1-1975

1974 Performance of Cotton Varieties

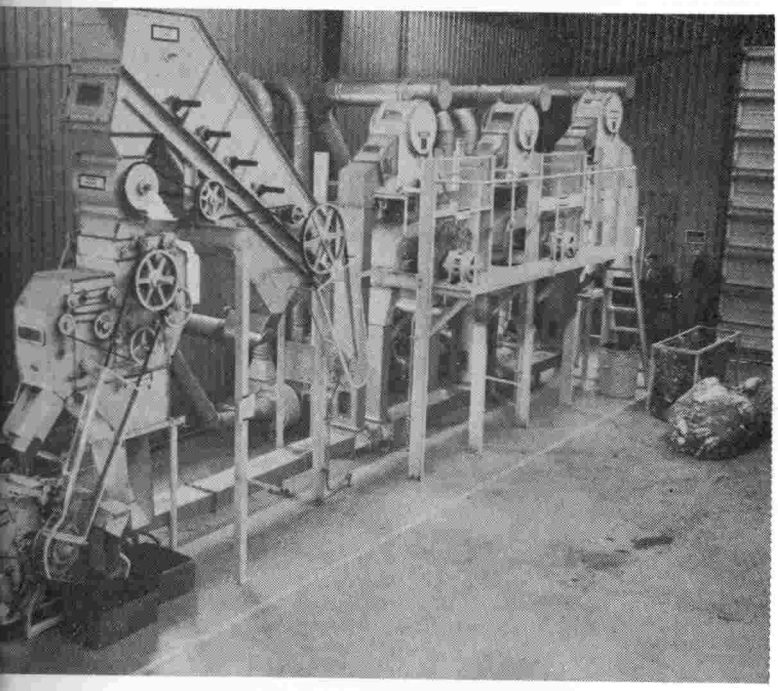
University of Tennessee Agricultural Experiment Station

P. E. Hoskinson

Bulletin 542
January 1975

1974 Performance of Cotton Varieties

P. E. Hoskinson



THE UNIVERSITY OF TENNESSEE
AGRICULTURAL EXPERIMENT STATION
JOHN A. EWING, DEAN
KNOXVILLE

CONTENTS

COVER: Modified commercial gin at West Tennessee Experiment Station.

1974 Performance of Cotton Varieties

by
P. E. Hoskinson*

Data for 1974 with summaries of results from previous years.
Station Hatch Project No. 403:

Cotton Production and Varietal Adaptation

Personnel:

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

Cooperators:

J. M. Bryan, Superintendent, Ames Plantation, Grand Junction
H. W. Luck, Superintendent, West Tennessee Experiment Station, Jackson
Tom McCutchen, Superintendent, Milan Field Station, Milan
Gordon Barksdale, Lawrenceburg
Board of Cotton Examiners, USDA C and MS, Memphis
John Connell, Assistant Professor of Plant and Soil Science, Ames Plantation, Grand Junction
Frank Markham, Tiptonville
J. A. Mullins, Professor of Agricultural Engineering, West Tennessee Experiment Station, Jackson
J. R. Overton, Associate Professor of Plant and Soil Science, West Tennessee Experiment Station, Jackson
Smith Worley, Associate Professor of Plant and Soil Science, (co-op USDA), Knoxville
H. H. Ramey, Leader, Cotton Quality Investigations, USDA, Knoxville

RECOMMENDED COTTON VARIETIES

Early — Auburn M, Hancock
Mid-Season to Early — Coker 310, Stoneville 603
Mid-Season — Hy-Bee 200A, Stoneville 213
Mid-Season to Late — Deltapine 16

*Associate Professor, Department of Plant and Soil Science.

CHARACTERISTICS OF RECOMMENDED COTTON VARIETIES

AUBURN M: A dwarfy, very early-maturing variety released by Missouri. Has done especially well, comparatively, when planted after May 20. Yields well on bottom soils, but may cut-out too quickly on upland soils when moisture is scarce. Has adequate Fusarium wilt resistance, but little Verticillium wilt tolerance. Auburn M's earliness enables it to set good crops when wilt conditions are moderate. Lint percentage has ranged from 36 to 39. Fiber properties of mechanically harvested lint for 3 years, 1971-1973, averaged: Length (1.08), strength (16.72), micronaire (4.11), and yarn strength (100).

COKER 310: A moderately early variety with small bolls. Has an outstanding lint percentage of 40 to 42. Plants are dwarfy, have average seedling vigor, and have good Fusarium wilt resistance, but little or no Verticillium wilt tolerance. Coker 310 has been tested for 6 years and has yielded very well at all locations except at Fort Pillow. Has the longest fiber of any currently-recommended variety. Average fiber properties are: Length (1.17), strength (18.39), micronaire (4.09), and yarn strength (107).

DELTAPINE 16: A medium to late variety with a lint percentage of 37 to 41 and with small bolls. Plants are slightly smaller than average, have smooth leaves, average seedling vigor, and are tolerant to Verticillium wilt. Deltapine 16 has yielded especially well in the Delta and very well on other bottom soils. Tends to become later in Middle Tennessee. Excellent grades have been obtained from Deltapine 16 lint. Average fiber properties are: Length (1.13), strength (17.50), micronaire (4.23), and yarn strength (105).

HANCOCK: A very early, large-boll variety with lint percentage of 38 to 41. Good seedling vigor and very good gin turnout characterize this variety. Is susceptible to Verticillium and Fusarium wilts. Has yielded especially well on upland soils across Tennessee. May be slightly shorter staple than many other varieties. May show rank growth in some bottom soils, but may continue to grow and fruit longer than more determinate varieties on dry, upland soils. Fiber properties are: Length (1.06), strength (16.61), micronaire (4.11), and yarn strength (102).

HY-BEE 200A: A mid-season variety that has small bolls. Has yielded well in Tennessee tests. Its indeterminate growth habit produces larger than average plants. Has little tolerance to Verticillium wilt. Plant type is not as uniform as many varieties. Has above-average fiber properties. Fiber properties are: Length (1.11), strength (17.63), micronaire (4.27), and yarn strength (102).

STONEVILLE 213: Very widely adapted in Tennessee. Yields well on both upland and bottom soils. Has some tolerance to Verticillium wilt, and yields very well when wilt is not too severe. Has highest micronaire of any variety commonly grown in Tennessee. Stoneville 213 has small bolls with a lint percentage of 38 to 41. It has performed as a mid-season variety for the last several years in the Tennessee variety tests. It is highly responsive to available moisture and may be early under dry conditions and late under others; average plant height. Fiber properties are: Length (1.08), strength (17.25), micronaire (4.45), and yarn strength (100).

STONEVILLE 603: Has yielded well in all Tennessee cotton production areas, except the Delta. It has small bolls, is moderately early, and has adequate Fusarium wilt resistance. Has about the same tolerance to Verticillium wilt as Stoneville 213. Lint percentage has ranged from 37 to 39.5. Will lodge under a heavy green boll load, but plants become erect as bolls open. Has slightly better fiber length and strength than Stoneville 213 and average micronaire. Fiber properties are: Length (1.09), strength (17.73), micronaire (4.10), and yarn strength (105).

PERFORMANCE OF COTTON VARIETIES

The 1974 Cotton Variety Tests were conducted at the West Tennessee Experiment Station, Jackson; Ames Plantation, Grand Junction; Milan Field Station, Milan; and on private farms in Lake County and Lawrence County. The tests at Lake County and Ames Plantation were harvested twice. A one-row spindle picker was used to harvest the tests at Jackson and Ames Plantation. The other tests were harvested with two-row spindle pickers.

The tests at Jackson, Milan, and Ames Plantation consisted of 23 entries. The test at Ames Plantation was the most uniform and produced the highest yields.

The test at Jackson was planted on May 20. Plants were tall, rank and late. Boll rot reduced yields of all varieties in this test. Harvested lint had low grades, rather short staple, and very low

Table 1. Lint yield of 22 cotton varieties grown at four locations in 1974

Variety	Avg.	LOCATION			
		Lake[1] County	Milan[2]	Jackson[3]	Ames[4] Plantation
		Pounds per acre			
Auburn M	621	468	516	494	1004
Hancock	609	586	372	466	1010
Delcot 277	523	545	379	302	866
Coker 310	522	478	317	331	963
Stoneville 213	513	585	348	212	904
Coker 1104	504	398	379	340	900
McNair 612	493	352	286	330	1005
Hy-Bee 200A	476	513	321	249	820
Dixie King 3	466	547	219	219	880
Stoneville 603	459	540	328	253	716
Stoneville 256	458	577	285	196	772
Coker 202	455	358	282	282	898
Lockett 4789A	450	361	309	292	838
Brycot 4	444	533	291	130	823
Vail 5	435	436	213	252	838
Deltapine 652	429	445	272	252	748
Deltapine 16	416	426	313	217	708
Coker 201	409	348	249	138	899
Deltapine 45A	397	438	267	194	688
Acala 1517-70	381	415	213	193	702
Deltapine 25	370	478	186	151	664
McNair 511	359	324	232	109	771
Average	463	469	301	259	840
Min. LSR .05		75.5	74.7	90.9	90.2
Max. LSR .05		93.6	92.6	112.7	111.8
CV%		14.1	21.7	30.7	9.4

[1]Tiptonville Silt Loam (0% to 2% slopes)
[2]Collins Silt Loam (0% to 2% slopes)
[3]Dexter Silt Loam (2% to 5% slopes)
[4]Loring Silt Loam (2% to 5% slopes)

micronaire values. Auburn M and Hancock yielded significantly more than other varieties at Jackson.

Extensive replanting was necessary at Milan. A few plots were damaged by Verticillium wilt. Bolls did not open satis-

Table 2. Lint yield and other characteristics of 22 cotton varieties grown at four locations[1] in 1974

Variety	Lint yield per A.	First harvest[2]	Lint[3]	Bolls per lb.	Seed index	Gin[4] turnout
	Lb.	%	%	No.		%
Auburn M	621	68	36.9	67	13.0	32.5
Hancock	609	65	39.5	67	11.6	33.8
Delcot 277	523	55	37.5	69	11.8	33.2
Coker 310	522	53	39.0	76	10.9	33.7
Stoneville 213	513	60	37.4	77	11.4	32.5
Coker 1104	504	54	38.3	69	11.7	32.7
McNair 612	493	56	39.9	75	11.1	33.4
Hy-Bee 200A	476	55	37.3	77	11.2	32.3
Dixie King 3	466	52	38.3	67	11.3	32.6
Stoneville 603	459	54	36.7	73	11.6	32.4
Stoneville 256	458	58	37.5	76	11.2	31.4
Coker 202	455	53	39.4	74	11.3	33.1
Lockett 4789A	450	60	35.8	74	12.1	29.8
Brycot 4	444	59	36.4	79	11.2	30.8
Vail 5	435	56	36.6	77	11.4	31.9
Deltapine 652	429	55	38.6	81	10.3	33.3
Deltapine 16	416	51	37.1	75	11.2	31.7
Coker 201	409	51	39.1	75	11.0	32.3
Deltapine 45A	397	54	37.3	80	11.2	31.6
Acala 1517-70	381	58	36.3	73	12.6	31.0
Deltapine 25	370	55	38.3	81	10.6	31.5
McNair 511	359	43	37.9	89	10.5	30.3
Average	463	56	37.8	76	11.2	32.2

[1]Ames Plantation, Jackson, Milan, and Lake County.
[2]Ames Plantation and Lake County only.
[3]Lint percent, bolls per pound, and seed index derived from hand-picked samples obtained prior to first harvest.
[4]Percent gin turnout was obtained from spindle-picked seed cotton and ginned on a modified commercial gin.

factorily. Micronaire values were very low indicating fiber immaturity. Grade and staple length were satisfactory for most

varieties. Auburn M yielded 137 pounds more lint than any other variety.

The Ames Plantation test emerged to an excellent stand. Plots were uniform and fruited well. Relatively high yields were obtained from many varieties. Staple length was average while grades and micronaire values were somewhat low. Pronounced yield differences at first harvest were obtained in this test. Gin turnout of all varieties was quite high.

Table 3. Average Classer's staple and micronaire values for 22 cotton varieties mechanically harvested in 1974.

Variety	FIRST HARVEST[1]		SECOND HARVEST[2]	
	Staple in 32's	Micronaire	Staple in 32's	Micronaire
Stoneville 213	34.8	3.60	35.0	3.35
Auburn M	34.3	3.48	34.0	3.45
Hancock	34.0	3.58	33.5	3.50
Hy-Bee 200A	34.3	3.48	34.5	3.30
Deltapine 45A	34.0	3.50	34.5	3.55
Coker 201	33.8	3.65	34.5	3.85
Deltapine 16	34.8	3.48	35.0	3.50
Delcot 277	34.0	3.20	34.0	3.40
Stoneville 603	34.5	3.40	34.5	3.30
Coker 310	34.5	3.50	35.0	3.55
Acala 1517-70	35.3	3.50	34.5	3.55
McNair 511	33.8	3.65	34.0	3.80
Deltapine 25	33.8	3.45	34.0	3.40
Brycot 4	34.8	3.45	34.5	3.35
Lockett 4789A	33.5	3.40	33.5	3 50
Dixie King 3	33.8	3.60	34.0	3.55
Deltapine 652	33.8	3.48	34.0	3.55
Stoneville 256	34.5	3.50	34.5	3.40
McNair 612	34.0	3.75	35.0	3.95
Vail 5	33.8	3.40	34.0	3.20
Coker 202	34.3	3.58	34.5	3.75
Coker 1104	34.3	3.63	35.0	3.55
Average	34.2	3.51	34.4	3.51

[1]Average data for 4 West Tennessee locations.
[2]Average data for Ames Plantation and Lake County only.

Table 4. Lint yield and other characteristics of 23 cotton varieties grown at Ames Plantation in 1974[1]

Variety	LINT YIELD/A. Total	First harvest	Gin turnout	CLASSER'S Grade	Staple in 32's	Micro-naire
	Lb.	Lb.	%			
Hancock	1010	629	35.3	LM	34	3.8
McNair 612	1005	531	36.6	LM+	34	3.9
Auburn M	1004	662	32.9	SLM	34	3.6
Coker 310	963	450	35.5	SGO+	35	3.4
Coker 8304	932	446	37.0	LM	34	3.4
Stoneville 213	904	462	34.5	LM	35	3.9
Coker 1104	900	465	34.7	SGO+	34	3.8
Coker 201	899	475	35.7	LM	34	3.9
Coker 202	898	469	34.8	LM+	34	3.6
Dixie King 3	880	397	34.7	LM	34	3.9
Delcot 277	866	427	34.0	LM Lt. Sp.	34	3.3
Vail 5	838	419	34.8	LM	34	3.6
Lockett 4789A	838	500	32.5	LM+	34	3.6
Brycot 4	823	408	33.2	LM	34	3.7
Hy-Bee 200A	820	383	33.5	LM+	35	3.6
Stoneville 256	772	383	32.9	LM	34	3.8
McNair 511	771	303	33.3	LM Lt. Sp.	34	3.8
Deltapine 652	748	303	34.9	LM	34	3.6
Stoneville 603	716	295	33.2	SGO+	34	3.6
Deltapine 16	708	311	32.5	LM	35	3.6
Acala 1517-70	702	392	32.3	LM	35	3.8
Deltapine 45A	688	305	33.1	SGO+	34	3.5
Deltapine 25	664	279	33.3	SGO+	34	3.4
Average	840	422	34.1		34.2	3.7
Min. LSR .05	90.2	71.4				
Max. LSR .05	111.8	88.4				
CV%	9.4	14.8				

Planted May 1; harvested October 23 and November 13.
[1]Loring Silt Loam (2% to 5% slopes)

The Delta Regional Test at Lake County consisted of 24 entries. This test site received little rainfall between June 1 and August 10. Surplus late-season rainfall stimulated plant growth

Table 5. Lint yield and other characteristics of 23 cotton varieties grown at Jackson in 1974[1]

Variety	Lint yield per acre	Gin turnout	CLASSER'S Grade	CLASSER'S Staple in 32's	CLASSER'S Micronaire
	Lb.	%			
Auburn M	494	32.2	LM+	34	2.8
Hancock	466	33.1	LM Lt. Sp.	33	3.0
Coker 8304	357	32.9	SGO+	35	2.8
Coker 1104	340	31.8	LM	34	2.9
Coker 310	331	32.6	SGO+	34	2.8
McNair 612	330	32.5	LM	34	2.9
Delcot 277	302	31.6	Below Grade Lt. Sp.	33	2.6
Lockett 4789A	292	27.8	LM	33	2.7
Coker 202	282	31.7	SGO+	35	2.7
Stoneville 603	253	31.8	SGO+	34	2.8
Deltapine 652	252	31.1	SGO+	33	2.7
Vail 5	252	30.3	SGO+	33	2.7
Hy-Bee 200A	249	30.1	LM Lt. Sp.	34	2.9
Dixie King 3	219	30.0	SGO+	33	2.9
Deltapine 16	217	28.2	LM Lt. Sp.	35	2.8
Stoneville 213	212	31.1	SGO+	34	2.7
Stoneville 256	196	29.3	SGO+	34	2.7
Deltapine 45A	194	28.3	SGO	34	3.0
Acala 1517-70	193	29.7	SGO	35	2.8
Deltapine 25	151	26.7	SGO	33	2.9
Coker 201	138	27.4	Below Grade Lt. Sp.	33	2.7
Brycot 4	130	26.6	SGO	33	2.6
McNair 511	109	25.7	Below Grade Lt. Sp.	33	2.9
Average	259	30.0		33.7	2.8
Min. LSR .05	90.9				
Max. LSR .05	112.7				
CV%	30.7				

Planted May 20 and harvested November 15.
[1]Dexter Silt Loam (2% to 5% slopes).

and fruiting. Ten varieties yielded more than one bale per acre. Five of the seven highest yielders in this experiment were Stoneville varieties. A number of varieties had high micronaire values.

Table 6. Lint and other characteristics of 23 cotton varieties grown at Milan in 1974[1]

Variety	Lint yield per acre	Gin turnout	CLASSER'S Grade	CLASSER'S Staple in 32's	CLASSER'S Micronaire
	Lb.	%			
Auburn M	516	32.9	SLM	35	2.8
Coker 1104	379	33.5	LM	35	2.8
Delcot 277	379	35.0	LM Lt. Sp.	35	2.6
Hancock	372	33.3	LM	35	2.7
Coker 8304	351	33.8	LM Lt. Sp.	35	2.6
Stoneville 213	348	31.9	LM	35	2.8
Stoneville 603	328	32.6	LM Lt. Sp.	35	2.7
Hy-Bee 200A	321	32.1	SLM Lt. Sp.	34	2.7
Coker 310	317	33.6	LM Lt. Sp.	35	2.8
Deltapine 16	313	33.7	LM	35	2.6
Lockett 4789A	309	31.3	LM	34	2.8
Brycot 4	291	31.1	LM	36	2.6
McNair 612	286	31.3	LM Lt. Sp.	34	2.8
Stoneville 256	285	30.7	LM	35	2.6
Coker 202	282	33.5	LM Lt. Sp.	34	2.8
Deltapine 652	272	32.7	LM	35	2.6
Deltapine 45A	267	33.0	LM	34	2.7
Coker 201	249	32.7	LM Lt. Sp.	34	2.7
McNair 511	232	31.0	SGO+	34	2.7
Dixie King 3	219	32.6	SGO+	34	2.6
Vail 5	213	31.1	SGO+	35	2.5
Acala 1517-70	213	31.8	SGO+	35	2.6
Deltapine 25	186	31.9	SGO+	34	2.6
Average	301	32.5		34.8	2.7
Min. LSR .05	74.7				
Max. LSR .05	92.6				
CV%	21.7				

Planted May 9 and harvested November 14.
[1]Collins Silt Loam (0% to 2% slopes).

Grades were very acceptable, while staple length was somewhat low. This experiment was the only variety test that was not chemically defoliated in 1974.

Excessive rainfall through the growing season caused the Lawrence County Test to be tall, rank, and late. The experiment was planted April 30 and emerged to an adequate stand. Near

Table 7. Lint yield and other characteristics of 24 cotton varieties grown in Lake County in 1974[1]

Variety	LINT YIELD/A.			CLASSER'S		
	Total	First harvest	Gin turnout	Grade	Staple in 32's	Micro-naire
	Lb.	Lb.	%			
Hancock	586	393	33.4	LM+	34	4.8
Stoneville 213	585	408	32.6	SLM	35	5.0
Stoneville 256	577	384	32.8	SLM	35	4.9
Stoneville 7A	571	403	32.7	SLM Lt. Sp.	34	4.6
Dixie King 3	547	325	33.0	SLM Lt. Sp.	34	5.0
Delcot 277	545	331	32.0	LM Lt. Sp.	34	4.3
Stoneville 603	540	356	31.8	LM+	35	4.5
Coker 312	539	324	33.2	SLM Lt. Sp.	34	4.9
Brycot 4	533	363	32.3	SLM	36	4.9
Hy-Bee 200A	513	327	33.3	SLM	34	4.7
Coker 310	478	287	33.1	SLM Lt. Sp.	34	5.0
Deltapine 25	478	326	34.0	SLM	34	4.9
Auburn M	468	324	31.9	LM	34	4.7
Deltapine 652	445	306	34.3	SLM	34	5.0
Deltapine 45A	438	279	32.0	LM+	34	4.8
Vail 5	436	266	31.5	SLM Lt. Sp.	33	4.8
Deltapine 16	426	247	32.5	SLM Lt. Sp.	34	4.9
Acala 1517-70	415	252	30.0	SLM Lt. Sp.	36	4.8
Coker 1104	398	224	30.6	LM Lt. Sp.	34	5.0
Lockett 4789A	361	216	27.7	SLM Lt. Sp.	33	4.5
Coker 202	358	195	32.4	SLM Lt. Sp.	34	5.2
McNair 612	352	207	33.0	SLM	34	5.4
Coker 201	348	174	33.4	LM Lt. Sp.	34	5.3
McNair 511	324	151	31.1	SLM Lt. Sp.	34	5.2
Average	469	295	32.3		34.2	4.9
Min. LSR .05	75.5	60.8				
Max. LSR .05	93.6	75.6				
CV%	14.1	18.1				

Planted April 29; harvested October 11 and November 7.
[1]Tiptonville Silt Loam (0% to 2% slopes).

Table 8. Lint yield and other characteristics of 16 cotton varieties grown in Lawrence County in 1974[1]

Variety	Lint yield per acre	Gin turnout	CLASSER'S Grade	CLASSER'S Staple in 32's	CLASSER'S Micronaire
	Lb.	%			
Auburn M	165	31.1	LM Lt. Sp.	32	2.6
Hancock	149	33.2	LM Lt. Sp.	33	2.8
Stoneville 603	140	33.2	LM Lt. Sp.	32	2.6
New Rex	137	27.9	LM Lt. Sp.	33	2.8
Stoneville 213	122	29.6	SGO	33	2.7
Coker 310	117	29.8	LM Lt. Sp.	33	2.6
Delcot 277	110	28.6	Below Grade Lt. Sp.	33	2.6
Deltapine 16	109	26.2	SGO+	34	2.5
McNair 210	107	28.2	Below Grade Lt. Sp.	33	2.9
Stoneville 256	107	28.5	LM Lt. Sp.	33	2.5
Hy-Bee 200A	104	26.7	LM Lt. Sp.	33	2.5
Vail 5	102	30.3	Below Grade Lt. Sp.	32	2.5
T59-538	97	27.8	LM Lt. Sp.	34	2.5
Coker 8304	95	26.9	Below Grade Lt. Sp.	33	2.6
Deltapine 652	79	29.2	LM Lt. Sp.	33	2.5
Dixie King 3	66	26.6	Below Grade Sp.	33	2.5
Average	113	29.0		32.9	2.6
Min. LSR .05	44.8				
Max. LSR .05	54.4				
CV%	11.7				

Planted April 30 and harvested November 27.
[1]Pembroke Silt Loam (2% to 5% slopes).

record low June temperatures killed many seedlings and stunted the growth of the remainder. An early freeze ruined many bolls and few opened properly. Grades, staple length, and micronaire values were all very low.

Auburn M and Hancock were the leading yielders in 1974 and were the yield leaders of most experiments. Stoneville 603 did not yield as well as it had previously. Weak seed that produced non-vigorous seedlings may have hurt the yield of Stoneville 603, as stands were skippy. Late plants were evident throughout the growing and fruiting season. Full-season varieties performed poorly at all locations in 1974.

The importance of planting before May 15 is illustrated in Tables 9 and 10. These experiments were planted on an upland and a bottom soil on May 28. Lint yields were approximately half of those obtained from the same varieties planted 2 to 3 weeks earlier in nearby experiments. Auburn M and Hancock were the leading yielders in both tests.

Four new varieties and/or experimentals were included in the 1974 tests for the first time. Coker 1104 and Coker 8304 yielded well at most locations. Coker 202 and Vail 5 did not yield competitively with established varieties. Dixie King 3 and Stoneville 256 yielded poorly in tests where early maturity was critical. McNair 612 yielded well at Ames Plantation and Jackson, but was noncompetitive on bottom soils.

Two 150-boll samples of each variety were taken at all locations before first harvest. These hand-picked samples were ginned on a 10-saw laboratory gin. Lint percentage, seed index, and boll size were obtained from these samples. A subsample from each replication of each variety from the spindle-picked cotton was taken, weighed, and composited for ginning on a modified commercial gin with seed cotton and lint cleaners. The gin turnout from the modified gin was used to calculate lint yields and lint samples were used to determine grade, staple length, and micronaire values.

Classer's data are presented from first harvests. At the two locations where two harvests were made, the second picking had a slightly longer staple but much lower (0.6 to 0.7) micronaire values than the first picking. However, higher grades were often attained at second harvest.

Fiber data are not available for 1974 because it takes several months to process samples in the laboratory. The 2.5% and 50% span length, micronaire fineness reading, fiber strength (T_1 and E_1), and yarn strength for 1973 are presented. The 2.5% span length and 50% span length were measured on a digital fibrograph; 2.5% span length approximates classers' length while 50% span length indicates the modal length of all fibers in the bundle and indicates the uniformity of those fibers. The micronaire reading is a relative measure of fineness of the 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 too fine. The fiber strength (T_1) was measured on a stelometer. Higher T_1 values indicate fiber of greater strength

Table 9. Lint yield and other characteristics of 7 cotton varieties planted May 28 on a Collins Silt Loam[1] at Milan in 1974

Variety	Lint yield per acre	Gin turnout	CLASSER'S Grade	CLASSER'S Staple in 32's	CLASSER'S Micronaire
	Lb.	%			
Hancock	264	32.3	SGO	34	3.1
Auburn M	235	28.2	SGO	34	2.7
Coker 310	197	31.3	GO	36	2.8
Deltapine 16	193	29.5	SGO[2]	35	2.9
Hy-Bee 200A	168	28.0	GO	35	2.8
Stoneville 213	167	28.7	GO	35	3.0
Stoneville 603	147	27.4	GO	34	2.8
Average	196	29.5		34.7	2.9
Min. LSR .05	66.9				
Max. LSR .05	75.5				
CV%	23.0				

[1]0% to 2% slopes.
[2]One full grade reduction due to bark.

Table 10. Lint yield and other characteristics of 7 cotton varieties planted May 28 on a Memphis Silt Loam[1] at Milan in 1974

Variety	Lint yield per acre	Gin turnout	CLASSER'S Grade	CLASSER'S Staple in 32's	CLASSER'S Micronaire
	Lb.	%			
Auburn M	367	33.2	LM	34	3.1
Hancock	307	33.8	LM	34	3.0
Hy-Bee 200A	265	33.4	SLM Lt. Sp.	35	3.0
Coker 310	212	35.3	LM Lt. Sp.	34	3.2
Stoneville 213	181	32.3	SGO+	34	3.0
Deltapine 16	179	32.1	LM	36	2.9
Stoneville 603	146	30.4	SGO	34	3.0
Average	237	33.0		34.4	3.0
Min. LSR .05	95.1				
Max. LSR .05	107.3				
CV%	27.1				

[1]2% to 5% slopes.

Table 11. Four-year average yields[1] and percent of total yield obtained at first harvest for the Tennessee Cotton Variety Tests

Variety	Lint lb./acre	Percent first harvest
Hancock	874	77
Coker 310	866	74
Stoneville 213	862	70
Stoneville 603	833	72
Auburn M	818	77
Delcot 277	817	75
Brycot 4	806	69
Deltapine 16	798	67
Hy-Bee 200A	794	67
Deltapine 25	784	66

[1]Averages for 18 tests during the 4-year period, 1971-1974.

Table 12. Three-year average fiber data from first picking of 10 cotton varieties mechanically harvested in Tennessee Cotton Variety Tests[1]

Variety	Length		Strength		Micronaire	Yarn strength 22's
	2.5SL	.50SL	T_1	E_1		
Stoneville 213	1.08	.48	17.25	8.10	4.45	100
Auburn M	1.08	.47	16.72	8.08	4.11	100
Hancock	1.06	.47	16.61	7.27	4.11	102
Hy-Bee 200A	1.11	.49	17.63	8.36	4.27	102
Deltapine 16	1.13	.50	17.50	8.97	4.23	105
Delcot 277	1.16	.51	19.23	9.07	3.78	113
Stoneville 603	1.09	.48	17.73	8.48	4.10	105
Coker 310	1.17	.50	18.39	7.63	4.09	107
Deltapine 25	1.10	.49	18.33	7.74	4.37	107
Brycot 4	1.09	.49	17.24	6.92	4.41	103
Average	1.11	.49	17.66	8.06	4.19	104

[1]Averages for 12 tests during the 3-year period, 1971-1973.

and lower values indicate fiber of lesser strength. Higher yarn strength values indicate better spinning qualities at 27tx.

All yield data were analyzed statistically using Duncan's New

Table 13. Average fiber data from first picking of 22 cotton varieties mechanically harvested at four locations in 1973

Variety	Length		Strength		Micronaire	Yarn strength 22's
	2.5SL	.50SL	T_1	E_1		
Stoneville 213	1.11	.51	18.30	7.73	4.73	109
Auburn M	1.10	.50	17.82	7.64	4.31	109
Hancock	1.08	.50	17.48	7.07	4.33	109
Hy-Bee 200A	1.14	.52	18.59	8.81	4.56	109
Deltapine 45A	1.10	.52	18.32	8.51	4.60	112
Coker 201	1.11	.51	18.42	6.90	4.63	113
Deltapine 16	1.14	.52	18.43	8.94	4.64	112
Delcot 277	1.17	.53	19.85	9.00	3.95	122
Stoneville 603	1.11	.50	18.62	8.48	4.35	112
Coker 310	1.20	.53	19.37	7.37	4.41	113
Acala 1517-70	1.14	.52	22.44	6.18	4.05	137
Deltapine 25	1.12	.52	18.92	7.64	4.77	113
Brycot 4	1.10	.51	17.97	6.75	4.78	111
Coker 312	1.16	.51	19.44	7.04	4.49	118
Lockett 4789A	1.10	.50	18.22	7.16	4.36	111
Coker 5110	1.17	.54	19.08	7.50	4.50	113
Quapaw	1.07	.50	18.61	6.61	4.61	114
Dixie King 3	1.10	.50	18.53	7.22	4.38	117
Deltapine 5916-65	1.15	.54	18.69	8.87	4.96	109
Deltapine 652	1.13	.52	18.47	7.90	4.75	109
Stoneville 256	1.11	.50	18.09	6.72	4.76	108
McNair 612	1.13	.52	18.71	6.67	4.78	103
Average	1.12	.51	18.76	7.57	4.54	113

Multiple Range Test of Significance for comparing varietal mean values at the .05 probability level. Min. L.S.R. is the minimum least significant range and may be used for comparing two adjacent means when they are arranged in ascending or descending order of magnitude. Max. L.S.R. 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 maxi-

mum L.S.R. values. The coefficient of variation (C.V. %) gives information concerning the uniformity of the entire experiment.

Yield data and other characteristics of the varieties tested at each location are shown in Tables 4-18.

Table 14. Fiber and spinning data for 23 cotton varieties mechanically harvested at Ames Plantation, Tennessee in 1973*

Variety	Span length			Strength		Micronaire	Yarn strength 22's
	.50	2.5	UI	T_1	E_1		
Stoneville 213	.52	1.10	47	17.84	7.98	4.99	99
Auburn M	.49	1.09	45	16.77	8.00	4.50	100
Hancock	.49	1.07	46	17.06	7.46	4.64	99
Hy-Bee 200A	.51	1.12	46	17.58	8.91	4.76	102
Deltapine 45A	.51	1.08	47	17.50	8.86	4.80	100
Coker 201	.53	1.11	47	18.10	7.12	4.88	106
Deltapine 16	.53	1.13	47	17.48	9.27	4.89	104
Delcot 277	.53	1.16	46	19.02	9.11	4.09	109
Stoneville 603	.51	1.09	46	18.16	8.60	4.71	104
Coker 310	.52	1.17	44	17.95	7.44	4.76	105
Acala 1517-70	.50	1.12	45	21.50	6.52	4.13	127
McNair 511	.53	1.09	49	18.34	7.61	4.94	113
Deltapine 25	.53	1.08	49	18.04	8.04	4.93	103
Brycot 4	.52	1.10	47	17.81	7.32	4.88	106
Coker 312	.51	1.08	47	17.62	7.20	4.91	109
Lockett 4789A	.49	1.07	46	17.31	7.70	4.53	102
Coker 5110	.54	1.16	46	17.97	7.64	4.78	107
Quapaw	.51	1.06	48	18.09	6.76	4.76	111
Dixie King 3	.50	1.06	47	18.18	7.66	4.75	107
Deltapine 5916-65	.53	1.13	47	17.93	9.07	5.05	101
Deltapine 652	.51	1.10	46	17.98	7.97	4.91	108
Stoneville 256	.51	1.10	46	17.88	6.82	5.01	106
McNair 612	.53	1.12	47	18.63	6.93	5.05	106
Average	.514	1.103	46.6	18.03	7.83	4.77	106

*Loring Silt Loam (2% to 5% slopes)

Table 15. Fiber and spinning data for 23 cotton varieties mechanically harvested at Jackson, Tennessee in 1973*

Variety	Span length			Strength		Micronaire	Yarn strength 22's
	.50	2.5	UI	T_1	E_1		
Stoneville 213	.47	1.07	44	18.26	7.68	4.12	101
Auburn M	.47	1.07	44	18.24	7.46	3.78	103
Hancock	.46	1.03	45	17.52	7.10	3.90	103
Hy-Bee 200A	.48	1.09	44	19.31	8.75	4.04	105
Deltapine 45A	.50	1.07	47	18.58	8.28	4.18	108
Coker 201	.49	1.08	45	18.74	6.83	4.39	107
Deltapine 16	.48	1.09	44	18.53	9.19	4.18	104
Delcot 277	.51	1.15	45	19.96	9.13	3.76	117
Stoneville 603	.47	1.07	44	17.77	8.82	3.95	103
Coker 310	.52	1.19	44	19.21	7.55	3.99	111
Acala 1517-70	.50	1.09	46	21.71	6.10	3.93	137
McNair 511	.48	1.06	46	19.27	6.91	4.44	113
Deltapine 25	.50	1.08	46	19.24	7.51	4.74	110
Brycot 4	.47	1.02	46	16.70	6.06	4.54	102
Coker 312	.47	1.13	42	19.66	7.13	4.09	109
Lockett 4789A	.49	1.07	46	18.25	6.99	3.98	105
Coker 5110	.50	1.12	44	19.32	7.37	4.12	111
Quapaw	.48	1.05	46	18.16	6.52	4.21	113
Dixie King 3	.47	1.06	45	18.62	6.86	4.05	110
Deltapine 5916-65	.52	1.12	46	18.89	8.60	4.55	105
Deltapine 652	.50	1.09	45	18.08	7.57	4.62	104
Stoneville 256	.47	1.07	44	17.53	6.35	4.30	101
McNair 612	.50	1.09	46	18.40	6.43	4.41	106
Average	.485	1.083	44.4	18.69	7.44	4.19	108

*Memphis Silt Loam (0% to 2% slopes).

Table 16. Fiber and spinning data for 23 cotton varieties mechanically harvested at Milan, Tennessee in 1973*

Variety	Span length			Strength		Micronaire	Yarn strength 22's
	.50	2.5	UI	T_1	E_1		
Stoneville 213	.53	1.15	46	18.82	7.93	4.46	118
Auburn M	.52	1.12	46	18.57	7.37	4.06	107
Hancock	.48	1.08	44	18.07	7.02	3.96	105
Hy-Bee 200A	.54	1.18	46	19.49	8.80	4.39	115
Deltapine 45A	.52	1.11	47	19.21	8.73	4.43	113
Coker 201	.49	1.11	44	18.99	7.19	4.14	116
Deltapine 16	.52	1.17	45	19.60	8.96	4.31	121
Delcot 277	.53	1.18	45	21.38	8.82	3.58	126
Stoneville 603	.51	1.12	45	19.87	8.00	3.95	115
Coker 310	.53	1.20	44	20.86	7.70	3.85	120
Acala 1517-70	.56	1.19	47	24.79	6.36	3.80	146
McNair 511	.54	1.13	47	21.27	7.37	4.46	122
Deltapine 25	.52	1.14	46	19.82	7.62	4.26	116
Brycot 4	.53	1.15	46	19.26	6.95	4.56	116
Coker 312	.53	1.21	44	21.41	7.13	3.74	128
Lockett 4789A	.51	1.11	46	19.05	7.14	3.96	113
Coker 5110	.56	1.21	46	20.41	7.74	4.10	116
Quapaw	.48	1.06	46	19.34	6.61	4.24	113
Dixie King 3	.51	1.12	45	19.23	7.38	3.84	120
Deltapine 5916-65	.55	1.16	47	19.60	9.27	4.74	114
Deltapine 652	.52	1.15	45	19.03	8.51	4.41	113
Stoneville 256	.51	1.14	45	18.87	6.82	4.52	112
McNair 612	.49	1.13	43	19.57	6.91	4.26	109
Average	.519	1.142	45.4	19.85	7.67	4.17	119

*Collins Silt Loam (0% to 2% slopes).

Table 17. Fiber and spinning data for 24 cotton varieties mechanically harvested at Lake County, Tennessee in 1973*

Variety	Span length			Strength		Micronaire	Yarn strength 22's
	.50	2.5	UI	T_1	E_1		
Stoneville 7A	.51	1.12	46	18.03	6.64	5.11	124
Stoneville 213	.51	1.11	46	18.29	7.34	5.36	119
Auburn M	.50	1.11	45	17.71	7.73	4.88	127
Hancock	.53	1.14	46	17.26	6.68	4.80	128
Hy-Bee 200A	.53	1.16	45	17.99	8.76	5.04	113
Deltapine 45A	.55	1.15	48	17.98	8.16	5.00	128
Coker 201	.53	1.15	42	17.85	6.46	5.10	124
Deltapine 16	.54	1.18	46	18.11	8.33	5.17	118
Delcot 277	.53	1.19	45	19.02	8.93	4.35	138
Stoneville 603	.52	1.15	45	18.69	8.51	4.77	124
Coker 310	.55	1.23	45	19.47	6.79	5.05	118
Acala 1517-70	.52	1.17	44	21.77	5.73	4.35	140
Deltapine 25	.54	1.16	46	18.59	7.38	5.16	123
Brycot 4	.52	1.14	46	18.11	6.67	5.12	121
Hy-Bee 200A	.54	1.17	46	18.40	8.33	5.15	116
Lockett 4789A	.52	1.13	46	18.25	6.82	4.95	123
Coker 5110	.55	1.19	46	18.61	7.26	4.99	116
Quapaw	.51	1.10	46	18.85	6.54	5.22	118
Dixie King 3	.53	1.14	46	18.07	6.96	4.86	130
Deltapine 5916-65	.55	1.17	47	18.35	8.54	5.50	116
Deltapine 652	.53	1.16	46	18.77	7.54	5.04	113
Stoneville 256	.52	1.13	46	18.06	6.87	5.21	114
McNair 612	.54	1.16	46	18.23	6.39	5.39	122
Coker 312	.53	1.21	44	19.07	6.69	5.21	125
Average	.527	1.153	45.7	18.48	7.34	5.03	123

*Tiptonville Silt Loam (0% to 2% slopes).

Table 18. Fiber and spinning data for 16 cotton varieties mechanically harvested in Lawrence County, Tennessee in 1973*

Variety	Span length			Strength		Micronaire	Yarn strength 22's
	.50	2.5	UI	T_1	E_1		
Stoneville 213	.52	1.08	48	16.43	9.12	4.33	105
Auburn M	.53	1.11	48	16.59	8.47	4.32	101
Hancock	.51	1.09	47	16.94	7.95	4.09	105
Hy-Bee 200A	.53	1.17	46	16.89	9.95	4.21	104
Deltapine 16	.52	1.15	45	16.99	9.76	4.15	104
T59-538	.51	1.15	45	16.68	8.76	3.65	105
Delcot 277	.54	1.18	46	17.80	9.61	3.76	114
Stoneville 603	.52	1.12	46	18.22	9.98	4.06	106
Coker 310	.54	1.23	44	17.57	8.32	3.86	113
Coker 5110	.54	1.21	44	17.46	8.47	4.05	112
Quapaw	.52	1.07	48	17.02	7.52	4.32	111
Dixie King 3	.54	1.11	48	17.74	8.66	4.35	113
Deltapine 652	.52	1.13	46	16.50	8.75	4.23	106
Stoneville 256	.53	1.14	47	16.59	7.65	4.21	111
McNair 612	.53	1.15	46	17.33	8.05	4.38	109
Brycot 1104	.54	1.16	46	18.59	9.02	3.85	121
Average	.525	1.137	46.2	17.21	8.75	4.11	108

*Pembroke Silt Loam (2% to 5% slopes).

REGIONAL HIGH QUALITY STRAINS TEST

This experiment was conducted cooperatively with USDA and other states. A number of experimental strains, each possessing superior fiber properties, and three commercial checks were tested at 11 locations in 10 states. The commercial checks included one standard southeastern variety (Coker 310), and one standard Delta variety (Deltapine 16) for yield comparison, and one variety wtih high quality lint (Acala 1517-70).

Sampling procedure and kind of data obtained were identical to those in the Tennessee testing program. Yields averaged 127 pounds of lint more than those obtained in the adjacent variety test at Jackson. The Strains Test was planted 6 days earlier (May 14) on a steeper slope than the variety test. Plants of the Regional High Quality Strains Test averaged slightly taller than the variety test. Lint obtained from the strains had better grades and longer staple, while micronaire values of the two tests were essentially equal.

McNair 71418 yielded more than other varieties in this experiment and had one of the shortest plant types. In the 1973 strains test, McNair 71418 was one of the tallest, latest biotypes and yielded very poorly. Coker 11067, three PD lines (from South Carolina), and CP0803 (from Georgia) also yielded well. CP0803 was the earliest, most determinate strain in this test. Two Louisiana experimental strains, Bayou 7769 and LaDASS 5175, were the tallest, latest maturing, and lowest yielding entries. Fiber data for 1974 are not available. Fiber data for 1973 are given since many of the entries in the 1974 test were included in the 1973 test.

A number of currently-available varieties were evaluated in the Regional High Quality Strains Test before their release. Data are presented in Tables 19 to 21.

Table 19. Lint yield and other characteristics of 21 cotton varieties and experimental strains grown in the Regional High Quality Strains Test at Jackson in 1974[1]

Variety	Lint yield per A.	Lint	Bolls per lb.	Seed index	Gin turnout
	Lb.	%	No.		%
McNair 71418	697	38.9	69	10.9	33.9
Coker 11067	506	39.4	65	10.7	34.3
PD 0113	505	36.9	74	10.9	32.8
PD 9223	500	39.4	75	11.6	35.3
PD 9241	499	38.4	75	11.9	32.8
CP 0803	498	35.6	70	12.2	31.0
Coker 310	467	37.8	74	10.6	34.1
Mo. 63-277BR	456	36.8	68	11.0	31.4
Stoneville 429	429	36.9	74	12.5	32.7
McNair 2-520	411	38.4	58	13.0	32.4
Brycot 350	376	35.8	76	11.2	31.6
PD 0111	355	36.9	77	11.3	30.7
PD 0109	334	36.2	71	12.2	30.4
Coker 71500	328	37.2	76	10.9	31.1
Stoneville 151	292	35.8	80	11.1	30.9
Acala 1517-70	289	36.8	72	12.4	30.1
Deltapine 16	287	36.7	75	10.4	29.6
Stoneville 1082	263	35.5	82	11.1	30.3
Deltapine 6582	231	39.4	83	10.0	31.3
Bayou 7769	202	37.6	85	10.1	29.3
LaDASS 5175	180	37.2	87	9.7	29.0
Average	386	37.3	74	11.2	31.6
Min. LSR .05	102.5				
Max. LSR .05	127.0				
CV%	23.3				

Planted on May 14; harvested on November 15.
[1]Dexter Silt Loam (2% to 5% slopes).

Table 20. Classer's grade, staple, and micronaire for 21 cotton varieties and experimental strains mechanically harvested in the Regional High Quality Strains Tests at Jackson in 1974

Variety	Grade	Staple in 32's	Micronaire
McNair 71418	LM	34	2.9
Coker 11067	LM+	34	3.1
PD 0113	LM	35	2.7
PD 9223	LM	35	3.0
PD 9241	LM	35	2.8
CP 0803	LM	35	3.0
Coker 310	LM	35	2.9
Mo. 63-277BR	LM Lt. Sp.	34	2.6
Stoneville 429	LM	34	3.3
McNair 2-520	LM	34	3.1
Brycot 350	LM	34	2.8
PD 0111	LM	34	2.9
PD 0109	LM	35	3.2
Coker 71500	SLM Lt. Sp.	34	3.0
Stoneville 151	LM Lt. Sp.	34	2.6
Acala 1517-70	SGO+	35	2.9
Deltapine 16	LM	34	3.0
Stoneville 1082	SGO+	34	2.8
Deltapine 6582	LM Lt. Sp.	34	2.6
Bayou 7769	SGO+	34	2.7
LaDASS 5175	Below Grade Lt. Sp.	33	3.0
Average		34.3	2.9

Table 21. Fiber and spinning data for 18 cotton varieties and experimentals grown in the Regional High Quality Strains Test[1] at Jackson[2]

Variety	Span length			Strength		Micronaire	Yarn strength 22's
	.50	2.5	UI	T_1	E_1		
Acala 1517-70	.50	1.10	45	21.08	6.93	3.94	129
Coker 310	.48	1.11	44	18.20	7.30	4.43	105
Deltapine 16	.48	1.12	43	17.81	7.96	4.34	104
Bayou 7769	.48	1.07	45	18.83	6.87	4.35	114
Coker 71500	.50	1.12	45	19.47	6.36	4.45	112
Brycot 324	.50	1.10	45	20.70	6.06	4.66	113
Brycot 350	.46	1.05	44	18.38	6.45	4.55	106
Coker 71105	.47	1.07	44	19.13	6.59	4.66	110
CP0803	.45	1.05	43	17.11	6.04	4.40	101
Deltapine 6532	.46	1.06	43	18.00	6.02	4.44	105
McNair 71418	.49	1.06	46	20.15	7.02	4.59	114
LaDASS 55175	.48	1.07	45	17.77	6.23	4.57	106
PD 9241	.46	1.06	43	20.12	6.91	4.34	116
PD 9223	.46	1.07	43	20.87	7.64	4.20	122
PD 9363	.48	1.09	44	20.77	6.84	4.25	118
PD 9222	.50	1.09	46	21.98	6.80	4.69	125
PD 9232	.46	1.06	43	20.70	6.63	4.24	122
Stoneville 151	.47	1.05	45	20.53	6.41	4.52	116
Average	.474	1.076	44.1	19.53	6.73	4.42	117

[1]Mechanically harvested and ginned on a modified commercial gin.
[2]Memphis Silt Loam (0% to 2% slopes).

ADVANCED STRAINS TEST

An Advanced Strains Test consisting of 12 experimental strains, two new varieties, and two commercial checks was planted at Milan in 1974. Advanced strains from various breeding programs were included in the test. Numerous varieties that are currently available were included in the Advanced Strains Test before they were released. Strains that did not perform well were discarded.

Stoneville 633 BBR (bacterial blight resistant) and Hancock were the leading yielders. T59-538 was the earliest entry, but a genetically low micronaire precludes its release as a commercial variety. T73-1 was bred for California, but its breeder is currently in Tennessee. Two nectariless experimentals were included. New Rex is a reselection from Rex. New Rex is not a smoothleaf

variety, but is less pubescent than the original Rex. Plant types are similar. New Rex may be slightly earlier than old Rex.

Classers' grade and staple length were satisfactory, but lint of many entries had low micronaire. Micronaire values of lint obtained at second harvest were very low.

Fiber data for 1973 are given, since 1974 fiber data are not available. Data are presented in Tables 22 to 24.

Table 22. Lint yield and other characteristics of 16 cotton varieties and experimental strains grown in the Advanced Strains Test at Milan in 1974[1]

Variety	LINT YIELD PER ACRE			Gin turnout
	Total	1st harvest		
	Lb.	Lb.	%	%
Stoneville 633BBR	890	661	74	36.2
Hancock	881	654	74	35.0
Stoneville 164	853	666	78	34.7
T59-538	829	732	88	34.0
T73-1	818	613	75	36.9
Stoneville 731N	793	566	71	34.6
Deltapine 6829	785	566	72	36.0
Coker 11067	780	619	79	36.0
Stoneville 504	768	590	76	33.9
Coker 111	766	537	70	34.5
New Rex	756	564	75	31.8
Coker 220	744	544	73	35.4
Deltapine 70100N	729	494	68	34.3
Deltapine 16	705	470	67	33.7
McNair 210	705	523	74	32.7
T70-1	566	315	56	31.9
Average	773	567	74	34.4
Min. LSR .05	109.5	128.0		
Max. LSR .05	133.2	155.6		
CV%	12.3	19.5		

[1]Memphis Silt Loam (2% to 5% slopes).
Planted on May 9.
Harvested on October 28 and November 14.

Table 23. Classer's grade, staple, and micronaire for 16 cotton varieties and experimental strains mechanically harvested in the Advanced Strains Test at Milan in 1974

Variety	FIRST HARVEST			SECOND HARVEST		
	Grade	Staple in 32's	Micro-naire	Grade	Staple in 32's	Micro-naire
Stoneville 633 BBR	LM+	34	3.8	SLM	35	2.7
Hancock	LM+	34	3.4	LM	34	2.7
Stoneville 164	LM+	34	3.2	SLM Lt. Sp.	34	2.8
T59-538	LM+	34	2.8	SGO+	34	2.4
T73-1	LM+	34	3.6	LM	34	2.9
Stoneville 731N	SLM	34	3.6	LM	35	2.8
Deltapine 6829	SLM	35	3.8	SLM Lt. Sp.	35	2.9
Coker 11067	LM+	35	3.3	SLM Lt. Sp.	35	2.8
Stoneville 504	SLM	34	3.6	SLM Lt. Sp.	35	2.6
Coker 111	LM+	34	3.2	LM	35	2.7
New Rex	SLM	34	3.3	SLM Lt. Sp.	34	2.6
Coker 220	LM+	35	3.1	SLM Lt. Sp.	34	2.7
Deltapine 70100N	SLM	35	3.1	SLM Lt. Sp.	34	2.6
Deltapine 16	SLM	34	3.2	SLM Lt. Sp.	35	2.6
McNair 210	LM+	35	3.1	SLM Lt. Sp.	35	2.8
T70-1	LM	34	3.3	LM	35	2.9
Average		34.3	3.3		34.6	2.7

Table 24. Fiber and spinning data for 16 cotton varieties and experimentals grown in the 1973 Advanced Strains Test[1] at Milan[2]

Variety	Span length			Strength		Micronaire	Yarn strength 22's
	.50	2.5	UI	T_1	E_1		
Brycot 1104	.50	1.12	45	19.21	7.87	4.34	113
Coker 220	.50	1.13	44	19.03	7.37	4.60	113
Coker 3904	.50	1.17	43	19.11	7.29	4.85	108
Coker 3907	.51	1.14	45	18.90	7.40	4.55	115
Coker 8304	.51	1.16	44	18.97	7.55	4.67	116
Deltapine 16	.51	1.12	46	18.74	9.20	4.75	105
Deltapine 5916-65	.52	1.13	46	19.01	8.83	5.16	106
Dixie King 135	.48	1.07	45	17.29	8.11	4.89	104
Hancock	.48	1.05	46	16.11	7.31	4.57	104
Lockett BXL	.48	1.08	45	17.83	7.39	4.63	108
McNair 71318	.48	1.08	45	18.34	8.21	4.51	108
Stoneville 164	.50	1.08	46	18.52	8.41	4.74	105
Stoneville 213-208	.49	1.09	45	17.93	7.54	4.75	107
Stoneville 504	.50	1.11	45	17.91	6.81	5.06	111
T59-538	.49	1.11	44	17.28	7.58	4.27	108
T70-1	.48	1.07	45	18.25	7.45	4.38	105
Average	.495	1.105	44.8	18.28	7.77	4.67	108

[1]Mechanically harvested and ginned on a modified commercial gin.
[2]Memphis Silt Loam (2% to 5% slopes).

THE UNIVERSITY OF TENNESSEE
AGRICULTURAL EXPERIMENT STATION
KNOXVILLE, TENNESSEE 37901

Agricultural Committee

Board of Trustees

Edward J. Boling, President of the University;
Clyde M. York, Chairman; Ben Douglass, Vice Chairman;
Wayne Fisher; Harry W. Laughlin; Don O. Shadow;
Edward S. Porter, Commissioner of Agriculture;
Webster Pendergrass, Vice President for Agriculture

STATION OFFICERS

Administration

Edward J. Boling, President
Webster Pendergrass, Vice President for Agriculture
E. J. Chapman, Assistant Vice President
J. A. Ewing, Dean
D. M. Gossett, Assistant Dean
T. J. Whatley, Assistant Dean
O. Clinton Shelby, Director of Business Affairs

Department Heads

C. J. Southards, Agricultural Biology
Agricultural Communication
J. A. Martin, Agricultural Economics and Rural Sociology
D. H. Luttrell, Agricultural Engineering
R. R. Johnson, Animal Science
Judith L. Kuipers, Child Development and Family Relationships
Mary R. Gram, Food Science, Nutrition, and Food Systems Administration
J. T. Miles, Food Technology and Science
J. W. Barrett, Forestry
D. B. Williams, Ornamental Horticulture and Landscape Design
L. F. Seatz, Plant and Soil Science
Anna J. Treece, Textiles and Clothing

University of Tennessee Agricultural Research Units

Main Station, Knoxville, J. N. Odom, Superintendent of Farms
University of Tennessee-Atomic Energy Commission Comparative Animal Research Laboratory, Oak Ridge, H. E. Walburg, Laboratory Director
The University of Tennessee at Martin, Martin, Harold J. Smith, Dean, School of Agriculture

Branch Stations

Dairy Experiment Station, Lewisburg, J. R. Owen, Superintendent
Highland Rim Experiment Station, Springfield, L. M. Safley, Superintendent
Middle Tennessee Experiment Station, Spring Hill, J. W. High, Jr., Superintendent
Plateau Experiment Station, Crossville, R. D. Freeland, Superintendent
Tobacco Experiment Station, Greeneville, Don Howard, Superintendent
West Tennessee Experiment Station, Jackson, H. W. Luck, Superintendent

Field Stations

Ames Plantation, Grand Junction, James M. Bryan, Superintendent
Forestry Field Stations at Tullahoma, Wartburg, and Oak Ridge, Richard M. Evans, Superintendent
Milan Field Station, Milan, T. C. McCutchen, Superintendent

2.5M—4-75