

ARKANSAS

COTTON

VARIETY TESTS

1999

**F.M. Bourland, N.R. Benson,
J.M. Hornbeck, C.D. Capps, Jr.**

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1999**

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SUMMARY

The primary aim of the Arkansas Cotton Variety Test is to provide unbiased data regarding the agronomic performance of cotton varieties in the major cotton growing areas in Arkansas. This information helps seed dealers establish marketing strategies and assists producers in choosing varieties to plant. In this way the annual test facilitates the inclusion of new, improved genetic material into Arkansas cotton production. The 1999 test had 67 entries (including 25 transgenic genotypes and 35 first-year entries), which were evaluated at six sites in eastern Arkansas. The presence of four transgenic and five first-year entries among the top 10 yielding entries suggests that improvement is being accomplished in varietal development. This report also includes the Mississippi County Variety Test (an on-farm evaluation of selected varieties) and on-farm variety trials conducted by the Cooperative Extension Service.

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UNIVERSITY OF ARKANSAS

DIVISION OF AGRICULTURE

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INTRODUCTION

The purpose of the University of Arkansas Cotton Variety Test is to provide an unbiased comparison of cotton varieties. Information included is intended to facilitate variety selection by identifying the potential adaptability of varieties to particular cotton growing regions of the state. Recognizing the genetic differences among entries is the ultimate goal of the test; therefore, all varieties are treated the same way. No specialized production inputs were implemented with respect to genetically enhanced varieties. Roundup-tolerant varieties, Buctril-resistant varieties, *Bacillus thuringiensis (Bt)* varieties, and conventional varieties were all treated equally with respect to weed and insect control.

Cooperative efforts between the Arkansas Agricultural Experiment Station, the Cooperative Extension Service, and Arkansas cotton growers resulted in "systems"-type variety trials. Large, on-farm comparisons of genetically enhanced varieties were conducted across the state and provided the flexibility to test varietal differences under Roundup, Bollgard, and conventional systems for cotton production (see Appendix).

MATERIALS AND METHODS

The 1999 Arkansas Cotton Variety Test was conducted at the Northeast Research and Extension Center at Keiser; the Delta Branch Station at Clarkedale; the Cotton Branch Experiment Station at Marianna; and the Southeast Branch Experiment Station at Rohwer. A test with irrigation was conducted at each site, and a test without irrigation was conducted at Clarkedale and Marianna. One on-farm variety test was conducted in Mississippi County, located in northeast Arkansas.

In general, cultural practices followed were those recommended by the University of Arkansas Extension Service. Test plots at the Marianna location were in close proximity to studies that required near insect-free conditions. Thus insecticide applications at Marianna were initiated at much lower insect thresholds than would normally be recommended under Extension Service recommendations.

Entries were separated into those tested for the first time (first-year entries) and those having been entered in the Arkansas Cotton Variety Test the preceding year. All varieties were planted in two-row plots ranging in length from 40 to 50 ft. Varieties

entered in the Mississippi County test were planted in six-row plots running the full length of the field (approximately 1270 ft). Tests were arranged in a randomized complete block and replicated four times. Although exact inputs varied across locations, all varieties were treated equally within a testing site (Table 1–6). All plots were machine-harvested, and yield per acre was calculated and statistically analyzed.

Data Collected

Leaf Pubescence: Once per season, visual estimates of leaf pubescence were made on 10 plants from each variety. Leaf pubescence data were collected from two of the four replications at each location and included rating individual plants from 1 to 7 (1 = smooth and 7 = very hairy).

Maturity: Starting at approximately first flower, nodes above white flower (NAWF) values were collected from all plots at each location. NAWF values were collected approximately once per week until each variety had reached cutout (NAWF = 5).

Prior to defoliation, estimates of the percentage of open bolls were made for each plot. Ratings were collected from all locations and included a visual estimation of the percentage of open bolls on each plot.

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

Lint Fraction and Fiber Data: Prior to mechanical harvest, a hand-harvested sample of 50 open bolls (25 from each of two rows) were obtained from two replications at each location. The 50 boll samples were ginned (lab gin without the use of lint cleaners) to determine the lint fraction (the proportion of lint to seedcotton). Fiber properties were determined using the HVI classification system.

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

Yield Comparison: Uncontrolled variation is inherent to collection of varietal performance data, particularly yield data. In addition to genetic differences, variation among varieties may be due to slight differences in soil, pest, or climatic conditions within a field; various interactions with specific management; or random chance. 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) Test. An LSD was calculated when the F-value from analysis of variance 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 because of chance or uncontrolled variation and are therefore considered not significantly different.

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. Confidence in data increases as the R-squared value increases. Generally, the meaningfulness of differences among means is questionable when data have R-squared values of less than 50%. To a large extent, 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.

Environmental Conditions: Environmental conditions varied across the state (Table 7). Temperatures were above the 30-year average for Arkansas, while rainfall was well below the average for the same period.

RESULTS

Tables 1–6

Tables 1 – 6 represent cultural inputs and estimated production costs for variety trials at Keiser, Clarkdale (with and without irrigation), Marianna (with and without irrigation), and Rohwer.

Table 7

Table 7 reports weather information for north, central, and south Arkansas during the 1999 growing season.

Tables 8–14

Tables 8–14 depict the results of the Arkansas Cotton Variety Test. Varieties listed in these tables were tested the previous year in Arkansas.

Tables 15–21

Tables 15–21 show the results of the first-year Arkansas Cotton Variety Test. Varieties listed in these tables have never been entered in the test.

Tables 22–23

Tables 22 and 23 show two and three means, respectively.

Tables 24

Table 24 shows results of the Mississippi County On-farm Variety Test.

ACKNOWLEDGMENTS

We express our appreciation to the Directors, Research Specialists, and staffs at the Northeast Research and Extension Center, Delta Branch Experiment Station, Cotton Branch Station, and the Southeast Branch Station. A special thanks is extended to George Palmer at the Northeast Research and Extension Center for his efforts arranging and planting the variety test plots at Keiser and Clarkdale. Annual evaluation of cotton varieties is made possible by the work of the research assistants and technicians at these locations and by the contributions of seed companies participating in the Arkansas Cotton Variety Test.

Table 1. 1999 production inputs for cotton variety test with irrigation at Keiser.

Date	Input*	Rate/Trips	Cost/a**
10/22/98	Chisel	2	\$8.72
	Disk	2	9.92
	Hipped	1	3.48
2/22/99	Hipped	1	3.48
4/12/99	Do-All	1	3.20
	Fertilizer application	1	3.50
	9-18-30	200 lb	18.90
5/12/99	Do-All	1	3.20
5/12/99	Planted	1	7.52
	Prowl + Cotoran	3.0 + 3.0 pt	21.60
6/4/99	Hi-cycle	1	4.00
	Dimethoate	6.4 oz	1.61
6/11/99	Fertilizer application	1	3.50
	Liquid urea (32%)	22 gal	15.75
6/11/99	Cultivated	1	4.65
	Staple	0.4 oz	8.00
6/22/99	Hi-cycle	1	4.00
	Vydate	10 oz	4.72
7/6/99	Furrow Irrigate	1	9.62
7/17/99	Furrow Irrigate	1	9.62
8/3/99	Chopped	1	10.00
8/4/99	Furrow Irrigate	1	9.62
8/4/99	Airplane	1	4.00
	Karate	3.2 oz	6.20
8/8/99	Furrow Irrigate	1	9.62
9/16/99	Defoliated	1	4.00
	Def + Prep	1.0 pt + 1.0 oz	11.36
9/25/99	Defoliated	1	4.00
	Def + Dropp	1.0 pt + 0.1 lb	10.81
10/14/99	Harvest	1	53.18
	Sum of treatments and application costs		\$163.40

* Mention of trademarks or brand names is intended for the purpose of information. The University of Arkansas Agricultural Experiment Station does not imply approval of products listed to the exclusion of other similar products.

** When possible, per acre costs for products and application were derived from University of Arkansas Extension Service production budgets.

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Table 2. 1999 production inputs for cotton variety test with irrigation at Clarkedale.

Date	Input*	Rate/Trips	Cost/a**
3/4/99	Fertilizer application	1	\$3.50
	09-23-30	200 lb	21.10
3/4/99	Do-All	1	3.20
3/4/99	Hipped	1	3.48
5/10/99	Do-All	1	3.20
	Treflan + Cotoran 4L	1.0 + 1.0 pt	7.96
5/10/99	Planted	1	7.52
	Di-Syston + Terraclor Sup X + Command	1.0 pt + 1.5 qt + 1.0 pt	29.71
5/19/99	Cultivated	1	4.65
5/25/99	Fertilizer application	1	3.50
	Liquid urea (32%)	14 gal	10.50
5/25/99	Cultivated	1	4.65
5/28/99	Hi-cycle	1	4.00
	Orthene 90	0.25 lb	2.32
6/8/99	Cultivated	1	4.65
	Cotoran 4L + DSMA	1.0 + 1.75 pt	5.84
6/15/99	Hi-cycle	1	4.00
	Vydate	6.85 oz	3.48
6/21/99	Fertilizer application	1	3.50
	Liquid urea (32%)	9 gal	6.30
6/21/99	Cultivated	1	4.65
	Bladex + MSMA 6.6	1.0 + 1.5 pt	7.63
7/5/99	Airplane	1	4.00
	Provado 1.6	3.75 oz	13.06
7/20/99	Furrow Irrigate	1	9.62
7/23/99	Airplane	1	4.00
	Capture 2E	3.8 oz	10.62
7/27/99	Furrow Irrigate	1	9.62
8/3/99	Hi-cycle	1	4.00
	Fury 1.5	3.8 oz	6.12
8/5/99	Furrow Irrigate	1	9.62
8/13/99	Hi-cycle	1	4.00
	Baythroid 2	2.1 oz	6.26
8/19/99	Furrow Irrigate	1	9.62
9/10/99	Defoliated	1	4.00
	Folex + Prep	1.0 pt + 6 oz	7.52
9/14/99	Defoliated	1	4.00
	Harvade + Prep	26 oz + 1.0 pt	22.50
9/30/99	Harvest	1	53.18
	Sum of treatments and application costs		\$299.80

* Mention of trademarks or brand names is intended for the purpose of information. The University of Arkansas Agricultural Experiment Station does not imply approval of products listed to the exclusion of other similar products.

** When possible, per acre costs for products and application were derived from University of Arkansas Extension Service production budgets.

Table 3. 1999 production inputs for cotton variety test without irrigation at Clarkedale.

Date	Input*	Rate/Trips	Cost/a**
3/26/99	Fertilizer application	1	\$3.50
	09-23-30	200 lb	21.10
3/26/99	Hipped	1	3.48
5/10/99	Do-All	1	3.20
	Treflan + Cotoran 4L	1.0 + 1.0 pt	7.96
5/10/99	Planted	1	7.52
	Di-Syston + Terraclor Sup X + Command	1.0 pt + 1.5 qt + 1.0 pt	29.71
5/19/99	Cultivated	1	4.65
5/25/99	Fertilizer application	1	3.50
	Liquid urea (32%)	14 gal	10.50
5/25/99	Cultivated	1	4.65
5/28/99	Hi-cycle	1	4.00
	Orthene 90	0.25 lb	2.32
6/8/99	Cultivated	1	4.65
	Cotoran 4L + DSMA	1.0 + 1.75 pt	5.84
6/15/99	Hi-cycle	1	4.00
	Vydate	6.85 oz	3.48
6/21/99	Fertilizer application	1	3.50
	Liquid urea (32%)	9 gal	6.30
6/21/99	Cultivated	1	4.65
	Bladex 4L + MSMA 6.6	1.0 + 1.5 pt	7.63
7/5/99	Airplane	1	4.00
	Provado 1.6	3.75 oz	13.06
7/16/99	Hi-cycle	1	4.00
	Karate	1.6 oz	5.86
7/23/99	Airplane	1	4.00
	Capture 2E	3.8 oz	10.62
7/30/99	Hi-cycle	1	4.00
	Fury 1.5	3.8 oz	6.12
8/13/99	Hi-cycle	1	4.00
	Baythroid 2	2.1 oz	6.26
9/2/99	Defoliated	1	4.00
	Folex + Prep	8.0 oz + 2 pt	14.91
9/16/99	Harvest	1	53.18
	Sum of treatments and application costs		\$252.07

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** When possible, per acre costs for products and application were derived from University of Arkansas Extension Service production budgets.

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Table 4. 1999 production inputs for cotton variety test with irrigation at Marianna.

Date	Input*	Rate/Trips	Cost/a**
11/16/98	Chisel plow	1	\$4.36
11/16/98	Disk	1	4.96
11/16/98	Hipped	1	3.48
4/12/99	Hipped	1	3.48
4/21/99	Fertilizer application	1	3.50
	0-23-30	230 lb	19.92
4/22/99	Subsoiled	1	4.17
4/23/99	Roller	1	2.77
5/17/99	Do-All	1	3.20
	Treflan + Cotoran 4L	1.5 + 1.6 pt	12.36
5/17/99	Planted	1	7.52
	Temik 15G + Terraclor Sup X	3.4 + 5.0 lb	21.83
5/24/99	Fertilizer application	1	3.50
	Liquid urea (32%)	12 gal	8.87
6/7/99	Hi-cycle	1	4.00
	Staple	0.6 oz	12.00
6/11/99	Hi-cycle	1	4.00
	Orthene	0.25 lb	2.35
6/16/99	Cultivated	1	4.65
	Cotoran 4L + MSMA 6.6	0.85 + 1.0 pt	5.82
6/18/99	Fertilizer application	1	3.50
	Liquid urea (32%)	12 gal	8.87
6/21/99	Hi-cycle	1	4.00
	Baythroid 2 + Provado	2.2 + 3.9 oz	19.90
6/22/99	Cultivated	1	4.65
	Caparol + MSMA	0.4 + 1.0 pt	3.95
6/29/99	Hi-cycle	1	4.00
	Karate Z + Provado 1.6	2.1 + 3.8 oz	19.90
7/6/99	Cultivated	1	4.65
	Bladex 4L	0.8 pt	3.00
7/8/99	Furrow Irrigated	1	9.62
7/16/99	Hi-cycle	1	4.00
	Baythroid 2 + Orthene 75 + PIX	2.0 oz + 0.3 lb + 2.7 oz	11.29
7/21 & 26/1999	Furrow Irrigated	1 (each date)	19.24
7/29/99	Hi-cycle	1	4.00
	Fusilade DX (Spot Treatment)	0.33	3.27
7/30/99	Hi-cycle	1	4.00
	Baythroid 2 + PIX	2.2 + 8.5 oz	13.12
8/2/99	Hi-cycle	1	4.00
	PIX	12 oz	9.60
8/3/99	Furrow Irrigated	1	9.62
8/5/99	Hi-cycle	1	4.00
	Baythroid 2	2.2 oz	6.32
8/11/99	Furrow Irrigated	1	9.62
8/13/99	Hi-cycle	1	4.00
	Baythroid 2	2.2 oz	6.32
8/18/99	Furrow Irrigated	1	9.62
8/20 & 23/1999	Hi-cycle	1 (each date)	8.00
	Baythroid 2	2.2 oz (each date)	12.64
8/25/99	Furrow Irrigated	1	9.62
8/27/99	Hi-cycle	1	4.00
	Baythroid 2	2.2 oz	6.32
9/24/99	Defoliated	1	4.00
	Finish	3.0 pt	20.49
10/5/99	Harvest	1	53.18
	Sum of treatments and application costs		\$458.69

* Mention of trademarks or brand names is intended for the purpose of information. The University of Arkansas Agricultural Experiment Station does not imply approval of products listed to the exclusion of other similar products.

** When possible, per acre costs for products and application were derived from University of Arkansas Extension Service production budgets.

Table 5. 1999 production inputs for cotton variety test without irrigation at Marianna.

Date	Input*	Rate/Trips	Cost/a**
11/16/98	Chisel plow	1	\$4.36
11/16/98	Disk	1	4.96
11/16/98	Hipped	1	3.48
4/12/99	Hipped	1	3.48
4/21/99	Fertilizer application	1	3.50
	0-23-30	230 lb	19.92
4/22/99	Subsoiled	1	4.17
4/23/99	Roller	1	2.77
5/18/99	Do-All	1	3.20
	Treflan + Cotoran 4L	1.5 + 1.6 pt	12.36
5/18/99	Planted	1	7.52
	Temik 15G + Terraclor Sup X	3.4 + 5.0 lb	21.83
5/24/99	Fertilizer application	1	3.50
	Liquid urea (32%)	12 gal	8.87
6/1/99	Cultivated	1	4.65
6/7/99	Hi-cycle	1	4.00
	Staple	0.6 oz	12.00
6/8/99	Cultivated	1	4.65
6/11/99	Hi-cycle	1	4.00
	Orthene	0.25 lb	2.35
6/16/99	Cultivated	1	4.65
	Cotoran 4L + MSMA 6.6	0.7 + 1.1 pt	5.82
6/21/99	Fertilizer application	1	3.50
	Liquid urea (32%)	12 gal	8.87
6/21/99	Hi-cycle	1	4.00
	Baythroid 2 + Provado	2.2 + 3.9 oz	19.90
6/24/99	Cultivated	1	4.65
	Caparol 4L + MSMS 6.6	0.7 + 1.1 pt	4.93
6/29/99	Hi-cycle	1	4.00
	Karate Z + Provado 1.6	2.1 + 3.8 oz	19.90
6/29/99	Hi-cycle	1	4.00
	Fusilade DX (spot treatment)	0.25	2.82
7/7/99	Cultivated	1	4.65
	Bladex 4L	0.8 pt	3.00
7/16/99	Hi-cycle	1	4.00
	Baythroid 2 + Orthene 75 + PIX	2.5 oz + 0.4 lb + 2.7 oz	13.36
7/30/99	Hi-cycle	1	4.00
	Baythroid 2	2.2 oz	6.32
8/5/99	Hi-cycle	1	4.00
	Baythroid 2	2.2 oz	6.32
8/11/99	Hi-cycle	1	4.00
	Baythroid 2	2.2 oz	6.32
8/16/99	Hi-cycle	1	4.00
	Baythroid 2	2.2 oz	6.32
8/20/99	Hi-cycle	1	4.00
	Baythroid 2	2.2 oz	6.32
8/23/99	Hi-cycle	1	4.00
	Baythroid 2	2.2 oz	6.32
8/27/99	Hi-cycle	1	4.00
	Baythroid 2	2.2 oz	6.32
9/16/99	Defoliated	1	4.00
	Finish	3 pt	20.49
9/28/99	Harvest	1	53.18
	Sum of treatments and application costs		\$393.17

* Mention of trademarks or brand names is intended for the purpose of information. The University of Arkansas Agricultural Experiment Station does not imply approval of products listed to the exclusion of other similar products.

** When possible, per acre costs for products and application were derived from University of Arkansas Extension Service production budgets.

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Table 6. 1999 production inputs for cotton variety test with irrigation at Rohwer

Date	Input*	Rate/Trips	Cost/a**
2/22/99	Fertilizer application	1	\$3.50
	0-15-30	200 lb	13.80
2/22/99	Hipped	1	3.48
4/12/99	Do-All	1	3.20
4/12/99	Hipped	1	3.48
5/4/99	Hipped	1	3.48
5/10/99	Do-All	1	3.20
5/10/99	Planted	1	7.52
	Terraclor Super X + Disyston	5 pt + 12 oz	25.21
	Powl + Cotoran + Zorial (all ppi)	1.8 + 1.2 + 0.625 pt	18.47
5/25/99	Hi-cycle	1	4.00
5/25/99	Orthene	0.25 lb	2.35
6/7/99	Cultivated	1	4.15
	Staple + Select	0.6 + 0.5 oz (19-in. band)	12.75
	46% urea	87 lb	18.27
6/10/99	Hi-cycle	1	4.00
	Vydate + Provado	8.5 + 3.75 oz	17.38
6/16/99	Fertilizer application	1	3.50
	32% liquid urea	20 gal	14.70
6/21/99	Cultivated	1	4.15
	Caparol + MSMA	0.75 + 1.5 pt	6.00
7/1/99	Hi-cycle	1	4.00
7/1/99	Provado (ground applied)	3.75 oz	13.04
7/16/99	Furrow Irrigation	1	9.62
7/26/99	Furrow Irrigation	1	9.62
7/31/99	Airplane	1	4.00
	Karate Z	1.83 oz	6.71
8/2/99	Furrow Irrigation	1	9.62
8/9/99	Furrow Irrigation	1	9.62
9/7/99	Airplane	1	4.00
	Dropp + Finish	0.1 lb + 1 qt	19.26
9/16/99	Hi-cycle	1	4.00
	Def + Prep	0.75 + 1.0 pt	10.06
9/23/99	Harvest	1	53.18
	Sum of treatments and application costs		\$329.82

* Mention of trademarks or brand names is intended for the purpose of information. The University of Arkansas Agricultural Experiment Station does not imply approval of products listed to the exclusion of other similar products.

** When possible, per acre costs for products and application were derived from University of Arkansas Extension Service production budgets.

Table 7. Weather summary for the 1999 growing season in north, central and south Arkansas.

Month	Keiser			Marianna			Rohwer		
	1999	30-y avg.	Rain (1999)	1999	30-y avg.	Rain (1999)	1999	30-y avg.	Rain (1999)
	DD60's	DD60's	in.	DD60's	DD60's	in.	DD60's	DD60's	in.
May	341	279	4.28	341	341	3.27	372	341	2.83
June	570	510	4.88	540	540	4.72	540	540	4.00
July	744	620	1.49	682	655	3.45	713	655	1.49
August	655	558	0.41	620	589	0.61	682	589	0.40
September	420	360	2.22	403	403	1.77	420	390	1.09
Total	2730	2327	13.28	2586	2528	13.82	2727	2515	9.81

Table 8. Results of the 1999 Arkansas Cotton Variety Test across six locations.¹

Variety/Location	Lint yield lb/a	r ²	Lint frac. %	Open bolls %	Plant ht. in.	Days to cutout ³	Leaf pub. ⁴	Fiber properties ⁵														
								Mic	Len	Unif.	Str	Elo.										
Phytogen PSC 355	1132	1	40.4	7	58	15	48.9	2	78.7	12	5.8	3	5.52	7	1.08	29	84.9	10	31.5	7	8.3	1
Paymaster PM1218BGRR	1101	2	40.2	11	60	9	47.1	8	76.1	31	3.4	13	5.61	4	1.07	32	84.1	29	28.0	31	7.1	19
Sure-Grow 105	1090	3	39.6	17	66	4	42.3	31	76.4	30	2.6	16	5.52	7	1.09	21	85.2	2	30.1	16	7.5	10
Sure-Grow 747	1072	4	40.3	8	63	7	44.9	17	76.8	25	2.3	21	5.58	5	1.10	17	85.1	4	29.0	22	8.1	4
Paymaster PM1220RR	1061	5	40.4	6	53	25	49.4	1	79.0	9	3.8	11	5.66	2	1.09	23	84.8	12	30.6	12	7.9	6
Sure-Grow 501	1047	6	41.6	3	54	23	46.5	10	77.8	19	3.8	10	5.43	14	1.10	16	84.9	9	32.6	2	7.4	12
AgriPro AP 7115	1044	7	40.3	9	59	12	45.4	16	78.2	15	2.4	18	5.21	24	1.09	26	83.6	32	28.4	25	7.2	18
Paymaster PM1220BGRR	1035	8	39.3	18	53	24	47.6	6	78.1	16	3.7	12	5.34	18	1.09	20	84.2	25	29.5	19	7.3	15
Stoneville 474	1035	9	40.6	5	59	11	47.6	7	78.9	11	6.1	2	5.47	11	1.10	15	84.5	19	29.1	21	7.2	17
Stoneville BXN47	1033	10	41.7	2	60	10	47.9	5	78.1	17	5.2	5	5.47	11	1.08	28	84.1	28	28.2	29	7.1	20
Deltapine DP 388	1029	11	39.6	16	68	1	43.0	28	76.6	27	4.4	8	5.06	30	1.07	31	83.8	30	30.3	14	7.9	5
Phytogen PSC 952	1023	12	40.2	10	52	26	48.8	3	80.3	3	5.6	4	5.52	7	1.09	25	84.4	20	30.3	15	7.7	8
Phytogen PSC 636	1023	13	37.9	27	57	19	44.8	19	77.8	20	1.9	29	5.04	31	1.10	14	83.8	31	28.7	23	6.6	29
Sure-Grow 125	1020	14	39.9	14	67	2	44.6	21	77.0	24	2.1	27	5.36	16	1.11	10	85.0	7	28.6	24	8.3	2
FiberMax FM 819	1020	15	41.8	1	59	12	44.9	18	79.9	4	2.9	15	5.33	19	1.13	4	85.2	3	31.9	5	6.0	30
Phytogen PSC 556	1005	16	40.7	4	63	6	45.5	15	80.5	2	5.0	6	5.02	32	1.13	4	85.0	8	31.0	11	7.0	25
FiberMax FM 832	1001	17	38.9	22	44	31	48.8	4	79.4	5	2.2	23	5.25	22	1.15	1	85.5	1	32.3	4	5.9	32
Paymaster PM1560BG	996	18	40.1	12	59	12	44.6	21	76.7	26	4.1	9	5.66	2	1.10	19	84.5	18	31.1	9	7.4	13
Paymaster PM1440	987	19	39.3	19	56	20	44.3	25	76.6	28	2.1	24	5.26	21	1.10	12	84.3	21	29.3	20	6.9	27
Paymaster PM1330BG	977	20	38.4	24	64	5	45.7	13	79.1	8	4.8	7	5.15	27	1.11	11	84.6	16	29.9	17	7.1	22
AgriPro AP 6101	975	21	39.7	15	49	30	44.4	24	79.2	7	1.9	28	5.39	15	1.13	2	84.8	13	31.4	8	7.0	24
Deltapine DP 20B	971	22	39.2	20	58	16	45.7	14	77.4	22	2.3	22	5.17	26	1.09	24	84.1	27	28.4	26	8.1	3
Deltapine DP 5111	952	23	38.2	25	66	3	46.6	9	76.5	29	6.1	1	5.68	1	1.07	30	84.3	22	31.1	10	6.7	28
Deltapine DP 428B	948	24	37.2	30	56	21	46.0	12	78.5	13	2.1	24	5.15	27	1.11	8	84.5	17	27.8	32	7.1	21
Deltapine DP 425RR	944	25	37.6	28	55	22	44.0	26	78.2	14	2.4	19	5.46	13	1.08	27	84.2	26	28.2	30	7.5	11
Deltapine DP 436RR	932	26	35.6	32	57	18	43.5	27	77.4	23	2.1	26	5.17	25	1.12	6	85.0	6	28.4	27	7.9	7
Germaines GC 251	930	27	37.4	29	61	8	42.1	32	75.8	32	2.6	17	5.51	10	1.10	17	85.1	5	31.7	6	6.9	26
Phytogen PSC 569	930	28	39.9	13	52	27	46.4	11	81.3	1	1.8	31	5.35	17	1.09	22	84.7	15	33.1	1	7.2	16
Terra 292	930	29	35.9	31	58	16	44.7	20	77.7	21	2.4	20	5.28	20	1.11	9	84.8	11	28.3	28	7.6	9
FiberMax FM 989	880	30	38.8	23	50	29	42.7	30	78.0	18	1.7	32	5.06	29	1.13	3	84.8	13	32.5	3	6.0	31
Deltapine NuCOTN 33B	864	31	38.0	26	51	28	44.5	23	79.0	10	2.9	14	5.25	22	1.10	13	84.2	23	29.6	18	7.1	23
Deltapine DP 458B/RR	811	32	39.2	21	43	32	42.9	29	79.4	6	1.8	30	5.58	6	1.11	7	84.2	24	30.3	13	7.4	14
LSD 0.10	45		0.9		5		2.4		1.0		0.5		0.20		0.01		0.5		0.7		0.2	
Keiser, irrigated	1238		37.7		48		54.7		80.8		2.7		4.75		1.15		85.3		29.8		7.69	
Clarkedale, irrigated	1073		37.8		64		46.0		81.6		3.2		4.86		1.14		85.5		30.3		7.30	
Clarkedale, not irrigated	462		41.4		48		—		78.2		3.3		5.78		1.02		82.7		28.4		6.88	
Marianna, irrigated	1255		38.8		68		47.8		78.3		3.9		5.32		1.13		85.3		30.4		7.68	
Marianna, not irrigated	610		40.4		52		41.3		76.2		3.8		5.80		1.10		84.1		30.6		7.17	
Rohwer, irrigated	1324		39.8		62		37.6		73.7		2.8		5.65		1.10		84.6		30.7		6.82	
LSD 0.10	133		1.6		9		ns		1.9		ns		ns		0.01		0.5		0.8		0.24	
Mean	993		39.2		57		45.5		78.1		3.3		5.36		1.10		84.6		30.0		7.26	
CV (%)	9.4		3.5		17.5		10.0		2.6		20.7		5.57		2.00		0.8		3.9		4.98	
R-squaredx 100	95.3		85.2		70.6		79.1		79.8		91.5		85.8		92.8		85.8		84.8		89.9	
Prob. (Variety x location)	<.01		0.07		<0.01		0.57		0.09		0.16		0.27		0.01		0.08		0.05		<0.01	

¹ Four replications/location for lint yield, height and open bolls: two replications/location for all other variables.

² r = ranking.

³ Cutout = days from planting to NAWF 5.

⁴ Leaf pubescence is mean of 10 plants/plot rated from 1 (smooth leaf) to 7 (very hairy).

⁵ Fiber micronaire (Mic), length (Len), length uniformity (Unif), strength (Str), and elongation (Elo).

Arkansas Cotton Variety Tests 1999

Table 9. Results of the 1999 Arkansas Cotton Variety Test with irrigation on a Tunica silty clay soil at Keiser.¹

Variety/Location	Lint yield lb/a	r ²	Lint frac. %	r	Open bolls %	Plant r	ht. in.	Days to cutout ³	r	Leaf pub. ⁴	r	Fiber properties ⁵										
												Mic	r	Len	r	Unif.	r	Str	r	Elo.	r	
Phytogen PSC 556	1395	1	39.3	6	60	2	55.8	14	83.6	2	4.3	6	4.55	23	1.17	8	84.8	27	30.7	9	7.1	29
Sure-Grow 747	1383	2	38.2	14	50	9	54.3	21	80.3	20	1.7	24	4.90	10	1.16	14	86.2	2	27.8	30	8.9	2
Paymaster PM1220RR	1378	3	41.0	3	50	9	55.0	17	80.7	14	3.2	10	5.35	1	1.13	26	85.8	7	29.6	18	8.1	10
Sure-Grow 125	1375	4	39.7	4	53	8	55.5	16	80.4	19	1.6	25	4.65	22	1.17	8	85.9	4	27.5	32	9.4	1
Deltapine DP 388	1361	5	39.0	9	65	1	47.3	32	79.9	27	3.3	9	4.50	26	1.12	30	84.5	30	30.6	11	8.2	8
Paymaster PM1560BG	1361	6	39.5	5	55	5	51.5	26	79.2	29	3.9	7	5.20	4	1.13	26	85.1	25	30.1	16	8.3	7
Sure-Grow 501	1344	7	41.5	2	43	24	56.8	8	80.4	18	3.1	11	4.90	10	1.17	6	85.8	7	32.6	1	7.6	17
Sure-Grow 105	1327	8	37.8	15	48	14	53.3	24	80.2	21	2.7	14	5.00	7	1.14	21	85.6	10	30.0	17	7.9	11
AgriPro AP 7115	1321	9	39.2	7	48	14	55.0	17	80.4	17	1.8	21	4.70	18	1.11	32	83.8	32	28.6	24	7.6	20
Paymaster PM1220BGRR	1304	10	37.5	19	43	24	56.0	11	79.8	28	2.9	13	5.10	5	1.14	21	84.8	28	29.2	21	7.8	13
Paymaster PM1218BGRR	1285	11	37.6	16	48	14	59.0	2	78.6	31	3.0	12	5.30	2	1.12	29	85.3	17	27.9	29	7.8	13
FiberMax FM 819	1281	12	41.8	1	58	4	48.8	31	80.7	14	2.5	15	5.10	5	1.18	4	85.9	5	31.7	5	6.0	31
Deltapine DP 20B	1256	13	37.4	21	50	9	56.3	10	81.0	12	1.9	20	4.20	29	1.16	12	85.5	11	28.1	26	8.8	3
Stoneville 474	1253	14	38.5	13	48	14	56.8	8	81.7	9	5.5	1	4.90	10	1.14	21	85.2	23	29.6	19	7.6	20
Phytogen PSC 636	1248	15	35.0	29	48	14	52.0	25	80.0	24	1.4	30	4.40	28	1.16	14	84.6	29	28.8	22	7.3	26
Paymaster PM1440	1246	16	38.9	10	48	14	50.8	28	77.9	32	1.8	21	4.45	27	1.16	14	85.5	13	29.5	20	7.5	24
Deltapine DP 5111	1242	17	37.0	22	55	5	56.0	11	80.7	13	5.1	2	4.95	8	1.11	31	85.0	26	31.5	7	7.2	27
Deltapine DP 428B	1229	18	35.4	27	43	24	54.5	20	82.6	5	1.5	29	4.20	30	1.15	19	85.3	17	27.5	31	8.3	5
Germaines GC 251	1219	19	34.5	31	45	22	50.0	30	79.1	30	1.4	30	4.85	13	1.17	8	85.8	6	31.7	6	7.3	25
Phytogen PSC 355	1197	20	37.5	19	48	14	58.0	4	81.4	10	3.3	8	4.70	20	1.16	14	86.0	3	30.7	9	8.3	5
Stoneville BXN47	1194	21	38.7	11	50	9	58.0	4	80.0	24	4.4	5	4.85	13	1.16	14	85.3	17	28.7	23	7.5	23
Paymaster PM1330BG	1185	22	35.5	26	55	5	58.0	4	82.0	8	4.7	4	4.70	20	1.17	6	85.3	20	30.4	13	7.2	27
Phytogen PSC 952	1180	23	38.7	11	45	22	53.5	22	80.0	23	5.0	3	5.30	2	1.13	25	85.5	11	30.4	12	7.7	16
Phytogen PSC 569	1175	24	36.9	23	60	2	55.8	14	84.5	1	1.5	28	4.55	23	1.14	24	85.2	23	32.2	3	7.6	17
FiberMax FM 832	1169	25	37.6	17	30	32	60.3	1	82.2	7	1.8	21	4.85	13	1.20	1	86.5	1	31.8	4	5.9	32
AgriPro AP 6101	1163	26	39.1	8	35	30	58.3	3	82.2	6	1.6	26	4.55	23	1.19	3	85.4	16	30.9	8	7.6	19
Deltapine DP 425RR	1146	27	35.4	28	50	9	57.5	7	82.7	4	2.0	18	4.85	13	1.12	28	84.4	31	28.0	28	8.2	8
Terra 292	1120	28	34.7	30	48	14	51.5	26	81.2	11	2.5	15	4.80	17	1.16	12	85.7	9	28.5	25	7.6	20
FiberMax FM 989	1117	29	36.9	24	40	28	50.8	28	80.1	22	1.4	32	4.00	32	1.19	2	85.3	20	32.3	2	6.2	30
Deltapine NuCOTN 33B	1098	30	36.8	25	40	28	55.0	17	79.9	26	2.3	17	4.70	18	1.15	19	85.2	22	30.4	13	7.8	13
Deltapine DP 436RR	1097	31	33.5	32	43	24	53.5	22	80.7	14	2.0	18	4.15	31	1.18	4	85.4	14	28.1	27	8.6	4
Deltapine DP 458B/RR	959	32	37.6	17	35	30	56.0	11	82.8	3	1.6	26	4.95	9	1.17	8	85.4	14	30.4	13	7.9	12
LSD 0.10	119		1.9		13		6.1		ns		1.3		0.50		0.03		0.8		1.0		0.6	
Mean	1238		37.7		48		54.7		80.8		2.7		4.75		1.15		85.3		29.8		7.7	
CV (%)	8.2		3.0		23.0		9.4		3.5		28.2		6.17		1.39		0.6		2.0		4.6	
R-squared x 100	68.3		86.7		45.4		69.4		47.9		84.5		73.3		81.9		73.2		92.9		90.1	

Planted May 12; furrow-irrigated July 6, 17 and Aug 8; open bolls rated Sept. 14; defoliated Sept. 16; harvested Oct. 14.

¹ Four replications/location for lint yield, height and open bolls: two replications/location for all other variables.

² r = ranking.

³ Cutout = days from planting to NAWF 5.

⁴ Leaf pubescence is mean of 10 plants/plot rated from 1 (smooth leaf) to 7 (very hairy).

⁵ Fiber micronaire (Mic), length (Len), length uniformity (Unif), strength (Str), and elongation (Elo).

Table 10. Results of the 1999 Arkansas Cotton Variety Test with irrigation on a Dundee silt loam soil at Clarkedale.¹

Variety/Location	Lint yield lb/a	r ²	Lint frac. %	r	Open bolls %	Plant ht. in.	Days to cutout ³	r	Leaf pub. ⁴	r	Fiber properties ⁵											
											Mic	r	Len	r	Unif.	r	Str	r	Elo.	r		
Paymaster PM1218BGRR	1220	1	38.7	9	70	6	47.3	12	80.3	27	2.9	14	5.35	2	1.09	32	84.6	30	27.9	31	7.2	18
Phytogen PSC 355	1195	2	39.9	2	68	9	48.8	5	80.9	21	6.6	1	5.25	3	1.12	27	86.1	5	31.7	7	8.5	1
Sure-Grow 105	1183	3	38.0	16	67	15	35.3	32	79.0	32	1.7	28	5.10	6	1.13	24	86.2	4	30.7	12	7.9	8
Stoneville BXN47	1175	4	40.6	1	68	9	49.3	3	82.4	8	5.0	6	4.65	25	1.12	27	85.1	23	28.4	26	6.9	25
Paymaster PM1220RR	1156	5	38.9	8	60	22	52.5	1	82.7	6	3.5	10	4.95	11	1.16	6	85.3	19	31.2	10	8.0	7
Sure-Grow 501	1134	6	39.5	6	68	9	47.3	11	79.6	31	3.1	12	4.80	19	1.14	16	85.8	12	34.2	1	7.2	18
Sure-Grow 747	1125	7	38.6	10	78	2	45.5	19	81.3	18	2.1	24	5.10	6	1.14	19	85.4	17	29.2	24	8.3	2
FiberMax FM 819	1124	8	39.8	4	68	9	47.0	14	84.5	2	2.7	17	4.60	26	1.20	2	86.9	2	32.5	5	6.1	30
Phytogen PSC 556	1121	9	39.8	3	75	4	45.5	19	82.2	11	4.2	8	4.55	29	1.17	4	86.0	8	31.6	8	7.5	12
Phytogen PSC 636	1106	10	36.4	27	65	16	45.0	24	80.6	26	2.3	21	4.20	32	1.13	22	84.7	28	30.1	17	6.6	28
Paymaster PM1440	1083	11	37.7	19	55	28	48.5	6	81.1	20	2.1	23	4.75	22	1.15	13	84.8	26	29.3	23	6.8	26
Sure-Grow 125	1077	12	37.6	21	78	2	45.5	19	81.8	15	2.0	25	4.90	13	1.14	19	85.8	13	27.9	30	8.3	2
Paymaster PM1560BG	1071	13	37.4	23	80	1	47.0	14	80.2	28	3.6	9	5.20	4	1.14	21	86.0	6	30.6	13	7.4	15
Stoneville 474	1069	14	38.2	12	70	6	47.8	8	81.9	14	6.0	4	5.15	5	1.15	13	85.9	10	29.7	19	7.3	16
FiberMax FM 832	1069	14	37.6	22	65	16	45.8	17	82.9	5	1.9	26	4.35	31	1.23	1	87.2	1	32.8	4	6.1	30
Deltapine DP 428B	1066	16	36.3	28	63	19	47.8	8	82.0	13	2.8	16	4.95	10	1.16	8	85.0	24	28.0	29	7.1	20
Phytogen PSC 952	1066	16	39.8	4	63	19	51.5	2	84.8	1	6.2	3	4.85	17	1.12	27	85.3	18	30.5	14	7.7	9
Deltapine DP 20B	1064	18	37.3	24	58	26	47.3	12	81.6	16	2.3	21	4.90	13	1.15	13	85.5	16	29.6	20	8.2	4
Paymaster PM1330BG	1062	19	37.7	20	68	9	47.8	8	83.7	3	4.6	7	4.85	17	1.15	12	85.7	14	30.4	15	6.4	29
Deltapine DP 388	1060	20	38.4	11	73	5	45.5	19	80.6	25	5.2	5	4.45	30	1.10	31	84.5	31	29.6	20	8.1	5
AgriPro AP 7115	1058	21	37.9	17	68	9	44.0	27	81.2	19	2.4	20	4.90	13	1.14	17	85.0	25	28.7	25	7.1	22
Deltapine DP 425RR	1038	22	35.6	29	58	26	37.0	31	82.1	12	2.5	18	5.05	9	1.12	27	85.2	20	28.4	26	7.5	13
Paymaster PM1220BGRR	1037	23	38.1	13	60	22	48.0	7	82.3	10	2.9	15	4.75	22	1.16	6	85.2	20	29.8	18	7.7	10
Terra 292	1031	24	34.5	32	65	16	45.8	17	79.7	30	2.4	19	4.75	22	1.16	8	85.1	22	27.3	32	7.7	11
Germaines GC 251	1030	25	35.2	30	70	6	42.5	29	79.9	29	3.0	13	5.10	6	1.16	8	86.3	3	32.9	3	7.1	23
Deltapine DP 5111	1028	26	37.2	25	63	19	49.0	4	80.8	22	6.3	2	5.50	1	1.13	24	84.7	27	31.1	11	6.7	27
Deltapine DP 436RR	1014	27	34.8	31	60	22	44.3	26	80.7	24	1.7	28	4.80	19	1.16	8	86.0	6	28.4	26	8.1	6
AgriPro AP 6101	1010	28	39.0	7	48	31	44.5	25	82.4	7	1.8	27	4.80	19	1.17	5	85.6	15	31.3	9	7.1	20
FiberMax FM 989	1002	29	36.6	26	60	22	43.3	28	80.8	23	1.6	30	4.60	26	1.19	3	85.9	10	32.3	6	6.0	32
Deltapine NuCOTN 33B	996	30	38.1	13	53	30	47.0	14	82.3	9	3.4	11	4.90	13	1.13	22	84.7	28	29.5	22	7.0	24
Phytogen PSC 569	977	31	38.1	13	55	28	45.5	19	83.6	4	1.5	32	4.60	26	1.14	17	85.9	9	34.1	2	7.3	16
Deltapine DP 458B/RR	881	32	37.8	18	43	32	42.5	29	81.4	17	1.6	31	4.95	11	1.13	24	83.8	32	30.3	16	7.5	13
LSD 0.10	100		1.7		4		ns		2.0		1.1		0.42		0.03		1.1		1.5		0.4	
Mean	1073		37.8		64		46		81.6		3.2		4.86		1.14		85.5		30.3		7.3	
CV (%)	7.9		2.6		14.5		14.8		2.1		20.1		5.11		1.71		0.7		2.8		3.3	
R-squared x 100	50.7		84.5		67.2		32.2		58.8		92.1		72.69		81.13		71.5		90.0		94.0	

Planted May 10; furrow-irrigated July 20, 27 and Aug. 5, 19; open bolls rated Sept. 13; defoliated Sept. 10, 14; harvested Sept. 30 and Oct. 1.

¹ Four replications/location for lint yield, height and open bolls: two replications/location for all other variables.

² r = ranking.

³ Cutout = days from planting to NAWF 5.

⁴ Leaf pubescence is mean of 10 plants/plot rated from 1 (smooth leaf) to 7 (very hairy).

⁵ Fiber micronaire (Mic), length (Len), length uniformity (Unif), strength (Str), and elongation (Elo) .

Arkansas Cotton Variety Tests 1999

Table 11. Results of the 1999 Arkansas Cotton Variety Test without irrigation on a Dundee silt loam soil at Clarkedale.¹

Variety/Location	Lint yield lb/a	r ²	Lint frac. %	r	Open bolls %	r	Plant ht. in.	r	Days to cutout ³	r	Leaf pub. ⁴	r	Fiber properties ⁵									
													Mic	r	Len	r	Unif.	r	Str	r	Elo.	r
Phytogen PSC 636	612	1	41.8	13	48	15	-	-	77.7	22	1.6	29	5.65	23	0.98	30	81.7	28	26.7	29	6.8	19
Phytogen PSC 355	596	2	42.8	7	50	12	-	-	77.7	24	6.5	2	5.80	13	0.98	31	82.2	24	28.5	15	7.6	2
Sure-Grow 105	572	3	41.2	19	63	1	-	-	78.0	18	2.3	19	5.95	8	1.02	18	83.2	9	27.5	23	7.1	11
Paymaster PM1218BGRR	553	4	43.4	3	53	7	-	-	76.9	30	4.4	9	5.70	20	1.03	8	83.6	2	29.2	12	6.7	22
Deltapine DP 436RR	545	5	39.8	27	53	7	-	-	78.1	16	1.7	28	5.70	20	1.04	4	83.0	12	26.9	25	7.2	8
AgriPro AP 6101	533	6	40.9	23	40	27	-	-	79.1	6	1.7	27	5.65	23	1.04	4	82.5	21	30.2	4	6.7	24
Paymaster PM1220RR	517	7	40.2	25	40	27	-	-	78.8	8	3.7	13	5.85	10	0.99	25	82.7	18	27.8	20	7.3	4
Sure-Grow 125	516	8	42.2	10	60	2	-	-	77.2	27	2.4	17	6.00	6	1.01	21	83.5	6	28.4	19	7.8	1
Phytogen PSC 952	515	9	41.4	15	48	15	-	-	79.3	4	5.6	5	5.80	17	1.04	3	82.8	16	29.5	10	7.3	4
Paymaster PM1560BG	510	10	42.4	8	48	15	-	-	77.7	25	4.8	8	5.90	9	1.06	1	83.1	10	31.2	1	7.2	7
Deltapine DP 388	507	11	41.3	17	55	5	-	-	77.7	22	4.2	10	5.70	22	1.02	14	83.6	5	30.9	3	6.9	16
AgriPro AP 7115	506	12	42.4	9	53	7	-	-	78.4	12	2.3	18	5.45	30	1.02	14	81.5	29	26.6	30	6.6	27
FiberMax FM 819	475	13	44.9	1	50	12	-	-	79.4	3	2.5	16	5.95	7	1.01	21	82.9	14	30.0	6	5.7	32
Sure-Grow 747	473	14	43.1	5	45	22	-	-	77.2	27	2.2	20	5.85	10	1.04	4	84.0	1	29.9	7	6.6	25
Germaines GC 251	469	15	41.3	17	58	3	-	-	76.6	32	1.9	23	5.55	28	1.03	12	83.6	2	30.2	4	6.7	22
Sure-Grow 501	469	16	43.2	4	48	15	-	-	78.0	18	3.9	12	6.15	2	1.01	21	82.9	15	29.8	8	7.0	14
Deltapine DP 425RR	466	17	40.9	22	50	12	-	-	77.7	21	1.9	23	5.80	13	0.99	29	82.4	23	26.9	26	7.1	11
Deltapine DP 20B	463	18	42.0	12	48	15	-	-	78.3	15	2.0	22	5.65	23	0.99	25	81.3	31	26.7	28	7.2	8
Deltapine DP 428B	461	19	38.1	32	48	15	-	-	78.4	13	2.5	15	5.10	32	1.02	18	82.7	18	27.4	24	6.8	19
Paymaster PM1440	459	20	42.2	10	40	27	-	-	77.6	26	2.0	21	5.60	26	1.02	14	83.0	12	27.7	21	7.0	13
Paymaster PM1330BG	458	21	41.5	14	53	7	-	-	76.9	31	5.0	6	5.75	19	0.99	25	80.8	32	25.7	32	7.5	3
Terra 292	446	22	38.9	29	45	22	-	-	77.9	20	1.6	29	5.80	13	0.99	25	82.6	20	26.9	26	7.3	6
Paymaster PM1220BGRR	441	23	38.9	30	40	27	-	-	78.6	11	4.2	11	5.80	17	1.05	2	83.6	4	28.5	17	6.8	17
Phytogen PSC 569	427	24	43.1	6	43	26	-	-	79.2	5	1.3	32	6.10	3	1.01	24	82.5	22	29.6	9	6.8	19
Deltapine DP 5111	417	25	39.6	28	55	5	-	-	77.1	29	6.8	1	5.55	28	1.02	18	82.0	26	29.3	11	6.3	31
FiberMax FM 832	405	26	40.5	24	35	32	-	-	79.4	2	1.8	26	6.05	5	1.03	8	83.3	8	28.9	14	6.4	30
Deltapine NuCOTN 33B	353	27	38.7	31	53	7	-	-	79.0	7	3.6	14	5.80	13	1.02	14	83.1	11	28.5	15	6.4	29
Stoneville 474	341	28	41.4	16	48	15	-	-	78.1	17	6.3	3	5.40	31	1.03	8	81.9	27	27.6	22	7.2	8
Stoneville BXN47	328	29	43.4	2	45	22	-	-	78.4	14	4.9	7	6.10	3	0.98	31	81.5	29	25.8	31	7.0	14
FiberMax FM 989	321	30	41.0	21	45	22	-	-	78.7	9	1.8	25	5.85	10	1.03	8	82.7	17	30.9	2	6.5	28
Deltapine DP 458B/RR	320	31	40.2	25	40	27	-	-	78.7	10	1.5	31	6.20	1	1.04	4	82.1	25	28.5	18	6.8	17
Phytogen PSC 556	318	32	41.2	19	58	3	-	-	79.6	1	6.3	3	5.60	26	1.03	12	83.5	6	28.9	13	6.6	25
LSD 0.10	117		ns		11				1.1		1.2		ns		ns		ns		ns		ns	
Mean	462		41.4		48				78.1		3.3		5.78		1.02		82.7		28.4		6.9	
CV (%)	21.5		5.0		19.9				1.3		21.4		7.8		3.6		1.2		7.3		9.5	
R-squared x 100	54.0		53.8		47.0				59.6		92.5		35.8		40.3		54.2		53.2		46.0	

Planted May 10; open bolls rated Sept. 1; defoliated Sept. 2; harvested Sept. 16.

¹ Four replications/location for lint yield, height and open bolls: two replications/location for all other variables.

² r = ranking.

³ Cutout = days from planting to NAWF 5.

⁴ Leaf pubescence is mean of 10 plants/plot rated from 1 (smooth leaf) to 7 (very hairy).

⁵ Fiber micronaire (Mic), length (Len), length uniformity (Unif), strength (Str), and elongation (Elo).

Table 12. Results of the 1999 Arkansas Cotton Variety Test with irrigation on a Calloway silt loam soil at Marianna.

Variety/Location	Lint yield lb/a	r ²	Lint frac. %	r	Open bolls %	Plant ht. in.	r	Days to cutout ³	r	Leaf pub. ⁴	r	Fiber properties ⁵										
												Mic	r	Len	r	Unif.	r	Str	r	Elo.	r	
Stoneville BXN47	1467	1	42.7	1	73	11	50.5	6	78.4	14	6.3	1	5.40	14	1.10	29	84.4	31	29.0	25	8.0	14
Stoneville 474	1450	2	40.6	5	68	19	50.5	6	80.2	6	5.8	4	5.50	8	1.12	18	85.2	17	29.2	22	7.3	23
Phytogen PSC 355	1419	3	39.3	14	70	16	50.8	5	78.0	18	6.3	3	5.45	10	1.09	32	85.2	17	32.4	6	9.1	1
Sure-Grow 105	1411	4	41.1	4	80	1	44.8	27	74.1	32	3.5	17	5.45	10	1.13	13	86.4	2	30.9	11	7.9	15
Sure-Grow 747	1405	5	40.5	6	80	1	45.8	22	76.6	25	3.5	15	5.75	3	1.10	28	85.1	20	28.0	29	8.8	2
Paymaster PM1218BGRR	1385	6	39.5	12	78	4	52.0	2	76.1	26	3.8	13	5.45	10	1.10	29	84.6	29	29.0	24	7.4	20
Sure-Grow 501	1366	7	41.3	2	53	30	50.5	6	80.0	7	4.7	8	5.25	20	1.12	22	85.1	21	32.6	5	8.1	11
AgriPro AP 7115	1334	8	39.0	16	73	11	48.0	15	78.3	16	3.5	17	5.00	27	1.12	22	85.0	22	29.1	23	7.6	17
Paymaster PM1220RR	1324	9	40.1	9	63	24	51.5	3	79.6	9	4.0	12	5.60	5	1.13	13	85.6	9	31.1	10	8.7	3
FiberMax FM 819	1322	10	40.2	8	73	11	48.8	12	81.3	4	3.5	15	4.95	29	1.19	1	86.9	1	34.5	2	6.3	30
FiberMax FM 832	1321	11	38.7	20	60	26	51.3	4	80.6	5	3.1	22	5.20	22	1.18	2	85.7	6	33.4	3	6.2	31
Deltapine DP 388	1320	12	38.4	23	80	1	45.0	26	76.8	24	4.5	9	4.90	30	1.11	27	83.9	32	29.9	19	8.6	5
Phytogen PSC 556	1291	13	41.2	3	75	8	48.0	15	81.7	3	5.7	5	4.80	32	1.18	3	86.1	4	31.8	8	7.6	18
Paymaster PM1220BGRR	1269	14	39.0	17	73	11	49.8	10	78.0	18	4.4	10	4.90	30	1.12	18	85.0	24	30.9	11	8.1	11
Phytogen PSC 952	1267	15	40.0	10	45	32	52.5	1	82.4	2	5.4	7	5.55	6	1.13	17	85.5	13	30.1	18	8.6	6
Paymaster PM1330BG	1264	16	39.0	17	75	8	46.8	20	78.0	17	5.6	6	5.00	27	1.14	12	85.3	15	30.6	15	7.3	23
AgriPro AP 6101	1255	17	39.7	11	68	19	44.8	27	79.9	8	3.0	23	5.55	7	1.14	9	84.5	30	30.8	13	7.4	20
Phytogen PSC 636	1251	18	37.4	24	68	19	50.0	9	79.2	12	2.4	30	5.10	23	1.15	6	84.8	27	27.8	31	6.7	29
Deltapine DP 5111	1239	19	37.2	25	78	4	49.8	10	75.6	28	6.3	2	5.80	1	1.10	29	85.9	5	33.2	4	6.9	28
Sure-Grow 125	1217	20	38.7	21	78	4	46.0	21	75.3	30	2.6	29	5.45	10	1.12	18	85.6	9	28.4	27	8.4	7
Germaines GC 251	1190	21	36.4	28	73	11	43.5	31	74.9	31	3.2	20	5.65	4	1.13	13	85.7	7	31.5	9	7.3	25
Deltapine DP 20B	1185	22	38.4	22	70	16	47.0	19	77.1	22	3.1	21	5.10	23	1.12	24	84.7	28	28.6	26	8.7	4
Deltapine DP 425RR	1175	23	37.0	26	63	24	45.8	22	76.9	23	2.7	26	5.35	15	1.13	13	85.3	16	29.3	21	8.1	9
Paymaster PM1560BG	1173	24	40.5	6	55	29	48.8	12	77.8	21	4.3	11	5.80	2	1.12	24	85.2	17	30.6	14	7.5	19
Deltapine DP 436RR	1154	25	33.7	32	70	16	44.8	27	75.9	27	3.7	14	5.30	19	1.14	9	85.5	11	28.3	28	8.2	8
Deltapine DP 428B	1140	26	36.4	29	65	23	48.8	12	78.9	13	2.7	27	5.35	15	1.16	4	86.2	3	27.8	30	7.3	25
Phytogen PSC 569	1138	27	39.1	15	60	26	47.8	17	82.5	1	2.6	28	5.35	15	1.14	9	85.5	11	34.6	1	7.7	16
Paymaster PM1440	1126	28	36.1	30	78	4	44.0	30	75.5	29	2.3	32	5.35	15	1.12	24	84.8	26	30.2	16	7.3	25
Terra 292	1121	29	35.3	31	75	8	47.5	18	77.9	20	2.9	24	5.25	20	1.12	18	85.4	14	27.5	32	8.1	11
Deltapine DP 458B/RR	1089	30	38.9	19	58	28	43.5	31	79.5	11	2.8	25	5.45	9	1.15	7	84.9	25	30.1	17	8.1	9
Deltapine NuCOTN 33B	1083	31	36.7	27	53	30	45.3	25	79.6	9	3.4	19	5.05	26	1.14	8	85.0	23	29.8	20	7.4	20
FiberMax FM 989	1026	32	39.5	12	68	19	45.8	22	78.3	15	2.4	31	5.10	23	1.16	5	85.7	7	32.2	7	5.9	32
LSD 0.10	111		2.2		14		3.6		2.5		1.1		0.38		0.02		1.0		1.4		0.4	
Mean	1255		38.8		68		47.8		78.3		3.9		5.32		1.13		85.3		30.4		7.7	
CV (%)	7.6		3.3		16.9		6.3		2.7		16.2		4.2		1.2		0.7		2.7		3.1	
R-squared x 100	71.5		83.2		56		52.7		66.2		89.2		74.5		88.8		73.2		92.0		95.5	

Planted May 17; furrow-irrigated July 8, 21, 26 and Aug. 3, 11, 18, and 25; open bolls rated Sept. 17; defoliated Sept. 24; harvested Oct. 5.

¹ Four replications/location for lint yield, height and open bolls: two replications/location for all other variables.

² r = ranking.

³ Cutout = days from planting to NAWF 5.

⁴ Leaf pubescence is mean of 10 plants/plot rated from 1 (smooth leaf) to 7 (very hairy).

⁵ Fiber micronaire (Mic), length (Len), length uniformity (Unif), strength (Str), and elongation (Elo).

Arkansas Cotton Variety Tests 1999

Table 13. Results of the 1999 Arkansas Cotton Variety Test without irrigation on a mixed Calloway, Loring and Memphis silt loam soil at Marianna.

Variety/Location	Lint yield lb/a	r ²	Lint frac. %	r	Open bolls %	Plant ht. in.	r	Days to cutout ³	r	Leaf pub. ⁴	r	Fiber properties ⁵										
												Mic	r	Len	r	Unif.	r	Str	r	Elo.	r	
Phytogen PSC 355	740	1	40.7	17	58	10	44.8	3	76.3	16	6.3	2	5.90	12	1.04	25	84.8	5	32.8	6	8.6	2
Sure-Grow 747	736	2	42.4	5	63	6	43.0	8	75.1	26	2.8	21	5.90	12	1.08	9	85.2	3	29.1	25	8.6	1
AgriPro AP 7115	708	3	42.2	6	55	12	41.0	19	76.4	14	2.7	22	5.80	17	1.06	16	83.1	31	28.6	28	7.5	9
Phytogen PSC 952	689	4	41.1	13	50	18	44.0	4	79.0	2	6.1	4	5.90	12	1.02	30	83.3	28	30.1	17	8.0	5
AgriPro AP 6101	686	5	41.1	12	48	22	37.0	31	77.1	9	2.2	30	6.30	1	1.11	2	84.7	7	32.6	8	7.3	13
Phytogen PSC 569	665	6	43.0	3	35	29	42.5	10	79.9	1	2.5	27	5.75	19	1.03	29	83.5	25	33.3	3	6.9	21
Paymaster PM1220BGRR	663	7	41.6	9	43	27	43.8	6	76.5	13	4.3	13	5.75	19	1.04	25	83.4	27	29.3	24	7.0	20
Sure-Grow 501	658	8	45.4	1	50	18	41.3	16	75.7	21	4.7	10	6.20	3	1.02	30	84.3	12	32.7	7	7.6	8
Paymaster PM1440	649	9	41.6	9	58	10	41.5	14	75.4	22	2.7	22	5.95	8	1.07	11	83.9	19	29.8	21	6.9	21
Deltapine DP 388	646	10	40.2	21	70	3	41.3	16	74.4	27	4.6	11	5.35	30	1.01	32	82.8	32	30.4	15	7.9	6
Stoneville BXN47	638	11	42.1	7	63	6	42.5	10	76.3	17	5.8	6	5.85	16	1.07	13	84.0	16	28.4	30	6.7	26
Paymaster PM1330BG	629	12	39.0	27	73	1	38.8	27	76.7	10	5.4	7	5.30	32	1.08	9	84.4	11	31.8	9	7.1	17
Terra 292	619	13	36.1	31	55	12	39.8	23	75.8	20	2.9	18	5.65	24	1.10	4	85.3	2	30.2	16	7.5	9
Paymaster PM1220RR	616	14	41.5	11	48	22	46.8	1	77.4	8	4.7	9	6.25	2	1.06	16	84.5	10	32.9	5	7.4	12
Sure-Grow 105	612	15	40.5	19	70	3	41.3	16	75.3	25	3.7	16	5.95	9	1.07	13	84.9	4	31.3	12	7.4	11
Paymaster PM1218BGRR	611	16	40.9	16	48	22	39.8	23	73.1	32	3.9	15	6.05	6	1.04	27	83.5	25	28.7	27	7.2	15
Phytogen PSC 556	590	17	43.1	2	45	26	40.8	20	78.6	3	6.2	3	5.45	27	1.08	7	84.0	16	30.7	14	6.7	26
Sure-Grow 125	589	18	41.0	14	68	5	39.5	25	74.3	29	2.7	24	5.75	19	1.09	5	84.1	15	29.6	22	8.1	4
Deltapine DP 436RR	589	18	36.0	32	55	12	38.8	27	76.2	18	2.3	28	5.55	26	1.07	11	84.8	5	29.5	23	7.8	7
FiberMax FM 819	584	20	42.9	4	43	27	42.8	9	78.5	4	4.4	12	5.75	19	1.07	13	84.0	16	30.8	13	6.3	30
FiberMax FM 832	576	21	39.4	25	18	32	45.8	2	77.7	7	2.8	19	5.95	9	1.13	1	85.4	1	34.2	2	5.7	32
Deltapine DP 5111	576	22	39.9	22	73	1	41.5	14	74.2	30	5.9	5	6.10	5	1.04	27	83.7	23	29.8	20	6.4	29
Stoneville 474	573	23	41.6	8	63	6	40.5	21	76.0	19	6.7	1	5.95	9	1.05	22	84.3	13	28.5	29	6.9	21
Germaines GC 251	573	24	36.4	30	60	9	41.8	13	74.4	27	2.6	25	5.80	17	1.06	20	84.7	8	31.5	11	6.7	25
Phytogen PSC 636	572	25	39.1	26	50	18	39.3	26	76.6	11	2.6	25	5.40	28	1.06	16	83.2	29	30.0	18	6.6	28
Deltapine DP 20B	565	26	40.4	20	55	12	44.0	4	75.4	23	2.8	19	5.60	25	1.05	22	83.8	20	28.7	26	8.2	3
Paymaster PM1560BG	554	27	40.9	15	53	16	40.0	22	73.7	31	5.1	8	6.00	7	1.06	20	83.6	24	33.2	4	7.1	17
Deltapine DP 428B	546	28	37.0	29	53	16	42.3	12	76.4	15	2.3	28	5.40	28	1.08	7	83.8	21	27.9	31	6.8	24
Deltapine NuCOTN 33B	539	29	39.8	24	48	22	38.5	29	77.7	6	3.6	17	5.35	30	1.06	16	83.2	29	29.8	19	7.2	16
Deltapine DP 425RR	537	30	37.5	28	50	18	43.8	6	76.6	12	3.9	14	5.90	12	1.05	22	83.8	21	27.6	32	7.0	19
FiberMax FM 989	519	31	39.8	23	23	31	38.5	29	75.4	24	1.5	32	5.75	19	1.11	2	84.2	14	34.4	1	5.9	31
Deltapine DP 458B/RR	486	32	40.7	18	30	30	37.0	31	78.0	5	2.0	31	6.15	4	1.09	6	84.6	9	31.5	10	7.3	14
LSD 0.10	107		1.8		14		4.2		1.9		1.0		0.51		0.03		1.1		1.3		0.5	
Mean	610		40.4		52		41.4		76.2		3.8		5.80		1.06		84.1		30.6		7.2	
CV (%)	14.9		2.6		22.2		8.5		2.1		15.0		5.1		1.9		0.8		3.3		3.7	
R-squared x 100	87.4		89.9		72.3		80.5		76.5		93.5		70.4		78.5		68.6		87.4		93.5	

Planted May 18; open bolls rated Sept. 15; defoliated Sept. 16; harvested Sept. 28.

¹ Four replications/location for lint yield, height and open bolls: two replications/location for all other variables.

² r = ranking.

³ Cutout = days from planting to NAWF 5.

⁴ Leaf pubescence is mean of 10 plants/plot rated from 1 (smooth leaf) to 7 (very hairy).

⁵ Fiber micronaire (Mic), length (Len), length uniformity (Unif), strength (Str), and elongation (Elo) .

Table 14. Results of the 1999 Arkansas Cotton Variety Test with irrigation on a Desha silt loam soil at Rohwer.

Variety/Location	Lint yield lb/a	r ²	Lint frac. %	r	Open bolls %	Plant ht. in.	r	Days to cutout ³ r	r	Leaf pub. ⁴ r	r	Fiber properties ⁵										
												Mic	r	Len	r	Unif.	r	Str	r	Elo.	r	
Phytogen PSC 355	1645	1	42.3	3	58	25	42.0	3	78.1	1	5.6	3	6.00	3	1.10	15	85.0	12	32.9	4	8.0	1
Paymaster PM1218BGRR	1553	2	41.1	6	68	2	37.5	12	71.6	27	2.7	14	5.80	10	1.03	32	82.8	32	25.8	32	6.6	22
Stoneville 474	1523	3	43.2	1	60	20	42.3	2	75.5	7	6.3	1	5.90	7	1.11	12	84.5	18	30.5	17	6.8	16
Paymaster PM1220BGRR	1496	4	41.1	6	63	10	40.5	6	73.8	16	3.5	9	5.75	12	1.06	29	83.2	31	29.3	23	6.7	18
FiberMax FM 832	1465	5	39.6	19	58	25	40.8	5	73.8	14	1.8	21	5.10	31	1.15	2	85.2	7	32.7	6	5.5	32
Sure-Grow 105	1437	6	39.1	24	68	2	36.8	17	71.9	24	2.1	16	5.65	17	1.09	19	85.1	9	30.3	18	6.9	15
Phytogen PSC 952	1425	7	40.6	11	63	10	42.5	1	76.3	5	5.5	4	5.70	15	1.09	22	83.9	27	31.4	11	7.3	9
Stoneville BXN47	1394	8	42.7	2	60	20	39.0	8	73.2	18	5.0	5	5.95	4	1.07	26	84.2	20	29.2	26	6.8	17
Paymaster PM1220RR	1378	9	41.0	8	58	25	41.0	4	74.8	11	3.7	8	5.95	6	1.09	22	85.1	11	31.0	14	7.8	2
Paymaster PM1440	1361	10	39.2	22	60	20	36.5	20	71.9	25	2.0	17	5.45	25	1.12	9	84.2	20	29.3	23	6.0	28
Phytogen PSC 636	1351	11	37.8	29	63	10	38.0	11	72.7	21	1.4	26	5.50	21	1.12	5	84.0	24	28.8	29	5.9	29
Sure-Grow 125	1349	12	40.1	14	68	2	36.5	20	72.7	22	1.2	31	5.40	27	1.12	5	85.1	9	29.9	20	7.7	4
AgriPro AP 7115	1335	13	41.2	5	58	25	38.5	10	74.3	13	1.9	20	5.40	27	1.07	26	83.5	30	29.0	27	6.7	18
FiberMax FM 819	1333	14	41.3	4	63	10	37.0	16	75.4	8	2.0	18	5.60	19	1.13	4	84.6	17	32.0	9	5.9	29
Phytogen PSC 556	1314	15	40.0	17	68	2	37.5	12	77.6	3	3.2	12	5.15	30	1.15	2	85.6	4	32.5	7	6.5	24
Sure-Grow 501	1314	16	40.8	9	65	7	36.8	17	73.3	17	3.4	11	5.65	17	1.10	15	85.2	6	34.1	2	7.2	11
Sure-Grow 747	1309	17	39.4	21	63	10	36.0	25	70.2	31	1.9	19	5.95	4	1.09	19	85.2	7	30.2	19	7.7	4
Paymaster PM1560BG	1307	18	40.1	15	63	10	35.8	27	71.7	26	2.7	13	5.85	9	1.09	19	84.0	24	31.3	13	7.1	12
Deltapine DP 425RR	1300	19	39.4	20	60	20	35.8	27	73.2	19	1.5	25	5.80	10	1.10	18	84.0	26	28.9	28	7.0	14
FiberMax FM 989	1298	20	38.9	25	63	10	35.0	30	74.9	10	1.4	26	5.05	32	1.10	15	84.9	13	33.1	3	5.6	31
Deltapine DP 20B	1296	21	40.0	16	65	7	33.8	31	70.9	28	1.8	22	5.55	20	1.08	25	83.9	27	28.7	30	7.7	3
Deltapine DP 388	1280	22	40.5	12	68	2	36.0	25	70.5	30	4.6	6	5.45	25	1.07	26	83.9	27	30.7	15	7.6	6
Paymaster PM1330BG	1263	23	37.6	30	63	10	37.3	15	77.4	4	3.5	10	5.30	29	1.12	5	86.1	1	30.6	16	7.0	13
Deltapine DP 428B	1246	24	40.3	13	65	7	36.5	20	72.5	23	1.3	30	5.90	7	1.09	22	84.1	23	28.2	31	6.4	25
Terra 292	1240	25	35.8	31	58	25	39.0	8	73.8	14	2.1	15	5.45	24	1.12	5	84.9	13	29.9	21	7.3	8
Deltapine DP 5111	1213	26	38.5	27	73	1	36.8	17	70.6	29	6.1	2	6.20	1	1.05	31	84.6	16	31.7	10	6.5	23
AgriPro AP 6101	1202	27	38.6	26	55	31	37.5	12	74.7	12	1.5	23	5.50	21	1.15	1	85.9	2	32.8	5	6.3	27
Phytogen PSC 569	1198	28	39.1	23	58	25	40.5	6	78.0	2	1.2	32	5.75	12	1.11	12	85.7	3	34.9	1	7.3	9
Deltapine DP 436RR	1197	29	35.8	31	63	10	36.3	24	72.8	20	1.5	23	5.50	21	1.12	11	85.4	5	29.3	25	7.4	7
Deltapine DP 458B/RR	1131	30	40.0	17	53	32	35.5	29	75.9	6	1.3	29	5.75	12	1.12	9	84.5	19	31.4	12	6.7	20
Deltapine NuCOTN 33B	1117	31	38.0	28	60	20	36.5	20	75.2	9	1.4	26	5.70	15	1.11	14	84.2	20	29.8	22	6.6	21
Germaines GC 251	1103	32	40.6	10	63	10	32.5	32	70.1	32	3.8	7	6.10	2	1.06	29	84.8	15	32.5	7	6.4	25
LSD 0.10	104		2.3		7		3.4		2.8		1.3		0.35		0.03		1.2		1.7		0.3	
Mean	1324		39.8		62		37.6		73.7		2.8		5.65		1.08		84.6		30.7		6.8	
CV (%)	6.7		3.4		10.0		7.8		3.2		26.9		3.7		1.7		0.8		3.3		3.0	
R-squared x 100	76.1		75.6		42.3		47.7		57.4		90.0		78.7		82.5		71.6		87.8		95.4	

Planted May 10, furrow-irrigated July 16, 26 and Aug. 2, 9; open bolls rated Aug. 31; defoliated Sept. 7; harvested Sept. 23.

¹ Four replications/location for lint yield, height and open bolls: two replications/location for all other variables.

² r = ranking.

³ Cutout = days from planting to NAWF 5.

⁴ Leaf pubescence is mean of 10 plants/plot rated from 1 (smooth leaf) to 7 (very hairy).

⁵ Fiber micronaire (Mic), length (Len), length uniformity (Unif), strength (Str), and elongation (Elo).

Arkansas Cotton Variety Tests 1999

Table 15. Results of the 1999 1st-year Arkansas Cotton Variety Test across six locations.¹

Variety/Location	Lint yield lb/a	r ²	Lint frac. %	Open r	bolls %	Plant r	ht. in.	Leaf r	pub. ³ r	Fiber properties ⁴										
										Mic r	Len r	Unif. r	Str r	Elo. r						
Sure-Grow 626	1099	1	43.9	1	58	15	44.9	25	4.5	8	5.40	14	1.09	21	83.4	27	30.0	7	7.6	23
FiberMax EXP0052	1096	2	40.4	14	52	31	43.9	29	3.2	11	5.31	20	1.13	1	83.9	15	30.1	6	5.8	36
Stoneville 474	1096	3	41.8	3	61	8	48.4	4	5.6	5	5.60	5	1.09	22	83.8	22	29.0	24	7.5	24
Paymaster PM X 0425	1089	4	40.1	17	60	10	43.0	33	3.5	10	5.52	8	1.09	18	83.8	20	29.6	10	7.8	12
FiberMax EXP0222	1082	5	40.4	13	47	36	45.2	22	2.6	16	5.08	32	1.11	7	84.5	4	32.4	1	5.5	37
DynaGro X2108SS	1080	6	39.7	21	67	1	43.0	34	2.8	15	5.08	32	1.07	30	83.2	29	28.7	25	7.7	18
Germaines GC108	1080	7	39.3	25	50	35	50.8	1	5.1	7	5.28	22	1.12	5	84.1	10	29.0	20	7.8	13
HCR 7114	1061	8	38.1	32	60	12	45.1	23	2.8	14	4.84	35	1.11	8	84.5	3	28.4	29	8.4	4
Sure-Grow 215BR	1050	9	40.4	15	55	23	47.1	7	1.7	33	5.55	7	1.06	36	84.0	13	28.0	35	8.6	3
HCR 9240	1043	10	40.8	9	52	29	45.0	24	2.0	28	5.25	24	1.13	3	84.2	9	29.3	14	7.7	16
Germaines GC106	1042	11	40.0	19	64	4	45.4	20	6.4	1	5.10	30	1.12	6	84.3	6	29.4	12	8.8	1
Stoneville 4691B	1037	12	41.1	7	45	37	47.3	5	6.1	2	5.33	19	1.10	14	83.9	17	28.5	28	7.3	28
ARK 8712	1030	13	38.0	33	65	3	46.3	15	2.9	13	5.35	16	1.13	2	84.5	2	30.3	4	7.8	14
Stoneville 9903	1029	14	42.0	2	52	29	48.7	3	6.1	3	5.64	4	1.09	20	84.0	14	29.3	15	7.4	25
Deltapine DP448B	1024	15	38.8	27	53	28	46.0	17	2.3	21	5.23	26	1.11	13	83.7	24	28.6	26	7.2	29
Germaines GC107	1020	16	36.5	37	62	7	45.5	19	3.7	9	5.68	2	1.11	12	84.6	1	30.3	5	7.0	35
HCR 9220	1010	17	39.7	20	58	15	44.4	27	2.5	17	5.34	17	1.07	32	83.2	30	28.1	32	7.8	11
Deltapine DPX9C26	1007	18	40.6	10	53	27	42.3	35	1.5	36	5.24	25	1.08	29	83.0	32	27.2	37	8.1	9
Deltapine DPX9C27	1002	19	39.3	24	56	19	46.8	11	2.3	22	5.33	18	1.08	25	83.3	28	27.8	36	7.7	15
Stoneville 9902	1001	20	41.5	5	50	34	47.3	6	5.8	4	5.67	3	1.08	28	83.8	23	29.1	18	7.6	20
HCR 7126	993	21	41.7	4	55	23	46.9	9	1.8	31	5.50	9	1.13	3	83.8	21	29.2	17	7.1	33
HCR 9257	988	22	40.6	11	63	6	43.7	30	2.4	20	5.43	11	1.09	19	83.9	18	29.6	11	7.1	34
Deltapine DP451B/RR	971	23	37.0	35	55	20	45.3	21	2.2	24	5.41	13	1.11	9	84.3	7	28.0	33	7.3	27
Sure-Grow 125BR	967	24	38.3	31	60	12	46.3	16	1.8	30	5.41	12	1.08	27	83.8	19	29.0	21	8.4	5
Sure-Grow 125	964	25	39.3	23	61	8	44.0	28	2.2	23	5.38	15	1.11	11	84.1	11	29.2	16	8.3	7
Deltapine DPX9C24	963	26	40.1	18	51	33	41.4	36	1.9	29	4.74	37	1.07	31	82.8	34	29.7	9	7.2	30
Germaines GC204	959	27	36.9	36	64	4	43.2	32	2.2	25	5.73	1	1.08	26	84.4	5	32.2	2	7.2	32
HCR 7114 46	955	28	40.5	12	54	25	43.6	31	1.3	37	5.06	34	1.10	16	83.1	31	28.2	31	7.8	10
Deltapine DP422B/RR	955	29	37.5	34	59	14	44.5	26	2.1	26	5.18	28	1.08	23	83.6	26	28.2	30	8.7	2
Sure-Grow 125RR	952	30	40.1	16	57	18	47.1	8	2.9	12	5.30	21	1.07	33	84.1	12	28.5	27	8.4	6
HCR 9228	952	31	38.9	26	53	26	40.7	37	1.7	32	4.79	36	1.07	35	82.6	35	29.7	8	7.2	31
Sure-Grow 501BR	950	32	38.7	29	55	21	46.9	10	2.4	19	5.57	6	1.08	24	84.2	8	30.4	3	8.2	8
Deltapine DP409B/RR	934	33	38.6	30	60	10	46.5	14	1.6	34	5.09	31	1.10	17	82.9	33	29.0	22	7.6	22
DynaGro X2383C	933	34	41.0	8	65	2	46.6	12	2.1	27	5.43	10	1.03	37	82.0	37	28.0	34	7.6	21
Paymaster PM 1560BGRR	911	35	39.4	22	51	32	50.6	2	5.3	6	5.15	29	1.11	9	83.9	16	29.3	13	7.6	19
Deltapine DP429RR	900	36	38.7	28	58	17	45.8	18	1.6	35	5.18	27	1.10	15	83.6	25	29.0	22	7.7	17
DynaGro X2387C	881	37	41.2	6	55	21	46.6	13	2.4	18	5.26	23	1.07	34	82.5	36	29.0	19	7.4	26
LSD 0.10	128		1.4		8		5.3		0.3		0.18		0.01		0.4		1.1		0.3	
Keiser, irrigated	1207		37.4		47		53.9		2.6		4.68		1.15		84.3		30.1		8.2	
Clarkedale, irrigated	1098		38.1		67		46.5		—		4.94		1.12		84.8		28.8		7.4	
Clarkedale, not irrigated	505		41.6		47		—		3.1		5.59		1.00		82.1		26.6		7.2	
Marianna, irrigated	1222		39.0		69		48.2		3.6		5.33		1.13		84.3		29.4		8.0	
Marianna, not irrigated	674		42.7		48		42.7		3.2		5.72		1.08		83.2		30.1		7.6	
Rohwer, irrigated	1312		39.7		61		36.5		2.5		5.61		1.09		83.4		29.8		7.3	
LSD 0.10	47		1.2		4		2.0		0.4		0.19		0.02		0.5		0.7		0.3	
Mean	1003		39.7		57		45.6		3.0		5.31		1.09		83.7		29.2		7.6	
CV(%)	10		4.5		16		8.3		19.8		5.20		2.10		0.8		3.6		6.1	
R-squared x 100	93.9		83.6		74.6		83.9		93.8		86.80		92.40		86.0		86.5		86.7	
Prob. (Variety x location)	<0.01		0.0		<0.01		0.2		<0.01		0.17		0.21		0.2		<0.01		0.2	

¹ Four replications/location for lint yield, height and open bolls: two replications/location for all other variables.

² r = ranking.

³ Leaf pubescence is mean of 10 plants/plot rated from 1 (smooth leaf) to 7 (very hairy).

⁴ Fiber micronaire (Mic), length (Len), length uniformity (Unif), strength (Str), and elongation (Elo).

Table 16. Results of the 1999 1st-year Arkansas Cotton Variety Test at Keiser.¹

Variety/Location	Lint yield lb/a	r ²	Lint frac. %	Open bolls %	Plant ht. in.	Leaf pub. ³	Fiber properties ⁴													
							Mic	Len	Unif.	Str	Elo.	r	r	r	r	r	r	r	r	
Sure-Grow 626	1440	1	44.1	1	58	1	52.4	23	4.2	8	4.95	6	1.15	17	83.4	37	30.5	11	8.1	21
DynaGro X2108SS	1415	2	37.2	19	55	4	52.2	26	2.5	12	4.80	12	1.13	29	84.0	26	29.3	28	8.2	17
Germaines GC106	1376	3	38.3	11	58	1	53.5	19	6.3	1	4.70	17	1.16	14	84.7	13	30.2	17	9.5	1
Paymaster PM X 0425	1346	4	38.6	8	45	22	49.6	34	3.1	9	4.95	6	1.16	11	84.9	9	29.7	24	8.5	12
FiberMax EXP0052	1314	5	38.9	6	40	32	51.1	28	2.3	14	4.95	9	1.20	1	84.9	8	31.9	4	6.1	36
HCR 7114	1310	6	36.0	29	50	12	52.3	24	2.7	11	4.25	34	1.17	10	85.1	3	29.6	26	9.3	4
Deltapine DP448B	1292	7	37.0	25	45	22	53.7	18	2.8	10	4.80	11	1.16	11	84.8	10	30.4	12	7.7	32
Stoneville 474 - Check	1278	8	39.8	3	58	1	54.6	15	4.9	5	5.45	1	1.12	35	84.4	18	30.4	15	8.0	25
Germaines GC108	1270	9	37.4	17	43	25	58.9	4	4.6	6	4.65	22	1.18	5	85.1	3	30.2	18	8.6	11
Stoneville 9902	1263	10	39.5	5	48	16	54.5	16	5.0	4	5.35	2	1.12	33	84.2	23	30.3	16	8.3	14
Germaines GC204	1255	11	34.4	37	53	9	50.4	30	1.9	22	4.75	14	1.13	31	85.1	3	33.1	2	8.3	15
Deltapine DPX9C26	1248	12	37.5	16	43	25	49.4	35	1.6	27	4.75	14	1.14	23	83.4	34	28.2	37	8.7	9
FiberMax EXP0222	1247	13	38.1	12	35	37	58.2	6	1.6	27	4.35	30	1.19	3	85.2	2	33.9	1	5.6	37
Sure-Grow 125RR	1239	14	36.7	26	53	9	56.7	9	2.3	14	4.50	26	1.12	33	84.8	10	28.8	33	9.0	6
Sure-Grow 215BR	1228	15	37.2	21	40	32	60.2	2	1.6	30	4.70	19	1.11	36	84.0	26	28.8	34	9.5	1
HCR 9257	1219	16	40.8	2	55	4	50.3	31	1.5	31	5.25	3	1.14	26	84.4	18	29.7	24	7.9	26
Deltapine DP409B/RR	1216	17	37.2	20	55	4	54.9	14	1.7	25	4.00	36	1.14	21	83.5	33	30.2	18	8.1	21
HCR 9220	1207	18	37.1	23	50	12	51.2	27	2.0	20	4.75	14	1.13	31	83.4	34	29.1	32	8.7	8
ARK 8712	1193	19	35.5	31	50	12	52.5	22	2.1	18	4.90	10	1.20	2	85.5	1	30.4	12	8.1	20
Germaines GC107	1193	20	34.8	34	48	16	51.0	29	2.4	13	5.20	4	1.14	23	84.5	17	30.9	6	7.8	29
Deltapine DPX9C27	1176	21	37.1	22	43	25	59.3	3	2.0	20	4.65	22	1.14	23	84.3	22	28.3	36	8.1	21
Stoneville 4691B	1169	22	38.5	9	40	32	52.3	25	5.6	2	4.45	28	1.16	13	84.4	18	29.9	22	7.8	29
Sure-Grow 125BR	1155	23	37.0	24	48	16	57.2	8	1.7	25	4.80	12	1.15	17	84.2	23	29.6	26	9.0	5
HCR 7126	1153	24	39.7	4	48	16	58.4	5	1.3	35	4.60	24	1.18	6	84.5	16	29.1	29	7.7	31
HCR 9240	1149	25	37.9	13	38	36	53.0	21	1.5	31	4.35	30	1.18	6	84.6	14	30.1	20	8.1	21
DynaGro X2387C	1149	26	38.8	7	55	4	50.1	33	2.1	18	4.70	19	1.14	21	83.4	34	30.9	6	7.7	32
Deltapine DP422B/RR	1146	27	35.3	33	53	9	50.3	32	1.7	24	4.35	30	1.16	14	84.2	25	29.1	29	9.5	1
Deltapine DP429RR	1145	28	36.2	28	50	12	56.1	10	1.2	36	4.35	30	1.18	6	84.8	10	30.4	12	8.2	19
DynaGro X2383C	1144	29	37.9	13	55	4	58.0	7	1.4	33	4.60	24	1.10	37	83.7	30	29.7	23	8.3	15
Deltapine DP451B/RR	1130	30	34.8	35	43	25	54.5	16	1.6	29	4.70	19	1.17	9	85.0	7	29.1	31	7.9	26
HCR 9228	1124	31	36.6	27	43	25	47.6	37	1.8	23	4.25	34	1.15	16	83.6	31	32.3	3	7.0	35
Deltapine DPX9C24	1118	32	35.4	32	43	25	48.1	36	2.3	16	3.75	37	1.15	17	83.6	31	30.8	9	7.3	34
Stoneville 9903	1097	33	38.4	10	40	32	55.3	12	5.2	3	5.00	5	1.14	26	84.5	15	30.8	9	7.9	28
HCR 7114 46	1089	34	37.6	15	48	16	53.4	20	1.1	37	4.50	26	1.14	26	83.9	29	28.5	35	8.4	13
Sure-Grow 125 - Check	1071	35	37.3	18	48	16	55.0	13	1.4	33	4.95	6	1.15	17	83.9	28	30.0	21	9.0	6
Sure-Grow 501BR	1067	36	34.6	36	43	25	55.5	11	2.2	17	4.70	17	1.13	29	84.4	18	31.1	5	8.7	9
Paymaster PM 1560BGRR	1031	37	35.7	30	45	22	62.1	1	4.5	7	4.40	29	1.19	3	85.1	3	30.9	6	8.2	18
LSD 0.10	105		2.0		10		5.3		1.3		0.47		0.03		1.0		1.2		0.7	
Mean	1207		37.4		47		53.9		2.6		4.68		1.15		84.3		30.1		8.2	
CV (%)	7.4		3.1		18.6		8.4		30.7		6.0		1.6		0.7		2.4		4.9	
R-squared x 100	76.6		85.1		61.1		77.0		86.4		78.3		79.2		68.6		85.4		89.1	

Planted May 12; furrow-irrigated July 6, 17 and Aug. 8; open bolls rated Sept. 14; defoliated Sept. 16; harvested Oct. 14.

¹ Four replications/location for lint yield, height and open bolls: two replications/location for all other variables.² r = ranking.³ Leaf pubescence is mean of 10 plants/plot rated from 1 (smooth leaf) to 7 (very hairy).⁴ Fiber micronaire (Mic), length (Len), length uniformity (Unif), strength (Str), and elongation (Elo).

Arkansas Cotton Variety Tests 1999

Table 17. Results of the 1999 1st-year Arkansas Cotton Variety Test with irrigation at Clarkdale.¹

Variety/Location	Lint yield lb/a	r ²	Lint frac. %	r	Open bolls %	Plant ht. in.	r	Leaf pub. ³	r	Fiber properties ⁴										
										Mic	r	Len	r	Unif.	r	Str	r	Elo.	r	
FiberMax EXP0052	1338	1	40.3	4	63	27	42.2	36	-	-	5.05	11	1.13	8	84.4	26	29.2	14	5.4	36
FiberMax EXP0222	1286	2	38.9	13	60	32	46.3	20	-	-	4.65	31	1.13	14	86.0	1	32.9	1	5.2	37
Stoneville 474	1255	3	39.4	8	73	6	52.3	1	-	-	5.00	15	1.13	8	85.0	18	27.7	31	7.0	29
HCR 7114	1252	4	38.8	15	68	18	45.7	23	-	-	4.80	27	1.15	6	85.3	11	28.2	24	8.2	5
Sure-Grow 626	1249	5	42.7	1	68	18	46.2	21	-	-	5.05	11	1.12	20	83.9	34	30.1	5	7.0	30
Paymaster PM X 0425	1248	6	37.7	21	70	11	43.9	29	-	-	5.25	4	1.13	8	85.2	16	29.3	10	7.7	11
Sure-Grow 215BR	1229	7	39.6	7	65	22	46.8	16	-	-	5.30	3	1.10	28	85.3	11	27.1	36	8.2	4
Stoneville 9902	1183	8	40.2	5	65	22	51.1	3	-	-	5.00	15	1.12	22	84.2	30	28.8	16	7.2	23
Germaines GC108	1176	9	37.5	24	63	27	49.5	7	-	-	5.10	8	1.15	4	85.3	11	29.0	15	7.7	11
ARK 8712	1156	10	36.2	32	78	1	48.0	10	-	-	5.05	11	1.16	2	85.0	19	30.1	4	7.6	14
Stoneville 9903	1134	11	40.6	3	70	11	51.9	2	-	-	5.15	6	1.13	14	85.6	5	29.3	12	7.2	23
Germaines GC106	1127	12	38.3	18	73	6	46.7	17	-	-	4.60	32	1.13	14	85.5	10	28.5	19	8.6	1
DynaGro X2108SS	1108	13	39.0	12	78	1	42.9	35	-	-	5.00	15	1.09	31	84.4	26	27.9	27	7.5	19
HCR 9240	1105	14	39.2	10	63	27	44.1	28	-	-	4.95	21	1.18	1	85.2	16	29.3	12	7.6	14
Sure-Grow 125BR	1101	15	36.5	30	73	6	48.8	9	-	-	5.10	8	1.09	33	84.9	20	27.9	28	7.9	9
Deltapine DPX9C26	1096	16	39.2	10	60	32	43.9	29	-	-	4.60	32	1.12	22	84.1	31	27.1	36	8.0	8
HCR 9257	1094	17	38.5	16	70	11	43.4	33	-	-	5.10	8	1.13	14	85.3	14	30.4	3	7.1	25
Sure-Grow 501BR	1091	18	36.6	29	70	11	47.5	13	-	-	5.25	4	1.08	34	85.5	7	29.8	9	8.1	7
HCR 7114 46	1091	19	39.4	9	70	11	43.3	34	-	-	4.55	34	1.11	25	83.3	36	27.2	35	7.6	14
Deltapine DP448B	1090	20	37.9	19	55	36	44.1	26	-	-	4.70	29	1.13	8	83.9	33	28.1	25	6.8	32
Germaines GC107	1088	21	35.1	37	68	18	47.8	11	-	-	5.40	2	1.15	4	86.0	2	30.0	7	6.5	35
Deltapine DP451B/RR	1087	22	35.7	34	63	27	47.0	15	-	-	5.00	15	1.12	20	85.2	15	27.7	32	7.2	22
Germaines GC204	1062	23	35.6	35	75	5	45.3	24	-	-	5.55	1	1.10	29	85.8	3	32.5	2	7.1	25
Sure-Grow 125RR	1044	24	37.7	21	65	22	50.1	5	-	-	4.90	25	1.12	22	85.6	5	28.4	22	8.2	5
HCR 9220	1040	25	37.5	23	65	22	47.0	14	-	-	5.15	6	1.10	29	84.8	22	27.6	33	7.7	11
Deltapine DP409B/RR	1039	26	35.8	33	68	18	47.6	12	-	-	4.50	36	1.13	14	84.0	32	28.7	17	7.5	19
Sure-Grow 125	1035	27	37.5	24	70	11	45.2	25	-	-	5.00	15	1.13	14	85.8	3	28.7	17	8.5	2
Deltapine DP422B/RR	1033	28	35.4	36	60	32	46.5	18	-	-	5.00	15	1.09	31	84.9	21	28.5	20	8.4	3
HCR 7126	1032	29	38.9	14	63	27	46.4	19	-	-	5.05	11	1.16	3	84.5	24	28.5	21	7.0	28
Paymaster PM 1560BGRR	1022	30	37.8	20	60	32	50.8	4	-	-	4.70	29	1.13	8	85.5	7	30.1	5	7.8	10
DynaGro X2383C	1013	31	41.1	2	78	1	45.8	22	-	-	4.95	24	1.06	37	83.4	35	28.0	26	7.5	17
Deltapine DP429RR	1011	32	37.4	26	78	1	43.6	32	-	-	4.85	26	1.13	8	84.7	23	28.4	22	7.4	21
Deltapine DPX9C27	992	33	38.5	16	73	6	44.1	27	-	-	4.95	21	1.10	27	84.4	28	27.6	33	7.5	17
Stoneville 4691B	957	34	37.0	28	53	37	50.0	6	-	-	4.75	28	1.14	7	85.5	9	27.8	30	6.9	31
DynaGro X2387C	943	35	39.9	6	73	6	49.4	8	-	-	4.95	21	1.06	36	83.0	37	27.8	29	7.1	25
Deltapine DPX9C24	926	36	37.1	27	65	22	41.6	37	-	-	4.20	37	1.11	25	84.3	29	29.8	8	6.7	33
HCR 9228	895	37	36.5	31	70	11	43.9	31	-	-	4.55	35	1.08	35	84.5	24	29.3	10	6.6	34
LSD 0.10	112		2.2		12		3.6				0.42		0.04		1.0		1.5			0.4
Mean	1098		38.1		67		46.5				4.94		1.12		84.8		28.8			7.4
CV (%)	8.7		3.5		14.7		6.6				5.1		1.9		0.7		3.0			3.4
R-squared x 100	64.3		77.9		43.9		53.8				70.5		79.6		76.2		82.5			94.6

Planted May 10; furrow-irrigated July 20, 27 and Aug. 5, 19; open bolls rated Sept. 13; defoliated Sept. 10, 14; harvested Sept. 30 and Oct. 1.

¹ Four replications/location for lint yield, height and open bolls: two replications/location for all other variables.

² r = ranking.

³ Leaf pubescence not collected.

⁴ Fiber micronaire (Mic), length (Len), length uniformity (Unif), strength (Str), and elongation (Elo).

Table 18. Results of the 1999 1st-year Arkansas Cotton Variety Test without irrigation at Clarkdale.¹

Variety/Location	Lint yield lb/a	r ²	Lint frac. %	Open bolls %	Plant ht. in.	Leaf pub. ³	Fiber properties ⁴													
							r	Mic	r	Len	r	Unif.	r	Str	r	Elo.	r			
Germaines GC108	662	1	40.1	27	45	21	-	-	5.9	6	5.65	18	1.03	6	82.5	15	25.3	36	6.8	31
Germaines GC107	607	2	39.5	34	50	10	-	-	5.4	8	5.75	11	1.02	10	83.0	5	26.7	18	6.9	28
HCR 9220	586	3	41.0	22	45	21	-	-	3.3	11	5.55	24	0.99	22	82.0	22	26.4	22	7.2	22
Deltapine DP451B/RR	585	4	40.0	29	50	10	-	-	2.2	21	5.60	21	1.02	8	82.3	18	25.9	29	7.0	27
FiberMax EXP0222	584	5	41.4	19	43	26	-	-	2.0	22	4.95	35	1.02	10	82.0	20	27.9	5	5.9	36
HCR 9228	574	6	40.0	29	40	30	-	-	1.4	34	4.85	37	0.94	37	79.6	37	24.8	37	8.3	2
Paymaster PM X 0425	572	7	43.8	5	53	6	-	-	2.7	14	5.70	16	0.98	28	81.1	34	27.3	9	7.4	12
Deltapine DPX9C24	563	8	42.0	13	43	26	-	-	1.5	33	5.50	27	0.96	35	80.3	36	26.2	25	7.8	7
HCR 7114	563	9	40.0	31	53	6	-	-	2.3	19	5.20	33	1.00	15	83.4	2	26.4	22	8.1	4
HCR 9257	561	10	41.4	18	58	2	-	-	2.2	20	5.25	30	1.01	14	82.5	15	26.7	16	6.3	35
Deltapine DPX9C27	553	11	40.6	25	45	21	-	-	1.9	25	5.85	4	1.02	8	83.2	4	27.5	6	7.3	18
HCR 9240	537	12	46.0	1	48	17	-	-	1.8	28	5.80	9	1.00	18	82.0	20	25.5	32	7.2	20
Sure-Grow 125	537	13	41.0	24	50	10	-	-	2.4	18	5.75	11	0.99	25	82.0	22	26.1	27	7.2	20
Sure-Grow 215BR	531	14	42.8	10	43	26	-	-	1.6	30	5.65	18	0.99	25	82.9	7	26.5	21	7.6	10
DynaGro X2108SS	529	15	40.0	31	60	1	-	-	3.0	12	5.05	34	0.99	22	81.6	30	26.4	22	7.0	26
FiberMax EXP0052	527	16	41.4	20	48	17	-	-	2.6	15	5.55	26	1.04	3	81.9	27	25.5	32	6.4	34
Stoneville 474	523	17	44.8	2	50	10	-	-	6.4	4	5.90	3	0.99	25	81.9	24	26.5	20	7.4	12
Deltapine DP422B/RR	513	18	40.6	25	53	6	-	-	2.0	23	5.55	24	0.98	31	81.7	29	26.2	26	7.9	6
Deltapine DP448B	509	19	41.0	22	40	30	-	-	1.9	25	5.65	18	1.00	18	81.9	24	27.1	11	6.9	28
Stoneville 4691B	501	20	43.3	9	38	34	-	-	6.8	2	5.70	14	0.98	28	82.0	19	25.8	30	7.1	24
Sure-Grow 125BR	501	21	40.1	27	50	10	-	-	1.7	29	5.60	21	0.96	34	82.8	10	26.8	14	8.3	1
Germaines GC106	499	22	41.2	21	50	10	-	-	6.9	1	5.30	29	1.05	1	83.3	3	27.4	7	7.7	9
HCR 7126	485	23	44.0	3	48	17	-	-	1.5	32	6.15	1	1.02	10	82.8	10	27.4	7	6.5	32
Sure-Grow 501BR	480	24	41.9	14	45	21	-	-	2.4	16	5.80	8	1.03	6	82.7	12	28.1	4	7.4	12
Sure-Grow 626	476	25	43.8	5	50	10	-	-	4.8	9	5.45	28	0.96	36	81.3	33	25.4	34	8.1	4
ARK 8712	467	26	39.2	36	53	6	-	-	3.9	10	5.20	32	1.03	4	83.5	1	27.1	11	7.1	23
Germaines GC204	459	27	39.3	35	58	2	-	-	1.9	25	5.85	4	1.03	4	83.0	6	29.2	2	5.7	37
HCR 7114 46	447	28	41.7	16	45	21	-	-	1.3	36	4.90	36	1.04	2	82.9	7	30.3	1	6.4	33
Stoneville 9903	445	29	43.6	8	43	26	-	-	6.8	2	5.85	4	1.00	18	82.4	17	26.7	16	7.1	24
Deltapine DP429RR	440	30	42.2	12	40	30	-	-	1.4	34	5.80	9	0.98	28	82.9	7	26.8	14	7.4	12
Paymaster PM 1560BGRR	430	31	43.8	7	38	34	-	-	5.7	7	5.60	21	0.99	22	81.4	32	25.7	31	7.7	8
Sure-Grow 125RR	415	32	38.7	37	55	4	-	-	2.9	13	5.25	30	1.00	15	81.8	28	26.7	18	8.3	2
Deltapine DPX9C26	410	33	42.6	11	38	34	-	-	1.3	37	5.70	16	1.00	15	82.7	12	27.1	10	7.3	17
DynaGro X2383C	409	34	41.8	15	55	4	-	-	2.0	24	5.75	11	0.97	33	80.7	35	26.1	27	7.4	11
DynaGro X2387C	405	35	41.5	17	35	37	-	-	2.4	16	5.85	4	1.00	18	81.6	31	26.9	13	6.9	30
Deltapine DP409B/RR	402	36	40.0	31	48	17	-	-	1.6	30	5.70	14	1.01	13	81.9	24	28.9	3	7.4	12
Stoneville 9902	390	37	43.9	4	40	30	-	-	6.4	4	6.15	1	0.98	31	82.6	14	25.4	34	7.3	18
LSD 0.10	110		ns		9				0.8		ns		ns		ns		ns		ns	
Mean	505		41.6		47				3.1		5.59		1.00		82.1		26.6		7.2	
CV (%)	18.6		5.1		16.1				15.0		6.8		3.8		1.3		6.4		1.1	
R-squared x 100	58.2		58.8		48.0				97.1		58.5		48.1		58.8		44.5		54.4	

Planted May 10; open bolls rated Sept. 1; defoliated Sept. 2; harvested Sept. 16.

¹ Four replications/location for lint yield, height and open bolls: two replications/location for all other variables.² r = ranking.³ Plant height not collected.⁴ Leaf pubescence is mean of 10 plants/plot rated from 1 (smooth leaf) to 7 (very hairy).⁵ Fiber micronaire (Mic), length (Len), length uniformity (Unif), strength (Str), and elongation (Elo).

Arkansas Cotton Variety Tests 1999

Table 19. Results of the 1999 1st-year Arkansas Cotton Variety Test with irrigation at Marianna.¹

Variety/Location	Lint yield lb/a	r ²	Lint frac. %	Open bolls %	Plant		Leaf		Fiber properties ⁴											
					r	ht. in.	r	pub. ³	r	Mic	r	Len	r	Unif.	r	Str	r	Elo.	r	
Stoneville 4691B	1425	1	40.3	14	65	24	52.8	4	6.7	1	5.45	15	1.14	15	84.2	24	29.1	22	8.3	13
Germaines GC106	1423	2	40.9	8	78	3	47.9	23	6.7	2	5.05	28	1.17	4	84.7	13	29.4	18	9.6	3
Sure-Grow 626	1385	3	42.4	2	65	24	46.2	29	5.5	8	5.30	19	1.13	20	84.7	14	31.7	4	7.8	25
Stoneville 9903	1360	4	42.7	1	63	31	51.9	5	6.7	2	5.80	3	1.11	24	84.3	22	28.6	25	8.0	19
ARK 8712	1354	5	38.6	23	80	1	50.1	8	3.3	18	5.55	12	1.17	4	85.1	5	30.8	6	8.1	16
Stoneville 474	1346	6	40.4	13	70	13	53.3	3	6.5	5	5.45	15	1.14	15	84.4	20	30.1	14	8.0	19
DynaGro X2108SS	1342	7	39.4	15	78	3	46.5	28	3.6	14	4.95	31	1.11	27	83.4	33	29.8	16	8.3	13
Sure-Grow 215BR	1341	8	41.0	6	70	13	48.3	21	1.6	35	5.75	4	1.08	36	84.6	17	27.2	35	9.7	1
Deltapine DPX9C26	1321	9	41.0	6	75	7	41.8	36	1.5	36	5.20	24	1.11	27	82.9	36	26.4	37	8.3	12
Germaines GC108	1321	10	39.3	16	65	24	55.0	1	6.2	6	5.25	21	1.17	2	85.1	5	29.3	20	8.6	10
Stoneville 9902	1317	11	41.4	4	70	13	48.1	22	6.7	2	5.65	7	1.11	27	84.4	20	30.1	13	7.9	23
FiberMax EXP0052	1315	12	40.5	12	58	36	48.5	20	4.3	10	5.30	20	1.18	1	85.1	5	30.9	5	5.7	37
FiberMax EXP0222	1292	13	41.0	5	65	24	49.1	15	4.1	12	5.35	18	1.15	8	85.6	1	33.4	1	5.9	36
Paymaster PM X 0425	1277	14	39.2	17	73	10	45.8	30	3.9	13	5.75	4	1.13	20	84.2	24	30.4	10	7.8	25
HCR 7114	1250	15	36.8	32	73	10	47.7	25	4.2	11	4.80	37	1.15	8	84.8	12	28.1	32	8.5	11
HCR 9240	1248	16	39.0	19	68	19	49.3	11	2.2	30	5.25	21	1.17	4	84.7	14	29.6	17	8.0	18
Deltapine DPX9C27	1244	17	38.9	20	65	24	49.1	16	3.4	17	5.15	25	1.13	20	83.8	28	27.2	35	7.8	24
Germaines GC107	1228	18	34.8	37	80	1	46.9	27	4.5	9	5.95	2	1.15	11	85.5	2	32.0	3	7.2	33
HCR 9257	1225	19	40.7	10	68	19	49.3	12	3.2	19	5.50	14	1.14	15	84.7	14	30.2	12	7.2	33
Sure-Grow 501BR	1207	20	37.8	27	70	13	48.5	18	2.0	33	5.60	10	1.11	27	85.3	3	30.8	7	8.7	7
HCR 7126	1204	21	40.8	9	60	32	48.6	17	2.3	29	5.65	7	1.17	2	84.8	11	30.4	9	7.1	35
DynaGro X2383C	1199	22	41.6	3	78	3	47.7	24	2.5	27	5.70	6	1.04	37	81.9	37	28.2	31	7.7	28
Sure-Grow 125	1196	23	38.6	22	70	13	40.2	37	2.8	22	5.10	27	1.15	8	84.5	18	29.4	18	8.9	6
HCR 7114 46	1172	24	38.5	25	60	32	49.2	13	1.4	37	4.90	32	1.12	23	83.2	34	27.8	33	8.6	9
HCR 9220	1161	25	39.0	18	75	7	45.5	31	2.7	23	5.40	17	1.11	27	83.6	29	28.6	25	7.7	29
Deltapine DP448B	1149	26	37.1	30	65	24	51.2	6	2.9	20	5.25	21	1.15	11	84.9	9	28.2	30	7.7	27
Sure-Grow 125BR	1140	27	37.4	29	75	7	47.1	26	2.6	24	5.60	10	1.11	24	83.9	27	28.4	27	9.1	4
HCR 9228	1138	28	38.3	26	60	32	42.6	35	1.9	34	4.90	32	1.11	27	83.5	30	30.0	15	7.5	32
Germaines GC204	1124	29	35.8	35	78	3	44.9	33	2.2	30	5.95	1	1.10	33	85.2	4	33.0	2	8.0	21
Sure-Grow 125RR	1096	30	38.7	21	68	19	49.2	14	3.5	16	5.55	12	1.10	33	85.1	8	28.3	29	9.1	4
Deltapine DP422B/RR	1088	31	36.2	34	65	24	49.4	10	2.9	20	5.15	25	1.14	15	84.3	23	27.4	34	9.6	2
Paymaster PM 1560BGRR	1085	32	38.6	23	68	19	53.5	2	6.1	7	5.05	28	1.15	11	84.5	18	28.7	23	7.9	22
Deltapine DP451B/RR	1082	33	35.6	36	73	10	45.5	32	2.6	25	5.65	7	1.13	19	84.9	10	28.3	28	7.6	30
Deltapine DP429RR	1067	34	36.8	32	68	19	48.5	18	2.5	27	4.80	35	1.15	11	84.0	26	29.3	21	8.7	7
DynaGro X2387C	1054	35	40.6	11	60	32	51.2	7	3.6	15	5.00	30	1.11	24	83.2	34	30.7	8	8.1	16
Deltapine DPX9C24	1046	36	37.6	28	53	37	43.6	34	2.5	26	4.85	34	1.10	35	83.5	30	30.2	11	7.6	30
Deltapine DP409B/RR	990	37	37.0	31	70	13	50.0	9	2.2	32	4.80	35	1.16	7	83.4	32	28.6	24	8.3	13
LSD 0.10	109		2.0		11		5.7		1.0		0.41		0.03		0.9		1.6		0.9	
Mean	1222		39.0		69		48.2		3.6		5.33		1.13		84.3		29.4		8.0	
CV (%)	7.6		3.0		13.3		10.1		16.9		4.6		1.7		0.6		3.2		6.4	
R-squared x 100	69.8		85.2		55.3		38.3		93.8		79.6		81.7		83.1		87.9		85.3	

Planted May 17; furrow-irrigated July 8, 21, 26 and Aug. 3, 11, 18, and 25; open bolls rated Sept 17; defoliated Sept. 24; harvested Oct. 5.

¹ Four replications/location for lint yield, height and open bolls: two replications/location for all other variables.

² r = ranking.

³ Leaf pubescence is mean of 10 plants/plot rated from 1 (smooth leaf) to 7 (very hairy).

⁴ Fiber micronaire (Mic), length (Len), length uniformity (Unif), strength (Str), and elongation (Elo).

Table 20. Results of the 1999 1st-year Arkansas Cotton Variety Test without irrigation at Marianna.¹

Variety/Location	Lint yield lb/a	r ²	Lint frac. %	r	Open bolls %	Plant ht. in.	r	Leaf pub. ³ r	r	Fiber properties ⁴										
										Mic	r	Len	r	Unif.	r	Str	r	Elo.	r	
Deltapine DPX9C24	941	1	52.1	1	48	21	39.4	35	1.6	32	5.20	36	1.05	32	82.5	32	30.0	20	7.3	26
Deltapine DPX9C27	805	2	41.3	27	50	18	43.5	13	2.4	23	5.60	26	1.05	32	82.3	34	28.5	32	8.0	11
DynaGro X2108SS	804	3	42.5	17	63	2	41.2	32	2.7	18	5.30	35	1.06	26	83.1	23	29.8	24	8.0	13
Deltapine DP448B	803	4	41.7	23	53	13	45.7	3	2.3	26	5.55	29	1.09	9	82.9	25	28.4	33	7.2	29
HCR 9240	781	5	43.9	10	40	29	43.4	15	2.5	22	5.80	15	1.09	9	83.9	6	30.7	11	8.1	9
HCR 9220	759	6	44.8	6	53	13	41.4	29	2.6	20	5.50	32	1.06	26	82.7	30	28.7	31	8.0	12
HCR 7126	740	7	46.2	4	53	13	43.3	17	1.8	29	5.95	7	1.12	1	82.8	28	29.1	29	7.4	22
FiberMax EXP0222	736	8	42.9	16	25	36	39.7	34	2.8	16	5.70	21	1.09	12	84.0	5	33.4	1	5.4	37
Germaines GC107	735	9	38.5	35	65	1	43.5	14	3.5	12	5.85	10	1.09	12	84.0	4	31.6	7	7.0	33
FiberMax EXP0052	715	10	41.3	27	43	26	41.9	25	4.5	10	5.55	29	1.11	3	83.9	6	32.5	4	6.1	36
Deltapine DP422B/RR	714	11	39.6	33	55	10	41.1	33	1.7	30	5.50	32	1.08	16	83.5	15	29.8	25	8.6	2
Sure-Grow 626	714	11	47.7	3	48	21	44.4	8	5.3	7	5.95	7	1.08	16	82.7	29	30.1	19	7.5	18
Stoneville 474	713	13	43.6	13	55	10	44.3	9	6.1	5	5.75	19	1.07	25	83.3	21	30.2	18	7.4	22
HCR 9228	709	14	43.6	12	50	18	36.2	37	2.0	28	5.35	34	1.04	36	81.3	37	30.5	13	7.2	29
Sure-Grow 125RR	696	15	49.3	2	40	29	42.2	22	3.6	11	5.85	10	1.05	35	83.7	13	30.0	20	8.1	9
Stoneville 4691B	695	16	45.5	5	30	35	42.3	20	6.3	4	5.80	15	1.09	12	83.4	18	28.4	33	7.3	26
Paymaster PM X 0425	694	17	42.4	19	55	10	41.3	31	5.0	9	5.90	9	1.08	16	83.8	12	31.2	8	7.9	14
Germaines GC204	686	18	38.5	35	60	7	41.6	26	2.4	25	6.10	2	1.08	21	83.9	6	32.9	2	7.1	32
Germaines GC108	678	19	41.8	20	33	34	47.4	1	5.4	6	5.60	26	1.08	21	83.5	15	30.3	14	7.2	28
ARK 8712	671	20	39.4	34	63	2	44.8	7	3.0	15	5.80	13	1.11	6	83.3	20	32.6	3	8.2	8
Deltapine DP409B/RR	669	21	42.4	18	58	8	44.9	6	1.3	36	5.80	13	1.06	26	82.3	33	29.2	27	7.0	35
Sure-Grow 125BR	665	22	40.5	31	53	13	42.3	21	1.5	34	5.65	22	1.11	5	83.9	10	31.6	6	8.3	7
HCR 9257	660	23	41.0	30	63	2	42.6	19	3.1	14	5.65	22	1.08	21	83.1	23	30.8	10	7.2	29
Sure-Grow 215BR	643	24	41.7	24	45	24	43.4	16	1.7	31	6.00	4	1.06	29	83.6	14	29.4	26	8.4	4
Stoneville 9903	640	25	44.6	7	43	26	45.0	5	6.6	3	6.05	3	1.06	29	83.4	18	30.0	23	7.3	25
DynaGro X2383C	617	26	43.0	14	58	8	44.0	11	2.4	23	5.85	10	1.00	37	81.4	36	27.7	36	7.5	18
Sure-Grow 125	616	27	41.8	20	63	2	41.6	28	2.6	20	5.80	15	1.12	1	84.4	2	31.1	9	8.6	3
Deltapine DP451B/RR	615	28	38.4	37	50	18	42.0	24	2.7	19	5.65	22	1.10	7	83.9	6	28.2	35	7.4	22
HCR 7114	604	29	39.7	32	53	13	44.2	10	2.8	17	5.00	37	1.10	8	83.9	10	30.0	20	8.4	4
Germaines GC106	596	30	41.3	27	63	2	41.6	26	6.8	1	5.55	29	1.11	3	84.6	1	30.3	16	8.9	1
Deltapine DPX9C26	589	31	44.5	8	43	26	42.0	23	1.4	35	5.75	19	1.05	32	82.5	31	27.7	37	7.8	15
Sure-Grow 501BR	584	32	41.8	20	45	24	43.2	18	3.5	12	6.20	1	1.08	16	83.5	15	31.8	5	8.4	6
Deltapine DP429RR	570	33	41.5	25	48	21	41.4	30	1.3	37	5.80	15	1.09	12	83.2	22	30.2	17	7.4	21
HCR 7114 46	565	34	43.8	11	35	33	38.5	36	1.5	33	6.00	4	1.08	16	82.9	25	29.2	27	7.6	16
Paymaster PM 1560BGRR	563	35	41.3	26	40	29	46.0	2	5.3	8	5.65	22	1.09	9	82.9	25	30.7	12	7.0	33
Stoneville 9902	533	36	43.0	15	23	37	45.5	4	6.7	2	6.00	4	1.08	21	84.1	3	30.3	14	7.5	17
DynaGro X2387C	432	37	44.3	9	38	32	43.9	12	2.2	27	5.55	28	1.06	29	82.0	35	28.8	30	7.5	18
LSD 0.10	122		5.0		13		3.9		0.9		0.45		0.03		1.1		1.5		0.4	
Mean	674		42.7		48		42.7		3.2		5.72		1.08		83.2		30.1		7.6	
CV (%)	15.4		7.0		23.0		7.7		16.7		4.7		1.9		0.8		3.0		3.1	
R-squared x 100	80.5		68.0		69.8		80.7		95.3		64.5		74.5		73.5		83.5		94.9	

Planted May 18; open bolls rated Sept. 15; defoliated Sept. 16; harvested Sept. 28.

¹ Four replications/location for lint yield, height and open bolls; two replications/location for all other variables.² r = ranking.³ Leaf pubescence is mean of 10 plants/plot rated from 1 (smooth leaf) to 7 (very hairy).⁴ Fiber micronaire (Mic), length (Len), length uniformity (Unif), strength (Str), and elongation (Elo).

Arkansas Cotton Variety Tests 1999

Table 21. Results of the 1999 1st-year Arkansas Cotton Variety Test with irrigation at Rohwer.¹

Variety/Location	Lint yield lb/a	r ²	Lint frac. %	r	Open bolls %	r	Plant ht. in.	r	Leaf pub. ³	r	Fiber properties ⁴									
											Mic	r	Len	r	Unif.	r	Str	r	Elo.	r
Stoneville 9903	1500	1	42.3	4	55	32	39.3	4	5.0	3	6.00	3	1.11	10	83.7	13	30.4	13	7.1	24
Stoneville 4691B	1474	2	42.2	5	45	37	39.3	4	5.0	2	5.80	9	1.13	6	83.8	11	29.9	18	6.8	32
Stoneville 474	1463	3	43.1	1	63	11	37.8	11	4.0	6	6.05	2	1.08	23	83.6	16	29.1	25	7.4	17
HCR 9240	1436	4	38.7	27	58	25	35.3	26	2.1	24	5.35	34	1.17	1	84.8	1	30.9	6	7.3	19
Paymaster PM X 0425	1397	5	38.9	25	65	6	34.5	29	2.8	9	5.55	21	1.09	21	83.7	15	30.1	16	7.6	14
HCR 7114	1391	6	37.5	35	63	11	35.5	23	2.3	15	5.00	35	1.12	7	84.6	5	28.4	34	8.1	6
Deltapine DPX9C26	1378	7	38.9	25	60	19	34.3	30	1.7	34	5.45	29	1.05	35	82.5	30	26.8	37	8.3	3
Germaines GC108	1371	8	39.6	17	50	36	43.0	1	3.6	7	5.45	29	1.14	3	83.3	21	30.0	17	7.8	9
FiberMax EXP0052	1370	9	40.3	12	60	19	36.0	22	2.3	12	5.45	27	1.14	5	83.4	18	30.9	6	5.3	36
HCR 7114 46	1370	10	42.1	6	65	6	33.8	33	1.3	37	5.45	27	1.07	27	82.3	34	27.1	36	7.8	12
FiberMax EXP0222	1350	11	40.4	11	55	32	32.8	36	2.3	12	5.50	23	1.12	7	84.3	6	32.8	1	4.9	37
HCR 7126	1343	12	40.9	9	58	25	37.8	11	2.1	22	5.60	19	1.15	2	83.3	19	30.5	11	7.1	27
ARK 8712	1341	13	39.2	23	65	6	36.3	20	2.2	20	5.60	19	1.14	4	84.8	1	30.8	8	7.5	15
Paymaster PM 1560BGRR	1335	14	39.5	19	58	25	40.5	2	4.7	4	5.50	23	1.11	12	84.0	9	30.2	15	7.1	24
Sure-Grow 626	1332	15	42.7	2	60	19	35.3	25	3.0	8	5.70	15	1.10	15	84.3	6	32.1	3	7.1	26
Sure-Grow 215BR	1328	16	40.1	13	65	6	37.0	18	2.1	22	5.90	5	1.06	33	83.8	11	29.0	26	8.1	5
Deltapine DP451B/RR	1328	17	37.9	33	55	32	37.5	14	2.0	27	5.85	6	1.11	12	84.6	4	29.1	23	7.1	27
Sure-Grow 125	1327	18	40.0	14	68	4	38.3	7	1.8	31	5.70	15	1.12	9	84.3	8	30.3	14	8.0	7
Stoneville 9902	1322	19	41.3	7	58	25	37.3	15	4.3	5	5.85	6	1.09	19	83.0	27	29.9	18	7.5	15
HCR 9220	1310	20	39.1	24	60	19	36.8	19	2.0	27	5.70	15	1.06	30	82.7	29	28.4	31	7.7	13
DynaGro X2387C	1306	21	42.3	3	70	1	38.3	7	2.0	25	5.50	23	1.05	35	81.8	36	29.1	23	7.0	29
Deltapine DP448B	1301	22	38.2	31	58	25	35.5	23	1.9	29	5.40	31	1.11	10	83.9	10	29.8	20	7.2	20
Deltapine DP409B/RR	1287	23	39.4	22	63	11	35.3	26	1.5	35	5.75	12	1.09	21	82.4	33	28.4	31	7.4	18
DynaGro X2108SS	1285	24	39.9	16	68	4	32.3	37	2.2	17	5.40	31	1.07	27	82.9	28	28.8	29	7.2	20
HCR 9228	1271	25	38.5	28	58	25	33.0	34	1.7	33	4.85	37	1.10	15	83.3	22	31.5	4	6.7	35
Germaines GC107	1271	26	36.3	37	63	11	38.3	7	2.7	10	5.95	4	1.10	15	84.7	3	30.7	10	6.8	32
Sure-Grow 501BR	1271	26	39.5	20	58	25	39.8	3	2.2	19	5.85	6	1.08	25	83.7	14	30.8	9	8.2	4
Deltapine DPX9C27	1245	28	39.4	21	63	11	38.0	10	2.0	25	5.80	10	1.06	30	82.0	35	27.6	35	7.8	9
Sure-Grow 125BR	1242	29	38.3	30	60	19	36.3	20	1.8	32	5.70	15	1.08	25	83.3	19	29.7	22	7.9	8
Deltapine DP422B/RR	1235	30	37.9	34	70	1	35.3	26	2.3	12	5.55	21	1.06	30	83.3	22	28.4	31	8.5	2
Germaines GC106	1228	31	40.0	14	63	11	37.3	15	5.4	1	5.40	31	1.11	12	83.2	26	30.4	12	8.8	1
Sure-Grow 125RR	1224	32	39.6	18	63	11	37.3	15	2.3	15	5.75	12	1.06	33	83.6	17	29.0	26	7.8	9
DynaGro X2383C	1216	33	40.5	10	70	1	37.8	11	2.2	20	5.70	14	1.04	37	81.1	37	28.5	30	7.2	20
Deltapine DPX9C24	1183	34	36.3	36	55	32	34.3	30	1.9	30	4.95	36	1.09	19	82.5	31	31.1	5	6.8	34
HCR 9257	1170	35	41.1	8	65	6	33.0	34	2.2	17	5.80	10	1.08	23	83.3	22	29.8	20	6.9	31
Germaines GC204	1169	36	38.1	32	60	19	34.0	32	2.5	11	6.20	1	1.07	29	83.3	22	32.6	2	7.0	30
Deltapine DP429RR	1168	37	38.4	29	63	11	39.3	4	1.5	35	5.50	23	1.10	18	82.4	32	28.9	28	7.2	23
LSD 0.10	135		1.7		7		3.3		0.9		0.32		0.02		1.0		1.4			0.5
Mean	1312		39.7		61		36.5		2.5		5.6		1.09		83.4		29.8			7.3
CV (%)	8.8		2.5		9.8		7.7		20.3		3.3		1.3		0.7		2.7			4.2
R-squared x 100	59.6		85.4		54.2		50.4		89.7		83.0		91.1		81.8		85.8			92.3

Planted May 10, furrow-irrigated July 16, 26 and Aug. 2, 9; open bolls rated Aug. 31; defoliated Sept. 7; harvested Sept. 23.

¹ Four replications/location for lint yield, height and open bolls; two replications/location for all other variables.

² r = ranking.

³ Leaf pubescence is mean of 10 plants/plot rated from 1 (smooth leaf) to 7 (very hairy).

⁴ Fiber micronaire (Mic), length (Len), length uniformity (Unif), strength (Str), and elongation (Elo).

Table 22. Lint yields and ranking in Arkansas Cotton Variety Test at six locations, two-year means 1998-99.

Variety	Keiser		Clarkedale		Clarkedale		Marianna		Marianna		Rohwer		All	
	Irrig.	r ^a	Irrig.	r	Non-irrig.	r	Irrig.	r	Non-irrig.	r	Irrig.	r	Loc.	r
	lb/a		lb/a		lb/a		lb/a		lb/a		lb/a		lb/a	
Phytogen PSC 355	1150	13	1119	5	746	4	1439	1	804	1	1614	1	1145	1
Paymaster PM1218BGRR	1078	22	1260	1	777	1	1381	2	699	8	1528	2	1120	2
Sure-Grow 105	1130	16	1146	3	775	2	1284	7	694	9	1464	5	1082	3
Sure-Grow 747	1202	4	1108	7	709	7	1327	4	748	3	1353	15	1074	4
Sure-Grow 501	1192	6	1138	4	694	13	1290	5	709	6	1396	10	1070	5
Paymaster PM1560BG	1223	2	1151	2	771	3	1225	13	669	13	1332	19	1062	6
Paymaster PM1220BGRR	1112	19	1090	9	679	19	1215	14	735	4	1468	4	1050	7
Stoneville ST 474	1193	5	1017	20	659	24	1369	3	607	25	1427	7	1045	8
Deltapine DP 388	1176	8	1063	12	677	20	1271	8	718	5	1305	23	1035	9
AgriPro AP 7115	1180	7	957	25	694	12	1265	9	706	7	1400	9	1033	10
Phytogen PSC 952	1067	24	958	24	688	15	1243	12	755	2	1482	3	1032	11
Sure-Grow 125	1209	3	1041	17	703	10	1189	19	682	11	1365	11	1031	12
Stoneville BXN47	1167	10	1025	19	615	29	1286	6	637	20	1444	6	1029	13
Deltapine DP 5111	1130	15	1110	6	708	8	1250	11	641	19	1317	21	1026	14
Paymaster PM1220RR	1078	23	1072	11	725	6	1256	10	646	17	1333	18	1018	15
Phytogen PSC 636	1110	20	1047	14	742	5	1202	18	642	18	1355	13	1016	16
Deltapine DP 20B	1128	17	1049	13	644	26	1180	21	633	21	1412	8	1008	17
Deltapine DP 428B	1172	9	1043	15	677	21	1164	24	673	12	1307	22	1006	18
Paymaster PM1440	1141	14	1040	18	703	9	1128	26	623	23	1363	12	999	19
Germaines GC 251	1240	1	1103	8	663	23	1185	20	611	24	1193	31	999	20
FiberMax FM 832	1153	12	940	26	682	18	1213	15	625	22	1353	14	994	21
FiberMax FM 819	1122	18	1042	16	683	17	1209	16	552	31	1350	16	993	22
Phytogen PSC 556	1155	11	1077	10	606	30	1165	23	581	27	1338	17	987	23
AgriPro AP 6101	1082	21	962	23	690	14	1168	22	683	10	1323	20	984	24
Paymaster PM1330BG	1064	25	935	27	673	22	1206	17	590	26	1290	25	960	25
Deltapine DP 436RR	1030	26	929	28	700	11	1114	27	658	14	1231	28	943	26
Deltapine DP 425RR	1001	30	974	21	656	25	1129	25	556	29	1295	24	935	27
Phytogen PSC 569	1013	29	911	30	684	16	1036	30	647	16	1282	26	929	28
Terra 292	990	31	972	22	637	28	1103	28	656	15	1214	30	929	29
Deltapine NuCOTN 33B	1022	27	918	29	566	32	1012	31	555	30	1248	27	887	30
FiberMax FM 989	1014	28	900	31	644	27	989	32	503	32	1191	32	873	31
Deltapine DP 458B/RR	891	32	821	32	569	31	1044	29	567	28	1230	29	853	32
Mean	1113		1028		682		1204		650		1350		1005	

^a r = ranking.

Arkansas Cotton Variety Tests 1999

Table 23. Lint yields and ranking of varieties in Arkansas Cotton Variety Test, three-year means 1998-99.

Variety	Keiser		Clarkedale		Clarkedale		Marianna		Marianna		Rohwer		All	
	Irrig.	r ^a	Irrig.	r	Non-irrig.	r	Irrig.	r	Non-irrig.	r	Irrig.	r	Loc.	r
	lb/a		lb/a		lb/a		lb/a		lb/a		lb/a		lb/a	
Sure-Grow 747	1242	4	1151	2	770	5	1353	3	864	3	1443	3	1137	2
Stoneville BXN47	1229	6	1123	4	695	14	1350	4	808	7	1532	1	1123	3
Sure-Grow 501	1274	2	1109	6	714	11	1354	2	883	1	1393	8	1121	4
Stoneville ST 474	1260	3	1069	9	719	9	1428	1	810	6	1401	6	1115	5
Deltapine DP 5111	1218	7	1119	5	742	7	1302	6	821	5	1363	10	1094	6
Paymaster PM1220BGRR	1130	12	1104	7	773	4	1200	13	858	4	1428	5	1082	7
Sure-Grow 125	1205	8	1076	8	737	8	1194	14	799	8	1453	2	1078	8
Paymaster PM1220RR	1170	10	1064	10	817	1	1256	8	761	13	1348	12	1069	9
Deltapine DP 20B	1176	9	1042	11	715	10	1248	9	799	9	1399	7	1063	10
Germaines GC 251	1233	5	1130	3	713	12	1246	10	762	12	1294	13	1063	11
Paymaster PM1330BG	1104	15	1003	14	746	6	1265	7	785	11	1393	9	1049	12
FiberMax FM 819	1169	11	1039	12	691	15	1237	11	719	16	1349	11	1034	13
FiberMax FM 832	1127	13	1019	13	807	3	1212	12	725	15	1289	14	1030	14
Deltapine NuCOTN 33B	1092	16	932	17	641	17	1129	15	739	14	1278	15	969	15
Terra 292	1044	17	962	16	672	16	1104	16	790	10	1238	16	968	16
FiberMax FM 989	1122	14	983	15	698	13	1076	17	711	17	1180	17	962	17
Mean	1175		1058		728		1247		790		1361		1060	

^a r = ranking.

Table 24. Results of the 1999 Mississippi County Variety Test on a Routon-Dundee-Crevasse soil complex, David Wildy Farms, Manila.^a

Variety	Lint yield ^b lb/a	<i>r</i> ^c	Lint frac ^d %	<i>r</i>	Fiber properties ^e									
					Mic	<i>r</i>	Len	<i>r</i>	Unif ^f	<i>r</i>	Str	<i>r</i>	Elo	<i>r</i>
Sure-Grow 747	1202	1	39.1	1	5.1	2	1.16	6	86.6	3	28.3	13	8.5	1
Deltapine DP 428B	1194	2	35.7	14	4.4	14	1.15	9	85.0	15	28.0	16	7.9	7
Sure-Grow 105	1131	3	36.6	12	4.6	9	1.15	10	86.1	4	29.3	10	7.6	8
Stoneville BXN 47	1129	4	38.3	4	4.4	15	1.14	14	85.0	16	28.3	13	7.4	13
Paymaster PM1440	1120	5	36.8	8	4.7	7	1.13	17	84.9	17	27.9	17	7.5	10
Stoneville 474	1115	6	38.5	3	4.9	4	1.14	14	85.4	8	28.1	15	7.5	10
Sure-Grow 501	1083	7	38.7	2	4.6	8	1.16	6	86.0	5	31.2	3	8.1	3
Fibermax FM832	1076	8	36.6	11	4.4	15	1.22	1	87.1	1	31.0	4	6.3	17
Phytogen PSC 355	1069	9	37.7	6	4.8	5	1.17	3	85.4	9	29.9	7	8.4	2
Deltapine DP 5111	1053	10	34.5	18	4.9	3	1.13	17	85.3	10	31.3	1	6.8	16
Germains GC 251	1048	11	35.0	17	4.8	6	1.16	8	85.2	14	29.6	9	7.0	15
Fibermax FM989	1042	12	36.5	13	4.3	17	1.16	5	85.3	11	31.3	2	6.1	18
Paymaster PM1330BG	1040	13	35.2	16	4.6	9	1.14	11	85.9	6	29.8	8	7.4	12
AgriPro 7115	1035	14	36.7	9	4.3	18	1.14	13	84.4	18	27.5	18	7.5	9
Paymaster PM1560BG	1007	15	37.6	7	5.1	1	1.14	14	85.9	7	29.9	6	7.9	5
Phytogen PSC 556	990	16	38.1	5	4.5	11	1.20	2	86.7	2	30.3	5	7.2	14
AgriPro 6101	949	17	36.7	10	4.4	13	1.16	4	85.2	12	29.3	10	7.9	6
Phytogen PSC 952	863	18	35.5	15	4.4	12	1.14	12	85.2	13	28.5	12	8.0	4
Mean	1064		36.9		4.6		1.15		85.6		29.4		7.5	
LSD 0.10	75.6		1.7		0.4		0.03		0.9		1.0		0.5	
CV (%)	5.0		3.2		6.8		1.9		0.8		2.4		4.7	
R-squared x 100	76.5		68.6		52.5		58.8		61.5		81.4		82.2	

^a Wildy test planted May 1, and harvested Oct. 6.

^b All variables determined from four replications.

^c *r* = ranking.

^d (lint weight/sample weight) x 100, from boll samples.

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

APPENDIX

Cooperative Extension Service On-Farm Variety Trials

Working with cotton producers across the state, the Cooperative Extension Service compared varieties grown in conventional, Bollgard, and Bollgard/Roundup systems. Cultural inputs for these tests were based on the producers' standards for cotton production and were applied equally to all varieties in each test. Tests were replicated two to four times and were arranged in a randomized complete block. Plots were four to eight rows running the length of the field. All plots were machine-harvested using producer equipment, and all harvested cotton was weighed with a boll buggy equipped with load cells.

Varieties tested under a Bollgard/Roundup ready system received at least one over-the-top application of Roundup. All locations except for the St. Francis and Lonoke county trials received an additional application of Roundup as a post-directed spray. All other cultural practices were consistent within a test and were based on producer standards.

Four tests were conducted comparing Bollgard

varieties. These tests provided a *head-to-head* comparison of varieties with Bollgard. Cultural practices including weed control, fertility, irrigation, and insect control were consistent within each test and were based on producer standards.

Thirteen separate conventional variety trials were conducted in 10 counties during the 1999 growing season. These trials were similar to the Arkansas Cotton Variety Test in that all cultural practices were applied equally to varieties in the test.

Data Collected

Lint Fraction and Fiber Analysis: After each plot was harvested and seedcotton weights recorded, a grab sample of seedcotton was collected for determining percentage of lint. Grab samples were ginned (lab gin without lint cleaners), and lint samples collected. Fiber properties were determined using HVI classification.

Ashley County
Paul Cochran - Cooperator
Kenneth Williams- Staff Chairman

Planting Date:4-05-99
 Replications: 3
 Irrigation: Furrow
 Management: Conventional

Harvest Date: 10-08-99
 Soil Series: Hebert Silt Loam
 Fertility: 40-0-0 preplant
 60-0-0 1st square

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire	Strength	Length
PSC 355	1388	40.22	5.0	34.5	1.09
SG 747	1213	38.97	4.6	31.2	1.10
ST 474	1207	40.54	5.0	32.7	1.10
PSC 952	1205	40.00	4.9	31.7	1.08
FM 819	1185	39.86	4.5	34.3	1.16
AP 6101	1184	37.13	4.9	32.2	1.12
AP 7115	1149	38.44	4.4	31.2	1.09
ST BXN47	1126	39.44	4.9	33.1	1.10
SG 105	1113	38.22	4.8	32.0	1.08
DP 5409	1111	37.75	4.7	31.3	1.09
DP 20B	1106	38.83	4.5	29.7	1.08
FM 832	1077	37.99	4.3	35.2	1.17
SG 125	1064	38.36	4.6	31.6	1.09
DP 5415	1059	37.95	4.9	32.8	1.08
GC 204	1038	36.38	4.9	85.4	1.06
PM 1220	1030	37.74	4.7	32.3	1.10
FM 989	1025	37.15	4.4	34.4	1.13
GC 251	1012	36.79	5.3	33.8	1.10
SG 501	1002	38.96	5.0	35.6	1.13
GC 120	964	39.00	4.4	33.0	1.12
DP 50B	928	37.21	5.1	30.5	1.02
DP 5111	923	36.76	4.5	31.0	1.10
DP 20	912	37.75	4.6	29.1	1.06
DP 51	909	34.46	4.5	31.0	2.00
Mean	1080	38.16	4.7	32.7	1.10
LSD (0.05)	121	1.08	0.3	1.7	.03
CV (%)	6.8	1.36	3.2	2.5	1.29

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

Arkansas Cotton Variety Tests 1999

Ashley County
Bruce Bond - Cooperator
Kenneth Williams- Staff Chairman

Planting Date:5-10-99
 Replications: 2
 Irrigation:Center Pivot
 Management: Conventional

Harvest Date:10-20-99
 Soil Series: Hebert Silt Loam

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire	Strength	Length
DP 425RR	1112	37.08	5.0	29.1	1.09
PM 1560BG/RR	1107	38.85	4.4	31.6	1.15
PM 1218BG/RR	1063	40.21	5.3	28.6	1.04
ST 474	1059	39.49	4.9	31.0	1.13
DP 428B	1035	36.56	4.8	29.0	1.11
DP 458B/RR	1023	38.43	4.7	30.6	1.13
DP 20B	1017	38.11	4.8	29.2	1.11
PM 1220BG/RR	1016	39.03	4.9	30.5	1.10
ST BXN47	1003	39.07	4.8	30.5	1.13
DP NC33B	1001	36.52	4.6	30.5	1.12
DP 436RR	995	34.72	4.5	29.6	1.12
DP 50B	985	33.72	4.5	30.1	1.16
SG 501B/R	970	37.35	4.9	30.2	1.09
SG 125	955	37.78	4.9	28.7	1.13
DP 5415RR	953	37.50	4.7	31.1	1.13
PM 1244BG	939	36.64	4.0	29.7	1.15
SG 125B/R	938	35.74	4.8	29.8	1.12
DP 32B	929	37.90	4.6	31.9	1.12
SG 585B	927	34.50	4.7	32.2	1.15
PM 1220RR	914	39.28	4.9	31.1	1.14
PM 1215BG	890	37.92	4.8	31.1	1.16
PM 1244RR	884	39.03	4.7	31.1	1.08
PM 1330BG	870	36.54	4.5	31.2	1.14
PM 1560BG	809	37.96	5.0	31.8	1.10
Mean	975	37.5	4.7	30.4	1.12
LSD (0.05)	130	2.02	0.4	NS	0.05
CV (%)	6.5	2.61	4.4	3.5	2.3

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

Craighead County
Carbert Rodgers - Cooperator
Steve Culp - Staff Chairman

Planting Date: 05-08-99

Harvest Date: 10-08-99

Replications: 2

Soil Series: Dundee Fine Sandy Loam

Irrigation: Furrow

Management: Conventional

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire ^b	Strength	Length
DP 5111	1284	39.47	5.1	35.0	1.07
SG 747	1249	41.77	4.9	31.9	1.12
PSC 355	1249	40.38	4.5	32.0	1.12
ST BXN47	1218	40.86	4.8	32.0	1.13
SG 105	1210	38.10	4.5	33.4	1.11
DP 20B	1208	39.76	4.3	30.0	1.15
ST 474	1190	41.07	5.4	32.7	1.12
AP 7115	1186	40.22	4.6	32.6	1.13
PM 1220BG	1172	38.71	5.0	31.7	1.11
FM 989	1150	39.51	4.4	36.9	1.16
GC 251	1134	37.23	4.6	33.2	1.11
SG 125	1115	37.50	4.6	30.8	1.11
Mean	1197	39.55	4.7	32.7	1.12
LSD	62	—	—	—	—
CV (%)	2.3	—	—	—	—

^a Data obtained from a laboratory gin without the use of a lint cleaner.^b Fiber data collected from only one replication and was therefore not statistically analyzed.

Craighead County
Kevin Hoke - Cooperator
Steve Culp - Staff Chairman

Planting Date: 5-12-99

Harvest Date: 10-22-99

Replications: 3

Soil Series: Dundee Fine Silt Loam

Irrigation: Furrow

Fertility: 50-45-84 preplant

Management: Conventional

50-0-0 1st square

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire	Strength	Length
PM 1218BG/RR	863	37.75	5.4	27.5	1.08
DP 388	801	35.51	4.5	30.2	1.11
PM 1220BG/RR	788	38.14	5.3	28.8	1.10
SG 747	754	37.22	4.6	25.3	1.12
ST 474	712	36.9	4.8	28.4	1.11
DP 451B/RR	705	33.36	4.7	27.1	1.12
DP 5111	673	35.36	5.0	32.9	1.10
SG 125B/R	628	34.01	4.7	29.1	1.10
Mean	741	36.03	4.8	28.6	1.10
LSD (0.05)	115	2.68	NS	2.4	NS
CV (%)	8.8	3.15	5.2	3.6	1.6

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

Arkansas Cotton Variety Tests 1999

Crittenden County
B & S Weaver - Cooperator
Steve Rodery - Staff Chairman

Planting Date:5-04-99
 Replications: 2
 Irrigation: None
 Management: Conventional

Harvest Date: 10-13-99
 Soil Series: Commerce Silt Loam
 Fertility:40-20-60 preplant
 40-0-0 1st square

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire ^b	Strength	Length
ST BXN47	1025	39.87	5.4	29.1	1.10
PSC 355	1011	41.67	5.8	31.8	1.07
DP 388	952	39.19	5.1	30.1	1.07
PSC 952	928	40.00	5.4	28.2	1.09
GC 251	888	37.01	5.6	31.4	1.13
SG 747	881	39.24	5.6	29.6	1.12
PM 1560BG	875	39.44	5.3	28.6	1.08
DP 20B	864	37.91	5.0	28.1	1.10
ST 474	846	40.88	5.4	29.9	1.12
GC 204	832	36.48	5.6	33.5	1.09
DP 428B	814	37.06	5.1	27.8	1.13
FM 819	795	38.82	4.9	32.3	1.18
SG 105	779	37.58	5.4	29.3	1.14
DP 5111	761	37.16	5.3	29.4	1.09
GC 120	758	37.91	4.9	29.5	1.10
SG 585B	748	34.90	4.9	29.5	1.11
SG 501	742	40.00	5.4	31.4	1.12
AP 7115	722	37.58	4.9	29.3	1.10
PM 1330BG	721	37.04	5.1	30.2	1.10
FM 989	701	38.16	4.9	32.9	1.12
FM 832	648	38.13	4.9	30.8	1.19
AP 6101	618	37.09	5.1	30.5	1.14
Mean	814	38.32	5.2	30.2	1.11
LSD (0.05)	158	—	—	—	—
CV (%)	9.4	—	—	—	—

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

^b Fiber data collected from only one replication and was therefore not statistically analyzed.

Crittenden County
Al Helms Farms - Cooperator
Steve Rodery - Staff Chairman

Planting Date: 5-19-99
 Replications: 2
 Irrigation: Center Pivot
 Management: Conventional

Harvest Date: 10-16-99
 Soil Series: Dubbs Silt Loam
 Fertility: 74-0-0 1st square

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire ^b	Strength	Length
SG 747	1017	42.38	5.3	30.8	1.08
FM 832	965	38.46	5.1	35.9	1.15
ST 474	909	40.67	5.4	31.9	1.09
DP 5111	732	40.00	5.4	33.1	1.05
Mean	906	40.38	5.3	32.9	1.09
LSD (0.05)	NS	—	—	—	—
CV (%)	15.2	—	—	—	—

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

^b Fiber data collected from only one replication and was therefore not statistically analyzed.

Desha County
Ken Holt/Bill Teeter - Cooperator
Rebecca Watson - Extension Agent

Planting Date: 5-07-99
 Replications: 4
 Irrigation: Furrow
 Management: Conventional

Harvest Date: 10-13-99
 Soil Series: Commerce Sharkey Crevasse

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire	Strength	Length
ST 474	873	39.14	5.2	28.9	1.09
SG 747	860	38.77	5.1	28.7	1.10
DP 5111	751	36.18	5.4	30.8	1.06
Mean	828	38.24	5.2	29.5	1.08
LSD (0.05)	29	1.72	NS	NS	NS
CV (%)	2.0	1.05	1.4	5.0	2.1

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

Arkansas Cotton Variety Tests 1999

Jefferson County Howard Kimbrell - Cooperator April Fisher - Extension Agent

Planting Date: 5-10-99
Replications: 2
Irrigation: Furrow
Management: Conventional

Harvest Date: 10-11-99
Soil Series: Rilla Hebert
Fertility: 45-0-0 1st square
45-0-0 1st bloom

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire ^b	Strength	Length
PM 1220BG/RR	1237	40.52	5.3	31.3	1.06
SG 501	1185	39.46	4.9	35.8	1.12
ST BXN47	1149	40.25	5.0	29.3	1.08
FM 819	1141	40.00	4.5	31.4	1.18
SG 105	1127	36.90	4.9	31.5	1.11
FM 989	1121	38.26	4.7	35.2	1.12
AP 7115	1114	38.93	4.6	31.4	1.09
GC 251	1098	36.81	5.2	33.1	1.10
FM 832	1088	38.70	4.8	33.5	1.17
SG 747	1074	38.41	5.1	31.7	1.11
DP 5111	1071	38.18	5.0	34.0	1.09
SG 474	1061	38.46	5.1	31.9	1.11
AP 6101	1048	35.62	4.8	33.5	1.14
GC 120	891	39.34	4.5	32.6	1.08
Mean	1100	38.55	4.9	32.5	1.11
LSD (0.05)	103	—	—	—	—
CV (%)	4.3	—	—	—	—

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

^b Fiber data collected from only one replication and was therefore not statistically analyzed.

Lonoke County Laudis Brantley - Cooperator Jeff Welch - Extension Agent

Planting Date: 5-01-99
Replications: 4
Irrigation: Furrow
Management: Conventional

Harvest Date: 10-05-99
Soil Series: Hebert Silt Loam
Fertility: 30-30-60 preplant
80-0-0 1st square

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire	Strength	Length
ST 474	1315	40.40	5.0	29.1	1.12
SG 747	1281	39.06	4.9	28.8	1.11
DP 5111	1194	36.73	5.4	32.9	1.10
Mean	1263	38.73	5.1	30.3	1.11
LSD (0.05)	NS	1.67	NS	NS	NS
CV (%)	6.6	1.0	8.7	3.1	0.37

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

**Poinsett County
Jennings Farm - Cooperator
Mike Hamilton - Extension Agent**

Planting Date: 5-14-99
Replications: 4
Irrigation: Center
Management: Conventional

Harvest Date: 10-23-99
Soil Series: Silt Loam
PivotFertility: 60-0-0 at planting
40-0-0 1st square

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire	Strength	Length
SG 105	920	38.87	5.2	33.2	1.11
PSC 355	892	39.40	5.2	35.4	1.13
SG 747	842	39.93	5.3	32.7	1.12
ST 474	838	41.18	5.7	32.7	1.11
ST BXN47	805	40.61	4.9	31.4	1.13
SG 501	789	39.61	5.0	35.9	1.13
AP 7115	782	40.14	4.9	32.5	1.11
DP 5111	730	38.70	5.4	33.6	1.08
AP 6101	677	37.88	5.0	34.3	1.16
Mean	808	39.59	5.2	33.5	1.12
LSD (0.05)	50	1.83	0.5	1.8	NS
CV (%)	4.2	2.0	3.8	2.3	2.07

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

**Poinsett County
Nash Farm - Cooperator
Mike Hamilton - Extension Agent**

Planting Date: 5-29-99
Replications: 2
Irrigation: None
Management: Conventional

Harvest Date: 11-08-99
Soil Series: Silt Loam
Fertility:60-0-0 at planting
40-0-0 1st square

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire	Strength	Length
ST BXN47	525	40.92	5.0	31.9	1.09
SG 747	515	41.08	5.2	29.9	1.08
SG 501	465	41.72	5.2	35.1	1.10
ST 474	430	43.46	5.4	30.4	1.07
FM 989	430	39.33	4.8	34.5	1.12
FM 832	379	39.77	5.1	34.5	1.15
Mean	457	41.05	5.1	32.7	1.10
LSD (0.05)	NS	1.43	NS	NS	0.05
CV (%)	7.8	1.36	6.1	4.3	1.68

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

Arkansas Cotton Variety Tests 1999

St. Francis County
Joe Whittenton - Cooperator
Margy Cannon - Staff Chairman

Planting Date: 5-13-99
 Replications: 4
 Irrigation: Center Pivot
 Management: Conventional

Harvest Date: 10-25-99
 Soil Series: Henry Silt Loam
 Fertility: 6-10-99 13.43 gal 32% N
 6-19-99 5.75 oz 10% B
 7-02-99 10.24 oz 10% B
 7-05-99 100 lbs 0-0-60
 7-07-99 13.4 gal 32% N
 7-16-99 12.8 oz 10% B

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire	Strength	Length
SG 105	1228	37.73	4.9	29.6	1.11
PM PMX425	1196	38.14	4.5	29.0	1.11
ST BXN47	1169	40.69	4.7	30.0	1.09
SG 747	1156	38.98	4.8	28.8	1.12
PSC 355	1154	39.63	5.0	30.6	1.09
DP 388	1144	37.15	4.4	29.7	1.10
ST 474	1117	41.04	4.9	28.2	1.10
PM 1440	1107	37.85	4.8	28.9	1.13
DP 5111	1058	36.88	4.9	30.5	1.10
SG 125	1036	38.53	4.5	28.7	1.11
Mean	1137	38.66	4.7	29.4	1.11
LSD (0.05)	70	2.02	NS	NS	NS
CV (%)	4.3	2.30	4.7	2.6	2.05

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

Woodruff County
Veazey Bros. - Cooperator
Eugene Terhune - Staff Chairman

Planting Date: 5-17-99
 Replications: 3
 Irrigation: Flood
 Management: Conventional

Harvest Date: 10-23-99
 Soil Series: Dubbs Silt Loam

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire ^b	Strength	Length
PSC 355	694	38.26	5.4	30.6	1.15
DP 388	680	39.86	5.3	31.2	1.13
SG 747	667	38.61	5.3	29.9	1.17
PSC 952	618	38.36	5.1	30.0	1.16
SG 501	609	39.33	4.9	35.4	1.15
ST 474	609	41.03	5.4	29.6	1.13
DP 20B	608	38.85	4.5	28.1	1.13
ST BXN47	561	39.19	5.1	29.2	1.14
FM 819	552	38.22	4.8	34.0	1.20
DP 5111	527	37.84	5.5	33.0	1.10
PM 1220BG/RR	523	40.26	5.4	29.3	1.13
PM 1330BG	521	35.29	4.6	31.6	1.15
FM 989	510	36.71	4.8	34.7	1.16
FM 832	508	35.93	4.8	32.9	1.25
PM 1560BG	481	38.93	5.4	31.7	1.12
PM 1220RR	390	38.36	5.4	31.9	1.13
Mean	566	38.44	5.11	31.4	1.15
LSD (0.05)	65	—	—	—	—
CV (%)	6.7	—	—	—	—

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

^b Fiber data collected from only one replication and was therefore not statistically analyzed.

Craighead County
Kevin Hoke - Cooperator
Steve Culp - Staff Chairman

Planting Date: 5-12-99
 Replications: 3
 Irrigation: Furrow
 Management: Bollgard/Roundup ready
 Roundup Ultra, 1 application OTT
 Roundup Ultra, 1 application PD

Harvest Date: 10-22-99
 Soil Series: Dundee Fine Silt Loam
 Fertility: 50-45-84 preplant
 50-0-0 1st square

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire	Strength	Length
PM 1218BG/RR	714	40.9	5.5	27.3	1.06
PM 1220BG/RR	632	38.81	5.1	28.4	1.08
SG 125B/R	516	36.76	4.7	28.5	1.12
DP 451B/RR	498	35.39	4.7	28.1	1.13
Mean	590	37.28	5.0	4.5	1.1
LSD (0.05)	64	1.42	NS	NS	0.03
CV (%)	5.4	1.61	6.5	3.5	1.0

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

Arkansas Cotton Variety Tests 1999

Crittenden County
Folgeman Farms - Cooperator
Steve Rodery - Staff Chairman

Planting Date: 5-12-99
 Replications: 2
 Irrigation: Center Pivot
 Management: Bollgard/Roundup Ready
 Roundup Ultra, 1 application OTT
 Roundup Ultra, 1 application PD

Harvest Date: 10-14-99
 Soil Series:Tunica Clay
 Fertility:43-0-20 preplant
 43-0-0 1st square

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire ^b	Strength	Length
SG 125B/R	935	38.99	4.6	27.2	1.03
DP 451B/RR	887	37.80	4.9	27.5	1.10
DP 409B/RR	879	39.29	4.6	27.8	1.08
DP 422B/RR	875	38.03	4.4	28.2	1.08
DP 450B/RR	840	35.92	4.5	27.4	1.08
SG 501B/R	831	39.35	4.6	33.2	1.04
DP 458B/RR	816	38.10	4.6	29.1	1.10
PM 1220BG/RR	799	39.62	4.9	32.2	1.06
PM 1560BG/RR	701	39.10	4.2	26.0	1.07
Mean	840	38.47	4.6	28.7	1.07
LSD (0.05)	NS	—	—	—	—
CV (%)	8.8	—	—	—	—

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

^b Fiber data collected from only one replication and was therefore not statistically analyzed.

Desha County
Guy Teeter - Cooperator
Rebecca Watson - Extension Agent

Planting Date:5-07-99
 Replications: 4
 Irrigation: Furrow
 Management: Bollgard/Roundup Ready
 Roundup Ultra, 2 applications OTT
 Roundup Ultra, 2 applications PD

Harvest Date: 10-07-99
 Soil Series: Commerce Sharkey Crevasse
 Fertility:0-30-90 preplant
 92-0-0 1st square

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire	Strength	Length
PM 1220BG/RR	1418	39.80	5.1	27.5	1.08
DP 451B/RR	1321	36.90	5.4	28.0	1.11
SG 125B/R	1281	37.52	5.2	28.9	1.08
Mean	1340	38.07	5.2	28.1	1.09
LSD (0.05)	89	4.74	NS	NS	NS
CV (%)	3.8	2.89	1.4	5.9	2.25

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

Lonoke County
Laudis Brantley - Cooperator
Jeff Welch - Extension Agent

Planting Date: 5-01-99
 Replications: 4
 Irrigation: Furrow
 Management: Bollgard/Roundup Ready
 Roundup Ultra, 2 applications OTT

Harvest Date: 9-24-99
 Soil Series: Rilla Silt Loam
 Fertility:30-30-60 preplant
 80-0-0 1st square

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire	Strength	Length
DP 451B/RR	808	35.48	4.9	27.9	1.09
SG 125B/R	722	36.33	5.0	28.4	1.06
PM 1220BG/RR	722	38.42	5.3	30.3	1.08
Mean	751	36.75	5.0	28.8	1.08
LSD (0.05)	NS	NS	NS	NS	NS
CV (%)	6.9	2.43	2.9	2.1	2.12

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

St. Francis County
Joe Whittenton - Cooperator
Margy Cannon - Staff Chairman

Planting Date: 5-13-99
 Replications: 4
 Irrigation: Center pivot
 Management: Bollgard/Roundup Ready
 Roundup Ultra, 2 applications OTT

Harvest Date: 10-25-99
 Soil Series: Henry Silt Loam
 Fertility:6-10-99 13.43 gal 32% N
 6-19-99 5.75 oz 10% B
 7-02-99 10.24 oz 10% B
 7-05-99 100 lbs 0-0-60
 7-07-99 13.4 gal 32% N
 7-16-99 12.8 oz 10% B

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire	Strength	Length
PM 1218BG/RR	1371	40.72	5.3	28.8	1.06
PM 1220BG/RR	1282	39.19	5.3	29.7	1.06
ST X9902	1151	40.62	5.1	29.7	1.08
DP 451B/RR	1147	35.81	5.3	27.7	1.10
SG 501B/R	1107	38.47	5.4	30.5	1.07
DP 450B/RR	1070	34.38	5.2	27.6	1.08
SG 125B/R	1070	37.54	5.2	28.3	1.07
DP 409B/RR	1069	37.59	5.0	29.3	1.07
DP 422B/RR	1063	37.62	5.0	27.0	1.05
PM 1560BG/RR	1046	38.36	4.7	28.5	1.08
Mean	1137	38.03	5.1	28.7	1.07
LSD (0.05)	95	1.51	0.31	1.8	NS
CV (%)	5.8	1.76	2.7	2.8	2.05

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

Arkansas Cotton Variety Tests 1999

Jefferson County Mike Bryant - Cooperator April Fisher - Extension Agent

Planting Date: 5-10-99
Replications: 4
Irrigation: Furrow
Management: Bollgard

Harvest Date: 10-20-99
Soil series: Rilla Hebert
Fertility: 0-20-40 preplant
110-0-0 1st square

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire	Strength	Length
DP 451B/RR	1169	34.12	4.1	28.9	1.14
PM 1560B	1143	36.95	4.3	30.2	1.10
PM 1220BG/RR	1066	36.77	4.0	30.0	1.12
DP 428B	1025	33.68	4.4	28.5	1.14
ST X9902	1010	38.79	4.2	30.4	1.12
SG 125B/R	951	34.76	4.6	28.8	1.13
ST 4691B	930	37.94	4.4	27.8	1.14
DP 50B	922	31.86	4.1	29.2	1.15
DP 422B/RR	917	35.13	4.1	28.4	1.11
PM 1330B	892	34.16	4.4	31.0	1.15
SG 501B/R	873	35.42	4.7	30.0	1.11
DP NC33B	836	33.65	4.1	30.8	1.16
DP 32B	799	34.93	4.3	29.5	1.15
DP 20B	725	35.97	4.2	27.1	1.09
Mean	947	35.29	4.3	29.3	1.13
LSD (0.05)	68	1.42	NS	NS	0.03
CV (%)	5.0	1.86	5.9	4.4	1.41

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

Monroe County Mike Richardson - Cooperator Mitch Crow - Staff Chairman

Planting Date: 5-17-99
Replications: 3
Irrigation: Furrow
Management: Bollgard

Harvest Date: 10-27-99
Soil Series: Dubbs Silt Loam
Fertility: 90-0-0 1st square

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire	Strength	Length
PM 1560BG	1099	38.72	4.7	31.9	1.14
DP 428B	1051	35.05	4.5	28.1	1.16
SG 501B/R	1023	36.75	4.8	30.1	1.11
DP 50B	992	34.41	4.2	28.6	1.20
PM 1330BG	988	35.91	4.6	29.2	1.18
DP 20B	948	37.54	4.1	28.1	1.16
DP NC33B	918	35.56	4.5	29.6	1.15
Mean	1003	36.28	4.5	29.4	1.16
LSD (0.05)	62	1.73	NS	NS	0.04
CV (%)	3.5	1.95	5.2	2.1	1.4

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

St. Francis County
Joe Whittenton - Cooperator
Margy Cannon - Staff Chairman

Planting Date: 5-13-99
 Replications: 4
 Irrigation: Center pivot
 Management: Bollgard

Harvest Date: 10-25-99
 Soil Series: Henry Silt Loam
 Fertility: 6-10-99 13.43 gal 32% N
 6-18-99 5.75 oz 10% B
 7-03-99 10.24 oz 10% B
 7-05-99 100 lbs 0-0-60
 7-07-99 13.4 gal 32% N
 7-16-99 12.8 oz 10% B

Variety	Lint yield lb/a	Lint fraction ^a %	Micronaire	Strength	Length
PM 1218BG/RR	1242	40.60	5.6	27.9	1.04
PM 1220BG/RR	1136	38.90	5.3	28.0	1.09
ST 4691B	1111	41.35	5.0	28.2	1.10
PM 1560BG	1069	39.42	5.2	30.0	1.10
DP 20B	1052	38.06	4.7	28.2	1.11
DP 451B/RR	1003	35.43	4.9	27.6	1.11
DP 428B	995	35.93	4.7	27.7	1.12
SG 501B/R	964	38.37	5.1	30.8	1.08
PM 1330BG	942	37.30	4.9	28.9	1.10
SG 125B/R	904	38.63	5.1	29.5	1.10
Mean	1042	38.40	5.0	28.7	1.09
LSD (0.05)	89	2.28	NS	1.6	0.02
CV (%)	5.8	2.63	4.7	2.4	0.94

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