

Performance of Cotton Varieties in Alabama, 2014

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1930s Mobile Docks with Cotton Ready to Ship
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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, 2014.

Location	Soil Type	Test	Planting Date	Harvest Date
Belle Mina	Decatur silt loam	Early Season Flex	April 25	September 29
		Full Season Flex	April 25	September 29
		Irrigated Early Season Flex	April 25	October 10
		Irrigated Full Season Flex	April 25	October 10
Prattville	Lucedale fine sandy loam	Early Season Flex	May 5	October 16
		Full Season Flex	May 5	October 16
	Wickham fine sandy loam	Early Season Flex	May 7	October 16
		Full Season Flex	May 7	October 16
Headland	Dothan sandy loam	Early Season Flex	May 9	October 15
		Full Season Flex	May 9	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 7	October 24
		Full Season Flex	May 7	October 24
GCREC				

Tables

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

2014 Cotton Variety Yield Performance

Table 1. Soil type, planting date, and harvest date for cotton variety trials, 2014

Non-irrigated trials, north Alabama

Table 2. Performance of Early Season Cotton Varieties in North Alabama (TVREC), 2014

Table 3. Performance of Early Season Cotton Varieties in North Alabama (TVREC), 2014

Table 4. Performance of Early Season Cotton Varieties in Northeast Alabama (SMREC), 2014

Non-irrigated trials, central Alabama

Table 5. Performance of Early Season Cotton Varieties in Central Alabama (PARU), 2014

Table 6. Performance of Full Season Cotton Varieties in Central Alabama (PARU), 2014

Table 7. Performance of Early Season Cotton Varieties in Central Alabama (EVS PBU), 2014

Table 8. Performance of Full Season Cotton Varieties in Central Alabama (EVS PBU), 2014

Non-irrigated trials, south Alabama

Table 9. Performance of Early Season Cotton Varieties in South Alabama (GCREC), 2014

Table 10. Performance of Full Season Cotton Varieties in South Alabama (GCREC), 2014

Table 11. Performance of Early Season Cotton Varieties in Southeast Alabama (WGREC), 2014

Table 12. Performance of Full Season Cotton Varieties in Southeast Alabama (WGREC), 2014

Irrigated trials, TVREC & WGREC

Table 14. Performance of Early to Mid-Season Cotton Varieties in North Alabama (TVREC), 2014

Table 15. Performance of Mid- to Full-Season Cotton Varieties in North Alabama (TVREC), 2014

Table 16. Performance of Early- to Mid-Season Cotton Varieties in Southeast AL (WGREC), 2014

Table 17. Performance of Mid- to Full Season Cotton Varieties in Southeast AL (WGREC), 2014

Precipitation and seed sources

Table 18. Growing season precipitation in Alabama, 2014

Table 19. Sources of Seed for the 2014 Cotton Variety Trials

Table 2. Performance of Non-irrigated Cotton Varieties in North Alabama, 2014.
Tennessee Valley REC - Belle Mina, AL
Early Season - Flex

Cultivar	Lint (%/100)	Yield (lbs/Acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PHY 333 WRF	0.46	1668	4.3	1.14	29.5	82.6
PhytoGen PX 4444-13 WRF	0.48	1661	4.5	1.19	31.5	82.4
PhytoGen PX 3003-10 WRF	0.48	1646	4.9	1.06	26.6	82.3
Deltapine DP 1321 B2RF	0.44	1616	5.3	1.13	29.8	83.0
PhytoGen PX3122b-51 WRF	0.45	1606	4.4	1.22	30.7	84.7
Americot AM 1511 B2RF	0.47	1606	4.8	1.13	28.7	83.2
PhytoGen PHY 495 W3RF	0.47	1599	5.4	1.09	29.7	82.8
Bayer ST 4946 GLB2	0.44	1598	4.9	1.14	29.7	82.5
Bayer ST 4747GLB2	0.46	1582	5.2	1.13	27.8	82.3
PhytoGen PHY 339 WRF	0.45	1561	4.5	1.15	28.2	83.2
Deltapine DP 1252 B2RF	0.48	1550	4.5	1.12	28.6	82.3
PhytoGen PHY 499 WRF	0.47	1550	4.9	1.13	30.9	83.3
Bayer ST 5032GLT	0.44	1532	4.5	1.21	30.7	83.9
Deltapine MON 12R224 B2R2	0.43	1515	4.0	1.20	29.4	83.3
Deltapine DP 0912 B2RF	0.44	1509	4.9	1.09	29.5	82.7
PHY 375 WRF	0.46	1504	4.3	1.08	28.0	81.6
Deltapine DP 1311 B2RF	0.47	1489	4.6	1.10	29.7	82.5
DynaGro CT 14515	0.47	1480	4.7	1.12	29.7	82.2
Deltapine DP 1133 B2RF	0.47	1451	5.2	1.14	30.2	84.1
Deltapine DP 1034 B2RF	0.47	1401	4.7	1.15	27.6	82.8
PhytoGen PHY 427 WRF	0.42	1385	4.1	1.15	28.9	81.8
DynaGro 2355 B2RF	0.41	1351	4.3	1.15	30.3	82.2
Trial mean		1539				
L.S.D. (0.10)		65				
C.V. (%)		6				
Pr>F		0.0001				

*L.S.D., Least significant difference at the 10% level; NS, not statistically different, C.V., coefficient of variation.

Table 3. Performance of Non-Irrigated Cotton Varieties in North Alabama, 2014.

Tennessee Valley REC - Belle Mina, AL						
Full Season - Flex						
Cultivar	Lint (%/100)	Yield (Lbs/Acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PX 4444-13 WRF	0.48	1626	4.1	1.23	30.2	83.3
PhytoGen PHY 333 WRF	0.47	1604	5.0	1.15	29.6	81.1
Bayer ST 4946 GLB2	0.44	1578	4.8	1.12	31.2	82.3
PhytoGen PX499-36 W3RF	0.48	1547	5.0	1.09	30.8	80.5
Deltapine DP 1252 B2RF	0.48	1507	5.4	1.09	27.7	82.4
PhytoGen PHY 499 WRF	0.46	1457	4.8	1.13	30.7	82.0
Americot AM 1511 B2RF	0.47	1421	4.9	1.11	30.2	81.8
PHY 375 WRF	0.46	1421	4.7	1.09	26.7	83.0
PhytoGen PX5540-10 WRF	0.48	1408	4.5	1.08	30.1	83.7
PhytoGen PHY 495 W3RF	0.47	1407	4.8	1.14	31.7	83.4
Deltapine DP 1137 B2RF	0.46	1385	4.8	1.10	28.2	84.1
Americot NG 5315 B2RF	0.47	1384	5.5	1.07	28.5	79.7
PhytoGen PX5540-63 WRF	0.48	1369	5.1	1.14	30.7	82.6
Deltapine DP 1050 B2RF	0.47	1367	5.0	1.13	28.0	81.4
DynaGro DG 2610 B2RF	0.47	1362	4.9	1.12	28.9	81.1
PhytoGen PX5540-57 WRF	0.45	1353	4.8	1.18	31.1	82.3
Deltapine DP 1555 B2RF	0.49	1350	5.1	1.10	30.4	81.6
Bayer ST 6448 GLB2	0.44	1331	4.6	1.19	27.9	81.9
Deltapine DP 1454NRB2RF	0.47	1325	5.4	1.06	27.3	82.0
Bayer ST 4747GLB2	0.45	1318	4.4	1.15	28.3	82.1
Croplan Genetics CG 3787 B2RF	0.47	1302	4.9	1.09	28.4	82.9
Bayer BX 1536GLT	0.44	1248	3.9	1.12	29.7	82.4
Bayer ST 5289GLT	0.43	1239	4.4	1.14	29.2	80.9
Bayer BX 1535GLT	0.43	1205	4.4	1.17	31.8	82.0
PhytoGen PHY 575 WRF	0.43	1199	4.6	1.17	29.8	81.6
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Trial mean		1388				
L.S.D. (0.10)		65.6				
C.V. (%)		6.7				
Pr>F		0.0001				

*L.S.D., Least significant difference at the 10% level; NS, not statistically different, C.V., coefficient of variation.

Table 4. Performance of Non-irrigated Cotton Varieties in Northeast Alabama, 2014.

Sand Mountain REC - Crossville, AL
Non-irrigated Cotton Trial

Cultivar	Lint (%/100)	Yield (lbs/acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
Deltapine DP 1137 B2RF	0.47	1131	4.1	1.14	29.2	83.4
Deltapine DP 1252 B2RF	0.46	946	4.1	1.13	29.3	83.6
Bayer ST 6448 GLB2	0.42	930	3.1	1.23	30.0	82.4
PhytoGen PHY 499 WRF	0.46	862	3.6	1.17	30.8	83.8
PhytoGen PHY 333 WRF	0.44	823	3.4	1.18	31.3	83.6
Deltapine DP 1454NRB2RF	0.44	801	3.4	1.14	29.2	81.5
PhytoGen PHY 339 WRF	0.46	795	3.6	1.18	27.7	83.0
Americot AM 1511 B2RF	0.45	784	3.0	1.13	29.1	80.4
Bayer ST 4747GLB2	0.46	754	3.4	1.18	27.4	82.4
PhytoGen PHY 575 WRF	0.44	741	3.5	1.21	29.7	84.7
Bayer ST 4946 GLB2	0.44	726	2.8	1.15	33.1	82.3
PHY 375 WRF	0.44	694	2.9	1.15	28.2	82.0
Deltapine DP 1321 B2RF	0.44	615	2.8	1.17	28.9	83.3
PhytoGen PHY 427 WRF	0.44	585	2.9	1.16	29.8	83.8
Fiber Max FM 1944 GLB2	0.40	478	3.1	1.20	29.5	83.0
Trial mean		778				
L.S.D. (0.10)		117				
C.V. (%)		21.2				
Pr>F		0.0005				

*L.S.D, Least significant difference at the 10% level; NS, not statistically different, C.V., coefficient of variation.

Table 5. Performance of Non-irrigated Cotton Varieties in Central Alabama, 2013-2014.

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

Cultivar	Lint (%/100)	Yield (Lbs/Acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PX 4444-13 WRF	0.46	1503	4.5	1.23	33.6	83.9
Bayer ST 4946 GLB2	0.43	1359	5.0	1.12	30.5	82.7
PHY 375 WRF	0.44	1300	5.3	1.10	29.5	82.5
PhytoGen PHY 495 W3RF	0.45	1300	5.3	1.09	32.0	83.1
DynaGro CT 14515	0.44	1296	5.1	1.14	32.2	82.4
PhytoGen PX 3003-10 WRF	0.44	1296	5.0	1.09	30.1	81.9
PhytoGen PHY 333 WRF	0.45	1294	5.1	1.13	30.6	83.3
PhytoGen PX3122b-51 WRF	0.45	1254	5.0	1.12	29.4	82.5
Deltapine DP 1252 B2RF	0.46	1224	5.4	1.11	29.4	82.2
Deltapine DP 0912 B2RF	0.42	1215	5.3	1.09	28.5	82.0
PhytoGen PHY 499 WRF	0.44	1215	5.3	1.10	29.8	82.3
Bayer ST 5032GLT	0.41	1166	4.6	1.18	30.6	81.2
Bayer ST 4747GLB2	0.45	1166	5.3	1.12	29.9	82.2
Americot AM 1511 B2RF	0.45	1140	5.1	1.13	30.4	82.7
PhytoGen PHY 427 WRF	0.42	1134	5.2	1.13	32.5	84.1
Deltapine DP 1311 B2RF	0.44	1109	3.9	1.14	30.5	83.4
Deltapine MON 12R224 B2R2	0.40	1090	5.3	1.16	31.7	83.2
Deltapine DP 1034 B2RF	0.44	1075	5.1	1.13	29.3	83.2
PhytoGen PHY 339 WRF	0.42	1071	4.8	1.15	31.2	82.7
DynaGro 2355 B2RF	0.40	1047	4.9	1.11	32.0	82.5
Deltapine DP 1321 B2RF	0.43	1040	5.2	1.17	30.4	83.3
Deltapine DP 1133 B2RF	0.42	1036	5.3	1.15	32.0	83.8
Trial mean		1197				
L.S.D. (0.10)		90				
C.V. (%)		10.6				
Pr>F		0.0001				

*L.S.D, Least significant difference at the 10% level; NS, not statistically different, C.V., coefficient of variation.

Table 6. Performance of Non-irrigated Cotton Varieties in Central Alabama, 2014.

Prattville Agricultural Research Unit - Prattville, AL

Full Season - Flex

Cultivar	Lint (%)	Yield (lbs/acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PHY 499 WRF	0.45	1817	5.0	1.13	33.5	83.3
PhytoGen PX 4444-13 WRF	0.44	1782	4.4	1.22	32.3	84.4
PhytoGen PX499-36 W3RF	0.46	1696	4.9	1.08	29.8	81.8
PhytoGen PX5540-63 WRF	0.45	1679	5.0	1.17	31.2	83.7
PHY 375 WRF	0.44	1616	4.9	1.12	28.6	83.5
PhytoGen PHY 495 W3RF	0.44	1590	4.6	1.12	32.0	82.8
Croplan Genetics CG 3787 B2RF	0.44	1590	4.9	1.16	28.9	83.6
PhytoGen PHY 575 WRF	0.41	1581	4.4	1.16	29.2	83.4
Bayer ST 6448 GLB2	0.43	1564	4.6	1.10	30.7	83.0
PhytoGen PHY 333 WRF	0.44	1563	4.9	1.15	29.5	83.3
Deltapine DP 1454NRB2RF	0.44	1557	5.2	1.12	31.1	82.1
Bayer ST 4946 GLB2	0.41	1525	4.6	1.17	31.3	83.4
Americot AM 1511 B2RF	0.43	1493	4.8	1.13	31.1	82.5
PhytoGen PX5540-57 WRF	0.44	1487	5.1	1.16	30.5	83.9
Deltapine DP 1555 B2RF	0.46	1480	4.9	1.15	31.8	83.0
PhytoGen PX5540-10 WRF	0.44	1480	4.7	1.16	30.5	83.9
Deltapine DP 1137 B2RF	0.43	1473	4.2	1.15	29.4	83.1
Deltapine DP 1252 B2RF	0.42	1467	4.2	1.18	30.6	83.6
Bayer ST 4747GLB2	0.43	1433	4.8	1.19	29.5	83.5
Americot NG 5315 B2RF	0.45	1365	4.7	1.15	30.3	84.1
Bayer BX 1535GLT	0.41	1331	4.4	1.21	33.4	83.9
Bayer BX 1536GLT	0.43	1327	4.6	1.14	31.6	83.9
Deltapine DP 1050 B2RF	0.45	1227	5.0	1.15	29.9	83.8
DynaGro DG 2610 B2RF	0.44	1220	5.0	1.15	28.7	83.8
Bayer ST 5289GLT	0.40	1152	5.0	1.15	30.0	82.4
Trial mean		1498				
L.S.D. (0.10)		151				
C.V. (%)		14.3				
Pr>F		0.0024				

*L.S.D., Least significant difference at the 10% level; NS, not statistically different, C.V., coefficient of variation.

Table 7. Performance of Non-irrigated Cotton Varieties in Central Alabama, 2014.

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	0.46	1745	4.9	1.15	31.2	84.2
Deltapine DP 1252 B2RF	0.47	1703	5.0	1.14	29.0	83.7
PhytoGen PHY 333 WRF	0.45	1702	4.6	1.16	29.5	82.6
PhytoGen PX 3003-10 WRF	0.44	1700	4.4	1.12	29.5	82.7
PhytoGen PX3122b-51 WRF	0.45	1664	4.6	1.19	30.7	84.2
PhytoGen PHY 495 W3RF	0.45	1658	4.3	1.12	33.0	83.2
PHY 375 WRF	0.45	1546	4.5	1.13	28.5	82.9
Deltapine DP 1311 B2RF	0.44	1442	4.9	1.14	28.8	82.5
Deltapine MON 12R224 B2R2	0.43	1413	4.1	1.13	30.1	83.5
Bayer ST 4747GLB2	0.44	1404	4.6	1.19	29.5	82.0
Bayer ST 4946 GLB2	0.44	1380	4.5	1.18	33.1	83.7
PhytoGen PX 4444-13 WRF	0.46	1369	4.4	1.24	31.9	83.6
Deltapine DP 1133 B2RF	0.45	1341	4.7	1.15	30.6	83.2
Americot AM 1511 B2RF	0.45	1329	5.0	1.11	29.8	82.5
Deltapine DP 1321 B2RF	0.44	1282	5.1	1.13	30.5	83.4
PhytoGen PHY 427 WRF	0.44	1274	4.8	1.12	29.1	83.0
DynaGro 2355 B2RF	0.43	1268	4.5	1.12	29.9	82.6
Bayer ST 5032GLT	0.44	1250	4.0	1.15	30.8	81.9
DynaGro CT 14515	0.45	1231	5.0	1.16	30.8	83.0
Deltapine DP 0912 B2RF	0.44	1230	4.9	1.12	30.4	82.4
PhytoGen PHY 339 WRF	0.43	1223	4.1	1.18	31.0	83.7
Deltapine DP 1034 B2RF	0.44	1207	4.4	1.16	29.6	83.3
Trial mean		1425				
L.S.D. (0.10)		216				
C.V. (%)**		21.4				
Pr>F		0.1023				

*L.S.D., Least significant difference at the 10% level; NS, not statistically different, C.V., coefficient of variation.

**High precipitation and difficult weed management resulted in a higher than normal CV for this test.

Table 8. Performance of Non-irrigated Cotton Varieties in Central Alabama, 2014.**Plant Breeding Unit, Tallassee AL****Full Season - Flex**

Cultivar	Lint (%/100)	Yield (lbs/Acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PHY 499 WRF	0.46	1622	4.9	1.13	32.7	83.7
PhytoGen PHY 333 WRF	0.46	1523	4.3	1.18	30.5	83.8
PhytoGen PX5540-57 WRF	0.44	1431	4.4	1.19	32.2	84.5
PhytoGen PHY 495 W3RF	0.46	1355	4.6	1.12	33.5	84.3
Croplan Genetics CG 3787 B2RF	0.46	1343	4.9	1.14	29.1	83.5
Deltapine DP 1252 B2RF	0.47	1337	5.0	1.17	28.7	84.3
Deltapine DP 1050 B2RF	0.46	1331	4.6	1.14	28.8	82.8
Deltapine DP 1454NRB2RF	0.47	1306	4.9	1.08	27.6	81.9
Bayer ST 4747GLB2	0.45	1267	4.6	1.16	28.1	81.3
PhytoGen PX 4444-13 WRF	0.47	1256	4.3	1.20	30.1	84.6
Bayer ST 4946 GLB2	0.45	1234	5.0	1.12	31.9	83.2
Americot NG 5315 B2RF	0.46	1233	4.9	1.15	27.9	85.1
Deltapine DP 1137 B2RF	0.45	1211	4.5	1.13	28.3	83.1
PhytoGen PHY 575 WRF	0.42	1206	4.4	1.21	30.2	84.7
Deltapine DP 1555 B2RF	0.48	1190	4.4	1.13	31.7	82.4
Bayer ST 5289GLT	0.43	1159	4.6	1.11	28.6	82.0
PhytoGen PX5540-63 WRF	0.46	1152	4.4	1.17	30.9	84.4
PhytoGen PX499-36 W3RF	0.48	1140	4.6	1.10	31.3	82.9
DynaGro DG 2610 B2RF	0.44	1140	4.9	1.13	28.3	84.1
Bayer ST 6448 GLB2	0.44	1127	5.0	1.18	30.8	83.7
Bayer BX 1535GLT	0.42	1096	4.5	1.20	34.2	83.9
Americot AM 1511 B2RF	0.48	1080	4.9	1.10	31.5	84.0
PHY 375 WRF	0.46	1053	4.2	1.09	28.6	81.3
Bayer BX 1536GLT	0.44	922	4.2	1.16	34.7	84.7
PhytoGen PX5540-10 WRF	0.46	903	4.4	1.15	30.6	84.1
Trial mean		1225				
L.S.D. (0.10)		166.2				
C.V. (%)**		19.2				
Pr>F		0.0149				

*L.S.D, Least significant difference at the 10% level; NS, not statistically different, C.V., coefficient of variation.

**High precipitation and difficult weed management led to a high CV for this test.

Table 9. Performance of Non-irrigated Cotton Varieties in South Alabama, 2014.

Gulf Coast REC - Fairhope, AL
Early Season - Flex

Cultivar	Lint (%/100)	Yield (lbs/Acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PX 4444-13 WRF	0.45	2297	3.7	1.23	32.2	83.3
Deltapine DP 1252 B2RF	0.46	2206	5.0	1.16	28.1	84.0
PhytoGen PX3122b-51 WRF	0.44	2168	4.5	1.18	32.0	83.7
PhytoGen PHY 333 WRF	0.44	2133	4.0	1.20	30.7	84.0
Deltapine DP 1133 B2RF	0.45	2076	4.9	1.15	31.4	82.8
DynaGro CT 14515	0.45	2064	4.8	1.13	29.7	82.3
PhytoGen PHY 499 WRF	0.44	2005	4.9	1.13	33.1	83.1
Deltapine DP 1034 B2RF	0.43	1953	4.6	1.18	28.3	83.7
PhytoGen PHY 495 W3RF	0.45	1948	4.7	1.09	31.1	83.6
Americot AM 1511 B2RF	0.43	1938	4.7	1.11	29.4	82.4
PhytoGen PHY 339 WRF	0.44	1924	4.6	1.17	31.2	84.0
PhytoGen PX 3003-10 WRF	0.46	1917	4.9	1.12	31.4	82.4
PHY 375 WRF	0.44	1908	4.5	1.14	29.5	83.3
Bayer ST 4747GLB2	0.43	1884	4.7	1.16	30.6	82.9
Bayer ST 5032GLT	0.41	1875	4.0	1.20	32.3	83.2
Deltapine DP 1321 B2RF	0.43	1862	5.0	1.14	28.8	82.0
Deltapine DP 0912 B2RF	0.41	1855	5.1	1.11	29.8	82.8
Bayer ST 4946 GLB2	0.41	1804	4.4	1.11	32.0	83.7
Deltapine DP 1311 B2RF	0.44	1777	4.3	1.11	26.9	80.8
Deltapine MON 12R224 B2R2	0.42	1751	4.0	1.16	28.0	83.0
PhytoGen PHY 427 WRF	0.42	1631	4.2	1.13	28.6	82.6
DynaGro 2355 B2RF	0.39	1542	4.4	1.16	30.4	82.3
Trial mean		1933				
L.S.D. (0.10)		86				
C.V. (%)		6.3				
Pr>F		0.0001				

*L.S.D, Least significant difference at the 10% level; NS, not statistically different, C.V., coefficient of variation.

Table 10. Performance of Non-irrigated Cotton Varieties in South Alabama, 2014.
Gulf Coast REC - Fairhope, AL
Full Season - Flex

Cultivar	Lint (%/100)	Yield (lb/acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PX 4444-13 WRF	0.45	2346	3.6	1.24	31.1	85.1
Deltapine DP 1252 B2RF	0.48	2294	5.2	1.13	29.1	83.2
PhytoGen PX5540-10 WRF	0.47	2256	4.2	1.17	31.4	84.2
PhytoGen PX5540-57 WRF	0.44	2247	4.5	1.20	31.2	84.3
Deltapine DP 1555 B2RF	0.46	2190	4.5	1.21	33.9	83.4
Deltapine DP 1050 B2RF	0.46	2178	4.9	1.15	29.4	83.1
PhytoGen PHY 333 WRF	0.43	2099	4.4	1.19	31.0	84.1
PhytoGen PX5540-63 WRF	0.46	2091	4.2	1.19	33.4	84.7
Deltapine DP 1454NRB2RF	0.44	2062	5.1	1.14	28.5	83.1
DynaGro DG 2610 B2RF	0.45	2061	4.7	1.13	28.6	83.3
Croplan Genetics CG 3787 B2RF	0.44	2042	4.8	1.15	27.8	82.7
Deltapine DP 1137 B2RF	0.45	2042	4.9	1.12	28.9	83.2
PhytoGen PHY 499 WRF	0.45	2038	5.1	1.16	31.8	84.0
PhytoGen PHY 495 W3RF	0.47	1982	5.0	1.11	31.4	83.5
Bayer ST 4946 GLB2	0.42	1971	4.6	1.20	33.7	84.2
PhytoGen PX499-36 W3RF	0.46	1956	4.6	1.12	31.7	82.8
Americot NG 5315 B2RF	0.45	1946	4.8	1.15	29.3	84.4
Bayer ST 4747GLB2	0.43	1869	4.4	1.19	28.8	82.3
PhytoGen PHY 575 WRF	0.42	1869	4.3	1.19	29.9	82.9
Bayer ST 6448 GLB2	0.42	1857	4.5	1.27	31.6	84.2
Bayer BX 1536GLT	0.43	1851	4.3	1.13	30.1	83.5
Americot AM 1511 B2RF	0.45	1847	4.6	1.12	29.8	82.4
PHY 375 WRF	0.43	1817	4.4	1.13	31.2	82.1
Bayer BX 1535GLT	0.42	1775	4.1	1.23	36.8	84.0
Bayer ST 5289GLT	0.40	1653	4.2	1.16	29.2	82.2
Trial mean		2014				
L.S.D. (0.10)		96				
C.V. (%)		6.7				
Pr>F		0.0001				

*L.S.D, Least significant difference at the 10% level; NS, not statistically different, C.V., coefficient of variation.

Table 11. Performance of Non-irrigated Cotton Varieties in Southeast Alabama, 2014.**Wiregrass REC - Headland, AL****Early Season - Flex**

Cultivar	Lint (%/100)	Yield (lbs/Acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PHY 499 WRF	0.46	1455	4.9	1.13	34.1	84.6
PhytoGen PHY 333 WRF	0.45	1318	4.4	1.17	30.0	84.4
PhytoGen PX3122b-51 WRF	0.44	1276	4.5	1.19	32.5	85.6
PhytoGen PHY 495 W3RF	0.44	1268	4.7	1.13	36.5	84.4
PhytoGen PX 3003-10 WRF	0.44	1250	5.2	1.09	29.9	83.1
Bayer ST 4946 GLB2	0.45	1238	4.9	1.13	31.9	84.2
Deltapine DP 1311 B2RF	0.45	1218	4.6	1.16	31.3	83.2
PhytoGen PHY 427 WRF	0.43	1212	4.6	1.12	33.6	84.6
Bayer ST 4747GLB2	0.43	1209	3.8	1.19	28.0	83.7
PhytoGen PX 4444-13 WRF	0.45	1137	4.2	1.22	31.8	84.4
Deltapine DP 1252 B2RF	0.45	1134	4.6	1.10	30.7	83.2
Deltapine DP 0912 B2RF	0.42	1129	4.8	1.11	30.2	83.8
DynaGro CT 14515	0.45	1119	4.7	1.18	33.3	83.8
PHY 375 WRF	0.44	1119	4.5	1.12	30.8	83.1
Deltapine DP 1133 B2RF	0.45	1107	5.0	1.16	33.1	84.7
Deltapine MON 12R224 B2R2	0.43	1101	4.9	1.14	29.3	83.7
Americot AM 1511 B2RF	0.44	1089	4.7	1.12	30.6	83.3
PhytoGen PHY 339 WRF	0.44	1077	4.4	1.17	33.1	83.5
Deltapine DP 1034 B2RF	0.44	1077	4.7	1.14	30.4	84.3
Deltapine DP 1321 B2RF	0.43	1053	4.8	1.17	33.0	84.3
Bayer ST 5032GLT	0.41	1044	4.2	1.17	34.1	83.5
DynaGro 2355 B2RF	0.41	1038	4.7	1.10	30.7	83.5
Trial mean		1167				
L.S.D. (0.10)		88				
C.V. (%)		10.6				
Pr>F		0.0008				

*L.S.D., Least significant difference at the 10% level; NS, not statistically different, C.V., coefficient of variation.

Table 12. Performance of Non-irrigated Cotton Varieties in Southeast Alabama, 2014.

Wiregrass REC - Headland, AL						
Full Season - Flex						
Cultivar	Lint (%/100)	Yield (lbs/acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
Bayer ST 4946 GLB2	0.43	1496	4.5	1.13	31.9	83.6
PhytoGen PHY 333 WRF	0.41	1468	4.3	1.11	29.3	82.5
PhytoGen PX5540-10 WRF	0.45	1388	4.6	1.10	30.1	82.8
PhytoGen PHY 499 WRF	0.42	1381	4.3	1.16	33.2	84.2
PhytoGen PX5540-57 WRF	0.43	1377	4.5	1.13	32.0	84.1
PhytoGen PHY 575 WRF	0.41	1351	4.5	1.15	30.5	83.7
Deltapine DP 1454NRB2RF	0.46	1326	4.7	1.18	31.3	83.9
PhytoGen PX 4444-13 WRF	0.43	1314	4.1	1.16	32.2	84.9
PhytoGen PX499-36 W3RF	0.44	1313	4.6	1.12	31.8	84.0
Bayer ST 4747GLB2	0.41	1293	4.4	1.20	30.2	84.1
PhytoGen PHY 495 W3RF	0.43	1286	4.5	1.10	32.4	82.5
Bayer ST 6448 GLB2	0.41	1254	4.2	1.14	30.2	81.7
Deltapine DP 1252 B2RF	0.45	1235	4.4	1.12	30.4	82.4
Bayer BX 1535GLT	0.43	1232	4.8	1.13	31.0	83.6
Croplan Genetics CG 3787 B2RF	0.43	1210	4.3	1.11	29.6	83.8
PHY 375 WRF	0.44	1200	4.8	1.11	28.9	82.6
Americot AM 1511 B2RF	0.44	1155	4.3	1.12	31.3	84.0
PhytoGen PX5540-63 WRF	0.43	1130	4.5	1.14	33.8	84.1
Deltapine DP 1555 B2RF	0.44	1103	4.6	1.13	30.8	82.3
DynaGro DG 2610 B2RF	0.43	1071	4.9	1.11	29.1	83.2
Americot NG 5315 B2RF	0.43	1062	4.7	1.15	31.3	83.7
Bayer BX 1536GLT	0.43	1039	4.3	1.11	31.1	83.6
Deltapine DP 1137 B2RF	0.39	1038	4.6	1.13	30.2	81.8
Bayer ST 5289GLT	0.40	1024	4.3	1.14	30.3	83.3
Deltapine DP 1050 B2RF	0.42	826	4.0	1.16	29.4	83.2
Trial mean						
L.S.D. (0.10)						
C.V. (%)						
Pr>F						

*L.S.D, Least significant difference at the 10% level; NS, not statistically different, C.V., coefficient of variation.

Table 14. Performance of Irrigated Early to Mid-Season Cotton Varieties in North Alabama, 2014.

Tennessee Valley REC - Belle Mina, AL
Early to Mid-Season - Irrigated

Cultivar	Lint (%/100)	Yield (lbs/acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PHY 333 WRF	0.45	2461	4.4	1.20	31.1	84.8
Bayer ST 4946 GLB2	0.44	2426	5.2	1.14	32.1	84.0
PhytoGen PX3122b-51 WRF	0.45	2394	4.7	1.19	31.7	85.1
Deltapine MON 12R224 B2R2	0.43	2337	4.4	1.18	29.3	84.3
PhytoGen PHY 499 WRF	0.45	2312	4.8	1.15	31.8	84.8
Bayer ST 4747GLB2	0.43	2302	4.4	1.18	29.5	82.8
PhytoGen PHY 495 W3RF	0.46	2269	4.8	1.15	31.4	84.5
Deltapine DP 0912 B2RF	0.43	2223	5.1	1.15	30.1	84.9
Americot AM 1511 B2RF	0.45	2197	4.7	1.16	32.2	84.8
PHY 375 WRF	0.45	2195	4.6	1.15	29.7	83.8
PhytoGen PX 3003-10 WRF	0.46	2192	4.9	1.11	29.7	83.6
PhytoGen PHY 427 WRF	0.43	2158	4.5	1.14	29.2	83.2
PhytoGen PX 4444-13 WRF	0.46	2130	4.3	1.25	31.6	84.8
PhytoGen PHY 339 WRF	0.43	2129	4.5	1.21	32.3	84.8
Deltapine DP 1321 B2RF	0.43	2094	4.7	1.19	31.9	85.6
Deltapine DP 1311 B2RF	0.46	2043	4.3	1.16	29.8	83.4
Bayer ST 5032GLT	0.44	2024	4.1	1.23	31.0	84.7
Deltapine DP 1133 B2RF	0.42	2020	5.0	1.16	31.6	85.2
Deltapine DP 1252 B2RF	0.47	1928	5.3	1.12	28.9	83.0
DynaGro CT 14515	0.46	1910	4.3	1.18	32.8	84.4
DynaGro 2355 B2RF	0.40	1892	4.3	1.17	31.2	84.3
Deltapine DP 1034 B2RF	0.45	1877	4.6	1.17	30.9	84.8
Trial mean		2160				
L.S.D. (0.10)		160				
C.V. (%)		10.5				
Pr>F		0.0043				

*L.S.D., Least significant difference at the 10% level; NS, not statistically different, C.V., coefficient of variation.

Table 15. Performance of Irrigated Mid- to Full-Season Cotton Varieties in North Alabama, 2014.

Tennessee Valley REC - Belle Mina, AL
Mid- to Full Season- Irrigated

Cultivar	Lint (%/100)	Yield (lbs/acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
Bayer ST 4946 GLB2	0.44	2116	4.4	1.15	30.6	83.2
Bayer ST 4747GLB2	0.46	2076	4.6	1.16	27.7	81.6
Americot AM 1511 B2RF	0.45	2042	5.1	1.13	30.0	83.7
PHY 375 WRF	0.46	2028	4.7	1.15	29.0	83.2
PhytoGen PHY 333 WRF	0.46	2025	4.8	1.17	29.5	83.9
Croplan Genetics CG 3787 B2RF	0.45	1958	4.9	1.16	29.2	84.6
PhytoGen PX499-36 W3RF	0.46	1943	5.0	1.12	32.7	83.3
PhytoGen PX 4444-13 WRF	0.45	1942	3.8	1.26	31.3	84.7
Deltapine DP 1252 B2RF	0.46	1845	5.0	1.13	28.2	83.7
PhytoGen PHY 499 WRF	0.44	1820	4.9	1.15	32.4	85.4
Deltapine DP 1454NRB2RF	0.45	1808	5.0	1.15	28.4	84.0
PhytoGen PHY 495 W3RF	0.46	1808	4.7	1.14	31.8	84.3
Bayer ST 5289GLT	0.42	1749	4.8	1.17	29.5	82.9
Bayer BX 1535GLT	0.43	1729	3.9	1.23	34.9	84.5
Deltapine DP 1555 B2RF	0.46	1716	4.4	1.15	31.5	82.8
Bayer BX 1536GLT	0.44	1712	4.5	1.15	31.8	83.9
DynaGro DG 2610 B2RF	0.45	1693	4.6	1.15	28.0	83.9
PhytoGen PX5540-57 WRF	0.44	1671	4.1	1.19	31.9	85.1
PhytoGen PX5540-10 WRF	0.44	1658	4.5	1.17	31.6	84.9
Deltapine DP 1050 B2RF	0.46	1656	4.8	1.15	27.8	84.1
Bayer ST 6448 GLB2	0.42	1635	4.3	1.21	29.9	84.4
Deltapine DP 1137 B2RF	0.44	1633	4.9	1.15	27.7	84.5
PhytoGen PX5540-63 WRF	0.46	1597	4.5	1.20	32.5	85.0
Americot NG 5315 B2RF	0.45	1569	5.0	1.15	29.3	84.6
PhytoGen PHY 575 WRF	0.42	1486	4.3	1.21	30.2	84.9
Trial mean		1797				
L.S.D. (0.10)		133				
C.V. (%)		10.5				
Pr>F		0.0001				

*L.S.D., Least significant difference at the 10% level; NS, not statistically different, C.V., coefficient of variation.

Table 16. Performance of Irrigated Early- to Mid-Season Cotton Varieties in Southeast Alabama, 2014.

Wiregrass REC - Headland, AL
Early to Mid-Season - Irrigated

Cultivar	Lint (%/100)	Yield (lbs/acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PX3122b-51 WRF	0.42	2055	4.5	1.1	30.5	83.4
PhytoGen PHY 499 WRF	0.44	2052	4.7	1.2	33.0	84.4
PhytoGen PX 3003-10 WRF	0.44	2044	4.8	1.1	30.2	82.7
PhytoGen PHY 495 W3RF	0.45	2035	4.4	1.1	32.9	83.8
Bayer ST 4946 GLB2	0.43	2022	4.5	1.1	32.5	83.0
PhytoGen PX 4444-13 WRF	0.45	1970	4.1	1.3	32.4	84.5
PhytoGen PHY 333 WRF	0.44	1965	4.5	1.2	31.5	82.5
Deltapine DP 0912 B2RF	0.43	1956	5.3	1.1	30.4	83.3
Deltapine MON 12R224 B2R2	0.43	1944	4.3	1.2	30.2	83.8
Deltapine DP 1252 B2RF	0.46	1931	4.3	1.1	30.8	82.6
PHY 375 WRF	0.44	1919	4.5	1.1	28.1	80.9
Bayer ST 4747GLB2	0.43	1911	4.2	1.2	31.1	82.5
Bayer ST 5032GLT	0.42	1888	4.2	1.2	31.5	83.4
Deltapine DP 1133 B2RF	0.44	1874	4.3	1.1	31.5	84.1
Deltapine DP 1321 B2RF	0.43	1870	4.6	1.2	30.6	82.9
DynaGro CT 14515	0.41	1809	3.9	1.2	33.7	83.2
Deltapine DP 1311 B2RF	0.45	1806	4.6	1.1	29.6	81.9
PhytoGen PHY 427 WRF	0.43	1804	4.5	1.1	31.6	82.8
PhytoGen PHY 339 WRF	0.42	1782	4.1	1.2	30.9	83.7
Americot AM 1511 B2RF	0.45	1759	5.1	1.1	31.1	83.9
Deltapine DP 1034 B2RF	0.44	1714	4.5	1.2	29.7	83.4
DynaGro 2355 B2RF	0.40	1605	4.6	1.2	33.5	84.0
Trial mean		1896				
L.S.D. (0.10)		125				
C.V. (%)		9.3				
Pr>F		0.0353				

*L.S.D., Least significant difference at the 10% level; NS, not statistically different, C.V., coefficient of variation.

Table 17. Performance of Irrigated Mid- to Full Season Cotton Varieties in Southeast Alabama, 2014.

Wiregrass REC - Headland, AL						
Mid- to Full Season - Irrigated						
Cultivar	Lint (%/100)	Yield (lbs/acre)	Mic	Len (inches)	Str (g/tex)	Unif (%)
PhytoGen PHY 333 WRF	0.47	2097	4.4	1.14	28.9	83.3
PhytoGen PHY 499 WRF	0.45	2058	5.1	1.13	32.6	83.9
PhytoGen PX 4444-13 WRF	0.46	2005	4.1	1.25	33.8	84.8
Bayer ST 4946 GLB2	0.44	2004	4.8	1.14	32.1	83.6
PhytoGen PHY 495 W3RF	0.47	1992	4.7	1.14	30.9	84.9
PhytoGen PX5540-57 WRF	0.44	1915	4.6	1.17	31.3	85.2
Bayer BX 1536GLT	0.44	1898	4.4	1.16	31.7	84.2
PhytoGen PX5540-63 WRF	0.46	1885	4.2	1.18	32.3	84.6
PhytoGen PX5540-10 WRF	0.46	1876	4.2	1.14	31.0	83.8
Croplan Genetics CG 3787 B2RF	0.46	1876	4.6	1.21	32.2	85.1
Bayer ST 4747GLB2	0.45	1875	4.4	1.16	29.7	82.7
Deltapine DP 1454NRB2RF	0.45	1870	4.5	1.15	29.1	83.9
PhytoGen PX499-36 W3RF	0.46	1849	4.5	1.09	31.0	83.4
Bayer ST 6448 GLB2	0.44	1834	4.4	1.28	30.1	85.8
Bayer ST 5289GLT	0.45	1817	4.8	1.16	28.9	83.7
Deltapine DP 1050 B2RF	0.46	1799	4.6	1.13	28.0	82.4
Deltapine DP 1555 B2RF	0.48	1792	4.8	1.16	32.5	84.0
Deltapine DP 1252 B2RF	0.48	1755	4.3	1.19	31.8	84.4
PHY 375 WRF	0.43	1698	4.3	1.12	29.2	83.1
Deltapine DP 1137 B2RF	0.44	1646	4.4	1.16	30.3	82.9
Americot AM 1511 B2RF	0.45	1641	4.7	1.15	31.6	83.4
DynaGro DG 2610 B2RF	0.45	1590	4.6	1.17	29.4	84.8
PhytoGen PHY 575 WRF	0.41	1561	4.2	1.22	30.5	83.6
Bayer BX 1535GLT	0.43	1528	4.3	1.20	33.2	83.7
Americot NG 5315 B2RF	0.46	1456	4.9	1.15	29.5	84.4
Trial mean		1813				
L.S.D. (0.10)		129				
C.V. (%)		10				
Pr>F		0.0001				

*L.S.D., Least significant difference at the 10% level; NS, not statistically different, C.V., coefficient of variation.

Table 18. Growing season precipitation in Alabama, 2014.

Test location	Year	Monthly rainfall							7-month total
		Mar.	Apr.	May	June	July	Aug.	Sept.	
(inches)									
Belle Mina*	2014	2.7	6.1	2.7	7.0	4.6	2.1	1.3	26.5
	2013	5.6	5.3	6.5	3.3	9.8	2.2	4.2	36.9
Tallassee	2014	5.9	9.1	4.0	4.7	3.8	5.4	4.7	37.6
	2013	3.2	3.9	2.2	11.9	7.2	6.8	2.8	38.0
Prattville	2014	6.8	8.0	5.2	4.2	4.4	4.1	2.5	35.2
	2013	3.0	4.5	1.9	5.6	7.5	5.5	4.6	32.6
Headland**	2014	5.4	13.6	3.8	3.8	2.3	5.4	1.5	35.8
	2013	3.7	4.8	1.1	5.5	16.1	10.8	3.9	45.9
Fairhope	2014	8.5	27.0	8.2	8.7	6.4	1.7	5.8	66.3
	2013	1.6	4.0	9.4	8.9	16.7	8.7	1.9	51.2

*Additional water applied at TVREC in irrigated trials only: 2.5 inches

**Additional water applied at WGREC in irrigated trials only: 3.5 inches



Table 19. Sources of Seed for the 2014 Cotton Variety Trials

Monsanto, St Louis, Missouri	
Deltapine DP 0912 B2RF	Deltapine DP 1252 B2RF
Deltapine DP 1034 B2RF	Deltapine DP 1321 B2RF
Deltapine DP 1050 B2RF	Deltapine DP 1454 B2RF
Deltapine DP 1133 B2RF	MON 12R224 B2R2
Deltapine DP 1137 B2RF	MON 13R352 B2R2
Deltapine DP 1311 B2RF	
Bayer Crop Sciences, Tifton, Georgia	
Bayer ST 4747GLB2	Bayer ST 5032GLT
Bayer ST 4946GLB2	Bayer ST 5289GLT
Bayer ST 6448GLB2	BX 1535GLT
	BX 1536GLT
Dow AgroSciences, Shellman, Georgia	
PhytoGen PHY 333 WRF	PX 3003-10 WRF
PhytoGen PHY 339 WRF	PX 4444-13 WRF
PhytoGen PHY 375 WRF	PX 5540-10 WRF
PhytoGen PHY 427 WRF*	PX 5540-57 WRF
PhytoGen PHY 499 WRF	PX 5540-63 WRF
PhytoGen PHY 575 WRF	PX 3122b-51 WRF
PhytoGen PHY 495 W3RF	PX 499-36 W3RF
Americot, Inc., Lubbock, Texas	
NG 1511 B2RF	NG 5315 B2RF
Crop Production Services, Kinston, Alabama	
DynaGro 2355 B2RF	DynaGro CT 14515
DynaGro 2610 B2RF	
Winfield Solutions LLC, Frisco, Texas	
Croplan Genetics CG 3787 B2RF	

*Formerly PX 4433-27 WRF

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Alabama Experiment Station Outlying Units with Annual Row Crop Variety Trials

Northern Region

Sand Mountain Research and Extension Center, Crossville

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E.V. Smith Research and Extension Center, Plant Breeding & Field Crops Units, Talladega

Greg Pate, Director

Jason Burkett, Associate Director

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Prattville Agricultural Research Unit, Prattville

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Southern Region

Brewton Agricultural Research Unit, Brewton

Malcomb Pegues, Director

Gulf Coast Research and Extension Center, Fairhope

Malcomb Pegues, Director

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Wiregrass Research and Extension Center, Headland

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