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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 in Arkansas cotton production. Varietal adaptation is determined by evaluating the varieties and lines at four University of Arkansas research stations located near Keiser, Clarkedale, Marianna, and Rohwer and one off-station site (near Manila). Tests are duplicated in irrigated and non-irrigated culture at the Keiser and Marianna locations. In 2003, 33 entries were evaluated in the main test and 23 were evaluated in the first-year test. Replications of the two tests were randomized in the fields so that data can be compared.

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J.M. Hornbeck, and F.E. Groves[1]

Introduction

The purpose of the University of Arkansas Cotton Variety Testing Program is to provide unbiased comparisons of cotton varieties and advanced breeding lines produced over a range of environments. Data from these tests help to identify the potential adaptability of varieties to particular cotton-growing regions of the state. Bourland et al. (2000) documented several unintentional biases that 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 varietal test, no specialized production inputs were contributed with respect to genetically enhanced varieties. Roundup 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 2003 1st-year varietal test. Lines that had been evaluated in 2002 and were re-submitted in 2003 were evaluated in the 2003 main varietal test.

Materials and Methods

The 2003 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. An on-farm varietal test was conducted near Manila in Mississippi County (located in northeast Arkansas) on a soil naturally infested with root-knot nematode. Cultural practices associated with the test are listed in Table 1.

Entries were separated into those tested for the first time in 2003 (1st-year entries) and entries that were evaluated in the 2002 Arkansas Cotton Variety Test (returning entries). All test sites included the same entries. Double-treated (two fungicides) seed for all entries were obtained from originators. Prior to planting, all seeds were treated with imidacloprid (Gaucho®) at a rate of 6oz/100 lb seed. Plots were planted with a constant number of seeds (ca. 4.5 seed/row ft) except when increased due to low seed quality. All varieties were planted in two-row plots ranging in length from 40 to 50 feet. All tests were arranged in a randomized complete block and replicated four times. Although exact inputs varied across locations, cultural inputs at each

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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, yield per acre was calculated, and data were statistically analyzed.

Data Collected

Stand: After final emergence, number of plants per row foot was determined after counting the number of surviving plants in a random 5-foot section of each of the two rows. Since seed was obtained from different sources, stand counts simply demonstrate the adequacy of final stands rather than the genetic ability of entries to produce stand.

Leaf Pubescence: Leaf pubescence was visually rated on a scale of 1 (smooth leaf) to 7 (very hairy) in the irrigated tests at Keiser using a system described by Bourland et al. (2003). A full-sized leaf, ca. 5-6 nodes from plant apex, was rated for 6 plants per plot for 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 average-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. In each test, the samples were obtained by picking all open bolls from consecutive plants. Within each row of two-row plots, a site having average or above-average plant density was chosen and 25 bolls were harvested and bulked to form a 50-boll sample. The 50-boll samples were ginned (lab ginned 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).

Seed per acre: For each plot, an estimate of number of seeds per acre was obtained by multiplying seedcotton yield (lb/a converted to g/a) times average seed percentage (the percentage seed to seedcotton in ginned sample, averaged by entry over reps), then divided by average weight of a seed (average seed index by entry over reps divided by 100).

Lint index: Lint index (weight of lint on 100 seeds) was determined from 50-boll sample data by dividing lint weight from gin by the number of seeds per sample (determined using seed index) then multiplying by 100.

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 varietal 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

Several problems were associated with the tests in 2003. Excessive rainfall in May caused problems in attaining and maintaining test stands. Following are observations regarding each location:

Manila. This was the first year that trial leaders have conducted small-plot varietal testing in this area. The site chosen has high infestation of root-knot nematode and is representative of a large cotton-growing area in northeast Arkansas and southeast Missouri. The test was conducted in cooperation with Mr. Ray Benson and was located (north) adjacent to the public golf course in Manila. Extended saturated conditions are unusual on this sandy soil yet excessive rainfall caused flooding and forced researchers to replant the test twice. Yields of late-maturity varieties may have been lessened by the late planting. Symptoms of root-knot nematode occurred relatively late but were extensive.

Keiser. Adequate stands were achieved in the irrigated and non-irrigated tests at Keiser, but wet and cloudy conditions caused emerged seedlings to grow very slowly throughout the month of May. Although stands were relatively uniform, the slow and differential growth lessened uniformity over the field.

Clarkedale. A 10-inch rain accompanied by strong wind destroyed stands from the first planting. Subsequently, the tests were replanted relatively late.

Marianna. Stands in the non-irrigated test at Marianna were relatively low and lacked uniformity. Both tests at Marianna followed corn in a field that has drainage problems. The wet conditions, high nitrogen carryover, late planting, and relatively cool June-August (Table 2) resulted in excessive growth and poor fruiting. Excessive growth was a greater problem in the irrigated test (planted later) than in the non-irrigated test. Consequently, yields at Marianna were low, particularly in the irrigated test.

Rohwer. Excessive rainfall and flooding (primarily on one side of the study field) caused a loss of 10 plots per replication of the main test. Stands in the rest of the main test and the 1st-year test were sufficient.

Environmental conditions varied across the state (Table 2). Temperatures in the 2003 production season tended to be below the historical average (1960 - 1998). Unusually wet conditions immediately after planting adversely affected stands and early growth at each location. Daily high temperatures were generally mild throughout the summer. Consequently, plant stress was minimal and high yields were generally achieved.

Table 1. Table 1 includes cultural inputs and production information for varietal trials at Manila; 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 locations during the 2003 production season.

Tables 3–10. Tables 3–10 represent the results of the main test of the 2003 Arkansas Cotton Variety Test. Varieties listed in these tables were tested the previous year in Arkansas. Table 3 provides results over all locations, and Tables 4-10 provide results for each of seven locations.

Tables 11–18. Tables 11–18 are the results of the 1st-year Arkansas Cotton Variety Test. Varieties tested in the 1st-year test were not entered in the 2002 Arkansas Cotton Variety Test. Table 11 provides results over all locations, and Tables 12-18 provide results for each of seven locations.

Table 19. Leaf pubescence ratings (main and 1st-year test) at Keiser are in Table 19.

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

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Participants in the 2003 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 960BR FM 960R	FM 966 FM 989BR	FM 958LL FM 966LL	
Beltwide Cotton Genetics / Tom Kilgore buytexas@aol.com	BCG 24R	BCG 28R	BCG 295	
Calif. Planting Cotton Seed Dist. / Hal Moser hmoser@cpcsd.com			CS31 CS32 CS33	CS34 CS35 CS36
Delta & Pine Land Company / David Albers david.w.albers@deltaandpine.com	DP 436RR DP 451B/RR DP 491 DP 555BG/RR DP 493 DP 444BG/RR	DP 449BG/RR PM 1199RR PM 1218BG/RR SG 215BG/RR SG 105 SG 521R	DP 434RR DP 432RR DP 494RR DPLX 00W12	DP 424BG2/RR DP 468BG2/RR SG 105, check
Mississippi State Univ.-Delta / John Creech jcreech@drec.msstate.edu	DES 810	DES 816		
PhytoGen Seed Co., LLC. / Frank Bordelon FCBordelon@dow.com			PHY 410RR	
Stoneville Pedigreed Seed Co. / Andy White awhite@stoneville.com	BXN 49B ST 5303R ST 4793R	ST 4892BR ST 5599BR	ST 4563B2 ST 5222B2 ST 4646B2R	ST 4892BR, check ST 5242BR ST 3990BR
Syngenta Seeds, Inc. / Charles Cook Charlie.cook@syngenta.com	DX 2429			
Texas A&M University / Wayne Smith& Peggy Thaxton cwsmith@tamu.edu p-thaxton@tamu.edu	96WD22			
University of Arkansas / Fred Bourland bourland@uark.edu	Ark 8712 Ark 9101-97-09	Ark 9108-04-17 Ark 9111-57-20		

Table 1. Cultural practices for locations in the 2003 Arkansas Cotton Variety Test

Location	Fertilizer N, P, K	Planting date(s)	Irrigation dates[1]	Defoliation date	Harvest date
	lb/a				
Manila, Irrigated	90,30,60	May 1,13,23	5 turns of pivot	Sep 25	Oct 6
Keiser, Irrigated	100,20,0	May 2	Jul 2,12,25, Aug 6	Sep 15, 20	Sep 25
Keiser, Non-irrigated	100,20,0	May 2	None	Sep 15, 20	Sep 12
Clarkedale, Irrigated	80, 46, 60	May 6,27	Jun 24, Jul 2, 9	Sep 22	Oct 20
Marianna, Irrigated	82, 46, 30	May 9	Jul 10, Aug 2, 9, 29	Sep 23	Oct 15
Marianna, Non-irrigated	82, 46, 30	May 2	None	Sep 16	Oct 1
Rohwer, Irrigated	120, 40, 60	May 13	Jun 14, Jul 10	Sep 21, 20	Sep 25

[1] Manila location was irrigated with center pivot, other irrigated locations were furrow-irrigated.

Table 2. Weather summary for the 2003 production season in north, central, and south Arkansas

Month by location	DD60s in 2003	DD60s historical avg.[1]	Rainfall (in.) in 2003
Keiser (northeast Ark.):			
May	341	326	11.39
June	441	549	3.30
July	660.5	659	5.80
August	642	579	0.68
September	305	366	3.48
Total	2389.5	2479	24.65
Marianna (central Ark.):			
May	354.5	326	7.40
June	434.5	549	4.16
July	638.5	659	4.02
August	598.5	579	2.07
September	321.5	366	3.43
Total	2347.5	2479	21.08
Rohwer (southeast Ark.):			
May	395.5	635	9.69
June	490.0	564	5.35
July	637.5	672	2.37
August	678.5	621	1.34
September	404.0	532	4.74
Total	2605.5	3024	23.49

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

Table 3. Results of the 2003 Cotton Variety Test across seven Arkansas test sites.

Variety	Lint yield	r	Lint frac.	r	Stand		Ht.	r	Seed index	r	Lint index	r	Seed per a	r	Fiber properties Mic	r	Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/a		%		no./ft		cm		g		g		mil.				in.		%		g/tex		%	
ST5599BR	1110	1	40.3	12	3.3	10	97	7	11.4	6	7.8	7	6.305	2	4.6	15	1.17	17	84.3	30	32.1	15	7.9	26
DP444BG/RR	1097	2	40.8	8	3.7	1	94	15	10.5	27	7.4	16	6.672	1	4.0	33	1.17	19	84.9	14	30.6	24	8.1	19
ST4892BR	1043	3	40.7	9	3.0	24	97	9	11.0	17	7.7	8	6.163	3	4.7	10	1.16	22	84.3	28	31.9	17	8.4	12
BXN49B	1013	4	40.0	15	3.1	17	97	8	11.2	10	7.6	11	5.756	12	4.3	31	1.2	5	84.6	20	29.8	28	8.0	21
Ark9108_04_17	996	5	40.9	5	2.9	28	89	28	11.0	18	7.7	9	5.754	13	5.0	1	1.15	29	84.4	27	34.2	5	8.5	7
PSC355	970	6	40.0	14	3.0	25	94	16	10.5	26	7.2	21	5.814	9	4.8	3	1.16	26	85.2	8	32.3	13	9.2	1
SynDX2429	957	7	39.1	24	3.2	13	95	14	11.0	16	7.2	19	6.049	5	4.8	6	1.18	15	85.0	9	33.3	9	9.1	2
FM960BR	926	8	38.7	26	3.5	2	91	22	11.8	4	7.5	13	5.510	17	4.3	30	1.17	20	84.4	25	36.6	2	7.9	23
SG521R	925	9	40.9	6	3.3	7	95	12	10.8	23	7.5	12	5.489	18	4.6	17	1.14	30	84.4	26	29.8	29	8.5	5
FM958B	918	10	39.2	23	3.4	3	88	30	11.1	13	7.2	18	5.527	16	4.2	32	1.18	10	84.6	20	35.3	3	7.9	28
Ark9101_97_09	904	11	39.8	16	3.3	9	88	29	11.3	8	7.6	10	5.286	23	4.6	17	1.17	21	85.0	11	33.6	7	8.3	14
PM1218BG/RR	903	12	39.6	19	2.8	29	94	17	11.9	1	7.9	1	5.008	27	4.8	5	1.13	32	84.6	23	29.9	26	8.1	18
ST5303R	891	13	38.9	25	3.1	20	99	2	10.6	25	6.8	25	5.803	10	4.5	23	1.16	23	85.4	3	35.1	4	8.2	15
DES810	887	14	37.0	31	3.2	11	94	18	10.9	19	6.5	27	5.940	7	4.5	24	1.15	28	84.7	18	32.1	16	8.5	6
FM989BR	875	15	38.2	29	3.3	6	92	21	11.8	3	7.5	14	5.289	22	4.4	28	1.19	7	84.7	16	33.6	6	7.9	27
DP493	872	16	42.6	1	3.4	4	99	3	9.0	32	6.9	24	5.665	15	4.7	8	1.18	14	84.6	22	31.7	21	7.7	31
DP436RR	870	17	36.5	33	3.2	12	90	26	11.1	14	6.4	31	6.161	4	4.6	13	1.18	13	84.9	12	28.2	33	8.2	17
SG215BG/RR	864	18	40.2	13	3.1	16	96	11	10.8	22	7.4	15	5.204	24	4.8	4	1.13	33	84.8	15	29.1	31	8.5	8
BCG28R	861	19	40.7	10	3.0	23	85	33	9.4	30	6.5	28	5.923	8	5.0	2	1.18	16	84.1	31	29.9	27	7.9	24
FM966	861	20	39.3	22	3.3	8	91	23	11.9	2	7.9	4	4.881	28	4.4	25	1.2	6	85.6	2	36.7	1	7.8	30
DP451B/RR	853	21	37.0	32	3.1	21	90	25	10.8	21	6.5	30	5.667	14	4.5	21	1.18	12	84.9	13	28.8	32	8.0	22
Ark8712	851	22	37.7	30	3.1	18	92	20	11.0	15	6.8	26	5.427	19	4.6	15	1.21	2	85.3	6	31.8	19	8.4	11
PM1199RR	842	23	39.6	20	3.1	22	91	24	10.7	24	7.1	23	5.328	20	4.6	12	1.16	24	85.2	7	32.2	14	8.2	16
ST4793R	840	24	40.6	11	3.2	14	99	4	11.1	11	7.8	5	4.833	29	4.8	6	1.15	27	84.3	29	31.8	18	8.4	10
SG105	835	25	39.3	21	2.8	31	88	31	10.9	20	7.2	20	5.301	21	4.7	10	1.19	9	85.7	1	31.8	20	8.6	3
FM958	834	26	39.6	18	3.1	19	87	32	11.7	5	7.8	6	4.819	30	4.5	22	1.2	4	85.0	10	33.4	8	7.5	32
DES816	824	27	38.3	28	2.7	32	92	19	11.3	7	7.1	22	5.116	25	4.7	9	1.16	24	84.5	24	33.2	10	8.5	9
Ark9111_57_20	822	28	40.8	7	2.7	33	97	6	11.3	9	7.9	2	4.662	32	4.6	14	1.18	10	85.3	5	31.4	22	8.5	4
BCG24R	813	29	39.7	17	3.0	27	95	13	9.3	31	6.3	32	5.988	6	4.5	20	1.14	31	84.0	32	31.3	23	8.3	13
DP449BG/RR	809	30	38.5	27	3.4	5	90	27	9.5	29	6.1	33	5.780	11	4.4	27	1.17	18	84.7	17	32.9	12	7.9	25
DP555BG/RR	785	31	42.3	2	3.1	15	102	1	8.7	33	6.5	29	5.026	26	4.5	19	1.19	8	83.9	33	30.4	25	7.3	33
96WD22	781	32	41.0	4	3.0	26	96	10	11.1	12	7.9	3	4.487	33	4.3	29	1.21	3	84.7	19	29.3	30	8.1	20
DP491	768	33	41.3	3	2.8	30	98	5	10.1	28	7.3	17	4.689	31	4.4	25	1.25	1	85.4	4	33.1	11	7.8	29
Mean	894		39.7		3.1		93		10.8		7.20		5.499		4.6		1.17		84.8		32		8.2	
Var. LSD 0.10	70		0.9		0.2		4		0.3		0.30		0.440		0.2		0.02		0.7		0.8		0.2	
Loc. LSD 0.10	30		0.4		0.1		2		0.1		0.1		0.073		0.1		0.01		0.3		0.4		0.1	
C.V.%	17.8		3.6		15.9		9.3		4.7		7.2		17.7		5.6		2.2		1.2		4.1		3.6	
R-sq x 100	84.1		78.7		73.3		90.6		90.4		79.3		84.6		83.0		81.1		66.4		86.6		87.0	
Prob (var x loc)	<.001		0.03		0.02		0.86		0.11		0.06		<.001		<.001		0.12		0.82		0.11		0.04	

Table 4. Results of the 2003 Cotton Variety Test with irrigation on a Routon-Dundee-Crevasse complex soil at Manila, Ark.

Variety	Lint yield	r	Lint frac.	r	Stand		Ht.	r	Seed index	r	Lint index	r	Seed per a	r	Fiber properties Mic	r	Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/a		%		no./ft		cm		g		g		mil.				in.		%		g/tex		%	
SG521R	1263	1	44.6	2	3.7	6	82	8	10.2	19	8.2	2	7.014	13	4.7	10	1.14	23	84.5	7	30.3	24	8.9	9
DP493	1209	2	45.7	1	3.6	10	81	13	8.9	30	7.7	8	7.154	10	4.7	11	1.17	13	83.7	18	32.8	13	8.3	21
BXN49B	1197	3	41.4	14	3.5	14	85	3	10.5	11	7.5	11	7.212	9	4.2	25	1.18	6	83.2	26	29.7	28	8.7	14
SG105	1196	4	40.0	22	3.0	30	73	29	10.1	21	6.8	22	7.960	3	4.3	21	1.17	8	83.8	17	30.1	26	8.8	13
FM958	1160	5	38.5	28	3.4	17	64	33	10.7	8	6.8	21	7.712	5	4.1	29	1.21	2	84.7	5	34.2	5	7.7	33
Ark9111-57-20	1140	6	42.0	9	3.2	25	82	10	10.6	9	7.8	5	6.605	19	4.4	19	1.17	8	84.8	4	31.0	20	8.9	8
SG215BG/RR	1138	7	41.2	17	3.4	17	84	5	10.4	14	7.3	14	7.029	12	4.9	5	1.11	33	84.2	12	27.8	32	8.9	9
PM1218BG/RR	1132	8	42.1	8	2.9	33	77	20	10.9	4	8.0	3	6.436	22	4.6	14	1.12	32	83.5	21	29.6	29	8.5	19
DP491	1112	9	42.4	5	3.0	32	82	9	9.2	28	6.9	18	7.289	8	4.3	21	1.22	1	83.9	16	32.4	15	8.0	26
Ark9108-04-17	1106	10	41.9	11	3.0	30	80	16	10.5	12	7.7	7	6.496	21	4.9	5	1.12	30	84.7	5	35.2	3	9.1	5
DP436RR	1105	11	37.6	30	3.4	20	74	28	9.7	25	5.9	31	8.474	1	4.2	24	1.17	8	84.9	2	26.7	33	8.6	18
PSC355	1100	12	41.3	16	3.6	7	81	12	9.5	27	6.8	23	7.345	7	4.8	8	1.14	26	83.9	15	30.2	25	9.5	1
BCG24R	1093	13	42.3	7	3.4	20	80	15	8.4	32	6.3	27	7.862	4	4.1	27	1.12	30	83.5	21	30.6	23	8.9	9
Ark9101-97-01	1092	14	41.7	12	3.0	29	75	24	10.6	10	7.6	9	6.514	20	4.7	11	1.14	23	82.5	30	34.2	5	8.9	9
DP444BG/RR	1076	15	41.3	15	3.7	5	83	7	9.7	26	7.0	17	6.983	14	3.7	33	1.16	16	83.7	18	30.7	22	8.0	26
PM1199RR	1074	16	39.6	25	3.4	20	74	27	10.0	23	6.6	25	7.421	6	4.4	15	1.17	8	84.4	8	33.0	12	8.7	14
BCG28R	1046	17	40.5	20	3.7	3	64	32	8.5	31	5.9	32	8.023	2	4.9	5	1.14	23	81.6	33	29.2	30	7.9	30
ST5303R	1039	18	40.7	18	3.3	23	87	1	9.8	24	6.9	19	6.863	15	4.4	15	1.15	20	85.0	1	34.8	4	8.6	17
FM966	1015	19	40.7	19	3.7	3	68	31	11.4	1	7.8	6	5.891	27	4.4	19	1.18	7	83.4	23	36.3	2	7.9	30
DES816	1000	20	39.7	23	3.1	26	77	21	10.8	7	7.2	15	6.267	24	5.0	3	1.14	26	83.2	25	34.0	8	9.2	3
FM960BR	988	21	38.0	29	3.9	1	75	25	11.3	2	7.1	16	6.311	23	4.0	32	1.14	26	81.9	32	38.2	1	8.1	25
ST5599BR	984	22	42.0	10	3.5	16	86	2	10.8	6	7.9	4	5.667	30	4.7	11	1.17	13	83.5	20	32.4	14	8.2	23
ST4892BR	976	23	42.4	6	3.1	28	83	6	10.3	16	7.6	10	5.871	28	4.8	9	1.13	29	82.3	31	33.3	11	9.0	6
DES810	964	24	36.8	32	3.6	13	76	23	10.4	13	6.1	29	7.117	11	4.1	29	1.15	20	84.2	11	32.0	17	9.1	4
DP451B/RR	932	25	37.3	31	3.6	10	71	30	10.3	15	6.2	28	6.840	16	4.4	15	1.16	17	83.1	27	28.5	31	8.0	26
FM958B	928	26	40.3	21	3.6	7	74	26	10.1	22	6.9	20	6.134	25	4.2	25	1.19	4	84.3	10	34.2	7	8.0	26
ST4793R	926	27	43.1	4	3.4	17	81	13	10.8	5	8.4	1	5.015	33	5.0	1	1.16	17	82.9	28	31.9	18	9.0	6
DP449BG/RR	913	28	39.7	24	3.5	14	77	21	9.1	29	6.1	30	6.754	17	4.4	15	1.16	17	84.0	13	34.0	9	8.3	21
FM989BR	907	29	39.3	26	3.8	2	82	10	11.1	3	7.4	13	5.579	31	4.1	31	1.20	3	84.9	2	33.9	10	8.2	23
DP555BG/RR	869	30	43.5	3	3.3	23	85	3	8.2	33	6.5	26	6.038	26	5.0	3	1.17	13	82.8	29	29.9	27	7.9	30
96WD22	856	31	41.6	13	3.6	7	78	18	10.2	17	7.5	12	5.196	32	4.3	21	1.19	4	84.4	9	30.8	21	8.7	16
SynDX2429	830	32	38.5	27	3.6	10	79	17	10.2	18	6.6	24	5.701	29	5.0	1	1.15	20	83.3	24	32.2	16	9.4	2
Ark8712	824	33	35.7	33	3.1	27	78	19	10.1	20	5.7	33	6.613	18	4.1	27	1.17	8	84.0	13	31.3	19	8.4	20
Mean	1036		40.7		3.4		78		10.1		7.1		6.709		4.5		1.16		83.7		32.0		8.5	
LSD 0.10	189		2.6		0.4		9		0.9		0.8		1.222		0.5		0.04		ns		2.4		0.6	
C.V.%	15.5		3.8		11.1		9.7		5.2		6.9		15.5		6.0		2.1		1.4		4.4		4.3	
R-sq x 100	57.9		80.3		41.7		52.2		82.9		81.3		60.4		78.0		69.0		54.0		86.6		77.4	

Table 5. Results of the 2003 Cotton Variety Test with irrigation on a Tunica silty clay soil at Keiser, Ark.

Variety	Lint yield	r	Lint frac.	r	Stand		Ht.	r	Seed index	r	Lint index	r	Seed per a	r	Fiber properties Mic	r	Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/a		%		no./ft		cm		g		g		mil.				in.		%		g/tex		%	
DP444BG/RR	1318	1	40.3	16	4.9	1	85	19	10.2	27	7.1	20	8.391	1	4.2	32	1.16	18	84.6	23	30.6	25	8.0	22
ST5599BR	1142	2	40.8	12	3.7	16	94	6	11.8	2	8.2	2	6.286	17	5.1	7	1.16	21	83.5	31	32.6	14	8.2	16
FM966	1134	3	39.8	20	4.0	8	87	18	11.3	6	7.6	14	6.797	6	4.4	30	1.20	7	85.8	4	36.1	2	7.9	27
DP491	1109	4	43.0	4	3.2	26	96	4	10.0	28	7.7	9	6.515	13	4.8	17	1.24	1	85.0	15	32.6	13	7.9	27
Ark9108-04-17	1091	5	41.4	7	3.1	32	84	22	11.0	14	7.9	6	6.267	18	5.5	1	1.14	26	83.7	30	33.5	7	8.5	9
ST5303R	1090	6	40.3	17	3.9	11	98	3	10.2	26	7.0	25	7.104	4	4.5	28	1.15	24	85.0	13	35.1	4	8.5	9
BXN49B	1087	7	40.6	15	3.2	29	89	14	10.8	18	7.6	15	6.533	12	4.6	27	1.19	13	84.5	25	30.0	28	8.0	22
DES810	1083	8	37.5	33	3.7	18	83	25	11.1	13	6.8	28	7.204	3	4.7	21	1.16	21	85.2	9	31.5	18	8.7	7
BCG28R	1063	9	43.1	3	3.6	20	76	33	9.5	30	7.2	19	6.716	8	5.2	2	1.17	16	84.7	22	31.4	20	8.2	16
FM989BR	1041	10	37.9	32	3.9	13	79	32	11.3	5	7.1	22	6.702	9	4.4	31	1.20	10	84.2	28	34.3	5	7.8	30
SG105	1035	11	41.3	8	3.4	25	83	26	10.7	22	7.7	11	6.126	21	5.2	4	1.17	16	85.1	12	33.0	10	8.9	3
DP493	1030	12	43.1	2	4.0	10	94	7	8.6	31	6.7	30	6.944	5	4.9	11	1.14	26	83.5	31	30.8	22	7.8	30
Ark9111-57-20	1028	13	42.4	5	2.9	33	94	7	11.2	11	8.4	1	5.566	31	5.1	5	1.20	7	86.2	2	30.1	27	8.5	9
ST4793R	1026	14	42.2	6	3.6	21	102	1	10.8	20	8.0	4	5.826	28	4.9	14	1.14	26	84.5	24	30.7	24	8.5	9
SG215BG/RR	1024	15	41.2	9	3.9	12	93	9	10.8	19	7.7	12	6.057	24	5.1	6	1.13	30	86.3	1	29.8	29	8.8	5
FM958	1021	16	40.6	14	3.2	26	84	21	11.2	8	7.9	7	5.882	27	4.7	21	1.23	2	85.4	8	33.7	6	7.7	32
Ark9101-97-01	1017	17	39.7	22	4.3	5	90	12	11.2	10	7.5	16	6.137	20	4.7	21	1.15	24	84.8	18	33.3	8	8.1	20
PSC355	1014	18	39.6	24	3.1	31	80	29	10.2	25	6.9	26	6.667	10	5.0	8	1.16	18	84.7	20	31.4	19	9.2	2
ST4892BR	1011	19	41.0	10	3.6	21	89	16	11.2	9	7.8	8	5.892	26	4.9	14	1.19	11	85.5	6	31.7	17	8.8	4
96WD22	997	20	40.8	13	3.5	23	94	5	11.3	7	7.9	5	5.703	30	4.6	26	1.21	5	84.7	20	28.9	32	8.0	22
FM960BR	997	21	39.7	23	4.3	3	83	24	11.5	3	7.6	13	5.952	25	4.5	29	1.22	4	85.2	10	35.6	3	8.0	22
Ark8712	987	22	39.6	25	3.8	14	84	22	10.7	21	7.1	21	6.346	14	4.8	17	1.21	5	85.6	5	30.7	23	8.6	8
FM958B	983	23	40.3	18	4.3	4	85	19	10.8	17	7.3	17	6.072	23	4.2	32	1.18	14	84.5	25	36.2	1	7.9	27
PM1218BG/RR	981	24	40.2	19	3.4	24	88	17	12.0	1	8.2	3	5.437	33	5.2	2	1.13	32	84.1	29	30.3	26	8.3	15
DES816	975	25	39.6	27	3.2	29	89	14	10.6	23	7.0	24	6.340	15	4.7	21	1.16	18	85.5	6	32.9	12	8.2	16
BCG24R	965	26	40.9	11	3.2	26	91	11	8.6	32	6.0	33	7.233	2	4.9	16	1.13	30	84.5	25	31.8	16	8.4	13
DP449BG/RR	964	27	39.4	29	4.4	2	81	28	9.9	29	6.6	31	6.586	11	4.8	17	1.19	11	85.0	13	32.9	11	8.0	22
DP555BG/RR	953	28	44.0	1	3.7	16	102	2	8.0	33	6.4	32	6.727	7	4.6	25	1.22	3	84.9	17	31.3	21	7.5	33
DP451B/RR	942	29	38.1	30	4.3	5	82	27	10.9	16	6.7	29	6.338	16	5.0	8	1.18	15	84.8	18	28.6	33	8.2	16
SG521R	938	30	39.8	21	4.1	7	92	10	10.6	24	7.0	23	6.105	22	4.8	17	1.14	29	83.2	33	29.2	30	8.8	5
SynDX2429	935	31	39.4	28	3.7	18	90	12	11.5	4	7.7	10	5.522	32	4.9	11	1.15	23	85.0	15	32.0	15	9.3	1
PM1199RR	931	32	39.6	26	3.8	15	79	31	11.0	15	7.3	18	5.764	29	5.0	8	1.12	33	85.1	11	33.1	9	8.4	13
DP436RR	930	33	38.1	31	4.0	8	80	30	11.2	12	6.9	27	6.149	19	4.9	11	1.20	7	85.9	3	29.1	31	8.1	20
Mean	1026		40.5		3.7		88		10.7		7.4		6.360		4.9		1.17		89.6		31.9		8.3	
LSD 0.10	142		1.6		0.8		13		0.6		0.6		0.892		0.4		0.05		ns		1.5		0.4	
C.V.%	11.8		2.4		17.2		12.9		3.5		4.6		11.9		4.6		2.3		1.1		2.8		2.9	
R-sq x 100	40.8		84.0		53.4		49.4		92.5		84.3		49.1		79.4		75.7		61.4		91.2		86.3	

Table 6. Results of the 2003 Cotton Variety Test without irrigation on a Tunica silty clay soil at Keiser, Ark.

Variety	Lint yield	r	Lint frac.	r	Stand		Ht.	r	Seed index	r	Lint index	r	Seed per a	r	Fiber properties Mic	r	Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/a		%		no./ft		cm		g		g		mil.				in.		%		g/tex		%	
DP444BG/RR	910	1	40.9	8	4.9	1	62	21	9.7	24	6.9	16	6.034	1	4.0	30	1.14	26	85.0	17	30.5	26	7.8	23
Ark9108-04-17	853	2	41.7	5	3.8	20	58	26	10.1	19	7.3	5	5.296	9	4.8	5	1.15	25	84.6	29	35.7	4	8.4	4
ST4892BR	849	3	39.0	25	3.7	22	65	9	9.9	21	6.6	23	5.899	3	4.5	12	1.18	16	84.9	19	32.4	16	8.1	8
BXN49B	842	4	37.8	31	4.1	12	64	13	10.5	8	6.6	20	5.748	5	3.8	32	1.24	1	84.9	19	30.3	27	7.8	22
SG521R	839	5	41.3	6	4.1	10	65	10	9.9	21	6.9	14	5.487	7	4.1	28	1.16	22	85.2	13	29.9	30	8.0	11
FM958	831	6	40.4	9	3.5	25	66	5	10.8	4	7.5	4	5.038	14	4.7	9	1.20	7	85.3	11	34.8	7	7.5	29
FM958B	822	7	38.1	29	3.7	21	56	31	10.6	6	6.6	22	5.649	6	4.2	27	1.22	4	85.0	17	34.0	9	7.5	29
BCG28R	786	8	39.7	16	3.9	16	52	33	9.2	29	6.0	27	5.910	2	5.0	1	1.18	16	85.4	8	30.3	28	7.9	18
Ark9111-57-20	782	9	42.3	2	2.7	33	63	17	10.3	13	7.6	2	4.670	24	4.2	25	1.17	20	84.8	22	32.6	12	8.3	6
SynDX2429	775	10	39.2	21	4.1	11	65	7	10.2	15	6.7	19	5.269	10	4.7	8	1.18	16	86.5	1	35.6	5	9.1	1
FM960BR	774	11	39.6	18	4.3	5	62	20	11.0	2	7.3	6	4.846	17	4.4	16	1.20	9	85.3	12	36.6	3	7.9	18
96WD22	757	12	41.1	7	3.4	26	59	24	9.4	27	6.6	21	5.194	11	3.4	33	1.23	2	84.5	30	27.6	33	7.5	32
DES810	757	13	38.5	26	4.1	9	64	11	10.2	16	6.5	24	5.330	8	4.9	2	1.12	33	84.6	27	32.6	15	8.6	3
FM989BR	756	14	40.3	11	4.1	12	64	12	10.7	5	7.2	7	4.751	22	4.2	24	1.21	6	85.1	14	34.8	6	8.0	11
PM1218BG/RR	736	15	40.2	13	3.4	27	57	29	11.0	3	7.5	3	4.442	27	4.4	16	1.12	31	84.8	21	31.1	25	8.0	11
ST5599BR	731	16	40.2	12	4.2	8	64	13	10.1	17	7.0	12	4.768	21	4.3	20	1.19	13	84.8	23	32.6	13	7.7	24
PSC355	725	17	39.4	19	3.9	15	68	1	10.1	20	6.7	18	4.916	16	4.8	4	1.14	29	85.7	7	34.3	8	9.0	2
ST5303R	724	18	39.7	15	3.9	18	64	13	10.5	9	7.0	10	4.693	23	4.8	5	1.16	22	86.2	2	36.7	2	8.1	8
ST4793R	721	19	39.0	23	3.6	23	63	17	10.2	14	6.8	17	4.821	18	4.4	16	1.14	27	84.8	23	31.7	21	8.0	11
DP493	709	20	43.1	1	4.7	3	66	6	8.4	31	6.4	26	5.014	15	4.5	12	1.15	24	84.6	28	32.7	11	7.6	28
BCG24R	708	21	38.2	27	3.3	29	57	30	8.6	30	5.5	32	5.834	4	4.3	22	1.13	30	83.6	33	31.6	22	8.0	11
Ark8712	695	22	39.8	14	4.2	6	66	3	10.4	10	7.0	11	4.526	25	4.9	2	1.20	7	85.1	14	32.1	19	8.1	10
SG215BG/RR	683	23	38.0	30	4.0	14	61	22	9.7	25	6.0	28	5.172	13	4.1	28	1.14	27	85.7	6	30.2	29	8.4	4
Ark9101-97-01	680	24	39.0	24	4.9	1	63	16	9.7	23	6.4	25	4.789	19	4.5	15	1.12	31	84.1	31	32.6	13	8.0	11
DES816	675	25	39.2	22	3.3	30	63	19	10.6	7	6.9	15	4.450	26	4.7	9	1.17	20	85.0	16	32.4	18	7.9	18
PM1199RR	675	26	40.4	10	3.5	24	65	7	10.1	17	7.1	8	4.324	30	4.8	5	1.18	16	84.7	25	32.4	17	7.9	18
DP491	666	27	42.0	4	3.3	30	67	2	9.4	26	6.9	13	4.351	29	4.3	20	1.23	2	84.7	26	33.4	10	7.6	26
DP436RR	648	28	34.7	33	3.9	17	60	23	10.4	11	5.7	31	5.186	12	4.6	11	1.20	9	85.4	10	29.0	31	8.0	11
FM966	637	29	39.3	20	3.8	19	59	25	11.9	1	8.0	1	3.609	33	4.4	19	1.22	4	86.1	3	37.7	1	7.6	26
SG105	582	30	39.6	17	3.4	28	58	27	10.4	12	7.0	9	3.766	32	4.5	12	1.19	13	85.8	5	31.4	23	8.2	7
DP555BG/RR	567	31	42.2	3	4.2	7	66	4	7.9	33	5.9	29	4.377	28	4.3	22	1.18	15	84.0	32	31.4	23	7.0	33
DP449BG/RR	551	32	38.2	28	4.3	4	57	28	8.3	32	5.2	33	4.780	20	4.0	31	1.19	12	85.9	4	31.8	20	7.5	29
DP451B/RR	534	33	37.4	32	3.3	30	56	32	9.4	28	5.8	30	4.199	31	4.2	25	1.20	9	85.4	8	28.4	32	7.7	24
Mean	726		39.7		3.9		62		10.0		6.7		4.944		4.4		1.17		85.0		32.4		8.0	
LSD 0.10	147		2.1		1.7		8		0.7		0.8		1.007		0.4		0.40		ns		2.5		0.5	
C.V.%	17.2		3.1		15.9		10.8		4.2		6.6		17.3		5.9		1.9		1.1		4.6		3.6	
R-sq x 100	43.0		78.2		49.7		46.5		88.9		80.1		41.0		77.8		82.6		47.4		83.9		81.5	

Table 7. Results of the 2003 Cotton Variety Test with irrigation on a Dundee silt loam soil at Clarkedale, Ark.

Variety	Lint yield	r	Lint frac.	r	Stand		Ht.	r	Seed index	r	Lint index	r	Seed per a	r	Fiber properties Mic	r	Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/a		%		no./ft		cm		g		g		mil.				in.		%		g/tex		%	
DP444BG/RR	1068	1	44.7	1	3.0	9	107	9	10.6	25	8.7	1	5.602	11	3.8	29	1.22	12	85.5	18	32.6	16	8.1	13
SynDX2429	1058	2	40.6	12	2.8	24	107	8	10.7	22	7.4	15	6.514	1	4.4	4	1.25	5	85.0	28	35.3	4	9.5	1
Ark9108-04-17	1029	3	40.7	10	2.7	32	93	33	11.2	11	7.8	8	5.976	7	4.7	2	1.19	27	85.2	24	33.2	12	8.5	7
ST4892BR	972	4	40.0	18	2.9	13	111	2	10.8	18	7.3	17	6.037	4	4.0	23	1.17	31	85.0	26	32.1	20	7.8	25
FM958B	941	5	40.2	16	2.8	24	98	30	10.5	27	7.1	21	5.977	6	3.8	31	1.19	27	85.0	28	36.5	2	7.9	18
ST5599BR	908	6	40.7	9	3.0	12	108	6	10.5	26	7.3	18	5.678	9	3.9	25	1.22	13	85.7	15	32.2	19	7.6	30
DES810	904	7	39.9	19	3.2	1	103	20	10.9	15	7.3	19	5.663	10	4.3	11	1.21	19	85.5	18	33.2	12	8.1	11
Ark8712	899	8	37.7	30	2.8	29	103	17	11.1	12	6.7	27	6.052	3	3.8	30	1.29	2	85.5	20	31.1	26	8.1	11
FM989BR	889	9	38.6	27	2.9	20	101	22	12.2	2	7.8	9	5.161	14	4.3	9	1.24	7	85.6	16	32.6	17	7.6	30
DP451B/RR	854	10	37.5	32	2.9	14	103	19	10.6	23	6.5	31	6.001	5	4.1	20	1.21	19	85.9	12	30.7	29	7.8	23
ST4793R	846	11	41.8	5	2.9	15	104	14	10.7	20	7.9	5	4.878	17	4.2	15	1.18	30	84.8	31	31.8	23	8.1	13
PM1218BG/RR	840	12	37.5	31	2.9	23	103	17	12.4	1	7.6	11	5.039	16	4.9	1	1.15	33	85.6	16	29.9	31	8.0	15
FM958	828	13	42.0	4	3.0	10	97	32	11.6	4	8.5	2	4.442	24	4.3	10	1.21	19	86.1	9	33.4	11	7.7	26
SG521R	824	14	42.3	2	3.1	3	100	25	10.6	24	7.8	7	4.772	20	4.3	11	1.18	29	86.1	10	30.3	30	8.7	3
Ark9101-97-01	809	15	40.6	11	2.6	33	99	27	11.1	12	7.8	10	4.729	21	4.1	18	1.22	13	86.2	8	34.2	7	8.0	15
PSC355	807	16	39.8	20	2.9	22	111	3	10.7	19	7.2	20	5.101	15	4.6	3	1.20	22	86.3	6	32.0	21	9.0	2
DP436RR	803	17	37.5	33	2.7	31	104	15	11.4	9	6.9	25	5.316	12	4.4	8	1.20	22	84.0	33	29.7	32	7.9	18
ST5303R	797	18	39.1	25	3.0	7	105	12	10.7	21	6.9	24	5.240	13	3.9	26	1.20	22	85.9	12	35.1	5	8.0	15
BCG28R	787	19	39.2	22	3.0	11	98	29	9.3	31	6.1	32	5.867	8	4.2	13	1.21	15	85.0	26	31.6	24	7.9	18
DP449BG/RR	786	20	38.5	28	3.1	2	106	11	9.3	32	5.8	33	6.109	2	3.9	26	1.21	15	85.4	21	32.8	15	7.7	26
PM1199RR	775	21	40.1	17	3.1	4	97	31	10.9	16	7.4	16	4.773	19	4.4	4	1.23	10	87.3	2	33.5	10	8.4	9
DES816	748	22	37.9	29	2.8	24	101	24	11.4	8	7.0	23	4.832	18	4.4	4	1.19	25	85.1	25	33.6	9	8.7	4
BXN49B	741	23	40.9	7	3.1	4	112	1	11.5	7	7.9	6	4.282	26	3.7	32	1.21	15	85.4	21	30.9	28	7.7	26
SG105	708	24	39.2	24	2.8	30	99	26	11.0	14	7.1	22	4.551	22	4.2	15	1.26	3	86.8	4	33.7	8	8.5	7
FM966	699	25	40.5	13	2.9	15	105	13	11.7	3	8.1	4	3.927	29	4.1	20	1.25	5	87.5	1	37.3	1	7.7	26
SG215BG/RR	693	26	40.5	14	2.9	15	104	15	10.8	17	7.4	13	4.243	27	4.2	15	1.17	32	84.8	30	29.7	33	8.2	10
FM960BR	675	27	38.8	26	3.0	7	101	21	11.6	6	7.4	14	4.140	28	3.9	26	1.21	15	85.8	14	36.3	3	7.9	18
Ark9111-57-20	656	28	39.5	21	2.9	19	107	7	11.4	10	7.6	12	3.927	30	4.0	22	1.23	9	86.4	5	32.4	18	8.6	5
DP493	656	29	42.3	3	2.8	24	108	5	8.9	33	6.5	30	4.548	23	4.2	13	1.24	8	85.4	21	32.9	14	7.8	23
BCG24R	648	30	40.3	15	2.9	20	99	28	9.8	29	6.7	28	4.420	25	4.1	18	1.19	25	84.8	31	31.9	22	7.9	18
96WD22	556	31	40.8	8	3.0	6	101	23	11.6	5	8.2	3	3.093	33	4.4	4	1.23	10	86.2	7	31.2	25	8.6	5
DP555BG/RR	547	32	41.2	6	2.9	15	109	4	9.8	30	6.8	26	3.605	31	4.0	23	1.25	4	86.1	10	31.0	27	7.5	32
DP491	486	33	39.2	23	2.8	28	107	10	10.2	28	6.6	29	3.326	32	3.6	33	1.31	1	87.0	3	34.6	6	7.5	32
Mean	795		40.0		2.8		103		10.8		7.3		4.964		4.1		1.21		85.7		32.7		8.1	
LSD 0.10	186		2.1		ns		ns		1.0		0.9		1.182		0.3		0.50		ns		2.1		0.6	
C.V.%	19.9		3.2		8.3		9.3		5.5		7.0		20.3		4.5		2.4		1.3		3.8		4.5	
R-sq x 100	51.4		76.2		54.5		50.7		78.2		76.0		50.5		83.9		72.9		50.3		83.0		77.1	

Table 8. Results of the 2003 Cotton Variety Test with irrigation on a Calloway silt loam soil at Marianna, Ark.

Variety	Lint yield	r	Lint frac.	r	Stand		Ht.	r	Seed index	r	Lint index	r	Seed per a	r	Fiber properties Mic	r	Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/a		%		no./ft		cm		g		g		mil.				in.		%		g/tex		%	
ST5599BR	846	1	38.9	16	2.3	32	130	27	13.4	3	8.6	4	4.444	1	5.0	8	1.17	28	84.6	29	32.3	17	8.2	27
ST4892BR	760	2	40.4	3	2.6	18	142	4	13.1	4	9.1	1	3.779	3	5.1	6	1.19	15	85.1	24	32.6	14	9.2	3
FM960BR	671	3	37.5	26	3.4	2	133	20	13.8	1	8.5	6	3.587	5	4.8	18	1.17	28	85.4	16	36.8	1	8.5	25
BXN49B	623	4	39.1	12	2.2	33	139	9	12.4	15	8.0	13	3.525	6	4.5	29	1.22	4	85.4	16	30.0	26	8.6	16
DP451B/RR	609	5	36.9	28	2.5	25	132	22	11.8	22	7.0	27	3.956	2	4.7	21	1.20	9	86.0	7	29.6	27	8.6	16
DP444BG/RR	596	6	38.5	21	2.9	9	138	11	11.5	27	7.5	21	3.626	4	4.2	33	1.19	15	85.6	15	30.7	23	8.8	10
PSC355	580	7	39.4	9	2.6	18	135	14	11.9	21	7.9	16	3.348	9	5.3	3	1.20	12	85.9	10	32.4	16	10.0	1
ST4793R	580	8	39.1	13	2.7	15	140	7	12.3	17	8.2	8	3.214	12	5.0	8	1.18	22	84.3	31	31.1	21	8.6	16
PM1218BG/RR	573	9	38.7	18	2.4	30	142	4	13.5	2	8.7	3	2.997	16	5.1	6	1.15	32	85.3	20	30.1	25	8.5	23
SG215BG/RR	572	10	38.7	19	2.7	15	134	15	12.4	16	8.0	12	3.244	11	5.0	8	1.16	30	85.0	26	28.5	32	8.8	10
Ark9108-04-17	571	11	39.3	11	2.8	11	124	31	11.9	18	7.8	17	3.317	10	5.3	1	1.18	22	85.4	16	33.3	9	8.6	21
Ark9101-97-01	559	12	39.3	10	2.6	22	121	33	13.0	5	8.5	5	2.974	17	4.7	21	1.20	9	86.2	5	33.9	7	8.9	7
SynDX2429	550	13	38.4	22	3.1	4	132	23	12.7	12	8.1	11	3.098	14	5.3	2	1.20	12	85.7	14	32.7	12	9.3	2
SG521R	547	14	39.6	6	2.5	27	134	17	11.9	20	7.9	15	3.147	13	4.6	26	1.15	32	83.8	33	29.2	28	8.7	14
DES810	521	15	36.1	31	2.8	11	133	21	11.6	26	6.8	28	3.468	7	4.7	23	1.16	31	84.4	30	32.5	15	8.8	10
FM989BR	510	16	37.0	27	3.0	6	129	28	12.9	6	7.7	18	3.021	15	4.5	30	1.19	20	84.9	28	34.5	5	8.4	26
PM1199RR	504	17	40.3	4	3.0	7	132	24	11.7	23	8.1	9	2.826	20	5.0	13	1.18	22	86.3	4	32.6	13	8.9	7
FM966	492	18	36.4	29	3.0	7	133	18	12.8	7	7.6	19	2.933	19	4.4	32	1.19	15	85.8	12	36.3	2	8.1	28
DP436RR	489	19	35.2	33	2.3	31	137	12	11.9	19	6.6	32	3.379	8	4.6	28	1.19	15	85.3	21	27.8	33	8.8	10
FM958B	476	20	39.0	14	3.1	5	131	25	12.8	8	8.3	7	2.623	24	4.7	23	1.19	20	85.2	23	34.4	6	8.6	21
Ark8712	471	21	35.8	32	2.5	28	133	18	12.7	10	7.3	23	2.936	18	5.2	4	1.23	2	86.8	2	32.9	11	8.9	7
SG105	445	22	38.3	23	2.6	18	126	30	11.6	24	7.3	24	2.787	21	5.0	8	1.21	7	86.7	3	31.9	18	8.7	14
ST5303R	442	23	38.1	24	2.7	13	143	3	11.6	25	7.2	25	2.776	22	4.8	18	1.18	22	86.1	6	34.9	4	8.6	16
DES816	439	24	36.2	30	3.1	3	134	16	12.7	11	7.4	22	2.713	23	5.0	13	1.18	26	84.9	27	33.4	8	8.9	5
Ark9111-57-20	439	25	38.9	17	2.7	14	140	6	12.6	13	8.1	10	2.466	28	4.8	17	1.21	6	87.2	1	30.9	22	9.0	4
FM958	417	26	38.5	20	2.5	26	123	32	12.6	14	8.0	14	2.365	29	4.9	15	1.22	3	85.8	12	33.0	10	7.9	31
BCG24R	391	27	39.9	5	2.6	22	140	8	10.6	29	7.2	26	2.478	26	5.0	8	1.18	26	85.3	22	31.8	19	8.9	5
DP449BG/RR	378	28	37.9	25	3.5	1	131	26	10.6	30	6.6	31	2.590	25	4.6	25	1.19	15	85.4	16	35.2	3	8.6	16
BCG28R	364	29	39.0	15	2.5	29	128	29	10.3	31	6.7	30	2.466	27	5.2	5	1.20	9	85.9	10	29.1	29	8.1	28
96WD22	359	30	40.7	1	2.7	17	136	13	12.7	9	8.9	2	1.842	32	4.6	26	1.21	7	85.0	25	29.0	30	8.5	23
DP493	337	31	40.5	2	2.6	24	145	2	9.6	32	6.7	29	2.275	31	4.9	15	1.22	4	86.0	7	30.2	24	7.5	32
DP555BG/RR	311	32	39.5	8	2.8	10	151	1	9.1	33	6.1	33	2.312	30	4.5	30	1.20	12	84.2	32	28.6	31	7.5	33
DP491	289	33	39.6	7	2.6	18	139	10	11.2	28	7.5	20	1.746	33	4.8	18	1.24	1	86.0	7	31.8	20	8.1	28
Mean	506		38.5		2.7		134		12.0		7.7		2.977		4.8		1.19		85.5		31.9		8.6	
LSD 0.10	103		2.6		0.6		10		0.7		0.8		0.598		0.3		0.03		ns		2.5		0.4	
C.V.%	17.3		4.0		17.4		6.2		3.3		6.4		17.1		4.2		1.5		1.0		4.7		2.9	
R-sq x 100	73.5		62.9		38.6		53.1		93.5		81.7		66.0		80.3		73.6		59.7		82.9		88.0	

Table 9. Results of the 2003 Cotton Variety Test without irrigation on a Calloway silt loam soil at Marianna, Ark.

Variety	Lint yield	r	Lint frac.	r	Stand		Ht.	r	Seed index	r	Lint index	r	Seed per a	r	Fiber properties Mic	r	Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/a		%		no./ft		cm		g		g		mil.				in.		%		g/tex		%	
ST5599BR	1216	1	39.3	18	2.2	17	104	5	11.5	11	7.5	15	7.413	1	4.5	21	1.14	19	84.3	17	31.8	17	7.7	21
DP444BG/RR	1051	2	40.3	10	2.5	3	96	20	11.2	17	7.8	10	6.181	3	4.1	32	1.16	11	85.1	5	28.5	31	7.9	17
ST4892BR	974	3	40.1	13	2.8	1	97	18	10.4	27	7.1	20	6.224	2	4.3	30	1.12	30	83.1	31	30.2	22	7.7	25
FM960BR	923	4	39.4	16	2.7	2	95	23	11.9	5	7.9	8	5.332	6	4.4	28	1.12	30	83.6	28	36.4	3	7.6	26
ST4793R	885	5	40.5	8	2.4	9	106	3	11.6	9	8.1	3	4.952	11	5.1	6	1.14	23	84.6	7	33.1	11	8.4	7
BXN49B	835	6	41.0	7	1.7	31	99	14	11.2	16	7.9	7	4.785	12	4.7	17	1.18	7	84.5	10	29.1	28	7.7	21
FM989BR	835	7	38.2	24	2.4	7	95	21	12.8	1	8.1	4	4.687	13	4.9	9	1.20	3	84.5	13	34.6	6	8.0	14
SG215BG/RR	828	8	43.0	1	1.6	33	99	13	11.1	19	8.4	1	4.474	18	5.6	1	1.11	32	83.7	27	29.3	26	8.8	3
DP451B/RR	813	9	35.9	32	2.4	10	96	19	10.7	24	6.2	31	5.941	4	4.3	30	1.16	13	83.4	30	27.0	33	7.6	26
PSC355	790	10	39.4	17	1.9	27	90	30	11.0	20	7.2	18	4.959	10	4.6	19	1.14	19	84.6	7	33.6	10	9.0	2
DP449BG/RR	782	11	38.7	21	2.4	7	89	32	9.8	30	6.3	30	5.657	5	4.8	13	1.15	16	84.5	10	32.6	14	7.8	18
DP436RR	777	12	36.3	30	1.7	32	92	28	11.6	10	6.7	27	5.279	7	4.8	11	1.14	23	84.0	21	28.8	30	8.1	12
SynDX2429	759	13	38.3	23	2.2	18	94	24	10.9	21	6.9	23	4.968	9	4.5	21	1.16	11	85.2	4	32.7	13	9.1	1
Ark9108-04-17	752	14	40.1	12	2.1	22	94	25	11.1	18	7.7	11	4.441	19	5.1	5	1.13	28	83.8	24	35.6	4	8.5	6
FM958B	741	15	37.4	29	2.4	5	89	31	11.9	3	7.3	17	4.632	15	4.4	26	1.16	13	83.9	22	36.5	2	7.7	21
Ark9101-97-01	735	16	39.9	14	2.2	18	88	33	11.4	12	7.7	14	4.365	20	4.8	11	1.17	8	85.5	3	33.1	12	8.2	11
FM966	732	17	39.2	19	2.4	6	95	21	11.8	6	7.8	9	4.258	23	4.8	13	1.15	16	85.0	6	36.8	1	7.7	21
SG105	729	18	39.1	20	1.9	28	100	12	10.8	22	7.2	19	4.614	17	4.9	10	1.19	4	86.0	1	31.6	18	8.4	7
SG521R	727	19	40.2	11	2.0	24	106	3	11.2	15	7.7	12	4.292	22	4.6	19	1.14	26	84.6	9	29.5	25	8.4	7
PM1218BG/RR	702	20	37.9	27	2.2	18	99	15	11.3	14	6.9	24	4.619	16	4.3	29	1.11	32	84.0	19	30.1	23	8.0	14
DES810	660	21	33.9	33	2.2	15	102	10	11.4	13	5.9	33	5.047	8	4.5	25	1.14	23	84.4	15	31.2	21	8.3	10
ST5303R	649	22	36.1	31	2.1	22	104	6	10.8	23	6.5	29	4.687	14	4.5	21	1.14	19	84.5	13	34.2	9	8.0	14
DP555BG/RR	634	23	42.8	2	2.3	14	100	11	9.1	33	7.0	22	4.093	24	5.1	4	1.18	6	82.7	33	29.1	29	6.7	33
PM1199RR	628	24	38.4	22	2.4	10	97	17	10.2	28	6.6	28	4.356	21	4.1	32	1.14	19	83.8	25	29.3	27	7.4	32
Ark8712	596	25	37.9	26	2.0	26	93	27	10.7	25	6.7	26	4.038	25	4.4	26	1.19	5	84.3	16	31.9	16	8.1	12
96WD22	586	26	41.6	5	2.3	12	104	7	11.6	8	8.3	2	3.186	31	5.0	8	1.22	2	83.8	25	30.0	24	7.5	29
FM958	571	27	39.7	15	2.2	15	92	29	12.0	2	8.0	6	3.238	29	4.8	13	1.17	9	84.0	19	34.4	7	7.4	31
BCG28R	546	28	42.1	3	2.5	3	98	16	9.8	30	7.1	21	3.477	27	5.5	2	1.15	15	83.5	29	28.5	32	7.6	26
BCG24R	535	29	37.9	25	2.0	25	107	2	10.0	29	6.2	32	3.905	26	4.5	21	1.12	29	83.1	32	31.3	19	7.8	18
DES816	524	30	37.5	28	1.9	29	93	26	11.9	4	7.3	16	3.265	28	4.7	17	1.14	26	83.9	23	35.2	5	8.6	5
Ark9111-57-20	504	31	40.5	9	2.3	12	107	1	11.6	7	8.1	5	2.835	32	5.0	7	1.17	9	84.5	10	32.5	15	8.6	4
DP493	475	32	41.6	6	2.1	21	102	8	9.3	32	6.8	25	3.192	30	5.2	3	1.15	16	84.1	18	31.3	19	7.5	30
DP491	398	33	42.1	4	1.8	30	102	9	10.4	26	7.7	13	2.356	33	4.8	13	1.24	1	85.8	2	34.3	8	7.8	18
Mean	724		39.3		2.1		98		11.0		7.3		4.537		4.7		1.15		84.2		31.9		8.0	
LSD 0.10	165		3.3		ns		10		1.2		ns		1.025		0.7		0.04		ns		2.2		0.5	
C.V.%	19.4		4.9		24.1		8.9		6.3		11.1		19.2		8.4		2.2		1.2		4.0		3.9	
R-sq x 100	68.6		70.4		31.8		43.9		74.0		59.2		68.3		66.3		73.2		56.4		89.6		85.0	

Table 10. Results of the 2003 Cotton Variety Test with irrigation on a Desha silt loam at Rohwer, Ark.

Variety	Lint yield	r1	Lint frac.	r	Stand		Ht.	r	Seed index	r	Lint index	r	Seed per a	r	Fiber properties Mic	r	Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/a		%		no./ft		cm		g		g		mil.				in.		%		g/tex		%	
ST5599BR	1945	3	40.1	10	.	.	96	6	11.5	8	8.0	5	11.070	2	4.7	20	1.19	8	83.9	25	31.2	15	7.6	24
SynDX2429	1794	4	39.0	16	.	.	96	4	11.1	18	7.2	17	11.270	1	4.6	21	1.19	12	84.7	15	32.7	10	8.1	9
PSC355	1776	2	41.4	4	.	.	91	16	10.4	27	7.4	12	10.900	5	4.9	9	1.14	23	85.4	8	32.6	11	8.7	1
BXN49B	1763	2	39.2	12	.	.	87	24	11.3	16	7.5	10	10.650	6	4.5	26	1.21	3	84.8	13	28.8	29	7.6	24
ST4892BR	1762	4	42.0	3	.	.	92	12	11.4	12	8.5	2	9.439	15	5.4	1	1.16	17	84.6	17	30.9	18	8.2	6
DP493	1686	4	42.2	2	.	.	96	7	9.5	29	7.3	15	10.530	7	4.8	13	1.21	3	85.4	6	31.0	17	7.5	28
DP444BG/RR	1663	3	39.1	15	.	.	88	22	10.5	25	6.9	24	10.960	4	4.3	29	1.16	17	84.6	17	30.7	22	8.0	13
DP555BG/RR	1617	2	42.5	1	.	.	102	1	8.8	33	6.6	27	11.040	3	4.5	26	1.17	16	82.5	33	31.4	14	6.9	32
Ark9108-04-17	1570	3	41.2	6	.	.	87	23	10.8	22	7.6	9	9.396	16	4.9	9	1.13	25	83.3	29	32.9	7	8.2	6
FM958B	1538	2	39.2	13	.	.	83	31	11.0	19	7.2	16	9.681	12	4.3	28	1.18	13	84.8	12	35.4	3	7.6	27
ST5303R	1495	3	38.1	24	.	.	92	13	10.4	28	6.5	28	10.410	8	4.7	17	1.15	21	85.4	6	34.9	4	7.9	15
Ark8712	1483	2	37.3	28	.	.	85	28	11.6	7	7.1	20	9.530	14	5.0	7	1.20	6	86.1	1	32.9	6	8.5	2
FM960BR	1451	3	37.8	26	.	.	91	14	11.4	13	7.0	21	9.365	17	4.3	31	1.15	19	84.0	24	36.5	2	7.5	28
BCG28R	1435	3	41.3	5	.	.	84	29	8.9	32	6.5	29	10.030	11	5.0	5	1.19	8	82.8	32	29.3	27	7.7	22
Ark9101-97-01	1433	3	38.6	18	.	.	81	32	12.3	4	7.9	6	8.227	23	4.6	21	1.18	15	85.8	4	33.8	5	8.1	12
DES816	1409	3	38.2	23	.	.	88	20	11.5	9	7.2	18	8.892	19	4.6	21	1.15	19	84.2	20	30.9	18	8.1	9
PM1218BG/RR	1357	2	40.6	8	.	.	90	18	12.3	3	8.6	1	7.163	31	5.1	3	1.12	29	84.7	14	28.4	31	7.7	22
96WD22	1357	3	40.1	9	.	.	99	2	10.9	20	7.6	7	8.098	24	4.2	33	1.20	7	84.2	20	28.0	32	7.8	17
BCG24R	1349	4	38.5	21	.	.	93	11	9.3	31	6.0	32	10.180	9	4.9	11	1.09	31	83.5	28	30.1	26	8.5	2
SG521R	1338	3	38.5	22	.	.	88	20	11.3	15	7.3	14	8.308	22	5.0	5	1.08	32	83.3	29	30.1	25	8.3	5
DP436RR	1336	4	35.9	32	.	.	83	30	11.3	17	6.5	30	9.345	18	4.8	13	1.19	8	85.1	11	26.9	33	7.8	17
DES810	1322	2	36.5	30	.	.	98	3	10.8	21	6.3	31	9.564	13	4.5	25	1.12	27	84.7	15	32.0	12	8.1	9
DP491	1317	3	40.8	7	.	.	94	8	10.5	26	7.4	13	8.088	25	4.7	17	1.28	1	85.4	8	32.8	8	7.8	17
FM966	1315	3	39.0	17	.	.	91	15	12.4	2	8.1	3	7.378	27	4.8	16	1.22	2	85.9	3	36.8	1	7.6	24
PM1199RR	1310	3	38.6	19	.	.	88	19	10.6	24	6.9	25	8.666	20	4.8	15	1.11	30	85.2	10	31.9	13	8.0	13
DP449BG/RR	1290	2	37.0	29	.	.	87	24	9.5	30	5.8	33	10.180	10	4.6	24	1.12	27	83.0	31	31.1	16	7.4	30
DP451B/RR	1289	1	35.8	33	.	.	93	10	12.1	5	6.8	26	8.573	21	5.1	2	1.19	8	85.8	5	28.7	30	7.8	17
Ark9111-57-20	1204	3	39.7	11	.	.	86	27	11.4	11	7.6	8	7.204	30	4.7	17	1.15	21	83.6	27	30.7	21	7.9	15
FM989BR	1190	3	36.1	31	.	.	90	17	11.9	6	7.0	23	7.737	26	4.3	31	1.14	23	84.1	23	30.3	24	7.2	31
SG105	1150	4	37.9	25	.	.	79	33	11.5	10	7.1	19	7.305	28	4.9	11	1.18	14	85.9	2	30.9	20	8.4	4
SG215BG/RR	1113	2	39.1	14	.	.	96	5	10.7	23	7.0	22	7.214	29	5.1	3	1.07	33	84.2	22	28.8	28	7.8	17
FM958	1013	1	37.6	27	.	.	86	26	12.8	1	8.0	4	5.757	32	4.3	29	1.21	3	83.7	26	30.5	23	6.6	33
ST4793R	893	2	38.6	20	.	.	93	9	11.4	14	7.5	11	5.417	33	5.0	7	1.13	25	84.5	19	32.8	8	8.2	6
Mean	1442		39.0				90		11.0		7.2		9.129		4.7		1.16		84.5		31.4		7.8	
LSD 0.10	436		2.2				10		0.8		0.7		2.444		0.4		0.06		ns		2.2		0.4	
C.V.%	20.0		3.3				7.2		4.4		6.0		19.5		4.7		2.9		1.5		4.2		3.0	
R-sq x 100	52.1		80.3				66.0		89.5		81.8		52.8		78.6		78.4		53.5		86.3		88.1	

1 No. of replication/entry harvested for yield. One side of test was washed out after emergence by heavy rain.

Table 11. Results of the 2003 1st-year Cotton Variety Test across seven Arkansas test sites.

Variety	Lint yield	r	Lint frac.	r	Stand	r	Ht.	r	Seed index	r	Lint index	r	Seed per a	r	Fiber properties Mic	r	Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/a		%		no./ft		cm		g		g		mil.				in.		%		g/tex		%	
ST5242BR	1100	1	41.1	3	2.9	20	95	18	12.6	1	8.9	1	5.604	10	4.7	4	1.16	21	85.4	12	28.8	19	8.5	4
ST4892BR, ck.	1029	2	40.9	5	3.2	15	99	7	11.2	8	8.0	2	5.815	5	4.8	1	1.17	20	85.6	6	30.8	13	8.5	5
ST4563B2	999	3	40.4	6	3.1	17	99	10	10.5	18	7.3	10	6.314	1	4.4	12	1.20	11	84.8	19	28.7	20	7.6	23
ST4646B2R	938	4	39.3	11	2.9	18	101	3	10.8	13	7.1	12	5.983	3	4.5	10	1.17	19	84.9	18	29.6	18	8.2	13
ST3990BR	922	5	38.4	16	3.5	2	99	9	11.9	3	7.6	4	5.512	11	4.1	23	1.14	23	84.5	23	28.2	22	8.1	15
DP424BGII/RR	918	6	37.5	18	3.2	9	91	23	11.3	6	6.9	15	5.993	2	4.5	9	1.18	15	85.0	17	28.5	21	8.4	9
DPLX00W12	914	7	41.2	2	3.3	4	95	15	10.3	20	7.4	7	5.651	9	4.5	11	1.20	10	85.8	4	31.5	9	8.8	2
FM958LL	897	8	39.7	8	2.8	22	92	22	10.6	15	7.1	14	5.779	6	4.4	15	1.23	2	86.0	1	32.0	5	8.0	20
DP 434RR	878	9	42.2	1	3.2	12	98	11	9.8	22	7.3	9	5.497	13	4.3	19	1.21	5	85.3	14	27.6	23	8.1	14
DP432RR	872	10	40.1	7	3.3	7	95	19	9.7	23	6.7	19	5.953	4	4.4	14	1.18	16	85.3	15	30.9	11	8.6	3
FM966LL	837	11	38.6	14	3.4	3	92	21	12.0	2	7.7	3	4.969	15	4.4	16	1.20	12	86.0	2	35.3	1	8.0	18
SG105, check	812	12	39.0	12	2.9	19	93	20	11.0	11	7.2	11	5.125	14	4.7	5	1.19	13	85.5	8	30.9	12	8.5	7
BCG295	811	13	37.0	20	3.3	8	96	14	11.5	5	6.9	16	5.505	12	4.4	12	1.23	1	86.0	3	31.2	10	8.1	17
PHY410RR	807	14	39.7	9	2.7	23	100	6	11.1	10	7.4	6	4.959	16	4.6	6	1.18	17	85.5	10	31.9	6	9.0	1
DP494RR	791	15	41.0	4	3.2	14	95	16	10.3	21	7.3	8	4.872	18	4.7	3	1.23	3	85.6	7	32.9	3	8.4	8
ST5222B2	783	16	36.7	21	2.8	21	96	13	10.6	16	6.3	22	5.660	8	4.7	2	1.19	14	85.8	5	33.5	2	8.5	6
DP468BGII/RR	752	17	36.1	23	3.3	6	95	17	10.4	19	6.0	23	5.687	7	4.6	7	1.21	9	85.3	16	29.7	15	8.3	11
CS35	722	18	39.5	10	3.2	10	97	12	10.7	14	7.1	13	4.668	19	4.2	21	1.21	8	84.7	21	29.7	16	8.0	19
CS32	720	19	37.2	19	3.2	11	99	8	11.3	7	6.8	18	4.886	17	4.5	8	1.18	17	84.7	20	30.1	14	7.7	21
CS31	697	20	38.9	13	3.2	16	102	2	10.5	17	6.8	17	4.620	20	4.2	20	1.16	22	84.6	22	29.6	17	8.3	10
CS34	693	21	38.5	15	3.5	1	102	1	11.7	4	7.4	5	4.209	23	4.3	18	1.21	7	85.4	11	32.5	4	8.1	16
CS36	651	22	37.6	17	3.2	12	101	4	10.8	12	6.6	20	4.515	22	4.4	17	1.21	6	85.3	13	31.8	7	8.2	12
CS33	647	23	36.3	22	3.3	5	100	5	11.2	9	6.5	21	4.543	21	4.1	22	1.22	4	85.5	9	31.6	8	7.7	22
Mean	834		39.0		3.2		97		10.9		7.1		5.318		4.5		1.19		85.3		30.7		8.2	
Var. LSD 0.10	63		0.9		0.2		4		0.4		0.3		0.401		0.2		0.01		0.5		0.8		0.2	
Loc. LSD0.10	35		0.5		0.1		2		0.2		0.2		0.221		0.10		0.01		0.3		0.4		0.1	
C.V.%	17.1		3.7		15.2		9.4		5.7		6.8		17.1		5.8		1.9		1.0		4.2		3.8	
R-sq x 100	86.3		83.4		76.8		89.9		86.3		85.7		85.2		85.0		80.4		65.6		85.6		84.7	
Prob (var x loc)	<0.01		0.01		0.0		0.28		0.10		0.001		<.001		0.003		0.05		0.86		0.14		0.06	

Table 12. Results of 2003 1st-year Cotton Variety Test with irrigation on a Routon-Dundee-Crevasse complex soil at Manila, Ark.

	Lint		Lint						Seed		Lint		Seed						Fiber properties					
Variety	yield	r	frac.	r	Stand	r	Ht.	r	index	r	index	r	per a	r	Mic	r	Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/a		%		no./ft		cm		g		g		mil.				in.		%		g/tex		%	
DP434RR	1208	1	44.0	2	3.6	6	86	1	9.7	19	7.6	6	7.171	4	4.3	13	1.20	9	85.1	8	28.3	21	8.5	13
ST4892BR, ck.	1170	2	42.8	3	3.5	11	85	2	10.7	7	8.3	2	6.433	12	5.0	1	1.16	17	84.3	16	31.1	11	9.0	3
FM966LL	1142	3	41.3	10	3.7	4	69	22	11.6	2	8.2	3	6.303	15	4.5	7	1.18	16	85.5	3	35.9	1	8.3	17
FM958LL	1129	4	39.8	13	3.4	15	71	20	10.6	8	7.2	10	7.143	7	4.2	16	1.21	6	85.3	6	33.1	4	8.0	21
DP432RR	1111	5	42.7	4	3.5	10	73	15	9.1	23	7.0	14	7.244	3	4.3	14	1.16	18	84.1	19	30.5	15	8.5	13
PHY410RR	1111	6	42.5	5	2.9	23	81	4	9.7	18	7.2	9	6.967	8	4.4	9	1.15	20	84.8	13	31.6	10	9.6	1
ST4563B2	1108	7	41.3	11	3.2	20	80	5	9.8	15	7.0	13	7.162	5	4.9	2	1.19	12	84.0	20	29.0	20	8.2	18
ST4646B2R	1099	8	41.7	8	3.1	21	81	3	9.4	22	6.9	16	7.293	2	4.4	11	1.14	21	83.8	22	29.9	17	8.5	15
ST5242BR	1099	9	42.5	6	3.3	19	77	9	11.8	1	8.8	1	5.647	21	4.7	4	1.16	19	84.6	14	29.3	18	8.8	8
DP494RR	1093	10	44.8	1	3.4	13	72	16	9.6	21	7.8	4	6.377	13	4.8	3	1.20	11	84.9	11	33.0	5	9.0	3
DP424BGII/RR	1074	11	39.5	16	3.6	6	72	16	10.6	11	7.1	12	6.922	9	4.2	15	1.20	9	84.8	12	28.2	22	8.8	6
DPLX00W12	1073	12	42.1	7	3.8	2	70	21	9.8	17	7.2	8	6.718	11	4.3	12	1.22	4	85.8	2	30.8	12	9.0	2
SG105, check	1069	13	39.0	17	3.3	18	72	18	10.3	12	6.8	17	7.153	6	4.4	9	1.19	13	84.2	17	31.9	8	8.9	5
ST3990BR	1047	14	39.9	12	3.8	1	80	6	11.3	3	7.6	5	6.224	17	4.0	20	1.10	23	84.2	18	28.0	23	8.2	18
BCG295	990	15	38.7	18	3.5	8	71	19	10.2	13	6.5	20	6.884	10	3.9	22	1.24	1	86.1	1	31.8	9	8.7	9
ST5222B2	988	16	37.4	22	3.0	22	74	14	9.8	16	5.9	23	7.534	1	4.6	5	1.19	13	85.3	6	33.8	2	8.7	9
CS35	959	17	39.7	15	3.4	14	77	10	10.6	9	7.1	11	6.152	18	4.1	19	1.22	4	85.1	8	30.6	14	8.6	12
CS32	922	18	38.1	20	3.5	11	77	10	10.6	10	6.7	18	6.264	16	4.5	7	1.19	13	83.6	23	30.0	16	8.1	20
DP468BGII/RR	885	19	38.3	19	3.6	5	69	23	10.1	14	6.4	22	6.312	14	4.5	6	1.21	6	85.5	3	30.6	13	8.7	11
CS31	872	20	41.6	9	3.5	9	76	13	9.6	20	6.9	15	5.709	20	4.0	21	1.14	21	84.0	21	29.1	19	8.8	6
CS33	822	21	36.3	23	3.8	2	80	7	11.0	5	6.4	21	5.816	19	4.2	16	1.23	3	85.5	3	32.5	6	8.0	21
CS34	821	22	39.7	14	3.4	16	79	8	11.2	4	7.5	7	4.975	23	3.9	22	1.23	2	85.0	10	33.2	3	8.4	16
CS36	772	23	37.5	21	3.4	17	76	12	10.8	6	6.5	19	5.352	22	4.2	16	1.21	8	84.5	15	32.3	7	7.7	23
Mean	1025		40.5		3.4		76		10.3		7.2		6.511		4.3		1.19		84.8		31.0		8.6	
LSD 0.10	192		1.6		0.4		9		0.9		0.7		1.200		0.4		0.04		ns		1.9		0.4	
C.V.%	15.9		2.3		10.7		9.8		5.3		5.9		15.6		5.3		1.9		1.2		3.7		2.6	
R-sq x 100	52.8		92.6		38.0		45.4		79.0		83.8		49.2		77.9		83.1		49.7		86.2		87.7	

Table 13. Results of the 2003 1st-year Cotton Variety Test with irrigation on a Tunica silty clay soil at Keiser, Ark.

	Lint		Lint						Seed		Lint		Seed						Fiber properties					
Variety	yield	r	frac.	r	Stand	r	Ht.	r	index	r	index	r	per a	r	Mic	r	Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/a		%		no./ft		cm		g		g		mil.				in.		%		g/tex		%	
ST4892BR, ck.	1174	1	40.8	9	4.2	5	96	8	11.6	5	8.3	3	6.464	10	5.0	4	1.18	14	86.2	4	29.4	14	8.8	5
DP424BGII/RR	1137	2	38.4	17	3.9	13	86	19	11.3	6	7.2	13	7.180	3	4.8	11	1.17	18	85.3	12	27.4	19	8.5	8
DP494RR	1134	3	42.4	3	4.3	4	88	18	10.2	16	7.7	6	6.713	7	5.2	2	1.23	1	85.2	14	31.9	3	8.4	9
ST5242BR	1108	4	41.7	4	3.8	15	93	12	12.6	1	9.2	1	5.482	19	4.9	8	1.15	22	84.8	20	27.2	20	8.3	10
ST4563B2	1063	5	40.9	8	3.8	15	97	6	10.5	14	7.4	9	6.512	9	4.9	10	1.19	11	84.9	19	26.8	22	7.5	23
DPLX00W12	1061	6	42.5	2	3.9	14	97	6	10.4	15	7.9	4	6.103	13	4.8	11	1.20	9	86.8	1	30.9	4	9.2	1
CS31	1060	7	40.4	12	4.2	6	92	15	9.9	20	6.9	15	7.017	4	4.7	16	1.15	20	84.4	21	27.8	18	8.3	10
FM958LL	1035	8	41.1	6	2.9	23	85	22	9.7	22	7.0	14	6.735	6	4.8	14	1.22	4	86.0	5	30.4	8	8.0	17
PHY410RR	1033	9	41.2	5	2.9	22	99	4	12.3	2	8.8	2	5.294	21	4.8	14	1.20	9	85.4	10	30.6	6	9.1	2
DP432RR	1030	10	40.8	10	4.0	12	91	17	9.7	21	6.8	18	6.927	5	4.9	8	1.18	14	85.7	6	30.3	9	9.1	2
DP468BGII/RR	1021	11	38.4	16	3.7	18	83	23	9.9	19	6.3	20	7.348	1	5.1	3	1.18	14	85.2	14	29.7	11	8.8	5
ST4646B2R	1012	12	40.5	11	3.3	20	92	14	11.0	9	7.5	8	6.122	12	5.0	5	1.19	11	85.5	7	28.6	16	8.2	12
ST5222B2	1006	13	37.9	18	3.0	21	98	5	10.0	18	6.2	22	7.310	2	5.0	5	1.19	13	86.3	3	33.9	2	8.6	7
CS32	956	14	37.7	19	4.1	9	95	10	10.9	11	6.8	17	6.409	11	5.0	5	1.17	18	85.3	13	29.8	10	8.0	17
DP434RR	942	15	43.5	1	4.1	10	94	11	9.5	23	7.4	10	5.779	16	4.6	19	1.21	6	85.1	17	27.1	21	8.2	13
SG105, check	921	16	41.0	7	3.4	19	92	16	10.7	13	7.6	7	5.509	18	5.4	1	1.17	17	85.5	7	30.5	7	8.9	4
BCG295	920	17	35.3	23	4.3	3	86	19	11.2	8	6.2	21	6.687	8	4.4	20	1.23	1	85.5	7	29.6	13	7.6	22
CS35	900	18	39.7	14	4.2	6	101	3	10.2	17	6.8	16	5.971	15	4.4	22	1.23	1	85.2	14	28.6	16	8.1	16
ST3990BR	879	19	39.1	15	4.1	10	96	8	11.2	7	7.3	11	5.454	20	4.0	23	1.12	23	83.7	23	25.9	23	8.2	13
CS36	867	20	37.2	21	3.8	17	103	2	10.8	12	6.5	19	6.027	14	4.8	11	1.15	20	83.8	22	29.1	15	8.2	13
CS34	859	21	40.4	13	4.3	2	108	1	11.6	4	7.7	5	5.061	23	4.6	17	1.21	6	85.1	18	30.8	5	8.0	17
FM966LL	823	22	37.3	20	4.2	8	86	21	11.8	3	7.2	12	5.187	22	4.6	18	1.21	6	86.5	2	35.4	1	7.9	20
CS33	769	23	35.7	22	4.6	1	93	12	11.0	9	6.2	23	5.634	17	4.4	20	1.21	5	85.4	10	29.7	11	7.7	21
Mean	987		39.7		3.9		93		10.8		7.3		6.214		4.8		1.19		85.3		29.6		8.3	
LSD 0.10	145		2.0		0.8		ns		1.0		0.6		0.913		0.4		0.04		1.3		2.4		0.6	
C.V.%	12.5		2.9		17.0		13.0		5.5		4.9		12.5		4.9		1.9		0.9		4.8		4.4	
R-sq x 100	50.6		88.9		43.0		29.0		81.0		91.0		52.8		79.1		76.0		68.8		82.9		78.1	

Table 14. Results of the 2003 1st-year Cotton Variety Test without irrigation on a Tunica silty clay soil at Keiser, Ark.

	Lint		Lint						Seed		Lint		Seed						Fiber properties					
Variety	yield	r	frac.	r	Stand	r	Ht.	r	index	r	index	r	per a	r	Mic	r	Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/a		%		no./ft		cm		g		g		mil.				in.		%		g/tex		%	
ST5242BR	953	1	40.4	3	3.2	22	59	18	11.3	2	7.9	1	5.492	3	4.0	17	1.17	22	86.0	5	28.2	21	7.7	6
BCG295	900	2	36.5	21	4.2	8	70	6	10.9	4	6.4	11	6.372	1	4.3	7	1.28	1	87.3	1	31.8	9	7.6	10
SG105, check	887	3	39.5	6	3.7	15	68	9	10.1	9	6.9	5	5.832	2	4.4	4	1.18	18	85.9	6	30.6	15	7.7	6
FM966LL	790	4	39.0	9	4.6	3	62	16	11.1	3	7.4	2	4.843	12	4.4	4	1.21	11	86.5	2	35.8	1	7.6	10
DP494RR	769	5	41.5	2	3.7	17	61	17	9.3	19	6.8	6	5.152	8	4.5	3	1.24	3	85.7	9	33.1	3	7.9	4
DPLX00W12	764	6	39.1	8	4.1	9	69	7	9.7	15	6.5	8	5.354	4	4.3	7	1.23	7	85.9	7	32.6	6	8.3	2
ST3990BR	733	7	38.4	13	4.7	2	72	4	11.4	1	7.2	3	4.647	13	3.8	21	1.17	23	84.7	18	29.5	19	7.6	10
ST4892BR, ck.	732	8	38.5	12	4.3	6	69	8	10.6	5	6.8	7	4.921	11	4.7	2	1.21	14	86.2	4	30.7	13	7.6	10
CS34	713	9	39.5	7	4.8	1	72	5	10.4	7	7.0	4	4.614	14	3.9	20	1.22	8	85.4	12	31.9	8	7.5	17
DP424BGII/RR	695	10	37.2	18	4.3	5	58	22	10.0	11	6.1	18	5.215	7	4.1	13	1.21	14	84.6	22	28.3	20	7.7	6
ST4563B2	683	11	39.5	5	4.0	11	64	13	9.1	20	6.1	16	5.079	9	3.8	21	1.23	5	85.3	13	27.8	22	6.9	23
DP432RR	649	12	37.8	16	4.4	4	58	20	9.0	21	5.6	22	5.234	5	4.2	9	1.21	11	85.1	15	30.6	15	8.0	3
ST4646B2R	645	13	35.6	22	3.8	13	85	1	10.0	10	5.7	21	5.223	6	4.0	17	1.20	17	85.1	16	31.2	12	7.5	17
CS32	643	14	38.1	14	3.7	16	77	2	9.6	17	5.9	19	4.924	10	4.1	14	1.18	19	84.7	18	30.7	14	7.1	22
CS31	642	15	38.8	11	3.8	14	73	3	9.8	13	6.4	10	4.549	15	4.0	17	1.18	21	84.7	18	30.2	17	7.5	19
FM958LL	584	16	42.4	1	2.6	23	59	19	8.7	23	6.5	9	4.094	20	4.2	9	1.23	5	86.4	3	31.5	11	7.6	10
CS33	581	17	37.4	17	3.7	19	65	11	10.2	8	6.2	15	4.259	17	4.1	14	1.22	8	84.7	18	32.7	4	7.3	21
ST5222B2	581	18	37.1	19	3.7	19	58	21	9.7	16	5.9	20	4.478	16	4.7	1	1.20	16	85.8	8	33.8	2	7.9	4
CS36	575	19	37.9	15	4.0	12	64	12	9.9	12	6.2	14	4.198	18	4.2	9	1.21	11	85.0	17	32.4	7	7.7	6
DP434RR	554	20	40.3	4	3.7	17	67	10	8.9	22	6.1	17	4.172	19	3.8	23	1.24	2	85.6	11	27.5	23	7.6	16
PHY410RR	542	21	36.6	20	3.3	21	63	14	10.5	6	6.3	13	3.938	21	4.4	4	1.18	19	85.7	9	32.7	5	8.6	1
CS35	507	22	38.9	10	4.1	10	62	15	9.8	14	6.4	12	3.608	23	4.1	12	1.22	10	83.7	23	30.0	18	7.5	19
DP468BGII/RR	441	23	34.5	23	4.3	6	57	23	9.5	18	5.1	23	3.891	22	4.1	14	1.24	3	85.2	14	31.6	10	7.6	10
Mean	677		38.5		4.8		66		10.0		6.4		4.786		4.2		1.21		85.4		31.1		7.6	
LSD 0.10	148		2.4		0.7		11		0.8		0.7		1.040		0.4		ns		ns		1.9		0.3	
C.V.%	18.5		3.7		18.4		14.0		4.9		6.5		18.4		5.3		2.5		1.0		3.6		2.4	
R-sq x 100	69.3		78.9		61.8		46.0		82.1		82.8		61.8		74.3		63.3		63.1		87.2		88.2	

Table 15. Results of the 2003 1st-year Cotton Variety Test with irrigation on a Dundee silt loam soil at Clarkedale, Ark.

	Lint		Lint						Seed		Lint		Seed						Fiber properties					
Variety	yield	r	frac.	r	Stand	r	Ht.	r	index	r	index	r	per a	r	Mic	r	Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/a		%		no./ft		cm		g		g		mil.				in.		%		g/tex		%	
ST4563B2	964	1	39.9	7	2.9	17	119	5	9.5	21	6.4	16	6.875	1	3.5	21	1.22	10	85.8	16	29.7	19	7.7	22
ST5242BR	903	2	41.1	2	2.9	14	109	21	12.7	1	8.9	1	4.619	8	4.2	4	1.18	22	85.7	17	29.5	20	8.8	5
FM958LL	888	3	42.0	1	2.9	13	129	1	8.8	23	6.5	15	6.206	2	4.2	4	1.22	10	86.3	12	31.3	14	8.5	13
ST4892BR, ck.	812	4	40.7	5	2.8	18	115	9	10.7	11	7.4	4	4.945	7	4.0	10	1.19	21	86.5	9	32.1	8	8.7	8
DPLX00W12	764	5	41.0	3	3.1	2	111	16	9.5	20	6.8	12	5.131	6	3.9	15	1.23	8	86.7	5	31.2	16	9.0	3
ST3990BR	713	6	38.2	15	3.1	2	110	19	11.3	7	7.2	5	4.510	9	3.5	21	1.28	1	87.3	1	31.8	9	7.9	20
DP432RR	688	7	38.5	13	3.1	2	116	8	9.4	22	6.0	21	5.180	5	3.8	17	1.21	14	86.6	8	31.8	10	9.0	2
DP468BGII/RR	658	8	35.4	22	2.9	10	117	7	9.8	18	5.5	22	5.449	3	4.1	7	1.23	8	85.5	21	29.5	21	8.0	18
FM966LL	650	9	40.9	4	2.8	19	109	22	12.1	2	8.4	2	3.511	20	4.3	3	1.20	19	86.3	12	36.4	1	8.3	16
ST5222B2	619	10	34.5	23	2.6	23	111	16	9.8	16	5.2	23	5.389	4	3.9	13	1.19	20	86.4	11	34.4	2	8.7	8
DP424BGII/RR	614	11	36.7	20	3.1	1	112	15	11.0	8	6.5	14	4.273	11	4.2	4	1.20	18	85.7	18	29.9	18	8.7	7
PHY410RR	595	12	39.5	8	2.8	20	124	2	10.7	9	7.0	7	3.828	16	4.0	10	1.18	22	86.0	15	31.3	15	9.5	1
DP434RR	594	13	40.7	6	2.9	11	113	11	9.8	17	6.9	11	3.923	13	3.8	17	1.24	4	87.1	2	28.2	23	8.7	6
ST4646B2R	592	14	38.6	12	3.0	6	120	3	9.6	19	6.0	20	4.464	10	3.5	23	1.21	14	86.0	14	29.3	22	7.8	21
BCG295	592	15	37.3	19	3.1	5	113	12	11.5	4	6.9	10	3.887	14	4.5	1	1.24	4	86.6	7	32.3	7	8.4	14
CS32	590	16	37.5	18	3.0	8	112	13	11.4	5	6.9	9	3.869	15	4.1	7	1.21	14	85.6	19	31.8	10	8.1	17
CS35	569	17	39.5	9	2.9	12	105	23	10.7	10	7.1	6	3.655	19	3.7	20	1.22	10	85.5	20	31.7	12	7.6	23
CS34	568	18	39.2	10	3.0	7	112	14	11.8	3	7.6	3	3.379	21	4.1	7	1.21	13	85.2	22	34.0	3	8.4	14
SG105, check	568	19	38.1	16	2.8	20	110	18	11.3	6	7.0	8	3.671	18	4.4	2	1.23	7	86.5	9	31.6	13	8.9	4
CS33	546	20	36.2	21	3.0	8	110	20	10.5	12	6.1	19	4.068	12	3.8	16	1.25	2	86.7	5	33.6	5	8.0	18
CS36	523	21	38.1	17	2.7	22	119	4	10.3	14	6.4	18	3.730	17	3.9	14	1.25	2	86.8	4	32.9	6	8.6	10
CS31	491	22	38.9	11	2.9	14	119	5	10.4	13	6.7	13	3.323	22	4.0	12	1.21	14	85.1	23	31.1	17	8.6	10
DP494RR	416	23	38.3	14	2.9	14	114	10	9.9	15	6.4	17	2.963	23	3.8	17	1.24	4	86.9	3	33.8	4	8.6	10
Mean	649		38.7		2.9		114		10.5		6.8		4.385		3.9		1.21		86.2		31.7		8.5	
LSD 0.10	170		2.1		ns		9		1.2		0.8		1.168		0.4		0.04		ns		2.1		0.4	
C.V.%	22.3		3.2		8.7		6.6		6.5		6.6		22.6		6.0		1.9		1.1		3.8		2.9	
R-sq x 100	57.9		83.1		50.3		87.3		80.3		87.3		59.4		71.0		67.1		44.8		84.5		88.1	

Table 16. Results of the 2003 1st-year Cotton Variety Test with irrigation on a Calloway silt loam soil at Marianna, Ark.

Variety	Lint yield	r	Lint frac.	r	Stand	r	Ht.	r	Seed index	r	Lint index	r	Seed per a	r	Mic	r	Fiber properties Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/a		%		no./ft		cm		g		g		mil.				in.		%		g/tex		%	
ST5242BR	849	1	40.9	4	2.6	19	127	19	13.3	1	9.2	1	4.160	3	4.9	2	1.16	22	85.7	14	30.2	19	8.8	2
ST4892BR, ck.	766	2	40.8	5	2.5	20	137	8	12.6	9	8.8	3	3.949	5	5.0	1	1.17	21	85.9	11	31.6	13	8.8	2
ST3990BR	756	3	36.9	14	2.9	7	135	15	13.2	2	7.9	8	4.360	1	4.0	20	1.12	23	84.5	23	30.4	17	8.4	13
ST4646B2R	732	4	39.3	7	2.6	18	136	11	12.5	10	8.3	6	4.014	4	4.9	4	1.19	17	84.9	20	30.9	14	8.7	5
DP434RR	677	5	44.5	1	2.8	13	136	10	11.0	22	8.8	2	3.497	7	4.5	10	1.22	7	85.5	16	28.3	23	8.0	18
DP424BGII/RR	677	6	35.7	19	2.4	22	126	22	12.9	4	7.3	14	4.220	2	4.5	10	1.20	12	85.4	17	32.0	10	8.7	6
DP432RR	633	7	41.0	3	2.9	6	139	7	10.9	23	7.6	10	3.779	6	4.5	10	1.19	19	86.0	7	33.1	6	8.5	12
DPLX00W12	579	8	41.4	2	3.1	1	130	18	11.8	16	8.4	5	3.145	10	4.4	15	1.20	16	85.9	10	33.4	4	8.6	11
ST4563B2	553	9	39.2	8	2.7	14	135	14	13.0	3	8.6	4	2.913	11	4.7	6	1.22	9	84.9	20	30.4	16	7.7	20
FM966LL	514	10	36.4	17	2.9	4	126	20	12.7	7	7.4	13	3.152	9	4.0	20	1.22	7	86.1	6	32.0	10	8.2	16
FM958LL	475	11	37.3	12	2.6	16	126	21	12.8	6	7.7	9	2.798	12	4.6	7	1.26	1	86.6	3	32.8	7	7.7	20
DP468BGII/RR	474	12	35.9	18	2.9	2	137	9	11.1	20	6.3	23	3.427	8	4.4	13	1.23	5	86.2	5	29.0	22	8.6	8
PHY410RR	435	13	39.4	6	2.4	21	136	13	12.2	12	8.0	7	2.453	17	4.9	2	1.20	12	85.9	8	31.9	12	8.9	1
BCG295	425	14	36.5	15	2.8	8	141	4	12.9	5	7.5	12	2.564	15	4.6	9	1.22	9	85.8	13	33.3	5	8.7	6
SG105, check	403	15	36.5	16	2.7	15	125	23	11.6	18	6.7	19	2.728	13	4.2	18	1.20	12	85.9	8	30.0	21	8.2	16
CS32	394	16	35.5	20	2.6	17	134	16	12.6	8	7.1	17	2.533	16	4.3	16	1.19	17	84.8	22	30.3	18	7.7	23
ST5222B2	386	17	35.1	23	2.8	10	136	12	12.1	13	6.7	20	2.621	14	4.6	7	1.22	9	86.4	4	34.8	1	8.8	4
CS34	330	18	35.5	21	2.9	4	141	5	12.4	11	6.9	18	2.161	18	4.1	19	1.20	12	85.6	15	32.1	8	7.9	19
CS36	304	19	37.5	11	2.8	12	142	3	12.0	15	7.2	15	1.899	21	4.4	13	1.24	4	86.7	1	33.7	3	8.6	8
DP494RR	300	20	38.1	10	2.8	10	134	17	11.4	19	7.1	16	1.903	20	4.9	4	1.25	3	85.8	12	34.2	2	8.6	8
CS33	295	21	35.4	22	2.9	2	144	2	12.1	14	6.7	21	2.007	19	3.9	22	1.25	2	86.6	2	32.1	9	7.7	20
CS35	289	22	39.0	9	2.3	23	139	6	11.7	17	7.6	11	1.732	22	4.3	17	1.23	5	85.3	18	30.1	20	8.4	15
CS31	198	23	36.9	13	2.8	8	146	1	11.1	21	6.5	22	1.379	23	3.8	23	1.18	20	85.2	19	30.8	15	8.4	13
Mean	498		38.0		2.7		135		12.2		7.6		2.930		4.4		1.20		85.7		31.6		8.4	
LSD 0.10	106		2.7		ns		ns		1.1		0.7		0.616		0.5		0.04		ns		2.5		ns	
C.V.%	18.0		4.2		16.7		8.1		5.3		5.2		17.8		6.5		1.7		0.9		4.7		5.2	
R-sq x 100	85.5		82.8		40.9		30.1		73.1		89.6		80.5		75.0		81.6		57.8		72.6		62.6	

Table 17. Results of the 2003 1st-year Cotton Variety Test without irrigation on a Calloway silt loam soil at Marianna, Ark.

	Lint		Lint						Seed		Lint		Seed						Fiber properties					
Variety	yield	r	frac.	r	Stand	r	Ht.	r	index	r	index	r	per a	r	Mic	r	Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/a		%		no./ft		cm		g		g		mil.				in.		%		g/tex		%	
ST5242BR	1178	1	41.1	7	2.0	17	103	7	11.8	14	7.1	21	4.384	11	5.2	1	1.17	15	85.5	5	32.1	5	8.2	15
DP424BGII/RR	1013	2	37.2	19	2.7	1	97	18	11.9	9	7.3	18	3.517	14	4.9	10	1.20	4	85.0	12	31.4	9	8.7	6
ST4892BR, ck.	1002	3	41.8	3	1.9	19	101	11	11.8	12	8.4	3	5.165	8	5.0	7	1.14	21	83.9	23	28.9	16	8.4	11
ST4646B2R	950	4	40.7	9	2.1	12	105	3	10.3	21	7.7	9	5.570	4	4.6	15	1.18	11	84.8	14	28.9	16	7.5	22
ST4563B2	941	5	42.2	2	2.3	8	105	1	12.0	7	7.4	15	5.774	3	4.2	22	1.14	21	84.8	13	26.0	23	8.0	19
ST3990BR	933	6	37.3	18	1.8	21	105	4	11.4	16	7.9	7	3.330	18	5.1	3	1.18	11	85.2	9	30.5	11	8.8	3
DPLX00W12	855	7	42.9	1	2.0	16	99	14	11.1	19	7.9	5	2.750	22	5.2	1	1.20	4	85.3	7	32.0	6	8.5	9
DP468BGII/RR	847	8	37.6	16	2.1	12	103	5	10.2	22	7.4	16	4.372	12	4.7	14	1.18	14	84.8	14	29.7	13	8.7	6
DP434RR	826	9	41.4	5	2.2	11	96	20	10.5	20	7.9	6	4.926	9	4.8	13	1.19	9	84.5	19	31.9	7	8.9	2
FM958LL	751	10	37.4	17	2.1	14	90	22	9.5	23	6.8	23	5.550	5	4.1	23	1.18	11	84.1	21	26.4	22	8.1	18
DP432RR	710	11	41.2	6	2.3	9	98	16	12.3	5	7.5	13	6.146	1	4.9	9	1.17	16	85.2	9	26.7	21	8.7	4
ST5222B2	683	12	36.9	21	1.8	21	99	13	11.2	18	8.5	2	5.329	6	4.9	10	1.14	20	85.3	7	31.5	8	8.7	6
FM966LL	672	13	37.9	13	2.3	7	97	19	12.1	6	7.4	17	4.663	10	4.5	18	1.20	4	85.3	6	33.3	2	8.2	13
CS35	607	14	40.9	8	2.5	2	95	21	12.8	2	7.5	12	3.033	21	4.6	15	1.22	1	86.1	1	33.1	3	8.3	12
BCG295	588	15	37.8	14	2.0	17	101	9	12.6	4	7.8	8	3.410	16	5.0	5	1.22	1	85.9	3	31.1	10	8.1	16
SG105, check	578	16	40.4	10	2.0	15	89	23	11.9	10	7.5	11	3.065	20	5.0	5	1.16	18	85.1	11	32.8	4	9.1	1
CS36	566	17	37.6	15	2.4	5	100	12	11.3	17	7.9	4	3.470	15	4.5	18	1.19	9	84.1	22	27.8	20	8.0	19
CS32	532	18	37.0	20	1.8	20	98	17	11.6	15	7.2	20	2.703	23	4.5	18	1.15	19	84.7	18	29.5	14	8.5	9
CS33	522	19	36.5	23	2.4	4	103	5	12.7	3	7.7	10	3.139	19	4.8	12	1.17	16	84.5	19	28.8	18	7.6	21
PHY410RR	510	20	38.9	11	2.4	5	101	9	12.0	8	7.5	14	4.077	13	4.6	17	1.19	8	85.7	4	36.2	1	8.1	16
CS34	504	21	36.8	22	2.2	10	102	8	11.8	13	7.0	22	3.394	17	4.3	21	1.21	3	86.0	2	29.2	15	7.4	23
DP494RR	479	22	41.4	4	2.5	3	99	15	11.9	11	7.3	19	5.304	7	5.0	7	1.20	7	84.8	14	30.1	12	8.2	13
CS31	432	23	38.4	12	1.8	21	105	1	13.1	1	9.3	1	5.780	2	5.1	4	1.14	21	84.7	17	28.1	19	8.7	5
Mean	725		39.2		2.1		100		11.6		7.6		4.298		4.7		1.18		85.0		30.2		8.3	
LSD 0.10	138		2.5		0.4		ns		1.4		ns		0.793		ns		0.02		ns		2.6		0.6	
C.V.%	16.1		3.8		17.6		7.9		6.9		9.9		15.6		7.2		1.1		0.9		5.0		3.9	
R-sq x 100	82.5		80.4		44.0		34.5		71.2		51.3		80.9		62.3		88.1		53.8		84.7		79.0	

Table 18. Results of the 2003 1st-year Cotton Variety Test with irrigation on a Desha silt loam at Rohwer, Ark.

	Lint		Lint						Seed		Lint		Seed						Fiber properties					
Variety	yield	r	frac.	r	Stand	r	Ht.	r	index	r	index	r	per a	r	Mic	r	Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/a		%		no./ft		cm		g		g		mil.				in.		%		g/tex		%	
ST4563B2	1681	1	39.8	6	.	.	91	18	11.2	12	7.6	5	10.090	1	4.9	11	1.19	6	84.0	21	28.4	19	7.5	22
ST5242BR	1613	2	40.3	4	.	.	95	11	13.2	1	9.1	1	8.050	13	5.0	6	1.19	6	86.3	2	29.5	12	8.4	5
ST4892BR, ck.	1546	3	41.0	2	.	.	93	15	11.3	9	8.1	3	8.661	7	5.2	2	1.14	22	85.3	10	29.1	14	7.9	11
ST4646B2R	1535	4	38.6	12	.	.	90	20	11.2	11	7.3	11	9.600	2	4.9	9	1.16	17	85.1	12	28.5	18	8.1	10
PHY410RR	1424	5	40.0	5	.	.	96	10	10.3	20	7.0	13	9.170	3	4.8	15	1.18	10	85.6	5	32.3	2	8.5	2
FM958LL	1420	6	38.2	15	.	.	91	19	11.7	5	7.3	9	8.814	5	4.6	19	1.26	1	86.5	1	31.9	5	7.7	18
ST3990BR	1396	7	39.2	8	.	.	94	12	12.7	2	8.3	2	7.615	19	5.0	6	1.13	23	84.2	19	27.9	20	8.4	5
DP434RR	1347	8	41.1	1	.	.	92	16	10.1	22	7.3	10	8.390	8	4.9	9	1.19	6	85.0	13	27.3	22	7.8	15
DP494RR	1346	9	40.4	3	.	.	98	8	10.6	19	7.4	8	8.246	9	4.8	15	1.25	2	85.7	4	32.0	4	8.1	9
DPLX00W12	1305	10	39.8	7	.	.	91	17	10.7	16	7.3	12	8.183	10	5.0	5	1.18	12	85.5	6	29.8	11	8.7	1
DP432RR	1280	11	38.9	9	.	.	87	23	9.9	23	6.5	20	8.932	4	4.8	13	1.17	15	85.2	11	30.4	10	8.5	2
FM966LL	1271	12	37.3	19	.	.	94	13	12.4	3	7.5	6	7.706	16	4.7	18	1.17	15	85.5	6	35.8	1	7.9	11
SG105, check	1262	13	38.8	11	.	.	94	14	11.6	7	7.5	7	7.650	18	4.8	13	1.21	5	85.4	9	31.2	9	7.9	11
BCG295	1259	14	36.9	20	.	.	88	21	11.1	13	6.5	19	8.732	6	4.5	21	1.22	4	84.7	16	28.7	17	7.5	22
CS35	1224	15	38.8	10	.	.	100	3	10.7	17	6.9	17	8.089	11	4.6	19	1.18	12	84.0	21	29.0	15	7.6	20
ST5222B2	1218	16	38.2	14	.	.	97	9	11.1	14	7.0	15	7.904	15	5.3	1	1.16	18	85.0	13	31.5	6	8.5	2
DP424BGII/RR	1215	17	37.5	17	.	.	88	22	11.2	10	6.9	16	7.995	14	5.0	6	1.15	20	84.1	20	26.9	23	7.8	15
CS31	1184	18	37.4	18	.	.	99	7	11.4	8	7.0	14	7.661	17	4.8	15	1.15	21	84.4	18	28.8	16	8.3	7
CS34	1058	19	38.4	13	.	.	100	3	11.9	4	7.7	4	6.241	23	4.9	11	1.19	9	85.5	6	32.3	2	8.2	8
CS32	1003	20	36.6	21	.	.	101	2	11.0	15	6.4	21	7.063	20	5.1	3	1.16	18	84.9	15	29.3	13	7.6	20
CS33	993	21	36.4	22	.	.	105	1	11.6	6	6.8	18	6.623	22	4.4	23	1.18	10	83.8	23	31.3	7	7.7	18
CS36	952	22	37.6	16	.	.	100	3	10.2	21	6.2	22	6.885	21	4.5	21	1.22	3	85.8	3	31.2	8	7.8	15
DP468BGII/RR	939	23	32.3	23	.	.	99	6	10.6	18	5.3	23	8.077	12	5.1	3	1.17	14	84.7	17	27.8	21	7.9	11
Mean	1281		38.4				95		11.2		7.2		8.103		4.8		1.18		85.0		30.0		8.0	
LSD 0.10	241		ns				9		1.0		0.8		1.539		0.4		0.04		ns		1.9		0.6	
C.V.%	16.0		2.1				7.8		5.0		6.9		16.1		4.8		2.1		1.1		3.7		4.0	
R-sq x 100	57.3		63.4				42.4		82.5		82.7		39.7		64.6		78.0		61.0		84.5		73.5	

Table 19. Leaf pubescence ratings[1] for entries in the 2003 main and 1st-year Arkansas Cotton Variety Test.

Main test - Cultivar	Leaf pubes. rating	r	1st year test - Cultivar	Leaf pubes. rating	r
96WD22	3.7	5	BCG295	1.1	18
Ark8712	1.7	15	CS31	3.6	8
Ark9101-97-09	4.6	2	CS32	2.4	11
Ark9108-04-17	1.2	26	CS33	4.9	5
Ark9111-57-20	1.3	21	CS34	1.2	17
BCG24R	1.0	30	CS35	1.0	21
BCG28R	2.9	9	CS36	2.9	10
BXN49B	3.2	7	DP424BGII/RR	1.7	13
DES810	2.2	13	DP432RR	6.0	1
DES816	3.5	6	DP468BGII/RR	1.0	19
DP436RR	1.0	30	DP494RR	3.9	7
DP444BG/RR	1.3	23	DPLX00W12	1.4	15
DP449BG/RR	1.4	20	DPLX01W99R_074	1.6	14
DP451B/RR	1.4	18	FM958LL	1.0	21
DP491	1.3	22	FM966LL	1.0	21
DP493	1.0	30	PHY410RR	5.5	3
DP555BG/RR	1.3	23	SG105, check	1.0	19
FM958	1.5	17	ST3990BR	3.0	9
FM958B	2.7	12	ST4563B2	4.0	6
FM960BR	1.8	14	ST4646B2R	5.0	4
FM966	1.4	18	ST4892BR, check	5.5	2
FM989BR	1.1	29	ST5222B2	1.3	16
PM1199RR	2.7	11	ST5242BR	1.8	12
PM1218BG/RR	1.5	16	.	.	
PSC355	3.1	8	.	.	
SG105	1.3	23	.	.	
SG215BG/RR	1.2	26	.	.	
SG521R	1.2	28	.	.	
ST4793R	4.0	4	.	.	
ST4892BR	5.9	1	.	.	
ST5303R	1.0	30	.	.	
ST5599BR	2.8	10	.	.	
SynNX2429	4.1	3	.	.	
Mean	2.1		Mean	2.7	
LSD 0.10	1.5		LSD 0.10	1.6	
C.V.%	58.7		C.V.%	51.2	
R-sq x 100	58.9		R-sq x 100	69.1	

1/ Leaf pubescence rated at Keiser irrigated test using method of Bourland et al. (2003).

Table 20. Two-year (2002-2003) average lint yields for cultivars at the six locations of the 2002-2003 Arkansas Cotton Variety Test.

Cultivar	Keiser Irrigated	r	Keiser Non-irrig.	r	Clarkedale Irrigated	r	North average	r	Marianna Irrigated	r	Marianna Non-irrig.	r	Rohwer Irrigated	r	South average	r	All loc.	r
	lb/a		lb/a		lb/a		lb/a		lb/a		lb/a		lb/a		lb/a		lb/a	
ST5599BR	1134	2	850	10	884	4	956	1	1083	1	1104	1	1891	1	1359	1	1158	1
DP444BG/RR	1123	3	907	2	832	9	954	2	951	4	1096	2	1668	8	1238	3	1096	2
ST4892BR	942	25	940	1	836	7	906	5	1057	2	951	4	1817	2	1275	2	1090	3
BXN49B	1120	4	789	15	676	28	861	11	983	3	897	5	1788	4	1223	4	1042	4
SynNX2429	983	18	794	14	855	5	877	8	836	17	882	6	1799	3	1172	5	1025	5
Ark9108-04-17	1030	12	755	21	916	1	900	7	851	13	813	14	1671	7	1112	9	1006	6
FM960BR	974	22	875	6	689	26	846	16	928	8	969	3	1569	10	1155	7	1001	7
FM958B	1020	14	892	3	906	2	939	3	774	24	775	21	1616	9	1055	14	997	8
PSC355	1033	10	715	25	731	22	826	22	901	9	798	17	1774	5	1158	6	992	9
DP493	1061	6	852	9	656	31	856	12	755	25	843	11	1761	6	1119	8	988	10
FM966	1151	1	773	18	789	12	904	6	886	10	789	19	1488	18	1054	16	979	11
SG521R	996	17	868	7	747	18	870	9	935	6	779	20	1474	19	1062	12	966	12
SG215BG/RR	1031	11	672	31	844	6	849	15	842	16	880	7	1450	23	1057	13	953	13
ST4793R	1005	15	845	11	711	24	853	13	930	7	833	12	1366	30	1043	19	948	14
Ark9101-97-09	1046	8	813	12	689	27	849	14	800	22	844	10	1472	20	1038	20	944	15
PM1218BG/RR	927	27	764	19	793	11	828	21	874	12	770	22	1514	15	1052	17	940	16
DP555BG/RR	978	21	727	22	737	19	814	24	835	18	789	18	1532	13	1052	18	933	17
ST5303R	980	19	709	28	732	21	807	25	751	26	846	9	1568	11	1055	15	931	18
DP451B/RR	894	31	604	33	833	8	777	30	946	5	813	15	1440	24	1066	11	921	19
FM989BR	997	16	727	23	778	13	834	19	883	11	817	13	1299	32	1000	23	917	20
DP491	1085	5	794	13	732	20	870	10	737	28	672	32	1463	21	957	30	914	21
DP449BG/RR	910	28	619	32	722	23	750	33	847	14	869	8	1509	16	1075	10	912	22
Ark9111-57-20	1054	7	878	5	583	32	838	18	843	15	682	31	1421	26	982	26	910	23
Ark8712	966	23	758	20	805	10	843	17	726	30	749	25	1452	22	975	28	909	24
FM958	1024	13	861	8	889	3	924	4	727	29	689	30	1259	33	891	33	908	25
SG105	1037	9	710	27	752	17	833	20	825	20	809	16	1310	31	981	27	907	26
DES810	979	20	786	17	705	25	823	23	829	19	736	28	1394	28	986	25	905	27
BCG28R	945	24	788	16	658	29	797	26	719	32	744	27	1524	14	996	24	896	28
96WD22	892	32	884	4	569	33	782	29	723	31	754	24	1555	12	1011	21	896	29
BCG24R	930	26	712	26	658	30	767	31	777	23	744	26	1491	17	1004	22	885	30
DP436RR	906	29	686	30	754	16	782	28	749	27	764	23	1412	27	975	29	878	31
DES816	904	30	699	29	756	15	786	27	690	33	709	29	1437	25	945	31	866	32
PM1199RR	809	33	726	24	758	14	764	32	805	21	658	33	1373	29	945	32	855	33
Average	996		781		757		844		842		814		1532		1063		953	

Table 21. Three-year (2001-2003) average lint yields for cultivars at the six locations of the 2001-2003 Arkansas Cotton Variety Test.

Cultivar	Keiser Irrigated	r	Keiser Non-irrig.	r	Clarkedale Irrigated	r	North average	r	Marianna Irrigated	r	Marianna Non-irrig.	r	Rohwer Irrigated	r	South average	r	All loc.	r
	lb/a		lb/a		lb/a		lb/a		lb/a		lb/a		lb/a		lb/a		lb/a	
ST5599BR	1123	10	931	3	885	7	980	5	1092	1	990	1	1720	1	1267	1	1124	1
ST4892BR	1072	18	1007	1	898	6	992	3	1075	2	890	2	1594	4	1186	2	1089	2
Ark9108-04-17	1144	8	772	19	967	1	961	7	939	7	827	4	1605	2	1124	5	1042	3
BXN49B	1135	9	853	9	783	20	923	12	1007	3	800	6	1575	5	1127	4	1025	4
PSC355	1093	16	792	17	807	16	897	17	986	4	798	7	1601	3	1128	3	1013	5
SG215BG/RR	1146	7	867	6	928	4	980	4	871	16	868	3	1319	14	1019	8	1000	6
FM958B	1166	5	888	5	955	3	1003	2	856	18	731	16	1400	8	996	11	999	7
FM966	1236	1	797	16	843	11	959	8	902	13	743	14	1370	9	1005	9	982	8
FM958	1174	3	935	2	956	2	1022	1	861	17	730	17	1228	20	939	21	981	9
Ark9101-97-09	1117	11	813	13	787	19	906	16	897	14	814	5	1425	7	1045	6	975	10
SG521R	1097	13	905	4	838	13	947	9	943	6	723	20	1302	16	989	14	968	11
SG105	1168	4	840	10	880	9	963	6	913	10	782	8	1202	23	966	18	964	12
FM989BR	1116	12	802	14	844	10	921	13	946	5	777	9	1251	19	991	13	956	13
ST4793R	1077	17	864	8	780	21	907	15	934	8	752	11	1302	15	996	12	951	14
Ark8712	1096	15	814	12	901	5	937	11	772	22	731	15	1358	10	954	19	945	15
Ark9111-57-20	1156	6	866	7	716	23	913	14	894	15	690	22	1339	12	974	16	943	16
DP451B/RR	985	21	744	21	884	8	871	19	904	12	764	10	1332	13	1000	10	936	17
DP491	1201	2	824	11	794	17	940	10	794	21	720	21	1227	21	913	22	927	18
DES810	1033	19	800	15	779	22	871	20	908	11	729	18	1290	18	976	15	923	19
DP555BG/RR	1097	14	775	18	789	18	887	18	770	23	752	12	1299	17	940	20	914	20
PM1218BG/RR	1012	20	509	22	843	12	788	22	924	9	743	13	1449	6	1039	7	914	21
DES816	966	22	753	20	838	14	852	21	816	20	727	19	1356	11	966	17	909	22
PM1199RR	919	23	484	23	829	15	744	23	853	19	606	23	1225	22	895	23	819	23
Average	1101		810		849		920		907		769		1381		1019		970	