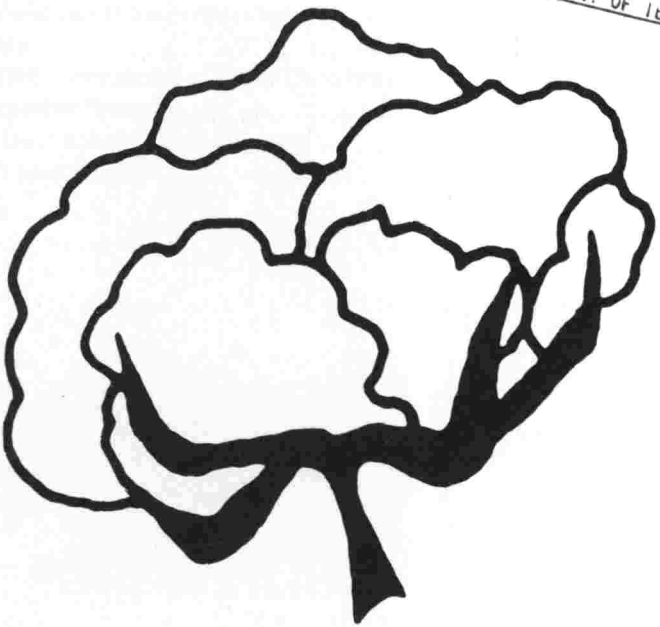
5
32
25

1979-1982 Performance of Cotton Varieties

STACKS

By P. E. Hoskinson

AGE-VET. MED. LIBRARY
JUN 14 1984
UNIV. OF TENN.



The University of Tennessee
Agricultural Experiment Station
Knoxville, Tennessee
D. M. Gossett, Dean

June 1983 Bulletin 625

CONTENTS

Recommended Cotton Varieties 3
Characteristics of Recommended Cotton Varieties 3
Cotton Variety Testing Program 5
Performance of Cotton Varieties 6
4-Year Average Yield and Characteristics 9
3-Year Average Yield and Characteristics 8
Multi-year Lint Yields by Location 10
1982 Yields and Characteristics 15
1981 Yields and Characteristics 20
1980 Yields and Characteristics 27
1979 Yields and Characteristics 32
Fiber Data 38
1978-1981 Summaries of Fiber Data from Mechanically Harvested Samples 40
Fiber Data summarized by years 41
No-Till Variety Tests 46

1979-1982 Performance Of Cotton Varieties

By P. E. Hoskinson

Agronomic data are given for the 4-year period, 1979-1982. Fiber data are summarized for the 4-year period, 1978-1981. These studies were performed under Station Hatch Project No. 570 titled Cotton Production Practices.

Personnel:

P. E. Hoskinson, Associate Professor of Plant and Soil Science

Cooperators:

James M. Anderson, Superintendent, Ames Plantation, Grand Junction

James F. Brown, Superintendent, West Tennessee Experiment Station, Jackson

William Lindamood, Tiptonville

Tom McCutchen, Superintendent, Milan Experiment Station, Milan

H. H. Ramey, Leader, Cotton Quality Investigations, USDA, ARS, Southern Regional Research Center, New Orleans, Louisiana

Ravenel Research Center, Clemson University, USDA, AMS, Cotton Division

Marshall Smith, Research Associate, Plant and Soil Science, Ames Plantation, Grand Junction

Marcus Talbot, USDA, AMS, Board of Cotton Examiners, Memphis

Bruce Wyatt, Ridgely

RECOMMENDED COTTON VARIETIES

Early — DES 56, Hancock[1], McNair 220

Mid-Season to Early — Coker 304, McNair 235, QS 137, Stoneville 506, Stoneville 825

Mid-Season — Deltapine 55[1], Stoneville 213

CHARACTERISTICS OF RECOMMENDED COTTON VARIETIES

COKER 304: Is moderately early. Has medium bolls. Rather determinate and yields may be disappointing when moisture is scarce. Has yielded well when moisture is abundant. Plants possess average seedling vigor, have good Fusarium Wilt resistance, but little or no Verticillium Wilt tolerance. Has an excellent lint percentage of 40 to 42. Has excellent fiber

[1] These varieties will probably not be recommended after this year.

length, but often lacks fiber uniformity. Fiber strength and micronaire are very satisfactory. Averaged fiber properties are: 2.5 span length 1.12, strength tenacity 19.72, and micronaire 4.10.

DELTAPINE 55: Is a medium season variety, has a dwarfy stature and small bolls. Lint percentage of 41 to 43 percent is common for this variety, while gin turnouts of 36 to 37 percent are frequently obtained from spindlepicked seedcotton. Has fair to good wilt tolerance. Has average seedling vigor despite its very small seeds. Its small bolls may become "knotty" under drouth stress resulting in unsatisfactory yields. Lint grades and fiber properties are average: length 1.10, strength 18.15 and micronaire 3.97.

DES 56: May be earliest cotton currently recommended for Tennessee. Resulted from a straight cross of Stoneville 213 and a PD line (South Carolina high fiber strength experimental) but does not look like either parent. Appears to be better adapted to bottom soils than to upland soils. Average plant height, has little wilt resistance, average lint percentage. Has very small bolls, but many of them. Lint cleans nicely at the gin. Has excellent fiber properties: length 1.10, strength 19.98 and micronaire 4.34.

HANCOCK: A very early, large-boll variety with a lint percentage of 39 to 41. Good seedling vigor and gin turnout. Has yielded very well in Tennessee Variety Tests on upland soils for several years, but its yields have become less competitive. Will not be recommended after 1983. Is susceptible to Verticillium and Fusarium Wilt and should not be grown where either wilt is known to occur. May be slightly shorter staple than many varieties, but length uniformity is relatively high. Averaged fiber properties are: length 1.04, strength 17.71 and micronaire 4.02.

McNAIR 220: An early, dwarfy cotton variety. Lint percentage is 36 to 39 percent while gin turnout is slightly less than average. Has excellent resistance to Fusarium Wilt, but little or no Verticillium Wilt tolerance. Has medium size bolls and moderately small seed. Seedlings are not as vigorous as some varieties. Has consistently yielded well on upland soils. Has adequate length and excellent strength and micronaire. Fiber data averaged are: length 1.08, strength 19.81 and micronaire 4.15

McNAIR 235: Is more prolific than McNair 220, but plant size and structure of the two varieties are virtually identical. Is somewhat later maturing than McNair 220, but often yields more. Lint percentage and gin turnout are approximately one percent higher than that of McNair 220. Has medium size bolls and small seed. Seedlings are not as vigorous as some varieties. Has yielded well at all test sites. Wilt resistance is very similar to that observed in McNair 220. Fiber length and strength are slightly better than those of McNair 220. Averaged fiber properties are: length 1.09, strength 20.27, and micronaire 4.08.

QS 137: A new variety from Quality Seed Company of Memphis. Plants have medium size height and structure. Is moderately early. Has medium sized bolls and seeds. Has good resistance to Fusarium Wilt and moderately high tolerance to Verticillium Wilt. Gin turnout is below average. Fiber

properties are average: length 1.09, strength 18.45 and micronaire 3.99.

STONEVILLE 213: Very widely adapted in Tennessee. Yields well on both upland and bottom soils. Possesses some tolerance to Verticillium Wilt and yields very well when wilt is not too severe. Fiber has higher micronaire than most varieties. Has moderately small bolls and has a lint percentage of 38 to 41. Is highly responsive to available moisture and may be early under some conditions and late under others, but will behave as a mid-season cotton most years. Has average plant height. Fiber properties are: length 1.08, strength 18.36 and micronaire 4.45.

STONEVILLE 506: Is a new variety from Stoneville Pedigreed Seed Company. Has a shorter more compact plant than Stoneville 213 and 825. Maturity and yield potential are equal to Stoneville 825. Has adequate resistance to Fusarium Wilt and moderate tolerance to Verticillium Wilt. Gin turnout is slightly below average. Lint is longer, stronger and finer than that of Stoneville 213 and Stoneville 825. Measured fiber properties are: length 1.10, strength 19.24, and micronaire 4.13.

STONEVILLE 825: Is nectariless, but has the 213 plant type. Is several days earlier than 213, but is not quite as early maturing as Stoneville 506. Has taller plants than other popular varieties in Tennessee. Has done well at all Tennessee test sites and is widely adapted. Disease resistance is about equal to that of Stoneville 213. Fiber properties are similar to those of Stoneville 213. Average fiber properties are: length 1.09, strength 18.31 and micronaire 4.33.

COTTON VARIETY TESTING PROGRAM

The Cotton Variety Testing Program consists essentially of two parts or phases. The first phase is the Advanced Strains Tests and Regional High Quality Test. Promising experimental strains from public and commercial sources are included in the appropriate strains test. If a variety performs well in a strains test, it is then entered into the state variety testing program. Varieties are evaluated for 3 years in the state variety tests before they are considered for recommendations by the University of Tennessee.

A third phase of varietal testing occurs when selected varieties are subjected to testing under specialized conditions such as short season, disease conditions or no-till culture.

The University of Tennessee Agricultural Experiment Station participates in the Regional Cotton Variety testing program by including national and regional standard entries at each location. Two or more standards generate little local interest, since they are not adapted to this area.

State variety test results reported here are from tests conducted at Ames Plantation, Jackson, and Milan. Tests were also conducted on private farms in Lake County during 1979 and 1980.

The Ames Plantation tests were located on a Memphis silt loam each year. The tests at Jackson were conducted on the same site, a Dexter silt loam, during this 4-year period. The tests at Milan were conducted on Collins

silt loam, a bottom soil. The 1979 test in Lake County was conducted on a Commerce silt loam, while the 1980 test was located on a Tiptonville silt loam. No cotton variety tests have been conducted in Lake County since 1980.

All tests included in this report consisted of two-row plots of each entry, replicated six times unless specified otherwise. All entries in Lake County tests were replicated four times. Plots in the no-till tests consisted of four rows, 60 feet long and were replicated four times. Plots were 50 feet long at Jackson; all others were 60 feet. Row width varied from 38 to 40 inches. Plot size and cultural practices within a given test were identical unless noted otherwise.

All tests were mechanically harvested with a spindle picker that had been modified to keep seed cotton from each plot separate from seed cotton produced on adjacent plots. Two 105 boll samples were hand-picked from each regional or national standard variety prior to first harvest and were ginned on a 10-saw laboratory gin. A "grab" sample of the remainder was taken from the picker and ginned on a modified commercial gin at Jackson. Gin turnout, classer's data, and fiber data were obtained from the ginned grab samples.

All yield data were analyzed statistically using Duncan's New Multiple Range Test of Significance for comparing varietal mean values at the 0.05 probability level. Min. LSR is the minimum least significance range and may be used for comparing two adjacent means when they are averaged in ascending or descending order of magnitude. Max. LSR is the maximum least significant range and may be used for comparing the two most divergent means in a test. Means, which are neither the most different nor adjacent when all means are ranked, may be compared by significant range values intermediate between minimum and maximum values. The Coefficient of Variation (C.V.%) gives information concerning the uniformity of the entire experiment.

PERFORMANCE OF COTTON VARIETIES

Fifteen varieties included in the 1978 tests were replaced by fourteen newer varieties in 1982. Four new varieties were evaluated and discarded during this period. Deltapine 41, tested since 1979, is characterized by a small plant stature. Deltapine 41 has the highest gin turnout of the eleven varieties included in all 1979-1982 variety tests. Stoneville 506, QS 137, Ga T 72-56 and Delcot 311 were included in the 1980 variety tests. Stoneville 506 and QS 137 are currently recommended cotton varieties. Ga T 72-56 is an experimental strain from the University of Georgia. Delcott 311 has resistance to Verticillium Wilt and has excellent fiber properties. Five varieties were first evaluated in 1981. Lockett 77 is a national standard and is not adapted to this area. P D 4548 is an experimental from the Pee Dee South Carolina program. It has outstanding fiber quality. Deltapine 62 replaces Deltapine 61 and is phenotypically similar to it. Coker 3131 is a product of Coker's

research at Tunica, Mississippi and does not resemble other Coker varieties very closely. Coker 3131 has yielded well in Tennessee experiments. DES 422 is a product of the Delta Experiment Station at Stoneville, Mississippi, and may replace DES 56. Coker 208, Deltapine 90, Deltapine NSL and QS 129 were evaluated in 1982. Coker 208 is essentially a Coker 201 type. Deltapine 90 is a smoothleaf high fiber quality variety that had been developed in the West. Deltapine 90 is prolific and fiber quality is outstanding, but it requires a long growing season. Deltapine NSL (nectariless, smoothleaf) behaved as a mid-season cotton in 1982. Yields were also medium, while grade and staple length were above average. QS 129 is an experimental from Quality Seed Company.

Four-year average lint yields for 11 cotton varieties are presented in Table 1; equivalent data for 15 varieties evaluated for three years are given in Table 2. Since the 1982 variety test at Milan was destroyed by flood, all data in Tables 1 and 2 have been averaged by experiments instead of by years. McNair 235 and McNair 220 are yield leaders in Tables 1 and 2, indicating both have high yield potential in numerous Tennessee environments. Stoneville 825 and DES 56 have also yielded well during the past four years. Yields of Hancock and Deltapine 55 have gradually deteriorated and present plans indicate that neither variety will be recommended after this year.

Table 1. Four-year average lint yield and other characteristics of 11 cotton varieties grown in the Tennessee Cotton Variety Tests.[1]

	LINT YIELD PER ACRE			
Variety	**Total**	**First Harvest**		**Gin turnout**
	Lb.	Lb.	%	%
McNair 235	920	721	80	35.1
McNair 220	881	716	82	34.5
Stoneville 825	857	684	81	35.2
DES 56	851	710	84	34.7
Hancock	836	669	82	35.2
Stoneville 213	821	602	75	34.5
Coker 304	811	627	79	35.1
Coker 315	798	604	77	35.4
Deltapine 55	789	598	78	36.3
Deltapine 41	784	590	77	36.9
Acala SJ-5	535	391	73	33.5

[1] Averages for 11 tests during the 4-year period, 1979-1982.

Tables 3 and 4 depict 4-year average yields at Ames Plantation and Jackson. Tables 5 and 6 show 1980-1982 yields at Ames Plantation and Jackson, while Table 7 shows 1979-1981 yields at Milan. Obvious variety by location interaction is present indicating that some varieties perform better at one location than at another. McNair 235 and McNair 220 were yield leaders at Jackson and Ames Plantation each year, but McNair 220 did not yield well at Milan in 1979 or 1980. Yields of McNair 220 were very competitive in Lake County's 1979 test, but yields of McNair 220 were mediocre at Ridgely in 1980. Yields of Deltapine 41 were relatively higher at Jackson than at Ames Plantation. Conversely, Ga T 72-56 and Stoneville 213 performed better at Ames Plantation than they did at Jackson. Deltapine 55 often yielded more competitively at Milan and in Lake County than at Jackson and Ames Plantation.

Table 2. Three-year average lint yield and other characteristics of 15 cotton varieties grown in the Tennessee Cotton Variety Tests.[1]

Variety	LINT YIELD PER ACRE			Gin turnout
	Total	First Harvest		
	Lb.	Lb.	%	%
McNair 235	976	755	79	35.0
McNair 220	951	774	83	34.6
Ga T 72-56	914	747	83	34.8
Stoneville 825	910	720	80	35.6
Stoneville 506	907	724	81	33.9
DES 56	897	748	84	34.9
QS 137	894	720	82	33.9
Stoneville 213	894	651	74	35.0
Hancock	886	710	82	35.1
Coker 304	882	684	79	35.4
Coker 315	860	652	78	35.3
Delcot 311	841	679	82	34.9
Deltapine 55	822	625	77	36.2
Deltapine 41	822	609	75	36.9
Acala SJ-5	597	438	74	33.4

[1] Averages for 8 tests during the 3-year period, 1980-1982.

Table 3. Four-year average lint yield and other characteristics of 11 cotton varieties grown in the Cotton Variety Tests at Ames Plantation in 1979-1982.

Variety	LINT YIELD PER ACRE			Gin turnout
	Total	First Harvest		
	Lb.	Lb.	%	%
McNair 235	872	686	79	34.4
McNair 220	846	670	80	34.2
Stoneville 825	833	683	83	34.6
DES 56	822	678	83	34.3
Hancock	808	653	81	35.0
Coker 304	795	617	79	35.7
Stoneville 213	786	595	76	34.2
Coker 315	782	587	76	35.2
Deltapine 55	731	563	78	35.9
Deltapine 41	700	523	76	36.1
Acala SJ-5	510	364	72	32.4
Average	771	602	78	34.7

[1] Memphis silt loam (2% to 5% slopes).

Table 4. Three-year average lint yield and other characteristics of 15 cotton varieties grown in the Cotton Variety Tests at Ames Plantation in 1980-1982.[1]

Variety	LINT YIELD PER ACRE			Gin turnout
	Total	First Harvest		
	Lb.	Lb.	%	%
Ga T 72-56	914	770	85	35.0
McNair 235	911	711	79	33.7
McNair 220	908	722	80	34.0
Stoneville 213	874	666	77	34.5
Stoneville 825	872	710	83	34.6
Stoneville 506	868	687	80	33.8
QS 137	867	706	82	33.3
DES 56	866	718	83	34.3
Hancock	863	706	82	34.8
Coker 304	842	650	78	33.3
Delcot 311	842	693	83	34.3
Coker 315	841	630	76	34.8
Deltapine 55	786	602	77	35.8
Deltapine 41	751	552	74	36.4
Acala SJ-5	576	411	72	31.9
Average	839	662	79	34.3

[1] Memphis silt loam (2% to 5% slopes).

Table 5. Four-year average lint yield and other characteristics of 11 cotton varieties grown in the Cotton Variety Tests at Jackson[1] in 1979-1982.

Variety	LINT YIELD PER ACRE			Gin turnout
	Total	First Harvest		
	Lb.	Lb.	%	%
McNair 235	1030	774	78	35.6
McNair 220	984	787	82	34.6
DES 56	936	762	82	34.5
Stoneville 825	933	699	77	35.2
Deltapine 41	921	678	75	37.3
Coker 304	911	669	76	34.2
Hancock	900	688	78	34.9
Stoneville 213	899	607	70	34.2
Deltapine 55	893	646	75	36.3
Coker 315	886	646	75	35.2
Acala SJ-5	645	469	73	33.7
Average	903	675	76	35.1

[1] Dexter silt loam (2% to 5% slopes.)

Table 6. Three-year average lint yield and other characteristics of 15 cotton varieties grown in the Cotton Variety Tests at Jackson[1] in 1980-1982.

Variety	LINT YIELD PER ACRE			Gin turnout
	Total	First Harvest		
	Lb.	Lb.	%	%
McNair 235	1058	777	77	35.6
McNair 220	1018	815	82	34.7
Stoneville 506	995	777	80	33.7
Coker 304	975	729	78	34.6
DES 56	966	788	82	34.9
Stoneville 825	965	720	77	34.5
Ga T 72-56	955	744	80	34.3
QS 137	950	741	80	33.9
Stoneville 213	943	628	69	34.9
Coker 315	921	679	77	35.0
Deltapine 41	915	663	75	37.0
Delcot 311	905	684	78	34.0
Hancock	901	680	78	34.8
Deltapine 55	891	633	74	36.3
Acala SJ-5	699	518	73	33.8
Average	937	705	77	34.8

[1] Dexter silt loam (2% to 5% slopes).

Table 7. Three-year average lint yield and other characteristics of 14 cotton varieties grown in the Cotton Variety Tests at Milan in 1979-1981.[1]

Variety	LINT YIELD PER ACRE			Gin turnout
	Total	First Harvest		
	Lb.	Lb.	%	%
McNair 235	770	654	86	35.4
Stoneville 825	722	613	86	35.8
Stoneville 603	716	614	87	35.0
DES 56	711	618	88	35.3
Hancock	708	614	87	36.2
McNair 220	703	618	88	34.5
Stoneville 213	670	542	81	35.0
Deltapine 55	663	557	84	36.8
Deltapine 41	634	514	82	37.0
Coker 315	625	513	83	35.7
Coker 304	605	508	85	36.1
Coker 310	591	484	83	35.7
Stoneville 256	578	463	81	34.7
Acala SJ-5	386	302	77	35.4
Average	649	544	84	35.6

[1] Collins silt loam (0% to 2% slopes).

Tables 8 to 32 summarize annual results. Data reported include yield, maturity, gin turnout and lint quality. Excellent yields were obtained from Jackson and Ames Plantation in 1982 and from all three locations in 1981. Lower yields were obtained in 1979 and 1980. Drouth stress severely limited lint yields of all varieties in 1980 and was especially injurious to varieties that exhibit determinate growth habits.

Lint quality data are presented for each test and are summarized for each year. Staple lengths and micronaire values lend themselves readily to averaging. Grades were quantified by using a grade index.

Table 8. Summary of lint yield and other characteristics of 24 cotton varieties grown at two locations[1] in 1982.

Variety	LINT YIELD PER ACRE			Gin turnout
	Total	First Harvest		
	Lb.	Lb.	%	%
Stoneville 506	1153	941	82	34.1
McNair 220	1137	908	80	35.0
Deltapine 62	1137	814	72	33.9
McNair 235	1128	849	75	35.1
Coker 3131	1112	778	70	35.8
Stoneville 213	1097	794	72	35.6
Coker 304	1092	862	79	35.2
DES 442	1087	884	81	34.8
Ga T 72-56	1073	853	80	34.3
Hancock	1054	830	79	34.1
Delcot 311	1052	834	79	35.6
QS 129	1052	744	71	33.2
Deltapine N S L	1050	786	75	34.5
Stoneville 825	1050	837	80	36.4
DES 56	1049	901	85	35.2
Coker 315	1036	772	74	35.8
QS 137	1033	810	78	33.9
Deltapine 90	1029	764	75	34.5
Coker 208	1026	806	79	36.4
Deltapine 41	1021	736	72	37.5
P D 4548	973	667	69	35.1
Deltapine 55	967	675	70	36.1
Lockett 77	861	669	78	33.1
Acala SJ-5	644	449	69	31.7
Average	1038	787	75.9	34.82

[1] Jackson and Ames Plantation.

Table 9. Grade index, staple and micronaire averages for 24 cotton varieties grown in Cotton Variety Tests at two locations [1] in 1982.

	FIRST HARVEST			SECOND HARVEST		
Variety	Grade index	Staple in 32's	Micro-naire	Grade index	Staple in 32's	Micro-naire
Stoneville 213	85	35.5	4.50	87	34.5	4.15
Hancock	85	35.5	4.25	85	34.5	3.90
Deltapine 55	87	35.0	4.00	85	35.0	3.70
Coker 304	83	35.5	4.35	83	35.5	3.95
McNair 220	83	35.0	4.20	83	36.0	3.90
Acala SJ-5	85	35.0	4.20	87	36.0	4.15
McNair 235	85	34.5	4.35	88	35.5	4.00
DES 56	90	35.0	4.30	83	35.0	3.90
Stoneville 825	85	35.0	4.35	85	35.5	3.95
Coker 315	85	36.0	4.20	90	35.5	4.00
Deltapine 41	88	35.5	4.15	88	36.0	4.00
Stoneville 506	92	35.5	4.15	88	36.0	3.90
Ga T 72-56	85	35.0	4.35	87	35.0	4.15
QS 137	90	35.0	4.35	88	35.5	3.95
Delcot 311	92	35.0	4.15	85	35.0	4.05
Lockett 77	90	34.5	3.85	85	35.5	3.80
Deltapine 62	94	35.5	4.20	88	36.0	4.05
Coker 3131	83	35.0	4.20	80	35.0	4.15
DES 422	88	35.5	4.10	83	35.0	3.80
P D 4548	87	35.5	4.45	87	35.5	4.20
QS 129	87	35.0	4.40	85	35.5	4.05
Coker 208	92	35.5	4.40	87	36.0	4.20
Deltapine 90	94	35.5	4.35	90	35.5	4.15
Deltapine NSL	92	35.0	4.40	92	36.0	4.05
Average	88	35.2	4.26	86	35.5	4.00

[1] Jackson and Ames Plantation

[2] Middling white (31) is 100. Larger index numbers indicate higher grades.

Table 10. Lint yield and other characteristics of 24 cotton varieties grown in the Cotton Variety Test at Ames Plantation [1] in 1982.

Variety	LINT YIELD PER ACRE Total	First Harvest		Gin turnout
	Lb.	Lb.	%	%
Stoneville 506	1054	841	80	34.1
Deltapine 62	1044	782	75	33.8
McNair 220	1028	795	77	34.1
DES 422	1014	843	83	34.9
QS 129	1008	769	76	33.6
Ga T 72-56	997	852	86	33.8
Stoneville 213	995	756	76	35.2
Delcot 311	992	807	81	34.3
Coker 3131	989	680	69	36.4
McNair 235	982	719	73	34.0
Stoneville 825	982	812	83	35.9
Hancock	978	794	81	35.0
Coker 304	956	734	77	35.3
Coker 208	955	737	77	34.7
Deltapine 90	952	746	78	34.5
Deltapine N S L	950	704	74	32.5
Coker 315	932	684	73	35.4
QS 137	929	737	79	33.1
DES 56	920	761	83	33.9
Lockett 77	914	723	79	33.7
Deltapine 41	874	623	71	36.5
P D 4548	855	617	72	33.6
Deltapine 55	843	634	75	35.6
Acala SJ-5	511	327	64	29.9
Average	944	728	77.1	34.33
Min. LSR .05	93.7	105.9		
Max. LSR .05	111.0	125.4		
CV%	8.3	12.2		

[1] Memphis silt loam (2% to 5% slopes).

Planted May 6; harvested October 14 and November 1.

Table 11. Grade, staple and micronaire values for 24 cotton varieties grown in the Cotton Variety Test at Ames Plantation in 1982.[1]

Variety	FIRST HARVEST			SECOND HARVEST		
	Grade	Staple in 32's	Micro-naire	Grade	Staple in 32's	Micro-naire
Stoneville 213	52	36	4.7	52	35	4.2
Hancock	51	35	4.6	51	35	4.1
Deltapine 55	52	35	4.1	52	35	3.9
Coker 304	52	36	4.5	52	35	4.4
McNair 220	52	35	4.4	52	35	4.3
Acala SJ-5	52	35	4.2	52	37	4.2
McNair 235	52	35	4.5	51	36	4.3
DES 56	42	35	4.4	52	35	4.1
Stoneville 825	51	35	4.6	52	36	4.1
Coker 315	52	37	4.4	51	36	4.2
Deltapine 41	51	35	4.2	51	36	4.2
Stoneville 506	41	36	4.4	51	36	4.1
Ga T 72-56	51	35	4.3	52	35	4.3
QS 137	42	35	4.6	51	36	4.0
Delcot 311	42	35	4.2	52	35	4.3
Lockett 77	42	35	4.0	52	36	4.1
Deltapine 62	41	36	4.2	51	35	4.2
Coker 3131	52	35	4.3	52	35	4.3
DES 422	51	36	4.2	61	35	4.0
P D 4548	51	35	4.5	51	35	4.3
QS 129	42	35	4.6	52	36	4.2
Coker 208	50	36	4.4	52	36	4.5
Deltapine 90	41	36	4.4	51	36	4.3
Deltapine NSL	42	35	4.4	42	35	4.1
Average		35.4	4.38		35.5	4.20

[1] Memphis silt loam (2% to 5% slopes).

Table 12. Lint yield and other characteristics of 24 cotton varieties grown in the Cotton Variety Test at Jackson[1] in 1982.

Variety	LINT YIELD PER ACRE Total	First Harvest		Gin turnout
	Lb.	Lb.	%	%
McNair 235	1273	978	77	36.3
Stoneville 506	1252	1040	83	34.0
McNair 220	1246	1021	82	35.8
Coker 3131	1234	875	71	35.1
Deltapine 62	1229	845	69	33.9
Coker 304	1227	990	81	35.1
Stoneville 213	1198	831	69	36.0
DES 56	1178	1040	88	36.5
Deltapine 41	1167	849	73	38.4
DES 422	1160	925	80	34.7
Deltapine N S L	1150	867	75	36.4
Ga T 72-56	1149	854	74	34.7
Coker 315	1140	860	75	36.1
QS 137	1137	883	78	34.6
Hancock	1129	866	77	33.2
Stoneville 825	1117	861	77	36.9
Delcot 311	1112	779	70	35.1
Deltapine 90	1105	781	71	34.4
Coker 208	1096	875	80	38.0
QS 129	1096	719	66	32.7
Deltapine 55	1090	716	66	36.6
P D 4548	1070	645	60	37.0
Lockett 77	807	614	76	32.4
Acala SJ-5	777	571	73	33.5
Average	1131	845	74.7	35.31
Min. LSR .05	123.8	143.1		
Max. LSR .05	147.1	170.1		
CV%	9.2	14.2		

[1] Dexter silt loam (2% to 5% slopes).

Planted May 4; harvested October 1 and October 21.

Table 13. Grade, staple and micronaire values for 24 cotton varieties grown in the Cotton Variety Test at Jackson in 1982.[1]

Variety	FIRST HARVEST			SECOND HARVEST		
	Grade	Staple in 32's	Micro-naire	Grade	Staple in 32's	Micro-naire
Stoneville 213	50	35	4.3	41	34	4.1
Hancock	51	36	3.9	51	34	3.7
Deltapine 55	41	35	3.9	50	35	3.5
Coker 304	51	35	4.2	51	36	3.5
McNair 220	51	35	4.0	51	37	3.5
Acala SJ-5	50	35	4.2	41	35	4.1
McNair 235	50	34	4.2	50	35	3.7
DES 56	50	35	4.2	51	35	3.7
Stoneville 825	50	35	4.1	50	35	3.8
Coker 315	50	35	4.0	41	35	3.8
Deltapine 41	50	36	4.1	50	36	3.8
Stoneville 506	50	35	3.9	50	36	3.7
Ga T 72-56	51	35	4.4	41	35	4.0
QS 137	50	35	4.1	50	35	3.9
Delcot 311	41	35	4.1	42	35	3.8
Lockett 77	50	34	3.7	42	35	3.5
Deltapine 62	41	35	4.2	50	37	3.9
Coker 3131	51	35	4.1	52	35	4.0
DES 422	50	35	4.0	50	35	3.6
P D 4548	42	36	4.4	42	36	4.1
QS 129	51	35	4.2	50	35	3.9
Coker 208	41	35	4.4	41	36	3.9
Deltapine 90	41	35	4.3	41	35	4.0
Deltapine NSL	41	35	4.4	41	37	4.0
Average		35.0	4.14		35.4	3.81

[1] Dexter silt loam (2% to 5% slopes).

Table 14. Lint yield and other characteristics of 24 cotton varieties grown in Cotton Variety Tests at three locations[1] in 1981.

Variety	LINT YIELD PER ACRE			Gin turnout
	Total	First Harvest		
	Lb.	Lb.	%	%
Coker 3131	1101	821	75	38.2
McNair 235	1094	769	71	36.6
McNair 220	1046	804	77	35.0
QS 137	1029	791	77	35.2
Hancock	1023	780	76	36.7
Ga T 72-56	1015	799	79	35.7
Stoneville 825	969	675	70	36.4
Stoneville 603	967	648	68	36.1
Lockett 77	957	804	84	34.2
Coker 315	954	656	69	35.8
Coker 304	951	640	68	37.1
DES 56	941	703	75	35.2
Stoneville 506	929	647	70	35.0
Deltapine 55	912	657	72	36.8
Delcot 311	906	679	75	34.9
Cascot L-7	892	744	83	35.7
DES 422	885	624	71	35.8
Deltapine 62	883	566	64	33.8
P D 4548	869	565	66	36.7
Stoneville 213	868	519	61	34.5
Stoneville 256	834	524	64	35.2
Coker 310	833	530	65	35.4
Deltapine 41	832	555	67	36.6
Acala SJ-5	583	373	65	34.0
Average	928	662	71	35.7

[1] Jackson, Ames Plantation, and Milan.

Table 15. Average grade index, staple length and micronaire values for 24 cotton varieties grown in Cotton Variety Tests at three Tennessee locations[2] in 1981.[1]

Variety	Grade Index	Staple in 32's	Micronaire
Stoneville 213	91	34.3	4.30
Hancock	85	34.3	3.93
Stoneville 603	83	34.0	4.13
Coker 310	85	34.7	4.00
Deltapine 55	89	34.3	4.13
Stoneville 256	88	34.0	4.33
Coker 304	88	35.7	4.07
McNair 220	83	34.3	4.23
Acala SJ-5	86	35.0	4.03
McNair 235	83	35.0	4.30
DES 56	91	35.3	4.30
Stoneville 825	87	35.0	4.33
Coker 315	85	35.0	4.07
Deltapine 41	88	35.3	4.03
Stoneville 506	87	35.0	4.13
Ga T 72-56	90	34.7	4.20
QS 137	88	34.7	4.20
Delcot 311	92	34.7	3.93
Lockett 77	93	35.3	3.73
Deltapine 62	91	35.7	4.23
Coker 3131	85	34.7	4.17
DES 422	89	34.7	3.97
P D 4548	91	35.0	4.13
Cascot L-7	93	35.0	3.80
Average	88	34.8	4.11

[1] First harvest data only.

[2] Jackson, Ames Plantation, and Milan.

Table 16. Lint yield and maturity of 24 cotton varieties grown in the Cotton Variety Test at Ames Plantation[1] in 1981.

Variety	YIELD PER ACRE			Gin turnout
	Total	First Harvest		
	Lbs.	Lbs.	%	%
Coker 3131	1112	841	76	40.1
Lockett 77	1036	851	82	36.7
Hancock	1006	794	79	38.1
QS 137	1005	782	78	37.1
Ga T 72-56	995	788	79	37.2
McNair 235	993	736	74	37.2
Stoneville 603	984	747	76	38.2
McNair 220	955	723	76	36.8
DES 56	945	744	79	37.3
Deltapine 62	939	591	63	35.4
Delcot 311	933	724	78	36.7
Stoneville 825	924	682	74	37.7
Coker 315	917	631	68	36.9
Stoneville 213	886	588	66	36.4
Stoneville 256	874	592	68	37.5
Coker 304	871	588	68	37.3
Stoneville 506	861	611	71	36.4
PD 4548	858	562	66	38.5
Coker 310	843	569	68	38.0
Cascot L-7	839	702	84	37.1
Deltapine 55	839	576	69	38.6
DES 422	794	578	73	37.5
Deltapine 41	746	506	68	38.8
Acala SJ-5	667	445	67	35.1
Average	909	665	73	37.4
Min. L.S.R. .05	87.5	87.0		
Max. L.S.R. .05	108.8	108.1		
C.V.%	8.6	11.7		

[1] Memphis silt loam (2% to 5% slopes).

Planted May 4; harvested October 3 and October 31.

Table 17. Grade, staple and micronaire values for 24 cotton varieties grown in the Cotton Variety Test at Ames Plantation in 1981.

	FIRST HARVEST			SECOND HARVEST		
Variety	Grade	Staple in 32's	Micro-naire	Grade	Staple in 32's	Micro-naire
Stoneville 213	42	35	4.7	41	35	3.4
Hancock	52	35	4.0	51	34	3.6
Stoneville 603	52	34	4.4	51	35	3.3
Coker 310	52	35	4.4	42	35	3.6
Deltapine 55	42	34	4.4	41	34	3.3
Stoneville 256	42	34	4.5	42	34	3.3
Coker 304	52	36	4.4	51	35	3.3
McNair 220	52	35	4.3	51	35	3.2
Acala SJ-5	52	36	4.3	51	36	3.8
McNair 235	51	35	4.5	51	35	3.6
DES 56	42	35	4.4	51	35	3.6
Stoneville 825	51	34	4.5	41	34	3.5
Coker 315	52	34	4.3	51	36	3.4
Deltapine 41	51	35	4.0	51	35	3.1
Stoneville 506	52	34	4.2	50	35	3.5
Ga T 72-56	51	35	4.4	41	34	3.3
QS 137	51	34	4.4	50	35	3.4
Delcot 311	42	35	4.2	51	35	3.5
Lockett 77	50	35	4.1	42	34	3.6
Deltapine 62	42	35	4.4	51	35	3.8
Coker 3131	52	35	4.5	51	35	3.6
DES 422	42	34	4.3	51	35	3.2
P D 4548	42	35	4.3	51	35	3.2
Cascot L-7	50	35	4.0	51	36	3.2
Average		34.8	4.33		34.9	3.43

Table 18. Lint yield and maturity of 24 cotton varieties grown in the Cotton Variety Test at Jackson[1] in 1981.

Variety	YIELD PER ACRE Total	First Harvest		Gin turnout
	Lbs.	Lbs.	%	%
McNair 235	1220	701	57	37.2
Coker 3131	1167	769	66	38.3
McNair 220	1125	778	69	34.1
Coker 304	1123	659	59	35.7
QS 137	1118	788	70	34.9
Ga T 72-56	1095	800	73	35.4
Stoneville 506	1081	668	62	34.8
Coker 315	1067	652	61	34.9
Stoneville 825	1045	602	58	34.5
DES 422	1038	651	63	35.7
Stoneville 603	1034	499	48	34.4
Hancock	1018	660	65	35.0
PD 4548	1006	562	56	35.9
Lockett 77	1005	819	81	32.6
Deltapine 55	1003	651	65	36.2
Delcot 311	995	699	70	34.1
DES 56	989	621	63	33.6
Stoneville 256	979	533	54	35.5
Deltapine 62	969	605	62	33.3
Coker 310	962	504	52	34.6
Stoneville 213	955	411	43	34.0
Cascot L-7	937	735	78	33.9
Deltapine 41	933	544	58	35.7
Acala SJ-5	734	445	61	33.1
Average	1025	640	62	34.9
Min. L.S.R. .05	81.4	125.4		
Max. L.S.R. .05	101.1	155.9		
C.V.%	7.1	17.7		

[1] Dexter silt loam (2% to 5% slopes).

Planted April 22; harvested October 1 and November 3.

Table 19. Grade, staple and micronaire values for 24 cotton varieties grown in the Cotton Variety Test at Jackson in 1981.

Variety	FIRST HARVEST			SECOND HARVEST		
	Grade	Staple in 32's	Micro-naire	Grade	Staple in 32's	Micro-naire
Stoneville 213	42	34	4.0	50	35	3.8
Hancock	50	34	3.8	51	34	3.8
Stoneville 603	42	34	4.2	51	35	3.2
Coker 310	50	34	3.9	51	35	3.2
Deltapine 55	41	34	4.2	50	34	3.3
Stoneville 256	50	34	4.4	50	35	3.2
Coker 304	41	35	4.1	50	34	3.7
McNair 220	51	34	4.3	50	34	3.6
Acala SJ-5	41	34	4.1	51	35	3.7
McNair 235	52	34	4.3	51	35	3.4
DES 56	41	34	4.4	50	34	3.5
Stoneville 825	50	34	4.4	51	34	3.4
Coker 315	51	35	4.0	51	34	3.6
Deltapine 41	41	34	4.1	41	35	3.6
Stoneville 506	50	35	4.3	51	34	3.6
Ga T 72-56	41	34	4.2	51	35	3.8
QS 137	41	35	4.1	50	34	3.9
Delcot 311	41	34	3.8	41	35	3.7
Lockett 77	41	35	3.7	51	34	3.1
Deltapine 62	41	36	4.5	41	35	3.6
Coker 3131	50	34	4.2	41	34	3.7
DES 422	41	34	4.0	50	35	3.6
P D 4548	41	34	4.1	50	35	3.4
Cascot L-7	41	34	3.8	51	33	3.7
Average		34.3	4.12		34.5	3.55

Table 20. Lint yield and other characteristics of 24 cotton varieties grown in the Cotton Variety Test at Milan[1] in 1981.

	LINT YIELD PER ACRE				LINT QUALITY		
Variety	Total	First Harvest		Gin Turnout	Grade[2]	Staple	Micro-naire
	lbs.	lbs.	%	%		32's	
McNair 235	1070	869	81	35.4	51	36	4.1
McNair 220	1058	912	86	34.0	51	34	4.1
Hancock	1046	887	85	37.0	51	34	4.0
Coker 3131	1025	852	83	36.2	51	35	3.8
QS 137	965	802	83	33.6	51	35	4.1
Ga T 72-56	954	810	85	34.5	50	35	4.0
Stoneville 825	938	742	79	37.0	51	37	4.1
Cascot L-7	900	795	88	36.2	41	36	3.6
Deltapine 55	895	745	83	35.6	51	35	3.8
DES 56	889	743	84	34.6	50	37	4.1
Stoneville 603	883	699	79	35.7	50	34	3.8
Coker 315	877	686	78	35.7	50	36	3.9
Coker 304	860	672	78	38.3	50	36	3.7
Stoneville 506	844	663	79	33.7	50	36	3.9
Lockett 77	830	743	90	33.2	41	36	3.4
DES 422	824	644	78	34.2	51	36	3.6
Deltapine 41	817	616	75	35.2	51	36	3.8
Delcot 311	791	615	78	34.0	41	35	3.8
Stoneville 213	764	557	73	33.0	41	34	4.2
P D 4548	743	570	77	35.8	50	36	4.0
Deltapine 62	740	503	68	32.6	50	36	3.8
Coker 310	695	518	75	33.7	51	35	3.7
Stoneville 256	648	448	69	32.6	51	34	4.1
Acala SJ-5	349	229	66	33.9	51	35	3.7
Average	850	680	79	34.8		35.4	3.88
Min. LSR .05	93.3	99.1					
Max. LSR .05	116.0	123.2					
C.V.%	9.8	13.0					

[1]Collins silt loam (0% to 2% slopes).

[2]First harvest data only.

Planted April 30; harvested October 28 and November 12.

Table 21. Average lint yield and other characteristics of 24 cotton varieties grown in Cotton Variety Tests at three Tennessee locations in 1980.[1]

Variety	LINT YIELD PER ACRE		Gin Turnout	LINT QUALITY		
	Total	First Harvest		Grade Index	Staple	Micro-naire
	Lb.	%	%		32's	
Stoneville 213	716	90	35.0	92	33.7	4.67
Stoneville 825	710	91	34.0	91	35.0	4.63
Stoneville 256	706	91	35.3	92	34.3	4.60
McNair 235	705	92	33.2	87	34.0	4.27
DES 56	700	91	34.4	92	35.0	4.47
Stoneville 603	695	90	33.8	91	34.3	4.27
McNair 220	669	91	33.8	88	34.0	4.23
Ga T 72-56	653	90	34.4	90	35.0	4.20
Stoneville 506	640	91	32.5	87	34.0	4.37
Deltapine 61	622	89	34.6	94	34.0	4.60
QS 137	621	90	32.5	92	34.3	4.13
Deltapine 41	613	87	36.7	92	33.7	4.57
Coker 304	602	91	34.0	92	34.0	4.17
Paymaster 303	594	89	34.5	97	34.0	4.07
Coker 315	590	90	34.3	88	34.7	4.40
Deltapine 55	587	89	35.7	91	34.3	4.13
Hancock	580	90	34.6	92	33.3	4.17
Coker 310	572	90	33.7	90	35.0	4.17
Delcot 311	566	93	34.2	93	34.7	3.90
Acala SJ-5	563	87	34.6	93	35.0	4.23
Coker 420	557	87	32.2	93	34.3	4.23
RAX-70	538	86	30.8	93	34.7	4.10
Tamcot SP-21S	508	90	34.0	96	34.0	3.50
Ga Cot 79	506	71	33.9	95	33.0	4.60
Average	619	89	34.0	92	34.3	4.21

[1]Jackson, Ames and Milan, Tennessee.

Table 22. Lint yield and other characteristics of 24 cotton varieties grown in the Cotton Variety Test at Ames Plantation[1] in 1980.

Variety	LINT YIELD PER ACRE Total	First Harvest	Gin Turnout	LINT QUALITY[2] Grade	Staple	Micro-naire
	lb.	%	%		32's	
Stoneville 256	758	88	32.1	42	34	5.0
McNair 235	757	89	30.0	52	34	4.7
Ga T 72-56	750	89	34.0	51	35	4.7
Stoneville 603	748	86	32.2	51	34	4.8
McNair 220	741	87	31.2	52	34	4.9
Stoneville 213	740	88	31.8	42	34	5.2
DES 56	733	88	31.8	42	35	4.7
Stoneville 825	709	90	30.3	50	35	5.1
Coker 304	699	90	33.4	42	34	4.5
Stoneville 506	690	88	30.9	42	35	4.9
Deltapine 55	676	88	33.1	42	34	4.4
Coker 315	673	86	32.1	42	35	4.8
Coker 310	668	87	31.3	42	35	4.6
QS 137	667	90	29.7	42	34	4.4
Deltapine 61	662	86	32.3	42	35	5.1
Deltapine 41	633	83	33.9	42	34	4.9
Coker 420	620	85	30.7	42	34	4.6
Paymaster 303	612	86	32.6	32	34	4.6
Hancock	606	87	31.4	42	33	4.7
Delcot 311	602	91	32.1	42	35	4.3
RAX-70	561	81	27.8	42	34	4.6
Acala SJ-5	549	84	30.8	42	35	4.6
Tamcot SP-21S	544	88	31.4	41	34	3.9
Ga Cot 79	513	62	30.8	42	33	5.0
Average	663.0	86	31.6		34.3	4.5
Min. LSR .05	60.6					
Max. LSR .05	75.3					
CV%	8.0					

[1]Memphis silt loam (2% to 5% slopes).

[2]First harvest data only.

Planted on May 1; harvested September 26 and October 17.

Table 23. Lint yield and other characteristics of 24 cotton varieties grown in the Cotton Variety Test at Jackson[1] in 1980.

Variety	LINT YIELD PER ACRE Total	First Harvest	Gin Turnout	LINT QUALITY[2] Grade	Staple	Micro-naire
	Lb.	%	%		32's	
Stoneville 825	733	95	34.9	41	36	4.3
DES 56	731	96	34.6	41	35	4.1
Stoneville 256	718	95	35.2	41	36	4.2
Deltapine 61	703	94	35.6	41	34	4.5
Paymaster 303	689	93	35.7	41	35	3.9
McNair 235	682	96	33.4	50	34	3.8
McNair 220	682	95	34.2	50	34	3.9
Stoneville 213	676	95	34.7	41	34	4.3
Stoneville 603	657	95	32.2	41	35	3.7
Stoneville 506	653	95	32.2	50	34	3.9
Deltapine 41	644	93	36.9	41	33	4.4
Ga T 72-56	620	93	32.7	41	36	4.0
Delcot 311	607	95	32.8	41	36	3.7
QS 137	594	93	32.1	41	36	4.0
Coker 310	590		34.3	50	37	3.9
Acala SJ-5	585	92	34.8	41	36	3.9
Deltapine 55	581	92	36.0	41	35	4.0
Coker 304	574	94	33.1	41	34	4.0
RAX-70	566	92	30.8	41	36	3.8
Coker 315	557	94	33.9	41	34	4.0
Coker 420	557	90	32.2	41	35	4.1
Hancock	556	92	36.2	41	34	3.6
Ga Cot 79	548	83	37.8	32	33	4.6
Tamcot SP-21S	520	91	34.3	41	35	3.3
Average	626	93	34.2		34.9	4.00
Min. LSR .05	90.4					
Max. LSR .05	112.0					
CV%	12.6					

[1]Dexter silt loam (2% to 5% slopes).

[2]First harvest data only.

Planted April 23; harvested September 22 and October 9.

Table 24. Lint yield and other characteristics of 24 cotton varieties grown in the Cotton Variety Test at Milan[1] in 1980.

Variety	LINT YIELD PER ACRE		Gin Turnout	LINT QUALITY[2]		
	Total	First Harvest		Grade	Staple	Micro-naire
	lb.	%	%		32's	
Stoneville 213	731	85	38.4	41	33	4.5
Stoneville 825	688	89	36.9	50	34	4.5
Stoneville 603	681	88	37.0	41	34	4.3
McNair 235	676	90	36.2	50	34	4.3
Stoneville 256	641	89	38.5	41	33	4.6
DES 56	637	90	36.7	41	35	4.6
QS 137	602	87	35.7	41	33	4.0
Ga T 72-56	590	89	36.5	50	34	3.9
Deltapine 55	584	86	37.9	50	34	4.0
McNair 220	584	92	36.1	41	34	3.9
Hancock	577	90	36.1	41	33	4.2
Stoneville 506	576	90	34.4	50	33	4.3
Deltapine 41	563	87	39.4	41	34	4.4
Acala SJ-5	555	86	38.2	40	34	4.2
Coker 315	541	90	37.0	60	34	4.4
Coker 310	541	89	35.6	50	33	4.0
Coker 304	532	91	35.5	41	34	4.0
Deltapine 61	502	88	36.0	31	33	4.2
Coker 420	493	86	33.7	32	34	4.0
Delcot 311	488	92	37.6	32	33	3.7
RAX-70	486	85	33.6	40	34	3.9
Paymaster 303	482	89	35.2	31	33	3.7
Tamcot SP-21S	461	91	36.3	31	33	3.3
Ga Cot 79	458	67	33.2	31	33	4.2
Average	569	87.7	36.3		33.6	4.13
Min. LSR .05	115.9					
Max. LSR .05	143.6					
CV%	17.8					

[1]Collins silt loam (0% to 2% slopes).

[2]First harvest data only.

Planted on April 30; harvested September 10 and October 1.

Table 25. Lint yield and other characteristics of 16 cotton varieties grown in the Cotton Variety Test at Ridgely[1] in 1980.

Variety	LINT YIELD PER ACRE		Gin Turnout	LINT QUALITY[2]		
	Total	First Harvest		Grade	Staple	Micro-naire
	Lb.	%	%		32's	
Delcot 311	818	91	34.7	41	35	4.5
Stoneville 256	812	90	34.3	41	34	4.8
Stoneville 213	769	90	33.6	41	34	5.1
Stoneville 825	760	92	33.3	50	35	5.1
Coker 310	730	90	32.1	41	34	4.7
Deltapine 41	727	88	36.2	50	34	4.8
McNair 235	724	87	32.1	50	34	4.9
DES 56	713	91	32.8	51	34	4.8
Deltapine 55	711	90	35.6	41	34	4.6
McNair 220	698	87	31.6	51	34	4.9
Coker 304	660	91	32.1	41	35	4.6
Hancock	647	88	32.4	50	34	5.0
Deltapine 61	637	89	32.5	41	35	5.0
RAX-70	619	81	30.0	50	36	4.7
Paymaster 303	607	81	30.4	41	33	4.8
Acala SJ-5	590	82	32.7	41	35	4.8
Average	701	87.9	32.88		34.4	4.82
Min. LSR .05	81.3					
Max. LSR .05	97.8					
CV%	8.1					

[1]Tiptonville silt loam (0% to 2% slopes).

[2]First harvest data only.

Planted on May 5; harvested October 6 and November 4.

Table 26. Average lint yield and other characteristics of 24 cotton varieties grown in Cotton Variety Tests at three locations in 1979.[1]

Variety	LINT YIELD PER ACRE			Gin	Plant
	Total	First Harvest		Turnout	Height[2]
	Lb.	Lb.	%	%	In.
McNair 235	754	620	82	35.4	42.1
Stoneville 603	744	625	85	33.8	45.3
DES 56	714	593	84	34.0	44.2
Stoneville 825	697	574	83	34.1	47.2
Hancock	686	547	81	35.3	45.9
DES 24	682	542	81	35.6	46.8
Deltapine 41	670	533	80	36.6	43.8
McNair 220	670	540	81	34.0	42.8
Deltapine 55	657	517	79	36.5	43.9
Delcot 277J	652	513	79	33.4	44.3
Coker 310	640	500	79	34.6	47.0
Stoneville 256	629	474	77	34.0	47.2
Coker 315	613	457	75	35.6	46.6
Dixie King 3	608	435	73	32.9	49.2
Tamcot SP-21S	603	522	87	34.4	38.8
Stoneville 213	602	455	76	33.0	48.3
Coker 304	599	458	78	34.1	44.6
Deltapine 26	579	439	76	34.5	46.4
Deltapine 70	571	453	80	35.1	42.2
Deltapine 61	535	371	71	33.8	47.7
Rex 713	495	384	78	30.1	41.4
Paymaster 303	425	312	74	31.6	39.1
Acala SJ-5	350	249	72	33.7	34.3
Ga Cot 79	184	97	56	25.2	51.2
Average	598	467	77.8	33.7	44.6

[1]Ames Plantation, Jackson and Milan.

[2]Ames Plantation and Jackson only.

Table 27. Average grade index, staple length and micronaire values of 24 cotton varieties grown in Cotton Variety Tests at three Tennessee locations[2] in 1979.[1]

Variety	Grade Index	Staple in 32's	Micronaire
Stoneville 213	91	35.7	4.00
Hancock	90	35.0	4.00
Delcot 277J	88	35.0	3.40
Stoneville 603	91	35.0	3.77
Coker 310	90	35.3	3.90
Dixie King 3	91	34.7	3.97
Deltapine 55	91	35.3	3.77
Stoneville 256	94	34.7	4.13
Coker 304	89	34.3	3.80
Rex 713	91	34.7	3.73
Deltapine 61	92	36.0	4.07
McNair 220	90	35.3	4.00
Deltapine 26	91	34.7	4.10
DES 24	92	35.7	3.93
Acala SJ-5	91	36.0	4.10
Paymaster 303	92	35.7	3.90
McNair 235	90	34.7	3.93
DES 56	93	34.7	4.00
Stoneville 825	93	35.3	3.87
Coker 315	92	35.0	3.97
Ga Cot 79	73	35.0	4.17
Deltapine 70	88	34.7	3.87
Tamcot SP-21S	94	34.7	3.37
Deltapine 41	93	34.7	3.83
Average	90.5	35.0	3.90

[1]First harvest data only.

[2]Jackson, Ames Plantation, and Milan.

Table 28. Lint yield and other characteristics of 24 cotton varieties grown in the Cotton Variety Test at Ames Plantation in 1979.[1]

Variety	LINT YIELD PER ACRE				LINT QUALITY		
	Total	First Harvest		Gin Turnout	Grade	Staple	Micro-naire
	lbs.	lbs.	%	%		32's	
McNair 235	754	613	81	36.4	50	34	4.1
Stoneville 825	716	603	84	34.4	50	35	4.0
Stoneville 603	716	590	82	35.8	51	35	4.0
DES 56	690	559	81	34.1	42	34	4.3
McNair 220	660	516	78	34.6	50	35	4.3
Coker 304	655	517	79	34.9	51	34	4.0
Hancock	640	495	77	35.4	51	35	4.1
Coker 315	604	457	76	36.4	42	35	4.2
Stoneville 256	602	461	77	35.1	41	34	4.4
Delcot 277J	593	455	77	32.8	52	34	3.8
DES 24	569	441	77	33.5	42	35	4.1
Deltapine 55	564	445	79	36.3	50	34	4.1
Coker 310	557	432	78	33.2	51	35	4.2
Deltapine 41	548	435	80	35.0	50	34	4.0
Tamcot SP-21S	547	471	86	33.9	41	35	3.7
Dixie King 3	545	385	71	33.7	42	34	4.2
Stoneville 213	524	381	73	33.2	42	35	4.3
Deltapine 61	452	318	70	33.3	42	35	4.3
Deltapine 70	442	344	78	35.2	52	34	3.9
Deltapine 26	440	310	71	34.0	42	34	4.6
REX 713	435	338	78	30.1	42	34	3.8
Paymaster 303	351	261	74	30.5	42	35	4.0
Acala SJ-5	311	225	72	33.6	42	35	4.3
Ga Cot 79	102	68	66	20.7	81	35	4.5
Average	542	421	76.8	33.3		34.5	4.13
Min. LSR .05	86.1	82.5					
Max. LSR .05	106.9	102.5					
C.V.%	14.2	17.6					

[1]Memphis silt loam (2% to 5% slopes).

Planted on May 11; harvested November 5 and December 3.

Table 29. Lint yield and other characteristics for 24 cotton varieties grown in the Cotton Variety Test at Jackson in 1979.[1]

Variety	LINT YIELD PER ACRE Total	First Harvest		Gin Turnout	LINT QUALITY Grade	Staple	Micro-naire
	Lb.	Lb.	%	%		32's	
DES 24	947	714	75	38.8	41	36	4.2
McNair 235	943	765	81	35.3	50	35	3.9
Deltapine 41	940	723	77	38.3	41	35	3.9
Stoneville 603	933	741	79	33.3	41	35	3.8
Deltapine 55	898	684	76	36.3	50	36	3.7
Hancock	896	710	79	35.0	50	35	4.2
McNair 220	881	702	80	34.1	50	35	4.0
Deltapine 70	857	672	78	37.2	50	35	3.8
DES 56	847	683	81	33.3	41	35	4.2
Dixie King 3	845	575	68	34.1	42	35	4.1
Stoneville 256	839	590	70	33.9	41	35	4.1
Stoneville 825	835	634	76	34.4	41	35	4.0
Deltapine 26	829	623	75	35.1	40	35	4.0
Coker 310	828	615	74	32.9	50	35	3.9
Delcot 277J	820	622	76	32.9	42	36	3.2
Tamcot SP-21S	817	705	86	35.4	41	35	3.2
Deltapine 61	790	525	66	34.2	41	37	4.0
Coker 315	779	546	70	36.0	41	35	4.0
Stoneville 213	766	543	71	32.1	50	36	4.1
Coker 304	718	488	68	33.0	42	35	3.7
REX 713	627	460	73	30.2	41	35	3.9
Paymaster 303	607	422	70	32.6	41	36	4.0
Acala SJ-5	484	320	66	33.5	42	37	4.1
Ga Cot 79	301	145	48	25.9	52*	35	4.1
Average	793	592	73.6	34.1		35.4	3.92
Min. LSR .05	121.8	122.9					
Max. LSR .05	151.0	152.8					
CV%	13.7	18.6					

[1]Dexter silt loam (2% to 5% slopes).

*42, bark.

Planted May 9; harvested October 25 and November 15.

Table 30. Lint yield and other characteristics of 24 cotton varieties grown in the Cotton Variety Test at Milan in 1979[1].

Variety	LINT YIELD PER ACRE			Gin Turnout	LINT QUALITY		
	Total	First Harvest			Grade	Staple	Micro-naire
	lb.	lb.	%	%		32's	
DES 56	606	539	89	34.6	40	35	3.5
Stoneville 603	583	544	93	32.4	41	35	3.5
McNair 235	563	482	86	34.6	50	35	3.8
Delcot 277J	545	463	85	34.6	41	35	3.2
Stoneville 825	540	485	90	33.5	41	36	3.6
Coker 310	537	453	84	37.7	41	36	3.6
DES 24	529	471	89	34.5	41	35	3.5
Deltapine 41	522	439	84	36.5	41	35	3.6
Stoneville 213	515	443	86	33.7	41	36	3.6
Deltapine 55	510	422	83	37.0	41	36	3.5
Hancock	502	437	87	35.4	41	35	3.7
McNair 220	468	402	86	33.3	50	36	3.7
Deltapine 26	467	383	82	34.4	41	35	3.7
Coker 315	457	367	80	34.5	41	35	3.7
Stoneville 256	445	372	84	33.1	41	35	3.9
Tamcot SP-21S	444	391	88	33.9	41	34	3.2
Dixie King 3	432	345	80	31.0	41	35	3.6
Coker 304	424	368	87	34.5	41	34	3.7
REX 713	422	353	84	30.0	41	35	3.5
Deltapine 70	414	342	83	32.9	41	35	3.9
Deltapine 61	362	271	75	34.0	41	36	3.9
Paymaster 303	318	252	79	31.6	41	35	3.7
Acala SJ-5	255	201	79	34.0	41	36	3.9
Ga Cot 79	148	79	53	29.1	52	35	3.9
Average	458.6	387.6	83.1	33.77		35.2	3.64
Min. LSR .05	80.8	72.6					
Max. LSR .05	100.4	90.2					
CV%	16.9	18.2					

[1]Collins silt loam (0% to 2% slopes).

Planted May 10, harvested November 7 and December 4.

Table 31. Lint yield and other characteristics of 15 cotton varieties grown in the Cotton Variety Test in Lake County[1] in 1979.

Variety	LINT YIELD PER ACRE Total	First Harvest		Gin turnout
	Lb.	Lb.	%	%
Coker 304	966	727	75	35.1
Hancock	951	768	81	33.2
McNair 220	946	730	77	33.3
Deltapine 55	869	622	72	35.4
Delcot 277J	863	653	76	32.0
Stoneville 825	854	617	72	34.1
Deltapine 61	853	614	72	34.5
Stoneville 213	821	581	71	32.9
DES 56	814	610	75	34.4
Deltapine 70	775	567	73	34.5
Deltapine 26	733	480	66	35.3
DES 24	731	481	66	33.5
Stoneville 256	698	435	62	33.0
Rex 713	694	482	69	29.6
McNair 235[2]	914	729	80	33.2
Average	832.1	606.3	72.4	33.64
Min. LSR .05	105.4	97.3		
Max. LSR .05	126.0	116.4		
CV%	8.9	11.4		

[1]Commerce silt loam (0% to 2% slopes).

[2]McNair 235 was included as guards adjacent to cotton on both sides and its data were included in averages, but not statistical calculations.

Planted April 30; harvested October 18 and November 14.

Table 32. Grade, staple and micronaire data for 15 cotton varieties grown in the Cotton Variety Test near Tiptonville in Lake County in 1979.

	FIRST HARVEST			SECOND HARVEST		
Variety	Grade	Staple in 32's	Micro-naire	Grade	Staple in 32's	Micro-naire
Stoneville 213	50	35	4.6	50	34	3.5
Hancock	50	35	4.1	51	34	3.6
Delcot 277J	42	35	3.6	42	35	3.1
Deltapine 55	50	37	4.4	50	35	3.2
Stoneville 256	42	36	4.6	50	35	3.5
Coker 304	50	36	4.3	50	35	3.2
REX 713	42	36	4.0	41	34	3.2
Deltapine 61	41	37	4.6	41	35	3.6
McNair 220	51	35	4.5	50	35	3.6
Deltapine 26	41	36	4.8	41	34	3.5
DES 24	51	36	4.3	50	35	3.4
DES 56	41	36	4.4	41	35	3.5
Stoneville 825	50	35	4.8	41	34	3.4
Deltapine 70	50	36	4.5	41	34	3.5
McNair 235	51	35	4.5	50	34	3.5
Average		35.7	4.40		34.5	3.42

	Grade index for:					
Grade name	White	Light spotted	Spotted	Tinged	Light gray	Gray
Good Middling	105	103	101	94	99	93
Strict Middling	104	102	99	91	98	91
Middling plus	102					
Middling	100	97	93	82	92	84
Strict Low Middling plus	97					
Strict Low Middling	94	89	83	75	85	75
Low Middling plus	90					
Low Middling	85	80	75	68		
Strict Good Ordinary plus	81					
Strict Good Ordinary	76					
Good Ordinary Plus	73					
Good Ordinary	70					
Below Grade	60					

Grade index is designed to reflect differences in market value and provides a method for averaging the grade for a number of individual samples. Grade index has been used by the Agricultural Marketing Service to

report grade averages for some time and the author is indebted to AMS for use of this table. White Middling grade is used as a basis for 100, and higher or lower index numbers reflect higher or lower market values, respectively. The grade of cotton is obtained by comparing color, foreign material, and ginning preparation of the sample to official standards.

Grade, staple lengths, and micronaire differences due to location, years and varieties within environments can readily be seen in the various tables. Tests with low grades usually had not been defoliated prior to harvest. Lint of smoothleaf varieties often had a higher grade than lint from varieties with pubescent leaves.

Environment and genetics strongly influence micronaire values. Lowest micronaires were obtained in 1979; highest values were obtained in 1980. A given variety usually had a higher micronaire at Ames Plantation (upland soil, higher temperatures during maturation) than at Milan. Cotton obtained at second harvest will usually have lower micronaire than cotton obtained at first harvest because of its lack of maturity.

The author is indebted to Mr. Marcus Talbot and associates for grade, staple length, and micronaire data reported in this publication.

FIBER DATA

Fiber data for 1982 are not available because it takes several months to process samples in the laboratory. Fiber data for 1978 are included since the data were not available for Bulletin 587, "1976-1978 Performance of Cotton Varieties." The 2.5% and 50% span length, uniformity index, fiber strength (T_1 and E_1) and micronaire for 1979 to 1981 are reported by three location averages each year and a 4-year average for 13 varieties. Yarn tenacity is presented instead of fiber strength data for 1978. The 2.5% span length and 50% span length were measured on a Digital Fibrograph; 2.5% span length approximates classer's length, while 50% span length indicates the modal length of fibers in a measured bundle and is useful in determining length uniformity. The micronaire reading is a relative reading of fineness and maturity of fiber. Fibers with micronaire values above 4.9 are penalized for being too coarse, while fibers with micronaire values less than 3.5 are penalized for being immature. The fiber strength (T_1) was measured on a stelometer. Higher T_1 values indicate fiber of greater strength and lower values indicate fibers of lesser strength. E_1 is the percentage elongation (stretch) at break of the center one-eighth inch of the fiber bundle measured for T_1 strength on the stelometer. Yarn tenacity is the strength of 27-tex yarn. Higher yarn tenacity values indicate better spinning qualities at 27 tex.

All fiber data reported for each year at each location are averages of two samples taken from the spindle picker at first harvest.

Fiber data for any experiment in this publication can be obtained from the author.

Table 33. Summary of fiber data from first harvest of 13 cotton varieties mechanically harvested in Cotton Variety Tests at three locations[2] during the 4-year period, 1978-1981.

	SPAN LENGTH (inches)			STRENGTH[1]		Micro-naire
Variety	2.5%	50%	Unif. Index	T_1	E_1	
Stoneville 213	1.09	0.48	45	18.12	7.85	4.40
Hancock	1.05	.47	45	17.54	7.23	4.10
Stoneville 603	1.08	.47	44	18.59	7.59	4.14
Coker 310	1.14	.50	44	19.78	7.01	4.12
Deltapine 55	1.11	.48	44	18.26	7.43	4.01
Stoneville 256	1.10	.48	44	17.69	6.60	4.38
Coker 304	1.14	.50	40	19.63	7.08	4.11
McNair 220	1.10	.49	45	19.80	7.03	4.23
Acala SJ-5	1.14	.53	47	23.00	7.13	4.17
McNair 235	1.11	.49	45	19.98	7.00	4.18
DES 56	1.11	.49	44	19.56	7.32	4.24
Stoneville 825	1.10	.49	44	18.31	6.60	4.34
Coker 315	1.15	.51	45	20.24	7.06	4.15
Average	1.11	0.49	44.5	19.27	7.15	4.20

[1]Fiber strength data for 3 years, 1979-1981 only.

[2]Jackson, Ames Plantation, and Milan.

Table 34. Fiber data for 24 Cotton Varieties mechanically harvested in Cotton Variety Tests at three locations[1] in 1981.

	SPAN LENGTH (inches)			STRENGTH		Micro-naire
Variety	2.5%	50%	Unif. Index	T_1	E_1	
Stoneville 213	1.10	0.50	45	18.48	7.77	4.47
Hancock	1.05	.46	44	18.12	7.33	4.02
Stoneville 603	1.09	.46	43	18.47	7.82	4.17
Coker 310	1.13	.50	44	19.93	6.57	4.07
Deltapine 55	1.12	.49	44	18.50	7.13	3.87
Stoneville 256	1.10	.48	44	17.88	6.40	4.27
Coker 304	1.13	.48	42	19.82	6.60	4.10
McNair 220	1.10	.48	44	19.98	6.73	4.18
Acala SJ-5	1.13	.52	46	21.93	6.67	3.95
McNair 235	1.11	.48	44	20.77	7.00	4.15
DES 56	1.11	.49	44	20.30	7.03	4.27
Stoneville 825	1.11	.49	44	18.95	6.38	4.25
Coker 315	1.15	.50	44	20.40	6.67	4.00
Deltapine 41	1.13	.50	44	19.75	7.32	3.92
Stoneville 506	1.12	.49	44	19.30	7.83	4.05
GaT 72-56	1.11	.49	44	19.13	7.52	4.07
QS 137	1.10	.49	45	18.07	8.18	4.13
Delcot 311	1.10	.52	47	20.05	9.17	3.88
Lockett 77	1.06	.47	44	18.07	7.20	3.63
Deltapine 62	1.15	.51	44	19.60	7.35	4.12
Coker 3131	1.10	.48	44	18.15	8.30	4.18
DES 422	1.10	.47	43	18.57	7.40	3.98
PD 4548	1.15	.50	43	21.95	6.53	4.02
Cascot L-7	1.09	.47	43	18.73	7.18	3.88
Average	1.11	0.49	44.0	19.37	7.26	4.07

[1]Milan, Jackson and Ames Plantation. Data are averages of two samples taken from the spindle picker at first harvest at each location.

Table 35. Fiber data for 24 Cotton Varieties mechanically harvested in Cotton Variety Tests at three locations[1] in 1980.

	SPAN LENGTH (inches)			STRENGTH		Micro-naire
Variety	2.5%	50%	Unif. Index	T_1	E_1	
Stoneville 213	1.07	0.45	42	18.23	6.38	4.43
Hancock	1.03	.44	43	17.30	5.62	4.02
Stoneville 603	1.07	.45	42	18.70	6.03	4.12
Coker 310	1.11	.47	42	19.52	6.00	4.05
Deltapine 55	1.07	.44	41	17.80	5.97	4.07
Stoneville 256	1.06	.45	42	17.05	5.37	4.45
Coker 304	1.11	.47	43	19.62	5.90	4.03
Deltapine 61	1.11	.48	43	19.80	7.13	4.35
McNair 220	1.07	.46	43	19.65	5.77	4.12
Acala SJ-5	1.13	.50	44	24.67	5.92	4.17
Paymaster 303	1.04	.44	42	18.48	5.65	3.85
McNair 235	1.08	.46	43	19.77	5.55	4.00
DES 56	1.08	.46	42	19.07	6.02	4.35
Stoneville 825	1.08	.44	41	17.67	5.18	4.40
Coker 315	1.12	.48	43	20.42	6.15	4.13
GaCot 79	1.06	.46	43	18.98	6.95	4.50
Tamcot SP-21S	1.05	.45	43	18.45	6.82	3.52
Deltapine 41	1.08	.46	43	18.18	5.70	4.30
Stoneville 506	1.08	.47	43	19.17	6.15	4.20
Ga T 72-56	1.09	.47	43	19.68	5.78	4.07
RAX-70	1.08	.46	42	20.00	6.23	4.00
QS 137	1.07	.44	41	18.83	6.57	3.97
Coker 420	1.13	.48	42	21.55	6.38	4.20
Delcot 311	1.08	.48	45	22.47	7.95	3.85
Average	1.08	0.46	42.6	19.38	6.13	4.13

[1]Milan, Jackson and Ames Plantation.

Table 36. Fiber data for 24 Cotton Varieties mechanically harvested in Cotton Variety Tests at three locations in 1979.[1]

	SPAN LENGTH (inches)			STRENGTH		Micro-naire
Variety	2.5%	50%	Unif. Index	T_1	E_1	
Stoneville 213	1.09	0.50	46	17.64	9.40	3.95
Hancock	1.06	.50	47	17.21	8.75	3.99
Delcot 277J	1.13	.51	45	19.21	10.37	3.53
Stoneville 603	1.07	.49	45	18.60	8.91	3.57
Coker 310	1.15	.52	46	19.90	8.46	3.84
Dixie King 3	1.09	.52	48	18.70	9.06	3.97
Deltapine 55	1.12	.50	45	18.48	9.20	3.71
Stoneville 256	1.10	.51	46	18.15	8.03	4.03
Coker 304	1.14	.53	46	19.46	8.74	3.87
Rex 713	1.08	.49	46	16.32	9.35	3.73
Deltapine 61	1.13	.53	47	19.01	10.33	4.01
McNair 220	1.11	.52	47	19.77	8.60	3.85
Deltapine 26	1.09	.51	47	19.12	9.26	3.97
DES 24	1.12	.51	46	19.71	9.63	3.89
Acala SJ-5	1.13	.56	50	22.41	8.79	3.98
Paymaster 303	1.06	.48	46	18.71	8.45	3.82
McNair 235	1.11	.52	47	19.40	8.44	3.87
DES 56	1.12	.52	46	19.30	8.90	3.88
Stoneville 825	1.10	.51	46	18.32	8.23	3.95
Coker 315	1.16	.53	46	19.91	8.35	3.82
Ga Cot 79	1.16	.53	46	19.04	9.44	4.03
Deltapine 70	1.10	.52	47	19.21	9.02	3.85
Tamcot SP-21S	1.05	.47	45	17.35	10.08	3.31
Deltapine 41	1.10	.50	45	18.94	8.83	3.84
Average	1.11	0.51	46.2	18.92	9.03	3.85

[1]Milan, Jackson and Ames Plantation.

Table 37. Fiber and yarn data for 24 Cotton Varieties mechanically harvested in Cotton Variety Tests at three locations in 1978.[1]

Variety	SPAN LENGTH (inches) 2.5%	50%	Unif. Index	Micro-naire	Yarn tenacity
Stoneville 213	1.08	0.48	45	4.74	10.6
Auburn M	1.06	.47	45	4.29	10.6
Hancock	1.05	.47	45	4.38	10.7
Deltapine 16	1.12	.49	44	4.58	11.1
Delcot 277J	1.15	.52	45	4.11	12.7
Stoneville 603	1.08	.49	45	4.70	10.9
Coker 310	1.16	.52	45	4.53	12.0
Dixie King 3	1.11	.49	44	4.40	11.4
Deltapine 55	1.11	.49	44	4.38	11.1
Stoneville 256	1.12	.49	44	4.78	10.8
Coker 304	1.16	.51	44	4.45	11.6
Rex 713	1.12	.50	44	4.55	10.0
S.C. 1	1.16	.53	46	4.22	13.1
Deltapine 61	1.14	.51	45	4.80	11.5
McNair 220	1.10	.50	46	4.78	11.9
Deltapine 26	1.09	49	45	4.89	11.2
Coker 420	1.16	.53	45	4.55	12.6
DES 24	1.14	.51	45	4.56	11.9
Acala SJ-5	1.15	.55	48	4.56	14.1
Paymaster 303	1.08	.48	45	4.48	10.7
McNair 235	1.13	.51	45	4.69	11.5
DES 56	1.11	.50	45	4.46	11.2
Stoneville 825	1.11	.50	45	4.75	10.9
Coker 315	1.15	.52	45	4.64	12.0
Average	1.12	0.50	44.9	4.55	11.50

[1]Milan, Jackson and Ames Plantation.

Table 38. Lint yield and other characteristics of 8 cotton varieties grown in the No-till Variety Test at Milan[1] in 1982.

Variety	LINT YIELD PER ACRE			Gin Turnout	LINT QUALITY[2]		
	Total	First Harvest			Grade	Staple	Micro-naire
	lb.	lb.	%	%		32's	
McNair 235	1013	863	85	34.6	50	36	4.9
Stoneville 213 (no-tilled)	940	693	74	33.7	42	35	4.9
Stoneville 213 (conventionally planted)	937	650	69	31.9	42	35	4.9
Deltapine 62	933	671	72	33.4	40	35	5.1
DES 56	907	780	86	32.7	41	35	4.6
Coker 304	864	733	85	33.6	41	35	4.7
Stoneville 825	854	643	75	33.7	50	35	5.2
Coker 3131	842	688	82	34.7	52	35	4.8
Lockett 77	822	702	85	34.0	41	34	4.2
Average	901	714	79.2	33.58		35.0	4.81
Min. LSR .05	88.9	107.4					
Max. LSR .05	111.7	123.9					
CV%	7.4	10.3					

[1]Memphis silt loam (2% to 5% slopes).

All entries planted no-till in rye except Stoneville 213, conventional.

Planted May 11; harvested September 28 and October 18.

[2]First harvest data only.

Table 39. Lint yield, gin turnout and fiber properties for 8 cotton varieties grown in the No-till Cotton Variety Test at Milan in 1981.[1]

Variety	Yield per acre	Gin turnout	Span Length (in.)[2] 2.5%	50%	Strength T_1	E_1	Micro-naire
	lb.	%					
McNair 235	490	34.4	1.10	0.49	19.45	7.1	3.2
DES 56	464	32.6	1.09	.49	19.00	8.2	3.3
Coker 304	449	34.2	1.14	.49	19.15	7.0	3.3
Deltapine 62	406	31.9	1.11	.47	19.50	6.9	3.3
Stoneville 213 (conventionally planted)	382	31.0	1.07	.47	17.90	7.5	3.4
Stoneville 825	354	33.0	1.08	.46	18.50	7.0	3.2
Hancock	280	32.6	1.03	.46	19.00	7.4	3.2
Stoneville 213 (no-tilled)	273	32.3	1.08	.48	18.95	8.8	3.2
GP 3744	207	30.7	1.06	.46	16.60	8.4	3.0
Average	375	32.5	1.081	0.472	18.67	7.57	3.23
LSD .05	82.4						
CV%	15.4						

[1]Memphis silt loam (2% to 5% slopes).

[2]Data are averages of two samples, taken from spindle picker.

Planted May 13, only one harvest on November 16.

Note: Early freeze badly damaged this test.

NO-TILL VARIETY TESTS

Lint yield, maturity, gin turnout and lint quality are given for no-till cotton variety tests grown at Milan in 1981 and 1982. Eight varieties were planted in standing rye. Stoneville 213 was planted in a conventionally prepared seedbed and no-tilled into rye as a check.

An early freeze sharply reduced lint yields of all varieties included in this experiment in 1981. Three early maturing varieties were yield leaders in this experiment, but yields of two early maturing varieties, Hancock and GP 3744, were not competitive.

We obtained 901 pounds of lint per acre from the no-till variety test conducted in 1982. Micronaire values indicated that lint of all varieties was mature. McNair 235 was the yield leader in both years. In 1982 Stoneville 213 no-tilled into wheat was earlier than Stoneville 213 that had been conventionally planted, but the reverse was true in 1981.

THE UNIVERSITY OF TENNESSEE
AGRICULTURAL EXPERIMENT STATION
KNOXVILLE, TENNESSEE 37916

E11-1107-03-009-83

Agricultural Committee, Board of Trustees
Edward J. Boling, President of the University;
William M. Johnson, Chairman;
William H. Walker, Commissioner of Agriculture, Vice Chairman;
Jack J. Craddock; James F. Harrison; Ben S. Kimbrough;
Turner O. Lashlee;
W. W. Armistead, Vice President for Agriculture

STATION OFFICERS
Administration
Edward J. Boling, President
W. W. Armistead, Vice President for Agriculture
B. H. Pentecost, Assistant Vice President
D. M. Gossett, Dean
T. J. Whatley, Associate Dean
J. I. Sewell, Assistant Dean
O. Clinton Shelby, Director of Business Affairs
Fletcher Luck, Director of Services

Department Heads
J. A. Martin, Agricultural Economics and Rural Sociology
D. H. Luttrell, Agricultural Engineering
D. O. Richardson, Animal Science
Priscilla N. White, Child and Family Studies
Carroll J. Southards, Entomology and Plant Pathology
Betty R. Carruth, Nutrition and Food Sciences
J. T. Miles, Food Technology and Science
Gary Schneider, Forestry, Wildlife, and Fisheries
G. D. Crater, Ornamental Horticulture and Landscape Design
L. F. Seatz, Plant and Soil Science
Jacqueline Y. DeJonge, Textiles, Merchandising and Design

BRANCH STATIONS
Ames Plantation, Grand Junction, James M. Anderson, Superintendent
Dairy Experiment Station, Lewisburg, J. R. Owen, Superintendent
Forestry Experiment Station: Locations at Oak Ridge, Tullahoma, and Wartburg, Richard M. Evans, Superintendent
Highland Rim Experiment Station, Springfield, L. M. Safley, Superintendent
Knoxville Experiment Station, Knoxville, John Hodges III, Superintendent
Martin Experiment Station, Martin, H. A. Henderson, Superintendent
Middle Tennessee Experiment Station, Spring Hill, J. W. High, Jr., Superintendent
Milan Experiment Station, Milan, John F. Bradley, Superintendent
Plateau Experiment Station, Crossville, R. D. Freeland, Superintendent
Tobacco Experiment Station, Greeneville, Philip P. Hunter, Superintendent
West Tennessee Experiment Station, Jackson, James F. Brown, Superintendent