

2020 Mississippi Cotton Official Small Plot Variety Trials



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PREFACE

The main objective of the Mississippi Cotton Official Variety Trials (OVT) is to provide unbiased evaluation of yield and fiber performance of commercial and experimental cotton varieties. The ultimate goal is to provide Mississippi producers with adequate information to make well informed seed selection decisions for cultivation in the major production regions in Mississippi. This Mississippi Agricultural and Forestry Experiment Station bulletin is a summary of research conducted at numerous on- and off-station locations throughout Mississippi. The interpretation of these data may change after additional experimentation over years or environments. The information included is not to be construed as a recommendation for use or as an endorsement of a particular product or variety by Mississippi State University or the Mississippi Agriculture and Forestry Experiment Station. Trade Names of commercial products used in this report are included only to provide greater clarity to the information presented



2020 OVT Testing Locations

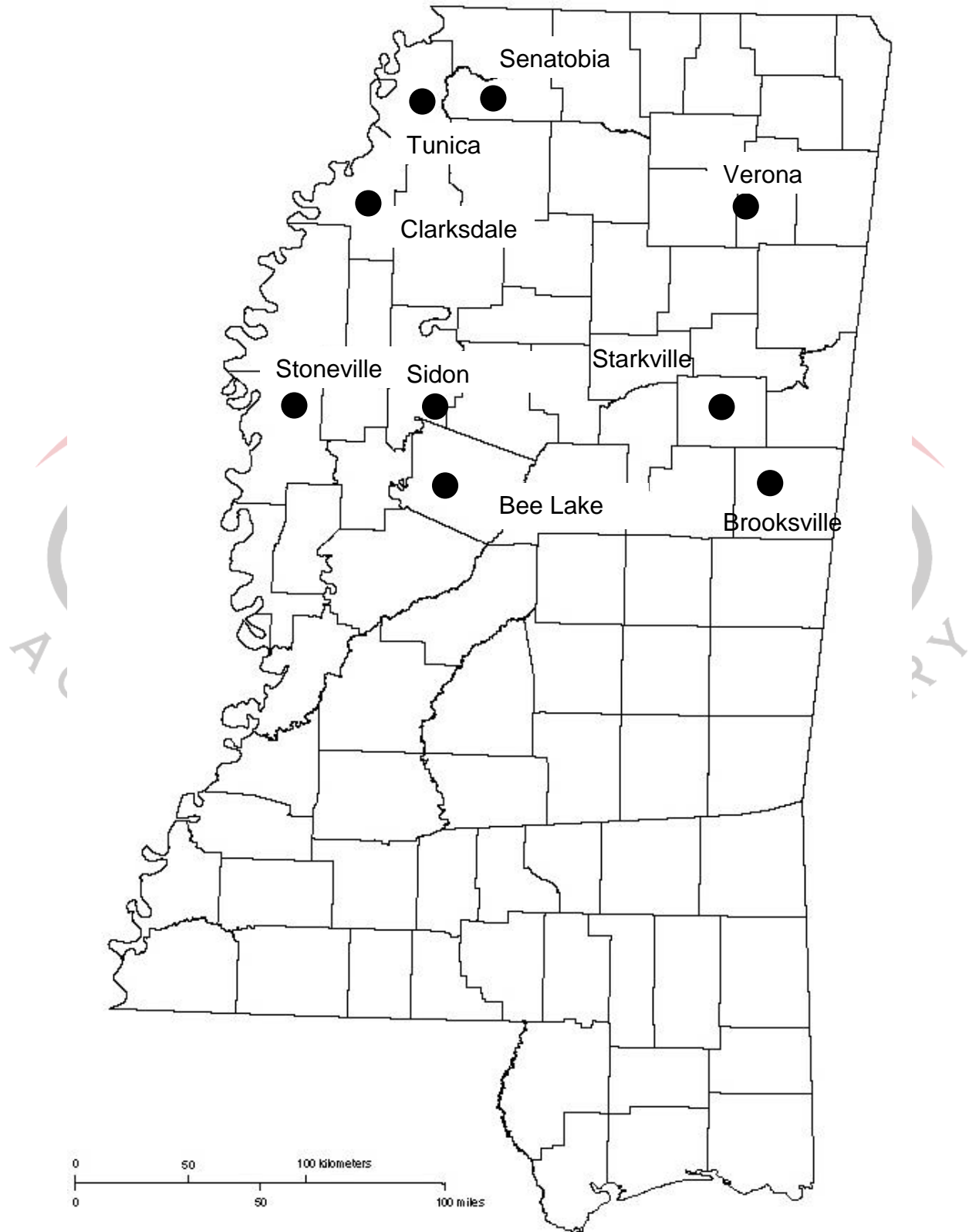


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Acknowledgements

The authors would like to express their appreciation first and foremost to the producers who participated in the 2020 Official Cotton Variety Trial locations that were conducted on-farm. The on-farm trials provide an added benefit to the data by expanding the footprint of the trials into differing areas in the state to better represent the environmental, soil textural, and management differences that are present throughout Mississippi. Thank you to Cliff Heaton and Brian Fife (Clarksdale), Michael Thompson (Yazoo City), and Pace Perry (Senatobia and Tunica); your hard work and willingness to participate in the variety trials are deeply valued. We at the Mississippi Agriculture and Forestry Experiment Station look forward to working with you and other willing producers in the future.

Gratitude is expressed to all of the student workers in the Agronomy program in the Department of Plant and Soil Sciences at Mississippi State University for your assistance with all aspects of conducting the trials. Without your diligent work and assistance, the variety trials would not be a success, thanks again for all you do. We would also like to recognize Steven Hall, Jake McNeal, Brint Lindsey, Ty Dickson, Joey Williams, Eli Hobbs, and Wilson Whitlock for their assistance with hand harvesting, ginning, and preparing fiber quality samples. Your work allows us to provide data in a timely fashion.



Annually, Mississippi State researchers evaluate cotton varieties at numerous locations within the cotton growing regions in the state. The purpose of the Mississippi State Official Variety Trials is to provide an unbiased comparison of varieties across a range of environments. Trial evaluation of standard, commercially available, and new and upcoming cotton varieties throughout the state provides producers data to make well informed variety selection decisions based upon how a particular cotton variety performed close to their base of operation.

The Official Variety Trial (OVT) for cotton is conducted annually at the Delta Research and Experiment Station, the North Mississippi Research and Extension Center, the R.R. Foil Plant Science Research Center at Mississippi State University, and at the Black Belt Branch Experiment Station in Brooksville as well as at cooperating producer locations in both the Delta and Hill cotton producing regions. At each location, all varieties entered into the trial are treated identical (conventional) with respect to herbicide and insecticide input to strive for unbiased evaluation of genetic potential. Mississippi State personnel attempt to conduct at minimum eight small-plot official variety trials per year in areas that well represent the majority of the state's cotton producing acreage.

Testing Procedures

All varieties submitted for testing are grown utilizing conventional chemical control for insect and weed pests. Each test plot consists of two rows of cotton 35 to 40 ft in length with a row spacing of 38" or 40". Each plot is analyzed statistically as a randomized complete block with four blocks or replications. Bacterial blight evaluations (Table 16), were conducted in a similar fashion in a separate planting. However, a total of eight replicate plots of each variety were conducted (four inoculated and four non-inoculated).

Management practices are determined and implemented by cooperators at each location based on soil texture, soil test value, and scouting for pest pressures. However, seeding rate and operation is controlled by the cotton variety testing coordinator. In addition, all locations are maintained free of lepidopteran insect pests in order to create parity among varieties with differing *Bt* technologies.

All fiber parameters such as lint percent as well as High Volume Instrumentation (HVI) fiber quality assessment are based upon a hand-picked 25 boll sample or a random grab sample from each replicated plot at each location. Samples from all locations are ginned on the same 10-saw Continental laboratory gin to determine gin turnout. Utilization of the same gin for all samples is important to not bias fiber quality across locations. HVI analysis for fiber property determinations are conducted by the United States Department of Agriculture Classing Office in Memphis, TN.

Lint yield was calculated using the seed cotton weight mechanically harvested from each plot, and the turnout percentage determined from hand-picked boll samples. Mean lint yield is presented as pounds of lint per acre.

Interpreting the Data

Field variability is inherent to production research with any cropping system. Unlike strip trials, small plot research allows for replication with a minimal footprint. The smaller area and replication of treatments helps reduce variability due to various factors commonly found in the field (i.e., soil textural changes, pest variations). Reduced variability lends us a greater understanding of the genetic potential of a given variety cultivated under uniform conditions. However, strip trial research may lend greater information about how a variety will perform across a range of conditions (e.g., low spot in the field). Data from both small plot and strip trials should be considered when making final variety selection decisions.

Mississippi State separates the greatest performing varieties by use of a Fisher's Protected Least Significant Difference (LSD) at a five percent level of significance. The LSD associated with the five percent level, lends us 95 percent positive identification of the greatest yield-producing varieties at each specific location. In each individual trial the collection of varieties that yield the greatest statistically is represented in bold. These varieties will all have a numerical difference less than the LSD value presented at the bottom of the data variable columns.

The varieties listed in bold may have slightly differing numerical yield, but will perform very similar at a given location. Statistical analysis is not conducted for across location averages. Producers should review data tables for the closest location that is geographically representative of their operation, but should also review yield information across locations to get an idea of a variety's yield stability over a range of production environments.

Selecting a Variety/Trait

Variety selection is one of the most important management decisions a producer must make each growing season. Improper variety selection generally cannot be overcome with management. Starting with the greatest genetic potential will generally produce greater yield with all other things being considered equal. Careful consideration should go into selecting varieties that are well adapted to the Mid-South growing region and to certain geographical regions within the state due to the rising cost of seed and associated technology fees.

Multiple available transgenic traits can make selecting a variety cumbersome. At most locations the top yield-producing varieties represent a range of available trait packages. This lends the producer multiple options to choose from with respect to herbicide and insecticide traits. Below is a synopsis of the transgenic traits that were represented in this year's trials.

Glyphosate tolerance – generally indicated on the seed bag with either a G, RF, XF, or FE. Varieties with these designations can tolerate over the top applications of glyphosate. XtendFlex (XF) varieties are also tolerant to glufosinate and dicamba. Enlist (FE) varieties are also tolerant to glufosinate and 2,4-D.

Glufosinate tolerance: - generally indicated on the seed bag with an LL. These varieties can withstand over the top applications of Liberty. XtendFlex (XF) varieties are also tolerant to glyphosate and dicamba. Enlist (FE) varieties are also tolerant to glyphosate and 2,4-D.

It is important to note that producers utilizing a multitude of varieties with differing herbicide tolerant traits in close proximity must use caution to avoid crop injury from spray drift, improperly cleaned applicators, and or a combination of both. For more information on utilizing herbicide resistant traits and alternative weed control practices consult MSU extension publication #1532 “Weed Control Guidelines for Mississippi” available online at <http://extension.msstate.edu/sites/default/files/publications/publications/p1532.pdf>

Bollgard 2 – Varieties with designations B2 on the seed bag or in the brand name contain genes that produce protein toxic to heliothis. However, under high and persistent pressure supplemental chemical control strategies are necessary to prevent economic damage from caterpillar pests. For more information on utilization of transgenic traits with insecticidal properties consult MSU extension publication #2471 “Insect control guide for agronomic crops” available online at

<http://extension.msstate.edu/sites/default/files/publications/publications/p2471web.pdf>

Bollgard 3 – Varieties with designations B3 on the seed bag or in the brand name contain genes that produce protein toxic to heliothis. For more information on utilization of transgenic traits with insecticidal properties consult MSU extension publication #2471 “Insect control guide for agronomic crops” available online at

<http://extension.msstate.edu/sites/default/files/publications/publications/p2471web.pdf>

WideStrike – PhytoGen varieties with the designation W on the bag or in the variety name. Like Bollgard 2, WideStrike varieties contain two genes that produce proteins toxic to caterpillar pests. For more information on utilization of transgenic traits with insecticidal properties consult MSU extension publication #2471 “Insect control guide for agronomic crops” available online at

<http://extension.msstate.edu/sites/default/files/publications/publications/p2471web.pdf>

WideStrike 3 – PhytoGen varieties with the designation W3 on the bag or in the variety name. Like Bollgard 3, WideStrike varieties contain three genes that produce proteins toxic to caterpillar pests. For more information on utilization of transgenic traits with insecticidal properties consult MSU extension publication #2471 “Insect control guide for agronomic crops” available online at

<http://extension.msstate.edu/sites/default/files/publications/publications/p2471web.pdf>

TwinLink – Bayer varieties with the designation T on the bag or in the variety name. Like Bollgard 2 or WideStrike, TwinLink varieties contain two genes that produce proteins toxic to caterpillar pests. For more information on utilization of transgenic traits with insecticidal properties consult MSU extension publication #2471 “Insect control guide for agronomic crops” available online at

<http://extension.msstate.edu/sites/default/files/publications/publications/p2471web.pdf>

TwinLink Plus – Bayer varieties with the designation TP on the bag or in the variety name. Like Bollgard 3 or WideStrike 3, TwinLink Plus varieties contain three genes that produce proteins toxic to caterpillar pests. For more information on utilization of transgenic traits with insecticidal properties consult MSU extension publication #2471 “Insect control guide for agronomic crops” available online at

<http://extension.msstate.edu/sites/default/files/publications/publications/p2471web.pdf>

Considerations for Selection

Yield performance among common varieties evaluated over multiple locations, environments or years will normally vary. Therefore, selection decisions should be made from within the range of top yield-producing varieties. Newer varieties with limited data available should be cultivated to minimal acreage until further testing validates performance across multiple years and locations. Generally, there is no one variety that is the ‘silver bullet’; therefore, choosing multiple varieties allows for flexibility in relative maturity, management decisions, and risk aversion.

Lint yield and potential profitability should be the primary factor when attempting to select a variety, but do not discount fiber quality and traits contained within a given variety. Do not underestimate the discounts associated with high micronaire which can be significant.

A good performance indicator when selecting a variety is the overall mean of the trial. Comparing an individual variety to the trial mean can lend an indication of how that particular variety “stacked up” to the trial as a whole. A variety with a mean lint yield greater or much greater than the overall trial mean generally will perform well.

Remember, there can be a full 14 day difference in maturity between cotton varieties. However, most leading varieties including those submitted to this year’s trial tend to be more mid- to early-maturing than varieties of the past.

Loan Valuation Decision Aid

For each trial conducted in 2020, data were submitted to the upland cotton loan valuation aid. This tool was developed by Dr. Larry Falconer (retired) and is supported by Cotton Incorporated. The loan calculator was updated by Dr. Will Maples, Assistant Professor of Agricultural Economics at Mississippi State University. The tool allows for calculation of Commodity Credit Corporation cotton loan premium and discount values based on yield and HVI classing information.

Top Yield-Producing Varieties

There are numerous methods to choose or highlight the top yield-producing varieties across locations to develop a “short list” of promising varieties for the future. For soybean and corn, the short list is a powerful aid in selecting varieties due to the sheer number of available varieties. However, for cotton the list of available varieties that perform well, and are adapted to the Mid-South is short on its own. The recent trend in cotton varieties submitted for testing to University OVT programs across the Mid-South has declined over the last ten years with changes in the cotton industry. Therefore, it is important to select a variety that has performed well in the Mississippi OVT or other Mid-South University OVT trials.

Planting and Harvest Dates

Location	Planting Date	Harvest Date	Seeding Rate
Brooksville	12 May	04 November	45,000
Clarksdale	19 May	12 November	45,000
Mississippi State (Starkville)	05 May	03 November	45,000
Senatobia	07 May	21 October	45,000
Sidon	07 May	02 November	45,000
Stoneville	13 May	14 October	45,000
Tunica	20 May	26 October	45,000
Verona	02 June	11 November	45,000
Yazoo City (Bee Lake)	06 May	30 September	45,000

Table 1. Varieties submitted for testing by participating industry partners in 2020.

Industry Contact	Official Variety Trial Entries	
Americot Inc. – NexGen Varieties <i>Terry Campbell</i>	AMX 19A014 B3XF AMX 19A015 B3XF AMX 19A016 B3XF AMX 19A018 B3XF AMX 19B001 B3XF AMX 19B003 B3XF	NG 3930 B3XF NG 4098 B3XF NG 4936 B3XF NG 5711 B2XF NG 3729 B2XF NG 3522 B2XF
BASF <i>Andy White</i>	ST 4480 B3XF ST 5600 B2XF ST 5610 B3XF	BX 2191 B3XF BX 2192 B3XF BX 2193 B3XF BX 2194 B3XF BX 2151 GLTP
Crop Production Services/Dyna-Gro Seed <i>Scott Cummings</i>	DG 3317 B3XF DG 3427 B3XF DG 3520 B3XF DG 3526 B2XF	DG 3456 B3XF DG 3615 B3XF DG 3635 B3XF DG 3799 B3XF
DeltaPine <i>Dave Albers</i>	DP 1646 B2XF DP 1725 B2XF DP 1845 B3XF DP 2012 B3XF DP 2038 B3XF	DP 2020 B3XF DP 2055 B3XF DP 2115 B3XF DP 19R125 B3XF DP 2127 B3XF
PhytoGen Seed Co. <i>Tom Eubank</i>	PHY 350 W3FE PHY 360 W3FE PHY 390 W3FE PHY 400 W3FE PHY 500 W3FE PHY 580 W3FE	PHY 332 W3FE PHY 443 W3FE PHY 545 W3FE PX 4B08 W3FE PX 5E28 W3FE PX 5E34 W3FE
Seed Source Genetics <i>Ed Jungmann</i>	SSG CT 114 SSG UA 222	
Winfield Solutions, LLC <i>Robert Cossar</i>	Armor 9608 B3XF Armor 9371 B3XF Armor 9871 B3XF Armor 9210 B3XF	

Table 2. Two-year mean yield performance of varieties cultivated at four locations in the Delta region during 2019 and 2020.

	Location and Year								Average across location and year
	Clarksdale		Sidon		Stoneville		Tunica		
	2019	2020	2019	2020	2019	2020	2019	2020	
	Lint yield (lb lint/acre)								
PHY 443 W3FE	1740	2311	1053	1171	2052	1398	1674	1432	1604
DP 1725 B2XF	1878	1837	959	844	2182	1456	1682	1457	1537
PHY 332 W3FE	1748	2165	821	778	1882	1473	1840	1453	1520
ST 5600B2XF	1746	2302	878	939	2093	1428	1678	986	1506
PHY 360 W3FE	1851	1960	868	854	1859	1309	1772	1531	1500
DG 3427 B3XF	1686	1599	801	770	2016	1704	1764	1652	1499
DG 3520 B2XF	1691	1741	911	973	2129	1606	1774	1164	1499
PHY 390 W3FE	1888	1937	1005	888	2106	1480	1380	1296	1497
Armor 9608 B3XF	1636	1869	813	971	2057	1393	1773	1418	1491
DP 1646 B2XF	1951	1678	816	877	2201	1252	1786	1342	1488
PHY 545 W3FE	1745	2044	906	885	1934	1386	1820	1181	1488
NG 4098 B3XF	1859	1810	863	918	1826	1520	1794	1298	1486
PHY 580 W3FE	1738	1744	918	900	2045	1312	1561	1641	1482
DG 3317 B3XF	1730	1829	871	897	2129	1240	1820	1259	1472
NG 3729 B2XF	1670	1930	812	920	2115	1496	1774	1049	1471
DP 2012 B3XF	1765	1928	912	777	1885	1293	1694	1503	1470
Armor 9210 B3XF	1492	2011	936	827	1948	1396	1637	1467	1464
PX 5E34 W3FE	1484	1826	795	936	2243	1450	1579	1355	1459
DP 2055 B3XF	1892	1719	864	852	1722	1424	1667	1496	1454
PX 5E28 W3FE	1585	1834	664	909	2181	1531	1543	1385	1454
DG 3526 B2XF	1654	1555	901	845	2003	1572	1790	1232	1444
PHY 400 W3FE	1613	1840	738	760	2212	1388	1512	1392	1432
NG 3522 B3XF	1535	1763	967	894	1801	1496	1608	1387	1431
DG 3615 B3XF	1822	1808	796	781	1671	1585	1845	1117	1428
DP 1845 B3XF	1862	1700	981	827	1517	1517	1578	1424	1426
PHY 350 W3FE	1662	1818	868	792	1989	1319	1636	1284	1421
NG 4936 B3XF	1677	1819	684	777	1925	1436	1735	1299	1419
DP 2038 B3XF	1822	1664	765	817	1669	1426	1706	1452	1415
NG 5711 B3XF	1628	1788	893	711	1647	1534	1492	1511	1400
NG 3930 B3XF	1684	1707	751	736	1678	1448	1482	1133	1327
SSG UA 114	1779	1529	1053	431		1421	1873	867	1279
SSG UA 222	1700	1722	652	510		1554	1496	1156	1256

Table is sorted based on average lint yield means across location and year (i.e., from greatest to lowest lint yield).

Table 3. Two-year mean yield performance of varieties cultivated at three locations in the Hill region during 2019 and 2020.

	Location and Year						Average across location and year
	MSU		Senatobia		Verona		
	2019	2020	2019	2020	2019	2020	
DP 1725 B2XF	2182	1067	1489	1469	1860	877	1491
DP 1646 B2XF	2201	971	1418	1454	2066	792	1484
PHY 350 W3FE	1989	1115	1410	1433	1839	826	1435
PHY 580 W3FE	2045	1002	1308	1401	1962	890	1435
DP 2012 B3XF	1885	702	1468	1758	1698	933	1407
ST 5600B2XF	2093	708	1472	1441	1756	960	1405
PHY 390 W3FE	2106	568	1699	1341	1913	785	1402
PHY 332 W3FE	1882	983	1459	1513	1802	694	1389
Armor 9210 B3XF	1948	435	1404	1671	1859	951	1378
PHY 443 W3FE	2052	651	1300	1632	1735	860	1372
DG 3520 B2XF	2129	504	1550	1168	1997	838	1364
PHY 360 W3FE	1859	540	1564	1565	1804	844	1363
PX 5E28 W3FE	2181	807	1245	1406	1697	812	1358
DG 3317 B3XF	2129	574	1442	1184	1939	843	1352
NG 3729 B2XF	2115	639	1279	1424	1822	818	1349
PHY 545 W3FE	1934	801	1344	1474	1817	716	1348
PX 5E34 W3FE	2243	506	1284	1194	1900	907	1339
Armor 9608 B3XF	2057	444	1573	1377	1811	685	1324
DG 3427 B3XF	2016	552	1398	1273	1937	754	1322
DP 2038 B3XF	1669	646	1470	1244	2011	789	1305
NG 4936 B3XF	1925	666	1357	1071	1897	853	1295
NG 4098 B3XF	1826	701	1303	1237	1865	802	1289
DP 2055 B3XF	1722	674	1358	1437	1644	844	1280
NG 3522 B3XF	1801	477	1115	1248	2031	942	1269
SSG UA 222	1071	828	1409	1439	2048	810	1267
NG 5711 B3XF	1647	748	1161	1380	1649	940	1254
DG 3526 B2XF	2003	775	1205	994	1765	737	1246
NG 3930 B3XF	1678	587	1337	1278	1715	740	1222
DP 1845 B3XF	1575	555	1285	1296	1748	808	1211
DG 3615 B3XF	1671	455	1204	1320	1780	666	1183
PHY 400 W3FE	1013	630	1350	1287	1992	810	1180
SSG UA 114	957	663	1251	1087	1856	838	1109

Table is sorted based on average lint yield means across location and year (i.e., from greatest to lowest lint yield).

Table 4. One-year mean yield performance and fiber characteristics for OVT varieties submitted for testing in 2020 averaged across all (9) testing locations.

Variety	Lint Yield† (lb/acre)	Measurement					Loan Value ¢/LB
		Lint (%)	Length (in.)	Mic. - - - -	Strength (g/tex)	Uniformity (%)	
DP 2127 B3XF	1380	44.1	1.15	5.0	31.6	84.0	51.37
PHY 443 W3FE	1283	43.1	1.16	4.8	32.6	83.8	52.10
AMX 19B003 B3XF	1276	42.8	1.19	4.8	32.5	83.7	52.40
DP 1725 B2XF	1276	44.7	1.19	4.9	32.2	83.1	52.11
PX4B08W3FE	1254	44.2	1.15	4.8	32.6	83.9	52.25
ST 5600B2XF	1250	42.4	1.20	5.0	33.4	83.8	51.53
BX 2192B3XF	1248	42.2	1.24	4.7	32.9	84.0	52.94
DG 3535 B2XF	1236	43.2	1.19	4.7	31.5	83.4	52.54
Armor 9871 B3XF	1230	43.5	1.19	4.8	33.5	83.2	52.12
DP 2012 B3XF	1223	42.3	1.20	4.7	32.1	83.8	53.13
PHY 332 W3FE	1216	41.9	1.20	4.8	32.8	83.7	52.78
Armor 9371 B3XF	1216	44.1	1.18	4.9	31.3	84.0	52.48
DG 3456 B3XF	1211	44.1	1.17	4.6	31.3	83.1	52.79
DP 2055 B3XF	1206	43.7	1.22	4.8	31.8	83.5	52.70
PHY 580 W3FE	1205	44.3	1.18	4.8	32.9	83.9	52.43
Armor 9210 B3XF	1204	43.6	1.20	5.1	33.1	84.0	51.21
BX 2193B3XF	1199	44.1	1.18	4.9	33.2	83.9	51.94
NG 5711 B3XF	1199	42.5	1.20	4.7	32.4	83.3	52.38
DP 2115 B3XF	1198	44.6	1.18	4.9	32.4	83.9	51.84
PHY 360 W3FE	1196	42.4	1.18	4.8	31.2	82.9	52.38
PHY 545 W3FE	1192	44.7	1.16	4.7	32.2	83.4	52.56
BX 2194B3XF	1179	41.9	1.21	4.3	31.8	83.1	53.20
PX5E28W3FE	1178	40.9	1.18	4.3	33.0	84.0	53.12
PHY 350 W3FE	1174	42.0	1.18	4.8	32.6	84.1	52.77
ST 5610B3XF	1172	45.0	1.18	4.7	32.4	83.6	52.70
DP 19R132 B3XF	1159	43.7	1.18	5.0	33.8	84.6	51.75
BX 2191B3XF	1154	43.0	1.18	4.5	31.1	83.2	53.05
DP 2020 B3XF	1154	41.6	1.21	4.6	31.8	83.8	52.86
NG 3522 B2XF	1153	42.5	1.15	4.8	29.8	82.8	52.65
PHY 390 W3FE	1150	43.1	1.19	4.6	33.2	83.5	53.07
NG 3729 B2XF	1144	41.7	1.20	4.8	31.6	83.9	52.40
DP 1646 B2XF	1135	43.8	1.23	4.7	31.6	83.5	52.65
Armor 9608 B3XF	1130	44.4	1.17	4.7	31.0	83.4	52.40
NG 4098 B3XF	1129	40.8	1.22	4.6	34.8	83.7	52.93
PX5E34W3FE	1129	40.2	1.18	4.4	33.2	83.5	52.96
DP 2038 B3XF	1122	45.5	1.15	4.7	31.8	82.9	52.56
DP 1845 B3XF	1119	42.6	1.25	4.5	33.8	84.2	53.32
NG 4936 B3XF	1116	41.4	1.21	4.8	31.9	84.1	52.79
DG 3427 B3XF	1115	43.1	1.16	4.8	32.0	82.4	52.27
PHY 400 W3FE	1104	43.2	1.19	4.6	33.4	83.6	53.12
AMX 19A014 B3XF	1101	41.3	1.17	4.7	31.3	83.1	52.82
DG 3317 B3XF	1094	42.9	1.16	4.9	31.8	83.7	52.07
PHY 500 W3FE	1090	43.0	1.18	4.5	34.2	83.7	53.00
BX 2151GLTP	1090	44.3	1.19	4.7	32.4	83.7	52.82
DG 3520 B2XF	1089	39.9	1.22	4.3	32.8	84.2	52.90
UA222	1082	40.7	1.21	4.8	32.6	84.1	52.35
AMX 19A016 B3XF	1077	40.3	1.17	4.7	31.1	83.1	52.80
DG 3526 B2XF	1067	43.7	1.16	4.7	31.4	83.8	52.90
AMX 19B001 B3XF	1053	42.8	1.18	4.7	32.1	83.8	52.90
NG 3930 B3XF	1047	41.8	1.18	4.7	31.3	83.3	52.96
AMX 19A015 B3XF	1037	39.4	1.20	4.5	32.0	83.3	53.02
DG 3799 B3XF	1027	42.0	1.19	4.8	33.4	83.4	52.67
DG 3615 B3XF	1020	41.8	1.18	4.8	33.5	83.3	52.59
ST 4480B3XF	1008	40.3	1.21	4.6	33.0	83.5	52.87
AMX 19A018 B3XF	995	41.7	1.17	4.7	32.4	83.8	52.80
UA114	954	39.3	1.20	4.9	33.0	84.9	52.32
Overall Mean	1151	42.6	1.19	4.7	32.4	83.6	52.58
LSD(0.05)	89	0.7	0.02	0.1	0.8	0.5	0.50
C.V. (%)	16	3.6	2.74	5.4	4.8	1.2	1.88

*Yield in bold type are not significantly different from the greatest yield-producing variety.

Table 5. 2020 mean yield performance of varieties cultivated at four locations in the Delta Region in 2020.

Variety	Lint Yield† (lb/acre)	Measurement					Loan Value ¢/LB
		Lint (%)	Length (in.)	Mic. ---	Strength (g/tex)	Uniformity (%)	
DP 2127 B3XF	1700	43.2	1.16	5.0	31.7	84.1	50.83
Armor 9371 B3XF	1583	43.6	1.19	4.9	31.3	84.3	51.78
AMX 19B003 B3XF	1559	41.9	1.20	4.7	32.9	83.7	52.15
PHY 443 W3FE	1543	41.6	1.18	4.8	33.3	84.0	51.70
DG 3456 B3XF	1495	43.4	1.18	4.6	31.1	82.9	52.40
Armor 9871 B3XF	1480	42.3	1.20	4.7	34.0	83.2	51.73
DG 3535 B2XF	1476	42.7	1.20	4.6	31.4	83.5	52.22
ST 5600B2XF	1469	41.4	1.21	4.9	34.0	83.9	51.07
PX4B08W3FE	1459	43.0	1.16	4.8	33.0	83.9	51.57
PHY 332 W3FE	1450	40.8	1.23	4.7	33.3	84.2	52.36
ST 5610B3XF	1447	43.9	1.19	4.6	32.7	83.9	52.47
BX 2193B3XF	1442	43.2	1.19	4.9	34.3	84.4	51.25
DP 2115 B3XF	1434	43.3	1.20	4.9	32.6	84.1	51.34
DP 19R132 B3XF	1425	43.1	1.19	4.9	34.3	84.9	51.39
Armor 9210 B3XF	1422	42.7	1.22	5.1	33.4	84.0	50.45
DP 1725 B2XF	1407	43.8	1.19	4.8	32.2	83.0	51.54
AMX 19B001 B3XF	1406	42.0	1.20	4.6	32.5	84.2	52.36
BX 2191B3XF	1398	42.5	1.19	4.4	31.1	83.2	52.56
BX 2194B3XF	1391	41.1	1.23	4.1	31.8	83.2	52.46
BX 2192B3XF	1390	41.0	1.27	4.5	32.6	84.0	52.59
PHY 360 W3FE	1390	41.5	1.19	4.8	31.8	83.3	51.89
NG 5711 B3XF	1383	41.5	1.23	4.6	33.0	83.5	52.22
PHY 580 W3FE	1383	43.1	1.19	4.6	33.1	83.9	52.35
DG 3427 B3XF	1381	42.6	1.17	4.7	32.0	82.5	52.05
DP 2012 B3XF	1377	41.5	1.22	4.5	32.7	83.8	52.35
Armor 9608 B3XF	1375	43.4	1.19	4.6	31.7	83.7	52.23
PX5E28W3FE	1369	40.0	1.20	4.1	33.4	84.3	52.64
PHY 390 W3FE	1367	42.5	1.20	4.5	33.8	83.4	52.57
DP 2055 B3XF	1364	42.6	1.24	4.7	32.2	83.7	52.37
DP 2038 B3XF	1363	44.7	1.16	4.6	32.1	82.8	51.98
NG 4098 B3XF	1358	40.1	1.23	4.4	35.6	83.6	52.58
BX 2151GLTP	1358	43.3	1.20	4.7	32.9	83.8	52.27
NG 3522 B2XF	1358	41.5	1.16	4.7	29.5	82.8	52.54
NG 3729 B2XF	1355	41.1	1.21	4.9	32.1	84.3	51.67
DP 1845 B3XF	1342	41.8	1.27	4.4	33.9	84.3	52.63
PX5E34W3FE	1340	39.7	1.19	4.1	33.8	83.6	52.60
PHY 545 W3FE	1339	43.7	1.17	4.7	33.0	83.8	52.11
DP 1646 B2XF	1334	42.6	1.25	4.6	31.8	83.8	52.47
PHY 400 W3FE	1333	42.5	1.20	4.5	33.8	83.5	52.57
NG 4936 B3XF	1333	40.2	1.22	4.7	32.0	84.8	52.51
DG 3520 B2XF	1330	39.3	1.25	4.1	33.3	84.7	52.41
DP 2020 B3XF	1320	40.8	1.24	4.5	32.4	84.3	52.49
AMX 19A016 B3XF	1307	39.3	1.18	4.6	31.5	83.2	52.38
DG 3526 B2XF	1302	43.1	1.17	4.7	31.4	84.2	52.48
DG 3317 B3XF	1299	42.1	1.18	4.7	32.0	83.7	51.87
DG 3799 B3XF	1297	41.4	1.21	4.7	33.6	83.5	52.26
AMX 19A014 B3XF	1294	40.3	1.19	4.6	31.4	83.2	52.32
PHY 500 W3FE	1289	41.9	1.18	4.3	34.5	83.9	52.41
AMX 19A015 B3XF	1283	39.0	1.22	4.4	32.4	83.3	52.57
DG 3615 B3XF	1275	41.6	1.19	4.6	34.2	83.6	52.23
NG 3930 B3XF	1255	40.9	1.20	4.6	31.6	83.5	52.45
PHY 350 W3FE	1251	41.1	1.19	4.7	33.1	84.3	52.30
UA222	1237	39.8	1.23	4.7	33.1	84.5	52.00
ST 4480B3XF	1234	39.9	1.22	4.5	33.1	83.4	52.25
AMX 19A018 B3XF	1200	40.8	1.19	4.6	32.9	83.8	52.54
UA114	1073	38.4	1.22	4.9	33.4	85.4	51.79
Overall Mean	1372	41.8	1.20	4.6	32.7	83.8	52.13
LSD(0.05)	120	1.0	0.02	0.0	0.9	0.6	0.48
C.V. (%)	13.8	3.7	2.4	5.0	4.3	1.1	1.5

*Yield in bold type are not significantly different from the greatest yield-producing variety.

Table 6. 2020 mean yield performance of varieties cultivated at four locations in the Hill region in 2020.

Variety	Lint Yield† (lb/acre)	Measurement					Loan Value ¢/LB
		Lint (%)	Length (in.)	Mic. - - - -	Strength (g/tex)	Uniformity (%)	
PHY 350 W3FE	1071	43.3	1.16	5.0	31.8	83.8	53.64
DP 1725 B2XF	1070	46.0	1.17	5.0	32.1	83.3	53.31
BX 2192B3XF	1060	43.8	1.20	4.9	33.5	84.0	53.58
DP 2012 B3XF	1029	43.3	1.17	4.9	30.9	83.9	54.55
PX4B08W3FE	992	45.8	1.14	4.9	31.9	83.9	53.49
DP 2127 B3XF	989	45.3	1.14	5.1	31.6	83.9	52.30
DG 3535 B2XF	981	43.7	1.16	5.0	31.7	83.3	53.11
DP 2055 B3XF	980	45.2	1.18	5.0	31.0	83.3	53.32
ST 5600B2XF	972	43.6	1.17	5.2	32.3	83.6	52.37
PHY 545 W3FE	965	46.1	1.15	4.9	30.8	82.7	53.38
NG 5711 B3XF	953	43.8	1.15	4.9	31.2	82.9	52.69
PHY 360 W3FE	937	43.7	1.15	5.0	30.2	82.3	53.28
PHY 443 W3FE	936	45.0	1.13	5.0	31.3	83.4	52.85
PX5E28W3FE	935	42.0	1.16	4.7	32.2	83.5	53.99
PHY 580 W3FE	931	45.7	1.16	5.0	32.5	83.8	52.57
AMX 19B003 B3XF	919	44.0	1.17	5.0	31.7	83.8	52.87
PHY 332 W3FE	898	43.4	1.16	4.9	31.9	82.9	53.52
BX 2194B3XF	897	43.1	1.18	4.7	31.7	83.1	54.53
Armor 9210 B3XF	894	44.9	1.18	5.2	32.6	83.9	52.59
DP 1646 B2XF	893	45.4	1.19	5.0	31.2	83.0	52.96
DP 2020 B3XF	890	42.7	1.16	4.9	30.7	83.0	53.53
DP 2115 B3XF	884	46.4	1.15	5.0	31.9	83.5	52.83
UA222	883	41.8	1.18	4.9	31.8	83.3	53.02
NG 3522 B2XF	876	43.7	1.14	5.0	30.2	82.7	52.87
Armor 9871 B3XF	874	45.0	1.17	5.0	32.6	83.2	52.84
BX 2193B3XF	870	45.4	1.16	4.9	31.2	83.0	53.21
PHY 390 W3FE	860	43.8	1.18	4.7	32.0	83.7	53.99
DG 3456 B3XF	852	45.1	1.16	4.8	31.7	83.5	53.49
PX5E34W3FE	847	40.9	1.17	4.8	32.3	83.2	53.61
AMX 19A014 B3XF	843	42.6	1.14	4.9	31.0	82.9	53.73
NG 3729 B2XF	843	42.5	1.17	4.8	30.6	83.3	53.75
ST 5610B3XF	839	46.5	1.15	4.9	31.8	83.0	53.18
PHY 400 W3FE	836	44.2	1.18	4.8	32.6	83.7	54.22
DG 3317 B3XF	833	43.9	1.14	5.2	31.5	83.6	52.43
BX 2191B3XF	829	43.7	1.17	4.8	30.9	83.1	53.95
PHY 500 W3FE	826	44.3	1.16	4.8	33.5	83.3	54.06
NG 4098 B3XF	824	41.7	1.21	4.9	33.4	83.8	53.57
NG 4936 B3XF	806	42.9	1.19	5.0	31.7	82.8	53.30
UA114	804	40.4	1.18	5.0	32.4	84.1	53.23
DP 2038 B3XF	800	46.7	1.14	4.9	31.2	83.0	53.62
DP 1845 B3XF	794	43.7	1.21	4.7	33.5	83.9	54.71
NG 3930 B3XF	783	42.9	1.15	4.8	30.7	82.8	53.88
Armor 9608 B3XF	780	45.7	1.14	5.0	29.8	82.8	52.76
DG 3427 B3XF	779	43.7	1.15	5.0	32.0	82.4	52.66
DG 3520 B2XF	769	40.8	1.16	4.8	32.0	83.3	53.80
DP 19R132 B3XF	759	44.6	1.15	5.0	32.8	83.9	52.40
DG 3526 B2XF	755	44.5	1.13	4.8	31.4	83.1	53.66
Armor 9371 B3XF	752	44.8	1.17	4.9	31.2	83.4	53.69
AMX 19A018 B3XF	745	42.8	1.15	5.0	31.6	83.6	53.26
AMX 19A016 B3XF	741	41.5	1.15	4.9	30.3	82.9	53.53
BX 2151GLTP	733	45.6	1.17	4.9	31.4	83.6	53.77
AMX 19A015 B3XF	710	39.9	1.17	4.8	31.2	83.1	53.85
ST 4480B3XF	707	40.8	1.19	4.8	32.8	83.7	53.99
DG 3615 B3XF	689	42.2	1.16	5.0	32.2	82.9	53.25
AMX 19B001 B3XF	686	43.9	1.16	4.8	31.4	83.3	53.89
DG 3799 B3XF	641	42.9	1.15	4.9	32.8	83.3	53.49
Overall Mean	858	43.8	1.16	4.9	31.7	83.3	53.39
LSD(0.05)	129	1.1	0.03	0.2	1.5	0.9	1.10
C.V. (%)	20.5	3.6	3.3	6.0	5.7	1.3	2.4

*Yield in bold type are not significantly different from the greatest yield-producing variety.

Table 7. Mean yield performance and fiber characteristics for cotton varieties cultivated on a non-irrigated Brooksville silty clay at the Black Belt Experiment Station near Brooksville, MS during 2020.

Variety	Lint Yield† (lb/acre)	Measurement					Loan Value ¢/LB
		Lint (%)	Length (in.)	Mic. - - -	Strength (g/tex)	Uniformity (%)	
BX 2192B3XF	1094	41.8	1.23	5.1	34.6	84.2	52.23
PHY 545 W3FE	879	45.5	1.11	5.2	32.4	82.6	51.65
PHY 350 W3FE	869	42.8	1.17	5.3	32.8	84.2	51.23
PX5E34W3FE	761	38.5	1.18	4.5	35.0	84.2	54.58
PHY 360 W3FE	756	43.1	1.12	5.1	29.2	82.1	52.43
DP 2127 B3XF	737	44.5	1.12	5.6	31.4	85.2	50.80
DP 2055 B3XF	737	44.1	1.22	5.0	30.7	83.4	52.98
ST 5600B2XF	715	42.4	1.15	5.7	32.6	84.9	50.77
PHY 390 W3FE	709	43.7	1.18	4.7	33.7	83.7	54.55
BX 2193B3XF	692	43.8	1.14	5.4	33.8	84.2	51.23
BX 2194B3XF	687	41.9	1.21	4.6	31.4	83.2	54.55
DG 3535 B2XF	674	42.2	1.16	5.0	30.6	83.4	52.48
NG 5711 B3XF	674	42.3	1.18	5.1	31.6	83.3	51.68
ST 5610B3XF	659	45.6	1.17	5.0	33.1	84.2	52.52
DG 3456 B3XF	656	44.9	1.13	5.1	29.8	82.5	52.15
Armor 9210 B3XF	653	43.1	1.18	5.6	32.0	84.1	50.72
PX5E28W3FE	642	40.9	1.18	4.5	33.8	84.6	54.60
DP 2012 B3XF	622	41.6	1.16	4.8	30.5	83.6	54.57
BX 2191B3XF	604	42.7	1.15	5.0	29.4	82.9	52.93
PHY 400 W3FE	603	43.5	1.17	5.0	33.9	83.6	52.22
DP 1845 B3XF	596	42.8	1.25	4.9	34.8	84.2	53.82
Armor 9871 B3XF	591	43.4	1.16	5.5	33.8	82.7	50.67
NG 3522 B2XF	587	43.5	1.10	5.1	27.3	82.5	52.43
DP 2020 B3XF	586	40.6	1.19	4.7	31.0	83.1	54.55
UA114	569	37.7	1.16	5.4	32.4	85.3	51.30
NG 3729 B2XF	566	41.6	1.16	5.1	31.3	83.3	52.47
DP 1725 B2XF	562	45.2	1.12	5.3	30.1	82.3	51.40
DG 3317 B3XF	548	41.4	1.13	5.3	31.7	83.5	51.70
AMX 19A014 B3XF	545	42.0	1.11	5.2	29.8	82.4	51.65
PX4B08W3FE	544	45.6	1.12	5.2	33.5	84.6	52.25
NG 4936 B3XF	532	41.6	1.18	5.0	31.1	83.5	52.98
DP 19R132 B3XF	531	43.7	1.13	5.4	34.5	84.6	50.77
AMX 19B003 B3XF	526	42.7	1.15	5.2	32.0	83.7	51.72
PHY 500 W3FE	505	43.8	1.16	4.9	35.0	83.9	53.78
DG 3520 B2XF	499	39.5	1.21	4.4	32.7	85.3	54.65
UA222	497	39.3	1.21	5.2	33.5	83.9	51.72
PHY 443 W3FE	490	42.9	1.15	5.3	33.2	84.5	51.27
Armor 9371 B3XF	476	44.2	1.15	5.2	30.4	84.6	52.27
ST 4480B3XF	470	39.2	1.21	4.5	32.6	84.1	54.58
NG 4098 B3XF	467	39.1	1.24	5.0	37.1	84.2	53.03
AMX 19A016 B3XF	461	39.9	1.12	5.0	29.5	82.7	52.45
DG 3427 B3XF	459	42.9	1.11	5.4	29.8	81.2	50.60
AMX 19A015 B3XF	454	37.7	1.20	4.6	32.7	84.0	53.82
Armor 9608 B3XF	451	45.0	1.14	5.0	30.4	82.4	52.15
PHY 580 W3FE	444	45.2	1.14	5.2	32.9	84.7	51.75
PHY 332 W3FE	443	42.4	1.18	5.0	34.2	83.3	52.98
NG 3930 B3XF	443	40.7	1.16	4.7	30.5	83.8	53.80
DG 3526 B2XF	435	43.7	1.12	5.1	30.7	83.6	52.20
DP 2038 B3XF	427	45.5	1.13	5.1	31.2	82.1	52.77
DP 2115 B3XF	415	45.5	1.13	5.2	31.7	82.8	51.67
DG 3615 B3XF	404	41.1	1.17	5.4	33.4	83.7	50.72
BX 2151GLTP	368	45.6	1.19	4.9	32.0	83.7	53.28
AMX 19A018 B3XF	364	40.0	1.17	5.1	33.9	85.0	53.07
DP 1646 B2XF	363	43.5	1.23	4.9	31.5	83.3	52.98
DG 3799 B3XF	340	41.1	1.17	5.2	32.9	84.7	52.25
AMX 19B001 B3XF	272	41.6	1.15	4.9	32.4	83.6	53.77
Overall Mean	565	42.5	1.16	5.1	32.1	83.7	52.50
LSD(0.05)	NSD	1.8	0.04	0.3	1.9	1.5	1.73
C.V. (%)	NSD	2.6	2.1	3.5	3.6	1.1	2.0

*Yield in bold type are not significantly different from the greatest yield-producing variety.

Table 8. Mean yield performance and fiber characteristics for cotton varieties cultivated on a furrow irrigated Dubbs/Dundee very fine sandy loam on Cliff Heaton Farms near Clarksdale, MS during 2020.

Variety	Lint Yield† (lb/acre)	Measurement					Loan Value ¢/LB
		Lint (%)	Length (in.)	Mic. - - -	Strength (g/tex)	Uniformity (%)	
DP 2127 B3XF	2420	43.3	1.16	5.1	30.5	84.0	52.76
PHY 443 W3FE	2311	41.0	1.20	4.5	33.2	84.1	53.96
ST 5600B2XF	2302	40.8	1.23	4.9	34.4	83.6	53.33
Armor 9371 B3XF	2219	41.8	1.21	4.7	30.2	84.2	54.54
AMX 19B003 B3XF	2204	41.2	1.22	4.7	32.9	83.7	54.51
PHY 332 W3FE	2165	40.6	1.24	4.7	33.8	84.0	54.53
DG 3456 B3XF	2098	42.9	1.20	4.5	30.1	83.2	54.50
PHY 545 W3FE	2044	42.9	1.20	4.4	31.3	84.2	54.56
BX 2151GLTP	2016	44.0	1.21	4.7	32.3	84.0	54.53
Armor 9210 B3XF	2011	42.1	1.23	4.9	32.8	84.3	53.36
DG 3535 B2XF	1988	41.0	1.24	4.4	30.7	84.7	54.59
DG 3799 B3XF	1973	41.6	1.20	4.7	33.0	82.9	54.48
PHY 360 W3FE	1960	41.3	1.18	4.8	30.6	83.0	54.48
DP 19R132 B3XF	1957	43.5	1.20	4.8	34.7	85.3	54.60
DP 2115 B3XF	1957	42.7	1.20	4.7	32.2	84.3	53.36
PHY 390 W3FE	1937	42.3	1.19	4.3	33.6	83.2	54.51
NG 3729 B2XF	1930	40.9	1.22	4.8	31.5	84.0	54.53
DP 2012 B3XF	1928	40.9	1.22	4.3	31.5	82.5	54.49
PX4B08W3FE	1928	42.0	1.17	4.8	34.1	84.4	53.36
ST 5610B3XF	1886	42.6	1.20	4.5	32.6	83.4	54.49
Armor 9608 B3XF	1869	43.6	1.19	4.4	30.8	83.2	54.49
BX 2194B3XF	1866	39.5	1.26	3.9	31.3	83.4	54.54
BX 2193B3XF	1854	42.5	1.19	4.8	34.8	84.8	53.99
BX 2192B3XF	1849	39.2	1.31	4.3	32.0	84.2	54.55
PHY 400 W3FE	1840	43.1	1.20	4.4	33.7	83.1	54.51
Armor 9871 B3XF	1839	41.6	1.21	4.4	32.4	82.8	54.46
DP 1725 B2XF	1837	43.2	1.20	4.6	31.3	83.0	54.46
PX5E28W3FE	1834	40.2	1.21	4.0	32.2	84.1	54.59
DG 3317 B3XF	1829	41.1	1.20	4.6	31.7	84.4	54.55
PX5E34W3FE	1826	39.7	1.20	3.9	32.9	83.5	54.56
NG 4936 B3XF	1819	38.7	1.22	4.5	31.3	84.4	54.55
PHY 350 W3FE	1818	40.7	1.19	4.8	32.2	84.4	53.96
AMX 19B001 B3XF	1811	42.3	1.18	4.6	31.5	84.2	54.53
NG 4098 B3XF	1810	38.7	1.24	4.3	36.3	83.2	54.51
DG 3615 B3XF	1808	40.2	1.21	4.4	34.0	83.3	54.50
NG 5711 B3XF	1788	40.4	1.25	4.4	33.3	83.4	54.51
NG 3522 B2XF	1763	40.5	1.14	4.6	29.0	82.6	54.46
AMX 19A014 B3XF	1750	38.7	1.20	4.2	31.0	83.2	54.51
PHY 580 W3FE	1744	42.8	1.21	4.5	32.9	84.8	53.98
AMX 19A015 B3XF	1741	37.4	1.22	4.1	32.1	83.0	54.51
DG 3520 B2XF	1741	38.1	1.25	3.7	33.3	84.1	54.56
DP 2020 B3XF	1734	40.1	1.23	4.3	32.4	83.3	54.51
BX 2191B3XF	1731	42.2	1.18	4.3	30.5	82.9	54.49
UA222	1722	38.4	1.26	4.7	32.9	84.7	54.56
DP 2055 B3XF	1719	41.1	1.27	4.7	32.2	84.2	54.55
NG 3930 B3XF	1707	39.7	1.22	4.5	31.0	84.0	54.53
PHY 500 W3FE	1703	41.3	1.19	4.1	34.8	84.2	54.59
DP 1845 B3XF	1700	40.2	1.29	4.0	32.9	83.6	54.55
ST 4480B3XF	1695	39.6	1.22	4.6	32.2	84.1	53.95
DP 1646 B2XF	1678	42.3	1.26	4.6	31.9	83.0	54.49
DP 2038 B3XF	1664	44.6	1.16	4.4	31.8	81.4	54.34
AMX 19A016 B3XF	1638	37.3	1.20	4.2	31.7	83.1	54.49
AMX 19A018 B3XF	1632	39.1	1.20	4.5	33.2	83.1	54.49
DG 3427 B3XF	1599	39.5	1.18	4.5	31.1	81.4	54.43
DG 3526 B2XF	1555	42.2	1.16	4.7	31.2	84.0	54.54
UA114	1529	36.8	1.23	4.9	34.0	85.9	54.63
Overall Mean	1862	41.0	1.21	4.5	32.3	83.7	54.35
LSD(0.05)	349	1.7	0.03	0.3	1.9	1.2	0.74
C.V. (%)	13.3	2.9	1.8	4.8	4.3	1.0	1.0

*Yield in bold type are not significantly different from the greatest yield-producing variety.

Table 9. Mean yield performance and fiber characteristics for cotton varieties cultivated on a non-irrigated Marietta Fine Sandy Loam at the Plant Science Research Center, Mississippi State, MS during 2020.

Variety	Lint Yield† (lb/acre)	Measurement					Loan Value ¢/LB
		Lint (%)	Length (in.)	Mic. - - -	Strength (g/tex)	Uniformity (%)	
PHY 350 W3FE	1115	41.8	1.22	4.0	30.7	84.4	55.55
DP 1725 B2XF	1067	45.4	1.19	4.3	30.8	83.3	57.10
PHY 580 W3FE	1002	45.8	1.15	4.5	31.4	84.1	57.14
PHY 332 W3FE	983	41.8	1.25	4.2	32.6	84.3	57.16
DP 1646 B2XF	971	45.0	1.29	4.4	29.4	84.2	57.15
PX4B08W3FE	844	44.7	1.11	4.2	30.5	82.4	57.08
BX 2192B3XF	837	43.0	1.28	4.4	32.6	84.4	57.16
UA222	828	39.4	1.28	4.3	31.8	85.1	57.20
PX5E28W3FE	807	40.6	1.19	3.9	32.7	84.4	57.17
PHY 545 W3FE	801	45.9	1.15	4.5	31.6	84.1	57.14
PHY 500 W3FE	793	43.6	1.19	4.2	34.0	84.8	57.19
DG 3526 B2XF	775	43.8	1.17	4.5	29.9	85.0	57.18
NG 5711 B3XF	748	42.6	1.25	4.3	31.7	84.5	57.18
ST 5610B3XF	727	45.0	1.22	4.1	31.3	84.4	57.20
ST 5600B2XF	708	41.8	1.23	4.8	32.6	84.5	55.98
DP 2012 B3XF	702	41.9	1.23	4.2	32.3	84.5	57.19
NG 4098 B3XF	701	40.4	1.27	4.1	36.4	84.3	57.18
DP 2055 B3XF	674	44.1	1.27	4.4	31.5	85.0	57.18
NG 4936 B3XF	666	42.4	1.24	4.4	31.1	84.7	57.18
UA114	663	37.7	1.22	4.6	31.8	85.2	57.19
Armor 9871 B3XF	660	43.2	1.20	4.6	33.1	83.5	57.11
PHY 443 W3FE	651	43.3	1.18	4.2	33.2	83.9	57.15
DP 2038 B3XF	646	47.0	1.15	4.5	30.9	82.4	57.08
NG 3729 B2XF	639	40.0	1.23	4.3	30.8	84.1	57.14
PHY 400 W3FE	630	43.6	1.21	4.2	33.6	84.0	57.13
AMX 19A016 B3XF	607	39.4	1.15	4.2	28.9	83.3	55.95
BX 2151GLTP	601	45.7	1.21	4.4	31.4	83.8	57.15
AMX 19A014 B3XF	594	39.6	1.18	4.2	29.2	83.5	57.13
DP 19R132 B3XF	594	44.3	1.20	4.4	34.2	85.0	56.61
BX 2194B3XF	591	41.8	1.26	3.7	31.6	84.3	57.20
NG 3930 B3XF	587	41.9	1.22	4.3	31.5	84.9	57.20
DG 3317 B3XF	574	43.5	1.19	4.6	31.6	83.9	57.13
PHY 390 W3FE	568	42.7	1.20	4.0	31.9	84.3	57.20
AMX 19A018 B3XF	563	41.8	1.20	4.3	31.3	83.9	57.13
DP 1845 B3XF	555	42.4	1.30	4.0	34.1	84.2	57.18
DG 3427 B3XF	552	42.6	1.17	4.6	30.7	82.6	56.49
AMX 19B003 B3XF	543	42.9	1.22	4.3	30.9	83.4	57.13
PHY 360 W3FE	540	42.8	1.19	4.2	30.2	82.2	57.08
DG 3535 B2XF	539	42.1	1.24	3.9	31.1	83.7	55.98
PX5E34W3FE	506	39.9	1.24	3.9	32.7	84.0	57.14
Armor 9371 B3XF	505	43.9	1.19	4.0	29.7	84.2	57.18
DG 3520 B2XF	504	38.5	1.28	3.5	31.9	85.3	54.88
BX 2191B3XF	488	42.9	1.21	3.9	29.8	82.7	54.74
NG 3522 B2XF	477	42.0	1.14	4.3	28.2	82.7	57.09
DG 3799 B3XF	471	42.3	1.19	4.3	33.7	84.4	57.16
DG 3615 B3XF	455	41.7	1.20	3.9	31.8	83.0	57.13
BX 2193B3XF	444	43.5	1.21	4.2	34.0	85.2	57.19
Armor 9608 B3XF	444	45.7	1.18	4.4	29.1	83.1	57.08
DP 2020 B3XF	443	40.7	1.23	4.2	29.3	83.0	54.53
DG 3456 B3XF	440	43.6	1.21	4.2	29.5	84.0	55.51
Armor 9210 B3XF	435	44.3	1.22	4.7	32.1	83.6	56.51
DP 2115 B3XF	428	45.4	1.19	4.2	30.4	83.3	55.84
AMX 19A015 B3XF	415	37.6	1.22	3.9	32.0	83.8	57.15
ST 4480B3XF	388	39.9	1.26	4.0	32.1	83.8	57.14
AMX 19B001 B3XF	318	42.8	1.19	3.7	30.5	84.2	54.84
DP 2127 B3XF	290	43.8	1.18	4.3	29.8	84.7	57.19
Overall Mean	627	42.6	1.21	4.2	31.5	84.0	56.80
LSD(0.05)	280	1.3	0.03	0.5	1.9	1.5	1.60
C.V. (%)	31.6	2.2	2.05	8.1	4.2	1.3	2.00

*Yield in bold type are not significantly different from the greatest yield-producing variety.

Table 10. Mean yield performance and fiber characteristics for cotton varieties cultivated on a non-irrigated Falaya silt loam soil at Pace Farms near Senatobia, MS during 2020.

Variety	Lint Yield† (lb/acre)	Measurement					Loan Value ¢/LB
		Lint (%)	Length (in.)	Mic. - - -	Strength (g/tex)	Uniformity (%)	
PX4B08W3FE	1785	46.5	1.17	4.9	31.9	84.2	55.95
DP 2012 B3XF	1758	44.7	1.20	4.8	31.2	84.4	56.54
Armor 9210 B3XF	1671	45.7	1.16	4.9	32.4	84.3	55.58
DP 2115 B3XF	1640	47.6	1.19	4.8	32.6	84.6	55.40
PHY 443 W3FE	1632	44.3	1.17	4.8	31.3	83.6	55.34
AMX 19B003 B3XF	1591	44.3	1.20	4.9	31.5	83.9	55.36
DG 3535 B2XF	1568	46.0	1.17	5.0	32.4	83.4	54.73
PHY 360 W3FE	1565	44.8	1.19	4.9	31.4	82.8	55.29
DP 2127 B3XF	1527	47.0	1.16	4.8	32.1	84.0	55.35
BX 2193B3XF	1515	46.9	1.22	4.5	31.6	83.3	56.50
PHY 332 W3FE	1513	43.0	1.16	5.0	31.0	82.8	55.29
BX 2191B3XF	1510	45.5	1.21	5.0	32.5	83.8	55.54
PHY 545 W3FE	1474	47.6	1.18	4.7	31.3	83.3	56.50
DP 2020 B3XF	1472	43.0	1.14	5.0	30.0	82.9	54.91
DP 1725 B2XF	1469	47.6	1.23	4.8	32.8	84.3	55.58
DP 1646 B2XF	1454	45.8	1.21	5.0	31.9	83.8	54.96
DG 3456 B3XF	1451	46.8	1.20	4.6	33.8	85.0	56.00
BX 2192B3XF	1442	44.9	1.21	4.8	34.0	84.5	55.61
ST 5600B2XF	1441	45.1	1.20	4.9	32.4	84.3	54.99
Armor 9371 B3XF	1440	45.7	1.21	4.9	32.9	83.9	55.35
UA222	1439	44.2	1.18	4.6	32.2	83.7	55.75
DP 2055 B3XF	1437	46.6	1.18	4.8	31.1	83.5	55.90
PHY 350 W3FE	1433	43.3	1.17	4.8	31.1	83.3	56.49
NG 3729 B2XF	1424	43.5	1.19	4.6	30.7	83.5	55.93
Armor 9871 B3XF	1410	46.1	1.20	4.6	33.2	83.9	55.36
PX5E28W3FE	1406	41.8	1.16	4.7	31.2	83.1	55.54
PHY 580 W3FE	1401	45.6	1.21	4.9	33.5	83.8	55.35
NG 5711 B3XF	1380	44.1	1.15	4.9	31.4	83.4	54.95
Armor 9608 B3XF	1377	46.9	1.16	5.1	30.8	83.4	54.36
BX 2194B3XF	1371	43.7	1.20	4.6	31.8	83.5	56.51
AMX 19B001 B3XF	1355	45.0	1.20	4.8	32.7	83.7	55.93
PHY 390 W3FE	1341	44.9	1.21	4.4	31.3	84.2	56.55
DG 3615 B3XF	1320	44.6	1.17	4.8	31.9	82.6	56.46
DP 1845 B3XF	1296	44.5	1.22	4.7	33.8	84.5	56.56
PHY 400 W3FE	1287	44.5	1.24	4.6	32.7	84.5	56.55
NG 3930 B3XF	1278	43.7	1.17	4.8	32.3	82.6	55.88
DG 3427 B3XF	1273	44.5	1.20	4.9	35.6	83.7	55.33
NG 3522 B2XF	1248	43.8	1.21	4.7	32.6	83.4	55.33
DP 2038 B3XF	1244	48.4	1.19	4.9	31.7	84.1	55.95
NG 4098 B3XF	1237	43.4	1.21	4.8	30.8	83.8	55.36
AMX 19A014 B3XF	1216	43.0	1.21	4.6	32.1	83.9	56.51
ST 5610B3XF	1206	48.0	1.16	4.8	30.4	82.6	55.67
PHY 500 W3FE	1201	43.5	1.20	4.7	34.3	83.8	55.93
PX5E34W3FE	1194	41.4	1.19	4.9	31.0	83.0	55.30
DG 3317 B3XF	1184	44.6	1.14	5.0	32.2	83.7	55.34
DP 19R132 B3XF	1175	45.6	1.19	4.6	33.5	84.5	55.40
DG 3520 B2XF	1168	41.1	1.15	5.1	32.0	82.3	54.79
AMX 19A018 B3XF	1139	43.2	1.14	4.9	30.1	83.4	55.90
AMX 19A015 B3XF	1137	40.0	1.18	4.8	31.4	83.4	55.91
BX 2151GLTP	1117	46.3	1.18	4.8	31.7	83.9	55.35
UA114	1087	41.3	1.23	4.7	33.3	84.0	56.53
NG 4936 B3XF	1071	41.9	1.20	5.0	32.6	82.9	54.91
ST 4480B3XF	1045	41.7	1.22	4.9	34.0	84.2	55.58
DG 3526 B2XF	994	45.0	1.17	4.5	33.3	82.7	56.46
AMX 19A016 B3XF	807	41.0	1.17	4.9	31.4	83.4	55.91
DG 3799 B3XF	804	43.4	1.17	4.7	34.7	83.7	55.34
Overall Mean	1347	44.6	1.19	4.8	32.2	83.6	55.67
LSD(0.05)	206	1.8	NSD	NSD	2.5	NSD	NSD
C.V. (%)	10.2	2.9	NSD	NSD	5.5	NSD	NSD

*Yield in bold type are not significantly different from the greatest yield-producing variety.

Table 11. Mean yield performance and fiber characteristics for cotton varieties cultivated on a non-irrigated Dubbs Loam/Tensas Silty Clay Loam at Porter Farms near Sidon, MS during 2020.

Variety	Lint Yield† (lb/acre)	Measurement					Loan Value ¢/LB
		Lint (%)	Length (in.)	Mic. - - -	Strength (g/tex)	Uniformity (%)	
ST 5610B3XF	1200	44.9	1.18	4.8	33.6	82.9	48.44
AMX 19B003 B3XF	1172	42.2	1.20	4.9	32.1	83.0	48.06
PHY 443 W3FE	1171	42.3	1.16	5.0	32.9	82.6	47.84
DP 2127 B3XF	1126	43.5	1.17	5.1	32.2	83.2	46.90
BX 2194B3XF	1044	41.0	1.24	4.0	31.7	82.5	49.03
DG 3535 B2XF	1035	42.7	1.17	4.8	30.4	82.6	47.85
Armor 9371 B3XF	1004	43.6	1.17	5.0	30.8	82.9	47.26
PX4B08W3FE	993	43.4	1.12	4.9	32.9	83.4	47.88
BX 2192B3XF	984	41.2	1.26	4.7	32.9	82.8	49.01
DG 3520 B2XF	973	39.4	1.21	4.1	33.2	83.4	49.08
Armor 9608 B3XF	971	44.4	1.15	5.0	29.7	82.2	47.83
AMX 19A016 B3XF	959	40.1	1.13	4.8	30.3	82.1	48.99
ST 5600B2XF	939	42.3	1.21	5.0	33.9	83.0	47.48
PX5E34W3FE	936	38.7	1.19	4.2	35.0	83.2	49.08
AMX 19B001 B3XF	931	41.4	1.19	4.8	32.8	83.7	48.48
NG 3729 B2XF	920	40.8	1.20	4.8	31.9	82.9	48.43
NG 4098 B3XF	918	39.6	1.25	4.6	36.0	82.9	49.03
DP 19R132 B3XF	911	43.6	1.19	5.2	34.9	84.4	46.38
PX5E28W3FE	909	39.1	1.19	4.1	34.2	84.4	49.14
PHY 580 W3FE	900	42.8	1.16	4.8	32.3	83.1	48.45
BX 2193B3XF	899	42.6	1.19	5.2	33.5	84.0	46.34
DG 3317 B3XF	897	41.6	1.18	5.0	32.9	83.3	47.26
NG 3522 B2XF	894	41.0	1.15	4.8	28.8	81.9	48.99
DG 3799 B3XF	892	41.4	1.19	4.9	32.6	82.3	48.04
PHY 390 W3FE	888	42.3	1.18	4.6	34.1	82.6	49.00
PHY 545 W3FE	885	43.6	1.15	4.9	32.7	83.1	47.86
DP 1646 B2XF	877	42.4	1.24	4.7	31.3	83.3	49.05
PHY 360 W3FE	854	42.5	1.16	4.9	31.0	82.3	48.03
DG 3456 B3XF	853	44.4	1.16	4.8	32.1	81.9	48.29
DP 2055 B3XF	852	43.1	1.22	5.0	32.7	83.5	48.09
AMX 19A014 B3XF	846	39.5	1.18	4.9	30.6	82.2	48.41
DG 3526 B2XF	845	43.7	1.14	4.9	30.6	82.6	48.43
DP 1725 B2XF	844	44.1	1.18	5.1	32.2	82.4	46.28
DP 2020 B3XF	839	40.8	1.26	4.7	32.7	84.5	49.09
AMX 19A018 B3XF	831	41.6	1.15	4.8	32.0	83.1	49.03
Armor 9871 B3XF	831	41.3	1.18	5.0	33.8	82.2	47.23
PHY 500 W3FE	829	41.9	1.15	4.5	34.4	82.9	49.03
Armor 9210 B3XF	827	43.1	1.19	5.3	33.2	83.4	45.94
DP 1845 B3XF	827	42.0	1.27	4.5	34.7	83.9	49.09
DP 2115 B3XF	827	43.9	1.17	5.0	31.8	83.0	47.26
DP 2038 B3XF	817	45.0	1.13	5.1	32.5	82.5	46.86
PHY 350 W3FE	792	42.1	1.16	4.8	32.7	83.2	48.09
BX 2191B3XF	786	42.4	1.17	4.4	30.3	82.5	49.03
DG 3615 B3XF	781	40.2	1.18	4.8	33.7	82.4	48.43
PHY 332 W3FE	778	40.9	1.20	4.9	31.7	82.9	48.44
DP 2012 B3XF	777	41.8	1.21	4.8	32.4	82.9	48.44
NG 4936 B3XF	777	41.4	1.19	4.8	31.9	83.9	48.49
AMX 19A015 B3XF	777	37.2	1.23	4.4	32.0	83.2	49.04
DG 3427 B3XF	770	42.6	1.16	4.9	31.3	82.0	47.80
PHY 400 W3FE	760	42.3	1.19	4.7	34.7	83.0	49.03
NG 3930 B3XF	736	40.5	1.18	4.8	31.3	82.3	48.41
ST 4480B3XF	729	39.8	1.22	4.7	32.9	82.6	48.06
NG 5711 B3XF	711	40.8	1.20	4.9	32.9	82.6	47.83
BX 2151GLTP	620	43.9	1.18	4.8	32.0	83.0	47.45
UA222	510	38.7	1.23	4.7	32.8	82.6	48.43
UA114	431	37.1	1.18	5.1	32.9	84.4	46.96
Overall Mean	869	41.8	1.19	4.8	32.5	82.9	48.14
LSD(0.05)	228	1.6	0.04	0.3	1.7	1.4	1.45
C.V. (%)	18.7	2.7	2.2	3.9	3.7	1.2	2.2

*Yield in bold type are not significantly different from the greatest yield-producing variety.

Table 12. Mean yield performance and fiber characteristics for cotton varieties cultivated on a furrow irrigated Bosket very fine sandy loam soil at the Mississippi State University Delta Research and Extension Center, Stoneville, MS during 2020.

Variety	Lint Yield† (lb/acre)	Measurement					Loan Value ¢/LB
		Lint (%)	Length (in.)	Mic. - - -	Strength (g/tex)	Uniformity (%)	
DG 3427 B3XF	1704	44.3	1.16	4.6	30.9	82.5	54.76
ST 5610B3XF	1637	41.9	1.19	4.4	32.0	83.3	54.79
BX 2151GLTP	1631	40.1	1.21	4.3	33.2	83.1	54.80
DP 2127 B3XF	1624	39.8	1.19	4.5	32.7	83.6	54.24
DG 3520 B2XF	1606	40.9	1.21	4.7	32.2	84.0	53.66
DG 3615 B3XF	1585	40.4	1.19	4.3	34.7	84.2	54.88
DG 3526 B2XF	1572	42.4	1.22	4.4	32.3	84.9	54.88
DG 3456 B3XF	1564	41.2	1.18	4.3	31.2	82.4	54.78
UA222	1554	42.2	1.24	4.7	33.4	84.9	54.10
AMX 19B001 B3XF	1553	40.1	1.22	4.3	32.9	83.8	54.83
BX 2191B3XF	1552	41.7	1.22	4.3	31.8	83.5	54.81
DG 3799 B3XF	1543	41.3	1.19	4.7	33.6	83.6	54.81
Armor 9371 B3XF	1542	43.6	1.18	4.8	31.5	84.4	54.85
NG 5711 B3XF	1534	41.3	1.20	4.5	32.4	83.4	54.81
PX5E28W3FE	1531	40.7	1.23	4.2	33.4	84.4	54.88
PX4B08W3FE	1531	41.7	1.18	4.2	32.0	83.3	54.81
NG 4098 B3XF	1520	42.4	1.17	4.7	33.6	83.6	54.81
DP 1845 B3XF	1517	40.8	1.24	4.5	33.6	84.8	54.89
DP 2115 B3XF	1505	40.0	1.23	4.6	33.2	83.6	54.24
BX 2193B3XF	1499	41.7	1.20	4.4	32.8	82.5	54.79
NG 3729 B2XF	1496	41.2	1.22	4.9	31.5	84.6	53.69
NG 3522 B2XF	1496	41.5	1.23	4.6	31.4	83.6	54.80
ST 4480B3XF	1486	41.4	1.20	4.5	32.3	82.8	54.76
PHY 390 W3FE	1480	41.5	1.23	4.2	31.7	83.6	54.84
PHY 332 W3FE	1473	39.2	1.24	4.4	31.8	84.7	54.87
AMX 19B003 B3XF	1470	40.2	1.21	4.7	32.8	83.6	54.23
DG 3535 B2XF	1459	41.5	1.19	4.5	32.2	83.0	54.78
BX 2194B3XF	1456	41.6	1.18	4.6	31.4	82.7	54.20
DP 1725 B2XF	1456	41.2	1.20	4.7	32.8	82.7	54.18
PX5E34W3FE	1450	40.2	1.18	4.5	32.1	84.4	54.85
NG 3930 B3XF	1448	41.8	1.20	4.5	32.2	82.6	54.76
NG 4936 B3XF	1436	40.7	1.19	4.7	33.1	84.3	54.85
ST 5600B2XF	1428	39.3	1.19	4.2	32.6	82.9	54.79
BX 2192B3XF	1427	41.7	1.19	4.6	32.4	83.4	54.80
DP 2038 B3XF	1426	40.1	1.24	4.2	32.9	84.0	54.85
DP 2055 B3XF	1424	41.1	1.19	4.5	31.7	82.6	54.68
UA114	1421	40.4	1.24	4.4	33.3	84.2	54.84
Armor 9871 B3XF	1399	38.4	1.24	4.1	35.0	84.4	54.86
PHY 443 W3FE	1398	38.9	1.20	4.8	32.5	84.1	53.29
Armor 9210 B3XF	1396	41.2	1.19	4.8	33.5	83.9	53.65
PHY 500 W3FE	1393	40.9	1.22	4.5	33.9	84.0	53.89
Armor 9608 B3XF	1393	40.8	1.20	4.4	32.6	83.9	54.84
PHY 400 W3FE	1388	40.5	1.20	4.5	33.2	84.0	54.84
PHY 545 W3FE	1386	42.0	1.17	4.6	33.6	83.8	54.83
AMX 19A018 B3XF	1369	41.0	1.19	4.3	31.4	83.7	54.81
AMX 19A014 B3XF	1364	40.9	1.18	4.7	32.4	83.4	54.79
AMX 19A015 B3XF	1351	40.8	1.19	4.5	32.4	83.2	54.80
AMX 19A016 B3XF	1321	38.6	1.19	4.5	32.4	83.7	54.81
DP 19R132 B3XF	1319	39.2	1.22	4.6	32.7	84.9	54.86
PHY 350 W3FE	1319	38.8	1.20	4.4	34.3	84.2	54.85
PHY 580 W3FE	1312	39.0	1.21	4.3	32.2	83.3	54.83
PHY 360 W3FE	1309	39.2	1.23	4.5	33.2	83.7	54.24
DP 2012 B3XF	1293	39.8	1.22	4.5	32.8	84.4	54.26
DP 2020 B3XF	1254	40.3	1.25	4.6	31.8	84.2	54.25
DP 1646 B2XF	1252	41.3	1.24	4.5	33.2	84.4	54.87
DG 3317 B3XF	1240	40.8	1.17	4.3	31.0	82.9	54.80
Overall Mean	1455	40.8	1.20	4.5	32.6	83.7	54.62
LSD(0.05)	NSD	NSD	NSD	NSD	NSD	NSD	NSD
C.V. (%)	NSD	NSD	NSD	NSD	NSD	NSD	NSD

*Yield in bold type are not significantly different from the greatest yield-producing variety.

Table 13. Mean yield performance and fiber characteristics for cotton varieties cultivated on a non-irrigated Keyespoint silty clay soil at Pace Perry Farms near Tunica, MS during 2020.

Variety	Measurement						
	Lint Yield† (lb/acre)	Lint (%)	Length (in.)	Mic. - - -	Strength (g/tex)	Uniformity (%)	Loan Value ¢/LB
DP 2127 B3XF	1684	45.8	1.14	5.1	30.6	85.2	49.53
Armor 9871 B3XF	1677	47.1	1.18	4.9	33.4	82.4	49.78
DG 3427 B3XF	1652	43.7	1.16	4.6	32.7	82.0	50.94
PHY 580 W3FE	1641	45.6	1.18	4.7	33.9	83.7	51.00
DP 19R132 B3XF	1585	45.1	1.16	5.0	33.9	85.2	49.34
PX4B08W3FE	1578	44.4	1.16	4.8	32.0	83.8	50.43
PHY 360 W3FE	1531	42.0	1.19	4.8	31.6	82.4	50.36
NG 5711 B3XF	1511	42.5	1.23	4.6	32.8	83.9	51.01
DP 2115 B3XF	1506	45.2	1.18	4.8	31.9	84.5	50.48
DP 2012 B3XF	1503	42.5	1.22	4.5	32.8	84.2	51.04
Armor 9371 B3XF	1499	44.4	1.19	4.9	31.5	84.6	50.09
DP 2055 B3XF	1496	44.3	1.25	4.8	31.7	83.3	50.99
BX 2192B3XF	1483	43.1	1.29	4.5	32.8	84.0	51.03
Armor 9210 B3XF	1467	43.2	1.24	5.2	33.4	83.8	48.89
DP 1725 B2XF	1457	45.3	1.19	4.7	31.6	83.2	50.99
PHY 332 W3FE	1453	41.4	1.23	4.6	34.2	83.6	51.01
DP 2038 B3XF	1452	47.0	1.14	4.7	31.4	82.5	50.38
BX 2193B3XF	1450	45.1	1.19	5.0	34.7	85.2	49.33
DG 3456 B3XF	1438	44.6	1.17	4.5	29.9	82.9	50.96
PHY 443 W3FE	1432	42.9	1.18	4.8	34.0	84.5	50.46
AMX 19B003 B3XF	1427	43.3	1.20	4.7	34.0	83.8	51.03
DP 1845 B3XF	1424	44.2	1.26	4.3	33.4	84.4	51.08
Armor 9608 B3XF	1418	43.9	1.22	4.6	32.4	84.6	50.46
AMX 19B001 B3XF	1414	43.6	1.19	4.6	32.6	84.4	51.05
PHY 400 W3FE	1392	44.2	1.17	4.6	32.9	82.9	50.96
NG 3522 B2XF	1387	42.4	1.13	4.7	28.3	82.8	50.98
PX5E28W3FE	1385	40.2	1.16	4.0	32.6	83.4	51.05
BX 2191B3XF	1379	42.8	1.19	4.4	30.9	83.3	51.00
DG 3535 B2XF	1373	44.2	1.21	4.5	31.6	83.2	51.00
PX5E34W3FE	1355	39.5	1.17	3.8	33.9	82.6	51.01
DP 2020 B3XF	1354	42.0	1.23	4.5	32.2	84.5	51.05
DP 1646 B2XF	1342	43.2	1.27	4.6	30.9	83.7	51.03
AMX 19A016 B3XF	1338	40.8	1.17	4.6	31.5	82.8	50.95
AMX 19A015 B3XF	1315	39.4	1.21	4.4	32.9	83.0	50.98
PHY 500 W3FE	1302	43.6	1.17	4.3	34.5	83.7	51.03
NG 4936 B3XF	1299	40.7	1.23	4.6	30.9	85.3	51.09
NG 4098 B3XF	1298	39.2	1.26	4.3	36.0	84.1	51.05
PHY 390 W3FE	1296	43.6	1.18	4.6	35.2	83.4	50.99
AMX 19A014 B3XF	1293	41.3	1.17	4.6	30.3	83.0	50.98
BX 2151GLTP	1287	45.0	1.20	4.8	32.3	84.1	49.86
PHY 350 W3FE	1284	42.1	1.20	4.7	32.7	84.4	51.04
DG 3317 B3XF	1259	43.4	1.15	4.9	31.4	83.1	50.40
ST 5610B3XF	1240	44.0	1.22	4.6	33.2	85.0	51.08
DG 3526 B2XF	1232	43.2	1.18	4.7	31.0	84.6	51.06
BX 2194B3XF	1221	41.9	1.24	3.8	32.4	83.0	51.01
ST 4480B3XF	1206	39.5	1.23	4.5	33.0	83.6	51.00
PHY 545 W3FE	1181	44.7	1.19	4.6	33.3	83.4	50.99
DG 3520 B2XF	1164	37.9	1.29	3.8	33.6	86.0	51.14
UA222	1156	40.9	1.20	4.8	31.6	84.3	51.05
NG 3930 B3XF	1133	41.5	1.20	4.5	31.1	84.0	51.05
DG 3615 B3XF	1117	41.5	1.22	4.7	34.8	84.1	51.04
AMX 19A018 B3XF	1092	40.7	1.19	4.6	33.5	84.1	51.05
NG 3729 B2XF	1049	41.5	1.20	4.9	32.1	84.4	50.46
DG 3799 B3XF	1030	40.4	1.24	4.4	34.5	84.3	51.04
ST 5600B2XF	986	42.3	1.23	5.1	34.4	84.6	48.70
UA114	867	39.1	1.22	4.9	32.4	85.7	50.32
Overall Mean	1353	42.8	1.20	4.6	32.6	83.9	50.70
LSD(0.05)	272	1.8	0.04	0.2	1.7	1.1	0.92
C.V. (%)	14.1	3.0	2.3	3.2	3.7	0.9	1.3

*Yield in bold type are not significantly different from the greatest yield-producing variety.

Table 14. Mean yield performance and fiber characteristics for cotton varieties cultivated on a non-irrigated Leeper silt loam soil at the North Mississippi Research and Extension Center near Verona, MS during 2020.

Variety	Measurement						
	Lint Yield† (lb/acre)	Lint (%)	Length (in.)	Mic. - - -	Strength (g/tex)	Uniformity (%)	Loan Value ¢/LB
DP 2127 B3XF	1015	45.7	1.14	5.2	31.1	82.9	50.39
ST 5600B2XF	960	44.9	1.17	5.1	32.0	82.0	50.95
Armor 9210 B3XF	951	45.9	1.20	5.1	33.2	83.4	51.01
DG 3799 B3XF	949	44.8	1.11	4.9	30.2	81.2	52.27
BX 2193B3XF	947	47.1	1.12	5.0	28.9	81.7	51.40
AMX 19A014 B3XF	942	45.8	1.11	4.9	30.8	82.4	52.51
NG 3522 B2XF	942	45.5	1.10	5.2	29.8	82.1	50.74
NG 5711 B3XF	940	46.1	1.14	4.9	30.6	82.2	51.18
DP 2115 B3XF	934	47.0	1.13	5.1	31.2	82.8	50.55
DP 2012 B3XF	933	44.6	1.16	5.0	30.9	83.6	52.56
DP 2020 B3XF	920	46.0	1.15	5.0	31.2	83.2	51.39
AMX 19B003 B3XF	917	45.8	1.16	5.1	31.7	83.6	51.24
PX5E34W3FE	907	43.5	1.15	5.0	31.5	82.8	51.19
AMX 19A016 B3XF	906	45.3	1.15	4.9	29.8	82.7	51.95
PHY 580 W3FE	890	46.2	1.14	5.1	31.2	83.1	50.40
BX 2194B3XF	886	44.6	1.15	4.8	31.8	82.5	52.53
DG 3535 B2XF	883	44.4	1.16	5.0	31.7	83.2	51.96
PX4B08W3FE	881	46.5	1.13	4.9	30.8	83.0	51.95
DP 1725 B2XF	877	45.3	1.14	5.1	32.5	82.5	51.55
BX 2192B3XF	875	45.2	1.16	4.8	32.1	83.3	52.55
ST 4480B3XF	865	42.1	1.15	4.9	31.8	82.9	51.95
PHY 443 W3FE	860	49.1	1.08	5.0	30.0	82.6	51.55
NG 4936 B3XF	853	45.4	1.19	4.9	31.2	82.0	51.91
DP 19R132 B3XF	852	44.7	1.13	5.2	30.9	82.7	50.61
Armor 9871 B3XF	846	47.0	1.14	5.0	31.2	82.8	51.94
PHY 360 W3FE	844	44.0	1.13	5.0	29.8	81.9	51.91
DP 2055 B3XF	844	45.8	1.14	5.2	31.2	83.0	51.00
DG 3317 B3XF	843	45.7	1.14	5.3	30.6	83.7	50.06
DG 3520 B2XF	838	43.7	1.15	4.8	31.5	82.9	52.18
UA114	838	44.2	1.15	5.0	31.4	83.3	51.38
AMX 19A018 B3XF	832	45.7	1.14	5.1	31.3	82.8	50.76
PHY 350 W3FE	826	45.1	1.15	4.9	31.8	83.9	52.59
NG 3729 B2XF	818	44.5	1.15	4.8	30.1	83.0	52.54
DG 3456 B3XF	813	45.0	1.15	4.7	31.0	82.9	51.98
PX5E28W3FE	812	44.5	1.14	4.9	32.1	83.3	51.98
UA222	810	44.4	1.16	5.0	30.2	82.7	51.94
PHY 400 W3FE	810	45.4	1.12	4.8	31.0	82.9	53.12
DP 1845 B3XF	808	45.4	1.17	4.6	31.7	82.6	53.12
ST 5610B3XF	806	47.1	1.13	4.8	31.9	82.5	51.81
NG 4098 B3XF	802	43.4	1.19	5.0	33.4	83.4	52.19
DP 1646 B2XF	792	46.8	1.15	5.1	30.3	82.1	50.95
DP 2038 B3XF	789	45.5	1.11	4.9	30.8	82.7	51.93
PHY 390 W3FE	785	43.8	1.14	5.0	31.6	83.3	51.01
AMX 19A015 B3XF	769	43.9	1.13	4.8	29.8	82.1	51.81
DG 3427 B3XF	754	44.8	1.13	5.0	30.2	81.9	51.54
BX 2151GLTP	754	45.0	1.14	4.9	30.8	83.2	52.55
NG 3930 B3XF	740	44.8	1.13	5.0	29.4	82.4	51.94
DG 3526 B2XF	737	45.3	1.11	4.9	30.0	83.1	51.96
PHY 500 W3FE	725	46.4	1.14	4.8	31.7	82.4	52.41
PHY 545 W3FE	716	45.4	1.14	4.8	29.1	82.2	51.55
AMX 19B001 B3XF	696	45.6	1.13	4.8	29.5	82.6	51.94
PHY 332 W3FE	694	46.2	1.14	4.9	31.0	82.7	52.15
Armor 9608 B3XF	685	45.0	1.11	5.0	28.4	82.4	51.45
DG 3615 B3XF	666	41.1	1.15	4.8	31.8	82.7	51.94
BX 2191B3XF	658	43.6	1.13	4.5	30.6	82.7	53.11
Armor 9371 B3XF	518	45.3	1.14	4.7	30.0	82.2	53.10
Overall Mean	831	45.2	1.14	4.9	30.9	82.7	51.75
LSD(0.05)	NSD	NSD	NSD	NSD	NSD	NSD	NSD
C.V. (%)	NSD	NSD	NSD	NSD	NSD	NSD	NSD

*Yield in bold type are not significantly different from the greatest yield-producing variety.

Table 15. Mean yield performance and fiber characteristics for cotton varieties cultivated on a furrow irrigated Dundee silt loam soil at Michael Thompson Farm at Bee Lake near Yazoo City, MS during 2020.

Variety	Measurement						Loan Value
	Lint Yield† (lb/acre)	Lint (%)	Length (in.)	Mic. - - -	Strength (g/tex)	Uniformity (%)	
Armor 9871 B3XF	1653	43.3	1.20	5.0	35.3	84.5	52.33
Armor 9371 B3XF	1641	44.4	1.19	4.9	32.7	85.3	52.95
DP 2127 B3XF	1641	44.5	1.15	5.2	32.2	84.5	50.40
ST 5600B2XF	1571	42.5	1.22	5.2	35.0	85.4	51.04
BX 2191B3XF	1544	43.7	1.20	4.5	32.4	84.0	53.49
DG 3456 B3XF	1533	44.1	1.18	4.7	32.1	84.1	53.49
DP 1646 B2XF	1516	43.5	1.26	4.6	32.3	84.5	53.51
PX4B08W3FE	1496	43.4	1.15	5.0	33.9	84.8	51.38
PHY 545 W3FE	1474	45.1	1.17	4.8	34.2	84.4	52.33
DP 2038 B3XF	1457	46.9	1.13	4.7	31.9	83.7	53.46
DP 1725 B2XF	1452	45.0	1.21	5.0	33.4	84.0	51.92
ST 5610B3XF	1434	46.3	1.17	4.8	32.3	85.2	53.54
BX 2193B3XF	1430	44.1	1.17	5.0	35.6	85.5	51.80
AMX 19B003 B3XF	1424	42.7	1.20	4.8	32.9	84.7	52.93
DG 3535 B2XF	1416	44.2	1.19	4.7	31.9	84.0	52.89
DP 2020 B3XF	1404	41.1	1.25	4.5	33.0	85.0	53.53
PHY 443 W3FE	1402	43.0	1.18	4.9	34.1	84.7	52.93
PHY 332 W3FE	1390	41.3	1.24	4.7	34.7	85.8	53.58
NG 3729 B2XF	1383	40.9	1.22	5.1	33.7	85.8	51.23
DP 2115 B3XF	1377	44.9	1.19	5.1	34.0	84.9	51.38
NG 5711 B3XF	1374	42.7	1.25	4.7	33.8	84.6	52.91
BX 2194B3XF	1367	41.5	1.24	4.1	32.3	84.4	53.54
DP 2012 B3XF	1361	42.5	1.22	4.7	34.1	84.8	53.51
DP 19R132 B3XF	1355	44.1	1.20	5.0	35.5	84.8	51.76
UA222	1352	39.7	1.24	4.8	34.7	86.4	52.40
AMX 19B001 B3XF	1337	42.4	1.20	4.9	33.0	84.8	52.93
NG 4936 B3XF	1333	39.8	1.25	4.6	32.5	86.3	53.56
DP 2055 B3XF	1330	43.4	1.26	4.7	32.8	84.9	53.53
PHY 580 W3FE	1319	45.6	1.18	4.9	34.1	84.9	53.51
DG 3526 B2XF	1305	44.1	1.18	4.7	31.9	84.7	53.50
PX5E28W3FE	1304	40.0	1.20	4.2	34.6	85.0	53.56
PHY 350 W3FE	1302	41.8	1.19	4.8	33.4	85.2	53.54
PHY 360 W3FE	1297	42.7	1.21	5.0	32.7	85.1	52.35
PHY 400 W3FE	1285	42.7	1.24	4.7	34.8	84.6	53.51
Armor 9210 B3XF	1276	43.7	1.22	5.3	34.0	84.8	50.43
AMX 19A016 B3XF	1268	39.7	1.20	4.8	31.7	84.7	52.73
DG 3317 B3XF	1257	43.7	1.18	4.9	33.4	84.8	52.34
NG 3930 B3XF	1248	41.0	1.22	4.7	32.4	84.7	53.50
DG 3427 B3XF	1246	43.0	1.20	5.0	34.2	84.4	52.33
NG 4098 B3XF	1245	40.5	1.26	4.4	36.2	84.5	53.51
BX 2151GLTP	1237	43.8	1.23	4.7	34.8	84.4	53.49
PHY 390 W3FE	1235	43.0	1.22	4.7	34.5	84.4	53.50
AMX 19A015 B3XF	1233	40.3	1.23	4.6	32.8	84.4	53.50
Armor 9608 B3XF	1224	44.4	1.21	4.6	32.8	84.8	53.53
NG 3522 B2XF	1223	42.2	1.16	4.8	30.2	83.5	53.45
AMX 19A014 B3XF	1218	41.3	1.20	4.8	32.8	84.4	52.91
PHY 500 W3FE	1217	42.0	1.20	4.4	35.0	84.5	53.51
DP 1845 B3XF	1209	42.0	1.30	4.6	35.2	85.0	53.53
BX 2192B3XF	1209	39.9	1.29	4.6	33.1	85.6	53.55
DG 3520 B2XF	1164	40.2	1.28	4.2	34.1	86.2	53.60
PX5E34W3FE	1134	40.4	1.20	4.3	35.0	84.3	53.51
AMX 19A018 B3XF	1090	42.0	1.20	4.8	35.0	85.6	53.57
UA114	1066	38.7	1.22	5.0	34.3	87.0	51.84
ST 4480B3XF	1054	39.2	1.25	4.4	35.0	83.9	53.49
DG 3799 B3XF	1048	42.1	1.24	4.9	34.5	84.4	52.91
DG 3615 B3XF	1045	45.7	1.17	5.0	34.0	83.8	52.30
Overall Mean	1329	42.6	1.21	4.7	33.6	84.8	52.88
LSD(0.05)	232	2.1	0.04	0.3	1.7	1.4	1.21
C.V. (%)	12.2	3.6	2.1	3.9	3.7	1.2	1.6

*Yield in bold type are not significantly different from the greatest yield-producing variety.

Table 16. Response of the cotton varieties in the 2020 Mississippi State University Official Variety Trial to inoculation with the bacterial blight bacterium at Stoneville, MS (data Courtesy of Dr. Tom Allen).

Variety	Response	Variety	Response
DP 2115 B3XF	S	DP 1845 B3XF	R
19R132 B3XF	R	DP 2012 B3XF	R
DP 2127 B3XF	S	DP 2020 B3XF	R
AMX 19A014 B3XF	S	DP 2038 B3XF	R
AMX 19A015 B3XF	MS	DP 2055 B3XF	S
AMX 19A016 B3XF	S	NG 3522 B2XF	S
AMX 19A018 B3XF	R	NG 3729 B2XF	S
AMX 19B001 B3XF	S	NG 3930 B3XF	MR
AMX 19B003 B3XF	S	NG 4098 B3XF	R
BX 2151GLTP	S	NG 4936 B3XF	MS
BX 2191B3XF	S	NG 5711 B3XF	R
BX 2192B3XF	S	PHY 350 W3FE	R
BX 2193B3XF	R	PHY 360 W3FE	R
BX 2194B3XF	S	PHY 390 W3FE	R
Armor 9371 B3XF	MR	PHY 400 W3FE	R
Armor 9871 B3XF	R	PHY 500 W3FE	R
Armor 9210 B3XF	R	PHY 580 W3FE	R
Armor 9608 B3XF	S	PHY 332W3FE	R
DG 3317 B3XF	S	PHY 443W3FE	R
DG 3427 B3XF	S	PX4B08W3FE	R
DG 3456 B3XF	S	PHY545W3FE	R
DG 3520 B2XF	R	PX5E28W3FE	R
DG 3526 B2XF	S	PX5E34W3FE	R
DG 3615 B3XF	R	ST 4480B3XF	R
DG 3635 B2XF	S	ST 5600B2XF	S
DG 3799 B3XF	R	ST 5610B3XF	S
DP 1646 B2XF	MR	UA114	R
DP 1725 B2XF	S	UA222	R

Response is presented as a letter assessment based on the percentage of plant material exhibiting disease post-inoculation. Variety responses listed above are based on disease incidence following inoculation with the bacterial blight causal organism and based on evaluations of observable disease incidence on a 0-100% scale. Responses were assessed as S = susceptible; MS = moderately susceptible; MR = moderately resistance; and R = resistant based on the observational response of each variety in a replicated variety trial planted in Stoneville, MS. Plants were inoculated with the bacterium that causes bacterial blight and evaluated for the incidence and severity that resulted from bacterial blight.