



—Arkansas—

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# COTTON

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## VARIETY AND STRAIN TESTS

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—1997—

F.M. Bourland, G.M. Palmer, J.M. Hornbeck and C.D. Capps, Jr.

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ARKANSAS AGRICULTURAL EXPERIMENT STATION

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## CONTENTS

INTRODUCTION .....	5
MATERIALS AND METHODS .....	5
RESULTS .....	5
Arkansas Cotton Variety Test .....	5
Commercial Cotton Strain Test .....	6

# ARKANSAS COTTON VARIETY AND STRAIN TESTS, 1997

F.M. Bourland, G.M. Palmer, J.M. Hornbeck and C.D. Capps, Jr.

## INTRODUCTION

Varieties and advanced strains of cotton are evaluated annually by the Arkansas Agricultural Experiment Station. The Arkansas Cotton Variety Test provides unbiased comparisons and helps to establish specific adaptation of cotton genotypes that either are presently, or potentially will be, available to Arkansas cotton producers. The 1997 test included 48 entries, 30 of which were not in the 1996 test. The primary purpose of the Commercial Cotton Strain Test is to evaluate advanced breeding lines that have not previously been tested in Arkansas environments. The 1997 Commercial Strain Test included 35 strains and two standard varieties ('Stoneville 474' and 'Sure-Grow 125').

The 1997 Arkansas Cotton Variety Test was conducted at the Northeast Research and Extension Center at Keiser, Arkansas; the Delta Branch Experiment Station at Clarkedale, Arkansas; the Cotton Branch Experiment Station at Marianna, Arkansas; and the Southeast Branch Experiment Station at Rohwer, Arkansas. An irrigated test was conducted at each site, and non-irrigated tests were also conducted at Clarkedale and Marianna. These locations vary with respect to soil type, disease and insect problems, environmental factors and cultural practices but do not encompass all cotton growing conditions in the state. Entries in the Commercial Cotton Strain Test were evaluated in irrigated tests at Clarkedale and Marianna, adjacent to the Arkansas Cotton Variety Tests at each site.

## MATERIALS AND METHODS

Within each test, entries were arranged as a randomized complete block design with six replications. Plots were two rows, 40 to 50 ft long on 38-in. centers. Recommended management practices were followed in each test. Management practices in the Commercial Strain Tests were identical to the adjacent Arkansas Cotton Variety Test at both Clarkedale and Marianna. Soil types and dates of planting, irrigation, defoliation and harvest are indicated on the respective tables. Except for the non-irrigated tests at Clarkedale and Marianna, each test was furrow-irrigated as needed. The seed of each entry were supplied by the respective breeders or companies. All seed were doubled-treated (two fungicides, no systemic

insecticide). Seed were packaged for planting using a seed counter, so as to plant approximately 5 seed/row foot.

At the irrigated, Marianna location, leaf pubescence of 10 plants per plot (2 reps/test) was rated using a scale of 1 (smooth leaf) to 7 (dense cover of trichomes) then averaged. Variation in maturity was estimated by rating the percentage of open bolls for each plot near the time of defoliation. Lint fraction and fiber data were obtained from hand-harvested samples (50 random bolls) from two replications of each test. Fiber properties were determined using HVI classification. Each test was once-over harvested with a mechanical picker.

All variables were analyzed over locations and within locations using appropriate analysis of variance statistical procedures. Means were separated by Fisher's Least Significant Difference (LSD) Test at the 0.10 level of probability when F-tests showed significant differences. Coefficients of variation (CV) and  $R^2$ 's are reported for each measurement.  $R^2$ 's indicate the proportion of variation that can be explained by the sources of variation other than error. Thus, confidence in data increases with high  $R^2$ 's.

## RESULTS

### Arkansas Cotton Variety Test

Cool, wet conditions in May resulted in relatively poor stands at most locations. Best stands were attained at the two Marianna sites. To remedy poor stands, one entry was dropped from all tests, one replication was dropped from the Keiser test, and some spot planting was done in other tests. Most extensive spot-planting was done in the test at Rohwer. As indicated by high yields at Rohwer, excellent late-season weather appeared to negate the adverse effects of spot planting. However, estimates of maturity, i.e., open bolls, may have been affected.

Significant (but relatively small as a source of variation) variety by location interactions were found for lint yield, open bolls and micronaire (Table 1). Significant interactions for yield indicate that relative performance of the varieties varied at different locations. Lint yield in the 1997 tests did not appear to be directly related to maturity of the varieties. Variety by location interactions are typically low for the fiber quality properties.  $R^2$  values exceeded 70% for all variables

except open bolls and length uniformity. Relative yields of the locations were similar to those in 1996, except at Keiser. Increased yield at Keiser may have been associated with moving the test from a Sharkey clay to a Sharkey-Steele complex soil. Means for lint fraction and fiber properties were similar to those in 1996.

The 1997 Arkansas Cotton Variety Test included 17 transgenic varieties consisting of varieties with Bollgard®, Roundup Ready™ and Buctril®-resistant genes as well as combinations of Bollgard® and the two herbicide-resistant genes. Yields of the transgenic varieties were evenly distributed among all entries of the test (Table 1). As with conventional varieties, each transgenic variety should be evaluated on its own performance and not by the performance of closely related varieties.

In most years, early-maturing cultivars have an advantage over later-maturing ones at Keiser. This tendency may have been overcome by excellent late-season weather in 1997 (Table 2). The irrigated and non-irrigated tests at Clarkedale and Marianna are in the same general area but not adjacent to

each other (Table 3-6). The irrigated tests out yielded the non-irrigated tests by 225 and 190 lb/acre at Clarkedale and Marianna, respectively. Among the 1997 test sites, mean lint yield was highest at Rohwer (Table 7).

Of the 48 entries in the 1997 Arkansas Variety Test, only 18 (Table 8) and nine (Table 9) have been in the test for two and three years, respectively. This high turnover reflects the rapid change that is occurring in cotton variety development and availability.

#### **Commercial Cotton Strain Test**

The Commercial Strain Test included 35 strains and two check cultivars (Table 10). Strain by location interaction was significant for all variables except micronaire, strength and elongation. As indicated in Table 9, the two check varieties are among the most adapted varieties for Arkansas. Several of the strains at Clarkedale (Table 11) and at Marianna (Table 12) yielded similarly to these two check varieties. Fiber properties of most of the strains were superior to the fiber of the two check varieties.

**Table 1. Results of the 1997 Arkansas Cotton Variety Test across six locations.**

Variety/location	Lint yield <sup>a</sup> r <sup>b</sup> lb/acre	Open bolls <sup>a</sup> r	Lint fract. r	Fiber properties <sup>c</sup>												
				Mic.	r	Len.	r	Unif.	r	Str.	r	Elo.	r			
Stoneville BXN47	1309	1	60	8	42.9	2	5.03	8	1.14	37	83.2	23	28.2	32	6.7	28
Paymaster PM1560BG	1308	2	60	8	42	4	5.14	2	1.15	36	83.8	9	28.4	30	6.9	19
Stoneville 373	1276	3	54	32	40.1	14	4.63	37	1.17	23	83.1	27	27.4	42	6.6	31
Sure-Grow 747	1262	4	63	5	41.7	6	5.03	7	1.18	15	82.8	38	28.5	28	7.4	4
Paymaster H1266	1254	5	54	29	40.1	12	4.55	42	1.18	11	83.1	28	26.9	46	6.2	38
Stoneville 474	1250	6	58	14	42.8	3	5.05	5	1.13	42	83	32	27.9	38	6.8	23
Paymaster PM1330BG	1230	7	66	1	38.7	33	4.87	20	1.18	10	83.6	14	29.3	18	6.4	34
Deltapine 5111	1227	8	65	2	39.8	20	5.12	3	1.13	44	83.1	29	29	19	6.6	32
Germain GC 251	1221	9	59	10	38.6	34	4.76	29	1.17	20	83.7	10	29.9	9	6.8	20
Sure-Grow 501	1219	10	53	35	41.5	8	4.8	28	1.17	17	84.2	2	31.1	3	6.7	29
Sure-Grow 404	1213	11	58	15	39	31	4.92	11	1.17	26	83.7	11	29.6	15	6.8	22
Stoneville 468	1204	12	60	7	41.5	7	4.46	45	1.13	46	83.2	24	29.8	12	6.9	18
Deltapine 20B	1172	13	65	3	40.8	10	4.63	36	1.15	30	83.4	18	27.4	43	7.3	6
Sure-Grow 125	1169	14	59	12	40	16	4.65	35	1.18	13	83.3	21	29	20	7.2	8
Paymaster PM1330BGRR	1168	15	61	6	38.4	39	4.85	22	1.17	18	84	5	28	35	6.7	27
Dyna-Gro 201	1167	16	54	29	38.5	36	4.83	23	1.16	27	82.5	43	26.7	47	7.1	10
Paymaster PM1220RR	1166	17	55	28	40	17	5.07	4	1.14	40	83.8	7	30.1	7	7.6	1
Stoneville 495	1154	18	53	33	38.3	40	4.81	25	1.18	16	83.1	29	28	34	6.3	36
Paymaster PM1330RR	1150	19	64	4	39.8	22	4.93	10	1.14	38	83.4	16	28.6	25	6.9	17
Deltapine 32B	1150	20	58	15	39	30	4.86	21	1.15	34	82.4	45	27.9	37	7.1	14
Paymaster PM1220BGRR	1146	21	58	15	39.6	24	5.21	1	1.13	45	83.4	17	28.7	24	7.1	12
Paymaster PM1220BG	1134	22	56	23	39.1	29	4.89	16	1.14	41	83.2	26	28.1	33	7.4	3
FiberMax 989	1133	23	47	42	40	15	4.55	43	1.19	6	83.7	11	30.1	8	5.8	45
Deltapine NuCOTN 33B	1130	24	48	38	39.7	23	4.91	13	1.17	20	83.3	19	28.5	29	6.8	21
Deltapine 5409	1129	25	55	26	39.9	19	4.68	32	1.16	28	82.2	46	28.8	22	6.8	24
Germain GC 271	1120	26	56	23	38.2	41	4.74	31	1.21	2	84.3	1	31.7	1	6.3	35
Paymaster H1277	1117	27	56	20	39.3	26	4.92	12	1.15	31	82.9	34	27.7	40	7	15
FiberMax 819	1112	28	59	11	41.7	5	4.58	40	1.2	3	84.1	4	29.4	17	5.7	46
SS9501	1111	29	56	20	40.8	11	4.6	39	1.19	6	83.7	13	29.9	11	7.2	9
FiberMax 975	1105	30	47	42	43.1	1	5.01	9	1.19	6	83.2	24	27.7	41	5.2	47
Paymaster PM1215RR	1105	31	56	20	39.1	28	4.91	13	1.15	32	84.2	2	29.7	14	7.4	2
FiberMax 832	1101	32	48	38	38.4	38	4.4	46	1.21	1	83.8	8	31.5	2	6	44
Deltapine 50B	1084	33	57	18	35.8	47	4.62	38	1.19	4	82.9	33	28.9	21	7.1	11
StBXNx019	1083	34	56	25	39.9	18	5.04	6	1.15	33	83.9	6	28.7	23	6.5	33
HyPerformer 4103	1077	35	47	40	38.6	35	4.81	26	1.18	12	82.9	36	29.5	16	6.2	37
Paymaster PM1244BGRR	1076	36	52	36	39.4	25	4.9	15	1.11	47	82.7	39	28.6	27	7.2	7
Deltapine 51	1069	37	51	37	38.8	32	4.75	30	1.17	24	82.5	44	27.3	44	7	16
HyPerformer HS46	1061	38	47	40	39.8	21	4.39	47	1.19	9	82.9	35	30.7	4	6.1	41
All-Tex Top Pick	1061	39	58	13	37.9	43	4.54	44	1.19	5	83.3	20	29.9	9	6.7	26
Terra 292	1046	40	54	31	35.8	46	4.66	33	1.17	24	82.2	47	28	36	7.1	12
Terra 366	1038	41	53	33	37.9	42	4.88	19	1.15	34	82.6	42	27.1	45	6.6	30
Deltapine 5690RR	1036	42	43	46	39.2	27	4.89	17	1.17	22	83	31	30.4	5	6	42
SS9303	1015	43	57	18	37	45	4.66	34	1.16	29	83.2	22	28.3	31	6.1	39
Holland 338	996	44	55	27	37.1	44	4.82	24	1.13	43	83.4	15	27.8	39	6	43
Deltapine 5415RR	991	45	44	44	40.1	13	4.8	27	1.17	19	82.8	37	29.8	13	7.3	5
HyPerformer HS44	990	46	44	45	38.4	37	4.88	18	1.18	13	82.6	41	30.3	6	6.1	40
Stoneville BG4740	888	47	41	47	41.3	9	4.58	41	1.14	39	82.7	39	28.6	26	6.7	25
LSD <sub>0.10</sub>	38		6		0.8		0.16		0.02		0.6		0.7		0.3	
Keiser, irrigated	1246		57		37.8		4.56		1.19		83.3		30		6.4	
Clarkedale, irrigated	1046		38		37.7		4.35		1.19		83.1		30.4		6.4	
Clarkedale, not irrig.	821		56		40.6		5.36		1.12		83.3		27.9		6.5	
Marianna, irrigated	1269		67		40		4.8		1.16		83.2		28.3		7.1	
Marianna, not irrig	1079		77		41.1		5.16		1.15		82.5		28.6		6.7	
Rohwer, irrigated	1351		35		40		4.57		1.17		83.9		28.1		7.1	
LSD <sub>0.10</sub>	19		3		0.3		0.06		0.01		0.1		0.2		0.1	
Mean	1132		55		39.6		4.8		1.16		83.7		28.9		6.7	
CV (%)	11.1		28.5		3.1		4.9		1.9		1.1		3.5		5.9	
R-squared * 100	80.2		62.7		87.5		88.5		85.1		67.3		85.3		84.8	
Variety X Location	**		**		ns		**		ns		ns		ns		ns	

\*\*Significant at the 0.01 probability level.

<sup>a</sup>Weighted means for lint yield and open bolls determined for six replications/location except at Keiser where one replication was discarded due to poor stands. Lint fractions and fiber properties determined from boll samples taken from two replications/location.

<sup>b</sup>r = ranking.

<sup>c</sup>Fiber micronaire (Mic.), length (Len.), length uniformity (Unif.), strength (Str.) and elongation (Elo.) determined using HVI classing.

**Table 2. Results of the 1997 Arkansas Cotton Variety Test with irrigation on a Sharkey-Steele complex soil at Keiser, Arkansas.<sup>a</sup>**

Variety	Lint yield lb/acre	Open bolls <sup>r</sup>	r	Lint fract. %	r	Fiber properties <sup>c</sup>										
						Mic.	r	Len.	r	Unif.	r	Str.	r	Elo.	r	
Sure-Grow 501	1438	1	52	35	41.1	1	4.43	30	1.21	17	84.2	6	32.5	4	6.6	23
Sure-Grow 501	1438	1	52	35	41.1	1	4.43	30	1.21	17	84.2	6	32.5	4	6.6	23
Paymaster PM1560BG	1437	2	57	27	40.2	5	5	3	1.17	38	84.3	5	30.2	19	6.8	16
Germaines GC251	1435	3	63	7	37.6	25	4.67	21	1.2	19	83.8	12	30.6	14	6.6	19
Paymaster H1266	1399	4	63	7	38	18	4.39	34	1.24	2	83.8	13	28.4	42	5.6	41
Deltapine 5111	1396	5	63	7	37.2	33	4.9	8	1.18	34	83.4	22	29.8	25	6.2	29
Stoneville 474	1395	6	63	7	41	2	4.89	9	1.16	43	83.1	29	29.3	31	6.1	31
Stoneville 373	1359	7	53	32	37.6	24	4.36	35	1.19	25	82	46	28.5	41	6.1	31
Paymaster PM1220RR	1355	8	67	1	38.9	13	4.75	14	1.15	46	82.6	39	30.1	23	7.4	2
Stoneville BXN47	1354	9	60	18	40.9	3	4.93	7	1.16	41	82.6	38	28.4	42	6.6	21
Sure-Grow 404	1344	10	65	5	38.8	15	5.14	1	1.18	34	83.7	16	29	34	6.8	16
FiberMax 989	1337	11	2.4	41	53	32	39.2	11	4.41	33	1.24	2	83.9	10	32	6
Stoneville 495	1332	12	53	32	37.5	26	4.45	29	1.2	22	82.4	41	29.6	28	5.7	38
HyPerformer HYX4103	1326	13	52	35	37.3	32	4.36	36	1.24	2	82.9	31	30.1	21	5.7	38
Sure-Grow 747	1322	14	63	7	39.3	9	4.5	26	1.2	22	82.9	31	30.1	23	7.3	4
SS9501	1312	15	63	7	38.3	16	4.51	25	1.23	7	84	8	30.5	16	7.2	5
Stoneville 468	1311	16	63	7	39.2	10	4.32	37	1.15	44	82.3	43	31.6	10	6.8	14
Dyna-Gro 201	1305	17	57	27	37.4	29	4.73	17	1.19	25	82.9	35	28.7	37	7	9
Deltapine 32B	1302	18	63	7	37.7	21	4.94	5	1.2	22	83.1	27	28.1	45	6.4	26
Paymaster PM1330RR	1288	19	65	5	38.3	17	4.67	22	1.19	25	84.4	3	30.9	12	7.1	6
FiberMax 975	1282	20	50	39	40.8	4	4.7	18	1.22	9	83.9	11	26.2	47	4.9	47
Deltapine 20B	1271	21	50	39	39.8	7	4.21	42	1.18	32	83.3	26	28.8	36	7	9
FiberMax 819	1262	22	60	18	39.8	6	4.24	40	1.22	12	83.5	20	28.7	37	5.4	46
Paymaster PM1330BGRR	1252	23	63	7	37.3	30	4.8	12	1.22	12	84	8	29.4	30	6.4	26
StBXNx019	1244	24	50	39	39	12	4.77	13	1.19	25	84.4	3	30.2	20	6.2	29
Deltapine NuCOTN33B	1234	25	60	18	36.6	41	5.03	2	1.18	31	83.5	19	29.4	29	6.5	24
Paymaster PM1215RR	1234	26	67	1	36.8	38	4.43	30	1.18	34	83.6	17	31.7	9	7.4	1
Germaines GC271	1231	27	55	30	35.5	44	4.63	24	1.26	1	84.4	2	33.7	2	6	33
GerGC271	1245	28	77	4	38.8	36	4.71	35	1.2	5	85.1	1	29.7	5	6.7	36
Sure-Grow 125	1199	29	58	24	38	19	4.15	44	1.2	19	83.8	13	30.6	14	6.8	14
Terra 366	1197	30	60	18	36.4	42	4.82	10	1.18	32	82.3	44	27.7	46	5.9	35
All-TexTop Pick	1196	31	67	1	37	34	4.68	20	1.22	9	83.6	18	29.7	27	6.6	21
Paymaster PM1330BG	1185	32	67	1	36.9	36	4.74	16	1.23	7	84.5	1	29.1	33	6	33
Deltapine 5409	1182	33	58	24	37.5	27	4.25	39	1.22	12	82.7	37	29.7	26	6.9	11
Paymaster PM1220BG	1181	34	62	16	37.7	23	4.75	14	1.17	40	83.4	21	29.2	32	7	8
Deltapine 5415RR	1180	35	43	45	37.7	22	4.69	19	1.21	17	83.3	24	31.7	8	7.3	3
Paymaster PM1220BGRR	1168	36	60	18	36.9	35	4.95	4	1.19	25	84.2	7	30.1	22	6.6	19
Paymaster H1277	1166	37	58	24	37.8	20	4.94	5	1.15	44	82.2	45	28.5	40	6.9	11
Terra 292	1152	38	60	18	33.7	47	4.64	23	1.2	19	83.1	27	28.4	44	6.9	11
Deltapine 50B	1151	39	57	27	34.2	46	4.5	27	1.22	12	83.3	25	30.7	13	6.8	16
HyPerformer HS44	1148	40	48	43	35.9	43	4.19	43	1.22	12	82.4	42	32.7	3	5.7	38
HyPerformer HS46	1134	41	52	35	38.8	14	3.81	47	1.23	6	83	30	32	7	5.8	37
Deltapine 5690RR	1132	42	52	35	37.5	28	4.45	28	1.22	9	83.8	13	32.2	5	5.9	35
SS9303	1104	43	45	44	34.3	45	4.06	45	1.18	34	82.5	40	31.3	11	5.6	42
Deltapine 51	1082	44	50	39	37.3	31	4.22	41	1.17	38	81.6	47	28.9	35	6.3	28
FiberMax 832	1075	45	42	46	36.7	39	4.31	38	1.24	2	83.4	22	34	1	5.4	45
Paymaster PM1244BGRR	1072	46	55	30	36.8	37	4.42	32	1.16	41	82.9	31	30.3	18	7.1	7
StBXNx019	1068	47	75	6	39	33	4.84	24	1.18	13	84.7	3	27.5	39	6.8	33
Mean	1246		57		37.8		4.56		1.19		83.3		30		6.4	
LSD <sub>0.10</sub>	98		9		1.8		0.44		0.04		ns		1.8		0.6	
C.V. (%)	9.7		17.5		29		5.8		2.2		1.4		3.5		5.6	
R-square	54.6		65		83.2		72.7		69.1		44.1		82.4		86.4	

<sup>a</sup>Planted May 4, irrigation Sept.15, 30, Aug. 18; open boll rated Sept.19; defoliated Sept. 22 and Oct.3; harvested Oct.15. Lint yield and open bolls determined for five replications. Lint fraction and fiber properties determined for two replications.

<sup>b</sup>r = ranking.

<sup>c</sup>Fiber micronaire (Mic.), length uniformity (Unif.), strength (Str.), and elongation (Elo.) determined using HVI classing.



**Table 3. Results of the 1997 Arkansas Cotton Variety Test with irrigation on a Dundee silt loam soil at Clarkedale, Arkansas.<sup>a</sup>**

Variety	Lint yield <sup>b</sup>		Open bolls <sup>b</sup>		Lint fract.		Fiber properties <sup>d</sup>									
	lb/a	r <sup>c</sup>	%	r	%	r	Mic.	r	Len.	r	Unif.	r	Str.	r	Elo.	r
Stoneville BXN47	1320	1	35	21	42.7	1	4.94	3	1.19	29	84.3	4	29.5	36	6.2	29
Stoneville 373	1259	2	30	35	38.4	14	4.03	38	1.21	10	83.8	13	28.7	43	6.1	32
Sure-Grow 747	1237	3	53	2	41.3	3	4.84	5	1.21	10	82.4	41	30.1	22	6.6	18
StBXNx019	1186	4	32	32	38.1	20	4.9	4	1.17	37	84.1	6	29.8	26	6.2	29
Germaines GC251	1185	5	47	6	37.4	28	4.23	30	1.21	10	84.2	5	32.5	3	6.7	14
FiberMax 832	1177	6	27	41	38	22	4.06	36	1.24	2	83.2	24	32.5	3	5.8	41
Stoneville 474	1175	7	43	7	41.5	2	4.7	8	1.17	37	82.6	34	29.5	33	6.2	29
Paymaster H1266	1172	8	27	41	39.1	7	4	40	1.2	19	82.5	38	28.3	47	6.4	24
Paymaster PM1560BG	1165	9	43	7	39.8	5	4.68	9	1.17	37	83.4	20	29.9	24	6.1	35
FiberMax 989	1150	10	27	41	38.3	17	4.2	31	1.2	19	82.9	29	31.9	11	5.9	38
Sure-Grow 125	1146	11	43	7	38.5	13	4.64	11	1.22	8	83.8	11	30.5	20	6.6	16
Paymaster PM1330BG	1140	12	43	7	38.4	15	4.61	13	1.21	14	83.5	19	31.5	13	5.7	42
Deltapine 5111	1137	13	53	2	37.4	29	4.95	2	1.18	34	82.8	30	29.7	27	6.2	28
Paymaster PM1244BGRR	1132	14	40	16	38.9	9	4.62	12	1.14	46	82.5	38	29.6	30	7.1	3
Paymaster PM1220BGRR	1131	15	43	7	37.9	24	4.82	6	1.16	42	83.1	26	29.6	31	7.2	2
Deltapine 5409	1115	16	37	19	38.9	10	4.24	29	1.19	29	81.3	45	29.3	38	6.1	32
Paymaster PM1215RR	1110	17	37	19	38.3	16	4.99	1	1.18	31	85.3	1	29.2	40	7.1	3
Deltapine 32B	1095	18	43	7	36.9	33	4.59	14	1.2	19	83.3	22	28.5	45	7	7
Paymaster H1277	1084	19	43	7	38.2	19	4.58	15	1.17	37	83.6	15	28.5	44	6.6	20
Paymaster PM1330BGRR	1076	20	43	7	36.6	38	4.52	18	1.21	14	83.8	12	29.3	37	6.1	32
Paymaster PM1220BG	1065	21	33	27	37.1	31	4.65	10	1.18	34	83.3	23	29.9	25	7	5
Paymaster PM1330RR	1054	22	48	5	37.9	25	4.58	16	1.18	31	83.5	16	29.5	33	6.5	21
Sure-Grow 501	1052	23	35	21	39.4	6	4.42	22	1.22	6	85.3	1	32.5	3	6.3	27
Paymaster PM1220RR	1048	24	30	35	38.1	21	4.8	7	1.15	44	83.4	21	31.2	15	7.7	1
Stoneville 468	1048	25	50	4	38.7	11	3.74	46	1.13	47	82.5	38	31.8	12	6.8	11
Sure-Grow 404	1040	26	33	27	37.5	27	4.02	39	1.2	23	84.1	8	30.6	16	6.3	26
FiberMax 819	1033	27	38	17	38.9	8	4.33	25	1.23	4	84.1	6	32	10	5.6	45
Deltapine 20B	1027	28	110	1	38	23	4.56	17	1.21	14	84.4	3	29.1	41	6.8	10
HyPerformer HS46	1013	29	35	21	38.2	18	3.51	47	1.2	23	82.6	34	32.3	7	6	37
Dyna-Gro 201	1013	30	32	32	36.8	35	4.29	27	1.21	14	83.5	16	28.4	46	6.6	16
FiberMax 975	999	31	28	39	39.9	4	4.4	23	1.23	5	83.2	24	29.3	38	5	47
Stoneville 495	992	32	30	35	35.4	43	4.46	19	1.24	3	83.9	9	29.6	28	6.1	35
SS9501	968	34	35	21	38.6	12	3.83	44	1.21	10	83.1	26	31.5	13	6.8	11
Deltapine NuCOTN 33B	961	35	28	39	35.9	21	4.3	26	1.21	14	83	28	30.1	22	6.5	21
Germaines GC271	960	36	32	32	36.5	39	4.13	33	1.27	1	83.5	16	34.3	1	6.4	24
HyPerformer HX4103	954	37	30	35	37	32	4.45	20	1.2	23	82.8	31	29.6	31	5.3	46
Deltapine 50B	947	38	35	21	33.6	47	4.25	28	1.22	8	82.6	36	30.5	19	6.7	15
SS9303	946	39	42	15	35	45	4.45	20	1.2	23	83.7	14	29.5	33	5.6	43
Terra 292	943	40	35	21	34.4	46	4.03	37	1.16	42	80.5	47	30.6	16	6.8	13
All-Tex Top Pick	936	41	33	27	35.9	42	3.93	41	1.22	6	82.8	32	32.5	6	6.9	8
Deltapine 51	879	42	33	27	36.2	40	3.9	42	1.19	27	82	44	29.6	28	7	5
Holland 338	871	43	38	17	35.1	44	4.16	32	1.18	31	83.9	9	30.2	21	5.9	38
Terra 366	853	44	33	27	36.7	36	4.07	35	1.17	37	82.6	36	28.8	42	6.9	8
Deltapine 5415RR	830	45	23	46	36.8	34	3.75	45	1.17	36	81.1	46	32.2	8	6.4	23
HyPerformer HS44	824	46	25	45	36.7	37	4.12	34	1.2	19	82.1	43	33.4	2	5.9	40
Stoneville BG4790	734	47	22	47	37.7	26	3.87	43	1.15	45	82.2	42	30.6	16	6.6	18
Mean	1046		38		37.6		4.35		1.19		83.1		30.4		6.4	
LSD <sub>0.10</sub>	7.9		ns		2.3		0.48		0.03		1.4		1.8		0.7	
CV (%)	10.2		81.8		3.7		6.7		1.6		1		3.5		6.6	
R-squared	67.8		20.6		75.6		76.2		81.7		71.3		79.9		77.2	

<sup>a</sup>Planted May 7; irrigated July 23, 30 and Aug 13; defoliated Sept. 12, 18; harvested Oct. 3, 4.

<sup>b</sup>Lint yield and open bolls determined for six replications; other variables determined for two replications.

<sup>c</sup>r = ranking.

<sup>d</sup>Fiber micronaire (Mic.), length (Len.), length uniformity (Unif.), strength (Str.) and elongation (Elo.) determined using HVI classing.

Table 4. Results of the 1997 Arkansas Cotton Variety Test without irrigation on a Dundee silt loam soil at Clarkedale, Arkansas.<sup>a</sup>

Variety	Lint yield	r <sup>b</sup>	Open bolls	r	Lint fract.	r	Fiber properties <sup>c</sup>									
							Mic.	r	Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/acre		%		%											
FiberMax 832	1058	1	47	43	40	33	5.29	28	1.17	3	83.8	12	30.5	5	5.8	44
Paymaster PM1266	1028	2	55	25	42.4	6	5.17	37	1.12	27	83.5	17	24.7	47	6.3	32
Paymaster PM1220RR	1000	3	58	18	41.7	13	5.58	11	1.13	14	85.1	2	29.3	9	7.2	4
Paymaster PM1220BG	982	4	52	31	40.4	27	5.63	8	1.1	36	82.3	44	27.8	22	7.1	9
Paymaster PM1220BGRR	961	5	62	10	40.8	23	5.9	1	1.08	43	83.3	23	27.8	23	6.7	19
Paymaster PM1215RR	957	6	57	21	41.5	15	5.47	16	1.13	19	84.6	5	28.6	14	7.2	3
Stoneville 373	926	7	52	31	42.1	10	5.29	27	1.12	20	83.3	23	26.6	39	6.2	37
Paymaster PM1330BGRR	908	8	63	8	39.6	36	5.33	25	1.11	29	83.2	26	26.2	42	6.9	15
Stoneville 495	901	9	50	35	40.7	24	5.61	9	1.11	29	82.3	42	27.6	27	6	41
Paymaster PM1330BG	892	10	68	4	38.1	44	5.23	31	1.16	6	82.6	36	28.7	13	5.9	42
Sure-Grow 747	891	11	68	4	42.7	5	5.64	6	1.14	11	83.4	20	27.5	28	7.3	1
Paymaster PM1560BG	883	12	62	10	42.2	9	5.79	4	1.07	45	83.1	27	25.7	44	6.6	22
Paymaster PM1244BGRR	879	13	55	25	41.1	16	5.48	15	1.05	47	82.2	45	27	36	7	12
Deltapine 20B	858	14	58	18	42.2	7	5.02	43	1.12	27	84.1	8	26.4	40	6.9	13
Stoneville BXN47	854	15	78	1	43	2	5.35	23	1.12	20	83.9	11	27.4	29	6.6	22
Sure-Grow 404	844	16	53	29	40.5	26	5.57	12	1.11	34	83.5	17	28.8	12	6.9	15
Stoneville 474	840	17	65	7	42.2	8	5.54	14	1.11	29	84.1	9	27.4	29	6.7	19
HyPerformer HYX4103	826	18	42	46	39.8	35	5.65	5	1.12	20	82.5	38	29	11	6.3	32
FiberMax 975	820	19	53	29	44	1	4.94	46	1.14	13	83.6	15	27.9	21	5	47
HyPerformer HS46	819	20	52	31	40	34	4.98	44	1.16	4	83.8	13	30.7	3	6	40
Deltapine 32B	817	21	55	25	40.1	32	5.43	17	1.1	36	83	29	27.2	34	7.1	6
Deltapine 5409	816	22	62	10	40.9	18	5.2	34	1.12	26	82.8	31	28.6	14	6.4	28
Germaines GC251	814	23	58	18	40.9	21	5.64	7	1.11	34	82.6	35	28.5	17	6.4	28
Deltapine 5111	810	24	75	2	40.2	29	5.36	21	1.07	45	82.8	31	27.8	24	6.4	28
Sure-Grow 125	807	25	60	15	40.8	22	5.09	39	1.13	14	82.8	30	28	19	7.1	6
FiberMax 989	806	26	35	47	40.4	28	4.91	47	1.18	2	85.1	3	30.8	2	5.5	45
Paymaster H1277	795	27	50	35	40.5	25	5.28	29	1.11	29	82.1	46	27.1	35	6.7	19
Deltapine NuCOTN33B	790	28	50	35	39.5	37	5.17	36	1.1	39	82.8	31	25.5	45	7.1	6
Dyna-Gro 201	784	29	48	41	39.5	38	5.88	2	1.12	20	82.1	47	29.5	7	5.9	43
Deltapine 5690RR	784	30	60	15	39.1	39	5.09	41	1.14	12	83.3	23	31.6	1	6.5	27
Germaines GC271	778	31	47	43	40.9	17	5.33	26	1.13	14	83.6	16	27.8	24	6.9	13
SS9303	773	32	60	15	38.1	43	5.22	33	1.12	20	82.3	43	26.9	37	6.1	38
Stoneville 468	766	33	70	3	42.8	3	4.96	45	1.1	39	84	10	27.2	32	7.2	4
SS9501	759	34	67	6	42	12	5.09	40	1.15	8	85.2	1	28	20	7	10
Sure-Grow 501	754	35	63	8	40.9	19	5.05	42	1.13	14	83.5	17	30.6	4	6.5	26
St BXNx019	754	36	62	10	40.9	20	5.57	12	1.1	39	84.2	6	26.7	38	6.3	34
Holland 338	754	37	50	35	37.2	47	5.36	22	1.08	43	83.4	20	26.2	41	6.1	39
HyPerformer HS44	745	38	45	45	38.9	40	5.86	3	1.13	14	82.4	40	29.8	6	6.2	36
All-TexTop Pick	744	39	55	25	38.8	41	5.28	29	1.16	6	83.7	14	28.5	16	6.4	31
Terra 292	743	40	50	35	37.5	46	5.2	34	1.12	20	82.6	36	27.2	32	6.6	24
Terra 366	741	41	57	21	38.7	42	5.6	10	1.1	36	82.4	40	25.5	46	6.3	34
Deltapine 50B	726	42	50	35	37.7	45	5.16	38	1.16	4	83.3	22	28.1	18	7	10
Paymaster PM1330RR	723	43	62	10	40.2	31	5.41	18	1.09	42	82.5	38	27.8	24	6.6	25
Deltapine 51	720	44	52	31	40.2	30	5.4	19	1.15	8	84.1	7	26	43	7.3	1
FiberMax 819	707	45	57	21	42.1	11	5.39	20	1.18	1	84.8	4	29.2	10	5.5	45
Deltapine 5415RR	690	46	48	41	41.6	14	5.23	31	1.15	8	82.8	31	29.4	8	6.8	18
Stoneville BG4740	572	47	57	21	42.8	4	5.35	23	1.11	33	83.1	27	27.4	29	6.8	17
Mean	821		56		40.6		5.36		1.12		83.3		27.9		6.5	
LSD <sub>0.10</sub>	93		10		1.7		0.3		0.04		ns		1.7		0.5	
CV (%)	11.9		17.9		2.5		3.3		2.3		1.2		3.6		4.7	
R-square	68.2		48.2		83.1		80.6		71.8		57		82.3		85.7	

<sup>a</sup>Planted May 7; open bolls rated Sept 12; defoliated Sept. 12,18; harvested Oct. 2. Lint yield and open bolls determined for six replications. Lint fractions and fiber properties determined for two replications.

<sup>b</sup>r = ranking

<sup>c</sup>Fiber micronaire (Mic.), length (Len.), length uniformity (Unif.), strength (Str.), and elongation (Elo.) determined using HVI classing.

**Table 5. Results of the 1997 Arkansas Cotton Variety Test with irrigation on a Calloway silt loam soil at Marianna, Arkansas.<sup>a</sup>**

Variety	Lint yield <sup>b</sup> lb/a	Leaf pub <sup>d</sup>		Open bolls <sup>b</sup> %	Lint fract.		Fiber properties <sup>e</sup>											
		r <sup>c</sup>	r		r	r	Mic.	r	Len.	r	Unif.	r	Str.	r	Elo.	r		
Stoneville 468	1548	1	4.4	5	68	22	43.9	3	4.67	38	1.12	42	82.6	38	29.2	10	7.1	24
Stoneville 474	1546	2	6.5	1	68	22	44.4	1	5	7	1.13	40	82.9	31	27.6	36	7.6	11
Sure-Grow 501	1483	3	3.5	14	67	27	42.8	5	4.97	10	1.17	16	84.1	10	29.9	3	6.9	30
Stoneville BXN47	1479	4	4.2	8	62	36	42.4	6	5.04	5	1.14	39	82.7	34	27.9	30	7.1	25
Paymaster PM1560BG	1477	5	3.2	17	78	2	42.1	8	4.96	12	1.16	22	83.4	23	27.8	34	7.6	9
Sure-Grow 747	1407	6	2.2	26	72	13	41.3	11	5	8	1.16	30	82	43	28	29	7.5	14
Deltapine 5111	1407	7	4.9	3	78	2	41.3	12	5.37	1	1.12	45	83.3	24	28.3	21	7.2	18
Sure-Grow 404	1390	8	1.8	35	75	6	38.1	43	4.88	19	1.19	8	84.6	5	29.8	4	7	27
Deltapine 20B	1384	9	1.8	37	65	28	40.3	17	4.73	34	1.15	32	82.8	32	27.5	38	7.8	3
Paymaster PM1330BG	1382	10	3.7	12	82	1	38.5	39	4.77	30	1.19	9	84.5	7	29.3	9	6.9	30
Germaines GC251	1369	11	1.7	39	73	9	39.6	28	4.78	29	1.17	14	84.6	4	28.6	17	7.1	20
Deltapine NuCOTN33B	1363	12	2.3	24	53	44	41.8	10	4.84	25	1.17	14	83	26	28.9	13	7	29
FiberMax 975	1360	13	2.3	24	62	36	43.6	4	5.03	6	1.17	16	82.6	38	28.5	19	6.1	45
HyPerformer HYX4103	1302	14	1.9	33	58	41	40.1	22	4.86	22	1.16	22	82.6	37	28.4	20	6.8	33
Stoneville 373	1296	15	3.7	13	77	4	39.8	27	4.59	39	1.16	22	83.7	17	27.2	43	7	27
FiberMax 819	1293	16	2.7	22	75	6	41.8	9	4.21	46	1.2	5	83.8	13	29.4	7	5.8	47
Paymaster H1266	1293	17	4.4	6	68	22	39.3	31	4.36	45	1.21	2	83.6	19	26.5	45	6.3	43
Deltapine 51	1293	18	2	30	65	28	39.8	26	5.1	4	1.17	16	82.7	33	26.4	46	6.3	43
SS9501	1266	19	4.8	4	65	28	41.1	13	4.9	17	1.21	3	83.8	13	29.5	6	7.1	20
Stoneville 4740	1266	20	5.6	2	58	41	43.9	2	5.12	2	1.12	45	82.9	28	28.1	25	7.6	13
Paymaster PM1330RR	1265	21	4.2	8	73	9	39.9	24	4.88	18	1.13	40	82.7	34	28	27	7.6	11
Paymaster PM1220RR	1256	22	3.4	15	63	33	39.8	25	5.11	3	1.16	22	85.1	1	28.8	14	8	2
Paymaster H1277	1255	23	2.5	23	65	28	40.3	18	4.81	27	1.16	22	82.9	28	27.9	31	7.2	18
FiberMax 989	1252	24	1.2	46	70	17	40.9	14	4.71	35	1.19	9	84.1	11	28.8	14	6	46
Deltapine 5409	1251	25	1.9	34	60	39	40.6	16	4.7	37	1.14	36	82.4	40	27.8	33	7.2	17
Dyna-Gro 201	1248	26	1.5	42	63	33	38.9	34	4.77	30	1.16	22	81.4	45	26	47	7.1	20
Deltapine 32B	1246	27	2.8	21	70	17	40.1	21	4.75	33	1.12	42	81.4	45	27.5	39	7.4	16
Germaines GC271	1245	28	4.3	7	77	4	38.8	36	4.71	35	1.2	5	85.1	1	29.7	5	6.7	36
Stoneville 495	1233	29	2.2	26	72	13	38.4	40	4.82	26	1.14	37	82.4	40	27.8	34	6.9	30
Paymaster PM1330BGRR	1221	30	4.1	10	70	17	38.5	38	4.78	28	1.17	16	84.2	8	28.3	21	7.1	25
HyPerformer HS46	1211	31	1.7	40	58	41	40.6	15	4.75	32	1.21	3	83.3	24	28.5	18	6.6	38
FiberMax 832	1209	32	1.7	40	72	13	38.6	37	4.02	47	1.23	1	84.2	8	30.6	1	6.4	41
Sure-Grow 125	1204	33	1.8	37	68	22	38.4	41	4.57	41	1.19	9	82.1	42	28	27	7.5	14
Deltapine 50B	1201	34	2.2	26	73	9	35.7	46	4.53	43	1.2	7	82.7	34	27.3	41	7.7	7
HyPerformer HS44	1194	35	1.9	32	50	46	39.9	23	4.94	14	1.17	16	81.9	44	29	12	6.3	42
Terra 366	1181	36	3.9	11	63	33	37.7	44	4.97	10	1.16	22	83.5	22	26.6	44	6.8	33
Paymaster PM1215RR	1179	37	3.4	15	70	17	39.6	29	4.87	21	1.15	34	84.1	11	29.1	11	7.6	9
Paymaster PM1220BGRR	1170	38	3	19	62	36	40.2	19	4.99	9	1.15	34	84.5	6	28.8	14	7.8	4
Paymaster PM1220BG	1168	39	3.2	17	68	22	38.8	35	4.87	20	1.12	42	82.9	28	27.2	42	7.7	6
All-Tex Top Pick	1152	40	1.4	45	70	17	39	32	4.42	44	1.19	9	83	27	30.3	2	7.1	20
Deltapine 5415RR	1143	41	1.5	42	52	45	42.2	7	4.94	15	1.16	22	83.6	19	28.1	25	7.8	4
Paymaster PM1244BGRR	1125	42	2.1	29	60	39	40.2	20	4.96	12	1.11	47	83.5	21	28.1	23	7.7	8
Terra 292	1106	43	2	30	72	13	34.6	47	4.53	42	1.16	30	80.5	47	27.6	36	8.1	1
Deltapine 5690RR	1104	44	1.8	35	50	46	39.3	30	4.92	16	1.17	16	83.8	13	29.3	8	6.7	37
SS9303	1099	45	2.9	20	73	9	36.9	45	4.59	39	1.15	32	83.7	17	27.9	31	6.6	38
Holland 338	1071	46	1.5	42	65	28	38.3	42	4.85	23	1.14	37	83.8	13	28.1	24	6.5	40
St BXNx019	1068	47	1.1	47	75	6	39	33	4.84	24	1.18	13	84.7	3	27.5	39	6.8	33
Mean	1271		2.8		67		40		4.8		1.16		83.2		28.3		7.1	
LSD <sub>0.10</sub>	93		0.9		8		2.1		0.27		0.03		1.6		1.3		0.8	
CV (%)	8.6		20.3		11		3.1		3.3		1.7		1.2		2.8		6.6	
R-squared	59.6		90.9		63.2		84.5		82.8		80		68		76.6		73.1	

<sup>a</sup>Planted May 7; irrigated Sept. 10, 24, 28 and Aug. 4, 14, 21 and Sept. 2; open bolls rated Oct. 3; defoliated Oct. 4; harvested Oct. 20.

<sup>b</sup>Lint yield and open bolls determined for six replications, other variables determined for two replications.

<sup>c</sup>r = ranking

<sup>d</sup>Leaf pubescence of 10 plants/plots were rated using scale of one (smooth leaf) to seven (very hairy).

<sup>e</sup>Fiber micronaire (Mic.), length (Len.), length uniformity (Unif.), strength (Str.) and elongation (Elo.) determined using HVI classing.

**Table 6. Results of the 1997 Arkansas Cotton Variety Test without irrigation on a mixed Calloway, Loring and Memphis silt loam soil at Marianna, Arkansas.<sup>a</sup>**

Variety	Lint yield <sup>b</sup>		Open bolls <sup>b</sup>		Lint fract. <sup>d</sup>		Fiber properties <sup>d, e</sup>									
	lb/acre	r <sup>c</sup>	%	r	%	r	Mic.	r	Len.	r	Unif.	r	Str.	r	Elo.	r
Paymaster PM1560BG	1268	1	80	14	44.4	4	5.54	2	1.14	28	83.7	3	28.8	19	6.9	20
Sure-Grow 501	1233	2	72	39	43.5	8	5.07	27	1.15	24	83.3	7	32.3	1	6.5	35
Stoneville 474	1218	3	80	14	45.3	2	5.4	9	1.11	44	82.1	33	26.6	41	7.2	11
Stoneville 373	1200	4	83	6	41.6	20	4.99	37	1.15	24	82	36	27.3	37	6.9	18
Deltapine 5111	1182	5	85	2	41.4	21	5.35	11	1.13	33	83.1	13	28.6	23	6.6	32
Paymaster PM1330BG	1174	6	80	14	40.1	31	4.97	40	1.18	5	83.2	11	28.8	19	7	15
Paymaster H1266	1165	7	78	19	42	16	5.07	27	1.15	24	81.8	40	27	38	6	41
Deltapine 5415RR	1156	8	77	21	42.5	11	5.5	4	1.17	12	82.5	23	29.2	16	7.8	1
Stoneville BXN47	1150	9	80	14	43.9	5	5.13	21	1.12	43	82	38	28.5	26	6.6	32
FiberMax 975	1136	10	67	44	47.6	1	6.33	1	1.16	17	82.4	25	25.9	46	5.2	47
Deltapine 5690RR	1135	11	62	46	40.8	24	5.46	6	1.17	8	83.1	13	29.5	15	5.9	42
Deltapine 20B	1133	12	75	26	43	10	4.98	39	1.12	41	82.1	35	25.7	47	7.5	6
FiberMax 989	1127	13	73	35	41.7	18	4.96	41	1.13	33	81.5	43	28.3	30	5.7	45
Dyna-Gro 201	1124	14	85	2	39	41	5.2	18	1.14	32	80.7	47	26.3	44	7.1	12
Germaines GC271	1122	15	75	26	40.6	27	4.95	42	1.19	1	84	1	30.9	4	6.7	27
Stoneville 468	1120	16	75	26	43.1	9	4.89	43	1.14	27	83.6	4	30.4	6	6.8	24
Deltapine 50B	1117	17	80	14	37.4	47	4.84	44	1.18	5	82.8	19	29.2	16	6.6	32
Stoneville 495	1116	18	77	21	39.8	34	5.05	31	1.16	21	82.7	21	26.3	44	6.5	35
Deltapine 5409	1116	19	82	10	41.9	17	5.21	17	1.14	28	81.5	45	28.5	26	7	17
Deltapine NuCOTN33B	1108	20	70	41	42	15	5.23	16	1.16	17	82.3	26	27.9	33	7	15
Paymaster PM1220BGRR	1103	21	77	21	42.4	13	5.39	10	1.11	45	82.2	28	28.7	21	7.1	12
SS9303	1100	22	83	6	39.4	38	5.13	21	1.13	33	82.2	31	27	39	6.1	40
Sure-Grow 747	1098	23	78	19	42.4	12	5.53	3	1.17	8	82	37	27.5	36	7.8	2
Deltapine 32B	1094	24	77	21	39.1	39	5.06	29	1.13	39	81.1	46	28.6	24	6.9	20
HyPerformer HYX4103	1085	25	75	26	40.4	29	5.01	34	1.19	2	83.4	6	29.9	13	6.8	23
Sure-Grow 404	1078	26	82	10	39.8	33	5.41	8	1.17	12	82.8	18	30.1	10	6.9	18
Paymaster PM1330BGRR	1077	27	82	10	40.3	30	5.09	24	1.16	17	83	16	28.1	32	6.6	31
Deltapine 51	1071	28	75	26	39.8	32	5.18	19	1.17	12	82.1	33	26.5	42	7.1	14
Germaines GC251	1063	29	75	26	37.7	46	4.82	45	1.17	12	83.2	11	30.2	7	6.9	20
HyPerformer HS46	1060	30	63	45	41	22	5.02	33	1.16	17	81.5	43	30.8	5	5.9	43
Terra 292	1058	31	73	35	37.9	45	5.17	20	1.17	8	82.2	31	27.8	34	6.8	24
Paymaster PM1330RR	1056	32	85	2	40.8	25	5.1	23	1.14	28	83.2	10	28.7	21	6.7	27
FiberMax 819	1054	33	88	1	45.2	3	5.25	13	1.16	21	83.6	4	28.4	29	5.7	46
Sure-Grow 125	1034	34	75	26	42.3	14	5	36	1.17	8	83.1	15	30	11	7.6	4
Paymaster PM1220BG	1034	35	83	6	40.5	28	5.08	26	1.14	28	82.7	20	28.6	24	7.3	9
SS9501	1026	36	75	26	43.6	6	5.01	34	1.16	21	82.4	24	30.1	9	7.4	8
Terra 366	1010	37	75	26	39.5	37	5.24	15	1.13	33	81.8	39	26.5	43	6.7	27
HyPerformer HS44	1007	38	73	35	40.8	26	5.48	5	1.17	12	82.2	28	28.5	26	6.4	37
Paymaster H1277	1004	39	83	6	38.1	43	4.99	37	1.18	4	82.9	17	28.2	31	7.6	4
All-TexTop Pick	1003	40	85	2	39	40	4.68	46	1.19	2	83.3	8	29.9	14	6.7	27
Paymaster PM1220RR	990	41	68	43	40.9	23	5.27	12	1.12	41	83.9	2	31.2	2	7.7	3
Paymaster PM1215RR	983	42	77	21	39.7	35	5.25	13	1.13	33	83.3	8	30	12	7.3	10
St BXNx019	968	43	82	10	41.6	19	5.45	7	1.13	33	82.2	30	28.9	18	6.7	26
FiberMax 832	924	44	72	39	37.9	44	4.57	47	1.18	5	82.3	27	31.1	3	5.9	43
Holland 338	909	45	73	35	38.6	42	5.06	29	1.11	45	82.6	22	27	39	6.2	39
Paymaster PM1244BGRR	899	46	58	47	39.7	36	5.09	24	1.1	47	81.6	41	30.1	8	7.4	7
Stoneville 4740	831	47	70	41	43.5	7	5.04	32	1.13	39	81.6	41	27.6	35	6.3	38
Mean	1079		77		41.1		5.16		1.15		82.5		28.6		6.7	
LSD <sub>0.10</sub>	110		10		2.1		0.39		0.03		1.1		1.9		0.6	
CV (%)	11.2		13.8		3.2		4.6		1.7		0.8		4.1		5	
R-squared	41.2		46.9		85.5		73.3		74.7		74		78.2		86.2	

<sup>a</sup>Planted May 6; defoliated Sept 27; harvested Oct 6.

<sup>b</sup>Lint yield and open bolls determined for six replications.

<sup>c</sup>r = ranking.

<sup>d</sup>Lint fractions and fiber properties determined for two replications.

<sup>e</sup>Fiber micronaire (Mic.), length (Len.), length uniformity (Unif.), strength (Str.) and elongation (Elo.) determined using HVI classing.

**Table 7. Results of the 1997 Arkansas Cotton Variety Test with irrigation on a Desha silt loam soil with irrigation at Rohwer, Arkansas.<sup>a</sup>**

Variety	Lint yield <sup>b</sup> lb/acre	Open bolls %	r	Lint fract. %	r	Fiber properties <sup>c</sup>										
						Mic.	r	Len.	r	Unif.	r	Str.	r	Elo.	r	
Stoneville BXN47	1707	1	45	6	44.4	1	4.77	13	1.15	36	83.7	29	27.6	27	7.3	18
Paymaster PM1560BG	1641	2	40	11	43.4	2	4.9	6	1.17	24	84.7	11	27.8	24	7.3	15
Sure-Grow 125	1630	3	47	3	42.3	7	4.45	30	1.18	15	84	21	27.1	31	7.9	6
Stoneville 373	1630	4	28	37	41	14	4.5	28	1.17	21	84	22	26.5	43	7.2	23
Sure-Grow 747	1625	5	40	11	42.8	3	4.66	21	1.2	7	84.3	16	27.9	23	7.9	5
Sure-Grow 404	1603	6	37	18	39.2	32	4.54	24	1.16	27	83.7	25	29.2	12	6.9	29
Paymaster PM1330BG	1600	7	53	1	40	25	4.89	7	1.16	27	83.6	31	28.2	22	6.7	36
Dyna-Gro 201	1549	8	40	11	39.4	30	4.82	10	1.19	13	83.8	23	25.6	47	8	3
Paymaster PM1330RR	1539	9	50	2	41.4	10	4.95	2	1.13	42	84.3	15	27	37	7.3	18
Germaines GC251	1496	10	40	11	38.7	37	4.44	33	1.17	24	84.1	19	29.2	11	7.4	14
Paymaster H1266	1490	11	35	25	40	24	4.34	37	1.19	9	83.5	33	26.7	40	6.8	35
Paymaster PM1330BGRR	1486	12	47	3	37.8	41	4.58	23	1.18	15	85.9	1	27	36	7.2	20
Deltapine 5111	1456	13	37	18	41.4	11	4.81	11	1.12	44	83.1	39	30.2	3	6.9	29
Stoneville 468	1446	14	35	25	41.5	8	4.18	43	1.15	33	84.1	18	28.8	17	6.8	34
Paymaster H1277	1410	15	37	18	40.7	18	4.93	3	1.16	30	83.7	27	26.3	45	7.3	15
Germaines GC271	1404	16	37	18	39	35	4.93	4	1.21	4	85.4	3	30	4	6	44
Sure-Grow 501	1389	17	28	37	41.3	12	4.84	8	1.18	19	85.1	4	29	14	7.2	20
Paymaster PM1220BG	1383	18	37	18	40.2	22	4.37	36	1.12	44	84.4	14	26.3	44	8.3	1
Stoneville 495	1380	19	38	16	37.7	42	4.5	26	1.22	2	84.7	9	27.5	29	6.8	32
Paymaster PM1220RR	1378	20	42	8	40.6	19	4.91	5	1.13	42	83	41	30.4	1	7.5	13
Deltapine 50B	1375	21	47	3	36.4	47	4.44	32	1.19	9	83	42	27.5	28	8.1	2
Deltapine 20B	1374	22	32	30	41.5	9	4.28	41	1.16	30	83.7	25	27.1	31	7.7	8
Deltapine 32B	1373	23	37	18	40.2	23	4.42	34	1.14	40	82.5	46	27.7	25	7.7	11
Deltapine 51	1373	24	32	30	39.2	34	4.72	15	1.16	30	82.4	47	26.6	42	7.9	6
SS9501	1370	25	32	30	40.9	15	4.29	38	1.19	13	83.6	32	30	7	7.7	8
All-TexTop Pick	1358	26	40	11	37.6	43	4.28	40	1.17	21	83.4	34	28.8	18	6.9	27
Stoneville 474	1349	27	27	39	42.6	5	4.78	12	1.14	41	83.2	36	27	37	6.9	27
Paymaster PM1220BGRR	1349	28	42	8	39.2	31	5.22	1	1.12	47	83.1	38	27.1	31	7.2	24
FiberMax 819	1348	29	37	18	42.4	6	4.08	47	1.21	4	85	5	29.1	13	6.1	43
Paymaster PM1244BGRR	1345	30	43	7	39.8	27	4.83	9	1.12	44	83.8	24	26.6	41	7.3	15
Deltapine NuCOTN33B	1340	31	30	34	41.1	13	4.72	15	1.17	21	84.5	13	26.8	39	7	26
St BXNx019	1304	32	33	28	40.8	17	4.74	14	1.14	38	84.1	19	29.4	10	6.7	37
Deltapine5409	1302	33	33	28	39.6	29	4.5	28	1.17	24	82.9	43	28.9	15	7.1	25
Terra 292	1288	34	35	25	36.8	45	4.41	35	1.19	9	84.5	12	26.3	45	7.6	12
Terra 366	1271	35	32	30	38.6	38	4.6	22	1.15	36	82.9	43	27.4	30	7.2	20
Holland 338	1199	36	42	8	36.9	44	4.67	20	1.15	33	84.2	17	27.1	35	6	44
Paymaster PM1215RR	1189	37	30	34	38.9	36	4.45	30	1.15	33	84.7	9	30	6	8	4
FiberMax 832	1162	38	30	34	39.2	33	4.15	45	1.24	1	85.7	2	30.3	2	6.5	39
FiberMax 989	1160	39	23	41	39.9	26	4.12	46	1.2	7	84.9	6	28.9	16	5.9	46
HyPerformer HS46	1143	40	23	41	40.3	21	4.26	42	1.18	19	83.2	36	30	7	6.4	40
Deltapine 5690RR	1088	41	18	46	40.8	16	4.29	39	1.14	38	82.7	45	29.9	9	6.4	40
SS9303	1084	42	38	16	38.1	40	4.5	27	1.18	15	84.9	6	27.1	31	6.9	29
FiberMax 975	1066	43	22	43	42.8	4	4.69	19	1.22	2	83.4	34	28.7	19	5.4	47
HyPerformer HS44	1047	44	22	43	38.3	39	4.71	18	1.21	4	84.7	8	28.6	20	6.3	42
Stoneville 4740	1028	45	17	47	40.4	20	4.16	44	1.16	27	83.7	29	27.7	25	6.8	32
HyPerformer HYX4103	1009	46	27	39	36.8	46	4.53	25	1.19	9	83.1	40	30	4	6.6	38
Deltapine 5415RR	979	47	22	43	39.7	28	4.71	17	1.18	15	83.7	27	28.3	21	7.7	8
Mean	1351		35		40		4.57		1.17		83.9		28.1		7.1	
LSD <sub>0.10</sub>	179		12		2.1		0.42		0.04		1.5		1.7		0.7	
CV (%)	13.9		35.6		3.2		5.5		1.9		1.1		3.7		6.3	
R-squared	60.9		43		80.7		70.9		76.7		63.1		76.7		81.3	

<sup>a</sup>Planted May 6; irrigated July 14, 23 and Aug 4, 18, 28; defoliated Sept 22 and Oct 2; harvested Oct 16. Lint yield and open bolls determined for six replications. Lint fraction and fiber properties determined for two replications.

<sup>b</sup>r = ranking.

<sup>c</sup>Fiber micronaire (Mic.), length (Len.), length uniformity (Unif.), strength (Str.) and elongation (Elo.) determined using HVI classing.

**Table 8. Mean lint yield and ranking (r) of cotton varieties in the 1996 and 1997 Arkansas Cotton Variety Tests, two-year means.**

Cultivar	Keiser		Clarkedale		Clarkedale		Marianna		Marianna		Rohwer		Overall	
	Irrig.	r <sup>a</sup>	irrig.	r	no irrig.	r	irrig.	r	no irrig.	r	irrig.	r	Mean	r
	lb/acre		lb/acre		lb/acre		lb/acre		lb/acre		lb/acre		lb/acre	
Stoneville BXN47	1039	8	1355	1	833	5	1315	4	1001	5	1738	1	1213	1
Paymaster 1550BG	1171	1	1126	12	808	7	1379	1	1071	2	1633	2	1198	2
Stoneville 474	1075	3	1312	2	798	8	1377	2	1081	1	1523	8	1194	3
Paymaster 1220RR	1064	5	1163	7	895	1	1239	7	996	9	1587	6	1157	4
Germain's GC251	1115	2	1237	5	83	4	1260	5	949	13	1521	9	1150	5
Sure-Grow 501	1074	4	1135	11	759	14	1333	3	1064	4	1493	10	1143	6
Sure-Grow 125	996	12	1270	3	795	9	1201	10	977	12	1615	4	1142	7
Paymaster 1330BG	1003	11	1184	6	815	6	1225	8	1001	5	1623	3	1142	8
Sure-Grow 404	1062	6	1268	4	782	10	1255	6	932	14	1546	7	1141	9
Paymaster 1220BG	986	13	1140	9	862	3	1143	13	1070	3	1588	5	1131	10
Stoneville 495	1050	7	1114	13	872	2	1183	12	998	8	1426	13	1107	11
Germain's GC271	1015	10	1114	13	776	13	1191	11	991	10	1488	11	1094	12
Deltapine 5409	983	14	1148	8	781	11	1124	15	986	11	1417	14	1073	13
Paymaster 1277	947	16	1138	10	745	15	1132	14	927	15	1413	15	1050	14
Deltapine 51	830	18	1068	15	731	17	1204	9	1000	7	1454	12	1048	15
Deltapine NuCOTN33B	1032	9	1040	17	779	12	1118	16	894	18	1413	15	1046	16
Terra 292	934	17	1054	16	733	16	1052	18	910	17	1346	17	1005	17
Terra 366	951	15	982	18	718	18	1106	17	923	15	1342	18	1003	18

<sup>a</sup>r = ranking**Table 9. Mean lint yield and ranking (r) of cotton varieties in the 1995, 1996 and 1997 Arkansas Cotton Variety Tests, three-year means.**

Cultivar	North Delta		Marianna		Marianna		Rohwer		Overall	
	no irrig.	r <sup>a</sup>	irrig.	r	no irrig.	r	irrig.	r	mean	r
	lb/acre		lb/acre		lb/acre		lb/acre		lb/acre	
Stoneville 474	829	2	1245	1	953	2	1502	2	1132	1
Sure-Grow 501	743	7	1196	2	956	1	1433	4	1082	2
Sure-Grow 125	799	3	1111	4	874	5	1534	1	1079	3
Sure-Grow 404	771	5	1125	3	844	7	1454	3	1048	4
Deltapine 5409	796	4	1050	7	907	3	1383	6	1034	5
Stoneville 495	858	1	1052	6	849	6	1355	7	1028	6
Deltapine 51	745	6	1069	5	881	4	1405	5	1025	7
Terra 366	714	9	994	8	808	8	1276	8	948	8
Terra 292	732	8	952	9	790	9	1271	9	936	9

<sup>a</sup>r = ranking.

**Table 10. Performance of cotton strains in the 1997 Commercial Strain Test at Clarkedale and Marianna, Arkansas.**

Variety/location	Lint yield <sup>a</sup>		Open bolls <sup>a</sup>		Lint fract. <sup>c</sup>		Fiber properties <sup>d</sup>									
	lb/acre	r <sup>b</sup>	%	r	%	r	Mic.	r	Len.	r	Unif.	r	Str.	r	Elo.	r
SGX-890	1311	1	68	1	41.1	2	4.43	16	1.22	4	83	22	30.6	11	6.8	9
St-474 ck.	1299	2	55	15	42.2	1	4.55	8	1.14	34	82	27	28.8	32	6.7	17
Jajo-9556	1267	3	60	9	40.2	4	4.16	25	1.24	1	84	9	30.1	17	6.4	22
DES 607	1246	4	56	14	41	3	4.16	24	1.18	22	82	28	30.3	13	6.7	14
SGX-105	1228	5	60	9	38.7	19	4.51	11	1.19	13	84	5	29.5	24	7	8
SG-125 ck.	1211	6	67	3	40.1	5	4.83	3	1.2	9	83	25	29.4	27	6.6	18
B27-17-06	1202	7	59	12	38.8	16	4.71	5	1.2	9	84	3	30.7	10	7.1	6
GC-204	1202	8	65	4	37.6	28	4.85	2	1.17	26	84	2	29.6	23	7.1	4
HYX-7311	1200	9	52	21	38.2	21	4.51	12	1.19	13	84	11	29.5	25	7	7
MX-6360	1164	11	47	30	37.2	31	4.1	33	1.18	18	82	35	30.9	9	6.3	23
HYX-7312	1163	12	52	21	38.4	20	4.15	26	1.21	6	83	17	29.3	30	6.8	12
IF-1019	1156	13	48	28	39.3	12	4.31	20	1.2	7	85	1	30.3	14	5.4	37
HYX-7115	1144	14	55	15	39.1	15	3.96	37	1.15	31	82	34	29.7	21	6.8	11
HYX-7107	1144	15	48	25	39.9	7	4.54	9	1.17	24	83	26	29.4	27	6.4	20
GC-120	1122	16	63	6	39.7	8	4.61	6	1.14	35	83	16	29.8	19	7.8	1
IF-1011Bt	1120	17	47	30	39.3	13	4.08	35	1.18	18	83	15	30.6	11	5.8	32
IF-1018	1117	18	48	25	38.8	17	4.5	13	1.2	9	84	8	28.8	33	5.6	36
HYX-7134	1112	19	48	28	38.7	18	4.24	21	1.18	21	82	30	29.5	26	6.5	19
IF-1010Bt	1102	20	47	30	39.4	11	4.15	26	1.2	7	83	18	31.2	7	5.7	34
HYX-6102	1099	21	45	34	38.2	22	4.14	31	1.23	3	83	14	32.8	3	6.2	24
UAP-006	1087	22	50	23	36.8	36	4.34	19	1.18	22	83	23	28.1	34	6.8	9
T90-121-17B	1072	23	68	2	36.9	35	4.13	32	1.12	36	81	36	27.6	37	5.9	31
GA-93-167	1067	24	49	24	39.5	9	4.15	28	1.22	4	84	4	32.8	2	6	27
Ark-8517	1064	25	53	20	39.4	10	4.15	28	1.19	15	84	11	29.4	27	7.1	5
Ark-8504	1064	26	60	9	37.7	27	4.21	23	1.16	29	82	29	30.3	14	6	29
GA-93-8	1040	27	53	19	37	33	4.24	21	1.23	2	84	6	31	8	5.7	33
T90-144-3	1030	28	64	5	38	25	4.1	34	1.11	37	81	37	27.9	36	6.2	25
UAP-005	1026	29	54	17	36.9	34	4.53	10	1.16	27	83	13	29	31	6.7	13
Jajo-9569	1015	30	44	35	38.1	24	4.39	17	1.19	16	84	7	33.5	1	6.7	16
T90-121-19	1008	31	63	6	37.4	29	4.14	30	1.16	30	82	33	29.7	20	5.9	30
MX-0952	1006	32	46	33	38.2	23	4.87	1	1.15	32	83	21	28	35	7.3	2
T89-101-1	1003	33	57	13	33.9	37	4.04	36	1.16	28	82	32	29.7	22	7.2	3
GA-93-299	998	34	43	36	39.3	14	4.47	14	1.18	18	84	10	32	4	6.1	26
DPX-9710	973	35	41	37	37.9	26	4.44	15	1.19	17	83	19	31.5	6	5.6	35
GA-92-316	951	36	48	25	37.3	30	4.56	7	1.2	12	83	20	31.9	5	6.4	21
Hol-HX-101	948	37	61	8	37.2	32	4.72	4	1.14	33	83	24	29.8	18	6	28
Ent. LSD <sub>0.10</sub>	75		6		1.4		0.3		0.02		1.1		1.5		0.4	
Clarkedale	973		39		37.7		3.99		1.18		82.6		30.7		6.3	
Marianna	1252		69		39.5		4.73		1.18		83.2		29.5		6.6	
Loc LSD <sub>0.10</sub>	17		2		0.3		0.07		ns		ns		0.3		ns	
Mean	1112		54		38.6		4.36		1.18		82.9		30.1		6.5	
CV (%)	10		17		3		5.9		1.7		1.1		4.2		5.6	
R-squared *100	78.2		80.7		85.7		87.2		84.7		77.8		78.3		85.5	
Strain X Location	**		**		**		ns		*		*		ns		ns	

\*, \*\* Significant at the 0.05 and 0.01 probability levels, respectively

<sup>a</sup>Lint yield and open bolls determined for six replications/ location.

<sup>b</sup>r = ranking.

<sup>c</sup>Lint fraction and fiber properties determined from boll samples taken from two replications/location.

<sup>d</sup>Fiber micronaire (Mic.), length (Len.), length uniformity (Unif.), strength (Str.) and elongation (Elo.) determined using HVI classing.

Table 11. Performance of cotton strains in the 1997 Commercial Strain Test at Clarkedale, Arkansas.<sup>a</sup>

Variety	Lint yield lb/a	Open boll		Lint fract.		Fiber properties <sup>c</sup>										
		r <sup>b</sup>	r	r	r	Mic	r	Len.	r	Unif.	r	Str	r	Elo	r	
SGX-890	1163	1	60	2	41.5	1	4.19	10	1.22	3	83	24	31	17	6.7	14
SGX-105	1130	2	47	11	37.7	16	4.19	11	1.19	16	83	9	29.9	24	7.2	3
IF-1019	1114	3	25	35	38.9	11	3.97	18	1.21	9	85	1	31.3	13	5.2	37
IF-1018	1111	4	27	32	38.9	10	4.38	6	1.2	12	84	2	27.8	36	5.7	32
SG-125 ck.	1109	5	63	1	40.2	4	4.7	2	1.21	9	83	19	29.7	28	6.4	18
HYX-7107	1087	6	32	25	40.4	3	3.98	17	1.19	17	82	26	29.9	24	6.4	18
Dp-5409	1081	7	42	15	39.7	7	4.03	15	1.18	23	81	29	31	17	6.7	12
GC-204	1063	8	55	5	37.4	21	4.49	4	1.17	27	84	5	29.7	27	7.1	5
GC-120	1058	9	52	6	39.6	8	4.27	7	1.14	35	83	12	30.4	20	7.5	1
HYX-7311	1051	10	33	23	37	26	4.23	8	1.2	11	83	16	29.9	23	7.2	3
Jajo-9556	1047	11	48	9	39.8	6	3.9	22	1.24	1	83	16	31.8	10	6	25
St-474 ck.	1041	12	37	19	40.7	2	3.99	16	1.15	32	81	31	30	22	6.4	18
IF-1010Bt	1038	13	25	35	39.9	5	3.79	26	1.21	5	83	9	32.1	7	5.8	28
MX-6360	1037	14	30	27	37.2	25	3.57	35	1.19	17	81	29	31.5	11	6.7	12
B27-17-06	1023	15	48	9	37.4	19	4.22	9	1.21	5	83	11	31.2	14	6.8	8
Ark-8504	1015	16	42	15	37.3	23	4.08	14	1.19	17	83	13	32	8	5.7	30
HYX-7115	1011	17	38	17	39.2	9	3.56	36	1.14	33	81	37	31.1	15	6.7	11
HYX-6102	999	18	28	30	37.3	24	3.6	34	1.21	5	82	28	34.2	3	6.1	24
UAP-006	992	19	38	17	35.5	33	4.09	13	1.2	12	83	22	28	35	6.7	14
Ark-8517	990	20	37	19	38.3	13	3.82	23	1.19	17	83	23	29.9	24	7	6
UAP-005	988	21	43	12	36.9	27	4.44	5	1.17	29	84	5	28.8	32	6.8	9
HYX-7134	979	22	30	27	37.4	22	3.66	31	1.2	12	82	25	28.9	31	6.2	22
DES 607	957	23	43	12	38.8	12	3.68	30	1.18	23	82	26	31.9	9	6.4	17
Hol-HX-101	930	24	58	3	37.9	14	4.49	3	1.17	27	83	13	29.4	30	6.2	22
IF-1011Bt	925	25	25	35	37.4	18	3.76	27	1.18	21	84	3	32.6	5	5.7	32
DPX-9710	914	26	35	21	36.4	29	3.94	21	1.2	12	83	19	33	4	5.5	35
HYX-7312	895	27	35	21	35.8	32	3.79	24	1.23	2	83	16	29.5	29	6.5	16
GA-93-299	888	28	27	32	37.8	15	3.95	20	1.18	21	84	4	32.4	6	5.7	30
MX-0952	882	29	32	25	36.6	28	4.75	1	1.18	23	84	7	27.4	37	7	7
Jajo-9569	869	30	27	32	36.3	31	3.75	29	1.18	23	83	13	34.8	1	6.8	9
T90-121-17B	848	31	57	4	35.3	35	3.79	24	1.12	36	81	32	28.2	33	5.6	34
GA-93-167	824	32	28	30	37.6	17	3.6	33	1.22	4	83	21	34.3	2	5.9	26
GA-93-8	814	33	33	23	33.9	36	3.96	19	1.21	5	83	8	30.8	19	5.8	28
T89-101-1	809	34	43	12	32.6	37	3.47	37	1.14	33	81	34	31.4	12	7.3	2
GA-92-316	806	35	30	27	37.4	20	4.14	12	1.16	30	81	35	31.1	16	6.2	21
T90-144-3	758	36	50	7	36.4	30	3.65	32	1.12	37	81	36	28.2	33	5.9	26
T90-121-19	756	37	50	7	35.3	34	3.76	27	1.16	31	81	33	30.3	21	5.4	36
Mean	973		39		37.7		3.99		1.18		82.6		30.7		6.3	
LSD <sub>0.10</sub>	123		11		2.3		0.56		0.03		1.5		2.3		0.7	
CV (%)	13.3		28.3		3.6		8.3		1.7		1.1		4.5		6.1	
R-squared*100	49.8		57.5		79.6		65.9		80		73.2		77.3		83	

<sup>a</sup>Planted May 7; irrigated July 23, 30 and Aug 13; defoliated Sept 12, 18; harvested Oct 3, 4. Six replications for lint yield and open bolls; two replications for other variables.

<sup>b</sup>r = ranking.

<sup>c</sup>Fiber micronaire (Mic.), length (Len.), length uniformity (Unif.), strength (Str.) and elongation (Elo.) determined using HVI classing.



**Table 12. Performance of cotton strains in the 1997 Commercial Strain Test at Marianna, Arkansas.<sup>a</sup>**

Variety	Lint yield lb/a	r <sup>b</sup>	Leaf pub. <sup>c</sup>	r	Open bolls	r	Lint fract.	r	Fiber properties <sup>d</sup>									
									Mic	r	Len.	r	Unif.	r	Str.	r	Elo	r
St-474 ck.	1558	1	6.1	1	73	7	43.6	1	5.12	3	1.13	31	84	15	27.7	35	7	9
DES 607	1536	2	1.8	30	68	20	43.3	2	4.64	20	1.18	20	83	23	28.8	27	7.1	8
Jajo-9556	1487	3	4	8	72	11	40.7	8	4.42	34	1.24	2	84	11	28.4	31	6.8	16
SGX-890	1459	4	2.9	15	77	4	40.7	7	4.68	18	1.21	6	83	19	30.3	8	6.9	10
HYX-7312	1431	5	2.1	26	68	20	40.9	5	4.52	31	1.19	14	83	17	29.1	22	7.1	7
B27-17-06	1381	6	1.1	36	70	13	40.3	10	5.2	2	1.19	14	85	5	30.3	8	7.3	3
HYX-7311	1350	7	1.6	34	70	13	39.4	23	4.79	15	1.18	16	84	12	29.1	23	6.9	10
GC-204	1341	8	1.1	36	75	5	37.8	32	5.22	1	1.17	23	85	3	29.5	15	7.1	5
SGX-105	1327	9	2.5	19	73	7	39.6	19	4.83	13	1.19	11	85	6	29.1	20	6.8	16
IF-1011Bt	1314	10	1.4	35	68	20	41.2	4	4.4	35	1.18	16	83	24	28.7	28	5.9	31
SG-125 ck.	1313	11	2.5	20	70	13	40	13	4.95	9	1.19	11	82	29	29.1	23	6.9	10
GA-93-167	1310	12	4.3	6	70	13	41.4	3	4.69	16	1.22	5	85	2	31.4	5	6.2	27
Dp-5409	1308	13	2.2	24	67	25	40.2	11	4.67	19	1.17	23	82	31	29.3	17	6.8	16
T90-144-3	1301	14	2.9	14	78	1	39.5	20	4.54	27	1.1	37	80	37	27.6	36	6.5	23
T90-121-17B	1296	15	2.6	18	78	1	38.5	29	4.46	33	1.11	36	81	36	27	37	6.2	28
MX-6360	1291	16	2.3	22	63	30	37.2	34	4.64	22	1.18	20	82	34	30.4	7	6	30
HYX-7115	1277	17	2.1	28	72	11	39.1	26	4.36	36	1.17	23	82	28	28.3	32	6.9	15
GA-93-8	1266	18	4.4	5	73	7	40.1	12	4.52	29	1.26	1	85	8	31.2	6	5.7	34
T90-121-19	1259	19	2.5	20	75	5	39.5	21	4.53	28	1.16	27	82	29	29.1	20	6.5	23
HYX-7134	1245	20	1.6	32	65	27	40	14	4.83	14	1.17	23	82	33	30.1	12	6.9	10
HYX-7107	1200	21	2.2	25	65	27	39.3	24	5.11	4	1.16	29	83	20	28.9	25	6.5	23
HYX-6102	1198	22	2.1	26	62	32	39.1	25	4.69	17	1.24	2	85	4	31.5	4	6.4	26
T89-101-1	1198	23	2.9	15	70	13	35.2	37	4.61	25	1.18	16	83	26	28	34	7.1	5
IF-1019	1197	24	3.5	11	70	13	39.8	17	4.64	20	1.2	7	85	8	29.4	16	5.6	35
GC-120	1187	25	3.4	12	73	7	39.8	16	4.95	9	1.13	31	83	17	29.2	19	8.1	1
UAP-006	1183	26	2.7	17	62	32	38.1	30	4.6	26	1.16	29	83	25	28.2	33	6.9	10
IF-1010Bt	1166	27	1.7	31	68	20	38.8	27	4.52	29	1.2	10	83	22	30.3	8	5.6	36
Jajo-9569	1161	28	2.3	23	62	32	39.9	15	5.04	5	1.2	7	85	7	32.2	2	6.6	21
Ark-8517	1139	29	3.7	10	68	20	40.5	9	4.48	32	1.19	11	84	10	28.9	25	7.2	4
MX-0952	1129	30	5.9	2	60	35	39.7	18	4.99	6	1.12	34	82	27	28.6	29	7.7	2
IF-1018	1123	31	1.6	32	70	13	38.7	28	4.63	23	1.2	7	84	12	29.9	14	5.5	37
Ark-8504	1114	32	4.1	7	78	1	38	31	4.35	37	1.13	31	81	35	28.6	29	6.2	28
GA-93-299	1108	33	4.9	3	60	35	40.7	6	4.99	7	1.18	16	84	14	31.7	3	6.6	22
GA-92-316	1096	34	4.6	4	67	25	37.2	33	4.98	8	1.23	4	85	1	32.8	1	6.7	20
UAP-005	1063	35	3.8	9	65	27	37	35	4.63	24	1.16	27	83	20	29.3	18	6.7	19
DPX-9710	1033	36	3.2	13	47	37	39.5	22	4.95	9	1.18	20	83	16	30	13	5.8	33
Hol-HX-101	967	37	2	29	63	30	36.4	36	4.95	12	1.12	34	82	31	30.3	8	5.9	32
Mean	1252		2.9		69		39.5		4.73		1.18		83.2		29.5		6.6	
LSD <sub>0.10</sub>	84		0.7		7		1.6		0.25		0.03		1.6		1.9		0.6	
CV (%)	7.1		13.8		10.8		2.3		3.1		1.7		1.1		3.8		5.1	
R-squared*100	75.2		95.3		48		86.7		84.5		87.5		79		73.6		86.8	

<sup>a</sup>Planted May 7; irrigated July 10, 24, 28 and Aug 4, 14, 21 and Sept 2; defoliated Oct 4; harvested Oct 20.

<sup>b</sup>r = ranking.

<sup>c</sup>Leaf pubescence rated from 1 (smooth leaf) to 7 (very hairy). Six replications for lint yield and open bolls; two replications for other variables.

<sup>d</sup>Fiber micronaire (Mic.), length (Len.), length uniformity (Unif.), strength (Str.) and elongation (Elo.) determined using HVI classing.