



1986

Alabama

Cotton

Variety

Report

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Alabama Agricultural Experiment Station Auburn University
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Information contained herein is available to all persons regardless
of race, color, sex, or national origin

1986 Alabama Cotton Variety Report

A Report of the Performance of Cotton Varieties Tested in Alabama

W.C. Johnson¹

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 farmers. Every effort is made to test the varieties and present the results in an unbiased manner.

EXPERIMENTAL CONDITIONS

A randomized block experimental design with four replications was used at each location. Plot row length at different locations varied from 40 to 120 feet. Plots were two-row at Prattville, Headland, Belle Mina, Shorter, Tallassee, and Crossville. Single-row plots were used at Brewton and Monroeville. Climatic conditions were hot and dry throughout most of Alabama. For most locations, the 1986 growing season was among the driest on record. Although cotton yields were lower than usual, cotton was less adversely affected than other agronomic crops such as soybeans or corn.

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EXPLANATION OF DATA

Harvest of Seed Cotton

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

Lint Percentage

A sample of seed cotton from each variety at each location was taken at harvest and 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 from selected locations were determined by Starlab, a commercial fiber testing laboratory in Knoxville, Tennessee.

Span Length. This is the fiber length measured with the digital fibrograph. The 2.5 percent length is the average length of the longest 2.5 percent of the fibers and the 50 percent length is the average length of the longest 50 percent of the fibers. The 2.5 percent length is about the same as the classer's staple.

Stelometer. T_1 is a measure of breaking strength of a standard fiber bundle with the holding jaws separated by 1/8 inch. This is a measurement similar to Pressley strength except the figures are in grams per tex. Tex is a size measurement of the fiber bundle. The

larger the T_1 , the stronger the fibers. E_1 measures the percentage stretch before the fibers break.

Micronaire. This measures the fineness and maturity 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. Micronaire tended to be higher than usual for much 1986 cotton.

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. 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. Stoneville 213 and Stoneville 825 have consistently shown a high incidence of wilt. All other reported varieties that have been tested for at least 3 years have acceptable tolerance to fusarium wilt.

Verticillium wilt is being more frequently identified in northern Alabama than previously. Varietal comparisons reported in table 10 do not apply in any way to this disease.

NEW AND EXPERIMENTAL VARIETIES

The cotton variety tested under the experimental designation GAT 72-56 prior to 1986 has been named Tifcot 56 and released by the

Georgia Agricultural Experiment Station at Tifton. Seed will be available for the 1987 season. The experimental line KNX 2019 has been released by Northrup King Co., and named KC 380. Seed will be available for planting in 1987. PD-1 is a variety developed at the Pee Dee Experiment Station in South Carolina. Seed information is available from the South Carolina Department of Seed Certification, Clemson, South Carolina. Stoneville 112 was released in 1985 and seed will be available for 1987. Coker 139 is a new release previously tested as Coker 81-139. Adequate seed will be available for 1987. Both Coker 80-118 and Coker 81-613 are experimental lines. Deltapine 20 is a 1985 release with seed available for 1987. Delcot 344 has been previously tested as Mo 78-344. Adequate seed for 1987 are available. Delcot 390 is also a Missouri release but seed will not be plentiful for 1987. DES 119 has been released by the Mississippi Experiment Station. Seed are available for this season. Arkot 518 previously tested as U Ark 2402, has recently been released by the Arkansas Experiment Station. Seed will not be readily available until 1988.

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 Least Significant 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, Shorter - W.B. Gordon, Superintendent

Plant Breeding Unit, Tallassee - 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

TABLE 1. PERFORMANCE OF COTTON VARIETIES AT BELLE MINA, ALABAMA, 1986

VARIETY	1986			2-YR. AV.	3-YR. AV.
	LINT/ACRE	LINT	EARLINESS	LINT/ACRE	LINT/ACRE
	LB _a	PCI _a	PCI _a	LB _a	LB _a
DELTAPINE 61	957	39	86	989	1,006
KC 380	953	37	84	1,062	-
DELTAPINE 50	943	39	87	1,067	1,122
STONEVILLE 112	931	41	85	986	995
STONEVILLE 825	894	41	92	952	973
PD-1	890	42	88	999	1,039
DES 119	889	40	87	-	-
STONEVILLE 506	885	40	88	912	982
GAT 81-225	884	41	87	-	-
STONEVILLE 213	879	38	87	924	974
DELTAPINE 90	874	39	91	901	975
DELTAPINE 41	864	42	88	884	864
COKER 139	849	42	91	978	-
ARKOT 518	833	41	89	-	-
MCNAIR 235	823	41	90	957	979
DELCOT 311	814	40	89	915	996
DELTAPINE 20	813	40	92	910	987
DELCOT 344	804	39	89	-	-
TIFCOT 56	783	38	87	931	981
DES 422	777	40	90	888	945
COKER 315	764	41	86	885	940
COKER 80-118	753	41	87	-	-
COKER 81-613	722	42	88	-	-
DELCOT 390	711	38	87	-	-
PAYMASTER 145	701	40	81	790	832
COKER 208	697	40	90	908	970
MCNAIR 220	669	39	89	856	912
ACALA SJC-1	570	37	87	644	697
TEST MEAN	819				
L.S.D. (.05)	100				
C.V.	9%				

TABLE 2. PERFORMANCE OF COTTON VARIETIES AT CROSSVILLE, ALABAMA, 1986

VARIETY	1986			2-YR. AV.	3-YR. AV.
	LINT/ACRE	LINT	EARLINESS	LINT/ACRE	LINT/ACRE
	LB.	PCI.	PCI.	LB.	LB.
MCNAIR 220	1,052	39	94	854	932
MCNAIR 235	1,046	40	94	809	883
DES 119	1,026	41	94	-	-
ARKOT 518	1,014	41	96	-	-
KC 380	997	39	87	807	-
GAT 81-225	980	40	94	-	-
COKER 80-118	973	40	95	-	-
DELCOT 311	949	39	91	777	780
DELTAPINE 90	942	40	91	654	752
DELCOT 390	941	39	95	-	-
DELCOT 344	936	39	90	-	-
PD-1	935	41	92	745	-
TIFCOT 56	926	38	92	-	-
COKER 139	907	40	93	750	-
DELTAPINE 50	906	38	92	775	868
STONEVILLE 825	886	40	91	716	839
DELTAPINE 20	885	39	90	784	848
COKER 315	857	40	94	693	838
STONEVILLE 213	853	39	89	655	737
DES 422	850	40	93	752	885
STONEVILLE 506	843	39	87	731	831
COKER 81-613	842	41	91	-	-
DELTAPINE 61	828	39	87	718	830
COKER 208	799	39	93	611	702
DELTAPINE 41	751	41	90	713	797
STONEVILLE 112	730	38	85	639	724
TEST MEAN	910				
L.S.D. (.05)	109				
C.V.	9%				

TABLE 3. PERFORMANCE OF COTTON VARIETIES AT PRATTVILLE, ALABAMA, 1986

VARIETY	1986			2-YR. AV.	3-YR. AV.
	LINT/ACRE	LINT	EARLINESS	LINT/ACRE	LINT/ACRE
	LB.	PCT.	PCT.	LB.	LB.
STONEVILLE 825	649	42	-	946	1,107
DES 119	648	42	-	-	-
STONEVILLE 213	643	42	-	942	1,113
DES 422	632	43	-	943	1,105
DELTAPINE 90	612	41	-	972	1,169
STONEVILLE 506	610	41	-	896	1,054
STONEVILLE 112	606	42	-	895	1,075
DELTAPINE 20	601	42	-	868	1,038
DELTAPINE 50	600	39	-	900	1,074
MCNAIR 235	588	41	-	851	943
DELTAPINE 41	583	44	-	906	1,062
DELTAPINE 61	583	42	-	919	1,070
MCNAIR 220	575	39	-	842	1,007
TIFCOT 56	572	41	-	-	-
DELCOT 344	566	41	-	-	-
GAT 81-225	564	41	-	-	-
COKER 139	562	41	-	922	-
KC 380	562	40	-	833	-
ARKOT 518	560	41	-	-	-
COKER 315	556	42	-	895	1,101
COKER 208	531	40	-	851	1,065
COKER 81-613	503	40	-	-	-
DELCOT 311	498	40	-	836	971
COKER 80-118	495	42	-	-	-
DELCOT 390	480	41	-	-	-
PD-1	454	40	-	771	-
TEST MEAN	570				
L.S.D. (.05)	72				
C.V.	9%				

TABLE 4. PERFORMANCE OF COTTON VARIETIES AT TALLASSEE, ALABAMA, 1986

VARIETY	1986			2-YR. AV.	3-YR. AV.
	LINT/ACRE	LINT	FARLINESS	LINT/ACRE	LINT/ACRE
	LB.	PGI.	PGI.	LB.	LB.
MCNAIR 235	431	41	-	638	735
DELCOT 344	407	40	-	-	-
COKER 139	384	40	-	610	-
MCNAIR 220	376	40	-	648	786
DELCOT 311	370	38	-	505	671
STONEVILLE 112	367	39	-	570	730
GAT 81-225	363	40	-	-	-
KC 380	362	40	-	646	-
TIFCOT 56	343	38	-	-	-
DELCOT 390	340	40	-	-	-
COKER 80-118	333	40	-	-	-
DELTAPINE 90	332	41	-	686	800
DES 119	328	42	-	-	-
PD-1	328	40	-	552	-
COKER 208	324	39	-	514	699
ARKOT 518	313	40	-	-	-
COKER 81-613	313	41	-	-	-
DES 422	292	41	-	558	683
STONEVILLE 213	289	43	-	523	756
STONEVILLE 506	289	40	-	489	702
DELTAPINE 41	283	41	-	636	777
STONEVILLE 825	270	41	-	535	738
DELTAPINE 20	259	42	-	598	779
DELTAPINE 50	251	39	-	548	728
COKER 315	228	41	-	573	664
DELTAPINE 61	195	42	-	500	689
TEST MEAN	322				
L.S.D. (.05)	116				
C.V.	26%				

TABLE 5. PERFORMANCE OF COTTON VARIETIES AT SHORTER, ALABAMA, 1986

VARIETY	1986			2-YR. AV.	3-YR. AV.
	LINT/ACRE	LINT	EARLINESS	LINT/ACRE	LINT/ACRE
	LB.	PGI.	PGI.	LB.	LB.
PD-1	1,160	40	-	1,115	1,074
COKER 208	1,063	40	-	1,102	1,099
KC 380	1,052	40	-	1,049	-
DELTAPINE 90	1,048	41	-	1,124	1,097
DELCOT 311	1,048	39	-	1,093	1,060
ARKOT 518	1,044	40	-	-	-
MCNAIR 235	1,044	40	-	1,118	1,056
GAT 81-225	1,043	40	-	-	-
DES 119	1,036	40	-	-	-
COKER 139	1,012	40	-	979	-
COKER 81-613	1,009	40	-	-	-
DELCOT 344	1,001	39	-	-	-
STONEVILLE 825	994	41	-	983	954
TIFCOT 56	989	39	-	1,170	1,182
DELTAPINE 41	985	42	-	1,051	1,000
MCNAIR 220	985	39	-	1,027	1,025
DELCOT 390	971	39	-	-	-
STONEVILLE 112	961	40	-	997	1,024
PAYMASTER 145	949	38	-	903	920
DELTAPINE 50	930	38	-	1,019	998
COKER 80-118	928	40	-	-	-
COKER 315	908	40	-	1,107	1,108
DELTAPINE 61	902	40	-	951	934
DELTAPINE 20	893	39	-	928	921
DES 422	881	39	-	891	956
STONEVILLE 213	864	40	-	1,075	1,026
STONEVILLE 506	860	39	-	1,041	1,005
ACALA SJC-1	774	37	-	816	840
TEST MEAN	976				
L.S.D. (.05)	180				
C.V.	13%				

TABLE 6. PERFORMANCE OF COTTON VARIETIES AT MONROEVILLE, ALABAMA, 1986

VARIETY	1986			2-YR. AV.	3-YR. AV.
	LINT/ACRE	LINT	EARLINESS	LINT/ACRE	LINT/ACRE
	LB.	PCI.	PCI.	LB.	LB.
KC 380	593	44	-	976	-
STONEVILLE 825	578	44	-	822	924
DELTAPINE 61	578	41	-	895	1,006
DELTAPINE 90	552	42	-	824	1,036
STONEVILLE 506	536	43	-	827	926
STONEVILLE 213	514	42	-	725	944
COKER 208	513	42	-	880	1,009
DELTAPINE 50	512	42	-	840	937
DES 422	500	44	-	820	939
STONEVILLE 112	484	42	-	817	891
DELTAPINE 20	483	44	-	881	925
TIFCOT 56	481	42	-	-	-
DES 119	473	44	-	-	-
DELCOT 390	470	42	-	-	-
DELTAPINE 41	467	44	-	773	910
MCNAIR 235	464	42	-	699	884
GAT 81-225	461	43	-	-	-
ARKOT 518	454	44	-	-	-
COKER 139	443	42	-	903	-
PD-1	442	44	-	760	-
DELCOT 344	433	41	-	-	-
DELCOT 311	412	42	-	715	826
MCNAIR 220	404	43	-	758	922
COKER 80-118	393	43	-	-	-
COKER 315	375	43	-	800	894
COKER 81-613	345	43	-	-	-
TEST MEAN	475				
L.S.D. (.05)	145				
C.V.	22%				

TABLE 7. PERFORMANCE OF COTTON VARIETIES AT BREWTON, ALABAMA, 1986

VARIETY	1986			2-YR. AV.	3-YR. AV.
	LINT/ACRE LB.	LINT PCT.	EARLINESS PCT.	LINT/ACRE LB.	LINT/ACRE LB.
GAT 81-225	1,217	41	95	-	-
COKER 315	1,207	42	93	1,222	1,203
COKER 81-613	1,197	43	92	-	-
PD-1	1,188	42	94	1,307	-
DELCOT 344	1,168	41	93	-	-
DES 119	1,155	42	91	-	-
COKER 139	1,151	41	93	1,171	-
COKER 208	1,147	40	94	1,202	1,217
MCNAIR 220	1,125	40	95	1,171	1,108
TIFCOT 56	1,114	40	94	-	-
STONEVILLE 825	1,113	40	94	1,240	1,167
COKER 80-118	1,112	41	93	-	-
DELCOT 311	1,103	40	93	1,075	1,055
DELTAPINE 90	1,103	41	90	1,274	1,263
DES 422	1,100	41	92	1,140	1,053
STONEVILLE 213	1,088	42	92	1,174	1,134
KC 380	1,086	40	93	1,223	-
DELTAPINE 20	1,084	41	93	1,135	1,050
DELTAPINE 41	1,078	42	94	1,174	1,107
ARKOT 518	1,064	39	96	-	-
STONEVILLE 112	1,054	41	94	1,130	1,031
DELTAPINE 50	1,043	40	91	1,181	1,168
STONEVILLE 506	1,041	41	94	1,129	1,059
MCNAIR 235	1,033	42	95	1,106	1,034
DELCOT 390	1,000	40	91	-	-
DELTAPINE 61	996	39	91	1,121	1,096
TEST MEAN	1106				
L.S.D. (.05)	122				
C.V.	8%				

TABLE 8. PERFORMANCE OF COTTON VARIETIES AT HEADLAND, ALABAMA, 1986

VARIETY	1986			2-YR. AV.	3-YR. AV.
	LINT/ACRE	LINT	EARLINESS	LINT/ACRE	LINT/ACRE
	LB.	PCI.	PCI.	LB.	LB.
KC 380	787	41	-	1,012	-
STONEVILLE 506	762	41	-	965	1,065
TIFCOT 56	731	41	-	-	-
COKER 208	714	42	-	939	1,071
STONEVILLE 825	709	41	-	980	1,116
DELTAPINE 50	700	42	-	962	1,079
COKER 81-613	689	45	-	-	-
DELCOT 311	682	40	-	942	1,025
STONEVILLE 112	677	40	-	908	1,040
STONEVILLE 213	670	43	-	931	1,072
ARKOT 518	648	40	-	-	-
DELCOT 344	642	41	-	-	-
DELTAPINE 20	639	41	-	930	1,078
GAT 81-225	631	41	-	-	-
DELTAPINE 41	627	42	-	1,044	1,165
COKER 139	598	40	-	849	-
DELTAPINE 90	596	40	-	1,099	1,156
MCNAIR 220	595	41	-	883	999
MCNAIR 235	594	41	-	978	1,067
DES 119	592	43	-	-	-
DELTAPINE 61	586	41	-	942	1,022
COKER 80-118	585	41	-	-	-
COKER 315	575	42	-	923	1,079
PD-1	571	40	-	862	-
DES 422	557	42	-	954	1,114
DELCOT 390	538	41	-	-	-
TEST MEAN	642				
L.S.D. (.05)	116				
C.V.	13%				

TABLE 9. PERFORMANCE OF COTTON VARIETIES IN ALABAMA, AVERAGE OF ALL LOCATIONS

VARIETY	YIELD, LINT/ACRE			LINT			EARLINESS		
	1986	1985-86	1984-86	1986	1985-86	1984-86	1986	1985-86	1984-86
	LB _a	LB _a	LB _a	PGI _a	PGI _a	PGI _a	PGI _a	PGI _a	PGI _a
TIFCOT 56	742	979	1,033*	40	41	41	91	89	87
DELTAPINE 90	757	942	1,031	41	41	41	91	88	83
DELTAPINE 50	736	912	997	40	39	39	90	88	86
COKER 208	724	876	979	40	40	40	92	90	86
COKER 315	684	887	978	41	42	42	91	88	85
STONEVILLE 825	762	897	977	41	41	41	92	91	87
STONEVILLE 213	725	869	970	41	41	41	89	88	84
MCNAIR 220	722	880	961	40	40	40	93	91	89
DELTAPINE 41	705	898	960	42	43	43	91	90	86
DES 422	699	868	960	41	41	41	92	90	87
DELTAPINE 61	703	879	957	40	41	40	88	87	83
DELTAPINE 20	707	879	953	41	41	41	92	91	87
STONEVILLE 506	728	874	953	40	40	40	90	89	87
MCNAIR 235	753	895	948	41	40	40	93	91	87
PD-1	746	889	944*	41	41	41	91	89	84
STONEVILLE 112	726	868	939	40	40	40	88	88	84
DELCOT 311	734	857	923	40	39	40	91	90	86
KC 380	799	951	-	40	40	-	88	86	-
COKER 139	738	895	-	41	40	-	92	90	-
DELCOT 344	745	-	-	40	-	-	91	-	-
DES 119	768	-	-	42	-	-	91	-	-
DELCOT 390	681	-	-	40	-	-	91	-	-
GAT 81-225	768	-	-	41	-	-	92	-	-
ARKOT 518	741	-	-	41	-	-	94	-	-
COKER 80-118	696	-	-	41	-	-	92	-	-
COKER 81-613	702	-	-	42	-	-	90	-	-

THESE VARIETIES AT 2 LOCATIONS ONLY

PAYMASTER 145	825	846	876	39	39	39	81	80	81
ACALA SJC-1	672	730	769	37	38	39	87	82	78

*Grown at all locations in 1986 but at only two locations in previous years.

Table 10. Percentage of Plants Showing Symptoms of Fusarium Wilt, Tallassee, Alabama¹

Variety	Average wilt percentage										
	1 yr., 1986	2 yr., 1985-86	3 yr., 1984-86	4 yr., 1983-86	5 yr., 1982-86	6 yr., 1981-86	7 yr., 1980-86	8 yr., 1979-86	9 yr., 1978-86	10 yr., 1977-86	14 yr., 1974-86
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
Stoneville 213	54.0	47.0	35.8	32.6	31.2	27.9	33.7	37.6	32.7	36.2	38.9
Deltapine 61	57.2	51.3	36.3	30.7	29.0	25.4	26.0	26.1	23.9	23.0	
McNair 220	28.5	20.8	14.5	15.5	17.1	13.8	17.0	16.7	15.6	15.6	
Coker 315	46.0	34.9	25.1	25.7	24.2	20.9	24.3	24.5	22.6	22.9	
Deltapine 41	29.5	17.7	21.5	18.4	18.5	17.0	22.0	22.6	20.8		
McNair 235	18.6	13.7	11.5	10.9	12.4	10.9	13.3	13.4	12.7		
Stoneville 825	64.0	74.8	62.9	54.8	51.3	45.2	50.5	50.6			
Delcot 311	11.2	7.2	6.4	7.5	7.8	6.7	9.4				
Stoneville 506	24.2	16.3	12.4	12.6	12.4	11.1	14.3				
Coker 208	44.5	43.3	31.5	29.8	28.4	23.3					
Deltapine 90	28.0	14.3	12.1	11.4	11.4	11.1					
Deltapine 50	41.8	24.3	20.8	19.5	18.1						
DES 422	15.2	10.1	9.9	11.2							
Deltapine 20	35.0	18.6	13.8	19.4							
Stoneville 112	25.2	16.5	13.6								
Coker 139	39.2	22.8									
PD-1	50.0	42.3									
Coker 80-118	14.0										
Coker 81-613	28.2										
Delcot 344	12.5										
Delcot 390	31.8										
DES 119	24.5										
GaT 81-225	29.8										
Tifcot 56	53.2										
Arkot 518	43.8										

¹Data were taken from a field severely infested with the fusarium wilt fungus and root-knot nematodes.

Table 11. Fiber Properties of Cotton Varieties at Belle Mina, Alabama, 1986

Variety	Micronaire Reading	Fibrograph		Stelometer	
		50% In.	2.5% In.	T1 g/tex	E1 Pct.
Coker 208	5.1	0.51	1.08	19.14	7.5
Coker 315	4.9	.53	1.15	22.50	6.3
Coker 80-118	5.3	.54	1.11	21.88	6.5
Coker 139	5.0	.55	1.13	19.65	6.5
Coker 81-613	4.9	.55	1.11	21.93	6.5
Deltapine 20	5.4	.56	1.11	18.46	8.8
Deltapine 41	5.0	.56	1.16	18.72	7.0
Deltapine 50	5.3	.54	1.10	19.91	8.8
Deltapine 61	4.4	.55	1.16	21.42	8.0
Deltapine 90	5.1	.54	1.14	23.23	6.8
McNair 220*	4.4	.57	1.17	21.11	6.5
McNair 235	4.8	.56	1.17	21.16	7.3
Stoneville 112	5.5	.50	1.06	19.70	8.0
Stoneville 213	5.1	.51	1.08	19.34	7.3
Stoneville 506	5.3	.52	1.06	19.24	7.5
Stoneville 825	5.5	.51	1.08	17.53	6.0
Delcot 311	4.8	.54	1.09	21.21	9.0
Delcot 344	4.0	.60	1.28	23.44	7.0
Delcot 390	4.3	.59	1.19	20.90	7.3
PD-1	5.2	.53	1.13	22.71	6.5
DES 119	5.2	.55	1.14	19.76	7.8
DES 422	5.2	.51	1.01	18.61	7.8
Tifcot 56	4.7	.55	1.18	21.99	7.0
KC 380	5.4	.55	1.18	21.51	6.8
Arkot 518	5.4	.55	1.13	18.62	7.8
GaT 81-225	5.3	.55	1.08	21.42	6.8
Paymaster 145	5.1	.48	0.97	18.36	7.5
Acala SJC-1	4.4	.61	1.23	24.69	6.8

*Fiber samples from Crossville, Alabama.

Table 12. Fiber Properties of Cotton Varieties at Prattville, Alabama, 1986

Variety	Micronaire Reading	Fibrograph		Stelometer	
		50% In.	2.5% In.	T1 g/tex	E1 Pct.
Coker 208	4.4	0.52	1.06	19.13	5.5
Coker 315	4.4	.56	1.10	22.76	5.5
Coker 80-118	4.9	.51	1.07	20.48	4.8
Coker 139	4.7	.56	1.09	21.51	5.3
Coker 81-613	4.6	.56	1.11	22.79	5.3
Deltapine 20	4.4	.52	1.04	21.16	7.3
Deltapine 41	4.8	.50	1.05	20.33	5.8
Deltapine 50	4.9	.53	1.10	21.16	6.0
Deltapine 61	5.0	.54	1.11	22.56	5.5
Deltapine 90	4.7	.54	1.08	21.95	6.0
McNair 220	4.7	.50	1.07	22.59	5.5
McNair 235	4.5	.55	1.10	20.90	5.5
Stoneville 112	4.8	.52	1.06	20.59	5.8
Stoneville 213	5.1	.52	1.06	19.76	6.5
Stoneville 506	4.6	.52	1.08	22.00	6.3
Stoneville 825	4.7	.52	1.09	19.38	5.0
Delcot 311	4.7	.52	1.06	19.03	5.0
Delcot 344	4.9	.56	1.09	21.67	5.8
Delcot 390	4.9	.54	1.10	24.48	6.5
PD-1	4.6	.54	1.09	23.03	4.8
DES 119	4.7	.55	1.11	21.41	8.0
DES 422	4.9	.50	1.06	19.77	5.5
Tifcot 56	4.1	.57	1.11	21.42	5.8
KC 380	4.2	.54	1.06	22.35	8.0
Arkot 518	4.3	.52	1.10	19.81	5.5
GaT 81-225	4.5	.54	1.09	20.95	5.0

Table 13. Fiber Properties of Cotton Varieties at Brewton, Alabama, 1986

Variety	Micronaire Reading	Fibrograph		Stelometer	
		50% In.	2.5% In.	T1 g/tex	E1 Pct.
Coker 208	4.1	0.56	1.11	18.04	7.0
Coker 315	3.8	.56	1.18	18.10	6.3
Coker 80-118	4.2	.58	1.17	19.29	7.0
Coker 139	4.0	.55	1.14	18.62	7.3
Coker 81-613	4.2	.60	1.18	19.09	7.3
Deltapine 20	4.0	.52	1.10	16.13	9.3
Deltapine 41	4.4	.53	1.12	19.92	7.5
Deltapine 50	4.4	.59	1.17	17.06	9.3
Deltapine 61	4.2	.59	1.18	18.98	7.3
Deltapine 90	4.0	.60	1.15	20.90	6.5
McNair 220	4.0	.56	1.14	18.77	6.5
McNair 235	4.4	.57	1.12	18.98	8.0
Stoneville 112	4.2	.57	1.13	18.41	7.8
Stoneville 213	4.4	.55	1.12	17.48	8.8
Stoneville 506	4.6	.51	1.11	17.53	7.8
Stoneville 825	4.4	.57	1.16	18.10	6.5
Delcot 311	4.0	.58	1.10	19.81	9.5
Delcot 344	4.2	.57	1.16	19.60	7.3
Delcot 390	4.1	.58	1.14	20.02	7.5
PD-1	4.1	.55	1.16	20.74	7.0
DES 119	4.4	.55	1.11	17.84	9.8
DES 422	3.9	.58	1.17	18.46	7.8
Tifcot 56	4.6	.57	1.12	16.70	6.5
KC 380	5.2	.55	1.14	18.31	6.3
Arkot 518	3.9	.54	1.16	18.41	7.0
GaT 81-225	4.0	.57	1.16	19.45	6.8

Table 14. Sources of Seed for the 1986 Cotton Variety Tests

Deltapine 61 Deltapine 41 Deltapine 90 Deltapine 50 Deltapine 20	Delta and Pine Land Co. Scott, Mississippi
Stoneville 213 Stoneville 825 Stoneville 506 Stoneville 112	Stoneville Pedigreed Seed Co. Stoneville, Mississippi
Coker 315 Coker 208 Coker 81-613 Coker 139 Coker 80-118	Coker's Pedigreed Seed Co. Hartsville, South Carolina
Delcot 311 Delcot 390 Delcot 344	Delta Center Portageville, Missouri
KC 380 McNair 235 McNair 220	Northrup King Co. Leland, Mississippi
DES 422 DES 119	Delta Branch Experiment Station Stoneville, Mississippi
PD-1	Pee Dee Experiment Station Florence, South Carolina
Tifcot 56 GAT 81-225	Georgia Coastal Plain Experiment Station Tifton, Georgia
Arkot 518	Cotton Branch Experiment Station Marianna, Arkansas

RECOMMENDED COTTON VARIETIES FOR ALABAMA

The list of recommended varieties given below was prepared by the author of this report and Louie J. Chapman, Extension Agronomist and Acting Department Head, based on variety test performance for at least 3 years. Varieties differ in performance at individual locations, so selection should be based largely on variety performance at a site that most nearly represents the grower's local situation. The recommended varieties are listed in order of 3-year average lint yield.

Deltapine 90
Deltapine 50
Coker 208
Coker 315
Stoneville 825*
Stoneville 213*
McNair 220
Deltapine 41
DES 422
Deltapine 61
Deltapine 20
Stoneville 506
McNair 235
Stoneville 112
Delcot 311
Tifcot 56+
PD-1+

* Not suited for soils where fusarium wilt has been a problem.

+ Recommended conditionally since they have not been grown at all locations for 3 years.

