



1989

Alabama

Cotton

Variety

Report



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

1989 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 complete block experimental design with four replications was used at each location. Row length varied at different locations from 40 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. Climatic conditions at all locations were generally favorable during early season. After early June, rainfall was greater than normal at all locations.

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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

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 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 Presley 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 1989 fusarium wilt was more severe than usual. 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.

Verticillium wilt is being more frequently identified in northern Alabama than previously. Varietal comparisons reported in table 11 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 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, 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

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

TABLE 1. PERFORMANCE OF COTTON VARIETIES AT BELLE MINA, ALABAMA, 1989

VARIETY	1989			2-YR. AV.	3-YR. AV.
	LINT/ACRE	LINT	EARLINESS	LINT/ACRE	LINT/ACRE
	LB.	PCT.	PCT.	LB.	LB.
KC 380	1,276	42	88	1,069	965
SUREGROW 35	1,231	42	90	-	-
STONEVILLE 453	1,213	44	91	-	-
SUREGROW 55	1,171	45	88	-	-
DELTAPINE 51	1,170	41	85	933	-
DES 119	1,167	41	90	961	899
COKER 130	1,130	45	83	928	851
TERRA C 30	1,093	40	80	888	801
PAYMASTER 145	1,091	41	79	858	777
DELTAPINE 50	1,067	39	87	897	820
DELCOT 344	1,058	41	87	874	798
PD 3	1,046	44	80	822	781
MCNAIR 235	1,041	42	85	887	811
COKER 315	1,034	44	80	930	826
DELTAPINE 20	1,032	41	86	951	887
DELTAPINE 90	1,013	42	81	819	788
ARKOT 518	1,011	42	92	824	773
COKER 84-828	1,009	43	88	868	-
TERRA C 40	1,006	42	83	864	800
STONEVILLE 825	997	43	90	849	811
KC 311	996	42	87	-	-
S1001	994	42	85	-	-
COKER 320	989	43	80	846	790
TIFCOT 56	948	40	85	857	777
HS 46	946	41	78	819	-
STONEVILLE 506	942	41	85	784	754
STONEVILLE 907	933	42	87	-	-
TROPICAL 225	900	41	77	-	-
STONEVILLE 112	852	41	81	776	764
PIMA S-6	709	40	78	-	-
STONEVILLE BR 115	708	44	68	-	-
ACALA 1517-75	639	40	81	612	567
TEST MEAN	1,013				
L. S. D. (.05)	162				
C. V.	11%				

TABLE 2. PERFORMANCE OF COTTON VARIETIES AT CROSSVILLE, ALABAMA, 1989

VARIETY	1989			2-YR. AV.	3-YR. AV.
	LINT/ACRE	LINT	EARLINESS	LINT/ACRE	LINT/ACRE
	LB.	PCT.	PCT.	LB.	LB.
SUREGROW 35	579	40	-	-	-
ARKOT 518	528	41	-	623	523
SUREGROW 55	512	43	-	-	-
STONEVILLE 453	480	42	-	-	-
PD 3	451	41	-	484	433
KC 380	450	41	-	551	464
STONEVILLE 112	412	37	-	530	467
DELTAPINE 50	408	37	-	571	491
TERRA C 40	399	40	-	505	443
DELTAPINE 20	396	40	-	519	446
MCNAIR 235	368	40	-	569	490
STONEVILLE 907	363	41	-	-	-
COKER 84-828	362	42	-	487	-
TIFCOT 56	356	39	-	504	450
TROPICAL 225	337	40	-	-	-
DELTAPINE 51	316	39	-	482	-
COKER 315	315	40	-	466	427
COKER 130	312	43	-	518	458
STONEVILLE 506	310	40	-	478	420
DELTAPINE 90	310	41	-	468	430
TERRA C 30	306	37	-	465	430
DES 119	305	41	-	504	455
DELCOT 344	290	39	-	426	396
STONEVILLE 825	290	41	-	377	364
COKER 320	285	41	-	545	470
KC 311	278	40	-	-	-
HS 46	245	42	-	369	-
S1001	221	40	-	-	-
STONEVILLE BR 115	210	41	-	-	-
PIMA S-6	71	37	-	-	-
TEST MEAN	349				
L. S. D. (.05)	94				
C. V.	19%				

TABLE 3. PERFORMANCE OF COTTON VARIETIES AT PRATTVILLE, ALABAMA, 1989

VARIETY	1989			2-YR. AV.	3-YR. AV.
	LINT/ACRE	LINT	EARLINESS	LINT/ACRE	LINT/ACRE
	LB.	PCT.	PCT.	LB.	LB.
HS 46	838	42	93	861	-
KC 380	834	38	93	809	923
S1001	797	41	91	-	-
DELTAPINE 51	792	39	92	797	-
DELTAPINE 50	767	37	93	854	880
DELTAPINE 90	758	40	91	809	884
KC 311	744	38	92	-	-
STONEVILLE 825	741	41	93	756	829
STONEVILLE 453	722	41	90	-	-
COKER 315	721	39	94	701	768
SUREGROW 35	717	37	94	-	-
DELCOT 344	715	40	92	751	782
STONEVILLE 506	706	39	93	684	763
DES 119	706	40	93	750	808
STONEVILLE 112	704	38	92	711	776
TERRA C 30	686	38	91	735	796
DELTAPINE 20	677	39	94	683	776
TIFCOT 56	667	37	93	715	785
TERRA C 40	656	40	90	671	758
COKER 320	648	39	93	722	764
PD 3	643	38	92	758	845
ARKOT 518	638	38	94	696	735
COKER 84-828	633	39	95	707	-
SUREGROW 55	632	40	92	-	-
MCNAIR 235	631	39	92	714	785
TROPICAL 225	611	37	91	-	-
COKER 130	587	39	91	712	812
STONEVILLE BR 115	557	41	90	-	-
STONEVILLE 907	530	41	93	-	-
PIMA S-6	487	38	64	-	-
TEST MEAN	685				
L. S. D. (.05)	111				
C. V.	12%				

TABLE 4. PERFORMANCE OF COTTON VARIETIES AT TALLASSEE, ALABAMA, 1989

VARIETY	1989			2-YR. AV.	3-YR. AV.
	LINT/ACRE	LINT	EARLINESS	LINT/ACRE	LINT/ACRE
	LB.	PCT.	PCT.	LB.	LB.
KC 311	913	43	88	-	-
KC 380	856	40	81	906	705
PD 3	827	40	91	717	622
DELCOT 344	795	39	88	771	624
DES 119	790	40	92	752	620
TERRA C 30	744	38	90	687	598
STONEVILLE 453	725	41	96	-	-
COKER 320	713	40	81	823	706
SUREGROW 35	701	41	90	-	-
DELTAPINE 50	695	37	88	780	630
DELTAPINE 20	694	40	90	769	606
DELTAPINE 51	691	40	90	828	-
S1001	681	39	96	-	-
DELTAPINE 90	667	40	96	884	715
HS 46	663	39	87	880	-
STONEVILLE 825	639	40	96	649	490
COKER 130	634	40	93	727	622
COKER 84-828	634	40	88	717	-
MCAIR 235	627	38	90	714	623
SUREGROW 55	589	41	-	-	-
STONEVILLE 907	575	38	96	-	-
TIFCOT 56	569	38	96	650	557
TROPICAL 225	561	38	96	-	-
STONEVILLE 112	545	38	95	685	532
TERRA C 40	529	40	90	729	546
STONEVILLE 506	518	38	87	618	521
COKER 315	508	43	89	625	531
ARKOT 518	501	39	-	615	495
STONEVILLE BR 115	477	39	84	-	-
PIMA S-6	145	39	-	-	-
TEST MEAN	640				
L. S. D. (.05)	230				
C. V.	26%				

TABLE 5. PERFORMANCE OF COTTON VARIETIES AT SHORTER, ALABAMA, 1989

VARIETY	1989			2-YR. AV.	3-YR. AV.
	LINT/ACRE	LINT	EARLINESS	LINT/ACRE	LINT/ACRE
	LB.	PCT.	PCT.	LB.	LB.
SUREGROW 55	637	42	-	-	-
DELTAPINE 50	634	39	-	594	621
KC 380	629	41	-	615	667
STONEVILLE 453	605	42	-	-	-
TERRA C 30	600	39	-	589	611
HS 46	588	41	-	502	-
DELTAPINE 20	587	40	-	561	639
SUREGROW 35	583	40	-	-	-
DELTAPINE 90	581	41	-	503	572
ARKOT 518	580	40	-	535	564
S1001	564	40	-	-	-
TIFCOT 56	557	38	-	506	582
DES 119	551	41	-	543	599
DELCOT 344	547	40	-	511	515
COKER 315	535	41	-	537	586
STONEVILLE 112	535	40	-	458	522
COKER 84-828	532	41	-	521	-
MCNAIR 235	521	40	-	556	620
TROPICAL 225	496	39	-	-	-
STONEVILLE 825	480	41	-	442	528
DELTAPINE 51	476	39	-	586	-
PD 3	470	40	-	442	522
COKER 320	455	40	-	520	561
STONEVILLE 907	446	39	-	-	-
TERRA C 40	442	39	-	480	523
STONEVILLE BR 115	438	41	-	-	-
PAYMASTER 145	433	38	-	398	420
STONEVILLE 506	433	39	-	403	486
KC 311	397	40	-	-	-
COKER 130	377	42	-	456	570
ACALA 1517-75	242	38	-	258	358
PIMA S-6	88	38	-	-	-
TEST MEAN	501				
L. S. D. (.05)	160				
C. V.	23%				

TABLE 6. PERFORMANCE OF COTTON VARIETIES AT MONROEVILLE, ALABAMA, 1989

VARIETY	1989			2-YR. AV.	3-YR. AV.
	LINT/ACRE	LINT	EARLINESS	LINT/ACRE	LINT/ACRE
	LB.	PCT.	PCT.	LB.	LB.
KC 380	1,086	40	82	955	966
KC 311	929	41	83	-	-
SUREGROW 35	886	40	91	-	-
TIFCOT 56	804	39	86	713	805
DELTAPINE 20	797	40	90	625	699
COKER 315	779	43	86	742	748
DELTAPINE 90	761	40	85	801	809
DELCOT 344	759	40	89	734	787
TERRA C 30	750	38	88	613	649
STONEVILLE 453	745	44	87	-	-
MCNAIR 235	745	41	91	774	857
DES 119	745	41	92	733	789
PD 3	739	42	84	679	786
SUREGROW 55	711	44	90	-	-
COKER 320	708	42	87	787	840
HS 46	684	41	85	796	-
STONEVILLE BR 115	682	41	80	-	-
COKER 84-828	680	41	91	684	-
DELTAPINE 50	680	37	87	631	701
TROPICAL 225	675	40	87	-	-
STONEVILLE 825	663	41	91	602	648
COKER 130	662	42	90	720	847
S1001	648	40	83	-	-
STONEVILLE 506	632	40	86	526	629
TERRA C 40	621	39	88	633	680
STONEVILLE 112	564	40	86	557	614
DELTAPINE 51	555	39	87	599	-
PIMA S-6	533	41	52	-	-
ARKOT 518	519	40	88	579	602
STONEVILLE 907	512	38	91	-	-
TEST MEAN	709				
L. S. D. (.05)	186				
C. V.	19%				

TABLE 7. PERFORMANCE OF COTTON VARIETIES AT BREWTON, ALABAMA, 1989

VARIETY	1989			2-YR. AV.	3-YR. AV.
	LINT/ACRE	LINT	EARLINESS	LINT/ACRE	LINT/ACRE
	LB.	PCT.	PCT.	LB.	LB.
KC 380	1,235	41	92	940	1,114
DELTAPINE 90	1,191	41	91	943	967
HS 46	1,177	41	94	951	-
COKER 315	1,144	45	92	873	996
PD 3	1,134	43	89	859	1,002
DELCOT 344	1,107	41	93	857	946
COKER 130	1,094	42	92	839	983
DES 119	1,081	42	94	873	969
SUREGROW 35	1,078	40	93	-	-
COKER 320	1,064	43	94	839	969
PIMA S-6	1,048	40	71	-	-
STONEVILLE 453	1,046	42	94	-	-
TROPICAL 225	1,030	40	90	-	-
DELTAPINE 20	1,013	40	95	769	870
TIFCOT 56	992	40	92	770	939
DELTAPINE 51	973	40	93	849	-
DELTAPINE 50	968	39	92	795	871
TERRA C 30	949	39	91	774	869
MCNAIR 235	913	40	93	708	864
KC 311	911	39	93	-	-
COKER 84-828	907	40	93	756	-
S1001	893	40	92	-	-
STONEVILLE 112	888	40	94	697	759
STONEVILLE 506	847	40	94	659	773
STONEVILLE 825	809	40	95	654	813
ARKOT 518	800	40	92	609	752
STONEVILLE BR 115	764	40	86	-	-
SUREGROW 55	731	43	94	-	-
TERRA C 40	731	40	93	621	783
STONEVILLE 907	725	40	94	-	-
TEST MEAN	975				
L. S. D. (.05)	205				
C. V.	15%				

TABLE 8. PERFORMANCE OF COTTON VARIETIES AT HEADLAND, ALABAMA, 1989

VARIETY	1989			2-YR. AV.	3-YR. AV.
	LINT/ACRE	LINT	EARLINESS	LINT/ACRE	LINT/ACRE
	LB.	PCT.	PCT.	LB.	LB.
SUREGROW 35	896	38	-	-	-
KC 380	893	38	-	1,042	833
SUREGROW 55	834	41	-	-	-
HS 46	821	39	-	848	-
DELTAPINE 50	805	37	-	834	682
STONEVILLE 112	795	38	-	825	678
DELCOT 344	775	39	-	742	637
TROPICAL 225	773	36	-	-	-
COKER 320	758	39	-	739	607
STONEVILLE 907	750	39	-	-	-
COKER 84-828	749	38	-	839	-
DES 119	735	38	-	789	661
COKER 315	724	37	-	770	643
TERRA C 40	722	36	-	712	640
STONEVILLE 453	716	40	-	-	-
TIFCOT 56	708	38	-	763	656
KC 311	703	36	-	-	-
COKER 130	699	38	-	798	654
DELTAPINE 90	686	39	-	896	741
STONEVILLE 506	672	38	-	757	651
DELTAPINE 20	666	35	-	738	636
PD 3	645	37	-	758	627
STONEVILLE 825	641	37	-	712	637
ARKOT 518	632	37	-	714	627
MCNAIR 235	606	38	-	687	601
STONEVILLE BR 115	599	39	-	-	-
DELTAPINE 51	582	38	-	679	-
S1001	575	37	-	-	-
TERRA C 30	574	35	-	665	577
PIMA S-6	421	40	-	-	-
TEST MEAN	705				
L. S. D. (.05)	142				
C. V.	14%				

TABLE 9. PERFORMANCE OF COTTON VARIETIES AT FAIRHOPE, ALABAMA, 1989

VARIETY	1989			2-YR. AV.	3-YR. AV.
	LINT/ACRE	LINT	EARLINESS	LINT/ACRE	LINT/ACRE
	LB.	PCT.	PCT.	LB.	LB.
KC 380	1,260	42	-	1,025	983
DELTAPINE 90	1,257	41	-	1,093	975
KC 311	1,218	42	-	-	-
DELCOT 344	1,201	41	-	934	-
S1001	1,174	42	-	-	-
DES 119	1,152	42	-	989	-
HS 46	1,148	42	-	1,054	-
PD 3	1,127	41	-	893	-
DELTAPINE 51	1,114	41	-	982	-
DELTAPINE 20	1,078	41	-	921	-
STONEVILLE 907	1,042	40	-	-	-
TERRA C 30	1,040	39	-	915	-
TROPICAL 225	1,027	41	-	-	-
COKER 320	1,023	40	-	860	-
DELTAPINE 50	1,014	38	-	908	862
TIFCOT 56	996	42	-	795	786
SUREGROW 55	974	42	-	-	-
SUREGROW 35	971	39	-	-	-
MCAIR 235	967	39	-	778	-
STONEVILLE 506	899	40	-	759	-
COKER 315	891	42	-	791	774
STONEVILLE 825	870	41	-	788	-
STONEVILLE 112	865	40	-	748	758
COKER 84-828	816	40	-	752	-
TERRA C 40	811	41	-	826	-
COKER 130	804	42	-	767	-
STONEVILLE BR 115	802	44	-	-	-
STONEVILLE 453	792	42	-	-	-
ARKOT 518	752	41	-	578	-
PIMA S-6	733	43	-	-	-
TEST MEAN	994				
L. S. D. (.05)	164				
C. V.	12%				

TABLE 10. PERFORMANCE OF COTTON VARIETIES IN ALABAMA, AVERAGE OF ALL LOCATIONS

VARIETY	YIELD, LINT/ACRE			LINT			EARLINESS		
	1989	1988-89	1987-89	1989	1988-89	1987-89	1989	1988-89	1987-89
	LB.	LB.	LB.	PCT.	PCT.	PCT.	PCT.	PCT.	PCT.
KC 380	946	879	830	40	40	40	87	85	84
DELTAPINE 90	803	802	738	41	40	40	89	85	84
DES 119	804	766	725	41	40	40	92	89	86
COKER 130	700	718	725	41	41	41	90	87	86
COKER 320	738	742	713	41	41	40	87	86	86
DELTAPINE 50	782	763	712	38	38	38	89	86	85
MCNAIR 235	713	710	706	40	40	40	90	88	87
PD 3	787	712	702	41	41	40	87	85	84
DELTAPINE 20	771	726	695	40	40	40	91	88	86
TIFCOT 56	733	697	694	39	39	39	90	87	86
COKER 315	739	715	691	42	41	41	88	85	84
DELCOT 344	805	733	686	40	40	40	90	87	86
TERRA C 30	749	703	666	38	38	38	88	85	84
TERRA C 40	657	671	647	40	40	40	89	88	86
STONEVILLE 825	681	648	640	41	40	41	93	88	87
STONEVILLE 112	684	665	639	39	39	40	90	87	85
ARKOT 518	662	641	634	40	40	40	91	91	89
STONEVILLE 506	662	630	625	39	39	39	89	88	86
HS 46	790	787	-	41	41	-	87	87	-
DELTAPINE 51	741	748	-	40	40	-	89	86	-
COKER 84-828	702	703	-	40	41	-	91	88	-
STONEVILLE 453	783	-	-	42	-	-	92	-	-
STONEVILLE BR 115	582	-	-	41	-	-	82	-	-
STONEVILLE 907	653	-	-	40	-	-	92	-	-
TROPICAL 225	712	-	-	39	-	-	88	-	-
SUREGROW 55	755	-	-	42	-	-	91	-	-
SUREGROW 35	849	-	-	40	-	-	92	-	-
S1001	728	-	-	40	-	-	89	-	-
PIMA 5-6	471	-	-	40	-	-	66	-	-
KC 311	788	-	-	40	-	-	89	-	-

THESE VARIETIES AT 2 LOCATIONS ONLY

PAYMASTER 145	762	628	599	39	38	38	79	-	-
ACALA 1517-75	440	435	462	39	38	38	81	-	-

Table 11. Percentage of Plants Showing Symptoms of Fusarium Wilt, Tallassee, Alabama

Variety	Average wilt percentage												
	1 yr., 1989	2 yr., 88-89	3 yr., 87-89	4 yr., 86-89	5 yr., 85-89	6 yr., 84-89	7 yr., 83-89	8 yr., 82-89	9 yr., 81-89	10 yr., 80-89	11 yr., 79-89	12 yr., 78-89	13 yr., 77-89
	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>	<u>Pct.</u>
Coker 315	44.0	25.0	41.5	42.5	38.7	33.2	32.4	30.6	27.7	29.4	29.1	27.2	27.1
McNair 235	35.8	26.9	35.7	31.4	26.8	23.6	21.5	21.1	19.1	20.1	19.4	18.4	
Stoneville 825	95.8	79.3	85.2	79.9	81.1	74.1	67.8	64.0	58.6	60.9	60.1		
Stoneville 506	35.0	32.3	41.5	37.1	31.4	26.9	24.9	23.3	21.2	22.5			
Deltapine 90	34.3	20.6	19.7	21.8	17.5	15.9	14.9	14.5	13.9				
Deltapine 50	24.8	24.6	33.7	35.8	29.9	27.2	25.6	24.0					
Deltapine 20	18.8	13.3	32.2	32.9	26.7	23.0	24.9						
Stoneville 112	44.3	26.6	41.9	37.6	31.7	27.6							
Delcot 344	27.5	22.5	31.2	26.4									
DES 119	35.3	31.6	41.2	36.9									
Tifoot 56	53.0	48.0	52.5	52.8									
Arkot 518	28.3	27.1	41.0	41.7									
Coker 320	19.5	29.4	41.9										
KC 380	54.8	49.3	56.5										
Terra C 30	21.8	19.1	49.3										
Stoneville 453	39.0	45.0	57.5										
FD 3	32.0	26.5	32.0										
Terra C 40	39.3	28.3	39.9										
Coker 84-828	58.0	37.2											
HS 46	59.5	40.8											
Deltapine 51	15.5	17.2											
Coker 130	28.8	24.6											
KC 311	18.0												
Suregrow 35	12.8												
Tropical 225	31.3												
S 1001	30.4												
Suregrow 55	38.0												
Stoneville BR 115	42.3												
Stoneville 907	34.8												
Paymaster 145	52.0												
Pima S-6	39.5												

Table 12. Fiber Properties of Cotton Varieties at Belle Mina, Alabama, 1989

Variety	Micronaire Reading	Fibrograph		Stelometer	
		50% In.	2.5% In.	Tl g/tex	E1 Pct.
Coker 130	4.7	0.56	1.12	19.55	7.8
Coker 315	4.4	.57	1.19	21.30	7.8
Coker 320	5.0	.55	1.07	22.60	7.3
Coker 84-828	4.9	.56	1.10	19.45	8.3
Deltapine 20	4.2	.54	1.10	17.55	9.5
Deltapine 50	3.8	.57	1.16	17.90	9.8
Deltapine 51	4.4	.52	1.11	18.90	8.8
Deltapine 90	4.1	.57	1.17	21.40	7.8
Stoneville 112	4.2	.57	1.14	19.75	8.0
Stoneville 453	3.9	.55	1.12	18.90	9.3
Stoneville 506	4.1	.55	1.13	19.05	8.5
Stoneville 825	4.4	.56	1.12	20.10	7.5
Stoneville 907	4.6	.57	1.11	21.40	8.3
Stoneville BR 115	4.3	.55	1.12	21.60	8.0
KC 311	4.3	.54	1.11	20.70	8.0
KC 380	4.4	.57	1.17	20.05	7.5
Terra C 30	4.5	.52	1.08	18.30	8.3
Terra C 40	4.8	.54	1.06	18.00	9.5
Suregrow 35	4.4	.55	1.15	20.08	8.0
Suregrow 55	4.4	.59	1.16	20.15	9.5
HS 46	4.2	.57	1.17	22.30	9.0
PD 3	4.5	.56	1.12	21.90	7.8
DES 119	4.8	.56	1.12	19.45	9.0
McNair 235	4.5	.58	1.13	19.70	7.0
S 1001	4.2	.56	1.13	21.60	8.0
Delcot 344	4.5	.55	1.13	20.15	9.0
Tifcot 56	4.4	.56	1.11	21.05	7.5
Arkot 518	4.4	.57	1.19	18.25	8.0
Pima S-6	4.8	.57	1.15	30.15	8.5
Tropical 225	4.2	.56	1.15	22.45	7.8
Paymaster 145	4.4	.52	1.05	18.10	8.5
Acala 1517-75	3.5	.59	1.17	22.50	7.5

Table 13. Fiber Properties of Cotton Varieties at Prattville, Alabama, 1989

Variety	Micronaire Reading	Fibrograph		Stelometer	
		50% In.	2.5% In.	T1 g/tex	E1 Pct.
Coker 130	3.6	0.53	1.13	19.45	7.3
Coker 315	3.5	.55	1.16	21.00	7.3
Coker 320	4.2	.55	1.16	20.70	6.5
Coker 84-828	4.3	.56	1.17	20.70	7.5
Deltapine 20	3.8	.55	1.12	18.75	8.8
Deltapine 50	3.9	.55	1.16	18.65	7.8
Deltapine 51	4.0	.55	1.14	18.30	8.5
Deltapine 90	3.8	.54	1.12	23.65	7.5
Stoneville 112	4.0	.54	1.12	20.10	8.0
Stoneville 453	3.7	.54	1.12	18.50	7.5
Stoneville 506	4.2	.56	1.12	20.15	7.5
Stoneville 825	4.6	.54	1.13	19.55	5.5
Stoneville BR 115	3.4	.56	1.12	23.05	7.5
KC 311	3.5	.57	1.18	24.45	7.3
KC 380	4.3	.54	1.13	20.25	7.5
Terra C 30	3.7	.56	1.17	19.65	9.0
Terra C 40	3.7	.54	1.12	17.90	8.0
Suregrow 35	3.4	.56	1.17	19.50	7.5
Suregrow 55	3.6	.57	1.16	22.40	9.3
HS 46	3.7	.56	1.17	23.40	8.0
PD 3	3.7	.57	1.18	22.55	6.5
DES 119	4.2	.57	1.18	20.75	8.8
McNair 235	3.2	.55	1.14	20.55	7.5
S 1001	3.7	.55	1.13	20.80	7.8
Delcot 344	4.3	.57	1.19	20.90	8.0
Tifcot 56	4.0	.56	1.16	20.70	8.5
Arkot 518	3.5	.54	1.18	18.50	6.8
Pima S-6	4.1	.62	1.28	31.05	8.3
Tropical 225	3.7	.57	1.21	23.00	6.8

Table 14. Fiber Properties of Cotton Varieties at Brewton, Alabama, 1989

Variety	Micronaire	Fibrograph		Stelometer	
		50%	2.5%	T1	E1
		Reading	In.	g/tex	Pct.
Coker 130	4.1	0.56	1.16	19.10	6.5
Coker 315	4.2	.56	1.17	19.65	7.5
Coker 320	4.1	.58	1.16	20.00	7.5
Coker 84-828	3.7	.58	1.17	20.05	7.5
Deltapine 20	3.9	.54	1.10	17.50	9.5
Deltapine 50	4.2	.54	1.13	17.85	8.3
Deltapine 51	4.4	.53	1.14	17.15	8.5
Deltapine 90	4.4	.56	1.13	21.40	7.0
Stoneville 112	4.0	.54	1.12	19.65	8.3
Stoneville 453	4.0	.54	1.13	18.85	8.5
Stoneville 506	4.1	.57	1.16	18.15	8.0
Stoneville 825	4.3	.56	1.12	19.10	6.3
Stoneville 907	4.1	.55	1.13	20.65	7.8
Stoneville BR 115	3.1	.56	1.16	20.60	7.5
KC 311	3.9	.55	1.16	20.40	7.5
KC 380	4.3	.57	1.17	19.05	7.3
Terra C 30	4.3	.57	1.17	20.45	7.8
Terra C 40	4.1	.54	1.11	16.95	8.8
Suregrow 35	3.7	.56	1.15	18.60	7.5
Suregrow 55	3.7	.55	1.15	18.65	9.0
HS 46	4.2	.56	1.16	17.35	8.5
PD 3	4.2	.57	1.17	20.45	6.3
DES 119	3.8	.58	1.17	18.80	8.8
McNair 235	4.0	.54	1.13	18.10	7.0
S 1001	4.0	.56	1.16	22.70	7.8
Delcot 344	4.2	.55	1.15	19.75	7.0
Tifcot 56	3.8	.57	1.16	20.25	7.5
Arkot 518	4.1	.57	1.18	18.85	7.5
Pima S-6	4.4	.66	1.29	28.70	7.3
Tropical 225	4.6	.57	1.14	20.00	7.3

Table 15. Sources of Seed for the 1989 Cotton Variety Tests

Deltapine 90	Delta and Pine Land Co. Scott, Mississippi
Deltapine 50	
Deltapine 51	
Deltapine 20	
Stoneville 907	Stoneville Pedigreed Seed Co. Stoneville, Mississippi
Stoneville 825	
Stoneville 506	
Stoneville 112	
Stoneville 453	
Stoneville BR 115	
KC 311	Northrup King Co. Leland, Mississippi
KC 380	
McNair 235	
Coker 315	
Coker 130	
Coker 320	
Coker 84-828	
Delcot 344	University of Missouri Delta Center Portageville, Missouri
DES 119	Delta Branch Experiment Station Stoneville, Mississippi
PD-3	Pee Dee Experiment Station Florence, South Carolina
Tifcot 56	Georgia Coastal Plain Experiment Station Tifton, Georgia
Arkot 518	Cotton Branch Experiment Station Marianna, Arkansas
Terra C-30	Terra International Inc. Memphis, Tennessee
Terra C-40	
HS 46	Sun Valley Seed Co. Tempe, Arizona
Suregrow 35	Ellis Brothers Seed, Inc. Centre, Alabama
Suregrow 55	
S1001	
Tropical 225	Helena Chemical Co. Memphis, Tennessee

RECOMMENDED COTTON VARIETIES FOR ALABAMA

The list of recommended varieties given below was prepared by Charles Burmester, Extension Agronomist, and W.C. Johnson, Professor of Agronomy, 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. As a general rule, a yield difference in the order of 10 percent is needed for varieties to be considered truly different. The recommended varieties are listed in order of 3-year average lint yield.

KC 380
Deltapine 90
DES 119
Coker 130
Coker 320
Deltapine 50
McNair 235
PD 3
Deltapine 20
Tifcot 56
Coker 315
Delcot 344
Terra C 30
Terra C 40
Stoneville 825 *
Stoneville 112
Arkot 518
Stoneville 506

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

