

Performance of Cotton Varieties in Alabama, 2017

<http://digital.archives.alabama.gov/cdm/compoundobject/collection/troy2/id/1013/rec/>



1930s Mobile Docks with Cotton Ready to Ship
Ala. State Digital Archives

Dept. Series No. CSES2017: Cotton
Dr. John Beasley, Dept. Head
Crop, Soil and Environmental Sciences
Dr. Paul Patterson, Director Ala. Agric. Exp. Station
Auburn University, Auburn AL
January 2018



Performance of Cotton Varieties in Alabama, 2017

K. M. Glass¹, D. P. Delaney², C. D. Monks³, and J. Brasher⁴

¹Agric. Program Assoc.; ²Extension Specialist; ³Prof. & Dir. Res. Outlying Units; and ⁴Field Data Manager
Dept. of Crop, Soil & Environmental Sciences; Alabama Experiment Station; and ACES Auburn Univ., AL 36849

“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, samples ginned for turnout, and fiber quality was determined by the USDA Cotton Classing Office in Macon, Georgia.

Seed cotton samples were ginned on a 10-saw laboratory gin without lint cleaners, therefore lint turnout is higher than can be expected when processed by a commercial gin with cleaners. However, differences between varieties are relative.

Table 1. Soil type, planting and harvest dates for cotton variety trials, 2017

Location	Soil Type	Test	Planting Date	Harvest Date
Belle Mina	Decatur silt loam	Early Season Flex	May 3	October 16
		Full Season Flex	May 3	October 26
		Irrigated Early Season Flex	May 15	November 3
		Irrigated Full Season Flex	May 15	November 3
Prattville	Lucedale fine sandy loam	Early Season Flex	May 16	November 15
		Full Season Flex	May 8	November 13
		Irrigated Early Season Flex	May 3	October 18
		Irrigated Full Season Flex	April 28	October 17
Tallassee	Wickham fine sandy loam	Early Season Flex	June 2	October 31
		Full Season Flex	May 12	October 30
Headland	Dothan sandy loam	Early Season Flex	May 19	November 1
		Full Season Flex	May 18	November 2
		Irrigated Early Season Flex	May 19	November 6
		Irrigated Full Season Flex	May 17	October 13
Fairhope	Malbis fine sandy loam	Early Season Flex	May 19	October 30
		Full Season Flex	May 9	October 30

Tables

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

2017 Cotton Variety Yield Performance

Table 1. Soil type, planting date, and harvest date for cotton variety trials, 2017

Non-irrigated trials, north Alabama

Table 2. Performance of Early Season Cotton Varieties in North Alabama (TVREC), 2017

Table 3. Performance of Full Season Cotton Varieties in North Alabama (TVREC), 2017

Non-irrigated trials, central Alabama

Table 4. Performance of Early Season Cotton Varieties in Central Alabama (PARU), 2017

Table 5. Performance of Full Season Cotton Varieties in Central Alabama (PARU), 2017

Table 6. Performance of Early Season Cotton Varieties in Central Alabama (EVS PBU), 2017

Table 7. Performance of Full Season Cotton Varieties in Central Alabama (EVS PBU), 2017

Non-irrigated trials, south Alabama

Table 8. Performance of Early Season Cotton Varieties in South Alabama (GCREC), 2017

Table 9. Performance of Full Season Cotton Varieties in South Alabama (GCREC), 2017

Table 10. Performance of Early Season Cotton Varieties in Southeast Alabama (WGREC), 2017

Table 11. Performance of Full Season Cotton Varieties in Southeast Alabama (WGREC), 2017

Irrigated trials, north Alabama

Table 12. Performance of Early Season Cotton Varieties in North Alabama (TVREC), 2017

Table 13. Performance of Full Season Cotton Varieties in North Alabama (TVREC), 2017

Irrigated trials, central Alabama

Table 14. Performance of Early Season Cotton Varieties in Central Alabama (PARU), 2017

Table 15. Performance of Full Season Cotton Varieties in Central Alabama (PARU), 2017

Irrigated trials, south Alabama

Table 16. Performance of Early Season Cotton Varieties in Southeast AL (WGREC), 2017

Table 17. Performance of Full Season Cotton Varieties in Southeast AL (WGREC), 2017

Precipitation and seed sources

Table 18. Growing season precipitation in Alabama, 2017

Table 19. Sources of Seed for the 2017 Cotton Variety Trials

Table 2. Performance of Non-Irrigated, Early Season Cotton Varieties in North Alabama, 2017

Tennessee Valley REC - Belle Mina, AL

Early Season - Flex

Cultivar	Lint (%/100)	Yield (Lint/A)	Mic (units)	Len (in.)	Str (g/tex)	Unif (%)
PhytoGen PX4A57 W3FE	0.44	2271	4.2	1.17	31.1	85.3
Bayer ST 5020GLT	0.40	2262	4.0	1.30	33.0	84.8
PhytoGen PX5B76 W3FE	0.41	2236	4.7	1.22	31.2	86.3
PhytoGen PX5B73 W3FE	0.43	2205	4.6	1.18	29.7	84.7
Bayer ST 5517GLTP	0.40	2189	4.0	1.23	31.8	84.6
Deltapine DP 1646 B2XF	0.43	2187	4.2	1.37	29.9	84.1
PhytoGen PHY 340 W3FE	0.43	2173	4.5	1.22	32.6	86.0
PhytoGen PX4A52 W3FE	0.41	2169	4.1	1.19	31.4	86.4
PhytoGen PHY 312 WRF	0.42	2162	4.2	1.24	31.9	84.8
PhytoGen PX4A54 W3FE	0.42	2147	4.3	1.19	32.6	85.3
PhytoGen PX3A82 W3FE	0.43	2145	4.6	1.20	31.4	85.7
PhytoGen PX3A96 W3FE	0.40	2128	4.3	1.24	31.8	86.2
Bayer ST 5115GLT	0.39	2125	4.1	1.19	30.2	83.5
PhytoGen PX3A99 W3FE	0.42	2123	4.1	1.20	32.9	85.3
Deltapine DP 1725 B2XF	0.47	2089	4.5	1.24	29.3	85.3
PhytoGen PX4A62 W3FE	0.43	2075	4.1	1.29	34.5	84.2
Deltapine DP 1518 B2XF	0.40	2067	4.2	1.27	29.4	85.0
PhytoGen PHY 330 W3FE	0.42	2052	4.3	1.21	32.2	86.5
Deltapine DP 1522 B2XF	0.41	2051	4.6	1.22	32.8	84.2
PhytoGen PX2A28 W3FE	0.40	2035	4.1	1.28	32.6	83.9
PhytoGen PHY 300 W3FE	0.43	2001	4.6	1.24	32.5	85.1
Bayer ST 4949GLB2	0.44	1961	4.2	1.17	31.1	84.2
Americot NG 3522 B2XF	0.42	1956	4.5	1.18	28.5	84.3
Bayer ST 4848GLT	0.40	1932	4.1	1.20	30.7	84.2
Americot NG 4601 B2XF	0.42	1881	4.6	1.26	32.7	85.1
Bayer ST 6182GLT	0.45	1880	4.3	1.23	29.4	84.0
PhytoGen PX5A57 W3FE	0.40	1831	4.3	1.23	30.9	86.3
PhytoGen PHY 490 W3FE	0.42	1830	4.7	1.21	35.3	86.3
PhytoGen PHY 444 WRF	0.41	1795	3.1	1.32	33.3	83.5
PhytoGen PHY 450 W3FE	0.41	1781	5.2	1.14	31.5	85.6
PhytoGen PHY 333 WRF	0.37	1741	4.1	1.19	30.5	80.1
Deltapine DP 1614 B2XF	0.44	1706	4.8	1.25	29.2	86.6
Croplan 3527 B2XF	0.43	1632	5.1	1.26	29.9	85.7
Trial Mean		2025				
LSD (0.1)		134				
CV (%)		9				
Pr>F		0.0001				

Table 3. Performance of Non-Irrigated, Full Season Cotton Varieties in North Alabama, 2017

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

Cultivar	Lint (%/100)	Yield (Lint/A)	Mic (units)	Len (in.)	Str (g/tex)	Unif (%)
Bayer ST 5020GLT	0.41	2159	4.1	1.27	33.2	85.2
PhytoGen PX3A82 W3FE	0.43	2053	4.5	1.20	31.5	86.0
PhytoGen PHY 300 W3FE	0.44	1986	4.7	1.20	31.4	85.3
PhytoGen PHY 340 W3FE	0.44	1977	4.5	1.21	31.2	85.8
Deltapine DP 1646 B2XF	0.43	1961	4.1	1.28	30.5	81.3
PhytoGen PX4A57 W3FE	0.44	1942	4.1	1.15	30.1	85.6
Croplan 9608 B3XF	0.46	1922	4.3	1.24	30.3	85.1
Bayer ST 5517GLTP	0.42	1915	3.9	1.24	32.5	84.5
PhytoGen PX3A96 W3FE	0.40	1890	4.5	1.24	31.6	84.4
PhytoGen PX4A52 W3FE	0.41	1887	4.4	1.21	31.2	85.6
PhytoGen PX2A28 W3FE	0.41	1860	4.6	1.27	32.4	86.0
PhytoGen PHY 330 W3FE	0.43	1855	4.3	1.21	32.0	86.7
PhytoGen PHY 312 WRF	0.40	1844	3.9	1.25	31.7	86.2
PhytoGen PHY 450 W3FE	0.41	1836	5.1	1.18	34.4	86.1
Deltapine DP1835 B3XF	0.44	1834	4.2	1.24	33.0	85.8
Bayer ST 6182GLT	0.45	1832	4.5	1.21	29.7	86.2
PhytoGen PHY 490 W3FE	0.43	1828	4.6	1.19	32.6	86.6
PhytoGen PX3A99 W3FE	0.42	1827	4.4	1.21	30.4	85.6
Bayer ST 5115GLT	0.40	1821	4.0	1.22	30.6	84.6
Deltapine DP 1555 B2RF	0.43	1820	4.0	1.25	31.8	84.4
PhytoGen PX5B76 W3FE	0.41	1816	4.2	1.25	31.3	87.3
PhytoGen PX4A62 W3FE	0.43	1795	3.8	1.26	34.0	85.8
Deltapine MON 16R353B3XF	0.46	1791	4.9	1.22	31.3	86.8
Deltapine DP 1639 B2XF	0.44	1760	4.9	1.19	31.2	85.8
PhytoGen PX4A54 W3FE	0.43	1747	4.3	1.19	33.1	86.2
Deltapine DP 1538 B2XF	0.43	1735	4.8	1.17	28.2	86.5
Deltapine DP 1747 NRB2XF	0.46	1730	4.8	1.22	32.0	84.3
Deltapine DP 1851 B3XF	0.44	1720	4.3	1.32	32.0	86.5
Bayer ST 4848GLT	0.44	1698	4.2	1.20	30.0	84.8
Deltapine DP 1840 B3XF	0.42	1684	4.1	1.21	32.7	79.3
PhytoGen PX5B73 W3FE	0.42	1682	4.0	1.24	30.3	85.0
Bayer ST 4949GLB2	0.44	1682	4.4	1.18	28.8	85.1
PhytoGen PHY 333 WRF	0.42	1640	4.1	1.23	31.8	85.8
Americot NG 5007 B2XF	0.43	1594	4.3	1.22	29.3	85.1
Americot NG 4545 B2XF	0.41	1591	4.4	1.19	30.9	83.8
PhytoGen PHY 444 WRF	0.41	1548	3.6	1.33	32.1	86.3
PhytoGen PX5A57 W3FE	0.39	1467	4.1	1.24	32.2	85.9
Deltapine DP 1553 B2XF	0.43	1416	4.5	1.22	29.2	85.4
Trial Mean		1793				
LSD (0.1)		130				
CV (%)		10				
Pr>F		0.0001				

Table 4. Performance of Non-Irrigated, Early Season Cotton Varieties in Central Alabama, 2017

Prattville Agricultural Research Unit - Prattville, AL

Early Season - Flex

Cultivar	Lint (%/100)	Yield (Lint/A)	Mic (units)	Len (in.)	Str (g/tex)	Unif (%)
Deltapine DP 1518 B2XF	0.42	1481	4.2	1.17	29.7	84.4
PhytoGen PX4A62 W3FE	0.43	1445	4.3	1.21	33.2	84.7
Bayer ST 5517GLTP	0.40	1435	4.2	1.17	31.7	83.0
PhytoGen PX4A52 W3FE	0.41	1402	4.3	1.15	30.4	84.3
PhytoGen PHY 312 WRF	0.40	1399	4.7	1.14	30.6	84.1
PhytoGen PX4A57 W3FE	0.44	1362	4.6	1.11	29.6	83.8
Americot NG 4601 B2XF	0.42	1357	5.0	1.18	32.6	84.7
Bayer ST 4949GLB2	0.44	1341	4.5	1.13	29.2	83.8
Bayer ST 4848GLT	0.43	1335	5.0	1.16	30.7	84.9
PhytoGen PHY 444 WRF	0.42	1335	4.2	1.24	31.6	85.7
PhytoGen PX4A54 W3FE	0.43	1322	4.6	1.12	31.9	84.2
PhytoGen PX5B76 W3FE	0.42	1321	4.6	1.16	32.1	84.2
Deltapine DP 1646 B2XF	0.45	1290	4.5	1.18	30.4	84.4
PhytoGen PHY 450 W3FE	0.40	1285	4.9	1.15	32.6	85.5
PhytoGen PX2A28 W3FE	0.40	1244	4.4	1.17	29.9	84.3
PhytoGen PHY 330 W3FE	0.43	1230	4.5	1.17	30.6	84.9
PhytoGen PHY 490 W3FE	0.41	1229	4.6	1.13	33.9	84.2
PhytoGen PX3A96 W3FE	0.41	1222	4.8	1.16	31.1	84.8
PhytoGen PX5B73 W3FE	0.42	1218	4.6	1.17	31.2	83.6
Americot NG 3522 B2XF	0.42	1213	4.5	1.12	27.1	83.8
Bayer ST 5020GLT	0.41	1207	4.5	1.18	31.8	84.1
Deltapine DP 1614 B2XF	0.44	1198	5.1	1.18	29.7	85.2
Bayer ST 5115GLT	0.39	1183	4.0	1.17	30.8	83.5
PhytoGen PX3A99 W3FE	0.41	1173	4.8	1.15	29.5	84.2
PhytoGen PHY 340 W3FE	0.43	1142	4.5	1.17	30.8	84.5
PhytoGen PHY 333 WRF	0.41	1139	4.3	1.16	30.6	84.2
Bayer ST 6182GLT	0.46	1136	4.5	1.14	28.5	83.6
Deltapine DP 1522 B2XF	0.41	1118	5.0	1.14	29.6	84.0
Croplan 3527 B2XF	0.44	1109	5.3	1.17	29.6	84.6
Deltapine DP 1725 B2XF	0.46	1099	4.4	1.17	31.1	83.5
PhytoGen PX5A57 W3FE	0.41	1091	4.4	1.15	31.5	84.1
PhytoGen PX3A82 W3FE	0.41	1064	4.4	1.13	30.4	84.8
PhytoGen PHY 300 W3FE	0.43	1026	4.5	1.12	30.9	84.4
Trial Mean		1240				
LSD (0.1)		131				
CV (%)		13				
Pr>F		0.0207				

NOTE: Both Early and Full trials suffered from brown marmorated stink bug damage.

Table 5. Performance of Non-Irrigated, Full Season Cotton Varieties in Central Alabama, 2017

Prattville Agricultural Research Unit - Prattville, AL

Full Season - Flex

Cultivar	Lint (%/100)	Yield (Lint/A)	Mic (units)	Len (in.)	Str (g/tex)	Unif (%)
PhytoGen PX4A57 W3FE	0.45	1451	4.4	1.09	29.3	84.5
PhytoGen PX4A62 W3FE	0.44	1441	4.1	1.18	32.5	83.9
PhytoGen PX4A54 W3FE	0.45	1410	4.9	1.12	30.3	84.9
PhytoGen PHY 444 WRF	0.44	1394	3.7	1.24	31.7	85.7
Deltapine DP 1747 NRB2XF	0.46	1351	5.0	1.12	29.8	82.7
PhytoGen PX3A96 W3FE	0.42	1348	4.3	1.15	29.9	83.9
Deltapine DP 1646 B2XF	0.45	1335	4.6	1.23	29.1	85.4
Croplan 9608 B3XF	0.48	1335	4.2	1.16	28.6	84.7
Bayer ST 5517GLTP	0.41	1322	4.2	1.16	30.4	83.7
PhytoGen PX4A52 W3FE	0.45	1303	4.3	1.14	29.0	83.7
Deltapine DP 1555 B2RF	0.46	1294	4.4	1.13	31.3	84.5
Deltapine DP 1553 B2XF	0.44	1285	4.4	1.16	28.4	83.9
Americot NG 5007 B2XF	0.45	1267	4.4	1.13	26.8	82.8
PhytoGen PHY 333 WRF	0.43	1251	4.6	1.16	33.3	84.2
Americot NG 4545 B2XF	0.44	1248	4.6	1.11	31.6	84.0
Deltapine DP 1538 B2XF	0.44	1240	4.3	1.08	29.4	82.6
Bayer ST 6182GLT	0.48	1239	4.4	1.09	27.8	82.1
Bayer ST 5115GLT	0.42	1227	4.4	1.13	29.3	83.0
PhytoGen PHY 490 W3FE	0.43	1206	4.7	1.13	33.3	84.4
Bayer ST 4848GLT	0.43	1178	4.3	1.15	29.9	83.7
Deltapine DP 1835 B3XF	0.46	1165	4.5	1.17	31.7	83.9
PhytoGen PHY 300 W3FE	0.45	1160	4.7	1.12	30.7	83.9
PhytoGen PHY 450 W3FE	0.42	1159	4.9	1.10	32.9	84.0
Deltapine DP 1851 B3XF	0.43	1156	4.1	1.15	32.0	84.3
PhytoGen PX2A28 W3FE	0.43	1152	4.7	1.14	31.4	83.1
PhytoGen PHY 330 W3FE	0.44	1140	4.3	1.13	30.5	83.9
PhytoGen PHY 312 WRF	0.42	1131	4.6	1.13	29.1	83.7
Deltapine DP 1840 B3XF	0.42	1131	4.0	1.19	32.0	83.5
Deltapine DP 1639 B2XF	0.45	1130	4.7	1.11	30.0	84.1
Deltapine MON 16R353B3XF	0.46	1129	4.6	1.14	31.0	85.1
PhytoGen PX5B76 W3FE	0.42	1111	4.5	1.11	31.5	83.6
PhytoGen PX3A82 W3FE	0.43	1107	4.7	1.11	31.5	84.8
Bayer ST 5020GLT	0.41	1089	4.0	1.19	30.6	84.4
Bayer ST 4949GLB2	0.44	1045	4.4	1.10	29.2	83.2
PhytoGen PHY 340 W3FE	0.45	986	4.4	1.13	30.8	85.0
PhytoGen PX3A99 W3FE	0.43	982	4.2	1.14	30.1	83.6
PhytoGen PX5B73 W3FE	0.43	956	4.3	1.12	29.7	83.0
PhytoGen PX5A57 W3FE	0.42	794	3.7	1.16	32.7	85.2
Trial Mean		1361				
LSD (0.1)		132				
CV (%)		14				
Pr>F		0.1456				

NOTE: Both Early and Full trials suffered from brown marmorated stink bug damage.

NOTE: Table 6. E.V. Smith Plant Breeding Unit, Flex -Early

Trial(s) suffered early from seedling disease, with the Early Season Flex trial replanted on June 2. Continuing adverse conditions including target spot infestation and tropical storm damage caused stunted growth, excess variation and poor yields. Results will not be reported.

NOTE: Table 7. E.V. Smith Plant Breeding Unit, Flex -Full

Trial(s) suffered early from seedling disease, with the Early Season Flex trial replanted on June 2. Continuing adverse conditions including target spot infestation and tropical storm damage caused stunted growth, excess variation and poor yields. Results will not be reported.

Table 8. Performance of Non-Irrigated, Early Season Cotton Varieties in South Alabama, 2017

Gulf Coast REC - Fairhope, AL

Early Season - Flex

Cultivar	Lint	Yield	Mic	Len	Str	Unif
	(%/100)	(Lint/A)	(units)	(in.)	(g/tex)	(%)
PhytoGen PX4A54 W3FE	0.40	1718	5.2	1.12	30.3	84.2
Bayer ST 6182GLT	0.47	1621	5.2	1.17	29.2	84.6
PhytoGen PHY 330 W3FE	0.40	1558	4.2	1.14	32.5	84.2
Deltapine DP 1646 B2XF	0.43	1536	4.3	1.27	29.1	86.2
Bayer ST 5517GLTP	0.37	1536	4.4	1.16	31.0	82.3
PhytoGen PHY 444 WRF	0.40	1526	4.2	1.24	30.3	84.4
Deltapine DP 1518 B2XF	0.43	1525	5.0	1.17	30.8	84.7
Americot NG 4601 B2XF	0.43	1515	5.2	1.20	32.4	85.0
PhytoGen PHY 333 WRF	0.40	1500	4.8	1.17	31.7	86.2
PhytoGen PX4A57 W3FE	0.42	1487	4.7	1.11	31.0	84.6
PhytoGen PX3A99 W3FE	0.40	1483	5.1	1.18	30.5	84.6
PhytoGen PHY 312 WRF	0.39	1479	4.9	1.17	30.9	84.9
Bayer ST 5020GLT	0.38	1465	4.9	1.22	31.2	85.1
PhytoGen PHY 490 W3FE	0.42	1460	4.7	1.16	32.7	84.9
PhytoGen PX4A62 W3FE	0.41	1460	4.4	1.23	33.4	84.4
Bayer ST 4949GLB2	0.44	1460	4.8	1.16	29.9	84.5
PhytoGen PX3A96 W3FE	0.39	1443	4.9	1.15	30.7	84.3
PhytoGen PX3A82 W3FE	0.42	1387	4.7	1.16	31.6	85.7
PhytoGen PHY 340 W3FE	0.43	1384	4.9	1.15	30.0	84.7
PhytoGen PX4A52 W3FE	0.41	1375	4.1	1.17	31.6	84.7
Deltapine DP 1522 B2XF	0.40	1363	5.2	1.19	29.9	85.3
PhytoGen PHY 300 W3FE	0.42	1356	4.6	1.18	30.8	85.2
PhytoGen PX5B73 W3FE	0.38	1332	4.5	1.14	30.4	83.5
Bayer ST 4848GLT	0.42	1288	5.0	1.17	30.2	85.3
PhytoGen PX5A57 W3FE	0.40	1284	4.6	1.16	30.5	85.7
Bayer ST 5115GLT	0.38	1279	4.2	1.18	32.7	83.9
PhytoGen PX5B76 W3FE	0.40	1230	4.6	1.16	31.2	83.7
Americot NG 3522 B2XF	0.40	1202	4.6	1.13	28.0	83.3
PhytoGen PHY 450 W3FE	0.39	1189	4.7	1.13	34.1	84.4
Deltapine DP 1725 B2XF	0.44	1050	4.6	1.18	30.7	84.8
Croplan 3527 B2XF	0.43	1020	5.0	1.20	29.2	85.4
PhytoGen PX2A28 W3FE	0.39	994	4.1	1.22	32.8	84.2
Deltapine DP 1614 B2XF	0.44	987	4.3	1.23	31.9	84.9
Trial Mean		1377				
LSD (0.1)		154				
CV (%)		16				
Pr>F		0.0001				

Table 9. Performance of Non-Irrigated, Full Season Cotton Varieties in South Alabama, 2017

Gulf Coast REC - Fairhope, AL

Full Season - Flex

Cultivar	Lint (%/100)	Yield (Lint/A)	Mic (units)	Len (in.)	Str (g/tex)	Unif (%)
PhytoGen PX4A54 W3FE	0.41	1574	4.9	1.16	32.4	85.3
PhytoGen PX4A57 W3FE	0.43	1570	4.7	1.08	31.0	83.4
Deltapine DP 1646 B2XF	0.41	1558	4.6	1.21	31.3	83.2
Deltapine MON 16R353B3XF	0.44	1486	5.0	1.19	33.9	84.9
PhytoGen PHY 330 W3FE	0.42	1470	4.7	1.15	32.1	84.3
Deltapine DP 1555 B2RF	0.42	1470	4.8	1.17	32.7	84.1
Bayer ST 4848GLT	0.42	1466	4.9	1.15	32.6	84.9
Bayer ST 6182GLT	0.45	1459	4.6	1.18	30.3	84.7
PhytoGen PX5B73 W3FE	0.40	1452	4.5	1.17	30.5	83.0
PhytoGen PX3A99 W3FE	0.40	1450	4.7	1.14	31.2	84.0
PhytoGen PX3A96 W3FE	0.39	1448	4.7	1.16	30.2	83.6
PhytoGen PX4A52 W3FE	0.40	1445	4.3	1.14	31.2	85.0
PhytoGen PHY 340 W3FE	0.42	1427	4.5	1.15	30.3	84.6
Deltapine DP 1639 B2XF	0.42	1407	4.7	1.15	31.5	85.4
PhytoGen PHY 312 WRF	0.41	1400	4.9	1.18	31.8	85.9
Americot NG 4545 B2XF	0.39	1380	4.4	1.15	32.5	82.9
Deltapine DP 1747 NRB2XF	0.44	1378	5.1	1.15	31.4	83.4
PhytoGen PHY 300 W3FE	0.43	1367	4.5	1.15	30.6	84.1
PhytoGen PHY 450 W3FE	0.40	1350	4.9	1.11	33.6	84.8
Deltapine DP 1538 B2XF	0.42	1340	5.2	1.09	27.5	84.5
PhytoGen PX5A57 W3FE	0.39	1330	4.4	1.15	31.2	83.7
Americot NG 5007 B2XF	0.40	1326	4.3	1.15	27.9	81.5
Deltapine DP 1553 B2XF	0.41	1311	5.1	1.18	28.6	84.5
PhytoGen PHY 490 W3FE	0.39	1301	4.7	1.16	34.6	84.7
Bayer ST 4949GLB2	0.43	1300	4.5	1.13	29.9	83.5
Bayer ST 5517GLTP	0.38	1300	4.4	1.18	33.0	83.3
PhytoGen PHY 444 WRF	0.44	1300	4.3	1.26	30.8	85.1
Deltapine DP1851 B3XF	0.42	1299	4.3	1.19	34.8	83.7
Bayer ST 5020GLT	0.38	1288	4.7	1.19	32.7	83.3
PhytoGen PX4A62 W3FE	0.42	1287	4.1	1.20	33.4	84.0
PhytoGen PX3A82 W3FE	0.40	1285	4.6	1.15	33.0	85.4
Deltapine DP 1840 B3XF	0.40	1279	4.9	1.16	30.0	82.7
PhytoGen PX5B76 W3FE	0.39	1274	4.3	1.17	31.6	84.0
Croplan 9608 B3XF	0.45	1251	4.4	1.17	30.9	83.7
Bayer ST 5115GLT	0.40	1237	4.1	1.12	31.5	82.7
PhytoGen PHY 333 WRF	0.40	1223	4.6	1.17	30.5	84.1
Deltapine DP1835 B3XF	0.43	1192	4.6	1.22	30.5	82.9
PhytoGen PX2A28 W3FE	0.40	1090	4.3	1.18	31.6	83.6
Trial mean		1361				
LSD (0.1)		132				
CV (%)		14				
Pr>F		0.1456				

Table 10. Performance of Non-Irrigated, Early Season Cotton Varieties in South Alabama, 2017

Wiregrass REC - Headland, AL

Early Season - Flex

Cultivar	Lint (%/100)	Yield (Lint/A)	Mic (units)	Len (in.)	Str (g/tex)	Unif (%)
Deltapine DP 1518 B2XF	0.45	1240	4.7	1.15	29.7	83.0
PhytoGen PX4A57 W3FE	0.45	1219	4.9	1.06	34.4	82.8
PhytoGen PHY 333 WRF	0.46	1217	5.0	1.08	31.0	83.5
PhytoGen PX4A62 W3FE	0.44	1200	4.5	1.13	32.6	83.5
Bayer ST 5020GLT	0.44	1194	5.2	1.11	31.8	84.3
Bayer ST 4949GLB2	0.45	1183	5.0	1.08	29.4	82.2
Americot NG 3522 B2XF	0.44	1182	4.8	1.06	30.1	83.6
PhytoGen PHY 300 W3FE	0.47	1163	5.4	1.05	30.5	83.1
PhytoGen PHY 330 W3FE	0.46	1161	4.9	1.07	32.5	83.7
PhytoGen PX4A52 W3FE	0.44	1160	5.0	1.12	32.2	82.9
PhytoGen PHY 490 W3FE	0.45	1135	5.2	1.08	31.3	83.8
PhytoGen PX2A28 W3FE	0.44	1134	4.6	1.09	30.5	83.6
PhytoGen PHY 312 WRF	0.45	1117	5.3	1.07	31.7	83.4
PhytoGen PX3A99 W3FE	0.44	1109	5.1	1.09	30.8	82.9
Bayer ST 5115GLT	0.43	1103	4.9	1.06	29.8	81.9
PhytoGen PX3A82 W3FE	0.46	1093	5.0	1.04	32.2	82.7
PhytoGen PX4A54 W3FE	0.45	1093	5.2	1.10	30.6	83.8
Bayer ST 6182GLT	0.47	1091	5.2	1.08	29.6	83.4
PhytoGen PHY 444 WRF	0.43	1085	4.6	1.14	31.5	83.8
PhytoGen PX5B73 W3FE	0.46	1078	4.8	1.12	31.1	84.0
PhytoGen PHY 450 W3FE	0.43	1071	5.4	1.07	33.6	83.1
Americot NG 4601 B2XF	0.46	1061	5.5	1.06	30.3	82.1
Deltapine DP 1614 B2XF	0.45	1058	5.5	1.12	29.4	83.9
Deltapine DP 1725 B2XF	0.46	1055	5.0	1.08	31.2	83.1
Deltapine DP 1646 B2XF	0.47	1050	5.0	1.18	29.9	82.8
Bayer ST 5517GLTP	0.42	1033	4.5	1.10	32.9	83.7
PhytoGen PX5B76 W3FE	0.43	1020	5.0	1.07	31.4	83.9
PhytoGen PX3A96 W3FE	0.43	1015	5.1	1.05	30.4	82.3
Bayer ST 4848GLT	0.46	996	4.7	1.11	31.7	83.4
PhytoGen PHY 340 W3FE	0.44	987	5.2	1.12	30.7	83.3
Croplan 3527 B2XF	0.46	983	5.3	1.10	29.6	83.2
Deltapine DP 1522 B2XF	0.43	978	5.3	1.09	31.1	83.9
PhytoGen PX5A57 W3FE	0.43	947	4.8	1.08	33.0	83.7
Trial Mean		1097				
LSD (0.1)		90				
CV (%)		12				
Pr>F		0.0665				

Table 11. Performance of Non-Irrigated, Full Season Cotton Varieties in South Alabama, 2017

Wiregrass REC - Headland, AL

Full Season - Flex

Cultivar	Lint (%/100)	Yield (Lint/A)	Mic (units)	Len (in.)	Str (g/tex)	Unif (%)
PhytoGen PHY 312 WRF	0.44	1451	4.9	1.11	30.4	84.5
PhytoGen PX4A52 W3FE	0.46	1415	4.8	1.12	29.1	84.2
PhytoGen PHY 330 W3FE	0.47	1404	5.1	1.10	29.5	83.5
Bayer ST 5115GLT	0.44	1375	4.5	1.11	30.1	82.9
Bayer ST 6182GLT	0.47	1369	5.0	1.14	29.4	84.2
Bayer ST 4848GLT	0.45	1363	4.9	1.10	30.6	84.1
PhytoGen PX3A82 W3FE	0.43	1338	4.5	1.10	31.9	85.5
PhytoGen PX3A96 W3FE	0.42	1335	4.8	1.13	30.5	84.9
PhytoGen PHY 333 WRF	0.46	1324	5.1	1.08	28.5	84.0
PhytoGen PX5B73 W3FE	0.45	1323	5.0	1.11	30.5	84.3
PhytoGen PX4A62 W3FE	0.44	1300	4.4	1.16	33.4	84.3
Americot NG 4545 B2XF	0.43	1290	4.9	1.10	30.3	83.6
Croplan 9608 B3XF	0.48	1287	5.4	1.12	30.4	83.2
PhytoGen PX3A99 W3FE	0.44	1278	5.0	1.13	31.4	84.4
PhytoGen PHY 490 W3FE	0.45	1277	5.0	1.09	33.6	84.4
PhytoGen PHY 444 WRF	0.47	1274	4.6	1.18	33.2	84.9
Deltapine DP 1553 B2XF	0.46	1269	5.1	1.12	29.1	84.1
PhytoGen PX2A28 W3FE	0.43	1264	4.4	1.15	30.6	82.2
Deltapine DP 1840 B3XF	0.47	1262	5.2	1.12	31.7	83.6
Deltapine DP 1555 B2RF	0.50	1257	5.3	1.12	31.9	83.1
PhytoGen PHY 300 W3FE	0.46	1253	4.7	1.10	29.9	83.4
Bayer ST 5020GLT	0.44	1252	5.0	1.15	31.8	84.7
Bayer ST 5517GLTP	0.41	1244	4.5	1.18	33.4	83.3
PhytoGen PHY 450 W3FE	0.43	1244	5.1	1.07	34.6	44.3
Bayer ST 4949GLB2	0.47	1242	5.2	1.08	30.3	84.2
PhytoGen PHY 340 W3FE	0.46	1241	5.3	1.08	30.8	85.0
PhytoGen PX4A57 W3FE	0.46	1231	5.3	1.07	31.0	83.7
PhytoGen PX4A54 W3FE	0.45	1231	4.8	1.10	32.2	84.1
PhytoGen PX5B76 W3FE	0.45	1219	5.0	1.11	31.2	84.1
Deltapine DP 1747 NRB2XF	0.47	1179	5.2	1.10	31.4	83.7
Americot NG 5007 B2XF	0.47	1171	5.2	1.10	27.9	83.3
Deltapine DP 1851 B3XF	0.45	1160	4.8	1.16	33.0	84.1
Deltapine DP 1835 B3XF	0.47	1136	4.9	1.12	30.4	83.0
Deltapine DP 1538 B2XF	0.45	1131	5.1	1.07	29.1	84.0
PhytoGen PX5A57 W3FE	0.46	1122	5.0	1.11	32.5	83.3
Deltapine DP 1646 B2XF	0.46	1085	4.9	1.17	29.9	83.3
Deltapine MON 16R353B3XF	0.48	1047	5.4	1.10	29.8	83.5
Deltapine DP 1639 B2XF	0.46	890	5.6	1.07	31.1	83.0
Trial Mean		1251				
LSD (0.1)		121				
CV (%)		14				
Pr>F		0.0333				

Table 12. Performance of Irrigated, Early Season Cotton Varieties in North Alabama, 2017

Tennessee Valley REC - Belle Mina, AL

Early Season - Flex

Cultivar	Lint (%/100)	Yield (Lint/A)	Mic (units)	Len (in.)	Str (g/tex)	Unif (%)
Deltapine DP 1725 B2XF	0.45	2295	4.4	1.22	28.8	84.4
Deltapine DP 1518 B2XF	0.42	2294	4.2	1.23	28.1	84.7
PhytoGen PX4A57 W3FE	0.45	2225	4.4	1.15	30.5	84.8
PhytoGen PHY 340 W3FE	0.45	2195	4.6	1.18	29.0	85.1
PhytoGen PX5B76 W3FE	0.42	2169	4.2	1.20	29.5	84.7
Bayer ST 6182GLT	0.48	2151	4.6	1.17	29.1	85.0
PhytoGen PX3A99 W3FE	0.41	2150	4.4	1.18	30.3	83.8
PhytoGen PX4A52 W3FE	0.43	2131	4.4	1.17	28.3	84.7
Bayer ST 4949GLB2	0.44	2066	4.2	1.15	28.1	84.9
PhytoGen PHY 312 WRF	0.42	2032	4.5	1.18	30.3	84.7
Deltapine DP 1646 B2XF	0.43	2031	4.0	1.28	27.5	84.3
Deltapine DP 1522 B2XF	0.43	2031	4.8	1.19	29.4	84.4
Bayer ST 5115GLT	0.42	2022	3.9	1.16	30.1	82.6
Bayer ST 4848GLT	0.43	2022	4.4	1.17	29.6	84.6
PhytoGen PX4A62 W3FE	0.42	2004	3.8	1.23	31.8	83.3
PhytoGen PHY 330 W3FE	0.44	2001	4.7	1.19	31.1	85.8
PhytoGen PHY 490 W3FE	0.43	1968	4.3	1.21	31.5	85.8
Deltapine DP 1614 B2XF	0.46	1967	4.9	1.20	28.3	85.0
Americot NG 3522 B2XF	0.44	1955	3.9	1.14	28.1	82.2
PhytoGen PHY 450 W3FE	0.41	1953	4.6	1.16	32.5	85.3
PhytoGen PX4A54 W3FE	0.43	1949	4.1	1.20	30.9	84.9
Croplan 3527 B2XF	0.46	1942	4.7	1.19	28.5	85.1
PhytoGen PHY 300 W3FE	0.44	1933	4.7	1.17	29.8	84.4
Bayer ST 5517GLTP	0.40	1931	3.7	1.19	32.2	82.2
PhytoGen PX2A28 W3FE	0.41	1907	4.1	1.24	32.5	84.3
PhytoGen PHY 444 WRF	0.43	1904	3.6	1.28	29.5	84.7
PhytoGen PX3A96 W3FE	0.40	1901	4.0	1.18	30.3	84.1
PhytoGen PHY 333 WRF	0.43	1888	4.6	1.18	29.0	84.5
PhytoGen PX5B73 W3FE	0.41	1875	4.4	1.16	29.6	84.1
PhytoGen PX5A57 W3FE	0.41	1841	3.9	1.18	29.5	83.9
Bayer ST 5020GLT	0.40	1841	4.7	1.26	31.7	86.3
PhytoGen PX3A82 W3FE	0.43	1800	4.4	1.17	32.4	86.1
Americot NG 4601 B2XF	0.42	1715	4.5	1.24	31.1	86.1
Trial Mean		2003				
LSD (0.1)		164				
CV (%)		12				
Pr>F		0.1011				

Table 13. Performance of Irrigated, Full Season Cotton Varieties in North Alabama, 2017

Tennessee Valley REC - Belle Mina, AL

Full Season - Flex

Cultivar	Lint (%/100)	Yield (Lint/A)	Mic (units)	Len (in.)	Str (g/tex)	Unif (%)
PhytoGen PX4A52 W3FE	0.45	2361	4.6	1.16	29.3	84.1
PhytoGen PHY 444 WRF	0.44	2287	4.0	1.29	30.3	86.4
PhytoGen PHY 340 W3FE	0.45	2280	4.4	1.18	30.6	84.6
Bayer ST 5115GLT	0.41	2242	4.2	1.22	30.3	83.6
Deltapine DP 1646 B2XF	0.45	2188	4.4	1.29	28.7	83.0
Bayer ST 5517GLTP	0.41	2175	3.7	1.20	30.0	83.1
Bayer ST 6182GLT	0.47	2150	4.8	1.19	28.7	83.5
Deltapine DP 1851 B3XF	0.43	2127	4.2	1.17	30.4	84.6
PhytoGen PX4A54 W3FE	0.44	2124	4.7	1.17	29.2	85.1
Deltapine DP 1835 B3XF	0.47	2115	4.6	1.21	30.9	83.5
PhytoGen PX4A57 W3FE	0.43	2113	3.9	1.15	31.1	83.1
PhytoGen PHY 300 W3FE	0.41	2107	4.0	1.20	30.0	85.3
Deltapine DP 1555 B2RF	0.45	2098	4.1	1.21	32.1	84.4
PhytoGen PX3A96 W3FE	0.41	2080	4.7	1.18	29.7	84.6
PhytoGen PHY 450 W3FE	0.42	2069	4.7	1.18	32.0	85.2
PhytoGen PX3A82 W3FE	0.43	2050	4.0	1.16	30.5	84.5
Deltapine DP 1538 B2XF	0.44	2042	4.8	1.15	28.4	84.0
Bayer ST 5020GLT	0.41	2039	4.2	1.27	32.2	84.1
PhytoGen PX5B76 W3FE	0.41	2036	4.2	1.17	30.6	83.9
Croplan 9608 B3XF	0.46	2032	3.8	1.20	29.5	84.0
PhytoGen PHY 312 WRF	0.42	1973	4.5	1.21	29.9	84.4
Deltapine MON 16R353B3XF	0.47	1963	4.9	1.19	30.1	85.0
PhytoGen PHY 330 W3FE	0.42	1961	4.6	1.15	31.8	84.4
PhytoGen PX4A62 W3FE	0.43	1957	3.8	1.17	30.1	82.8
PhytoGen PHY 333 WRF	0.43	1942	4.4	1.23	30.4	85.8
Deltapine DP 1747 NRB2XF	0.47	1917	4.4	1.13	30.1	82.0
Bayer ST 4848GLT	0.43	1911	4.0	1.19	29.9	84.1
PhytoGen PX5B73 W3FE	0.42	1907	4.2	1.19	29.6	84.8
Bayer ST 4949GLB2	0.42	1903	3.5	1.17	31.5	85.5
PhytoGen PX2A28 W3FE	0.41	1898	3.7	1.25	32.5	84.7
PhytoGen PX3A99 W3FE	0.41	1897	3.7	1.17	30.5	83.6
PhytoGen PX5A57 W3FE	0.43	1862	3.8	1.17	31.8	84.2
Americot NG 5007 B2XF	0.42	1858	4.6	1.19	26.9	84.0
Deltapine DP 1840 B3XF	0.41	1811	4.4	1.23	29.3	83.7
Deltapine DP 1553 B2XF	0.42	1790	4.3	1.24	28.0	86.2
PhytoGen PHY 490 W3FE	0.43	1753	4.7	1.20	33.1	85.1
Deltapine DP 1639 B2XF	0.46	1717	5.0	1.13	29.5	84.7
Americot NG 4545 B2XF	0.40	1663	3.6	1.21	31.6	83.9
Trial Mean		2010				
LSD (0.1)		143				
CV (%)		10				
Pr>F		0.0001				

Table 14. Performance of Irrigated, Early Season Cotton Varieties in Central Alabama, 2017

Prattville Agricultural Research Unit - Prattville, AL

Early Season - Flex

Cultivar	Lint (%/100)	Yield (Lint/A)	Mic (units)	Len (in.)	Str (g/tex)	Unif (%)
PhytoGen PX3A82 W3FE	0.43	1355	4.7	1.11	31.5	85.3
Americot NG 4601 B2XF	0.43	1340	4.8	1.13	33.9	83.0
Bayer ST 6182GLT	0.45	1326	4.5	1.12	27.8	83.1
PhytoGen PX4A54 W3FE	0.42	1314	4.6	1.13	31.4	84.4
PhytoGen PX4A52 W3FE	0.44	1303	4.7	1.09	28.8	83.1
PhytoGen PX4A57 W3FE	0.43	1276	4.6	1.09	30.2	83.4
PhytoGen PHY 490 W3FE	0.43	1257	5.1	1.13	32.8	85.2
PhytoGen PX3A96 W3FE	0.42	1256	4.8	1.14	30.0	84.8
PhytoGen PHY 340 W3FE	0.44	1251	4.7	1.15	31.6	84.0
PhytoGen PX4A62 W3FE	0.42	1237	4.3	1.20	34.3	83.0
PhytoGen PHY 312 WRF	0.41	1234	4.9	1.15	30.2	85.1
Deltapine DP 1646 B2XF	0.43	1211	4.5	1.22	29.2	86.1
Deltapine DP 1614 B2XF	0.43	1209	5.2	1.17	29.8	84.4
PhytoGen PX3A99 W3FE	0.43	1197	4.6	1.15	31.5	84.1
PhytoGen PX5B73 W3FE	0.42	1192	4.8	1.10	30.7	82.8
PhytoGen PX2A28 W3FE	0.44	1191	4.4	1.18	30.9	84.2
Deltapine DP 1725 B2XF	0.45	1179	4.8	1.13	31.2	83.9
Deltapine DP 1522 B2XF	0.43	1173	4.7	1.13	30.3	84.0
PhytoGen PX5B76 W3FE	0.42	1161	4.6	1.13	30.7	84.0
PhytoGen PHY 444 WRF	0.43	1146	4.1	1.23	31.5	85.6
PhytoGen PHY 333 WRF	0.43	1144	4.5	1.15	31.0	84.4
Bayer ST 5115GLT	0.41	1144	4.4	1.15	30.3	83.3
PhytoGen PX5A57 W3FE	0.42	1143	4.4	1.15	32.8	83.9
PhytoGen PHY 330 W3FE	0.43	1140	4.7	1.14	31.7	84.2
Americot NG 3522 B2XF	0.42	1140	4.7	1.09	28.2	81.6
Bayer ST 5517GLTP	0.41	1127	4.1	1.16	31.3	83.4
Bayer ST 4848GLT	0.42	1109	4.8	1.13	29.5	84.5
Deltapine DP 1518 B2XF	0.43	1105	4.3	1.14	29.4	82.8
Bayer ST 4949GLB2	0.43	1095	5.1	1.09	28.8	83.0
PhytoGen PHY 450 W3FE	0.42	1089	5.1	1.11	33.8	84.5
Croplan 3527 B2XF	0.44	1089	5.0	1.17	29.8	84.3
PhytoGen PHY 300 W3FE	0.43	1080	4.6	1.14	31.5	83.3
Bayer ST 5020GLT	0.41	1067	4.5	1.20	32.8	85.1
Trial mean		1186				
LSD (0.1)		96				
CV (%)		11				
Pr>F		0.0522				

Table 15. Performance of Irrigated, Full Season Cotton Varieties in Central Alabama, 2017

Prattville Agricultural Research Unit - Prattville, AL

Full Season - Flex

Cultivar	Lint (%/100)	Yield (Lint/A)	Mic (units)	Len (in.)	Str (g/tex)	Unif (%)
Deltapine DP 1646 B2XF	0.43	1623	4.4	1.26	29.1	85.4
PhytoGen PX4A52 W3FE	0.43	1591	4.4	1.15	29.0	85.4
Croplan 9608 B3XF	0.47	1486	4.3	1.17	28.4	83.5
Deltapine DP 1747 NRB2XF	0.45	1478	4.9	1.15	32.0	84.3
PhytoGen PX4A57 W3FE	0.46	1478	4.3	1.15	32.1	83.4
PhytoGen PX3A96 W3FE	0.40	1436	4.0	1.17	30.0	84.5
Bayer ST 6182GLT	0.47	1433	4.6	1.12	28.9	84.0
PhytoGen PX4A54 W3FE	0.43	1400	4.7	1.13	30.2	84.5
Deltapine DP 1555 B2RF	0.46	1355	4.1	1.18	31.2	84.1
Deltapine DP 1553 B2XF	0.44	1344
Deltapine DP 1851 B3XF	0.44	1329	4.1	1.14	32.5	82.9
PhytoGen PHY 490 W3FE	0.41	1320	4.7	1.12	33.3	84.3
Bayer ST 5517GLTP	0.41	1312	3.9	1.16	32.2	82.9
PhytoGen PX4A62 W3FE	0.44	1309	4.1	1.21	32.4	84.9
PhytoGen PX5B73 W3FE	0.42	1295	4.5	1.15	30.3	84.0
Bayer ST 4949GLB2	0.44	1289	4.5	1.12	29.7	83.7
PhytoGen PX5B76 W3FE	0.41	1284	4.5	1.15	29.9	82.8
Bayer ST 4848GLT	0.42	1273	4.2	1.14	30.4	84.5
Bayer ST 5115GLT	0.41	1244	4.0	1.16	29.3	83.6
Deltapine DP 1538 B2XF	0.45	1235	4.8	1.09	27.5	83.6
PhytoGen PHY 444 WRF	0.42	1213	3.6	1.23	31.1	85.1
Deltapine MON 16R353B3XF	0.46	1208	4.6	1.18	31.2	84.4
PhytoGen PX3A99 W3FE	0.41	1207	4.3	1.17	29.9	85.0
PhytoGen PHY 330 W3FE	0.43	1202	4.3	1.17	32.6	84.5
Americot NG 5007 B2XF	0.43	1202	4.5	1.11	27.7	83.5
Bayer ST 5020GLT	0.40	1201	4.4	1.20	31.6	85.4
Deltapine DP 1835 B3XF	0.47	1197	4.4	1.17	30.8	84.5
PhytoGen PHY 333 WRF	0.42	1191	4.5	1.18	29.3	84.9
PhytoGen PX3A82 W3FE	0.42	1169	4.5	1.09	31.6	83.7
PhytoGen PHY 450 W3FE	0.40	1169	5.0	1.10	32.8	84.8
Deltapine DP 1840 B3XF	0.42	1163	4.1	1.18	31.8	83.5
PhytoGen PHY 312 WRF	0.40	1156	4.3	1.15	29.6	83.3
PhytoGen PHY 340 W3FE	0.43	1154	4.1	1.17	29.8	83.7
PhytoGen PX2A28 W3FE	0.42	1146	4.1	1.17	30.6	83.6
Americot NG 4545 B2XF	0.43	1139	4.6	1.14	32.1	83.3
PhytoGen PX5A57 W3FE	0.42	1135	4.4	1.14	31.5	84.4
Deltapine DP 1639 B2XF	0.44	1080	4.6	1.12	30.6	84.3
PhytoGen PHY 300 W3FE	0.43	951	4.5	1.12	30.9	83.6
Trial Mean		1267				
LSD (0.1)		143				
CV (%)		16				
Pr>F		0.0018				

Table 16. Performance of Irrigated, Early Season Cotton Varieties in South Alabama, 2017

Wiregrass REC - Headline, AL

Early Season - Flex

Cultivar	Lint (%/100)	Yield (Lint/A)	Mic (units)	Len (in.)	Str (g/tex)	Unif (%)
PhytoGen PX4A54 W3FE	0.45	1517	5.1	1.13	30.5	85.2
PhytoGen PX3A82 W3FE	0.45	1516	5.1	1.13	30.4	84.3
PhytoGen PHY 300 W3FE	0.44	1467	5.0	1.10	29.8	84.3
PhytoGen PX5B76 W3FE	0.44	1454	5.0	1.11	30.1	84.4
PhytoGen PX5A57 W3FE	0.45	1449	5.0	1.11	29.4	84.9
Deltapine DP 1518 B2XF	0.45	1424	4.6	1.13	28.8	83.7
Bayer ST 5115GLT	0.41	1414	4.4	1.13	29.1	83.2
Bayer ST 5020GLT	0.42	1411	4.7	1.16	30.2	84.4
PhytoGen PX4A62 W3FE	0.45	1405	4.6	1.19	32.6	83.6
PhytoGen PX2A28 W3FE	0.44	1404	4.9	1.14	29.0	83.1
PhytoGen PX4A57 W3FE	0.46	1398	4.7	1.07	30.1	84.4
Americot NG 3522 B2XF	0.45	1394	4.9	1.08	25.7	83.5
PhytoGen PX4A52 W3FE	0.44	1393	5.2	1.12	28.9	85.7
PhytoGen PX3A96 W3FE	0.42	1390	4.9	1.13	31.3	84.8
Deltapine DP 1646 B2XF	0.47	1380	4.7	1.21	28.6	84.6
PhytoGen PHY 312 WRF	0.44	1337	4.9	1.12	28.9	84.7
Bayer ST 6182GLT	0.49	1335	5.1	1.12	27.1	83.6
PhytoGen PHY 450 W3FE	0.41	1327	5.3	1.08	32.3	83.9
PhytoGen PHY 340 W3FE	0.45	1322	5.1	1.13	29.6	84.5
PhytoGen PHY 444 WRF	0.45	1315	4.3	1.23	29.5	85.5
PhytoGen PHY 330 W3FE	0.44	1311	4.9	1.11	29.6	83.6
Bayer ST 5517GLTP	0.41	1307	4.5	1.15	30.6	83.3
Bayer ST 4848GLT	0.45	1299	5.0	1.13	29.3	83.9
Americot NG 4601 B2XF	0.46	1298	4.9	1.15	32.8	84.7
PhytoGen PX3A99 W3FE	0.43	1282	5.0	1.16	30.2	85.2
Deltapine DP 1725 B2XF	0.48	1274	5.1	1.14	30.9	83.4
Deltapine DP 1614 B2XF	0.47	1268	5.5	1.14	28.0	84.3
PhytoGen PX5B73 W3FE	0.45	1236	5.0	1.12	29.6	84.2
PhytoGen PHY 490 W3FE	0.44	1207	5.1	1.08	31.1	84.6
Deltapine DP 1522 B2XF	0.46	1199	5.5	1.12	28.2	83.6
Bayer ST 4949GLB2	0.47	1167	4.9	1.10	27.8	83.3
PhytoGen PHY 333 WRF	0.43	1122	4.6	1.12	29.0	84.4
Croplan 3527 B2XF	0.45	1038	5.4	1.13	27.8	84.2
Trial Mean		1335				
LSD (0.1)		111				
CV (%)		12				
Pr>F		0.0077				

Table 17. Performance of Irrigated, Full Season Cotton Varieties in South Alabama, 2017

Wiregrass REC - Headland, AL

Full Season - Flex

Cultivar	Lint (%/100)	Yield (Lint/A)	Mic (units)	Len (in.)	Str (g/tex)	Unif (%)
Deltapine DP 1851 B3XF	0.45	1656	5.0	1.16	30.5	84.7
PhytoGen PHY 444 WRF	0.45	1643	4.5	1.21	33.9	86.2
Bayer ST 5020GLT	0.46	1496	5.1	1.17	32.7	84.5
PhytoGen PX5B73 W3FE	0.46	1489	5.0	1.14	31.1	85.4
PhytoGen PX4A52 W3FE	0.44	1480	4.6	1.15	31.2	85.2
Americot NG 4545 B2XF	0.43	1476	4.9	1.15	33.1	85.3
PhytoGen PX3A99 W3FE	0.44	1465	5.0	1.16	29.2	85.3
PhytoGen PHY 490 W3FE	0.45	1457	4.7	1.15	33.1	84.9
PhytoGen PHY 330 W3FE	0.46	1453	4.6	1.12	32.5	84.8
PhytoGen PX5B76 W3FE	0.44	1453	4.8	1.13	31.0	85.1
Deltapine DP 1646 B2XF	0.46	1434	5.0	1.19	29.6	84.3
Deltapine DP 1555 B2RF	0.47	1424	4.6	1.21	31.0	90.7
PhytoGen PX3A82 W3FE	0.44	1422	5.0	1.14	33.2	86.1
Bayer ST 6182GLT	0.46	1422	5.2	1.15	29.6	85.3
Bayer ST 5517GLTP	0.42	1421	4.5	1.15	31.2	83.5
Deltapine DP 1840 B3XF	0.45	1412	4.7	1.16	31.5	84.3
PhytoGen PX4A57 W3FE	0.45	1403	4.8	1.14	31.2	85.0
Bayer ST 4949GLB2	0.45	1402	5.0	1.11	30.9	84.6
Croplan 9608 B3XF	0.46	1388	4.9	1.14	30.2	84.9
Bayer ST 5115GLT	0.45	1387	4.6	1.10	31.3	83.2
PhytoGen PX4A62 W3FE	0.45	1380	4.7	1.16	31.7	84.9
PhytoGen PHY 450 W3FE	0.42	1353	5.1	1.12	34.4	84.8
Bayer ST 4848GLT	0.44	1349	4.9	1.16	31.0	85.0
PhytoGen PX5A57 W3FE	0.47	1333	5.2	1.13	31.9	83.9
PhytoGen PHY 340 W3FE	0.45	1323	4.9	1.12	31.9	84.5
Deltapine DP 1538 B2XF	0.46	1317	5.1	1.11	30.0	84.0
Deltapine DP 1553 B2XF	0.45	1317	4.8	1.15	30.9	85.2
PhytoGen PX3A96 W3FE	0.47	1307	4.7	1.14	32.2	84.3
Deltapine DP 1639 B2XF	0.47	1296	4.7	1.16	31.8	85.9
PhytoGen PHY 312 WRF	0.44	1295	4.7	1.15	31.2	84.7
Deltapine DP1835 B3XF	0.46	1288	4.5	1.16	31.3	83.9
PhytoGen PHY 300 W3FE	0.47	1286	5.2	1.10	30.3	83.7
PhytoGen PHY 333 WRF	0.45	1257	4.9	1.16	30.2	85.3
Americot NG 5007 B2XF	0.45	1247	4.9	1.13	28.2	84.3
Deltapine MON 16R353B3XF	0.47	1230	4.8	1.20	33.7	85.2
PhytoGen PX2A28 W3FE	0.45	1213	4.7	1.17	33.6	85.2
PhytoGen PX4A54 W3FE	0.46	1188	4.6	1.15	30.5	84.8
Deltapine DP 1747 NRB2XF	0.47	1145	5.1	1.14	31.8	84.2
Trial Mean		1376				
LSD (0.1)		134				
CV (%)		14				
Pr>F		0.1135				

Table 18. Growing season precipitation in Alabama, 2017

Test location	Year	Monthly rainfall (inches)							7-month total
		Mar.	Apr.	May	June	July	Aug.	Sept.	
Belle Mina	2017	6.0	3.9	6.8	7.4	6.8	2.7	4.6	38.2
	2016	3.2	3.8	1.6	1.9	3.1	6.6	0.2	20.4
Tallassee	2017	2.8	4.9	9.5	11.1	3.7	6.3	4.3	42.6
	2016	5.7	8.1	2.1	5.7	5.5	6.0	0.9	34.0
Prattville	2017	3.5	1.6	10.0	16.0	7.6	4.4	2.3	45.4
	2016	3.2	12.6	2.1	4.2	1.3	5.3	1.4	30.1
Headland	2017	1.5	1.5	5.3	6.2	4.3	2.2	5.9	26.9
	2016	4.7	5.8	2.7	5.3	3.8	5.8	1.0	29.1
Fairhope	2017	2.3	4.3	10.8	11.8	7.9	13.7	0.9	51.7
	2016	10.1	6.7	2.9	4.4	5.1	8.6	4.1	41.9

Irrigation amounts for Irrigated cotton trials		2017
TVREC Irrigated cotton trials:		1.2 inches irrigation water
PARU Irrigated cotton trials:		0.0 inches irrigation water
WGREC Irrigated cotton trials:		3.0 inches irrigation water



Table 19. Sources of Seed for the 2017 Cotton Variety Trials

Table 19. Sources of Seed for the 2017 Cotton Variety Trials	
<u>Monsanto, St Louis, Missouri</u>	
Deltapine DP 1555 B2RF	Deltapine DP 1646 B2XF
Deltapine DP 1518 B2XF	Deltapine DP 1851 B3XF
Deltapine DP 1522 B2XF	Deltapine DP 1840 B3XF
Deltapine DP 1538 B2XF	Deltapine DP 1725 B2XF
Deltapine DP 1553 B2XF	Deltapine DP 1835 B3XF
Deltapine DP 1614 B2XF	Deltapine DP 1747NR B2RF
Deltapine DP 1639 B2XF	MON 16R353 B3XF
<u>Bayer Crop Sciences, Tifton, Georgia</u>	
Bayer ST 4848GLT	Bayer ST 5020GLT
Bayer ST 4949GLT	Bayer ST 6182GLT
Bayer ST 5115GLT	Bayer ST 5517GLTP
<u>Dow AgroSciences, Shellman, Georgia</u>	
PhytoGen PHY 312 WRF	PX3A96W3FE
PhytoGen PHY 333 WRF	PX3A99W3FE
PhytoGen PHY 444 WRF	PX4A52W3FE
PhytoGen PHY 300 W3FE	PX4A54W3FE
PhytoGen PHY 330 W3FE	PX4A57W3FE
PhytoGen PHY 340 W3FE	PX4A62W3FE
PhytoGen PHY 450 W3FE	PX5A57W3FE
PhytoGen PHY 490 W3FE	PX5B73W3FE
PX2A28W3FE	PX5B76W3FE
PX3A82W3FE	
<u>Americot, Inc., Lubbock, Texas</u>	
NG 3522 B2XF	NG 4545 B2XF
NG 4601 B2XF	NG 5007 B2XF
<u>Winfield Solutions LLC, Frisco, Texas</u>	
Croplan 3527 B2XF (formerly Winfield 16XA7B2XF)	
Croplan 9608 B3XF	

Acknowledgements

We would like to express our appreciation for the work and dedication of the Directors, Associate/Assistant Directors, and staff and field personnel of the Alabama Experiment Station outlying units without whom this work would not be possible. Thanks are also expressed to the producers and citizens of Alabama for supporting research on the production of food and fiber across our state.

Alabama Agricultural Experiment Station Outlying Units with Cotton Variety Trials

Northern Region

Tennessee Valley Research and Extension Center, Belle Mina

Chet Norris, Director

David Harkins, Associate Director



Central Region

E.V. Smith Research and Extension Center, Plant Breeding Unit, Tallassee

Greg Pate, Director

Jason Burkett, Associate Director

Prattville Agricultural Research Unit, Prattville

Don Moore, Director



Southern Region

Gulf Coast Research and Extension Center, Fairhope

Malcomb Pegues, Director

Jarrod Jones, Assoc. Director

Wiregrass Research and Extension Center, Headland

Larry Wells, Director

Brian Gamble, Assoc. Director



Issued in cooperation with the Alabama Cooperative Extension System, Dr. Gary Lemme, Director
Information contained herein is available to all persons regardless of race, color, sex, or national origin. Issued in furtherance of Cooperative Extension work in agriculture and home economics, Acts of May 8, and June 30, 1914, and other related acts, in cooperation with the U.S. Department of Agriculture. The Alabama Cooperative Extension System (Alabama A&M University and Auburn University) offers educational programs, materials, and equal opportunity employment to all people without regard to race, color, national origin, religion, sex, age, veteran status, or disability.