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Cotton Variety Tests, Oklahoma – 2009[1]

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Oklahoma cotton producers can increase their lint yield, fiber quality, or both by using varieties better adapted to their locations and growing conditions. With the same inputs of capital and labor, some cotton varieties provide a much greater return on the producer's investment than do others. The primary objectives of the Oklahoma cotton variety testing program are to determine the relative performance of commercially available varieties when grown under Oklahoma climatic conditions and to distribute that information to cotton producers in the state. Results from this research should help producers, researchers, and extension personnel select better varieties.

Materials and Methods

In 2009, two irrigated cotton variety trials were planted on the Southwest Research and Extension Center near Altus. Dryland tests were grown on the South Central Research Station (Chickasha) and the Southwest Agronomy Research Station (Tipton). Soil types, planting dates, harvest dates, and cultural treatments for all tests are provided in Table 1. Since the ultimate goal of the variety testing program is to evaluate genetic differences among entries, all varieties (whether conventional or transgenic) within a test were treated the same with respect to production inputs including weed and insect control. Table 2 includes weather information extracted from Oklahoma Mesonet data for the locations where the tests were conducted (http://agweather.mesonet.org/index.php/data/section/climate). Degree-day 60 (DD60) data for specified time periods at those locations were determined using the cotton degree-day calculator available at http://agweather.mesonet.org/index.php/data/section/crop.

The experiments included varieties grown commercially throughout the Cotton Belt as well as advanced strains from various breeding programs. Because these tests are conducted on a fee basis, some varieties currently on the market were not tested as the companies who own or market them chose not to participate. Some of the varieties and/or strains tested this year may not yet be commercially available, but possibly will be in the next year or two. The trials were conducted using randomized complete-block experimental designs with four replications. The test at Chickasha was analyzed as a completely randomized experiment because some data had to be discarded due to production problems during the growing season. Each plot consisted of four rows 30 feet long with 40 inches between rows. The two center rows in each plot were machine

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[1] Research in this report was conducted under Oklahoma Agricultural Experiment Station Project S-714 (Evaluation of Cotton Varieties for Oklahoma) by personnel in the Department of Plant and Soil Sciences and the Field and Research Service Unit, Oklahoma State University, Stillwater, OK 74078.

harvested to determine lint yield. Most tests were harvested with strippers. One test at Altus was once-over harvested with a picker. Boll samples were taken from the outside rows of those plots prior to harvest to determine lint percentages and fiber properties. Lint samples from all tests were sent to the Fiber & Biopolymer Research Institute at Texas Tech University in Lubbock to obtain High Volume Instrument (HVI) fiber quality measurements using the Uster 1000 system.

Results and Discussion

Results from the test locations harvested in 2009 are presented in Tables 3 through 6. Some of the varieties grown in 2009 were also included in experiments in the previous year or years. Tables 7 through 12 present average data for varieties included in the trials for two years (2008 and 2009) or three years (2007 through 2009).

Producers should use the data from the variety test (or tests) which most nearly corresponds to the characteristics of their field(s) to select varieties better adapted to their locations and growing conditions. Location in the state, whether the test was irrigated or dryland, as well as how the varieties in that test performed **relative** to one another should be considered. Lint yield and fiber coarseness (micronaire) are environmentally sensitive traits, and results from a single experiment can be misleading so differences should be compared over years (Tables 7 through 12). Measurements for the other traits are more consistent over environments; therefore, data from only a year or two at a location should accurately predict their relative performance. If producers' cotton acreages are substantial, they should grow more than one variety to spread their risk.

Producers should understand that the yields reported herein may or may not reflect what they might actually experience on their own farms. The performance of a particular variety or varieties should be evaluated in terms of how it performed relative to other varieties in the same test when grown under the same production conditions.

Lint Yield

Lint yield is the most important factor that producers should consider when deciding which varieties to grow. Lint yields in this publication are reported in pounds per acre. Statistical analyses of yield are represented by "protected" LSD (least significant difference) values given in the footnotes below each data table. If the difference between the yields of any two varieties exceeds the LSD (0.05) value given for that table, the chances are approximately 95 out of 100 that this apparent difference in yield was real. Likewise, if the difference exceeds the LSD (0.01) value, the chances are about 99 out of 100 that the difference was real.

Lint Percentages

Lint percentage (sometimes called "gin turnout") influences ginning costs. Lint percentages are reported on both a picked and a pulled basis. Picked lint percentage was calculated as the percent lint in a sample of seed cotton, while pulled lint percentage was calculated as the percent lint in a sample of "snapped" cotton. Producers who harvest with mechanical pickers should examine picked lint percentages, while those who harvest with strippers should compare pulled lint percentages. As the price received for cottonseed increases, the importance of a high lint percentage decreases. In addition, a variety with high lint yield per acre (but with a moderate lint percentage) often gives higher net returns per acre than does a lower yielding variety with a higher lint percentage. Differences in lint yield are considerably more important to net returns than are differences in lint percentage.

Fiber Properties

Fiber length, micronaire, and strength are the fiber properties reported here which partially determine the price per pound for lint. While uniformity and elongation are important in the manufacturing process, at present, little or no price incentives are received by producers for either. The descriptions of fiber properties listed below were extracted from http://www.cottoninc.com/ClassificationofCotton/?Pg=4#Instrument.

Fiber length is the average length of the longer one-half of the fibers (upper half mean length). It is reported in both 100ths and 32nds of an inch. Fiber length is largely determined by variety, but the cotton plant's exposure to extreme temperatures, water stress, or nutrient deficiencies may shorten the length. Excessive cleaning and/or drying at the gin may also result in shorter fiber length.

Uplant Length Conversion Chart

Inches	*32nds*	*Inches*	*32nds*
0.79 & shorter	24	1.11 - 1.13	36
0.80 - .85	26	1.14 - 1.17	37
0.86 - .89	28	1.18 - 1.20	38
0.90 - .92	29	1.21 - 1.23	39
0.93 - .95	30	1.24 - 1.26	40
0.96 - .98	31	1.27 - 1.29	41
0.99 -1.01	32	1.30 - 1.32	42
1.02 -1.04	33	1.33 - 1.35	43
1.05 -1.07	34	1.36 & longer	44 & longer
1.08 -1.10	35		

Length uniformity is the ratio between the mean length and the upper half mean length of the fibers and is expressed as a percentage. If all of the fibers in the bale were of the same length, the mean length and the upper half mean length would be the same, and the uniformity index would be 100. However, there is a natural variation in the length of cotton fibers, so length uniformity will always be less than 100. The following table can be used as a guide in interpreting length uniformity measurements.

Degree of Uniformity	*HVI Length Uniformity Index (Percent)*
Very High	Above 85
High	83 - 85
Intermediate	80 - 82
Low	77 - 79
Very Low	Below 77

Micronaire is a measure of fiber fineness and maturity and is measured in standard micronaire units. Micronaire measurements can be influenced during the growing period by environmental conditions such as moisture, temperature,

sunlight, plant nutrients and extremes in plant or boll population.

Market Value	*HVI Micronaire*
Discount range	3.4 and below
Base range	3.5-3.6
Premium range	3.7-4.2
Base range	4.3-4.9
Discount range	5.0 and above

Fiber strength is measured in grams-force per tex and is largely determined by variety. However, it may be affected by plant nutrient deficiencies and weather.

Degree of Strength	*HVI Strength (grams per tex)*
Very Strong	31 & above
Strong	29 - 30
Average	26 - 28
Intermediate	24 - 25
Weak	23 & below

Elongation of fiber is a measure of how much a fiber sample will stretch prior to breakage and is estimated as a percentage of its length.

Higher values for lint yield, lint percentages, fiber length, uniformity ratio, fiber strength, and elongation are generally more desirable than lower ones. Micronaire is acceptable anywhere within the "base" range of 3.5 to 4.9 inclusive. The "premium" range is between 3.7 and 4.2 inclusive. If micronaire falls in the "discount" range (below 3.5 or above 4.9), the price per pound of lint is reduced. Penalties tend to be more severe for micronaires below 3.5 (especially below 3.0) than for those above 4.9. Therefore, producers should probably choose varieties with micronaires toward the upper half of the range, rather than the lower.

The demand from international markets for cotton with high fiber quality is forcing producers to pay more attention to the quality of fiber they produce. Approximately 90 percent of Oklahoma's cotton crop is exported; therefore, fiber quality is increasingly important to Oklahoma producers. While there is not yet a uniform opinion as to what the international market demands, the general recommendations include "31 color or better; 3 leaf grade or better; 35 staple (1.08-1.10 inches) or better; length uniformity of 81% or higher; 26 grams/tex or stronger and mid-range micronaire of 4.1 to 4.6." [U.S. Fiber Advantages, Cotton Grower Plus, November 2004, p. 17-18, 20; see also Estur, G. 2004. Quality Requirements on Export Markets for U.S. Cotton. In Proc. Beltwide Cotton Conf., San Antonio, TX. 5-9 Jan. 2004. Natl. Cotton Counc. Am., Memphis, TN. (Also available at http://www.icac.org/cotton_info/speeches/estur/2004/quality_reqs_us_exp.pdf.)]

Recommendations

Based on their relative performance over the past 2 to 3 years, the better **yielding** cotton varieties (in alphabetical order) for South Central and Southwestern Oklahoma appear to be:

	For Irrigated Production	
For Dryland Production	*Stripper Harvest*	*Picker Harvest*
All-Tex Apex B2/RF	CG 3035 RF	CG 4020 B2RF
All-Tex Atlas RR	DP 0935 B2RF	DP 0935 B2RF
All-Tex Summit B2/RF	DP 143 B2RF	FM 1740 B2F
AM 1532 B2RF	DP 555 BG/RR	PHY 375 WRF
CG 3020 B2RF	PHY 375 WRF	PHY 485 WRF
CG 3035 RF	PHY 485 WRF	ST 4498 B2RF
CG 3220 B2RF	ST 4554 B2RF	ST 5458 B2RF
CG 3520 B2RF	ST 5458 B2RF	
CG 4020 B2RF		
DP 143 B2RF		
FM 1740 B2F		
FM 9058 F		
FM 9180 B2F		
FM 958		
NG 1572 RF		
NG 2448 R		
NG 3348 B2RF		
NG 3410 RF		
PHY 315 RF		
PHY 375 WRF		
PHY 485 WRF		
ST 4498 B2RF		
ST 4554 B2RF		
ST 5458 B2RF		

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Note:
Codes used in varietal names in the tables are as follows:

AM = Americot
BCS = Bayer CropScience
CG = Croplan Genetics
DG = Dyna-Gro
DP = Deltapine (Monsanto)
FM = FiberMax (Bayer CropScience)
NG = NexGen (Americot)
PHY = PhytoGen (Dow AgroSciences)
ST = Stoneville (Bayer CropScience)

B or BG = Bollgard
B2 = Bollgard II
LL = LibertyLink/Ignite
R or RR = Roundup Ready
RF or F = Roundup Ready Flex
W = WideStrike

X = strain (name subject to change)

Seed Sources

All-Tex Cotton Seed Co.
P.O. Box 1057
Levelland, TX 79336

Americot
4010 82nd Street
Suite 250
Lubbock, TX 79423

Bayer CropScience
3223 S. Loop 289
Suite 325
Lubbock, TX 79423

Croplan Genetics
8700 Trail Lake Drive West
Suite 100
Memphis, TN 38125

Delta and Pine Land Co.
1301 E. 50th Street
Lubbock, TX 79404

Delta and Pine Land Co.
P.O. Box 157
Scott, MS 38772

Monsanto Co.
800 N. Lindbergh Blvd.
St. Louis, MO 63167

Phytogen Seed Co. LLC
1832 Swynford Lane
Collierville, TN 38017

Stoneville Pedigreed Seed
6025 85th Street
Lubbock, TX 79424

United Agriculture Products (UAP)
Dyna-Gro Seed
101 E. Corporate Drive
Suite 180
Lewisville, TX 75067

Table 1. Locations, Soil Types, Planting Dates, Harvest Dates, and Cultural Treatments for the Cotton Variety Tests in Oklahoma, 2009.

Soil Type	*Date Planted*[1]	*Date Harvested*[1]	*Cultural Treatments*[1,2]
		Altus	
Hollister clay loam (Fine, smectitic, thermic Typic Haplustert)	May 21	November 10	250 lbs./A 35-18-0 8 irrigations (3-4" per irrigation) 2 insecticide applications 1 plant growth regulator application 1 defoliant + boll opener + nonionic surfactant 1 defoliant + crop oil
		Altus (Picker Test)	
Hollister clay loam (Fine, smectitic, thermic Typic Haplustert)	May 21	November 12	250 lbs./A 35-18-0 8 irrigations (3-4" per irrigation) 2 insecticide applications 1 plant growth regulator application 1 defoliant + boll opener + nonionic surfactant 1 defoliant + crop oil
		Chickasha	
Reinach silt loam (Coarse-silty, mixed, superactive, thermic Pachic Haplustoll)	June 9	December 16	100 lbs./A 46-0-0 No irrigations No insecticide applications No plant growth regulator application No harvest aid treatments
		Tipton	
Tipton silt loam (Fine-loamy, mixed, superactive, thermic Pachic Argiustoll)	May 22	November 5	150 lbs./A 40-10-0 No irrigations 2 insecticide applications 1 plant growth regulator application 1 defoliant + boll opener + nonionic surfactant 1 defoliant + crop oil

[1] This information for Tables 7 through 12 for 2007 and 2008 may be found in the previous variety test reports CR-2094 (04087) and CR-2094 (0209), respectively. These reports can be accessed online at http://www.pass.okstate.edu/research/vtr/cotton/CR-20942007.pdf (2007) and http://www.pass.okstate.edu/research/vtr/cotton/CR-20942008.pdf (2008).

[2] All experiments received preplant incorporated (PPI) herbicides. The experiment at Tipton received a preemergence (PRE) herbicide. Experiments at Altus and Tipton also received postemergence (POST) herbicides. All seed were pretreated with fungicides of that company's choice.

Table 2. Weather Summaries for Growing Seasons at Each Location, 2009.[1,2]

Month	Average Maximum Temp. (°F)	Average Minimum Temp. (°F)	Average 4-inch Bare Soil Temp. (°F)	Number of Days Where Max. Temp. >100°F	Number of Days Where Min. Temp. <60°F	Number of Days Where Min. Temp. >85°F	DD60	Rain (in.)
Altus								
May	79	57	70.2	0	18	0	278.5	2.80
June	94	68	82.7	8	3	0	639.0	1.99
July	95	70	86.8	12	0	0	704.8	3.54
August	94	70	86.3	3	0	0	674.5	0.62
September	83	61	76.2	0	10	0	366.4	3.34
October	67	46	60.7	0	31	0	26.8	3.62
TOTAL				23	62	0	2690.0	15.91
Chickasha								
May	77	56	70.7	0	21	0	221.8	6.36
June	91	67	87.0	1	3	0	581.6	2.10
July	94	69	89.6	8	1	0	650.3	3.36
August	93	68	85.6	3	2	0	636.4	4.44
September	81	60	72.9	0	10	0	318.2	3.26
October	66	45	58.2	0	30	0	30.2	7.15
TOTAL				12	67	0	2438.5	22.47
Tipton								
May	79	57	72.2	0	19	0	273.7	3.05
June	93	69	85.2	6	2	0	634.1	2.38
July	97	71	87.9	12	0	0	738.4	3.33
August	97	70	89.6	14	0	0	740.4	0.42
September	84	62	77.0	1	10	0	393.9	2.87
October	67	46	60.3	0	31	0	32.9	3.43
TOTAL				33	62	0	2813.4	15.48

[1] Information in this table was extracted from Oklahoma Mesonet data available at http://agweather.mesonet.org/index.php/data/section/climate . Degree-day 60 (DD60) data were calculated using the cotton degree-day calculator at http://agweather.mesonet.org/index.php/data/section/crop.

[2] This information for 2007 and 2008 may be found in the previous variety test reports CR-2094 (0408) and CR-2094 (0209), respectively. These reports can be accessed online at http://www.pass.okstate.edu/research/vtr/cotton/CR-20942007.pdf (2007) and http://www.pass.okstate.edu/research/vtr/cotton/CR-20942008.pdf (2008).

Irrigated Test Results in 2009

Table 3. One Year Irrigated Cotton Variety Test near Altus, 2009.

Variety	Lint Yield (lbs./A)	Lint Percentage		Fiber Length	Uniformity			Fiber Strength	Elongation
		Picked	Pulled		32's	Ratio	Micronaire		
DP 0935 B2RF	1961*	46.2	34.7	1.13	3682.8	5.5	29.1	7.1	
DP 0912 B2RF	1915	47.8	37.4	1.04	3382.4	5.8	28.1	8.2	
DP 0920 B2RF	1827	47.7	37.4	1.10	3582.7	5.4	27.8	7.9	
DG 2570 B2RF	1827	47.3	37.6	1.07	3483.5	5.4	28.2	9.3	
ST 5288 B2F	1796	47.4	37.0	1.07	3483.3	6.1	27.6	8.8	
ST 4554 B2RF	1782	44.9	35.0	1.12	3680.3	5.4	29.5	10.1	
FM 9170 B2F	1773	45.9	34.7	1.10	3581.9	5.2	31.5	6.8	
FM 9160 B2F	1769	45.8	35.6	1.09	3583.7	5.1	29.5	5.9	
CG 3220 B2RF	1762	48.5	37.0	1.03	3381.3	5.4	27.1	8.6	
ST 4288 B2F	1761	44.8	34.1	1.08	3582.2	5.5	27.2	7.7	
PHY 367 WRF	1755	47.7	36.3	1.07	3482.5	5.3	28.2	9.0	
DP 0924 B2RF	1692	46.0	35.4	1.04	3382.0	5.5	29.2	7.7	
ST 5458 B2RF	1681	43.9	34.4	1.11	3681.9	5.4	30.6	6.8	
All-Tex Epic RF	1677	46.2	34.6	1.09	3581.3	5.4	29.2	9.9	
PHY 375 WRF	1646	46.8	35.8	1.10	3582.7	5.5	28.4	7.6	
All-Tex Summit B2/RF	1640	46.1	33.8	0.98	3181.0	5.7	25.2	9.0	
FM 1740 B2F	1637	46.4	36.0	1.05	3481.9	5.6	28.0	7.4	
FM 9180 B2F	1633	44.3	32.9	1.11	3682.6	5.3	30.1	6.0	
DP 555 BG/RR	1633	44.4	34.1	1.14	3783.7	4.4	28.8	7.2	
DP 0949 B2RF	1627	48.8	37.5	1.07	3481.1	5.5	30.4	8.1	
BCSX 1025 LLB2	1606	42.6	31.7	1.14	3782.4	5.2	31.9	6.0	
DG 2400 RF	1598	47.3	36.2	1.10	3583.2	5.3	30.6	8.9	
DP 164 B2RF	1588	43.4	33.6	1.08	3581.3	4.9	29.2	6.1	
DG CTO 9304 B2RF	1587	46.5	34.4	1.05	3480.9	5.6	26.6	7.8	
NG 2549 B2RF	1582	42.9	33.9	1.01	3281.9	5.2	27.2	8.2	
NG 3410 RF	1582	44.6	34.3	1.13	3681.9	4.6	29.8	6.9	
FM 955 LLB2	1579	43.8	33.1	1.10	3582.0	5.8	28.7	6.1	
FM 1845 LLB2	1573	42.9	32.4	1.11	3680.6	5.2	29.7	6.7	
BCSX 1010 B2F	1562	46.7	34.7	1.10	3583.6	5.7	27.7	6.2	
BCSX 1005 LLB2	1560	41.6	31.7	1.11	3682.5	5.7	32.4	6.3	
CG 3035 RF	1559	47.3	36.3	0.99	3279.8	5.6	27.4	9.2	
FM 1735 LLB2	1557	44.5	34.6	1.04	3381.9	5.1	28.6	5.9	
BCSX 1015 LLB2	1553	41.6	31.8	1.16	3780.7	5.2	30.7	4.7	
ST 4498 B2RF	1545	43.6	32.2	1.10	3582.0	5.1	30.0	9.2	
PHY 485 WRF	1533	44.5	32.7	1.09	3583.6	5.3	30.3	9.7	
CG 3520 B2RF	1514	42.0	32.3	1.11	3682.4	4.7	27.7	8.6	
All-Tex Apex B2/RF	1501	43.8	32.9	1.12	3682.2	4.9	28.3	7.6	
AM 1532 B2RF	1486	45.0	33.4	1.04	3378.5	5.2	25.7	8.3	
NG 3348 B2RF	1485	41.4	32.2	1.06	3482.6	4.6	29.8	6.9	
DP 121 RF	1461	44.6	33.5	1.08	3582.6	5.4	29.7	8.6	
FM 9058 F	1439	43.5	32.0	1.11	3682.9	5.1	29.9	5.8	
CG 3020 B2RF	1432	43.6	32.3	1.05	3482.1	5.0	26.9	8.9	
FM 958	1413	44.2	32.9	1.10	3583.7	5.4	31.7	5.0	
NG 1572 RF	1405	42.1	32.5	1.07	3481.0	4.8	26.1	5.7	
CG 4020 B2RF	1404	44.3	33.4	1.12	3682.7	4.7	28.7	7.1	
DP 143 B2RF	1380	43.0	32.8	1.15	3781.8	4.7	28.8	5.9	
NG 2448 R	1373	40.4	30.5	1.10	3582.2	5.1	31.0	7.3	
All-Tex Atlas RR	1355	40.5	30.6	1.06	3479.5	5.1	29.4	7.5	
PHY 565 WRF	1301	41.8	29.6	1.15	3783.6	4.4	30.6	7.8	
PHY 72	1182	41.7	31.2	1.17	3782.1	5.0	36.7	7.6	
Experimental Average	***1590***	***44.7***	***33.9***	***1.09***	***3582.1***	***5.2***	***29.1***	***7.5***	

* LSD (0.05) = 168 lbs.; LSD (0.01) = 222 lbs.; C.V. = 7.6.

Table 4. One Year Test Irrigated Picker-Harvested Cotton Variety Test Results near Altus, 2009.

Variety	Lint Yield (lbs./A)	Lint Percentage		Fiber Length	Uniformity		Micronaire	Fiber Strength	Elongation
		Picked	Pulled		32's	Ratio			
FM 9160 B2F	1524*	43.9	33.7	1.18	38	83.6	5.0	30.5	5.6
FM 1740 B2F	1519	48.4	37.3	1.06	34	82.5	5.4	27.2	6.8
DG 2570 B2RF	1515	49.5	38.5	1.08	35	81.8	5.4	28.7	8.5
ST 5458 B2RF	1495	46.0	35.6	1.10	35	81.8	5.6	30.2	6.6
ST 5288 B2F	1494	48.3	37.3	1.03	33	81.9	6.0	26.9	8.7
PHY 565 WRF	1463	45.1	32.9	1.18	38	84.2	4.9	32.9	8.8
DP 0935 B2RF	1463	45.6	34.5	1.10	35	82.0	5.3	28.0	6.9
ST 4288 B2F	1441	44.1	34.9	1.09	35	82.1	5.5	29.7	7.8
FM 9170 B2F	1436	45.5	35.1	1.18	38	83.5	5.0	31.6	6.5
ST 4498 B2RF	1432	45.8	35.4	1.02	33	82.5	5.2	31.2	10.4
DP 0912 B2RF	1426	46.0	35.5	1.04	33	82.3	5.4	28.0	7.8
CG 3520 B2RF	1382	44.9	33.6	1.13	36	83.6	5.2	26.7	8.1
PHY 375 WRF	1369	46.6	35.2	1.09	35	82.4	5.5	28.8	8.0
CG 4020 B2RF	1357	47.7	36.1	1.06	34	81.5	5.6	25.9	7.5
FM 9180 B2F	1343	42.6	31.6	1.19	38	84.4	4.9	32.0	6.6
PHY 367 WRF	1319	47.4	35.3	1.07	34	82.5	5.1	27.3	5.9
NG 3348 B2RF	1318	45.3	35.7	1.07	34	83.3	5.1	27.7	7.5
DG 2400 RF	1290	44.3	31.9	1.13	36	84.0	4.8	30.7	9.0
FM 1735 LLB2	1289	45.1	34.4	1.06	34	83.4	5.6	26.9	5.4
FM 1845 LLB2	1287	41.9	30.7	1.18	38	85.8	5.4	30.5	5.8
AM 1532 B2RF	1279	44.6	33.3	1.11	36	82.0	4.8	26.8	8.2
FM 955 LLB2	1279	42.9	31.6	1.11	36	83.4	5.1	29.5	6.0
CG 3020 B2RF	1268	45.7	34.6	1.03	33	80.6	5.7	26.0	9.0
CG 3220 B2RF	1264	45.4	34.3	1.06	34	82.8	5.6	27.5	8.5
DP 0949 B2RF	1264	46.0	35.0	1.09	35	83.3	5.7	31.8	8.2
DP 164 B2RF	1243	42.9	31.4	1.15	37	83.4	4.8	29.8	6.3
CG 3035 RF	1232	45.3	35.0	1.14	37	82.3	5.4	30.7	9.2
PHY 485 WRF	1218	42.9	32.4	1.07	34	81.6	5.7	28.7	9.4
Experimental Average	***1365***	***45.3***	***34.4***	***1.10***	***35***	***82.8***	***5.3***	***29.0***	***7.6***

* LSD (0.05) = 175 lbs.; LSD (0.01) = 232 lbs., C.V. = 9.1.

Dryland Test Results in 2009

Table 5. One Year Test Dryland Cotton Variety Test Results near Chickasha, 2009.

Variety	Lint Yield (lbs./A)	Lint Percentage		Fiber Length	Uniformity			Fiber Strength	Elongation
		Picked	Pulled		32's	Ratio	Micronaire		
FM 9180 B2F	1257*	39.3	27.9	1.20	38	85.1	4.1	30.1	6.6
NG 2549 B2RF	1221	40.9	31.0	1.04	33	81.2	4.9	27.8	8.0
AM 1532 B2RF	1171	37.3	26.6	1.17	37	83.0	3.7	25.8	6.8
FM 1740 B2F	1160	40.4	28.4	1.16	37	84.1	3.7	29.9	6.9
PHY 367 WRF	1159	36.1	24.4	1.29	41	84.8	3.1	32.8	6.2
PHY 375 WRF	1145	40.9	29.4	1.13	36	82.5	4.0	27.6	7.6
ST 4288 B2F	1127	37.8	27.6	1.19	38	84.1	4.2	32.1	6.3
CG 3520 B2RF	1103	38.2	26.4	1.16	37	83.7	3.7	26.5	7.7
BCSX 1005 LLB2	1099	35.1	24.8	1.27	41	83.9	3.4	30.8	5.5
CG 3220 B2RF	1090	39.3	28.3	1.12	36	84.1	4.3	26.9	7.9
PHY 565 WRF	1045	37.8	27.6	1.21	39	85.5	3.9	31.5	8.1
ST 5288 B2F	1033	37.1	26.6	1.16	37	83.4	3.6	30.0	6.9
All-Tex Summit B2/RF	1028	36.9	24.8	1.17	37	84.1	3.5	31.6	7.9
NG 3348 B2RF	1024	40.0	29.6	1.12	36	84.9	4.1	29.9	7.9
All-Tex Apex B2/RF	1004	38.4	26.6	1.19	38	83.8	3.8	27.8	7.3
FM 955 LLB2	1000	36.3	24.7	1.20	38	84.6	3.6	29.4	5.9
FM 9160 B2F	1000	40.2	28.9	1.21	39	86.2	3.7	30.4	6.1
ST 4498 B2RF	998	39.3	27.1	1.16	37	83.9	3.6	30.5	7.9
NG 2448 R	971	37.7	25.6	1.14	37	83.9	3.6	32.2	6.6
ST 5458 B2RF	963	39.9	28.3	1.09	35	81.8	4.6	30.8	6.5
FM 958	960	40.0	28.5	1.16	37	83.2	4.5	31.7	6.6
BCSX 1025 LLB2	955	37.8	25.8	1.22	39	84.5	3.6	31.0	5.1
CG 3020 B2RF	949	35.9	25.0	1.12	36	84.3	3.6	27.8	8.7
FM 9170 B2F	931	39.1	28.1	1.20	38	83.4	3.4	29.5	6.3
CG 4020 B2RF	920	36.9	25.8	1.22	39	84.5	3.7	30.7	7.2
All-Tex Atlas RR	899	37.1	26.8	1.10	35	83.5	4.1	29.7	8.0
FM 1845 LLB2	896	36.6	25.1	1.22	39	83.5	3.8	32.5	6.1
DP 555 BG/RR	889	38.6	26.6	1.13	36	81.1	3.0	26.3	5.1
All-Tex Patriot + RF	889	35.4	24.0	1.17	37	83.9	3.7	30.9	7.2
PHY 525 RF	878	37.8	25.0	1.14	37	83.6	3.6	29.8	8.3
FM 1735 LLB2	877	37.2	26.1	1.14	37	83.3	3.5	29.8	5.4
PHY 485 WRF	869	36.9	25.7	1.11	36	83.9	3.8	29.4	8.9
FM 9058 F	860	38.4	26.5	1.19	38	83.3	3.8	30.9	5.5
BCSX 1015 LLB2	856	36.1	25.5	1.28	41	83.6	3.4	32.5	4.8
NG 3410 RF	850	36.2	24.8	1.20	38	82.9	3.1	27.4	6.9
All-Tex Epic RF	835	39.2	26.3	1.18	38	84.5	4.1	30.2	8.5
PHY 72	831	35.8	24.0	1.22	39	84.6	3.7	33.1	7.1
BCSX 1010 B2F	813	35.8	25.0	1.17	37	84.0	3.3	30.3	6.3
DP 121 RF	732	40.4	27.2	1.19	38	85.1	3.8	31.5	7.5
CG 3035 RF	723	37.6	25.3	1.14	37	83.6	3.6	28.2	8.1
NG 1572 RF	707	36.7	25.4	1.16	37	83.7	2.9	30.2	6.8
PHY 315 RF	700	39.8	28.5	1.14	37	83.2	3.9	27.0	6.6
ST 4554 B2RF	504	38.1	26.6	1.19	38	83.6	3.2	30.1	6.5
DP 143 B2RF	486	35.6	26.4	1.23	39	83.7	3.3	29.1	5.7
Experimental Average	***941***	***37.9***	***26.6***	***1.17***	***37***	***83.8***	***3.7***	***29.9***	***6.9***

* LSD (0.05) = 260 lbs.; LSD (0.01) = 344 lbs.; C.V. = 17.0.

Table 6. One Year Dryland Cotton Variety Test Results near Tipton, 2009.

Variety	Lint Yield (lbs./A)	Lint Percentage		Fiber	Uniformity			Fiber	
		Picked	Pulled	Length	32's	Ratio	Micronaire	Strength	Elongation
BCSX 1015 LLB2	792*	38.1	29.7	1.13	36	80.7	4.5	28.1	4.6
PHY 367 WRF	758	43.8	33.2	1.04	33	81.2	4.7	26.9	7.3
NG 2549 B2RF	743	39.9	32.0	0.99	32	80.1	4.7	28.8	7.7
BCSX 1005 LLB2	711	40.6	31.4	1.05	34	79.6	5.2	27.7	5.2
PHY 315 RF	708	44.4	33.8	1.04	33	80.9	5.1	27.9	6.8
PHY 375 WRF	704	44.9	34.8	1.03	33	81.5	4.9	27.2	6.5
All-Tex Atlas RR	702	38.1	29.5	0.99	32	79.9	4.5	26.7	6.8
DP 555 BG/RR	701	56.4	44.5	1.11	36	79.7	5.6	29.3	5.5
DG 2570 B2RF	683	42.6	33.6	0.99	32	81.5	4.5	26.0	8.3
BCSX 1010 B2F	679	42.6	32.9	1.01	32	80.2	4.4	24.4	5.5
CG 3220 B2RF	670	43.8	34.5	0.99	32	80.8	4.8	26.7	7.8
All-Tex Summit B2/RF	664	42.2	32.6	1.02	33	80.0	4.4	28.0	7.1
All-Tex Apex B2/RF	663	41.1	31.1	1.03	33	81.1	4.1	24.9	6.3
PHY 565 WRF	656	43.0	32.1	1.06	34	80.4	4.5	29.4	7.0
NG 3410 RF	655	40.9	31.2	1.00	32	80.1	3.6	25.4	5.9
BCSX 1025 LLB2	649	42.9	32.7	1.07	34	81.2	5.0	29.2	4.6
FM 9160 B2F	639	48.6	38.3	1.06	34	80.9	5.3	28.7	6.2
NG 3348 B2RF	637	36.6	28.2	1.07	34	81.3	3.7	26.3	5.9
CG 3020 B2RF	634	41.3	31.9	1.05	34	81.5	4.7	26.2	7.1
ST 5288 B2F	624	42.1	33.5	1.00	32	81.9	5.0	24.9	6.9
FM 1735 LLB2	613	40.3	31.7	1.00	32	81.7	4.5	27.6	4.7
All-Tex Epic RF	612	44.3	34.8	1.02	33	82.5	5.0	26.3	7.8
NG 1572 RF	608	37.8	29.7	1.06	34	80.6	3.3	25.9	5.8
DG 2400 RF	601	45.1	35.0	1.05	34	83.3	5.2	29.2	8.4
AM 1532 B2RF	600	41.1	30.7	1.09	35	80.3	4.1	26.6	6.2
ST 4554 B2RF	597	42.8	32.8	1.03	33	81.8	4.8	29.9	8.0
ST 4498 B2RF	565	45.2	34.7	1.03	33	82.3	4.6	29.0	7.6
PHY 525 RF	563	44.0	33.2	1.13	36	83.4	4.8	33.3	8.0
FM 958	556	43.7	31.8	1.09	35	80.2	5.0	29.8	5.1
FM 1845 LLB2	549	42.9	32.3	1.04	33	79.1	4.6	27.7	6.4
CG 4020 B2RF	538	39.7	30.0	1.02	33	79.9	3.5	24.7	6.3
CG 3035 RF	538	44.6	34.2	0.98	31	81.3	4.6	25.0	7.6
NG 2448 R	537	38.2	29.8	1.00	32	79.7	4.1	27.3	6.6
ST 5458 B2RF	536	40.8	32.6	1.02	33	82.1	4.8	27.5	6.3
FM 9170 B2F	534	45.0	35.0	1.05	34	80.5	4.2	28.8	5.3
FM 1740 B2F	532	40.9	31.3	1.08	35	79.9	4.0	28.7	5.6
PHY 485 WRF	530	42.2	32.0	0.96	31	80.6	4.6	27.0	7.9
CG 3520 B2RF	524	39.6	30.0	1.08	35	79.6	4.0	26.8	7.8
PHY 72	522	38.9	29.7	1.16	37	82.1	4.3	34.1	7.3
ST 4288 B2F	512	39.9	30.7	1.05	34	81.8	4.8	28.0	6.9
FM 9058 F	504	41.0	29.7	1.11	36	82.2	4.2	32.0	5.1
FM 955 LLB2	499	38.9	29.8	1.09	35	82.4	5.0	28.9	5.5
All-Tex Patriot + RF	475	39.5	29.8	1.09	35	82.2	5.0	29.1	7.2
DP 143 B2RF	471	42.3	32.2	1.06	34	80.7	4.5	27.9	6.2
FM 9180 B2F	464	39.3	28.3	1.08	35	81.2	3.6	28.8	5.8
DP 121 RF	451	42.8	32.8	0.99	32	81.7	4.8	26.5	7.4
Experimental Average	***603***	***42.0***	***32.2***	***1.05***	***34***	***81.1***	***4.5***	***28.0***	***6.5***

* LSD (0.05) = 171 lbs.; LSD (0.01) = 225 lbs.; C.V. = 20.3.

Irrigated Test Results over Years

Table 7. Two Year Irrigated Cotton Variety Test Results near Altus, 2008-2009.

Variety	Lint Yield (lbs./A)	Lint Percentage		Fiber Length	Uniformity			Fiber Strength	Elongation
		Picked	Pulled		32's	Ratio	Micronaire		
DP 0935 B2RF	2048*	44.5	33.3	1.16	37	83.7	5.2	28.6	7.0
ST 4554 B2RF	1893	42.9	33.4	1.14	37	82.4	5.3	30.1	9.4
ST 5458 B2RF	1892	42.1	33.1	1.14	37	82.4	5.2	31.5	6.2
PHY 375 WRF	1833	44.6	33.8	1.13	36	83.7	5.0	28.2	6.9
DP 0924 B2RF	1808	43.7	33.7	1.08	35	82.7	5.3	28.4	7.1
FM 1740 B2F	1799	44.6	34.6	1.11	36	83.4	5.2	29.3	7.0
CG 3220 B2RF	1798	44.5	34.1	1.11	36	82.3	5.0	28.5	7.5
DP 555 BG/RR	1779	43.5	33.8	1.15	37	83.9	4.6	29.1	5.8
DP 164 B2RF	1763	41.2	32.2	1.15	37	82.1	4.8	29.9	5.8
CG 3035 RF	1760	44.6	34.3	1.09	35	82.8	5.2	28.1	8.7
PHY 485 WRF	1732	42.3	31.2	1.13	36	84.5	5.0	29.9	8.3
All-Tex Summit B2/RF	1705	42.1	31.2	1.07	34	83.2	5.0	26.5	7.9
ST 4498 B2RF	1700	41.6	31.2	1.16	37	84.1	5.0	30.6	8.5
FM 9180 B2F	1684	41.7	30.9	1.17	37	84.1	4.9	31.3	5.9
DP 143 B2RF	1680	41.7	31.8	1.21	39	83.2	4.6	29.4	5.9
All-Tex Apex B2/RF	1679	41.8	31.3	1.17	37	83.0	4.7	28.3	7.2
NG 3410 RF	1669	42.2	32.1	1.16	37	83.1	4.2	28.5	6.1
CG 3520 B2RF	1649	40.8	30.8	1.14	37	83.5	4.6	27.7	7.9
AM 1532 B2RF	1645	42.4	31.3	1.12	36	81.7	4.8	26.0	7.4
CG 4020 B2RF	1639	42.0	31.6	1.16	37	83.4	4.6	28.4	6.7
NG 3348 B2RF	1623	40.3	31.5	1.14	37	84.1	4.7	29.9	6.2
DP 121 RF	1607	44.1	32.4	1.13	36	84.2	5.0	29.1	7.8
FM 1735 LLB2	1580	42.3	32.6	1.12	36	83.7	4.9	30.4	4.8
CG 3020 B2RF	1579	40.7	30.4	1.10	35	83.2	4.7	27.2	7.6
NG 2448 R	1576	39.8	30.2	1.13	36	83.6	4.8	30.3	7.0
FM 955 LLB2	1573	40.5	30.3	1.16	37	84.0	5.4	30.2	5.5
NG 1572 RF	1560	40.9	31.3	1.11	36	81.6	4.3	26.2	5.7
FM 9058 F	1543	42.0	30.5	1.19	38	83.2	4.5	30.3	4.8
FM 958	1520	42.5	31.2	1.15	37	84.4	5.1	31.3	4.6
All-Tex Atlas RR	1399	39.1	29.5	1.07	34	82.0	4.7	28.7	6.6
PHY 72	1391	41.0	30.9	1.19	38	82.0	4.6	35.2	6.9
Experimental Average	***1681***	***42.2***	***32.0***	***1.14***	***37***	***83.2***	***4.9***	***29.3***	***6.8***

* LSD (0.05) = 158 lbs.; LSD (0.01) = 208 lbs.

Table 8. Three Year Irrigated Cotton Variety Test Results near Altus, 2007-2009.

Variety	Lint Yield (lbs./A)	Lint Percentage		Fiber Length	Uniformity			Fiber Strength	Elongation
		Picked	Pulled		32's	Ratio	Micronaire		
ST 5458 B2RF	1922*	42.1	33.5	1.13	36	81.8	5.3	30.2	6.8
ST 4554 B2RF	1841	41.9	32.5	1.15	37	82.9	5.2	30.3	9.4
PHY 375 WRF	1802	43.9	33.3	1.11	36	83.0	5.1	28.4	7.4
DP 555 BG/RR	1794	43.9	34.2	1.14	37	82.8	4.6	29.1	6.3
PHY 485 WRF	1792	42.1	31.5	1.12	36	84.0	5.2	30.1	8.6
DP 143 B2RF	1774	41.1	31.6	1.21	39	82.7	4.4	29.9	6.4
CG 3035 RF	1770	44.0	33.9	1.10	35	83.7	5.0	28.8	8.7
DP 164 B2RF	1741	39.9	30.9	1.15	37	82.5	4.8	29.8	6.3
FM 9180 B2F	1737	41.4	31.0	1.16	37	83.5	4.9	32.0	6.4
ST 4498 B2RF	1697	41.0	30.9	1.14	37	84.1	5.0	31.0	8.8
CG 3220 B2RF	1695	43.0	32.8	1.12	36	82.1	5.0	29.0	7.9
DP 121 RF	1659	43.3	32.4	1.12	36	84.0	5.1	29.3	8.1
FM 9058 F	1636	41.4	30.3	1.19	38	82.7	4.6	29.7	5.6
All-Tex Apex B2/RF	1624	40.9	30.4	1.18	38	82.8	4.6	27.6	7.6
CG 4020 B2RF	1617	41.3	30.8	1.17	37	83.6	4.7	27.5	7.2
FM 958	1598	42.0	30.9	1.15	37	84.0	5.0	32.4	5.3
All-Tex Summit B2/RF	1591	40.5	30.2	1.05	34	82.8	5.0	25.9	8.3
AM 1532 B2RF	1586	41.6	30.5	1.14	37	81.8	4.7	26.5	7.5
CG 3520 B2RF	1551	40.2	30.1	1.13	36	83.5	4.7	27.7	8.1
FM 955 LLB2	1548	39.8	29.7	1.17	37	83.5	5.3	29.5	6.1
CG 3020 B2RF	1546	40.2	30.1	1.10	35	82.9	4.8	26.9	7.8
NG 2448 R	1521	38.5	29.2	1.12	36	82.4	4.8	29.8	7.5
All-Tex Atlas RR	1448	38.8	29.3	1.09	35	82.6	4.7	29.5	7.1
PHY 72	1409	40.0	30.0	1.20	38	82.4	4.4	35.1	7.5
Experimental Average	***1663***	***41.4***	***31.3***	***1.14***	***37***	***83.0***	***4.9***	***29.4***	***7.4***

* LSD (0.05) = 160 lbs.; LSD (0.01) = 211 lbs.

Table 9. Two Year Irrigated Picker-Harvested Cotton Variety Test Results near Altus, 2008-2009.

Variety	Lint Yield (lbs./A)	Lint Percentage		Fiber Length	Uniformity			Fiber Strength	Elongation
		Picked	Pulled		32's	Ratio	Micronaire		
ST 5458 B2RF	1688*	43.3	33.9	1.14	37	82.7	5.2	31.7	6.3
DP 0935 B2RF	1667	43.9	33.1	1.14	37	83.0	4.9	28.9	6.7
FM 1740 B2F	1647	45.8	35.6	1.12	36	83.9	5.1	29.7	6.4
ST 4498 B2RF	1632	42.9	33.2	1.10	35	83.6	5.1	30.3	9.4
PHY 375 WRF	1628	44.9	34.2	1.14	37	83.7	5.1	29.9	7.0
CG 4020 B2RF	1577	44.1	33.2	1.12	36	82.3	5.0	26.2	6.5
CG 3520 B2RF	1508	42.5	32.1	1.15	37	84.2	4.9	27.8	7.5
CG 3220 B2RF	1474	43.0	32.8	1.12	36	82.8	5.1	29.4	7.4
CG 3035 RF	1435	44.1	34.1	1.15	37	83.4	5.0	29.4	8.1
CG 3020 B2RF	1395	42.6	32.3	1.10	35	83.3	5.2	25.9	7.6
FM 9180 B2F	1392	40.9	30.5	1.20	38	84.6	4.6	32.4	6.1
PHY 485 WRF	1388	41.0	30.9	1.12	36	83.6	5.3	30.1	8.2
Experimental Average	***1536***	***43.3***	***33.0***	***1.13***	***36***	***83.4***	***5.0***	***29.3***	***7.3***

* LSD (0.05) = 149 lbs.; LSD (0.01) = 198 lbs.

Table 10. Three Year Irrigated Picker-Harvested Cotton Variety Test Results near Altus, 2007-2009.

Variety	Lint Yield (lbs./A)	Lint Percentage		Fiber Length	Uniformity			Fiber Strength	Elongation
		Picked	Pulled		32's	Ratio	Micronaire		
PHY 375 WRF	1591*	44.2	33.4	1.13	36	82.7	5.0	29.3	7.5
ST 4498 B2RF	1583	42.4	32.7	1.10	35	83.2	5.1	30.0	9.6
ST 5458 B2RF	1561	42.7	33.7	1.13	36	82.3	5.2	31.2	6.9
CG 4020 B2RF	1480	42.5	31.9	1.12	36	82.2	5.0	26.7	7.4
PHY 485 WRF	1462	41.1	30.9	1.12	36	83.6	5.3	30.0	8.8
CG 3035 RF	1411	43.2	33.2	1.16	37	83.2	4.6	28.8	8.4
FM 9180 B2F	1401	40.8	30.6	1.20	38	84.0	4.6	31.4	6.7
CG 3220 B2RF	1390	42.1	32.1	1.11	36	82.5	5.1	28.7	8.1
CG 3520 B2RF	1369	41.3	31.0	1.16	37	84.3	5.0	27.0	7.9
CG 3020 B2RF	1315	41.1	31.0	1.11	36	83.4	5.0	25.9	8.1
Experimental Average	***1456***	***42.1***	***32.1***	***1.13***	***36***	***83.1***	***5.0***	***28.9***	***7.9***

* LSD (0.05) = 144 lbs.; LSD (0.01) = 192 lbs.

Dryland Test Results over Years

Table 11. Two Year Dryland Cotton Variety Test Results near Chickasha, 2008-2009.

Variety	Lint Yield (lbs./A)	Lint Percentage		Fiber Length	Uniformity			Fiber Strength	Elongation
		Picked	Pulled		32's	Ratio	Micronaire		
FM 9180 B2F	916*	39.7	29.0	1.15	37	83.5	4.4	32.0	5.5
AM 1532 B2RF	889	37.9	27.2	1.15	37	83.4	3.7	25.9	6.2
PHY 375 WRF	880	41.6	30.6	1.10	35	82.5	4.4	27.2	6.6
CG 3220 B2RF	846	39.5	28.4	1.11	36	82.6	3.9	26.5	6.7
All-Tex Apex B2/RF	806	38.7	27.1	1.13	36	82.4	3.8	25.4	6.0
CG 3520 B2RF	805	38.6	27.4	1.13	36	82.3	4.0	24.8	6.5
All-Tex Summit B2/RF	799	38.3	26.9	1.15	37	84.2	3.9	29.3	6.8
NG 3348 B2RF	792	40.8	30.9	1.11	36	84.4	4.3	30.7	6.7
FM 958	786	40.5	29.5	1.13	36	82.7	4.9	31.2	5.1
CG 3020 B2RF	742	35.9	25.6	1.11	36	83.5	3.5	25.9	7.2
All-Tex Atlas RR	737	37.3	27.9	1.07	34	83.5	4.3	29.1	6.6
CG 4020 B2RF	730	37.8	27.1	1.18	38	83.1	3.7	28.6	5.8
DP 555 BG/RR	716	38.9	28.0	1.11	36	80.7	3.3	26.9	4.5
FM 9058 F	710	38.6	28.0	1.16	37	81.6	4.1	30.9	5.0
NG 2448 R	687	37.8	27.3	1.13	36	83.4	4.3	32.1	6.0
NG 3410 RF	684	38.7	28.1	1.17	37	82.1	3.8	28.5	5.7
CG 3035 RF	681	39.7	28.1	1.12	36	83.7	4.1	28.2	7.2
PHY 485 WRF	677	37.7	27.2	1.13	36	84.4	4.2	31.4	7.9
DP 121 RF	671	40.7	28.0	1.14	37	84.2	4.0	30.4	6.2
NG 1572 RF	627	40.1	29.9	1.09	35	82.5	4.0	28.1	5.7
PHY 315 RF	605	40.8	29.4	1.15	37	84.4	4.2	29.8	6.3
PHY 72	593	37.3	26.2	1.20	38	84.3	3.9	34.0	6.4
DP 143 B2RF	554	38.6	28.7	1.17	37	82.8	3.8	28.8	4.9
ST 4554 B2RF	539	39.2	28.0	1.15	37	83.5	3.5	29.9	6.4
Experimental Average	***728***	***38.9***	***28.1***	***1.14***	***37***	***83.2***	***4.0***	***29.0***	***6.2***

* LSD (0.05) = 208 lbs.; LSD (0.01) = 276 lbs.

Table 12. Three Year Dryland Cotton Variety Test Results near Chickasha, 2007-2009.

Variety	Lint Yield (lbs./A)	Lint Percentage		Fiber Length	Uniformity			Fiber Strength	Elongation
		Picked	Pulled		32's	Ratio	Micronaire		
CG 3220 B2RF	954*	40.2	29.1	1.13	36	82.3	4.1	26.8	7.5
AM 1532 B2RF	944	39.5	28.6	1.15	37	82.5	4.1	26.9	6.9
PHY 375 WRF	930	42.6	31.9	1.10	35	82.0	4.5	28.2	7.1
FM 9058 F	908	39.9	30.8	1.16	37	82.1	4.4	29.4	5.7
FM 958	889	41.3	30.4	1.15	37	82.8	4.9	31.3	5.8
CG 3520 B2RF	852	39.7	28.6	1.14	37	81.9	4.2	26.0	7.1
CG 3035 RF	820	41.1	29.8	1.10	35	82.8	4.4	28.5	7.9
CG 4020 B2RF	815	38.7	28.4	1.19	38	83.2	4.1	28.5	6.7
All-Tex Atlas RR	808	38.3	29.0	1.07	34	83.2	4.5	30.2	7.3
CG 3020 B2RF	787	37.6	27.4	1.11	36	83.4	3.8	26.8	7.8
DP 555 BG/RR	786	39.8	29.0	1.14	37	81.8	3.7	29.0	5.2
NG 2448 R	759	38.6	28.7	1.12	36	84.0	4.5	32.1	6.7
PHY 485 WRF	749	39.3	28.6	1.11	36	84.3	4.4	31.1	8.6
PHY 315 RF	698	42.2	30.9	1.13	36	83.4	4.4	29.1	7.0
PHY 72	686	38.7	27.8	1.18	38	83.8	4.2	34.1	7.1
DP 143 B2RF	619	39.3	29.6	1.17	37	82.0	4.0	29.2	5.9
Experimental Average	***813***	***39.8***	***29.3***	***1.13***	***36***	***82.8***	***4.3***	***29.2***	***6.9***

* LSD (0.05) = 202 lbs.; LSD (0.01) = 268 lbs.

Table 13. Two Year Dryland Cotton Variety Test Results near Tipton, 2008-2009.

Variety	Lint Yield (lbs./A)	Lint Percentage		Fiber Length	Uniformity			Fiber Strength	Elongation
		Picked	Pulled		32's	Ratio	Micronaire		
PHY 375 WRF	709*	44.5	34.9	1.05	34	82.1	5.2	28.6	6.0
CG 3220 B2RF	681	42.9	33.2	1.03	33	81.9	5.1	26.8	7.1
DP 555 BG/RR	678	49.3	38.9	1.10	35	80.1	5.1	28.5	4.8
PHY 315 RF	667	45.0	34.3	1.07	34	81.2	5.4	28.8	6.4
All-Tex Apex B2/RF	653	40.9	30.7	1.08	35	81.6	4.4	26.7	5.8
All-Tex Summit B2/RF	646	41.0	31.1	1.05	34	80.7	4.7	28.4	6.4
CG 3020 B2RF	646	40.5	31.0	1.05	34	81.5	4.7	26.3	6.4
CG 3035 RF	643	43.1	33.1	1.04	33	82.5	4.9	28.1	7.3
AM 1532 B2RF	622	40.9	30.4	1.10	35	81.3	4.3	28.1	6.0
NG 3410 RF	619	40.9	32.1	1.05	34	80.4	4.4	27.5	5.2
All-Tex Atlas RR	613	37.9	29.1	1.02	33	80.9	4.9	29.3	6.0
FM 1740 B2F	611	42.8	33.5	1.02	33	80.9	4.9	28.7	5.2
ST 4554 B2RF	611	42.6	33.1	1.04	33	82.1	5.0	32.0	7.3
CG 4020 B2RF	600	40.3	30.7	1.04	33	80.4	4.3	25.2	6.1
NG 3348 B2RF	600	39.2	31.3	1.06	34	82.0	4.6	27.2	5.3
ST 5458 B2RF	598	41.5	32.7	1.07	34	82.1	5.3	29.7	5.4
CG 3520 B2RF	589	40.3	30.1	1.10	35	81.0	4.5	27.7	7.1
NG 1572 RF	574	39.1	31.2	1.06	34	80.8	4.1	25.8	5.1
DP 143 B2RF	567	41.4	32.1	1.06	34	81.5	5.0	28.1	5.5
NG 2448 R	564	39.1	30.8	1.01	32	81.1	4.6	28.9	5.8
PHY 485 WRF	562	41.6	32.4	1.02	33	81.6	5.0	28.3	7.2
DP 121 RF	559	43.6	33.1	1.03	33	82.3	5.0	27.2	6.8
ST 4498 B2RF	549	43.8	34.0	1.02	33	83.1	5.0	29.1	6.4
FM 958	525	42.9	31.9	1.13	36	81.6	5.3	31.6	4.7
FM 9058 F	519	41.3	30.2	1.13	36	82.4	4.6	31.3	4.5
FM 9180 B2F	517	39.9	30.0	1.10	35	81.5	4.4	29.6	5.2
PHY 72	483	40.3	31.2	1.11	36	82.0	4.7	33.4	6.3
Experimental Average	***600***	***41.7***	***32.1***	***1.06***	***34***	***81.5***	***4.8***	***28.6***	***6.0***

* LSD (0.05) = 137 lbs.; LSD (0.01) = 181 lbs.

Table 14. Three Year Dryland Cotton Variety Test Results near Tipton, 2007-2009.

Variety	Lint Yield (lbs./A)	Lint Percentage		Fiber Length	Uniformity			Fiber Strength	Elongation
		Picked	Pulled		32's	Ratio	Micronaire		
PHY 315 RF	796*	45.2	34.3	1.06	34	81.7	5.5	28.7	6.9
CG 3035 RF	787	45.0	34.5	1.05	34	82.0	5.0	27.9	7.9
PHY 375 WRF	786	44.5	34.2	1.04	33	80.8	5.2	28.6	6.5
CG 3220 B2RF	785	42.9	33.3	1.01	32	81.4	5.3	27.1	7.4
DP 555 BG/RR	781	48.7	38.3	1.07	34	79.6	5.2	28.2	5.5
ST 5458 B2RF	756	42.2	33.0	1.06	34	80.9	5.2	29.4	6.0
NG 3410 RF	755	41.9	32.6	1.06	34	80.3	4.5	27.0	5.8
CG 3020 B2RF	739	41.4	31.8	1.03	33	81.4	4.8	26.2	6.8
NG 3348 B2RF	732	40.8	32.4	1.05	34	81.0	4.7	27.0	5.9
FM 9058 F	726	42.4	31.2	1.12	36	81.2	4.8	29.1	5.2
All-Tex Atlas RR	720	39.1	30.0	0.98	31	80.0	4.9	29.1	6.7
AM 1532 B2RF	715	41.7	31.1	1.08	35	80.8	4.6	26.4	6.8
FM 958	699	43.1	32.1	1.11	36	81.4	5.4	31.2	5.1
CG 4020 B2RF	692	41.0	31.2	1.05	34	80.5	4.5	26.2	6.6
ST 4554 B2RF	691	42.3	32.3	1.06	34	82.1	5.1	32.8	7.8
NG 2448 R	680	39.4	31.0	1.01	32	81.0	4.6	29.8	6.5
PHY 485 WRF	680	42.1	32.4	1.01	32	81.8	5.1	29.1	7.7
CG 3520 B2RF	676	40.1	30.0	1.10	35	81.2	4.5	27.3	7.4
DP 143 B2RF	673	41.0	31.7	1.09	35	81.7	5.0	28.3	6.1
ST 4498 B2RF	672	44.1	34.1	1.01	32	82.5	5.0	29.9	7.3
PHY 72	538	40.2	30.1	1.10	35	82.6	4.6	35.1	6.8
Experimental Average	***718***	***42.3***	***32.5***	***1.05***	***34***	***81.2***	***4.9***	***28.8***	***6.6***

* LSD (0.05) = 145 lbs.; LSD (0.01) = 190 lbs.

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