

ARKANSAS COTTON VARIETY TEST



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2002**

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SUMMARY

The primary aim of the Arkansas Cotton Variety Test is to provide unbiased data regarding the agronomic performance of cotton varieties and advanced breeding lines in the major cotton-growing areas of Arkansas. This information helps seed dealers establish marketing strategies and assists producers in choosing varieties to plant. In this way, the annual test facilitates the inclusion of new, improved genetic material into Arkansas cotton production. Variety adaptation is determined by evaluation of the varieties and lines at four University of Arkansas research stations located near Keiser, Clarkdale, Marianna, and Rohwer. Tests are duplicated in irrigated and non-irrigated culture at the Keiser and Marianna locations. In 2002, 37 entries were evaluated in the main test and 25 were evaluated in the first-year test. This report also includes the Mississippi County Cotton Variety Test (a large-plot, on-farm evaluation of 12 Round-up Ready varieties) and 12 other on-farm cotton variety tests conducted by the University of Arkansas Cooperative Extension Service.

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Introduction

The purpose of the University of Arkansas Cotton Variety Testing Program is to provide unbiased comparisons of cotton varieties and advanced breeding lines. Data from these tests help to identify the potential adaptability of varieties to particular cotton growing regions of the state. Bourland and Benson (2000) documented several unintentional biases, which are inherent to the Arkansas cotton variety testing program. These include management associated with varieties expressing herbicide and insect resistance. The biases tend to cancel each other so that no great advantage is given to any particular variety. Recognizing the genetic differences among entries is the ultimate goal of the test, therefore, all varieties are treated the same. Within the official variety test, no specialized production inputs were implemented with respect to genetically enhanced varieties. Round-up Ready varieties, Buctril resistant varieties, Bt varieties and conventional varieties were all treated equally with respect to weed and insect control.

Lines that had not been previously tested in the Arkansas Variety Testing Program were evaluated in the 2002 1st year variety test. Lines that had been evaluated in 2001 and were re-submitted in 2002 were evaluated in the 2002 main variety test. In addition, 12 Round-up Ready varieties were evaluated in a replicated, large plot test at Manila using a standard Round-up Ready weed control program.

Materials and Methods

The 2002 Arkansas Cotton Variety Test was conducted at the Northeast Research and Extension Center at Keiser; the Delta Branch Station at Clarkedale; the Cotton Branch Experiment Station at Marianna; and the Southeast Branch Experiment Station at Rohwer. An irrigated test was conducted at each site, and a non-irrigated test was conducted at Keiser and Marianna. Cultural practices associated with the test are listed in Table 1. One on-farm variety test was conducted in Mississippi County, located in northeast Arkansas.

Environmental conditions varied across the state (Table 2). Temperatures during the 2002 production season were near the historical average (1960 - 1998), but well below the historical averages in May. Unusually cold temperatures immediately after planting delayed emergence and reduced stands at each location. As suggested by the high yield in non-irrigated tests, rainfall was above average throughout the season.

Entries were separated into those tested for the first time (1st year entries) and those having been entered in the Arkansas Cotton Variety Test the preceding year. All test sites included the same entries. All varieties were planted in two-row plots ranging in length from 40 to 50 feet. Varieties entered in the Mississippi County test at Manila were planted in 6-row plots running the full length of the field (approximately 1270 feet). The Mississippi County test included Round-up Ready and stacked gene (Round-up Ready and

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Bollguard) varieties. All varieties in this test were treated with Round-up applied over-the-top. All tests were arranged in a randomized complete block and replicated four times. Although exact inputs varied across locations, cultural inputs at each location were generally based on University of Arkansas Cooperative Extension Service recommendations for cotton production, including COTMAN rules for insecticide termination. All plots were machine-harvested and yield per acre calculated and statistically analyzed.

Data Collected

Leaf Pubescence: Once per season, visual estimates of leaf pubescence were made in the irrigated tests at Keiser using a scale of 1 (smooth leaf) to 7 (very hairy). A full-sized leaf, ca. 5-6 nodes from plant apex, was rated for 6 plants per plot in all 4 replications.

Plant Height: Plant height measurements were collected from each variety prior to harvest. Average plant heights for varieties were determined by measuring from the soil surface to the terminal of one averaged sized plant per plot.

Lint Percentage and Fiber Data: Prior to mechanical harvest, hand-harvested samples of 50 open bolls were obtained from two replications at each location. Hand-harvested samples were collected from all four replications of the on-farm test in Mississippi County. In each test, the samples were obtained by picking all open bolls from consecutive plants. The 50-boll samples were ginned (lab gin without the use of lint cleaners) to determine lint fraction (the percentage lint to seedcotton). Fiber properties were determined using HVI classification.

Seed index: Two sets of 50 fuzzy seed were counted and weighed from the ginned seed of each 50-boll sample. If the two weights varied greatly, a third sample was taken. Two consistent weights of 50 seed were added to obtain fuzzy seed index (weight of 100 seed).

Lint Yield: Seedcotton yield per plot was converted to seedcotton yield per acre then multiplied by average lint percentage (determined by variety and location) to estimate lint per acre.

Yield Comparisons

Uncontrolled variation is inherent to collection of varietal performance data (particularly yield data). In addition to their genetic ability, variation among varieties may be due to slight differences in soil, pest or climatic conditions within a field, various interactions with specific management, or experimental error. Statistics allow users to define the degree of uncontrolled variation and to interpret data. The statistical tool used to compare means in these tests was Fisher's Protected Least Significant Difference (LSD). An LSD was calculated when the F value from ANOVA was significant. Varietal yields are considered significantly different if the difference between the mean yields of two varieties is greater than the LSD value. Differences smaller than the LSD may have occurred by chance or due to uncontrolled variation and are therefore considered not significant.

Additional estimates of variation are provided by measures of R-squared and coefficient of variation (CV). R-squared (times 100) indicates the percentage of variation that is explained by defined sources of variation (e.g. replication and variety effects within a location). Confidence in data increases as R-squared increases. Generally, the meaningfulness of difference among means is questionable when data have R-squared values of less than 50%. Also, confidence in data becomes greater as CV declines. Since CV is a function of the mean of a parameter, R-squared is a better tool for comparing the precision of different experiments.

Results

Table 1

Table 1 represents cultural inputs and production information for variety trials at Keiser (irrigated and non-irrigated), Clarkedale, Marianna (irrigated and non-irrigated), and Rohwer.

Table 2

Table 2 reports weather information for North, central, and South Arkansas during the 2002 production season.

Tables 3 – 10

Tables 3 – 10 represent the results of the Arkansas Cotton Variety Test. Varieties listed in these tables were tested the previous year in Arkansas.

Tables 11 – 18

Tables 11 – 18 represent the results of the 1st year Arkansas Cotton Variety Test. Varieties listed in these tables have never been entered in the Arkansas Cotton Variety Test.

Table 19

Ratings for incidence of *Verticillium* wilt at Clarkedale and leaf pubescence ratings at Keiser are in Table 19. Results of entries in the main test and 1st year test are reported.

Tables 20-21

Tables 20 - 21 represent two- and three-year means for entries in the main test.

Tables 22

Table 22 represents results of the Mississippi County on-farm variety test.

Literature Cited

- Bourland, F.M., N.R. Benson, and W.C. Robertson. 2000. Inherent biases in the Arkansas cotton variety testing program. pp. 547-549. In Proc. Beltwide Cotton Prod. Res. Conf., San Antonio, TX. 4-8 Jan. 2000. National Cotton Council, Memphis, TN.

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Cultural Inputs and Production Information

Participants in the 2002 Arkansas Cotton Variety Test

Institution/contact person	Main test entries		1st year test entries	
Bayer Crop Science / Jane Dever jane.dever@bayercropscience.com	FM 958 FM 958B	FM 966 FM 989BR	FM 960RR	FM 960BR
Beltwide Cotton Genetics / Tom Kilgore buytexas@aol.com			BCG 24R BCG 28R	BCG 30R XTX 951RR
Calif. Planting Cotton Seed Dist. / Hal Moser hmoser@cpcsd.com			B6736 M946 M958	M968 M1011
Delta & Pine Land Company / David Albers david.w.albers@deltaandpine.com	DeltaPEARL DP 436RR DP 448B/RR DP 451B/RR DP 491 DP 555BG/RR DP 565	DPLX 99X35 PM 1199RR PM 1218BG/RR SG 105 SG 215BG/RR SG 521R	DP 444BG/RR DP 449BG/RR DP 458B/RR	DP 493 DP 545BG/RR
Mississippi State University / Ted Wallace twallace@pss.msstate.edu	Miscot 8806	Miscot 8839		
Mississippi State Univ.- Delta / John Creech jcreech@drec.msstate.edu	DES 810	DES 816		
PhytoGen Seed Co., LLC. / Frank Bordelon FCBordelon@dow.com	PSC 355 PH98M-2983	PH98M-3196	PH99M-1495	
Stoneville Pedigreed Seed Co. / Andy White awhite@stoneville.com	BXN 49B GC 271 ST 457 ST 4793R	ST 4892BR ST 580 ST 5599BR	ST 5303R	
Syngenta Seeds, Inc. / Charles Cook Charlie.cook@syngenta.com			NX 2429	
Texas A&M University / Wayne Smith cwsmith@tamu.edu			TAM WD-18 TAM WD-22	TAM WD-69s TAM WD-81
Texas A&M University / Peggy Thaxton p-thaxton@tamu.edu			269-1-98	41A-1-99
University of Arkansas / Fred Bourland bourland@uark.edu	Ark 8712 Ark 9101-97-09 Ark 9101-97-10	Ark 9108-04-17 Ark 9108-23-05 Ark 9111-57-20		

Table 1. Cultural practices for locations in the Arkansas Cotton Variety Test.

Location	Fertilizer N, P, K lb/a	Planting date	Furrow irrigation dates	Defoliation date	Harvest date
Keiser, irrigated	100, 0, 0	May 15	Jul 2, 12, 25, Aug 6	Sep 15, 20	Oct 2
Keiser, non-irrigated	100, 0, 0	May 15	none	Sep 15, 20	Sep 25
Clarkedale, irrigated	80, 23, 30	May 8	Jun 24, Jul 2, 9	Sep 22	Oct 15
Marianna, irrigated	84, 12, 32	May 16	Jul 10, Aug 2, 9, 29	Sep 23	Oct 15-23
Marianna, non-irrigated	84, 12, 32	May 22	None	Sep 16	Oct 1-4
Rohwer, irrigated	120, 30, 90	May 20	Jun 14, Jul 10	Sep 21, 20	Oct 15

Table 2. Weather summary for the 2002 production season in North, central, and South Arkansas.

Month by location	DD60s in 2002	DD60s historical avg. ¹	Rainfall (in.) in 2002
Keiser (northeast Ark.):			
May	229.5	326	5.66
June	508.5	549	3.41
July	694.5	659	2.02
August	624.5	579	5.87
September	457.5	366	5.37
Total	2514.5	2479	22.27
Marianna (central Ark.):			
May	283	326	4.49
June	531.5	549	2.31
July	673	659	5.28
August	638.5	579	3.12
September	489.5	366	3.42
Total	2615.5	2479	18.62
Rohwer (southeast Ark.):			
May	332	635	10.36
June	556.5	564	2.49
July	699	672	1.92
August	630	621	2.72
September	508.5	532	2.65
Total	2726	3024	20.14

¹/ DD60 (growing degree days based on 60°F) from historical weather data, 1960-1998.

Table 3. Results of the 2002 Cotton Variety Test with irrigation on a Tunica silty clay soil at Keiser, AR.

Variety	Lint yield lb/a	Lint frac. %	Plant ht. cm	Plant ht. r	Seed index r	Fiber properties							
							Mic	r	Len.	r	Str.	r	Elo.
FM966	1168	1	39.6	4	75	30	11.7	1	4.5	24	1.17	7	85.5
BXN49B	1152	2	37.8	18	85	9	10.1	16	4.3	29	1.14	19	84.6
ST5599BR	1125	3	38.1	14	93	1	10.8	5	4.7	12	1.18	5	84.9
Ark9111-57-20	1079	4	39.0	10	82	11	10.5	8	4.5	21	1.16	10	84.7
Ark9101-97-09	1075	5	39.3	8	74	31	10.8	3	4.7	9	1.14	19	84.8
DP491	1061	6	40.7	3	82	12	9.6	23	5.0	3	1.13	24	84.1
FM958B	1057	7	38.2	13	74	34	10.5	12	4.5	17	1.13	27	84.8
SG521R	1054	8	37.3	22	75	29	9.8	20	4.4	25	1.10	35	84.7
PSC355	1052	9	37.9	17	81	13	9.7	22	4.8	7	1.15	14	85.8
SG105	1039	10	35.8	31	75	27	9.7	21	4.5	17	1.14	16	84.8
SG215BG/RR	1037	11	38.0	16	90	4	9.6	25	4.3	31	1.10	35	84.7
PH98M-2983	1034	12	38.9	11	88	6	9.2	32	4.2	34	1.15	11	84.9
FM958	1026	13	39.0	9	72	35	11.1	2	4.5	21	1.19	2	85.9
DP448B	1025	14	37.4	20	74	32	9.2	29	4.5	17	1.17	6	86.3
ST457	1013	15	36.8	24	84	10	9.2	30	4.0	37	1.15	11	84.6
DP555BG/RR	1003	16	41.7	1	93	2	7.8	37	4.7	11	1.19	3	84.7
DPLX99X35	1002	17	41.6	2	87	8	8.2	36	4.7	9	1.13	24	85.3
ST4793R	984	18	37.6	19	88	7	10.8	4	4.4	27	1.15	11	85.3
PH98M-3196	972	19	39.5	5	79	19	9.5	26	4.2	35	1.14	16	84.7
Ark9108-04-17	968	20	39.4	7	78	20	10.5	9	5.2	1	1.13	24	84.4
GC271	959	21	35.2	34	78	20	9.2	34	5.1	2	1.15	14	85.5
DP565	957	23	35.8	30	90	5	9.2	31	4.3	29	1.18	4	84.7
Miscot8839	957	22	36.7	25	80	14	10.2	14	4.6	13	1.14	22	84.2
FM989BR	952	24	36.6	26	77	25	10.7	7	4.6	13	1.17	7	85.1
Ark9101-97-10	947	25	36.4	27	79	16	10.2	15	4.9	5	1.11	33	84.4
Ark8712	944	26	36.3	29	80	15	9.4	28	4.3	31	1.17	7	85.3
Ark9108-23-05	928	27	38.5	12	78	20	10.5	10	5.0	4	1.08	37	84.7
DeltaPEARL	891	28	39.5	6	91	3	8.6	35	4.8	6	1.20	1	84.9
DP436RR	881	29	34.6	36	70	37	9.9	19	4.4	25	1.13	27	83.8
ST580	875	30	35.3	33	74	32	9.2	33	4.2	35	1.13	27	83.1
DES810	874	31	35.6	32	79	16	10	18	4.6	16	1.12	30	84.5
PM1218BG/RR	873	32	37.4	21	78	23	10.2	13	4.6	15	1.11	33	84.0
ST4892BR	873	33	38.1	15	79	16	10.5	11	4.4	27	1.12	30	85.1
DP451B/RR	846	34	35.0	35	75	27	9.5	27	4.3	31	1.14	19	85.2
DES816	833	35	36.4	28	77	24	10.8	5	4.8	8	1.14	22	84.4
Miscot8806	795	36	34.3	37	76	26	10.1	17	4.5	21	1.12	30	85.2
PM1199RR	687	37	37.1	23	72	36	9.6	24	4.5	17	1.14	16	85.9
LSD 0.10	143	2.0			10		0.7		0.5		0.04		ns
Mean	973	37.6			80		9.9		4.5		1.14		84.8
C.V.%	12.6	3.2			10.3		4.2		6.8		2.3		5.4
R-sq x 100	51.3	82.6			49.6		88.4		60.8		68.1		54.5

Table 4. Results of the 2002 Cotton Variety Test without irrigation on a Tunica silty clay soil at Keiser, AR.

Variety	Lint yield lb/a	Lint frac. %	Plant ht. cm	r index	r	Seed Mic	r	Fiber properties			
								Len.	r Unif.	r	Str.
ST4892BR	1030	1	41.3	5	71	3	8.9	27	4.7	13	1.07
PH98M-2983	988	2	41.9	3	62	15	9.1	25	4.9	6	1.07
Ark9111-57-20	974	3	41.8	4	72	2	9.6	13	4.6	18	1.09
ST4793R	968	5	42.4	2	64	10	9.3	21	4.8	9	1.05
ST5599BR	968	4	39.5	9	56	36	10.3	3	4.9	6	1.09
FM958B	961	6	38.7	20	59	29	10	7	4.7	11	1.11
Ark9101-97-09	946	7	39.5	12	61	19	10.3	2	4.5	21	1.11
ST457	923	8	41.0	6	62	15	8.9	27	4.6	17	1.08
DP491	922	9	38.8	18	63	13	8.7	32	4.4	26	1.17
FM966	908	10	39.5	10	67	6	11.3	1	5.0	3	1.13
DPLX99X35	903	11	42.7	1	58	30	8.4	33	5.1	1	1.09
SG521R	896	12	36.8	30	70	4	8.7	30	3.8	37	1.09
Ark9101-97-10	894	13	38.8	19	60	25	10	8	4.8	9	1.07
FM958	891	14	39.5	11	58	33	10.3	4	4.7	13	1.14
DP555BG/RR	887	15	39.2	15	73	1	6.9	37	3.9	36	1.12
DP448B	858	16	36.8	29	61	21	8.1	36	4.2	34	1.10
PH98M-3196	855	17	38.6	21	64	11	8.7	31	4.2	33	1.11
SG105	838	18	37.3	25	58	32	9.3	20	4.4	28	1.13
ST580	824	19	36.8	28	68	5	8.8	29	4.7	13	1.12
Ark8712	820	20	39.1	16	61	21	9.3	21	4.3	30	1.14
Miscot8806	819	21	36.5	33	61	23	9.6	15	4.3	29	1.13
DES810	815	22	36.1	35	63	13	9.6	14	4.5	21	1.09
PM1218BG/RR	792	23	39.3	13	66	8	9.9	10	4.7	12	1.09
DeltaPEARL	788	24	39.3	14	59	27	8.4	34	4.6	18	1.18
Miscot8839	779	25	36.3	34	66	7	10.1	6	4.7	13	1.15
PM1199RR	777	26	40.5	7	56	35	9.7	12	4.9	6	1.08
Ark9108-23-05	759	27	39.7	8	58	34	9.9	9	5.0	4	1.02
GC271	756	28	36.6	32	62	17	9	26	4.6	18	1.16
BXN49B	735	29	38.5	22	59	27	9.6	16	4.2	34	1.12
DP436RR	724	30	34.0	37	55	37	9.3	19	4.5	21	1.12
DES816	722	31	36.9	27	66	8	9.4	18	4.3	30	1.08
DP565	715	32	36.7	31	61	23	8.1	35	4.3	30	1.13
PSC355	704	33	38.5	23	58	30	10.2	5	5.0	4	1.11
FM989BR	697	34	38.3	24	60	26	9.7	11	4.5	21	1.10
DP451B/RR	674	35	35.5	36	62	18	9.2	23	4.5	25	1.12
SG215BG/RR	660	36	37.0	26	63	12	9.1	24	4.4	26	1.07
Ark9108-04-17	656	37	38.8	17	61	19	9.4	17	5.1	1	1.08
LSD 0.10	185	2.3	ns	ns	0.8	0.4	0.05	1.1	2.8	0.6	0.6
Mean	833	38.6	62	9.3	4.5	1.10	83.8	31.8	8.4	31.8	8.4
C.V.%	19.0	3.5	13.5	5.0	5.3	2.5	0.7	5.3	4.0	2.5	4.0
R-sq x 100	40.6	81.9	35.1	85.8	78.6	77.3	69.0	84.0	77.3	84.0	77.3

Table 5. Results of the 2002 Cotton Variety Test with irrigation on a Dundee silt loam soil at Clarkdale, AR.

Variety	Lint yield lb/a	Lint frac. r	% ht.	Plant ht. cm	r index	r	Fiber properties									
							Seed Mic	r	Len.	r Unif.	r	Str.	r			
SG215BG/RR	994	1	37.3	11	137	12	9.8	14	4.1	30	1.15	17	28.7	37	8.1	9
DP491	977	2	39.9	3	138	9	8.6	32	4.3	18	1.22	1	84.8	11	34.1	7.4
FM958	949	3	38.7	7	134	18	10.4	5	4.3	19	1.16	11	84.3	23	33.1	13
DP555BG/RR	926	4	41.3	1	140	7	7.7	37	4.7	2	1.15	13	83.8	30	31.1	25
DPLX99X35	921	5	39.2	5	142	3	9	29	4.5	5	1.14	23	84.6	14	28.9	36
Ark9101-97-10	879	6	37.4	9	130	30	9.1	28	4.3	22	1.13	31	84.4	18	32.0	20
FM966	878	7	33.4	31	131	29	11	1	4.4	11	1.18	7	85.8	1	38.0	1
FM958B	870	8	36.3	21	133	24	9.8	16	4.0	33	1.14	27	83.8	30	34.7	5
PH98M-2983	867	9	36.4	19	134	20	9	30	4.1	30	1.13	29	83.6	33	32.7	17
ST5599BR	860	10	38.5	8	146	1	10.6	4	4.3	22	1.19	5	85.2	4	32.9	15
Ark9108-23-05	859	11	36.6	16	134	22	10.9	2	4.4	15	1.14	25	84.3	21	35.1	4
DP451B/RR	811	12	34.4	28	134	23	9.8	17	4.4	11	1.20	2	85.3	3	30.0	33
Ark9108-04-17	803	13	38.9	6	136	13	9.7	20	4.9	1	1.12	34	84.0	29	34.4	7
SG105	795	14	32.5	34	129	33	9.8	18	4.4	15	1.15	17	85.2	5	33.8	9
DES816	764	15	37.0	12	132	25	9.4	22	4.7	3	1.14	21	83.3	35	31.9	21
GC271	761	16	35.7	22	135	17	9.3	26	4.4	11	1.20	2	85.5	2	31.8	22
ST457	753	17	36.3	20	130	30	8.4	36	3.7	37	1.15	13	84.4	18	29.3	34
PM1218BG/RR	745	18	37.3	10	132	26	10.9	3	4.6	4	1.13	29	84.2	25	32.8	16
PM1199RR	740	19	33.3	32	126	35	9.9	12	4.2	26	1.14	27	84.8	10	33.1	11
PH98M-3196	737	20	37.0	13	138	11	9.6	21	4.3	22	1.15	13	84.6	16	30.5	28
DeltaPEARL	718	21	36.6	17	141	5	9.4	23	4.5	5	1.19	4	84.9	6	30.5	27
Ark8712	711	22	31.3	37	139	8	9.4	24	4.0	33	1.19	5	84.5	17	32.3	18
DP436RR	704	23	31.8	36	123	37	10.2	6	4.1	28	1.15	13	84.2	25	29.1	35
ST4892BR	700	24	39.2	4	140	6	10.2	10	4.5	8	1.11	36	84.3	23	33.4	10
ST580	693	25	33.5	30	129	33	8.5	33	4.0	33	1.15	17	84.4	18	31.7	23
DP565	684	26	36.8	15	142	4	8.4	34	4.2	27	1.17	10	84.1	28	30.2	31
SG521R	670	27	35.6	23	136	15	8.7	31	3.9	36	1.10	37	84.2	27	30.2	31
FM989BR	667	28	36.9	14	125	36	10.2	8	4.5	10	1.14	25	83.8	30	35.5	2
PSC355	655	29	32.2	35	136	13	9.9	13	4.3	19	1.12	32	83.3	35	33.0	14
DP448B	637	30	32.5	33	132	27	8.4	35	4.1	32	1.15	17	83.3	35	30.9	26
BXN49B	611	31	36.5	18	132	27	9.8	15	4.1	28	1.18	9	84.7	12	32.1	19
Miscot8806	583	32	35.0	25	130	32	9.4	25	4.3	19	1.14	21	84.9	7	35.5	2
ST4793R	575	33	34.7	27	144	2	9.8	18	4.5	8	1.12	32	84.3	22	33.1	11
Ark9101-97-09	568	34	34.9	26	138	9	10.2	7	4.4	15	1.16	12	84.6	14	34.7	5
Miscot8839	532	35	35.5	24	135	16	10.2	9	4.5	5	1.18	7	84.9	7	30.4	29
Ark9111-57-20	510	36	40.6	2	134	18	9.9	11	4.4	11	1.14	23	84.9	7	30.2	30
DES810	506	37	33.9	29	134	20	9.2	27	4.3	22	1.12	35	83.3	34	31.5	24
LSD 0.10	209	4.8	12							ns			0.04	1.1	2.4	0.6
Mean	746	36.1	135	9.6	4.3	1.15							84.4	32.2	7.8	
C.V.%	23.8	7.8	7.3	6.0	7.3	2.0							0.8	4.5	4.9	
R-sq x 100	46.3	61.3	30.5	78.4	53.3	74.9							66.5	81.5	62.1	

Table 6. Results of the 2002 Cotton Variety Test with irrigation on a Calloway silt loam soil at Marianna, AR.

Variety	Lint yield lb/a	Lint frac. %	Plant ht. cm	Plant r index	Seed r index	Fiber properties												
						Mic r	Len. r	Unif. r	Str. r	Elo. r	r							
PH98M-2983	1406	1	38.4	2	104	6	10.2	23	4.0	20	1.16	22	84.7	21	29.0	28	8.3	15
DPLX99X35	1387	2	36.3	7	103	8	9.6	31	4.2	13	1.16	20	84.6	26	29.2	27	8.3	15
DP555BG/RR	1358	3	39.8	1	111	1	8.3	37	4.2	15	1.14	32	83.1	37	30.0	22	7.6	35
ST4892BR	1353	4	37.1	3	107	2	10.4	20	3.8	30	1.15	28	84.9	17	28.6	32	7.9	30
BXN49B	1343	5	36.3	6	103	9	10.3	22	3.8	29	1.18	10	84.3	30	27.1	36	7.7	34
SG521R	1322	6	36.4	5	100	13	10.8	8	4.3	8	1.15	28	84.4	28	29.0	28	8.5	7
ST5599BR	1320	7	36.2	8	105	4	10.5	16	3.9	28	1.18	15	84.8	18	31.4	13	8.1	25
DP451B/RR	1283	8	34.9	18	97	22	9.8	27	3.9	25	1.21	4	85.7	5	29.7	24	7.8	32
FM966	1279	10	36.0	10	87	36	11.7	2	4.4	5	1.19	7	85.8	3	35.0	1	8.0	27
ST4793R	1279	9	35.2	13	106	3	10.8	9	4.0	23	1.13	36	84.7	21	31.9	11	8.1	25
FM989BR	1256	11	35.0	16	91	31	10.9	6	4.3	8	1.14	32	84.1	33	33.6	4	8.4	13
Ark9111-57-20	1246	12	36.6	4	101	12	10.4	18	3.7	33	1.17	17	84.6	24	29.0	28	8.2	19
Ark9101-97-10	1234	13	34.1	25	104	5	10.4	19	4.0	23	1.16	20	85.0	14	30.3	20	8.3	15
PSC355	1222	14	34.5	22	94	27	10.6	13	4.0	20	1.15	24	84.7	21	30.6	18	8.2	19
Ark9108-23-05	1210	15	34.9	17	88	35	12.6	1	4.3	8	1.14	32	84.8	19	34.6	2	8.2	19
Miscot8806	1206	16	33.5	30	95	24	10.4	17	4.3	11	1.16	22	85.1	12	33.6	5	8.6	5
SG105	1204	17	34.3	23	100	13	10.7	10	4.4	5	1.17	17	85.5	8	31.3	14	8.5	7
DP491	1184	18	35.1	15	100	16	9.7	29	4.0	20	1.24	1	86.3	1	32.5	10	8.0	29
PM1218BG/RR	1174	19	33.3	32	102	10	10.6	12	4.3	11	1.14	35	84.0	34	28.6	33	8.4	11
ST580	1161	20	33.4	31	102	10	8.8	35	4.1	17	1.19	7	85.0	14	30.0	23	8.4	13
GC271	1158	21	33.5	28	95	25	10.5	14	4.5	3	1.21	4	85.8	3	31.7	12	8.5	7
PH98M-3196	1158	22	33.6	27	91	30	9.7	28	3.4	37	1.15	28	84.2	32	28.5	34	8.5	7
ST457	1153	23	35.2	12	98	21	9.4	33	3.8	31	1.18	10	84.6	26	29.6	25	8.9	1
DP565	1152	24	34.6	21	100	13	8.9	34	3.9	27	1.22	2	86.2	2	30.5	19	8.2	19
DES810	1137	25	31.7	36	90	33	9.9	26	4.1	18	1.18	15	85.3	9	31.1	15	8.6	3
Ark9108-04-17	1131	26	35.1	14	93	28	11.1	5	4.8	1	1.13	37	84.6	25	33.3	7	8.6	3
Miscot8839	1126	27	32.3	34	98	20	11.4	3	4.5	3	1.19	7	85.2	10	29.5	26	7.9	30
SG215BG/RR	1112	28	34.3	24	100	16	9.6	30	3.6	35	1.15	24	84.0	35	28.5	34	8.3	15
PM1199RR	1105	29	35.4	11	91	31	10.7	11	4.3	7	1.18	10	85.5	7	31.0	16	8.6	5
DP448B	1092	30	31.9	35	87	37	8.8	36	3.5	36	1.20	6	84.3	31	28.9	31	7.5	36
DeltaPEARL	1088	31	33.7	26	103	7	9.5	32	3.9	25	1.21	3	85.0	14	30.1	21	7.5	36
FM598B	1072	32	33.5	29	100	18	10.2	24	3.6	34	1.15	24	85.1	12	34.4	3	8.0	27
Ark9101-97-09	1040	33	36.1	9	89	34	11.3	4	4.2	15	1.15	28	83.8	36	33.5	6	8.2	24
FM958	1036	34	34.6	20	92	29	10.9	7	4.2	14	1.18	10	84.8	20	32.7	9	7.8	33
DP436RR	1009	35	31.1	37	94	26	10.1	25	3.8	31	1.17	17	85.2	11	26.7	37	8.2	19
Ark8712	980	36	34.8	19	96	23	10.5	15	4.5	2	1.18	10	85.6	6	30.9	17	8.9	1
DES816	941	37	32.9	33	99	19	10.3	21	4.1	18	1.15	24	84.4	29	33.3	7	8.4	11
LSD 0.10	144	3.3	11	1.1	ns	0.05	1.2	2.9	0.6	0.05	1.17	84.8	30.8	8.2	0.6	0.6	0.6	
Mean	1187	34.8	98	10.3	4.0	1.17	84.8	30.8	8.2	4.0	2.5	0.8	5.5	4.3	0.8	8.2	8.2	
C.V.%	10.1	5.6	9.2	6.4	9.9	2.5	0.8	5.5	4.3	63.6	64.3	64.3	67.2	67.2	67.2	67.2	67.2	
R ² sq X 100	63.7	62.2	43.9	76.7	54.4	63.6	64.3	76.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	67.5	

Table 7. Results of the 2002 Cotton Variety Test without irrigation on a Calloway silt loam soil at Marianna, AR.

Variety	Lint yield lb/a	Lint frac. r	Plant ht. cm	r index	r	Seed Mic	r	Fiber properties					Str.	r	Elo.	r		
								Len.	r	Unit.	r	Str.						
ST5599BR	992	1	37.8	12	97	2	10.4	16	4.3	27	1.16	13	84.3	30	34.3	5	8.4	26
Ark9108-23-05	967	2	36.7	23	86	27	12.4	1	4.7	16	1.14	23	85.0	16	33.8	8	8.6	22
BXN49B	959	3	36.8	22	95	6	10.2	20	4.2	33	1.16	13	85.5	6	28.7	37	8.1	34
Ark9101-97-09	952	4	37.8	13	94	9	11.4	3	4.8	8	1.15	16	85.4	7	33.8	8	8.4	26
DP491	945	5	39.1	3	92	13	9.1	34	4.4	24	1.22	1	86.0	2	34.0	7	8.2	33
DP555BG/RR	944	6	39.6	2	93	10	8.1	37	4.5	22	1.17	8	85.3	11	33.1	14	8.1	34
PH98M-2983	941	7	41.0	1	88	24	9.4	29	4.8	7	1.11	34	84.2	31	32.0	20	8.9	10
ST457	940	8	36.9	18	91	16	9.4	30	4.1	35	1.16	11	84.5	28	32.7	18	9.3	3
SG215BG/RR	932	9	36.2	28	91	18	9.8	26	4.3	30	1.14	23	84.8	21	28.9	36	8.8	12
ST4892BR	927	10	38.7	5	96	3	10.1	21	4.2	32	1.14	17	84.9	19	31.8	21	8.7	19
ST580	910	11	36.4	25	92	15	9.3	31	4.6	17	1.16	12	85.3	11	30.4	29	8.8	12
DP565	907	12	36.9	19	96	3	9.2	32	4.4	24	1.22	2	86.5	1	33.6	10	9.0	9
Ark8712	901	13	35.2	32	92	14	10.4	15	4.8	8	1.17	10	85.3	11	30.9	27	8.7	21
DES816	894	14	36.3	26	101	1	10.8	9	5.0	4	1.12	29	84.5	26	33.4	12	9.0	6
DPLX99X35	893	15	38.5	7	95	7	9.2	33	4.8	8	1.12	29	83.9	35	29.7	34	8.4	26
DeltaPEARL	891	16	36.4	24	96	5	8.9	36	4.3	27	1.21	3	85.3	10	30.4	29	8.4	26
SG105	888	17	38.8	4	79	36	10.6	12	5.0	4	1.14	17	85.3	8	31.2	23	8.8	15
Ark9108-04-17	874	18	37.6	16	86	29	11.5	2	5.4	1	1.12	32	84.5	26	35.1	4	8.9	11
Miscot8839	863	19	36.8	21	81	32	10.6	13	4.8	8	1.14	17	85.2	14	29.9	32	8.6	24
Ark9111-57-20	860	21	38.5	6	91	16	11	6	4.5	20	1.14	17	85.0	18	31.2	24	9.0	6
PH98M-3196	860	20	37.0	17	89	20	9.7	27	4.3	30	1.14	23	84.8	20	29.9	31	8.8	15
FM966	845	22	37.7	14	79	35	11.3	4	4.3	27	1.17	8	85.8	4	37.4	1	8.4	31
PM1218BG/RR	837	23	37.9	11	89	21	10.7	10	5.1	2	1.10	37	84.2	32	31.0	26	9.1	5
Miscot8806	835	24	36.0	29	86	28	10	23	4.7	13	1.12	29	84.6	24	33.1	16	9.3	2
SG521R	830	25	38.0	9	86	29	10.3	18	4.9	6	1.10	36	83.8	37	31.1	25	9.4	1
DES810	812	26	34.7	34	93	12	10.3	19	4.8	8	1.13	28	84.2	32	33.1	16	8.8	15
DP451B/RR	812	27	34.1	36	93	10	10.5	14	4.2	33	1.21	3	86.0	3	29.8	33	8.0	36
FM958B	808	28	36.2	27	88	22	9.9	25	3.8	37	1.16	13	84.7	22	36.2	2	8.4	26
FM958	806	29	36.8	20	77	37	10.6	11	4.5	20	1.19	5	85.5	5	33.1	14	7.8	37
PSC355	805	30	38.3	8	88	22	10	22	4.7	13	1.11	34	84.6	25	33.6	11	9.3	3
FM989BR	799	31	35.5	31	83	31	11	7	4.7	13	1.12	32	84.5	29	35.6	3	8.8	15
ST4793R	780	32	37.7	15	94	8	9.9	24	4.6	17	1.13	27	83.9	35	30.4	28	8.6	23
DP448B	771	33	35.1	33	81	32	9	35	4.1	35	1.18	7	84.7	23	31.3	22	8.3	32
GC271	762	34	33.6	37	87	25	9.7	27	4.4	24	1.19	6	85.2	14	33.4	13	8.5	25
DP436RR	750	35	34.5	35	87	25	11.1	5	5.0	3	1.14	17	84.2	32	29.0	35	9.0	6
Ark9101-97-10	723	36	36.0	30	90	19	11	8	4.5	22	1.14	17	85.0	17	34.2	6	8.8	12
PM1199RR	688	37	38.0	10	80	34	10.4	16	4.6	17	1.14	23	85.3	8	32.7	19	8.7	19
LSD 0.10	140	2.1	11						0.6		0.04		1.0		2.4		0.6	
Mean	863	37.0	89						10.2		4.5		1.15		84.9		32.2	
C.V.%	13.8	3.4	10.3						3.6		8.0		2.2		0.7		4.4	
R-sq x 100	49.2	76.0	75.4						92.2		67.9		86.4		82.1		71.6	

Table 8. Results of the 2002 Cotton Variety Test with irrigation on a Desha silt loam at Rohwer, AR.

Variety	Lint yield lb/a	Lint frac. %	Plant ht. cm	Seed index	r	Mic	Fiber properties											
							r	Len.	r	Unif.	r	Str.	r					
ST4892BR	1871	1	38.7	15	128	2	10.3	24	4.5	19	1.15	20	84.7	18	29.7	19	8.5	19
ST4793R	1838	2	40.7	3	127	5	11.4	7	4.7	11	1.10	35	84.3	30	30.5	14	8.3	23
ST5599BR	1837	3	39.0	11	126	6	10.7	15	4.4	26	1.15	14	83.7	36	31.5	6	7.8	34
DP565	1823	4	40.0	4	128	3	9.8	29	4.8	5	1.17	7	84.7	17	31.1	10	8.3	23
BXN49B	1813	5	38.3	18	121	12	10.7	16	4.2	34	1.14	22	84.1	34	26.4	35	8.1	30
ST457	1800	6	39.8	6	111	33	9.8	28	4.4	26	1.16	12	84.3	31	26.7	33	8.8	7
SG215BG/RR	1786	7	38.7	14	124	9	10.7	14	4.6	17	1.11	31	84.3	32	26.1	37	9.0	1
Ark9108-04-17	1772	8	39.1	10	114	27	11.3	8	5.5	1	1.11	31	84.6	20	32.7	2	8.8	7
PSC355	1772	9	38.3	20	128	4	10.3	23	4.8	6	1.12	30	84.8	15	29.4	20	8.6	18
PH98M-2983	1766	10	39.9	5	115	25	9.7	30	4.2	37	1.13	26	84.5	23	28.5	24	8.7	10
FM958B	1693	11	39.5	7	121	16	10.6	17	4.4	32	1.14	22	84.4	26	32.0	4	8.1	29
DPLX99X35	1679	12	39.1	9	119	17	9.3	34	4.5	23	1.13	28	83.8	35	26.9	32	8.4	21
PM1218BG/RR	1670	13	38.3	16	121	13	11.8	4	4.7	9	1.13	26	85.0	12	28.2	25	8.7	12
FM966	1661	14	37.6	23	119	17	10.5	18	4.5	19	1.16	12	85.8	2	34.2	1	8.0	31
ST580	1641	15	38.3	19	124	8	9.6	32	4.6	15	1.16	10	84.9	14	30.3	15	8.9	3
Ark9111-57-20	1638	17	38.8	12	119	20	11	10	4.6	15	1.15	14	85.3	9	28.1	26	8.9	2
DeltaPEARL	1638	16	42.0	1	126	7	8.7	36	4.4	26	1.20	2	85.4	6	27.3	30	7.5	36
DP448B	1629	18	35.2	36	110	35	8.9	35	4.2	36	1.11	31	83.2	37	27.7	29	7.9	32
SG521R	1610	19	39.3	8	123	10	10.5	19	4.6	12	1.07	37	84.6	20	27.1	31	8.8	6
DP491	1609	20	41.2	2	118	21	9.7	31	4.4	26	1.22	1	85.4	7	29.7	18	7.8	34
DP451B/RR	1590	21	36.5	30	114	28	10.3	25	4.4	26	1.15	20	84.9	13	26.6	34	8.3	23
Ark9108-23-05	1585	22	37.4	26	112	32	13.4	1	5.2	2	1.10	35	84.2	33	31.3	8	8.3	23
PH98M-3196	1571	23	38.3	17	113	30	9.6	32	4.2	34	1.15	14	84.4	26	29.8	17	8.6	13
GC271	1515	24	35.6	34	116	23	10.2	26	4.6	12	1.19	4	85.3	8	32.2	3	8.8	7
Ark9101-97-09	1511	25	37.9	22	110	34	11.2	9	4.6	12	1.14	24	84.4	29	31.8	5	8.3	23
FM958	1504	26	38.8	13	119	17	11.9	3	4.8	6	1.19	5	85.6	3	30.8	12	7.8	33
DP436RR	1487	27	34.8	37	121	15	10.8	11	4.4	26	1.17	7	84.4	26	26.4	35	8.6	13
Miscot8839	1484	28	37.6	24	123	10	10.8	11	4.8	6	1.18	6	85.5	5	27.8	28	8.6	13
SG105	1470	29	37.3	27	121	13	10.4	21	4.5	23	1.16	10	85.5	4	29.2	21	8.9	3
Miscot8806	1467	30	35.7	33	116	24	10.5	20	4.5	23	1.15	14	85.0	11	29.9	16	8.5	19
DES810	1465	31	36.0	32	117	22	10.1	27	4.5	19	1.11	31	84.5	23	31.0	11	8.9	3
DES816	1465	32	36.1	31	109	36	11.5	6	4.9	3	1.15	14	84.5	25	31.3	7	8.7	10
DP555BG/RR	1446	33	36.9	28	139	1	8.4	37	4.5	19	1.17	7	84.6	20	28.0	27	7.5	37
PM1199RR	1436	34	37.9	21	109	36	10.4	22	4.6	17	1.15	14	85.3	10	29.1	22	8.6	13
Ark8712	1420	35	37.5	25	112	31	10.7	13	4.4	32	1.20	2	86.2	1	28.7	23	8.4	21
FM989BR	1407	36	36.7	29	114	29	12.6	2	4.9	3	1.12	29	84.7	18	31.1	9	8.3	23
Ark9101-97-10	1382	37	35.4	35	114	26	11.5	5	4.7	9	1.14	25	84.8	16	30.8	12	8.6	13
LSD 0.10	139	2.4		10			1.1		ns		0.03		ns	2.0		0.6		
Mean	1615	38.1		119			10.5		4.6		1.14		84.7	29.4		8.4		
C.V.%	7.4	3.7		7.5			6.1		7.1		1.8		0.9	4.0		3.9		
R-sq x 100	68.0	75.4		47.0			83.2		56.8		84.5		59.0	86.7		74.1		

Table 9. Results of the 2002 Cotton Variety Test across three north Arkansas test sites (Keiser and Clarkdale).

Variety	Lint yield			Plant			Seed index			Fiber properties		
	lb/a	Lint r	frac.	r ht.	r	cm	Mic r	Len. r	Unif. r	Str. r	r	Elo. r
DP 491	987	1	39.8	4	94	11	9.0	30	4.6	12	1.17	2
FM 966	984	2	37.5	20	91	25	11.3	1	4.6	8	1.16	7
ST 5599BR	984	3	38.7	9	98	3	10.5	3	4.6	10	1.15	11
PH98M-2983	963	4	39.1	8	95	10	9.1	29	4.4	26	1.12	28
FM 958B	963	5	37.7	17	89	32	10.1	9	4.4	24	1.12	24
FM 958	955	6	39.1	6	88	33	10.6	2	4.5	19	1.16	4
DPLX 99X35	942	7	41.1	1	96	9	8.6	36	4.8	2	1.12	25
DP 555BG/RR	939	8	40.8	2	102	1	7.5	37	4.4	22	1.15	9
Ark 9101-97-10	907	9	37.5	19	90	28	9.7	18	4.6	6	1.10	34
SG 215BG/RR	897	10	37.4	21	97	7	9.5	24	4.2	31	1.11	32
ST 457	896	11	38.0	14	92	16	8.8	32	4.1	36	1.13	22
SG 105	891	12	35.2	35	87	34	9.6	22	4.4	23	1.14	13
SG 521R	873	13	36.5	25	93	14	9.1	28	4.0	37	1.10	36
ST 4892BR	868	14	39.5	5	97	5	9.9	15	4.5	18	1.10	34
Ark 9101-97-09	863	15	37.9	16	91	24	10.5	4	4.5	14	1.13	17
PH98M-3196	855	16	38.3	11	93	13	9.3	26	4.2	33	1.13	16
Ark 9111-57-20	854	17	40.5	3	96	8	10.0	10	4.5	20	1.13	20
Ark 9108-23-05	849	18	38.3	12	90	29	10.4	5	4.8	2	1.08	37
ST 4793R	842	19	38.2	13	99	2	9.9	12	4.5	14	1.13	32
DP 448B	840	20	35.6	30	89	30	8.6	35	4.2	31	1.14	13
BXN 49B	833	21	37.6	18	92	17	9.8	16	4.2	34	1.14	12
GC 271	825	22	35.9	29	91	23	9.2	27	4.7	5	1.17	3
Ark 8712	825	23	35.6	31	93	15	9.4	25	4.2	35	1.16	5
Ark 9108-04-17	809	24	39.1	7	92	19	9.9	13	5.0	1	1.11	29
PSC 355	804	25	36.2	27	92	19	9.9	11	4.7	4	1.12	23
PM 1218BG/RR	803	26	38.0	15	92	19	10.3	6	4.6	8	1.11	30
DeltaPEARL	799	27	38.5	10	97	5	8.8	33	4.6	6	1.19	1
ST 580	798	28	35.2	34	90	26	8.8	31	4.3	29	1.13	19
DP 565	785	29	36.4	26	97	4	8.6	34	4.3	30	1.16	6
DP 451BRR	777	30	35.0	36	90	27	9.5	23	4.4	25	1.15	10
DES 816	773	31	36.8	24	92	19	9.9	14	4.6	13	1.12	26
FM 989BR	772	32	37.1	22	87	35	10.2	7	4.5	14	1.13	15
Miscot 436RR	770	33	33.5	37	83	37	9.8	17	4.3	28	1.13	17
Miscot 8839	756	34	36.2	28	94	12	10.2	8	4.6	10	1.16	8
PM 1199RR	735	35	37.0	23	85	36	9.7	19	4.5	14	1.12	26
Miscot 8806	732	36	35.3	32	89	31	9.7	20	4.4	27	1.13	20
DES 810	732	37	35.2	33	92	17	9.6	21	4.4	21	1.11	30
Var. LSD 0.10	104	1.9		6.0		0.5		0.3	0.02		0.7	1.6
Mean	851	37.4		92.0		9.6		4.5	1.13		84.3	32.0
C.V.%	18.2	5.2		9.6		5.1		6.5	2.3		0.8	5.1
R-sq x 100	57.3	75.3		94.5		85.2		68.8	80.5		71.1	79.5
Prob (var x loc)	<0.001	0.29		0.59		0.29		0.27	0.17		0.16	0.002
Keiser (irrig)	973	37.6		80		9.9		4.5	1.14		84.8	32.1
Keiser (no irrig)	833	38.6		62		9.3		4.5	1.10		83.8	31.8
Clarkdale (irrig)	746	36.1		135		9.6		4.3	1.15		84.4	32.2
Loc. LSD 0.10	29	0.5		2		<0.1		ns	0.01		0.2	ns

Table 10. Results of the 2002 Cotton Variety Test across three south Arkansas test sites (Marianna and Rohwer).

Variety	Lint yield lb/a	Lint frac. %	Plant ht. cm	Seed index	r	Fiber properties												
						Mic	r	Len.	r	Unif.	r	Str.	r					
ST 4892BR	1383	1	38.2	4	111	2	10.3	22	1.14	22	84.8	16	30.0	23	8.4	22		
ST 5599BR	1383	2	37.7	9	109	3	10.5	17	4.2	29	1.16	12	84.2	35	32.4	8	8.1	30
BXN 49B	1372	3	37.1	15	106	7	10.4	19	4.1	34	1.16	15	84.6	21	27.4	36	8.0	33
PH98M-2983	1371	4	39.8	1	102	19	9.8	28	4.3	25	1.13	29	84.5	26	29.8	24	8.6	13
DPLX 99X35	1314	5	38.0	6	106	9	9.4	32	4.5	15	1.14	27	84.1	36	28.6	34	8.4	22
ST 457	1297	6	37.3	11	100	26	9.6	30	4.1	33	1.17	11	84.4	27	29.7	25	9.0	1
DP 565	1294	7	37.2	14	108	6	9.3	33	4.4	24	1.20	3	85.8	2	31.7	14	8.5	20
ST 4793R	1293	8	37.9	8	109	4	10.7	12	4.4	18	1.12	34	84.3	33	30.9	17	8.3	26
SG 215BG/RR	1277	9	36.4	23	105	10	10.0	27	4.1	32	1.13	30	84.3	31	27.8	35	8.7	10
Ark 9108-04-17	1271	10	37.3	12	98	30	11.3	4	5.2	1	1.12	36	84.6	23	33.7	3	8.7	4
PSC 355	1266	11	37.0	18	103	14	10.3	20	4.5	11	1.13	33	84.7	18	31.2	16	8.7	12
FM 966	1262	12	37.1	16	95	35	11.2	5	4.4	20	1.17	8	85.8	3	35.5	1	8.1	29
Ark 9108-23-05	1254	14	36.3	24	95	34	12.8	1	4.7	2	1.13	31	84.7	18	33.2	5	8.4	24
SG 521R	1254	13	37.9	7	103	15	10.5	16	4.6	7	1.11	37	84.3	34	29.0	31	8.9	2
DP 555BG/RR	1249	15	38.8	2	114	1	8.3	37	4.4	22	1.16	14	84.3	31	30.4	20	7.7	37
DP 491	1246	16	38.5	3	103	13	9.5	31	4.3	26	1.23	1	85.9	1	32.1	12	8.0	32
Ark 9111-57-20	1244	18	38.0	5	104	12	10.8	11	4.3	27	1.15	19	85.0	13	29.4	26	8.7	8
ST 580	1244	17	36.1	26	106	8	9.2	34	4.4	18	1.17	10	85.0	12	30.2	21	8.7	11
PM 1218BG/RR	1232	19	36.5	21	104	11	11.0	7	4.7	3	1.12	34	84.4	30	29.2	30	8.7	8
DP 451BRR	1228	20	35.2	30	101	20	10.2	24	4.2	31	1.19	6	85.5	5	28.7	33	8.0	31
DeltaPEARL	1206	21	37.4	10	108	5	9.0	35	4.2	28	1.21	2	85.2	11	29.3	29	7.8	36
FM 958B	1199	22	36.4	22	103	16	10.2	23	3.9	37	1.15	20	84.7	17	34.2	2	8.2	28
PH98M-3196	1196	23	36.3	25	98	31	9.7	29	4.0	35	1.14	22	84.5	25	29.4	27	8.6	15
SG 105	1187	24	36.8	19	100	24	10.6	14	4.6	8	1.16	17	85.4	6	30.6	19	8.7	6
Miscot 8806	1169	25	35.1	33	99	28	10.3	21	4.5	15	1.14	25	84.9	15	32.2	11	8.8	3
Ark 9101-97-09	1168	26	37.2	13	98	29	11.3	3	4.5	10	1.14	24	84.5	24	33.0	6	8.3	27
DP 448B	1164	27	34.0	36	92	37	8.9	36	3.9	36	1.16	12	84.0	37	29.3	28	7.9	34
Miscot 8839	1158	28	35.6	29	101	21	10.9	9	4.7	4	1.17	9	85.3	10	29.0	32	8.4	25
FM 989BR	1145	30	35.7	28	96	33	11.5	2	4.6	5	1.13	32	84.4	29	33.4	4	8.5	20
GC 271	1145	29	34.3	34	99	27	10.1	25	4.5	11	1.19	4	85.4	7	32.4	8	8.6	18
DES 810	1138	31	34.1	35	100	25	10.1	26	4.4	17	1.14	27	84.6	20	31.7	14	8.7	4
FM 958	1115	32	36.8	20	96	32	11.1	6	4.5	11	1.19	5	85.3	9	32.2	10	7.8	35
Ark 9101-97-10	1113	33	35.1	31	103	18	10.9	8	4.4	22	1.15	21	84.9	14	31.8	13	8.6	19
Ark 8712	1100	34	35.8	27	100	23	10.6	15	4.5	9	1.18	7	85.7	4	30.1	22	8.6	14
DES 816	1100	35	35.1	32	103	17	10.9	10	4.6	5	1.14	26	84.4	28	32.7	7	8.7	6
DP 436RR	1082	36	33.5	37	100	22	10.7	13	4.4	20	1.16	15	84.6	22	27.3	37	8.6	17
PM 1199RR	1077	37	37.1	17	93	36	10.5	18	4.5	14	1.16	18	85.4	8	30.9	18	8.6	15
Var. LSD 0.10	81	1.5	6	0.5	0.4	0.02	0.6	0.6	0.4	0.15	0.8	0.8	0.4	1.4	0.3	0.3	8.4	4.0
Mean	1221	36.6	102.0	10.3	4.4	8.3	2.1	0.8	0.8	0.15	0.8	0.8	0.4	30.8	4.7	4.0		
C.V.%	9.8	4.3	8.8	5.5	8.3	5.5	8.3	2.1	0.8	0.8	0.8	0.8	0.8	4.7	4.0			
R-sq x 100	91.6	79.7	81.1	84.2	70.8	81.0	74.0	74.0	84.2	70.8	84.2	70.8	84.2	85.1	75.4			
Prob (var x loc)	<.001	0.40	0.47	0.68	0.99	0.75	0.66	0.66	0.75	0.68	0.75	0.68	0.75	0.83	0.94			
Marianna (irrig.)	1187	34.8	98	10.3	4.0	1.17	84.8	84.8	1.17	84.8	1.17	84.8	1.17	84.8	30.8	8.2		
Marianna (no)	863	37.0	89	10.2	4.5	1.15	84.9	84.9	1.15	84.9	1.15	84.9	1.15	84.9	32.2	8.7		
Rohwer (irrig.)	1615	38.1	119	10.5	4.6	1.14	84.7	84.7	1.14	84.7	1.14	84.7	1.14	84.7	29.4	8.4		
Loc. LSD 0.10	23	0.4	ns	0.2	0.1	ns	ns	ns	ns	ns	ns	ns	ns	ns	0.4	0.1		

Table 11. Results of the 2002 1st-year Cotton Variety Test with irrigation on a Tunica silty clay soil at Keiser, AR.

Variety	Lint yield lb/a	R	Lint frac. %	Plant ht. cm	Seed index	r	Fiber properties											
							Mic	r	Len.	r	Unif.	r	Str.					
DP-493	1092	1	41.1	2	84	8	8.3	29	4.8	7	1.16	13	84.3	17	30.7	16	7.8	27
DP-545BG/RR	1070	2	39.2	4	91	2	8.9	24	4.4	13	1.19	3	85.0	8	30.7	14	7.8	24
PSC-355,check	1064	3	37.6	8	74	24	10.0	15	5.0	1	1.13	21	85.2	7	32.0	6	9.6	1
SG-105,check	1043	4	37.8	7	78	19	10.5	10	4.9	4	1.16	13	85.8	2	30.7	13	9.0	4
NX2429	1031	5	35.8	22	86	5	10.4	11	4.6	11	1.15	16	85.4	6	31.7	9	9.1	3
FM-966,check	1000	6	36.9	13	75	22	11.6	3	4.7	9	1.18	4	85.6	5	35.0	2	7.6	29
DP-458BR/RR	951	7	36.2	17	79	17	8.5	27	4.6	10	1.16	10	84.0	21	29.8	20	8.6	15
FM 960BR	951	8	35.8	21	80	14	11.8	1	4.4	17	1.18	7	85.0	8	35.0	1	8.1	20
M958	943	9	39.3	3	77	20	10.0	14	4.9	4	1.14	19	84.6	13	26.8	28	8.8	6
DP-444BG/RR	928	10	36.2	19	77	20	9.5	21	3.8	28	1.15	16	84.6	14	29.7	21	8.4	18
M946	924	11	37.4	11	85	6	9.2	22	4.2	23	1.11	24	83.3	27	28.8	24	8.6	10
M1011	920	12	36.6	14	87	3	10.6	9	4.3	19	1.18	7	84.3	16	28.5	25	8.5	16
FM 960RR	910	13	35.9	20	84	9	11.7	2	4.3	19	1.20	1	84.5	15	33.7	3	8.0	22
BCG-24R	895	14	38.1	5	78	18	8.5	26	4.7	8	1.10	27	83.7	25	30.0	19	8.8	7
PH99M-1495	891	15	35.2	23	82	11	10.3	12	5.0	2	1.18	4	86.0	1	31.7	10	9.4	2
XTX-951RR	888	16	37.5	10	80	14	9.6	19	4.8	6	1.11	24	83.7	26	30.9	12	8.7	8
ST 5303R	869	17	36.2	18	83	10	9.6	18	4.3	19	1.12	23	84.3	17	33.4	4	8.6	12
DP-449BG/RR	856	18	33.6	25	80	14	9.0	23	4.2	22	1.16	10	84.8	12	30.6	17	8.1	20
ST-474,check	844	19	38.0	6	85	6	9.7	17	4.5	12	1.10	26	84.1	20	32.0	7	8.6	10
M968	840	20	36.4	16	86	4	9.7	16	4.1	25	1.18	4	85.6	4	28.4	26	9.0	4
B6736	838	21	43.2	1	74	23	9.5	20	3.8	27	1.09	28	84.0	24	31.8	8	7.8	24
BCG-28R	827	22	37.4	12	73	25	8.8	25	5.0	3	1.14	20	83.3	27	28.9	22	7.8	24
BCG-30R	793	23	32.0	29	94	1	8.4	28	3.6	29	1.18	7	85.0	8	27.5	27	8.0	22
TAM-WD-22	787	24	37.6	9	81	12	10.2	13	4.3	18	1.16	10	84.2	19	26.5	29	7.7	28
TAM-WD-18	771	25	36.5	15	81	13	11.5	5	4.1	24	1.20	1	85.7	3	30.5	18	8.7	8
TAM-WD-69s	768	26	33.6	26	72	26	11.5	4	4.4	13	1.13	21	83.3	27	31.0	11	8.6	12
41A-199	729	27	34.0	24	70	27	11.3	7	4.4	13	1.05	29	84.0	21	32.2	5	8.5	17
269M-1-98	694	28	32.3	28	69	29	10.9	8	4.0	26	1.16	13	84.9	11	28.9	22	8.4	19
TAM-WD-81	625	29	33.4	27	70	28	11.4	6	4.4	13	1.14	18	84.0	21	30.7	14	8.6	12
LSD 0.10	106	1.9	9	0.7					0.3	0.04			1.0	1.8		0.5		
Mean	888	36.6	80	10.0					4.4	1.15			84.5	30.6		8.4		
C.V.%	10.2	3.1	9.8	4.4					3.6	1.9			0.7	3.4		3.5		
R-sq x 100	74.5	90.3	52.3	93.0					91.5	85.1			80.1	89.5		85.0		

Table 12. Results of the 2002 1st-year Cotton Variety Test without irrigation on a Tunica silty clay soil at Keiser, AR.

Variety	Lint yield lb/a	Plant				Seed				Fiber properties								
		Lint frac. %	ht. cm	r	Seed index	r	Mic	r	Len.	r	Unif.	r	Str.	r	Elo.	r		
PSC-355,check	1041	1	41.1	2	66	4	9.4	11	4.5	7	1.07	27	83.5	22	36.1	7	9.5	2
TAM-WD-22	1010	2	39.6	7	67	3	9.3	16	3.9	28	1.13	9	83.9	15	30.3	27	7.7	23
DP-493	995	3	40.6	4	63	10	7.7	27	4.4	15	1.14	7	83.8	16	33.6	14	7.7	23
FM 960BR	976	4	38.4	15	62	11	9.7	8	4.4	15	1.10	18	83.5	22	37.5	5	7.9	21
PH99M-1495	958	5	38.7	14	64	8	9.7	9	5.0	1	1.13	9	85.3	1	36.9	6	10.0	1
M946	929	6	39.4	9	65	5	8.8	21	4.4	14	1.08	24	82.9	26	32.9	17	8.4	12
DP-444BG/RR	904	7	39.9	6	69	1	9.5	10	4.2	21	1.11	14	84.2	9	31.6	22	8.2	16
FM-966,check	898	8	38.9	12	53	26	10.8	5	4.7	6	1.16	3	83.6	18	39.3	1	7.7	23
XTX-951RR	891	9	39.2	10	59	17	8.8	20	4.8	3	1.08	24	83.3	25	35.1	8	8.7	7
SG-105,check	890	10	40.4	5	56	25	9.4	11	4.5	7	1.12	12	84.8	4	33.9	10	8.7	5
M958	874	11	40.6	3	61	12	8.9	19	4.5	7	1.11	13	83.6	18	29.8	29	8.9	4
DP-458B/RR	866	12	38.1	17	65	7	7.5	29	4.1	24	1.09	20	82.8	27	33.3	16	8.0	20
FM 960RR	865	13	36.0	26	61	13	11.3	1	4.5	7	1.16	2	85.0	2	38.2	2	8.0	18
M1011	860	14	37.9	18	68	2	8.5	23	4.3	19	1.14	8	84.1	12	30.2	28	8.0	18
M968	824	15	39.2	11	60	14	9.0	18	4.2	21	1.15	4	84.4	7	30.6	25	8.6	8
BCG-30R	815	16	33.9	28	65	6	8.1	24	3.8	29	1.15	4	83.4	24	32.5	21	7.6	27
NX2429	812	17	37.9	20	59	20	9.4	14	4.8	4	1.10	18	84.7	5	34.0	9	9.1	3
B6736	795	18	45.7	1	59	21	9.4	15	4.1	26	1.06	28	83.7	17	37.8	3	8.5	11
BCG-28R	789	19	38.3	16	59	19	8.7	22	4.9	2	1.12	11	83.5	20	30.4	26	7.6	27
ST-474,check	769	20	39.5	8	60	15	9.4	13	4.5	13	1.09	20	84.6	6	32.8	18	8.4	14
TAM-WD-18	765	21	37.2	21	59	17	10.9	4	4.0	27	1.17	1	84.1	10	33.7	12	8.6	8
DP-545BG/RR	761	22	38.8	13	58	23	7.7	28	4.2	23	1.15	4	84.0	13	31.4	23	7.4	29
TAM-WD-69s	736	23	37.0	22	63	9	10.2	6	4.4	15	1.07	26	81.7	29	32.6	20	7.8	22
BCG-24R	715	24	36.9	23	60	16	7.9	26	4.4	15	1.10	17	83.5	20	33.4	15	8.7	5
ST 5303R	693	25	36.4	24	59	21	9.2	17	4.3	20	1.08	22	84.8	3	37.5	4	8.6	10
41A-1-99	686	26	37.9	19	57	24	11.2	2	4.7	5	1.04	29	84.0	14	33.7	13	8.3	15
DP-449BG/RR	686	27	36.3	25	53	28	8.0	25	4.1	25	1.11	14	84.1	10	32.7	19	8.1	17
269M-1-98	653	28	35.8	27	53	27	10.0	7	4.5	7	1.11	14	84.3	8	31.4	24	7.7	23
TAM-WD-81	606	29	33.2	29	52	29	11.0	3	4.5	7	1.08	22	82.2	28	33.8	11	8.4	13
LSD 0.10	122	2.3	ns															
Mean	830	38.4	60	9.3	4.4	0.6	0.04		1.11				1.3	2.9	0.5			
C.V.%	12.5	3.5	14.2	6.1	7.5	2.1	0.9		5.1				83.8	33.7	8.3			
R-sq x 100	73.5	87.2	53.0	88.0	63.5	80.3							70.1	83.4	91.0			

Table 13. Results of the 2002 1st-year Cotton Variety Test with irrigation on a Dundee silt loam soil at Clarkdale, AR.

Variety	Lint yield lb/a	R	Lint frac. %	Plant ht. cm	R	Seed index	R	Fiber properties										
								Mic	R	Len.	R	Unif.	R	Elo.				
FM 960RR	886	1	37.9	6	121	27	9.8	11	3.9	23	1.18	3	85.5	2	33.9	4	8.3	22
DP-493	871	2	41.9	2	140	2	7.6	29	4.5	3	1.14	18	83.7	18	29.9	18	7.8	26
FM-966,check	870	3	38.2	5	134	9	10.7	6	4.3	9	1.14	19	84.4	13	33.0	7	8.4	16
SG-105,check	808	4	36.0	12	133	12	9.7	13	4.5	3	1.15	9	84.9	5	29.7	19	8.3	17
FM 960BR	703	5	32.5	23	141	1	11.0	3	4.2	13	1.16	8	84.7	9	36.8	1	8.0	24
XTX-951RR	703	5	37.2	9	131	16	9.9	10	4.4	5	1.13	22	83.9	16	32.2	10	8.8	3
ST-474,check	699	7	37.4	7	137	5	9.2	19	4.2	13	1.12	23	84.9	5	31.0	14	8.5	8
PSC-355,check	679	8	31.2	27	129	18	9.1	20	4.4	5	1.11	26	83.9	16	31.1	13	8.8	5
BCG-24R	668	9	37.3	8	131	14	8.6	22	4.0	21	1.12	24	83.3	24	28.5	23	8.3	17
ST 5303R	666	10	35.5	15	136	6	8.9	21	4.0	21	1.10	27	83.6	19	33.6	5	8.4	13
DP-449BG/RR	657	11	33.0	22	129	18	8.6	23	4.1	17	1.14	15	84.1	15	34.2	2	8.5	8
NX2429	652	12	35.7	14	129	18	9.5	16	4.5	2	1.14	19	85.2	4	34.2	3	8.5	8
M1011	641	13	35.5	16	139	3	10.1	9	4.1	17	1.19	2	84.3	14	27.7	28	7.9	25
DP-545BG/RR	637	14	39.0	3	138	4	8.0	28	4.2	11	1.15	12	83.1	26	30.2	17	7.5	29
PH99M-1495	626	15	35.8	13	132	13	8.1	26	4.1	17	1.18	4	85.3	3	32.7	9	9.3	1
DP-444BG/RR	596	16	33.4	21	128	21	9.7	12	3.6	28	1.15	12	84.5	11	28.0	27	8.3	17
M958	583	17	34.1	18	127	23	9.5	15	4.2	13	1.14	15	84.5	11	26.7	29	8.6	7
TAM-WD-22	582	18	38.3	4	133	10	10.2	8	4.2	12	1.15	9	83.0	28	28.2	26	7.7	27
TAM-WD-18	574	19	34.0	20	134	8	10.9	4	4.2	13	1.21	1	86.3	1	33.3	6	8.9	2
BCG-30R	568	20	31.9	26	131	15	8.0	27	3.7	27	1.17	6	83.1	26	28.4	24	7.6	28
TAM-WD-69s	567	21	34.1	17	133	10	10.8	5	4.1	17	1.14	21	83.4	22	31.9	11	8.8	3
BCG-28R	529	22	36.4	11	116	28	8.6	24	5.0	1	1.15	9	84.9	5	29.0	21	8.4	13
M968	523	23	32.0	25	127	22	9.6	14	3.6	28	1.17	5	84.9	5	29.3	20	8.7	6
B6736	515	24	42.3	1	130	17	9.3	17	3.8	25	1.05	29	82.6	29	33.0	7	8.5	8
M946	504	25	36.6	10	136	6	9.2	18	4.4	7	1.11	25	83.4	22	28.7	22	8.3	17
DP-458B/RR	496	26	34.0	19	123	25	8.3	25	4.3	9	1.15	12	83.5	20	31.0	14	8.4	12
TAM-WD-81	425	27	28.7	29	123	24	12.4	1	4.3	8	1.14	15	83.5	20	30.4	16	8.4	13
269M-1-98	342	28	29.6	28	121	26	11.4	2	3.9	23	1.16	7	84.6	10	28.3	25	8.1	23
41A-1-99	279	29	32.3	24	112	29	10.5	7	3.8	25	1.06	28	83.2	25	31.7	12	8.3	17
LSD 0.10	225	5.2	11	0.9	0.4	0.03	1.2						2.2	0.7				
Mean	615	35.2	130	9.6	4.1	1.14	84.1	30.9					8.3					
C.V.%	31.1	8.7	7.4	5.5	5.6	1.8	0.9	4.3					4.6					
R-sq x 100	44.3	69.1	43.1	90.3	77.6	85.2	75.5	87.5					68.2					

Table 14. Results of the 2002 1st-year Cotton Variety Test with irrigation on a Calloway silt loam soil at Marianna, AR.

Variety	Lint yield lb/a	R	Lint frac. %	Plant ht. cm	Seed index	r	Fiber properties											
							Mic	r	Len.	r	Unif.	r	Str.					
DP-545BG/RR	1372	1	35.2	10	107	2	9.2	24	4.1	11	1.15	18	83.2	28	32.3	11	7.5	28
FM 960RR	1360	2	36.4	2	100	9	11.0	9	3.5	29	1.17	9	84.3	18	36.1	4	7.9	22
DP-449BG/RR	1316	3	35.6	7	94	23	9.6	23	3.9	17	1.16	16	83.8	23	35.0	5	8.2	13
DP-444BG/RR	1305	4	35.3	8	105	4	9.9	20	3.5	27	1.17	14	84.5	13	30.0	22	8.0	21
SG-105,check	1217	5	35.8	4	96	20	10.6	14	4.3	5	1.18	6	85.5	2	32.3	11	8.7	4
PH99M-1495	1209	6	34.4	15	100	10	9.8	21	4.1	10	1.17	9	85.3	6	32.0	14	8.8	3
FM 960BR	1185	7	34.4	14	95	21	11.3	7	3.8	19	1.13	26	83.5	27	37.3	2	8.1	19
M968	1184	8	34.0	17	106	3	9.0	27	3.6	25	1.21	2	85.4	4	29.7	24	8.3	12
M958	1180	9	35.2	11	97	17	10.6	13	4.2	8	1.16	17	84.6	12	27.8	29	8.4	10
DP-493	1172	10	35.8	6	105	4	8.4	29	4.2	8	1.17	9	84.4	16	31.3	17	7.6	27
PSC-355,check	1168	11	33.2	18	99	12	10.2	17	4.3	5	1.15	18	85.5	2	33.2	8	9.3	2
FM-966,check	1164	12	34.0	16	91	25	11.1	8	3.8	19	1.14	22	84.5	13	37.4	1	7.9	22
ST-474,check	1164	13	35.9	3	95	21	10.8	11	4.3	3	1.13	26	84.5	15	31.2	18	8.7	4
BCG-24R	1162	14	34.8	12	99	13	9.1	26	4.0	13	1.14	22	83.6	26	29.9	23	8.7	4
M946	1145	15	35.2	9	108	1	10.1	18	3.7	22	1.18	6	85.0	9	30.6	20	8.2	13
NX2429	1122	16	32.0	25	96	18	10.4	16	4.0	14	1.17	9	86.0	1	34.8	6	9.5	1
M1011	1120	17	32.7	23	104	8	11.9	3	3.7	24	1.23	1	85.3	5	30.5	21	8.1	19
XTX-951RR	1097	18	34.5	13	89	26	11.0	10	4.2	7	1.14	25	83.9	22	32.1	13	8.2	13
TAM-WD-22	1087	19	35.8	4	105	4	10.7	12	4.0	15	1.16	15	83.7	24	28.5	28	7.9	22
DP-458B/RR	1082	20	32.7	24	92	24	8.7	28	4.1	11	1.14	22	84.0	21	31.4	16	8.2	13
BCG-28R	1074	21	32.9	21	86	27	9.1	25	4.3	3	1.18	5	84.9	10	31.7	15	7.8	26
ST 5303R	1059	22	32.7	22	97	15	10.0	19	3.8	18	1.13	26	84.8	11	37.0	3	8.6	9
TAM-WD-18	1043	23	33.1	20	100	10	11.7	4	3.7	22	1.19	4	83.6	25	31.0	19	7.8	25
TAM-WD-69s	1019	24	32.0	26	97	15	11.3	6	3.6	25	1.17	9	84.3	19	32.6	10	8.7	4
B6736	988	25	36.9	1	98	14	10.4	15	4.7	1	1.15	18	84.4	16	34.7	7	8.4	11
BCG-30R	943	26	30.6	28	96	18	9.7	22	3.5	27	1.20	3	85.0	8	29.4	25	7.5	28
41A-1-99	911	27	33.1	19	81	29	11.6	5	3.9	16	1.10	29	84.1	20	32.9	9	8.7	4
TAM-WD-81	899	28	31.0	27	105	7	13.0	1	4.4	2	1.15	18	82.8	29	29.4	25	8.2	13
269M-1-98	770	29	26.7	29	83	28	12.4	2	3.8	19	1.18	6	85.1	7	29.3	27	8.2	18
LSD 0.10	150	3.4	10	1.3	0.4	0.03									0.6			
Mean	1121	33.9	97	10.4	3.9	1.16									32.1			
C.V.%	11.4	5.9	6.0	7.3	6.7	1.5									4.9			
R-sq x 100	66.6	70.5	48.2	80.8	74.9	83.1									85.3	81.5		

Table 15. Results of the 2002 1st-year Cotton Variety Test without irrigation on a Calloway silt loam soil at Marianna, AR.

Variety	Lint yield lb/a	Lint frac. %	Plant ht. cm	r index	r	Fiber properties							
						Mic	r	Len.	r	Unif.	r	Str.	r
DP-493	1210	1	41.5	2	93	6	7.9	29	4.9	5	1.11	20	83.4
M958	1177	2	40.2	3	82	21	9.7	18	5.2	3	1.09	23	83.6
DP-444BG/RR	1140	3	40.1	4	93	7	10.2	15	4.5	12	1.11	18	84.2
PH99M-1495	1049	4	37.7	14	91	8	9.3	22	5.1	4	1.13	13	84.0
ST 5303R	1043	5	36.9	17	100	1	9.5	19	4.5	17	1.08	26	84.3
DP-545BG/RR	1036	6	37.3	15	95	4	8.6	25	4.4	21	1.11	18	83.7
M968	1033	7	38.9	6	86	14	9.5	21	4.6	10	1.14	11	84.7
ST-474,check	1026	8	40.0	5	94	5	9.8	17	4.5	12	1.11	20	84.7
FM 960BR	1014	9	35.9	21	84	16	10.4	10	4.0	29	1.14	8	84.5
NX2429	1005	10	37.8	12	87	12	10.3	13	4.7	8	1.11	17	84.5
SG-105,check	989	11	37.8	13	77	24	10.3	11	4.8	6	1.13	12	85.4
DP-458B/RR	988	12	35.9	23	84	15	8.4	28	4.3	23	1.14	9	83.7
PSC-355,check	969	13	36.1	20	87	10	10.0	16	4.7	9	1.12	16	85.0
DP-449BG/RR	956	14	37.1	16	77	25	8.5	27	4.0	28	1.15	5	84.6
BCG-24R	953	15	38.3	7	84	16	8.5	26	4.4	19	1.11	20	83.7
BCG-28R	942	16	38.2	8	68	28	8.8	24	5.2	2	1.09	23	83.2
TAM-WD-22	922	17	38.1	10	87	10	10.5	9	4.5	17	1.13	13	83.5
FM 960RR	883	18	36.8	18	83	18	11.2	4	4.4	19	1.16	4	84.1
FM-966,check	882	19	38.1	11	83	20	11.0	6	4.3	24	1.15	5	84.8
M1011	853	20	36.4	19	97	2	10.8	8	4.5	12	1.19	1	84.7
TAM-WD-69s	815	21	33.3	28	77	23	11.1	5	4.5	16	1.12	15	83.2
B6736	812	22	45.0	1	87	13	10.2	14	4.3	24	1.07	29	83.5
BCG-30R	804	23	33.3	29	80	22	9.1	23	4.2	27	1.17	2	84.2
XTX-951RR	803	24	38.2	9	74	26	10.3	12	5.3	1	1.07	27	82.2
TAM-WD-18	777	25	35.8	24	89	9	11.8	3	4.6	10	1.17	2	84.4
M946	746	26	35.9	22	96	3	9.5	20	4.3	22	1.09	25	83.5
41A-1-99	695	27	34.0	25	71	27	12.4	1	4.8	6	1.07	27	83.8
TAM-WD-81	659	28	33.6	27	83	19	12.2	2	4.3	24	1.14	9	83.9
269M-1-98	638	29	33.6	26	68	28	11.0	7	4.5	12	1.15	7	84.4
LSD 0.10	116	2.1	8		0.5		0.5		0.03		1.0		8.7
Mean	925	37.3	84	10.0	4.5		1.12		84.0		2.0		0.5
C.V.%	10.7	3.3	8.3	2.7	6.7		2.0		0.7		3.4		8.5
R-sq x 100	77.9	89.9	76.7	97.3	72.1		82.9		77.0		3.2		3.2
											91.2		81.8

Table 16. Results of the 2002 1st-year Cotton Variety Test with irrigation on a Desha silt loam at Rohwer, AR.

Variety	Lint yield lb/a	Lint frac. %	Plant ht. cm	Seed index r	Fiber properties						
					Mic r	Len. r	Unif. r	Str. r	Elo. r		
ST-474,check	1977	1	40.0	4	123	6	12.0	4	5.1	1	1.15
PH99M-1495	1917	2	38.9	7	128	4	10.8	15	5.0	2	1.17
DP-545BG/RR	1841	3	40.5	3	136	1	9.3	23	4.9	3	1.15
DP-493	1836	4	42.1	2	120	11	8.3	28	4.5	16	1.15
PSC-355,check	1818	5	38.5	11	116	16	10.6	18	4.6	10	1.11
NX2429	1803	6	38.3	13	117	13	10.9	13	4.6	13	1.14
TAM-WD-22	1753	7	39.1	6	115	19	11.1	11	4.5	15	1.12
DP-449BG/RR	1727	8	38.7	10	121	9	9.2	24	4.7	8	1.12
FM 960RR	1687	9	38.8	9	114	21	11.6	7	4.1	23	1.15
DP-444BG/RR	1673	10	38.3	12	116	17	10.4	20	4.3	20	1.14
ST 5303R	1640	11	37.3	18	132	2	10.7	16	4.8	5	1.12
BCG-24R	1633	12	39.2	5	116	17	8.2	29	4.4	18	1.11
DP-458B/RR	1632	13	37.9	16	129	3	8.8	27	4.7	7	1.15
M958	1622	14	38.1	15	113	22	10.5	19	4.6	10	1.14
BCG-28R	1612	15	35.5	23	110	23	9.1	25	4.6	10	1.15
SG-105,check	1599	16	38.2	14	123	7	10.9	14	4.7	8	1.15
FM-966,check	1566	17	38.8	8	117	14	11.4	9	4.5	17	1.15
FM 960BR	1474	18	36.5	19	104	27	11.9	5	4.8	4	1.14
XTX-951RR	1441	19	37.9	17	107	25	11.0	12	4.8	5	1.10
M968	1431	20	36.2	20	121	8	10.0	22	4.1	23	1.17
M1011	1373	21	35.7	22	114	20	11.3	10	4.0	26	1.23
TAM-WD-18	1319	22	33.8	25	120	12	12.6	2	3.9	27	1.22
M946	1302	23	36.1	21	125	5	10.7	17	4.3	21	1.14
TAM-WD-69s	1279	24	33.4	27	109	24	11.5	8	4.4	19	1.11
BCG-30R	1277	25	33.8	26	117	15	9.0	26	3.8	28	1.14
41A-1-99	1251	26	35.0	24	103	29	11.8	6	4.0	25	1.09
B6736	1188	27	44.1	1	104	26	10.1	21	4.1	22	1.07
TAM-WD-81	1132	28	33.3	28	121	9	12.8	1	4.6	14	1.13
269M-1-98	974	29	27.7	29	104	27	12.2	3	3.5	29	1.19
LSD 0.10	121	2.1	11	0.9					0.4	0.03	1.4
Mean	1544	37.3	117	10.6					4.4	1.14	84.2
C.V.%	6.7	3.2	7.9	5.0					5.7	1.7	1.0
R-sq x 100	89.5	93.2	53.5	91.5					81.8	86.3	69.2

Table 17. Results of the 2002 1st-year Cotton Variety Test across three north Arkansas test sites (Keiser and Clarkdale).

Variety	Lint yield lb/a	Lint frac. %	Plant ht. cm	r index	r	Fiber properties						
						Seed Mic	r	Len.	r	Str.	r	Elo.
DP 493	986	1	41.2	2	95	4	7.9	28	4.5	7	1.15	10
PSC 355,check	928	2	36.6	14	89	17	9.5	14	4.6	4	1.10	25
FM 966,check	922	3	38.0	8	87	24	11.0	3	4.5	7	1.16	8
SG 105,check	914	4	38.1	6	89	19	9.9	10	4.6	6	1.14	12
FM 960RR	887	5	36.6	15	88	21	10.9	5	4.2	20	1.18	2
FM 960BR	876	6	35.6	23	94	6	10.8	7	4.3	16	1.14	11
NX2429	831	7	36.5	18	91	12	9.8	11	4.6	5	1.13	19
XTX 951RR	828	8	38.0	9	90	15	7.8	29	4.7	3	1.11	22
PH99M-1495	825	9	36.6	16	93	9	9.4	19	4.7	2	1.16	5
DP 545BG/RR	823	10	39.0	3	96	3	8.2	25	4.3	18	1.16	7
DP 444BG/RR	810	11	36.5	17	91	12	9.6	13	3.9	28	1.13	16
M1011	807	12	36.7	13	98	1	9.7	12	4.2	19	1.17	3
M958	800	13	38.0	7	88	21	9.5	15	4.5	9	1.13	18
TAM WD-22	793	14	38.5	4	94	8	9.9	9	4.1	22	1.15	9
M946	785	15	37.8	10	95	5	9.1	21	4.3	13	1.10	26
DP 458B/RR	771	16	36.1	19	89	19	8.1	27	4.3	13	1.13	17
ST 474,check	771	17	38.3	5	94	7	9.4	17	4.4	11	1.10	24
BCG-24R	759	18	37.4	11	90	16	8.3	24	4.4	11	1.10	23
ST 5303R	743	19	36.0	20	93	9	9.3	20	4.2	21	1.10	26
DP 449BG/RR	733	20	34.3	26	87	25	8.5	23	4.1	23	1.14	14
M968	729	21	35.9	22	91	12	9.4	16	4.0	26	1.17	4
BCG-30R	725	22	32.6	27	97	2	8.2	26	3.7	29	1.16	5
B6736	716	23	43.7	1	87	23	9.4	18	3.9	27	1.07	28
BCG-28R	715	24	37.4	12	83	26	8.7	22	4.9	1	1.13	15
TAM WD-18	703	25	35.9	21	91	11	11.1	2	4.1	25	1.19	1
TAM WD-69s	690	26	34.9	24	89	18	10.8	6	4.3	15	1.11	21
41A-1-99	564	27	34.7	25	79	29	11.0	4	4.3	16	1.05	29
269M-1-98	563	28	32.6	28	81	28	10.8	8	4.1	23	1.14	12
TAM WD-81	552	29	31.7	29	82	27	11.6	1	4.4	10	1.12	20
Var. LSD 0.10	92	2.0	6	0.9	0.2	0.02	0.7	0.7	1.3	0.3	0.3	0.3
Mean	777	36.7	90	9.6	4.3	1.13	84.2	84.2	31.7	8.4	8.4	8.4
C.V.%	17.5	5.6	9.7	5.3	5.8	1.9	0.8	0.8	4.4	3.8	3.8	3.8
R-sq x 100	71.6	81.6	94.4	91.0	79.9	86.4	77.2	77.2	89.2	83.5	83.5	83.5
Prob (var x loc)	0.06	0.40	0.24	0.16	0.15	0.80	0.15	0.15	0.22	0.13	0.13	0.13
Keiser (irrig)	888	36.6	80	10.0	4.4	1.15	84.5	84.5	30.6	8.4	8.4	8.4
Keiser (no irrig)	830	38.4	60	9.3	4.4	1.11	83.8	83.8	33.7	8.3	8.3	8.3
Clarkdale	615	35.2	130	9.6	4.1	1.14	84.1	84.1	30.9	8.3	8.3	8.3
Loc. LSD 0.10	29	0.6	1.9	0.3	0.1	0.01	0.2	0.2	0.4	0.1	0.1	0.1

Table18. Results of the 2002 1st-year Cotton Variety Test across three south Arkansas test sites (Marianna and Rohwer).

Variety	Plant										Fiber properties						
	Lint yield lb/a	Lint frac. %	r	ht. cm	r	Seed index	r	Mic	r	Len. r	Unif. r	Str. r	Elc.	r	Elc.	r	
DP 545BG/RR	1417	1	37.6	7	113	1	9.0	25	4.4	9	1.13	20	83.3	26	31.7	18	7.5
DP 493	1406	2	39.8	2	106	5	8.2	29	4.5	8	1.14	12	83.9	21	32.6	13	7.9
PH99M-1495	1391	3	37.0	12	106	4	10.0	21	4.7	2	1.15	7	84.7	8	33.4	10	9.0
ST 474,check	1389	4	38.6	3	104	9	10.8	10	4.6	5	1.13	23	84.8	6	32.3	15	8.7
DP 444BG/RR	1373	5	37.9	4	104	8	10.2	18	4.1	22	1.14	16	84.5	12	31.1	23	8.1
DP 449BG/RR	1334	6	37.1	11	97	21	9.1	24	4.2	19	1.14	11	84.0	20	34.0	8	8.0
M958	1326	7	37.8	5	97	20	10.3	16	4.6	4	1.13	22	84.3	14	28.6	29	8.6
PSC 355,check	1318	8	35.9	17	101	14	10.3	15	4.5	7	1.12	24	84.7	8	33.4	9	9.2
NX2429	1310	9	36.0	16	100	15	10.5	14	4.4	10	1.14	14	85.2	1	34.7	6	9.3
FM 960RR	1305	10	37.3	9	99	17	11.3	7	4.0	27	1.16	6	84.4	13	36.8	3	8.1
SG 105,check	1268	11	37.2	10	98	18	10.6	13	4.6	6	1.15	8	85.2	2	31.9	17	8.5
TAM WD-22	1254	12	37.7	6	102	12	10.8	11	4.3	15	1.14	17	83.4	25	29.0	28	8.0
BCG-24R	1249	13	37.4	8	99	16	8.6	27	4.3	16	1.12	25	83.9	22	31.3	20	8.7
ST 5303R	1247	14	35.6	19	110	2	10.1	20	4.3	13	1.11	26	84.5	11	35.4	4	8.4
DP 458BRR	1234	15	35.5	22	102	13	8.6	27	4.4	12	1.14	10	84.1	19	32.5	14	8.3
FM 960BR	1224	16	35.6	20	94	24	11.2	8	4.2	18	1.13	18	83.7	24	38.3	1	8.0
M968	1219	17	36.3	15	104	7	9.5	22	4.1	23	1.17	3	84.9	5	29.9	26	8.3
BCG-28R	1209	18	35.5	21	88	27	9.0	26	4.7	3	1.14	12	84.2	16	31.2	21	7.9
FM 966,check	1208	19	37.0	13	97	22	11.2	9	4.2	19	1.15	9	84.6	10	38.1	2	7.9
M1011	1115	20	34.9	23	105	6	11.3	5	4.0	26	1.22	1	84.9	4	31.1	22	8.2
XTX 951RR	1113	21	36.9	14	90	26	10.8	12	4.8	1	1.10	27	83.2	29	33.0	12	8.3
M946	1064	22	35.8	18	109	3	10.1	19	4.1	23	1.13	21	84.3	15	31.5	19	8.2
TAM WD-18	1046	23	34.2	24	103	10	12.0	2	4.1	25	1.19	2	84.7	7	33.2	11	8.3
TAM WD-69s	1037	24	32.9	26	94	25	11.3	6	4.1	21	1.13	18	83.2	28	32.3	16	8.6
BCG-30R	1008	25	32.6	28	98	19	9.3	23	3.8	29	1.17	5	84.2	17	29.8	27	7.8
B6736	996	26	42.0	1	96	23	10.3	17	4.3	13	1.09	28	83.8	23	34.7	5	8.1
41A-1-99	952	27	34.0	25	85	29	11.9	3	4.2	17	1.09	29	84.1	18	34.4	7	8.7
TAM WD-81	897	28	32.6	27	103	11	12.7	1	4.4	11	1.14	15	83.3	26	30.9	24	8.1
269M-1-98	794	29	29.3	29	85	28	11.8	4	3.9	28	1.17	4	85.0	3	30.5	25	8.2
Var. LSD 0.10	75		1.5	6		0.5		0.3		0.02		0.7		1.5		0.3	
Mean	1196		36.1	100		10.4		4.3		1.14		84.3		32.7		8.3	
C.V.%	9.3		4.2	8.4		5.4		6.4		1.7		0.9		4.6		4.1	
R-sq x 100	92.2		89.5	83.5		90.1		83.7		89.0		70.4		86.9		79.7	
Prob (var x loc)	<.001		0.07	0.07		0.67		<.001		0.01		0.12		0.85		0.78	
Marianna (irrig.)	1121		33.9	97		10.4		3.9		1.16		84.4		32.1		8.3	
Marianna (no)	925		37.3	84		10.0		4.5		1.12		84.0		34.0		8.5	
Rohwer (irrig.)	1544		37.3	117		10.6		4.4		1.14		84.2		31.9		8.2	
Loc. LSD 0.10	24		0.5	1.8		0.2		0.1		0.01		0.2		0.5		0.1	

Table 19. *Verticillium* wilt and leaf pubescence for entries in the 2002 main and 1st-year Arkansas Cotton Variety Test

Variety	<i>Verticillium</i> wilt ¹		Leaf pub. rating ²		1st year Variety	<i>Verticillium</i> wilt ¹		Leaf pub. rating ²	
	%	r	%	r		%	r	%	r
Arl87/12	25	10	2.3	21	269M-198	39	3	3.9	9
Ark9101-97-09	33	5	4.5	12	41A-1-99	61	1	4.5	5
Ark9101-97-10	14	25	3.4	14	B6736	12	27	3.0	12
Ark9108-04-17	33	5	1.8	23	BCG-24R	25	15	1.0	27
Ark9108-23-05	31	8	1.0	36	BCG-28R	39	3	2.2	14
Ark9111-57-20	25	10	4.8	11	BCG-30R	34	8	4.3	7
BXN49B	14	25	6.6	3	DP-444BG/RR	38	6	4.3	6
DeltaPEARL	1	37	1.1	32	DP-449BG/RR	15	23	1.1	24
DES810	35	3	5.9	5	DP-4558B/RR	39	3	1.1	24
DES816	33	5	5.6	8	DP-493	14	24	1.1	21
DP436RR	23	17	1.1	32	DP-545BG/RR	14	24	1.2	19
DP448B	13	27	1.1	32	FM 960BR	19	20	1.4	17
DP451B/RR	8	33	1.1	32	FM 960RR	18	21	1.6	15
DP491	9	32	2.9	18	M1011	18	21	4.2	8
DP555BG/RR	5	34	1.1	31	M946	13	26	1.3	18
DP565	10	31	1.2	30	M958	35	7	1.1	22
DPLX99X35	24	15	1.3	26	M968	25	15	1.0	27
FM958	11	29	1.2	29	NX2429	26	13	6.3	4
FM958B	19	21	1.4	25	PH99M-1495	44	2	6.8	1
FM966	3	36	1.4	24	STX0003	20	19	1.0	27
FM989BR	11	29	2.6	20	TAM-WD-18	24	17	3.1	11
GC271	20	19	5.7	7	TAM-WD-22	21	18	3.3	10
Miscot8806	48	1	5.2	9	TAM-WD-69s	29	10	1.1	22
Miscot8839	18	22	1.3	28	TAM-WD-81	29	10	1.1	24
PH98M-2983	24	15	3.4	14	XTX-95IRR	26	13	2.5	13
PH98M-3196	34	4	3.6	13					
PM1199RR	38	2	3.1	17	FM-966,check	6	29	1.2	19
PM1218BG/RR	30	9	2.1	22	PSC-355,check	28	12	6.8	2
PSC355	21	18	5.8	6	SG-105,check	10	28	1.4	16
SG105	16	23	1.3	27	ST-474,check	30	9	6.5	3
SG215BG/RR	13	27	1.0	36					
SG521R	25	10	2.9	19					
ST457	20	19	6.6	3					
ST4793R	25	10	6.7	2					
ST4892BR	25	10	7.0	1					
ST580	15	24	3.1	16					
ST5599BR	5	34	5.0	10					
LSD 0.10	13		1.3		LSD 0.10	ns		1.1	
Mean	20		3.2		Mean	26		2.7	
C.V.%	54		33.8		C.V.%	78.0		33.5	
R-sq * 100	62		83.0		R-sq * 100	33.4		86.4	

¹/ Ca. percentage of plants with *Verticillium* wilt symptoms rated at Clarkdale on 9 Sept.

²/ Leaf pubescence rated at Keiser irrigated test, using scale of 1 (smooth leaf) to 7 (very hairy).

Table 20. Averages (2- & 3-year) for cultivars in the North locations of the 2000-2002 Arkansas Cotton Variety Test.

Cultivar	2-yr (2001-2002) average						3-yr (2000-2002) average							
	Keiser irrig.	Keiser lb/a	Clark. irrig.	Clark. lb/a	North irrig.	North lb/a	Keiser irrig.	Keiser lb/a	Clark. irrig.	Clark. lb/a	North avg.	North lb/a		
FM 958	1250	3	987	3	1021	4	1086	1	1237	2	1049	1	1066	1
SG 215BG/RR	1207	8	959	5	1045	2	1070	2	1168	4	840	6	1038	2
SG 105	1234	5	969	4	967	6	1056	3	1182	3	873	4	1035	3
PH98M-2983	1212	7	929	8	1022	3	1054	4	—	—	—	—	1030	2
FM 958B	1258	2	921	9	962	7	1047	5	—	—	—	—	—	—
DP 491	1247	4	904	14	948	9	1033	6	—	—	—	—	—	—
FM 966	1288	1	877	18	915	12	1027	7	1259	1	829	10	990	4
ST 4892BR	1102	23	1086	1	862	18	1017	8	1067	10	955	1	898	9
DPLX 99X35	1123	20	872	20	1052	1	1016	9	1059	12	888	3	862	14
ST 5599BR	1113	21	1031	2	874	17	1006	10	—	—	—	—	936	8
Ark 9101-97-10	1139	18	904	13	956	8	1000	11	—	—	—	—	—	—
SG 521R	1177	9	939	6	845	21	987	12	—	—	—	—	—	—
DP 555BG/RR	1169	11	880	16	910	13	986	13	—	—	—	—	—	—
Ark 8712	1150	16	873	19	902	14	975	14	1125	5	816	12	930	6
PH98M-3196	1164	13	807	29	931	11	967	15	—	—	—	—	957	6
ST 457	1142	17	920	10	824	24	962	16	—	—	—	—	—	—
Ark 9111-57-20	1220	6	909	11	746	32	958	17	—	—	—	—	—	—
Ark 9108-04-17	1171	10	732	33	936	10	946	18	—	—	—	—	—	—
Ark 9108-23-05	1094	24	750	32	994	5	946	19	—	—	—	—	—	—
Ark 9101-97-09	1167	12	880	17	777	30	941	20	—	—	—	—	—	—
BXN 49B	1159	14	859	22	804	27	940	21	1092	7	751	17	842	15
FM 989BR	1154	15	825	26	822	25	934	22	—	—	—	—	895	14
ST 4793R	1103	22	935	7	747	31	928	23	1075	8	860	5	830	18
Miscot 8839	1091	25	908	12	780	29	926	24	1061	11	840	7	877	12
PSC 355	1133	19	825	27	808	26	922	25	1117	6	800	13	905	8
DP 451BIR	1007	29	850	23	899	15	919	26	961	17	767	15	910	7
Miscot 8806	1008	27	871	21	842	23	907	27	1039	13	836	9	891	10
PM 1218BG/RR	1028	26	848	24	845	22	907	28	1018	14	837	8	888	11
ST 580	975	31	882	15	791	28	883	29	990	16	784	14	830	17
DES 816	962	32	793	30	883	16	879	30	—	—	—	—	922	10
DP 436RR	1002	30	765	31	848	20	871	31	1002	15	708	18	868	13
PM 1199RR	913	33	835	25	857	19	868	32	942	18	878	11	939	5
DES 810	1008	28	822	28	717	33	849	33	1071	9	758	16	839	16
Mean	1126	883	883	964	1081	826	912	940	—	—	—	—	—	—

Table 21. Averages (2- & 3-year) for cultivars in the South locations of the 2000-2002 Arkansas Cotton Variety Test.

Cultivar	2-yr (2001-2002) average						3-yr (2000-2002) average					
	Mar. irrig.	r no irrig.	r irrig.	r avg.	South Rohwer	South avg.	Mar. irrig.	r no irrig.	r irrig.	Rohwer avg.	South avg.	r
ST 5599BR	1216	5	878	4	1607	2	1233	1	1302	3	699	2
PH98M-2983	1346	1	867	5	1482	9	1231	2	.	.	.	.
Ark 9108-23-05	1221	4	961	1	1474	11	1219	3	.	.	.	.
DPLX 99X35	1295	2	856	7	1504	7	1218	4	.	.	.	.
Ark 9108-04-17	1124	12	865	6	1623	1	1204	5	.	.	.	.
ST 4892BR	1233	3	849	9	1510	5	1197	6	1329	1	647	6
ST 457	1121	14	842	10	1561	3	1175	7	.	.	.	.
PSC 355	1189	7	802	18	1513	4	1168	8	1325	2	615	12
BXN 49B	1199	6	782	22	1482	10	1154	9	1197	11	585	17
PM 1218BG/RR	1100	21	764	24	1496	8	1120	10	1213	9	616	11
Miscot 8806	1156	9	827	12	1371	18	1118	11	1279	5	680	3
Ark 9101-97-09	1066	23	853	8	1421	14	1113	12	.	.	1388	8
SG 215BG/RR	1020	29	889	2	1422	13	1110	13	1173	12	704	1
Ark 9111-57-20	1121	15	784	21	1406	15	1104	14	.	.	1342	11
ST 4793R	1111	18	686	35	1506	6	1101	15	1278	6	517	19
PH98M-3196	1120	16	814	13	1358	20	1097	16	.	.	1407	6
FM 966	1107	19	749	26	1398	16	1084	17	1265	8	589	16
FM 958	1083	22	809	16	1336	22	1076	18	1284	4	618	10
Miscot 8839	1027	28	812	14	1374	17	1071	19	1146	13	671	4
FM 989BR	1164	8	748	27	1282	29	1065	20	.	.	1346	10
DP 565	1006	31	755	25	1432	12	1064	21	1110	16	582	18
SG 105	1148	10	809	17	1229	33	1062	22	1277	7	650	5
Ark 9101-97-10	1123	13	675	36	1369	19	1056	23	.	.	.	.
DES 816	1005	32	828	11	1330	24	1054	24	.	.	.	.
SG 521R	1141	11	722	34	1284	28	1049	25	.	.	.	.
DP 451BRR	1051	24	740	29	1354	21	1048	26	1117	15	596	15
ST 580	1015	30	800	19	1329	25	1048	27	1093	19	644	7
DES 810	1102	20	764	23	1274	31	1046	28	1201	10	639	8
FM 958B	1047	25	738	30	1332	23	1039	29	.	.	.	.
DP 491	1047	26	881	3	1182	36	1036	30	.	.	.	.
GC 271	1113	17	729	32	1230	32	1024	31	.	.	.	.
Ark 8712	922	37	799	20	1296	27	1006	32	1100	18	621	9
DeltaPEARL	944	36	726	33	1315	26	995	33	1103	17	597	14
DP 436RR	946	35	748	28	1280	30	991	34	1084	20	600	13
DP 555BG/RR	1000	33	811	15	1141	37	984	35	.	.	1285	15
DP 448B	995	34	736	31	1210	34	980	36	.	.	1281	16
PM 1199RR	1028	27	595	37	1183	35	935	37	1135	14	504	20
Mean	1098	791	1375	1088	1201	619	1341	1053	.	.	.	.

Table 22. Results of the 2002 Mississippi County Variety Test on a Rounton-Dundee-Crevasse soil complex, David Wildy Farms, Manila¹.

Variety	Lint yield				Seed index				Fiber properties							
	lb/a	%	Lint fraction	r	Mic	r	Len	r	Uni	r	Stir	r	Elo	r		
SG215BR	1109	1	35.1	10	10.4	2	4.28	6	1.06	12	82.9	9	25.4	12	8.0	3
ST4892BR	1085	2	37.9	3	10.0	7	4.12	8	1.09	8	82.7	11	29.3	4	8.0	5
DP555BR	1058	3	39.4	1	7.5	12	4.23	7	1.11	7	81.7	12	28.9	5	7.3	12
BCG24R	997	4	38.0	2	9.0	11	4.45	3	1.14	1	83.6	3	28.5	7	7.6	8
FM989BR	995	5	35.7	9	10.2	3	3.90	11	1.12	5	82.8	10	30.4	2	7.4	11
DP451B/R	991	6	32.5	12	9.8	9	3.90	10	1.13	2	83.4	6	25.8	11	7.5	9
ST4793R	986	7	37.8	4	10.2	5	4.33	4	1.08	9	83.4	6	28.9	5	7.8	6
SG521R	976	8	36.4	7	10.0	8	4.33	4	1.07	11	83.9	2	26.8	9	8.2	1
PM1218BR	960	9	37.6	5	10.5	1	4.50	2	1.08	10	83.5	4	27.3	8	8.2	2
DP436RR	904	10	32.9	11	10.2	4	4.05	9	1.13	3	83.1	8	25.9	10	7.7	7
PM1199RR	900	11	37.5	6	10.1	6	4.55	1	1.11	6	84.2	1	30.1	3	8.0	3
FM989R	875	12	35.8	8	9.7	10	3.85	12	1.12	4	83.5	4	32	1	7.5	10
LSD0 .10	53	1.3	0.6		0.20		0.02		0.8		1.0		0.3			
Mean	986	36.4	9.8		4.20		1.10		83.2		28.3		7.8			
CV%	4.5	3.1	80.5		75.9		83.2		59.3		88.2		71			
R-sq*100	81.9	83.0	5.1		3.9		1.3		0.8		3.1		2.9			

1/ Plots were 6-rows by 1200 feet and replicated 4 times for yield and fiber properties.

Weed control included over-the-top treatment of Round-up herbicide on all entries.

Ashley County

Paul Cochran Cooperator

Kenneth Williams Staff Chair

Planting date: 5-09-02

Replications: 3

Irrigation: Furrow

Management: Conventional

Harvest Date: 11-18-02

Soil Series:

Fertility: 100-30-60

Variety	Lint yield lb/A	Lint fraction ^a %	Micronaire	Length in	Strength g/tex
DP DeltaPEARL	1353	42.8	4.3	1.17	30.0
PSC355	1230	41.1	5.1	1.08	29.9
SG821	1227	40.9	4.1	1.11	30.0
FM966	1193	42.3	4.5	1.11	35.5
STBXN47	1156	44.6	5.1	1.08	29.0
PSC PH98M2983	1134	42.0	4.4	1.09	28.1
ST474	1126	41.6	4.9	1.09	29.2
DP491	1123	41.6	4.6	1.13	30.1
ST457	1117	42.9	4.7	1.09	29.2
FM958	1052	42.3	4.8	1.14	33.6
SG747	1047	42.0	4.7	1.11	28.5
DP388	1038	41.1	4.5	1.07	28.7
PSC 3196	1018	40.4	3.9	1.11	30.1
SG105	1001	41.5	4.9	1.11	31.2
FM819	1000	40.9	4.2	1.17	32.3
DP DES607	955	41.6	4.5	1.14	28.3
FM989BG/RR	942	39.9	4.4	1.10	31.3
FM832	841	40.4	3.9	1.16	31.9
Mean	1086	41.7	4.5	1.11	30.4
LSD (0.05)	184.6	--	--	--	--
CV (%)	6.06	--	--	--	--

^a – Data obtained from a laboratory gin without the use of a lint cleaner.

Ashley County
 Bruce Bond Cooperator
 Kenneth Williams Staff Chair

Planting date: 5-08-02
 Replications: 2
 Irrigation: Furrow
 Management: Conventional

Harvest Date: 11-14-02
 Soil Series: Herbert Silt Loam
 Fertility: 120-60-60

Variety	Lint yield lb/A	Lint fraction ^a %	Micronaire	Length in	Strength g/tex
DP555BR	1818	48.2	4.2	1.13	29.6
ST4691B	1647	43.7	5.1	1.10	27.5
PM1560BG/RR	1544	42.5	4.2	1.12	29.8
ST4892 BR	1480	42.5	4.7	1.11	29.6
SG501BR	1473	41.6	4.8	1.08	30.5
PM1218BG/RR	1469	41.4	4.4	1.07	27.6
PSC355	1465	42.1	4.3	1.10	26.5
STBXN49B	1397	41.4	4.8	1.15	28.1
DP458B/R	1384	41.5	4.8	1.11	28.6
DP33B	1380	40.9	4.3	1.13	27.8
DP448B	1374	42.5	4.4	1.09	28.3
DP 451 B/RR	1370	39.1	4.5	1.12	27.2
SG 215 BG/RR	1364	41.6	4.7	1.04	27.8
DP428B	1343	39.6	4.8	1.10	26.2
DP422B/R	1322	40.9	4.4	1.09	25.9
STBXN47	1301	41.9	4.6	1.10	28.9
FM958B	1297	41.8	4.6	1.10	34.2
PM1560B	1268	41.7	4.5	1.11	27.9
SG521R	1233	41.1	4.4	1.11	30.0
ST4793R	1233	42.7	5.2	1.14	30.5
PM1199RR	1216	41.6	3.9	1.13	28.9
Mean	1399	41.9	4.6	1.11	28.6
LSD (0.05)	142.6	--	--	--	--
CV (%)	7.88	--	--	--	--

^a – Data obtained from a laboratory gin without the use of a lint cleaner.

Clay County

David Cagle Cooperator
Andy Vangilder Staff Chair

Planting date: 05-01-02
Replications: 4
Irrigation: Furrow
Management: No-Till, Roundup Ready
2 OTT
2 Hooded

Harvest Date: 10-15-02
Soil Series:
Fertility: 110-60-90

Variety	Lint yield lb/A	Lint fraction ^a %	Micronaire	Length in	Strength g/tex
ST 4892 BR	1082	43.2	4.3	1.09	28.5
PM 1218 BG/RR	1032	40.2	5.2	1.07	28.0
SG 215 BG/RR	1020	41.0	5.1	1.10	30.1
DP 451 B/RR	982	38.1	4.4	1.10	30.1
DP 436 RR	894	37.9	5.0	1.11	29.0
ST 4793 R	890	40.8	4.2	1.15	28.9
SG 521 R	859	39.7	5.4	1.11	32.6
Mean	966	40.1	4.8	1.10	29.6
LSD (0.05)	227.64	--	--	--	--
CV (%)	5.37	--	--	--	--

^a – Data obtained from a laboratory gin without the use of a lint cleaner.

Craighead County

Carbert Rodgers Cooperator
Steve Culp Staff Chair

Planting date: 05-08-02
Replications: 2
Irrigation: Irrigated
Management: Roundup Ready
1 OTT
2 Hooded

Harvest Date: 10-24-02
Soil Series:
Fertility:

Variety	Lint yield lb/A	Lint fraction ^a %	Micronaire	Length in	Strength g/tex
SG 215 BG/RR	1318	41.0	4.0	1.06	26.4
SG501BR	1289	41.0	4.6	1.09	31.4
ST4793R	1186	37.0	4.2	1.14	28.8
DP 451 B/RR	1163	36.0	4.0	1.11	27.5
ST4892 BR	1134	39.0	4.4	1.09	28.7
FM 989 BR	1126	42.0	4.4	1.05	29.0
SG521R	1096	40.0	3.8	1.17	33.7
PM1199RR	1076	39.0	3.8	1.07	27.6
DP436RR	1053	40.0	4.0	1.12	30.3
Mean	1160	39.4	4.1	1.10	29.3
LSD (0.05)	107.9	--	--	--	--
CV (%)	2.38	--	--	--	--

^a – Data obtained from a laboratory gin without the use of a lint cleaner.

Crittenden County

Bill & Stewart Weaver Cooperator
Steve Rodery Staff Chair

Planting date: 04-29-02
Replications: 2
Irrigation: Non-irrigated
Management: Roundup Ready
2 OTT
1 Hooded

Harvest Date: 10-16-02
Soil Series: Commerce Silt Loam
Fertility:

Variety	Lint yield lb/A	Lint fraction ^a %	Micronaire	Length in	Strength g/tex
SG 215 BG/RR	1323	41.0	4.9	--	--
FM989BG/RR	1202	40.5	4.4	--	--
DP 451 B/RR	1178	38.2	4.8	--	--
SG521R	1138	41.0	4.8	--	--
SG501BR	1109	38.6	4.8	--	--
ST4793R	1091	40.3	4.6	--	--
ST4892 BR	1045	39.7	4.3	--	--
PM1199RR	1038	42.9	4.9	--	--
PM1218BG/RR	1021	38.4	4.7	--	--
DP436RR	994	36.5	4.4	--	--
Mean	1114	39.7	4.7	--	--
LSD (0.05)	--	--	--	--	--
CV (%)	--	--	--	--	--

^a – Data obtained from a laboratory gin without the use of a lint cleaner.

Greene County

Derek Boling Cooperator
Mark Brawner Staff Chair

Planting date: 4-23-02
Replications: 2
Irrigation: Irrigated
Management: Roundup Ready
2 OTT
2 Hooded

Harvest Date: 10-23-02
Soil Series:
Fertility: 20-40-80

Variety	Lint yield lb/A	Lint fraction ^a %	Micronaire	Length in	Strength g/tex
SG 215 BG/RR	1180	39.0	3.8	1.06	26.8
PM 1218 BG/RR	1125	40.0	4.2	1.08	28.5
ST 4892 BR	1083	42.0	3.2	1.08	28.0
ST 4793 R	1052	41.0	3.5	1.07	29.1
DP 436 RR	1033	36.0	3.0	1.09	26.0
SG 521 R	956	37.0	3.5	1.09	27.0
Mean	1072	39.2	3.5	1.08	27.6
LSD (0.05)	290	--	--	--	--
CV (%)	10.54	--	--	--	--

^a – Data obtained from a laboratory gin without the use of a lint cleaner.

Jefferson County

Kenny Bonds Cooperator

April Fisher County Extension Agent

Planting date: 04-25-02

Replications: 4

Irrigation: Irrigated

Management: Roundup Ready

1 OTT

2 Hooded

Harvest Date: 09-25-02

Soil Series:

Fertility:

Variety	Lint yield lb/A	Lint fraction ^a %	Micronaire	Length in	Strength g/tex
ST4892 BR	985	42.1	4.2	1.10	29.2
PM1218BG/RR	925	39.1	3.9	1.11	32.2
DP 451 B/RR	918	36.5	4.3	1.11	29.3
SG 215 BG/RR	892	39.0	3.8	1.14	28.8
Mean	930	39.2	4.1	1.12	29.9
LSD (0.05)	73.9	--	--	--	--
CV (%)	4.97	--	--	--	--

^a – Data obtained from a laboratory gin without the use of a lint cleaner.**St. Francis County**

Joe Whittenton Cooperator

Mitch Crow Staff Chair

Planting date: 05-02-02

Replications: 4

Irrigation: Drip

Management: Roundup Ready

2 OTT

Harvest Date: 10-18-02

Soil Series: Loring Silt Loam

Fertility:

Variety	Lint yield lb/A	Lint fraction ^a %	Micronaire	Length in	Strength g/tex
DP 491	1777	44.0	4.6	1.24	34.5
FM 958	1676	42.0	4.7	1.18	35.0
ST 457	1647	42.0	4.2	1.15	31.6
SG 105	1587	40.0	4.4	1.15	31.4
Mean	1672	41.7	4.5	1.18	33.1
LSD (0.05)	181.3	--	--	--	--
CV (%)	7.3	--	--	--	--

^a – Data obtained from a laboratory gin without the use of a lint cleaner.

St. Francis County
 Joe Whittenton Cooperator
 Mitch Crow Staff Chair

Planting date: 05-02-02
 Replications: 4
 Irrigation: Drip
 Management: Roundup Ready
 2 OTT

Harvest Date: 10-18-02
 Soil Series: Loring Silt Loam
 Fertility:

Variety	Lint yield	Lint fraction ^a	Micronaire	Length	Strength
	lb/A	%		in	g/tex
ST 4892 BR	1905	44.0	4.1	1.15	31.5
FM 989 BR	1781	41.0	4.3	1.16	34.4
SG 215 BG/RR	1777	41.0	4.3	1.11	28.3
DP 555 BG/RR	1596	44.0	4.1	1.18	31.5
Mean	1765	42.5	4.2	1.15	31.4
LSD (0.05)	551.2	--	--	--	--
CV (%)	9.65	--	--	--	--

^a – Data obtained from a laboratory gin without the use of a lint cleaner.

*field was inadvertently defoliated early with % open ranging from 25% (ST4892BR) to less than 20% open (DP 555 BG/RR)

St. Francis County
 Joe Whittenton Cooperator
 Mitch Crow Staff Chair

Planting date: 05-24-02
 Replications: 4
 Irrigation: Pivot
 Management: Roundup Ready
 2 OTT

Harvest Date: 11-19-02
 Soil Series: Loring Silt Loam
 Fertility:

Variety	Lint yield	Lint fraction ^a	Micronaire	Length	Strength
	lb/A	%		in	g/tex
SG 747	1270	40.0	4.3	1.13	27.0
DP X99X35	1235	42.0	4.0	1.17	31.9
ST 474	1210	42.0	3.8	1.15	30.0
PSC PH98M2983	1205	41.0	4.3	1.14	29.7
FM 958	1196	41.0	4.5	1.11	29.1
SG 105	1155	38.0	4.1	1.18	33.5
DP 491	1146	42.0	4.1	1.16	31.0
PSC 355	1125	40.0	4.1	1.21	31.1
ST 457	1124	40.0	4.8	1.12	31.8
Mean	1185	41.0	4.2	1.15	30.6
LSD (0.05)	78.5	--	--	--	--
CV (%)	2.87	--	--	--	--

^a – Data obtained from a laboratory gin without the use of a lint cleaner.

St. Francis County

Joe Whittenton Cooperator
Mitch Crow Staff Chair

Planting date: 05-24-02
Replications: 4
Irrigation: Pivot
Management: Roundup Ready
2 OTT

Harvest Date: 11-19-02
Soil Series: Loring Silt Loam
Fertility:

Variety	Lint yield lb/A	Lint fraction ^a %	Micronaire	Length in	Strength g/tex
PM 1199 R	1241	42.0	4.5	1.13	32.7
DP 436 RR	1221	36.0	3.8	1.17	29.4
ST 4793 R	1207	41.0	4.4	1.10	31.0
SG 521 R	1133	40.0	4.4	1.09	28.7
Mean	1201	39.8	4.3	1.12	30.5
LSD (0.05)	226.1	--	--	--	--
CV (%)	5.92	--	--	--	--

^a – Data obtained from a laboratory gin without the use of a lint cleaner.

St. Francis County

Joe Whittenton Cooperator
Mitch Crow Staff Chair

Planting date: 05-24-02
Replications: 4
Irrigation: Pivot
Management: Roundup Ready
2 OTT

Harvest Date: 11-19-02
Soil Series: Loring Silt Loam
Fertility:

Variety	Lint yield lb/A	Lint fraction ^a %	Micronaire	Length in	Strength g/tex
SG 501BR	967	40.0	4.3	1.08	30.7
DP X00S13	955	42.0	3.9	1.18	29.8
DP 451 BG/RR	952	36.0	3.4	1.14	28.2
SG 215 BG/RR	892	39.0	4.1	1.08	27.2
ST 4892 BR	862	42.0	4.6	1.12	31.1
DP 555 BG/RR	820	44.0	4.5	1.12	28.3
Mean	908	40.5	4.1	1.12	29.2
LSD (0.05)	147.7	--	--	--	--
CV (%)	6.33	--	--	--	--

^a – Data obtained from a laboratory gin without the use of a lint cleaner.

