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Arkansas Cotton Variety Test 2006

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ARKANSAS COTTON VARIETY TEST 2006



*F.M. Bourland, B.S. Brown,
J.M. Hornbeck, and K. Kaufman*

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**ARKANSAS
COTTON
VARIETY TEST
2006**

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Fayetteville, Ark. 72701

SUMMARY

The primary goal 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 companies establish marketing strategies and assists producers in choosing varieties to plant. These annual evaluations will then facilitate the inclusion of new, improved genetic material in Arkansas cotton production. Adaptation of varieties is determined by evaluating the lines at four University of Arkansas research sites (near Keiser, Judd Hill, Marianna, and Rohwer) and one off-station site (near Manila). The 2006 main test was separated into two 26-entry experiments, one for Round-up Ready Flex varieties and one for non-Flex varieties. The 2006 1st-year test included 23 entries and three check varieties. Two common check varieties were included in each of the three experiments. Reported data include yield, lint percentage, plant height, open bolls, yield component variables, fiber properties, Verticillium wilt, leaf pubescence, and bract parameters. Entries in all three experiments were evaluated for response to tarnished plant bug in a separate test at Keiser.

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Arkansas Cotton Variety Test 2006

*F.M. Bourland, B.S. Brown,
J.M. Hornbeck, and K. Kaufman¹*

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. Since evaluation of genetic differences among entries is the ultimate goal of the evaluations, all varieties are treated identically within a location. No specialized production inputs were implemented with respect to genetically enhanced varieties. Round-up Ready® varieties, Liberty Link® varieties, Bt varieties and conventional varieties were all treated equally with respect to weed and insect control.

Cotton varieties that were evaluated in the 2005 Arkansas Cotton Variety Test and were re-submitted in 2006 were entered in the 2006 main variety test. Due to the large number of varieties, the 2006 main test was separated into two experiments, one for non-Round-up Ready Flex® varieties and one for Round-up Ready Flex® varieties. Lines that were not evaluated in the 2005 test were entered into the 2006 1st year variety test.

Common check varieties were included in each of the three experiments.

Materials and Methods

Each of the 2006 experiments (both main test experiments as well as the 1st year experiment) included 26 entries. The 2006 main Flex experiment included 24 Flex entries and two check varieties (Table 1). The 1st year experiment included 23 entries plus three check varieties. Check varieties in each experiment were chosen at the discretion of the project leader. All test sites included the same entries. Replications of the three experiments were randomized within each field.

Test sites included the Northeast Research and Extension Center at Keiser; the Judd Hill Cooperative Research Site at Judd Hill (near Trumann); the Lon Mann Cotton Research 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. An on-farm variety test was planted near Manila in Mississippi County (located in northeast Arkansas) on a soil naturally infested with root-knot nematode, but this site was subsequently abandoned due to poor stands. 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

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of 6oz/100 lb seed. Plots were planted with a constant number of seed (ca. 4 seed/row ft). All varieties were planted in two-row plots on 38-inch centers and ranged from 40 to 50 feet in length. Experiments were arranged in a randomized complete block and replicated four times. Although exact inputs varied across locations, cultural inputs at each location were generally based on University of Arkansas Cooperative Extension Service recommendations for cotton production, including COTMAN rules for insecticide termination. All plots were machine-harvested with 2-row cotton pickers modified with load cells for harvesting small plots.

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 experiments at Keiser using the 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 experiments after cutout. Each bract was examined for marginal trichome density (no. of trichome/cm) and maximum length (cm). Means for the six bracts were evaluated as plot means.

Verticillium wilt: The percentage of plants showing wilt symptoms was estimated (average of visual ratings taken from both ends of each plot) in the experiments at the Judd Hill on Sep 13.

Tarnished plant bug (TPB): Entries in the three experiments were evaluated for response to TPB in a separate field at Keiser. Each experiment included 12 replications of 1-row plots (18 feet long on 38-inch wide rows). The experiments were planted on May 17 and managed to encourage TPB infestations. An area of mustard beside the field and four rows of frego bract cotton between the experiments were planted approximately one month prior to planting the experiments. Response to TPB was

determined by examining white flowers (6 flowers/plot/day for 9 days in late August) for presence of anther damage. Accumulate percentage of damaged flowers ("dirty blooms") was determined for each plot.

Data Collected at All Locations:

Plant Height: Plant height measurements (in cm) were collected from each variety after defoliation. 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. Open boll estimates were not determined at the Rohwer site.

Lint Percentage and Fiber Data: Prior to mechanical harvest, hand-harvested samples of 50 open bolls were obtained from two replications at each location. 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 consecutive 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 determined using HVI classification included micronaire (Mic), fiber length (Len), length uniformity index (Unif.), strength (Str.) and elongation (Elo.).

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 (estimated using average seed weight) then multiplying by 100.

Fibers per seed: Fibers per seed were estimated by dividing lint index by an estimated weight of individual fibers determined by: (fiber length * length uniformity * (micronaire/1,000,000)).

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 variety 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 practices, 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

Optimal planting conditions throughout the state generally occurred in early April of 2006. Tests that were planted in early May tended to produce poor stands and some had to be re-planted. After May, weather conditions varied greatly between northeast and southeast Arkansas (Table 3). Northeast Arkansas received ample rainfall throughout the season, while drought conditions occurred in southeast Arkansas. Accumulative DD60's were near normal for May through July, but were higher than normal temperatures in August. Temperatures were cooler than normal in September which delayed maturity and often hindered defoliation. All tests were harvested prior to heavy rainfalls that occurred in late October. Other observations associated with each test site include:

Manila. This site was initially planted on May 8, and was replanted on May 22. Erratic stands were produced in each planting and the experiments at this test site were subsequently abandoned.

Keiser. The irrigated test was irrigated only once, and that irrigation was followed by rainfall within a short time. Consequently, yields in the adjacent irrigated and non-irrigated tests were similar.

Judd Hill. This site was initially planted on May 2, and was replanted on May 18. Relatively mild temperatures and ample rainfall contributed to a high incidence of Verticillium wilt throughout the test in 2006. Despite the late planting and incidence of Verticillium wilt, good yields were attained.

Marianna. Although rainfall in early May delayed planting, very high yields were attained in 2006.

Rohwer. In most years, yields at Rohwer exceed yields at other Arkansas test locations. However, low seedling

vigor (early May planting) and high August temperatures reduced yields at Rohwer in 2006.

Entries and participants in the main and 1st year experiments are listed in Table 1. Cultural inputs and production information for variety trials at Keiser (irrigated and non-irrigated), Judd Hill, Marianna, and Rohwer are reported in Table 2. Table 3 reports weather information for north, central, and south Arkansas locations during the 2006 production season.

Main experiments (non-Flex entries in Tables 4-9 and Flex entries in Table 10-15) of 2006 Arkansas Cotton Variety Test include varieties that were also evaluated in 2005. Tables 4 and 10 provide results over the five locations for each experiment. Two and three year yield means for entries in the main experiments are in Table 16-18. Performance data for first- year entries, which were evaluated in 2006 but not evaluated in 2005, are in Tables 19-24. Table 19 provides results over locations, and Tables 20-24 provide results for each of five locations. Morphological and host plant resistance measurements for entries in all three experiments are in Tables 25-28.

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

References

- Bourland, F.M., N.R. Benson, and W.C. Robertson. 2000. Inherent biases in the Arkansas cotton variety testing program. pp. 547-549. In Proc. Beltwide Cotton Prod. Res. Conf., San Antonio, Texas. 4-8 Jan. 2000. National Cotton Council, Memphis, Tenn..
- Bourland, F. M., J. M. Hornbeck, A. B. McFall, and S. D. Calhoun. 2003. A rating system for leaf pubescence of cotton. *J. Cotton Sci.* 7:8-15.

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Cultural Inputs and Production Information

Table 1. Participants and entries in the 2006 Arkansas Cotton Variety Test.

Institution/Contact person	Main (Non-Flex) Test		Main (Flex) Test		1st year (Flex & Non-Flex)	
Bayer Crop Science/ Macon LaFoe	FM 955 B2LL FM 958 LL FM 960 BR	FM 960 B2R FM 965 B2LL FM 966 LL			FM 1600 LL FM 9060 F FM 9063 B2F	FM 9068 F FMX06451LLB2 FM 960 BR, ck.
Beltwide Cotton Genetics / Betsy Mullins			BW-2038 B2F BW-3255 B2F BW-4021 B2F	BW-4630 B2F BW-8391 B2F		
Calif. Planting Cotton Seed Dist./ Hal Moser					CS50 RF	
Croplan Genetics Jaime Yanes			CG 3020 B2RF CG 3520 B2RF CG 4020 B2RF			
Delta & Pine Land Company / David Albers	DP 393, ck. DP 432 RR DP 434 RR DP 444 BG/RR	DP 445 BG/RR DP 454 BG/RR DP 455 BG/RR DP 515 BGII/RR	DP 110 RF DP 117 B2RF DP 143 B2RF DP 147 RF	DP 164 B2RF DP 167 RF DP 444 BG/RR, ck.	DPLX 06W650 F DP 121 RF DP 444 BG/RR, ck.	
Monsanto/ Zach Shappley	ST 4575 BR ST 5242 BR ST 5599 BR		ST 4357 B2RF ST 4554 B2RF ST 4664 RF	ST 6611 B2RF ST 6622 RF ST 5599 BR, ck	ST 4700 B2RF ST 4427 B2RF ST 5283 RF	ST 5327 B2RF ST 6565 B2RF ST 5599 BR, ck
PhytoGen Seed Co., LLC. / Bobby Haygood	PHY 310 R PHY 370 WR	PHY 470 WR PHY 480 WR	PHY 425 RF		PHY 485 WRF	
Syngenta Seeds, Inc. / Charles Cook	DX 25105N				DX 34102-17 DX 34909	DX 44708
United Agri Products / Larry Stauber			DG 2100 B2RF DG 2215 B2RF	DG 2242 B2RF DG 2520 B2RF	DG 2490 B2RF DG OA265 BR	
University of Arkansas / Fred Bourland	Arkot 9304a Arkot 9304b	Arkot 9308 Arkot 9409			Arkot 9214 Arkot RM24	Arkot 9506 Arkot 9513

Table 2. Cultural practices for locations of the 2006 Arkansas Cotton Variety Test.

Location	Soil type	Irrigation	Fertilizer N, P, K	Planting date	Irrigation dates	Defoliation date	Harvest date
Keiser	Sharkey clay	Furrow	100,0,0	5/16	6/2	9/15	10/6
Keiser	Sharkey clay	none	100,0,0	5/16	none	9/15	10/6
Judd Hill	Dundee silt loam	Furrow	90,28,80	5/18	5/31; 6/9, 30; 7/13	9/15	10/3
Marianna	Callaway silt loam	Furrow	84,0,0	5/18	6/9, 30; 7/7, 21; 8/2, 10, 17	9/27	10/12
Rohwer	Desha silt loam	Furrow	100,30,90	5/3	6/14; 7/5, 21; 8/1, 9	9/6	9/28

Table 3. Weather summary for the 2006 production season in north, central and south Arkansas.

Location	Month	DD60's in 2006	Historical avg.1 DD60's	Rainfall (in.) in 2006
Keiser (northeast)	May	358.0	309.6	4.23
	June	550.0	530.1	5.30
	July	624.5	645.4	7.00
	August	648.0	576.0	5.61
	September	324.0	361.5	4.56
	Total	2504.5	2422.6	26.70
Marianna (central)	May	330.0	336.2	3.88
	June	525.5	541.5	2.10
	July	627.0	648.8	1.26
	August	671.5	596.6	2.42
	September	352.5	393.1	4.35
	Total	2506.5	2516.2	14.01
Rohwer (southeast)	May	294.5	351.4	4.46
	June	549.5	550.6	1.68
	July	665.0	661.8	0.08
	August	725.0	612.4	2.14
	September	374.0	414.0	2.42
	Total	2608.0	2590.2	10.78

1/ DD60 (growing degree days based on 60F) from historical weather data, 1948-2005 for Marianna and 1960-2005 for Keiser and Rohwer.

Table 4. Results of the 2006 Main (Non-Flex) Cotton Variety Tests across five Arkansas sites.																										
Variety	Lint					Seed					Fiber properties					Fiber properties										
	yield	r	frac.	r	Lint	Open	Seed	Lint	Seed	Fibers	Mic.	Len.	Unif.	Str.	Elo.	r	r	r	r	r	r	r	r	r		
lb/a		%		cm	r	bolls	index	g	per a	per sd	r	in.	%	g/tex	%											
DP 454 BG/RR	1320	1	42.3	1	109	6	70	15	9.3	25	7.1	19	8.379	2	17337	5	4.4	24	1.12	24	83.4	25	29.5	24	8.5	17
ST 5599 BR	1289	2	39.9	12	103	16	60	26	11.5	11	7.9	4	7.357	11	16899	8	5.0	2	1.13	19	84.1	16	30.7	21	8.2	19
DP 515 BG/RR	1283	3	40.0	10	108	7	70	14	9.3	24	6.5	25	8.878	1	13991	25	4.8	7	1.16	11	84.0	21	29.9	22	8.2	18
PHY 370 WR	1276	4	41.2	3	108	8	75	2	10.1	20	7.4	13	7.905	6	16830	9	4.7	13	1.12	24	84.1	19	32.0	11	9.2	12
PHY 310 R	1273	5	40.9	4	110	3	70	15	10.1	19	7.3	15	7.903	7	16373	12	4.8	6	1.12	26	83.9	22	31.6	14	9.6	7
ST 5242 BR	1244	6	40.2	8	106	10	68	18	12.1	3	8.5	1	6.659	16	18715	1	4.8	9	1.13	21	84.3	11	29.4	25	9.1	13
ST 4575 BR	1220	7	39.6	14	102	19	71	9	10.2	18	7.0	22	7.582	8	15700	19	4.7	17	1.13	20	84.1	16	33.3	3	10.7	1
DX 25105N	1220	8	40.7	5	104	14	70	11	10.5	15	7.5	11	7.404	10	16115	17	4.8	5	1.15	13	83.8	23	30.7	20	9.2	10
DP 444 BG/RR	1194	9	40.6	6	104	13	78	1	10.2	17	7.3	18	7.433	9	17941	4	4.3	25	1.14	17	84.0	20	29.2	26	8.8	15
PHY 480 WR	1182	10	37.8	24	110	5	72	8	10.3	16	6.6	23	8.160	3	13724	26	4.8	4	1.17	9	85.0	3	32.8	8	10.2	3
DP 434 RR	1158	11	41.7	2	106	11	72	6	9.8	22	7.3	17	7.199	13	16373	13	4.5	23	1.19	4	84.7	6	29.6	23	9.4	9
DP 455 BG/RR	1151	12	40.4	7	112	2	64	21	9.2	26	6.5	24	7.993	5	16237	15	4.1	26	1.17	6	83.4	26	31.1	18	8.0	20
DP 393	1150	13	40.2	9	106	9	70	11	10.5	14	7.4	14	7.091	15	15422	20	4.8	3	1.17	8	84.6	8	33.3	4	9.8	5
Arkot 9304b	1144	14	39.5	15	102	20	73	4	12.0	5	8.1	2	6.394	18	18470	2	4.7	19	1.12	23	84.2	14	31.5	15	9.2	11
DP 432 RR	1136	15	39.1	18	110	4	70	11	9.5	23	6.4	26	8.072	4	14220	24	4.7	10	1.14	16	84.2	12	31.7	13	9.5	8
PHY 470 WR	1122	16	39.2	16	105	12	72	6	10.5	13	7.1	20	7.180	14	16019	18	4.7	16	1.13	22	84.1	18	31.2	16	10.3	2
FM 960 BR	1117	17	38.6	20	100	24	65	19	11.7	10	7.7	8	6.627	17	17043	6	4.7	15	1.15	14	83.8	24	32.7	9	7.4	24
DP 445 BG/RR	1113	18	40.0	11	101	23	71	9	10.1	21	7.0	21	7.244	12	15189	21	4.7	20	1.17	7	84.7	5	33.9	2	10.0	4
Arkot 9409	1086	19	39.8	13	103	18	74	3	11.7	8	8.1	3	6.050	21	18373	3	4.6	21	1.14	17	84.2	13	31.8	12	9.0	14
FM 966 LL	1054	20	38.1	23	101	22	61	25	12.1	4	7.7	7	6.158	20	16996	7	4.7	10	1.14	15	84.4	9	32.9	6	7.4	23
FM 960 B2R	1038	21	38.1	22	102	21	63	22	11.9	7	7.6	9	6.247	19	16387	11	4.7	12	1.16	10	84.1	15	32.2	10	7.1	26
FM 958 LL	1034	22	39.1	17	99	25	65	19	11.7	9	7.9	6	5.969	22	16466	10	4.7	17	1.21	2	84.6	7	30.9	19	7.5	22
Arkot 9308	968	23	38.9	19	114	1	73	5	11.9	6	7.9	5	5.539	26	15126	23	5.2	1	1.18	5	85.4	1	34.4	1	8.5	16
Arkot 9304a	960	24	38.6	21	104	15	68	17	11.4	12	7.5	12	5.863	23	16295	14	4.7	14	1.15	12	84.4	10	32.8	7	9.7	6
FM 955 B2LL	930	25	36.6	25	103	17	61	23	12.4	1	7.5	10	5.668	24	15182	22	4.8	8	1.22	1	85.1	2	31.2	17	7.9	21
FM 965 B2LL	919	26	36.2	26	98	26	61	24	12.4	2	7.3	16	5.665	25	16152	16	4.5	22	1.19	3	84.8	4	33.1	5	7.3	25
Mean	1137		39.5		105		69		10.9		7.4		7.021		16291		4.7		1.15		84.3		31.7		8.8	
Var. LSD 0.10	89		0.8		5		4		0.4		0.4		0.572		746		0.2		0.01		0.5		0.8		0.3	
Loc. LSD 0.10	39		0.4		2		2		ns		0.2		0.249		ns		0.1		0.01		0.2		0.4		0.1	
C.V.%	14.9		2.8		8.8		11.0		4.7		6.8		15.5		6.2		5.7		1.7		0.8		3.4		4.9	
R-sq x 100	72.8		86.5		74.5		78.4		91.4		81.0		71.2		81.2		85.1		86.8		75.7		85.6		92.4	
Prob (var x loc)	<.001		0.03		0.04		<.001		0.01		0.23		0.01		0.61		0.06		0.09		0.14		0.10		0.69	

Table 5. Results of the 2006 Main (Non-Flex) Cotton Variety Test with irrigation on a Tunica silty clay soil at Keiser, AR.

Variety	Lint		Lint frac.		Ht.		Open		Seed		Lint		Seed		Fibers		Fiber properties		Fiber properties							
	yield	lb/a	r	%	r	cm	r	bolls	r	index	g	r	index	per a	no.	r	Mic.	r	Len.	r	Unif.	r	Str.	r	Elo.	r
PHY 370 WR	1164	1	40.8	5	100	14	71	6	10.3	17	7.4	12	7.133	5	16754	7	4.7	14	1.13	22	84.6	12	31.8	17	9.4	9
ST 5599 BR	1149	2	39.8	12	101	13	54	23	11.3	11	7.8	6	6.689	9	16381	13	5.0	3	1.14	16	84.5	14	31.5	19	7.7	20
DP 432 RR	1139	3	40.6	7	101	11	64	18	9.5	23	6.8	24	7.633	2	14553	22	4.8	7	1.14	16	85.1	6	32.5	10	9.8	4
PHY 310 R	1119	4	40.2	9	103	10	66	12	9.9	19	7.0	21	7.287	4	15636	19	4.7	12	1.12	24	84.8	8	31.8	18	9.5	8
DP 393	1084	5	41.1	4	96	20	70	7	10.3	16	7.5	10	6.565	11	15034	21	4.9	5	1.19	5	85.8	2	35.6	1	9.6	7
DP 455 BG/RR	1079	6	40.0	11	110	1	64	18	9.3	24	6.5	25	7.559	3	15925	17	4.1	26	1.20	4	84.2	19	32.1	15	7.9	19
DP 445 BG/RR	1076	7	41.7	2	93	24	74	3	9.8	22	7.3	14	6.716	8	16415	12	4.5	19	1.17	9	84.6	11	33.2	6	9.8	6
DP 454 BG/RR	1063	8	42.8	1	99	16	74	3	9.0	25	7.0	20	6.886	6	18364	4	4.2	24	1.11	26	82.9	26	29.7	24	8.2	18
PHY 480 WR	1039	9	38.6	17	109	2	69	10	10.5	15	6.9	23	6.819	7	14208	25	5.0	3	1.16	12	85.2	4	32.6	8	10.4	2
ST 4575 BR	1037	10	40.5	8	104	7	70	7	10.0	18	7.1	16	6.610	10	16133	16	4.7	14	1.13	19	84.1	20	33.5	5	10.5	1
Arkot 9304b	1036	11	39.2	13	106	5	65	16	12.3	3	8.2	1	5.714	17	18681	2	4.7	14	1.13	22	84.4	17	32.6	9	9.0	12
DP 444 BG/RR	1033	12	41.1	3	99	17	75	1	9.8	21	7.2	15	6.523	12	18315	5	4.1	25	1.14	18	84.4	16	29.6	25	8.9	14
DP 515 BG/RR	1032	13	38.2	20	93	22	66	12	8.7	26	5.6	26	8.306	1	13266	26	4.5	21	1.15	14	83.6	24	28.8	26	8.4	17
ST 5242 BR	1011	14	40.0	10	100	15	56	22	11.8	9	8.2	2	5.582	19	18877	1	4.7	14	1.12	24	83.9	21	30.5	22	9.0	12
PHY 470 WR	983	15	38.9	16	101	12	65	16	10.5	14	7.0	18	6.344	13	15697	18	4.8	10	1.13	19	83.5	25	31.4	20	10.3	3
Arkot 9308	980	16	38.2	21	107	3	70	7	11.8	10	7.6	9	5.847	15	14214	24	5.3	1	1.18	6	86.0	1	35.1	2	8.7	15
Arkot 9409	944	17	39.2	14	93	23	74	3	11.0	12	7.5	11	5.741	16	18587	3	4.3	22	1.13	19	83.7	23	34.3	3	8.5	16
FM 960 BR	944	18	38.6	18	99	18	66	12	12.1	7	7.9	5	5.454	21	17201	6	4.7	12	1.16	12	84.2	18	32.3	13	7.2	25
DP 434 RR	940	19	40.6	6	94	21	75	1	9.9	20	7.1	17	6.035	14	16207	15	4.5	20	1.16	10	84.6	12	29.8	23	9.4	9
DX 25105N	924	20	39.0	15	104	7	68	11	11.0	13	7.4	13	5.710	18	15108	20	5.0	2	1.16	11	83.9	22	32.1	16	9.2	11
FM 955 B2LL	834	21	35.5	26	105	6	61	20	12.1	4	6.9	22	5.463	20	14348	23	4.8	10	1.20	2	84.7	9	32.2	14	7.7	21
FM 966 LL	827	22	38.2	19	106	4	53	24	12.1	6	7.8	8	4.838	22	16619	8	4.8	7	1.15	14	85.0	7	33.2	6	7.7	21
FM 958 LL	771	23	38.0	22	89	25	66	12	12.1	4	7.8	7	4.522	24	16443	10	4.6	18	1.21	1	85.1	5	31.3	21	7.3	23
FM 960 B2R	731	24	37.8	24	98	19	53	24	12.5	2	7.9	4	4.218	25	16556	9	4.8	7	1.17	7	84.7	9	32.3	12	7.1	26
FM 965 B2LL	720	25	36.2	25	85	26	59	21	11.8	8	7.0	19	4.667	23	16441	11	4.2	23	1.20	2	84.5	15	32.4	11	7.3	23
Arkot 9304a	657	26	37.9	23	104	9	51	26	12.6	1	8.0	3	3.712	26	16360	14	4.9	5	1.17	7	85.7	3	34.2	4	9.8	4
Mean	974		39.3		100		65		10.8		7.3		6.108		16243		4.6		1.15		84.5		32.1		8.8	
LSD 0.10	186		1.7		ns		11		1.0		0.8		1.193		1605		0.5		0.03		1.1		2.2		0.6	
C.V.%	15.9		2.5		10.5		14.1		5.3		6.1		16.3		5.8		6.1		1.4		0.8		4.1		4.3	
R-sq x 100	55.1		85.7		38.0		55.5		89.7		78.8		65.1		83.5		71.1		85.9		73.4		76.6		94.1	

Table 6. Results of the 2006 Main (Non-Flex) Cotton Variety Test without irrigation on a Tunica silty clay soil at Keiser, AR.

Variety	Lint		Ht.		Open		Seed		Lint		Seed		Fibers		Mic.		Len.		Unif.		Str.		Elo.		
	yield	frac.	r	cm	r	bolls	r	index	r	index	r	per a	r	per sd	r	in.	r	in.	r	%	r	g/tex	r	%	
ST 5599 BR	1261	1	38.6	16	102	23	43	26	12.3	7	8.0	4	7.138	6	16728	7	4.9	7	1.16	15	85.3	5	31.9	15	7.7
ST 5242 BR	1156	2	39.4	11	103	20	61	6	12.6	4	8.5	3	6.169	12	18830	1	4.7	10	1.14	21	84.4	18	29.8	26	8.9
DP 454 BG/RR	1150	3	40.5	5	112	7	46	21	9.7	25	6.9	20	7.587	5	16251	12	4.4	22	1.16	16	84.3	20	30.8	22	8.5
DP 515 BG/RR	1146	4	39.1	13	118	4	55	15	9.9	21	6.6	22	7.888	2	13323	25	4.9	5	1.20	6	85.1	9	30.8	22	8.0
ST 4575 BR	1136	5	39.1	14	108	13	56	13	9.9	23	6.6	23	6.201	11	16370	11	4.2	25	1.16	16	84.3	22	32.8	9	10.1
DP 455 BG/RR	1122	6	39.9	9	129	1	46	21	9.0	26	6.3	25	8.106	1	16060	16	4.0	26	1.19	8	84.2	23	32.6	13	7.4
PHY 370 WR	1121	7	41.7	1	108	12	63	5	10.3	19	7.7	8	6.637	8	17559	4	4.6	15	1.12	25	84.9	12	31.8	16	9.1
PHY 470 WR	1094	8	39.5	10	105	18	61	6	10.3	17	7.1	19	7.028	7	15694	18	4.7	12	1.15	18	84.5	16	30.9	21	10.6
PHY 310 R	1076	9	41.0	2	112	8	51	18	11.0	13	8.0	6	6.146	13	16510	9	5.1	2	1.13	24	83.9	25	31.8	16	9.3
DP 432 RR	1073	10	38.0	21	119	2	61	6	9.9	22	6.4	24	7.658	4	13636	24	4.8	9	1.15	18	84.6	13	33.0	8	9.3
DP 444 BG/RR	1060	11	39.4	12	105	18	69	2	11.0	14	7.4	12	6.477	10	17394	5	4.3	24	1.17	12	84.9	11	31.1	20	8.8
PHY 480 WR	1056	12	36.3	25	109	11	58	10	10.4	16	6.2	26	7.716	3	13259	26	4.6	17	1.21	3	85.7	3	33.8	6	9.9
DP 393	1028	13	40.0	7	111	10	59	9	10.3	17	7.2	17	6.525	9	15765	17	4.6	14	1.17	12	84.3	20	32.7	11	9.6
FM 960 B2R	978	14	38.1	20	97	26	58	10	11.8	10	7.5	10	5.883	14	17010	6	4.5	21	1.18	9	84.5	16	32.7	11	6.7
Arkot9304b	958	15	38.7	15	103	22	71	1	13.0	1	8.5	2	5.094	22	18227	2	5.0	4	1.12	25	84.6	13	32.8	9	8.7
Arkot9409	952	16	39.9	8	105	17	69	2	12.8	3	8.8	1	4.898	23	17907	3	5.1	2	1.14	23	85.2	8	32.0	14	8.8
FM 958 LL	952	17	38.4	17	111	9	48	19	12.1	8	7.8	7	5.512	19	16595	8	4.6	15	1.22	2	84.6	13	31.2	19	7.1
DX 25105N	944	18	40.9	3	114	5	55	15	10.5	15	7.6	9	5.652	16	16490	10	4.7	12	1.17	12	84.4	18	30.8	24	9.1
DP 434 RR	918	19	40.7	4	113	6	58	10	10.1	20	7.2	14	5.778	15	16204	14	4.4	22	1.20	4	85.5	4	30.4	25	9.0
FM 960 BR	897	20	38.3	18	103	21	55	15	11.6	12	7.5	11	5.454	20	16227	13	4.9	8	1.14	21	83.4	26	34.4	4	7.0
FM 966 LL	869	21	36.7	22	100	25	44	25	11.7	11	7.1	18	5.582	17	16142	15	4.5	20	1.15	20	85.0	10	34.2	5	7.0
DP 445 BG/RR	839	22	40.1	6	106	16	46	21	9.9	24	6.9	21	5.535	18	15086	21	4.6	17	1.18	11	85.3	5	34.5	2	9.7
Arkot9304a	816	23	36.6	23	107	15	64	4	11.9	9	7.2	16	5.179	21	15352	20	4.7	10	1.18	9	84.1	24	33.1	7	9.4
Arkot9308	765	24	38.2	19	118	3	56	13	12.5	5	8.0	5	4.333	25	14929	22	5.3	1	1.19	7	86.0	1	35.2	1	8.2
FM 955 B2LL	750	25	36.6	24	101	24	45	24	12.4	6	7.4	13	4.585	24	14214	23	4.9	5	1.24	1	86.0	1	31.4	18	7.7
FM 965 B2LL	650	26	34.9	26	108	14	48	19	12.8	2	7.2	15	4.120	26	15389	19	4.6	17	1.20	4	85.3	5	34.4	3	6.8
Mean	990		38.9		109		56		11.1		7.4		6.113		16044		4.7		1.17		84.8		32.3		8.5
LSD 0.10	168		1.3		12		11		0.9		0.8		1.195		1390		0.5		0.03		1.1		1.4		0.6
C.V.%	14.3		2.0		9.6		16.7		5.0		6.1		16.5		5.1		5.7		1.6		0.8		2.6		4.0
R-sq x 100	69.1		90.2		42.0		57.2		90.4		82.6		70.2		85.9		72.1		84.0		65.7		86.6		95.5

Table 7. Results of the 2006 Main (Non-Flex) Cotton Variety Test with irrigation on a Dundee silt loam soil at Jued Hill, AR.

Variety	Lint		Lint frac.		Ht.		Open		Seed		Lint		Seed		Fibers		Mic.		Len.		Unif.		Str.		Elo.	
	yield	lb/a	r	%	r	cm	r	bolls	r	index	g	r	index	g	per a	no.	r	r	r	in.	r	%	r	g/tex	r	%
DP 444 BG/RR	1409	1	42.0	1	127	8	80	6	10.0	19	7.6	3	8.482	6	19105	2	4.1	16	1.16	16	84.3	17	30.5	24	9.2	13
PHY 370 WR	1380	2	39.0	10	139	1	83	1	9.1	23	6.1	24	10.270	1	17602	7	3.7	25	1.13	25	84.0	22	31.6	16	9.2	14
DP 434 RR	1313	3	40.7	2	127	9	74	11	9.3	22	6.6	18	9.005	3	16685	12	3.8	24	1.24	1	85.3	4	29.4	25	9.9	8
DP 454 BG/RR	1290	4	40.1	3	131	6	81	3	9.4	21	6.6	19	8.920	4	17566	9	3.9	20	1.14	24	84.7	12	30.8	21	8.7	16
DP 445 BG/RR	1230	5	38.8	13	121	20	78	9	10.5	16	6.9	14	8.112	9	15562	22	4.3	7	1.20	6	85.8	1	34.8	1	10.1	6
ST 4575 BR	1223	6	39.2	6	116	23	79	7	10.6	14	7.1	10	7.800	11	16584	14	4.4	3	1.15	19	85.0	8	34.5	2	11.2	1
PHY 480 WR	1205	7	36.1	25	128	7	81	3	10.4	17	6.1	25	8.919	5	14375	25	4.3	8	1.18	9	85.1	7	33.5	5	10.2	4
DX 25105N	1185	8	38.9	11	118	21	74	11	10.6	15	7.0	13	7.693	13	16524	15	4.3	8	1.18	9	84.5	14	31.2	17	9.5	11
ST 5242 BR	1148	9	39.3	5	123	16	71	17	12.3	2	8.3	1	6.307	21	19142	1	4.5	2	1.14	23	84.7	12	28.5	26	9.6	10
PHY 470 WR	1144	10	37.2	19	126	11	83	1	10.1	18	6.2	22	8.333	8	16239	18	4.0	18	1.14	22	84.3	17	30.6	23	10.3	3
DP 393	1137	11	39.1	9	125	12	70	18	10.7	13	7.2	9	7.216	14	16476	17	4.4	5	1.18	12	84.8	10	32.0	11	10.2	4
PHY 310 R	1136	12	39.1	8	136	2	79	7	10.0	20	6.7	15	7.710	12	17587	8	4.1	15	1.13	26	84.3	19	32.3	9	9.2	14
DP 515 BG/RR	1133	13	39.2	7	133	3	81	3	9.1	24	6.2	23	8.369	7	14326	26	4.4	5	1.18	13	84.1	21	30.6	22	8.2	20
ST 5599 BR	1117	14	38.8	12	121	19	68	20	10.9	11	7.2	8	7.055	15	17976	5	4.2	11	1.15	21	83.7	24	31.0	19	8.3	18
FM 960 BR	1102	15	38.5	15	122	17	61	25	11.1	8	7.3	6	6.931	17	18920	3	3.9	20	1.18	13	83.8	23	33.0	8	7.6	25
DP 432 RR	1099	16	36.5	23	132	5	74	11	9.0	26	5.4	26	9.211	2	15392	23	3.6	26	1.18	9	84.4	16	32.0	12	10.0	7
DP 455 BG/RR	1088	17	39.9	4	125	14	74	11	9.1	25	6.3	21	7.813	10	16938	11	3.8	23	1.19	8	82.9	26	30.9	20	8.0	23
FM 960 B2R	1075	18	37.2	18	127	10	66	21	11.5	7	7.0	12	6.957	16	16663	13	4.4	3	1.15	19	83.6	25	31.9	13	7.5	26
FM 966 LL	1057	19	37.8	16	114	25	61	25	12.2	3	7.7	2	6.255	22	18505	4	4.2	14	1.18	15	84.2	20	33.1	7	7.7	24
FM 958 LL	1034	20	38.5	14	125	13	64	22	11.0	10	7.2	7	6.534	20	16503	16	4.2	11	1.23	3	84.7	11	32.3	10	8.1	22
Arkot 9304b	978	21	37.4	17	115	24	73	16	11.8	6	7.3	5	6.058	25	17858	6	4.2	11	1.16	17	85.4	3	31.6	15	9.7	9
Arkot 9304a	973	22	36.9	21	118	22	74	11	10.8	12	6.6	17	6.666	18	15998	21	4.3	8	1.16	17	84.5	14	33.6	4	10.6	2
FM 965 B2LL	957	23	36.1	24	110	26	63	24	12.0	4	7.1	11	6.172	23	17445	10	3.9	19	1.22	4	85.3	5	33.3	6	8.2	21
Arkot 9308	951	24	36.9	20	133	4	76	10	12.4	1	7.5	4	5.723	26	15373	24	4.8	1	1.21	5	85.5	2	34.3	3	8.7	17
FM 955 B2LL	937	25	34.6	26	124	15	64	22	11.9	5	6.5	20	6.546	19	16079	20	3.9	22	1.24	2	85.2	6	31.2	18	8.3	18
Arkot 9409	902	26	36.7	22	122	17	70	18	11.0	9	6.7	16	6.154	24	16109	19	4.1	16	1.20	6	85.0	8	31.8	14	9.4	12
Mean	1122		38.5		124		73		10.6		6.9		7.494		16828		4.1		1.17		84.6		31.9		9.1	
LSD 0.10	147		2.4		13		6		0.8		1.0		0.985		2315		ns		0.30		1.1		2.0		0.6	
C.V.%	11.0		3.7		8.5		7.1		4.6		8.6		11.1		8.1		7.5		1.6		0.8		3.7		4.1	
R-sq x 100	64.5		79.9		57.3		74.9		90.8		72.5		74.8		66.8		67.6		89.0		68.6		79.5		93.7	

Table 8. Results of the 2006 Main (Non-Flex) Cotton Variety Test with irrigation on a Calloway silt loam soil at Marianna, AR.

Variety	Lint		Lint frac.		Ht. cm	Open bolls	Seed		Lint		Seed		Fibers		Fiber properties											
	yield lb/a	r	r	%			r	index	g	r	index	g	r	per a mil.	r	per sd no.	r	Mic.	r	Leh. in.	r	Unif. %	r	Str. g/tex	r	Elo. %	r
ST 5599 BR	1674	1	41.9	8	98	4	75	22	11.5	9	8.6	3	8.795	7	17346	6	5.3	5	1.12	20	84.0	14	30.4	22	8.8	16
ST 5242 BR	1640	2	41.6	10	98	7	83	8	11.6	8	8.6	4	8.709	9	18761	3	4.8	23	1.13	18	84.4	11	29.7	23	9.9	6
ST 4575 BR	1615	3	41.3	14	90	20	80	16	10.6	16	7.7	17	9.501	1	15586	19	5.4	4	1.11	22	83.4	23	33.6	5	11.1	1
PHY 310 R	1609	4	42.3	5	100	3	83	8	10.1	21	7.8	15	9.337	5	16498	12	5.0	15	1.14	14	83.6	22	32.7	9	10.5	4
DX 25105N	1603	5	42.8	4	92	19	85	4	9.9	23	7.7	18	9.431	3	16393	13	5.0	15	1.13	18	83.7	18	30.7	20	9.7	8
Arkot 9409	1577	6	42.3	6	96	12	83	8	12.0	6	9.1	1	7.845	18	19876	1	5.0	19	1.11	22	83.7	20	31.0	19	9.2	14
DP 454 BG/RR	1568	7	44.5	1	98	5	78	19	9.2	26	7.7	16	9.205	6	17420	5	5.0	15	1.08	26	82.7	26	27.6	26	8.7	17
Arkot 9304b	1546	8	42.0	7	89	21	83	8	11.1	12	8.4	8	8.388	13	19277	2	4.7	24	1.11	22	83.2	24	30.5	21	9.8	7
DP 515 BG/RR	1503	9	41.8	9	94	16	78	19	9.5	25	7.2	24	9.492	2	14776	24	5.1	11	1.14	12	83.9	15	31.3	17	8.3	19
DP 434 RR	1489	10	44.0	2	96	11	83	8	10.2	18	8.4	7	8.063	16	16701	11	5.2	8	1.16	9	84.5	10	29.7	24	9.4	10
PHY 370 WR	1453	11	42.9	3	95	14	85	4	10.7	14	8.4	6	7.822	20	16237	14	5.6	2	1.12	20	83.7	20	32.8	8	9.3	12
DP 444 BG/RR	1419	12	41.0	16	96	12	88	1	10.2	17	7.5	21	8.600	10	17625	4	4.7	24	1.09	25	83.2	24	28.5	25	8.9	15
PHY 470 WR	1408	13	39.8	20	97	10	80	16	11.1	11	7.7	19	8.316	14	16097	16	5.0	15	1.13	17	84.6	5	32.3	12	10.6	2
PHY 480 WR	1403	14	39.4	21	102	2	80	16	10.0	22	6.8	26	9.391	4	13207	26	5.2	7	1.16	8	85.3	1	32.1	13	10.6	3
Arkot 9304a	1396	15	41.3	13	92	18	85	4	10.7	15	7.8	14	8.090	15	16761	7	4.9	20	1.14	12	83.8	16	32.5	11	9.3	13
FM 960 BR	1393	16	38.9	23	83	26	78	19	12.2	4	8.0	11	7.891	17	16721	9	4.9	22	1.17	3	84.6	5	34.3	2	7.7	22
DP 393	1367	17	41.4	12	94	17	83	8	10.8	13	7.9	12	7.830	19	15274	22	5.3	6	1.17	6	84.9	3	33.8	4	9.6	9
DP 445 BG/RR	1360	18	40.8	17	86	24	88	1	10.1	20	7.3	23	8.490	11	14965	23	5.1	12	1.15	11	83.8	17	34.3	2	10.4	5
DP 455 BG/RR	1357	19	41.2	15	98	6	73	26	9.6	24	7.0	25	8.749	8	15957	17	4.5	26	1.17	3	83.7	18	31.5	16	8.4	18
DP 432 RR	1355	20	40.8	18	97	8	83	8	10.2	19	7.3	22	8.389	12	13930	25	5.5	3	1.14	14	84.5	8	31.8	15	9.4	10
FM 958 LL	1296	21	40.6	19	83	25	83	8	11.8	7	8.5	5	6.918	24	16714	10	5.1	12	1.20	2	84.4	11	31.3	17	7.5	24
FM 966 LL	1293	22	38.2	24	97	9	85	4	12.6	3	8.1	10	7.237	22	16749	8	5.1	12	1.14	14	84.5	8	32.6	10	7.7	23
Arkot 9308	1250	23	41.4	11	105	1	88	1	12.1	5	8.9	2	6.355	26	16236	15	5.7	1	1.15	10	84.7	4	35.8	1	8.1	21
FM 960 B2R	1243	24	38.9	22	95	15	75	22	11.5	10	7.6	20	7.465	21	15705	18	4.9	20	1.17	3	84.1	13	33.0	6	7.4	25
FM 965 B2LL	1241	25	36.9	26	87	23	75	22	12.8	2	7.9	13	7.182	23	15469	21	5.2	8	1.17	6	84.6	5	33.0	7	7.1	26
FM 955 B2LL	1158	26	37.9	25	87	22	75	22	12.9	1	8.2	9	6.415	25	15530	20	5.2	8	1.21	1	85.2	2	31.9	14	8.1	20
Mean	1431		41.0		94		81		11.0		7.9		8.227		16377		5.1		1.14		84.1		31.8		9.0	
LSD 0.10	205		1.4		8		7		0.7		0.8		1.173		1315		0.4		0.03		1.1		1.6		1.0	
C.V.%	12.1		2.0		7.3		7.0		3.7		5.7		12.1		4.7		4.5		1.8		0.7		3.0		6.7	
R-sq x 100	54.4		91.0		57.0		51.9		93.2		76.6		59.0		88.3		72.7		82.0		67.6		88.6		86.9	

Table 9. Results of the 2006 Main (Non-Flex) Cotton Variety Test with irrigation on a Desha silt loam at Rohwer, AR.

Variety	Lint		Lint frac.		Ht.		Open		Seed		Lint		Seed		Fibers		Fiber properties											
	yield	lb/a	r	%	r	cm	r	bolts	r	index	g	r	index	per a	no.	r	Mic.	r	Len.	r	Unif.	r	Str.	r	Elc.	r		
DP 515 BG/RR	1600	1	41.5	6	99	9	9.5	22	7.0	20	10.380	1	14265	22	5.2	3	1.15	8	83.3	18	27.9	25	8.4	18				
DP 454 BG/RR	1528	2	43.7	1	104	4	9.2	24	7.5	16	9.299	2	17087	5	4.7	23	1.13	12	82.6	24	28.8	19	8.6	15				
PHY 310 R	1423	3	41.9	3	100	8	9.5	21	7.2	18	9.035	3	15632	19	5.1	9	1.08	26	83.2	20	29.5	15	9.5	6				
DX 25105N	1299	4	41.9	4	91	24	10.3	16	7.7	9	7.672	7	16059	14	5.2	3	1.13	12	82.7	23	29.0	18	8.6	14				
ST 5242 BR	1263	5	40.8	8	105	3	12.3	3	8.8	1	6.527	19	17965	3	5.2	3	1.13	10	84.0	6	28.6	24	8.4	16				
FM 960 BR	1248	6	39.0	20	93	21	11.5	9	7.7	11	7.405	10	16146	10	5.2	3	1.11	17	83.0	22	29.8	14	7.5	23				
ST 5599 BR	1245	7	40.3	11	93	20	11.4	10	7.9	7	7.109	14	16065	13	5.5	1	1.10	23	83.0	21	28.7	22	8.3	19				
PHY 370 WR	1232	8	41.8	5	98	11	9.9	19	7.5	14	7.467	9	16000	17	5.1	11	1.11	21	83.2	19	32.1	5	8.9	12				
FM 966 LL	1225	9	39.4	19	88	26	12.0	5	8.1	5	6.880	16	16963	7	5.2	3	1.11	17	83.5	12	31.3	8	7.1	25				
PHY 480 WR	1211	10	38.5	22	101	5	10.3	15	6.8	22	8.144	4	13573	26	5.3	2	1.13	11	83.9	8	32.0	6	9.9	2				
Arkot 9304b	1202	11	40.2	12	96	17	11.7	7	8.1	4	6.718	17	18309	2	4.8	20	1.11	17	83.3	17	30.1	12	8.8	13				
FM 960 B2R	1164	12	38.6	21	92	22	12.1	4	7.9	8	6.712	18	16004	16	5.1	9	1.15	6	83.8	9	31.1	9	7.1	26				
DP 393	1133	13	39.4	18	107	1	10.4	14	7.0	19	7.320	12	14559	21	5.1	11	1.14	9	83.5	14	32.4	2	9.8	5				
DP 434 RR	1131	14	42.3	2	99	10	9.4	23	7.2	17	7.116	13	16066	12	4.6	24	1.17	4	83.7	11	28.8	19	9.3	7				
DP 455 BG/RR	1110	15	41.0	7	97	15	8.9	26	6.5	24	7.737	6	16306	9	4.4	25	1.11	17	81.9	26	28.7	21	8.2	20				
ST 4575 BR	1069	16	37.7	25	91	23	9.9	20	6.2	25	7.797	5	13826	24	4.9	17	1.12	16	83.7	10	32.3	3	10.5	1				
DP 445 BG/RR	1059	17	38.4	23	97	14	10.0	17	6.5	23	7.368	11	13916	23	4.9	18	1.15	6	84.1	5	32.6	1	9.9	3				
FM 968 LL	1054	18	39.8	15	89	25	11.6	8	8.0	6	5.999	21	16075	11	5.0	16	1.19	2	84.5	3	28.6	23	7.6	22				
Arkot 9409	1054	19	40.7	9	98	13	11.9	6	8.5	2	5.613	24	19384	1	4.8	20	1.10	22	83.4	15	29.9	13	9.0	10				
DP 444 BG/RR	1051	20	39.4	17	94	19	10.0	18	6.8	21	7.084	15	17267	4	4.2	26	1.12	14	83.4	15	26.3	26	8.4	16				
FM 965 B2LL	1024	21	36.7	26	100	6	12.5	2	7.5	13	6.187	20	16014	15	4.8	22	1.18	3	84.2	4	32.3	3	7.3	24				
DP 432 RR	1014	22	39.5	16	100	7	8.9	25	6.2	26	7.470	8	13590	25	5.1	13	1.09	25	82.4	25	29.4	16	9.3	9				
PHY 470 WR	980	23	40.6	10	95	18	10.6	13	7.6	12	5.878	22	16371	8	5.1	15	1.10	23	83.5	12	30.8	11	9.8	4				
FM 955 B2LL	970	24	38.2	24	96	16	12.9	1	8.3	3	5.332	26	15738	18	5.2	3	1.21	1	84.7	2	29.3	17	7.7	21				
Arkot 9304a	955	25	40.1	13	98	12	11.0	11	7.7	10	5.668	23	17003	6	4.8	19	1.12	14	84.0	6	31.0	10	9.3	7				
Arkot 9308	895	26	39.9	14	106	2	10.9	12	7.5	15	5.436	25	14881	20	5.1	13	1.17	4	85.0	1	31.8	7	8.9	11				
Mean	1159		40.1		97		10.6		7.4		7.129		15964		5.0		1.13		83.5		30.1		8.7					
LSD 0.10	273		2.5		8		0.9		1.0		1.766		1788		0.4		0.04		1.2		1.8		0.7					
C.V.%	20.0		3.6		6.6		5.1		7.6		21.0		6.6		4.7		2.3		0.8		3.6		4.8					
R-sq x 100	47.4		71.0		48.4		81.2		74.3		51.0		79.5		75.1		77.8		66.4		82.9		91.0					

Table 10. Results of the 2006 Main (Flex) Cotton Variety Tests across five Arkansas sites.																																												
Variety	Lint					Open					Seed					Lint					Fibers					Fiber properties																		
	yield	frac.	r	Ht.	cm	r	bolts	%	r	index	g	r	index	g	r	per a	mil.	r	index	g	r	per sd	no.	r	Mic.	r	Len.	in.	r	Unif.	%	r	Str.	g/tex	r	Elo.	%							
DP 117 B2RF	1276	1	39.7	4	104	12	69	16	10.6	2	7.3	2	7.930	8	16105	7	4.7	4	1.16	13	83.8	19	33.2	5	8.3	22																		
ST 4664 RF	1219	2	39.8	3	104	11	73	14	9.8	19	6.7	9	8.041	6	15752	10	4.5	7	1.13	23	83.4	26	33.2	4	10.9	1																		
ST 5599 BR,ck	1211	3	39.8	2	109	7	63	24	11.2	1	7.7	1	7.046	23	16366	3	4.9	2	1.15	18	83.7	23	30.9	9	7.9	26																		
DP 147 RF	1168	4	40.2	1	107	8	61	25	10.1	11	6.9	5	7.526	13	15839	9	4.3	17	1.22	2	84.0	14	29.7	13	8.1	24																		
PHY 425 RF	1148	5	38.6	14	110	5	68	18	10.3	6	6.8	6	7.670	10	13760	22	5.1	1	1.15	20	84.6	2	33.5	2	10.0	3																		
DP 143 B2RF	1145	6	38.4	15	107	10	65	22	10.0	14	6.5	15	7.946	7	14504	21	4.3	14	1.24	1	83.9	17	29.6	15	8.4	20																		
DP 444 BG/RR,ck	1128	7	39.5	5	107	9	75	10	10.5	3	7.2	3	7.473	15	17259	1	4.4	12	1.13	24	83.8	18	30.1	12	9.0	18																		
DG 2520 B2RF	1120	8	39.3	6	97	21	78	4	9.8	20	6.7	11	7.647	11	16123	6	4.3	19	1.16	15	83.8	20	29.0	25	9.3	16																		
CG 3520 B2RF	1119	9	38.1	19	99	17	79	2	9.6	23	6.2	19	8.168	4	14735	19	4.3	18	1.16	7	84.4	5	29.1	23	9.9	6																		
DP 164 B2RF	1117	10	37.0	20	109	6	66	19	9.5	25	5.8	25	8.695	1	13213	23	4.5	10	1.19	5	83.9	15	30.6	11	8.4	19																		
ST 4554 B2RF	1106	11	38.1	18	103	13	69	16	10.2	9	6.7	8	7.509	14	15645	11	4.6	6	1.13	26	83.7	22	33.5	3	10.7	2																		
BW-2038 B2F	1105	12	38.7	11	98	20	78	5	9.7	22	6.4	17	7.777	9	15257	16	4.3	13	1.15	16	84.1	11	29.0	24	9.9	5																		
DP 167 RF	1100	13	36.8	21	113	2	65	21	9.7	21	5.9	23	8.469	2	13195	24	4.5	9	1.20	4	84.4	8	31.3	8	8.3	22																		
DG 2100 B2RF	1100	14	39.2	7	98	19	77	6	10.0	12	6.7	7	7.343	17	16792	2	4.2	21	1.13	25	84.1	12	29.2	21	9.9	4																		
CG 4020 B2RF	1098	15	38.6	13	100	15	72	15	10.0	15	6.6	12	7.255	18	15375	14	4.3	14	1.17	6	84.4	6	29.4	18	9.5	12																		
ST 6611 B2RF	1081	16	36.7	24	113	4	64	23	9.8	18	5.8	24	8.369	3	13123	25	4.6	5	1.16	10	83.6	25	31.9	7	8.0	25																		
DG 2242 B2RF	1076	17	39.2	9	97	23	80	1	9.6	24	6.4	18	7.560	12	15399	13	4.3	20	1.16	12	83.7	24	29.2	20	9.7	9																		
DP 110 RF	1074	18	39.2	8	113	3	66	19	10.4	5	7.0	4	6.969	26	15012	18	4.8	3	1.15	16	84.5	3	36.8	1	9.6	11																		
ST 4357 B2RF	1059	19	38.6	12	101	14	75	10	9.9	17	6.5	16	7.345	16	15110	17	4.4	11	1.16	8	84.1	10	28.7	26	9.1	17																		
CG 3020 B2RF	1032	20	38.2	17	97	22	76	7	10.3	7	6.5	13	7.063	22	16272	4	4.2	22	1.13	22	84.3	9	29.2	19	9.8	7																		
BW-4630 B2F	1031	21	38.7	10	98	18	75	9	10.0	13	6.7	10	7.002	24	15959	8	4.3	14	1.16	9	83.9	16	29.1	22	9.4	14																		
BW-3255 B2F	1012	22	38.3	16	97	24	79	3	10.0	16	6.5	14	6.973	25	16173	5	4.2	23	1.14	21	84.4	7	29.6	15	9.8	8																		
ST 6622 RF	997	23	36.5	25	116	1	61	25	9.3	26	5.6	26	8.043	5	12782	26	4.5	8	1.16	14	84.5	4	32.5	6	8.3	21																		
BW-4021 B2F	979	24	36.7	22	95	26	74	12	10.2	8	6.1	22	7.193	20	15633	12	4.0	26	1.16	11	84.1	12	29.7	14	9.7	10																		
BW-8391 B2F	977	25	35.8	26	99	16	73	13	10.4	4	6.1	21	7.238	19	14518	20	4.1	25	1.20	3	85.2	1	30.6	10	9.3	15																		
DG 2215 B2RF	976	26	36.7	23	95	25	75	8	10.2	10	6.2	20	7.185	21	15274	15	4.2	24	1.15	19	83.8	21	29.5	17	9.5	12																		
Mean	1094		38.3		103		74		10.0		6.5		7.593		15189		4.4		1.16		84.1		30.7		9.3																			
Var. LSD 0.10	77		1.5		5		4		0.4		0.4		0.566		772		0.2		0.02		0.5		0.8		0.3																			
Loc. LSD 0.10	33		0.7		2		2		0.2		0.2		0.247		337		0.1		0.03		0.2		0.4		0.1																			
C.V.%	13.4		5.3		9.1		98.0		5.2		8.7		14.3		6.8		7.1		2.1		0.9		3.7		4.6																			
R-sq x 100	77.7		70.6		74.0		79.6		54.0		80.3		68.2		78.8		84.8		85.2		71.6		91.2		90.5																			
Prob (var x loc)	<.001		0.49		0.02		<.001		0.19		0.44		<.001		0.92		0.72		0.93		0.63		0.07		0.38																			

Table 11. Results of the 2006 Main (Flex) Cotton Variety Test with irrigation on a Tunica silty clay soil at Keiser, AR.

Variety	Lint		Lint frac.		Ht.		Open		Seed		Lint		Seed		Fibers		Fiber properties										
	yield	lb/a	r	%	r	cm	r	bolts	%	r	bolts	r	index	r	per a.	r	per sd	r	Mic.	r	Len.	r	Unif.	r	Str.	r	Elo.	r
DP 164 B2RF	1028	1	36.1	26	100	9	63	19	9.4	24	5.6	26	8.373	2	11898	26	4.7	4	1.21	5	84.6	15	32.6	8	8.4	23	
DP 444 BG/RR,ck	1024	2	38.9	6	94	17	79	3	10.3	5	6.9	4	8.560	1	17216	2	4.2	15	1.15	23	84.0	24	31.6	11	9.1	19	
DP 117 B2RF	1013	3	38.5	10	94	15	60	20	10.3	4	6.7	6	6.834	6	14764	18	4.5	6	1.19	7	85.1	7	35.1	4	9.2	17	
CG 3520 B2RF	993	4	38.6	9	92	18	78	5	9.2	25	6.1	20	7.400	3	14501	19	4.2	15	1.18	10	85.9	1	29.6	23	10.1	6	
ST 5599 BR,ck	968	5	38.3	13	103	8	60	20	11.2	1	7.2	2	6.098	16	15175	13	4.9	1	1.16	19	84.2	22	31.5	12	8.0	26	
DP 143 B2RF	964	6	36.6	25	94	16	65	18	10.6	3	6.5	10	6.829	7	14092	21	4.3	10	1.27	1	84.6	15	28.8	26	8.9	20	
ST 6611 B2RF	964	7	37.6	19	103	6	56	24	10.1	9	6.2	18	6.972	5	13510	23	4.6	5	1.18	12	84.0	24	33.3	7	8.2	24	
DP 147 RF	951	8	40.0	2	108	3	50	26	10.6	2	7.2	1	5.920	19	15154	14	4.5	6	1.25	2	84.9	13	30.6	19	8.6	21	
DG 2520 B2RF	950	9	37.8	17	96	11	78	5	9.5	22	6.1	22	7.100	4	16275	5	3.8	24	1.17	14	84.2	22	29.6	25	9.1	18	
ST 4554 B2RF	938	10	38.9	7	98	10	66	17	9.9	14	6.5	9	6.511	10	15693	7	4.4	9	1.14	25	84.3	19	35.8	2	10.8	2	
ST 4664 RF	901	11	41.8	1	103	7	71	13	9.9	12	7.2	3	5.562	24	17191	3	4.3	12	1.17	14	84.2	21	35.4	3	10.8	1	
BW-2038 B2F	895	12	38.2	14	96	13	78	5	9.5	23	6.2	17	6.592	9	15089	15	4.2	15	1.17	16	84.8	14	30.9	16	9.8	10	
DG 2242 B2RF	867	13	39.6	5	87	23	86	1	8.9	26	5.9	23	6.496	11	15492	9	3.9	23	1.16	19	83.8	26	29.6	23	10.0	7	
PHY 425 RF	859	14	37.8	16	104	5	68	15	10.1	8	6.4	12	6.059	17	13592	22	4.9	1	1.15	23	84.9	11	34.4	5	10.2	4	
BW-839T B2F	856	15	37.1	21	94	14	68	15	10.1	7	6.3	15	6.184	13	14873	17	4.1	19	1.22	4	85.3	4	31.4	13	9.6	12	
DP 167 RF	856	16	36.9	22	115	1	59	22	9.7	20	5.8	24	6.617	8	13138	25	4.3	10	1.22	3	84.9	11	32.4	10	8.5	22	
DP 110 RF	846	17	39.7	4	113	2	59	22	10.1	10	6.8	5	5.586	23	14340	20	4.8	3	1.17	16	85.0	9	38.5	1	9.5	13	
CG 4020 B2RF	843	18	38.5	11	78	26	70	14	9.9	12	6.4	11	5.921	18	14962	16	4.3	12	1.18	12	85.4	2	31.0	15	10.0	7	
ST 6622 RF	834	19	37.5	20	107	4	53	25	9.8	18	6.1	21	6.165	14	13196	24	4.5	6	1.21	5	85.3	3	33.9	6	8.2	25	
DG 2100 B2RF	833	20	38.3	12	96	12	74	9	9.8	16	6.4	13	5.918	20	17739	1	3.8	25	1.14	25	84.3	19	30.3	20	10.5	3	
CG 3020 B2RF	818	21	36.7	23	89	22	79	3	9.8	16	6.1	19	6.152	15	15814	6	4.0	21	1.15	22	85.0	9	31.1	14	10.0	9	
BW-3255 B2F	811	22	39.7	3	83	24	81	2	10.0	11	6.6	7	5.433	26	17084	4	4.0	21	1.16	21	85.1	6	30.7	17	10.1	5	
DG 2215 B2RF	808	23	37.8	18	83	25	74	9	10.2	6	6.3	14	5.733	21	15405	10	4.1	19	1.18	11	85.2	5	32.6	8	9.3	14	
BW-4021 B2F	793	24	36.6	24	89	21	74	9	9.6	21	5.8	25	6.208	12	15603	8	3.8	25	1.17	16	84.6	15	30.2	21	9.7	11	
BW-4630 B2F	781	25	38.6	8	90	20	78	5	9.9	15	6.6	8	5.438	25	15356	11	4.3	12	1.19	9	85.1	7	30.7	18	9.3	15	
ST 4357 B2RF	778	26	38.1	15	91	19	74	9	9.7	19	6.3	16	5.627	22	15338	12	4.1	18	1.19	7	84.5	18	29.7	22	9.2	16	
Mean	889		38.2		96		69		9.9		6.4		6.386		15096		4.3		1.18		84.7		32.0		9.4		
LSD 0.10	ns		2.0		15		9		0.8		0.7		1.406		1589		0.4		0.04		ns		1.7		0.7		
C.V.%	16.0		3.0		13.0		11.5		4.8		6.2		18.6		6.2		4.9		2.0		71.2		3.2		4.1		
R-sq x 100	34.7		70.6		42.6		68.2		65.4		70.4		44.2		81.4		83.0		78.7		59.2		91.5		90.0		

Table 12. Results of the 2006 Main (Flex) Cotton Variety Test without irrigation on a Tunica silty clay soil at Keiser, AR.																											
Variety	Lint		Lint frac.		Ht.		Open bolls		Seed index		Lint index		Seed per a		Fibers per sd		Mic.		Len.		Unif.		Str.		Elo.		
	yield	lb/a	r	%	r	cm	r	%	r	g	r	g	r	mil.	r	no.	r	no.	r	in.	r	%	r	g/tex	r	%	
DP 117 B2RF	1253	1	37.6	9	104	13	56	15	10.8	5	6.9	4	8.305	1	15641	6	4.5	5	1.17	15	83.7	25	34.4	3	8.3	22	
DP 167 RF	1075	2	36.5	18	120	2	49	20	10.4	7	6.2	10	7.857	4	13169	24	4.6	4	1.23	3	84.7	7	32.0	7	8.5	20	
CG 4020 B2RF	1066	3	39.8	1	96	17	60	11	9.7	20	6.4	7	7.309	9	15344	8	4.2	14	1.19	7	84.3	16	29.9	20	9.1	17	
CG 3520 B2RF	1056	4	38.3	4	96	18	68	4	9.2	25	5.9	19	8.066	3	14235	16	4.2	16	1.18	12	84.5	12	30.4	14	9.4	15	
DP 164 B2RF	1050	5	36.4	19	125	1	55	17	9.7	20	5.7	21	8.220	2	13546	23	4.2	17	1.22	5	84.1	19	31.4	10	8.8	19	
ST 4664 RF	1042	6	38.4	3	105	12	58	14	9.8	17	6.3	9	7.479	5	15277	9	4.4	10	1.14	23	83.4	26	33.7	6	11.0	1	
DP 444 BG/RR,ck	1031	7	38.2	5	105	11	60	11	11.4	2	7.3	1	6.386	17	17269	1	4.5	7	1.14	26	83.9	22	30.4	16	9.1	17	
ST 5599 BR,ck	1027	8	37.8	8	111	9	46	22	11.6	1	7.2	2	6.393	16	15489	7	4.9	2	1.15	20	84.4	13	31.8	9	8.0	25	
PHY 425 RF	989	9	38.9	2	112	7	45	23	11.0	4	7.2	3	6.186	19	14111	19	5.3	1	1.15	20	85.2	3	35.6	2	10.1	6	
DG 2520 B2RF	985	10	37.3	11	89	25	65	7	9.8	15	6.1	12	7.324	8	15960	3	3.9	22	1.17	15	84.1	19	30.0	19	10.1	9	
DG 2100 B2RF	978	11	36.7	16	89	26	73	1	9.8	16	6.0	15	7.437	6	16224	2	3.9	24	1.14	23	84.3	15	29.2	25	9.9	10	
DP 143 B2RF	958	12	36.7	15	111	10	43	25	10.1	12	6.1	13	7.143	11	13705	22	4.2	14	1.26	1	84.2	17	30.9	13	8.4	21	
CG 3020 B2RF	944	13	37.3	10	101	15	65	7	9.7	23	5.9	18	7.178	10	15671	5	3.9	22	1.16	19	84.6	9	29.4	22	10.1	6	
ST 6611 B2RF	922	14	35.2	23	113	6	55	17	10.1	13	5.7	22	7.350	7	12424	25	4.5	5	1.20	6	85.2	3	32.0	8	8.1	24	
BW-2038 B2F	914	15	38.0	6	92	23	68	4	9.8	18	6.2	11	6.673	13	15176	10	4.1	19	1.18	12	84.6	11	29.9	21	10.2	5	
ST 4357 B2RF	858	16	36.7	14	99	16	71	2	10.0	14	6.0	17	6.486	15	14323	15	4.2	17	1.19	7	84.4	13	28.7	26	9.2	16	
DG 2242 B2RF	857	17	37.1	12	91	24	68	4	9.7	22	5.9	20	6.524	14	14146	18	4.3	11	1.17	15	84.2	17	29.4	23	10.1	6	
DP 147 RF	842	18	37.8	7	112	8	45	23	10.4	6	6.6	6	5.793	23	14217	17	4.4	9	1.24	2	85.1	6	30.4	16	7.9	26	
DP 110 RF	822	19	37.0	13	117	4	50	19	11.2	3	6.8	5	5.484	25	13961	21	4.9	3	1.18	10	85.1	5	39.5	1	9.9	10	
ST 6622 RF	784	20	34.5	25	119	3	43	25	9.7	24	5.3	26	6.718	12	11647	26	4.5	7	1.19	7	85.9	1	34.0	4	8.3	23	
ST 4554 B2RF	783	21	36.6	17	114	5	49	20	9.8	19	6.0	16	6.013	21	14652	12	4.3	11	1.15	20	83.9	23	33.8	5	10.7	2	
BW-8391 B2F	778	22	34.4	26	101	14	60	11	10.2	10	5.5	23	6.345	18	14526	13	3.7	26	1.23	3	85.4	2	30.4	14	9.6	14	
DG 2215 B2RF	770	23	36.0	22	92	21	64	9	10.2	9	6.0	14	5.825	22	14387	14	4.3	11	1.17	15	84.6	9	30.2	18	9.8	13	
BW-4630 B2F	763	24	36.2	20	92	22	64	9	10.4	8	6.3	8	5.564	24	15835	4	4.1	20	1.18	11	83.9	23	29.4	23	9.9	12	
BW-3255 B2F	724	25	36.2	21	96	18	71	2	9.2	26	5.4	25	6.090	20	15142	11	3.7	25	1.14	23	84.0	21	31.2	12	10.4	3	
BW-4021 B2F	654	26	35.0	24	95	20	56	15	10.2	11	5.5	24	5.271	26	14027	20	4.0	21	1.18	12	84.7	7	31.4	11	10.3	4	
Mean	921		36.9		104		58		10.0		6.2		6.756		14619		4.3		1.18		84.5		31.5		9.4		
LSD 0.10	184		ns		12		8		ns		ns		1.353		1665		ns		0.05		ns		2.0		0.9		
C.V.%	16.8		5.1		9.6		14.3		7.1		10.6		16.9		6.7		9.8		2.4		1.0		3.7		5.4		
R-sq x 100	55.9		49.5		60.2		64.9		59.7		59.7		49.0		76.0		60.3		72.5		50.0		89.7		86.6		

Table 13. Results of the 2006 Main (Flex) Cotton Variety Test with irrigation on a Dundee silt loam soil at Judd Hill, AR.

Variety	Lint		Open		Seed		Lint		Seed		Fibers		Fiber properties													
	yield	frac.	r	Ht.	r	bolls	%	r	index	r	per a.	mil.	r	per sd	r	Mic.	r	Len.	r	Unif.	r	Str.	r	Elo.	r	
	lb/a	%		cm				g	g			no.			in.					%		g/tex		%		
CG 3020 B2RF	1315	1	37.4	12	117	23	79	11	10.6	1	6.5	6	9.059	7	17168	2	3.9	12	1.16	22	85.0	4	30.7	14	10.3	7
ST 4357 B2RF	1310	2	39.6	4	123	15	76	14	9.9	7	6.8	1	8.791	14	15797	16	4.4	2	1.17	18	84.4	14	30.3	19	9.2	18
ST 4664 RF	1292	3	39.8	3	123	16	79	11	9.0	24	6.2	10	8.098	24	16753	5	3.9	12	1.14	25	83.3	24	33.8	4	11.6	1
ST 6611 B2RF	1274	4	34.7	25	142	3	73	20	9.7	11	5.3	24	10.850	1	13602	25	3.9	10	1.19	7	83.9	20	32.3	8	8.9	21
DP 117 B2RF	1257	5	37.9	8	129	7	75	17	10.2	3	6.6	4	8.718	15	16251	12	4.1	5	1.19	9	84.7	8	36.0	2	8.8	24
DG 2100 B2RF	1249	6	40.3	2	124	14	83	8	9.5	17	6.7	2	8.454	19	16772	4	4.2	3	1.15	24	84.7	9	30.6	15	10.3	8
BW-2038 B2F	1230	7	38.0	7	116	24	85	2	9.7	9	6.3	8	8.947	12	15579	17	4.0	6	1.19	9	84.9	5	29.6	24	10.4	6
DG 2520 B2RF	1227	8	38.2	6	118	22	81	9	9.5	18	6.3	9	9.012	9	16519	9	3.9	12	1.16	21	83.9	19	29.8	23	9.5	16
BW-3255 B2F	1222	9	37.6	10	119	21	85	2	9.6	13	6.1	15	9.168	6	16430	11	3.8	17	1.17	18	84.8	7	31.4	12	9.8	14
DP 444 BG/RR,ck	1208	10	40.5	1	134	6	78	13	9.4	19	6.7	3	8.192	23	17541	1	4.0	6	1.14	25	84.6	12	32.5	7	9.4	17
DP 110 RF	1204	11	38.5	5	135	5	73	20	9.6	12	6.3	7	8.647	16	15389	18	4.1	4	1.19	9	85.0	3	37.5	1	10.6	5
DG 2215 B2RF	1193	12	36.5	16	122	18	84	6	9.2	21	5.6	18	9.765	2	15980	13	3.6	21	1.16	22	83.4	23	28.8	26	9.9	12
DG 2242 B2RF	1186	13	37.2	13	120	19	85	2	9.1	22	5.7	17	9.451	4	15836	14	3.7	19	1.19	9	83.9	18	30.0	21	10.1	9
PHY 425 RF	1164	14	36.6	15	143	2	73	20	10.1	4	6.2	11	8.579	17	13891	24	4.5	1	1.18	15	85.2	2	34.5	3	10.7	3
CG 3520 B2RF	1157	15	35.1	22	120	19	86	1	9.5	16	5.5	21	9.642	3	14969	19	3.7	18	1.19	7	83.9	20	29.8	22	10.7	3
ST 4554 B2RF	1137	16	36.5	17	124	12	76	14	10.0	5	6.2	13	8.564	18	16437	10	3.8	16	1.17	17	84.1	16	33.3	5	10.9	2
BW-4630 B2F	1115	17	36.8	14	123	17	76	14	9.9	8	6.1	14	8.384	20	16642	8	3.7	19	1.20	6	84.3	15	30.9	13	9.8	14
BW-4021 B2F	1088	18	34.3	26	112	26	85	2	10.0	6	5.5	19	9.052	8	16720	6	3.4	25	1.17	18	83.6	22	30.4	18	10.0	10
DP 147 RF	1081	19	36.3	19	124	13	73	20	9.1	23	5.5	20	9.001	10	16716	7	3.3	26	1.23	4	83.3	25	30.5	17	8.6	25
ST 6622 RF	1064	20	36.5	18	144	1	73	20	8.7	26	5.2	25	9.231	5	13363	26	4.0	9	1.18	15	84.4	13	33.2	6	9.1	19
DP 143 B2RF	1050	21	35.9	21	127	9	73	20	9.2	20	5.4	22	8.824	13	14722	20	3.6	21	1.24	1	83.2	26	29.3	25	8.9	23
ST 5599 BR,ck	1048	22	37.5	11	137	4	71	26	10.5	2	6.5	5	7.274	26	17096	3	3.9	15	1.19	9	84.0	17	31.7	11	8.3	26
DP 167 RF	1041	23	36.3	20	126	10	74	18	9.6	14	5.8	16	8.247	22	13915	23	4.0	6	1.23	2	84.9	5	32.2	9	8.9	22
CG 4020 B2RF	1013	24	37.7	9	125	11	81	9	9.6	15	6.2	12	7.548	25	15799	15	3.9	10	1.19	9	84.7	9	30.2	20	9.9	11
DP 164 B2RF	993	25	35.0	23	129	8	74	18	8.8	25	5.1	26	8.999	11	14310	21	3.5	24	1.21	5	84.7	9	30.6	15	9.1	20
BW-8391 B2F	983	26	34.8	24	112	25	84	6	9.7	10	5.4	23	8.295	21	14194	22	3.6	21	1.23	2	85.5	1	32.2	10	9.9	12
Mean	1158		37.1		126		78		9.6		6.0		8.800		15687		3.8		1.18		84.3		31.5		9.7	
LSD 0.10	159		ns		11		6		ns		ns		1.188		1905		ns		0.03		ns		1.8		0.6	
C.V.%	11.7		6.0		7.2		6.7		5.3		11.0		11.5		7.0		9.4		1.8		0.9		3.2		3.7	
R-sq x 100	56.6		55.2		70.4		61.9		63.1		58.0		54.9		72.5		57.6		80.7		60.5		90.6		90.7	

Table 14. Results of the 2006 Main (Flex) Cotton Variety Test with irrigation on a Calloway silt loam soil at Marianna, AR.																											
Variety	Lint		Lint		Open		Seed		Lint		Seed		Fibers		Fiber properties												
	yield	frac.	Ht.	r	bolls	%	r	per a	r	index	r	per sd	r	no.	r	Mic.	r	Len.	r	Unif.	r	Str.	r	Elo.	r	%	
	lb/a	%	cm				mil.		g		g	no.		in.	g/tex	%											
ST 5599 BR,ok	1727	1	44.3	2	98	9	73	24	11.4	2	9.1	1	8.410	13	17276	4	5.6	1	1.14	11	83.3	20	30.6	8	8.0	21	
ST 4664 RF	1691	2	41.8	9	95	13	83	6	9.6	25	7.1	21	10.710	1	15383	20	5.0	12	1.11	21	83.7	10	30.4	9	11.7	1	
ST 4554 B2RF	1576	3	40.6	13	87	26	85	2	10.8	9	7.9	6	9.218	5	16356	9	5.3	4	1.10	22	83.3	19	33.5	2	10.6	2	
DP 117 B2RF	1542	4	43.2	3	93	15	85	2	10.4	15	8.3	4	8.442	12	17207	5	5.3	4	1.12	18	82.0	26	31.3	5	7.7	24	
DP 147 RF	1510	5	43.0	4	99	8	78	19	10.2	20	7.6	12	8.738	7	16048	13	4.7	24	1.21	1	83.8	7	29.1	16	7.8	23	
DP 143 B2RF	1459	6	41.8	8	97	10	80	11	10.4	17	7.6	13	8.617	8	15435	19	5.0	14	1.20	2	83.5	14	29.2	15	8.1	20	
BW-3255 B2F	1455	7	42.8	5	92	20	78	19	10.8	8	8.5	3	7.773	23	18016	1	5.1	11	1.10	22	84.2	5	26.9	26	9.7	4	
DG 2242 B2RF	1437	8	41.5	11	93	15	83	6	10.6	12	7.8	9	8.309	15	15840	16	5.2	7	1.15	9	83.6	12	29.7	13	9.4	9	
PHY 425 RF	1429	9	40.1	16	100	6	85	2	10.4	18	7.4	17	8.866	6	14098	22	5.5	2	1.14	11	83.4	16	31.5	4	9.6	5	
DG 2520 B2RF	1404	10	44.5	1	90	24	88	1	10.5	13	8.6	2	7.315	25	16894	6	5.3	3	1.14	13	84.3	4	28.5	17	9.0	14	
BW-2038 B2F	1395	11	41.6	10	96	11	80	11	10.1	21	7.3	19	8.484	10	16302	10	4.9	19	1.10	22	83.3	20	28.1	22	9.5	7	
DG 2100 B2RF	1382	12	41.0	12	92	18	80	11	10.7	10	7.7	10	8.066	19	16694	7	5.0	14	1.12	18	83.7	8	28.4	18	9.9	3	
CG 4020 B2RF	1382	13	38.8	20	105	2	78	19	10.9	7	7.5	14	8.505	9	16093	12	4.9	19	1.15	8	83.5	13	28.0	23	9.2	11	
DP 164 B2RF	1378	14	39.7	17	93	17	73	24	9.8	23	6.8	23	9.280	3	13532	23	5.2	7	1.17	5	83.4	16	30.2	10	8.1	19	
CG 3520 B2RF	1363	15	40.5	15	92	19	85	2	10.5	14	7.4	16	8.270	16	16142	11	4.8	22	1.15	7	84.4	2	28.3	19	9.6	5	
BW-4630 B2F	1345	16	41.9	7	90	25	83	6	10.3	19	7.9	5	7.794	22	16615	8	5.1	10	1.12	17	83.4	16	28.0	23	9.2	11	
DP 110 RF	1342	17	40.5	14	103	5	83	6	10.6	11	7.7	11	8.041	21	16028	15	5.3	4	1.09	26	83.5	14	35.8	1	9.1	13	
DG 2215 B2RF	1320	18	38.3	23	91	22	80	11	11.5	1	7.5	15	8.046	20	15826	17	5.0	12	1.14	13	83.2	22	29.3	14	9.0	14	
BW-8391 B2F	1318	19	37.4	25	94	14	80	11	11.4	3	7.3	18	8.352	14	15740	18	4.6	25	1.18	3	85.2	1	30.0	11	9.0	17	
ST 4357 B2RF	1299	20	38.8	21	103	4	78	19	10.4	16	7.1	22	8.476	11	15109	21	4.9	16	1.15	9	83.7	8	28.2	21	9.0	14	
BW-4021 B2F	1294	21	38.8	19	92	21	80	11	11.0	5	7.2	20	8.139	18	16030	14	4.6	26	1.16	6	84.2	6	29.9	12	9.3	10	
DP 444 BG/RR,ok	1270	22	39.5	18	95	12	83	6	11.3	4	7.9	7	7.419	24	17692	2	4.9	16	1.10	25	83.0	23	27.3	25	8.6	18	
DP 167 RF	1258	23	35.2	26	99	7	80	11	9.8	24	5.9	26	10.080	2	12621	26	4.8	22	1.18	4	84.3	3	31.2	7	7.5	26	
CG 3020 B2RF	1258	24	42.3	6	90	23	80	11	11.0	6	7.8	8	7.008	26	17437	3	4.9	18	1.11	20	83.7	10	28.3	19	9.4	8	
ST 6622 RF	1228	25	38.0	24	104	3	78	19	9.4	26	6.0	25	9.253	4	13246	25	4.9	19	1.13	16	82.9	24	31.9	3	7.8	22	
ST 6611 B2RF	1176	26	38.6	22	105	1	73	24	10.0	22	6.5	24	8.203	17	13352	24	5.2	7	1.14	13	82.9	24	31.2	6	7.6	25	
Mean	1394		40.6		96		80		10.5		7.5		8.454		15808		5.0		1.14		83.6		29.8		9.0		
LSD 0.10	195		ns		9		7		0.7		1.0		1.203		1935		ns		0.04		ns		1.9		0.8		
C.V.%	11.9		6.0		7.8		7.6		3.7		8.0		12.1		7.2		6.2		2.0		87.9		3.7		5.5		
R-sq x 100	51.9		62.5		45.3		39.7		81.2		74.1		50.5		76.0		57.7		80.4		58.8		86.7		89.3		

Table 15. Results of the 2006 Main (Flex) Cotton Variety Test with irrigation on a Desha silt loam at Rohwer, AR.																											
Variety	Lint				Open				Seed				Lint				Fibers				Fiber properties						
	yield	r	frac.	r	Ht.	r	bolts	%	r	index	r	per a	r	per sd	r	Mic.	r	Len.	r	Unif.	r	Str.	r	Elo.	r		
lb/a		%	cm		g	g	g	g	g	g	g	mil.	no.	no.	g	in.	%	g/tex	%				%				
DP 147 RF	1375	1	44.0	1	94	14	.	10.1	13	7.8	3	7.746	10	17060	1	4.8	10	1.16	4	82.8	21	28.0	13	7.6	24		
DP 117 B2RF	1313	2	41.4	2	99	8	.	11.2	2	8.0	2	7.354	12	16664	3	5.2	4	1.12	13	83.8	8	29.1	9	7.8	21		
PHY 425 RF	1300	3	39.2	11	94	18	.	10.1	12	6.8	8	8.662	3	13109	23	5.5	1	1.13	8	84.3	2	31.9	3	9.5	6		
DP 143 B2RF	1295	4	41.2	4	103	4	.	9.8	15	6.9	7	8.318	7	14568	17	4.6	14	1.24	1	83.9	6	29.7	6	7.7	23		
ST 5599 BR,ck	1283	5	41.2	3	96	10	.	11.4	1	8.2	1	7.058	18	16794	2	5.4	2	1.11	19	82.9	19	28.9	10	7.4	26		
DP 167 RF	1270	6	39.1	12	104	3	.	9.2	25	5.9	22	9.548	1	13133	22	4.8	10	1.14	6	83.1	16	28.7	11	8.3	20		
CG 4020 B2RF	1217	7	38.1	15	98	9	.	9.9	14	6.4	15	6.995	21	14679	15	4.5	23	1.16	3	84.3	3	27.7	14	9.5	6		
ST 4664 RF	1171	8	37.0	22	95	12	.	10.3	9	6.4	13	8.360	6	14655	16	4.9	7	1.10	20	82.4	25	33.2	1	9.9	2		
DP 110 RF	1156	9	40.4	6	99	6	.	10.6	5	7.4	4	7.084	17	15341	9	5.1	5	1.13	8	83.9	4	33.0	2	8.8	15		
BW-4630 B2F	1150	10	39.9	9	96	11	.	9.7	18	6.6	10	7.830	9	15349	8	4.6	14	1.13	8	83.0	18	26.8	21	9.0	12		
DP 164 B2RF	1135	11	37.8	18	99	6	.	9.5	21	5.9	23	8.601	4	12778	24	4.9	7	1.15	5	83.0	17	28.2	12	7.8	21		
ST 4554 B2RF	1098	12	38.0	16	91	20	.	10.6	4	7.0	6	7.240	16	15086	11	5.2	3	1.08	26	83.2	15	31.2	4	10.4	1		
BW-2038 B2F	1090	13	37.7	19	88	25	.	9.5	22	6.0	21	8.192	8	14139	19	4.6	18	1.12	13	82.8	21	26.8	22	9.8	3		
DP 444 BG/RR,ck	1082	14	40.4	5	106	2	.	10.3	10	7.2	5	6.811	23	15894	5	4.6	14	1.12	13	83.6	11	27.6	16	8.8	15		
ST 6622 RF	1072	15	36.2	23	108	1	.	9.2	26	5.5	25	8.845	2	12458	26	4.9	7	1.09	25	83.9	6	29.6	7	8.4	19		
ST 6611 B2RF	1069	16	37.2	20	101	5	.	9.4	23	5.7	24	8.469	5	12727	25	5.0	6	1.10	20	82.2	26	30.7	5	7.5	25		
BW-4021 B2F	1064	17	38.7	14	86	26	.	10.2	11	6.5	12	7.296	14	15787	6	4.4	25	1.13	8	83.3	14	26.7	24	9.2	9		
DG 2100 B2RF	1055	18	39.9	10	89	23	.	10.3	8	6.8	9	6.841	22	16594	4	4.5	20	1.10	23	83.4	13	27.5	18	9.2	10		
ST 4357 B2RF	1050	19	40.0	8	90	21	.	9.3	24	6.4	14	7.345	13	14984	12	4.6	14	1.12	18	83.7	9	26.6	26	9.2	10		
DG 2520 B2RF	1036	20	38.7	13	94	15	.	9.5	20	6.3	17	7.482	11	14969	13	4.5	20	1.14	6	82.7	23	27.3	19	8.9	14		
DG 2242 B2RF	1030	21	40.3	7	93	19	.	9.6	19	6.5	11	7.021	19	15680	7	4.5	23	1.13	8	82.9	20	27.5	17	8.8	15		
CG 3520 B2RF	992	22	38.0	17	94	16	.	9.8	16	6.1	20	7.270	15	13826	20	4.7	12	1.12	13	83.7	9	27.2	20	9.7	4		
BW-8391 B2F	952	23	35.3	25	94	13	.	10.8	3	6.1	19	7.014	20	13260	21	4.7	13	1.17	2	84.6	1	29.3	8	8.7	18		
BW-3255 B2F	849	24	35.5	24	94	16	.	10.4	7	6.1	18	6.401	25	14191	18	4.6	18	1.12	13	83.9	4	27.7	15	8.9	13		
CG 3020 B2RF	828	25	37.0	21	89	22	.	10.5	6	6.3	16	5.917	26	15270	10	4.5	20	1.10	20	83.4	12	26.7	24	9.3	8		
DG 2215 B2RF	790	26	34.7	26	88	24	.	9.8	17	5.5	26	6.556	24	14773	14	4.1	26	1.10	23	82.6	24	26.7	23	9.7	4		
Mean	1104		38.7		95		.	10.0		6.6		7.548		14736		4.7		1.12		83.3		28.4		8.8			
LSD 0.10	156		1.7		8		.	0.8		0.8		1.239		1816		0.4		0.04		ns		2.3		0.7			
C.V.%	11.9		5.8		7.5		.	4.6		7.5		13.9		7.1		4.5		2.1		0.8		4.6		4.3			
R-sq x 100	73.0		64.6		47.7		.	77.4		81.2		62.9		76.6		82.4		80.0		64.6		82.8		90.8			

Variety	Keiser		Keiser		Judd Hill		Marianna		Rohwer		All	
	Irrigated	r	Non-irrig.	lb/a	r	Irrigated	lb/a	r	Irrigated	lb/a	r	locations
PHY 310 R	1128	3	1131	1242	6	1514	2	1568	2	1316	1	1316
PHY 370 WR	1164	1	1037	1360	1	1514	3	1504	4	1316	2	1316
ST 5599BR	1129	2	1202	1138	16	1564	1	1467	8	1300	3	1300
DP 454 BG/RR	1072	7	1146	1231	7	1447	9	1492	5	1277	4	1277
DP 393	1087	5	1113	1214	9	1429	11	1473	7	1263	5	1263
DP 515 BG/RR	990	13	1041	1206	10	1447	8	1607	1	1258	6	1258
DP 432 RR	1087	6	1042	1227	8	1386	14	1486	6	1246	7	1246
ST 4575BR	1103	4	1069	1272	3	1446	10	1337	18	1245	8	1245
ST 5242BR	1047	11	1026	1156	13	1474	6	1434	12	1227	9	1227
DX 25105N	996	12	887	1193	11	1464	7	1559	3	1220	10	1220
DP 434 RR	985	15	986	1244	5	1479	5	1386	14	1216	11	1216
DP 444 BG/RR	1055	10	1038	1303	2	1385	15	1273	21	1211	12	1211
DP 445 BG/RR	1057	9	905	1245	4	1404	13	1436	11	1209	13	1209
DP 455 BG/RR	1068	8	1080	1056	19	1371	16	1453	9	1205	14	1205
Arkot 9304b	963	18	925	1139	15	1497	4	1415	13	1188	15	1188
PHY 480 WR	984	16	997	1169	12	1351	17	1368	15	1174	16	1174
FM 960BR	936	21	821	1130	17	1281	22	1452	10	1124	17	1124
Arkot 9409	948	19	899	999	24	1414	12	1355	17	1123	18	1123
PHY 470 WR	988	14	971	1151	14	1249	25	1237	24	1119	19	1119
FM 960B2R	855	22	992	1034	22	1205	26	1357	16	1088	20	1088
Arkot 9304a	792	25	933	1080	18	1324	18	1275	20	1081	21	1081
FM 958LL	838	23	908	1039	20	1320	19	1249	23	1071	22	1071
Arkot 9308	969	17	813	997	25	1306	20	1256	22	1068	23	1068
FM 966LL	828	24	832	1035	21	1298	21	1310	19	1060	24	1060
FM 955B2LL	948	20	845	1016	23	1259	24	1230	25	1059	25	1059
FM 965B2LL	769	26	783	978	26	1281	23	1214	26	1005	26	1005
Mean	992		978	1148		1389		1392		1180		1180

Table 17. Two-year average lint yields (lb/a) for Flex varieties at the five locations of the 2005-2006 Arkansas Cotton Variety Test.

Variety	Keiser		Keiser Non-irrig.		Judd Hill		Marianna		Rohwer		All locations	
	Irrigated lb/a	r	Non-irrig. lb/a	r	Irrigated lb/a	r	Irrigated lb/a	r	Irrigated lb/a	r	Irrigated lb/a	r
ST 4664RF	1003	5	1017	4	1134	12	1611	1	1446	4	1242	1
ST-5599BR,ck	1007	3	1036	3	1094	19	1457	4	1448	3	1208	2
DP 117 B2RF	964	7	1052	1	1134	11	1480	3	1403	8	1206	3
Dyna-Gro 2520 B2RF	974	6	969	7	1170	6	1427	7	1377	11	1183	4
DP 164 B2RF	1004	4	1012	5	1091	22	1382	13	1400	9	1178	5
CG 4020B2RF	942	9	1045	2	1092	21	1419	9	1375	12	1174	6
DP-444BG/RR,ck	1064	1	990	6	1127	15	1362	18	1327	18	1174	7
PHY 425 RF	926	12	938	9	1149	9	1406	12	1438	6	1171	8
ST 4554B2RF	1026	2	838	20	1085	23	1534	2	1338	17	1164	9
DP 167 RF	921	14	951	8	1141	10	1310	22	1449	2	1154	10
BW-2038B2F	912	17	878	15	1190	3	1422	8	1369	13	1154	11
CG 3520B2RF	961	8	925	11	1170	5	1408	10	1287	21	1150	12
DP 143 B2RF	881	22	918	12	1108	17	1380	15	1458	1	1149	13
Dyna-Gro 2100 B2RF	917	15	929	10	1157	7	1373	16	1361	14	1147	14
DP 147 RF	936	11	840	19	1062	24	1447	5	1446	5	1146	15
BW-4630B2F	937	10	904	13	1094	20	1345	19	1423	7	1140	16
ST 4357B2RF	888	20	858	17	1203	2	1365	17	1356	15	1134	17
Dyna-Gro 2242 B2RF	926	13	804	21	1153	8	1430	6	1290	20	1120	18
CG 3020B2RF	905	19	904	14	1223	1	1322	21	1209	24	1112	19
DP 110 RF	881	23	762	24	1098	18	1380	14	1389	10	1102	20
ST 6611B2RF	908	18	845	18	1173	4	1252	25	1320	19	1099	21
BW-3255B2F	857	25	742	25	1128	14	1408	11	1270	23	1081	22
ST 6622RF	847	26	786	22	1134	13	1278	24	1352	16	1079	23
Dyna-Gro 2215 B2RF	916	16	765	23	1122	16	1331	20	1131	26	1053	24
BW-4021B2F	884	21	727	26	1049	26	1292	23	1280	22	1046	25
BW-8391 B2F	860	24	859	16	1050	25	1235	26	1142	25	1029	26
Mean	932		896		1128		1387		1349		1138	

Table 18. Three-year average lint yields (lb/a) for non-Flex varieties at five locations of the 2004-2006 Arkansas Cotton Variety Test.

Variety	Keiser		Keiser Non-irrig.		Cik/JH1		Marianna		Rohwer		All locations	
	Irrigated lb/a	r	Non-irrig. lb/a	r	Irrigated lb/a	r	Irrigated lb/a	r	Irrigated lb/a	r	Irrigated lb/a	r
ST 5599BR	1260	2	1323	1	1299	7	1575	1	1484	3	1388	1
ST 5242BR	1224	3	1169	4	1270	10	1524	5	1485	2	1334	2
DX 25105N	1273	1	1095	7	1360	3	1549	2	1382	7	1332	3
PHY 310 R	1151	10	1179	3	1255	12	1530	3	1446	4	1312	4
DP 393	1161	9	1195	2	1286	8	1465	8	1436	5	1309	5
DP 432 RR	1175	7	1090	8	1310	6	1436	11	1494	1	1301	6
DP 434 RR	1108	11	1047	10	1349	5	1528	4	1435	6	1293	7
DP 444 BG/RR	1182	6	1081	9	1424	1	1463	9	1317	11	1293	8
ST 4575BR	1172	8	1120	5	1360	2	1503	6	1283	13	1287	9
DP 445 BG/RR	1201	4	1033	11	1359	4	1472	7	1309	12	1275	10
DP 455 BG/RR	1183	5	1110	6	1266	11	1460	10	1325	10	1269	11
FM 960BR	1089	12	958	15	1279	9	1367	13	1331	9	1205	12
FM 958LL	1047	13	1027	13	1214	13	1391	12	1235	14	1183	13
FM 966LL	1007	14	967	14	1168	14	1361	14	1336	8	1168	14
FM 960B2R	958	15	1032	12	1140	15	1285	15	1228	15	1129	15
Mean	1146		1095		1289		1460		1368		1272	

1/ Mean of tests at Clarkedale in 2004 and Judd Hill in 2005-2006 (both on Dundee silt loam soil).

Table 19. Results of the 2006 1st-year (Flex & non-Flex) Cotton Variety Tests across five Arkansas sites.

Variety	Lint		Lint frac.		Ht.		Open		Seed		Lint		Seed		Fibers		Mic.		Len.		Unif.		Str.		Elo.	
	yield	lb/a	r	%	r	cm	r	bolls	r	index	g	r	index	r	per a	r	per sd	r	no.	r	in.	r	%	r	g/fex	r
ST 5599 BR,ck	1327	1	39.9	8	109	5	62	22	11.4	6	7.9	4	7.657	9	16611	11	5.0	4	1.14	21	83.9	22	30.7	17	8.0	22
DX 34102-17	1266	2	42.0	2	97	22	76	8	10.5	13	7.9	2	7.272	12	16819	8	5.0	3	1.14	22	83.6	25	31.0	24	9.3	9
DX 34909	1259	3	39.3	12	105	11	68	14	10.7	11	7.2	15	7.854	6	14345	24	5.1	1	1.17	9	84.6	5	30.0	22	9.0	13
DP 444 BG/RR,ck	1247	4	40.5	7	105	10	77	6	10.4	14	7.4	11	7.665	8	17513	3	4.4	18	1.15	18	84.3	14	30.6	28	9.1	10
ST 4427 B2RF	1214	5	39.2	15	99	21	73	10	9.9	19	6.7	20	8.202	2	15490	19	4.5	17	1.15	15	84.1	18	30.9	15	8.6	16
PHY 485 WRF	1192	6	39.2	14	104	15	79	2	9.9	18	6.7	19	8.148	3	14249	25	4.8	8	1.15	16	85.0	3	33.8	3	10.3	1
FM 960 BR,ck	1175	7	38.7	18	96	24	69	13	11.5	5	7.6	8	7.058	13	17292	4	4.5	15	1.16	12	84.1	17	32.8	6	7.5	25
DX 44708	1158	8	40.7	6	104	14	68	15	11.0	9	7.9	3	6.603	18	16574	12	4.8	10	1.17	6	84.8	4	30.2	20	8.7	14
FMX06451LLB2	1145	9	39.1	16	101	19	77	4	10.1	16	6.8	18	7.668	7	14484	23	4.8	9	1.16	13	84.4	13	32.1	12	8.6	18
ST 5327 B2RF	1139	10	39.7	10	105	12	66	18	9.3	25	6.5	21	7.983	5	15881	15	4.2	24	1.14	20	84.4	12	32.4	9	9.8	3
DP 121 RF	1128	11	41.8	3	106	9	67	17	9.6	22	7.3	14	7.001	14	15862	16	4.7	11	1.15	17	84.4	11	32.3	10	9.7	6
DG 2490 B2RF	1116	12	37.9	23	97	23	77	4	9.9	20	6.3	23	7.648	10	17917	2	3.8	26	1.12	25	83.8	24	29.8	24	10.2	2
FM 1600 LL	1113	13	39.2	13	107	8	71	11	11.1	8	7.5	10	6.771	15	16158	14	4.7	13	1.17	6	85.0	2	30.4	19	7.4	26
ST 4700 B2RF	1112	14	38.2	21	94	26	80	1	9.5	23	6.2	24	8.104	4	15078	21	4.3	22	1.15	14	84.0	20	29.3	25	9.7	5
Arkot 9506	1107	15	42.4	1	99	20	78	3	10.2	15	7.9	6	6.375	5	17165	5	5.0	2	1.09	26	83.6	26	28.6	26	9.0	11
FM 9060 F	1093	16	39.9	9	101	18	61	23	11.3	7	7.9	5	6.412	19	16763	9	4.6	14	1.21	1	84.3	15	30.1	21	7.8	24
ST 5283 RF	1082	17	39.5	11	111	4	66	19	9.4	24	6.4	22	7.609	11	15388	20	4.4	19	1.15	19	84.2	16	32.8	7	9.6	7
Arkot RM24	1079	18	41.4	5	105	13	76	7	10.0	17	7.4	12	6.649	16	15843	17	4.9	5	1.14	23	84.0	21	29.9	23	8.7	15
ST 6565 B2RF	1040	19	35.0	26	116	1	61	23	9.2	26	5.2	26	9.120	1	12064	26	4.3	21	1.18	4	84.4	10	31.5	13	8.2	20
FM 9063 B2F	1016	20	37.9	24	95	25	68	15	11.9	3	7.6	9	6.094	22	16726	10	4.5	16	1.20	2	84.4	9	33.0	5	8.0	23
DPLX 06W650F	1008	21	38.7	19	113	3	64	21	10.5	12	6.9	16	6.625	17	16269	13	4.4	20	1.17	8	84.0	19	30.8	16	9.0	12
Arkot 9314	948	22	41.6	4	113	2	71	12	12.0	2	9.0	1	4.769	26	18572	1	4.9	7	1.17	10	85.2	1	32.3	11	9.8	4
FM 9068 F	937	23	38.4	20	104	16	58	26	12.1	1	7.9	7	5.389	24	16859	7	4.7	12	1.18	5	84.5	7	33.1	4	8.1	21
Arkot 9513	870	24	38.9	17	108	6	74	9	11.0	10	7.3	13	5.382	25	15620	18	4.9	6	1.13	24	84.5	8	34.5	2	8.6	17
CS50 RF	844	25	38.0	22	108	7	61	23	9.7	21	6.2	25	6.144	21	15015	22	4.3	22	1.16	11	83.9	22	32.5	8	9.6	7
DG OA265 BR	822	26	36.1	25	102	17	65	20	11.7	4	6.9	17	5.418	23	17146	6	4.0	25	1.19	3	84.6	6	37.5	1	8.2	19
Mean	1093		39.4		104		70		10.5		7.2		6.984		16063		4.6		1.16		84.3		31.6		8.9	
Var. LSD 0.10	89		0.9		5		4		0.4		0.3		0.590		757		0.2		0.01		0.6		0.9		0.3	
Loc. LSD 0.10	39		0.4		2		2		0.1		0.3		0.257		332		0.1		0.03		0.2		ns		ns	
C.V.%	15.5		3.2		9.7		10.7		4.6		6.3		16.2		6.3		5.1		1.7		0.9		3.6		4.2	
R-sq x 100	75.7		86.1		74.7		78.1		89.3		78.4		73.8		83.5		91.7		85.9		66.3		87.0		91.6	
Prob (var x loc)	<.001		0.05		<.001		<.001		0.03		0.18		<.01		0.14		<.01		0.03		0.44		0.59		0.01	

Table 20. Results of the 2006 1st-year (Flex & non-Flex) Cotton Variety Test with irrigation on a Tunica silty clay soil at Keiser, AR.																																			
Variety	Lint			Open			Seed			Lint			Seed			Fibers			Fiber properties																
	yield	frac.	%	r	Ht.	cm	r	bolts	%	r	bolts	%	r	per a	mil.	r	per sd	no.	r	Mic.	r	Len.	in.	r	Unif.	%	r	Str.	g/tex	r	Elo.	%			
ST 4427 B2RF	1184	1	39.6	11	90	21	74	7	10.1	16	7	18	7.718	1	16742	7	4.4	18	1.15	22	83.8	25	30.4	22	8.2	21									
ST 5599 BR,ck	1179	2	40.2	6	99	11	59	18	11.1	9	7.7	5	6.919	3	16182	10	5.0	4	1.14	23	83.9	22	30.7	20	8.2	20									
DP 444 BG/RR,ck	1045	3	41.1	5	88	23	78	5	10.1	17	7.4	11	6.407	8	18110	3	4.2	23	1.15	20	84.7	11	30.9	18	9.3	10									
PHY 485 WRF	1034	4	40.2	4	91	17	80	3	9.9	18	7	16	6.687	4	15718	15	4.6	11	1.16	14	84.3	17	34.2	4	10.0	3									
Arkot 9506	989	5	41.6	3	97	13	79	4	10.3	14	7.7	6	5.830	12	18048	4	4.6	11	1.11	26	83.9	22	29.5	26	9.5	7									
FM 1600 LL	976	6	39.3	15	97	13	73	10	11.0	10	7.4	9	5.975	11	15675	16	4.8	7	1.16	13	85.0	8	31.6	15	7.0	26									
DX 34909	941	7	37.8	22	97	13	73	10	11.0	11	7	17	6.111	10	13700	24	5.1	1	1.18	6	85.2	6	29.8	25	8.6	16									
FM 960 BR,ck	933	8	39.4	13	74	26	74	7	11.5	5	7.8	4	5.433	14	17821	5	4.5	15	1.16	14	84.2	18	34.0	7	7.5	25									
DX 34102-17	930	9	41.5	4	99	10	74	7	10.8	13	7.9	2	5.315	15	16136	13	5.1	1	1.15	20	84.0	19	32.6	12	9.6	6									
ST 5327 B2RF	925	10	39.0	17	102	6	54	22	9.4	24	6.3	23	6.663	5	16365	8	4.0	25	1.16	14	84.6	13	33.2	10	10.2	1									
FMX06451LLB2	922	11	39.1	16	91	19	75	6	9.7	19	6.5	20	6.408	7	14666	22	4.6	10	1.17	11	83.3	26	31.0	17	8.8	14									
DG 2490 B2RF	911	12	39.3	14	88	24	71	12	9.5	21	6.5	21	6.395	9	18365	1	3.7	26	1.14	24	83.9	22	30.2	23	9.7	5									
DG OA265 BR	835	13	35.7	25	91	17	69	13	12.4	1	7.2	14	5.292	16	15864	14	4.4	18	1.22	2	85.5	4	37.3	1	8.3	17									
Arkot RM24	827	14	41.7	2	91	20	84	2	10.1	15	7.6	8	4.963	18	16168	12	4.7	8	1.17	11	85.6	2	31.8	13	8.7	15									
FM 9060 F	826	15	39.5	12	89	22	54	22	11.6	4	7.9	3	4.753	22	16172	11	4.7	8	1.22	1	85.1	7	31.2	16	7.8	24									
ST 4700 B2RF	822	16	37.3	23	76	25	85	1	9.1	26	5.7	24	6.539	6	14399	23	4.1	24	1.16	14	84.0	20	30.2	24	9.4	8									
ST 6565 B2RF	794	17	33.8	26	102	6	54	22	9.4	23	5	26	7.151	2	11106	26	4.4	18	1.22	2	85.9	1	31.8	13	8.0	23									
DP 121 RF	789	18	39.9	8	106	5	61	17	9.7	20	6.8	19	5.268	17	15189	20	4.6	11	1.16	14	84.6	14	33.0	11	10.1	2									
FM 9063 B2F	784	19	38.4	19	93	16	59	18	11.2	7	7.2	13	4.901	20	16190	9	4.5	15	1.18	6	84.7	11	34.8	3	8.1	22									
DX 44708	776	20	39.7	10	101	9	65	15	10.8	12	7.4	12	4.778	21	14875	21	4.8	6	1.21	4	85.6	3	30.7	20	8.9	12									
ST 5283 RF	767	21	39.7	9	110	2	58	20	9.2	25	6.4	22	5.455	13	15219	19	4.3	22	1.17	10	84.5	15	34.1	5	9.4	8									
Arkot 9314	707	22	41.7	1	110	3	68	14	12.0	2	9	1	3.595	25	18355	2	4.9	5	1.18	6	85.5	5	33.5	9	9.1	11									
DPLX 06W650F	678	23	38.0	21	102	8	56	21	11.1	8	7.1	15	4.340	23	15241	18	4.6	11	1.20	5	84.8	9	30.8	19	8.8	13									
Arkot 9513	671	24	38.6	18	98	12	65	15	11.2	6	7.4	10	4.114	24	15358	17	5.1	1	1.12	25	84.5	16	35.0	2	8.3	17									
CS50 RF	607	25	35.9	24	108	4	48	25	9.5	22	5.6	25	4.947	19	13269	25	4.4	18	1.16	14	84.0	20	33.6	8	9.8	4									
FM 9068 F	590	26	38.1	20	111	1	45	26	11.9	3	7.6	7	3.523	26	17379	6	4.4	17	1.18	6	84.7	10	34.1	5	8.3	19									
Mean	863		39.1		96		67		10.5		7.1		5.595		15858		4.5		1.17		84.6		32.3		8.8										
LSD 0.10	196		2.4		16		11		0.8		0.9		1.235		1947		0.3		0.03		1.2		2.0		0.8										
C.V.%	19.3		3.6		13.1		14.2		4.5		7.5		18.7		7.2		4.0		1.4		0.9		3.7		5.3										
R-sq x 100	55.5		79.3		43.5		65.5		88.9		82.9		60.4		81.2		88.6		85.4		63.2		85.0		86.9										

Table 21. Results of the 2006 1st-year (Flex & non-Flex) Cotton Variety Test without irrigation on a Tunica silty clay soil at Keiser, AR.

Variety	Lint		Lint frac.		Ht.		Open		Seed		Lint		Seed		Fibers		Mfc.		Len.		Unif.		Str.		Elo.	
	yield	lb/a	r	%	r	cm	r	bolts	r	index	r	index	r	per a	r	per sd	r	Mic.	r	in.	r	%	r	g/fex	r	%
ST 5599 BR,ck	1239	1	37.4	19	109	13	48	22	11.4	6	7	15	7.982	2	15486	14	4.7	12	1.16	20	83.9	24	30.6	15	8.1	21
DX 34102-17	1224	2	40.1	5	93	26	68	6	10.9	12	7.6	6	7.297	6	15859	12	4.9	6	1.17	14	84.2	21	29.9	21	9.6	7
FM 960 BR,ck	1203	3	38.4	13	118	6	56	13	11.5	5	7.4	11	7.365	5	16990	3	4.6	15	1.15	21	84.0	22	32.4	7	7.6	25
DP 444 BG/RR,ck	1191	4	39.6	7	111	12	69	5	11.0	10	7.6	7	7.159	8	17009	1	4.4	16	1.19	6	85.2	5	30.5	16	8.7	13
DX 34909	1174	5	38.6	10	107	16	54	16	10.9	13	7.1	13	7.504	3	13853	24	5.2	1	1.17	14	84.7	11	29.7	22	8.7	15
FMX06451LLB2	1028	6	38.9	9	108	14	71	4	10.5	16	6.9	16	6.749	10	15039	19	4.8	10	1.15	21	84.9	7	31.4	12	8.4	18
ST 4427 B2RF	1022	7	38.4	12	108	15	50	19	10.1	18	6.5	17	7.078	9	15034	20	4.3	18	1.19	6	85.6	3	30.9	13	8.8	11
PHY 485 WRF	1014	8	37.9	16	101	22	68	6	10.0	19	6.4	18	7.220	7	13233	25	4.8	9	1.17	11	85.8	2	34.5	3	10.7	2
DX 44708	1011	9	39.8	6	111	11	58	12	11.3	7	7.7	4	5.942	16	15795	13	5.0	4	1.17	14	84.8	9	29.5	23	8.5	16
Arkot 9506	999	10	41.9	1	100	23	76	1	10.6	14	8	2	5.700	18	15862	11	5.2	2	1.15	21	85.3	4	29.2	24	8.8	12
FM 1600 LL	997	11	37.9	15	124	2	59	11	11.9	4	7.5	8	6.008	14	15259	16	4.9	6	1.19	6	85.1	6	30.5	16	7.5	26
FM 9060 F	989	12	39.0	8	107	17	46	24	11.2	8	7.5	10	6.014	13	16054	8	4.6	14	1.20	4	84.4	16	30.0	20	8.0	22
ST 4700 B2RF	955	13	36.7	24	96	25	68	6	9.5	24	5.8	25	7.487	4	14735	23	4.1	21	1.16	17	83.8	26	28.6	26	9.6	7
Arkot RM24	938	14	40.5	3	117	7	65	9	10.5	15	7.5	9	5.704	17	15339	15	5.1	3	1.15	21	84.2	19	29.0	25	9.4	9
ST 6565 B2RF	929	15	34.2	26	125	1	43	25	9.3	25	5	26	8.388	1	12236	26	4.1	21	1.20	4	84.5	14	30.4	18	8.3	20
DG 2490 B2RF	902	16	37.2	20	98	24	73	2	9.9	20	6.1	21	5.122	23	16992	2	3.8	24	1.13	26	84.3	18	30.3	19	10.4	3
DPLX 06W650F	893	17	36.9	23	121	4	51	17	10.4	17	6.3	19	6.401	12	15933	9	4.1	21	1.17	11	83.9	24	30.7	14	8.7	14
FM 9063 B2F	893	18	37.6	18	106	18	64	10	12.3	2	7.6	5	5.302	22	16570	6	4.4	16	1.24	1	84.6	13	32.3	8	8.0	22
ST 5327 B2RF	872	19	38.6	11	112	10	49	21	9.0	26	5.9	24	6.680	11	15876	10	3.8	25	1.16	17	84.8	9	31.6	11	9.9	5
DP 121 RF	860	20	41.4	2	105	21	51	17	9.6	23	7.1	12	5.490	20	15147	18	4.8	10	1.18	10	84.5	14	31.9	10	9.8	6
CS50 RF	795	21	37.1	22	117	8	48	22	9.8	21	6	23	5.963	15	14836	21	4.2	20	1.17	11	84.2	19	32.1	9	9.4	9
ST 5283 RF	779	22	38.2	14	114	9	50	19	9.7	22	6.3	20	5.622	19	15219	17	4.3	19	1.16	17	84.0	22	32.7	6	10.0	4
FM 9068 F	775	23	37.2	21	121	3	43	25	12.8	1	7.9	3	4.477	24	16726	5	4.7	12	1.19	6	84.4	16	33.1	4	8.0	24
DG OA265 BR	730	24	34.7	25	106	19	55	14	11.0	11	6.1	22	5.419	21	16927	4	3.5	26	1.22	2	84.8	8	38.9	1	8.3	19
Arkot 9513	566	25	37.8	17	105	20	73	2	11.2	9	7.1	14	3.630	25	14826	22	5.0	4	1.14	25	84.6	12	34.8	2	8.5	16
Arkot 9314	522	26	40.3	4	120	5	55	14	11.9	3	8.4	1	2.822	26	16442	7	4.9	6	1.21	3	86.1	1	32.8	5	11.1	1
Mean	942		38.3		110		58		10.7		6.9		6.176		15511		4.5		1.17		84.6		31.5		8.9	
LSD 0.10	218		2.0		11		10		0.8		0.7		1.636		1464		0.4		0.04		ns		2.4		0.6	
C.V.%	19.4		3.1		8.8		15.2		4.6		5.8		22.3		5.5		5.1		1.8		0.9		4.4		3.8	
R-sq x 100	62.4		82.5		53.2		64.4		88.3		89.2		59.3		79.3		88.6		75.8		57.0		84.4		94.0	

Table 22. Results of the 2006 1st-year (Flex & non-Flex) Cotton Variety Test with irrigation on a Dundee silt loam soil at Judd Hill, AR.

Variety	Lint		Lint frac.		Ht.		Open		Seed		Lint		Seed		Fibers		Mic.		Len.		Unif.		Str.		Elo.	
	yield	lb/a	r	%	r	cm	r	%	r	index	g	r	index	g	r	per sd	r	no.	r	in.	r	%	r	g/tex	r	%
DP 444 BG/RR,ck	1347	1	42.4	1	134	4	80	5	9.5	21	7.3	6	8.386	8	17666	10	4.2	5	1.16	21	84.8	11	31.6	15	9.5	10
DX 34102-17	1335	2	42.0	2	113	22	78	7	10.0	15	7.5	3	8.034	12	19155	3	4.1	11	1.15	23	83.9	23	30.4	20	9.4	11
ST 5599 BR,ck	1283	3	39.3	10	143	2	66	23	10.5	9	7	8	8.269	10	17632	11	4.1	12	1.17	18	84.4	17	30.9	18	8.2	24
Arkot RM24	1251	4	40.2	7	130	7	74	12	9.6	18	6.8	11	8.337	9	17412	13	4.1	12	1.15	23	84.0	22	29.5	24	8.4	20
ST 4700 B2RF	1250	5	38.0	15	119	19	86	2	9.1	24	5.9	22	9.607	3	15679	21	3.8	18	1.19	10	84.9	9	29.5	24	10.0	3
ST 5327 B2RF	1220	6	39.9	8	125	13	79	6	8.4	25	5.9	24	9.511	4	16059	19	3.7	19	1.16	22	84.7	12	33.1	7	9.8	6
PHY 485 WRF	1205	7	36.1	22	131	6	83	3	9.5	20	5.6	25	9.779	2	13324	25	4.2	7	1.18	14	85.2	5	33.7	4	10.8	1
DP 121 RF	1181	8	41.1	4	130	8	74	12	9.2	23	6.7	12	7.971	13	16187	18	4.2	7	1.17	20	85.1	6	31.9	14	9.3	13
Arkot 9506	1165	9	40.4	6	118	20	75	10	10.2	13	7.2	7	7.313	17	18371	5	4.2	5	1.13	26	83.4	26	28.5	26	9.1	14
DX 44708	1152	10	40.5	5	123	14	71	15	10.8	7	7.7	2	6.848	20	18053	8	4.2	10	1.20	8	85.4	3	31.2	16	8.9	15
ST 5283 RF	1141	11	37.4	18	134	5	78	7	9.6	19	6	21	8.611	5	16649	16	3.6	23	1.19	10	85.0	7	33.1	9	9.6	8
ST 4427 B2RF	1121	12	36.0	23	118	21	88	1	10.1	14	5.9	23	8.605	6	15190	22	4.0	14	1.18	14	84.1	21	31.0	17	8.7	17
DG 2490 B2RF	1118	13	37.3	19	121	17	81	4	9.7	17	6	20	8.390	7	18001	9	3.6	24	1.13	25	83.9	24	30.2	22	10.4	2
FM 960 BR,ck	1111	14	35.8	25	106	26	70	18	11.3	5	6.6	16	7.677	14	18254	7	3.5	25	1.23	2	84.2	20	33.5	6	7.5	26
DPLX 06W650F	1105	15	37.8	16	135	3	78	7	10.5	11	6.6	15	7.562	16	17028	14	3.8	16	1.21	4	84.7	14	32.3	13	9.6	9
FM 9063 B2F	1103	16	36.7	21	112	24	71	15	11.5	2	6.9	10	7.238	19	18276	6	3.7	22	1.23	1	84.5	16	32.8	10	8.4	22
FM 9060 F	1102	17	38.8	11	121	18	65	24	10.4	12	7	9	7.271	18	18578	4	3.8	16	1.23	2	83.8	25	30.6	19	8.3	23
DX 34909	1102	18	37.3	20	122	16	70	18	10.5	10	6.5	17	7.673	15	13831	24	4.6	1	1.20	6	85.4	4	30.3	21	9.9	5
FMX06451LLB2	1100	19	38.7	12	112	23	71	15	9.2	22	6.1	19	8.219	11	14650	23	4.2	7	1.17	18	84.4	18	32.5	12	9.4	12
ST 6565 B2RF	1067	20	35.4	26	144	1	69	21	8.0	26	4.6	26	10.490	1	12813	26	3.7	21	1.18	13	84.3	19	33.1	7	8.4	21
Arkot 9314	1058	21	41.3	3	128	9	73	14	12.1	1	8.9	1	5.391	25	21106	1	4.3	3	1.18	14	84.7	12	32.6	11	9.8	6
FM 1600 LL	963	22	37.5	17	126	10	70	18	10.7	8	6.7	13	6.526	21	17534	12	3.7	19	1.21	5	85.6	2	30.0	23	7.7	25
FM 9068 F	959	23	38.2	13	109	25	65	24	11.4	4	7.3	5	5.971	23	16907	15	4.3	3	1.20	6	84.6	15	34.2	3	8.4	18
Arkot 9513	945	24	39.3	9	123	15	75	10	11.1	6	7.5	4	5.728	24	16603	17	4.5	2	1.18	14	86.1	1	35.2	2	8.8	16
CS50 RF	867	25	38.2	14	126	10	68	22	9.8	16	6.3	18	6.244	22	16000	20	3.9	15	1.19	9	85.0	7	33.7	5	10.0	3
DG OA265 BR	689	26	35.9	24	126	12	63	26	11.4	3	6.7	14	4.705	26	19159	2	3.5	26	1.19	10	84.9	9	36.7	1	8.4	18
Mean	1113		38.5		124		74		10.2		6.7		7.706		16895		4.0		1.18		84.6		32.0		9.1	
LSD 0.10	148		2.0		11		6		1.0		0.8		1.038		1946		0.4		0.03		ns		1.6		0.7	
C.V.%	11.3		3.0		7.7		6.8		5.8		7.0		11.4		6.6		5.2		1.7		1.0		2.9		4.2	
R-sq x 100	66.0		87.1		67.9		72.7		85.5		87.6		77.9		85.8		83.5		79.1		50.8		89.6		90.4	

Table 23. Results of the 2006 1st-year (Flex & non-Flex) Cotton Variety Test with irrigation on a Calloway silt loam soil at Marianna, AR.

Variety	Lint		Lint		Open		Seed		Lint		Seed		Fibers		Fiber properties											
	yield	frac.	r	Ht.	r	bolls	r	index	r	index	r	per a	r	per sd	r	Mic.	r	Len.	r	Unif.	r	Str.	r	Elo.	r	
	lb/a	%		cm		%		g		g		mil.		no.				in.		%		g/tx		%		
ST 4427 B2RF	1665	1	42.9	6	89	23	83	6	9.5	25	7.5	17	10.060	1	16173	15	5.0	17	1.13	17	83.5	22	30.7	12	8.5	16
DX 34909	1626	2	41.6	12	104	1	78	16	10.5	13	7.9	13	9.391	4	14541	24	5.6	4	1.15	7	84.0	13	29.7	19	8.6	15
ST 5599 BR,ck	1625	3	42.8	8	98	5	75	24	12.1	5	9.4	1	7.836	16	17684	4	5.7	3	1.12	21	83.8	18	30.1	16	8.1	20
DX 34102-17	1583	4	43.6	2	90	20	85	3	10.2	15	8.3	6	8.685	8	16409	13	5.6	5	1.10	25	83.0	25	30.5	14	9.3	8
ST 5327 B2RF	1527	5	41.7	11	92	17	83	6	10.1	20	7.5	18	9.235	6	15572	18	5.1	12	1.14	11	83.9	15	32.8	6	9.2	10
ST 5283 RF	1498	6	42.9	7	96	10	78	16	9.2	26	7.2	21	9.480	3	15202	20	5.1	9	1.10	24	84.1	11	32.0	10	9.4	7
DX 44708	1497	7	41.9	9	88	24	78	16	11.0	8	8.2	7	8.250	13	16850	10	5.1	12	1.15	8	84.3	7	29.5	22	8.7	14
Arkot9314	1481	8	43.0	5	101	3	88	2	11.7	7	9.3	2	7.248	22	19093	1	5.1	10	1.13	17	84.7	2	29.9	18	9.7	5
DP 121 RF	1465	9	43.4	3	97	7	83	6	10.0	21	8	11	8.271	12	16872	9	5.0	14	1.14	15	84.0	13	31.2	11	9.6	6
Arkot 9506	1464	10	44.3	1	96	11	83	6	10.7	12	8.9	3	7.507	19	17622	5	5.9	1	1.04	26	83.0	26	27.6	26	8.8	13
FM 1600 LL	1439	11	40.0	19	97	7	83	6	10.8	11	7.5	16	8.680	9	16328	14	4.8	21	1.16	5	84.1	12	28.9	23	7.3	26
DG 2490 B2RF	1426	12	38.5	23	89	22	83	6	10.1	19	6.6	25	9.849	2	17544	6	4.1	26	1.12	21	83.3	24	28.8	25	10.4	1
DP 444 BG/RR,ck	1424	13	41.5	13	93	15	80	14	10.9	9	8.2	8	7.884	15	18358	2	4.8	21	1.13	17	83.7	20	30.0	17	8.9	12
PHY 485 WRF	1416	14	40.9	15	102	2	85	3	10.4	14	7.6	15	8.502	11	14609	23	5.4	7	1.14	11	85.0	1	33.1	5	10.3	2
FM 960 BR,ck	1400	15	40.6	16	92	16	78	16	12.1	3	8.7	4	7.316	21	17793	3	5.2	8	1.13	17	84.4	6	32.4	8	7.5	25
ST 4700 B2RF	1390	16	39.1	22	90	21	83	6	10.1	17	6.8	24	9.220	7	14880	22	4.8	21	1.15	8	84.3	7	28.8	24	9.8	3
Arkot RM24	1356	17	43.1	4	96	12	83	6	10.0	22	8	12	7.707	17	14988	21	5.8	2	1.11	23	83.6	21	29.6	20	8.5	16
FM 9063 B2F	1313	18	38.3	24	84	26	78	16	12.5	1	8.1	10	7.369	20	16730	11	4.9	20	1.18	2	83.8	19	33.4	3	8.0	21
DPLX 06W650F	1311	19	41.8	10	98	6	73	25	10.0	23	7.5	19	7.981	14	15902	16	5.0	17	1.13	16	83.9	15	29.6	21	9.3	9
FMX06451LLB2	1303	20	39.6	20	96	9	90	1	10.2	16	7	23	8.513	10	13311	25	5.4	6	1.15	10	84.5	4	32.3	9	8.3	18
Arkot 9513	1283	21	40.1	18	100	4	85	3	10.9	10	7.6	14	7.687	18	15792	17	5.0	14	1.14	11	84.3	7	33.2	4	8.9	11
FM 9060 F	1252	22	41.1	14	90	19	78	16	11.9	6	8.7	5	6.554	25	17018	8	5.1	10	1.19	1	84.5	4	30.3	15	7.6	24
ST 6565 B2RF	1207	23	35.6	26	95	14	78	16	10.1	18	5.9	26	9.340	5	12233	26	5.0	17	1.16	5	83.9	15	30.7	12	8.0	22
FM 9068 F	1202	24	39.2	21	84	25	78	16	12.1	4	8.2	9	6.671	24	16714	12	5.0	14	1.16	3	84.5	3	33.7	2	8.0	22
CS50 RF	1054	25	40.4	17	92	18	80	14	9.8	24	7	22	6.867	23	15485	19	4.8	21	1.14	11	83.3	23	32.6	7	9.8	4
DG OA265 BR	938	26	36.6	25	95	13	73	25	12.2	2	7.4	20	5.772	26	17368	7	4.4	25	1.16	3	84.3	7	37.4	1	8.3	19
Mean	1390		40.9		94		80		10.7		7.8		8.146		16195		5.1		1.13		84.0		31.1		8.8	
LSD 0.10	182		1.3		10		6		0.6		0.6		1.083		1141		0.4		0.03		0.8		1.5		0.5	
C.V.%	11.1		1.9		8.6		6.7		3.5		4.8		11.2		4.1		4.7		1.6		0.6		2.9		3.6	
R-sq x 100	63.7		94.1		47.4		46.8		92.7		90.5		66.9		91.5		85.9		84.9		68.5		91.6		93.8	

Table 24. Results of the 2006 1st-year (Flex & non-Flex) Cotton Variety Test with Irrigation on a Desha silt loam at Rohwer, AR.																													
Variety	Lint		Lint frac.		Ht.		Open		Seed		Lint		Seed		Fibers		Fiber properties		Fiber properties		Fiber properties		Fiber properties		Fiber properties				
	yield	lb/a	r	%	r	cm	r	bolts	r	index	g	r	index	per a	r	per sd	r	Mic.	r	Len.	r	Unif.	r	Str.	r	Elo.	r	%	
DX 34909	1454	1	41.2	8	95	13	.	10.5	13	7.7	9	8.592	4	15798	15	5.1	10	1.15	9	84.1	7	30.6	18	9.2	8				
FMX06451LLB2	1370	2	39.2	17	99	8	.	10.9	10	7.4	13	8.453	7	14756	22	5.1	6	1.16	7	84.9	2	33.6	3	8.1	19				
PHY 485 WRF	1346	3	40.9	10	97	11	.	9.8	17	7.1	15	8.641	3	14361	24	5.2	4	1.12	17	84.7	5	33.4	5	10.0	2				
DP 121 RF	1344	4	43.4	2	94	16	.	9.6	21	7.6	10	8.002	8	15913	13	5.1	8	1.12	19	83.9	9	33.5	4	9.6	5				
DX 44708	1316	5	41.9	5	99	9	.	11.3	6	8.5	2	7.030	15	17297	3	5.1	8	1.15	9	83.9	9	30.1	21	8.4	17				
ST 5599 BR,ck	1310	6	39.8	12	94	14	.	12.0	4	8.2	4	7.280	14	16071	10	5.4	2	1.14	14	83.8	12	31.1	14	7.7	22				
FM 9060 F	1298	7	40.9	9	99	7	.	11.0	9	7.9	8	7.467	13	16900	5	4.7	17	1.20	1	83.8	12	28.5	25	7.5	25				
DX 34102-17	1261	8	42.9	3	91	19	.	10.5	14	8.1	5	7.029	16	16537	7	5.2	4	1.14	12	83.1	23	31.7	10	8.9	13				
FM 960 BR,ck	1228	9	39.2	16	91	19	.	11.1	7	7.4	12	7.499	12	15603	17	5.0	13	1.14	14	84.0	8	31.9	9	7.3	26				
DP 444 BG/RR,ck	1227	10	37.8	23	101	6	.	10.4	15	6.6	21	8.487	5	16421	8	4.3	24	1.12	19	83.4	18	30.2	20	9.0	12				
ST 5283 RF	1225	11	39.2	15	102	5	.	9.3	25	6.3	24	8.875	2	14654	23	4.6	20	1.12	17	83.4	19	32.2	7	9.6	5				
ST 6565 B2RF	1204	12	36.2	26	112	2	.	9.1	26	5.3	26	10.230	1	11933	26	4.6	20	1.17	5	83.5	17	31.4	13	8.3	18				
FM 1600 LL	1192	13	41.4	7	93	17	.	11.1	8	8.1	6	6.665	19	15994	11	5.1	6	1.17	5	85.5	1	31.0	15	7.7	23				
DG 2490 B2RF	1170	14	37.3	24	90	23	.	10.1	16	6.3	23	8.483	6	18680	1	3.7	26	1.10	24	83.6	15	29.7	22	10.0	1				
FM 9068 F	1157	15	39.5	14	95	12	.	12.2	1	8.3	3	6.303	21	16568	6	5.1	10	1.18	2	84.5	6	30.4	19	8.1	19				
ST 5327 B2RF	1153	16	39.5	13	94	15	.	9.8	18	6.7	20	7.827	9	15534	18	4.7	17	1.11	23	83.9	9	31.7	11	9.9	3				
ST 4700 B2RF	1142	17	40.0	11	92	18	.	9.7	19	6.8	19	7.668	10	15696	16	4.7	17	1.12	19	83.1	22	29.2	24	9.7	4				
ST 4427 B2RF	1079	18	39.1	18	89	24	.	9.7	20	6.5	22	7.546	11	14309	25	4.8	16	1.13	16	83.7	14	31.5	12	9.1	10				
DPLX 06W650F	1055	19	38.9	19	108	3	.	10.5	12	7	17	6.839	17	17242	4	4.4	23	1.14	12	83.0	24	30.8	17	8.9	14				
Arkot RM24	1021	20	41.5	6	91	21	.	9.5	22	7.1	14	6.534	20	15309	21	5.1	10	1.12	19	82.6	25	29.4	23	8.5	15				
FM 9063 B2F	987	21	38.5	21	83	26	.	12.2	2	7.9	7	5.658	24	15864	14	5.0	13	1.18	2	84.7	4	32.1	8	7.7	24				
Arkot 9314	970	22	41.9	4	106	4	.	12.1	3	9.2	1	4.792	26	17863	2	5.3	3	1.16	7	84.9	2	32.6	6	9.2	7				
Arkot 9506	917	23	43.7	1	83	25	.	9.4	24	7.5	11	5.523	25	15922	12	5.5	1	1.06	26	82.4	26	28.4	26	9.2	9				
DG OA265 BR	916	24	37.3	25	91	22	.	11.4	5	7	16	5.903	22	16410	9	4.4	22	1.17	4	83.6	16	37.1	1	8.0	21				
CS50 RF	900	25	38.2	22	97	10	.	9.4	23	6.1	25	6.702	18	15482	20	4.2	25	1.15	11	83.3	20	30.9	16	9.0	11				
Arkot 9513	888	26	38.7	20	115	1	.	10.7	11	7	18	5.751	23	15519	19	5.0	13	1.10	25	83.3	20	34.3	2	8.4	16				
Mean	1158		39.9		96		.	10.5		7.3		7.299		15871		4.8		1.14		83.8		31.4		8.7					
LSD 0.10	243		2.8		11		.	0.8		0.8		1.561		2078		0.5		0.04		ns		2.2		0.6					
C.V.%	17.8		4.2		9.6		.	4.5		6.4		18.2		7.7		6.2		2.0		1.0		4.0		4.1					
R-sq x 100	54.8		72.9		49.4		.	89.7		87.4		60.9		69.5		80.1		79.3		61.6		82.6		91.5					

Table 25. Morphological and host plant resistance traits in the Main (non-Flex entries) experiment of the 2006 Arkansas Cotton Variety Test.

Variety	Leaf		Trichomes		Bract ²		Verticillium		Tarnished plant	
	pubescence ¹ rating	r	no./cm	r	Length cm	r	wilt ³ %	r	bug damage ⁴ %	r
Arkot 9304a	4.0	6	37	7	4.9	25	48	16	37	10
Arkot 9304b	2.8	12	30	22	5.3	12	54	6	41	6
Arkot 9308	1.4	23	35	9	5.2	15	45	17	41	8
Arkot 9409	2.2	14	30	21	5.1	20	58	1	40	9
DP 393	1.4	21	31	18	5.7	5	49	15	29	26
DP 432 RR	4.5	5	40	4	5.0	24	50	13	42	5
DP 434 RR	1.3	24	38	6	5.1	21	51	9	35	21
DP 444 BG/RR	2.2	15	27	24	5.5	7	53	8	35	23
DP 445 BG/RR	2.3	13	27	23	5.4	10	45	18	27	30
DP 454 BG/RR	6.3	1	42	2	5.4	11	55	3	29	27
DP 455 BG/RR	1.5	20	33	15	4.9	26	45	19	35	17
DP 515 BG/RR	2.0	17	26	26	5.1	16	55	4	36	13
DX 25105N	4.6	4	44	1	5.1	18	51	10	36	15
FM 955 B2LL	1.0	26	32	16	5.9	2	39	26	35	19
FM 958 LL	1.8	19	34	11	5.2	13	43	22	41	7
FM 960 B2R	1.9	18	38	5	5.5	8	43	23	35	20
FM 960 BR	2.1	16	31	20	5.9	1	41	24	36	14
FM 965 B2LL	1.1	25	26	25	5.5	9	40	25	29	28
FM 966 LL	1.4	21	34	10	5.8	4	44	21	35	18
PHY 310 R	3.1	9	33	13	5.1	19	55	5	37	12
PHY 370 WR	3.0	11	34	12	5.0	23	56	2	47	3
PHY 470 WR	5.3	2	41	3	5.2	14	54	7	37	11
PHY 480 WR	3.9	7	36	8	5.0	22	50	14	36	16
ST 4575 BR	4.8	3	31	19	5.1	17	51	11	28	29
ST 5242 BR	3.0	10	31	17	5.7	6	51	12	35	22
ST 5599 BR	3.4	8	33	14	5.8	3	45	20	31	25
PSC 355	.	.	.	.	.	.	.	.	33	24
SG 105	.	.	.	.	.	.	.	.	44	4
Tx-frego	.	.	.	.	.	.	.	.	81	2
La-frego	.	.	.	.	.	.	.	.	84	1
Mean	2.8		34		5.3		49		39	
LSD 0.10	0.9		5		0.3		10		6	
C.V.%	28.9		12.9		5.0		18.2		22.1	
R-sq x 100	81.4		64.5		66.4		48.2		71.3	
1/ Leaf pubescence rated at Keiser irrigated test (6 plants per plots, 4 reps) using scale of 1 (smooth leaf) to 7 (very hairy).										
2/ Marginal trichome density and length of bracts determined on 6 bracts/plot (4 reps) at Keiser irrigated test.										
3/ Percentage of plants expressing Verticillium wilt symptoms were estimated at Judd Hill on Sep 13.										
4/ Response to tarnished plant bug was determined by examining white flowers (6 flowers/plot/day for 9 days) for presence of anther damage.										

Table 26. Morphological and host plant resistance traits for the Main (Flex entries) experiment of the 2006 Arkansas Cotton Variety Test.

Variety	Leaf		Bract ^c		Trichomes		Length		Vert. wilt ^a		Tarnished plant bug damage ^d	
	pubescence ¹	rating	r	r	no./cm	r	cm	r	wilt ^a	r	bug damage ^d	r
BW-2038 B2F		2.7	9	3	43	20	4.8	20	49	11	33	8
BW-3255 B2F		1.3	18	7	39	22	4.7	22	58	3	30	16
BW-4021 B2F		1.2	23	10	37	15	4.8	15	49	11	27	21
BW-4630 B2F		1.3	17	12	37	23	4.7	23	43	20	31	12
BW-8391 B2F		1.6	14	21	34	11	5.1	11	48	14	38	3
CG 3020 B2RF		1.3	16	20	34	21	4.8	21	39	21	29	17
CG 3520 B2RF		2.1	11	6	40	25	4.6	25	48	14	33	9
CG 4020 B2RF		1.3	18	17	36	19	4.8	19	55	5	31	11
DP 110 RF		4.0	4	5	41	1	6.0	1	45	17	36	4
DP 117 B2RF		5.1	1	1	58	7	5.3	7	49	11	26	24
DP 143 B2RF		3.1	7	15	37	8	5.3	8	39	21	26	23
DP 147 RF		4.3	3	9	38	9	5.2	9	44	19	30	15
DP 164 B2RF		1.2	23	26	23	6	5.3	6	39	21	29	20
DP 167 RF		1.0	26	30	30	24	5.1	24	46	16	31	14
DP 444 BG/RR,ck		2.5	10	25	26	3	5.4	3	51	8	24	25
Dyna-Gro 2100 B2RF		1.2	21	8	38	13	5.1	13	59	1	23	28
Dyna-Gro 2215 B2RF		1.3	18	16	36	16	4.6	26	54	6	27	22
Dyna-Gro 2242 B2RF		2.0	12	14	37	14	5.0	14	56	4	24	26
Dyna-Gro 2520 B2RF		1.4	15	22	34	17	4.8	17	59	1	33	6
PHY 425 RF		3.7	5	4	44	4	5.3	4	38	24	29	19
ST 4357 B2RF		1.2	21	13	37	13	4.6	24	45	17	31	13
ST 4554 B2RF		4.4	2	18	35	16	4.8	16	50	10	18	30
ST 4664 RF		3.5	6	19	35	18	4.8	18	54	6	24	27
ST 5599 BR,ck		3.0	8	23	30	2	5.8	2	51	8	22	29
ST 6611 B2RF		1.0	25	4	42	5	5.3	5	34	26	33	5
ST 6622 RF		1.7	13	11	37	10	5.2	10	38	24	32	10
PSC 355											29	18
SG 105											33	7
Tx-frego											67	2
La-frego											69	1
Mean		2.2			37		5.1		48		32	
LSD 0.10		0.9			6		0.3		13		7	
C.V.%		33.7			14.4		4.7		23.1		31.0	
R-sq x 100		80.0			71.2		75.6		49.3		59.3	
1/ Leaf pubescence rated at Keiser irrigated test (6 plants per plots, 4 reps) using scale of 1 (smooth leaf) to 7 (very hairy).												
2/ Marginal trichome density and length of bracts determined on 6 bracts/plot (4 reps) at Keiser irrigated test.												
3/ Percentage of plants expressing Verticillium wilt symptoms were estimated at Judd Hill on Sep 13.												
4/ Response to tarnished plant bug was determined by examining white flowers (6 flowers/plot/day for 9 days) for presence of anther damage.												

Table 27. Morphological and host plant resistance traits for the 1st-year entry experiment of the 2006 Arkansas Cotton Variety Test.

Variety	Leaf		Trichomes		Bract ²		Vert. wilt ³		Tarnished plant bug damage ⁴	
	pubescence ¹ rating	r	no./cm	r	Length cm	r	wilt ³ %	r	%	r
Arkot 9314	1.4	23	32	15	5.4	14	59	5	23	24
Arkot 9506	2.0	18	25	23	5.7	4	51	11	30	5
Arkot 9513	2.5	12	21	26	5.6	10	58	6	25	15
Arkot RIM24	3.4	5	32	13	5.4	15	49	12	24	18
CS50 RF	4.7	1	36	8	5.5	11	39	25	24	20
DG 2490 B2RF	2.1	16	42	3	5.1	22	64	2	28	7
DG OA265 BR	2.9	7	26	22	5.8	2	40	24	19	26
DP 121 RF	2.8	8	30	18	5.6	9	48	15	24	21
DP 444 BG/RR,ck	2.8	9	23	24	5.6	8	66	1	18	28
DPLX 06W650F	2.3	15	29	20	5.4	16	45	18	27	11
DX 34 102-17	4.2	2	47	1	5.3	20	56	7	19	25
DX 34909	3.3	6	35	10	5.1	23	41	22	29	6
DX 44708	1.7	19	36	9	5.6	6	49	12	24	19
FM 1600 LL	1.2	25	22	25	5.5	13	49	12	26	12
FM 9060 F	2.5	12	31	16	5.4	17	44	20	28	9
FM 9063 B2F	1.2	24	28	21	5.8	3	46	16	26	14
FM 9068 F	1.5	21	32	14	5.6	7	41	22	32	3
FM 960 BR,ck	1.5	21	30	19	5.9	1	44	20	26	13
FMX06451LLB2	1.5	20	33	12	5.4	18	46	16	28	8
PHY 485 WRF	3.8	3	44	3	5.0	25	54	9	23	22
ST 4427 B2RF	3.6	4	38	5	5.5	12	60	3	25	16
ST 4700 B2RF	2.4	14	38	6	4.8	26	60	3	19	27
ST 5283 RF	2.0	17	35	11	5.1	24	53	10	23	23
ST 5327 B2RF	2.6	11	39	4	5.2	21	56	7	13	30
ST 5599 BR,ck	2.8	9	30	17	5.7	5	39	25	16	29
ST 6565 B2RF	1.1	26	37	7	5.3	19	45	18	28	10
PSC 355	.	.	.	.	.	.	.	.	25	17
SG 105	.	.	.	.	.	.	.	.	31	4
Tx-frego	.	.	.	.	.	.	.	.	70	1
La-frego	.	.	.	.	.	.	.	.	63	2
Mean	2.4		33		5.4		50		27	
LSD 0.10	0.7		6		0.3		14		6	
C.V.%	24.8		16.0		4.8		23.2		32.9	
R-sq x 100	82.3		68.8		60.1		41.9		66.3	
1/ Leaf pubescence rated at Keiser irrigated test (6 plants per plots, 4 reps) using scale of 1 (smooth leaf) to 7 (very hairy).										
2/ Marginal trichome density and length of bracts determined on 6 bracts/plot (4 reps) at Keiser irrigated test.										
3/ Percentage of plants expressing Verticillium wilt symptoms were estimated at Judd Hill on Sep 13.										
4/ Response to tarnished plant bug was determined by examining white flowers (6 flowers/plot/day for 9 days) for presence of anther damage.										

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