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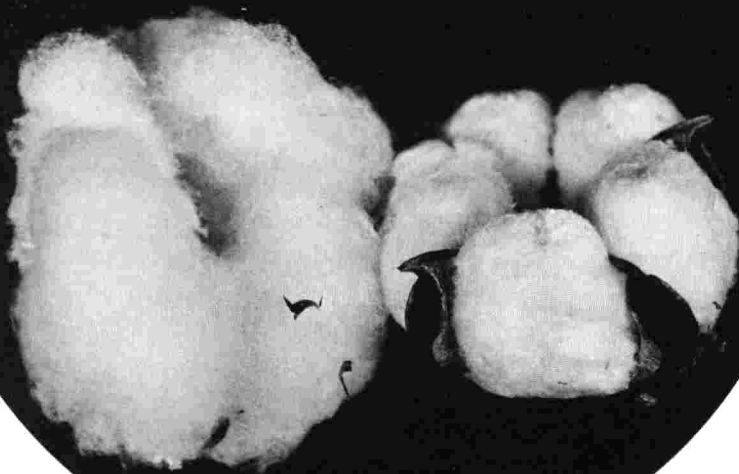
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**1963-66 Performance
Of Cotton Varieties
Harvested by Hand
And Spindle-Picked**

Charles R. Graves, P. E. Hoskinson, J. R. Overton, Tom McCutchen

The University of Tennessee
Agricultural Experiment Station
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SUMMARY

Section I

Primarily Data From Hand-Harvested Tests

There was a significant difference in lint yield among varieties each year at each location. There was a variety x location interaction each year. Early-maturing varieties such as Hancock and Auburn M were more consistent in lint yield than some of the later-maturing varieties. Some varieties such as Empire W.R. 61 ranked low consistently in lint yield. Stardel did well at Jackson and Ames Plantation but very poorly at Fort Pillow.

Yarn strength of lint samples obtained from mechanically-harvested cotton that had been ginned on a commercial gin at Jackson in 1966 averaged less than that of hand-picked samples that were ginned on a 10-saw laboratory gin.

Section II

Advanced Strains Test

Significant differences among varieties were obtained each year. Early strains usually (but not always) performed well in the advanced strains test. Some experimentals possess special attributes such as superior fiber properties or glandless seed. Unfortunately, the strain exhibiting the most desirable fiber properties frequently does not yield competitively with varieties that possess shorter and weaker fibers.

Hancock (tested as T-59-134), Deltapine 45A, Deltapine 16, McNair 1032, and Coker 201 are some of the recent varietal releases that were evaluated in the advanced strains tests before release.

Section III

Mechanically Harvested Cotton

There was a statistical difference in lint yield among varieties in every test except at Ames Plantation in 1963.

Deltapine Smooth Leaf, Dixie King II, and Auburn M gave the highest average acre value return at Milan. Also Deltapine Smooth Leaf and Dixie King II gave the highest 3-year average return at

Ames Plantation. Deltapine Smooth Leaf and Rex Smoothleaf consistently graded one grade better than Dixie King II. Yarn strength of lint samples obtained from a commercial gin averaged less than that of hand-picked samples which were ginned on a 10-saw laboratory gin.

The length (2.5% span length) and strength (T_1) were lower, in general, where the mechanically-picked cotton had been ginned on a commercial gin when compared to hand- or machine-picked samples that had been ginned on a 10-saw laboratory gin.

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1963-66

PERFORMANCE OF
COTTON VARIETIES HARVESTED
BY HAND AND SPINDLE-PICKED

BY

CHARLES R. GRAVES, P. E. HOSKINSON, J. R. OVERTON,
and TOM McCUTCHEN*

STATION HATCH PROJECT NO. 33

Evaluation of the Performance of Varieties of Field Crops.

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DEFINITIONS AND TERMS USED IN THIS REPORT

Seed cotton yield—is reported in pounds per acre.

Total lint yield—is reported in pounds per acre and determined by multiplying seed cotton pounds per acre by percent lint for hand picked cotton. The mechanically-harvested seed cotton yields per acre were multiplied by gin turnout to get total lint yield.

Percent—1st picking — is calculated by dividing the lint yield at first picking of a given variety by its total lint yield.

Earliness Index—was determined by expressing the yields at first picking as a percentage of the yield of Auburn M at 1st picking.

Bolls per pound—was determined by:

$$\frac{\text{Number of bolls in sample}}{\text{Weight of seed cotton sample}}$$

$$\text{Percent lint} = \frac{\text{Weight of ginned lint from sample}}{\text{Weight of seed cotton sample}}$$

$$\text{Gin turnout} = \frac{\text{Weight of lint from commercial gin}}{\text{Weight of mechanically-harvested cotton}}$$

Ginning loss—Weights of lint plus seed were subtracted from machine-picked cotton weights.

Classer's staple length—Length given in 32nds of an inch to samples submitted to the Board of Cotton Examiners, Memphis Classing Office, Memphis.

Acre value—(Lint + seed values) Lint values were based on the Memphis Spot Market. Seed values were based on Cottonseed Review South Central area.

50% Span Length—The 50% span length is a measure of the distance from a base line spanned by 50% of the fibers in the sample.

2.5% Span Length—The 2.5% span length is a measure of the distance from a base line spanned by 2.5% of the fibers in the sample.

<i>2.5% Span Length</i>	<i>Staple</i>	
<1.00—1.00	15/16—1 1/32 (33/32)	short
1.01—1.10	1 1/16 (34/32)—1 3/32 (35/32)	average
1.11—1.20	1 1/8 (36/32)—1 3/16 (38/32)	medium long
1.21—1.30	1 7/32 (39/32)—1 9/32 (41/32)	long
1.30+	1 5/16 + (42/32)	extra long

UHM (Upper half mean)—UHM is another measure of length and it approximates classer's staple and also 2.5% span length.

Mean—Mean is the average length in inches of all fibers longer than 1/4-inch.

Micronaire—Micronaire is a relative measure of fiber fineness or coarseness; higher readings indicate coarse fibers and low readings indicate fine fibers.

Micronaire

6.0+	Very coarse
5.0—5.9	Coarse
4.0—4.9	Average
3.0—3.9	Fine
3.0	Very fine

Yarn Skein Strength (YS)—The yarn skein strength is the force in pounds as an average of 20 determinations required to break a skein. This breaking strength has been corrected to a yarn number of 27.0 tex and is in terms of the standard skein. The corrected standard skein strength is the observed miniature skein strength converted to standard skein strength and corrected to a yarn number of 27.0 tex. The equation is as follows:

$$\text{corrected standard skein strength} = \frac{\text{Min. skein strength} \times 1.84 \times 27.0}{\text{observed yarn number}}$$

Fiber Strength (T₁)—Fiber strength is the force required to break a bundle of fibers on the Stelometer with two jaws holding the fiber bundle separated by a 1/8-inch spacer. Strength is expressed in terms of grams per tex. High readings indicate fiber of greater strength and low readings indicate fiber of lesser strength.

Fiber Strength (T₁)

22.5+	Very strong
20.1—22.4	Strong
17.6—20.0	Average
15.1—17.5	Fair
15.0 or less	Weak

E₁—The percentage elongation at break of the fiber bundle measured for T₁ strength on the Stelometer. High readings denote greater elongation.

DESCRIPTION OF RECOMMENDED VARIETIES

Auburn M

Maturity: Very early.

Growth Habit: Determinate to semi-determinate.

Bolls per lb.: 63.

Disease Reaction:

- a. Resistant to fusarium wilt, root knot nematode complex.
- b. Moderately tolerant to verticillium wilt.

Lint Percentage: 36 to 38.

Fiber Properties:

- a. Length: 2.5% span length (1.08)¹.
- b. Strength: T₁ (1.75).
- c. Fineness: Micronaire (4.24).
- d. Spinning quality: skein strength of 27 tex yarn, range (107-123), average (113).

Auburn 56

█ *Maturity:* Medium-late.

Growth Habit: Erect, vigorous, medium height, variable in growth habit, high degree of storm resistance.

Bolls per lb.: 68.

Disease Reaction:

- a. Resistant to fusarium wilt, root-knot, nematode complex.
- b. Has some tolerance to verticillium wilt.

Lint Percentage: 36 to 38.

Fiber Properties:

- a. Length: 2.5% span length (1.07).
- b. Strength: T₁ (1.78).
- c. Fineness: Micronaire (4.33).
- d. Spinning Quality: skein strength of 27 tex yarn, range (104-124), average (114).

Rex Smoothleaf

Maturity: Early.

Growth Habit: Shorter than other commonly grown southeastern varieties. Determinate.

Bolls per lb.: 62.

Disease Reaction:

- a. Resistant to fusarium wilt.
- b. Resistant to one race of bacterial blight.

¹ All fiber properties are average values for a number of years.

Lint Percentage: 35 to 37.

Fiber Properties:

- a. Length: 2.5% span length (1.09).
- b. Strength: T_1 (1.75).
- c. Fineness: Micronaire (4.07).
- d. Spinning Quality: skein strength of 27 tex yarn, range (108-119), average (114).

Stardel

Maturity: Early.

Growth Habit: Tall.

Bolls per lb.: 75.

Disease Reaction: Not recommended where wilt is a problem.

Lint Percentage: 36 to 38.

Fiber Properties:

- a. Length: 2.5% span length (1.09).
- b. Strength: T_1 (1.92).
- c. Fineness: Micronaire (4.36).
- d. Spinning Quality: skein strength of 27 tex yarn, range (109-130), average (122).

Carolina Queen

Maturity: Late.

Growth Habit: Tall open plant, and uniformly-spaced bolls.

Bolls per lb.: 68.

Disease Reaction: Resistant to fusarium wilt.

Lint Percentage: 36 to 39.

Fiber Properties:

- a. Length: 2.5% span length (1.11).
- b. Strength: T_1 (1.83).
- c. Fineness: Micronaire (4.44).
- d. Spinning Quality: skein strength of 27 tex yarn, range (103-129), average (117).

Dixie King II

Maturity: Medium-early.

Growth Habit: Medium size, upright plant. Plant retains leaves longer than most other varieties tested.

Bolls per lb.: 58.

Disease Reaction: Tolerant to fusarium wilt.

Lint Percentage: 35 to 37.

Fiber Properties:

- a. Length: 2.5% span length (1.08).
- b. Strength: T_1 (1.77).
- c. Fineness: Micronaire (4.36).
- d. Spinning Quality: skein strength of 27 tex yarn, range (104-124), average (114).

Stoneville 213

Maturity: Medium-late.

Growth Habit: Similar to Stoneville 7A. Medium height.

Bolls per lb.: 71.

Disease Reaction: Shows some tolerance to verticillium wilt.

Lint Percentage: 36 to 39.

Fiber Properties:

- a. Length: 2.5% span length (1.08).
- b. Strength: T_1 (1.80).
- c. Fineness: Micronaire (4.64).
- d. Spinning Quality: skein strength of 27 tex yarn, range (107-124), average (114).

Hancock

Maturity: Very early.

Growth Habit: Semi-determinate, medium height, leaves of the "Empire type" and the fruiting branches are short and angle upward presenting a semi-cluster appearance.

Bolls per lb.: 63.

Disease Reaction: Unknown.

Lint Percentage: 37 to 40.

Fiber Properties:

- a. Length: 2.5% span length (1.06).
- b. Strength: T_1 (1.78).
- c. Fineness: Micronaire (4.33).
- d. Spinning Quality: skein strength of 27 tex yarn, range (111-125), average (117).

COTTON VARIETY TESTING PROGRAM

The cotton variety testing program consists essentially of two parts or phases. The first phase is the advanced strains test. The cotton breeder conducts this phase which includes the most promising experimental strains of cotton from Tennessee and experiment stations in adjacent states and from commercial companies. If a variety performs well in the advanced strains test, it is then entered in the state variety testing program. Varieties are evaluated for 3 years in the state variety tests before they are considered for recommendations by the Experiment Station.

Results reported here are from tests conducted at Jackson, Fort Pillow, Ames Plantation, and Milan.

The Fort Pillow test is located on bottom land with soils of Morganfield and Adler silt loam types which has a wilt disease complex. No disease problem was noted at any of the other locations. Jackson and Ames Plantation tests were conducted on upland soils such as Loring, Grenada, and Memphis silt loam. The tests at Milan were conducted on Collins silt loam, a bottom soil.

The University of Tennessee Agricultural Experiment Station participates in the Regional cotton variety testing program by including the National and Regional standard entries at two locations. Fort Pillow represents the Delta region and Jackson represents the Eastern region.

This report is divided into three sections. The first section is a summary of hand-harvested cotton variety tests in Tennessee from 1963 through 1966. Also included in this section are data for spindle picked tests at Jackson and Ames Plantation for 1966.

The second section consists of data obtained from the advanced strains tests at Jackson. These tests were hand picked.

Section three includes data for several varieties which were mechanically harvested with a spindle picker and ginned on commercial gins at Ames Plantation and Milan.

Section I

Primarily Data From Hand-Harvested Tests

Procedure

A randomized block design was used each year for each test. Two-row plots, each 60 feet long, were used at Jackson and Ames Plantation in 1966. All other tests reported in this section consisted of 2-row plots, 35 feet long. The test at Ames Plantation in 1966 contained 6 replications and all other tests contained 8 replicates. Recommended cultural practices were followed in each test and were the same for all entries in any given test.

Two 160- or 150-boll samples were taken from each variety immediately before first picking of all tests. These samples were ginned on a 10-saw laboratory gin. Gin, seed, and fiber data were obtained from these samples.

The cotton variety tests in 1966 at Jackson and Ames Plantation were harvested with a spindle picker. Four replicate samples of each variety were taken from the mechanically-harvested cotton at Jackson and three at Ames Plantation. These samples were fractionated to determine the percent trash for each variety. These fractionated samples were combined by variety and ginned on a 10-saw laboratory gin to determine the percent lint. The percent lint and the percent trash for each variety were used to calculate lint yields at these two locations.

Varieties are listed in order of descending dollar value per acre (lint + seed). The lint values each year were based on the Memphis Spot Market for middling inch cotton. Seed values were based on Cottonseed Review, South Central area. Acre value, yield, and other characteristics of the varieties are presented in Tables 1 through 24. Fiber data are presented in Tables 25 through 42.

RESULTS AND DISCUSSION

There was a significant difference in lint yield among varieties each year at each location (Tables 4 through 7). There was a variety x location interaction each year. Part of this variety x location interaction was due to the wilt disease complex at Fort Pillow. Some varieties were more tolerant to wilt than others. In Table 8 it can be seen that Hancock ranked first in lint yield 6 out of 9 times in these tests from 1963 through 1965. Using a 4-year average, Hancock ranked first 7 out of 12 times. The 1966 data were not presented in this table because Ames Plantation yields in 1966 were so low. Hancock was consistent in its yielding ability, whereas varieties such as Carolina Queen and Deltapine Smooth Leaf which are late-maturing varieties did not consistently produce high yields in Tennessee. However, under favorable conditions such as early planting and good weather, these varieties did perform well. Stardel did well at Jackson and Ames Plantation but very poorly under wilt conditions at Fort Pillow. Hancock and Auburn M, both early-maturing varieties, were among the top four varieties in acre value at all locations as shown in Tables 1 through 3. Empire W.R. 61 ranked low consistently in lint yield and acre value.

Dixie King II, Stoneville 213, Auburn M, and Auburn 56 were fairly consistent in yield.

Deltapine Smooth Leaf gave about the same acre value at all locations except at Jackson. It ranked last at this location.

Data from hand-picked samples (ginned on a 10-saw laboratory gin) and mechanically-harvested samples (ginned on a commercial gin) are presented in Tables 28 and 29. It can be seen from data in Table 28 that yarn strength of lint samples obtained from a commercial gin averaged less than for hand-picked samples. All other fiber data in this section were obtained from hand-picked samples. These data are presented in Tables 30 through 42.

Table 1. Acre value, yield, and other characteristics of cotton varieties tested at Jackson from 1963 through 1966

Variety	Acre value	Yield lint	Earliness	Yield at 1st picking	Lint percent
	\$/A.	Lb./A.	Index	%	%
Hancock	384	1133	110	85	38.7
Auburn M	370	1062	100	80	35.8
Rex Smoothleaf	367	1032	99	82	36.0
Stardel	365	1034	88	75	37.0
Carolina Queen	362	1034	80	71	36.8
Stoneville 7A	362	1028	85	71	37.1
Dixie King II	359	1042	90	75	36.8
Stoneville 213	358	1034	88	74	37.3
Auburn 56	356	1010	87	72	35.0
Empire W.R. 61	344	967	90	78	35.5
Deltapine Smooth Leaf	330	922	67	61	36.7
Experimentals:					
T-56-210	370	1062	100	81	36.5
Emp. Der. K-11	366	1039	104	84	35.5
AHA Der. K-10	309	888	80	75	34.0

Table 2. Acre value, yield, and other characteristics of cotton varieties tested at Fort Pillow from 1963 through 1966

Variety	Acre value	Yield lint	Earliness	Yield at 1st picking	Lint percent
	\$/A.	Lb./A.	Index	%	%
Hancock	408	1166	116	88	39.1
Dixie King II	361	1040	94	80	37.5
Auburn 56	353	1020	96	80	36.4
Auburn M	350	1004	100	86	36.3
Stoneville 213	345	1006	95	83	38.2
Carolina Queen	343	965	83	78	38.4
Deltapine Smooth Leaf	331	937	82	78	38.6
Rex Smoothleaf	328	922	90	82	35.2
Empire W.R. 61	328	910	72	83	35.3
Stardel	312	881	86	86	37.9
Stoneville 7A	309	890	79	78	37.4
Experimentals:					
T-56-210	341	968	97	86	37.1
Emp. Der. K-11	336	952	95	86	35.6
AHA Der. K-10	315	882	83	80	35.2

Table 3. Acre value, yield, and other characteristics of cotton varieties tested at Ames Plantation from 1963 through 1965

Variety	Acre value	Yield lint	Earliness	Yield at 1st picking	Lint percent
	\$/A.	Lb./A.	Index	%	%
Stardel	362	982	95	74	38.0
Auburn M	356	974	100	76	36.6
Hancock	355	979	97	76	38.9
Auburn 56	335	903	84	69	35.7
Stoneville 213	327	899	77	65	37.3
Deltapine Smooth Leaf	327	896	85	72	38.1
Stoneville 7A	324	879	73	63	37.5
Dixie King II	317	879	77	66	36.5
Carolina Queen	309	851	75	66	37.5
Rex Smoothleaf	302	812	77	71	35.8
Empire W.R. 61	296	798	70	66	34.7
Experimentals:					
T-56-210	338	919	96	78	36.2
Emp. Der. K-10	314	841	82	72	35.0
AHA Der. K-9	274	731	72	72	33.8

Table 4. Cotton: Yield of lint per acre of varieties tested in 1966

Variety	3 Loc. avg. ¹	2 Loc. avg. ²	Jackson ³	Fort Pillow ⁴	Ames Plantation ⁵
Lint pounds per acre					
Auburn M	757	957	901	1013	356
Hancock	735	1004	1094	914	198
Hy-Bee 200	718	978	966	989	200
McNair 1032	703	966	930	1004	176
Auburn 56	702	959	914	1004	188
Stoneville 213	701	944	902	987	215
Deltapine 45A	698	917	930	904	258
Carolina Queen	690	921	953	889	227
Dixie King II	680	947	932	962	146
Pennington Hy-Bee	661	903	928	878	177
Rex Smoothleaf	654	894	974	816	172
Deltapine Smooth Leaf	649	859	862	856	228
Coker 413	612	808	849	766	222
Stoneville 7A	606	838	867	810	140
Paymaster 54B	590	757	786	728	256
Empire W.R. 61	590	810	906	714	148
Acala 1517-D	575	812	867	727	132
Stardel	561	752	893	610	180
Experimentals:					
Emp. Der. K-11	750	996	1021	970	258
T-56-210	680	886	942	830	269
AHA Der. K-10	626	949	924	774	179
T-58-169	553	731	806	656	196
L.S.D. (.05)	—	142.8	66.4	133.7	65.9
C.V., %	—	12.2	7.4	15.9	28.3

¹ Ames Plantation included in average.

² Ames Plantation not included in average.

³ Memphis and Grenada silt loam, (0% to 2% slopes).

⁴ Morganfield and Adler silt loam, (0% to 2% slopes).

⁵ Loring silt loam, (0% to 2% slopes).

Table 5. Cotton: Yield of lint per acre of varieties tested in 1965

Variety	State avg.	Jackson ¹	Fort Pillow ²	Ames Plantation ³
Lint pounds per acre				
Hancock	1157	1183	1298	991
Delta Hy-Bee	1085	1104	1156	994
Dixie King II	1078	1115	1079	1040
Deltapine Smooth Leaf	1070	977	1162	1068
Stoneville 213	1064	1064	1089	1039
Carolina Queen	1055	1128	1042	996
Deltapine 7139	1054	942	1285	935
Pennington Hy-Bee	1043	1058	1108	961
Stardel	1042	1074	951	1101
Auburn 56	1032	1058	1088	950
McNair 1032	1030	1009	1102	979
Stoneville 7A	1027	1092	999	992
Auburn M	1018	1122	961	969
Coker 100A (WRI)	1015	1016	1027	1003
DeKalb 128	1009	1019	980	1027
Empire W.R. 61	1001	1061	1057	885
Rex Smoothleaf	994	1052	1040	890
DeKalb 108	943	1041	933	854
Experimentals:				
B-57-478	1044	964	1196	972
T-56-210	989	1105	990	872
T-58-169	943	1078	949	803
Emp. Der. K-10	905	1071	848	795
AHA Der. K-9	846	878	940	719
L.S.D. (.05)	130.6	117.4	159.2	175.3
C.V. %	15.3	11.4	15.4	18.8

¹ Memphis and Grenada silt loam, (0% to 2% slopes).

² Morganfield and Adler silt loam, (0% to 2% slopes).

³ Loring silt loam, (2% to 5% slopes).

Table 6. Cotton: Yield of lint per acre of varieties tested in 1964

Variety	State avg.	Jackson ¹	Fort Pillow ²	Ames Plantation ³
		Lint pounds per acre		
Hancock	1136	1316	1040	1051
Auburn M	1056	1279	874	1015
Stardel	1037	1273	876	962
Dixie King II	1022	1291	932	844
Auburn 56	997	1273	836	882
Cobal	987	1120	964	878
Deltapine 45	977	1218	894	819
Stoneville 213	974	1268	827	828
Rex Smoothleaf	973	1267	815	837
Stoneville 7A	951	1284	720	850
DeKalb 220	943	1215	781	832
DeKalb 108	915	1173	778	793
Empire W.R. 61	890	1082	830	757
Coker 100A (WR)	856	1206	667	694
Carolina Queen	845	1100	680	754
Deltapine Smooth Leaf	843	1059	676	795
Experimentals:				
T-56-210	1048	1306	855	982
T-58-169	1020	1259	837	964
B-57-478	1003	1191	924	894
Emp. Der. K8	999	1234	855	909
AHA Der. K7	845	1048	748	740
L.S.D. (.05)	92.5	101.7	109.2	109.7
C.V. %	11.3	8.6	13.4	13.0

¹ Memphis and Grenada silt loam, (0% to 2% slopes).

² Morganfield and Adler silt loam, (0% to 2% slopes).

³ Loring silt loam, (2% to 5% slopes).

Table 7. Cotton: Yield of lint per acre of varieties tested in 1963

Variety	State avg.	Fort Pillow ¹	Jackson ²	Ames Plantation ³
Lint pounds per acre				
Hancock	1082	1413	938	895
Auburn M	1018	1170	944	939
Carolina Queen	1003	1250	956	803
Coker 100A (WR)	993	1200	887	892
Stardel	956	1087	898	883
Stoneville 213	951	1122	903	829
Auburn 56	942	1152	795	878
Delta Queen	937	1139	803	868
Dixie King	924	1185	832	754
Fox 4	923	1165	800	804
DeKalb 108	922	1075	796	894
DeKalb 220	904	1025	864	824
Stoneville 7A	899	1030	870	796
Deltapine Smooth Leaf	890	1054	790	826
Cobal	870	1038	798	774
Empire W.R. 61	870	1038	820	752
Rex Smoothleaf	855	1017	837	710
Experimentals:				
Tenn. 56-210	999	1199	894	904
Tenn. 56-312	937	1093	901	817
Emp. Der. K8	928	1135	831	819
B-57-478	865	997	802	796
AHA Der. K7	834	1067	700	735
L.S.D. (.05)	87.9	138.4	81.6	114.0
C.V. %	12.3	12.5	9.7	13.9

¹ Morganfield and Adler silt loam, (0% to 2% slopes).
² Memphis and Grenada silt loam, (0% to 2% slopes).
³ Loring silt loam, (2% to 5% slopes).

Table 8. Varieties ranked by lint yield at three locations from 1963 through 1965

Variety	Jackson	Ames Plantation	Fort Pillow	Jackson	Ames Plantation	Fort Pillow	Jackson	Ames Plantation	Fort Pillow
	1963	1963	1963	1964	1964	1964	1965	1965	1965
Hancock	3	2	1	1	1	1	1	10	1
Auburn M	2	1	5	4	2	6	3	12	16
Dixie King II	10	15	4	2	7	3	4	3	9
Stoneville 213	4	8	9	8	11	9	8	4	8
Auburn 56	14	5	7	6	4	7	9	14	7
Stardel	5	6	10	5	3	5	7	1	17
Rex Smoothleaf	9	17	17	7	8	10	11	16	12
Carolina Queen	1	12	2	14	15	14	12	7	11
Stoneville 7A	7	13	15	3	6	13	6	9	14
Deltapine Smooth Leaf	15	9	12	16	12	15	17	2	3
Empire W.R. 61	11	16	14	15	14	8	10	17	10
Cobal	16	14	13	13	5	2	—	—	—
Deltapine 45	—	—	—	9	10	4	—	—	—
DeKalb 220	8	10	16	10	9	11	—	—	—
DeKalb 108	17	3	11	12	13	12	13	18	18
Coker 100A (WR)	6	4	3	11	16	16	15	6	13
Deltapine 7139	—	—	—	—	—	—	18	15	2
McNair 1032	—	—	—	—	—	—	16	11	6
Delta Hy-Bee	—	—	—	—	—	—	5	8	4
Pennington Hy-Bee	—	—	—	—	—	—	12	13	5
DeKalb 128	—	—	—	—	—	—	14	5	15
Delta Queen	12	7	8	—	—	—	—	—	—
Fox 4	13	11	6	—	—	—	—	—	—

Table 9. Yield and other characteristics of varieties tested at Jackson and Fort Pillow in 1966

Variety	Yield						
	Acre value	Lint	Seed cotton	Earliness	% yield at 1st picking	Lint percent	Wt./100 seed
	\$/A	Lb./A.	Lb./A.	Index	%	%	Grams
Hancock	283	1004	2742	109	87.0	36.8	11.2
Hy-Bee 200	274	978	2737	93	74.8	35.9	11.1
Stoneville 213	273	945	2660	94	77.4	35.6	10.9
Auburn 56	272	959	2766	90	71.4	34.7	11.9
McNair 1032	272	967	2609	72	60.5	37.1	10.4
Rex Smoothleaf	271	895	2676	98	79.8	33.5	12.9
Auburn M	270	957	2726	100	81.0	35.1	12.6
Carolina Queen	269	921	2499	82	71.9	37.0	11.2
Deltapine Smooth Leaf	269	859	2404	76	70.4	35.9	10.4
Deltapine 45A	266	917	2570	89	75.8	35.8	11.3
Pennington Hy-Bee	265	903	2580	91	77.4	35.2	11.8
Dixie King II	261	947	2618	91	76.1	36.3	11.4
Empire W.R. 61	242	810	2368	89	81.8	34.2	12.9
Stoneville 7A	241	839	2445	85	76.6	34.5	11.4
Coker 413	241	808	2303	74	69.8	35.2	11.2
Acala 1517D	231	797	2374	80	73.0	33.8	13.1
Stardel	217	752	2128	73	77.2	35.6	11.2
Paymaster 54B	214	757	2123	82	83.8	35.8	11.4
Experimentals:							
Emp. Der. K-11	280	996	2889	113	84.4	34.7	12.4
T-56-210	254	886	2521	96	83.0	35.3	11.8
AHA Der. K-10	250	849	2558	91	78.3	33.4	11.9
T-58-169	215	731	2107	73	76.1	34.9	11.5
L.S.D. (.05)	—	142.8	—	—	—	—	—
C.V. %	—	12.2	—	—	—	—	—

Table 10. Yield and other characteristics of cotton varieties tested at Ames Plantation in 1966

Variety	Yield					
	Acre value	Lint	Seed cotton	Bolls per lb.	Lint percent	Wt./100 seed
	\$/A.	lb./A.	lb./A.	No.	%	Grams
Auburn M	99	356	1145	59	31.1	14.1
Deltapine 45A	81	258	816	69	31.6	11.9
Coker 413	76	222	730	70	30.4	11.8
Paymaster 54B	76	256	831	59	30.8	12.5
Stoneville 213	69	215	724	62	29.7	12.1
Deltapine Smooth Leaf	68	228	715	72	31.9	11.0
Carolina Queen	67	227	737	66	30.8	11.9
Hy-Bee 200	61	200	707	65	28.3	12.5
Hancock	58	198	635	61	31.2	12.9
Auburn 56	56	188	659	66	28.5	12.8
Rex Smoothleaf	55	172	604	61	28.5	13.3
Stardel	52	180	586	74	30.7	11.8
Acala 1517D	47	132	496	60	26.6	14.9
Pennington Hy-Bee	46	177	612	64	28.9	12.9
Empire W.R. 61	46	148	534	57	27.7	15.1
Stoneville 7A	46	140	484	66	28.9	13.2
McNair 1032	45	176	585	73	30.1	11.2
Dixie King II	44	146	514	57	28.4	13.1
Experimentals:						
Emp. Der. K-11	82	258	849	57	30.4	13.9
T-56-210	74	269	885	59	30.4	13.1
T-58-169	62	196	678	59	28.9	13.2
AHA Der. K-10	53	179	644	61	27.8	13.7
L.S.D. (.05)	—	65.9	—	—	—	—
C.V. %	—	28.3	—	—	—	—

Table 11. Yield and other characteristics of cotton varieties tested at Fort Pillow in 1966

Variety	Yield						
	Acre value	Lint	Seed cotton	Earliness	% yield at 1st picking	Lint percent	Wt./100 seed
	\$/A.	Lb./A.	Lb./A.	Index	%	%	Grams
Stoneville 213	287	987	2618	89	80.8	37.7	10.0
Auburn M	282	1013	2753	100	86.7	36.8	12.1
Auburn 56	279	1004	2728	87	76.5	36.8	11.2
McNair 1032	274	1004	2568	68	63.6	39.1	10.0
Hy-Bee 200	272	989	2589	85	78.7	38.2	10.1
Dixie King II	264	962	2518	81	77.0	38.2	10.2
Deltapine Smooth Leaf	264	856	2265	75	78.9	37.8	9.4
Carolina Queen	263	889	2291	73	76.5	38.8	10.4
Hancock	258	914	2393	90	90.0	38.2	10.6
Pennington Hy-Bee	256	878	2348	80	81.1	37.4	11.3
Rex Smoothleaf	239	816	2400	81	80.9	34.0	12.9
Deltapine 45A	236	904	2404	80	79.8	37.6	10.4
Stoneville 7A	224	810	2213	76	81.7	36.6	10.4
Empire W.R. 61	217	714	2006	69	82.6	35.6	12.1
Coker 413	213	766	2087	62	71.2	36.7	10.6
Acala 1517D	203	727	2054	62	72.1	35.4	11.9
Paymaster 54B	201	728	1947	69	84.6	37.4	10.9
Stardel	174	610	1667	62	88.7	36.3	10.3
Experimentals:							
Emp. Der. K-11	270	970	2636	92	83.2	36.8	11.9
AHA Der. K-10	231	774	2237	77	82.6	34.6	11.0
T-56-210	231	830	2255	82	86.7	36.8	10.9
T-58-169	198	656	1807	62	82.1	36.3	10.8
L.S.D. (.05)	—	133.7	—	—	—	—	—
C.V. %	—	15.9	—	—	—	—	—

Table 12. Yield and other characteristics of cotton varieties tested at Jackson in 1966

Variety	Yield								
	Acre Value	Lint	Seed cotton	Bolls per lb.	Earliness	% yield at 1st picking	Lint percent	Wt./100 seed	Grade
	\$/A.	lb./A.	lb./A.	No.	Index	%	%	Grams	
Hancock	308	1094	3090	57	128	84.1	35.4	11.8	SLM
Rex Smoothleaf	303	974	2952	57	115	78.7	33.0	13.0	Mid
Deltapine 45A	296	930	2735	67	97	71.8	34.0	12.2	Mid
Hy-Bee 200	277	966	2884	63	101	70.8	33.5	12.0	SLM
Carolina Queen	276	953	2707	63	90	67.3	35.2	12.1	SLM
Pennington Hy-Bee	275	928	2812	59	102	73.8	33.0	12.4	SLM
Deltapine Smooth Leaf	274	862	2543	67	77	61.8	33.9	11.3	Mid
McNair 1032	270	930	2650	70	75	57.4	35.1	10.8	SLM
Coker 413	269	849	2519	68	85	68.4	33.7	11.8	SLM
Empire W.R. 61	268	906	2729	51	109	81.1	33.2	13.8	SLM
Auburn 56	265	914	2804	63	92	66.3	32.6	12.7	SLM
Stardel	260	893	2588	69	84	65.6	34.5	12.0	SLM
Stoneville 213	259	902	2701	68	99	74.0	33.4	11.9	SLM
Acala 1517D	259	867	2693	54	98	73.8	32.2	14.3	SLM
Auburn M	259	901	2698	60	100	75.2	33.4	13.2	SLM
Dixie King II	258	932	2717	53	101	75.2	34.3	12.6	Mid Lt Sp.
Stoneville 7A	258	867	2676	67	94	71.6	32.4	12.4	SLM
Paymaster 54B	226	786	2298	59	94	83.1	34.2	12.0	Mid
Experimentals:									
Emp. Der. K-11	291	1021	3142	57	133	85.7	32.5	12.9	LM+
T-56-210	276	942	2787	57	109	79.3	33.8	12.7	SLM
AHA Der. K-10	269	924	2879	60	105	74.0	32.1	12.7	SLM
T-58-169	231	806	2406	57	83	70.1	33.5	12.2	SLM
L.S.D. (.05)	—	66.4	—	—	—	—	—	—	—
C.V. %	—	7.4	—	—	—	—	—	—	—

Table 13. Summary of yield and other characteristics of cotton varieties tested at three locations in 1965

Variety	Yield							
	Acre value	Lint	Seed cotton	Bolls per lb.	Earliness	% Yield at 1st picking	Lint percent	Wt./100 seed
	\$/A.	Lb./A.	Lb./A.	No.	Index	%	%	Grams
Hancock	412	1157	2932	67	105	92	39.5	11.6
Delta Hy-Bee	390	1085	2892	70	97	86	37.5	11.5
Dixie King II	383	1078	2845	61	96	87	37.9	12.0
Deltapine Smooth Leaf	382	1070	2757	76	90	81	38.7	10.6
Carolina Queen	380	1055	2747	72	90		38.5	11.3
Deltapine 7139	379	1054	2696	74	91	87	39.0	11.4
Stoneville 213	378	1064	2750	74	95	88	38.7	10.9
Stardel	377	1042	2742	77	93	88	38.0	11.4
Pennington Hy-Bee	376	1043	2767	68	93	86	37.7	11.7
Auburn 56	374	1032	2877	72	99	88	35.9	11.8
Coker 100A (WR)	369	1015	2732	71	90	83	37.2	11.1
Stoneville 7A	368	1027	2685	74	87	84	38.3	11.4
Auburn M	368	1018	2791	67	100	92	36.5	12.3
Empire W.R. 61	364	1001	2785	58	94	87	36.0	13.8
Rex Smoothleaf	362	994	2704	66	93	88	36.8	12.8
McNair 1032	362	1030	2723	73	87	80	37.8	11.4
DeKalb 128	361	1009	2733	68	92	85	36.9	11.6
DeKalb 108	342	943	2591	68	87	85	36.4	11.8
Experimentals:								
B-57-478	364	1044	2868	70	101	90	36.4	12.2
T-56-210	352	989	2675	66	93	90	37.0	11.7
T-58-169	336	943	2531	68	87	91	37.3	12.0
Emp. Der. K-10	330	905	2515	64	86	88	36.0	12.9
AHA Der. K-9	308	846	2405	68	82	88	35.1	12.6
L.S.D. (.05)	—	130.6	—	—	—	—	—	—
C.V. %	—	15.3	—	—	—	—	—	—

Table 14. Yield and other characteristics of cotton varieties tested at Ames Plantation in 1965

Variety	Yield							
	Acre value	Lint	Seed cotton	Bolls per lb.	Earliness	% Yield at 1st picking	Lint percent	Wt./100 seed
	\$/A.	lb./A.	lb./A.	No.	Index	%	%	Grams
Stardel	393	1101	2824	77	96	81.5	39.0	11.9
Deltapine Smooth Leaf	380	1068	2696	73	91	79.2	39.6	10.5
Stoneville 213	370	1039	2637	74	93	82.0	39.4	11.5
DeKalb 128	368	1027	2674	69	94	82.9	38.4	11.5
Coker 100A (WR)	365	1003	2666	69	91	79.9	37.6	11.7
Dixie King II	360	1040	2715	60	98	84.6	38.3	12.6
Delta Hy-Bee	358	994	2658	71	98	84.3	37.4	11.9
Carolina Queen	356	996	2555	72	91	82.8	39.0	11.7
Stoneville 7A	354	992	2523	73	82	75.5	39.3	11.4
Hancock	352	991	2458	66	94	88.3	40.3	12.8
Pennington Hy-Bee	349	961	2516	66	90	82.8	38.2	12.2
Auburn M	349	969	2598	68	100	88.5	37.3	12.7
Auburn 56	342	950	2560	70	96	86.2	37.1	12.5
McNair 1032	339	979	2563	76	89	80.1	38.2	11.5
Deltapine 7139	338	935	2386	77	82	81.4	39.2	11.6
Rex Smoothleaf	325	890	2406	64	82	79.1	37.0	13.6
Empire W.R. 61	319	885	2391	59	78	77.0	37.0	14.4
DeKalb 108	308	854	2320	64	85	84.8	36.8	12.9
Experimentals:								
B-57-478	326	972	2643	69	92	81.6	36.8	12.9
T-56-210	314	872	2338	57	90	88.1	37.3	12.6
Emp. Der. K-10	288	795	2196	61	77	80.9	36.2	13.9
T-58-169	279	803	2140	65	80	89.6	37.5	12.1
AHA Der. K-9	262	719	2067	67	73	82.9	34.8	13.0
L.S.D. (.05)	—	175.3	—	—	—	—	—	—
C.V. %	—	18.8	—	—	—	—	—	—

Table 15. Yield and other characteristics of cotton varieties tested at Fort Pillow in 1965

Variety	Yield							
	Acre value	Lint	Seed cotton	Bolls per lb.	Earliness	% Yield at 1st picking	Lint percent	Wt./100 seed
	\$/A.	Lb./A.	Lb./A.	No.	Index	%	%	Grams
Hancock	463	1298	3303	68	124	92.5	39.3	11.1
Deltapine 7139	457	1285	3197	72	113	90.6	40.2	11.1
Delta Hy-Bee	414	1156	3027	67	104	88.1	38.2	11.3
Deltapine Smooth Leaf	414	1162	2920	77	105	89.4	39.8	10.5
Pennington Hy-Bee	398	1108	2925	65	103	89.4	37.9	12.0
Auburn 56	394	1088	3039	73	109	89.7	35.8	11.5
McNair 1032	394	1102	2864	69	100	86.4	38.5	11.3
Empire W.R. 61	389	1057	2986	56	111	92.1	35.4	13.7
Dixie King II	387	1079	2824	59	100	89.0	38.2	12.0
Stoneville 213	375	1089	2792	74	103	91.2	39.0	10.5
Rex Smoothleaf	375	1040	2826	65	106	93.4	36.8	12.3
Carolina Queen	372	1042	2671	72	93	86.8	39.0	10.9
Coker 100A (WR)	369	1027	2731	71	99	89.0	37.6	11.0
Stoneville 7A	358	999	2621	74	93	90.7	38.1	11.4
Auburn M	347	961	2641	66	100	94.1	36.4	11.8
Stardel	345	951	2483	77	92	93.1	38.3	11.1
DeKalb 128	341	980	2662	64	97	89.9	36.8	11.8
DeKalb 108	337	933	2563	70	91	88.7	36.4	11.3
Experimentals:								
B-57-478	416	1196	3222	72	121	94.9	37.1	11.5
T-56-210	356	990	2642	72	93	89.7	37.5	11.6
T-58-169	341	949	2539	66	90	90.2	37.4	13.1
AHA Der. K-9	341	940	2626	67	95	90.4	35.8	12.6
Emp. Der. K-10	307	848	2356	65	86	89.6	36.0	12.2
L.S.D. (.05)	—	159.2	—	—	—	—	—	—
C.V. %	—	15.4	—	—	—	—	—	—

Table 16. Yield and other characteristics of cotton varieties tested at Jackson in 1965

Variety	Yield							
	Acre value	Lint	Seed cotton	Bolls per lb.	Earliness	% Yield at 1st picking	Lint percent	Wt./100 seed
	\$/A.	Lb./A.	Lb./A.	No.	Index	%	%	Grams
Hancock	422	1183	3034	67	98	94.4	39.0	10.9
Carolina Queen	411	1128	3016	72	86	80.1	37.4	11.4
Auburn M	407	1122	3135	68	100	92.4	35.8	12.4
Dixie King II	402	1115	2997	65	91	89.0	37.2	11.4
Delta Hy-Bee	398	1104	2992	71	89	84.8	36.9	11.2
Stardel	393	1074	2919	77	91	93.1	36.8	11.3
Stoneville 7A	393	1092	2912	73	86	84.5	37.5	11.5
Stoneville 213	388	1064	2822	73	89	91.1	37.7	10.8
Auburn 56	385	1058	3032	72	92	87.3	34.9	11.5
Rex Smoothleaf	385	1052	2881	68	90	92.4	36.5	12.6
Empire W.R. 61	385	1061	2979	59	94	91.8	35.6	13.4
DeKalb 108	382	1041	2891	69	84	82.5	36.0	11.3
Pennington Hy-Bee	381	1058	2860	71	87	87.3	37.0	11.0
DeKalb 128	375	1019	2863	69	84	83.3	35.6	11.6
Coker 100A (WR)	372	1016	2798	74	79	79.6	36.3	10.6
Deltapine Smooth Leaf	352	977	2655	80	73	75.7	36.8	11.0
McNair 1032	351	1009	2742	75	72	72.9	36.8	11.4
Deltapine 7139	343	942	2506	74	77	88.6	37.6	11.5
Experimentals:								
Emp. Der. K-10	394	1071	2992	66	95	92.1	35.8	12.6
T-58-169	388	1078	2914	72	91	93.2	37.0	10.8
T-56-210	386	1105	3044	70	96	91.1	36.3	10.8
B-57-478	351	964	2739	70	89	95.0	35.2	12.4
AHA Der. K-9	320	878	2523	71	78	89.4	34.8	12.3
L.S.D. (.05)	—	117.4	—	—	—	—	—	—
C.V. %	—	11.4	—	—	—	—	—	—

Table 17. Summary of yield and other characteristics of cotton varieties tested at three locations in 1964

Variety	Yield				Bolls per lb.	Earliness	% Yield at 1st picking	Lint percent	Wt./100 seed
	Acres	Lint	Seed cotton						
	\$/A.	lb./A.	lb./A.	No.					
					Index	%	%	Grams	
Hancock	407	1136	3022	62	111	74	37.6	13.1	
Auburn M	383	1056	2991	63	100	72	35.3	14.1	
Stardel	383	1037	2801	75	95	70	37.0	11.9	
Dixie King II	368	1022	2795	57	90	67	36.4	13.3	
Auburn 56	367	997	2854	66	87	67	34.8	13.1	
Cobal	366	987	2850	60	102	78	34.6	14.6	
Rex Smoothleaf	359	973	2814	62	91	69	34.4	14.3	
Deltapine 45	355	977	2689	74	88	72	36.3	12.1	
Stoneville 213	352	974	2720	72	79	62	35.7	11.8	
Stoneville 7A	350	951	2615	71	78	64	36.2	12.1	
DeKalb 220	349	943	2689	64	78	64	34.9	12.9	
DeKalb 108	339	915	2629	64	75	63	34.7	13.0	
Empire W.R. 61	326	890	2610	56	81	68	34.0	14.9	
Coker 100A (WR)	319	856	2421	69	65	59	35.0	12.5	
Deltapine Smooth Leaf	310	843	2315	76	70	64	36.4	11.2	
Carolina Queen	310	845	2369	67	64	59	35.6	12.5	
Experimentals:									
T-56-210	387	1048	2961	62	102	75	35.3	13.4	
Emp. Der. K-8	371	999	2896	60	96	74	34.4	14.3	
T-58-169	371	1020	2916	62	94	71	34.9	13.5	
B-57-478	363	1003	2902	64	99	76	34.5	13.7	
AHA Der. K-7	311	845	2584	64	72	65	32.7	14.1	
L.S.D. (.05)	—	92.5	—	—	—	—	—	—	
C.V. %	—	11.3	—	—	—	—	—	—	

Table 18. Yield and other characteristics of cotton varieties tested at Ames Plantation in 1964

Variety	Yield							
	Acre value	Lint	Seed cotton	Bolls per lb.	Earliness	% Yield at 1st picking	Lint percent	Wt./100 seed
	\$/A.	lb./A.	Lb./A.	No.	Index	%	%	Grams
Hancock	379	1051	2889	64	98	60.2	36.4	13.4
Auburn M	368	1015	2885	67	100	63.4	35.2	13.9
Stardel	365	962	2695	79	95	64.4	35.7	11.9
Cobal	330	878	2614	62	96	70.2	33.6	14.7
Auburn 56	324	882	2648	70	72	52.7	33.3	12.7
Stoneville 7A	318	850	2457	73	69	52.4	34.6	12.3
Dixie King II	308	844	2454	61	66	50.4	34.4	13.8
Rex Smoothleaf	307	837	2506	66	76	59.1	33.4	14.7
Deltapine 45	306	819	2327	79	74	59.9	35.2	11.8
DeKalb 220	305	832	2493	69	66	51.2	33.4	12.6
Stoneville 213	302	828	2409	75	62	47.6	34.4	12.0
Deltapine Smooth Leaf	297	795	2280	83	77	63.7	34.9	11.0
DeKalb 108	291	793	2368	69	60	48.6	33.5	12.9
Empire W.R. 61	274	757	2380	61	66	55.8	32.5	14.7
Carolina Queen	269	754	2179	71	54	45.1	34.6	12.5
Coker 100A (WR)	263	694	2132	75	48	44.6	32.6	12.5
Experimentals:								
T-56-210	358	982	2865	67	100	66.4	34.3	13.6
T-58-169	353	964	2852	66	91	61.2	33.8	13.5
Emp. Der. K-8	334	909	2738	62	87	63.0	33.2	13.8
B-57-478	328	894	2693	63	83	61.9	33.2	14.1
AHA Der. K-7	274	740	2330	67	66	58.1	31.8	14.2
L.S.D. (t.05)	---	109.7	---	---	---	---	---	---
C.V. %	---	13.0	---	---	---	---	---	---

Table 19. Yield and other characteristics of cotton varieties tested at Jackson in 1964

Variety	Yield							
	Acre value	Lint	Seed cotton	Bolls per lb.	Earliness	% Yield at 1st picking	Lint percent	Wt./100 seed
	\$/A.	lb./A.	lb./A.	No.	Index	%	%	Grams
Auburn 56	473	1273	3536	66	92	63.3	36.0	12.6
Stoneville 7A	473	1284	3398	71	87	59.5	37.8	11.4
Rex Smoothleaf	470	1267	3510	59	103	71.4	36.1	13.5
Hancock	470	1316	3438	63	112	75.6	38.3	11.7
Stardel	469	1273	3395	73	91	62.2	37.5	11.3
Auburn M	463	1279	3575	62	100	68.6	35.8	13.4
Dixie King II	462	1291	3398	57	97	66.6	38.0	12.2
Stoneville 213	456	1268	3446	69	83	57.5	36.8	11.4
DeKalb 220	450	1215	3329	64	82	59.0	36.5	12.3
Coker 100A (WR)	445	1206	3235	68	74	53.4	37.3	11.8
Deltapine 45	438	1218	3310	71	90	64.8	36.8	12.0
DeKalb 108	436	1173	3269	64	78	58.1	35.9	12.2
Carolina Queen	408	1100	3023	67	64	50.9	36.4	12.0
Cobal	406	1120	3166	62	95	74.6	35.4	13.9
Empire W.R. 61	404	1082	3085	55	79	63.6	35.1	13.8
Deltapine Smooth Leaf	391	1059	2832	74	63	52.2	37.4	10.6
Experimentals:								
T-56-210	484	1306	3560	61	107	72.1	36.7	12.3
Emp. Der. K-8	458	1234	3420	61	102	72.4	36.1	14.0
T-58-169	454	1259	3460	61	98	68.8	36.4	13.0
B-57-478	432	1191	3357	66	104	77.3	35.5	12.9
AHA Der. K-7	385	1048	3157	63	72	60.3	33.2	13.6
L.S.D. (.05)	—	101.7	—	—	—	—	—	—
C.V. %	—	8.6	—	—	—	—	—	—

Table 20. Yield and other characteristics of cotton varieties tested at Fort Pillow in 1964

Variety	Yield							
	Acre value	Lint	Seed cotton	Bolls per lb.	Earliness	% Yield at 1st picking	Lint percent	Wt./100 seed
	\$/A.	lb./A.	lb./A.	No.	Index	%	%	Grams
Hancock	372	1040	2738	59	124	87.7	38.0	14.1
Cobal	360	946	2770	56	116	88.2	34.8	15.2
Dixie King II	336	932	2533	53	107	84.3	36.8	13.8
Deltapine 45	322	894	2431	70	101	82.2	36.8	12.5
Auburn M	318	874	2512	61	100	85.9	34.8	15.1
Stardel	314	876	2313	74	98	82.2	37.9	12.4
Auburn 56	304	836	2377	63	96	84.1	35.2	14.1
Empire W.R. 61	303	830	2414	52	97	85.7	34.4	16.3
Stoneville 213	299	827	2305	71	93	82.3	35.9	12.1
Rex Smoothleaf	299	815	2427	61	95	85.0	33.6	14.7
DeKalb 220	292	781	2245	59	86	81.1	34.8	13.8
DeKalb 108	291	778	2250	60	86	81.1	34.6	13.8
Stoneville 7A	260	720	1991	69	78	79.2	36.2	12.5
Carolina Queen	253	680	1906	65	75	79.8	35.7	12.9
Coker 100A (WR)	249	667	1895	64	74	80.2	35.2	13.3
Deltapine Smooth Leaf	243	676	1832	71	71	77.1	36.9	12.1
Experimentals:								
B-57-478	329	924	2655	62	109	87.1	34.8	14.1
Emp. Der. K-8	321	855	2531	58	99	85.3	33.8	15.0
T-56-210	319	855	2458	58	100	85.9	34.8	14.3
T-59-169	305	837	2436	59	94	82.3	34.4	14.1
AHA Der. K-7	275	748	2266	60	78	75.8	33.0	14.4
L.S.D. (.05)	—	109.2	—	—	—	—	—	—
C.V. %	—	13.4	—	—	—	—	—	—

Table 21. Summary of yield and other characteristics of cotton varieties tested at three locations in 1963

Variety	Yield							
	Acre value	Yield		Bolls per lb.	Earliness	% Yield at 1st picking	Lint percent	Wt./100 seed
		Lint	Seed cotton					
	\$/A.	Lb./A.	Lb./A.	No.	Index	%	%	Grams
Hancock	402	1082	2643	64	109	83	41.0	10.9
Auburn M	384	1018	2709	67	100	80	37.6	11.7
Carolina Queen	379	1003	2533	69	83	68	39.5	10.5
Coker 100A (WRI)	377	993	2580	72	82	67	38.5	10.4
Stardel	361	956	2440	78	91	78	39.2	10.5
Auburn 56	359	942	2554	72	82	70	36.8	11.2
Delta Queen	356	937	2457	71	78	68	38.0	10.4
DeKalb 108	354	922	2490	67	77	68	37.1	10.8
Stoneville 213	353	951	2390	75	83	72	39.8	9.6
Dixie King	352	924	2497	59	76	68	37.0	12.4
Fox 4	349	923	2454	73	79	71	37.6	11.1
DeKalb 220	343	904	2354	68	79	72	38.4	10.2
Stoneville 7A	339	899	2287	76	70	63	39.3	9.7
Empire W.R. 61	339	870	2407	58	74	70	36.2	13.7
Deltapine Smooth Leaf	337	890	2257	79	72	66	39.4	9.6
Cobal	334	870	2344	63	89	84	37.2	11.4
Rex Smoothleaf	328	855	2301	64	81	77	37.2	12.6
Experimentals:								
T-56-210	379	999	2594	68	100	82	38.5	11.2
Emp. Der. K-8	361	928	2538	62	91	80	36.6	11.6
T-56-312	354	937	2442	68	95	83	38.4	11.0
B-57-478	327	865	2334	68	86	82	37.1	11.8
AHA Der. K-7	321	834	2305	68	75	75	36.1	11.8
L.S.D. (.05)	—	87.9	—	—	—	—	—	—
C.V. %	—	12.3	—	—	—	—	—	—

Table 22. Yield and other characteristics of cotton varieties tested at Ames Plantation in 1963

Variety	Yield							
	Acre value	Lint	Seed cotton	Bolls per lb.	Earliness	% Yield at 1st picking	Lint percent	Wt./100 seed
	\$/A.	lb./A.	lb./A.	No.	Index	%	%	Grams
Auburn M	350	939	2510	64	100	77	37.4	11.5
Auburn 56	340	878	2400	68	85	68	36.6	12.1
DeKalb 108	338	894	2405	64	85	68	37.2	10.7
Coker 100A (WRI)	336	892	2338	69	85	68	38.3	11.2
Hancock	334	895	2242	62	99	79	39.9	11.8
Stardel	331	883	2254	78	93	75	39.2	10.6
Delta Queen	329	868	2361	67	80	66	36.8	10.0
DeKalb 220	310	824	2134	66	84	73	38.7	9.6
Stoneville 213	308	829	2172	69	75	65	38.2	10.3
Fox 4	305	804	2178	70	69	62	36.9	11.6
Deltapine Smooth leaf	305	826	2071	78	86	74	39.9	9.6
Carolina Queen	302	803	2064	69	79	71	38.9	11.0
Stoneville 7A	299	796	2062	71	67	61	38.6	9.4
Empire W.R. 61	294	752	2167	55	67	64	34.7	14.8
Cobal	292	774	2055	61	88	83	37.7	10.8
Dixie King	282	754	2050	58	67	63	36.9	14.0
Rex Smoothleaf	274	710	1912	62	74	75	37.1	13.6
Experimentals:								
T-56-210	342	904	2438	63	98	78	37.1	12.8
Emp. Der. K-8	319	819	2309	58	82	72	35.5	11.7
T-56-312	304	817	2174	65	93	82	37.6	11.9
B-57-478	298	796	2169	67	87	80	36.7	12.6
AHA Der. K-7	287	735	2106	65	76	75	34.9	12.9
L.S.D. (0.05)	—	114.0	—	—	—	—	—	—
C.V. %	—	13.9	—	—	—	—	—	—

Table 23. Yield and other characteristics of cotton varieties tested at Fort Pillow in 1963

Variety	Yield							
	Acre value	Lint	Seed cotton	Bolls per lb.	Earliness	% Yield at 1st picking	Lint percent	Wt./100 seed
	\$/A.	Lb./A.	Lb./A.	No.	Index	%	%	Grams
Hancock	537	1413	3464	63	126	82	40.9	11.0
Carolina Queen	483	1250	3132	68	91	67	39.9	10.6
Coker 100A (WR)	467	1200	3125	73	92	71	38.4	10.6
Dixie King	458	1185	3229	57	90	71	36.7	12.3
Auburn M	452	1170	3144	69	100	79	37.2	12.6
Fox 4	440	1165	3081	75	95	77	37.8	11.3
Delta Queen	435	1139	2891	72	92	75	39.5	10.8
Auburn 56	435	1152	3063	75	90	72	37.6	10.8
DeKalb 108	422	1075	2954	67	77	66	36.4	11.5
Stoneville 213	419	1122	2804	78	94	78	40.1	9.8
Stardel	416	1087	2774	78	92	78	39.2	10.7
Cobal	408	1038	2860	61	92	82	36.3	12.3
Empire W.R. 61	403	1038	2901	56	79	70	35.8	14.0
Deltapine Smooth Leaf	402	1054	2662	77	75	67	39.7	9.9
Rex Smoothleaf	400	1017	2811	63	79	71	36.2	13.4
Stoneville 7A	395	1030	2655	76	69	62	38.9	10.4
DeKalb 220	394	1025	2684	70	79	72	38.2	10.3
Experimentals:								
T-56-210	458	1199	3052	72	112	86	39.3	10.3
Emp. Der. K-8	445	1135	3101	61	103	84	36.7	12.5
T-56-312	425	1093	2840	71	96	81	38.5	11.0
AHA Der. K-7	412	1067	2869	69	83	73	37.3	11.5
B-57-478	385	997	2696	71	82	76	37.0	11.9
L.S.D. (05)	—	138.4	—	—	—	—	—	—
C.V. %	—	12.5	—	—	—	—	—	—

Table 24. Yield and other characteristics of cotton varieties tested at Jackson in 1963

Variety	Yield					Earliness	% Yield at 1st picking	Lint percent	Wt./100 seed
	Acre value	Lint	Seed cotton	Bolls per lb.					
	\$/A.	Lb./A.	Lb./A.	No.	Index	%	%	Grams	
Carolina Queen	353	956	2403	70	78	66	39.8	9.9	
Auburn M	351	944	2473	70	100	85	38.2	11.1	
Stardel	337	898	2291	76	88	80	39.2	10.3	
Hancock	336	938	2224	68	101	87	42.2	10.0	
Stoneville 213	331	903	2193	79	81	72	41.2	8.8	
Coker 100A (WR)	328	887	2276	74	69	63	39.0	9.4	
DeKalb 220	325	864	2244	69	75	70	38.5	10.7	
Stoneville 7A	324	870	2143	80	73	67	40.6	9.3	
Empire W.R. 61	319	820	2153	61	76	74	38.1	12.4	
Dixie King	314	832	2213	62	72	69	37.7	11.0	
Rex Smoothleaf	311	837	2180	66	89	86	38.4	10.8	
Delta Queen	303	803	2120	74	63	64	37.9	10.4	
Deltapine Smooth Leaf	303	790	2037	81	55	56	38.8	9.3	
Auburn 56	302	795	2198	73	71	72	36.3	10.8	
Fox 4	302	800	2104	75	72	73	38.0	10.4	
Cobal	301	798	2117	67	87	88	37.7	11.0	
DeKalb 108	301	796	2112	71	69	70	37.7	10.2	
Experimentals:									
T-56-210	335	894	2291	69	90	82	39.1	10.4	
T-56-312	334	901	2312	70	96	85	39.0	10.1	
Emp. Der. K-8	320	831	2204	66	87	84	37.7	10.7	
B-57-478	299	802	2138	73	89	90	37.6	11.0	
AHA Der. K-7	263	700	1941	70	67	77	36.1	11.0	
L.S.D. (.05)	—	81.6	—	—	—	—	—	—	
C.V. %	—	9.6	—	—	—	—	—	—	

Table 25. Length (2.5% span length¹), strength (T₁), and fineness (micronaire reading) of fourteen cotton varieties tested at three locations from 1963 through 1966

Variety	Length (2.5 SL)	Strength (T ₁)	Fineness (Micronaire)
Carolina Queen	1.11	1.83	4.44
Empire W.R. 61	1.11	1.79	3.92
Deltapine Smooth Leaf	1.10	1.88	4.46
Stoneville 7A	1.10	1.86	4.56
Stardel	1.09	1.92	4.36
Rex Smoothleaf	1.09	1.75	4.07
Auburn M	1.08	1.76	4.24
Dixie King II	1.08	1.77	4.36
Stoneville 213	1.08	1.80	4.64
Auburn 56	1.07	1.78	4.33
Hancock	1.06	1.78	4.33
Experimentals:			
Emp. Der. K-11	1.10	1.84	4.10
T-56-210	1.08	1.81	4.19
AHA Der. K-10	1.06	2.02	4.60
Average	1.09	1.83	4.32

¹ Upper half mean length in 1963; closely correlated with 2.5% span length.

Table 26. Fiber and spinning data of cotton varieties tested at Ames Plantation in 1966

Variety	Length			Strength		Fineness Micro- naire	Yarn strength 27tx
	Classers in 32's	2.5 SL	.50 SL	T ₁	E ₁		
Auburn M	36	1.18	.58	17.3	9.38	3.70	117
Deltapine 45A	37	1.20	.60	19.2	9.61	3.96	123
Coker 413	40	1.25	.62	19.7	8.04	3.90	135
Paymaster 54B	34	1.07	.55	15.9	10.59	4.15	102
Stoneville 213	37	1.18	.59	18.3	9.60	4.20	118
Deltapine Smooth Leaf	35	1.20	.57	18.1	10.82	3.93	123
Carolina Queen	37	1.20	.60	19.0	8.82	4.03	123
Hy-Bee 200	36	1.19	.60	18.3	9.67	3.99	121
Hancock	36	1.16	.58	18.6	8.79	3.90	120
Auburn 56	34	1.19	.59	17.1	9.56	4.15	113
Rex Smoothleaf	36	1.17	.57	17.6	8.81	3.85	116
Stardel	34	1.17	.58	18.2	8.03	3.95	128
Acala 1517D	39	1.28	.66	20.8	9.97	3.90	143
Pennington Hy-Bee	35	1.18	.58	18.1	9.07	3.78	123
Empire W.R. 61	34	1.15	.56	17.1	7.79	3.70	116
Stoneville 7A	37	1.18	.57	17.8	7.75	4.07	126
McNair 1032	34	1.17	.59	19.1	9.58	3.95	122
Dixie King II	36	1.14	.57	17.6	7.86	4.19	115
Experimentals:							
Emp. Der. K-11	37	1.20	.60	19.6	8.74	3.89	120
T-56-210	35	1.16	.57	18.1	8.22	3.99	119
T-58-169	36	1.17	.59	17.8	8.80	4.00	124
AHA Der. K-10	37	1.16	.60	21.1	8.65	4.24	128

Table 27. Fiber and spinning data of cotton varieties tested at Fort Pillow in 1966

Variety	Length			Strength		Fineness Micro- noire	Yarn strength 271x
	Classes in 32's	2.5 SL	.50 SL	T ₁	E ₁		
Stoneville 213	36	1.15	.56	18.2	8.44	4.24	110
Auburn M	34	1.13	.55	18.2	8.50	4.06	108
Auburn 56	34	1.12	.56	18.4	8.79	4.17	114
McNair 1032	34	1.11	.55	20.4	7.91	4.24	130
Hy-Bee 200	34	1.16	.57	18.5	8.05	4.18	121
Dixie King II	34	1.13	.55	18.3	7.34	4.07	120
Deltapine Smooth Leaf	35	1.18	.56	19.1	9.60	4.15	127
Carolina Queen	36	1.17	.56	18.8	7.54	4.10	120
Hancock	35	1.13	.55	18.7	8.09	3.95	123
Pennington Hy-Bee	36	1.17	.56	18.6	8.17	3.97	116
Rex Smoothleaf	35	1.15	.54	18.0	7.77	3.79	118
Deltapine 45A	34	1.16	.57	17.9	8.90	4.23	114
Stoneville 7A	36	1.17	.58	18.5	7.92	4.19	128
Empire W.R. 61	34	1.17	.56	17.9	7.69	3.64	122
Coker 413	37	1.26	.60	20.7	6.59	3.91	139
Acala 1517D	36	1.24	.62	21.8	7.36	3.86	150
Paymaster 54B	34	1.03	.53	17.2	9.25	3.90	108
Stardel	35	1.15	.53	18.9	7.55	3.71	124
Experimentals:							
Emp. Der. K-11	34	1.15	.56	18.3	7.57	3.90	123
AHA Der. K-10	36	1.11	.54	20.4	7.56	4.15	132
T. 56-210	34	1.14	.54	18.7	7.31	3.74	121
T. 58-169	37	1.13	.53	19.2	7.87	3.87	115

Table 28. Fiber strength, micronaire, and yarn strength of cotton varieties tested at Jackson in 1966

Variety	Strength				Fineness Micronaire		Yarn strength 27tx	
	Hand picked ¹		Mechanically harvested ²		Hand picked	Mechanically harvested	Hand picked	Mechanically harvested
	T ₁	E ₁	T ₁	E ₁				
Hancock	17.0	7.20	17.4	8.36	4.69	4.27	116	112
Rex Smoothleaf	16.7	8.13	16.6	8.74	4.45	3.92	114	108
Deltapine 45A	17.9	8.13	18.4	8.19	4.58	4.17	115	109
Hy-Bee 200	17.3	8.32	16.8	8.32	4.59	3.63	112	107
Carolina Queen	17.6	7.85	16.9	7.49	4.75	4.30	118	111
Pennington Hy-Bee	17.1	7.31	17.9	7.49	4.59	3.92	116	109
Deltapine Smooth leaf	17.6	9.92	18.6	9.74	4.70	4.17	120	110
McNair 1032	18.8	8.35	17.8	9.12	4.62	4.07	120	121
Coker 413	18.6	7.40	19.4	7.24	4.44	3.88	136	124
Empire W.R. 61	16.8	6.56	14.9	8.48	4.30	4.02	117	108
Auburn 56	16.5	8.74	16.9	9.29	4.75	3.92	114	104
Stardel	17.7	6.75	18.2	7.31	4.46	3.90	130	116
Stoneville 213	17.6	8.40	17.3	8.79	4.79	3.92	115	107
Acala 1517D	20.9	7.60	22.4	7.44	4.42	3.90	148	143
Auburn M	17.5	7.82	17.4	8.88	4.62	4.10	114	107
Dixie King II	17.1	7.13	16.0	7.82	4.80	4.38	114	104
Stoneville 7A	18.3	6.67	17.2	8.20	4.65	3.88	124	117
Paymaster 54B	16.3	9.08	15.9	9.90	4.40	4.17	106	96
Experimentals:								
Emp. Der. K-11	17.7	7.61	17.2	7.75	4.50	4.02	118	108
T-56-210	17.8	7.02	15.0	9.69	4.58	4.22	120	109
AHA Der. K-10	19.6	6.83	19.2	7.66	4.93	4.45	131	119
T-58-169	17.5	7.50	17.6	8.26	4.52	3.92	116	114
Average	17.7	7.74	17.5	8.37	4.60	4.05	120	112

¹ Samples were hand picked and ginned on a 10-saw laboratory gin.² Samples were obtained from mechanically-picked cotton that had been ginned on a commercial gin.

Table 29. Fiber length data of cotton varieties tested at Jackson in 1966

Variety	Length ¹			Length ²		
	Mechanically picked			Hand picked		
	Classers in 32's	2.5 SL	.50 SL	2.5 SL	.50 SL	Classers in 32's
	In.					In.
Hancock	34	1.06	.49	1.12	.55	35
Rex Smoothleaf	34	1.11	.48	1.17	.57	35
Deltapine 45A	35	1.12	.51	1.16	.57	36
Hy-Bee 200	34	1.08	.47	1.16	.57	36
Carolina Queen	35	1.11	.51	1.18	.59	36
Pennington Hy-Bee	35	1.12	.49	1.16	.57	37
Deltapine Smooth Leaf	35	1.11	.50	1.16	.57	35
McNair 1032	35	1.02	.46	1.10	.57	37
Coker 413	38	1.17	.53	1.19	.61	35
Empire W.R. 61	35	1.08	.48	1.14	.56	37
Auburn 56	34	1.06	.46	1.13	.57	34
Stardel	35	1.13	.49	1.15	.56	36
Stoneville 213	34	1.10	.48	1.13	.55	37
Acala 1517D	35	1.21	.58	1.21	.62	35
Auburn M	34	1.10	.51	1.15	.57	37
Dixie King II	34	1.07	.49	1.13	.56	34
Stoneville 7A	35	1.13	.51	1.18	.57	37
Paymaster 54B	33	0.98	.47	0.99	.51	34
Experimentals:						
Emp. Der. K-11	35	1.09	.49	1.14	.55	36
T-56-210	35	1.08	.50	1.14	.57	36
AHA Der. K-10	34	1.06	.49	1.10	.56	37
T-58-169	34	1.08	.47	1.15	.55	37
Average	34.6	1.09	.49	1.14	.57	35.9

¹ Fiber length data from mechanically-picked cotton ginned on a commercial gin.

² Fiber length data from hand-picked samples ginned on a 10-saw laboratory gin.

Table 30. Fiber data of cotton varieties tested at Jackson and Fort Pillow in 1966¹

Variety	Length			Strength		Fineness Micronaire
	Classes in 32's	2.5 SL	.50 SL	T ₁	E ₁	
	In.					
Hancock	34.5	1.12	.55	17.8	7.65	4.32
Hy-Bee 200	34.0	1.16	.57	17.9	8.43	4.38
Stoneville 213	35.0	1.14	.56	17.9	8.42	4.51
Auburn 56	34.0	1.12	.56	17.5	8.76	4.46
McNair 1032	34.5	1.10	.56	19.6	8.13	4.43
Rex Smoothleaf	34.5	1.16	.55	17.3	7.95	4.12
Auburn M	34.0	1.14	.56	17.8	8.16	4.34
Carolina Queen	35.5	1.17	.58	18.2	7.69	4.42
Deltapine Smooth Leaf	35.0	1.17	.56	18.3	9.76	4.43
Deltapine 45A	34.5	1.16	.57	17.9	8.51	4.40
Pennington Hy-Bee	35.5	1.16	.56	17.8	7.74	4.28
Dixie King II	34.0	1.13	.55	17.7	7.23	4.42
Empire W.R. 61	34.5	1.15	.56	17.3	7.13	3.97
Stoneville 7A	35.5	1.17	.57	18.4	7.30	4.42
Coker 413	37.5	1.23	.60	19.6	7.00	4.18
Acala 1517D	35.5	1.22	.62	21.4	7.48	4.14
Stardel	35.0	1.15	.54	18.3	7.15	4.09
Paymaster 54B	33.5	1.01	.52	16.7	9.16	4.15
Experimentals:						
Emp. Der. K-11	34.5	1.14	.55	18.0	7.59	4.20
T-56-210	34.5	1.14	.55	18.3	7.16	4.16
AHA Der. K-10	35.0	1.10	.55	20.0	7.19	4.54
T-58-169	35.5	1.14	.54	18.3	7.69	4.19

¹ Hand-picked fiber data only.

Table 31. Summary of fiber data of cotton varieties tested at three locations in 1965

Variety	Length		Strength		Fineness Micronaire
	50 SL	2.5 SL	T ₁	E ₁	
Jancock	.48	1.02	1.77	7.17	4.04
Delta Hy-Bee	.52	1.08	1.82	7.54	4.38
Dixie King II	.49	1.04	1.75	7.30	4.25
Deltapine Smooth Leaf	.50	1.08	1.87	9.39	4.44
Carolina Queen	.51	1.07	1.85	7.16	4.43
Deltapine 7139	.51	1.05	1.90	8.76	4.50
Stoneville 213	.50	1.04	1.79	8.07	4.54
Stardel	.51	1.06	1.98	7.16	4.27
Pennington Hy-Bee	.51	1.07	1.83	7.61	4.29
Auburn 56	.49	1.03	1.79	7.95	4.23
Coker 100A (WRI)	.51	1.09	1.78	7.56	4.15
Stoneville 7A	.51	1.07	1.87	6.89	4.58
Auburn M	.49	1.03	1.72	7.96	3.96
Empire W.R. 61	.50	1.07	1.78	6.97	3.87
Rex Smoothleaf	.49	1.05	1.77	7.45	3.96
McNair 1032	.50	1.03	1.89	7.52	4.64
DeKalb 128	.50	1.08	1.80	7.41	4.26
DeKalb 108	.49	1.06	1.79	7.51	4.19
Experimentals:					
B-57-478	.48	1.00	1.83	7.46	4.09
T-56-210	.50	1.05	1.79	7.12	3.99
T-58-169	.48	1.04	1.79	7.22	4.09
Emp. Der. K-10	.50	1.08	1.88	7.34	4.03
AHA Der. K-9	.50	1.04	2.00	6.94	4.51

Table 32 Fiber and spinning data of the cotton varieties tested at Ames Plantation in 1965

Variety	Length		Strength		Fineness Micronaire	Yarn strength 27 tx
	50 SL	2.5 SL	T ₁	E ₁		
Stardel	.52	1.05	2.04	7.61	4.72	—
Deltapine Smooth Leaf	.51	1.06	1.88	9.32	5.00	—
Stoneville 213	.51	1.03	1.83	8.51	5.13	—
DeKalb 128	.49	1.05	1.81	7.66	4.80	—
Coker 100A (WR)	.52	1.06	1.81	7.79	4.73	—
Dixie King II	.49	1.00	1.81	7.84	4.80	—
Delta Hy-Bee	.52	1.06	1.85	8.19	4.96	—
Carolina Queen	.51	1.04	1.91	7.83	4.84	—
Stoneville 7A	.52	1.05	1.92	7.14	5.17	—
Hancock	.49	1.01	1.85	7.56	4.56	113
Pennington Hy-Bee	.51	1.04	1.85	7.78	4.82	127
Auburn M	.50	1.01	1.70	8.33	4.40	—
Auburn 56	.50	1.01	1.79	8.55	4.63	—
McNair 1032	.51	1.02	1.91	9.32	4.77	—
Deltapine 7139 ^o	.49	1.05	1.81	7.66	4.80	—
Rex Smoothleaf	.50	1.04	1.82	7.76	4.34	—
Empire W.R. 61	.50	1.05	1.82	7.44	4.33	—
DeKalb 108	.49	1.04	1.79	7.74	4.68	—
Experimentals:						
B-57-478	.50	1.00	1.87	7.53	4.53	120
T-56-210	.51	1.04	1.86	7.57	4.43	119
Emp. Der. K-10	.50	1.04	1.90	7.58	4.46	128
T-58-169	.48	1.01	1.86	7.42	4.61	120
AHA Der. K-9	.51	1.01	2.07	7.23	4.88	137

Table 33. Fiber and spinning data of the cotton varieties tested at Fort Pillow in 1965

Variety	Length		Strength		Fineness Micronaire	Yarn strength 27 tx
	50 SL	2.5 SL	T ₁	E ₁		
Hancock	.48	1.02	1.75	7.06	3.76	122
Deltapine 7139	.53	1.08	1.81	8.28	4.37	115
Delta Hy-Bee	.53	1.09	1.75	7.29	4.24	110
Deltapine Smooth Leaf	.52	1.10	1.85	9.62	4.26	119
Pennington Hy-Bee	.52	1.08	1.73	7.64	4.17	—
Auburn 56	.49	1.04	1.75	7.67	4.09	118
McNair 1032	.50	1.05	1.79	7.50	4.38	—
Empire W.R. 61	.51	1.10	1.68	7.13	3.61	118
Dixie King II	.51	1.07	1.74	7.14	4.10	118
Stoneville 213	.50	1.05	1.67	7.70	4.28	112
Rex Smoothleaf	.50	1.06	1.71	7.22	3.73	117
Carolina Queen	.51	1.06	1.67	6.80	4.22	112
Coker 100A (WR)	.52	1.11	1.74	7.42	3.92	120
Stoneville 7A	.50	1.07	1.77	6.97	4.29	118
Auburn M	.49	1.05	1.66	7.59	3.65	113
Stardel	.51	1.09	1.86	6.73	4.13	119
DeKalb 128	.53	1.11	1.76	7.47	4.04	119
DeKalb 108	.50	1.06	1.71	7.39	4.03	—
Experimentals:						
B-57-478	.49	1.01	1.76	7.73	3.83	118
T-56-210	.51	1.06	1.69	7.05	3.88	118
T-58-169	.49	1.05	1.70	7.36	3.99	122
AHA Der. K-9	.50	1.05	1.85	7.06	4.28	133
Emp. Der. K-10	.50	1.09	1.76	7.40	3.80	117

Table 34. Fiber and spinning data of the cotton varieties tested at Jackson in 1965

Variety	Length		Strength		Fineness Micronaire	Yarn strength 27 tx
	50 SL	2.5 SL	T ₁	E ₁		
Hancock	.47	1.03	1.73	6.91	3.80	117
Carolina Queen	.52	1.12	1.99	6.84	4.24	129
Auburn M	.48	1.04	1.80	7.97	3.82	123
Dixie King II	.48	1.05	1.72	7.04	3.84	118
Delta Hy-Bee	.51	1.09	1.87	7.16	3.94	—
Stardel	.50	1.06	2.06	7.15	3.96	—
Stoneville 7A	.51	1.11	1.93	6.56	4.28	124
Stoneville 213	.49	1.04	1.87	8.02	4.23	124
Auburn 56	.48	1.05	1.85	7.63	3.97	124
Rex Smoothleaf	.49	1.06	1.78	7.38	3.80	119
Empire W.R. 61	.49	1.07	1.85	6.35	3.68	126
DeKalb 108	.48	1.07	1.87	7.40	3.86	125
Pennington Hy-Bee	.50	1.09	1.90	7.40	3.88	127
DeKalb 128	.49	1.10	1.84	7.12	3.95	—
Coker 100A (WR)	.48	1.10	1.80	7.48	3.82	126
Deltapine Smooth Leaf	.49	1.08	1.89	9.23	4.06	125
McNair 1032	.52	1.06	2.00	7.19	4.49	—
Deltapine 7139	.50	1.06	1.97	8.68	4.35	—
Experimentals:						
Emp. Der. K-10	.50	1.11	1.98	7.05	3.84	133
T-58-169	.47	1.05	1.82	6.88	3.67	123
T-56-210	.48	1.05	1.81	6.74	3.68	119
B-57-478	.47	1.01	1.85	7.13	3.90	121
AHA Der. K-9	.50	1.05	2.09	6.54	4.37	141

Table 35. Summary of cotton fiber data of the variety tests in 1964

Variety	Length		Strength		Fineness Micronaire
	50 SL	2.5 SL	T ₁	E ₁	
Hancock	.51	1.07	1.82	7.8	4.11
Auburn M	.51	1.07	1.72	8.5	4.15
Stardel	.49	1.08	1.92	7.2	4.33
Dixie King II	.49	1.08	1.75	7.4	4.33
Auburn 56	.50	1.07	1.72	9.1	4.18
Cobal	.52	1.11	1.82	8.8	4.00
Rex Smoothleaf	.51	1.09	1.72	8.4	3.91
Deltapine 45	.52	1.09	1.94	8.1	4.34
Stoneville 213	.51	1.07	1.77	8.3	4.47
Stoneville 7A	.50	1.08	1.64	8.1	4.29
DeKalb 220	.52	1.11	1.75	8.3	3.97
DeKalb 108	.50	1.09	1.79	8.8	4.03
Empire W.R. 61	.50	1.10	1.78	7.9	3.71
Coker 100A (WRI)	.52	1.14	1.77	8.4	4.14
Deltapine Smooth Leaf	.51	1.10	1.89	9.7	4.19
Carolina Queen	.52	1.11	1.81	7.9	4.17
Experimentals:					
T-56-210	.51	1.07	1.80	7.8	4.25
Emp. Der. K-8	.51	1.08	1.81	7.9	3.91
T-58-169	.50	1.08	1.78	7.7	4.06
B-57-478	.50	1.02	1.83	7.9	4.19
AHA Der. K-7	.53	1.08	2.03	7.1	4.46

Table 36. Fiber and spinning data of cotton varieties tested at Ames Plantation in 1964

Variety	Length		Strength		Fineness Micronaire	Yarn strength
	50 SL	2.5 SL	T ₁	E ₁		
Hancock	.54	1.10	1.69	8.4	3.94	105
Auburn M	.50	1.06	1.64	8.4	3.81	—
Stardel	.51	1.12	1.91	7.4	4.00	—
Cobal	.52	1.11	1.78	8.8	3.75	113
Auburn 56	.51	1.08	1.69	9.2	3.73	—
Stoneville 7A	.49	1.07	1.65	8.1	3.95	—
Dixie King II	.49	1.09	1.75	7.6	4.13	—
Rex Smoothleaf	.51	1.11	1.66	8.4	3.65	—
Deltapine 45	.52	1.10	1.92	8.7	3.90	—
DeKalb 220	.53	1.11	1.79	8.6	3.52	—
Stoneville 213	.52	1.07	1.76	8.5	4.11	—
Deltapine Smooth Leaf	.51	1.10	1.86	10.1	3.74	—
DeKalb 108	.50	1.11	1.75	8.9	3.66	—
Empire WR 61	.50	1.08	1.73	8.1	3.39	—
Carolina Queen	.51	1.12	1.78	8.2	3.77	—
Coker 100A (WRI)	.53	1.16	1.76	8.5	3.71	—
Experimentals:						
T-56-210	.52	1.09	1.82	7.9	3.65	117
T-58-169	.48	1.07	1.72	7.6	3.81	109
Emp. Der. K-8	.51	1.08	1.81	7.7	3.65	111
B-57-478	.50	1.05	1.86	8.0	3.82	114
AHA Der. K-7	.53	1.08	1.88	8.2	4.11	121

Table 37. Fiber and spinning data of cotton varieties tested at Fort Pillow in 1964

Variety	Length		Strength		Fineness Micronaire	Yarn strength 27 tx
	50 SL	2.5 SL	T ₁	E ₁		
Hancock	.51	1.07	1.87	7.5	4.14	114
Cobal	.51	1.09	1.77	8.9	4.10	118
Dixie King II	.50	1.09	1.77	7.4	4.45	113
Deltapine 45	.53	1.11	1.93	8.1	4.49	115
Auburn M	.52	1.09	1.81	8.7	4.25	109
Stardel	.48	1.08	1.85	7.2	4.49	109
Auburn 56	.50	1.10	1.69	8.8	4.34	109
Empire W.R. 61	.51	1.13	1.80	8.1	3.80	110
Stoneville 213	.51	1.09	1.71	8.5	4.54	109
Rex Smoothleaf	.52	1.10	1.82	8.3	3.86	112
DeKalb 220	.52	1.15	1.77	7.9	4.10	112
DeKalb 108	.49	1.10	1.76	8.8	4.13	116
Stoneville 7A	.51	1.13	1.62	8.6	4.28	107
Carolina Queen	.54	1.14	1.77	8.0	4.33	110
Coker 100A (W.R.)	.51	1.14	1.74	8.3	4.25	111
Deltapine Smooth Leaf	.51	1.11	1.84	9.6	4.33	119
Experimentals:						
B-57-478	.50	1.04	1.81	7.9	4.28	114
Emp. Der. K-8	.51	1.11	1.83	8.1	3.90	120
T-56-210	.51	1.09	1.73	7.8	4.69	119
T-58-169	.51	1.10	1.84	7.7	4.10	113
AHA Der. K-7	.53	1.11	2.11	6.4	4.56	127

Table 38. Fiber and spinning data of cotton varieties tested at Jackson in 1964

Variety	Length		Strength		Fineness Micronaire	Yarn strength 27 tx
	50 SL	2.5 SL	T ₁	E ₁		
Auburn 56	.48	1.03	1.78	9.3	4.49	108
Stoneville 7A	.50	1.06	1.65	7.6	4.66	103
Rex Smoothleaf	.51	1.08	1.67	8.4	4.23	105
Hancock	.50	1.05	1.90	7.4	4.26	113
Stardel	.49	1.06	2.01	7.0	4.51	117
Auburn M	.51	1.06	1.70	8.5	4.40	104
Dixie King II	.49	1.06	1.74	7.2	4.40	105
Stoneville 213	.51	1.06	1.83	7.8	4.76	108
DeKalb 220	.51	1.08	1.70	8.6	4.30	115
Coker 100A (WR)	.52	1.11	1.83	8.4	4.45	112
Deltapine 45	.53	1.08	1.98	7.7	4.65	119
DeKalb 108	.51	1.06	1.85	8.7	4.30	107
Carolina Queen	.51	1.09	1.87	7.4	4.43	103
Cobal	.53	1.12	1.92	8.6	4.16	116
Empire W.R. 61	.50	1.08	1.82	7.6	3.96	109
Deltapine Smooth Leaf	.51	1.08	1.99	9.5	4.51	114
Experimentals:						
T-56-210	.49	1.04	1.84	7.6	4.41	113
Emp. Der. K-8	.51	1.07	1.80	8.0	4.17	122
T-58-169	.52	1.07	1.79	7.6	4.27	115
B-57-478	.50	.98	1.84	7.6	4.49	111
AHA Der. K-7	.52	1.05	2.11	6.7	4.70	128

Table 39. Summary of fiber data of cotton varieties tested at three locations in 1963

Variety	Length		Uniformity ratio	Strength		Fineness Micronaire
	U.H.M. in.	Mean in.		T ₁	E ₁	
Hancock	1.03	.88	85	1.85	7.8	4.57
Auburn M	1.07	.91	85	1.81	8.3	4.49
Carolina Queen	1.10	.95	86	1.84	7.8	4.74
Coker 100A (WR)	1.11	.94	85	1.86	7.7	4.59
Stardel	1.06	.88	83	1.93	7.1	4.74
Auburn 56	1.07	.92	86	1.87	8.5	4.45
Delta Queen	1.10	.94	85	1.90	8.1	4.45
DeKalb 108	1.07	.91	85	1.75	7.8	4.42
Stoneville 213	1.06	.91	86	1.82	8.1	5.06
Dixie King	1.07	.89	83	1.80	6.8	4.44
Fox 4	1.05	.91	87	1.93	7.8	5.02
DeKalb 220	1.08	.91	84	1.82	7.9	4.52
Stoneville 7A	1.07	.92	86	1.81	7.4	4.90
Empire W.R. 61	1.11	.93	84	1.87	7.2	4.14
Deltapine Smooth Leaf	1.07	.90	84	1.93	8.8	4.76
Cobal	1.09	.90	83	1.92	7.9	4.27
Rex Smoothleaf	1.07	.89	83	1.76	7.9	4.28
Experimentals:						
T-56-210	1.05	.88	84	1.83	7.1	4.35
Emp. Der. K-8	1.08	.90	83	1.89	7.3	4.25
T-56-312	1.05	.88	84	1.81	7.1	4.48
B-57-478	1.02	.88	86	1.85	7.8	4.32
AHA Der. K-7	1.04	.90	87	2.04	7.2	4.87

Table 40. Fiber and spinning data of cotton varieties tested at Ames Plantation in 1963

Variety	Length		Uniformity ratio	Strength		Fineness Micronaire	Yarn strength 27 tx
	U.H.M. in.	Mean in.		T ₁	E ₁		
Auburn M	1.06	.94	89	1.79	9.0	4.61	—
Auburn 56	1.09	.97	89	1.86	9.2	4.62	—
DeKalb 108	1.07	.93	87	1.79	8.9	4.51	—
Coker 100A (WR)	1.12	.97	87	1.83	9.0	4.79	—
Hancock	1.06	.92	87	1.88	9.1	4.67	123
Stardel	1.09	.94	86	2.08	7.8	4.82	—
Delta Queen	1.11	.98	88	1.88	9.3	4.56	—
DeKalb 220	1.07	.94	88	1.85	8.9	4.73	—
Stoneville 213	1.05	.93	89	1.86	9.1	5.22	—
Fox 4	1.05	.94	90	1.88	8.9	5.09	—
Deltapine Smooth Leaf	1.05	.91	87	1.90	9.4	4.80	—
Carolina Queen	1.12	1.00	89	1.90	9.1	4.79	—
Stoneville 7A	1.06	.91	86	1.79	8.8	5.01	—
Empire W.R. 61	1.14	.99	87	1.96	8.0	4.02	—
Cobal	1.11	.97	87	1.97	8.6	4.51	125
Dixie King	1.07	.92	86	1.82	7.9	4.44	—
Rex Smoothleaf	1.08	.93	86	1.81	8.8	4.58	—
Experimentals:							
T-56-210	1.09	.94	86	1.93	8.1	4.54	119
Emp. Der. K-8	1.11	.95	86	1.91	8.6	4.38	127
T-56-312	1.06	.93	88	1.94	7.9	4.63	120
B-57-478	1.03	.92	89	1.92	8.8	4.38	125
AHA Der. K-7	1.06	.92	87	1.96	8.5	4.98	136

Table 41. Fiber and spinning data of cotton varieties tested at Fort Pillow in 1963

Variety	Length		Uniformity ratio	Strength		Fineness Micronaire	Yarn strength 27 tx
	U.H.M. in.	Mean in.		T ₁	E ₁		
Hancock	1.08	.92	85	1.98	7.4	4.26	125
Carolina Queen	1.14	.97	85	1.80	7.4	4.52	123
Coker 100A (WR)	1.15	.96	83	1.84	7.2	4.39	128
Dixie King	1.13	.93	82	1.84	6.3	4.33	124
Auburn M	1.11	.95	86	1.85	7.9	4.34	121
Fox 4	1.10	.94	85	1.96	7.3	4.67	127
Delta Queen	1.14	.96	84	1.87	8.0	4.28	125
Auburn 56	1.11	.96	86	1.89	8.3	4.17	121
DeKalb 108	1.15	.98	85	1.67	7.6	4.28	127
Stoneville 213	1.09	.92	84	1.79	8.0	4.83	119
Stardel	1.10	.90	82	1.85	6.5	4.63	129
Cobal	1.13	.93	82	1.90	7.8	4.09	129
Empire W.R. 61	1.16	.98	84	1.86	6.8	3.98	124
Deltapine Smooth Leaf	1.13	.93	82	1.92	8.6	4.52	128
Rex Smoothleaf	1.15	.95	83	1.77	7.6	4.02	118
Stoneville 7A	1.15	.98	85	1.82	6.9	4.76	119
DeKalb 220	1.15	.96	83	1.86	7.8	4.16	127
Experimentals:							
T-56-210	1.07	.89	83	1.81	6.9	4.02	122
Emp. Der. K-8	1.12	.93	83	1.97	6.9	4.06	129
T-56-312	1.11	.92	83	1.82	6.8	4.26	116
AHA Der. K-7	1.07	.93	87	2.08	7.0	4.69	140
B-57-478	1.07	.95	89	1.91	7.5	4.16	128

Table 42. Fiber and spinning data of cotton varieties tested at Jackson in 1963

Variety	Length		Uniformity ratio	Strength		Fineness Micronaire	Yarn strength 27 tx
	U.H.M. in.	Mean in.		T ₁	E ₁		
Carolina Queen	1.04	.89	86	1.82	6.8	4.93	119
Auburn M	1.03	.85	83	1.80	8.0	4.51	113
Stardel	1.00	.81	81	1.85	7.1	4.79	122
Hancock	.96	.80	83	1.69	6.8	4.79	111
Stoneville 213	1.03	.89	86	1.81	7.3	5.14	117
Coker 100A (WR)	1.05	.88	84	1.90	6.9	4.58	122
DeKalb 220	1.01	.83	82	1.77	7.1	4.69	115
Stoneville 7A	1.02	.87	85	1.82	6.5	4.95	115
Empire W.R. 61	1.04	.84	82	1.78	6.8	4.43	120
Dixie King	1.00	.82	83	1.75	6.3	4.55	114
Rex Smoothleaf	1.00	.80	80	1.70	7.3	4.26	111
Delta Queen	1.05	.89	85	1.94	7.1	4.53	123
Deltapine Smooth Leaf	1.04	.86	83	1.98	8.6	4.96	130
Auburn 56	1.02	.85	83	1.87	7.9	4.57	119
Fox 4	1.00	.86	86	1.96	7.2	5.32	115
Cobal	1.02	.81	80	1.90	7.4	4.21	118
DeKalb 108	1.00	.82	82	1.78	6.9	4.48	118
Experimentals:							
T-56-210	1.00	.81	81	1.76	6.3	4.50	112
T-56-312	.99	.80	81	1.67	6.5	4.55	112
Emp. Der. K-8	1.01	.83	82	1.79	6.6	4.32	118
B-57-478	.95	.79	83	1.73	7.1	4.43	120
AHA Der. K-7	1.01	.86	85	2.08	6.3	4.93	132

Section II

Advanced Strains Test

Promising advanced experimental strains from the Tennessee breeding program, adjacent states, and Southeastern commercial breeders were tested at Jackson each year. Two recommended commercial varieties, one early and one late, were included as checks. Entries inferior to the commercial checks were replaced by newer strains from year to year. Experimentals are rarely evaluated in the advanced strains tests for more than 3 years. Poorly-performing strains are eliminated from the test and the best strains from the Tennessee program are entered in the state variety tests. Also those strains which show promise from other institutions which are released as named varieties are entered in the state variety tests.

Procedure

A randomized block design with 8 replications was regularly used in the advanced strains tests. Two-row plots 35 feet long were common to the tests. All advanced strains tests were harvested by hand.

A 160-boll random sample was taken from each entry immediately before first picking of each test. The 160-boll samples were composited from 20-boll random individual plot samples. The samples were ginned on a 10-saw laboratory gin. Gin and fiber data were obtained from these samples.

Results and Discussion

Yields and other agronomic characteristics are presented in Tables 43 through 46; fiber and spinning data are presented in Tables 47 through 50. Varieties are listed in order of decreasing lint yield.

Significant differences among varieties were obtained each year. Early strains usually (but not always) yielded well in the advanced strains tests (Tables 43-46). No earliness data were obtained in 1965.

Several experimentals in the 1966 advanced strains test had longer and stronger fibers than those in earlier years (Tables 47 through 50). Unfortunately, the strains exhibiting the most de-

sirable fiber properties frequently did not yield competitively with varieties that possess shorter and weaker fibers.

Experimental strains frequently yielded more than recommended commercial varieties (Tables 43 through 46). Some experimentals possess special attributes such as superior fiber properties or glandless seed. The entries in the advanced strains tests represent the best from several breeding programs.

Hancock (tested as T-59-134), Deltapine 45A, Deltapine 16, McNair 1032, and Coker 201 are recent varietal releases that were evaluated in the advanced strains tests before release.

Table 43. Yields and other data of cotton varieties and advanced strains tested at Jackson in 1966

Variety	Yield		Earliness	Percent Lint	Wt./100 Seed	Bolls per lb.
	Seed Cotton	Lint				
	lb./A.	lb./A.	Index	%	Grams	No.
T-65-1	3041	1101	109	36.2	11.3	75
Pennington Hy-Bee	3086	1086	82	35.2	12.7	66
T-58-31	3059	1061	122	34.7	12.3	67
T-60-83	3047	1054	125	34.6	12.7	69
Hy-Bee 202	3082	1054	84	34.2	11.7	68
B-62-3-10	2879	1048	93	36.4	12.8	65
Coker 3210	2761	1038	77	37.6	12.6	72
McNair 211	2875	1029	86	35.8	11.9	73
T-60-9	2969	1024	127	34.5	13.6	64
T-62-20	2792	1014	97	36.3	14.1	56
McNair 1	2830	1010	71	35.7	12.0	77
Auburn M	2938	1005	100	34.2	13.8	71
Deltapine 5916-022-B65	2852	1001	85	35.1	11.0	78
T-60-30	2894	990	114	34.2	12.2	70
T-58-180	2799	988	107	35.3	12.7	62
Carolina Queen	2728	974	75	35.7	12.6	68
T-58-152	2917	971	98	33.3	13.2	65
DeKalb 150	2775	949	89	34.2	14.1	67
Mix 13 Bulk	2798	940	95	33.6	13.3	65
Deltapine 5481	2574	939	66	36.5	9.8	81
Mix 13 Lock	2800	927	100	33.1	13.5	65
DeKalb 250	2646	918	76	34.7	16.8	62
Emp. + AHA Der. K ₇ K ₈	2660	902	104	33.9	13.4	64
Coker 413-67	2618	901	67	34.4	12.6	76
Stoneville 9008	2507	885	67	35.3	9.8	84
Stoneville 9229	2510	861	60	34.3	11.2	76
Ga. CGT	2521	797	91	31.6	15.1	66
Average	2813	980	91	34.8	12.7	69
L.S.D. (.05)	—	113.9	—	—	—	—
C.V. %	—	11.9	—	—	—	—

Table 44. Yields and other characteristics of cotton varieties and advanced strains tested at Jackson in 1965

Variety	Yield				
	Seed cotton	Lint	Bolls per lb.	Percent lint	Wt./100 seed
	lb./A.	lb./A.	No.	%	Grams
T-59-134	2783	1094	67	39.3	11.6
Pennington Hy-Bee 66	2900	1088	64	37.5	11.4
T-56-18	2820	1058	61	37.5	11.3
T-58-230	2649	1049	56	39.6	11.5
T-56-312	2849	1046	57	36.7	11.0
Dixie King 6374	2678	1045	65	39.0	10.8
Auburn M	2824	1017	60	36.0	12.2
Empire † AHA Der. K-2	2744	1009	61	36.8	12.6
Pennington Hy-Bee 2	2575	1007	66	39.1	10.6
T-58-202	2842	1003	63	35.3	12.2
Coker 2202	2442	984	68	40.3	9.3
Stoneville 213-245	2565	982	67	38.3	10.3
T-58-31	2683	982	66	36.6	11.8
T-56-10	2585	967	70	37.4	11.3
Carolina Queen	2529	964	64	38.1	10.3
T-57-480	2387	945	63	39.6	13.7
T-60-9	2610	940	64	36.0	12.2
T-62-20	2451	922	53	37.6	13.0
T-60-83	2424	892	67	36.8	11.8
Mix 13 Lock	2496	874	68	35.0	12.9
Empire G. L.	2405	866	60	36.0	12.7
Empire BBR SL	2368	864	56	36.5	12.4
Coker 3210	2205	838	58	38.0	11.1
Empire 711	2213	817	60	36.9	13.0
Deltapine 5481	1994	768	69	38.5	10.5
Acala Polycross	1935	697	58	36.0	12.4
Empire Red Leaf	1854	666	72	35.9	10.6
L.S.D. (.05)	—	110.0	—	—	—
C.V. %	—	11.8	—	—	—

Table 45. Yields and other characteristics of cotton varieties and advanced strains tested at Jackson in 1964

Variety	Yield					
	Seed cotton	Lint	Bolls per lb.	Earliness	Percent lint	Seed Index
	lb./A.	lb./A.	No.	Index	%	Grams
CHR-100	3147	1221	60	122	38.8	11.6
Dixie King 6374	3013	1211	62	107	40.2	11.0
T-56-120	3133	1175	62	124	37.5	12.8
T-56-10	3054	1161	62	115	38.0	12.3
T-57-55	3060	1141	61	115	37.3	12.5
B-59-5	2993	1125	56	114	37.6	13.5
T-58-202	2970	1108	58	120	37.3	12.2
T-56-312	2973	1094	62	111	36.8	11.9
T-58-31	2876	1084	58	107	37.7	12.2
T-60-83	2822	1072	65	103	38.0	12.0
DeKalb Exp. 121	2858	1049	60	94	36.7	12.2
Stoneville 13-P-1	2717	1038	67	95	38.2	11.0
Empire W.R. 61	2829	1021	54	100	36.1	14.0
Deltapine 7139	2662	1012	70	87	38.0	11.8
DeKalb Exp. 119	2696	1008	67	79	37.4	11.9
T-57-480	2468	994	57	89	40.3	16.1
McNair 1032	2672	978	67	75	36.6	11.7
Empire 711	2618	974	55	101	37.2	13.5
Coker 62-121	2552	970	65	73	38.0	11.9
Stoneville 204 W.R.	2416	909	73	74	37.6	10.7
Deltapine 5835-91-01	2533	899	65	66	35.5	12.1
Deltapine Smooth Leaf	2273	884	74	65	38.9	10.5
Atlas 182	2471	848	68	108	34.3	13.2
Empire Smoothleaf BBR	2263	831	60	68	36.7	12.9
Coker 61-230	2095	803	68	50	38.3	12.6
T-63-1	1833	683	61	52	37.3	15.2
L.S.D. (.05)	—	102.1	—	—	—	—
C.V. %	—	10.2	—	—	—	—

Table 46. Yields and other characteristics of cotton varieties and advanced strains tested at Jackson in 1963

Variety	Yield					
	Seed cotton	Lint	Bolls per lb.	Earliness	Lint percent	Wt./100 seed
	Lb./A.	Lb./A.	No.	Index	%	Grams
Carolina Queen 12901	2461	1046	71	107	42.5	10.0
T-58-169	2396	965	69	117	40.3	10.7
T-56-10	2310	945	69	117	40.9	10.2
DeKalb 108A	2256	929	74	110	41.2	10.6
P.A.G. B-62	2274	928	71	107	40.8	9.9
McNair 60-1032	2273	927	73	98	40.8	9.9
Deltapine 7139	2178	917	74	95	42.1	10.3
Empire 711-6	2265	908	56	102	40.1	12.4
T-57-480	2106	889	64	103	42.2	13.1
Deltapine 45	2090	867	75	99	41.5	11.1
T-60-83	2153	865	71	105	40.2	10.6
Dixie King 897	2150	862	69	86	40.1	10.4
T-58-202	2210	855	67	112	38.7	11.2
Empire W.R. 61	2145	854	60	100	39.8	12.8
Dixie King 48C-6374	1969	845	70	95	42.9	10.0
T-59-501	1961	853	83	84	43.5	9.2
DeKalb 108-64	2115	842	68	99	39.8	10.4
T-56-120	2116	840	70	110	39.7	10.1
Stoneville 11	2015	838	76	92	41.6	10.0
Stoneville 612	2023	831	74	96	41.1	10.0
Coker 60-111	2040	826	67	93	40.5	10.5
Deltapine Smooth Leaf	1980	820	76	78	41.4	9.6
T-57-479	1924	816	66	90	42.4	12.3
Empire 711-1	1998	799	58	97	40.0	12.1
Empire BBR-20-SL	2177	795	62	84	36.5	11.6
Atlas 61-107	1953	713	73	97	36.5	11.9
L.S.D. (.05)	—	139.1	—	—	—	—
C.V. %	—	16.4	—	—	—	—

Table 47. Fiber and spinning data of cotton varieties and advanced strains tested at Jackson in 1966

Variety	Length		Strength		Fineness Micronaire	Yarn strength 27 tx
	2.5 SL	.50 SL	T ₁	E ₁		
T-65-1	1.08	.54	18.3	7.92	4.77	117
Pennington Hy-Bee 101	1.15	.58	19.8	6.97	4.95	127
T-58-31	1.13	.56	19.5	7.79	4.80	125
T-60-83	1.14	.58	21.3	7.02	4.85	134
Hy-Bee 202	1.19	.60	19.5	7.55	4.75	127
B-62-3-10	1.10	.58	22.0	6.27	5.02	132
Coker 3210	1.12	.58	19.8	7.00	5.25	123
McNair 211	1.08	.55	18.5	8.69	4.52	115
T-60-9	1.15	.58	20.8	6.92	4.90	128
T-62-20	1.15	.58	19.6	7.92	4.72	128
McNair 1	1.10	.54	18.1	8.77	4.55	116
Auburn M	1.11	.56	19.2	7.88	4.38	121
Deltapine 5916-022-B65	1.18	.56	20.2	8.95	4.47	133
T-60-30	1.13	.58	21.4	7.03	4.97	136
T-58-180	1.14	.57	20.1	7.23	4.55	126
Carolina Queen	1.17	.60	19.8	6.71	5.13	124
T-58-152	1.15	.56	19.8	8.12	4.30	131
DeKalb 150	1.16	.60	23.5	6.87	4.60	146
Mix 13 Bulk	1.12	.55	20.7	7.44	4.90	128
Deltapine 5481	1.17	.59	20.0	9.49	4.17	131
Mix 13 Lock	1.14	.60	19.7	7.87	4.50	130
DeKalb 250	1.17	.59	20.6	7.77	4.45	135
Emp. + AHA Der. K ₇ K ₈	1.11	.56	19.8	7.00	4.72	126
Coker 413-67	1.19	.59	20.6	7.10	4.85	137
Stoneville 9008	1.20	.58	20.6	9.39	3.57	139
Stoneville 9229	1.18	.58	18.9	9.59	4.03	120
Ga. CGT	1.17	.60	25.4	5.83	4.75	153
Average	1.14	.58	20.3	7.67	4.64	127

Table 48. Fiber and spinning data of cotton varieties and advanced strains tested at Jackson in 1965

Variety	Length		Strength		Fineness Micronaire	Yarn strength 27 tx
	50 SL	2.5 SL	T ₁	E ₁		
	In.	In.				
T-59-134	.49	1.07	1.74	6.79	3.75	117
Pennington Hy-Bee 66	.55	1.08	1.97	6.36	3.85	126
T-56-18	.48	1.07	1.75	6.52	3.80	122
T-58-230	.48	1.03	1.83	6.84	4.10	118
T-56-312	.48	1.04	1.73	6.49	3.90	127
Dixie King 6374	.48	1.04	1.75	7.38	3.80	120
Auburn M	.50	1.07	1.82	7.43	3.97	119
Empire + AHA Der. K-2	.51	1.06	2.02	6.06	4.13	127
Pennington Hy-Bee 2	.50	1.05	1.76	7.16	4.05	119
T-58-202	.49	1.07	1.79	6.71	3.90	126
Coker 2202	.47	1.05	1.73	6.84	4.65	103
T-58-31	.49	1.07	1.87	7.07	3.72	121
Stoneville 213-245	.50	1.06	1.88	7.54	4.15	124
T-56-10	.51	1.05	1.76	7.24	4.02	120
Carolina Queen	.50	1.09	1.92	7.24	4.20	120
T-57-480	.50	1.09	1.90	6.24	3.92	126
T-60-9	.53	1.10	1.88	6.76	3.90	129
T-62-20	.51	1.09	1.85	7.30	4.02	123
T-60-83	.51	1.07	2.07	6.84	4.00	130
Mix 13 Lock	.49	1.07	2.00	6.65	3.88	132
Empire G.L.	.52	1.07	1.69	6.16	4.20	122
Empire BBR SL	.47	1.06	1.62	6.49	3.82	115
Coker 3210	.51	1.09	1.95	6.61	3.82	125
Empire 711	.47	1.05	1.83	6.09	3.70	120
Deltapine 5481	.48	1.06	1.88	8.80	3.72	123
Acala Polycross	.57	1.18	2.30	6.44	3.82	152
Empire Red-Leaf	.47	1.11	1.74	7.11	3.60	119
Average	.50	1.07	1.85	6.86	3.94	123

Table 49. Fiber and spinning data of cotton varieties and advanced strains tested at Jackson in 1964

Variety	Length		Strength		Fineness Micronaire	Yarn strength 27 tx
	50 SL	2.5 SL	T ₁	E ₁		
	In.	In.				
CHR-100	.54	1.09	1.75	7.5	4.35	119
Dixie King 6374	.50	1.04	1.62	6.9	4.65	106
T-56-120	.49	1.06	1.85	7.5	4.27	113
T-56-10	.48	1.05	1.84	6.2	4.40	118
T-57-55	.55	1.11	1.85	7.3	4.15	113
B-59-5	.53	1.11	1.74	7.9	4.55	112
T-58-202	.50	1.06	1.77	6.8	4.72	117
T-56-312	.50	1.04	1.68	6.7	4.42	116
T-58-31	.54	1.07	1.82	7.8	4.55	112
T-60-83	.52	1.09	1.87	6.5	4.57	124
DeKalb Exp. 121	.51	1.08	1.77	7.3	4.32	115
Stoneville 13-P-1	.50	1.06	1.70	7.0	4.65	116
Empire W.R. 61	.51	1.11	1.67	7.2	3.97	118
Deltapine 7139	.54	1.09	1.82	7.7	4.82	114
DeKalb Exp. 119	.52	1.08	1.89	6.9	4.65	115
T-57-480	.54	1.12	2.01	6.6	4.47	127
McNair 1032	.54	1.08	1.85	6.4	4.70	128
Empire 711	.49	1.06	1.80	7.2	4.20	112
Coker 62-121	.49	1.07	1.71	7.8	4.47	115
Stoneville 204 W.R.	.47	1.05	1.76	7.5	4.40	103
Deltapine 5835-91-01	.56	1.13	2.01	6.7	4.32	123
Deltapine Smooth Leaf	.51	1.09	1.73	8.7	4.62	113
Atlas 182	.52	1.08	2.10	5.7	4.70	133
Empire Sl BBR	.51	1.07	1.65	7.2	4.20	109
Coker 61-230	.49	1.05	1.78	6.6	5.05	108
T-63-1	.52	1.07	1.97	7.2	4.95	128
Average	.51	1.11	1.81	7.11	4.50	116

Table 50. Fiber and spinning results of cotton varieties and advanced strains tested at Jackson in 1963

Variety	Length		Uniformity	Strength		Fineness Micronaire	Yarn strength 27 tx
	U.H.M.	Mean		T ₁	E ₁		
	In.	In.	Ratio				
Carolina Queen 12901	1.05	.89	85	1.88	7.1	5.03	114
T-58-169	1.02	.83	81	1.75	6.4	4.45	118
T-56-10	.98	.81	83	1.86	6.5	4.43	110
DeKalb 108A	1.00	.82	82	1.95	7.0	4.30	118
P.A.G. B-62	1.04	.88	85	1.80	7.4	4.68	117
McNair 60-1032	.95	.81	85	1.95	7.0	4.78	114
Deltapine 7139	1.00	.85	85	1.92	8.4	5.03	113
Empire 711-6	1.05	.89	85	1.83	6.8	4.28	121
T-57-480	1.01	.84	83	2.18	6.1	4.30	136
Deltapine 45	1.04	.89	86	1.95	8.2	4.80	120
T-60-83	1.01	.86	85	1.95	7.4	4.55	125
Dixie King 897	1.04	.89	86	1.85	6.0	5.13	117
T-58-202	1.01	.84	83	1.74	6.5	4.35	123
Empire W.R. 61	1.03	.86	83	1.67	5.7	4.38	113
T-59-501	.93	.75	81	1.56	5.5	4.50	104
Dixie King 48C-6374	.97	.82	84	1.84	7.0	4.70	105
DeKalb 108-64	1.02	.85	83	2.14	7.1	4.45	122
T-56-120	.97	.80	82	1.61	6.5	4.28	110
Stoneville 11	1.02	.86	84	1.78	7.2	4.65	115
Stoneville 612	1.02	.86	84	1.88	7.5	4.48	117
Coker 60-111	1.08	.92	85	1.95	7.8	4.45	118
Deltapine Smooth Leaf	1.00	.83	83	1.89	8.2	4.88	116
T-57-479	.99	.83	84	1.93	6.1	4.73	116
Empire 711-1	1.01	.83	82	1.80	6.4	4.18	110
Empire BBR-20-SL	1.03	.85	83	1.77	6.4	4.33	106
Atlas 61-107	1.00	.86	86	2.22	5.7	4.28	132
Average	1.01	.85	.84	1.87	6.84	4.55	116

Section III

Mechanically Harvested Cotton Tests

Procedure

Several cotton varieties were spindle picked at Milan (1965-1966) and Ames Plantation (1963-1965). The experimental design was a randomized complete block with 6 replications. Each plot consisted of four rows 100 feet long. All varieties were spindle picked twice each year. A two-row cotton picker was used and all four rows of each plot were harvested. After weighing each plot separately, seed cotton (including trash) for each variety (both pickings) was bulked and ginned on a commercial gin. Lint and seed were weighed after ginning. "Ginning losses" were determined by subtracting weight of seed + lint from seed cotton (including trash) for each variety.

In 1963, 1965, and 1966 before the first picking, a composite 150-boll sample was obtained from each variety. These will be referred to as "hand-picked boll samples." A 2-pound seed cotton sample (including trash) was collected from each variety from each of the two mechanical pickings. A lint sample was taken after each variety was ginned on a commercial gin.

In 1964 at Ames Plantation three lint samples of each variety were obtained at random after ginning; however, in the analysis they were treated as replicates. The hand-picked boll samples and 2-pound seed cotton samples were ginned on a 10-saw laboratory gin. All samples were classed by the Board of Cotton Examiners, USDA, Memphis Classing Office, Memphis, Tennessee. The fiber measurements were made by the USDA Cotton Fiber Laboratory, Knoxville, Tennessee.

Results and Discussion

Mechanically-harvested cotton yields, acre values, and other data are shown in Tables 51 through 55. These represent 2 years' data at Milan (1965 and 1966) and 3 years' data at Ames Plantation (1963 through 1965). There was a statistical difference in lint yields among varieties in every test except at Ames Plantation in 1963.

Deltapine Smooth Leaf, Dixie King II, and Auburn M gave the highest average acre value returns at Milan. Deltapine Smooth Leaf and Dixie King II also gave the highest 3-year average returns at Ames Plantation. Deltapine Smooth Leaf and Rex Smoothleaf

consistently graded one grade better than Dixie King II. In most cases Dixie King II out-yielded Deltapine Smooth Leaf in lint, but when other factors—such as grade—were considered, the acre values became close.

The fiber data are presented for each year along with the acre value, yield, and other characteristics.

Yarn strength of lint samples obtained from a commercial gin averaged less than that of hand-picked samples which were ginned on a 10-saw laboratory gin (Table 56). These data on yarn strength are similar to the data obtained at Jackson in 1966 (Table 28). The 2.5% span length (upper half mean length in 1963) was lower in general where the mechanically-picked cotton had been ginned on a commercial gin when compared to hand-picked samples that had been ginned on a 10-saw laboratory gin (Tables 56, 57, 60, 63 and 66). In some cases, the data also indicated that cotton fiber that has been ginned on a commercial gin is lower in strength than hand-picked or machine-picked cotton which had been ginned on a 10-saw laboratory gin (Tables 56, 58, 61, and 67).

Table 51. Acre value, lint yield, and other characteristics of cotton varieties harvested mechanically and ginned on a commercial gin at Milan in 1966

Variety	Value	Lint yield	Grade	Classer's staple length	Micro-naire	Gin turn-out	Losses in ginning	Seed cotton
	\$/A.	lb./A.		32nds in.		%	%	Lb./A.
Deltapine Smooth Leaf	287	932	MID	35	3.75	34.5	8.8	2701
Deltapine 45A	277	937	MID	34	3.88	35.2	9.5	2662
Carolina Queen	276	942	SIM	35	4.37	35.1	9.8	2684
Rex Smoothleaf	271	894	MID	35	3.58	33.6	15.7	2662
Dixie King II	268	969	SIM	34	4.23	34.7	7.5	2793
Auburn M	264	949	SIM	34	3.88	33.7	8.2	2815
Stoneville 213	256	893	SIM	35	4.05	33.9	7.1	2635
Stardel	244	882	SIM	34	3.70	36.0	3.9	2450
I.S.D. (.05)	—	58.5	—	—	—	—	—	—
C.V. %	—	5.4	—	—	—	—	—	—

Table 52. Acre value, lint yield, grade, staple length, micronaire, lint percent, loss in ginning, and seed cotton of eight cotton varieties harvested mechanically at Milan in 1965

Variety	Value	Lint yield	Grade	Classer's staple length	Micro-naire	Gin turn-out	Loss in ginning	Seed cotton
	\$/A.	Lb./A.		32nds in.		%	%	Lb./A.
Auburn M	319	957	SLM	34	3.67	31.4	13.6	3048
Dixie King II	319	991	LM	35	3.72	33.1	11.9	2995
Rex Smoothleaf	315	914	SLM	35	3.47	31.6	14.8	2892
Stardel	308	968	LM+	34	3.82	33.1	16.5	2926
Deltapine Smooth Leaf	302	886	SLM	35	3.63	32.3	19.0	2743
Carolina Queen	295	931	SLM	33	3.97	32.2	21.2	2891
Stoneville 213	286	915	SLM Lt. SP	34	3.88	32.4	16.5	2823
Deltapine 45	281	869	SLM	34	3.38	32.6	16.6	2666
L.S.D. (.05)	—	62.8	—	—	—	—	—	—
C.V. %	—	5.8	—	—	—	—	—	—

Table 53. Acre value, lint yield, grade, staple length, micronaire, lint percent, loss in ginning, and seed cotton of eight cotton varieties harvested mechanically at Ames Plantation in 1965

Variety	Value	Lint yield	Grade	Classer's staple length	Micro-naire	Gin turn-out	Losses in ginning	Seed cotton
	\$/A.	Lb./A.		32nds in.		%	%	Lb./A.
Deltapine Smooth Leaf	264	746	Mid	34	4.40	36.7	10.5	2034
Rex Smoothleaf	238	737	Mid.Lt.Sp.	33	4.27	36.5	8.9	2020
Stoneville 213	237	746	SLM	33	4.63	36.3	9.6	2055
Dixie King II	237	745	SLM	33	4.35	35.6	10.4	2092
T-56-210	233	711	SLM+	33	4.45	34.4	16.8	2068
Stardel	230	677	SLM	35	4.32	35.1	13.7	1928
Auburn M	227	712	Mid	33	3.97	34.7	11.1	2053
Empire W.R.	212	645	SLM	34	4.15	33.4	16.0	1931
L.S.D. (.05)	—	61.3	—	—	—	—	—	—
C.V. %	—	7.2	—	—	—	—	—	—

Table 54. Acre value, lint yield, grade, staple length, micronaire, lint per cent, loss in ginning, and seed cotton of eight cotton varieties harvested mechanically at Ames Plantation in 1964

Variety	Value	Lint yield	Grade	Classer's staple length	Micro-naire	Gin turn-out	Losses in ginning
	\$/A.	Lb./A.		32nds in.		%	%
Dixie King II	310	877	SLM+	34	3.56	32.2	11.9
Deltapine Smooth Leaf	306	871	Mid	33	3.53	35.2	5.4
Auburn M	294	828	Mid	33	3.52	31.0	12.7
T-56-210	290	844	SLM+	34	3.48	31.8	14.7
Rex Smoothleaf	263	754	Mid	33	3.47	30.0	13.5
Stoneville 213	257	726	Mid	33	3.69	28.8	17.0
Stardel	251	735	SLM	34	3.74	32.2	13.4
Empire W.R. 61	246	708	SLM+	34	3.39	30.5	14.0
L.S.D. (.05)	—	90.6	—	—	—	—	—
C.V. %	—	9.8	—	—	—	—	—

Table 55. Acre value, and other characteristics of eight cotton varieties harvested mechanically at Ames Plantation in 1963

Variety	Value	Lint	Grade	Classer's staple length	Micro-naire	Gin turn-out	Loss in ginning	Seed cotton
	\$/A.	Lb./A.		32nds in.		%	%	Lb./A.
Stardel	267	715	Mid	33	4.03	35.7	11.8	2004
Dixie King	259	674	Mid	34	3.80	34.8	10.2	1935
Empire W.R. 61	258	698	SLM+	34	3.70	35.2	13.8	1983
Rex Smoothleaf	257	697	Mid	33	3.80	34.9	18.1	1998
Stoneville 7A	255	686	Mid	32	4.15	37.9	8.8	1809
Cobal	253	661	Mid	34	3.58	33.9	12.2	1951
Auburn 56	249	659	Mid	33	3.78	33.5	11.8	1967
Deltapine Smooth Leaf	227	610	Mid	33	3.83	36.6	9.8	1666
L.S.D. (.05)	—	N.S.	—	—	—	—	—	—
C.V. %	—	8.4	—	—	—	—	—	—

Table 56. A comparison of cotton fiber data from samples harvested by hand and ginned on a 10-saw laboratory gin and cotton harvested mechanically and ginned on a commercial gin at Milan in 1966

Variety	Length (2.5)		Strength T ₁		Micronaire		Yarn strength (YS) 27Tx	
	Hand picked ¹ boll sample	Lint sample ² from commercial gin	Hand-picked boll sample	Lint sample from commercial gin	Hand-picked boll sample	Lint sample from commercial gin	Hand-picked boll sample	Lint sample from commercial gin
Rex Smoothleaf	1.09	1.06	1.70	1.63	3.90	3.58	117	107
Deltapine 45A	1.08	1.09	1.84	1.78	4.45	3.88	122	115
Stardel	1.09	1.08	1.90	1.68	4.20	3.70	125	116
Auburn M	1.07	1.06	1.79	1.60	4.15	3.88	117	111
Dixie King II	1.05	1.07	1.59	1.72	4.20	4.23	115	110
Carolina Queen	1.11	1.10	1.88	1.79	4.45	4.37	118	114
Deltapine Smooth Leaf	1.14	1.11	1.83	1.85	4.25	4.75	123	113
Average	1.09	1.08	1.79	1.72	4.23	4.06	120	112

¹ 160-boll sample harvested by hand prior to first harvest and ginned on a 10-saw laboratory gin.

² Cotton harvested with a spindle picker and ginned on a commercial gin.

Table 57. Fiber length (2.5% span length) of eight cotton varieties tested at Milan in 1965

Variety	Ginned on a 10-saw laboratory gin			Lint sample from commercial gin	Variety average
	Hand-picked boll sample	Sample of 1st harvest	Sample of 2nd harvest		
Stoneville 213	1.03	1.06	1.00	1.05	1.04
Rex Smoothleaf	1.08	1.07	0.97	1.10	1.06
Dixie King II	1.05	1.05	0.99	1.03	1.03
Carolina Queen	1.08	1.07	1.02	1.02	1.05
Stardel	1.07	1.08	0.96	1.02	1.03
Auburn M	1.05	1.06	0.92	1.02	1.01
Deltapine 45	1.09	1.08	0.96	0.99	1.03
Deltapine Smooth Leaf	1.10	1.12	0.98	1.07	1.07
Average	1.07	1.07	0.98	1.04	

Table 58. Fiber strength (T₁₀-grams/grex) of eight cotton varieties tested at Milan in 1965

Variety	Ginned on a 10-saw laboratory gin			Lint sample from commercial gin	Variety average
	Hand-picked boll sample	Sample of 1st harvest	Sample of 2nd harvest		
Stoneville 213	1.68	1.75	1.59	1.69	1.68
Rex Smoothleaf	1.69	1.69	1.53	1.64	1.64
Dixie King II	1.74	1.74	1.52	1.61	1.65
Carolina Queen	1.77	1.81	1.67	1.73	1.74
Stardel	1.90	1.92	1.66	1.70	1.80
Auburn M	1.78	1.75	1.53	1.72	1.70
Deltapine 45	1.84	1.86	1.63	1.69	1.76
Deltapine Smooth Leaf	1.89	1.92	1.75	1.83	1.85
Average	1.79	1.80	1.61	1.70	

Table 59. Fiber fineness (micronaire-reading) of eight cotton varieties tested at Milan in 1965

Variety	Ginned on a 10-saw laboratory gin			Lint sample from commercial gin	Variety average
	Hand-picked boll sample	Sample of 1st harvest	Sample of 2nd harvest		
Stoneville 213	4.42	4.07	3.67	3.88	4.01
Rex Smoothleaf	3.85	3.68	3.00	3.47	3.50
Dixie King II	3.70	3.65	3.32	3.72	3.60
Carolina Queen	4.20	4.05	3.70	3.97	3.98
Stardel	4.15	4.10	4.00	3.82	4.02
Auburn M	4.00	3.75	3.35	3.67	3.69
Deltapine 45	4.22	3.92	3.38	3.38	3.72
Deltapine Smooth Leaf	4.38	3.67	3.90	3.63	3.90
Average	4.12	3.86	3.54	3.69	

Table 60. Fiber length (2.5% span length) of eight cotton varieties tested at Ames Plantation in 1965

Variety	Ginned on a 10-saw laboratory gin			Lint sample from commercial gin	Variety average
	Hand-picked boll sample	Sample of 1st harvest	Sample of 2nd harvest		
Dixie King II	1.01	1.00	0.97	0.98	0.99
Stardel	1.03	1.06	1.00	1.02	1.03
Empire W.R. 61	1.07	1.02	0.99	1.01	1.02
Deltapine Smooth Leaf	1.07	1.04	1.01	1.02	1.04
T-56-210	1.01	1.03	0.99	1.00	1.01
Stoneville 213	1.03	1.00	0.94	0.98	0.99
Auburn M	1.03	0.99	0.96	1.00	1.00
Rex Smoothleaf	1.02	1.03	1.00	1.03	1.02
Average	1.03	1.02	0.98	1.00	

Table 61. Fiber strength (T_1 grams/grex) of eight cotton varieties tested at Ames Plantation in 1965

Variety	Ginned on a 10-saw laboratory gin			Lint sample from commercial gin	Variety average
	Hand-picked boll sample	Sample of 1st harvest	Sample of 2nd harvest		
Dixie King II	1.64	1.57	1.63	1.54	1.60
Stardel	1.98	1.88	1.67	1.81	1.84
Empire W.R. 61	1.81	1.68	1.57	1.64	1.68
Deltapine Smooth Leaf	1.90	1.75	1.69	1.70	1.76
T-56-210	1.82	1.73	1.58	1.69	1.70
Stoneville 213	1.76	1.68	1.59	1.83	1.72
Auburn M	1.68	1.73	1.51	1.62	1.64
Rex Smoothleaf	1.76	1.65	1.60	1.70	1.68
Average	1.79	1.71	1.60	1.69	

Table 62. Fiber fineness (micronaire-reading) of eight cotton varieties tested at Ames Plantation in 1965

Variety	Ginned on a 10-saw laboratory gin			Lint sample from commercial gin	Variety average
	Hand-picked boll sample	Sample of 1st harvest	Sample of 2nd harvest		
Dixie King II	4.68	4.32	3.82	4.35	4.29
Stardel	4.70	4.30	4.10	4.32	4.36
Empire W.R. 61	4.22	4.10	4.20	4.15	4.17
Deltapine Smooth Leaf	4.40	4.22	3.85	4.40	4.22
T-56-210	4.35	4.40	4.38	4.45	4.40
Stoneville 213	4.65	4.45	4.13	4.63	4.46
Auburn M	4.20	4.35	3.97	3.97	4.12
Rex Smoothleaf	4.47	4.18	4.30	4.27	4.30
Average	4.46	4.29	4.09	4.32	

Table 63. Fiber length (UHM) of eight cotton varieties tested at Ames Plantation, 1964

Variety	Ginned on a 10-saw laboratory gin			Lint sample from commercial gin	Variety average
	Hand-picked boll sample	Sample of 1st harvest	Sample of 2nd harvest		
			Inches		
Dixie King II	1.04	1.05	1.01	1.00	1.02
Stardel	1.07	1.07	1.05	1.03	1.05
Empire W.R. 61	1.08	1.06	1.05	1.05	1.06
Deltapine Smooth Leaf	1.04	1.05	1.01	1.00	1.03
T-56-210	1.05	1.05	1.04	1.03	1.04
Stoneville 213	1.03	1.02	1.03	1.00	1.02
Auburn M	1.06	1.02	1.05	1.01	1.03
Rex Smoothleaf	1.08	1.07	1.04	1.04	1.06
L.S.D. (.05) Among variety means		—	—	—	0.018
Sampling method average	1.05	1.05	1.03	1.02	—
L.S.D. (.05) Among sampling methods	0.01.				

Table 64. Fiber strength (T_1 -grams/grex) of eight cotton varieties tested at Ames Plantation, 1964

Variety	Ginned on a 10-saw laboratory gin			Lint sample from commercial gin	Variety average
	Hand-picked boll sample	Sample of 1st harvest	Sample of 2nd harvest		
Dixie King II	1.69	1.78	1.75	1.69	1.73
Stardel	1.82	1.86	2.04	1.82	1.88
Empire W.R. 61	1.69	1.88	1.76	1.66	1.75
Deltapine Smooth Leaf	1.83	1.79	1.87	1.76	1.81
T-56-210	1.77	1.85	1.85	1.85	1.83
Stoneville 213	1.70	1.68	1.78	1.76	1.73
Auburn M	1.73	1.73	1.88	1.74	1.77
Rex Smoothleaf	1.70	1.75	1.85	1.64	1.74
L.S.D. (.05) Among variety means					0.06
Sampling method average	1.74	1.79	1.85	1.74	
L.S.D. (.05) Among sampling methods	0.04.				

Table 65. Fiber fineness (micronaire-reading) of eight cotton varieties tested at Ames Plantation, 1964

Variety	Ginned on a 10-saw laboratory gin			Lint sample from commercial gin	Variety average
	Hand-picked boll sample	Sample of 1st harvest	Sample of 2nd harvest		
Dixie King II	4.01	3.66	3.21	3.56	3.61
Stardel	3.91	3.75	3.53	3.74	3.73
Empire W.R. 61	3.59	3.37	3.27	3.39	3.41
Deltapine Smooth Leaf	3.95	3.48	3.38	3.53	3.58
T-56-210	3.86	3.41	3.21	3.48	3.49
Stoneville 213	4.41	3.80	3.54	3.69	3.86
Auburn M	4.02	3.68	3.30	3.52	3.63
Rex Smoothleaf	3.88	3.50	3.31	3.47	3.54
L.S.D. (.05) Among variety means					0.11
Sampling method average	3.95	3.58	3.34	3.55	
L.S.D. (.05) Among sampling methods					0.07.

Table 66. Fiber Length (UHM-Inches) of eight cotton varieties tested at Ames Plantation, 1963

Variety	Hand-picked boll sample	Sample of 1st harvest	Sample of 2nd harvest	Lint sample from commercial gin
Stardel	1.08	1.05	1.03	1.03
Empire W.R. 61	1.04	1.03	1.00	1.04
Rex Smoothleaf	1.00	1.03	1.00	1.02
Stoneville 7A	1.05	1.04	1.03	0.99
Dixie King	1.06	1.03	0.97	1.00
Cobal	1.06	1.08	1.06	1.04
Auburn 56	1.07	1.03	1.00	0.98
Deltapine Smooth Leaf	1.05	1.00	0.94	1.00
Average	1.05	1.04	1.00	1.01

Table 67. Fiber Strength (T₁-grams/grex) of eight cotton varieties tested at Ames Plantation, 1963

Variety	Hand-picked boll sample	Sample of 1st harvest	Sample of 2nd harvest	Lint sample from commercial gin
Stardel	1.85	1.86	1.77	1.80
Empire W.R. 61	1.71	1.68	1.65	1.61
Rex Smoothleaf	1.56	1.70	1.62	1.64
Stoneville 7A	1.70	1.71	1.68	1.59
Dixie King	1.80	1.65	1.62	1.59
Cobal	1.79	1.82	1.80	1.74
Auburn 56	1.82	1.88	1.68	1.64
Deltapine Smooth Leaf	1.89	1.79	1.83	1.71
Average	1.76	1.76	1.72	1.66

Table 68. Fiber Fineness (Micronaire-reading) of eight cotton varieties at Ames Plantation, 1963

Variety	Hand-picked boll sample	Sample of 1st harvest	Sample of 2nd harvest	Lint sample from commercial gin
Stardel	4.08	3.85	3.95	4.03
Empire W.R. 61	3.93	3.78	3.55	3.70
Rex Smoothleaf	3.93	3.65	3.73	3.80
Stoneville 7A	4.60	4.18	4.40	4.15
Dixie King	3.85	3.80	3.70	3.80
Cobal	3.93	3.53	3.38	3.58
Auburn 56	4.28	3.73	3.98	3.78
Deltapine Smooth Leaf	4.30	3.73	3.80	3.83
Average	4.11	3.78	3.81	3.83

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