

2011 COTTON OVT VARIETY TRIALS

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Introduction

The University of Georgia 2011 Cotton Variety Trials (OVT) were conducted at five locations across Georgia, spanning the cotton belt from southwest to northeast Georgia. Irrigated trials were conducted on-farm in Decatur County and at University research stations and/or education centers in Midville, Plains, and Tifton. Dryland trials were conducted on University research stations and/or education centers in Athens, Midville, Plains, and Tifton. Performance data in these tables, combined with data from previous years should assist growers in variety selection, one of the most important if not most important decisions in an economically viable cotton production plan. Data collected from the University of Georgia Variety Testing Cotton Program can be found at the Statewide Variety Testing Website: www.swvt.uga.edu Also, the data is published in the UGA Agricultural Experiment Station Annual Publication 104-3, January 2012.

Materials and Methods

The University of Georgia conducts Official Cotton Variety(OVT) and Strain(OST) trials across Georgia to provide Growers, Private Industry, Extension Specialist, and County Agents with performance data to help in selecting varieties. Data from the OVT assists the private seed companies assess the fit of their products in Georgia. The University of Georgia cotton OVT is conducted by J. LaDon Day, Program Director, Cotton OVT, Griffin, GA. along with Mr. Larry Thompson, Research Professional I, Tifton, GA. The OVT is split into variety and strain trials with placement of varieties or strains into the particular trial chosen by its owner. Trials are separated by maturity. Irrigated OVT trials are conducted at Bainbridge, Midville, Plains, and Tifton, while dryland OVTs are conducted at Athens, Midville, Plains, and Tifton, thus varieties placed into the OVT are included in eight trials per year, giving a fair size data set with which to evaluate variety performance. The strains trials are irrigated and conducted at Midville, Plains, and Tifton. Trials consist of 4-replicate, randomized complete block designs. An accepted, common, management system is employed at each location for agronomic and pest management, but transgenic cultivars are not produced according to their intended pest management system(s). A random quality sample was taken on the picker during harvest and ginned to measure lint fraction on all plots including the irrigated early and late maturing trial at Tifton, but the remaining portion of the seed cotton from the early and later maturity plots was bagged and sent to the Micro Gin at Tifton for processing. All fiber samples were submitted to Starlab, Knoxville, TN. for HVI analyses. Trials were picked with a state-of-the-art harvest system composed of an International IH 1822 picker fitted with weigh baskets and suspended from load cells. This system

allows one person to harvest yield trials where the established bag-and-weigh approach required eight people or more. The electronic weigh system allowed for timely harvest of yield trials. Data from all trials and combined analyses over locations and years are reported as soon as fiber data are available from the test lab in Adobe pdf and Excel formats on the UGA Cotton Team Website maintained at www.ugacotton.com. Also, the data is available at the Statewide Variety Testing Website: www.swvt.uga.edu.

Results and Discussion

The spring of 2011 began with abnormally dry soil, completely different than March 2010 wet and cold soil conditions. However, during early spring most areas did have enough moisture for seeding. Planting progressed ahead of 5-year averages. Plant stands and early season growth were good in most areas. Due to a dry April, in early May less than half of the state had adequate moisture, as the lack of rainfall and high temperatures continued into the end of May, 2/3 of the state was under a severe drought. Producers quickly fell behind in crop progress to late planting their crops or not planting at all. Most of the non-irrigated crops were severely damaged beyond salvage from the high heat and lack of moisture. Irrigation, which began at planting, struggled to keep up over much of the state throughout the summer and fall. Insects were a concern in most areas.

Crop maturity progressed ahead of the 5-year average and harvest conditions during 2011 were excellent. In 2011 cotton farmers seeded 1.60 million acres, 20% more than last year. Cotton per acre yield in 2011 of 837 pounds was two percent higher than last year and the highest per acre yield in six years. This yield level totaled over harvested acres of cotton produced a new record for cotton production in Georgia (2.7 million bales).

Among varieties in the Dryland Earlier Maturity Trials, PHY 499WRF, AM1511 B2RF, DP 0912 B2RF, and DP 1028 B2RF stand out as varieties with high yield and relative yield stability in the dryland trials averaged over four locations (Table 1). There were also 12 other varieties above average in yield (Table 1). When summarized over two years and four locations PHY 499 WRF was the top performer, while four other varieties were above average (Table 2).

Among the best performing earlier maturing varieties produced under irrigation, DP 0912 B2RF, PHY 499WRF, AM1511 B2RF, DP 1028B2RF, CG 3787 B2RF, ST 4145LLB2, DP 1133 B2RF, and AllTex ATX3039 B2RF were the top eight highest in yield when averaged over locations (Table 3). Thirteen other varieties performed well and were above average in yield (Table 3). PHY 499 WRF and DP 0920B2RF were the top yielding group when averaged over two years and locations in the Irrigated Early Maturity Trials conducted at Bainbridge, Midville, Plains, and Tifton. Five other varieties were above average in yield (Table 4).

The top yielding later maturity variety in the trial conducted without irrigation and averaged over four locations revealed the consistent performance of PHY 499WRF, AM1511 B2RF, DP 1137 B2RF, and BX 1262B2F (Table 5). An additional eight varieties were above average in yield (Table 5). Averaged over locations and years, PHY 499 WRF was the front runner along with four other varieties that yielded above average lint (Table 6).

Under irrigation, in the top significant group of the standard later maturing trials averaged over locations PHY 499 WRF, AM1511 B2RF, DP1252 B2RF, DP 1050 B2RF and MON 10R051 B2RF were the top five yielding varieties (Table 7). Five other varieties were above average in lint yield (Table 7). Averaged over locations and two years, PHY 499 WRF, DP 1252 B2RF and DP 1050 B2RF were the three front runners, while three other varieties were above average in yield (Table 8).

The Earlier Maturity and Later Maturity Strains Trials (OST) portend improved varieties for crop seasons 2012 and beyond (Tables 9). Varieties from All-Tex, Americot, Dyna-Gro, Georgia, and Monsanto DP were high yielding performer among standard earlier and later maturing entries in the strains trial.

In order to compare 'small gin' seed/lint with samples processed through the Micro-gin (MG) on the Tifton Campus, data from the Tifton, Georgia, 2011, Early and Later Maturity cotton variety performance, irrigated, respectively, is presented in Table 10 and Table 11. The seed cotton from the 2011 Early and Later Maturity experiments were sub-sampled during picking, the seed separated using a small gin and for HVI analysis processed by Starlab in Knoxville, Tennessee. The remaining seed cotton was processed through the Micro-gin, Tifton Campus and also for HVI analysis sent to Starlab in Knoxville, TN.

In summary, several new varieties described herein portend potentially higher yields and improved fiber packages available to Georgia growers.

Table 1. Yield Summary for Dryland Earlier Maturity Cotton Varieties, 2011

Variety	Lint Yield ^a					Lint %	Unif. Index %	Length in	Strength g/tex	Mic. units
	Athens	Midville	Plains lb/acre	Tifton	4-Loc. Average					
PHY 499 WRF	1725 ³	1238 ¹	604 ¹⁰	2067 ²	1409 ¹	46.2	83.9	1.10	31.1	4.4
AM1511 B2RF	1778 ¹	1123 ²	648 ³	1946 ⁵	1374 ²	45.5	83.8	1.09	30.3	4.5
DP 0912 B2RF	1544 ⁷	1116 ³	687 ¹	1964 ⁴	1328 ³	43.5	83.8	1.12	29.9	4.7
DP 1028 B2RF	1395 ¹³	1039 ⁵	672 ²	2130 ¹	1309 ⁴	47.2	84.1	1.13	27.9	4.5
AM 1550 B2RF	1678 ⁴	997 ⁹	606 ⁹	1710 ¹²	1248 ⁵	43.6	83.7	1.10	26.8	4.4
BX 1262B2F	1773 ²	1002 ⁸	381 ³⁰	1808 ⁹	1241 ⁶	42.6	83.3	1.13	31.2	4.1
All-Tex 7A21	1607 ⁶	989 ¹¹	475 ²⁷	1843 ⁷	1228 ⁷	44.1	83.7	1.13	30.1	4.5
Dyna-Gro 2570B2RF	1450 ¹¹	961 ¹⁴	553 ¹⁷	1916 ⁶	1220 ⁸	42.6	83.7	1.11	29.6	4.4
ST 4288B2F	1663 ⁵	982 ¹³	500 ²⁵	1709 ¹³	1214 ⁹	40.8	83.5	1.13	28.0	4.3
CG 3787 B2RF	1463 ¹⁰	994 ¹⁰	581 ¹²	1805 ¹⁰	1211 ¹⁰	46.3	84.2	1.13	28.1	4.5
DP 0920 B2RF	1321 ²²	840 ²⁴	607 ⁸	1986 ³	1189 ¹¹	43.8	83.8	1.13	26.9	4.3
DP 0924 B2RF	1505 ⁹	1011 ⁷	528 ²¹	1628 ¹⁷	1168 ¹²	42.4	83.7	1.10	28.4	4.5
ST 4145LLB2	1371 ¹⁶	1063 ⁴	518 ²³	1666 ¹⁶	1155 ¹³	43.6	83.0	1.11	29.8	4.2
PHY 375 WRF	1341 ²¹	949 ^{16T}	476 ²⁶	1838 ⁸	1151 ¹⁴	44.1	83.4	1.09	28.3	4.1
BRS293	1512 ⁸	986 ¹²	459 ²⁸	1625 ¹⁸	1146 ¹⁵	41.4	83.1	1.10	32.9	4.7
All-Tex ATX3039 B2RF	1433 ¹²	939 ¹⁷	431 ²⁹	1708 ¹⁴	1128 ¹⁶	44.6	82.5	1.11	26.7	4.1
BRS286	1306 ²⁵	859 ²³	614 ⁷	1687 ¹⁵	1116 ¹⁷	41.0	82.9	1.09	30.3	4.3
DP 0949B2RF	1357 ¹⁷	949 ^{16T}	566 ¹⁵	1566 ²¹	1109 ^{18T}	44.5	83.3	1.12	30.0	4.7
BX 1252LLB2	1376 ¹⁵	886 ²⁰	627 ⁵	1549 ²³	1109 ^{18T}	42.1	83.6	1.12	30.9	4.3
All-Tex LA122	1355 ¹⁹	916 ¹⁸	578 ¹³	1541 ²⁴	1098 ¹⁹	44.4	83.4	1.11	27.8	4.3
DP 1133 B2RF	1240 ²⁸	793 ²⁶	542 ¹⁸	1774 ¹¹	1087 ^{20T}	45.3	84.2	1.13	30.7	4.6
GA2004143	1352 ²⁰	874 ²¹	555 ¹⁶	1567 ²⁰	1087 ^{20T}	45.2	83.8	1.15	31.9	4.4
PHY 367 WRF	1318 ²³	958 ¹⁵	645 ⁴	1425 ²⁹	1086 ²¹	43.9	83.6	1.12	29.7	4.2
All-Tex ATX81144	1356 ¹⁸	1036 ⁶	511 ²⁴	1426 ²⁸	1082 ²²	41.3	84.7	1.21	32.3	3.7
SSG HQ 210 CT	1313 ²⁴	862 ²²	588 ¹¹	1552 ²²	1079 ²³	41.4	82.6	1.10	30.7	4.6
BCSX 1150B2RF	1383 ¹⁴	888 ¹⁹	534 ¹⁹	1430 ²⁷	1059 ²⁴	40.4	84.1	1.17	31.8	4.1
FM1740B2RF	1241 ²⁷	816 ²⁵	567 ¹⁴	1518 ²⁵	1035 ²⁵	43.2	83.2	1.12	28.5	4.2
GA2006106	1253 ²⁶	754 ^{28T}	618 ⁶	1401 ³⁰	1006 ²⁶	41.9	83.6	1.15	31.9	4.3
SSG CT310 HQ	1166 ²⁹	754 ^{28T}	519 ²²	1569 ¹⁹	1002 ²⁷	39.9	83.4	1.12	33.4	4.5
SSG CT Linwood	872 ³¹	761 ²⁷	531 ²⁰	1348 ³¹	878 ²⁸	43.4	82.9	1.08	31.9	4.9
GA2008057	1004 ³⁰	621 ²⁹	317 ³¹	1493 ²⁶	859 ²⁹	41.0	84.3	1.16	32.8	4.3
Average	1402	934	550	1684	1142	43.3	83.6	1.12	30.0	4.4
LSD 0.10	254	128	N.S. ^b	305	144	1.2	0.7	0.02	1.3	0.2
CV %	15.4	11.7	31.1	15.4	17.2	1.9	0.9	2.19	4.7	5.1

^a Superscripts indicate ranking at that location.

^b The F-test indicated no statistical differences at the alpha = .10 probability level; therefore a LSD value was not calculated.

Bolding indicates entries not significantly different from highest yielding entry based on Fisher's protected LSD (P = 0.10).

Table 2. Two-Year Summary for Dryland Earlier Maturity Cotton Varieties at Four Locations^a, 2010-2011

Variety	Lint Yield lb/acre	Lint %	Uniformity		Length inches	Strength g/tex	Micronaire units
			Index %				
PHY 499 WRF	1303	46.2	83.5		1.09	31.2	4.6
DP 1028 B2RF	1194	47.2	83.3		1.11	28.1	4.8
DP 0912 B2RF	1187	43.7	82.9		1.08	29.2	4.9
PHY 375 WRF	1072	44.5	82.9		1.08	27.9	4.3
Dyna-Gro 2570B2RF	1067	43.0	83.1		1.09	29.4	4.6
AM 1550 B2RF	1055	43.4	83.0		1.08	26.7	4.5
DP 0920 B2RF	1052	44.2	82.9		1.11	26.7	4.5
All-Tex 7A21	1042	44.3	83.3		1.13	29.9	4.7
All-Tex LA122	1033	44.3	83.2		1.11	27.9	4.5
DP 0924 B2RF	1026	43.1	82.7		1.07	28.1	4.7
ST 4288B2F	1023	40.8	82.4		1.10	27.4	4.5
PHY 367 WRF	1020	43.7	82.7		1.11	29.2	4.3
FM1740B2RF	977	43.3	82.6		1.09	28.5	4.5
GA2006106	966	41.9	82.8		1.15	31.6	4.5
SSG CT Linwood	864	43.1	82.3		1.07	31.4	5.0
Average	1059	43.8	82.9		1.10	28.9	4.6
LSD 0.10	73	0.4	0.4		0.02	0.7	0.1
CV %	16.8	2.0	0.9		2.54	4.5	5.3

^a Athens, Midville, Plains, and Tifton.

Bolding indicates entries not significantly different from highest yielding entry based on Fisher's protected LSD (P = 0.10).

Table 3. Yield Summary for Earlier Maturity Cotton Varieties, 2011, Irrigated

Variety	Lint Yield ^a					Lint %	Unif. Index %	Length in	Strength g/tex	Mic. units
	Bainbridge	Midville	Plains	Tifton	4-Loc. Average					
	lb/acre									
DP 0912 B2RF	1847 ⁵	2924 ²	2022 ²	1830 ⁸	2156 ¹	43.7	84.0	1.14	29.5	4.7
PHY 499 WRF	1877 ⁴	2957 ¹	1778 ¹⁴	1946 ²	2139 ²	46.5	84.9	1.15	32.4	4.6
AM1511 B2RF	1886 ³	2637 ⁵	1957 ³	1979 ¹	2115 ³	45.7	84.4	1.15	29.9	4.7
DP 1028 B2RF	1942 ¹	2777 ³	1664 ²⁰	1918 ³	2075 ⁴	46.2	85.1	1.15	28.6	4.8
CG 3787 B2RF	1781 ⁶	2547 ¹²	1908 ⁸	1914 ⁴	2038 ⁵	44.7	84.9	1.16	29.3	4.6
ST 4145LLB2	1566 ²⁰	2494 ¹⁸	2150 ¹	1806 ¹⁰	2004 ⁶	42.7	84.7	1.18	32.6	4.2
DP 1133 B2RF	1928 ²	2335 ²⁶	1947 ⁴	1752 ^{16T}	1991 ⁷	45.9	85.3	1.17	31.9	4.6
All-Tex ATX3039 B2RF	1593 ¹⁸	2741 ⁴	1912 ⁷	1713 ²²	1990 ⁸	44.1	84.1	1.16	28.5	4.3
PHY 375 WRF	1684 ¹⁰	2528 ¹⁶	1806 ¹²	1783 ¹¹	1950 ⁹	44.2	84.3	1.16	29.0	4.4
BX 1262B2F	1667 ¹²	2534 ^{13T}	1821 ¹¹	1732 ²⁰	1938 ¹⁰	43.3	84.7	1.18	30.8	4.6
BX 1252LLB2	1681 ¹¹	2567 ¹¹	1849 ⁹	1605 ²⁸	1926 ¹¹	42.7	84.3	1.18	30.9	4.5
PHY 367 WRF	1640 ¹⁴	2328 ²⁷	1931 ⁵	1778 ¹³	1919 ¹²	43.2	84.7	1.18	29.7	4.4
Dyna-Gro 2570B2RF	1761 ⁷	2426 ²²	1722 ¹⁷	1765 ¹⁵	1918 ¹³	42.5	84.7	1.17	30.4	4.5
BCSX 1150B2RF	1626 ¹⁵	2580 ¹⁰	1677 ¹⁸	1781 ¹²	1916 ¹⁴	40.1	85.2	1.22	33.7	4.7
DP 0920 B2RF	1507 ²⁵	2510 ¹⁷	1798 ¹³	1845 ⁶	1915 ¹⁵	44.0	84.4	1.16	28.2	4.6
DP 0949B2RF	1655 ¹³	2610 ⁶	1624 ²²	1752 ^{16T}	1910 ¹⁶	44.2	84.7	1.17	30.8	4.8
GA2004143	1617 ¹⁶	2597 ⁸	1577 ²⁴	1841 ⁷	1908 ¹⁷	44.2	85.3	1.23	33.8	4.4
ST 4288B2F	1606 ¹⁷	2341 ²⁵	1924 ⁶	1737 ¹⁹	1902 ¹⁸	40.9	83.9	1.17	28.1	4.7
FM1740B2RF	1580 ¹⁹	2532 ¹⁴	1667 ¹⁹	1813 ⁹	1898 ¹⁹	43.3	84.0	1.16	29.1	4.4
All-Tex 7A21	1503 ²⁶	2490 ¹⁹	1848 ¹⁰	1745 ¹⁸	1897 ²⁰	44.2	84.8	1.19	31.1	4.6
DP 0924 B2RF	1468 ²⁸	2599 ⁷	1661 ²¹	1857 ⁵	1896 ²¹	43.1	84.7	1.15	30.6	4.8
AM 1550 B2RF	1526 ²²	2439 ²¹	1752 ¹⁶	1718 ²¹	1859 ²²	42.1	84.3	1.15	28.3	4.5
All-Tex ATX81144	1481 ²⁷	2530 ¹⁵	1595 ²³	1751 ¹⁷	1839 ²³	42.0	85.1	1.24	32.2	3.9
All-Tex LA122	1524 ²³	2387 ²³	1772 ¹⁵	1622 ²⁷	1826 ²⁴	44.2	84.8	1.17	29.1	4.4
GA2006106	1691 ⁹	2534 ^{13T}	1358 ²⁸	1677 ²³	1815 ²⁵	42.1	84.9	1.22	33.3	4.4
BRS293	1542 ²¹	2582 ⁹	1246 ³⁰	1769 ¹⁴	1785 ²⁶	41.7	84.1	1.17	34.2	4.6
SSG HQ 210 CT	1399 ²⁹	2451 ²⁰	1541 ²⁶	1629 ²⁶	1755 ²⁷	40.6	83.4	1.15	31.6	4.6
BRS286	1707 ⁸	2070 ²⁹	1567 ²⁵	1634 ²⁵	1745 ²⁸	41.5	83.4	1.13	31.7	4.5
SSG CT Linwood	1185 ³¹	2347 ²⁴	1256 ²⁹	1664 ²⁴	1613 ²⁹	42.6	84.8	1.12	33.6	5.0
SSG CT310 HQ	1522 ²⁴	2197 ²⁸	1194 ³¹	1526 ²⁹	1610 ³⁰	40.6	84.3	1.15	33.9	4.7
GA2008057	1302 ³⁰	1750 ³⁰	1452 ²⁷	1501 ³⁰	1501 ³¹	41.1	85.1	1.21	33.6	4.2
Average	1622	2495	1709	1754	1895	43.2	84.6	1.17	31.0	4.5
LSD 0.10	190	244	270	137	170	0.9	0.6	0.02	1.1	0.2
CV %	10.0	8.4	13.4	6.6	9.7	2.1	0.8	1.95	4.7	5.0

^a Superscripts indicate ranking at that location.

Bolding indicates entries not significantly different from highest yielding entry based on Fisher's protected LSD (P = 0.10).

**Table 4. Two-Year Summary for Earlier Maturity Cotton Varieties
at Four Locations^a, 2010-2011, Irrigated**

Variety	Lint Yield lb/acre	Lint %	Uniformity		Length inches	Strength g/tex	Micronaire units
			Index %				
PHY 499 WRF	1982	46.1	84.9		1.15	32.5	4.7
DP 0912 B2RF	1958	43.1	83.8		1.12	30.0	4.8
DP 1028 B2RF	1885	46.1	84.7		1.16	29.4	4.8
DP 0924 B2RF	1785	43.1	83.9		1.13	30.5	4.9
FM1740B2RF	1776	43.3	83.8		1.15	29.7	4.6
Dyna-Gro 2570B2RF	1773	42.5	84.4		1.16	30.3	4.6
PHY 375 WRF	1771	44.1	84.1		1.16	29.7	4.4
DP 0920 B2RF	1762	43.8	84.2		1.15	28.4	4.6
PHY 367 WRF	1752	42.9	84.1		1.17	30.4	4.2
AM 1550 B2RF	1740	42.6	83.8		1.13	28.4	4.5
ST 4288B2F	1726	40.6	83.5		1.16	28.5	4.7
All-Tex 7A21	1712	44.0	84.7		1.19	31.5	4.5
All-Tex LA122	1675	44.0	84.7		1.18	29.4	4.4
GA2006106	1603	41.7	84.6		1.22	33.5	4.4
SSG CT Linwood	1553	42.8	84.3		1.12	33.4	5.0
Average	1764	43.4	84.2		1.16	30.4	4.6
LSD 0.10	78	0.4	0.4		0.01	0.7	0.1
CV %	10.6	2.0	0.7		1.85	4.2	5.1

^a Bainbridge, Midville, Plains, and Tifton.

Bolding indicates entries not significantly different from highest yielding entry based on Fisher's protected LSD (P = 0.10).

Table 5. Yield Summary for Dryland Later Maturity Cotton Varieties, 2011

Variety	Lint Yield ^a					Lint %	Unif. Index %	Length in	Strength g/tex	Mic. units
	Athens	Midville	Plains lb/acre	Tifton	4-Loc. Average					
PHY 499 WRF	1515 ¹	1168 ¹	594 ⁹	2254 ¹	1383 ¹	46.6	83.6	1.11	31.4	4.5
AM1511 B2RF	1226 ⁹	1150 ²	762 ¹	1906 ^{6T}	1261 ²	45.4	83.4	1.09	29.9	4.6
DP 1137 B2RF	1407 ⁴	1056 ⁶	625 ^{8T}	1945 ⁴	1258 ^{3T}	45.2	83.9	1.11	28.5	4.6
BX 1262B2F	1411 ³	1146 ³	569 ¹³	1906 ^{6T}	1258 ^{3T}	44.3	83.0	1.12	30.3	4.5
DP 1050 B2RF	1365 ⁵	1025 ¹¹	680 ²	1905 ⁷	1244 ⁴	45.6	83.3	1.12	27.1	4.4
DP 1048 B2RF	1434 ²	1040 ⁸	632 ⁵	1814 ¹¹	1230 ⁵	45.4	83.5	1.11	27.9	4.4
DP 1034 B2RF	1284 ⁷	1032 ¹⁰	591 ¹⁰	1844 ¹⁰	1188 ⁶	45.0	83.4	1.12	27.3	4.4
DP 1252 B2RF	1169 ¹¹	840 ^{19T}	646 ⁴	2022 ²	1169 ⁷	46.5	83.7	1.11	28.1	4.6
ST 5288B2F	1123 ¹³	1042 ⁷	543 ¹⁴	1957 ³	1166 ^{8T}	42.9	83.1	1.10	27.1	4.4
MON 10R051 B2RF	1178 ¹⁰	1007 ^{13T}	628 ⁶	1850 ⁹	1166 ^{8T}	46.1	83.3	1.11	27.9	4.5
BX 1254LLB2	1276 ⁸	1014 ¹²	449 ¹⁹	1895 ⁸	1159 ⁹	43.5	82.6	1.12	30.3	4.5
ST 5458B2RF	1320 ⁶	1134 ⁴	535 ¹⁵	1626 ¹⁷	1154 ¹⁰	42.5	82.3	1.10	29.7	4.7
ST 4145LLB2	1158 ¹²	995 ¹⁵	576 ¹¹	1650 ¹⁹	1094 ¹¹	42.9	82.9	1.11	30.2	4.2
DP 1133 B2RF	1062 ¹⁷	840 ^{19T}	508 ¹⁶	1940 ⁵	1087 ¹²	45.5	83.7	1.10	31.0	4.7
GA2004230	1046 ¹⁸	1003 ¹⁴	571 ¹²	1657 ¹⁵	1069 ¹³	42.1	83.4	1.18	29.9	4.3
PHY 375 WRF	987 ¹⁹	976 ¹⁶	627 ⁷	1676 ¹³	1067 ¹⁴	44.2	82.9	1.10	27.8	4.1
PHY 565 WRF	1075 ^{16T}	1039 ⁹	480 ¹⁸	1658 ¹⁴	1063 ¹⁵	41.5	83.3	1.11	30.1	4.1
GA2007095	1075 ^{16T}	952 ¹⁷	625 ^{8T}	1558 ¹⁹	1052 ¹⁶	41.7	83.3	1.14	29.7	4.3
PHY 440 W	1114 ¹⁵	862 ¹⁸	650 ³	1536 ²⁰	1041 ¹⁷	42.1	83.7	1.10	31.0	4.1
BX 1252LLB2	1115 ¹⁴	1007 ^{13T}	386 ²¹	1593 ¹⁸	1025 ¹⁸	42.6	83.5	1.14	31.3	4.3
BX 1261B2F	892 ²¹	1082 ⁵	388 ²⁰	1690 ¹²	1013 ¹⁹	41.0	83.0	1.12	29.6	4.1
GA2008083	973 ²⁰	725 ²⁰	500 ¹⁷	1442 ²¹	910 ²⁰	45.6	82.5	1.09	31.7	4.5
Average	1191	1006	571	1787	1139	44.0	83.2	1.11	29.4	4.4
LSD 0.10	195	163	156	242	134	1.1	0.6	0.02	1.2	0.2
CV %	13.9	13.7	23.1	11.5	14.3	2.6	1.0	2.53	4.2	4.2

^a Superscripts indicate ranking at that location.

Bolding indicates entries not significantly different from highest yielding entry based on Fisher's protected LSD (P = 0.10).

Table 6. Two-Year Summary for Dryland Later Maturity Cotton Varieties at Four Locations^a, 2010-2011

Variety	Lint Yield lb/acre	Lint %	Uniformity		Length inches	Strength g/tex	Micronaire units
			Index %				
PHY 499 WRF	1267	46.5	83.4		1.09	31.3	4.6
DP 1050 B2RF	1144	46.2	83.3		1.11	27.4	4.6
DP 1137 B2RF	1143	45.6	83.4		1.10	27.9	4.7
DP 1048 B2RF	1115	45.8	83.1		1.10	27.7	4.6
DP 1034 B2RF	1081	45.4	83.1		1.11	27.6	4.6
DP 1252 B2RF	1063	46.9	83.3		1.10	28.4	4.8
ST 5458B2RF	1040	42.8	82.0		1.09	29.3	4.8
ST 5288B2F	1030	43.0	82.6		1.09	27.2	4.6
DP 1133 B2RF	1019	45.8	83.1		1.09	31.1	4.8
PHY 375 WRF	991	44.4	82.5		1.08	28.1	4.3
PHY 565 WRF	963	41.8	82.9		1.10	30.5	4.4
PHY 440 W	938	43.3	83.0		1.07	30.3	4.3
Average	1066	44.8	83.0		1.09	28.9	4.6
LSD 0.10	62	0.4	0.5		0.02	0.6	0.1
CV %	14.0	2.4	0.9		2.65	3.7	5.0

^a Athens, Midville, Plains, and Tifton.

Bolding indicates entries not significantly different from highest yielding entry based on Fisher's protected LSD (P = 0.10).

Table 7. Yield Summary for Later Maturity Cotton Varieties, 2011, Irrigated

Variety	Lint Yield ^a					Lint %	Unif. Index %	Length in	Strength g/tex	Mic. units
	Bainbridge	Midville	Plains	Tifton	4-Loc. Average					
	----- lb/acre -----									
PHY 499 WRF	1932 ¹	3021 ¹	1689 ⁹	2072 ¹	2179 ¹	44.7	85.0	1.15	32.4	4.4
AM1511 B2RF	1665 ⁹	2786 ⁵	1995 ¹	1976 ³	2105 ²	44.9	84.7	1.15	30.2	4.7
DP 1252 B2RF	1782 ²	2864 ²	1778 ⁵	1958 ⁵	2095 ³	46.2	85.1	1.17	29.2	4.5
DP 1050 B2RF	1693 ⁸	2769 ⁶	1840 ³	2027 ²	2082 ⁴	46.0	85.1	1.18	28.4	4.6
MON 10R051 B2RF	1749 ⁵	2794 ⁴	1838 ⁴	1877 ¹⁰	2064 ⁵	45.7	85.5	1.18	28.3	4.6
DP 1137 B2RF	1727 ⁶	2863 ³	1682 ¹⁰	1887 ⁹	2040 ⁶	45.0	85.0	1.16	28.5	4.5
DP 1048 B2RF	1584 ¹³	2570 ¹⁵	1957 ²	1965 ⁴	2019 ⁷	44.3	85.0	1.18	28.6	4.4
ST 4145LLB2	1774 ³	2456 ¹⁹	1755 ⁸	1897 ⁸	1971 ⁸	41.7	85.1	1.17	31.9	4.3
BX 1262B2F	1771 ⁴	2638 ¹²	1618 ¹²	1853 ¹¹	1970 ⁹	42.3	84.8	1.18	31.1	4.5
DP 1034 B2RF	1537 ¹⁴	2624 ¹³	1777 ⁶	1933 ⁶	1968 ¹⁰	45.8	85.1	1.19	27.6	4.6
BX 1252LLB2	1708 ^{7T}	2754 ⁷	1486 ¹⁸	1732 ¹⁷	1920 ¹¹	41.9	85.0	1.19	31.5	4.5
DP 1133 B2RF	1636 ^{11T}	2410 ²¹	1768 ⁷	1848 ¹²	1916 ¹²	45.1	85.6	1.18	31.7	4.6
PHY 375 WRF	1505 ¹⁶	2674 ⁹	1491 ¹⁷	1901 ⁷	1893 ¹³	43.8	84.3	1.17	29.4	4.2
ST 5288B2F	1708 ^{7T}	2425 ²⁰	1637 ¹¹	1782 ¹³	1888 ¹⁴	42.1	84.1	1.16	28.8	4.5
ST 5458B2RF	1484 ¹⁷	2710 ⁸	1562 ¹⁵	1772 ¹⁴	1882 ¹⁵	41.9	84.3	1.18	31.4	4.8
GA2007095	1663 ¹⁰	2576 ¹⁴	1545 ¹⁶	1729 ¹⁸	1878 ¹⁶	42.0	84.5	1.18	31.3	4.6
GA2004230	1636 ^{11T}	2524 ¹⁶	1571 ¹⁴	1709 ¹⁹	1860 ¹⁷	41.9	84.7	1.24	31.4	4.4
GA2008083	1631 ¹²	2646 ¹¹	1341 ²²	1641 ²¹	1815 ¹⁸	44.3	84.4	1.18	31.3	4.6
BX 1254LLB2	1394 ¹⁹	2503 ¹⁸	1584 ¹³	1770 ¹⁵	1813 ¹⁹	43.3	84.4	1.19	31.6	4.9
PHY 565 WRF	1519 ¹⁵	2509 ¹⁷	1368 ²⁰	1767 ¹⁶	1791 ²⁰	42.0	85.1	1.18	31.9	4.3
BX 1261B2F	1433 ¹⁸	2652 ¹⁰	1351 ²¹	1677 ²⁰	1778 ²¹	40.6	84.8	1.18	29.9	4.2
PHY 440 W	1193 ²⁰	2383 ²²	1480 ¹⁹	1591 ²²	1662 ²²	41.1	84.8	1.16	30.7	4.4
Average	1624	2643	1642	1835	1936	43.5	84.8	1.18	30.3	4.5
LSD 0.10	157	227	213	138	135	1.1	0.6	0.02	1.1	0.2
CV %	8.2	7.3	11.0	6.4	8.2	2.2	0.7	1.86	3.7	4.9

^a Superscripts indicate ranking at that location.

Bolding indicates entries not significantly different from highest yielding entry based on Fisher's protected LSD (P = 0.10).

**Table 8. Two-Year Summary for Later Maturity Cotton Varieties
at Four Locations^a, 2010-2011, Irrigated**

Variety	Lint Yield lb/acre	Lint %	Uniformity		Length inches	Strength g/tex	Micronaire units
			Index %				
PHY 499 WRF	1893	45.0	84.6		1.14	32.5	4.6
DP 1252 B2RF	1841	46.1	84.7		1.17	29.3	4.7
DP 1050 B2RF	1840	46.0	84.8		1.17	28.6	4.7
DP 1137 B2RF	1803	45.3	84.5		1.15	29.0	4.7
DP 1034 B2RF	1794	45.9	84.7		1.18	28.0	4.7
DP 1048 B2RF	1794	44.7	84.7		1.17	28.5	4.6
PHY 375 WRF	1744	43.8	84.1		1.16	29.4	4.3
DP 1133 B2RF	1731	45.1	85.3		1.18	32.0	4.7
ST 5458B2RF	1690	42.3	83.9		1.17	31.4	4.9
PHY 565 WRF	1687	42.7	84.5		1.18	32.2	4.2
ST 5288B2F	1684	42.7	83.4		1.15	28.9	4.6
PHY 440 W	1486	41.6	84.1		1.15	30.6	4.5
Average	1749	44.3	84.4		1.16	30.0	4.6
LSD 0.10	67	0.4	0.4		0.01	0.7	0.1
CV %	9.3	2.4	0.7		1.92	3.8	5.2

^a Bainbridge, Midville, Plains, and Tifton.

Bolding indicates entries not significantly different from highest yielding entry based on Fisher's protected LSD (P = 0.10).

Table 9. Yield Summary for Cotton Strains, 2011, Irrigated

Variety	Lint Yield ^a				Lint %	Unif. Index %	Length inches	Strength g/tex	Mic. units
	Midville	Plains	Tifton	3-Loc. Average					
	----- lb/acre -----								
DP 1050 B2RF	2973 ¹	1858 ¹	2016 ⁴	2282 ¹	46.1	85.2	1.19	27.7	4.5
CT11622	2708 ⁴	1840 ²	2092 ¹	2213 ²	44.4	85.4	1.18	28.8	4.3
All-Tex 9C253 B2RF	2750 ³	1697 ⁴	1946 ⁷	2131 ³	44.2	84.9	1.17	31.7	4.9
DP 1044 B2RF	2782 ²	1515 ¹⁰	2049 ³	2115 ⁴	41.2	84.3	1.17	28.2	4.2
DP 1219 B2RF	2687 ⁵	1558 ⁸	2082 ²	2109 ⁵	42.2	84.8	1.20	32.9	4.2
MON 10R020 B2RF	2524 ⁹	1815 ³	1939 ⁸	2092 ⁶	42.9	84.2	1.14	28.0	4.6
GA2009100	2677 ⁶	1571 ⁷	1982 ⁵	2077 ⁷	44.3	85.2	1.20	33.9	4.0
MON 11R159 B2RF	2672 ⁷	1423 ¹²	1966 ⁶	2021 ⁸	43.3	84.6	1.21	33.3	4.4
AMX003 B2RF	2422 ¹¹	1658 ⁵	1802 ¹²	1961 ⁹	45.1	84.8	1.19	28.5	4.7
CT11212	2417 ¹²	1550 ⁹	1909 ⁹	1959 ¹⁰	43.7	85.0	1.16	28.0	4.7
DP 1212 B2RF	2478 ¹⁰	1477 ¹¹	1846 ¹⁰	1934 ¹¹	42.2	85.1	1.22	30.4	4.8
PHY 440 W	2282 ¹⁶	1611 ⁶	1731 ¹³	1875 ¹²	41.6	84.8	1.17	30.5	4.4
GA2009148	2393 ¹³	1359 ¹³	1845 ¹¹	1866 ¹³	42.9	84.4	1.17	32.2	4.7
GA2009037	2586 ⁸	1231 ¹⁶	1692 ¹⁵	1836 ¹⁴	42.3	83.9	1.19	30.3	4.5
All-Tex 9W2863 B2RF	2274 ¹⁷	1348 ¹⁴	1693 ¹⁴	1772 ¹⁵	41.2	85.5	1.22	31.8	4.5
GA2008016	2370 ¹⁴	1274 ¹⁵	1508 ¹⁷	1717 ¹⁶	41.6	84.8	1.18	33.7	4.6
GA2009180	2362 ¹⁵	1090 ¹⁸	1459 ¹⁸	1637 ¹⁷	40.2	84.9	1.22	34.5	4.2
GA2009147	2126 ¹⁸	1136 ¹⁷	1530 ¹⁶	1597 ¹⁸	40.7	83.6	1.20	32.3	4.0
Average	2527	1501	1838	1955	42.8	84.7	1.19	30.9	4.4
LSD 0.10	227	233	159	159	1.1	0.6	0.02	1.2	0.3
CV %	7.6	13.1	7.3	9.0	2.7	0.8	2.19	3.7	5.9

^a Superscripts indicate ranking at that location.

Bolding indicates entries not significantly different from highest yielding entry based on Fisher's protected LSD (P = 0.10).

Table 10. Tifton, Georgia: Later Maturity Cotton Variety Performance including Micro-Gin Quality Data, 2011, Irrigated

Variety	Lint	MG ¹ Lint	MG ¹		Unif.	MG ¹	MG ¹		MG ¹		MG ¹	MG ¹
	Yield	Yield	Lint	Lint	Index ²	Unif.	Length ²	Length	Strength ²	Strength*	Mic. ²	Mic.
	lb/acre	lb/acre	%	%	%	%	inches	inches	g/tex	g/tex	units	units
AM1511 B2RF	1976	1768	45.8	40.7	84.8	83.2	1.15	1.15	29.7	31.4	4.6	4.9
BX 1252LLB2	1732	1633	41.7	38.2	85.2	83.3	1.20	1.18	31.6	32.4	4.0	4.7
BX 1254LLB2	1770	1670	42.6	39.1	84.8	83.1	1.19	1.18	33.2	32.5	4.6	5.0
BX 1261B2F	1677	1629	39.1	36.9	85.2	83.3	1.16	1.16	30.9	31.9	3.9	4.4
BX 1262B2F	1853	1766	42.2	39.0	84.5	83.3	1.18	1.17	31.1	31.8	4.2	4.7
DP 1034 B2RF	1933	1760	46.9	41.6	84.6	83.4	1.17	1.17	26.5	29.3	4.6	4.7
DP 1048 B2RF	1965	1865	45.6	41.8	85.0	83.4	1.18	1.17	28.9	28.7	4.4	4.7
DP 1050 B2RF	2027	1923	46.4	42.7	85.2	83.2	1.19	1.17	27.2	28.1	4.6	4.6
DP 1133 B2RF	1848	1717	45.7	41.3	85.4	84.1	1.17	1.16	32.3	32.6	4.4	4.8
DP 1137 B2RF	1887	1817	44.8	41.9	85.3	82.5	1.17	1.13	29.4	29.1	4.3	4.9
DP 1252 B2RF	1958	1922	45.5	43.4	85.2	83.0	1.18	1.14	28.6	29.6	4.2	4.8
GA2004230	1709	1576	43.1	38.6	83.5	83.9	1.22	1.24	30.9	31.8	4.3	4.4
GA2007095	1729	1611	42.4	38.2	84.2	83.3	1.17	1.18	30.9	31.8	4.3	4.4
GA2008083	1641	1526	43.9	39.6	84.9	83.0	1.19	1.18	31.7	32.4	4.3	4.7
MON 10R051 B2RF	1877	1762	46.1	42.1	85.8	83.3	1.17	1.15	29.7	29.0	4.5	4.7
PHY 375 WRF	1901	1769	43.7	39.4	84.6	82.7	1.17	1.15	28.8	29.3	4.1	4.6
PHY 440 W	1591	1501	40.7	37.2	84.6	83.3	1.15	1.15	32.2	31.3	4.3	4.5
PHY 499 WRF	2072	1966	44.8	41.5	84.6	83.5	1.13	1.15	32.4	31.6	4.3	4.9
PHY 565 WRF	1767	1654	41.4	37.7	85.0	83.4	1.21	1.19	32.0	32.0	3.9	4.5
ST 4145LLB2	1897	1730	41.6	37.1	85.9	83.4	1.19	1.17	32.8	31.8	3.8	4.4
ST 5288B2F	1782	1642	42.9	38.3	84.1	82.6	1.14	1.16	29.8	28.6	4.3	4.8
ST 5458B2RF	1772	1682	41.6	38.2	83.6	83.2	1.17	1.18	32.5	32.1	4.6	5.1
Average	1835	1722	43.6	39.8	84.8	83.2	1.17	1.17	30.6	30.9	4.3	4.7
LSD 0.10	138	117	1.2	0.5	1.1	0.5	0.04	0.02	2.3	1.1	N.S. ¹	0.2
CV %	6.4	5.8	2.3	1.1	0.8	0.5	2.11	1.43	4.4	2.9	6.8	3.6

1. Micro-Gin quality samples are from total seed cotton harvested from each plot.

2. A random quality sample was taken on the picker during cotton harvest.

3. The F-test indicated no statistical differences at the alpha = .10 probability level; therefore a LSD value was not calculated.

Bolding indicates entries not significantly different from highest yielding entry based on Fisher's protected LSD (P = 0.10).

Planted: April 27, 2011.

Harvested: September 12, 2011.

Soil Type: Tifton loamy sand.

Fertilization: 78 lb N, 54 lb P₂O₅, and 108 lb K₂O/acre.

Management: Temik applied 5 lb/acre.

	April	May	June	July	Aug.	Sept.
Irrigation (in):	0.50	2.30	3.00	1.00	1.00	0
Rainfall (in):	1.48	0	1.94	4.06	1.26	4.53

Trials conducted by Larry Thompson.

Table 11. Tifton, Georgia: Earlier Maturity Cotton Variety Performance including Micro-Gin Quality Data, 2011, Irrigated

Variety	Lint	MG ¹ Lint	MG ¹	Unif.	MG ¹	MG ¹	MG ¹	MG ¹	MG ¹	MG ¹	MG ¹	MG ¹
	Yield	Yield	Lint	Lint	Index ²	Unif.	Length ²	Length	Strength ²	Strength*	Mic. ²	Mic.
	lb/acre	lb/acre	%	%	%	%	inches	inches	g/tex	g/tex	units	units
All-Tex 7A21	1745	1588	45.0	40.0	84.8	83.4	1.16	1.17	31.8	31.7	4.9	5.0
All-Tex ATX3039 B2RF	1713	1549	44.5	39.6	83.8	82.5	1.16	1.15	27.7	28.2	4.5	4.5
All-Tex ATX81144	1751	1576	42.1	37.7	85.3	84.3	1.22	1.23	32.8	33.4	4.0	4.1
All-Tex LA122	1622	1522	43.9	40.5	84.1	83.0	1.15	1.16	28.8	27.9	4.4	4.5
AM 1550 B2RF	1718	1646	42.1	39.9	84.6	82.0	1.14	1.13	29.1	28.5	4.1	4.8
AM1511 B2RF	1979	1630	45.7	41.1	83.8	82.7	1.14	1.13	29.5	30.1	4.8	5.1
BCSX 1150B2RF	1781	1582	40.7	36.2	85.5	84.4	1.20	1.21	34.9	33.3	4.6	4.7
BRS286	1634	1524	40.7	38.0	82.8	82.0	1.10	1.12	31.9	30.7	4.5	4.7
BRS293	1769	1618	41.5	37.6	83.8	82.9	1.15	1.16	34.5	33.7	4.6	4.8
BX 1252LLB2	1605	1433	44.1	38.9	84.3	82.9	1.18	1.15	31.1	32.6	4.5	5.0
BX 1262B2F	1732	1451	43.3	39.2	84.5	83.2	1.19	1.16	31.4	30.6	4.3	4.8
CG 3787 B2RF	1914	1625	45.7	42.3	85.1	83.4	1.15	1.16	30.2	29.5	4.7	4.9
DP 0912 B2RF	1830	1683	43.1	39.4	84.4	82.4	1.13	1.11	30.5	29.3	4.6	5.3
DP 0920 B2RF	1845	1703	44.9	41.1	84.9	82.5	1.16	1.16	28.8	28.3	4.5	5.1
DP 0924 B2RF	1857	1647	44.4	38.8	84.8	82.8	1.13	1.12	31.4	30.3	5.0	5.2
DP 0949B2RF	1752	1616	45.1	40.9	84.6	82.7	1.17	1.14	32.5	30.5	4.9	5.2
DP 1028 B2RF	1918	1771	47.5	43.3	85.0	83.5	1.14	1.13	28.8	29.1	4.6	5.0
DP 1133 B2RF	1752	1609	46.0	41.8	85.4	84.3	1.16	1.16	33.3	31.9	4.4	5.0
Dyna-Gro 2570B2RF	1765	1700	42.3	39.9	84.4	83.0	1.15	1.15	30.9	29.9	4.3	4.8
FM1740B2RF	1813	1534	44.1	39.7	84.6	83.1	1.14	1.14	29.6	29.7	4.2	4.8
GA2004143	1841	1712	44.3	40.9	85.6	83.3	1.25	1.21	34.6	32.0	4.1	4.6
GA2006106	1677	1528	42.7	38.0	84.4	83.2	1.18	1.19	32.4	32.6	4.4	4.8
GA2008057	1501	1358	41.5	36.8	85.0	83.6	1.22	1.19	33.8	33.3	4.1	4.5
PHY 367 WRF	1778	1632	43.3	39.5	84.8	83.0	1.16	1.16	30.5	29.5	4.2	4.5
PHY 375 WRF	1783	1615	44.6	40.3	84.3	82.5	1.14	1.14	30.2	28.5	4.3	4.6
PHY 499 WRF	1946	1783	46.1	41.9	85.3	83.3	1.14	1.13	34.5	32.9	4.4	4.8
SSG CT Linwood	1664	1517	43.4	39.1	85.2	83.1	1.10	1.12	33.7	32.9	4.9	5.2
SSG CT310 HQ	1526	1429	40.6	36.3	84.3	83.1	1.13	1.15	34.2	34.8	4.5	4.7
SSG HQ 210 CT	1629	1567	39.9	37.8	83.9	81.8	1.16	1.13	32.7	31.5	4.7	5.0
ST 4145LLB2	1806	1596	43.1	37.7	84.8	83.4	1.16	1.17	34.3	31.1	3.9	4.6
ST 4288B2F	1737	1532	42.0	36.9	83.7	82.3	1.14	1.16	27.3	28.7	4.9	4.9
Average	1754	1590	43.5	39.4	84.6	83.0	1.16	1.15	31.5	30.9	4.5	4.8
LSD 0.10	137	175	0.9	0.7	1.1	0.6	0.04	0.02	2.3	1.2	0.4	0.2
CV %	6.6	9.3	1.7	1.5	0.8	0.6	1.97	1.71	4.3	3.3	5.4	2.9

1. Micro-Gin quality samples are from total seed cotton harvested from each plot.
2. A random quality sample was taken on the picker during cotton harvest.
3. The F-test indicated no statistical differences at the alpha = .10 probability level; therefore a LSD value was not calculated.

Bolding indicates entries not significantly different from highest yielding entry based on Fisher's protected LSD (P = 0.10).

Planted: April 27, 2011.

Harvested: September 12, 2011.

Soil Type: Tifton loamy sand.

Fertilization: 78 lb N, 54 lb P₂O₅, and 108 lb K₂O/acre.

Management: Temik applied 5 lb/acre.

Irrigation (in):

	April	May	June	July	Aug.	Sept.
	0.50	2.30	3.00	1.00	1.00	0

Rainfall (in):**27**

	April	May	June	July	Aug.	Sept.
	1.48	0	1.94	4.06	1.26	4.53

Trials conducted by Larry Thompson.