\$125,000
Total US - Insect Eradication	5657852	\$4.17	\$2.20	\$23,616,185

Table 4 Bt Cotton Costs by State Cotton insect losses - 1998

State	Number acres	Bt cost/Acre	Seed Cost	Average/all Acres	Total Cost
Alabama, Central	58000	\$29.00	\$2.00	\$22.48	\$1,798,000
Alabama, North	139000	\$29.00	\$2.00	\$23.29	\$4,309,000
Alabama, South	117000	\$26.00	\$0.00	\$16.01	\$3,042,000
Arizona	178000	\$32.00	\$9.00	\$29.19	\$7,298,000
Arkansas, Northeast	6000	\$29.00	\$5.00	\$0.40	\$204,000
Arkansas, Southeast	102600	\$29.00	\$5.00	\$10.20	\$3,488,400
California, Imperial Valley	4000	\$32.00	\$0.00	\$16.41	\$128,000
California, Sacramneto Valley	0	\$0.00	\$0.00	\$0.00	\$0
California, San Joaquin Valley	10	\$32.00	\$0.00	\$0.00	\$320
Florida	44860	\$32.00	\$8.10	\$22.49	\$1,798,886
Georgia	610000	\$26.00	\$0.00	\$12.20	\$15,860,000
Louisiana	322542	\$31.77	\$1.20	\$19.69	\$10,634,210
Mississippi Delta	248718	\$29.00	\$0.00	\$12.76	\$7,212,822
Mississippi Hills	299513	\$29.00	\$0.00	\$23.78	\$8,685,877
Missouri	3300	\$32.00	\$6.00	\$0.36	\$125,400
New Mexico	21200	\$32.00	\$0.00	\$11.31	\$678,400
North Carolina	84000	\$28.00	\$1.50	\$3.57	\$2,478,000
Oklahoma	12000	\$26.00	\$0.00	\$2.60	\$312,000
South Carolina	112000	\$24.00	\$1.00	\$10.00	\$2,800,000
Tennessee	83500	\$20.00	\$0.00	\$3.71	\$1,670,000
Texas, Coastal Bend	51054	\$20.00	\$1.25	\$2.55	\$1,084,898
TexasS, Far West	34800	\$23.50	\$0.00	\$5.84	\$817,800
Texas, High Plains	2000	\$23.50	\$0.00	\$0.26	\$47,000
Texas, Lower Rio Grande	10000	\$20.00	\$0.00	\$0.83	\$200,000
Texas, North Central	55000	\$26.00	\$1.80	\$7.11	\$1,529,000
Texas, Northern Rolling Plains	30000	\$20.00	\$0.00	\$0.32	\$600,000
Texas, Southern Blacklands	40000	\$20.00	\$0.00	\$5.03	\$800,000
Texas, Southern Rolling Plains	60000	\$24.00	\$6.00	\$10.59	\$1,800,000
Virginia	2730	\$20.00	\$8.50	\$0.86	\$77,805
Total US	2731827	\$27.54	\$1.47	\$7.40	\$79,479,817

Table 5 Insecticide Application Type and Cost* Cotton insect losses - 1998

State	% Treated by air	Cost/Acre by air	% Treated by ground	Cost/Acre by ground	Total # applications for all arthropods	Average # air	Average # ground
Alabama, Central	12	\$3.00	80	\$2.75	1.665	0.200	1.332
Alabama, North	30	\$3.10	70	\$2.00	2.369	0.711	1.658
Alabama, South	27	\$3.50	73	\$3.00	5.899	1.593	4.306
Arizona	97	\$4.08	100	\$5.13	5.000	4.850	5.000
Arkansas, Northeast	85	\$3.50	100	\$2.00	5.800	4.930	5.800
Arkansas, Southeast	90	\$3.50	100	\$2.00	8.000	7.200	8.000
California, Imperial Valley	100	\$7.00	20	\$9.00	5.100	5.100	1.020
California, Sacramneto Valley	30	\$7.00	80	\$9.00	1.800	0.540	1.440
California, San Joaquin Valley	80	\$7.00	60	\$9.00	2.200	1.760	1.320
Florida	70	\$3.50	75	\$5.00	2.001	1.401	1.501
Georgia	50	\$3.50	75	\$3.00	2.700	1.350	2.025
Louisiana	76	\$4.34	69	\$2.74	10.286	7.799	7.108
Mississippi Delta	55	\$2.90	45	\$2.40	9.808	5.394	4.414
Mississippi Hills	57	\$3.25	43	\$2.50	4.100	2.337	1.763
Missouri	58	\$3.65	80	\$3.00	4.432	2.548	3.546
New Mexico	97	\$4.28	15	\$1.80	2.707	2.626	0.406
North Carolina	20	\$5.00	95	\$2.19	3.511	0.702	3.335
Oklahoma	70	\$3.00	30	\$2.50	6.333	4.433	1.900
South Carolina	40	\$4.00	60	\$3.50	4.439	1.776	2.663
Tennessee	50	\$4.00	99	\$3.25	7.535	3.768	7.460
Texas, Coastal Bend	22	\$3.00	78	\$2.00	4.011	0.882	3.129
TEXAS, Far West	90	\$3.60	10	\$3.25	0.532	0.479	0.053
Texas, High Plains	52	\$3.75	48	\$3.25	2.711	1.410	1.301
Texas, Lower Rio Grande	60	\$3.00	40	\$2.00	3.965	2.379	1.586
TEXAS, North Central	20	\$2.75	80	\$2.60	3.792	0.758	3.034
Texas, North Rolling Plains	24	\$3.50	18	\$1.50	2.649	0.636	0.477
Texas, Southern Blacklands	30	\$2.75	70	\$2.50	5.914	1.774	4.140
TEXAS, South Rolling Plains	23	\$3.65	21	\$3.00	0.256	0.059	0.054
Virginia	10	\$6.50	90	\$3.50	2.923	0.292	2.631
US AVERAGE	53	\$2.15	59	\$1.96	4.330	2.304	2.555

* Does not include treatments applied as part of boll weevil eradication programs.

Table 6 Cotton Insect Monitoring Costs Cotton insect losses - 1998

State	Acres Scouted	Times per week Scouted	wt Avg Cost over all acres	Cost/scouted acre	Total Cost
Alabama, Central	60000	1.500	\$4.50	\$6.00	\$360,000
Alabama, North	170200	1.300	\$3.50	\$3.80	\$646,760
Alabama, South	142500	1.500	\$4.88	\$6.50	\$926,250
Arizona	245000	1.950	\$8.72	\$8.90	\$2,180,500
Arkansas, Northeast	441180	1.000	\$5.16	\$6.00	\$2,647,080
Arkansas, Southeast	321480	1.700	\$6.11	\$6.50	\$2,089,620
California, Imperial Valley	7800	2.000	\$10.00	\$10.00	\$78,000
California, Sacramneto Valley	11000	1.500	\$10.00	\$10.00	\$110,000
California, San Joaquin Valley	808000	1.500	\$10.00	\$10.00	\$8,080,000
Florida	60000	1.500	\$6.56	\$8.75	\$525,000
Georgia	1053000	1.700	\$5.87	\$7.25	\$7,634,250
Louisiana	459000	1.710	\$6.39	\$7.52	\$3,451,680
Mississippi Delta	537005	1.600	\$6.29	\$6.62	\$3,554,970
Mississippi Hills	273945	1.600	\$4.73	\$6.30	\$1,725,854
Missouri	276500	1.300	\$4.11	\$5.20	\$1,437,800
New Mexico	22800	1.000	\$2.85	\$7.50	\$171,000
North Carolina	630000	1.000	\$4.50	\$5.00	\$3,150,000
Oklahoma	85200	1.500	\$3.73	\$5.25	\$447,300
South Carolina	254800	1.200	\$6.37	\$7.00	\$1,783,600
Tennessee	337500	1.000	\$4.50	\$6.00	\$2,025,000
Texas, Coastal Bend	323342	1.000	\$4.56	\$6.00	\$1,940,052
TEXAS, Far West	36551	1.200	\$5.50	\$1.27	\$46,420
Texas, High Plains	798000	1.200	\$1.95	\$4.65	\$3,710,700
Texas, Lower Rio Grande	189200	1.000	\$4.40	\$5.00	\$946,000
TEXAS, North Central	192000	1.000	\$3.60	\$4.50	\$864,000
Texas, North Rolling Plains	50400	1.500	\$1.51	\$5.40	\$272,160
Texas, Southern Blacklands	99400	1.000	\$2.84	\$4.00	\$397,600
TEXAS, South Rolling Plains	32300	1.000	\$0.99	\$5.20	\$167,960
Virginia	36400	1.500	\$3.40	\$8.50	\$309,400
Total US	7954503	1.377	\$4.84	\$6.52	\$51,678,956

Table 7 Summary of All States Cotton insect losses - 1998

Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	% reduction	Bales lost
Boll weevil	5,897,852	4,299,732	1.116	\$7.13	\$7.96	2.303	507,474
Bollworm/budworm	9,051,531	6,274,771	1.538	\$10.46	\$16.09	2.706	596,309
Pink Bollworm	303,578	103,445	0.015	\$13.36	\$0.21	0.031	6,812
Cotton Fleahopper	3,031,403	1,197,352	0.183	\$5.17	\$0.95	0.208	45,736
Lygus	6,158,790	2,980,534	0.456	\$10.94	\$4.99	1.044	230,057
Cotton Leafperforator	390,508	8,550	0.002	\$16.68	\$0.03	0.00	0
Spider Mites	2,611,335	893,082	0.083	\$22.23	\$1.85	0.241	53,157
Thrips, early season	9,725,530	2,193,671	0.214	\$4.40	\$0.94	0.352	77,560
Beet Armyworm	5,069,947	1,632,339	0.175	\$14.21	\$2.49	0.281	61,876
Fall Armyworm	3,718,702	917,502	0.106	\$10.67	\$1.13	0.221	48,660
European Corn Borer	751,243	66,417	0.003	\$8.74	\$0.03	0.043	9,420
Stink Bugs	2,538,954	712,600	0.091	\$7.32	\$0.66	0.151	33,353
Grasshoppers	786,887	59,513	0.008	\$5.28	\$0.04	0.007	1,454
Salt-marsh Caterpillars	211,021	7,664	0.020	\$8.57	\$0.17	0.000	2
Aphids	6,468,021	1,903,033	0.196	\$9.17	\$1.80	0.333	73,441
Bandedwinged Whitefly	1,555,766	178,415	0.021	\$8.18	\$0.17	0.023	5,116
Sweetpotato Whitefly	478,800	213,800	0.029	\$32.56	\$0.96	0.016	3,453
Soybean Loopers	1,505,035	294,251	0.024	\$12.20	\$0.30	0.009	2,040
Cabbage Loopers	1,029,089	18,564	0.001	\$11.52	\$0.01	0.003	707
Western Flower Thrips	1,792,603	4,000	0.001	\$3.88	\$0.00	0.003	574
Cutworms	1,265,902	201,977	0.018	\$5.26	\$0.09	0.004	773

Percent Lost	7.98	Est. yield/acre	593		Cost/ Acre
Total Acres	10,712,695	Spray applications	4.301		Foliar insecticide \$40.86
Harvested acres	10,079,035				At planting \$6.21
		Cost + loss	\$1,224,266,152		Bt use fees \$7.40
Total Bales lost	1,757,974				Eradication \$3.75
Bales lost in dollars	\$548,487,733	Cost + loss/acre	\$114.28		Scouting \$4.86
					Total \$63.08

Table 8		Alabama Summary				Cotton insect losses - 1998	
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost
Boll weevil	1,500	0	0.000	N/A	\$0.00	0.000	0
Bollworm/budworm	455,000	295,000	1.387	\$9.92	\$13.77	4.699	46,766
Pink Bollworm	0	0	0.000	N/A	\$0.00	0.000	0
Cotton Fleahopper	96,000	25,000	0.082	\$6.75	\$0.56	0.008	75
Lygus	455,000	145,000	0.391	\$5.20	\$2.03	1.794	17,859
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.00	0
Spider Mites	10,750	100	0.000	\$15.00	\$0.00	0.025	250
Thrips, early season	455,000	146,000	0.338	\$4.13	\$1.40	0.951	9,469
Beet Armyworm	50,000	500	0.002	\$16.00	\$0.04	0.000	0
Fall Armyworm	455,000	162,500	0.670	\$10.47	\$7.02	2.088	20,781
European Corn Borer	0	0	0.000	N/A	\$0.00	0.000	0
Stink Bugs	300,000	178,000	0.625	\$6.39	\$3.99	0.993	9,888
Grasshoppers	0	0	0.000	N/A	\$0.00	0.000	0
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0
Aphids	405,000	17,000	0.037	\$9.63	\$0.36	0.147	1,463
Bandedwinged Whitefly	90,000	0	0.000	N/A	\$0.00	0.023	225
Sweetpotato Whitefly	0	0	0.000	N/A	\$0.00	0.000	0
Soybean Loopers	2,500	250	0.001	\$12.50	\$0.01	0.000	0
Cabbage Loopers	42,500	0	0.000	N/A	\$0.00	0.000	0
Western Flower Thrips	185,000	0	0.000	N/A	\$0.00	0.046	463
Cutworms	12,000	9,800	0.022	\$3.96	\$0.09	0.002	20
Percent Lost	10.78		Est. yield/acre	556			Cost/ Acre
Total Acres	455,000		Spray applications	3.557		Foliar insecticide	\$29.25
Harvested acres	400,000					At planting	\$11.00
						Bt use fees	\$20.11
			Cost + loss	\$64,473,000		Eradication	\$6.37
Total Bales lost	107,258					Scouting	\$1.42
Bales lost in dollars	\$33,464,340		Cost + loss/acre	\$141.70		Total	\$68.15

Table 8a		North Alabama				Cotton insect losses - 1998	
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost
Boll weevil	1,500	0	0.000	N/A	\$0.00	0.000	0
Bollworm/budworm	185,000	80,000	0.519	\$8.50	\$4.41	2.000	9,250
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	185,000	110,000	0.773	\$5.00	\$3.86	3.250	15,031
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.00	0
Spider Mites	10,000	0	0.000	N/A	\$0.00	0.054	250
Thrips, early season	185,000	40,000	0.259	\$3.00	\$0.78	0.500	2,313
Beet Armyworm	0	0	0.000	N/A	\$0.00	0.000	0
Fall Armyworm	185,000	0	0.000	N/A	\$0.00	0.250	1,156
European Corn Borer	0	0	0.000	N/A	\$0.00	0.000	0
Stink Bugs	30,000	10,000	0.054	\$5.00	\$0.27	0.016	75
Grasshoppers	0	0	0.000	N/A	\$0.00	0.000	0
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0
Aphids	135,000	3,000	0.016	\$9.25	\$0.15	0.219	1,013
Bandedwinged Whitefly	90,000	0	0.000	N/A	\$0.00	0.049	225
Sweetpotato 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	185,000	0	0.000	N/A	\$0.00	0.100	463
Cutworms	8,000	8,000	0.043	\$3.40	\$0.15	0.004	20
Percent Lost	6.44		Est. yield/acre	705			Cost/ Acre
Total Acres	185,000		Spray applications	1.665		Foliar insecticide	\$9.62
Harvested acres	185,000					At planting	\$12.43
						Bt use fees	\$23.29
			Cost + loss	\$19,719,250		Eradication	\$7.50
Total Bales lost	29,795					Scouting	\$3.50
Bales lost in dollars	\$9,296,040		Cost + loss/acre	\$106.59		Total	\$56.34

Table 8b		Central Alabama				Cotton insect losses - 1998	
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	80,000	63,000	1.181	\$11.00	\$12.99	7.000	10,500
Pink Bollworm	0	0	0.000	N/A	\$0.00	0.000	0
Cotton Fleahopper	20,000	0	0.000	N/A	\$0.00	0.050	75
Lygus	80,000	5,000	0.063	\$6.00	\$0.38	0.500	750
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.00	0
Spider Mites	0	0	0.000	N/A	\$0.00	0.000	0
Thrips, early season	80,000	30,000	0.375	\$5.00	\$1.88	2.000	3,000
Beet Armyworm	0	0	0.000	N/A	\$0.00	0.000	0
Fall Armyworm	80,000	20,000	0.250	\$10.00	\$2.50	2.000	3,000
European Corn Borer	0	0	0.000	N/A	\$0.00	0.000	0
Stink Bugs	80,000	35,000	0.438	\$6.00	\$2.63	1.000	1,500
Grasshoppers	0	0	0.000	N/A	\$0.00	0.000	0
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0
Aphids	80,000	4,000	0.050	\$9.00	\$0.45	0.300	450
Bandedwinged Whitefly	0	0	0.000	N/A	\$0.00	0.000	0
Sweetpotato 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	40,000	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	1,000	1,000	0.013	\$6.00	\$0.08	0.000	0
Percent Lost	12.85		Est. yield/acre	580			Cost/ Acre
Total Acres	80,000		Spray applications	2.369		Foliar insecticide	\$20.89
Harvested acres	80,000					At planting	\$10.31
			Cost + loss	\$11,228,300		Bt use fees	\$22.48
Total Bales lost	19,275					Eradication	\$7.00
Bales lost in dollars	\$6,013,800		Cost + loss/acre	\$140.35		Scouting	\$4.50
						Total	\$65.18

Table 8c		South Alabama				Cotton insect losses - 1998	
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	190,000	152,000	2.320	\$10.00	\$23.20	6.500	27,016
Pink Bollworm	0	0	0.000	N/A	\$0.00	0.000	0
Cotton Fleahopper	76,000	25,000	0.197	\$6.75	\$1.33	0.000	0
Lygus	190,000	30,000	0.158	\$6.00	\$0.95	0.500	2,078
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.00	0
Spider Mites	750	100	0.001	\$15.00	\$0.01	0.000	0
Thrips, early season	190,000	76,000	0.400	\$4.50	\$1.80	1.000	4,156
Beet Armyworm	50,000	500	0.005	\$16.00	\$0.08	0.000	0
Fall Armyworm	190,000	142,500	1.500	\$10.50	\$15.75	4.000	16,625
European Corn Borer	0	0	0.000	N/A	\$0.00	0.000	0
Stink Bugs	190,000	133,000	1.260	\$6.50	\$8.19	2.000	8,313
Grasshoppers	0	0	0.000	N/A	\$0.00	0.000	0
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0
Aphids	190,000	10,000	0.053	\$10.00	\$0.53	0.000	0
Bandedwinged Whitefly	0	0	0.000	N/A	\$0.00	0.000	0
Sweetpotato Whitefly	0	0	0.000	N/A	\$0.00	0.000	0
Soybean Loopers	2,500	250	0.001	\$12.50	\$0.02	0.000	0
Cabbage Loopers	2,500	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	3,000	800	0.004	\$7.00	\$0.03	0.000	0
Percent Lost	14.00		Est. yield/acre	400			Cost/ Acre
Total Acres	190,000		Spray applications	5.899		Foliar insecticide	\$51.88
Harvested acres	135,000					At planting	\$9.90
			Cost + loss	\$34,811,700		Bt use fees	\$16.01
Total Bales lost	58,188					Eradication	\$5.00
Bales lost in dollars	\$18,154,500		Cost + loss/acre	\$183.22		Scouting	\$4.88
						Total	\$87.67

Table 9		Arizona Summary				Cotton insect losses - 1998	
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	100,000	15,000	0.060	\$14.83	\$0.89	0.040	300
Pink Bollworm	200,000	62,500	0.375	\$15.92	\$5.97	0.800	6,000
Cotton Fleahopper	250,000	2,500	0.007	\$8.00	\$0.06	0.000	0
Lygus	250,000	230,000	2.760	\$20.00	\$55.20	7.000	52,500
Cotton Leafperforator	25,000	750	0.002	\$15.00	\$0.02	0.00	0
Spider Mites	50,000	5,000	0.020	\$18.00	\$0.36	0.120	900
Thrips, early season	250,000	42,500	0.170	\$8.67	\$1.47	0.300	2,250
Beet Armyworm	190,000	22,500	0.090	\$15.00	\$1.35	0.380	2,850
Fall Armyworm	0	0	0.000	N/A	\$0.00	0.000	0
European Corn Borer	0	0	0.000	N/A	\$0.00	0.000	0
Stink Bugs	25,000	7,500	0.030	\$13.00	\$0.39	0.020	150
Grasshoppers	30,000	2,500	0.010	\$12.00	\$0.12	0.000	0
Salt-marsh Caterpillars	40,000	2,000	0.008	\$14.50	\$0.12	0.000	0
Aphids	75,000	12,500	0.100	\$17.00	\$1.70	0.000	0
Bandedwinged Whitefly	187,500	0	0.000	N/A	\$0.00	0.000	0
Sweetpotato Whitefly	230,000	187,500	1.050	\$34.00	\$35.70	0.276	2,070
Soybean Loopers	0	0	0.000	N/A	\$0.00	0.000	0
Cabbage Loopers	75,000	0	0.000	N/A	\$0.00	0.000	0
Western Flower Thrips	200,000	0	0.000	N/A	\$0.00	0.000	0
Cutworms	2,500	500	0.002	\$15.00	\$0.03	0.000	0
Percent Lost	8.94		Est. yield/acre	1,100			Cost/ Acre
Total Acres	250,000		Spray applications	4.684		Foliar insecticide	\$103.38
Harvested acres	248,500					At planting	\$3.95
						Bt use fees	\$29.19
			Cost + loss	\$57,961,690		Eradication	\$1.79
Total Bales lost	67,020					Scouting	\$9.90
Bales lost in dollars	\$20,910,240		Cost + loss/acre	\$231.85		Total	\$148.21

Table 10		Arkansas Summary				Cotton insect losses - 1998	
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost
Boll weevil	760,000	713,900	2.505	\$6.34	\$15.88	2.035	40,567
Bollworm/budworm	805,000	776,000	3.120	\$12.24	\$38.20	4.664	92,963
Pink Bollworm	0	0	0.000	N/A	\$0.00	0.000	0
Cotton Fleahopper	150,000	6,000	0.007	\$5.00	\$0.04	0.000	0
Lygus	855,000	486,850	0.569	\$5.40	\$3.07	1.059	21,104
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.00	0
Spider Mites	89,950	46,400	0.054	\$12.00	\$0.65	0.018	350
Thrips, early season	855,000	111,820	0.131	\$4.16	\$0.54	0.605	12,068
Beet Armyworm	171,500	35,000	0.070	\$15.50	\$1.09	0.058	1,161
Fall Armyworm	110,000	40,000	0.047	\$13.00	\$0.61	0.009	175
European Corn Borer	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
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0
Aphids	536,500	122,340	0.143	\$7.25	\$1.04	0.119	2,376
Bandedwinged Whitefly	80,000	1,200	0.001	\$9.40	\$0.01	0.000	0
Sweetpotato Whitefly	0	0	0.000	N/A	\$0.00	0.000	0
Soybean Loopers	80,000	8,000	0.009	\$15.00	\$0.14	0.000	0
Cabbage Loopers	50,000	2,000	0.002	\$10.00	\$0.02	0.000	0
Western Flower Thrips	0	0	0.000	N/A	\$0.00	0.000	0
Cutworms	50,000	24,000	0.028	\$2.50	\$0.07	0.000	0
Percent Lost	8.57		Est. yield/acre	674			Cost/ Acre
Total Acres	855,000		Spray applications	6.688		Foliar insecticide	\$61.37
Harvested acres	850,000					At planting	\$8.74
						Bt use fees	\$4.32
			Cost + loss	\$121,650,291		Eradication	\$0.00
Total Bales lost	170,764					Scouting	\$5.54
Bales lost in dollars	\$53,278,284		Cost + loss/acre	\$142.28		Total	\$79.97

Table 10a		Northeast Arkansas				Cotton insect losses - 1998	
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost
Boll weevil	418,000	389,000	2.275	\$6.34	\$14.42	1.956	21,945
Bollworm/budworm	463,000	436,000	2.550	\$10.50	\$26.77	4.513	50,641
Pink Bollworm	0	0	0.000	N/A	\$0.00	0.000	0
Cotton Fleahopper	50,000	3,000	0.006	\$5.00	\$0.03	0.000	0
Lygus	513,000	230,850	0.450	\$5.40	\$2.43	0.900	10,100
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.000	0
Spider Mites	79,950	42,400	0.083	\$12.00	\$0.99	0.031	350
Thrips, early season	513,000	71,820	0.140	\$4.16	\$0.58	1.000	11,222
Beet Armyworm	21,500	10,000	0.019	\$15.50	\$0.30	0.004	47
Fall Armyworm	80,000	30,000	0.058	\$13.00	\$0.76	0.016	175
European Corn Borer	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
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0
Aphids	256,500	92,340	0.180	\$7.20	\$1.30	0.150	1,683
Bandedwinged Whitefly	0	0	0.000	N/A	\$0.00	0.000	0
Sweetpotato 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	30,000	12,000	0.023	\$2.00	\$0.05	0.000	0

Percent Lost	8.57	Est. yield/acre	640			Cost/ Acre
Total Acres	513,000	Spray applications	5.784			Foliar insecticide
Harvested acres	509,000					At planting
						Bt use fees
		Cost + loss	\$61,639,741			Eradication
Total Bales lost	96,162					Scouting
Bales lost in dollars	\$30,002,632	Cost + loss/acre	\$120.16			Total
						\$47.63
						\$8.48
						\$0.40
						\$0.00
						\$5.16
						\$61.67

Table 10b		Southeast Arkansas				Cotton insect losses - 1998	
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost
Boll weevil	342,000	324,900	2.850	\$6.34	\$18.07	2.200	18,622
Bollworm/budworm	342,000	340,000	3.977	\$13.92	\$55.35	5.000	42,323
Pink Bollworm	0	0	0.000	N/A	\$0.00	0.000	0
Cotton Fleahopper	100,000	3,000	0.009	\$5.00	\$0.04	0.000	0
Lygus	342,000	256,000	0.749	\$5.40	\$4.04	1.300	11,004
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.000	0
Spider Mites	10,000	4,000	0.012	\$12.00	\$0.14	0.000	0
Thrips, early season	342,000	40,000	0.117	\$4.16	\$0.49	0.100	846
Beet Armyworm	150,000	25,000	0.146	\$15.50	\$2.27	0.132	1,114
Fall Armyworm	30,000	10,000	0.029	\$13.00	\$0.38	0.000	0
European Corn Borer	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
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0
Aphids	280,000	30,000	0.088	\$7.40	\$0.65	0.082	693
Bandedwinged Whitefly	80,000	1,200	0.004	\$9.40	\$0.03	0.000	0
Sweetpotato Whitefly	0	0	0.000	N/A	\$0.00	0.000	0
Soybean Loopers	80,000	8,000	0.023	\$15.00	\$0.35	0.000	0
Cabbage Loopers	50,000	2,000	0.006	\$10.00	\$0.06	0.000	0
Western Flower Thrips	0	0	0.000	N/A	\$0.00	0.000	0
Cutworms	20,000	12,000	0.035	\$3.00	\$0.11	0.000	0

Percent Lost	8.81	Est. yield/acre	725			Cost/ Acre
Total Acres	342,000	Spray applications	8.044			Foliar insecticide
Harvested acres	341,000					At planting
						Bt use fees
		Cost + loss	\$60,010,550			Eradication
Total Bales lost	74,601					Scouting
Bales lost in dollars	\$23,275,652	Cost + loss/acre	\$175.47			Total
						\$81.98
						\$9.12
						\$10.20
						\$0.00
						\$6.11
						\$107.41

Table 11		California Summary				Cotton insect losses - 1998	
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	27,900	5,080	0.006	\$11.06	\$0.07	0.000	3
Pink Bollworm	7,800	0	0.000	N/A	\$0.00	0.000	0
Cotton Fleahopper	0	0	0.000	N/A	\$0.00	0.000	0
Lygus	826,800	518,800	0.930	\$21.01	\$19.54	3.312	86,330
Cotton Leafperforator	7,800	7,800	0.009	\$21.00	\$0.20	0.00	0
Spider Mites	823,800	707,500	0.856	\$25.00	\$21.39	1.624	42,323
Thrips, early season	757,800	50,000	0.060	\$10.00	\$0.60	0.150	3,906
Beet Armyworm	208,700	101,800	0.147	\$15.02	\$2.21	0.102	2,658
Fall Armyworm	0	0	0.000	N/A	\$0.00	0.000	0
European Corn Borer	0	0	0.000	N/A	\$0.00	0.000	0
Stink Bugs	7,800	0	0.000	N/A	\$0.00	0.000	0
Grasshoppers	0	0	0.000	N/A	\$0.00	0.000	0
Salt-marsh Caterpillars	7,800	0	0.000	N/A	\$0.00	0.000	0
Aphids	201,000	100,900	0.183	\$15.00	\$2.74	0.201	5,238
Bandedwinged Whitefly	7,800	0	0.000	N/A	\$0.00	0.000	0
Sweetpotato Whitefly	27,800	20,300	0.043	\$29.91	\$1.30	0.033	862
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
Percent Lost	5.42		Est. yield/acre	917			Cost/ Acre
						Foliar insecticide	\$48.05
Total Acres	826,800		Spray applications	2.235		At planting	\$1.09
Harvested acres	826,800					Bt use fees	\$0.16
			Cost + loss	\$93,119,729		Eradication	\$0.00
Total Bales lost	141,321					Scouting	\$10.00
Bales lost in dollars	\$44,092,009		Cost + loss/acre	\$112.63		Total	\$59.30

Table 11a		Imperial Valley - California				Cotton insect losses - 1998	
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	7,800	0	0.000	N/A	\$0.00	0.000	0
Pink Bollworm	7,800	0	0.000	N/A	\$0.00	0.000	0
Cotton Fleahopper	0	0	0.000	N/A	\$0.00	0.000	0
Lygus	7,800	7,800	1.000	\$22.00	\$22.00	5.000	1,503
Cotton Leafperforator	7,800	7,800	1.000	\$21.00	\$21.00	0.00	0
Spider Mites	7,800	0	0.000	N/A	\$0.00	0.000	0
Thrips, early season	7,800	0	0.000	N/A	\$0.00	0.000	0
Beet Armyworm	7,800	1,000	0.128	\$18.00	\$2.31	0.000	0
Fall Armyworm	0	0	0.000	N/A	\$0.00	0.000	0
European Corn Borer	0	0	0.000	N/A	\$0.00	0.000	0
Stink Bugs	7,800	0	0.000	N/A	\$0.00	0.000	0
Grasshoppers	0	4,900	0.000	N/A	\$0.00	0.000	0
Salt-marsh Caterpillars	7,800	0	0.000	N/A	\$0.00	0.000	0
Aphids	0	0	0.000	N/A	\$0.00	0.000	0
Bandedwinged Whitefly	7,800	0	0.000	N/A	\$0.00	0.000	0
Sweetpotato Whitefly	7,800	7,800	3.000	\$32.00	\$96.00	2.000	601
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
Percent Lost	7.00		Est. yield/acre	1,350			Cost/ Acre
						Foliar insecticide	\$141.31
Total Acres	7,800		Spray applications	5.128		At planting	\$0.00
Harvested acres	7,800					Bt use fees	\$0.00
			Cost + loss	\$1,836,765		Eradication	\$0.00
Total Bales lost	2,104					Scouting	\$10.00
Bales lost in dollars	\$656,565		Cost + loss/acre	\$235.48		Total	\$151.31

Table 11b		Sacramento Valley - California				Cotton insect losses - 1998	
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	100	80	0.007	\$15.00	\$0.11	0.009	3
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	11,000	11,000	1.000	\$21.00	\$21.00	2.000	660
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.000	0
Spider Mites	8,000	7,500	0.682	\$25.00	\$17.05	0.727	240
Thrips, early season	0	0	0.000	N/A	\$0.00	0.000	0
Beet Armyworm	900	800	0.073	\$15.00	\$1.09	0.164	54
Fall Armyworm	0	0	0.000	N/A	\$0.00	0.000	0
European Corn Borer	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
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0
Aphids	1,000	900	0.082	\$15.00	\$1.23	0.091	30
Bandedwinged Whitefly	0	0	0.000	N/A	\$0.00	0.000	0
Sweetpotato 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
Percent Lost	2.99		Est. yield/acre	1,080			Cost/ Acre
Total Acres	11,000		Spray applications	1.844		Foliar insecticide	\$40.47
Harvested acres	11,000					At planting	\$8.73
			Cost + loss	\$959,144		Bt use fees	\$0.00
Total Bales lost	987					Eradication	\$0.00
Bales lost in dollars	\$307,944		Cost + loss/acre	\$87.19		Scouting	\$10.00
						Total	\$59.20

Table 11c		San Joaquin Valley - California				Cotton insect losses - 1998	
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	20,000	5,000	0.006	\$11.00	\$0.07	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	808,000	500,000	0.928	\$21.00	\$19.49	4.000	84,167
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.000	0
Spider Mites	808,000	700,000	0.866	\$25.00	\$21.66	2.000	42,083
Thrips, early season	750,000	50,000	0.062	\$10.00	\$0.62	0.186	3,906
Beet Armyworm	200,000	100,000	0.149	\$15.00	\$2.23	0.124	2,604
Fall Armyworm	0	0	0.000	N/A	\$0.00	0.000	0
European Corn Borer	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
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0
Aphids	200,000	100,000	0.186	\$15.00	\$2.78	0.248	5,208
Bandedwinged Whitefly	0	0	0.000	N/A	\$0.00	0.000	0
Sweetpotato Whitefly	20,000	12,500	0.015	\$26.00	\$0.40	0.012	260
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
Percent Lost	6.57		Est. yield/acre	911			Cost/ Acre
Total Acres	808,000		Spray applications	2.212		Foliar insecticide	\$47.25
Harvested acres	808,000					At planting	\$1.00
			Cost + loss	\$90,195,500		Bt use fees	\$0.00
Total Bales lost	138,229					Eradication	\$0.00
Bales lost in dollars	\$43,127,500		Cost + loss/acre	\$111.63		Scouting	\$10.00
						Total	\$58.25

Table 12		Florida Summary				Cotton insect losses - 1998	
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	42,000	40,000	2.000	\$13.25	\$26.50	2.100	3,500
Pink Bollworm	0	0	0.000	N/A	\$0.00	0.000	0
Cotton Fleahopper	1,200	0	0.000	N/A	\$0.00	0.000	0
Lygus	75,000	15,500	0.000	\$0.30	\$0.00	0.281	469
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.00	0
Spider Mites	0	0	0.000	N/A	\$0.00	0.000	0
Thrips, early season	80,000	1,500	0.000	\$0.00	\$0.00	0.000	0
Beet Armyworm	19,000	2,000	0.000	\$0.10	\$0.00	0.024	40
Fall Armyworm	62,500	60,000	0.000	\$1.00	\$0.00	0.781	1,302
European Corn Borer	300	0	0.000	N/A	\$0.00	0.000	0
Stink Bugs	33,000	15,000	0.000	\$0.50	\$0.00	0.206	344
Grasshoppers	0	0	0.000	N/A	\$0.00	0.000	0
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0
Aphids	80,000	2,100	0.000	\$0.10	\$0.00	0.100	167
Bandedwinged Whitefly	15,000	0	0.000	N/A	\$0.00	0.000	0
Sweetpotato Whitefly	0	0	0.000	N/A	\$0.00	0.000	0
Soybean Loopers	15,000	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	62,000	0	0.000	N/A	\$0.00	0.000	0
Cutworms	150	0	0.000	N/A	\$0.00	0.000	0
Percent Lost	3.49		Est. yield/acre	450			Cost/ Acre
Total Acres	80,000		Spray applications	2.001		Foliar insecticide	\$26.50
Harvested acres	80,000					At planting	\$7.07
						Bt use fees	\$22.49
			Cost + loss	\$7,305,531		Eradication	\$6.00
Total Bales lost	5,821					Scouting	\$6.56
Bales lost in dollars	\$1,816,100		Cost + loss/acre	\$91.32		Total	\$68.62

Table 13		Georgia Summary				Cotton insect losses - 1998	
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	1,200,000	800,000	1.538	\$10.00	\$15.38	2.769	75,000
Pink Bollworm	0	0	0.000	N/A	\$0.00	0.000	0
Cotton Fleahopper	200,000	10,000	0.008	\$6.00	\$0.05	0.000	0
Lygus	400,000	140,000	0.108	\$6.00	\$0.65	0.154	4,167
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.00	0
Spider Mites	0	0	0.000	N/A	\$0.00	0.000	0
Thrips, early season	1,300,000	175,000	0.135	\$5.00	\$0.67	0.000	0
Beet Armyworm	400,000	100,000	0.077	\$10.00	\$0.77	0.154	4,167
Fall Armyworm	800,000	350,000	0.404	\$10.00	\$4.04	0.615	16,667
European Corn Borer	0	0	0.000	N/A	\$0.00	0.000	0
Stink Bugs	700,000	325,000	0.375	\$7.00	\$2.63	0.538	14,583
Grasshoppers	0	4,900	0.000	N/A	\$0.00	0.000	0
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0
Aphids	300,000	40,000	0.031	\$7.00	\$0.22	0.000	0
Bandedwinged Whitefly	50,000	0	0.000	N/A	\$0.00	0.000	0
Sweetpotato Whitefly	5,000	1,000	0.001	\$18.00	\$0.02	0.019	521
Soybean Loopers	100,000	20,000	0.015	\$12.00	\$0.18	0.000	0
Cabbage Loopers	50,000	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	15,000	5,000	0.004	\$8.00	\$0.03	0.000	0
Percent Lost	4.25		Est. yield/acre	517			Cost/ Acre
Total Acres	1,300,000		Spray applications	2.695		Foliar insecticide	\$24.63
Harvested acres	1,300,000					At planting	\$8.85
						Bt use fees	\$12.20
			Cost + loss	\$108,776,750		Eradication	\$4.50
Total Bales lost	115,104					Scouting	\$5.87
Bales lost in dollars	\$35,912,500		Cost + loss/acre	\$83.67		Total	\$56.05

Table 14		Louisiana Summary				Cotton insect losses - 1998	
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost
Boll weevil	468,066	429,005	2.971	\$7.96	\$23.65	2.644	26,440
Bollworm/budworm	504,018	436,528	3.484	\$11.30	\$39.37	1.540	15,402
Pink Bollworm	0	0	0.000	N/A	\$0.00	0.000	0
Cotton Fleahopper	120,753	57,352	0.038	\$6.78	\$0.26	0.051	514
Lygus	448,356	391,197	1.956	\$7.55	\$14.77	1.470	14,698
Cotton Leafperforator	9,893	0	0.000	N/A	\$0.00	0.00	0
Spider Mites	120,893	30,529	0.021	\$13.72	\$0.29	0.004	43
Thrips, early season	466,872	306,432	0.448	\$3.44	\$1.54	0.138	1,383
Beet Armyworm	284,427	211,424	0.367	\$15.42	\$5.66	0.237	2,371
Fall Armyworm	144,358	30,004	0.017	\$11.39	\$0.19	0.011	107
European Corn Borer	0	0	0.000	N/A	\$0.00	0.000	0
Stink Bugs	65,016	0	0.000	N/A	\$0.00	0.000	0
Grasshoppers	30,619	30,619	0.000	\$7.06	\$0.00	0.000	0
Salt-marsh Caterpillars	13,121	164	0.000	\$1.22	\$0.00	0.000	0
Aphids	413,976	277,843	0.715	\$10.29	\$7.36	0.215	2,147
Bandedwinged Whitefly	120,938	41,518	0.038	\$9.90	\$0.38	0.001	9
Sweetpotato Whitefly	0	0	0.000	N/A	\$0.00	0.000	0
Soybean Loopers	349,007	136,501	0.192	\$10.03	\$1.93	0.058	582
Cabbage Loopers	175,469	5,314	0.001	\$5.85	\$0.01	0.008	81
Western Flower Thrips	65,075	0	0.000	N/A	\$0.00	0.000	0
Cutworms	212,652	22,515	0.037	\$5.24	\$0.19	0.004	35
Percent Lost	6.38		Est. yield/acre	534			Cost/ Acre
Total Acres	540,000		Spray applications	10.286		Foliar insecticide	\$95.59
Harvested acres	534,600					At planting	\$6.31
			Cost + loss	\$90,809,494		Bt use fees	\$19.69
Total Bales lost	63,813					Eradication	\$3.31
Bales lost in dollars	\$19,909,623		Cost + loss/acre	\$168.17		Scouting	\$6.39
						Total	\$131.30

Table 15		Mississippi Summary				Cotton insect losses - 1998	
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost
Boll weevil	922,268	449,608	2.020	\$5.30	\$10.71	1.486	30,742
Bollworm/budworm	930,528	805,506	2.509	\$10.83	\$27.17	4.220	87,293
Pink Bollworm	0	0	0.000	n/a.	\$0.00	0.000	0
Cotton Fleahopper	57,000	12,300	0.013	\$6.64	\$0.09	0.011	219
Lygus	930,528	528,506	1.255	\$7.18	\$9.01	0.804	16,626
Cotton Leafperforator	0	0	0.000	n/a	\$0.00	0.00	0
Spider Mites	930,528	81,800	0.113	\$12.60	\$1.31	0.076	1,579
Thrips, early season	930,528	267,631	0.294	\$2.69	\$0.79	0.123	2,541
Beet Armyworm	930,528	145,915	0.189	\$14.11	\$2.66	0.116	2,406
Fall Armyworm	930,528	160,815	0.191	\$11.08	\$2.12	0.239	4,948
European Corn Borer	25,500	0	0.000	n/a	\$0.00	0.000	0
Stink Bugs	323,000	13,700	0.018	\$6.53	\$0.12	0.027	554
Grasshoppers	565,268	4,900	0.005	n/a	\$0.04	0.003	54
Salt-marsh Caterpillars	134,700	4,000	0.004	\$9.31	\$0.04	0.000	2
Aphids	930,528	358,898	0.485	\$8.50	\$4.12	0.926	19,153
Bandedwinged Whitefly	930,528	135,697	0.219	\$8.00	\$1.75	0.232	4,795
Sweetpotato Whitefly	6,000	0	0.000	n/a	\$0.00	0.000	0
Soybean Loopers	930,528	127,500	0.137	\$13.90	\$1.90	0.070	1,458
Cabbage Loopers	0	0	0.000	n/a	\$0.00	0.000	0
Western Flower Thrips	930,528	0	0.000	n/a	\$0.00	0.000	0
Cutworms	486,400	101,000	0.109	\$5.46	\$0.59	0.022	446
Percent Lost	8.35		Est. yield/acre	717			Cost/ Acre
Total Acres	930,528		Spray applications	7.562		Foliar insecticide	\$62.44
Harvested acres	565,268					At planting	\$6.96
			Cost + loss	\$150,922,010		Bt use fees	\$17.09
Total Bales lost	172,816					Eradication	\$12.09
Bales lost in dollars	\$53,918,654		Cost + loss/acre	\$162.19		Scouting	\$5.68
						Total	\$104.25

Table 15a		Mississippi Delta				Cotton insect losses - 1998		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	565,268	447,008	3.321	\$5.30	\$17.60	2.270	30,742	
Bollworm/budworm	565,268	491,506	3.130	\$11.00	\$34.43	3.460	46,858	
Pink Bollworm	0	0	0.000	n/a.	\$0.00	0.000	0	
Cotton Fleahopper	7,000	5,300	0.009	\$7.21	\$0.07	0.012	168	
Lygus	565,268	488,506	1.988	\$7.21	\$14.33	1.200	16,251	
Cotton Leafperforator	0	0	0.000	n/a	\$0.00	0.00	0	
Spider Mites	565,268	78,300	0.180	\$12.60	\$2.07	0.100	1,354	
Thrips, early season	565,268	147,131	0.260	\$2.60	\$0.68	0.160	2,167	
Beet Armyworm	565,268	98,915	0.227	\$14.30	\$3.25	0.150	2,031	
Fall Armyworm	565,268	74,815	0.132	\$11.60	\$1.54	0.100	1,354	
European Corn Borer	500	0	0.000	n/a	\$0.00	0.000	0	
Stink Bugs	127,000	2,700	0.005	\$6.70	\$0.03	0.011	152	
Grasshoppers	565,268	4,900	0.008	n/a	\$0.07	0.004	54	
Salt-marsh Caterpillars	11,000	500	0.001	\$8.00	\$0.01	0.000	2	
Aphids	565,268	150,156	0.319	\$8.50	\$2.71	0.419	5,674	
Bandedwinged Whitefly	565,268	22,500	0.040	\$8.00	\$0.32	0.050	677	
Sweetpotato Whitefly	0	0	0.000	n/a	\$0.00	0.000	0	
Soybean Loopers	565,268	42,500	0.075	\$14.10	\$1.06	0.080	1,083	
Cabbage Loopers	0	0	0.000	n/a	\$0.00	0.000	0	
Western Flower Thrips	565,268	0	0.000	n/a	\$0.00	0.000	0	
Cutworms	304,400	63,000	0.111	\$5.50	\$0.61	0.005	73	
Percent Lost	8.02		Est. yield/acre	769			Cost/ Acre	
Total Acres	565,268		Spray applications	9.808		Foliar insecticide	\$78.78	
Harvested acres	565,268					At planting	\$7.00	
			Cost + loss	\$95,930,961		Bt use fees	\$12.76	
Total Bales lost	108,643					Eradication	\$4.92	
Bales lost in dollars	\$33,896,618		Cost + loss/acre	\$169.71		Scouting	\$6.29	
						Total	\$109.74	

Table 15b		Mississippi Hills				Cotton insect losses - 1998		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	357,000	2,600	0.007	\$5.50	\$0.04	0.000	0	
Bollworm/budworm	365,260	314,000	1.547	\$10.30	\$15.94	5.400	40,434	
Pink Bollworm	0	0	0.000	n/a.	\$0.00	0.000	0	
Cotton Fleahopper	50,000	7,000	0.019	\$6.20	\$0.12	0.007	51	
Lygus	365,260	40,000	0.120	\$6.50	\$0.78	0.050	374	
Cotton Leafperforator	0	0	0.000	n/a	\$0.00	0.00	0	
Spider Mites	365,260	3,500	0.010	\$12.60	\$0.12	0.030	225	
Thrips, early season	365,260	120,500	0.346	\$2.80	\$0.97	0.050	374	
Beet Armyworm	365,260	47,000	0.129	\$13.60	\$1.75	0.050	374	
Fall Armyworm	365,260	86,000	0.283	\$10.70	\$3.02	0.480	3,594	
European Corn Borer	25,000	0	0.000	n/a	\$0.00	0.000	0	
Stink Bugs	196,000	11,000	0.039	\$6.50	\$0.25	0.054	402	
Grasshoppers	0	0	0.000	n/a	\$0.00	0.000	0	
Salt-marsh Caterpillars	123,700	3,500	0.010	\$9.50	\$0.09	0.000	0	
Aphids	365,260	208,742	0.743	\$8.50	\$6.31	1.800	13,478	
Bandedwinged Whitefly	365,260	113,197	0.496	\$8.00	\$3.97	0.550	4,118	
Sweetpotato Whitefly	6,000	0	0.000	n/a	\$0.00	0.000	0	
Soybean Loopers	365,260	85,000	0.233	\$13.80	\$3.21	0.000	0	
Cabbage Loopers	0	0	0.000	n/a	\$0.00	0.000	0	
Western Flower Thrips	365,260	0	0.000	n/a	\$0.00	0.000	0	
Cutworms	182,000	38,000	0.104	\$5.40	\$0.56	0.050	373	
Percent Lost	8.52		Est. yield/acre	636			Cost/ Acre	
Total Acres	365,260		Spray applications	4.086		Foliar insecticide	\$37.14	
Harvested acres	365,260					At planting	\$6.89	
			Cost + loss	\$55,080,626		Bt use fees	\$24.60	
Total Bales lost	63,799					Eradication	\$22.00	
Bales lost in dollars	\$19,905,241		Cost + loss/acre	\$150.80		Scouting	\$5.67	
						Total	\$96.30	

Table 16		Missouri Summary				Cotton insect losses - 1998		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	307,450	225,390	1.610	\$8.20	\$13.20	1.493	10,344	
Bollworm/budworm	310,420	275,465	1.574	\$10.75	\$16.92	6.120	42,392	
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	295,190	162,911	0.465	\$6.25	\$2.91	0.337	2,337	
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.00	0	
Spider Mites	83,664	11,278	0.023	\$12.50	\$0.28	0.012	83	
Thrips, early season	158,038	25,063	0.014	\$2.00	\$0.03	0.011	78	
Beet Armyworm	22,500	0	0.000	N/A	\$0.00	0.000	0	
Fall Armyworm	207,816	53,608	0.092	\$17.25	\$1.59	0.475	3,290	
European Corn Borer	65,443	33,417	0.038	\$13.00	\$0.50	0.009	65	
Stink Bugs	13,900	0	0.000	N/A	\$0.00	0.000	0	
Grasshoppers	0	0	0.000	N/A	\$0.00	0.000	0	
Salt-marsh Caterpillars	3,300	0	0.000	N/A	\$0.00	0.000	0	
Aphids	222,784	190,759	0.600	\$8.50	\$5.10	2.228	15,432	
Bandedwinged Whitefly	0	0	0.000	N/A	\$0.00	0.000	0	
Sweetpotato 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	69,120	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	31,500	13,924	0.016	\$3.00	\$0.05	0.007	47	
Percent Lost	10.69		Est. yield/acre	520			Cost/ Acre	
Total Acres	350,000		Spray applications	4.432		Foliar insecticide	\$40.57	
Harvested acres	330,000					At planting	\$0.00	
						Bt use fees	\$0.09	
			Cost + loss	\$38,775,947		Eradication	\$0.00	
Total Bales lost	74,068					Scouting	\$4.11	
Bales lost in dollars	\$23,109,348		Cost + loss/acre	\$110.79		Total	\$44.76	

Table 17		New Mexico Summary				Cotton insect losses - 1998		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	55,000	27,000	0.540	\$9.80	\$5.29	1.283	1,476	
Bollworm/budworm	60,000	57,000	1.900	\$13.50	\$25.65	5.900	6,785	
Pink Bollworm	25,000	8,000	0.093	\$9.75	\$0.91	0.208	240	
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 Leafperforator	0	0	0.000	N/A	\$0.00	0.00	0	
Spider Mites	0	0	0.000	N/A	\$0.00	0.000	0	
Thrips, early season	33,000	0	0.000	N/A	\$0.00	0.000	0	
Beet Armyworm	48,000	14,000	0.140	\$16.50	\$2.31	0.880	1,012	
Fall Armyworm	0	0	0.000	N/A	\$0.00	0.000	0	
European Corn Borer	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	
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0	
Aphids	15,000	2,000	0.033	\$5.00	\$0.17	0.175	201	
Bandedwinged Whitefly	0	0	0.000	N/A	\$0.00	0.000	0	
Sweetpotato 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	
Percent Lost	8.45		Est. yield/acre	690			Cost/ Acre	
Total Acres	60,000		Spray applications	2.707		Foliar insecticide	\$34.33	
Harvested acres	60,000					At planting	\$2.22	
						Bt use fees	\$11.31	
			Cost + loss	\$6,368,584		Eradication	\$4.93	
Total Bales lost	9,714					Scouting	\$2.85	
Bales lost in dollars	\$3,030,664		Cost + loss/acre	\$106.14		Total	\$55.63	

Table 18		North Carolina Summary				Cotton insect losses - 1998		
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	695,000	687,000	3.045	\$7.19	\$21.89	4.400	86,452	
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	695,000	46,250	0.067	\$5.19	\$0.35	0.005	98	
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.00	0	
Spider Mites	70,000	1,000	0.002	\$13.20	\$0.02	0.000	0	
Thrips, early season	695,000	160,000	0.322	\$4.19	\$1.35	0.010	196	
Beet Armyworm	200,000	25,000	0.040	\$16.70	\$0.66	0.001	28	
Fall Armyworm	350,000	30,000	0.043	\$12.20	\$0.53	0.010	198	
European Corn Borer	350,000	1,000	0.001	\$7.50	\$0.01	0.001	29	
Stink Bugs	500,000	2,600	0.004	\$7.45	\$0.03	0.005	95	
Grasshoppers	0	0	0.000	N/A	\$0.00	0.000	0	
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0	
Aphids	650,000	6,000	0.009	\$9.50	\$0.08	0.007	147	
Bandedwinged Whitefly	0	0	0.000	N/A	\$0.00	0.000	0	
Sweetpotato Whitefly	0	0	0.000	N/A	\$0.00	0.000	0	
Soybean Loopers	10,000	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	50,000	3,000	0.004	\$6.50	\$0.03	0.000	7	
Percent Lost	4.44		Est. yield/acre	750			Cost/ Acre	
Total Acres	695,000		Spray applications	3.536		Foliar insecticide	\$24.95	
Harvested acres	690,000					At planting	\$12.78	
						Bt use fees	\$3.57	
			Cost + loss	\$61,572,052		Eradication	\$3.60	
Total Bales lost	87,251					Scouting	\$4.53	
Bales lost in dollars	\$27,222,242		Cost + loss/acre	\$88.59		Total	\$49.42	

Table 19		Oklahoma Summary				Cotton insect losses - 1998		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	100,000	80,000	1.333	\$6.50	\$8.67	1.667	2,500	
Bollworm/budworm	120,000	60,000	1.500	\$19.00	\$28.50	4.000	6,000	
Pink Bollworm	0	0	0.000	N/A	\$0.00	0.000	0	
Cotton Fleahopper	120,000	80,000	0.667	\$6.50	\$4.33	0.250	375	
Lygus	0	0	0.000	N/A	\$0.00	0.000	0	
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.00	0	
Spider Mites	0	0	0.000	N/A	\$0.00	0.000	0	
Thrips, early season	120,000	40,000	0.333	\$5.00	\$1.67	0.250	375	
Beet Armyworm	90,000	60,000	1.500	\$16.00	\$24.00	1.875	2,813	
Fall Armyworm	0	0	0.000	N/A	\$0.00	0.000	0	
European Corn Borer	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	4,900	0.000	N/A	\$0.00	0.000	0	
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0	
Aphids	80,000	60,000	1.000	\$8.00	\$8.00	0.667	1,000	
Bandedwinged Whitefly	0	0	0.000	N/A	\$0.00	0.000	0	
Sweetpotato 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	
Percent Lost	8.71		Est. yield/acre	475			Cost/ Acre	
Total Acres	120,000		Spray applications	6.333		Foliar insecticide	\$75.17	
Harvested acres	105,000					At planting	\$1.25	
						Bt use fees	\$2.60	
			Cost + loss	\$15,474,800		Eradication	\$12.25	
Total Bales lost	13,063					Scouting	\$3.73	
Bales lost in dollars	\$4,075,500		Cost + loss/acre	\$128.96		Total	\$94.99	

Table 20		South Carolina Summary				Cotton insect losses - 1998		
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	280,000	275,000	3.438	\$9.50	\$32.66	3.500	19,763	
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	150,000	7,000	0.038	\$8.50	\$0.32	0.000	0	
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.00	0	
Spider Mites	0	0	0.000	N/A	\$0.00	0.000	0	
Thrips, early season	260,000	35,000	0.125	\$6.00	\$0.75	0.000	0	
Beet Armyworm	100,000	40,000	0.214	\$20.00	\$4.29	0.179	1,008	
Fall Armyworm	75,000	15,000	0.054	\$20.00	\$1.07	0.134	756	
European Corn Borer	0	0	0.000	N/A	\$0.00	0.000	0	
Stink Bugs	200,000	130,000	0.464	\$10.00	\$4.64	1.071	6,050	
Grasshoppers	0	0	0.000	N/A	\$0.00	0.000	0	
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0	
Aphids	220,000	30,000	0.107	\$12.00	\$1.29	0.000	0	
Bandedwinged Whitefly	1,000	0	0.000	N/A	\$0.00	0.000	0	
Sweetpotato 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	
Percent Lost	4.88		Est. yield/acre	600			Cost/ Acre	
Total Acres	280,000		Spray applications	4.439		Foliar insecticide	\$45.01	
Harvested acres	278,000					At planting	\$14.25	
			Cost + loss	\$31,390,910		Bt use fees	\$10.00	
Total Bales lost	27,578					Eradication	\$5.75	
Bales lost in dollars	\$8,604,310		Cost + loss/acre	\$112.11		Scouting	\$6.37	
						Total	\$81.38	

Table 21		Tennessee Summary				Cotton insect losses - 1998		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	435,600	404,585	3.596	\$7.25	\$26.07	5.179	45,056	
Bollworm/budworm	432,585	363,371	2.713	\$12.38	\$33.59	5.864	51,016	
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	426,150	285,520	0.698	\$7.06	\$4.93	1.468	12,770	
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.00	0	
Spider Mites	130,750	975	0.003	\$12.85	\$0.03	0.029	253	
Thrips, early season	342,000	123,750	0.275	\$5.73	\$1.58	0.608	5,290	
Beet Armyworm	45,000	200	0.000	\$14.25	\$0.01	0.006	52	
Fall Armyworm	225,000	10,575	0.024	\$14.25	\$0.33	0.050	435	
European Corn Borer	265,000	31,000	0.069	\$8.75	\$0.60	1.072	9,324	
Stink Bugs	225,000	28,800	0.064	\$8.60	\$0.55	0.170	1,479	
Grasshoppers	0	4,900	0.000	N/A	\$0.00	0.000	0	
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0	
Aphids	240,500	30,850	0.069	\$8.75	\$0.60	0.187	1,627	
Bandedwinged Whitefly	45,000	0	0.000	N/A	\$0.00	0.010	87	
Sweetpotato 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	137,500	5,250	0.012	\$14.25	\$0.17	0.031	266	
Western Flower Thrips	0	0	0.000	N/A	\$0.00	0.000	0	
Cutworms	112,500	5,700	0.013	\$5.50	\$0.07	0.025	218	
Percent Lost	14.70		Est. yield/acre	617			Cost/ Acre	
Total Acres	450,000		Spray applications	7.535		Foliar insecticide	\$68.53	
Harvested acres	445,000					At planting	\$9.72	
			Cost + loss	\$80,322,111		Bt use fees	\$3.71	
Total Bales lost	127,873					Eradication	\$3.38	
Bales lost in dollars	\$39,896,318		Cost + loss/acre	\$178.49		Scouting	\$4.50	
						Total	\$89.84	

Table 22 Texas Summary Cotton insect losses - 1998

Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost
Boll weevil	2,847,968	1,970,244	1.111	\$7.30	\$8.12	7.015	350,349
Bollworm/budworm	3,003,540	1,298,281	0.560	\$10.41	\$5.83	1.255	62,661
Pink Bollworm	70,778	32,945	0.019	\$10.03	\$0.19	0.011	572
Cotton Fleahopper	2,036,450	1,004,200	0.476	\$4.93	\$2.35	0.892	44,552
Lygus	347,216	23,000	0.007	\$7.23	\$0.05	0.022	1,099
Cotton Leafperforator	347,815	0	0.000	N/A	\$0.00	0.00	0
Spider Mites	299,000	8,000	0.002	\$8.36	\$0.02	0.148	7,376
Thrips, early season	2,931,292	640,725	0.219	\$4.46	\$0.98	0.801	39,994
Beet Armyworm	2,310,292	874,000	0.258	\$13.25	\$3.42	0.827	41,311
Fall Armyworm	358,000	5,000	0.001	\$7.95	\$0.01	0.000	0
European Corn Borer	0	0	0.000	N/A	\$0.00	0.000	0
Stink Bugs	145,738	12,000	0.003	\$7.54	\$0.03	0.004	211
Grasshoppers	161,000	4,900	0.023	\$4.87	\$0.11	0.028	1,400
Salt-marsh Caterpillars	12,100	1,500	0.000	\$8.10	\$0.00	0.000	0
Aphids	2,092,733	651,843	0.211	\$8.03	\$1.69	0.490	24,490
Bandedwinged Whitefly	28,000	0	0.000	N/A	\$0.00	0.000	0
Sweetpotato Whitefly	210,000	5,000	0.004	\$15.00	\$0.07	0.000	0
Soybean Loopers	18,000	2,000	0.001	\$7.50	\$0.00	0.000	0
Cabbage Loopers	429,500	6,000	0.002	\$10.11	\$0.02	0.007	360
Western Flower Thrips	550,000	4,000	0.001	\$4.50	\$0.01	0.002	112
Cutworms	293,000	23,500	0.007	\$6.79	\$0.05	0.000	0
Percent Lost	11.50		Est. yield/acre	444			Cost/ Acre
Total Acres	3,429,367		Spray applications	2.907		Foliar insecticide	\$22.94
Harvested acres	3,275,367					At planting	\$2.56
			Cost + loss	\$291,742,799		Bt use fees	\$2.01
Total Bales lost	574,488					Eradication	\$2.82
Bales lost in dollars	\$179,240,204		Cost + loss/acre	\$85.07		Scouting	\$2.48
						Total	\$32.81

Table 22a Texas, Coastal Bend Cotton insect losses - 1998

Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost
Boll weevil	425,450	119,126	0.560	\$6.06	\$3.39	0.000	0
Bollworm/budworm	425,450	93,600	0.220	\$8.60	\$1.89	1.000	6,825
Pink Bollworm	0	0	0.000	N/A	\$0.00	0.000	0
Cotton Fleahopper	425,450	400,000	1.880	\$4.66	\$8.76	2.000	13,650
Lygus	204,216	15,000	0.035	\$8.15	\$0.29	0.000	0
Cotton Leafperforator	297,815	0	0.000	N/A	\$0.00	0.00	0
Spider Mites	55,000	5,000	0.012	\$8.00	\$0.09	0.400	2,731
Thrips, early season	425,450	212,725	0.500	\$5.25	\$2.63	0.000	0
Beet Armyworm	425,450	3,000	0.007	\$12.20	\$0.09	0.000	0
Fall Armyworm	350,000	5,000	0.012	\$7.95	\$0.09	0.000	0
European Corn Borer	0	0	0.000	N/A	\$0.00	0.000	0
Stink Bugs	127,635	5,000	0.012	\$7.10	\$0.08	0.000	0
Grasshoppers	50,000	4,900	0.000	N/A	\$0.00	0.000	0
Salt-marsh Caterpillars	10,000	1,500	0.004	\$8.10	\$0.03	0.000	0
Aphids	425,450	310,579	0.730	\$7.37	\$5.38	2.000	13,650
Bandedwinged Whitefly	25,000	0	0.000	N/A	\$0.00	0.000	0
Sweetpotato Whitefly	35,000	0	0.000	N/A	\$0.00	0.000	0
Soybean Loopers	18,000	2,000	0.005	\$7.50	\$0.04	0.000	0
Cabbage Loopers	50,000	2,000	0.005	\$7.50	\$0.04	0.000	0
Western Flower Thrips	275,000	0	0.000	N/A	\$0.00	0.000	0
Cutworms	250,000	13,000	0.031	\$6.50	\$0.20	0.000	0
Percent Lost	5.40		Est. yield/acre	384			Cost/ Acre
Total Acres	425,450		Spray applications	4.011		Foliar insecticide	\$23.00
Harvested acres	417,450					At planting	\$1.04
			Cost + loss	\$31,342,985		Bt use fees	\$2.55
Total Bales lost	36,855					Eradication	\$15.50
Bales lost in dollars	\$11,498,862		Cost + loss/acre	\$73.67		Scouting	\$4.56
						Total	\$46.64

Table 22b		Texas, North Central				Cotton insect losses - 1998		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	228,000	225,000	0.938	\$6.00	\$5.63	3.600	9,360	
Bollworm/budworm	10,000	3,000	0.013	\$7.00	\$0.09	0.400	1,040	
Pink Bollworm	0	0	0.000	N/A	\$0.00	0.000	0	
Cotton Fleahopper	240,000	204,000	1.275	\$4.00	\$5.10	0.900	2,340	
Lygus	3,000	0	0.000	N/A	\$0.00	0.000	0	
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.000	0	
Spider Mites	3,000	0	0.000	N/A	\$0.00	0.000	0	
Thrips, early season	240,000	216,000	1.350	\$3.75	\$5.06	0.400	1,040	
Beet Armyworm	2,000	0	0.000	N/A	\$0.00	0.000	0	
Fall Armyworm	0	0	0.000	N/A	\$0.00	0.000	0	
European Corn Borer	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	50,000	25,000	0.208	\$4.00	\$0.83	0.400	1,040	
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0	
Aphids	5,000	2,000	0.008	\$6.00	\$0.05	0.300	780	
Bandedwinged Whitefly	0	0	0.000	N/A	\$0.00	0.000	0	
Sweetpotato 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	
Percent Lost	6.00		Est. yield/acre	175			Cost/ Acre	
Total Acres	240,000		Spray applications	3.792		Foliar insecticide	\$16.76	
Harvested acres	119,000					At planting	\$2.25	
			Cost + loss	\$11,822,220		Bt use fees	\$6.37	
Total Bales lost	15,600					Eradication	\$0.00	
Bales lost in dollars	\$4,867,220		Cost + loss/acre	\$49.26		Scouting	\$3.60	
						Total	\$28.98	

Table 22c		Texas, Northern Rolling Plains				Cotton insect losses - 1998		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	120,000	70,000	0.817	\$5.70	\$4.66	1.600	3,600	
Bollworm/budworm	180,000	52,000	0.433	\$11.20	\$4.85	2.900	6,525	
Pink Bollworm	0	0	0.000	N/A	\$0.00	0.000	0	
Cotton Fleahopper	180,000	60,000	0.333	\$4.85	\$1.62	0.700	1,575	
Lygus	0	0	0.000	N/A	\$0.00	0.000	0	
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.000	0	
Spider Mites	10,000	3,000	0.018	\$8.90	\$0.16	0.350	787	
Thrips, early season	180,000	40,000	0.244	\$4.50	\$1.10	0.160	360	
Beet Armyworm	130,000	60,000	0.400	\$15.83	\$6.33	0.700	1,575	
Fall Armyworm	8,000	0	0.000	N/A	\$0.00	0.000	0	
European Corn Borer	0	0	0.000	N/A	\$0.00	0.000	0	
Stink Bugs	8,000	1,000	0.006	\$6.95	\$0.04	0.050	112	
Grasshoppers	40,000	16,000	0.098	\$5.30	\$0.52	0.160	360	
Salt-marsh Caterpillars	2,000	0	0.000	N/A	\$0.00	0.000	0	
Aphids	180,000	35,000	0.253	\$7.65	\$1.93	0.160	360	
Bandedwinged Whitefly	0	0	0.000	N/A	\$0.00	0.000	0	
Sweetpotato 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	12,500	4,000	0.022	\$11.41	\$0.25	0.160	360	
Western Flower Thrips	60,000	4,000	0.022	\$4.50	\$0.10	0.050	112	
Cutworms	8,000	500	0.003	\$10.00	\$0.03	0.000	0	
Percent Lost	6.99		Est. yield/acre	218			Cost/ Acre	
Total Acres	180,000		Spray applications	2.649		Foliar insecticide	\$21.59	
Harvested acres	180,000					At planting	\$1.07	
			Cost + loss	\$11,058,184		Bt use fees	\$3.33	
Total Bales lost	15,725					Eradication	\$6.67	
Bales lost in dollars	\$4,906,249		Cost + loss/acre	\$61.43		Scouting	\$1.51	
						Total	\$34.18	

Table 22d		Texas, High Plains				Cotton insect losses - 1998		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	1,700,000	1,235,000	1.300	\$7.75	\$10.08	8.500	328,046	
Bollworm/budworm	1,850,000	1,000,000	0.789	\$10.75	\$8.49	1.000	38,594	
Pink Bollworm	0	0	0.000	N/A	\$0.00	0.000	0	
Cotton Fleahopper	665,000	80,000	0.042	\$4.80	\$0.20	0.500	19,297	
Lygus	100,000	0	0.000	N/A	\$0.00	0.000	0	
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.00	0	
Spider Mites	180,000	0	0.000	N/A	\$0.00	0.100	3,859	
Thrips, early season	1,600,000	150,000	0.079	\$4.85	\$0.38	1.000	38,594	
Beet Armyworm	1,500,000	800,000	0.421	\$13.00	\$5.47	1.000	38,594	
Fall Armyworm	0	0	0.000	N/A	\$0.00	0.000	0	
European Corn Borer	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	4,900	0.000	N/A	\$0.00	0.000	0	
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0	
Aphids	1,000,000	150,000	0.079	\$7.85	\$0.62	0.200	7,718	
Bandedwinged Whitefly	0	0	0.000	N/A	\$0.00	0.000	0	
Sweetpotato 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	150,000	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	
Percent Lost	12.30		Est. yield/acre	523			Cost/ Acre	
Total Acres	1,900,000		Spray applications	2.711		Foliar insecticide	\$25.24	
Harvested acres	1,900,000					At planting	\$3.84	
			Cost + loss	\$207,114,294		Bt use fees	\$0.02	
Total Bales lost	474,702					Eradication	\$0.00	
Bales lost in dollars	\$148,107,094		Cost + loss/acre	\$109.01		Scouting	\$1.95	
						Total	\$31.06	

Table 22e		Texas, Far West				Cotton insect losses - 1998		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	36,853	3,453	0.063	\$6.30	\$0.40	0.530	1,318	
Bollworm/budworm	93,090	49,181	0.340	\$8.45	\$2.88	0.250	621	
Pink Bollworm	50,778	32,945	0.000	N/A	\$4.16	0.230	572	
Cotton Fleahopper	1,000	200	0.001	\$12.00	\$0.02	0.210	522	
Lygus	0	0	0.000	N/A	\$0.00	0.000	0	
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.00	0	
Spider Mites	0	0	0.000	N/A	\$0.00	0.000	0	
Thrips, early season	842	0	0.000	N/A	\$0.00	0.000	0	
Beet Armyworm	2,842	1,000	0.006	\$16.40	\$0.10	0.210	522	
Fall Armyworm	0	0	0.000	N/A	\$0.00	0.000	0	
European Corn Borer	0	0	0.000	N/A	\$0.00	0.000	0	
Stink Bugs	9,603	6,000	0.038	\$8.00	\$0.30	0.040	99	
Grasshoppers	0	0	0.000	N/A	\$0.00	0.000	0	
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0	
Aphids	17,283	13,264	0.083	\$14.95	\$1.25	0.010	25	
Bandedwinged Whitefly	0	0	0.000	N/A	\$0.00	0.000	0	
Sweetpotato 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	
Percent Lost	1.48		Est. yield/acre	311			Cost/ Acre	
Total Acres	158,917		Spray applications	0.532		Foliar insecticide	\$9.10	
Harvested acres	158,917					At planting	\$0.00	
			Cost + loss	\$3,613,065		Bt use fees	\$5.15	
Total Bales lost	3,680					Eradication	\$0.00	
Bales lost in dollars	\$1,148,037		Cost + loss/acre	\$22.74		Scouting	\$1.27	
						Total	\$15.51	

Table 22f		Texas, Lower Rio Grande Valley				Cotton insect losses - 1998		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	120,000	100,000	1.395	\$8.25	\$11.51	0.400	1,428	
Bollworm/budworm	215,000	60,000	0.419	\$10.50	\$4.40	0.040	143	
Pink Bollworm	0	0	0.000	N/A	\$0.00	0.000	0	
Cotton Fleahopper	215,000	175,000	1.221	\$7.00	\$8.55	0.160	571	
Lygus	0	0	0.000	N/A	\$0.00	0.000	0	
Cotton Leafperforator	50,000	0	0.000	N/A	\$0.00	0.000	0	
Spider Mites	50,000	0	0.000	N/A	\$0.00	0.000	0	
Thrips, early season	215,000	0	0.000	N/A	\$0.00	0.000	0	
Beet Armyworm	150,000	0	0.000	N/A	\$0.00	0.000	0	
Fall Armyworm	0	0	0.000	N/A	\$0.00	0.000	0	
European Corn Borer	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	
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0	
Aphids	215,000	120,000	0.837	\$9.00	\$7.53	0.000	0	
Bandedwinged Whitefly	0	0	0.000	N/A	\$0.00	0.000	0	
Sweetpotato Whitefly	175,000	5,000	0.070	\$15.00	\$1.05	0.000	0	
Soybean Loopers	0	0	0.000	N/A	\$0.00	0.000	0	
Cabbage Loopers	215,000	0	0.000	N/A	\$0.00	0.000	0	
Western Flower Thrips	215,000	0	0.000	N/A	\$0.00	0.000	0	
Cutworms	20,000	5,000	0.023	\$9.00	\$0.21	0.000	0	
Percent Lost	0.60		Est. yield/acre	500			Cost/ Acre	
Total Acres	215,000		Spray applications	3.965		Foliar insecticide	\$33.24	
Harvested acres	195,000					At planting	\$0.47	
			Cost + loss	\$9,061,681		Bt use fees	\$0.93	
Total Bales lost	2,142					Eradication	\$0.00	
Bales lost in dollars	\$668,181		Cost + loss/acre	\$42.15		Scouting	\$4.40	
						Total	\$39.04	

Table 22g		Texas, Southern Rolling Plains				Cotton insect losses - 1998		
Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost	
Boll weevil	77,665	77,665	0.000	N/A	\$0.00	0.000	0	
Bollworm/budworm	170,000	10,500	0.062	\$12.50	\$0.77	3.000	4,516	
Pink Bollworm	0	0	0.000	N/A	\$0.00	0.000	0	
Cotton Fleahopper	170,000	5,000	0.029	\$8.00	\$0.24	0.000	0	
Lygus	0	0	0.000	N/A	\$0.00	0.000	0	
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.000	0	
Spider Mites	1,000	0	0.000	N/A	\$0.00	0.000	0	
Thrips, early season	170,000	2,000	0.012	\$5.00	\$0.06	0.000	0	
Beet Armyworm	100,000	10,000	0.059	\$15.00	\$0.88	0.412	620	
Fall Armyworm	0	0	0.000	N/A	\$0.00	0.000	0	
European Corn Borer	0	0	0.000	N/A	\$0.00	0.000	0	
Stink Bugs	500	0	0.000	N/A	\$0.00	0.000	0	
Grasshoppers	1,000	0	0.000	N/A	\$0.00	0.000	0	
Salt-marsh Caterpillars	100	0	0.000	N/A	\$0.00	0.000	0	
Aphids	170,000	16,000	0.094	\$8.50	\$0.80	1.300	1,957	
Bandedwinged Whitefly	3,000	0	0.000	N/A	\$0.00	0.000	0	
Sweetpotato 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	2,000	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	
Percent Lost	4.71		Est. yield/acre	275			Cost/ Acre	
Total Acres	170,000		Spray applications	0.256		Foliar insecticide	\$2.75	
Harvested acres	170,000					At planting	\$0.35	
			Cost + loss	\$6,594,473		Bt use fees	\$10.59	
Total Bales lost	7,092					Eradication	\$11.10	
Bales lost in dollars	\$2,212,763		Cost + loss/acre	\$38.79		Scouting	\$0.99	
						Total	\$25.77	

Table 22h

Texas, Southern Blacklands

Cotton insect losses - 1998

Pest	acres infested	acres treated	# insect appls	Cost of 1 applic	cost/ acre	%red	Bales lost
Boll weevil	140,000	140,000	3.000	\$6.00	\$18.00	3.000	6,598
Bollworm/budworm	60,000	30,000	0.643	\$7.00	\$4.50	2.000	4,398
Pink Bollworm	20,000	0	0.000	N/A	\$0.00	0.000	0
Cotton Fleahopper	140,000	80,000	0.857	\$4.50	\$3.86	3.000	6,598
Lygus	40,000	8,000	0.057	\$5.50	\$0.31	0.500	1,099
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.00	0
Spider Mites	0	0	0.000	N/A	\$0.00	0.000	0
Thrips, early season	100,000	20,000	0.143	\$4.50	\$0.64	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 Corn Borer	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	20,000	10,000	0.071	\$8.50	\$0.61	0.000	0
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0
Aphids	80,000	5,000	0.036	\$4.50	\$0.16	0.000	0
Bandedwinged Whitefly	0	0	0.000	N/A	\$0.00	0.000	0
Sweetpotato 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	15,000	5,000	0.036	\$5.00	\$0.18	0.000	0
Percent Lost	8.50		Est. yield/acre	580			Cost/ Acre
Total Acres	140,000		Spray applications	4.843		Foliar insecticide	\$28.26
Harvested acres	135,000					At planting	\$1.07
			Cost + loss	\$11,135,898		Bt use fees	\$5.71
Total Bales lost	18,692					Eradication	\$0.00
Bales lost in dollars	\$5,831,798		Cost + loss/acre	\$79.54		Scouting	\$2.84
						Total	\$37.89

Table 23

Virginia Summary

Cotton insect losses - 1998

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	85,540	85,540	2.162	\$11.00	\$23.78	0.007	12
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	4,550	0	0.000	N/A	\$0.00	0.000	0
Cotton Leafperforator	0	0	0.000	N/A	\$0.00	0.000	0
Spider Mites	2,000	500	0.005	\$13.00	\$0.07	0.000	0
Thrips, early season	91,000	68,250	0.750	\$5.00	\$3.75	0.005	9
Beet Armyworm	0	0	0.000	N/A	\$0.00	0.000	0
Fall Armyworm	500	0	0.000	N/A	\$0.00	0.000	0
European Corn Borer	45,000	1,000	0.005	\$11.00	\$0.06	0.001	2
Stink Bugs	500	0	0.000	N/A	\$0.00	0.000	0
Grasshoppers	0	0	0.000	N/A	\$0.00	0.000	0
Salt-marsh Caterpillars	0	0	0.000	N/A	\$0.00	0.000	0
Aphids	5,000	0	0.000	N/A	\$0.00	0.000	0
Bandedwinged Whitefly	0	0	0.000	N/A	\$0.00	0.000	0
Sweetpotato 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	200	0	0.000	N/A	\$0.00	0.000	0
Percent Lost	0.01		Est. yield/acre	750			Cost/ Acre
Total Acres	91,000		Spray applications	2.923		Foliar insecticide	\$27.66
Harvested acres	90,500					At planting	\$12.00
			Cost + loss	\$4,345,265		Bt use fees	\$0.86
Total Bales lost	24					Eradication	\$3.75
Bales lost in dollars	\$7,398		Cost + loss/acre	\$47.75		Scouting	\$3.40
						Total	\$47.67