Performance of Cotton Varieties in Alabama, 2015

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Performance of Cotton Varieties in Alabama, 2015

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"The mission of the Alabama Variety Testing Program is to provide research-based, unbiased results on the performance of various crop hybrids, cultivars, and varieties to the agricultural community in our state. We are intent on conducting these trials in a manner that will result in maximum biological yield through methods common to the top-producing farms in Alabama. We are committed to providing this information in a rapid, timely manner for its use during the decision-making process. The success of the program rests upon our ability to help Alabama producers provide a safe, dependable source of food and fiber for all families as well as economic sustainability for theirs."

Methods

Varieties in early and full season trials were arranged in a randomized complete block experimental design with 4 replications. Plot size was 4 rows, 36- to 38-inches wide, and 20 to 25 feet long. Trials were managed according to the location and local practices (Table 1). All tests were fertilized according to soil test recommendations. Varieties were harvested utilizing a mechanical picker from the center 2 rows of each plot. Seed cotton weights were recorded, ginned for turnout, and fiber quality determined by the USDA Cotton Classing Office in Macon, Georgia.

Table 1. Soil type, planting date and harvest date for cotton variety trials, 2015

Location	Soil Type	Test	Planting Date	Harvest Date
Belle Mina	Decatur silt loam	Early Season Flex	May 12	October 14
		Full Season Flex	May 4	October 6
		Irrigated Early Season Flex	May 12	October 19
		Irrigated Full Season Flex	May 4	October 19
Prattville	Lucedale fine sandy loam	Early Season Flex	May 14	October 30
		Full Season Flex	May 12	October 20
		Irrigated Early Season Flex	May 14	November 5
		Irrigated Full Season Flex	May 7	November 3
Tallassee	Wickham fine sandy loam	Early Season Flex	May 22	November 17
		Full Season Flex	May 15	November 17
Headland	Dothan sandy loam	Early Season Flex	May 8	October 15
		Full Season Flex	May 8	October 15
		Irrigated Early Season Flex	May 12	October 17
		Irrigated Full Season Flex	May 12	October 17
Fairhope	Malbis fine sandy loam	Early Season Flex	May 19	October 1
		Full Season Flex	May 6	October 1

Tables

Abbreviations: REC, Research and Extension Center; ARU, Agricultural Research Unit

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2015 Cotton Variety Yield Performance

Table 2. Performance of Non-irrigated Cotton Varieties in North Alabama, 2015

Tennessee Valley REC - Belle Mina, AL

Early Season - Flex

Cultivar	Lint	Yield	Mic	Len	Str	Unif
	(%/100)	(lbs/Acre)		(inches)	(g/tex)	(%)
PhytoGen PHY 444 WRF	0.43	1473	4.7	1.29	32.1	85.7
Deltapine DP 1518 B2XF	0.43	1426	5.3	1.19	29.5	83.4
PhytoGen PHY 499 WRF	0.43	1388	5.7	1.17	32.7	83.7
PhytoGen PHY 333 WRF	0.44	1387	5.4	1.17	32.0	85.1
PhytoGen PHY 487 WRF	0.41	1374	5.6	1.13	29.7	84.0
Americot NG 3405 B2XF	0.43	1319	5.5	1.12	28.2	82.2
Deltapine MON 15R513B2XF	0.42	1316	5.7	1.18	31.5	83.4
PhytoGen PHY 312 WRF	0.42	1316	5.4	1.20	33.2	85.6
Croplan Genetics 3475 B2XF	0.42	1283	5.7	1.16	31.0	82.6
Deltapine DP 1522 B2XF	0.42	1282	5.8	1.16	30.8	83.8
PhytoGen PHY 495 W3RF	0.43	1282	5.5	1.18	32.8	84.6
DynaGro CT 15426	0.45	1260	5.4	1.15	28.7	83.6
Deltapine DP 1612 B2XF	0.41	1252	5.6	1.14	31.6	83.9
PHY 375 WRF	0.42	1252	5.7	1.12	30.0	82.7
Americot NG 3406 B2XF	0.43	1217	5.5	1.13	29.9	83.4
Deltapine DP 1252 B2RF	0.43	1205	5.4	1.18	30.3	84.4
PhytoGen PHY 222 WRF	0.43	1203	5.9	1.10	30.3	83.8
Deltapine DP 1614 B2XF	0.43	1192	5.7	1.21	32.6	83.2
Trial mean		**1301**				
LSD (0.1)		**62**				
CV (%)		**7**				
Pr>F		**0.0003**				

Table 3. Performance of Non-irrigated Cotton Varieties in North Alabama, 2015

Tennessee Valley REC - Belle Mina, AL

Full Season - Flex

Cultivar	Lint (%/100)	Yield (lbs/Acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PHY 333 WRF	0.48	1756	5.4	1.12	29.2	83.0
PhytoGen PHY 444 WRF	0.47	1710	4.7	1.19	31.6	84.1
PhytoGen PHY 487 WRF	0.45	1674	5.5	1.09	29.5	83.1
PhytoGen PHY 499 WRF	0.45	1636	5.5	1.10	32.0	83.8
PHY 375 WRF	0.45	1545	5.3	1.13	30.9	82.7
Bayer ST 6182GLT	0.49	1520	5.4	1.14	29.0	83.9
Deltapine DP 1646 B2XF	0.46	1491	5.2	1.24	30.3	84.2
Bayer ST 4946 GLB2	0.42	1476	5.3	1.16	33.4	84.7
PhytoGen PHY 552 WRF	0.44	1474	5.2	1.18	31.6	85.8
Deltapine DP 1555 B2RF	0.45	1473	5.1	1.20	33.1	84.7
Americot NG 3406 B2XF	0.43	1468	5.3	1.14	29.1	84.4
Bayer ST 4747GLB2	0.45	1466	5.3	1.16	27.9	81.7
Bayer ST 5115GLT	0.42	1461	5.1	1.16	32.2	83.9
Deltapine DP 1639 B2XF	0.47	1460	5.7	1.10	31.4	82.2
Deltapine DP 1553 B2XF	0.46	1459	5.3	1.18	29.0	85.7
Americot NG 3405 B2XF	0.46	1455	5.3	1.08	26.7	80.9
Deltapine DP 1538 B2XF	0.47	1443	5.4	1.12	28.3	82.8
PhytoGen PHY 495 W3RF	0.45	1443	5.3	1.11	33.4	83.9
Croplan Genetics 3885 B2XF	0.46	1389	5.6	1.11	30.9	83.6
Deltapine DP 1252 B2RF	0.47	1381	5.6	1.14	29.2	84.1
DynaGro CT 15557	0.47	1375	5.4	1.13	29.5	84.0
Americot NG 5007 B2XF	0.46	1350	5.3	1.13	28.5	81.7
PhytoGen PHY 575 WRF	0.42	1342	4.9	1.18	31.2	84.7
Bayer ST 6448 GLB2	0.42	1319	5.5	1.17	30.5	84.5
Deltapine DP 1558NR B2RF	0.44	1243	5.6	1.16	33.6	84.0
Bayer ST 5289GLT	0.43	1241	5.4	1.15	30.8	82.5
Deltapine DP 1454NRB2RF	0.44	1101	5.6	1.11	30.7	83.7
Trial mean		**1455**				
LSD (0.1)		**81**				
CV (%)		**8**				
Pr>F		**0.0001**				

Table 4. Performance of Non-irrigated Cotton Varieties in Central Alabama, 2015

Prattville Agricultural Research Unit - Prattville, AL

Early Season - Flex

Cultivar	Lint	Yield	Mic	Len	Str	Unif
	(%/100)	(lbs/Acre)		(inches)	(g/tex)	(%)
PhytoGen PHY 333 WRF	0.43	1472	4.6	1.18	30.4	84.8
Deltapine DP 1518 B2XF	0.42	1441	4.4	1.20	29.3	84.6
DynaGro CT 15426	0.46	1439	4.9	1.14	27.2	84.3
Deltapine DP 1252 B2RF	0.46	1420	5.3	1.14	28.5	83.6
PhytoGen PHY 499 WRF	0.43	1406	4.8	1.15	31.0	85.2
Deltapine DP 1614 B2XF	0.45	1388	5.2	1.19	29.4	85.7
PHY 375 WRF	0.42	1376	4.6	1.12	27.4	83.1
PhytoGen PHY 444 WRF	0.43	1374	4.0	1.26	31.6	85.5
Deltapine MON 15R513B2XF	0.42	1334	5.0	1.22	30.8	85.2
Americot NG 3405 B2XF	0.43	1323	4.7	1.10	26.9	83.2
PhytoGen PHY 495 W3RF	0.43	1270	4.4	1.14	33.9	85.1
PhytoGen PHY 487 WRF	0.44	1260	5.1	1.10	30.0	83.7
Croplan Genetics 3475 B2XF	0.41	1257	4.8	1.12	29.9	84.0
PhytoGen PHY 312 WRF	0.42	1233	4.4	1.21	31.7	85.8
Americot NG 3406 B2XF	0.42	1224	4.8	1.13	28.0	84.4
Deltapine DP 1612 B2XF	0.41	1211	4.8	1.17	30.9	85.0
Deltapine DP 1522 B2XF	0.42	1195	4.9	1.15	28.7	84.6
PhytoGen PHY 222 WRF	0.38	1071	4.3	1.18	30.4	85.8
Trial mean		**1316**				
LSD (0.1)		**132**				
CV (%)		**14**				
Pr>F		**0.2175**				

Table 5. Performance of Non-irrigated Cotton Varieties in Central Alabama, 2015

Prattville Agricultural Research Unit - Prattville, AL

Full Season - Flex

Cultivar	Lint	Yield	Mic	Len	Str	Unif
	(%/100)	(lbs/Acre)		(inches)	(g/tex)	(%)
PhytoGen PHY 495 W3RF	0.45	1634	4.8	1.14	32.8	84.8
Bayer ST 4747GLB2	0.44	1597	4.5	1.21	30.9	84.2
Croplan Genetics 3885 B2XF	0.44	1587	5.0	1.13	29.8	84.3
PhytoGen PHY 333 WRF	0.43	1573	4.6	1.19	33.0	84.7
PhytoGen PHY 499 WRF	0.44	1563	4.9	1.15	35.3	85.1
PHY 375 WRF	0.41	1530	4.5	1.15	29.8	84.7
PhytoGen PHY 444 WRF	0.44	1511	4.2	1.26	31.9	85.9
Deltapine DP 1639 B2XF	0.45	1507	5.1	1.13	31.8	84.3
Bayer ST 4946 GLB2	0.41	1507	5.0	1.16	32.9	84.7
Deltapine DP 1252 B2RF	0.46	1497	5.1	1.15	30.8	85.3
PhytoGen PHY 487 WRF	0.41	1492	4.7	1.15	30.7	83.7
Americot NG 3405 B2XF	0.44	1468	4.7	1.12	27.7	84.0
Deltapine DP 1553 B2XF	0.44	1462	4.9	1.16	30.3	83.8
PhytoGen PHY 552 WRF	0.42	1402	4.3	1.20	33.8	86.2
Deltapine DP 1555 B2RF	0.45	1394	4.5	1.19	31.4	85.1
DynaGro CT 15557	0.45	1389	4.8	1.16	30.6	85.6
Bayer ST 6182GLT	0.46	1379	4.7	1.15	30.3	84.6
Deltapine DP 1646 B2XF	0.44	1375	4.6	1.24	31.7	85.6
Deltapine DP 1538 B2XF	0.45	1370	5.1	1.11	29.9	83.6
Americot NG 5007 B2XF	0.44	1347	4.9	1.17	29.0	84.3
Americot NG 3406 B2XF	0.42	1337	4.5	1.14	30.7	84.4
PhytoGen PHY 575 WRF	0.39	1335	4.3	1.22	31.3	85.2
Deltapine DP 1454NRB2RF	0.42	1314	4.6	1.18	31.9	85.0
Bayer ST 5115GLT	0.40	1302	4.6	1.16	32.1	83.7
Deltapine DP 1558NR B2RF	0.42	1258	4.9	1.18	34.2	85.0
Bayer ST 6448 GLB2	0.40	1205	4.4	1.23	30.8	85.0
Bayer ST 5289GLT	0.40	1124	4.8	1.17	29.8	83.8
Trial mean		**1421**				
LSD (0.1)		**107**				
CV (%)		**11**				
Pr>F		**0.0003**				

Table 6. Performance of Non-irrigated Cotton Varieties in Central Alabama, 2015

Plant Breeding Unit - Tallassee, AL

Early Season - Flex

Cultivar	Lint (%/100)	Yield (lbs/Acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PHY 499 WRF	0.45	1591	5.1	1.14	31.7	84.9
Deltapine DP 1612 B2XF	0.43	1550	4.6	1.16	31.1	84.2
PHY 375 WRF	0.45	1540	4.7	1.15	31.5	84.5
PhytoGen PHY 495 W3RF	0.46	1506	4.7	1.10	32.4	84.0
PhytoGen PHY 312 WRF	0.45	1504	4.9	1.19	31.4	85.3
Deltapine DP 1614 B2XF	0.47	1483	4.9	1.19	30.7	84.6
Deltapine DP 1518 B2XF	0.43	1427	4.6	1.17	30.6	84.7
PhytoGen PHY 444 WRF	0.45	1423	4.3	1.26	32.3	85.2
Deltapine DP 1252 B2RF	0.45	1409	5.0	1.15	31.5	84.2
DynaGro CT 15426	0.46	1371	4.7	1.13	29.4	84.5
PhytoGen PHY 222 WRF	0.41	1356	4.8	1.17	30.5	85.8
Americot NG 3406 B2XF	0.45	1313	5.0	1.15	30.4	84.7
Deltapine MON 15R513B2XF	0.44	1280	5.1	1.19	31.5	86.0
Americot NG 3405 B2XF	0.45	1273	4.6	1.12	28.4	83.5
Deltapine DP 1522 B2XF	0.45	1212	4.9	1.15	31.7	84.2
PhytoGen PHY 333 WRF	0.44	1197	4.6	1.20	30.2	83.9
PhytoGen PHY 487 WRF	0.43	1147	5.0	1.17	31.5	85.0
Croplan Genetics 3475 B2XF	0.44	1006	4.9	1.14	31.3	84.3
Trial mean		**1366**				
LSD (0.1)		**240**				
CV (%)		**25**				
Pr>F		**0.6122**				

Table 7. Performance of Non-irrigated Cotton Varieties in Central Alabama, 2015

Plant Breeding Unit - Tallassee, AL
Full Season - Flex

Cultivar	Lint (%/100)	Yield (lbs/Acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
Deltapine DP 1538 B2XF	0.34	1937	4.9	1.16	29.3	83.9
PhytoGen PHY 444 WRF	0.44	1927	4.7	1.14	30.1	82.5
Deltapine DP 1558NR B2RF	0.46	1903	4.8	1.12	31.5	82.7
Bayer ST 4946 GLB2	0.45	1847	5.2	1.16	32.6	83.9
PhytoGen PHY 552 WRF	0.44	1844	5.0	1.12	29.6	84.0
Deltapine DP 1252 B2RF	0.44	1785	4.9	1.13	32.7	83.3
Deltapine DP 1639 B2XF	0.32	1759	5.0	1.18	30.7	83.1
Deltapine DP 1454NRB2RF	0.43	1758	5.0	1.16	29.1	84.9
Bayer ST 5289GLT	0.46	1750	5.1	1.20	30.4	83.7
PhytoGen PHY 333 WRF	0.44	1743	4.9	1.11	29.9	83.7
Bayer ST 6182GLT	0.46	1678	5.0	1.12	30.7	82.4
Bayer ST 6448 GLB2	0.46	1670	4.7	1.15	30.0	82.0
PhytoGen PHY 495 W3RF	0.46	1663	5.4	1.16	32.0	83.7
Bayer ST 5115GLT	0.43	1659	3.6	1.25	31.6	83.5
Bayer ST 4747GLB2	0.34	1632	4.8	1.23	30.1	84.9
Americot NG 3406 B2XF	0.43	1629	4.6	1.19	30.8	83.2
DynaGro CT 15557	0.43	1591	4.9	1.17	29.7	84.2
PhytoGen PHY 575 WRF	0.45	1558	4.9	1.12	30.1	82.8
Croplan Genetics 3885 B2XF	0.44	1544	4.8	1.16	30.5	83.5
Deltapine DP 1555 B2RF	0.45	1543	4.9	1.16	31.2	84.3
PhytoGen PHY 487 WRF	0.45	1537	5.1	1.15	29.7	84.3
Deltapine DP 1646 B2XF	0.46	1501	5.3	1.13	29.4	82.5
Americot NG 5007 B2XF	0.45	1417	4.9	1.17	31.6	84.3
PhytoGen PHY 499 WRF	0.45	1417	5.1	1.15	31.3	84.1
PHY 375 WRF	0.44	1356	4.7	1.12	28.7	83.2
Americot NG 3405 B2XF	0.47	1330	5.1	1.11	31.8	83.8
Deltapine DP 1553 B2XF	0.45	1267	5.2	1.13	32.7	84.8
Trial mean		**1630**				
LSD (0.1)		**279**				
CV (%)		**20**				
Pr>F		**0.3351**				

Table 8. Performance of Non-irrigated Cotton Varieties in South Alabama, 2015

Gulf Coast REC - Fairhope, AL

Early Season - Flex

Cultivar	Lint % (%/100)	Yield (lbs/Acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PHY 444 WRF	0.42	1604	3.7	1.28	35.3	85.5
PhytoGen PHY 333 WRF	0.40	1529	4.2	1.22	31.8	85.7
Deltapine DP 1252 B2RF	0.43	1514	4.4	1.22	31.6	85.4
Deltapine MON 15R513B2XF	0.38	1493	4.5	1.22	31.7	85.6
PhytoGen PHY 487 WRF	0.39	1440	4.2	1.17	31.9	84.1
PhytoGen PHY 495 W3RF	0.43	1369	4.1	1.12	37.3	85.5
Deltapine DP 1614 B2XF	0.41	1356	4.5	1.20	32.7	85.9
Deltapine DP 1522 B2XF	0.41	1355	4.2	1.22	33.1	85.1
Deltapine DP 1518 B2XF	0.38	1340	3.7	1.20	32.6	84.5
PhytoGen PHY 312 WRF	0.41	1338	4.4	1.20	32.2	85.2
PHY 375 WRF	0.39	1272	4.0	1.17	32.5	85.0
PhytoGen PHY 499 WRF	0.42	1234	4.3	1.14	33.5	85.1
Americot NG 3406 B2XF	0.39	1212	4.3	1.15	30.8	84.8
Americot NG 3405 B2XF	0.40	1208	4.2	1.13	30.2	84.2
Deltapine DP 1612 B2XF	0.38	1192	4.2	1.22	35.2	85.1
Croplan Genetics 3475 B2XF	0.38	1178	4.5	1.21	34.0	85.7
PhytoGen PHY 222 WRF	0.37	1090	4.6	1.17	32.9	85.4
DynaGro CT 15426	0.39	1011	3.5	1.16	32.1	84.4
Trial mean		**1319**				
LSD (0.1)		**119**				
CV (%)		**13**				
Pr>F		**0.0002**				

Table 9. Performance of Non-irrigated Cotton Varieties in South Alabama, 2015

Gulf Coast REC - Fairhope, AL
Full Season - Flex

Cultivar	Lint (%/100)	Yield (lbs/Acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PHY 552 WRF	0.45	2175	4.5	1.18	34.2	84.6
Deltapine DP 1646 B2XF	0.46	2163	4.8	1.20	31.8	83.6
PhytoGen PHY 333 WRF	0.45	2157	4.6	1.15	31.9	83.8
PhytoGen PHY 444 WRF	0.45	2075	4.7	1.16	31.7	84.0
Deltapine DP 1555 B2RF	0.47	2065	4.7	1.18	29.0	84.4
PhytoGen PHY 499 WRF	0.45	2051	5.0	1.15	32.2	83.1
Bayer ST 5115GLT	0.42	2045	4.7	1.15	31.8	83.6
PhytoGen PHY 487 WRF	0.44	2007	5.0	1.15	29.7	83.5
Deltapine DP 1558NR B2RF	0.44	2005	5.1	1.18	32.1	84.3
Deltapine DP 1538 B2XF	0.45	1993	4.8	1.12	28.4	82.8
Croplan Genetics 3885 B2XF	0.44	1934	4.8	1.13	30.5	84.2
Deltapine DP 1639 B2XF	0.44	1915	4.8	1.17	30.8	85.5
Deltapine DP 1454NRB2RF	0.45	1906	4.8	1.19	31.3	84.0
Deltapine DP 1553 B2XF	0.45	1906	4.9	1.18	32.0	84.4
PhytoGen PHY 495 W3RF	0.45	1899	4.5	1.15	33.5	83.9
Bayer ST 6448 GLB2	0.41	1898	5.0	1.23	31.6	84.8
Deltapine DP 1252 B2RF	0.46	1878	4.9	1.17	30.5	84.9
DynaGro CT 15557	0.46	1832	5.2	1.16	29.2	85.3
Bayer ST 5289GLT	0.40	1801	4.7	1.15	29.9	83.6
Americot NG 5007 B2XF	0.44	1779	4.8	1.17	31.0	84.3
Bayer ST 6182GLT	0.46	1745	4.7	1.15	30.5	83.0
PhytoGen PHY 575 WRF	0.41	1730	5.0	1.19	30.3	83.8
Bayer ST 4747GLB2	0.42	1678	5.1	1.19	30.9	84.8
PHY 375 WRF	0.43	1658	4.7	1.15	30.3	85.0
Americot NG 3405 B2XF	0.43	1611	4.8	1.15	30.7	83.7
Bayer ST 4946 GLB2	0.41	1525	4.4	1.17	32.7	84.6
Americot NG 3406 B2XF	0.42	1450	5.1	1.17	31.0	83.9
Trial mean		**1889**				
LSD (0.1)		**106**				
CV (%)		**8**				
Pr>F		**0.0001**				

Table 10. Performance of Non-irrigated Cotton Varieties in Southeast Alabama, 2015

Wiregrass REC - Headland, AL
Early Season - Flex

Cultivar	Lint (%/100)	Yield (lbs/Acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PHY 333 WRF	0.44	1100	4.4	1.17	32.1	84.5
PhytoGen PHY 499 WRF	0.44	1029	4.6	1.11	34.0	84.5
PhytoGen PHY 487 WRF	0.44	1027	5.0	1.10	30.9	82.7
Deltapine DP 1252 B2RF	0.43	1025	4.9	1.15	30.5	83.9
Deltapine DP 1522 B2XF	0.43	1018	4.6	1.14	33.0	84.8
PhytoGen PHY 444 WRF	0.44	944	4.0	1.22	33.8	85.1
PhytoGen PHY 312 WRF	0.42	903	4.5	1.17	35.0	84.4
DynaGro CT 15426	0.44	896	5.0	1.14	30.6	84.9
PhytoGen PHY 495 W3RF	0.45	869	4.8	1.11	33.8	84.5
Deltapine DP 1612 B2XF	0.40	866	4.7	1.18	34.2	84.8
Deltapine MON 15R513B2XF	0.43	866	5.2	1.19	34.7	85.8
Croplan Genetics 3475 B2XF	0.40	826	4.4	1.13	34.2	83.9
PhytoGen PHY 222 WRF	0.41	810	4.9	1.16	32.7	85.8
Deltapine DP 1518 B2XF	0.42	794	4.8	1.13	30.3	83.7
PHY 375 WRF	0.40	781	3.9	1.14	29.7	83.7
Americot NG 3405 B2XF	0.42	765	4.8	1.08	27.5	83.4
Americot NG 3406 B2XF	0.41	727	4.5	1.15	31.8	84.7
Deltapine DP 1614 B2XF	0.42	710	5.1	1.18	32.0	85.6
Trial mean		**886**				
LSD (0.1)		**90**				
CV (%)		**14**				
Pr>F		**0.0005**				

Table 11. Performance of Non-irrigated Cotton Varieties in Southeast Alabama, 2015

Wiregrass REC - Headland, AL
Full Season - Flex

Cultivar	Lint (%/100)	Yield (lbs/Acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PHY 444 WRF	0.43	1150	4.1	1.25	33.3	85.6
Deltapine DP 1639 B2XF	0.45	1095	5.0	1.16	32.7	84.7
PhytoGen PHY 487 WRF	0.43	1078	5.1	1.14	31.6	83.9
PhytoGen PHY 575 WRF	0.39	1058	4.8	1.21	30.5	85.2
PhytoGen PHY 499 WRF	0.43	1057	5.2	1.16	34.9	85.4
PhytoGen PHY 333 WRF	0.43	1006	4.4	1.19	31.3	84.9
Deltapine DP 1558NR B2RF	0.42	1003	5.0	1.17	33.7	84.6
Deltapine DP 1454NRB2RF	0.45	997	5.0	1.15	31.6	84.4
Deltapine DP 1555 B2RF	0.44	960	4.8	1.21	33.1	84.4
Deltapine DP 1553 B2XF	0.44	955	4.8	1.23	31.4	85.0
PhytoGen PHY 495 W3RF	0.43	945	4.7	1.11	34.6	84.9
PhytoGen PHY 552 WRF	0.44	937	4.7	1.17	34.1	85.1
Croplan Genetics 3885 B2XF	0.42	929	4.7	1.12	29.0	84.1
Americot NG 5007 B2XF	0.42	890	4.6	1.14	29.6	84.1
Bayer ST 5115GLT	0.43	884	4.6	1.14	32.1	83.5
PHY 375 WRF	0.43	880	4.5	1.15	30.4	84.5
Bayer ST 4946 GLB2	0.39	879	4.6	1.15	30.2	83.5
Deltapine DP 1252 B2RF	0.43	845	4.6	1.15	29.6	84.2
DynaGro CT 15557	0.45	832	5.0	1.16	29.8	84.5
Deltapine DP 1538 B2XF	0.45	826	5.0	1.12	27.9	84.8
Deltapine DP 1646 B2XF	0.44	821	4.5	1.24	31.9	85.3
Americot NG 3406 B2XF	0.43	818	4.7	1.15	30.4	85.1
Bayer ST 4747GLB2	0.40	814	4.9	1.18	31.3	83.0
Bayer ST 5289GLT	0.39	784	4.8	1.21	33.1	85.0
Americot NG 3405 B2XF	0.41	773	4.8	1.14	28.3	83.6
Bayer ST 6448 GLB2	0.42	769	4.8	1.16	32.3	83.6
Bayer ST 6182GLT	0.45	764	4.7	1.13	30.4	83.0
Trial mean		**916**				
LSD (0.1)		**123**				
CV (%)		**19**				
Pr>F		**0.0401**				

Table 12. Performance of Irrigated Cotton Varieties in North Alabama, 2015

Tennessee Valley REC - Belle Mina, AL
Early Season - Flex

Cultivar	Lint (%/100)	Yield (lbs/Acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
Deltapine DP 1518 B2XF	0.43	1850	4.7	1.21	29.5	84.9
PhytoGen PHY 444 WRF	0.43	1754	4.3	1.30	32.0	86.2
DynaGro CT 15426	0.44	1742	4.9	1.17	29.1	84.1
Croplan Genetics 3475 B2XF	0.43	1734	5.2	1.20	32.4	85.7
PHY 375 WRF	0.42	1714	4.9	1.16	30.2	84.3
Deltapine DP 1522 B2XF	0.43	1703	4.9	1.18	30.5	83.9
PhytoGen PHY 333 WRF	0.42	1682	4.8	1.23	31.7	85.3
Americot NG 3406 B2XF	0.43	1628	5.1	1.16	28.6	84.7
PhytoGen PHY 495 W3RF	0.43	1627	4.7	1.18	33.5	85.0
Deltapine DP 1612 B2XF	0.41	1580	5.2	1.21	31.8	84.8
PhytoGen PHY 312 WRF	0.43	1578	4.6	1.17	31.7	84.4
PhytoGen PHY 487 WRF	0.40	1568	4.6	1.16	31.6	83.6
Deltapine DP 1252 B2RF	0.43	1545	4.8	1.18	30.3	85.1
PhytoGen PHY 222 WRF	0.42	1504	5.1	1.17	31.4	85.2
PhytoGen PHY 499 WRF	0.42	1418	5.0	1.22	33.2	85.4
Americot NG 3405 B2XF	0.42	1408	4.6	1.14	28.0	82.9
Deltapine DP 1614 B2XF	0.44	1369	4.9	1.20	30.9	84.7
Deltapine MON 15R513B2XF	0.41	1345	4.9	1.22	32.9	85.7
Trial mean		**1597**				
LSD (0.1)		**72**				
CV (%)		**6**				
Pr>F		**0.0001**				

Table 13. Performance of Irrigated Cotton Varieties in North Alabama, 2015

Tennessee Valley REC - Belle Mina, AL
Full Season - Flex

Cultivar	Lint	Yield	Mic	Len	Str	Unif
	(%/100)	(lbs/Acre)		(inches)	(g/tex)	(%)
PhytoGen PHY 444 WRF	0.44	2198	4.5	1.25	30.7	85.1
PhytoGen PHY 333 WRF	0.44	2117	5.1	1.20	31.2	85.6
Deltapine DP 1555 B2RF	0.45	1982	5.1	1.20	30.9	84.5
Bayer ST 4946 GLB2	0.41	1975	5.5	1.16	32.6	84.5
Bayer ST 5115GLT	0.41	1938	4.7	1.17	29.9	83.8
PhytoGen PHY 487 WRF	0.40	1899	5.0	1.17	30.4	84.8
PhytoGen PHY 499 WRF	0.44	1893	5.1	1.17	31.4	84.6
PhytoGen PHY 552 WRF	0.44	1889	4.8	1.19	32.1	85.2
Bayer ST 4747GLB2	0.41	1879	4.9	1.25	32.0	84.3
Americot NG 3406 B2XF	0.44	1866	5.4	1.15	28.9	84.4
PHY 375 WRF	0.42	1852	4.9	1.19	30.0	84.7
Croplan Genetics 3885 B2XF	0.43	1844	4.6	1.18	29.0	85.2
Bayer ST 6182GLT	0.47	1833	4.6	1.18	29.0	85.4
PhytoGen PHY 495 W3RF	0.44	1821	5.1	1.15	31.8	85.4
Deltapine DP 1538 B2XF	0.44	1802	5.0	1.17	27.9	84.6
Deltapine DP 1646 B2XF	0.43	1798	4.9	1.30	28.6	85.2
Deltapine DP 1639 B2XF	0.45	1790	5.2	1.15	31.5	85.5
DynaGro CT 15557	0.44	1785	4.8	1.18	28.9	85.4
Deltapine DP 1558NR B2RF	0.41	1718	5.0	1.24	34.5	85.0
Americot NG 5007 B2XF	0.44	1688	4.8	1.17	28.5	83.8
PhytoGen PHY 575 WRF	0.39	1644	4.5	1.26	29.9	85.7
Bayer ST 5289GLT	0.40	1642	5.0	1.18	30.2	84.5
Americot NG 3405 B2XF	0.42	1580	4.5	1.15	27.4	83.9
Deltapine DP 1454NRB2RF	0.42	1559	4.9	1.22	31.4	85.3
Deltapine DP 1553 B2XF	0.42	1537	4.7	1.23	29.5	85.4
Deltapine DP 1252 B2RF	0.43	1526	4.8	1.21	30.4	86.0
Bayer ST 6448 GLB2	0.39	1457	4.7	1.25	30.2	84.0
Trial mean		**1803**				
LSD (0.1)		**90**				
CV (%)		**7**				
Pr>F		**0.0001**				

Table 14. Performance of Irrigated Cotton Varieties in Central Alabama, 2015

Prattville Agricultural Research Unit - Prattville, AL

Early Season - Flex

Cultivar	Lint	Yield	Mic	Len	Str	Unif
	(%/100)	(lbs/Acre)		(inches)	(g/tex)	(%)
PhytoGen PHY 499 WRF	0.42	1662	4.9	1.17	31.9	84.0
PhytoGen PHY 487 WRF	0.42	1661	4.7	1.14	30.7	83.8
PhytoGen PHY 312 WRF	0.42	1615	4.9	1.17	30.9	84.1
PhytoGen PHY 333 WRF	0.42	1550	4.8	1.17	31.0	84.5
Americot NG 3405 B2XF	0.42	1494	4.5	1.14	30.0	84.0
PHY 375 WRF	0.40	1481	4.5	1.16	31.6	83.7
Americot NG 3406 B2XF	0.41	1474	4.6	1.15	30.8	83.6
DynaGro CT 15426	0.45	1473	5.2	1.17	30.9	84.5
Croplan Genetics 3475 B2XF	0.40	1472	4.6	1.16	31.2	84.4
PhytoGen PHY 444 WRF	0.40	1458	4.4	1.17	31.2	84.6
Deltapine DP 1518 B2XF	0.41	1447	4.5	1.16	30.8	83.6
Deltapine DP 1252 B2RF	0.43	1447	4.7	1.15	31.1	83.9
PhytoGen PHY 495 W3RF	0.43	1446	4.6	1.14	30.6	83.9
Deltapine DP 1612 B2XF	0.40	1410	4.7	1.16	31.4	82.9
Deltapine DP 1522 B2XF	0.39	1382	4.9	1.17	30.5	83.7
PhytoGen PHY 222 WRF	0.41	1350	5.0	1.15	29.7	84.2
Deltapine MON 15R513B2XF	0.40	1327	4.8	1.17	32.0	84.4
Deltapine DP 1614 B2XF	0.43	1266	5.2	1.18	29.6	84.0
Trial mean		**1467**				
LSD (0.1)		**89**				
CV (%)		**9**				
Pr>F		**0.0021**				

Table 15. Performance of Irrigated Cotton Varieties in Central Alabama, 2015

Prattville Agricultural Research Unit - Prattville, AL
Full Season - Flex

Cultivar	Lint (%/100)	Yield (lbs/Acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PHY 444 WRF	0.42	1858	4.0	1.28	32.7	85.8
PhytoGen PHY 333 WRF	0.43	1854	4.6	1.20	30.6	84.8
Americot NG 3405 B2XF	0.42	1834	4.9	1.13	28.0	83.6
PhytoGen PHY 495 W3RF	0.43	1816	4.7	1.13	32.5	85.3
Deltapine DP 1639 B2XF	0.44	1792	5.2	1.15	32.3	84.6
Croplan Genetics 3885 B2XF	0.44	1771	4.9	1.16	30.3	85.0
PhytoGen PHY 499 WRF	0.44	1761	4.9	1.14	33.3	85.3
PhytoGen PHY 487 WRF	0.40	1759	4.6	1.14	30.9	83.3
Deltapine DP 1252 B2RF	0.45	1758	5.0	1.16	29.2	84.2
DynaGro CT 15557	0.44	1751	4.9	1.19	30.6	85.8
Deltapine DP 1558NR B2RF	0.41	1713	4.6	1.19	33.4	85.0
PHY 375 WRF	0.41	1687	4.6	1.18	29.5	85.1
PhytoGen PHY 552 WRF	0.41	1671	4.4	1.20	33.4	85.7
Deltapine DP 1538 B2XF	0.44	1668	4.7	1.11	28.1	84.1
Americot NG 3406 B2XF	0.43	1650	4.7	1.14	29.5	84.0
PhytoGen PHY 575 WRF	0.39	1643	4.4	1.25	31.5	85.6
Deltapine DP 1646 B2XF	0.43	1629	4.6	1.26	30.8	85.4
Deltapine DP 1553 B2XF	0.43	1611	4.7	1.21	30.8	85.4
Americot NG 5007 B2XF	0.44	1603	4.8	1.17	29.2	83.8
Deltapine DP 1454NRB2RF	0.43	1602	4.6	1.14	30.7	85.0
Deltapine DP 1555 B2RF	0.43	1599	4.7	1.22	32.5	85.9
Bayer ST 6182GLT	0.46	1574	4.8	1.16	29.6	85.0
Bayer ST 4747GLB2	0.41	1557	4.6	1.18	29.6	83.3
Bayer ST 4946 GLB2	0.40	1555	5.0	1.19	31.7	85.3
Bayer ST 5115GLT	0.39	1453	4.3	1.17	31.5	84.1
Bayer ST 6448 GLB2	0.38	1397	4.4	1.26	31.5	85.2
Bayer ST 5289GLT	0.39	1268	4.7	1.21	31.3	85.2
Trial mean		**1660**				
LSD (0.1)		**118**				
CV (%)		**10**				
Pr>F		**0.0003**				

Table 16. Performance of Irrigated Cotton Varieties in Southeast Alabama, 2015

Wiregrass REC - Headland, AL

Early Season - Flex

Cultivar	Lint (%/100)	Yield (lbs/Acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PHY 333 WRF	0.46	1397	4.3	1.18	28.6	84.2
DynaGro CT 15426	0.45	1353	4.7	1.16	29.4	83.5
Deltapine DP 1252 B2RF	0.44	1304	4.5	1.20	29.1	83.8
Deltapine DP 1522 B2XF	0.43	1284	4.7	1.19	30.0	84.0
Deltapine DP 1612 B2XF	0.42	1256	4.2	1.20	30.2	83.0
PhytoGen PHY 495 W3RF	0.46	1248	4.6	1.11	30.9	83.4
Deltapine DP 1614 B2XF	0.47	1223	5.0	1.19	29.9	84.3
PhytoGen PHY 312 WRF	0.42	1223	4.6	1.18	30.8	83.8
PhytoGen PHY 499 WRF	0.45	1219	4.6	1.16	30.6	84.1
Americot NG 3406 B2XF	0.43	1209	4.4	1.13	27.7	82.2
PhytoGen PHY 222 WRF	0.41	1170	4.8	1.12	30.6	84.0
Deltapine MON 15R513B2XF	0.43	1169	5.2	1.20	31.8	84.8
PhytoGen PHY 487 WRF	0.44	1146	4.9	1.10	28.3	81.2
Deltapine DP 1518 B2XF	0.43	1109	4.6	1.17	30.7	83.2
PHY 375 WRF	0.43	1081	4.5	1.15	29.5	85.1
Americot NG 3405 B2XF	0.41	1049	4.1	1.11	25.9	82.3
PhytoGen PHY 444 WRF	0.43	1049	3.9	1.27	30.1	84.2
Croplan Genetics 3475 B2XF	0.41	992	4.7	1.16	31.3	83.7
Trial mean		**1194**				
LSD (0.1)		**98**				
CV (%)		**12**				
Pr>F		**0.0068**				

Table 17. Performance of Irrigated Cotton Varieties in Southeast Alabama, 2015

Wiregrass REC - Headland, AL
Full Season - Flex

Cultivar	Lint (%/100)	Yield (lbs/Acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
Bayer ST 4747GLB2	0.43	1319	4.5	1.27	31.2	84.7
Deltapine DP 1555 B2RF	0.44	1298	4.2	1.23	30.2	85.3
Deltapine DP 1646 B2XF	0.46	1295	4.4	1.30	29.9	84.8
Deltapine DP 1538 B2XF	0.47	1277	4.4	1.14	26.9	83.4
Americot NG 5007 B2XF	0.46	1273	4.5	1.18	28.4	83.5
Deltapine DP 1639 B2XF	0.48	1231	4.8	1.15	31.0	83.8
Croplan Genetics 3885 B2XF	0.46	1229	4.4	1.17	28.3	84.3
Deltapine DP 1553 B2XF	0.46	1227	4.2	1.23	28.5	83.6
DynaGro CT 15557	0.45	1224	4.6	1.19	28.3	83.9
PhytoGen PHY 333 WRF	0.44	1187	4.3	1.22	31.8	85.1
PhytoGen PHY 552 WRF	0.47	1174	4.4	1.22	32.6	86.0
Deltapine DP 1252 B2RF	0.47	1168	4.7	1.18	28.6	83.7
Bayer ST 6182GLT	0.48	1167	4.4	1.17	29.1	82.9
Bayer ST 5115GLT	0.42	1164	4.2	1.17	30.5	81.6
PhytoGen PHY 487 WRF	0.43	1163	4.5	1.14	29.3	82.4
Deltapine DP 1558NR B2RF	0.44	1141	4.6	1.17	31.2	84.0
PhytoGen PHY 499 WRF	0.44	1123	4.5	1.15	30.8	84.5
Americot NG 3406 B2XF	0.43	1122	4.5	1.16	30.0	83.7
Bayer ST 4946 GLB2	0.40	1110	4.3	1.19	32.9	83.8
Americot NG 3405 B2XF	0.44	1095	4.8	1.17	27.8	83.9
PhytoGen PHY 444 WRF	0.45	1086	3.6	1.26	29.3	82.9
PHY 375 WRF	0.45	1079	4.5	1.13	27.8	82.2
PhytoGen PHY 575 WRF	0.41	1064	3.9	1.26	30.0	84.0
PhytoGen PHY 495 W3RF	0.45	1047	4.6	1.17	32.4	85.0
Bayer ST 5289GLT	0.43	1041	4.5	1.18	28.7	82.9
Bayer ST 6448 GLB2	0.42	1020	4.3	1.19	29.4	83.8
Deltapine DP 1454NRB2RF	0.44	948	3.8	1.13	28.1	82.9
Trial mean		**1154**				
LSD (0.1)		**104**				
CV (%)		**13**				
Pr>F		**0.0421**				

Table 18. Growing season precipitation in Alabama, 2015

		Monthly rainfall (inches)							7-month
Test location	Year	Mar.	Apr.	May	June	July	Aug.	Sept.	total
Belle Mina	2015	5.7	8.4	5.0	4.1	4.7	7.9	1.6	37.4
	2014	2.7	6.1	2.7	7.0	4.6	2.1	1.3	26.5
Tallassee	2015	1.9	5.3	6.1	5.8	4.7	1.4	1.8	27.0
	2014	5.9	9.1	4.0	4.7	3.8	5.4	4.7	37.6
Prattville	2015	4.2	5.5	4.6	6.8	7.9	3.0	3.1	35.1
	2014	6.8	8.0	5.2	4.2	4.4	4.1	2.5	35.2
Headland	2015	1.8	7.7	4.2	5.5	3.9	7.1	7.4	37.6
	2014	5.4	13.6	3.8	3.8	2.3	5.4	1.5	35.8
Fairhope	2015	7.2	10.5	2.7	4.9	6.7	5.4	3.6	41.0
	2014	8.5	27.0	8.2	8.7	6.4	1.7	5.8	66.3

Irrigation amounts for Irrigated cotton trials	**2015**
TVREC Irrigated cotton trials:	**4.0** inches irrigation water
PARU Irrigated cotton trials:	**1.8** inches irrigation water
WGREC Irrigated cotton trials:	**3.3** inches irrigation water

Table 19. Sources of Seed for the 2015 Cotton Variety Trials	
Monsanto, St Louis, Missiouri	
Deltapine DP 1518 B2XF	Deltapine DP 1558NR B2RF
Deltapine DP 1522 B2XF	Deltapine DP 1612 B2XF
Deltapine DP 1538 B2XF	Deltapine DP 1639 B2XF
Deltapine DP 1553 B2XF	Deltapine DP 1646 B2XF
Deltapine DP 1252 B2RF	Deltapine DP 1614 B2XF
Deltapine DP 1555 B2RF	MON 15R513B2XF
Deltapine DP 1454NR B2RF	
Bayer Crop Sciences, Tifton, Georgia	
Bayer ST 4747GLB2	Bayer ST 5115GLT
Bayer ST 4946GLB2	Bayer ST 5289GLT
Bayer ST 6448GLB2	Bayer ST 6182GLT
Dow AgroSciences, Shellman, Georgia	
PhytoGen PHY 222 WRF	PhytoGen PHY 487 WRF (PX 3003-10 WRF)
PhytoGen PHY 312 WRF (PX 3122b-51 WRF)	PhytoGen PHY 499 WRF
PhytoGen PHY 333 WRF	PhytoGen PHY 575 WRF
PhytoGen PHY 375 WRF	PhytoGen PHY 495 W3RF
PhytoGen PHY 444 WRF (PX 4444-13 WRF)	
Americot, Inc., Lubbock, Texas	
NG 3405 B2XF	NG 5007 B2XF
NG 3406 B2XF	
Crop Production Services, Kinston, Alabama	
DynaGro CT15426	
DynaGro CT15557	
Winfield Solutions LLC, Frisco, Texas	
Croplan Genetics CG 3475 B2XF	
Croplan Genetics CG 3885 B2XF	

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Alabama Experiment Station Outlying Units with Annual Row Crop Variety Trials

Northern Region

Sand Mountain Research and Extension Center, Crossville

William Clements, Director

Tennessee Valley Research and Extension Center, Belle Mina

Chet Norris, Director

David Harkins, Associate Director

♦ ♦

Central Region

Black Belt Research and Extension Center, Marion Junction

Jamie Yeager, Director

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