ESTIMATES OF PERFORMANCE OF COTTON VARIETIES IN SOUTHEAST MISSOURI 1967-1969

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INTRODUCTION

ESTIMATES OF PERFORMANCE OF COTTON VARIETIES

IN SOUTHEAST MISSOURI, 1967-1969

W. P. Sappenfield[1/]

Estimates of comparative varietal performance can be gained from reliable variety trials. Estimates are most valid when derived from trials conducted during several seasons at locations representing production environmental variables within the region. During 1967-69 climatic variables in southeast Missouri, within and among seasons, were diverse and extreme often modifying or exaggerating varietal response to the already diversified soil and disease conditions existing at the test sites.

Variety test results serve as guides to cotton growers for the selection of varieties best adapted to their particular farms. Test results also serve to assist breeders in the evaluation of the performance of new varieties and the determination of successful breeding methods, materials and characteristics needed to extend varietal adaptation to meet the constant pressures of nature and the consuming public.

Reported herein are results of general variety tests, 1967-69, that included approved commercial varieties, new varieties, and experimental strains grown on (1) sandy loam, wilt-free, usually non-irrigated soils, (2) sandy loam, Verticillium infested, irrigated soils, (3) clay soils, free of wilt, and irrigated, (4) sandy, irrigated soil infested with Fusarium and Root-Knot nematodes. Performance estimates are given for ten varieties grown at the four locations over the 3-year period, 1967-69. Estimates for sixteen varieties grown only in 1969 are presented. Also reported are results of varieties grown in the Missouri Regional High Quality 1969 test. This is a cooperative venture among cotton breeders (USDA, State and Private) directed toward the ultimate provision of varieties with superior lint properties necessary in superior fabrics.

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OBSERVATIONS DEFINED

AGRONOMIC PROPERTIES

1. Seed Cotton Yield is reported in pounds per acre. Statistical analyses were by the randomized block analysis of variance method. Non-adjusted yields are given.

2. Total Lint Yield expressed in pounds per acre, was analyzed by the balanced lattice square method. Adjusted yields are given.

3. Lint Yield, First Pick is reported in pounds per acre of lint produced by time of first picking, normal by October 1-20, but during 1967-69 time of first pickings ranged from October 2 to November 20. All first pick yields were analyzed by the balanced lattice square method. Adjusted yields are given.

4. Stand is the average number of hills per plot for each variety for all replications after uniform thinning to three plants per hill, when possible.

5. Days to First Flower is the average number of days from planting to first flower.

6. Seedling Vigor Index is an average visual rating of vigorousness from seedling to first flower.
   - 4 = excellent
   - 3 = good
   - 2 = fair
   - 1 = poor

7. Height Index is an average visual rating of height made just prior to harvest.
   - 1 = approximately 20 inches
   - 2 = approximately 40 inches
   - 3 = approximately 60 inches

8. Lodging Index is an average visual rating made prior to harvest.
   - 4 = plants upright and rigid
   - 3 = plants showing slight arch
   - 2 = plants showing moderate arch
   - 1 = plants showing moderate arch and some root lodging
   - 0 = plants showing severe root lodging and semi-prostrate position

9. Storm Resistance Index is an average visual estimate of the degree of bur retention of locks.
   - 4 = bolls fluffed, little stringing-out of locks
   - 3 = bolls fluffed, moderate stringing-out of locks
   - 2 = "pan-cake" or flat open-bolls, with excessive stringing-out and some ground loss
   - 1 = excessive storm resistance, tight bolls or tight locks

DISEASE REACTIONS

10. Verticillium Wilt is expressed as the average percent of plants showing wilt symptoms by September 1 in all replications of only the Verticillium wilt trials 1967-68. 1969 reactions were rated as follows:

    4 = very tolerant
    3 = tolerant
    2 = susceptible
    1 = very susceptible

11. Fusarium Wilt is expressed as the average percent of plants dead or showing wilt symptoms by September 1 in all replications of only the Fusarium Wilt-Root Knot Trials.

12. Bacterial Blight Incidence is an average visual estimate of the incidence of leaf infection. No data are available for 1967-69.

    5 = no infection
    4 = mild infection
    3 = moderate infection
    2 = severe infection
    1 = very severe infection

BOLL AND GINNING

13. Seed Index is a measure of seed size, expressed as the gram weight of 100 seeds.

14. Seed Grade is an estimate of the amount and length of linters and ease of ginning. Standard grades ranged from 0 = naked seeds to 9 = seeds having dense, long tufted seed fuzz, and exhibiting slow ginning characteristics.

15. $$\text{Lint Percent} = \frac{\text{Gram weight of ginned lint}}{\text{Gram weight of Seed Cotton sample}}$$

16. Lint Index is the gram weight of the lint on 100 seed, calculated from means of:

$$\frac{\text{Percent Lint} \times \text{Seed Index}}{\text{Percent Seed}}$$

17. Boll Weight is the gram weight per boll of seed cotton.

FIBER AND SPINNING QUALITY DETERMINATIONS

18. 2.5% Span Length is the average length of fiber, in inches, of two determinations on the raw fiber sample using the Fibro-sample and Digital Fibrograph. Two and five-tenths percent of the fibers caught in the sample holder will extend this length or further, thereby approximating the Servo-Fibrograph Upper-Half-Mean (UHM) and the Classer's Staple.

19. 50% Span Length is the average length of fiber, in inches, of two determinations on the raw fiber sample using the Fibro-sample and Digital Fibrograph. Fifty percent of the fibers caught in the sample holder will extend this length or further.

20. Length Uniformity Index is determined by:

$$\frac{\text{50\% Span Length} \times 100}{\text{2.5\% Span Length}}$$

Values obtained usually range between 33 and 48 for cotton. High values indicate high uniformity of fiber length.

21. Micronaire is a measure of fiber fineness or coarseness.
    3.4 and below - fine and often immature
    3.5 to 4.8 = premium range
    4.9 and above = coarse

22. Colorimeter Rd Values as measured by the colorimeter indicate the degree of brightness and are expressed in percent reflectance. Increasing values of Rd indicate increasing brightness of sample. Colorimeter values may be useful as indicators of weathering and fiber deterioration.

23. Colorimeter b values as measured by the colorimeter indicate the degree of yellowness and increasing values of b indicate increasing yellowness of fiber.

24. Trash as estimated on a scale: (1) low trash through (5) high trash.

25. Yarn Strength is the average breaking strength in pounds of 20 determinations corrected to a yarn number of 27.0 tex and is in terms of the standard skein. The greater the value, the stronger the yarn. Yarn strength of 130 and above is considered superior and below 110, inferior.

STATISTICAL INTERPRETATION OF DATA FOR SIGNIFICANCE

All data were analyzed statistically by the University of Missouri Computer Research Center. Total lint yields and lint yield first pick were analyzed using the balanced lattice square analysis of variance. All other observations were analyzed using the randomized block analysis of variance method.

The Duncan's Multiple Range Test of Significance for .05 probability for variety mean values is given. Means or values followed by the same letter are not significantly different. Means or values not followed by the same letter are significantly different.

MiLSR (.05) = Minimum least significant range for Duncan's Multiple Range Test (.05)

MaLSR (.05) = Maximum least significant range for Duncan's Multiple Range Test.

C. V. % = Coefficient of variation

Table 1 Methods, Cultural Practices and Conditions of Cotton Variety Trials in Southeast Missouri, 1969

Condition	Test or Location				
	Sandy Loam Wilt-free	Sandy Loam Verticillium Wilt	Clay Wilt-free	Sandy Fusarium Wilt-Root Knot	Regional Hi-Quality
Soil Texture	Sandy loam	Sandy laom	Clay (Gumbo)	Sand	Sandy loam
Fusarium Wilt-Root Knot	None	None	None	Moderate	None
Verticillium Wilt	None	Moderate-severe	None	None	None
Bacterial Blight	Light	Light	Light	Light	Light-moderate
Cercospora-Alternaria Leaf Spot	Light	Light	Light	Light	Light
Plot Design 1/	4x4 BLS	4x4 BLS	4x4 BLS	4x4 BLS	5x5 BLS
Replications (yield-stand-disease)	5	5	5	5	3
Replications (other observations)	2	2	2	2	3
Plot Size 2/	2 rows x 50'	4 rows x 50'	4 rows x 50'	4 rows x 33'	2 rows x 38'
Date Planted 3/	May 6	May 7	May 5	May 8	May 6
Fertilizer 4/	80-50-50	80-50-50	100-50-50	80-80-80	80-50-50
Weed Control	Treflan + wide sweep cultivation of middles				
Irrigations	None	2	2	3	2
Insecticides App.	Recommended	Recommended	Recommended	Recommended	Recommended
Defoliant Applied	Sept. 26	Oct. 9	Oct. 3	Oct. 6	Sept. 26
Seed Cotton Samples 5/	Machine	Machine	Machine	Machine	Machine
Harvesting	Machine	Machine	Machine	Machine	Machine
Date 1st Pick	Sept. 29	Oct. 15	Oct. 16	Oct. 17	Sept. 29
Date 2nd Pick	Nov. 1	Nov. 6	Nov. 5	Nov. 7	Nov. 1

1/ BLS Balanced lattice square.
2/ Middle two rows were harvested from 4-row plots.
3/ Acid-delinted, fungicide treated seed of all varieties obtained directly for respective originating breeders, were hilled-dropped using a 4-row V-belt planter. Where possible hills were uniformily thinned to 3 plants in hills 12"-14" apart.
4/ 50-50-50 applied broadcast preplant; additional fertilizers applied were sidedressed in mid-June.
5/ Machine picked samples were collected as random "grab" samples taken from the total plot yield in two replications for each variety at first picking. Hand samples were 100-boll modified, stralified plot samples from three replications. Hand picked 25-boll samples were collected from three replications of the sandy loam wilt-free trials in 1968 for seed and boll characteristics.

Table 2 Methods, Cultural Practices and Conditions of Cotton Variety Trials in Southeast Missouri, 1968

	Test or Location				
Location	Sandy Loam Wilt-free	Sandy Loam Verticillium Wilt	Clay Wilt-free	Sand Fusarium Wilt-Root Knot	Sandy Loam Late Planted
Soil Texture	Sandy loam	Sandy loam	Clay (Gumbo)	Sand	Sandy loam
Fusarium Wilt-Root Knot	None	None	None	Light-moderate	None
Verticillium Wilt	Light	Light-moderate	None	None	Light
Bacterial Blight	Severe early	Severe early	Light	Moderate	Light
Cercospora-Alternaria Leaf Spot	Light-moderate	Light-moderate	Light	Light	Light-moderate
Plot Design[1/]	4x4 BLS	4x4 BLS	4x4 BLS	4x4 BLS	4x4 BLS
Replications (yield-stand-disease)	5	5	5	5	5
Replications (other observations)	2	2	2	2	3
Plot Size[2/]	2 rows x 50'	4 rows x 50'	4 rows x 50'	4 rows x 33'	4 rows x 50'
Date Planted[3/]	May 1	May 2	May 28	May 4	May 28
Fertilizer[4/]	95-50-50	95-50-50	100-50-50	65-65-65	50-50-50
Cultivation	Normal	Normal	Normal	Normal	Normal
Irrigations	2	2	1	1	0
Insecticide App.	Normal	Normal	Normal	Normal	Normal
Defoliant Applied	Sept. 24	Sept. 27	None	Sept. 23	Oct. 8
Seed Cotton Samples[5/]	Machine	Machine	Machine	Machine	Machine
Harvesting	Machine	Machine	Machine	Machine	Machine
Date 1st Pick	Oct. 9	Oct. 10	Nov. 20	Oct. 2	Oct. 24
Date 2nd Pick	Oct. 31	Oct. 31	-	Nov. 22	Nov. 20

Table 3 Methods, Cultural Practices and Conditions of Cotton Variety Trials in Southeast Missouri, 1967

	Test or Location			
Location	Sandy Loam Wilt-free	Sandy Loam Verticillium Wilt	Clay Wilt-free	Sand Fusarium Wilt Root Knot
Soil Texture	Sandy loam	Sandy loam	Clay (Gumbo)	Sand
Fusarium Wilt-Root Knot	None	None	None	Light-moderate
Verticillium Wilt	Light-moderate	Very Severe	None	Light
Bacterial Blight	Severe early	Severe early	Severe early	Moderate
Cercospora-Alternaria Leaf Spot	Light	Light	Light	Light
Plot Design	4x4 BLS	4x4 BLS	4x4 BLS	4x4 BLS
Replications (yield-stand-disease)	5	5	5	5
Replications (other observations)	3	3	3	3
Plot Size	2 rows x 50'	4 rows x 50'	4 rows x 45'	4 rows x 33'
Date Planted	May 10	May 10	May 22	May 5
Fertilizer	50-50-50	50-50-50	75-75-75	70-70-70
Cultivation	Normal	Normal	Normal	Normal
Irrigations	0	0	1	1
Insecticide App.	Normal	Normal	Normal	Normal
Defoliant Applied	Oct. 12	Oct. 12	Oct. 23	None
Seed Cotton Samples	Machine	Machine	Machine	Hand
Harvesting	Machine	Machine	Machine	Machine
Date 1st Pick	Nov. 8	Nov. 18	Nov. 20	Oct. 26
Date 2nd Pick	-	-	-	Nov. 16

Table 4 Summary of Performance of Cotton Varieties Grown in Southeast Missouri, Combining Four Locations, 1967-69

Variety or Strain	Lint Yield		Percent of Crop	Lint Percent	Length 2.5% SL	Micronaire	Yarn Strength 22's
	Total Lbs/Acre	1st Pick Lbs/Acre					
Delcot 277	779.63 a	695.22	89	36.42	1.19	3.63	131.54
Auburn M	741.69 b	665.72	90	34.70	1.11	3.73	113.83
Deltapine 16	729.13 bc	612.08	84	36.73	1.16	4.05	118.25
MO-DEL	710.94 bcd	607.14	85	34.93	1.14	4.08	121.87
Deltapine 45A	708.88 bcd	604.05	85	36.40	1.11	4.00	119.33
Hancock	691.20 cde	628.80	91	37.27	1.08	3.94	116.54
Coker 201	682.89 def	598.86	88	37.38	1.12	4.05	117.25
Stoneville 213	682.56 def	592.08	87	35.39	1.12	4.04	113.54
Rex Smoothleaf	658.77 ef	549.46	83	33.33	1.14	3.68	115.25
Stoneville 7A	647.12 f	535.30	83	35.82	1.14	3.83	116.92
Mean	703.28	608.87	87	35.84	1.13	3.90	118.43
MiLSR (.05)	37.92	33.42		.76	.01	.16	1.71
MaLSR (.05)	45.04	39.70		.89	.01	.19	2.00
C. V. %	15.08	15.35		3.61	1.88	7.16	2.46

Table 5 Performance and Characteristics of Cotton Varieties Grown in Southeast Missouri, Combining Four Locations, 1967-69

Variety	Seed Cotton-Lbs/Acre
Delcot 277	2154.94 a
Auburn M	2143.14 ab
MO-DEL	2037.85 bc
Deltapine 16	1988.45 cd
Rex Smoothleaf	1975.57 cd
Deltapine 45A	1939.80 cde
Stoneville 213	1910.04 def
Hancock	1873.82 def
Coker 201	1824.48 ef
Stoneville 7A	1799.03 f

Variety	Total Lint-Lbs/Acre
Delcot 277	779.63 a
Auburn M	741.69 b
Deltapine 16	729.13 bc
MO-DEL	710.94 bcd
Deltapine 45A	708.88 bcd
Hancock	691.20 cde
Coker 201	682.89 def
Stoneville 213	682.56 def
Rex Smoothleaf	658.77 ef
Stoneville 7A	647.12 f

Variety	Lint-Lbs/Acre-1st Pick
Delcot 277	695.22 a
Auburn M	665.72 a
Hancock	628.80 b
Deltapine 16	612.08 b
MO-DEL	607.14 b
Deltapine 45A	604.05 b
Coker 201	598.86 b
Stoneville 213	592.08 b
Rex Smoothleaf	549.46 c
Stoneville 7A	535.30 c

Variety	Stand-Hills/Plot
Auburn M	79.35 a
Coker 201	78.50 ab
Deltapine 16	78.40 abc
Stoneville 7A	78.12 abcd
Stoneville 213	77.90 abcd
MO-DEL	77.75 bcd
Hancock	77.65 bcd
Delcot 277	76.98 cd
Rex Smoothleaf	76.80 d
Deltapine 45A	73.80 e

Variety	1st Flower-days
Stoneville 7A	68.37 a
Delcot 277	67.80 ab
Deltapine 45A	67.63 ab
Deltapine 16	67.42 abc
Rex Smoothleaf	67.23 abc
Stoneville 213	66.78 bcd
Coker 201	66.32 cde
Hancock	66.05 de
MO-DEL	65.57 ef
Auburn M	64.73 f

Variety	Verticillium Wilt % Plants 1967-68 1/
Coker 201	64.10 a
Hancock	62.00 ab
Deltapine 45A	60.00 ab
Auburn M	58.00 ab
Stoneville 213	55.80 ab
MO-DEL	54.80 ab
Rex Smoothleaf	53.60 ab
Stoneville 7A	52.50 ab
Deltapine 16	48.50 b
Delcot 277	34.20 c

1/ From Verticillium Wilt Tests, 1967-68, Table 9.

Table 5 continued

Variety	Verticillium Wilt Rating 1969[1]		Variety	Fusarium Wilt % Plants[2]		Variety	Seedling Vigor Index[3]	
Delcot 277	3.70	a	Hancock	45.53	a	MO-DEL	2.40	a
Deltapine 16	2.82	bc	Stoneville 7A	25.80	b	Delcot 277	2.25	ab
Stoneville 7A	2.76	bc	Stoneville 213	25.33	b	Coker 201	2.23	bc
Deltapine 45A	2.74	bc	Coker 201	13.27	c	Stoneville 7A	2.12	bc
Rex Smoothleaf	2.66	bcd	Rex Smoothleaf	7.07	cd	Hancock	2.12	bc
Stoneville 213	2.56	bcd	Deltapine 45A	5.93	d	Stoneville 213	2.08	bc
MO-DEL	2.46	bcd	Deltapine 16	5.33	d	Auburn M	2.07	c
Auburn M	2.24	def	MO-DEL	4.27	d	Deltapine 45A	2.07	c
Hancock	1.94	efg	Auburn M	3.53	d	Deltapine 16	1.90	d
Coker 201	1.50	g	Delcot 277	2.47	d	Rex Smoothleaf	1.80	d

Variety	Height Index		Variety	Lodging Index		Variety	Storm Resistance Index	
Coker 201	2.34	a	MO-DEL	3.72	a	Delcot 277	3.47	a
MO-DEL	2.18	b	Coker 201	3.48	b	Stoneville 213	3.25	ab
Delcot 277	2.13	bc	Stoneville 213	3.45	b	Auburn M	3.22	bc
Stoneville 7A	2.11	bc	Deltapine 16	3.45	b	MO-DEL	3.15	bcd
Hancock	2.11	bc	Stoneville 7A	3.43	b	Coker 201	3.07	bcde
Stoneville 213	2.11	bc	Delcot 277	3.23	c	Hancock	3.03	bcde
Deltapine 45A	2.10	bc	Deltapine 45A	3.17	c	Deltapine 45A	2.97	cde
Deltapine 16	2.06	c	Hancock	3.13	c	Rex Smoothleaf	2.93	de
Auburn M	1.64	d	Rex Smoothleaf	3.07	c	Stoneville 7A	2.88	e
Rex Smoothleaf	1.58	d	Auburn M	2.88	d	Deltapine 16	2.85	e

1/ From Verticillium Wilt Test, 1969, Table 19.
2/ From Fusarium Wilt-Root Knot Test, 1967-69, Table 13.
3/ 1968-69

Table 5 continued

Variety	Lint Percent
Coker 201	37.38 a
Hancock	37.27 a
Deltapine 16	36.73 ab
Delcot 277	36.42 bc
Deltapine 45A	36.40 bc
Stoneville 7A	35.82 cd
Stoneville 213	35.39 de
MO-DEL	34.93 e
Auburn M	34.70 e
Rex Smoothleaf	33.33 f

Variety	50% Span Length
Delcot 277	0.52 a
Deltapine 16	0.51 ab
MO-DEL	0.51 ab
Stoneville 213	0.50 bc
Deltapine 45A	0.49 cd
Coker 201	0.49 cd
Stoneville 7A	0.49 cd
Rex Smoothleaf	0.49 cd
Auburn M	0.49 cd
Hancock	0.48 d

Variety	2.5% Span Length
Delcot 277	1.19 a
Deltapine 16	1.16 b
Rex Smoothleaf	1.14 c
MO-DEL	1.14 c
Stoneville 7A	1.14 c
Coker 201	1.12 d
Stoneville 213	1.12 d
Deltapine 45A	1.11 d
Auburn M	1.11 d
Hancock	1.08 e

Variety	Length-Uniformity Index
MO-DEL	44.50 a
Deltapine 16	43.87 ab
Hancock	43.87 ab
Deltapine 45A	43.83 ab
Stoneville 213	43.79 ab
Coker 201	43.71 ab
Auburn M	43.58 b
Delcot 277	43.37 b
Rex Smoothleaf	43.04 bc
Stoneville 7A	42.50 c

Variety	Micronaire
MO-DEL	4.08 a
Deltapine 16	4.05 a
Coker 201	4.05 a
Stoneville 213	4.04 a
Deltapine 45A	4.00 ab
Hancock	3.94 ab
Stoneville 7A	3.83 bc
Auburn M	3.73 cd
Rex Smoothleaf	3.68 cd
Delcot 277	3.63 d

Variety	Colorimeter Rd
Deltapine 16	71.96 a
Rex Smoothleaf	71.25 b
Auburn M	70.96 bc
Coker 201	70.79 bcd
Stoneville 7A	70.75 bcd
Delcot 277	70.50 cde
Deltapine 45A	70.25 def
Hancock	69.87 ef
Stoneville 213	69.87 ef
MO-DEL	69.75 f

Variety	Colorimeter b
Delcot 277	8.35 a
MO-DEL	8.27 ab
Deltapine 45A	8.19 abc
Stoneville 213	8.17 abcd
Hancock	8.15 bcd
Coker 201	8.12 bcd
Rex Smoothleaf	8.08 bcd
Deltapine 16	8.04 cd
Stoneville 7A	8.02 cd
Auburn M	7.98 d

Variety	Trash
Stoneville 213	3.08 a
Deltapine 45A	3.04 a
Stoneville 7A	3.00 a
Coker 201	3.00 a
MO-DEL	3.00 a
Hancock	3.00 a
Delcot 277	3.00 a
Deltapine 16	2.96 a
Rex Smoothleaf	2.96 a
Auburn M	2.92 a

Variety	Yarn Strength
Delcot 277	131.54 a
MO-DEL	121.87 b
Deltapine 45A	119.33 c
Deltapine 16	118.25 cd
Coker 201	117.25 d
Stoneville 7A	116.92 de
Hancock	116.54 de
Rex Smoothleaf	115.25 ef
Auburn M	113.83 f
Stoneville 213	113.54 f

Table 6 Summary of Performance of Cotton Varieties Grown in Southeast Missouri on Sandy Loam, Wilt-free, Non-irrigated Soil, 1967-69

Variety or Strain	Lint Yield Total Lbs/Acre	Lint Yield 1st Pick Lbs/Acre	Percent of Crop	Lint Percent	Length 2.5% SL	Micronaire	Yarn Strength 22's
Hancock	943.66 a	905.88	95	37.63	1.08	4.13	117.67
Delcot 277	928.90 ab	878.82	95	36.18	1.18	3.70	131.17
Stoneville 7A	910.65 abc	775.47	85	36.55	1.13	4.10	116.83
Deltapine 16	898.91 abc	784.37	87	37.40	1.16	4.03	119.67
Auburn M	895.15 abc	832.05	93	34.27	1.12	3.88	116.17
Stoneville 213	885.43 abc	807.84	91	36.27	1.11	4.15	114.83
Coker 201	881.58 abc	813.07	92	37.12	1.12	4.22	118.33
Deltapine 45A	867.73 abc	772.44	89	36.48	1.11	4.08	121.50
MO-DEL	846.73 bc	788.49	93	34.12	1.15	4.12	124.50
Rex Smoothleaf	830.86 c	768.13	92	33.08	1.13	3.83	116.33
Mean	888.96	812.66	91	35.91	1.13	4.02	119.70
MiLSR (.05)	75.98	68.82		1.00	.03	.20	3.38
MaLSR (.05)	89.20	80.79		1.15	.03	.23	3.88
C. V. %	11.66	11.55		2.30	2.02	4.09	2.33

Table 7 Performance and Characteristics of Cotton Varieties Grown in Southeast Missouri on Sandy Loam, Wilt-free, Non-irrigated Soil, 1967-69

Variety	Seed Cotton-Lbs/Acre		Variety	Total Lint-Lbs/Acre		Variety	Lint-Lbs/Acre-1st Pick	
Auburn M	2619.14	a	Hancock	943.66	a	Hancock	905.88	a
Delcot 277	2578.79	ab	Delcot 277	928.90	ab	Delcot 277	878.82	ab
Hancock	2538.35	ab	Stoneville 7A	910.65	abc	Auburn M	832.05	bc
Stoneville 7A	2496.25	ab	Deltapine 16	898.91	abc	Coker 201	813.07	bc
Rex Smoothleaf	2481.58	ab	Auburn M	895.15	abc	Stoneville 213	807.84	bc
MO-DEL	2454.07	ab	Stoneville 213	885.43	abc	MO-DEL	788.49	c
Stoneville 213	2442.15	ab	Coker 201	881.58	abc	Deltapine 16	784.37	c
Deltapine 16	2394.46	ab	Deltapine 45A	867.73	abc	Stoneville 7A	775.47	c
Coker 201	2370.62	b	MO-DEL	846.73	bc	Deltapine 45A	772.44	c
Deltapine 45A	2370.62	b	Rex Smoothleaf	830.86	c	Rex Smoothleaf	768.13	c

Variety	Stand-hills/plot		Variety	1st Flower-days		Variety	Seedling Vigor Index[1]	
Auburn M	87.13	a	Delcot 277	68.20	a	MO-DEL	2.67	a
Stoneville 213	85.27	ab	Stoneville 7A	68.20	a	Hancock	2.47	ab
Delcot 277	85.27	ab	Deltapine 16	67.93	ab	Coker 201	2.40	abc
Coker 201	85.20	ab	Stoneville 213	67.73	ab	Delcot 277	2.33	bc
Stoneville 7A	85.07	ab	Deltapine 45A	67.60	abc	Stoneville 7A	2.27	bcd
MO-DEL	84.80	ab	Rex Smoothleaf	66.80	bcd	Stoneville 213	2.20	bcde
Rex Smoothleaf	84.47	ab	MO-DEL	66.33	cd	Deltapine 16	2.13	cde
Hancock	83.93	b	Coker 201	66.13	d	Auburn M	2.13	cde
Deltapine 16	82.80	b	Hancock	66.13	d	Rex Smoothleaf	2.00	de
Deltapine 45A	77.60	c	Auburn M	65.73	d	Deltapine 45A	1.93	e

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Table 7 continued

Variety	Height Index
Stoneville 7A	2.60 a
Stoneville 213	2.50 ab
Coker 201	2.47 abc
Delcot 277	2.40 abc
Hancock	2.33 bc
Deltapine 16	2.33 bc
Deltapine 45A	2.30 bc
MO-DEL	2.27 c
Auburn M	1.97 d
Rex Smoothleaf	1.87 d

Variety	Lodging Index
MO-DEL	3.53 a
Stoneville 213	3.27 ab
Stoneville 7A	3.13 bc
Coker 201	3.13 bc
Deltapine 16	3.13 bc
Delcot 277	3.00 bcd
Hancock	2.93 cd
Deltapine 45A	2.67 d
Auburn M	2.67 d
Rex Smoothleaf	2.67 d

Variety	Storm Resistance Index
Delcot 277	3.53 a
MO-DEL	3.47 a
Auburn M	3.40 a
Stoneville 7A	3.27 a
Deltapine 16	3.27 a
Stoneville 213	3.27 a
Deltapine 45A	3.20 a
Coker 201	3.20 a
Hancock	3.13 a
Rex Smoothleaf	3.13 a

Variety	Lint Percent
Hancock	37.63 a
Deltapine 16	37.40 ab
Coker 201	37.12 abc
Stoneville 7A	36.55 abc
Deltapine 45A	36.48 bc
Stoneville 213	36.27 c
Delcot 277	36.18 c
Auburn M	34.27 d
MO-DEL	34.12 d
Rex Smoothleaf	33.08 e

Variety	50% Span Length
Delcot 277	0.51 a
Deltapine 16	0.51 a
MO-DEL	0.51 a
Coker 201	0.49 ab
Deltapine 45A	0.49 ab
Rex Smoothleaf	0.49 ab
Stoneville 7A	0.48 b
Hancock	0.48 b
Auburn M	0.48 b
Stoneville 213	0.48 b

Variety	2.5% Span Length
Delcot 277	1.18 a
Deltapine 16	1.16 ab
MO-DEL	1.15 bc
Rex Smoothleaf	1.13 cd
Stoneville 7A	1.13 cd
Coker 201	1.12 cd
Auburn M	1.12 cd
Stoneville 213	1.11 d
Deltapine 45A	1.11 d
Hancock	1.08 e

Table 7 continued

Variety	Length-Uniformity Index
MO-DEL	43.83 a
Coker 201	43.67 a
Hancock	43.67 a
Deltapine 16	43.50 ab
Deltapine 45A	43.50 ab
Stoneville 213	43.17 ab
Delcot 277	43.17 ab
Auburn M	43.00 ab
Rex Smoothleaf	42.50 ab
Stoneville 7A	42.17 b

Variety	Micronaire
Coker 201	4.22 a
Stoneville 213	4.15 a
Hancock	4.13 a
MO-DEL	4.12 a
Stoneville 7A	4.10 a
Deltapine 45A	4.08 ab
Deltapine 16	4.03 abc
Auburn M	3.88 bcd
Rex Smoothleaf	3.83 cd
Delcot 277	3.70 d

Variety	Colorimeter Rd
Deltapine 16	73.67 a
Stoneville 7A	73.33 ab
Coker 201	72.83 abc
Auburn M	72.50 abcd
Deltapine 45A	72.33 abcd
Rex Smoothleaf	72.00 bcd
MO-DEL	71.83 bcd
Stoneville 213	71.83 bcd
Delcot 277	71.67 cd
Hancock	71.00 d

Variety	Colorimeter b
Delcot 277	8.00 a
MO-DEL	8.00 a
Stoneville 7A	7.92 a
Stoneville 213	7.92 a
Rex Smoothleaf	7.92 a
Hancock	7.83 a
Auburn M	7.83 a
Coker 201	7.83 a
Deltapine 16	7.75 a
Deltapine 45A	7.75 a

Variety	Trash
Hancock	3.00 a
Stoneville 7A	3.00 a
Stoneville 213	3.00 a
Coker 201	3.00 a
Rex Smoothleaf	3.00 a
MO-DEL	3.00 a
Deltapine 16	3.00 a
Deltapine 45A	2.83 ab
Delcot 277	2.83 ab
Auburn M	2.67 b

Variety	Yarn Strength
Delcot 277	131.17 a
MO-DEL	124.50 b
Deltapine 45A	121.50 bc
Deltapine 16	119.67 cd
Coker 201	118.33 cde
Hancock	117.67 de
Stoneville 7A	116.83 de
Rex Smoothleaf	116.33 de
Auburn M	116.17 de
Stoneville 213	114.83 e

Table 8 Summary of Performance of Cotton Varieties Grown in Southeast Missouri on Sandy Loam, Irrigated Soil Infected with Verticillium Wilt Disease, 1967-69

Variety or Strain	Lint Yield		Percent of Crop	Lint Percent	Length 2.5% SL	Micronaire	Yarn Strength 22's
	Total Lbs/Acre	1st Pick Lbs/Acre					
Delcot 277	779.87 a	649.19	83	36.38	1.19	3.33	129.67
Deltapine 16	736.77 a	610.31	83	36.32	1.16	3.80	116.33
Deltapine 45A	678.35 b	531.44	78	36.40	1.10	3.73	116.00
Auburn M	649.01 bc	578.94	89	34.45	1.11	2.97	111.67
MO-DEL	643.51 bc	548.96	85	34.08	1.14	3.57	118.67
Stoneville 213	631.95 bc	505.76	80	35.23	1.13	3.65	109.33
Rex Smoothleaf	625.44 bc	509.61	81	32.90	1.13	3.25	111.17
Hancock	622.60 bc	554.00	89	35.87	1.08	3.30	114.67
Stoneville 7A	600.68 cd	463.67	77	34.73	1.13	3.17	112.50
Coker 201	546.48	458.17	84	37.42	1.11	3.48	113.00
Mean	651.47	541.00	83	35.38	1.13	3.42	115.30
MiLSR (.05)	54.58	49.53		0.99	.02	.56	3.82
MaLSR (.05)	64.08	58.14		1.14	.02	.64	4.38
C. V. %	11.43	12.49		2.31	1.37	13.48	2.73

Table 9 Performance and Characteristics of Cotton Varieties Grown in Southeast Missouri on Sandy Loam, Irrigated Soil Infected with Verticillium Wilt Disease, 1967-69

Variety	Seed Cotton-Lbs/Acre
Delcot 277	2171.61 a
Deltapine 16	2061.56 a
MO-DEL	1893.74 b
Rex Smoothleaf	1889.16 b
Auburn M	1888.24 b
Deltapine 45A	1848.81 b
Stoneville 213	1793.78 b
Hancock	1739.67 b
Stoneville 7A	1724.08 b
Coker 201	1471.89 c

Variety	Total Lint-Lbs/Acre
Delcot 277	779.87 a
Deltapine 16	736.77 a
Deltapine 45A	678.35 b
Auburn M	649.01 bc
MO-DEL	643.51 bc
Stoneville 213	631.95 bc
Rex Smoothleaf	625.44 bc
Hancock	622.60 bc
Stoneville 7A	600.68 cd
Coker 201	546.48 d

Variety	Lint-Lbs/Acre-1st Pick
Delcot 277	649.19 a
Deltapine 16	610.31 ab
Auburn M	578.94 bc
Hancock	554.00 cd
MO-DEL	548.96 cd
Deltapine 45A	531.44 cd
Rex Smoothleaf	509.61 de
Stoneville 213	505.76 de
Stoneville 7A	463.67 e
Coker 201	458.17 e

Variety	Stand-hills/plot
Auburn M	85.27 a
Deltapine 16	85.00 a
Stoneville 7A	83.27 ab
Stoneville 213	82.53 abc
Coker 201	82.47 abc
MO-DEL	81.80 abcd
Hancock	81.20 abcd
Rex Smoothleaf	80.13 bcd
Delcot 277	78.33 cd
Deltapine 45A	77.20 d

Variety	1st Flower-days
Delcot 277	69.73 a
Rex Smoothleaf	69.60 a
Stoneville 7A	69.27 a
Deltapine 45A	68.87 ab
Deltapine 16	68.47 ab
Coker 201	68.13 ab
Hancock	68.13 ab
MO-DEL	67.40 ab
Auburn M	66.20 ab
Stoneville 213	64.53 b

Variety	Verticillium Wilt % Plants 1967-68
Coker 201	64.10 a
Hancock	62.00 ab
Deltapine 45A	60.00 ab
Auburn M	58.00 ab
Stoneville 213	55.80 ab
MO-DEL	54.80 ab
Rex Smoothleaf	53.60 ab
Stoneville 7A	52.50 ab
Deltapine 16	48.50 b
Delcot 277	34.20 c

Table 9 continued

Variety	Verticillium Wilt Rating 1969	
Delcot 277	3.70	a
Deltapine 16	2.82	bc
Stoneville 7A	2.76	bc
Deltapine 45A	2.74	bc
Rex Smoothleaf	2.66	bcd
Stoneville 213	2.56	bcd
MO-DEL	2.46	bcd
Auburn M	2.24	def
Hancock	1.94	efg
Coker 201	1.50	g

Variety	Seedling Vigor Index	
MO-DEL	2.47	a
Coker 201	2.33	ab
Stoneville 213	2.27	ab
Stoneville 7A	2.27	ab
Delcot 277	2.27	ab
Deltapine 45A	2.20	ab
Deltapine 16	2.13	b
Auburn M	2.13	b
Hancock	2.07	b
Rex Smoothleaf	1.73	c

Variety	Height Index	
Coker 201	2.50	a
Stoneville 7A	2.47	ab
Hancock	2.43	abc
Stoneville 213	2.37	abc
Deltapine 16	2.37	abc
MO-DEL	2.33	abc
Delcot 277	2.27	bc
Deltapine 45A	2.23	c
Auburn M	1.63	d
Rex Smoothleaf	1.50	d

Variety	Lodging Index	
MO-DEL	3.67	a
Stoneville 7A	3.53	ab
Coker 201	3.40	abc
Deltapine 16	3.33	abc
Stoneville 213	3.27	bc
Delcot 277	3.07	cd
Deltapine 45A	3.07	cd
Hancock	2.87	de
Rex Smoothleaf	2.67	ef
Auburn M	2.47	f

Variety	Storm Resistance Index	
MO-DEL	3.60	a
Delcot 277	3.53	ab
Stoneville 213	3.33	abc
Hancock	3.27	abc
Rex Smoothleaf	3.20	abc
Auburn M	3.13	bc
Deltapine 45A	3.13	bc
Deltapine 16	3.07	c
Stoneville 7A	2.93	c
Coker 201	2.93	c

Variety	Lint Percent	
Coker 201	37.42	a
Deltapine 45A	36.40	ab
Delcot 277	36.38	ab
Deltapine 16	36.32	b
Hancock	35.87	bc
Stoneville 213	35.23	cd
Stoneville 7A	34.73	de
Auburn M	34.45	de
MO-DEL	34.08	e
Rex Smoothleaf	32.90	f

Table 9 continued

Variety	50% Span Length
Delcot 277	0.51 a
Deltapine 16	0.50 ab
MO-DEL	0.50 ab
Stoneville 213	0.49 bc
Deltapine 45A	0.48 cd
Auburn M	0.48 cd
Rex Smoothleaf	0.48 cd
Stoneville 7A	0.47 de
Coker 201	0.47 de
Hancock	0.46 e

Variety	2.5% Span Length
Delcot 277	1.19 a
Deltapine 16	1.16 b
MO-DEL	1.14 c
Stoneville 213	1.13 cd
Stoneville 7A	1.13 cd
Rex Smoothleaf	1.13 cd
Auburn M	1.11 de
Coker 201	1.11 de
Deltapine 45A	1.10 e
Hancock	1.08 f

Variety	Length-Uniformity Index
MO-DEL	43.67 a
Stoneville 213	43.50 ab
Deltapine 45A	43.17 abc
Deltapine 16	43.00 abcd
Auburn M	43.00 abcd
Hancock	42.67 abcd
Rex Smoothleaf	42.17 bcde
Coker 201	41.83 cde
Delcot 277	41.67 de
Stoneville 7A	41.00 e

Variety	Micronaire
Deltapine 16	3.80 a
Deltapine 45A	3.73 a
Stoneville 213	3.65 a
MO-DEL	3.57 ab
Coker 201	3.48 ab
Delcot 277	3.33 ab
Hancock	3.30 ab
Rex Smoothleaf	3.25 ab
Stoneville 7A	3.17 ab
Auburn M	2.97 b

Variety	Colorimeter Rd
Deltapine 16	72.83 a
Rex Smoothleaf	71.33 b
Deltapine 45A	71.00 bc
Auburn M	71.00 bc
Delcot 277	71.00 bc
Stoneville 7A	70.33 bc
Hancock	70.00 bc
Coker 201	70.00 bc
Stoneville 213	69.67 c
MO-DEL	69.50 c

Variety	Colorimeter b
Delcot 277	8.25 a
Deltapine 45A	8.08 ab
Coker 201	8.00 abc
Hancock	8.00 abc
MO-DEL	7.92 bc
Rex Smoothleaf	7.83 bc
Auburn M	7.75 c
Stoneville 7A	7.67 c
Deltapine 16	7.67 c
Stoneville 213	7.67 c

Table 9 continued

Variety	Trash	Variety	Yarn Strength
Deltapine 45A	3.33 a	Delcot 277	129.67 a
Coker 201	3.17 a	MO-DEL	118.67 b
Delcot 277	3.17 a	Deltapine 16	116.33 bc
Hancock	3.17 a	Deltapine 45A	116.00 bc
Rex Smoothleaf	3.17 a	Hancock	114.67 bcd
MO-DEL	3.17 a	Coker 201	113.00 cde
Auburn M	3.17 a	Stoneville 7A	112.50 cde
Stoneville 7A	3.00 a	Auburn M	111.67 de
Deltapine 16	3.00 a	Rex Smoothleaf	111.17 de
Stoneville 213	3.00 a	Stoneville 213	109.33 e

Table 10 Summary of Performance of Cotton Varieties Grown in Southeast Missouri on Heavy Clay, Wilt-free, Irrigated Soil, 1967-69

Variety or Strain	Lint Yield		Percent of Crop	Lint Percent	Length 2.5% SL	Micronaire	Yarn Strength 22's
	Total Lbs/Acre	1st Pick Lbs/Acre					
Hancock	582.85 a	512.33	88	37.03	1.09	4.22	117.83
Stoneville 213	540.08 ab	476.71	88	35.43	1.13	4.05	115.33
Delcot 277	533.40 bc	474.07	89	36.72	1.20	3.70	134.00
Deltapine 16	524.96 bc	441.04	84	36.97	1.15	4.32	117.00
Auburn M	506.25 bcd	461.95	91	35.18	1.12	3.95	115.33
Coker 201	505.67 bcd	437.53	87	39.22	1.13	4.20	118.83
Deltapine 45A	499.39 bcd	442.72	89	36.38	1.13	3.98	120.67
Stoneville 7A	486.08 cd	410.88	85	35.72	1.15	3.93	120.67
MO-DEL	485.67 cd	429.45	88	36.10	1.14	4.27	124.33
Rex Smoothleaf	465.43 d	373.91	80	33.15	1.15	3.87	116.33
Mean	512.98	446.06	87	36.19	1.14	4.05	120.03
MiLSR (.05)	44.75	45.91		.84	.03	.16	3.54
MaLSR (.05)	52.54	53.90		.97	.03	.18	4.06
C. V. %	11.90	14.04		1.92	1.83	3.24	2.43

Table 11 Performance and Characteristics of Cotton Varieties Grown in Southeast Missouri on Heavy Clay Wilt-free, Irrigated Soil, 1967-69

Variety	Seed Cotton-Lbs/Acre
Hancock	1569.60 a
Stoneville 213	1517.33 ab
Delcot 277	1465.57 abc
Auburn M	1454.36 abcd
Deltapine 16	1442.74 abcd
Rex Smoothleaf	1414.01 bcd
Deltapine 45A	1374.98 bcd
MO-DEL	1367.85 cd
Stoneville 7A	1365.40 cd
Coker 201	1310.07 d

Variety	Total Lint-Lbs/Acre
Hancock	582.85 a
Stoneville 213	540.08 ab
Delcot 277	533.40 bc
Deltapine 16	524.96 bc
Auburn M	506.25 bcd
Coker 201	505.67 bcd
Deltapine 45A	499.39 bcd
Stoneville 7A	486.08 cd
MO-DEL	485.67 cd
Rex Smoothleaf	465.43 d

Variety	Lint-Lbs/Acre-1st Pick
Hancock	512.33 a
Stoneville 213	476.71 ab
Delcot 277	474.07 ab
Auburn M	461.95 bc
Deltapine 45A	442.72 bc
Deltapine 16	441.04 bc
Coker 201	437.53 bc
MO-DEL	429.45 bc
Stoneville 7A	410.88 cd
Rex Smoothleaf	373.91 d

Variety	Stand hills/Plot
Coker 201	88.80 a
Deltapine 16	88.40 a
Hancock	87.80 ab
Auburn M	87.53 ab
Delcot 277	87.40 ab
Stoneville 213	87.20 ab
Stoneville 7A	87.13 ab
MO-DEL	86.93 ab
Deltapine 45A	86.27 b
Rex Smoothleaf	86.13 b

Variety	1st Flower-days
Stoneville 7A	68.20 a
Deltapine 45A	67.47 ab
Stoneville 213	67.20 ab
Rex Smoothleaf	66.60 b
Delcot 277	66.40 b
Deltapine 16	66.33 b
Coker 201	65.07 c
Hancock	64.93 c
MO-DEL	64.27 c
Auburn M	63.93 c

Variety	Seedling Vigor Index
MO-DEL	2.27 a
Delcot 277	2.20 a
Stoneville 213	2.13 a
Stoneville 7A	2.07 a
Deltapine 45A	2.07 a
Coker 201	2.07 a
Auburn M	2.00 ab
Rex Smoothleaf	2.00 ab
Hancock	1.93 ab
Deltapine 16	1.67 b

Table 11 continued

Variety	Height Index
Coker 201	2.17 a
Hancock	1.90 b
MO-DEL	1.87 b
Delcot 277	1.83 b
Stoneville 7A	1.77 bc
Deltapine 45A	1.63 cd
Stoneville 213	1.60 cd
Deltapine 16	1.53 d
Rex Smoothleaf	1.27 e
Auburn M	1.20 e

Variety	Lodging Index
MO-DEL	3.67 a
Coker 201	3.67 a
Deltapine 16	3.60 ab
Stoneville 7A	3.53 ab
Stoneville 213	3.47 abc
Rex Smoothleaf	3.40 abc
Hancock	3.40 abc
Deltapine 45A	3.33 bc
Delcot 277	3.20 cd
Auburn M	3.00 d

Variety	Storm Resistance Index
Delcot 277	3.60 a
Coker 201	3.27 ab
Rex Smoothleaf	3.20 abc
Stoneville 213	3.13 abc
MO-DEL	3.13 abc
Hancock	3.07 abcd
Auburn M	2.93 bcd
Deltapine 45A	2.60 cd
Stoneville 7A	2.47 d
Deltapine 16	1.87 e

Variety	Lint Percent
Coker 201	39.22 a
Hancock	37.03 b
Deltapine 16	36.97 bc
Delcot 277	36.72 bc
Deltapine 45A	36.38 bcd
MO-DEL	36.10 cde
Stoneville 7A	35.72 def
Stoneville 213	35.43 ef
Auburn M	35.18 f
Rex Smoothleaf	33.15 g

Variety	50% Span Length
Delcot 277	0.53 a
Rex Smoothleaf	0.52 ab
Stoneville 7A	0.51 abc
Coker 201	0.51 abc
Deltapine 16	0.51 abc
MO-DEL	0.51 abc
Deltapine 45A	0.50 bc
Stoneville 213	0.50 bc
Auburn M	0.49 c
Hancock	0.49 c

Variety	2.5% Span Length
Delcot 277	1.20 a
Stoneville 7A	1.15 b
Rex Smoothleaf	1.15 b
Deltapine 16	1.15 b
MO-DEL	1.14 bc
Coker 201	1.13 bc
Deltapine 45A	1.13 bc
Stoneville 213	1.13 bc
Auburn M	1.12 c
Hancock	1.09 d

Table 11 continued

Variety	Length-Uniformity Index
MO-DEL	44.67 a
Coker 201	44.67 a
Rex Smoothleaf	44.33 a
Hancock	44.17 a
Deltapine 16	44.00 a
Stoneville 213	43.83 a
Deltapine 45A	43.83 a
Stoneville 7A	43.67 a
Delcot 277	43.67 a
Auburn M	43.50 a

Variety	Micronaire
Deltapine 16	4.32 a
MO-DEL	4.27 a
Hancock	4.22 a
Coker 201	4.20 ab
Stoneville 213	4.05 bc
Deltapine 45A	3.98 cd
Auburn M	3.95 cd
Stoneville 7A	3.93 cd
Rex Smoothleaf	3.87 d
Delcot 277	3.70 e

Variety	Colorimeter Rd
Auburn M	67.67 a
Rex Smoothleaf	67.50 a
Coker 201	67.33 ab
Deltapine 16	66.50 abc
MO-DEL	66.50 abc
Stoneville 213	66.17 bc
Delcot 277	66.17 bc
Stoneville 7A	66.00 c
Hancock	65.67 cd
Deltapine 45A	64.67 d

Variety	Colorimeter b
Deltapine 45A	9.00 a
Deltapine 16	9.00 a
Stoneville 213	8.92 ab
Delcot 277	8.83 abc
Rex Smoothleaf	8.67 abc
Hancock	8.67 abc
MO-DEL	8.58 abc
Stoneville 7A	8.50 bc
Coker 201	8.50 bc
Auburn M	8.42 c

Variety	Trash
Stoneville 213	3.67 a
Stoneville 7A	3.50 a
Deltapine 45A	3.50 a
Hancock	3.50 a
Delcot 277	3.50 a
Rex Smoothleaf	3.33 a
Deltapine 16	3.33 a
Coker 201	3.33 a
Auburn M	3.33 a
MO-DEL	3.33 a

Variety	Yarn Strength
Delcot 277	134.00 a
MO-DEL	124.33 b
Stoneville 7A	120.67 bc
Deltapine 45A	120.67 bc
Coker 201	118.83 cd
Hancock	117.83 cd
Deltapine 16	117.00 cd
Rex Smoothleaf	116.33 d
Auburn M	115.33 d
Stoneville 213	115.33 d

Table 12 Summary of Performance of Cotton Varieties Grown in Southeast Missouri on Sandy, Irrigated Soil Infected with Fusarium Wilt-Root Knot Nematode Disease, 1967-69

Variety or Strain	Lint Yield		Percent of Crop	Lint Percent	Length 2.5% SL	Micronaire	Yarn Strength 22's
	Total Lbs/Acre	1st Pick Lbs/Acre					
Auburn M	916.35 a	789.91	86	34.90	1.10	4.13	112.17
Delcot 277	876.34 ab	778.80	89	36.38	1.20	3.78	131.33
MO-DEL	867.86 ab	661.66	76	35.42	1.15	4.38	120.00
Coker 201	797.83 abc	686.67	86	35.77	1.12	4.28	118.83
Deltapine 45A	790.05 bcd	669.58	85	36.35	1.09	4.22	119.17
Deltapine 16	755.87 bcd	612.62	81	36.23	1.16	4.05	120.00
Rex Smoothleaf	713.35 cde	546.20	77	34.18	1.13	3.77	117.17
Stoneville 213	672.78 defg	578.02	86	34.63	1.13	4.30	114.67
Hancock	615.67 efg	543.00	88	38.57	1.08	4.10	116.00
Stoneville 7A	591.08 g	491.18	83	36.30	1.14	4.13	117.67
Mean	759.72	635.76	84	35.87	1.13	4.11	118.70
MiLSR (.05)	110.30	89.05		2.38	.03	.27	3.70
MaLSR (.05)	129.60	104.50		2.74	.04	.31	4.25
C. V. %	19.82	19.11		5.48	2.39	5.36	2.57

Table 13 Performance and Characteristics of Cotton Varieties Grown in Southeast Missouri on Sandy, Irrigated Soil Infected with Fusarium Wilt-Root Knot Nematode Disease, 1967-69

Variety	Seed Cotton-Lbs/Acre
Auburn M	2610.81 a
MO-DEL	2435.73 ab
Delcot 277	2403.78 ab
Deltapine 45A	2164.79 bc
Coker 201	2145.34 bc
Rex Smoothleaf	2117.55 bc
Deltapine 16	2055.02 c
Stoneville 213	1886.90 cd
Hancock	1657.63 d
Stoneville 7A	1610.39 d

Variety	Total Lint-Lbs/Acre
Auburn M	916.35 a
Delcot 277	876.34 ab
MO-DEL	867.86 ab
Coker 201	797.83 abc
Deltapine 45A	790.05 bcd
Deltapine 16	755.87 bcd
Rex Smoothleaf	713.35 cde
Stoneville 213	672.78 defg
Hancock	615.67 efg
Stoneville 7A	591.08 g

Variety	Lint-Lbs/Acre-1st Pick
Auburn M	789.91 a
Delcot 277	778.80 a
Coker 201	686.67 b
Deltapine 45A	669.58 bc
MO-DEL	661.66 bc
Deltapine 16	612.62 bcd
Stoneville 213	578.02 cde
Rex Smoothleaf	546.20 de
Hancock	543.00 de
Stoneville 7A	491.18 e

Variety	Stand-Hills/Plot
Hancock	57.67 a
Coker 201	57.53 a
MO-DEL	57.47 a
Auburn M	57.47 a
Deltapine 16	57.40 a
Stoneville 7A	57.00 a
Delcot 277	56.93 a
Stoneville 213	56.60 a
Rex Smoothleaf	56.47 a
Deltapine 45A	54.13 b

Variety	1st Flower-days
Stoneville 7A	67.80 a
Stoneville 213	67.67 a
Deltapine 16	66.93 ab
Delcot 277	66.87 abc
Deltapine 45A	66.60 bc
Coker 201	65.93 cd
Rex Smoothleaf	65.93 cd
Hancock	65.00 de
MO-DEL	64.27 e
Auburn M	63.07 f

Variety	Fusarium Wilt % Plants
Hancock	45.53 a
Stoneville 7A	25.80 b
Stoneville 213	25.33 b
Coker 201	13.27 c
Rex Smoothleaf	7.07 cd
Deltapine 45A	5.93 d
Deltapine 16	5.33 d
MO-DEL	4.27 d
Auburn M	3.53 d
Delcot 277	2.47 d

Table 13 continued

Variety	Seedling Vigor Index
Delcot 277	2.20 a
MO-DEL	2.20 a
Coker 201	2.13 ab
Deltapine 45A	2.07 abc
Hancock	2.00 abc
Auburn M	2.00 abc
Stoneville 7A	1.87 abc
Stoneville 213	1.73 bcd
Deltapine 16	1.67 cd
Rex Smoothleaf	1.47 d

Variety	Height Index
MO-DEL	2.25 a
Coker 201	2.24 a
Deltapine 45A	2.24 a
Delcot 277	2.01 ab
Deltapine 16	2.00 ab
Stoneville 213	1.97 ab
Auburn M	1.77 bc
Hancock	1.76 bc
Rex Smoothleaf	1.67 c
Stoneville 7A	1.63 c

Variety	Lodging Index
MO-DEL	4.00 a
Stoneville 213	3.80 ab
Deltapine 16	3.73 abc
Coker 201	3.73 abc
Delcot 277	3.67 abcd
Deltapine 45A	3.60 bcd
Stoneville 7A	3.53 bcd
Rex Smoothleaf	3.53 bcd
Auburn M	3.40 cd
Hancock	3.33 d

Variety	Storm Resistance Index
Auburn M	3.40 a
Stoneville 213	3.27 a
Deltapine 16	3.20 ab
Delcot 277	3.20 ab
Deltapine 45A	2.93 abc
Stoneville 7A	2.87 abc
Coker 201	2.87 abc
Hancock	2.67 bcd
MO-DEL	2.40 cd
Rex Smoothleaf	2.20 d

Variety	Lint Percent
Hancock	38.57 a
Delcot 277	36.38 ab
Deltapine 45A	36.35 ab
Stoneville 7A	36.30 ab
Deltapine 16	36.23 ab
Coker 201	35.77 b
MO-DEL	35.42 b
Auburn M	34.90 b
Stoneville 213	34.63 b
Rex Smoothleaf	34.18 b

Variety	50% Span Length
Delcot 277	0.55 a
MO-DEL	0.53 ab
Deltapine 16	0.52 abc
Coker 201	0.50 bc
Auburn M	0.50 bc
Stoneville 213	0.50 bc
Deltapine 45A	0.49 c
Hancock	0.49 c
Stoneville 7A	0.49 c
Rex Smoothleaf	0.49 c

Table 13 continued

Variety	2.5% Span Length
Delcot 277	1.20 a
Deltapine 16	1.16 b
MO-DEL	1.15 bc
Stoneville 7A	1.14 bc
Stoneville 213	1.13 bcd
Rex Smoothleaf	1.13 bcd
Coker 201	1.12 cde
Auburn M	1.10 def
Deltapine 45A	1.09 ef
Hancock	1.08 f

Variety	Length-Uniformity Index
MO-DEL	45.83 a
Deltapine 16	45.00 ab
Hancock	45.00 ab
Delcot 277	45.00 ab
Auburn M	44.83 ab
Deltapine 45A	44.83 ab
Coker 201	44.67 ab
Stoneville 213	44.67 ab
Stoneville 7A	43.17 b
Rex Smoothleaf	43.17 b

Variety	Micronaire
MO-DEL	4.38 a
Stoneville 213	4.30 ab
Coker 201	4.28 ab
Deltapine 45A	4.22 ab
Stoneville 7A	4.13 ab
Auburn M	4.13 ab
Hancock	4.10 ab
Deltapine 16	4.05 bc
Delcot 277	3.78 c
Rex Smoothleaf	3.77 c

Variety	Colorimeter Rd
Deltapine 16	74.83 a
Rex Smoothleaf	74.17 ab
Stoneville 7A	73.33 bc
Delcot 277	73.17 c
Coker 201	73.00 c
Deltapine 45A	73.00 c
Hancock	72.83 c
Auburn M	72.67 cd
Stoneville 213	71.83 de
MO-DEL	71.17 e

Variety	Colorimeter b
MO-DEL	8.58 a
Delcot 277	8.33 ab
Coker 201	8.17 abc
Stoneville 213	8.17 abc
Hancock	8.08 bc
Stoneville 7A	8.00 bc
Auburn M	7.92 bc
Deltapine 45A	7.92 bc
Rex Smoothleaf	7.92 bc
Deltapine 16	7.75 c

Variety	Trash
Stoneville 213	2.67 a
Stoneville 7A	2.50 a
Deltapine 45A	2.50 a
Coker 201	2.50 a
MO-DEL	2.50 a
Delcot 277	2.50 a
Deltapine 16	2.50 a
Auburn M	2.50 a
Hancock	2.33 a
Rex Smoothleaf	2.33 a

Table 13 continued

Variety	Yarn Strength	
Delcot 277	131.33	a
Deltapine 16	120.00	b
MO-DEL	120.00	b
Deltapine 45A	119.17	b
Coker 201	118.83	b
Stoneville 7A	117.67	bc
Rex Smoothleaf	117.17	bc
Hancock	116.00	bcd
Stoneville 213	114.67	cd
Auburn M	112.17	d

Table 14 Summary of Performance of Cotton Varieties Grown in Southeast Missouri, Combining Four Locations, 1969

Variety or Strain	Lint Yield Total Lbs/Acre		Lint Yield 1st Pick Lbs/Acre	Percent of Crop	Lint Percent	Length 2.5% SL	Micronaire	Yarn Strength 22's
Mo 63-277D[1/]	917.44	a	785.33	86	36.63	1.19	4.06	122.50
Mo 63-079	854.09	ab	738.61	86	34.62	1.19	4.04	122.12
Deltapine 45A	826.70	bc	718.56	87	36.34	1.11	4.29	112.75
Deltapine 16	817.47	bcd	660.70	81	35.82	1.17	4.26	112.62
Coker 310	813.48	bcde	683.47	84	35.89	1.19	4.44	118.62
Mo 63-279D	809.05	bcde	691.74	86	34.13	1.19	4.15	126.37
Stoneville 213	800.14	bcdef	707.18	88	35.44	1.13	4.45	106.37
MO-DEL 1A	799.53	bcdef	660.36	83	34.42	1.16	4.37	118.87
MO-DEL	782.60	bcdef	626.49	80	33.90	1.16	4.30	116.25
Auburn M	761.94	cdef	640.11	84	33.73	1.13	4.14	108.00
McNair 1032B	760.22	cdef	570.12	75	35.56	1.11	4.36	118.25
Coker 417	741.48	def	609.10	82	34.55	1.19	3.94	122.87
Stoneville 7A	741.37	def	611.73	83	35.92	1.16	4.42	111.50
Rex Smoothleaf	733.43	ef	544.58	74	33.44	1.15	4.10	110.00
Hancock	720.08	fg	619.51	86	37.20	1.09	4.36	110.00
Coker 201	657.05	g	554.81	84	36.05	1.12	4.37	112.12
Mean	783.51		651.40	83	35.23	1.15	4.25	115.58
MiLSR (.05)	69.87		92.95		1.14	.02	.12	3.32
MaLSR (.05)	83.88		111.60		1.37	.02	.15	3.99
C.V. %	11.10		9.91		3.93	1.67	2.83	2.83

[1/] Mo63-277D = Delcot 277

Table 15 Performance and Characteristics of Cotton Varieties Grown in Southeast Missouri, Combining Four Locations, 1969

Variety	Seed Cotton-Lbs/Acre
Mo63-277D	2594 a
Mo63-079	2485 a
MO-DEL 1A	2316 b
Deltapine 45A	2302 bc
Deltapine 16	2294 bc
Auburn M	2281 bc
Mo63-279D	2267 bc
Coker 310	2252 bc
Rex SL	2228 bc
MO-DEL	2207 bc
Stoneville 213	2181 bc
McNair 1032B	2165 bc
Coker 417	2145 bc
Stoneville 7A	2123 c
Hancock	1932 d
Coker 201	1819 d

Variety	Total Lint-Lbs/Acre
Mo63-277D	917 a
Mo63-079	854 ab
Deltapine 45A	827 bc
Deltapine 16	817 bcd
Coker 310	813 bcde
Mo63-279D	809 bcde
Stoneville 213	800 bcdef
MO-DEL 1A	800 bcdef
MO-DEL	783 bcdef
Auburn M	762 cdef
McNair 1032B	760 cdef
Coker 417	741 def
Stoneville 7A	741 def
Rex SL	733 ef
Hancock	720 fg
Coker 201	657 g

Variety	Lint-Lbs/Acre-1st Pick
Mo63-277D	785 a
Mo63-079	739 ab
Deltapine 45A	719 abc
Stoneville 213	707 abcd
Mo63-279D	692 abcd
Coker 310	683 abcd
Deltapine 16	661 bcde
MO-DEL 1A	660 bcde
Auburn M	640 bcdef
MO-DEL	626 cdef
Hancock	620 cdef
Stoneville 7A	612 cdef
Coker 417	609 def
McNair 1032B	570 ef
Coker 201	555 ef
Rex SL	545 f

Variety	Stand-Hills/Plot
MO-DEL 1A	80 a
Coker 417	80 a
Mo63-079	80 a
Mo63-277D	80 a
Deltapine 16	80 a
Mo63-279D	80 a
Stoneville 213	80 a
Auburn M	80 a
Coker 201	80 a
Deltapine 45A	80 a
McNair 1032B	80 a
Coker 310	80 a
MO-EL	80 a
Hancock	80 a
Stoneville 7A	79 a
Rex SL	79 a

Variety	1st Flower-days
Deltapine 16	62 a
Stoneville 7A	61 ab
Deltapine 45A	61 ab
Mo63-277D	61 ab
Coker 417	61 ab
Mo63-279D	61 ab
Rex SL	61 ab
Hancock	60 ab
MO-DEL	60 ab
Coker 201	60 ab
Mo63-079	60 ab
MO-DEL 1A	60 ab
McNair 1032B	59 b
Auburn M	59 b
Coker 310	59 b
Stoneville 213	59 b

Variety	Verticillium Wilt-Rating
Mo63-277D	3.7 a
MO-DEL 1A	2.9 b
Deltapine 16	2.8 bc
Stoneville 7A	2.8 bc
Mo63-079	2.8 bc
Deltapine 45A	2.7 bcd
Rex SL	2.7 bcd
Stoneville 213	2.6 bcd
MO-DEL	2.5 bcd
McNair 1032B	2.4 cd
Mo63-279D	2.3 cde
Auburn M	2.2 def
Hancock	1.9 efg
Coker 310	1.8 fg
Coker 201	1.5 g
Cokr 417	1.5 g

Table 15 continued

Variety	Fusarium wilt-% wilted plants
Hancock	45 a
Stoneville 213	27 b
Stoneville 7A	23 b
Coker 201	19 bc
Coker 417	17 bcd
Rex SL	8 cde
Mo63-279D	7 de
Coker 310	5 e
Deltapine 16	5 e
Deltapine 45A	4 e
McNair 1032B	4 e
MO-DEL	4 e
Mo63-079	4 e
Auburn M	3 e
Mo63-277D	1 e
MO-DEL 1A	1 e

Variety	Seedling Vigor Index
MO-DEL 1A	3.7 a
Mo63-277D	3.5 ab
McNiar 1032B	3.4 bc
MO-DEL	3.4 bc
Mo63-079	3.4 bc
Deltapine 45A	3.4 bc
Mo63-279D	3.3 bcd
Coker 310	3.3 bcd
Coker 417	3.2 bcd
Coker 201	3.2 bcd
Stoneville 213	3.1 cde
Stoneville 7A	3.1 cde
Auburn M	3.0 de
Deltapine 16	2.9 ef
Rex SL	2.7 f
Hancock	2.7 f

Variety	Height Index
Coker 201	2.5 a
Coker 417	2.5 a
McNair 1032B	2.4 a
MO-DEL 1A	2.2 ab
Coker 310	2.1 bc
MO-DEL	2.1 bc
Hancock	2.0 bcd
Mo63-277D	2.0 bcd
Stoneville 7A	2.0 bcd
Stoneville 213	1.9 cd
Mo63-079	1.9 cd
Deltapine 45A	1.8 d
Deltapine 16	1.8 d
Mo63-279D	1.5 e
Auburn M	1.3 ef
Rex SL	1.2 f

Variety	Lodging Index
McNair 1032B	3.6 a
MO-DEL	3.5 ab
Coker 201	3.5 ab
Coker 417	3.5 ab
MO-DEL 1A	3.4 ab
Stoneville 7A	3.3 ab
Coker 310	3.3 ab
Stoneville 213	3.3 ab
Deltapine 16	3.1 bc
Deltapine 45A	2.8 cd
Mo63-277D	2.8 cd
Hancock	2.7 d
Mo63-079	2.6 de
Rex SL	2.5 de
Mo63-279D	2.3 ef
Auburn M	2.0 f

Variety	Storm Resistance Index
Coker 310	3.1 a
Stoneville 213	3.1 a
Mo63-277D	3.1 a
Stonville 7A	3.0 ab
McNair 1032B	2.9 abc
Coker 417	2.9 abc
Auburn M	2.8 abcd
Deltapine 16	2.8 abcd
MO-DEL	2.8 abcd
MO-DEL 1A	2.7 bcde
Hancock	2.7 bcde
Mo63-079	2.6 cdef
Coker 201	2.5 def
Rex SL	2.4 ef
Deltapine 45A	2.4 ef
Mo63-279D	2.3 f

Variety	Lint Percent
Hancock	37.2 a
Mo63-277D	36.6 ab
Deltapine 45A	36.3 ab
Coker 201	36.1 ab
Stoneville 7A	35.9 b
Coker 310	35.9 b
Deltapine 16	35.8 bc
McNair 1032B	35.6 bcd
Stoneville 213	35.4 bcd
Mo63-079	34.6 cde
Coker 417	34.6 cde
MO-DEL 1A	34.4 de
Mo63-279D	34.1 e
MO-DEL	33.9 e
Auburn M	33.7 e
Rex SL	33.4 e

Table 15 continued

Variety	50% Span Length
Mo63-279D	0.54 a
Mo63-277D	0.53 ab
MO-DEL 1A	0.53 ab
Mo63-079	0.53 ab
Deltapine 16	0.52 abc
Coker 417	0.52 abc
McNair 1032B	0.51 bcd
Coker 310	0.51 bcd
MO-DEL	0.51 bcd
Stoneville 7A	0.50 cd
Rex SL	0.50 cd
Stoneville 213	0.50 cd
Coker 201	0.49 d
Hancock	0.49 d
Auburn M	0.49 d
Deltapine 45A	0.49 d

Variety	2.5% Span Length
Mo63-279D	1.19 a
Coker 310	1.19 a
Mo63-079	1.19 a
Coker 417	1.19 a
Mo63-277D	1.19 a
Deltapine 16	1.17 ab
Stoneville 7A	1.16 b
MO-DEL 1A	1.16 b
MO-DEL	1.16 b
Rex SL	1.15 bc
Auburn M	1.13 cd
Stoneville 213	1.13 cd
Coker 201	1.12 d
McNair 1032B	1.11 de
Deltapine 45A	1.11 de
Hancock	1.09 e

Variety	Length-Uniformity Index
McNair 1032B	45.25 a
MO-DEL 1A	45.12 a
Mo63-279D	44.50 ab
Hancock	44.37 abc
MO-DEL	44.25 abcd
Deltapine 45A	44.12 abcd
Mo63-277D	44.12 abcd
Mo63-079	44.12 abcd
Coker 201	44.00 abcd
Stoneville 213	43.75 abcde
Deltapine 16	43.75 abcde
Auburn M	43.50 bcde
Rex SL	43.25 bcde
Stoneville 7A	42.87 cde
Coker 417	42.75 de
Coker 310	42.37 e

Variety	Micronaire
Stoneville 213	4.45 a
Coker 310	4.44 a
Stoneville 7A	4.42 ab
MO-DEL 1A	4.37 abc
Coker 201	4.37 abc
McNair 1032B	4.36 abc
Hancock	4.36 abc
MO-DEL	4.30 bc
Deltapine 45A	4.29 bc
Deltapine 16	4.26 cd
Mo63-279D	4.15 de
Auburn M	4.14 de
Rex SL	4.10 e
Mo63-277D	4.06 ef
Mo63-079	4.04 ef
Coker 417	3.94 f

Variety	Colorimeter Rd
Deltapine 16	72.12 a
Coker 417	71.50 ab
Stoneville 7A	71.25 abc
Deltapine 45A	70.87 abcd
Mo63-279D	70.75 bcde
Auburn M	70.62 bcde
Rex SL	70.50 bcde
Coker 201	70.37 bcdef
McNair 1032B	70.25 bcdef
Mo63-277D	70.25 bcdef
MO-DEL	70.12 cdef
Mo63-079	69.75 def
MO-DEL 1A	69.62 def
Coker 310	69.50 ef
Stoneville 213	69.50 ef
Hancock	69.12 f

Variety	Colorimeter b
Mo63-079	8.25 a
Rex SL	8.19 a
Coker 201	8.19 a
Mo63-277D	8.19 a
MO-DEL	8.12 ab
Coker 310	8.12 ab
McNair 1032B	8.06 abc
MO-DEL 1A	8.06 abc
Stoneville 213	8.06 abc
Hancock	7.87 bcd
Auburn M	7.87 bcd
Coker 417	7.87 bcd
Mo63-279D	7.87 bcd
Deltapine 45A	7.81 cd
Stoneville 7A	7.81 cd
Deltapine 16	7.69 d

Table 15 continued

Variety	Trash
Mo63-279D	3.25 a
Deltapine 45A	3.25 a
Coker 201	3.25 a
Coker 417	3.25 a
MO-DEL 1A	3.25 a
Mo63-277D	3.25 a
Auburn M	3.25 a
Mo63-079	3.25 a
Stoneville 213	3.12 a
Rex SL	3.12 a
Hancock	3.12 a
Deltapine 16	3.12 a
McNair 1032B	3.12 a
Coker 310	3.12 a
MO-DEL	3.12 a
Stoneville 7A	2.87 a

Variety	Yarn Strength 22's
Mo63-279D	126.37 a
Coker 417	122.87 b
Mo63-277D	122.50 b
Mo63-079	122.12 bc
MO-DEL 1A	118.87 cd
Coker 310	118.62 d
McNair 1032B	118.25 d
MO-DEL	116.25 d
Deltapine 45A	112.75 e
Deltapine 16	112.62 e
Coker 201	112.12 e
Stoneville 7A	111.50 ef
Hancock	110.00 ef
Rex SL	110.00 ef
Auburn M	108.00 fg
Stoneville 213	106.37 g

Table 16 Summary of Performance of Cotton Varieties Grown in Southeast Missouri on Sandy Loam, Wilt-free, Non-irrigated Soil, 1969

Variety or Strain	Lint Yield Total Lbs/Acre	Lint Yield 1st Pick Lbs/Acre	Percent of Crop	Lint Percent	Length 2.5% SL	Micronaire	Yarn Strength 22's
Stoneville 7A	1016.22 a	899.77	89	36.57	1.14	4.85	112.50
Stoneville 213	989.48 ab	900.63	91	36.43	1.09	4.90	107.00
Mo 63-277D	989.38 ab	928.12	94	36.53	1.15	4.30	122.50
Coker 310	968.77 ab	885.70	91	36.00	1.17	5.00	124.50
MO-DEL 1A	965.79 ab	890.42	92	35.10	1.14	4.75	120.00
MO-DEL	955.61 abc	847.36	89	33.63	1.14	4.80	121.50
Hancock	946.65 abc	873.41	92	36.37	1.06	4.90	115.00
Deltapine 45A	938.13 abc	863.32	92	36.07	1.10	4.75	117.50
Coker 417	930.01 abc	816.38	88	33.93	1.18	4.25	131.50
Deltapine 16	903.39 bc	796.16	88	36.13	1.14	4.80	114.50
McNair 1032B	899.18 bc	757.54	84	34.90	1.08	4.80	123.50
Mo 63-079	895.83 bc	840.93	94	33.70	1.18	4.30	126.00
Auburn M	866.67 c	794.24	92	33.77	1.11	4.30	113.50
Mo 63-279D	866.09 c	826.51	95	34.47	1.13	4.45	130.50
Coker 201	861.15 c	783.24	91	36.60	1.10	4.80	115.00
Rex Smoothleaf	859.32 c	749.86	87	32.50	1.14	4.55	113.50
Mean	928.23	840.85	91	35.16	1.13	4.66	119.28
MiLSR (.05)	84.21	74.17		1.39	.04	.30	9.40
MaLSR (.05)	100.20	88.29		1.66	.05	.35	10.81
C. V. %	7.02	6.83		2.38	1.74	3.03	3.70

Table 17 Performance and Characteristics of Cotton Varieties Grown in Southeast Missouri on Sandy Loam, Wilt-free, Non-irrigated Soil, 1969

Variety	Seed Cotton-Lbs/Acre	Variety	Total Lint-Lbs/Acre	Variety	Lint-Lbs/Acre-1st Pick
Mo63-277D	2908 a	Stoneville 7A	1016 a	Mo63-277D	928 a
Stoneville 7A	2900 a	Stoneville 213	989 ab	Stoneville 213	901 ab
Mo63-079	2828 ab	Mo63-277D	989 ab	Stoneville 7A	900 ab
MO-DEL 1A	2787 ab	Coker 310	969 ab	MO-DEL 1A	890 ab
Rex SL	2699 ab	MO-DEL 1A	966 ab	Coker 310	886 ab
Stoneville 213	2688 ab	MO-DEL	956 abc	Hancock	873 abc
MO-DEL	2652 ab	Hancock	947 abc	Deltapine 45A	863 abcd
Auburn M	2649 ab	Deltapine 45A	938 abc	MO-DEL	847 abcd
McNair 1032 B	2644 ab	Coker 417	930 abc	Mo63-079	841 bcde
Coker 310	2641 ab	Deltapine 16	903 bc	Mo63-279D	827 bcdef
Deltapine 45A	2592 ab	McNair 1032 B	899 bc	Coker 417	816 bcdef
Coker 417	2581 ab	Mo63-079	896 bc	Deltapine 16	796 cdef
Deltapine 16	2490 ab	Auburn M	867 c	Auburn M	794 cdef
Hancock	2432 ab	Mo63-279D	866 c	Coker 201	783 def
Coker 201	2388 b	Coker 201	861 c	McNair 1032 B	758 ef
Mo63-279D	2355 b	Rex SL	859 c	Rex SL	750 f

Variety	Stand-hills/Plot	Variety	1st Flower-days	Variety	Seedling Vigor Index
Deltapine 16	87 a	Stoneville 213	61 a	McNair 1032 B	4.0 a
Mo63-079	87 a	Mo63-277D	61 a	Deltapine 45A	4.0 a
Auburn M	87 a	Deltapine 16	61 a	Stoneville 7A	4.0 a
Mo63-277D	87 a	Mo63-279D	60 ab	Deltapine 16	4.0 a
MO-DEL 1A	87 a	Deltapine 45A	60 ab	MO-DEL 1A	4.0 a
Coker 310	87 a	Stoneville 7A	60 ab	Coker 310	4.0 a
Stoneville 213	87 a	McNair 1032 B	60 ab	Mo63-279D	4.0 a
Coker 201	86 a	Hancock	60 ab	Coker 417	4.0 a
Mo63-279D	86 ab	MO-DEL 1A	60 ab	Mo63-079	4.0 a
Coker 417	86 ab	Rex SL	60 ab	Mo63-277D	4.0 a
MO-DEL	86 ab	Coker 201	60 ab	MO-DEL	4.0 a
Deltapine 45A	86 ab	MO-DEL	60 ab	Coker 201	3.8 a
Rex SL	86 ab	Mo63-079	60 ab	Auburn M	3.8 a
Stoneville 7A	86 ab	Coker 310	59 b	Stoneville 213	3.8 a
Hancock	86 ab	Auburn M	59 b	Hancock	3.6 a
McNair 1032 B	85 b	Coker 417	59 b	Rex SL	3.6 a

Table 17 continued

Variety	Height Index
MO-DEL 1A	1.8 a
Mo63-277D	1.8 a
Stoneville 7A	1.8 a
Stoneville 213	1.8 a
Mo63-079	1.8 a
Coker 417	1.8 a
Coker 201	1.8 a
Hancock	1.8 a
Deltapine 45A	1.6 ab
Coker 310	1.6 ab
McNair 1032 B	1.6 ab
MO-DEL	1.6 ab
Mo63-279D	1.2 bc
Deltapine 16	1.2 bc
Auburn M	1.2 bc
Rex SL	1.0 c

Variety	Lodging Index
MO-DEL	3.0 a
Stoneville 213	2.8 ab
Stoneville 7A	2.6 abc
Coker 201	2.6 abc
McNair 1032 B	2.4 abcd
Coker 310	2.4 abcd
MO-DEL 1A	2.4 abcd
Coker 417	2.4 abcd
Mo63-079	2.2 bcde
Deltapine 16	2.2 bcde
Mo63-277D	2.0 cde
Hancock	1.8 de
Deltapine 45A	1.8 de
Rex SL	1.8 de
Mo63-279D	1.6 e
Auburn M	1.6 e

Variety	Storm Resistance Index
MO-DEL 1A	3.4 a
Mo63-277D	3.4 a
Auburn M	3.2 ab
MO-DEL	3.2 ab
Rex SL	3.0 abc
McNair 1032 B	2.8 abc
Stoneville 7A	2.8 abc
Stoneville 213	2.8 abc
Mo63-079	2.8 abc
Coker 310	2.8 abc
Deltapine 16	2.8 abc
Coker 417	2.8 abc
Hancock	2.6 bc
Coker 201	2.6 bc
Deltapine 45A	2.6 bc
Mo63-279D	2.4 c

Variety	Lint Percent
Coker 201	36.6 a
Stoneville 7A	36.6 a
Mo63-277D	36.5 a
Stoneville 213	36.4 ab
Hancock	36.4 ab
Deltapine 16	36.1 ab
Deltapine 45A	36.1 ab
Coker 310	36.0 ab
MO-DEL 1A	35.1 abc
McNair 1032 B	34.9 bc
Mo63-279D	34.5 c
Coker 417	33.9 cd
Auburn M	33.8 cd
Mo63-079	33.7 cd
MO-DEL	33.6 cd
Rex SL	32.5 d

Variety	50% Span Length
Mo63-079	0.54 a
Coker 417	0.52 ab
McNair 1032 B	0.51 ab
Coker 310	0.51 ab
MO-DEL 1A	0.51 ab
Mo63-277D	0.51 ab
MO-DEL	0.51 ab
Rex SL	0.50 ab
Deltapine 16	0.50 ab
Stoneville 7A	0.49 b
Mo63-279D	0.49 b
Coker 201	0.48 b
Hancock	0.48 b
Deltapine 45A	0.48 b
Auburn M	0.48 b
Stoneville 213	0.48 b

Variety	2.5% Span Length
Mo63-079	1.18 a
Coker 417	1.18 a
Coker 310	1.17 ab
Mo63-277D	1.15 abc
Stoneville 7A	1.14 abcd
MO-DEL 1A	1.14 abcd
Deltapine 16	1.14 abcd
Rex SL	1.14 abcd
MO-DEL	1.14 abcd
Mo63-279D	1.13 bcde
Auburn M	1.11 cdef
Coker 201	1.10 defg
Deltapine 45A	1.10 defg
Stoneville 213	1.09 efg
McNair 1032 B	1.08 fg
Hancock	1.06 g

Table 17 continued

Variety	Length-Uniformity Index		Variety	Micronaire		Variety	Colorimeter Rd	
McNair 1032 B	46.50	a	Coker 310	5.00	a	MO-DEL	74.00	a
MO-DEL 1A	45.50	ab	Hancock	4.90	a	Deltapine 16	73.50	ab
Mo63-079	45.50	ab	Stoneville 213	4.90	a	Stoneville 7A	73.00	abc
Hancock	45.00	ab	Stoneville 7A	4.85	ab	Coker 201	73.00	abc
Mo63-277D	44.50	ab	McNair 1032 B	4.80	ab	Deltapine 45A	73.00	abc
MO-DEL	44.50	ab	MO-DEL	4.80	ab	Coker 417	73.00	abc
Stoneville 213	44.00	ab	Coker 201	4.80	ab	Mo63-279D	72.50	abc
Deltapine 16	44.00	ab	Deltapine 16	4.80	ab	Auburn M	72.50	abc
Coker 201	44.00	ab	MO-DEL 1A	4.75	abc	McNair 1032 B	72.00	abc
Rex SL	43.50	ab	Deltapine 45A	4.75	abc	Mo63-277D	72.00	abc
Stoneville 7A	43.50	ab	Rex SL	4.55	bcd	Rex SL	72.00	abc
Coker 310	43.50	ab	Mo63-279D	4.45	cd	Stoneville 213	72.00	abc
Mo63-279D	43.50	ab	Mo63-079	4.30	d	Coker 310	71.50	abc
Coker 417	43.50	ab	Mo63-277D	4.30	d	MO-DEL 1A	71.00	abc
Auburn M	43.50	ab	Auburn M	4.30	d	Mo63-079	70.50	bc
Deltapine 45A	43.00	b	Coker 417	4.25	d	Hancock	70.00	c

Variety	Colorimeter b		Variety	Trash		Variety	Yarn Strength 22's	
Mo63-277D	8.50	a	McNair 1032 B	3.00	a	Coker 417	131.50	a
Mo63-079	8.25	ab	Deltapine 45A	3.00	a	Mo63-279D	130.50	ab
Stoneville 213	8.25	ab	Stoneville 7A	3.00	a	Mo63-079	126.00	abc
Rex SL	8.25	ab	Stoneville 213	3.00	a	Coker 310	124.50	abcd
Coker 310	8.25	ab	MO-DEL 1A	3.00	a	McNair 1032 B	123.50	abcde
Coker 201	8.00	ab	Coker 310	3.00	a	Mo63-277D	122.50	abcdef
McNair 1032 B	8.00	ab	Coker 201	3.00	a	MO-DEL	121.50	abcdef
Auburn M	8.00	ab	Coker 417	3.00	a	MO-DEL 1A	120.00	bcdef
Mo63-279D	8.00	ab	Mo63-279D	3.00	a	Deltapine 45A	117.50	cdefg
MO-DEL	8.00	ab	Rex SL	3.00	a	Hancock	115.00	defg
MO-DEL 1A	8.00	ab	Hancock	3.00	a	Coker 201	115.00	defg
Deltapine 45A	8.00	ab	Deltapine 16	3.00	a	Deltapine 16	114.50	defg
Stoneville 7A	7.75	b	Mo63-079	3.00	a	Auburn M	113.50	efg
Deltapine 16	7.75	b	Mo63-277D	3.00	a	Rex SL	113.50	efg
Hancock	7.75	b	Auburn M	3.00	a	Stoneville 7A	112.50	fg
Coker 417	7.75	b	MO-DEL	3.00	a	Stoneville 213	107.00	g

Table 18 Summary of Performance of Cotton Varieties Grown in Southeast Missouri on Sandy Loam, Irrigated Soil Infected with Verticillium Wilt Disease, 1969

Variety or Strain	Lint Yield Total Lbs/Acre		1st Pick Lbs/Acre	Percent of Crop	Lint Percent	Length 2.5% SL	Micronaire	Yarn Strength 22's
Mo 63-277D	883.74	a	746.50	84	36.53	1.21	3.60	121.00
Deltapine 16	782.22	b	639.92	82	35.40	1.17	3.75	110.00
Mo 63-079	731.14	bc	645.07	88	33.37	1.20	3.70	120.50
MO-DEL 1A	718.91	bc	633.10	88	33.80	1.16	3.85	117.00
Deltapine 45A	696.90	cd	613.32	88	35.97	1.13	3.50	109.50
Mo 63-279D	659.35	cde	593.28	90	33.10	1.19	3.60	125.00
Stoneville 213	656.24	cde	573.01	87	34.17	1.15	3.95	104.00
MO-DEL	637.85	de	550.96	86	32.50	1.15	3.25	112.50
Auburn M	600.84	ef	525.40	87	33.03	1.13	3.55	104.50
Coker 310	590.28	ef	524.99	91	34.70	1.19	3.50	115.00
Rex Smoothleaf	589.28	ef	481.06	82	32.90	1.15	3.40	105.00
Stoneville 7A	583.86	ef	506.03	87	34.87	1.17	3.75	106.00
Hancock	555.25	fg	500.23	90	35.70	1.09	3.45	108.50
McNair 1032B	508.51	gh	377.73	74	35.27	1.10	3.60	111.00
Coker 417	473.74	h	419.55	89	33.00	1.18	3.10	121.00
Coker 201	435.92	h	391.96	90	35.60	1.12	3.70	106.00
Mean	631.50		545.13	86	34.37	1.16	3.58	112.38
MiLSR (.05)	69.66		68.52		1.29	.02	.27	7.01
MaLSR (.05)	82.92		81.57		1.54	.03	.32	8.06
C.V. %	8.53		9.73		2.26	0.97	3.61	2.93

Table 19 Performance and Characteristics of Cotton Varieties Grown in Southeast Missouri on Sandy Loam, Irrigated Soil Infected with Verticillium Wilt Disease, 1969

Variety	Seed Cotton-Lbs/Acre
Mo63-277D	2471 a
Deltapine 16	2347 ab
Mo63-079	2160 bc
MO-DEL 1A	2096 bcd
Mo63-279D	1995 cde
Deltapine 45A	1912 cdef
Stoneville 213	1909 cdef
MO-DEL	1865 def
Auburn M	1860 def
Rex SL	1830 def
Stoneville 7A	1725 efg
Coker 310	1640 fgh
Hancock	1502 gh
McNair 1032 B	1447 hi
Coker 417	1409 hi
Coker 201	1222 i

Variety	Total Lint-Lbs/Acre
Mo63-277D	884 a
Deltapine 16	782 b
Mo63-079	731 bc
MO-DEL 1A	719 bc
Deltapine 45A	697 cd
Mo63-279D	659 cde
Stoneville 213	656 cde
MO-DEL	638 de
Auburn M	601 ef
Coker 310	590 ef
Rex SL	589 ef
Stoneville 7A	584 ef
Hancock	555 fg
McNair 1032 B	509 gh
Coker 417	474 h
Coker 201	436 h

Variety	Lint-Lbs/Acre-1st Pick
Mo63-277D	747 a
Mo63-079	645 b
Deltapine 16	640 b
MO-DEL 1A	633 b
Deltapine 45A	613 bc
Mo63-279D	593 bcd
Stoneville 213	573 bcde
MO-DEL	551 cdef
Auburn M	525 def
Coker 310	525 def
Stoneville 7A	506 ef
Hancock	500 ef
Rex SL	481 fg
Coker 417	420 gh
Coker 201	392 h
McNair 1032 B	378 h

Variety	Stand-hills/Plot
MO-DEL 1A	88 a
Mo63-079	88 a
Deltapine 16	88 a
Mo63-277D	88 a
McNair 1032 B	88 a
Deltapine 45A	87 a
Stoneville 7A	87 a
Coker 417	87 a
Auburn M	87 a
Stoneville 213	87 a
Coker 201	87 a
Coker 310	87 a
Mo63-279D	87 a
MO-DEL	87 a
Rex SL	87 a
Hancock	87 a

Variety	1st Flower-days
Deltapine 16	61 a
Stoneville 7A	60 a
Rex SL	60 a
Mo63-277D	60 a
McNair 1032 B	60 a
Deltapine 45A	60 a
MO-DEL 1A	60 a
Hancock	60 a
Coker 417	60 a
Stoneville 213	60 a
Mo63-279D	59 a
Coker 201	59 a
MO-DEL	59 a
Mo63-079	59 a
Auburn M	58 a
Coker 310	58 a

Variety	Verticillium Wilt-Rating
Mo63-277D	3.7 a
MO-DEL 1A	2.9 b
Deltapine 16	2.8 bc
Stoneville 7A	2.8 bc
Mo63-079	2.8 bc
Deltapine 45A	2.7 bcd
Rex SL	2.7 bcd
Stoneville 213	2.6 bcd
MO-DEL	2.5 bcd
McNair 1032 B	2.4 cd
Mo63-279D	2.3 cde
Auburn M	2.2 def
Hancock	1.9 efg
Coker 310	1.8 fg
Coker 201	1.5 g
Coker 417	1.5 g

Table 19 continued

Variety	Seedling Vigor Index
MO-DEL 1A	4.0 a
Deltapine 45A	3.6 ab
Mo63-079	3.6 ab
MO-DEL	3.6 ab
Mo63-277D	3.6 ab
Stoneville 7A	3.4 abc
Coker 201	3.4 abc
Stoneville 213	3.4 abc
Mo63-279D	3.4 abc
Coker 310	3.4 abc
Coker 417	3.4 abc
McNair 1032 B	3.2 bc
Deltapine 16	3.2 bc
Auburn M	3.0 bc
Rex SL	3.0 bc
Hancock	2.8 c

Variety	Height Index
McNair 1032 B	3.0 a
Coker 417	2.8 ab
Stoneville 7A	2.8 ab
Coker 201	2.6 abc
Coker 310	2.4 bcd
Stoneville 213	2.4 bcd
Hancock	2.4 bcd
Deltapine 16	2.2 cd
MO-DEL 1A	2.2 cd
MO-DEL	2.2 cd
Deltapine 45A	2.0 d
Mo63-277D	2.0 d
Mo63-279D	1.4 e
Mo63-079	1.4 e
Auburn M	1.0 e
Rex SL	1.0 e

Variety	Lodging Index
McNair 1032 B	4.0 a
Stoneville 7A	3.8 a
Coker 417	3.6 ab
Coker 310	3.4 ab
Coker 201	3.4 ab
Stoneville 213	3.4 ab
Deltapine 16	3.4 ab
MO-DEL 1A	3.0 bc
Deltapine 45A	3.0 bc
Mo63-277D	3.0 bc
MO-DEL	3.0 bc
Hancock	2.6 cd
Mo63-079	2.4 cd
Mo63-279D	2.0 d
Rex SL	2.0 d
Auburn M	1.2 e

Variety	Storm Resistance Index
MO-DEL	4.0 a
McNair 1032 B	3.0 b
Stoneville 7A	3.0 b
Rex SL	3.0 b
MO-DEL 1A	3.0 b
Coker 310	3.0 b
Stoneville 213	3.0 b
Deltapine 16	3.0 b
Coker 201	2.8 bc
Hancock	2.8 bc
Mo63-277D	2.6 bc
Mo63-279D	2.4 bc
Auburn M	2.4 bc
Deltapine 45A	2.4 bc
Mo63-079	2.2 c
Coker 417	2.2 c

Variety	Lint Percent
Mo63-277D	36.5 a
Deltapine 45A	36.0 ab
Hancock	35.7 ab
Coker 201	35.6 abc
Deltapine 16	35.4 abc
McNair 1032 B	35.3 abc
Stoneville 7A	34.9 bcd
Coker 310	34.7 bcde
Stoneville 213	34.2 cdef
MO-DEL 1A	33.8 defg
Mo63-079	33.4 efg
Mo63-279D	33.1 fg
Auburn M	33.0 fg
Coker 417	33.0 fg
Rex SL	32.9 fg
MO-DEL	32.5 g

Variety	50% Span Length
Mo63-279D	0.53 a
Mo63-277D	0.53 a
Mo63-079	0.52 ab
Stoneville 213	0.51 abc
MO-DEL 1A	0.51 abc
Rex SL	0.50 abcd
MO-DEL	0.50 abcd
Deltapine 16	0.50 abcd
Deltapine 45A	0.49 bcd
Auburn M	0.48 cd
McNair 1032 B	0.48 cd
Coker 310	0.48 cd
Coker 417	0.48 cd
Stoneville 7A	0.47 d
Hancock	0.47 d
Coker 201	0.47 d

Table 19 continued

Variety	2.5% Span Length
Mo63-277D	1.21 a
Mo63-079	1.20 ab
Mo63-279D	1.19 abc
Coker 310	1.19 abc
Coker 417	1.18 bcd
Stoneville 7A	1.17 cde
Deltapine 16	1.17 cde
MO-DEL 1A	1.16 de
Rex SL	1.15 ef
Stoneville 213	1.15 ef
MO-DEL	1.15 ef
Auburn M	1.13 fg
Deltapine 45A	1.13 fg
Coker 201	1.12 gh
McNair 1032 B	1.10 hi
Hancock	1.09 i

Variety	Length-Uniformity Index
Mo63-279D	44.00 a
MO-DEL	44.00 a
MO-DEL 1A	43.50 a
Deltapine 45A	43.50 a
Stoneville 213	43.50 a
McNair 1032 B	43.00 ab
Mo63-079	43.00 ab
Mo63-277D	43.00 ab
Rex SL	43.00 ab
Hancock	42.50 abc
Auburn M	42.50 abc
Deltapine 16	42.00 abc
Coker 201	42.00 abc
Coker 417	40.50 bc
Stoneville 7A	40.50 bc
Coker 310	40.00 c

Variety	Micronaire
Stoneville 213	3.95 a
MO-DEL 1A	3.85 ab
Stoneville 7A	3.75 abc
Deltapine 16	3.75 abc
Mo63-079	3.70 abcd
Coker 201	3.70 abcd
Mo63-277D	3.60 bcd
McNair 1032 B	3.60 bcd
Mo63-279D	3.60 bcd
Auburn M	3.55 bcde
Deltapine 45A	3.50 cde
Coker 310	3.50 cde
Hancock	3.45 cde
Rex SL	3.40 de
MO-DEL	3.25 ef
Coker 417	3.10 f

Variety	Colorimeter Rd
Deltapine 16	72.00 a
Coker 417	71.00 ab
Stoneville 7A	70.50 abc
Mo63-279D	70.00 abc
Auburn M	70.00 abc
Deltapine 45A	70.00 abc
Mo63-277D	70.00 abc
Rex SL	69.50 bcd
MO-DEL	69.50 bcd
Coker 310	69.50 bcd
MO-DEL 1A	69.00 bcd
McNair 1032 B	69.00 bcd
Coker 201	69.00 bcd
Mo63-079	69.00 bcd
Hancock	68.50 cd
Stoneville 213	67.50 d

Variety	Colorimeter b
McNair 1032 B	8.50 a
Coker 201	8.50 a
Rex SL	8.25 ab
Mo63-277D	8.25 ab
Mo63-079	8.25 ab
Stoneville 213	8.00 abc
MO-DEL 1A	8.00 abc
Deltapine 45A	8.00 abc
Coker 310	8.00 abc
Stoneville 7A	7.75 bc
Hancock	7.75 bc
Coker 417	7.75 bc
Mo63-279D	7.75 bc
MO-DEL	7.75 bc
Auburn M	7.75 bc
Deltapine 16	7.50 c

Variety	Trash
Mo63-279D	4.00 a
Deltapine 45A	4.00 a
Coker 417	4.00 a
Coker 310	4.00 a
Hancock	3.50 ab
MO-DEL 1A	3.50 ab
Coker 201	3.50 ab
MO-DEL	3.50 ab
McNair 1032 B	3.50 ab
Rex SL	3.50 ab
Auburn M	3.50 ab
Mo63-277D	3.50 ab
Mo63-079	3.50 ab
Stoneville 213	3.00 ab
Deltapine 16	3.00 ab
Stoneville 7A	2.50 b

Table 19 continued

Variety	Yarn Strength 22's	
Mo63-279D	125.00	a
Mo63-277D	121.00	ab
Coker 417	121.00	ab
Mo63-079	120.50	ab
MO-DEL 1A	117.00	bc
Coker 310	115.00	bcd
MO-DEL	112.50	cde
McNair 1032 B	111.00	cdef
Deltapine 16	110.00	cdef
Deltapine 45A	109.50	cdef
Hancock	108.50	def
Coker 201	106.00	ef
Stoneville 7A	106.00	ef
Rex SL	105.00	ef
Auburn M	104.50	f
Stoneville 213	104.00	f

Table 20 Summary of Performance of Cotton Varieties Grown in Southeast Missouri on Heavy Clay, Silt-free Irrigated Soil, 1969

Variety or Strain	Lint Yield Total Lbs/Acre		Lint Yield 1st Pick Lbs/Acre	Percent of Crop	Lint Percent	Length 2.5% SL	Micronaire	Yarn Strength 22's
Deltapine 16	916.08	a	653.62	71	35.73	1.18	4.45	115.50
Stoneville 213	913.14	a	722.88	79	36.50	1.13	4.50	110.50
Mo 63-277D	900.13	a	736.29	82	36.43	1.20	4.15	127.50
Mo 63-279D	895.90	a	736.65	82	34.60	1.19	4.30	129.00
Hancock	887.36	a	675.87	76	37.27	1.12	4.60	112.00
Mo 63-079	887.04	a	740.75	84	35.03	1.17	4.10	126.50
Coker 310	873.74	ab	674.51	77	37.07	1.19	4.70	122.00
Deltapine 45A	870.35	ab	690.75	79	36.73	1.12	4.45	116.00
Stoneville 7A	847.77	abc	624.58	74	36.33	1.19	4.50	119.00
Coker 417	846.15	abc	616.96	73	35.63	1.20	4.25	125.00
Rex Smoothleaf	815.76	bc	537.74	66	33.47	1.17	4.25	113.00
MO-DEL 1A	798.04	cd	616.91	77	35.30	1.16	4.35	124.50
MO-DEL	787.24	cd	617.57	78	35.00	1.15	4.45	122.50
McNair 1032B	746.76	de	505.60	68	36.63	1.12	4.50	124.50
Coker 201	715.30	e	505.68	71	38.33	1.14	4.50	115.50
Auburn M	713.52	e	582.20	82	34.20	1.13	4.25	113.00
Mean	838.39		639.91	76	35.89	1.16	4.39	119.75
MiLSR (.05)	61.94		53.18		1.40	.04	.19	6.50
MaLSR (.05)	73.73		63.30		1.67	.05	.22	7.47
C.V. %	5.72		6.43		2.34	1.77	2.02	2.55

Table 21 Performance and Characteristics of Cotton Varieties Grown in Southeast Missouri on Heavy Clay, Wilt-free, Irrigated Soil, 1969

Variety	Seed Cotton-Lbs/Acre
Deltapine 16	2597 a
Mo63-279D	2545 ab
Mo63-079	2515 ab
Stoneville 213	2498 ab
Mo63-277D	2468 abc
Rex SL	2396 abcd
Hancock	2394 abcd
Coker 417	2394 abcd
Deltapine 45A	2388 abcd
Coker 310	2361 bcd
Stoneville 7A	2339 bcd
MO-DEL	2267 cde
MO-DEL 1A	2239 de
Auburn M	2085 ef
McNair 1032B	2011 f
Coker 201	1915 f

Variety	Total Lint-Lbs/Acre
Deltapine 16	916 a
Stoneville 213	913 a
Mo63-277D	900 a
Mo63-279D	896 a
Hancock	887 a
Mo63-079	887 a
Coker 310	874 ab
Deltapine 45A	870 ab
Stoneville 7A	848 abc
Coker 417	846 abc
Rex SL	816 bc
MO-DEL 1A	798 cd
MO-DEL	787 cd
McNair 1032B	747 de
Coker 201	715 e
Auburn M	714 e

Variety	Lint-Lbs/Acre-1st Pick
Mo63-079	741 a
Mo63-279D	737 a
Mo63-277D	736 a
Stoneville 213	723 ab
Deltapine 45A	691 abc
Hancock	676 bcd
Coker 310	675 bcd
Deltapine 16	654 cd
Stoneville 7A	625 de
MO-DEL	618 de
Coker 417	617 de
MO-DEL 1A	617 de
Auburn M	582 ef
Rex SL	538 fg
Coker 201	506 g
McNair 1032B	506 g

Variety	Stand-Hills/Plot
Coker 417	90 a
Mo63-279D	90 a
Stoneville 213	90 a
Mo63-277D	90 a
Coker 201	90 a
MO-DEL 1A	90 a
Mo63-079	90 a
Coker 310	90 a
Deltapine 16	90 a
McNair 1032B	90 a
Hancock	89 a
Deltapine 45A	89 a
Auburn M	89 a
MO-DEL	89 a
Stoneville 7A	88 a
Rex SL	88 a

Variety	1st Flower-days
Stoneville 7A	67 a
Stoneville 213	67 a
Deltapine 16	67 a
Deltapine 45A	66 ab
McNair 1032B	66 ab
Mo63-279D	66 ab
Mo63-277D	66 ab
Coker 417	66 ab
MO-DEL	65 abc
Hancock	65 abc
Mo63-079	65 abc
Rex SL	64 bcd
Coker 201	64 bcd
MO-DEL 1A	64 bcd
Auburn M	63 cd
Coker 310	62 d

Variety	Seedling Vigor Index
McNair 1032B	3.0 a
Deltapine 45A	3.0 a
MO-DEL 1a	3.0 a
Coker 417	3.0 a
Mo63-279D	3.0 a
Coker 310	3.0 a
Mo63-079	3.0 a
MO-DEL	3.0 a
Mo63-277D	3.0 a
Coker 201	2.8 ab
Stoneville 213	2.8 ab
Stoneville 7A	2.6 ab
Deltapine 16	2.6 ab
Auburn M	2.4 bc
Rex SL	2.4 bc
Hancock	2.0 c

Table 21 continued

Variety	Height Index
Coker 201	3.0 a
Coker 417	3.0 a
McNair 1032 B	2.6 ab
Coker 310	2.4 bc
MO-DEL 1A	2.4 bc
Mo63-277D	2.2 bc
Hancock	2.2 bc
MO-DEL	2.2 bc
Mo63-079	2.2 bc
Deltapine 16	2.0 cd
Stoneville 7A	2.0 cd
Deltapine 45A	1.6 de
Stoneville 213	1.6 de
Mo63-279D	1.4 ef
Rex SL	1.2 ef
Auburn M	1.0 f

Variety	Lodging Index
McNair 1032 B	4.0 a
Coker 417	4.0 a
Coker 201	4.0 a
MO-DEL	4.0 a
MO-DEL 1A	4.0 a
Coker 310	3.8 ab
Stoneville 7A	3.4 abc
Stoneville 213	3.4 abc
Deltapine 16	3.4 abc
Hancock	3.2 bcd
Deltapine 45A	3.0 cde
Rex SL	2.6 def
Mo63-277D	2.6 def
Mo63-279D	2.4 ef
Mo63-079	2.4 ef
Auburn M	2.0 f

Variety	Storm Resistance Index
McNair 1032 B	3.0 a
Coker 310	3.0 a
Stoneville 7A	3.0 a
Stoneville 213	3.0 a
MO-DEL 1A	3.0 a
Coker 417	3.0 a
Coker 201	2.8 a
Mo63-277D	2.8 a
MO-DEL	2.8 a
Hancock	2.6 ab
Rex SL	2.6 ab
Mo63-279D	2.0 b
Mo63-079	2.0 b
Deltapine 45A	2.0 b
Auburn M	2.0 b
Deltapine 16	2.0 b

Variety	Lint Percent
Coker 201	38.3 a
Hancock	37.3 ab
Coker 310	37.1 abc
Deltapine 45A	36.7 bcd
McNair 1032 B	36.6 bcde
Stoneville 213	36.5 bcdef
Mo63-277D	36.4 bcdef
Stoneville 7A	36.3 bcdef
Deltapine 16	35.7 bcdefg
Coker 417	35.6 cdefg
MO-DEL 1A	35.3 defg
Mo63-079	35.0 efg
MO-DEL	35.0 efg
Mo63-279D	34.6 fgh
Auburn M	34.2 gh
Rex SL	33.5 h

Variety	50% Span Length
Mo63-279D	0.55 a
Mo63-277D	0.54 ab
Coker 417	0.54 ab
Stoneville 7A	0.53 ab
MO-DEL 1A	0.53 ab
Rex SL	0.53 ab
Coker 201	0.53 ab
Deltapine 16	0.53 ab
Coker 310	0.52 ab
McNair 1032 B	0.51 ab
Hancock	0.51 ab
MO-DEL	0.51 ab
Mo63-079	0.51 ab
Deltapine 45A	0.51 ab
Stoneville 213	0.50 ab
Auburn M	0.49 b

Variety	2.5% Span Length
Mo63-277D	1.20 a
Coker 417	1.20 a
Mo63-279D	1.19 a
Stoneville 7A	1.19 a
Coker 310	1.19 a
Deltapine 16	1.18 ab
Mo63-079	1.17 abc
Rex SL	1.17 abc
MO-DEL 1A	1.16 abc
MO-DEL	1.15 abc
Coker 201	1.14 bc
Auburn M	1.13 c
Stoneville 213	1.13 c
McNair 1032 B	1.12 c
Hancock	1.12 c
Deltapine 45A	1.12 c

Table 21 continued

Variety	Length-Uniformity Index
Coker 201	46.00 a
Deltapine 45A	45.50 a
McNair 1032 B	45.50 a
MO-DEL 1A	45.50 a
Mo63-279D	45.50 a
Hancock	45.00 a
Deltapine 16	44.50 a
Mo63-277D	44.50 a
Stoneville 7A	44.50 a
Coker 417	44.00 a
Rex SL	44.00 a
Stoneville 213	44.00 a
Auburn M	43.50 a
Coker 310	43.50 a
MO-DEL	43.50 a
Mo63-079	43.00 a

Variety	Micronaire
Coker 310	4.70 a
Hancock	4.60 ab
McNair 1032 B	4.50 abc
Stoneville 213	4.50 abc
Coker 201	4.50 abc
Stoneville 7A	4.50 abc
Deltapine 45A	4.45 bcd
MO-DEL	4.45 bcd
Deltapine 16	4.45 bcd
MO-DEL 1A	4.35 cde
Mo63-279D	4.30 cdef
Rex SL	4.25 def
Auburn M	4.25 def
Coker 417	4.25 def
Mo63-277D	4.15 ef
Mo63-079	4.10 f

Variety	Colorimeter Rd
Stoneville 7A	72.00 a
Coker 417	72.00 a
Deltapine 16	71.50 ab
Mo63-279D	71.00 ab
Deltapine 45A	71.00 ab
Stoneville 213	71.00 ab
McNair 1032 B	70.50 abc
Coker 201	70.50 abc
Auburn M	70.50 abc
Rex SL	70.50 abc
MO-DEL 1A	70.00 abc
MO-DEL	70.00 abc
Mo63-079	70.00 abc
Mo63-277D	69.50 bc
Hancock	68.50 cd
Coker 310	67.50 d

Variety	Colorimeter b
MO-DEL 1A	8.25 a
Mo63-079	8.25 a
Rex SL	8.00 a
Stoneville 213	8.00 a
Hancock	8.00 a
Coker 310	8.00 a
Coker 201	8.00 a
MO-DEL	8.00 a
Mo63-279D	8.00 a
Mo63-277D	8.00 a
Stoneville 7A	7.75 a
Deltapine 16	7.75 a
McNair 1032 B	7.75 a
Deltapine 45A	7.75 a
Auburn M	7.75 a
Coker 417	7.75 a

Variety	Trash
McNair 1032 B	3.00 a
Rex SL	3.00 a
Stoneville 7A	3.00 a
Stoneville 213	3.00 a
MO-DEL 1A	3.00 a
Mo63-277D	3.00 a
Coker 201	3.00 a
Coker 417	3.00 a
Mo63-279D	3.00 a
Deltapine 16	3.00 a
Hancock	3.00 a
MO-DEL	3.00 a
Mo63-079	3.00 a
Auburn M	3.00 a
Deltapine 45A	2.50 a
Coker 310	2.50 a

Variety	Yarn Strength 22.s
Mo63-279D	129.00 a
Mo63-277D	127.50 a
Mo63-079	126.50 a
Coker 417	125.00 ab
McNair 1032 B	124.50 ab
MO-DEL 1A	124.50 ab
MO-DEL	122.50 abc
Coker 310	122.00 abc
Stoneville 7A	119.00 bcd
Deltapine 45A	116.00 cde
Coker 201	115.50 cde
Deltapine 16	115.50 cde
Auburn M	113.00 de
Rex SL	113.00 de
Hancock	112.00 de
Stoneville 213	110.50 e

Table 22 Summary of Performance of Cotton Varieties Grown in Southeast Missouri on Sandy, Irrigated Soil Infected with Fusarium Wilt-Root Knot Nematode Disease, 1969

Variety or Strain	Lint Yield Total Lbs/Acre		1st Pick Lbs/Acre	Percent of Crop	Lint Percent	Length 2.5% SL	Micronaire	Yarn Strength 22's
Mo 63-079	902.35	a	727.68	81	36.40	1.21	4.05	115.50
Mo 63-277D	896.52	a	730.40	81	37.03	1.21	4.20	119.00
McNair 1032B	886.43	ab	639.63	72	35.43	1.13	4.55	114.00
Auburn M	866.74	ab	658.62	76	33.93	1.12	4.45	101.00
Coker 310	821.13	abc	648.70	79	35.80	1.22	4.55	113.00
Mo 63-279D	814.85	abc	610.52	75	34.37	1.24	4.25	121.00
Deltapine 45A	801.43	abcd	706.87	88	36.60	1.08	4.45	108.00
MO-DEL	749.70	bcde	490.09	65	34.47	1.17	4.70	108.50
Coker 417	716.04	cde	583.50	81	35.63	1.20	4.15	114.00
MO-DEL 1A	715.40	cde	501.00	70	33.47	1.18	4.55	114.00
Rex Smoothleaf	669.38	de	409.67	63	34.90	1.13	4.20	108.50
Deltapine 16	668.21	de	553.12	83	36.03	1.17	4.05	110.50
Stoneville 213	641.70	ef	632.22	99	34.67	1.13	4.45	104.00
Coker 201	615.85	efg	538.36	87	33.67	1.11	4.50	112.00
Stoneville 7A	517.62	fg	416.55	80	35.93	1.15	4.60	108.50
Hancock	491.08	g	428.55	87	39.47	1.09	4.50	104.50
Mean	735.90		579.72	79	35.49	1.16	4.39	111.00
MiLSR (.05)	126.00		167.60		3.83	.05	.18	7.25
MaLSR (.05)	149.90		199.50		4.56	.06	.20	8.33
C.V. %	13.24		22.37		6.47	2.13	1.91	3.07

Table 23 Performance and Characteristics of Cotton Varieties Grown in Southeast Missouri on Sandy, Irrigated Soil Infected with Fusarium Wilt-Root Knot Nematode Disease, 1969

Variety	Seed Cotton-Lbs/Acre
McNair 1032 B	2559 a
Mo63-277D	2530 ab
Auburn M	2530 ab
Mo63-079	2439 ab
Coker 310	2368 ab
Deltapine 45A	2318 ab
Coker 417	2197 abc
Mo63-279D	2172 abcd
MO-DEL 1A	2143 abcd
MO-DEL	2043 abcde
Rex SL	1988 bcde
Coker 201	1951 cdef
Deltapine 16	1742 cdef
Stoneville 213	1630 def
Stoneville 7A	1530 ef
Hancock	1401 f

Variety	Total Lint-Lbs/Acre
Mo63-079	902 a
Mo63-277D	897 a
McNair 1032 B	886 ab
Auburn M	867 ab
Coker 310	821 abc
Mo63-279D	815 abc
Deltapine 45A	801 abcd
MO-DEL	750 bcde
Coker 417	716 cde
MO-DEL 1A	715 cde
Rex SL	669 de
Deltapine 16	668 de
Stoneville 213	642 ef
Coker 201	616 efg
Stoneville 7A	518 fg
Hancock	491 g

Variety	Lint-Lbs/Acre-1st Pick
Mo63-277D	730 a
Mo63-079	728 a
Deltapine 45A	707 a
Auburn M	659 ab
Coker 310	649 ab
McNair 1032 B	640 ab
Stoneville 213	632 ab
Mo63-279D	611 abc
Coker 417	584 abcd
Deltapine 16	553 abcd
Coker 201	538 abcd
MO-DEL 1A	501 bcd
MO-DEL	490 bcd
Hancock	429 cd
Stoneville 7A	417 d
Rex SL	410 d

Variety	Stand-hills/Plot
Coker 417	57 a
Deltapine 45A	57 a
McNair 1032 B	57 a
Hancock	57 a
MO-DEL 1A	57 a
Mo63-279D	57 a
MO-DEL	57 a
Coker 201	57 a
Auburn M	57 a
Stoneville 213	56 a
Mo63-277D	56 a
Mo63-079	56 a
Stoneville 7A	56 a
Deltapine 16	56 a
Coker 310	56 a
Rex SL	54 b

Variety	1st Flower-days
Stoneville 213	60 a
Deltapine 16	59 a
Stoneville 7A	59 a
Deltapine 45A	59 a
Coker 201	58 a
Coker 417	58 a
Mo63-277D	58 a
Rex SL	58 a
Mo63-079	57 a
MO-DEL	57 a
Mo63-279D	57 a
Hancock	57 a
MO-DEL 1A	57 a
Auburn M	57 a
Coker 310	57 a
McNair 1032 B	57 a

Variety	Fusarium Wilt-% Wilted Plants
Hancock	45 a
Stoneville 213	27 b
Stoneville 7A	23 b
Coker 201	19 bc
Coker 417	17 bcd
Rex SL	8 cde
Mo63-279D	7 de
Coker 310	5 e
Deltapine 16	5 e
Deltapine 45A	4 e
McNair 1032 B	4 e
MO-DEL	4 e
Mo63-079	3 e
Auburn M	3 e
Mo63-277D	1 e
MO-DEL 1A	1 e

Table 23 continued

Variety	Seedling Vigor Index
MO-DEL 1A	3.6 a
Mo63-277D	3.2 ab
McNair 1032 B	3.2 ab
MO-DEL	2.8 abc
Auburn M	2.8 abc
Deltapine 45A	2.8 abc
Mo63-279D	2.8 abc
Coker 310	2.8 abc
Mo63-079	2.8 abc
Coker 201	2.6 bcd
Stoneville 213	2.4 bcde
Coker 417	2.4 bcde
Stoneville 7A	2.2 cde
Hancock	2.2 cde
Rex SL	1.8 de
Deltapine 16	1.6 e

Variety	Height Index
MO-DEL 1A	2.4 a
Coker 201	2.4 a
Coker 417	2.2 ab
MO-DEL	2.2 ab
McNair 1032 B	2.2 ab
Deltapine 45A	2.0 abc
Mo63-079	2.0 abc
Mo63-277D	2.0 abc
Auburn M	1.8 bc
Coker 310	1.8 bc
Mo63-279D	1.8 bc
Stoneville 213	1.6 cd
Hancock	1.6 cd
Rex SL	1.6 cd
Deltapine 16	1.6 cd
Stoneville 7A	1.2 d

Variety	Lodging Index
McNair 1032 B	4.0 a
MO-DEL	4.0 a
MO-DEL 1A	4.0 a
Coker 417	3.8 ab
Coker 201	3.8 ab
Rex SL	3.6 ab
Stoneville 7A	3.4 ab
Coker 310	3.4 ab
Deltapine 45A	3.4 ab
Stoneville 213	3.4 ab
Mo63-277D	3.4 ab
Deltapine 16	3.4 ab
Mo63-079	3.2 ab
Hancock	3.0 b
Mo63-279D	3.0 b
Auburn M	3.0 b

Variety	Storm Resistance Index
Auburn M	3.6 a
Coker 310	3.6 a
Stoneville 213	3.4 ab
Mo63-277D	3.4 ab
Coker 417	3.4 ab
Deltapine 16	3.4 ab
Mo63-079	3.2 abc
Stoneville 7A	3.2 abc
Hancock	2.8 abc
McNair 1032 B	2.6 bcd
Mo63-279D	2.4 cd
Deltapine 45A	2.4 cd
Coker 201	1.8 de
MO-DEL 1A	1.4 e
Rex SL	1.0 e
MO-DEL	1.0 e

Variety	Lint Percent
Hancock	39.5 a
Mo63-277D	37.0 ab
Deltapine 45A	36.6 ab
Mo63-079	36.4 ab
Deltapine 16	36.0 ab
Stoneville 7A	35.9 ab
Coker 310	35.8 ab
Coker 417	35.6 ab
McNair 1032 B	35.4 ab
Rex SL	34.9 b
Stoneville 213	34.7 b
MO-DEL	34.5 b
Mo63-279D	34.4 b
Auburn M	33.9 b
Coker 201	33.7 b
MO-DEL 1A	33.5 b

Variety	50% Span Length
Mo63-279D	0.56 a
Mo63-277D	0.54 ab
MO-DEL 1A	0.54 ab
Mo63-079	0.54 ab
Deltapine 16	0.53 abc
Coker 310	0.52 abcd
McNair 1032 B	0.52 abcd
Coker 417	0.52 abcd
MO-DEL	0.52 abcd
Hancock	0.50 bcd
Auburn M	0.50 bcd
Deltapine 45A	0.49 cd
Stoneville 7A	0.49 cd
Stoneville 213	0.49 cd
Coker 201	0.49 cd
Rex SL	0.48 d

Table 23 continued

Variety	2.5% Span Length
Mo63-279D	1.24 a
Coker 310	1.22 ab
Mo63-079	1.21 ab
Mo63-277D	1.21 ab
Coker 417	1.20 abc
MO-DEL 1A	1.18 bcd
Deltapine 16	1.17 bcde
MO-DEL	1.17 bcde
Stoneville 7A	1.15 cdef
McNair 1032 B	1.13 defg
Rex SL	1.13 defg
Stoneville 213	1.13 defg
Auburn M	1.12 efg
Coker 201	1.11 fg
Hancock	1.09 g
Deltapine 45A	1.08 g

Variety	Length-Uniformity Index
McNair 1032 B	46.00 a
MO-DEL 1A	46.00 a
MO-DEL	45.00 ab
Hancock	45.00 ab
Mo63-279D	45.00 ab
Mo63-079	45.00 ab
Deltapine 45A	44.50 ab
Mo63-277D	44.50 ab
Deltapine 16	44.50 ab
Auburn M	44.50 ab
Coker 201	44.00 ab
Stoneville 213	43.50 ab
Coker 417	43.00 b
Stoneville 7A	43.00 b
Rex SL	42.50 b
Coker 310	42.50 b

Variety	Micronaire
MO-DEL	4.70 a
Stoneville 7A	4.60 ab
McNair 1032 B	4.55 ab
Coker 310	4.55 ab
MO-DEL 1A	4.55 ab
Coker 201	4.50 b
Hancock	4.50 b
Deltapine 45A	4.45 b
Stoneville 213	4.45 b
Auburn M	4.45 b
Mo63-279D	4.25 c
Rex SL	4.20 cd
Mo63-277D	4.20 cd
Coker 417	4.15 cd
Mo63-079	4.05 d
Deltapine 16	4.05 d

Variety	Colorimeter Rd
Deltapine 16	71.50 a
Rex SL	70.00 ab
Coker 417	70.00 ab
McNair 1032 B	69.50 ab
Stoneville 7A	69.50 ab
Mo63-079	69.50 ab
Auburn M	69.50 ab
Coker 310	69.50 ab
Mo63-279D	69.50 ab
Deltapine 45A	69.50 ab
Hancock	69.50 ab
Mo63-277D	69.50 ab
Coker 201	69.00 ab
MO-DEL 1A	68.50 ab
Stoneville 213	67.50 b
MO-DEL	67.00 b

Variety	Colorimeter b
MO-DEL	8.75 a
Mo63-079	8.25 ab
Coker 201	8.25 ab
Rex SL	8.25 ab
Coker 310	8.25 ab
Coker 417	8.25 ab
McNair 1032 B	8.00 bc
Stoneville 7A	8.00 bc
MO-DEL 1A	8.00 bc
Mo63-277D	8.00 bc
Hancock	8.00 bc
Stoneville 213	8.00 bc
Auburn M	8.00 bc
Deltapine 16	7.75 bc
Mo63-279D	7.75 bc
Deltapine 45A	7.50 c

Variety	Trash
MO-DEL 1A	3.50 a
Deltapine 45A	3.50 a
Coker 201	3.50 a
Stoneville 213	3.50 a
Mo63-079	3.50 a
Mo63-277D	3.50 a
Auburn M	3.50 a
Deltapine 16	3.50 a
McNair 1032 B	3.00 a
Rex SL	3.00 a
Stoneville 7A	3.00 a
Coker 417	3.00 a
Mo63-279D	3.00 a
Coker 310	3.00 a
Hancock	3.00 a
MO-DEL	3.00 a

Table 23 continued

Variety	Yarn Strength 22's	
Mo63-279D	121.00	a
Mo63-277D	119.00	ab
Mo63-079	115.50	abc
Coker 417	114.00	abc
McNair 1032 B	114.00	abc
MO-DEL 1A	114.00	abc
Coker 310	113.00	abc
Coker 201	112.00	bcd
Deltapine 16	110.50	cd
Rex SL	108.50	cde
Stoneville 7A	108.50	cde
MO-DEL	108.50	cde
Deltapine 45A	108.00	cde
Hancock	104.50	de
Stoneville 213	104.00	de
Auburn M	101.00	e

Table 24 Summary of Performance of Strains Grown in the Missouri Regional High Quality Strains Test on Sandy Loam, Wilt-free, Irrigated Soil, 1969

Variety or Strain	Lint Yield Total Lbs/Acre		Lint Yield 1st Pick Lbs/Acre	Percent of Crop	Lint Percent	Length 2.5% SL	Micronaire	Yarn Strength 22's
La Dass 197	1037.20	a	726.76	70	37.57	1.15	4.53	120.33
Mo63-277E	1009.91	ab	896.60	89	35.87	1.23	3.90	123.00
Deltapine 5826	1007.34	ab	746.31	74	35.37	1.16	4.60	129.67
Mo63-277D	976.42	abc	847.22	87	36.63	1.19	3.97	125.33
Coker 310-9901	975.71	abc	821.77	84	37.47	1.24	4.20	113.33
Deltapine 607	998.57	abc	754.86	76	35.53	1.15	4.30	123.33
S67-268	942.66	abcd	811.88	86	34.87	1.23	3.83	122.33
MO-DEL	937.84	abcd	763.09	81	34.17	1.18	4.03	117.67
Syn. II	929.82	abcd	834.18	90	33.70	1.20	3.93	121.67
Coker 421 B	922.76	bcd	693.07	75	37.23	1.17	4.53	120.00
Mo63-079	913.33	bcd	807.21	88	33.73	1.22	3.83	123.33
Mo63-279D	897.95	bcde	794.73	89	33.70	1.21	4.13	126.00
S67-339	891.03	cde	816.60	92	32.73	1.23	4.13	127.67
PD 6162	878.37	cde	762.56	87	35.50	1.16	4.60	123.67
PD 6520	873.35	cde	799.60	92	34.90	1.15	3.97	120.67
Coker 201	866.15	cdef	718.88	83	37.63	1.14	4.27	110.67
PD 4381 B	834.81	defg	545.93	65	34.80	1.17	4.10	128.67
Coker 413-8913	831.45	defg	656.49	79	34.33	1.20	3.90	127.33
Atlas 66-146	791.55	efgh	667.10	84	34.93	1.15	4.30	130.33
Bobshaw 54	760.12	fghi	604.17	79	30.67	1.21	4.30	121.33
McNair 7215	739.99	ghi	648.89	88	32.50	1.16	4.33	120.67
Atlas 66-182	729.29	ghi	665.58	91	34.40	1.14	3.93	123.00
La Dsi 65-42	717.80	hi	576.54	80	36.10	1.17	4.27	132.67
Atlas 66-155	699.82	hi	633.39	91	34.70	1.12	4.07	128.67
Acala SJ-1	659.13	i	520.62	79	35.47	1.15	4.17	127.00
Mean	871.70		726.00	83	34.98	1.18	4.17	123.53
MiLSR (.05)	98.65		117.00		1.45	.03	.30	4.60
MaLSR (.05)	117.20		139.00		1.75	.04	.36	5.55
C. V. %	1.34		1.91		2.50	1.59	4.31	2.24

Table 25 Performance and Characteristics of Strains Grown in the Missouri Regional High Quality Strains Test on Sandy Loam, Wilt-free, Irrigated Soil, 1969

Variety	Seed Cotton-Lbs/Acre		Variety	Total Lint-Lbs/Acre		Variety	Lint-Lbs/Acre-1st Pick	
Mo63-277E	2871.87	a	La Dass 197	1037.20	a	Mo63-277E	896.60	a
Deltapine 5826	2823.60	a	Mo63-277E	1009.91	ab	Mo63-277D	847.22	ab
La Dass 197	2805.50	a	Deltapine 5826	1007.34	ab	Syn. II	834.18	ab
Mo63-079	2787.40	ab	Mo63-277D	976.42	abc	Coker 310-9901	821.77	abc
Syn. II	2775.33	ab	Coker 310-9901	975.71	abc	S67-339	816.60	abc
S67-339	2769.30	ab	Deltapine 607	998.57	abc	S67-268	811.88	abc
Deltapine 607	2702.93	ab	S67-268	942.66	abcd	Mo63-079	807.21	abc
MO-DEL	2690.87	ab	MO-DEL	937.84	abcd	PD 6520	799.60	abcd
Coker 310-9901	2684.83	ab	Syn. II	929.82	abcd	Mo63-279D	794.73	abcd
S67-268	2672.77	ab	Coker 421 B	922.76	bcd	MO-DEL	763.09	abcde
Mo63-279D	2660.70	ab	Mo63-079	913.33	bcd	La Dass 197	726.76	abcde
Mo63-277D	2642.60	ab	Mo63-279D	897.95	bcde	PD 6162	762.56	abcde
PD 6520	2600-37	abc	S67-339	891.03	cde	Deltapine 607	754.86	bcde
Bobshaw 54	2600.37	abc	PD 6162	878.37	cde	Deltapine 5826	746.31	bcde
PD 6162	2552.10	abcd	PD 6520	873.35	cde	Coker 201	718.88	bcdef
Coker 421 B	2534.00	abcd	Coker 201	866.15	cdef	Coker 421B	693.07	cdefg
Coker 413-8913	2395.23	bcde	PD 4381 B	834.81	defg	Atlas 66-146	667.10	defgh
PD 4381 B	2389.20	bcde	Coker 413-8913	831.45	defg	Atlas 66-182	665.58	defgh
Coker 201	2244.40	cdef	Atlas 66-146	791.55	efgh	Coker 413-8913	656.49	efgh
Atlas 66-146	2178.03	def	Bobshaw 54	760.12	fghi	McNair 7215	648.89	efghi
Atlas 66-182	2147.87	ef	McNair 7215	739.99	ghi	Atlas 66-155	633.39	efghi
McNair 7215	2135.80	ef	Atlas 66-182	729.29	ghi	Bobshaw 54	604.17	fghi
La Dsi 65-42	2045.30	efg	La Dsi 65-42	717.80	hi	La Dsi 65-42	576.54	fghi
Atlas 66-155	1906.53	fg	Atlas 66-155	699.82	hi	PD 4381 B	545.93	hi
Acala SJ-1	1707.43	g	Acala SJ-1	659.13	i	Acala SJ-1	520.62	i

Table 25 continued

Variety	Stand-Hills/Plot		Variety	1st Flower-days		Variety	Seedling Vigor Index	
Coker 413-8913	67.67	a	Deltapine 607	62.00	a	Bobshaw 54	4.67	a
Mo63-279D	67.00	ab	Mo63-277D	62.00	a	S67-339	4.33	ab
Coker 310-9901	66.67	ab	Mo63-277E	61.67	ab	Coker 310-9901	4.00	abc
S67-339	66.67	ab	S67-268	61.33	abc	Mo63-277E	4.00	abc
Mo63-079	66.67	ab	McNair 7215	61.00	abcd	Mo63-079	4.00	abc
S67-268	66.33	abc	Deltapine 5826	61.00	abcd	Atlas 66-146	4.00	abc
Coker 201	66.33	abc	La Dass 197	61.00	abcd	Coker 413-8913	4.00	abc
McNair 7215	66.33	abc	Coker 413-8913	61.00	abcd	PD 6520	4.00	abc
PD 6520	66.33	abc	Coker 201	60.67	abcd	Coker 421 B	4.00	abc
Mo63-277D	66.00	abc	Mo63-279D	60.67	abcd	LA Dsi 65-42	4.00	abc
Syn. II	66.00	abc	Mo63-079	60.67	abcd	Deltapine 5826	4.00	abc
Mo63-277D	66.00	abc	Bobshaw 54	60.67	abcd	La Dass 197	4.00	abc
Bobshaw 54	66.00	abc	Acala SJ-1	60.33	bcde	PD 6162	4.00	abc
Acala SJ-1	66.00	abc	Coker 310-9901	60.33	bcde	MO-DEL	4.00	abc
PD 6162	66.00	abc	Coker 421 B	60.33	bcde	Mo63-279D	4.00	abc
MO-DEL	66.00	abc	La Dsi 65-42	60.33	bcde	S67-268	4.00	abc
PD 4381 B	66.67	abc	MO-DEL	60.33	bcde	Syn. II	4.00	abc
Atlas 66-182	65.67	abc	PD 4381 B	60.33	bcde	Mo63-277D	3.67	bc
Deltapine 607	65.67	abc	S67-339	60.33	bcde	Coker 201	3.67	bc
Atlas 66-146	65.33	bc	Atlas 66-146	60.00	cde	Atlas 66.182	3.67	bc
Deltapine 5826	65.33	bc	Atlas 66-182	60.00	cde	McNair 7215	3.67	bc
Coker 421 B	65.33	bc	Syn. II	60.00	cde	Acala SJ-1	3.67	bc
Atlas 66-155	64.33	c	PD 6162	60.00	cde	Atlas 66-155	3.67	bc
La Dass 197	64.33	c	PD 6520	59.67	de	PD 4381 B	3.67	bc
La Dsi 65-42	64.33	c	Atlas 66-155	59.00	e	Deltapine 607	3.33	c

Table 25 continued

Variety	Height Index
La Dass 197	3.00 a
Acala SJ-1	2.67 ab
Deltapine 5826	2.67 ab
PD 6162	2.33 abc
PD 4381 B	2.33 abc
Coker 201	2.00 abcd
Mo63-277E	2.00 abcd
Mo63-079	2.00 abcd
Coker 421 B	2.00 abcd
Deltapine 607	2.00 abcd
MO-DEL	2.00 abcd
Syn. II	2.00 abcd
La Dsi 65-42	2.00 abcd
S67-268	2.00 abcd
Coker 413-8913	2.00 abcd
Coker 310-9901	1.67 bcd
McNair 7215	1.67 bcd
Atlas 66-146	1.67 bcd
PD 6520	1.67 bcd
Mo63-279D	1.67 bcd
Bobshaw 54	1.67 bcd
Mo63-277D	1.33 cd
S67-339	1.33 cd
Atlas 66-155	1.00 d
Atlas 66-182	1.00 d

Variety	Lodging Index
Acala SJ-1	3.67 a
PD 4381 B	3.67 a
La Dass 197	3.67 a
Deltapine 5826	3.33 ab
Coker 201	3.00 abc
Deltapine 607	2.67 abcd
Coker 413-8913	2.67 abcd
MO-DEL	2.67 abcd
Coker 421 B	2.67 abcd
PD 6162	2.67 abcd
S67-268	2.33 bcd
Mo63-277E	2.00 cde
Atlas 66-146	2.00 cde
La Dsi 65-42	2.00 cde
Bobshaw 54	2.00 cde
PD 6520	1.67 cde
Atlas 66-155	1.67 cde
Mo63-079	1.67 cde
Mo63-279D	1.67 cde
Syn. II	1.67 cde
Atlas 66-182	1.33 de
Coker 310-9901	1.33 de
Mo63-277D	1.33 de
S67-339	1.33 de
McNair 7215	1.00 e

Variety	Storm Resistance Index
Syn. II	4.00 a
Mo63-277D	3.67 ab
Coker 421 B	3.67 ab
Deltapine 5826	3.33 abc
Mo63-277E	3.33 abc
La Dass 197	3.33 abc
MO-DEL	3.00 abcd
Coker 413-8913	3.00 abcd
Deltapine 607	3.00 abcd
S67-268	3.00 abcd
PD 6162	2.67 bcd
Atlas 66-146	2.67 bcd
Bobshaw 54	2.67 bcd
Mo63-279D	2.67 bcd
Coker 201	2.33 cde
Coker 310-9901	2.33 cde
McNair 7215	2.33 cde
La Dsi 65-42	2.33 cde
Atlas 66-155	2.33 cde
Atlas 66-182	2.33 cde
PD 6520	2.33 cde
Mo63-079	2.33 cde
S67-339	2.00 de
PD 4381 B	2.00 de
Acala SJ-1	1.33 e

Table 25 continued

Variety	Lint Percent	Variety	Verticillium Wilt Rating[1/]	Variety	Fusarium Wilt % Plants[2/]
Coker 201	37.63 a	Mo63-277E	3.5	Bobshaw 54	52
La Dass 197	37.57 a	Delcot 277	3.5	Atlas 66-155	45
Coker 310-9901	37.47 ab	Acala SJ-1	3.0	Deltapine 5826	42
Coker 421 B	37.23 ab	Mo63-079	3.0	Coker 421 B	37
Mo63-277D	36.63 abc	S67-268	3.0	Deltapine 607	36
La Dsi 65-42	36.10 abcd	PD 4381 B	2.9	Coker 413-8913	34
Mo63-277E	35.87 bcde	MO-DEL	2.9	La Dass 197	34
Deltapine 607	35.53 cde	Bobshaw 54	2.8	Atlas 66-182	33
PD 6162	35.50 cde	Syn. II	2.8	Acala SJ-1	31
Acala SJ-1	35.47 cde	S67-339	2.7	La Dsi 65-42	29
Deltapine 5826	35.37 cdef	Mo63-279D	2.6	Atlas 66-146	21
Atlas 66-146	34.93 def	Atlas 66-146	2.2	McNair 7215	17
PD 6520	34.90 def	McNair 7215	2.2	Coker 201	15
S67-268	34.87 def	Coker 421 B	2.0	Coker 310-9901	14
PD 4381 B	34.80 def	Deltapine 5826	2.0	Mo63-279D	11
Atlas 66-155	34.70 def	La Dass 197	2.0	PD 6162	8
Atlas 66-182	34.40 def	La Dsi 65-42	2.0	PD 6520	7
Coker 413-8813	34.33 efg	PD 6162	2.0	MO-DEL	7
MO-DEL	34.17 efg	PD 6520	2.0	S67-339	7
Mo63-079	33.73 fgh	Atlas 66-182	1.5	PD 4381 B	5
Mo63-279D	33.70 fgh	Coker 413-8913	1.5	Mo63-277E	4
Syn. II	33.70 fgh	Coker 310-9901	1.5	Mo63-079	4
S67-339	32.73 gh	Deltapine 607	1.5	Syn. II	4
McNair 7215	32.50 h	Coker 201	1.3	Delcot 277	2
Bobshaw 54	30.67 i	Atlas 66-155	1.3	S67-268	2

1/ From Verticillium Wilt Nursery
2/ From Fusarium Wilt-Root Knot Nursery

Table 25 continued

Variety	50% Span Length		Variety	2.5% Span Length		Variety	Length-Uniformity Index	
Deltapine 5826	0.55	a	Coker 310-9901	1.24	a	Deltapine 5826	46.33	a
S67-268	0.55	a	S67-339	1.23	ab	Acala SJ-1	45.67	ab
Acala SJ-1	0.53	ab	S67-268	1.23	ab	PD 6162	45.33	abc
Mo63-277E	0.53	ab	Mo63-277E	1.23	ab	Atlas 66-146	45.00	abcd
Mo63-079	0.53	ab	Mo63-079	1.22	abc	Coker 421 B	45.00	abcd
Mo63-279D	0.53	ab	Mo63-279D	1.21	abcd	La Dsi 65-42	45.00	abcd
PD 6162	0.53	ab	Bobshaw 54	1.21	abcd	Atlas 66-155	44.33	abcde
MO-DEL	0.53	ab	Coker 413-8913	1.20	bcde	MO-DEL	44.33	abcde
Coker 421 B	0.53	ab	Syn. II	1.20	bcde	S67-268	44.33	abcde
Mo63-277D	0.53	ab	Mo63-277D	1.19	cdef	Mo63-277D	43.67	bcdef
Bobshaw 54	0.53	ab	MO-DEL	1.18	defg	Mo63-079	43.67	bcdef
LA Dsi 65-42	0.53	ab	La Dsi 65-42	1.17	efgh	PD 4381 B	43.67	bcdef
Coker 310-9901	0.52	ab	Coker 421 B	1.17	efgh	Mo63-279D	43.67	bcdef
Atlas 66-146	0.52	ab	PD 4381 B	1.17	efgh	Deltapine 607	43.33	cdef
Coker 413-8913	0.52	ab	McNair 7215	1.16	fgh	McNair 7215	43.33	cdef
PD 4381 B	0.52	ab	Deltapine 5826	1.16	fgh	Bobshaw 54	43.33	cdef
S67-339	0.52	ab	PD 6162	1.16	fgh	La Dass 197	43.33	cdef
Syn. II	0.52	ab	PD 6520	1.15	ghi	Mo63-277E	43.00	def
McNair 7215	0.50	bc	Deltapine 607	1.15	ghi	Coker 413-8913	43.00	def
PD 6520	0.50	bc	Atlas 66-146	1.15	ghi	Syn. II	43.00	def
Atlas 66-155	0.50	bc	Acala SJ-1	1.15	ghi	PD 6520	42.67	ef
Deltapine 607	0.50	bc	La Dass 197	1.15	ghi	Coker 201	42.33	ef
LA Dass 197	0.50	bc	Coker 201	1.14	hi	S67-339	42.33	ef
Coker 201	0.48	c	Atlas 66-182	1.14	hi	Coker 310-9901	41.67	f
Atlas 66-182	0.48	c	Atlas 66-155	1.12	i	Atlas 66-182	41.67	f

Table 25 continued

Variety	Micronaire
PD 6162	4.60 a
Deltapine 5826	4.60 a
Coker 421 B	4.53 ab
La Dass 197	4.53 ab
McNair 7215	4.33 abc
Deltapine 607	4.30 abcd
Atlas 66-146	4.30 abcd
Bobshaw 54	4.30 abcd
La Dsi 65-42	4.27 abcde
Coker 201	4.27 abcde
Coker 310-9901	4.20 bcdef
Acala SJ-1	4.17 cdefg
S67-339	4.13 cdefg
Mo63-279D	4.13 cdefg
PD 4381 B	4.10 cdefg
Atlas 66-155	4.07 cdefg
MO-DEL	4.03 cdefg
Mo63-277D	3.97 defg
PD 6520	3.97 defg
Atlas 66-182	3.93 efg
Syn. II	3.93 efg
Mo63-277E	3.90 fg
Coker 413-8913	3.90 fg
Mo63-079	3.83 g
S67-268	3.83 g

Variety	Colorimeter Rd
Deltapine 607	72.67 a
LA Dass 197	71.67 ab
PD 6520	71.00 abc
Mo63-277D	70.67 abc
S67-268	70.33 abc
S67-339	70.33 abc
Coker 413-8913	70.33 abc
Mo63-279D	70.00 abc
Syn. II	70.00 abc
Mo63-277E	70.00 abc
Deltapine 5826	69.67 bc
Coker 201	69.67 bc
Coker 421 B	69.33 bc
PD 6162	69.33 bc
PD 4381 B	69.33 bc
Atlas 66-182	69.33 bc
Mo63-079	69.00 bc
MO-DEL	69.00 bc
Acala SJ-1	69.00 bc
La Dsi 65-42	69.00 bc
McNair 7215	68.67 bc
Atlas 66-146	68.67 bc
Coker 310-9901	68.33 c
Atlas 66-155	68.00 c
Bobshaw 54	68.00 c

Variety	Colorimeter b
La Dsi 65-42	8.67 a
Coker 421 B	8.50 ab
PD 6162	8.50 ab
Coker 201	8.33 abc
MO-DEL	8.33 abc
S67-268	8.33 abc
Mo63-277E	8.33 abc
Syn. II	8.33 abc
Coker 310-9901	8.17 abcd
Mo63-277D	8.17 abcd
PD 4381 B	8.17 abcd
Acala SJ-1	8.17 abcd
Atlas 66-155	8.00 bcd
Mo63-079	8.00 bcd
Mo63-279D	8.00 bcd
Atlas 66-182	8.00 bcd
Deltapine 5826	8.00 bcd
S67-339	8.00 bcd
Atlas 66-146	7.83 cd
Coker 413-8913	7.83 cd
McNair 7215	7.67 d
Bobshaw 54	7.67 d
PD 6520	7.67 d
La Dass 197	7.67 d
Deltapine 607	7.67 d

Table 25 continued

Variety	Trash
Bobshaw 54	4.00 a
Acala SJ-1	3.67 ab
McNair 7215	3.67 ab
Mo63-277D	3.67 ab
MO-DEL	3.67 ab
Atlas 66-146	3.67 ab
Coker 413-8913	3.67 ab
PD 6520	3.67 ab
Syn. II	3.67 ab
S67-268	3.67 ab
Mo63-279D	3.67 ab
PD 4381 B	3.67 ab
Atlas 66-182	3.33 ab
Atlas 66-155	3.33 ab
La Dsi 65-42	3.33 ab
Coker 201	3.33 ab
Mo63-277E	3.33 ab
Mo63-079	3.33 ab
PD 6162	3.33 ab
Coker 310-9901	3.33 ab
Coker 421 B	3.33 ab
S67-339	3.33 ab
Deltapine 5826	3.33 ab
La Dass 197	3.33 ab
Deltapine 607	3.00 b

Variety	Yarn Strength 22's
La Dsi 65-42	132.67 a
Atlas 66-146	130.33 ab
Deltapine 5826	129.67 ab
Atlas 66-155	128.67 abc
PD 4381 B	128.67 abc
S67-339	127.67 abcd
Coker 413-8913	127.33 bcd
Acala SJ-1	127.00 bcde
Mo63-279D	126.00 bcdef
Mo63-277D	125.33 bcdefg
PD 6162	123.67 cdefg
Mo63-079	123.33 cdefg
Deltapine 607	123.33 cdefg
Atlas 66-182	123.00 defgh
Mo63-277E	123.00 defgh
S67-268	122.33 defgh
Syn. II	121.67 efgh
Bobshaw 54	121.33 fgh
McNair 7215	120.67 fgh
PD 6520	120.67 fgh
La Dass 197	120.33 gh
Coker 421 B	120.00 gh
MO-DEL	117.67 hi
Coker 310-9901	113.33 ij
Coker 201	110.67 j