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ARKANSAS COTTON VARIETY TEST 2004



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J.M. Hornbeck, R.C. Doherty, and W.C. Robertson*

ARKANSAS AGRICULTURAL EXPERIMENT STATION

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DIVISION OF AGRICULTURE

**ARKANSAS
COTTON
VARIETY TEST
2004**

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B.S. Brown
J.M. Hornbeck
R.C. Doherty
W.C. Robertson



**Arkansas Agricultural Experiment Station
Fayetteville, Ark. 72701**

(a unit of the University of Arkansas System's statewide Division of Agriculture)

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 2004, 25 entries were evaluated in the main test and 26 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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Arkansas Cotton Variety Test 2004

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J.M. Hornbeck, R.C. Doherty, and W.C. Robertson¹*

Introduction

The purpose of the University of Arkansas Cotton Variety Testing Program is to provide unbiased comparisons of cotton varieties and advanced breeding lines 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, 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. Roundup Ready® varieties, Liberty Link® 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 2004 1st year variety test. Lines that had been evaluated in 2003 and were re-submitted in 2004 were evaluated in the 2004 main variety test.

Materials and Methods

Entries for the 2004 Arkansas Cotton Variety Test were separated into those tested for the first time in 2004 (1st year entries) and entries that were evaluated in the 2003 Arkansas Cotton Variety Test (returning entries). All test sites included the same entries. The main test included 25 entries and the 1st year test included 26 entries plus three check varieties (Table 1).

Test sites included 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 variety test was conducted near Manila in Mississippi County (located in northeast Arkansas) on a soil naturally infested with root-knot nematode. Cultural practices and weather data (heat units and rainfall) associated with the test sites are listed in Table 2 and Table 3, respectively.

Double-treated (two fungicides) seed for all entries were obtained from originators. Prior to planting, all seed were treated with imidacloprid (Gaucho®) at a rate of 6oz/100 lb seed. Plots were planted with a constant number of seed (ca. 4.5 seed/row ft). All varieties were planted in two-row plots ranging in length from 40 to 50 feet. Tests were arranged in a randomized complete

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

Data Collected

Data Collected at Single Location:

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 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.

Bract variables: After cutout, a bract from a mid-plant, 1st position boll was randomly sampled from six plants/plot (4 replications) in the Keiser-irrigated test after cutout. Each bract was examined for marginal trichome density (no. of trichome/cm), circumference (cm), and maximum length (cm). Means for the six bracts were evaluated as plot means.

Verticillium wilt: Percentage of plants showing symptoms of *Verticillium* wilt was visually estimated from the front and back of each plot at Clarkedale on August 30. Plot means (average of the two ratings) were evaluated.

Data Collected at All Locations:

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 were obtained from different sources, stand counts simply demonstrate the adequacy of final stands rather than the genetic ability of entries to produce stand.

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 in each of the two rows. Plot means (average of the two measurements) were evaluated.

% Open bolls: Immediately before or after first application of defoliant, percentage of open bolls was estimated from the front and back of each plot (4 replications), then averaged for each 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 plant density was chosen and 25 bolls were harvested and bulked to form a 50-boll sample. The 50-boll samples were ginned (lab gin without the use of lint cleaners) to determine lint fraction (the percentage of lint weight to seedcotton weight). Fiber properties were determined using HVI classification.

Seed index: Two sets of 50 fuzzy seed from the ginned seed of each 50-boll sample were counted and weighed. 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 seed per acre was determined by multiplying seedcotton yield (lb/a converted to g/a) times average seed percentage (the percentage of seed weight to seedcotton weight in ginned sample, averaged by entry and location over reps), then divided by average seed weight (average seed index by entry over reps divided by 100).

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

Lint Yield: Seedcotton yield per plot (determined by 2-row cotton picker) 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

Near optimal conditions were associated with the 2004 tests. Uniform stands were achieved at all locations. Rainfall was generally adequate. Mild temperatures during 3rd week in August slowed plant development and maturity, but did not appear to negatively affect yields in these tests. Other observations associated with each test site include:

Manila. Drift of glyphosate herbicide and wind-blown sand injured seedlings at the Manila site, causing much variation among the plots. Consequently, this location was not included in the evaluations over locations.

Symptoms of root-knot nematode injury were not extensive in 2004.

Keiser. Timely rains occurred throughout the season and resulted in little difference between irrigated and non-irrigated tests. However, uncontrolled variation (experimental error) in the non-irrigated test was higher than in the irrigated test.

Clarkedale. The Clarkedale site missed many of the mid-season rains that frequented other sites. Incidence of *Verticillium* wilt symptoms was heavy, but appeared relatively late in the season. Although *Verticillium* wilt did not appear to greatly reduce yield, it likely contributed to experimental error in the tests.

Marianna. Since early-season rains may have restricted root development, irrigation (using the Irrigation Scheduler Program) was initiated on 1-inch rather 2-inch deficits. Consequently, the irrigated test was watered frequently.

Rohwer. Early plant development at Rohwer was restricted by cloudy and wet conditions. Plants recovered and produced relatively high yields with low experimental error. An additional variety test with 12 entries was conducted on a clay soil at Rohwer. Production practices were the same as for the main test and 1st year test.

Environmental conditions varied across the state (Table 3). Temperatures in the 2004 production season tended to be below the historical average (1960 - 1998). Rainfall frequented every test site except Clarkedale throughout the season. Very cool temperatures during the week of August slowed plant development at each site. Harvest was completed prior to prolonged wet conditions that occurred in the fall.

Table 1. Entries and participants in the main test and 1st year test are listed in Table 1.

Table 2. Cultural inputs and production information for variety trials at Manila, Keiser (irrigated and non-irrigated); Clarkedale, Marianna (irrigated and non-irrigated); and Rohwer are reported in Table 2.

Table 3. Table 3 reports weather information for north, central, and south Arkansas locations during the 2004 production season.

Tables 4–11. These tables provide results of the main test of 2004 Arkansas Cotton Variety Test. Varieties listed in these tables were tested the previous year in Arkansas. Table 4 provides results over locations (excluding the Manila site), and Tables 5-11 provide results for each of seven locations.

Tables 12–19. These tables provide results of the 1st year Arkansas Cotton Variety Test. Varieties tested in the 1st year test were not entered in the 2003 Arkansas Cotton Variety Test. Table 12 provides results over locations (excluding the Manila site), and Tables 13-19 provide results for each of seven locations.

Table 20. Leaf pubescence ratings (at Keiser), bract measurements (at Keiser), and *Verticillium* wilt ratings (at Clarkedale) for main and 1st year test are in Table 20.

Tables 21-22. Tables 21 and Table 22 are two- and three-year means for entries in the main test, respectively.

Table 23. Results of 12 varieties tested on clay soil at Rohwer. Performance of varieties on clay soil was similar to their performance on silt loam soil at Rohwer. However, relative yields of later-maturing varieties tended to be slightly better on the clay soil with respect to their yields on the silt loam soil.

Appendix tables. Results of replicated on-farm variety demonstration tests conducted by the University of Arkansas Cooperative Extension Service.

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Cultural Inputs and Production Information

Table 1. Participants and entries in the 2004 Arkansas Cotton Variety Test.

Institution/Contact person	Main test entries		1 st year test entries	
Bayer Crop Science / Jane Dever jane.dever@bayercropscience.com	FM 958LL FM 960BR	FM 966LL FM 989BR	FM 960R FM 960 B2R	
Beltwide Cotton Genetics / T. J. Lawhon TJLawhon@BeltwideCottonGenetics.com	BCG 24R BCG 28R	BCG 295	BCG-P014B2/R BCG-P030B2/R	
Calif. Planting Cotton Seed Dist. / Gene Lytle lytle@cpcsd.com			CS 37 CS 38	CS 39 CS 40
Delta & Pine Land Company / David Albers david.w.albers@deltaandpine.com	DP 393 DP 424BGII/RR DP 432RR DP 434RR DP 436RR DP 444BG/RR	DP 449BG/RR DP 451 B/RR DP 494RR DP 555BG/RR PM 1218BG/RR	DP 445BG/RR DP 455BG/RR DP 488BG/RR	DP 543BGII/RR DPLX-02T57R
PhytoGen Seed Co., LLC. / Frank Bordelon FCBordelon@dow.com	PHY 410RR		PHY 310RR	
Stoneville Pedigreed Seed Co. / Andy White awhite@stoneville.com	ST 4646B2R ST 4793R ST 4892BR	ST 5242BR ST 5303R ST 5599BR	ST 3636B2R ST 4575BR ST 4686R	ST 5454B2R ST 6636BR ST 6848R
Syngenta Seeds, Inc. / Charles Cook Charlie.cook@syngenta.com			DX 241203 DX 25105N	
University of Arkansas / Fred Bourland bourland@uark.edu			Ark 9202-24-13 Ark 9203-03-20 Ark 9203-17-12 Ark 9208-05-01	

Table 2. Cultural practices for locations in the 2004 Arkansas Cotton Variety Test.

Location	Fertilizer N, P, K lb/a	Planting date(s)	Irrigation dates ¹	Defoliation date	Harvest date
Manila, Irrigated	90,20,60	7-May	Jun 11, Jul 23, Aug 17	15-Sep	30-Sep
Keiser, Irrigated	125,0,0	6-May	Jul 23, Aug 13	22-Sep	4-Oct
Keiser, Non-irrigated	125,0,0	6-May	none	22-Sep	4-Oct
Clarkedale, Irrigated	80, 46, 60	5-May	Jun 10, Jul 14, 29, Aug 8	9-Sep	23-Sep
Marianna, Irrigated	0,60,40	7-May	Jul 15,24,31,Aug 4,10,14,19,26 Sep 3	18-Sep	3-Oct
Marianna, Non-irrigated	0,60,40	7-May	none	18-Sep	3-Oct
Rohwer, Irrigated	120, 40, 60	27-Apr	Jul 15,22,28, Aug 11	18-Sep	2-Oct

¹ Manila location was irrigated using center-pivot, other irrigated locations were furrow-irrigated.

Table 3. Weather summary for the 2004 production season in north, central, and south Arkansas.

Month by location	DD60s In 2004	DD60s Historical avg. ¹	Rainfall (in.) in 2004
Keiser (northeast Ark.):			
May	408.5	326	6.48
June	542.5	549	2.63
July	587	659	7.17
August	470.5	579	3.4
September	396	366	0.04
Total	2404.5	2479	19.72
Marianna (central Ark.):			
May	352.5	326	6.9
June	466	549	6.18
July	515	659	3.2
August	457.5	579	0.53
September	382	366	0.14
Total	2173	2479	16.95
Rohwer (southeast Ark.):			
May	389	635	4.84
June	535	564	5.57
July	614.5	672	3.01
August	535.5	621	1.04
September	359.5	532	0.05
Total	2433.5	3024	14.51

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

Table 4. Results of the 2004 Cotton Variety Test across six Arkansas test sites (Manila site excluded).

Variety	Lint		Lint		Stand	Ht.	Open			Seed		Lint		Seed		Fiber properties										
	yield	r	frac.	r			r	r	r	r	r	r	r	r	r	r	r	r	r	r	r	r	r	r	r	r
	lb/a		%		no./ft	cm	%			g		g		mil.		Mic		Len.		Unif.		Str.		Elo.		
ST5599BR	1487	1	40.4	13	3.8	10	113	5	55	20	11.3	5	7.9	3	8.535	6	4.4	18	1.17	10	84.6	19	32.1	9	7.7	22
ST5242BR	1484	2	40.6	12	3.6	17	106	14	65	5	12.1	1	8.5	1	7.966	18	4.4	20	1.12	24	84.6	22	28.3	23	8.0	14
DP444BG/RR	1459	3	42.5	3	4.4	2	104	20	73	1	10.1	18	7.7	7	8.647	3	4.0	25	1.16	15	85.3	9	29.7	20	8.0	15
ST4892BR	1412	4	41.6	7	3.8	11	113	4	65	5	10.6	14	7.8	6	8.261	12	4.6	7	1.13	21	84.7	18	30.5	12	8.4	6
ST4793R	1389	5	41.8	5	3.5	22	114	2	66	3	10.7	13	7.9	2	7.980	17	4.7	2	1.12	23	84.4	24	30.3	15	8.3	9
DP432RR	1374	6	40.8	10	3.6	19	108	10	62	12	9.7	21	6.9	18	9.071	1	4.5	8	1.14	17	85.1	14	30.4	13	8.5	3
DP434RR	1368	7	42.7	2	3.6	18	108	8	62	12	9.8	20	7.5	12	8.361	8	4.2	22	1.20	2	85.8	3	27.5	25	8.0	16
DP393	1356	8	41.7	6	3.7	14	103	21	65	7	10.3	17	7.6	9	8.100	15	4.4	15	1.18	6	85.7	4	31.2	11	8.6	2
FM958LL	1355	9	41.0	8	4.3	4	100	25	60	14	10.8	11	7.6	8	8.037	16	4.4	19	1.19	3	85.3	10	34.3	3	7.8	21
ST4646B2R	1353	10	39.2	20	3.8	12	114	3	66	2	10.7	12	7.1	15	8.639	4	4.5	13	1.14	18	84.5	23	29.9	17	8.2	12
PHY410R	1349	11	39.5	19	4.4	3	108	9	58	17	10.6	15	7.1	16	8.617	5	4.6	6	1.16	13	85.6	5	31.4	10	8.9	1
FM960BR	1311	12	40.2	15	4.4	1	105	18	50	24	11.1	8	7.6	10	7.836	19	4.4	16	1.13	20	84.6	20	36.4	2	8.1	13
FM966LL	1290	13	40.3	14	4.0	8	105	17	50	22	11.4	3	7.9	4	7.437	24	4.1	23	1.17	8	85.9	1	36.7	1	7.7	23
PM1218BG/RR	1281	14	40.0	17	4.1	5	106	15	66	4	11.4	2	7.8	5	7.485	23	4.8	1	1.11	25	84.6	21	29.9	18	8.2	10
ST5303R	1274	15	39.6	18	3.9	9	112	6	63	8	10.3	16	7.0	17	8.198	14	4.5	12	1.13	22	85.3	11	34.0	4	8.4	5
DP494RR	1246	16	42.2	4	3.5	21	107	11	50	23	10.0	19	7.5	11	7.561	22	4.6	3	1.19	3	85.3	8	33.6	5	8.3	8
BCG28R	1240	17	40.2	16	3.4	24	102	23	63	9	9.5	22	6.5	24	8.649	2	4.6	4	1.17	8	84.7	17	30.1	16	7.7	24
DP451B/RR	1239	18	37.1	24	3.7	13	110	7	60	15	11.2	6	6.8	20	8.260	13	4.5	9	1.18	7	85.5	6	28.5	22	7.9	19
FM989BR	1236	19	38.6	21	3.3	25	105	19	58	18	11.3	4	7.4	13	7.681	21	4.1	24	1.18	5	85.4	7	32.7	7	7.8	20
DP424BGII/RR	1231	20	37.5	23	4.1	7	106	16	59	16	11.0	9	6.7	21	8.367	7	4.4	14	1.15	16	85.0	15	28.6	21	8.3	7
DP449BG/RR	1202	21	40.7	11	4.1	6	103	22	56	19	9.5	23	6.6	22	8.283	11	4.5	10	1.16	14	85.1	13	33.1	6	8.2	11
BCG24R	1198	22	40.9	9	3.5	23	107	13	62	11	9.2	24	6.5	23	8.316	9	4.6	5	1.14	19	84.9	16	29.9	19	8.5	4
DP555BG/RR	1189	23	44.2	1	3.6	16	115	1	46	25	8.4	25	6.9	19	7.817	20	4.5	10	1.16	12	84.3	25	30.3	14	7.3	25
DP436RR	1144	24	35.8	25	3.6	20	101	24	63	9	10.8	10	6.3	25	8.308	10	4.3	21	1.17	10	85.3	12	27.8	24	8.0	17
BCG295	1125	25	38.5	22	3.7	15	107	12	52	21	11.1	7	7.2	14	7.118	25	4.4	17	1.21	1	85.8	2	32.1	8	7.9	18
Mean	1304		40.3		3.8		107		60.0		10.5		7.3		8.144		4.4		1.16		85.1		31.2		8.1	
Var. LSD 0.10	75		0.9		0.3		5		4.0		0.3		0.3		0.472		0.2		0.01		0.5		1.1		0.2	
Loc. LSD 0.10	35		0.4		0.1		2		ns		0.2		ns		0.228		0.1		0.01		0.2		0.5		0.1	
C.V.%	11.9		3.2		14.8		9.0		14.3		4.9		6.2		12.0		5.4		1.8		0.8		5.1		3.3	
R-sq x 100	72.2		84.9		74.6		76.0		70.9		88.4		82.6		71.7		75.6		84.1		76.3		85.5		82.9	
Prob (var x loc)	0.03		0.44		<.001		0.64		0.02		0.0		0.0		<.001		0.002		0.38		0.27		0.66		0.05	

Table 5. Results of the 2004 Cotton Variety Test with irrigation on a Tunica silty clay soil at Keiser, Ark.

Variety	Lint yield		Lint frac.		Stand no./ft	Ht. cm	Open bolls		Seed index		Lint index		Seed per a mil.		Mic		Len.		Fiber properties							
	lb/a	r	%	r			%	r	g	r	g	r	mil.	r	in.	r	Unif. %	r	Str. g/tex	r	Elo. %	r				
ST5242BR	1578	1	41.2	6	4.6	13	110	11	53	14	12.9	1	9.1	7	7.873	22	4.8	3	1.12	25	85.0	23	29.0	18	8.4	5
DP444BG/RR	1570	2	41.9	4	5.2	2	102	22	74	1	10.2	18	7.6	4	9.422	3	4.0	23	1.18	16	85.4	16	27.8	23	7.6	23
ST5599BR	1521	3	39.4	17	4.7	8	110	10	46	21	12.0	4	7.9	17	8.738	9	4.3	12	1.19	13	85.3	18	33.0	6	7.9	14
ST4892BR	1465	4	39.7	15	4.4	16	119	2	53	14	11.1	12	7.5	15	8.908	6	4.3	12	1.15	23	85.2	19	28.6	19	8.3	6
FM958LL	1464	5	40.8	8	5.0	5	110	12	53	14	11.8	5	8.2	8	8.066	19	4.3	11	1.22	3	86.1	6	34.3	3	7.9	14
PHY410R	1450	6	38.8	20	6.4	1	105	20	56	9	11.6	6	7.5	20	8.800	8	4.4	7	1.19	13	86.1	6	31.3	9	8.8	1
ST4793R	1450	7	41.5	5	4.3	18	112	6	66	3	10.6	16	7.6	5	8.614	10	4.4	8	1.16	20	84.7	24	30.2	14	8.0	13
ST4646B2R	1437	8	39.0	19	4.7	8	116	3	68	2	10.1	20	6.6	19	9.953	1	3.7	25	1.17	17	84.6	25	28.6	19	7.8	17
BCG28R	1408	9	40.5	12	4.1	21	108	13	56	9	9.6	23	6.7	11	9.610	2	4.6	4	1.22	3	86.3	3	30.1	15	7.9	14
FM960BR	1406	10	40.8	9	5.1	3	107	14	50	19	11.5	7	8.1	9	7.922	21	4.5	5	1.17	19	85.2	20	36.8	1	8.1	12
FM966LL	1365	11	39.9	13	5.1	3	107	15	43	24	12.1	3	8.2	14	7.588	23	4.1	21	1.21	6	87.1	1	35.2	2	7.7	19
PM1218BG/RR	1358	12	39.8	14	4.6	11	112	5	53	14	12.1	2	8.3	13	7.427	25	4.9	1	1.15	23	85.2	20	30.0	16	8.3	6
DP434RR	1355	13	42.4	3	4.2	19	104	21	59	4	10.1	20	7.5	3	8.186	16	4.3	12	1.23	2	86.1	6	25.8	25	7.8	18
DP432RR	1350	14	40.5	11	4.0	22	106	19	54	13	10.4	17	7.2	12	8.527	11	4.3	15	1.21	6	86.6	2	30.3	12	8.3	6
DP451B/RR	1334	15	36.0	24	4.5	15	107	17	58	8	11.1	10	6.5	24	9.303	4	4.4	8	1.19	10	85.8	11	28.0	22	7.7	19
DP494RR	1325	16	42.6	2	3.9	24	111	8	45	23	10.7	14	8.1	2	7.462	24	4.8	2	1.21	5	85.6	13	33.6	4	8.5	2
DP393	1310	17	41.0	7	4.5	14	101	24	59	4	10.1	22	7.2	6	8.263	15	4.3	15	1.19	13	85.7	12	30.3	13	8.5	2
FM989BR	1302	18	38.0	21	3.8	25	102	23	55	12	11.5	8	7.3	21	8.096	17	3.9	24	1.21	6	86.2	5	31.5	8	7.7	19
DP424BGII/RR	1300	19	36.7	23	4.8	6	110	9	51	18	10.9	13	6.4	23	9.227	5	4.1	21	1.17	17	85.4	16	28.2	21	8.5	2
ST5303R	1281	20	39.5	16	4.7	8	116	3	59	4	10.6	15	7.0	18	8.280	14	4.2	19	1.15	21	86.1	6	33.6	5	8.3	6
BCG295	1277	21	37.4	22	4.7	7	107	15	46	21	11.1	11	6.8	22	8.509	12	4.3	15	1.23	1	86.3	4	30.5	11	7.5	24
DP555BG/RR	1221	22	44.2	1	4.1	20	121	1	40	25	8.7	25	7.0	1	7.944	20	4.5	5	1.20	9	85.5	15	30.7	10	7.3	25
BCG24R	1221	23	40.7	10	4.0	22	111	7	59	4	9.0	24	6.3	10	8.894	7	4.3	15	1.15	21	85.1	22	29.2	17	8.2	10
DP449BG/RR	1200	24	39.3	18	4.6	12	106	18	49	20	10.1	19	6.7	16	8.095	18	4.4	8	1.19	10	85.8	10	32.6	7	8.2	10
DP436RR	1148	25	35.5	25	4.3	17	100	25	56	9	11.2	9	6.2	25	8.397	13	4.1	20	1.19	10	85.6	13	27.1	24	7.7	22
Mean	1364		39.9		4.6		109		54		10.8		7.3		8.484		4.3		1.18		85.6		30.6		8.0	
LSD 0.10	136		2.0		0.6		ns		11		0.8		0.7		0.856		0.5		0.04		ns		2.3		0.5	
C.V.%	8.5		2.7		11.9		8.8		9.7		4.4		6.0		8.6		6.1		1.8		0.8		4.3		3.3	
R-sq x 100	76.1		86.8		58.7		33.8		62.4		89.9		85.1		75.1		69.3		78.4		64.5		89.3		80.8	

Table 6. Results of the 2004 Cotton Variety Test without irrigation on a Tunica silty clay soil at Keiser, Ark.

Variety	Lint		Lint		Stand	Ht.	Open			Seed		Lint		Seed		Fiber properties										
	yield	r	frac.	r			r	r	r	r	r	r	r	r	r	r	r	r	r	r	r	r	r	r	r	r
	lb/a		%		no./ft	cm	%			g		g		mil.		Mic		Len.		Unif.		Str.		Elo.		
ST5599BR	1567	1	41.8	3	4.3	18	97	5	61	18	11.8	7	8.6	4	8.285	3	4.9	3	1.16	16	85.4	15	32.7	8	8.0	18
ST5242BR	1456	2	41.4	5	4.3	17	84	24	79	4	12.6	3	9.2	1	7.2	16	4.8	7	1.14	21	85.2	19	28.0	23	7.9	19
DP494RR	1435	3	43.2	2	4.7	8	90	15	54	23	10.2	20	7.8	10	8.317	2	4.8	7	1.21	2	85.7	10	33.7	5	8.4	5
DP393	1360	4	40.5	16	4.7	7	89	18	76	7	10.7	14	7.6	13	8.149	5	4.4	24	1.21	2	86.7	2	31.6	10	8.6	2
ST4892BR	1357	5	41.5	4	4.6	10	89	19	80	2	10.8	13	7.9	8	7.785	7	4.8	7	1.15	19	85.3	17	30.6	13	8.2	12
PM1218BG/RR	1298	6	40.8	13	5.2	3	84	23	74	11	12.8	2	9	3	6.578	22	5.2	1	1.13	22	85.6	11	30.2	16	8.5	4
ST4646B2R	1276	7	39.9	18	4.3	19	98	3	78	5	10.5	15	7.2	16	8.049	6	4.5	15	1.13	24	84.0	25	30.7	12	8.2	12
DP444BG/RR	1274	8	41.3	8	5.5	2	92	10	88	1	10.3	19	7.5	15	7.726	8	4.3	25	1.15	19	85.5	14	29.8	19	7.9	19
FM958LL	1266	9	41.2	10	5.1	4	84	25	60	20	11.8	8	8.5	5	6.797	21	4.8	7	1.19	6	86.1	6	35.3	3	8.2	12
PHY410R	1264	10	40.2	17	5.5	1	87	22	55	21	11.1	11	7.6	11	7.514	13	4.9	3	1.16	17	86.4	4	33.5	6	9.6	1
FM960BR	1248	11	40.6	14	4.9	6	96	6	55	21	11.8	6	8.2	6	6.927	19	4.5	18	1.16	12	85.6	11	37.7	2	8.3	8
ST4793R	1248	12	40.8	12	4.3	21	94	8	80	2	10.5	17	7.5	14	7.565	12	4.7	12	1.13	22	84.8	23	31.0	11	8.4	5
FM966LL	1239	13	41.3	7	5.0	5	99	2	46	24	12.8	1	9.1	2	6.154	23	4.6	13	1.19	6	86.4	5	40.3	1	8.2	12
DP424BGII/RR	1232	14	36.2	24	4.5	12	89	19	74	11	11	12	6.4	24	8.749	1	4.4	22	1.16	17	85.0	21	26.7	25	7.8	21
DP432RR	1185	15	41.4	6	3.6	25	88	21	73	13	10.5	16	7.6	12	7.078	17	5.0	2	1.16	12	85.7	9	30.6	14	8.4	5
DP451B/RR	1172	16	37.1	23	4.5	15	95	7	68	15	11.5	9	7	19	7.615	10	4.5	15	1.19	6	86.8	1	28.9	21	7.7	23
DP434RR	1170	17	41.2	11	4.4	16	90	14	75	10	10	21	7.2	17	7.424	15	4.5	15	1.20	4	84.9	22	27.3	24	8.2	12
DP555BG/RR	1168	18	43.7	1	4.1	22	100	1	41	25	8.8	25	7	18	7.571	11	4.6	13	1.17	10	84.8	23	30.2	16	7.2	25
ST5303R	1144	19	38.5	22	4.6	9	93	9	78	5	10.5	18	6.8	22	7.684	9	4.9	3	1.12	25	85.2	19	34.5	4	8.3	8
DP449BG/RR	1141	20	41.3	9	4.6	11	90	17	65	16	9.8	23	6.9	21	7.504	14	4.4	22	1.16	12	85.3	17	32.6	9	8.3	8
DP436RR	1100	21	35.0	25	4.5	12	91	13	76	7	11.2	10	6.1	25	8.186	4	4.5	18	1.17	10	85.8	8	28.1	22	8.3	8
FM989BR	1061	22	39.0	19	3.9	23	92	11	64	17	12	5	7.9	9	6.131	24	4.5	18	1.20	4	85.9	7	33.1	7	8.1	17
BCG28R	1057	23	40.5	15	3.7	24	92	12	70	14	10	22	7	20	6.874	20	4.9	3	1.18	9	85.4	15	29.7	20	7.6	24
BCG295	1054	24	38.9	21	4.5	12	98	4	61	18	12	4	8.2	7	5.871	25	4.5	18	1.23	1	86.5	3	30.4	15	7.8	22
BCG24R	1009	25	38.9	20	4.3	19	90	16	76	7	9.8	24	6.5	23	7.074	18	4.7	11	1.16	12	85.6	13	30.2	16	8.6	2
Mean	1231		40.2		4.5		9.2		68		11.0		7.6		7.392		4.6		1.17		85.5		31.5		8.2	
LSD 0.10	190		2.5		0.8		ns		9		0.6		0.6		1.160		0.3		0.04		1.0		2.0		0.4	
C.V.%	13.1		3.7		14.4		10.3		11.6		3.4		4.9		13.3		4.2		1.9		0.7		3.7		2.7	
R-sq x 100	55.4		78.4		46.5		43.1		79.1		94.1		90.9		50.8		73.0		76.0		71.0		93.8		89.7	

Table 7. Results of the 2004 Cotton Variety Test with irrigation on a Dundee silt loam soil at Clarkedale, Ark.

Variety	Lint		Lint		Stand	Ht.	r	Open		Seed		Lint		Seed		Fiber properties										
	yield	r	frac.	r				no./ft	cm	%	r	index	r	g	r	g	r	per a	r	Mic	r	Len.	r	Unif.	r	Str.
	lb/a		%					%		g		g		mil.					in.		%		g/tex		%	
ST4793R	1717	1	42.9	3	3.8	21	111	1	56	9	10.4	12	8.0	3	9.749	4	4.5	9	1.12	22	84.7	14	28.5	19	8.1	15
ST4646B2R	1664	2	39.8	19	4.2	13	103	6	55	13	11.1	5	7.5	19	10.060	3	4.7	1	1.13	18	83.7	23	31.1	9	8.6	1
PHY410R	1654	3	40.6	14	4.7	4	106	4	55	13	10.2	14	7.2	14	10.420	1	4.4	13	1.16	11	85.5	7	29.1	17	8.4	7
DP444BG/RR	1644	4	43.4	2	4.6	7	96	14	65	1	10.1	15	8.1	2	9.161	10	4.0	21	1.15	13	85.6	3	28.3	20	8.3	9
ST4892BR	1638	5	42.4	5	3.9	18	110	2	56	9	10.5	10	8.0	8	9.300	8	4.6	4	1.13	18	84.6	18	29.9	13	8.3	9
ST5599BR	1622	6	40.6	15	3.9	20	109	3	49	22	10.9	8	8.2	11	9.037	12	4.6	4	1.15	13	84.0	22	31.1	10	7.5	24
FM960BR	1614	7	40.8	12	6.0	1	94	17	46	24	10.3	13	7.2	15	10.180	2	4.1	19	1.15	16	84.0	20	36.3	1	8.0	16
FM958LL	1565	8	42.0	8	5.7	2	93	19	58	8	10.5	11	7.8	12	9.135	11	4.4	12	1.18	4	85.0	10	33.7	4	7.8	20
DP434RR	1560	9	41.8	10	4.5	9	100	8	61	5	9.8	18	7.5	9	9.561	6	3.7	25	1.20	1	86.2	1	28.2	21	7.7	22
ST5303R	1504	10	41.7	11	4.3	11	102	7	59	7	9.9	17	7.4	10	9.173	9	4.6	4	1.12	20	85.5	5	33.1	6	8.6	1
ST5242BR	1499	11	40.1	18	3.9	18	99	10	63	3	12.1	1	8.4	18	8.142	22	3.9	23	1.12	22	84.8	11	28.1	23	8.0	16
DP432RR	1477	12	41.8	9	3.7	22	93	20	56	9	9.0	22	6.9	4	9.709	5	4.6	3	1.11	24	84.6	17	29.7	14	8.6	1
FM966LL	1434	13	40.1	17	4.8	3	84	25	49	22	11.6	2	8.0	17	8.095	23	4.2	16	1.17	6	86.0	2	35.9	2	7.9	19
DP393	1432	14	42.0	7	3.7	22	97	11	63	3	9.5	19	7.3	6	8.896	15	4.1	20	1.17	5	85.4	9	30.0	11	8.5	5
FM989BR	1420	15	38.2	24	3.4	25	95	15	51	19	10.9	7	7.2	22	9.013	13	3.8	24	1.19	3	85.5	5	31.8	8	7.8	20
DP451B/RR	1369	16	38.8	23	4.4	10	105	5	55	13	11.3	3	7.4	23	8.438	21	4.6	4	1.16	11	84.8	11	27.0	24	8.1	13
DP424BGII/RR	1349	17	38.8	22	4.6	6	92	21	56	9	11.0	6	7.0	24	8.686	19	4.4	13	1.16	8	85.4	8	28.2	21	8.4	7
DP494RR	1342	18	42.2	6	3.6	24	96	13	51	19	9.1	20	7.0	7	8.752	17	4.6	8	1.17	6	84.6	15	33.6	5	8.5	5
DP555BG/RR	1338	19	45.0	1	4.1	15	99	9	46	24	7.8	25	6.8	1	8.985	14	4.2	16	1.15	13	83.6	25	29.5	15	7.4	25
DP449BG/RR	1305	20	42.7	4	4.7	4	90	22	55	13	8.7	24	6.7	5	8.844	16	4.7	1	1.12	20	84.0	20	31.8	7	8.2	11
BCG28R	1259	21	39.5	20	4.0	17	88	24	61	5	8.9	23	6.0	21	9.542	7	4.2	16	1.16	8	83.7	23	28.9	18	7.6	23
BCG24R	1245	22	40.5	16	4.1	14	95	16	54	18	9.1	21	6.5	13	8.732	18	4.5	9	1.13	17	84.8	11	30.0	11	8.6	1
PM1218BG/RR	1224	23	40.7	13	4.6	8	97	11	65	1	10.7	9	7.4	16	7.474	24	4.4	13	1.11	25	84.4	19	29.4	16	8.0	16
BCG295	1220	24	39.1	21	4.2	12	94	18	51	19	11.2	4	7.5	20	7.348	25	4.5	9	1.20	1	85.6	4	34.5	3	8.2	11
DP436RR	1138	25	35.4	25	4.0	16	89	23	55	13	10.0	16	6.0	25	8.576	20	4.0	22	1.16	8	84.6	15	26.8	25	8.1	13
Mean	1449		40.8		4.3		97		56		10.2		7.3		9.000		4.3		1.15		84.8		30.6		8.1	
LSD 0.10	245		2.2		0.7		12		8		0.7		0.7		ns		0.4		0.04		1.2		2.0		0.5	
C.V.%	14.4		3.2		13.0		10.8		11.9		4.0		5.2		14.8		6.1		2.0		0.8		3.9		3.4	
R-sq x 100	54.0		82.2		63.4		39.4		55.6		92.5		84.4		42.2		73.0		73.8		70.0		90.8		77.7	

Table 8. Results of the 2004 Cotton Variety Test with irrigation on a Calloway silt loam soil at Marianna, Ark.

Variety	Lint yield		Lint frac.		Stand no./ft	Ht. cm	Open bolls			Seed index		Lint index		Seed per a mil.		Fiber properties										
	lb/a	r	%	r			%	r	g	r	g	r	Mic	r	Len. in.	r	Unif. %	r	Str. g/tex	r	Elo. %	r				
ST5242BR	1625	1	41.0	13	3.2	7	98	21	68	5	11.9	1	8.4	1	8.776	17	4.2	18	1.12	22	83.9	24	28.6	23	8.3	9
DP434RR	1625	2	43.7	2	3.0	14	109	5	59	15	9.1	24	7.2	15	10.21	2	4.0	22	1.18	4	85.8	4	27.9	24	8.3	9
DP444BG/RR	1612	3	42.5	5	3.6	1	102	18	74	1	9.6	20	7.3	12	10.04	3	3.7	25	1.16	12	85.4	9	30.8	17	8.2	11
ST5599BR	1595	4	41.3	10	3.2	7	113	2	55	21	11	4	7.9	3	9.187	13	4.2	18	1.18	9	85.0	15	31.3	12	7.9	21
DP393	1538	5	43.6	3	2.9	22	102	17	63	11	10.5	12	8.3	2	8.459	22	4.6	5	1.20	1	86.3	1	31.3	13	8.7	3
ST4892BR	1538	6	43.1	4	3.4	2	108	8	69	3	10	18	7.8	5	9.008	16	4.4	12	1.11	24	84.4	20	31.2	14	8.6	4
DP432RR	1537	7	40.9	15	3.1	12	109	6	65	8	9.3	21	6.8	21	10.33	1	4.4	14	1.15	16	84.9	16	30.9	16	8.8	1
FM958LL	1532	8	40.1	19	3.0	14	89	25	69	3	10.6	9	7.3	10	9.487	9	4.1	21	1.17	10	84.7	19	35.3	3	7.8	22
FM989BR	1518	9	40.0	20	3.0	20	98	20	59	15	10.6	8	7.2	14	9.554	6	3.9	24	1.19	2	86.1	2	32.3	7	7.7	23
FM960BR	1512	10	41.1	12	3.1	11	96	23	56	19	10.7	7	7.6	6	9.061	14	4.3	17	1.14	20	85.3	11	37.0	1	8.1	14
PHY410R	1496	11	40.5	16	3.3	5	106	10	61	12	10.2	16	7.1	17	9.604	5	4.4	14	1.18	4	85.7	7	31.0	15	8.7	2
FM966LL	1489	12	42.1	8	3.0	14	106	12	54	22	10.2	15	7.5	7	9.029	15	4.0	22	1.17	11	85.9	3	35.7	2	7.6	24
ST4646B2R	1485	13	39.1	21	2.9	22	112	4	68	5	10.9	5	7.3	11	9.2	11	4.6	3	1.15	16	85.1	14	30.0	18	8.1	14
PM1218BG/RR	1484	14	40.2	18	3.3	4	103	14	73	2	10.3	13	7.1	16	9.524	7	4.6	5	1.12	22	84.1	22	29.8	19	8.1	14
ST4793R	1470	15	42.0	9	3.0	18	113	2	64	9	10.5	11	7.8	4	8.516	20	4.6	5	1.11	25	84.3	21	31.4	10	8.6	4
BCG24R	1439	16	42.4	6	2.6	24	106	11	60	14	9.2	22	6.9	19	9.508	8	4.5	9	1.14	19	85.2	12	29.3	21	8.6	4
BCG28R	1436	17	40.4	17	3.0	18	96	22	66	7	10.1	17	7	18	9.304	10	4.9	1	1.15	16	84.0	23	32.3	8	8.0	18
ST5303R	1395	18	41.2	11	3.0	14	108	7	64	9	10.5	10	7.5	8	8.472	21	4.4	12	1.13	21	85.4	10	34.5	4	8.5	7
DP449BG/RR	1378	19	40.9	14	3.2	9	100	19	50	25	9.1	23	6.4	24	9.84	4	4.4	14	1.15	15	84.8	17	34.5	5	8.2	11
DP494RR	1348	20	42.3	7	3.1	12	107	9	56	19	9.9	19	7.4	9	8.256	24	4.5	9	1.18	4	85.6	8	34.1	6	8.2	11
DP555BG/RR	1325	21	45.9	1	3.4	3	113	1	51	24	8.4	25	7.3	13	8.282	23	4.7	2	1.16	14	83.9	24	31.3	11	7.5	25
DP451B/RR	1309	22	37.6	23	2.9	21	104	13	59	15	11.1	3	6.8	20	8.693	18	4.6	3	1.18	4	85.8	4	29.3	20	8.0	18
DP436RR	1285	23	36.3	25	3.1	10	95	24	61	12	10.9	6	6.3	25	9.2	12	4.1	20	1.19	3	85.7	6	27.9	24	8.0	20
BCG295	1249	24	38.7	22	2.5	25	103	16	53	23	10.3	14	6.6	23	8.576	19	4.5	11	1.18	4	85.2	12	32.1	9	8.1	14
DP424BGII/RR	1193	25	36.7	24	3.3	5	103	15	58	18	11.2	2	6.6	22	8.184	25	4.6	5	1.16	13	84.8	17	28.7	22	8.4	8
Mean	1455		40.9		3.1		104		61		10.2		7.3		9.121		4.3		1.16		85.1		31.5		8.2	
LSD 0.10	131		2.4		0.4		8		9		1.1		0.9		0.817		0.2		0.03		1.0		2.9		0.5	
C.V.%	7.6		3.4		11.8		6.5		12.4		6.5		7.2		7.6		3.2		1.3		0.7		5.5		3.8	
R-sq x 100	62.9		83.4		41.0		68.9		58.8		75.5		71.3		54.7		88.9		87.0		76.7		80.6		73.0	

Table 9. Results of the 2004 Cotton Variety Test without irrigation on a Calloway silt loam soil at Marianna, Ark.

Variety	Lint		Lint		Stand	Ht.	r	Open		Seed		Lint		Seed		Fiber properties										
	yield	r	frac.	r				no./ft	cm	%	r	index	r	index	r	per a	r	Mic	r	Len.	r	Unif.	r	Str.	r	Elo.
	lb/a		%					%		g		g		mil.			in.		%		g/tex		%			
DP432RR	1184	1	39.9	17	3.7	1	113	10	64	7	9.2	21	6.4	23	8.436	1	4.6	10	1.10	19	83.3	23	31.1	14	8.7	3
ST5242BR	1159	2	40.7	11	3.2	9	108	19	68	4	11.2	1	7.9	4	6.707	8	4.4	20	1.10	20	83.3	24	28.6	24	8.0	17
DP393	1134	3	42.8	5	2.8	23	106	21	66	6	10.2	14	7.8	5	6.598	11	4.7	6	1.16	5	84.7	6	31.6	11	8.6	6
DP444BG/RR	1115	4	44.1	2	3.4	4	100	25	75	1	9.7	19	7.7	7	6.559	12	4.2	21	1.13	12	84.5	10	30.2	19	8.1	15
ST5599BR	1109	5	40.0	16	3.4	3	110	17	64	7	11	4	7.5	10	6.688	9	4.2	23	1.17	3	83.5	20	30.7	17	7.5	25
ST4892BR	1081	6	42.0	8	2.9	19	122	3	68	4	10.5	10	7.9	3	6.205	15	4.8	3	1.11	18	83.5	19	31.2	13	8.4	8
ST5303R	1076	7	39.6	20	3.3	7	115	8	60	11	10.1	15	6.8	18	7.189	4	4.5	17	1.11	17	84.7	8	35.9	2	8.7	2
DP434RR	1068	8	45.6	1	2.9	21	121	4	55	18	9.9	17	8.3	1	5.822	20	4.7	6	1.17	2	85.4	2	28.1	25	8.4	8
ST4793R	1065	9	42.3	7	2.8	22	117	6	69	3	10.6	8	8.1	2	5.971	17	4.9	1	1.08	24	83.1	25	30.6	18	8.5	7
FM958LL	1060	10	41.7	9	3.2	11	105	22	60	11	9.5	20	6.9	15	6.981	5	4.0	24	1.17	3	83.9	15	34.2	4	7.5	24
BCG28R	1046	11	40.4	13	2.6	25	108	20	60	11	9	23	6.3	24	7.523	2	4.4	19	1.16	5	84.1	13	29.6	21	7.6	23
PHY410R	1044	12	39.8	18	3.2	10	118	5	63	10	10	16	6.8	17	6.958	6	4.6	9	1.14	10	84.9	5	31.6	12	9.2	1
BCG24R	1014	13	42.5	6	3.0	16	113	10	56	15	8.9	24	6.8	19	6.815	7	4.8	3	1.09	22	83.4	21	30.9	15	8.7	3
DP449BG/RR	1005	14	40.0	15	3.3	6	105	22	56	15	9.2	22	6.3	25	7.287	3	4.6	10	1.16	5	85.1	4	35.2	3	8.4	8
PM1218BG/RR	989	15	39.3	21	3.5	2	111	16	70	2	11.2	2	7.6	9	5.931	19	4.8	2	1.07	25	83.4	21	31.9	9	8.3	12
DP424BGII/RR	976	16	38.2	23	3.3	7	111	14	53	20	10.5	11	6.7	20	6.63	10	4.6	14	1.09	21	84.3	11	30.7	16	8.7	3
FM989BR	968	17	40.9	10	2.9	19	109	18	58	14	10.9	5	7.8	6	5.676	22	4.6	10	1.12	14	83.7	17	34.1	5	7.9	20
ST4646B2R	965	18	39.3	22	3.1	13	124	2	64	7	10.8	7	7.2	14	6.088	16	4.5	17	1.13	12	84.7	6	30.2	19	8.4	8
DP494RR	962	19	43.6	4	3.0	15	105	24	50	22	9.8	18	7.7	8	5.672	23	4.7	6	1.13	11	84.6	9	32.3	8	8.0	17
FM960BR	941	20	40.6	12	3.4	5	113	9	41	25	10.4	13	7.3	12	5.82	21	4.6	10	1.09	22	84.1	14	33.0	7	8.1	14
DP451B/RR	924	21	37.6	24	2.9	18	116	7	55	18	10.6	9	6.5	22	6.46	13	4.2	21	1.15	9	84.3	12	29.2	23	8.0	17
DP436RR	922	22	37.6	25	2.8	24	112	13	56	15	10.5	12	6.6	21	6.375	14	4.5	15	1.12	15	83.9	15	29.5	22	8.2	13
DP555BG/RR	906	23	43.7	3	3.1	12	126	1	44	24	8.3	25	6.9	16	5.95	18	4.5	15	1.12	15	83.6	18	31.7	10	7.7	21
BCG295	862	24	40.3	14	2.9	17	113	12	48	23	11	3	7.5	11	5.208	25	4.8	3	1.18	1	85.2	3	33.6	6	8.1	15
FM966LL	851	25	39.6	19	3.0	14	111	14	53	20	10.8	6	7.3	13	5.293	24	3.9	25	1.16	5	85.5	1	37.4	1	7.6	22
Mean	1017		40.9		3.1		113		59		10.2		7.2		6.434		4.5		1.13		84.2		31.7		8.2	
LSD 0.10	167		1.7		ns		ns		11		1.0		0.9		1.030		ns		0.04		1.1		4.1		0.4	
C.V.%	14.0		2.9		14.4		9.5		15.4		5.8		7.2		13.6		7.1		2.3		0.8		7.6		3.1	
R-sq x 100	51.3		85.9		37.9		60.7		78.4		78.3		73.2		59.8		58.2		75.5		71.8		64.7		86.4	

Table 10. Results of the 2004 Cotton Variety Test with irrigation on a Desha silt loam at Rohwer, Ark.

Variety	Lint yield		Lint frac.		Stand no./ft	Ht. cm	Open bolls			Seed index			Lint index			Seed per a mil.			Fiber properties							
	lb/a	r	%	r			%	r	%	r	g	r	g	r	g	r	Mic	r	Len. in.	r	Unif. %	r	Str. g/tex	r	Elo. %	r
ST5242BR	1586	1	39.4	13	2.5	25	140	2	60	14	12.1	1	7.9	2	9.096	6	4.2	22	1.14	19	85.3	14	27.6	24	7.7	17
DP444BG/RR	1537	2	42.0	2	4.2	1	133	8	61	7	10.6	15	7.8	3	8.973	8	4.2	23	1.18	7	85.5	8	31.2	13	7.9	11
DP434RR	1533	3	41.8	3	2.6	24	125	19	63	6	9.8	21	7.1	11	9.778	2	4.1	24	1.23	1	86.3	1	27.8	23	7.7	17
ST5599BR	1518	4	39.1	15	3.2	15	137	4	58	21	11.1	9	7.2	8	9.523	3	4.4	18	1.17	11	84.8	22	33.9	4	7.7	14
DP432RR	1509	5	40.1	9	3.4	8	137	5	60	14	9.8	22	6.6	16	10.34	1	4.5	17	1.15	16	85.5	8	29.7	17	8.0	8
ST4892BR	1393	6	41.0	5	3.4	10	133	8	64	5	10.7	14	7.6	4	8.362	15	4.6	12	1.14	19	85.2	16	31.3	12	8.3	3
FM966LL	1389	7	39.0	16	3.3	13	126	17	59	19	11	12	7.2	9	8.802	10	4.3	20	1.13	22	84.9	21	35.6	2	7.5	23
ST4793R	1384	8	41.6	4	3.0	19	139	3	60	14	11.8	4	8.4	1	7.466	22	5.0	1	1.15	16	85.0	20	30.3	14	8.1	5
DP393	1364	9	40.4	7	3.3	11	125	21	61	7	10.7	13	7.5	6	8.282	17	4.7	9	1.17	9	85.3	13	32.8	7	8.4	2
DP451B/RR	1353	10	35.6	23	3.3	12	134	7	65	3	11.6	5	6.6	17	9.316	5	4.8	3	1.19	6	85.8	6	29.0	20	7.6	21
DP424BGII/RR	1334	11	38.2	17	3.9	5	129	13	61	7	11.2	7	6.9	13	8.728	11	4.8	7	1.15	16	85.3	14	29.0	19	8.0	8
PM1218BG/RR	1330	12	39.6	12	3.4	9	128	15	60	14	11.4	6	7.6	5	7.976	19	4.8	7	1.11	25	85.1	17	28.3	22	7.8	12
DP436RR	1314	13	34.9	25	2.9	21	122	23	70	1	11.1	8	6.4	24	9.385	4	4.5	14	1.18	7	86.0	5	27.4	25	7.7	17
ST4646B2R	1293	14	37.9	18	3.5	7	131	11	65	3	11	11	6.9	14	8.48	13	4.8	3	1.15	14	84.7	23	29.1	18	7.8	12
BCG24R	1262	15	40.6	6	2.9	22	126	18	69	2	9.2	24	6.5	20	8.871	9	4.8	6	1.15	15	85.4	11	29.9	16	8.1	5
BCG28R	1237	16	39.6	11	3.0	18	121	24	61	7	9.2	23	6.2	25	9.041	7	4.8	3	1.16	13	85.1	18	30.2	15	7.5	23
ST5303R	1210	17	37.4	20	3.6	6	140	1	61	7	10.5	18	6.4	23	8.581	12	4.4	18	1.12	23	85.1	18	32.8	7	8.1	5
FM958LL	1207	18	40.3	8	3.9	4	117	25	61	7	10.5	17	7.1	10	7.658	20	4.7	11	1.20	5	86.1	3	33.2	6	7.7	14
PHY410R	1188	19	36.9	22	3.2	14	124	22	60	14	10.5	19	6.4	22	8.408	14	4.9	2	1.14	21	85.4	11	31.9	10	8.8	1
DP555BG/RR	1173	20	42.7	1	3.1	17	129	14	55	22	8.4	25	6.4	21	8.291	16	4.5	14	1.17	9	84.2	24	28.7	21	7.0	25
DP449BG/RR	1172	21	39.8	10	4.0	3	128	15	59	19	9.8	20	6.6	18	8.078	18	4.6	12	1.17	11	85.6	7	32.2	9	7.7	14
FM989BR	1145	22	35.5	24	2.8	23	132	10	61	7	12.1	2	6.8	15	7.617	21	4.3	20	1.21	4	85.5	10	33.6	5	7.7	17
FM960BR	1143	23	37.6	19	4.1	2	125	19	51	23	11.8	3	7.3	7	7.11	24	4.7	9	1.12	24	83.6	25	37.9	1	8.0	8
DP494RR	1063	24	39.2	14	3.0	19	136	6	45	25	10.6	16	7	12	6.906	25	4.5	14	1.23	1	86.1	2	34.3	3	8.2	4
BCG295	1055	25	37.0	21	3.2	15	130	12	51	23	11.1	10	6.6	19	7.276	23	4.1	24	1.22	3	86.1	3	31.9	11	7.5	22
Mean	1312		39.1		3.3		130		60		10.7		7.0		8.489		4.5		1.16		85.3		31.2		7.8	
LSD 0.10	229		2.2		0.9		ns		ns		0.9		0.8		1.472		0.4		0.03		ns		2.3		0.5	
C.V.%	13.5		3.3		22.4		8.1		16.3		4.7		6.3		13.4		5.1		1.6		1.0		4.3		3.6	
R-sq x 100	53.2		84.3		42.4		37.4		41.7		87.2		77.1		48.7		72.1		86.1		51.2		89.1		76.4	

Table 11. Results of the 2004 Cotton Variety Test with irrigation on a Routon-Dundee-Crevasse complex soil at Manila, Ark.¹

Variety	Lint yield		Lint frac.		Stand no./ft	Ht. cm	Open bolls		Seed index		Lint index		Seed per a mil.		Fiber properties										
	lb/a	r	%	r			%	r	r	g	r	g	r	mil.	r	Mic	r	Len. in.	r	Unif. %	r	Str. g/tex	r	Elo. %	r
DP444BG/RR	1199	1	43.5	3	4.1	18	81	11	.	9.7	20	7.6	3	6.960	1	4.3	19	1.15	16	85.8	8	31.2	11	8.3	10
DP434RR	1179	2	43.8	2	4.3	14	83	9	.	10.0	18	7.8	2	6.694	2	4.5	10	1.22	2	87.2	2	27.4	23	8.2	15
ST5242BR	1087	3	42.9	6	4.3	14	77	17	.	11.4	3	8.6	6	6.252	6	4.4	15	1.13	19	84.7	23	29.3	20	8.3	10
ST4793R	1053	4	42.4	7	4.6	7	86	4	.	10.2	11	7.6	7	6.313	4	4.4	13	1.12	23	84.1	25	31.5	10	8.5	5
ST4892BR	1051	5	43.3	4	4.5	8	76	20	.	10.1	13	7.8	4	6.041	12	5.0	1	1.12	23	84.9	20	31.1	12	8.5	5
PM1218BG/RR	1049	6	41.9	13	4.9	3	84	5	.	11.2	5	8.2	13	6.296	5	4.6	7	1.13	21	85.3	16	30.7	14	8.3	10
DP432RR	1022	7	42.1	12	4.4	12	84	6	.	9.1	22	6.7	10	6.137	8	4.5	8	1.16	13	85.3	17	30.2	17	8.9	1
FM960BR	991	8	41.1	14	5.0	1	78	16	.	10.5	10	7.4	15	6.198	7	4.2	24	1.13	21	84.6	24	35.9	1	8.0	19
ST5303R	975	9	40.8	16	4.5	8	90	2	.	10.0	17	7.0	16	6.133	9	4.7	5	1.10	25	85.4	14	33.1	6	8.6	4
ST4646B2R	956	10	40.6	18	4.2	17	84	6	.	10.2	12	7.0	19	6.448	3	4.3	19	1.16	15	84.8	22	30.5	15	8.2	15
BCG28R	951	11	42.4	8	3.7	24	71	24	.	8.8	23	6.6	8	5.711	16	4.9	2	1.15	17	85.2	18	29.5	19	7.8	23
ST5599BR	931	12	42.3	9	4.0	22	87	3	.	10.6	8	7.8	11	5.494	19	4.5	12	1.18	9	85.8	7	32.6	7	8.2	15
PHY410R	930	13	40.7	17	4.8	6	81	12	.	10.1	15	6.9	18	6.024	13	4.3	18	1.16	14	85.6	11	27.9	22	8.4	7
DP555BG/RR	913	14	46.6	1	4.1	20	73	23	.	8.5	24	7.5	1	4.735	23	4.7	3	1.17	11	85.0	19	30.5	15	7.6	25
BCG295	910	15	39.4	22	4.0	22	84	8	.	11.3	4	7.4	21	6.084	11	4.5	8	1.21	3	85.6	10	32.0	9	8.4	7
FM958LL	878	16	42.2	10	4.8	5	77	18	.	10.5	9	7.8	9	5.311	21	4.5	10	1.20	4	86.5	4	34.4	4	7.7	24
DP449BG/RR	877	17	40.0	20	4.4	10	69	25	.	9.3	21	6.4	20	5.858	15	4.4	13	1.18	9	85.8	8	31.0	13	7.9	21
BCG24R	873	18	42.2	11	4.4	13	82	10	.	8.3	25	6.0	12	5.435	20	4.4	15	1.13	19	84.9	21	30.1	18	8.7	3
DP424BGII/RR	854	19	38.4	24	4.1	19	77	19	.	10.1	14	6.4	24	6.092	10	4.7	5	1.14	18	85.5	13	27.9	21	8.3	10
DP436RR	813	20	37.3	25	4.9	4	79	14	.	11.0	6	6.6	25	5.914	14	4.4	15	1.19	6	85.9	6	26.9	24	8.3	10
FM966LL	805	21	39.4	21	5.0	2	76	21	.	11.8	1	7.7	22	5.504	18	3.9	25	1.20	4	86.6	3	35.7	2	8.1	18
DP451B/RR	799	22	38.6	23	4.2	16	80	13	.	10.8	7	6.9	23	5.560	17	4.3	19	1.17	11	86.1	5	26.8	25	7.9	21
FM989BR	758	23	40.4	19	3.4	25	78	15	.	11.8	2	8.2	17	4.818	22	4.2	23	1.19	6	85.4	14	35.4	3	8.0	19
DP393	725	24	40.8	15	4.4	11	76	21	.	10.0	16	7.2	14	4.553	24	4.3	19	1.23	1	87.2	1	32.5	8	8.8	2
DP494RR	660	25	43.2	5	4.1	21	92	1	.	9.8	19	7.5	5	3.894	25	4.7	3	1.19	6	85.5	12	33.9	5	8.4	7
Mean	929		41.5		4.4		80		.	10.2		7.3		5.779		4.4		1.16		85.5		31.1		8.2	
LSD 0.10	214		1.2		0.7		ns		.	1.1		0.8		ns		0.4		0.03		1.0		2.3		0.5	
C.V.%	19.4		1.7		13.0		14.4		.	6.2		6.1		20.1		5.1		1.4		7.0		4.2		3.4	
R-sq x 100	46.4		94.2		43.5		24.5		.	81.6		80.7		38.2		71.1		90.5		76.8		89.2		73.8	

^{1/} Glyphosate drift soon after emergence gave advantage to Round-up Ready entries, data were excluded from over location analysis.

Table 12. Results of the 2004 1st-year Cotton Variety Test across six Arkansas test sites (Manila site excluded).

Variety	Lint		Lint		Stand	r	Ht.	r	Open		Seed		Lint		Seed		Fiber properties									
	yield	r	frac.	r					no./ft	cm	%	r	index	r	g	r	g	r	per a	r	Mic	r	Len.	r	Unif.	r
	lb/a		%						%		g		g		mil.				in.		%		g/tex		%	
DX25105N	1552	1	42.4	2	3.5	19	101	27	71	1	10.6	10	8.0	2	8.804	7	4.6	2	1.17	21	84.8	27	29.9	26	8.3	12
Ark9203-03-20	1545	2	41.3	9	3.6	14	117	5	66	6	10.2	19	7.4	14	9.468	1	4.2	24	1.17	20	85.3	15	31.9	16	7.9	21
ST4892BR,ck	1527	3	41.5	6	3.6	13	111	13	69	2	10.7	8	7.8	5	8.925	5	4.6	7	1.13	27	84.8	25	30.9	20	8.3	11
DP445BG/RR	1451	4	41.7	5	3.6	16	105	21	63	12	10.2	20	7.5	9	8.796	8	4.5	11	1.18	12	85.7	8	31.9	17	8.5	7
ST4686R	1431	5	40.9	11	3.6	17	105	22	63	11	10.5	12	7.4	12	8.777	9	4.4	14	1.18	15	84.8	26	29.6	27	7.9	20
DP444BG/RR,ck	1427	6	41.3	8	3.9	3	113	9	68	3	10.4	16	7.5	10	8.661	10	4.1	27	1.17	17	85.7	6	30.5	23	8.0	17
FM960RR	1427	7	40.4	13	3.5	20	101	26	55	22	11.9	1	8.2	1	7.934	21	3.9	29	1.19	10	85.7	9	33.8	6	7.5	28
DP455BG/RR	1407	8	42.0	4	3.7	12	109	15	58	16	9.4	29	7.0	19	9.092	3	4.0	28	1.20	5	85.3	16	32.8	9	7.6	25
ST4575BR	1394	9	40.0	16	3.6	18	117	4	63	13	10.1	23	6.9	21	9.111	2	4.3	16	1.16	24	85.2	17	30.6	21	8.9	1
PHY310R	1394	10	42.6	1	3.8	8	112	11	64	8	10.4	15	8.0	3	7.989	20	4.6	6	1.13	28	85.1	20	32.3	15	8.6	3
FM960BR,ck.	1376	11	40.4	14	3.8	5	103	25	57	19	11.1	5	7.7	6	8.122	17	4.4	15	1.15	25	85.2	18	36.7	1	8.1	16
Ark9202-24-13	1376	12	42.3	3	3.8	9	115	8	62	14	9.9	25	7.4	15	8.454	13	4.2	22	1.18	16	85.1	20	30.2	25	7.7	24
Ark9203-17-12	1366	13	40.1	15	3.6	15	115	7	68	5	11.0	6	7.5	11	8.291	14	4.4	12	1.20	6	86.2	3	35.0	3	7.9	22
DX241203	1340	14	40.9	12	3.3	25	106	20	57	18	10.5	13	7.4	13	8.197	16	4.3	19	1.22	2	86.4	2	33.1	8	8.3	10
ST3636B2R	1337	15	39.3	22	3.2	28	109	16	68	3	10.7	7	7.1	17	8.561	11	4.3	18	1.17	18	84.6	28	29.6	28	7.6	27
Ark9208-05-01	1256	16	39.7	17	3.4	23	109	14	64	8	11.2	4	7.6	8	7.512	25	4.5	8	1.22	1	86.5	1	32.8	10	8.5	6
DPLX-02T57R	1255	17	39.2	23	3.9	2	105	23	65	7	10.7	9	7.0	20	8.235	15	4.3	17	1.14	26	84.6	29	30.3	24	8.6	2
BCG-P0304B2/R	1245	18	37.8	27	3.2	27	111	12	58	17	10.1	24	6.2	28	9.042	4	4.2	21	1.18	14	85.1	19	28.4	29	7.2	29
FM960B2R	1211	19	39.5	19	3.8	6	99	29	48	26	11.9	2	8.0	4	6.993	29	4.6	3	1.21	4	85.6	11	34.8	4	7.6	25
CS37	1208	20	39.3	21	4.0	1	117	6	54	23	9.8	26	6.5	24	8.549	12	4.2	22	1.18	13	85.4	14	31.0	19	7.9	19
ST6636BR	1192	21	39.0	24	3.4	24	125	2	45	29	10.2	18	6.7	22	8.095	18	4.5	9	1.19	9	85.9	5	34.0	5	8.1	15
CS38	1176	22	39.5	20	3.7	11	134	1	50	25	11.4	3	7.7	7	7.029	28	4.3	20	1.20	7	85.5	12	32.5	13	8.1	14
DP488BG/RR	1148	23	41.1	10	3.5	21	107	18	47	27	10.3	17	7.4	16	7.126	26	4.5	10	1.21	3	85.7	6	32.8	11	8.2	13
DP543BGII/RR	1140	24	39.7	18	3.7	10	104	24	50	24	9.7	27	6.5	25	7.927	22	4.8	1	1.16	22	84.9	24	32.6	12	7.9	23
BCG-P0104B2/R	1136	25	35.9	29	3.1	29	100	28	64	10	10.1	22	5.8	29	8.887	6	4.4	13	1.13	28	85.1	22	32.4	14	8.6	4
CS40	1129	26	37.9	26	3.8	7	112	10	56	20	10.2	21	6.3	27	8.086	19	4.1	25	1.19	8	85.4	13	33.2	7	7.9	18
CS39	1091	27	41.3	7	3.8	4	108	17	56	21	9.6	28	7.0	18	7.044	27	4.1	26	1.16	23	85.6	10	30.5	22	8.4	8
ST6848R	1084	28	38.8	25	3.4	22	124	3	45	28	10.5	14	6.6	23	7.619	24	4.6	3	1.18	11	86.1	4	36.0	2	8.5	5
ST5454B2R	1083	29	37.1	28	3.3	26	107	19	60	15	10.5	11	6.3	26	7.743	23	4.6	5	1.17	19	85.0	23	31.8	18	8.4	9
Mean	1300		40.1		3.6		110		59.0		10.5		7.2		8.242		4.3		1.18		85.4		32.1		8.1	
Var. LSD 0.10	88		0.9		0.2		7		4.0		0.4		0.4		0.554		0.2		0.01		0.5		0.9		0.2	
Loc. LSD0.10	40		0.4		0.1		3		2		0.2		0.2		0.355		ns		0.01		0.2		ns		ns	
C.V.%	14.2		3.5		14.0		13.5		14.6		5.1		7.3		14.0		5.9		1.7		0.9		4.1		3.4	
R-sq x 100	75.1		81.9		71.7		63.7		71.4		82.9		79.6		73.7		76.9		85.1		68.6		85.5		84.3	
Prob (var x loc)	<.001		0.22		0.14		0.13		<.001		0.36		0.37		<.001		0.04		0.29		0.95		0.44		0.39	

Table 13. Results of the 2004 1st-year Cotton Variety Test with irrigation on a Tunica silty clay soil at Keiser, Ark.

Variety	Lint		Lint		Stand	r	Ht.	r	Open		Seed		Lint		Seed		Fiber properties									
	yield	r	frac.	r					no./ft	cm	%	r	index	r	index	r	per a	r	Mic	r	Len.	r	Unif.	r	Str.	r
	lb/a		%						%		g		g		mil.		in.		%		g/tex		%			
DX25105N	1827	1	42.5	1	4.6	7	107	23	65	3	11.1	15	8.4	3	9.891	1	4.8	1	1.18	16	85.6	17	30.8	20	8.1	16
ST4892BR,ck	1640	2	41.1	9	4.6	8	108	22	66	1	10.9	17	7.8	10	9.529	2	4.7	4	1.15	27	84.7	25	30.2	24	8.2	14
DX241203	1502	3	41.4	5	4.0	22	109	20	50	12	11.0	16	7.8	11	8.757	8	4.2	23	1.25	2	86.9	2	32.0	11	8.4	9
DP445BG/RR	1488	4	42.1	2	4.3	15	106	25	55	6	10.7	20	8.0	8	8.407	10	4.8	1	1.19	12	85.7	12	31.7	13	8.4	9
FM960RR	1465	5	40.9	12	4.4	13	109	21	39	24	13.0	1	9.1	1	7.330	19	4.1	25	1.20	9	86.1	5	33.4	6	7.5	28
ST3636B2R	1456	6	40.3	14	3.7	27	105	27	66	1	12.3	3	8.4	2	7.853	13	4.7	8	1.18	18	84.6	27	29.1	28	7.6	27
Ark9203-03-20	1415	7	39.2	18	4.1	19	113	14	53	8	10.2	26	6.9	22	9.375	4	4.0	27	1.17	20	85.0	21	31.0	18	7.9	21
DP455BG/RR	1413	8	41.2	8	4.5	10	99	29	53	8	9.4	29	6.8	24	9.453	3	4.1	26	1.21	6	85.6	15	33.7	5	7.8	23
Ark9202-24-13	1403	9	41.8	3	4.3	16	118	6	44	22	10.4	23	7.6	13	8.350	11	4.2	23	1.19	13	84.7	25	29.8	26	7.9	21
ST4686R	1393	10	40.9	10	4.4	12	105	26	50	12	10.6	21	7.4	15	8.526	9	4.2	21	1.18	16	84.5	28	29.2	27	7.7	26
FM960BR,ck.	1385	11	40.8	13	5.2	2	112	17	48	14	11.7	4	8.2	6	7.697	15	4.5	14	1.16	24	85.6	15	38.2	1	8.3	12
ST4575BR	1311	12	39.0	20	4.0	23	184	1	51	11	10.8	19	7.2	17	8.208	12	4.4	18	1.17	20	86.0	6	30.7	21	9.0	2
DP444BG/RR,ck	1300	13	41.3	7	4.8	5	114	11	60	5	11.2	11	8.1	7	7.312	21	4.4	19	1.16	25	85.7	13	29.9	25	8.5	7
CS40	1267	14	38.8	22	4.3	16	113	13	45	20	10.2	25	6.5	27	8.855	7	3.9	29	1.18	18	85.0	21	31.4	15	8.1	16
BCG-P0304B2/R	1242	15	37.8	25	3.8	26	116	7	46	18	10.2	27	6.3	28	8.936	5	4.0	27	1.20	9	85.5	18	27.6	29	7.2	29
CS37	1213	16	39.1	19	5.2	3	118	5	46	18	10.9	18	7.2	18	7.636	17	4.5	14	1.20	9	85.9	9	30.9	19	8.0	18
Ark9208-05-01	1210	17	38.8	21	3.9	24	110	19	48	14	11.6	5	7.6	14	7.246	22	4.8	1	1.25	1	87.0	1	33.1	7	8.9	3
PHY310R	1197	18	41.5	4	4.7	6	114	12	54	7	11.3	8	8.3	4	6.574	27	4.5	14	1.13	29	84.7	24	31.2	17	8.5	7
Ark9203-17-12	1186	19	40.0	15	4.4	13	115	9	64	4	11.4	7	7.7	12	6.996	23	4.6	11	1.21	8	85.9	11	34.8	4	8.0	18
CS38	1184	20	38.7	23	4.1	18	123	4	34	27	11.5	6	7.3	16	7.322	20	4.6	12	1.22	4	86.0	6	32.6	8	8.6	5
FM960B2R	1166	21	39.2	17	4.6	8	103	28	41	23	12.5	2	8.2	5	6.474	28	4.7	8	1.24	3	86.3	3	35.1	3	7.8	25
DPLX-02T57R	1161	22	37.6	26	5.3	1	107	24	53	8	11.1	14	6.7	25	7.822	14	4.5	14	1.16	25	84.3	29	31.3	16	9.1	1
BCG-P0104B2/R	1147	23	35.2	29	3.5	29	110	18	45	20	10.5	22	5.9	29	8.872	6	4.7	4	1.15	27	85.9	10	31.6	14	8.7	4
ST5454B2R	1124	24	36.5	28	4.1	19	113	15	48	14	11.3	9	6.6	26	7.694	16	4.6	13	1.17	20	85.0	23	30.5	23	8.3	12
DP488BG/RR	1104	25	41.3	6	4.1	21	113	16	31	29	11.2	10	8.0	9	6.240	29	4.7	8	1.22	4	85.7	13	32.3	9	8.2	14
DP543BGII/RR	1093	26	40.9	11	4.9	4	115	10	36	25	10.1	28	7.2	19	6.918	24	4.7	4	1.19	13	86.0	6	32.0	11	7.8	23
ST6636BR	1086	27	37.2	27	3.5	28	127	3	34	27	11.1	13	6.8	23	7.334	18	4.2	21	1.19	13	85.1	20	32.1	10	8.0	18
CS39	1030	28	39.9	16	4.4	11	115	8	48	14	10.3	24	7.1	20	6.577	26	4.2	20	1.17	23	85.3	19	30.6	22	8.4	9
ST6848R	1022	29	38.2	24	3.9	25	131	2	36	25	11.2	12	7.1	21	6.624	25	4.7	4	1.21	6	86.2	4	35.3	2	8.6	6
Mean	1291		39.8		4.3		115		48		11.0		7.5		7.890		4.4		1.19		85.5		31.8		8.2	
LSD 0.10	211		2.3		0.6		ns		11		1.2		1.0		1.287		0.3		0.03		ns		1.8		0.5	
C.V.%	13.9		3.4		11.9		25.7		20.1		6.4		7.6		13.9		4.6		1.4		1.0		3.3		3.6	
R-sq x 100	67.2		79.1		57.5		29.0		63.4		71.3		79.2		63.7		85.0		86.9		55.4		89.7		82.3	

Table 14. Results of the 2004 1st-year Cotton Variety Test without irrigation on a Tunica silty clay soil at Keiser, Ark.

Variety	Lint		Lint		Stand	r	Ht.	r	Open		Seed		Lint		Seed		Fiber properties									
	yield	r	frac.	r					no./ft	cm	%	r	index	r	index	r	per a	r	Mic	r	Len.	r	Unif.	r	Str.	r
	lb/a		%						%		g		g		mil.		in.		%		g/tex		%			
DX25105N	1510	1	41.8	1	4.2	15	87	23	74	8	11.6	7	8.6	4	7.971	5	4.9	3	1.20	12	85.6	19	30.4	23	8.5	4
ST4892BR,ck	1392	2	40.7	5	4.2	15	89	20	85	1	11.3	9	8.0	8	7.872	7	4.6	8	1.14	29	85.7	17	30.4	23	8.3	11
Ark9203-03-20	1344	3	40.6	7	4.7	3	103	3	64	19	10.8	14	7.6	11	8.020	4	4.0	25	1.18	21	85.5	21	30.5	22	7.9	23
DX241203	1343	4	40.4	10	4.1	20	103	4	66	17	11.2	10	7.8	10	7.795	10	4.1	19	1.24	2	87.6	1	31.8	12	8.2	13
Ark9202-24-13	1313	5	40.5	8	4.2	18	96	7	70	14	10.4	22	7.3	15	8.220	2	3.8	29	1.19	17	86.4	7	29.7	26	8.1	17
DP445BG/RR	1288	6	40.2	15	4.7	5	86	25	84	2	10.1	26	6.9	20	8.495	1	4.1	21	1.22	4	86.2	10	31.2	19	8.5	4
FM960RR	1282	7	41.2	2	4.0	23	93	14	59	22	12.5	3	9.0	1	6.503	22	4.0	26	1.22	7	86.3	9	34.5	6	7.6	28
PHY310R	1276	8	40.4	11	4.6	6	96	8	73	10	10.6	19	7.4	12	7.839	9	4.1	21	1.19	15	86.1	12	31.6	14	8.2	13
ST4686R	1265	9	40.5	9	4.2	18	88	22	73	10	11.5	8	8.0	9	7.214	15	4.6	10	1.20	12	85.9	14	31.3	18	8.0	21
ST4575BR	1221	10	39.3	18	4.3	13	73	29	81	4	10.6	21	7.0	18	7.904	6	4.6	10	1.16	25	85.4	23	31.1	20	8.8	3
FM960BR,ck.	1215	11	40.9	3	4.3	14	90	18	60	21	11.7	5	8.2	6	6.747	19	4.3	15	1.16	26	85.6	20	36.8	1	8.4	9
DP455BG/RR	1170	12	40.2	14	4.1	20	95	11	64	19	10.6	18	7.4	13	7.157	16	4.1	21	1.22	4	85.9	13	31.0	21	7.7	27
ST5454B2R	1123	13	37.9	23	3.8	26	87	23	78	6	10.6	19	6.5	24	7.868	8	4.7	6	1.21	9	86.1	11	33.2	8	8.5	4
ST3636B2R	1118	14	39.0	20	3.7	27	78	28	83	3	10.2	25	6.8	21	7.453	13	4.7	7	1.18	21	84.4	29	29.9	25	7.7	26
FM960B2R	1111	15	40.7	4	4.8	1	84	27	56	25	12.7	1	8.9	2	5.641	27	4.9	2	1.21	9	85.8	16	36.1	2	8.1	17
BCG-P0304B2/R	1108	16	37.9	24	3.6	29	101	5	68	16	9.9	27	6.2	26	8.124	3	4.2	17	1.19	17	84.9	28	28.8	29	7.2	29
DPLX-02T57R	1104	17	38.3	22	4.7	2	95	9	74	8	11.1	11	7.1	17	7.085	17	4.2	17	1.15	28	85.3	26	29.4	27	8.8	2
CS37	1086	18	39.6	17	4.6	6	105	2	65	18	9.6	29	6.4	25	7.758	11	4.1	21	1.19	15	85.5	21	31.6	14	8.2	13
CS38	1081	19	40.3	12	4.5	10	95	9	51	27	12.5	4	8.8	3	5.640	28	4.5	13	1.19	17	85.4	24	31.4	16	8.4	9
DP488BG/RR	1075	20	40.2	13	4.5	8	93	13	51	27	11.6	6	8.1	7	6.035	24	4.8	4	1.25	1	86.7	3	32.7	11	8.1	17
DP444BG/RR,ck	1060	21	39.9	16	4.7	3	89	21	79	5	10.8	15	7.3	14	6.565	21	4.3	16	1.19	17	86.6	4	28.8	28	7.9	25
Ark9208-05-01	1038	22	39.0	21	3.7	28	91	16	71	13	12.6	2	8.3	5	5.666	26	4.6	10	1.23	3	86.4	6	32.9	10	8.5	4
CS40	992	23	37.2	25	4.5	11	94	12	59	22	10.2	24	6.1	27	7.347	14	3.9	28	1.20	11	85.8	15	33.1	9	8.1	17
Ark9203-17-12	992	24	39.1	19	4.4	12	92	15	73	10	11.0	12	7.1	16	6.336	23	4.6	8	1.22	7	86.9	2	35.4	3	7.9	23
ST6636BR	965	25	37.1	26	4.2	15	99	6	53	26	10.8	16	6.6	22	6.601	20	4.8	4	1.22	4	86.6	4	35.3	4	8.3	11
DP543BGII/RR	958	26	33.6	29	4.5	9	91	16	49	29	10.2	23	5.8	29	7.531	12	5.1	1	1.18	24	85.1	27	33.8	7	8.0	21
BCG-P0104B2/R	936	27	35.4	28	3.8	25	85	26	75	7	10.7	17	6.1	28	7.013	18	4.1	19	1.15	27	85.4	24	31.6	13	8.5	4
CS39	868	28	40.7	6	4.0	22	89	19	70	14	9.7	28	6.9	19	5.691	25	3.9	27	1.18	23	86.4	8	31.3	17	8.9	1
ST6848R	803	29	36.5	27	3.9	24	105	1	58	24	11.0	13	6.5	23	5.582	29	4.5	13	1.20	12	85.7	18	35.2	5	8.2	13
Mean	1139		39.3		4.2		92		68		11.0		7.3		7.092		4.4		1.19		85.9		32.1		8.2	
LSD 0.10	183		3.2		0.6		13		11		1.0		1.2		1.132		0.5		0.03		1.2		2.1		0.5	
C.V.%	13.6		4.8		11.8		11.9		13.9		5.2		9.5		13.6		6.7		1.6		0.8		3.8		3.5	
R-sq x 100	73.5		67.0		42.2		58.1		68.1		82.6		77.7		71.1		76.1		82.8		64.8		87.3		79.7	

Table 15. Results of the 2004 1st-year Cotton Variety Test with irrigation on a Dundee silt loam soil at Clarkedale, Ark.

Variety	Lint		Lint		Stand	r	Ht.	r	Open		Seed		Lint		Seed		Fiber properties									
	yield	r	frac.	r					no./ft	cm	%	r	index	r	g	r	index	r	per a	r	Mic	r	Len.	r	Unif.	r
	lb/a		%						%		g		g		mil.				in.		%		g/tex		%	
ST4892BR,ck	1777	1	42.7	4	4.0	13	105	10	58	8	10.9	3	8.2	1	9.846	8	4.5	4	1.15	27	85.3	17	29.7	22	8.6	4
DX25105N	1693	2	42.6	5	4.0	12	94	23	68	1	10.5	7	8.0	3	9.643	13	4.3	14	1.17	22	84.9	26	26.9	29	8.0	17
DP444BG/RR,ck	1689	3	42.6	6	4.4	2	108	5	56	10	9.8	19	7.5	12	10.270	3	3.7	27	1.18	17	85.5	13	31.4	15	8.1	13
DP455BG/RR	1688	4	43.8	2	4.0	14	108	5	53	20	9.1	29	7.2	15	10.600	2	3.9	26	1.22	3	85.2	21	30.9	17	7.5	25
Ark9203-17-12	1600	5	41.1	13	3.8	20	108	7	58	8	10.5	6	7.5	11	9.663	12	3.9	25	1.22	2	86.2	3	34.4	4	7.8	22
DP445BG/RR	1588	6	42.5	7	3.9	15	102	13	56	10	10.3	9	8.1	2	8.952	19	4.5	6	1.17	22	85.5	13	31.5	13	8.8	2
ST4686R	1545	7	42.2	11	3.8	21	96	19	55	14	9.7	21	7.2	14	9.691	10	4.2	17	1.17	19	84.9	26	28.2	27	8.2	12
FM960BR,ck.	1540	8	40.8	14	4.3	4	87	29	54	17	10.8	4	7.6	9	9.209	17	4.3	14	1.18	15	85.8	7	35.6	2	8.1	15
ST4575BR	1536	9	42.3	9	4.0	10	92	25	56	10	9.5	25	7.2	16	9.668	11	4.4	10	1.16	24	85.2	22	30.3	21	9.2	1
ST3636B2R	1534	10	40.1	19	3.4	28	106	9	56	10	10.2	12	7.0	20	10.100	5	4.0	22	1.18	15	85.3	17	28.3	26	7.6	23
Ark9202-24-13	1527	11	43.3	3	3.9	16	109	3	55	14	9.6	24	7.5	10	9.191	18	4.2	19	1.19	14	85.4	15	29.2	24	7.3	28
Ark9203-03-20	1506	12	42.3	10	3.8	21	107	8	61	5	10.3	10	7.8	5	8.766	23	4.3	12	1.17	19	85.8	7	31.1	16	8.0	17
DX241203	1490	13	41.8	12	4.0	10	91	28	54	17	10.3	11	7.7	6	8.730	24	4.4	9	1.23	1	86.0	6	32.3	10	8.0	17
CS39	1486	14	42.4	8	4.5	1	96	18	53	20	9.1	28	7.1	18	9.570	15	4.0	23	1.18	17	86.6	1	29.5	23	8.4	8
BCG-P0304B2/R	1470	15	39.7	22	3.4	26	103	12	55	14	9.8	18	6.7	23	10.020	6	4.3	14	1.20	9	85.8	9	27.7	28	7.2	29
DPLX-02T57R	1462	16	38.7	26	4.4	2	95	21	64	2	9.4	27	6.1	29	10.890	1	3.9	24	1.13	28	83.8	29	28.7	25	8.5	6
FM960RR	1450	17	40.5	16	4.0	9	91	26	45	29	11.0	1	7.6	8	8.652	25	3.6	29	1.20	9	85.3	17	33.3	5	7.5	25
ST6636BR	1420	18	39.4	24	3.4	27	120	1	48	26	9.9	17	6.7	22	9.640	14	4.5	6	1.20	8	86.0	5	34.6	3	8.1	13
DP543BGII/RR	1417	19	39.8	21	3.9	18	95	22	49	25	9.5	26	6.5	25	9.950	7	4.5	4	1.20	9	85.6	11	33.1	7	7.9	20
CS40	1380	20	38.1	28	4.1	7	105	11	54	17	10.1	13	6.4	26	9.801	9	4.1	20	1.21	6	85.4	16	30.8	18	7.6	23
BCG-P0104B2/R	1373	21	37.6	29	2.8	29	96	20	61	5	9.9	15	6.1	28	10.200	4	4.6	3	1.15	26	84.8	28	30.8	19	8.4	8
ST6848R	1373	22	40.7	15	4.2	6	109	4	51	22	10.0	14	7.1	17	8.829	21	4.5	6	1.19	13	86.3	2	35.8	1	8.6	4
FM960B2R	1354	23	40.5	17	4.1	8	91	27	46	28	10.9	2	7.7	7	8.021	27	4.7	1	1.21	6	85.3	20	33.2	6	7.5	25
DP488BG/RR	1352	24	40.3	18	3.5	25	100	14	48	26	9.8	19	6.9	21	8.935	20	4.3	12	1.21	4	85.8	9	32.6	8	8.4	8
CS37	1350	25	39.9	20	3.9	18	111	2	51	22	9.6	23	6.6	24	9.349	16	4.1	21	1.17	19	85.1	23	30.5	20	7.9	20
CS38	1338	26	39.1	25	4.3	5	100	15	51	22	10.4	8	7.0	19	8.768	22	3.6	28	1.20	9	85.6	12	31.5	13	8.1	15
PHY310R	1281	27	44.0	1	3.8	21	100	16	63	3	9.6	22	7.8	4	7.436	28	4.4	10	1.10	29	85.0	25	32.3	9	8.8	2
Ark9208-05-01	1200	28	39.6	23	3.9	17	93	24	63	3	10.6	5	7.4	13	7.357	29	4.2	17	1.21	4	86.1	4	31.6	12	8.5	6
ST5454B2R	1123	29	38.1	27	3.8	21	98	17	59	7	9.9	16	6.3	27	8.145	26	4.6	2	1.16	24	85.0	24	31.8	11	8.4	8
Mean	1467		40.9		3.9		101		55		10.0		7.2		9.307		4.2		1.18		85.4		31.3		8.1	
LSD 0.10	243		2.3		0.6		11		7		1.0		0.9		1.577		0.5		0.03		ns		2.3		0.6	
C.V.%	14.1		3.2		13.1		9.0		11.7		5.7		7.7		14.4		6.5		1.8		0.9		4.4		4.4	
R-sq x 100	53.8		78.8		41.3		52.7		55.7		64.0		71.4		50.5		76.9		78.7		51.8		84.7		79.7	

Table 16. Results of the 2004 1st-year Cotton Variety Test with irrigation on a Calloway silt loam soil at Marianna, Ark.

Variety	Lint		Lint		Stand		Ht.		Open		Seed		Lint		Seed		Fiber properties									
	yield	r	frac.	r	no./ft	r	cm	r	bolls	r	index	r	index	r	per a	r	Mic	r	Len.	r	Unif.	r	Str.	r	Elo.	r
	lb/a		%						%		g		g		mil.				in.		%		g/tex		%	
DX25105N	1720	1	43.6	3	3.0	17	100	21	74	1	9.9	18	7.8	4	9.963	4	4.8	1	1.15	27	84.2	29	29.9	28	8.4	7
DP455BG/RR	1639	2	43.2	5	3.4	1	103	17	63	15	9.1	29	7.1	19	10.490	3	4.0	25	1.20	6	85.1	22	34.4	6	7.9	20
Ark9203-17-12	1633	3	40.3	21	3.1	12	118	4	73	3	11.2	4	7.7	7	9.635	9	4.5	5	1.21	2	86.4	1	33.6	10	8.0	16
DP444BG/RR,ck	1623	4	42.1	10	3.4	1	111	7	74	1	10.1	16	7.5	10	9.841	6	3.9	27	1.18	15	85.6	11	30.8	21	7.9	20
ST4575BR	1616	5	39.7	23	3.0	18	110	8	61	18	9.8	19	6.7	25	10.990	2	4.0	25	1.16	23	85.3	17	30.0	27	8.9	1
Ark9203-03-20	1612	6	42.8	7	3.1	7	119	3	70	6	9.8	20	7.5	9	9.756	8	4.2	20	1.19	11	86.2	3	32.6	16	8.0	16
DP445BG/RR	1607	7	43.9	2	2.9	25	103	19	64	13	9.8	21	7.8	6	9.385	15	4.5	6	1.18	13	86.1	4	31.2	20	8.4	7
ST4892BR,ck	1567	8	41.3	11	3.0	22	115	5	73	3	10.8	6	7.9	2	9.052	20	4.6	3	1.14	29	84.9	23	32.8	15	8.5	5
ST4686R	1565	9	41.0	14	3.0	18	108	13	64	13	10.2	13	7.2	17	9.916	5	4.1	22	1.19	9	84.9	23	30.1	26	8.0	16
FM960BR,ck.	1564	10	40.5	18	3.0	18	96	27	61	18	10.6	8	7.4	12	9.582	11	4.2	20	1.16	21	85.2	19	36.3	1	7.7	24
PHY310R	1561	11	43.2	4	3.1	8	111	6	66	10	10.4	9	8.1	1	8.789	22	4.6	4	1.15	25	85.9	7	32.0	17	8.6	3
Ark9202-24-13	1552	12	44.1	1	3.1	6	106	15	70	6	9.6	25	7.7	8	9.206	17	4.3	13	1.18	13	85.2	19	30.4	24	7.5	28
Ark9208-05-01	1541	13	40.8	16	3.1	8	108	12	71	5	10.3	11	7.3	16	9.620	10	4.4	10	1.21	2	86.2	2	33.6	11	8.4	7
DX241203	1499	14	41.3	12	2.4	29	100	22	50	24	10.3	12	7.4	11	9.134	19	4.4	8	1.20	6	86.0	5	34.9	3	8.7	2
DPLX-02T57R	1468	15	41.1	13	3.1	8	99	23	70	6	10.4	10	7.3	14	9.135	18	4.4	10	1.16	23	85.5	13	30.3	25	8.4	7
FM960RR	1466	16	40.5	19	2.7	27	90	29	60	20	11.3	2	7.8	5	8.507	24	3.4	29	1.20	5	85.9	8	34.3	7	7.7	25
ST3636B2R	1465	17	38.8	26	2.5	28	110	9	68	9	10.7	7	6.9	21	9.581	12	4.2	19	1.17	18	84.7	27	30.8	23	7.6	27
FM960B2R	1446	18	39.0	25	3.1	12	96	26	46	26	11.2	3	7.4	13	8.917	21	4.4	10	1.18	15	84.9	26	35.9	2	7.7	25
CS37	1419	19	40.4	20	3.3	3	109	11	51	23	9.4	27	6.6	26	9.819	7	3.9	27	1.19	9	85.9	8	31.5	19	7.9	20
BCG-P0104B2/R	1394	20	37.3	27	3.1	15	93	28	65	11	9.3	28	5.6	29	11.310	1	4.1	22	1.15	27	85.1	21	34.7	4	8.6	3
ST6636BR	1390	21	40.7	17	2.9	23	131	1	44	27	9.6	22	6.7	24	9.428	14	4.3	15	1.19	11	85.5	12	33.0	12	8.1	15
DP543BGII/RR	1378	22	42.8	6	3.3	3	104	16	49	25	9.6	24	6.8	22	9.210	16	4.7	2	1.15	26	84.5	28	32.8	14	7.8	23
DP488BG/RR	1354	23	42.7	8	3.2	5	103	17	41	28	9.6	23	7.3	15	8.446	25	4.3	13	1.20	6	85.4	16	34.1	9	8.3	13
CS38	1345	24	39.9	22	3.1	12	110	10	58	21	11.6	1	7.9	3	7.773	29	4.3	15	1.22	1	85.8	10	33.0	12	8.0	16
BCG-P0304B2/R	1267	25	37.0	28	2.9	23	102	20	63	15	10.1	14	6.1	28	9.512	13	4.3	15	1.18	15	84.9	23	29.7	29	7.2	29
CS39	1260	26	42.5	9	3.0	21	97	24	63	15	9.4	26	7.1	18	8.053	27	4.0	24	1.16	22	85.3	17	30.8	21	8.4	7
ST5454B2R	1225	27	36.6	29	2.8	26	96	25	65	11	10.9	5	6.5	27	8.616	23	4.4	8	1.17	18	85.5	13	31.7	18	8.4	7
ST6848R	1218	28	40.9	15	3.1	15	119	2	36	29	10.0	17	7.1	20	7.825	28	4.5	6	1.17	18	86.0	6	34.5	5	8.5	5
CS40	1216	29	39.1	24	3.1	8	107	14	53	22	10.1	15	6.7	23	8.223	26	4.3	15	1.21	4	85.5	13	34.1	8	8.2	14
Mean	1469		40.9		3.0		106		61		10.2		7.2		9.301		4.2		1.18		85.4		32.5		8.1	
LSD 0.10	110		2.4		0.4		8		8		0.8		0.7		0.690		0.4		0.03		1.0		2.6		0.4	
C.V.%	6.3		3.4		11.8		6.0		11.0		4.7		5.7		6.3		5.8		1.4		0.7		4.7		2.6	
R-sq x 100	76.3		80.9		34.9		75.6		77.4		79.4		80.4		73.8		72.9		76.5		66.6		78.1		88.1	

Table 17. Results of the 2004 1st-year Cotton Variety Test without irrigation on a Calloway silt loam soil at Marianna, Ark.

Variety	Lint		Lint		Stand	r	Ht.	r	Open	r	Seed	r	Lint	r	Seed	r	Mic	r	Len.	Fiber properties						
	yield	r	frac.	r																no./ft	cm	%	g	g	mil.	in.
	lb/a		%																							
DP444BG/RR,ck	1273	1	41.6	11	3.1	12	121	10	70	4	9.8	17	7.1	14	8.096	2	4.0	28	1.16	10	85.1	7	30.4	24	7.8	22
ST4892BR,ck	1240	2	42.1	8	3.0	19	114	14	71	3	9.5	21	7.0	18	7.999	3	4.4	13	1.10	28	83.9	24	31.5	19	8.3	13
PHY310R	1204	3	44.9	1	3.4	3	124	4	64	13	10.1	12	8.3	1	6.567	13	4.9	1	1.11	25	84.3	18	32.8	13	9.0	1
ST4575BR	1175	4	40.3	21	3.1	15	110	18	66	10	9.2	26	6.4	25	8.376	1	4.1	25	1.14	19	84.1	21	30.3	25	8.9	2
ST4686R	1136	5	40.8	14	3.1	17	112	17	69	6	10.4	7	7.3	9	7.055	8	4.4	13	1.17	7	84.7	14	29.0	28	7.8	22
Ark9203-03-20	1111	6	42.0	9	3.2	11	122	8	74	2	9.6	19	7.1	15	7.071	7	3.9	29	1.14	19	83.7	27	33.1	11	7.9	18
Ark9208-05-01	1109	7	40.3	20	3.1	13	114	13	69	6	11.0	4	7.6	4	6.598	12	4.7	4	1.21	1	86.3	1	33.1	10	8.5	8
Ark9203-17-12	1104	8	41.7	10	3.0	19	122	9	70	4	10.4	6	7.5	8	6.701	11	4.4	13	1.15	15	85.4	4	36.2	3	7.9	18
DP455BG/RR	1070	9	42.9	4	2.8	25	114	14	63	14	8.9	28	6.8	19	7.116	5	4.1	26	1.19	2	84.6	15	32.7	14	7.5	26
FM960RR	1058	10	41.0	13	3.1	13	104	26	60	16	11.5	2	8.1	3	5.930	21	4.3	18	1.15	12	84.6	16	33.9	6	7.6	25
DP445BG/RR	1057	11	40.5	17	3.3	7	110	20	58	20	10.2	9	7.2	13	6.712	10	4.5	7	1.17	8	84.9	10	33.0	12	8.4	12
ST3636B2R	1046	12	38.4	25	3.1	15	120	11	65	12	10.4	8	6.7	20	7.080	6	4.2	21	1.15	15	83.9	24	29.3	27	7.4	28
Ark9202-24-13	1039	13	43.3	3	3.3	4	125	3	68	9	9.3	25	7.3	10	6.511	14	4.4	10	1.15	15	84.3	18	31.1	21	7.9	18
FM960BR,ck.	1036	14	40.6	16	3.0	22	105	25	60	16	10.2	10	7.2	11	6.487	15	4.3	18	1.11	25	84.1	20	36.4	2	8.2	14
CS37	1029	15	39.6	23	3.5	1	124	5	56	22	9.4	22	6.4	24	7.302	4	4.1	26	1.15	12	84.7	12	30.8	23	7.9	18
DX25105N	1028	16	42.3	7	2.7	28	95	28	81	1	10.1	13	7.5	6	6.218	18	4.7	4	1.13	21	83.5	28	30.1	26	8.2	14
ST6848R	1001	17	39.5	24	3.1	18	131	2	45	28	9.7	18	6.6	22	6.888	9	4.7	3	1.15	15	86.2	2	37.8	1	8.8	3
FM960B2R	972	18	40.4	19	3.2	10	106	22	44	29	12.0	1	8.2	2	5.396	28	4.6	6	1.18	5	85.0	8	33.8	7	7.5	26
DX241203	948	19	41.2	12	2.8	27	105	24	63	14	10.0	15	7.1	17	6.057	19	4.3	20	1.16	9	85.4	4	33.3	9	8.6	4
DPLX-02T57R	936	20	40.4	18	3.4	2	113	16	66	10	10.9	5	7.5	7	5.673	24	4.4	10	1.11	25	84.0	22	31.3	20	8.6	4
ST6636BR	934	21	40.7	15	3.2	9	136	1	46	27	9.4	23	6.5	23	6.480	16	4.4	10	1.18	6	86.1	3	35.6	4	8.5	8
DP488BG/RR	873	22	43.7	2	2.9	24	106	22	58	20	9.1	27	7.2	12	5.503	26	4.5	8	1.15	12	84.9	9	32.2	16	8.5	8
BCG-P0304B2/R	862	23	37.8	27	3.0	21	115	12	59	18	10.1	11	6.2	27	6.280	17	4.2	21	1.15	11	84.7	12	28.5	29	7.2	29
CS39	860	24	42.6	5	3.3	4	110	20	59	18	9.3	24	7.1	16	5.472	27	4.4	13	1.13	23	84.8	11	30.9	22	8.6	4
CS40	845	25	38.3	26	3.2	8	124	6	56	22	10.1	14	6.4	26	6.024	20	4.4	13	1.18	4	85.2	6	35.3	5	8.2	14
CS38	833	26	40.1	22	3.3	6	123	7	50	26	11.0	3	7.5	5	5.028	29	4.2	21	1.19	2	84.3	17	32.0	17	7.8	22
DP543BGII/RR	812	27	42.4	6	3.0	22	98	27	54	25	8.9	29	6.6	21	5.545	25	4.8	2	1.12	24	84.0	23	33.4	8	8.2	14
ST5454B2R	771	28	37.8	28	2.8	26	110	19	56	22	9.9	16	6.1	28	5.738	23	4.5	8	1.13	21	83.2	29	31.6	18	8.6	4
BCG-P0104B2/R	686	29	35.0	29	2.7	29	92	29	69	6	9.6	20	5.3	29	5.843	22	4.2	21	1.08	29	83.9	24	32.3	15	8.5	8
Mean	1002		40.8		3.1		114		62		10.0		7.0		6.474		4.3		1.15		84.6		32.4		8.2	
LSD 0.10	150		2.1		ns		11		9		0.9		0.7		0.991		0.5		0.04		ns		2.7		0.4	
C.V.%	12.7		3.0		12.8		8.1		12.8		5.0		6.0		13.0		6.3		2.2		0.9		4.8		3.1	
R-sq x 100	71.7		85.6		36.7		71.7		73.9		82.2		83.7		68.1		64.1		73.8		66.9		81.4		89.0	

Table 18. Results of the 2004 1st-year Cotton Variety Test with irrigation on a Desha silt loam at Rohwer, Ark.

Variety	Lint		Lint		Stand	r	Ht.	r	Open	r	Seed	r	Lint	r	Seed	r	Mic	r	Len.	Fiber properties						
	yield	r	frac.	r																no./ft	cm	%	g	g	per a	mil.
	lb/a		%																							
Ark9203-03-20	2283	1	41.0	3	3.0	13	136	9	78	1	10.6	16	7.5	8	13.820	1	4.6	10	1.17	20	85.8	10	33.2	13	7.7	18
PHY310R	1844	2	41.8	1	3.1	10	128	19	68	8	10.6	14	7.8	2	10.730	4	5.1	1	1.12	29	84.9	23	33.8	9	8.7	1
FM960RR	1839	3	38.4	21	2.8	19	122	27	65	10	12.3	1	7.8	1	10.680	5	4.0	29	1.18	14	85.9	8	33.3	12	7.3	28
DP445BG/RR	1681	4	40.9	4	2.8	22	127	22	61	15	10.0	25	7.1	15	10.830	3	4.6	13	1.18	14	85.7	12	32.6	16	8.3	6
ST4686R	1680	5	40.2	9	3.2	6	124	24	70	3	10.7	10	7.4	9	10.260	8	4.8	5	1.16	22	84.3	28	30.3	27	7.8	17
Ark9203-17-12	1679	6	38.2	22	3.1	8	137	8	70	3	11.6	5	7.3	12	10.420	7	4.5	17	1.22	5	86.3	5	35.8	3	7.6	20
DP444BG/RR,ck	1617	7	40.4	8	3.0	15	135	11	69	6	10.6	15	7.4	10	9.888	10	4.3	25	1.18	14	85.8	10	31.8	18	8.1	10
ST4892BR,ck	1545	8	40.7	6	3.1	9	138	4	64	12	10.9	9	7.6	5	9.252	15	4.6	13	1.14	25	84.6	27	31.0	24	8.1	11
DX25105N	1529	9	41.7	2	2.4	29	123	26	64	12	10.4	20	7.5	7	9.252	16	4.5	16	1.19	12	85.0	21	31.5	19	8.3	6
FM960BR,ck.	1519	10	38.8	17	3.1	10	126	23	58	20	11.8	3	7.7	3	9.012	19	4.6	11	1.14	25	84.8	26	37.1	2	7.7	18
BCG-P0304B2/R	1519	11	36.8	26	2.5	27	132	16	59	19	10.2	22	6.1	26	11.380	2	4.3	22	1.19	12	85.2	19	28.5	29	7.2	29
ST4575BR	1507	12	39.5	12	3.2	7	132	15	60	17	10.7	12	7.2	14	9.524	13	4.7	8	1.16	23	85.2	18	31.1	21	8.7	3
DP455BG/RR	1460	13	40.8	5	3.5	3	134	12	56	21	9.7	29	6.8	19	9.732	11	4.2	28	1.20	7	85.2	19	34.4	7	7.6	22
Ark9208-05-01	1441	14	39.8	11	2.7	23	138	5	65	10	11.4	6	7.6	4	8.585	22	4.7	7	1.24	1	86.8	1	32.7	15	8.3	6
Ark9202-24-13	1425	15	40.7	7	3.7	2	136	10	68	8	9.9	26	7.0	16	9.246	17	4.3	22	1.18	14	84.9	23	31.2	20	7.6	22
DPLX-02T57R	1400	16	38.9	15	2.7	24	123	25	61	15	11.3	7	7.2	13	8.802	20	4.7	8	1.14	25	84.9	23	31.1	23	8.4	4
ST3636B2R	1399	17	39.1	13	2.6	25	133	13	70	3	10.5	18	6.8	18	9.299	14	4.3	25	1.17	20	85.0	22	30.4	26	7.6	22
ST6636BR	1355	18	38.8	16	3.0	14	141	2	48	27	10.5	17	6.8	20	9.087	18	4.9	2	1.19	11	85.9	7	33.7	10	7.8	16
BCG-P0104B2/R	1330	19	34.7	29	2.6	26	127	21	69	6	10.7	11	5.8	28	10.480	6	4.6	11	1.13	28	85.4	15	33.5	11	8.7	1
CS38	1272	20	38.7	18	3.1	12	137	6	54	24	11.6	4	7.6	6	7.643	26	4.6	13	1.21	6	86.2	6	34.6	6	8.0	13
DX241203	1260	21	39.0	14	2.8	18	129	18	60	17	10.1	23	6.6	22	8.708	21	4.4	21	1.23	3	86.6	2	34.7	4	8.1	11
FM960B2R	1217	22	37.3	25	3.0	15	116	29	55	22	12.1	2	7.4	11	7.510	28	4.5	17	1.24	1	86.5	3	34.6	5	7.4	27
DP543BGII/RR	1182	23	38.6	19	2.9	17	119	28	64	12	9.9	28	6.4	23	8.409	23	4.9	3	1.16	23	84.2	29	30.9	25	7.4	25
CS37	1154	24	37.4	23	3.4	4	132	14	53	26	10.0	24	6.2	24	9.726	12	4.5	17	1.20	9	85.3	16	31.1	21	7.6	20
ST5454B2R	1135	25	35.7	27	2.8	20	137	7	55	22	10.7	13	6.1	25	8.397	24	4.8	4	1.17	18	85.3	16	32.3	17	8.3	6
DP488BG/RR	1126	26	38.5	20	2.8	20	128	20	54	24	10.5	19	6.7	21	7.597	27	4.5	17	1.23	4	85.9	8	32.8	14	7.9	15
ST6848R	1089	27	37.3	24	2.5	28	146	1	46	28	10.9	8	5.3	29	9.965	9	4.8	5	1.20	9	86.5	3	37.6	1	8.4	4
CS40	1074	28	35.7	28	3.4	5	129	17	71	2	10.2	21	5.9	27	8.267	25	4.2	27	1.20	7	85.5	14	34.3	8	7.4	25
CS39	1040	29	40.0	10	3.8	1	139	3	45	29	9.9	26	6.8	17	6.905	29	4.3	24	1.17	18	85.6	13	30.2	28	7.9	14
Mean	1435		39.0		3.0		131		61		10.7		6.9		9.417		4.5		1.18		85.5		32.7		7.9	
LSD 0.10	342		1.7		ns		12		13		0.7		0.8		2.132		0.4		0.03		1.2		1.9		0.5	
C.V.%	20.0		2.6		22.8		8.1		17.4		3.7		6.4		18.9		5.3		1.4		0.8		3.4		3.3	
R-sq x 100	56.5		86.6		27.3		41.6		46.6		85.6		80.5		45.9		67.5		89.3		66.2		88.7		85.0	

Table 19. Results of 2004 1st-year Cotton Variety Test with irrigation on a Roton-Dundee-Crevasse complex soil at Manila, Ark.¹

Variety	Lint		Lint		Stand	r	Ht.	r	Open		Seed		Lint		Seed		Fiber properties									
	yield	r	frac.	r					no./ft	cm	%	r	index	r	index	r	per a	r	Mic	r	Len.	r	Unif.	r	Str.	r
	lb/a		%						%		g		g		mil.		in.		%		g/tex		%			
PHY310R	1300	1	43.0	4	3.7	22	82	5	.	.	9.8	20	7.8	6	7.574	2	4.6	8	1.14	27	85.0	21	31.3	11	8.5	5
ST3636B2R	1237	2	42.6	7	3.7	22	83	4	.	.	10.6	5	8.0	4	7.057	4	4.5	10	1.17	15	84.9	24	30.5	17	7.6	24
ST4892BR,ck	1133	3	42.8	5	4.4	4	86	2	.	.	10.2	12	7.7	8	6.691	5	4.7	2	1.13	28	84.6	28	30.4	18	8.2	12
DPLX-02T57R	1095	4	41.3	14	4.1	12	79	7	.	.	10.6	6	7.5	13	6.666	6	4.3	15	1.16	22	85.1	19	29.5	24	8.6	3
ST4575BR	1095	5	40.9	16	4.4	4	78	8	.	.	9.3	28	6.6	22	7.555	3	4.2	20	1.17	17	85.8	7	29.5	26	8.7	2
BCG-P0304B2/R	1076	6	38.3	26	3.3	27	78	10	.	.	9.3	26	5.9	29	8.285	1	4.1	25	1.15	24	84.9	22	26.6	29	7.3	29
DP455BG/RR	1046	7	43.2	2	4.2	9	84	3	.	.	9.6	23	7.7	10	6.194	10	4.3	17	1.19	10	85.1	20	33.0	6	7.5	27
DP444BG/RR,ck	1024	8	42.4	8	3.8	20	76	14	.	.	9.4	25	7.2	17	6.424	7	3.9	27	1.15	24	84.9	24	29.3	27	8.0	17
DX25105N	1017	9	43.0	3	4.7	2	71	25	.	.	9.9	18	7.7	7	5.958	14	4.7	5	1.16	22	85.3	14	29.7	22	8.8	1
FM960BR,ck.	984	10	41.1	15	3.9	15	77	12	.	.	10.6	7	7.5	12	5.993	12	4.1	24	1.15	24	85.6	10	35.7	1	8.1	13
FM960RR	972	11	40.6	19	4.6	3	71	26	.	.	11.5	1	8.2	1	5.372	19	4.2	20	1.19	10	85.4	12	32.8	8	7.5	26
DP445BG/RR	955	12	42.0	10	4.3	7	74	21	.	.	9.2	29	7.0	18	6.236	9	4.1	23	1.20	8	86.5	3	30.2	20	8.3	10
ST4686R	952	13	43.6	1	4.2	10	69	27	.	.	9.5	24	6.9	19	6.294	8	4.3	17	1.19	9	85.4	12	29.8	21	8.1	13
FM960B2R	946	14	39.7	21	4.8	1	73	23	.	.	11.4	3	7.8	5	5.501	16	4.7	5	1.22	3	86.0	6	35.1	3	7.7	21
Ark9203-03-20	934	15	41.7	13	3.8	21	87	1	.	.	10.2	11	8.0	2	5.314	22	4.6	8	1.17	17	84.8	26	31.3	11	8.0	17
DP543BGII/RR	931	16	41.9	11	4.3	8	78	9	.	.	9.3	27	6.9	20	6.165	11	4.5	10	1.17	17	85.2	17	31.2	15	7.7	21
Ark9208-05-01	914	17	41.8	12	3.7	24	77	11	.	.	10.5	10	7.7	9	5.405	18	4.7	2	1.21	6	86.2	5	32.3	10	8.5	5
Ark9203-17-12	900	18	40.3	20	3.6	25	76	15	.	.	10.7	4	7.3	16	5.610	15	4.2	19	1.25	1	87.1	1	35.3	2	7.6	24
Ark9202-24-13	882	19	42.6	6	3.9	19	76	17	.	.	9.6	21	7.5	11	5.343	21	4.2	20	1.16	21	84.3	29	29.6	23	7.6	23
CS39	842	20	42.3	9	4.2	11	73	22	.	.	9.9	18	7.4	15	5.198	23	3.8	29	1.17	17	85.6	10	29.1	28	8.1	13
DX241203	779	21	39.3	23	3.9	17	74	19	.	.	10.1	13	6.5	23	5.409	17	4.0	26	1.21	6	85.3	14	30.3	19	7.9	20
BCG-P0104B2/R	778	22	36.7	29	3.3	28	76	15	.	.	10.0	15	5.9	28	5.985	13	4.5	12	1.13	29	85.2	18	31.2	14	8.3	10
ST5454B2R	763	23	37.6	28	3.9	15	65	28	.	.	10.5	8	6.5	24	5.361	20	4.5	12	1.18	13	85.7	8	31.3	11	8.6	3
CS37	691	24	38.0	27	4.0	14	75	18	.	.	9.6	22	6.1	27	5.175	24	4.3	16	1.18	12	84.7	27	29.5	24	7.9	19
CS38	672	25	40.9	17	3.9	17	77	13	.	.	11.5	1	8.0	3	3.820	28	4.4	14	1.23	2	86.7	2	34.5	5	8.5	5
ST6636BR	653	26	39.5	22	3.6	26	80	6	.	.	10.0	17	6.6	21	4.491	25	4.8	1	1.18	13	85.3	14	32.9	7	8.1	16
CS40	602	27	38.5	25	4.4	6	74	19	.	.	10.0	16	6.2	26	4.405	26	3.9	27	1.22	5	85.6	9	30.9	16	7.5	27
ST6848R	569	28	38.6	24	2.9	29	73	24	.	.	10.0	14	6.4	25	4.045	27	4.7	5	1.17	15	84.9	22	35.0	4	8.5	5
DP488BG/RR	515	29	40.6	18	4.1	12	64	29	.	.	10.5	9	7.4	14	3.183	29	4.7	2	1.22	3	86.3	4	32.6	9	8.4	9
Mean	905		40.9		4.0		76		.	.	10.1		7.2		5.749		4.3		1.17		85.4		31.4		8.1	
LSD 0.10	232		2.8		0.7		ns		.	.	0.9		1.0		1.498		0.4		0.04		ns		2.3		0.5	
C.V.%	21.8		4.0		15.4		13.7		.	.	5.4		8.4		22.2		5.7		2.0		1.0		4.2		3.6	
R-sq x 100	58.8		72.6		40.9		38.1		.	.	74.6		72.8		54.3		74.8		77.3		59.0		85.3		82.0	

^{1/} Glyphosate drift soon after emergence gave advantage to Round-up Ready entries, data were excluded from over location analysis.

Table 20. Leaf pubescence, bract parameters and *Verticillium* wilt ratings for entries in the 2004 main and 1st-year Arkansas Cotton Variety Test.

Main test - Variety	Vert. wilt ¹		Leaf pub. ²		Bract ³					1st year test - Variety	Vert. wilt ¹		Leaf pub. ²		Bract ³						
	ca. %	r	rating	r	Tric. no./cm	r	Cir. cm	r	Len. cm		r	ca. %	r	rating	r	Tric. no./cm	r	Cir. cm	r	Len. cm	r
BCG24R	46	13	2.3	24	26	18	33.8	11	4.9	13	Ark9202-24-13	53	9	4.3	12	36	18	40.2	14	5.6	6
BCG28R	49	8	3.2	16	27	16	35.0	8	4.8	18	Ark9203-03-20	48	18	3.1	26	34	25	42.6	9	5.8	1
BCG295	49	8	2.5	23	18	25	39.3	3	5.2	8	Ark9203-17-12	55	6	4.5	10	36	19	37.5	19	5.5	9
DP393	55	2	4.1	11	34	6	33.2	12	5.0	11	Ark9208-05-01	58	3	3.2	25	33	26	44.3	4	5.7	4
DP424BGII/RR	54	3	4.3	9	28	13	29.9	23	4.9	15	BCG-P0104B2/R	55	6	4.3	14	34	24	42.4	10	5.7	3
DP432RR	50	6	5.8	6	35	5	28.6	24	4.6	24	BCG-P0304B2/R	49	16	3.6	20	32	28	31.7	29	5.0	25
DP434RR	53	4	3.2	16	33	7	33.0	13	4.7	23	CS37	53	9	4.1	16	41	9	41.8	13	5.0	24
DP436RR	49	8	3.0	18	26	20	32.1	17	5.1	9	CS38	41	22	5.7	6	46	6	41.9	12	5.5	11
DP444BG/RR	50	6	3.8	14	24	22	31.4	19	5.3	5	CS39	36	27	2.3	28	37	17	43.4	7	5.3	13
DP449BG/RR	51	5	3.0	18	26	19	36.3	5	5.2	7	CS40	38	25	5.3	7	36	22	43.8	6	5.5	12
DP451B/RR	49	8	2.1	25	28	15	30.9	21	5.0	12	DP444BG/RR,ck	51	12	3.6	19	38	14	37.1	20	5.5	10
DP494RR	40	20	4.0	13	26	21	33.0	14	4.9	14	DP445BG/RR	64	1	3.3	23	33	27	35.7	23	5.0	23
DP555BG/RR	40	20	4.8	7	32	8	33.9	10	4.8	19	DP455BG/RR	46	19	3.1	26	39	13	45.5	3	4.9	27
FM958LL	46	13	4.7	8	31	10	35.1	7	4.7	22	DP488BG/RR	44	20	3.7	18	38	15	42.2	11	5.3	14
FM960BR	40	20	3.8	15	24	23	40.3	2	5.3	6	DP543BGII/RR	38	25	4.3	15	36	21	33.1	28	4.8	28
FM966LL	39	23	2.9	21	31	11	35.5	6	5.1	10	DPLX-02T57R	59	2	5.7	5	46	5	34.7	25	5.1	21
FM989BR	38	24	2.7	22	20	24	41.4	1	5.3	4	DX241203	44	20	2.1	29	29	29	39.0	15	5.1	20
PHY410R	35	25	5.9	5	38	4	31.1	20	4.9	17	DX25105N	50	15	6.6	1	55	1	38.9	16	5.1	19
PM1218BG/RR	49	8	3.0	18	27	17	34.2	9	5.4	3	FM960B2R	34	29	3.7	17	45	7	38.2	18	5.1	22
ST4646B2R	46	13	6.6	2	42	1	32.2	16	4.9	16	FM960BR,ck.	36	27	3.3	23	36	19	43.3	8	5.3	15
ST4793R	44	17	6.1	4	41	2	28.0	25	4.6	25	FM960RR	39	24	4.3	12	46	4	46.7	2	5.8	2
ST4892BR	44	17	6.9	1	40	3	32.7	15	4.8	21	PHY310R	58	3	5.8	4	41	10	36.2	22	5.2	16
ST5242BR	60	1	4.0	12	30	12	31.5	18	5.6	2	ST4892BR,ck	51	12	6.3	3	49	3	34.3	26	4.7	29
ST5303R	43	19	4.1	10	28	14	30.4	22	4.8	20	ST3636B2R	56	5	6.4	2	53	2	34.9	24	5.2	17
ST5599BR	45	16	6.1	3	31	9	36.8	4	5.7	1	ST4575BR	49	16	4.8	8	39	12	34.0	27	5.0	26
											ST4686R	54	8	4.7	9	37	16	38.4	17	5.6	5
											ST5454B2R	53	9	4.5	11	35	23	36.5	21	5.2	17
											ST6636BR	41	22	3.4	21	40	11	63.3	1	5.6	8
											ST6848R	51	12	3.3	22	43	8	43.9	5	5.6	7
Mean	46		4.1		30		33.6		5.0		Mean	48		4.2		39		40.2		5.3	
LSD 0.10	ns		1.2		6		3.8		0.3		LSD 0.10	11		1.2		8		10.8		0.3	
C.V.%	22		22.7		16.1		9.5		5.3		C.V.%	19.3		24.7		16.4		22.9		9.8	
R-sq x 100	46.0		75.7		70.3		76.0		71.8		R-sq x 100	65.5		65.7		67.6		50.5		56.6	

¹ *Verticillium* wilt (ca. % of plants with wilt symptoms) visually rated at Clarkedale on Aug. 30.

² Leaf pubescence rated at Keiser irrigated test using method of Bourland et al. (2003).

³ Marginal trichomes (Tric.), circumference (Cir.), and length (Len.) of bracts were determined at Keiser irrigated test.

Table 21. Two-year (2003-2004) average lint yields (lb/a) for cultivars at the six locations of the 2003-2004 Arkansas Cotton Variety Test.

Variety	Keiser		Keiser		Clarkedale		North		Marianna		Marianna		Rohwer		South		All	
	Irrigated	r	Non-irrig.	r	Irrigated	r	average	r	Irrigated	r	Non-irrig.	r	Irrigated	r	average	r	loc.	r
ST5599BR	1332	3	1149	2	1265	4	1249	3	1221	2	1163	2	1732	1	1372	1	1310	1
ST5242BR	1343	2	1205	1	1201	6	1250	2	1237	1	1169	1	1600	3	1335	2	1292	2
DP444BG/RR	1444	1	1092	5	1356	1	1297	1	1104	6	949	9	1600	2	1218	4	1257	3
ST4892BR	1238	7	1103	3	1305	2	1215	4	1149	4	1028	3	1578	4	1251	3	1233	4
ST4646B2R	1225	10	961	13	1128	10	1104	9	1109	5	958	8	1414	6	1160	6	1132	5
DP393	1186	14	1062	6	1098	13	1115	8	1059	9	995	5	1335	12	1129	8	1122	6
FM960BR	1202	12	1011	9	1145	9	1119	7	1092	7	932	12	1297	19	1107	9	1113	7
ST4793R	1238	6	985	10	1282	3	1168	5	1025	11	975	7	1139	25	1046	14	1107	8
DP434RR	1149	18	862	22	1077	15	1029	20	1151	3	947	11	1440	5	1179	5	1104	9
FM958LL	1250	4	925	15	1227	5	1134	6	1004	13	906	14	1314	16	1074	10	1104	10
DP432RR	1190	13	917	17	1083	14	1063	15	1085	8	947	10	1395	8	1142	7	1103	11
PM1218BG/RR	1170	17	1017	7	1032	18	1073	13	1029	10	846	17	1344	10	1073	11	1073	12
ST5303R	1186	15	934	14	1151	8	1090	10	919	18	863	16	1353	9	1045	15	1067	13
DP424BGII/RR	1219	11	964	12	982	20	1055	17	935	17	995	4	1275	20	1068	12	1061	14
FM989BR	1172	16	909	18	1155	7	1078	12	1014	12	902	15	1168	23	1028	17	1053	15
PHY410R	1242	5	903	19	1125	11	1090	11	966	15	777	19	1306	17	1016	18	1053	16
FM966LL	1094	21	1015	8	1042	17	1050	18	1002	14	762	22	1330	13	1031	16	1041	17
BCG28R	1236	8	922	16	1023	19	1060	16	900	20	796	18	1336	11	1011	19	1035	18
DP436RR	1039	25	874	20	971	21	961	25	887	21	987	6	1325	14	1066	13	1014	19
DP451B/RR	1138	19	853	24	1112	12	1034	19	959	16	661	25	1321	15	980	23	1007	20
DP449BG/RR	1082	24	846	25	1046	16	991	22	878	22	909	13	1231	21	1006	20	999	21
DP494RR	1230	9	1102	4	879	25	1070	14	824	24	721	24	1205	22	916	24	993	22
BCG24R	1093	22	859	23	947	22	966	23	915	19	775	20	1306	18	998	21	982	23
DP555BG/RR	1087	23	868	21	943	23	966	24	818	25	770	21	1395	7	994	22	980	24
BCG295	1099	20	977	11	906	24	994	21	837	23	725	23	1157	24	906	25	950	25
Mean	1195		972		1099		1089		1005		898		1356		1086		1087	

Table 22. Three-year (2002-2004) average lint yields (lb/a) for cultivars at the six locations of the 2002-2004 Arkansas Cotton Variety Test.

Variety	Keiser		Keiser		Clarkedale		North		Marianna		Marianna		Rohwer		South		All	
	Irrigated	r	Non-irrig.	r	Irrigated	r	average	r	Irrigated	r	Non-irrig.	r	Irrigated	r	average	r	loc.	r
ST5599BR	1263	2	1089	1	1130	1	1160	1	1254	1	1106	1	1767	1	1375	1	1268	1
ST4892BR	1116	5	1079	2	1103	2	1099	3	1217	2	994	3	1675	2	1295	2	1197	2
DP444BG/RR	1272	1	1029	3	1103	3	1135	2	1171	3	951	5	1624	3	1249	3	1192	3
FM960BR	1118	4	999	4	997	6	1038	5	1123	4	959	4	1427	7	1170	4	1104	4
ST4793R	1153	3	979	5	1046	4	1059	4	1110	5	910	7	1372	13	1130	5	1095	5
PM1218BG/RR	1071	9	942	6	936	10	983	6	1077	7	843	11	1452	4	1124	6	1054	6
ST5303R	1080	8	854	9	989	8	974	8	965	12	923	6	1448	5	1112	8	1043	7
FM989BR	1098	7	838	10	992	7	976	7	1095	6	867	9	1247	14	1070	14	1023	8
DP555BG/RR	1059	10	874	8	937	9	957	9	998	10	828	13	1412	9	1079	11	1018	9
DP451B/RR	1041	11	793	13	1011	5	948	10	1067	8	756	14	1411	10	1078	12	1013	10
BCG28R	1099	6	877	7	858	13	945	11	958	13	845	10	1428	6	1077	13	1011	11
DP436RR	986	14	824	11	882	12	897	13	928	14	1038	2	1379	12	1115	7	1006	12
DP449BG/RR	1007	13	793	14	916	11	905	12	1024	9	877	8	1396	11	1099	9	1002	13
BCG24R	1027	12	811	12	854	14	897	14	997	11	834	12	1415	8	1082	10	990	14
Mean	1099		913		982		998		1070		909		1461		1147		1073	

Table 23. Results of 2004 irrigated cotton variety test on a Sharkey clay soil at Rohwer, AR.

Variety	Lint		Stand	Ht.	Open	Seed	Lint	Seed	Fiber properties						
	yield	frac.							r	r	r	r	r	r	r
	lb/a	%	no./ft	cm	%	g	g	mil.	Mic	Len	Uni	Str	Elo		
ST5599BR	1585	39.6	4.3	123	43	11.2	7.6	9.498	5.0	1.16	83.7	33.2	8.1		
ST4892BR	1574	41.6	3.9	134	69	10.5	7.6	9.387	5.3	1.12	84.5	33.1	8.5		
ST5242BR	1523	41.1	3.5	127	60	11.7	8.3	8.285	5.3	1.10	82.8	29.2	7.7		
DP444BG/RR	1494	40.7	3.9	121	71	10.6	7.4	9.172	4.5	1.14	85.2	29.9	8.2		
ST4646B2R	1453	38.8	3.7	132	58	11.2	7.3	9.104	5.1	1.13	83.3	32.0	8.4		
PHY410R	1368	40.1	3.8	121	53	10.3	7.0	8.913	5.1	1.14	84.5	32.7	8.7		
PSC355	1317	40.8	3.8	118	59	10.3	7.1	8.376	5.0	1.12	84.1	33.6	9.1		
FM960BR	1214	39.6	3.5	113	48	12.1	8.7	6.394	4.9	1.14	84.7	38.8	8.2		
FM989BR	1139	38.5	3.4	124	43	12.0	7.7	6.743	5.1	1.14	84.4	37.1	8.3		
FM958LL	1097	38.6	3.7	114	56	11.6	7.5	6.661	4.9	1.17	85.2	37.4	7.9		
DP449BG/RR	1092	38.0	3.9	116	53	9.6	5.9	8.373	5.1	1.15	84.5	34.2	8.2		
DP555BG/RR	1084	42.0	4.3	118	59	8.6	6.3	7.799	4.8	1.15	84.3	30.7	7.4		
Mean	1328	40.0	3.8	122	56	10.8	7.4	8.211	5.0	1.14	84.2	33.5	8.2		
LSD0.10	172	ns	ns	ns	14	1.0	1.1	1.142	0.2	0.03	ns	2.7	0.5		
CV (%)	10.6	3.7	17.6	12.1	21.3	5.0	8.0	11.5	2.5	1.5	0.9	4.4	3.6		
R-sq*100	80.1	61.6	28.7	47.2	52.1	88.4	77.2	75.6	86.0	73.4	61.0	89.1	81.7		

APPENDIX

2004 County Variety Demonstrations University of Arkansas Cooperative Extension Service

Coordinated by W. C. Robertson and Matt Cordell

Methods:

- Varieties were tested in replicated strips (length of field) within cooperators' fields.
- Cooperator made all management decisions and applied production practices.
- Technologies of varieties were employed, e.g. glyphosate was used on RR varieties.
- Extension personnel assisted with planting and harvesting of plots.
- Plot weights were obtained with a boll buggy equipped with load cells.
- Grab samples were taken from all or one (if not statistically analyzed) replications.
- Laboratory gin, not equipped with lint cleaner, was used to gin the grab samples.
- Lint fractions determined from grab samples were used to convert seedcotton yield to lint yield.
- Fiber data for lint samples were obtained by HVI analysis.

Ashley County

Bruce Bond Cooperator
Kenneth Williams Staff Chair

Planting date: 4/29/04

Replications: 2

Management: Bollgard/ Roundup Ready BMPs

Harvest Date: 11/10/04

Soil Series: Hebert silt loam

Fertility:

Variety	Lint Yield	Lint Fraction [†]	Micronaire	Length	Strength
	lb/A	%		in	g/tex
FM 960BR	2000	43.1	4.7	1.15	31.4
DP 555BG/RR	1963	46.9	4.5	1.16	29.2
DP 444BG/RR	1923	44.1	4.4	1.2	28.4
ST 5599BR	1913	43.1	4.1	1.16	30.6
PM 1218BG/RR	1908	42.4	4.8	1.14	27.8
DP 424BG2/RR	1866	39.3	4.5	1.16	27.9
FM 989BR	1848	41.2	4.4	1.16	30.7
ST 5242BR	1842	42	4.3	1.12	26.7
SG 215BG/RR	1840	41.7	4.7	1.07	25.6
ST 4646B2R	1833	42.4	4.6	1.15	30.9
ST 4892BR	1817	41.8	4.6	1.15	28.1
FM 960B2R	1719	41.2	4	1.21	30.7
Mean	1877	42.4	4.5	1.15	29
LSD (0.05)	159	--	--	--	--
CV (%)	3.85	--	--	--	--

[†] Data obtained from a laboratory gin without the use of a lint cleaner.

Chicot County

Olan and Michael Mencer Cooperator
 Fran Tomerlin County Extension Agent

Planting date: 4/22/04

Replications: 3

Irrigation:

Management: Bollgard/ Roundup Ready BMPs

Harvest Date: 10/13/04

Soil Series:

Fertility:

Variety	Lint Yield	Lint Fraction [†]	Micronaire	Length	Strength
	lb/A	%		in	g/tex
ST 5599BR	1601	40.5	4.4	1.17	32.2
ST 4892BR	1599	40.2	4.6	1.09	25.4
DP 449BG/RR	1582	41.2	4.4	1.15	30.5
FM 960BR	1501	41.1	4.2	1.11	33.3
DP 451B/RR	1483	38.6	4.1	1.20	28.9
ST 5242BR	1359	41.4	4.2	1.13	28
SG 215BG/RR	1295	43.5	4.5	1.17	29.7
Mean	1489	40.9	4.3	1.15	29.7
LSD (0.05)	100	--	--	--	--
CV (%)	3.8	--	--	--	--

Desha County

Frank and Minter Appleberry Cooperator
 Steve Kelley and Wes Kirkpatrick County Extension Agents

Planting date: 5/22/04

Replications: 3

Irrigation: furrow

Management: Bollgard/ Roundup Ready BMPs

Harvest Date: 10/5/04

Soil Series: Silt Loam

Fertility: 100-40-90

Variety	Lint Yield	Lint Fraction [†]	Micronaire	Length	Strength
	lb/A	%		in	g/tex
ST 5599BR	1202	42	4.9	1.13	29.1
DP 444BG/RR	1170	46.1	4.6	1.16	28.2
ST 4892BR	1143	46.1	5.4	1.07	29.5
DP 451B/RR	1099	39.8	5	1.16	25.7
ST 5242BR	1024	42.9	4.4	1.11	27.3
FM 960BR	997	42.4	4.8	1.18	33.2
DP 555BG/RR	971	46.6	5.1	1.16	28.2
Mean	1086	43.7	4.9	1.14	28.7
LSD (0.05)	104.4	--	--	--	--
CV (%)	5.4	--	--	--	--

[†] Data obtained from a laboratory gin without the use of a lint cleaner.

Lincoln County

Donny Edwards Cooperator
Sunny Bottoms County Extension Agent

Planting date: 5/9/04

Replications: 2

Irrigation:

Management: Bollgard/ Roundup Ready BMPs

Harvest Date: 10/1/04

Soil Series:

Fertility:

Variety	Lint Yield	Lint Fraction [†]	Micronaire	Length	Strength
	lb/A	%		in	g/tex
DP 444BG/RR	1775	44.9	4.3	1.14	29.8
ST 4892BR	1716	46.3	4.7	1.14	30
DP 555BG/RR	1609	43.4	4.1	1.14	32.1
ST 5599BR	1565	46.3	5	1.11	26.9
ST 5242BR	1516	43.6	4.6	1.12	28.4
FM 960BR	1416	41.8	4.2	1.13	33.4
Mean	1599	44.4	4.5	1.13	30.1
LSD (0.05)	603	--	--	--	--
CV (%)	14.7	--	--	--	--

[†] Data obtained from a laboratory gin without the use of a lint cleaner.

Mississippi County

Roy Gaines Cooperator
Dave Freeze Staff Chair

Planting date: 5/21/04

Replications: 3

Irrigation: None

Management: Bollgard/ Roundup Ready BMPs

Harvest Date: 11/15/04

Soil Series: Dundee Silt Loam

Fertility:

Variety	Lint Yield	Lint Fraction [†]	Micronaire	Length	Strength
	lb/A	%		in	g/tex
ST 5599BR	1540	43.7	4.4	1.1	28.4
DP 444BG/RR	1454	44.3	3.8	1.13	28.4
ST 5242BR	1445	43.4	4.3	1.12	26.8
ST 4892BR	1409	43.7	4.3	1.1	28.6
PM 1218BG/RR	1398	42.8	4.2	1.16	33.8
DP 449BG/RR	1309	42.3	4.3	1.19	30.6
SG 215BG/RR	1293	41.9	4.1	1.04	25.5
FM 960BR	1234	41.4	4.9	1.07	25.5
Mean	1385	42.9	4.3	1.11	28.5
LSD (0.05)	85.6	--	--	--	--
CV (%)	3.5	--	--	--	--

[†] 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: 5/20/04

Replications: 4

Irrigation: Pivot

Management: Bollgard/ Roundup Ready BMP's

Harvest Date: 12/03/04

Soil Series: Silt loam

Variety	Lint Yield	Lint Fraction [†]	Micronaire	Length	Strength
ST 4892BR	1424	43.9	4.8	1.11	28.8
SG 215BG/RR	1321	40.2	4.2	1.09	26.9
ST 4646B2R	1304	38.8	3.9	1.13	28.1
DP 424BGII/RR	1258	39.2	4.4	1.12	28.8
Mean	1327	40.5	4.3	1.11	28.1
LSD (0.05)	140	--	--	--	--
CV (%)	6.6	--	--	--	--

[†] 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: 5/21/04

Replications: 3

Irrigation: Pivot

Management: Roundup Ready BMPs

Harvest Date: 12/03/04

Soil Series: Silt loam

Variety	Lint Yield	Lint Fraction [†]	Micronaire	Length	Strength
	lb/A	%		in	g/tex
DP 434RR	1493	42.2	3.9	1.17	27.5
ST 5303R	1423	41.2	4.2	1.1	30.7
DP 432RR	1412	41.4	4.2	1.12	28.7
ST 4793R	1370	42.8	4.4	1.1	29.1
Mean	1424	41.9	4.2	1.12	29
LSD (0.05)	81	--	--	--	--
CV (%)	2.9	--	--	--	--

[†] 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: 5/20/04

Replications: 4

Management: Bollgard/ Roundup Ready

Harvest Date: 11/10/04

Fertility:

Variety	Lint Yield	Lint Fraction [†]	Micronaire	Length	Strength
	lb/A	%		in	g/tex
DP 444BG/RR	1678	42.4	3.7	1.16	28.7
ST 5242BR	1638	40.5	4.1	1.1	28
ST 4892BR	1502	42.1	4.5	1.12	27.5
ST 5599BR	1482	41.5	4	1.14	28.4
PM 1218BG/RR	1452	40.8	3.6	1.18	31.7
DP 455BG/RR	1169	41.9	4.4	1.1	27.3
Mean	1487	41.5	4	1.13	28.6
LSD (0.05)	142	--	--	--	--
CV (%)	5.9	--	--	--	--

[†] 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: 5/20/04

Replications: 4

Irrigation: Pivot

Management: Bollgard/ Roundup Ready BMPs

Harvest Date: 12/03/04

Soil Series: Silt loam

Fertility:

Variety	Lint Yield	Lint Fraction [†]	Micronaire	Length	Strength
	lb/A	%		in	g/tex
ST 5599BR	1281	42.7	3.9	1.11	29.9
DP 444BG/RR	1277	43.5	3.9	1.13	28.9
ST 5242BR	1267	42.7	4.4	1.12	29
PM 1218BG/RR	1234	41.5	4.6	1.1	27.9
DP 445BG/RR	1215	43.7	4.4	1.15	29.6
DP 455BG/RR	1152	43.3	4	1.14	29.5
DP 449BG/RR	1139	41.9	4.2	1.14	30.8
ST 4892BR	1123	43.7	4.5	1.07	28.7
Mean	1210	42.9	4.2	1.12	29.3
LSD (0.05)	183	--	--	--	--
CV (%)	10.3	--	--	--	--

[†] Data obtained from a laboratory gin without the use of a lint cleaner.

