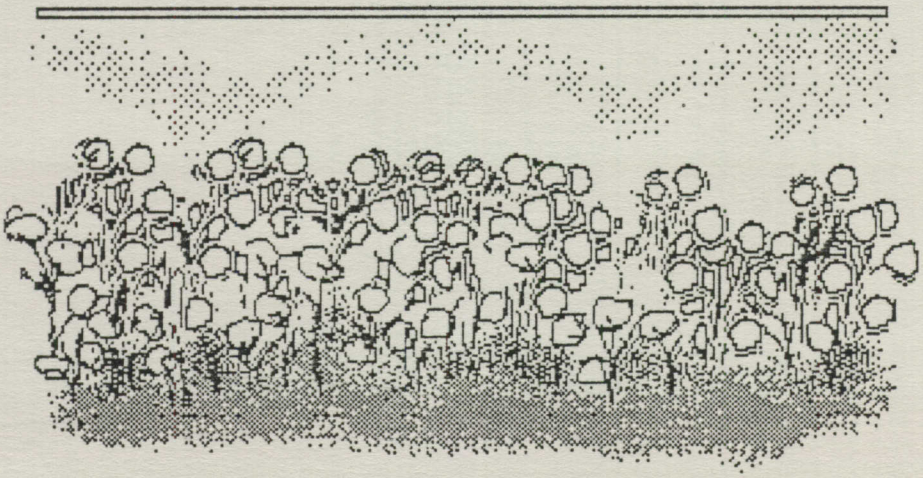

1987 Alabama Cotton Variety Report

Agronomy and Soils Departmental Series No. 122 January 1988
Alabama Agricultural Experiment Station Auburn University
Lowell T. Frobish, Director Auburn University, Alabama

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1987 Alabama Cotton Variety Report

A Report of the Performance of Cotton Varieties Tested in Alabama

W.C. Johnson[1]

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 generally favorable through mid-season. Favorable conditions continued for most of southern Alabama; however, central and northern areas experienced severe drouth stress after mid-July.

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[1]Professor of Agronomy and Soils.

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.

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. During 1987 fusarium wilt was extremely severe. 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 825 has 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. Deltapine 90 is reported to have unusually low wilting. This is a computed value and not an actual observation. This variety was inadvertently omitted from the test.

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

Several new varieties were tested in 1987. Stoneville 453 is a promising new variety to be released in 1988, however there will be a very limited seed supply. PD 3 is a newly released 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. Terra C-30 and Terra C-40 are newly available varieties from Terra International, Inc. Seed will be available and marketed in 1988 although seed of Terra C-30 will be somewhat limited.

Coker 118-6903, Coker 130-6905, Coker 81-613, and GaT 81-225 are advanced experimental lines and not released varieties at this time.

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 - R. R. Duffield, 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, 1987

VARIETY	1987 LINT/ACRE LBS.	1987 LINT PCT.	1987 EARLINESS PCT.	2-YR. AV. LINT/ACRE LBS.	3-YR. AV. LINT/ACRE LBS.
DES 119	775	41	93	832	-
STONEVILLE 453	761	45	91	-	-
DELTAPINE 20	759	42	92	786	860
KC 380	756	40	94	855	960
STONEVILLE 112	738	42	92	835	904
STONEVILLE 825	736	43	91	815	880
DELTAPINE 90	726	43	90	800	843
MCNAIR 220	725	40	91	697	812
GAT 81-225	715	39	92	800	-
COKER 139	712	42	93	781	889
DES 422	702	41	94	740	826
PD 3	700	41	88	-	-
COKER 130-6905	697	42	92	-	-
STONEVILLE 506	696	40	93	791	840
DELCOT 390	684	39	92	697	-
COKER 118-6903	678	40	91	-	-
COKER 208	676	39	93	687	831
ARKOT 518	672	40	94	752	-
TERRA C 40	672	42	92	-	-
DELTAPINE 50	667	38	91	805	933
MCNAIR 235	657	39	88	740	857
COKER 81-613	652	41	94	687	-
DELCOT 344	648	39	92	726	-
DELTAPINE 41	627	44	89	745	799
TERRA C 30	626	38	90	-	-
COKER 315	618	40	94	691	796
TIFCOT 56	616	38	89	700	826
PAYMASTER 145	615	36	87	658	732
DELCOT 311	612	40	90	713	814
ACALA 1517-75	477	40	83	-	-
TEST MEAN	680				
L.S.D. (.05)	96				
C.V.	10%				

TABLE 2. PERFORMANCE OF COTTON VARIETIES AT CROSSVILLE, ALABAMA, 1987

VARIETY	1987 LINT/ACRE LBS.	1987 LINT PCT.	1987 EARLINESS PCT.	2-YR. AV. LINT/ACRE LBS.	3-YR. AV. LINT/ACRE LBS.
DES 422	405	41	-	627	636
COKER 139	395	40	-	651	632
TERRA C 30	361	39	-	-	-
COKER 81-613	360	42	-	601	-
DES 119	356	40	-	691	-
DELTAPINE 90	353	39	-	648	554
COKER 315	349	41	-	603	578
TIFCOT 56	343	40	-	635	-
DELCOT 311	343	42	-	646	633
STONEVILLE 112	339	39	-	535	539
COKER 130-6905	338	38	-	-	-
COKER 208	338	40	-	569	520
STONEVILLE 825	337	41	-	612	590
DELCOT 344	336	39	-	636	-
DELTAPINE 50	331	40	-	618	627
MCNAIR 235	331	41	-	688	649
PD 3	330	40	-	-	-
ARKOT 518	325	39	-	669	-
DELCOT 390	320	40	-	630	-
COKER 118-6903	319	40	-	-	-
TERRA C 40	319	39	-	-	-
MCNAIR 220	314	39	-	683	674
STONEVILLE 506	305	40	-	574	589
DELTAPINE 41	304	40	-	527	577
DELTAPINE 20	302	41	-	593	623
KC 380	290	41	-	644	635
GAT 81-225	279	40	-	630	-
STONEVILLE 453	254	39	-	-	-
TEST MEAN	331				
L.S.D. (.05)	86				
C.V.	18%				

TABLE 3. PERFORMANCE OF COTTON VARIETIES AT PRATTVILLE, ALABAMA, 1987

VARIETY	1987 LINT/ACRE LB.	1987 LINT PCT.	1987 EARLINESS PCT.	2-YR. AV. LINT/ACRE LB.	3-YR. AV. LINT/ACRE LB.
KC 380	1,153	39	97	857	939
DELTAPINE 90	1,035	40	97	823	993
PD 3	1,021	39	94	-	-
COKER 130-6905	1,013	41	96	-	-
STONEVILLE 825	975	40	97	812	956
COKER 208	970	37	97	751	891
DELTAPINE 20	961	39	96	781	899
DES 422	956	38	95	794	948
MCNAIR 220	954	40	96	764	879
STONEVILLE 453	931	38	97	-	-
DELTAPINE 50	931	37	97	765	911
TERRA C 40	931	40	96	-	-
MCNAIR 235	929	38	96	758	877
DES 119	925	39	96	786	-
TIFCOT 56	924	38	96	748	-
STONEVILLE 506	922	37	97	766	905
TERRA C 30	919	37	96	-	-
STONEVILLE 112	907	38	96	756	899
COKER 315	904	39	95	730	898
COKER 139	893	38	96	728	913
COKER 81-613	887	41	95	695	-
GAT 81-225	886	39	95	725	-
DELCOT 311	850	37	96	674	841
COKER 118-6903	847	38	95	-	-
DELCOT 344	844	38	95	705	-
DELTAPINE 41	834	39	96	708	882
DELCOT 390	819	37	94	650	-
ARKOT 518	814	38	96	687	-
TEST MEAN	926				
L.S.D. (.05)	87				
C.V.	7%				

TABLE 4. PERFORMANCE OF COTTON VARIETIES AT TALLASSEE, ALABAMA, 1987

VARIETY	1987 LINT/ACRE LB.	1987 LINT PCT.	1987 EARLINESS PCT.	2-YR. AV. LINT/ACRE LB.	3-YR. AV. LINT/ACRE LB.
COKER 118-6903	473	40	-	-	-
COKER 81-613	443	42	-	378	-
MCNAIR 235	440	41	-	436	572
PD 3	434	38	-	-	-
TERRA C 30	422	40	-	-	-
STONEVILLE 453	414	44	-	-	-
COKER 130-6905	413	42	-	-	-
DELTAPINE 90	377	41	-	354	583
TIFCOT 56	371	41	-	357	-
COKER 139	369	40	-	376	530
DES 119	354	41	-	341	-
COKER 315	345	40	-	286	497
MCNAIR 220	341	40	-	358	545
DELTAPINE 41	339	43	-	311	537
GAT 81-225	334	41	-	348	-
DELCOT 344	332	41	-	369	-
DELTAPINE 50	330	40	-	291	476
STONEVILLE 506	328	40	-	308	435
DES 422	326	41	-	309	480
DELCOT 311	317	40	-	343	442
DELCOT 390	308	39	-	324	-
KC 380	302	40	-	332	531
COKER 208	280	39	-	302	436
DELTAPINE 20	280	42	-	269	492
ARKOT 518	255	41	-	284	-
STONEVILLE 112	227	42	-	297	456
TERRA C 40	180	42	-	-	-
STONEVILLE 825	174	42	-	222	415
TEST MEAN	340				
L.S.D. (.05)	162				
C.V.	34%				

TABLE 5. PERFORMANCE OF COTTON VARIETIES AT SHORTER, ALABAMA, 1987

VARIETY	1987 LINT/ACRE LB.	1987 LINT PCT.	1987 EARLINESS PCT.	2-YR. AV. LINT/ACRE LB.	3-YR. AV. LINT/ACRE LB.
COKER 130-6905	798	42	-	-	-
DELTAPINE 20	795	42	-	844	884
KC 380	770	39	-	911	956
MCNAIR 235	747	41	-	895	995
MCNAIR 220	743	40	-	864	932
TIFCOT 56	733	40	-	861	1,024
DELTAPINE 90	712	39	-	880	987
DES 119	711	43	-	874	-
COKER 139	706	41	-	859	888
DES 422	704	41	-	792	829
GAT 81-225	704	41	-	874	-
STONEVILLE 825	701	42	-	848	889
DELCOT 390	696	40	-	834	-
STONEVILLE 453	693	43	-	-	-
COKER 315	685	42	-	797	966
PD 3	682	40	-	-	-
COKER 81-613	682	42	-	845	-
DELTAPINE 41	676	45	-	831	926
DELTAPINE 50	675	39	-	803	904
COKER 208	654	39	-	859	953
TERRA C 30	654	40	-	-	-
STONEVILLE 506	652	42	-	756	912
STONEVILLE 112	649	42	-	805	881
COKER 118-6903	642	41	-	-	-
ARKOT 518	622	41	-	833	-
TERRA C 40	609	41	-	-	-
ACALA 1517-75	559	37	-	-	-
DELCOT 311	553	39	-	800	913
DELCOT 344	525	39	-	763	-
PAYMASTER 145	466	40	-	707	757
TEST MEAN	673				
L.S.D. (.05)	162				
C.V.	17%				

TABLE 6. PERFORMANCE OF COTTON VARIETIES AT MONROEVILLE, ALABAMA, 1987

VARIETY	1987 LINT/ACRE LB.	1987 LINT PCT.	1987 EARLINESS PCT.	2-YR. AV. LINT/ACRE LB.	3-YR. AV. LINT/ACRE LB.
COKER 130-6905	1,100	42	71	-	-
MCNAIR 235	1,025	41	71	744	808
COKER 139	1,013	40	74	728	939
PD 3	1,002	41	67	-	-
COKER 208	994	42	75	753	918
TIFCOT 56	989	40	73	735	-
KC 380	988	41	70	790	980
MCNAIR 220	959	40	75	681	825
COKER 118-6903	946	41	72	-	-
COKER 81-613	913	41	72	629	-
DES 119	901	40	65	687	-
DELCOT 344	894	40	72	663	-
STONEVILLE 453	860	43	76	-	-
DELTAPINE 20	846	40	70	665	870
DELCOT 311	839	39	73	626	757
DELTAPINE 50	839	37	74	676	840
STONEVILLE 506	835	39	71	686	830
DES 422	826	40	69	663	822
DELTAPINE 90	825	40	66	688	824
DELCOT 390	787	39	78	629	-
GAT 81-225	778	40	70	619	-
TERRA C 40	774	40	69	-	-
COKER 315	761	40	65	568	787
STONEVILLE 825	740	39	70	659	795
STONEVILLE 112	729	39	71	606	788
TERRA C 30	721	37	66	-	-
ARKOT 518	648	39	74	551	-
DELTAPINE 41	645	40	65	556	731
TEST MEAN	864				
L.S.D. (.05)	122				
C.V.	10%				

TABLE 7. PERFORMANCE OF COTTON VARIETIES AT BREWTON, ALABAMA, 1987

VARIETY	1987 LINT/ACRE LB.	1987 LINT PCT.	1987 EARLINESS PCT.	2-YR. AV. LINT/ACRE LB.	3-YR. AV. LINT/ACRE LB.
KC 380	1,462	40	69	1,274	1,302
COKER 208	1,372	39	79	1,260	1,258
COKER 81-613	1,319	41	78	1,258	-
PD 3	1,288	40	78	-	-
TIFCOT 56	1,276	39	76	1,195	-
COKER 130-6905	1,272	40	75	-	-
COKER 139	1,265	39	79	1,208	1,202
COKER 315	1,244	40	76	1,226	1,230
COKER 118-6903	1,230	40	77	-	-
DELCOT 390	1,185	39	79	1,093	-
MCNAIR 235	1,176	41	79	1,104	1,129
STONEVILLE 453	1,169	44	72	-	-
DES 119	1,161	39	73	1,158	-
DES 422	1,160	41	75	1,130	1,147
STONEVILLE 825	1,132	41	77	1,122	1,204
GAT 81-225	1,132	40	82	1,174	-
DELCOT 344	1,125	40	77	1,146	-
TERRA C 40	1,108	40	70	-	-
MCNAIR 220	1,090	40	76	1,107	1,144
DELCOT 311	1,077	39	78	1,090	1,075
DELTAPINE 20	1,073	38	72	1,078	1,115
TERRA C 30	1,060	37	69	-	-
ARKOT 518	1,038	39	83	1,051	-
DELTAPINE 50	1,024	37	74	1,033	1,129
DELTAPINE 90	1,016	39	76	1,059	1,188
STONEVILLE 506	1,002	39	69	1,022	1,087
DELTAPINE 41	986	40	77	1,032	1,111
STONEVILLE 112	884	38	67	969	1,048
TEST MEAN	1,154				
L.S.D. (.05)	132				
C.V.	8%				

TABLE 8. PERFORMANCE OF COTTON VARIETIES AT HEADLAND, ALABAMA, 1987

VARIETY	1987 LINT/ACRE	1987 LINT	1987 EARLINESS	2-YR. AV. LINT/ACRE	3-YR. AV. LINT/ACRE
	LB.	PCT.	PCT.	LB.	LB.
TERRA C 40	495	43	-	-	-
STONEVILLE 825	487	42	-	598	816
DES 422	454	45	-	506	787
ARKOT 518	452	44	-	550	-
COKER 208	448	44	-	581	776
MCNAIR 220	444	40	-	519	737
TIFCOT 56	442	44	-	587	-
COKER 139	440	44	-	519	712
STONEVILLE 506	439	41	-	600	790
DELTAPINE 41	436	46	-	531	841
DELTAPINE 20	431	42	-	535	764
DELTAPINE 90	431	42	-	514	876
MCNAIR 235	429	45	-	512	795
DELCOT 344	427	43	-	535	-
KC 380	417	40	-	602	813
DES 119	406	41	-	499	-
TERRA C 30	401	40	-	-	-
STONEVILLE 453	398	45	-	-	-
GAT 81-225	397	42	-	514	-
COKER 315	390	42	-	482	745
STONEVILLE 112	383	42	-	530	733
DELCOT 390	379	43	-	459	-
DELTAPINE 50	378	41	-	539	768
COKER 130-6905	367	42	-	-	-
DELCOT 311	366	44	-	524	750
PD 3	365	41	-	-	-
COKER 81-613	350	44	-	520	-
COKER 118-6903	341	43	-	-	-
TEST MEAN	414				
L.S.D. (.05)	90				
C.V.	15%				

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

VARIETY	YIELD, LINT/ACRE			LINT			EARLINESS		
	1987	1986-87	1985-87	1987	1986-87	1985-87	1987	1986-87	1985-87
	LB.	LB.	LB.	PCT.	PCT.	PCT.	PCT.	PCT.	PCT.
TIFCOT 56	712	727	890	40	40	40	83	87	87
KC 380	767	783	890	40	40	40	82	85	85
DELTAPINE 90	684	721	856	40	40	40	82	86	86
COKER 139	724	731	838	40	41	40	85	89	88
MCNAIR 235	717	735	835	41	41	41	83	88	88
DELTAPINE 50	647	691	823	39	39	39	84	87	87
COKER 208	717	720	823	40	40	40	86	89	89
MCNAIR 220	696	709	819	40	40	40	84	89	89
STONEVILLE 825	660	711	818	41	41	41	84	88	88
DELTAPINE 20	681	694	813	41	41	41	82	87	88
COKER 315	662	673	812	40	41	41	82	87	86
DES 422	692	695	809	41	41	41	83	87	88
DELTAPINE 41	606	655	800	42	42	43	82	86	87
STONEVILLE 506	647	688	798	40	40	40	82	86	87
STONEVILLE 112	607	667	781	40	40	40	81	85	86
DELCOT 311	620	677	778	40	40	40	84	88	88
DES 119	699	733	–	40	41	–	82	86	–
GAT 81-225	653	710	–	40	41	–	85	88	–
COKER 81-613	701	702	–	42	42	–	85	88	–
DELCOT 344	641	693	–	40	40	–	84	87	–
ARKOT 518	603	672	–	40	40	–	87	90	–
DELCOT 390	647	664	–	39	40	–	86	88	–
STONEVILLE 453	685	–	–	43	–	–	84	–	–
TERRA C 30	645	–	–	38	–	–	80	–	–
TERRA C 40	636	–	–	41	–	–	82	–	–
PD 3	728	–	–	40	–	–	82	–	–
COKER 118-6903	685	–	–	40	–	–	84	–	–
COKER 130-6905	750	–	–	41	–	–	83	–	–
THESE VARIETIES AT 2 LOCATIONS ONLY									
PAYMASTER 145	540	683	744	38	38	38	87	84	83
ACALA 1517-75	518	–	–	38	–	–	83	–	–

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

Variety	Average wilt percentage										
	1 yr., 1987	2 yr., 1986-87	3 yr., 1985-86	4 yr., 1984-85	5 yr., 1983-84	6 yr., 1982-83	7 yr., 1981-82	8 yr., 1980-81	9 yr., 1979-80	10 yr., 1978-79	11 yr., 1977-78
	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
McNair 220	41.5	35.2	27.9	21.4	20.8	21.3	17.8	20.1	19.5	18.2	18.0
Coker 315	74.3	60.0	47.9	37.3	35.4	32.5	28.5	30.5	30.0	27.7	27.5
Deltapine 41	58.5	43.8	31.1	30.6	26.3	25.1	22.9	26.5	26.5	24.5	
McNair 235	53.2	35.8	26.8	21.9	19.3	19.2	16.9	18.3	17.8	16.7	
Stoneville 825	97.0	80.5	82.2	71.4	63.2	58.9	52.6	56.3	55.8		
Delcot 311	30.3	20.6	14.8	12.3	12.0	11.5	10.0	12.0			
Stoneville 506	59.3	41.6	30.5	24.1	21.9	20.2	17.9	19.9			
Coker 208	75.5	60.3	54.2	42.6	39.0	36.3	30.8				
Deltapine 90	17.9	23.0	15.5	13.6	12.7	12.5	12.1				
Deltapine 50	52.0	46.9	33.5	28.6	26.0	23.8					
DES 422	71.5	43.6	30.7	25.4	23.4						
Deltapine 20	70.0	52.5	35.7	27.9	29.5						
Stoneville 112	72.5	48.6	35.0	28.2							
Coker 139	60.5	49.6	35.2								
Coker 81-613	65.0	46.6									
Delcot 344	48.5	30.3									
Delcot 390	60.8	46.4									
DES 119	60.3	42.3									
GaT 81-225	67.5	48.9									
Tifcot 56	61.5	57.6									
Arkot 518	69.0	56.4									
Coker 118-6903	67.0										
Coker 130-6905	66.5										
KC 380	71.0										
Terra C-30	76.8										
Stoneville 453	82.3										
SV 93	52.5										
Dunn 1002	76.3										
PD 3	43.0										
Sisco 772	42.0										
Terra C-40	63.0										
SV 13	71.0										
BR 110	87.3										

Table 11. Fiber Properties of Cotton Varieties at Crossville, Alabama, 1987

Variety	Micronaire	Fibrograph		Stelometer	
		50%	2.5%	T1	E1
	Reading	In.	In.	g/tex	Pct.
Coker 139	4.9	0.49	1.06	19.95	7.5
Coker 208	5.0	.52	1.09	21.25	7.0
Coker 315	5.2	.53	1.12	20.45	7.3
Coker 81-613	4.8	.50	1.12	19.45	6.8
Coker 118-6903	4.8	.49	1.05	20.55	7.5
Coker 130-6905	4.5	.51	1.07	20.20	7.8
Deltapine 20	5.0	.54	1.12	23.25	7.8
Deltapine 41	5.0	.49	1.10	19.55	7.0
Deltapine 50	5.0	.49	1.07	20.30	7.5
Deltapine 90	4.9	.52	1.06	21.15	7.8
McNair 220	5.2	.48	1.07	19.60	7.8
McNair 235	5.0	.52	1.09	20.10	7.5
Stoneville 112	4.9	.47	1.05	18.25	7.5
Stoneville 453	4.8	.50	1.11	21.45	7.3
Stoneville 506	5.1	.48	1.06	20.00	8.0
Stoneville 825	4.6	.53	1.15	20.85	7.5
Delcot 311	4.9	.52	1.09	19.60	7.8
Delcot 344	5.1	.50	1.11	19.20	7.0
Delcot 390	4.8	.49	1.07	18.75	7.8
PD-3	4.4	.51	1.08	20.00	7.8
DES 119	4.7	.53	1.11	24.40	7.0
DES 422	5.2	.50	1.07	21.30	7.3
Tifcot 56	4.7	.51	1.07	19.35	8.0
KC 380	4.8	.53	1.16	21.25	6.8
Arkot 518	5.2	.49	1.08	22.10	7.5
GaT 81-225	4.8	.51	1.06	20.65	6.5
Terra C 30	5.1	.49	1.07	18.80	7.8
Terra C 40	5.0	.47	1.07	18.50	8.0

Table 12. Fiber Properties of Cotton Varieties at Prattville, Alabama, 1987

Variety	Micronaire	Fibrograph		Stelometer	
		50%	2.5%	T1	E1
	Reading	In.	In.	g/tex	Pct.
Coker 139	5.2	0.48	1.06	20.55	6.8
Coker 208	4.5	.50	1.10	21.85	7.3
Coker 315	3.8	.52	1.14	23.20	6.5
Coker 81-613	4.8	.54	1.13	21.85	7.0
Coker 118-6903	4.3	.52	1.11	22.55	5.8
Coker 130-6905	4.4	.49	1.07	20.85	6.8
Deltapine 20	4.4	.48	1.06	22.95	5.8
Deltapine 41	4.4	.50	1.07	22.05	7.3
Deltapine 50	5.0	.50	1.07	20.55	7.0
Deltapine 90	4.9	.51	1.06	19.80	8.0
McNair 220	4.7	.52	1.08	20.20	7.0
McNair 235	4.3	.49	1.08	19.70	7.0
Stoneville 112	4.9	.51	1.07	19.45	7.5
Stoneville 453	4.4	.51	1.06	23.65	6.3
Stoneville 506	4.5	.48	1.09	20.70	8.0
Stoneville 825	5.2	.50	1.07	17.90	6.8
Delcot 311	4.1	.52	1.07	23.90	8.0
Delcot 344	4.2	.53	1.13	23.20	6.5
Delcot 390	4.4	.50	1.08	22.95	7.0
PD-3	4.3	.53	1.14	23.55	7.0
DES 119	4.5	.53	1.11	21.55	7.8
DES 422	4.1	.49	1.07	22.30	7.5
Tifcot 56	4.9	.50	1.06	23.35	7.0
KC 380	5.2	.48	1.06	21.25	6.8
Arkot 518	4.6	.51	1.14	20.25	6.5
GaT 81-225	4.6	.49	1.09	21.40	6.5
Terra C 30	4.7	.48	1.06	20.25	8.3
Terra C 40	5.0	.49	1.06	18.75	7.8

Table 13. Fiber Properties of Cotton Varieties at Brewton, Alabama, 1987

Variety	Micronaire	Fibrograph		Stelometer	
		50%	2.5%	T1	E1
	Reading	In.	In.	g/tex	Pct.
Coker 139	3.3	0.51	1.10	20.30	6.8
Coker 208	3.7	.50	1.09	18.35	7.8
Coker 315	3.4	.54	1.17	21.45	6.5
Coker 81-613	3.5	.54	1.17	20.50	7.3
Coker 118-6903	3.4	.53	1.15	21.50	7.0
Coker 130-6905	3.2	.51	1.14	21.50	6.8
Deltapine 20	3.2	.50	1.06	18.25	10.0
Deltapine 41	3.2	.50	1.10	20.50	7.8
Deltapine 50	3.3	.51	1.13	19.15	8.5
Deltapine 90	3.7	.51	1.10	22.90	7.5
McNair 220	3.4	.50	1.09	18.55	7.3
McNair 235	3.7	.50	1.10	21.45	7.8
Stoneville 112	3.0	.47	1.06	20.60	7.5
Stoneville 453	4.1	.51	1.07	18.25	8.0
Stoneville 506	3.5	.50	1.12	19.90	9.0
Stoneville 825	3.5	.46	1.06	18.85	6.8
Delcot 311	3.4	.53	1.09	22.05	10.0
Delcot 344	3.3	.53	1.14	20.05	7.3
Delcot 390	4.5	.54	1.12	21.65	8.8
PD-3	3.4	.54	1.14	21.40	6.5
DES 119	4.0	.50	1.08	21.45	9.5
DES 422	3.7	.51	1.12	20.00	8.0
Tifcot 56	3.6	.53	1.12	20.65	6.8
KC 380	3.8	.51	1.11	18.90	7.5
Arkot 518	3.2	.48	1.13	19.30	7.3
GaT 81-225	3.4	.51	1.08	20.85	8.0
Terra C 30	3.3	.50	1.10	18.40	8.5
Terra C 40	3.6	.51	1.11	18.90	10.3

Table 14. Sources of Seed for the 1987 Cotton Variety Tests

Deltapine 41 Deltapine 90 Deltapine 50 Deltapine 20	Delta and Pine Land Co. Scott, Mississippi
Stoneville 825 Stoneville 506 Stoneville 112 Stoneville 453	Stoneville Pedigreed Seed Co. Stoneville, Mississippi
Coker 315 Coker 208 Coker 81-613 Coker 139 Coker 130-6905 Coker 118-6903	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-3	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
Terra C-30 Terra C-40	Terra International, Inc. Memphis, Tennessee

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.

Tifcot 56
KC 380
Deltapine 90
Coker 139
McNair 235
Deltapine 50
Coker 208
McNair 220
Stoneville 825*
Deltapine 20
Coker 315
DES 422
Deltapine 41
Stoneville 506
Stoneville 112
Delcot 311
DES 119+

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

+Recommended conditionally since it has not been grown at all locations for 3 years.