2014 COTTON OVT VARIETY TRIALS

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Introduction

The University of Georgia's 2014 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 UGA research and education centers in Midville, Plains, and Tifton. Dryland trials were conducted on university research and education centers in Athens, Midville, Plains, and Tifton. Performance data in these tables, combined with data from previous years should assist growers with 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 104-6, January 2015.

Materials and Methods

The University of Georgia conducts Official Cotton Variety (OVT) and Strain (OST) trials across Georgia to provide growers, private industry, Extension specialists, and county agents with performance data to help in selecting high yielding adapted varieties. Data from the OVT assists the private seed companies to assess the fit of their products in Georgia. The University of Georgia cotton OVT is conducted by John D. Gassett, Program Director, Cotton OVT, Griffin, GA, along with Henry Jordan Jr., Research Professional III, Griffin, GA; Dustin Dunn, Research Professional III, Tifton, GA; J. LaDon Day, Department of Crop and Soil Sciences Griffin, GA; and Anton Coy, Senior Agricultural Specialist, Tifton, GA. The OVT is split into released 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 four replicated, 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 microgin at Tifton for processing. All fiber samples were submitted to the USDA Classing Office in Macon, GA, 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, whereas 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

For the second year in a row, Georgia agronomic producers in 2014 were fortunate to have adequate soil moisture for planting combined with an abundance of rainfall. Prolonged and periodic precipitation events lead to spring plantings being delayed for many farmers in Georgia. Cooler than normal temperatures early in the planting season resulted in low soil temperatures and slowed germination for many crops. Irrigation needs did increase for much of the state in June, July, and August.

Seasonal rainfall amounts recorded at the five test locations in Georgia during 2014 are listed in the table below. Athens and Plains were the only two locations out of five that did not receive the normal amount of rainfall. Attapulgus, Midville, and Tifton received 17-25 percent more rainfall than normal.

Crop maturity progressed below the five-year average and harvest conditions were hampered due to wet weather conditions in 2014. Cotton producers seeded 1.38 million acres in Georgia, a 1% increase from last year.

Georgia state average cotton yield for 2014 was of 876 lbs/acre this year was a 3% increase from 2013. Total production was 2.57 million bales—11% more than 2013.

Among varieties in the Dryland Earlier Maturity Trials, DP 0912 B2RF, NG 1511 B2RF, PHY 333 WRF, PHY 339 WRF, PHY 444 WRF, PHY 487 WRF, PHY 499 WRF, and ST 4946GLB2 stand out as varieties with high yield and relative yield stability in the dryland trials averaged over four locations (Table 1). There were also 14 other varieties above average in yield (Table 1). When summarized over two years and four locations, PHY 333 WRF was the top performer, while 12 other varieties were above average (Table 2).

Among the best performing earlier maturing varieties produced under irrigation, PHY 333 WRF, PHY 427 GLB2, PHY 499 WRF, and ST 4946GLB2 were the top highest in yield when averaged over locations (Table 3). Fifteen other varieties performed well and were above average in yield (Table 3). PHY 499 WRF was the top yielding variety when averaged over two years, and locations in the Irrigated Early Maturity Trials conducted at Bainbridge, Midville, Plains, and Tifton (Table 4). 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 CG 3787 B2RF, PHY 333 WRF, PHY 499 WRF, and ST 4946GLB2 (Table 5). An additional 12 varieties were above average in yield (Table 5). Averaged over locations and years, PHY 499 WRF was the front runner along with three other varieties that yielded above average lint (Table 6).

Under irrigation, there were seven varieties in the top significant group of the standard later maturing trials averaged over locations with DP 1252 B2RF, DP 1454NR B2RF, NG 1511 B2RF, MON 14R1455B2R2, MON 14R1456B2R2, PHY 333 WRF, PHY 495 W3RF, PHY 499 WRF, ST 4946GLB2, and ST 6182GLT among the top 10 yielding varieties (Table 7). Fourteen other varieties were above average in lint yield (Table7). Averaged over locations and two years, CG 3787 B2RF, DP 1252 B2RF, DP 1454NR B2RF, NG 1511 B2RF, MON 13R352BR2, PHY 499 WRF, and PX 554010 WRF were the significant front runners, while one other variety was above average in yield (Table 8).

The Earlier Maturity and Later Maturity Strains Trials (OST) portend improved varieties for crop seasons 2015 and beyond (Tables 9). Varieties from Dow, All-Tex, and Georgia were high yielding performers among standard earlier and later maturing entries in the strains trial (Table 9).

For percent lint yield, the total seed cotton from replicated plots of the 2014 Irrigated Early and Later Maturity experiments at Tifton were processed through the micro gin, located on the UGA Tifton Campus, and turn-out is presented in Table 10 and Table 11. To obtain quality fractions, the micro-ginned samples were sent to the USDA Classing Office in Macon, GA, for HVI analysis processing, and results can be found in Tables 10 and 11.

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

Table 1. Yield Summary of Dryland Earlier Maturity Cotton Varieties, 2014

Variety	Lint Yield[a] Athens	Midville	Plains	Tifton	4-Loc. Average	Lint	Unif. Index	Length	Strength	Mic.
	lb/acre					%	%	in	g/tex	units
NG 1511 B2RF	1242 [7]	**2031** [1]	**696** [2]	**1611** [2]	**1395** [1]	43.6	83.1	1.11	30.5	4.6
PHY 333 WRF	**1266** [5]	**1942** [2]	**738** [1]	1532 [11]	**1369** [2]	44.0	83.3	1.15	30.2	4.3
PHY 499 WRF	**1396** [3]	1853 [4]	543 [9]	**1580** [6]	**1343** [3]	43.8	83.1	1.11	31.6	4.6
PHY 444 WRF	**1448** [1]	1815 [5]	492 [17]	**1583** [5]	**1335** [4]	44.3	83.4	1.23	31.4	3.9
DP 0912 B2RF	1050 [20]	1812 [6]	553 [8]	**1790** [1]	**1301** [5]	41.7	82.4	1.09	29.6	4.7
PHY 487 WRF	**1432** [2]	1704 [12]	469 [20]	1557 [8]	**1290** [6]	42.0	82.0	1.10	29.2	4.5
ST 4946GLB2	**1282** [4]	1882 [3]	568 [6]	1329 [23]	**1265** [7]	41.6	82.8	1.15	31.2	4.5
PHY 339 WRF	1214 [9]	1770 [7]	475 [19]	**1599** [3]	**1264** [8]	42.1	83.3	1.17	30.9	4.1
SSG UA 222	1171 [11]	1759 [9]	536 [12]	1556 [9]	1256 [9]	42.1	82.9	1.17	31.0	4.3
BX 5115GLT	1195 [10]	1638 [15]	576 [5]	**1594** [4]	1251 [10]	42.0	81.9	1.13	31.0	4.3
DP 1133 B2RF	1077 [17]	1735 [10]	556 [7]	1536 [10]	1226 [11]	44.5	83.8	1.15	31.3	4.8
ST 4747GLB2	1083 [16]	1762 [8]	**642** [3]	1414 [16]	1225 [12]	42.0	82.3	1.18	29.2	4.3
PHY 427 WRF	1227 [8]	1573 [22]	535 [13]	1506 [12]	1210 [13]	40.8	82.3	1.13	29.9	4.1
ST 5032GLT	**1262** [6]	1576 [21]	399 [25]	**1570** [7]	1202 [14]	39.8	82.5	1.19	31.4	4.0
DP 1321 B2RF	1107 [14]	1670 [14]	586 [4]	1438 [14]	1200 [15]	42.5	83.2	1.15	31.1	4.7
GA 2010074	1059 [19]	1707 [11]	420 [24]	1431 [15]	1154 [16]	40.7	83.2	1.17	32.0	4.7
DP 1137 B2RF	1162 [13]	1547 [23]	501 [16]	1374 [19]	1146 [17]	42.7	82.5	1.11	28.8	4.6
BRS 335	1063 [18]	1524 [24]	491 [18]	1463 [13]	1135 [18T]	40.6	82.8	1.14	30.7	4.3
MON 12R224B2R2	1168 [12]	1672 [13]	537 [11]	1164 [25]	1135 [18T]	41.0	83.0	1.16	29.2	4.3
SSG HQ 210 CT	1085 [15]	1589 [18]	446 [23]	1352 [20]	1118 [19]	39.1	82.2	1.11	31.2	4.6
SSG CT Linwood	1013 [22]	1590 [17]	538 [10]	1159 [26]	1075 [20]	41.5	82.9	1.10	31.6	5.1
GA 2009037	850 [24]	1581 [20]	454 [22]	1405 [17]	1072 [21]	41.3	82.0	1.16	31.1	4.5
GA 2009100	770 [26]	1631 [16]	530 [14]	1300 [24]	1058 [22]	39.0	83.1	1.16	33.0	5.0
DG 2355 B2RF	985 [23]	1363 [26]	511 [15]	1343 [21]	1051 [23]	38.9	82.4	1.13	29.8	4.3
BRS 293	830 [25]	1583 [19]	367 [27]	1334 [22]	1029 [24]	40.7	82.5	1.11	32.2	4.7
GA 2010102	1016 [21]	1490 [25]	384 [26]	1152 [27]	1011 [25]	39.3	83.5	1.16	35.1	4.9
BRS 286	676 [27]	1348 [27]	456 [21]	1392 [18]	968 [26]	40.4	81.7	1.11	31.1	4.6
Average	1116	1672	518	1447	1188	41.6	82.7	1.14	30.9	4.5
LSD 0.10	202	138	124	232	134	0.8	0.8	0.02	1.0	0.2
CV %	15.4	7.0	20.4	13.6	12.8	2.4	1.1	1.80	4.0	4.6

[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 2. Two-Year Summary of Dryland Earlier Maturity Cotton Varieties at Four Locations[a], 2013-2014

Variety	Lint Yield	Lint	Uniformity Index	Length	Strength	Micronaire
	lb/acre	%	%	inches	g/tex	units
PHY 333 WRF	**1599**	44.8	83.9	1.17	30.9	4.3
PHY 499 WRF	**1571**	44.7	83.5	1.13	32.1	4.7
PHY 444 WRF	**1562**	44.6	83.8	1.24	31.6	3.8
PHY 487 WRF	**1532**	43.1	82.6	1.12	29.8	4.5
NG 1511 B2RF	1525	44.3	83.6	1.13	30.9	4.7
ST 4946GLB2	1485	42.4	83.0	1.14	31.3	4.6
PHY 399 WRF	1468	42.8	83.7	1.18	31.0	4.3
DP 0912 B2RF	1451	42.0	82.9	1.11	30.2	4.7
SSG AU 222	1444	42.7	83.4	1.18	30.8	4.4
PHY 427 WRF	1414	41.4	82.9	1.15	30.7	4.1
SSG HQ 210 CT	1392	40.5	82.4	1.11	31.0	4.6
DP 1321 B2RF	1381	43.4	83.6	1.14	31.0	4.8
GA 2009037	1347	42.0	82.3	1.17	31.2	4.6
SSG CT Linwood	1293	42.5	83.5	1.12	32.7	5.0
GA 2009100	1282	41.5	83.8	1.18	33.3	4.6
Average	1450	42.9	83.3	1.15	31.2	4.5
LSD 0.10	68	0.4	0.6	0.01	0.8	0.1
CV %	11.3	2.4	1.2	2.0	4.2	4.8

[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 of Earlier Maturity Cotton Varieties, 2014, Irrigated

	Lint Yield[a]								
Variety	Bainbridge	Midville	Plains	Tifton	4-Loc. Average	Lint	Unif. Index	Length	Strength	Mic.
	lb/acre					%	%	in	g/tex	units
ST 4946GLB2	**1541** [4]	**2597** [1]	**1925** [2]	**1912** [2T]	**1994** [1]	42.1	83.1	1.16	31.1	4.3
PHY 499 WRF	1268 [12]	**2406** [2]	**1852** [8T]	**1869** [3]	**1849** [2T]	43.4	83.4	1.14	31.5	4.5
PHY 333 WRF	**1583** [3]	2269 [9]	**1846** [9]	1697 [13]	**1849** [2T]	42.4	83.0	1.16	30.1	4.1
PHY 427 WRF	**1679** [1]	2087 [20]	**1909** [4]	1618 [21]	**1823** [3]	41.0	83.6	1.16	30.7	4.2
ST 4747GLB2	1278 [11]	2328 [6]	**1931** [1]	1683 [16]	1805 [4]	41.9	82.6	1.20	30.5	4.3
PHY 444 WRF	1284 [10]	2355 [5]	**1887** [5]	1691 [14]	1804 [5]	44.0	84.0	1.22	32.0	3.7
DP 1133 B2RF	1481 [5]	2093 [18]	**1852** [8T]	1768 [9]	1799 [6]	43.0	83.5	1.17	31.6	4.4
ST 5032GLT	1140 [17]	2299 [7]	**1813** [11]	**1912** [2T]	1791 [7]	41.3	82.1	1.18	31.1	3.8
DP 0912 B2RF	1164 [16]	**2400** [3]	**1782** [13]	**1774** [8]	1780 [8]	41.3	83.1	1.12	30.0	4.7
ST 5115GLT	1334 [9]	2248 [10]	**1915** [3]	1609 [22]	1776 [9]	41.6	82.1	1.15	30.7	3.9
SSG UA 222	1208 [15]	2374 [4]	**1866** [6]	1636 [19]	1771 [10]	42.0	83.4	1.19	30.9	4.1
DP 1321 B2RF	1357 [8]	2178 [13]	**1800** [12]	1720 [11]	1764 [11]	42.2	83.9	1.16	30.8	4.4
NG 1511 B2RF	1380 [6]	2089 [19]	**1855** [7]	1678 [17]	1750 [12]	43.0	82.9	1.15	30.6	4.3
DP 1137 B2RF	1367 [7]	2167 [15]	**1822** [10]	1630 [20]	1747 [13]	42.2	82.7	1.14	29.5	4.5
PHY 487 WRF	**1637** [2]	2100 [17]	**1757** [14]	1462 [25]	1739 [14]	41.9	82.3	1.14	30.5	4.1
PHY 339 WRF	1260 [13]	2184 [12]	1662 [16]	**1780** [6]	1722 [15]	41.8	82.8	1.19	30.6	4.1
SSG HQ 210 CT	1218 [14]	1924 [23]	1646 [18]	**1989** [1]	1694 [16]	40.7	82.7	1.14	31.5	4.3
MON 12R224B2R2	1035 [21]	2202 [11]	1675 [15]	**1785** [5]	1674 [17]	41.9	83.5	1.17	30.5	3.9
GA 2010102	1103 [18]	2166 [16]	1628 [19]	1733 [10]	1658 [18]	40.6	83.7	1.18	33.5	4.4
GA 2009037	1067 [20]	2291 [8]	1625 [20]	1479 [24]	1616 [19]	42.2	82.7	1.16	32.5	4.4
BRS 335	893 [23]	2050 [21]	1658 [17]	1641 [18]	1560 [20]	40.6	82.6	1.16	32.1	3.9
GA 2010074	876 [24]	2171 [14]	1503 [23]	1687 [15]	1559 [21]	41.5	83.4	1.18	31.0	4.4
DG 2355 B2RF	1010 [22]	1892 [25]	1522 [21]	**1777** [7]	1550 [22]	40.0	82.7	1.17	31.3	4.0
GA 2009100	872 [25]	2040 [22]	1410 [25]	1700 [12]	1505 [23]	40.1	83.0	1.15	32.1	4.5
SSG CT Linwood	1079 [19]	1906 [24]	1472 [24]	1391 [26]	1462 [24]	41.1	83.3	1.13	31.5	4.6
BRS 286	834 [26]	1631 [27]	1514 [22]	**1791** [4]	1442 [25]	40.6	82.7	1.14	31.8	4.4
BRS 293	738 [27]	1733 [26]	1346 [26]	1540 [23]	1339 [26]	40.5	82.8	1.14	31.5	4.3
Average	1211	2155	1721	1702	1697	41.7	83.0	1.16	31.2	4.2
LSD 0.10	246	205	187	218	178	1.5	0.6	0.02	1.4	0.2
CV %	17.3	8.1	9.3	10.9	10.8	2.1	1.0	2.00	4.0	6.3

[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 of Earlier Maturity Cotton Varieties at Four Locations[a], 2013-2014, Irrigated

Variety	Lint Yield	Lint	Uniformity Index	Length	Strength	Micronaire
	lb/acre	%	%	inches	g/tex	units
PHY 499 WRF	**1871**	43.6	83.4	1.15	31.4	4.7
PHY 444 WRF	**1849**	43.6	84.0	1.24	31.7	3.8
PHY 333 WRF	**1822**	42.6	83.5	1.18	30.6	4.3
PHY 487 WRF	**1809**	42.0	82.5	1.14	30.1	4.3
ST 4946GLB2	1797	41.6	83.3	1.16	31.1	4.6
NG 1511 B2RF	1750	44.0	83.6	1.16	31.2	4.6
DP 0912 B2RF	1729	41.0	83.3	1.13	30.2	4.9
DP 1321 B2RF	1729	42.1	83.8	1.17	30.5	4.6
SSG AU 222	1729	41.9	83.7	1.20	30.8	4.4
PHY 427 WRF	1710	40.8	83.3	1.15	30.5	4.3
SSG HQ 210 CT	1706	40.9	82.6	1.14	31.3	4.6
PHY 399 WRF	1705	41.8	83.2	1.19	30.4	4.2
GA 2009037	1656	41.5	82.8	1.18	31.8	4.5
GA 2009100	1591	41.0	83.5	1.19	32.8	4.4
SSG CT Linwood	1475	41.1	83.3	1.14	32.0	4.8
Average	1729	42.0	83.3	1.17	31.1	4.5
LSD 0.10	67	0.5	0.5	0.02	0.7	0.1
CV %	9.4	2.8	1.1	2.3	3.9	5.3

[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 of Dryland Later Maturity Cotton Varieties, 2014

	Lint Yield[a]									
Variety	Athens	Midville	Plains	Tifton	4-Loc. Average	Lint	Unif. Index	Length	Strength	Mic.
	lb/acre					%	%	in	g/tex	units
PHY 333 WRF	**1423** [2]	**1950** [1]	**561** [10]	**2175** [1]	**1527** [1]	43.2	83.2	1.18	30.1	4.1
ST 4946GLB2	**1355** [5]	**1929** [2]	**615** [5]	**2055** [2T]	**1488** [2]	41.6	83.3	1.15	31.6	4.4
PHY 499 WRF	**1471** [1]	**1867** [3]	426 [24]	**2055** [2T]	**1455** [3]	43.9	83.4	1.13	32.4	4.7
CG 3787 B2RF	1183 [14]	1758 [4]	**643** [3]	**2044** [4]	**1407** [4]	44.2	83.1	1.15	29.5	4.6
PHY 495 W3RF	**1282** [7]	1707 [7]	477 [21]	1958 [5]	1356 [5]	43.2	83.6	1.12	32.0	4.4
NG 1511 B2RF	1102 [19]	1697 [8]	**664** [1]	1909 [6]	1343 [6]	43.2	82.7	1.13	30.1	4.6
ST 4747GLB2	1235 [9]	1718 [5]	523 [12]	1881 [8]	1339 [7]	41.1	81.8	1.19	29.7	4.3
GA 2010076	1196 [13]	1597 [13]	511 [15]	**2047** [3]	1337 [8]	40.5	83.4	1.18	32.7	4.6
PX 554010 WRF	1198 [12]	1563 [17]	**654** [2]	1874 [9]	1322 [9]	43.9	82.7	1.12	30.3	4.2
PX554063WRF	**1342** [6]	1651 [10]	**616** [4]	1671 [25]	1320 [10]	43.6	83.7	1.17	32.1	4.3
ST 6448GLB2	**1409** [3]	1576 [16]	346 [29]	1868 [10]	1300 [11]	40.9	82.0	1.19	29.9	4.4
DP 1454NR B2RF	1208 [11]	1553 [18]	518 [13]	1889 [7]	1292 [12]	43.3	82.1	1.11	29.4	4.7
MON 14R1456B2R2	**1402** [4]	1494 [20]	**571** [8]	1668 [26]	1284 [13]	43.9	82.9	1.13	32.2	4.9
GA 2010019	1144 [16]	1469 [23]	**575** [7]	1849 [13]	1259 [14]	41.5	83.0	1.15	30.8	4.4
PHY 575 WRF	1104 [18]	1642 [11]	495 [18]	1764 [17T]	1251 [15]	40.4	83.5	1.17	30.5	4.2
DP 1050 B2RF	1026 [22]	1590 [15]	512 [14]	1866 [11]	1248 [16]	44.0	83.5	1.15	28.9	4.6
ST 5289GLT	1234 [10]	1551 [19]	481 [19]	1714 [22]	1245 [17]	41.7	82.3	1.13	29.8	4.5
DP 1137 B2RF	1014 [24]	1629 [12]	531 [11]	1773 [15]	1237 [18]	42.9	82.7	1.13	28.5	4.7
MON 14R1455B2R2	1120 [17]	1593 [14]	496 [17]	1700 [23]	1227 [19]	44.1	82.9	1.14	32.1	4.6
BX 1536GLT	945 [25]	1661 [9]	442 [23]	1852 [12]	1225 [20]	41.3	83.3	1.15	32.5	4.1
DG 2610 B2RF	1049 [21]	1480 [22]	480 [20]	1841 [14]	1213 [21]	43.0	83.2	1.15	29.1	4.5
MON 13R352B2R2	1156 [15]	1492 [21]	468 [22]	1697 [24]	1204 [22]	45.0	82.5	1.15	31.6	4.5
BX 1535GLT	1272 [8]	1393 [27]	376 [28]	1764 [17T]	1201 [23]	40.5	82.9	1.19	33.3	4.4
GA 230	1015 [23]	1400 [26]	**578** [6]	1734 [20]	1182 [24T]	39.4	82.8	1.23	31.2	4.2
DP 1252 B2RF	1055 [20]	1448 [24]	507 [16]	1720 [21]	1182 [24T]	45.2	84.0	1.15	29.9	4.7
ST 6182GLT	786 [28]	1714 [6]	417 [25]	1771 [16]	1172 [25]	47.7	82.7	1.15	29.7	4.7
NG 5315 B2RF	896 [27]	1426 [25]	**567** [9]	1666 [27]	1139 [26]	43.7	83.1	1.14	28.6	4.4
GA 2009100	937 [26]	1286 [28]	397 [26]	1742 [18]	1090 [27]	38.7	82.5	1.17	32.3	4.8
BRS 269	679 [29]	1215 [29]	381 [27]	1738 [19]	1003 [28]	39.9	83.0	1.17	32.6	4.6
Average	1146	1588	511	1837	1271	42.6	83.0	1.15	30.8	4.5
LSD 0.10	194	168	108	216	137	0.9	0.9	0.20	0.9	0.2
CV %	14.4	9.0	18.0	10.0	11.8	1.8	1.2	1.97	3.4	3.9

[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 6. Two-Year Summary of Dryland Later Maturity Cotton Varieties at Four Locations[a], 2013-2014

Variety	Lint Yield	Lint	Uniformity Index	Length	Strength	Micronaire
	lb/acre	%	%	inches	g/tex	units
PHY 499 WRF	**1561**	44.7	83.9	1.14	32.2	4.7
ST 4747GLB2	**1550**	42.9	82.6	1.20	30.5	4.4
PX 554010 WRF	**1516**	44.9	83.6	1.14	30.7	4.3
NG 1511 B2RF	**1503**	44.3	83.3	1.14	30.5	4.7
CG 3787 B2RF	1487	44.9	84.0	1.17	29.9	4.6
ST 6448GLB2	1455	42.1	82.8	1.20	30.6	4.4
MON 13R352B2R2	1431	45.4	83.4	1.18	32.0	4.5
PHY 575 WRF	1421	42.0	83.7	1.20	30.4	4.2
DP 1050 B2RF	1385	44.9	83.6	1.16	29.3	4.6
DP 1454NR B2RF	1385	44.1	82.7	1.13	30.4	4.8
DP 1137 B2RF	1380	44.0	83.4	1.14	29.0	4.7
DP 1252 B2RF	1348	45.0	83.7	1.15	29.4	4.8
DG 2610 B2RF	1301	43.6	83.6	1.16	29.5	4.5
NG 5315 B2RF	1290	44.5	83.7	1.15	28.9	4.6
GA 230	1288	41.2	83.2	1.23	31.6	4.3
Average	1420	43.9	83.4	1.17	30.3	4.5
LSD 0.10	62	0.4	0.6	0.01	0.7	0.1
CV%	10.6	2.2	1.1	1.8	3.7	4.4

[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 of Later Maturity Cotton Varieties, 2014, Irrigated

Variety	Lint Yield[a] Bainbridge	Midville	Plains	Tifton	4-Loc. Average	Lint	Unif. Index	Length	Strength	Mic.
	---------- lb/acre ----------					%	%	in	g/tex	units
MON 14R1456B2R2	**2141** [1]	**2559** [1]	1769 [13]	**1800** [1]	**2067** [1]	44.1	83.6	1.17	32.2	4.7
DP 1454NR B2RF	**2087** [2]	2287 [4]	1839 [9]	**1621** [20]	**1959** [2]	43.4	82.8	1.13	30.0	4.5
PHY 333 WRF	1754 [10]	2238 [7]	**2052** [1]	**1627** [17]	**1918** [3]	43.2	83.3	1.18	30.5	4.2
NG 1511 B2RF	1799 [7]	2273 [5]	**1898** [6]	**1687** [9]	**1914** [4]	43.8	83.4	1.15	30.9	4.5
ST 6182GLT	1671 [13]	2206 [12]	**1924** [3T]	**1776** [2]	**1894** [5]	46.5	83.0	1.16	29.7	4.2
ST 4946GLB2	1520 [17]	**2401** [3]	**1955** [2]	**1686** [10]	**1891** [6]	42.2	83.3	1.16	31.7	4.3
PHY 499 WRF	**1916** [5]	2203 [13T]	**1871** [7]	**1545** [26]	**1884** [7]	42.7	83.6	1.16	31.1	4.3
MON 14R1455B2R2	**1923** [4]	2219 [9]	1843 [8]	**1547** [25]	**1883** [8]	44.2	83.2	1.18	32.1	4.5
DP 1252 B2RF	**1992** [3]	2128 [20]	1656 [19]	**1632** [16]	**1852** [9]	45.6	83.5	1.15	29.2	4.6
PHY 495 W3RF	1599 [15]	**2420** [2]	**1909** [5]	**1474** [29]	**1851** [10]	43.0	83.3	1.14	32.3	4.3
CG 3787 B2RF	1767 [8]	2036 [25]	1831 [11]	**1757** [3]	1848 [11]	43.7	83.5	1.16	29.1	4.4
DG 2610 B2RF	1869 [6]	1945 [27]	1828 [12]	**1708** [7]	1837 [12]	43.2	83.8	1.17	29.5	4.3
ST 4747GLB2	1607 [14]	2231 [8]	1833 [10]	**1607** [23]	1819 [13]	41.8	82.3	1.20	29.7	4.2
PX554063WRF	1346 [22]	2244 [6]	**1913** [4]	**1718** [5]	1805 [14]	43.6	83.4	1.18	32.1	3.9
MON 13R352B2R2	1757 [9]	2107 [22]	1616 [22]	**1638** [15]	1779 [15]	44.8	83.4	1.19	32.5	4.3
DP 1137 B2RF	1578 [16]	2193 [14]	1689 [17]	**1613** [22]	1768 [16]	43.4	83.2	1.15	29.1	4.4
PX 554010 WRF	1213 [24]	2207 [11]	**1924** [3T]	**1653** [13]	1749 [17]	43.2	83.8	1.17	31.0	4.2
ST 5289GLT	1370 [20]	2140 [18]	1687 [18]	**1731** [4]	1732 [18T]	42.2	82.3	1.14	30.0	4.2
PHY 575 WRF	1473 [18]	2091 [23]	1722 [16]	**1641** [14]	1732 [18T]	41.3	83.1	1.19	30.8	4.1
DP 1050 B2RF	1730 [11]	2163 [16]	1362 [27]	**1623** [19]	1719 [19]	44.3	83.0	1.15	29.5	4.2
NG 5315 B2RF	1724 [12]	2061 [24]	1463 [26]	**1624** [18]	1718 [20]	43.5	83.5	1.16	30.0	4.3
GA 2010076	1357 [21]	2215 [10]	1729 [15]	**1533** [28]	1708 [21]	40.5	83.0	1.19	31.7	4.5
ST 6448GLB2	1384 [19]	2134 [19]	1617 [21]	**1667** [12]	1700 [22]	41.9	83.0	1.20	30.6	4.1
GA 2010019	1022 [27]	2203 [13T]	1767 [14]	**1677** [11]	1667 [23]	41.7	82.6	1.15	31.0	4.1
BX 1535GLT	1313 [23]	2184 [15]	1521 [25]	**1550** [24]	1642 [24]	40.4	83.0	1.21	32.8	4.0
GA 2009100	1165 [25]	2143 [17]	1619 [20]	**1541** [27]	1617 [25]	38.9	83.3	1.19	32.6	4.4
BX 1536GLT	1028 [26]	2113 [21]	1574 [23]	**1702** [8]	1604 [26]	41.9	83.4	1.15	31.6	4.0
GA 230	919 [28]	2019 [26]	1533 [24]	**1710** [6]	1545 [27]	40.6	83.8	1.20	31.2	4.1
BRS 269	883 [29]	1759 [28]	1336 [28]	**1615** [21]	1398 [28]	40.1	83.2	1.18	32.7	4.4
Average	1549	2177	1734	1645	1776	42.7	83.2	1.17	30.9	4.3
LSD 0.10	261	178	181	N.S.[1]	218	1.3	0.8	0.02	0.9	0.2
CV %	14.3	6.9	8.9	11.8	10.3	2.2	1.0	2.20	4.3	4.9

[a] Superscripts indicate ranking at that location.

1/ F-test indicated no statistical differences at the alpha = 0.10 probability level; therefore, 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 8. Two-Year Summary of Later Maturity Cotton Varieties at Four Locations[a], 2013-2014, Irrigated

Variety	Lint Yield	Lint	Uniformity Index	Length	Strength	Micronaire
	lb/acre	%	%	inches	g/tex	units
DP 1454NR B2RF	**1853**	42.9	83.0	1.14	30.3	4.7
DP 1252 B2RF	**1832**	45.0	84.0	1.16	29.1	4.8
CG 3787 B2RF	**1829**	43.9	83.8	1.17	29.4	4.6
MON 13R352BR2	**1819**	44.2	83.6	1.21	32.5	4.4
NG 1511 B2RF	**1819**	43.9	83.6	1.15	30.9	4.7
PHY 499 WRF	**1809**	43.0	84.1	1.17	31.5	4.6
PX 554010 WRF	**1805**	44.1	83.9	1.17	30.8	4.2
ST 4747GLB2	1776	41.9	82.9	1.21	30.2	4.3
DP 1137 B2RF	1748	43.2	83.6	1.16	29.5	4.5
PHY 575 WRF	1742	40.8	83.7	1.22	30.9	4.2
DP 1050 B2RF	1732	44.3	83.7	1.17	28.9	4.5
DG 2610 B2RF	1727	43.5	84.1	1.18	29.6	4.5
ST 6448GLB2	1696	41.1	83.6	1.22	30.7	4.4
NG 5315 B2RF	1682	43.6	84.0	1.18	29.7	4.5
GA 230	1558	40.2	83.7	1.23	31.1	4.2
Average	1762	43.0	83.7	1.18	30.3	4.5
LSD 0.10	66	0.4	0.5	0.02	0.7	0.1
CV %	9.1	2.5	0.9	2.2	4.1	4.4

[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 of Cotton Strains, 2014, Irrigated

Variety	Lint Yield[a] Midville	Plains	Tifton	3-Loc. Average	Lint	Unif. Index	Length	Strength	Mic.
	---------- lb/acre ----------				%	%	inches	g/tex	units
PX559001WRF	2506 [2]	**1535** [3]	**2241** [1]	**2094** [1]	46.3	82.9	1.15	32.0	4.4
GA 2011124	2477 [3]	**1526** [4]	**2171** [3]	**2058** [2]	45.9	83.1	1.13	30.7	4.9
PX453915WRF	2408 [6]	**1462** [8]	**2189** [2]	**2020** [3]	41.5	84.3	1.21	32.1	4.1
PX3003-14WRF	2465 [4]	**1588** [1]	1989 [7]	**2014** [4]	43.3	82.7	1.14	29.8	4.4
PX559006WRF	2427 [5]	**1497** [7]	1976 [8]	**1967** [5]	43.3	82.7	1.16	30.7	4.1
DG CT14515	**2757** [1]	1313 [10]	1767 [12]	**1946** [6]	45.3	83.0	1.17	31.7	4.3
PX453318WRF	2239 [10]	**1500** [6]	**2083** [5]	**1940** [7]	43.8	83.8	1.16	29.6	4.5
PX565215WRF	2262 [9]	**1586** [2]	1970 [9]	**1939** [8]	43.5	84.1	1.19	31.7	4.1
GA 2011158	2403 [7]	**1439** [9]	1960 [10]	**1934** [9]	43.1	83.9	1.15	31.1	4.7
GA 2012031	2172 [12]	**1505** [5]	**2070** [6]	**1916** [10]	45.3	83.6	1.15	30.7	4.4
GA 2011004	2263 [8]	1245 [12]	**2162** [4]	**1890** [11]	46.0	84.3	1.19	30.6	4.7
GA 2012073	2224 [11]	1269 [11]	1784 [11]	**1759** [12]	43.3	84.1	1.19	33.0	4.5
Average	2384	1455	2030	1956	44.2	83.5	1.17	31.1	4.4
LSD 0.10	186	179	218	N.S.[1]	1.7	0.8	0.02	1.1	0.2
CV %	6.5	10.2	10.9	8.6	2.4	0.9	1.55	4.1	4.4

[a] Superscripts indicate ranking at that location.

1/ F-test indicated no statistical differences at the alpha = 0.10 probability level; therefore, 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 10. Tifton, Georgia:
Earlier Maturity Cotton Variety Performance, 2014, Irrigated

Variety	Lint Yield	Lint*	Uniformity Index*	Length*	Strength*	Micronaire*
	lb/acre	%	%	inches	g/tex	units
SSG HQ 210 CT	**1989**	43.3	84.0	1.22	31.0	4.3
ST 5032GLT	**1912**	42.3	81.9	1.15	29.2	4.5
ST 4946GLB2	**1912**	40.2	82.9	1.20	30.3	4.5
PHY 499 WRF	**1869**	41.3	83.2	1.13	30.7	4.8
BRS 286	**1791**	40.8	82.5	1.16	30.4	4.5
MON 12R224B2R2	**1785**	43.1	84.1	1.16	29.6	4.4
PHY 339 WRF	**1780**	41.3	82.7	1.18	29.4	4.5
DG 2355 B2RF	**1777**	42.1	82.9	1.19	30.0	4.5
DP 0912 B2RF	**1774**	40.1	83.3	1.16	30.6	5.0
DP 1133 B2RF	1768	40.5	83.6	1.18	30.0	4.5
GA 2010102	1733	41.6	83.1	1.16	29.3	4.5
DP 1321 B2RF	1720	41.2	82.8	1.19	28.8	4.4
GA 2009100	1700	42.5	82.9	1.14	29.7	4.8
PHY 333 WRF	1697	39.7	82.5	1.17	30.7	4.2
PHY 444 WRF	1691	42.9	83.5	1.19	30.2	4.3
GA 2010074	1687	40.6	83.1	1.19	30.3	4.5
ST 4747GLB2	1683	40.7	82.9	1.19	30.0	4.7
NG 1511 B2RF	1678	39.9	82.9	1.22	29.5	4.3
BRS 335	1641	40.2	82.3	1.14	29.9	4.3
SSG UA 222	1636	41.7	83.6	1.17	30.6	4.7
DP 1137 B2RF	1630	39.0	82.2	1.15	32.3	4.9
PHY 427 WRF	1618	39.0	84.0	1.17	31.7	4.5
ST 5115GLT	1609	39.8	82.2	1.17	29.8	4.2
BRS 293	1540	39.7	81.9	1.14	29.9	4.5
GA 2009037	1479	41.8	82.2	1.16	32.2	4.6
PHY 487 WRF	1462	39.9	82.7	1.16	30.4	4.2
SSG CT Linwood	1391	40.2	83.1	1.14	30.8	4.9
Average	1702	40.9	82.9	1.17	30.2	4.5
LSD 0.10	218	1.2	N.S.[1]	N.S.	N.S.	N.S.
CV %	10.9	2.4	1.0	2.8	5.4	7.2

* Percent lint fractions were determined from plot seed cotton ginned in the Micro-Gin located on the UGA Tifton Campus. A lint sample was sent to the USDA classing office in Macon, GA, for quality testing.

1/ F-test indicated no statistical differences at the alpha = 0.10 probability level; therefore, 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: May 6, 2014.

Harvested: October 13, 2014.

Seeding Rate: 4 seeds/foot in 36" rows.

Soil Type: Tifton sandy loam.

Soil Test: P = Medium, K = Medium, and pH = 6.5.

Fertilization: 18 lb N, 36 lb P_2O_5, and 108 lb K_2O/acre. Sidedress: 75 lb N and 30 lb K_2O/acre.

Previous Crop: Peanuts.

Management: Disked, subsoiled, and bedded; Reflex, Cotoran, and Prowl used for weed control; Orthene, Bidrin, and Blackhawk used for insect control.

(Gibbs Farm, Tifton)	May	June	July	Aug.	Sept.
Irrigation (in):	0.50	1.25	1.25	2.25	0.75
Rainfall (in):	6.10	2.96	2.82	3.38	5.93

Trials conducted by A. Coy, S. Willis, R. Brooke, D. Dunn, and B. McCranie.

Table11. Tifton, Georgia:
Later Maturity Cotton Variety Performance, 2014, Irrigated

Variety	Lint Yield	Lint*	Uniformity Index*	Length*	Strength*	Micronaire*
	lb/acre	%	%	inches	g/tex	units
DP 1558NR BWRF	**1800**	43.3	82.9	1.16	30.7	4.9
ST 6182GLT	**1776**	43.7	82.9	1.15	29.3	4.3
CG 3787 B2RF	**1757**	43.1	82.9	1.16	27.2	4.5
ST 5289GLT	**1731**	42.6	82.4	1.14	28.7	4.4
PX554063WRF	**1718**	43.9	82.8	1.17	30.7	4.2
GA 230	**1710**	41.7	84.0	1.15	30.5	4.4
DG 2610 B2RF	**1708**	42.6	82.7	1.15	28.1	4.6
BX 1536GLT	**1702**	41.3	81.6	1.17	29.5	4.4
NG 1511 B2RF	**1687**	43.3	82.5	1.14	28.7	4.4
ST 4946GLB2	**1686**	40.8	83.5	1.16	30.8	4.6
GA 2010019	**1677**	39.7	82.1	1.15	29.5	4.3
ST 6448GLB2	**1667**	43.4	81.2	1.14	30.4	4.1
PX 554010 WRF	**1653**	41.1	82.2	1.17	29.8	4.5
PHY 575 WRF	**1641**	43.4	82.4	1.16	28.8	4.4
DP 1555 B2RF	**1638**	42.0	82.3	1.19	30.5	4.2
DP 1252 B2RF	**1632**	45.2	82.1	1.13	27.9	4.6
PHY 333 WRF	**1627**	40.5	81.8	1.17	30.8	4.4
NG 5315 B2RF	**1624**	43.2	82.5	1.17	28.8	4.5
DP 1050 B2RF	**1623**	43.0	81.1	1.14	28.8	4.2
DP 1454NR B2RF	**1621**	41.9	82.7	1.13	29.0	4.3
BRS 269	**1615**	41.7	82.8	1.18	30.6	4.8
DP 1137 B2RF	**1613**	41.4	82.7	1.16	27.9	4.4
ST 4747GLB2	**1607**	40.2	81.5	1.17	29.7	4.0
BX 1535GLT	**1550**	39.4	82.1	1.20	31.3	4.1
MON 14R1455B2R2	**1547**	42.2	81.7	1.16	29.1	4.3
PHY 499 WRF	**1545**	39.4	82.8	1.19	29.7	4.2
GA 2009100	**1541**	38.8	82.4	1.20	30.7	4.4
GA 2010076	**1533**	40.1	82.3	1.19	31.1	4.4
PHY 495 W3RF	**1474**	40.3	81.8	1.16	30.7	4.7
Average	1645	41.8	82.3	1.16	29.6	4.4
LSD 0.10	N.S.[1]	1.7	N.S.	N.S.	N.S.	N.S.
CV %	11.8	3.5	1.2	2.7	5.1	6.7

* Percent lint fractions were determined from plot seed cotton ginned in the Micro-Gin located on the UGA Tifton Campus. A lint sample was sent to the USDA classing office in Macon, GA, for quality testing.

1/ F-test indicated no statistical differences at the alpha = 0.10 probability level; therefore, 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: May 6, 2014.
Harvested: October 13, 2014.
Seeding Rate: 4 seeds/foot in 36" rows.
Soil Type: Tifton sandy loam.
Soil Test: P = Medium, K = Medium, and pH = 6.5.
Fertilization: 18 lb N, 36 lb P_2O_5, and 108 lb K_2O/acre. Sidedress: 75 lb N and 30 lb K_2O/acre.
Previous Crop: Peanuts.
Management: Disked, subsoiled, and bedded; Reflex, Cotoran, and Prowl used for weed control; Orthene, Bidrin, and Blackhawk used for insect control.

(Gibbs Farm, Tifton)	May	June	July	Aug.	Sept.
Irrigation (in):	0.50	1.25	1.25	2.25	0.75
Rainfall (in):	6.10	2.96	2.82	3.38	5.93

Trials conducted by A. Coy, S. Willis, R. Brooke, D. Dunn, and B. McCranie.