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## Mississippi cotton variety tests Delta and hill sections, 1971

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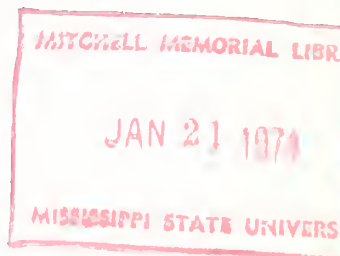
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# Mississippi Cotton Variety Tests Delta And Hill Sections, 1971



MISSISSIPPI STATE UNIVERSITY

AGRICULTURAL AND FORESTRY EXPERIMENT STATION

JAMES H. ANDERSON, Director

STATE COLLEGE

MISSISSIPPI

## 1971 Test Results

### Delta

Stoneville .....	4, 6, 9
Tunica .....	5
Sumner .....	7
Yazoo City .....	8
Summary Tables .....	10, 11

### Hill Sections

Summary Tables .....	13
Black Belt .....	14
Northeast Mississippi .....	15, 16
North Mississippi .....	17
State College .....	18, 19, 20
Pontotoc Ridge .....	21

# MISSISSIPPI COTTON VARIETY TESTS FOR 1971

## IN THE DELTA

By R. R. BRIDGE, W. R. MEREDITH, Jr., and J. F. CHISM

variety tests were conducted by Delta Branch Experiment Station in the Delta Station at Stoneville, Mer Plantation near Yazoo City, Mer Plantation near Sumner, and Mer Farms near Tunica. Three tests were conducted at Stoneville. These tests were on a Bosket very fine sandy loam, a sandy loam, and a Sharkey clay loam.

Eleven varieties were grown at all locations. Eleven varieties grown at Stoneville and Tunica are included in a preliminary, Belt-wide, variety testing program.

Results are reported at each location for 71 variety tests. Yield data were based on the weight of cotton harvested from two-row plots. Each entry was randomized and replicated six times. Lint percentage and fiber property determinations were obtained from hand-sampled samples. Fiber property data were determined by the U.S. Cotton Fiber Laboratory of the Plant Science Research Division, Agricultural Research Service, Department of Agriculture, Knoxville, Tennessee.

Performance data of varieties tested in 1971 are shown in Tables 1 through 7. Table 1 shows the average performance of 11 varieties grown at 11 locations in 1970 and 1971. Statistical analysis of the yield data

for all locations indicated that the location in which a variety was grown had an effect on its yield performance. Some varieties tended to perform better at one location than they did at another location. These variety X location interactions were partially due to rainfall distribution, seasonal temperatures, disease (boll-rot and Verticillium wilt), and herbicide applications.

Soil temperature at the test sites was only fair for seed germination and seedling development. High intensity rains and low temperatures at Stoneville resulted in slow seedling development. Growing conditions varied from one location to another. A dry period, May 20 - August 1, was present at Stoneville. Continuous high moisture levels at Yazoo City caused late plant development and freeze damage. Due to these conditions boll-rot significantly reduced yields at Yazoo City. A late maturing crop at Tunica was damaged by an early November freeze.

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Table 1: Results 1971 Cotton Variety Test - Stoneville, Mississippi \*

Variety	LINT PER ACRE			FIBER PROPERTIES							
	Total	Percent		Lint percent	Seed index	Boll size grams	Length		Strength gms/tex	Elongation	Micro-naire
		First pick	first pick				2.5%	50%			
Delcot 277	1198	1106	92	34.7	12.9	7.10	1.27	.64	19.86	9.50	3.70
Deltapine 6225	1186	1013	85	38.4	10.7	5.71	1.18	.57	19.83	7.15	4.57
Deltapine 16	1183	1010	85	35.3	11.4	6.34	1.22	.58	19.14	8.93	4.12
Deltapine 45A	1178	1075	91	36.5	11.4	6.01	1.19	.60	19.16	8.44	4.12
Coker 310	1133	993	88	37.2	11.4	6.06	1.26	.57	19.17	8.65	4.27
Stoneville 213	1132	987	87	36.3	11.4	5.96	1.18	.58	18.43	7.62	4.66
Stoneville 603	1102	983	89	34.6	11.9	6.00	1.19	.58	18.37	7.83	4.21
Stoneville 7A	1079	913	85	36.5	11.4	5.78	1.19	.56	18.88	6.70	4.60
DES 67-213	1068	903	85	35.5	11.4	5.85	1.21	.59	18.01	8.16	4.28
Coker 201	995	856	86	37.6	11.6	6.33	1.19	.59	19.15	7.13	4.44
Coker 417	971	845	87	35.1	11.6	6.44	1.26	.62	20.13	7.22	4.02
Paymaster 111	868	713	82	34.4	12.7	7.50	1.13	.57	19.12	6.46	4.40
Acala SJ-1	763	645	84	34.9	13.7	6.83	1.21	.60	21.68	7.62	3.98
Average	1066	926	87	35.9	11.8	6.30	1.206	.588	19.30	7.80	4.26
LSD .05	70										
LSD .01	93										
C.V.	5.68										

PLANTED: April 19, 1971

HARVESTED: September 28 and October 20, 1971

\* Soil: Kosket very fine sandy loam.

Table 2: Results of 1971 Cotton Variety Test - Tunica, Mississippi.

Variety	LINT PER ACRE				FIBER PROPERTIES						
	Total	Percent		Seed index	Boll size grams	Length		Strength gms/tex	Elongation	Micro-naire	
		First pick	first pick			Lint percent	2.5%				50%
Deltcote 277	1022	904	88	38.6	13.0	6.54	1.24	.62	19.09	8.66	4.11
Deltapine 45A	1014	847	83	39.1	11.9	5.84	1.16	.58	18.55	7.45	4.68
Deltapine 6225	998	830	83	40.9	10.6	5.43	1.16	.55	19.03	7.77	4.43
Coker 310	975	842	86	40.0	11.4	5.34	1.24	.57	18.72	7.45	4.63
Coker 417	972	807	83	37.8	12.1	6.25	1.23	.60	19.37	6.71	4.41
Stoneville 7A	970	776	80	39.2	11.8	5.43	1.16	.54	16.85	6.34	4.83
Deltapine 16	960	808	84	38.3	11.2	5.92	1.22	.60	18.11	8.08	4.46
Stoneville 213	932	759	81	39.1	11.9	5.81	1.15	.56	17.82	7.37	5.22
DES 67-213	906	757	83	38.7	10.9	5.66	1.13	.54	17.54	7.35	4.72
Stoneville 603	890	753	85	36.5	12.7	5.82	1.19	.59	19.27	7.48	4.63
Coker 201	805	644	80	39.7	12.6	6.00	1.16	.58	19.05	6.53	4.71
Paymaster 111	704	557	79	36.4	12.4	7.22	1.11	.55	17.94	6.86	4.85
Acala SJ-1	683	530	77	36.8	14.3	6.59	1.17	.60	22.19	6.50	4.65
Average	910	755	83	38.5	12.0	5.99	1.178	.575	18.73	7.27	4.64
LSD .05	172										
LSD .01	229										
C.V.	16.39										

PLANTED: May 3, 1971.

HARVESTED: October 27 and November 11, 1971.

SOIL: Sandy loam.

Table 3: Results of 1971 Cotton Variety Test - Stoneville, Mississippi \*\*

Variety	LINT PER ACRE				FIBER PROPERTIES							
	Total	First pick	Percent		Lint percent	Seed index	Boll size grams	Length		Strength gms/tex	Elongation	Micro-naire
			first pick	pick				2.5%	50%			
Deltapine 16	1196	1011	85		38.5	11.0	6.15	1.19	.57	18.13	8.84	4.36
Coker 310	1194	996	83		40.8	11.0	5.74	1.22	.57	19.04	6.83	4.47
Deltapine 45A	1151	1017	88		39.2	10.4	5.78	1.12	.54	18.35	8.33	4.73
Stoneville 213	1129	898	80		39.3	11.0	5.71	1.14	.55	17.67	8.16	5.01
Deltapine 6225	1077	844	78		40.8	10.9	5.70	1.16	.57	19.37	7.62	4.66
Stoneville 7A	1064	812	76		39.2	11.1	5.63	1.16	.55	17.41	6.62	4.84
Stoneville 603	1055	893	85		35.8	12.2	5.85	1.16	.55	18.94	8.98	4.42
Delcot 277	1052	949	90		36.2	13.0	7.05	1.23	.58	20.18	8.45	3.88
DES 67-213	981	756	77		38.6	10.6	5.82	1.15	.55	17.24	7.77	4.52
Coker 201	968	731	75		38.9	11.2	5.99	1.14	.55	19.16	7.60	4.47
Coker 417	940	780	83		36.6	11.7	6.05	1.24	.58	19.03	6.99	4.11
Acala SJ-1	814	624	77		36.4	13.9	6.91	1.17	.57	21.89	6.89	4.52
Paymaster 111	763	602	79		34.7	13.2	7.69	1.12	.56	18.24	7.25	4.25
Average	1029	839	81		38.1	11.6	6.16	1.169	.56	18.82	7.72	4.48
LSD .05	89											
LSD .01	118											
C.V.	7.50											

PLANTED: April 22, 1971

HARVESTED: October 7 and November 11, 1971

\*\* Soil: Dundee sandy loam

Table 4: Results of 1971 Cotton Variety Tests. - Summer, Mississippi.

Variety	LINT PER ACRE				FIBER PROPERTIES						
	Total	Percent		Seed index	Boll size grams	Length		Strength gms/tex	Elongation	Micro-naire	
		First pick	first pick			Lint percent	2.5%				50%
Coker 310	1533	1235	80	41.2	11.2	5.72	1.25	.60	18.00	8.07	4.86
Deltapine 6225	1519	1175	77	41.1	10.7	5.49	1.17	.57	18.99	8.02	4.94
Deltapine 45A	1515	1260	83	39.6	11.3	5.81	1.16	.58	18.84	8.63	4.78
Deltcot 277	1480	1253	85	38.2	13.3	6.63	1.21	.58	18.64	9.90	4.20
Stoneville 213	1467	1140	78	39.0	11.6	5.96	1.16	.58	17.03	8.34	5.06
Stoneville 7A	1462	1115	76	39.3	11.5	5.68	1.17	.57	16.57	7.12	5.21
Coker 201	1453	1098	76	40.5	11.5	5.86	1.18	.56	18.48	7.02	4.92
Coker 417	1432	1118	78	38.2	12.1	6.01	1.23	.59	18.99	7.19	4.50
DES 67-213	1417	1094	77	38.7	11.4	5.71	1.17	.56	17.03	8.52	4.82
Stoneville 603	1409	1136	81	35.9	12.7	6.00	1.20	.58	18.01	8.28	4.77
Deltapine 16	1404	1147	82	38.7	11.7	6.31	1.19	.57	17.83	9.35	4.90
Acala SJ-1	1144	824	72	36.9	14.7	6.72	1.19	.57	20.41	7.19	4.52
Paymaster 111	981	666	68	35.6	14.4	7.06	1.10	.54	18.40	7.90	4.67
Average	1401	1097	78	38.7	12.2	6.07	1.183	.573	18.25	8.12	4.78
LSD .05	96										
LSD .01	129										
C.V.	5.99										

PLANTED: April 27, 1971

HARVESTED: October 25 and November 11, 1971

SOIL: Dundee silty loam



Table 5: Results of 1971 Cotton Variety Test - Yazoo City, Mississippi.

Variety	LINT PER ACRE			FIBER PROPERTIES					
	Total	Lint percent	Seed index	Boll size Grams	Length		Strength gms/tex	Elongation	Micro-naire
					2.5%	50%			
Coker 310	795	40.2	11.1	5.52	1.25	.58	18.25	7.62	4.69
Coker 201	761	39.5	11.8	5.93	1.17	.58	17.85	6.95	4.91
Deltapine 6225	752	40.4	10.8	5.41	1.17	.57	18.75	7.63	4.82
Coker 417	749	37.6	11.7	5.75	1.23	.58	18.40	6.69	4.26
Acala SJ-1	741	35.5	14.2	7.17	1.19	.60	20.79	6.68	4.48
DES 67-213	723	37.0	10.8	5.56	1.15	.55	16.87	7.78	4.47
Deltapine 45A	711	38.9	11.2	5.59	1.16	.59	18.46	8.02	4.74
Stoneville 213	660	38.2	12.0	5.76	1.15	.57	17.48	7.51	3.12
Deltapine 16	654	38.6	10.9	5.89	1.20	.59	17.80	9.21	4.48
Stoneville 7A	625	38.7	11.5	5.39	1.16	.56	17.27	6.19	5.03
Stoneville 603	620	36.0	12.4	5.97	1.17	.55	18.55	8.12	4.66
Delcot 277	576	36.7	12.9	6.80	1.25	.61	-3.96	9.67	4.17
Paymaster 111	488	35.1	14.0	7.18	1.08	.57	18.32	6.52	4.90
Average	681	37.9	11.9	5.99	1.179	.577	18.29	7.58	4.67
LSD .05	85								
LSD .01	113								
C.V.	10.85								

PLANTED: April 16, 1971

HARVESTED: November 17, 1971

SOIL: Sandy loam

Table 6: Results of 1971 Cotton Variety Test - Stoneville, Mississippi \*\*\*

Variety	LINT PER ACRE			Lint percent	Seed index	Boll size grams	FIBER PROPERTIES				
	Total	First pick	Percent first pick				Length 2.5%	Length 50%	Strength gms/tex	Elongation	Micro-naire
Stoneville 7A	627	473	75	39.5	10.4	5.07	1.15	.53	17.46	6.09	5.16
Deltapine 6225	621	483	78	39.8	10.3	5.04	1.16	.56	19.17	7.25	4.96
Acala SJ-1	615	420	68	36.3	13.6	6.31	1.18	.59	22.01	6.45	4.60
Delcot 277	611	521	85	37.0	12.4	5.78	1.23	.61	19.70	9.10	4.25
Stoneville 213	585	436	75	38.3	10.9	5.07	1.14	.56	18.26	7.96	5.02
Coker 310	581	465	80	39.0	11.4	4.93	1.23	.59	18.47	7.47	4.81
Coker 201	563	435	77	39.2	11.6	5.15	1.16	.55	17.86	6.37	4.78
Coker 417	559	439	78	36.9	11.4	5.53	1.23	.59	18.85	7.06	4.36
Deltapine 16	557	454	81	37.6	11.0	5.42	1.18	.57	18.65	8.88	4.67
Deltapine 45A	551	452	82	38.4	10.3	5.12	1.12	.55	18.65	7.70	4.61
DES 67-213	511	397	78	37.5	10.8	5.06	1.14	.56	16.89	7.86	4.57
Stoneville 603	490	394	80	35.7	11.9	5.00	1.15	.55	18.79	7.91	4.71
Paymaster 111	438	325	74	36.1	12.8	6.41	1.09	.54	18.91	6.63	4.77
Average	562	438	78	37.8	11.4	5.38	1.166	.565	18.74	7.44	4.71
LSD .05	90										
LSD .01	119										
C.V.	13.84										

PLANTED: April 12, 1971

HARVESTED: October 7 and November 11, 1971

\*\*\* Soil: Sharkey clay

Table 7: Average performance of 13 cotton varieties grown at six locations in 1971.

Variety	Lint per acre	Lint percent	Seed index	Boll size	Length 2.5%	FIBER PROPERTIES		
						Strength g/tex	Elongation E <sub>1</sub>	Micronaire
Coker 310	1035	39.7	11.2	5.55	1.24	18.61	7.68	4.62
Deltapine 6225	1025	40.2	10.7	5.46	1.17	19.19	7.57	4.73
Deltapine 45A	1020	38.6	11.1	5.69	1.15	18.67	8.09	4.61
Deltapine 16	992	37.8	11.2	6.00	1.20	18.27	8.88	4.50
Delcot 277	990	36.9	12.9	6.65	1.24	19.40	9.21	4.05
Stoneville 213	984	38.3	11.5	5.71	1.15	17.78	7.82	5.01
Stoneville 7A	971	38.7	11.3	5.50	1.16	17.40	6.51	4.94
Coker 417	937	37.0	11.8	6.00	1.24	19.13	6.98	4.28
DES 67-213	934	37.7	11.0	5.61	1.16	17.26	7.91	4.56
Stoneville 603	927	35.7	12.3	5.77	1.18	18.65	8.10	4.57
Coker 201	924	39.2	11.7	5.88	1.17	18.59	6.93	4.70
Acala SJ-1	793	36.1	14.1	6.75	1.18	21.49	6.89	4.46
Paymaster 111	707	35.4	13.2	7.18	1.10	18.49	6.94	4.64

Table 8: Average performance of 11 cotton varieties grown in 11 environments in 1970 and 1971 <sup>1/</sup>

Variety	Lint per acre	Lint percent	Seed index	Boll size	FIBER PROPERTIES			
					Length 2.5%	Strength g/tex	Elongation Micronaire E <sub>1</sub>	
Deltapine 6225	1016	40.3	10.8	5.45	1.15	19.25	7.41	4.80
Deltapine 45A	1006	38.8	11.2	5.68	1.13	18.60	7.91	4.69
Deltapine 16	995	38.1	11.3	6.06	1.18	18.42	8.76	4.64
Coker 310	993	39.0	11.7	5.75	1.23	18.63	7.35	4.63
Stoneville 213	970	38.3	11.5	5.81	1.14	18.00	7.55	4.99
Stoneville 7A	956	38.9	11.3	5.56	1.16	17.69	6.47	4.91
DES 67-213	934	37.6	11.1	5.62	1.15	17.29	7.80	4.58
Coker 417	919	37.0	11.9	5.95	1.22	19.06	6.89	4.30
Stoneville 603	914	35.8	12.5	5.79	1.16	18.95	7.88	4.52
Delcot 277	914	36.7	13.0	6.58	1.22	19.74	8.94	4.07
Coker 201	896	38.8	11.9	5.89	1.16	18.46	6.85	4.69

<sup>1/</sup> 5 locations in 1970 and 6 locations in 1971.

## COTTON TESTS IN HILL SECTION

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N. C. EDWARDS, F. T. WITHERS, JR.

Cotton variety tests were conducted at five locations in the Hill Section of Mississippi in 1971. A list of these locations, the soil type, and pertinent cultural practices at each location are given in an accompanying table.

Fourteen varieties were included at all locations. Of these, four were being tested at these locations for the first time. These were: Hybee 100A and Hybee 200A, produced by Pennington Grain and Seed Co., Madison, Georgia; Stoneville 603, produced by Stoneville Pedigreed Seed Co., Stoneville, Mississippi; and DES 67-213, produced by the Delta Branch Experiment Station, Stoneville, Mississippi. Varieties which were previously tested but omitted from the 1971 tests were Hybee 401, McNair 1032B, and Mo-Del.

In addition to the commercial varieties tested, several experimental strains were tested at Verona and State College. In these two tests, Deltapine 16 and Stoneville 213 were included as check varieties for comparison.

Performance data for the varieties and experimental strains tested in 1971 are given in the accompanying tables. Three

year average performance for varieties tested during 1969-71 is also given.

Yield and yield components that are reported include lint per acre, lint percentage, and boll size. Percent of the yield obtained at first harvest is also included for some locations, and is used as an indication of earliness of maturity.

Classer's staple length in 32nds and micronaire were provided for each variety and experimental strain at each location by the U.S.D.A. Cotton Classing Office, Jackson, and are given in the tables. In addition, results of fiber analyses are given for the variety test at State College and Holly Springs and the experimental strains test at State College. Fiber analyses reported include strength in thousands of pounds per square inch tensile strength, 2.5 percent span length, and uniformity ratio.

**Editor's Note:** Dr. Douglas is an associate agronomist and Mr. Andries is an assistant agronomist at State College; Mr. Coats is superintendent of the Brooksville Branch Experiment Station at Brooksville; Mr. Crockett is superintendent of North Mississippi Branch Station at Holly Springs; Dr. Edwards is agronomist at the Loam Branch Station at Raymond; and Mr. Withers is acting superintendent of the Pontotoc Ridge-Florida Branch Station at Pontotoc, Miss.

5-year average lint yield of 9 cotton varieties tested at 6 locations in Hill Section in 1969-71.

Variety	State College	Holly Springs	Pontotoc	Verona	Brooksville	Raymond <sup>1/</sup>	Ave.
Brooksville 213	773	726	606	878	625	955	760
Brooksville 310	732	703	624	815	639	836	724
Brooksville 201	760	680	654	770	576	841	713
Brooksville 7A	695	763	589	798	593	832	711
Brooksville 603	756	733	620	802	654	690	709
Brooksville 16	731	672	643	770	574	862	708
Brooksville King II	663	748	581	786	648	827	708
Brooksville 417	690	687	614	813	592	818	702
Brooksville 45A	749	647	574	750	614	733	677
Average	727	706	611	798	612	821	712

5-year average, 1969-1970.

5-year average lint yield, in pounds per acre, of 14 cotton varieties tested at 5 locations in Hill Section in 1971.

Variety	State College	Holly Springs	Pontotoc	Verona	Brooksville	Ave.
Brooksville 200A	848	873	363	877	606	713
Brooksville 100A	841	805	427	839	609	704
Brooksville King II	821	767	377	769	626	672
Brooksville 7-213	875	823	263	765	589	663
Brooksville 201	879	727	352	734	574	653
Brooksville 310	805	748	389	720	584	649
Brooksville 603	871	860	306	700	496	646
Brooksville 16	786	753	246	778	664	645
Brooksville 6225	861	750	286	679	606	636
Brooksville 603	824	638	331	783	569	629
Brooksville 417	795	718	354	696	529	618
Brooksville 16	812	711	334	645	559	612
Brooksville 45A	837	690	241	736	549	610
Brooksville 7A	749	774	244	667	553	597
Average	828	759	322	742	579	646

Cotton variety performance at the Black Belt Branch Experiment Station, Brooksville, in 1971.

Variety	Lint/ Acre	Lint %	Bolls/ Lb.	Fiber Property Staple
	lbs.	%	no.	1/32 in.
Deltapine 6225	644	42.4	85	35.3
Dixie King 11	626	38.0	62	34.3
Hybee 100A	609	39.4	78	35.0
Hybee 200A	606	40.4	79	36.0
Hancock	606	38.9	62	34.3
DES 67-213	589	38.9	85	35.0
Coker 310	584	40.8	81	35.6
Coker 201	574	40.7	77	35.0
Stoneville 213	569	39.4	79	35.0
Deltapine 16	559	38.7	76	35.0
Stoneville 7A	553	40.0	78	35.3
Deltapine 45A	549	39.1	78	34.3
Coker 417	529	36.9	75	36.0
Stoneville 603	496	36.4	81	35.3
Average	579	39.2	77	35.1
L.S.D @ .05	74			
@ .01	99			
C.V.	11.1%			

Three-year averages, Black Belt Branch Experiment Station, Brooksville, 1969-71.

Variety	Lint/ Acre	Lint %	Bolls/ Lb.	% 1st Picking	Fiber Property Staple
	lbs.	%	no.	%	1/32 in.
Hancock	654	39.1	74	70	33.8
Dixie King 11	648	38.1	63	64	34.0
Coker 310	639	41.3	69	85	35.1
Stoneville 213	625	39.1	62	82	34.7
Deltapine 45A	644	38.9	61	83	34.1
Stoneville 7A	593	39.4	52	80	35.0
Coker 417	592	37.2	67	79	35.2
Coker 201	576	40.1	67	80	34.7
Deltapine 16	574	38.0	60	82	34.7
Average	612	39.0	63	78	34.5

variety performance at the Northeast Mississippi Branch Experiment Station, Verona, in 1971.

Variety	Lint/ Acre	Lint %	Bolls/ Lb.	% 1st Picking	Fiber Properties	
	lbs.	%	no.	%	1/32 in. Staple	Index Mike
200A	877	38.6	72	82	35.6	4.9
100A	839	37.1	74	85	36.3	4.6
Delaware 213	783	37.3	74	78	35.0	5.1
Delaware 6225	778	38.6	74	75	35.3	4.7
King II	769	36.2	60	82	35.0	4.7
7-213	765	36.5	74	74	35.0	4.8
Delaware 45A	736	37.5	77	77	35.3	4.8
201	734	38.5	72	85	35.6	4.9
310	720	37.9	83	84	36.3	4.5
Delaware 603	700	35.5	76	75	35.3	4.9
417	696	35.3	72	85	36.3	4.3
Delaware	679	38.4	66	77	34.3	4.8
Delaware 7A	667	38.0	77	75	34.6	5.0
Delaware 16	645	36.4	74	81	35.3	4.7
Average	742	37.2	73	79	35.3	4.7
Standard Error @ .05	115					
Standard Error @ .01	152					
	13.4%					

Year average, Northeast Branch Experiment Station, Verona, 1969-71.

Variety	Lint/ Acre	Lint %	Bolls/ Lb.	% 1st <sup>1/</sup> Picking	Fiber Properties	
	lbs.	%	no.	%	1/32 in. Staple	Index Mike
Delaware 213	878	38.6	79	78	34.6	5.0
310	815	38.7	82	84	35.5	4.4
417	813	36.8	77	85	35.4	4.3
Delaware	802	39.1	70	77	33.9	4.6
Delaware 7A	798	39.3	81	75	34.5	4.9
King II	786	37.1	60	82	34.3	4.7
201	770	39.8	75	85	34.9	4.7
Delaware 16	770	38.0	81	81	34.8	4.5
Delaware 45A	750	38.0	80	77	34.6	4.9
Average	798	38.3	76	80	34.7	4.6

Year average, 1971.



Performance of experimental cotton strains at the Northeast Branch Experiment Station, Verona, 1971.

Variety	Lint/ Acre	Lint %	Bolls/ Lb.	% 1st Picking	Fiber Property Staple
	lbs.	%	no.	%	1/32 in.
La Frego 2	944	38.2	77	75	34.5
St. 7A -Frego -Okra	872	36.4	80	79	34.5
Deltapine 652	864	39.1	85	71	34.5
La. Okra 5	835	38.0	77	81	35.0
La. Okra 2	786	38.2	77	78	34.5
Stoneville 213	773	36.6	76	73	35.0
Deltapine 16	752	36.0	75	77	36.0
Tamcot SP 37	642	34.3	79	84	35.0
La. Super Okra 2	606	38.7	85	89	34.5
Lankart 611	578	33.8	57	89	34.5
Average	765	36.9	76	79	34.8
L.S.D. @ .05	121				
@ .01	163				
C.V.	10.9%				

Cultural practices used at cotton variety test location in 1971.

Location	Soil Type	N-P <sub>2</sub> O <sub>5</sub> -K <sub>2</sub> O Fertilizer	Plot Size		Planting Date
			Length	Width	
		lbs./A	ft.	no. rows	mo./yr
State College	Leeper fine sandy loam	70-52-52	30	1	5/2
Holly Springs	Grenada silt loam	64-64-64	70	1	5/4
Pontotoc	Atwood silt loam	136-56-56	50	1	5/4
Verona	Leeper clay loam	84-100-100	50	1	4/2
Brooksville	Houston clay	60-60-60	175	1	4/1

variety performance at the North Mississippi Branch Experiment Station, Holly Springs,

Variety	Lint/ Acre	Lint %	Bolls/ Lb.	Fiber Properties				
				Staple Length	Mike Index	Strength M.P.S.I.	2.5% Span	UR %
	lbs.	%	no.	1/32 in.			in.	%
200A	873	40.0	83	35.6	5.0	79	1.20	48
Delile 603	860	37.9	84	35.0	4.9	82	1.13	47
Delile 213	823	40.1	83	34.6	4.9	73	1.12	48
Delile 100A	805	40.7	74	36.0	4.8	83	1.20	48
Delile 7A	774	40.2	84	35.0	5.3	83	1.15	47
Delile King 11	767	39.9	61	35.0	5.0	83	1.12	49
Delile 6225	753	41.3	84	35.0	5.0	88	1.16	49
Delile 1000	750	41.0	72	34.3	4.8	85	1.14	47
Delile 310	748	42.6	87	35.6	5.0	81	1.25	48
Delile 201	727	40.9	79	35.0	5.1	87	1.16	50
Delile 417	718	40.6	79	36.0	4.4	85	1.18	48
Delile 16	711	39.2	81	35.3	4.8	79	1.17	49
Delile 45A	690	40.1	84	35.0	5.0	79	1.12	49
Delile 213	638	39.2	82	34.6	5.4	78	1.15	49
Average	759	40.2	79	35.1	4.9	81	1.16	48
@ .05	86							
@ .01	114							
	11.2%							

5-year averages, North Mississippi Branch Experiment Station, Holly Springs, 1969-71.

Variety	Lint Acre	Lint %	Bolls/ Lb.	% 1st Picking	Fiber Properties	
					Staple	Mike
	lbs.	%	no.	%	1/32 in.	Index
Delile 7A	763	41.3	83	94	34.6	5.4
Delile King 11	748	42.8	66	95	34.0	5.1
Delile 1000	733	42.4	74	96	33.6	4.9
Delile 213	726	41.1	81	96	34.4	5.4
Delile 310	703	42.7	83	96	34.9	5.2
Delile 417	687	40.9	79	95	34.7	4.6
Delile 201	680	42.3	83	95	34.3	5.2
Delile 16	672	40.7	83	95	34.5	5.1
Delile 45A	647	41.1	85	93	34.3	5.2
Average	706	41.7	79	95	34.3	5.1

Cotton variety performance at the Central Station, State College, in 1971.

Variety	Lint/ Acre	Lint %	Bolls/ Lb.	% Ist Picking	Staple Length	Fiber Properties				UR
						Index	M.P.S.I.	Strength	2.5% Span	
Coker 201	879	40.5	94	80	35.0	4.6	77	1.12	48	
DES 67-213	875	41.4	81	81	35.3	5.0	86	1.13	50	
Stoneville 603	871	43.3	89	78	35.3	4.9	82	1.14	49	
Hancock	861	41.2	78	78	35.6	4.5	82	1.13	47	
Hybee 200A	848	40.4	84	80	34.6	4.8	84	1.09	50	
Hybee 100A	841	41.4	90	82	35.3	4.3	--	--	--	
Deltapine 45A	837	40.9	91	77	35.0	4.6	83	1.15	50	
Stoneville 213	824	41.1	92	77	35.3	4.5	75	1.09	49	
Dixie King 11	821	40.4	88	77	35.6	4.7	84	1.14	50	
Deltapine 16	812	41.4	80	83	35.3	4.6	83	1.17	46	
Coker 310	805	40.3	82	76	35.3	4.5	82	1.15	49	
Coker 417	795	41.2	88	77	35.0	4.5	82	1.06	48	
Deltapine 6225	786	42.3	88	81	35.0	4.6	83	1.02	49	
Stoneville 7A	749	41.1	86	80	35.6	4.8	80	1.14	50	
Average	828	41.2	86	79	35.2	4.6	81	1.11	48	

L.S.D. @ .05 N.S.

@ .01 N.S.

Three-year averages, Central Station, State College, 1969-71.

Variety	Lint/ Acre	Lint %	Bolls/ Lb.	% 1st- Picking	Staple Length	Fiber Properties			
						Mike Index	Strength M.P.S.I.	2.5% Span	UR %
	lbs.	%	no.	%	1/32 in.	Index	M.P.S.I.	In.	%
Stoneville 213	773	38.9	82	77	34.8	4.6	80	1.12	48
Coker 201	760	39.1	84	80	34.4	4.3	83	1.11	47
Hancock	756	39.2	74	78	34.3	4.3	86	1.08	46
Deltapine 45A	749	39.1	81	87	34.8	4.6	83	1.12	48
Coker 310	732	38.8	79	76	35.4	4.4	85	1.17	47
Deltapine 16	731	38.4	86	83	35.2	4.3	80	1.15	46
Stoneville 7A	695	38.9	84	80	35.3	4.6	85	1.16	47
Coker 417	690	38.2	79	77	35.0	4.2	87	1.13	46
Dixie King 11	663	38.2	71	77	34.5	4.3	86	1.10	47
Average	727	38.7	80	79	34.8	4.4	83	1.12	46

1/ One year average, 1971.

Performance of experimental strains at the Central Station, State College, in 1971.

Variety	Lint/ Acre	Lint %	Bolls/ Lb.	% 1st Picking	Staple Length	Fiber Properties				UR
						Index	M.P.S.I.	Strength	2.5% Span	
Deltapine 16	893	41.6	91	81	34.5	4.8	76	1.12	49	
Lankart 611	822	39.5	68	90	34.0	4.4	72	0.98	48	
Deltapine 652	741	43.9	98	85	35.0	5.2	77	1.04	49	
La. Super Okra 2	710	41.5	93	89	35.0	4.6	83	1.08	47	
La. Okra 5	690	40.6	90	82	35.5	4.7	83	1.08	48	
La. Okra 2	672	41.4	94	86	35.5	4.5	90	1.11	49	
St. 7A -Frego -Okra	659	40.3	88	82	35.0	4.8	86	1.10	49	
Tamcot SP 37	640	41.1	93	86	34.0	4.4	73	1.07	45	
Stoneville 213	485	41.6	84	77	35.5	5.3	81	1.09	48	
La. Frego 2	435	40.7	86	81	35.0	5.2	84	1.07	47	
DSR 6-19-66-61	391	40.8	73	80	34.0	4.4	76	1.04	47	
Average	648	41.1	87	83	34.8	4.7	80	1.07	47	

L.S.D. @ .05

N.S.

C.V. 30.9%

variety performance at the Pontotoc Branch Experiment Station, Pontotoc, on ridge soil, in 1971.

Variety	Lint/ Acre	Lint %	Bolls/ Lb.	% 1st Picking	Fiber Properties	
	lbs.	%	no.	%	Staple 1/32 in.	Mike Index
MOA	427	42.3	90	85	35.0	4.7
MO	389	40.5	85	86	35.6	4.7
King 11	377	38.0	77	83	34.3	4.6
MOA	363	37.7	91	83	35.3	5.0
17	354	37.7	85	80	35.0	4.4
MO	352	39.9	80	85	35.0	4.7
Line 16	334	37.5	92	82	34.6	4.6
Alle 213	331	37.3	83	84	34.3	5.1
Alle 603	306	35.8	83	82	35.0	4.9
K	286	38.2	79	83	34.0	4.6
213	263	36.0	91	84	34.0	4.5
Line 6225	246	39.1	96	74	35.0	4.8
Alle 7A	244	38.3	88	78	34.6	4.9
Line 45A	241	37.5	87	80	34.6	4.8
Range	322	38.2	86	82	34.7	4.7
@ .05	64					
@ .01	85					
	17.2%					

Year averages, Pontotoc Branch Experiment Station, Pontotoc, on ridge soil, 1969-71.

Variety	Lint/ Acre	Lint %	Bolls/ Lb.	% 1st <sup>1/</sup> Picking	Fiber Properties	
	lbs.	%	no.	%	Staple 1/32 in.	Mike Index
MO	654	42.0	81	85	34.1	4.9.
Line 16	643	40.8	84	82	34.2	5.0
MO	624	41.6	83	86	34.6	5.0
	620	41.3	75	83	33.3	4.7
17	614	39.8	80	80	34.4	4.5
Alle 213	606	41.5	81	84	34.0	5.3
Alle 7A	589	41.2	85	78	34.1	5.2
King 11	581	40.6	68	83	33.6	4.9
Line 45A	574	40.7	84	80	33.7	5.1
Range	611	41.0	80	82	34.0	4.9

Year average, 1971.