

COTTON INSECT LOSSES 2008

Compiled for
Cotton Foundation

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Chairman

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Highlights

Cotton losses to arthropod pests reduced overall yields by 3.80%. These losses reflect another low estimate, reflecting a trend which began in 2000. *Lygus* (1.003%) attained top ranking for the first time since rankings began in 1979. They were the only pest to exceed 1% loss. The bollworm/budworm complex (0.764%) were ranked second. Stink bugs were 3rd at 0.747%; Thrips were 4th at 0.516%, and cotton fleahoppers were 5th at 0.231%. Total cost and loss for insects in 2008 were \$ 543 million. Direct management costs for arthropods were \$55.53 per acre.

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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.

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.

Table 1

USDA Cotton Production

Cotton Insect Losses 2009

State	Upland Cotton		Cotton yields in pounds lint per acre			
	Acres planted	Acres harvested	Est. Yield*	December	January	2007
Alabama	290,000	285,000	736	842	836	499
Arizona	130,000	128,000	1,471	1,425	1,444	1,429
Arkansas	650,000	640,000	934	1,013	1,022	1,062
California	120,000	117,000	1,433	1,559	1,518	1,559
Florida	67,000	65,000	652	812	901	652
Georgia	950,000	940,000	850	843	840	796
Kansas	35,000	28,000	580	686	686	558
Louisiana	290,000	260,000	429	517	560	1,004
Mississippi	365,000	360,000	867	867	920	975
Missouri	310,000	307,000	1,048	1,048	1,061	975
New Mexico	37,000	34,000	1,141	1,115	988	1,234
North Carolina	440,000	438,000	700	800	864	769
Oklahoma	170,000	155,000	790	805	805	945
South Carolina	135,000	134,000	860	860	896	486
Tennessee	285,000	280,000	900	917	917	579
Texas	4,900,000	3,350,000	623	731	649	827
Virginia	65,000	64,000	800	863	896	854
Total US	9,239,000	7,585,000	768	827	799	857
<u>Pima</u>						
Arizona	1,000	1,000		960	960	960
California	155,000	151,000		1,335	1,319	1,419
New Mexico	3,000	3,000		800	1,108	1,123
Texas	16,000	15,000		1,024	768	980
Total US	175,000	170,000		1,296	1,265	1,374
TOTAL US	9,414,000	7,755,000		837	810	871

From USDA/NASS January 2009

Agricultural Statistical Service

*estimates from Losses Coordinators

Table 1a

USDA Cotton Production

Cotton Insect Losses 2008

State	Area Planted			Area Harvested		
	2006	2007	2008	2006	2007	2008
<u>Upland</u>						
Alabama	575,000	400,000	290,000	560,000	390,000	285,000
Arizona	190,000	183,000	130,000	188,000	181,000	128,000
Arkansas	1,170,000	860,000	650,000	1,160,000	850,000	640,000
California	285,000	455,000	120,000	283,000	451,000	117,000
Florida	103,000	84,000	67,000	101,000	82,000	65,000
Georgia	1,400,000	1,040,000	950,000	1,370,000	1,010,000	940,000
Kansas	115,000	50,000	35,000	110,000	45,000	28,000
Louisiana	635,000	330,000	290,000	630,000	325,000	260,000
Mississippi	1,230,000	660,000	365,000	1,220,000	655,000	360,000
Missouri	500,000	390,000	310,000	496,000	389,000	307,000
New Mexico	50,000	55,000	37,000	48,000	49,000	34,000
North Carolina	870,000	500,000	440,000	865,000	495,000	438,000
Oklahoma	320,000	175,000	170,000	180,000	165,000	155,000
South Carolina	300,000	180,000	135,000	298,000	178,000	134,000
Tennessee	700,000	500,000	285,000	695,000	495,000	280,000
Texas	6,400,000	4,925,000	4,900,000	4,100,000	4,724,000	3,350,000
Virginia	105,000	60,000	65,000	104,000	59,000	64,000
total US	14,948,000	10,847,000	9,239,000	12,408,000	10,543,000	7,585,000
<u>Pima</u>						
Arizona	7,000	2,500	1,000	7,000	2,500	1,000
California	275,000	260,000	155,000	274,000	257,000	151,000
New Mexico	13,000	4,800	3,000	12,500	4,700	3,000
Texas	31,000	25,000	16,000	30,000	24,000	15,000
total US	326,000	292,300	175,000	323,500	288,200	170,000

From USDA/NASS January 2008

Agricultural Statistical Service

Table 2

At Planting Insecticide Applications			Cotton insect Losses - 2008	
States	Acres treated	Weighted Cost/all acres	Cost/ treated acre	Total Cost
North Alabama	74,450	\$6.75	\$9.00	\$670,052
Central Alabama	53,900	\$9.80	\$10.00	\$539,000
South Alabama	128,250	\$9.50	\$10.00	\$1,282,500
Arizona	8,757	\$0.80	\$12.85	\$112,532
Southeast Arkansas	266,000	\$10.45	\$11.00	\$2,926,000
Northeast Arkansas	306,000	\$9.35	\$11.00	\$3,366,000
California	147,400	\$8.25	\$15.00	\$2,211,000
Florida	67,000	\$8.80	\$8.80	\$589,600
Georgia	846,000	\$9.00	\$10.00	\$8,460,000
Kansas	0	\$0.00	\$0.00	\$0
Louisiana	294,220	\$10.00	\$10.64	\$3,130,501
Mississippi - Delta	254,046	\$8.55	\$9.50	\$2,413,434
Mississippi - Hills	72,304	\$8.55	\$9.50	\$686,890
Missouri	276,300	\$10.80	\$12.00	\$3,315,600
New Mexico	41,940	\$3.00	\$3.00	\$125,820
North Carolina	433,000	\$12.32	\$12.32	\$5,334,560
Oklahoma	149,600	\$3.96	\$4.50	\$673,200
South Carolina	67,500	\$6.00	\$12.00	\$810,000
Tennessee	277,200	\$8.71	\$8.80	\$2,439,360
Texas Northern Blacklands	53,191	\$6.65	\$7.00	\$372,334
Texas High Plains	873,199	\$6.35	\$12.96	\$11,316,654
Texas Southern Blacklands	77,760	\$10.58	\$11.50	\$894,243
Texas Far West	62,548	\$7.20	\$9.00	\$562,932
Texas Northern Rolling Planins	10,209	\$0.11	\$5.50	\$56,151
Texas Southern Rolling Plains	68,970	\$1.65	\$5.00	\$344,850
Texas, GC, WG & LRGV	324,906	\$6.24	\$9.60	\$3,119,095
Texas, Panhandle	128,369	\$8.75	\$12.50	\$1,604,610
Virginia	63,000	\$15.00	\$15.00	\$945,000
All States	5,426,019	\$7.39	\$10.74	\$58,301,918

Table 3 **Cotton Insect Eradication** **Cotton Insect Losses-2008**

State	Number Acres	Cost/ treated Acre	Wt cost/all acres	Total Cost
North Alabama	99,267	\$2.50	\$2.50	\$248,168
Central Alabama	55,000	\$3.50	\$3.50	\$192,500
South Alabama	135,000	\$3.50	\$3.50	\$472,500
Arizona	140,732	\$2.29	\$2.29	\$321,828
Southeast Arkansas	280,000	\$12.00	\$12.00	\$3,360,000
Northeast Arkansas	360,000	\$13.00	\$13.00	\$4,680,000
California	0	\$0.00	\$0.00	\$0
Florida	67,000	\$5.00	\$5.00	\$335,000
Georgia	940,000	\$2.50	\$2.50	\$2,350,000
Kansas	0	\$0.00	\$0.00	\$0
Louisiana	313,000	\$6.00	\$6.00	\$1,878,000
Mississippi - Delta	282,273	\$4.00	\$4.00	\$1,129,092
Mississippi - Hills	80,338	\$6.00	\$6.00	\$482,028
Missouri	307,000	\$5.00	\$5.00	\$1,535,000
New Mexico	41,940	\$5.95	\$5.95	\$249,543
North Carolina	433,000	\$1.25	\$1.25	\$541,250
Oklahoma	0	\$0.00	\$0.00	\$0
South Carolina	135,000	\$2.00	\$2.00	\$270,000
Tennessee	280,000	\$9.60	\$9.60	\$2,688,000
Texas Northern Blacklands	55,990	\$13.25	\$13.25	\$741,868
Texas High Plains	1,782,038	\$3.04	\$3.04	\$5,417,396
Texas Southern Blacklands	84,522	\$18.00	\$18.00	\$1,521,396
Texas Far West	78,185	\$7.06	\$7.06	\$551,986
Texas Northern Rolling Planins	510,466	\$4.00	\$4.00	\$2,041,866
Texas Southern Rolling Plains	209,000	\$8.00	\$8.00	\$1,672,000
Texas, GC, WG & LRGV	499,855	\$22.50	\$22.50	\$11,246,738
Texas, Panhandle	183,384	\$6.14	\$6.14	\$1,125,978
Virginia	63,000	\$3.25	\$3.25	\$204,750
All States - Boll Weevil	7,415,991	\$6.10	\$5.74	\$45,256,885
Arizona Pink Bollworm	140,732	\$8.62	\$8.62	\$1,213,088
California Pink Bollworm	268,000	\$5.97	\$5.97	\$1,600,183
New Mexico Pink Bollworm	14,679	\$6.98	\$2.44	\$102,459
West Texas Pink Bollworm	4,691	\$7.99	\$0.48	\$37,482
Total US - Pink Bollworm	428,102	\$6.90	\$0.37	\$2,953,212
Total US - Insect Eradication*	7,844,093	\$6.15	\$6.11	\$48,210,097

Table 4

Bt Cotton Acres and Costs
 2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insec Losses-2008

903

State	Number acres	Bt cost/Acre	Average/ all Acres	Total Cost	% population Bollworm	Acres Bt cotton sprayed	# bollworm appli to Bt
Alabama, North	90,333	\$17.74	\$16.14	\$1,602,666	76.6%	20,598	1.00
Alabama, Central	52,250	\$21.80	\$20.71	\$1,139,132	25.5%	52,250	2.53
Alabama, South	114,750	\$22.69	\$19.28	\$2,603,272	30.5%	114,750	2.03
Arizona	138,270	\$33.59	\$33.00	\$4,644,178	0.0%	0	0.00
Arkansas, Southeast	266,000	\$25.39	\$24.12	\$6,753,180	95.6%	151,900	1.43
Arkansas, Northeast	356,400	\$27.58	\$27.30	\$9,828,000	99.8%	72,360	1.00
California	0	\$0.00	\$0.00	\$0	0.0%	0	0.00
Florida	63,650	\$24.00	\$22.80	\$1,527,600	50.0%	33,500	1.00
Georgia	893,000	\$19.07	\$18.12	\$17,030,920	97.9%	425,106	1.10
Kansas	0	\$0.00	\$0.00	\$0	0.0%	0	0.00
Louisiana	306,114	\$27.37	\$26.77	\$8,378,888	99.0%	268,049	0.97
Mississippi, Delta	272,393	\$21.84	\$21.08	\$5,950,315	99.6%	103,735	1.35
Mississippi, Hills	76,321	\$20.67	\$19.64	\$1,577,838	99.5%	15,995	1.00
Missouri	282,440	\$28.75	\$26.45	\$8,120,150	88.0%	0	0.00
New Mexico	34,810	\$22.00	\$18.26	\$765,824	100.0%	3,612	1.00
North Carolina	415,680	\$15.80	\$15.17	\$6,568,177	75.0%	414,381	1.00
Oklahoma	170,000	\$14.56	\$14.56	\$2,475,200	100.0%	0	1.80
South Carolina	129,857	\$11.19	\$10.76	\$1,453,159	99.6%	123,364	1.60
Tennessee	271,600	12.99	\$12.60	\$3,528,000	98.9%	57,120	1.00
Texas Far West	73,494	\$7.22	\$6.79	\$530,610	0.0%	0	0.00
Texas GC, WG, & LRGV	369,893	\$9.60	\$7.10	\$3,550,720	59.1%	50,735	0.95
Texas High Plains	937,352	\$10.01	\$5.26	\$9,381,396	100.0%	0	0.00
Texas Northern Blacklands	54,870	\$8.20	\$8.04	\$449,935	1.7%	1	0.00
Texas Northern Rolling Planins	495,152	\$7.22	\$7.00	\$3,574,694	0.0%	5	0.00
Texas Panhandle	68,402	\$8.20	\$6.64	\$560,898	32.8%	1,172	1.00
Texas Southern Blacklands	82,832	\$7.22	\$2.86	\$597,993	0.0%	0	0.00
Texas Southern Rolling Plains	202,730	\$14.57	\$16.11	\$2,953,767	100.0%	0	0.00
Virginia	59,850	\$15.89	\$15.09	\$950,950	100.0%	41,580	1.00
US	6,278,444	\$16.81	\$13.50	\$106,497,464	75.5%	1,921,668	0.75

Table 5

Cotton Insect Monitoring Costs
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses-2008

904

State	Acres Scouted	Times per week Scouted	wt Avg Cost over all acres	Cost per scouted acre	Total Cost
Alabama, North	89,340	1.30	\$5.85	\$6.50	\$580,712
Alabama, Central	15,400	1.10	\$1.96	\$7.00	\$107,800
Alabama, South	87,750	1.20	\$5.20	\$8.00	\$702,000
Arizona	136,999	2.10	\$10.59	\$10.88	\$1,490,029
Arkansas, Southeast	271,600	1.50	\$8.73	\$9.00	\$2,444,400
Arkansas, Northeast	342,000	1.50	\$7.60	\$8.00	\$2,736,000
California	241,200	1.00	\$9.00	\$10.00	\$2,412,000
Florida	56,950	1.00	\$7.86	\$9.25	\$526,788
Georgia	658,000	1.10	\$5.60	\$8.00	\$5,264,000
Kansas	12,250	1.00	\$2.80	\$8.00	\$98,000
Louisiana	285,769	1.50	\$9.34	\$10.23	\$2,923,417
Mississippi, Delta	273,805	1.80	\$7.28	\$7.50	\$2,053,536
Mississippi, Hills	60,254	1.50	\$5.63	\$7.50	\$451,901
Missouri	276,300	1.00	\$7.20	\$8.00	\$2,210,400
New Mexico	16,776	1.00	\$3.80	\$9.50	\$159,372
North Carolina	303,100	1.00	\$5.60	\$8.00	\$2,424,800
Oklahoma	59,500	1.00	\$1.75	\$5.00	\$297,500
South Carolina	121,500	1.50	\$7.65	\$8.50	\$1,032,750
Tennessee	210,000	1.30	\$6.23	\$8.30	\$1,743,000
Texas Northern Blacklands	42,552	1.20	\$3.80	\$5.00	\$212,762
Texas High Plains	1,033,582	1.20	\$3.48	\$6.00	\$6,201,492
Texas Southern Rolling Plains	20,900	1.20	\$0.55	\$5.50	\$114,950
Texas Far West	782	1.20	\$0.05	\$5.00	\$3,909
Texas Northern Rolling Planins	5,105	1.20	\$0.06	\$6.00	\$30,628
Texas Southern Blacklands	60,856	1.20	\$4.32	\$6.00	\$365,135
Texas Gulf Coast and Winter	369,893	1.20	\$4.77	\$6.45	\$2,385,808
Texas Panhandle	119,200	1.20	\$4.19	\$6.45	\$768,837
Virginia	5,040	1.50	\$0.68	\$8.50	\$42,840
Total US	5,176,401	1.24	\$5.04	\$7.60	\$39,784,766

Table 6

Summary of all States
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	905 Bales lost
Boll Weevil	224,428	1,000	2.00	0.000	\$0.00	0.000%	63
Bollworm/Budworm	5,293,326	2,018,338	1.14	0.291	\$2.34	0.763%	125,089
Pink Bollworm	25,599	4,770	2.00	0.001	\$0.01	0.000%	5
Cotton Fleahopper	2,284,484	795,215	1.21	0.122	\$0.90	0.228%	18,476
Lygus	4,833,188	2,095,448	2.35	0.624	\$6.08	1.003%	110,440
Cotton Leaf Perforator	18,463	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	2,587,102	859,000	1.07	0.116	\$2.19	0.162%	20,742
Thrips	6,921,839	2,490,199	1.11	0.351	\$1.88	0.515%	50,465
Beet Armyworm	1,707,657	57,068	0.91	0.007	\$0.08	0.007%	1,773
Fall Armyworm	858,268	92,972	0.78	0.009	\$0.09	0.040%	4,112
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	3,584,448	2,100,931	1.63	0.433	\$3.40	0.748%	107,418
Grasshoppers	609,187	39,430	0.85	0.004	\$0.03	0.020%	1,156
Saltmarsh Caterpillars	460,144	2,016	0.93	0.000	\$0.00	0.001%	6
Aphids	4,994,710	632,431	1.00	0.080	\$0.72	0.203%	9,098
Banded Winged Whitefly	271,337	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemisia)	363,430	107,596	1.07	0.015	\$0.46	0.025%	3,466
Loopers	989,737	32,249	0.97	0.004	\$0.05	0.031%	571
Southern Armyworms	23,877	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	561,868	618,655	0.88	0.069	\$0.20	0.001%	757
Clouded Plant bugs	624,462	219,679	0.91	0.025	\$0.21	0.050%	7,838
Other Insects	122,873	12,812	1.74	0.003	\$0.03	0.000%	25

Yield & Management Results

Total Acres	7,888,990
Total bales Harvested	12,621,375
Yield (lbs/acre)	768
Total bales Lost to Insects	461,500
Percent Yield Loss	3.798%
Yield w/o Insects (lbs/acre)	798
Ave. # Spray Applications	2.154
Yield loss to all factors	7,112,091
% Yield loss to all factors	34.8%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$147,191,508	\$18.66
At Planting Costs	\$58,301,918	\$7.39
Scouting costs	\$39,365,992	\$4.99
Eradication costs	\$48,210,097	\$6.11
Transgenic cotton	\$105,524,228	\$13.38
Total Costs	\$398,593,743	\$50.53
Yield Lost to insects	\$144,774,905	\$18.35
Total Losses + Costs	\$543,368,649	\$68.88

*Eradication - PBW (\$0.37) + Boll Weevil (\$5.74) = \$6.11

Table7

Summary Alabama
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

906

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	289,267	132,622	1.57	0.721	\$5.84	3.785%	36,443
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	17,213	0	0.00	0.000	\$0.00	0.000%	0
Lygus	289,267	84,564	1.66	0.485	\$4.36	1.030%	10,047
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	69,060	7,941	1.00	0.027	\$0.30	0.041%	402
Thrips	289,267	34,317	1.00	0.119	\$0.65	0.181%	1,760
Beet Armyworm	993	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	19,853	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	289,267	175,427	2.16	1.313	\$7.84	2.980%	29,073
Grasshoppers	179,478	25,096	1.00	0.087	\$0.39	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	289,267	49,207	1.16	0.198	\$1.99	0.069%	670
Banded Winged Whitefly	9,500	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	1,350	0	0.00	0.000	\$0.00	0.000%	0
Loopers	13,500	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	15,440	99,267	1.00	0.343	\$0.00	0.000%	0
Clouded Plant bugs	12,250	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	289,267
Total bales Harvested	443,469
Yield (lbs/acre)	736
Total bales Lost to Insects	78,394
Percent Yield Loss	8.09%
Yield w/o Insects (lbs/acre)	801
Ave. # Spray Applications	3.291
Yield loss to all factors	524,929
% Yield loss to all factors	54%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$6,184,447	\$21.38
At Planting Costs	\$2,491,552	\$8.61
Scouting costs	\$1,390,512	\$4.81
Eradication costs	\$913,168	\$3.16
Transgenic cotton	\$5,345,071	\$18.48
Total Costs	\$16,324,749	\$56.43
Yield Lost to insects	\$24,459,081	\$84.56
Total Losses + Costs	\$40,783,830	\$140.99

Table 7a

North Alabama
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect losses 2008
907

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	99,267	10,622	1.10	0.118	\$0.79	3.500%	11,721
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	4,963	0	0.00	0.000	\$0.00	0.000%	0
Lygus	99,267	79,414	1.70	1.360	\$12.51	3.000%	10,047
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	59,560	7,941	1.00	0.080	\$0.88	0.120%	402
Thrips	99,267	24,817	1.00	0.250	\$1.31	0.500%	1,674
Beet Armyworm	993	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	19,853	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	99,267	9,927	1.00	0.100	\$0.73	0.500%	1,674
Grasshoppers	2,978	596	1.00	0.006	\$0.04	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	99,267	39,707	1.20	0.480	\$5.04	0.200%	670
Banded Winged Whitefly	0	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	0	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	14,890	99,267	1.00	1.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	99,267
Total bales Harvested	150,969
Yield (lbs/acre)	730
Total bales Lost to Insects	26,188
Percent Yield Loss	7.82%
Yield w/o Insects (lbs/acre)	792
Ave. # Spray Applications	3.394
Yield loss to all factors	183,922
% Yield loss to all factors	54.9%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$2,114,990	\$21.31
At Planting Costs	\$670,052	\$6.75
Scouting costs	\$580,712	\$5.85
Eradication costs	\$248,168	\$2.50
Transgenic cotton	\$1,602,666	\$16.14
Total Costs	\$5,216,588	\$52.55
Yield Lost to insects	\$8,170,790	\$82.31
Total Losses + Costs	\$13,387,378	\$134.86

Table 7b

Central Alabama
 2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses - 2008

908

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	55,000	27,500	2.00	1.000	\$9.00	5.000%	8,527
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	5,500	0	0.00	0.000	\$0.00	0.000%	0
Lygus	55,000	1,100	1.00	0.020	\$0.12	0.000%	0
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	2,750	0	0.00	0.000	\$0.00	0.000%	0
Thrips	55,000	2,750	1.00	0.050	\$0.33	0.050%	85
Beet Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	55,000	44,000	1.50	1.200	\$8.40	2.500%	4,264
Grasshoppers	55,000	11,000	1.00	0.200	\$0.00	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	55,000	2,750	1.00	0.050	\$0.45	0.000%	0
Banded Winged Whitefly	2,750	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	0	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	550	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	5,500	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	55,000
Total bales Harvested	77,344
Yield (lbs/acre)	675
Total bales Lost to Insects	12,876
Percent Yield Loss	7.55%
Yield w/o Insects (lbs/acre)	730
Ave. # Spray Applications	2.520
Yield loss to all factors	93,205
% Yield loss to all factors	54.7%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$1,006,226	\$18.30
At Planting Costs	\$539,000	\$9.80
Scouting costs	\$107,800	\$1.96
Eradication costs	\$192,500	\$3.50
Transgenic cotton	\$1,139,132	\$20.71
Total Costs	\$2,984,659	\$54.27
Yield Lost to insects	\$4,017,441	\$73.04
Total Losses + Costs	\$7,002,100	\$127.31

Table 7c

Alabama South

Cotton Insect Losses 2008

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	135,000	94,500	1.50	1.050	\$8.40	3.500%	16,195
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	6,750	0	0.00	0.000	\$0.00	0.000%	0
Lygus	135,000	4,050	1.00	0.030	\$0.18	0.000%	0
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	6,750	0	0.00	0.000	\$0.00	0.000%	0
Thrips	135,000	6,750	1.00	0.050	\$0.30	0.000%	0
Beet Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	135,000	121,500	2.50	2.250	\$12.38	5.000%	23,135
Grasshoppers	121,500	13,500	1.00	0.100	\$0.80	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	135,000	6,750	1.00	0.050	\$0.40	0.000%	0
Banded Winged Whitefly	6,750	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	1,350	0	0.00	0.000	\$0.00	0.000%	0
Loopers	13,500	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	6,750	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	135,000
Total bales Harvested	215,156
Yield (lbs/acre)	765
Total bales Lost to Insects	39,330
Percent Yield Loss	8.50%
Yield w/o Insects (lbs/acre)	836
Ave. # Spray Applications	3.530
Yield loss to all factors	247,545
% Yield loss to all factors	53.5%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$3,031,425	\$22.46
At Planting Costs	\$1,282,500	\$9.50
Scouting costs	\$702,000	\$5.20
Eradication costs	\$472,500	\$3.50
Transgenic cotton	\$2,603,272	\$19.28
Total Costs	\$8,091,697	\$59.94
Yield Lost to insects	\$12,270,849	\$90.90
Total Losses + Costs	\$20,362,547	\$150.83

Table 8

Arizona Summary
 2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

910

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	27,442	1,628	0.78	0.009	\$0.18	0.023%	102
Pink Bollworm	7,602	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	98,421	8,033	0.54	0.031	\$0.49	0.024%	122
Lygus	122,634	82,557	1.28	0.753	\$16.10	2.144%	10,727
Cotton Leaf Perforator	785	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	16,204	9,098	0.78	0.051	\$1.21	0.010%	52
Thrips	140,732	19,695	0.87	0.122	\$1.78	0.270%	1,353
Beet Armyworm	28,639	2,202	0.44	0.007	\$0.13	0.003%	14
Fall Armyworm	8,269	1,217	0.25	0.002	\$0.03	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	61,309	5,292	0.33	0.012	\$0.28	0.044%	220
Grasshoppers	11,877	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	12,219	1,213	0.89	0.008	\$0.19	0.000%	2
Aphids	38,649	2,618	0.50	0.009	\$0.17	0.004%	18
Banded Winged Whitefly	28,850	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	110,336	84,483	1.05	0.633	\$21.11	0.442%	2,212
Loopers	16,563	1,217	0.25	0.002	\$0.04	0.000%	1
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Pale sided flea beetle	27,900	2,815	0.80	0.016	\$0.24	0.000%	0

Yield & Management Results

Total Acres	140,732
Total bales Harvested	431,422
Yield (lbs/acre)	1,471
Total bales Lost to Insects	14,823
Percent Yield Loss	2.96%
Yield w/o Insects (lbs/acre)	1,516
Ave. # Spray Applications	1.655
Yield loss to all factors	68,894
% Yield loss to all factors	13.8%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$5,904,437	\$41.96
At Planting Costs	\$112,532	\$0.80
Scouting costs	\$1,490,029	\$10.59
Eradication costs	\$1,534,916	\$10.91
Transgenic cotton	\$4,644,178	\$33.00
Total Costs	\$13,686,093	\$97.25
Yield Lost to insects	\$4,624,887	\$32.86
Total Losses + Costs	\$18,310,980	\$130.11

Table 8a

Arizona Bt **Cotton Insect Losses 2008**
 2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

911

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	25,718	0	0.00	0.000	\$0.00	0.004%	21
Pink Bollworm	7,356	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	97,190	8,033	0.54	0.031	\$0.50	0.025%	122
Lygus	120,447	80,929	1.29	0.755	\$16.06	2.146%	10,575
Cotton Leaf Perforator	760	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	16,081	9,098	0.78	0.052	\$1.23	0.011%	52
Thrips	138,270	18,957	0.87	0.119	\$1.71	0.272%	1,341
Beet Armyworm	27,654	1,217	0.25	0.002	\$0.04	0.000%	1
Fall Armyworm	8,269	1,217	0.25	0.002	\$0.03	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	60,078	5,088	0.34	0.013	\$0.28	0.043%	214
Grasshoppers	11,877	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	12,016	1,009	1.00	0.007	\$0.19	0.000%	2
Aphids	37,886	2,517	0.50	0.009	\$0.16	0.004%	18
Banded Winged Whitefly	28,345	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	108,708	83,059	1.06	0.634	\$21.11	0.445%	2,191
Loopers	16,440	1,217	0.25	0.002	\$0.04	0.000%	1
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	27,654	2,765	0.80	0.016	\$0.24	0.000%	0

Yield & Management Results

Total Acres	138270
Total bales Harvested	424892.2
Yield (lbs/acre)	1475
Total bales Lost to Insects	14538
Percent Yield Loss	2.950%
Yield w/o Insects (lbs/acre)	151983.0%
Ave. # Spray Applications	1.642
Yield loss to all factors	67976
% Yield loss to all factors	13.8%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$5,751,370	\$41.60
At Planting Costs	\$111,312	\$0.81
Scouting costs	\$1,463,759	\$10.59
Eradication costs	\$1,430,259	\$10.34
Transgenic cotton	\$4,644,178	\$33.59
Total Costs	\$13,400,879	\$96.92
Yield Lost to insects	\$4,535,898	\$32.80
Total Losses + Costs	\$17,936,776	\$129.72

Table 8b

Cotton Insect Losses 2008

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	1,723	1,628	0.78	0.514	\$10.53	1.085%	81
Pink Bollworm	246	0	0.00	0.000	\$0.00	0.005%	0
Cotton Fleahopper	1,231	0	0.00	0.000	\$0.00	0.000%	0
Lygus	2,187	1,628	1.00	0.663	\$17.47	2.047%	153
Cotton Leaf Perforator	25	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	123	0	0.00	0.000	\$0.00	0.000%	0
Thrips	2,462	739	1.00	0.300	\$6.00	0.165%	12
Beet Armyworm	985	985	0.67	0.266	\$5.43	0.165%	12
Fall Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	1,231	203	0.10	0.008	\$0.16	0.077%	6
Grasshoppers	0	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	203	203	0.33	0.027	\$0.44	0.000%	0
Aphids	763	102	0.50	0.021	\$0.40	0.000%	0
Banded Winged Whitefly	505	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemisia)	1,628	1,424	1.00	0.579	\$21.40	0.275%	21
Loopers	123	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	246	49	0.80	0.016	\$0.24	0.000%	0

Yield & Management Results

Total Acres	2,462
Total bales Harvested	6,529
Yield (lbs/acre)	1,273
Total bales Lost to Insects	285
Percent Yield Loss	3.82%
Yield w/o Insects (lbs/acre)	1,324
Ave. # Spray Applications	2.394
Yield loss to all factors	937
% Yield loss to all factors	12.6%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$152,820	\$62.07
At Planting Costs	\$1,220	\$0.50
Scouting costs	\$26,270	\$10.67
Eradication costs	\$104,658	\$42.51
Transgenic cotton	\$0	\$0.00
Total Costs	\$284,967	\$115.75
Yield Lost to insects	\$88,989	\$36.15
Total Losses + Costs	\$373,957	\$151.89

Table 9

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	14,000	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	640,000	341,600	1.11	0.593	\$4.39	1.365%	22,692
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	362,000	36,000	1.00	0.056	\$0.37	0.169%	2,738
Lygus	640,000	540,000	2.23	1.884	\$12.69	1.438%	24,149
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	364,000	136,000	1.40	0.297	\$3.56	0.258%	4,205
Thrips	640,000	356,000	1.00	0.556	\$1.67	0.456%	7,524
Beet Armyworm	100,000	3,600	1.00	0.006	\$0.05	0.000%	0
Fall Armyworm	284,000	35,200	1.00	0.055	\$0.44	0.143%	2,435
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	640,000	248,000	1.00	0.388	\$3.10	0.819%	13,731
Grasshoppers	192,000	1,400	1.00	0.002	\$0.01	0.000%	0
Saltmarsh Caterpillars	192,000	0	0.00	0.000	\$0.00	0.000%	0
Aphids	532,000	17,600	1.00	0.028	\$0.21	0.022%	379
Banded Winged Whitefly	82,000	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	314,000	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	160,000	50,000	1.00	0.078	\$0.34	0.026%	433
Clouded Plant bugs	272,000	108,000	1.00	0.169	\$1.10	0.253%	4,042
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	640,000
Total bales Harvested	1,245,833
Yield (lbs/acre)	934
Total bales Lost to Insects	82,329
Percent Yield Loss	4.95%
Yield w/o Insects (lbs/acre)	983
Ave. # Spray Applications	4.111
Yield loss to all factors	341,848
% Yield loss to all factors	21.5%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$17,866,960	\$27.92
At Planting Costs	\$6,292,000	\$9.83
Scouting costs	\$5,180,400	\$8.09
Eradication costs	\$8,040,000	\$12.56
Transgenic cotton	\$16,581,180	\$25.91
Total Costs	\$53,960,540	\$84.31
Yield Lost to insects	\$20,549,346	\$32.11
Total Losses + Costs	\$74,509,886	\$116.42

Table 9a

Arkansas Southeast
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

914

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	14,000	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	280,000	266,000	1.00	0.950	\$7.03	1.500%	11,375
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	182,000	0	0.00	0.000	\$0.00	0.065%	493
Lygus	280,000	252,000	2.50	2.250	\$15.75	2.000%	15,167
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	112,000	28,000	1.00	0.100	\$1.20	0.140%	1,062
Thrips	280,000	140,000	1.00	0.500	\$1.50	0.400%	3,033
Beet Armyworm	28,000	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	140,000	28,000	1.00	0.100	\$0.80	0.250%	1,896
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	280,000	140,000	1.00	0.500	\$4.00	1.100%	8,342
Grasshoppers	84,000	1,400	1.00	0.005	\$0.03	0.000%	0
Saltmarsh Caterpillars	84,000	0	0.00	0.000	\$0.00	0.000%	0
Aphids	280,000	14,000	1.00	0.050	\$0.40	0.050%	379
Banded Winged Whitefly	28,000	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	98,000	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	70,000	14,000	1.00	0.050	\$0.13	0.028%	209
Clouded Plant bugs	56,000	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	280000
Total bales Harvested	495833
Yield (lbs/acre)	850
Total bales Lost to Insects	41955
Percent Yield Loss	5.53%
Yield w/o Insects (lbs/acre)	900
Ave. # Spray Applications	4.505
Yield loss to all factors	212333
% Yield loss to all factors	28.03%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$8,633,800	\$30.84
At Planting Costs	\$2,926,000	\$10.45
Scouting costs	\$2,444,400	\$8.73
Eradication costs	\$3,360,000	\$12.00
Transgenic cotton	\$6,753,180	\$24.12
Total Costs	\$24,117,380	\$86.13
Yield Lost to insects	\$10,471,916	\$37.40
Total Losses + Costs	\$34,589,296	\$123.53

Table 9b

Arkansas Northeast
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

915

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	360,000	75,600	1.50	0.315	\$2.33	1.260%	11,317
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	180,000	36,000	1.00	0.100	\$0.65	0.250%	2,246
Lygus	360,000	288,000	2.00	1.600	\$10.40	1.000%	8,982
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	252,000	108,000	1.50	0.450	\$5.40	0.350%	3,144
Thrips	360,000	216,000	1.00	0.600	\$1.80	0.500%	4,491
Beet Armyworm	72,000	3,600	1.00	0.010	\$0.08	0.000%	0
Fall Armyworm	144,000	7,200	1.00	0.020	\$0.16	0.060%	539
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	360,000	108,000	1.00	0.300	\$2.40	0.600%	5,389
Grasshoppers	108,000	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	108,000	0	0.00	0.000	\$0.00	0.000%	0
Aphids	252,000	3,600	1.00	0.010	\$0.07	0.000%	0
Banded Winged Whitefly	54,000	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	216,000	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	90,000	36,000	1.00	0.100	\$0.50	0.025%	225
Clouded Plant bugs	216,000	108,000	1.00	0.300	\$1.95	0.450%	4,042
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	360000
Total bales Harvested	750000
Yield (lbs/acre)	1000
Total bales Lost to Insects	40374
Percent Yield Loss	4.50%
Yield w/o Insects (lbs/acre)	1047
Ave. # Spray Applications	3.805
Yield loss to all factors	148204
% Yield loss to all factors	16.50%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$9,266,760	\$27.92
At Planting Costs	\$3,366,000	\$9.83
Scouting costs	\$2,736,000	\$8.09
Eradication costs	\$4,680,000	\$12.56
Transgenic cotton	\$9,828,000	\$25.91
Total Costs	\$29,876,760	\$84.31
Yield Lost to insects	\$10,077,430	\$32.11
Total Losses + Costs	\$39,954,190	\$116.42

Table 10

California
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

916

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	13,400	0	0.00	0.000	\$0.00	0.000%	0
Pink Bollworm	10,720	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	0	0	0.00	0.000	\$0.00	0.000%	0
Lygus	241,200	134,000	1.25	0.625	\$15.63	2.700%	24,226
Cotton Leaf Perforator	2,680	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	241,200	201,000	1.00	0.750	\$22.50	0.090%	808
Thrips	265,320	134,000	1.00	0.500	\$0.00	0.000%	0
Beet Armyworm	134,000	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Grasshoppers	0	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	241,200	5,360	1.00	0.020	\$0.50	0.045%	404
Banded Winged Whitefly	0	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	160,800	13,400	1.20	0.060	\$2.10	0.030%	269
Loopers	26,800	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	268,000
Total bales Harvested	800,092
Yield (lbs/acre)	1,433
Total bales Lost to Insects	25,707
Percent Yield Loss	2.87%
Yield w/o Insects (lbs/acre)	1,475
Ave. # Spray Applications	1.96
Yield loss to all factors	97,184
% Yield loss to all factors	8.67%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$10,914,434	\$40.73
At Planting Costs	\$2,211,000	\$8.25
Scouting costs	\$2,412,000	\$9.00
Eradication costs	\$1,600,183	\$5.97
Transgenic cotton	\$0	\$0.00
Total Costs	\$17,137,617	\$63.95
Yield Lost to insects	\$13,141,391	\$49.04
Total Losses + Costs	\$30,279,008	\$112.98

Table 11

Florida
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

917

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	67,000	16,750	1.00	0.250	\$2.00	2.000%	2,220
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	0	0	0.00	0.000	\$0.00	0.000%	0
Lygus	3,350	3,350	1.00	0.050	\$0.30	0.050%	55
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	1,340	1,340	1.00	0.020	\$0.00	0.100%	111
Thrips	67,000	6,700	1.00	0.100	\$0.60	1.000%	1,110
Beet Armyworm	3,350	3,350	1.00	0.050	\$0.00	0.000%	0
Fall Armyworm	10,050	8,040	1.00	0.120	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	67,000	46,900	2.00	1.400	\$7.70	4.000%	4,440
Grasshoppers	7	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	33,500	4,690	1.00	0.070	\$0.56	1.000%	1,110
Banded Winged Whitefly	10,720	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	5,360	0	0.00	0.000	\$0.00	0.000%	0
Loopers	3,350	1,340	1.00	0.020	\$0.00	0.050%	55
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	67,000
Total bales Harvested	91,008
Yield (lbs/acre)	652
Total bales Lost to Insects	9,101
Percent Yield Loss	8.20%
Yield w/o Insects (lbs/acre)	710
Ave. # Spray Applications	2.080
Yield loss to all factors	38,961
% Yield loss to all factors	16.20%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$747,723	\$11.16
At Planting Costs	\$589,600	\$8.80
Scouting costs	\$526,788	\$7.86
Eradication costs	\$335,000	\$5.00
Transgenic cotton	\$1,527,600	\$22.80
Total Costs	\$3,726,710	\$55.62
Yield Lost to insects	\$2,839,529	\$42.38
Total Losses + Costs	\$6,566,239	\$98.00

Table 12

Georgia
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

918

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	752,000	470,000	1.10	0.550	\$4.13	0.800%	15,712
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	0	0	0.00	0.000	\$0.00	0.000%	0
Lygus	376,000	75,200	1.00	0.080	\$0.52	0.040%	786
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	47,000	9,400	1.00	0.010	\$0.10	0.003%	49
Thrips	846,000	235,000	1.00	0.250	\$1.50	0.045%	884
Beet Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	18,800	4,700	1.00	0.005	\$0.05	0.020%	393
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	799,000	705,000	2.30	1.725	\$12.94	1.275%	25,041
Grasshoppers	0	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	705,000	9,400	1.00	0.010	\$0.08	0.004%	74
Banded Winged Whitefly	0	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	47,000	9,400	1.00	0.010	\$0.10	0.050%	982
Loopers	18,800	4,700	1.00	0.005	\$0.05	0.010%	196
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	940,000
Total bales Harvested	1,664,583
Yield (lbs/acre)	850
Total bales Lost to Insects	44,117
Percent Yield Loss	2.25%
Yield w/o Insects (lbs/acre)	870
Ave. # Spray Applications	2.645
Yield loss to all factors	299,440
% Yield loss to all factors	15.25%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$18,285,350	\$19.45
At Planting Costs	\$8,460,000	\$9.00
Scouting costs	\$5,264,000	\$5.60
Eradication costs	\$2,350,000	\$2.50
Transgenic cotton	\$17,030,920	\$18.12
Total Costs	\$51,390,270	\$54.67
Yield Lost to insects	\$13,764,464	\$14.64
Total Losses + Costs	\$65,154,734	\$69.31

Table 13

2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Kansas

Cotton Insect Losses 2008

919

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	0	0	0.00	0.000	\$0.00	0.000%	0
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	10,500	1,750	1.00	0.050	\$0.60	1.500%	667
Lygus	3,500	0	0.00	0.000	\$0.00	0.200%	89
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	0	0	0.00	0.000	\$0.00	0.000%	0
Thrips	14,000	3,500	1.00	0.100	\$1.20	3.200%	1,423
Beet Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	700	0	0.00	0.000	\$0.00	0.000%	0
Grasshoppers	700	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	0	0	0.00	0.000	\$0.00	0.000%	0
Banded Winged Whitefly	0	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	0	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	35,000
Total bales Harvested	42,292
Yield (lbs/acre)	580
Total bales Lost to Insects	2,179
Percent Yield Loss	4.90%
Yield w/o Insects (lbs/acre)	610
Ave. # Spray Applications	0.150
Yield loss to all factors	2,180
% Yield loss to all factors	4.90%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$63,000	\$1.80
At Planting Costs	\$0	\$0.00
Scouting costs	\$98,000	\$2.80
Eradication costs	\$0	\$0.00
Transgenic cotton	\$0	\$0.00
Total Costs	\$161,000	\$4.60
Yield Lost to insects	\$679,890	\$19.43
Total Losses + Costs	\$840,890	\$24.03

Table 14

Louisiana Summary
 2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

920

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	15,650	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	286,708	166,203	1.10	0.584	\$5.39	1.035%	6,075
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	34,743	0	0.00	0.000	\$0.00	0.000%	0
Lygus	313,000	308,618	2.70	2.662	\$28.14	3.560%	20,893
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	76,998	67,608	0.60	0.130	\$2.33	0.271%	1,588
Thrips	310,183	28,170	1.00	0.090	\$0.84	0.842%	4,944
Beet Armyworm	17,528	3,005	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	24,727	15,963	0.41	0.021	\$0.29	0.040%	232
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	98,282	30,361	0.40	0.039	\$0.38	0.079%	461
Grasshoppers	31	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	939	0	0.00	0.000	\$0.00	0.000%	0
Aphids	299,541	213,779	1.00	0.683	\$7.04	0.727%	4,268
Banded Winged Whitefly	626	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	107,046	0	0.30	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	74,494	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	47,263	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	313,000
Total bales Harvested	279,744
Yield (lbs/acre)	429
Total bales Lost to Insects	38,460
Percent Yield Loss	6.55%
Yield w/o Insects (lbs/acre)	459
Ave. # Spray Applications	4.209
Yield loss to all factors	450,427
% Yield loss to all factors	76.8%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$13,897,101	\$44.40
At Planting Costs	\$3,130,501	\$10.00
Scouting costs	\$2,923,417	\$9.34
Eradication costs	\$1,878,000	\$6.00
Transgenic cotton	\$8,378,888	\$26.77
Total Costs	\$30,207,907	\$96.51
Yield Lost to insects	\$11,999,512	\$38.34
Total Losses + Costs	\$42,207,419	\$134.85

Table 15

Mississippi Summary
 2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

921

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	237,760	161,221	1.44	0.639	\$5.75	0.600%	5,147
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	14,917	0	0.00	0.000	\$0.00	0.000%	0
Lygus	340,464	302,249	4.91	4.093	\$42.32	1.064%	9,122
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	181,415	106,829	1.18	0.349	\$7.63	0.359%	3,074
Thrips	290,089	165,238	1.00	0.456	\$3.45	0.018%	152
Beet Armyworm	8,056	803	1.00	0.002	\$0.00	0.001%	6
Fall Armyworm	12,898	803	1.00	0.002	\$0.02	0.001%	6
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	110,737	62,425	1.03	0.178	\$1.66	0.153%	1,309
Grasshoppers	34,198	3,626	1.00	0.010	\$0.06	0.007%	57
Saltmarsh Caterpillars	15,308	803	1.00	0.002	\$0.02	0.001%	5
Aphids	183,259	64,488	1.00	0.178	\$1.73	0.043%	367
Banded Winged Whitefly	9,662	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	78,602	24,992	1.00	0.069	\$0.95	0.037%	319
Southern Armyworms	3,626	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	13,679	153,078	1.00	0.422	\$2.48	0.000%	3
Clouded Plant bugs	34,198	13,679	1.00	0.038	\$0.36	0.058%	499
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	362,611
Total bales Harvested	654,930
Yield (lbs/acre)	867
Total bales Lost to Insects	20,066
Percent Yield Loss	2.34%
Yield w/o Insects (lbs/acre)	888
Ave. # Spray Applications	6.438
Yield loss to all factors	199,184
% Yield loss to all factors	23.23%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$24,090,623	\$66.44
At Planting Costs	\$3,100,324	\$8.55
Scouting costs	\$2,505,437	\$6.91
Eradication costs	\$1,611,120	\$4.44
Transgenic cotton	\$7,528,153	\$20.76
Total Costs	\$38,835,657	\$107.10
Yield Lost to insects	\$6,260,437	\$17.26
Total Losses + Costs	\$45,096,094	\$124.36

Table 15a

Mississippi Delta
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

922

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	197,591	141,137	1.50	0.750	\$6.75	0.700%	5,048
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	14,114	0	0.00	0.000	\$0.00	0.000%	0
Lygus	268,159	254,046	5.50	4.950	\$51.98	1.188%	8,563
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	169,364	98,796	1.20	0.420	\$9.24	0.450%	3,245
Thrips	225,818	141,137	1.00	0.500	\$3.75	0.000%	0
Beet Armyworm	5,645	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	11,291	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	70,568	42,341	1.00	0.150	\$1.35	0.125%	901
Grasshoppers	14,114	2,823	1.00	0.010	\$0.06	0.005%	36
Saltmarsh Caterpillars	11,291	0	0.00	0.000	\$0.00	0.000%	0
Aphids	127,023	56,455	1.00	0.200	\$1.90	0.045%	324
Banded Winged Whitefly	5,645	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	70,568	22,582	1.00	0.080	\$1.12	0.025%	180
Southern Armyworms	2,823	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	5,645	112,909	1.00	0.400	\$2.40	0.000%	1
Clouded Plant bugs	14,114	5,645	1.00	0.020	\$0.19	0.025%	180
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	282,273
Total bales Harvested	543,964
Yield (lbs/acre)	925
Total bales Lost to Insects	18,479
Percent Yield Loss	2.56%
Yield w/o Insects (lbs/acre)	949
Ave. # Spray Applications	7.480
Yield loss to all factors	177,117
% Yield loss to all factors	24.56%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$22,224,765	\$78.74
At Planting Costs	\$2,413,434	\$8.55
Scouting costs	\$2,053,536	\$7.28
Eradication costs	\$1,129,092	\$4.00
Transgenic cotton	\$5,950,315	\$21.08
Total Costs	\$33,771,142	\$119.64
Yield Lost to insects	\$5,765,511	\$20.43
Total Losses + Costs	\$39,536,652	\$140.07

Table 15b

Mississippi Hills
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

923

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	40,169	20,085	1.00	0.250	\$2.25	0.250%	341
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	803	0	1.00	0.000	\$0.00	0.000%	0
Lygus	72,304	48,203	1.80	1.080	\$10.26	0.630%	858
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	12,051	8,034	1.00	0.100	\$2.00	0.038%	51
Thrips	64,270	24,101	1.00	0.300	\$2.40	0.080%	109
Beet Armyworm	2,410	803	1.00	0.010	\$0.00	0.003%	4
Fall Armyworm	1,607	803	1.00	0.010	\$0.09	0.003%	4
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	40,169	20,085	1.10	0.275	\$2.75	0.250%	341
Grasshoppers	20,085	803	1.00	0.010	\$0.08	0.013%	17
Saltmarsh Caterpillars	4,017	803	1.00	0.010	\$0.10	0.003%	3
Aphids	56,237	8,034	1.00	0.100	\$1.15	0.035%	48
Banded Winged Whitefly	4,017	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	8,034	2,410	1.00	0.030	\$0.38	0.080%	109
Southern Armyworms	803	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	8,034	40,169	1.00	0.500	\$2.75	0.001%	1
Clouded Plant bugs	20,085	8,034	1.00	0.100	\$0.95	0.175%	238
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	80,338
Total bales Harvested	110,967
Yield (lbs/acre)	663
Total bales Lost to Insects	2,125
Percent Yield Loss	1.56%
Yield w/o Insects (lbs/acre)	674
Ave. # Spray Applications	2.775
Yield loss to all factors	25,290
% Yield loss to all factors	18.56%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$2,020,099	\$25.15
At Planting Costs	\$686,890	\$8.55
Scouting costs	\$451,901	\$5.63
Eradication costs	\$482,028	\$6.00
Transgenic cotton	\$1,577,838	\$19.64
Total Costs	\$5,218,757	\$64.96
Yield Lost to insects	\$662,977	\$8.25
Total Losses + Costs	\$5,881,733	\$73.21

Table 16

Missouri
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

924

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	15,350	3,070	1.00	0.010	\$0.05	0.005%	34
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	0	0	0.00	0.000	\$0.00	0.000%	0
Lygus	307,000	282,440	1.90	1.748	\$8.36	0.250%	1,685
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	230,250	184,200	1.00	0.600	\$9.48	0.188%	1,264
Thrips	30,700	15,350	1.00	0.050	\$0.18	0.010%	67
Beet Armyworm	30,700	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	15,350	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	15,350	3,070	1.00	0.010	\$0.03	0.003%	17
Grasshoppers	0	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	0	0	0.00	0.000	\$0.00	0.000%	0
Banded Winged Whitefly	0	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	0	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	307,000
Total bales Harvested	670,283
Yield (lbs/acre)	1,048
Total bales Lost to Insects	3,067
Percent Yield Loss	0.46%
Yield w/o Insects (lbs/acre)	1,053
Ave. # Spray Applications	2.418
Yield loss to all factors	13,186
% Yield loss to all factors	1.956%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$5,553,765	\$18.09
At Planting Costs	\$3,315,600	\$10.80
Scouting costs	\$2,210,400	\$7.20
Eradication costs	\$1,535,000	\$5.00
Transgenic cotton	\$8,120,150	\$26.45
Total Costs	\$20,734,915	\$67.54
Yield Lost to insects	\$956,982	\$3.12
Total Losses + Costs	\$21,691,897	\$70.66

Table 17

New Mexico
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

925

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	2,516	797	1.00	0.019	\$0.36	0.000%	0
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	0	0	0.00	0.000	\$0.00	0.000%	0
Lygus	1,426	671	0.00	0.000	\$0.00	0.116%	134
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	0	0	0.00	0.000	\$0.00	0.000%	0
Thrips	0	0	0.00	0.000	\$0.00	0.000%	0
Beet Armyworm	3,271	1,132	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Grasshoppers	10,191	2,558	1.00	0.061	\$1.14	0.948%	1,099
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	1,678	461	1.00	0.011	\$0.25	0.000%	0
Banded Winged Whitefly	0	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	0	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	41,940
Total bales Harvested	99,695
Yield (lbs/acre)	1,141
Total bales Lost to Insects	1,233
Percent Yield Loss	1.06%
Yield w/o Insects (lbs/acre)	1,153
Ave. # Spray Applications	0.091
Yield loss to all factors	16,075
% Yield loss to all factors	13.86%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$73,122	\$1.74
At Planting Costs	\$125,820	\$3.00
Scouting costs	\$159,372	\$3.80
Eradication costs	\$352,002	\$8.39
Transgenic cotton	\$765,824	\$18.26
Total Costs	\$1,476,141	\$35.20
Yield Lost to insects	\$384,652	\$9.17
Total Losses + Costs	\$1,860,794	\$44.37

Table 18

North Carolina
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

926

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	433,000	177,530	1.00	0.410	\$3.08	0.512%	3,366
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	0	0	0.00	0.000	\$0.00	0.000%	0
Lygus	433,000	2,165	1.00	0.005	\$0.04	0.000%	0
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	216,500	3,248	1.00	0.008	\$0.09	0.050%	329
Thrips	433,000	390,566	1.40	1.263	\$7.58	2.000%	13,149
Beet Armyworm	64,950	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	108,250	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	433,000	255,470	1.00	0.590	\$4.72	1.390%	9,139
Grasshoppers	43	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	433,000	5,413	1.00	0.013	\$0.14	0.001%	7
Banded Winged Whitefly	0	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	0	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	43,300	17,320	1.00	0.040	\$0.16	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	433,000
Total bales Harvested	631,458
Yield (lbs/acre)	700
Total bales Lost to Insects	25,989
Percent Yield Loss	3.95%
Yield w/o Insects (lbs/acre)	729
Ave. # Spray Applications	2.328
Yield loss to all factors	25,989
% Yield loss to all factors	3.95%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$6,839,473	\$15.80
At Planting Costs	\$5,334,560	\$12.32
Scouting costs	\$2,424,800	\$5.60
Eradication costs	\$541,250	\$1.25
Transgenic cotton	\$6,568,177	\$15.17
Total Costs	\$21,708,260	\$50.13
Yield Lost to insects	\$8,108,533	\$18.73
Total Losses + Costs	\$29,816,793	\$68.86

Table 19

Oklahoma
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

927

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	0	0	0.00	0.000	\$0.00	0.000%	0
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	130,050	98,600	1.00	0.580	\$5.22	2.295%	7,175
Lygus	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	0	0	0.00	0.000	\$0.00	0.000%	0
Thrips	100,300	100,300	1.00	0.590	\$2.95	0.001%	2
Beet Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	29,920	29,920	1.00	0.176	\$0.35	0.880%	2,751
Grasshoppers	17	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	0	0	0.00	0.000	\$0.00	0.000%	0
Banded Winged Whitefly	0	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	0	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	170,000
Total bales Harvested	279,792
Yield (lbs/acre)	790
Total bales Lost to Insects	9,928
Percent Yield Loss	3.18%
Yield w/o Insects (lbs/acre)	816
Ave. # Spray Applications	1.346
Yield loss to all factors	32,828
% Yield loss to all factors	8.18%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$1,448,740	\$8.52
At Planting Costs	\$673,200	\$3.96
Scouting costs	\$297,500	\$1.75
Eradication costs	\$0	\$0.00
Transgenic cotton	\$2,475,200	\$14.56
Total Costs	\$4,894,640	\$28.79
Yield Lost to insects	\$3,097,388	\$18.22
Total Losses + Costs	\$7,992,028	\$47.01

Table 20

South Carolina
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

928

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	135,000	135,000	1.00	1.000	\$9.00	1.500%	5,220
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	135,000	0	0.00	0.000	\$0.00	0.000%	0
Lygus	135,000	6,750	0.10	0.005	\$0.04	0.100%	348
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	128,250	20,250	0.25	0.038	\$0.60	0.095%	331
Thrips	135,000	74,250	1.00	0.550	\$3.58	0.500%	1,740
Beet Armyworm	20,250	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	128,250	20,250	0.50	0.075	\$1.13	0.238%	827
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	135,000	135,000	1.00	1.000	\$9.00	2.500%	8,701
Grasshoppers	121,500	6,750	0.10	0.005	\$0.04	0.000%	0
Saltmarsh Caterpillars	13,500	0	0.00	0.000	\$0.00	0.000%	0
Aphids	135,000	6,750	0.20	0.010	\$0.10	0.000%	0
Banded Winged Whitefly	27,000	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	27,000	0	0.00	0.000	\$0.00	0.000%	0
Loopers	33,750	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	20,250	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	121,500	13,500	1.00	0.100	\$0.50	0.090%	313
Clouded Plant bugs	6,750	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	135,000
Total bales Harvested	241,875
Yield (lbs/acre)	860
Total bales Lost to Insects	17,479
Percent Yield Loss	5.02%
Yield w/o Insects (lbs/acre)	905
Ave. # Spray Applications	2.783
Yield loss to all factors	106,147
% Yield loss to all factors	30.52%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$3,236,625	\$23.98
At Planting Costs	\$810,000	\$6.00
Scouting costs	\$1,032,750	\$7.65
Eradication costs	\$270,000	\$2.00
Transgenic cotton	\$1,453,159	\$10.76
Total Costs	\$6,802,534	\$50.39
Yield Lost to insects	\$5,453,568	\$40.40
Total Losses + Costs	\$12,256,102	\$90.79

Table 21

Tennessee
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

929

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	224,000	33,600	1.00	0.120	\$1.17	0.400%	2,931
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	0	0	0.00	0.000	\$0.00	0.000%	0
Lygus	280,000	238,000	1.40	1.190	\$11.66	1.100%	8,059
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	140,000	56,000	1.50	0.300	\$4.20	1.150%	8,426
Thrips	280,000	196,000	1.30	0.910	\$6.92	1.400%	10,257
Beet Armyworm	8,400	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	28,000	2,800	1.00	0.010	\$0.11	0.030%	220
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	280,000	238,000	1.70	1.445	\$14.16	1.600%	11,723
Grasshoppers	5,600	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	210,000	14,000	1.00	0.050	\$0.46	0.113%	824
Banded Winged Whitefly	28,000	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	3	0	0.00	0.000	\$0.00	0.000%	0
Loopers	11,200	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	28,000	196,000	1.00	0.700	\$1.68	0.001%	7
Clouded Plant bugs	252,000	98,000	0.80	0.280	\$2.73	0.450%	3,297
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	280,000
Total bales Harvested	525,000
Yield (lbs/acre)	900
Total bales Lost to Insects	45,744
Percent Yield Loss	6.24%
Yield w/o Insects (lbs/acre)	960
Ave. # Spray Applications	5.005
Yield loss to all factors	207,662
% Yield loss to all factors	28.34%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$12,063,520	\$43.08
At Planting Costs	\$2,439,360	\$8.71
Scouting costs	\$1,743,000	\$6.23
Eradication costs	\$2,688,000	\$9.60
Transgenic cotton	\$3,528,000	\$12.60
Total Costs	\$22,461,880	\$80.22
Yield Lost to insects	\$14,272,052	\$50.97
Total Losses + Costs	\$36,733,932	\$131.19

Table 22

Texas Summary
 2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

930

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	194,778	1,000	2.00	0.001	\$0.01	0.001%	63
Bollworm/Budworm	2,125,783	359,418	7.20	0.760	\$6.12	0.269%	25,147
Pink Bollworm	7,277	4,770	2.00	0.003	\$0.03	0.000%	4
Cotton Fleahopper	1,481,639	650,831	8.70	1.664	\$11.74	0.139%	7,774
Lygus	1,346,339	34,884	4.00	0.041	\$0.29	0.001%	119
Cotton Leaf Perforator	14,998	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	869,845	56,086	5.00	0.082	\$0.72	0.002%	103
Thrips	3,017,248	687,013	6.70	1.352	\$7.15	0.035%	3,475
Beet Armyworm	1,287,520	42,976	2.00	0.025	\$0.32	0.016%	1,753
Fall Armyworm	199,821	3,999	1.00	0.001	\$0.01	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	596,533	156,616	4.00	0.184	\$1.40	0.011%	814
Grasshoppers	53,537	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	226,178	0	0.00	0.000	\$0.00	0.000%	0
Aphids	1,892,616	238,665	6.00	0.421	\$2.93	0.014%	978
Banded Winged Whitefly	74,979	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	11,581	313	1.00	0.000	\$0.00	0.000%	3
Loopers	366,125	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	179,948	14,996	1.00	0.004	\$0.03	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
<i>Crenotiades</i> (green mired)	94,973	9,997	2.00	0.006	\$0.04	0.000%	25

Yield & Management Results

Total Acres	3,403,440
Total bales Harvested	4,414,899
Yield (lbs/acre)	623
Total bales Lost to Insects	40,259
Percent Yield Loss	0.489%
Yield w/o Insects (lbs/acre)	626
Ave. # Spray Applications	4.545
Yield loss to all factors	5,548,546
% Yield loss to all factors	55.69%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$104,843,800	\$30.81
At Planting Costs	\$15,351,852	\$4.51
Scouting costs	\$10,661,006	\$3.13
Eradication costs	\$76,577,409	\$22.50
Transgenic cotton	\$21,931,015	\$6.44
Total Costs	\$229,365,082	\$67.39
Yield Lost to insects	\$12,560,888	\$3.69
Total Losses + Costs	\$241,925,970	\$71.08

Table 22a

Texas Gulf Coast, Winter Garden and Lower Rio Grande Valley
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

931

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	119,965	1,000	2.00	0.004	\$0.04	0.005%	63
Bollworm/Budworm	499,855	149,957	1.20	0.360	\$3.24	0.340%	4,449
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	499,855	449,870	1.30	1.170	\$8.19	0.020%	262
Lygus	99,971	14,996	1.00	0.030	\$0.23	0.000%	0
Cotton Leaf Perforator	14,996	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	149,957	49,986	1.00	0.100	\$0.80	0.000%	0
Thrips	499,855	124,964	1.00	0.250	\$1.60	0.020%	262
Beet Armyworm	9,997	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	174,949	3,999	1.00	0.008	\$0.08	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	399,884	149,957	1.00	0.300	\$2.25	0.040%	523
Grasshoppers	50	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	4,999	0	0.00	0.000	\$0.00	0.000%	0
Aphids	419,878	169,951	1.00	0.340	\$2.24	0.042%	550
Banded Winged Whitefly	74,978	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	9,997	0	0.00	0.000	\$0.00	0.000%	0
Loopers	9,997	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	179,948	14,996	1.00	0.030	\$0.22	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
<i>Crenotiades</i> (green mired)	94,972	9,997	2.00	0.040	\$0.30	0.002%	25

Yield & Management Results

Total Acres	499,855
Total bales Harvested	580,040
Yield (lbs/acre)	557
Total bales Lost to Insects	6,133
Percent Yield Loss	0.469%
Yield w/o Insects (lbs/acre)	560
Ave. # Spray Applications	2.632
Yield loss to all factors	728,381
% Yield loss to all factors	55.67%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$9,584,120	\$19.17
At Planting Costs	\$3,119,095	\$6.24
Scouting costs	\$2,385,808	\$4.77
Eradication costs	\$11,246,738	\$22.50
Transgenic cotton	\$3,550,720	\$7.10
Total Costs	\$29,886,480	\$59.79
Yield Lost to insects	\$1,913,362	\$3.83
Total Losses + Costs	\$31,799,842	\$63.62

Table 22b

Texas Panhandle
 2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

932

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	113,698	25,674	1.00	0.140	\$0.97	0.310%	1,821
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	88,024	1,834	1.00	0.010	\$0.06	0.024%	141
Lygus	73,354	1,834	1.00	0.010	\$0.06	0.020%	117
Cotton Leaf Perforator	2	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	80,689	0	0.00	0.000	\$0.00	0.000%	0
Thrips	183,384	69,686	1.50	0.570	\$2.00	0.020%	117
Beet Armyworm	137,538	7,335	1.00	0.040	\$0.50	0.000%	0
Fall Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Grasshoppers	18	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	7,335	0	0.00	0.000	\$0.00	0.000%	0
Aphids	144,873	3,668	1.00	0.020	\$0.15	0.000%	0
Banded Winged Whitefly	0	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	2	0	0.00	0.000	\$0.00	0.000%	0
Loopers	53,181	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	183,384
Total bales Harvested	267,435
Yield (lbs/acre)	700
Total bales Lost to Insects	2,197
Percent Yield Loss	0.374%
Yield w/o Insects (lbs/acre)	703
Ave. # Spray Applications	0.790
Yield loss to all factors	319,999
% Yield loss to all factors	54.47%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$684,206	\$3.73
At Planting Costs	\$1,604,610	\$8.75
Scouting costs	\$715,198	\$3.90
Eradication costs	\$1,125,978	\$6.14
Transgenic cotton	\$996,617	\$5.43
Total Costs	\$5,126,608	\$27.96
Yield Lost to insects	\$685,464	\$3.74
Total Losses + Costs	\$5,812,073	\$31.69

Table 22c

Texas North Rolling Plains
 2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

933

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	21,950	0	0.00	0.000	\$0.00	0.004%	39
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	173,048	14,293	1.00	0.028	\$0.31	0.102%	911
Lygus	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	0	0	0.00	0.000	\$0.00	0.000%	0
Thrips	176,621	141,399	1.00	0.277	\$1.77	0.000%	0
Beet Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	1,021	0	0.00	0.000	\$0.00	0.000%	0
Grasshoppers	0	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	72,486	0	0.00	0.000	\$0.00	0.014%	127
Banded Winged Whitefly	0	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	0	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	510,466
Total bales Harvested	316,915
Yield (lbs/acre)	298
Total bales Lost to Insects	1,077
Percent Yield Loss	0.120%
Yield w/o Insects (lbs/acre)	298
Ave. # Spray Applications	0.305
Yield loss to all factors	578,836
% Yield loss to all factors	64.62%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$684,206	\$2.08
At Planting Costs	\$1,604,610	\$0.11
Scouting costs	\$715,198	\$0.06
Eradication costs	\$1,125,978	\$4.00
Transgenic cotton	\$996,617	\$7.00
Total Costs	\$5,126,608	\$13.25
Yield Lost to insects	\$685,464	\$0.66
Total Losses + Costs	\$5,812,073	\$13.91

Table 22d

Texas High Plains
 2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

934

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	1,211,786	178,204	1.00	0.100	\$0.73	0.292%	16,277
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	356,408	35,641	1.00	0.020	\$0.13	0.006%	334
Lygus	1,158,325	17,820	1.00	0.010	\$0.07	0.000%	0
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	623,713	1,782	1.00	0.001	\$0.02	0.000%	0
Thrips	1,782,038	267,306	1.20	0.180	\$0.77	0.050%	2,783
Beet Armyworm	1,122,684	35,641	1.00	0.020	\$0.26	0.032%	1,753
Fall Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	124,743	0	0.00	0.000	\$0.00	0.000%	0
Grasshoppers	53,461	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	213,845	0	0.00	0.000	\$0.00	0.000%	0
Aphids	1,140,504	35,641	1.00	0.020	\$0.14	0.000%	0
Banded Winged Whitefly	0	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	18	0	0.00	0.000	\$0.00	0.000%	0
Loopers	302,946	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	1,782,038
Total bales Harvested	2,784,434
Yield (lbs/acre)	750
Total bales Lost to Insects	21,148
Percent Yield Loss	0.380%
Yield w/o Insects (lbs/acre)	753
Ave. # Spray Applications	0.351
Yield loss to all factors	2,782,197
% Yield loss to all factors	49.98%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$3,740,498	\$2.10
At Planting Costs	\$11,316,654	\$6.35
Scouting costs	\$6,201,492	\$3.48
Eradication costs	\$5,417,396	\$3.04
Transgenic cotton	\$9,381,396	\$5.26
Total Costs	\$36,057,436	\$20.23
Yield Lost to insects	\$6,598,061	\$3.70
Total Losses + Costs	\$42,655,497	\$23.94

Table 22e

Texas Northern Blacklands
 2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

935

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	27,995	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	18,477	784	1.00	0.014	\$0.14	0.660%	446
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	53,191	50,727	1.00	0.906	\$5.66	2.945%	1,988
Lygus	13,830	0	0.00	0.000	\$0.00	0.000%	0
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	4,647	2,855	1.00	0.051	\$0.61	0.042%	28
Thrips	55,430	46,248	1.00	0.826	\$5.78	0.000%	0
Beet Armyworm	17,301	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	30,067	2,296	1.00	0.041	\$0.41	0.107%	73
Grasshoppers	0	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	34,658	16,181	1.00	0.289	\$2.60	0.186%	125
Banded Winged Whitefly	0	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	0	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	55,990
Total bales Harvested	55,407
Yield (lbs/acre)	475
Total bales Lost to Insects	2,660
Percent Yield Loss	3.94%
Yield w/o Insects (lbs/acre)	494
Ave. # Spray Applications	2.127
Yield loss to all factors	12,113
% Yield loss to all factors	17.94%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$851,468	\$15.21
At Planting Costs	\$372,334	\$6.65
Scouting costs	\$212,762	\$3.80
Eradication costs	\$741,868	\$13.25
Transgenic cotton	\$449,935	\$8.04
Total Costs	\$2,628,366	\$46.94
Yield Lost to insects	\$829,920	\$14.82
Total Losses + Costs	\$3,458,286	\$61.77

Table 22f

2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009
Texas Southern Rolling Plains

Cotton Insect Losses 20088

936

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	19,855	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	209,000	1,045	1.00	0.005	\$0.06	0.500%	1,638
Pink Bollworm	2,508	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	209,000	14,839	1.00	0.071	\$0.67	0.500%	1,638
Lygus	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	5,852	1,463	1.00	0.007	\$0.13	0.014%	46
Thrips	209,000	2,926	1.00	0.014	\$0.08	0.000%	0
Beet Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	24,871	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Grasshoppers	0	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	49,742	10,032	1.00	0.048	\$0.43	0.000%	0
Banded Winged Whitefly	0	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	0	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	209,000
Total bales Harvested	185,052
Yield (lbs/acre)	425
Total bales Lost to Insects	3,322
Percent Yield Loss	1.01%
Yield w/o Insects (lbs/acre)	429
Ave. # Spray Applications	0.145
Yield loss to all factors	142,555
% Yield loss to all factors	43.51%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$287,689	\$1.38
At Planting Costs	\$344,850	\$1.65
Scouting costs	\$114,950	\$0.55
Eradication costs	\$1,672,000	\$8.00
Transgenic cotton	\$1,463,585	\$7.00
Total Costs	\$3,883,074	\$18.58
Yield Lost to insects	\$1,036,445	\$4.96
Total Losses + Costs	\$4,919,519	\$23.54

Table 22g

Texas Southern Blacklands
 2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

937

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	26,963	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	48,516	2,113	1.00	0.025	\$0.36	0.287%	474
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	84,522	81,986	1.40	1.358	\$9.51	1.500%	2,478
Lygus	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	4,987	0	1.00	0.000	\$0.00	0.018%	29
Thrips	79,958	34,485	0.00	0.000	\$0.00	0.189%	313
Beet Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	21,976	3,973	1.00	0.047	\$0.49	0.130%	215
Grasshoppers	0	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	30,005	2,958	0.00	0.000	\$0.00	0.107%	176
Banded Winged Whitefly	0	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	0	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	84,522
Total bales Harvested	87,163
Yield (lbs/acre)	495
Total bales Lost to Insects	3,684
Percent Yield Loss	2.23%
Yield w/o Insects (lbs/acre)	506
Ave. # Spray Applications	1.430
Yield loss to all factors	78,014
% Yield loss to all factors	47.23%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$875,819	\$10.36
At Planting Costs	\$894,243	\$10.58
Scouting costs	\$365,135	\$4.32
Eradication costs	\$1,521,396	\$18.00
Transgenic cotton	\$679,219	\$8.04
Total Costs	\$4,335,812	\$51.30
Yield Lost to insects	\$1,149,443	\$13.60
Total Losses + Costs	\$5,485,255	\$64.90

Table 22h

Texas Far West
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

938

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	2,502	1,642	1.00	0.021	\$0.29	0.003%	5
Pink Bollworm	4,769	4,769	2.00	0.122	\$1.22	0.003%	4
Cotton Fleahopper	17,592	1,642	1.00	0.021	\$0.17	0.016%	23
Lygus	860	235	1.00	0.003	\$0.13	0.001%	2
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	0	0	0.00	0.000	\$0.00	0.000%	0
Thrips	30,961	0	0.00	0.000	\$0.00	0.000%	0
Beet Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	18,843	391	1.00	0.005	\$0.06	0.002%	3
Grasshoppers	8	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	469	235	1.00	0.003	\$0.03	0.000%	0
Banded Winged Whitefly	0	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	1,564	313	1.00	0.004	\$0.05	0.002%	3
Loopers	0	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	78,185
Total bales Harvested	138,453
Yield (lbs/acre)	850
Total bales Lost to Insects	39
Percent Yield Loss	0.028%
Yield w/o Insects (lbs/acre)	850
Ave. # Spray Applications	0.179
Yield loss to all factors	4,468
% Yield loss to all factors	3.127%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$152,730	\$1.95
At Planting Costs	\$562,932	\$7.20
Scouting costs	\$3,909	\$0.05
Eradication costs	\$589,468	\$7.54
Transgenic cotton	\$530,610	\$6.79
Total Costs	\$1,839,650	\$23.53
Yield Lost to insects	\$12,267	\$0.16
Total Losses + Costs	\$1,851,917	\$23.69

Table 23

Virginia
2009 Beltwide Cotton Conferences, San Antonio, Texas, January 5-8, 2009

Cotton Insect Losses 2008

939

Pest	acres infested	acres treated	#apps/ acre trtd	#apps/ tot acres	cost/ acre	%red	Bales lost
Boll Weevil	0	0	0.00	0.000	\$0.00	0.000%	0
Bollworm/Budworm	44,100	18,900	1.00	0.300	\$2.40	0.000%	0
Pink Bollworm	0	0	0.00	0.000	\$0.00	0.000%	0
Cotton Fleahopper	0	0	0.00	0.000	\$0.00	0.000%	0
Lygus	1,008	0	0.00	0.000	\$0.00	0.000%	0
Cotton Leaf Perforator	0	0	0.00	0.000	\$0.00	0.000%	0
Spider Mites	5,040	0	0.00	0.000	\$0.00	0.000%	0
Thrips	63,000	44,100	1.20	0.840	\$5.88	2.000%	2,625
Beet Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
Fall Armyworm	0	0	0.00	0.000	\$0.00	0.000%	0
European Cornborer	0	0	0.00	0.000	\$0.00	0.000%	0
Stink Bugs	28,350	9,450	1.00	0.150	\$1.20	0.000%	0
Grasshoppers	6	0	0.00	0.000	\$0.00	0.000%	0
Saltmarsh Caterpillars	0	0	0.00	0.000	\$0.00	0.000%	0
Aphids	0	0	0.00	0.000	\$0.00	0.000%	0
Banded Winged Whitefly	0	0	0.00	0.000	\$0.00	0.000%	0
Silverleaf Whitefly (Bemesia)	0	0	0.00	0.000	\$0.00	0.000%	0
Loopers	0	0	0.00	0.000	\$0.00	0.000%	0
Southern Armyworms	0	0	0.00	0.000	\$0.00	0.000%	0
Cutworms	0	0	0.00	0.000	\$0.00	0.000%	0
Clouded Plant bugs	0	0	0.00	0.000	\$0.00	0.000%	0
Other Insects	0	0	0.00	0.000	\$0.00	0.000%	0

Yield & Management Results

Total Acres	63,000
Total bales Harvested	105,000
Yield (lbs/acre)	800
Total bales Lost to Insects	2,625
Percent Yield Loss	2.00%
Yield w/o Insects (lbs/acre)	816
Ave. # Spray Applications	1.290
Yield loss to all factors	28,875
% Yield loss to all factors	22.00%

Economic Results

	Total	Per Acre
Foliar Insecticides - costs	\$597,240	\$9.48
At Planting Costs	\$945,000	\$15.00
Scouting costs	\$42,840	\$0.68
Eradication costs	\$204,750	\$3.25
Transgenic cotton	\$950,950	\$15.09
Total Costs	\$2,740,780	\$43.50
Yield Lost to insects	\$819,000	\$13.00
Total Losses + Costs	\$3,559,780	\$56.50

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New Mexico	---	Dr. Jane Pierce
North Carolina	---	Dr. Jack Bacheler
Oklahoma	---	Dr. Terry Pitts
South Carolina	---	Dr. Jeremy Green
Tennessee	---	Dr. Scott Stewart
Texas	---	Dr. David Kern
Virginia	---	Dr. Ames Herbert

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