Performance of Cotton Varieties in Alabama, 2018

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Performance of Cotton Varieties in Alabama, 2018

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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 2 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, test, planting date, and harvest date - 2018

Location	Soil Type	Test	Planting Date	Harvest Date
Belle Mina	Decatur silt loam	Early Season Flex	May 7	October 5
		Full Season Flex	May 7	October 8
		Irrigated Early Season Flex	May 10	October 19
		Irrigated Full Season Flex	May 10	October 19
Prattville	Lucedale fine sandy loam	Early Season Flex	May 21	November 28
		Full Season Flex	May 15	November 5
		Irrigated Early Season Flex	May 18	November 27
		Irrigated Full Season Flex	May 14	October 30
Shorter	Compass loamy sand	Early Season Flex	May 22	October 6
		Full Season Flex	May 8	October 15
	Marvyn sandy loam	Irrigated Early Season Flex	May 22	October 5
		Irrigated Full Season Flex	May 8	October 5
Headland	Dothan sandy loam	Early Season Flex	June 7	Not harvested*
		Full Season Flex	May 8	Not harvested*
		Irrigated Early Season Flex	June 8	Not harvested*
		Irrigated Full Season Flex	May 11	Not harvested*
Fairhope	Malbis fine sandy loam	Early Season Flex	May 14	October 18
		Full Season Flex	May 14	October 19

* Not harvested due to damaging winds and heavy rainfall during Hurricane Michael

Tables

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

2018 Cotton Variety Yield Performance

Table 2. Performance of Non-Irrigated, Early Season Cotton Varieties in North Alabama, 2018

Tennessee Valley REC - Belle Mina, AL						
Early Season - Flex						
Cultivar	**Lint**	**Yield**	**Mic**	**Len**	**Str**	**Unif**
	(%/100)	**(Lint/A)**	**(units)**	**(in.)**	**(g/tex)**	**(%)**
BASF ST 5020GLT	0.42	2005	4.5	1.23	28.8	84.6
Phytogen PHY 350 W3FE	0.44	1957	4.5	1.20	30.7	84.1
Deltapine DP 1646 B2XF	0.44	1888	4.6	1.23	29.3	85.0
BASF BX1973GLTP	0.48	1864	4.7	1.19	31.4	85.1
PhytoGen PHY 330 W3FE	0.45	1815	4.4	1.17	31.5	84.5
BASF BX1974GLTP	0.46	1797	4.7	1.22	30.6	85.1
Deltapine DP 1725 B2XF	0.46	1793	4.4	1.20	30.1	84.4
Americot NG 3729 B2XF	0.43	1787	5.0	1.17	30.1	83.9
PhytoGen PHY 300 W3FE	0.47	1778	4.6	1.14	31.4	84.1
PhytoGen PHY 333 WRF	0.46	1774	4.5	1.17	29.9	84.6
PhytoGen PHY 444 WRF	0.45	1758	3.9	1.26	32.2	84.7
PhytoGen PHY3C06W3FE	0.45	1757	4.5	1.16	28.6	83.3
Phytogen PHY 320 W3FE	0.43	1750	4.7	1.16	29.6	84.8
Phytogen PHY 480 W3FE	0.45	1744	4.7	1.16	31.4	85.2
PhytoGen PHY 430 W3FE	0.45	1741	4.2	1.14	31.8	83.4
BASF BX1975GLTP	0.46	1740	5.0	1.21	30.7	84.4
PhytoGen PHY4A64W3FE	0.44	1725	4.1	1.14	32.7	84.9
PhytoGen PHY3B09W3FE	0.44	1718	4.3	1.17	31.6	84.1
BASF ST 4949GLT	0.46	1711	4.7	1.16	30.0	84.5
PhytoGen PHY 340 W3FE	0.46	1708	4.4	1.17	31.0	84.4
BASF ST 5471GLTP	0.44	1696	4.2	1.16	30.8	82.8
PhytoGen PHY3B07W3FE	0.45	1682	4.3	1.17	32.0	84.1
Deltapine DP 1518 B2XF	0.44	1679	4.3	1.16	28.4	83.7
Americot NG 3522 B2XF	0.45	1679	4.7	1.12	27.0	82.6
Americot NG 4689 B2XF	0.43	1674	4.1	1.20	31.8	84.4
Americot NG 4601 B2XF	0.44	1671	4.8	1.20	32.1	84.9
PhytoGen PHY4A69W3FE	0.46	1633	3.9	1.19	30.6	83.0
PhytoGen PHY5C09W3FE	0.44	1615	4.6	1.16	31.3	84.1
Croplan 9178 B3XF	0.45	1609	4.3	1.16	31.1	82.9
Americot NG 4777 B2XF	0.41	1584	4.5	1.16	32.8	83.5
Americot AMX1801B3XF	0.42	1582	4.5	1.24	29.9	91.5
PhytoGen PHY5D28BW3FE	0.45	1574	4.1	1.18	32.8	83.9
BASF BX1976GLTP	0.41	1568	4.5	1.21	31.5	84.6
BASF ST 5517GLTP	0.41	1567	4.5	1.20	29.5	83.6
Deltapine DP 1614 B2XF	0.46	1563	4.9	1.20	30.1	84.6
Phytogen PHY 440 W3FE	0.45	1532	4.5	1.20	33.4	84.7
BASF ST 5122GLT	0.43	1527	4.6	1.16	29.9	83.6
Americot NG 3780 B2XF	0.40	1519	4.3	1.16	30.4	83.5
Phytogen PHY 530 W3FE	0.44	1518	4.4	1.15	30.4	84.1
BASF ST 5818GLT	0.41	1515	4.2	1.22	30.0	83.6
Americot NG 3699 B2XF	0.41	1506	4.7	1.18	31.6	82.6
Deltapine DP 1820 B3XF	0.46	1487	4.5	1.21	30.8	83.3
Winfield United 18XC9B3XF	0.42	1484	4.7	1.21	32.9	86.0
BASF ST 6182GLT	0.47	1399	4.9	1.16	28.8	84.6
Trial mean		**1674**				
LSD (0.1)		**112**				
CV (%)		**9**				
Pr>F		**0.0001**				

Table 3. Performance of Non-Irrigated, Full Season Cotton Varieties in North Alabama, 2018

Tennessee Valley REC - Belle Mina, AL						
Full Season - Flex						
Cultivar	**Lint**	**Yield**	**Mic**	**Len**	**Str**	**Unif**
	(%/100)	**(Lint/A)**	**(units)**	**(in.)**	**(g/tex)**	**(%)**
BASF BX1973GLTP	0.47	2151	4.4	1.17	31.6	84.2
PhytoGen PHY3C06W3FE	0.43	2128	4.6	1.17	29.6	83.5
Phytogen PHY 350 W3FE	0.42	2115	4.4	1.18	30.9	84.6
Deltapine DP 1646 B2XF	0.45	2081	4.4	1.23	29.0	84.3
PhytoGen PHY 333 WRF	0.43	2058	4.5	1.21	29.9	83.9
PhytoGen PHY 444 WRF	0.44	2003	4.0	1.24	31.6	84.2
BASF ST 5020GLT	0.41	1984	4.6	1.23	30.2	84.7
BASF BX1974GLTP	0.45	1975	5.0	1.16	28.8	84.0
PhytoGen PHY4A64W3FE	0.43	1934	4.1	1.17	32.6	85.1
BASF BX1975GLTP	0.46	1907	5.1	1.18	29.6	83.9
BASF ST 5517GLTP	0.42	1901	4.4	1.19	30.4	82.7
BASF ST 5122GLT	0.43	1900	4.3	1.18	29.1	83.1
PhytoGen PHY 340 W3FE	0.45	1894	4.9	1.18	30.2	84.7
PhytoGen PHY 430 W3FE	0.45	1893	4.4	1.12	29.9	84.4
Croplan 3527 B2XF	0.46	1872	5.1	1.21	27.9	85.3
PhytoGen PHY 330 W3FE	0.45	1871	4.7	1.17	29.7	84.6
Phytogen PHY 320 W3FE	0.44	1862	4.3	1.18	30.8	85.5
PhytoGen PHY3B07W3FE	0.44	1857	4.5	1.19	30.6	84.5
BASF ST 5818GLT	0.42	1857	4.3	1.19	31.1	83.5
BASF ST 5471GLTP	0.42	1848	4.7	1.18	30.4	83.7
PhytoGen PHY3B09W3FE	0.45	1845	4.7	1.18	30.9	84.5
PhytoGen PHY4A69W3FE	0.44	1844	3.9	1.21	31.5	84.4
BASF ST 4949GLT	0.45	1824	4.9	1.15	28.9	84.4
Phytogen PHY 440 W3FE	0.43	1810	4.2	1.23	32.8	85.3
Croplan 9608 B3XF	0.45	1772	4.7	1.15	28.0	82.6
PhytoGen PHY 300 W3FE	0.44	1766	4.7	1.15	30.6	84.9
PhytoGen PHY5D28BW3FE	0.45	1754	4.3	1.18	32.9	85.5
Deltapine DP 1555 B2RF	0.44	1753	4.5	1.19	31.2	84.7
Americot NG 5007 B2XF	0.42	1722	4.8	1.18	28.8	84.2
BASF BX1976GLTP	0.44	1716	4.9	1.17	30.4	84.1
Deltapine DP 1835 B3XF	0.44	1706	4.8	1.19	30.7	83.7
Deltapine DP 1747 NRB2XF	0.45	1692	4.9	1.16	30.8	83.8
BASF ST 6182GLT	0.45	1689	4.9	1.18	29.4	84.3
PhytoGen PHY5C09W3FE	0.46	1682	4.5	1.16	30.6	84.8
Phytogen PHY 530 W3FE	0.42	1669	4.7	1.17	30.6	84.0
Deltapine MON17R829B3XF	0.45	1668	4.6	1.16	30.2	82.9
Deltapine DP 1851 B3XF	0.43	1655	4.5	1.20	32.0	85.5
Phytogen PHY 480 W3FE	0.41	1626	4.2	1.18	31.8	85.7
Deltapine DP 1840 B3XF	0.41	1536	4.5	1.23	31.1	83.9
Americot NG 5711 B3XF	0.41	1513	4.2	1.23	30.4	83.6
Trial Mean		**1833**				
LSD (0.1)		**89**				
CV (%)		**7**				
Pr>F		**0.1**				

Table 4. Performance of Non-Irrigated, Early Season Cotton Varieties in Central Alabama, 2018

Prattville Agricultural Research Unit - Prattville, AL						
Early Season - Flex						
Cultivar	**Lint**	**Yield**	**Mic**	**Len**	**Str**	**Unif**
	(%/100)	**(Lint/A)**	**(units)**	**(in.)**	**(g/tex)**	**(%)**
Deltapine DP 1646 B2XF	0.47	1722	4.8	1.22	29.5	84.6
PhytoGen PHY 430 W3FE	0.47	1586	5.0	1.08	29.0	81.5
PhytoGen PHY3B07W3FE	0.48	1567	4.8	1.14	31.6	84.1
PhytoGen PHY 300 W3FE	0.46	1563	4.5	1.10	30.3	83.5
Croplan 9178 B3XF	0.46	1548	5.0	1.14	31.6	84.6
PhytoGen PHY3B09W3FE	0.49	1539	4.7	1.11	29.8	81.5
PhytoGen PHY 340 W3FE	0.48	1521	4.9	1.11	29.8	81.7
BASF ST 6182GLT	0.49	1515	4.7	1.12	27.6	83.4
Deltapine DP 1820 B3XF	0.46	1486	5.0	1.19	31.0	83.3
Americot NG 3729 B2XF	0.44	1465	4.9	1.15	29.6	83.2
BASF ST 5471GLTP	0.44	1463	4.4	1.12	30.3	81.4
PhytoGen PHY3C06W3FE	0.47	1459	5.2	1.09	28.3	81.7
Americot NG 4689 B2XF	0.45	1443	5.4	1.08	28.7	81.5
PhytoGen PHY5D28BW3FE	0.49	1439	4.8	1.13	32.3	84.6
Phytogen PHY 320 W3FE	0.45	1433	4.5	1.11	32.1	84.2
Phytogen PHY 480 W3FE	0.47	1432	4.7	1.10	29.9	84.7
PhytoGen PHY 333 WRF	0.45	1428	4.4	1.14	29.0	84.0
BASF ST 4949GLT	0.46	1415	4.4	1.10	27.2	82.6
PhytoGen PHY 330 W3FE	0.46	1409	4.4	1.12	29.8	83.5
Phytogen PHY 350 W3FE	0.45	1406	4.8	1.12	30.7	83.6
Deltapine DP 1725 B2XF	0.49	1386	5.0	1.14	29.6	83.4
Phytogen PHY 440 W3FE	0.45	1378	4.6	1.15	32.7	81.3
PhytoGen PHY4A69W3FE	0.47	1376	4.4	1.14	29.7	83.0
Americot NG 4777 B2XF	0.46	1365	4.7	1.09	30.6	80.5
BASF BX1974GLTP	0.47	1363	4.7	1.15	28.6	84.7
BASF BX1973GLTP	0.46	1363	4.5	1.13	28.9	84.5
BASF ST 5020GLT	0.43	1341	4.1	1.14	32.8	81.1
BASF ST 5517GLTP	0.44	1335	4.0	1.15	30.8	82.5
PhytoGen PHY 444 WRF	0.43	1322	4.2	1.17	30.2	84.6
Americot NG 3780 B2XF	0.42	1319	4.7	1.13	31.1	81.7
Phytogen PHY 530 W3FE	0.46	1318	5.0	1.12	29.3	80.4
Americot NG 4601 B2XF	0.45	1313	5.1	1.18	31.8	84.3
Americot NG 3522 B2XF	0.46	1312	4.9	1.10	27.1	83.9
Americot AMX1801B3XF	0.43	1308	4.9	1.19	29.9	85.2
BASF ST 5122GLT	0.44	1304	4.2	1.12	28.4	82.7
BASF ST 5818GLT	0.44	1302	4.7	1.15	29.8	82.8
Deltapine DP 1614 B2XF	0.47	1298	5.2	1.14	27.9	82.9
Winfield United 18XC9B3XF	0.43	1264	4.8	1.19	31.3	83.1
BASF BX1976GLTP	0.46	1251	4.9	1.14	30.4	83.9
PhytoGen PHY5C09W3FE	0.45	1226	5.0	1.12	32.5	83.4
Deltapine DP 1518 B2XF	0.46	1218	4.4	1.13	28.7	82.3
Americot NG 3699 B2XF	0.42	1201	4.5	1.18	30.6	83.1
PhytoGen PHY4A64W3FE	0.46	1166	4.4	1.09	32.8	84.5
BASF BX1975GLTP	0.46	1158	4.6	1.16	28.8	84.5
Trial mean		**1387**				
LSD (0.1)		**104**				
CV (%)		**11**				
Pr>F		**0.0001**				

Table 5. Performance of Non-Irrigated, Full Season Cotton Varieties in Central Alabama, 2018

Prattville Agricultural Research Unit - Prattville, AL						
Full Season - Flex						
Cultivar	**Lint**	**Yield**	**Mic**	**Len**	**Str**	**Unif**
	(%/100)	**(Lint/A)**	**(units)**	**(in.)**	**(g/tex)**	**(%)**
PhytoGen PHY3C06W3FE	0.47	1727	5.1	1.13	27.6	82.6
PhytoGen PHY3B09W3FE	0.47	1684	4.9	1.12	29.2	83.6
Deltapine DP 1646 B2XF	0.48	1664	4.7	1.22	28.7	85.2
BASF ST 5471GLTP	0.43	1663	4.8	1.12	29.5	83.1
PhytoGen PHY 340 W3FE	0.47	1648	4.6	1.11	29.1	84.3
Deltapine DP 1555 B2RF	0.47	1627	4.8	1.16	31.3	83.8
Deltapine DP 1747 NRB2XF	0.49	1584	5.0	1.11	30.9	83.3
Deltapine DP 1851 B3XF	0.46	1577	5.1	1.14	30.5	84.2
PhytoGen PHY4A64W3FE	0.45	1574	4.5	1.14	32.6	84.9
PhytoGen PHY 330 W3FE	0.46	1570	4.5	1.10	29.3	83.7
BASF ST 5517GLTP	0.45	1557	5.0	1.16	30.8	83.3
PhytoGen PHY5D28BW3FE	0.47	1546	4.7	1.12	31.4	83.7
PhytoGen PHY3B07W3FE	0.45	1543	4.7	1.11	29.1	83.1
BASF ST 6182GLT	0.49	1538	4.9	1.11	28.1	83.0
Phytogen PHY 440 W3FE	0.43	1533	4.2	1.18	33.3	83.1
PhytoGen PHY 430 W3FE	0.47	1531	4.7	1.09	30.7	84.1
Deltapine MON17R829B3XF	0.49	1531	5.0	1.17	30.6	82.2
Croplan 9608 B3XF	0.47	1510	4.3	1.14	28.3	83.2
PhytoGen PHY 333 WRF	0.45	1503	4.7	1.13	30.8	84.3
Phytogen PHY 350 W3FE	0.43	1500	4.5	1.15	30.4	84.5
BASF ST 5818GLT	0.43	1481	4.6	1.13	31.1	83.1
BASF BX1976GLTP	0.47	1477	5.3	1.11	31.4	84.0
Americot NG 5007 B2XF	0.46	1477	5.0	1.15	28.6	85.1
PhytoGen PHY 300 W3FE	0.47	1471	4.4	1.10	30.1	83.1
Phytogen PHY 480 W3FE	0.44	1462	4.6	1.11	30.1	84.7
BASF BX1975GLTP	0.47	1461	4.7	1.16	29.0	84.1
PhytoGen PHY5C09W3FE	0.47	1461	5.0	1.11	29.3	83.8
BASF ST 5122GLT	0.44	1458	4.1	1.13	28.9	82.4
PhytoGen PHY4A69W3FE	0.48	1439	4.3	1.13	29.5	83.3
Phytogen PHY 320 W3FE	0.45	1436	4.6	1.13	32.0	84.9
BASF BX1973GLTP	0.49	1432	4.8	1.11	30.4	84.0
BASF BX1974GLTP	0.49	1426	4.8	1.14	29.2	83.9
PhytoGen PHY 444 WRF	0.45	1423	4.3	1.21	30.9	84.5
Deltapine DP 1835 B3XF	0.48	1382	4.8	1.14	30.0	83.0
Americot NG 5711 B3XF	0.46	1378	5.0	1.19	31.6	84.8
BASF ST 4949GLT	0.47	1343	4.3	1.12	29.7	83.8
Deltapine DP 1840 B3XF	0.43	1339	4.4	1.19	31.1	84.0
Croplan 3527 B2XF	0.48	1337	5.0	1.13	29.0	84.1
Phytogen PHY 530 W3FE	0.46	1318	5.3	1.15	29.6	84.2
BASF ST 5020GLT	0.42	1245	3.8	1.19	32.1	85.0
Trial mean		**1496**				
LSD (0.1)		**119**				
CV (%)		**11**				
Pr>F		**0.0240**				

Table 6. Performance of Non-Irrigated, Early Season Cotton Varieties in Central Alabama, 2018

E.V. Smith REC Field Crops Unit - Shorter, AL						
Early Season - Flex						
Cultivar	**Lint**	**Yield**	**Mic**	**Len**	**Str**	**Unif**
	(%/100)	**(Lint/A)**	**(units)**	**(in.)**	**(g/tex)**	**(%)**
BASF ST 5020GLT	0.40	1234	4.6	1.13	32.7	83.9
Deltapine DP 1646 B2XF	0.43	1217	4.7	1.17	29.2	84.0
PhytoGen PHY4A64W3FE	0.43	1215	4.4	1.07	30.7	83.6
BASF BX1973GLTP	0.44	1207	4.4	1.11	32.1	83.3
BASF ST 5471GLTP	0.41	1204	4.5	1.09	31.4	83.0
PhytoGen PHY3B07W3FE	0.43	1174	4.0	1.16	33.7	84.6
PhytoGen PHY 300 W3FE	0.44	1162	4.5	1.07	28.9	82.6
BASF ST 5818GLT	0.41	1147	4.5	1.07	29.8	82.2
PhytoGen PHY 444 WRF	0.43	1146	4.2	1.17	31.1	85.2
Phytogen PHY 440 W3FE	0.43	1123	3.9	1.17	34.7	84.1
PhytoGen PHY 340 W3FE	0.45	1122	4.6	1.08	29.6	81.8
Americot NG 3699 B2XF	0.38	1114	4.0	1.14	32.6	83.2
BASF ST 4949GLT	0.43	1109	4.2	1.05	29.7	82.5
BASF ST 5122GLT	0.42	1107	4.4	1.10	31.7	82.4
BASF BX1976GLTP	0.43	1100	4.8	1.12	32.9	82.4
PhytoGen PHY3B09W3FE	0.43	1088	4.1	1.08	31.3	83.1
BASF ST 5517GLTP	0.42	1077	4.1	1.11	33.0	81.6
Americot NG 3522 B2XF	0.42	1073	4.4	1.07	30.5	82.6
Deltapine DP 1614 B2XF	0.44	1059	4.5	1.13	31.2	82.8
Phytogen PHY 320 W3FE	0.41	1032	4.0	1.09	29.9	83.7
PhytoGen PHY 333 WRF	0.43	1023	4.2	1.14	30.5	84.6
Americot NG 3729 B2XF	0.40	1001	4.6	1.14	29.9	84.6
Americot NG 4689 B2XF	0.41	993	5.1	1.04	30.3	82.3
Phytogen PHY 350 W3FE	0.42	990	3.8	1.08	31.0	83.2
Deltapine DP 1725 B2XF	0.44	984	4.4	1.10	31.3	82.7
BASF ST 6182GLT	0.45	974	4.9	1.10	29.6	83.6
Americot NG 4777 B2XF	0.41	971	4.6	1.07	31.9	83.1
BASF BX1975GLTP	0.43	965	4.9	1.11	30.6	83.3
Americot NG 4601 B2XF	0.43	962	4.7	1.13	32.3	83.9
Deltapine DP 1820 B3XF	0.42	955	4.3	1.14	34.5	82.4
Phytogen PHY 530 W3FE	0.44	947	4.3	1.10	31.1	82.7
PhytoGen PHY3C06W3FE	0.44	890	4.4	1.10	31.0	82.6
Phytogen PHY 480 W3FE	0.42	868	4.5	1.10	30.4	83.5
Deltapine DP 1518 B2XF	0.39	867	3.9	1.14	30.9	84.3
BASF BX1974GLTP	0.44	843	4.9	1.11	30.1	83.7
Winfield United 18XC9B3XF	0.41	841	4.6	1.14	32.5	82.8
PhytoGen PHY 330 W3FE	0.47	839	4.4	1.07	29.5	83.7
PhytoGen PHY 430 W3FE	0.45	838	4.4	1.03	29.8	83.5
PhytoGen PHY5C09W3FE	0.46	791	4.1	1.08	31.6	84.0
Americot NG 3780 B2XF	0.39	780	4.9	1.15	32.3	83.0
PhytoGen PHY4A69W3FE	0.44	755	3.4	1.13	31.3	83.7
Croplan 9178 B3XF	0.43	695	4.6	1.14	32.8	84.3
PhytoGen PHY5D28BW3FE	0.43	662	4.2	1.10	29.8	82.5
Americot AMX1801B3XF	0.42	647	4.8	1.18	30.9	84.9
Trial mean		**925**				
LSD (0.1)		**189**				
CV (%)		**27**				
Pr>F		**0.0772**				

Table 7. Performance of Non-Irrigated, Full Season Cotton Varieties in Central Alabama, 2018

E.V. Smith REC Field Crops Unit - Shorter, AL						
Full Season - Flex						
Cultivar	**Lint**	**Yield**	**Mic**	**Len**	**Str**	**Unif**
	(%/100)	**(Lint/A)**	**(units)**	**(in.)**	**(g/tex)**	**(%)**
PhytoGen PHY 333 WRF	0.45	1488	5.2	1.06	28.6	79.8
PhytoGen PHY3B07W3FE	0.46	1446	4.8	1.12	33.5	83.1
Deltapine DP 1555 B2RF	0.47	1425	4.9	1.11	31.6	83.1
Deltapine MON17R829B3XF	0.46	1360	4.8	1.10	30.9	82.2
BASF ST 5122GLT	0.42	1343	4.6	1.10	31.4	81.3
PhytoGen PHY 430 W3FE	0.48	1329	5.0	1.07	30.5	83.2
PhytoGen PHY3B09W3FE	0.46	1322	5.0	1.08	30.8	82.7
PhytoGen PHY 340 W3FE	0.48	1321	5.3	1.09	30.8	83.6
BASF ST 6182GLT	0.47	1278	5.4	1.11	29.5	83.2
PhytoGen PHY4A64W3FE	0.47	1277	4.9	1.12	32.2	84.2
BASF BX1973GLTP	0.48	1227	5.0	1.07	31.1	80.9
PhytoGen PHY 444 WRF	0.44	1223	4.3	1.20	32.5	84.6
Phytogen PHY 350 W3FE	0.45	1193	4.8	1.11	31.6	83.0
BASF BX1976GLTP	0.44	1185	5.1	1.11	33.2	83.5
Deltapine DP 1747 NRB2XF	0.48	1177	5.1	1.10	30.6	83.8
BASF ST 5818GLT	0.42	1171	5.0	1.12	31.6	82.3
Deltapine DP 1835 B3XF	0.46	1162	5.3	1.13	31.2	83.7
Phytogen PHY 530 W3FE	0.45	1120	5.2	1.11	29.4	83.9
Deltapine DP 1851 B3XF	0.45	1099	4.9	1.14	31.5	84.8
Americot NG 5711 B3XF	0.42	1086	4.6	1.19	30.2	85.2
Americot NG 5007 B2XF	0.44	1083	4.9	1.14	28.9	83.1
Phytogen PHY 320 W3FE	0.46	1061	5.0	1.09	30.7	81.6
PhytoGen PHY 330 W3FE	0.49	1037	4.8	1.10	32.7	83.6
BASF ST 5471GLTP	0.41	1025	4.6	1.12	31.0	82.6
PhytoGen PHY4A69W3FE	0.46	1023	4.2	1.12	34.0	83.2
Croplan 3527 B2XF	0.45	983	5.3	1.08	28.8	83.0
Phytogen PHY 480 W3FE	0.44	980	4.9	1.11	30.9	84.8
Deltapine DP 1840 B3XF	0.43	979	4.9	1.18	32.3	85.0
BASF BX1974GLTP	0.46	973	5.3	1.14	30.3	84.5
PhytoGen PHY 300 W3FE	0.47	970	4.6	1.09	31.8	83.4
Deltapine DP 1646 B2XF	0.44	959	4.6	1.17	31.8	82.0
BASF BX1975GLTP	0.46	935	5.4	1.13	29.9	81.9
BASF ST 5517GLTP	0.41	931	4.5	1.07	31.9	81.1
PhytoGen PHY5C09W3FE	0.48	895	4.9	1.10	30.8	82.8
Croplan 9608 B3XF	0.47	892	5.1	1.10	28.9	83.3
PhytoGen PHY3C06W3FE	0.46	881	5.2	1.12	30.2	83.7
BASF ST 4949GLT	0.46	854	5.3	1.06	31.3	81.0
BASF ST 5020GLT	0.42	798	4.7	1.15	34.0	82.2
Phytogen PHY 440 W3FE	0.46	762	4.5	1.15	33.4	84.2
PhytoGen PHY5D28BW3FE	0.49	732	4.6	1.10	33.0	81.3
Trial mean		**1100**				
LSD (0.1)		**208**				
CV (%)		**27**				
Pr>F		**0.0110**				

Table 8. Performance of Non-Irrigated, Early Season Cotton Varieties in South Alabama, 2018

Gulf Coast REC - Fairhope, AL						
Early Season - Flex						
Cultivar	**Lint**	**Yield**	**Mic**	**Len**	**Str**	**Unif**
	(%/100)	**(Lint/A)**	**(units)**	**(in.)**	**(g/tex)**	**(%)**
PhytoGen PHY3B07W3FE	0.40	1161	4.5	1.20	30.2	84.2
BASF ST 5471GLTP	0.36	1142	3.9	1.18	31.7	83.9
PhytoGen PHY5C09W3FE	0.40	1127	3.9	1.18	30.5	82.8
PhytoGen PHY5D28BW3FE	0.41	1079	4.2	1.15	31.8	84.4
BASF ST 5818GLT	0.36	1073	4.3	1.16	28.5	81.5
Deltapine DP 1820 B3XF	0.41	1042	4.5	1.24	33.2	82.9
Phytogen PHY 480 W3FE	0.39	961	4.1	1.17	29.7	82.7
BASF ST 6182GLT	0.41	955	4.8	1.15	27.9	83.1
PhytoGen PHY3B09W3FE	0.42	921	4.2	1.15	32.5	83.0
BASF ST 5517GLTP	0.37	913	3.6	1.18	31.2	82.4
PhytoGen PHY 340 W3FE	0.40	910	4.4	1.17	29.2	84.1
Deltapine DP 1518 B2XF	0.38	901	3.9	1.20	28.4	82.5
Americot NG 4601 B2XF	0.39	880	4.3	1.17	31.1	84.7
PhytoGen PHY 444 WRF	0.40	880	3.7	1.28	29.7	83.8
Croplan 9178 B3XF	0.39	879	4.5	1.16	31.0	82.6
BASF ST 5122GLT	0.38	879	3.8	1.19	29.7	82.0
BASF ST 4949GLT	0.37	878	3.5	1.17	30.0	81.1
PhytoGen PHY 430 W3FE	0.41	878	4.3	1.15	30.7	82.7
Phytogen PHY 530 W3FE	0.41	872	4.2	1.10	28.6	81.6
Deltapine DP 1646 B2XF	0.39	846	3.8	1.24	30.2	83.4
Deltapine DP 1725 B2XF	0.43	836	4.3	1.16	29.1	82.0
Americot NG 3729 B2XF	0.37	835	4.3	1.23	29.3	84.0
PhytoGen PHY 330 W3FE	0.38	829	4.1	1.18	31.6	83.3
PhytoGen PHY4A64W3FE	0.40	823	3.7	1.13	33.5	83.4
PhytoGen PHY 333 WRF	0.36	821	4.0	1.23	30.7	83.7
PhytoGen PHY 300 W3FE	0.40	806	4.3	1.17	30.2	84.3
BASF BX1976GLTP	0.39	804	5.0	1.13	28.9	82.8
PhytoGen PHY3C06W3FE	0.40	801	4.3	1.19	30.5	82.1
BASF BX1973GLTP	0.40	801	4.0	1.17	30.3	84.1
Americot NG 4689 B2XF	0.37	799	4.0	1.17	34.4	83.1
Deltapine DP 1614 B2XF	0.41	795	4.6	1.20	29.8	83.2
BASF BX1974GLTP	0.39	786	4.3	1.23	29.7	84.4
Winfield United 18XC9B3XF	0.38	774	4.4	1.26	31.7	83.5
Americot NG 3780 B2XF	0.35	757	4.0	1.21	31.5	82.3
Phytogen PHY 350 W3FE	0.37	755	3.9	1.20	30.1	83.4
Americot NG 3522 B2XF	0.37	752	4.3	1.12	27.2	83.0
PhytoGen PHY4A69W3FE	0.40	751	3.5	1.22	32.2	82.9
Phytogen PHY 440 W3FE	0.38	737	3.8	1.26	34.7	84.1
Phytogen PHY 320 W3FE	0.39	735	3.7	1.17	30.5	84.5
Americot AMX1801B3XF	0.37	718	4.3	1.21	28.7	83.9
BASF BX1975GLTP	0.37	713	4.3	1.18	28.9	83.8
Americot NG 3699 B2XF	0.36	684	3.9	1.23	31.9	82.5
BASF ST 5020GLT	0.38	650	4.3	1.21	32.2	83.1
Americot NG 4777 B2XF	0.37	647	3.8	1.20	32.0	83.5
Trial mean		**854**				
LSD (0.1)		**102**				
CV (%)		**17**				
Pr>F		**0.0001**				

Table 9. Performance of Non-Irrigated, Full Season Cotton Varieties in South Alabama, 2018

Gulf Coast REC - Fairhope, AL						
Full Season - Flex						
Cultivar	Lint	Yield	Mic	Len	Str	Unif
	(%/100)	(Lint/A)	(units)	(in.)	(g/tex)	(%)
BASF ST 5818GLT	0.37	1396	4.4	1.22	29.6	82.9
Deltapine DP 1840 B3XF	0.40	1352	4.3	1.26	29.7	82.9
Americot NG 5711 B3XF	0.38	1324	3.9	1.23	29.5	81.7
BASF ST 5471GLTP	0.38	1320	4.6	1.16	30.1	81.9
Deltapine DP 1555 B2RF	0.42	1312	4.6	1.17	31.4	83.3
Deltapine DP 1851 B3XF	0.40	1305	4.2	1.22	31.2	83.7
PhytoGen PHY5D28BW3FE	0.40	1271	3.9	1.16	32.3	84.2
PhytoGen PHY3B07W3FE	0.40	1253	4.1	1.22	32.5	84.2
Deltapine MON17R829B3XF	0.41	1237	4.4	1.18	30.5	81.5
Deltapine DP 1747 NRB2XF	0.42	1233	4.3	1.17	30.8	82.0
Deltapine DP 1835 B3XF	0.42	1216	4.5	1.20	30.7	83.1
PhytoGen PHY5C09W3FE	0.40	1205	4.3	1.17	31.3	83.8
BASF ST 5122GLT	0.38	1171	4.2	1.18	31.0	82.6
Croplan 9608 B3XF	0.40	1162	4.1	1.20	30.0	81.9
BASF ST 5517GLTP	0.37	1153	4.6	1.15	30.8	82.2
Phytogen PHY 530 W3FE	0.39	1147	4.2	1.15	29.3	82.1
Croplan 3527 B2XF	0.42	1128	5.0	1.19	28.3	83.9
PhytoGen PHY 444 WRF	0.37	1078	3.1	1.23	32.0	81.8
PhytoGen PHY 430 W3FE	0.41	1059	4.5	1.12	31.4	83.8
Americot NG 5007 B2XF	0.39	1048	4.4	1.16	26.7	82.7
Phytogen PHY 480 W3FE	0.41	1042	4.4	1.15	29.9	83.3
PhytoGen PHY3B09W3FE	0.40	1017	4.1	1.18	32.1	81.6
PhytoGen PHY4A64W3FE	0.40	1016	4.1	1.13	30.7	84.3
BASF ST 6182GLT	0.42	1010	4.4	1.17	29.5	83.5
Deltapine DP 1646 B2XF	0.40	975	4.4	1.25	28.8	83.1
BASF BX1976GLTP	0.43	957	5.1	1.17	30.0	82.9
BASF ST 4949GLT	0.43	953	4.5	1.15	29.3	82.7
BASF BX1974GLTP	0.39	932	4.2	1.17	28.7	83.4
PhytoGen PHY3C06W3FE	0.36	910	4.1	1.17	30.3	80.3
BASF BX1973GLTP	0.40	905	3.7	1.14	31.5	82.3
Phytogen PHY 350 W3FE	0.38	893	4.3	1.16	30.3	84.6
PhytoGen PHY 300 W3FE	0.41	882	4.2	1.18	27.8	83.6
PhytoGen PHY 330 W3FE	0.37	878	4.3	1.17	30.8	83.7
PhytoGen PHY4A69W3FE	0.41	872	3.5	1.20	30.5	82.1
PhytoGen PHY 340 W3FE	0.40	869	4.4	1.20	30.6	83.1
Phytogen PHY 440 W3FE	0.40	867	3.8	1.19	33.0	82.1
PhytoGen PHY 333 WRF	0.37	847	4.3	1.17	30.5	82.8
BASF BX1975GLTP	0.39	763	4.8	1.13	28.8	81.4
Phytogen PHY 320 W3FE	0.32	727	3.6	1.14	30.7	83.1
BASF ST 5020GLT	0.37	719	4.4	1.18	30.0	82.6
Trial mean		**1060**				
LSD (0.1)		**78**				
CV (%)		**10**				
Pr>F		**0.0001**				

Table 10. Performance of Irrigated, Early Season Cotton Varieties in North Alabama, 2018

Tennessee Valley REC - Belle Mina, AL						
Early Season - Flex						
Cultivar	**Lint**	**Yield**	**Mic**	**Len**	**Str**	**Unif**
	(%/100)	**(Lint/A)**	**(units)**	**(in.)**	**(g/tex)**	**(%)**
PhytoGen PHY3B07W3FE	0.44	2217	4.6	1.16	28.9	82.8
Deltapine DP 1646 B2XF	0.43	2161	4.2	1.22	30.3	83.1
PhytoGen PHY3B09W3FE	0.43	2160	4.5	1.15	30.3	81.8
Americot NG 3729 B2XF	0.40	2159	4.9	1.18	29.0	83.5
Phytogen PHY 350 W3FE	0.41	2076	5.0	1.19	30.3	84.9
BASF ST 5020GLT	0.41	2047	4.7	1.21	30.9	84.0
PhytoGen PHY5D28BW3FE	0.41	2034	4.1	1.15	33.9	83.6
PhytoGen PHY 430 W3FE	0.42	2022	4.1	1.14	29.2	83.8
BASF BX1973GLTP	0.45	1948	4.3	1.14	30.9	83.4
PhytoGen PHY4A64W3FE	0.40	1943	4.1	1.17	33.7	85.3
Americot NG 4777 B2XF	0.39	1929	4.4	1.17	30.5	83.3
PhytoGen PHY 444 WRF	0.42	1924	3.9	1.28	31.0	84.8
BASF ST 5517GLTP	0.39	1922	4.0	1.20	32.4	83.0
Deltapine DP 1725 B2XF	0.45	1920	4.9	1.16	30.4	82.8
BASF ST 5471GLTP	0.41	1919	4.1	1.18	32.8	83.3
BASF ST 4949GLT	0.45	1918	4.8	1.13	29.2	82.8
Americot NG 4689 B2XF	0.41	1908	4.7	1.17	31.2	83.6
BASF ST 5122GLT	0.41	1903	4.2	1.15	29.5	81.2
Phytogen PHY 320 W3FE	0.39	1872	4.1	1.16	30.6	84.5
BASF ST 5818GLT	0.39	1869	4.0	1.19	31.7	82.3
PhytoGen PHY 333 WRF	0.41	1855	4.1	1.19	30.4	84.1
Deltapine DP 1614 B2XF	0.43	1832	5.1	1.18	29.5	83.9
PhytoGen PHY3C06W3FE	0.42	1816	4.3	1.16	29.3	82.7
PhytoGen PHY4A69W3FE	0.44	1809	4.0	1.17	30.2	82.6
Deltapine DP 1518 B2XF	0.42	1798	4.5	1.18	28.2	83.0
Americot NG 4601 B2XF	0.44	1795	4.8	1.15	31.7	82.6
BASF ST 6182GLT	0.45	1789	4.6	1.13	29.1	81.9
Phytogen PHY 480 W3FE	0.41	1788	4.4	1.14	29.7	83.1
Phytogen PHY 440 W3FE	0.42	1775	4.1	1.19	33.4	82.5
PhytoGen PHY 340 W3FE	0.43	1771	4.4	1.17	29.9	83.2
BASF BX1975GLTP	0.45	1771	5.0	1.14	29.4	83.3
Deltapine DP 1820 B3XF	0.44	1765	4.6	1.21	31.9	82.3
Americot NG 3780 B2XF	0.37	1762	4.6	1.20	31.2	82.7
PhytoGen PHY5C09W3FE	0.45	1760	4.7	1.16	30.8	83.3
Americot NG 3522 B2XF	0.41	1733	4.3	1.13	28.2	82.4
PhytoGen PHY 300 W3FE	0.41	1717	4.0	1.15	31.7	83.0
Americot NG 3699 B2XF	0.40	1712	4.5	1.18	32.0	80.6
Phytogen PHY 530 W3FE	0.40	1702	4.4	1.17	29.3	83.1
PhytoGen PHY 330 W3FE	0.44	1684	4.7	1.16	30.4	85.0
Americot AMX1801B3XF	0.40	1676	4.7	1.22	29.4	85.0
BASF BX1974GLTP	0.43	1670	4.9	1.17	28.8	83.5
BASF BX1976GLTP	0.44	1666	5.0	1.18	32.0	83.8
Winfield United 18XC9B3XF	0.40	1562	4.8	1.22	31.7	82.7
Croplan 9178 B3XF	0.42	1547	4.7	1.17	32.4	84.4
Trial mean		**1855**				
LSD (0.1)		**200**				
CV (%)		**15**				
Pr>F		**0.1877**				

Table 11. Performance of Irrigated, Full Season Cotton Varieties in North Alabama, 2018

Tennessee Valley REC - Belle Mina, AL						
Full Season - Flex						
Cultivar	**Lint**	**Yield**	**Mic**	**Len**	**Str**	**Unif**
	(%/100)	**(Lint/A)**	**(units)**	**(in.)**	**(g/tex)**	**(%)**
BASF ST 5471GLTP	0.42	2143	4.6	1.16	30.9	82.0
Deltapine DP 1646 B2XF	0.43	2110	4.6	1.25	29.6	83.8
PhytoGen PHY3C06W3FE	0.43	2106	4.3	1.15	30.1	82.3
PhytoGen PHY 333 WRF	0.42	2104	4.5	1.18	31.0	83.6
PhytoGen PHY4A64W3FE	0.44	2086	4.5	1.12	31.3	83.8
Phytogen PHY 480 W3FE	0.41	2079	4.2	1.17	30.5	84.5
BASF BX1973GLTP	0.46	2078	4.8	1.18	31.1	84.8
Phytogen PHY 440 W3FE	0.42	2070	4.2	1.21	32.2	83.7
Croplan 9608 B3XF	0.45	2047	4.5	1.18	30.7	82.5
PhytoGen PHY3B09W3FE	0.43	2034	3.9	1.17	31.1	82.6
PhytoGen PHY 340 W3FE	0.44	2031	4.4	1.13	29.7	82.5
BASF ST 4949GLT	0.45	2018	4.7	1.12	27.7	82.9
PhytoGen PHY4A69W3FE	0.43	1989	4.4	1.16	30.0	82.4
PhytoGen PHY3B07W3FE	0.43	1980	4.2	1.17	32.7	83.9
Phytogen PHY 350 W3FE	0.42	1969	4.1	1.20	31.5	83.7
PhytoGen PHY 300 W3FE	0.42	1954	4.7	1.15	30.9	84.0
PhytoGen PHY5D28BW3FE	0.44	1947	4.4	1.19	32.8	84.3
Phytogen PHY 530 W3FE	0.41	1946	4.4	1.16	30.9	83.1
PhytoGen PHY 444 WRF	0.42	1938	3.6	1.23	32.1	83.9
PhytoGen PHY 330 W3FE	0.42	1936	4.5	1.18	31.8	84.3
BASF ST 5517GLTP	0.41	1933	4.2	1.17	32.7	81.9
Deltapine MON17R829B3XF	0.43	1897	4.6	1.18	32.1	81.3
PhytoGen PHY5C09W3FE	0.43	1896	4.6	1.16	32.4	83.3
BASF ST 5818GLT	0.41	1882	4.3	1.17	32.6	83.3
PhytoGen PHY 430 W3FE	0.42	1871	4.2	1.11	29.5	82.5
BASF BX1975GLTP	0.43	1850	4.9	1.18	31.0	83.0
BASF ST 5020GLT	0.39	1830	4.4	1.21	33.9	84.5
Deltapine DP 1851 B3XF	0.43	1829	4.6	1.20	34.0	82.7
Deltapine DP 1835 B3XF	0.44	1821	4.6	1.18	32.1	81.5
BASF BX1976GLTP	0.44	1817	4.5	1.19	33.1	83.0
Americot NG 5007 B2XF	0.42	1788	4.5	1.16	28.4	83.6
Croplan 3527 B2XF	0.45	1787	5.2	1.17	28.7	84.0
BASF ST 5122GLT	0.41	1787	3.8	1.14	31.2	81.6
Phytogen PHY 320 W3FE	0.41	1775	4.2	1.16	31.7	84.6
BASF BX1974GLTP	0.44	1772	4.8	1.20	30.4	84.0
Deltapine DP 1747 NRB2XF	0.43	1737	4.8	1.17	32.7	83.2
Deltapine DP 1555 B2RF	0.45	1727	4.4	1.17	31.9	81.9
Deltapine DP 1840 B3XF	0.41	1673	4.4	1.23	31.2	83.0
BASF ST 6182GLT	0.45	1659	4.6	1.17	29.8	83.2
Americot NG 5711 B3XF	0.41	1523	4.6	1.23	30.4	83.6
Trial Mean		**1911**				
LSD (0.1)		**143**				
CV (%)		**11**				
Pr>F		**0.0018**				

Table 12. Performance of Irrigated, Early Season Cotton Varieties in Central Alabama, 2018

Prattville Agricultural Research Unit - Prattville, AL						
Early Season - Flex						
Cultivar	**Lint**	**Yield**	**Mic**	**Len**	**Str**	**Unif**
	(%/100)	**(Lint/A)**	**(units)**	**(in.)**	**(g/tex)**	**(%)**
PhytoGen PHY 340 W3FE	0.48	1750	4.4	1.14	29.5	84.6
Deltapine DP 1646 B2XF	0.50	1681	4.6	1.21	28.8	84.6
BASF ST 5471GLTP	0.44	1676	4.4	1.16	30.2	83.4
BASF BX1976GLTP	0.47	1654	5.2	1.13	31.0	82.8
PhytoGen PHY3B07W3FE	0.46	1647	4.7	1.13	30.6	82.7
PhytoGen PHY 333 WRF	0.43	1633	4.2	1.16	28.1	84.2
PhytoGen PHY5D28BW3FE	0.49	1591	4.2	1.15	32.7	84.3
Croplan 9178 B3XF	0.47	1588	5.0	1.14	31.7	84.4
BASF ST 5818GLT	0.42	1587	4.7	1.18	30.0	83.3
BASF BX1973GLTP	0.48	1561	4.9	1.11	30.2	83.9
PhytoGen PHY3C06W3FE	0.47	1537	4.7	1.15	28.7	83.0
PhytoGen PHY4A69W3FE	0.48	1535	4.5	1.15	29.0	84.0
PhytoGen PHY3B09W3FE	0.45	1519	4.6	1.17	30.8	83.6
BASF ST 5020GLT	0.43	1512	3.9	1.20	31.4	84.7
BASF BX1974GLTP	0.48	1491	4.9	1.14	26.9	84.3
PhytoGen PHY5C09W3FE	0.48	1489	4.9	1.14	32.2	84.9
PhytoGen PHY 330 W3FE	0.46	1487	4.6	1.16	30.3	84.5
Phytogen PHY 350 W3FE	0.43	1476	4.5	1.15	29.9	84.3
Phytogen PHY 320 W3FE	0.44	1475	4.5	1.12	29.5	85.4
Americot NG 3729 B2XF	0.43	1470	5.1	1.14	29.2	84.2
BASF ST 5517GLTP	0.42	1463	4.2	1.18	32.5	82.6
Americot NG 3522 B2XF	0.46	1462	4.8	1.10	26.5	83.1
BASF ST 6182GLT	0.47	1460	4.5	1.14	28.7	83.8
Phytogen PHY 440 W3FE	0.44	1459	4.1	1.19	32.9	83.7
PhytoGen PHY 300 W3FE	0.48	1454	4.2	1.10	29.7	82.9
Americot AMX1801B3XF	0.43	1432	4.7	1.18	31.5	85.7
PhytoGen PHY 430 W3FE	0.47	1417	4.4	1.12	31.0	84.3
Phytogen PHY 530 W3FE	0.46	1415	4.4	1.14	31.3	84.0
PhytoGen PHY 444 WRF	0.45	1406	4.1	1.24	30.7	85.1
Phytogen PHY 480 W3FE	0.45	1403	4.7	1.15	29.1	85.0
Americot NG 3780 B2XF	0.43	1401	4.4	1.16	30.3	83.4
Deltapine DP 1820 B3XF	0.49	1397	4.7	1.20	31.8	84.1
Deltapine DP 1518 B2XF	0.45	1389	4.3	1.17	29.5	84.5
Deltapine DP 1614 B2XF	0.48	1388	5.0	1.16	29.2	84.8
Americot NG 4601 B2XF	0.44	1376	4.5	1.18	33.7	84.9
Deltapine DP 1725 B2XF	0.45	1371	4.8	1.16	30.5	83.6
Americot NG 3699 B2XF	0.42	1359	4.5	1.16	28.8	82.9
BASF ST 5122GLT	0.45	1357	4.5	1.15	30.2	83.2
PhytoGen PHY4A64W3FE	0.45	1340	4.7	1.12	32.3	84.7
BASF ST 4949GLT	0.46	1326	4.5	1.12	27.7	83.3
Americot NG 4777 B2XF	0.43	1203	4.6	1.13	30.4	83.2
Americot NG 4689 B2XF	0.43	1201	4.9	1.14	31.8	83.6
BASF BX1975GLTP	0.47	1176	4.7	1.13	29.7	84.4
Winfield United 18XC9B3XF	0.44	1154	4.9	1.19	31.2	83.5
Trial mean		**1458**				
LSD (0.1)		**130**				
CV (%)		**13**				
Pr>F		**0.0007**				

Table 13. Performance of Irrigated, Full Season Cotton Varieties in Central Alabama, 2018

Prattville Agricultural Research Unit - Prattville, AL						
Full Season - Flex						
Cultivar	**Lint**	**Yield**	**Mic**	**Len**	**Str**	**Unif**
	(%/100)	**(Lint/A)**	**(units)**	**(in.)**	**(g/tex)**	**(%)**
Deltapine DP 1646 B2XF	0.46	1949	4.7	1.24	30.3	85.7
PhytoGen PHY3B07W3FE	0.47	1859	5.0	1.17	31.1	84.5
PhytoGen PHY3B09W3FE	0.46	1829	4.4	1.15	30.3	84.5
PhytoGen PHY5C09W3FE	0.48	1821	4.7	1.15	31.3	85.2
BASF BX1973GLTP	0.49	1806	4.7	1.14	30.5	84.8
PhytoGen PHY5D28BW3FE	0.49	1788	4.5	1.15	32.6	84.5
PhytoGen PHY3C06W3FE	0.46	1772	5.2	1.16	29.3	83.4
PhytoGen PHY 340 W3FE	0.46	1764	4.5	1.16	29.0	85.3
Americot NG 5007 B2XF	0.47	1757	4.7	1.14	28.0	83.6
BASF BX1974GLTP	0.48	1741	5.1	1.13	29.4	84.2
Croplan 9608 B3XF	0.50	1717	4.7	1.13	29.6	83.3
Deltapine MON17R829B3XF	0.45	1689	4.7	1.19	30.7	84.4
Phytogen PHY 350 W3FE	0.44	1687	4.5	1.14	31.0	84.3
PhytoGen PHY 300 W3FE	0.47	1683	4.4	1.13	28.9	83.8
PhytoGen PHY4A64W3FE	0.44	1665	4.3	1.16	31.8	84.3
BASF BX1976GLTP	0.46	1651	5.1	1.16	29.9	84.3
BASF ST 4949GLT	0.47	1650	4.6	1.12	28.1	84.6
PhytoGen PHY4A69W3FE	0.47	1649	4.6	1.15	30.8	84.0
Deltapine DP 1555 B2RF	0.47	1644	4.8	1.18	30.8	84.1
PhytoGen PHY 333 WRF	0.44	1641	4.4	1.18	29.9	84.0
BASF ST 5471GLTP	0.43	1640	4.4	1.16	30.3	84.8
PhytoGen PHY 330 W3FE	0.46	1635	4.5	1.14	29.8	84.4
PhytoGen PHY 444 WRF	0.44	1632	3.8	1.25	31.3	85.3
BASF ST 6182GLT	0.49	1627	4.8	1.15	29.0	84.9
Phytogen PHY 480 W3FE	0.44	1620	4.6	1.16	30.2	86.0
BASF ST 5517GLTP	0.42	1588	4.5	1.18	31.5	83.6
Deltapine DP 1835 B3XF	0.47	1567	5.1	1.19	31.1	85.6
PhytoGen PHY 430 W3FE	0.46	1556	4.7	1.13	31.5	84.2
Phytogen PHY 320 W3FE	0.45	1555	4.5	1.13	30.1	84.9
Phytogen PHY 530 W3FE	0.46	1552	5.0	1.15	29.7	85.4
Americot NG 5711 B3XF	0.46	1549	4.7	1.21	31.3	85.2
Croplan 3527 B2XF	0.47	1538	4.8	1.18	30.2	85.6
Deltapine DP 1851 B3XF	0.48	1534	4.5	1.21	32.1	85.6
BASF BX1975GLTP	0.47	1513	4.6	1.15	30.1	84.1
Deltapine DP 1747 NRB2XF	0.48	1508	5.2	1.11	31.6	84.0
Deltapine DP 1840 B3XF	0.44	1501	4.7	1.21	32.9	84.1
Phytogen PHY 440 W3FE	0.47	1495	4.1	1.18	33.3	84.6
BASF ST 5818GLT	0.41	1469	4.3	1.20	30.3	84.6
BASF ST 5020GLT	0.43	1453	4.1	1.18	32.8	84.3
BASF ST 5122GLT	0.43	1449	4.5	1.14	29.8	82.9
Trial mean		**1644**				
LSD (0.1)		**113**				
CV (%)		**10**				
Pr>F		**0.0004**				

Table 14. Performance of Irrigated, Early Season Cotton Varieties in Central Alabama, 2018

E.V. Smith REC Field Crops Unit - Shorter, AL						
Early Season - Flex						
Cultivar	**Lint**	**Yield**	**Mic**	**Len**	**Str**	**Unif**
	(%/100)	**(Lint/A)**	**(units)**	**(in.)**	**(g/tex)**	**(%)**
Deltapine DP 1646 B2XF	0.44	1954	4.2	1.25	29.1	84.7
PhytoGen PHY5D28BW3FE	0.45	1945	4.2	1.14	35.0	83.8
BASF BX1973GLTP	0.46	1883	4.8	1.16	30.6	85.1
BASF BX1976GLTP	0.45	1861	4.9	1.16	31.1	84.1
PhytoGen PHY3B07W3FE	0.44	1854	4.6	1.16	32.2	83.9
Phytogen PHY 350 W3FE	0.44	1847	5.1	1.16	32.2	84.8
PhytoGen PHY4A69W3FE	0.47	1838	4.5	1.16	33.2	83.3
Phytogen PHY 530 W3FE	0.43	1835	4.9	1.14	29.9	83.2
Deltapine DP 1820 B3XF	0.45	1826	5.2	1.21	32.2	82.8
Americot NG 3780 B2XF	0.41	1802	5.1	1.15	31.2	82.6
BASF ST 5471GLTP	0.41	1797	4.2	1.17	30.7	82.8
Phytogen PHY 320 W3FE	0.44	1792	4.5	1.14	30.9	84.5
PhytoGen PHY 340 W3FE	0.47	1787	5.1	1.13	30.0	83.8
Americot NG 4601 B2XF	0.45	1769	5.1	1.15	32.4	83.7
PhytoGen PHY5C09W3FE	0.48	1767	4.8	1.14	30.7	85.0
PhytoGen PHY 330 W3FE	0.45	1765	4.5	1.14	32.2	83.6
PhytoGen PHY 300 W3FE	0.43	1742	4.8	1.16	31.1	83.6
PhytoGen PHY3C06W3FE	0.43	1731	4.3	1.14	29.5	82.2
BASF ST 5818GLT	0.43	1722	4.7	1.16	32.2	83.2
Americot NG 3699 B2XF	0.41	1721	4.8	1.16	30.7	82.5
Americot NG 3522 B2XF	0.43	1719	5.1	1.13	28.1	83.1
PhytoGen PHY 430 W3FE	0.45	1716	4.9	1.10	32.9	82.5
Deltapine DP 1614 B2XF	0.44	1716	4.7	1.17	29.9	84.4
BASF ST 6182GLT	0.48	1712	4.7	1.13	29.6	83.3
PhytoGen PHY 444 WRF	0.44	1710	4.5	1.20	32.6	83.9
PhytoGen PHY 333 WRF	0.42	1690	4.3	1.16	29.2	83.3
Phytogen PHY 440 W3FE	0.45	1685	4.4	1.21	33.9	84.6
Croplan 9178 B3XF	0.44	1681	5.1	1.15	32.3	83.9
Winfield United 18XC9B3XF	0.43	1677	5.1	1.21	31.6	83.7
BASF ST 5122GLT	0.43	1675	4.7	1.13	30.6	82.5
Deltapine DP 1725 B2XF	0.47	1658	4.8	1.14	30.0	82.8
Deltapine DP 1518 B2XF	0.40	1651	4.9	1.14	29.2	83.4
Americot AMX1801B3XF	0.43	1642	4.8	1.22	30.8	85.0
BASF BX1974GLTP	0.45	1626	5.0	1.15	29.7	83.5
BASF ST 5517GLTP	0.41	1625	4.0	1.17	31.7	83.4
Americot NG 3729 B2XF	0.41	1610	4.8	1.18	31.2	84.1
Americot NG 4689 B2XF	0.43	1610	5.1	1.11	32.0	83.4
PhytoGen PHY3B09W3FE	0.42	1601	4.2	1.17	32.1	83.0
BASF BX1975GLTP	0.46	1585	4.9	1.13	30.0	83.2
Phytogen PHY 480 W3FE	0.42	1584	4.3	1.15	30.1	84.4
PhytoGen PHY4A64W3FE	0.43	1564	4.4	1.15	32.3	83.6
BASF ST 5020GLT	0.42	1540	4.7	1.17	33.6	84.0
Americot NG 4777 B2XF	0.41	1516	4.7	1.13	32.2	83.0
BASF ST 4949GLT	0.44	1465	4.9	1.11	29.0	82.9
Trial mean		**1716**				
LSD (0.1)		**101**				
CV (%)		**8**				
Pr>F		**0.0001**				

Table 15. Performance of Irrigated, Full Season Cotton Varieties in Central Alabama, 2018

E.V. Smith REC Field Crops Unit - Shorter, AL						
Full Season - Flex						
Cultivar	**Lint**	**Yield**	**Mic**	**Len**	**Str**	**Unif**
	(%/100)	**(Lint/A)**	**(units)**	**(in.)**	**(g/tex)**	**(%)**
Deltapine DP 1555 B2RF	0.44	2181	4.8	1.13	30.6	82.8
BASF BX1976GLTP	0.47	2103	5.2	1.14	31.1	83.9
Deltapine DP 1646 B2XF	0.45	2071	4.5	1.21	28.6	84.0
Croplan 9608 B3XF	0.46	2063	4.7	1.11	28.1	81.3
BASF BX1973GLTP	0.47	2063	4.9	1.11	31.3	83.2
Deltapine DP 1747 NRB2XF	0.47	2041	5.4	1.10	30.9	83.5
Croplan 3527 B2XF	0.45	2033	5.5	1.12	28.7	82.8
PhytoGen PHY3B07W3FE	0.45	2028	4.6	1.13	30.8	82.8
PhytoGen PHY5C09W3FE	0.47	2027	4.6	1.10	31.7	82.2
BASF ST 5818GLT	0.42	2022	4.7	1.13	30.9	82.6
Americot NG 5711 B3XF	0.44	2018	4.9	1.19	30.4	83.5
PhytoGen PHY 430 W3FE	0.46	2008	4.8	1.08	30.2	83.4
Americot NG 5007 B2XF	0.44	2005	4.8	1.10	26.3	81.5
Phytogen PHY 440 W3FE	0.45	1971	4.8	1.19	33.4	84.5
Deltapine DP 1851 B3XF	0.44	1966	4.6	1.16	33.4	83.7
BASF ST 5471GLTP	0.42	1965	4.5	1.10	28.6	81.9
PhytoGen PHY 340 W3FE	0.46	1956	4.7	1.13	29.8	83.2
Deltapine DP 1840 B3XF	0.43	1955	4.9	1.21	31.0	84.4
BASF BX1974GLTP	0.46	1948	5.0	1.15	30.5	83.7
PhytoGen PHY5D28BW3FE	0.46	1938	4.4	1.14	34.3	83.2
Phytogen PHY 480 W3FE	0.44	1937	4.6	1.14	29.3	84.6
BASF BX1975GLTP	0.46	1925	5.2	1.15	29.4	83.6
PhytoGen PHY4A69W3FE	0.46	1922	4.2	1.14	31.3	83.4
Phytogen PHY 530 W3FE	0.43	1922	4.8	1.12	30.0	84.1
PhytoGen PHY3C06W3FE	0.45	1919	5.3	1.10	27.8	82.3
PhytoGen PHY 330 W3FE	0.45	1914	4.9	1.11	30.7	82.4
PhytoGen PHY4A64W3FE	0.46	1914	4.7	1.11	32.6	84.1
PhytoGen PHY 444 WRF	0.44	1910	4.4	1.24	30.9	85.2
Deltapine MON17R829B3XF	0.45	1904	5.0	1.14	30.0	82.6
PhytoGen PHY3B09W3FE	0.44	1898	4.8	1.15	31.6	83.2
BASF ST 5517GLTP	0.42	1884	4.8	1.09	30.8	81.7
Phytogen PHY 350 W3FE	0.44	1881	5.0	1.12	29.8	82.6
BASF ST 5020GLT	0.42	1872	5.0	1.14	30.0	81.9
Deltapine DP 1835 B3XF	0.45	1872	4.8	1.12	29.9	82.1
PhytoGen PHY 300 W3FE	0.46	1868	4.9	1.10	28.6	82.0
BASF ST 5122GLT	0.42	1842	4.8	1.09	29.3	81.4
BASF ST 6182GLT	0.47	1837	4.8	1.15	28.4	83.9
Phytogen PHY 320 W3FE	0.42	1827	4.7	1.11	30.2	84.4
BASF ST 4949GLT	0.46	1822	5.0	1.10	29.2	82.7
PhytoGen PHY 333 WRF	0.45	1798	4.9	1.15	29.9	83.5
Trial mean		**1951**				
LSD (0.1)		**91**				
CV (%)		**7**				
Pr>F		**0.0133**				

Table 16. Growing Season Rainfall, 2017-2018

Test location	Year	Monthly rainfall (inches) Mar.	Apr.	May	June	July	Aug.	Sept.	7-month total
Belle Mina	2018	4.9	9.2	3.8	5.1	2.5	4.9	3.5	33.9
	2017	6.0	3.9	6.8	7.4	6.8	2.7	4.6	38.2
Shorter	2018	5.0	3.5	4.7	5.0	3.1	5.8	5.5	32.6
	2017	2.8	4.9	9.5	11.1	3.7	6.3	4.3	42.6
Prattville	2018	4.3	3.8	8.3	3.7	6.4	5.5	6.5	38.5
	2017	3.5	1.6	10.0	16.0	7.6	4.4	2.3	45.4
Headland	2018	4.4	5.0	7.7	4.3	8.9	7.1	3.1	40.5
	2017	1.5	1.5	5.3	6.2	4.3	2.2	5.9	26.9
Fairhope	2018	2.5	5.3	6.4	5.2	6.7	10.2	12.7	49.0
	2017	2.3	4.3	10.8	11.8	7.9	13.7	0.9	51.7

Irrigation amounts for Irrigated cotton trials	**2018**
TVREC Irrigated cotton trials:	**2.4** inches irrigation water
PARU Irrigated cotton trials:	**0.0** inches irrigation water
WGREC Irrigated cotton trials:	- inches irrigation water
(not harvested in 2018 due to Hurricane Michael)	

Table 17. Sources of Seed for the 2018 Cotton Variety Trials	
Monsanto, St Louis, Missiouri	
Deltapine DP 1555 B2RF	Deltapine DP 1820 B3XF
Deltapine DP 1518 B2XF	Deltapine DP 1835 B3XF
Deltapine DP 1614 B2XF	Deltapine DP 1840 B3XF
Deltapine DP 1646 B2XF	Deltapine DP 1851 B3XF
Deltapine DP 1725 B2XF	MON 17R829353 B3XF
Deltapine DP 1747NR B2XF	
Bayer Crop Sciences, Spring Hope, North Carolina	
BASF ST 4949GLT	BASF BX 1973GLTP
BASF ST 5020GLT	BASF BX 1974GLTP
BASF ST 5122GLT	BASF BX 1975GLTP
BASF ST 5818GLT	BASF BX 1976GLTP
BASF ST 6182GLT	
BASF ST 5471GLTP	
BASF ST 5517GLTP	
Dow AgroSciences, Shellman, Georgia	
PhytoGen PHY 333 WRF	PHY3B07W3FE
PhytoGen PHY 444 WRF	PHY3B09W3FE
PhytoGen PHY 300 W3FE	PHY3C06W3FE
PhytoGen PHY 320 W3FE	PHY4A64W3FE
PhytoGen PHY 330 W3FE	PHY4A69W3FE
PhytoGen PHY 340 W3FE	PHY5B73W3FE
PhytoGen PHY 350 W3FE	PHY5C09W3FE
PhytoGen PHY 430 W3FE	PHY5D28BW3FE
PhytoGen PHY 440 W3FE	
PhytoGen PHY 430 W3FE	
Americot, Inc., Lubbock, Texas	
NG 3522 B2XF	NG 4689 B2XF
NG 3699 B2XF	NG 4777 B2XF
NG 3729 B2XF	NG 5007 B2XF
NG 3780 B2XF	NG 5711 B3XF
NG 4601 B2XF	AMX 1801 B3XF
Winfield Solutions LLC, Frisco, Texas	
Croplan 3527 B2XF	Croplan 9178 B3XF
Croplan 9608 B3XF	WinField United 18XC9B3XF

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Alabama Agricultural Experiment Station Outlying Units with Cotton Variety Trials

Northern Region

Tennessee Valley Research and Extension Center, Belle Mina

Chet Norris, Director

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♦ ♦

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