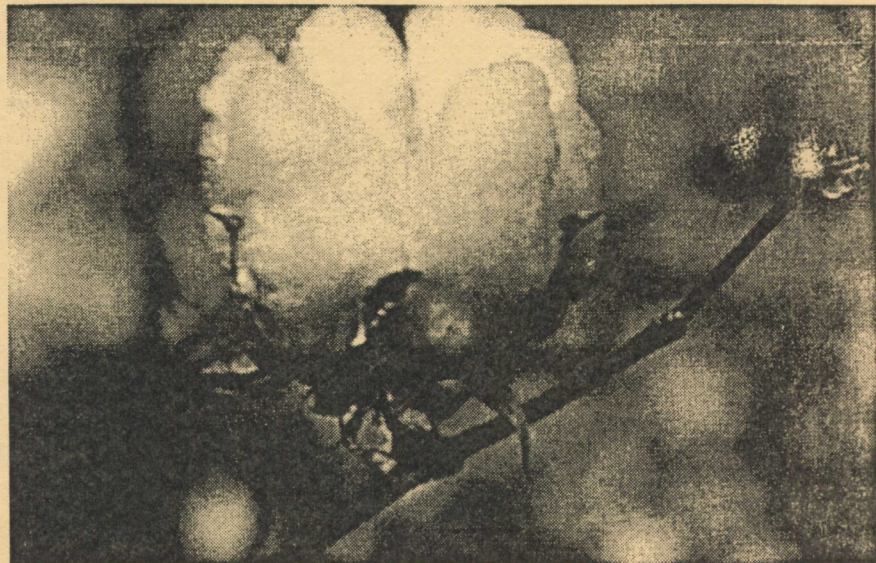


1993



ALABAMA
COTTON
VARIETY
REPORT



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Alabama Agricultural Experiment Station Auburn University
Lowell T. Frobish, Director Auburn University, Alabama

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Information contained herien is available to all persons regardless of race,
color, sex, or national origin.

1993 ALABAMA COTTON VARIETY REPORT

A Report of the Performance of Cotton Varieties Tested in Alabama

K. M. Glass and D. I. Bransby¹

INTRODUCTION

The Alabama Cotton Variety Test is a continuing evaluation of available cotton varieties from private companies and state agricultural experiment stations. Breeding lines that are likely to be released as varieties are also tested. Tests are conducted on units of the Alabama Agricultural Experiment Station by Experiment Station personnel. Cultural practices are those generally recommended by Auburn University to producers. Data is reported on an irrigated test at Belle Mina. No other tests received scheduled supplemental irrigation. Every effort is made to test the varieties and present the results in an unbiased manner.

EXPERIMENTAL CONDITIONS

A randomized complete block experimental design with four replications was used at each location. Row length varied at different locations from 20 to 120 feet. Plot width was two rows at Prattville, Headland, Belle Mina, Shorter, Tallassee, Fairhope, and Crossville, and one row at Brewton and Monroeville. Rainfall was generally adequate at all locations during the spring. The harvest season was warm and favorable for maturing and harvesting the crop.

¹Research Assistant and Professor of Agronomy and Soils.

EXPLANATION OF DATA

Harvest of Seed Cotton

Tests at Prattville, Tallassee, Brewton, Monroeville, Belle Mina, Headland, Fairhope, and Shorter were harvested by a mechanical spindle picker. The test at Crossville was harvested by hand. Average yield of seed cotton was determined for each variety at each location.

Lint Percentage

Seed cotton samples from each variety were ginned on a 10-saw gin. Lint percentage was calculated by dividing weight of lint by weight of seed cotton.

Yield of Lint

Lint yield was determined by multiplying the lint percentage by yield of seed cotton.

Fiber Properties

Fiber qualities of all varieties were determined by the Auburn University Textile Engineering fiber testing laboratory using High Volume Instrumentation (HVI). Data are reported on a single composite sample of each variety from all locations including the regional tests at Shorter and Belle Mina.

Length. This is the fiber length measured with the HVI instrument. This measurement of length is about the same as the classer's staple.

Strength. A measure of breaking strength of a standard fiber bundle with the holding jaws separated by 1/8 inch. Tex is a size measurement of the fiber bundle and the data given are the force in grams needed to break this bundle.

Elongation. A measure of the percentage stretch before the fibers break.

Micronaire. This measures the fineness of the cotton fibers. The smaller the micronaire reading, the finer and/or more immature the fibers. The desirable range of micronaire is 3.5 to 4.9.

Earliness

Where more than one harvest was made, earliness is reported as the percentage of the total yield harvested at the first picking.

Fusarium Wilt

Reaction of varieties to Fusarium oxysporum f. vasinfectum (fusarium wilt) was evaluated at the Plant Breeding Unit, Tallassee. The varieties were grown in a field with a high natural incidence of the fusarium wilt disease. In 1991 and 1993 fusarium wilt was severe in the test area. Severity of the disease varies from year to year and also within the experimental area in the same year. Therefore, several years' data are necessary to realistically characterize a variety's wilt reaction.

Verticillium wilt is being identified more frequently in northern Alabama than previously reported. Varietal comparisons reported in Table 12 do not apply in any way to this disease.

STATISTICAL ANALYSIS

Appropriate analyses of the yield data were made. For each location, the variability in the test was measured and expressed as a percentage of the test mean, i.e., the coefficient of variation (C.V.). An indication of the magnitude of difference between variety averages necessary to be considered a real difference is given for each location. It is designated as the Least Significance Difference (L.S.D._{.05}).

LOCATIONS OF EXPERIMENTS

Tennessee Valley Substation, Belle Mina - W.B. Webster, Superintendent

Sand Mountain Substation, Crossville - J.T. Eason, Superintendent

Prattville Experiment Field - D.P. Moore, Superintendent

E.V. Smith Research Center

Field Crops Research Unit, Shorter - B. Durbin, Acting Superintendent

Plant Breeding Unit, Tallasse - S.P. Nightengale, Superintendent

Brewton Experiment Field - J.R. Akridge, Superintendent

Monroeville Experiment Field - J.R. Akridge, Superintendent

Wiregrass Substation, Headland - H.W. Ivey, Superintendent

Gulf Coast Substation, Fairhope - E.L. Carden, Superintendent

Table 1. Performance of Cotton Varieties at Belle Mina, Alabama, 1993

Variety	1993			2-yr. av.	3-yr. av.
	Lint/Acre	Lint	Earliness	Lint/Acre	Lint/Acre
	Lb.	Pct.	Pct.	Lb.	Lb.
Deltapine DP 5415....	894	43	85	1,139	994
Stoneville 453.....	951	45	90	1,095	954
HS 46.....	894	42	89	1,075	948
Deltapine DP 5690....	952	41	92	1,038	945
DES 119.....	798	42	93	1,020	936
Deltapine 51.....	900	42	90	1,025	927
Stoneville LA 887....	869	43	90	1,033	925
Chembred 1135.....	805	39	90	989	924
Deltapine 50.....	943	41	94	1,032	923
Stoneville 907.....	840	41	95	1,031	920
Chembred 333.....	843	42	93	997	913
Chembred 407.....	805	41	91	1,030	902
Deltapine 20.....	771	41	93	994	898
KC 311.....	876	41	92	996	884
Georgia King.....	854	43	92	973	868
Suregrow 1001.....	865	41	86	1,027	867
Terra C 40.....	741	43	93	926	839
HS 23.....	693	41	91	864	830
Terra 207.....	755	40	91	895	826
Deltapine Acala 90...	722	41	92	886	814
Acala 1517-88.....	745	41	92	877	773
Paymaster HS-26.....	677	39	85	877	737
PD 3.....	662	40	83	788	725
Suregrow 501.....	1,001	43	91	1,093	-
Stoneville X84-828...	872	43	93	1,059	-
Stoneville 132.....	825	42	93	997	-
Deltapine DP 5409....	767	42	89	995	-
Chembred 1233.....	851	41	91	992	-
GA 88-88.....	832	40	85	900	-
GA 88-15-19.....	713	40	82	820	-
Suregrow 125.....	1,085	46	93	-	-
Suregrow 404.....	937	41	94	-	-
HY 44.....	866	40	89	-	-
Stoneville 9573.....	851	44	90	-	-
SS 9303.....	836	41	91	-	-
SS 9202.....	831	41	92	-	-
HY 39.....	809	39	91	-	-
Terra 292.....	767	38	92	-	-
Test Mean.....	834				
L.S.D. (.05).....	141				
C.V.....	12%				

Table 2. Performance of Cotton Varieties at Crossville, Alabama, 1993

Variety	1993			2-yr. av.	3-yr. av.
	Lint/Acre	Lint	Earliness	Lint/Acre	Lint/Acre
	Lb.	Pct.	Pct.	Lb.	Lb.
Stoneville 453.....	803	44	81	725	841
Stoneville LA 887....	680	43	74	692	802
Deltapine 51.....	864	41	70	740	784
HS 23.....	624	41	75	710	782
Chembred 333.....	725	41	74	664	764
Georgia King.....	757	44	69	732	750
Stoneville 907.....	705	42	78	681	748
Deltapine 20.....	776	42	72	682	744
DES 119.....	802	42	75	633	735
Chembred 1135.....	714	40	71	597	721
Terra C 40.....	790	41	73	618	719
KC 311.....	695	40	69	581	694
Deltapine 50.....	802	40	68	700	691
Terra 207.....	679	42	72	605	686
Deltapine DP 5690....	722	41	65	558	673
Deltapine Acala 90...	680	41	74	529	657
PD 3.....	645	40	71	532	650
HS 46.....	654	40	67	507	647
Suregrow 1001.....	682	41	62	547	642
Chembred 407.....	654	40	75	486	629
Deltapine DP 5415....	723	41	64	524	626
Stoneville 132.....	797	43	76	805	-
Deltapine DP 5409....	715	42	78	659	-
Suregrow 501.....	770	42	67	637	-
Stoneville X84-828...	599	42	80	528	-
Chembred 1233.....	597	39	72	512	-
GA 88-88.....	627	40	61	456	-
GA 88-15-19.....	554	41	59	442	-
Suregrow 404.....	874	42	77	-	-
Suregrow 125.....	866	42	72	-	-
Stoneville 9573.....	857	44	73	-	-
SS 9303.....	704	41	76	-	-
Terra 292.....	698	39	65	-	-
HY 39.....	696	41	74	-	-
HY 44.....	643	39	74	-	-
SS 9202.....	604	40	74	-	-
Test Mean.....	716				
L.S.D. (.05).....	124				
C.V.....	12%				

Table 3. Performance of Cotton Varieties at Prattville, Alabama, 1993

Variety	1993			2-yr. av.	3-yr. av.
	Lint/Acre	Lint	Earliness	Lint/Acre	Lint/Acre
	<u>Lb.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Lb.</u>	<u>Lb.</u>
KC 311.....	621	40	-	920	899
Chembred 333.....	535	40	-	873	878
Stoneville 453.....	535	44	-	879	877
Stoneville LA 887....	603	42	-	940	877
Deltapine DP 5415....	524	42	-	814	868
Deltapine DP 5690....	609	42	-	913	857
HS 46.....	599	41	-	903	853
Suregrow 1001.....	629	42	-	886	844
Deltapine 51.....	565	41	-	849	843
Chembred 407.....	568	40	-	904	842
Deltapine 20.....	515	41	-	823	842
Terra C 40.....	501	41	-	834	840
Deltapine Acala 90...	605	41	-	873	832
Terra 207.....	427	39	-	799	818
Chembred 1135.....	540	40	-	807	811
DES 119.....	551	42	-	778	804
Deltapine 50.....	530	39	-	754	776
PD 3.....	478	38	-	849	773
Stoneville 907.....	505	40	-	802	756
Georgia King.....	520	42	-	767	748
HS 23.....	500	40	-	715	734
Stoneville X84-828...	565	41	-	981	-
Chembred 1233.....	590	41	-	939	-
Stoneville 132.....	492	41	-	902	-
GA 88-88.....	596	39	-	844	-
Suregrow 501.....	665	41	-	837	-
GA 88-15-19.....	482	41	-	815	-
Deltapine DP 5409....	535	43	-	812	-
Stoneville 9573.....	643	45	-	-	-
Suregrow 125.....	641	43	-	-	-
HY 44.....	588	40	-	-	-
HY 39.....	565	40	-	-	-
SS 9202.....	543	40	-	-	-
Suregrow 404.....	528	41	-	-	-
SS 9303.....	510	42	-	-	-
Terra 292.....	463	38	-	-	-
Test Mean.....	552				
L.S.D. (.05).....	71				
C.V.....	9%				

Table 4. Performance of Cotton Varieties at Shorter, Alabama, 1993

Variety	1993			2-yr. av.	3-yr. av.
	Lint/Acre	Lint	Earliness	Lint/Acre	Lint/Acre
	Lb.	Pct.	Pct.	Lb.	Lb.
Stoneville LA 887....	1,098	38	-	1,308	1,423
HS 46.....	1,218	38	-	1,235	1,372
Deltapine DP 5415....	1,127	37	-	1,221	1,363
Chembred 407.....	1,119	36	-	1,195	1,363
DES 119.....	1,200	38	-	1,221	1,349
Deltapine 50.....	1,387	35	-	1,244	1,346
Deltapine Acala 90...	1,268	39	-	1,182	1,334
Stoneville 453.....	1,066	38	-	1,154	1,324
Chembred 333.....	1,121	36	-	1,168	1,315
Stoneville 907.....	1,122	36	-	1,185	1,314
HS 23.....	1,103	37	-	1,218	1,314
Terra C 40.....	1,131	37	-	1,185	1,309
Deltapine 20.....	1,079	36	-	1,128	1,292
Georgia King.....	1,100	37	-	1,149	1,270
Deltapine DP 5690....	949	35	-	1,082	1,266
Deltapine 51.....	1,052	35	-	1,071	1,255
KC 311.....	986	37	-	1,136	1,251
Terra 207.....	1,177	36	-	1,114	1,236
Chembred 1135.....	938	35	-	1,028	1,235
Suregrow 1001.....	848	35	-	966	1,128
PD 3.....	845	36	-	966	1,124
Acala 1517-88.....	924	35	-	853	992
Paymaster HS-26.....	1,058	36	-	872	951
Stoneville 132.....	1,482	40	-	1,361	-
Stoneville X84-828...	1,371	39	-	1,288	-
Chembred 1233.....	1,181	36	-	1,281	-
Deltapine DP 5409....	1,158	37	-	1,260	-
Suregrow 501.....	1,074	38	-	1,249	-
GA 88-15-19.....	886	37	-	1,041	-
GA 88-88.....	1,040	38	-	984	-
Stoneville 9573.....	1,449	41	-	-	-
Suregrow 125.....	1,260	38	-	-	-
HY 39.....	1,143	36	-	-	-
Suregrow 404.....	1,121	35	-	-	-
HY 44.....	1,047	37	-	-	-
SS 9303.....	1,021	36	-	-	-
SS 9202.....	960	36	-	-	-
Terra 292.....	923	33	-	-	-
Test Mean.....	1,106				
L.S.D. (.05).....	285				
C.V.....	18%				

Table 5. Performance of Cotton Varieties at Tallassee, Alabama, 1993

Variety	1993			1991&93	1990-91&93
	Lint/Acre	Lint	Earliness	2-yr. av.	3-yr. av.
	Lb.	Pct.	Pct.	Lint/Acre	Lint/Acre
Stoneville LA 887....	1,581	44	-	1,495	1,493
Deltapine DP 5415....	1,534	42	-	1,405	1,406
Deltapine Acala 90...	1,430	41	-	1,386	1,364
Deltapine DP 5690....	1,366	39	-	1,392	1,363
Deltapine 51.....	1,535	41	-	1,381	1,362
DES 119.....	1,342	39	-	1,244	1,348
Suregrow 1001.....	1,410	41	-	1,400	1,339
KC 311.....	1,280	41	-	1,365	1,336
Chembred 407.....	1,427	42	-	1,358	1,309
PD 3.....	1,156	40	-	1,229	1,306
HS 23.....	1,442	42	-	1,324	1,305
Georgia King.....	1,269	43	-	1,186	1,257
Deltapine 50.....	1,338	40	-	1,247	1,221
HS 46.....	1,281	40	-	1,288	1,217
Deltapine 20.....	1,367	42	-	1,256	1,216
Terra 207.....	1,192	40	-	1,163	1,190
Chembred 1135.....	1,191	41	-	1,169	1,184
Terra C 40.....	1,166	41	-	1,114	1,126
Stoneville 907.....	1,083	41	-	1,093	1,078
Chembred 333.....	1,254	40	-	1,286	-
Chembred 1233.....	1,429	41	-	-	-
Stoneville 9573.....	1,422	45	-	-	-
HY 44.....	1,398	40	-	-	-
Suregrow 125.....	1,382	43	-	-	-
Suregrow 404.....	1,381	40	-	-	-
SS 9202.....	1,329	41	-	-	-
GA 88-15-19.....	1,302	41	-	-	-
Stoneville 132.....	1,300	42	-	-	-
Stoneville 453.....	1,293	43	-	-	-
Deltapine DP 5409....	1,292	42	-	-	-
Suregrow 501.....	1,274	43	-	-	-
HY 39.....	1,272	39	-	-	-
Terra 292.....	1,226	40	-	-	-
Stoneville X84-828...	1,190	44	-	-	-
SS 9303.....	1,069	42	-	-	-
GA 88-88.....	1,018	40	-	-	-
Test Mean.....	1,312				
L.S.D. (.05).....	238				
C.V.....	13%				

Table 6. Performance of Cotton Varieties at Monroeville, Alabama, 1993

Variety	1993			2-yr. av.	3-yr. av.
	Lint/Acre Lb.	Lint Pct.	Earliness Pct.	Lint/Acre Lb.	Lint/Acre Lb.
Deltapine DP 5415....	1,087	43	88	1,102	1,245
Deltapine 20.....	1,162	41	91	1,140	1,197
Deltapine DP 5690....	988	42	88	1,052	1,182
DES 119.....	1,124	42	90	1,106	1,174
Suregrow 1001.....	994	42	88	1,040	1,170
KC 311.....	739	41	87	932	1,168
Stoneville LA 887....	1,048	42	92	1,147	1,146
Deltapine 51.....	909	42	91	1,038	1,139
HS 46.....	997	42	93	1,039	1,132
Deltapine 50.....	1,034	39	89	1,022	1,102
Chembred 407.....	941	41	84	996	1,098
Chembred 1135.....	935	40	86	1,018	1,078
Terra C 40.....	955	42	90	982	1,038
Deltapine Acala 90...	727	42	83	873	1,036
Stoneville 453.....	812	43	92	990	1,021
Georgia King.....	835	44	84	932	1,008
PD 3.....	760	41	86	888	986
HS 23.....	902	41	89	979	977
Chembred 333.....	1,024	41	89	920	973
Stoneville 907.....	905	41	94	913	966
Terra 207.....	854	41	90	862	879
Chembred 1233.....	968	41	89	1,078	-
Stoneville 132.....	869	43	89	1,078	-
Suregrow 501.....	915	43	91	1,023	-
Deltapine DP 5409....	1,009	42	87	972	-
Stoneville X84-828...	800	43	89	908	-
GA 88-88.....	645	40	82	805	-
GA 88-15-19.....	613	40	82	795	-
Suregrow 404.....	1,134	41	91	-	-
Suregrow 125.....	1,088	43	90	-	-
HY 44.....	1,014	42	89	-	-
Stoneville 9573.....	974	45	91	-	-
HY 39.....	972	41	90	-	-
SS 9303.....	964	41	88	-	-
Terra 292.....	952	39	88	-	-
SS 9202.....	853	40	87	-	-
Test Mean.....	931				
L.S.D. (.05).....	237				
C.V.....	18%				

Table 7. Performance of Cotton Varieties at Brewton, Alabama, 1993

Variety	1993			2-yr. av. Lint/Acre Lb.	3-yr. av. Lint/Acre Lb.
	Lint/Acre	Lint	Earliness		
	Lb.	Pct.	Pct.		
Stoneville LA 887....	1,176	43	78	1,079	1,216
Deltapine 51.....	1,054	41	79	1,027	1,206
DES 119.....	1,090	43	81	998	1,170
Suregrow 1001.....	1,133	41	71	927	1,158
Deltapine DP 5415....	955	40	71	877	1,144
HS 46.....	1,036	40	75	968	1,137
Deltapine DP 5690....	990	42	70	921	1,132
KC 311.....	955	41	66	877	1,119
Deltapine Acala 90...	1,043	42	75	866	1,109
Stoneville 907.....	1,097	41	91	1,027	1,107
Chembred 407.....	999	42	68	892	1,103
Deltapine 20.....	980	42	85	966	1,096
HS 23.....	979	43	75	985	1,092
PD 3.....	985	43	78	919	1,062
Chembred 333.....	916	42	74	884	1,059
Georgia King.....	908	44	77	901	1,050
Deltapine 50.....	966	40	76	940	1,044
Chembred 1135.....	841	41	74	813	1,033
Terra C 40.....	1,001	42	81	922	1,030
Stoneville 453.....	936	43	81	877	1,011
Terra 207.....	916	40	83	849	966
Suregrow 501.....	1,142	43	84	1,018	-
Stoneville 132.....	989	43	85	998	-
Deltapine DP 5409....	972	42	80	965	-
Chembred 1233.....	968	42	73	946	-
Stoneville X84-828...	939	43	78	932	-
GA 88-15-19.....	847	43	59	793	-
GA 88-88.....	794	41	63	681	-
Stoneville 9573.....	1,256	47	83	-	-
Suregrow 404.....	1,102	41	82	-	-
Suregrow 125.....	1,097	43	84	-	-
SS 9303.....	1,088	43	86	-	-
HY 44.....	1,026	41	72	-	-
HY 39.....	992	41	70	-	-
SS 9202.....	988	42	73	-	-
Terra 292.....	970	41	76	-	-
Test Mean.....	1,003				
L.S.D. (.05).....	118				
C.V.....	8%				

Table 8. Performance of Cotton Varieties at Headland, Alabama, 1993

Variety	1993			2-yr. av.	3-yr. av.
	Lint/Acre	Lint	Earliness	Lint/Acre	Lint/Acre
	Lb.	Pct.	Pct.	Lb.	Lb.
Deltapine DP 5690....	1,089	43	-	1,359	1,447
Chembred 407.....	989	42	-	1,290	1,402
Chembred 333.....	973	43	-	1,325	1,389
HS 46.....	864	42	-	1,244	1,389
Suregrow 1001.....	955	43	-	1,320	1,387
Deltapine Acala 90...	812	42	-	1,297	1,385
Chembred 1135.....	814	42	-	1,274	1,368
KC 311.....	783	43	-	1,221	1,357
Stoneville LA 887....	753	45	-	1,265	1,330
Deltapine DP 5415....	783	45	-	1,223	1,317
Terra C 40.....	746	43	-	1,198	1,306
Georgia King.....	868	44	-	1,243	1,283
Stoneville 453.....	816	44	-	1,220	1,276
HS 23.....	753	42	-	1,147	1,271
Stoneville 907.....	746	42	-	1,141	1,243
Deltapine 51.....	691	44	-	1,109	1,242
Deltapine 50.....	723	41	-	1,088	1,239
Deltapine 20.....	803	42	-	1,166	1,231
DES 119.....	880	44	-	1,110	1,222
PD 3.....	800	44	-	1,038	1,179
Terra 207.....	668	44	-	1,075	1,168
Chembred 1233.....	988	42	-	1,354	-
Stoneville X84-828...	973	44	-	1,309	-
Deltapine DP 5409....	942	46	-	1,247	-
Suregrow 501.....	971	44	-	1,223	-
GA 88-88.....	1,024	43	-	1,213	-
GA 88-15-19.....	842	42	-	1,081	-
Stoneville 132.....	624	45	-	1,065	-
Suregrow 125.....	1,061	45	-	-	-
HY 44.....	1,049	42	-	-	-
Stoneville 9573.....	1,040	47	-	-	-
SS 9202.....	955	42	-	-	-
Terra 292.....	833	41	-	-	-
SS 9303.....	794	44	-	-	-
Suregrow 404.....	753	42	-	-	-
HY 39.....	727	41	-	-	-
Test Mean.....	858				
L.S.D. (.05).....	239				
C.V.....	20%				

Table 9. Performance of Cotton Varieties at Fairhope, Alabama, 1993

Variety	1993			2-yr. av.	3-yr. av.
	Lint/Acre	Lint	Earliness	Lint/Acre	Lint/Acre
	Lb.	Pct.	Pct.	Lb.	Lb.
Deltapine 51.....	1,058	39	-	1,272	1,370
HS 46.....	1,086	41	-	1,316	1,355
Deltapine DP 5690....	1,085	40	-	1,230	1,348
Chembred 333.....	1,138	39	-	1,333	1,344
Stoneville 907.....	1,111	40	-	1,332	1,344
DES 119.....	1,183	39	-	1,351	1,328
Deltapine 20.....	1,082	40	-	1,292	1,311
Georgia King.....	1,087	44	-	1,297	1,308
Suregrow 1001.....	958	40	-	1,229	1,292
Stoneville LA 887....	967	43	-	1,223	1,270
Chembred 407.....	1,045	41	-	1,209	1,265
Deltapine DP 5415....	985	41	-	1,220	1,259
Chembred 1135.....	1,121	39	-	1,263	1,257
KC 311.....	839	40	-	1,199	1,251
Deltapine 50.....	958	37	-	1,181	1,237
Deltapine Acala 90...	901	39	-	1,136	1,206
Terra C 40.....	1,012	39	-	1,179	1,189
Stoneville 453.....	908	42	-	1,158	1,173
HS 23.....	939	41	-	1,173	1,167
Terra 207.....	1,009	38	-	1,130	1,133
PD 3.....	933	40	-	1,089	1,087
Suregrow 501.....	1,175	42	-	1,359	-
Stoneville X84-828...	1,009	42	-	1,343	-
Deltapine DP 5409....	1,166	41	-	1,295	-
Chembred 1233.....	878	40	-	1,160	-
Stoneville 132.....	835	40	-	1,019	-
GA 88-15-19.....	797	38	-	1,006	-
GA 88-88.....	781	37	-	992	-
Suregrow 125.....	1,205	40	-	-	-
Stoneville 9573.....	1,186	42	-	-	-
Suregrow 404.....	1,076	39	-	-	-
Terra 292.....	1,062	40	-	-	-
HY 39.....	1,002	40	-	-	-
SS 9303.....	992	40	-	-	-
SS 9202.....	989	40	-	-	-
HY 44.....	929	38	-	-	-
Test Mean.....	1,014				
L.S.D. (.05).....	195				
C.V.....	14%				

Table 10. Performance of Cotton Varieties in Alabama, Average of all Locations*

Variety	Yield, Lint/Acre			Lint			Earliness		
	1993	1992-93	1991-93	1993	1992-93	1991-93	1993	1992-93	1991-93
	Lb.	Lb.	Lb.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
Stoneville LA 887...	899	1,086	1,124	42	42	42	84	75	79
Deltapine DP 5690...	923	1,019	1,106	41	40	41	79	71	76
HS 46.....	918	1,036	1,104	41	41	41	81	73	77
Deltapine DP 5415...	885	1,015	1,102	42	41	41	77	71	74
Deltapine 51.....	886	1,016	1,096	41	40	40	83	76	79
DES 119.....	954	1,027	1,090	42	41	41	85	81	83
Chembred 333.....	909	1,020	1,079	41	40	40	83	76	80
KC 311.....	812	983	1,078	40	40	40	79	71	76
Deltapine 20.....	896	1,024	1,076	41	40	40	85	80	82
Chembred 407.....	890	1,000	1,075	40	40	40	80	73	76
Suregrow 1001.....	883	993	1,061	41	40	40	77	71	75
Stoneville 453.....	853	1,012	1,060	43	42	42	86	80	83
Chembred 1135.....	838	973	1,053	40	39	39	80	76	80
Stoneville 907.....	879	1,014	1,050	40	40	40	90	83	85
Deltapine Acala 90..	845	955	1,047	41	40	40	81	71	76
Deltapine 50.....	918	995	1,045	39	38	38	82	77	80
Georgia King.....	866	999	1,035	43	42	42	81	75	77
Terra C 40.....	860	980	1,034	41	40	40	84	78	80
HS 23.....	812	974	1,021	41	39	40	83	79	82
Terra 207.....	811	916	964	40	39	40	84	80	83
PD 3.....	764	884	948	40	40	40	80	72	74
Suregrow 501.....	964	1,055	-	42	42	-	83	74	-
Stoneville X84-828..	891	1,044	-	42	41	-	85	79	-
Chembred 1233.....	878	1,033	-	40	40	-	81	75	-
Stoneville 132.....	864	1,028	-	42	41	-	86	83	-
Deltapine DP 5409...	908	1,026	-	42	41	-	84	78	-
GA 88-88.....	792	859	-	40	39	-	73	65	-
GA 88-15-19.....	717	849	-	40	40	-	71	64	-
Suregrow 125.....	1,038	-	-	43	-	-	85	-	-
Stoneville 9573.....	1,032	-	-	44	-	-	84	-	-
Suregrow 404.....	941	-	-	40	-	-	86	-	-
HY 44.....	895	-	-	40	-	-	81	-	-
SS 9303.....	864	-	-	41	-	-	85	-	-
HY 39.....	863	-	-	40	-	-	81	-	-
SS 9202.....	840	-	-	40	-	-	82	-	-
Terra 292.....	833	-	-	39	-	-	80	-	-
These varieties at 2 locations only									
Acala 1517-88.....	834	865	883	38	38	39	92	88	88
Paymaster HS-26.....	868	874	844	38	37	37	85	79	78

* Tallassee not included.

Table 11. Performance of Irrigated Cotton Varieties at Belle Mina, Alabama, 1993

Variety	1993			2-yr. av.	3-yr. av.
	Lint/Acre	Lint	Earliness	Lint/Acre	Lint/Acre
	<u>Lb.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Lb.</u>	<u>Lb.</u>
Deltapine DP 5415....	1,218	39	79	1,408	1,495
Chembred 1135.....	1,030	37	81	1,355	1,426
Deltapine 51.....	1,055	39	88	1,300	1,401
Deltapine DP 5690....	1,169	39	85	1,354	1,400
Deltapine 20.....	1,042	39	91	1,352	1,397
DES 119.....	984	37	86	1,296	1,372
HS 46.....	1,059	39	85	1,262	1,369
Stoneville 453.....	1,096	42	93	1,269	1,347
Suregrow 1001.....	993	39	81	1,259	1,307
Chembred 407.....	899	38	76	1,137	1,238
Chembred 1233.....	1,195	38	84	1,371	-
Stoneville LA 887....	1,223	39	91	-	-
Stoneville X84-828...	1,177	41	91	-	-
Suregrow 501.....	1,103	41	86	-	-
Stoneville 132.....	1,001	40	90	-	-
Deltapine DP 5409....	919	38	86	-	-
Test Mean.....	1,073				
L.S.D. (.05).....	188				
C.V.....	12%				

TABLE 12. Percentage of Plants Showing Symptoms of Fusarium Wilt, Tallassee, Alabama

Brand - variety	1 yr. 1993	2 yr. 92-93	3 yr. 91-93	4 yr. 90-93	5 yr. 89-93	6 yr. 88-93	7 yr. 87-93	8 yr. 84-93	11 yr. 83-93	12 yr. 82-93	13yr. 81-93
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
Deltapine Acala 90....	65.0	35.0	40.3	33.4	33.5	29.1	27.5	27.6	21.5	20.8	19.9
Deltapine 50.....	72.5	43.3	49.6	50.5	45.4	41.9	43.3	43.1	34.7	32.9	
Deltapine 20.....	59.8	40.4	33.9	41.4	36.8	31.9	37.5	37.1	30.8		
DES 119.....	71.3	42.3	46.4	46.9	44.6	41.8	44.5	41.9			
Terra C 40.....	54.5	35.8	37.8	39.4	39.3	35.7	39.6				
Stoneville 453.....	89.3	51.2	58.0	59.0	55.1	54.4	58.4				
PD 3.....	44.8	30.6	41.0	43.5	41.1	37.8	38.5				
Hy Performer HS 46....	95.8	70.2	65.9	61.2	60.9	54.5					
Deltapine 51.....	63.3	38.4	41.2	39.9	35.1	32.4					
Stoneville KC 311.....	60.5	35.2	42.9	40.5	35.9						
Suregrow 1001.....	76.5	45.8	48.0	47.9	44.3						
Stoneville 907.....	59.8	35.9	40.9	48.2	36.7						
Georgia King.....	73.3	42.2	49.4	48.3							
Chembred 407.....	64.0	40.9	42.9	40.7							
Auburn 56*.....	45.0	28.5	27.7	25.9							
Hy Performer HS 23....	46.0	31.5	30.2	32.3							
Terra 207.....	54.3	29.7	24.7	31.2							
Stoneville LA 887.....	49.5	25.9	28.7	28.5							
Deltapine DP 5690....	57.8	37.8	37.4	36.6							
Chembred 1135.....	67.3	41.2	37.8	37.3							
Deltapine DP 5415....	70.0	44.5	46.8	40.7							
Chembred 333.....	64.0	35.8	77.0								
Chembred 1233.....	60.8	34.9									
Deltapine DP 5409....	78.5	52.5									
GA 88-88.....	79.3	51.6									
GA 88-15-19.....	64.0	34.0									
Stoneville 84-828....	76.5	46.7									
Stoneville 132.....	37.5	20.4									
Suregrow 501.....	76.0	56.3									
Hollybrook HB 133....	87.3										
Hollybrook HB 147....	78.8										
Hy Performer HY 39....	68.0										
Hy Performer HY 44....	63.8										
SS 9202.....	67.3										
SS 9303.....	73.0										
Stoneville X9573.....	91.5										
Suregrow 125.....	73.0										
Suregrow 404.....	63.5										
Terra 292.....	71.3										

* Auburn 56 is a resistant check variety.

TABLE 13. Cotton Fiber Analysis, HVI, Belle Mina, Alabama, 1993

Brand-variety	Micronaire	Length	Uniformity	Strength	Elongation
	<u>Units</u>	<u>In.</u>	<u>Pct.</u>	<u>g/tex</u>	<u>Pct.</u>
Chembred 333.....	4.8	1.09	83	25.0	8.4
Chembred 407.....	5.4	1.00	84	24.5	7.4
Chembred 1135.....	5.2	1.07	83	26.5	7.8
Chembred 1233.....	5.6	1.08	87	25.5	8.8
Deltapine 20.....	5.0	1.03	83	22.3	10.0
Deltapine 50.....	5.0	1.14	84	26.0	10.0
Deltapine 51.....	5.4	1.14	86	23.5	10.2
Deltapine Acala 90....	5.4	1.11	88	30.5	8.4
Deltapine DP 5409.....	5.6	1.01	81	24.5	9.2
Deltapine DP 5415.....	5.2	1.05	84	25.0	8.8
Deltapine DP 5690.....	5.6	1.03	80	26.5	7.2
DES 119.....	5.1	1.11	86	28.0	9.8
GA 88-88.....	5.0	1.11	80	26.5	6.6
GA 88-15-19.....	5.1	1.07	83	27.5	7.6
Georgia King.....	4.7	1.09	84	29.0	8.4
HS 23.....	4.8	1.05	84	23.0	6.8
HS 46.....	5.2	1.10	86	29.5	8.2
HY 39.....	5.2	1.18	83	31.0	7.6
HY 44.....	5.5	1.12	87	30.5	7.6
KC 311.....	5.7	1.06	82	28.5	7.8
PD 3.....	5.0	1.11	86	25.5	7.0
Stoneville LA 887.....	5.5	1.10	86	29.5	9.0
Stoneville 132.....	4.6	1.04	84	27.5	9.2
Stoneville 453.....	5.0	1.05	81	26.0	8.6
Stoneville 907.....	5.4	1.12	85	27.3	8.6
Stoneville 9573.....	5.6	1.05	86	23.0	7.6
Stoneville 84-828.....	4.6	1.16	86	27.0	7.6
SS 9202.....	5.6	1.04	83	27.0	8.0
SS 9303.....	4.8	1.13	86	24.5	8.6
Suregrow 125.....	5.4	1.09	87	23.5	10.0
Suregrow 404.....	5.5	1.04	84	27.0	9.6
Suregrow 501.....	5.2	1.12	87	31.5	9.4
Suregrow 1001.....	5.6	1.08	86	29.0	7.8
Terra C 40.....	5.5	1.13	80	22.5	9.4
Terra 207.....	5.5	1.07	85	25.0	9.6
Terra 292.....	4.8	1.17	88	29.0	9.8

TABLE 14. Cotton Fiber Analysis, HVI, Crossville, Alabama, 1993

Brand-variety	Micronaire	Length	Uniformity	Strength	Elongation
	<u>Units</u>	<u>In.</u>	<u>Pct.</u>	<u>g/tex</u>	<u>Pct.</u>
Chembred 333.....	3.4	1.16	85	29.0	8.4
Chembred 407.....	3.9	1.13	84	30.0	8.6
Chembred 1135.....	3.2	1.13	82	29.5	8.6
Chembred 1233.....	3.2	1.10	82	29.0	9.0
Deltapine 20.....	3.8	1.09	86	25.5	10.0
Deltapine 50.....	3.9	1.12	83	28.0	9.8
Deltapine 51.....	4.6	1.13	83	24.0	9.6
Deltapine Acala 90....	3.4	1.14	84	34.0	8.6
Deltapine DP 5409.....	2.9	1.09	81	29.0	9.4
Deltapine DP 5415.....	4.2	1.16	86	28.0	9.2
Deltapine DP 5690.....	3.4	1.21	84	33.0	8.4
DES 119.....	4.2	1.17	89	26.5	10.0
GA 88-88.....	3.5	1.22	83	32.0	8.0
GA 88-15-19.....	3.0	1.14	83	32.5	8.6
Georgia King.....	3.9	1.13	85	30.0	8.0
HS 23.....	3.4	1.05	80	26.0	8.0
HS 46.....	3.4	1.15	83	29.5	8.8
HY 39.....	3.5	1.18	87	34.0	8.2
HY 44.....	3.7	1.14	86	28.5	8.2
KC 311.....	3.1	1.13	82	36.0	8.4
PD 3.....	3.8	1.14	85	28.5	7.2
Stoneville LA 887.....	4.0	1.15	87	27.5	9.4
Stoneville 132.....	4.2	1.09	86	26.5	9.4
Stoneville 453.....	3.5	1.10	86	23.0	8.0
Stoneville 907.....	4.2	1.14	87	31.0	9.4
Stoneville 9573.....	4.2	1.11	83	28.0	9.6
Stoneville 84-828.....	3.4	1.17	86	26.5	8.8
SS 9202.....	2.8	1.16	86	34.0	8.8
SS 9303.....	3.5	1.09	82	29.5	8.8
Suregrow 125.....	3.4	1.14	84	27.0	10.6
Suregrow 404.....	4.6	1.14	86	29.5	9.2
Suregrow 501.....	3.4	1.08	84	28.0	9.4
Suregrow 1001.....	3.9	1.16	87	31.0	9.2
Terra C 40.....	3.8	1.10	83	26.5	10.0
Terra 207.....	4.2	1.12	84	28.0	9.0
Terra 292.....	3.8	1.09	86	26.5	9.8

TABLE 15. Cotton Fiber Analysis, HVI, Prattville, Alabama, 1993

Brand-variety	Micronaire	Length	Uniformity	Strength	Elongation
	<u>Units</u>	<u>In.</u>	<u>Pct.</u>	<u>g/tex</u>	<u>Pct.</u>
Chembred 333.....	4.5	1.14	84	27.5	8.0
Chembred 407.....	5.5	1.12	86	29.0	8.0
Chembred 1135.....	4.7	1.12	85	25.0	8.4
Chembred 1233.....	4.6	1.10	84	30.5	8.6
Deltapine 20.....	4.9	1.08	83	23.5	10.0
Deltapine 50.....	4.6	1.14	86	25.0	10.0
Deltapine 51.....	5.1	1.12	83	23.0	9.4
Deltapine Acala 90....	5.3	1.16	84	28.5	8.4
Deltapine DP 5409.....	4.9	1.08	84	27.0	9.2
Deltapine DP 5415.....	5.1	1.13	84	29.0	9.4
Deltapine DP 5690.....	4.9	1.07	81	27.5	8.0
DES 119.....	5.0	1.15	85	26.0	9.6
GA 88-88.....	4.6	1.15	83	28.5	7.8
GA 88-15-19.....	4.6	1.17	83	32.5	8.4
Georgia King.....	5.0	1.15	84	30.0	8.8
HS 23.....	4.6	1.10	80	24.5	8.0
HS 46.....	4.7	1.15	85	30.5	8.8
HY 39.....	4.8	1.11	81	26.5	8.2
HY 44.....	5.4	1.17	86	26.0	7.8
KC 311.....	5.1	1.11	84	27.0	8.0
PD 3.....	4.5	1.13	84	27.0	8.2
Stoneville LA 887.....	4.8	1.17	86	28.5	9.4
Stoneville 132.....	4.7	1.04	82	25.0	9.4
Stoneville 453.....	4.6	1.12	83	24.0	8.4
Stoneville 907.....	5.0	1.14	87	28.0	9.4
Stoneville 9573.....	5.5	1.15	89	26.0	9.4
Stoneville 84-828.....	4.4	1.10	81	25.5	8.4
SS 9202.....	5.1	1.13	82	31.0	8.4
SS 9303.....	4.8	1.11	84	26.5	9.6
Suregrow 125.....	4.5	1.08	83	23.5	10.4
Suregrow 404.....	5.4	1.12	83	25.0	9.4
Suregrow 501.....	5.0	1.15	87	29.0	9.4
Suregrow 1001.....	5.0	1.04	82	27.0	9.2
Terra C 40.....	4.8	1.09	86	22.0	10.0
Terra 207.....	5.0	1.16	89	24.0	10.0
Terra 292.....	4.8	1.14	85	28.0	9.8

TABLE 16. Cotton Fiber Analysis, HVI, Shorter, Alabama, 1993

Brand-variety	Micronaire	Length	Uniformity	Strength	Elongation
	<u>Units</u>	<u>In.</u>	<u>Pct.</u>	<u>g/tex</u>	<u>Pct.</u>
Chembred 333.....	4.1	1.13	86	28.5	8.6
Chembred 407.....	4.2	1.14	86	30.5	8.4
Chembred 1135.....	4.5	1.16	84	27.0	8.2
Chembred 1233.....	4.6	1.14	83	30.0	9.0
Deltapine 20.....	4.8	1.16	88	25.5	9.6
Deltapine 50.....	5.1	1.14	84	26.5	9.4
Deltapine 51.....	5.2	1.18	87	25.5	9.6
Deltapine Acala 90....	5.1	1.09	84	27.0	7.8
Deltapine DP 5409.....	3.7	1.14	84	29.0	9.0
Deltapine DP 5415.....	4.5	1.14	84	31.0	9.6
Deltapine DP 5690.....	4.3	1.15	87	33.0	8.2
DES 119.....	5.1	1.15	89	28.0	10.2
GA 88-88.....	4.1	1.24	84	33.0	7.4
GA 88-15-19.....	4.2	1.17	80	31.5	8.0
Georgia King.....	3.8	1.18	86	33.0	8.8
HS 23.....	4.6	1.10	84	27.0	7.8
HS 46.....	4.6	1.24	83	34.0	8.4
HY 39.....	4.4	1.25	87	31.0	8.0
HY 44.....	5.2	1.19	87	29.5	8.0
KC 311.....	4.7	1.11	86	31.5	8.4
PD 3.....	3.3	1.11	86	28.5	7.4
Stoneville LA 887.....	4.3	1.18	89	30.0	9.6
Stoneville 132.....	4.5	1.08	83	27.5	9.0
Stoneville 453.....	4.5	1.10	86	25.5	9.2
Stoneville 907.....	4.6	1.18	83	30.0	8.8
Stoneville 9573.....	5.3	1.06	86	26.5	9.2
Stoneville 84-828.....	4.7	1.13	87	27.0	8.0
SS 9202.....	4.5	1.13	87	32.5	8.4
SS 9303.....	4.4	1.13	85	30.5	8.2
Suregrow 125.....	4.8	1.17	87	27.0	10.4
Suregrow 404.....	4.6	1.17	88	31.0	9.0
Suregrow 501.....	4.7	1.14	87	30.0	9.6
Suregrow 1001.....	4.3	1.11	87	31.0	7.8
Terra C 40.....	4.9	1.14	87	26.0	10.0
Terra 207.....	4.4	1.11	83	26.5	10.2
Terra 292.....	4.2	1.16	87	26.0	9.6

TABLE 17. Cotton Fiber Analysis, HVI, Tallasse, Alabama, 1993

Brand-variety	Micronaire	Length	Uniformity	Strength	Elongation
	<u>Units</u>	<u>In.</u>	<u>Pct.</u>	<u>g/tex</u>	<u>Pct.</u>
Chembred 333.....	4.8	1.14	85	25.5	7.0
Chembred 407.....	5.1	1.14	82	29.5	7.8
Chembred 1135.....	4.8	1.15	83	25.5	7.4
Chembred 1233.....	4.7	1.12	84	28.5	8.2
Deltapine 20.....	5.0	1.13	85	23.5	8.0
Deltapine 50.....	5.1	1.16	84	27.5	7.4
Deltapine 51.....	5.3	1.13	82	24.0	9.4
Deltapine Acala 90....	4.9	1.14	83	29.0	7.2
Deltapine DP 5409....	5.2	1.13	81	28.0	8.2
Deltapine DP 5415....	5.4	1.18	87	28.0	9.2
Deltapine DP 5690....	5.0	1.17	84	26.0	7.2
DES 119.....	5.5	1.11	84	26.0	9.2
GA 88-88.....	4.5	1.22	83	27.5	7.4
GA 88-15-19.....	4.7	1.21	87	29.5	7.6
Georgia King.....	5.0	1.12	82	27.0	7.8
HS 23.....	5.1	1.14	85	25.0	6.6
HS 46.....	4.8	1.13	86	27.5	7.4
HY 39.....	4.7	1.13	82	28.0	7.0
HY 44.....	4.7	1.14	83	30.0	7.8
KC 311.....	4.9	1.20	81	31.0	7.4
PD 3.....	4.6	1.17	85	27.5	7.8
Stoneville LA 887....	5.4	1.14	86	28.5	8.8
Stoneville 132.....	4.9	1.08	84	26.5	9.2
Stoneville 453.....	4.8	1.14	85	26.0	7.8
Stoneville 907.....	4.8	1.14	82	26.5	9.4
Stoneville 9573.....	5.1	1.11	86	27.0	8.2
Stoneville 84-828....	4.9	1.15	86	27.5	7.6
SS 9202.....	5.0	1.15	85	25.5	7.2
SS 9303.....	4.9	1.15	86	25.5	6.8
Suregrow 125.....	5.0	1.08	82	25.0	9.2
Suregrow 404.....	5.4	1.18	84	29.5	8.8
Suregrow 501.....	5.1	1.14	88	28.5	8.8
Suregrow 1001.....	5.2	1.13	82	28.5	7.8
Terra C 40.....	5.0	1.14	86	23.5	9.8
Terra 207.....	5.0	1.18	85	26.0	8.8
Terra 292.....	5.2	1.26	83	26.5	9.2

TABLE 18. Cotton Fiber Analysis, HVI, Monroeville, Alabama, 1993

Brand-variety	Micronaire	Length	Uniformity	Strength	Elongation
	<u>Units</u>	<u>In.</u>	<u>Pct.</u>	<u>g/tex</u>	<u>Pct.</u>
Chembred 333.....	3.6	1.18	83	28.5	9.2
Chembred 407.....	4.1	1.16	86	28.0	8.4
Chembred 1135.....	4.0	1.13	85	26.0	8.6
Chembred 1233.....	4.1	1.16	85	26.5	9.6
Deltapine 20.....	4.1	1.12	83	23.0	11.2
Deltapine 50.....	4.2	1.14	81	23.5	10.2
Deltapine 51.....	4.3	1.18	86	24.0	10.4
Deltapine Acala 90....	4.1	1.13	85	29.0	8.6
Deltapine DP 5409.....	4.0	1.12	80	25.0	10.0
Deltapine DP 5415.....	4.3	1.17	85	28.0	10.2
Deltapine DP 5690.....	4.3	1.09	84	27.5	8.8
DES 119.....	4.2	1.16	82	27.0	10.2
GA 88-88.....	3.7	1.13	84	29.0	8.0
GA 88-15-19.....	3.7	1.16	83	28.0	8.2
Georgia King.....	4.4	1.16	87	28.5	9.2
HS 23.....	3.7	1.18	84	28.5	8.2
HS 46.....	3.7	1.14	79	29.5	9.4
HY 39.....	3.7	1.14	83	28.0	9.0
HY 44.....	4.6	1.14	86	27.0	9.2
KC 311.....	4.4	1.12	84	27.5	8.8
PD 3.....	3.8	1.15	81	29.5	8.6
Stoneville LA 887.....	4.0	1.16	82	29.5	9.8
Stoneville 132.....	4.2	1.10	88	22.0	9.6
Stoneville 453.....	3.8	1.13	85	25.0	9.6
Stoneville 907.....	3.9	1.17	85	31.0	10.0
Stoneville 9573.....	4.2	1.09	81	26.5	9.8
Stoneville 84-828.....	4.3	1.15	86	25.5	9.2
SS 9202.....	4.2	1.15	87	27.5	8.6
SS 9303.....	4.3	1.15	86	24.5	8.8
Suregrow 125.....	4.3	1.15	83	26.0	10.4
Suregrow 404.....	4.0	1.13	83	27.0	9.8
Suregrow 501.....	4.8	1.11	84	27.5	9.6
Suregrow 1001.....	4.1	1.13	83	29.0	9.2
Terra C 40.....	4.0	1.12	86	22.5	10.8
Terra 207.....	4.1	1.17	83	26.5	9.8
Terra 292.....	4.6	1.12	81	24.5	10.2

TABLE 19. Cotton Fiber Analysis, HVI, Brewton, Alabama, 1993

Brand-variety	Micronaire	Length	Uniformity	Strength	Elongation
	<u>Units</u>	<u>In.</u>	<u>Pct.</u>	<u>g/tex</u>	<u>Pct.</u>
Chembred 333.....	3.8	1.08	81	26.5	10.2
Chembred 407.....	3.9	1.12	87	28.5	9.6
Chembred 1135.....	3.8	1.11	85	25.0	9.4
Chembred 1233.....	4.3	1.10	79	29.0	9.4
Deltapine 20.....	4.4	1.11	85	22.5	11.0
Deltapine 50.....	4.4	1.09	83	24.0	10.0
Deltapine 51.....	4.5	1.14	84	24.0	10.4
Deltapine Acala 90....	4.4	1.10	84	27.0	9.2
Deltapine DP 5409.....	3.9	1.15	84	24.0	10.4
Deltapine DP 5415.....	4.5	1.12	84	24.5	10.4
Deltapine DP 5690.....	3.8	1.12	85	32.0	9.2
DES 119.....	4.2	1.13	85	28.0	10.4
GA 88-88.....	3.8	1.18	81	28.5	8.6
GA 88-15-19.....	4.1	1.16	86	26.5	9.0
Georgia King.....	4.1	1.17	84	27.5	9.6
HS 23.....	3.8	1.09	83	28.0	9.6
HS 46.....	3.9	1.11	80	29.0	9.8
HY 39.....	4.1	1.13	79	27.5	8.8
HY 44.....	4.4	1.15	82	29.0	8.8
KC 311.....	4.2	1.14	85	28.5	9.4
PD 3.....	4.4	1.13	84	27.0	9.4
Stoneville LA 887.....	4.3	1.15	85	27.5	10.4
Stoneville 132.....	4.0	1.04	82	27.5	10.6
Stoneville 453.....	4.2	1.10	85	24.0	10.0
Stoneville 907.....	4.4	1.14	84	25.5	10.6
Stoneville 9573.....	4.4	1.09	84	25.5	10.2
Stoneville 84-828.....	3.9	1.09	80	24.5	8.8
SS 9202.....	4.4	1.12	84	29.0	9.6
SS 9303.....	4.3	1.10	84	25.0	9.6
Suregrow 125.....	3.9	1.14	84	24.5	11.2
Suregrow 404.....	4.4	1.09	82	28.0	10.2
Suregrow 501.....	4.6	1.12	89	26.5	9.6
Suregrow 1001.....	4.0	1.13	82	29.5	9.4
Terra C 40.....	4.4	1.10	82	23.0	11.2
Terra 207.....	4.2	1.12	81	23.5	10.4
Terra 292.....	4.1	1.13	80	26.5	10.8

TABLE 20. Cotton Fiber Analysis, HVI, Headland, Alabama, 1993

Brand-variety	Micronaire	Length	Uniformity	Strength	Elongation
	<u>Units</u>	<u>In.</u>	<u>Pct.</u>	<u>g/tex</u>	<u>Pct.</u>
Chembred 333.....	4.4	1.09	84	23.0	8.8
Chembred 407.....	5.2	1.11	85	26.5	7.6
Chembred 1135.....	4.5	1.06	80	24.0	8.6
Chembred 1233.....	4.9	1.11	84	27.0	8.0
Deltapine 20.....	4.8	1.08	83	21.5	10.0
Deltapine 50.....	4.9	1.10	83	21.5	10.0
Deltapine 51.....	4.7	1.12	81	22.0	8.4
Deltapine Acala 90....	4.8	1.14	86	23.5	9.6
Deltapine DP 5409....	5.2	1.06	83	22.0	9.2
Deltapine DP 5415....	5.2	1.12	89	25.5	9.6
Deltapine DP 5690....	4.9	1.10	85	25.5	8.2
DES 119.....	5.2	1.13	88	27.5	9.4
GA 88-88.....	4.7	1.14	82	24.0	8.0
GA 88-15-19.....	4.0	1.15	82	29.5	8.0
Georgia King.....	5.2	1.12	82	24.5	9.0
HS 23.....	4.4	1.11	83	21.5	7.8
HS 46.....	4.6	1.13	83	25.5	9.0
HY 39.....	4.6	1.19	84	28.5	8.2
HY 44.....	5.6	1.11	82	25.5	8.2
KC 311.....	5.1	1.17	84	23.0	9.4
PD 3.....	4.8	1.10	84	24.0	7.6
Stoneville LA 887....	4.8	1.09	84	27.0	9.6
Stoneville 132.....	4.5	1.08	86	22.0	9.4
Stoneville 453.....	5.0	1.06	81	22.5	7.8
Stoneville 907.....	5.0	1.08	83	23.5	9.4
Stoneville 9573.....	5.2	1.06	88	24.0	9.0
Stoneville 84-828....	4.9	1.09	84	22.0	8.6
SS 9202.....	4.8	1.10	83	27.0	8.2
SS 9303.....	5.0	1.13	82	25.5	9.4
Suregrow 125.....	4.8	1.11	82	23.0	10.4
Suregrow 404.....	4.9	1.13	84	25.0	9.2
Suregrow 501.....	4.6	1.08	86	30.0	9.8
Suregrow 1001.....	4.7	1.11	84	27.0	8.8
Terra C 40.....	4.8	1.06	80	24.0	9.0
Terra 207.....	5.0	1.05	81	22.5	9.2
Terra 292.....	4.9	1.13	84	24.0	9.6

TABLE 21. Cotton Fiber Analysis, HVI, Fairhope, Alabama, 1993

Brand-variety	Micronaire	Length	Uniformity	Strength	Elongation
	<u>Units</u>	<u>In.</u>	<u>Pct.</u>	<u>g/tex</u>	<u>Pct.</u>
Chembred 333.....	3.7	1.19	83	29.5	9.4
Chembred 407.....	3.6	1.16	83	33.5	8.6
Chembred 1135.....	3.9	1.20	84	28.0	9.0
Chembred 1233.....	3.8	1.16	85	29.5	9.4
Deltapine 20.....	3.7	1.19	86	27.0	10.0
Deltapine 50.....	3.9	1.19	82	29.0	8.4
Deltapine 51.....	3.6	1.26	85	30.0	10.6
Deltapine Acala 90....	4.2	1.18	85	32.0	8.8
Deltapine DP 5409.....	3.8	1.20	82	30.0	9.6
Deltapine DP 5415.....	4.2	1.17	81	29.5	10.2
Deltapine DP 5690.....	4.3	1.17	84	30.5	9.0
DES 119.....	3.3	1.23	87	32.0	10.6
GA 88-88.....	3.3	1.21	84	34.0	8.6
GA 88-15-19.....	3.6	1.20	85	29.0	10.2
Georgia King.....	3.6	1.23	81	32.0	9.4
HS 23.....	3.6	1.20	84	29.5	9.8
HS 46.....	3.3	1.24	87	33.5	9.0
HY 39.....	4.0	1.20	85	31.5	9.2
HY 44.....	3.3	1.22	83	23.0	9.0
KC 311.....	3.7	1.20	84	33.5	9.4
PD 3.....	3.6	1.18	84	32.5	8.6
Stoneville LA 887.....	3.8	1.25	82	38.0	10.0
Stoneville 132.....	3.3	1.16	87	29.5	10.4
Stoneville 453.....	3.9	1.16	85	29.5	10.2
Stoneville 907.....	4.4	1.18	88	32.0	10.4
Stoneville 9573.....	4.3	1.15	84	28.0	10.0
Stoneville 84-828.....	3.5	1.20	85	30.0	9.2
SS 9202.....	3.5	1.20	89	33.0	9.0
SS 9303.....	3.7	1.20	85	29.5	9.8
Suregrow 125.....	3.5	1.23	86	28.5	11.0
Suregrow 404.....	3.9	1.23	89	32.0	10.0
Suregrow 501.....	3.8	1.20	85	31.0	9.6
Suregrow 1001.....	3.6	1.20	83	32.5	9.0
Terra C 40.....	3.7	1.19	84	28.0	11.0
Terra 207.....	3.6	1.20	87	28.5	10.2
Terra 292.....	3.7	1.20	86	28.0	10.4

TABLE 22. Cotton Fiber Analysis, HVI, Irrigated Cotton, Belle Mina, Alabama, 1993

Brand-variety	Micronaire	Length	Uniformity	Strength	Elongation
	<u>Units</u>	<u>In.</u>	<u>Pct.</u>	<u>g/tex</u>	<u>Pct.</u>
Chembred 407.....	4.5	1.21	84	34.0	8.8
Chembred 1135.....	4.3	1.19	80	32.0	9.0
Chembred 1233.....	4.0	1.18	83	30.5	9.2
Deltapine 20.....	4.4	1.14	81	25.5	10.4
Deltapine 51.....	4.8	1.26	88	28.5	10.0
Deltapine DP 5409.....	4.3	1.20	84	29.0	9.8
Deltapine DP 5415.....	4.5	1.26	83	33.5	9.6
Deltapine DP 5690.....	4.5	1.20	84	33.0	8.0
DES 119.....	4.4	1.23	84	28.5	9.6
HS 46.....	4.3	1.22	82	33.5	8.8
Stoneville LA 887.....	4.4	1.23	82	32.0	9.4
Stoneville 132.....	4.6	1.08	84	27.0	10.4
Stoneville 453.....	4.5	1.23	84	25.0	9.0
Stoneville 84-828.....	4.5	1.17	85	28.5	8.8
Suregrow 501.....	5.0	1.15	88	29.5	9.8
Suregrow 1001.....	4.3	1.23	83	33.5	9.0

Table 23. Growing Season Rainfall, 1991-93

Test location	Year	Monthly rainfall (inches)							7-month total
		Mar.	Apr.	May	June	July	Aug.	Sept.	
Belle Mina.....	1993	6.6	3.0	4.7	3.0	2.6	5.5	5.3	30.7
	1992	4.8	1.8	2.3	9.0	6.3	4.3	5.2	33.7
	1991	8.0	9.0	9.5	1.8	2.1	2.0	3.7	36.1
Crossville.....	1993	4.5	3.9	4.4	0.8	2.3	4.2	1.8	21.9
	1992	4.2	2.2	2.1	5.7	5.5	4.5	4.3	28.5
	1991	5.6	6.2	4.9	5.5	2.9	3.1	3.2	31.4
Shorter.....	1993	6.5	2.5	2.9	6.3	0.6	5.9	2.8	27.5
	1992	3.6	2.8	1.7	3.4	7.4	5.1	2.9	26.9
	1991	8.8	3.4	4.8	6.4	2.7	3.8	1.8	31.7
Tallassee.....	1993	6.3	3.2	2.6	3.5	1.6	5.5	2.0	24.7
	1992	4.2	2.8	0.7	4.1	5.1	2.8	2.7	22.4
	1991	7.5	3.1	4.3	4.2	8.9	4.3	2.5	34.8
Prattville.....	1993	5.7	2.9	2.3	2.2	2.1	6.4	0.9	22.5
	1992	3.3	3.9	1.7	4.1	6.1	3.0	2.4	24.5
	1991	5.5	5.1	11.7	5.4	3.8	2.9	2.6	37.0
Monroeville....	1993	6.2	3.1	3.4	2.9	8.2	7.0	1.3	32.1
	1992	4.2	3.2	2.2	8.5	5.8	11.6	2.6	38.1
	1991	7.2	5.5	12.4	5.7	6.9	6.8	2.0	46.5
Brewton.....	1993	8.8	2.1	4.2	3.1	10.7	3.8	8.3	41.0
	1992	3.9	3.4	2.2	4.3	5.0	7.7	6.4	32.9
	1991	5.7	5.0	11.9	8.6	7.0	3.6	2.4	45.2
Fairhope.....	1993	7.3	2.6	5.8	3.4	8.1	7.6	5.0	39.8
	1992	2.9	2.7	2.4	4.6	5.0	6.2	1.4	25.2
	1991	4.9	9.1	13.8	5.9	8.6	6.7	3.1	52.1
Headland.....	1993	8.5	1.6	1.3	1.7	5.3	1.5	4.8	24.7
	1992	7.5	0.6	2.5	3.8	7.4	4.9	0.4	27.1
	1991	9.4	3.3	8.8	3.1	5.8	5.6	2.7	38.7

Table 24. Soil Types for Cotton Trials, 1993

Test Location	Soil type
Belle Mina.....	Decatur silt loam
Crossville.....	Wynnvilke fine sandy loam
E.V. Smith Research Center Field Crops Research Unit, Shorter. Plant Breeding Unit, Tallassee.....	Norfolk sandy loam Cahaba sandy loam
Prattville.....	Lucedale fine sandy loam
Monroeville.....	Lucedale loam
Brewton.....	Benndale fine sandy loam
Headland.....	Dothan sandy loam
Fairhope.....	Malbis fine sandy loam

TABLE 25. Sources of Seed for the 1993 Cotton Variety Tests

Deltapine Acala 90	Delta and Pine Land Co.
Deltapine 50	Scott, Mississippi
Deltapine 51	
Deltapine 20	
Deltapine DP 5415	
Deltapine DP 5690	
Deltapine DP 5409	
DES 119	
Stoneville 907	Stoneville Pedigreed Seed Co.
Stoneville 453	Stoneville, Mississippi
Stoneville 132	
Stoneville LA 887	
Stoneville 84-828	
Stoneville X9573	
Georgia King	
KC 311	
PD 3	Pee Dee Experiment Station
	Florence, South Carolina
Terra C 40	Terra International, Inc.
Terra 207	Memphis, Tennessee
Terra 292	
HS 23	Hy Performer Seed Co.
HS 46	Memphis, Tennessee
HY 39	
HY 44	
Suregrow 1001	Ellis Brothers Seed, Inc.
Suregrow 501	Centre, Alabama
Suregrow 125	
Suregrow 404	
Chembred 1233	Chembred, Inc.
Chembred 1135	Phoenix, Arizona
Chembred 407	
Chembred 333	
Paymaster HS 26	Cargill Hybrid Seed
	Aiken, Texas
Acala 1517-88	New Mexico State University
	Las Cruces, New Mexico
GA 88-88	Georgia Coastal Plain Experiment Station
GA 88-15-19	Tifton, Georgia
SS 9202	Seed Source, Inc.
SS 9303	Leland, Mississippi
